

WKE

Nov 8, 2022

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C KENOSHA, WASHINGTON RD

32ND AVE TO CTH S

LOCAL STREET
KENOSHA COUNTY

STATE PROJECT NUMBER
2704-03-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2704-03-72	WISC 2023029	1

PROJECT ID: 2704-03-72
WITH: N/A

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. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 106



DESIGN DESIGNATION

A.A.D.T. 2023	=	20,350 - 22,680
A.A.D.T. 2043	=	25,640 - 28,580
D.H.V.	=	N/A
D.D.	=	54/46
T.	=	2%
DESIGN SPEED	=	35 - 45 MPH
ESALS	=	759,200

CONVENTIONAL SYMBOLS

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

BEGIN PROJECT
STA. 45+75.44
X = 2,539,845.87
Y = 227,192.43



END PROJECT
STA. 117+77.22

LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 1.364

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83. IN U.S. SURVEY FEET.

ELEVATIONS ARE REFERENCED TO NAVD 88.

ACCEPTED FOR
CITY of KENOSHA
7/28/22
City Engineer
(Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY:
SA STRAND ASSOCIATES
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715-1943
WISCONSIN PROFESSIONAL ENGINEER
ADAM J WALTER
E-46386
MILWAUKEE WI
7-28-2022

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY: Surveyor CITY OF KENOSHA
Designer: STRAND ASSOCIATES, INC.
Project Manager: GREG HAFEMAN, P.E.
Regional Examiner: _____
Regional Supervisor: JEFFREY BOHEN, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 07/28/2022
(Signature)

E

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.

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

THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE APPROVED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

ELEVATIONS SHOWN ON THE PLANS ARE ALONG THE EDGE OF LANE OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

A SAWED JOINT SHALL BE REQUIRED WHEN NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

CONTACT THE PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SEWRPC), AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

ABBREVIATIONS

COR CORNER
DIM DIMENSION
EOP EDGE OF PAVEMENT

UTILITY CONTACTS

* ATC MANAGEMENT INC
TONY MARCINIAK
W234N2000 RIDGEVIEW PARKWAY COURT
WAUKESHA, WI 53188-1022
(262) 636-0514
DL-ATCDOTNOTIFICATIONS@ATCLLC.COM

* AT&T WISCONSIN
MIKE VANBOVEN
435 SOUTH 95TH STREET
MILWAUKEE, WI 53214
(262) 636-0514
MV3658@ATT.COM

* KENOSHA WATER UTILITY
CURT CZARNECKI
4401 GREEN BAY ROAD
KENOSHA, WI 53144
(262) 653-4306
CCZARNECKI@KENOSHA.ORG

* MIDWEST FIBER NETWORKS
SHEILA BONNIWELL
3701 WEST BURNHAM STREET
MILWAUKEE, WI 53215
(414) 672-2729
SBONNIWELL@MIDWESTFIBERNETWORKS.COM

* SPECTRUM
BEAU ABUYA
1320 DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
(414) 758-9241
BEAU.ABUYA@CHARTER.COM

* WE ENERGIES ELECTRICITY
JAMES NELSON
7815 NORTHWESTERN AVENUE
RACINE, WI 53406
262-884-6734
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM
JAMES.NELSON@WE-ENERGIES.COM

* WE ENERGIES GAS
CHRIS DEGRAVE
7815 NORTHWESTERN AVENUE
RACINE, WI 53406
262-886-7018
WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM
CHRIS.DEGRAVE@WE-ENERGIES.COM

WISDOT SIGNALS
JARRETT GATES
141 NORTHWEST BARSTOW STREET
WAUKESHA, WI 53188
(262) 548-5894
JARRETT.GATES@DOT.WI.GOVE

OTHER CONTACTS

CITY OF KENOSHA CONTACT

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ASSISTANT CITY ENGINEER
625 52ND STREET
KENOSHA, WI 53140
(262) 653-4057
GBOLDT@KENOSHA.ORG

DESIGN CONSULTANT

ADAM WALTER, P.E.
STRAND ASSOCIATES, INC.
126 N JEFFERSON STREET
MILWAUKEE, WI 53202
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ADAM.WALTER@STRAND.COM

KENOSHA AREA TRANSIT CONTACT

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4303 39TH AVENUE
KENOSHA, WI 53144
(262) 653-4287
JRIOS@KENOSHA.ORG

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

ROB MERRY
CHIEF SURVEYOR
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
CELL (920) 912-1036
RMERRY@SEWRPC.ORG

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

ANDY TRAEGER
CONSTRUCTION COORDINATOR
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 853-8463
CELL (262) 853-8463
ATRAEGER@SEWRPC.ORG

WISDNR CONTACT

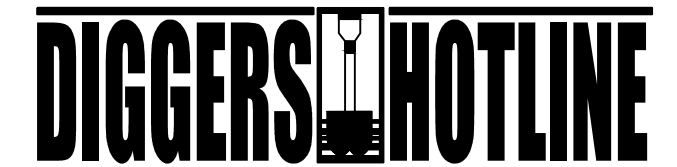
BENTON STELZEL
DNR SOUTHEAST REGION
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 623-0194
BENTON.STELZEL@WISCONSIN.GOV


WISDOT REGION CONTACT

GREG HAFEMAN, P.E.
WISDOT SOUTHEAST REGION
WAUKESHA OFFICE
141 NW BARSTOW STREET
WAUKESHA, WI 53188
(262) 548-8677
GREG.HAFEMAN@DOT.WI.GOV

HMA PAVEMENT SUMMARY TABLE

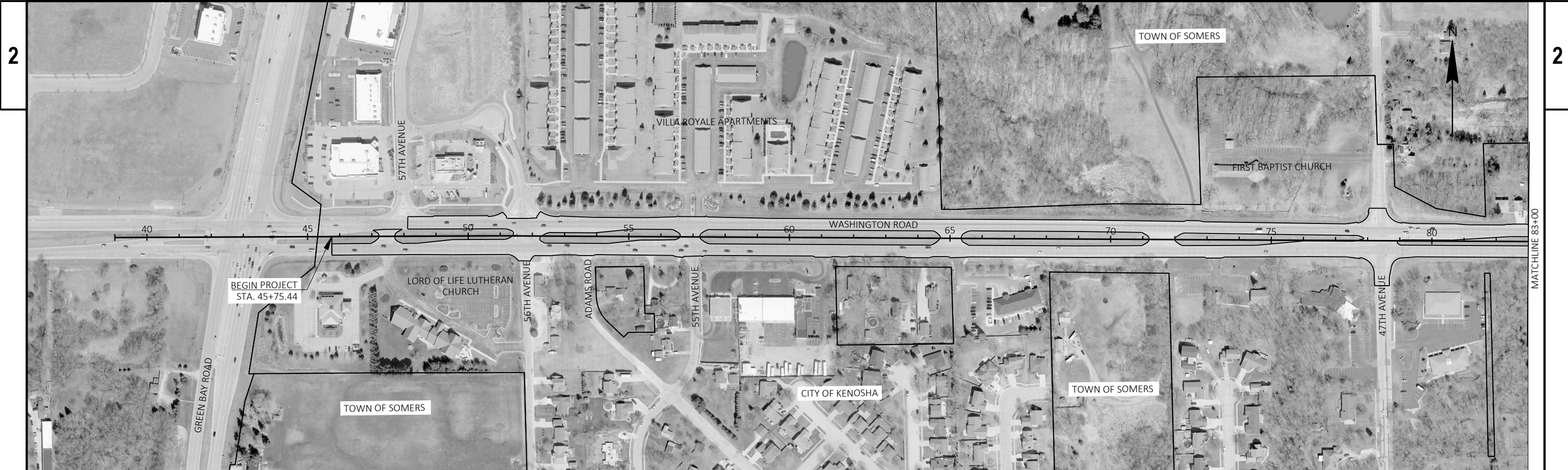
LAYER	MAINLINE	SHOULDER
UPPER	1 3/4-INCH	1 3/4-INCH
	4 MT 58-28 S	4 MT 58-28 S
LOWER	2 1/4-INCH	2 1/4-INCH
	3 MT 58-28 S	3 MT 58-28 S



Dial  or (800)242-8511

www.DiggersHotline.com

* DENOTES DIGGERS HOTLINE MEMBER



PROJECT NO: 2704-03-72

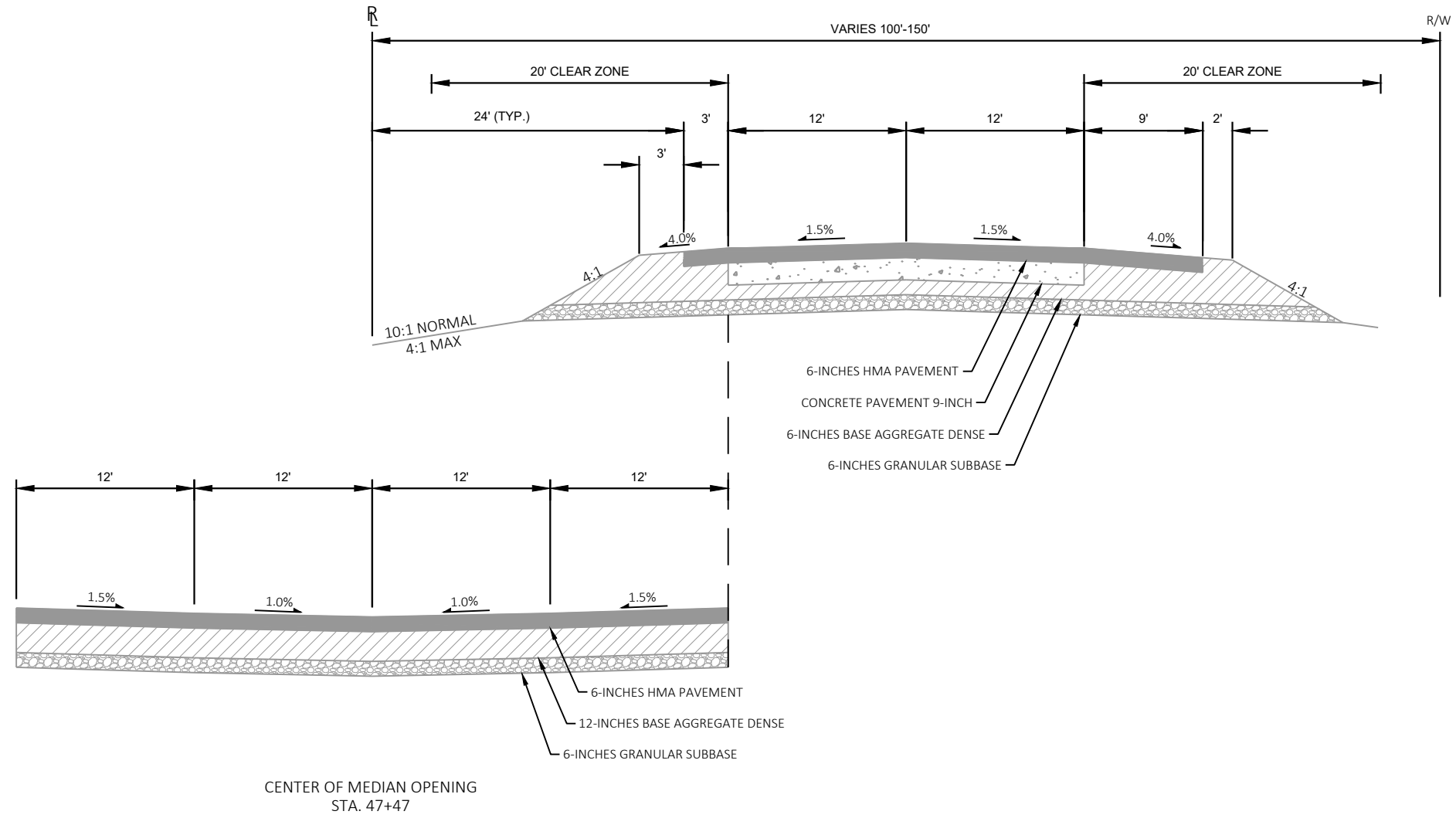
HWY: LOCAL STREET

COUNTY: KENOSHA

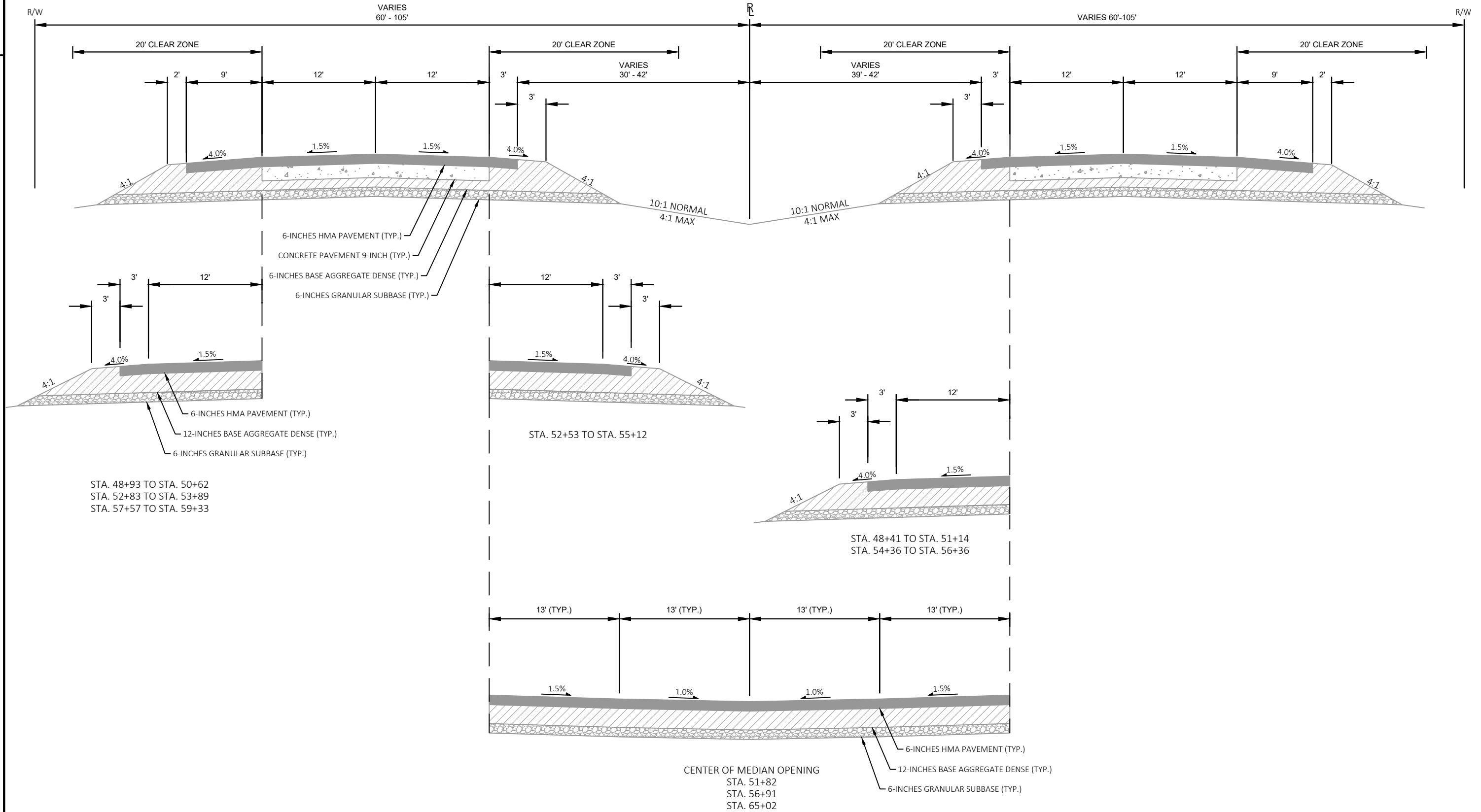
PROJECT OVERVIEW

SHEET

E

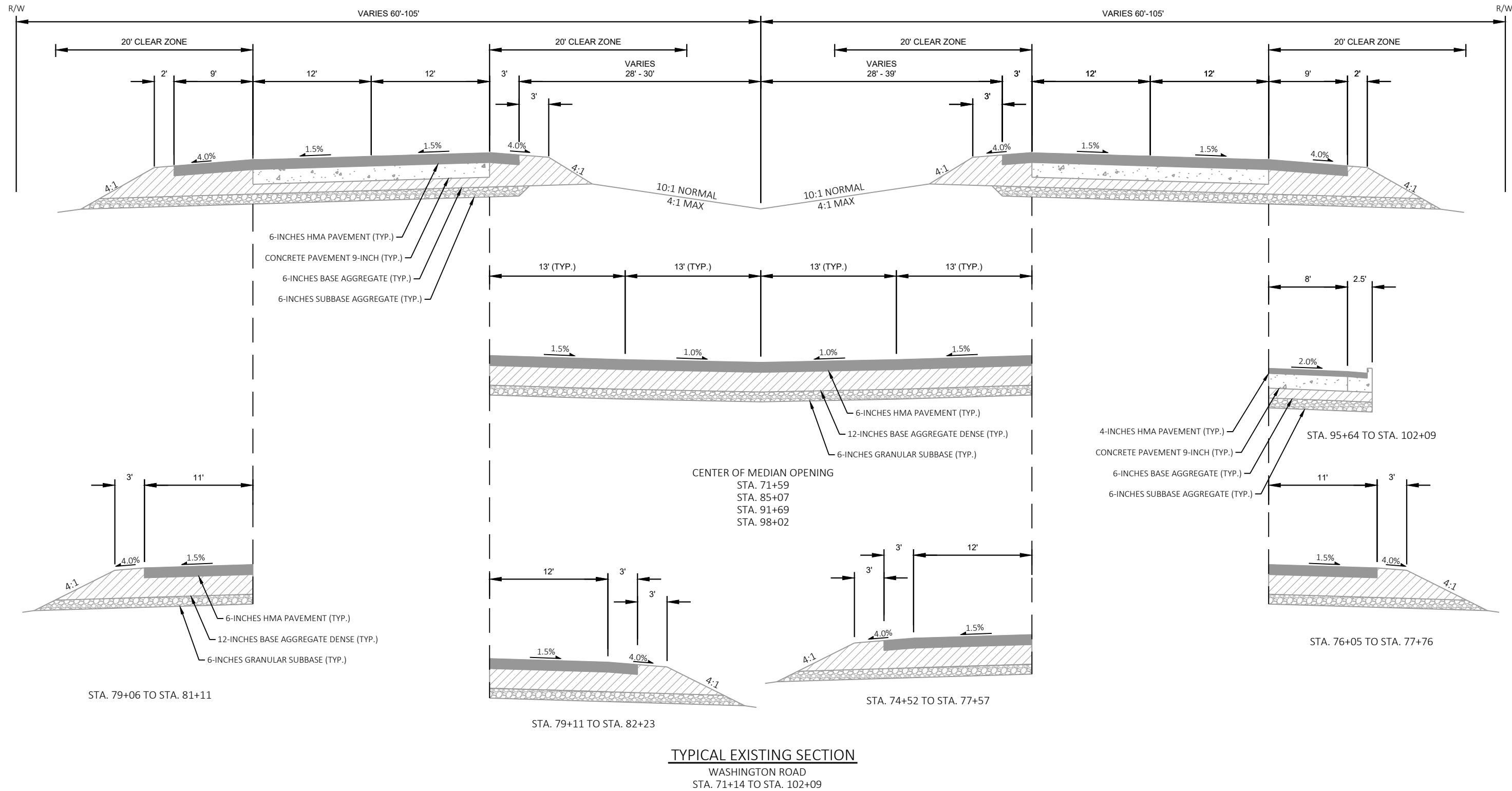


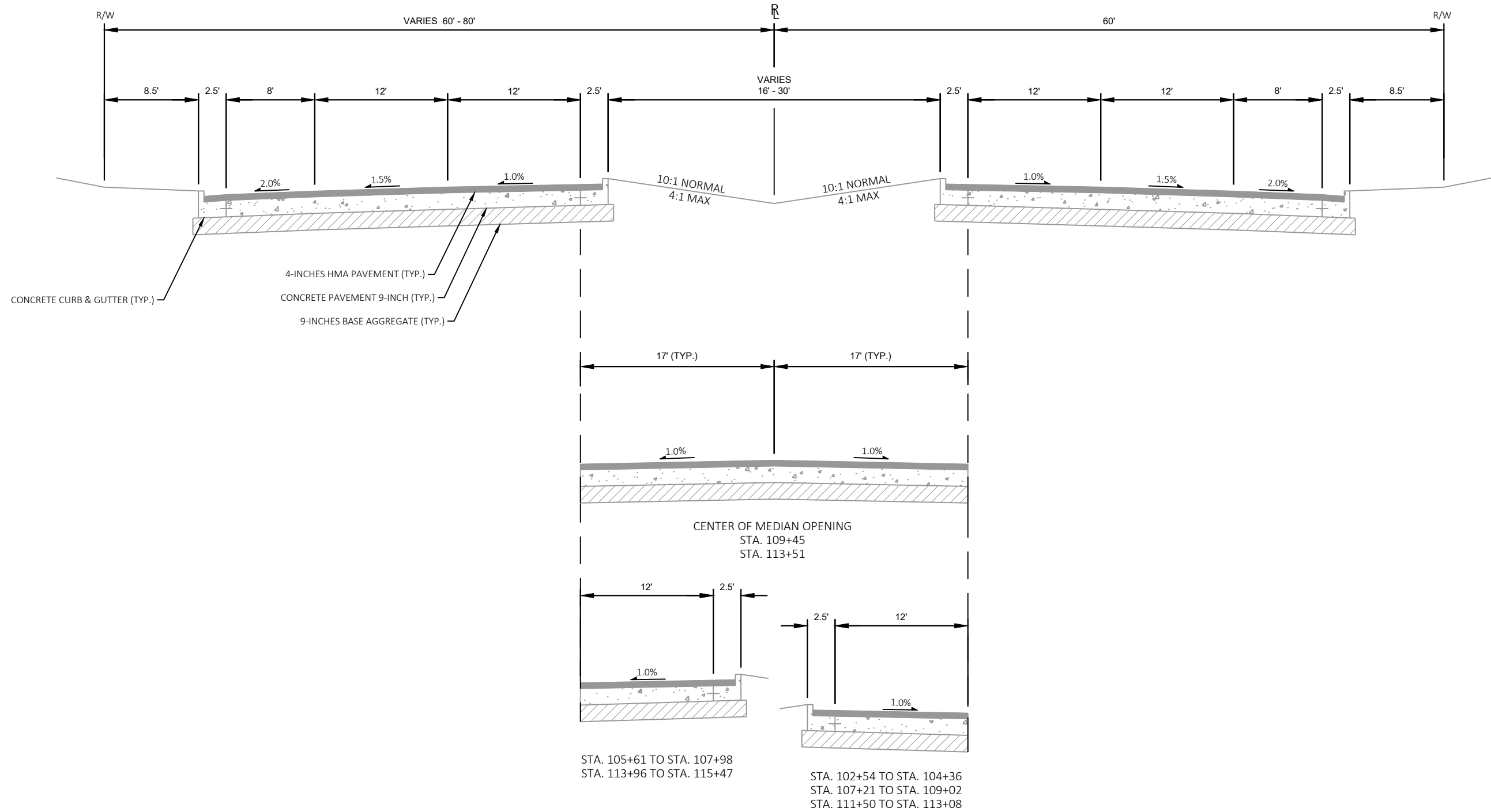
TYPICAL EXISTING SECTION
 WASHINGTON ROAD
 STA. 45+74.44 TO STA. 48+13 - RT ONLY



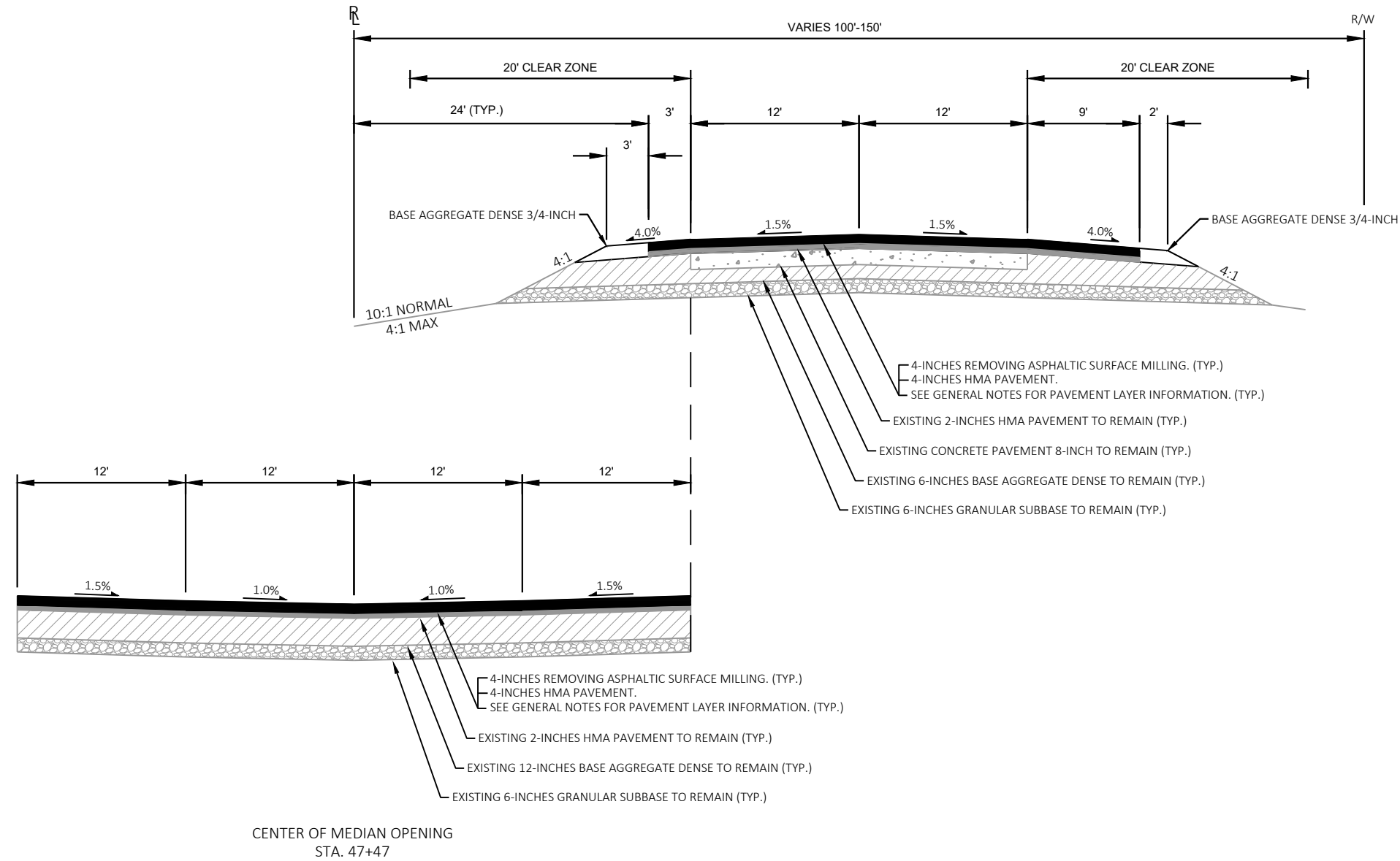
TYPICAL EXISTING SECTION
WASHINGTON ROAD
STA. 48+13 TO STA. 71+14

PROJECT NO: 2704-03-72	HWY: LOCAL STREET	COUNTY: KENOSHA	TYPICAL SECTIONS	SHEET	E
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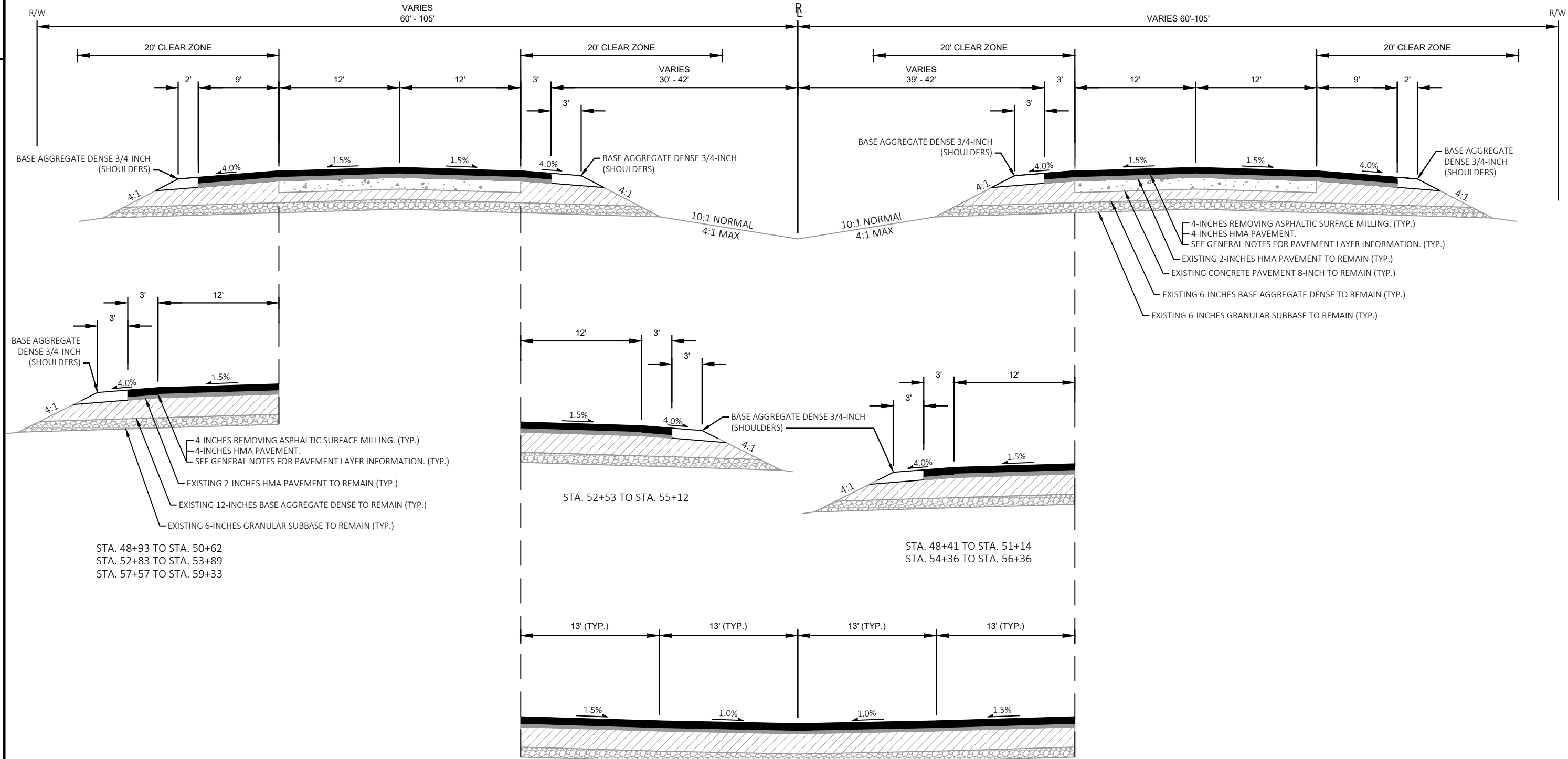




TYPICAL EXISTING SECTION
 WASHINGTON ROAD
 STA. 102+09 TO STA. 117+77.22



TYPICAL PROPOSED SECTION
 WASHINGTON ROAD
 STA. 45+74.44 TO STA. 48+13 - RT ONLY



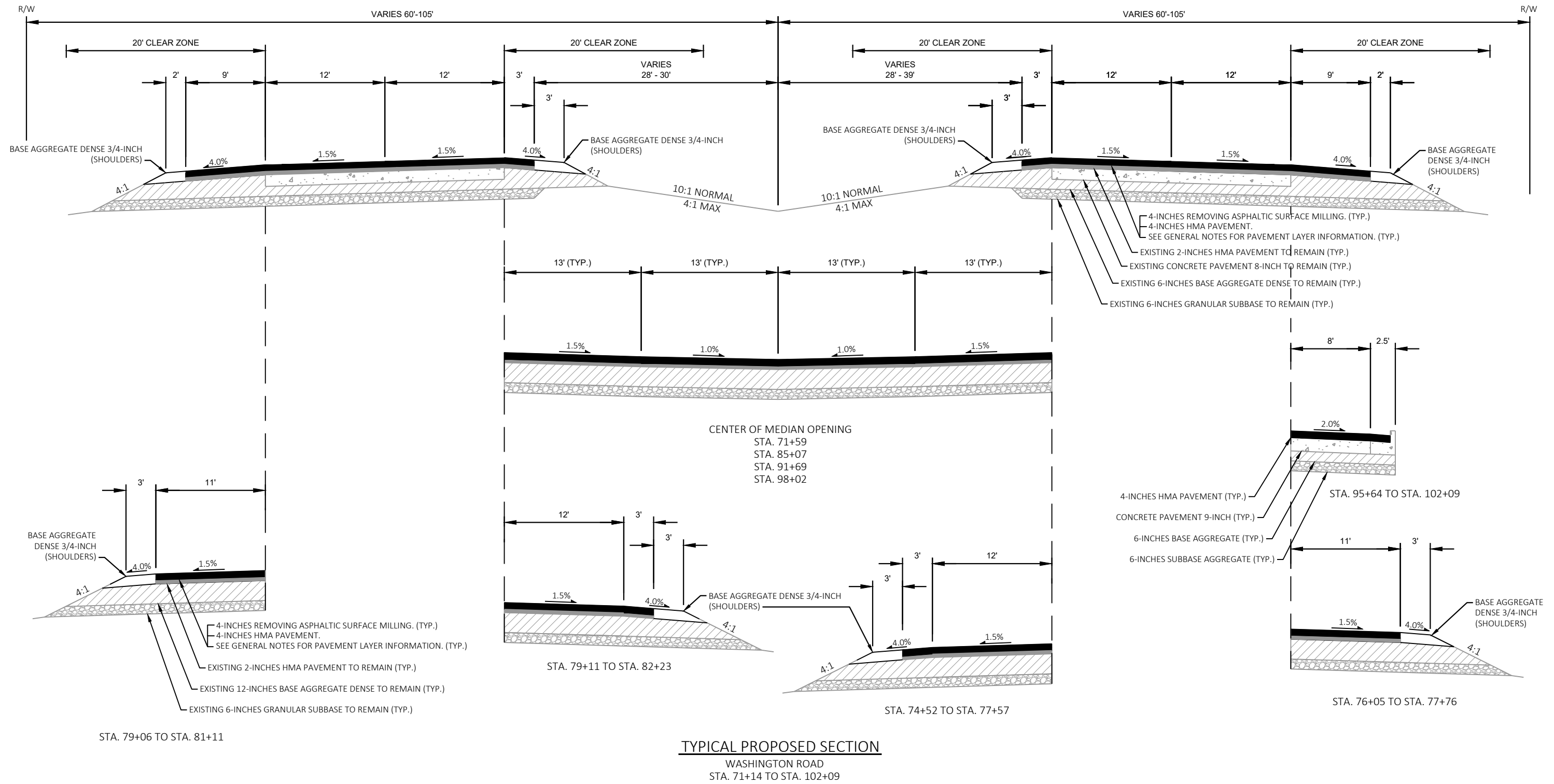
TYPICAL PROPOSED SECTION

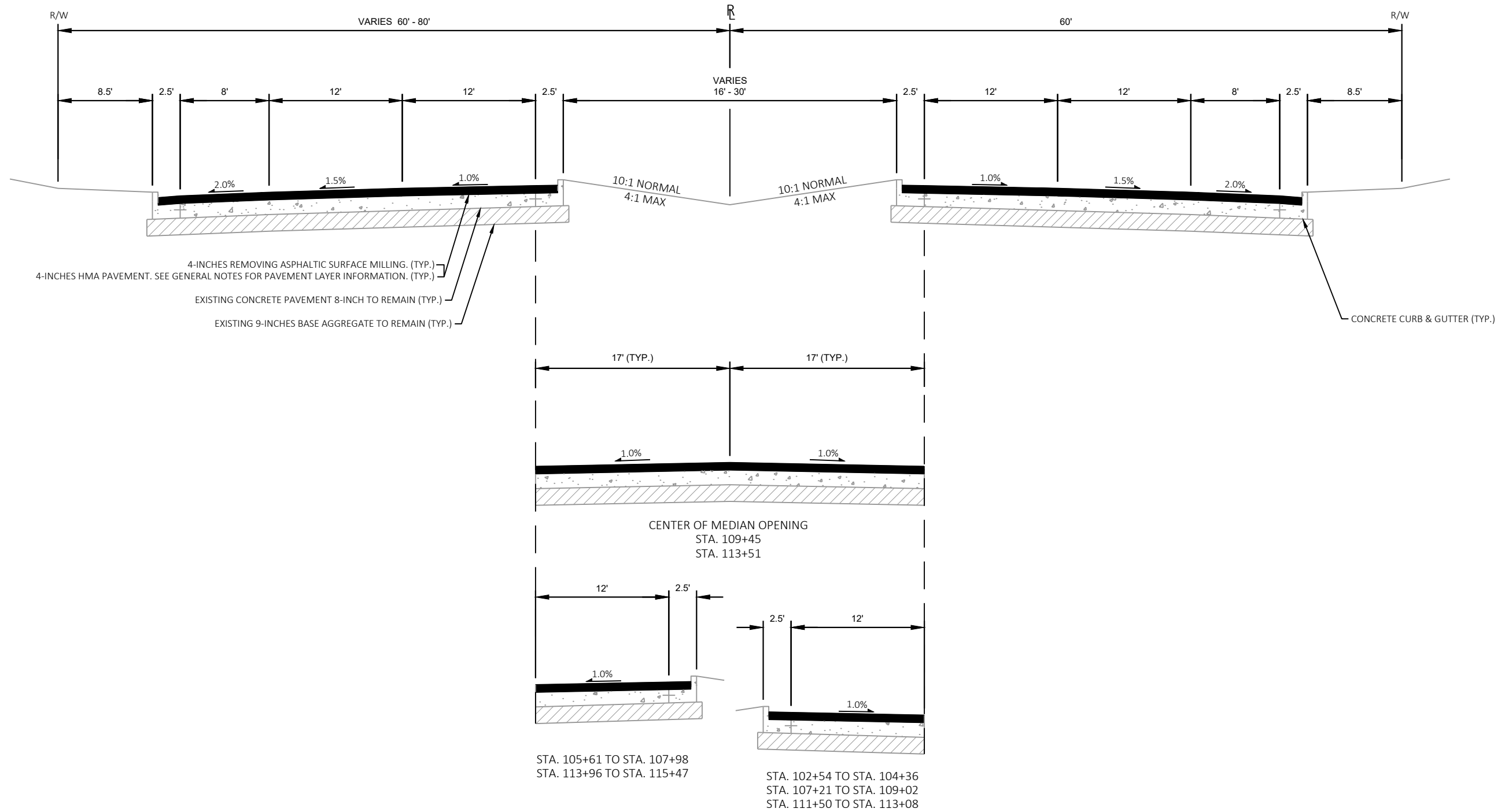
WASHINGTON ROAD
STA. 48+13 TO STA. 71+14

STA. 48+93 TO STA. 50+62
STA. 52+83 TO STA. 53+89
STA. 57+57 TO STA. 59+33

STA. 52+53 TO STA. 55+12

STA. 48+41 TO STA. 51+14
STA. 54+36 TO STA. 56+36



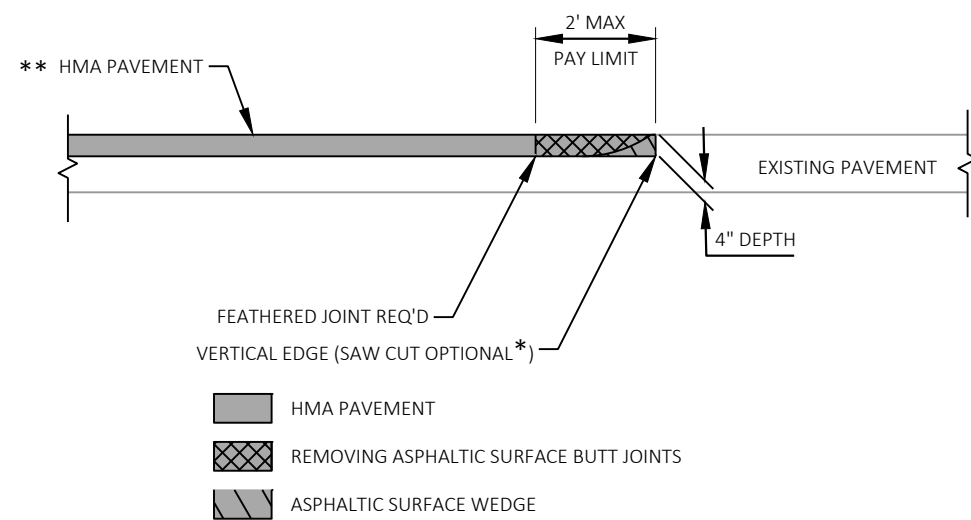


TYPICAL PROPOSED SECTION

WASHINGTON ROAD
STA. 102+09 TO STA. 117+77.22

NOT TO SCALE

- * NOT PAID FOR SEPARATELY
- ** SEE HMA PAVEMENT SUMMARY TABLE ON GENERAL NOTES PLAN SHEET FOR PAVEMENT TYPE AND LAYER THICKNESS.



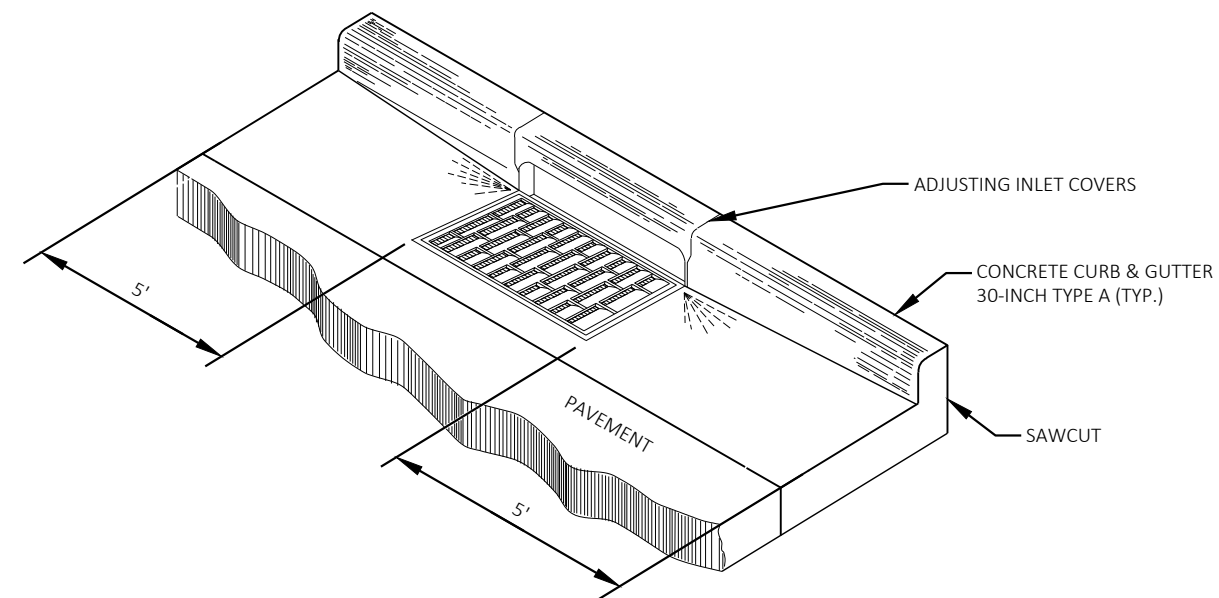
REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL (NO PROFILE CHANGE)

- STA. 45+75.44
- STA. 51+75 LT & RT
- STA. 57+00 RT
- STA. 78+40 LT & RT
- STA. 85+00 RT
- STA. 105+00 LT & RT
- STA. 117+77.22

NOT TO SCALE


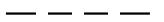









CONSTRUCTION NOTES

1. REPLACE 5- FEET OF CONCRETE CURB & GUTTER ON EACH SIDE OF ADJUSTING INLET COVERS.
2. TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A SHALL BE USED IN THE RESTORATION AREA BEHIND THE CURB & GUTTER REPLACEMENT ASSOCIATED WITH ADJUSTING INLET COVERS.



ADJUSTING INLET COVERS

LEGEND

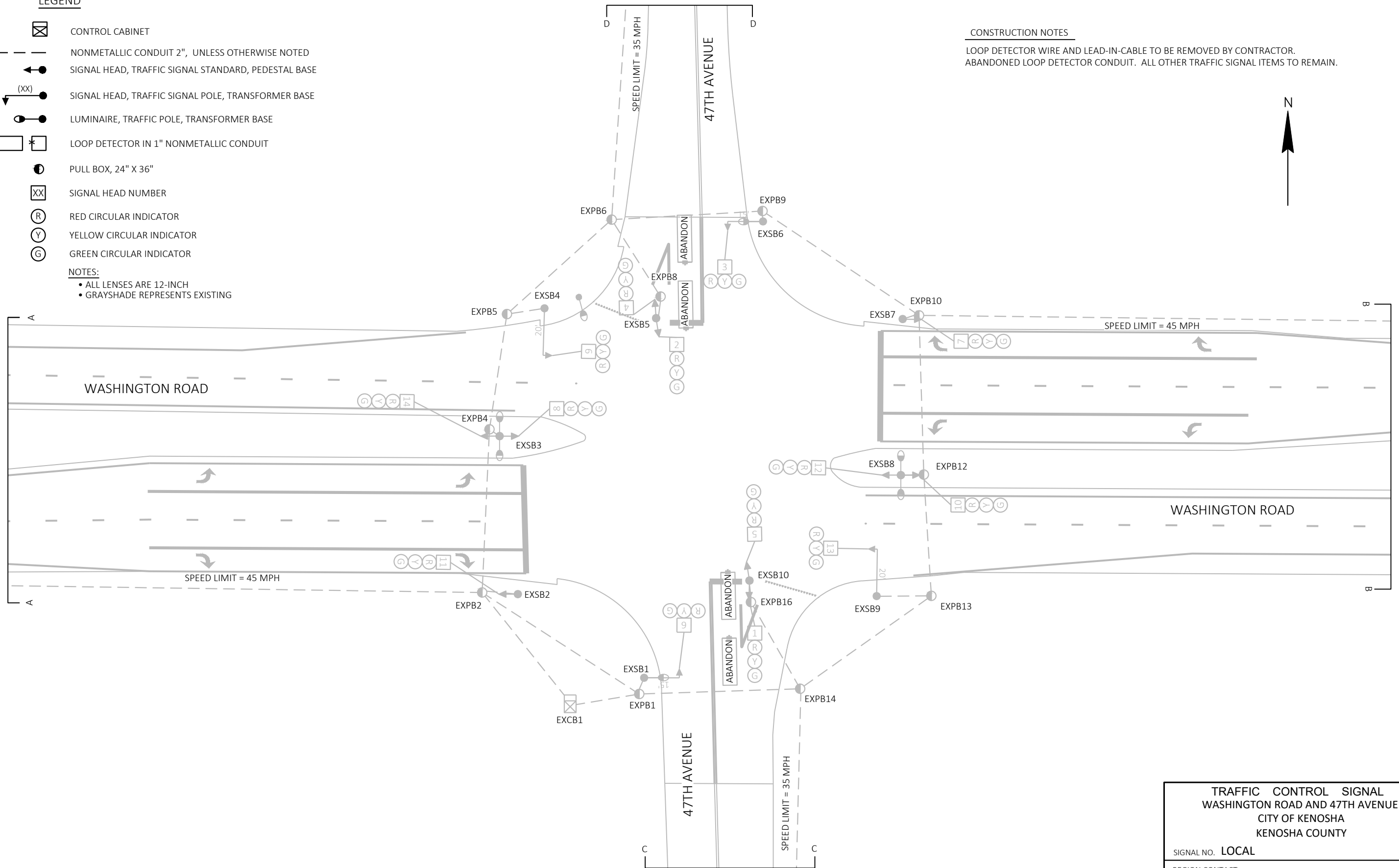
-  CONTROL CABINET
-  NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
-  SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
-  SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
-  LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
-  LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
-  PULL BOX, 24" X 36"
-  SIGNAL HEAD NUMBER
-  RED CIRCULAR INDICATOR
-  YELLOW CIRCULAR INDICATOR
-  GREEN CIRCULAR INDICATOR

NOTES:

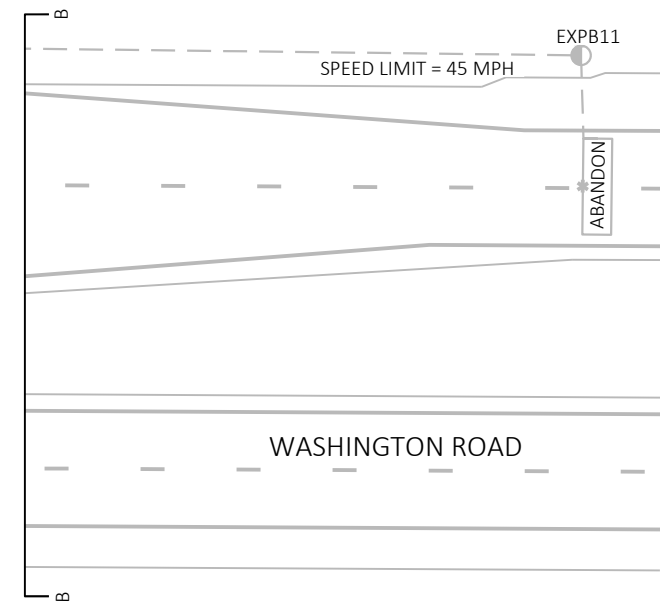
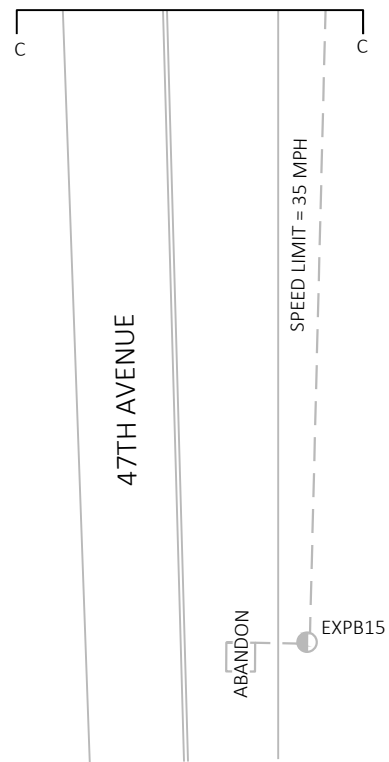
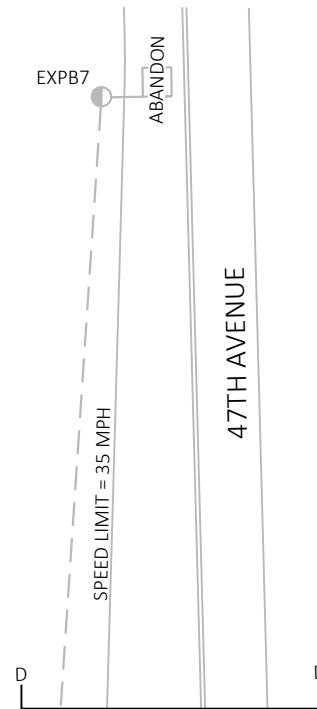
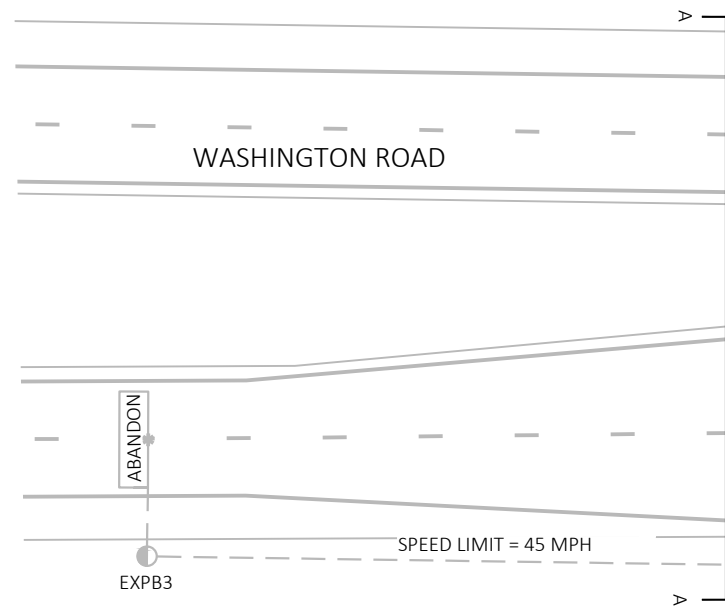
- ALL LENSES ARE 12-INCH
- GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES

LOOP DETECTOR WIRE AND LEAD-IN-CABLE TO BE REMOVED BY CONTRACTOR.
 ABANDONED LOOP DETECTOR CONDUIT. ALL OTHER TRAFFIC SIGNAL ITEMS TO REMAIN.



TRAFFIC CONTROL SIGNAL WASHINGTON ROAD AND 47TH AVENUE CITY OF KENOSHA KENOSHA COUNTY	
SIGNAL NO. LOCAL	
REGION CONTACT:	PAGE 1 OF 2
DESIGNED BY: STRAND ASSOCIATES INC.	REVISOR:



TRAFFIC CONTROL SIGNAL
 WASHINGTON ROAD AND 47TH AVENUE
 CITY OF KENOSHA
 KENOSHA COUNTY

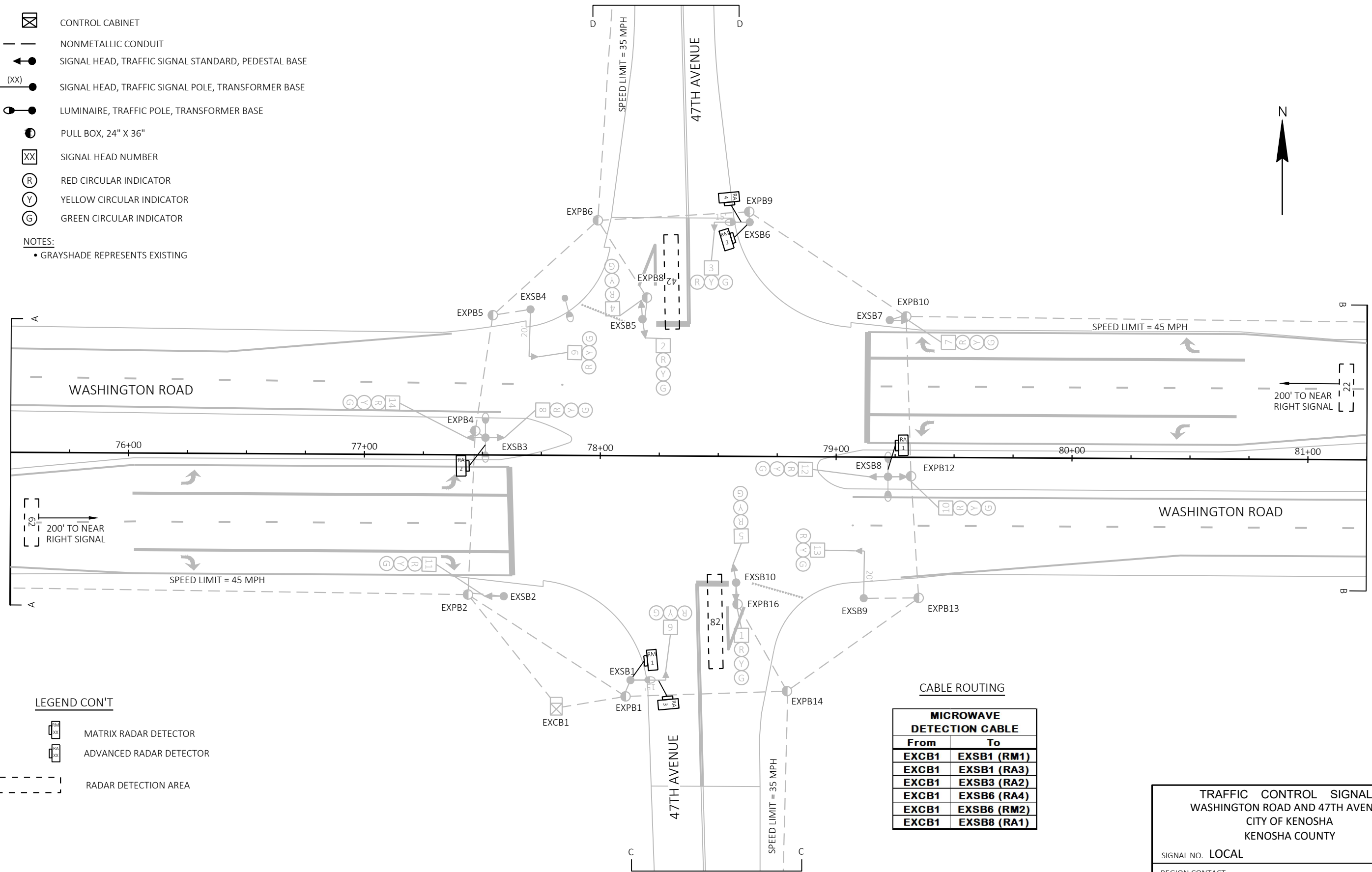
SIGNAL NO. LOCAL

REGION CONTACT:
 DESIGNED BY: STRAND ASSOCIATES INC. PAGE 2 OF 2
 REVISED BY:

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR

NOTES:
 • GRAYSHADE REPRESENTS EXISTING



LEGEND CON'T

- MATRIX RADAR DETECTOR
- ADVANCED RADAR DETECTOR
- RADAR DETECTION AREA

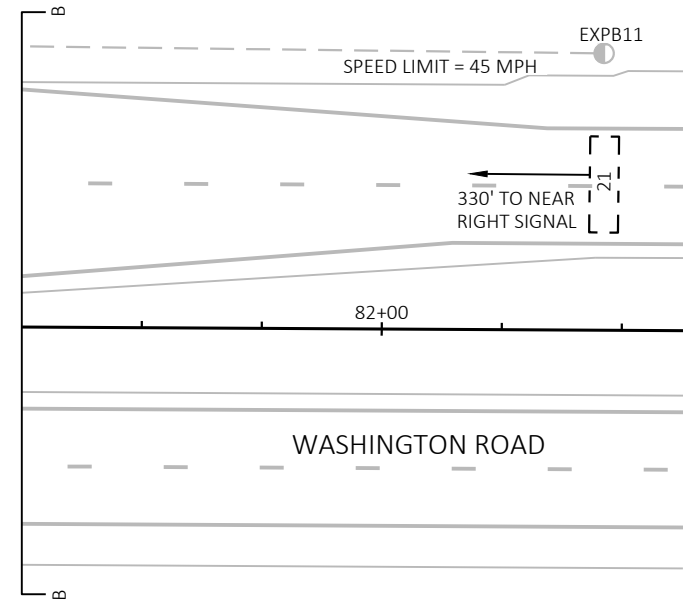
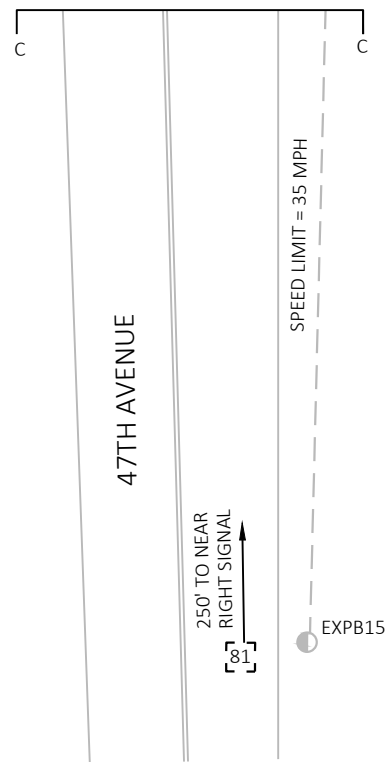
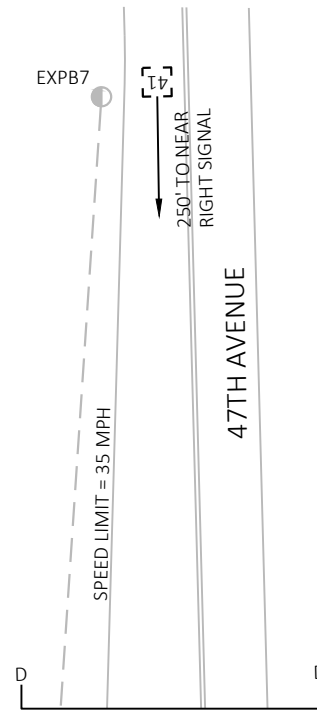
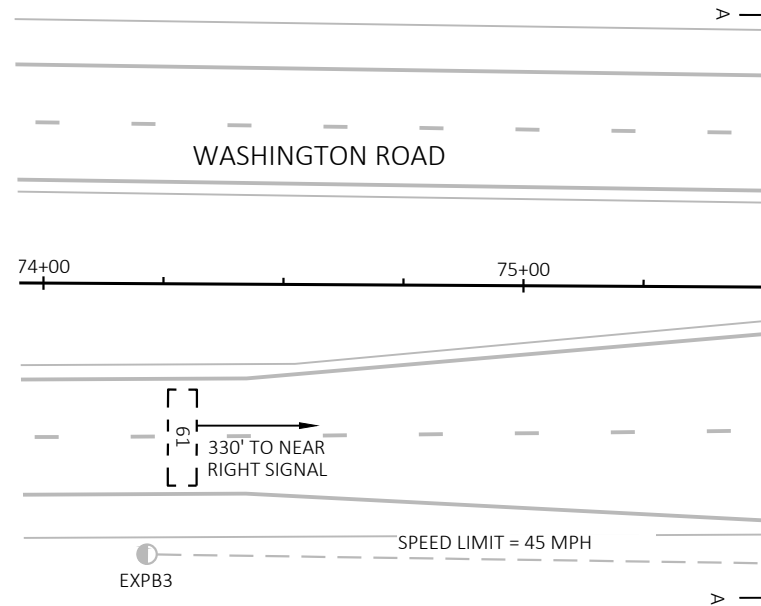
CABLE ROUTING

MICROWAVE DETECTION CABLE	
From	To
EXCB1	EXSB1 (RM1)
EXCB1	EXSB1 (RA3)
EXCB1	EXSB3 (RA2)
EXCB1	EXSB6 (RA4)
EXCB1	EXSB6 (RM2)
EXCB1	EXSB8 (RA1)

TRAFFIC CONTROL SIGNAL
 WASHINGTON ROAD AND 47TH AVENUE
 CITY OF KENOSHA
 KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
 DESIGNED BY: STRAND ASSOCIATES INC. PAGE 1 OF 3
 REVISED BY:

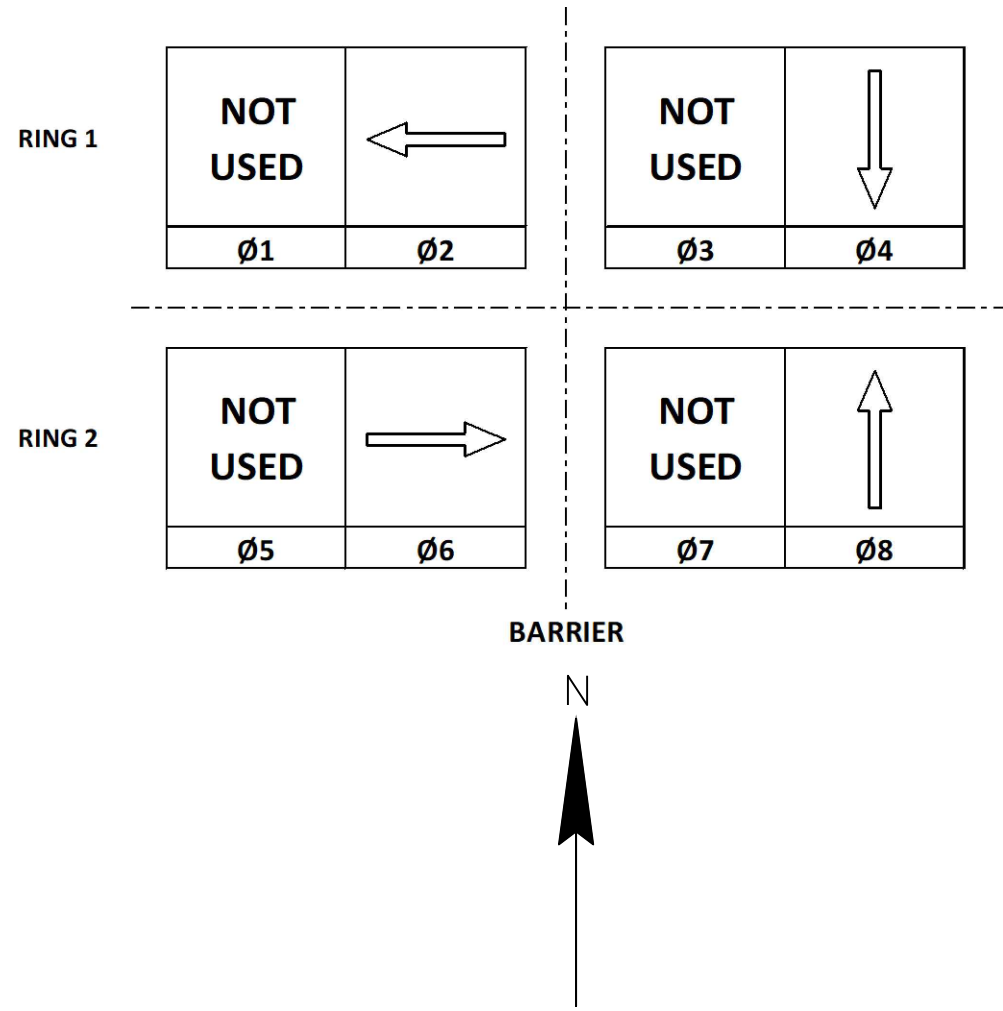


TRAFFIC CONTROL SIGNAL
 WASHINGTON ROAD AND 47TH AVENUE
 CITY OF KENOSHA
 KENOSHA COUNTY

SIGNAL NO. LOCAL

REGION CONTACT:
 DESIGNED BY: STRAND ASSOCIATES INC. PAGE 2 OF 3
 REVISED BY:

	HEAD NUMBERS	FLASH
Ø1		
Ø2	7,8,9,10	R
Ø3		R
Ø4	4,5,6	R
Ø5		
Ø6	11,12,13	R
Ø7		
Ø8	1,2,3	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8		X
5				
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR*(S)	21	41	61	81				
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND	X	X	X	X				
DELAY								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR*(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT
PLAN LOOP DETECTOR*(S)
ASSIGNED PHASE
OPERATION MODE
SWITCH
EXTEND
DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR*(S)	22	42	62	82				
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND	X	X	X	X				
DELAY								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR*(S)								
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

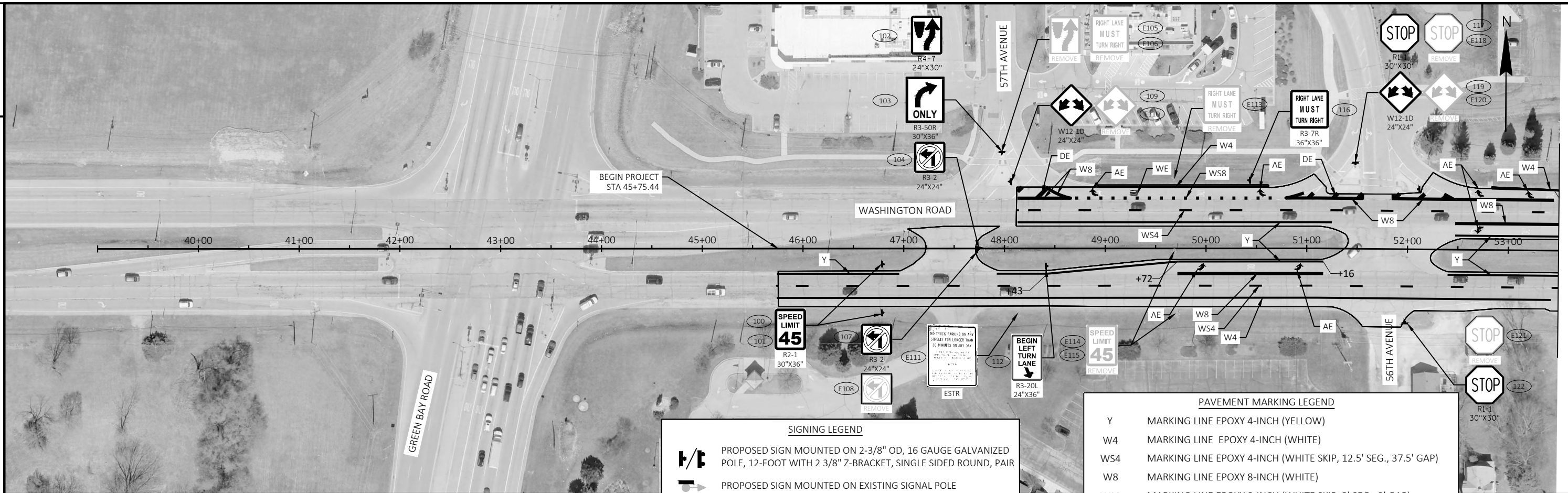
DETECTOR INPUT
PLAN LOOP DETECTOR*(S)
ASSIGNED PHASE
OPERATION MODE
SWITCH
EXTEND
DELAY

GENERAL NOTES:

- EXISTING SIGNAL PHASING AND CONTROLLER LOGIC TO REMAIN.
- DETECTOR LOGIC UPDATED FOR PROPOSED DETECTION.

