

Jan 09, 2024

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 = 60



DESIGN DESIGNATION 3364-00-05

A.A.D.T.	2023	=	3370
A.A.D.T.	2043	=	3370
D.H.V.		=	395
D.D.		=	60/40
T.		=	13.3%
DESIGN SPEED		=	VARIABLES, 40-60 MPH
ESALS		=	860,000

CONVENTIONAL SYMBOLS

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MAYVILLE - CAMPBELLSPORT

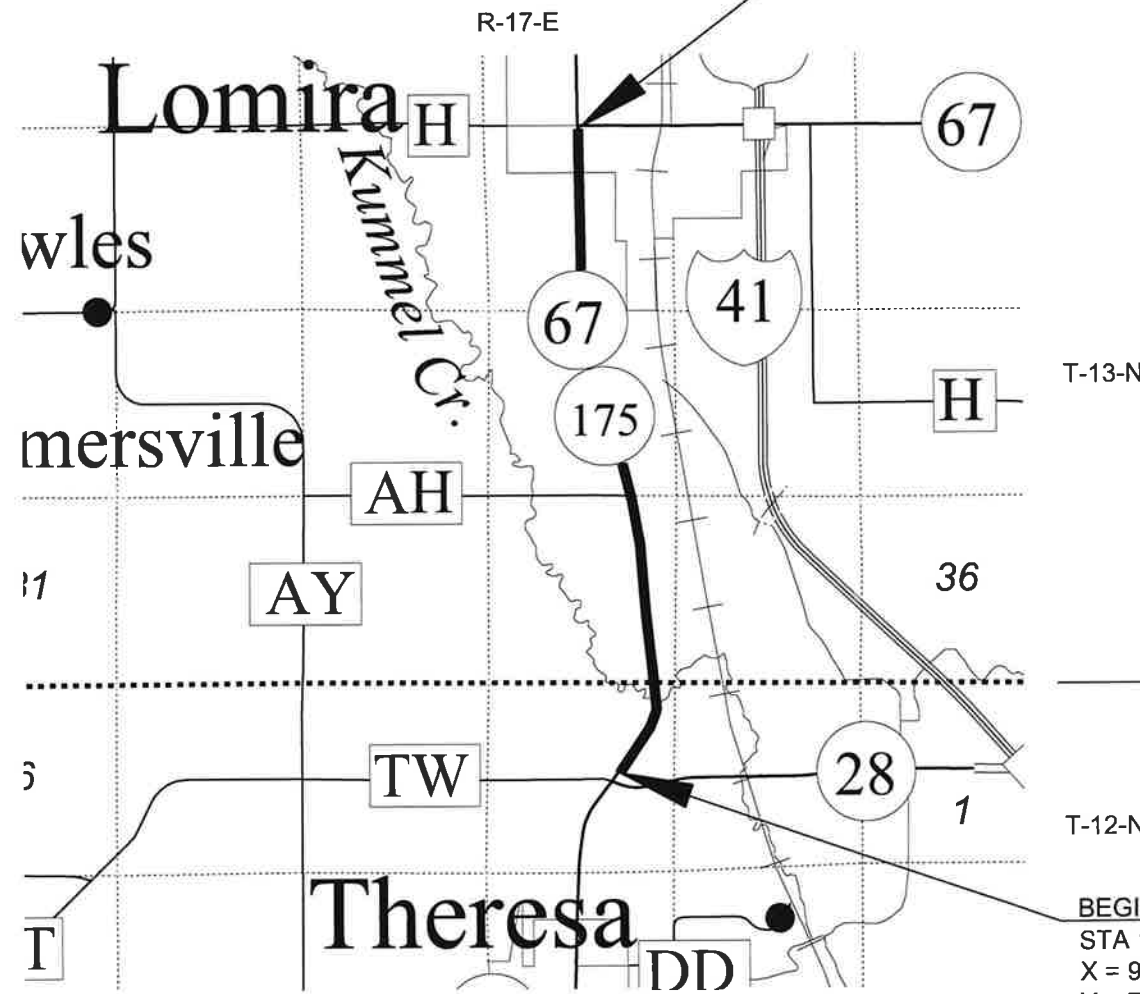
STH 28 TO STH 175

STH 67

DODGE COUNTY

STATE PROJECT NUMBER
3364-00-75

END PROJECT
STA 355+18



LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 3.454 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DODGE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

BEGIN PROJECT
STA 172+82
X = 951,524.223
Y = 753,151.063

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3364-00-75	WISC 2024106	1

ORIGINAL PLANS PREPARED BY



1702 Pankratz St. Madison, WI 53704
608-242-7779 1-800-446-0679 Fax: 608-242-5664



DATE: 9/20/22 *Nathan Cook*
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	MSA PROFESSIONAL SERVICES, INC.
Designer	MSA PROFESSIONAL SERVICES, INC.
Project Manager	DELLA KOENIG
Regional Examiner	SW REGION
Regional Supervisor	KYLE HEMP

APPROVED FOR THE DEPARTMENT
DATE: 10/06/2022 *Kyle Hemp*

E

PROJECT ID: 3364-00-75

COUNTY: DODGE

UTILITIES

NICK GORMAN
ALLIANT ENERGY - GAS/PETROLEUM
883 W SCOTT ST
FOND DU LAC, WI 54937
(920) 322-6765
NICHOLASGORMAN@ALLIANTENERGY.COM

ANDREW HEIGL
ASTREA - COMMUNICATION LINE
105 KENT ST
P.O. BOX 190
IRON MOUNTAIN, MI 49801
(906) 221-7536
ANDY.HEIGL@ASTREACONNECT.COM

CHRIS POLLACK
FRONTIER COMMUNICATIONS OF WI LLC -
COMMUNICATION LINE
521 N 4TH STREET
WAUSAU, WI 54403
(715) 297-4773
CHRISTOPHER.POLLACK@FTR.COM

* NOT A DIGGERS HOTLINE MEMBER



INDEX OF SECTION 2 SHEETS

- GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN
TRAFFIC CONTROL

DESIGN CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION
SOUTHWEST REGION
ATTN: DELLA KOENIG, PE
2101 WRIGHT STREET
MADISON, WI 53704
PHONE: (608) 246-7963
E-MAIL: della.koenig@dot.wi.gov

MSA PROFESSIONAL SERVICES, INC.
ATTN: NATHAN COOK, PE
1702 PANKRATZ STREET
MADISON, WI 53704
PHONE: (608) 216-2058
E-MAIL: ncook@msa-ps.com

DNR LIAISON

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
ATTN: SHELLEY NELSON
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 444-2835
EMAIL: shelley.nelson@wisconsin.gov

STANDARD ABBREVIATIONS

AC ACRES
AEW APRON ENDWALL
AGG AGGREGATE
AH AHEAD
ALUM. ALUMINUM
A.P. ACCESS POINT
ASPH ASPHALT
AVE AVENUE
BAD BASE AGGREGATE DENSE
BK BACK
BLK BLOCK
BOC BACK OF CURB
BOW BACK OF SIDEWALK
BM BENCHMARK
CABC CRUSHED AGGREGATE BASE COURSE
CL or CL CENTERLINE
Δ CENTRAL ANGLE or DELTA
CMCP CORRUGATED METAL CULVERT PIPE
CONC CONCRETE
CP CONTROL POINT
CPCS CULVERT PIPE CORRUGATED STEEL
CSM CERTIFIED SURVEY MAP
CTH COUNTY TRUNK HIGHWAY
D DEGREE OF CURVATURE
DES DESIRABLE
E EAST
EB EASTBOUND
EBS EXCAVATION BELOW SUBGRADE
EOP EDGE OF PAVEMENT
ET AL AND OTHERS
EW ENDWALL
EXIST EXISTING
FT FOOT
FT2 SQUARE FEET
GN GRID NORTH
GV GAS VALVE
HERCP HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HYD HYDRANT
IN INCH
INL INLET
INV INVERT
IP IRON PIPE
L LENGTH
L LENGTH OF CURVE
LC LONG CHORD
LCP LONG CHORD BEARING
LF LINEAR FEET
LT LEFT

MH MANHOLE
MON MONUMENT
N NORTH
NB NORTHBOUND
N.C. NORMAL CROWN
NO NUMBER
PB PULLBOX
PC POINT OF CURVATURE
PI POINT OF INTERSECTION
PL PROPERTY LINE
PLE PERMANENT LIMITED EASEMENT
POB POINT OF BEGINNING
PT POINT OF TANGENCY
R RADIUS
R RANGE
RCP REINFORCED CONCRETE PIPE
RD ROAD
REQ'D REQUIRED
RL or R/L REFERENCE LINE
RP RADIUS POINT
RT RIGHT
R/W RIGHT OF WAY
S SOUTH
SAN SANITARY SEWER
SB SOUTHBOUND
S.E. SUPERELEVATION
SEC SECTION
SSPRC STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
SQ SQUARE
ST STREET
STA STATION
STD STANDARD
STH STATE TRUNK HIGHWAY
STM STORM SEWER
STR STRUCTURE
T TANGENT
TAN TANGENT
TEMP TEMPORARY
TLE TEMPORARY LIMITED EASEMENT
T or TN TOWN
TYP. TYPICAL
WM WATERMIN
WV WATER VALVE
W WEST
WB WESTBOUND
X EAST GRID COORDINATE
Y NORTH GRID COORDINATE

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A TRAVEL OR TURN LANE.

THE LIMITS OF PAVEMENT REMOVAL ON SIDE STREETS ARE APPROXIMATE AND WILL BE VERIFIED IN THE FIELD BY THE ENGINEER.

THE LOCATIONS OF EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

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

PLACE EROSION CONTROL DEVICES IN SEQUENCE WITH CONSTRUCTION OPERATIONS AND MAINTAIN AS DETERMINED BY THE ENGINEER.

MAKE A VERTICAL SAWCUT THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

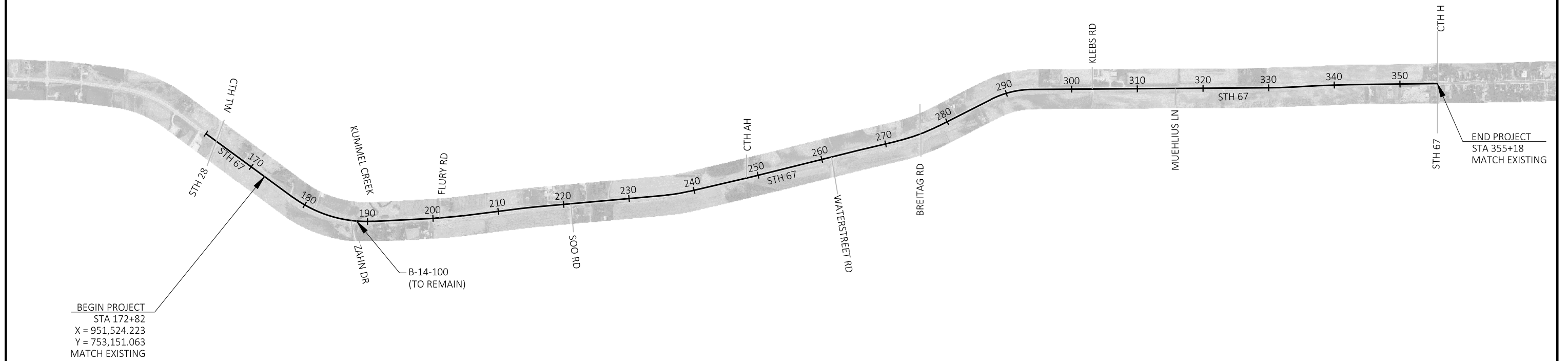
ADJUST TRAFFIC CONTROL DEVICES TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

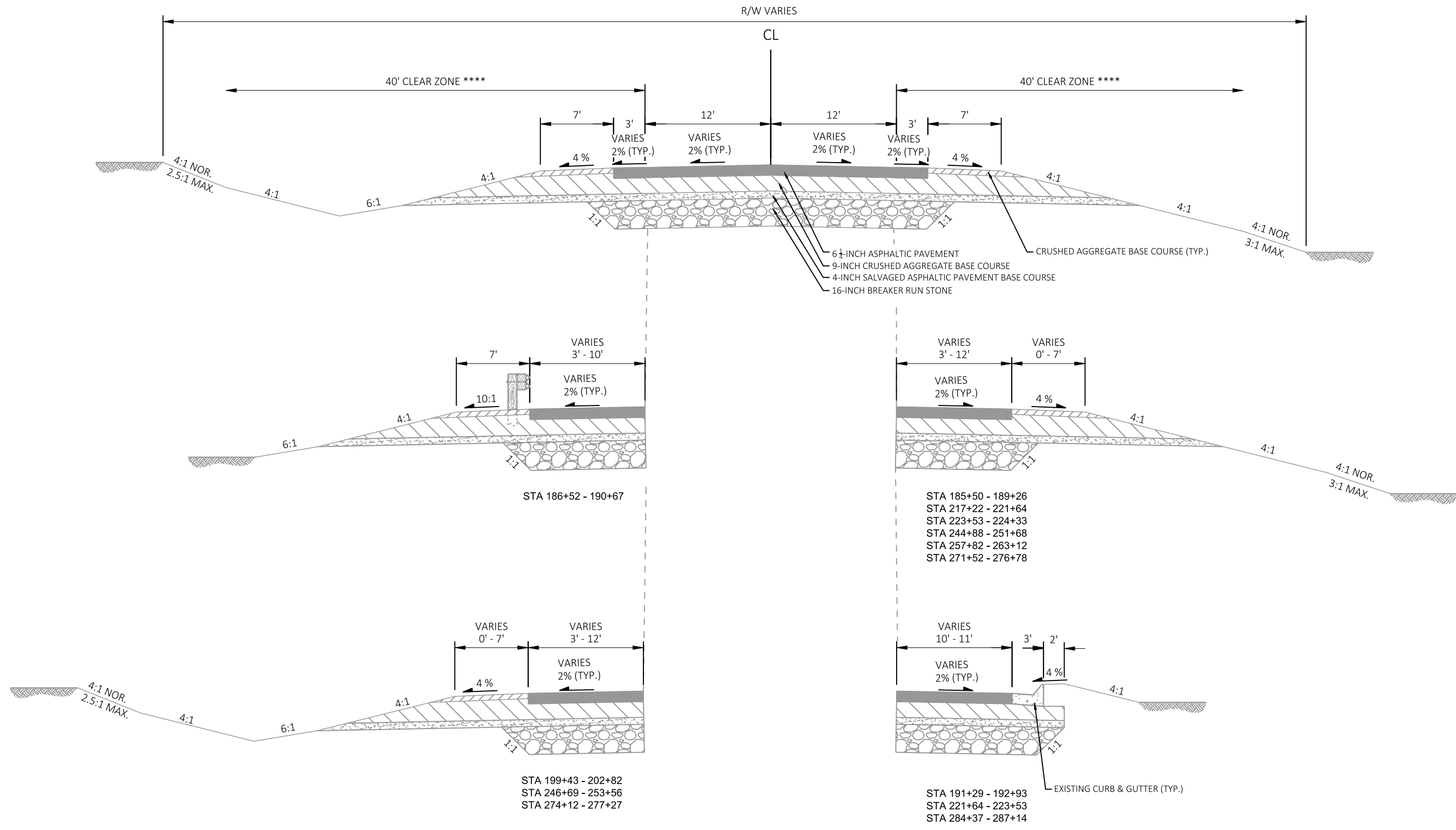
HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

APPLY TACK COAT AT A MINIMUM RATE OF 0.07 GAL/SY TO MILLED SURFACES, AND 0.05 GAL/SY BETWEEN HMA LIFTS.

EXISTING RIGHT OF WAY LINES ARE APPROXIMATE AND BASED ON COUNTY GIS DATA.

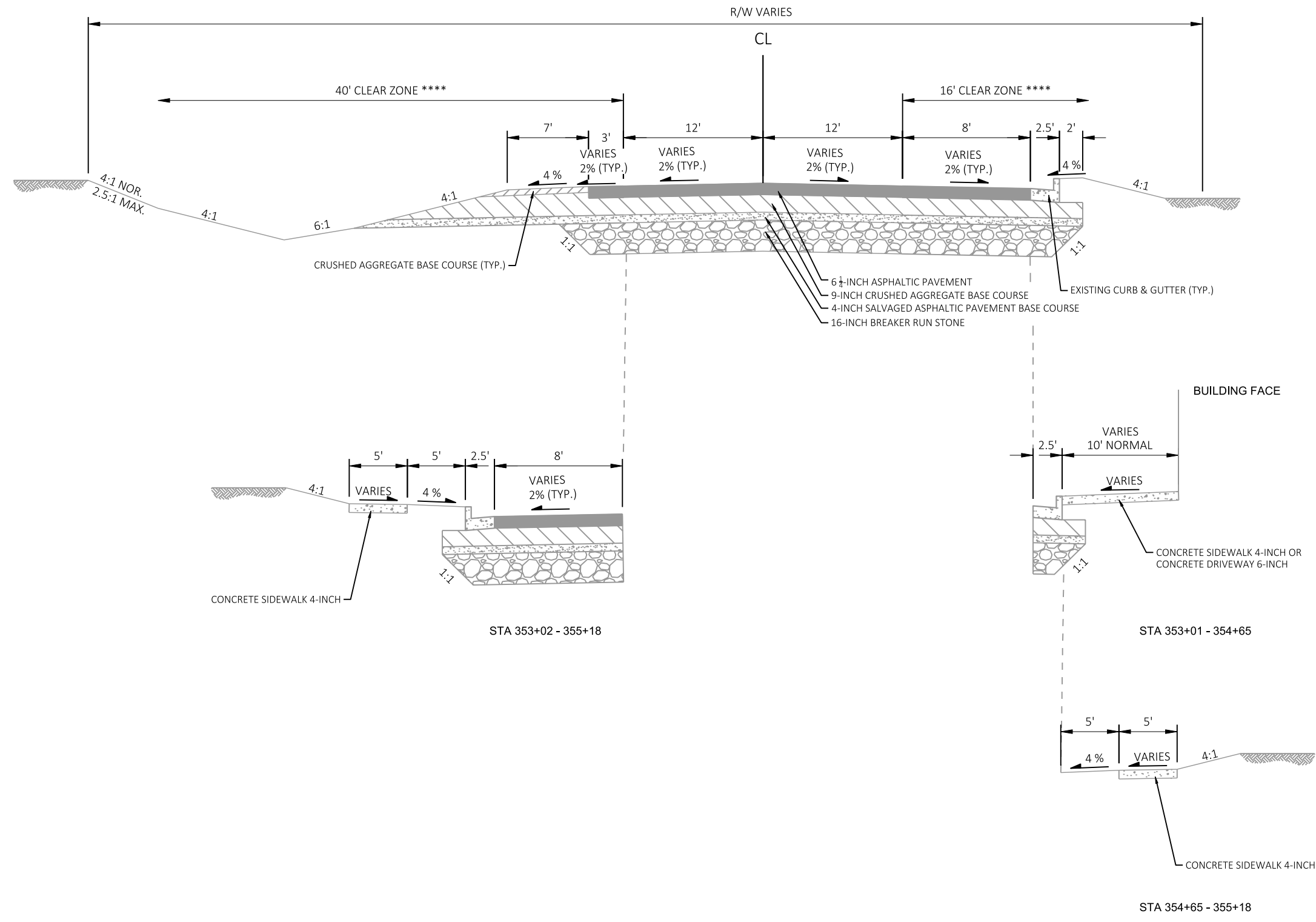
MILL AND PAVE ADJACENT TO MONUMENTS WITHOUT DAMAGING THE MONUMENTS.





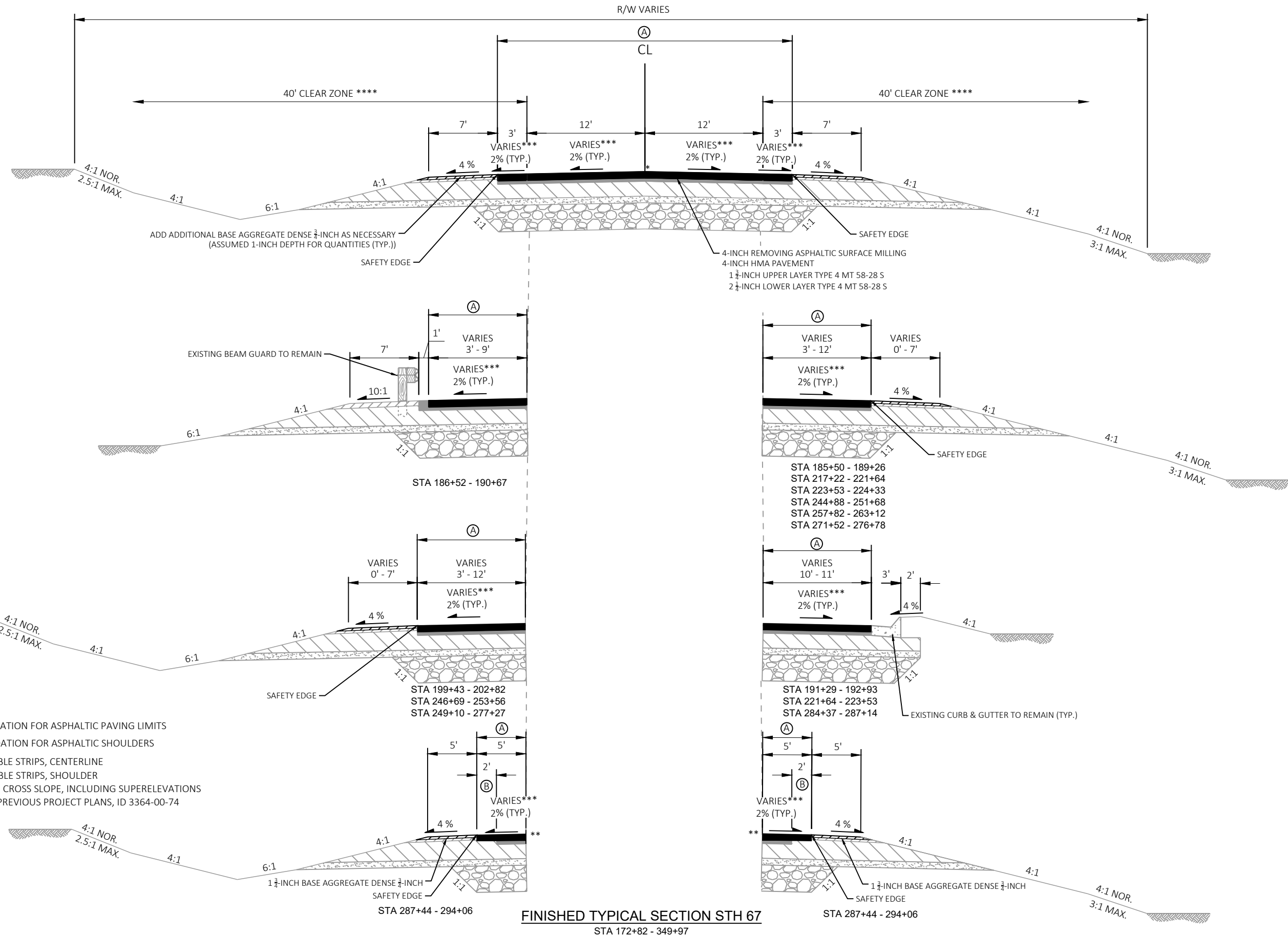
LEGEND
 ****ACCORDING TO PREVIOUS
 PROJECT PLANS, ID 3364-00-74

EXISTING TYPICAL SECTION STH 67
 STA 172+82 - 349+97



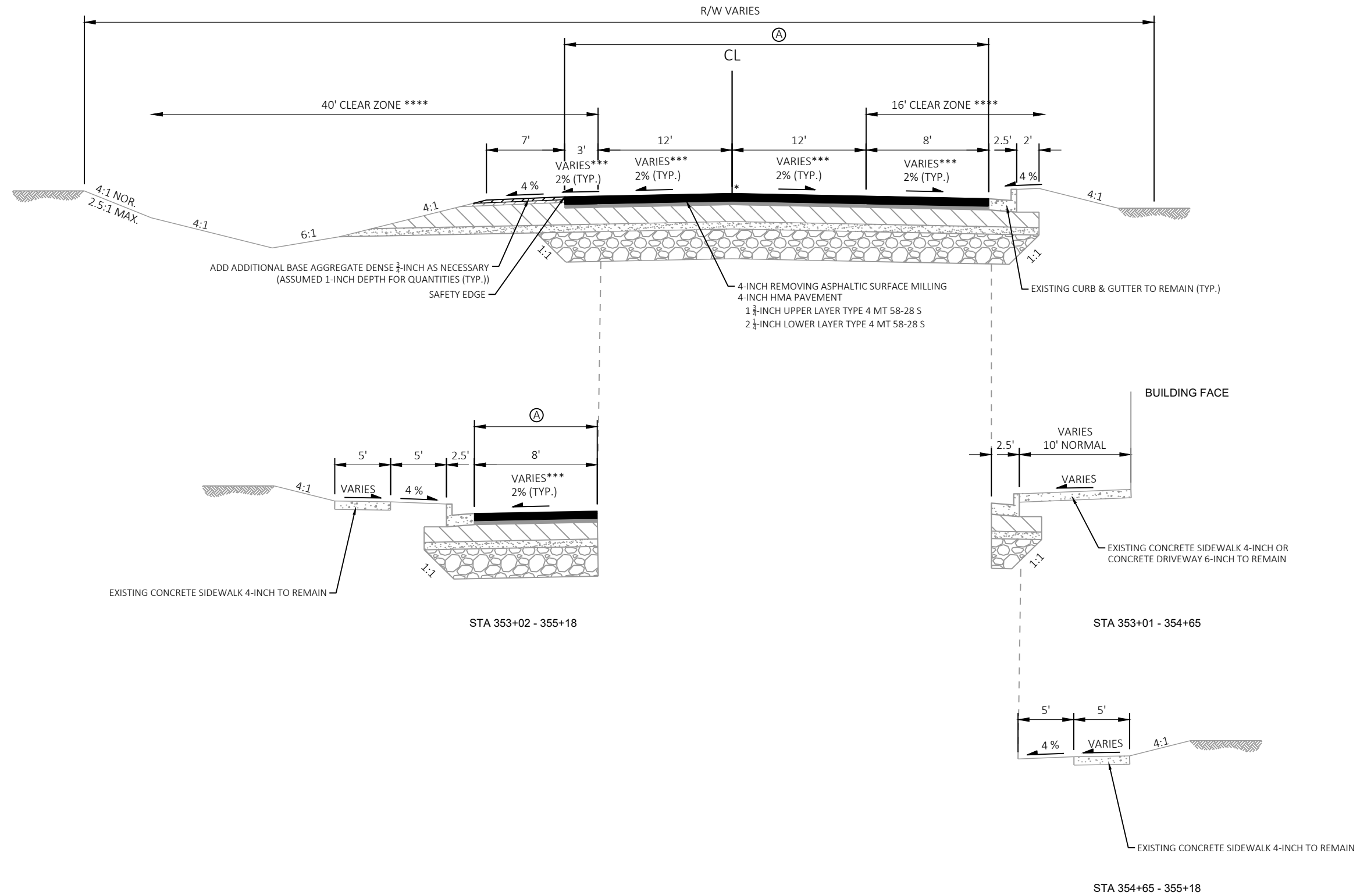
EXISTING TYPICAL SECTION STH 67
STA 349+97 - 355+18

LEGEND
**** ACCORDING TO PREVIOUS PROJECT PLANS, ID 3364-00-74



- LEGEND**
- (A) PREPARE FOUNDATION FOR ASPHALTIC PAVING LIMITS
 - (B) PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS
 - * ASPHALTIC RUMBLE STRIPS, CENTERLINE
 - ** ASPHALTIC RUMBLE STRIPS, SHOULDER
 - *** MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
 - **** ACCORDING TO PREVIOUS PROJECT PLANS, ID 3364-00-74

FINISHED TYPICAL SECTION STH 67
STA 172+82 - 349+97

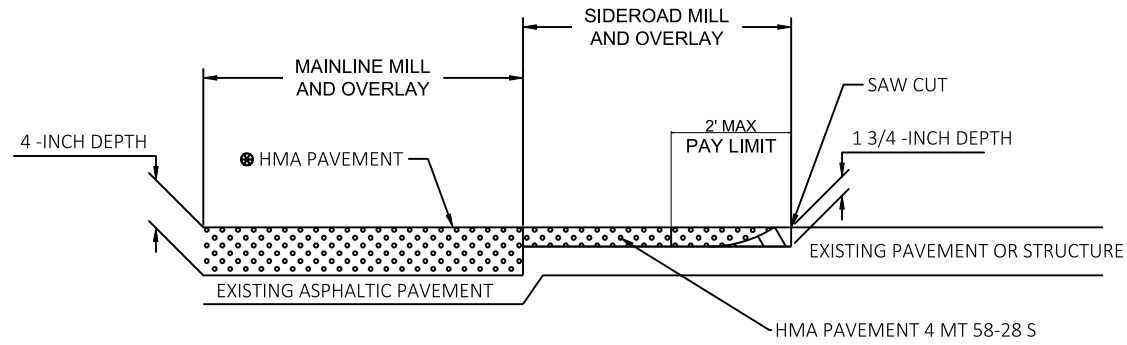


LEGEND

- Ⓐ PREPARE FOUNDATION FOR ASPHALTIC PAVING LIMITS
- * ASPHALTIC RUMBLE STRIPS, CENTERLINE
- *** MATCH EXISTING CROSS SLOPE, INCLUDING SUPERELEVATIONS
- **** ACCORDING TO PREVIOUS PROJECT PLANS, ID 3364-00-74

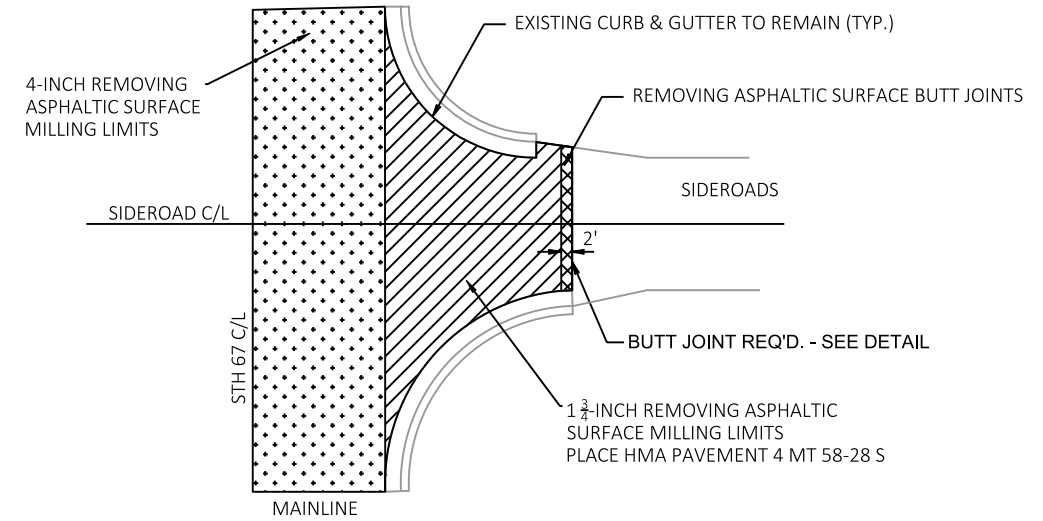
FINISHED TYPICAL SECTION STH 67
 STA 349+97 - 355+18

PROJECT NO: 3364-00-75	HWY: STH 67	COUNTY: DODGE	FINISHED TYPICAL SECTIONS	SHEET	E
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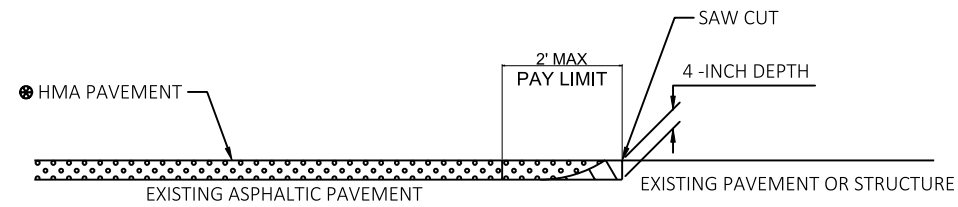


- ⊗ SEE TYPICAL SECTIONS FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS
- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (NO PROFILE CHANGE - SIDEROADS)

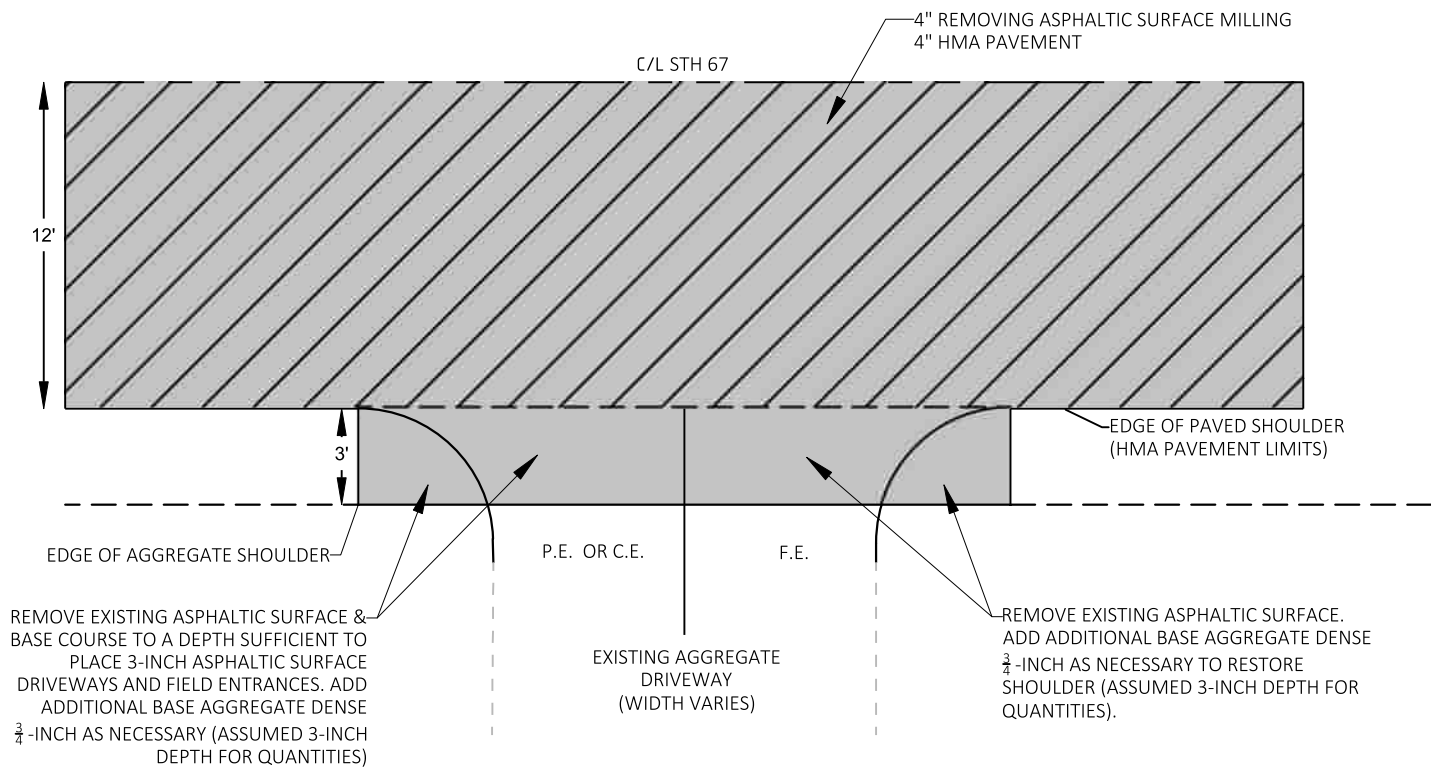


SIDEROAD PLAN

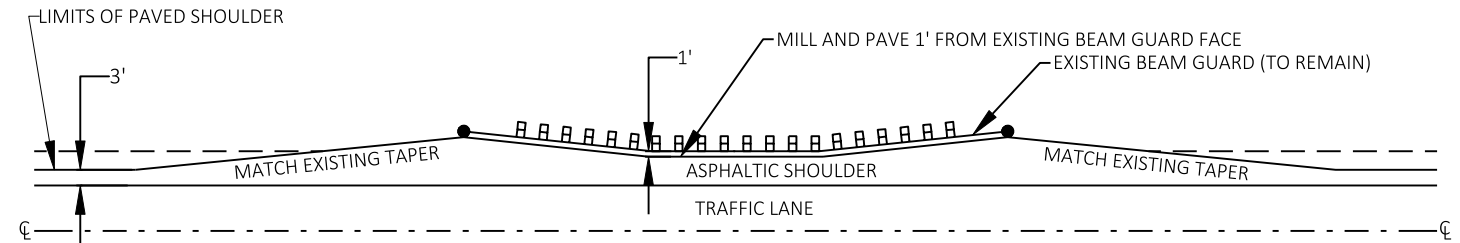


- ⊗ SEE TYPICAL SECTIONS FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS
- REMOVING ASPHALTIC SURFACE, MILLING
- REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

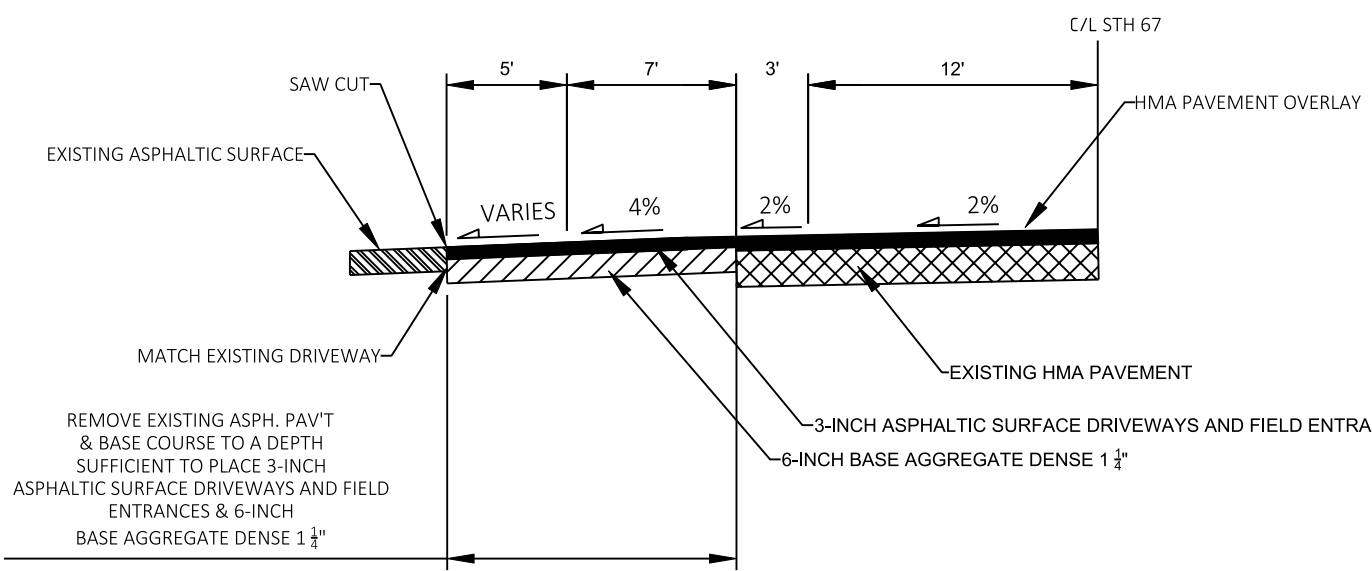
BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (NO PROFILE CHANGE - MAINLINE)



