GRE

NOVEMBER 2022

PROJECT ID: 9006-04-70

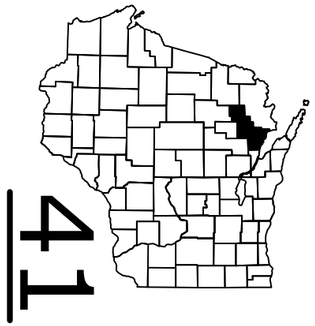
WITH: NA

COUNTY: OCONTO

ORDER OF SHEETS

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

TOTAL SHEETS = 34



DESIGN DESIGNATION

A.A.D.T.	2023	=	750
A.A.D.T.	2043	=	1000
D.H.V.		=	-
D.D.		=	-
T.		=	5%
DESIGN SPEED		=	30 MPH
ESALS		=	110,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

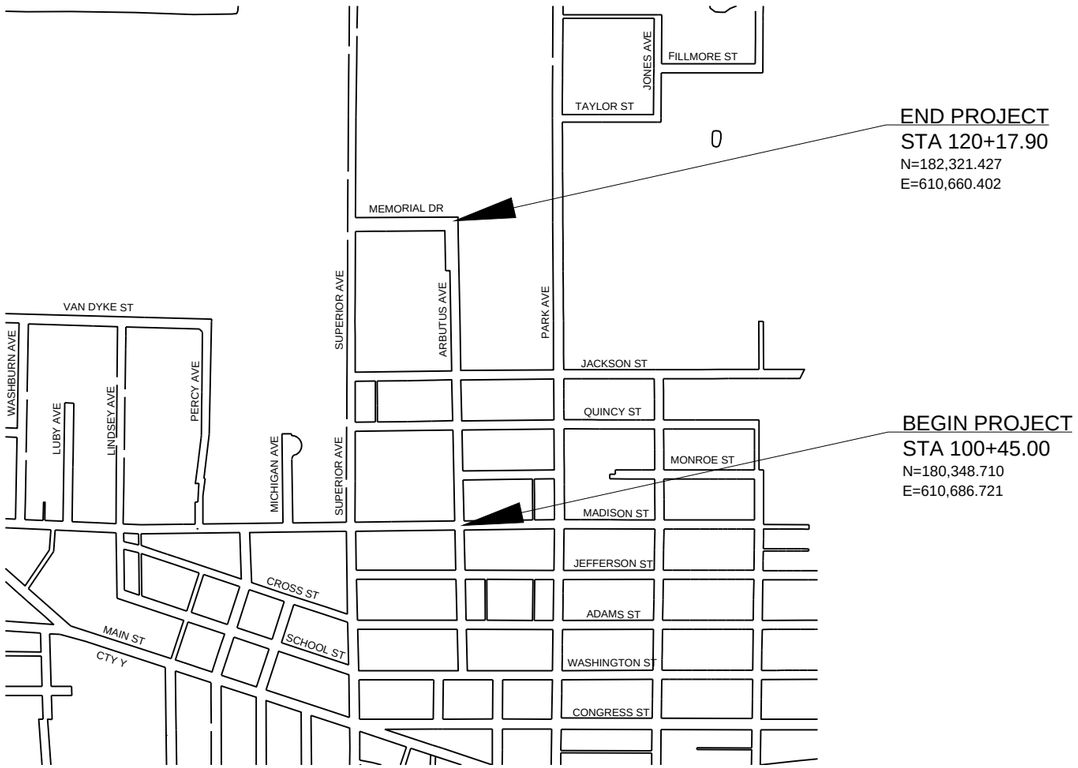
C OCONTO, ARBUTUS AVE

MADISON STREET TO MEMORIAL DRIVE

LOCAL STREET
OCONTO COUNTY

STATE PROJECT NUMBER
9006-04-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9006-04-70	WISC 2023043	1



LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.374 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), OCONTO COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON WIS GEOID 18.

ACCEPTED FOR
CITY OF OCONTO

Date 7/28/22 (Signature and Title of Official)

ORIGINAL PLANS PREPARED BY

Mead & Hunt

WISCONSIN BROSTEAU NO. E 29074 De Pere, Wis. PROFESSIONAL ENGINEER

DATE: 7/28/22 (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	MEAD & HUNT
Designer	MEAD & HUNT
Project Manager	DOUG KIRST
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	BRIAN EDWARDS

APPROVED FOR THE DEPARTMENT

DATE: 7/29/2022 (Signature)

E

FILE NAME : X:\1505900\221356.01\TECH\CAD\XXXXXXX\SHEETS PLAN\010101_TI.DWG PLOT DATE : 7/28/2022 9:00 AM PLOT BY : RUTH STEENO PLOT NAME :

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

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

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

THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE MANHOLE COVERS, WATER VALVES AND OTHER UTILITIES IN THE EXISTING PAVEMENT DURING PULVERIZING AND RELAYING. NECESSARY WORK TO PROTECT UTILITIES DURING PULVERIZING AND RELAYING IS INCIDENTAL TO THE PULVERIZING AND RELAYING ITEM.

THE PROJECT ENGINEER SHALL VERIFY THE LIMITS OF CURB AND GUTTER REMOVAL AND REPLACEMENT.

RADIUS DIMENSIONS OF THE CURB AND GUTTER ARE TO THE FLANGE OF THE GUTTER UNLESS OTHERWISE NOTED.

STANDARD ABBREVIATIONS

AADT	ANNUAL AVERAGE DAILY TRAFFIC
ADT	AVERAGE DAILY TRAFFIC
AGG	AGGREGATE
ASPH	ASPHALTIC
BM	BENCH MARK
BOC	BACK OF CURB
C&G	CURB AND GUTTER
CE	COMMERCIAL ENTRANCE
CL	CENTERLINE
COR	CORNER
CWT	HUNDREDWEIGHT
CY	CUBIC YARD
DHV	DESIGN HOURLY VOLUME
DWY	DRIVEWAY
EL	ELEVATION
EX	EXISTING
EXC	EXCAVATION
FT	FOOT
FTG	FOOTING
HYD	HYDRANT
INV	INVERT
LB	POUND
LF	LINEAR FOOT
LHF	LEFT-HAND FORWARD
LS	LUMP SUM
LT	LEFT
Mgal	MEGAGALLON
M/L	MAINLINE
NO	NUMBER
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PP	POWER POLE
QTY	QUANTITY
RHF	RIGHT-HAND FORWARD
RT	RIGHT
R/L	REFERENCE LINE
R/W	RIGHT-OF-WAY
SF	SQUARE FOOT
SHLDR	SHOULDER
SS	STORM SEWER
STA	STATION
SY	SQUARE YARD
T	TRUCKS (PERCENT OF)
TEL	TELEPHONE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
UG	UNDERGROUND CABLE
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY

UTILITIES

COMMUNICATIONS

AT&T
JOE KASSAB
205 SOUTH JEFFERSON STREET
GREEN BAY, WI 54301
PHONE: (920) 735-3206
EMAIL: jk572k@att.com

COMMUNICATIONS

CHARTER COMMUNICATIONS
VINCE ALBIN
3520 E. DESTINATION DRIVE
APPLETON, WI. 54915
PHONE: (920) 831-9249
EMAIL: Vince.albin@charter.com

COMUNICATIONS

LUMEN
STEVE BISHOP
2425 MARY STREET
MARINETTE, WI 54143
PHONE: (920) 219-0112
EMAIL: Steven.bishop@lumen.com
EMAIL: relocations@lumen.com

ELECTRIC

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRIC
SCOTT GAUGER
2850 S. ASHLAND AVENUE
GREEN BAY, WI 54307-9001
PHONE: (920) 617-5151
EMAIL: sjgauger@wisconsininpublicservice.com

GAS

WISCONSIN PUBLIC SERVICE CORPORATION - GAS
DAVE RETZLAFF
2850 S. ASHLAND AVENUE
GREEN BAY, WI 54307-9001
PHONE: (920) 617-5237
EMAIL: dpretzlaff@wisconsininpublicservice.com

SEWER & WATER

CITY OF OCONTO
1210 MAIN STREET
OCONTO, WI 54153
ATTN: JEREMY WUSTERBARTH
PHONE: (920)834-7725
EMAIL: jeremy@cityofoconto.com

ORDER OF SECTION 2 SHEETS

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 1.82 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.06 ACRES

DESIGN CONSULTANT

Mead & Hunt
Mead and Hunt, Inc.
1702 LAWRENCE DRIVE
DE PERE, WI. 54115
ATTN: SCOTT BROSTEAU, P.E.
PHONE: (920)593-6860
EMAIL: Scott.brosteau@meadhunt.com

WISCONSIN DNR

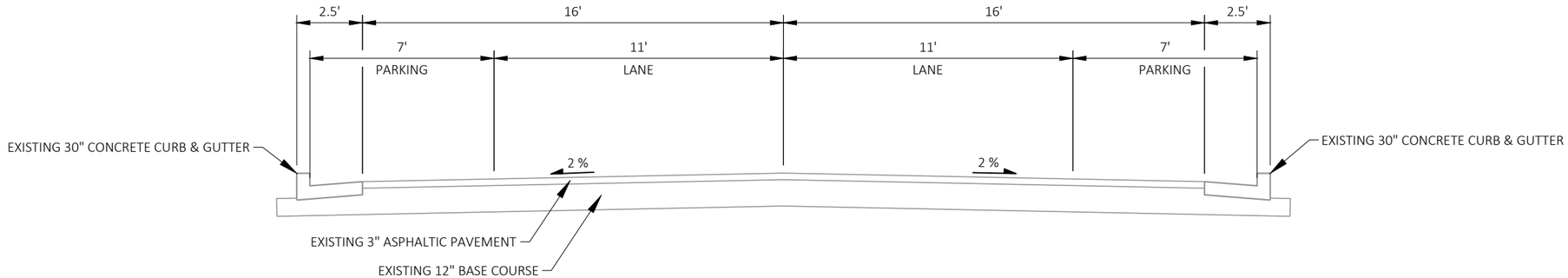
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
JAMES P. DOPERALSKI JR.
ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920) 412-0165
EMAIL: JAMES.DOPERALSKI@WISCONSIN.GOV

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

2

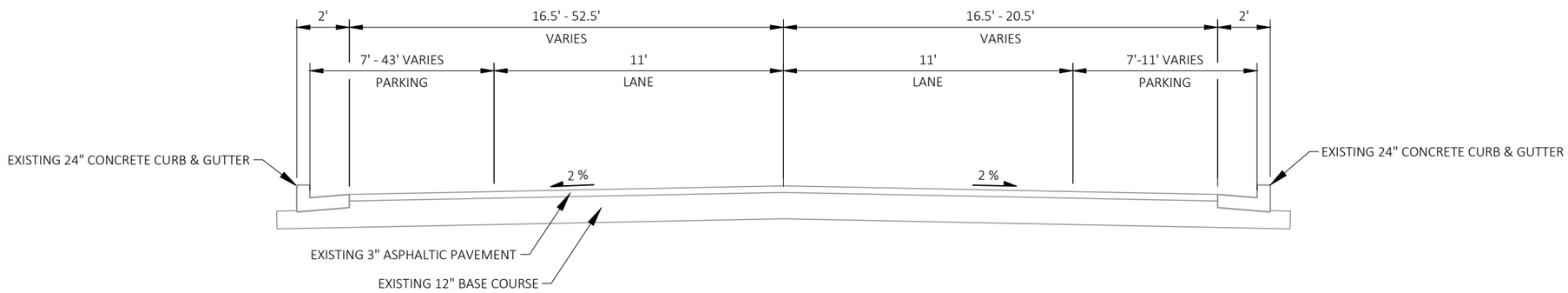
PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	PROJECT OVERVIEW	SHEET 3	E

2



EXISTING TYPICAL SECTION

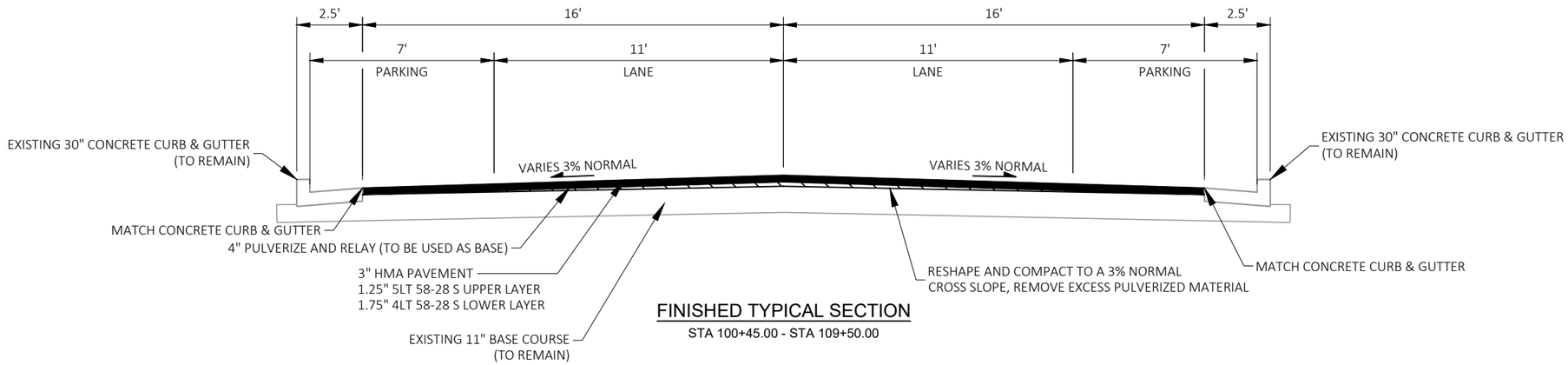
STA 100+45.00 - STA 109+50.00



EXISTING TYPICAL SECTION

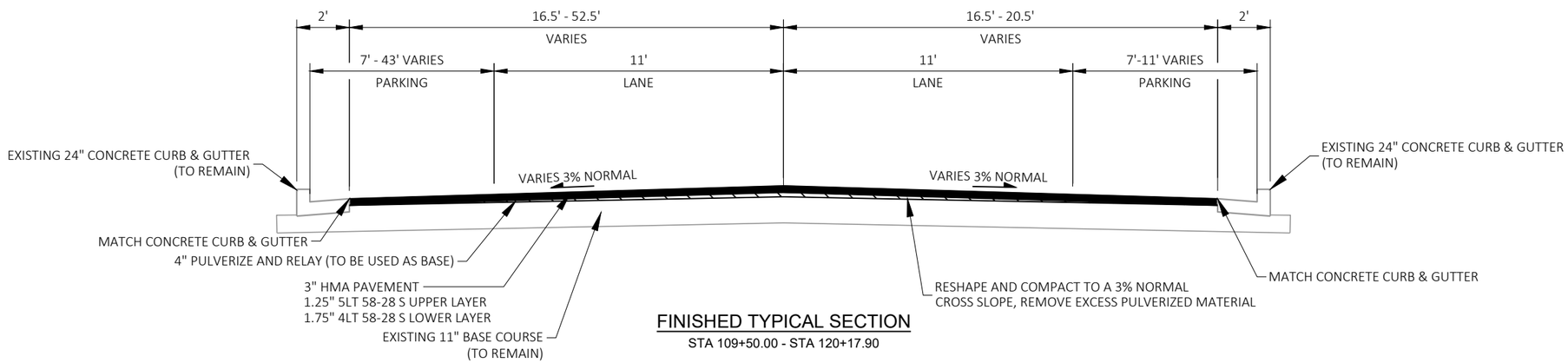
STA 109+50.00 - STA 120+17.90

2



FINISHED TYPICAL SECTION

STA 100+45.00 - STA 109+50.00



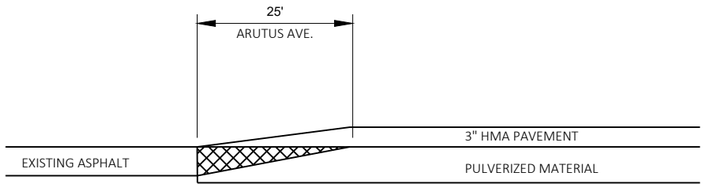
FINISHED TYPICAL SECTION

STA 109+50.00 - STA 120+17.90

PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	FINISHED TYPICAL SECTIONS	SHEET 5	E