WASHINGTON ROAD AND 47TH AVENUE
CITY OF KENOSHA
KENOSHA COUNTY

SIGNAL NO: LOCAL CABINET TYPE: EXISTING
CONTROLLER TYPE: EXISTING
DATE: 9/1/2022 PAGE NO. 3 OF 3

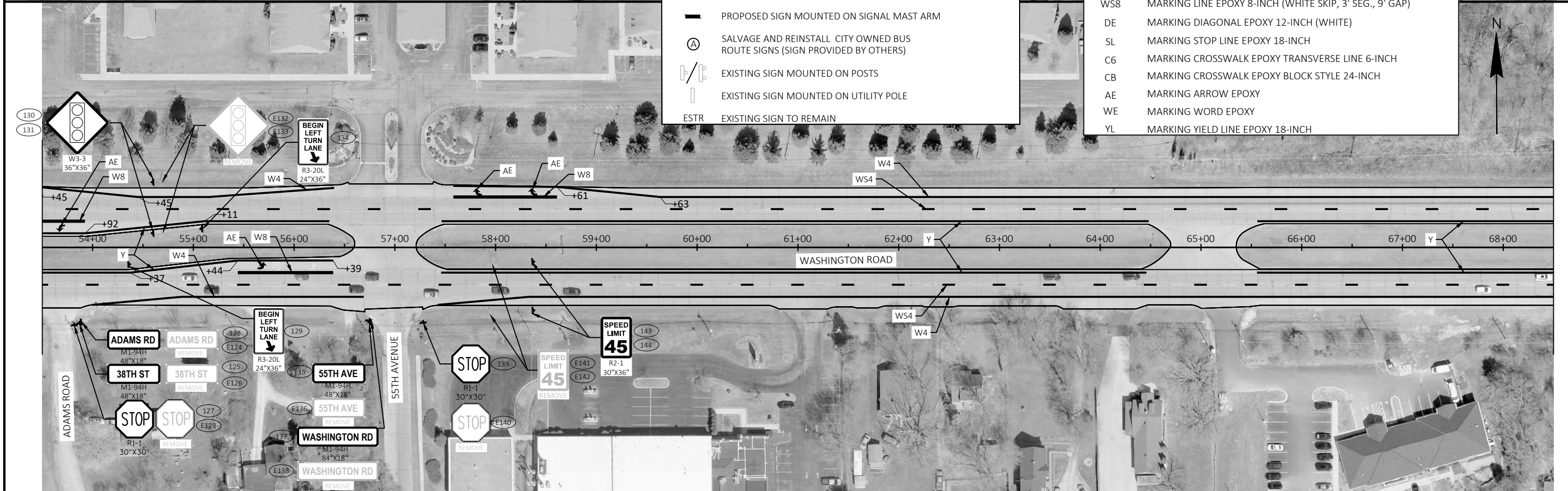


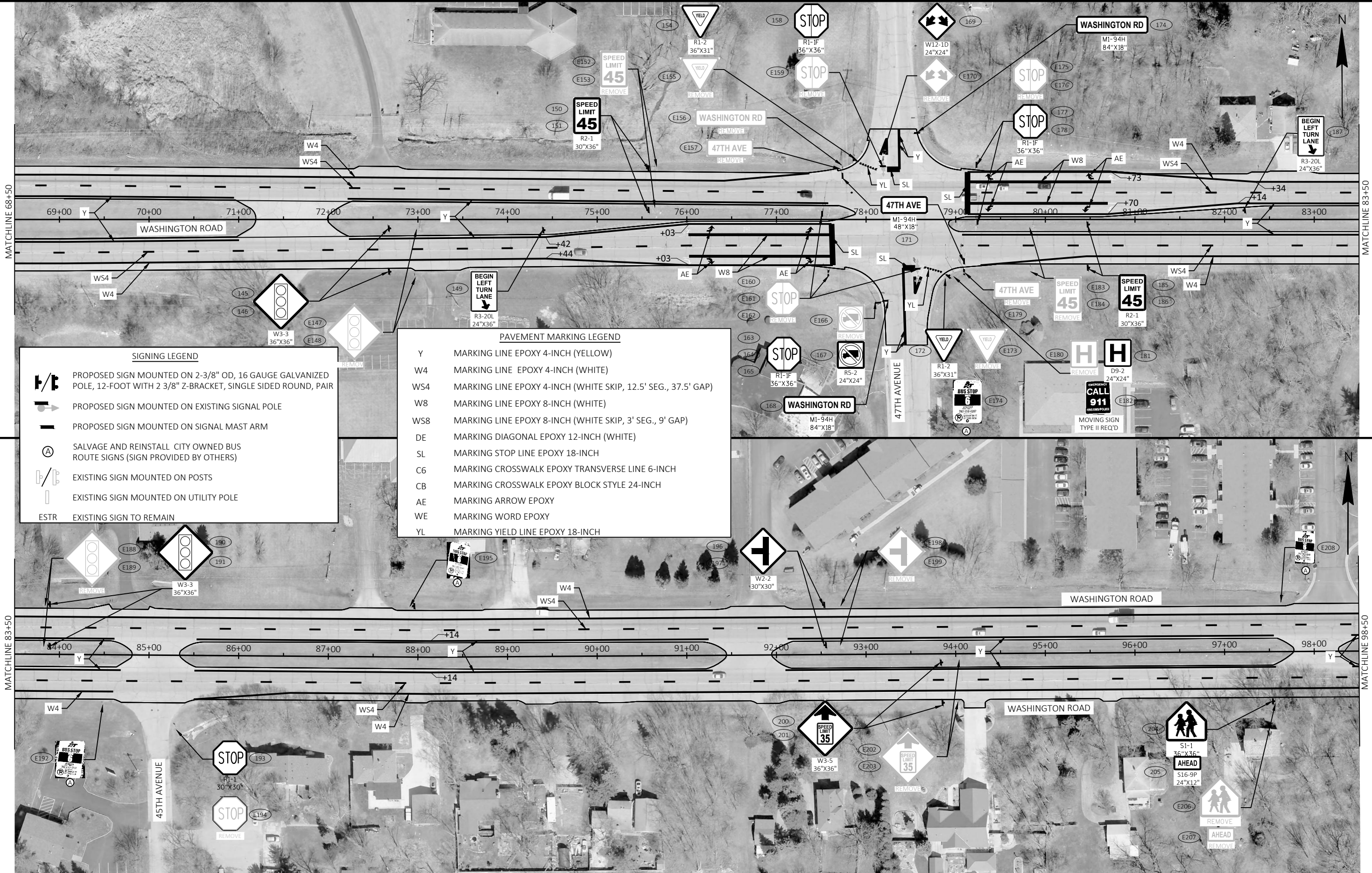
SIGNING LEGEND

	PROPOSED SIGN MOUNTED ON 2-3/8" OD, 16 GAUGE GALVANIZED POLE, 12-FOOT WITH 2 3/8" Z-BRACKET, SINGLE SIDED ROUND, PAIR
	PROPOSED SIGN MOUNTED ON EXISTING SIGNAL POLE
	PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM
	SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS (SIGN PROVIDED BY OTHERS)
	EXISTING SIGN MOUNTED ON POSTS
	EXISTING SIGN MOUNTED ON UTILITY POLE
	EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

Y	MARKING LINE EPOXY 4-INCH (YELLOW)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W8	MARKING LINE EPOXY 8-INCH (WHITE)
WS8	MARKING LINE EPOXY 8-INCH (WHITE SKIP, 3' SEG., 9' GAP)
DE	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SL	MARKING STOP LINE EPOXY 18-INCH
C6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
CB	MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
YL	MARKING YIELD LINE EPOXY 18-INCH



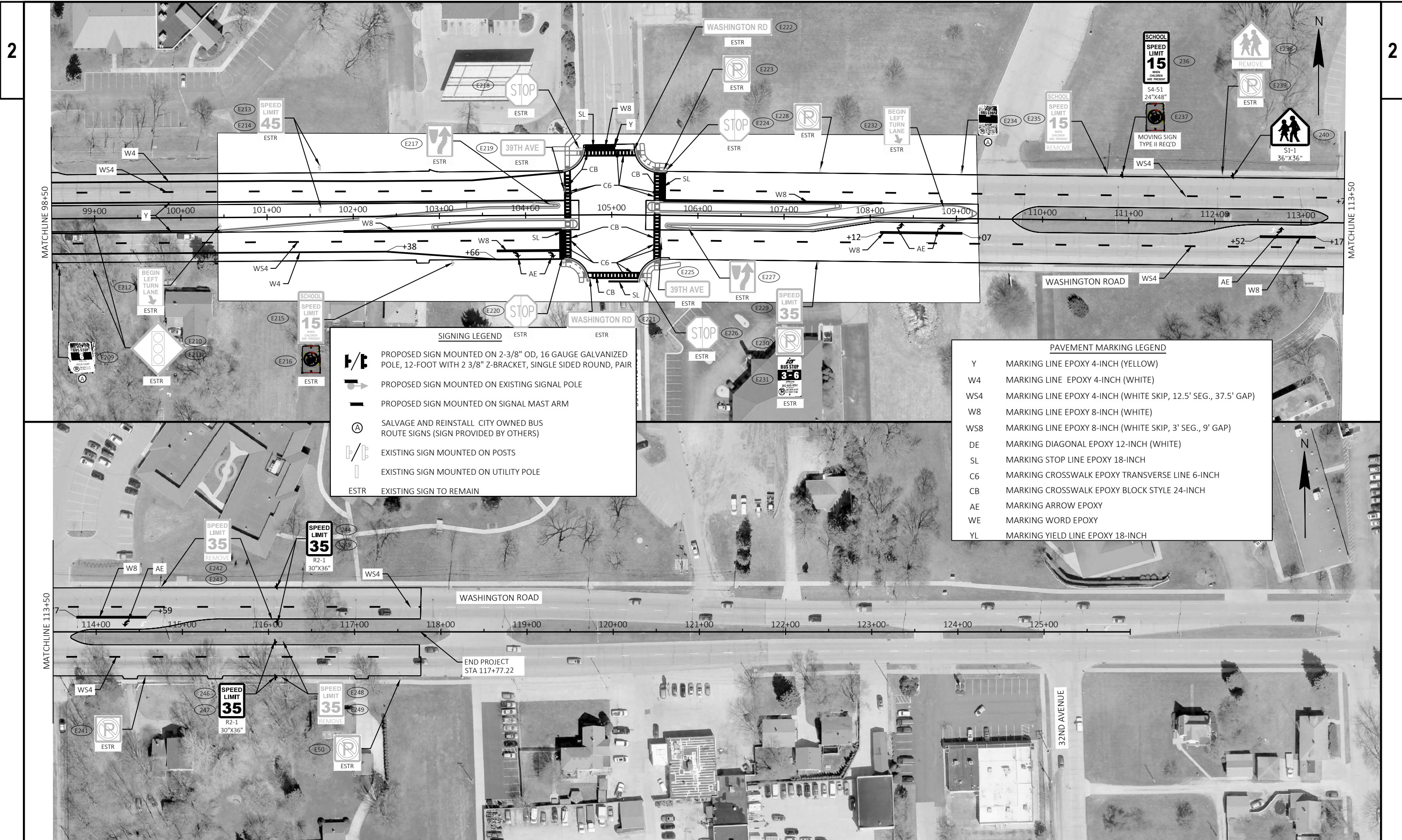


SIGNING LEGEND

- PROPOSED SIGN MOUNTED ON 2-3/8" OD, 16 GAUGE GALVANIZED POLE, 12-FOOT WITH 2 3/8" Z-BRACKET, SINGLE SIDED ROUND, PAIR
- PROPOSED SIGN MOUNTED ON EXISTING SIGNAL POLE
- PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM
- SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS (SIGN PROVIDED BY OTHERS)
- EXISTING SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON UTILITY POLE
- EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

- Y MARKING LINE EPOXY 4-INCH (YELLOW)
- W4 MARKING LINE EPOXY 4-INCH (WHITE)
- WS4 MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
- W8 MARKING LINE EPOXY 8-INCH (WHITE)
- WS8 MARKING LINE EPOXY 8-INCH (WHITE SKIP, 3' SEG., 9' GAP)
- DE MARKING DIAGONAL EPOXY 12-INCH (WHITE)
- SL MARKING STOP LINE EPOXY 18-INCH
- C6 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
- CB MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH
- AE MARKING ARROW EPOXY
- WE MARKING WORD EPOXY
- YL MARKING YIELD LINE EPOXY 18-INCH

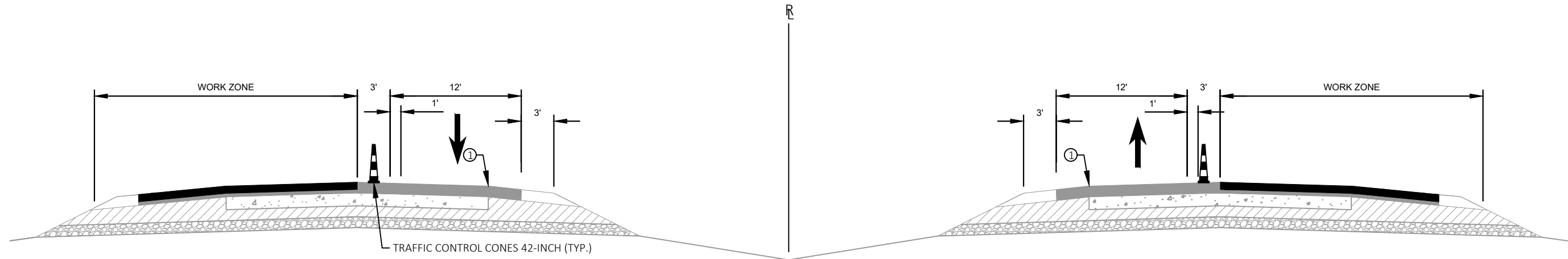


SIGNING LEGEND

	PROPOSED SIGN MOUNTED ON 2-3/8" OD, 16 GAUGE GALVANIZED POLE, 12-FOOT WITH 2 3/8" Z-BRACKET, SINGLE SIDED ROUND, PAIR
	PROPOSED SIGN MOUNTED ON EXISTING SIGNAL POLE
	PROPOSED SIGN MOUNTED ON SIGNAL MAST ARM
	SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGNS (SIGN PROVIDED BY OTHERS)
	EXISTING SIGN MOUNTED ON POSTS
	EXISTING SIGN MOUNTED ON UTILITY POLE
	EXISTING SIGN TO REMAIN

PAVEMENT MARKING LEGEND

Y	MARKING LINE EPOXY 4-INCH (YELLOW)
W4	MARKING LINE EPOXY 4-INCH (WHITE)
WS4	MARKING LINE EPOXY 4-INCH (WHITE SKIP, 12.5' SEG., 37.5' GAP)
W8	MARKING LINE EPOXY 8-INCH (WHITE)
WS8	MARKING LINE EPOXY 8-INCH (WHITE SKIP, 3' SEG., 9' GAP)
DE	MARKING DIAGONAL EPOXY 12-INCH (WHITE)
SL	MARKING STOP LINE EPOXY 18-INCH
C6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
CB	MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH
AE	MARKING ARROW EPOXY
WE	MARKING WORD EPOXY
YL	MARKING YIELD LINE EPOXY 18-INCH

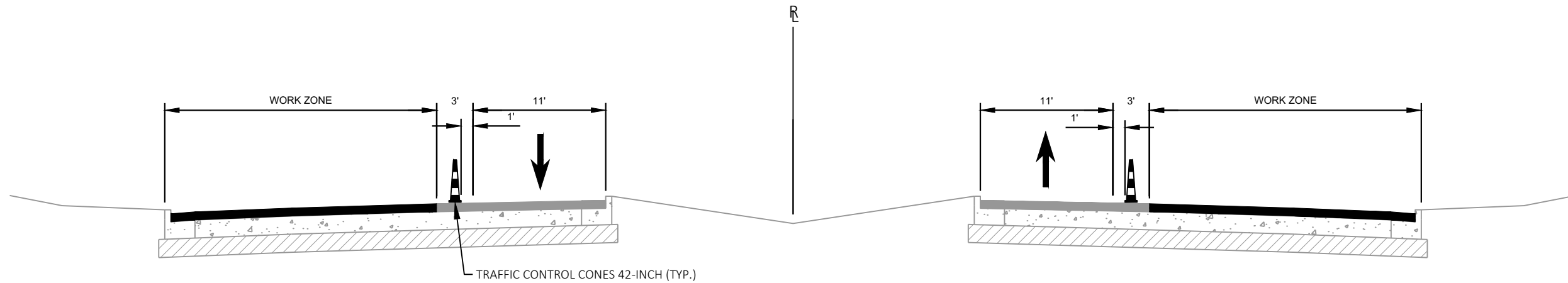


TRAFFIC CONTROL CONES 42-INCH (TYP.)

CONSTRUCTION STAGE 1 TYPICAL SECTION AT PARTIAL LANE SHIFT

WASHINGTON ROAD
STA. 45+75 TO STA. 102+09

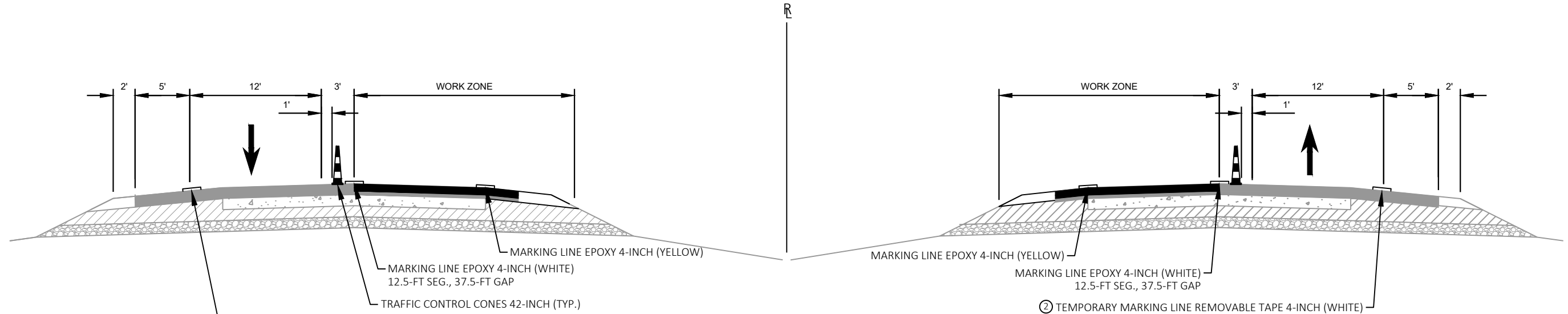
① MARKING REMOVAL LINE 4-INCH (WHITE EDGELINE) EXISTING MARKINGS TO REMAIN UNLESS PARTIAL LANE SHIFT IN PLACE DURING NIGHT TIME HOURS. SEE STANDARD DETAIL "TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER".



TRAFFIC CONTROL CONES 42-INCH (TYP.)

CONSTRUCTION STAGE 1 TYPICAL SECTION AT PARTIAL LANE SHIFT

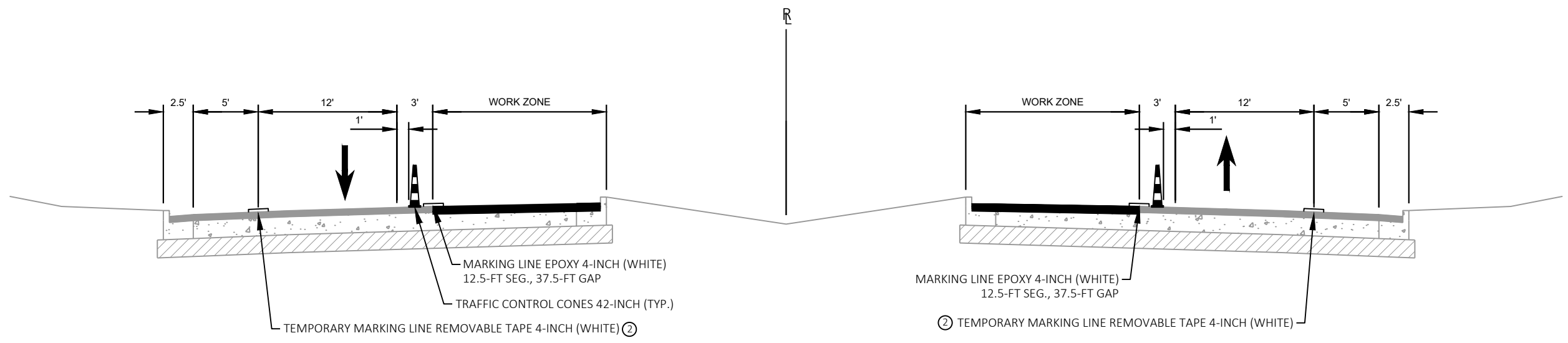
WASHINGTON ROAD
STA. 102+09 TO STA. 117+75



CONSTRUCTION STAGE 2 TYPICAL SECTION AT PARTIAL LANE SHIFT

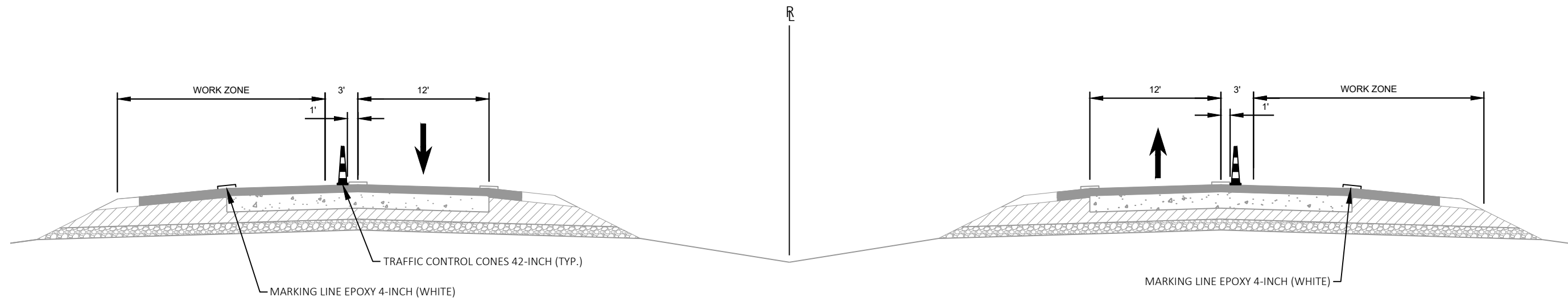
WASHINGTON ROAD
STA. 45+75 TO STA. 102+09

② TEMPORARY MARKINGS REQUIRED IF PARTIAL LANE SHIFT WILL BE IN PLACE DURING NIGHT TIME HOURS. SEE STANDARD DETAIL "TRAFFIC CONTROL PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER".



CONSTRUCTION STAGE 2 TYPICAL SECTION AT PARTIAL LANE SHIFT

WASHINGTON ROAD
STA. 102+09 TO STA. 117+75



CONSTRUCTION STAGE 3 TYPICAL SECTION

WASHINGTON ROAD
 STA. 45+75 TO STA. 102+09



SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS

PCMS
 PANEL 1
 ROAD WORK BEGINS
 PANEL 2
 (START DAY/TIME)

PCMS
 PANEL 1
 ROAD WORK BEGINS
 PANEL 2
 (START DAY/TIME)

BEGIN PROJECT
 STA. 45+75.44

END PROJECT
 STA. 117+75.22

MAINTAIN FULL ACCESS TO 56TH AVENUE OR 55TH AVENUE AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE STREETS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

MAINTAIN FULL ACCESS TO ONE OF THE SHAGBARK APARTMENTS DRIVEWAYS LOCATED ALONG WASHINGTON ROAD AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE DRIVEWAYS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

LEGEND

WORK ZONE

PCMS TRAFFIC CONTROL SIGNS PCMS

- STAGE 1:**
- TRAFFIC (STAGE 1):**
- EASTBOUND AND WESTBOUND TRAFFIC WILL BE REDUCED TO ONE LANE ON THE INSIDE LANE OF THE EXISTING PAVEMENT.
 - MAINTAIN ACCESS TO LOCAL BUSINESSES AND RESIDENTS.
 - MAINTAIN PEDESTRIAN ACCESS ON EASTBOUND SIDE AND WESTBOUND SIDE SIDEWALK AT ALL TIMES.
- CONSTRUCT (STAGE 1):**
- INSTALL TRAFFIC CONTROL DEVICES NECESSARY FOR STAGE 1 CONSTRUCTION PRIOR TO THE TRAFFIC SWITCH TO STAGE 1.
 - REMOVE ASPHALTIC SURFACE MILLING AND PLACE HMA IN OUTSIDE LANE AND OUTSIDE SHOULDERS.

- TRAFFIC CONTROL NOTES**
- SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE" FOR DETAILS AT RIGHT TURN LANE OR MEDIAN OPENINGS.
 - THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 - ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
 - SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
 - SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
 - PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
 - TEMPORARY MARKING ON EXISTING OR TEMPORARY PAVEMENT SHALL BE TEMPORARY MARKING PAINT.
 - TEMPORARY MARKING ON NEW PAVEMENT SHALL BE TEMPORARY MARKING REMOVABLE TAPE.
 - PLACE TRAFFIC CONTROL SIGNS PCMS 3 DAYS PRIOR TO CONSTRUCTION.

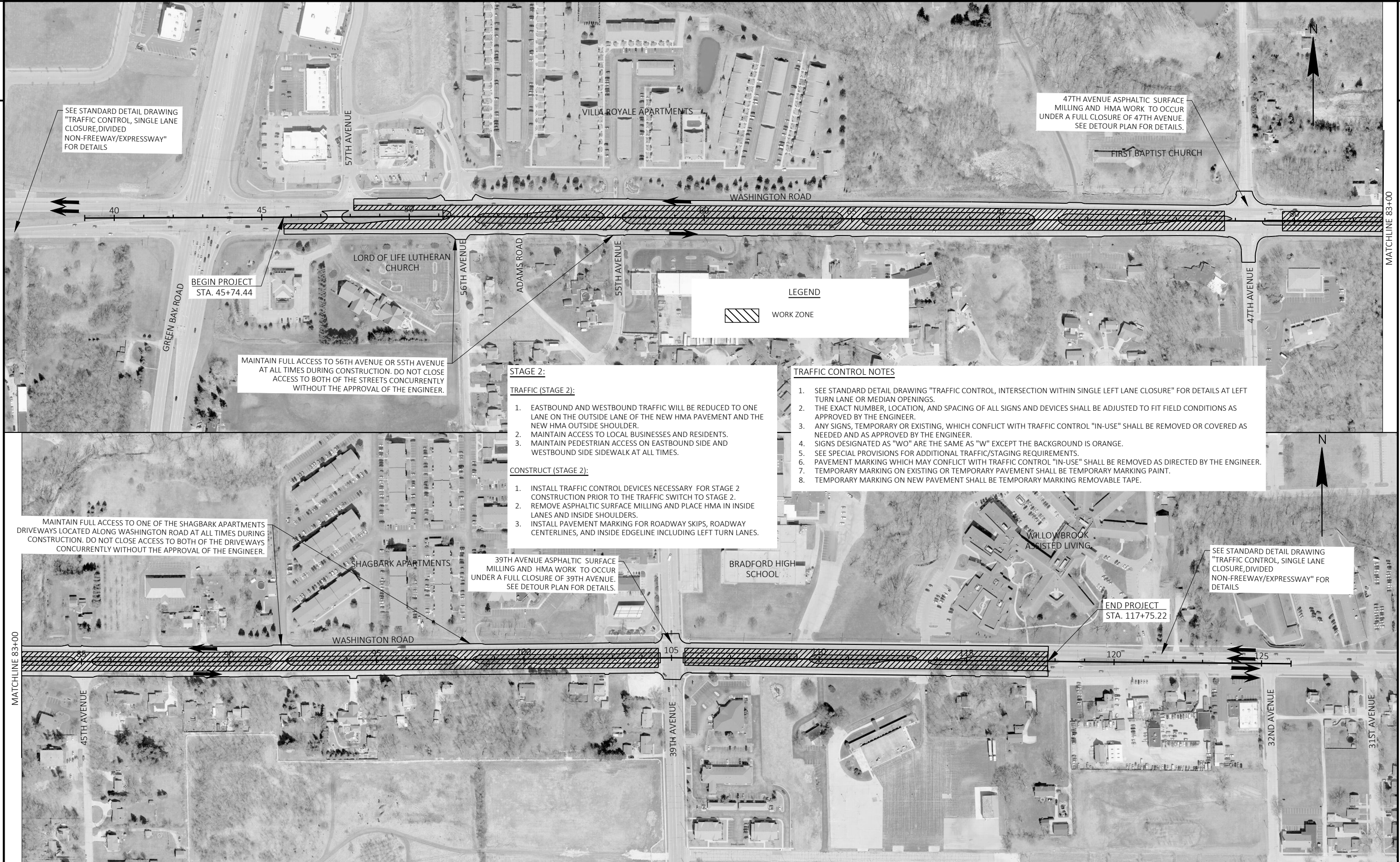


WASHINGTON ROAD

GREEN BAY ROAD



SEE STANDARD DETAIL DRAWINGS
"TRAFFIC CONTROL, SINGLE LANE
CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"
AND "TRAFFIC CONTROL, INTERSECTION WITHIN
SINGLE RIGHT LANE CLOSURE" FOR DETAILS.



SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS


47TH AVENUE ASPHALTIC SURFACE MILLING AND HMA WORK TO OCCUR UNDER A FULL CLOSURE OF 47TH AVENUE. SEE DETOUR PLAN FOR DETAILS.

BEGIN PROJECT STA. 45+74.44

MAINTAIN FULL ACCESS TO 56TH AVENUE OR 55TH AVENUE AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE STREETS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

- STAGE 2:**
- TRAFFIC (STAGE 2):**
- EASTBOUND AND WESTBOUND TRAFFIC WILL BE REDUCED TO ONE LANE ON THE OUTSIDE LANE OF THE NEW HMA PAVEMENT AND THE NEW HMA OUTSIDE SHOULDER.
 - MAINTAIN ACCESS TO LOCAL BUSINESSES AND RESIDENTS.
 - MAINTAIN PEDESTRIAN ACCESS ON EASTBOUND SIDE AND WESTBOUND SIDE SIDEWALK AT ALL TIMES.
- CONSTRUCT (STAGE 2):**
- INSTALL TRAFFIC CONTROL DEVICES NECESSARY FOR STAGE 2 CONSTRUCTION PRIOR TO THE TRAFFIC SWITCH TO STAGE 2.
 - REMOVE ASPHALTIC SURFACE MILLING AND PLACE HMA IN INSIDE LANES AND INSIDE SHOULDERS.
 - INSTALL PAVEMENT MARKING FOR ROADWAY SKIPS, ROADWAY CENTERLINES, AND INSIDE EDGELINE INCLUDING LEFT TURN LANES.

LEGEND

 WORK ZONE

- TRAFFIC CONTROL NOTES**
- SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE" FOR DETAILS AT LEFT TURN LANE OR MEDIAN OPENINGS.
 - THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 - ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
 - SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
 - SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
 - PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
 - TEMPORARY MARKING ON EXISTING OR TEMPORARY PAVEMENT SHALL BE TEMPORARY MARKING PAINT.
 - TEMPORARY MARKING ON NEW PAVEMENT SHALL BE TEMPORARY MARKING REMOVABLE TAPE.

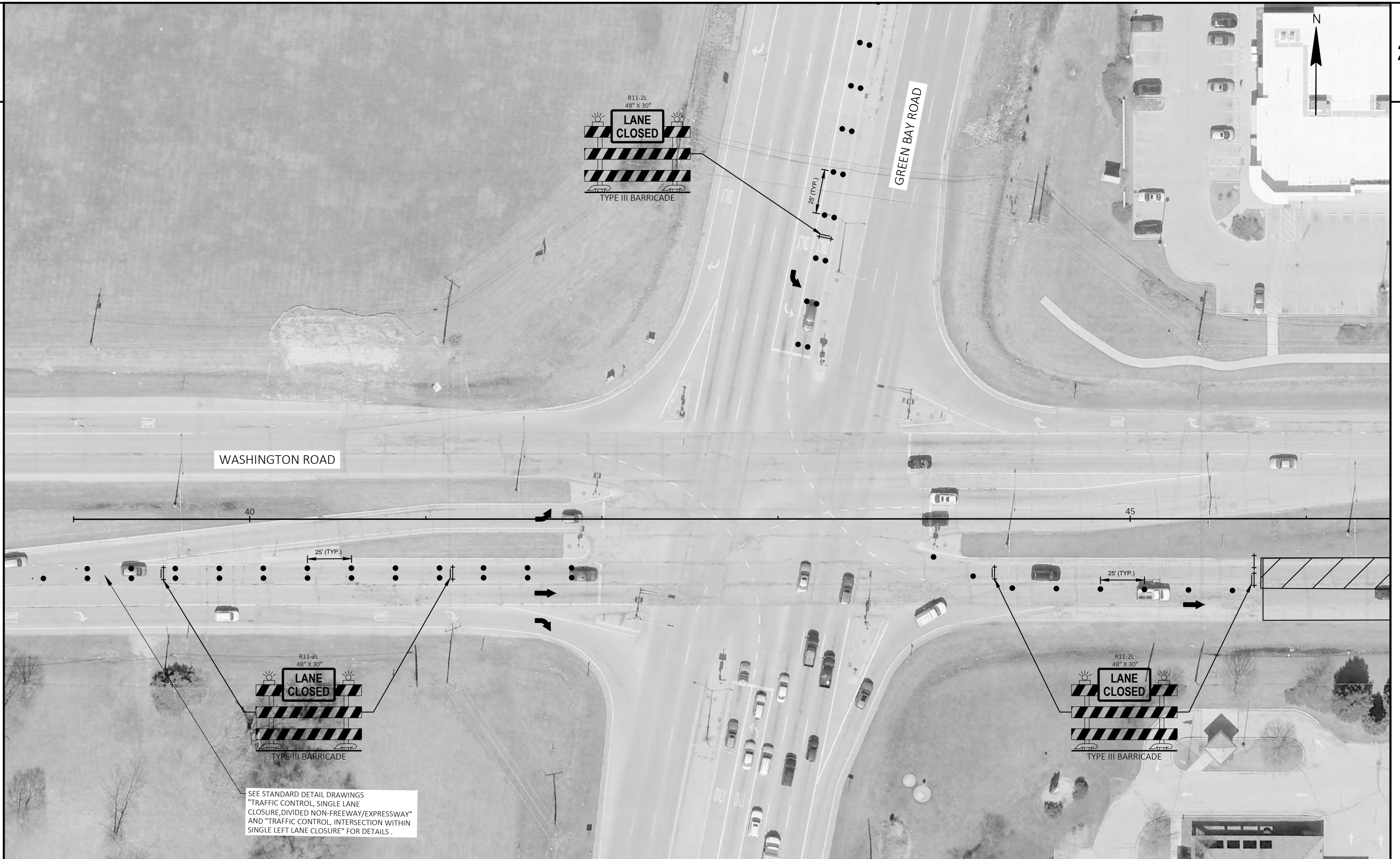
MAINTAIN FULL ACCESS TO ONE OF THE SHAGBARK APARTMENTS DRIVEWAYS LOCATED ALONG WASHINGTON ROAD AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE DRIVEWAYS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

39TH AVENUE ASPHALTIC SURFACE MILLING AND HMA WORK TO OCCUR UNDER A FULL CLOSURE OF 39TH AVENUE. SEE DETOUR PLAN FOR DETAILS.

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS

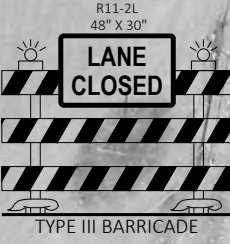
END PROJECT STA. 117+75.22

PROJECT NO: 2704-03-72	HWY: LOCAL STREET	COUNTY: KENOSHA	TRAFFIC CONTROL STAGE 2	SHEET	E
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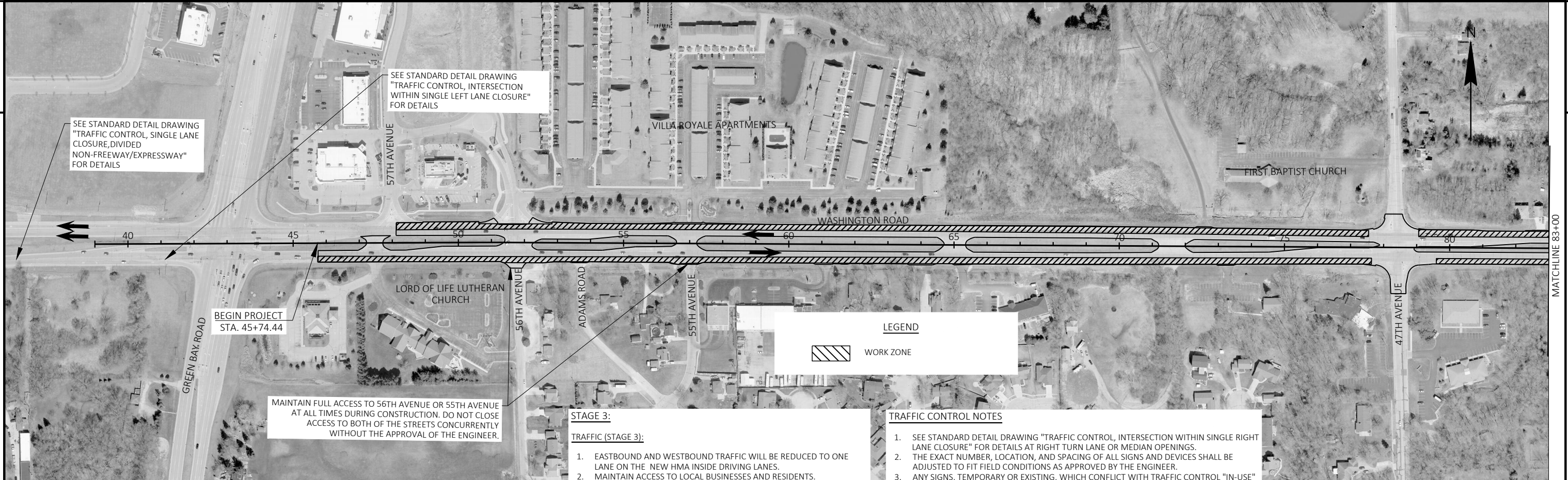


WASHINGTON ROAD

GREEN BAY ROAD



SEE STANDARD DETAIL DRAWINGS
"TRAFFIC CONTROL, SINGLE LANE
CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY"
AND "TRAFFIC CONTROL, INTERSECTION WITHIN
SINGLE LEFT LANE CLOSURE" FOR DETAILS.




SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS

SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE" FOR DETAILS

BEGIN PROJECT STA. 45+74.44

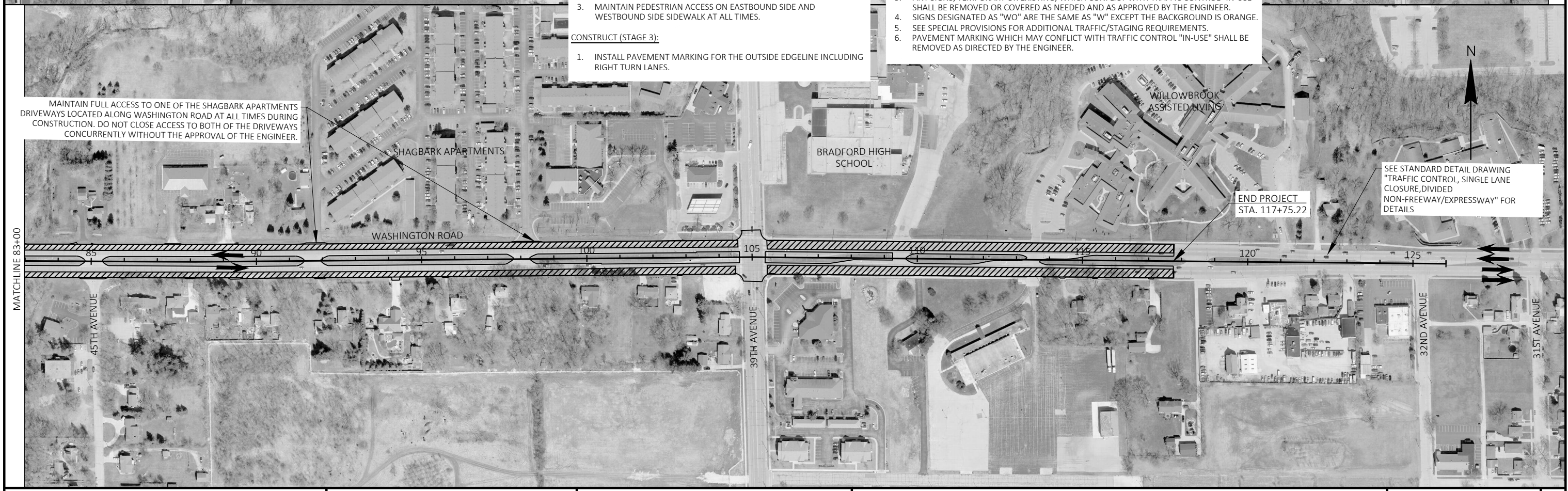
MAINTAIN FULL ACCESS TO 56TH AVENUE OR 55TH AVENUE AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE STREETS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

LEGEND

 WORK ZONE

- STAGE 3:**
- TRAFFIC (STAGE 3):**
1. EASTBOUND AND WESTBOUND TRAFFIC WILL BE REDUCED TO ONE LANE ON THE NEW HMA INSIDE DRIVING LANES.
 2. MAINTAIN ACCESS TO LOCAL BUSINESSES AND RESIDENTS.
 3. MAINTAIN PEDESTRIAN ACCESS ON EASTBOUND SIDE AND WESTBOUND SIDE SIDEWALK AT ALL TIMES.
- CONSTRUCT (STAGE 3):**
1. INSTALL PAVEMENT MARKING FOR THE OUTSIDE EDGELINE INCLUDING RIGHT TURN LANES.

- TRAFFIC CONTROL NOTES**
1. SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE" FOR DETAILS AT RIGHT TURN LANE OR MEDIAN OPENINGS.
 2. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 3. 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.
 4. SIGNS DESIGNATED AS "WO" ARE THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.
 5. SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC/STAGING REQUIREMENTS.
 6. PAVEMENT MARKING WHICH MAY CONFLICT WITH TRAFFIC CONTROL "IN-USE" SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.

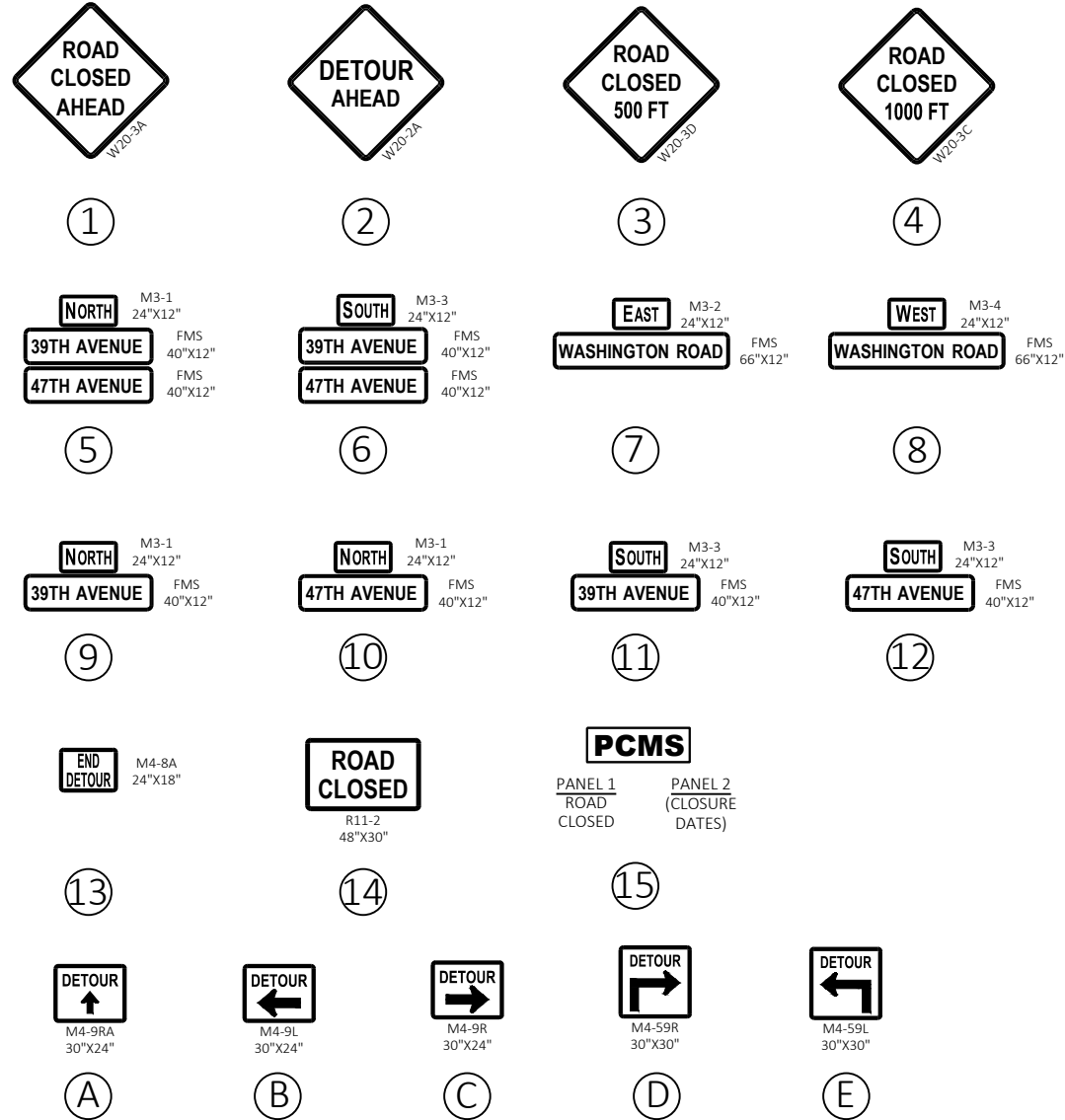


MAINTAIN FULL ACCESS TO ONE OF THE SHAGBARK APARTMENTS DRIVEWAYS LOCATED ALONG WASHINGTON ROAD AT ALL TIMES DURING CONSTRUCTION. DO NOT CLOSE ACCESS TO BOTH OF THE DRIVEWAYS CONCURRENTLY WITHOUT THE APPROVAL OF THE ENGINEER.

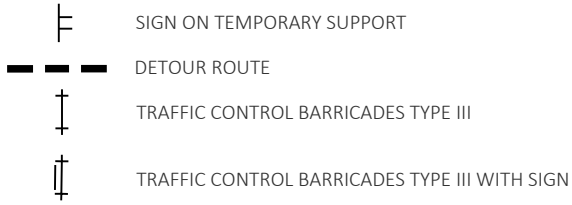
SEE STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY" FOR DETAILS

END PROJECT STA. 117+75.22

PROJECT NO: 2704-03-72	HWY: LOCAL STREET	COUNTY: KENOSHA	TRAFFIC CONTROL STAGE 3	SHEET	E
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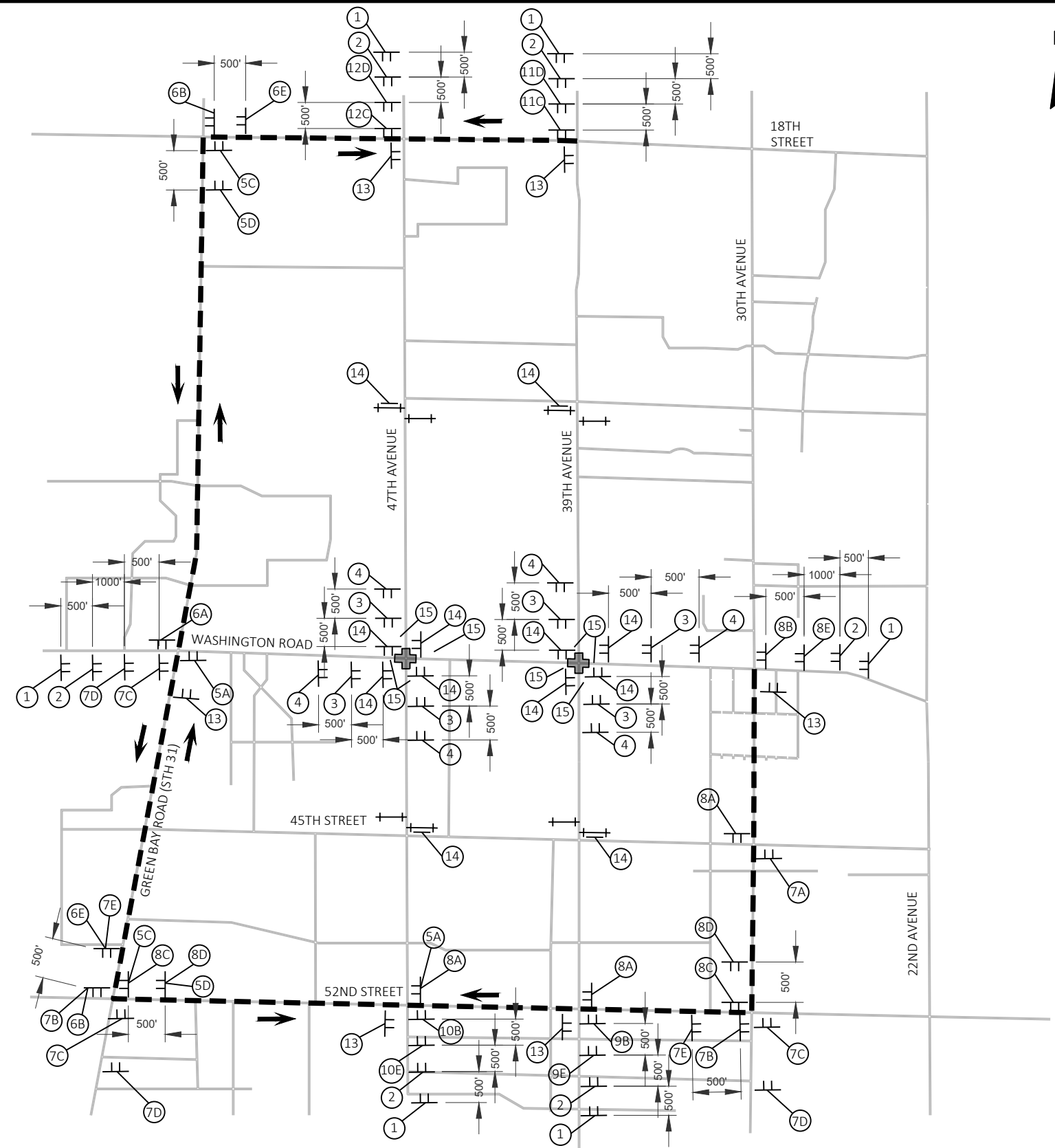


LEGEND



DETOUR NOTES

1. MILLING AND RESURFACING WORK AT WASHINGTON ROAD INTERSECTIONS WITH 39TH AVENUE AND 47TH AVENUE SHALL BE COMPLETED DURING NIGHT CLOSURES.
2. 39TH AVENUE AND 47TH AVENUE SHALL BE OPEN TO TRAFFIC DURING DAYTIME HOURS.
3. WASHINGTON ROAD AND 39TH AVENUE INTERSECTION CLOSURE SHALL BE ON A DIFFERENT NIGHT THAN THE 47TH AVENUE INTERSECTION CLOSURE.
4. PLACE PCMS ON EACH LEG OF WASHINGTON ROAD INTERSECTION WITH 39TH AVENUE AND 47TH AVENUE INTERSECTIONS 3 DAYS PRIOR TO CLOSURE.
5. COMBINE SIGN ASSEMBLY FOR NUMBER AND CALLOUTS AS SHOWN ON THE PLANS.
6. THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL.
7. DETOUR SIGNS TO BE COVERED OR REMOVED WHEN NOT IN USE.
8. SEE STANDARD DETAIL DETOUR SIGNING FOR MAINLINE CLOSURE FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
9. DIMENSIONS SHOWN ON PLAN ARE NOT TO SCALE.



