WKE

MAY 2016

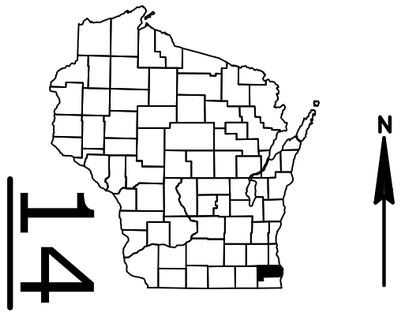
PROJECT ID: 1320-19-60

COUNTY: RACINE

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 = 198



DESIGN DESIGNATION

A.A.D.T.	2015	=	31,100
A.A.D.T.	2035	=	38,300
D.H.V.		=	1,306
D.D.		=	62/38
T.		=	13.0%
DESIGN SPEED		=	45 MPH
ESALS		=	4,100,000

CONVENTIONAL SYMBOLS

PLAN

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

DURAND AVENUE VILLAGE OF STURTEVANT & MOUNT PLEASANT

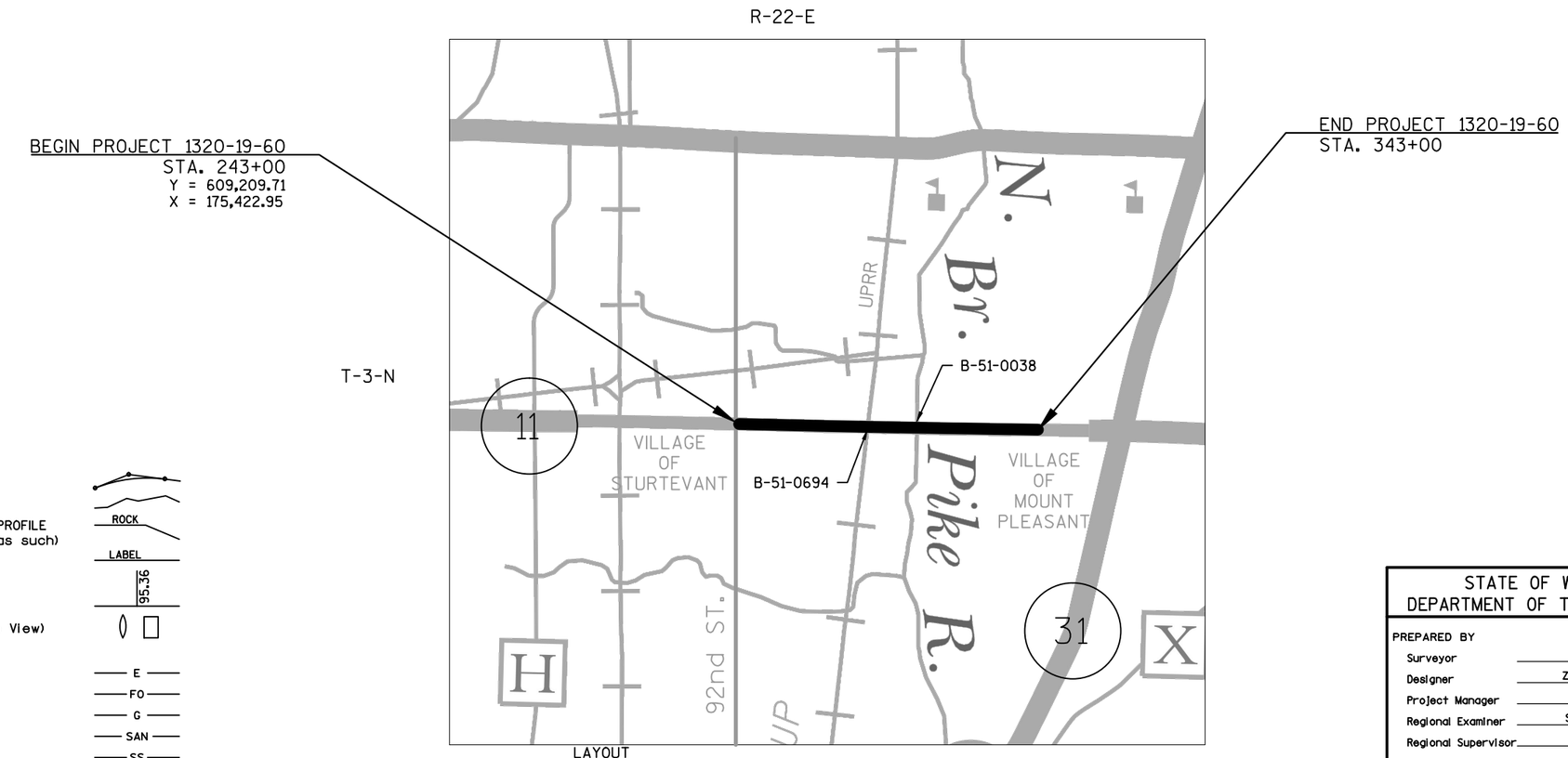
92ND STREET TO 1500' WEST OF STH 31

STH 11

RACINE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1320-19-60	———	———

STATE PROJECT NUMBER
1320-19-60



TOTAL NET LENGTH OF CENTERLINE = 1.520 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, RACINE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD88 (2007).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	ZACHARY PEARSON
Project Manager	GARY METZER
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 02/01/16 (Signature)

E

FILE NAME : N:\PDS\C3D\CAD\13201960\010101_TI.DWG
LAYOUT NAME - ****

PLOT DATE : 1/26/2016 3:40 PM

PLOT BY : ROSBECK, JACOB D PLOT NAME :

WISDOT/CADDS SHEET 10

GENERAL NOTES

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

THE LOCATION OF DRIVEWAY MATCH POINTS NOT SHOWN IN THE PLANS WILL BE DETERMINED BY THE ENGINEER.

ALL LAYOUT DATA IS REFERENCED TO THE R/L UNLESS OTHERWISE NOTED.

STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN ON THE PLANS ARE APPROXIMATE AND THE LOCATIONS OF SIGNS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

PEDESTRIAN RAMP STATIONS AND OFFSETS SHOWN ON THE INTERSECTION DETAILS ARE APPROXIMATE LOCATIONS. THE EXACT LOCATION WILL BE DETERMINED BY THE ENGINEER

BASE PATCH LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD

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.

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

EROSION CONTROL DEVICES ARE TO BE PLACED IN SEQUENCE WITH CONSTRUCTION STAGING AND MAINTAINED THROUGH EACH STAGE OR AS DETERMINED BY THE ENGINEER.

SEE PLAN DETAIL SHEETS FOR LOCATIONS OF EROSION CONTROL BMP'S.

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

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

INSTALLATION OF NEW CONDUIT WILL REQUIRE THE REMOVING CURB AND GUTTER ITEM. 1' ON EITHER SIDE OF NEW CONDUIT WILL BE REMOVED SO THAT THE CONDUIT CAN BE INSTALLED AND PROPER COMPACTION CAN BE ACHIEVED. REPLACE WITH NEW CURB AND GUTTER 30" TYPE A

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC (JOHN WASHBURN); AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT

CLEARANCE UNDER THE UP RAILROAD BRIDGE (B-51-0644) IS AT A CRITCAL CLEARANCE (14.09'). THIS CLEARANCE NEEDS TO BE MAINTAINED. SEE TYPICAL SECTIONS FOR CROSS SLOPE TRANSISTIONS TO MAINTAIN THIS CLEARANCE

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

INTERSECTION DETAILS

PERMANENT SIGNING

SIGNAL PLANS

PAVEMENT MARKING

TRAFFIC CONTROL

STH 11 HMA PAVEMENT

UPPER LAYER - 2 INCHES OF 4 MT 58-28 S

UTILITY CONTACTS

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TELEPORT COMMUNICATIONS AMERICA LLC
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NOT A UTILITY - FOR INFORMATION ONLY

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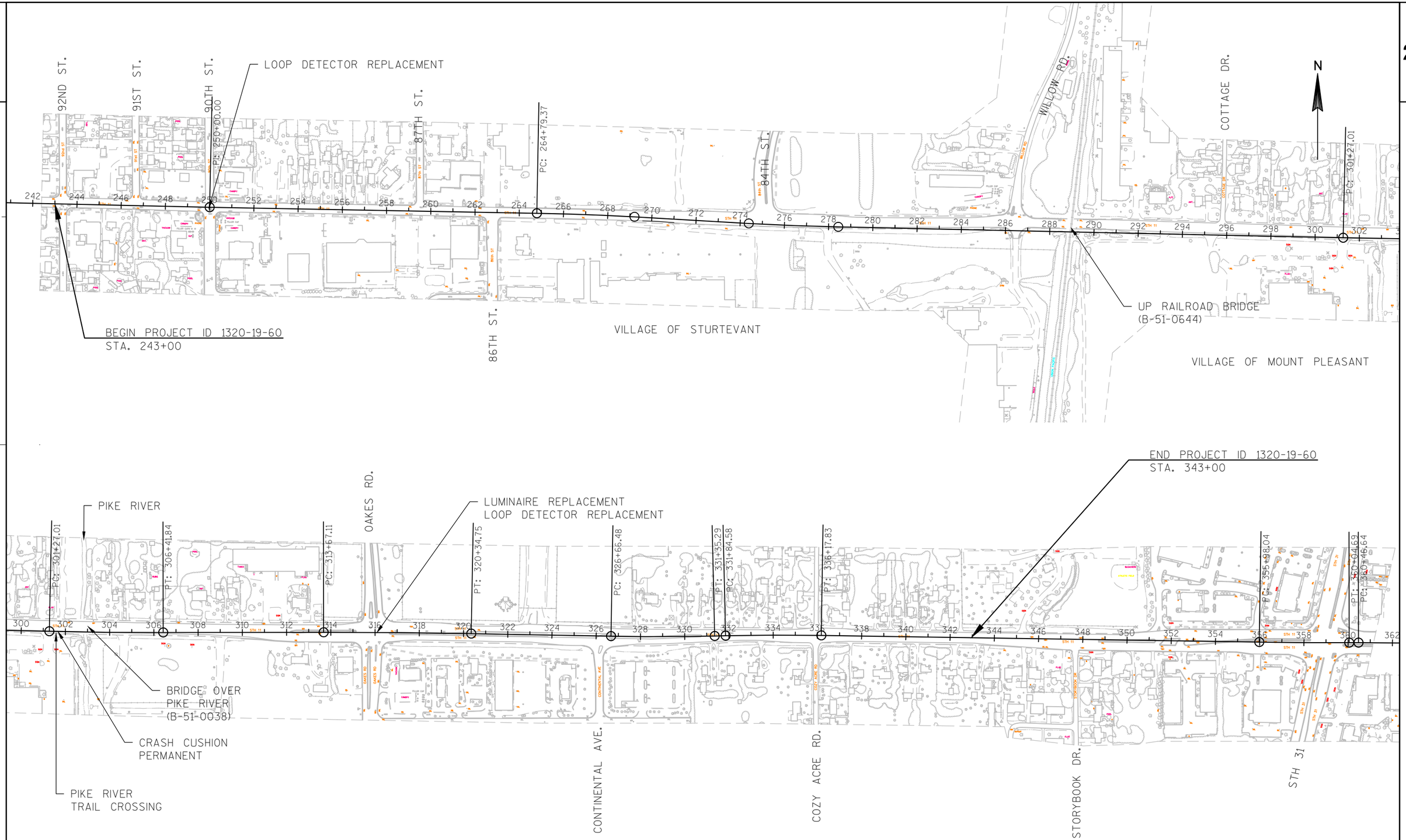
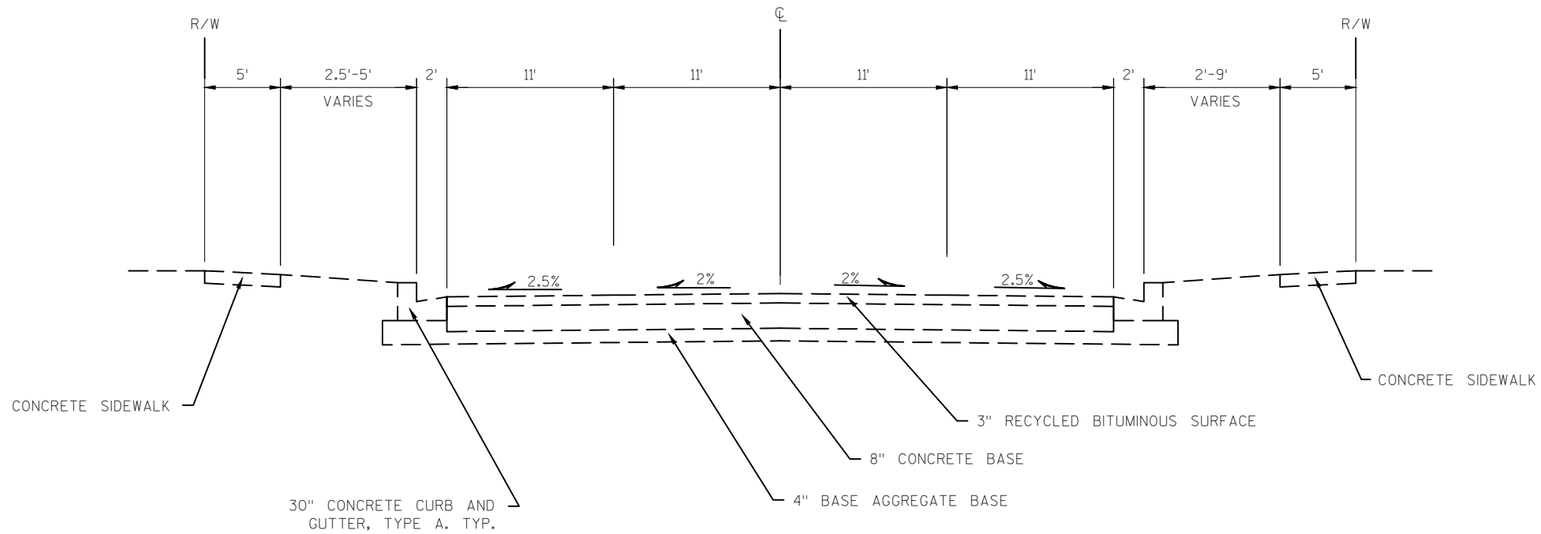
CHICAGO, IL 60606
(312) 777-2043
JNVENICE@UP.COM

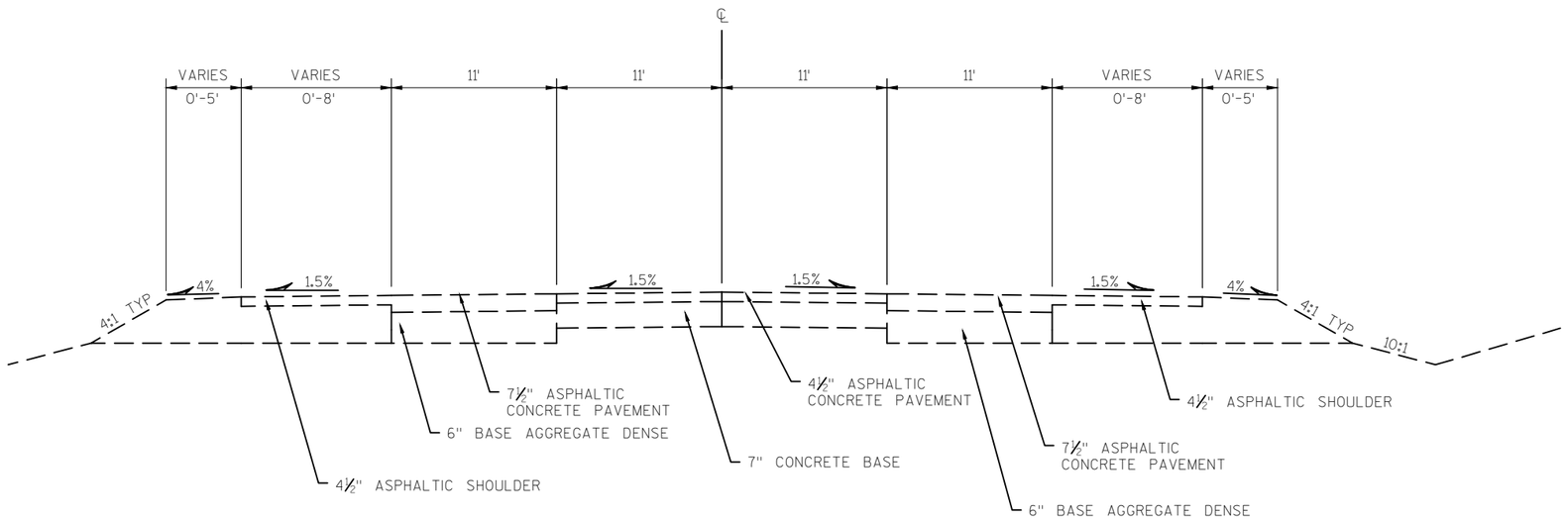
DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com



PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PROJECT OVERVIEW	SHEET 4	E



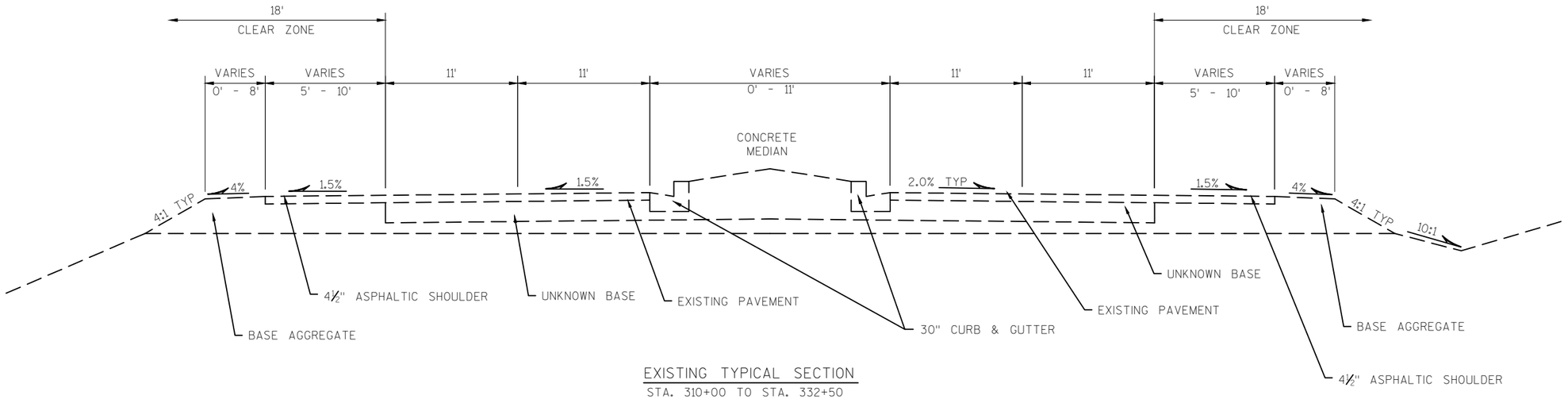
EXISTING TYPICAL SECTION
STA. 243+00 TO STA. 263+20



EXISTING TYPICAL SECTION
STA. 263+20 TO STA. 310+00
STA. 332+50 TO STA. 343+00

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 5	E

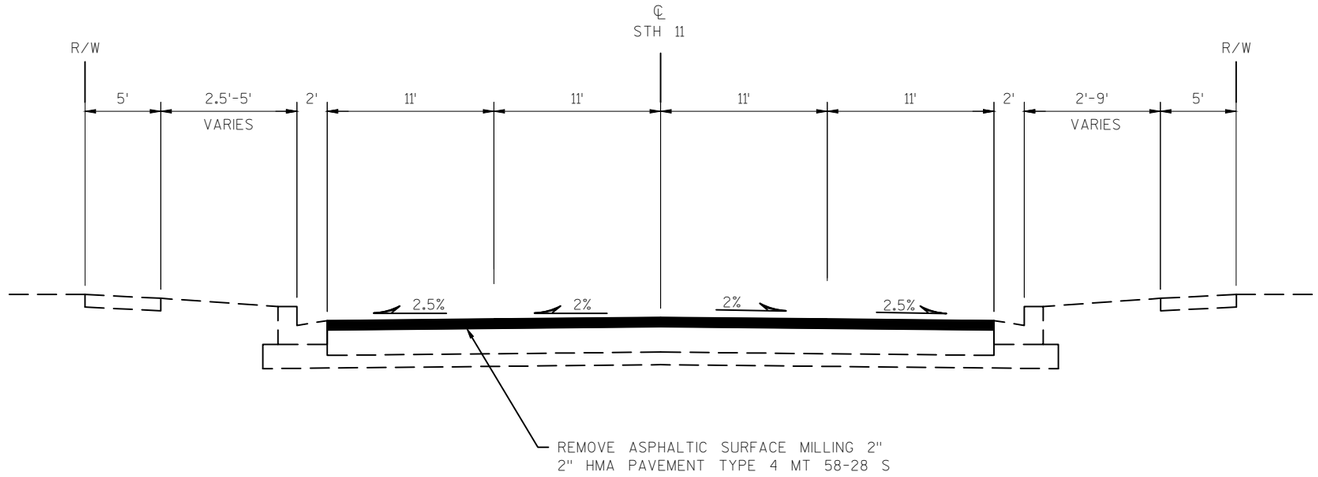
2



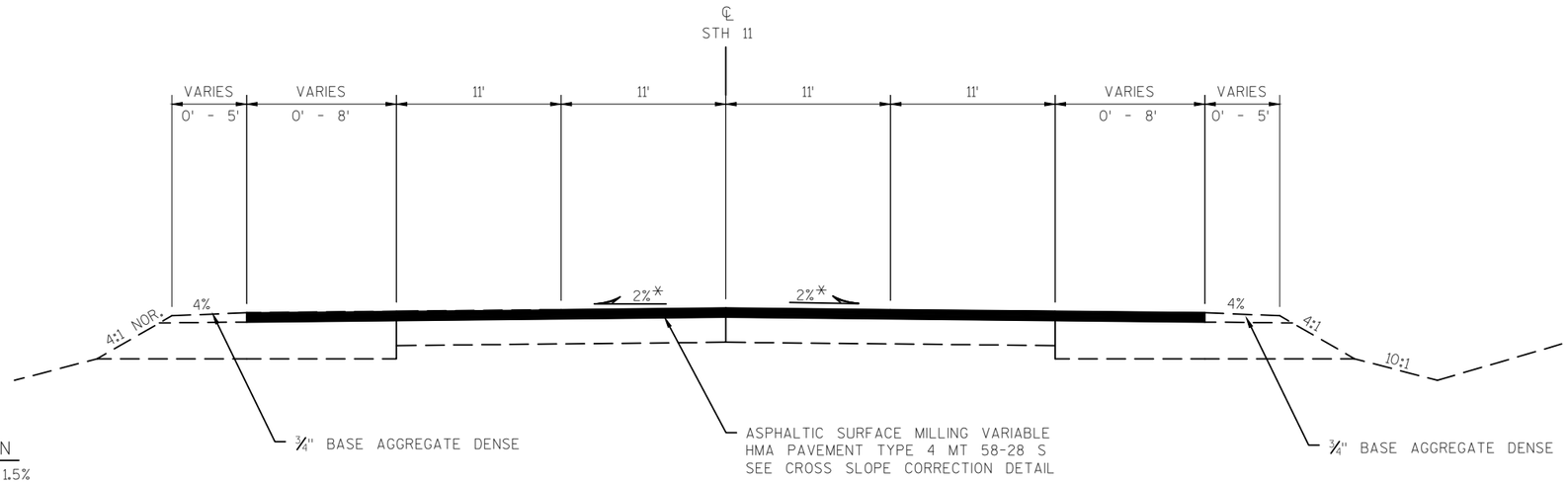
EXISTING TYPICAL SECTION

STA. 310+00 TO STA. 332+50

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 6	E



PROPOSED TYPICAL SECTION
STA. 243+00 TO STA. 263+20



* PAVEMENT SLOPE TRANSITION

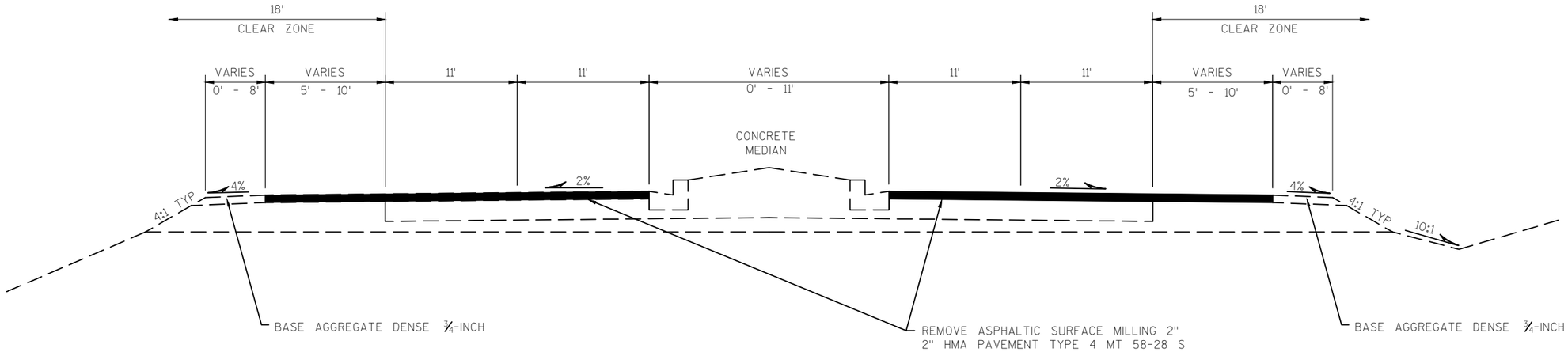
STA. 288-40 TO STA. 288+65 - 2% TO 1.5%
STA. 288+65 TO STA. 289+15 - 1.5%
STA. 289+15 TO STA. 289+40 - 1.5% TO 2%

STA. 302+09 TO STA. 302+59 - 2% TO 1.0%
STA. 302+59 TO STA. 303+04 - 1.0%
STA. 303+04 TO STA. 303+54 - 1.0% TO 2%

PROPOSED TYPICAL SECTION
STA. 263+20 TO STA. 310+00
STA. 332+50 TO STA. 343+00

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 7	E

2

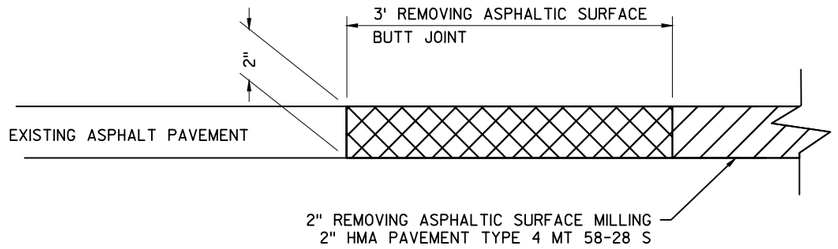


PROPOSED TYPICAL SECTION

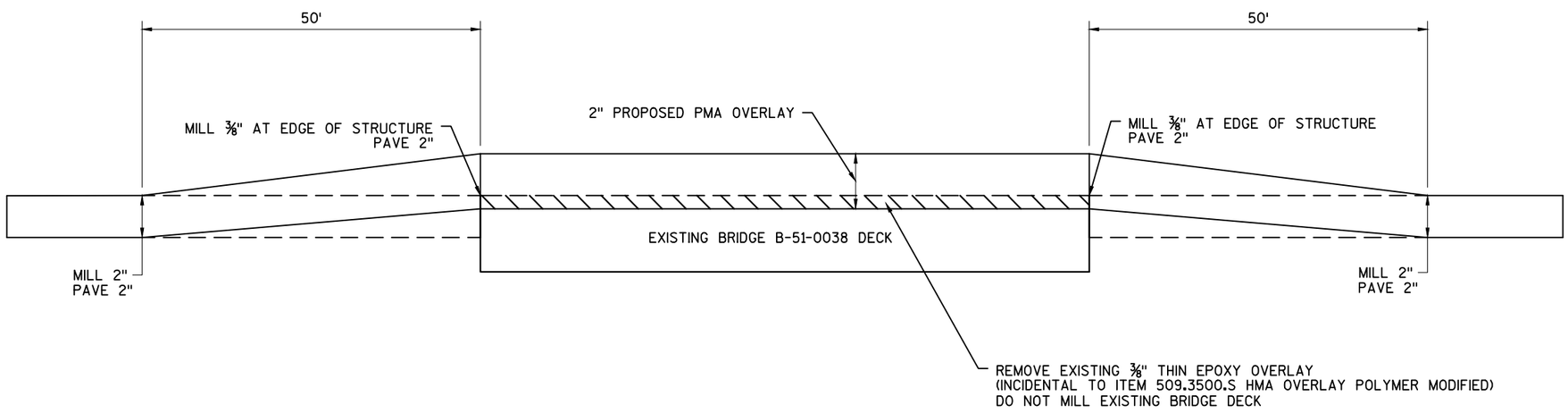
STA. 310+00 TO STA. 332+50

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TYPICAL SECTIONS	SHEET 8	E

2



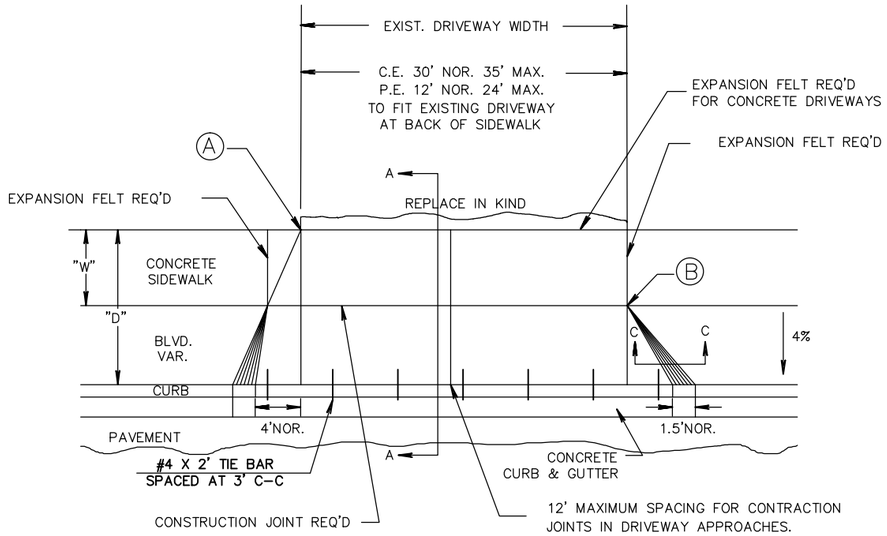
BUTT JOINT DETAIL
MAINLINE AND SIDE ROADS



BRIDGE APPROACH MILLING DETAIL
BRIDGE B-51-0038

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 9	E

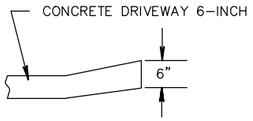
2



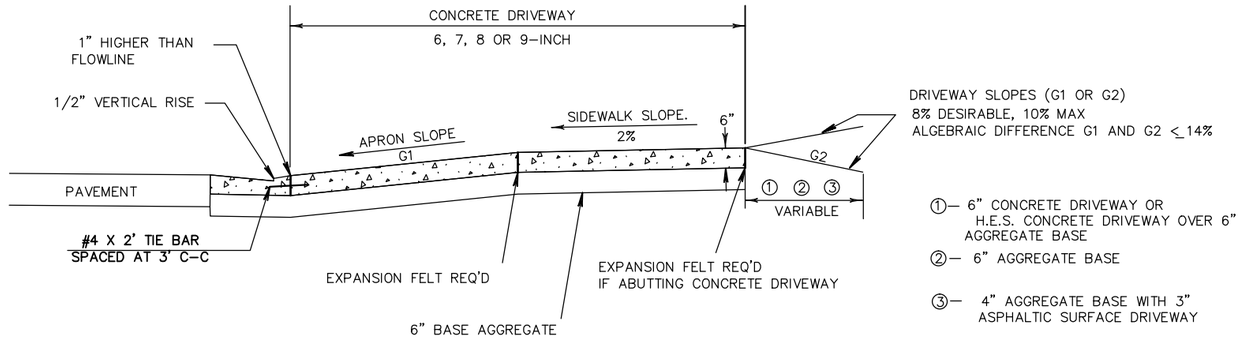
PLAN VIEW

Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

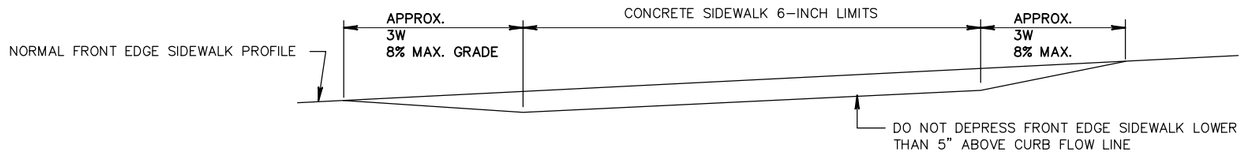
Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



SECTION C-C

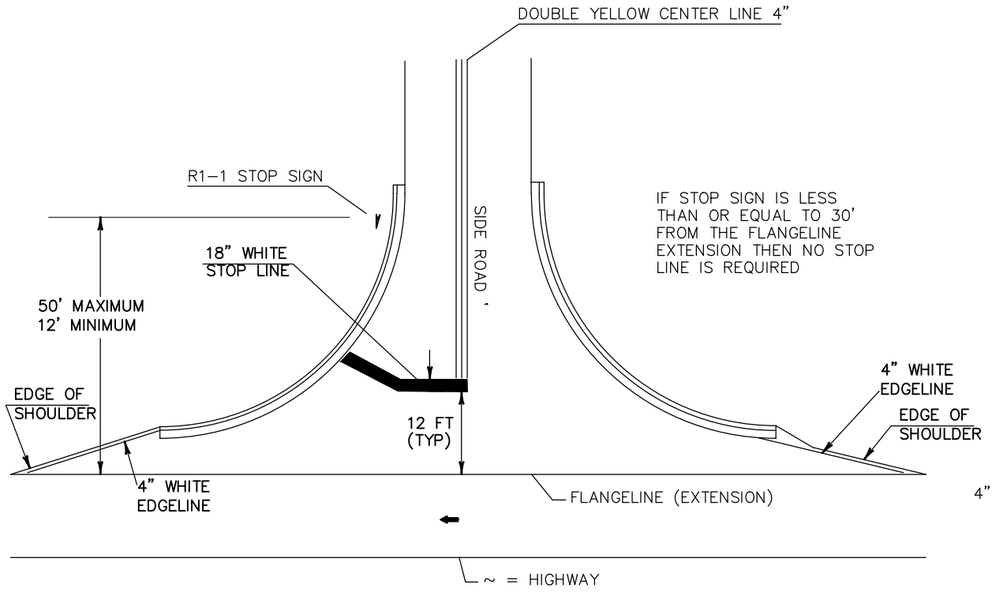


SECTION A-A

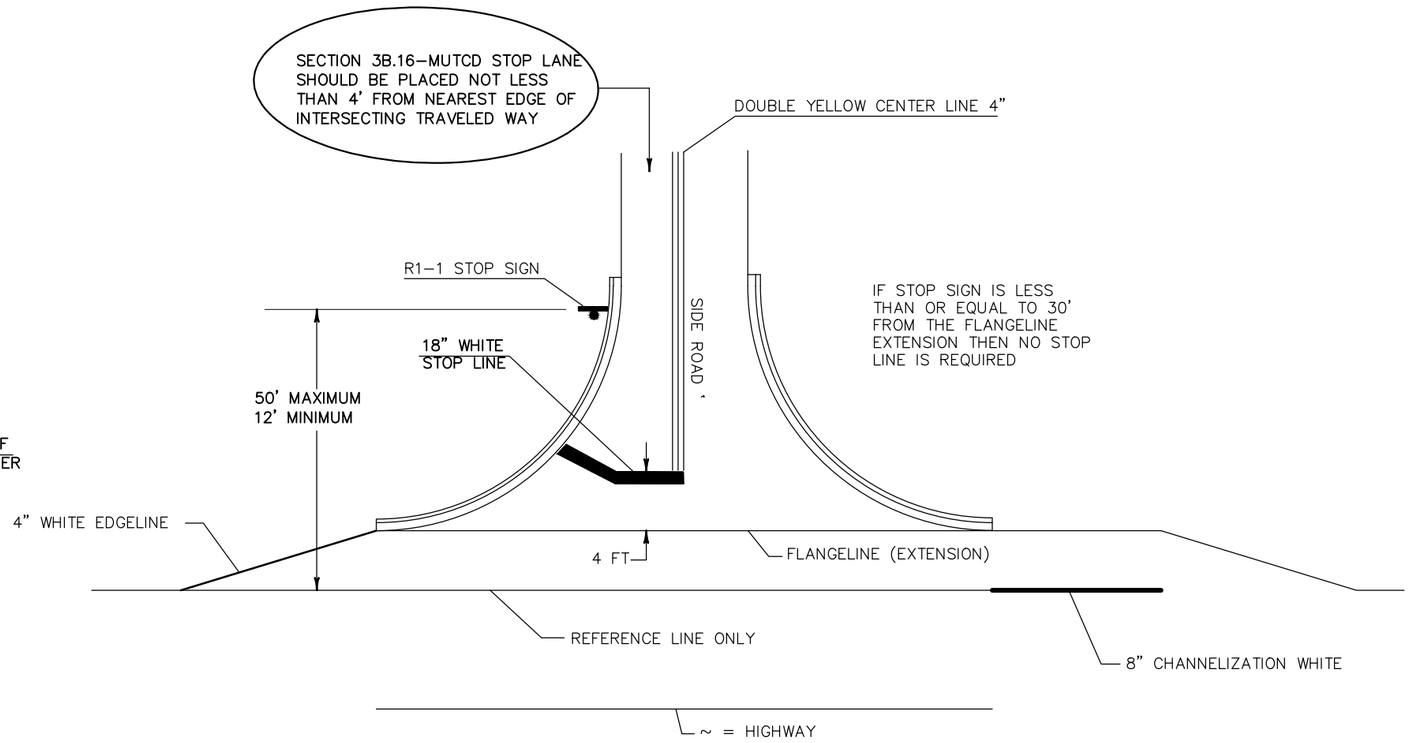


DEPRESSED SIDEWALK PROFILE DETAIL

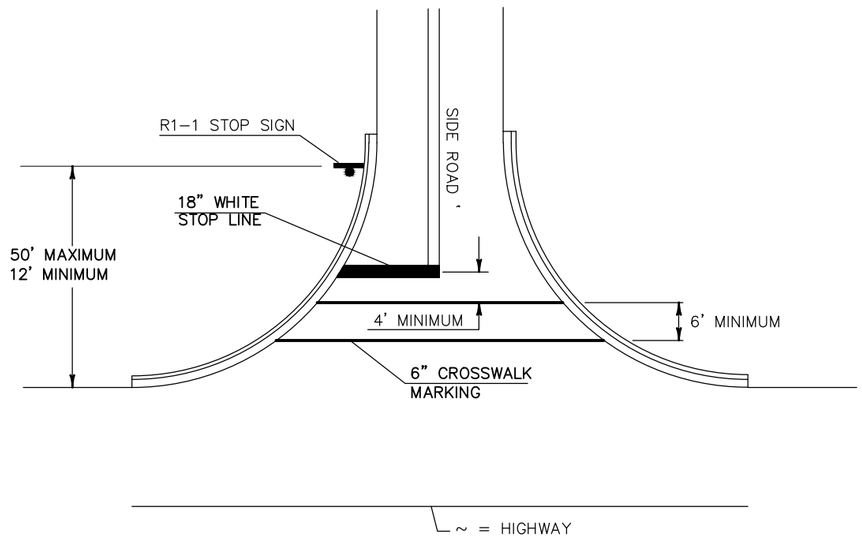
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



TYPICAL PAVEMENT MARKING FOR SIDEROADS



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

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

STOP LINES REQUIRED WHERE:

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

2

LEGEND

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

GENERAL NOTES

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

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 THE DISTRICT TRAFFIC UNIT.