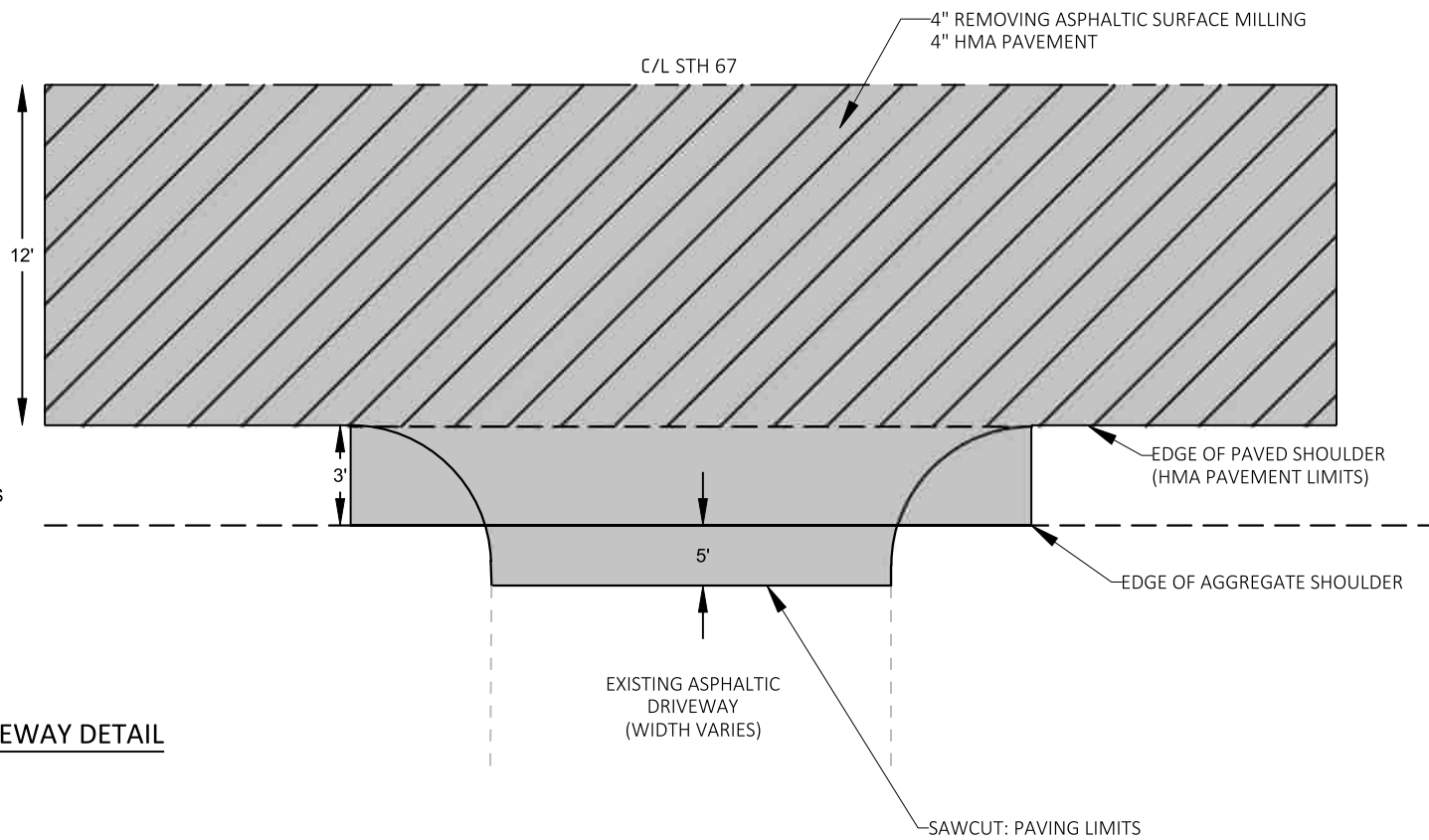
TYPICAL AGGREGATE DRIVEWAY DETAIL

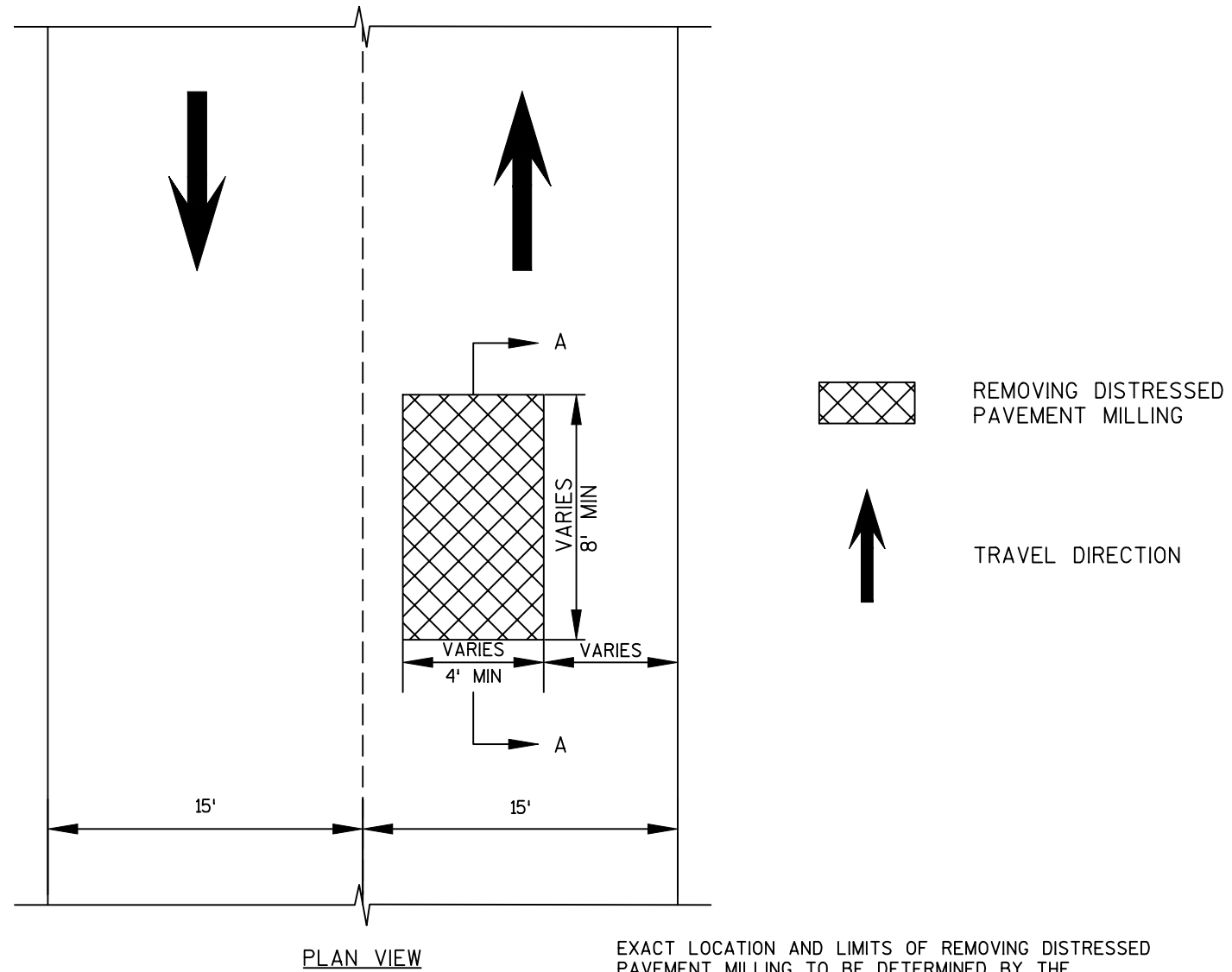
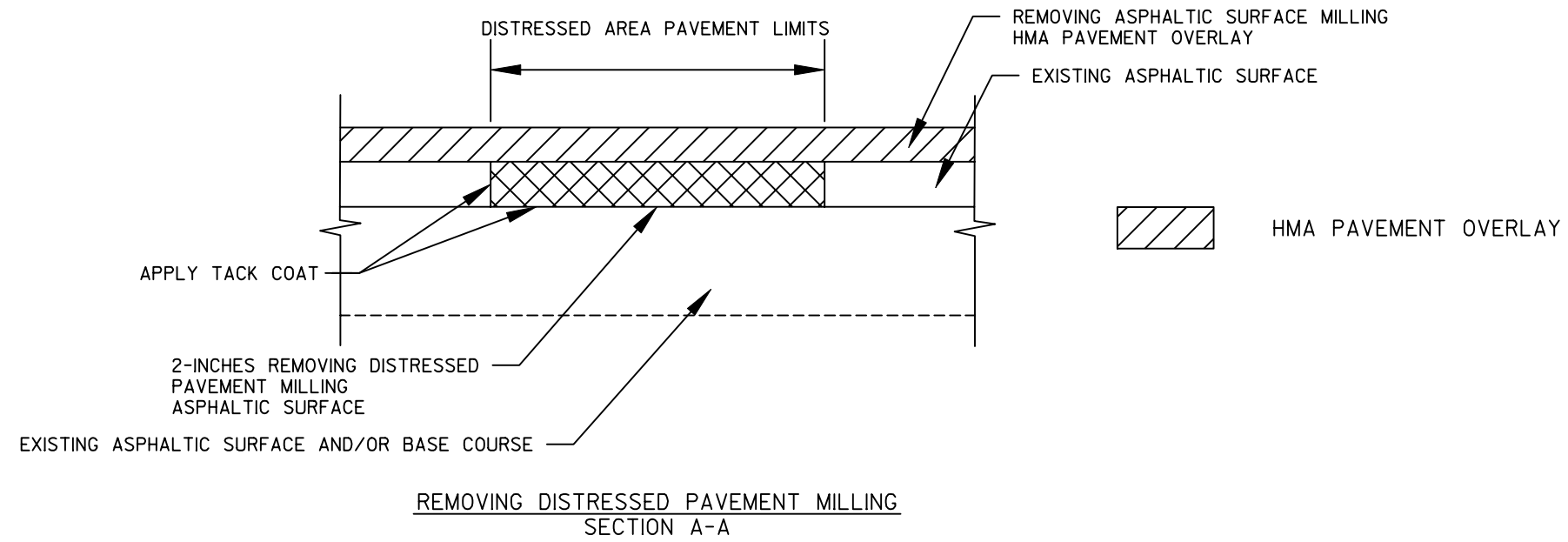


DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD
STA. 186+52 - STA. 190+67, LT.

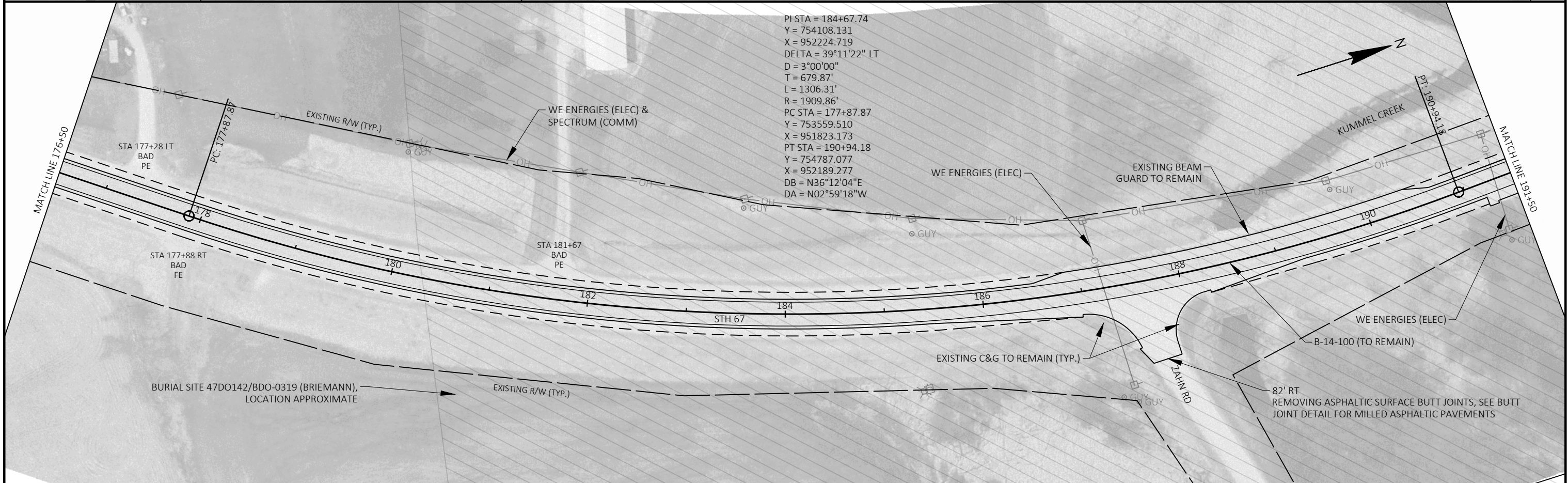
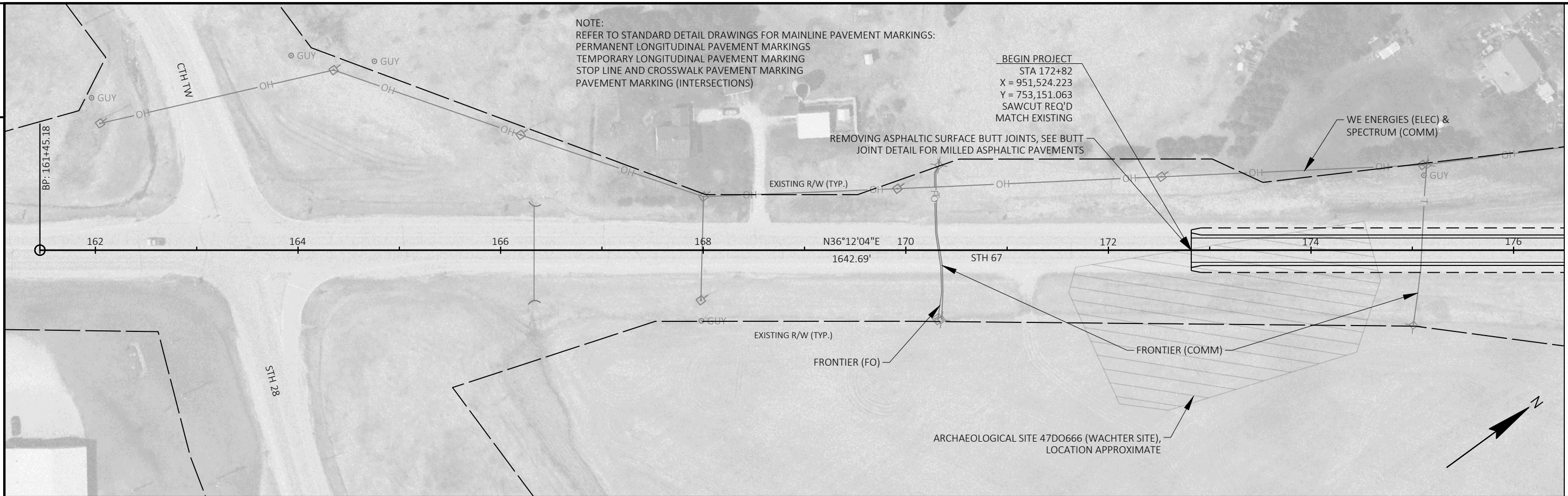


TYPICAL ASPHALT DRIVEWAY DETAIL

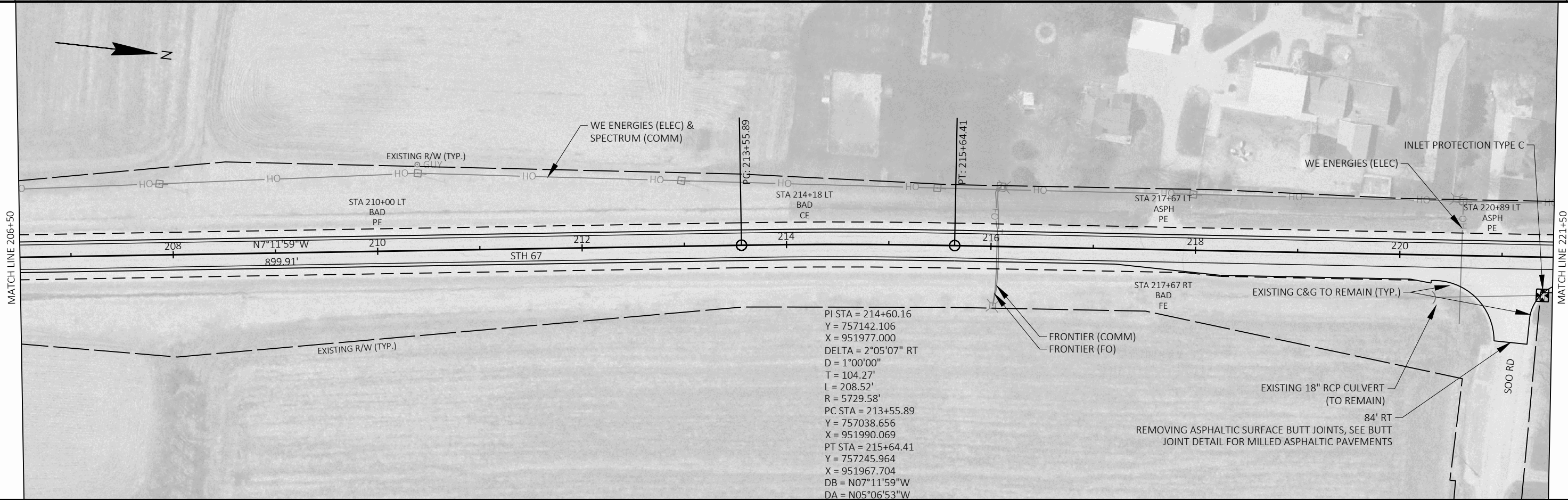
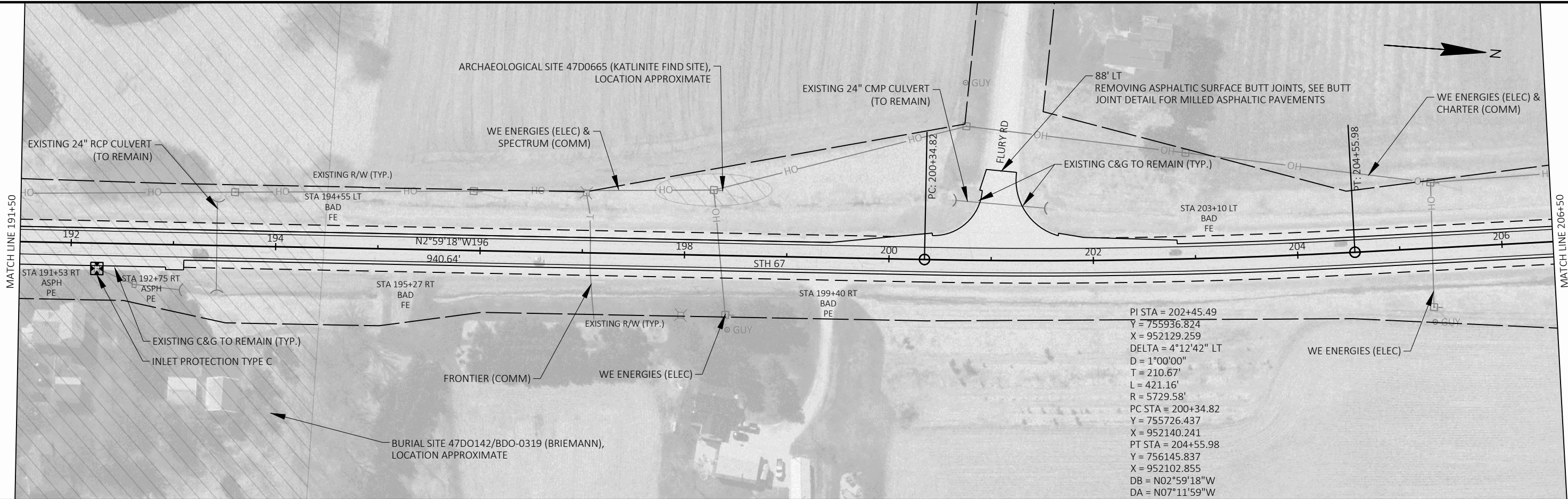




NOTE:
 REFER TO STANDARD DETAIL DRAWINGS FOR MAINLINE PAVEMENT MARKINGS:
 PERMANENT LONGITUDINAL PAVEMENT MARKINGS
 TEMPORARY LONGITUDINAL PAVEMENT MARKING
 STOP LINE AND CROSSWALK PAVEMENT MARKING
 PAVEMENT MARKING (INTERSECTIONS)



PROJECT NO: 3364-00-75	HWY: STH 67	COUNTY: DODGE	PLAN	SHEET	E
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PROJECT NO: 3364-00-75

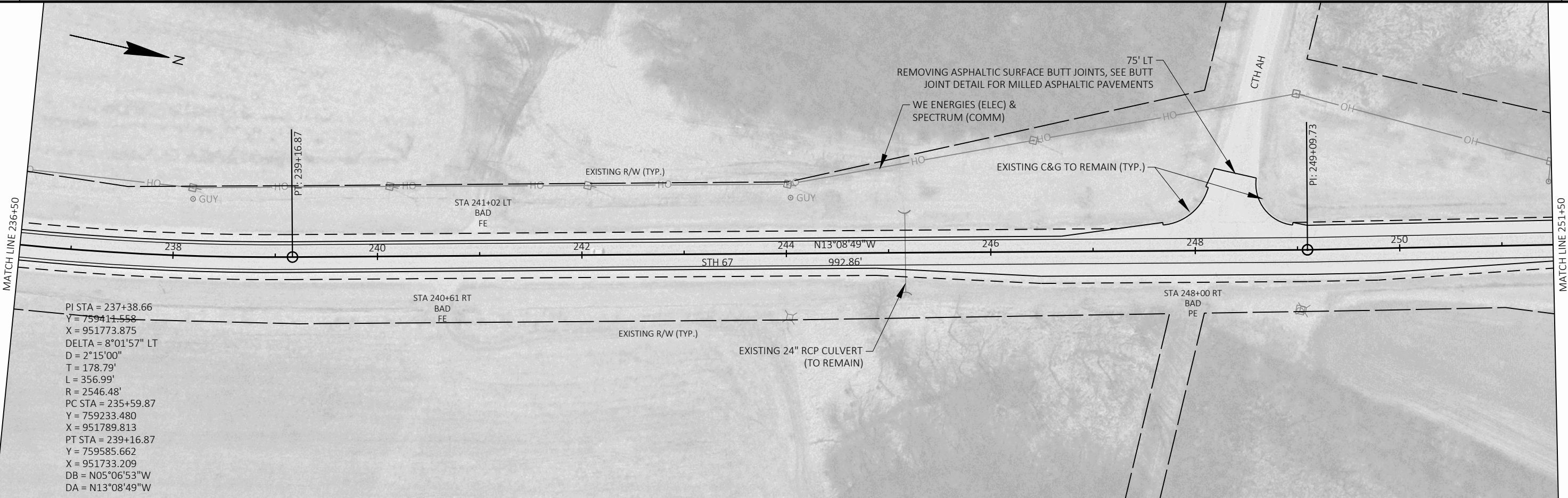
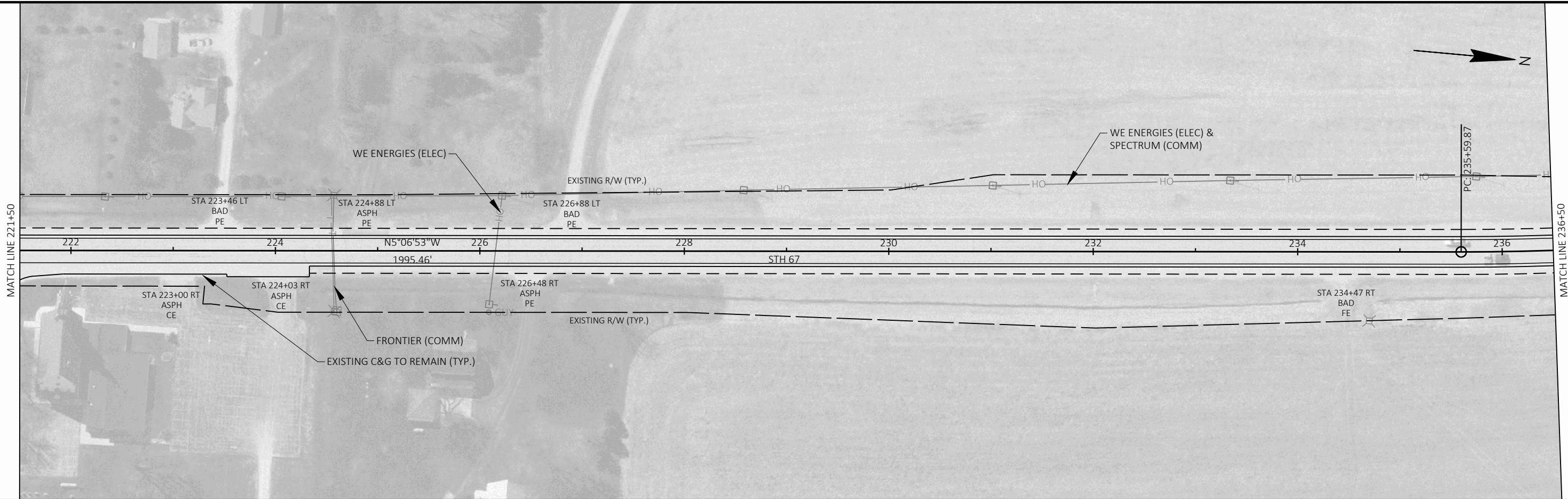
HWY: STH 67

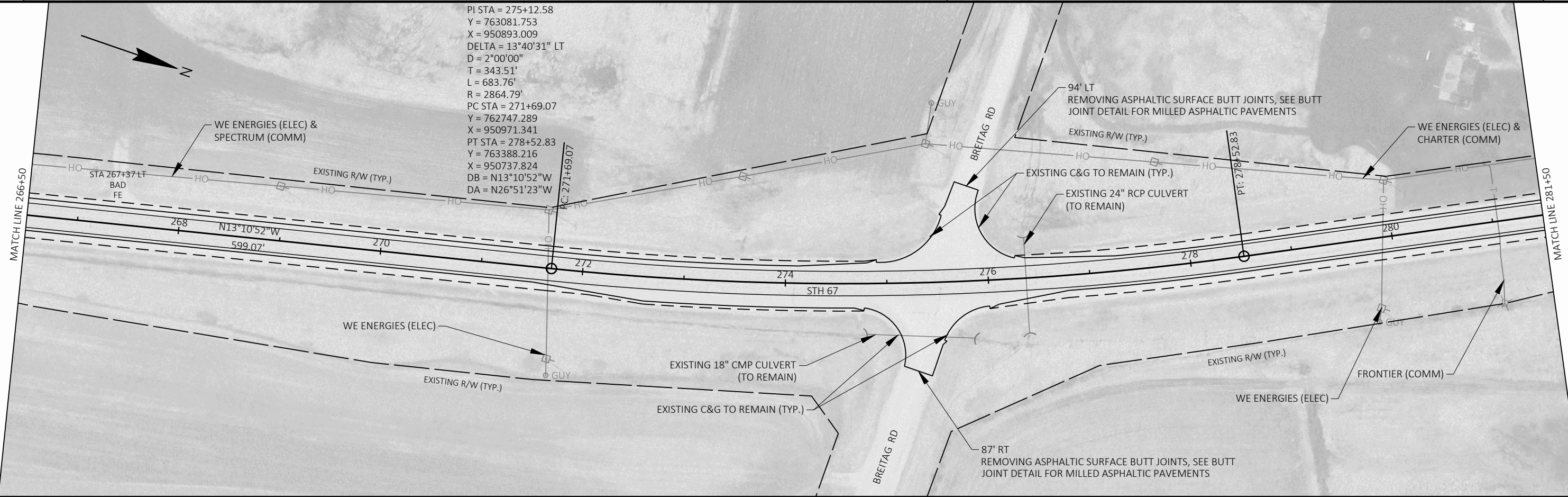
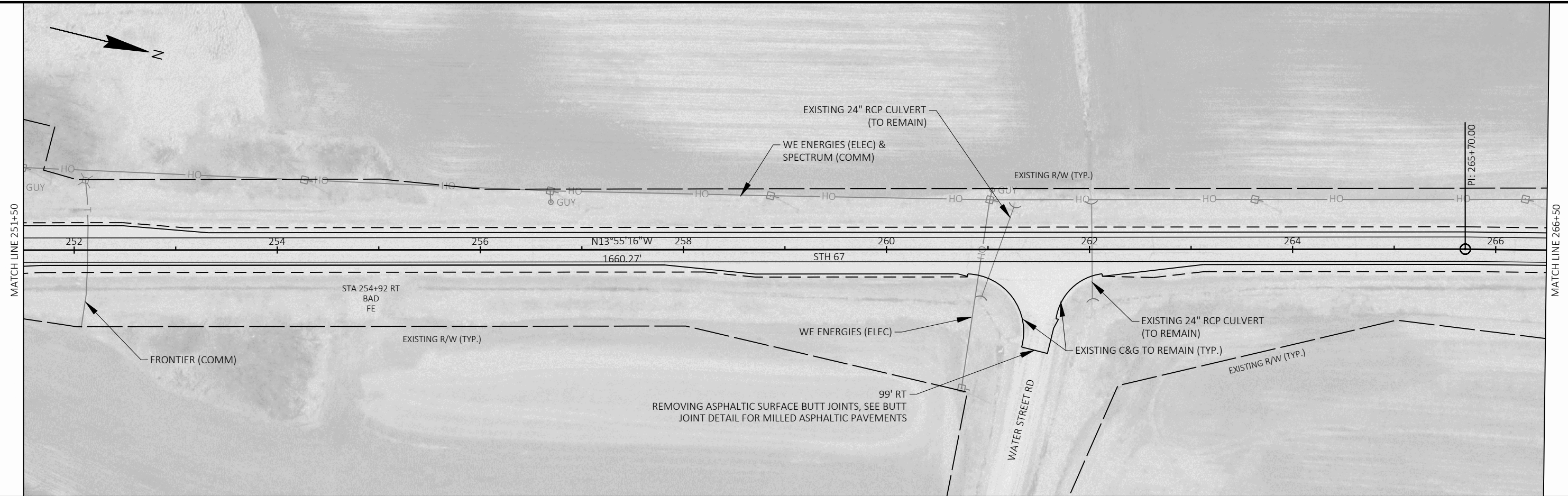
COUNTY: DODGE

PLAN

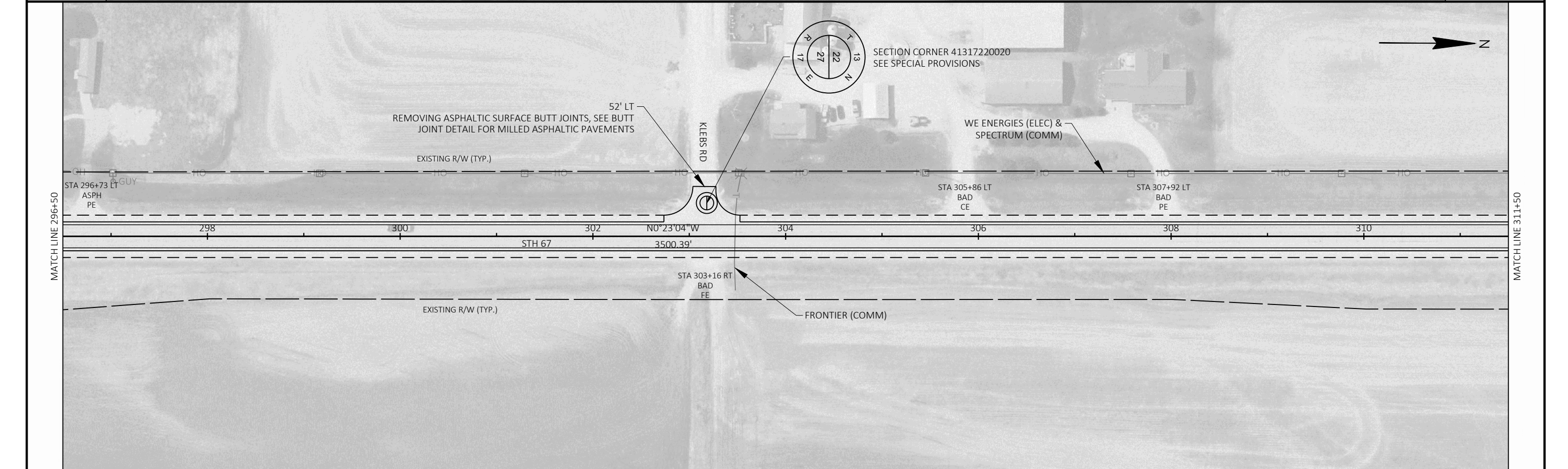
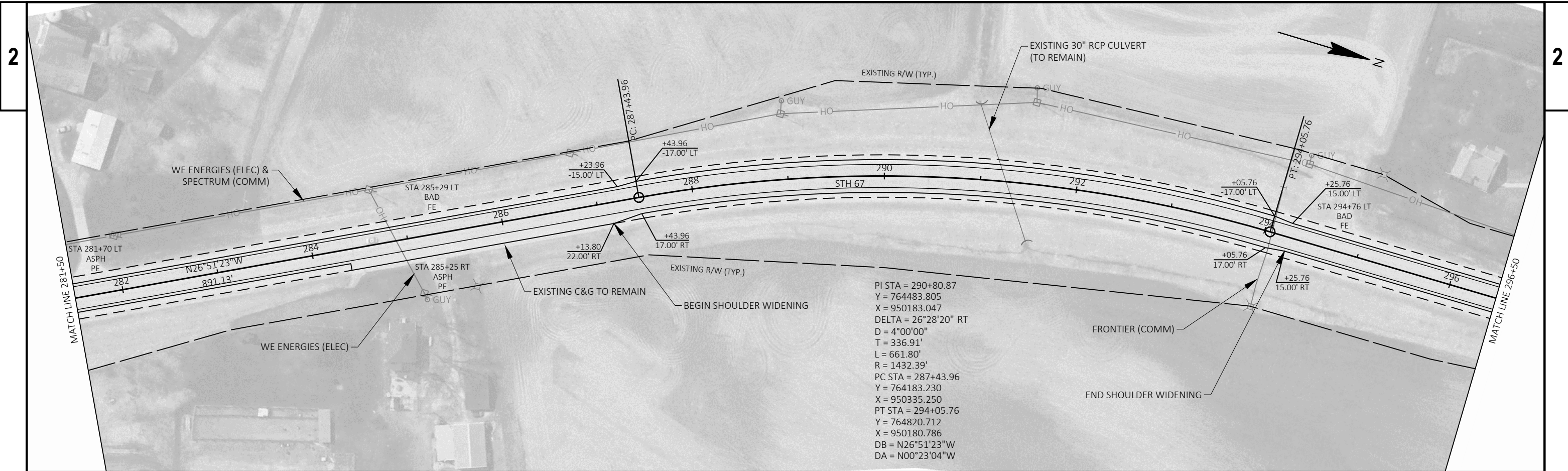
SHEET

E

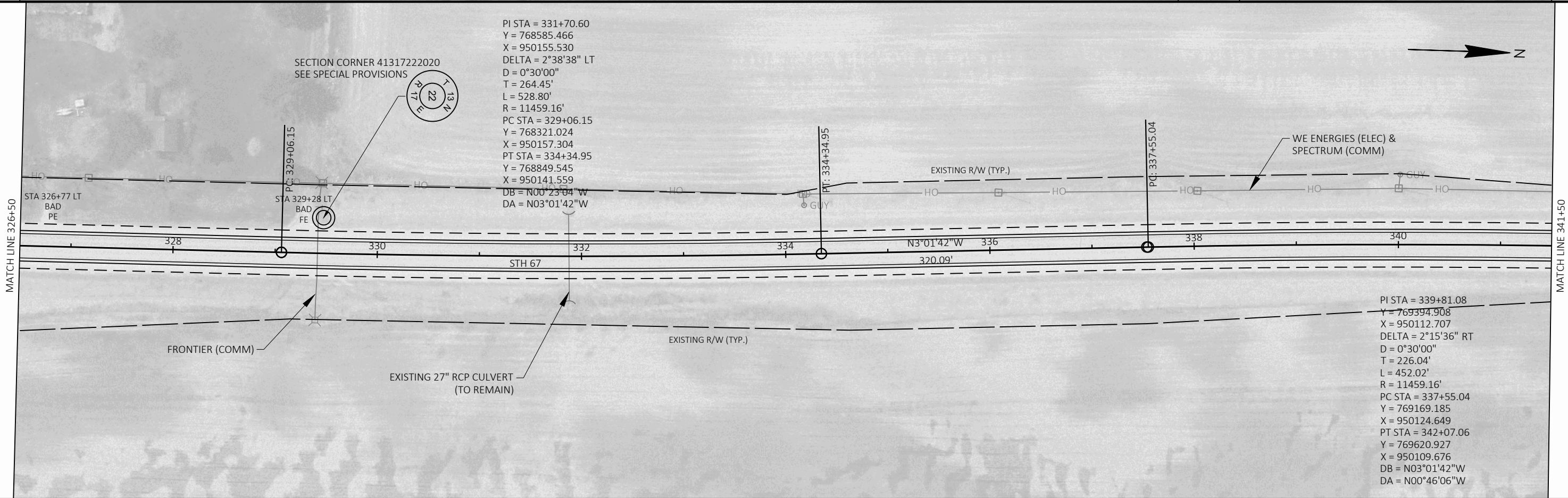
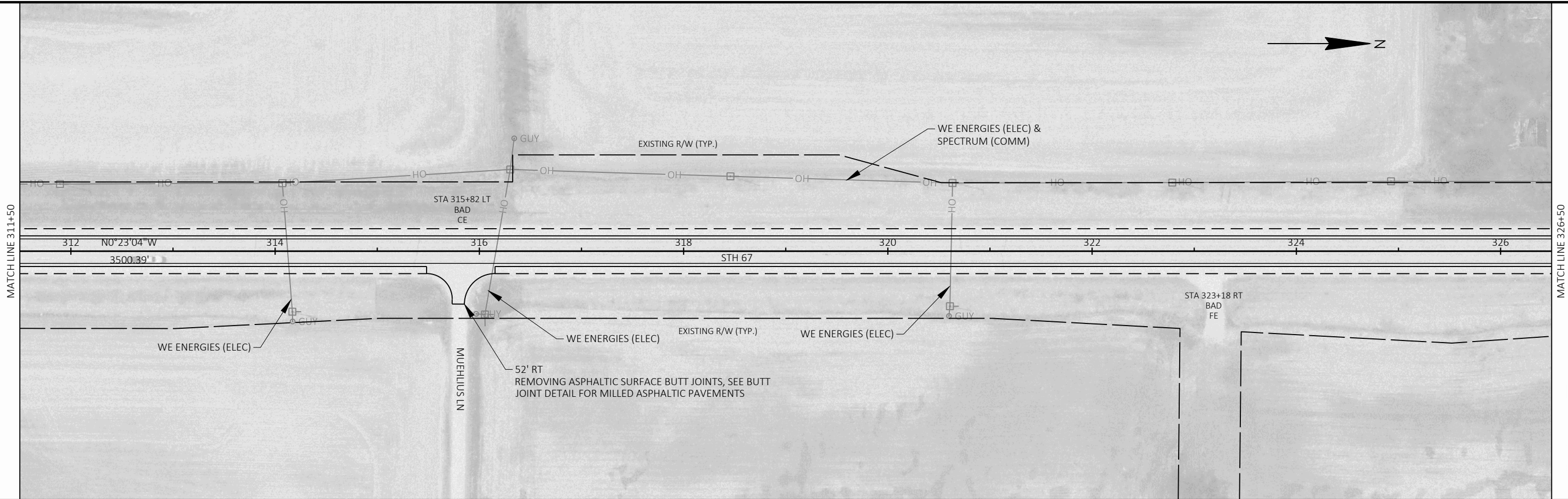