Estimate Of Quantities

2704-03-72

Line	Item	Item Description	Unit	Total	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	60.000	60.000
0004	204.0125	Removing Asphaltic Surface Milling	TON	14,430.000	14,430.000
0006	204.0150	Removing Curb & Gutter	LF	60.000	60.000
0008	204.9060.S	Removing (item description) 01. Loop Detector Wire & Lead-In Cable Washington Rd & 47th Ave	EACH	1.000	1.000
0010	205.0100	Excavation Common	CY	40.000	40.000
0012	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 2704-03-72	EACH	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 2704-03-72	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	850.000	850.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	366.000	366.000
0020	390.0303	Base Patching Concrete	SY	6,438.000	6,438.000
0022	416.0610	Drilled Tie Bars	EACH	390.000	390.000
0024	416.0620	Drilled Dowel Bars	EACH	931.000	931.000
0026	455.0605	Tack Coat	GAL	9,010.000	9,010.000
0028	460.2000	Incentive Density HMA Pavement	DOL	9,730.000	9,730.000
0030	460.6223	HMA Pavement 3 MT 58-28 S	TON	8,521.000	8,521.000
0032	460.6224	HMA Pavement 4 MT 58-28 S	TON	6,629.000	6,629.000
0034	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	60.000	60.000
0036	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0038	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0040	618.0100	Maintenance And Repair of Haul Roads (project) 01. 2704-03-72	EACH	1.000	1.000
0042	619.1000	Mobilization	EACH	1.000	1.000
0044	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0046	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0048	628.2006	Erosion Mat Urban Class I Type A	SY	16.000	16.000
0050	628.7010	Inlet Protection Type B	EACH	3.000	3.000
0052	628.7015	Inlet Protection Type C	EACH	19.000	19.000
0054	629.0210	Fertilizer Type B	CWT	0.100	0.100
0056	630.0130	Seeding Mixture No. 30	LB	0.100	0.100
0058	630.0500	Seed Water	MGAL	0.200	0.200
0060	637.2210	Signs Type II Reflective H	SF	261.000	261.000
0062	637.2215	Signs Type II Reflective H Folding	SF	45.000	45.000
0064	637.2220	Signs Type II Reflective SH	SF	7.000	7.000
0066	637.2230	Signs Type II Reflective F	SF	113.000	113.000
0068	638.2602	Removing Signs Type II	EACH	55.000	55.000
0070	638.3000	Removing Small Sign Supports	EACH	38.000	38.000
0072	642.5201	Field Office Type C	EACH	1.000	1.000
0074	643.0420	Traffic Control Barricades Type III	DAY	6,039.000	6,039.000
0076	643.0705	Traffic Control Warning Lights Type A	DAY	12,078.000	12,078.000
0078	643.0715	Traffic Control Warning Lights Type C	DAY	1,518.000	1,518.000
0080	643.0800	Traffic Control Arrow Boards	DAY	138.000	138.000
0082	643.0900	Traffic Control Signs	DAY	7,365.000	7,365.000
0084	643.0920	Traffic Control Covering Signs Type II	EACH	64.000	64.000
0086	643.1000	Traffic Control Signs Fixed Message	SF	12.000	12.000
0088	643.1050	Traffic Control Signs PCMS	DAY	30.000	30.000
0090	643.1070	Traffic Control Cones 42-Inch	DAY	39,363.000	39,363.000
0092	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	12,258.000	12,258.000
0094	643.5000	Traffic Control	EACH	1.000	1.000
0096	646.1020	Marking Line Epoxy 4-Inch	LF	23,471.000	23,471.000

Estimate Of Quantities

2704-03-72

Line	Item	Item Description	Unit	Total	Qty
0098	646.3020	Marking Line Epoxy 8-Inch	LF	2,434.000	2,434.000
0100	646.5020	Marking Arrow Epoxy	EACH	25.000	25.000
0102	646.5120	Marking Word Epoxy	EACH	1.000	1.000
0104	646.6120	Marking Stop Line Epoxy 18-Inch	LF	259.000	259.000
0106	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	23.000	23.000
0108	646.7120	Marking Diagonal Epoxy 12-Inch	LF	65.000	65.000
0110	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	580.000	580.000
0112	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	268.000	268.000
0114	646.9000	Marking Removal Line 4-Inch	LF	9,082.000	9,082.000
0116	646.9100	Marking Removal Line 8-Inch	LF	965.000	965.000
0118	650.8000	Construction Staking Resurfacing Reference	LF	7,200.000	7,200.000
0120	650.9911	Construction Staking Supplemental Control (project) 01. 2704-03-72	EACH	1.000	1.000
0122	690.0250	Sawing Concrete	LF	15,545.000	15,545.000
0124	740.0440	Incentive IRI Ride	DOL	5,455.000	5,455.000
0126	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	400.000	400.000
0128	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0130	SPV.0060	Special 01. Section Corner Monuments Special	EACH	3.000	3.000
0132	SPV.0060	Special 02. Radar Sensor System	EACH	1.000	1.000
0134	SPV.0060	Special 03. Salvage and Reinstall City Owned Bus Route Sign	EACH	6.000	6.000
0136	SPV.0060	Special 04. 2-3/8-Inch OD, 16 Gauge, 12-Foot Galvanized Steel Poles	EACH	44.000	44.000
0138	SPV.0060	Special 05. 30-Inch Round V-Loc	EACH	44.000	44.000
0140	SPV.0060	Special 06. 2-3/8-Inch Z-Bracket, Single Sided, Round, Pair	EACH	49.000	49.000
0142	SPV.0060	Special 07. Adjusting Manhole Covers (Sanitary)	EACH	2.000	2.000
0144	SPV.0060	Special 08. Adjusting Water Valve Covers	EACH	13.000	13.000
0146	SPV.0060	Special 09. Remove and Reinstall Mailboxes	EACH	2.000	2.000
0148	SPV.0060	Special 10. Temporary Mailbox Station	EACH	2.000	2.000

3

3

REMOVING ASPHALTIC SURFACE

CATEGORY	STAGE	STATION - STATION		204.0115	204.0125
				BUTT JOINTS SY	MILLING TON
0010	1	45+74	78+37	32	3,510
		78+37	105+00	11	3,070
		105+00	117+75	11	1,450
STAGE 1 SUB-TOTALS				54	8,030
	2	45+74	78+37	3	3,110
		78+37	105+00	---	2,210
		105+00	117+75	3	1,080
STAGE 2 SUB-TOTALS				7	6,400
TOTALS				60	14,430

PREPARE FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	STATION - STATION		211.0100
			2704-03-72 EACH
0010	45+74	- 117+75	1

BASE AGGREGATE DENSE

CATEGORY	STATION - STATION		305.0110	305.0120
			3/4-INCH TON	1 1/4-INCH TON
0010	45+74	78+37	190	87
	78+37	105+00	130	79
	105+00	117+75	---	41
STAGE 1 SUB-TOTALS			320	207
	45+74	78+37	290	77
	78+37	105+00	240	55
	105+00	117+75	---	27
STAGE 2 SUB-TOTALS			530	159
TOTALS			850	366

REMOVING CURB & GUTTER

CATEGORY	STATION - STATION		204.0150
			LF
0010	45+74	78+37	--
	78+37	105+00	20
	105+00	117+75	40
TOTAL			60

BASE PATCHING CONCRETE

CATEGORY	STATION - STATION		390.0303
			SY
0010	45+74	78+37	1,572
	78+37	105+00	1,368
	105+00	117+75	645
STAGE 1 SUB-TOTAL			3,585
	45+74	78+37	1,384
	78+37	105+00	987
	105+00	117+75	482
STAGE 2 SUB-TOTAL			2,853
TOTAL			6,438

REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE

CATEGORY	LOCATION	204.9060.S
		EACH
0010	WASHINGTON ROAD AND 47TH AVENUE	1

EXCAVATION COMMON

CATEGORY	STATION	LOCATION	205.0100
			CY
0010	98+60	RT	5
	101+50	RT	5
	107+50	LT	5
	107+50	RT	5
	111+75	LT	5
	111+75	RT	5
UNDISTRIBUTED			10
TOTAL			40

PAVEMENT BARS

CATEGORY	STATION - STATION		416.0610	416.0620
			DRILLED TIE BARS EACH	DRILLED DOWEL BARS EACH
0010	45+74	78+37	--	--
	78+37	105+00	25	59
	105+00	117+75	194	465
STAGE 1 SUB-TOTALS			219	524
	45+74	78+37	--	--
	78+37	105+00	25	59
	105+00	117+75	146	348
STAGE 2 SUB-TOTALS			171	407
TOTALS			390	931

3

3

ASPHALTIC ITEMS

CATEGORY	STATION - STATION		460.6223	460.6224	455.0605
			HMA PAVEMENT 3 MT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 S TON	TACK COAT GAL
0010	45+74	78+37	2,080	1,620	2,200
	78+37	105+00	1,810	1,410	1,920
	105+00	117+75	853	663	900
STAGE 1 SUB-TOTALS			4,743	3,693	5,020
	45+74	78+37	1,830	1,420	1,940
	78+37	105+00	1,310	1,020	1,380
	105+00	117+75	638	496	670
STAGE 2 SUB-TOTALS			3,778	2,936	3,990
TOTALS			8,521	6,629	9,010

CONCRETE CURB & GUTTER 30-INCH TYPE A

CATEGORY	STATION - STATION		601.0409
			LF
0010	45+74	78+37	--
	78+37	105+00	20
	105+00	117+75	40
TOTAL			60

ADJUSTING COVERS

CATEGORY	STATION - STATION	611.8110	611.8115
		ADJUSTING MANHOLE COVERS EACH	ADJUSTING INLET COVERS EACH
0010	78+37 - 105+00	1	2
	105+00 - 117+75	--	4
TOTALS		1	6

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100.01
		2704-03-72 EACH
0010	2704-03-72	1

MOBILIZATIONS EROSION CONTROL

CATEGORY	PROJECT	628.1905
		EACH
0010	2704-03-72	6

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	PROJECT	628.1910
		EACH
0010	2704-03-72	2

INLET PROTECTION

CATEGORY	STATION	628.7010	628.7015
		INLET PROTECTION TYPE B EACH	INLET PROTECTION TYPE C EACH
0010	78+37 - 105+00	2	12
	105+00 - 117+75	1	7
TOTALS		3	19

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	628.2006	629.0210	630.0130	630.0500
			EROSION MAT URBAN CLASS I TYPE A SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL
0010	98+00 - 112+00	LT/RT	16	0.1	0.1	0.2

PERMANENT SIGNING SUMMARY

CATEGORY	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210	637.2215	637.2230	637.2220	638.2602	638.3000	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.03	REMARKS
					SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE H FOLDING SF	SIGNS TYPE II REFLECTIVE F SF	SIGNS TYPE II REFLECTIVE SH SF	SIGNS REMOVING TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	2-3/8-INCH OD, 16 GAUGE, STEEL POLES EACH	30-INCH ROUND V-LOC EACH	2-3/8-INCH Z-BRACKET, SINGLE SIDED, ROUND, PAIR EACH	SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGN EACH	
0010	100	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	101	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	102	R4-7	KEEP RIGHT	24 x 30	5.00	---	---	---	---	---	1	1	1	---	
	103	R3-50R	LANE CONTROL SYMBOL - RIGHT ONLY	30 x 36	7.50	---	---	---	---	---	---	---	---	---	MOUNTED WITH 102
	104	R3-2	NO LEFT TURN SYMBOL	24 x 24	4.00	---	---	---	---	---	1	1	1	---	
	E105	R4-7	KEEP RIGHT	x	---	---	---	---	1	1	---	---	---	---	
	E106	R3-7R	RIGHT LANE MUST TURN RIGHT	x	---	---	---	---	1	---	---	---	---	---	
	107	R3-2	NO LEFT TURN SYMBOL	24 x 24	4.00	---	---	---	---	---	---	---	1	---	MOUNTED WITH 104
	E108	R3-2	NO LEFT TURN SYMBOL	x	---	---	---	---	1	1	---	---	---	---	
	109	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	4.00	---	---	---	1	1	1	---	
	E110	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	---	---	1	1	---	---	---	---	
	E111		NO TRUCK PARKING ON ANY STREETS LONGER THAN 30 MINUTES	---	---	---	---	---	---	---	---	---	---	---	ESTR
	112	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24 x 36	6.00	---	---	---	---	---	1	1	1	---	
	E113	R3-7R	RIGHT LANE MUST TURN RIGHT	x	---	---	---	---	1	1	---	---	---	---	
	E114	R2-1	SPEED LIMIT_MPH	x	---	---	---	---	1	1	---	---	---	---	
	E115	R2-1	SPEED LIMIT_MPH	x	---	---	---	---	1	1	---	---	---	---	
	116	R3-7R	RIGHT LANE MUST TURN RIGHT	36 x 36	9.00	---	---	---	---	---	1	1	1	---	
	117	R1-1	STOP	30 x 30	5.18	---	---	---	---	---	1	1	1	---	
	E118	R1-1	STOP	x	---	---	---	---	1	1	---	---	---	---	
	119	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	4.00	---	---	---	---	---	1	---	MOUNTED WITH 117
	E120	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	---	---	1	---	---	---	---	---	
	E121	R1-1	STOP	x	---	---	---	---	1	1	---	---	---	---	
	122	R1-1	STOP	30 x 30	5.18	---	---	---	---	---	1	1	1	---	
	123	M1-94H	ADAMS RD	48 x 18	6.00	---	---	---	---	---	1	1	1	---	
	E124		ADAMS RD	x	---	---	---	---	1	1	---	---	---	---	
	125	M1-94H	38TH ST	48 x 18	6.00	---	---	---	---	---	---	---	1	---	MOUNTED WITH 123
	E126		38TH ST	x	---	---	---	---	1	---	---	---	---	---	
	127	R1-1	STOP	30 x 30	5.18	---	---	---	---	---	1	1	1	---	
	E128	R1-1	STOP	30 x 30	---	---	---	---	1	1	---	---	---	---	
	129	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24 x 36	6.00	---	---	---	---	---	1	1	1	---	
	130	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	131	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	E132	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	E133	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	134	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24 x 36	6.00	---	---	---	---	---	1	1	1	---	
	135	M1-94H	55TH AVE	48 x 18	6.00	---	---	---	---	---	1	1	1	---	
	E136		55TH AVE	x	---	---	---	---	1	---	---	---	---	---	
	137	M1-94H	WASHINGTON RD	84 x 18	10.50	---	---	---	---	---	---	---	1	---	MOUNTED WITH 135
	E138		WASHINGTON RD	36 x 9	---	---	---	---	1	---	---	---	---	---	
	139	R1-1	STOP	30 x 30	5.18	---	---	---	---	---	1	1	1	---	
	E140	R1-1	STOP	30 x 30	---	---	---	---	1	1	---	---	---	---	
	E141	R2-1	SPEED LIMIT_MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	E142	R2-1	SPEED LIMIT_MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	143	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	144	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	145	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	146	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	E147	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	E148	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	149	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24 x 36	6.00	---	---	---	---	---	1	1	1	---	
	150	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	151	R2-1	SPEED LIMIT_MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	E152	R2-1	SPEED LIMIT_MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	E153	R2-1	SPEED LIMIT_MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	154	R1-2	YIELD	36 x 31	7.75	---	---	---	---	---	1	1	1	---	

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PERMANENT SIGNING SUMMARY

CATEGORY	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210	637.2215	637.2230	637.2220	638.2602	638.3000	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.03	REMARKS
					SIGN TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE H FOLDING SF	SIGNS TYPE II REFLECTIVE F SF	SIGNS TYPE II REFLECTIVE SH SF	REMOVING SMALL SIGN SUPPORTS EACH	2-3/8-INCH OD, 16 GAUGE, 12-FOOT GALVANIZED STEEL POLES EACH	30-INCH ROUND V-LOC EACH	2-3/8-INCH Z-BRACKET, SINGLE SIDED, ROUND, PAIR EACH	SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGN EACH		
0010	E155	R1-2	YIELD	36 x 31	---	---	---	---	1	1	---	---	---	---	
	E156		WASHINGTON RD	36 x 9	---	---	---	---	1	---	---	---	---	---	
	E157		47TH AVE	30 x 9	---	---	---	---	1	---	---	---	---	---	
	158	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	E159	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	E160	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	E161	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	E162	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	163	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	164	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	165	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	E166	R5-2	NO TRUCKS SYMBOL	24 x 24	---	---	---	---	1	1	---	---	---	---	
	167	R5-2	NO TRUCKS SYMBOL	24 x 24	4.00	---	---	---	---	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
	168	M1-94H	WASHINGTON RD	84 x 18	10.50	---	---	---	---	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
	169	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	4.00	---	---	---	1	1	1	---	
	E170	W12-1D	DOUBLE DOWN ARROWS	24 x 24	---	---	---	---	1	1	---	---	---	---	
	171	M1-94H	47TH AVE	48 x 18	6.00	---	---	---	---	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
	171A	M1-94H	47TH AVE	48 x 18	6.00	---	---	---	---	---	---	---	---	---	
	172	R1-2	YIELD	36 x 31	7.75	---	---	---	---	---	1	1	1	---	
	E173	R1-2	YIELD	36 x 31	---	---	---	---	1	1	---	---	---	---	
	E174		BUS STOP	---	---	---	---	---	---	---	---	---	---	1	MOUNTED WITH 159
	174	M1-94H	WASHINGTON RD	84 x 18	10.50	---	---	---	---	---	---	---	---	---	MOUNT ON SIGNAL MAST ARM
	E175	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	E176	R1-1F	STOP (FOLDING)	36 x 36	---	---	---	---	1	---	---	---	---	---	
	177	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	178	R1-1F	STOP (FOLDING)	36 x 36	---	7.46	---	---	---	---	---	---	---	---	MOUNT ON EXISTING SIGNAL POLE
	E179		47TH AVE	30 x 9	---	---	---	---	1	---	---	---	---	---	
	E180	D9-2	HOSPITAL	24 x 24	---	---	---	---	1	---	---	---	---	---	
	181	D9-2	HOSPITAL	24 x 24	4.00	---	---	---	---	---	---	---	---	---	MOUNT ON EXISTING UTILITY POLE
	E182		EMERGENCY CALL 911	---	---	---	---	---	---	---	---	---	---	---	MOVING SIGN TYPE II REQ'D
	E183	R2-1	SPEED LIMIT_ MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	E184	R2-1	SPEED LIMIT_ MPH	30 x 36	---	---	---	---	1	1	---	---	---	---	
	185	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	186	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	187	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	24 x 36	6.00	---	---	---	---	---	1	1	1	---	
	E188	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	E189	W3-3	SIGNAL AHEAD	36 x 36	---	---	---	---	1	1	---	---	---	---	
	190	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	191	W3-3	SIGNAL AHEAD	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	E192		BUS STOP	---	---	---	---	---	---	---	---	---	---	1	
	193	R1-1	STOP	30 x 30	6.25	---	---	---	---	---	1	1	1	---	
	E194	R1-1	STOP	x	---	---	---	---	1	1	---	---	---	---	
	E195		BUS STOP	---	---	---	---	---	---	---	---	---	---	1	
	196	W2-2	SIDE ROAD (90 DEGREES)	30 x 30	---	---	6.25	---	---	---	1	1	1	---	
	197	W2-2	SIDE ROAD (90 DEGREES)	30 x 30	---	---	6.25	---	---	---	1	1	1	---	
	E198	W2-2	SIDE ROAD (90 DEGREES)	x	---	---	---	---	1	1	---	---	---	---	
	E199	W2-2	SIDE ROAD (90 DEGREES)	x	---	---	---	---	1	1	---	---	---	---	
	200	W3-5	SPEED LIMIT_ AHEAD [ARROW]	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	201	W3-5	SPEED LIMIT_ AHEAD [ARROW]	36 x 36	---	---	9.00	---	---	---	1	1	1	---	
	E202	W3-5	SPEED LIMIT_ AHEAD [ARROW]	x	---	---	---	---	1	1	---	---	---	---	
	E203	W3-5	SPEED LIMIT_ AHEAD [ARROW]	x	---	---	---	---	1	1	---	---	---	---	
	204	S1-1	SCHOOL ADVANCE	36 x 36	---	---	6.75	---	---	---	1	1	1	---	
	205	W16-9P	AHEAD PLAQUE (YELLOW)	24 x 12	---	---	2.00	---	---	---	---	---	1	---	MOUNTED WITH 204
	E206	S1-1	SCHOOL ADVANCE	x	---	---	---	---	1	1	---	---	---	---	
	E207	W16-9P	AHEAD PLAQUE (YELLOW)	x	---	---	---	---	1	---	---	---	---	---	

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PERMANENT SIGNING SUMMARY

CATEGORY	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN	637.2210	637.2215	637.2230	637.2220	638.2602	638.3000	SPV.0060.04	SPV.0060.05	SPV.0060.06	SPV.0060.03	REMARKS
					SIGNS TYPE II REFLECTIVE H SF	SIGNS TYPE II REFLECTIVE H FOLDING SF	SIGNS TYPE II REFLECTIVE F SF	SIGNS TYPE II REFLECTIVE SH SF	REMOVING SMALL SIGN SUPPORTS EACH	2-3/8-INCH OD, 16 GAUGE, 12-FOOT GALVANIZED STEEL POLES EACH	30-INCH ROUND V-LOC EACH	2-3/8-INCH Z-BRACKET, SINGLE SIDED, ROUND, PAIR EACH	SALVAGE AND REINSTALL CITY OWNED BUS ROUTE SIGN EACH		
0010	E208		BUS STOP	--- x ---	---	---	---	---	---	---	---	---	---	1	
	E209		BUS STOP	--- x ---	---	---	---	---	---	---	---	---	---	1	
	E210	W3-3	SIGNAL AHEAD	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E211	W3-3	SIGNAL AHEAD	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E212	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E213	R2-1	SPEED LIMIT_ MPH	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E214	R2-1	SPEED LIMIT_ MPH	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E215	S4-51	SCHOOL SPEED LIMIT	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E216		NO CELL PHONE	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E217	R4-7	KEEP RIGHT	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E218	R1-1F	STOP (FOLDING)	x	---	---	---	x	---	---	---	---	---	---	ESTR
	E219	M1-94H	OVERHEAD STREET NAME SIGN	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E220	R1-1F	STOP (FOLDING)	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E221	M1-94H	OVERHEAD STREET NAME SIGN	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E222	M1-94H	OVERHEAD STREET NAME SIGN	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E223		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E224	R1-1F	STOP (FOLDING)	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E225	M1-94H	OVERHEAD STREET NAME SIGN	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E226	R1-1F	STOP (FOLDING)	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E227	R4-7	KEEP RIGHT	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E228		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E229	R2-1	SPEED LIMIT_ MPH	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E230		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E231		BUS STOP	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E232	R3-20L	BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW	x	---	---	---	---	---	---	---	---	---	---	ESTR
	E234		BUS STOP	--- x ---	---	---	---	---	---	---	---	---	---	1	ESTR
	E235	S4-51	SCHOOL SPEED LIMIT	x	---	---	---	1	1	---	---	---	---	---	
	236	S4-51	SCHOOL SPEED LIMIT	24 x 48	---	---	1.38	6.63	---	---	1	1	1	---	
	E237		NO CELL PHONE	--- x ---	---	---	---	---	---	---	---	---	---	---	MOVING SIGN TYPE II REQ'D
	E238	S1-1	SCHOOL ADVANCE	x	---	---	---	1	1	---	---	---	---	---	
	E239		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	240	S1-1	SCHOOL ADVANCE	36 x 36	---	---	6.75	---	---	---	1	1	1	---	
	E241		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
	E242	R2-1	SPEED LIMIT_ MPH	x	---	---	---	1	---	---	---	---	---	---	
	E243	R2-1	SPEED LIMIT_ MPH	x	---	---	---	1	1	---	---	---	---	---	
	244	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	245	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	246	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	247	R2-1	SPEED LIMIT_ MPH	30 x 36	7.50	---	---	---	---	---	1	1	1	---	
	E248	R2-1	SPEED LIMIT_ MPH	x	---	---	---	1	1	---	---	---	---	---	
	E249	R2-1	SPEED LIMIT_ MPH	x	---	---	---	1	1	---	---	---	---	---	
	E250		NO PARKING	--- x ---	---	---	---	---	---	---	---	---	---	---	ESTR
				TOTALS	261	45	113	7	55	38	44	44	49	6	

3

3

FIELD OFFICE TYPE C

CATEGORY	PROJECT	642.5201 EACH
0010	2704-03-72	1

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	LOCATION	643.1000 SF
0010	WASHINGTON ROAD	6
	39TH AVE	3
	47TH AVE	3
TOTAL		12

TRAFFIC CONTROL SIGNS PCMS

CATEGORY	STAGE	LOCATION	643.1050 DAYS
0010	1	EAST PROJECT LIMITS	3
	1	WEST PROJECT LIMITS	3
		WASHINGTON ROAD AND 39TH AVENUE	12
		WASHINGTON ROAD AND 47TH AVENUE	12
TOTAL			30

NOTE: PLACE PSMS ON EACH LEG OF WASHINGTON ROAD INTERSECTION WITH 39TH AVENUE AND 47TH AVENUE INTERSECTIONS 3 DAYS PRIOR TO CLOSURE.

TRAFFIC CONTROL AND DETOUR ITEMS

CATEGORY	STAGE	643.1070 TRAFFIC CONTROL CONES 42-INCH DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH
0010	1	19,380	2,244	4,488	748	68	3,434	---
	2	18,843	3,663	7,326	726	66	3,729	---
	3	1,140	132	264	44	4	202	---
	DETOUR	---	78	156	---	---	372	64
TOTALS		39,363	6,039	12,078	1,518	138	7,365	64

TRAFFIC CONTROL

CATEGORY	PROJECT	643.5000 EACH
0010	2704-03-072	1

TEMPORARY MARKING ITEMS

CATEGORY	STATION	-	STATION	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH EACH	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH EACH
0010	45+74		78+37	4719	556	5006
	78+37		105+00	4363	168	4828
	105+00		117+75	---	241	2424
TOTALS				9,082	965	12,258

PAVEMENT MARKING ITEMS

CATEGORY	STATION	-	STATION	646.1020 MARKING LINE EPOXY 4-INCH			646.3020 MARKING LINE EPOXY 8-INCH		646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH EA	646.7120 MARKING DIAGONAL EPOXY 12-INCH (YELLOW) LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.7520 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH LF
				SOLID WHITE LF	SOLID YELLOW LF	WHITE SKIP (12.5' SEG, 37.5' GAP) LF	SOLID WHITE LF	WHITE DASHED (3' SEG, 9' GAP) LF							
0010	45+74		78+37	5,566	5,107	1,540	1,197	54	15	1	61	11	65	---	---
	78+37		105+00	4,957	4,426	1,267	686	---	6	---	131	12	---	292	134
	105+00		117+75	---	---	609	497	---	4	---	67	---	---	288	134
TOTALS				23,471			2,434		25	1	259	23	65	580	268

CONSTRUCTION STAKING RESURFACING REFERENCE

CATEGORY	STATION	650.8000 LF
0010	45+75 - 117+77	7,200

SAWING EXISTING PAVEMENT

CATEGORY	STATION	-	STATION	690.0250 SAWING CONCRETE LF
0010	45+74		78+37	3,772
	78+37		105+00	3,315
	105+00		117+75	1,612
	STAGE 1 SUB-TOTALS			8,699
	45+74		78+37	3,321
	78+37		105+00	2,369
	105+00		117+75	1,157
	STAGE 2 SUB-TOTALS			6,846
TOTAL				15,545

SECTION CORNER MONUMENTS SPECIAL

CATEGORY	STATION	LOCATION	SPV.0060.01 EACH	REMARKS
0010	105+00	0.0' RT	1	SECTION LINE 26, 26, 25, AND 25
	78+40	14' RT	1	SECTION LINE 26, 26, 26, AND 26
	51+56	59' RT	1	SECTION LINE 27, 26, 27, AND 26
TOTAL			3	

RADAR SENSOR SYSTEM

LOCATION	SPV.0060.02 EA
WASHINGTON ROAD AND 47TH AVENUE	1

ADJUSTING COVERS

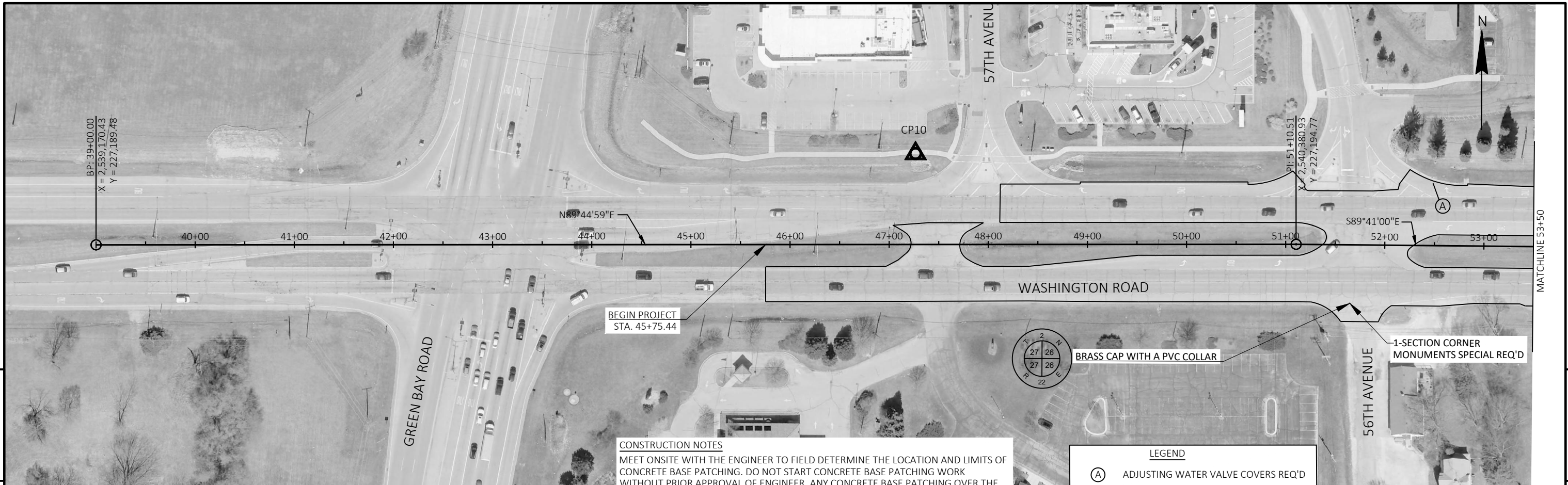
CATEGORY	STATION - STATION	SPV.0060.07 ADJUSTING MANHOLE COVERS (SANITARY) EACH	SPV.0060.08 ADJUSTING WATER VALVE COVERS EACH
0020	45+75 - 78+37	--	1
	78+37 - 105+00	2	2
	105+00 - 117+75	--	10
TOTALS		2	13

REMOVE AND REINSTALL MAILBOXES

CATEGORY	LOCATION	SPV.0060.09 EA
0010	UNDISTRIBUTED	2

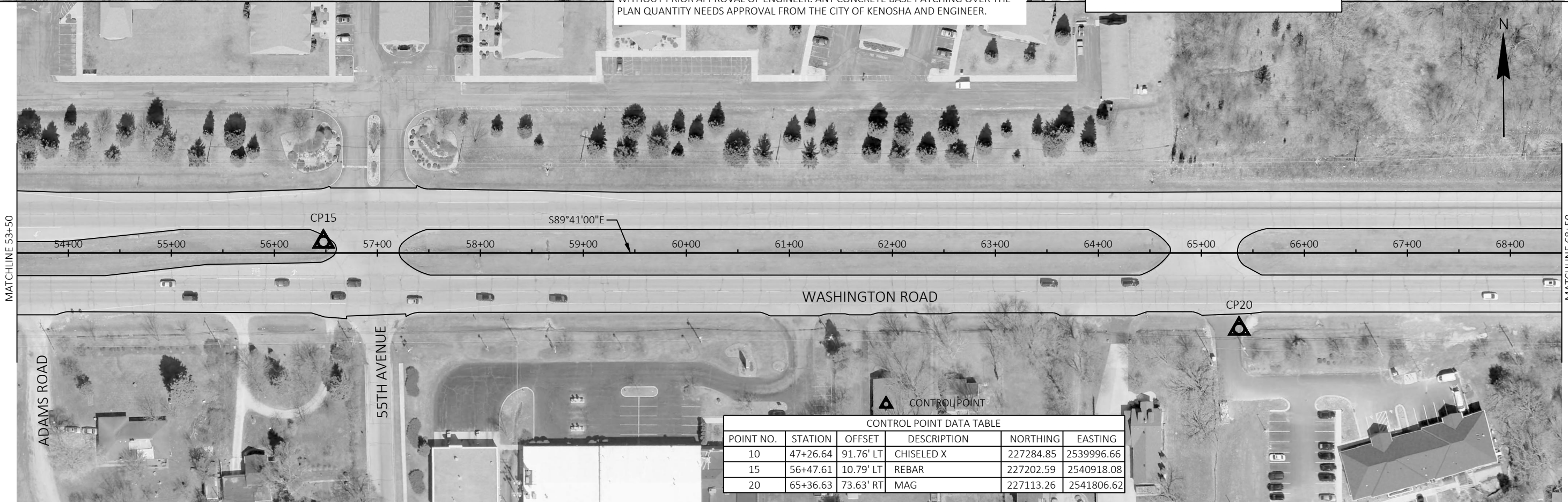
TEMPORARY MAILBOX STATION

CATEGORY	LOCATION	SPV.0060.10 EA
0010	UNDISTRIBUTED	2



CONSTRUCTION NOTES
 MEET ONSITE WITH THE ENGINEER TO FIELD DETERMINE THE LOCATION AND LIMITS OF CONCRETE BASE PATCHING. DO NOT START CONCRETE BASE PATCHING WORK WITHOUT PRIOR APPROVAL OF ENGINEER. ANY CONCRETE BASE PATCHING OVER THE PLAN QUANTITY NEEDS APPROVAL FROM THE CITY OF KENOSHA AND ENGINEER.

LEGEND
 (A) ADJUSTING WATER VALVE COVERS REQ'D





CONTROL POINT DATA TABLE					
POINT NO.	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
10	47+26.64	91.76' LT	CHISELED X	227284.85	2539996.66
15	56+47.61	10.79' LT	REBAR	227202.59	2540918.08
20	65+36.63	73.63' RT	MAG	227113.26	2541806.62



CONSTRUCTION NOTES
 MEET ONSITE WITH THE ENGINEER TO FIELD DETERMINE THE LOCATION AND LIMITS OF CONCRETE BASE PATCHING. DO NOT START CONCRETE BASE PATCHING WORK WITHOUT PRIOR APPROVAL OF ENGINEER. ANY CONCRETE BASE PATCHING OVER THE PLAN QUANTITY NEEDS APPROVAL FROM THE CITY OF KENOSHA AND ENGINEER.

LEGEND

-  BASE PATCHING CONCRETE
-  ADJUSTING WATER VALVE COVERS REQ'D

PI: 88+14.35
 X = 2,544,084.71
 Y = 227,174.30

CONTROL POINT DATA TABLE

POINT NO.	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
25	77+79.69	60.43' LT	CHISELED X	227240.44	2543050.41
30	85+26.35	68.42' RT	MAG	227107.47	2543796.34
35	91+96.54	63.66' LT	MAG	227241.27	2544466.34

5

5



LEGEND

- BASE PATCHING CONCRETE
- ADJUSTING WATER VALVE COVERS REQ'D
- ADJUSTING MANHOLE COVERS (SANITARY) REQ'D
- ADJUSTING MANHOLE COVERS (STORM) REQ'D
- ADJUSTING INLET COVERS REQ'D
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C

CONSTRUCTION NOTES

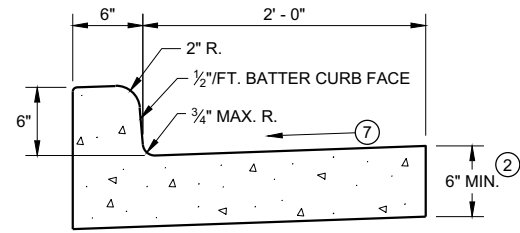
- MEET ONSITE WITH THE ENGINEER TO FIELD DETERMINE THE LOCATION AND LIMITS OF CONCRETE BASE PATCHING. DO NOT START CONCRETE BASE PATCHING WORK WITHOUT PRIOR APPROVAL OF ENGINEER. ANY CONCRETE BASE PATCHING OVER THE PLAN QUANTITY NEEDS APPROVAL FROM THE CITY OF KENOSHA AND ENGINEER.
- TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, AND EROSION MAT URBAN CLASS I TYPE A SHALL BE USED IN THE RESTORATION AREA BEHIND THE CURB & GUTTER REPLACEMENT ASSOCIATED WITH ADJUSTING INLET COVERS.

CONTROL POINT DATA TABLE

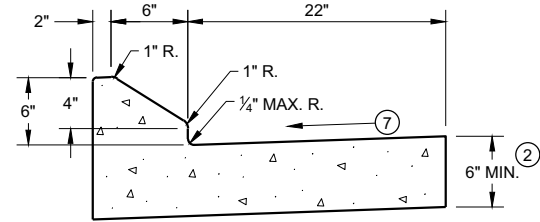
POINT NO.	STATION	OFFSET	DESCRIPTION	NORTHING	EASTING
1	102+16.43	2.14' LT	REBAR	227188.57	2545486.73
3	108+77.78	57.05' RT	CHISELED X	227128.20	2546147.51
40	115+45.31	54.66' LT	CHISELED X	227233.48	2546816.09

Standard Detail Drawing List

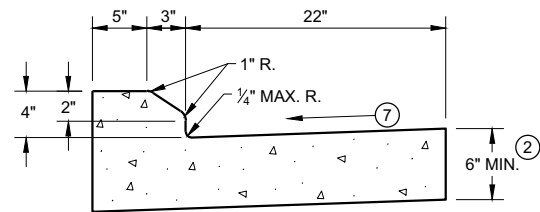
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-06C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-04C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER



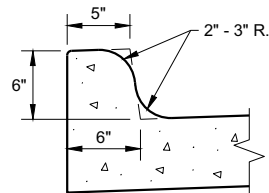
TYPES A^① & D



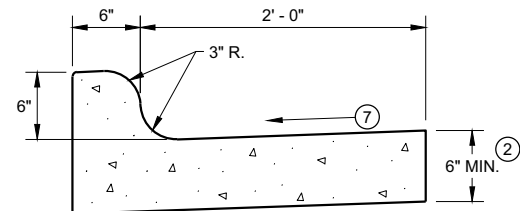
6" SLOPED CURB TYPES G^① & J



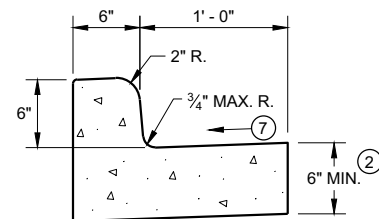
4" SLOPED CURB TYPES G^① & J



TYPES K^① & L
(OPTIONAL CURB SHAPE)

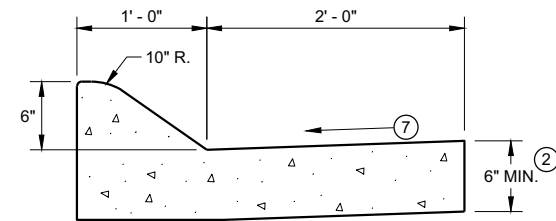


TYPES K^① & L
CONCRETE CURB AND GUTTER 30"

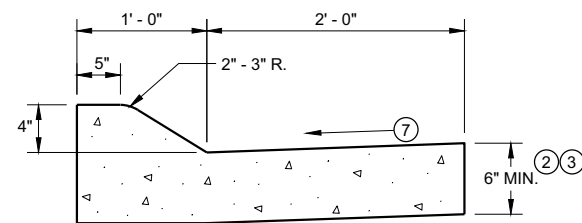


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

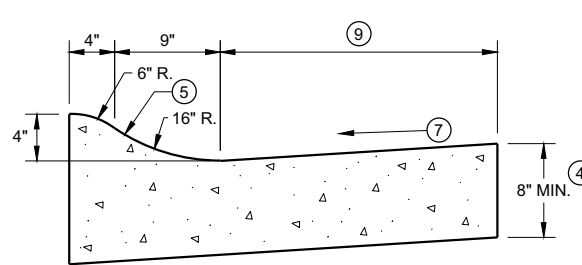


6" SLOPED CURB TYPES A^① & D



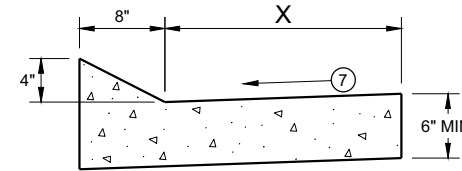
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

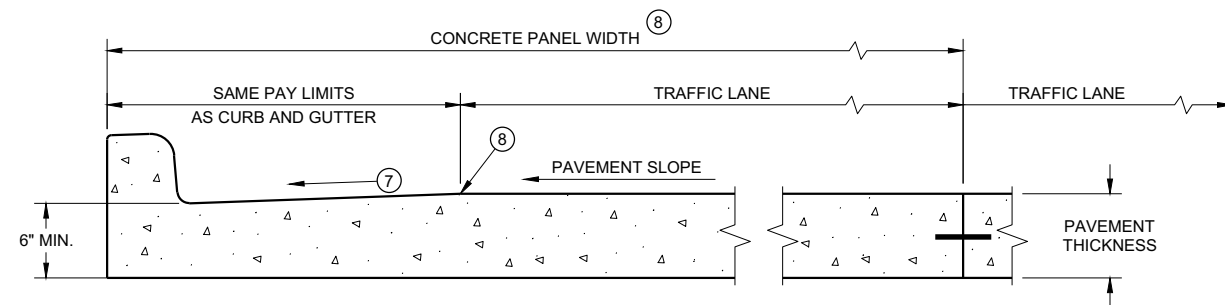


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

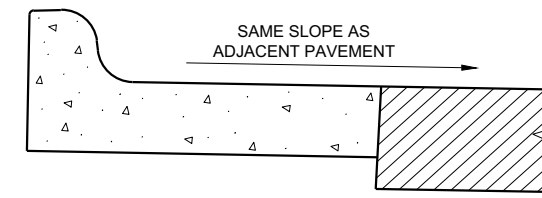
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

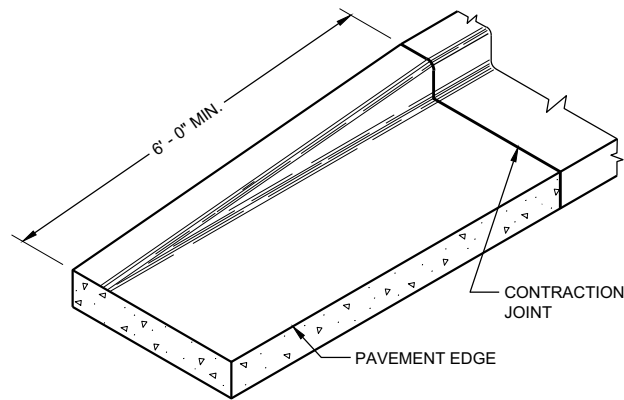
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

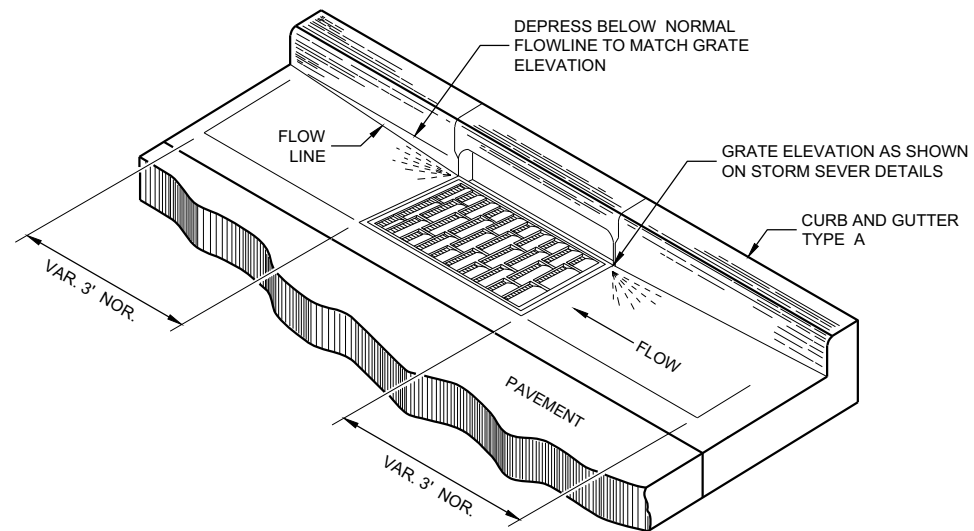
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

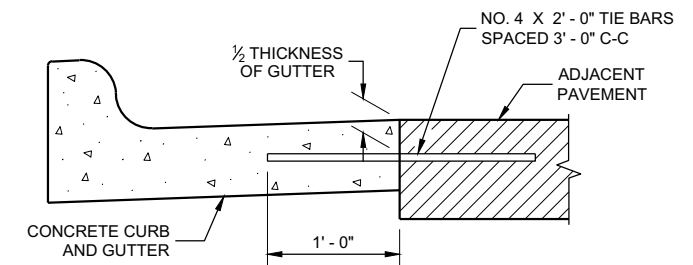
GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

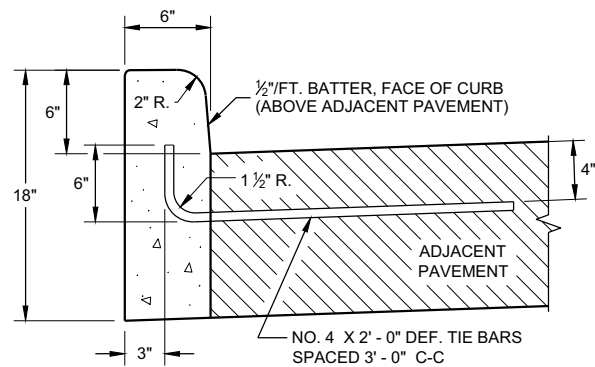
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

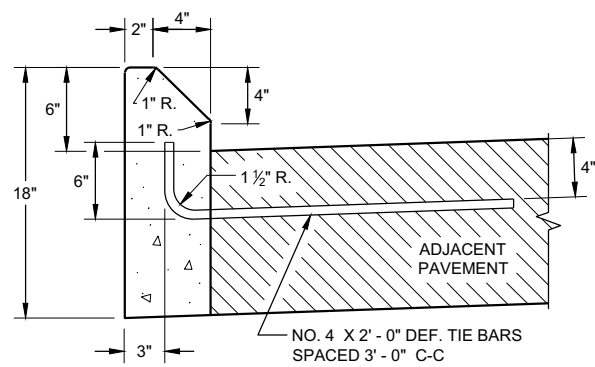
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION ①

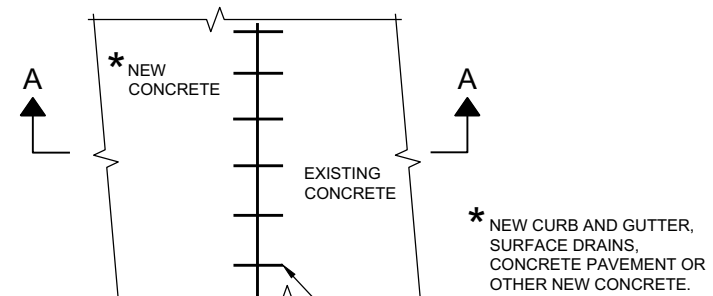


TYPES A ① & D

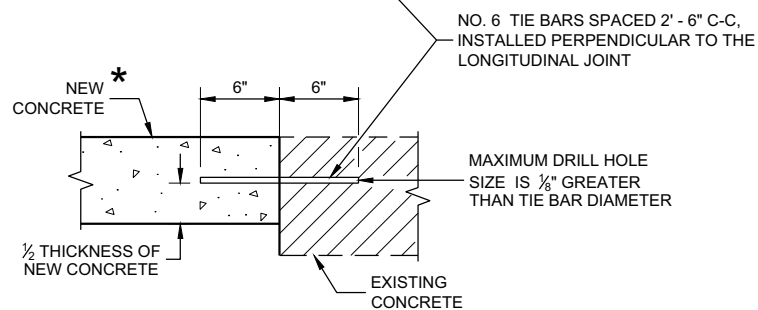


TYPES G ① & J

CONCRETE CURB

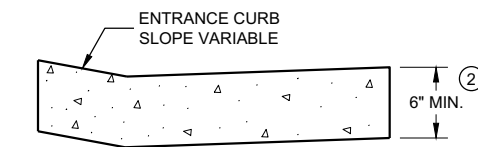


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



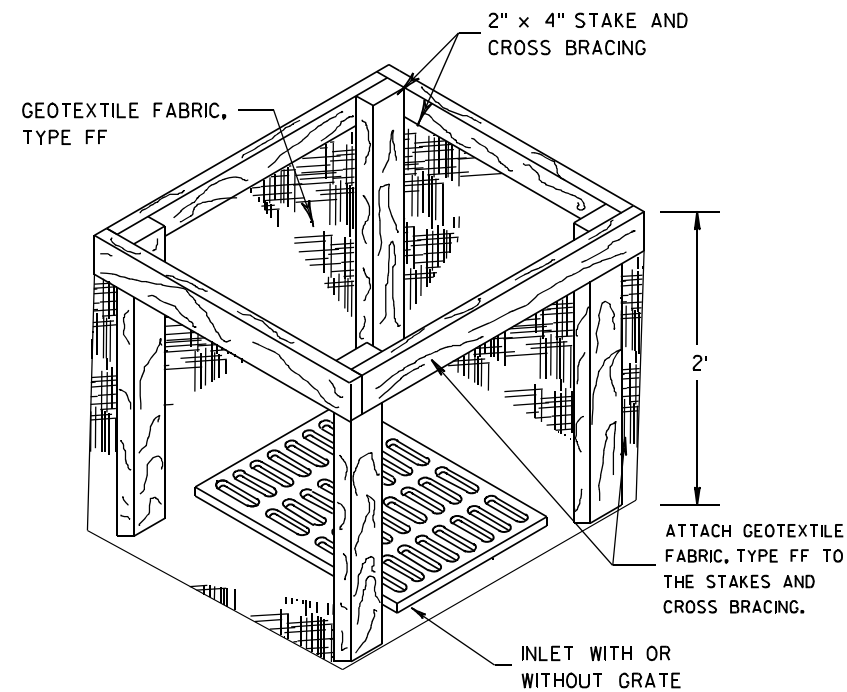
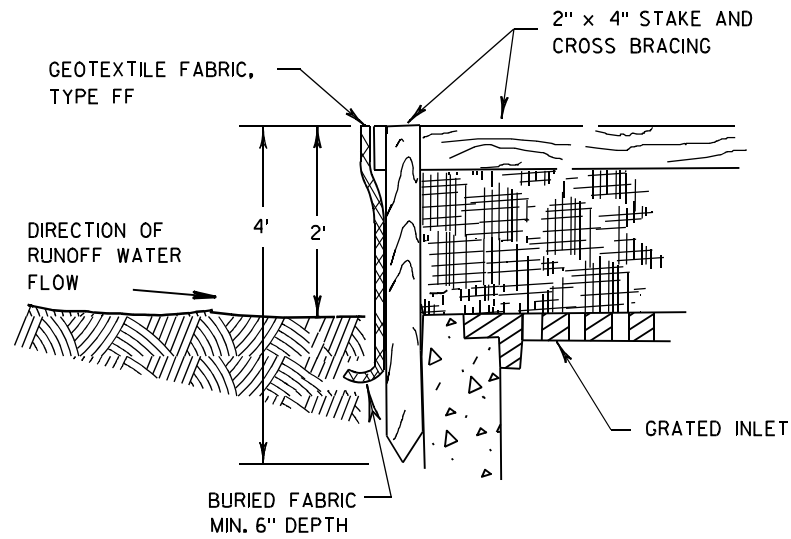
DRIVEWAY ENTRANCE CURB ⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



INLET PROTECTION, TYPE A

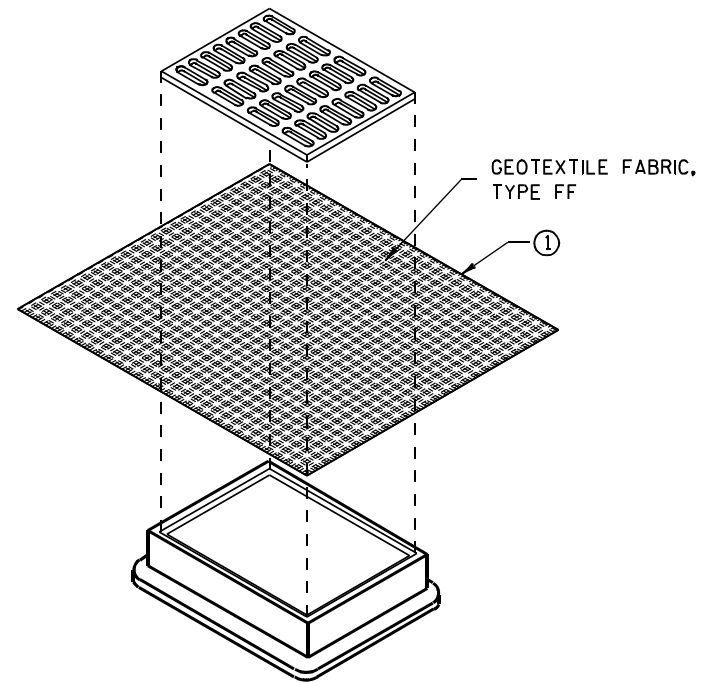
GENERAL NOTES

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.

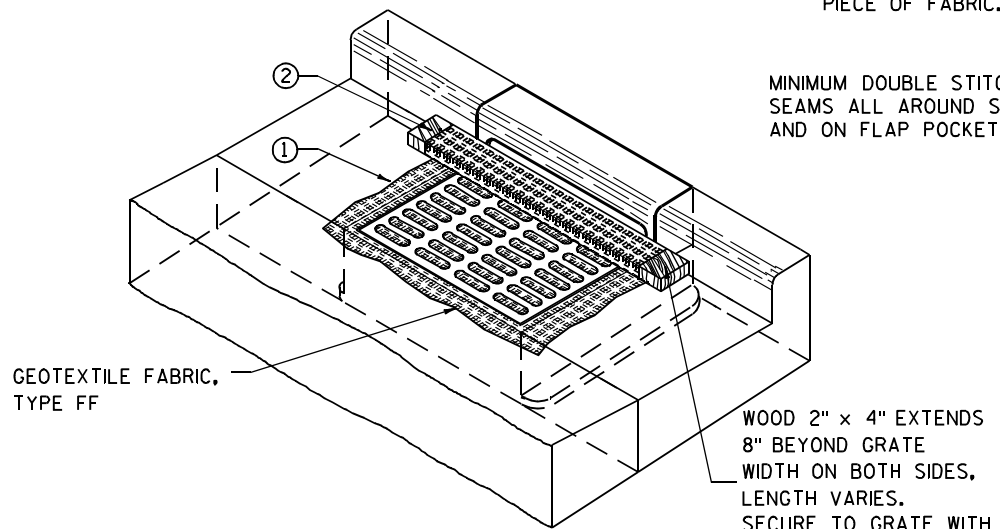
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

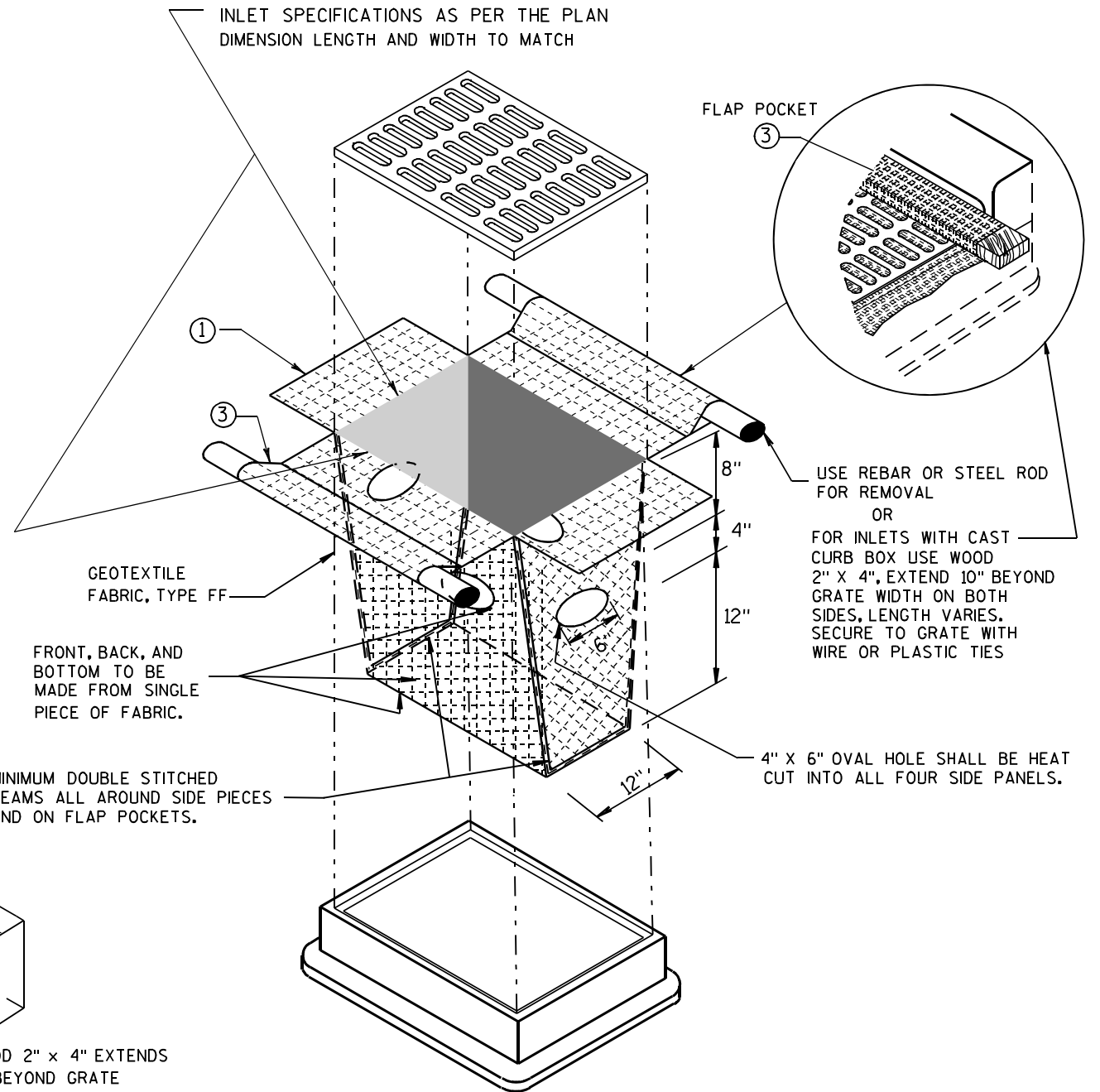
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.

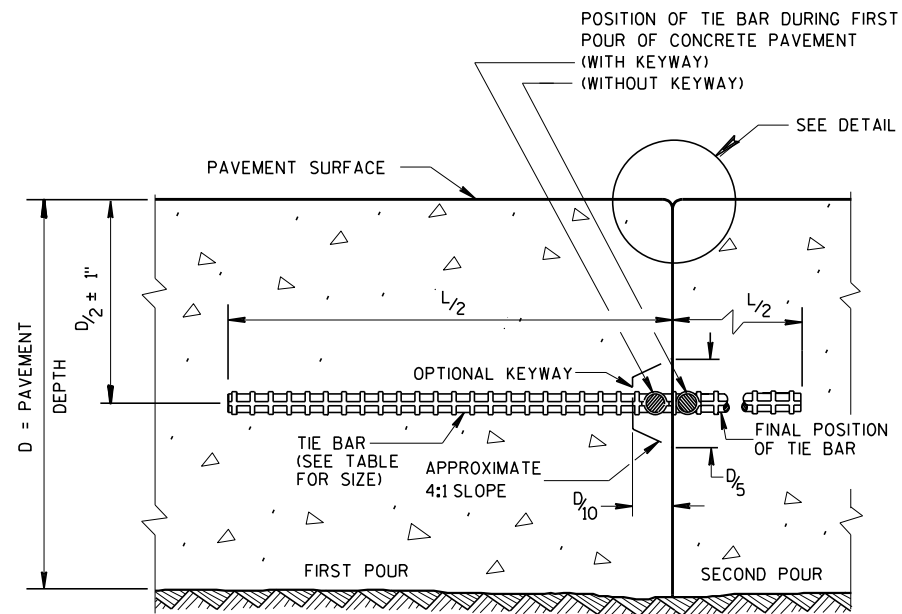
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



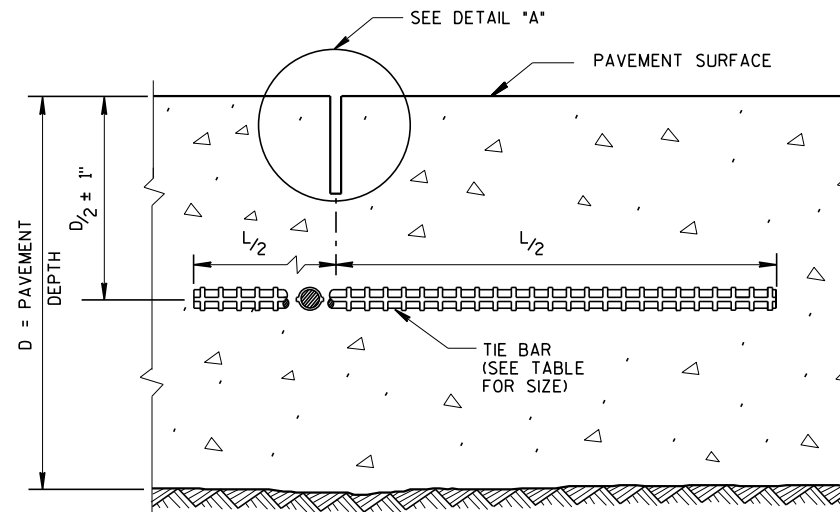
INLET PROTECTION, TYPE D

(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 Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



CONSTRUCTION JOINT



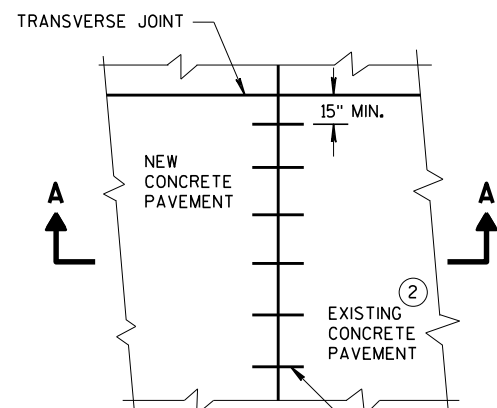
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

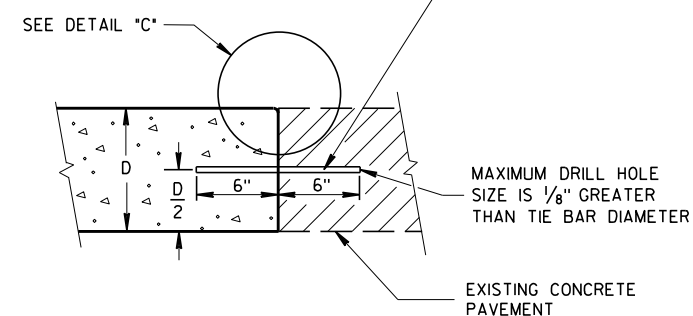
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

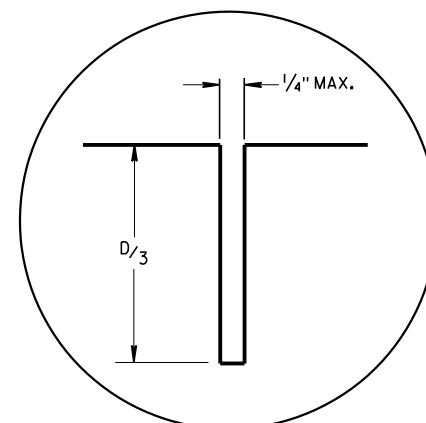


PLAN VIEW

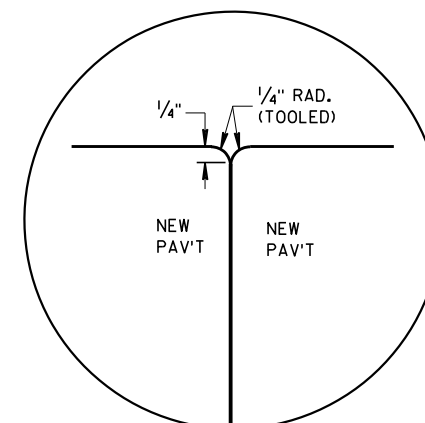
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



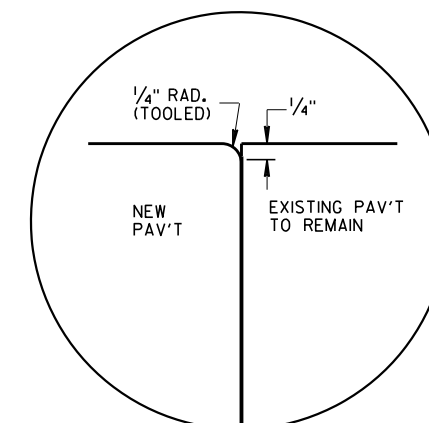
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**



DETAIL "A"



DETAIL "B"



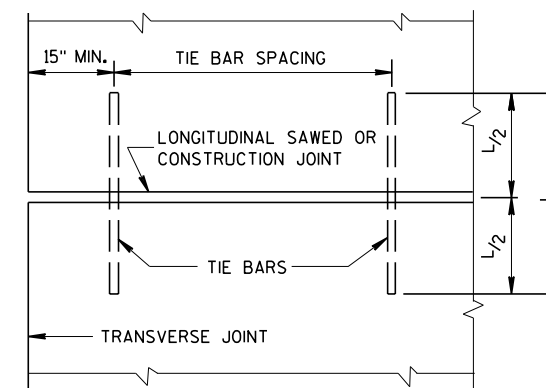
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

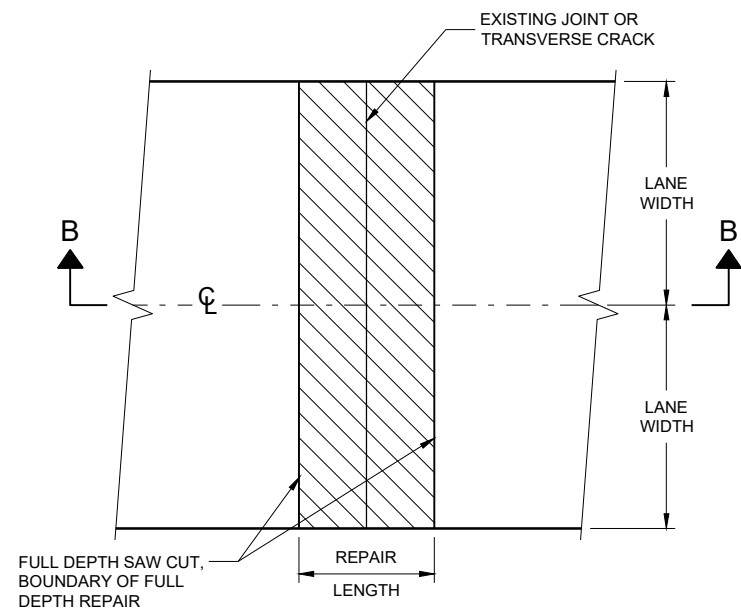


**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

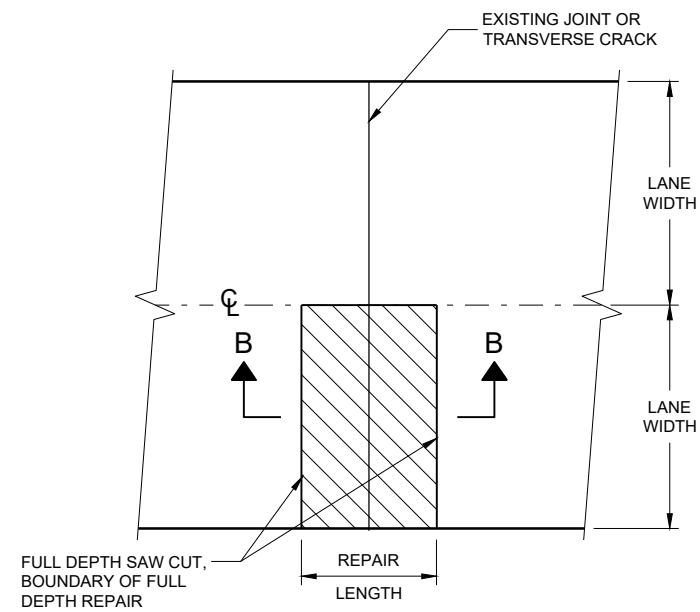
**CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA

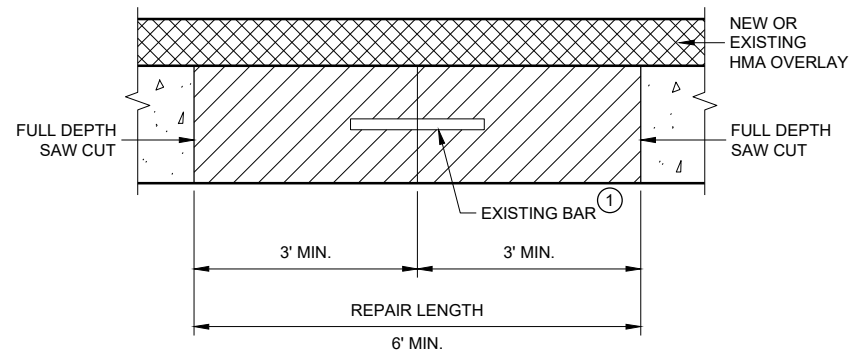


**PLAN VIEW
DOUBLE LANE REPAIR**



**PLAN VIEW
SINGLE LANE REPAIR**

FULL DEPTH CONCRETE PAVEMENT REMOVAL



**SECTION B - B
CONCRETE REMOVAL**

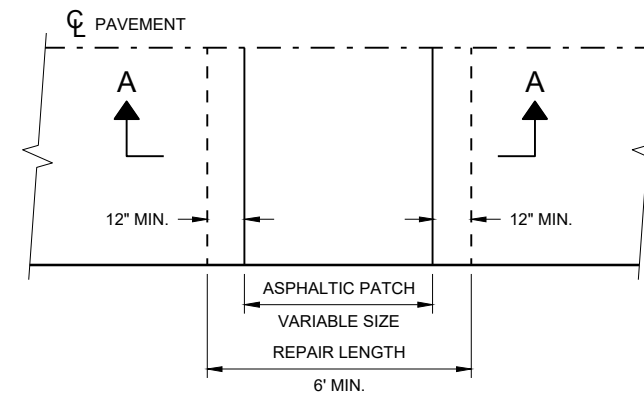
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

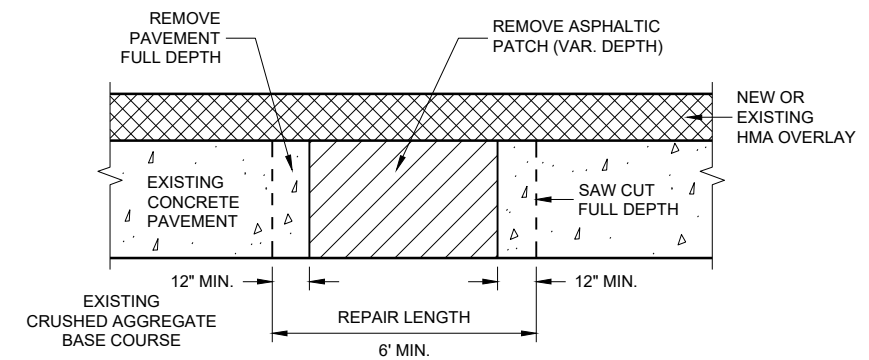
PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

① DOWEL BARS MAY NOT BE PRESENT.