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

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

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

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

W20–1, 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.

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

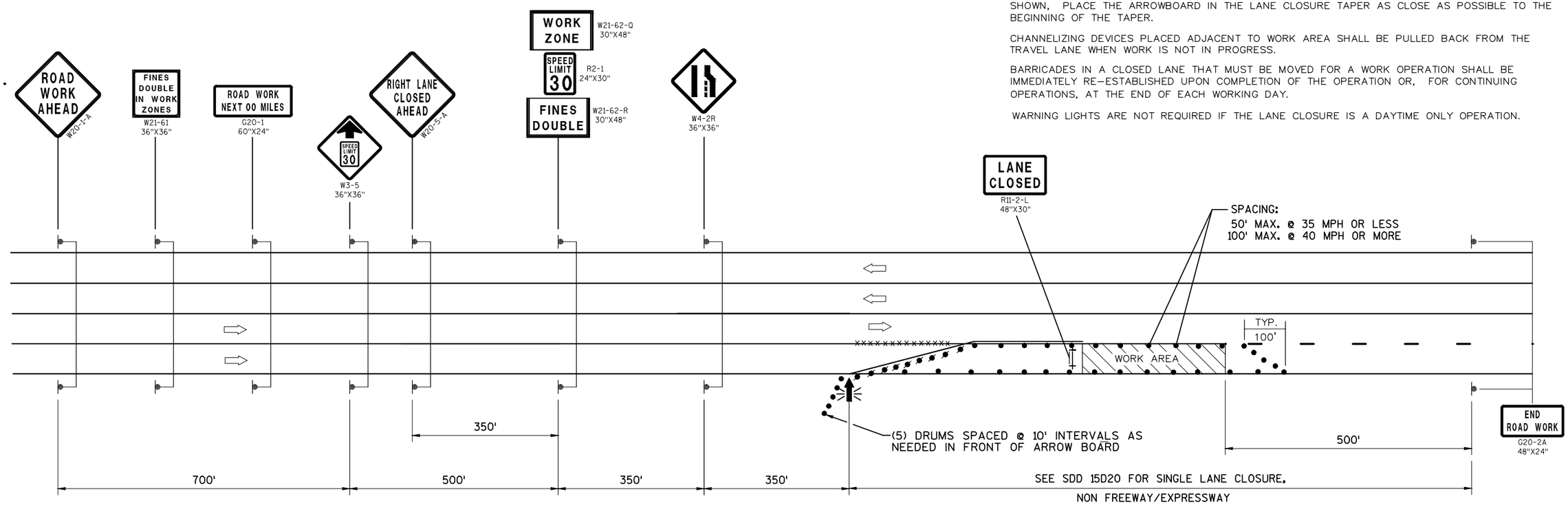
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

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

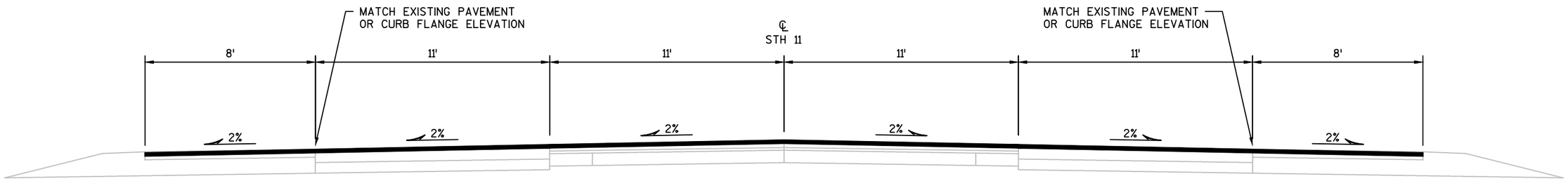
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE–ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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



PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - TEMPORARY SPEED LIMIT REDUCTION	SHEET 12	E

2



CROSS SLOPE CORRECTION DETAIL

STA. 263+20 TO STA. 288+40
STA. 289+40 TO STA. 302+09
STA. 303+54 TO STA. 310+00
STA. 310+00 TO STA. 332+50 (WB LANES ONLY)
STA. 332+50 TO STA. 343+13

LOCATION	30' LT	22' LT	11' LT	℄	11' RT	22' RT	30' RT
MILL DEPTH	2½"	2"	1⅜"	⅝"	1⅜"	2"	2½"

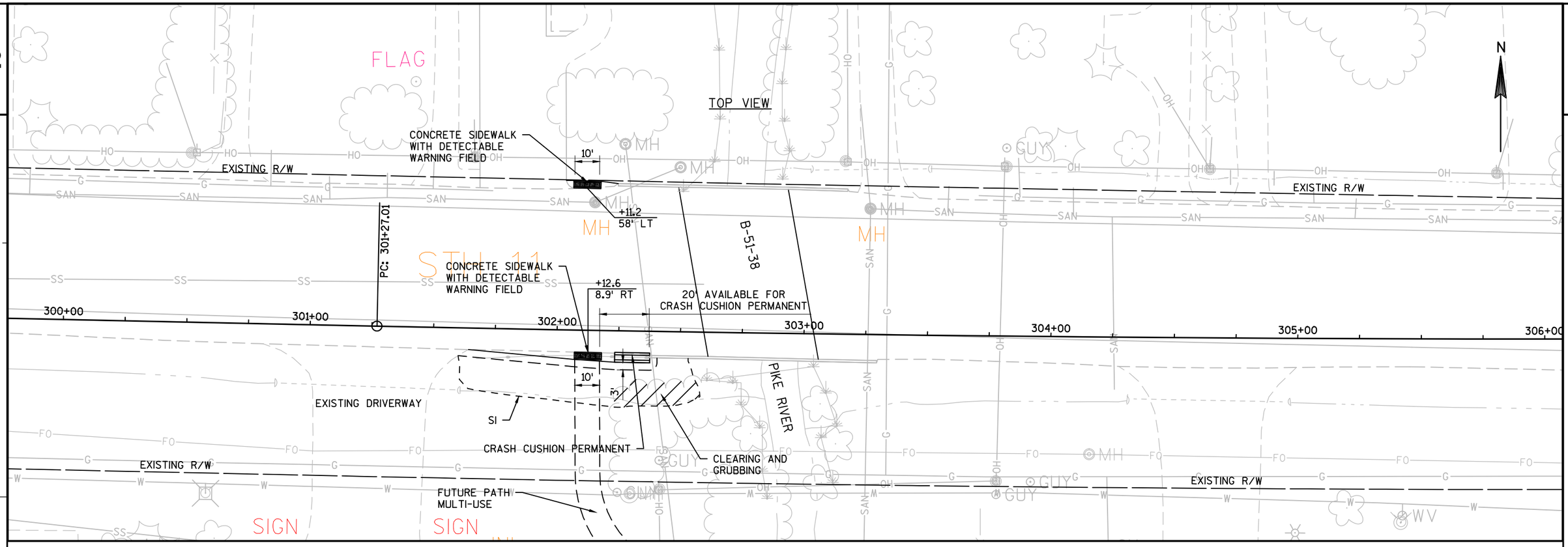
NOTES:

MILL AT 2% ACROSS ALL LANES AND SHOULDERS

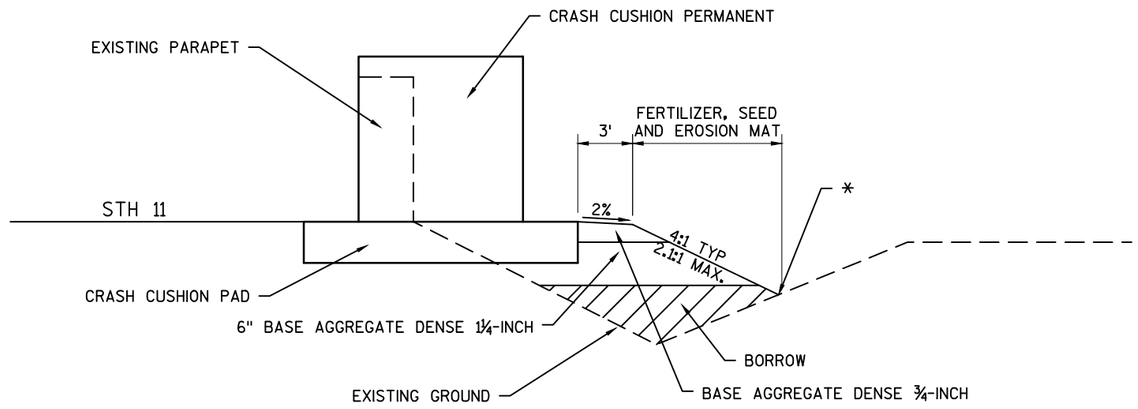
PAVE AT A CONSTANT DEPTH OF 2" ACROSS ALL LANES AND SHOULDERS UNLESS DIRECTED BY THE ENGINEER

DURING MILLING, OR MILL REMOVE AREAS THAT WILL CAUSE RAVELING, SHOVING, OR BLEEDING OF THE OVERLYING PAVEMENT AS PER STANDARD SPEC. 211.3.5.3.

TOP VIEW



SECTION VIEW



CRASH CUSHION GRADING

STA. 302+25 RT

NOTE:

*MAINTAIN MINIMUM DITCH SLOPE OF 0.5% TOWARD RIVER FOR DRAINAGE

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 14	E

2

N

**STA. 262+20 LT
RRFB AND PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

BOLLARDS TO BE REMOVED BY OTHERS
HYDRANT TO REMAIN

**PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

*STA. 263+25 LT RRFB,
OVERHEAD SIGN SUPPORT

262+00

STH 11

263+00

264+00

*RRFB ON
OVERHEAD SIGN SUPPORT

**PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

**STA. 263+25 RT
RRFB AND PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

86TH ST

* SEE SIGNING DETAILS AND STANDARD DETAIL DRAWING
"36-INCH CANTILEVER OVERHEAD SIGN SUPPORT BASE"

** SEE SIGNING DETAILS AND STANDARD DETAIL DRAWING
"TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS"

THE ENGINEER SHALL ADJUST THE LOCATIONS
OF ITEMS UNDER THIS CONTRACT TO AVOID
CONFLICT WITH UTILITY FACILITIES AND TO
MAINTAIN ADA COMPLIANCE

RECTANGULAR RAPIDLY FLASHING BEACON (RRFB) AND PEDESTRIAN PUSH BUTTON LAYOUT

86TH STREET

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 15	E

2

N

PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

CURB RAMP DETECTABLE WARNING FIELD YELLOW

STA. 302+30 LT
RRFB ON TYPE 1 BASE

CURB RAMP DETECTABLE WARNING FIELD YELLOW

PC: 301+27.01

301+00

302+00

303+00

B-51-0038

STH 11

STA. 301+80 RT
RRFB ON TYPE 1 BASE

PEDESTRIAN PUSH BUTTON
ON TYPE 1 BASE

THE ENGINEER SHALL ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH UTILITY FACILITIES AND TO MAINTAIN ADA COMPLIANCE

SEE SIGNING DETAILS AND STANDARD DETAIL DRAWING "TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAIL"

FUTURE MULTI USE PATH

SIGN

SIGN

INL

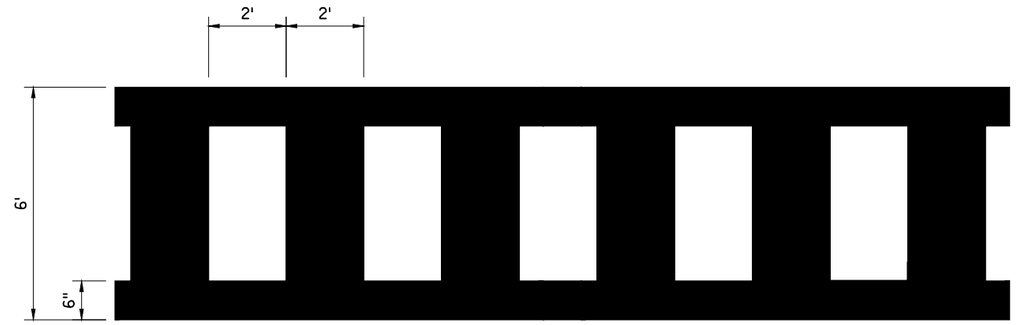
GUY

RECTANGULAR RAPIDLY FLASHING BEACON (RRFB) AND PEDESTRIAN PUSH BUTTON LAYOUT

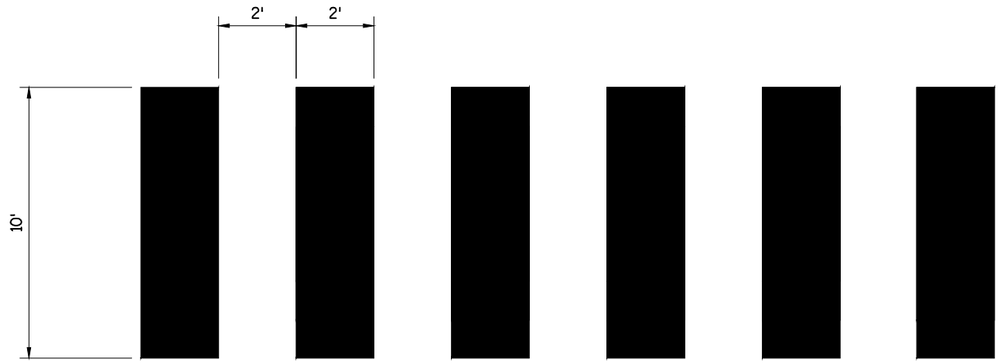
PIKE RIVER BIKE TRAIL

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 16	E

2



PAVEMENT MARKING CROSSWALK EPOXY 24-INCH
STA 262+38

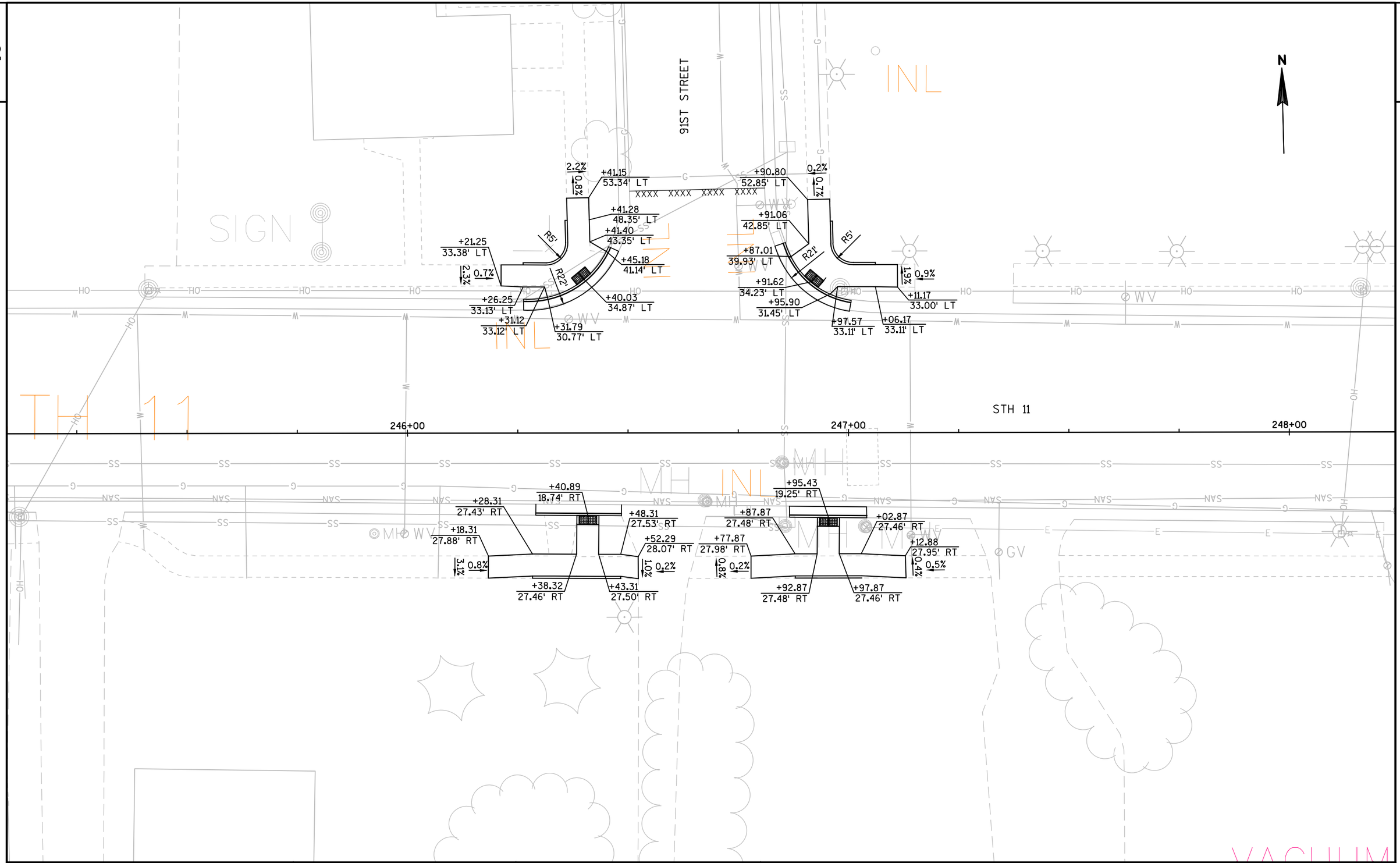


PAVEMENT MARKING CROSSWALK EPOXY 24-INCH
STA 302+12

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL	SHEET 17	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021001_CD.DWG PLOT DATE : 1/22/2016 11:36 AM PLOT BY : HAYNES, RONNIE PLOT NAME : PLOT SCALE : 1:10_XREF
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - 91ST STREET CURB RAMPS	SHEET 18	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021006_CD.DWG
LAYOUT NAME - 021006_CD
PLOT DATE : 1/20/2016 1:50 PM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

2

N

90TH STREET

STH 11

249+00

250+00

251+00

PI: 250+00.00

4.5%
3.3%
+70.82
55.71' LT
+70.99
45.71' LT
+70.99
40.71' LT
+74.58
37.66' LT
+71.39
33.71' LT
+67.02
30.13' LT
+64.22
33.12' LT
+61.20
32.61' LT
+50.98
32.61' LT
+41.19
33.01' LT
0.2%
0.2%
R25'

+26.79
53.10' LT
2.1%
2.6%
+27.07
40.97' LT
UTILITY MANHOLE TO BE
ADJUSTED BY OTHERS
+22.16
38.26' LT
+29.30
30.46' LT
+33.56
28.26' LT
+36.04
33.14' LT
+51.14
33.00' LT
1.8%
0.3%
R23'

+58.36
27.54' RT
+53.36
27.52' RT
+60.91
23.54' RT
+43.36
27.87' RT
+66.34
27.22' RT
+70.43
32.37' RT
+66.66
35.05' RT
+66.83
40.05' RT
+66.30
50.07' RT
2.4%
1.0%
1.8%
1.3%
R23'

+39.79
24.75' RT
+43.52
27.18' RT
+50.05
27.21' RT
+60.04
28.07' RT
+35.61
28.03' RT
+32.22
32.18' RT
+35.55
36.62' RT
+35.66
40.92' RT
+35.90
50.91' RT
4.4%
0.5%
3.0%
2.0%
R24'

CANOPY
SIGN
PHONE
VACUUM
FILLER CAP
CANOPY

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - 90TH STREET CURB RAMPS	SHEET 19	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021006_CD.DWG
LAYOUT NAME - 021007_CD

PLOT DATE : 1/20/2016 1:50 PM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

87TH STREET

STH 11

+24.79
53.64' LT

1.6%

1.1%

+74.65
50.06' LT

2.3%

1.1%

+29.70
41.25' LT

R10'

R25'

+87.89
33.23' LT

1.0%

0.5%

+95.39
27.02' LT

+70.21
42.10' LT

R10'

+00.48
32.67' LT

0.3%

1.2%

R25'

+10.48
32.92' LT

+93.00
26.88' LT

259+00

260+00

261+00

+95.32
21.88' RT

0.2%

0.8%

+92.96
21.96' RT

2.0%

0.2%

+90.45
27.82' RT

0.5%

0.6%

+32.83
27.87' RT

2.1%

0.4%

+67.83
27.91' RT

GUY POLE

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - 87TH STREET CURB RAMPS	SHEET 20	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021006_CD.DWG
LAYOUT NAME - 021008_CD

PLOT DATE : 1/20/2016 1:51 PM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

SIGN

INL

+34.32
38.18' LT
1.8%
1.5%
+36.86
25.94' LT

+14.72
33.25' LT
2.5%
1.1%
+09.72
33.22' LT
+17.18
25.44' LT

STH 11

262+00

263+00

264+00

INL

+37.68
24.17' RT
+20.10
28.32' RT
+35.10
27.98' RT
+43.61
28.02' RT
R23'
3.4%
1.2%
+43.38
36.31' RT
+43.46
41.24' RT
2.5%
0.7%
+43.36
51.24' RT

+16.54
26.03' RT
+12.03
29.60' RT
R23'
+08.20
34.82' RT
+12.02
43.32' RT
+12.79
53.30' RT
0.8%
1.4%

SIGN

86TH STREET

GUY

POLE

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - 86TH STREET CURB RAMPS	SHEET 21	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021006_CD.DWG
LAYOUT NAME - 021009_CD

PLOT DATE : 1/20/2016 1:51 PM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:20 FT

2

N

STH 11

315+00

316+00

317+00

REMOVE CONCRETE CORRUGATED MEDIAN (PAID AS REMOVING PAVEMENT)
PLACE CONCRETE BASE PATCH

+13.63
63.01' RT

+28.53
63.03' RT

R44'

1.7%

2%

PEDESTRIAN CURB

69' RT

R40'

+42.19
65.55' RT

+54.09
68.06' RT

2%

2%

PEDESTRIAN CURB

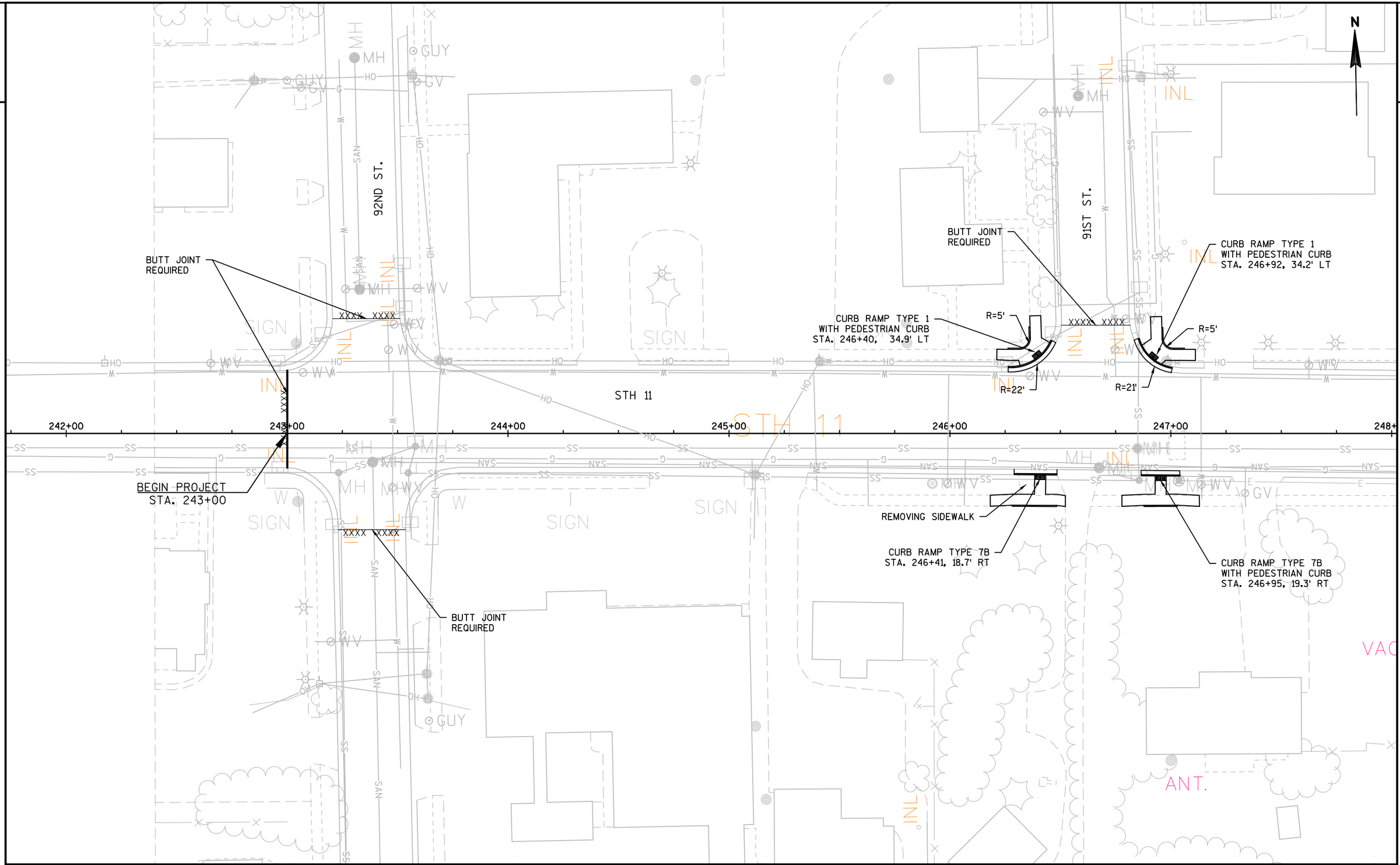
XXXX XXXX XXXX

XXXX XXXX XXXX XXXX XXXX XXXX

OAKES ROAD

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CONSTRUCTION DETAIL - OAKES ROAD CURB RAMPS	SHEET 22	E

2



PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	INTERSECTION DETAIL	SHEET 23	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021101_ID.DWG
LAYOUT NAME - 021101_ID
PLOT DATE : 1/20/2016 1:37 PM
PLOT BY : ROSBECK, JACOB D
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

BUTT JOINT REQUIRED

CURB RAMP TYPE 1
WITH PEDESTRIAN CURB
STA. 249+71, 33.7' LT

90TH ST.

CURB RAMP TYPE 1
WITH PEDESTRIAN CURB
STA. 250+29, 30.4' LT

XXXX XXXX

PI: 250+00.00

R=25'

R=23'

STH 11

247+00 248+00 249+00 250+00 251+00 252+00 253+00

R=23'

R=23'

CURB RAMP TYPE 1
WITH PEDESTRIAN CURB
STA. 249+67, 27.3' RT

XXXX XXXX XXXX

BUTT JOINT
REQUIRED

CURB RAMP TYPE 1
WITH PEDESTRIAN CURB
STA. 250+36, 28.0' RT

INL CANOPY PHONE VACUUM FILLER CAP SIGN G.P. ANT. GUY W WV GV MH SS SAN HO OH FO

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	INTERSECTION DETAIL	SHEET 24	E

FILE NAME : N:\PDS\C3D\CAD\13201960\021101_ID.DWG
LAYOUT NAME - 021102_ID

PLOT DATE : 1/20/2016 1:37 PM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

87TH ST.

BUTT JOINT
REQUIRED

CURB RAMP TYPE 4B1
WITH PEDESTRIAN CURB
STA. 259+31, 41.2' LT

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 258+95, 27.0' LT

CURB RAMP TYPE 4B1
WITH PEDESTRIAN CURB
STA. 259+69, 42.0' LT

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 259+93, 26.9' LT

R=5'

R=5'

R=25'

R=25'

STH 11

257+00 258+00 259+00 260+00 261+00 262+00

REMOVE BEACON AND POLE

+33

+68

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 258+95, 21.9' RT

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 259+93, 22' RT

REMOVE DRIVEWAY

CONCRETE SIDEWALK 5-INCH

CONCRETE DRIVEWAY 6-INCH

RELOCATE C.E. DRIVEWAY

GUY POLE

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	INTERSECTION DETAIL	SHEET 25	E

2

2

N

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 262+37, 25.9' LT

BOLLARDS TO BE REMOVED BY
OTHERS PRIOR TO CONSTRUCTION

CURB RAMP TYPE 7B
WITH PEDESTRIAN CURB
STA. 263+17, 25.4' LT

REMOVE
CURB RAMP

REMOVE BEACON AND POLE

PC: 264+79.37

STH 11

260+00 261+00 262+00 263+00 264+00 265+00 266+00

R=23'

R=21'

CURB RAMP TYPE 1
WITH PEDESTRIAN CURB
STA 262+44, 28.0' RT

CURB RAMP TYPE 4B
WITH PEDESTRIAN CURB
STA. 263+12, 29.6' RT

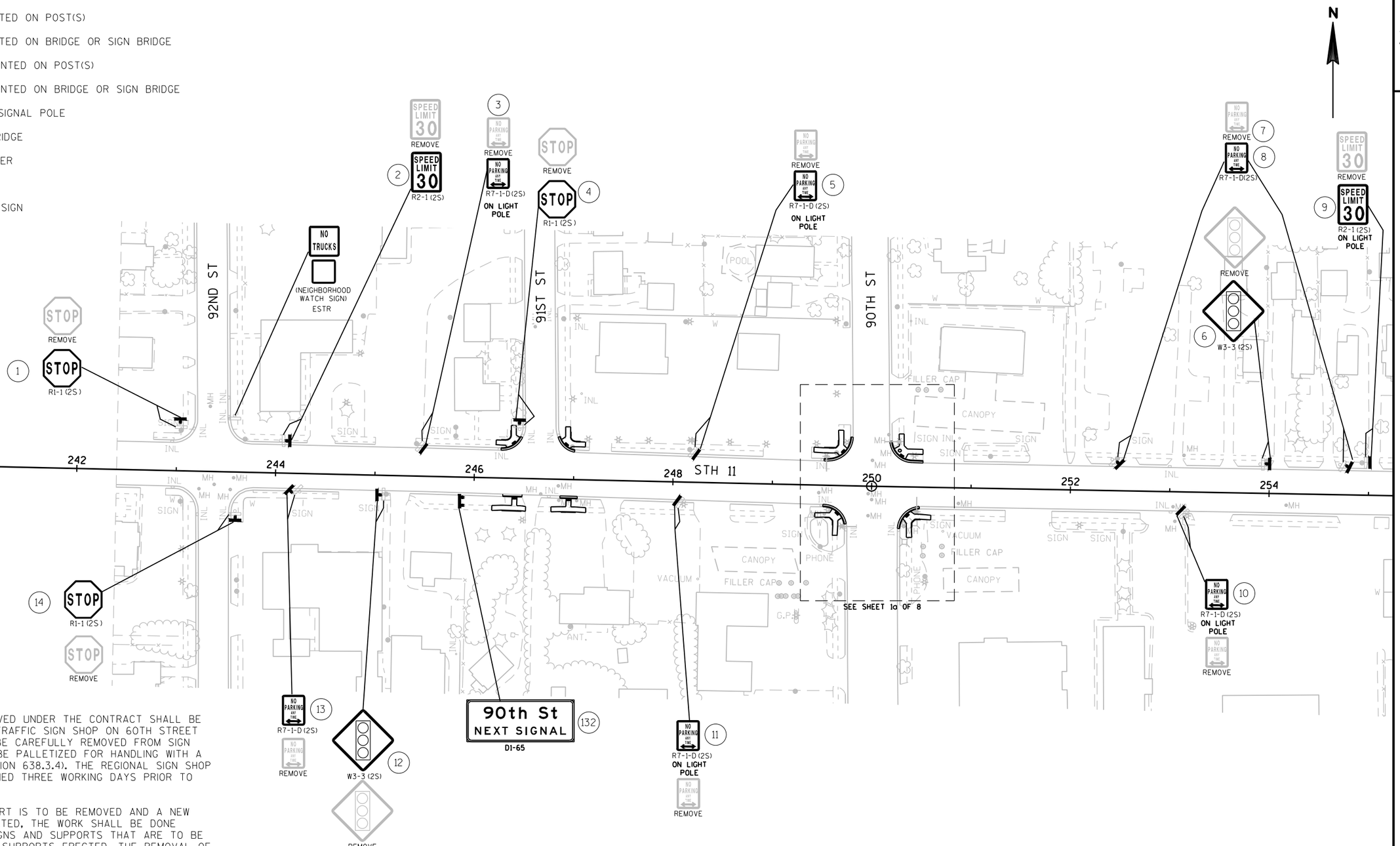
86TH ST.