PI STA = 275+12.58
 Y = 763081.753
 X = 950893.009
 DELTA = 13°40'31" LT
 D = 2°00'00"
 T = 343.51'
 L = 683.76'
 R = 2864.79'
 PC STA = 271+69.07
 Y = 762747.289
 X = 950971.341
 PT STA = 278+52.83
 Y = 763388.216
 X = 950737.824
 DB = N13°10'52"W
 DA = N26°51'23"W
 P.C. 271+69.07

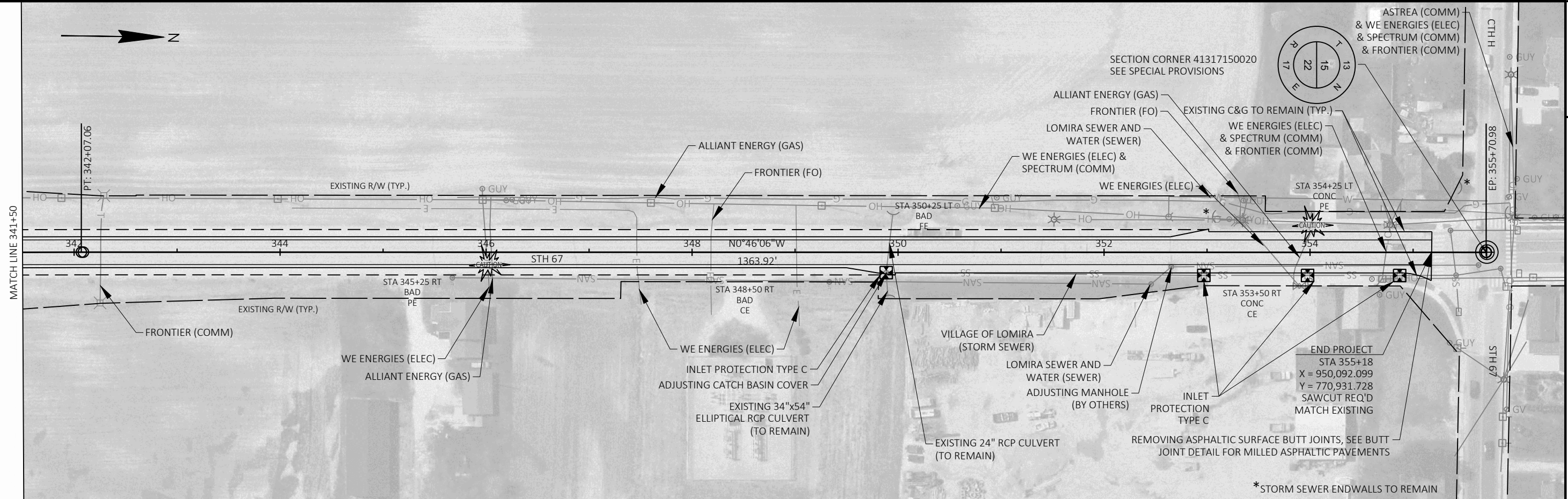


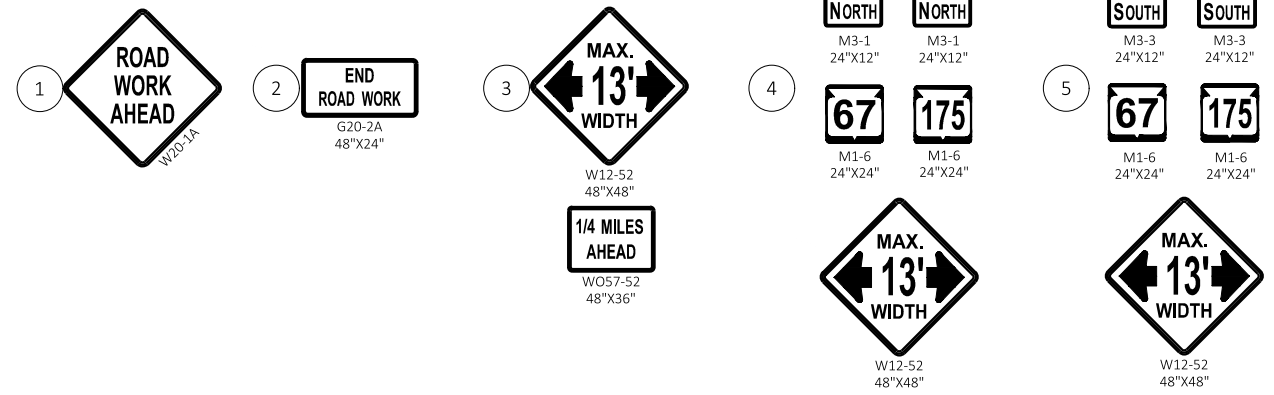
PROJECT NO: 3364-00-75 HWY: STH 67 COUNTY: DODGE PLAN SHEET E



PI STA = 331+70.60
 Y = 768585.466
 X = 950155.530
 DELTA = 2°38'38" LT
 D = 0°30'00"
 T = 264.45'
 L = 528.80'
 R = 11459.16'
 PC STA = 329+06.15
 Y = 768321.024
 X = 950157.304
 PT STA = 334+34.95
 Y = 768849.545
 X = 950141.559
 DB = N00°23'04"W
 DA = N03°01'42"W

PI STA = 339+81.08
 Y = 769394.908
 X = 950112.707
 DELTA = 2°15'36" RT
 D = 0°30'00"
 T = 226.04'
 L = 452.02'
 R = 11459.16'
 PC STA = 337+55.04
 Y = 769169.185
 X = 950124.649
 PT STA = 342+07.06
 Y = 769620.927
 X = 950109.676
 DB = N03°01'42"W
 DA = N00°46'06"W





GENERAL NOTES:

- TRAFFIC CONTROL FOR ALL MILLING, PAVING, AGGREGATE SHOULDER AND RUMBLE STRIP WORK SHALL FOLLOW S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION".
- FLAGGERS ARE REQUIRED WHEN WORK IS BEING COMPLETED AT INTERSECTIONS TO MAINTAIN VEHICULAR ACCESS TO STH 67.
- FOR ADVANCE WARNING SIGNS, FOLLOW S.D.D. "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC."
- IF TRAFFIC IS DRIVING ON A MILLED SURFACE, FOLLOW S.D.D. "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES."
- WHEN DRIVING LANES ARE NOT AT AN EQUAL ELEVATION, PLACE UNEVEN LANES SIGNING PER S.D.D. "TRAFFIC CONTROL, DROP-OFF SIGNING."
- TRAFFIC CONTROL FOR ALL PAVEMENT MARKING WORK SHALL FOLLOW S.D.D. "MOVING PAVEMENT MARKING OPERATION-TWO LANE TWO-WAY ROADWAY."
- SIGN FACES SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS, UNLESS OTHERWISE NOTED.
- WO SIGNS ARE THE SAME AS W SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- DURING MILLING AND PAVING OPERATIONS, ONLY ONE SET OF PAVEMENT MARKINGS SHALL BE MAINTAINED AT ALL TIMES.
- TRAFFIC CONTROL PLANS ARE NOT TO SCALE.
- MAINTAIN ACCESS TO DRIVEWAYS AND SIDE ROADS AT ALL TIMES.

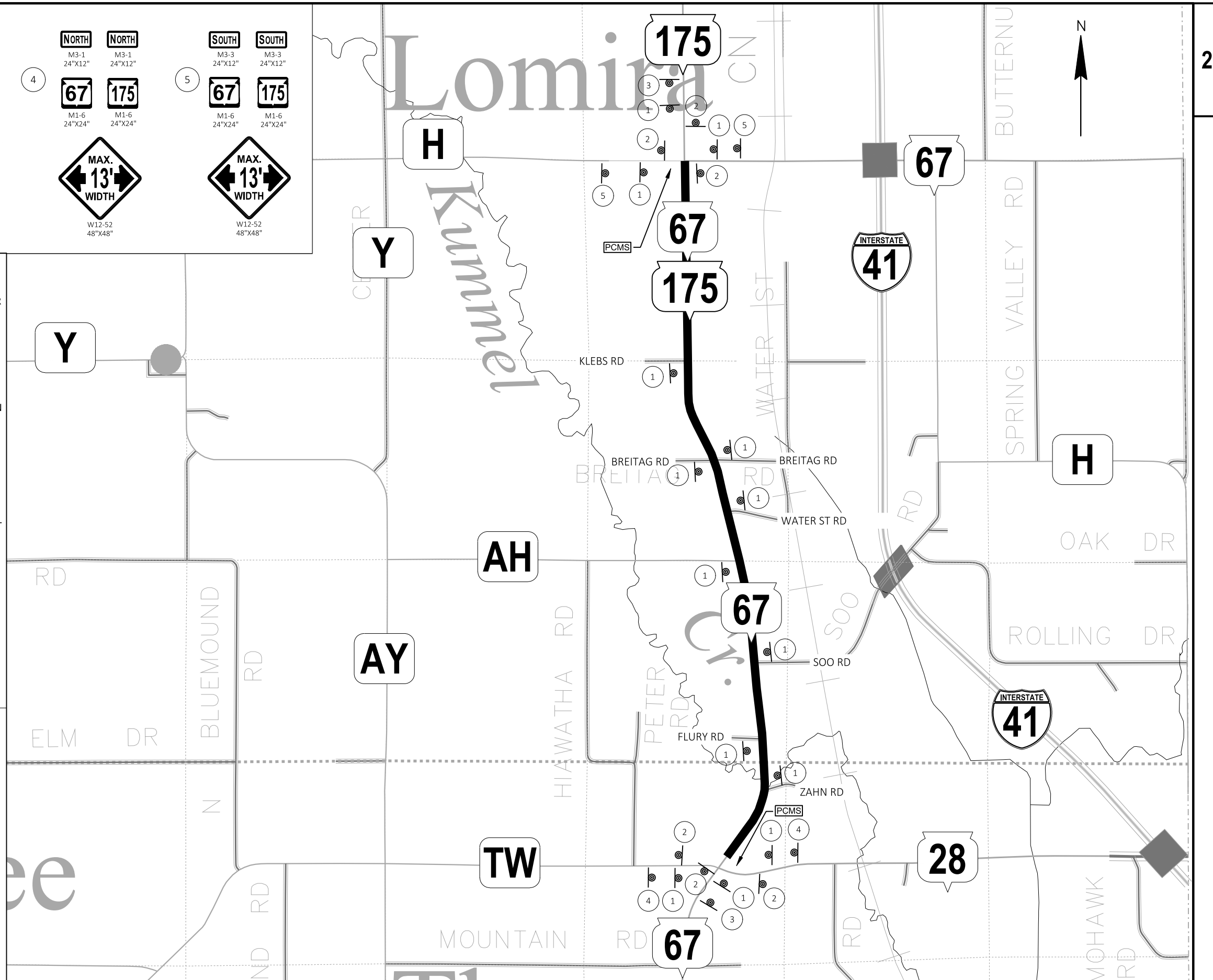
LEGEND

- ⊙ SIGN ON PORTABLE OR PERMANENT SUPPORT
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

PCMS MESSAGES		
7 DAYS PRIOR TO CONSTRUCTION		
PCMS SITE LOCATION	FRAME A (2 SEC)	FRAME B (2 SEC)
STH 67 BEGIN PROJECT	ROAD WORK BEGINS	D.O.W. MM-DD
STH 67 END PROJECT	ROAD WORK BEGINS	D.O.W. MM-DD

PCMS NOTES:

1. PCMS LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. PLACE PCMS AS FAR AWAY FROM THE LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.
3. PLACE REFLECTORIZED DRUMS AHEAD OF PCMS ON THE SHOULDER.



Estimate Of Quantities

3364-00-75

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	1,500.000	1,500.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	80.000	80.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	68,480.000	68,480.000
0008	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 3364-00-75	EACH	1.000	1.000
0010	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	14.000	14.000
0012	213.0100	Finishing Roadway (project) 01. 3364-00-75	EACH	1.000	1.000
0014	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,430.000	1,430.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	110.000	110.000
0018	455.0605	Tack Coat	GAL	8,215.000	8,215.000
0020	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0022	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0024	460.2005	Incentive Density PWL HMA Pavement	DOL	10,900.000	10,900.000
0026	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	7,310.000	7,310.000
0028	460.2010	Incentive Air Voids HMA Pavement	DOL	15,340.000	15,340.000
0030	460.6224	HMA Pavement 4 MT 58-28 S	TON	15,340.000	15,340.000
0032	465.0105	Asphaltic Surface	TON	185.000	185.000
0034	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	160.000	160.000
0036	465.0520	Asphaltic Rumble Strips, Shoulder	LF	1,325.000	1,325.000
0038	465.0560	Asphaltic Rumble Strips, Centerline	LF	13,970.000	13,970.000
0040	611.8105	Adjusting Catch Basin Covers	EACH	1.000	1.000
0042	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3364-00-75	EACH	1.000	1.000
0044	619.1000	Mobilization	EACH	1.000	1.000
0046	624.0100	Water	MGAL	26.000	26.000
0048	628.7015	Inlet Protection Type C	EACH	6.000	6.000
0050	642.5001	Field Office Type B	EACH	1.000	1.000
0052	643.0300	Traffic Control Drums	DAY	70.000	70.000
0054	643.0900	Traffic Control Signs	DAY	2,920.000	2,920.000
0056	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0058	643.3165	Temporary Marking Line Paint 6-Inch	LF	46,157.000	46,157.000
0060	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	23,082.000	23,082.000
0062	643.5000	Traffic Control	EACH	1.000	1.000
0064	646.2020	Marking Line Epoxy 6-Inch	LF	260.000	260.000
0066	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	34,880.000	34,880.000
0068	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	986.000	986.000
0070	646.4720	Marking Line Same Day Epoxy 6-Inch	LF	24,749.000	24,749.000
0072	646.6120	Marking Stop Line Epoxy 18-Inch	LF	20.000	20.000
0074	650.8000	Construction Staking Resurfacing Reference	LF	18,269.000	18,269.000
0076	650.9911	Construction Staking Supplemental Control (project) 01. 3364-00-75	EACH	1.000	1.000
0078	690.0150	Sawing Asphalt	LF	330.000	330.000
0080	740.0440	Incentive IRI Ride	DOL	13,840.000	13,840.000
0082	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	3.000	3.000
0084	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	1,645.000	1,645.000

REMOVING ASPHALTIC SURFACE ITEMS

CATEGORY	STATION TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	690.0150 SAWING ASPHALT LF
0010	172+82	- 188+28	MAINLINE	7	5,448	30
0010	188+28	- 201+66	MAINLINE	-	5,029	-
0010	201+66	- 221+64	MAINLINE	-	7,157	-
0010	221+64	- 248+96	MAINLINE	-	9,904	-
0010	248+96	- 262+12	MAINLINE	-	5,557	-
0010	262+12	- 276+27	MAINLINE	-	5,601	-
0010	276+27	- 303+53	MAINLINE	-	9,353	-
0010	303+53	- 316+15	MAINLINE	-	4,210	-
0010	316+15	- 355+18	MAINLINE	12	13,449	48
0010	187+73	-	ZAHN DR	8	345	30
0010	201+10	-	FLURY RD	7	344	32
0010	211+10	-	SOORD	8	333	32
0010	248+40	-	CTH AH	10	342	42
0010	261+46	-	WATERSTREET RD	6	387	26
0010	275+29	-	BREITAG RD EAST	7	347	29
0010	275+82	-	BREITAG RD WEST	6	378	25
0010	303+16	-	KLEBS RD	6	171	24
0010	315+79	-	MUEHLIUS LN	3	125	12
TOTAL 0010				80	68,480	330

PREPARE ASPHALTIC SHOULDERS

CATEGORY	STATION TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
0010	287+44	- 294+06	LT	7
0010	287+44	- 294+06	RT	7
TOTAL 0010				14

PREPARE FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	STATION TO	STATION	LOCATION	211.0101.01 PREPARE FOUNDATION FOR ASPHALTIC PAVING (PROJECT) (01. 3364-00-75) EACH
0010	172+82	- 355+18	PROJECT 3364-00-75	1
TOTAL 0010				1

SHOULDER BASE AGGREGATE

CATEGORY	STATION TO	STATION	LOCATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	* 624.0100 WATER MGAL
0010	172+82	- 188+28	MAINLINE	110	1.9
0010	188+28	- 201+66	MAINLINE	81	1.4
0010	201+66	- 221+64	MAINLINE	142	2.4
0010	221+64	- 248+96	MAINLINE	200	3.4
0010	248+96	- 262+12	MAINLINE	75	1.2
0010	262+12	- 276+27	MAINLINE	78	1.3
0010	276+27	- 303+53	MAINLINE	186	3.0
0010	303+53	- 316+15	MAINLINE	98	1.6
0010	316+15	- 355+18	MAINLINE	280	4.8
TOTAL 0010				1,250	21.0

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

DISTRESSED MILLING ITEMS

CATEGORY	STATION TO	STATION	LOCATION	* 455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	SPV.0180.01 SPECIAL (REMOVING DISTRESSED PAVEMENT MILLING) SY
0010	172+50	- 388+18	MAINLINE	115	185	1,645
TOTAL 0010				115	185	1,645

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

HMA PAVEMENT ITEMS

CATEGORY	STATION TO	STATION	LOCATION	* 455.0605 TACK COAT GAL	** 460.6224 HMA PAVEMENT 4 MT 58-28 S TON	REMARKS
0010	172+82	- 188+28	LOWER LAYER	380	690	MAINLINE
0010	172+82	- 188+28	UPPER LAYER	273	556	MAINLINE
0010	188+28	- 201+66	LOWER LAYER	352	635	MAINLINE
0010	188+28	- 201+66	UPPER LAYER	251	512	MAINLINE
0010	201+66	- 221+64	LOWER LAYER	501	902	MAINLINE
0010	201+66	- 221+64	UPPER LAYER	358	730	MAINLINE
0010	221+64	- 248+96	LOWER LAYER	693	1,250	MAINLINE
0010	221+64	- 248+96	UPPER LAYER	495	1,010	MAINLINE
0010	248+96	- 262+12	LOWER LAYER	389	700	MAINLINE
0010	248+96	- 262+12	UPPER LAYER	278	564	MAINLINE
0010	262+12	- 276+27	LOWER LAYER	392	706	MAINLINE
0010	262+12	- 276+27	UPPER LAYER	280	569	MAINLINE
0010	276+27	- 303+53	LOWER LAYER	655	1,220	MAINLINE
0010	276+27	- 303+53	UPPER LAYER	483	986	MAINLINE
0010	303+53	- 316+15	LOWER LAYER	295	530	MAINLINE
0010	303+53	- 316+15	UPPER LAYER	210	431	MAINLINE
0010	316+15	- 355+18	LOWER LAYER	942	1,696	MAINLINE
0010	316+15	- 355+18	UPPER LAYER	673	1,375	MAINLINE
0010	187+73	-	UPPER LAYER	25	35	ZAHN DR
0010	201+10	-	UPPER LAYER	25	34	FLURY RD
0010	211+10	-	UPPER LAYER	24	33	SOORD
0010	248+40	-	UPPER LAYER	25	34	CTH AH
0010	261+46	-	UPPER LAYER	28	39	WATERSTREET RD
0010	275+29	-	UPPER LAYER	25	35	BREITAG RD EAST
0010	275+82	-	UPPER LAYER	27	38	BREITAG RD WEST
0010	303+16	-	UPPER LAYER	12	17	KLEBS RD
0010	315+79	-	UPPER LAYER	9	13	MUEHLIUS LN
TOTAL 0010				8,100	15,340	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** INCLUDES QUANTITIES FOR MAINLINE SAFETY EDGE

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PWL MIXTURE USE TABLE, BID ITEM HMA PAVEMENT 4 MT 58-28 S										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	172+82	188+28	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	519	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	172+82	188+28	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	404	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	172+82	188+28	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	167	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	172+82	188+28	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	152	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	188+28	201+66	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	450	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	188+28	201+66	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	350	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	188+28	201+66	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	184	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	188+28	201+66	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	162	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	201+66	221+64	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	671	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	201+66	221+64	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	522	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	201+66	221+64	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	230	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	201+66	221+64	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	208	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	221+64	248+96	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	918	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	221+64	248+96	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	714	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	221+64	248+96	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	330	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	221+64	248+96	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	296	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	248+96	262+12	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	442	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	248+96	262+12	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	344	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	248+96	262+12	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	258	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	248+96	262+12	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	220	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	262+12	276+27	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	475	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	262+12	276+27	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	370	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	262+12	276+27	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	230	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	262+12	276+27	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	199	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

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PROJECT NO: 3364-00-75

HWY: STH 67

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MISCELLANEOUS QUANTITIES

SHEET:

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PWL MIXTURE USE TABLE, BID ITEM HMA PAVEMENT 4 MT 58-28 S										
LOCATION	STATION	TO STATION	LOCATION	MIXTURE TYPE	UNDERLAYING SURFACE	BID ITEM	TONS	THICKNESS (IN)	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
									MIXTURE ACCEPTANCES	DENSITY ACCEPTANCES
12 FOOT DRIVING LANE	276+27	303+53	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	916	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	276+27	303+53	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	712	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	276+27	303+53	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	262	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	276+27	303+53	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	204	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	287+44	294+06	LT & RT	LOWER LAYER	BASE AGGREGATE	4 MT 58-28 S	40	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SHOULDER WIDENING	287+44	294+06	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	70	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	303+53	316+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	424	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	303+53	316+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	330	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	303+53	316+15	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	106	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	303+53	316+15	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	101	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
12 FOOT DRIVING LANE	316+15	355+18	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	1311	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
12 FOOT DRIVING LANE	316+15	355+18	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	1020	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
EXISTING SHOULDERS AND AUX LANES	316+15	355+18	LT & RT	LOWER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	385	2.25	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EXISTING SHOULDERS AND AUX LANES	316+15	355+18	LT & RT	UPPER LAYER	LOWER LAYER HMA 4 MT 58-28 S	4 MT 58-28 S	355	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
ZAHN DR	187+73	187+73	RT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	35	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
FLURY RD	201+10	201+10	LT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	34	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
SOO RD	211+10	211+10	RT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	33	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
CTH AH	248+40	248+40	LT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	34	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
WATERSTREET RD	261+46	261+46	RT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	39	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
BREITAG RD EAST	275+29	275+29	RT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	35	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
BREITAG RD WEST	275+82	275+82	LT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	38	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
KLEBS RD	303+16	303+16	LT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	17	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
MUEHLIUS LN	315+79	315+79	RT	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	13	1.75	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

PROJECT NO: 3364-00-75

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MISCELLANEOUS QUANTITIES

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RUMBLE STRIPS

CATEGORY	STATION	TO	STATION	LOCATION	465.0520	465.0560
					ASPHALTIC RUMBLE STRIPS, SHOULDER LF	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	172+82	-	188+28	MAINLINE	-	1,278
0010	188+28	-	201+66	MAINLINE	-	946
0010	201+66	-	221+64	MAINLINE	-	1,400
0010	221+64	-	248+96	MAINLINE	-	2,124
0010	248+96	-	262+12	MAINLINE	-	918
0010	262+12	-	276+27	MAINLINE	-	1,003
0010	276+27	-	303+53	MAINLINE	1,325	2,451
0010	303+53	-	316+15	MAINLINE	-	779
0010	316+15	-	355+18	MAINLINE	-	3,071
TOTAL 0010					1,325	13,970

ADJUSTING ITEMS

CATEGORY	STATION	LOCATION	611.8105
			ADJUSTING CATCH BASIN COVERS EACH
0010	349+89	RT	1
TOTAL 0010			1

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7015
			INLET PROTECTION TYPE C EACH
0010	192+26	RT	1
0010	221+40	RT	1
0010	349+89	RT	1
0010	352+97	RT	1
0010	353+97	RT	1
0010	354+87	RT	1
TOTAL 0010			6

DRIVEWAY ITEMS

CATEGORY	STATION	LOCATION	204.0110	305.0110	305.0120	465.0120	624.0100	REMARKS
			REMOVING ASPHALTIC SURFACE SY	* BASE AGGREGATE DENSE 3/4-INCH TON	* BASE AGGREGATE DENSE 1 1/4-INCH TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	* WATER MGAL	
0010	177+28	LT	44	6	-	7	0.1	BAD PE
0010	177+88	RT	44	6	-	-	0.1	BAD FE
0010	181+67	LT	40	6	-	7	0.1	BAD PE
0010	194+55	LT	40	6	-	-	0.1	BAD FE
0010	195+27	RT	43	6	-	-	0.1	BAD FE
0010	199+40	RT	39	6	-	8	0.1	BAD PE
0010	203+10	LT	35	5	-	-	0.1	BAD FE
0010	210+00	LT	-	6	-	8	0.1	BAD PE
0010	214+18	LT	-	6	-	8	0.1	BAD CE
0010	217+67	LT	53	-	16	9	0.3	ASPH PE
0010	217+67	RT	39	6	-	-	0.1	BAD FE
0010	220+89	LT	46	-	15	8	0.2	ASPH PE
0010	223+46	LT	35	5	-	6	0.1	BAD PE
0010	224+03	RT	37	-	11	6	0.2	ASPH PE
0010	224+88	LT	49	-	15	8	0.2	ASPH PE
0010	226+48	RT	53	-	16	9	0.3	ASPH PE
0010	226+88	LT	35	5	-	6	0.1	BAD PE
0010	234+47	RT	39	6	-	-	0.1	BAD FE
0010	240+61	RT	39	6	-	-	0.1	BAD FE
0010	241+02	LT	23	4	-	-	0.1	BAD FE
0010	248+00	RT	31	5	-	5	0.1	BAD PE
0010	254+92	RT	39	6	-	-	0.2	BAD FE
0010	267+37	LT	35	5	-	-	0.2	BAD FE
0010	281+70	LT	61	-	19	10	0.3	ASPH PE
0010	285+29	LT	43	6	-	-	0.1	BAD FE
0010	294+76	LT	39	6	-	-	0.1	BAD FE
0010	296+73	LT	59	-	18	10	0.3	ASPH PE
0010	303+16	RT	58	9	-	-	0.1	BAD FE
0010	305+86	LT	43	6	-	7	0.1	BAD CE
0010	307+93	LT	43	6	-	7	0.1	BAD PE
0010	315+82	LT	43	6	-	7	0.1	BAD CE
0010	323+18	RT	47	7	-	-	0.1	BAD FE
0010	326+77	LT	39	6	-	7	0.1	BAD PE
0010	329+28	LT	43	6	-	-	0.1	BAD FE
0010	345+25	RT	43	6	-	7	0.1	BAD PE
0010	348+50	RT	58	9	-	10	0.1	BAD CE
0010	350+25	LT	43	6	-	-	0.1	BAD FE
TOTAL 0010			1,500	180	110	160	5.0	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC CONTROL ITEMS

CATEGORY	DESCRIPTION	APPROXIMATE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS	
			EACH	DAY	EACH	DAY	EACH	DAY
0010	PCMS	7	10	70	-	-	2	14
0010	ADVANCE WARNING (MAINLINE)	45	-	-	10	450	-	-
0010	ADVANCE WARNING (SIDEROADS)	45	-	-	16	720	-	-
0010	WIDTH RESTRICTION	45	-	-	20	900	-	-
0010	MILLED SURFACE	25	-	-	26	650	-	-
0010	UNEVEN LANES	25	-	-	8	200	-	-
TOTAL 0010				70		2,920		14

VERIFY LANDMARK REFERENCE MONUMENTS

CATEGORY	STATION	OFFSET	LOCATION	SPV.0060.01 SPECIAL (VERIFY LANDMARK REFERENCE MONUMENTS)		REMARKS
				EACH		
0010	303+18.18	34.6'	LT	1		SECTION CORNER 41317220020
0010	329+46.70	34.9'	LT	1		SECTION CORNER 41317222020
0010	355+70.95	0'	-	1		SECTION CORNER 41317150020
TOTAL 0010				3		

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION TO	STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE	
				LF	
0010	172+50 -	355+18	PROJECT 3364-00-75	18,269	
TOTAL 0010				18,269	

PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	**	***	646.2020		646.2040	646.4040	646.4720	646.6120	REMARKS
					TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW) LF	TEMPORARY MARKING LINE EPOXY 6-INCH (YELLOW) LF	MARKING LINE EPOXY 6-INCH (YELLOW) LF	(WHITE SKIP) LF	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE) LF	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE) LF	MARKING LINE SAME DAY EPOXY 6-INCH (YELLOW) LF	MARKING STOP LINE EPOXY 18-INCH (WHITE) LF	
0010	172+82	-	188+28	MAINLINE	5,945.0	2,973	--	--	2,994	--	2,995	--	
0010	188+28	-	201+66	MAINLINE	2,172.0	1,086	--	--	2,554	--	1,314	--	
0010	201+66	-	221+64	MAINLINE	3,564.0	1,782	--	--	3,865	206	2,075	--	
0010	221+64	-	248+96	MAINLINE	10,379	5,190	63	62	5,340	--	5,240	20	INCLUDES SIDE ROAD CL MARKING
0010	248+96	-	262+12	MAINLINE	609.0	305	114	21	2,503	562	529	--	INCLUDES SIDE ROAD CL MARKING
0010	262+12	-	276+27	MAINLINE	2,341.0	1,171	--	--	2,546	218	1,411	--	
0010	276+27	-	303+53	MAINLINE	10,903.0	5,452	--	--	5,480	--	5,452	--	
0010	303+53	-	316+15	MAINLINE	5,051.0	2,526	--	--	2,528	--	2,526	--	
0010	316+15	-	355+18	MAINLINE	5,193.0	2,597	--	--	7,070	--	3,207	--	
SUBTOTAL							177	83					
TOTAL 0010					46,157	23,082	260	83	34,880	986	24,749	20	

NOTES:

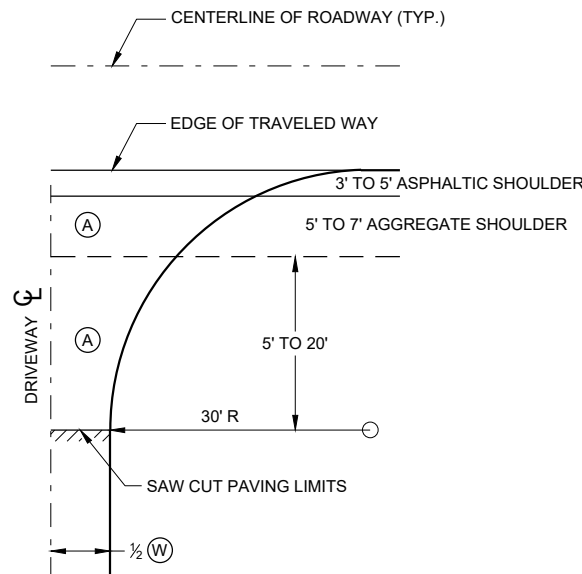
- ** TO BE PLACED ON CL FOLLOWING MILLED OR LOWER LAYER OF PAVEMENT
- *** TO BE PLACED ON CL FOLLOWING UPPER LAYER OF PAVEMENT PRIOR TO RUMBLE STRIPS
- **** TO BE PLACED FOLLOWING CENTERLINE RUMBLE STRIP MILLING

Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13A10-03A	SHOULDER RUMBLE STRIPS - ASPHALT
13A10-03G	SHOULDER AND EDGE LINE RUMBLE STRIPS - CROSSINGS, INTERSECTIONS, BRIDGES, DRIVEWAYS
13A10-03H	SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

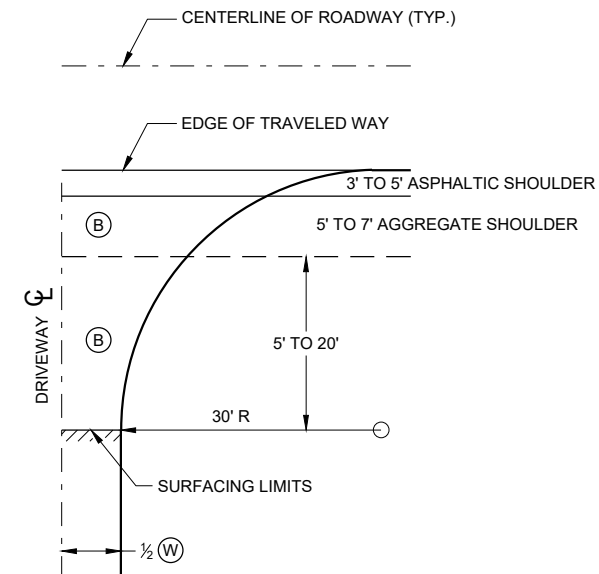
GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

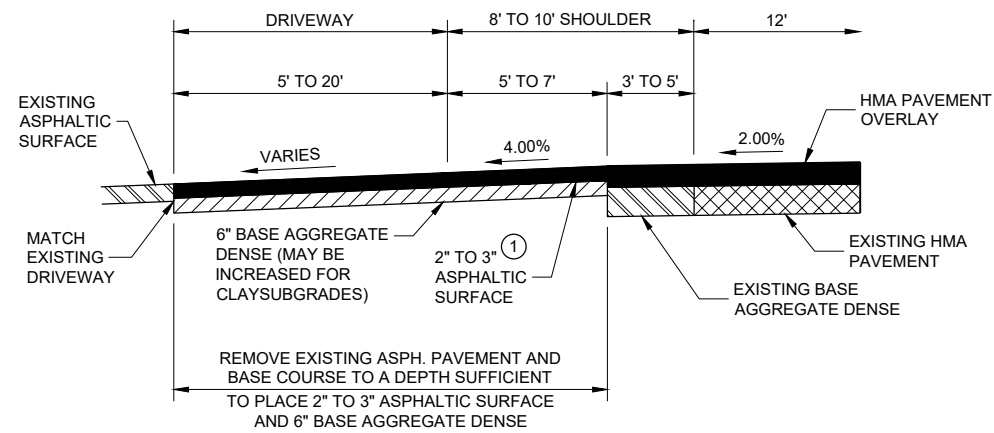


- Ⓐ : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- Ⓑ : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- ⒲ : DRIVEWAY WIDTH 16' MIN. - 24' MAX.