FILE NAME : X:\1505900\221356.01\TECH\CAD\XXXXXXXX\SHEETS PLAN\020301_TS.DWG
LAYOUT NAME - 020302_ts

PLOT DATE : 9/22/2022 7:27 AM PLOT BY : RYAN FRANZINI PLOT NAME : PLOT SCALE : 1 IN:5 FT

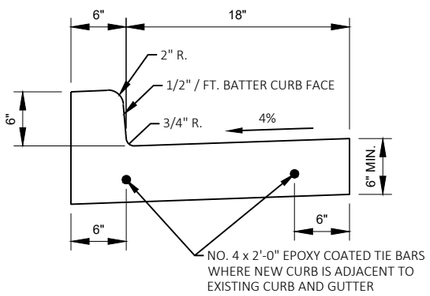


REMOVE MATERIAL UNDER ITEM 'REMOVING EXCESS PULVERIZED MATERIAL'

REQUIRED AT THE BEGIN AND END OF PROJECT AND AT SIDEROAD TIE-INS

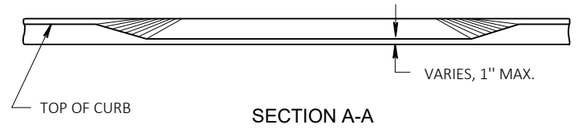
PAVEMENT TRANSITION

NOT TO SCALE



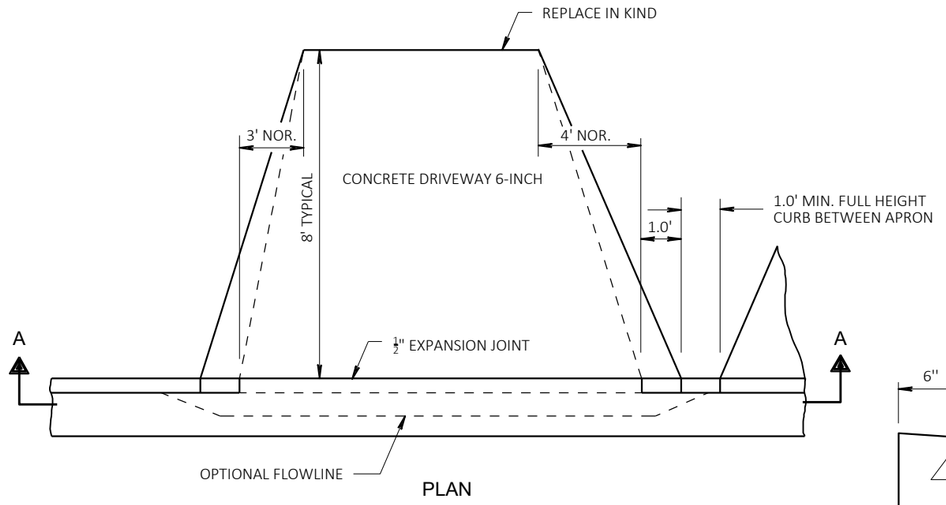
CONCRETE CURB AND GUTTER 24-INCH TYPE D

NOTE: TIE BARS ALSO REQUIRED FOR CURB AND GUTTER 30-INCH TYPE D

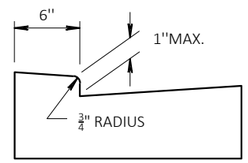


SECTION A-A

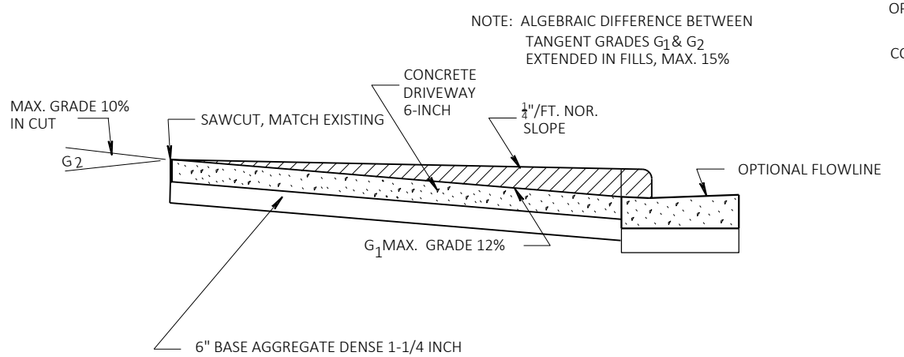
EXISTING WIDTH VARIES



PLAN



OPTIONAL METHOD
FOR
CONCRETE GUTTER

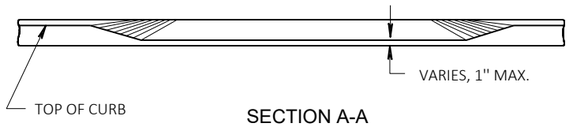


PROFILE

URBAN CONCRETE DRIVEWAY DETAIL

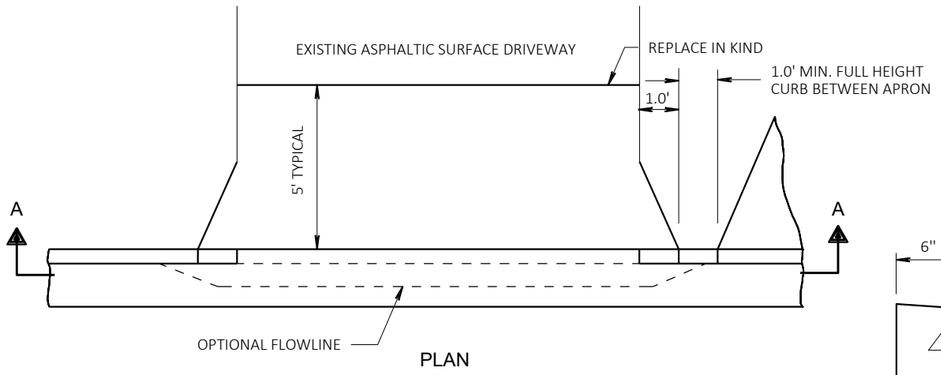
PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	CONSTRUCTION DETAILS	SHEET 6	E

2

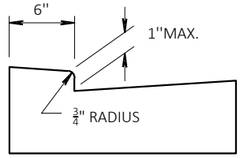


SECTION A-A

EXISTING WIDTH VARIES

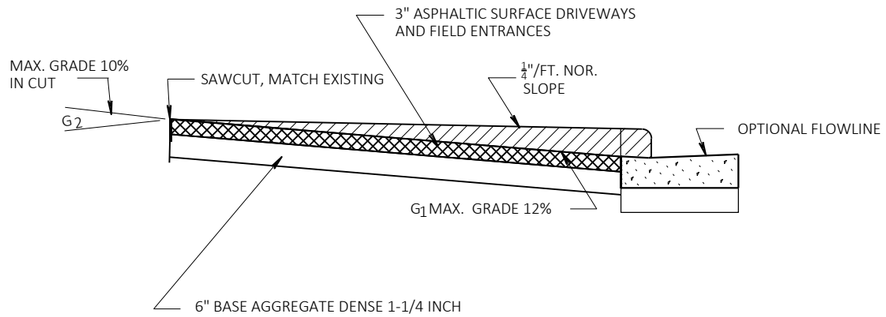


PLAN



OPTIONAL METHOD
FOR
CONCRETE GUTTER

NOTE: ALGEBRAIC DIFFERENCE BETWEEN
TANGENT GRADES G_1 & G_2
EXTENDED IN FILLS, MAX. 15%



PROFILE

URBAN ASPHALTIC SURFACE DRIVEWAY DETAIL

2

2

N

SUPERIOR AVE

SUPERIOR AVE

SUPERIO

WASHINGTON ST

ADAMS ST

JEFFERSON ST

MADISON ST

QUINCY ST

JACKSON ST

MEMORIAL DR

ARBUTUS AVE

ARBUTUS AVE

ARBUTUS AVE

MONROE ST

RK AVE

CTY S

PARK AVE

PARK AVE

CTY S

QUINCY ST

XXXX

MAINTAIN ACCESS TO THE EMERGENCY ROOM AND HELIPAD ENTRANCES AT ALL TIMES. COMPLETE PULVERIZING AND RELAYING, GRADING AND HMA PAVEMENT NORTH OF THE ENTRANCES UTILIZING A FLAGGING OPERATION. COMPLETE CURB AND GUTTER REPLACEMENT AT THE EMERGENCY ROOM ENTRANCE IN TWO HALVES, MAINTAIN A MINIMUM OF A 12' LANE AT ALL TIMES.

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WTH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

WORK AREA

ROAD CLOSED AHEAD W20-3A (3)

ROAD CLOSED 500 FT W20-3D (4)

ROAD CLOSED TO THRU TRAFFIC R11-4 60"X30" (5)

(1) SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES- DETAIL A" AND "BARRICADES AND SIGNS VARIOUS CLOSURES - DETAIL E" FOR ADDITIONAL DETAILS

(2) SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES- DETAIL D" FOR ADDITIONAL DETAILS

PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	TRAFFIC CONTROL	SHEET 8	E

FILE NAME : X:\1505900\221356.01\TECH\CAD\XXXXXXXX\SHEETS PLAN\025101_TC.DWG
LAYOUT NAME - 025101_tc

PLOT DATE : 8/1/2022 8:27 AM PLOT BY : RYAN FRANZINI PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

9006-04-70

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	27.000	27.000
0004	204.0110	Removing Asphaltic Surface	SY	59.000	59.000
0006	204.0150	Removing Curb & Gutter	LF	550.000	550.000
0008	204.0155	Removing Concrete Sidewalk	SY	9.000	9.000
0010	213.0100	Finishing Roadway (project) 01. 9006-04-70	EACH	1.000	1.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	30.000	30.000
0014	325.0100	Pulverize and Relay	SY	8,935.000	8,935.000
0016	416.0160	Concrete Driveway 6-Inch	SY	27.000	27.000
0018	416.0610	Drilled Tie Bars	EACH	92.000	92.000
0020	455.0605	Tack Coat	GAL	629.000	629.000
0022	460.2000	Incentive Density HMA Pavement	DOL	880.000	880.000
0024	460.5224	HMA Pavement 4 LT 58-28 S	TON	880.000	880.000
0026	460.5245	HMA Pavement 5 LT 58-34 S	TON	629.000	629.000
0028	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	10.000
0030	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	375.000	375.000
0032	602.0405	Concrete Sidewalk 4-Inch	SF	75.000	75.000
0034	611.8110	Adjusting Manhole Covers	EACH	7.000	7.000
0036	611.8115	Adjusting Inlet Covers	EACH	6.000	6.000
0038	619.1000	Mobilization	EACH	1.000	1.000
0040	624.0100	Water	MGAL	45.000	45.000
0042	625.0500	Salvaged Topsoil	SY	250.000	250.000
0044	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0046	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0048	628.2006	Erosion Mat Urban Class I Type A	SY	250.000	250.000
0050	628.7015	Inlet Protection Type C	EACH	15.000	15.000
0052	629.0210	Fertilizer Type B	CWT	0.200	0.200
0054	630.0140	Seeding Mixture No. 40	LB	5.000	5.000
0056	630.0500	Seed Water	MGAL	4.000	4.000
0058	642.5001	Field Office Type B	EACH	1.000	1.000
0060	643.0420	Traffic Control Barricades Type III	DAY	990.000	990.000
0062	643.0705	Traffic Control Warning Lights Type A	DAY	1,980.000	1,980.000
0064	643.0900	Traffic Control Signs	DAY	750.000	750.000
0066	643.5000	Traffic Control	EACH	1.000	1.000
0068	650.8000	Construction Staking Resurfacing Reference	LF	1,973.000	1,973.000
0070	650.9500	Construction Staking Sidewalk (project) 01. 9006-04-70	EACH	1.000	1.000
0072	650.9911	Construction Staking Supplemental Control (project) 01. 9006-04-70	EACH	1.000	1.000
0074	690.0150	Sawing Asphalt	LF	300.000	300.000
0076	690.0250	Sawing Concrete	LF	105.000	105.000
0078	740.0440	Incentive IRI Ride	DOL	1,500.000	1,500.000
0080	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	600.000	600.000
0082	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0084	SPV.0090	Special 01. Concrete Curb & Gutter 24-Inch Type D	LF	175.000	175.000
0086	SPV.0180	Special 01. Removing Excess Pulverized Material	SY	8,935.000	8,935.000

3

REMOVING CONCRETE PAVEMENT

STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY
118+81	ARBUTUS AVE, RT / DWY	27
	TOTAL	**27**

REMOVING CONCRETE SIDEWALK

STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY
102+80	ARBUTUS AVE, LT	9
	TOTAL	**9**

PULVERIZE AND RELAY

STATION	TO	STATION	LOCATION	325.0100 PULVERIZE & RELAY SY	624.0100 WATER MGAL
100+45	-	120+18	ARBUTUS AVE	8,935	45
			TOTAL	**8,935**	**45**