BUTT JOINT
REQUIRED

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	INTERSECTION DETAIL	SHEET 26	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



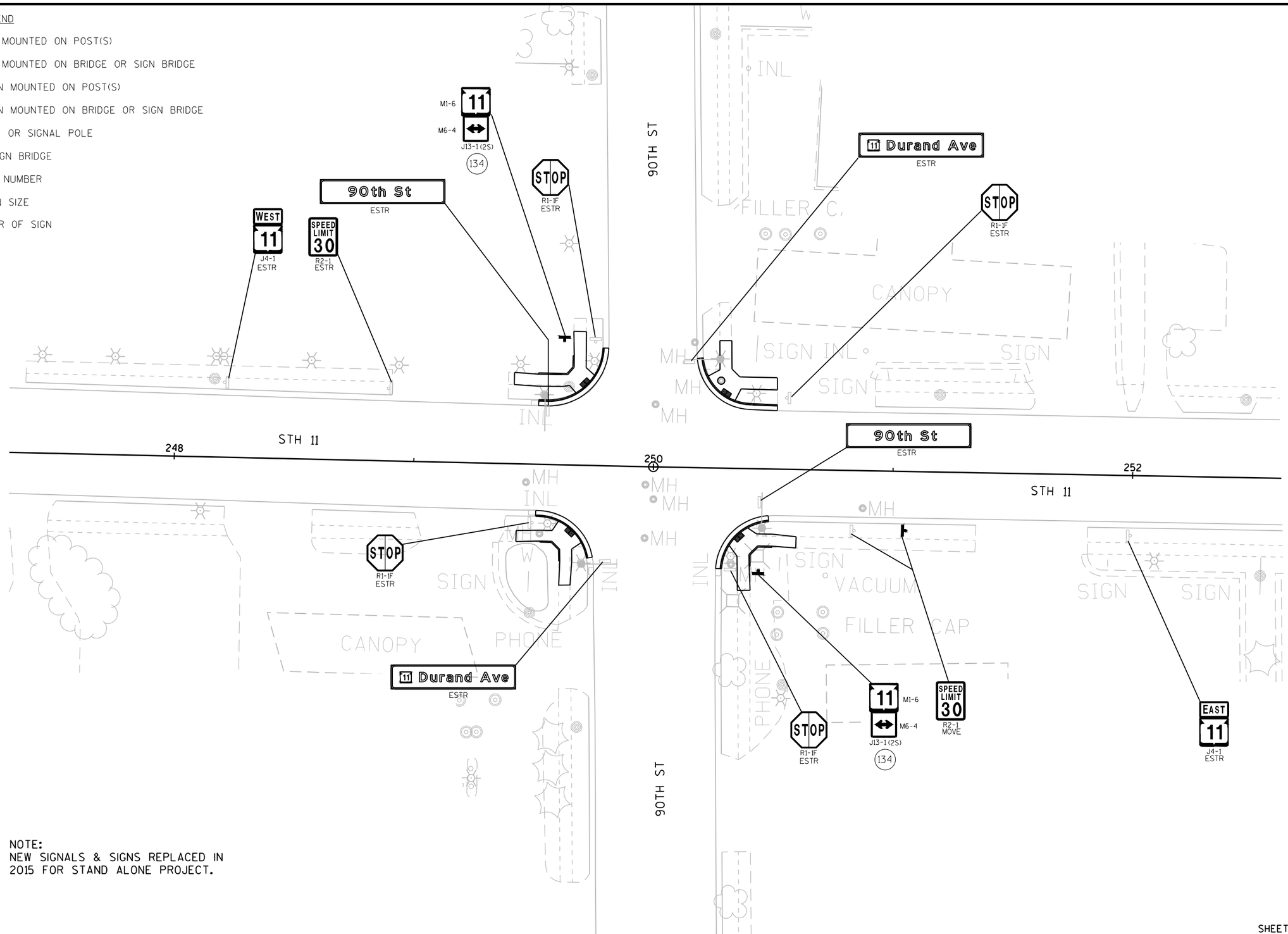
NOTES:
TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC SIGN SHOP ON 60TH STREET IN WEST ALLIS. SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE SPECIAL PROVISION 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN AND SUPPORT AND ERECTION OF THE NEW SIGN AND SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN AND SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS, AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



NOTE:
NEW SIGNALS & SIGNS REPLACED IN
2015 FOR STAND ALONE PROJECT.

SHEET 1A OF 8

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 28	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023201A_PS

PLOT DATE : 1/20/2016 2:05 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:40_XREF

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

136 90th St NEXT SIGNAL

15 NO PARKING ANY TIME REMOVE
R7-1-D (2S)

SPEED LIMIT 30 REMOVE
16 SPEED LIMIT 30
R2-1 (2S)

183 END SCHOOL ZONE
S5-2(2S) ON LIGHT POLE

STOP REMOVE
17 STOP
R1-1(2S)

87TH ST

137 S1-1(2S)
138 S16-7L(2S)
138A PUSH BUTTON TO TURN ON WARNING LIGHTS
R10-25 (2S)
RAPID RECTANGULAR FLASHING BEACON

173 S1-1(2S)
RAPID RECTANGULAR FLASHING BEACON
174 S16-7R (2S)
175 PUSH BUTTON TO TURN ON WARNING LIGHTS
R10-25 (2S)

INSTALL NEW OVERHEAD SIGN SUPPORT (S-51-237)
REMOVE EXISTING OVERHEAD SIGN SUPPORT

INSTALL NEW OVERHEAD SIGN SUPPORT (S-51-236)
REMOVE EXISTING OVERHEAD SIGN SUPPORT

REMOVE
18 S1-1 (2S) ON OVERHEAD

NO PARKING ANY TIME REMOVE
19 NO PARKING ANY TIME
R7-1-D (2S)

141 REMOVE

22 DURING SNOW EMERGENCY ON STREET PARKING IS PROHIBITED
MOVE

SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT REMOVE
23 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
S4-51(2S)

SPEED LIMIT 30 REMOVE
24 SPEED LIMIT 30
R2-1 (2S)

NO PARKING ANY TIME REMOVE
25 NO PARKING ANY TIME
R7-1-D (2S)

256 258 260 262 264 STH 11 266 268

SPEED LIMIT 30 REMOVE
34

35 NO PARKING ANY TIME
R7-1-D (2S)
NO PARKING ANY TIME REMOVE

129 S1-1(2S)
130 AHEAD
S16-9P
182 FINES HIGHER
R2-6P(2S) ON LIGHT POLE
REMOVE
AHEAD REMOVE

SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT REMOVE
33 SCHOOL SPEED LIMIT 20 WHEN CHILDREN ARE PRESENT
S4-51(2S) ON WOOD POST

32 NO PARKING ANY TIME
R7-1-D(2S) ON LIGHT POLE
NO PARKING ANY TIME REMOVE

32 S1-1(2S) ON OVERHEAD
REMOVE

139 S1-1(2S)
RAPID RECTANGULAR FLASHING BEACON
140 S16-7L(2S)
140A PUSH BUTTON TO TURN ON WARNING LIGHTS
R10-25 (2S)

86TH ST

30 STOP
R1-1 (2S)
STOP REMOVE

SPEED LIMIT 30
28 R2-1 (2S) ON LIGHT POLE
SPEED LIMIT 30 REMOVE

29 NO PARKING ANY TIME
R7-1-D (2S) ON LIGHT POLE
NO PARKING ANY TIME REMOVE

170 S1-1(2S)
RAPID RECTANGULAR FLASHING BEACON
171 S16-7R (2S)
172 PUSH BUTTON TO TURN ON WARNING LIGHTS
R10-25 (2S)

SPEED LIMIT 40
26 R2-1 (2M)
184 END SCHOOL ZONE
S5-2(2S) ON LIGHT POLE
SPEED LIMIT 40 REMOVE

27 NO PARKING ANY TIME
R7-1-D (2M) ON LIGHT POLE
NO PARKING ANY TIME REMOVE

SHEET 2 OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 29	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023202_PS

PLOT DATE : 2/5/2016 6:16 AM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

2

84TH ST

STH 11

270 272 274 276 278 280 282 284

20 S1-1(2S)
21 S16-9P(2S) AHEAD
185 R2-6P(2S) FINES HIGHER

REMOVE SPEED LIMIT 30
36 W3-5(2M) SPEED LIMIT 30

142 R5-1(2S) DO NOT ENTER
169 R7-1-D(2M) NO PARKING ANY TIME

37 R1-1(2S) STOP
STREET NAME SIGN
REMOVE STOP

REMOVE STOP
38 R1-1(2S) STOP

ESTR PROPERTY OF VILLAGE Alternate Side Parking

REMOVE NO PARKING ANY TIME
39 R7-1-D(2S) NO PARKING ANY TIME

REMOVE SPEED LIMIT 40
40 R2-1(2M) SPEED LIMIT 40

12-3 SIZE

REMOVE NO PARKING ANY TIME
41 42 R7-1-D(2S) NO PARKING ANY TIME

VILLAGE OF STURTEVANT POPULATION 6970
ESTR 12-3

46 R7-1-R(2M) NO PARKING ANY TIME
REMOVE NO PARKING ANY TIME

45 W3-3(2M)
REMOVE

143 Willow Rd NEXT SIGNAL D1-65

REMOVE NO PARKING ANY TIME
44 R7-1-D(2M) NO PARKING ANY TIME

43 W12-2(2M) 14'-0"
REMOVE 14'-0"

NOTE: CONTRACTOR TO NOTIFY VILLAGE OF STURTEVANT TO REMOVE AND RELOCATE STREET NAME SIGNS.

DO NOT MOUNT STREET NAME SIGNS ON TOP OF STOP SIGNS.

SHEET 3 OF 8

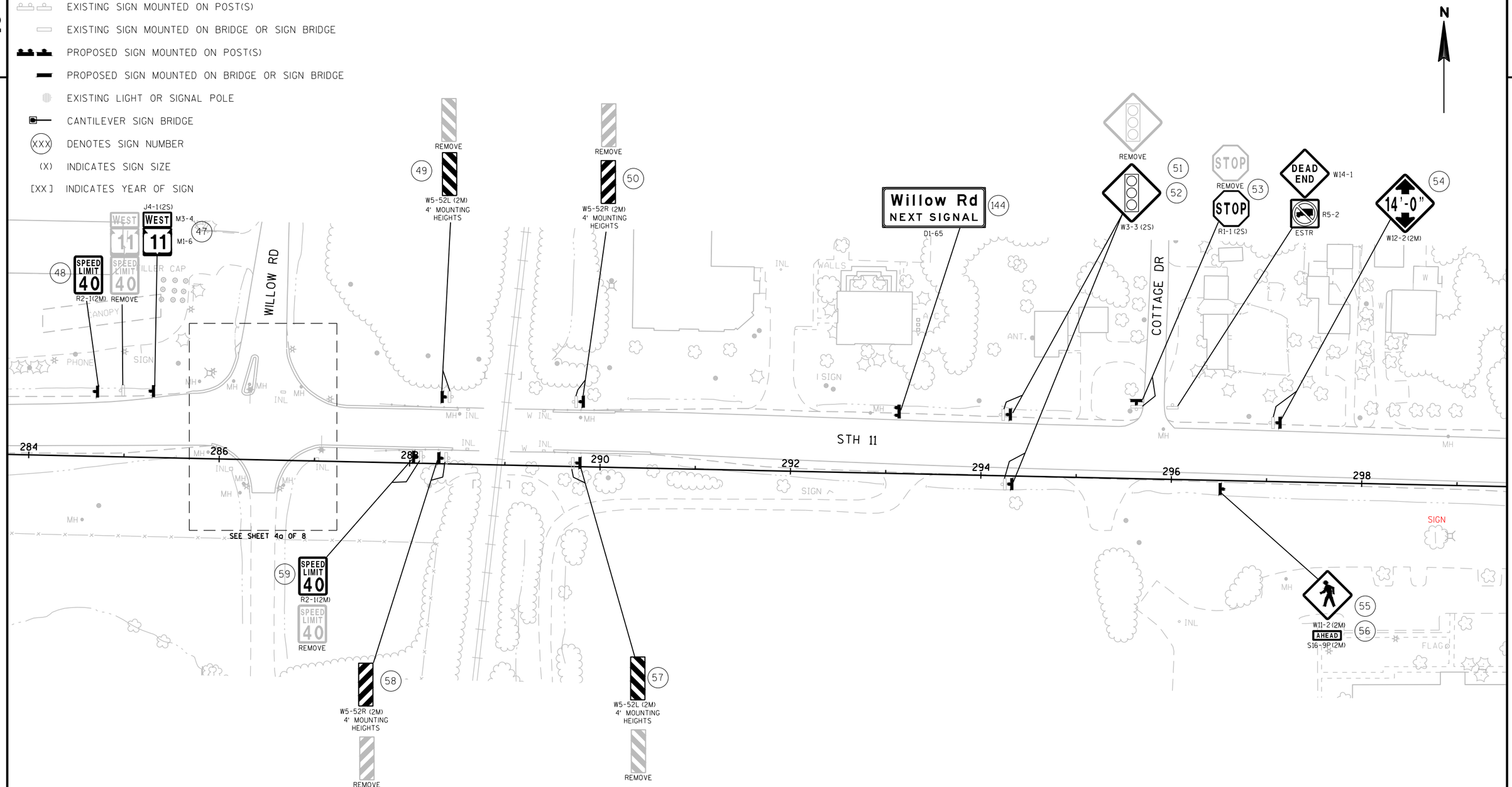
PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 30	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023203_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 4 OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 31	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023204_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

2

WILLOW RD

STH 11

STH 11

284

286

288

PHONE

SIGN

MH

INL

W INL

145
M1-6
11
M6-4
J13-1 (2S)

YIELD
REMOVE
YIELD
62
R1-2 (2S)

NO PARKING ANY TIME
REMOVE
60
NO PARKING ANY TIME
R7-1-L(2M)

STOP
REMOVE
STOP
62
R1-1F(2M) ON SIGNAL POLE

ONE WAY
146
R6-2-L(2S)

STOP
REMOVE
STOP
63
R1-1F(2M) ON SIGNAL POLE

147
148
Willow Rd
MI-94 ON OVERHEAD

66
STOP
R1-1F(2M) ON SIGNAL POLE
STOP
REMOVE

M3-2
EAST
64
M1-6
11
J4-1 (2S) ON SIGNAL POLE

EAST
11
REMOVE

M1-6
11
149
M6-4
65
STOP
R1-1F(2M) ON SIGNAL POLE
STOP
REMOVE

SHEET 4A OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 32	E

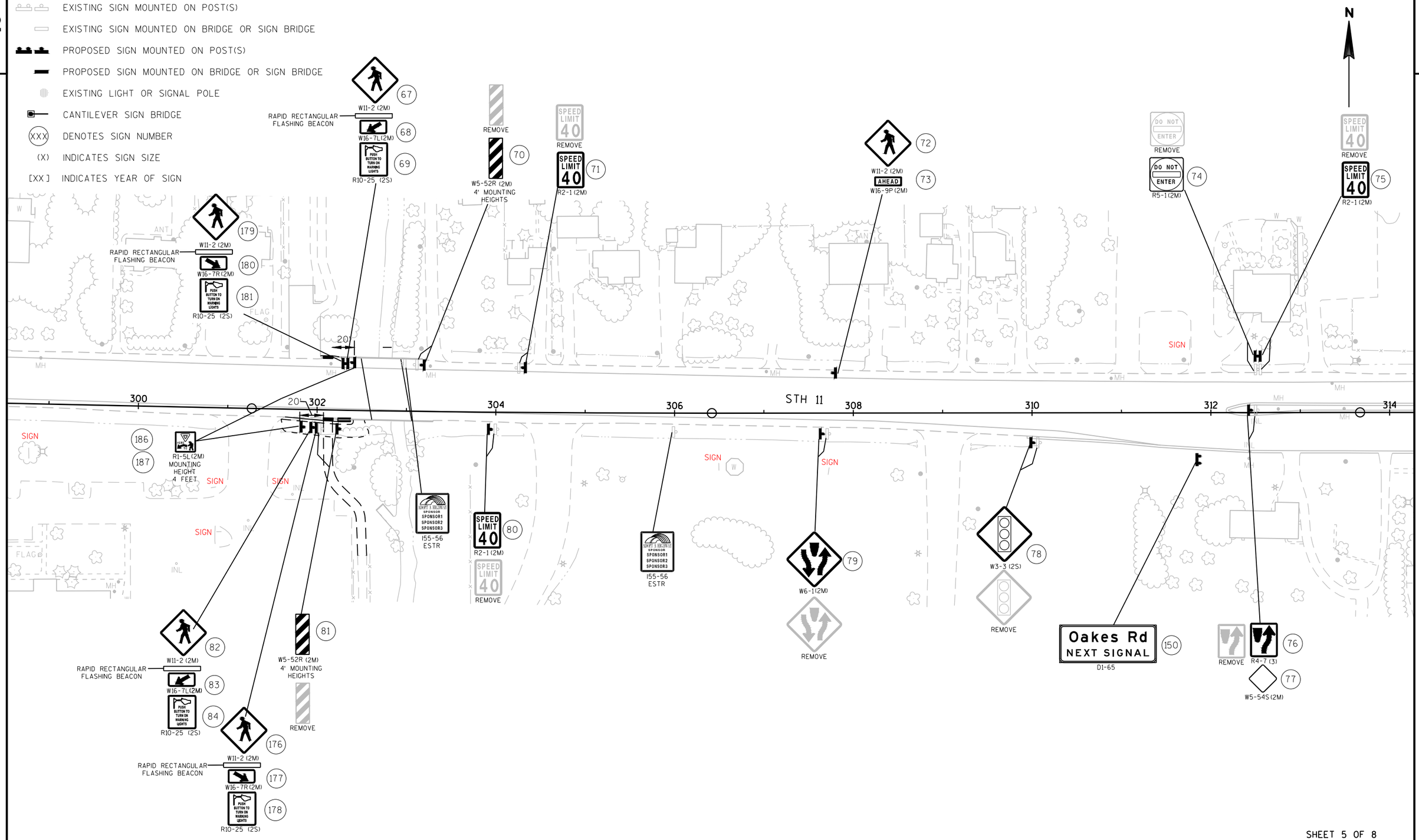
FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023204A_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:40_XREF

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 5 OF 8

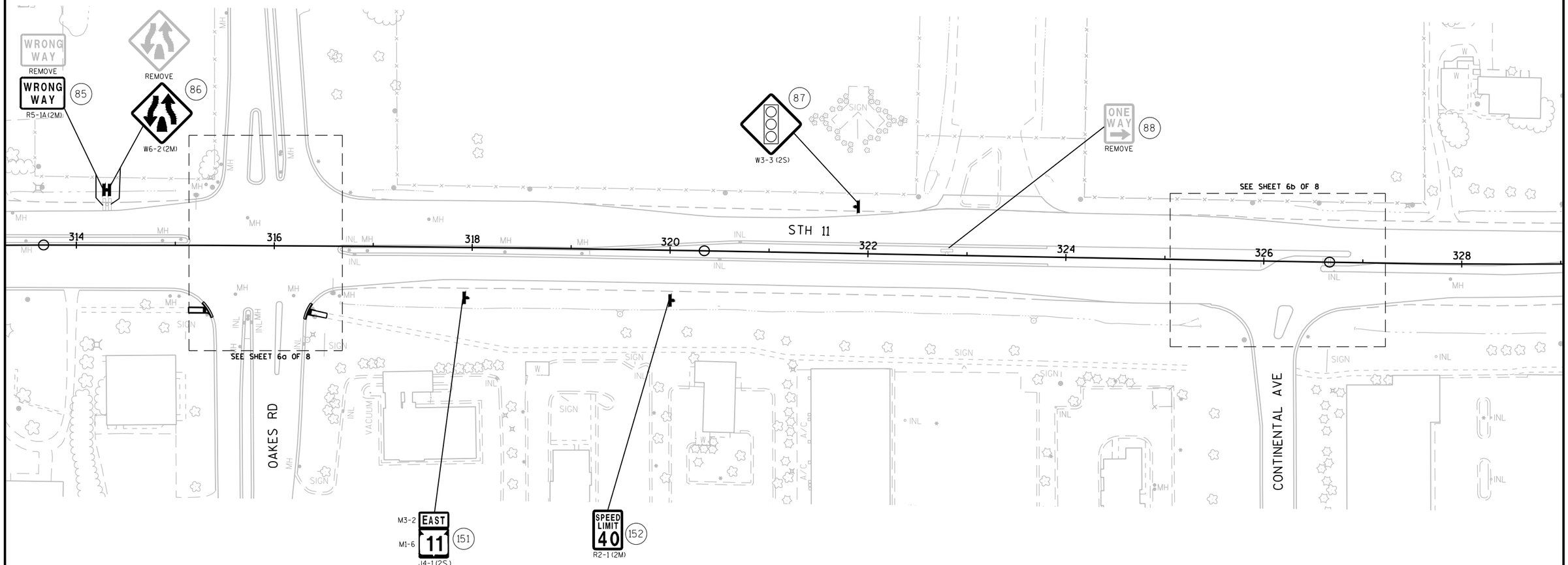
PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 33	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023205_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN



SHEET 6 OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 34	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023206_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

2

STH 11

OAKES RD

153 M3-4 WEST 11 M1-6 — J4-1(2S) ON SIGNAL POLE

89 ONE WAY — REMOVE

89 ONE WAY — R6-2-L (2S) ON SIGNAL POLE

STOP — REMOVE

90 91 STOP — R1-1F(2M) ON SIGNAL POLE

154 DO NOT ENTER — R5-1(2M)

92 — REMOVE; R4-7(2M) ON SIGNAL POLE

156 Oakes Rd — M1-94H ON OVERHEAD

155 ONE WAY — R6-2-L (2S) ON SIGNAL POLE

DO NOT ENTER — REMOVE

93 DO NOT ENTER — R5-1(2M) ON SIGNAL POLE

94 95 STOP — R1-1F(2M) ON SIGNAL POLE

STOP — REMOVE

STH 11

314 316 318

100 — R4-7(2M) ON SIGNAL POLE; REMOVE

101 102 STOP — R1-1F(2M) ON SIGNAL POLE

STOP — REMOVE

99 — R4-7(2M) ON SIGNAL POLE; REMOVE

96 — REMOVE; R4-7(2M) ON SIGNAL POLE

157 Oakes Rd — M1-94H ON OVERHEAD

103 DO NOT ENTER — R5-1(2M) ON SIGNAL POLE

DO NOT ENTER — REMOVE

158 ONE WAY — R6-2-L (2S) ON SIGNAL POLE

98 159 STOP — R1-1F(2M) ON SIGNAL POLE

STOP — REMOVE

160 DO NOT ENTER — R5-1 (2M) ON SIGNAL POLE

97 ONE WAY — R6-2-L (2S) ON SIGNAL POLE

ONE WAY — REMOVE

SHEET 6A OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 35	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023206A_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

[XX] INDICATES YEAR OF SIGN

N

2

SPEED LIMIT 40
REMOVE

SPEED LIMIT 40
104
R2-1(2M)

Oakes Rd
NEXT SIGNAL
161
D1-65

REMOVE
105
W12-1D(2S)
2' MOUNT HEIGHT

STH 11

324

326

328

INL

MH

STH 11

REMOVE

107
R4-7(2S)

112
R3-2(2S)

REMOVE

DO NOT ENTER
110
111
R5-1(2M)

DO NOT ENTER
REMOVE

108
109
STOP
R1-1(2M)

STOP
REMOVE

SIGN

RIGHT TURN ONLY
128
R3-53-R(2S)

ONE WAY
106
R6-2-R(2S)

ONE WAY
REMOVE

CONTINENTAL AVE

SHEET 6B OF 8

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 36	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023206B_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:40_XREF

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

N

113 REMOVE R3-55L; BEGIN LEFT TURN LANE R3-20-L(2M)

114 REMOVE; R4-7 (3)

115 W5-54S(2S)

116 REMOVE; W6-2(2M)

117 STOP R1-1(2M)

166 TRAFFIC ON 11 DOES NOT STOP W4-4C(2M)

STOP REMOVE

MOVE BY BUS COMPANY TO SEPARATE POLE

DEAD END W14-1 ESTR

118 NO PARKING ANY TIME REMOVE; R7-1-R(2M)

167 Cozy Acre Road D1-61 (MOD)

MOVE BY BUS COMPANY TO SEPARATE POLE

119 BUS STOP; SPEED LIMIT 40 R2-1(2M); SPEED LIMIT 40 REMOVE

168 W2-1(2M) 16"x16" PERMANENT FLAGS

RUINS

MH

8 330 332 334 336 338 340 342

STH 11

COZY ACRE RD

124 WRONG WAY R5-1A(2M); WRONG WAY REMOVE

125 W6-2(2M); REMOVE

162 W2-1(2M) 16"x16" PERMANENT FLAGS

123 SPEED LIMIT 40 R2-1(2M); SPEED LIMIT 40 REMOVE

122 DO NOT ENTER R5-1(2M); DO NOT ENTER REMOVE

163 Cozy Acre Road D1-61 (MOD)

STREET NAME SIGN

164 DEAD END W14-1(2S); DEAD END REMOVE

BUS STOP ESTR

121 STOP R1-1(2M); STOP REMOVE

165 TRAFFIC ON 11 DOES NOT STOP W4-4C(2M)

120 SPEED LIMIT 40 R2-1(2M); SPEED LIMIT 40 REMOVE

NOTE: CONTRACTOR TO NOTIFY VILLAGE OF STURTEVANT TO REMOVE AND RELOCATE STREET NAME SIGNS.

SHEET 7 OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 37	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIGN\023201_PS.DWG
LAYOUT NAME - 023207_PS

PLOT DATE : 1/20/2016 2:06 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

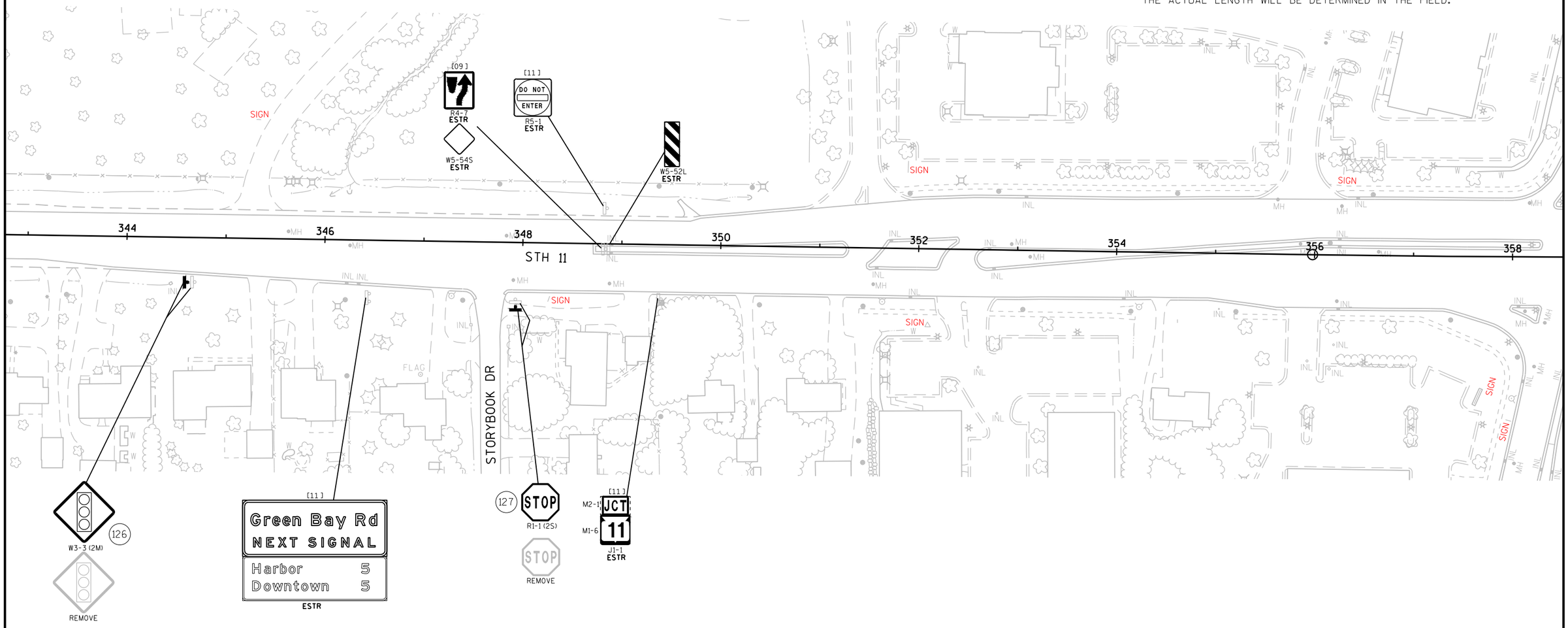
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- [XX] INDICATES YEAR OF SIGN

NOTES:
TYPE II ALUMINUM SIGNS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC SIGN SHOP ON 60TH STREET IN WEST ALLIS. SIGNS SHALL BE CAREFULLY REMOVED FROM SIGN SUPPORTS. THE SIGNS SHALL BE PALLETIZED FOR HANDLING WITH A FORKLIFT (SEE SPECIAL PROVISION 638.3.4). THE REGIONAL SIGN SHOP (414-266-1165) SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF THE SIGNS.

WHEN AN EXISTING SIGN SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED, THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN AND SUPPORT AND ERECTION OF THE NEW SIGN AND SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN AND SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POST SIZES FOR TYPE II SIGNS ARE ESTIMATED LENGTHS, AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



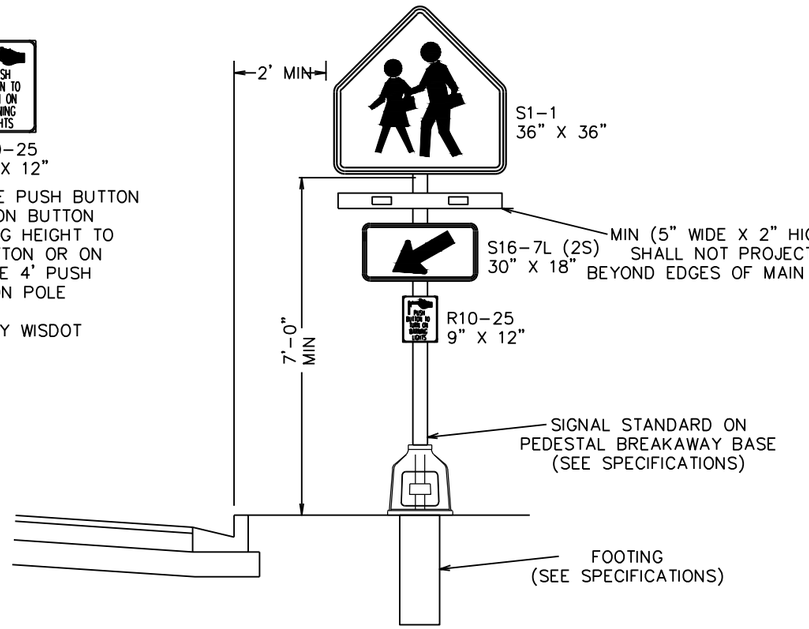
SHEET 8 OF 8

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PERMANENT SIGNING	SHEET 38	E

R10-25
9" X 12"

LOCATE ABOVE PUSH BUTTON ACTIVATION BUTTON
4' MOUNTING HEIGHT TO PUSH BUTTON OR ON SEPARATE 4' PUSH BUTTON POLE

SIGN BY WISDOT



RECTANGULAR RAPID
FLASHING BEACON
URBAN LOCATION

86TH STREET

NOTE:
USE ARROW S16-7R FOR
LEFT SIDE MOUNTING

R10-25
9" X 12"

LOCATE ABOVE PUSH BUTTON ACTIVATION BUTTON
4' MOUNTING HEIGHT TO PUSH BUTTON OR ON SEPARATE 4' PUSH BUTTON POLE

SIGN BY WISDOT

RECTANGULAR RAPID
FLASHING BEACON
RURAL LOCATION

TRAIL CROSSING

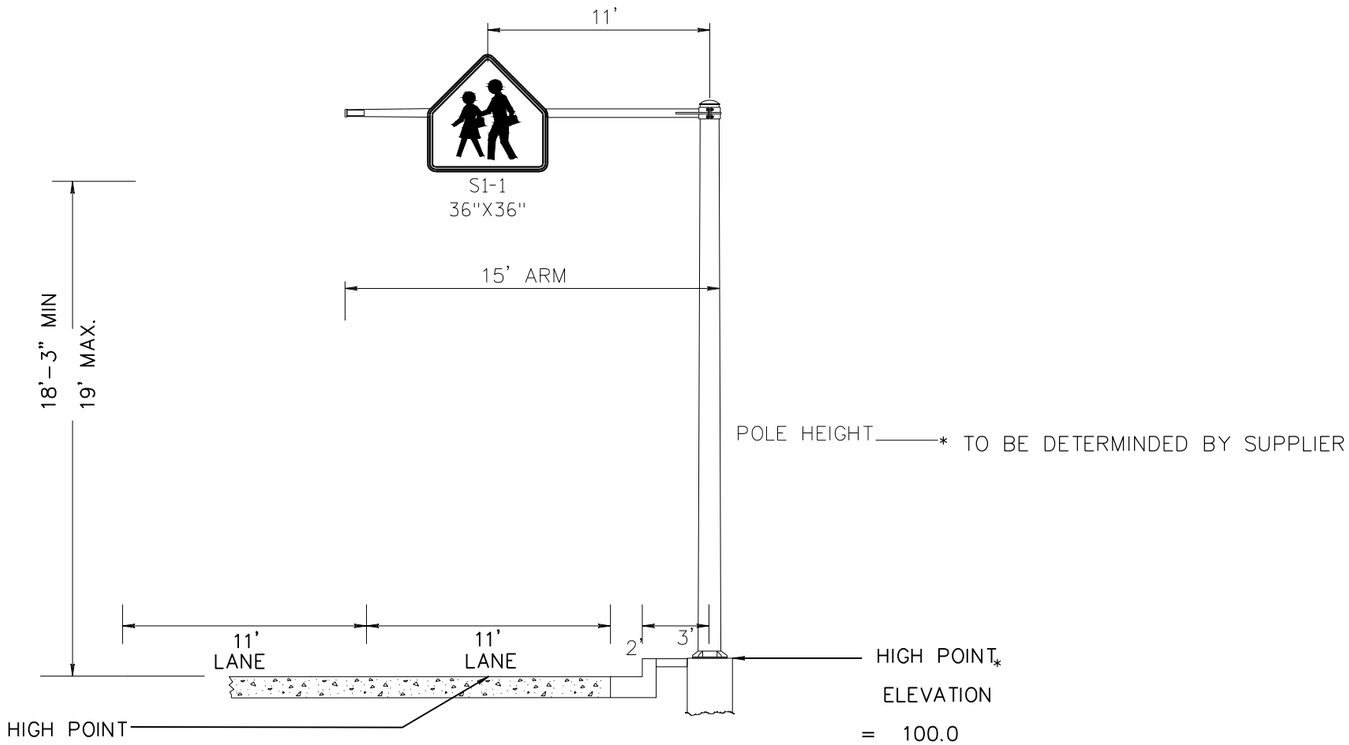
RECTANGULAR RAPID FLASHING BEACON

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	FLASHER SIGNING ASSEMBLY	SHEET 39	E

2

NOTE, CONTRACTOR SHALL:

1.) SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2.) PROVIDE DESIGN CALCULATIONS.
3.) SHOW SIGNS ON SHOP DRAWINGS.
4.) I.D. PLAQUE INCIDENTAL TO SIGN SUPPORT
5.) 6ANCHER RODS SHALL BE USED PER SDD



OVERHEAD SIGN SUPPORTS DETAIL

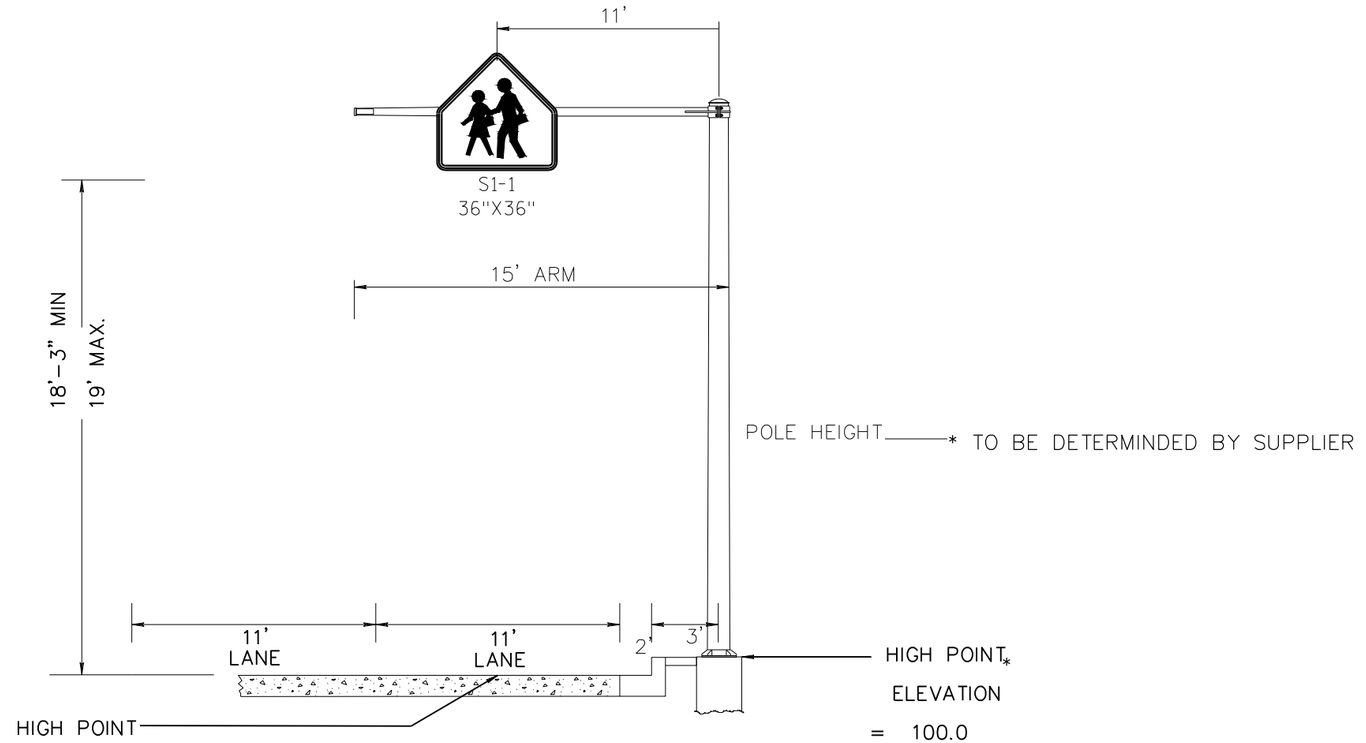
S-51-236
STATION 262+00
STH 11 EB @ 86TH STREET