PLAN VIEW

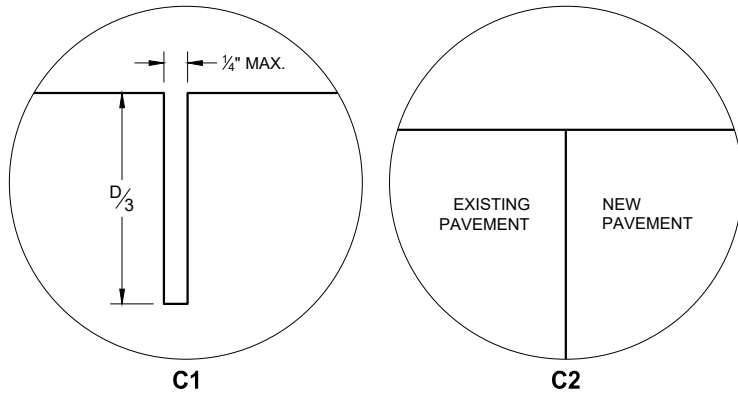


SECTION A - A

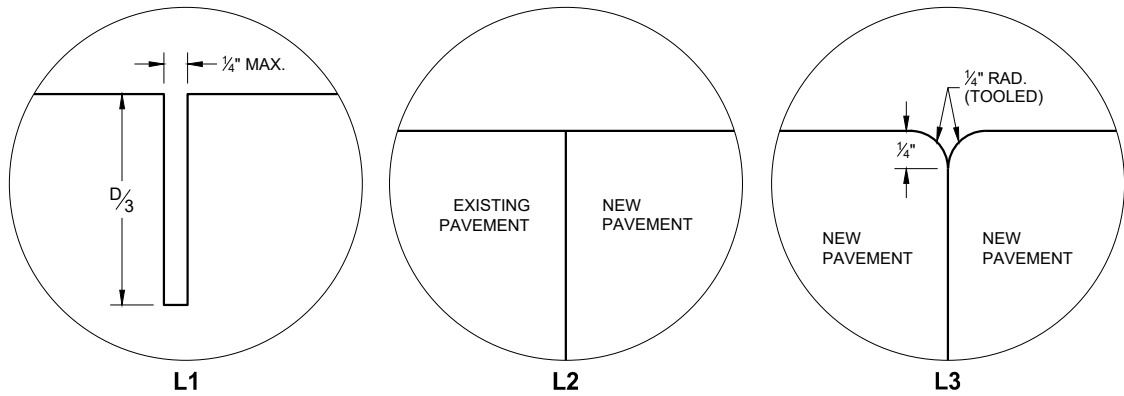
HMA PATCH REMOVAL

BASE PATCHING CONCRETE

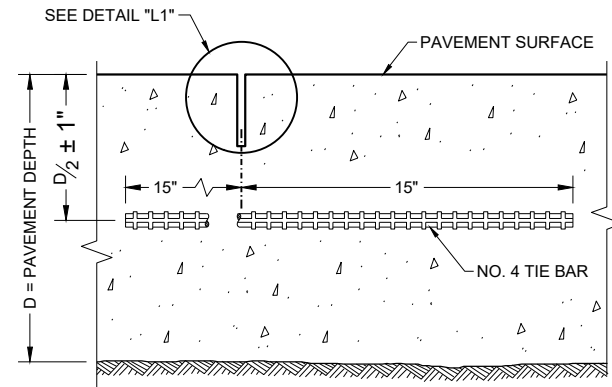
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



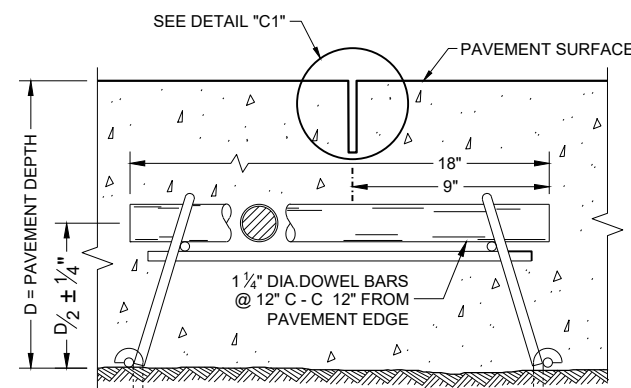
TRANSVERSE JOINTS



LONGITUDINAL JOINTS



**SECTION C - C
SAWED LONGITUDINAL JOINT**



**SECTION F - F
CONTRACTION JOINT**

GENERAL NOTES

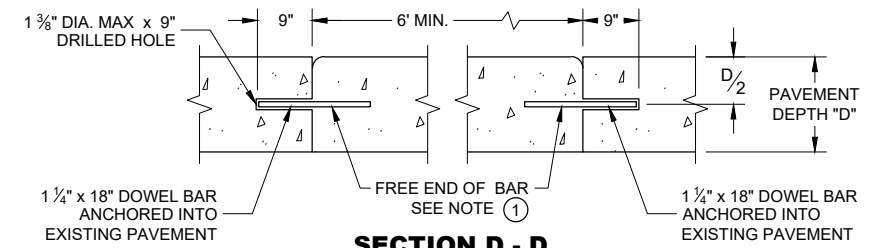
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

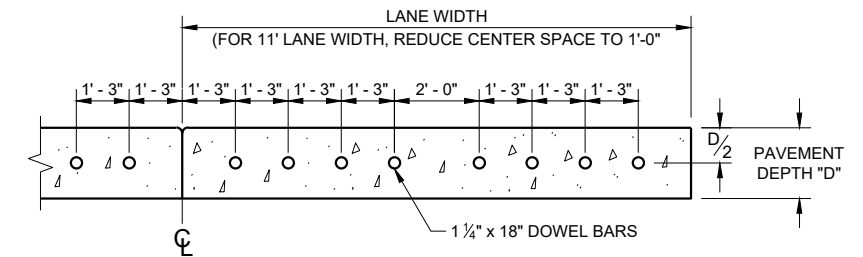
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

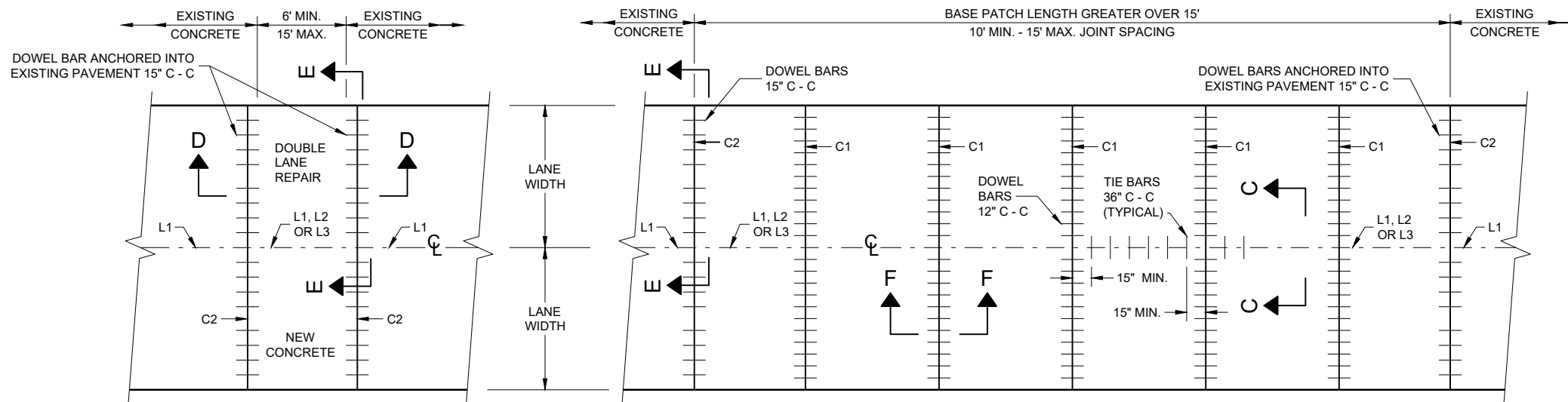
- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION D - D



**SECTION E - E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT**

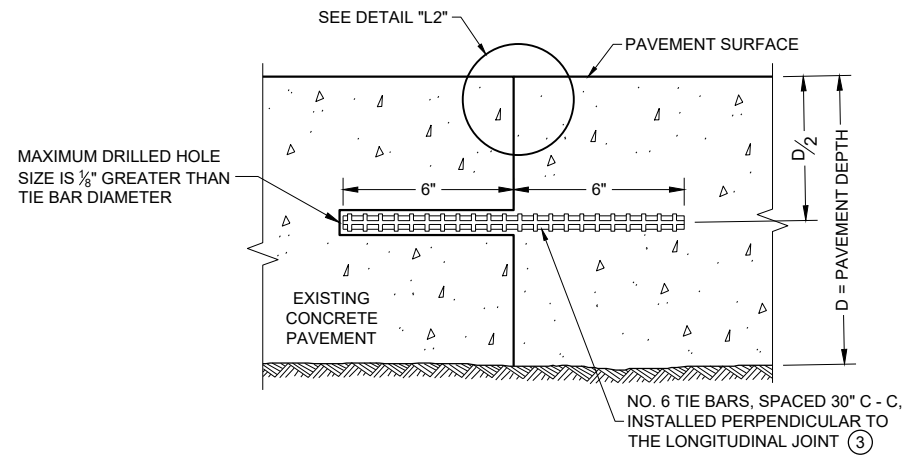


**PLAN VIEW
MULTILANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH**

**PLAN VIEW
MULTILANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH**

BASE PATCHING CONCRETE

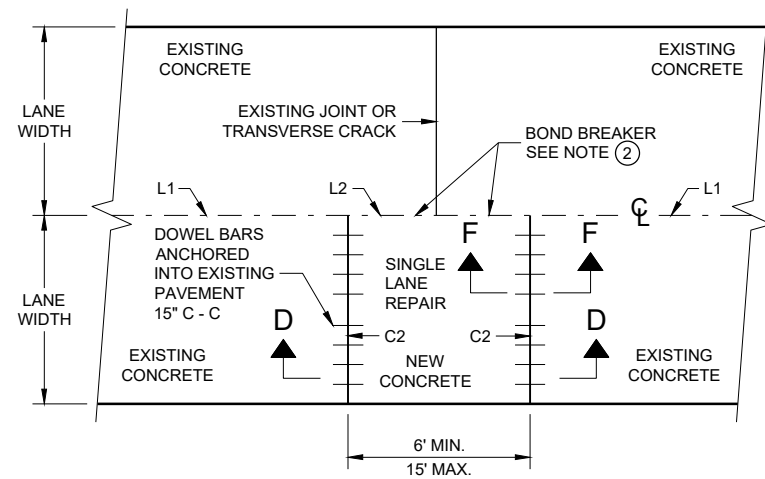
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



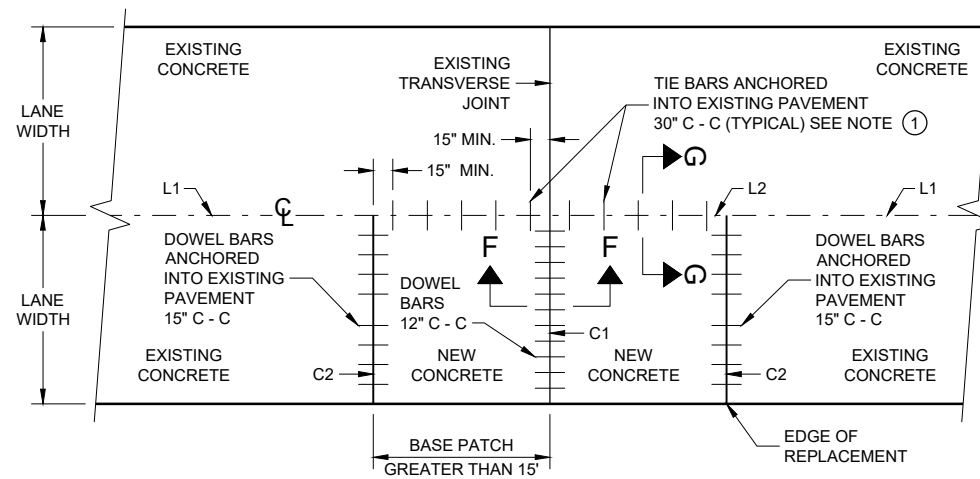
SECTION G - G
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOES WITH AN EPOXY.



PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH



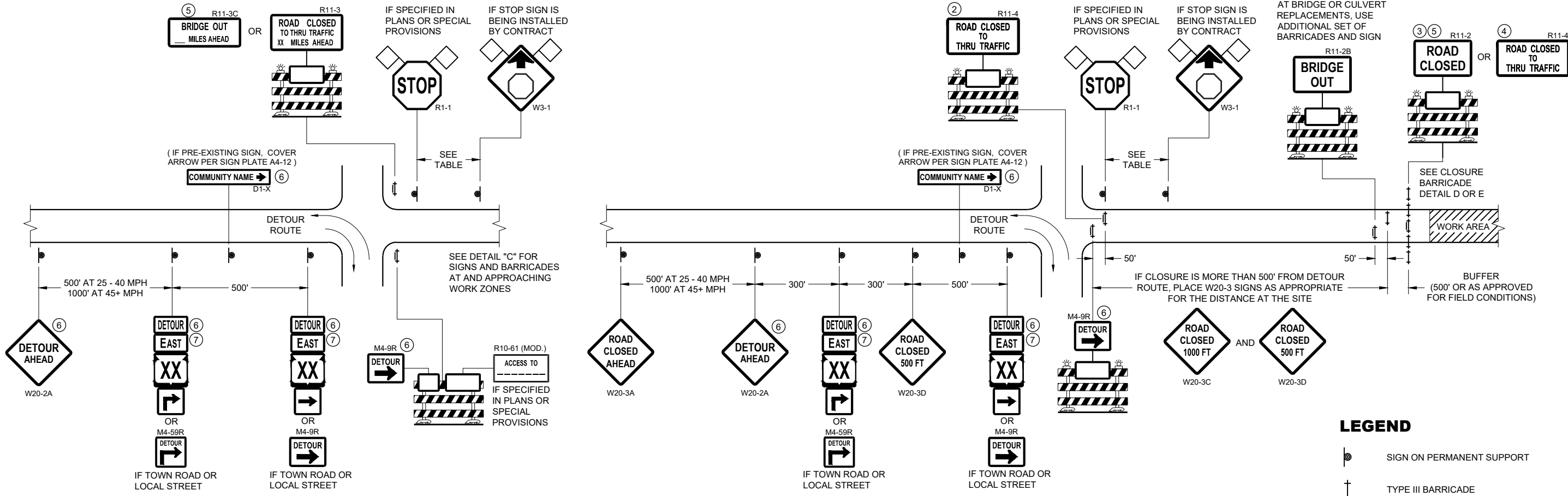
PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
GREATER THAN 15' LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR

FHWA



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

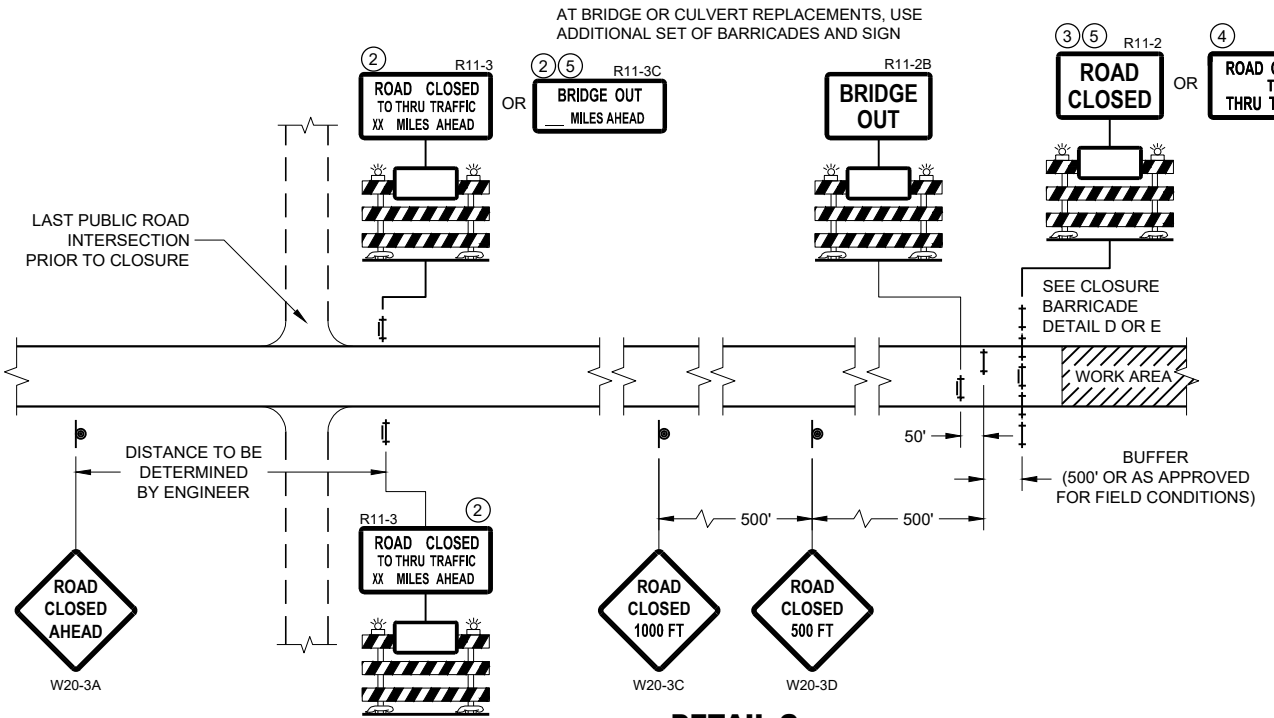
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



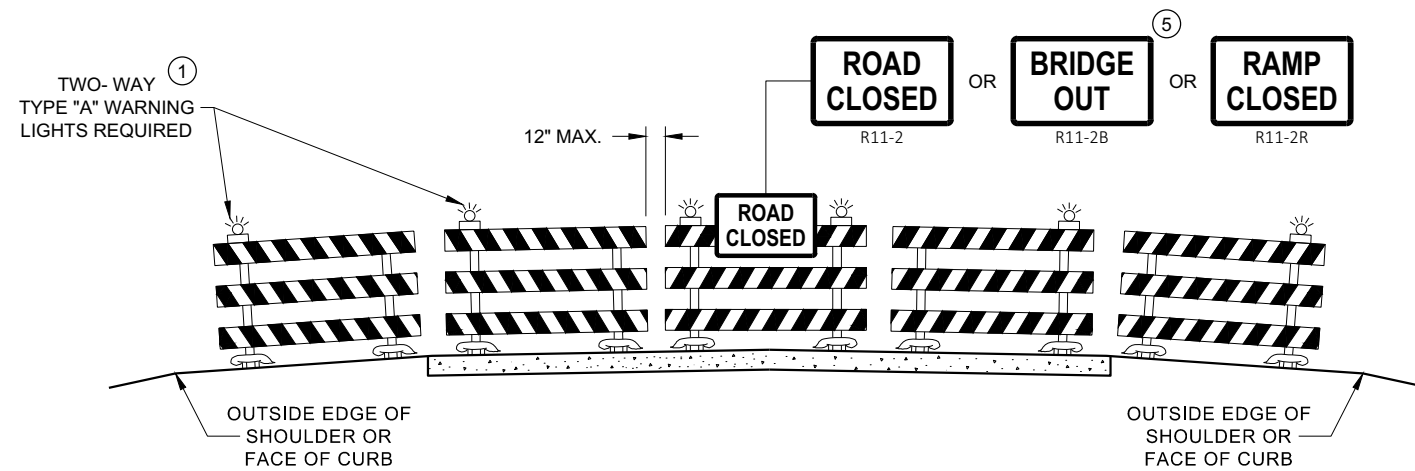
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

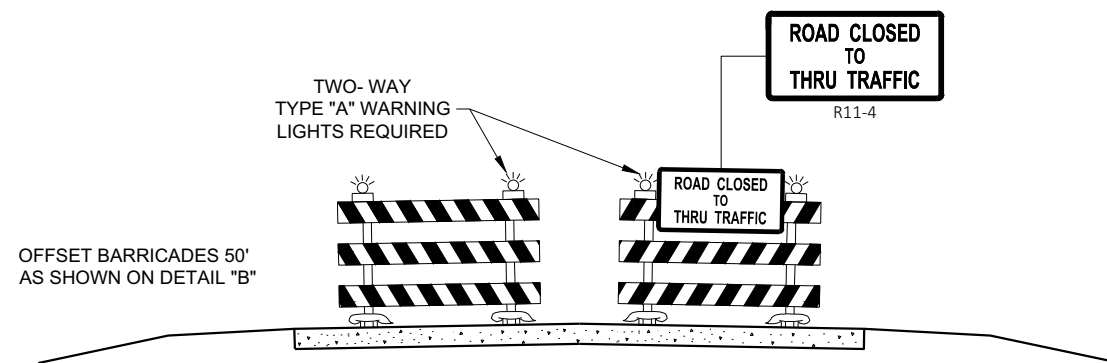
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

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

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

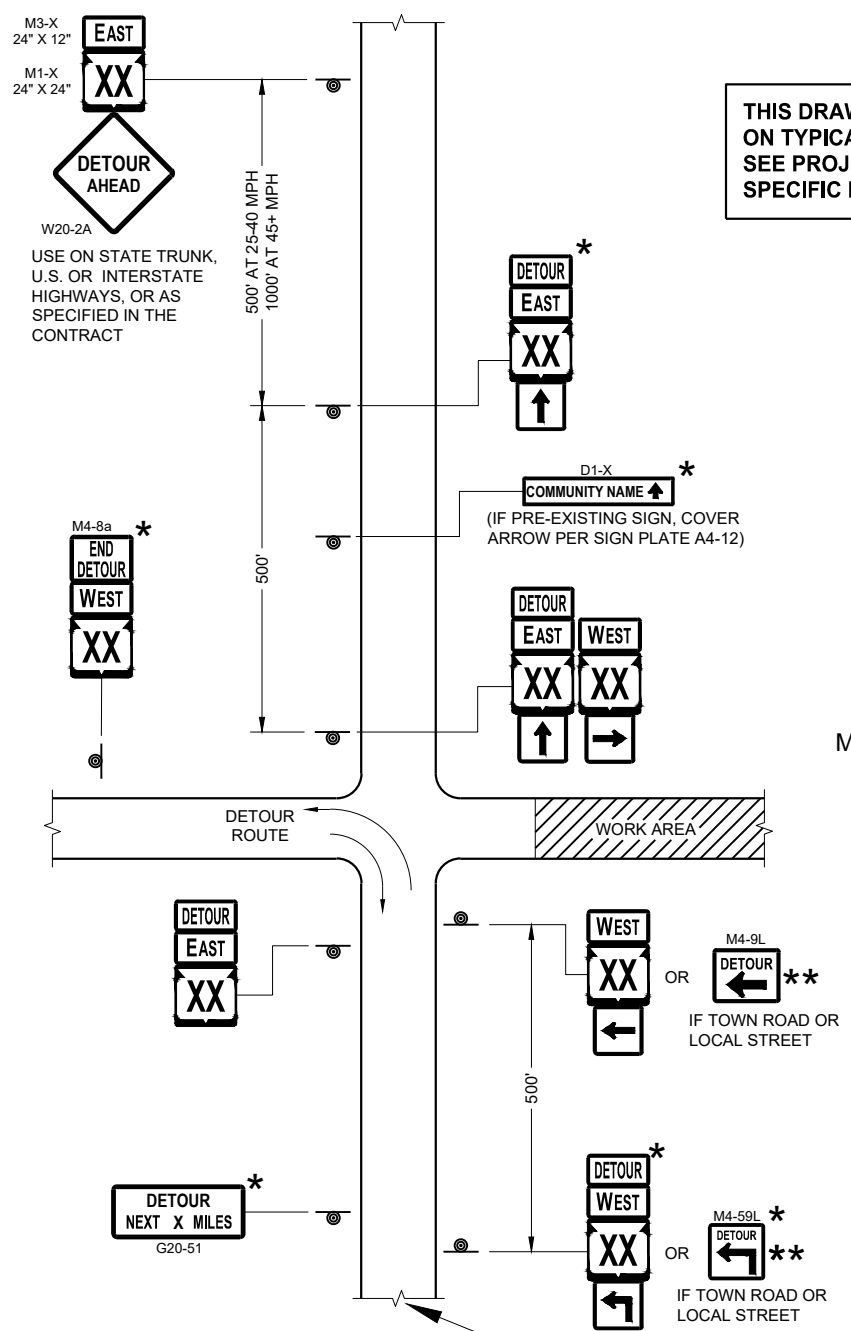
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR 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.

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

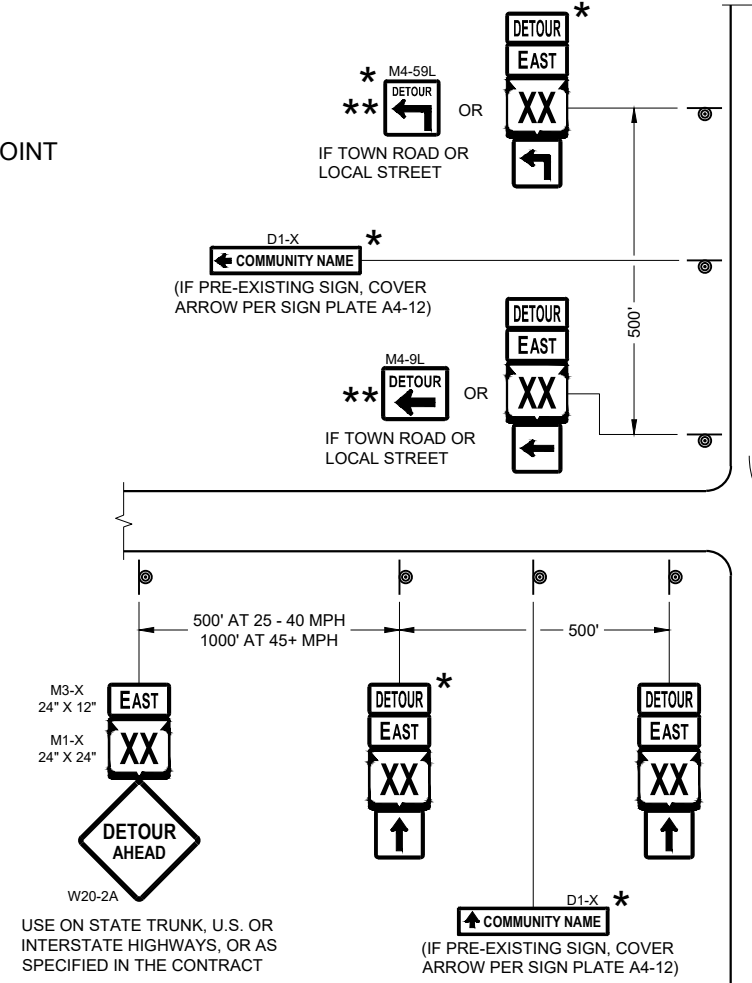
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

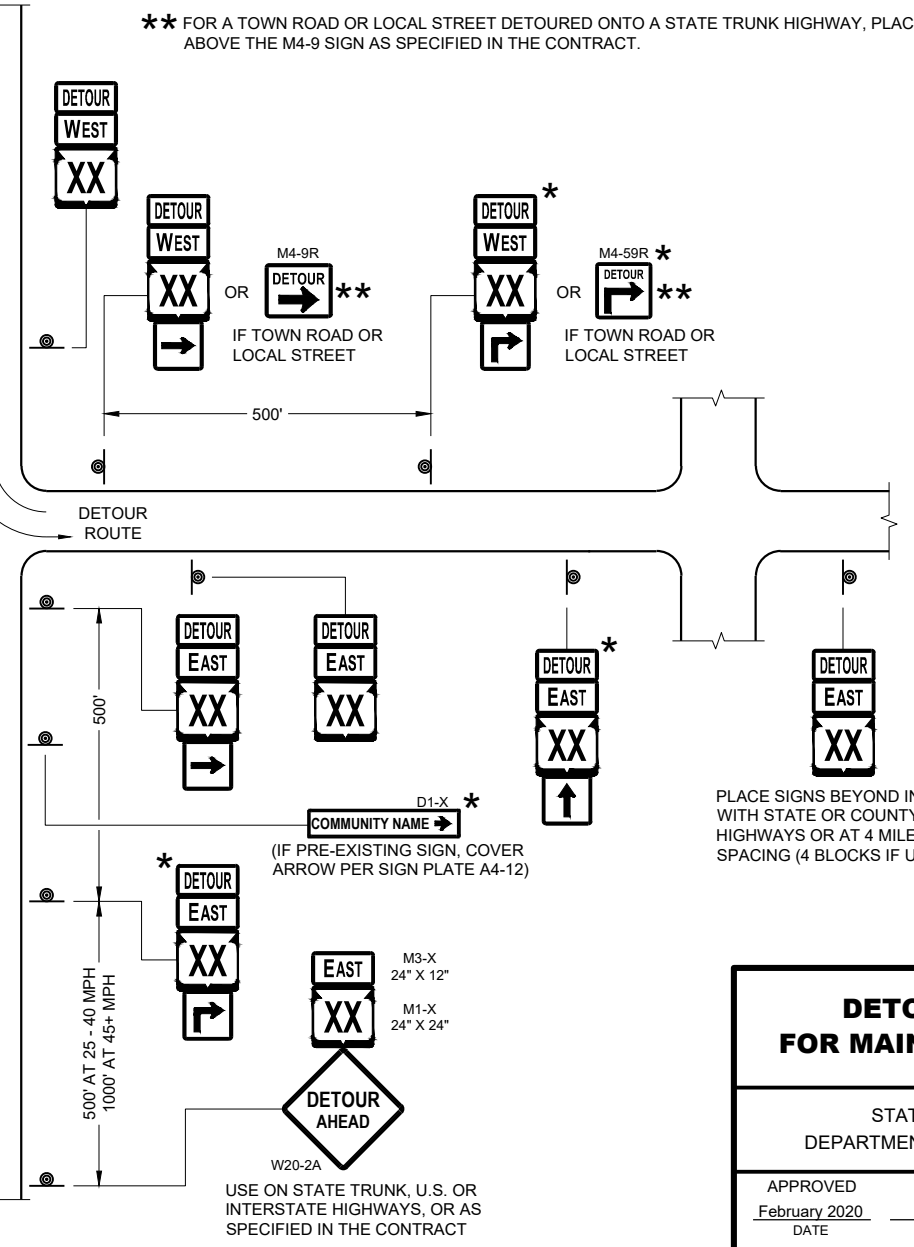
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



**DETOUR SIGNING
FOR MAINLINE CLOSURES**

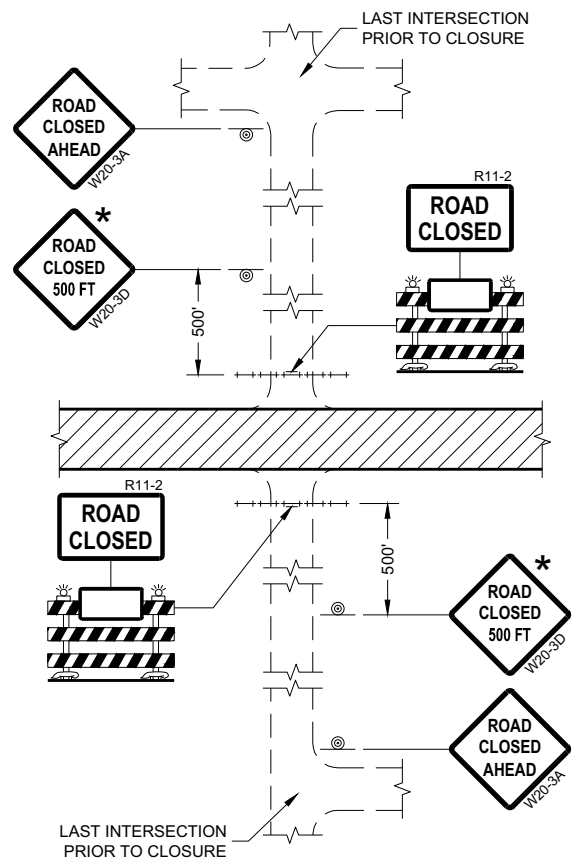
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

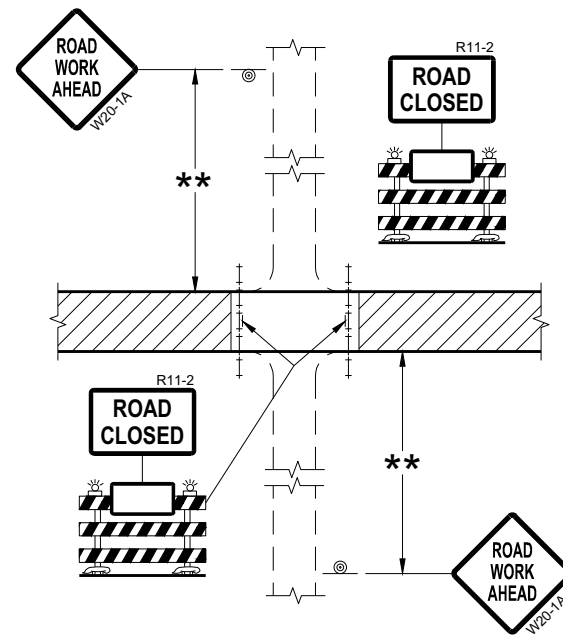
FHWA

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

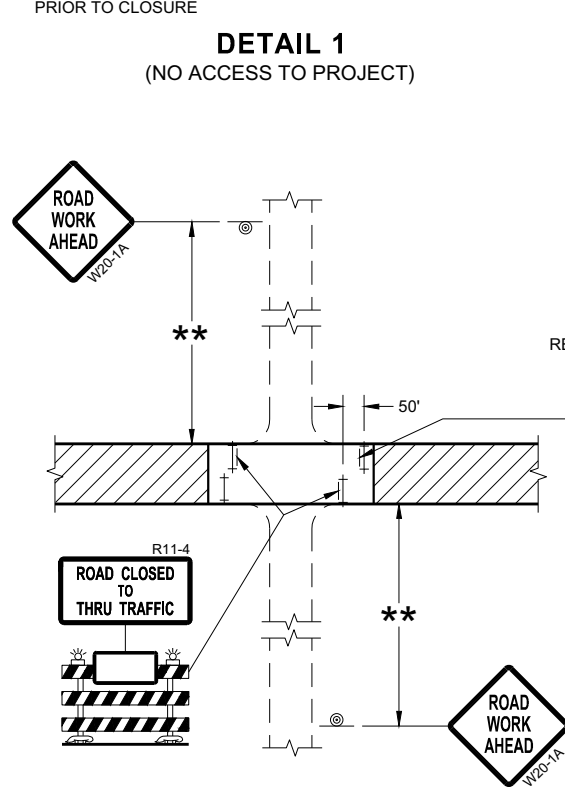
PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)



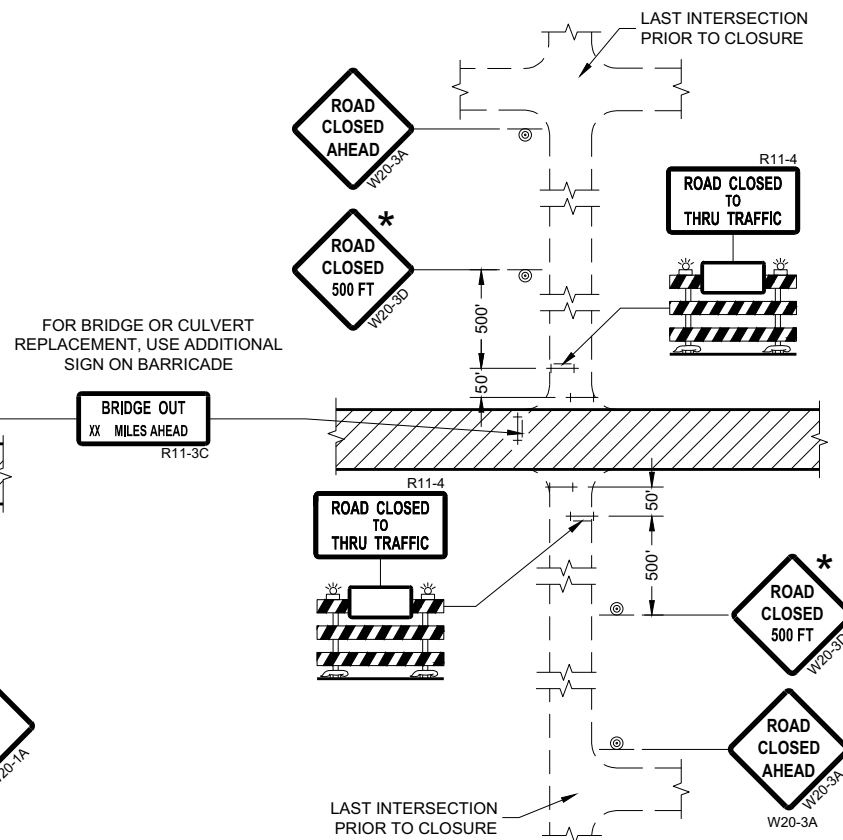
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

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

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

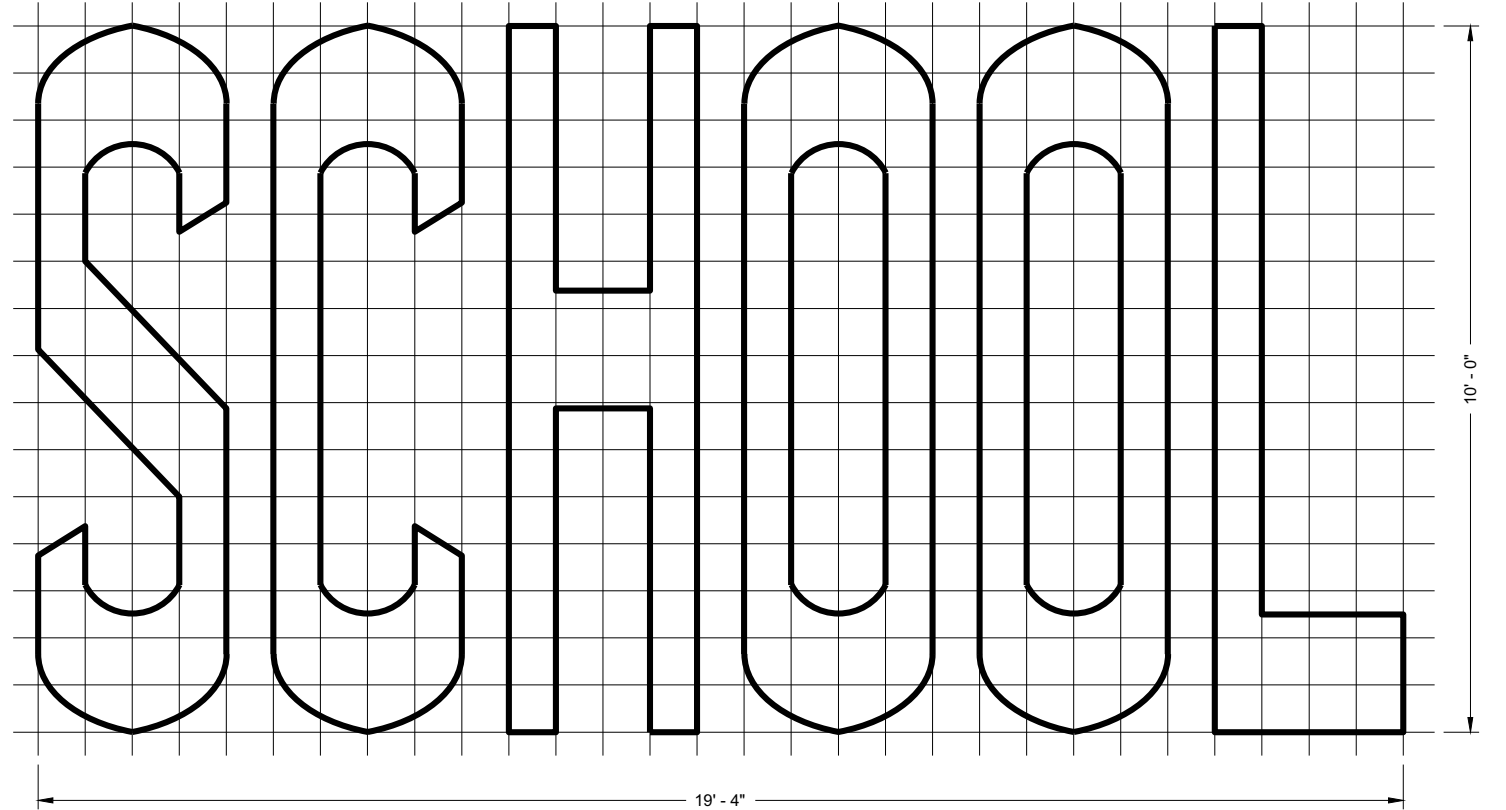
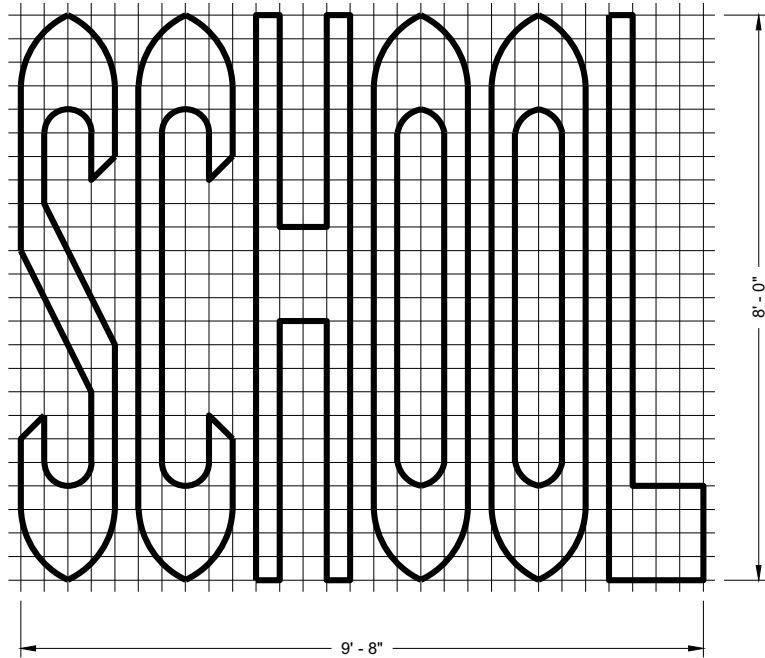
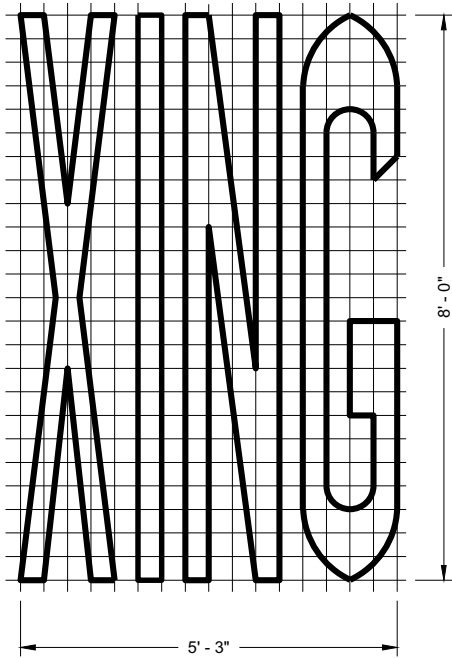
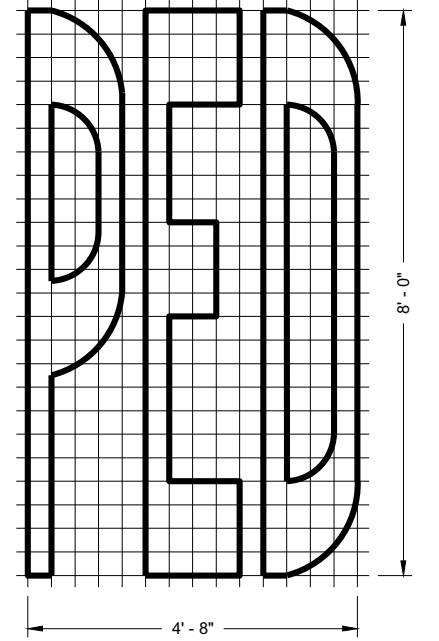
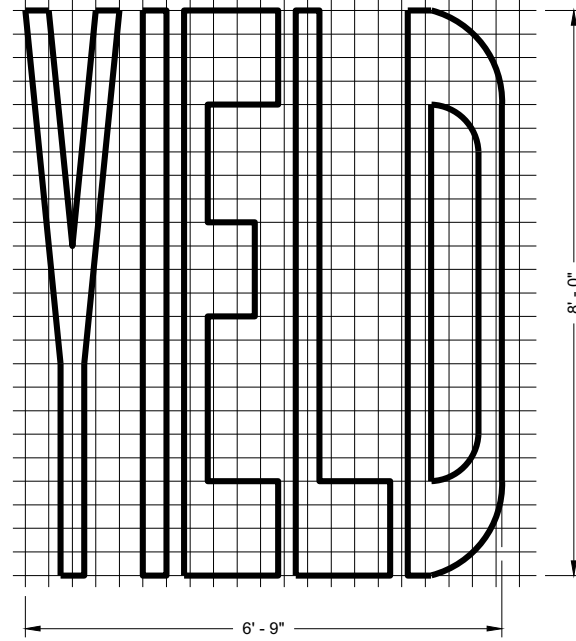
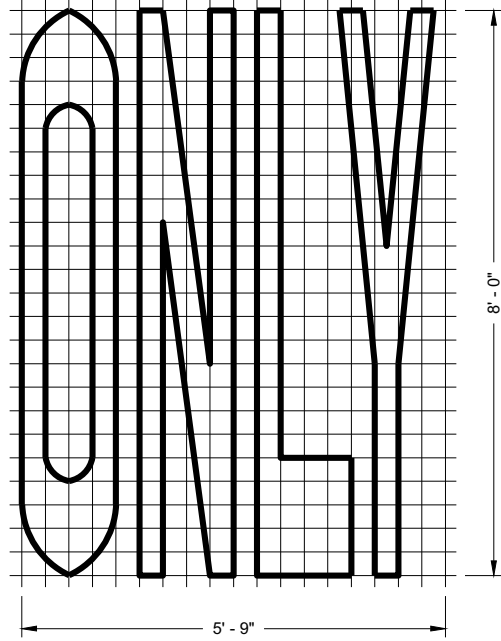
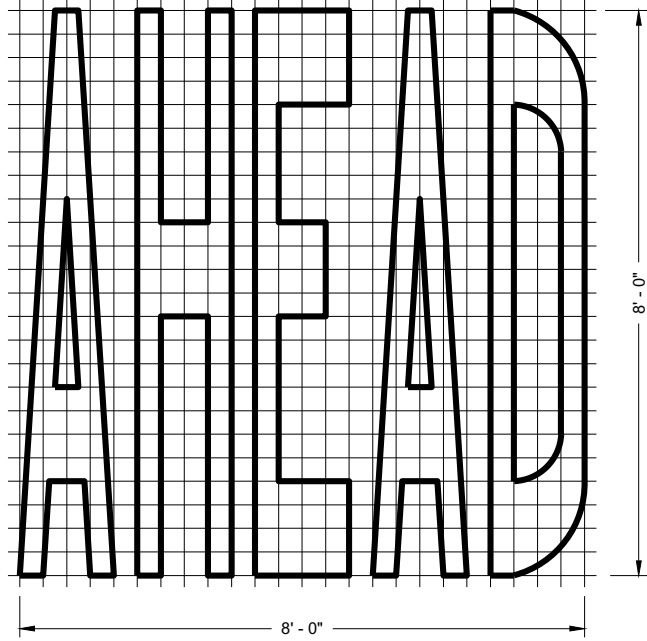
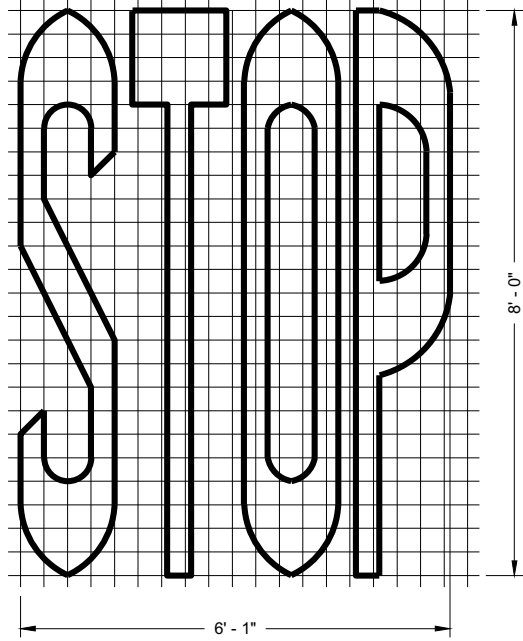
LEGEND

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

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SINGLE LANE

TWO - LANE

GENERAL NOTES

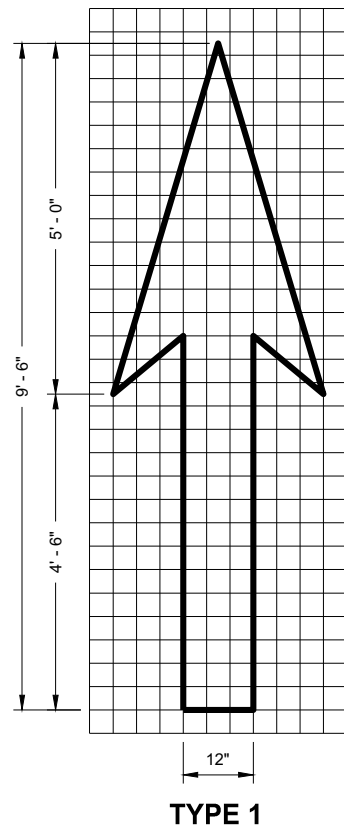
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

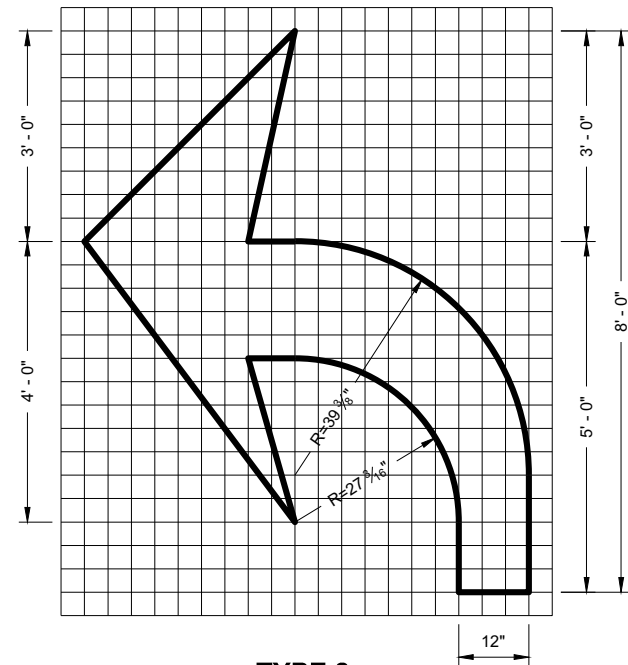
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

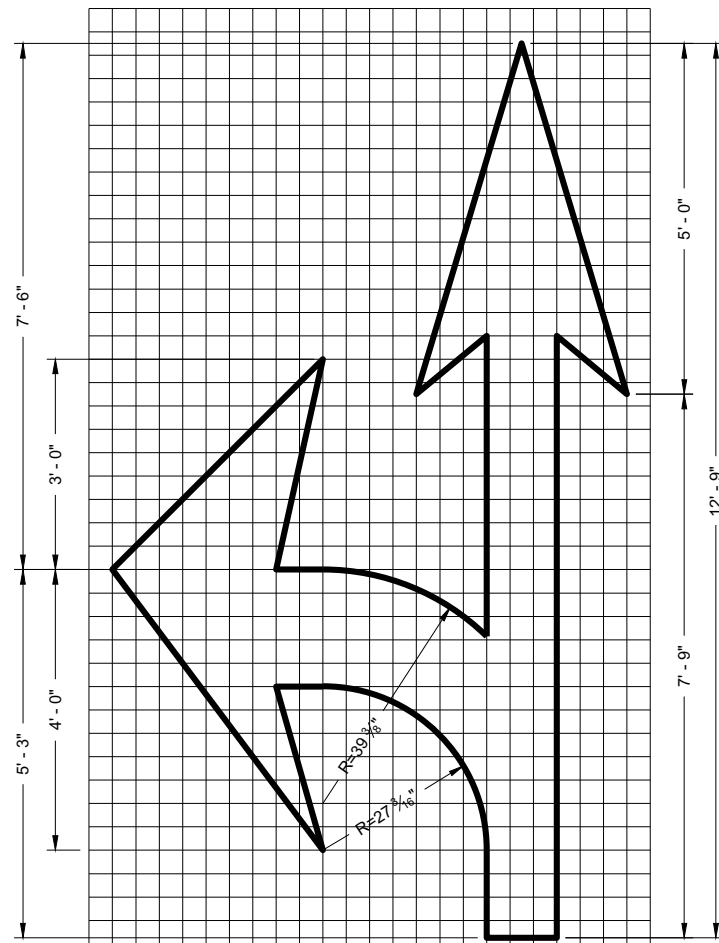
FHWA



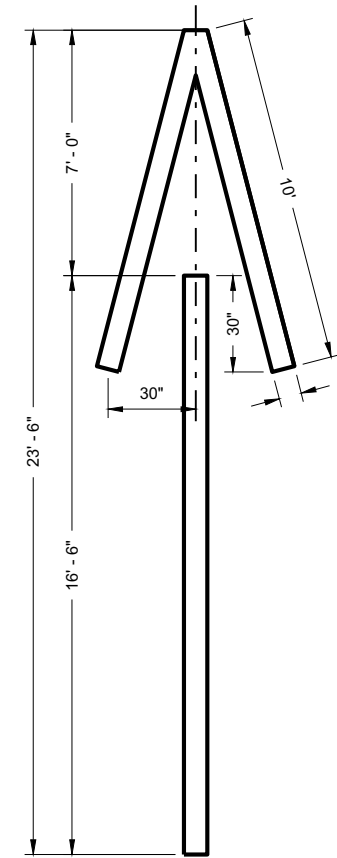
TYPE 1



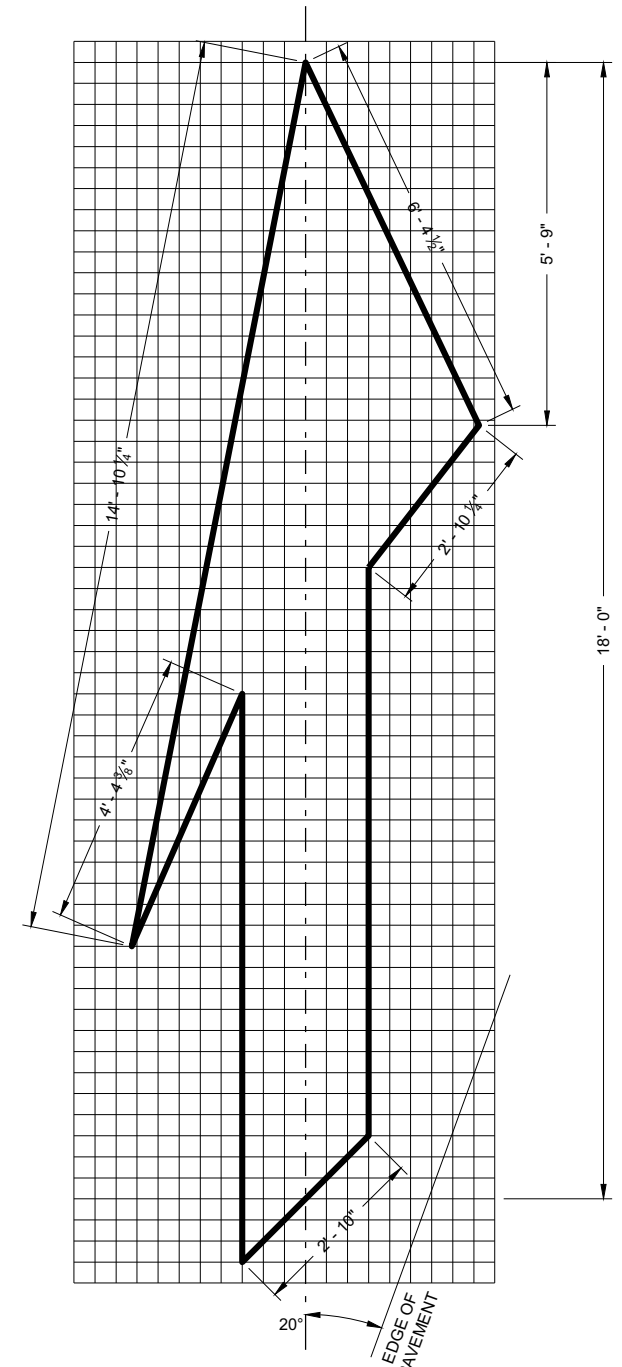
TYPE 2



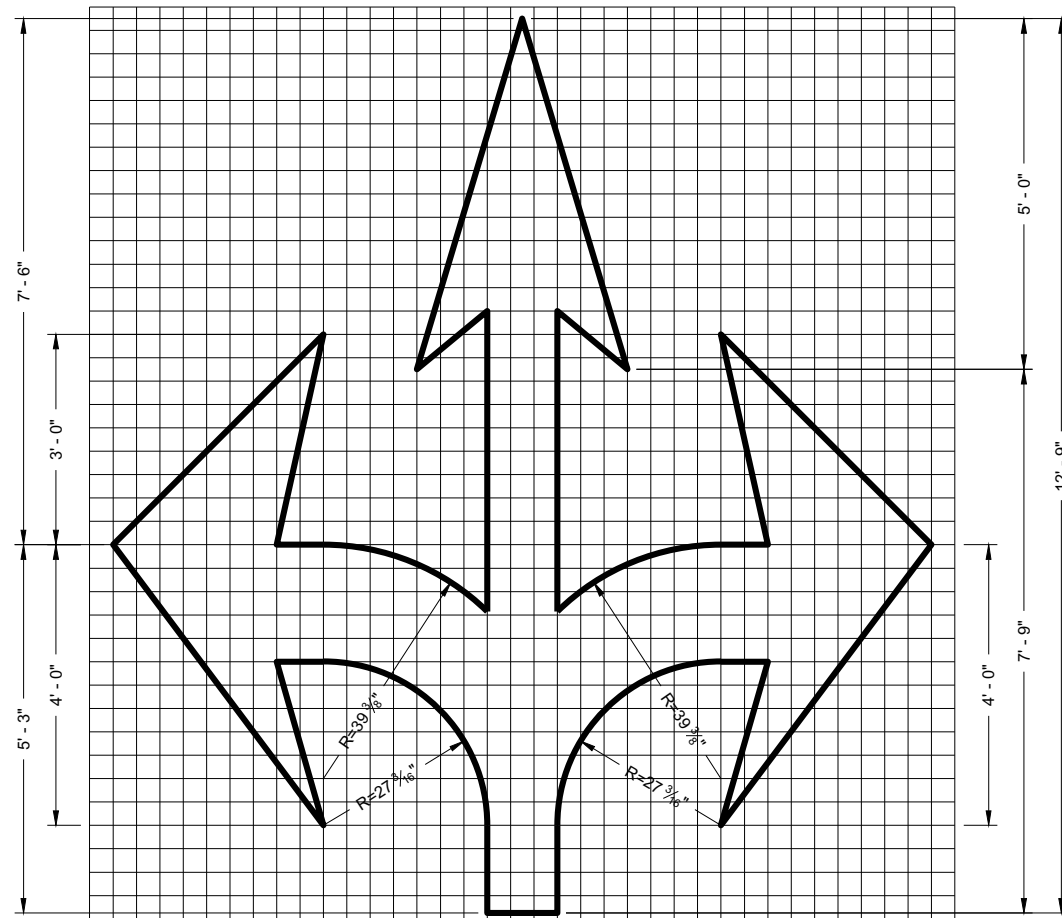
TYPE 3



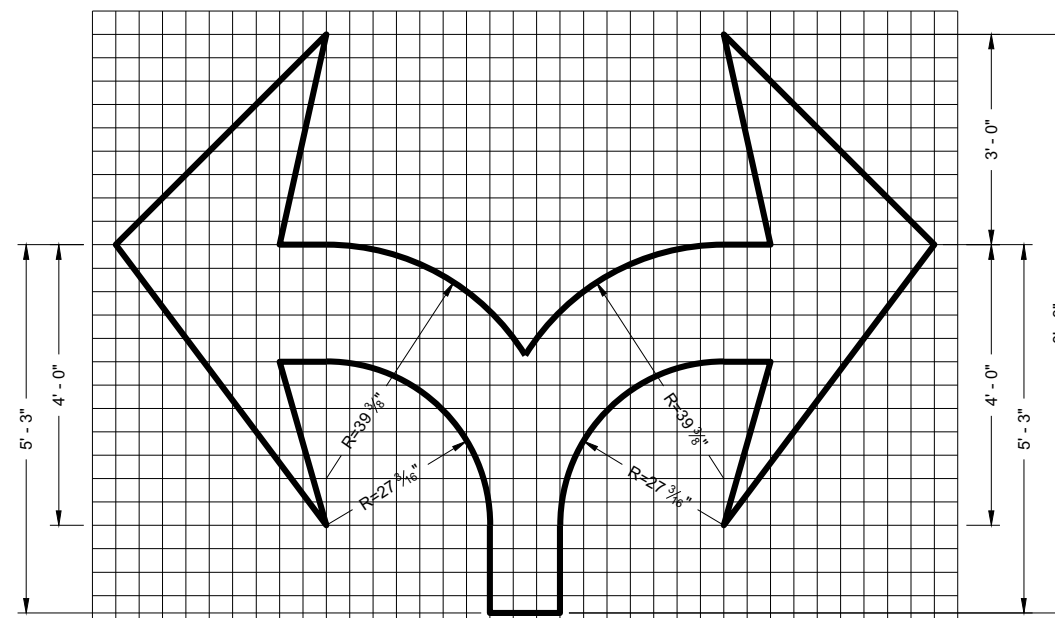
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