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY
103+38	ARBUTUS AVE, RT / MONROE ST	47
106+01	ARBUTUS AVE, LT / DWY	9
118+81	ARBUTUS AVE, RT / DWY	3
	TOTAL	**59**

BASE AGGREGATE DENSE

STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON
103+38	ARBUTUS AVE, RT / MONROE ST.	16
106+01	ARBUTUSE AVE, LT / DWY	5
118+81	ARBUTUS AVE, RT / DWY	9
	TOTAL	**30**

CONCRETE DRIVEWAY

STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY
118+81	ARBUTUS AVE, RT / DWY	27
	TOTAL	**27**

REMOVING CURB & GUTTER

STATION	TO	STATION	LOCATION	204.0150 REMOVING CURB & GUTTER LF
101+28	-	101+58	ARBUTUS AVE, RT	30
101+58	-	101+79	ARBUTUS AVE, LT	21
101+95	-	102+14	ARBUTUS AVE, LT	19
102+01	-	102+24	ARBUTUS AVE, RT	23
102+69	-	102+92	ARBUTUS AVE, LT	23
103+06	-	103+67	ARBUTUS AVE, RT	61
103+63	-	103+73	ARBUTUS AVE, LT	10
105+84	-	106+21	ARBUTUS AVE, LT	37
107+69	-	108+09	ARBUTUS AVE, LT	40
107+89	-	107+99	ARBUTUS AVE, RT	10
108+80	-	109+13	ARBUTUS AVE, RT	33
108+93	-	109+43	ARBUTUS AVE, LT	50
110+30	-	110+44	ARBUTUS AVE, LT	14
110+30	-	110+44	ARBUTUS AVE, RT	14
114+96	-	115+11	ARBUTUS AVE, LT	15
116+83	-	117+15	ARBUTUS AVE, RT	32
117+81	-	117+96	ARBUTUS AVE, RT	15
117+92	-	118+06	ARBUTUS AVE, LT	14
118+14	-	118+24	ARBUTUS AVE, RT	10
118+63	-	118+97	ARBUTUS AVE, RT	34
120+06	-	120+21	ARBUTUS AVE, RT	15
UNDISTRIBUTED			ARBUTUS AVE	30
			TOTAL	**550**

HMA PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28S TON	460.5245 HMA PAVEMENT 5 LT 58-34S TON	REMARKS
10	100+45	-	120+18	ARBUTUS AVE	567	794	567	
20	116+77	-	119+39	ARBUTUS AVE, LT	62	86	62	PARKING AREA
				TOTALS	**629**	**880**	**629**	

TACK COAT ESTIMATED AT 0.07 GAL/SY

NOTE: ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRNACES TON
103+38	ARBUTUS AVE, RT / MONROE ST	8
106+01	ARBUTUS AVE, LT	2
	TOTAL	**10**

CONCRETE SIDEWALK

STATION	LOCATION	602.0405 CONCRETE SIDEWALK 4-INCH SF
102+80	ARBUTUS AVE, LT	75
	TOTAL	**75**

ADJUSTING MANHOLE COVERS

CATEGORY	STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH
0010	106+50	ARBUTUS AVE, RT	1
0010	109+78	ARBUTUS AVE, LT	1
0010	117+74	ARBUTUS AVE, LT	1
0010	119+62	ARBUTUS AVE, LT	1
0020	109+92	ARBUTUS AVE, RT	1
0020	114+75	ARBUTUS AVE, LT	1
0020	119+86	ARBUTUS AVE, LT	1
		TOTAL 0010	**4**
		TOTAL 0010	**3**
		PROJECT TOTAL	**7**

ADJUSTING INLET COVERS

STATION	LOCATION	611.8115 ADJUSTING INLET COVERS EACH
102+00	ARBUTUS AVE, LT	1
110+30	ARBUTUS AVE, LT & RT	2
115+00	ARBUTUS AVE, LT	1
117+89	ARBUTUS AVE, RT	1
120+15	ARBUTUS AVE, RT	1
	TOTAL	**6**

3

CONCRETE CURB AND GUTTER

CATEGORY	STATION	TO	STATION	LOCATION	601.0411 30-INCH TYPE D LF	SPV.0090.01 24-INCH TYPE D LF	416.0610 DRILLED TIE BARS EACH
0010	101+28	-	101+58	ARBUTUS AVE, RT	30	-	4
0010	101+58	-	101+79	ARBUTUS AVE, LT	21	-	4
0010	101+95	-	102+14	ARBUTUS AVE, LT	19	-	4
0010	102+01	-	102+24	ARBUTUS AVE, RT	23	-	4
0010	102+69	-	102+92	ARBUTUS AVE, LT	23	-	4
0010	103+06	-	103+67	ARBUTUS AVE, RT	61	-	4
0010	103+63	-	103+73	ARBUTUS AVE, LT	10	-	4
0010	105+81	-	106+21	ARBUTUS AVE, LT	37	-	4
0010	107+69	-	108+09	ARBUTUS AVE, LT	40	-	4
0010	107+89	-	107+99	ARBUTUS AVE, RT	10	-	4
0010	108+80	-	109+13	ARBUTUS AVE, RT	33	-	4
0010	108+93	-	109+43	ARBUTUS AVE, LT	50	-	4
0010	110+30	-	110+44	ARBUTUS AVE, LT	-	14	4
0010	110+30	-	110+44	ARBUTUS AVE, RT	-	14	4
0010	114+96	-	115+11	ARBUTUS AVE, LT	-	15	4
0010	116+83	-	117+15	ARBUTUS AVE, RT	-	32	4
0010	117+81	-	117+96	ARBUTUS AVE, RT	-	15	4
0020	117+92	-	118+06	ARBUTUS AVE, LT	-	14	4
0010	118+14	-	118+24	ARBUTUS AVE, RT	-	10	4
0010	118+63	-	118+97	ARBUTUS AVE, RT	-	34	4
0010	120+06	-	120+21	ARBUTUS AVE, RT	-	15	4
0010	UNDISTRIBUTED			ARBUTUS AVE	18	12	8
				TOTAL 0010	**375**	**161**	**88**
				TOTAL 0020	**-**	**14**	**4**
				PROJECT TOTAL	**375**	**175**	**92**

LANDSCAPING SUMMARY

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2006 EROSION MAT URBAN CLASS I TYPE A EACH	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0500 SEED WATER MGAL
101+28	-	120+21	ARBUTUS AVE - BEHIND C&G	250	250	0.2	5	4
			TOTALS	**250**	**250**	**0.2**	**5**	**4**

EROSION CONTROL SUMMARY

STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7015 INLET PROTECTION TYPE C LF
100+45	-	120+18	ARBUTUS AVE	3	1	-
	100+30		ARBUTUS AVE LT & RT	-	-	2
	102+00		ARBUTUS AVE LT	-	-	1
	106+35		ARBUTUS AVE LT & RT	-	-	2
	106+75		ARBUTUS AVE LT & RT	-	-	2
	109+52		ARBUTUS AVE RT	-	-	1
	110+30		ARBUTUS AVE LT & RT	-	-	2
	114+85		ARBUTUS AVE RT	-	-	1
	115+00		ARBUTUS AVE LT	-	-	1
	117+85		ARBUTUS AVE LT & RT	-	-	2
	120+15		ARBUTUS AVE RT	-	-	1
			TOTALS	**3**	**1**	**15**

NOTE: ALL ITEMS CATEGORY 0010 UNLESS OTHERWISE NOTED

3

TRAFFIC CONTROL ITEMS

PROJECT	TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.5000 TRAFFIC CONTROL EACH
9006-04-70	33	990	66	1,980	25	750	1
TOTALS		**990**		**1,980**		**750**	**1**

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) EACH	650.9500 CONSTRUCTION STAKING SIDEWALK (PROJECT) EACH
100+45	-	120+18	ARBUTUS AVE	1,973	-	-
	PROJECT		ARBUTUS AVE	-	1	1
			TOTALS	**1,973**	**1**	**1**

REMOVING EXCESS PULVERIZED MATERIAL

STATION	TO	STATION	LOCATION	SPV.0180.01 REMOVING EXCESS PULVERIZED MATERIAL SY
100+45	-	120+17.9	ARBUTUS AVE	8,935
			TOTAL	**8,935**

SAWING

STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
101+50	ARBUTUS AVE RT	-	5
101+65	ARBUTUS AVE LT	-	5
102+00	ARBUTUS AVE LT	-	5
102+05	ARBUTUS AVE RT	-	5
102+80	ARBUTUS AVE LT	-	5
103+50	ARBUTUS AVE RT	-	5
103+75	ARBUTUS AVE LT	-	5
106+30	ARBUTUS AVE LT	-	5
107+80	ARBUTUS AVE LT	-	5
107+95	ARBUTUS AVE RT	-	5
108+95	ARBUTUS AVE RT	-	5
109+25	ARBUTUS AVE LT	-	5
110+30	ARBUTUS AVE LT	-	4
110+30	ARBUTUS AVE RT	-	4
115+00	ARBUTUS AVE LT	-	4
117+00	ARBUTUS AVE RT	-	4
117+55	ARBUTUS AVE RT	-	4
118+00	ARBUTUS AVE LT	-	4
118+25	ARBUTUS AVE RT	-	4
118+90	ARBUTUS AVE RT	-	4
120+15	ARBUTUS AVE RT	-	4
100+45	ARBUTUS AVE	32	-
103+38	MONROE ST.	18	
106+60	QUINCY ST	34	-
106+60	QUINCY ST	33	-
109+90	JACKSON ST	32	-
109+90	JACKSON ST	32	-
119+88	MEMORIAL DR	60	-
116+01	ARBUTUS AVE LT	15	
118+81	ARBUTUS AVE RT	24	
	UNDISTRIBUTED	20	9
	TOTAL	**300**	**105**

NOTE: ALL ITEMS CATEGORY 0010
UNLESS OTHERWISE NOTED

LEGEND

INLET PROTECTION TYPE C

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 102+80 LT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 102+00 LT

REMOVING CONCRETE SIDEWALK CONCRETE SIDEWALK 4-INCH STA 102+80 LT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 103+75 LT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 101+65 LT

STA 101+59.33, -36.00' LT

STA 102+08.16, -36.00' LT

MADISON ST.

BP: 100+00.00

MATCH EXISTING SAWCUT REQ'D

16.0'

R20'

R20'

ADJUSTING INLET COVERS

101+00

102+00

103+00

N0°57'16"W

104+00

105

ARBUTUS AVE

MATCHLINE STA 105+00

BEGIN PROJECT
STA 100+45.00

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 101+50 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 102+05 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 103+50 RT

MONROE ST.

REMOVING ASPHALTIC SURFACE
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
MATCH EXISTING
SAWCUT REQ'D

N

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 110+30 LT

QUINCY ST.

STA 106+60, 41' LT
MATCH EXISTING
SAWCUT REQ'D

REMOVING ASPHALTIC SURFACE
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
MATCH EXISTING
SAWCUT REQ'D
STA 106+01, LT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 107+80 LT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 109+25 LT

JACKSON ST.

STA 109+91, 42' LT
MATCH EXISTING
SAWCUT REQ'D

ADJUSTING INLET COVERS

MATCHLINE STA 105+00

+00

N0°57'16"W

106+00

107+00

N0°50'13"W

108+00

16.0'

ARBUTUS AVE

109+00

ADJUSTING MANHOLE COVERS

110+00

N0°37'39"W

111

MATCHLINE STA 111+00

16.5'

PI: 106+59.56

PI: 109+89.64

ADJUSTING MANHOLE COVERS

ADJUSTING INLET COVERS

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 106+03 LT

ADJUSTING MANHOLE COVERS

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 107+95 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 30-INCH TYPE D STA 108+95 RT

STA 106+60, 41' RT
MATCH EXISTING
SAWCUT REQ'D

STA 109+90, 42' RT
MATCH EXISTING
SAWCUT REQ'D

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 110+30 RT

PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	PLAN	SHEET 13	E

FILE NAME : X:\1505900\221356.01\TECH\CAD\XXXXXXXX\SHEETS PLAN\050201_PN.DWG
LAYOUT NAME - 050201_pn

PLOT DATE : 8/1/2022 8:29 AM PLOT BY : RYAN FRANZINI PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

LEGEND

INLET PROTECTION TYPE C

N

MATCHLINE STA 111+00

MATCHLINE STA 116+00

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 115+00 LT

ADJUSTING INLET COVERS

ADJUSTING MANHOLE COVERS

ARBUTUS AVE

112+00

113+00

114+00

115+00

16.5'

16.5'

16.5'

20.5'

N0°37'39"W

SS

SAN

W

5

5

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 118+00 LT

STA 119+88, 33' LT MATCH EXISTING SAWCUT REQ'D

MEMORIAL DR

END PROJECT STA 120+17.90

ADJUSTING MANHOLE COVERS

ADJUSTING MANHOLE COVERS

ADJUSTING MANHOLE COVERS

MATCHLINE STA 116+00

117+00

ARBUTUS AVE

118+00

N0° 119+00 '

120+00

STA 119+97.83, 0.50' RT

EP: 120+48.47

52.5'

16.5'

20.5'

20.5'

R20'

ADJUSTING INLET COVERS

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 117+00 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 117+89 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 118+25 RT

REMOVING CONCRETE PAVEMENT CONCRETE DRIVEWAY 6-INCH MATCH EXISTING SAWCUT REQ'D STA 118+81, RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 118+90 RT

REMOVING CURB & GUTTER, REPLACE W/ CONCRETE CURB & GUTTER 24-INCH TYPE D STA 120+15 RT

PROJECT NO: 9006-04-70	HWY: ARBUTUS AVE	COUNTY: OCONTO	PLAN	SHEET 14	E

FILE NAME : X:\1505900\221356.01\TECH\CAD\XXXXXXXX\SHEETS PLAN\050201_PN.DWG
LAYOUT NAME - 050202_pn

PLOT DATE : 8/1/2022 8:30 AM PLOT BY : RYAN FRANZINI PLOT NAME : PLOT SCALE : ##########

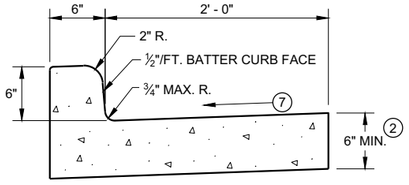
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