DESIGNER NOTE:

CONTRACTOR TO USE SDD 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

MOUNTING BRACKETS FOR SIGNS TO BE APPROVED FROM PRODUCT LIST FOR TYPE II SIGNS

2



OVERHEAD SIGN SUPPORTS DETAIL

S-51-237

STATION 263+25

WESTBOUND STH 11 @ 86TH STREET

NOTE, CONTRACTOR SHALL:

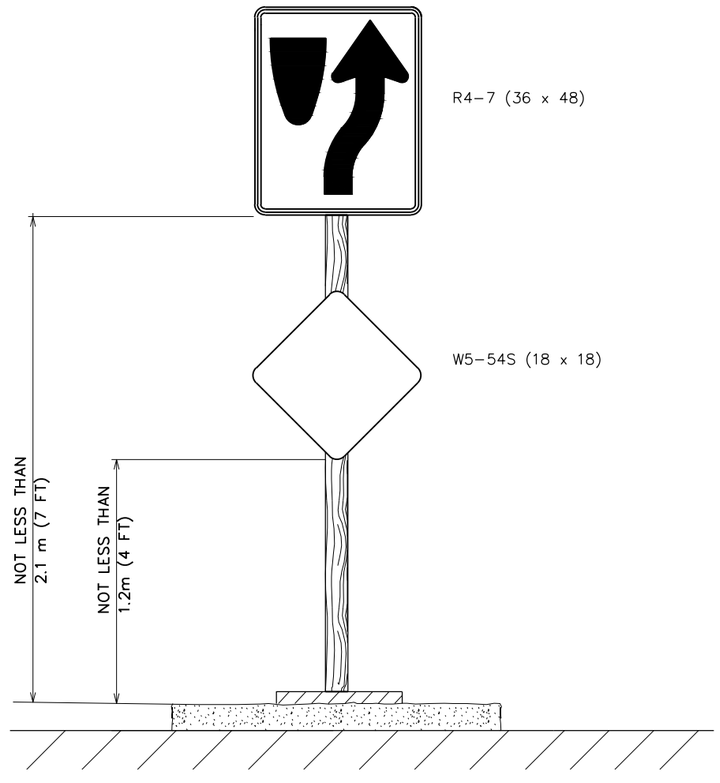
1.) SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2.) PROVIDE DESIGN CALCULATIONS.
3.) SHOW SIGNS ON SHOP DRAWINGS.
4.) I.D. PLAQUE INCIDENTAL TO SIGN SUPPORT
5.) 6ANCHER RODS SHALL BE USED PER SDD

DESIGNER NOTE:

CONTRACTOR TO USE SDD 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

MOUNTING BRACKETS FOR SIGNS TO BE APPROVED FROM PRODUCT LIST FOR TYPE II SIGNS

2



TYPICAL INSTALLATION FOR
TRANSITION TO DIVIDED HIGHWAY
OR OTHER SPECIAL NEEDS AREAS

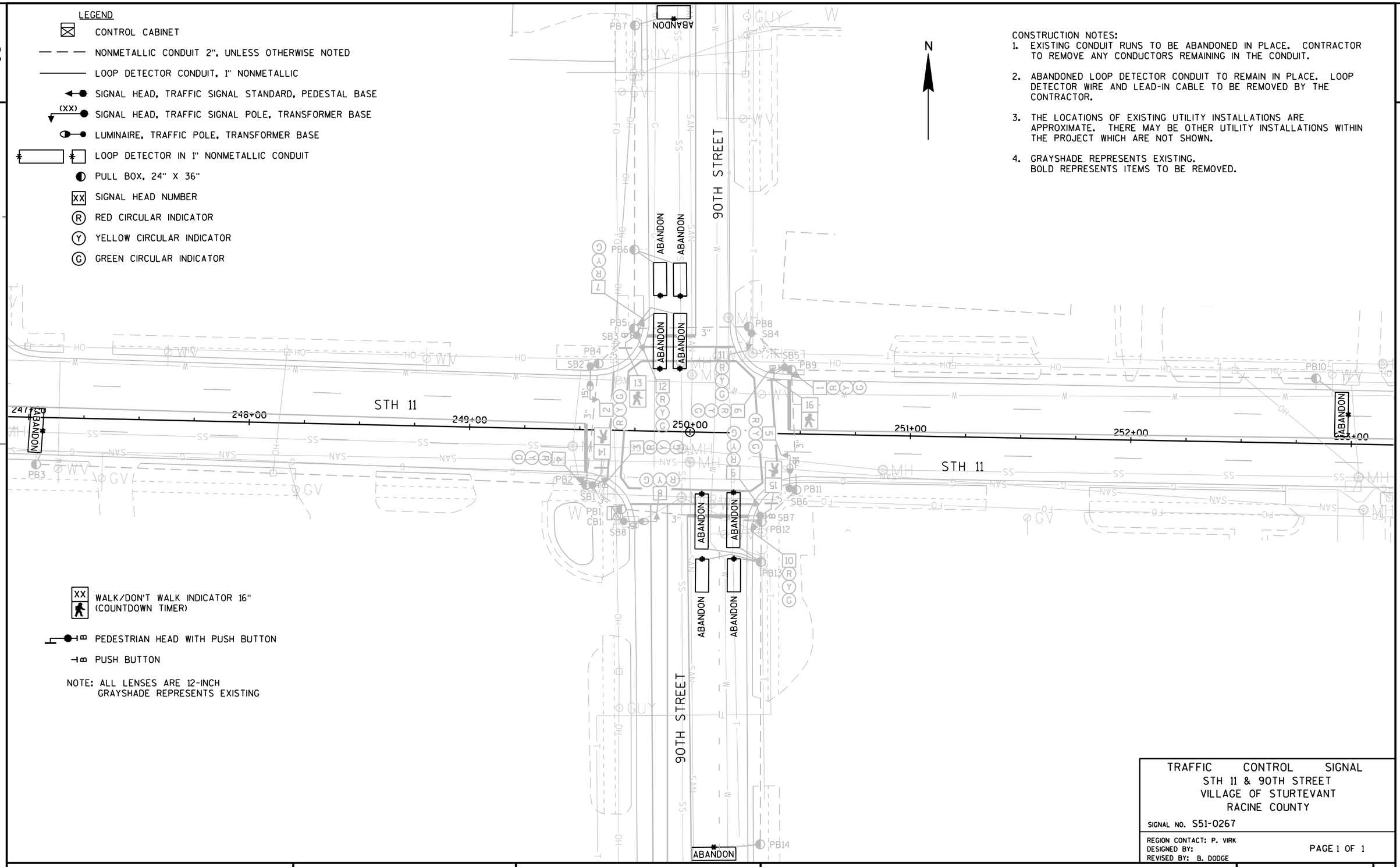
PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	DIVIDED HIGHWAY SIGN	SHEET 42	E

LEGEND

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

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. GRAYSHADE REPRESENTS EXISTING.
   BOLD REPRESENTS ITEMS TO BE REMOVED.



XX WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

PEDESTRIAN HEAD WITH PUSH BUTTON

PUSH BUTTON

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 11 & 90TH STREET
VILLAGE OF STURTEVANT
RACINE COUNTY

SIGNAL NO. S51-0267

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 1 OF 1

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 43	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0267\S51-0267_D_REM.DWG PLOT DATE : 2/5/2016 9:39 AM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

LEGEND

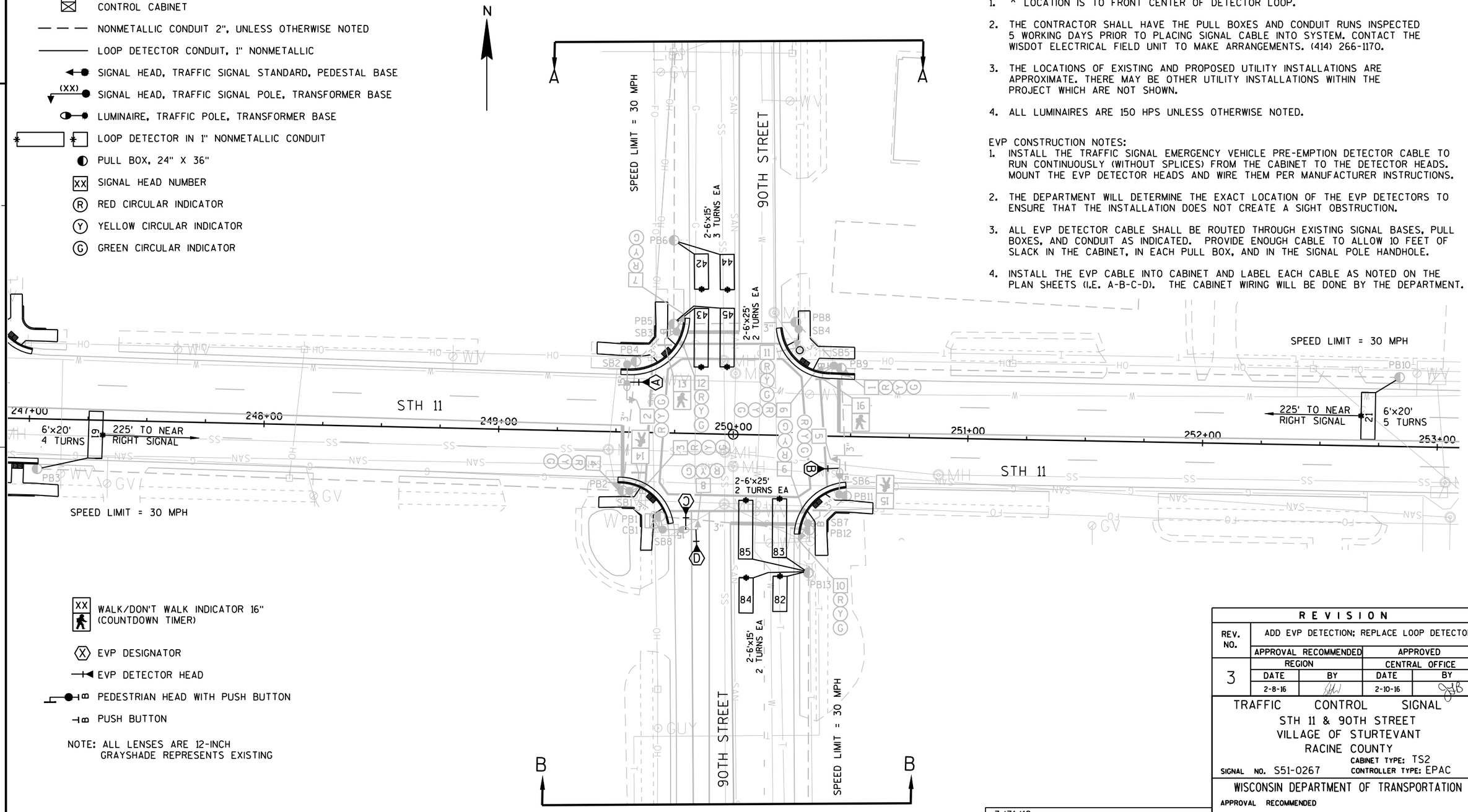
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT, 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT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

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE 150 HPS UNLESS OTHERWISE NOTED.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. INSTALL THE EVP CABLE INTO CABINET AND LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. A-B-C-D). THE CABINET WIRING WILL BE DONE BY THE DEPARTMENT.



- XX WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

REVISION				
REV. NO.	ADD EVP DETECTION; REPLACE LOOP DETECTORS			
	APPROVAL RECOMMENDED		APPROVED	
3	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2-8-16		2-10-16	

3/31/10
CHANGE PEDESTRIAN HEADS 13,14,15,16 TO COUNT DOWN TIMERS.
CHANGE CABINET & CONTROLLER

2/20/02
RENUMBER LOOPS HEADS & PULL BOXES.
CHANGE EMERGENCY FLASH TO RED-RED

TRAFFIC CONTROL SIGNAL
STH 11 & 90TH STREET
VILLAGE OF STURTEVANT
RACINE COUNTY
CABINET TYPE: TS2
SIGNAL NO. S51-0267 CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 12-21-83 — JOHN A. WHITE, REGION TRAFFIC ENGINEER

APPROVED
DATE 8-19-80 — H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 1 OF 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 44	E

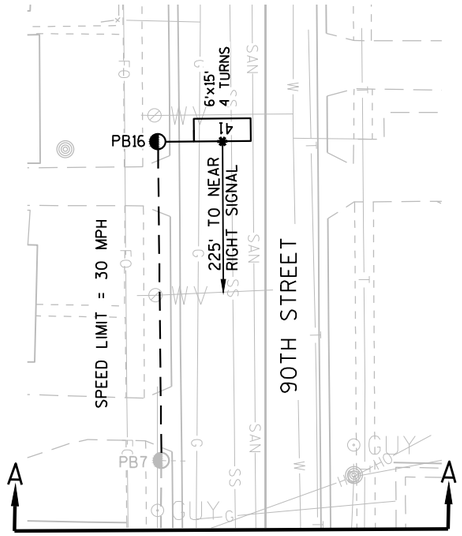
FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0267\S51-0267_D.DWG
LAYOUT NAME - S51-0267_D_PG1

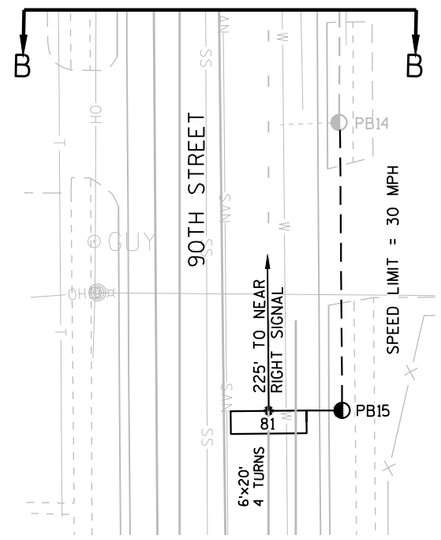
PLOT DATE : 2/10/2016 1:28 PM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME :

WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
STH 11 & 90TH STREET
VILLAGE OF STURTEVANT
RACINE COUNTY

SIGNAL NO. S51-0267

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

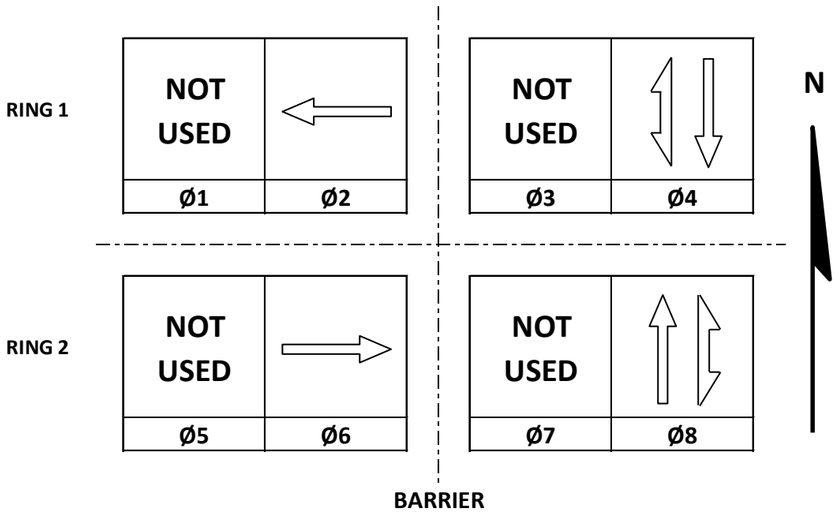
PAGE 2 OF 3

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 45	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0267\S51-0267_D.DWG
LAYOUT NAME - S51-0267_D_PG2

PLOT DATE : 2/10/2016 1:28 PM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

	HEAD NUMBERS	FLASH
Ø1		
Ø2	1,2,3	R
Ø3		
Ø4	7,8,9	R
Ø5		
Ø6	4,5,6	R
Ø7		
Ø8	10,11,12	R
Ø2P		
Ø4P	13,14	
Ø6P		
Ø8P	15,16	
OLA		
OLB		
OLC		
OLD		



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21	1	X			2	2				6 X 20	5
41	2			X		4			X	6 X 15	4
42	3	X			4	4		X		6 X 15	3
43	3	X			4	4		X		6 X 25	2
44	4	X			4	4		X		6 X 15	3
45	4	X			4	4		X		6 X 25	2
61	5	X			6	6				6 X 20	4
81	6			X		8			X	6 X 20	4
82	7	X			8	8		X		6 X 15	2
83	7	X			8	8		X		6 X 25	2
84	8	X			8	8		X		6 X 15	2
85	8	X			8	8		X		6 X 25	2

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	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED

STH 11 & 90th Street
VILLAGE OF STURTEVANT
RACINE COUNTY
SIGNAL NO: S51-0267 CABINET TYPE: TS1
CONTROLLER TYPE: EPAC
DATE: FEB - 2016 PAGE NO. 3 OF 3

PROJECT ID:	1320-19-60
INTERSECTION:	STH 11 & 90TH STREET

EVP Cable	
From	To
CB1	SB2 (HEAD A)
CB1	SB6 (HEAD B)
CB1	SB8 (HEAD C)
CB1	SB8 (HEAD D)

CONSTRUCTION NOTES:
1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. GRAYSHADE REPRESENTS EXISTING. BOLD REPRESENTS ITEMS TO BE REMOVED.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC CONDUIT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

TRAFFIC CONTROL SIGNAL
STH 11 & OAKES ROAD
VILLAGE OF MOUNT PLEASANT
RACINE COUNTY

SIGNAL NO. S51-0733

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 1 OF 2

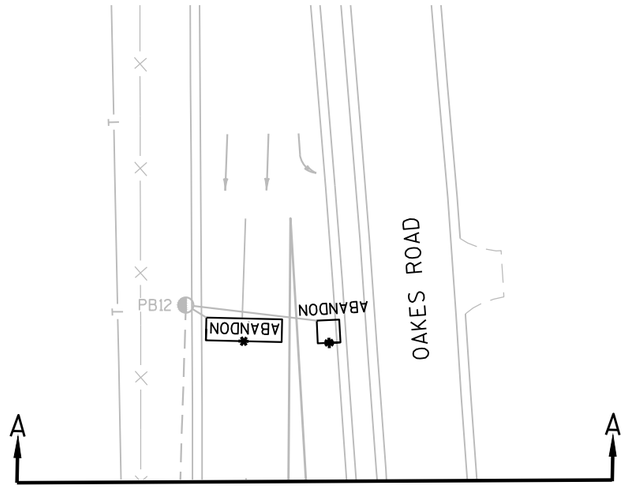
PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 48	E

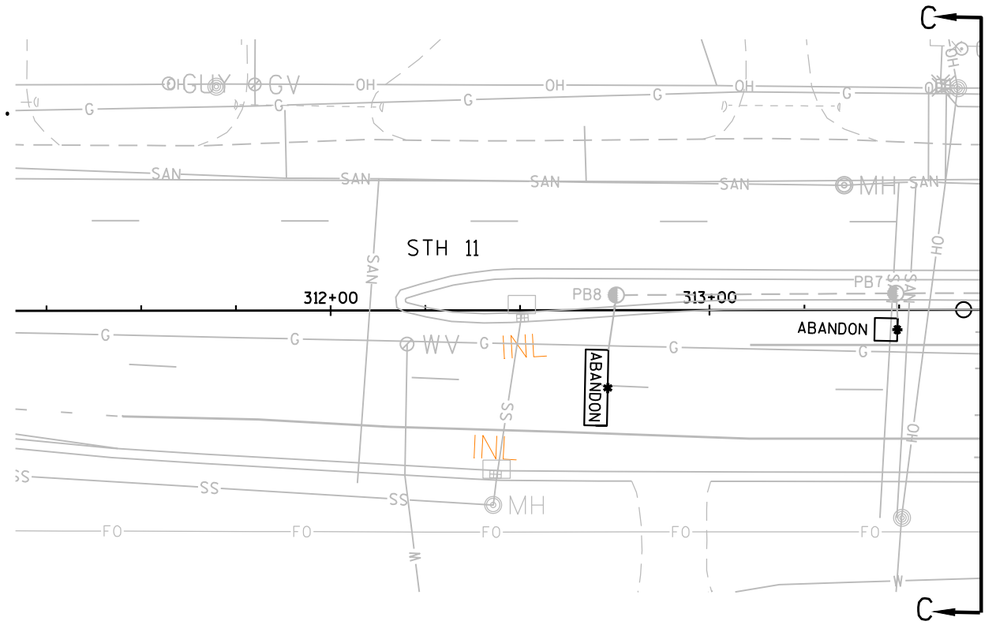
FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0733\S51-0733_REM.DWG
LAYOUT NAME - S51-0733_REM_PG1

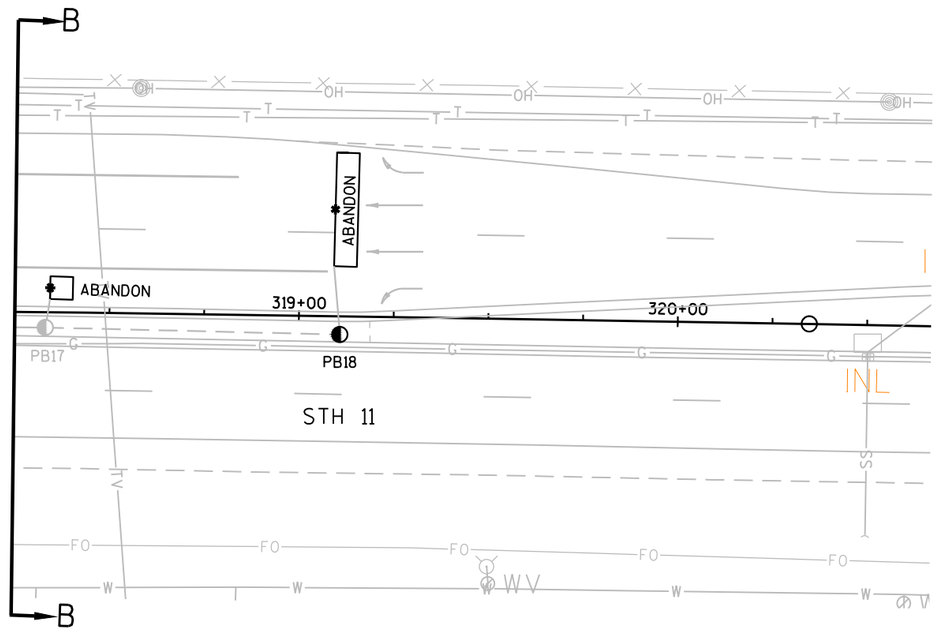
PLOT DATE : 1/29/2016 12:41 PM PLOT BY : VANDE LEEST, CYNTHIA PLOT NAME :

WISDOT/CADDS SHEET 42

2







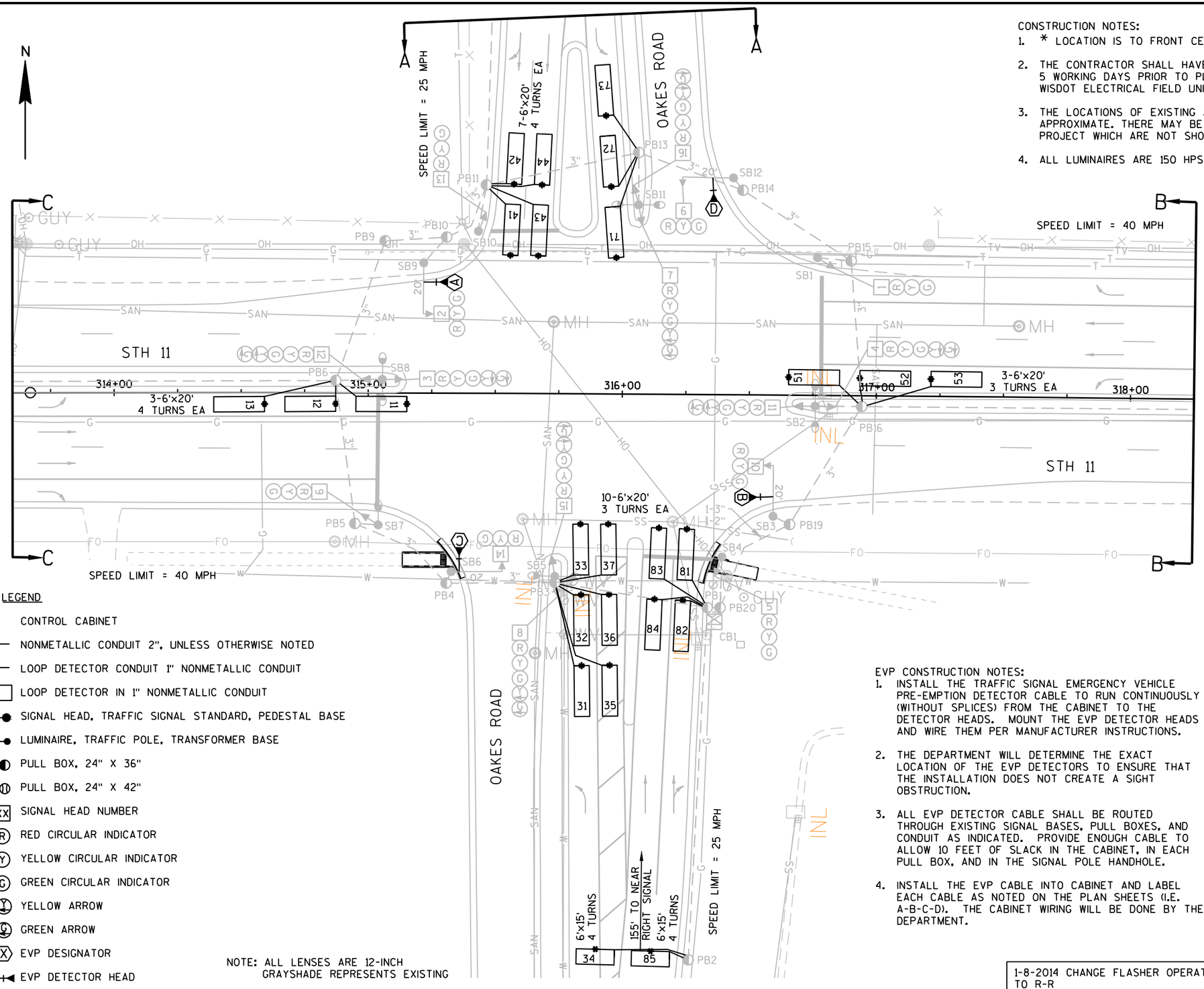
TRAFFIC CONTROL SIGNAL
STH 11 & OAKES ROAD
VILLAGE OF MOUNT PLEASANT
RACINE COUNTY

SIGNAL NO. S51-0733

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 2 OF 2

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 49	E



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC CONDUIT
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414) 266-1170.
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. ALL LUMINAIRES ARE 150 HPS UNLESS OTHERWISE NOTED.

EVP CONSTRUCTION NOTES:

1. INSTALL THE TRAFFIC SIGNAL EMERGENCY VEHICLE PRE-EMPTION DETECTOR CABLE TO RUN CONTINUOUSLY (WITHOUT SPLICES) FROM THE CABINET TO THE DETECTOR HEADS. MOUNT THE EVP DETECTOR HEADS AND WIRE THEM PER MANUFACTURER INSTRUCTIONS.
2. THE DEPARTMENT WILL DETERMINE THE EXACT LOCATION OF THE EVP DETECTORS TO ENSURE THAT THE INSTALLATION DOES NOT CREATE A SIGHT OBSTRUCTION.
3. ALL EVP DETECTOR CABLE SHALL BE ROUTED THROUGH EXISTING SIGNAL BASES, PULL BOXES, AND CONDUIT AS INDICATED. PROVIDE ENOUGH CABLE TO ALLOW 10 FEET OF SLACK IN THE CABINET, IN EACH PULL BOX, AND IN THE SIGNAL POLE HANDHOLE.
4. INSTALL THE EVP CABLE INTO CABINET AND LABEL EACH CABLE AS NOTED ON THE PLAN SHEETS (I.E. A-B-C-D). THE CABINET WIRING WILL BE DONE BY THE DEPARTMENT.

REVISION				
REV. NO.	ADD EMERGENCY VEHICLE PREEMPTION; RELOCATE AND REPLACE LOOPS IN KIND			
	APPROVAL RECOMMENDED		APPROVED	
2	REGION		CENTRAL OFFICE	
	DATE	BY	DATE	BY
	2-8-16		2-10-16	

TRAFFIC CONTROL SIGNAL
STH 11 & OAKES ROAD
VILLAGE OF MOUNT PLEASANT
RACINE COUNTY
CABINET TYPE: TS1
SIGNAL NO. S51-0733 CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
DATE 9/16/98 — MITZI M. DOBERSEK, REGION TRAFFIC ENGINEER

APPROVED
DATE 10/09/98 — WILLIAM C. GILDING, STATE TRAFFIC ENGINEER

1-8-2014 CHANGE FLASHER OPERATION TO R-R

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

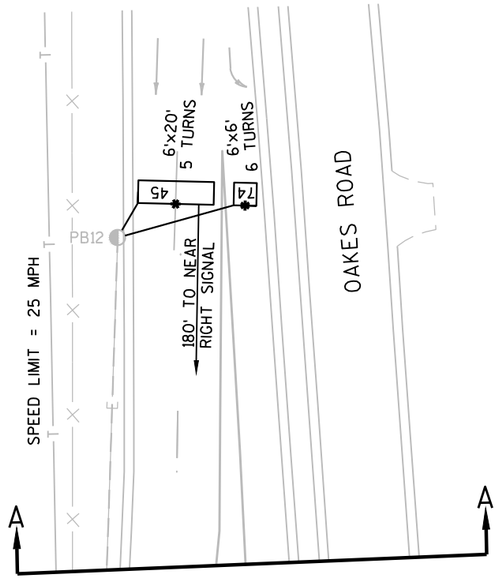
PAGE 1 OF 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 50	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0733\S51-0733_C.DWG
LAYOUT NAME - S51-0733_C_PG1

PLOT DATE : 2/10/2016 1:31 PM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

WISDOT/CADDS SHEET 42



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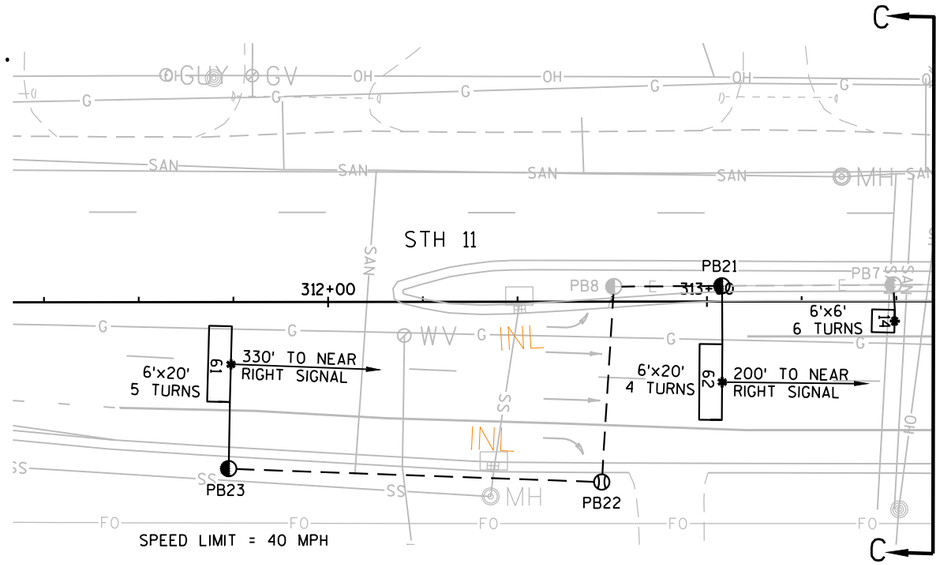
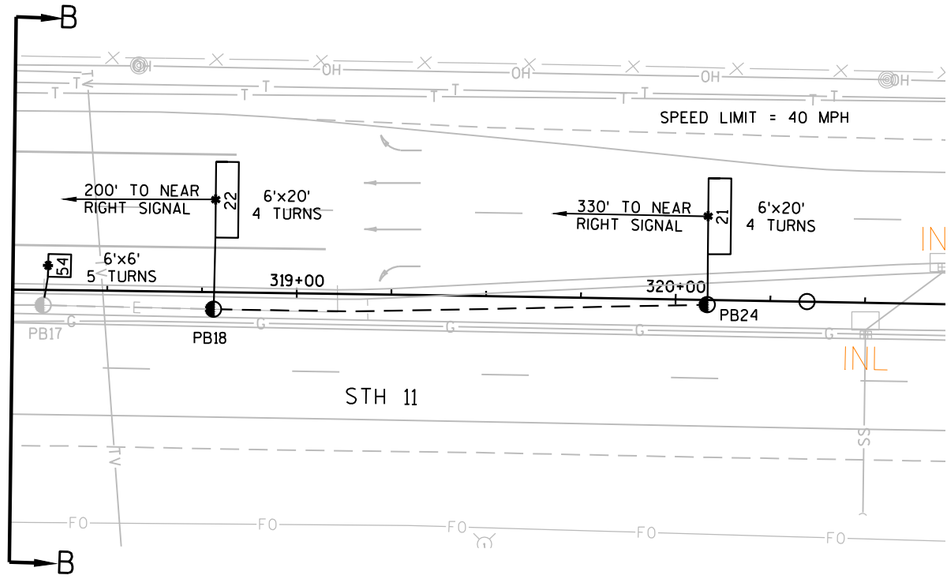




TRAFFIC CONTROL SIGNAL
STH 11 & OAKES ROAD
VILLAGE OF MOUNT PLEASANT
RACINE COUNTY

SIGNAL NO. S51-0733

REGION CONTACT: P. VIRK
DESIGNED BY:
REVISED BY: B. DODGE

PAGE 2 OF 3

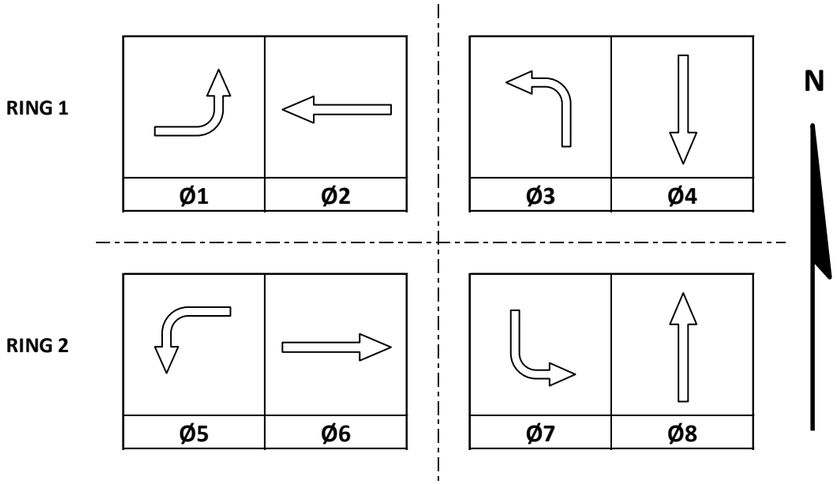
PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC SIGNAL PLAN	SHEET 51	E

FILE NAME : N:\PDS\C3D\CAD\13201960\SIG\S51-0733\S51-0733_C.DWG
LAYOUT NAME - S51-0733_C_PG2

PLOT DATE : 2/10/2016 1:31 PM PLOT BY : VANDE LEEST, CYNTHIAPLOT NAME :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	11,12	-
Ø2	1,2,3,4	R
Ø3	7,8	-
Ø4	13,14,15,16	R
Ø5	3,4	-
Ø6	9,10,11,12	R
Ø7	15,16	-
Ø8	5,6,7,8	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