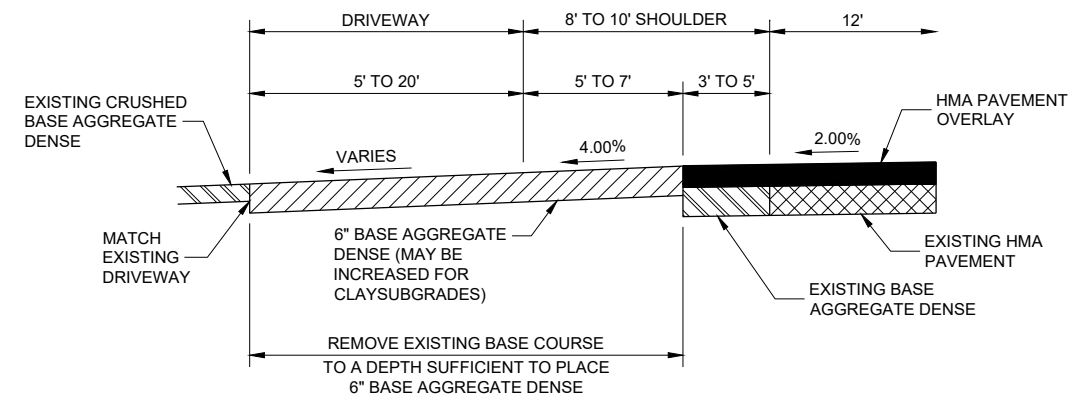
**PLAN VIEW
HALF SECTION**



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



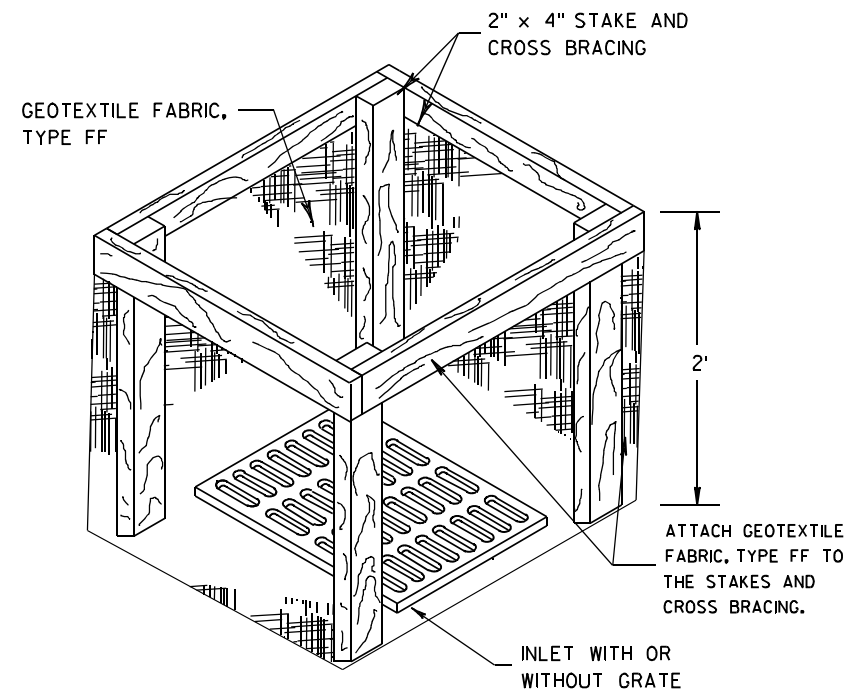
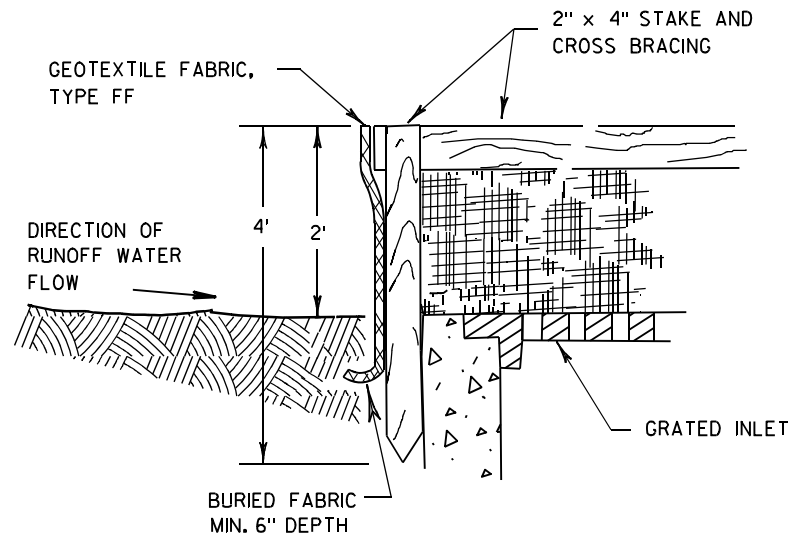
**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA



INLET PROTECTION, TYPE A

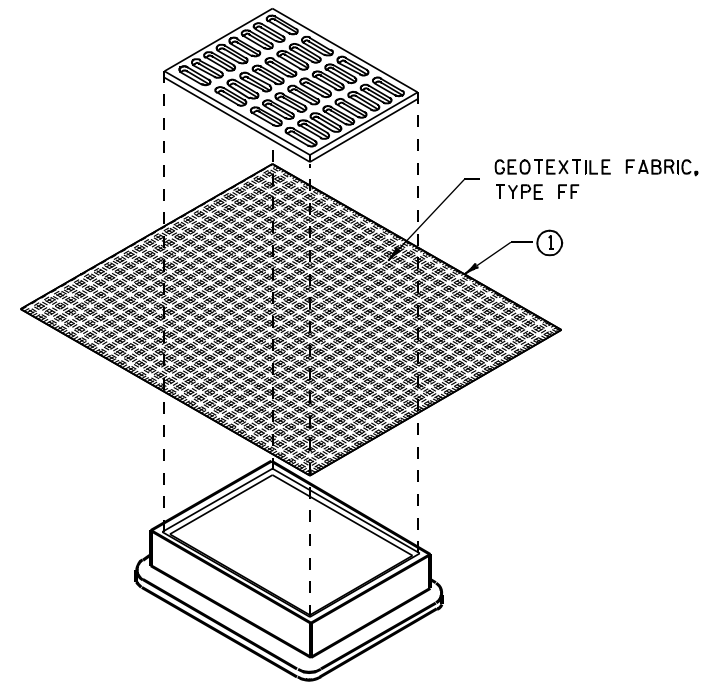
GENERAL NOTES

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

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

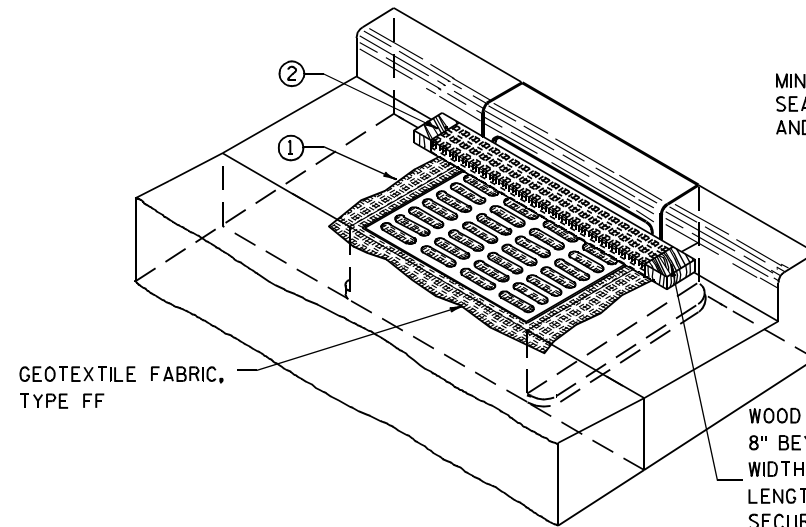
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

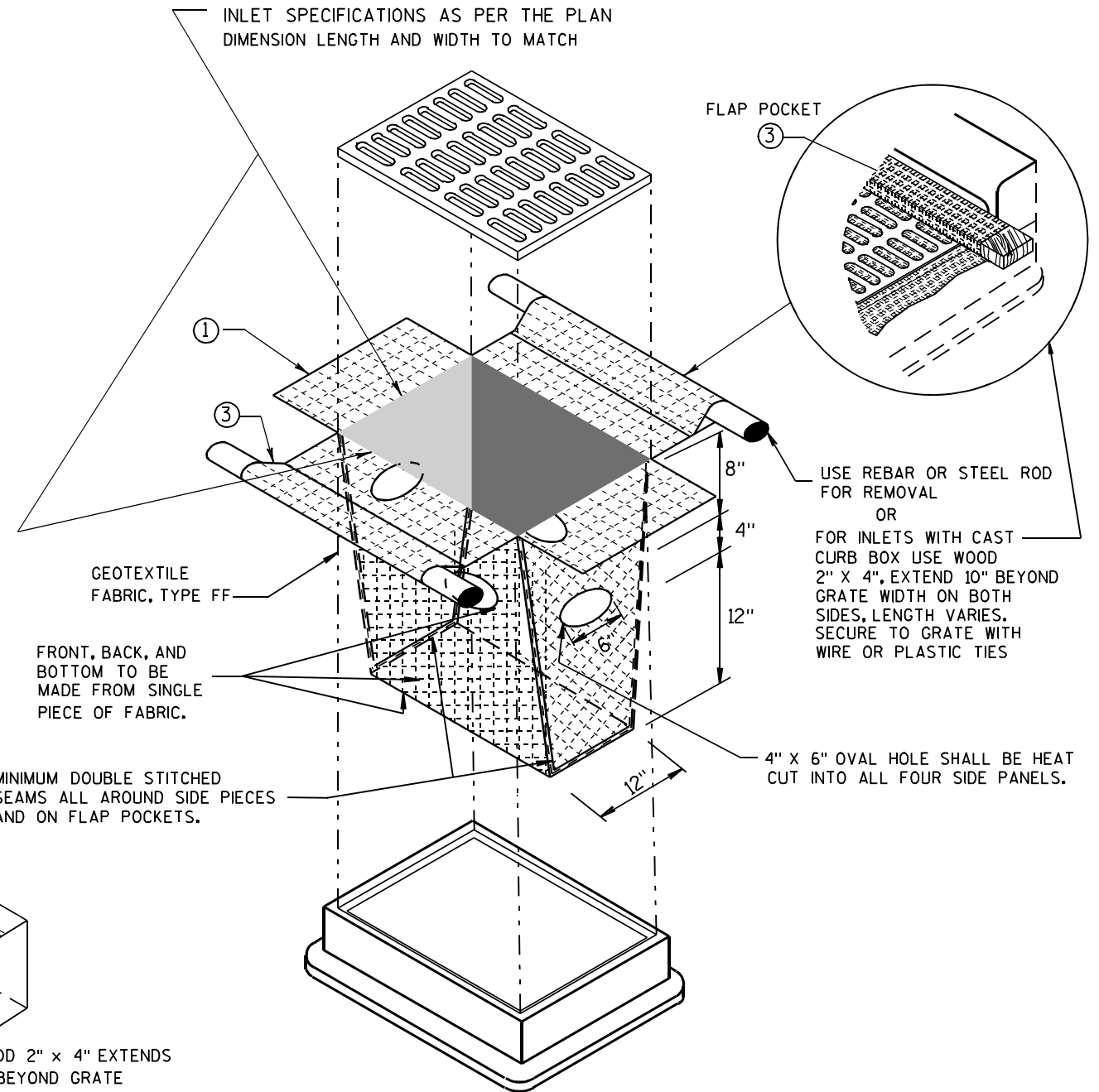
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

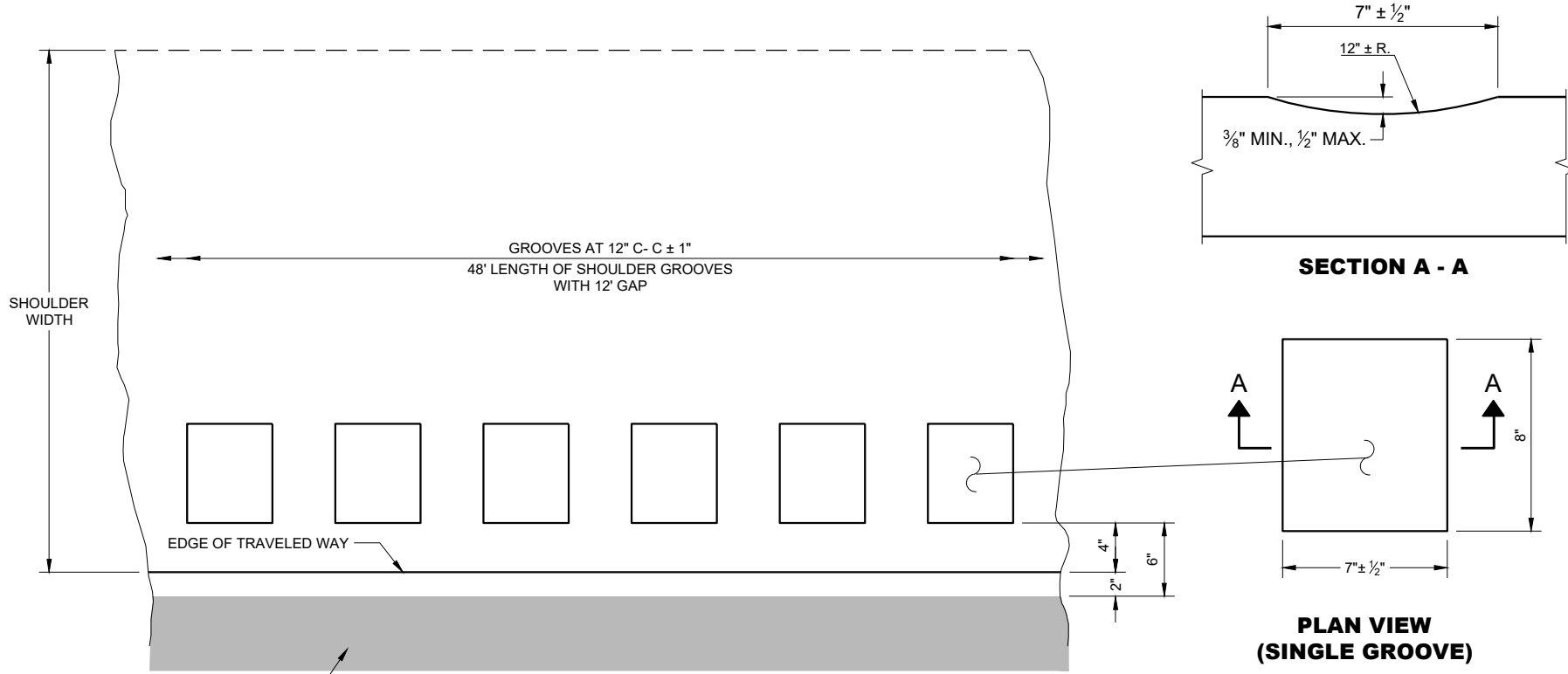
(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/S/ Beth Conestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

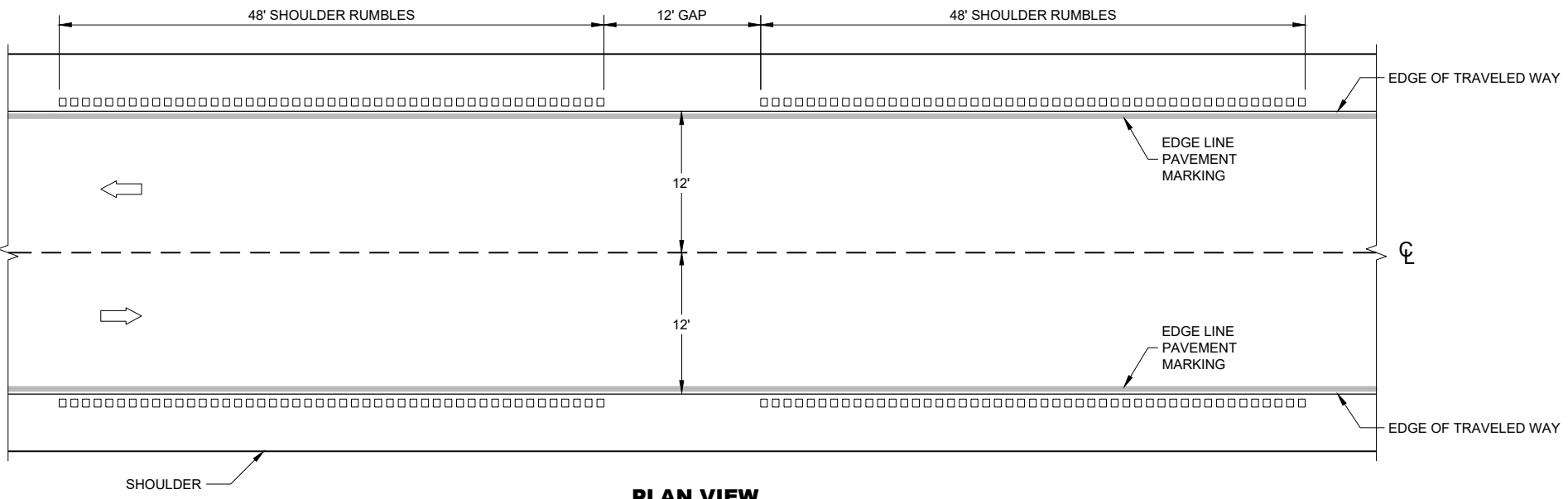
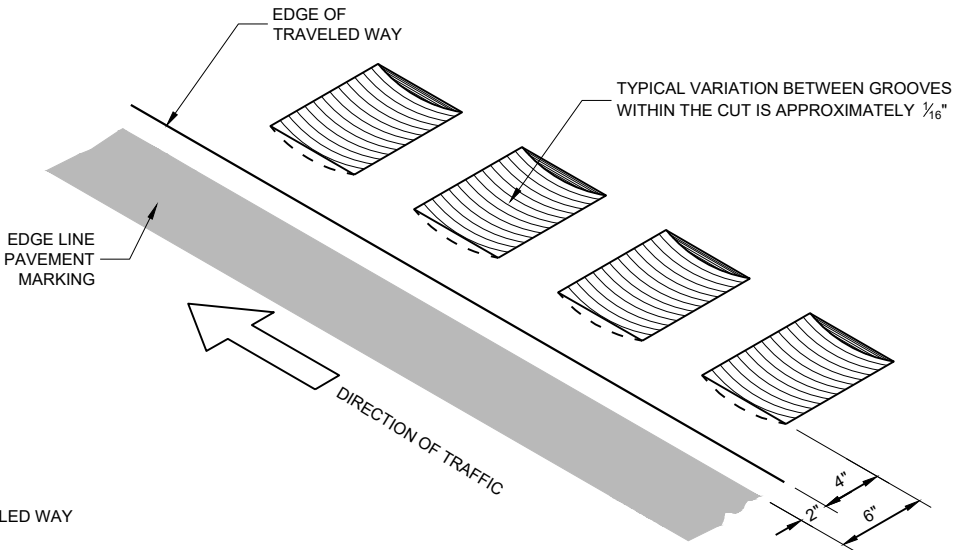
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A10 SHEETS "g" AND "h".

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



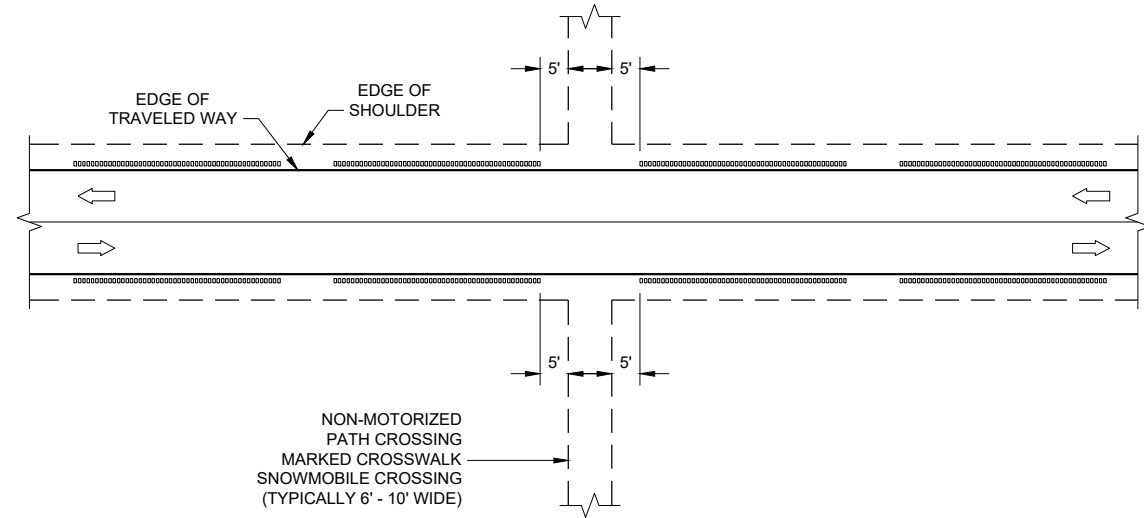
**PLAN DETAIL VIEW
SHOULDER WITH GROOVES**



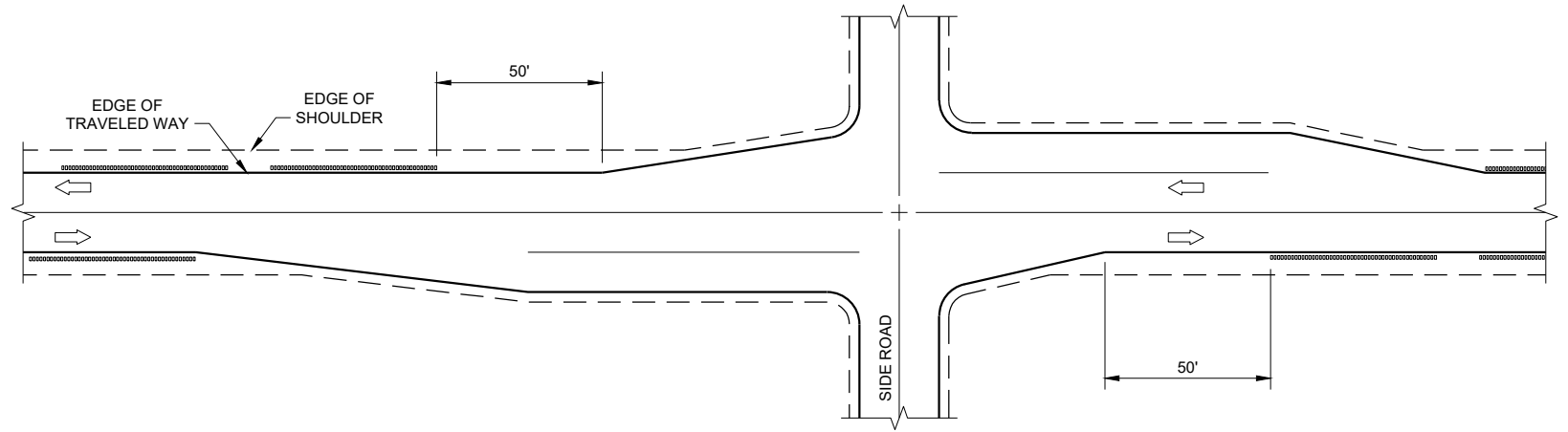
SHOULDER RUMBLE STRIPS - ASPHALT

SHOULDER RUMBLE STRIPS ASPHALT

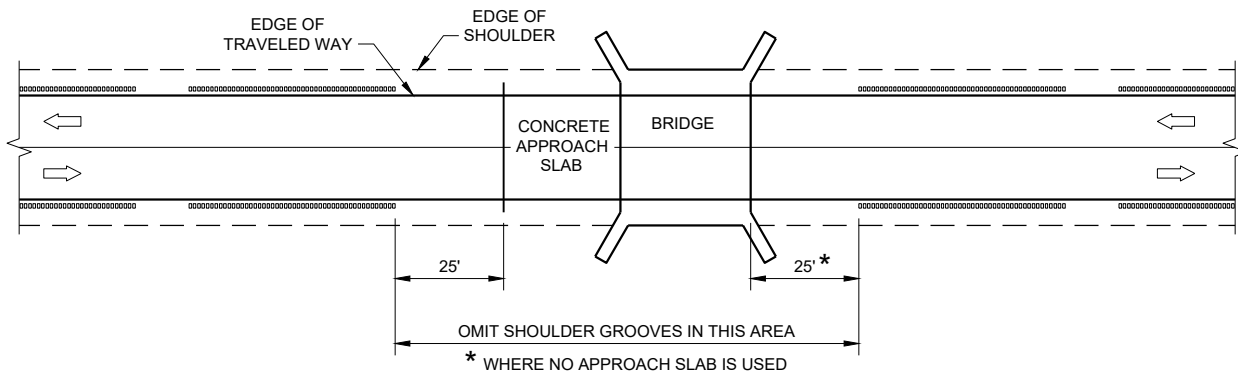
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



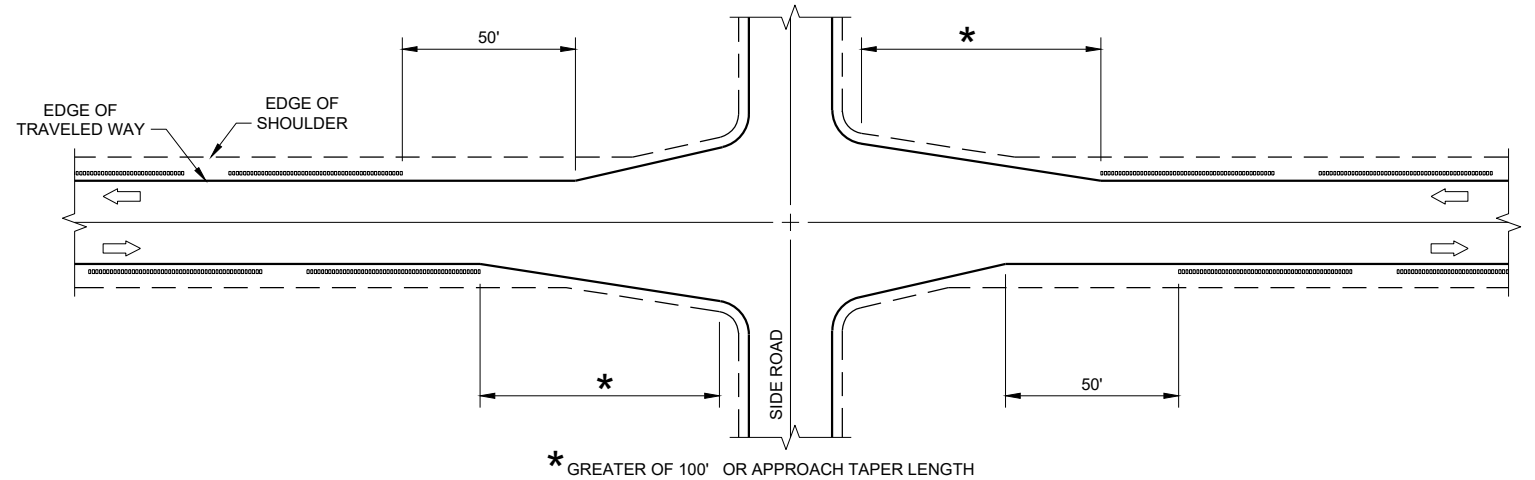
GROOVES AT MISCELLANEOUS CROSSINGS



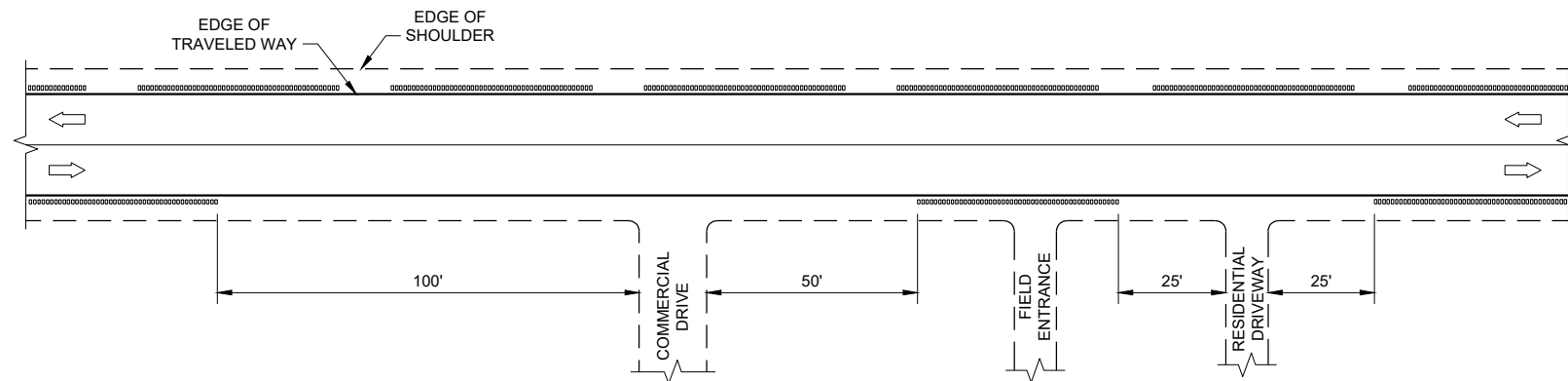
GROOVES AT RIGHT TURN LANE



GROOVES AT BRIDGES



GROOVES AT INTERSECTIONS WITH APPROACH TAPER



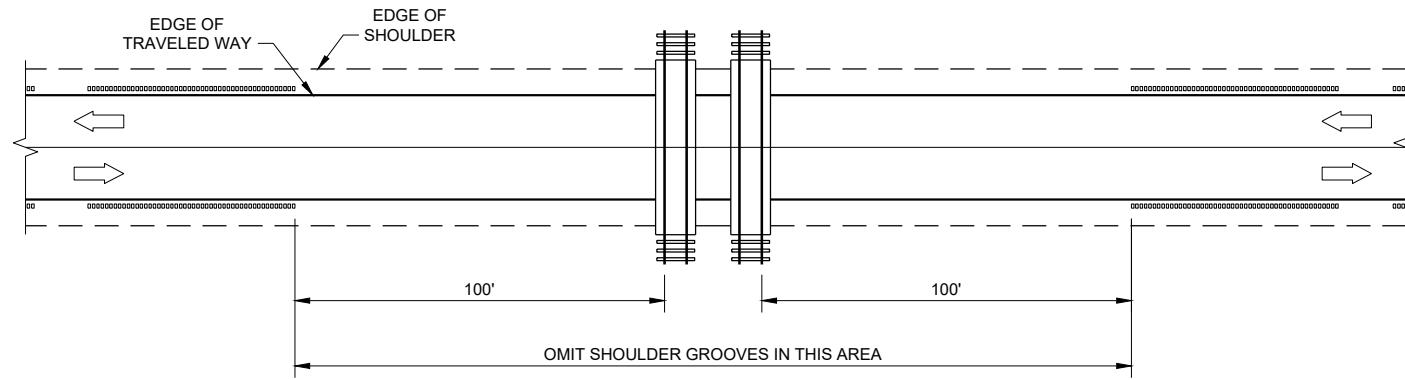
GROOVES AT DRIVEWAYS

GENERAL NOTES

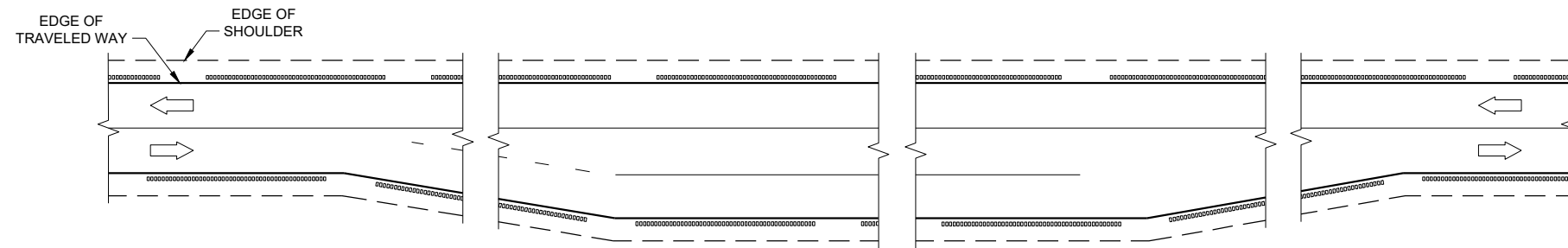
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**SHOULDER AND EDGE LINE
RUMBLE STRIPS
CROSSINGS, INTERSECTIONS,
BRIDGES, DRIVEWAYS**

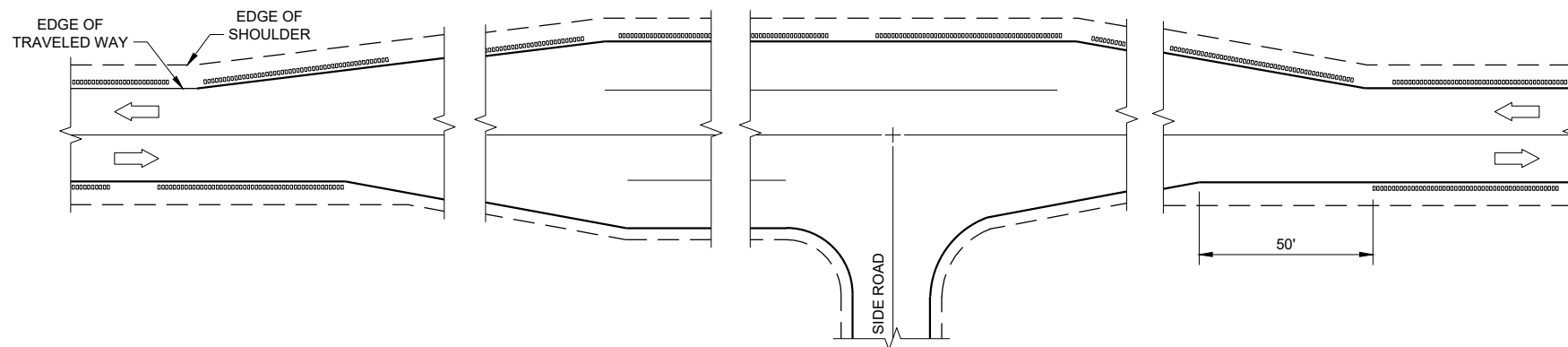
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GROOVES AT RAILROADS



GROOVES AT PASSING AND CLIMBING LANES



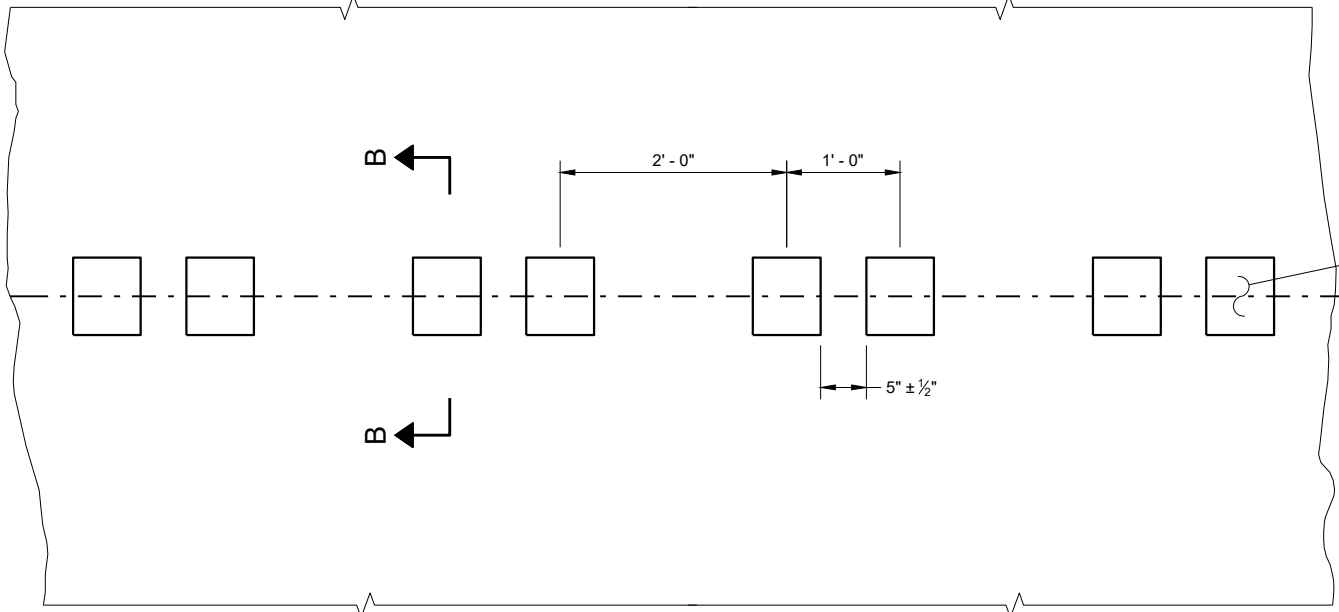
GROOVES AT BYPASS LANES

SHOULDER AND EDGE LINE RUMBLE STRIPS - RAILROAD, PASSING, CLIMBING AND BYPASS LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	

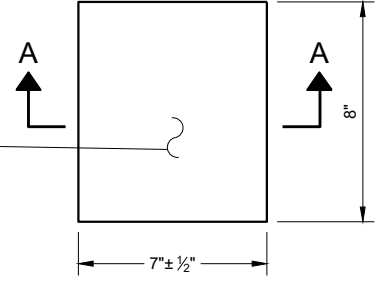
GENERAL NOTES

DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

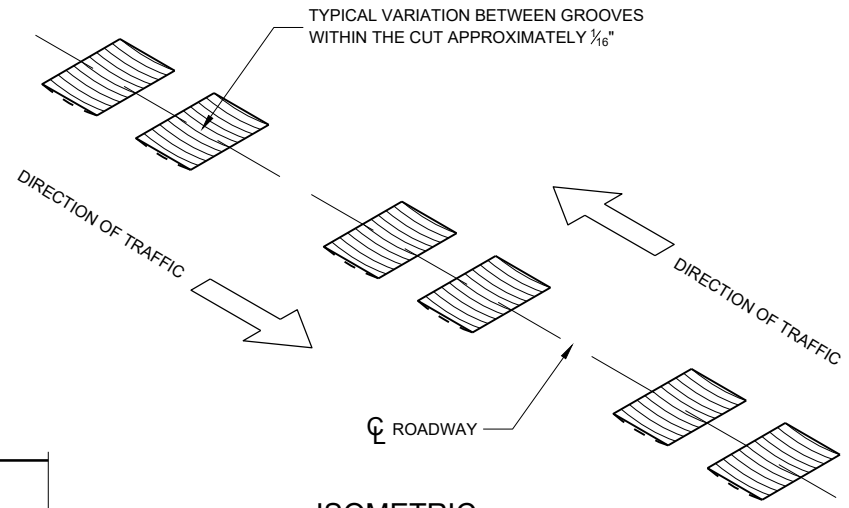
CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS WHEN DIRECTED BY THE ENGINEER.