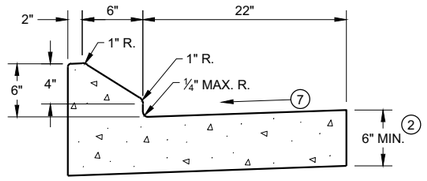
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13C19-03	HMA LONGITUDINAL JOINTS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

6

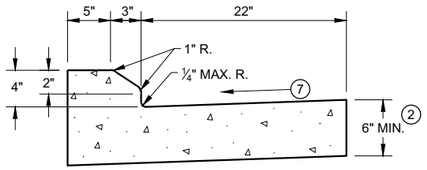
6



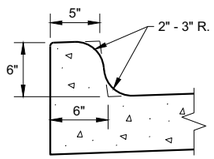
TYPES A (1) & D



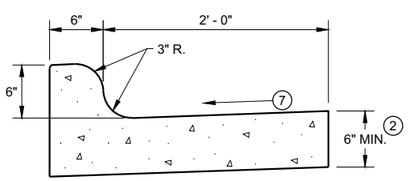
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

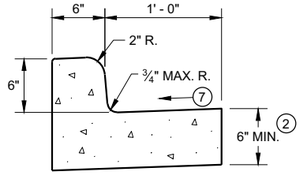


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



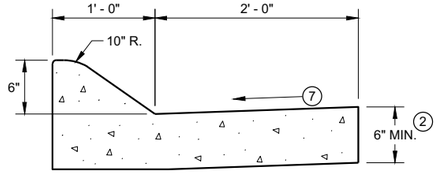
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

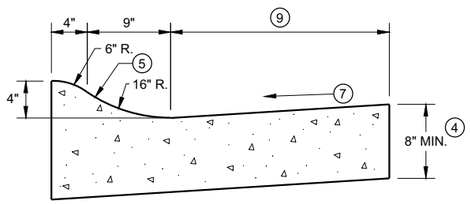
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

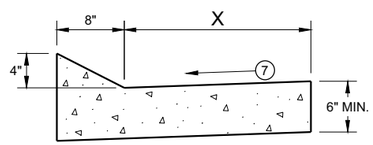
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

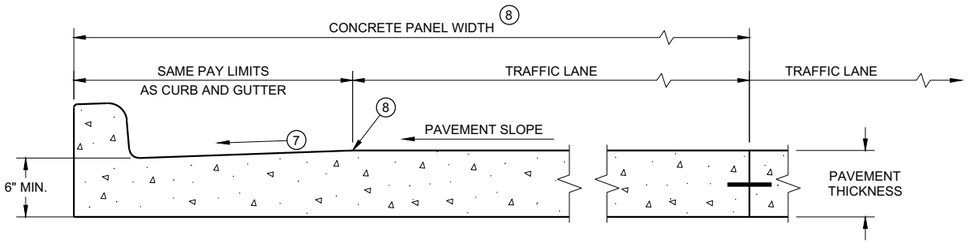


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

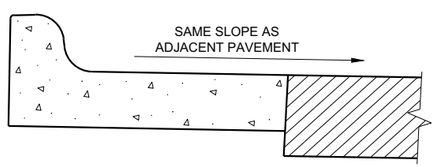
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

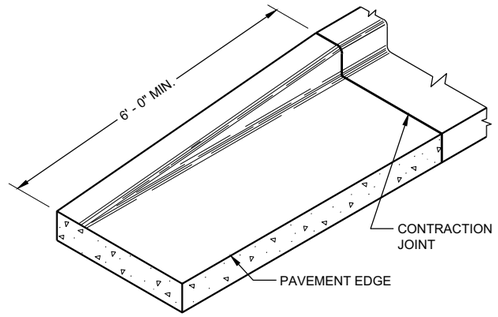
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

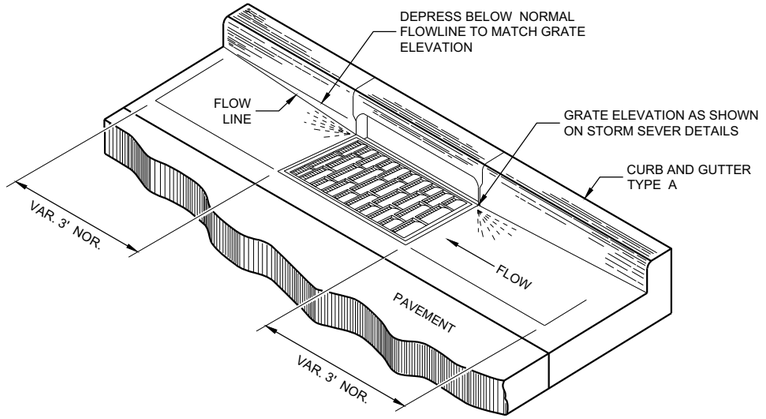
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB 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.

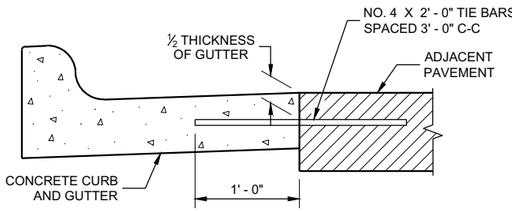
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

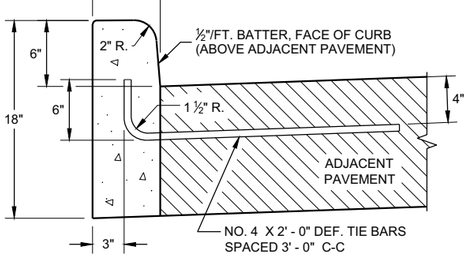
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

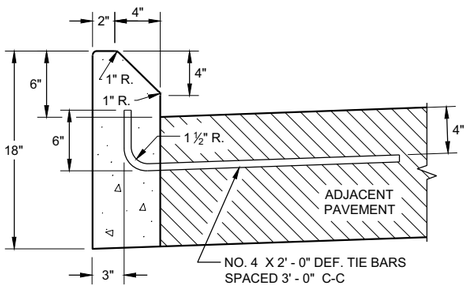
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

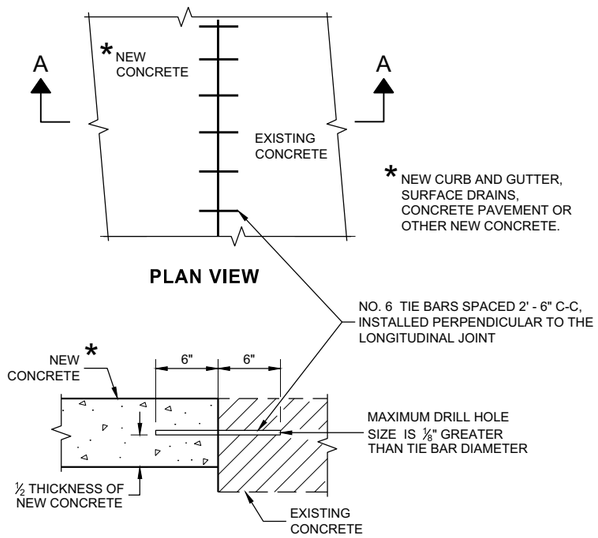


TYPES A (1) & D

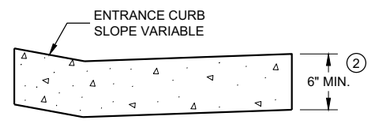


TYPES G (1) & J

CONCRETE CURB



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 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

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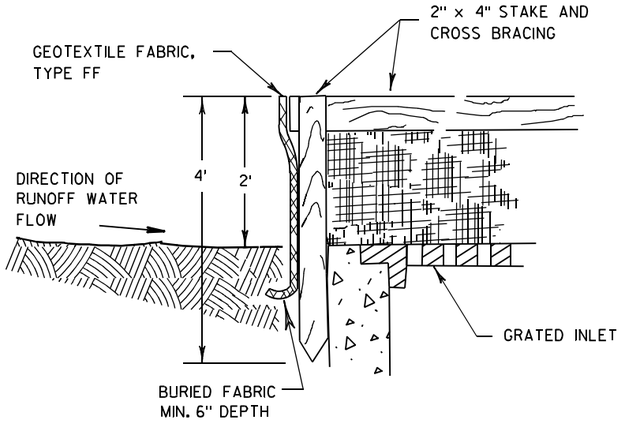
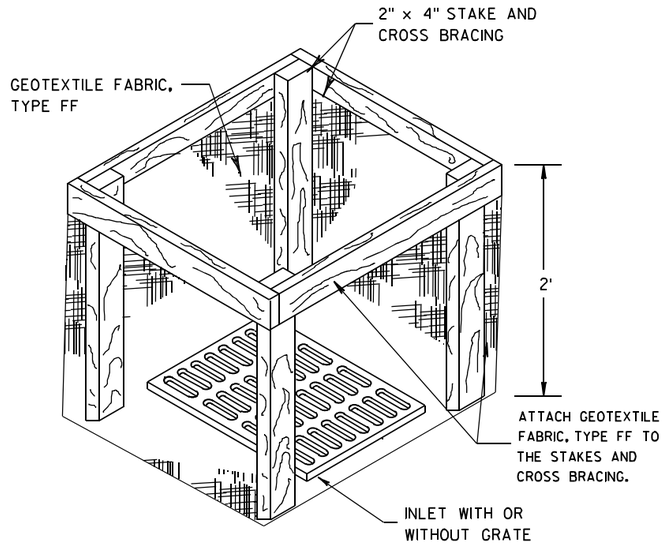
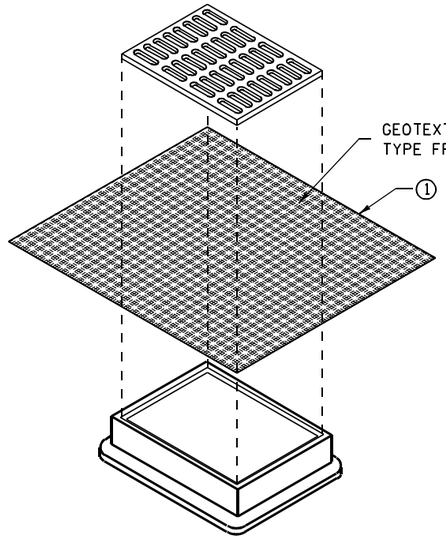
SDD08D01 - 22b