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	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

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

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	1	X			1	1				6 x 20	4
12	2	X			1	1				6 x 20	4
13	3	X			1	1				6 x 20	4
14	4			X		1			X	6 x 6	6
21	5	X			2	2				6 x 20	4
22	5	X			2	2				6 x 20	4
31	6	X			3	3				6 x 20	3
32	7	X			3	3				6 x 20	3
33	8	X			3	3				6 x 20	3
34	9			X		3			X	6 x 15	4
35	6	X			3	3				6 x 20	3
36	7	X			3	3				6 x 20	3
37	8	X			3	3				6 x 20	3
41	10	X			4	4				6 x 20	4
42	10	X			4	4				6 x 20	4
43	11	X			4	4				6 x 20	4
44	11	X			4	4				6 x 20	4
45	12			X		4			X	6 x 20	5
51	13	X			5	5				6 x 20	3
52	14	X			5	5				6 x 20	3
53	15	X			5	5				6 x 20	3
54	16			X		5			X	6 x 6	5
61	17	X			6	6				6 x 20	5
62	17	X			6	6				6 x 20	4
71	18	X			7	7				6 x 20	4
72	19	X			7	7				6 x 20	4
73	20	X			7	7				6 x 20	4
74	21			X		7			X	6 x 6	6
81	22	X			8	8				6 x 20	3
82	22	X			8	8				6 x 20	3
83	23	X			8	8				6 x 20	3
84	23	X			8	8				6 x 20	3
85	24			X		8			X	6 x 15	4

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	← →	← →	↓ ↑	↓ ↑
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED

STH 11 & OAKES RD
VILLAGE OF MOUNT PLEASANT
RACINE COUNTY
SIGNAL NO: S51-0733 CABINET TYPE: TS1
CONTROLLER TYPE: EPAC
DATE: FEB - 2016 PAGE NO. 3 OF 3

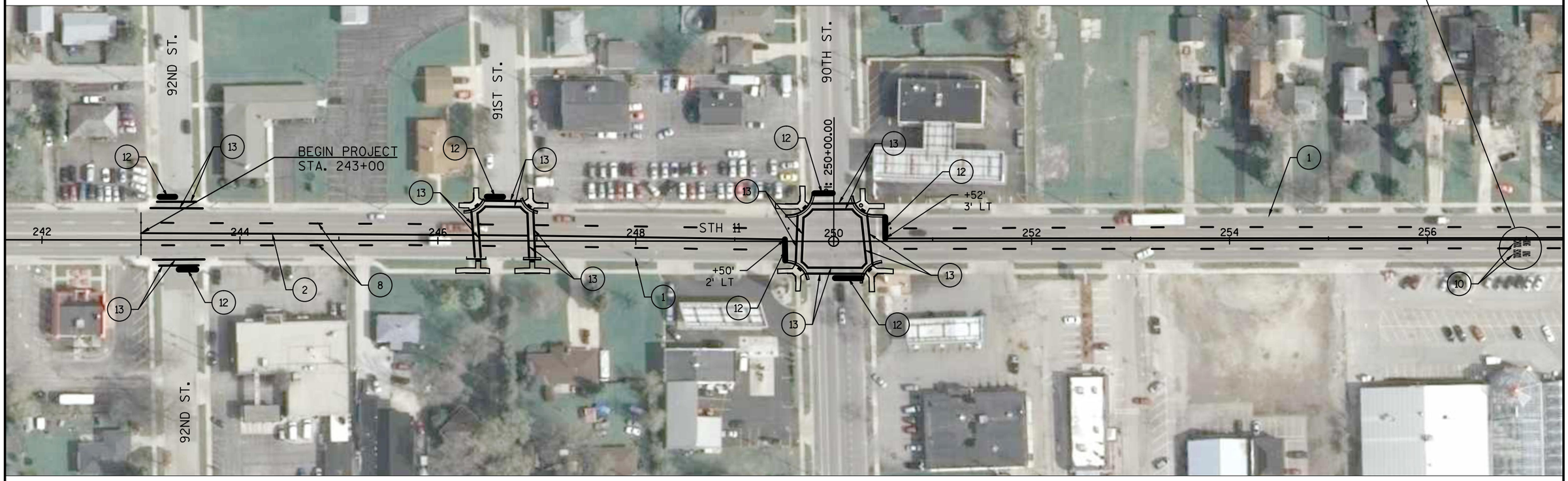
PROJECT ID:	1320-19-60
INTERSECTION:	STH 11 & OAKES ROAD

EVP Cable	
From	To
CB1	SB9 (HEAD A)
CB1	SB3 (HEAD B)
CB1	SB6 (HEAD C)
CB1	SB12 (HEAD D)

NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (YELLOW SKIPS-3' LINE 9' GAP)
4. PAVEMENT MARKING CURB EPOXY
5. PAVEMENT MARKING ISLAND NOSE EPOXY
6. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED THERMOPLASTIC CROSSWALK 24-INCH
8. PAVEMENT GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (SKIPS-12.5; LINE 37.5' GAP)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (CHANNELIZING)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
14. PAVEMENT MARKING EPOXY 4-INCH (SINGLE YELLOW)
15. PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIPS-3' LINE 9' GAP)
16. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE SYMBOLS 18-INCH
18. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 4-INCH (YELLOW)
19. PAVEMENT MARKING CONTRAST EPOXY 4-INCH (WHITE SKIPS-12.5' LINE 37.5' GAP)
20. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1
21. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 54 E

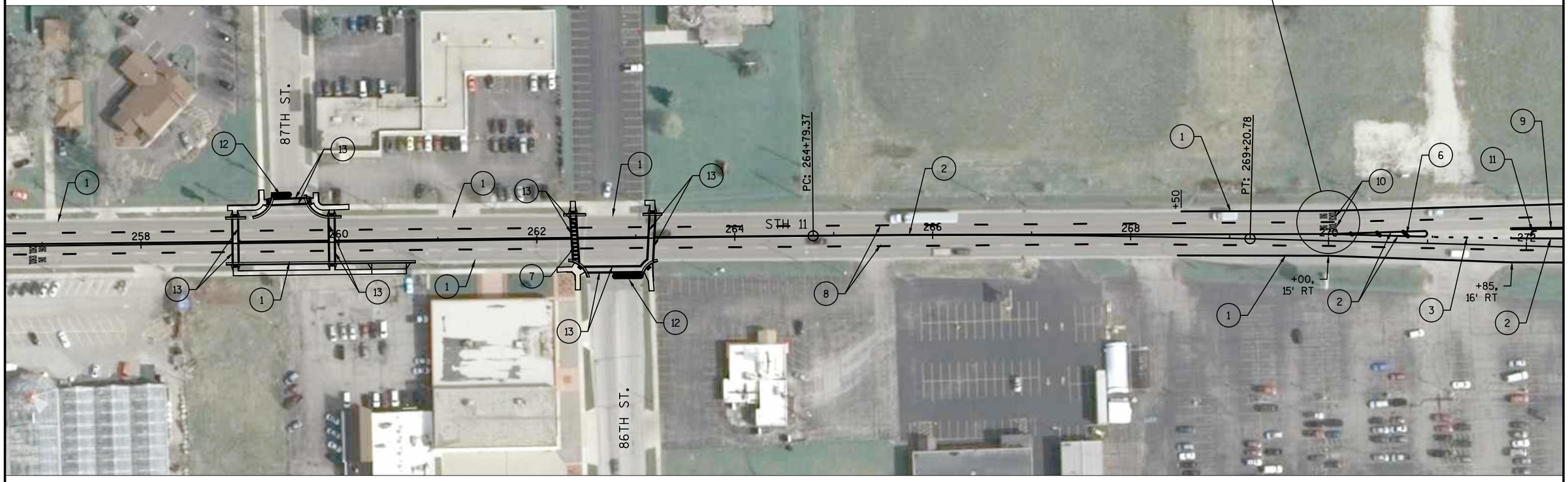
NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

XING
XING
SCHOOL SCHOOL

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (YELLOW SKIPS-3' LINE 9' GAP)
4. PAVEMENT MARKING CURB EPOXY
5. PAVEMENT MARKING ISLAND NOSE EPOXY
6. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED THERMOPLASTIC CROSSWALK 24-INCH
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14. PAVEMENT MARKING EPOXY 4-INCH (SINGLE YELLOW)
15. PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIPS-3' LINE 9' GAP)
16. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE SYMBOLS 18-INCH
18. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 4-INCH (YELLOW)
19. PAVEMENT MARKING CONTRAST EPOXY 4-INCH (WHITE SKIPS-12.5' LINE 37.5' GAP)
20. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1
21. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 55	E

2

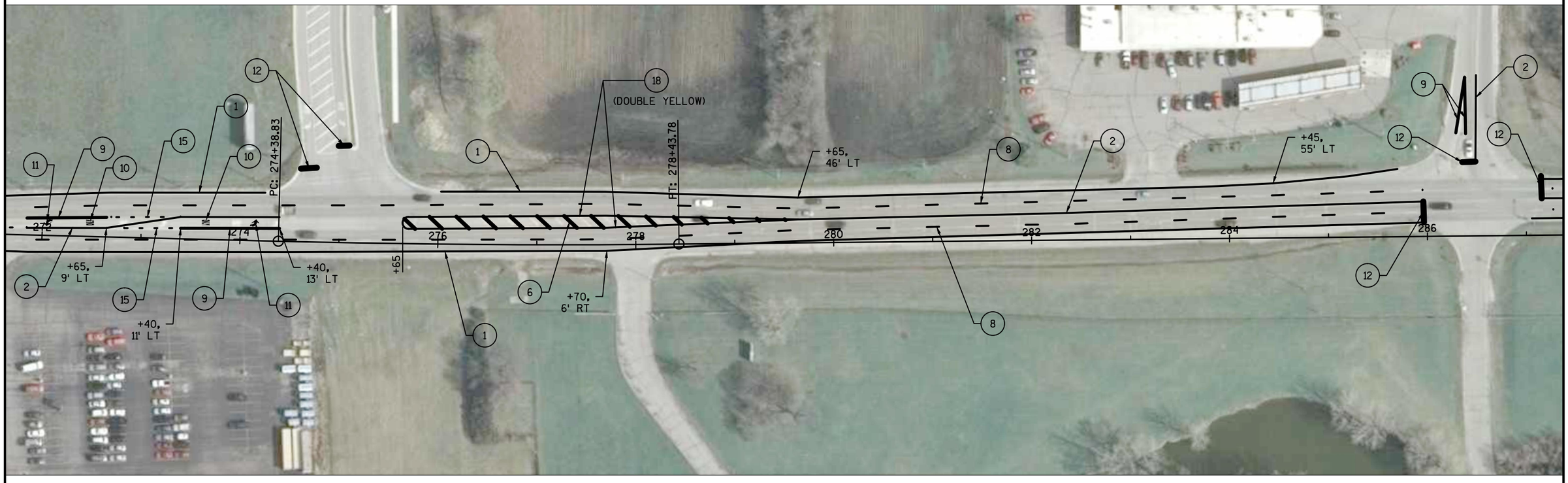
2

NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

N



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (YELLOW SKIPS-3' LINE 9' GAP)
4. PAVEMENT MARKING CURB EPOXY
5. PAVEMENT MARKING ISLAND NOSE EPOXY
6. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED THERMOPLASTIC CROSSWALK 24-INCH
8. PAVEMENT GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (SKIPS-12.5; LINE 37.5' GAP)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (CHANNELIZING)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
14. PAVEMENT MARKING EPOXY 4-INCH (SINGLE YELLOW)
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19. PAVEMENT MARKING CONTRAST EPOXY 4-INCH (WHITE SKIPS-12.5' LINE 37.5' GAP)
20. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1
21. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 56	E

2

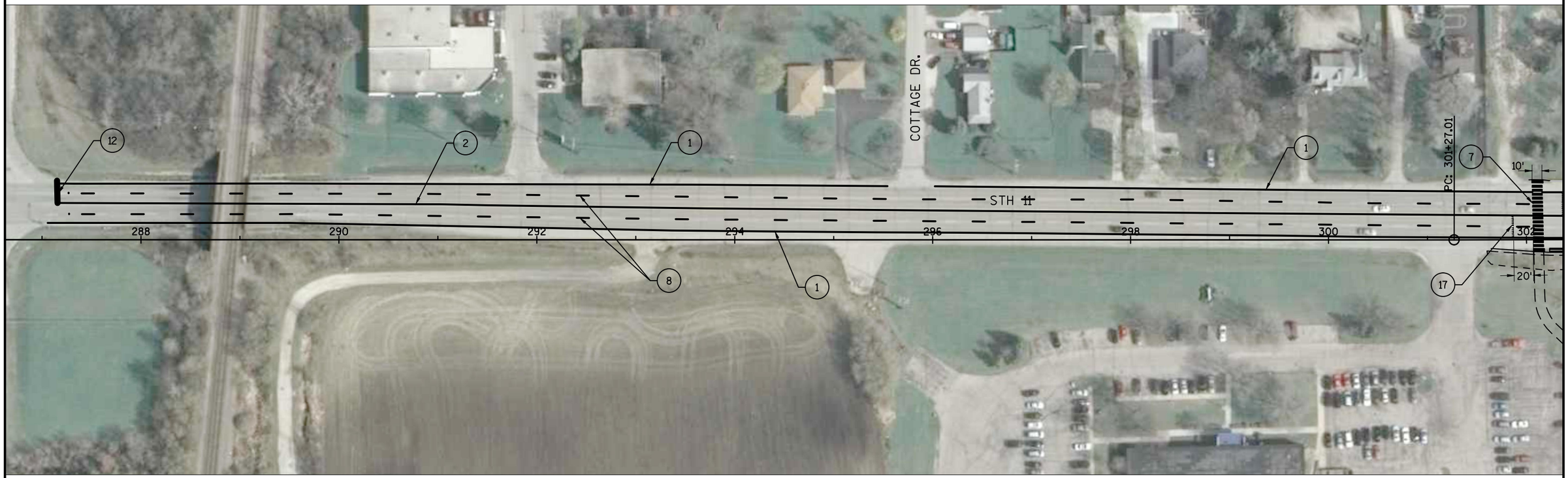
NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

N

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
2. PAVEMENT MARKING EPOXY 4-INCH (DOUBLE YELLOW)
3. PAVEMENT MARKING EPOXY 8-INCH (YELLOW SKIPS-3' LINE 9' GAP)
4. PAVEMENT MARKING CURB EPOXY
5. PAVEMENT MARKING ISLAND NOSE EPOXY
6. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
7. PAVEMENT MARKING GROOVED THERMOPLASTIC CROSSWALK 24-INCH
8. PAVEMENT GROOVED WET REFLECTIVE CONTRAST TAPE, 4-INCH (SKIPS-12.5; LINE 37.5' GAP)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE, 8-INCH (CHANNELIZING)
10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
11. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
14. PAVEMENT MARKING EPOXY 4-INCH (SINGLE YELLOW)
15. PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIPS-3' LINE 9' GAP)
16. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
17. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE SYMBOLS 18-INCH
18. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE, 4-INCH (YELLOW)
19. PAVEMENT MARKING CONTRAST EPOXY 4-INCH (WHITE SKIPS-12.5' LINE 37.5' GAP)
20. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1
21. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 57	E

2

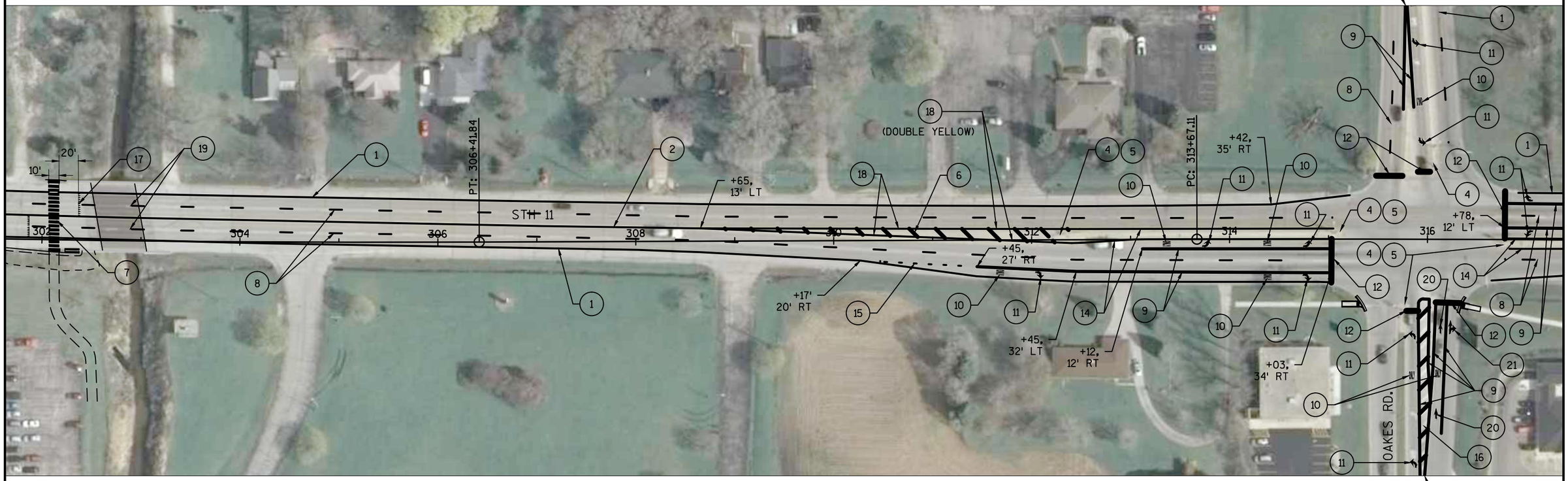
NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

N

2



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PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 58	E

2

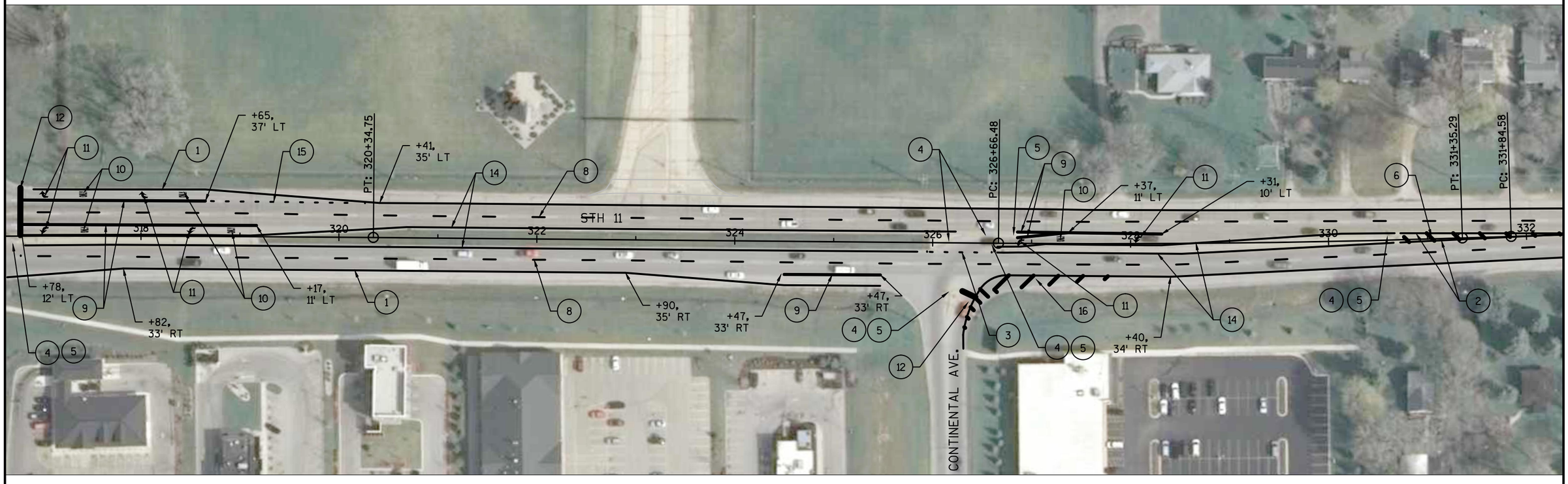
NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

N

2



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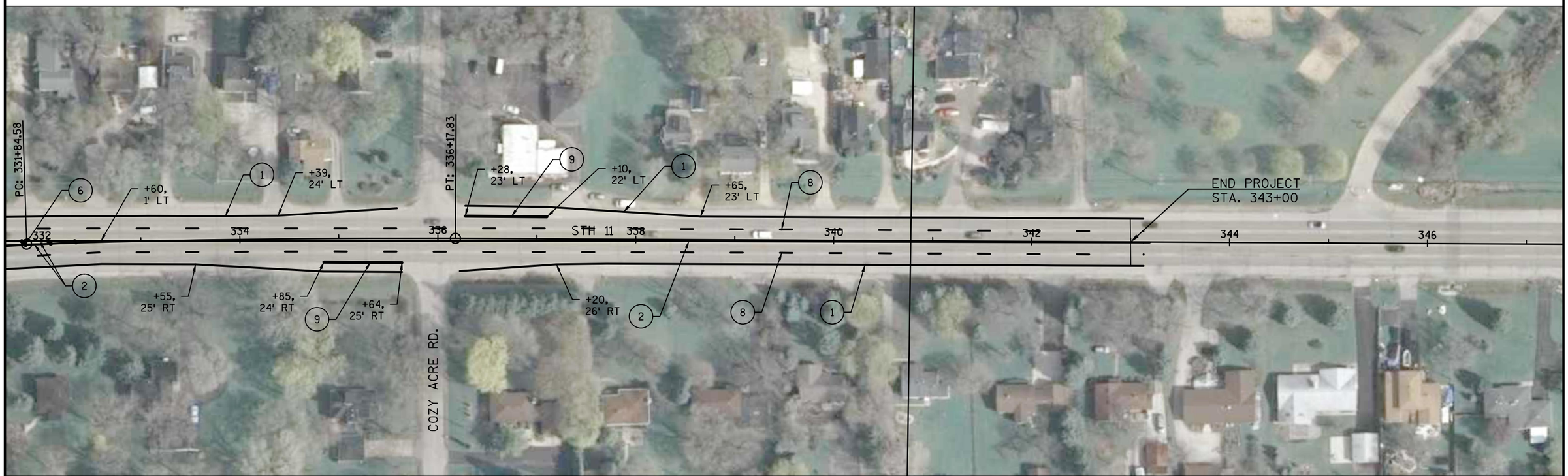
PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 59	E

NOTE:

CROSSWALK WIDTHS ARE 6'
UNLESS OTHERWISE NOTED

SEE DETAIL FOR LOCATION
OF STOP BARS

N



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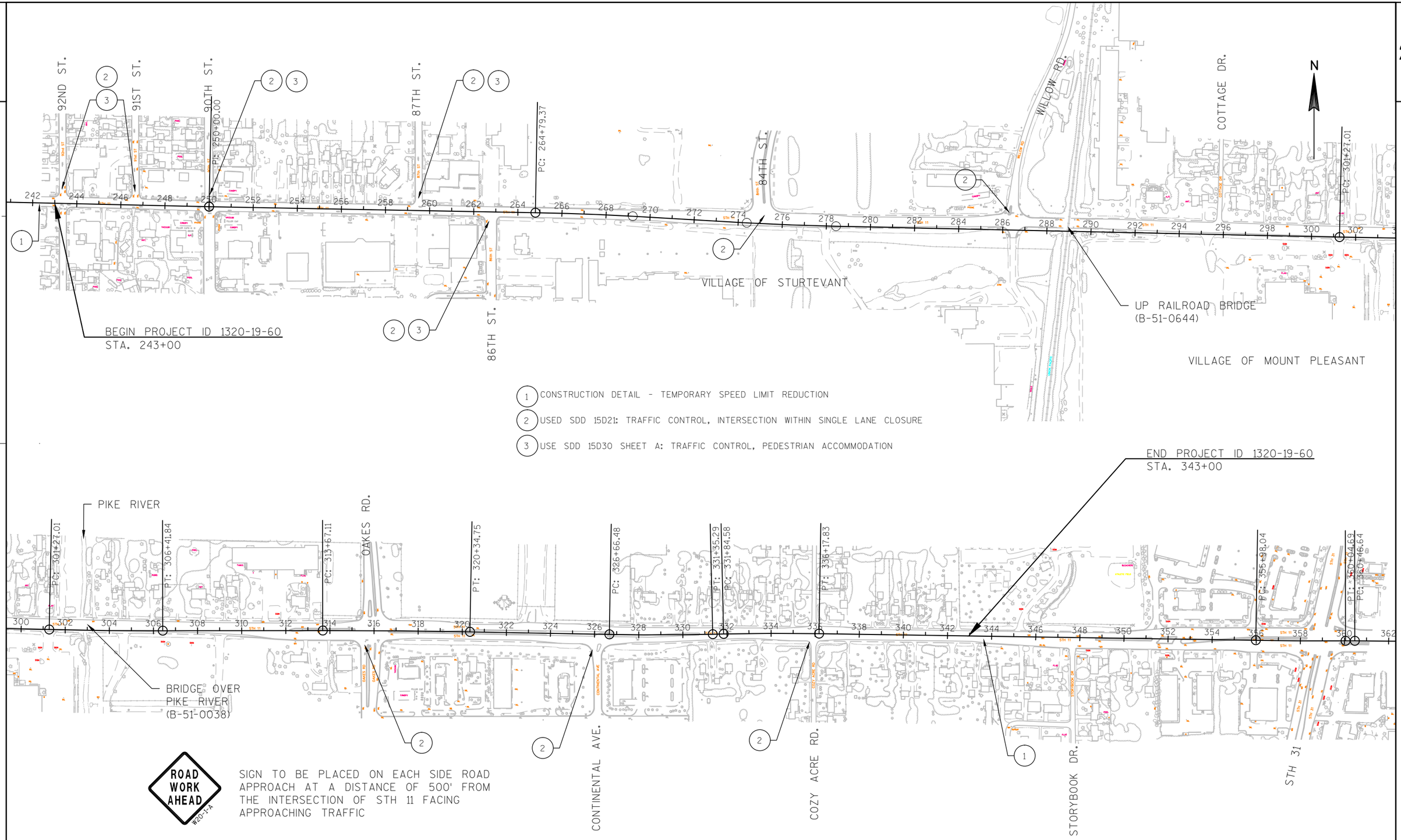
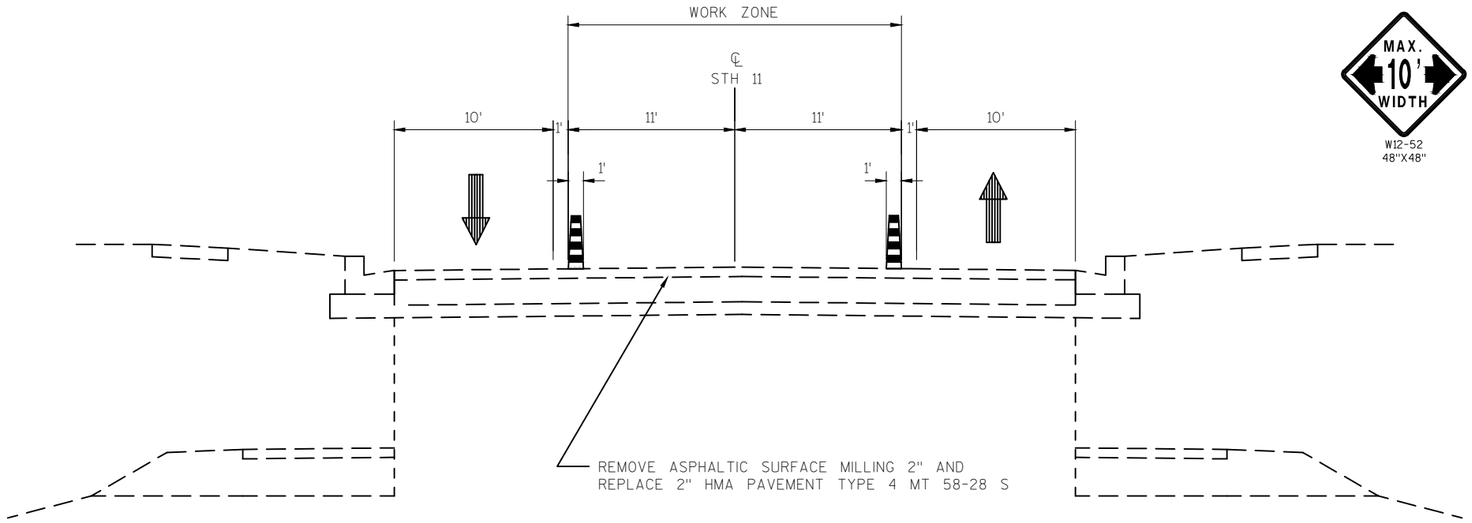
PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN: PAVEMENT MARKING	SHEET 60	E

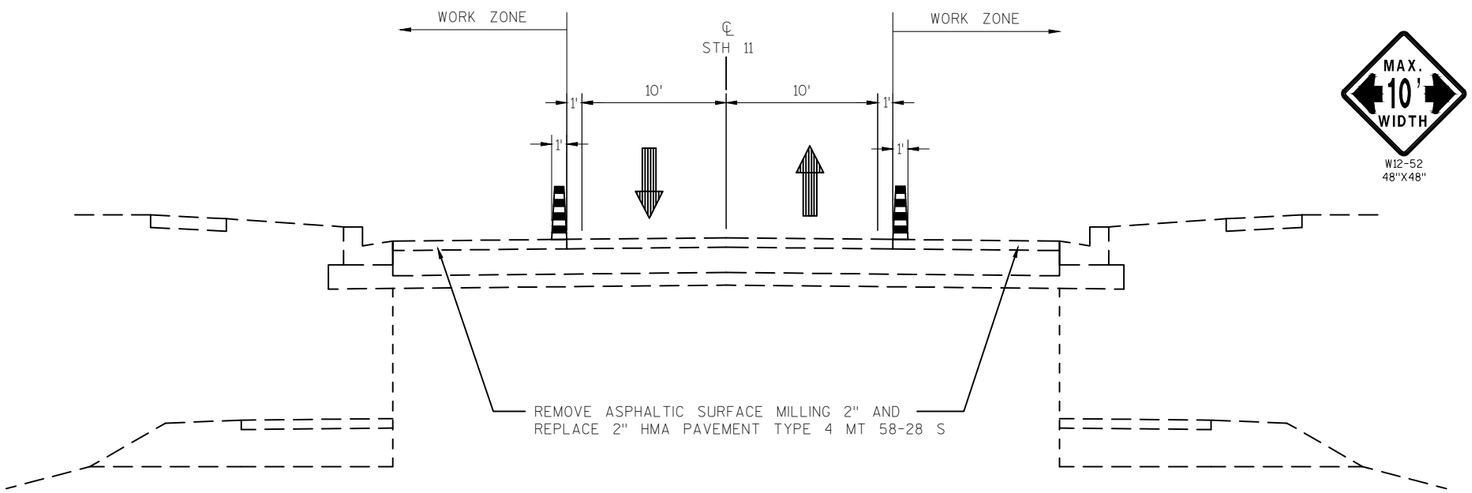


PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL - OVERVIEW	SHEET 61	E



INSTALL WHEN AVAILABLE WIDTH IS LESS THAN 11' SIGN SHALL BE PLACED BETWEEN THE W20-1A "ROAD WORK AHEAD" SIGN AND THE W20-1D "ROAD WORK 500 FT" SIGN IN SDD 15C5

STAGE 1 TYPICAL SECTION



INSTALL WHEN AVAILABLE WIDTH IS LESS THAN 11' SIGN SHALL BE PLACED BETWEEN THE W20-1A "ROAD WORK AHEAD" SIGN AND THE W20-1D "ROAD WORK 500 FT" SIGN IN SDD 15C5

STAGE 2 TYPICAL SECTION

NOTE:

CONTRACTOR MAY RELOCATE GRABBER CONE TO COORDINATE CONSTRUCTION OPERATIONS.

MAINTAIN RIGHT TURN LANE AT OAKES RD. PROVIDE AND MAINTAIN 100' LEFT TURN LANES AT 90TH ST., 87TH ST., 86TH ST., AND 84TH ST.