GENERAL NOTES

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

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

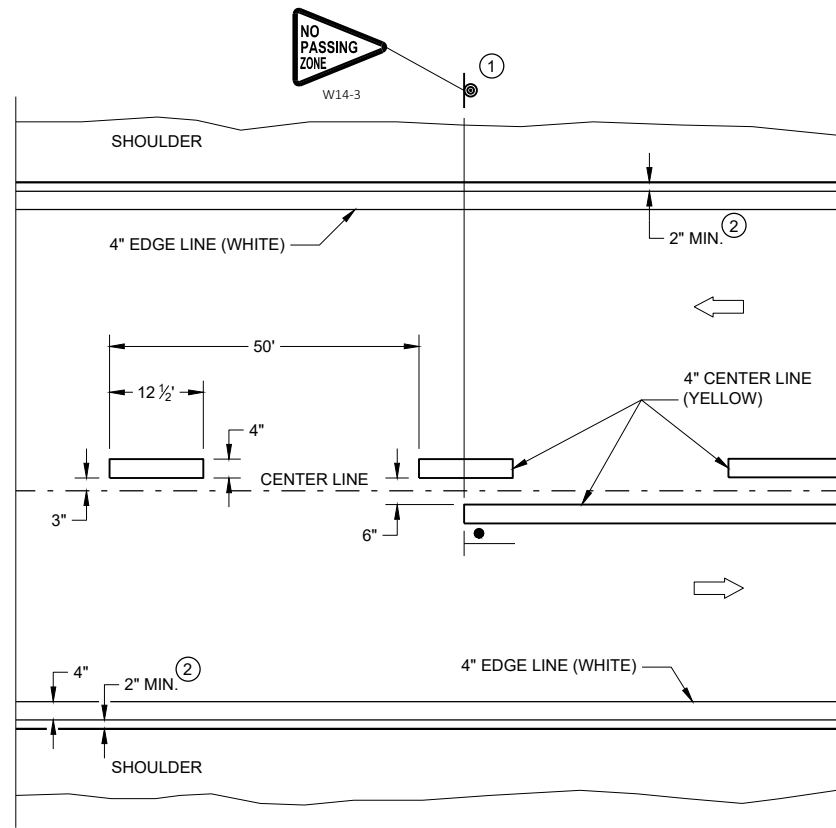
APPROVED

November 2019

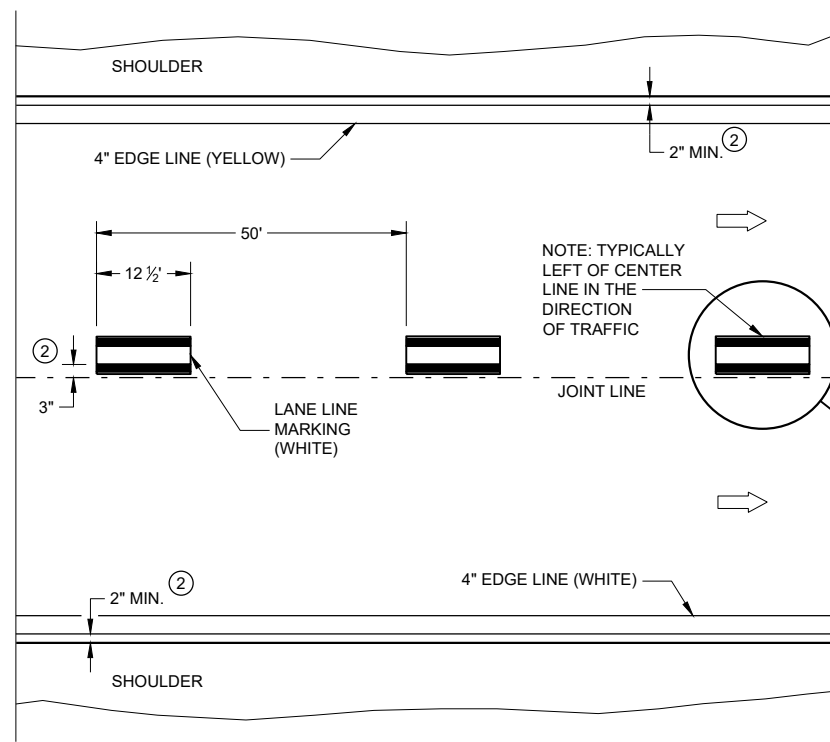
DATE

FHWA

/s/ Matthew Rauch
STATE SIGNING AND MARKING
ENGINEER

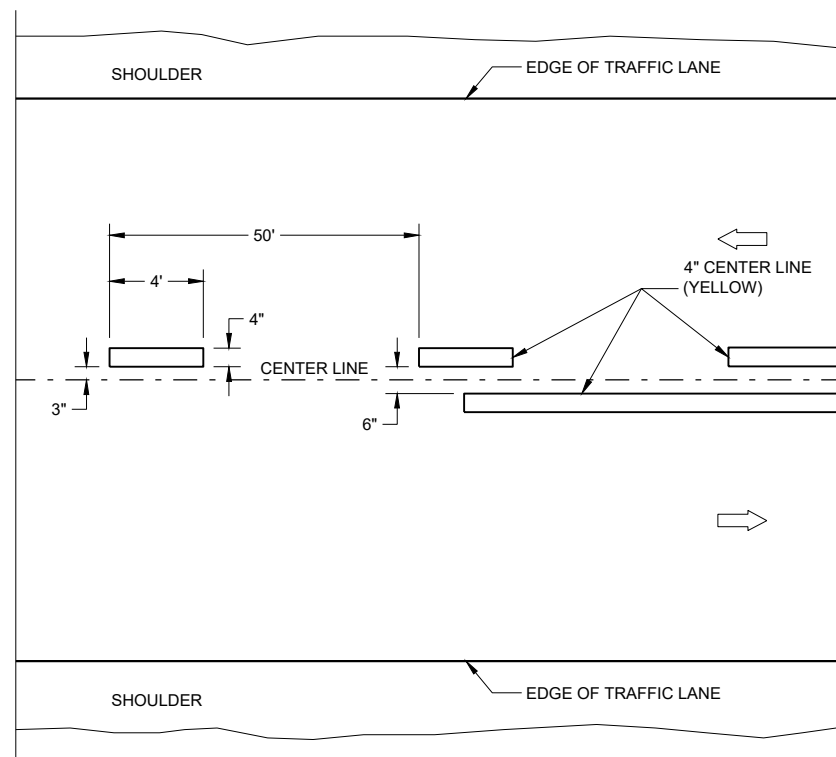


TWO WAY TRAFFIC

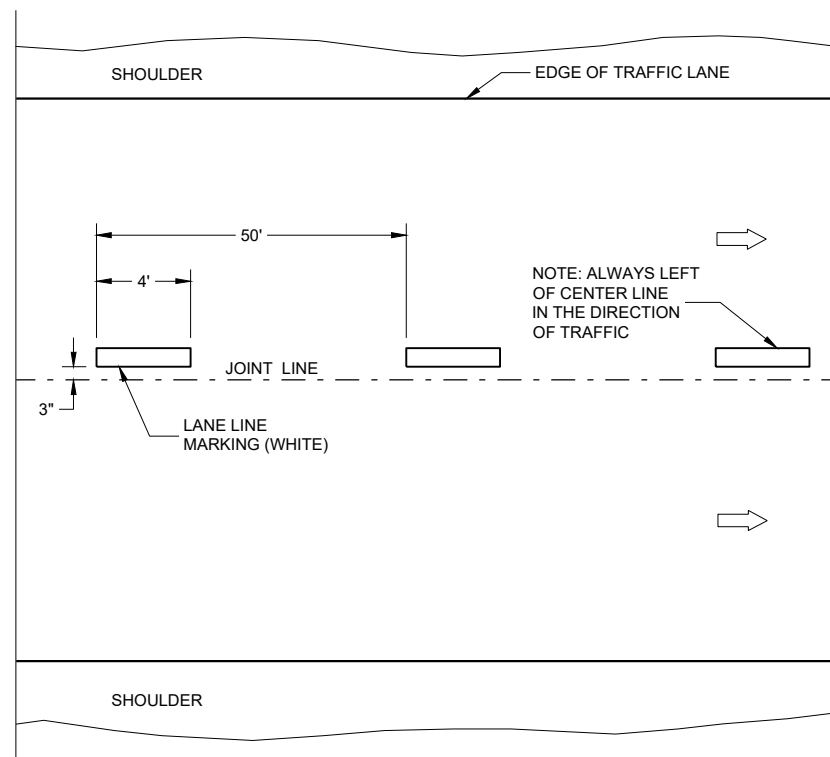


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

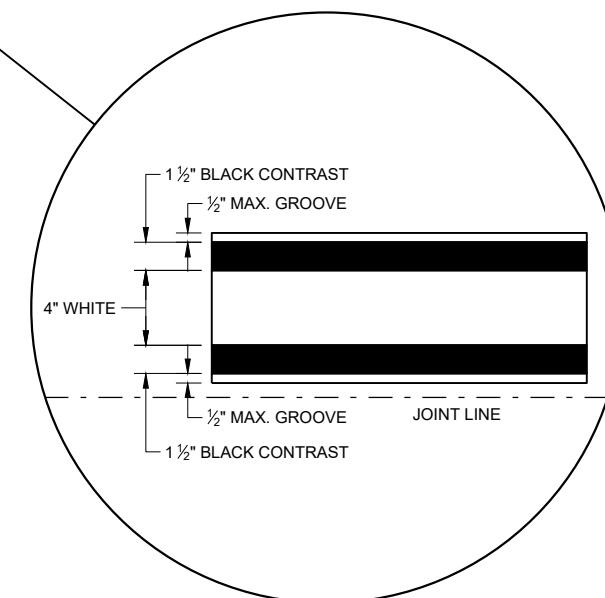
GENERAL NOTES

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

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



LONGITUDINAL MARKING (MAINLINE)

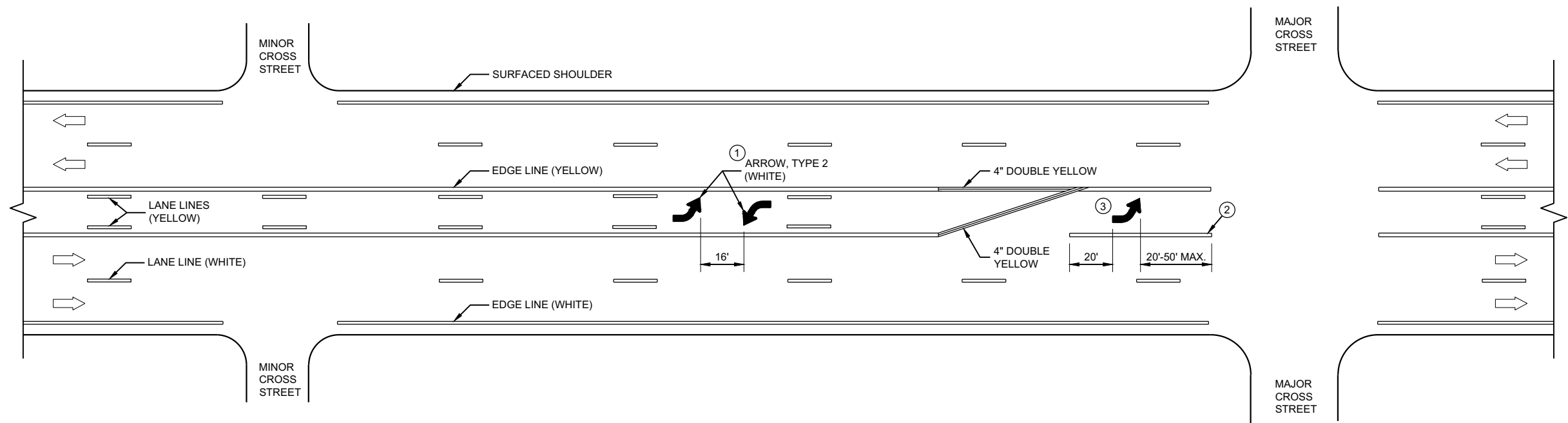
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 8" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

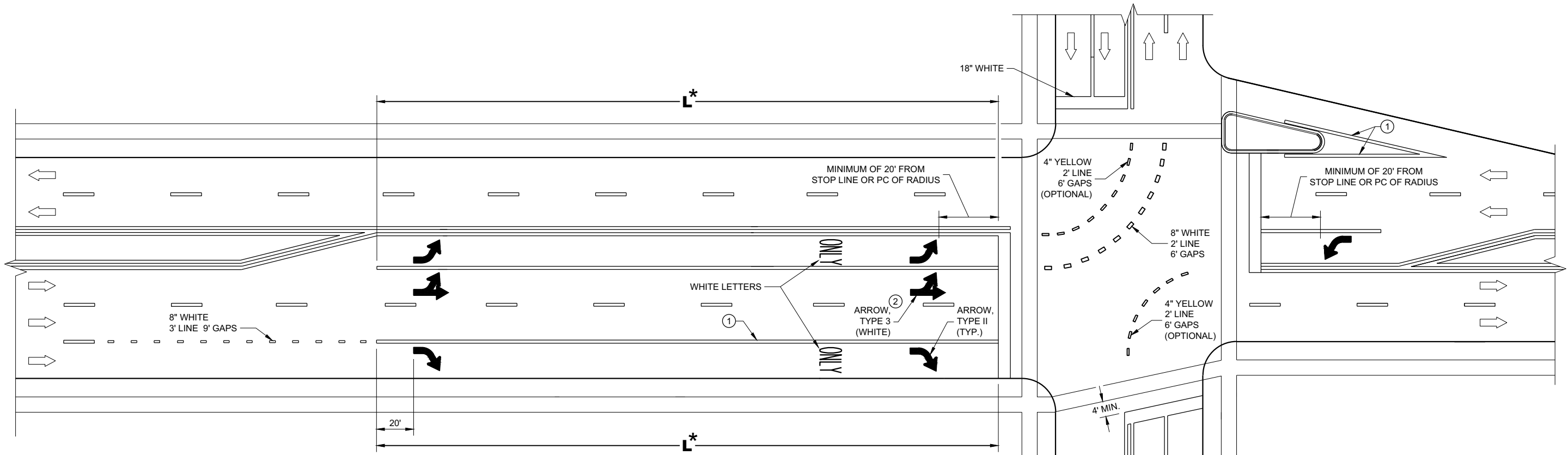
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6

SDD 15C08 - 20b

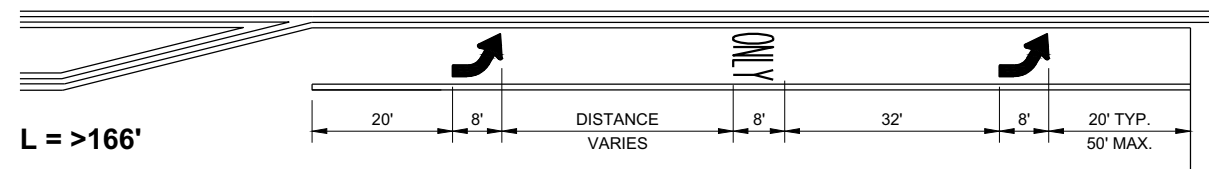
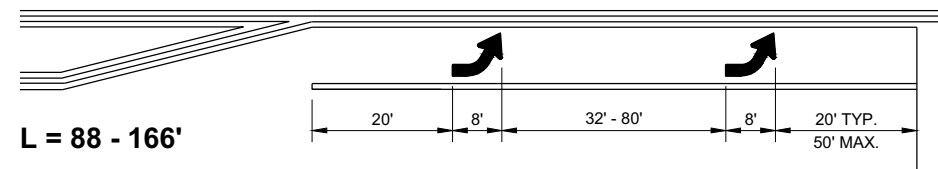
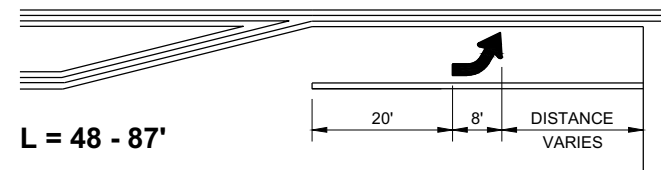
SDD 15C08 - 20b

<p>PAVEMENT MARKING (TURN LANES)</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

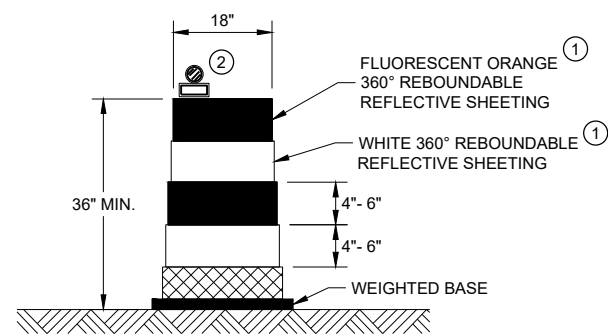
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

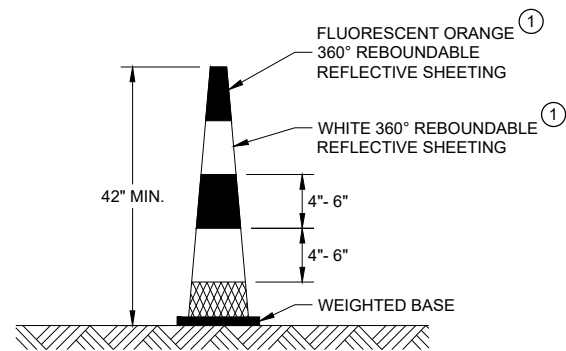
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

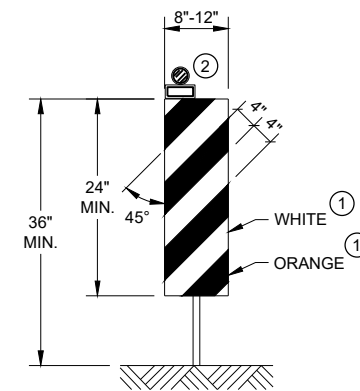


DRUM



42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

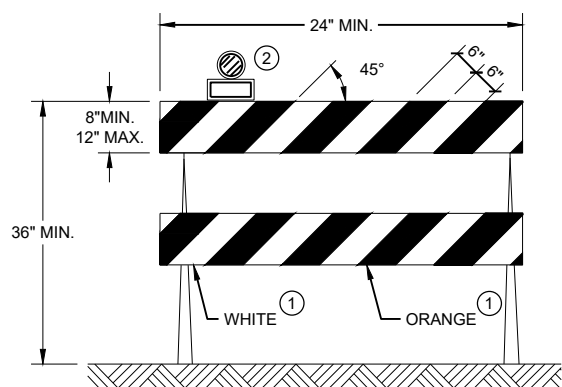


VERTICAL PANEL

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

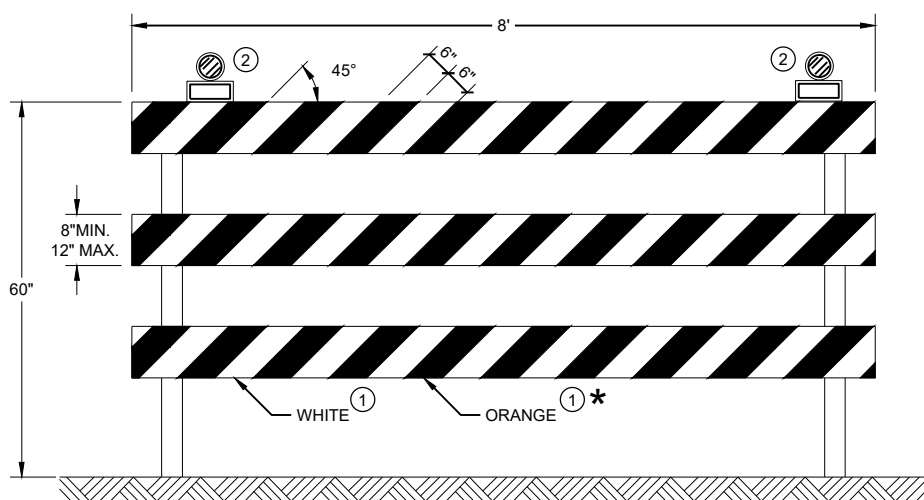
GENERAL NOTES

- 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.

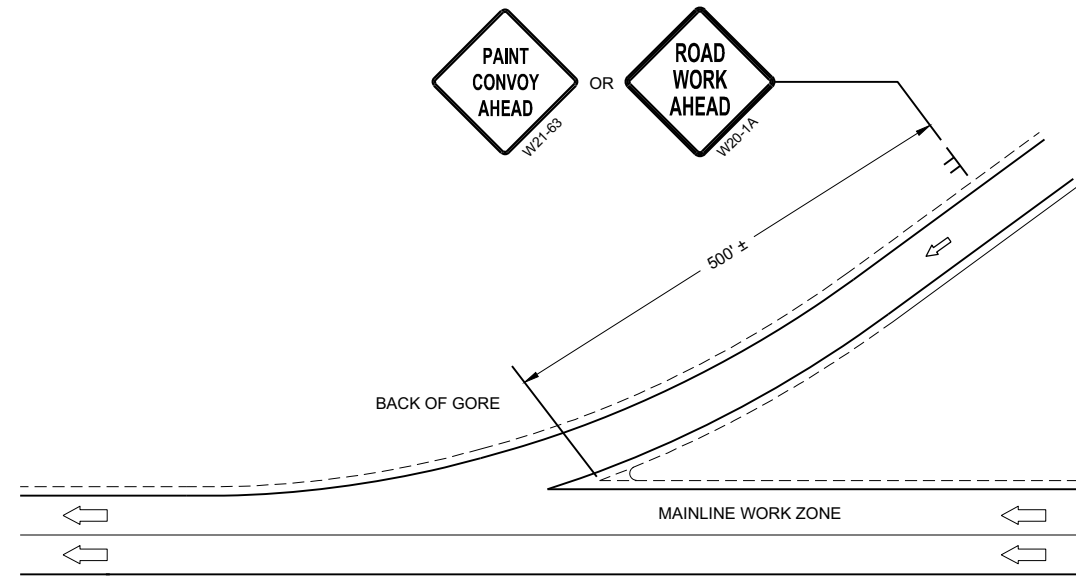
**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

LEGEND

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



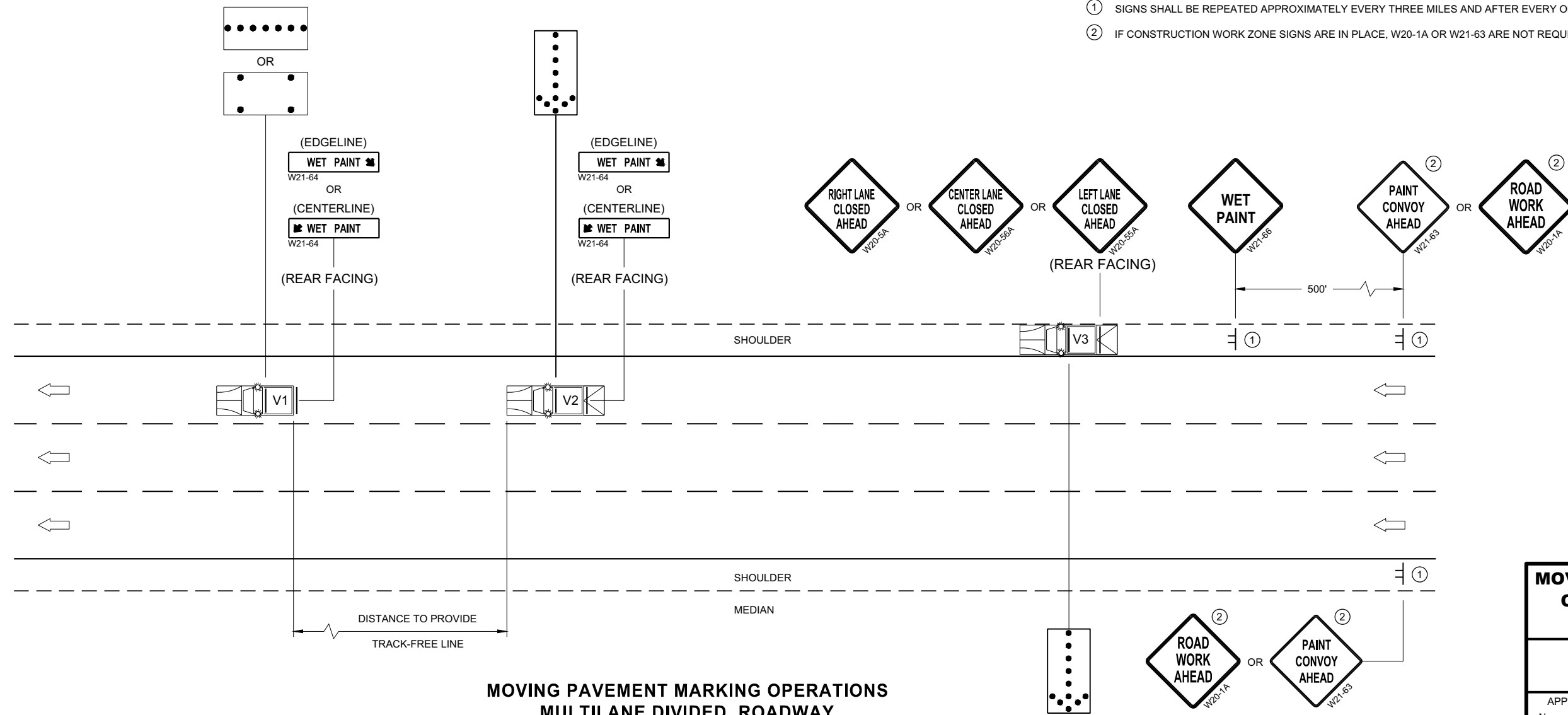
GENERAL NOTES

- 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. 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.
- WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.
- WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.
- USE AN ATTENUATOR ON THE REAR MOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.
- IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.
- 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 HEIGHT OF 18" FOR WET PAVEMENT MARKINGS

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

6

6



**MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY**

**MOVING PAVEMENT MARKING
OPERATION MULTI-LANE
DIVIDED ROADWAY**

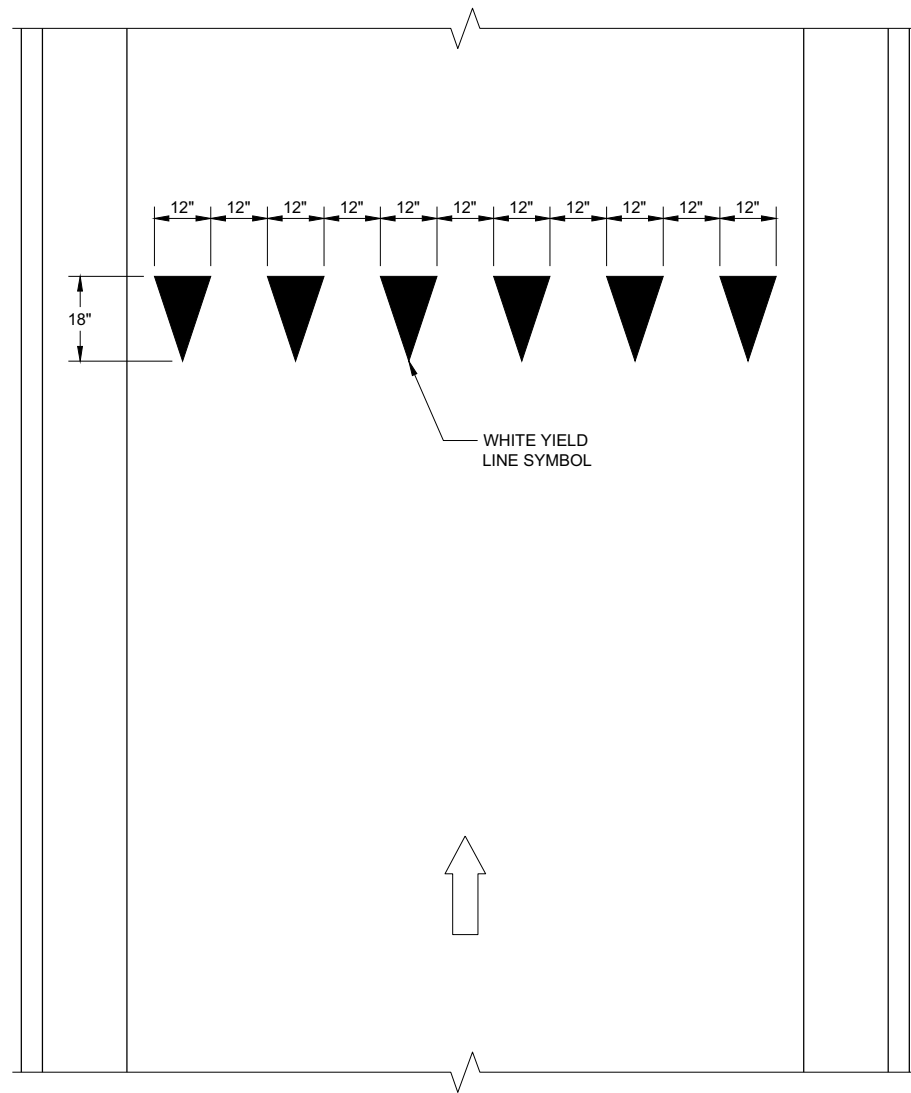
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER



FHWA

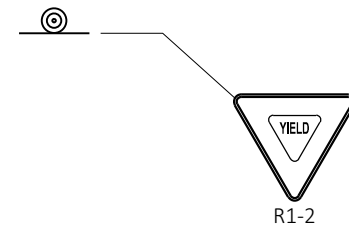
SDD 15C19 - 06C

SDD 15C19 - 06C



LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAVEL



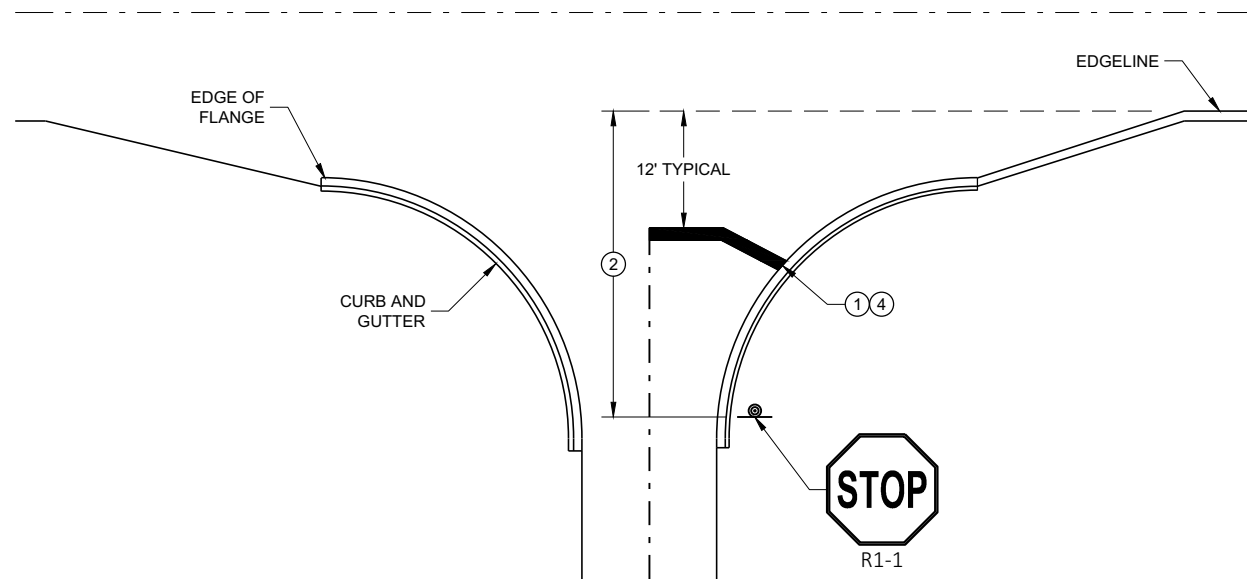
YIELD LINE

YIELD MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-81-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	

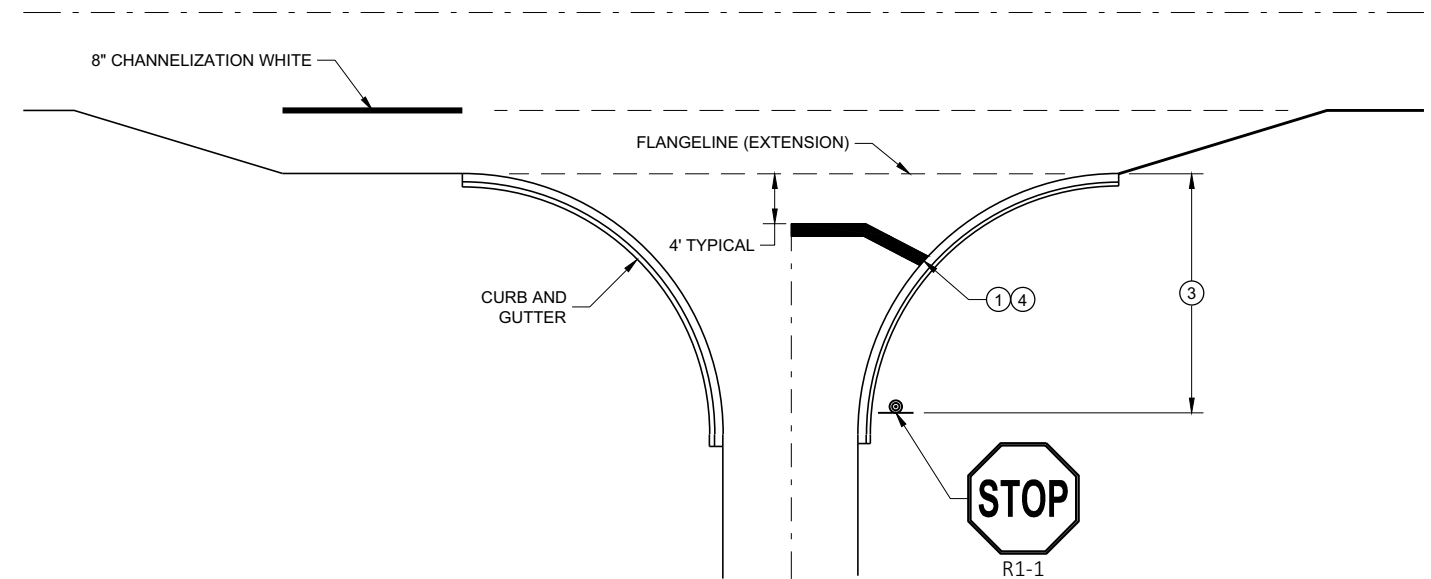
GENERAL NOTES

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

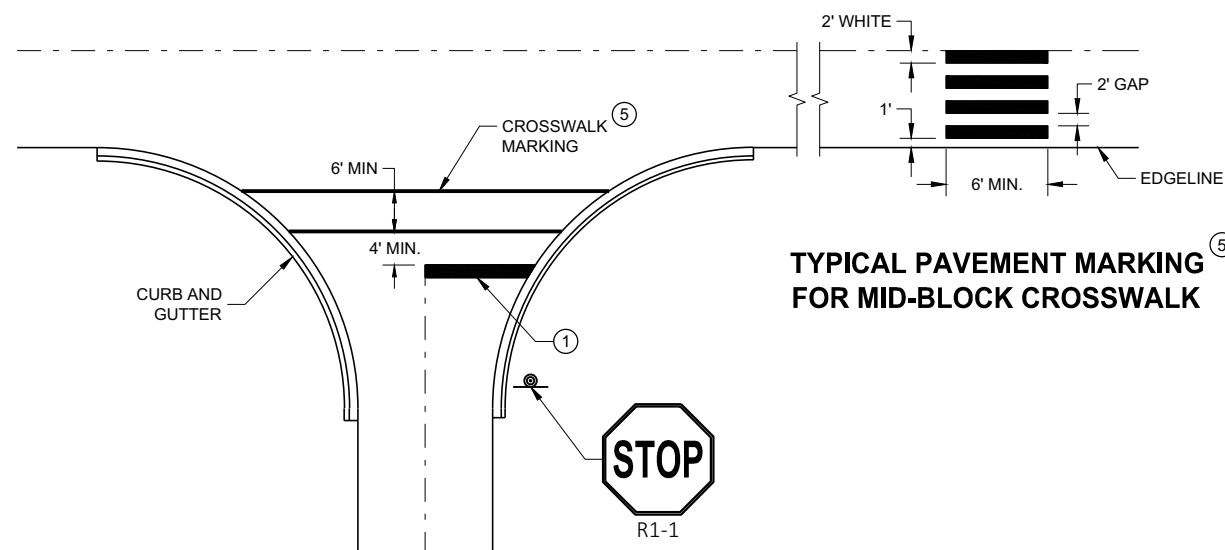
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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.



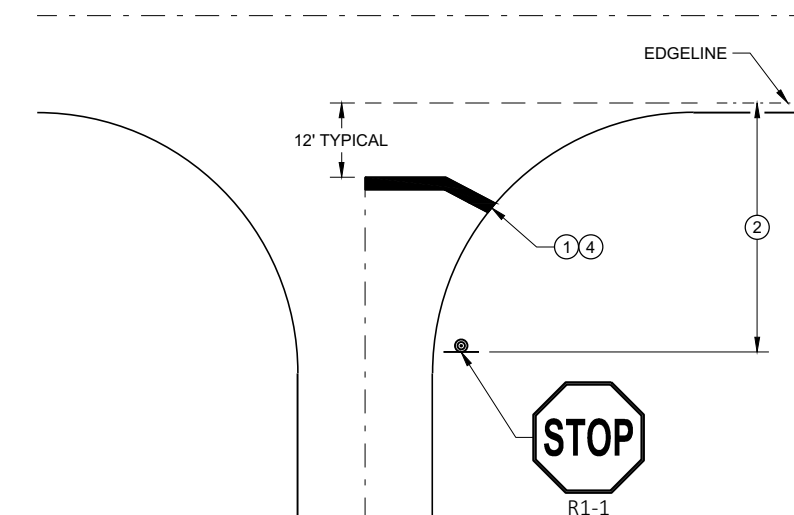
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE

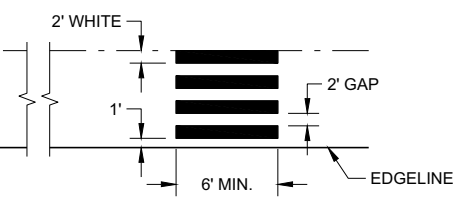


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

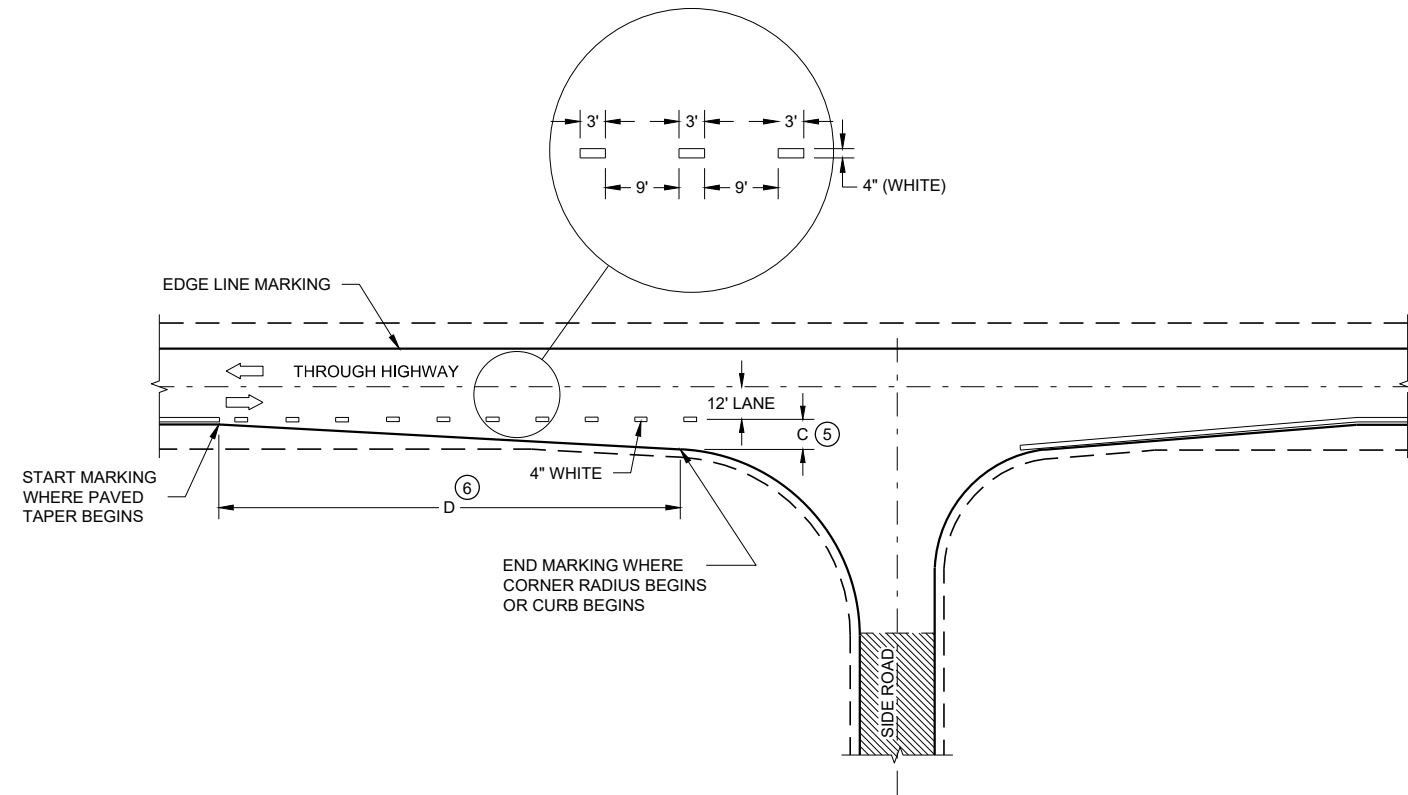
GENERAL NOTES

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

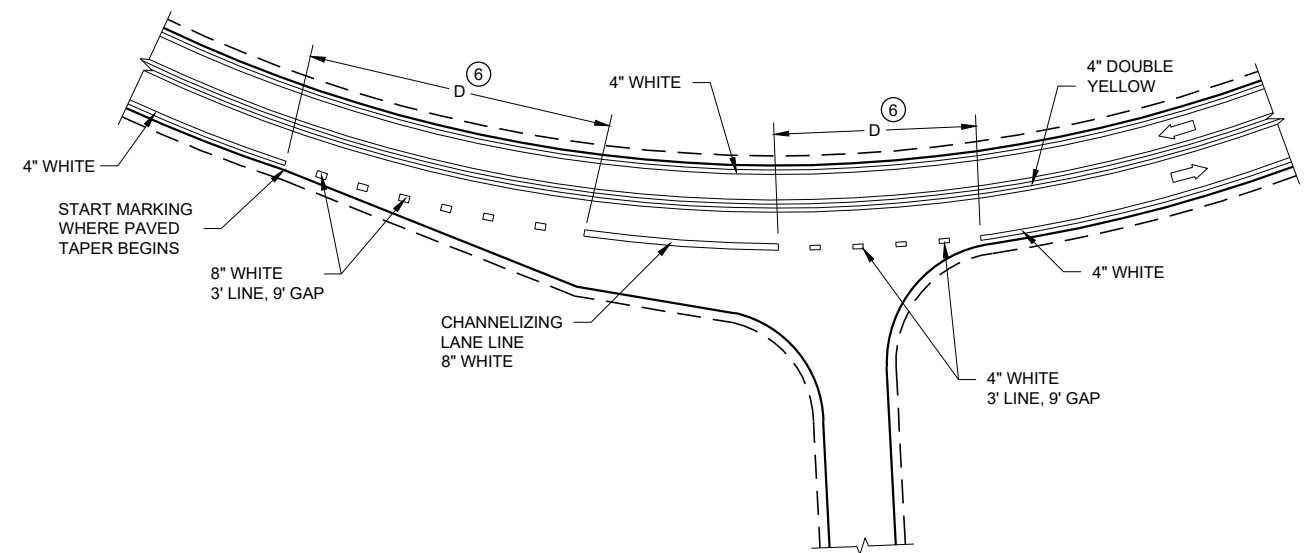
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4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

LEGEND

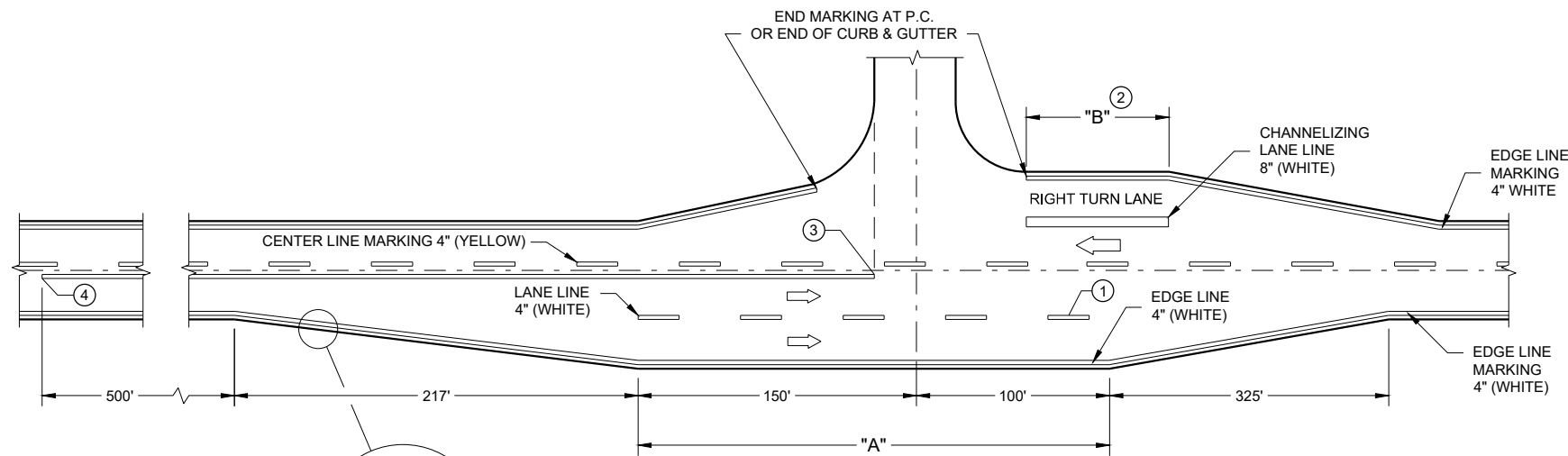
➡ DIRECTION OF TRAVEL



MINOR INTERSECTION

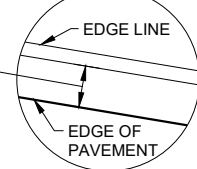


INTERSECTION ON OUTSIDE OF CURVE



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










BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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

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

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

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

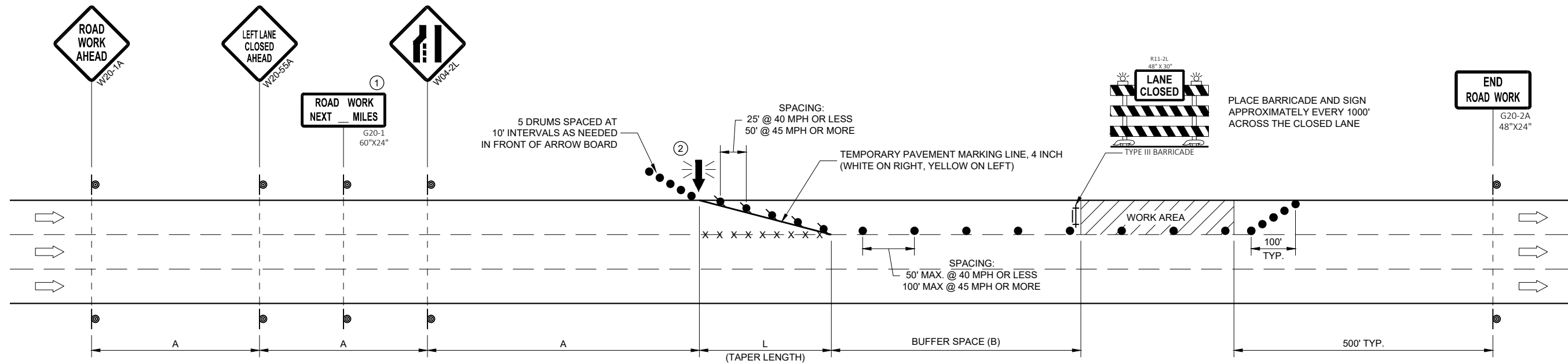
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

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

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

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

- ① OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.
- ② WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



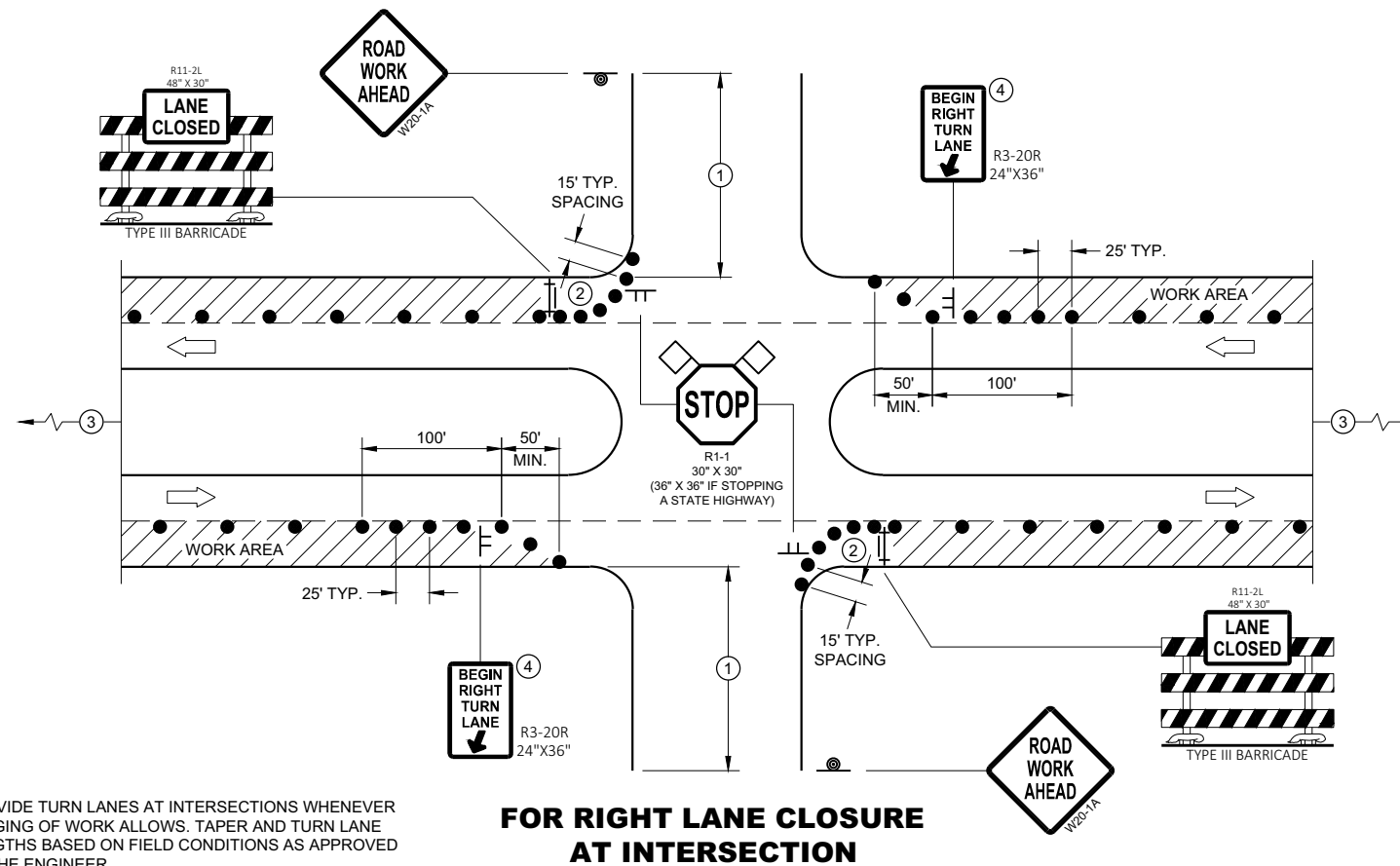
POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

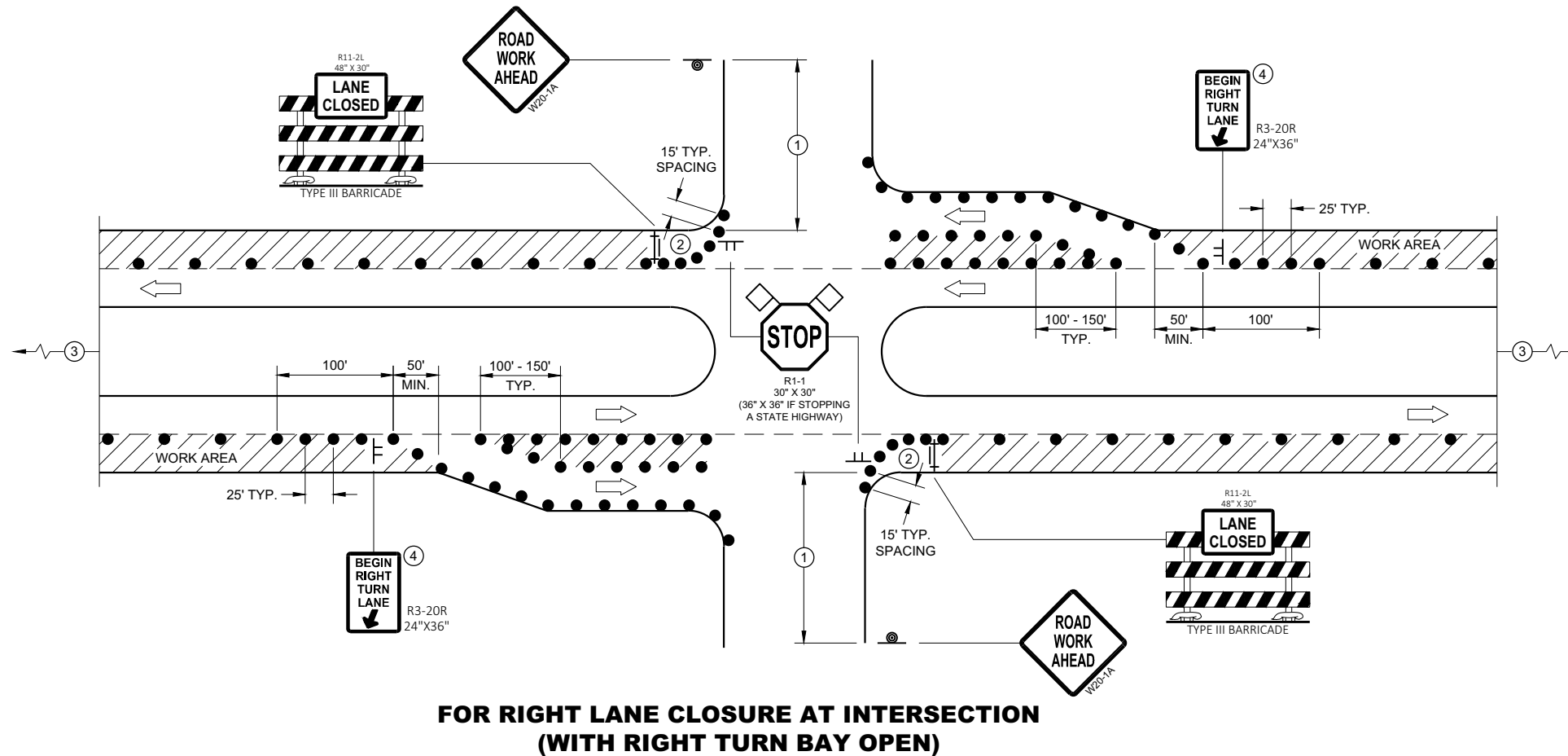
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

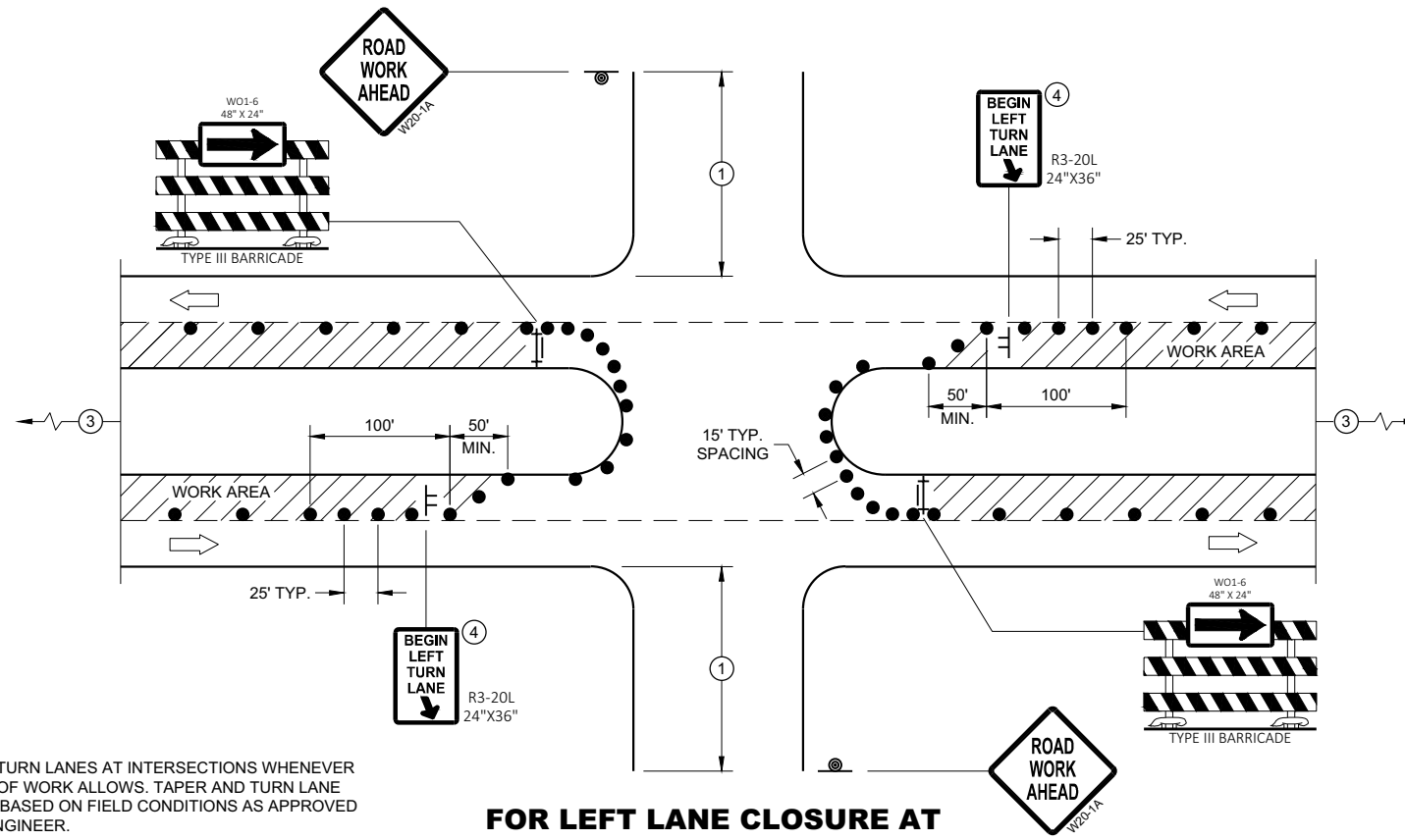


LEGEND

- ⊥ SIGN ON TEMPORARY SUPPORT
- ⊙ SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE WITH ATTACHED SIGN
- ➔ DIRECTION OF TRAFFIC
- ◇ FLAGS, 16" X 16" MIN., ORANGE
- ▨ WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

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

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

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

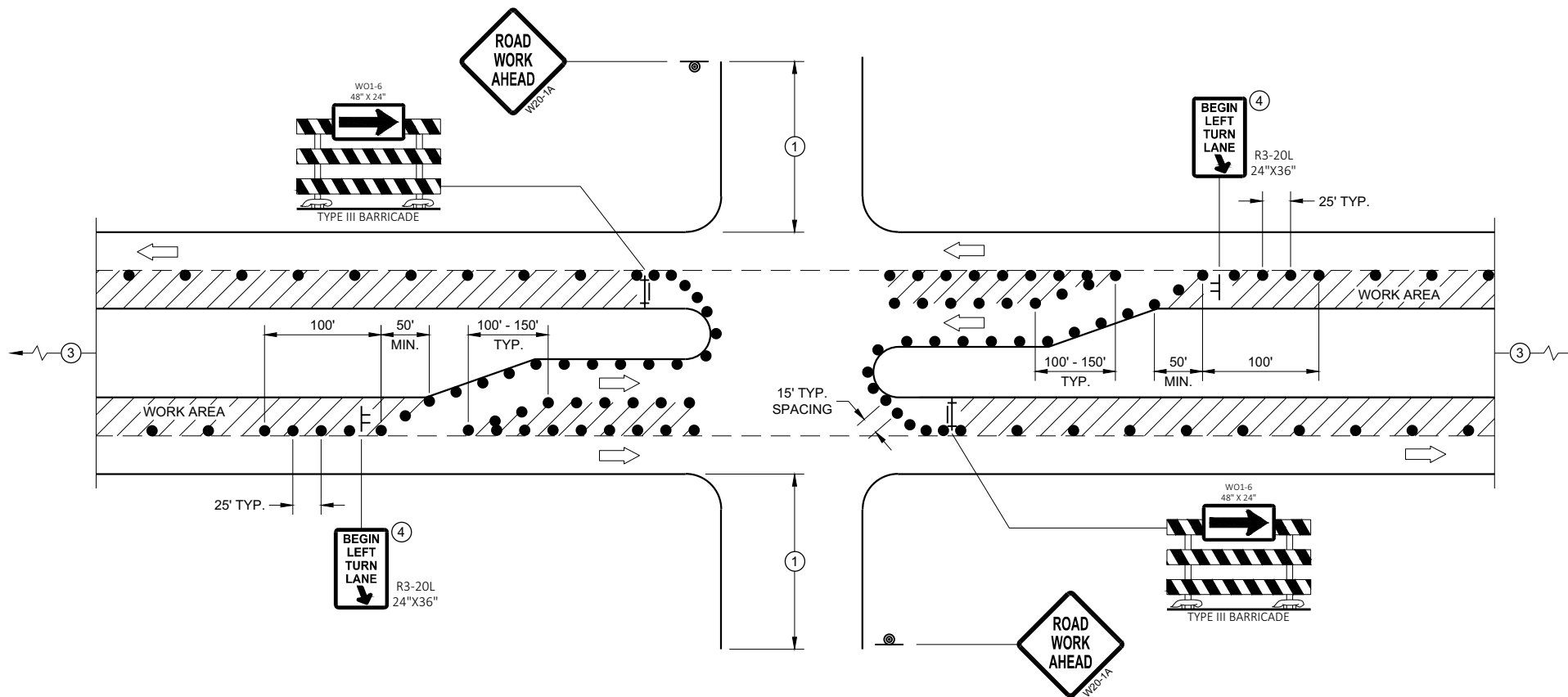
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