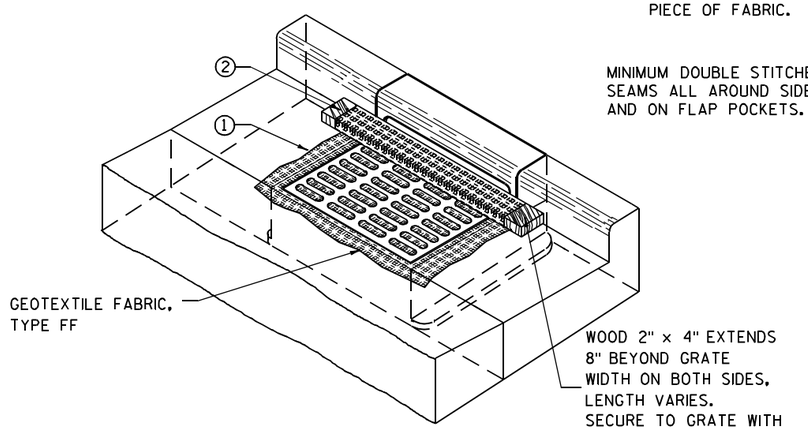


INLET PROTECTION, TYPE A

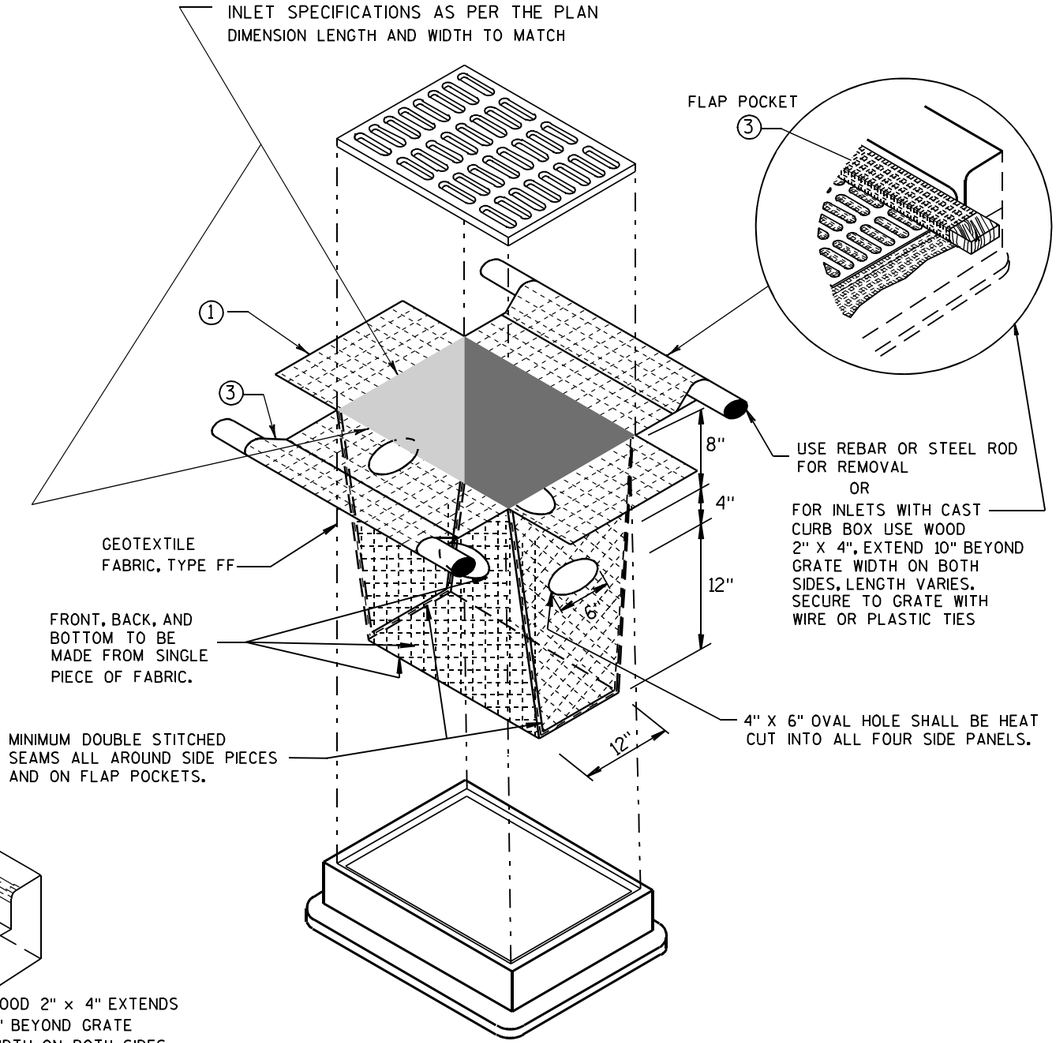


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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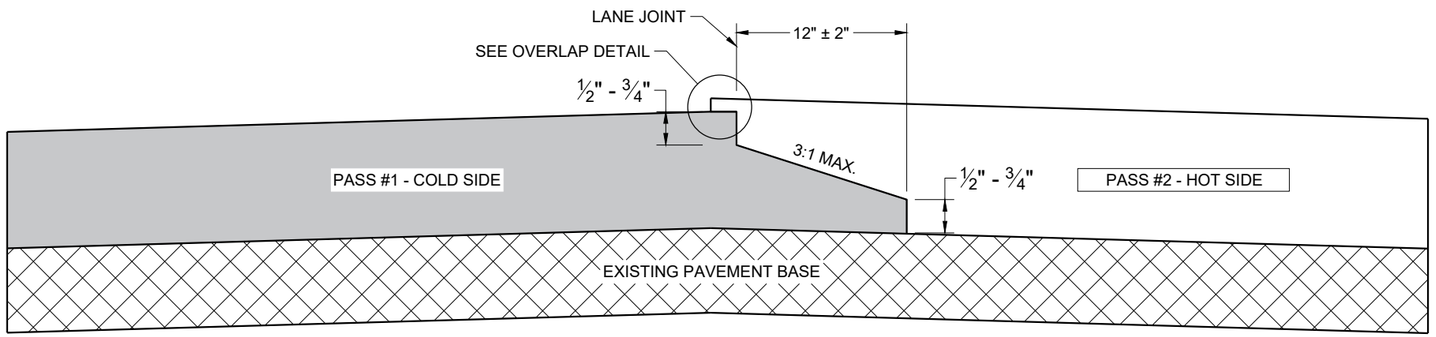
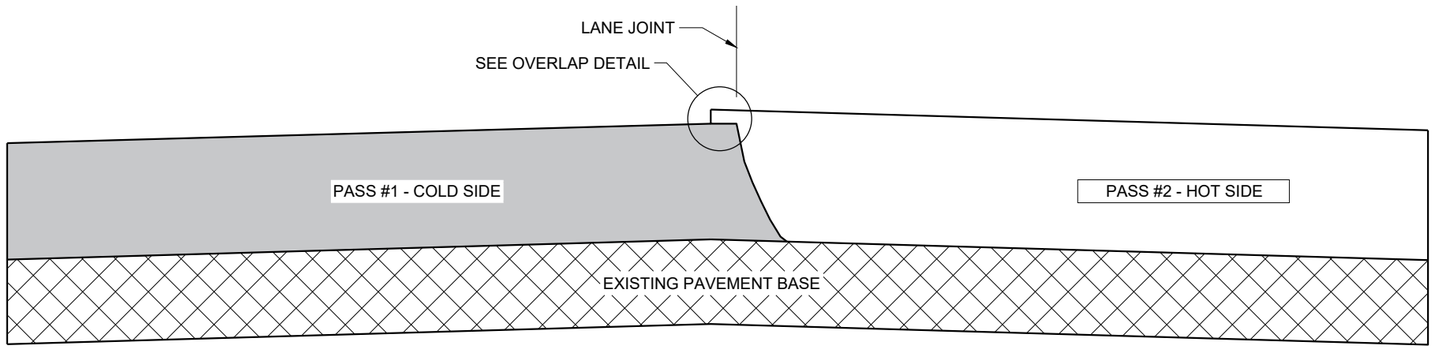
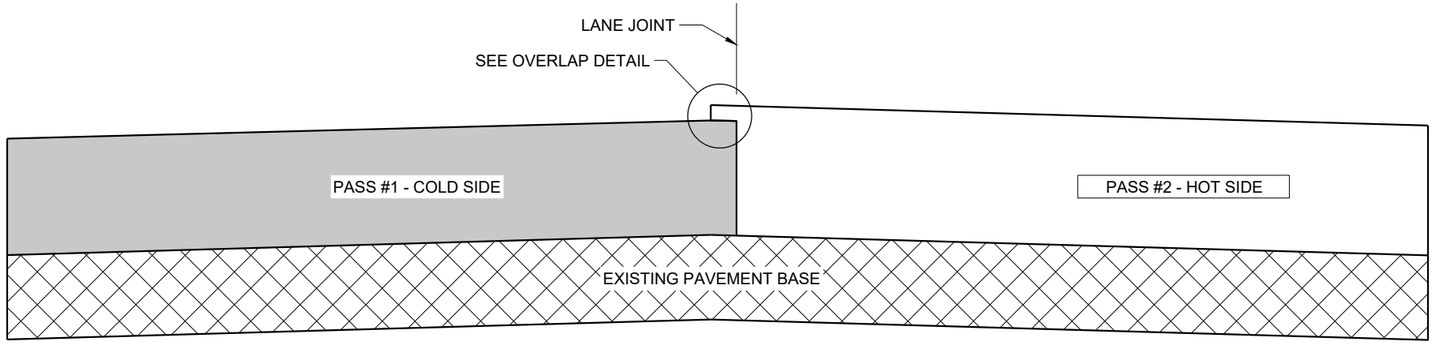
S.D.D. 8 E 10-2



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

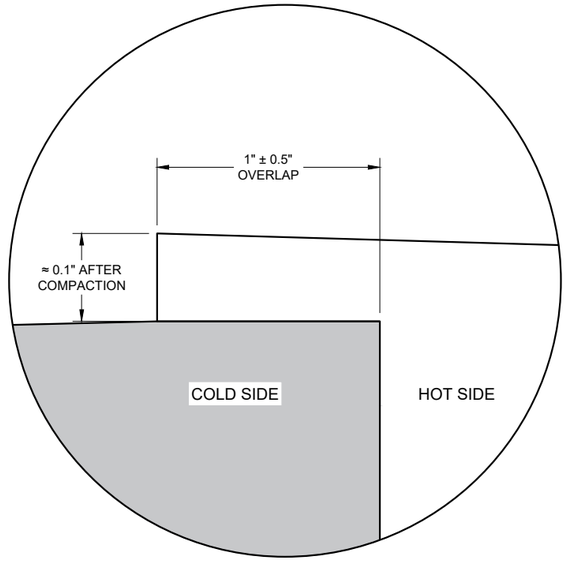
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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SDD 13C19 - 03

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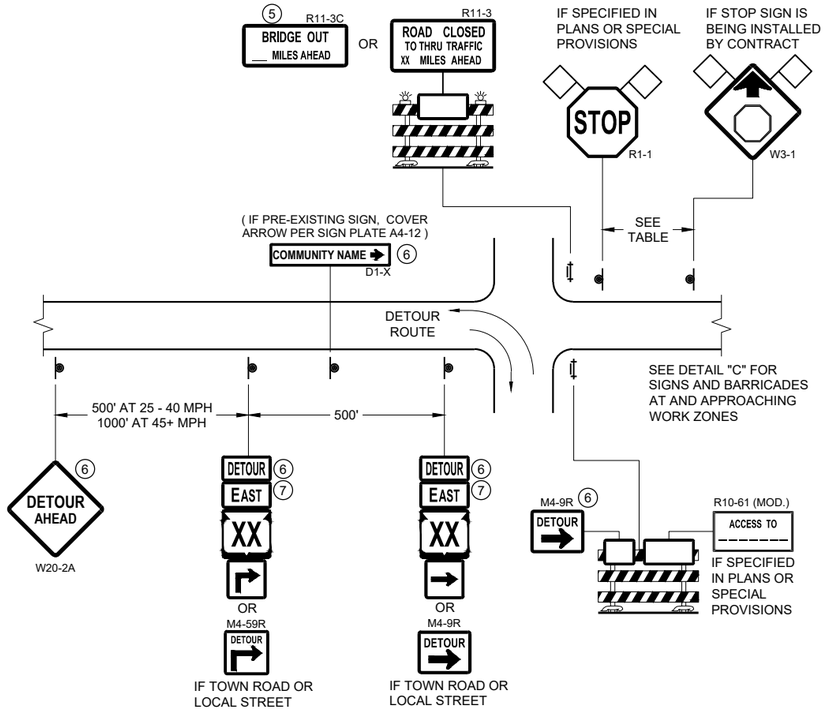
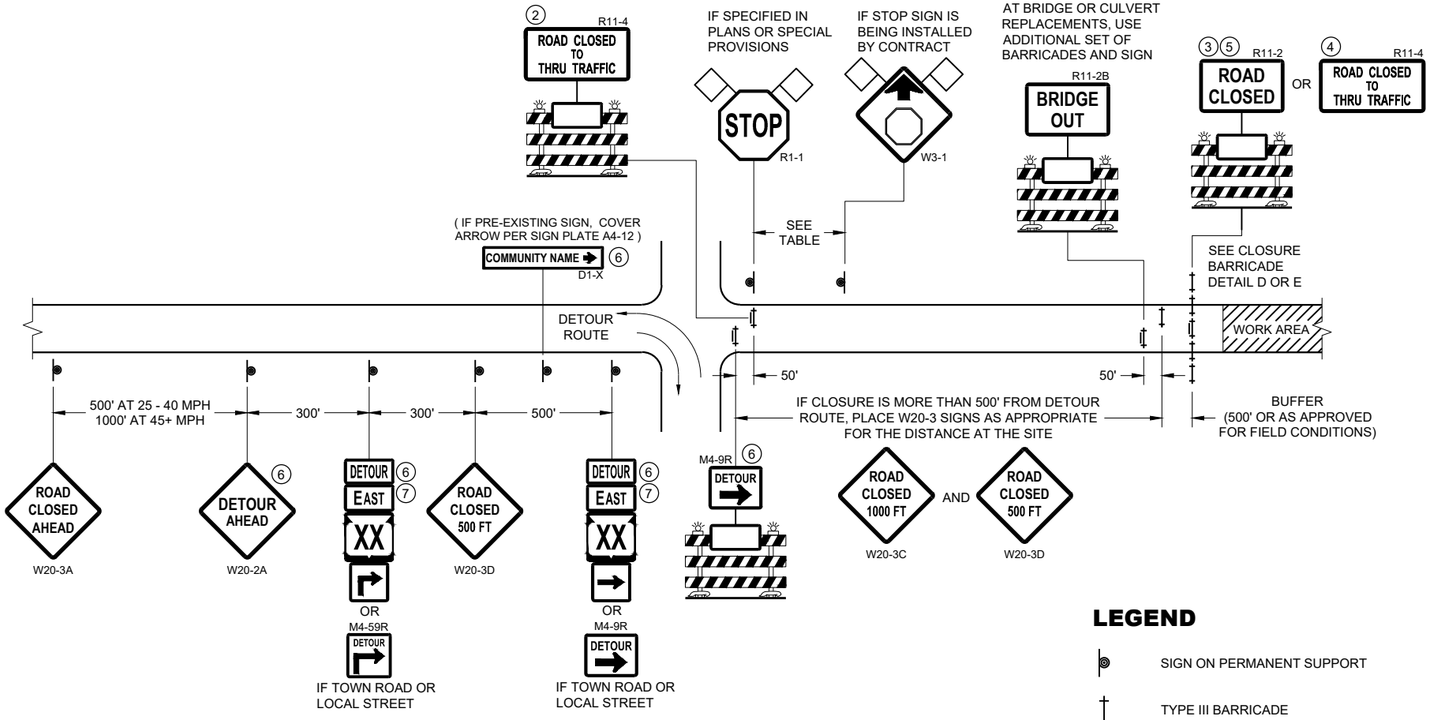
SDD 13C19 - 03



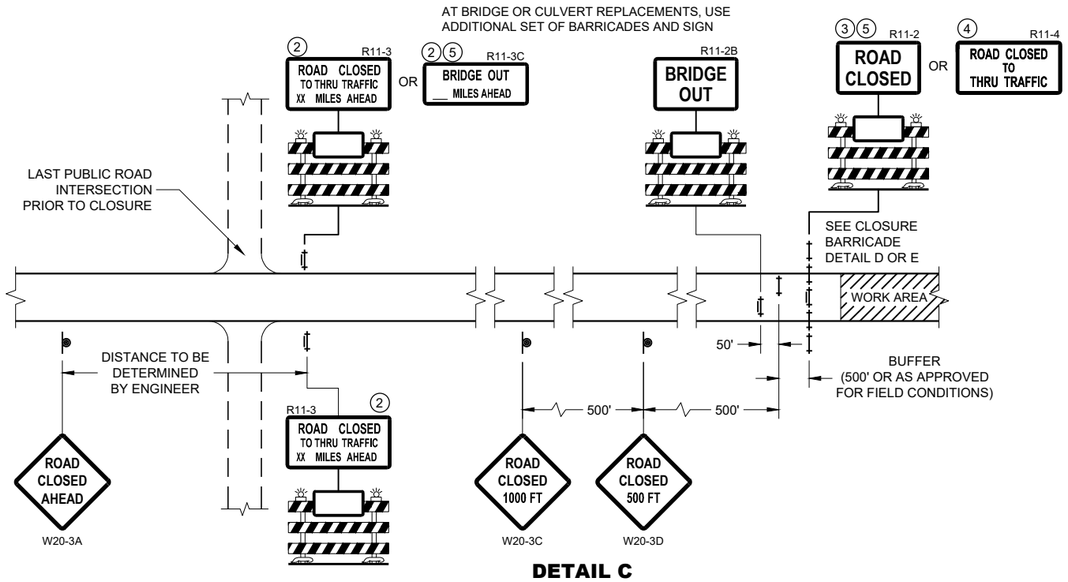
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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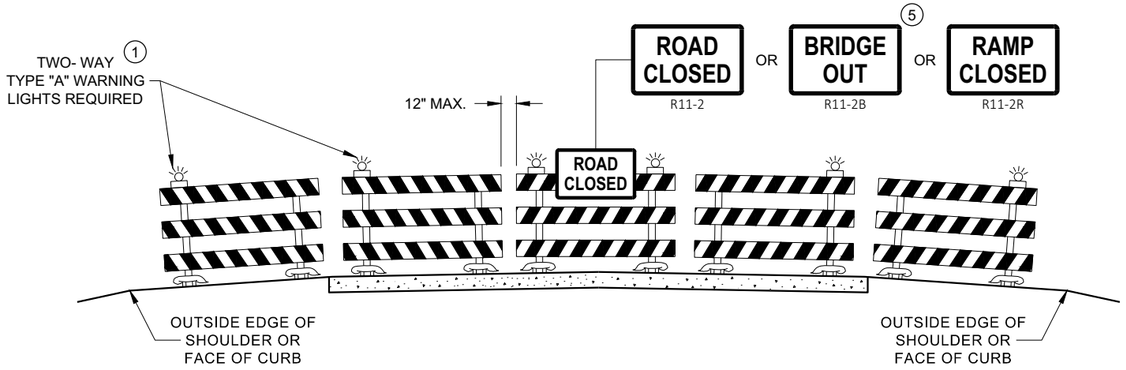
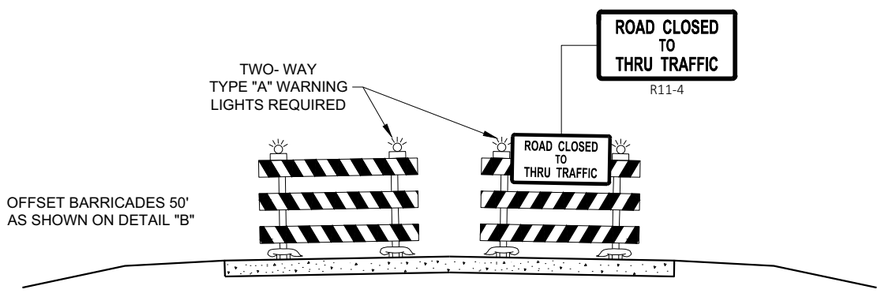
SDD 15C02 - 08a