USE STANDARD DETAIL DRAWING "TRAFFIC CONTROL INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR TURN LANE GUIDANCE

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	TRAFFIC CONTROL STAGING	SHEET 62	E

DATE 23MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1320-19-60 QUANTITY
0010	201.0110	Clearing	SY	40.000	40.000
0020	201.0210	Grubbing	SY	40.000	40.000
0030	203.0200	Removing Old Structure (station) 01. 302+81.5	LS	1.000	1.000
0040	204.0100	Removing Pavement	SY	2,155.000	2,155.000
0050	204.0115	Removing Asphaltic Surface Butt Joints	SY	235.000	235.000
0060	204.0125	Removing Asphaltic Surface Milling	TON	6,670.000	6,670.000
0070	204.0150	Removing Curb & Gutter	LF	2,415.000	2,415.000
0080	204.0155	Removing Concrete Sidewalk	SY	380.000	380.000
0090	204.0165	Removing Guardrail	LF	75.000	75.000
0100	208.0100	Borrow	CY	58.000	58.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	180.000	180.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,140.000	1,140.000
0130	311.0110	Breaker Run	TON	1,600.000	1,600.000
0140	390.0303	Base Patching Concrete	SY	2,285.000	2,285.000
0150	390.0403	Base Patching Concrete Shes	SY	615.000	615.000
0160	416.0160	Concrete Driveway 6-Inch	SY	26.000	26.000
0170	440.4410	Incentive IRI Ride	DOL	15,100.000	15,100.000
0180	455.0605	Tack Coat	GAL	4,830.000	4,830.000
0190	460.2000	Incentive Density HMA Pavement	DOL	5,080.000	5,080.000
0200	460.4000	HMA Cold Weather Paving	TON	410.000	410.000
0210	460.6224	HMA Pavement 4 MT 58-28 S	TON	8,230.000	8,230.000
0220	465.0110	Asphaltic Surface Patching	TON	125.000	125.000
0230	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	31.000	31.000
0240	502.0100	Concrete Masonry Bridges	CY	11.000	11.000
0250	502.3210	Pigmented Surface Sealer	SY	79.000	79.000
0260	502.6102	Masonry Anchors Type S 1/2-Inch	EACH	232.000	232.000
0270	502.6105	Masonry Anchors Type S 5/8-Inch	EACH	232.000	232.000
0280	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,830.000	1,830.000
0290	509.0301	Preparation Decks Type 1	SY	17.000	17.000
0300	509.0302	Preparation Decks Type 2	SY	3.000	3.000
0310	509.1500	Concrete Surface Repair	SF	35.000	35.000
0320	509.2000	Full-Depth Deck Repair	SY	1.000	1.000
0330	509.3500.S	HMA Overlay Polymer-Modified	TON	46.000	46.000
0340	509.9050.S	Cleaning Parapets	LF	186.000	186.000
0350	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	2.000	2.000
0360	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,415.000	2,415.000
0370	601.0600	Concrete Curb Pedestrian	LF	617.000	617.000
0380	602.0410	Concrete Sidewalk 5-Inch	SF	3,650.000	3,650.000
0390	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	220.000	220.000
0400	611.0420	Reconstructing Manholes	EACH	3.000	3.000
0410	611.8110	Adjusting Manhole Covers	EACH	8.000	8.000
0420	611.8115	Adjusting Inlet Covers	EACH	3.000	3.000
0430	614.0800	Crash Cushions Permanent	EACH	1.000	1.000
0440	619.1000	Mobilization	EACH	1.000	1.000
0450	625.0100	Topsoil	SY	915.000	915.000
0460	628.1504	Silt Fence	LF	525.000	525.000
0470	628.1520	Silt Fence Maintenance	LF	525.000	525.000
0480	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0490	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0500	628.2008	Erosion Mat Urban Class I Type B	SY	175.000	175.000

3

DATE 23MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1320-19-60 QUANTITY
0510	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0520	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0530	628.7015	Inlet Protection Type C	EACH	37.000	37.000
0540	628.7020	Inlet Protection Type D	EACH	5.000	5.000
0550	628.7504	Temporary Ditch Checks	LF	60.000	60.000
0560	628.7570	Rock Bags	EACH	75.000	75.000
0570	629.0210	Fertilizer Type B	CWT	0.580	0.580
0580	630.0130	Seeding Mixture No. 30	LB	15.000	15.000
0590	630.0200	Seeding Temporary	LB	20.000	20.000
0600	631.0300	Sod Water	MGAL	16.700	16.700
0610	631.1000	Sod Lawn	SY	740.000	740.000
0620	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	103.000	103.000
0630	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	4.000	4.000
0640	637.0620	Sign Flags Permanent Type II	EACH	4.000	4.000
0650	637.2210	Signs Type II Reflective H	SF	673.400	673.400
0660	637.2215	Signs Type II Reflective H Folding	SF	89.520	89.520
0670	637.2230	Signs Type II Reflective F	SF	357.750	357.750
0680	638.2102	Moving Signs Type II	EACH	2.000	2.000
0690	638.2602	Removing Signs Type II	EACH	104.000	104.000
0700	638.3000	Removing Small Sign Supports	EACH	68.000	68.000
0710	641.8100	Overhead Sign Support (structure) 01. S-51-236	LS	1.000	1.000
0720	641.8100	Overhead Sign Support (structure) 02. S-51-237	LS	1.000	1.000
0730	642.5201	Field Office Type C	EACH	1.000	1.000
0740	643.0100	Traffic Control (project) 01. 1320-19-60	EACH	1.000	1.000
0750	643.0410	Traffic Control Barricades Type II	DAY	170.000	170.000
0760	643.0420	Traffic Control Barricades Type III	DAY	3,360.000	3,360.000
0770	643.0705	Traffic Control Warning Lights Type A	DAY	2,460.000	2,460.000
0780	643.0715	Traffic Control Warning Lights Type C	DAY	6,720.000	6,720.000
0790	643.0800	Traffic Control Arrow Boards	DAY	250.000	250.000
0800	643.0900	Traffic Control Signs	DAY	12,700.000	12,700.000
0810	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0820	646.0106	Pavement Marking Epoxy 4-Inch	LF	36,870.000	36,870.000
0830	646.0126	Pavement Marking Epoxy 8-Inch	LF	145.000	145.000
0840	646.0600	Removing Pavement Markings	LF	200.000	200.000
0850	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	4,900.000	4,900.000
0860	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	2,680.000	2,680.000
0870	647.0456	Pavement Marking Curb Epoxy	LF	285.000	285.000
0880	647.0606	Pavement Marking Island Nose Epoxy	EACH	10.000	10.000
0890	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	665.000	665.000
0900	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	1,000.000	1,000.000
0910	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,325.000	2,325.000
0920	650.8000	Construction Staking Resurfacing Reference	LF	10,000.000	10,000.000
0930	650.8500	Construction Staking Electrical Installations (project) 01. 1320-19-60	LS	1.000	1.000
0940	650.9910	Construction Staking Supplemental Control (project) 01. 1320-19-60	LS	1.000	1.000
0950	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	99.000	99.000

DATE 23MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1320-19-60 QUANTITY
0960	652.0605	Conduit Special 2-Inch	LF	371.000	371.000
0970	652.0800	Conduit Loop Detector	LF	3,728.000	3,728.000
0980	653.0135	Pull Boxes Steel 24x36-Inch	EACH	6.000	6.000
0990	653.0140	Pull Boxes Steel 24x42-Inch	EACH	1.000	1.000
1000	653.0905	Removing Pull Boxes	EACH	1.000	1.000
1010	655.0230	Cable Traffic Signal 5-14 AWG	LF	120.000	120.000
1020	655.0700	Loop Detector Lead In Cable	LF	9,595.000	9,595.000
1030	655.0800	Loop Detector Wire	LF	12,970.000	12,970.000
1040	655.0900	Traffic Signal EVP Detector Cable	LF	1,761.000	1,761.000
1050	659.1125	Luminaires Utility LED C	EACH	9.000	9.000
1060	690.0150	Sawing Asphalt	LF	2,500.000	2,500.000
1070	690.0250	Sawing Concrete	LF	10,100.000	10,100.000
1080	SPV.0035	Special 01. CONCRETE MASONRY DECK PATCHING	CY	3.000	3.000
1090	SPV.0045	Special 01. GRABBER CONES	DAY	91,000.000	91,000.000
1100	SPV.0060	Special 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORD	EACH	24.000	24.000
1110	SPV.0060	Special 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	EACH	16.000	16.000
1120	SPV.0060	Special 03. HYDRO EXCAVATION	EACH	3.000	3.000
1130	SPV.0060	Special 04. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC YIELD LINE SYMBOLS 18-INCH	EACH	24.000	24.000
1140	SPV.0060	Special 05. LAMP DISPOSAL HIGH INTENSITY DISCHARGE	EACH	9.000	9.000
1150	SPV.0060	Special 06. REMOVING LUMINAIRES	EACH	9.000	9.000
1160	SPV.0060	Special 07.PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 1	EACH	2.000	2.000
1170	SPV.0060	Special 08. REMOVING CONCRETE COLLAR FOR DRIVEWAY CULVERT	EACH	2.000	2.000
1180	SPV.0060	Special 09. GRADING SLOPED ENDWALL AREA	EACH	2.000	2.000
1190	SPV.0060	Special 10. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3	EACH	1.000	1.000
1200	SPV.0090	Special 01. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP BAR 18-INCH	LF	445.000	445.000
1210	SPV.0090	Special 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH	LF	225.000	225.000
1220	SPV.0090	Special 03.PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH	LF	1,425.000	1,425.000
1230	SPV.0090	Special 04. BRIDGE JOINT ROUTE AND SEAL	LF	136.000	136.000
1240	SPV.0090	Special 05. SAWING PAVEMENT DECK PREPARATION AREAS	LF	240.000	240.000
1250	SPV.0090	Special 06. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH	LF	3,130.000	3,130.000
1260	SPV.0090	Special 07. PAVEMENT MARKING CONTRAST EPOXY 4-INCH	LF	25.000	25.000
1270	SPV.0105	Special 01. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 RIGHT	LS	1.000	1.000
1280	SPV.0105	Special 02. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 LEFT	LS	1.000	1.000
1290	SPV.0105	Special 03. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 RIGHT	LS	1.000	1.000
1300	SPV.0105	Special 04. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 LEFT	LS	1.000	1.000

3

DATE 23MAR16 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1320-19-60 QUANTITY
1310	SPV.0105	Special 05. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT EB	LS	1.000	1.000
1320	SPV.0105	Special 06. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT WB	LS	1.000	1.000
1330	SPV.0105	Special 07. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT EB	LS	1.000	1.000
1340	SPV.0105	Special 08. RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT WB	LS	1.000	1.000
1350	SPV.0105	Special 09. REMOVING OVERHEAD SIGN SUPPORT STH 11 EB At 86TH Street	LS	1.000	1.000
1360	SPV.0105	Special 10. REMOVING OVERHEAD SIGN SUPPORT STH 11 WB At 86TH Street	LS	1.000	1.000
1370	SPV.0105	Special 11. REMOVE LOOP DETECTOR WIRE & LEAD-IN STH 11 & 90TH STREET	LS	1.000	1.000
1380	SPV.0105	Special 12. REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE STH 11 & OAKES ROAD	LS	1.000	1.000
1390	SPV.0105	Special 13. EVP DETECTOR HEAD INSTALLATION STH 11 & 90TH STREET	LS	1.000	1.000
1400	SPV.0105	Special 14. EVP DETECTOR HEAD INSTALLATION STH 11 & OAKES ROAD	LS	1.000	1.000

3

REMOVALS

LOCATION	REMOVING PAVEMENT 204.0100 SY	REMOVING CURB & GUTTER 204.0150 LF	REMOVING CONCRETE SIDEWALK 204.0155 SY	REMOVING GUARDRAIL 204.0165 LF
STH 11				
STAGE 1	980	--	--	--
STAGE 2	1,175	2,415	380	75
TOTAL	2,155	2,415	380	75

BASE AGGREGATE

LOCATION	BASE AGGREGATE DENSE 3/4-INCH 305.0110 TON	BASE AGGREGATE DENSE 1 1/4-INCH 305.0120 TON	BREAKER RUN 311.0110 TON
STH 11			
STAGE 1	--	560	800
STAGE 2	180	580	800
TOTAL	180	1,140	1,600

3

CONCRETE ITEMS

LOCATION	BASE PATCHING CONCRETE 390.0303 SY	BASE PATCHING CONCRETE SHES 390.0403 SY	CONCRETE DRIVEWAY 6-INCH 416.0160 SY	CONCRETE CURB & GUTTER 30-INCH TYPE A 601.0409 LF	CONCRETE CURB PEDESTRIAN 601.0600 LF	CONCRETE SIDEWALK 5-INCH 602.0410 SF	CURB RAMP DETECTABLE WARNING FIELD YELLOW 602.0505 SF
STH 11							
STAGE 1	1,818	460	26	--	--	--	--
STAGE 2	468	155	--	2,415	617	3,650	220
TOTAL	2,285	615	26	2,415	617	3,650	220

LOCATION	CLEARING 201.0110 SY	GRUBBING 201.0210 SY
STA 302+22 - STA 302+58 RT	40	40

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ASPHALT ITEMS

LOCATION	REMOVING ASPHALTIC SURFACE BUTT JOINTS 204.0115 SY	REMOVING ASPHALTIC SURFACE MILLING 204.0125 TON	HMA PAVEMENT 4 MT 58-28 S 460.6224 TON	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE PATCHING 465.0110 TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES 465.0120 TON	HMA COLD WEATHER PAVING 460.4000 TON
STH 11							
STAGE 1	10	2,170	3,320	2,800	--	--	--
STAGE 2	225	4,500	4,910	2,030	--	31	--
UNDISTRIBUTED	--	--	--	--	125	--	410
TOTAL	235	6,670	8,230	4,830	125	31	410

LOCATION	APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6 TO 1 521.1518 EACH	REMOVING CONCRETE COLLAR FOR DRIVEWAY CULVERT SPV.0060.08 EACH	GRADING SLOPED ENDWALL AREA SPV.0060.09 EACH
308+25 LT	2	2	2

TRAFFIC CONTROL

LOCATION	GRABBER CONES SPV.0045.01 DAY	TRAFFIC CONTROL BARRICADES TYPE II 643.0410 DAY	TRAFFIC CONTROL BARRICADES TYPE III 644.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0710 DAY	TRAFFIC CONTROL ARROW BOARDS 643.0800 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY
STH 11								
STAGE 1	53,300	--	1,870	1,440	3,740	145	6,200	14
STAGE 2	37,700	170	1,490	1,020	2,980	105	6,500	14
TOTAL	91,000	170	3,360	2,460	6,720	250	12,700	28

LOCATION	BORROW 208.0100 CY
301+60 - 302+60 RT	58

LOCATION	HYDRO EXCAVATION SPV.0060.03 EACH
262+20 LT	1
262+20 RT	1
263+25 LT	1
TOTAL	3

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

EROSION CONTROL

LOCATION	SILT FENCE 628.1504 LF	SILT FENCE MAINTENANCE 628.1520 LF	EROSION MAT URBAN CLASS I TYPE B 628.2008 SY	INLET PROTECTION TYPE A 628.7005 EACH	INLET PROTECTION TYPE B 628.7010 EACH	INLET PROTECTION TYPE C 628.7015 EACH	INLET PROTECTION TYPE D 628.7020 EACH	DITCH CHECKS TEMPORARY 628.7504 LF	ROCK BAGS 628.7570 EACH
STH 11									
STAGE 1	--	--	--	4	1	29	4	48	40
STAGE 2	420	420	140	--	--	--	--	--	20
UNDISTRIBUTED	105	105	35	1	1	8	1	12	15
TOTAL	525	525	175	5	2	37	5	60	75

LOCATION	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER 650.5500 LF
STH 11	
91ST ST	100
90TH ST	150
87TH ST	1,975
86TH ST	100
TOTAL	2,325

3

LANDSCAPING

LOCATION	TOPSOIL 625.0100 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 30 630.0130 LB	SEEDING TEMPORARY 630.0200 LB	SOD WATER 631.0300 MGAL	SOD LAWN 631.1000 SY
STH 11						
STAGE 1	--	--	--	--	--	--
STAGE 4	730	0.46	10	15	13.3	590
UNDISTRIBUTED	185	0.12	5	5	3.4	150
TOTAL	915	0.58	15	20	16.7	740

LOCATION	CONSTRUCTION STAKING RESURFACING REFERENCE 650.8000 LF	* CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (1320-19-60) 650.8500 LS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1320-19-60) 650.9910 LS
STH 11	10,000	1	1

* CATEGORY 0020

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY RACINE:	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

3

PAVEMENT MARKING

	EPOXY						GROOVED WET REFLECTIVE CONTRAST TAPE		GROOVED PREFORMED THERMOPLASTIC									GROOVED PREFORMED PLASTIC TAPE
	4-INCH		8-INCH (WHITE)	8-INCH (YELLOW)	DIAGONAL EPOXY 12-INCH		4-INCH (WHITE)	8-INCH (WHITE)		ARROWS	ARROWS	ARROWS	STOP BAR	CROSSWALK	CROSSWALK	YIELD LINE SYMBOLS	4-INCH
	(WHITE)	(YELLOW)	3' SKIPS	3' SKIPS	(WHITE)	(YELLOW)	12.5' SKIPS	CHANNELIZING	WORDS	TYPE 2	TYPE 1	TYPE 3	18-INCH	24-INCH	6-INCH	18-INCH	(YELLOW)
	646.0106	646.0106	646.0126	646.0126	647.0726	647.0726	646.0841.S	646.0843.S	SPV.0060.01	SPV.0060.02	SPV.0060.07	SPV.0060.10	SPV.0090.01	SPV.0090.02	SPV.0090.03	SPV.0060.04	SPV.0090.06
LOCATION	LF	LF	LF	LF	LF	LF	LF	LF	EA	EA	EA	EA	LF	LF	LF	EA	LF
STH 11																	
STAGE 1	--	22,930	35	40	--	385	4,800	810	11	8	--	--	90	90	350	12	3,130
STAGE 2	13,940	--	70	--	280	--	100	1,870	13	8	2	1	355	135	1,075	12	--
SUB TOTAL	13,940	22,930	105	40	280	385											
TOTAL	36,870		145		665		4,900	2,680	24	16	2	1	445	225	1,425	24	3,130

TEMPORARY PAVEMENT MARKING

	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	REMOVING PAVEMENT MARKINGS
	649.0400	646.0600
LOCATION	LF	LF
STH 11		
STAGE 1	500	100
STAGE 2	500	100
TOTAL	1,000	200

PAVEMENT MARKING

	CURB EPOXY (YELLOW)	ISLAND NOSE EPOXY (YELLOW)	CONTRAST EPOXY 4-INCH (WHITE) 12.5' SKIPS
	647.0456	647.0606	SPV.0090.07
LOCATION	LF	EA	LF
STH 11			
STAGE 1	215	5	25
STAGE 2	70	5	--
TOTAL	285	10	25

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY RACINE:	MISCELLANEOUS QUANTITIES	SHEET:	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ PLOT SCALE : 1:1

LOCATION	CRASH CUSHIONS PERMANENT 614.0800 EACH	CRASH TEST LEVEL	MAXIMUM LENGTH FT	BACK WIDTH FT	OBJECT MARKING PATTERN	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
302+25 RT	1	TL-2	20	2	OM3-R	UNIDIRECTIONAL	L	BRIDGE PARAPET

LOCATION	SAWING ASPHALT 690.0150 LF	SAWING CONCRETE 690.0250 LF
STH 11		
STAGE 1	100	8,800
STAGE 2	2,400	1,300
TOTAL	2,500	10,100

LOCATION	ADJUSTING INLET COVERS 611.8115 EACH	CATEGORY 0040 ADJUSTING MANHOLE COVERS 611.8110 EACH	CATEGORY 0040 RECONSTRUCTING MANHOLES 611.0420 EACH
286+13, 82' LT	--	1	--
286+85, 78' LT	--	1	--
289+79, 51' LT	--	1	--
295+91, 53' LT	--	1	--
298+90, 52' LT	--	1	--
313+36, 33' LT	--	1	--
315+73, 28' LT	--	--	1
317+56, 28' LT	--	--	1
329+82, 25' LT	--	1	--
332+05, 15' LT	--	--	1
337+92, 9' LT	--	1	--
UNDISTRIBUTED	3	--	--
	3	8	3

LOCATION	CATEGORY 0020 LUMINAIRES UTILITY LED C 659.1125 EACH	CATEGORY 0020 LAMP DISPOSAL HIGH INTENSITY DISCHARGE SPV.0060.05 EACH	CATEGORY 0020 REMOVING LUMINAIRES SPV.0060.06 EACH
STA 315+05, 52' RT	1	1	1
STA 315+06, 5' RT	2	2	2
STA 315+74, 72' RT	2	2	2
STA 316+06, 92' LT	2	2	2
STA 316+76, 4' RT	2	2	2
TOTAL	9	9	9

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	SIGN SIZE H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
2	R2-1(2S)	30 MPH	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
3	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
4	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
5	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
6	W3-3(2S)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
7	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	--	1	--	--	--	--
8	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	--	1	--	--	--	--
9	R2-1(2S)	30 MPH	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
10	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
11	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
12	W3-3(2S)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
13	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	--	1	--	--	--	--
14	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
15	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	--	1	--	--	--	--
16	R2-1(2S)	30 MPH	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
17	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
18	S1-1(2S)	--	36	x	36	--	6.750	--	1	--	--	--	--	--	--	MOUNT ON OVERHEAD
19	R7-1D(2S)	--	18	x	24	3.000	--	--	1	1	--	1	--	--	--	--
20	S1-1(2S)	--	36	x	36	--	6.750	--	--	--	--	1	--	--	--	SHEET 3 OF 8
21	S16-9P(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	20	SHEET 3 OF 8
22	--	SNOW EMERGENCY	--	x	--	--	--	--	--	--	1	--	1	--	--	PROPERTY OF VILLAGE
23	S4-51(2S)	20 MPH	24	x	48	--	8.000	--	1	1	--	1	--	--	--	--
24	R2-1(3)	30 MPH	36	x	48	12.000	--	--	1	1	--	1	--	--	--	--
25	R7-1D(2S)	--	18	x	24	3.000	--	--	--	--	--	--	--	--	24	--
26	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
27	R7-1D(2M)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	26	MOUNT ON LIGHT POLE
28	R2-1(2S)	30 MPH	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
29	R7-1D(2S)	--	18	x	24	3.000	--	--	--	--	--	--	--	--	28	MOUNT ON LIGHT POLE
30	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
31	S1-1(2S)	--	36	x	36	--	6.750	--	1	--	--	--	--	--	--	MOUNT ON OVERHEAD
32	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	--	--	--	--	MOUNT ON LIGHT POLE
33	S4-51(2S)	20 MPH	24	x	48	--	8.000	--	1	--	--	1	--	--	--	MOUNT ON FLASHING BEACON
34	R2-1	--	--	x	--	--	--	--	1	--	--	--	--	--	--	REMOVE SIGN FROM LIGHT POLE
35	R7-1D(2S)	--	18	x	24	3.000	--	--	1	--	--	1	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
36	W3-5(2M)	30 MPH	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
37	R1-1(2M)	--	36	x	36	7.460	--	--	1	1	--	1	--	--	--	--
38	R1-1(2M)	--	36	x	36	7.460	--	--	1	1	--	1	--	--	--	--
39	R7-1D(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
40	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
41	R7-1D(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
42	R7-1D(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
43	W12-2(2M)	14'-0"	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
44	R7-1D(2M)	--	24	x	30	5.000	--	--	--	--	--	1	--	--	--	--
45	W3-3(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
46	R7-1R(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
47	J4-1(2S)	--	24	x	36	6.000	--	--	1	1	--	1	--	--	--	--
	M3-4	--	24	x	12											
	M1-6	STH 11	24	x	24											
48	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	--	--	--	1	--	--	--	--
49	W5-52L(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	4' MOUNTING HEIGHT
50	W5-52R(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	4' MOUNTING HEIGHT
51	W3-3(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
52	W3-3(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
53	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
54	W12-2(2M)	14'-0"	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
55	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	1	--	--	--	--
56	W16-9P(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	55	--
57	W5-52L(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	--
58	W5-52R(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	--
59	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
60	R7-1L(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
61	R1-2(2S)	--	36	x	31	3.880	--	--	1	1	--	1	--	--	--	--
62	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
63	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
64	J4-1(2S)	--	24	x	36	6.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
	M3-2	--	24	x	12											
	M1-6	STH 11	24	x	24											
65	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
66	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
67	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	MOUNT ON RAPID RECT. FLASHING BEACON
68	W16-7L(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	67	--
69	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	67	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
70	W5-52R(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	4' MOUNTING HEIGHT
71	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
72	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	1	--	--	--	--
73	W16-9P(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	72	--
74	R5-1(2M)	--	36	x	36	9.000	--	--	1	1	--	1	--	--	--	--
75	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	--	--	--	--	--	--	74	BACK OF SIGN #74
76	R4-7(3)	--	36	x	48	12.000	--	--	1	1	--	1	--	--	--	--
77	W5-54(2M)	--	18	x	18	--	2.250	--	--	--	--	--	--	--	76	--
78	W3-3(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
79	W6-1(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
80	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
81	W5-52R(2M)	--	12	x	36	--	3.000	--	1	1	--	1	--	--	--	4' MOUNTING HEIGHT
82	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	MOUNT ON RAPID RECT. FLASHING BEACON
83	W16-7L(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	82	--
84	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	82	--
85	R5-1A(2M)	--	42	x	30	8.750	--	--	1	1	--	1	--	--	--	--
86	W6-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	85	BACK OF SIGN #85
87	W3-3(2M)	--	36	x	36	--	9.000	--	--	--	--	1	--	--	--	--
88	R6-2R	--	--	x	--	--	--	--	1	1	--	--	--	--	--	--
89	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
90	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
91	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
92	R4-7(2M)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
93	R5-1(2M)	--	36	x	36	9.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
94	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
95	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
96	R4-7(2M)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
97	R6-2L(2S)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
98	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
99	R4-7(2M)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
100	R4-7(2M)	--	24	x	30	5.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
101	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
102	R1-1F(2M)	--	36	x	36	--	--	7.460	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
103	R5-1(2M)	--	36	x	36	9.000	--	--	1	--	--	--	--	--	--	MOUNT ON SIGNAL POLE
104	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
105	W12-1D(2S)	--	24	x	24	--	4.000	--	1	1	--	1	--	--	--	2' MOUNTING HEIGHT
106	R6-2R(2S)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
107	R4-7(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
108	R1-1(2M)	--	36	x	36	7.460	--	--	--	--	--	--	--	--	107	BACK OF SIGN #107
109	R1-1(2M)	--	36	x	36	7.460	--	--	1	1	--	1	--	--	--	--
110	R5-1(2M)	--	36	x	36	9.000	--	--	1	1	--	1	--	--	--	--
111	R5-1(2M)	--	36	x	36	9.000	--	--	1	1	--	1	--	--	--	--
112	R3-2(2S)	--	24	x	24	4.000	--	--	1	1	--	1	--	--	--	--
113	R3-20L(2M)	--	24	x	36	6.000	--	--	1	1	--	1	--	--	--	--
114	R4-7(3)	--	36	x	48	12.000	--	--	1	1	--	1	--	--	--	--
115	W5-54(2M)	--	18	x	18	--	2.250	--	--	--	--	--	--	--	114	--
116	W6-1(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
117	R1-1(2M)	--	36	x	36	7.460	--	--	1	1	--	1	--	--	--	--
118	R7-1R(2M)	--	24	x	30	5.000	--	--	1	1	--	1	--	--	--	--
119	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
120	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	1	1	--	1	--	--	--	--
121	R1-1(2M)	--	36	x	36	7.460	--	--	1	1	--	1	--	--	--	--
122	R5-1(2M)	--	36	x	36	9.000	--	--	1	1	--	1	--	--	--	--
123	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	--	--	--	--	--	--	122	BACK OF SIGN #122
124	R5-1A(2M)	--	42	x	30	8.750	--	--	1	1	--	1	--	--	--	--
125	W6-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	124	BACK OF SIGN #124
126	W3-3(2M)	--	36	x	36	--	9.000	--	1	1	--	1	--	--	--	--
127	R1-1(2S)	--	30	x	30	5.180	--	--	1	1	--	1	--	--	--	--
128	R3-53R	--	24	x	30	5.000	--	--	--	--	--	1	--	--	--	SHEET 6B OF 8
129	S1-1(2S)	--	36	x	36	--	6.750	--	1	--	--	--	--	--	--	SHEET 2 OF 8 MOUNT ON LIGHT POLE
130	S16-9P(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	129	SHEET 2 OF 8
131	R7-1D(2M)	--	24	x	30	5.000	--	--	--	--	--	1	--	--	--	SHEET 3 OF 8
132	D1-65	90TH ST NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 1 OF 8
133	J13-1(2S) M1-6 M6-4	-- STH 11 --	24 24 21	x x x	45 24 21	7.500	--	--	--	--	--	1	--	--	--	SHEET 1A OF 8
134	J13-1(2S) M1-6 M6-4	-- STH 11 --	24 24 21	x x x	45 24 21	7.500	--	--	--	--	--	1	--	--	--	SHEET 1A OF 8
135	R2-1	--	--	x	--	--	--	--	--	--	--	--	1	--	--	SHEET 1A OF 8
136	D1-65	90TH ST NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 2 OF 8

FILE NAME : N:\SPO\Operations\Signing\Miscellaneous Quantities\1320-19-60\030501_mq.pptx PLOT DATE : 06-FEB-2015 PLOT BY : DOTKLM PLOT NAME : 030501_mq.pdf PLOT SCALE : 1:1

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
137	S1-1(2S)	--	36	x	36	--	6.750	--	--	--	--	--	--	--	--	SHEET 2 OF 8 MOUNT ON UPRIGHT
138	S16-7L(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	137	SHEET 2 OF 8 MOUNT ON UPRIGHT
138A	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	137	SHEET 2 OF 8 MOUNT ON UPRIGHT
139	S1-1(2S)	--	36	x	36	--	6.750	--	--	--	--	--	--	--	--	SHEET 2 OF 8 MOUNT ON UPRIGHT
140	S16-7L(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	139	SHEET 2 OF 8 MOUNT ON UPRIGHT
140A	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	139	SHEET 2 OF 8 MOUNT ON UPRIGHT
141	S1-1	--	--	x	--	--	--	--	1	--	--	--	--	--	--	SHEET 2 OF 8
142	R5-1(2S)	--	30	x	30	6.250	--	--	--	--	--	1	--	--	--	SHEET 3 OF 8
143	D1-65	WILLOW RD NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 3 OF 8
144	D1-65	WILLOW RD NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 3 OF 8
145	J13-1(2S)	--	24	x	45	7.500	--	--	--	--	--	1	--	--	--	SHEET 4A OF 8
	M1-6	STH 11	24	x	24											
	M6-4	--	21	x	21											
146	R6-2L(2S)	--	24	x	30	5.000	--	--	--	--	--	1	--	--	--	SHEET 4A OF 8
147	M1-94H	WILLOW RD	60	x	18	7.500	--	--	--	--	--	--	--	--	--	SHEET 4A OF 8 MOUNT ON OVERHEAD
148	M1-94H	WILLOW RD	60	x	18	7.500	--	--	--	--	--	--	--	--	--	SHEET 4A OF 8 MOUNT ON OVERHEAD
149	J13-1(2S)	--	24	x	45	7.500	--	--	--	--	--	1	--	--	--	SHEET 4A OF 8
	M1-6	STH 11	24	x	24											
	M6-4	--	21	x	21											
150	D1-65	OAKES RD NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 5 OF 8
151	J4-1(2S)	--	24	x	36	6.000	--	--	--	--	--	1	--	--	--	SHEET 6 OF 8
	M3-2	--	24	x	12											
	M1-6	STH 11	24	x	24											
152	R2-1(2M)	40 MPH	30	x	36	7.500	--	--	--	--	--	1	--	--	--	SHEET 6 OF 8
153	J4-1(2S)	--	24	x	36	6.000	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE
	M3-4	--	24	x	12											
	M1-6	STH 11	24	x	24											
154	R5-1(2M)	--	36	x	36	9.000	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE
155	R6-2L(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE
156	M1-94H	OAKES RD	60	x	18	7.500	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON OVERHEAD
157	M1-94H	OAKES RD	60	x	18	7.500	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON OVERHEAD
158	R6-2L(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE
159	R1-1F(2M)	--	36	x	36	--	--	7.460	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE
160	R5-1(2M)	--	36	x	36	9.000	--	--	--	--	--	--	--	--	--	SHEET 6A OF 8 MOUNT ON SIGNAL POLE

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0814 TUBULAR STEEL POSTS 2"X2"X14' [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	638.2102 MOVE SIGNS TYPE II [EA]	637.0620 SIGN FLAGS PERMANENT TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
161	D1-65	OAKES RD NEXT SIGNAL	54	x	21	7.875	--	--	--	--	--	2	--	--	--	SHEET 6B OF 8
162	W2-1(2M)	--	30	x	30	--	6.250	--	--	--	--	1	--	2	--	SHEET 7 OF 8
163	D1-61(MOD)	COZY ACRE ROAD [A] [A]	60	x	36	15.000	--	--	--	--	--	2	--	--	--	SHEET 7 OF 8
164	W14-1(2S)	--	30	x	30	--	6.250	--	1	1	1	--	--	--	--	SHEET 7 OF 8
165	W4-4C(2M)	11	24	x	12	--	2.000	--	--	--	--	--	--	--	121	SHEET 7 OF 8
166	W4-4C(2M)	11	24	x	12	--	2.000	--	--	--	--	--	--	--	117	SHEET 7 OF 8
167	D1-61(MOD)	COZY ACRE ROAD [A] [A]	60	x	36	15.000	--	--	--	--	--	2	--	--	--	SHEET 7 OF 8
168	W2-1(2M)	--	30	x	30	--	6.250	--	--	--	--	1	--	2	--	SHEET 7 OF 8
169	R7-1D(2M)	--	24	x	30	5.000	--	--	--	--	--	1	--	--	--	SHEET 3 OF 8
170	S1-1(2S)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	SHEET 2 OF 8 SEE DETAIL
171	S16-7R(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	--	SHEET 2 OF 8
172	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	--	SHEET 2 OF 8
173	S1-1(2S)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	SHEET 2 OF 8 SEE DETAIL
174	S16-7R(2S)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	--	SHEET 2 OF 8
175	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	--	SHEET 2 OF 8
176	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	SHEET 5 OF 8 SEE DETAIL
177	W16-7R(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	--	SHEET 5 OF 8
178	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	--	SHEET 5 OF 8
179	W11-2(2M)	--	36	x	36	--	9.000	--	--	--	--	--	--	--	--	SHEET 5 OF 8 SEE DETAIL
180	W16-7R(2M)	--	30	x	18	--	3.750	--	--	--	--	--	--	--	--	SHEET 5 OF 8
181	R10-25(2S)	--	9	x	12	0.750	--	--	--	--	--	--	--	--	--	SHEET 5 OF 8
182	R2-6P(2S)	--	24	x	18	3.000	--	--	--	--	--	--	--	--	129	SHEET 2 OF 8
183	S5-2(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	16	SHEET 2 OF 8
184	S5-2(2S)	--	24	x	30	5.000	--	--	--	--	--	--	--	--	26	SHEET 2 OF 8
185	R2-6P(2S)	--	24	x	18	3.000	--	--	--	--	--	--	--	--	20	SHEET 3 OF 8
186	R1-5L(2M)	--	18	x	18	2.250	--	--	--	--	1	--	--	--	--	SHEET 5 OF 8
187	R1-5L(2M)	--	18	x	18	2.250	--	--	--	--	1	--	--	--	--	SHEET 5 OF 8
TOTALS						673.400	357.750	89.520	104	68	4	103	2	4		

3

RECTANGULAR RAPID FLASH BEACON - MISC QUANTITIES **1320-19-60 STH 11**

LOCATION	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 RIGHT LS **SPV.0105.01**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 262+20 LEFT LS **SPV.0105.02**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 RIGHT LS **SPV.0105.03**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 263+25 LEFT LS **SPV.0105.04**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT EB LS **SPV.0105.05**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 301+80 RIGHT WB LS **SPV.0105.06**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT EB LS **SPV.0105.07**	RECTANGULAR RAPID FLASHING BEACON (RRFB) SYSTEM STATION 302+30 LEFT WB LS **SPV.0105.08**
STA 262+20 RT	1							
STA 262+20 LT		1						
STA 263+25 RT			1					
STA 263+25 LT				1				
STA 301+80 RT EB					1			
STA 301+80 RT WB						1		
STA 302+30 LT EB							1	
STA 302+30 LT WB								1
TOTAL	1	1	1	1	1	1	1	1

SHEET 1 OF 1

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	RECTANGULAR RAPID FLASH BEACON - MISC QUANTITIES	SHEET:	**E**

3

REMOVING OVERHEAD SIGN SUPPORTS 1320-19-60

LOCATION	SPV.0105.09 REMOVING OVERHEAD SIGN SUPPORT LS	SPV.0105.10 REMOVING OVERHEAD SIGN SUPPORT LS
STH 11 EB AT 86TH STREET	1	
STH 11 WB AT 86TH STREET		1
TOTAL	1	1

OVERHEAD SIGN SUPPORTS - MISC QUANTITIES 1320-19-60

LOCATION	OVERHEAD SIGN SUPPORT STRUCTURE S-51-236 L.S. 641.8100.01	OVERHEAD SIGN SUPPORT STRUCTURE S-51-237 L.S. 641.8100.02
STH 11 EB AT 86TH STREET	1	
STH 11 WB AT 86TH STREET		1
TOTAL	1	1

3

SHEET 1 OF 1

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	MISCELLANEOUS QUANTITIES - OVERHEAD SIGN SUPPORTS	SHEET:	E

3

STH 11 & 90TH STREET
RACINE COUNTY
CATEGORY 0020
S51-0267

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
4	EVP DETECTOR HEADS

STATE FURNISHED FOR INFORMATION ONLY

SIGNAL BASE NO.	EVP DETECTOR HEADS EACH
SB2	1
SB8	1
SB6	1
SB8	1
***TOTAL	4

CONDUIT

FROM	TO	652.0605 CONDUIT SPECIAL 2-INCH L.F.
PB7	PB16	84
PB14	PB15	76
	***TOTAL	160

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES STEEL 24x36-INCH EACH
PB15	250+37.5, 262.4'RT	1
PB16	249+68.2, 267.8'LT	1
	***TOTAL	2

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB2 (HEAD A)	190
CB1	SB6 (HEAD B)	198
CB1	SB8 (HEAD C)	83
CB1	SB8 (HEAD D)	83
	***TOTAL	554

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.11 REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
STH 11 & 90TH STREET	1
TOTAL	1

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.13 EVP DETECTOR HEAD INSTALLATION L.S.
STH 11 & 90TH STREET	1
TOTAL	1

***QUANTITIES SHOWN ELSEWHERE ON PLAN

3

3

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB10	252+67.4, 13.4'LT	6'x20'	5	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	76	398	380
41	PB16	249+85.2, 268.3'LT	6'x15'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	62	341	248
42	PB6	249+85.1, 61.5'LT	6'x15'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	62	155	186
43	PB5	249+85.7, 28.4'LT	6'x25'	2	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	86	119	86
44	PB6	249+95.8, 61.8'LT	6'x15'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	155	246
45	PB5	249+96.7, 28.6'LT	6'x25'	2	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	110	119	220
61	PB3	247+31.6, 6.3'RT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	98	287	392
81	PB15	250+18.9, 262.8'RT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	306	280
82	PB13	250+21.1, 60.1'RT	6'x15'	2	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	60	101	120
83	PB13	250+20.2, 27.1'RT	6'x25'	2	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	86	101	172
84	PB13	250+06.6, 61.0'RT	6'x15'	2	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	101	180
85	PB13	250+05.9, 28'RT	6'x25'	2	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	101	224
					***TOTALS	994	2284	2734

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

***QUANTITIES SHOWN ELSEWHERE ON PLAN

3

STH 11 & OAKES ROAD
RACINE COUNTY
CATEGORY 0020
S51-0733

STATE FURNISHED MATERIALS SUMMARY

EACH	DESCRIPTION
4	EVP DETECTOR HEADS

CONDUIT

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0605 CONDUIT SPECIAL 2-INCH L.F.
PB21	PB8		29
PB8	PB22		52
PB22	PB23	99	
PB18	PB24		130
	***TOTALS	99	211

PULL BOXES

PULL BOX NO.	LOCATION*	653.0135 PULL BOXES STEEL 24x36-INCH EACH	653.0140 PULL BOXES STEEL 24x42-INCH EACH
PB18	318+78.2, 4.5'RT	1	
PB21	313+04.0, 4.1'LT	1	
PB22	312+72.2, 47.6'RT		1
PB23	311+73.7, 44.0'RT	1	
PB24	320+08.4, 1.3'RT	1	
	***TOTALS	4	1

* FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

STATE FURNISHED FOR INFORMATION ONLY

SIGNAL BASE NO.	EVP DETECTOR HEADS EACH
SB3	1
SB6	1
SB9	1
SB12	1
***TOTAL	4

REMOVE PULL BOXES

PULL BOX NO.	653.0905 REMOVING PULL BOXES EACH
PB18	1
TOTAL	1

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1	SB9 (HEAD A)	475
CB1	SB3 (HEAD B)	149
CB1	SB6 (HEAD C)	223
CB1	SB12 (HEAD D)	360
	***TOTAL	1207