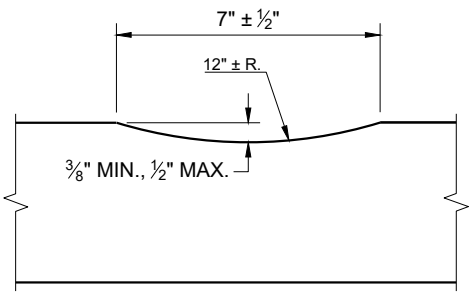
PLAN DETAIL VIEW



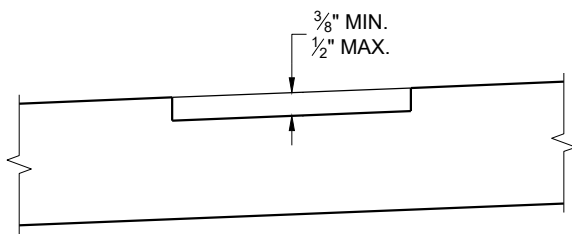
PLAN VIEW (SINGLE GROOVE)



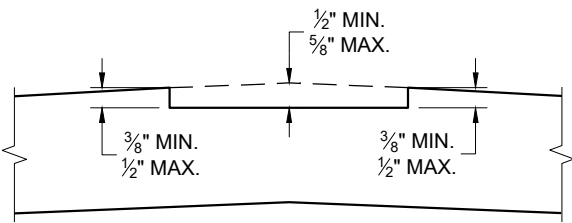
ISOMETRIC



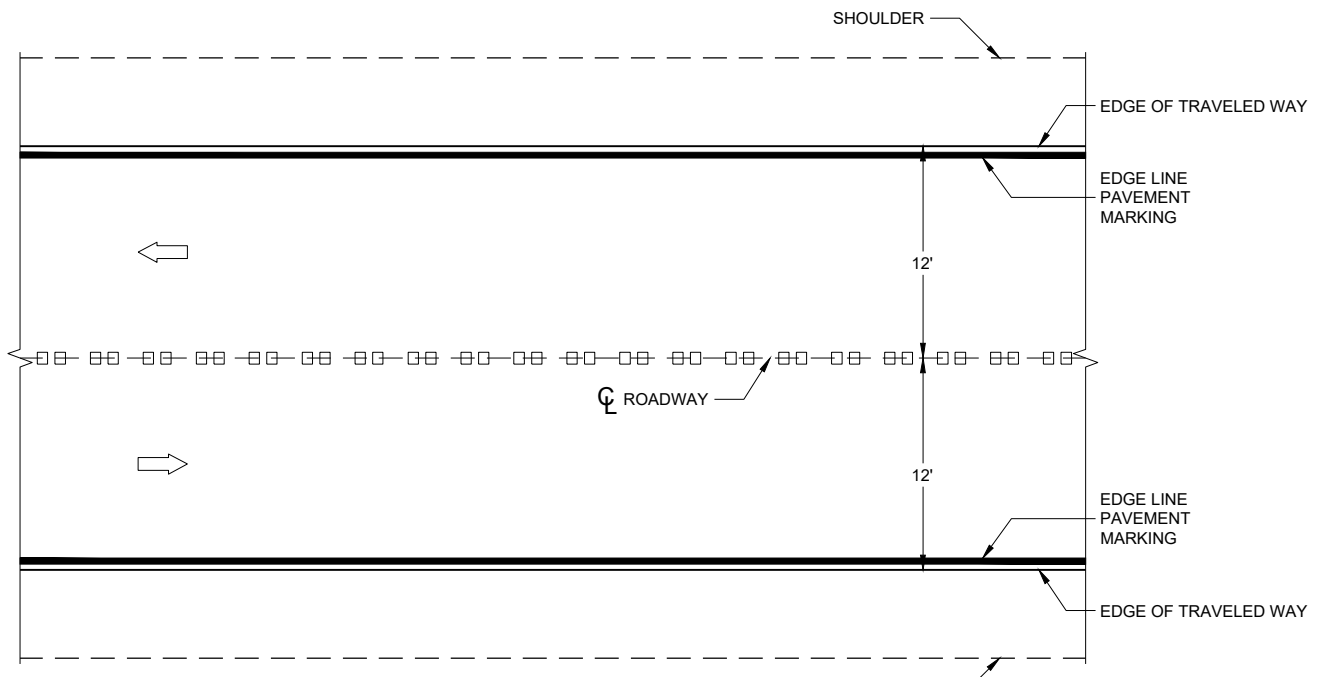
SECTION A - A



SECTION B - B SUPERELEVATED ROADWAY



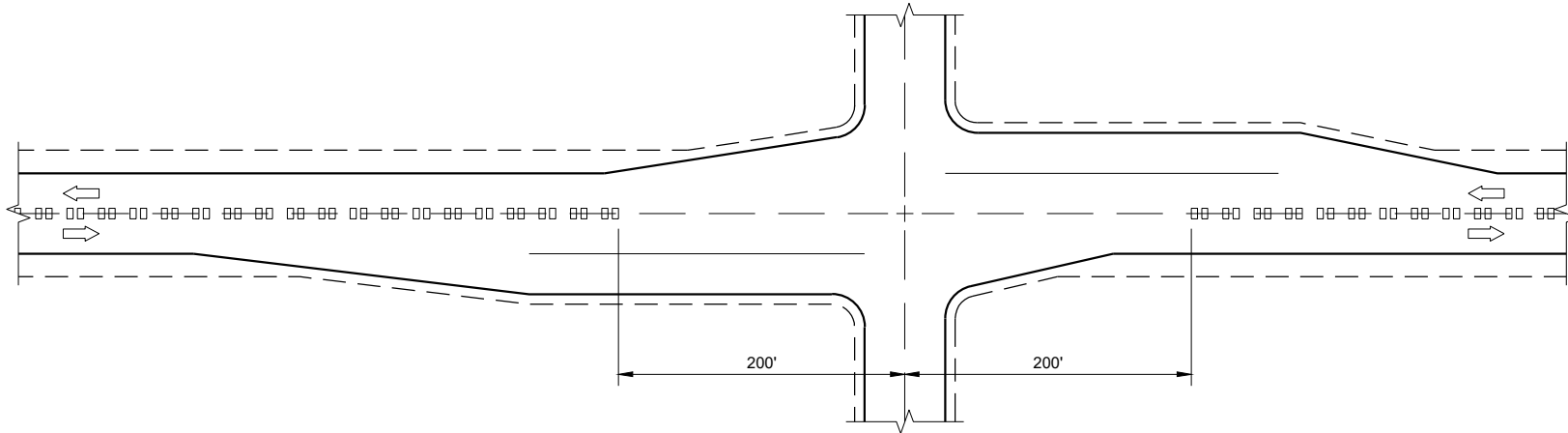
SECTION B - B CROWNED ROADWAY



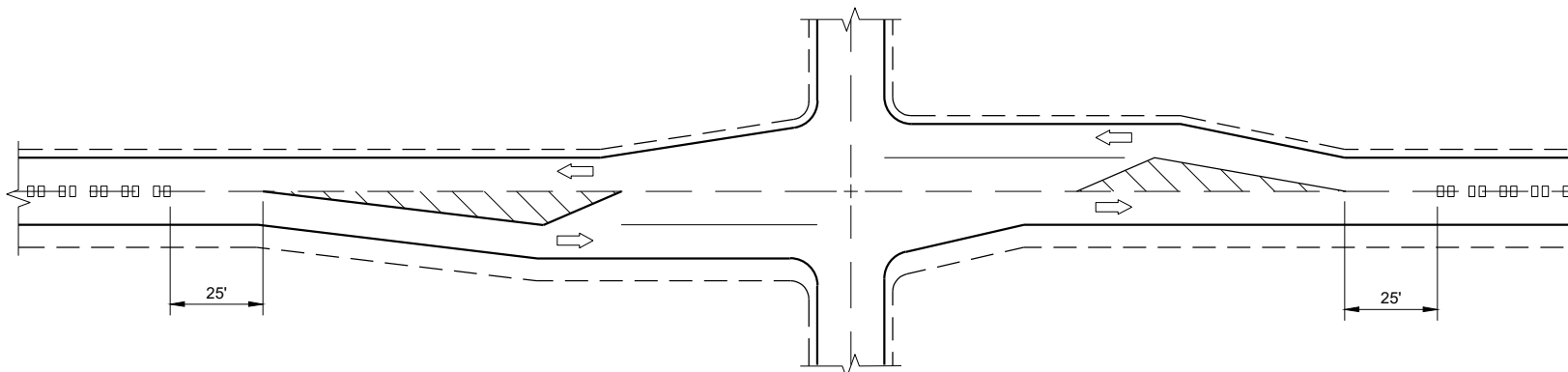
PLAN VIEW

CENTERLINE RUMBLE STRIPS - ASPHALT

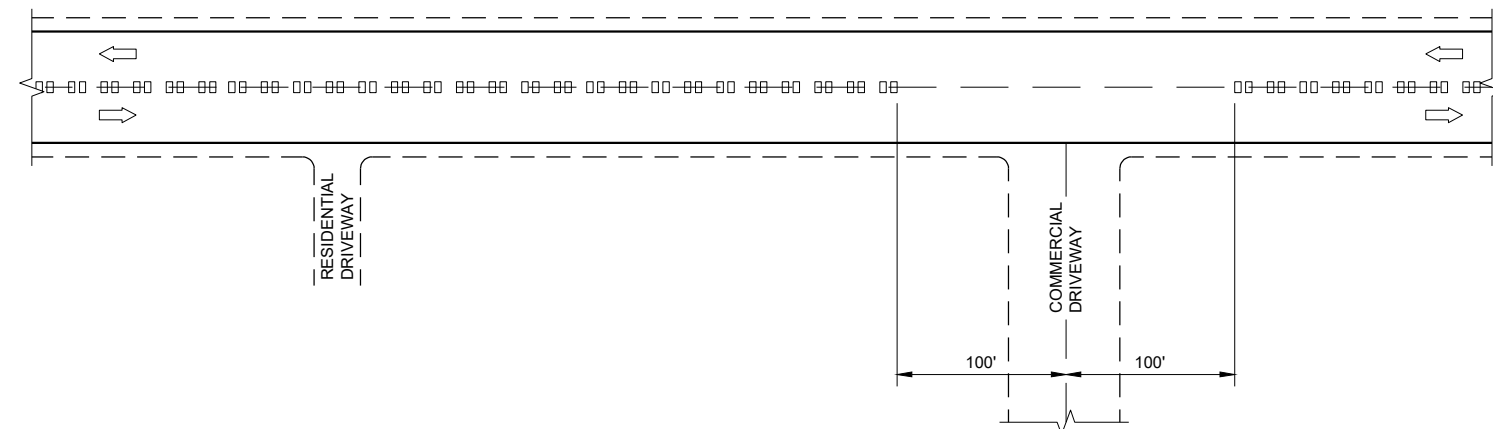
CENTERLINE RUMBLE STRIPS - ASPHALT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



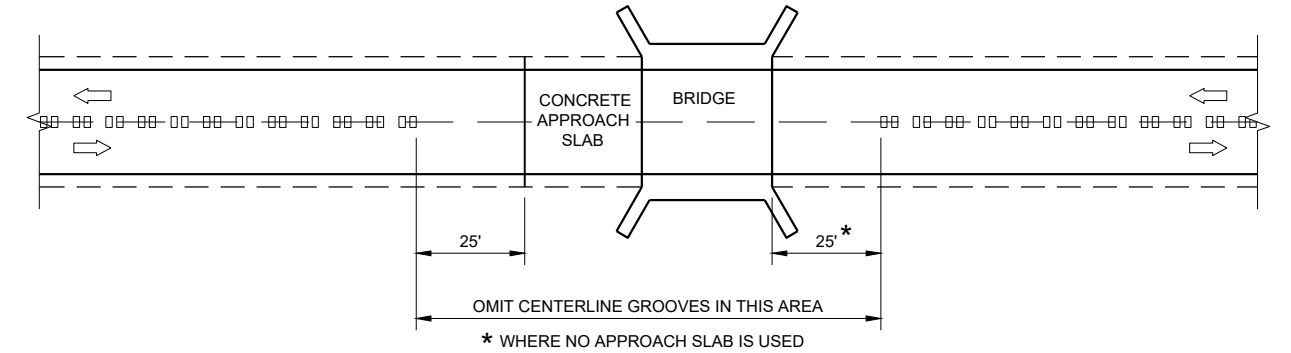
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



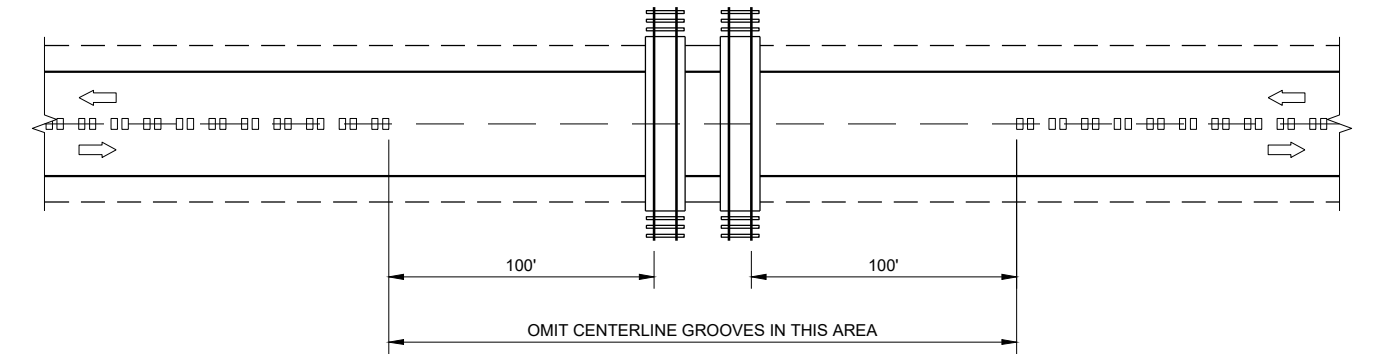
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

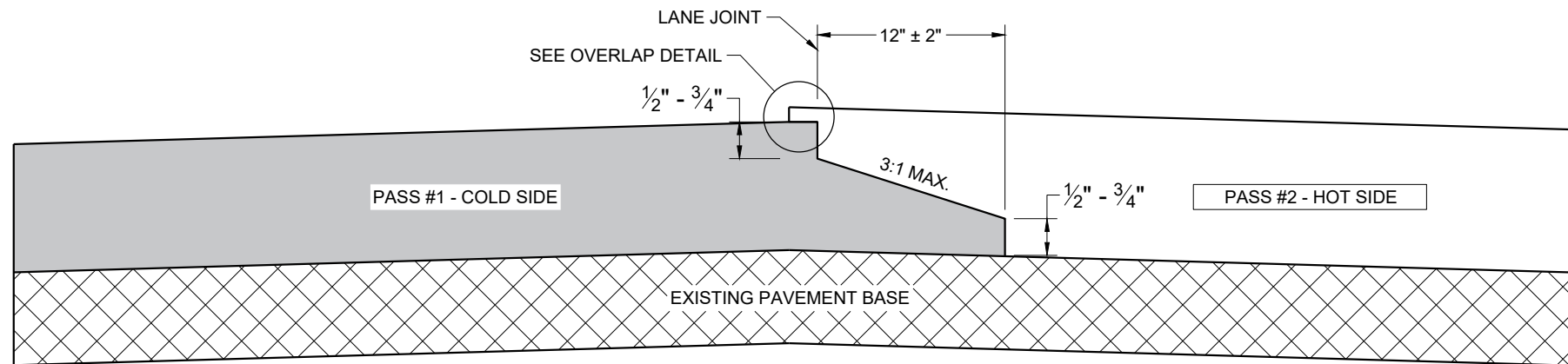
6

6

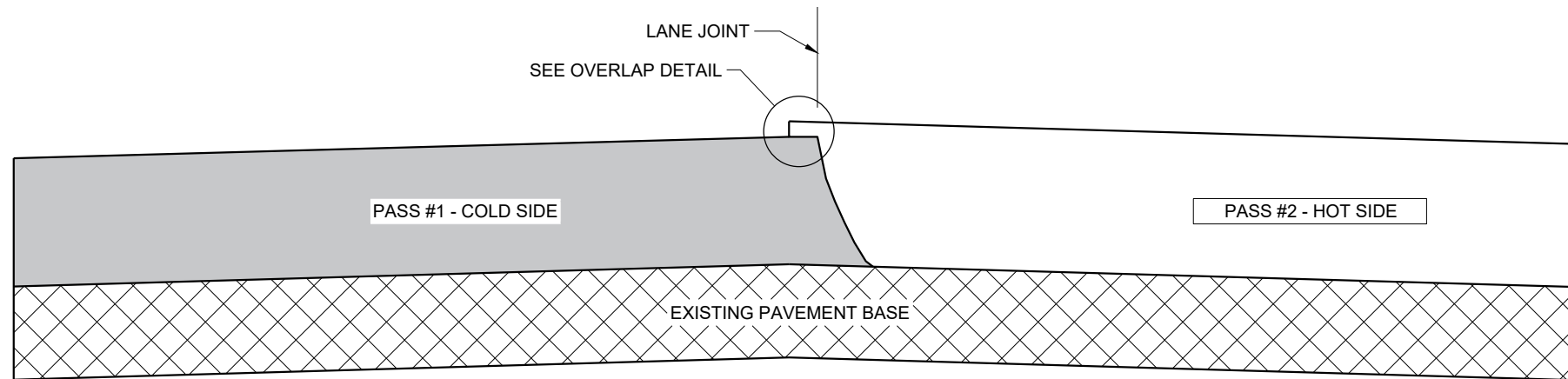
SDD 13A11 - 04d

SDD 13A11 - 04d

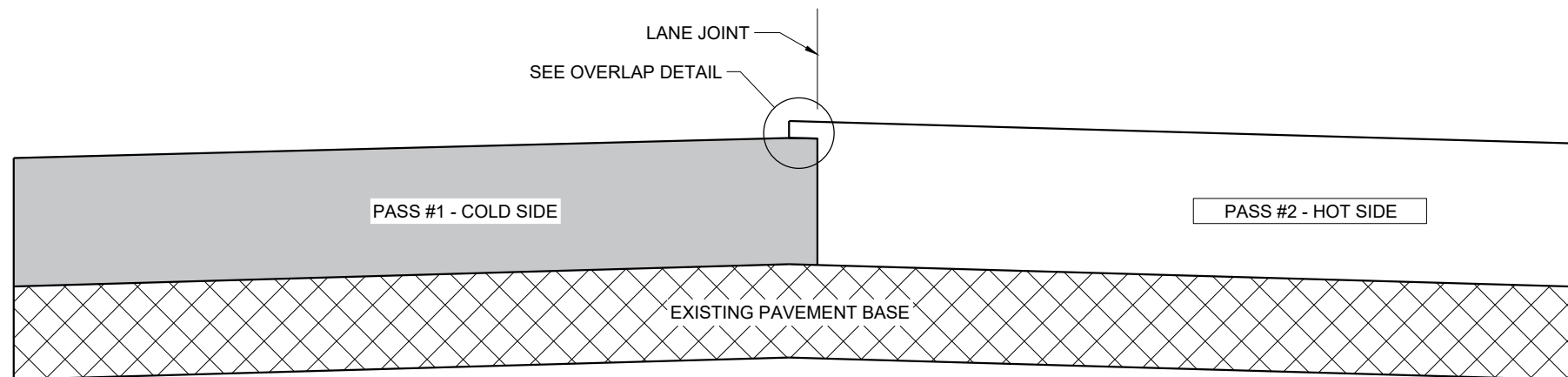
CENTER LINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAIL ROADS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ John Jenkins ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

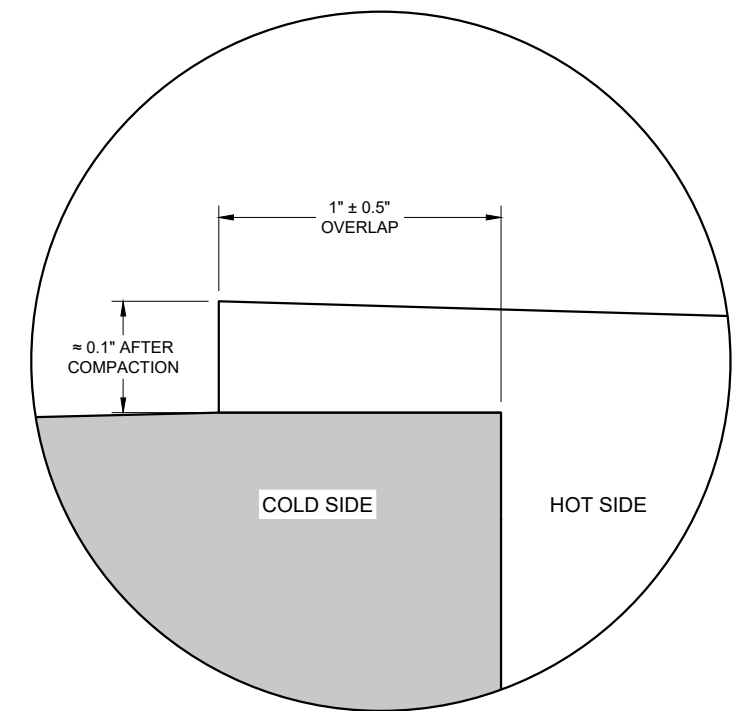
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY $0.1"$ AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO $2"$ FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

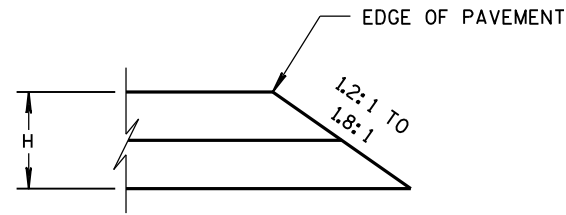
6

6

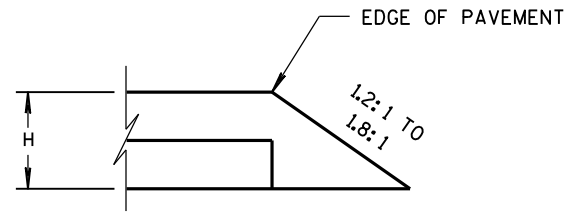
SDD 13C19 - 03

SDD 13C19 - 03

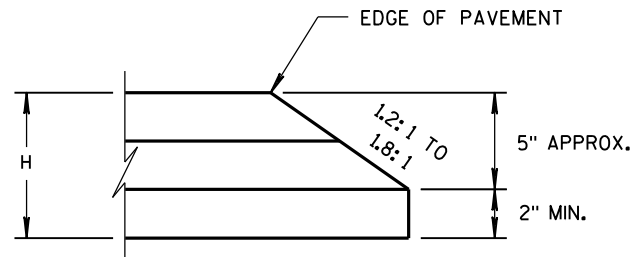
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



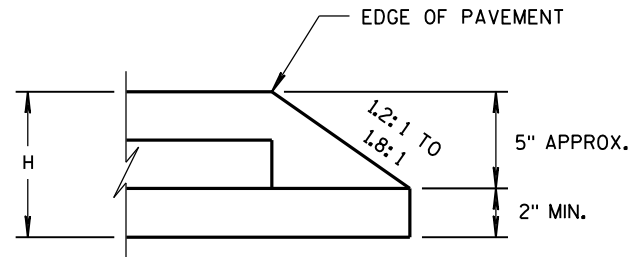
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

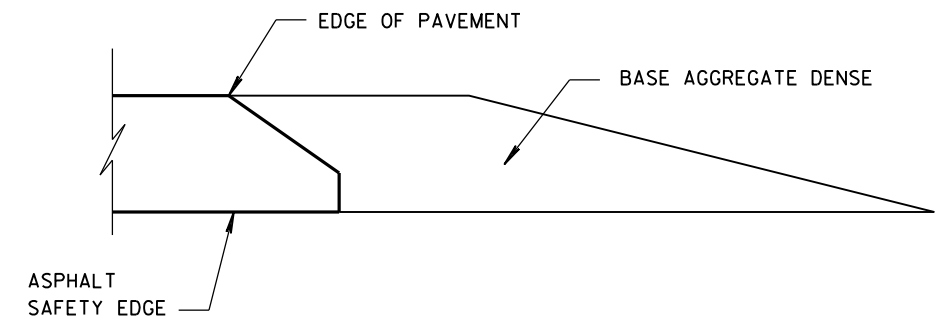


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

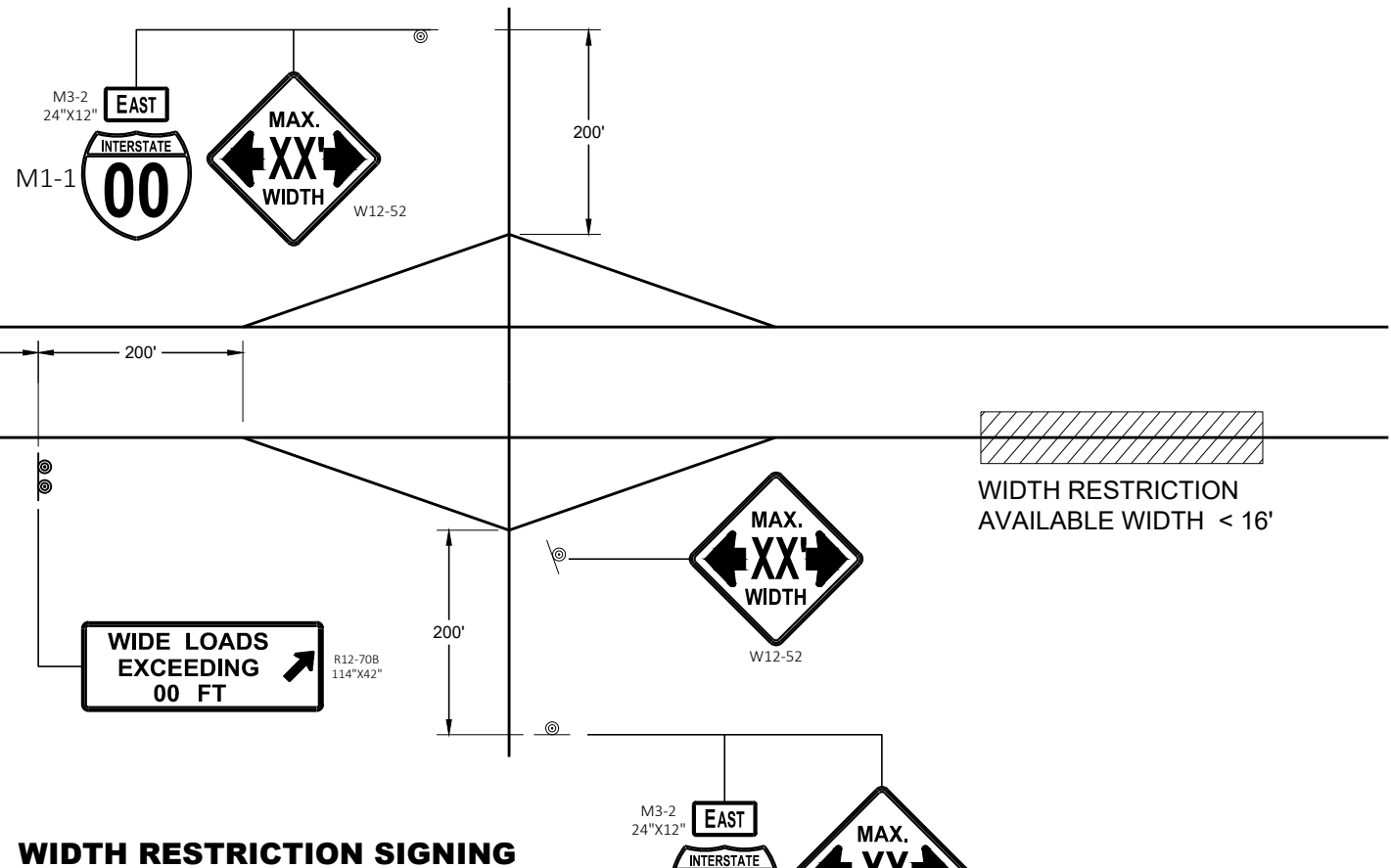
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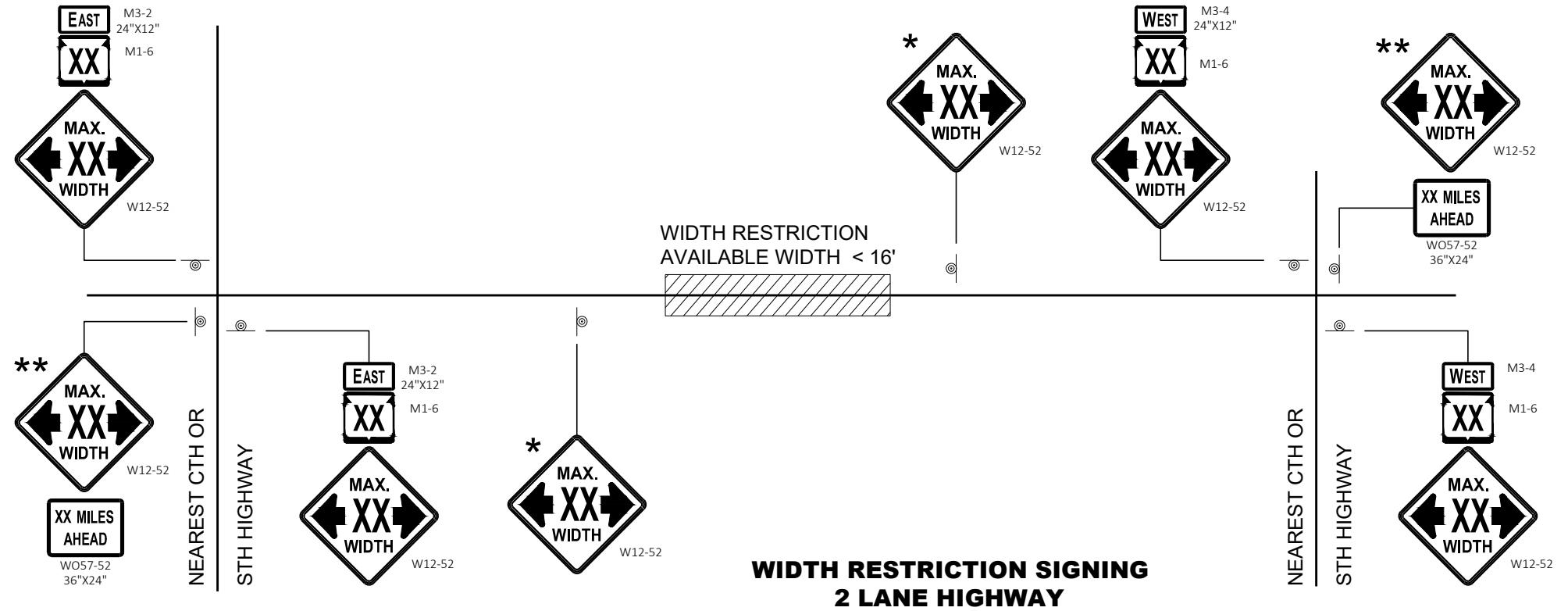
S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



WIDTH RESTRICTION SIGNING



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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" X 48" UNLESS OTHERWISE NOTED.

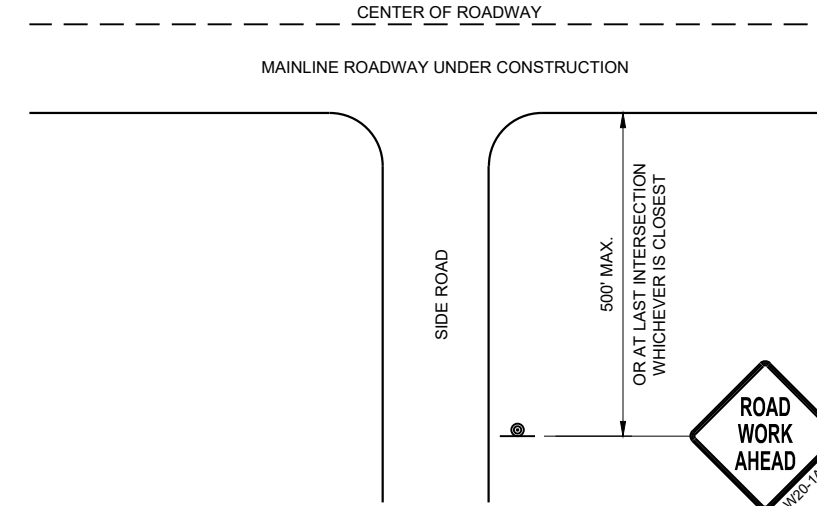
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 REESTABLISHED.

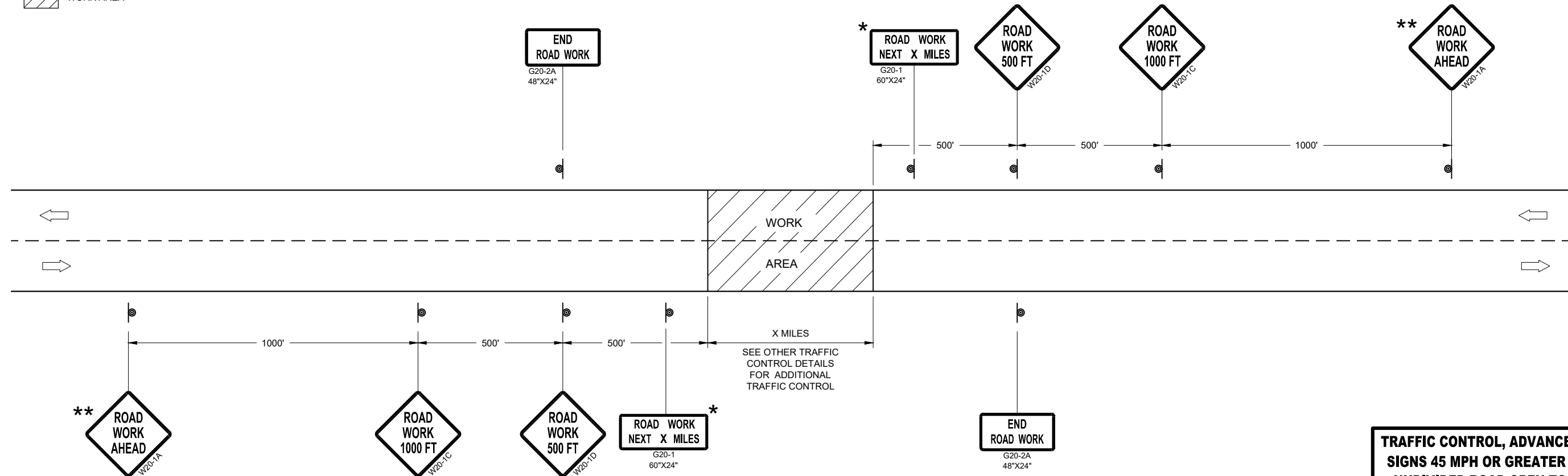
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER




FHWA

GENERAL NOTES

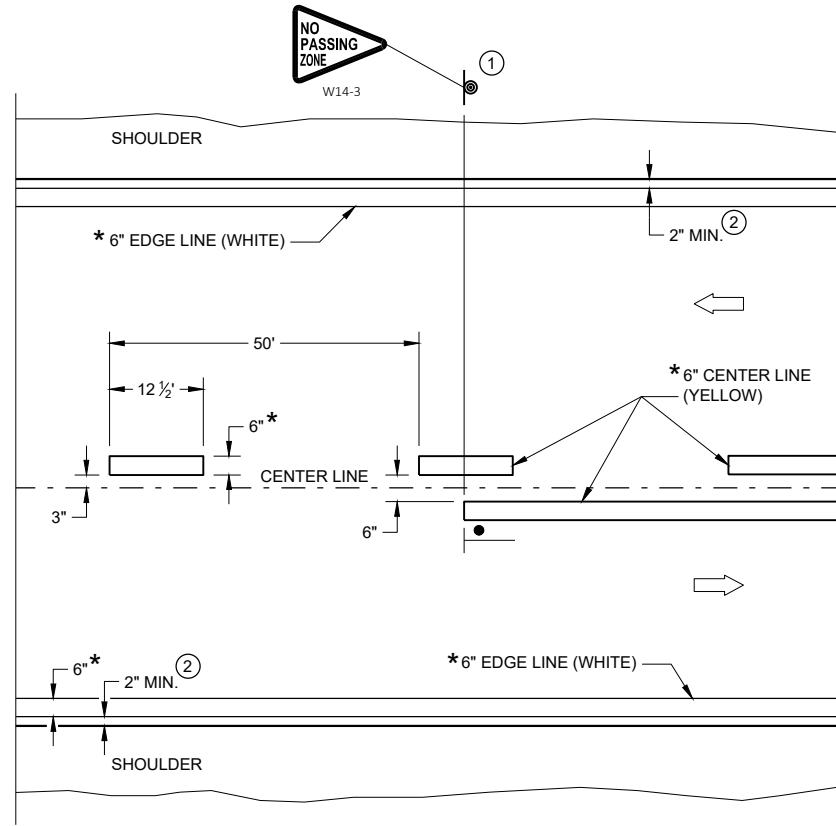
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

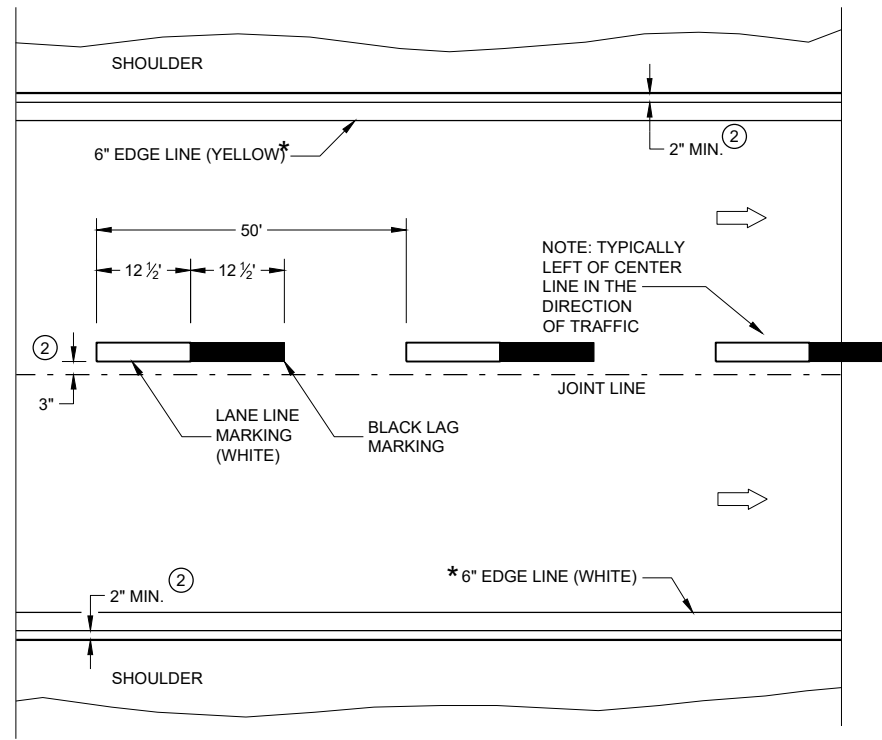
LEGEND

-  "T" MARKING
-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



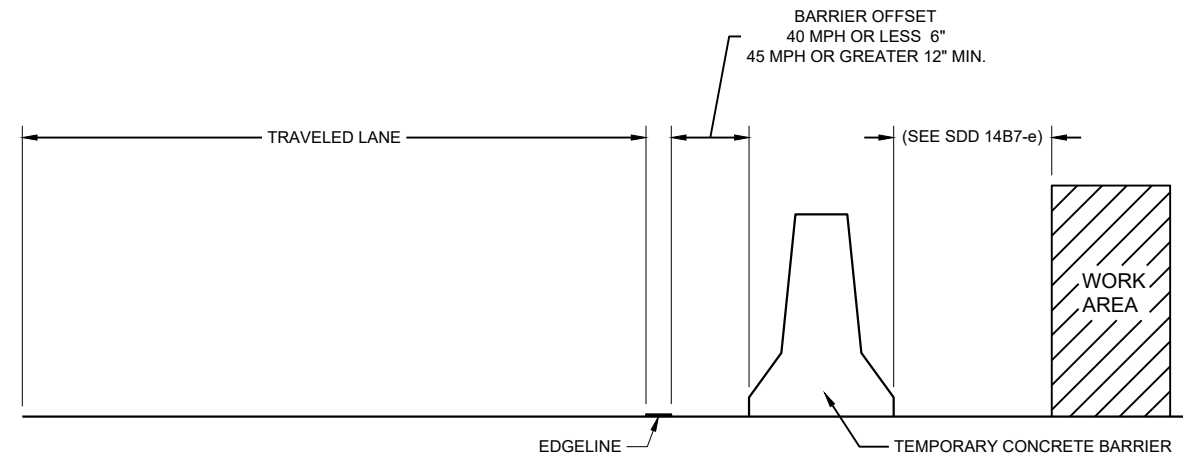
ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING ENGINEER