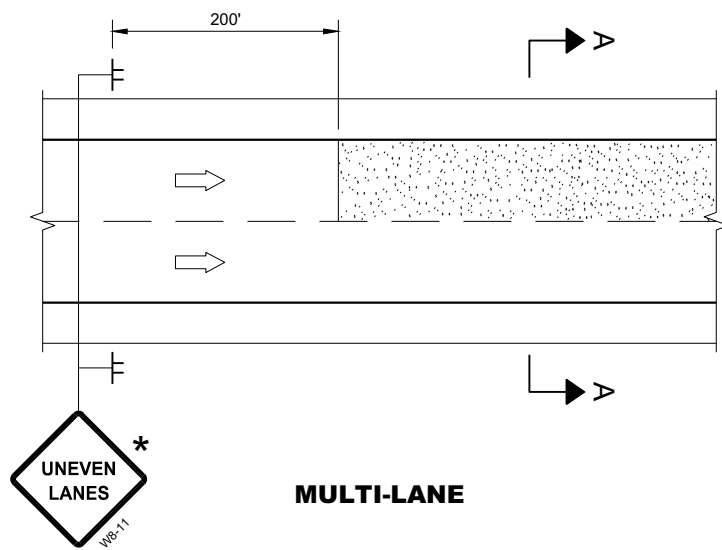


FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

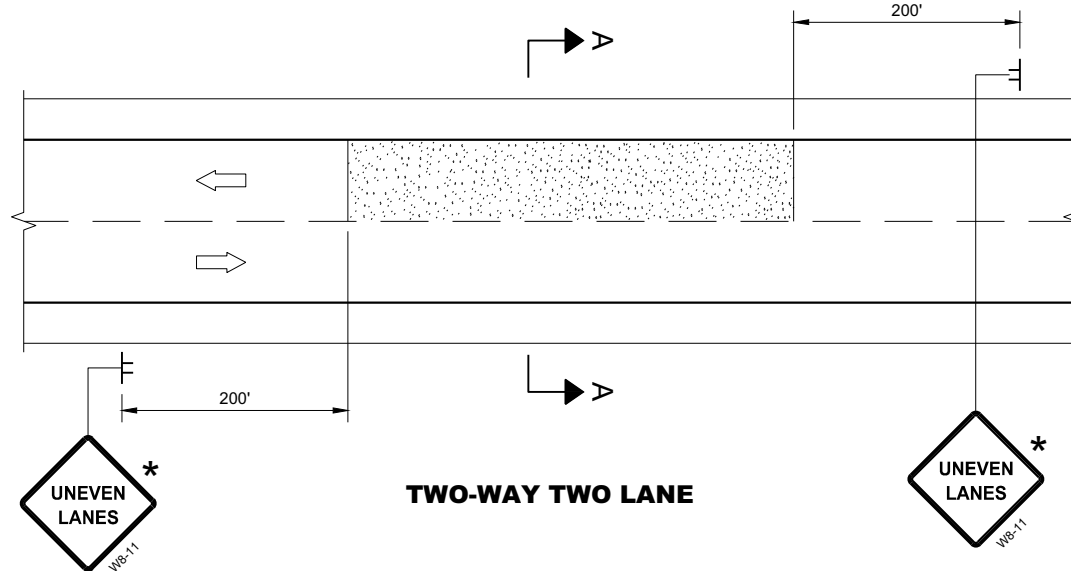
LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

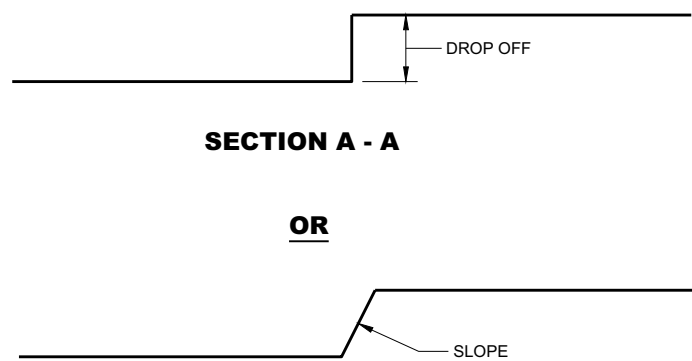
TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



MULTI-LANE



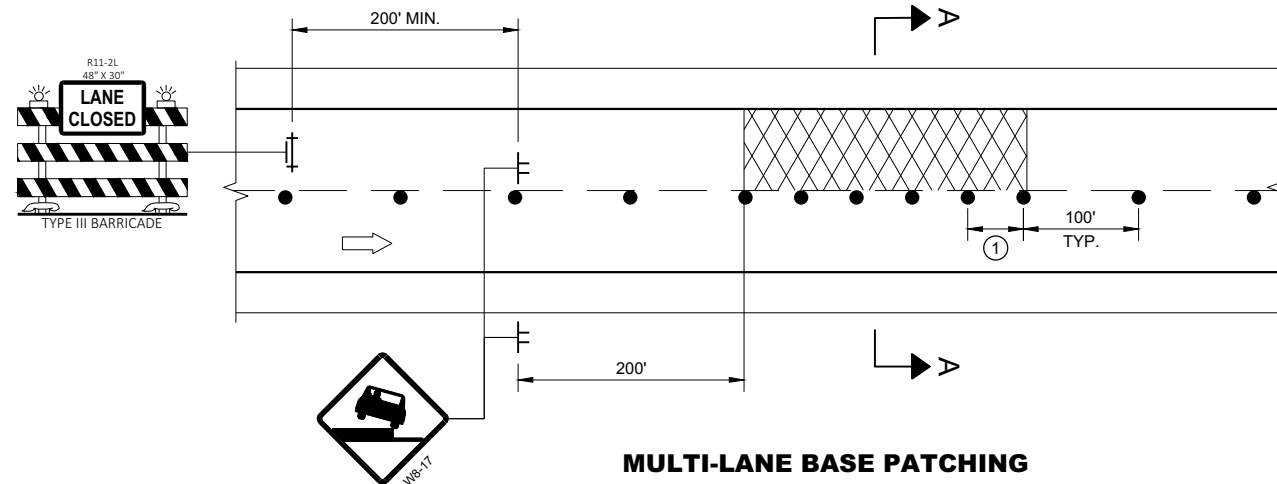
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

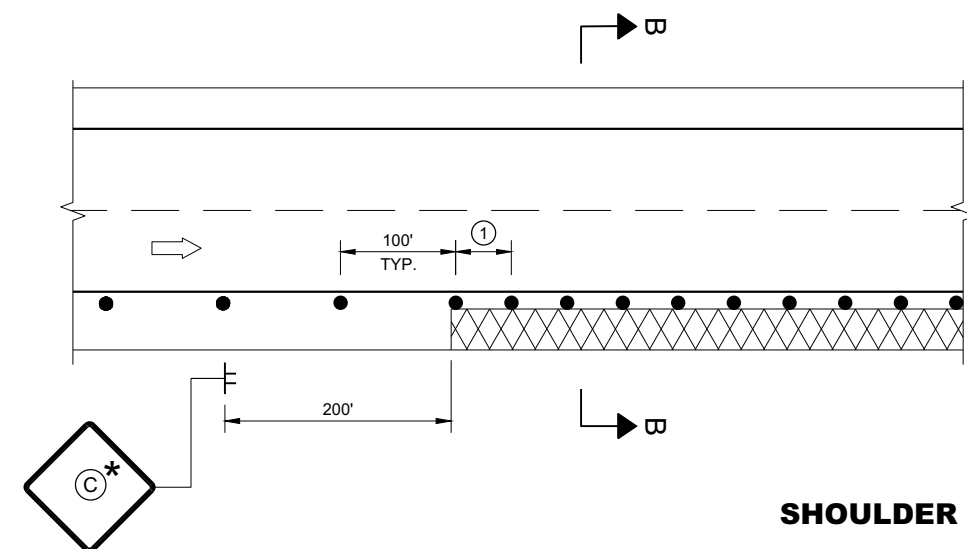
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF 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

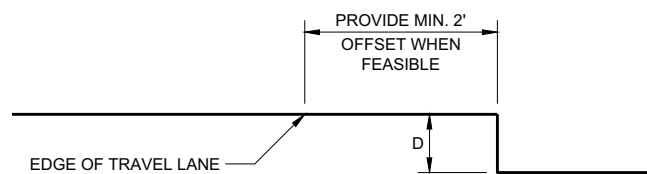
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



SHOULDER DROP-OFFS



SECTION B - B

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

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

LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
-  CONCRETE BARRIER TEMPORARY PRECAST

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR LANE SHIFT LEFT - REVERSE FOR SHIFTING RIGHT.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

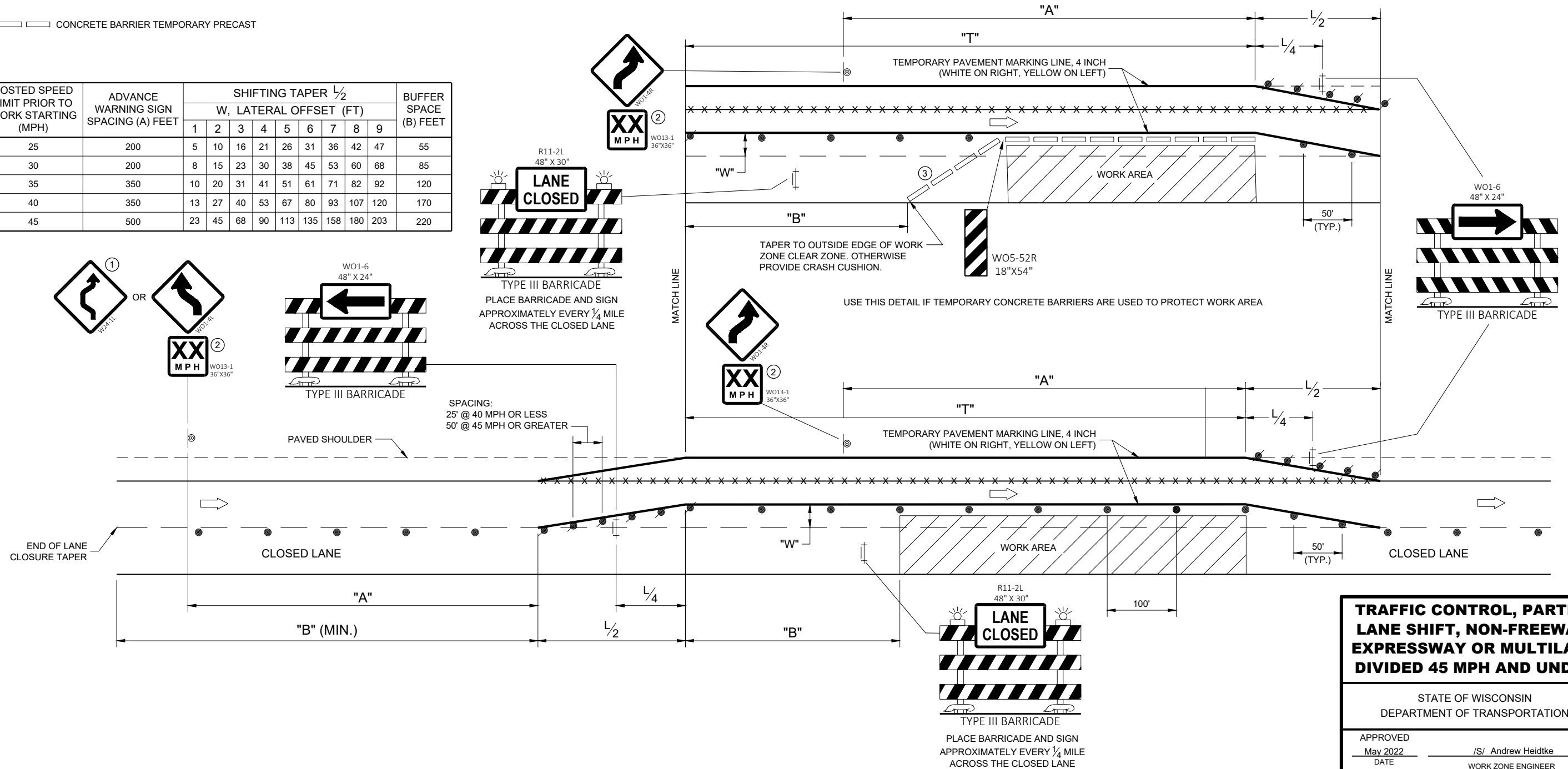
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

- ① USE ONLY WHEN T<600', OMIT WO1-4R.
- ② IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
- ③ BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER 1/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

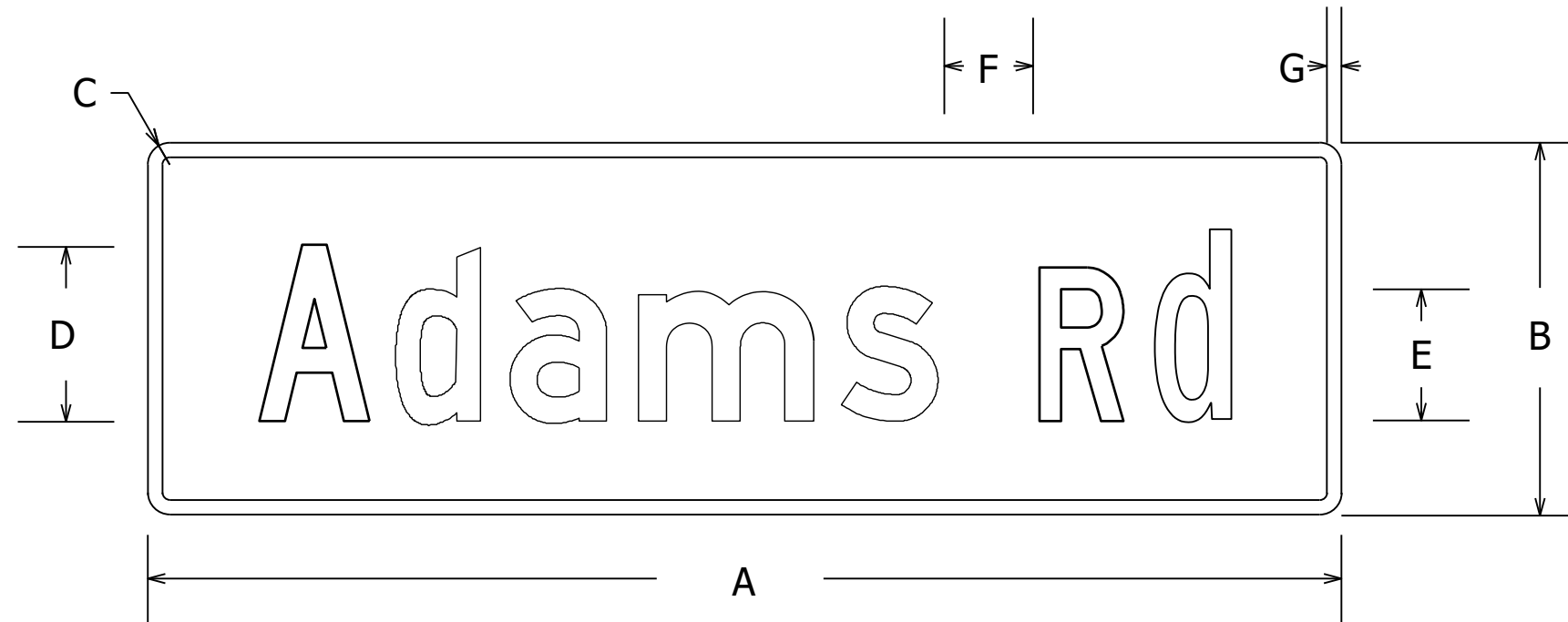
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15D40 - 04c

SDD 15D40 - 04c

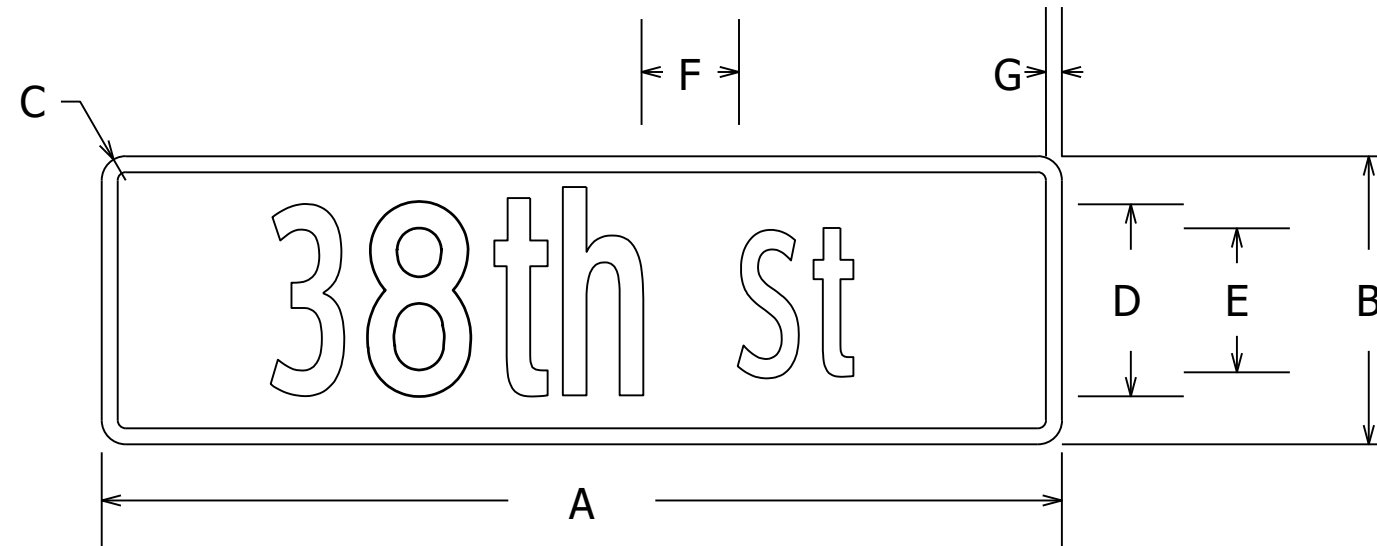
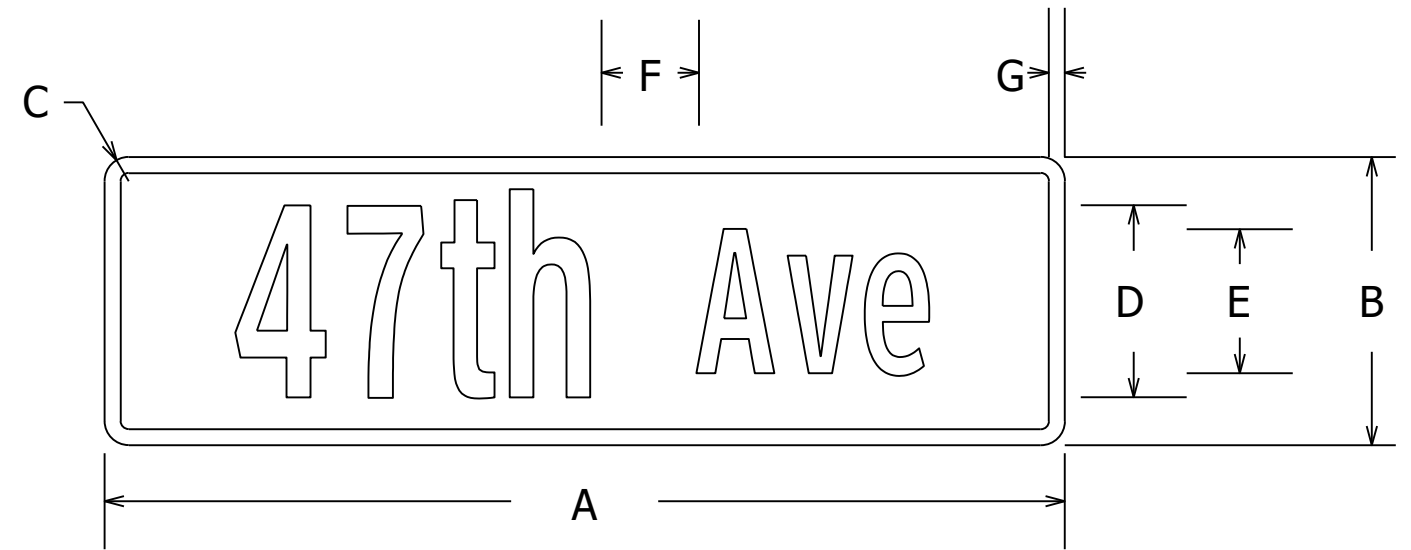
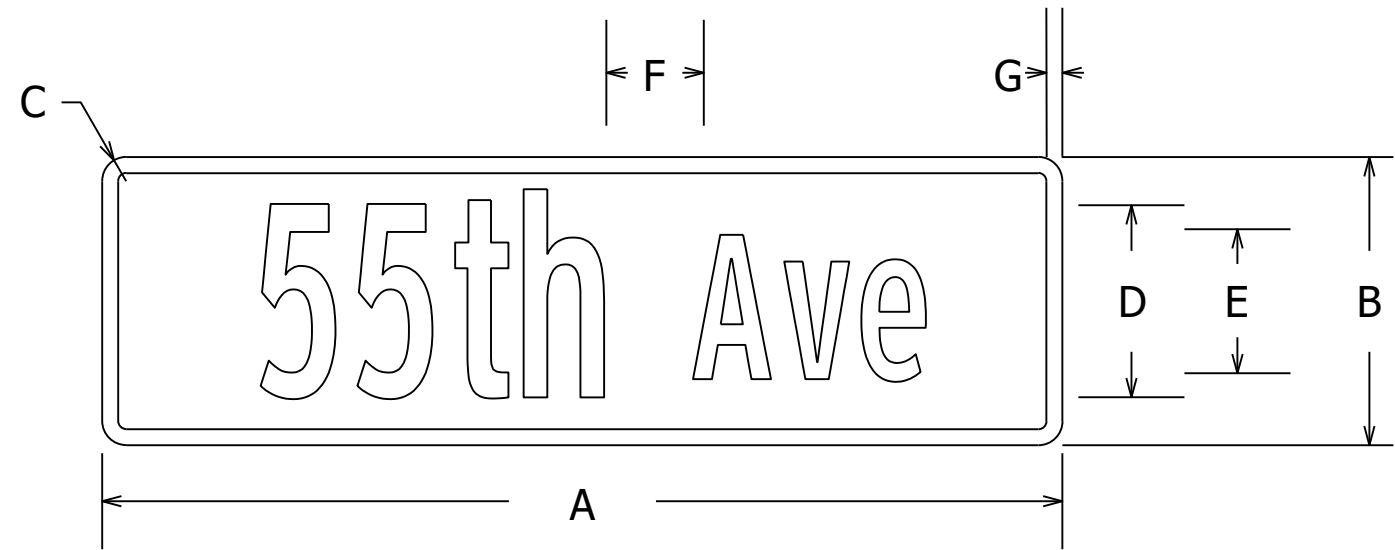


SIZE	A	B	C	D	E	F	G
1	VARIABLE ¹	9	$\frac{3}{4}$	6	$4\frac{1}{2}$	3	$\frac{1}{2}$
2	VARIABLE ²	18	$1\frac{1}{2}$	12	6	6	$\frac{1}{2}$

1- minimum 30-inches
2- minimum 48-inches

NOTES

1. Sign is Type II - Type H Reflective (Prismatic High Intensity)
2. Color
Background - Green
Border - White
Message - White
3. Message Series - B for Size 1
D for Size 2
4. Base Material Shall be 0.125" Aluminum

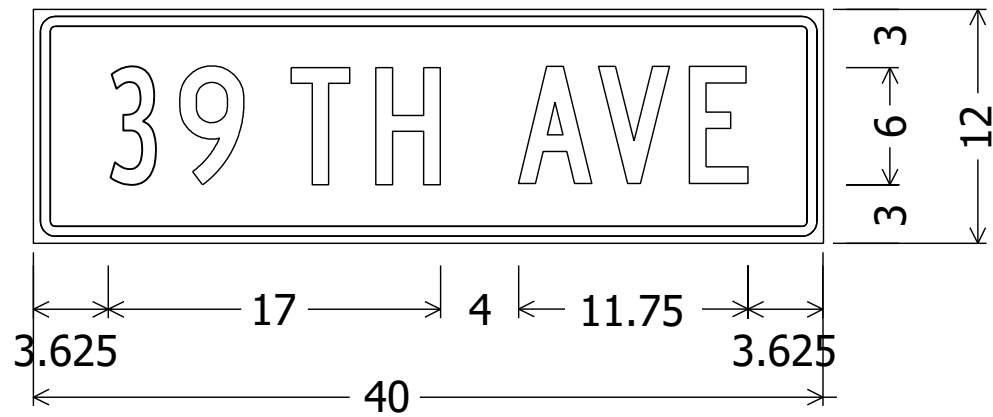


SIZE	A	B	C	D	E	F	G
1	VARIABLE ¹	9	$\frac{3}{4}$	6	$4\frac{1}{2}$	3	$\frac{1}{2}$
2	VARIABLE ²	18	$1\frac{1}{2}$	12	6	6	$\frac{1}{2}$

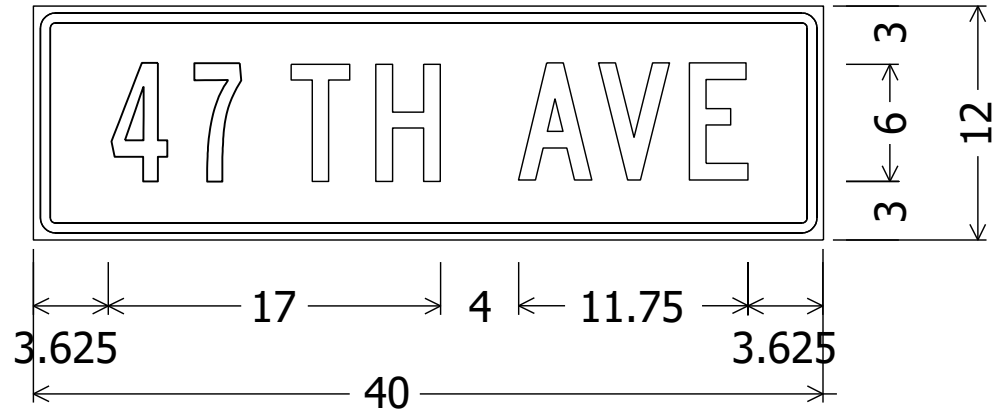
1- minimum 30-inches
2- minimum 48-inches

NOTES

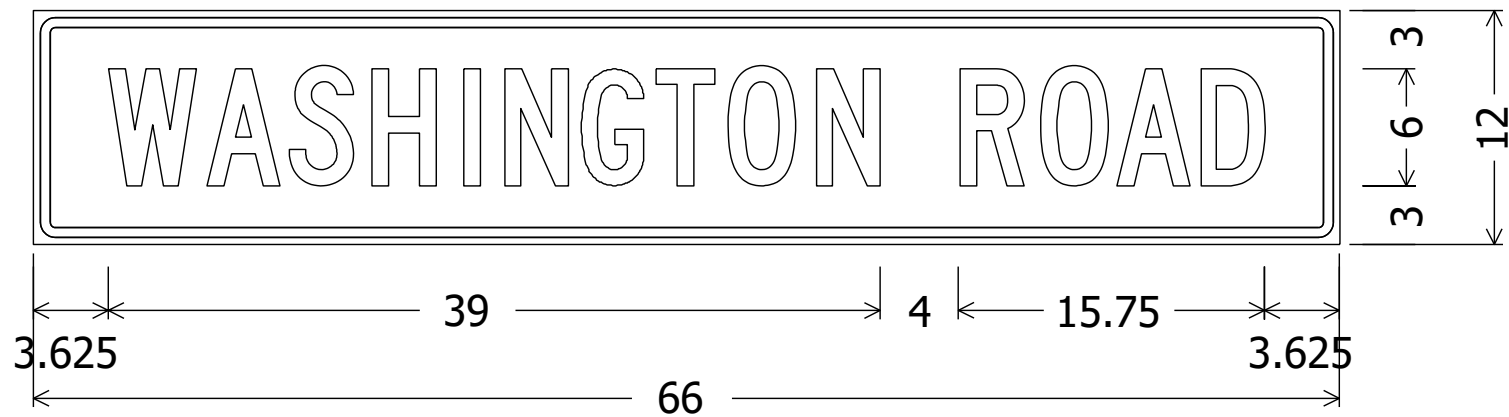
1. Sign is Type II - Type H Reflective (Prismatic High Intensity)
2. Color
Background - Green
Border - White
Message - White
3. Message Series - B for Size 1
D for Size 2
4. Base Material Shall be 0.125" Aluminum



1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent

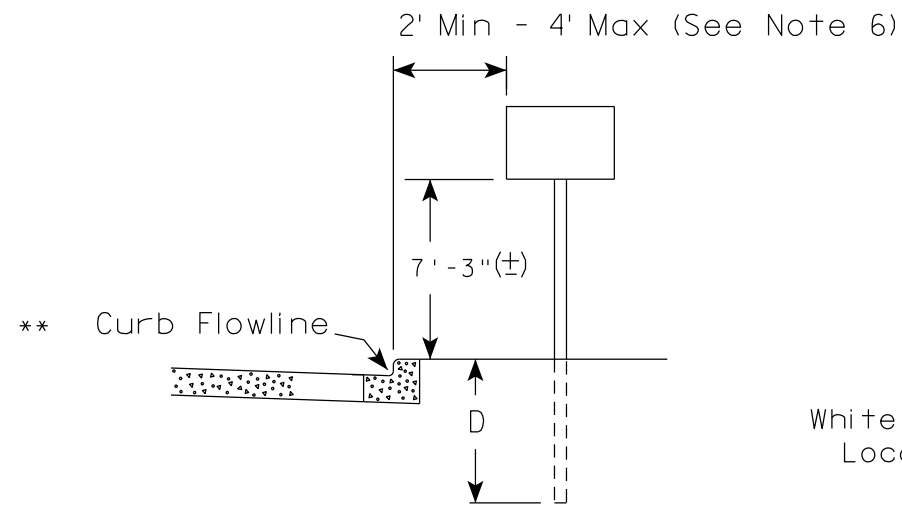
NOTES

1. Fixed Message Signs Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C

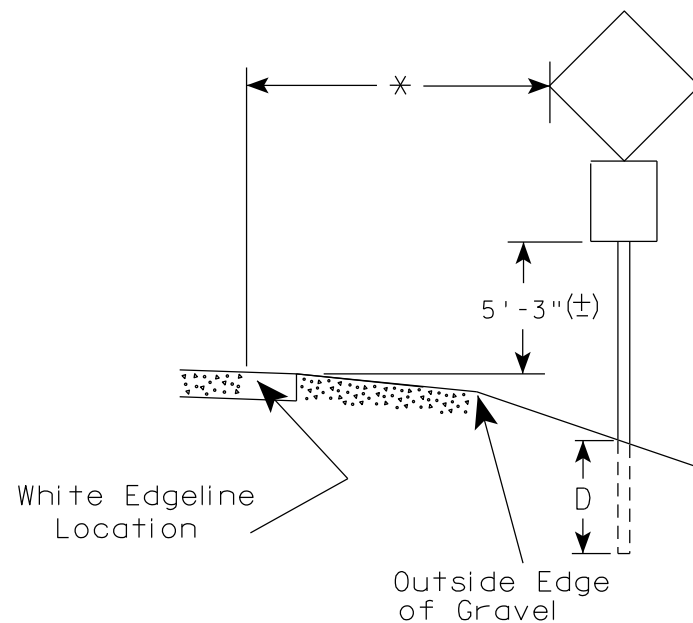
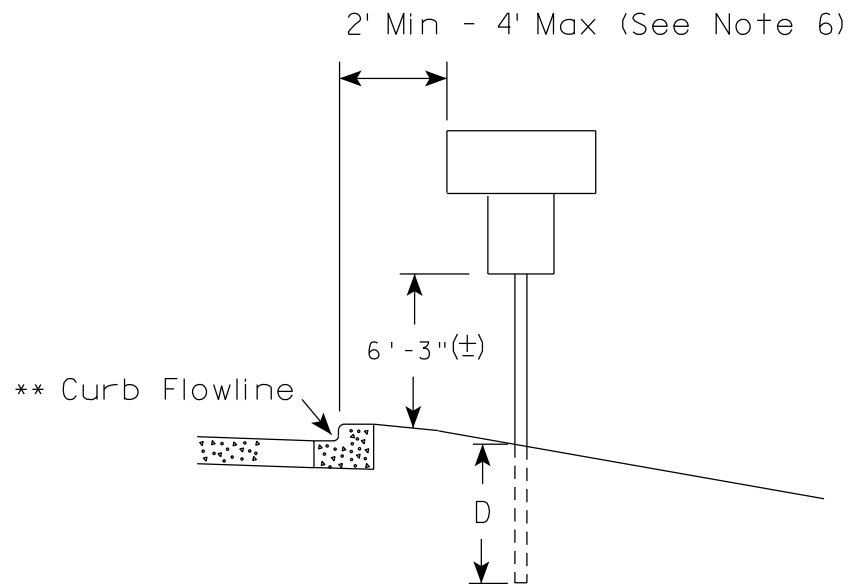
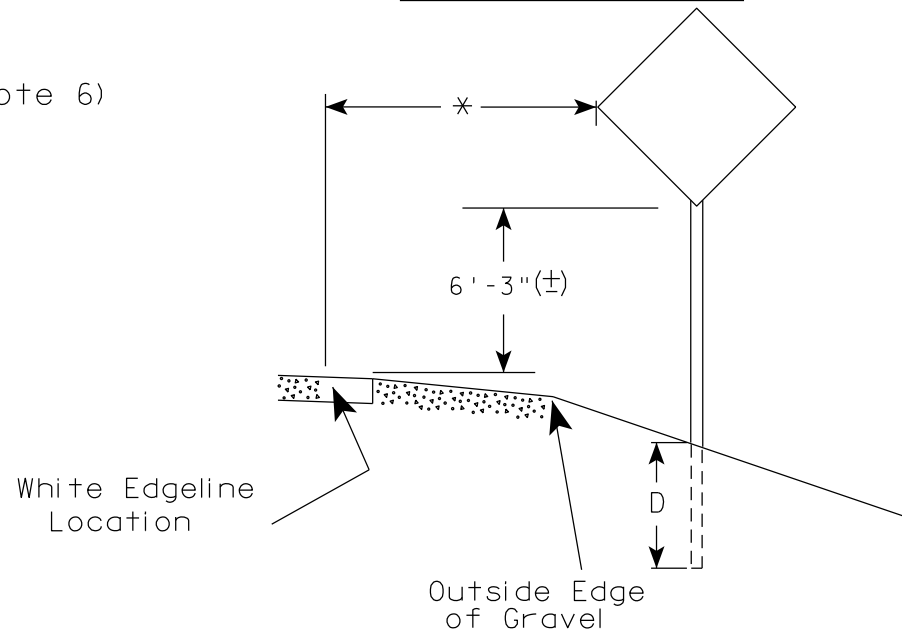
7

7

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.

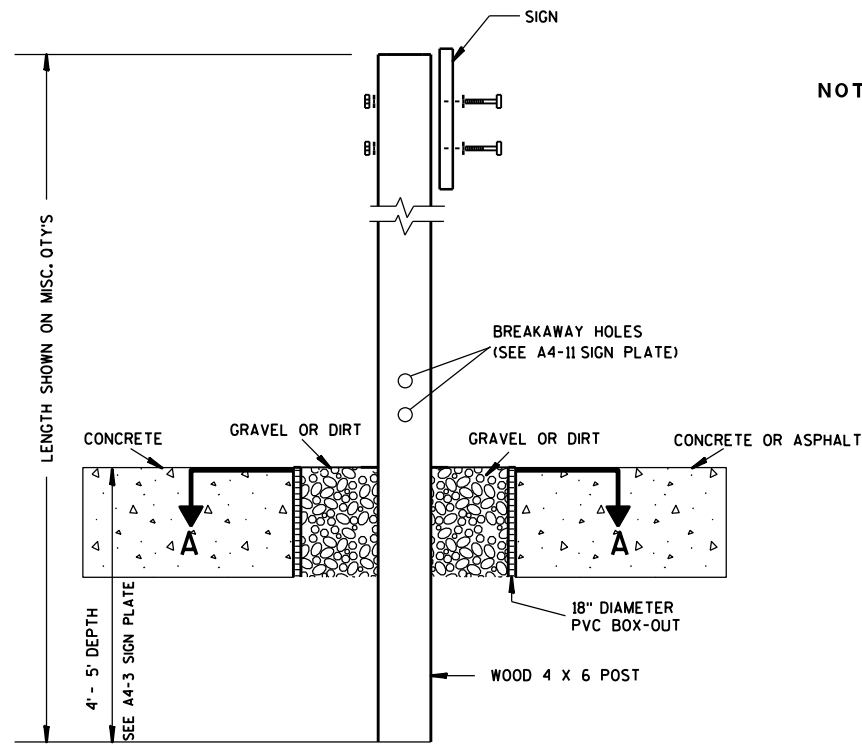
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

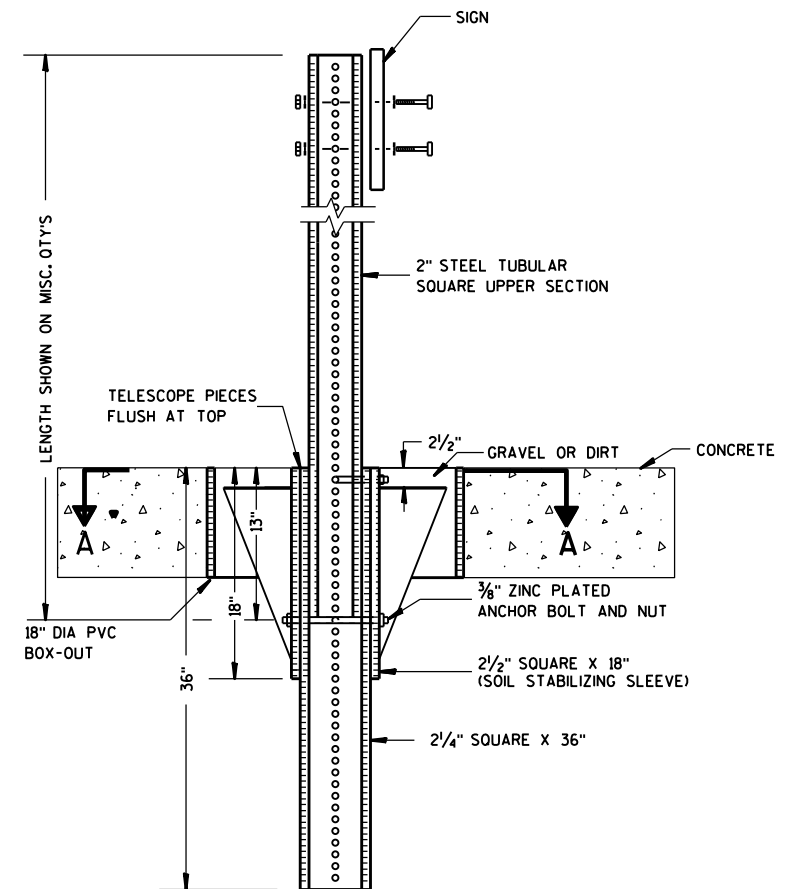
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

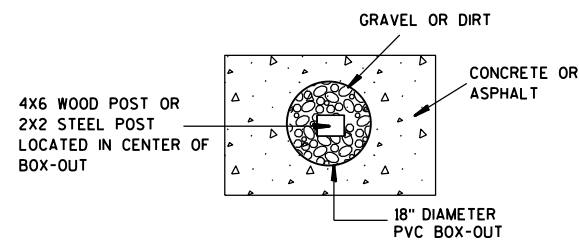
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

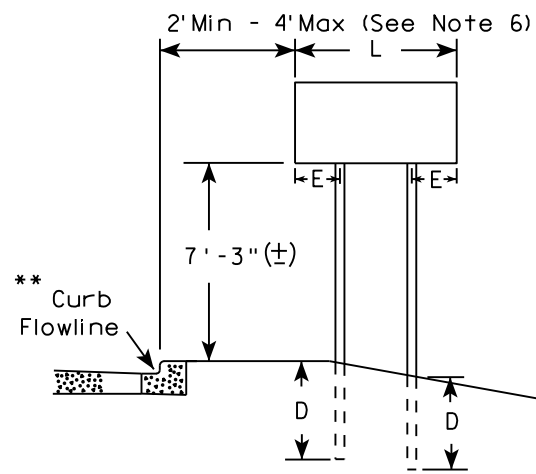
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

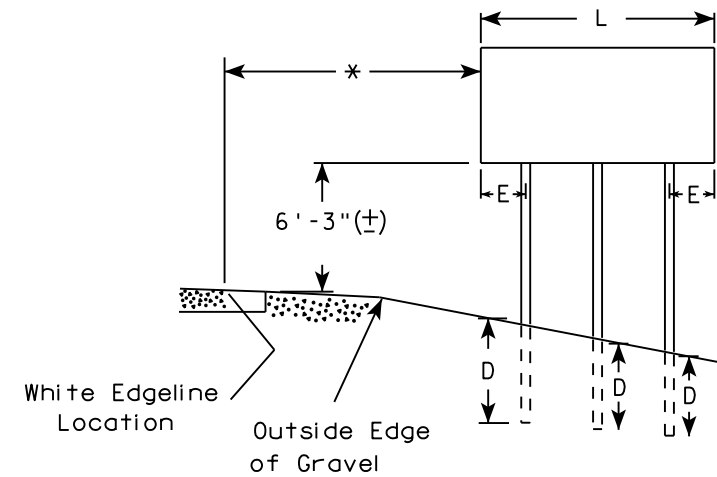
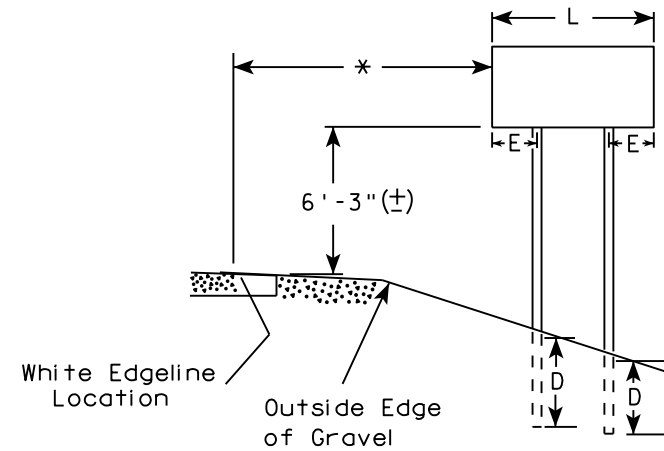
GENERAL NOTES

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" (±).

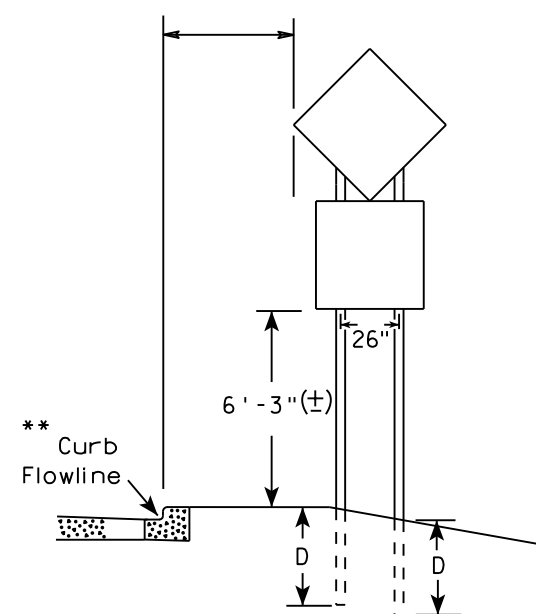
URBAN AREA



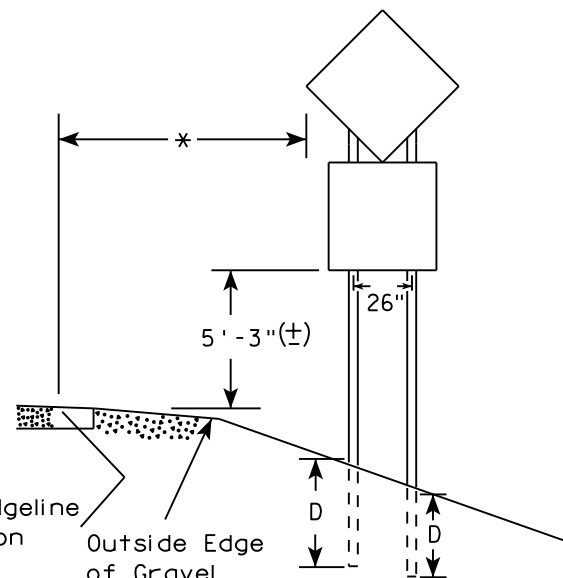
RURAL AREA (See Note 3)



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

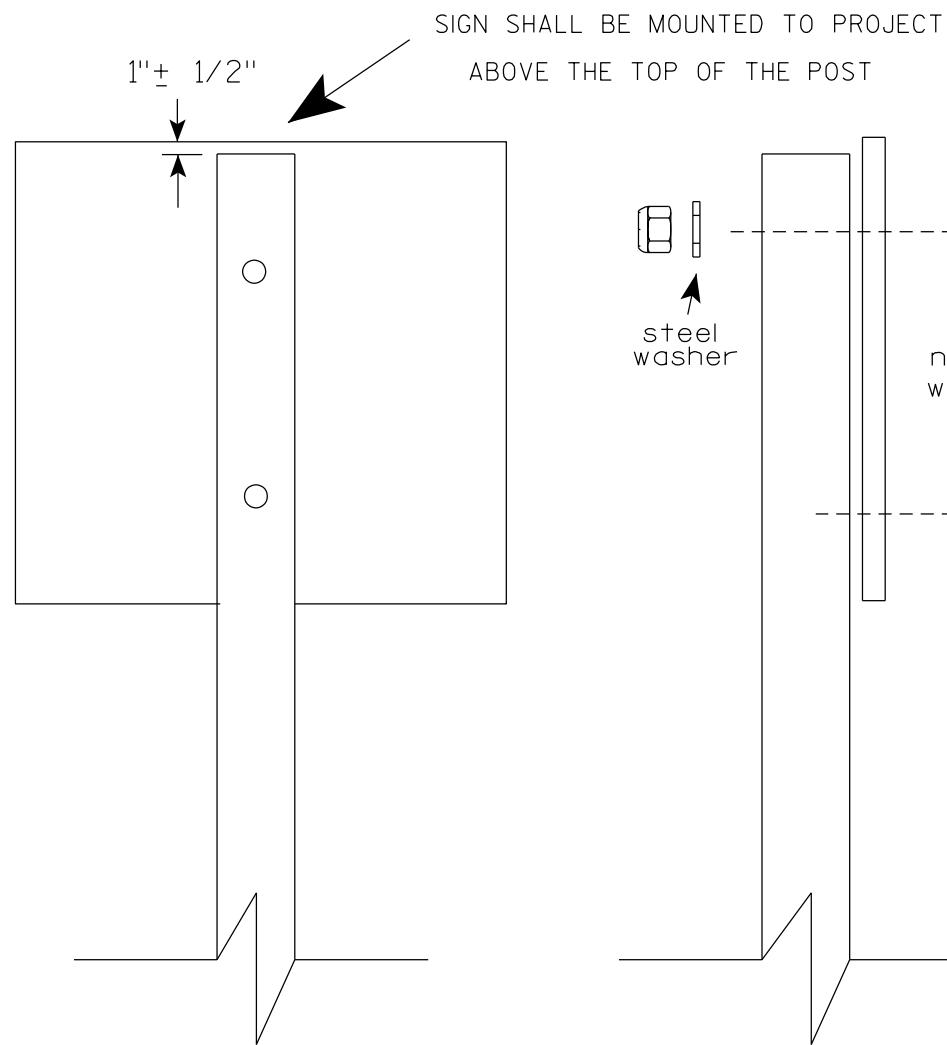
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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 :

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

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

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

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

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS
TO POSTS

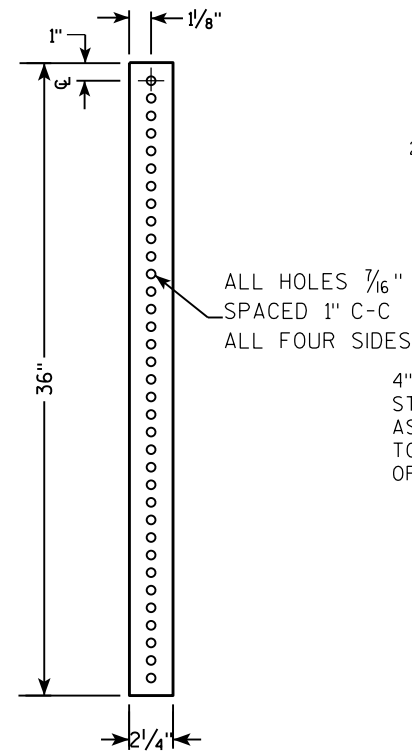
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

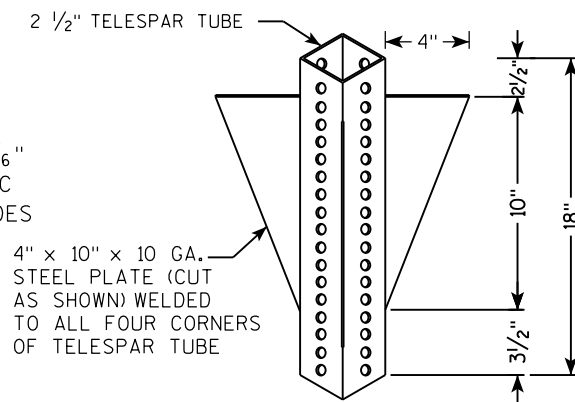
DATE 4/1/2020 PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

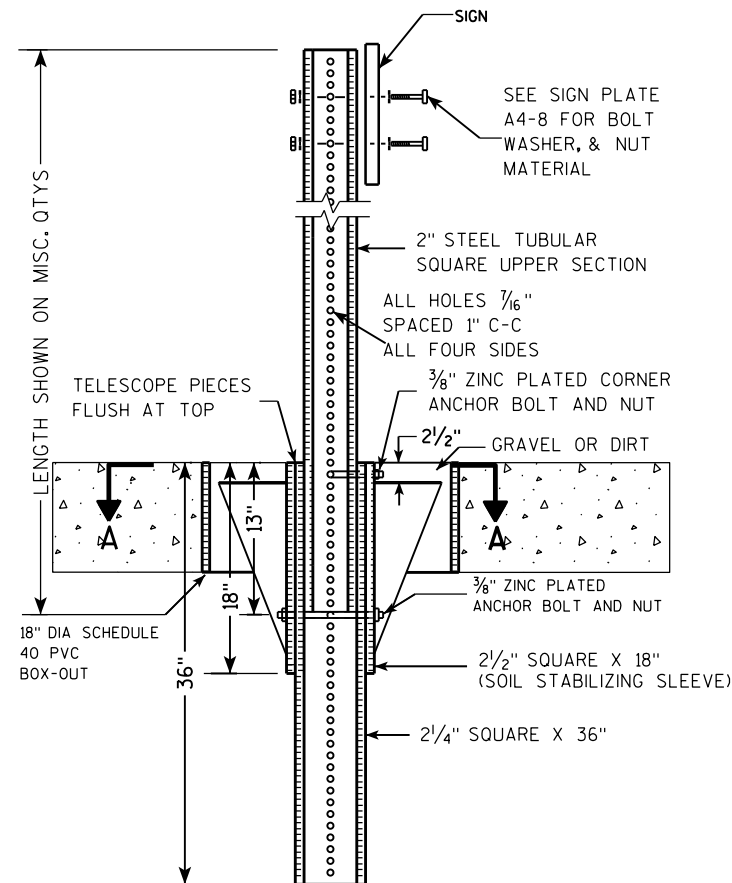
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



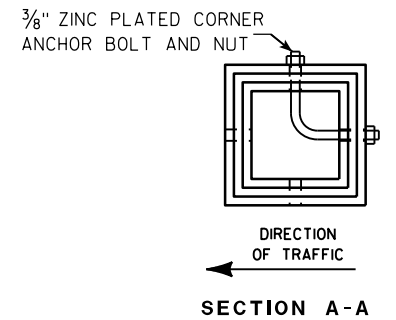
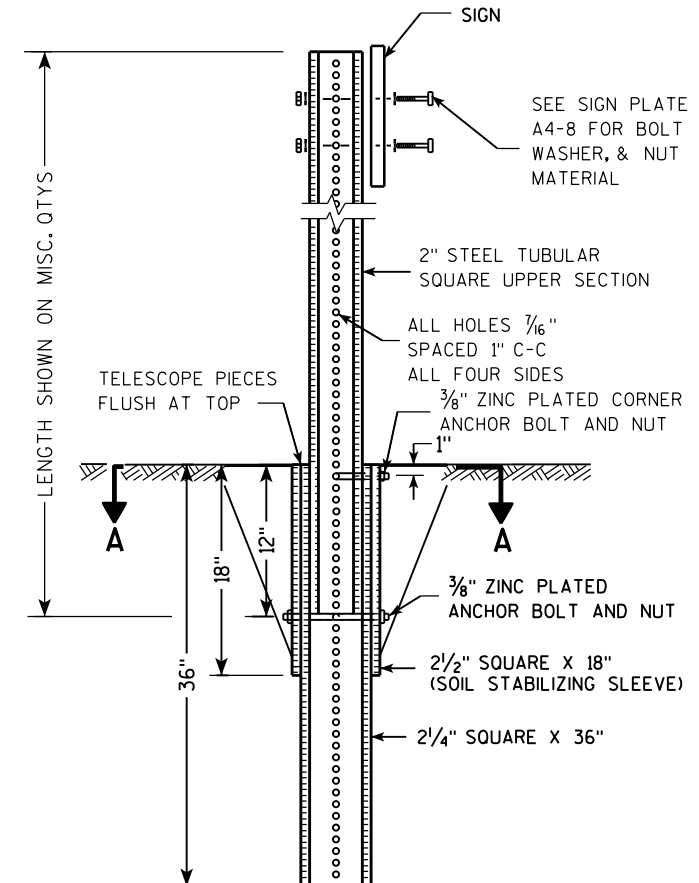
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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

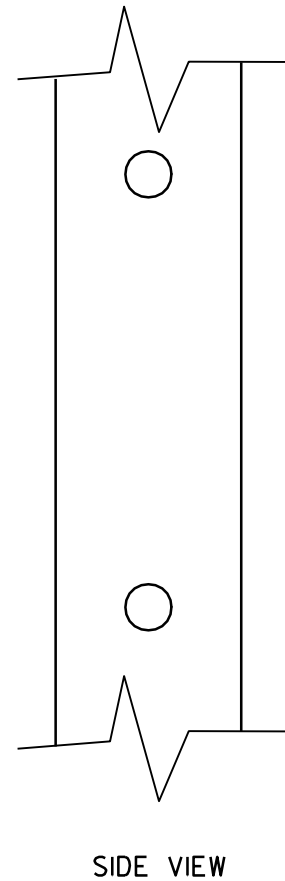
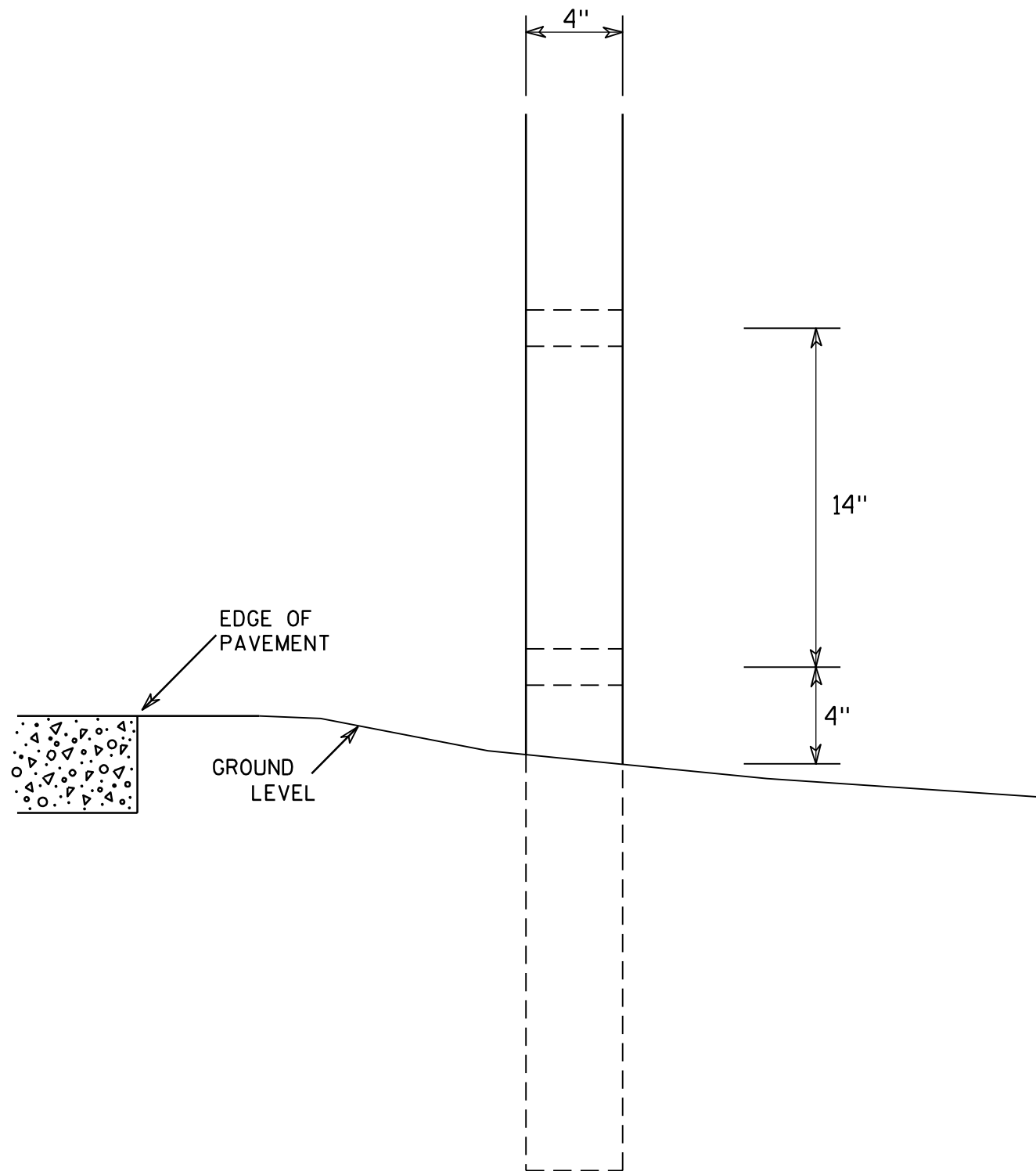
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**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



GENERAL NOTES

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

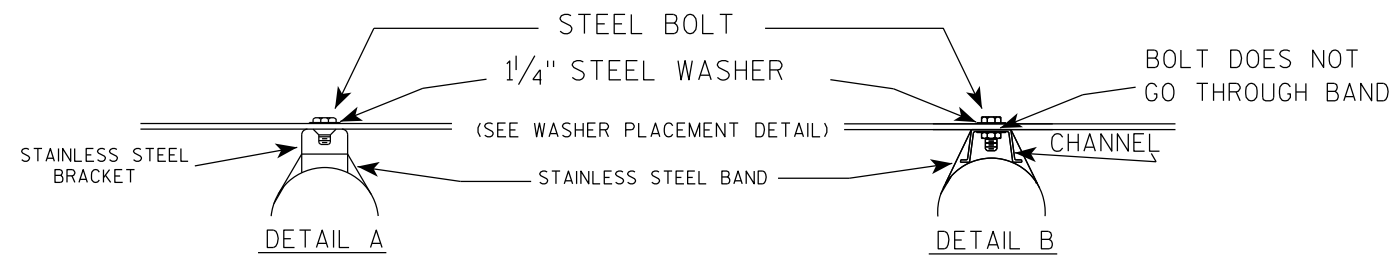
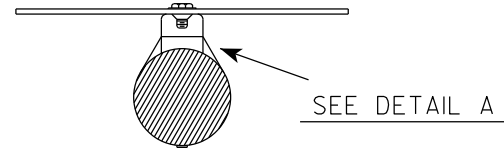
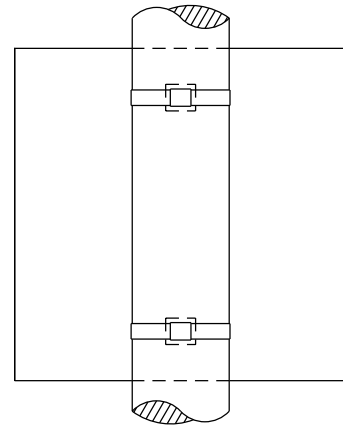
7

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

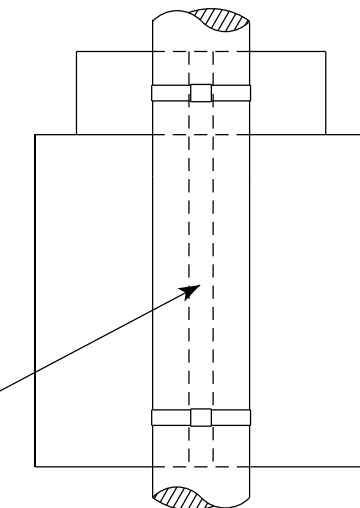
SINGLE SIGN



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
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

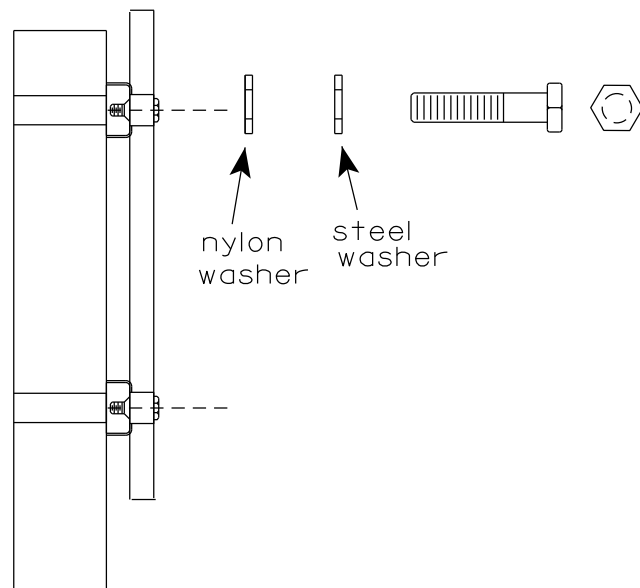
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



WASHER PLACEMENT



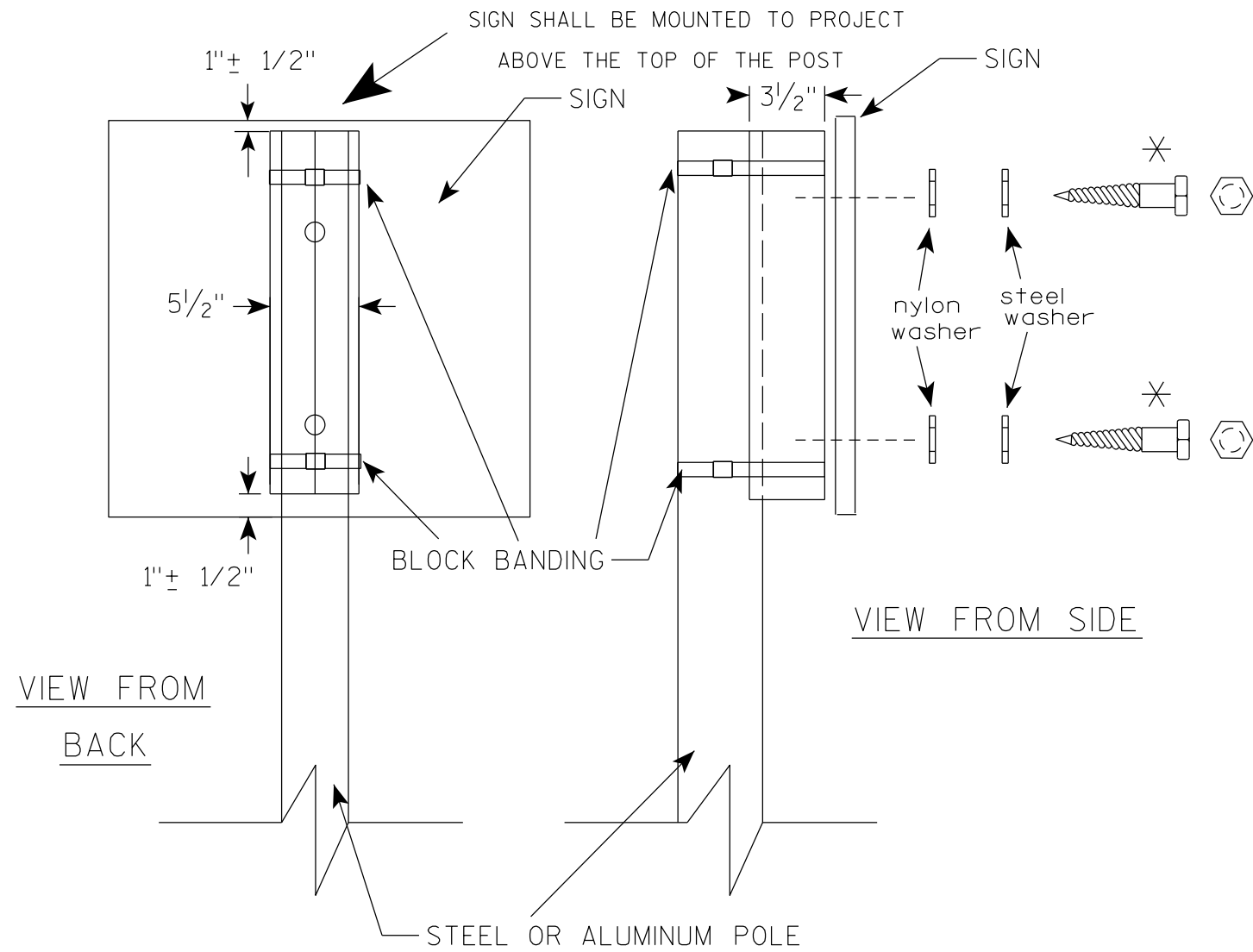
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

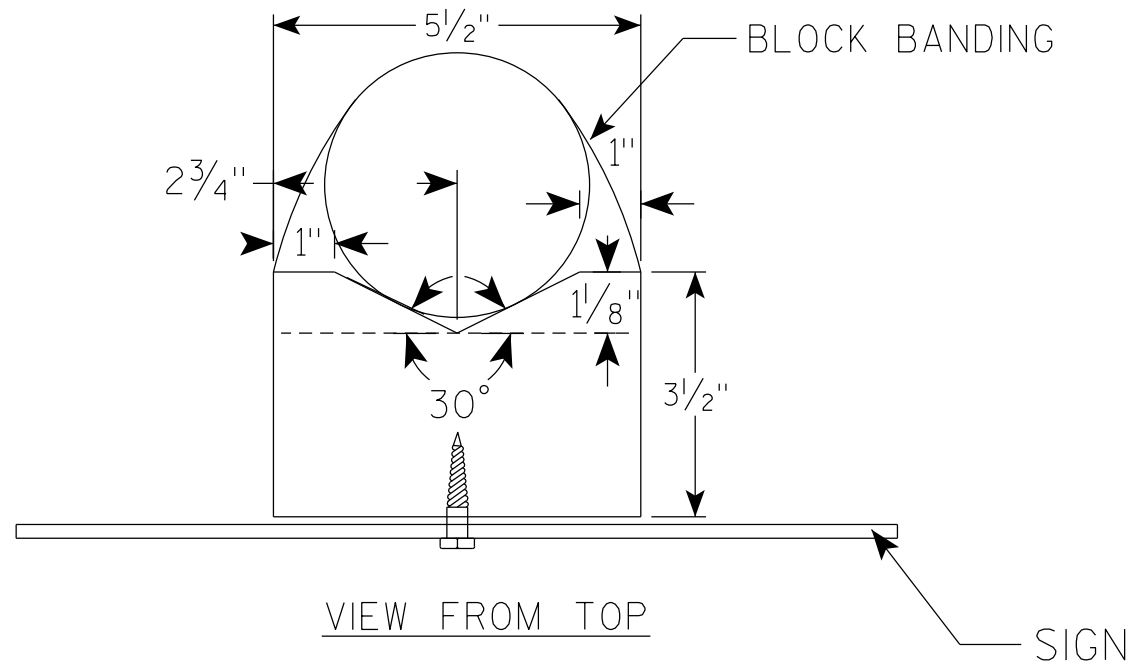
DATE 6/10/19 PLATE NO. A5-9.4



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

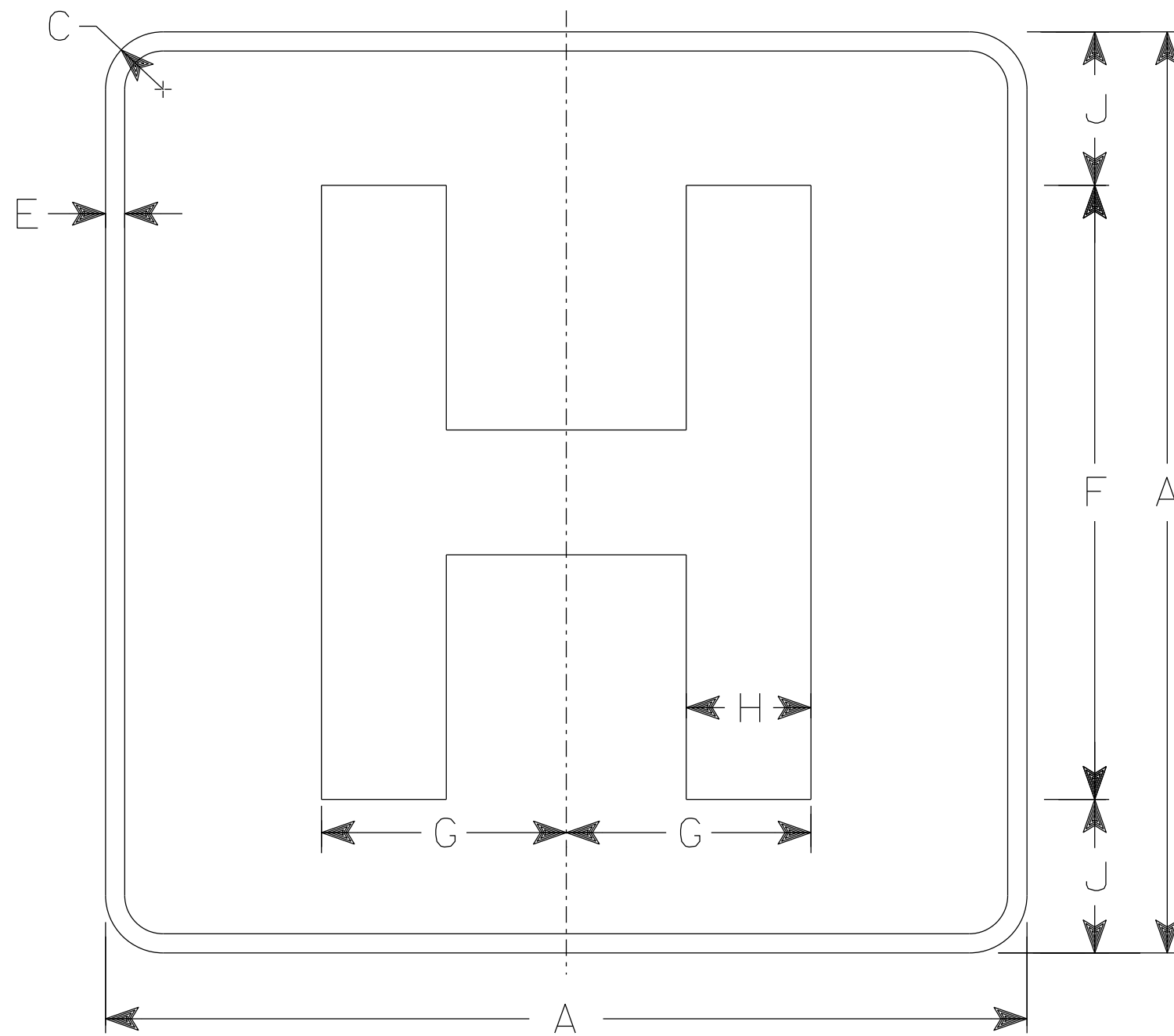
✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



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 H Reflective
2. Color:
Background - Blue
Message - White
3. Message Series - E Modified
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.