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

LOCATION	SPV.0105.12 REMOVE LOOP DETECTOR WIRE & LEAD-IN CABLE L.S.
STH 11 & OAKES ROAD	1
TOTAL	1

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.14 EVP DETECTOR HEAD INSTALLATION L.S.
STH 11 & OAKES ROAD	1
TOTAL	1

***QUANTITIES SHOWN ELSEWHERE ON PLAN

3

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TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
11	PB6	315+15.2, 4.3'RT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	72	223	288
12	PB6	314+87.2, 4.3'RT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	64	223	256
13	PB6	314+59.2, 4.5'RT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	110	223	440
14	PB7	313+49.6, 5.2'RT	6'x6'	6	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	38	361	228
21	PB24	320+08.2, 22.1'LT	6'x20'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	396	312
22	PB18	318+78.3, 24.4'LT	6'x20'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	302	360
31	PB3	315+84.6, 107.0'RT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	120	79	360
32	PB3	315+84.2, 79.1'RT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	70	79	210
33	PB3	315+83.8, 51.2'RT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	68	79	204
34	PB2	315+90.6, 218.4'RT	6'x15'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	158	400
35	PB3	315+95.6, 106.7'RT	6'x20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	134	79	402
36	PB3	315+95.2, 78.9'RT	6'x20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	92	79	276
37	PB3	315+94.7, 51.2'RT	6'x20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	90	79	270

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TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
41	PB11	315+55.7, 54.3'LT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	74	333	296
42	PB11	315+57.1, 82.4'LT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	68	333	272
43	PB11	315+66.7, 54.2'LT	6'x20'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	74	333	296
44	PB11	315+68.0, 82.1'LT	6'x20'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	92	333	368
45	PB12	315+65.8, 243.9'LT	6'x20'	5	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	92	486	460
51	PB16	316+65.4, 7.1'LT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	76	118	228
52	PB16	316+93.4, 6.9'LT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	68	118	204
53	PB16	317+21.4, 6.8'LT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	108	118	324
54	PB17	318+34.3, 6.5'LT	6'x6'	5	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	40	257	200
61	PB23	311+74.4, 16.5'RT	6'x20'	5	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	586	410
62	PB21	313+04.0, 21.3'RT	6'x20'	4	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	406	328

STH 11 & OAKES ROAD
RACINE COUNTY
CATEGORY 0020
S51-0733

3

3

TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION*	SIZE (FT)x(FT)	NO. OF TURNS	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
71	PB13	315+97.3, 53.6'LT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	96	270	384
72	PB13	315+95.2, 81.5'LT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	82	270	328
73	PB13	315+93.0, 109.5'LT	6'x20'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	88	270	352
74	PB12	315+84.0, 243.6'LT	6'x6'	6	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	486	528
81	PB1	316+25.8, 53.0' RT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	96	19	288
82	PB1	316+24.4, 81.1'RT	6'x20'	3	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	68	19	204
83	PB1	316+14.8, 52.6'RT	6'x20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	80	19	240
84	PB1	316+13.2, 80.7'RT	6'x20'	3	9F15-4B - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 2)	96	19	288
85	PB2	316+12.4, 219.1'RT	6'x15'	4	9F15-4A - LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE BOX OFF ROADWAY (OPTION 1)	58	158	232
					***TOTALS	2734	7311	10236

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
* * FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

***QUANTITIES SHOWN ELSEWHERE ON PLAN

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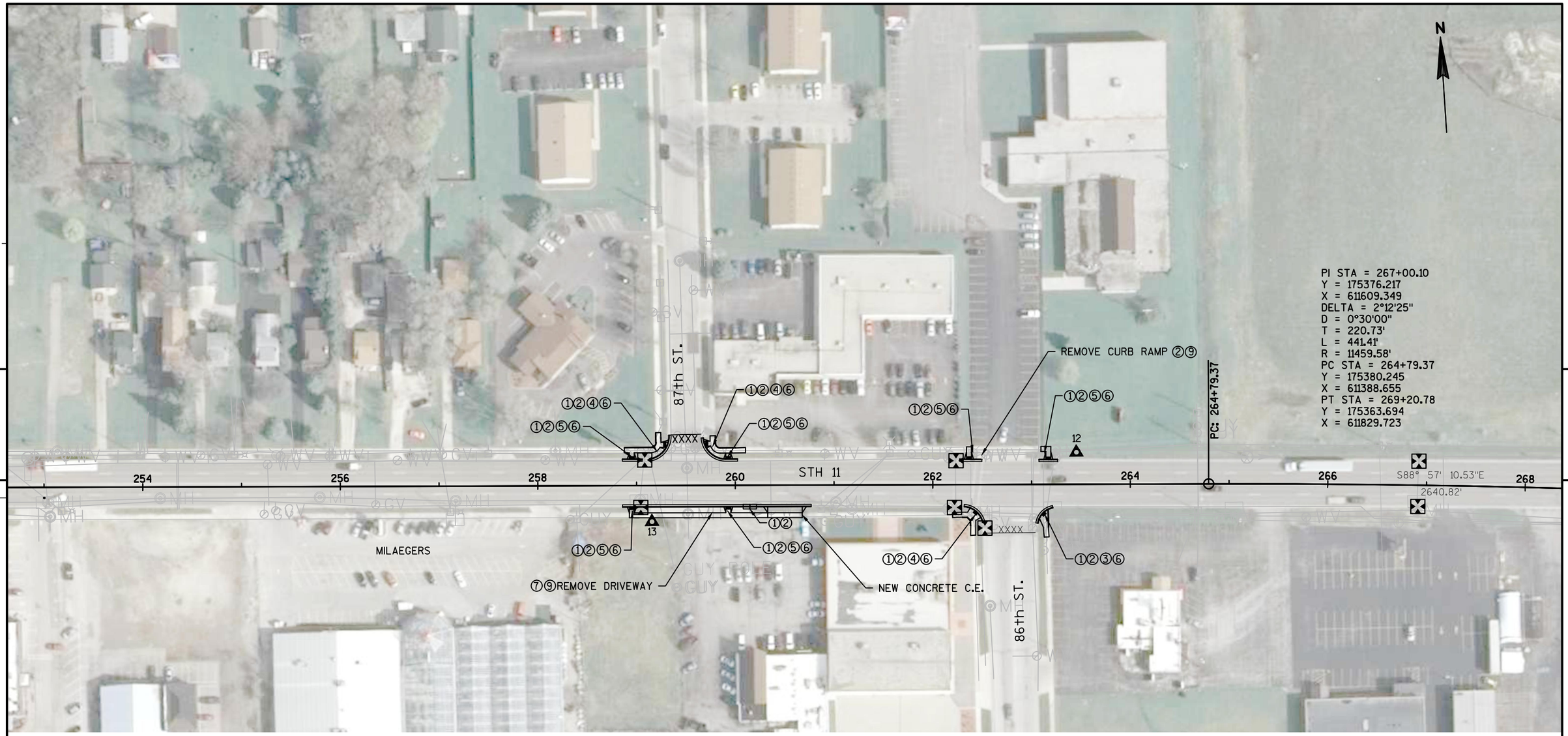
LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS 1 TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		
—•—	SILT FENCE		
XXXXX	SAWCUT		
☒	INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED		
▭▭▭	TEMPORARY DITCH CHECKS		

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
16	175460.685	609292.319	703.48	CP F1000SPK FENO
15	175387.649	609590.252	701.99	CP F1000SPK FENO
14	175466.9190	609934.5140	701.30	CP F1000SPK FENO

NOTES:
- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 86	E



LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS 1 TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		

SILT FENCE

XXXXX SAWCUT

INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED

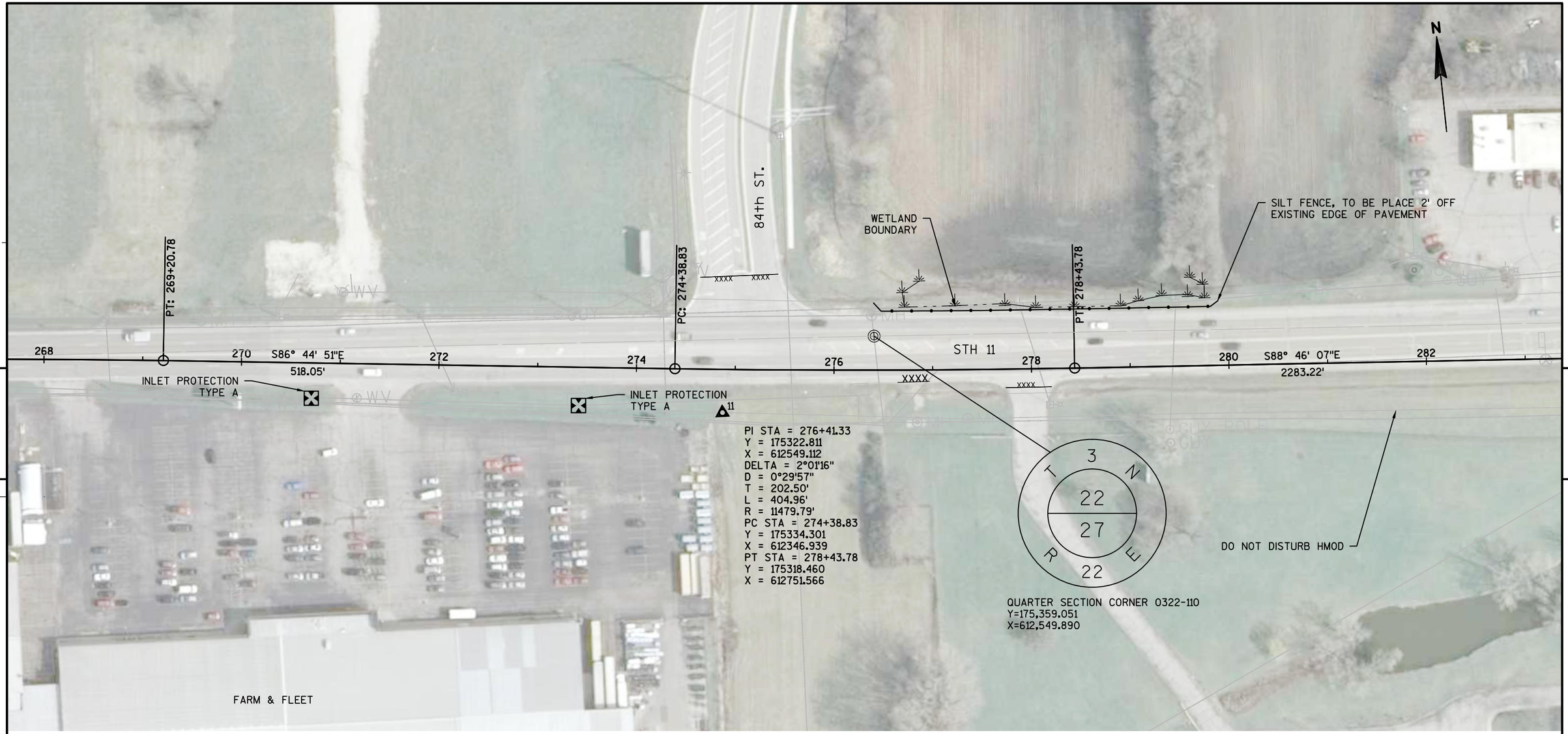
TEMPORARY DITCH CHECKS

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
13	175353.877	610824.257	699.76	CP F1000SPK FENO
12	175414.966	611255.474	695.33	CP F1000SPK FENO

NOTES:

- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 87	E



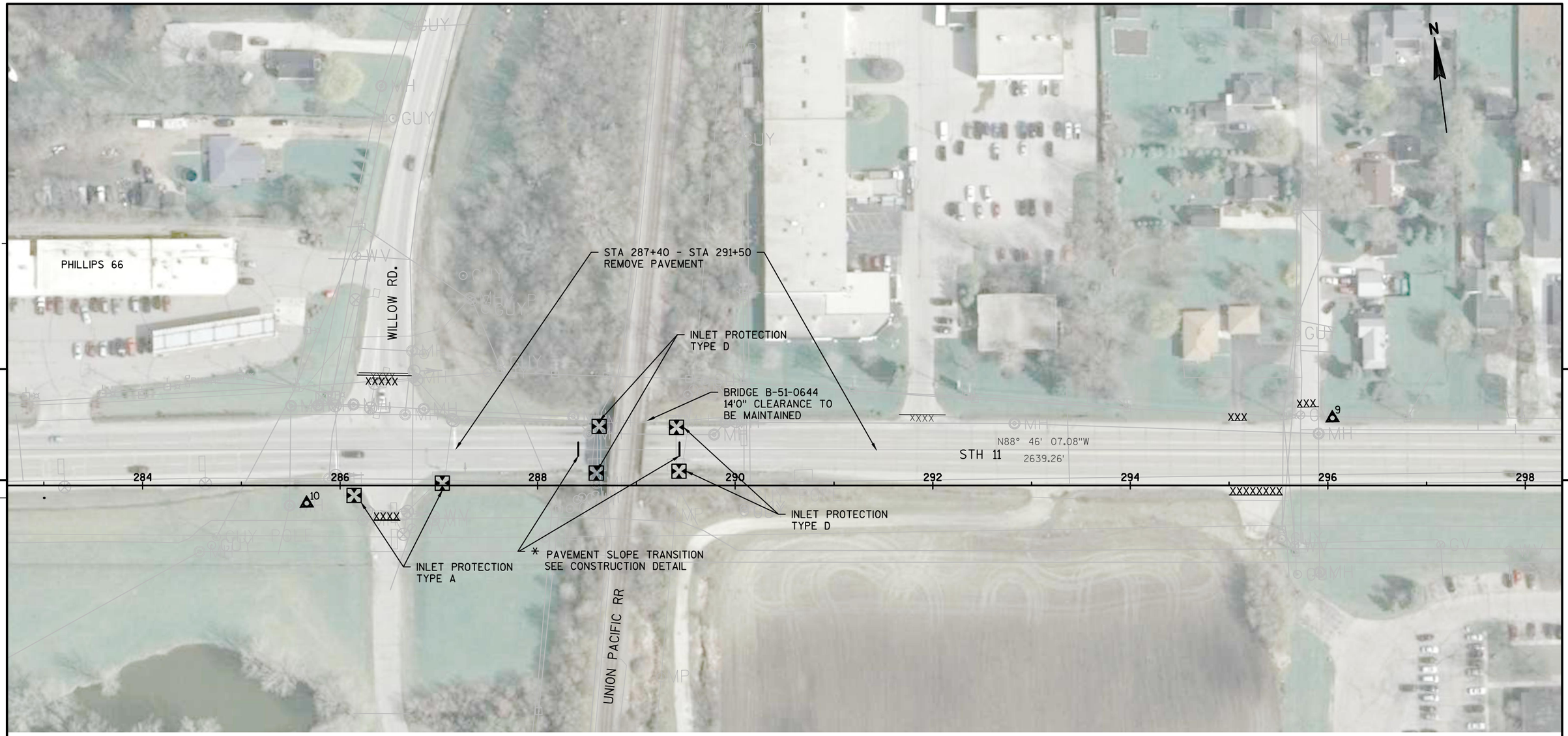
LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS 1 TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		
—•—	SILT FENCE		
XXXXX	SAWCUT		
⊠	INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED		
▭▭▭	TEMPORARY DITCH CHECKS		

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
11	175287.894	612393.282	682.84	CP F1000SPK FENO

NOTES:

- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644



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LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS I TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		

- SILT FENCE
- XXXXX SAWCUT
- INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED
- TEMPORARY DITCH CHECKS

*PAVEMENT SLOPE TRANSITION

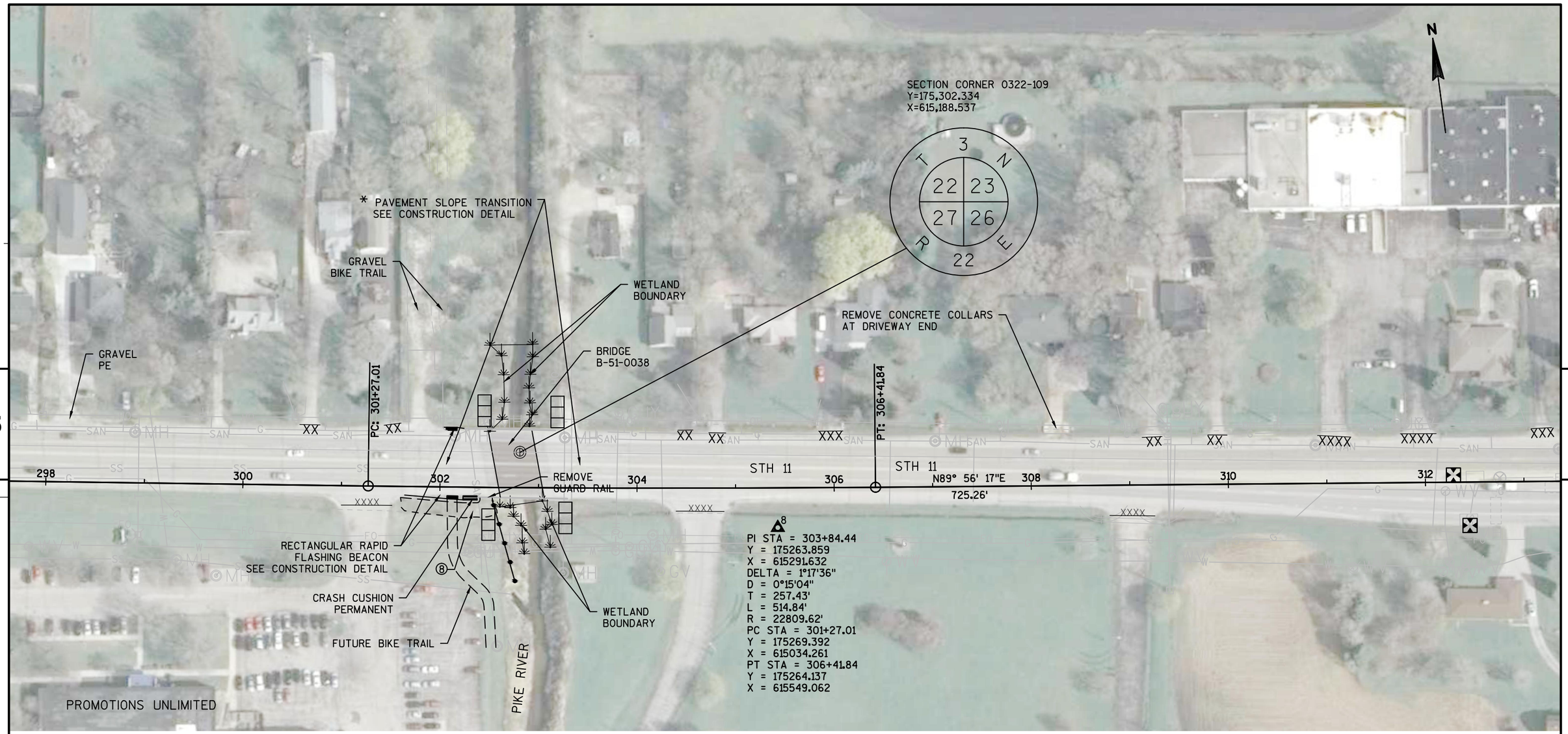
STA. 288+40 to STA. 288+65 - 2% to 1.5%
STA. 288+65 to STA. 289+15 - 1.5%
STA. 289+15 to STA. 289+40 - 1.5% TO 2%

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
10	175284.955	613473.309	677.47	CP F1000SPK FENO
9	175348.947	614513.540	673.25	CP F1000SPK FENO

NOTES:

- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 89	E



LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS I TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		
—●—	SILT FENCE		
XXXXX	SAWCUT		
⊠	INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED		
▭▭▭	TEMPORARY DITCH CHECKS		

*PAVEMENT SLOPE TRANSITION

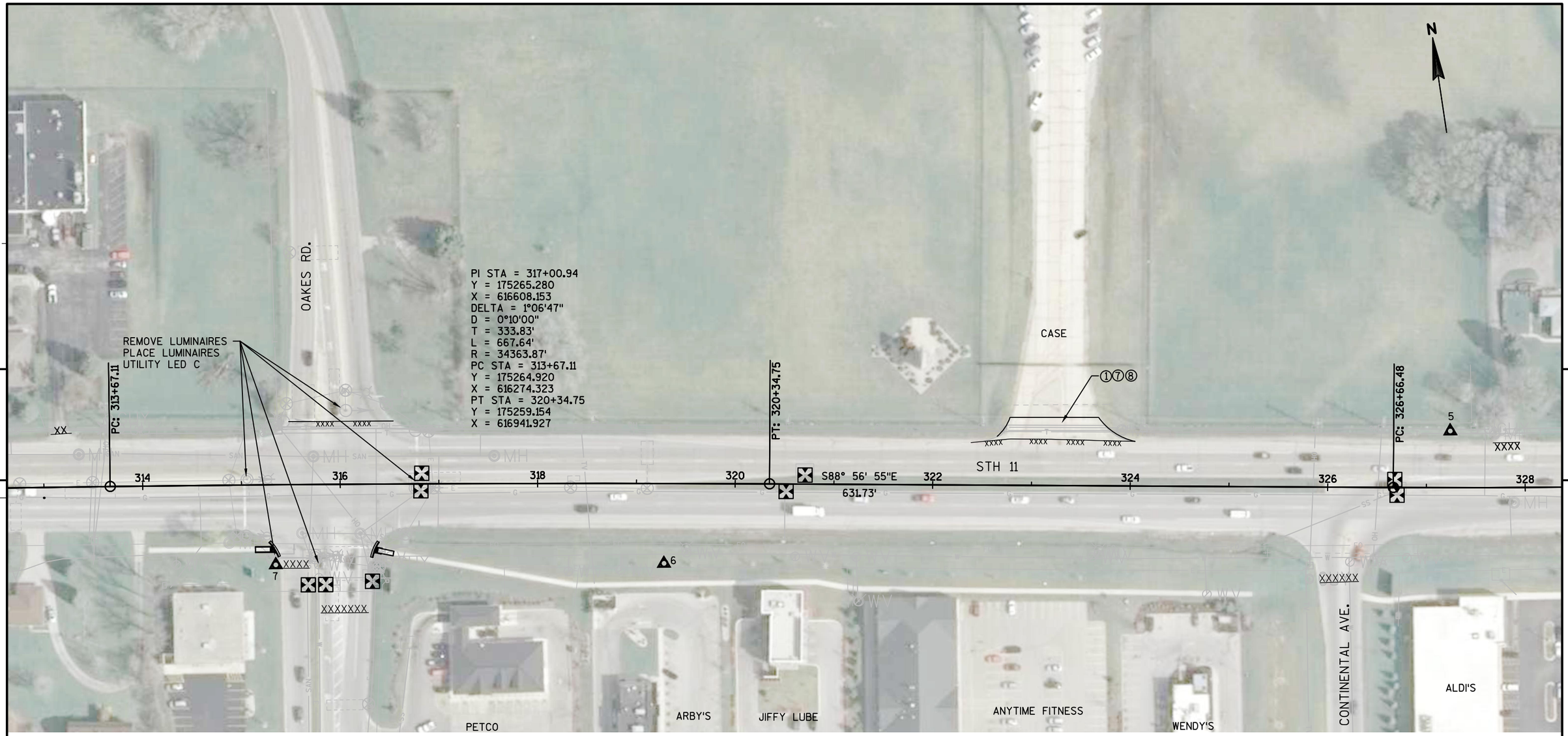
STA. 302+09 to STA. 302+59 - 2% to 1%
STA. 302+59 to STA. 303+04 - 1%
STA. 303+04 to STA. 303+54 - 1% TO 2%

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
8	175223.940	615449.642	668.50	CP F1000SPK FENO

NOTES:

- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 90	E



LEGEND

①	REMOVING CURB AND GUTTER	⑥	PEDESTRIAN CURB
②	REMOVING CONCRETE SIDEWALK	⑦	REMOVING PAVEMENT
③	CURB RAMP TYPE 1	⑧	TOPSOIL, SEED, AND EROSION MAT URBAN CLASS I TYPE B
④	CURB RAMP TYPE 2	⑨	TOPSOIL, SOD LAWN, SOD WATER
⑤	CURB RAMP TYPE 7B		

- SILT FENCE
- XXXXX SAWCUT
- INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED
- TEMPORARY DITCH CHECKS

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
7	175183.595	616440.983	680.00	CP F1000SPK FEN0
6	175180.024	616834.019	684.05	CP F1000SPK FEN0
5	175304.021	617631.869	706.77	CP F1000SPK FEN0

NOTES:

- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 91	E

QUARTER SECTION 0322-108
Y=175,253.754
X=617,835.695

T 3 N
23
26
R 22 E

N

GRAVEL P.E.

PT: 331+35.29

PC: 331+84.58

COZY ACRE RD.

PT: 336+17.83

GRAVEL P.E.

END PROJECT
STA. 343+00
Y=175,240.596
X=619,206.920

5

5

328 330 332 334 336 338 340 342

N88° 42' 48"E
49.29'

S89° 07' 12"E
1980.21'

STH 11

4

PI STA = 329+00.92
Y = 175243.261
X = 617807.951
DELTA = 2°20'17"
D = 0°29'55"
T = 234.44'
L = 468.81'
R = 11488.30'
PC STA = 326+66.48
Y = 175247.563
X = 617573.551
PT STA = 331+35.29
Y = 175248.526
X = 618042.332

PI STA = 334+01.23
Y = 175254.498
X = 618308.208
DELTA = 2°10'00"
D = 0°30'00"
T = 216.65'
L = 433.25'
R = 11457.03'
PC STA = 331+84.58
Y = 175249.633
X = 618091.613
PT STA = 336+17.83
Y = 175251.171
X = 618524.833

LEGEND

① REMOVING CURB AND GUTTER
② REMOVING CONCRETE SIDEWALK
③ CURB RAMP TYPE 1
④ CURB RAMP TYPE 2
⑤ CURB RAMP TYPE 7B
⑥ PEDESTRIAN CURB
⑦ REMOVING PAVEMENT
⑧ TOPSOIL, SEED, AND EROSION MAT URBAN CLASS I TYPE B
⑨ TOPSOIL, SOD LAWN, SOD WATER

SILT FENCE
XXXXX SAWCUT
INLET PROTECTION TYPE C, UNLESS OTHERWISE NOTED
TEMPORARY DITCH CHECKS

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
4	175206.166	618517.694	720.79	CP F1000SPK FENO

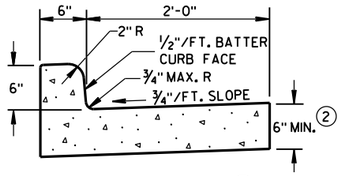
NOTES:
- PLACE INLET PROTECTION TYPE D AT CURBED LOW POINTS.
- SAW CUT LOCATIONS TO BE VERIFIED BY ENGINEER (TYP.)
- SAW CUT REQUIRED AT ALL PEDESTRIAN RAMP LOCATIONS.
- TOP SOIL AND SOD LAWN REQUIRED AT PEDESTRIAN RAMP DISTURBED AREAS.
- MAINTAIN EXISTING CROSS SLOPE UNDER B-51-0644

PROJECT NO:1320-19-60	HWY: STH 11	COUNTY: RACINE	PLAN DETAIL AND EROSION CONTROL	SHEET 92	E

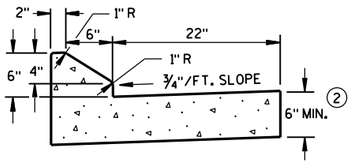
Standard Detail Drawing List

08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08E04-02	SOD OR MASONRY AND SOD DITCH CHECKS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F15-04A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
13C14-05A	BASE PATCHING CONCRETE
13C14-05B	BASE PATCHING CONCRETE
13C14-05C	BASE PATCHING CONCRETE
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C19-02B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C20-01	YIELD MARKING
15C24-02	36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D12-05B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01B	ATTACHMENT OF SIGNS TO POSTS
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

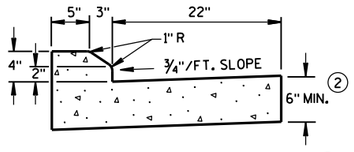
6



TYPES A & D ①

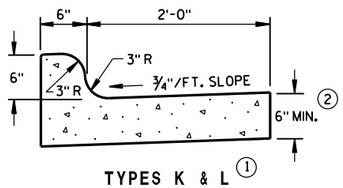


6" SLOPED CURB TYPES G & J ①

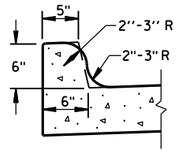


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

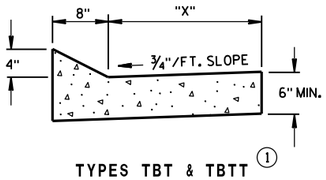


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

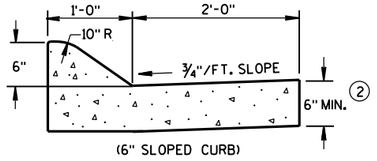
CONCRETE CURB & GUTTER 30"



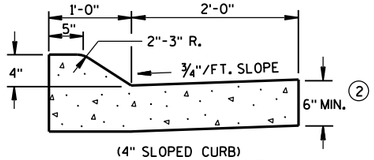
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

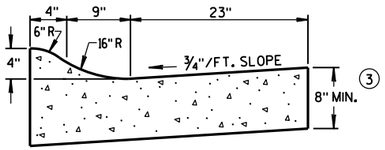


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

CONCRETE CURB & GUTTER 36"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS 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 & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

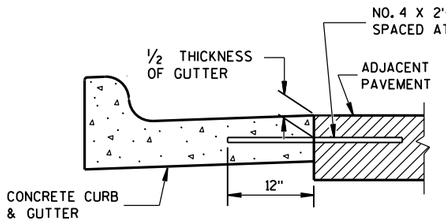
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

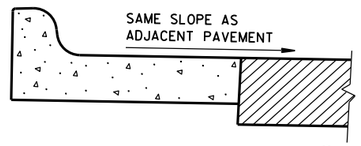
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

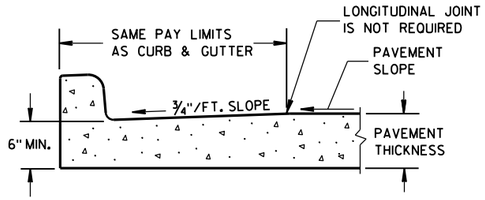
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



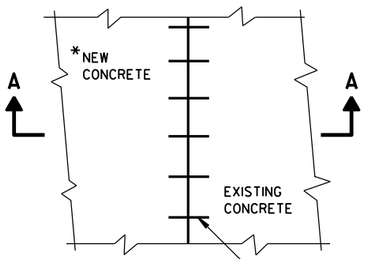
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)

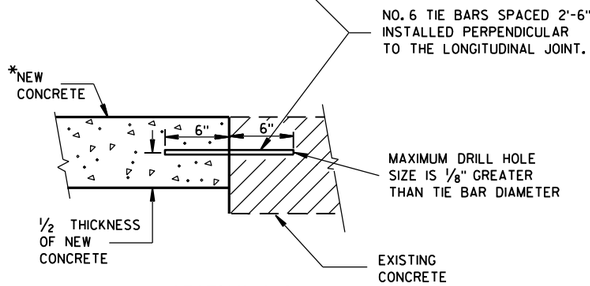


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



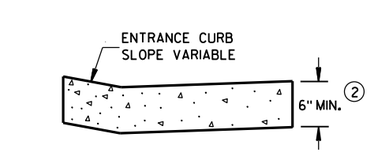
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

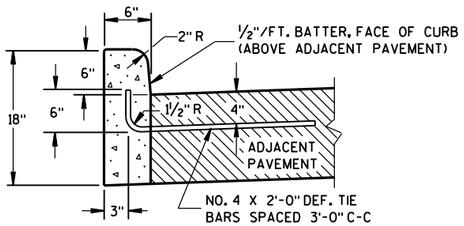


SECTION A-A

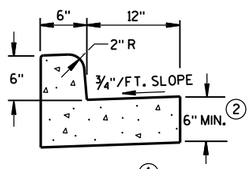
TIE BARS DRILLED
INTO EXISTING PAVEMENT



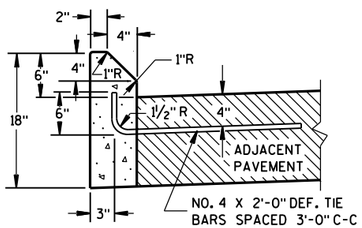
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



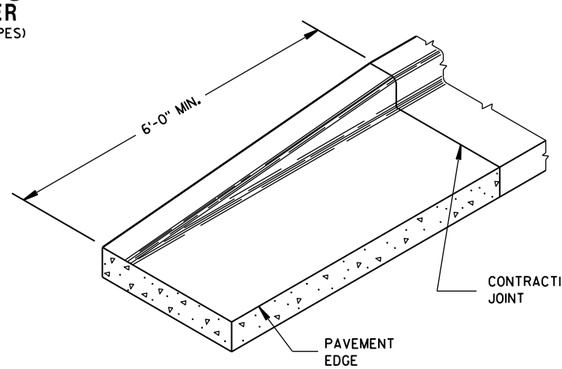
TYPES A & D ①



TYPES A & D ①
CONCRETE CURB & GUTTER 18"



TYPES G & J ①



END SECTION CURB & GUTTER

CONCRETE CURB

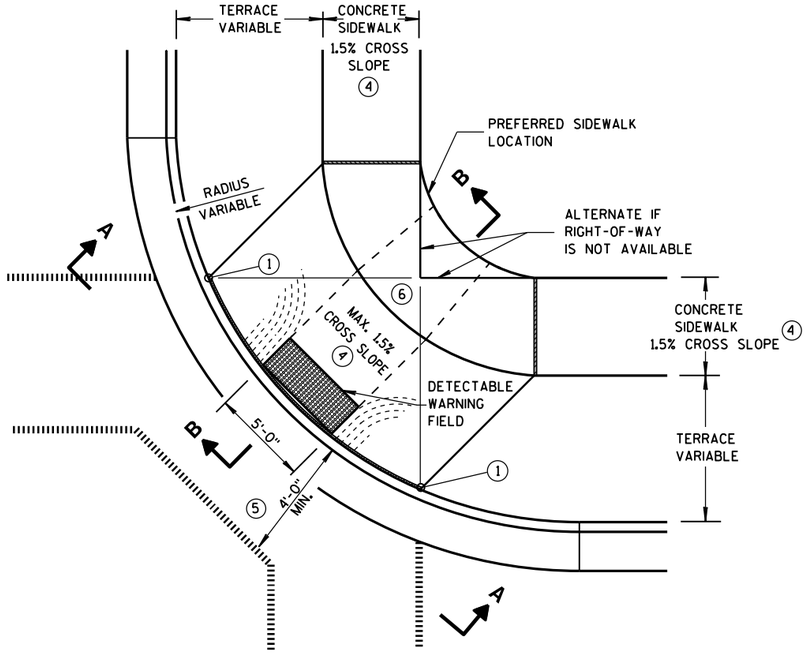
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

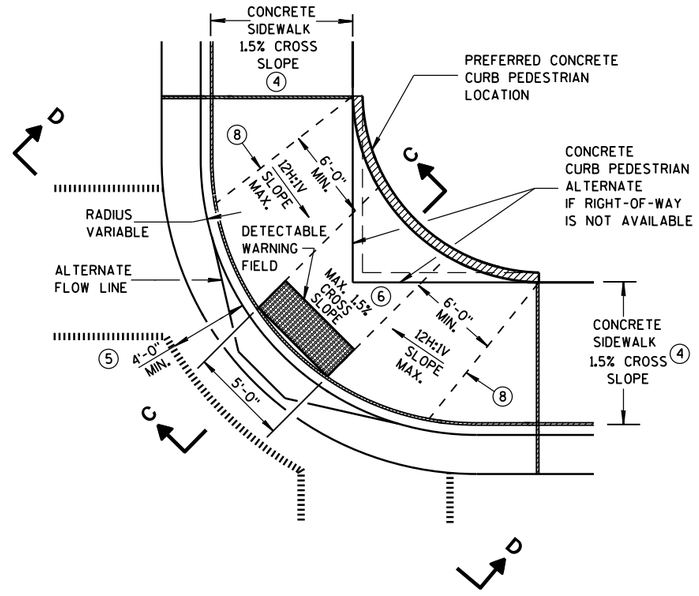
S.D.D. 8 D 1-18



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

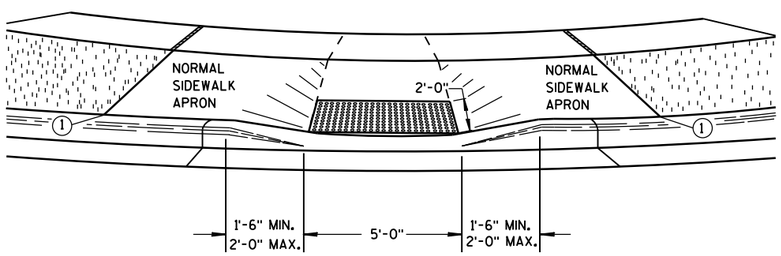
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