TEMPORARY BARRIER OFFSET FROM EDGE LINE

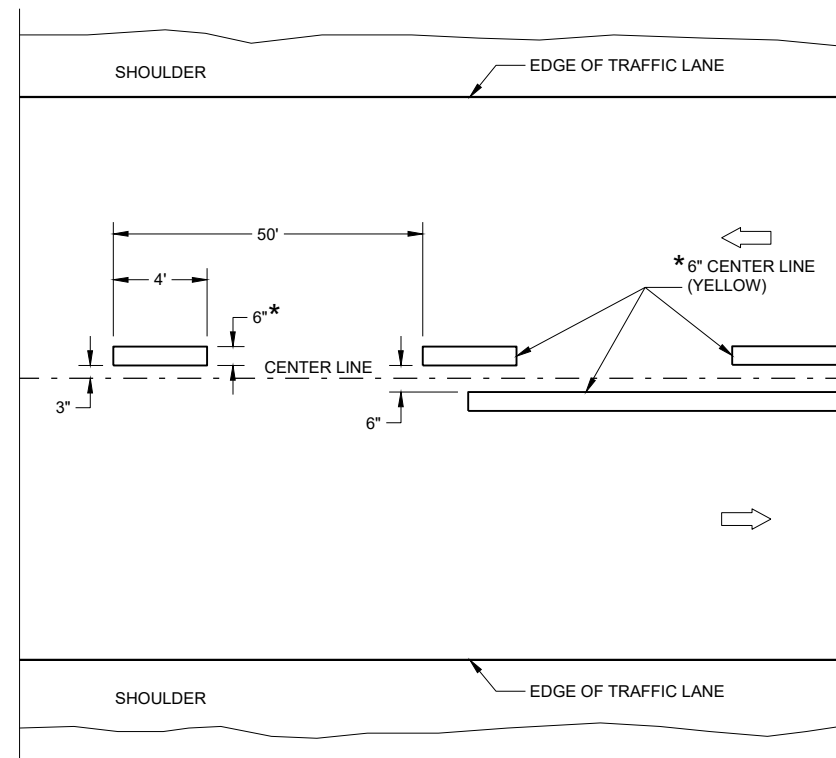
GENERAL NOTES

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

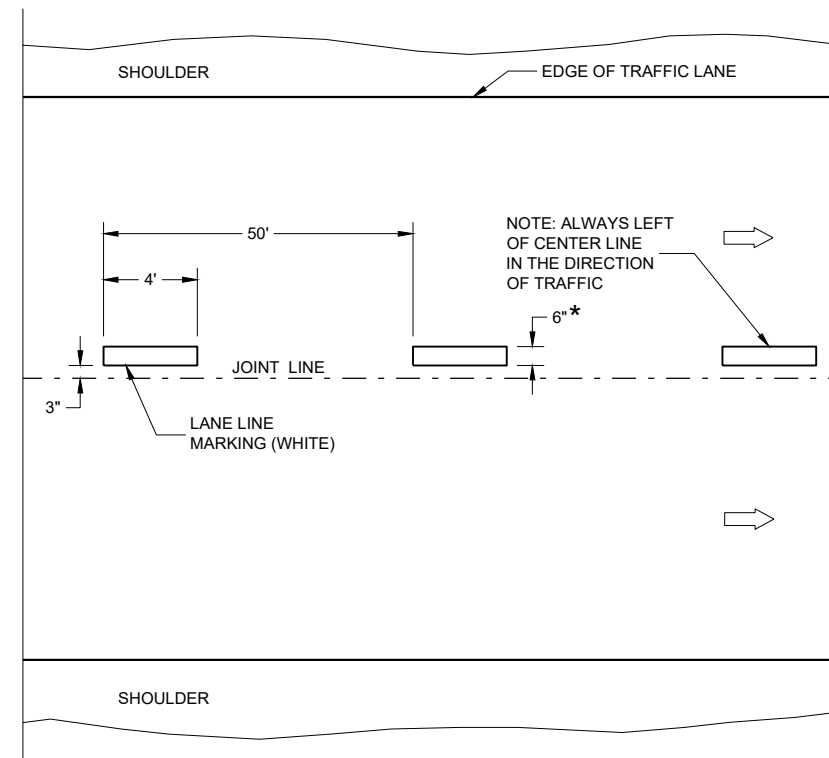
LEGEND

➡ DIRECTION OF TRAFFIC

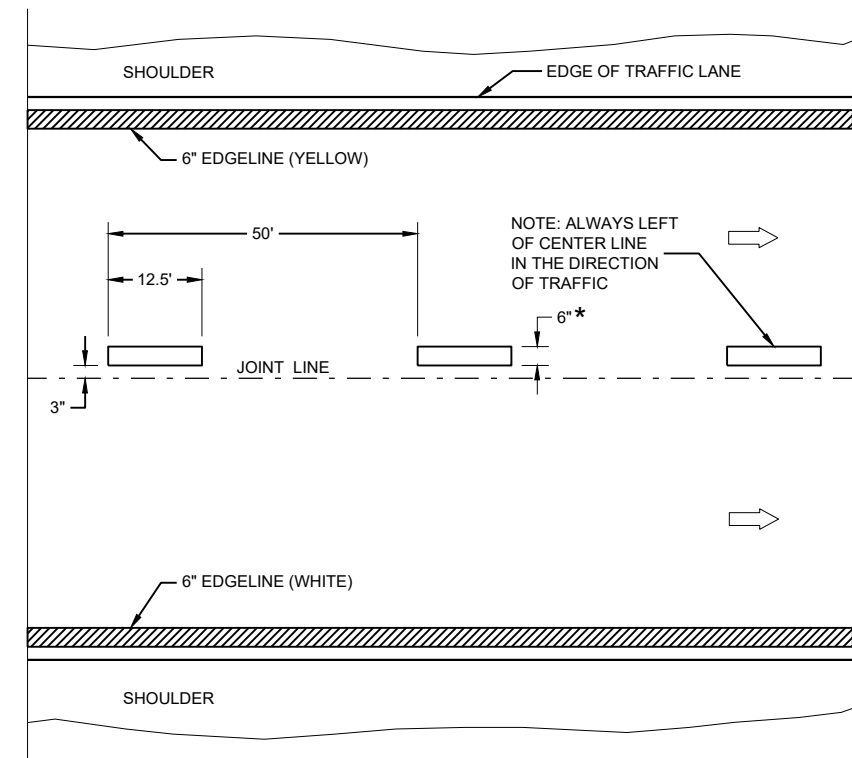
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

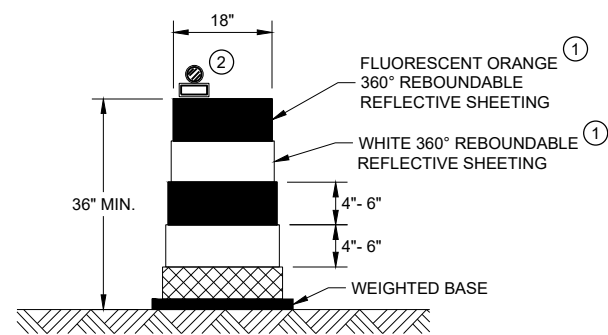
TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

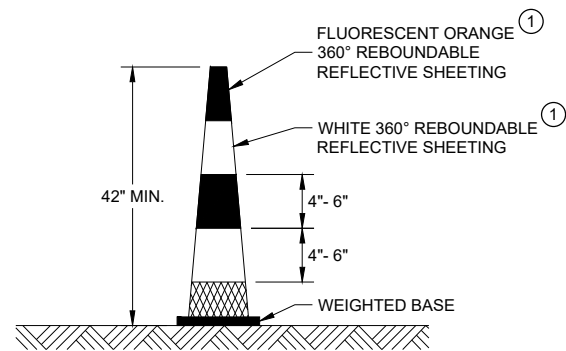
APPROVED
May 2023 /S/ Jeannie Silver
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

FHWA



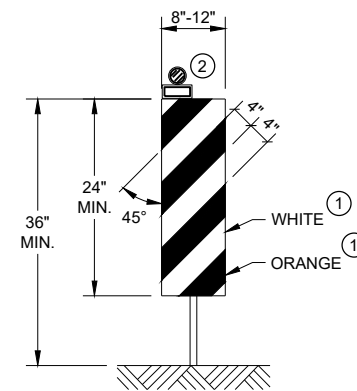
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

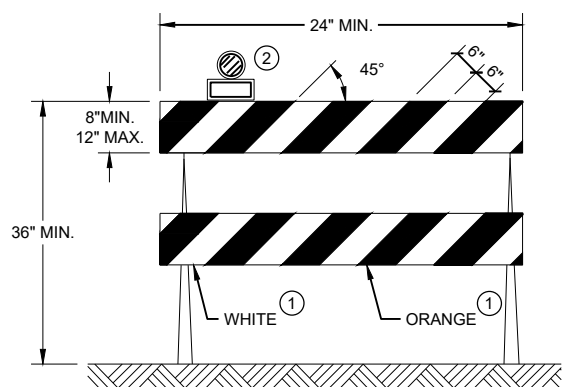


VERTICAL PANEL

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

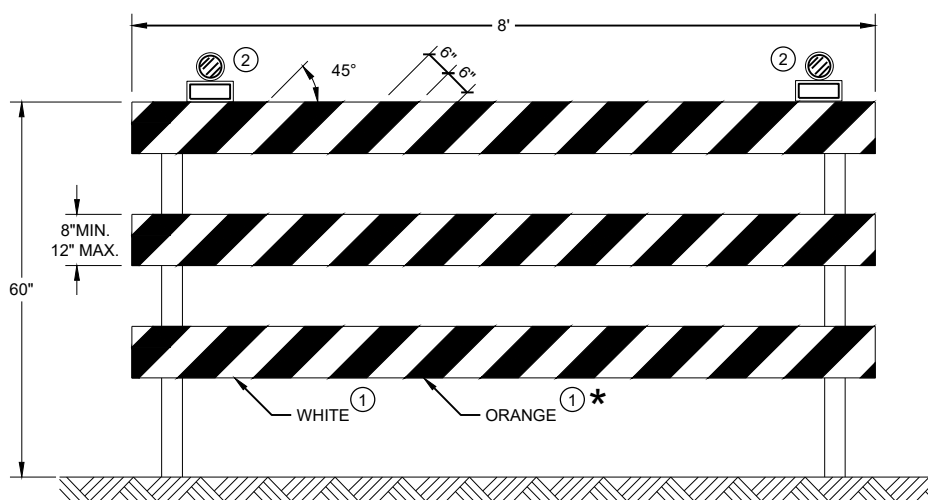
GENERAL NOTES

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2022 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER
 FHWA

LEGEND

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

GENERAL NOTES

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

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

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

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND 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.

FLAGGING

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

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' 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.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

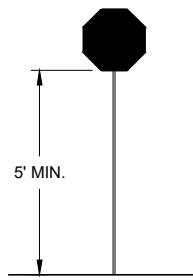
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



STOP/SLOW PADDLE ON SUPPORT STAFF

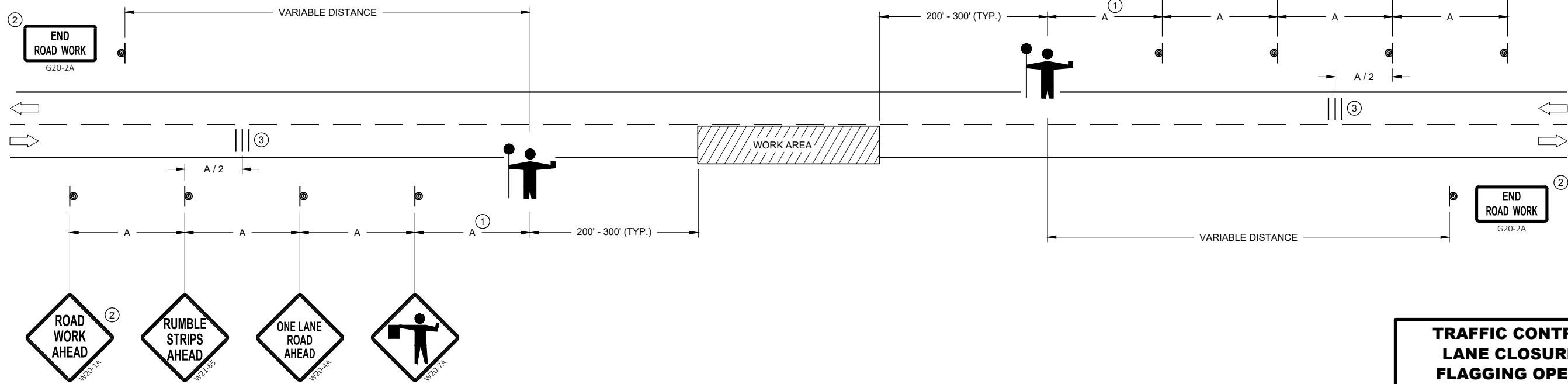
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W03-4

USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



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SDD 15C12 - 09a

SDD 15C12 - 09a





TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2022 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC
-  FLASHING ARROW PANEL (CAUTION)

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 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.

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 AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

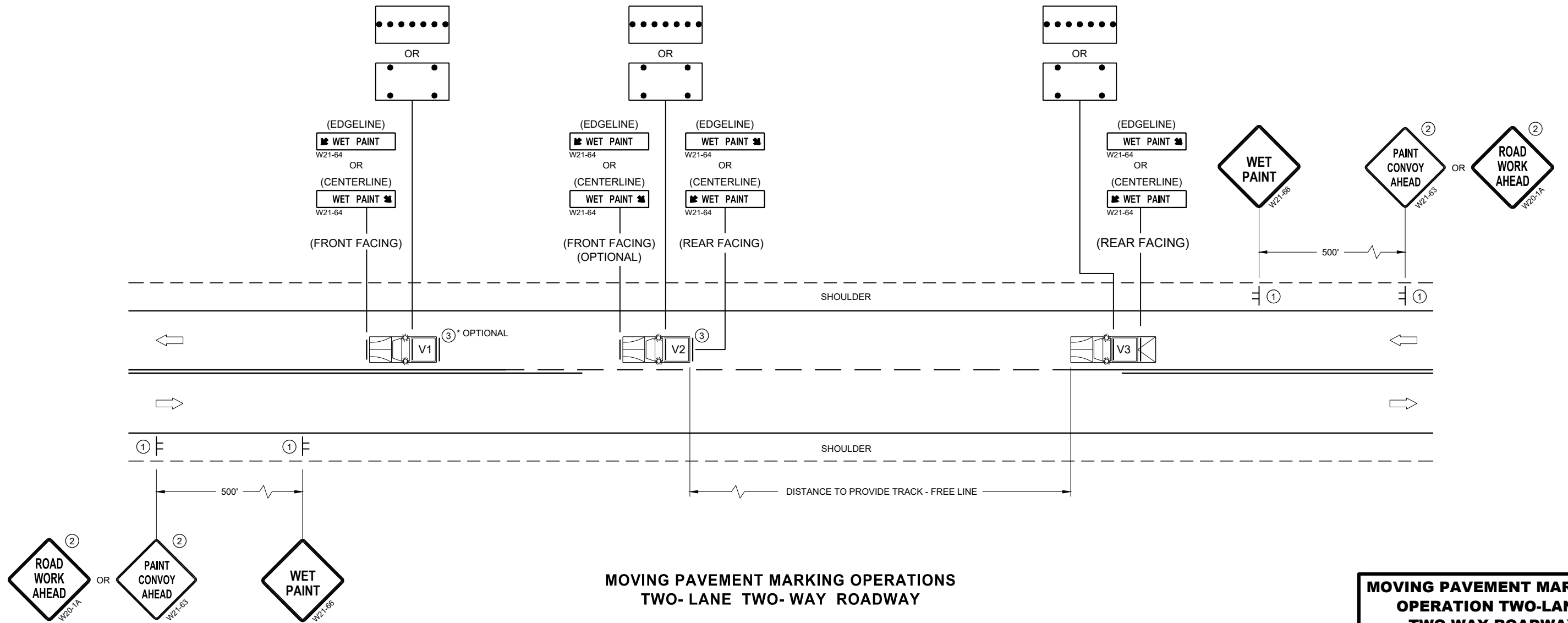
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

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**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-08a

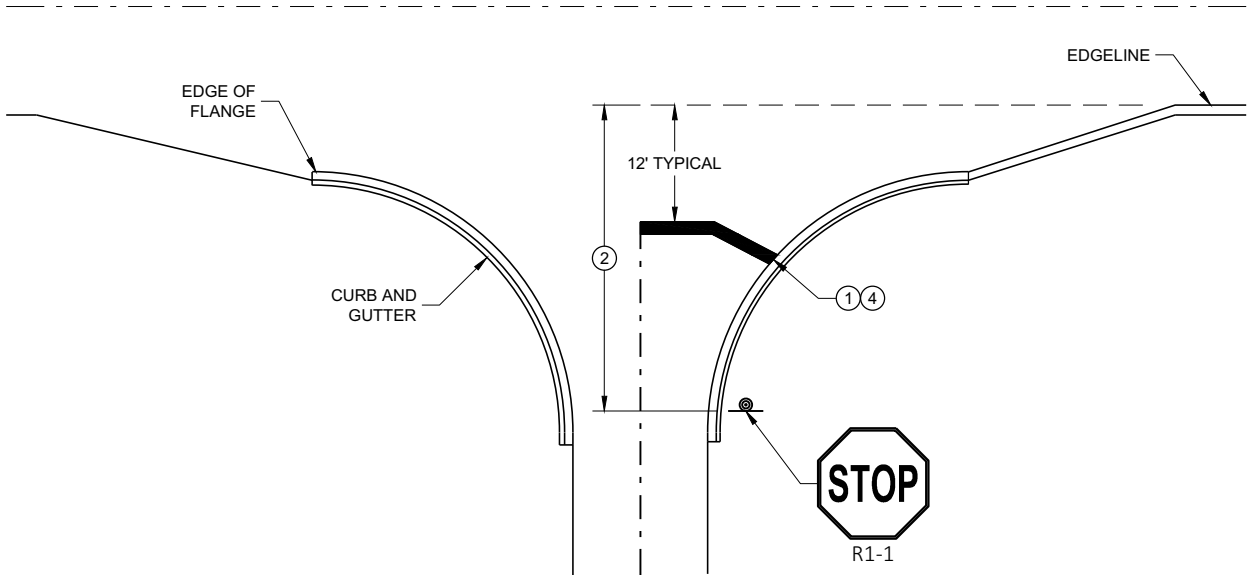
SDD 15C19-08a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

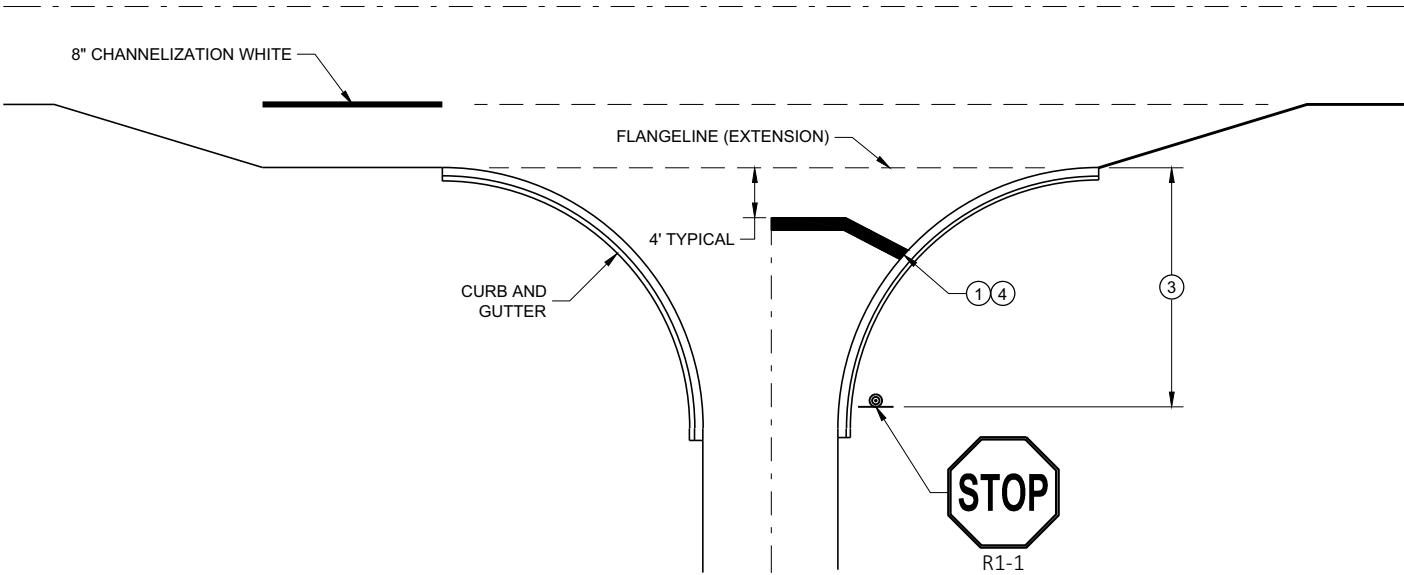
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

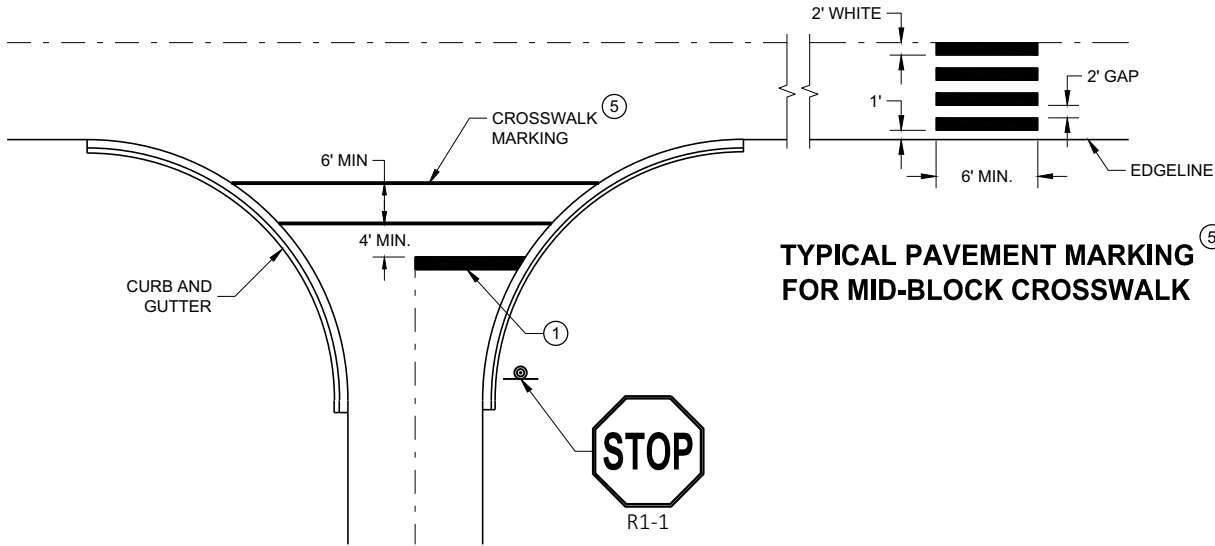
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

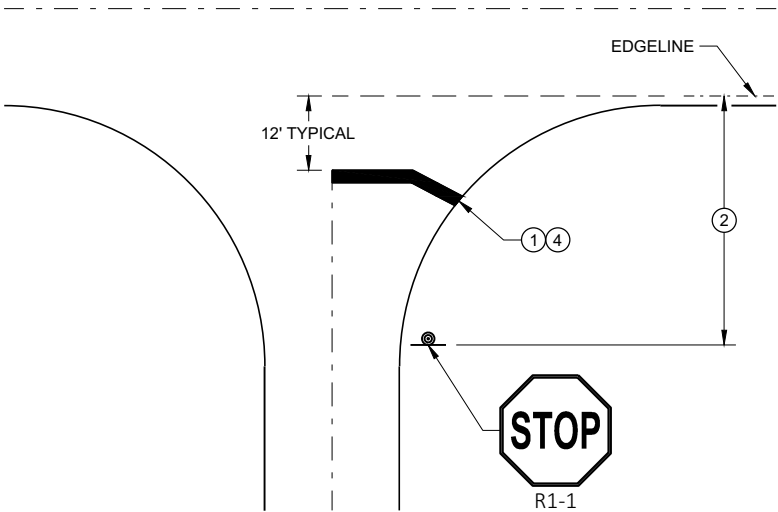


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



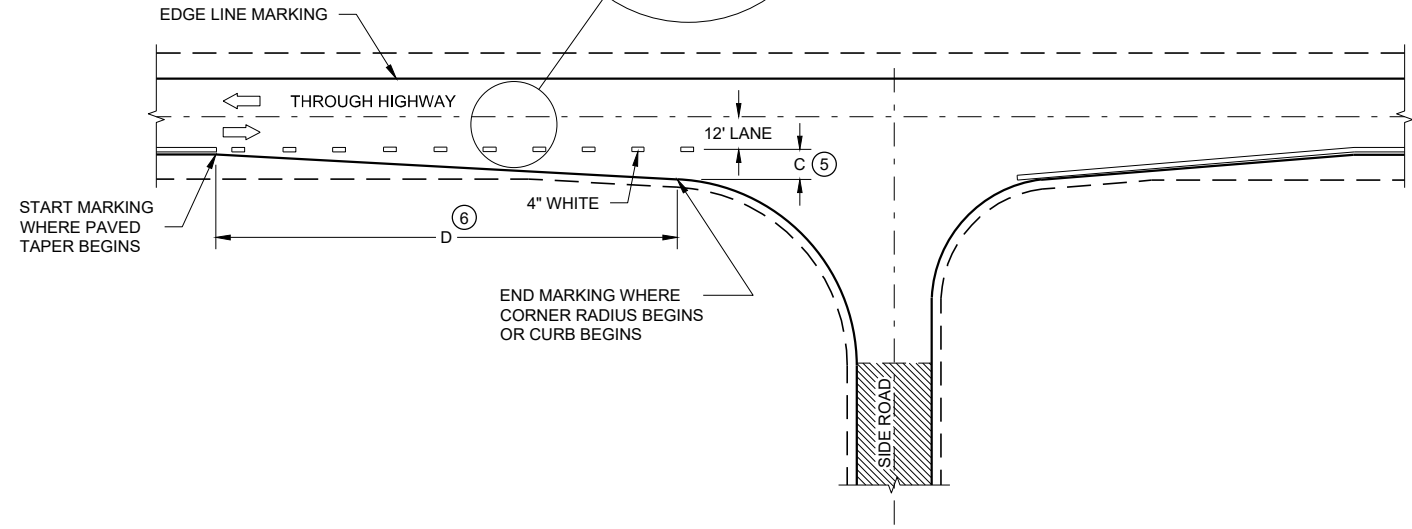
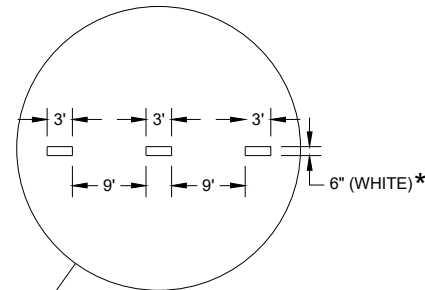
TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



MINOR INTERSECTION

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

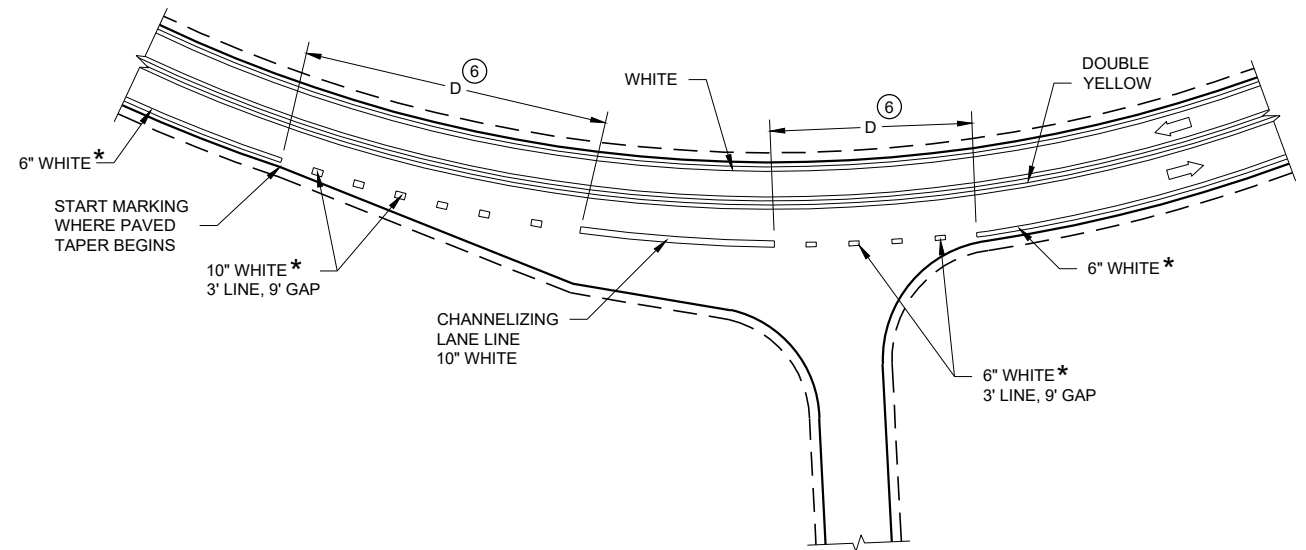
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

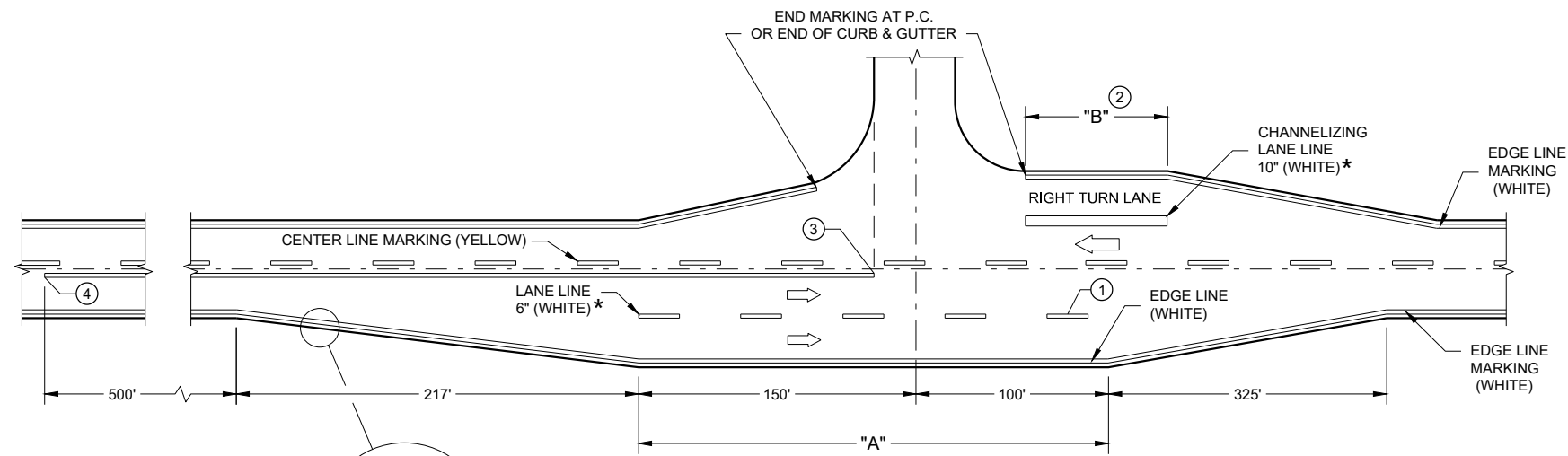
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

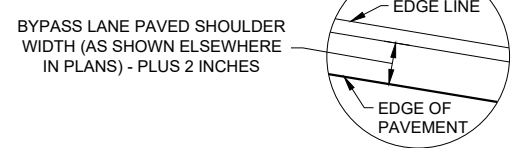
➔ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

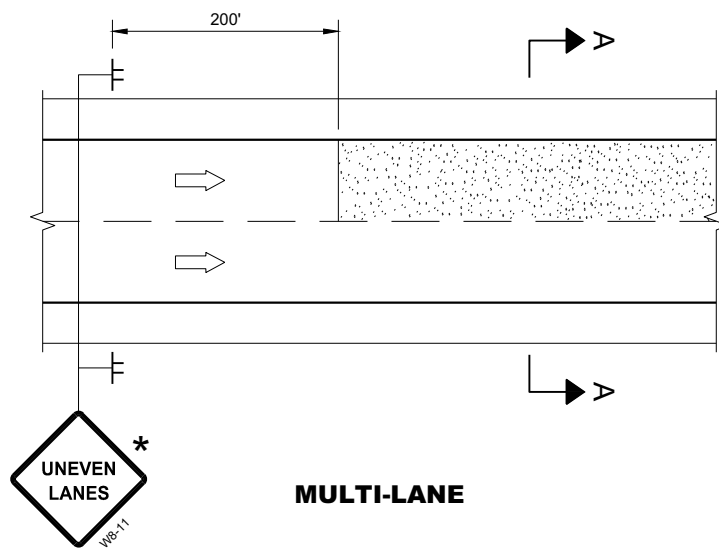


**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

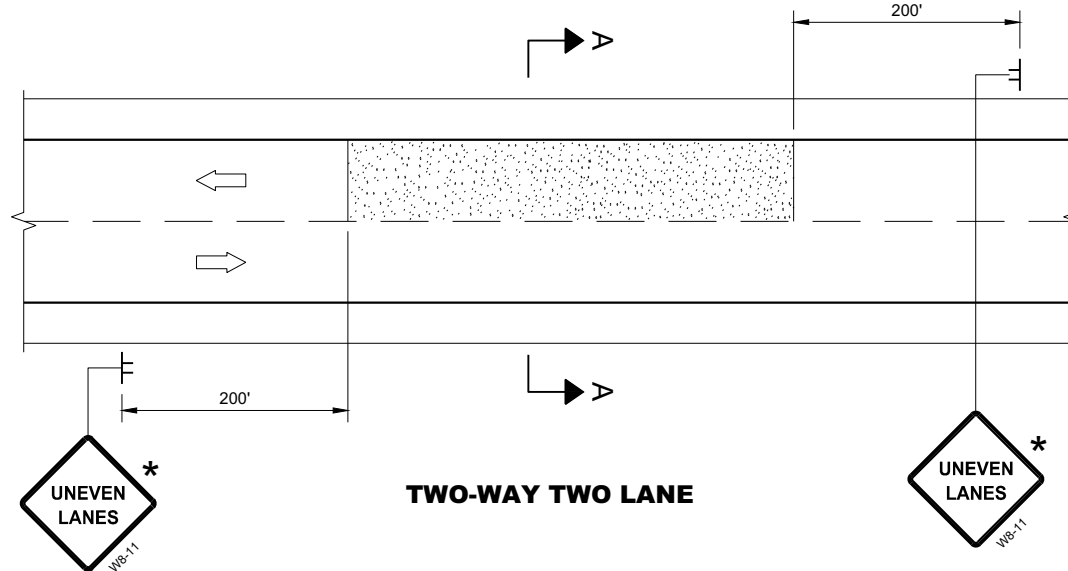


**PAVEMENT MARKING
(INTERSECTIONS)**

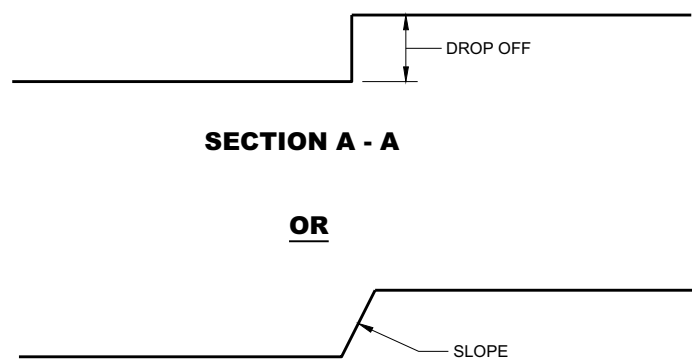
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE



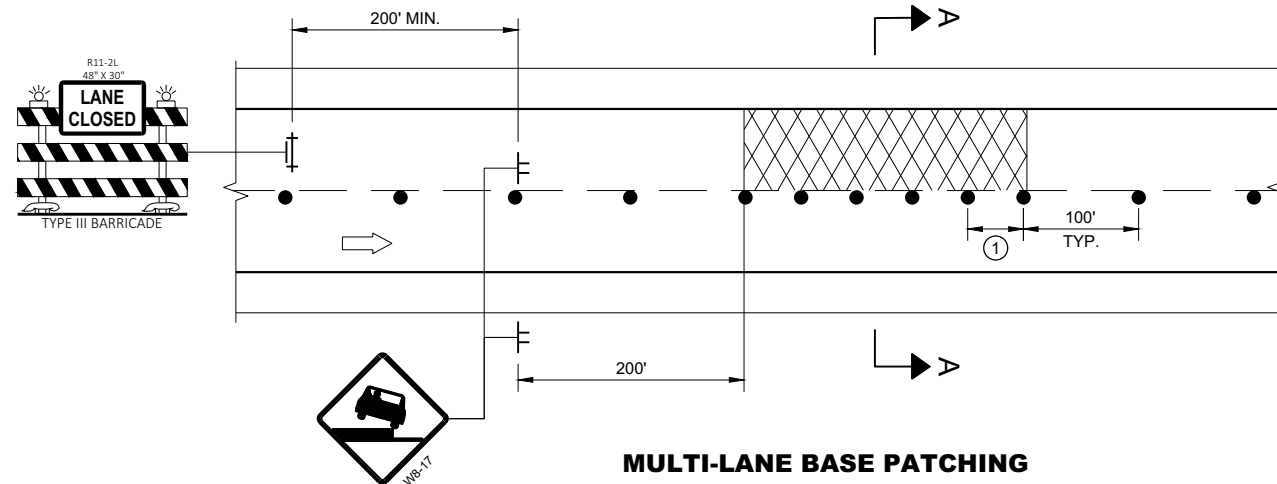
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

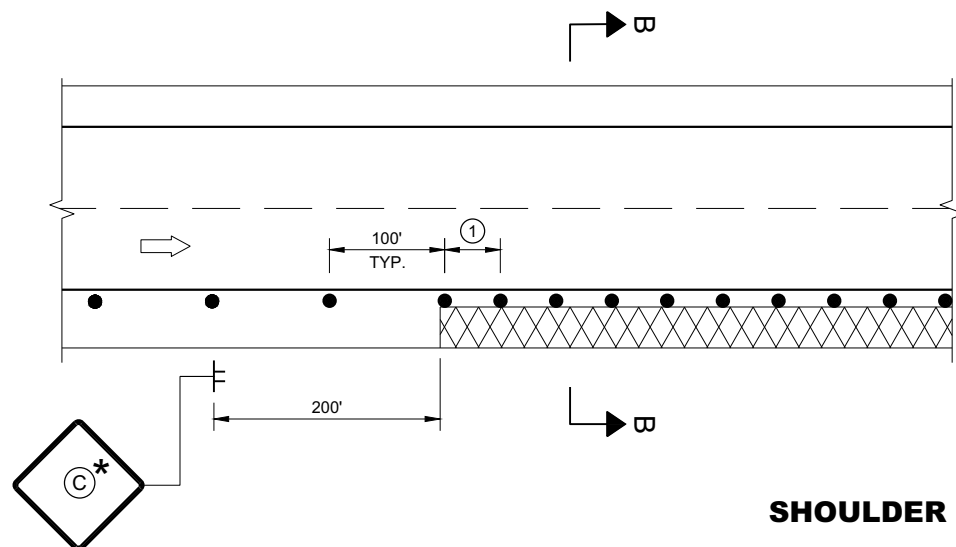
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.
- ① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