D9-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	2.25
2S	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
2M	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
for State Traffic Engineer

DATE 1/28/21 PLATE NO. D9-2.5

PROJECT NO:

SHEET NO:

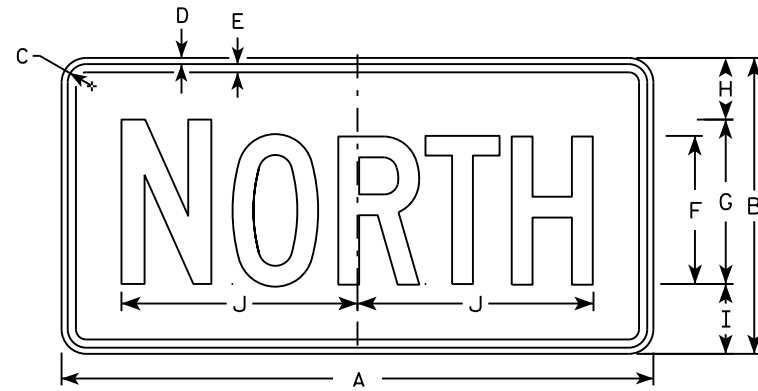
E

7

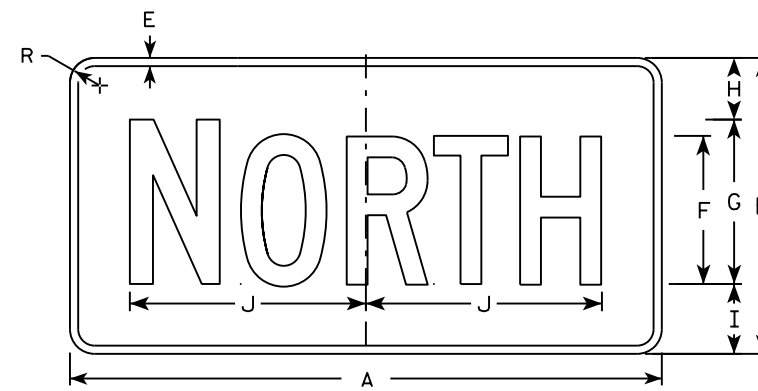
7

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.



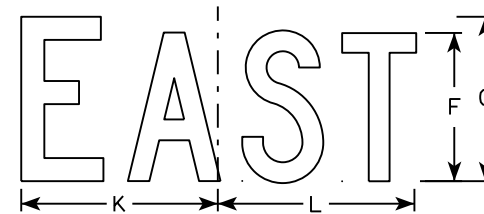
M3-1
MM3-1
MP3-1



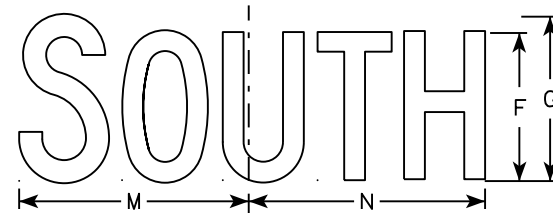
MB3-1
MK3-1
MN3-1



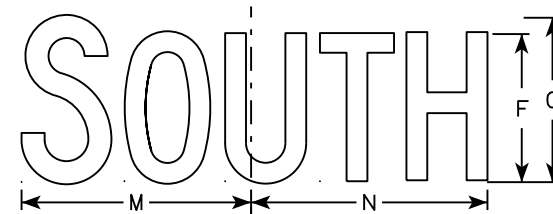
M3-2
MM3-2
MP3-2



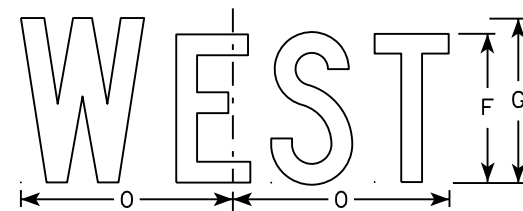
MB3-2
MK3-2
MN3-2



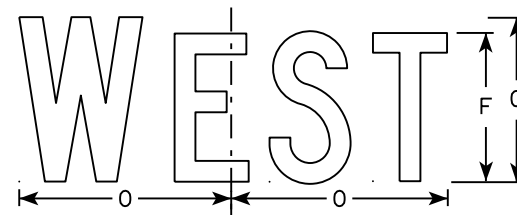
M3-3
MM3-3
MP3-3



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

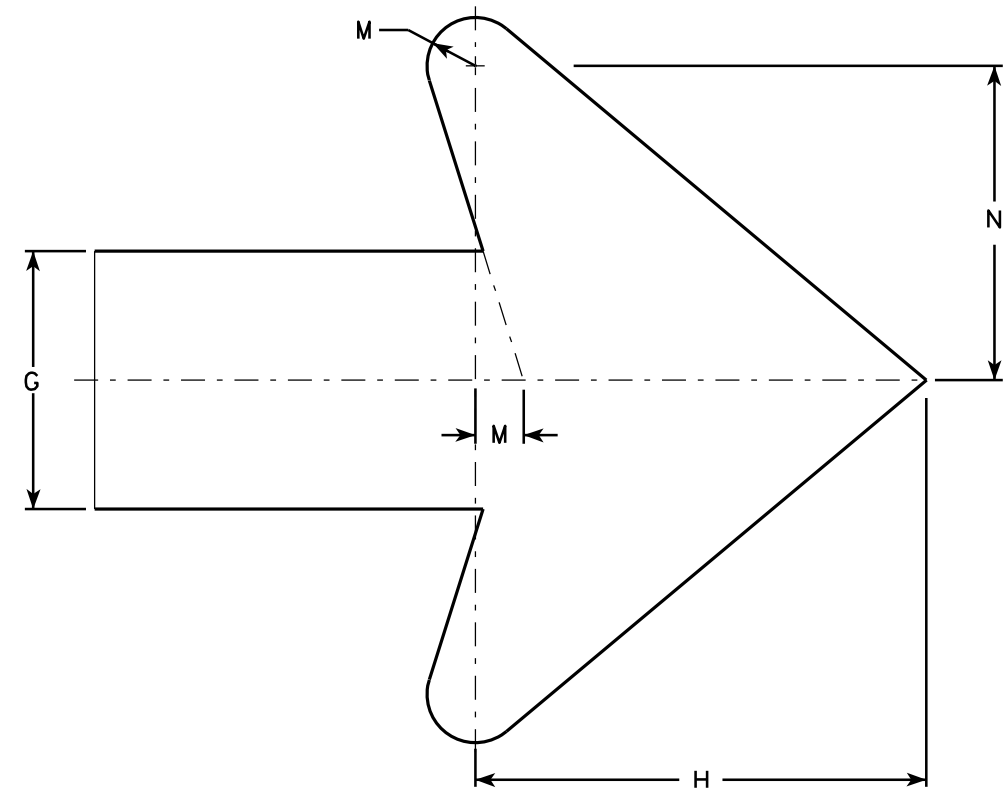
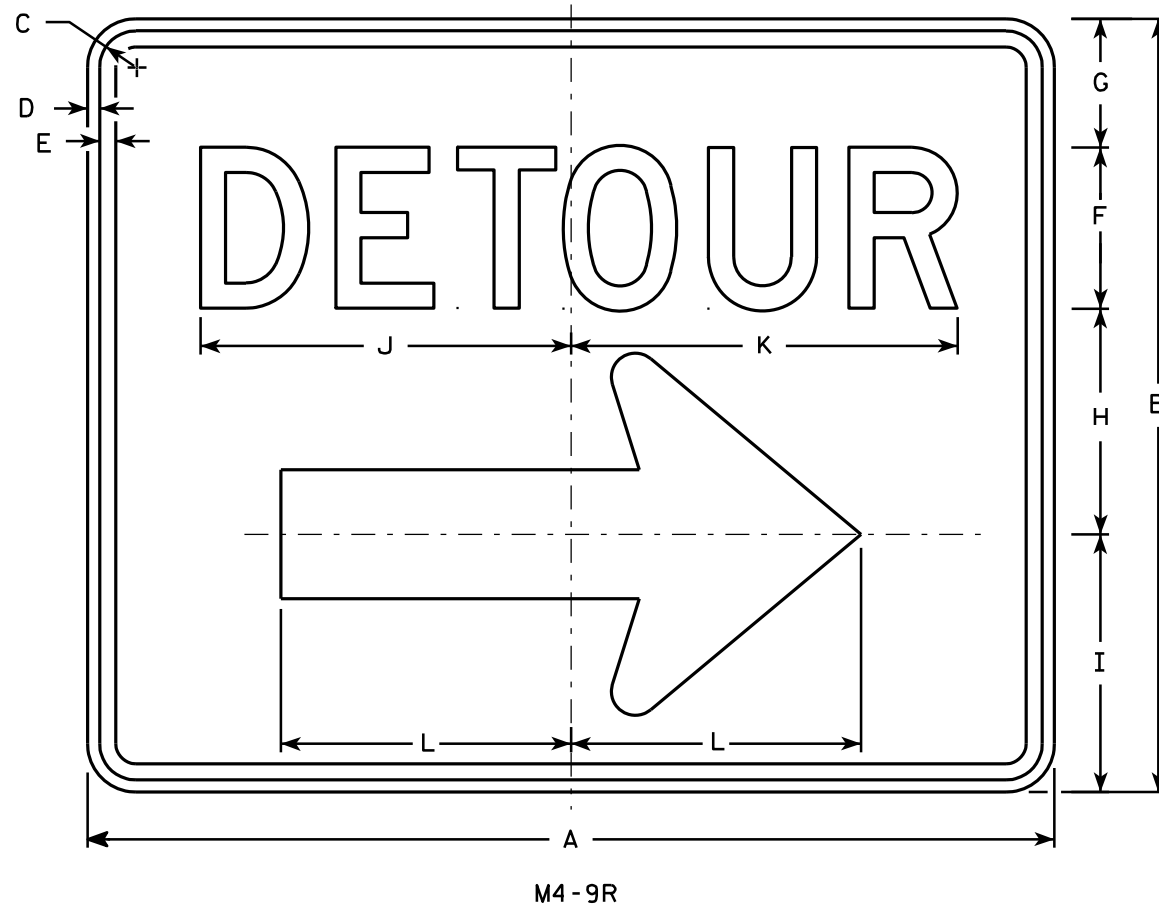
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

7

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	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

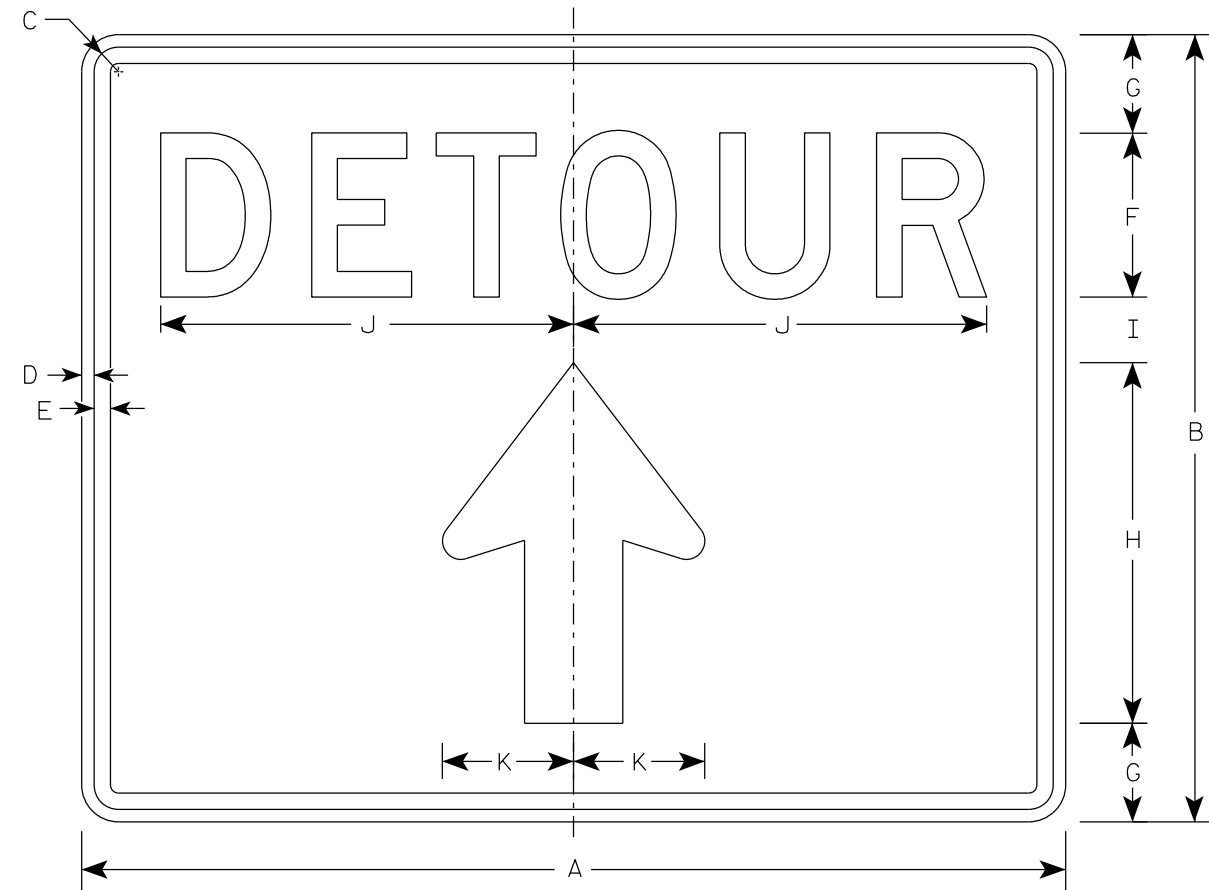
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

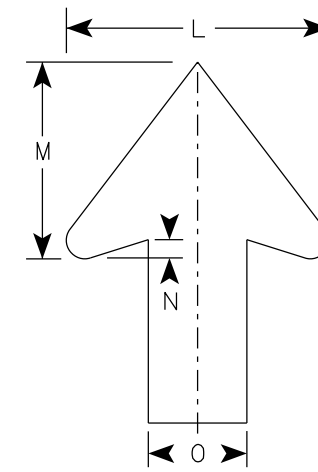
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D



M4-9RA



Arrow Detail

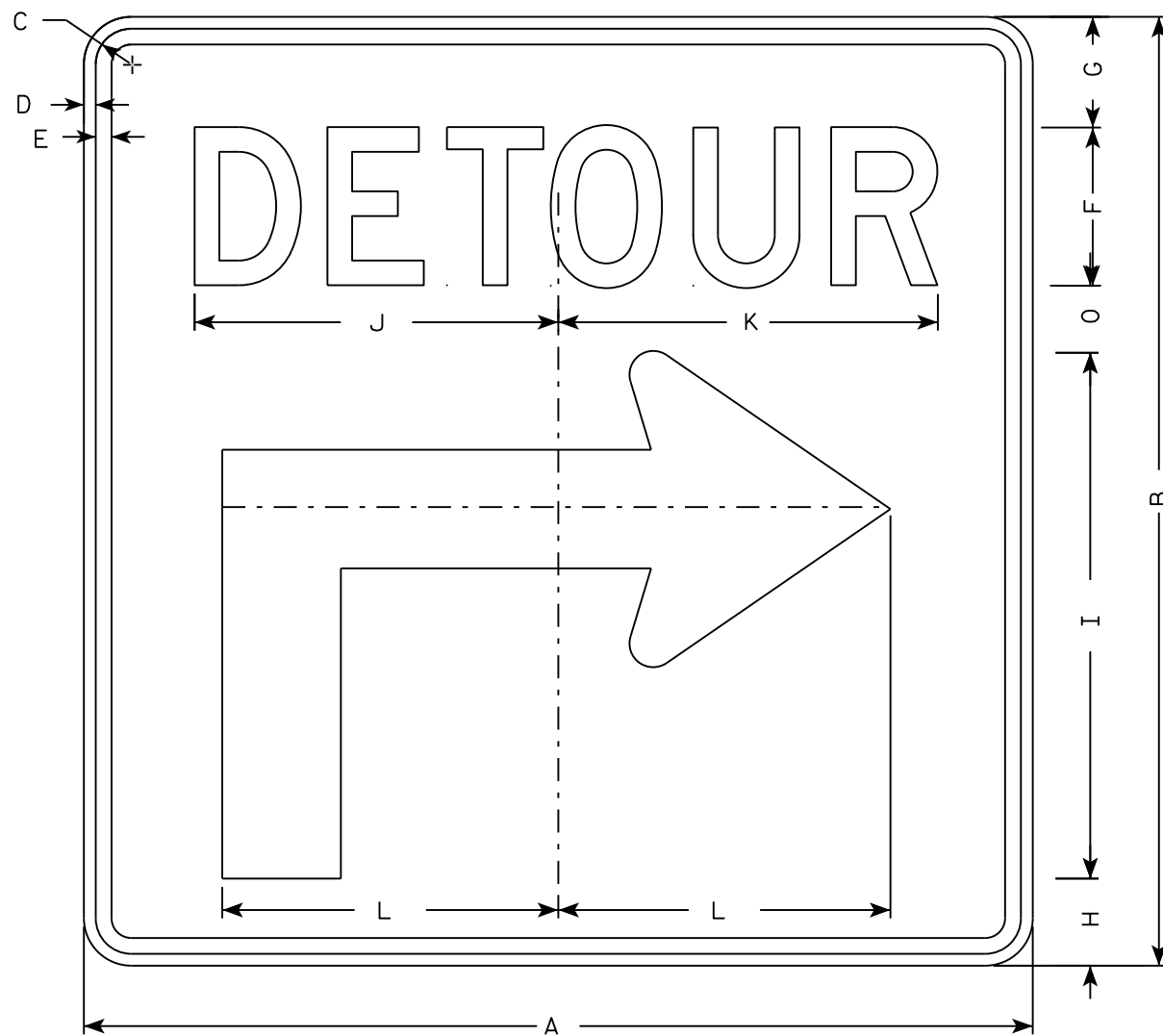
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	3	11	2	12 5/8	4	8	6	1/2	3												5.00
3																											
4																											
5																											

STANDARD SIGN
M4-9RA

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

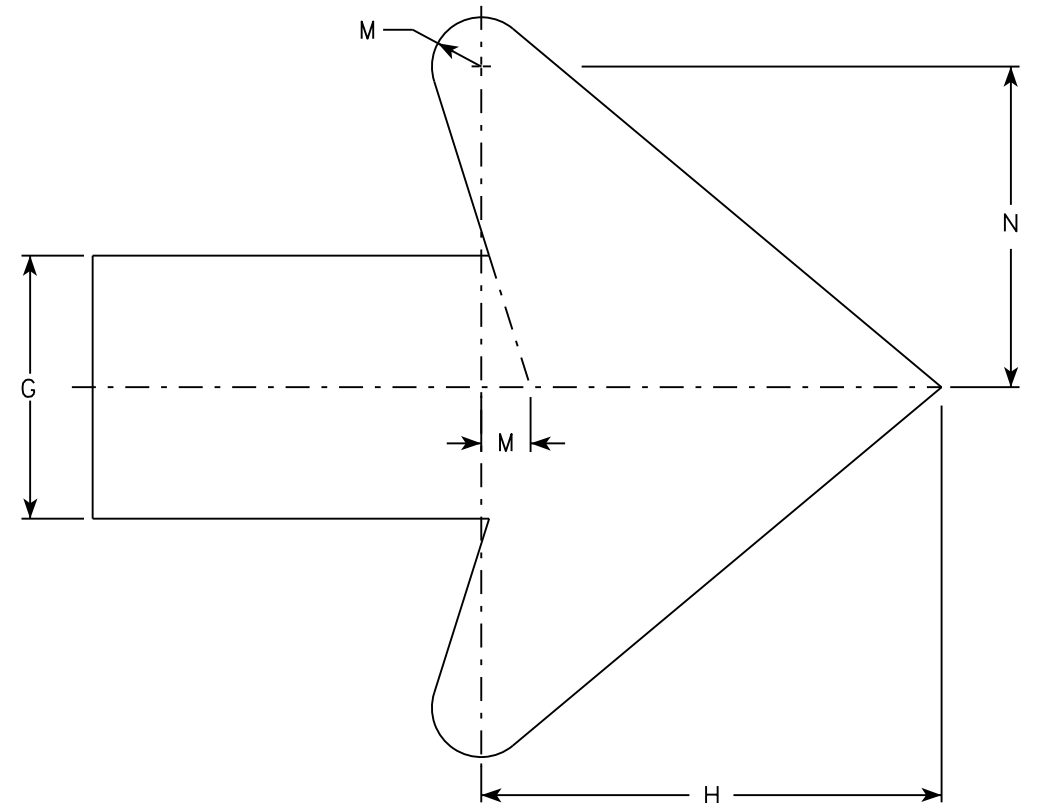
DATE 12/10/2020 PLATE NO. M4-9RA.1



M4-59R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

STANDARD SIGN
M4-59 L&R

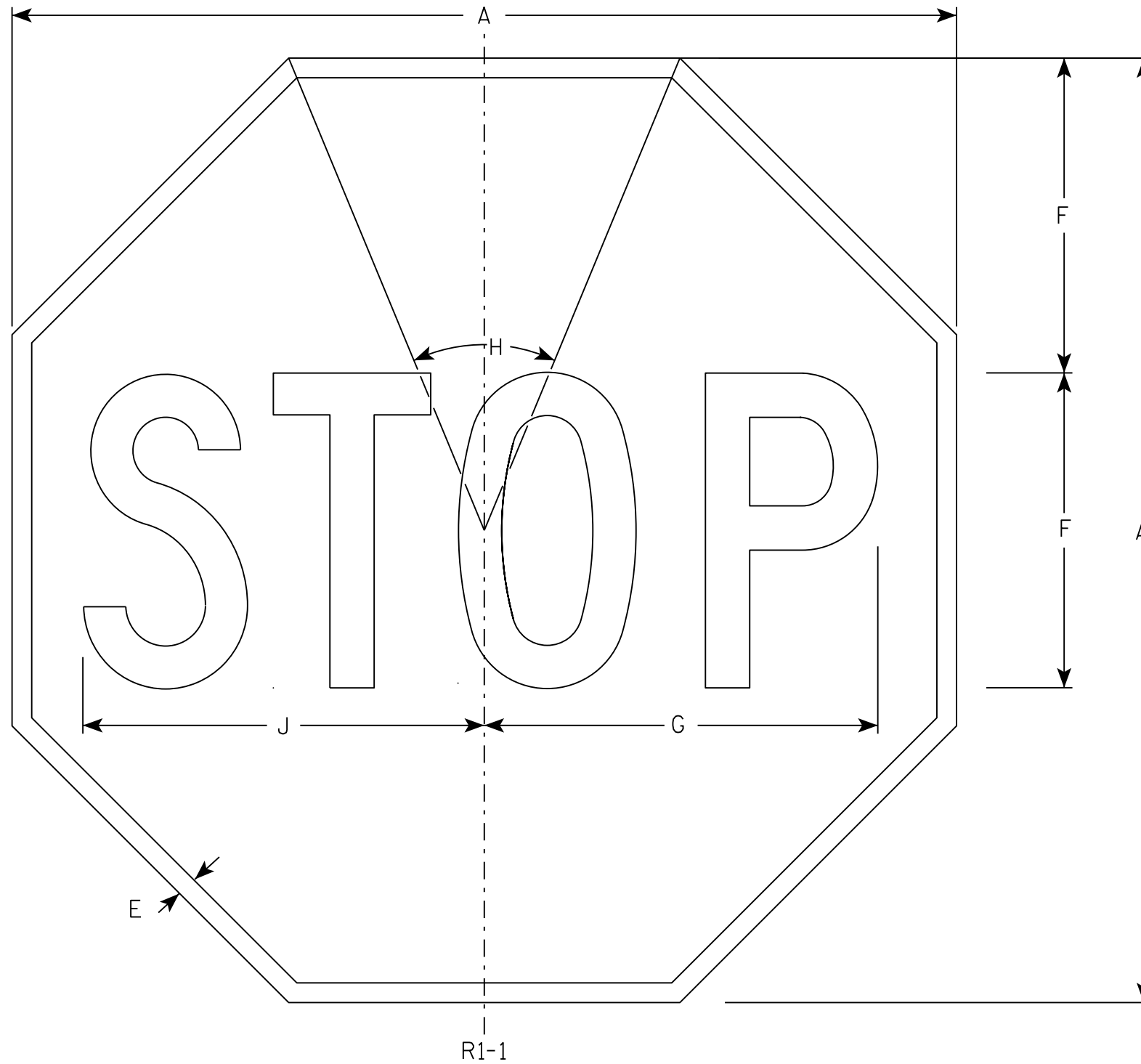
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. M4-59.1

NOTES

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



7

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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

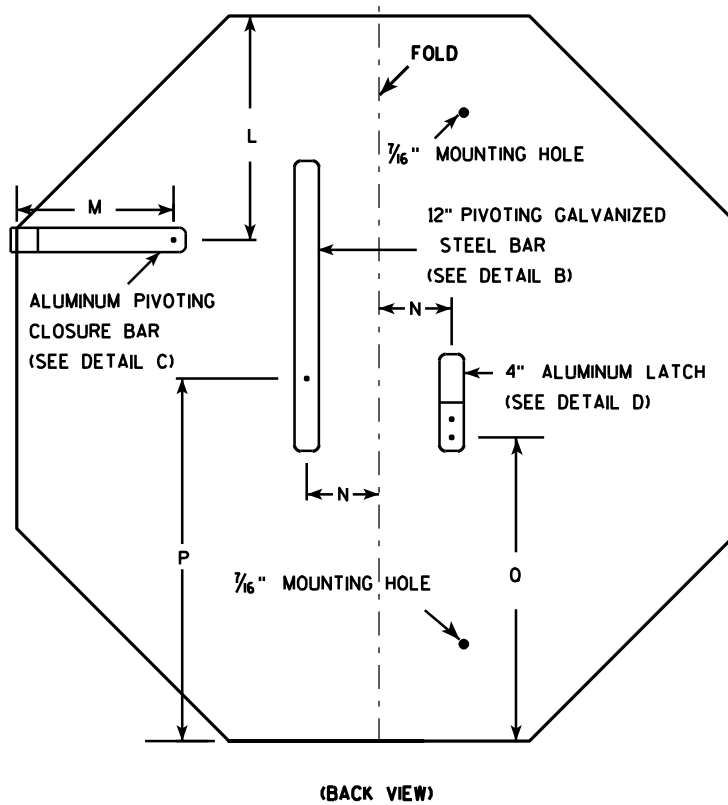
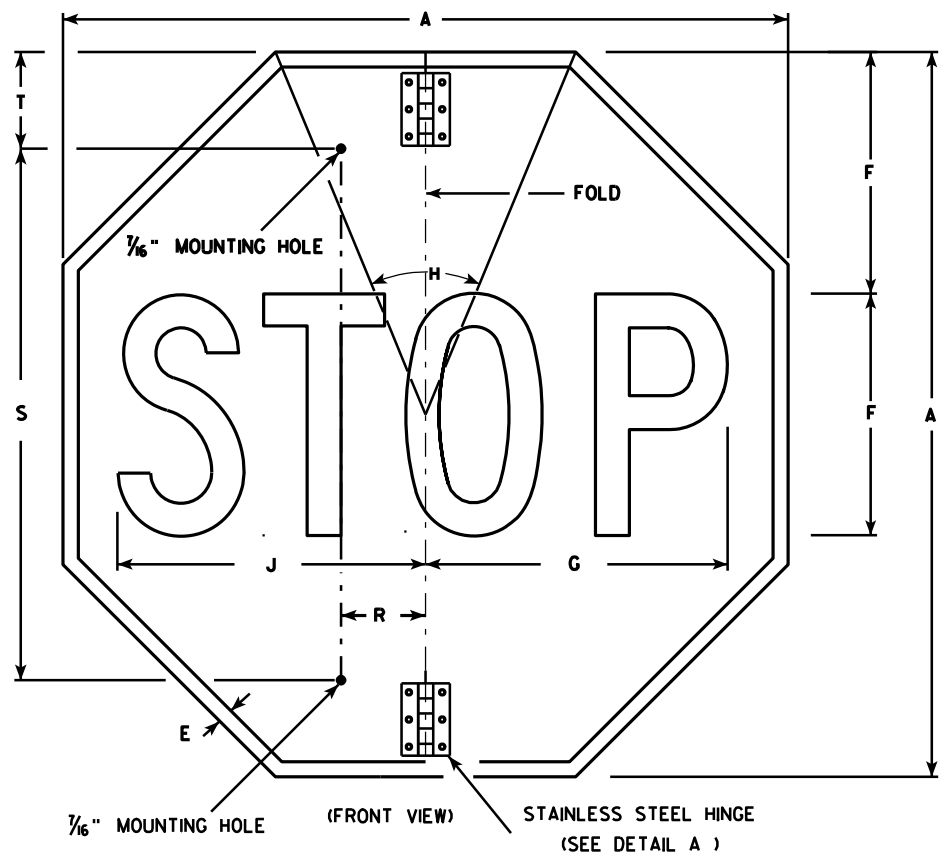
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

STANDARD SIGN
R1-1

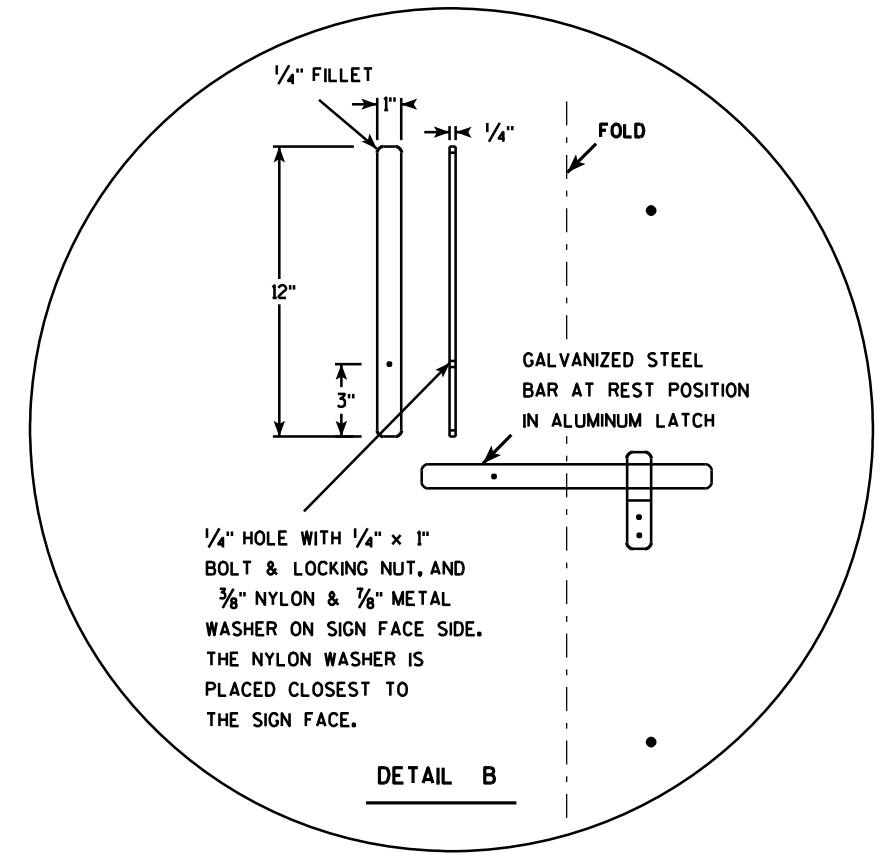
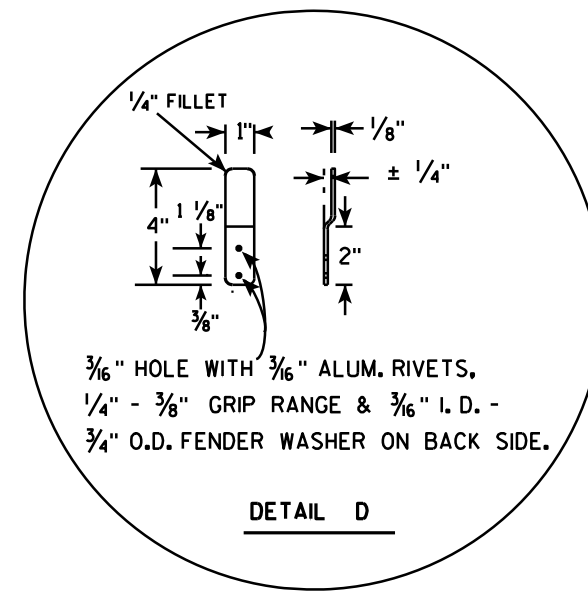
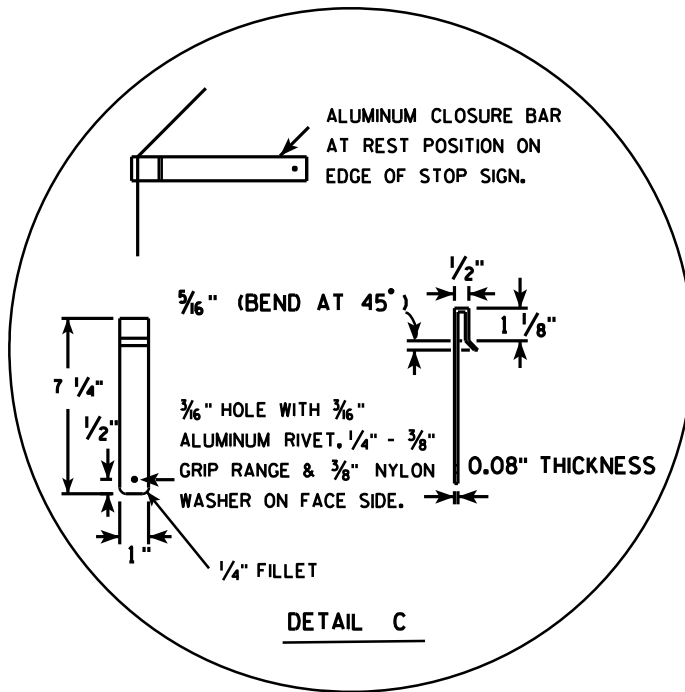
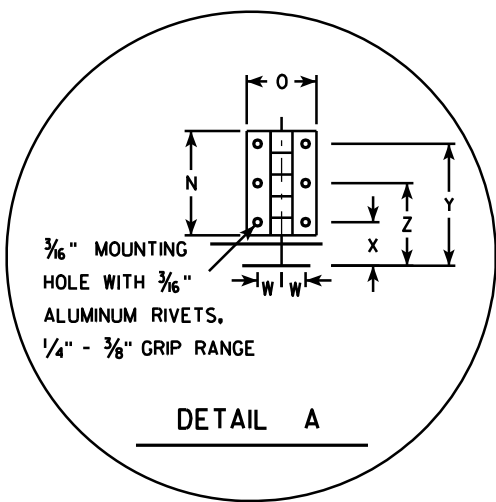
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



- NOTES**
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Red
Message - White
 3. Message Series - C
 4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			1 1/8	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			1 1/8	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			1 1/8	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

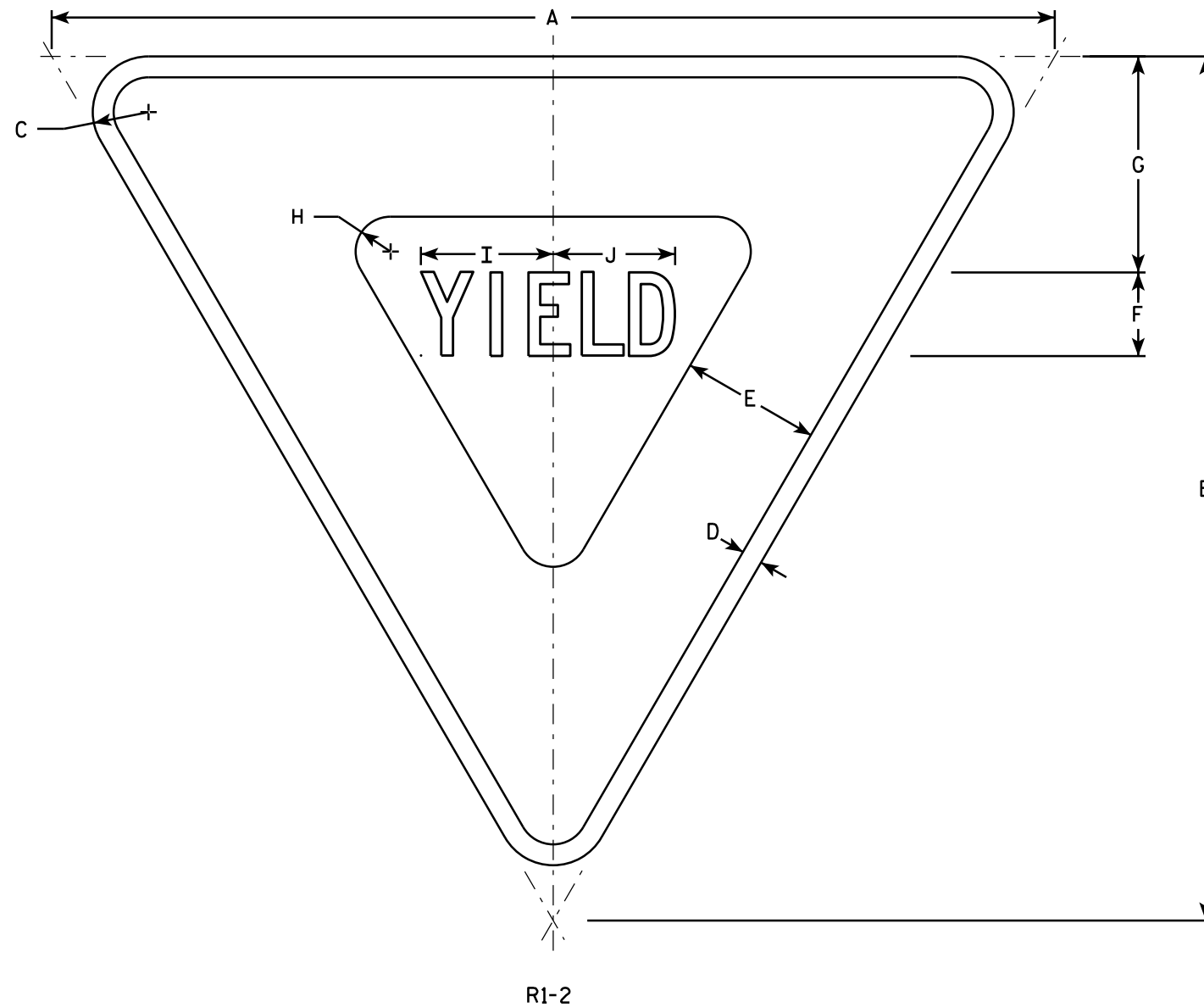
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

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

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.



7

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	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

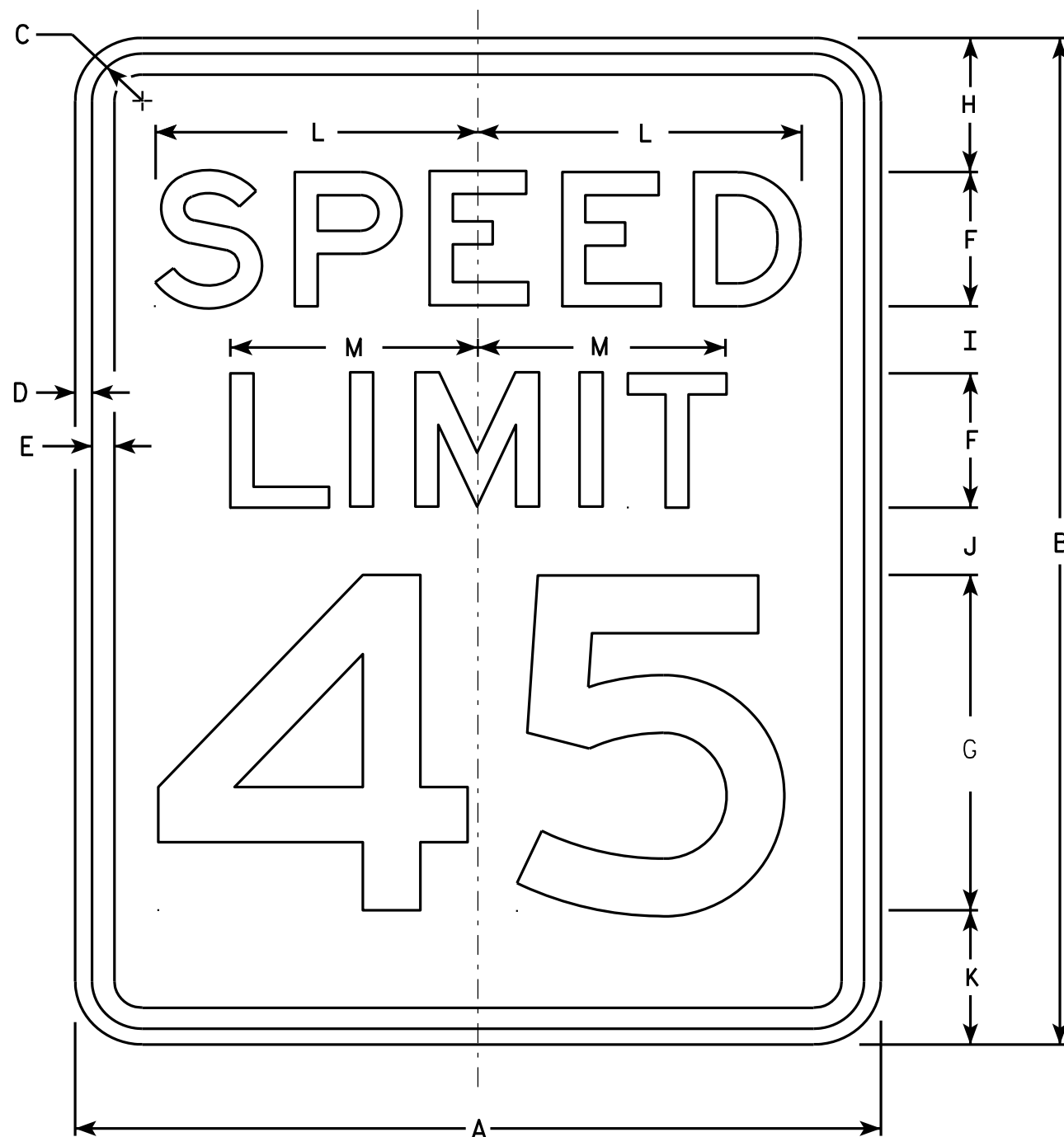
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/13/14 PLATE NO. R1-2.12

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



R2-1

NOTES

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

7

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	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

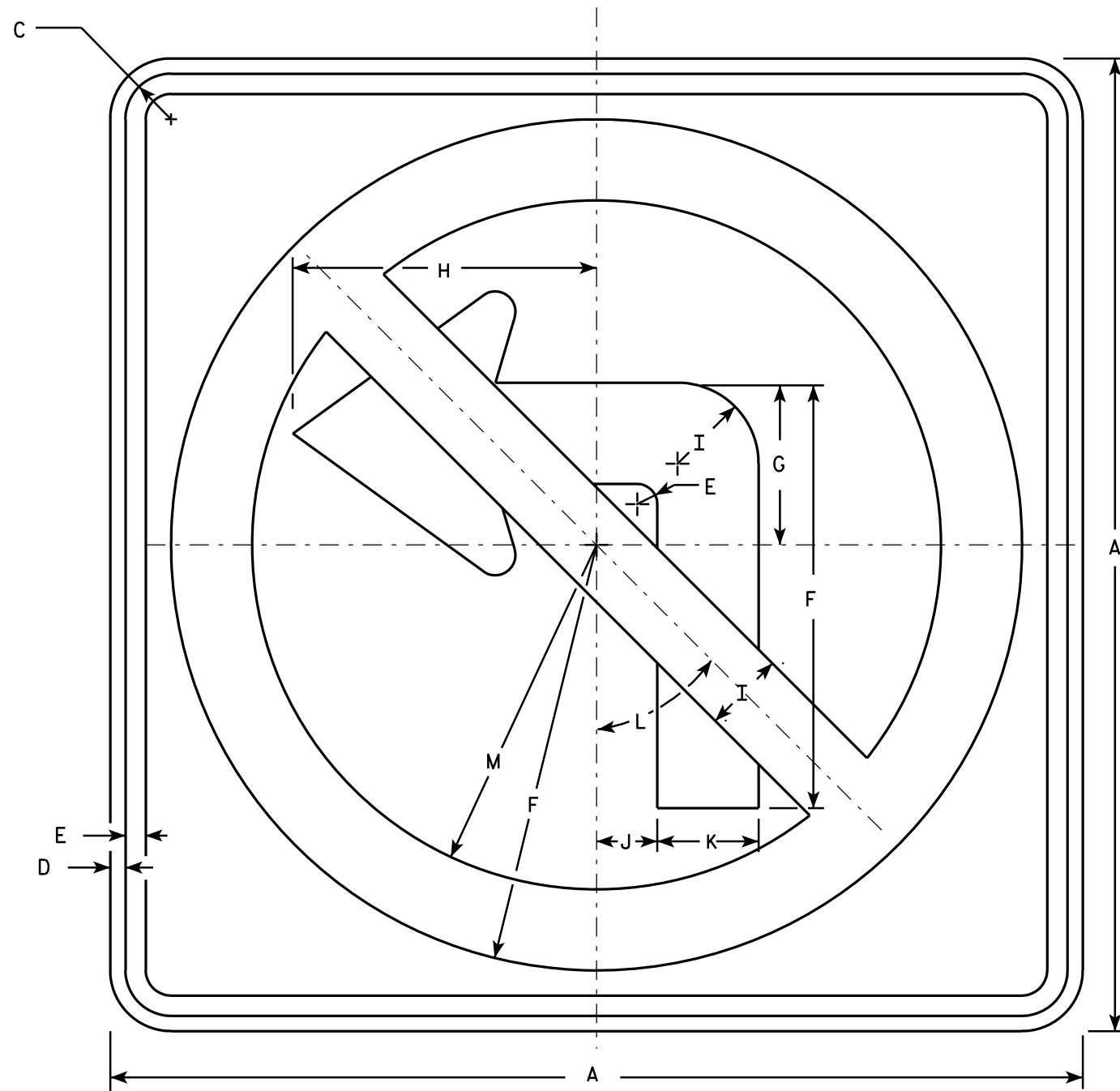
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

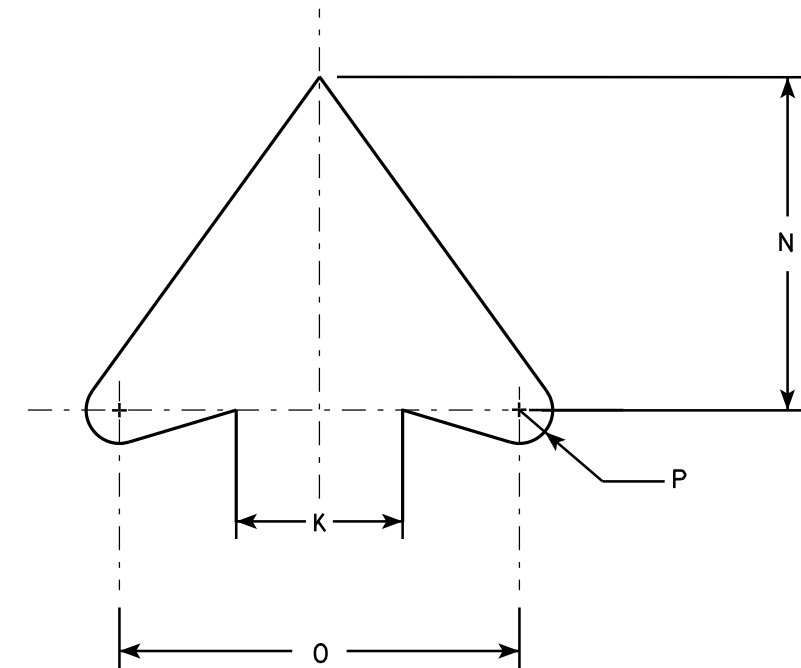
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

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

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

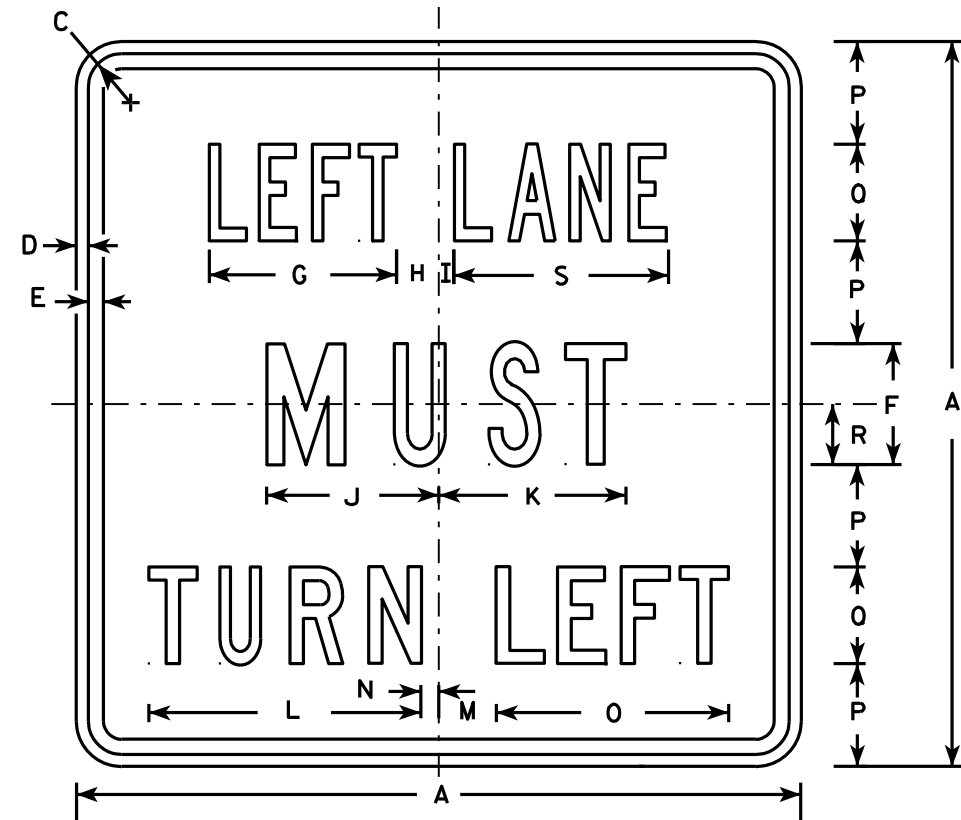
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

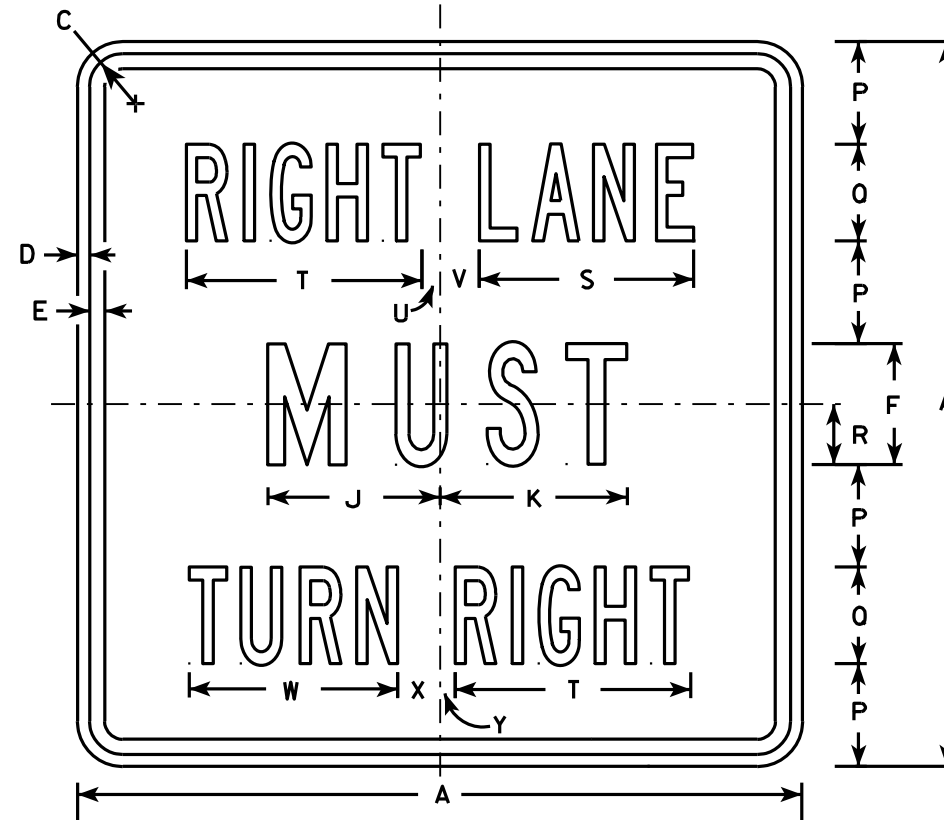
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - Line 1 is Series B.
Line 2 is Series C.
Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R3-7L



R3-7R

7

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	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

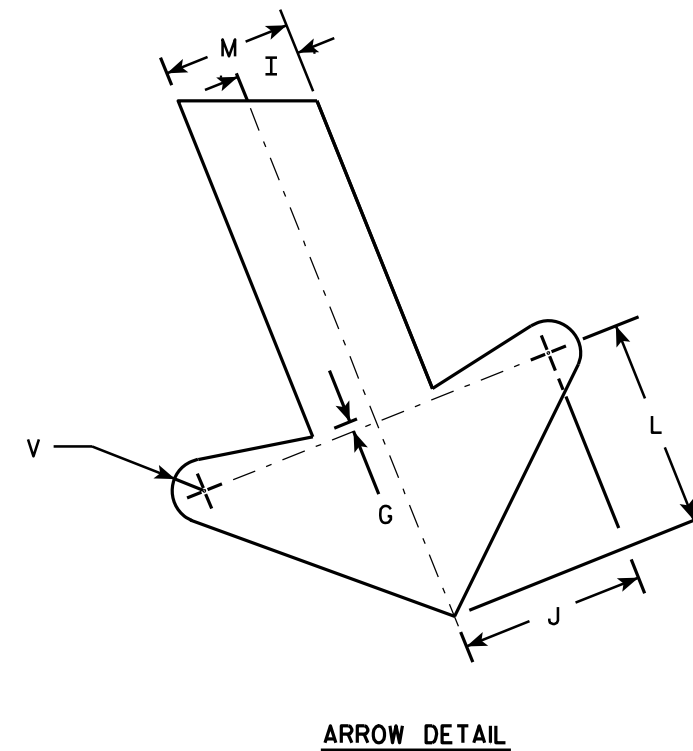
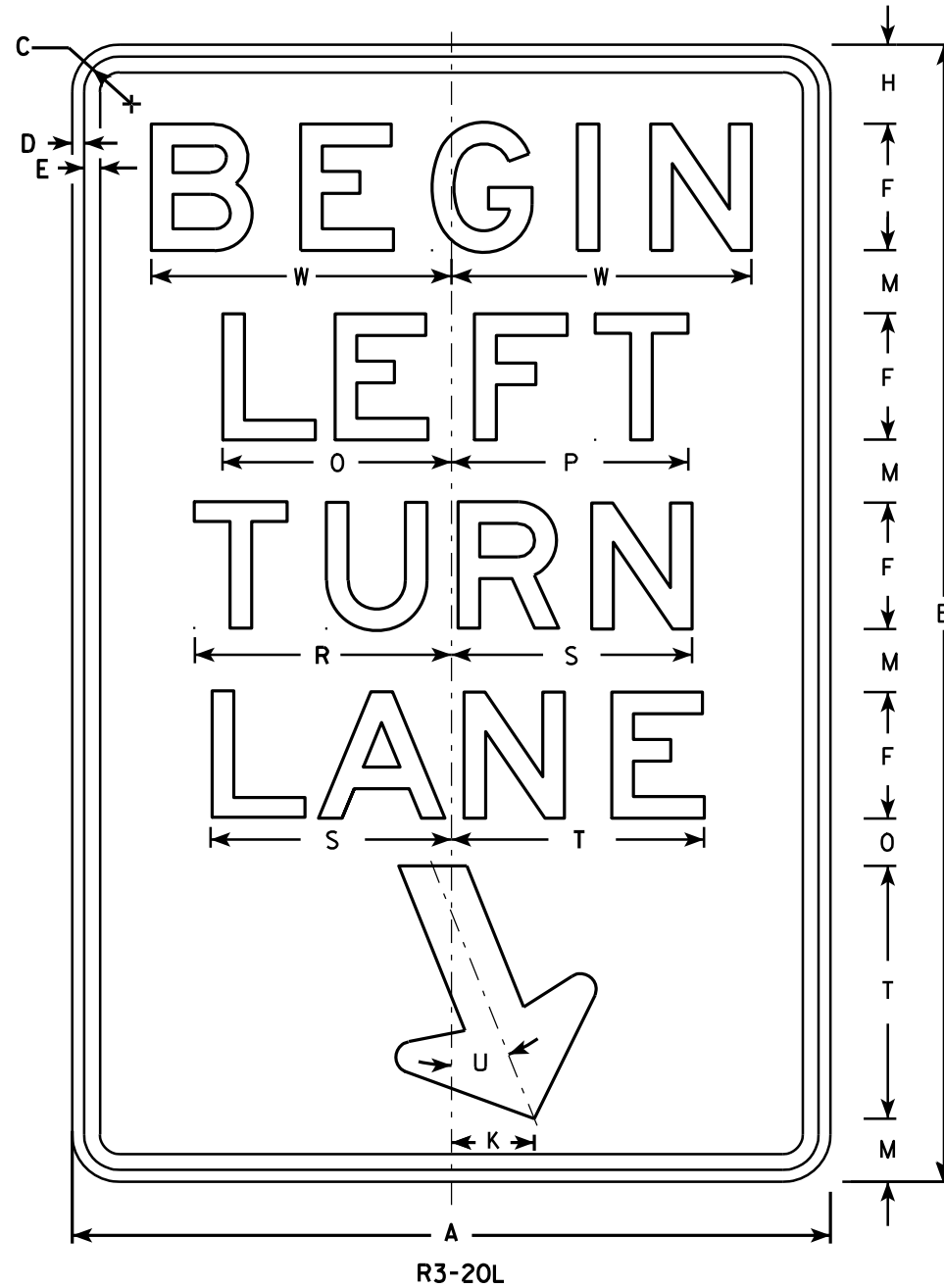
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-7.3

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

NOTES

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



7

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																												
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5	
4																												
5																												

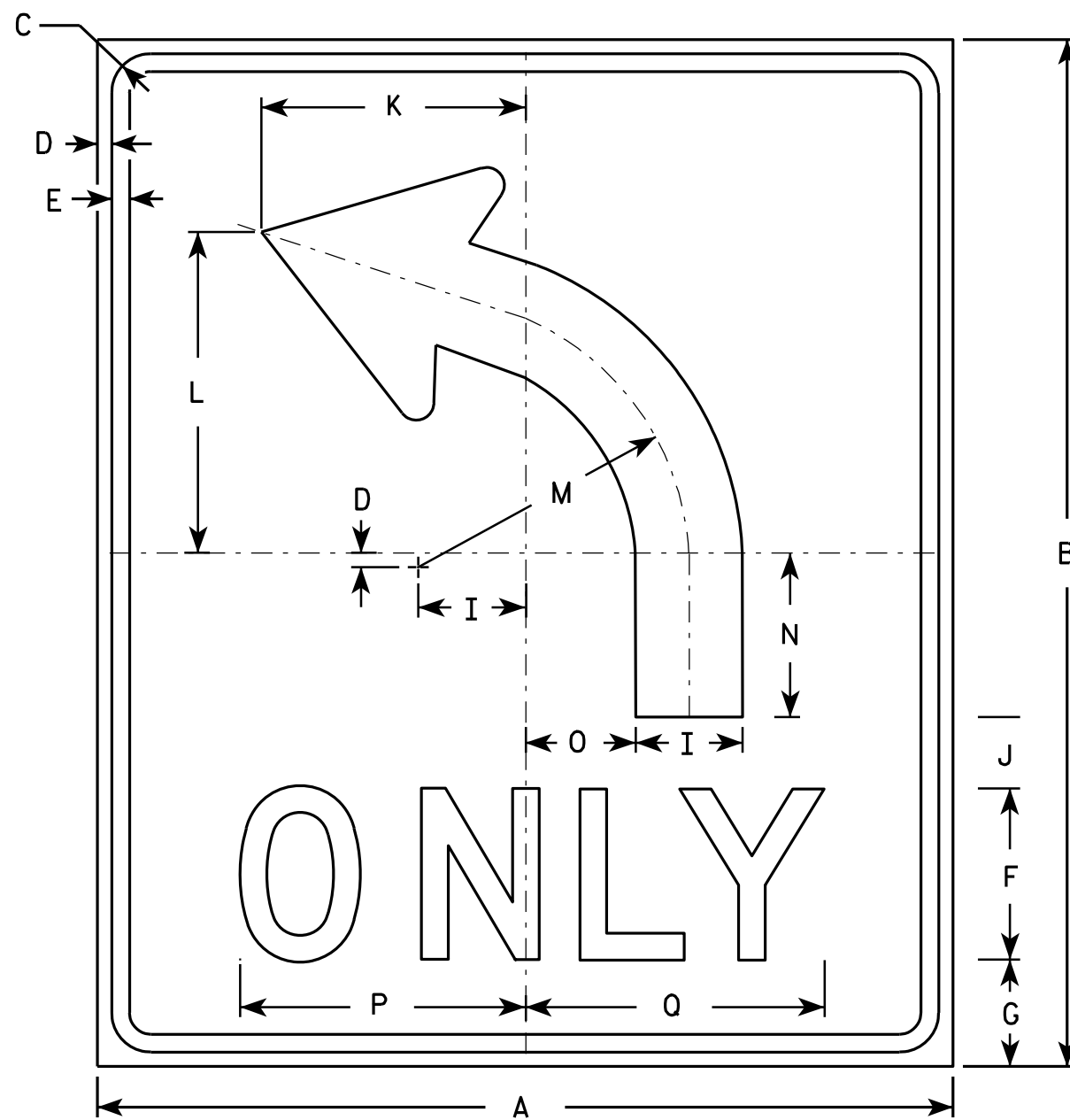
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

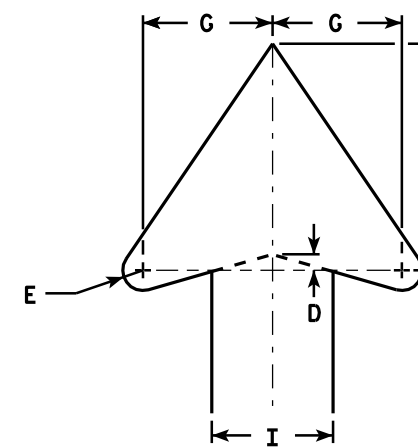
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R3-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-50R is the same as R3-50L except curved portion of arrow points right.