SDD 15C02 - 08a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

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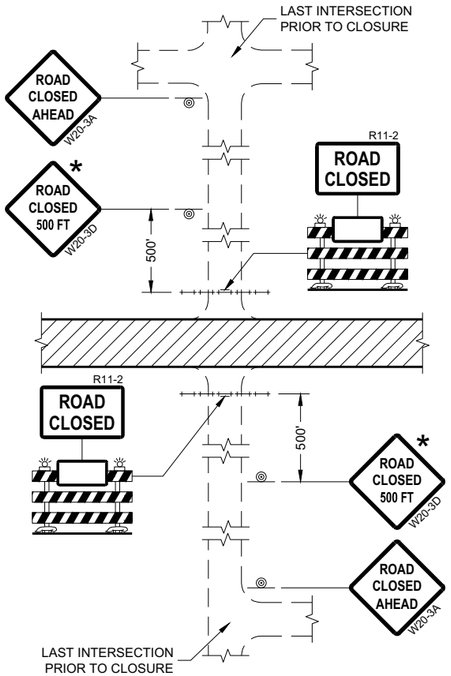
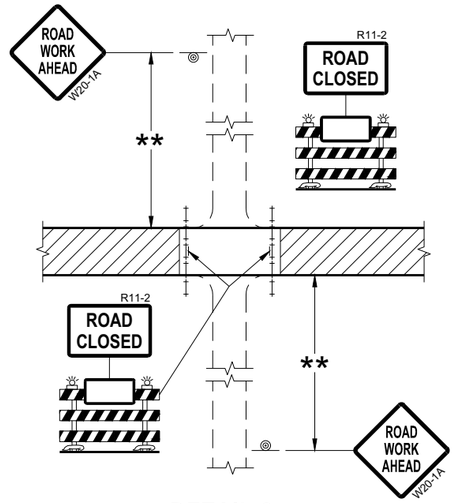
SDD 15C02 - 08b



DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO 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.

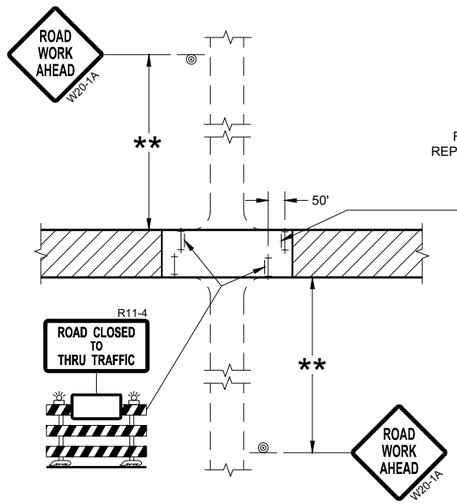
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

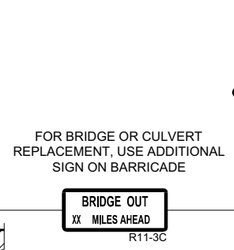
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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".

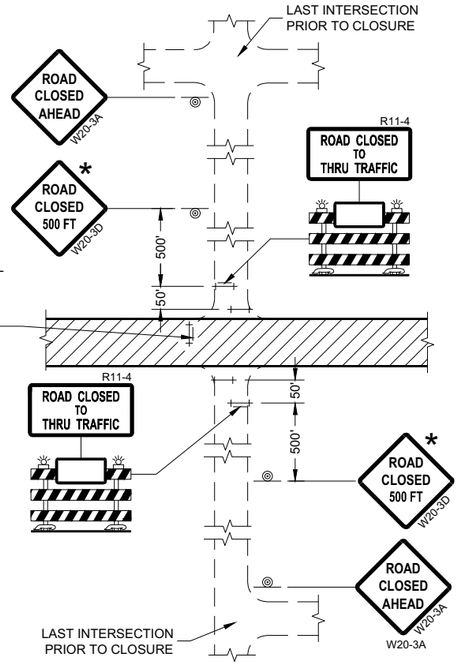
* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

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





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



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

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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C03 - 05

GENERAL NOTES

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

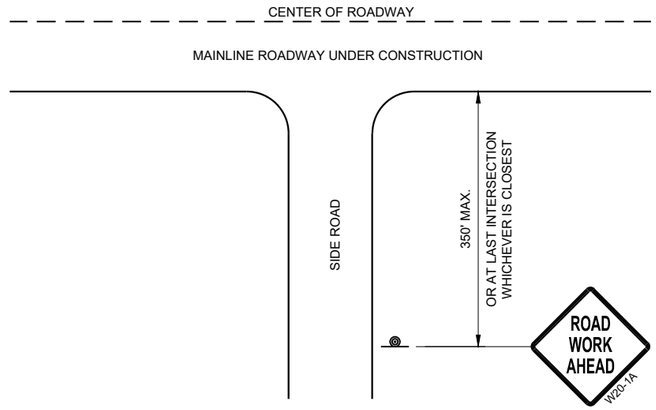
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

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

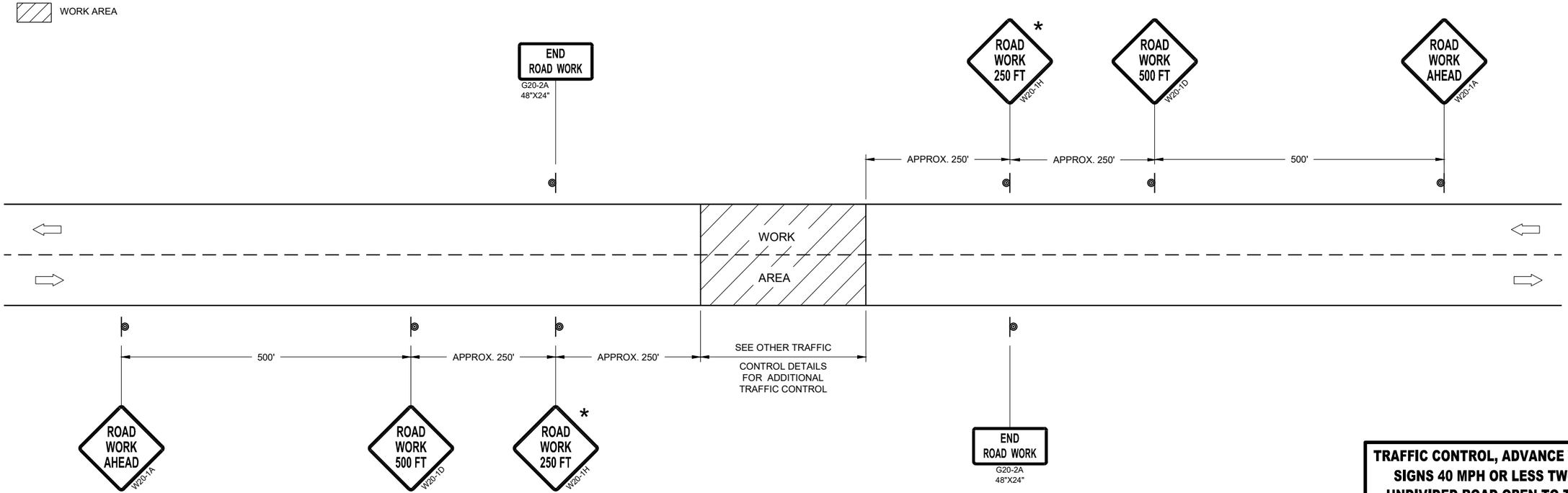
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

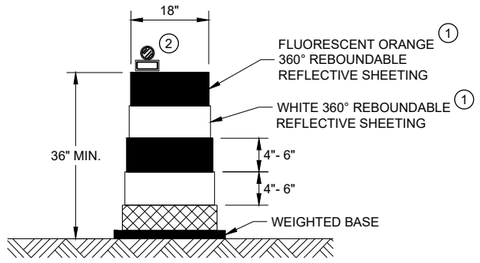
FHWA

6

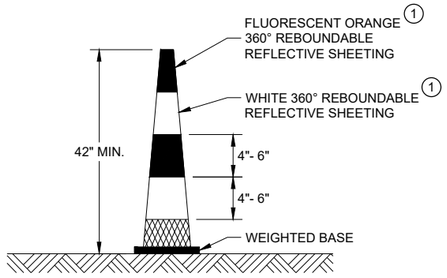
SDD 15C05 - 05

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.

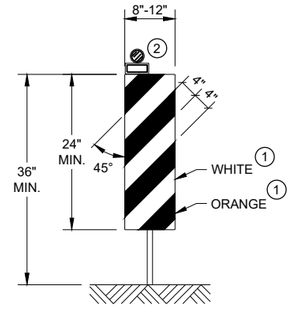


DRUM



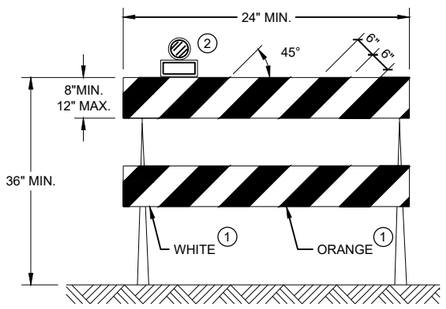
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



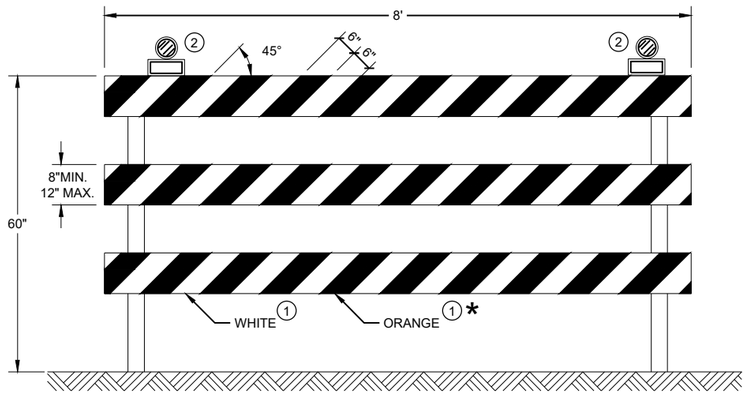
VERTICAL PANEL

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



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 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

6

SDD 15C11 - 09b

6

SDD 15C11 - 09b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

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

FLAGGING

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

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

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

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

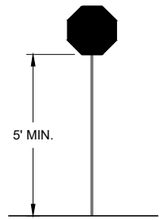
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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



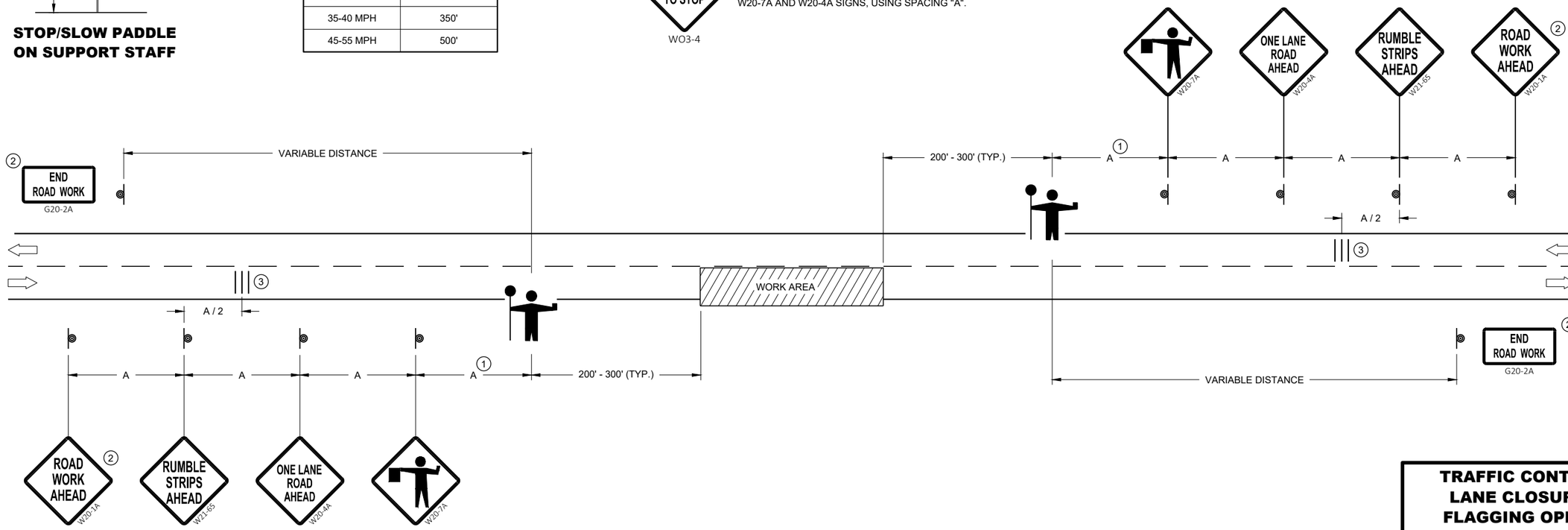
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