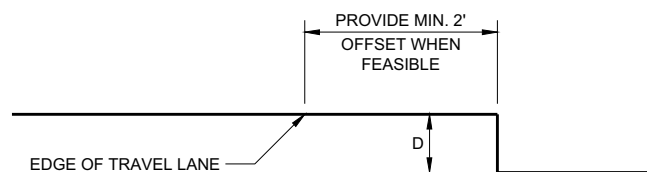
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	 W08-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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



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

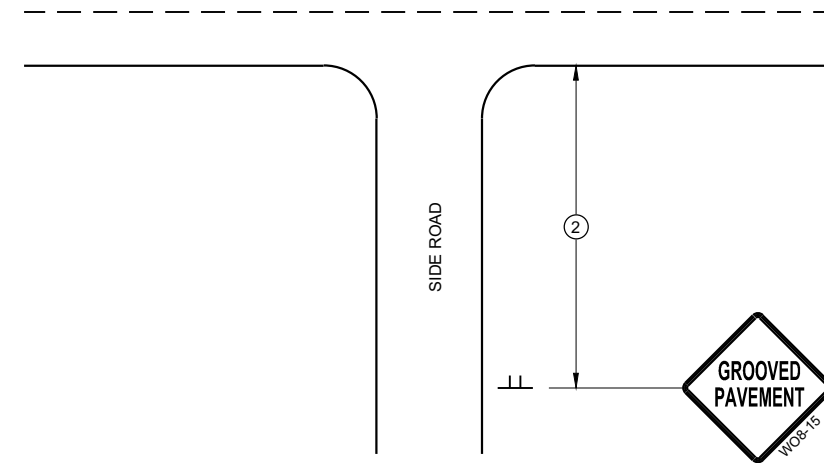
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

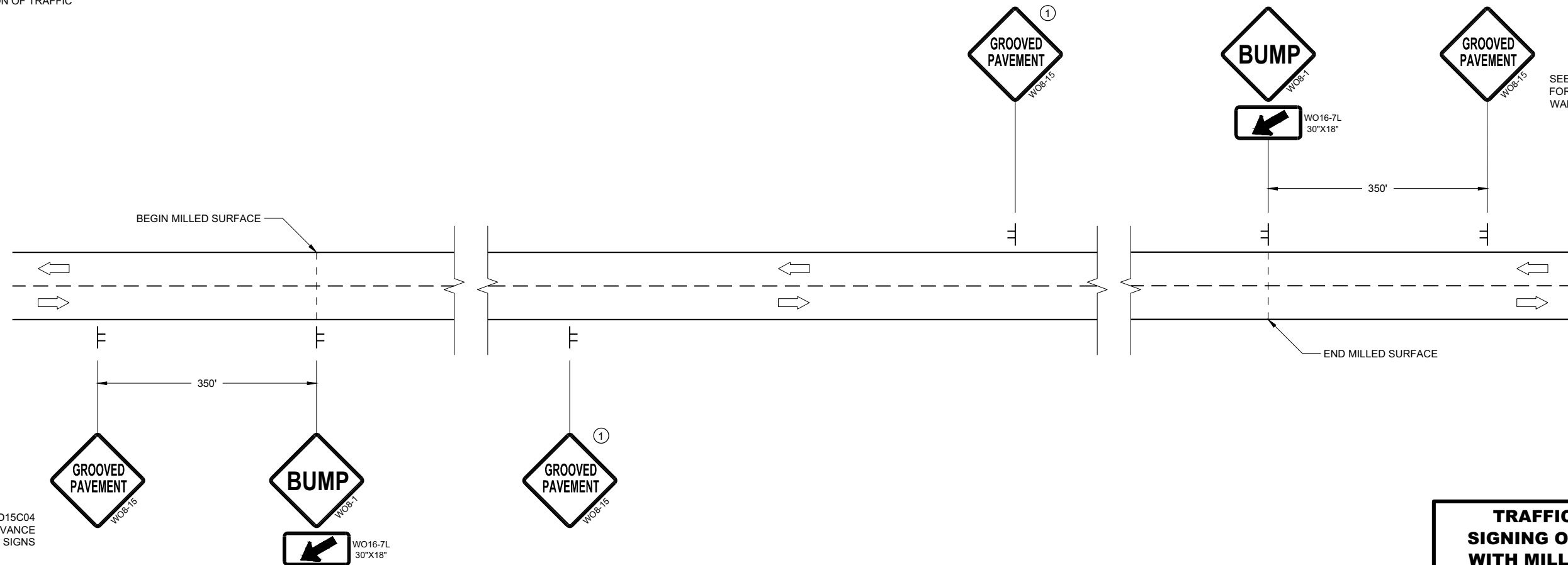
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



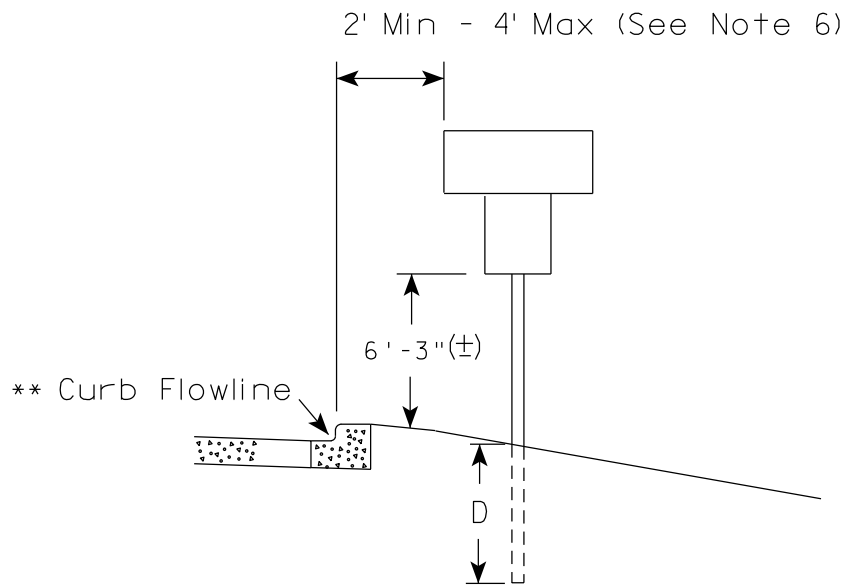
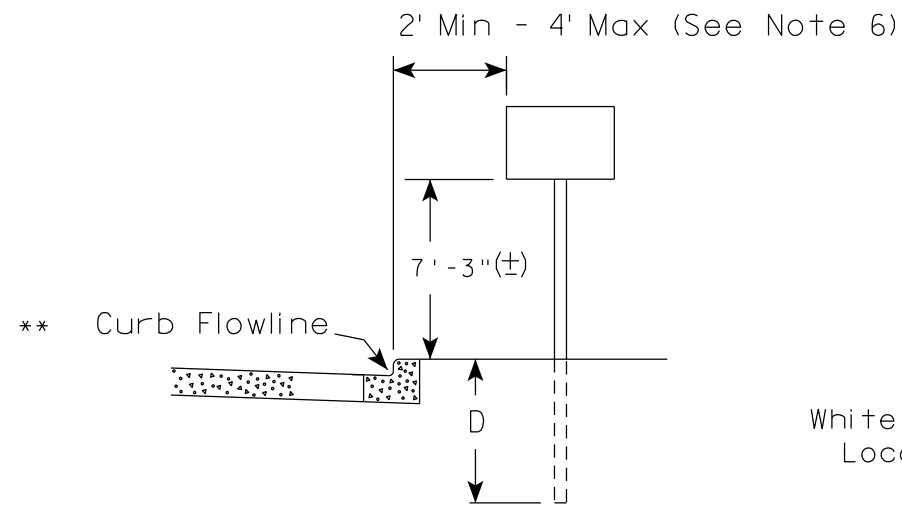
TYPICAL SIDE ROAD APPROACH SIGN DETAIL



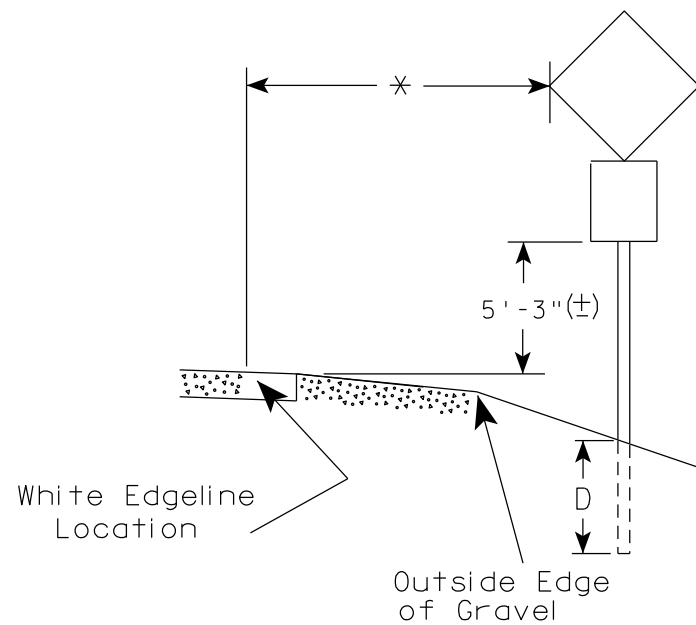
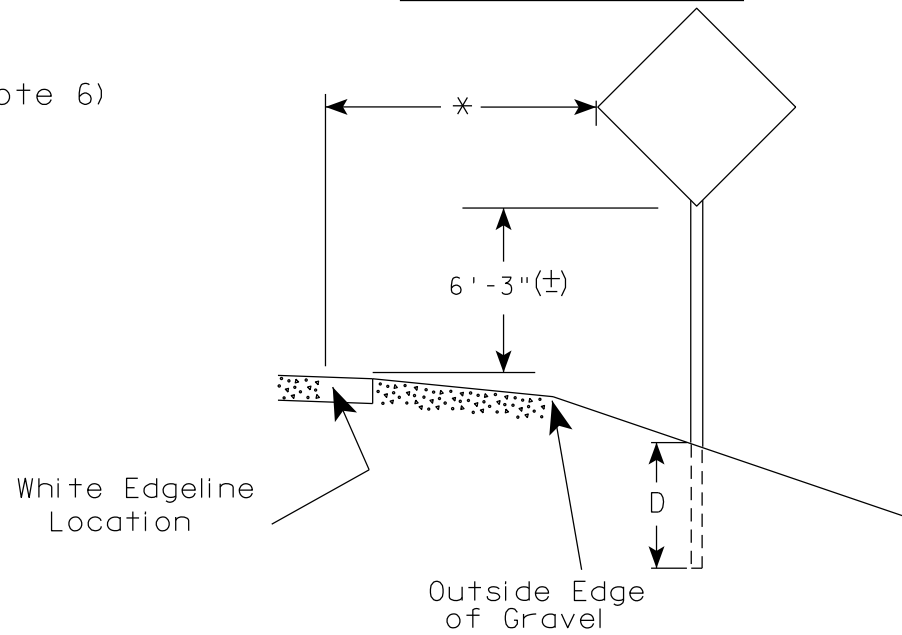
DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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 or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) 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" (±).
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 signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

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.

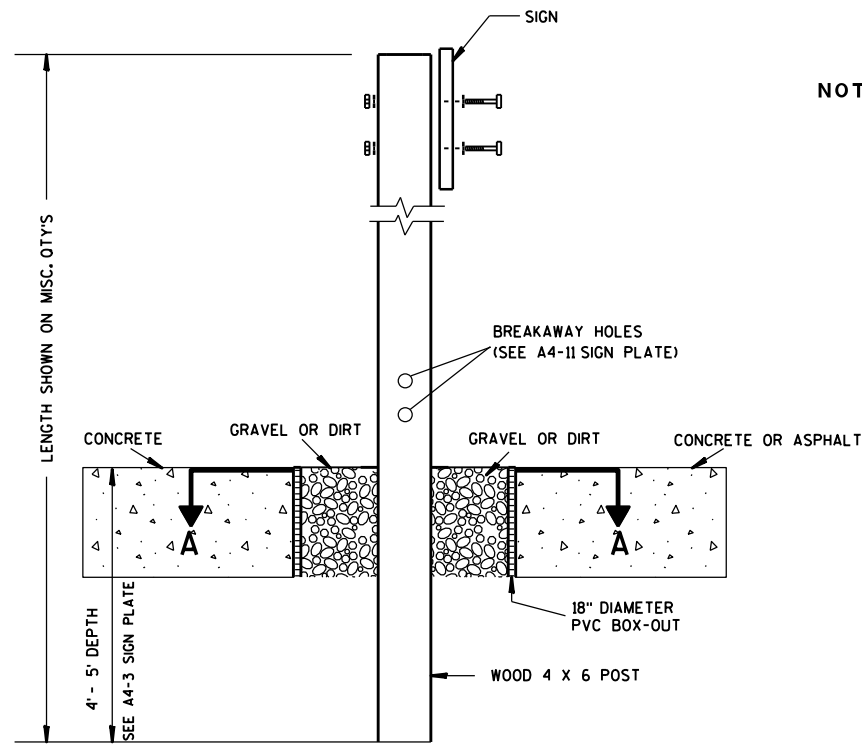
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

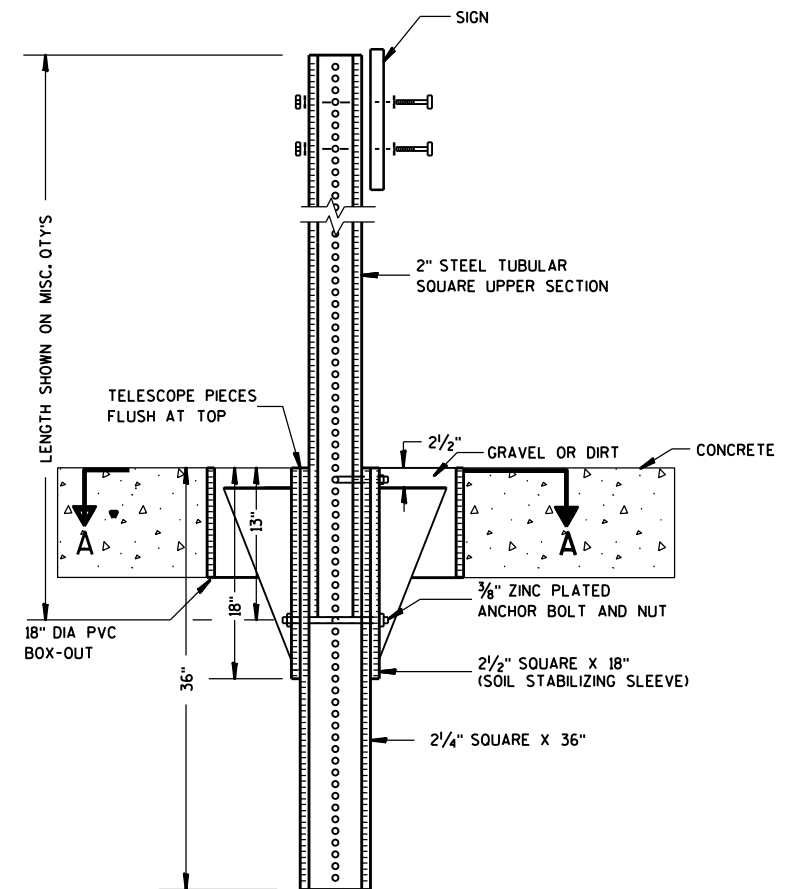
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

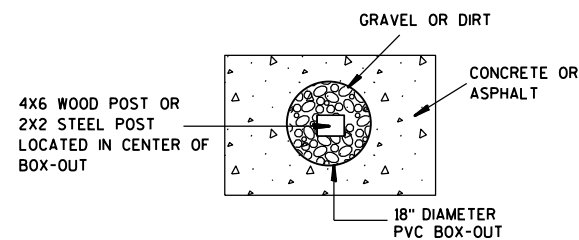
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

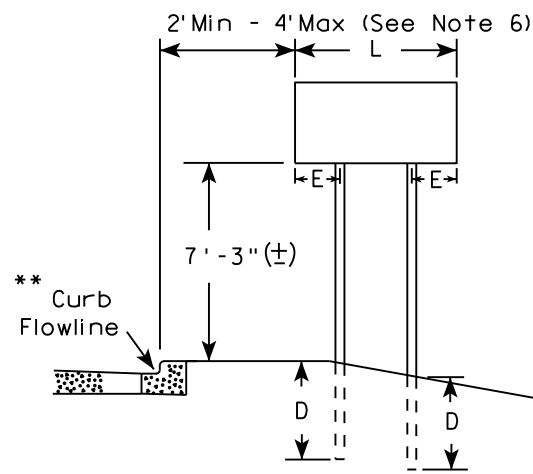
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

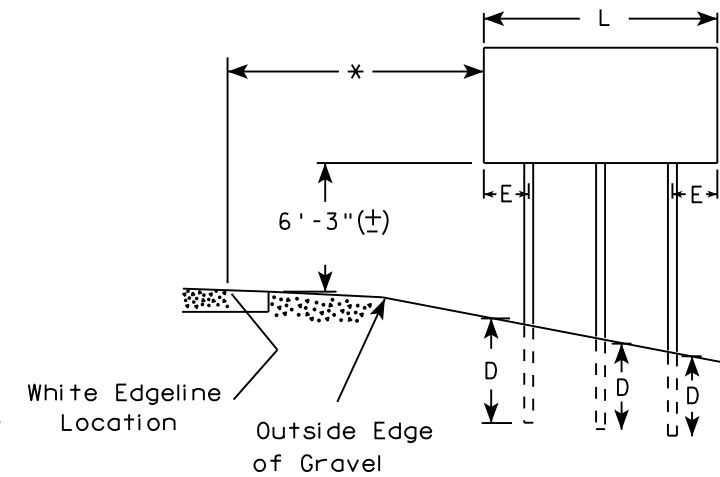
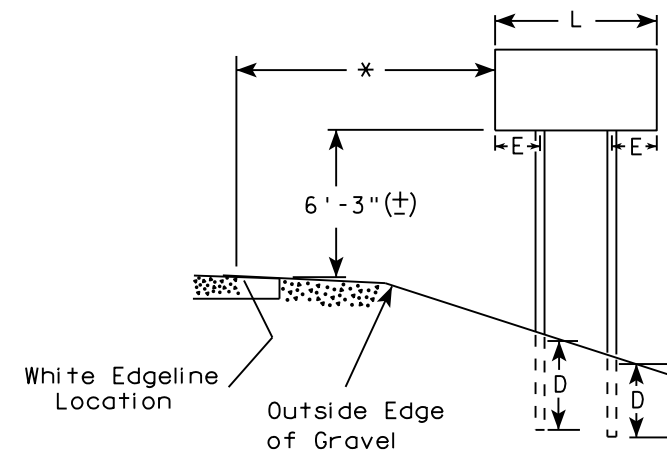
GENERAL NOTES

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. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

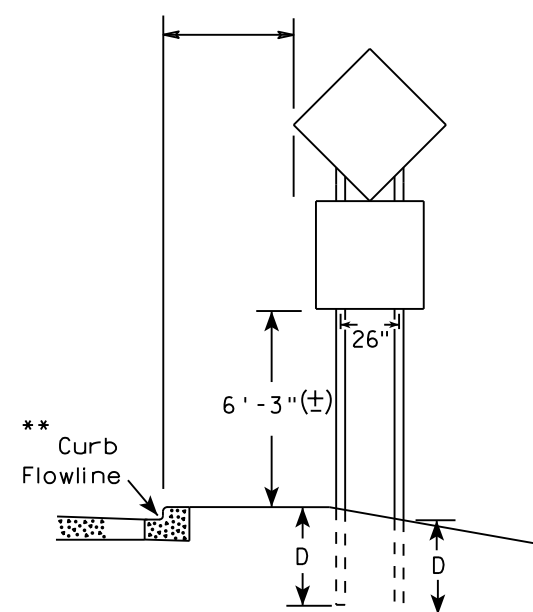
URBAN AREA



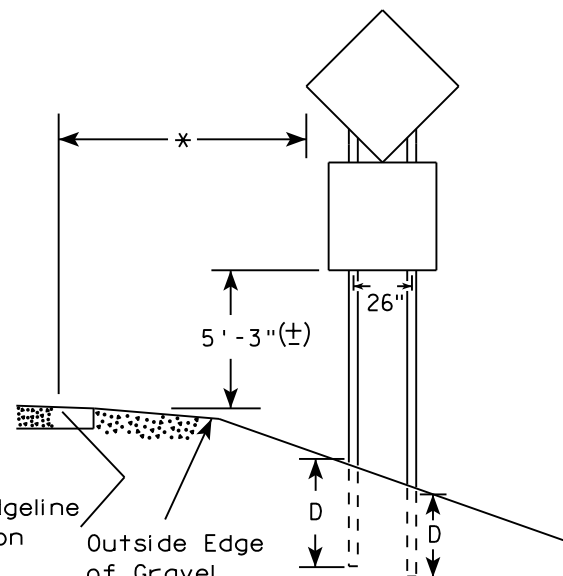
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

* 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 108"	L/5

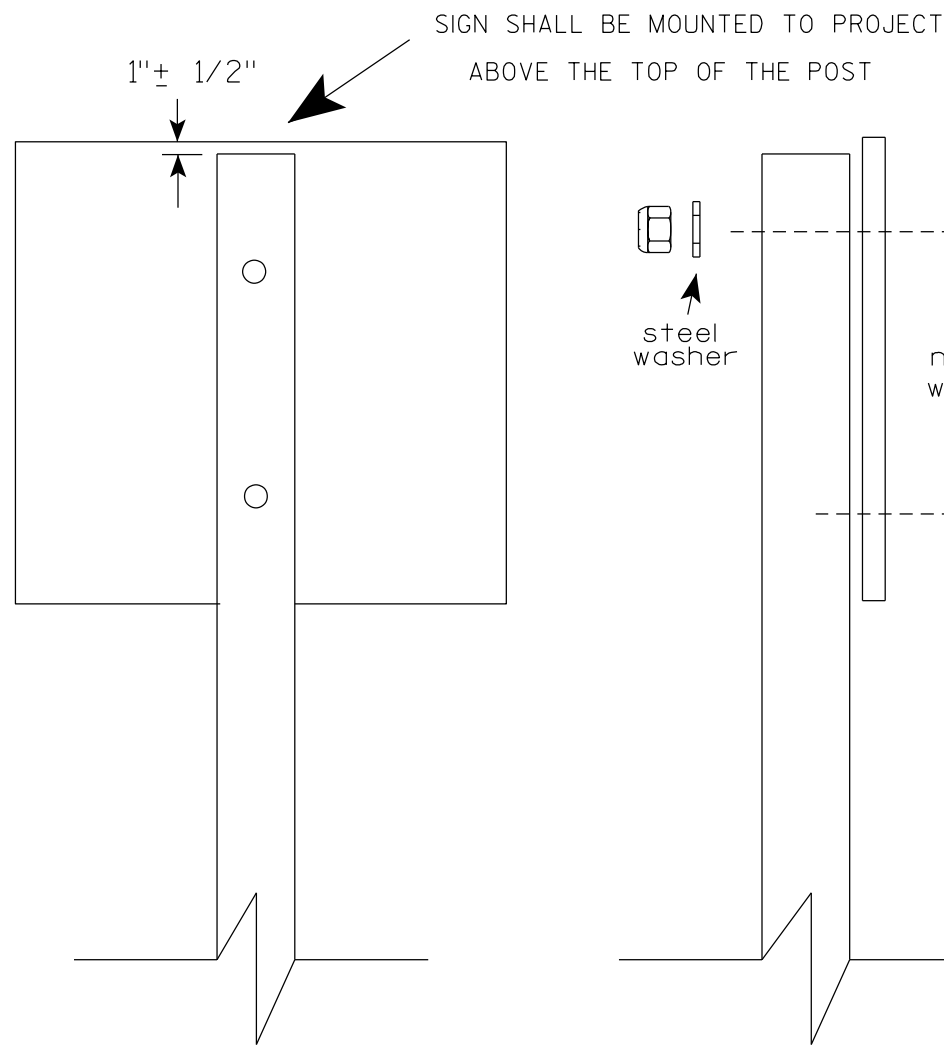
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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 8/21/17 PLATE NO. A4-4.15



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

- Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- 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.

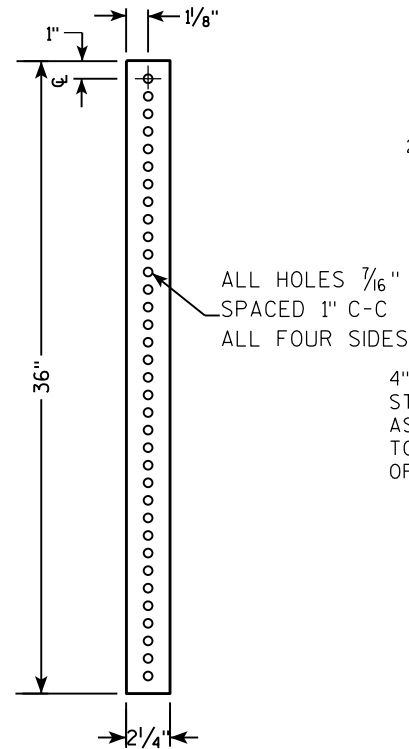
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE 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

* 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.

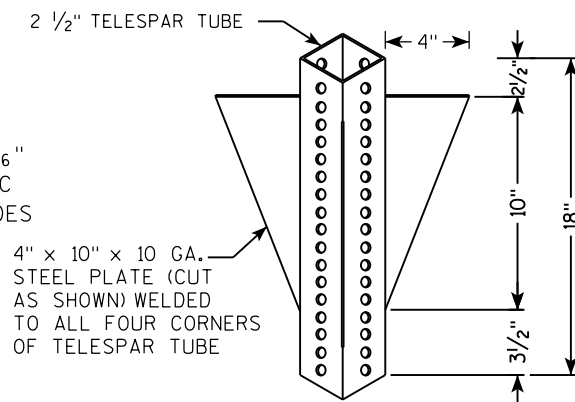
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

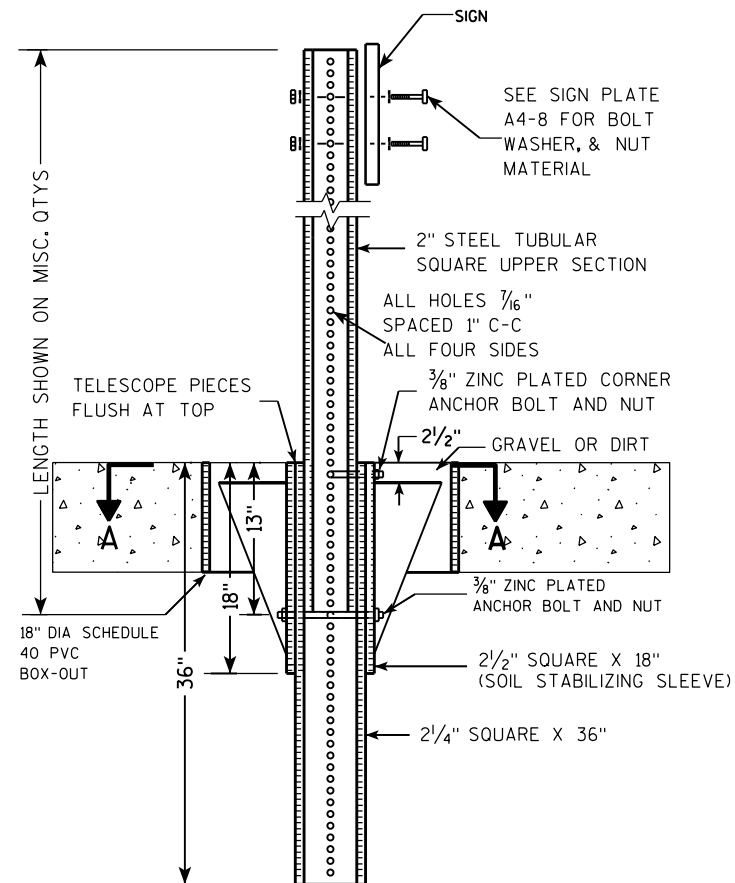
**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



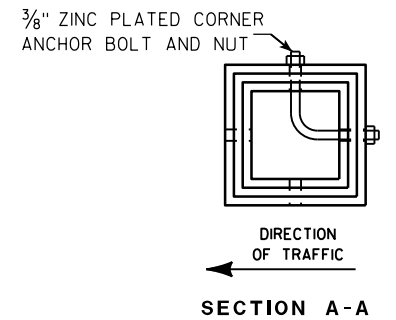
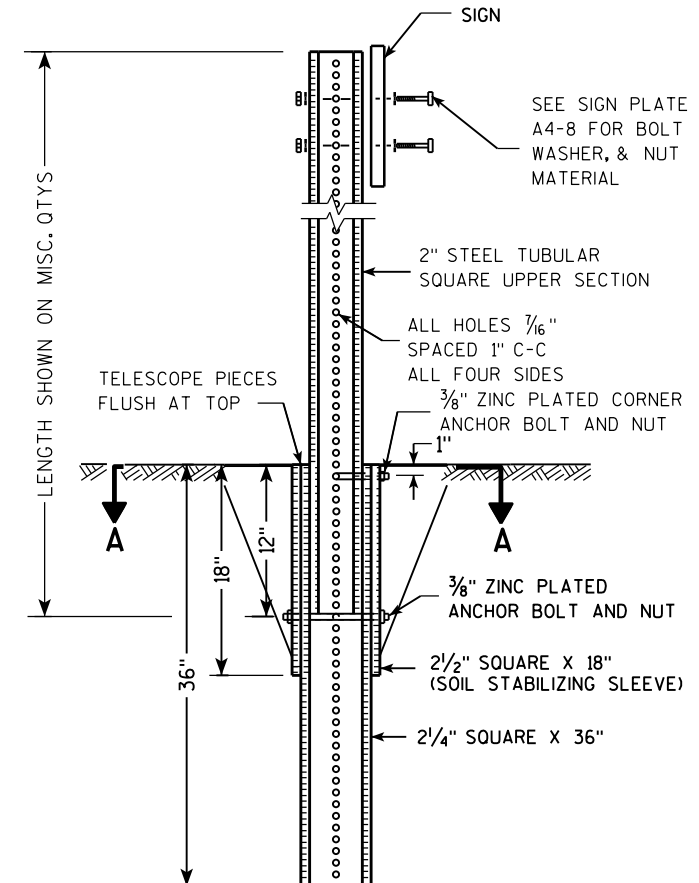
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



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



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



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

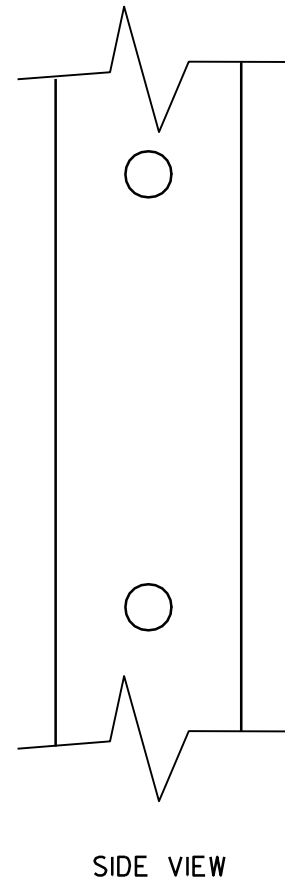
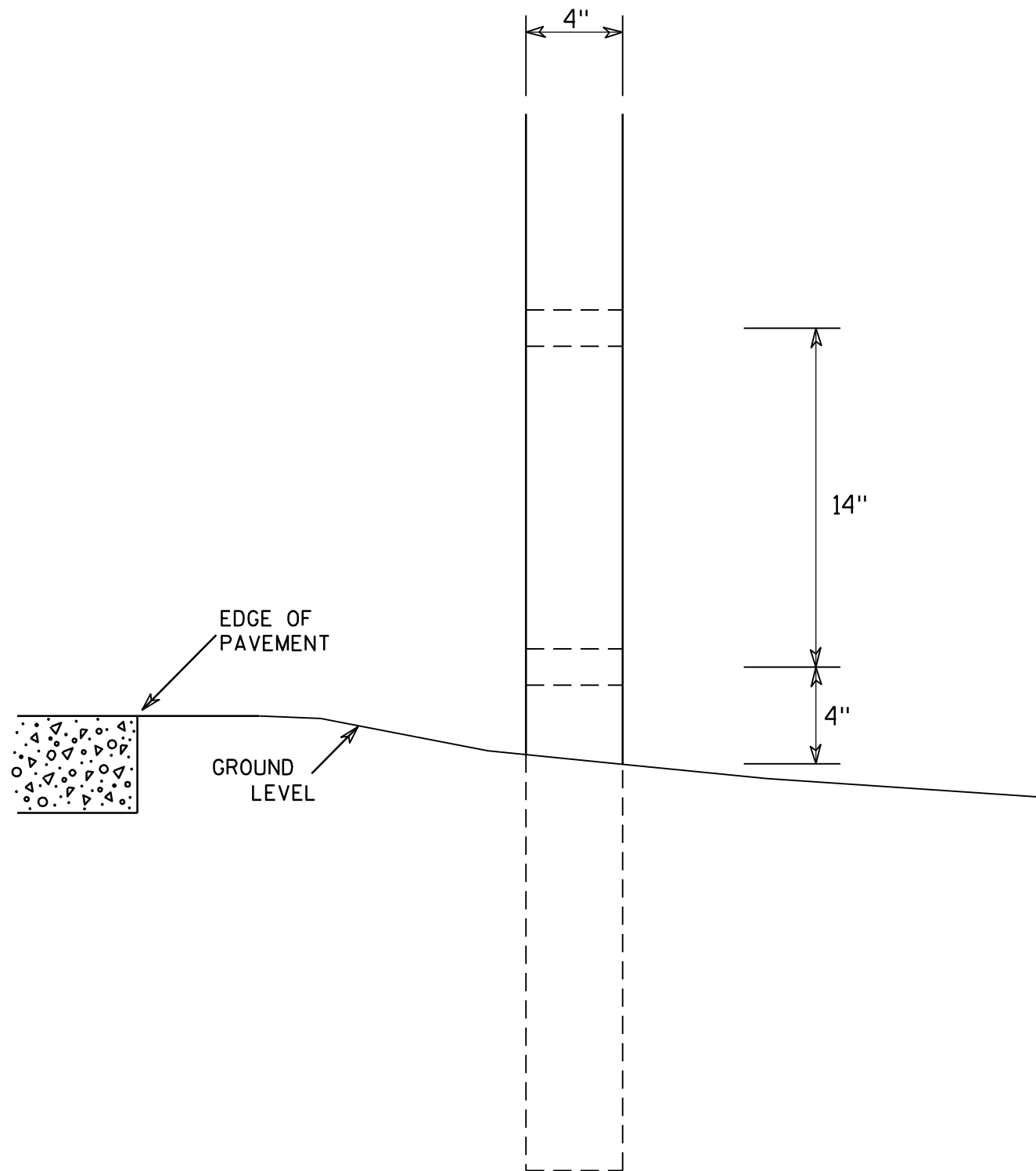
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

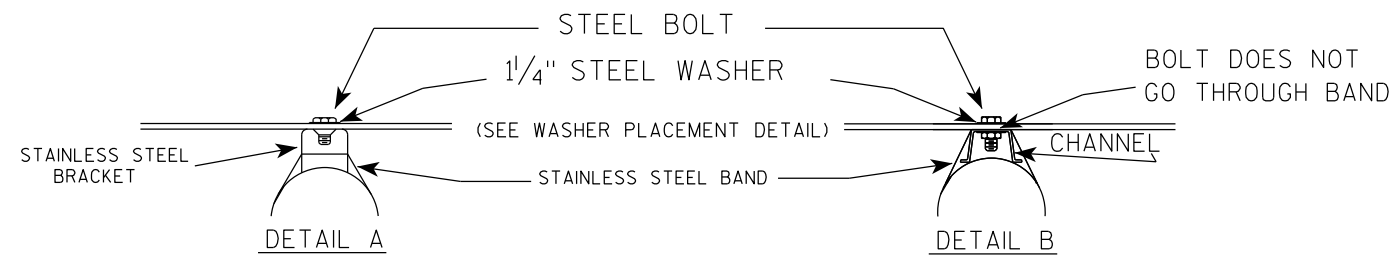
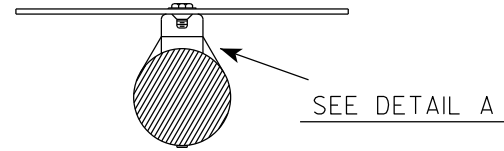
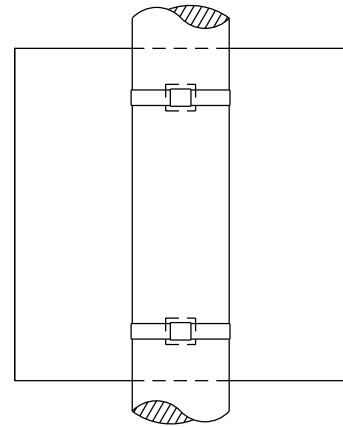
7

7

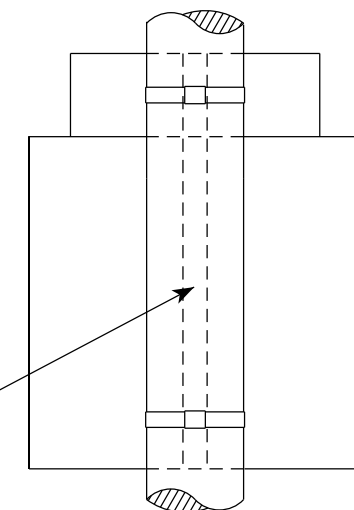
4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