ARROW DETAIL

7

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																											
2S	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 3/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

STANDARD SIGN
R3-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raush*
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-50.2

PROJECT NO:

HWY:

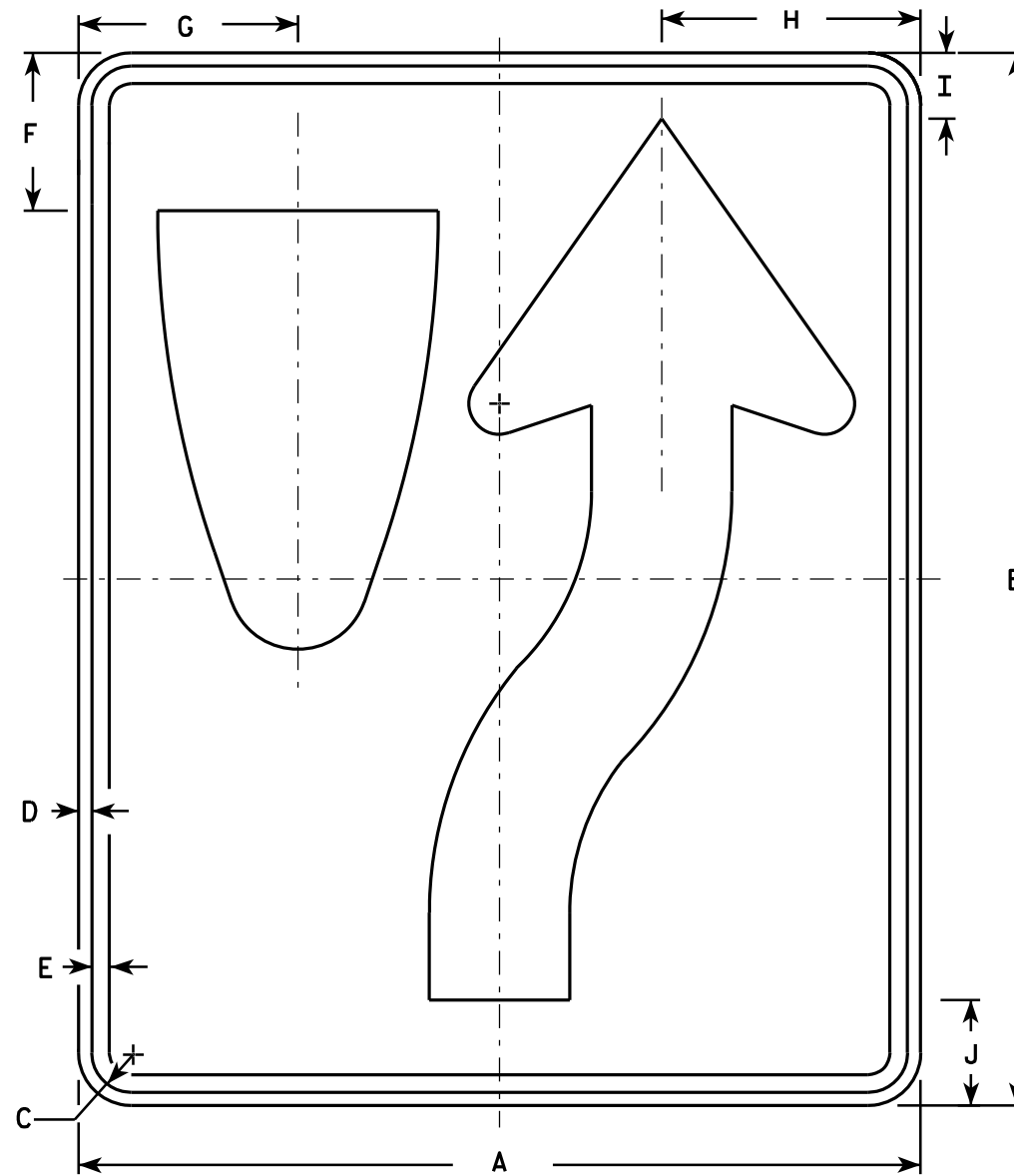
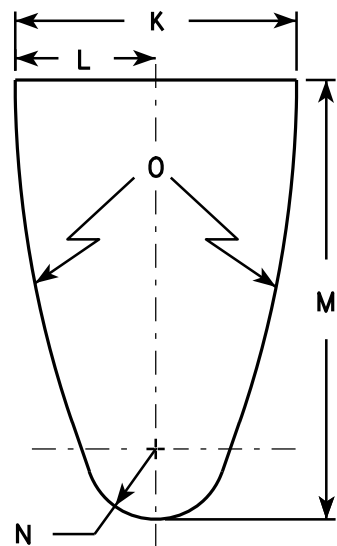
COUNTY:

SHEET NO:

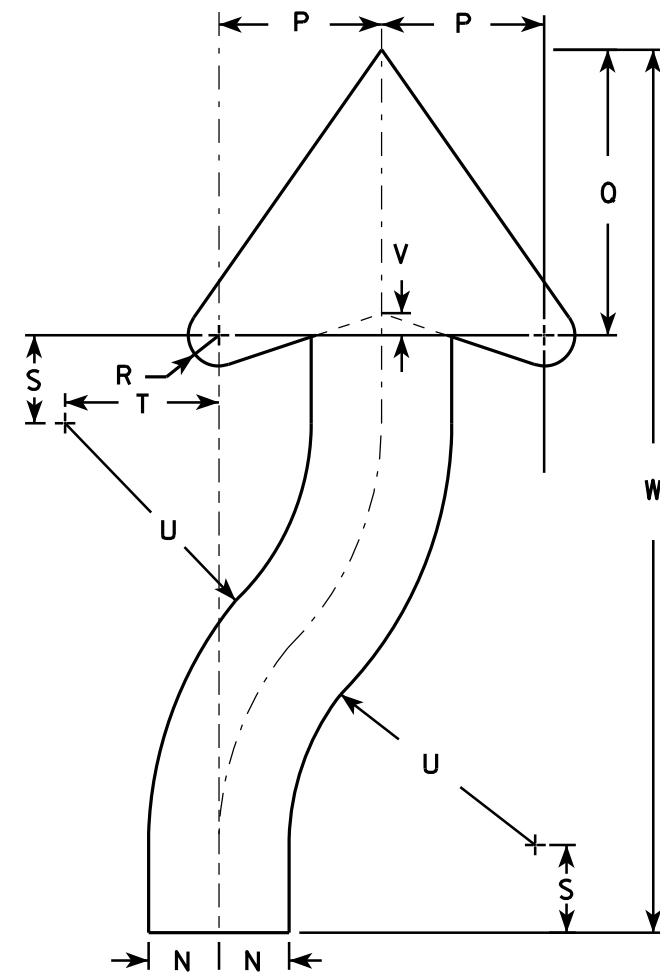
E

NOTES

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



R4-7



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

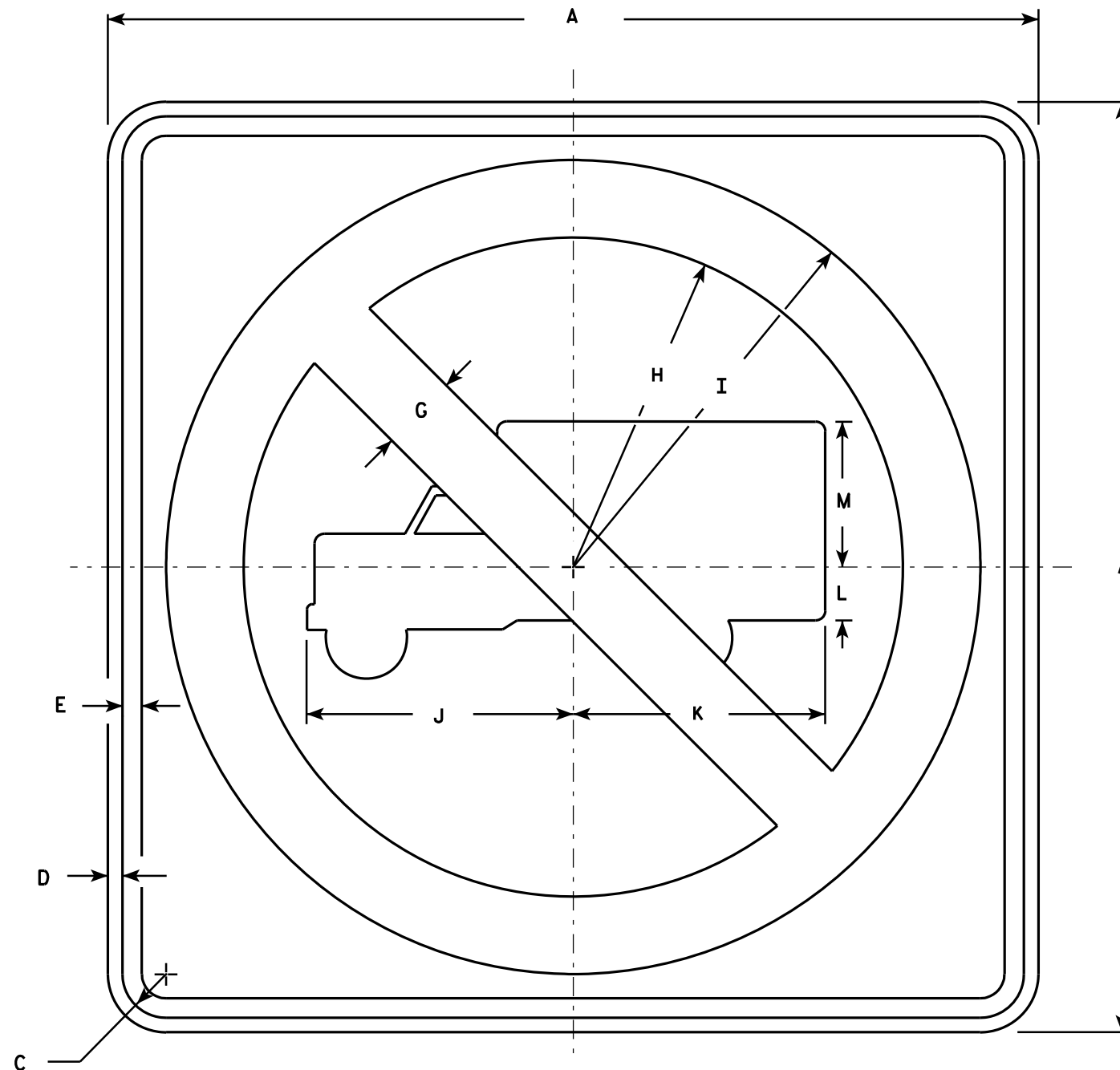
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

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

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Circle & Diagonal - Reflective red.
Truck Symbol & Border - Non-reflective black.



R5-2

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

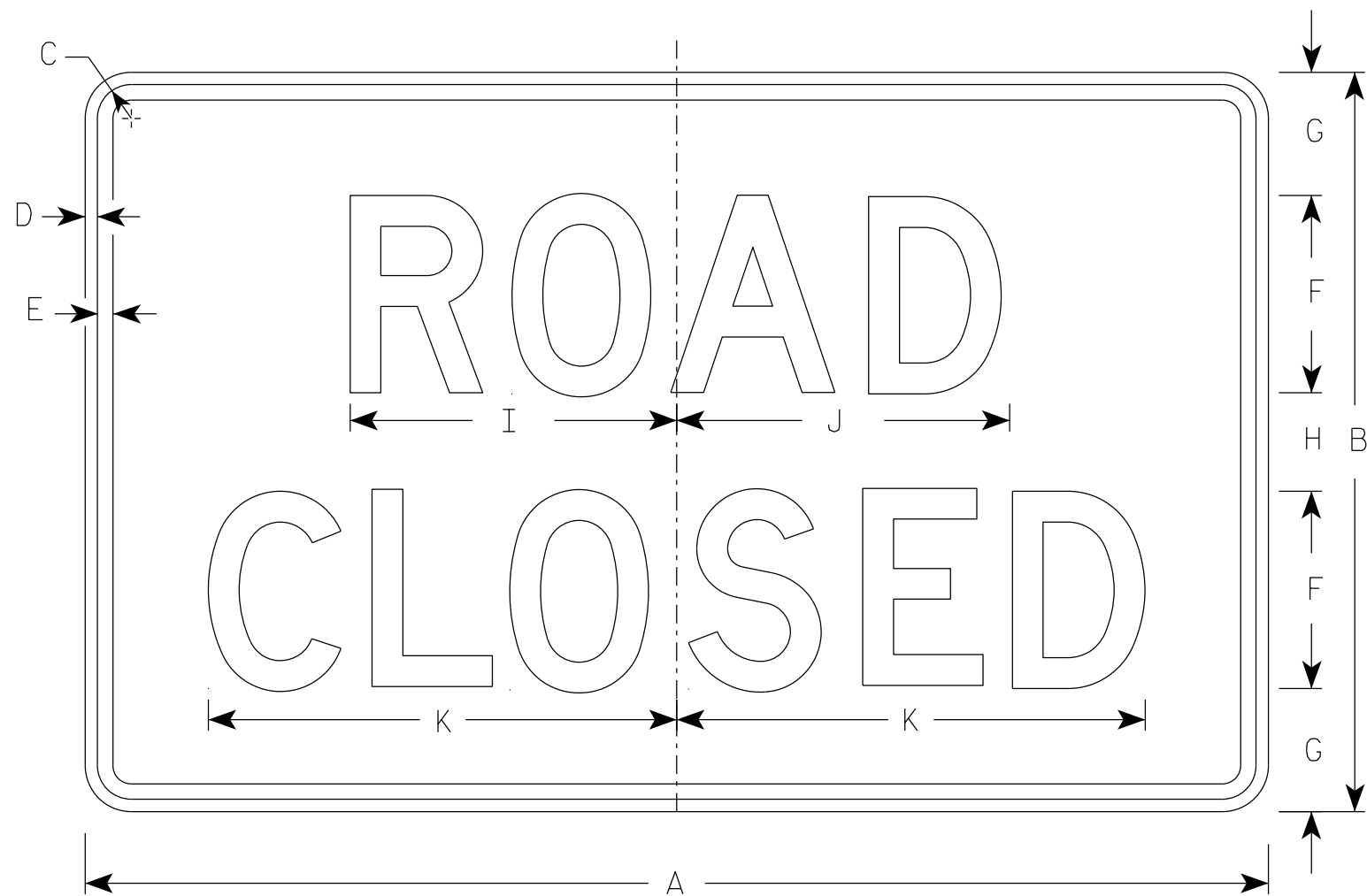
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

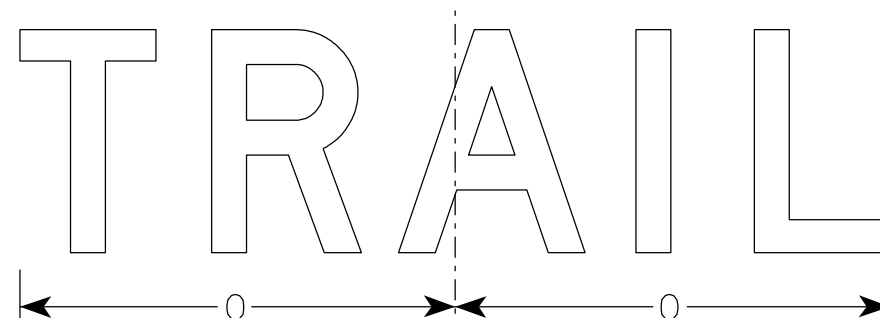
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



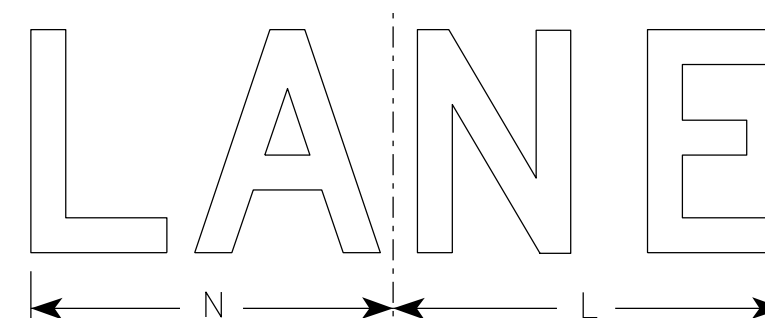
R11-2



R11-2R



R11-2T



R11-2L

NOTES

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

7

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																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

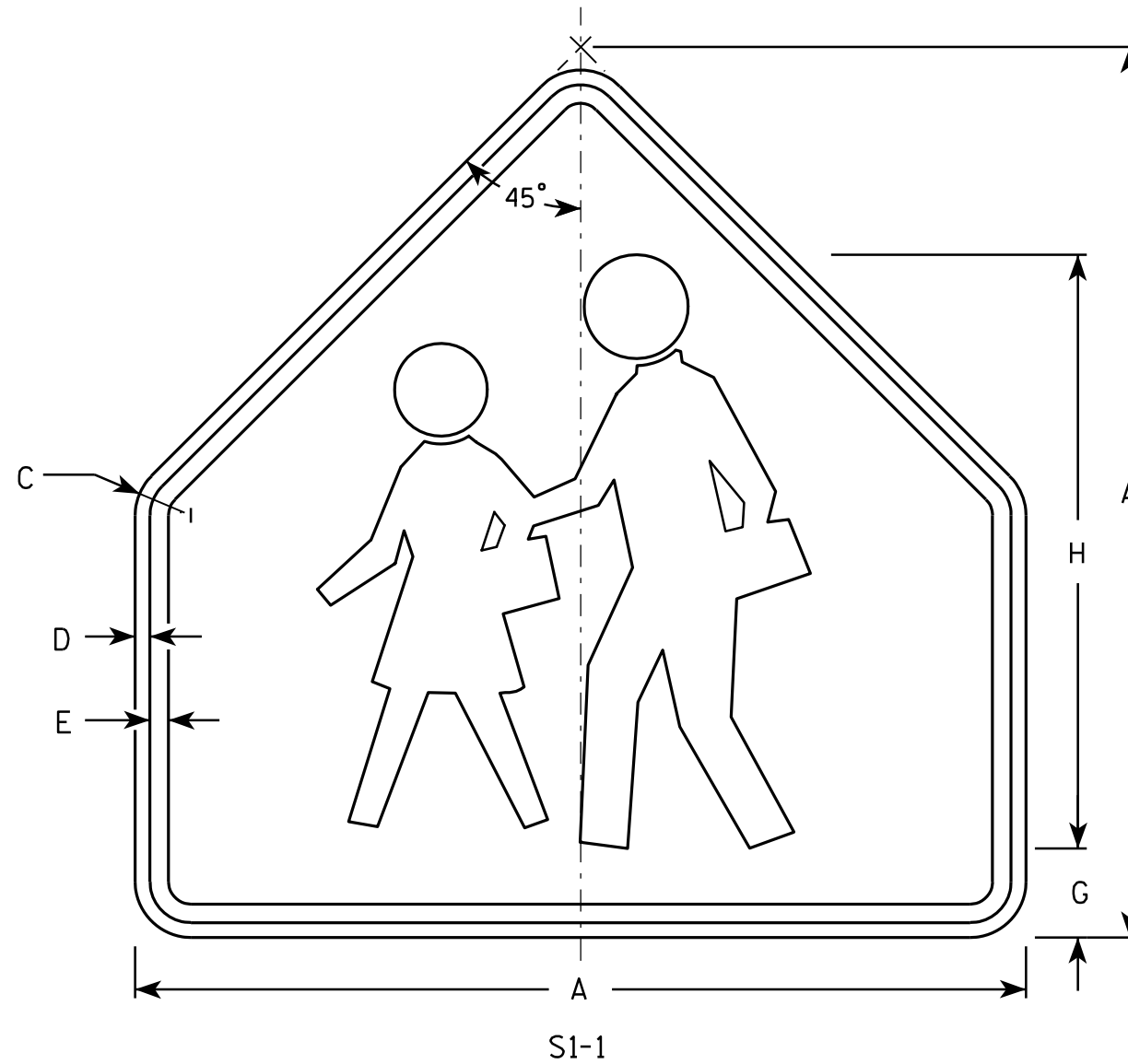
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

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



NOTES

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

7

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	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

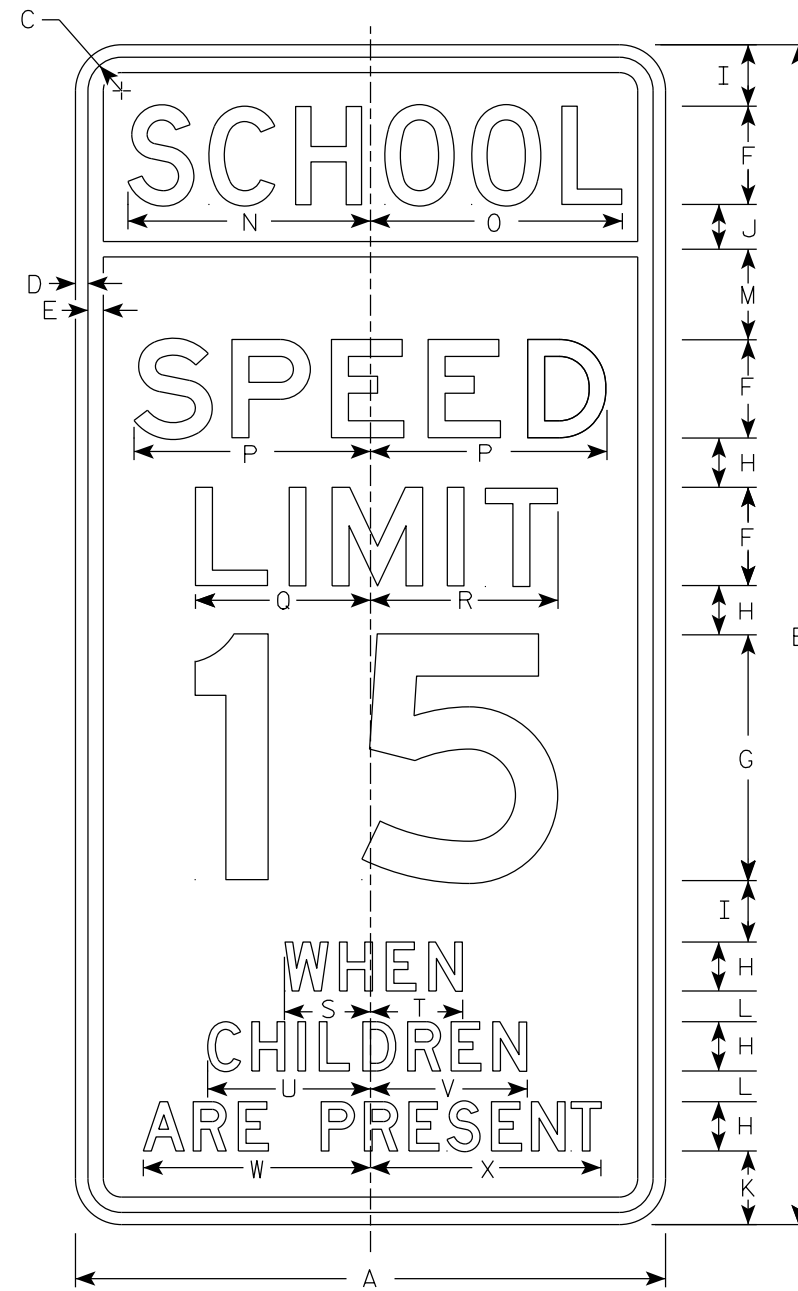
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

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

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color:
Background - See Note 4
Message - Black
3. Message Series - See Note 5
4. Top panel (SCHOOL) background - Yellow Green - Type F Reflective
Lower panel background - White - Type SH Reflective
5. From top to bottom:
Lines 1, 5, 6 & 7 are series D
Lines 2, 3 & 4 are series E
6. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.



S4-51

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	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8		8.00	
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8		18.00	
4																											
5																											

STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

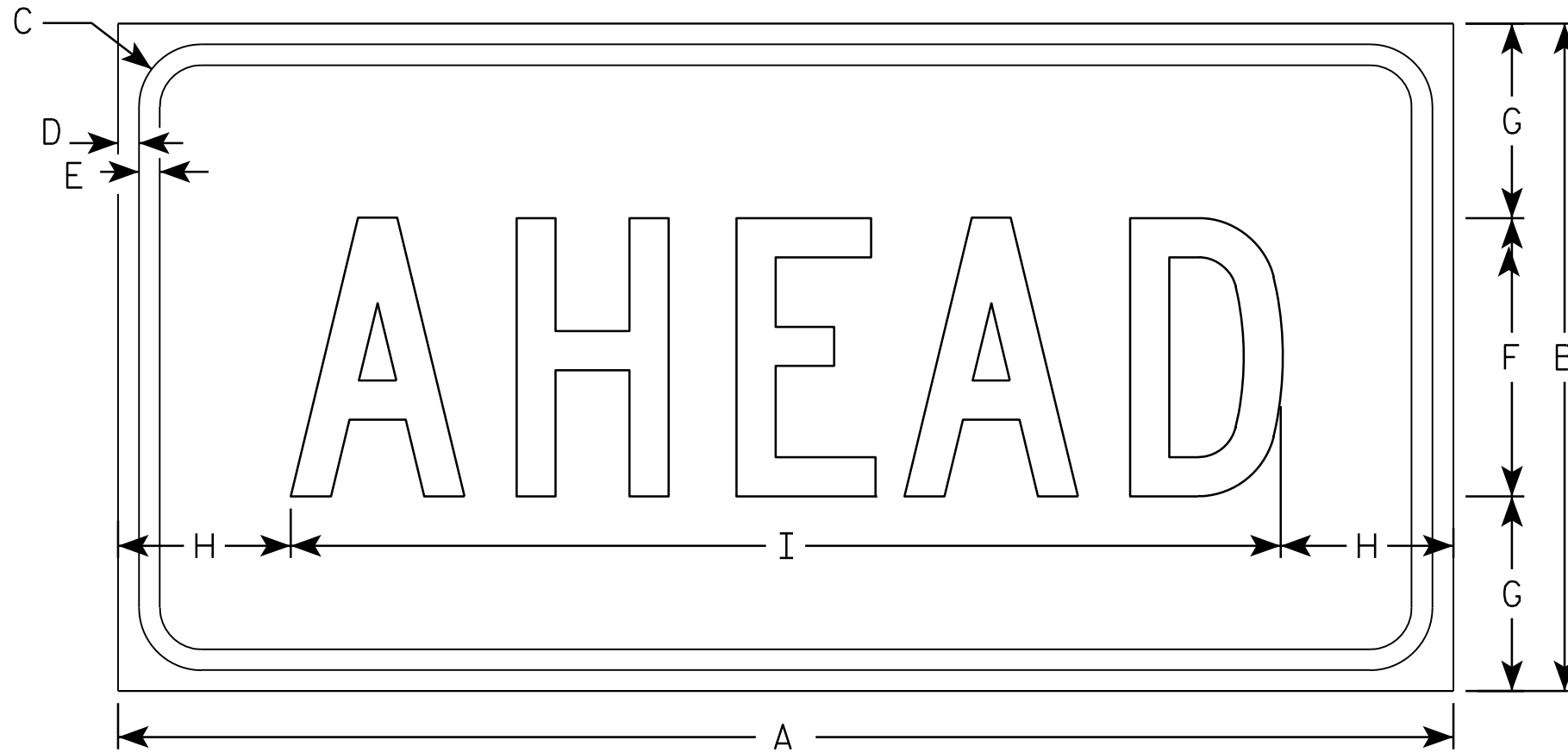
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. S4-51.10

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

NOTES

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



S16-9P

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN

S16-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO:

HWY:

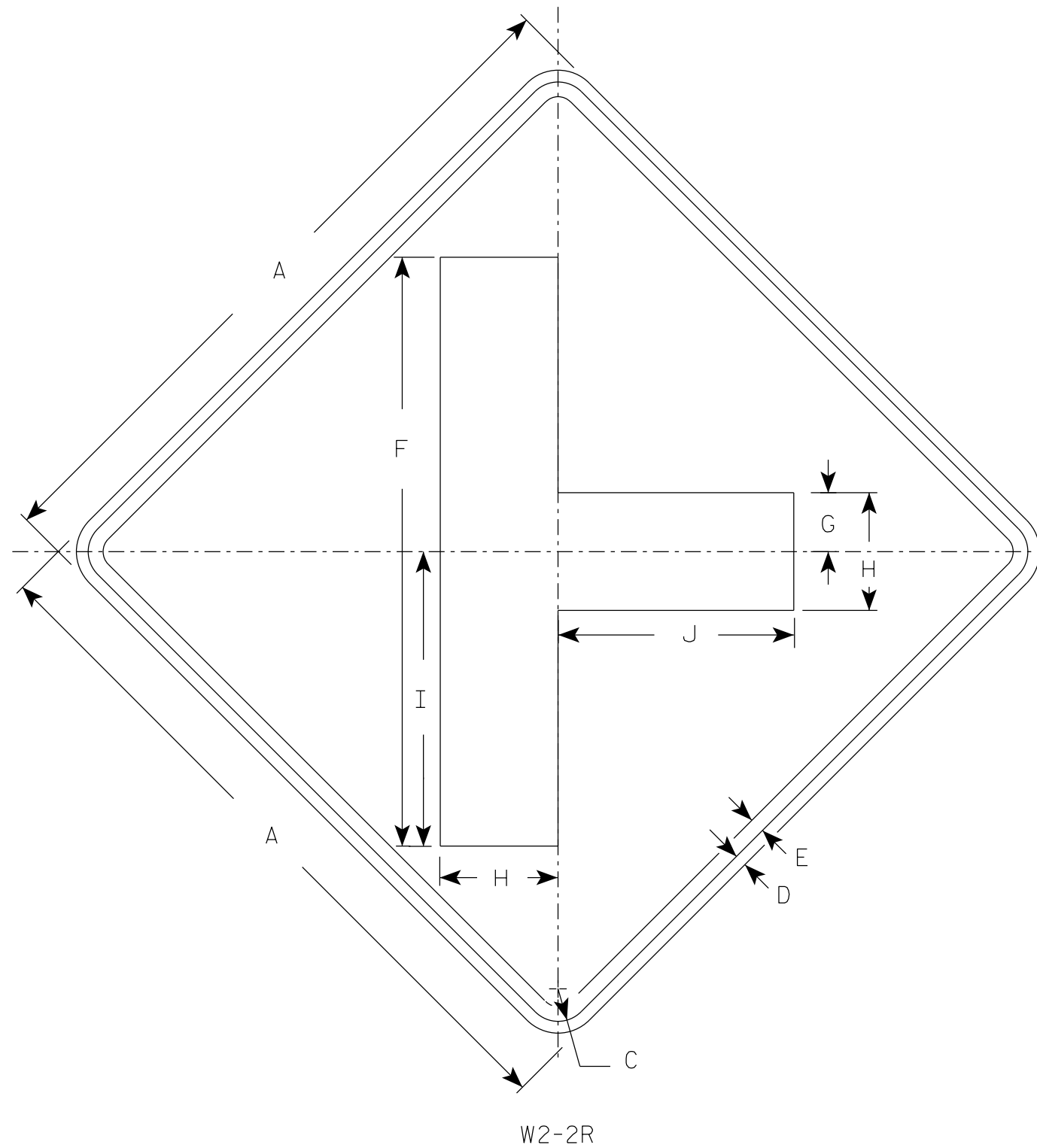
COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Yellow
Message - Black
3. W2-2L same as W2-2R but is rotated 180° when mounted.



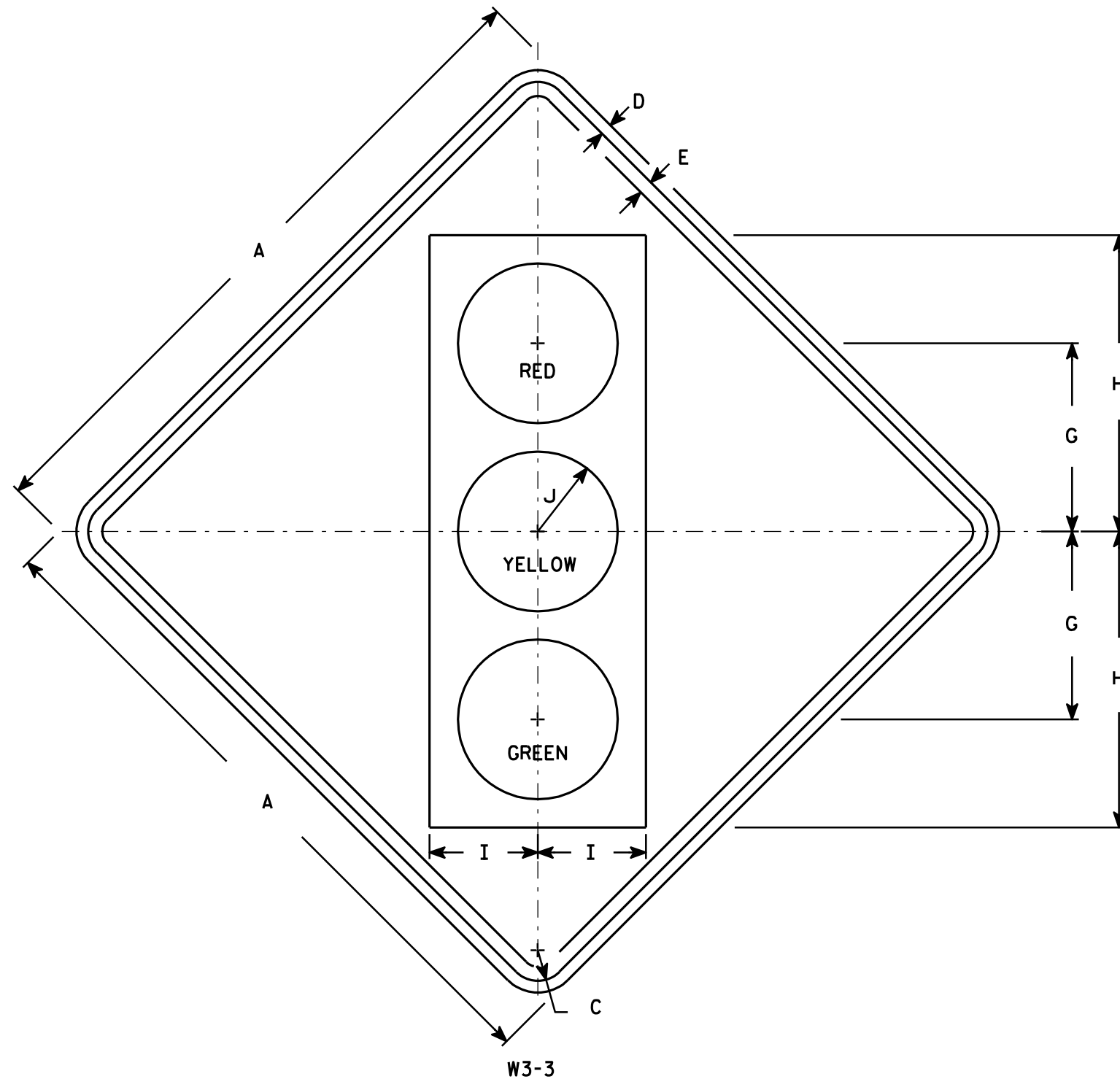
W2-2R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

STANDARD SIGN
W2-2 L&R

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R Rauch*
 for State Traffic Engineer
 DATE 11/18/2021 PLATE NO. W2-2.7

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
Top circle - Type H ReflectORIZED Red
Center circle - Same as background
Bottom circle - Type H ReflectORIZED Green

7

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	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

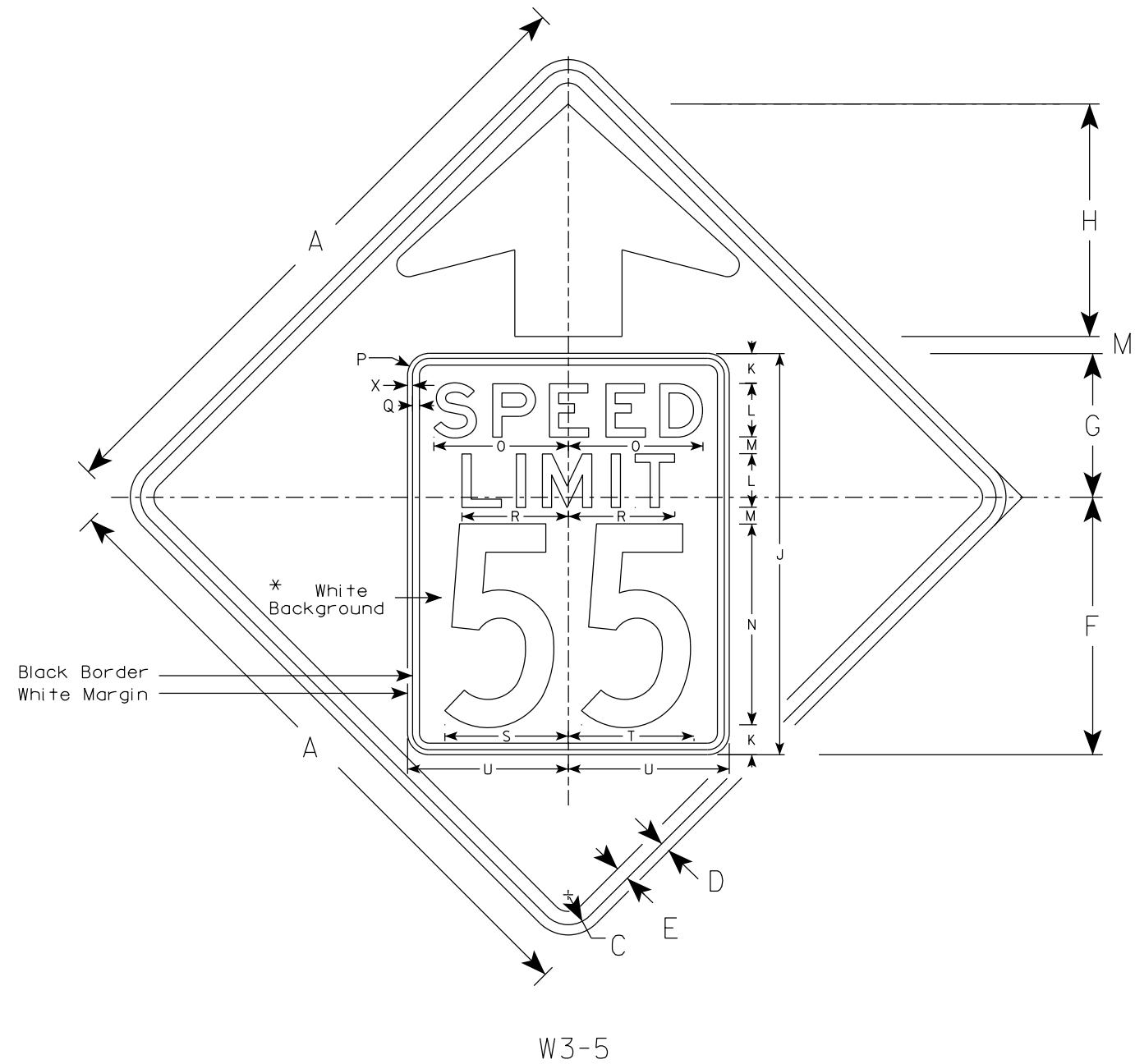
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

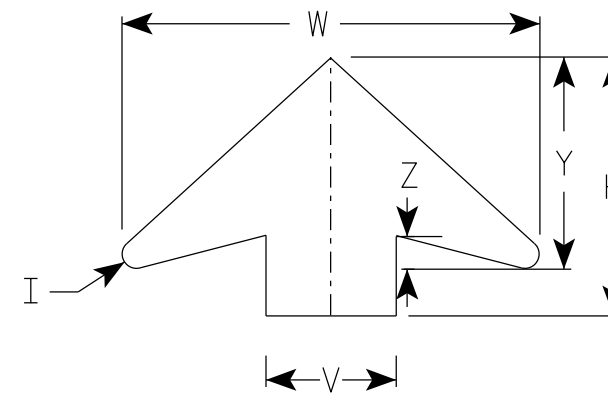
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
Background - Yellow* (Type F Reflective)
Message - Black
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



ARROW DETAIL

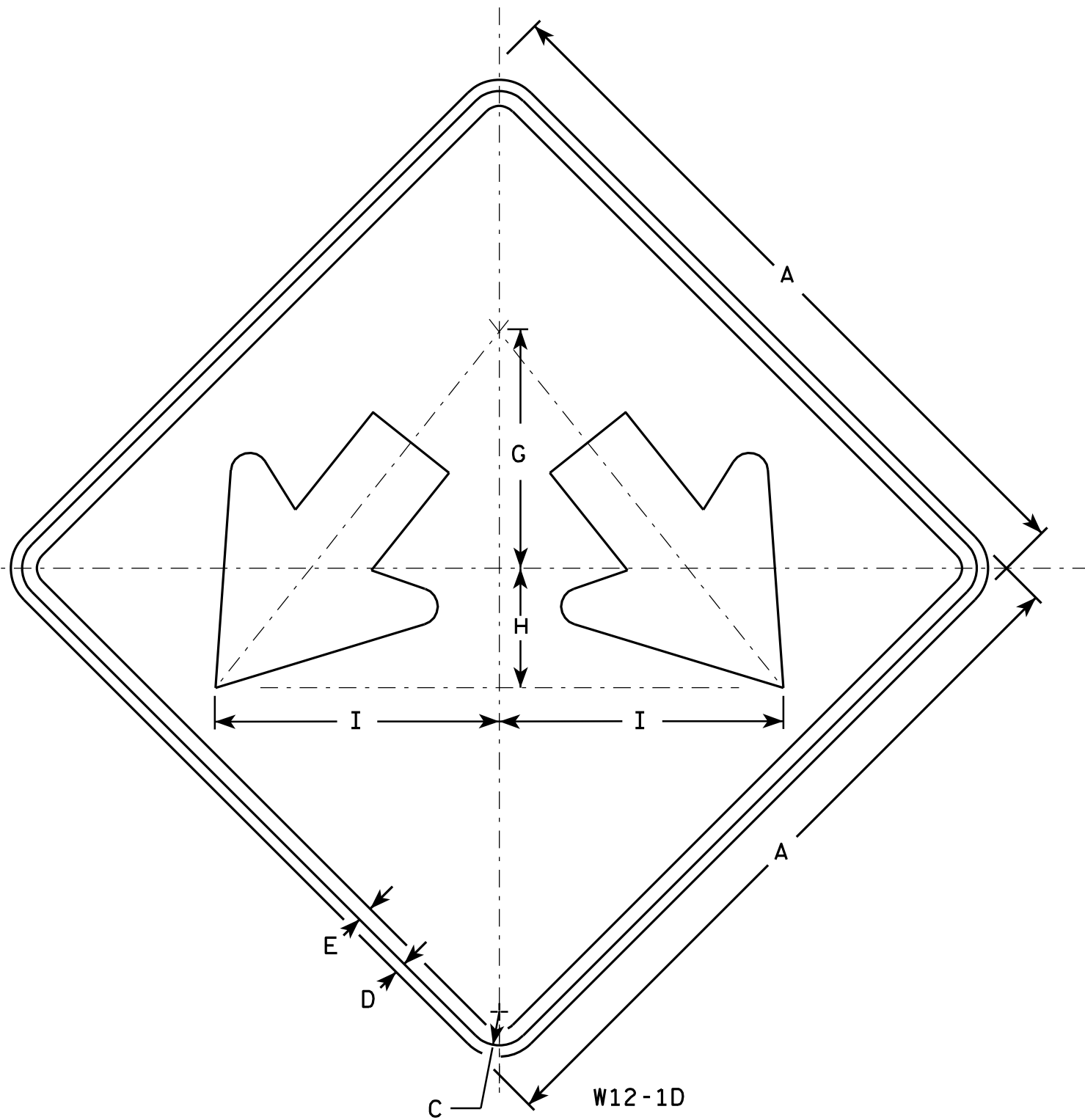
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7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

STANDARD SIGN
W3-5

WISCONSIN DEPT OF TRANSPORTATION

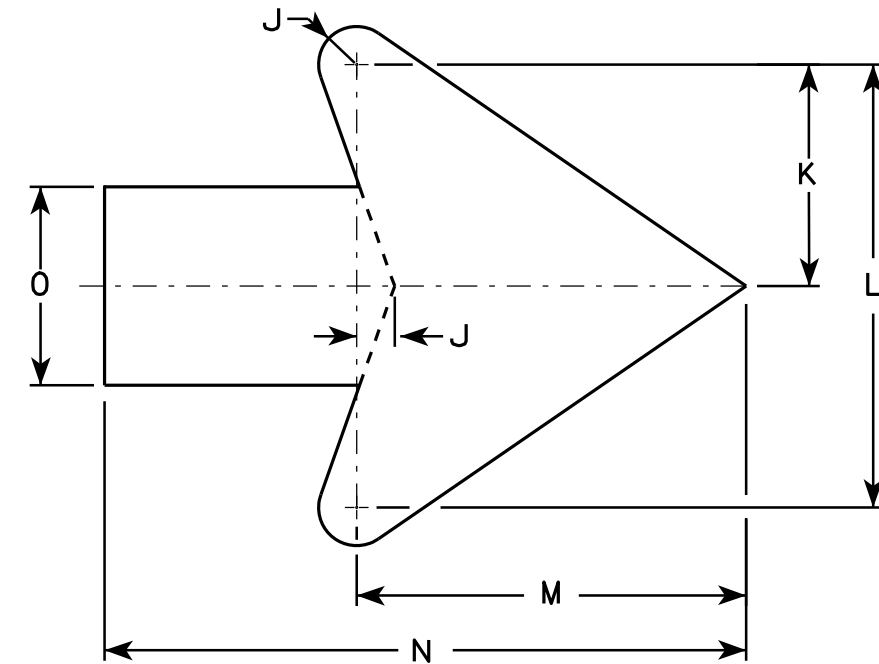
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. W3-5.6



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

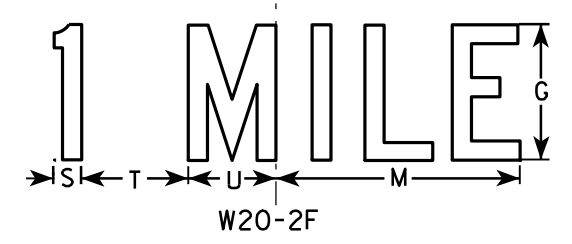
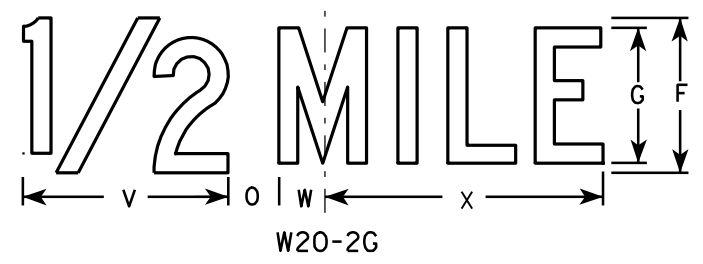
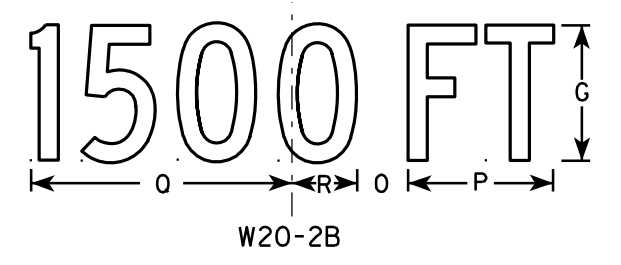
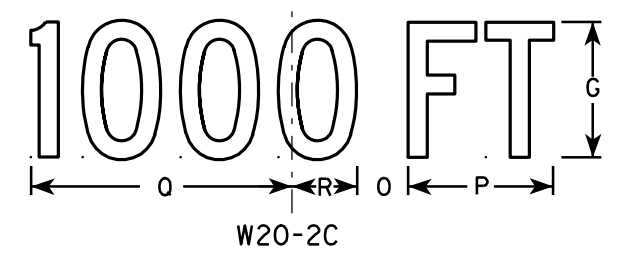
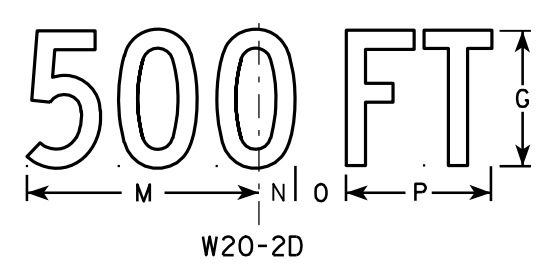
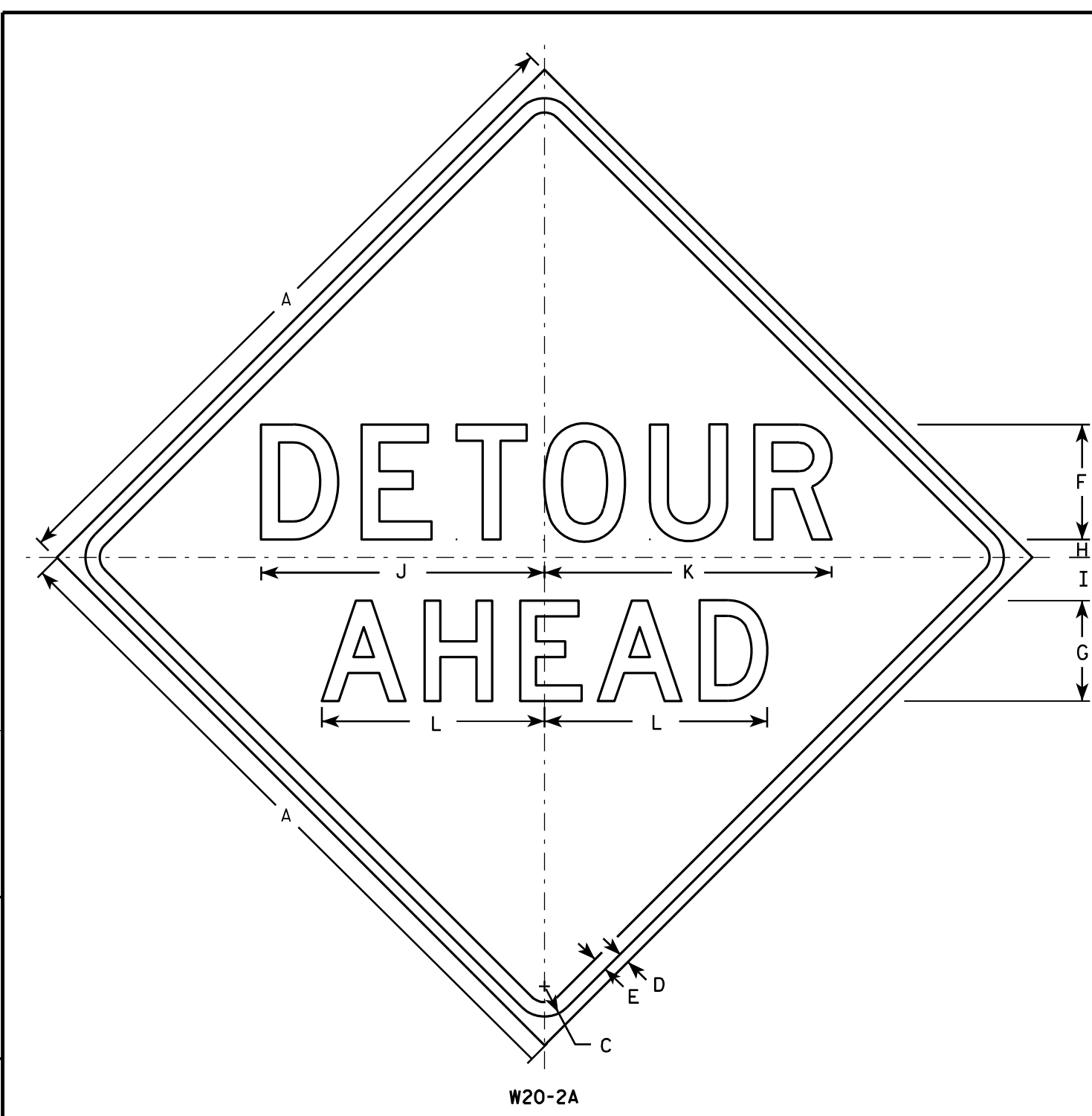
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

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



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

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	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

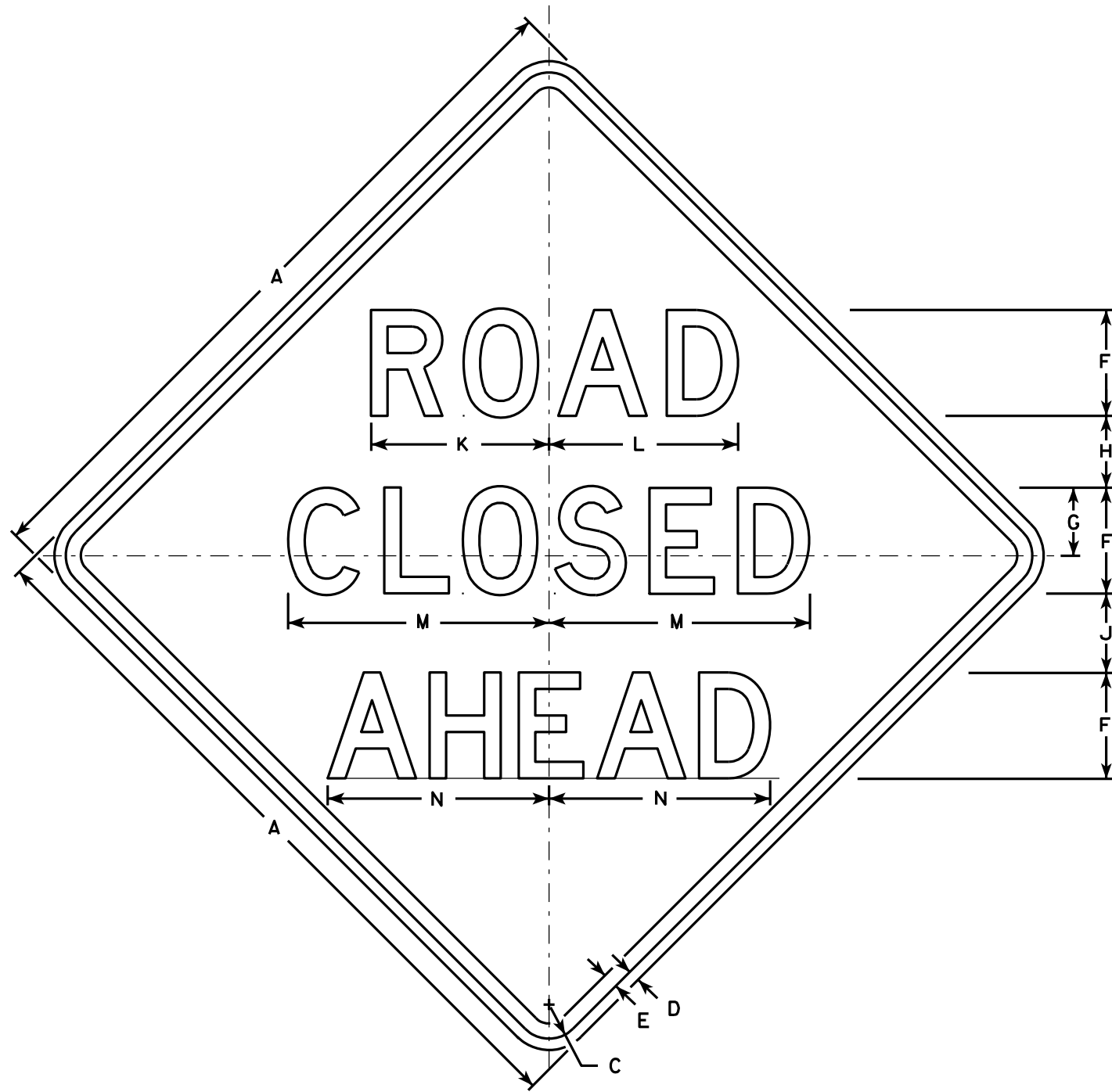
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

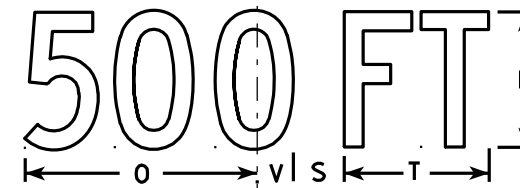
APPROVED *Matthew R. Raub*
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

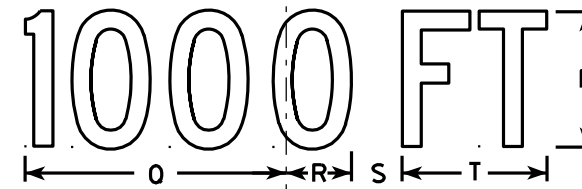
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



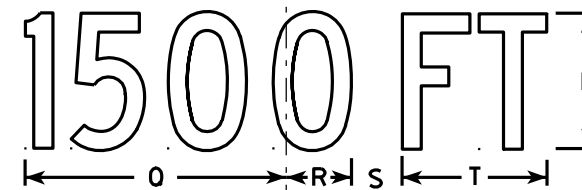
W20-3A



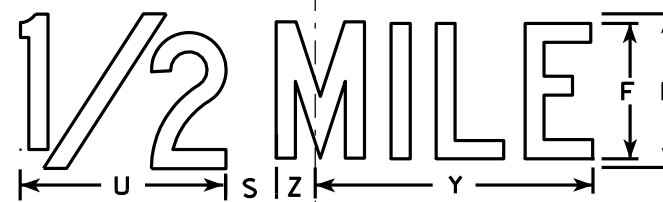
W20-3D



W20-3C



W20-3B



W20-3G



W20-3F

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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

7

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	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

Notes



Wisconsin Department of Transportation

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