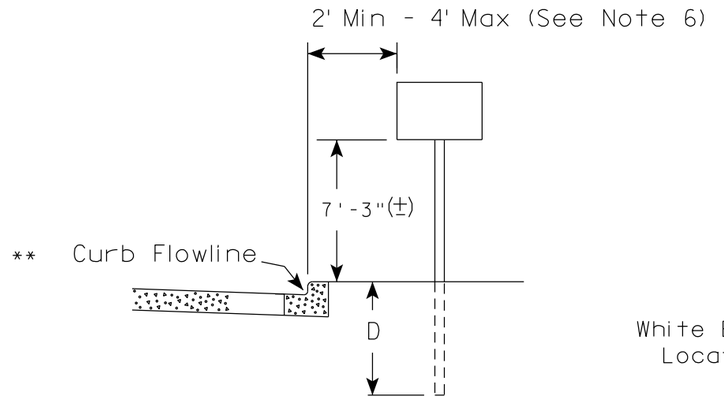
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

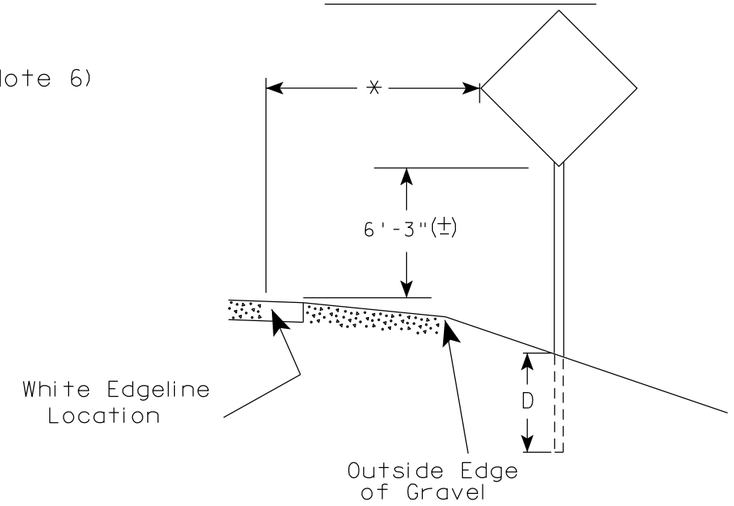
SDD 15C12 - 09a

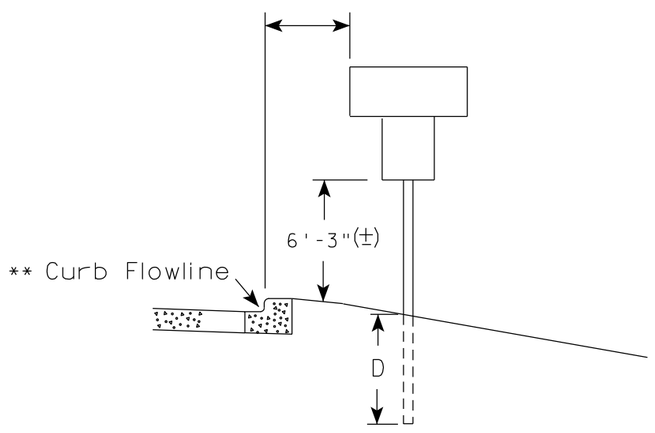
SDD 15C12 - 09a

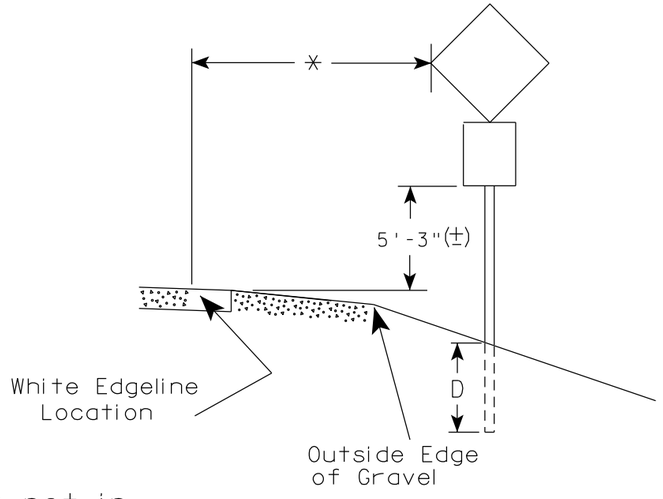
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on 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 directd by the Engineer.

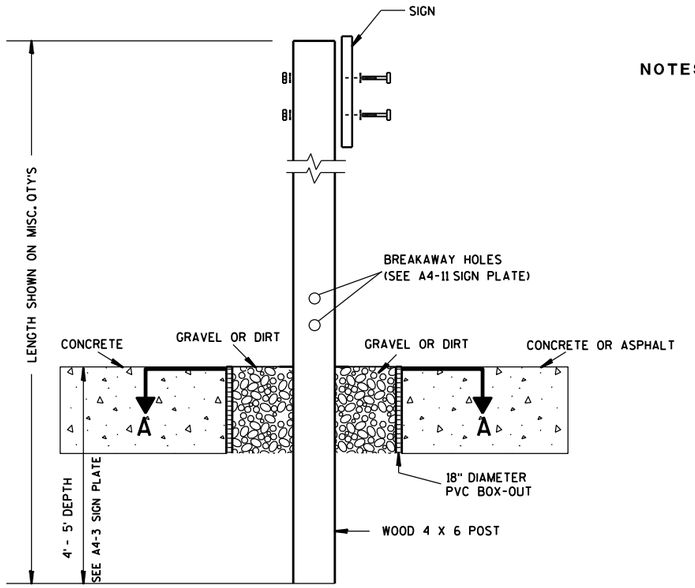
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

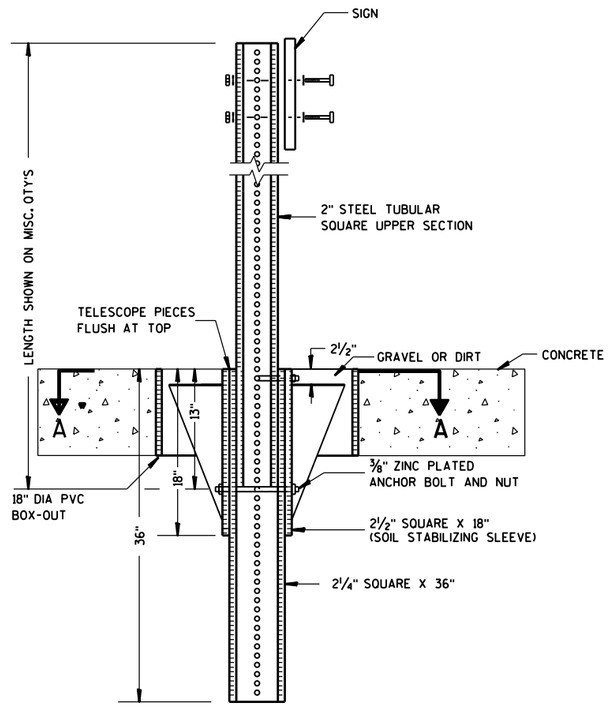
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E



ELEVATION VIEW

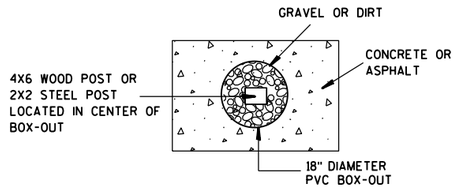
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

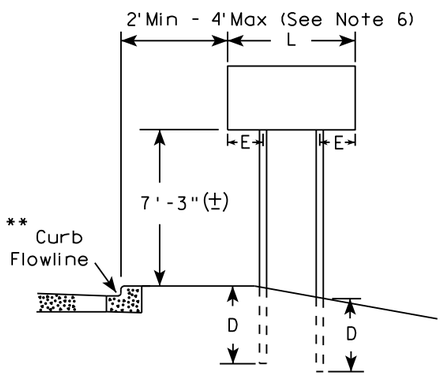
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

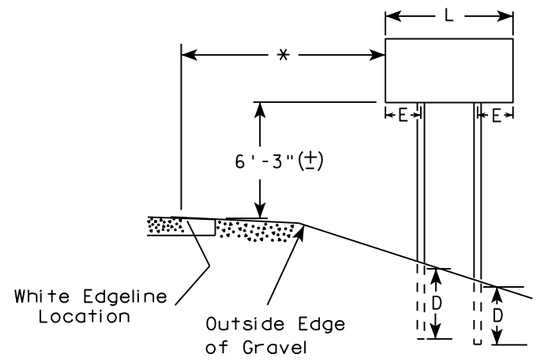
DATE 1/27/14 PLATE NO. A4-3B.1

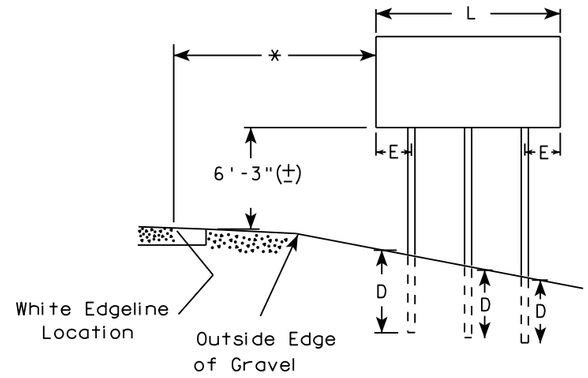
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

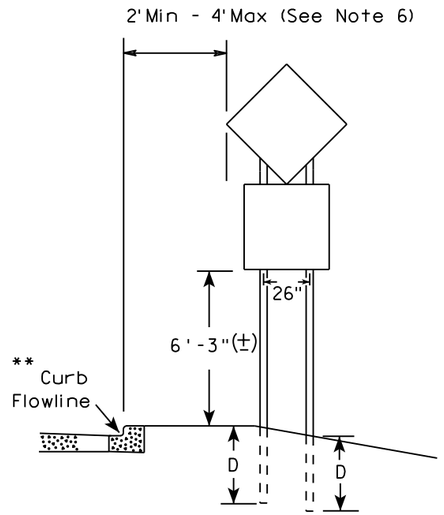
URBAN AREA



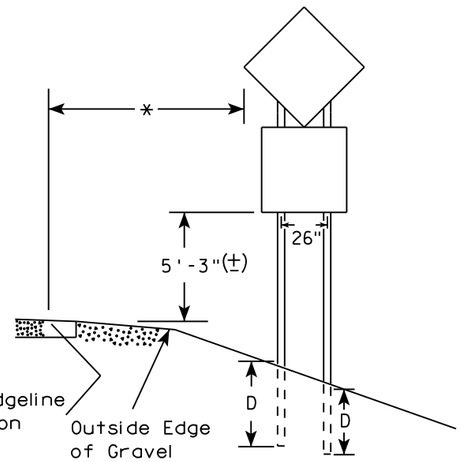
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

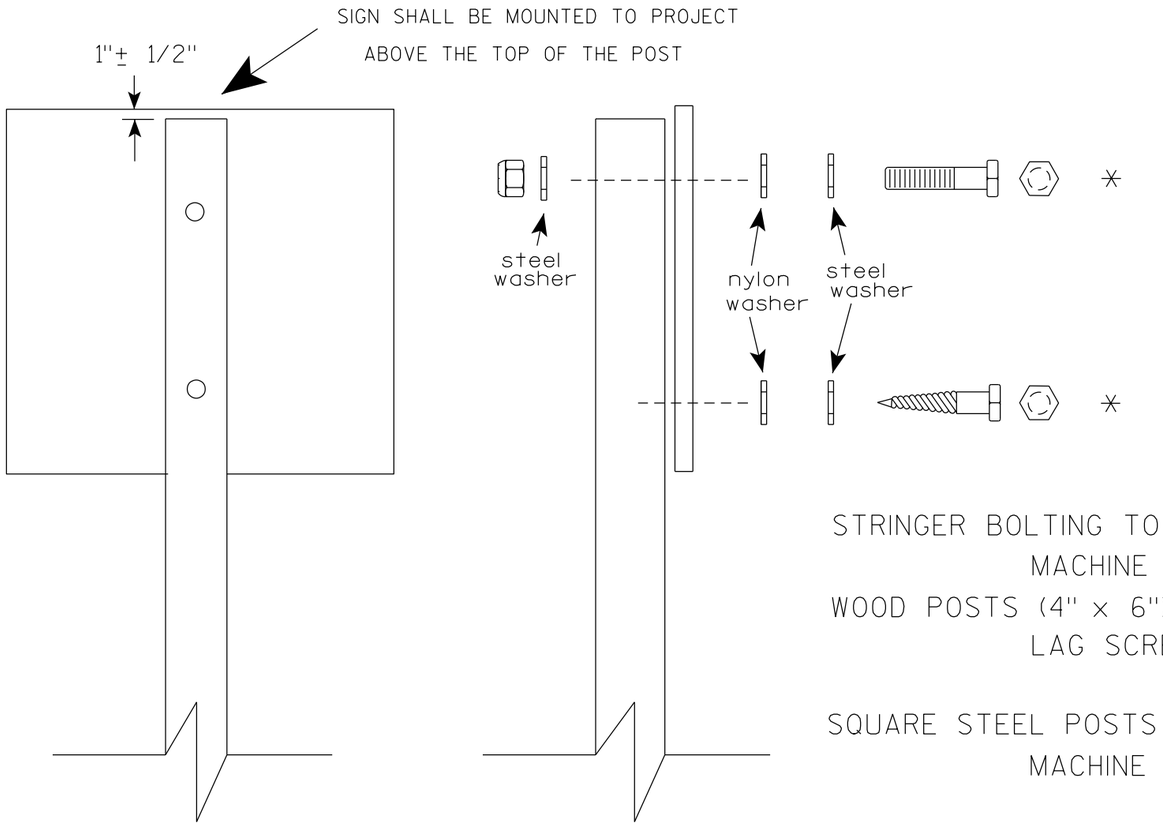
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 28	E



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

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

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 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

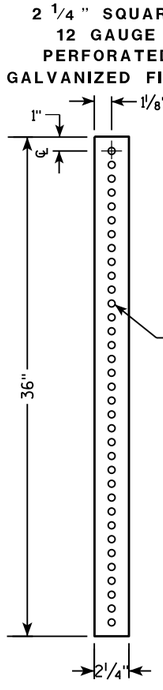
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