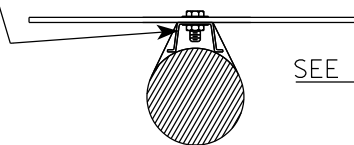
SINGLE SIGN



"J" ASSEMBLY

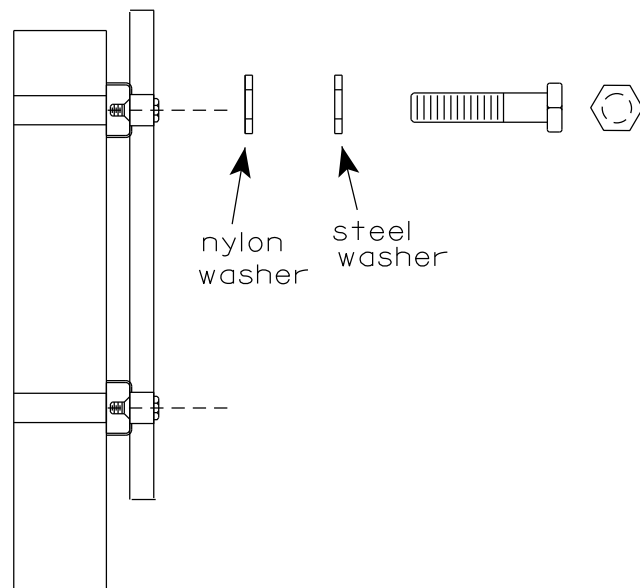


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



- 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.
 4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

WASHER PLACEMENT



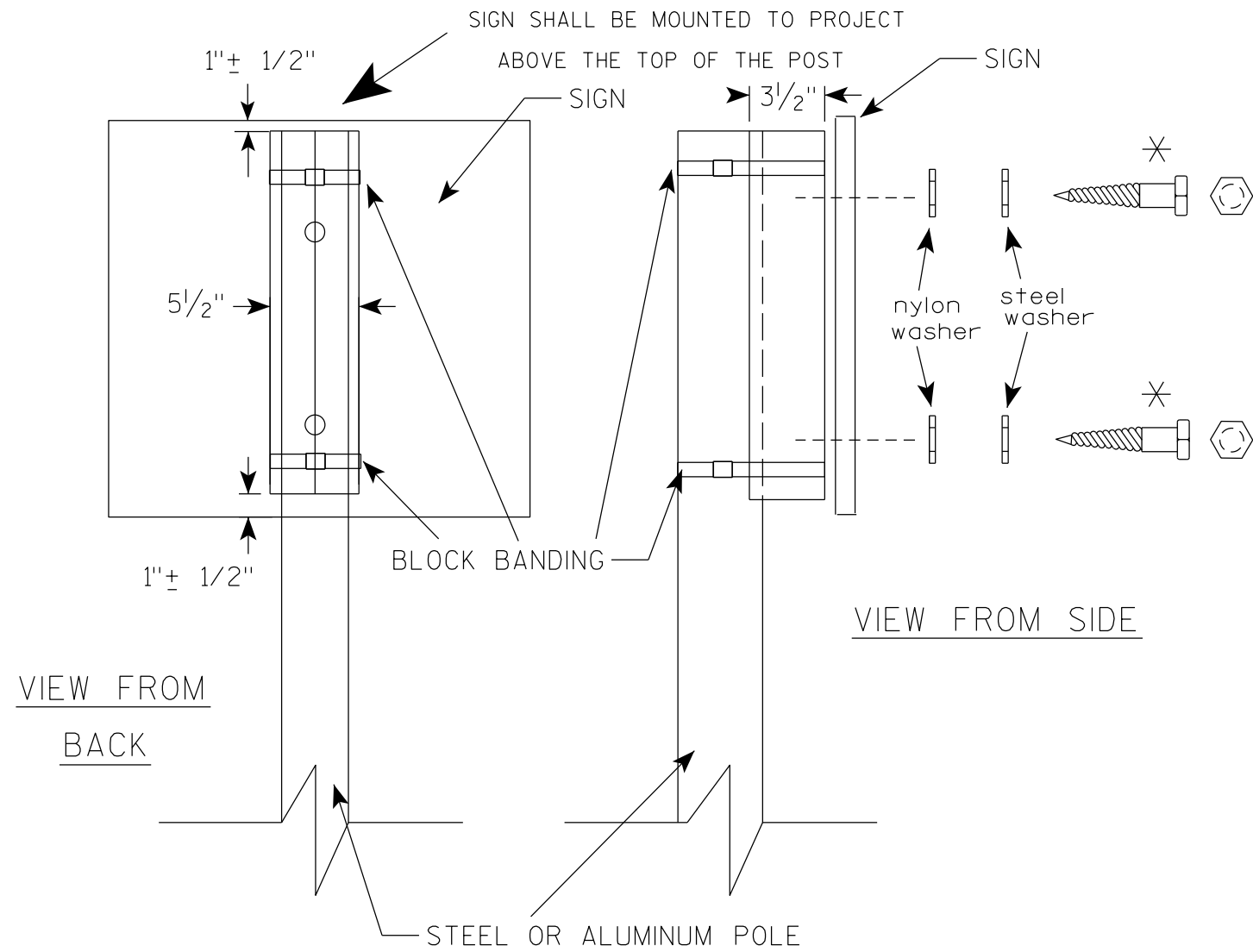
WASHERS (ALL POSTS) -
 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON
 FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

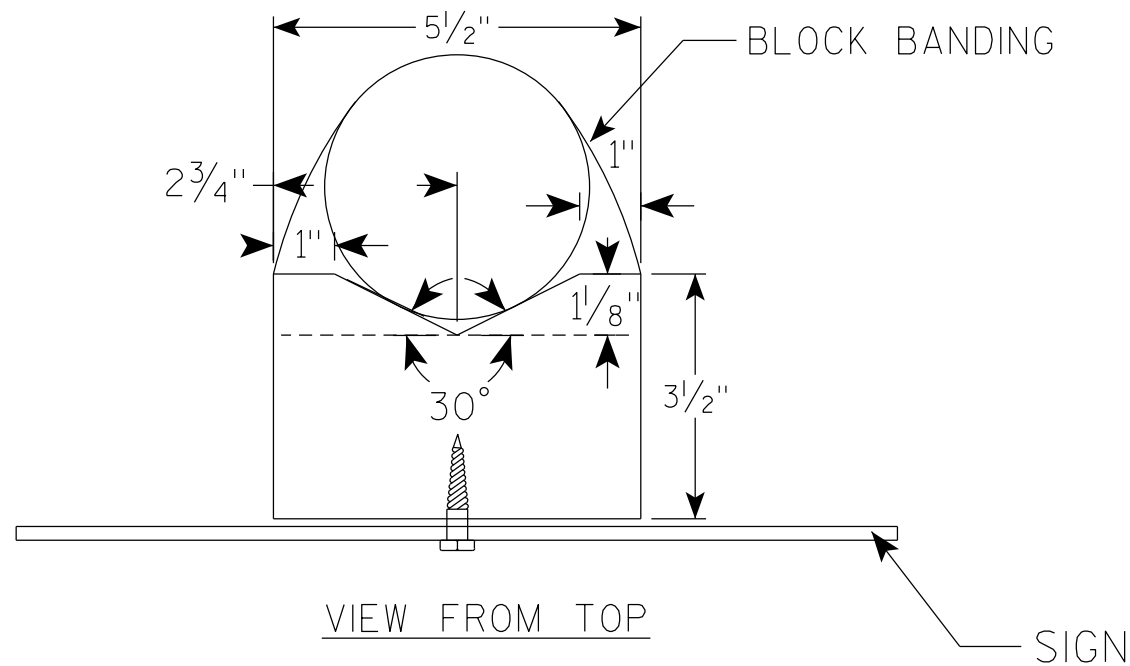
DATE 6/10/19 PLATE NO. A5-9.4



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
 - b. 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

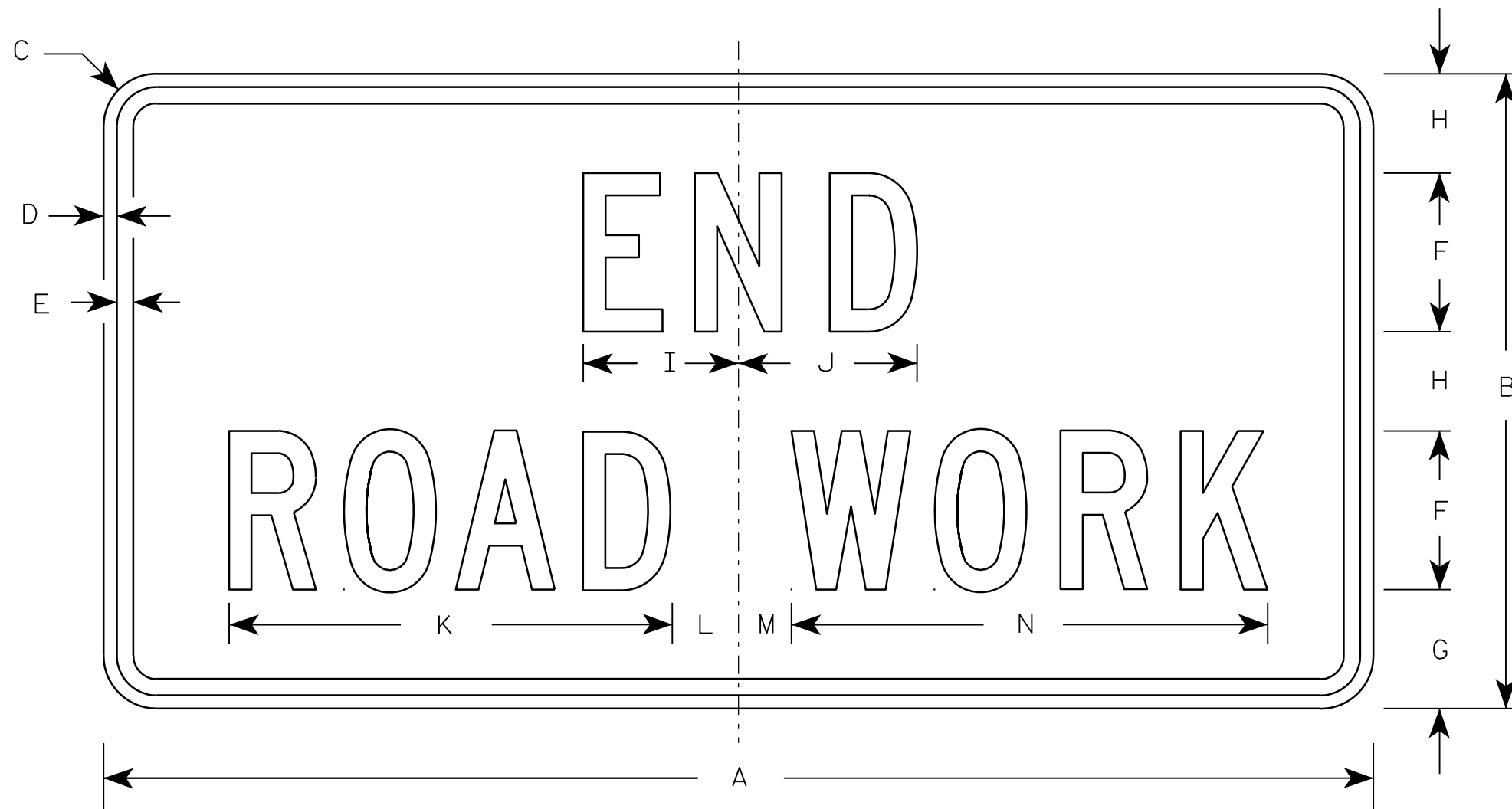
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/19/2022	PLATE NO. A5-10.3

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.



G20-2A

Metric equivalent
for this sign is:

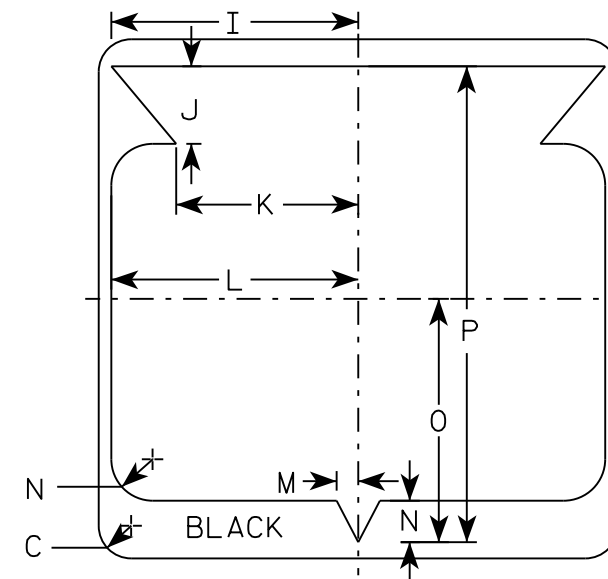
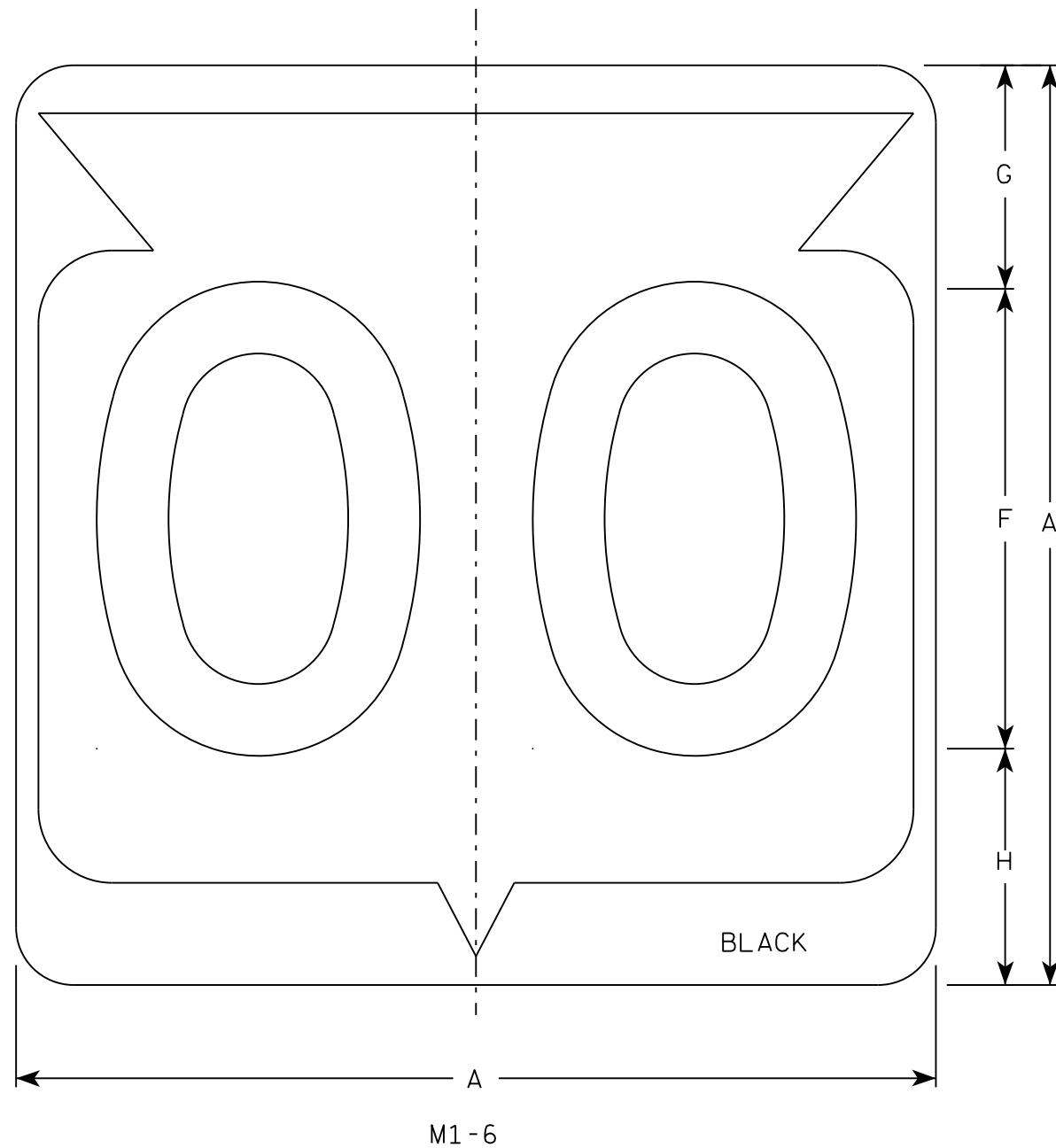
SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

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 sq.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

NOTES

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



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

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

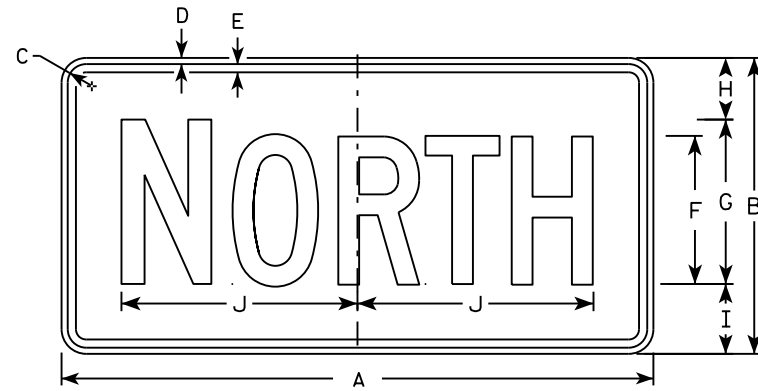
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

7

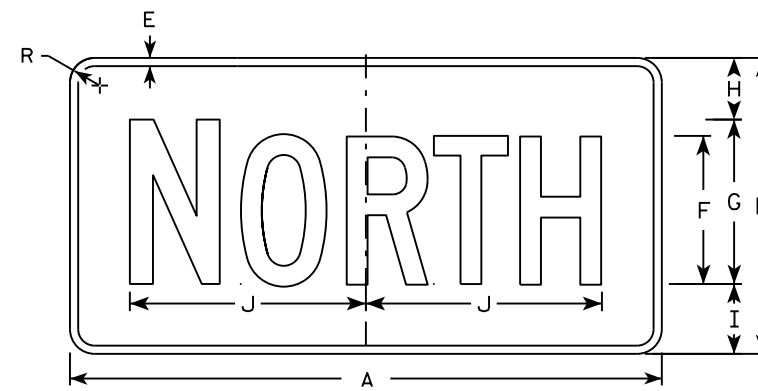
7

NOTES

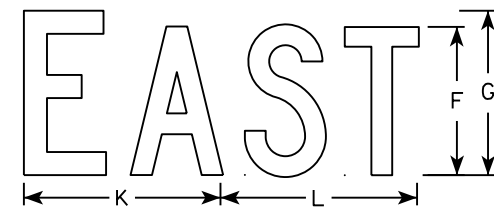
- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M3-1 thru M3-4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



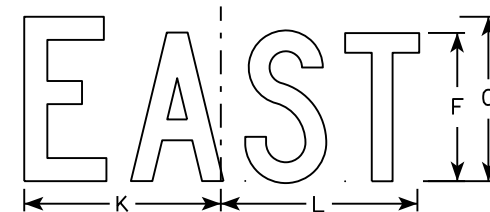
M3-1
MM3-1
MP3-1



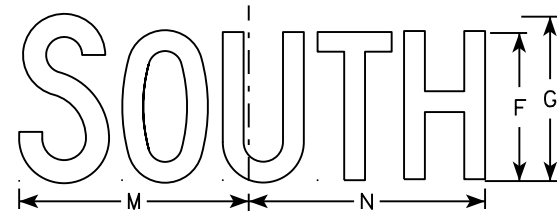
MB3-1
MK3-1
MN3-1



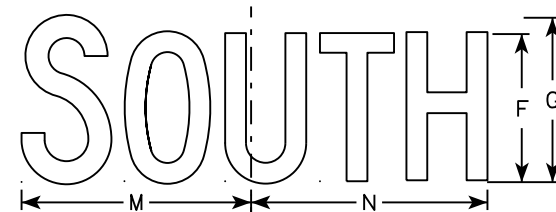
M3-2
MM3-2
MP3-2



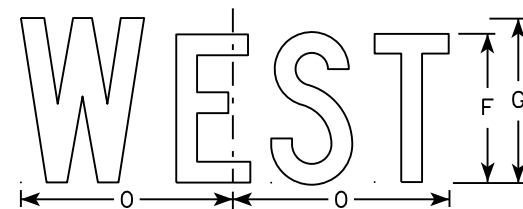
MB3-2
MK3-2
MN3-2



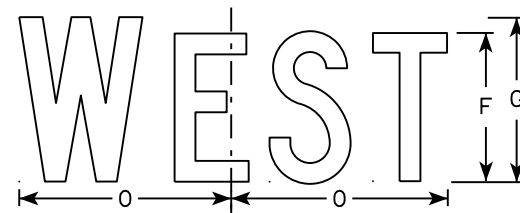
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

7

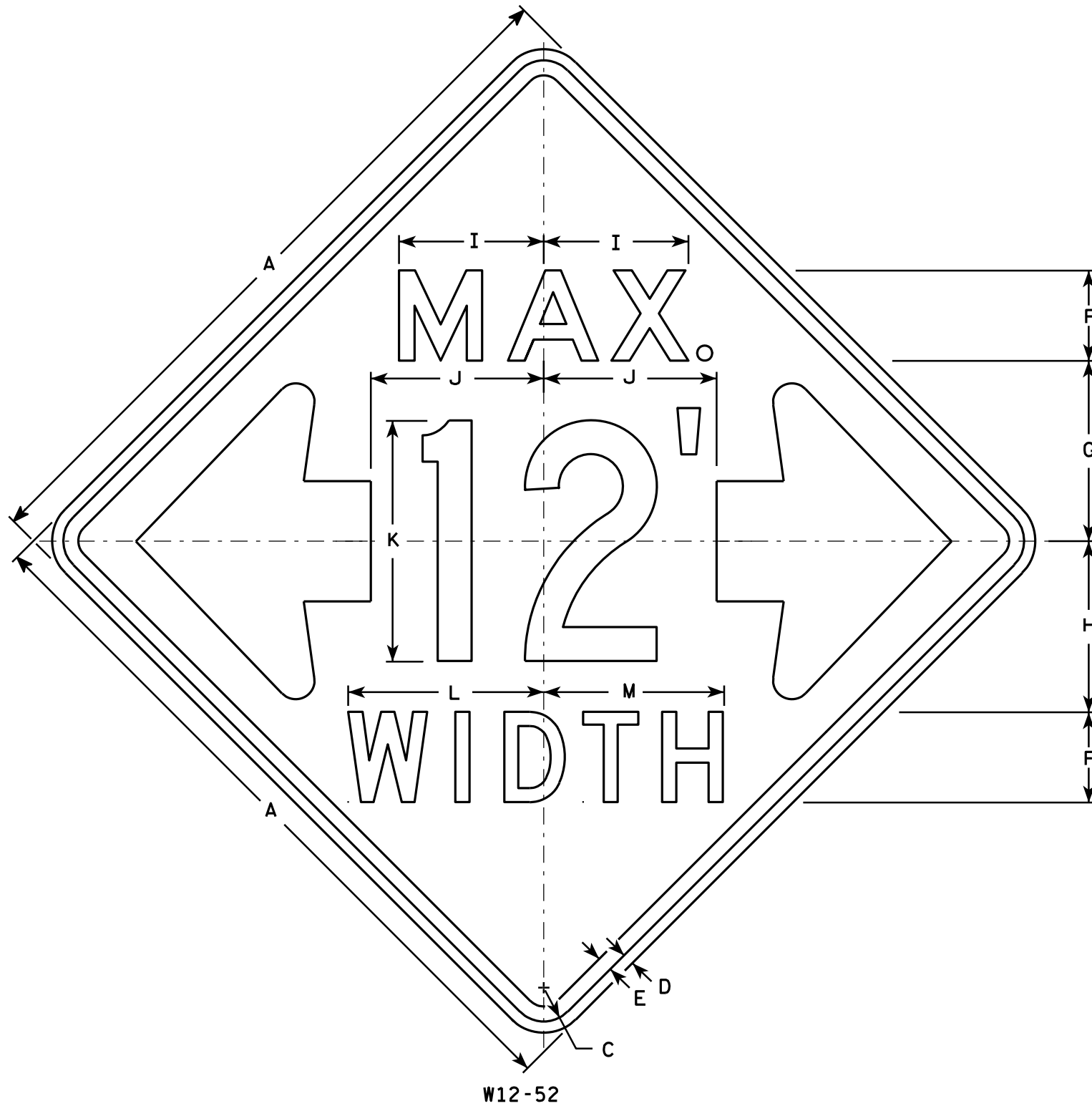
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8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

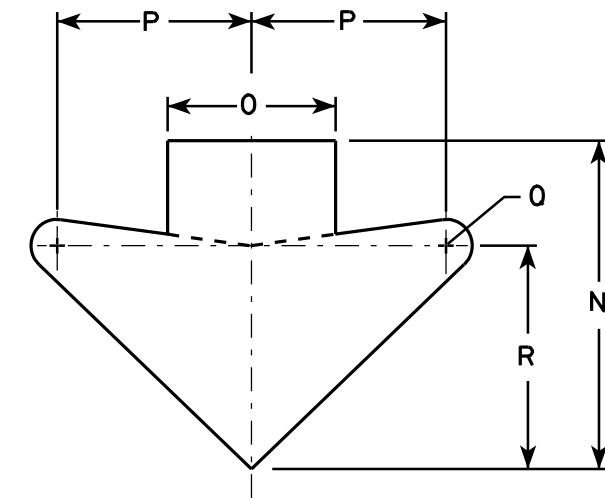
DATE 10/15/15 PLATE NO. M3-1.14



W12-52

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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

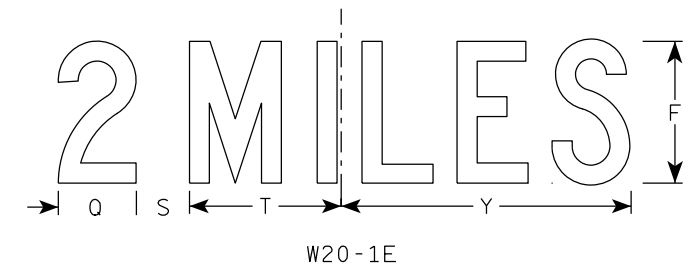
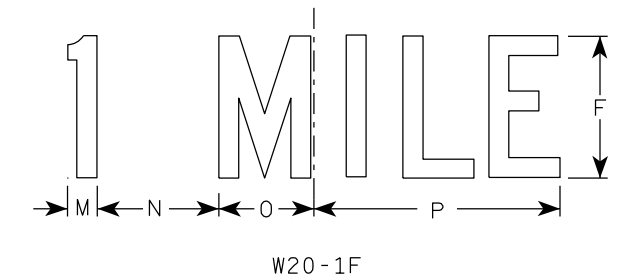
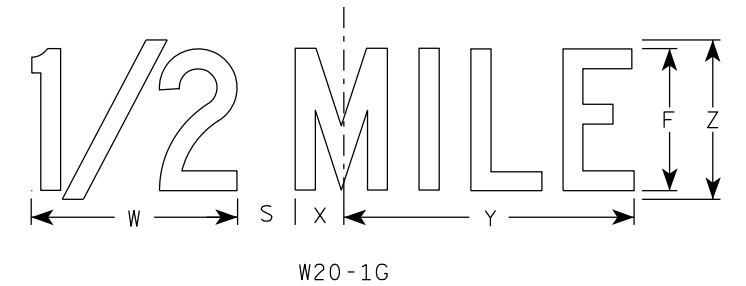
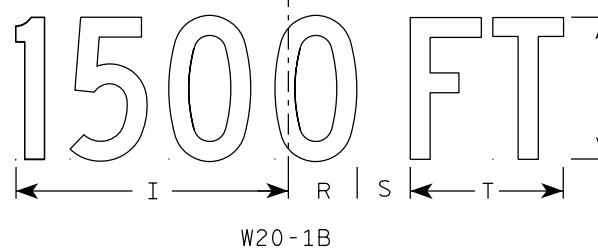
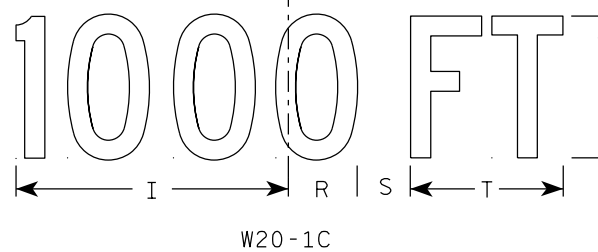
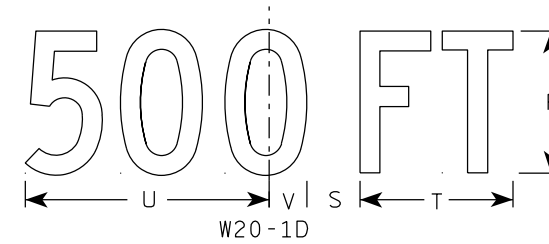
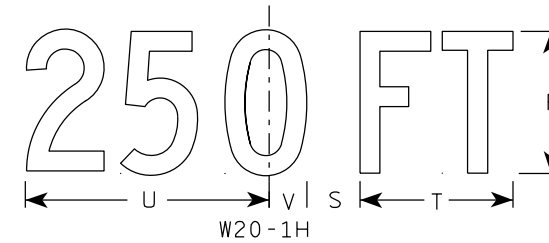
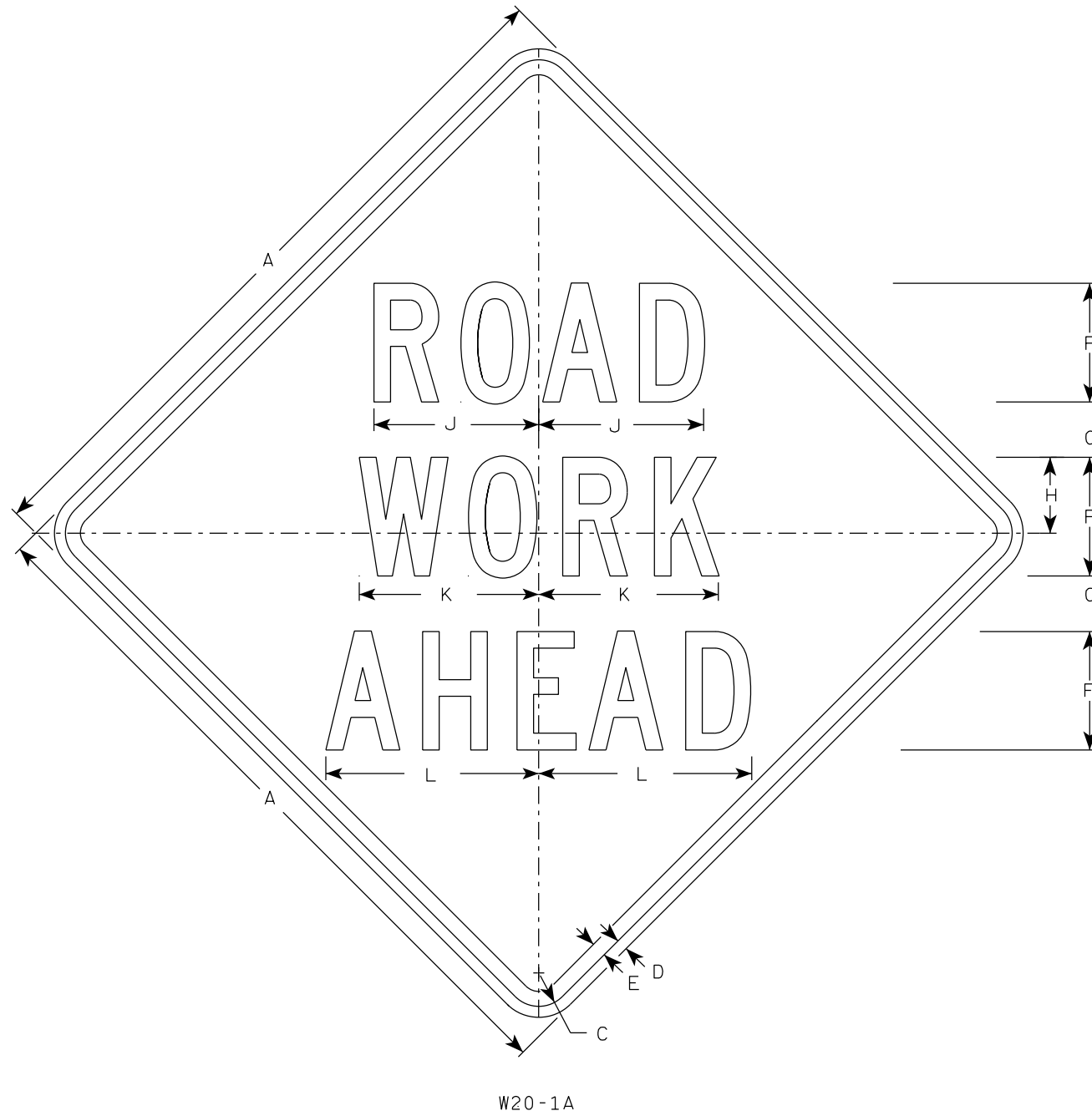
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

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 5/8	5/8	3/4	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	3 1/4	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, E, F, G & H

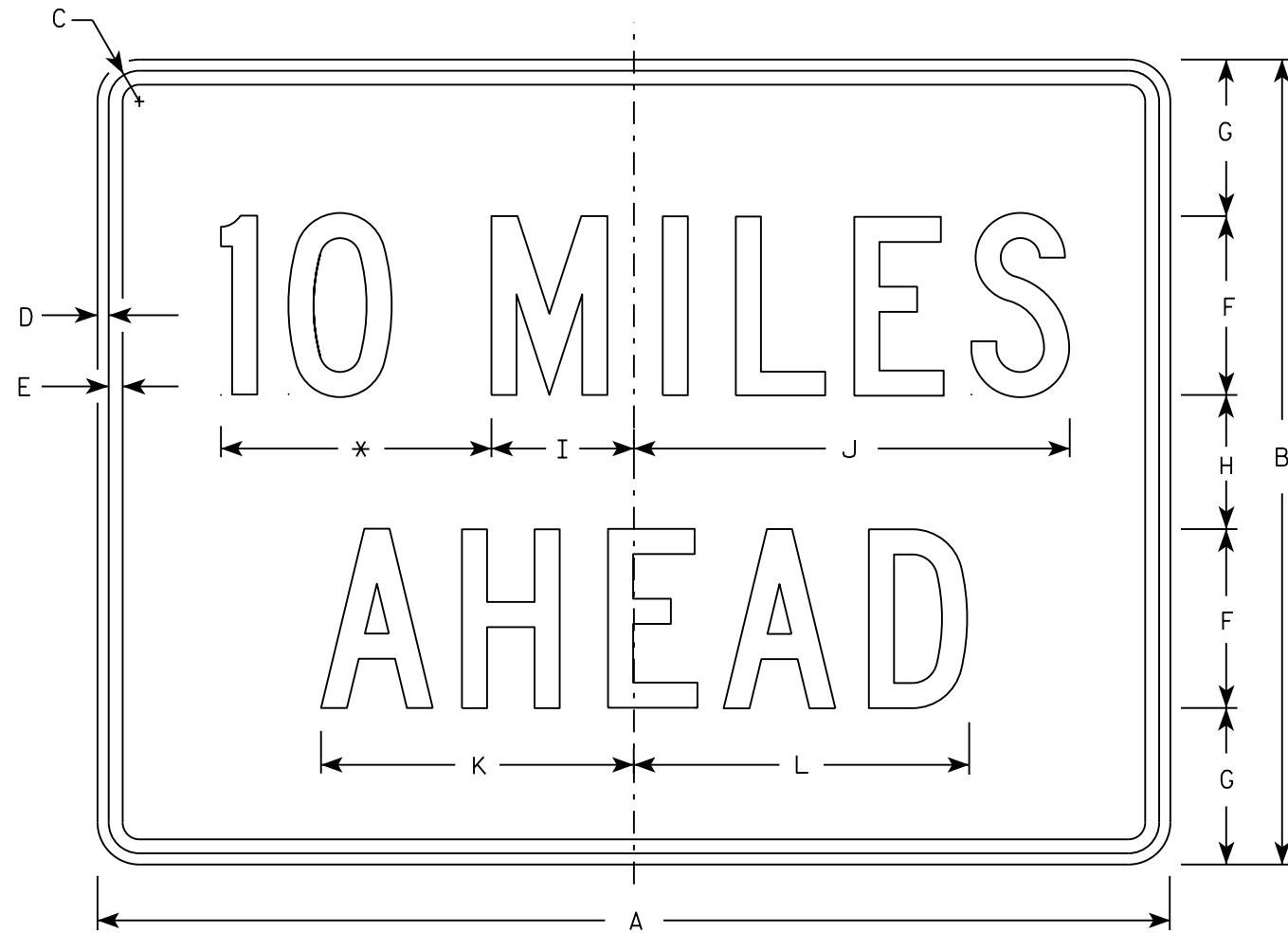
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

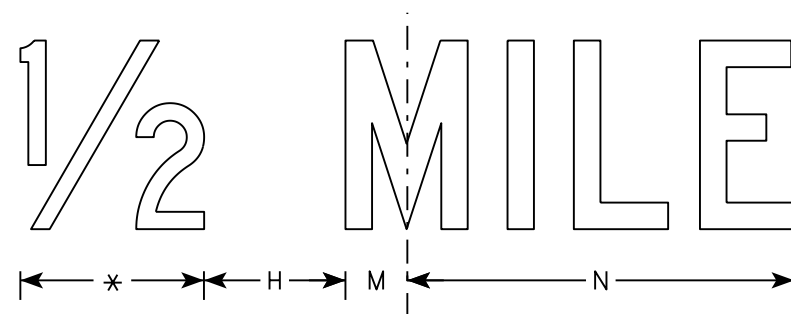
DATE 3/25/2020 PLATE NO. W20-1.11

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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.



W057-52



* 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	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

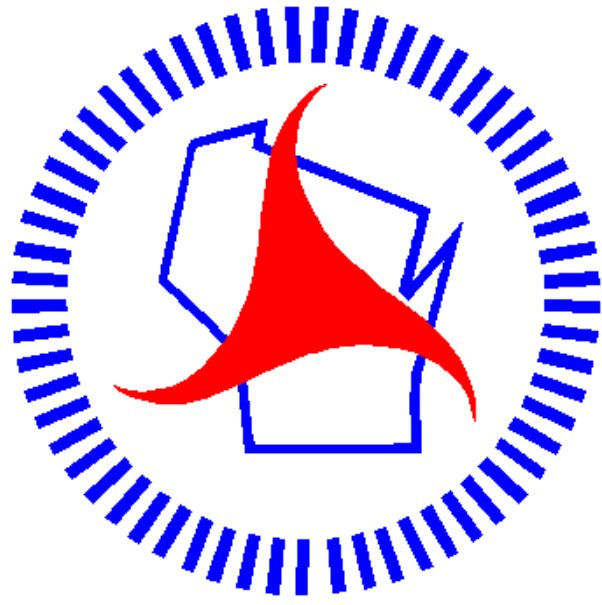
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

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



Wisconsin Department of Transportation

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