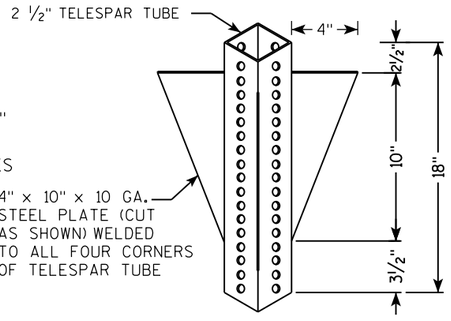
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

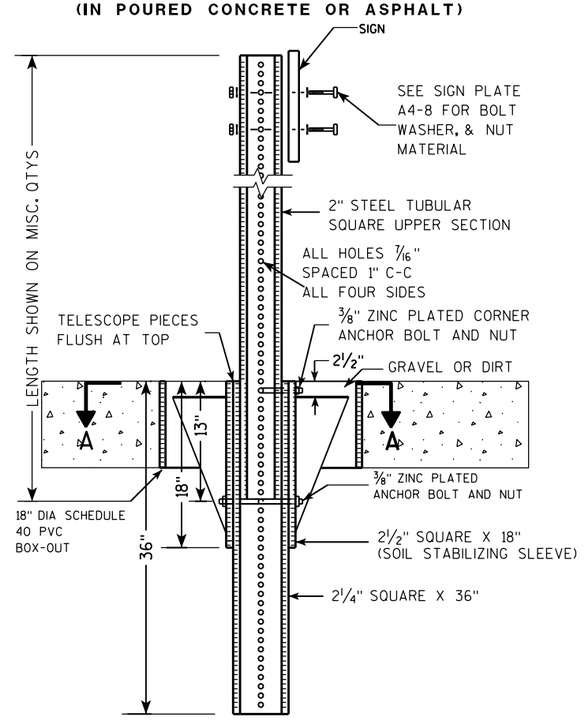
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



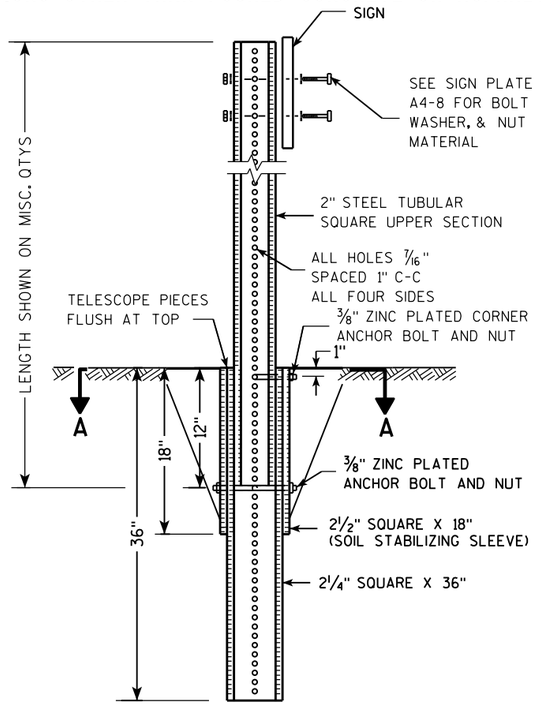
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

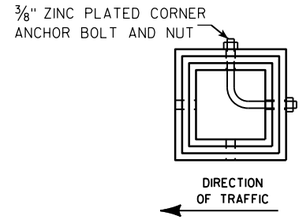


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

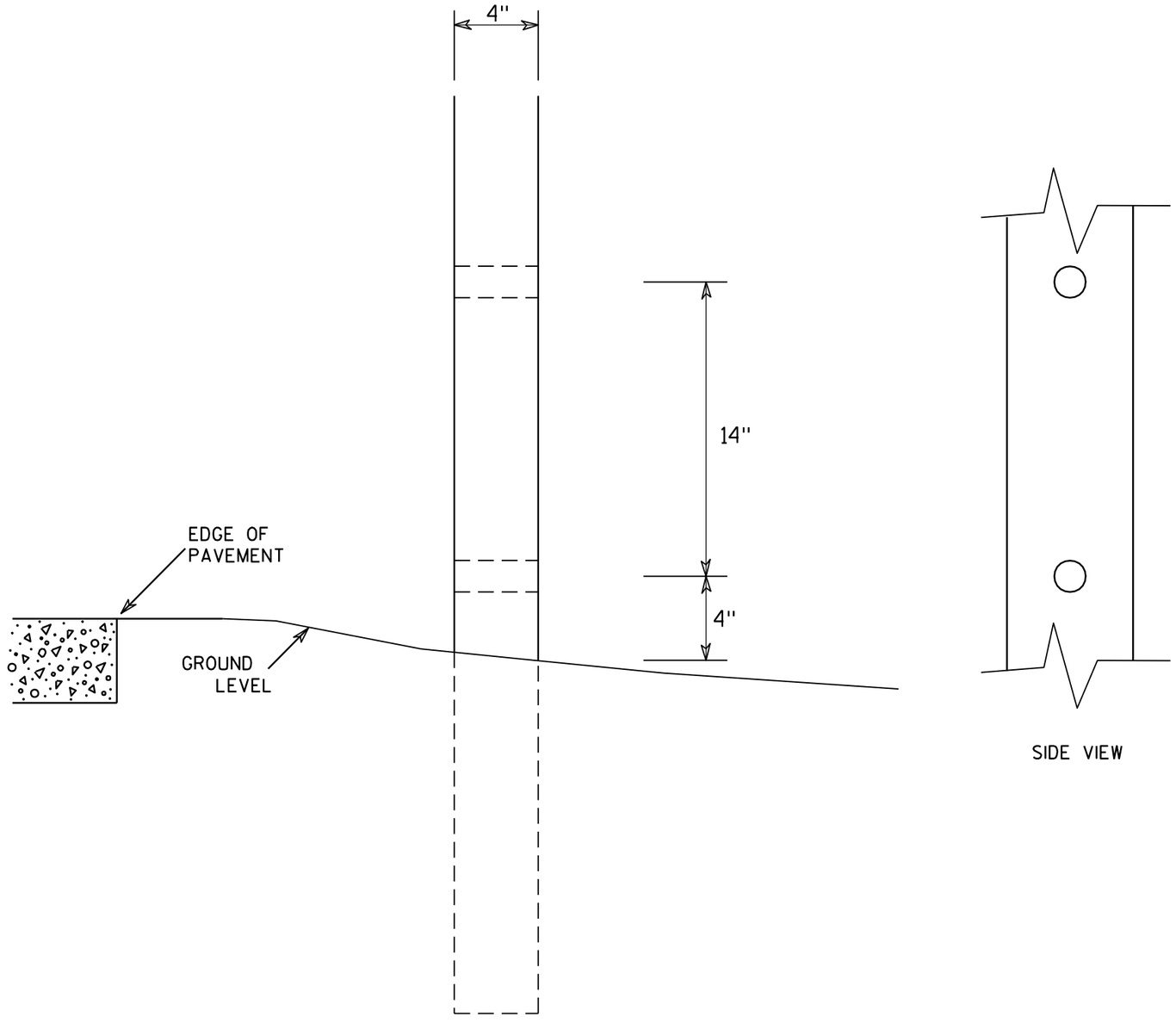
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 30 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

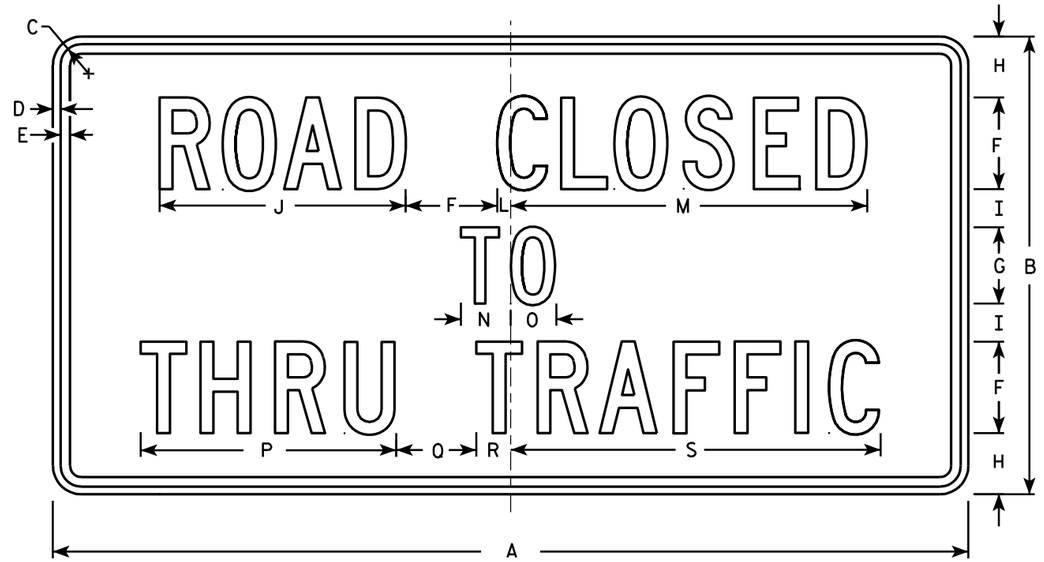
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 31	E



R11-4

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

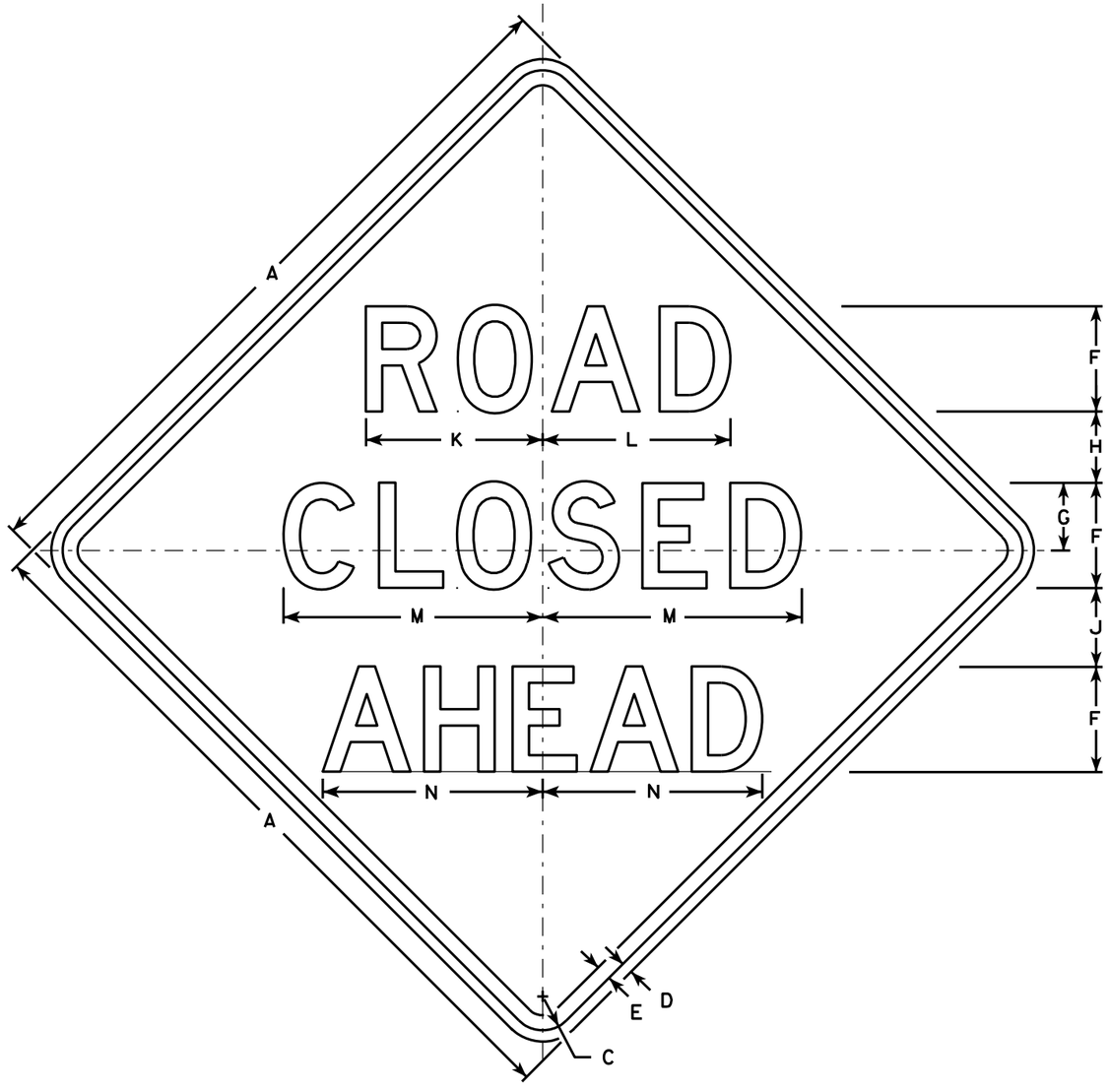
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

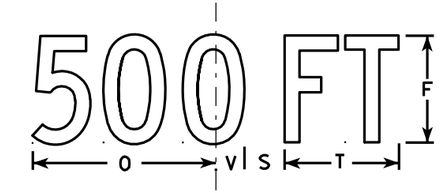
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

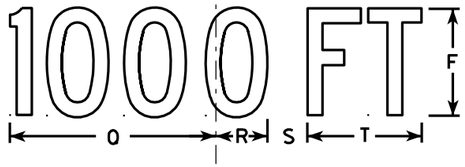
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 32 | E



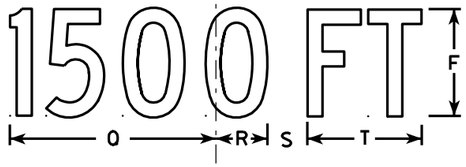
W20-3A



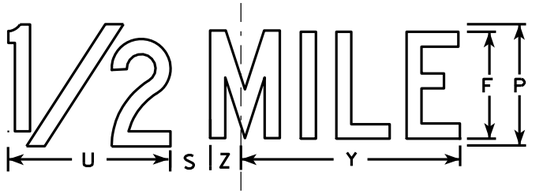
W20-3D



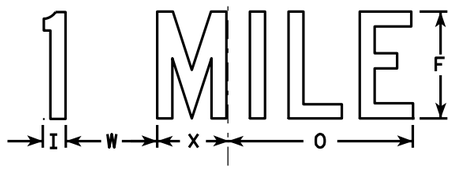
W20-3C



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.

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

7

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PROJECT NO: | HWY: | COUNTY: | | SHEET NO: 33 | E

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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