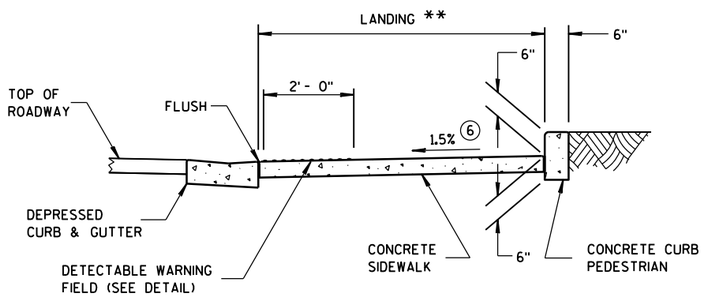
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

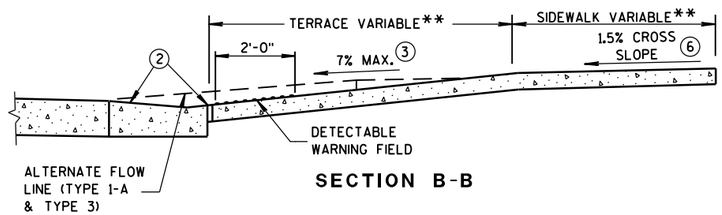
** WIDTH SHOWN ELSEWHERE IN THE PLANS



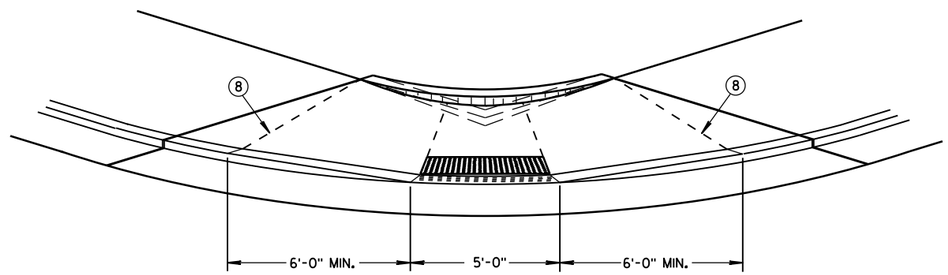
SECTION C-C

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



SECTION B-B



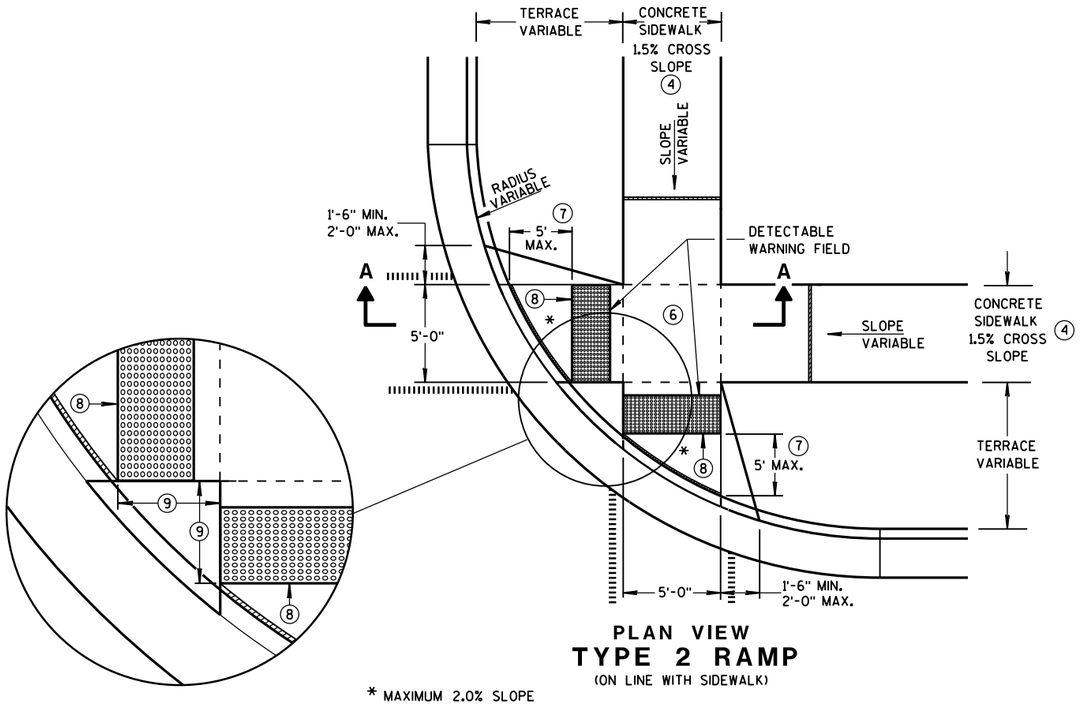
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

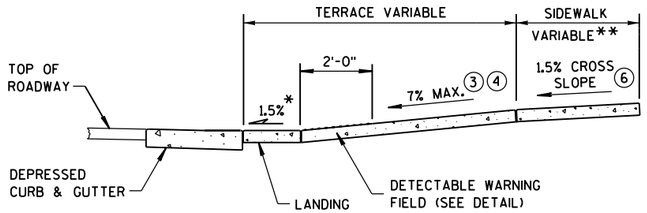


PLAN VIEW

TYPE 2 RAMP

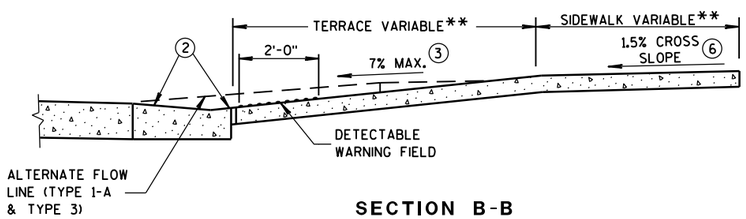
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

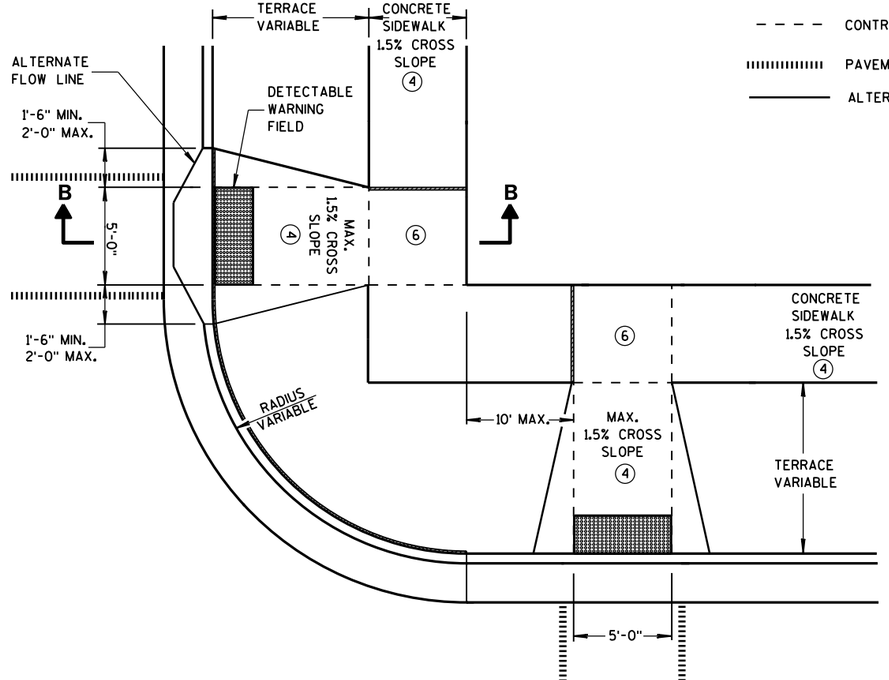
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

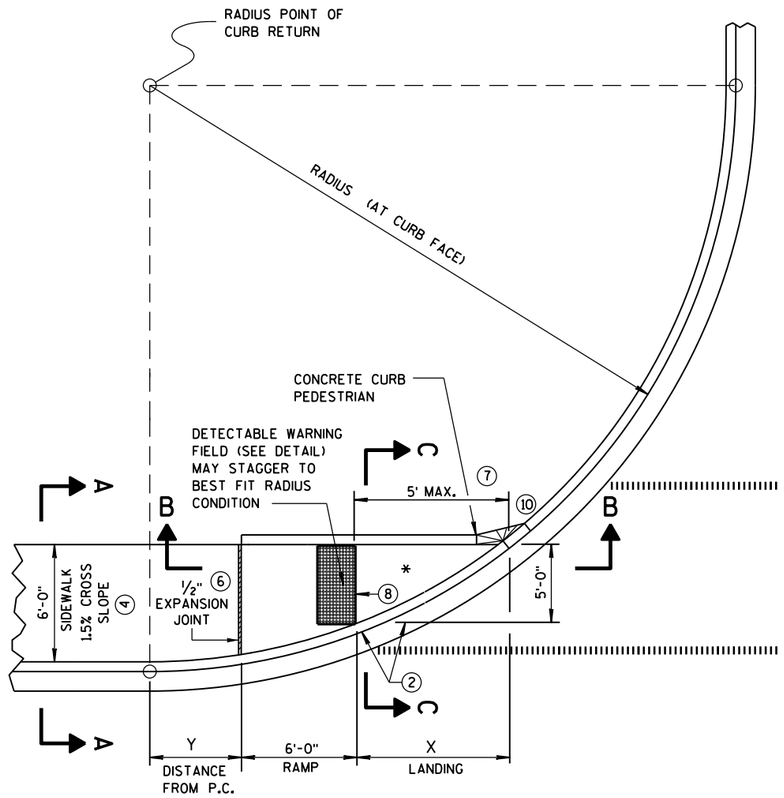
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

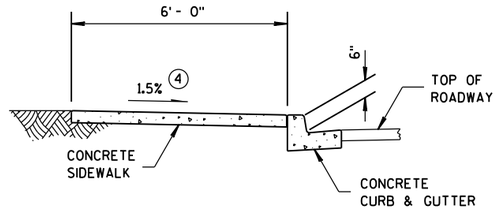
S.D.D. 8 D 5-16b



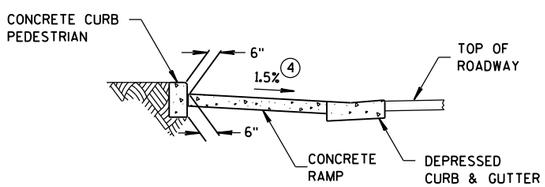
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

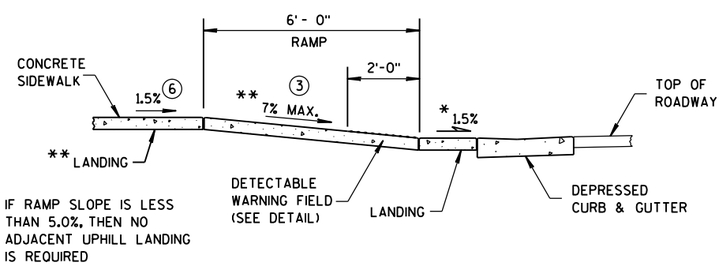
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

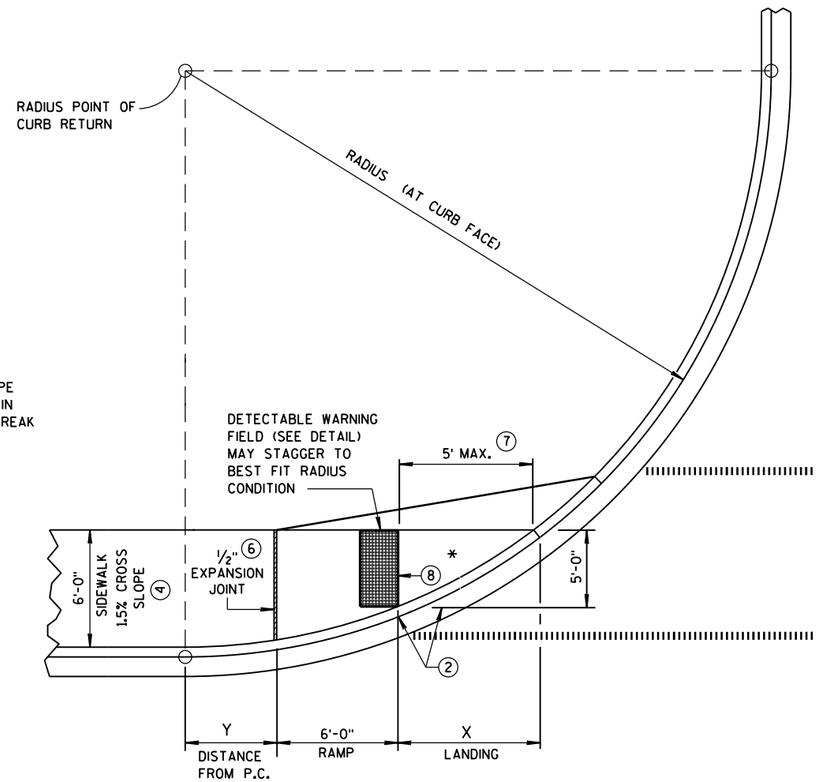


SECTION C-C FOR TYPE 4A



** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

SECTION B-B FOR TYPE 4A



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

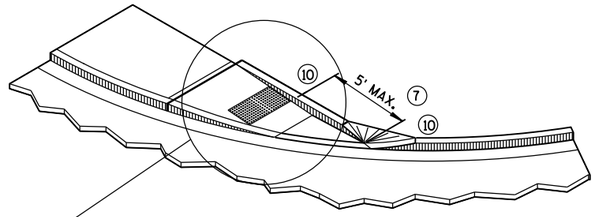
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

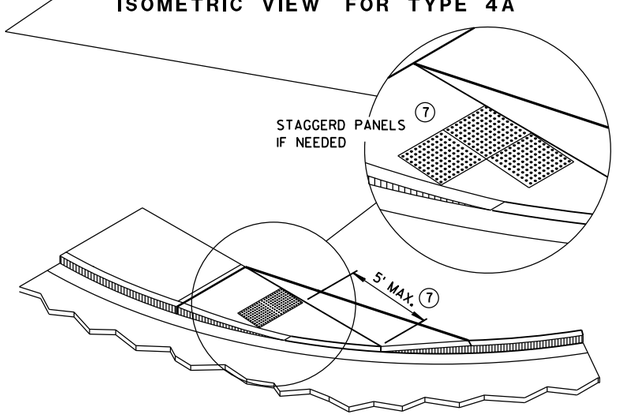
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

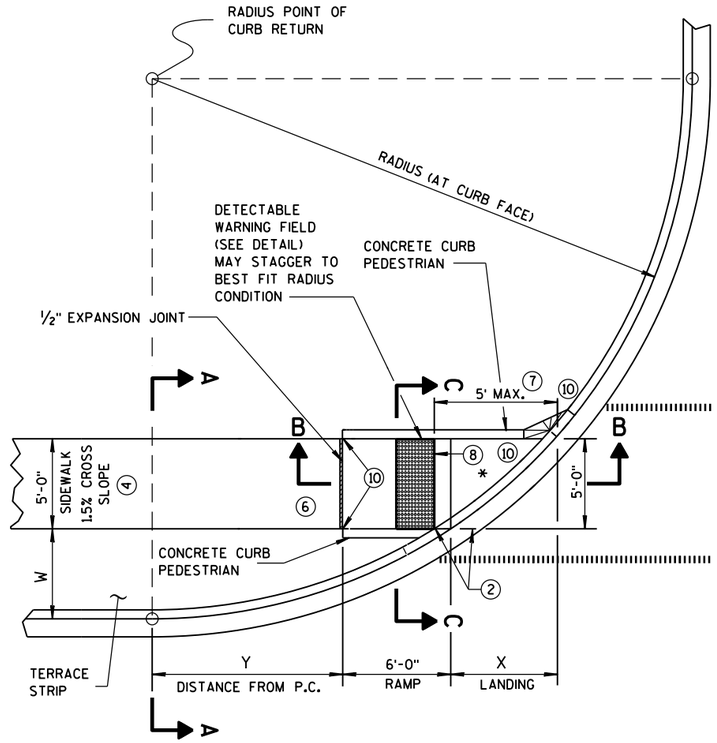
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

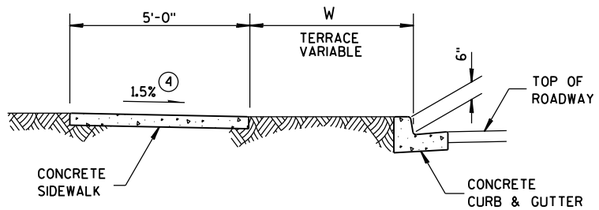
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

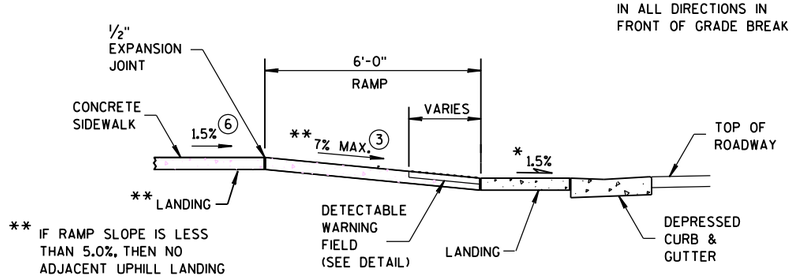
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

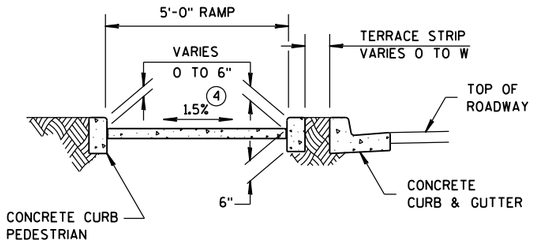
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

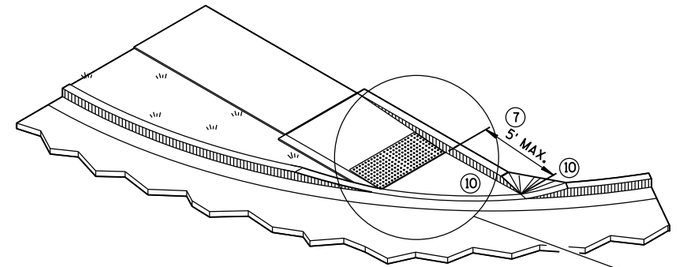
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

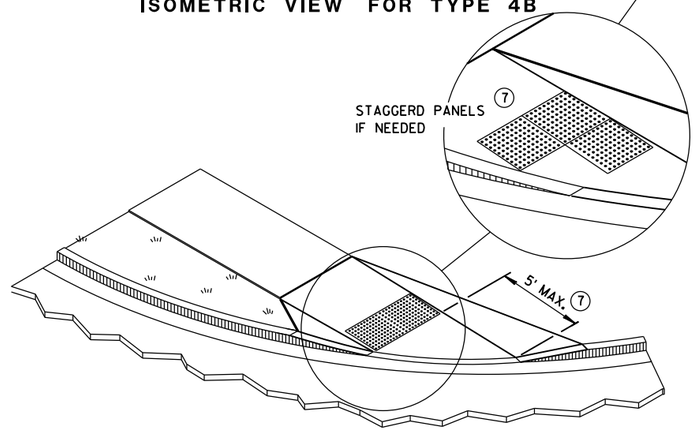
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

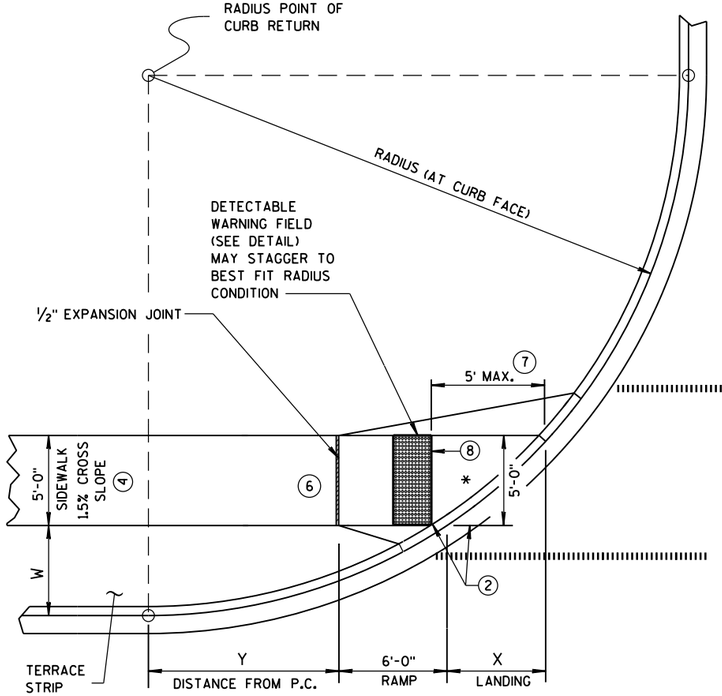
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

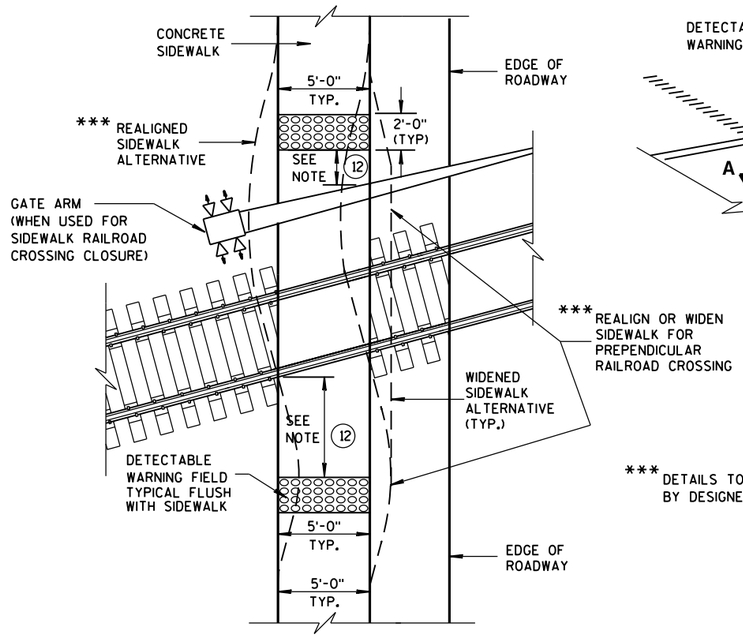
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16d

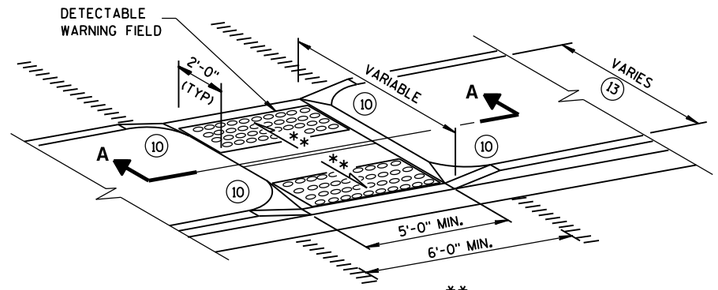
6

S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

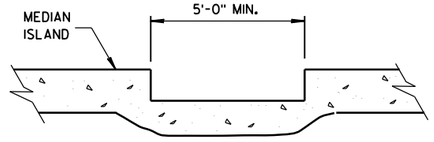
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

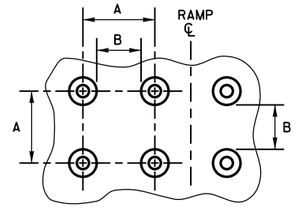
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



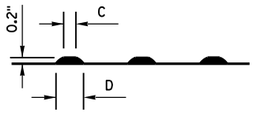
SECTION A-A

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

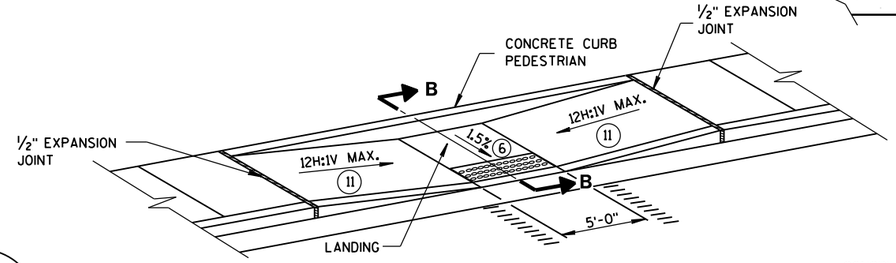


PLAN VIEW

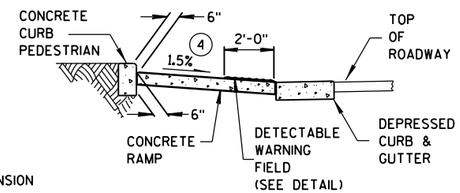


ELEVATION VIEW

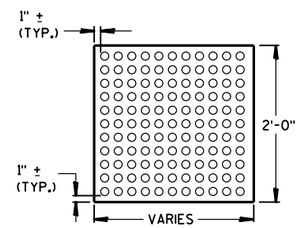
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



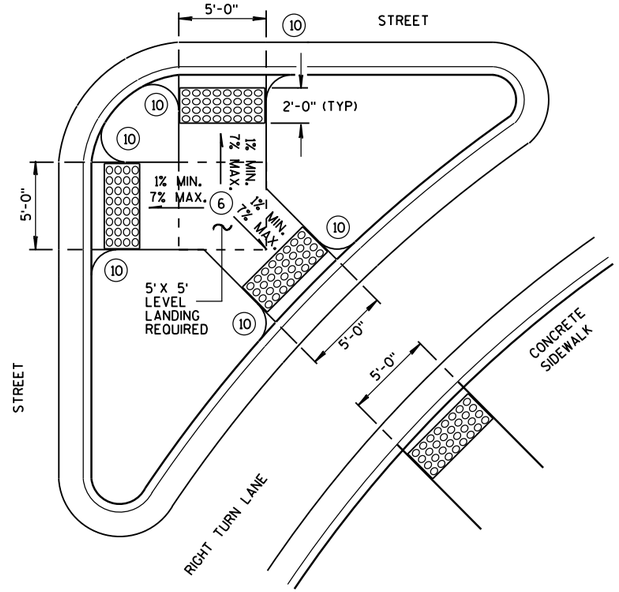
SECTION B-B



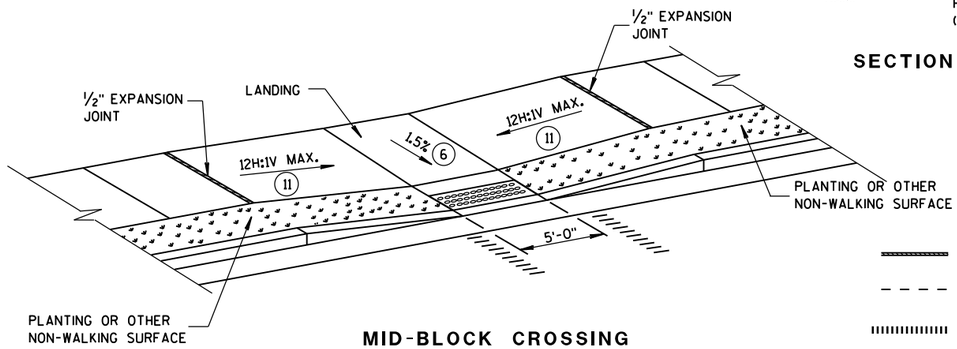
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

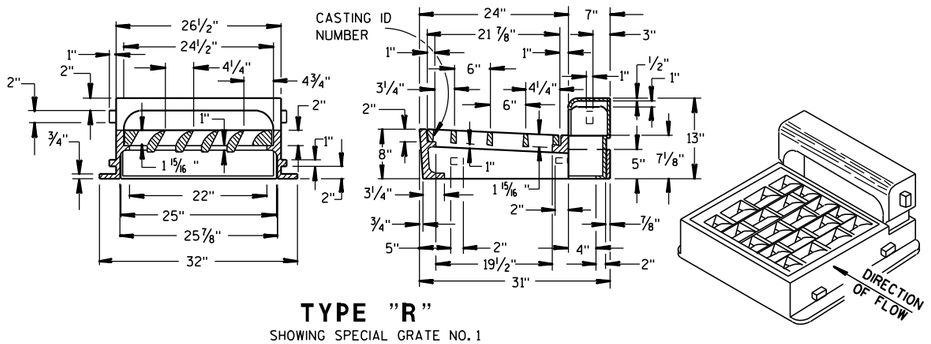
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

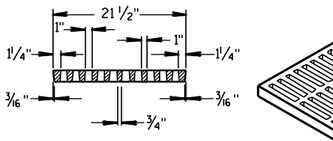
S.D.D. 8 D 5-16e

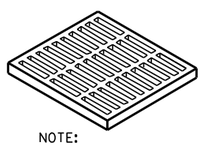
INLET COVERS



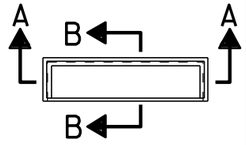
TYPE "R"

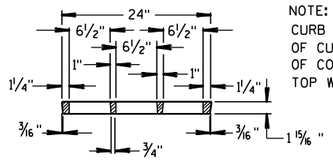
SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



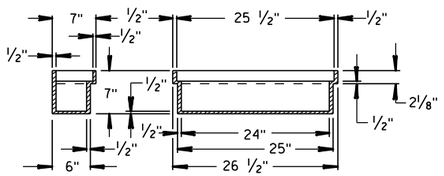


(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.





NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



GRATE FOR TYPE "R" INLET COVER

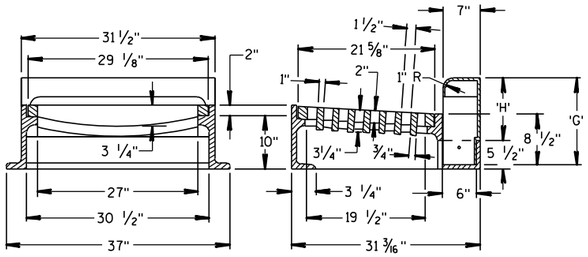
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

SECTION B-B SECTION A-A

SPECIAL CURB PLUG "P"

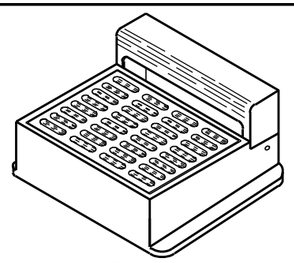
(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

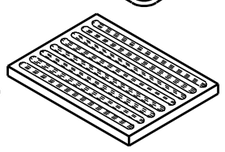
'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB



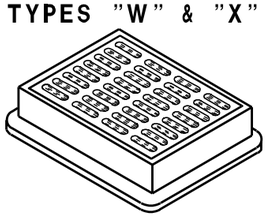
TYPE "W"

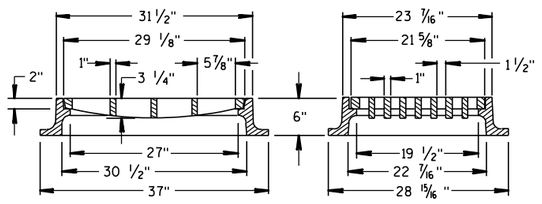
(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.





ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"

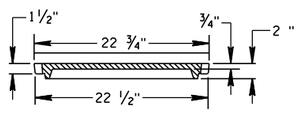




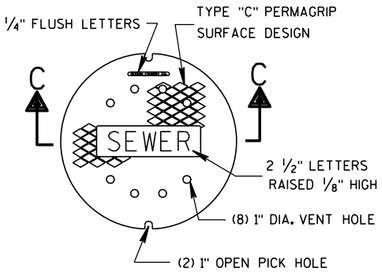
TYPE "X"

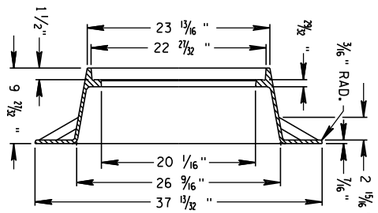
(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C





TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

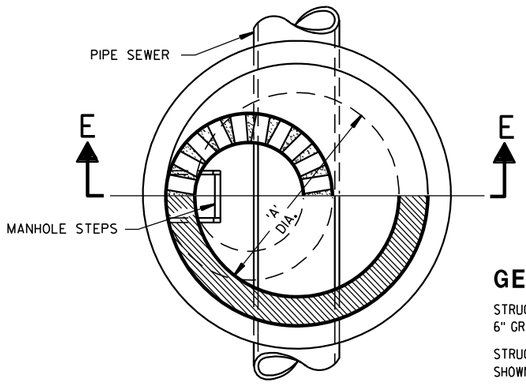
TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

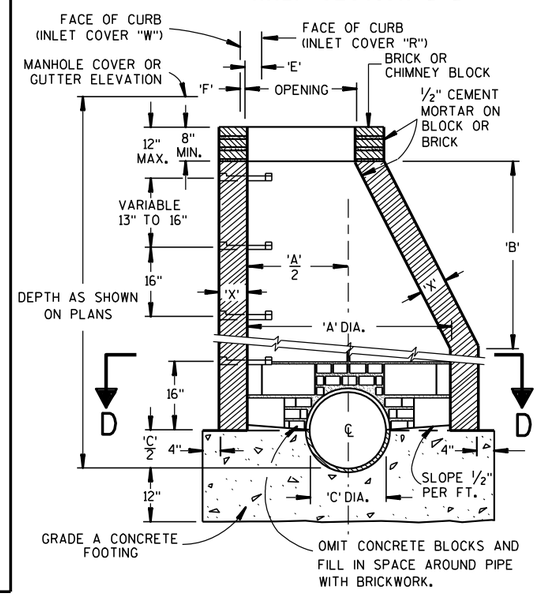
MANHOLE



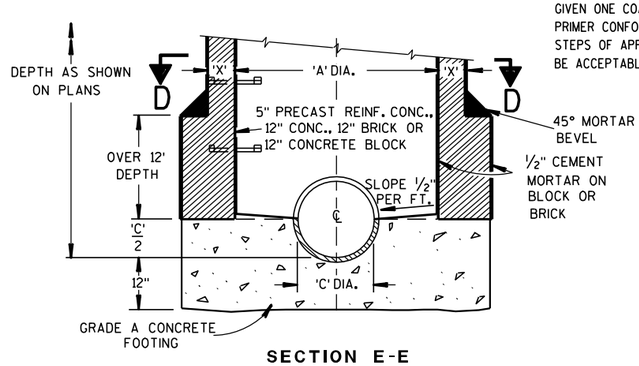
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

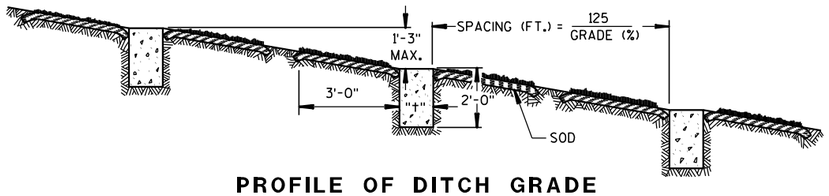
SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

MANHOLES, MANHOLE & INLET COVERS

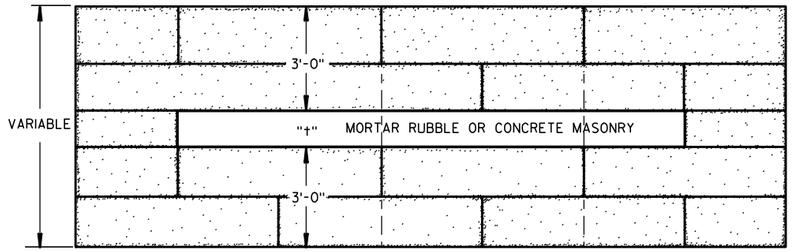
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA

6
S.D.D. 8 D 17-6

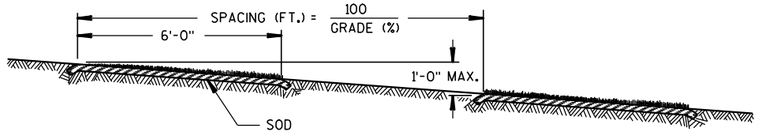


PROFILE OF DITCH GRADE

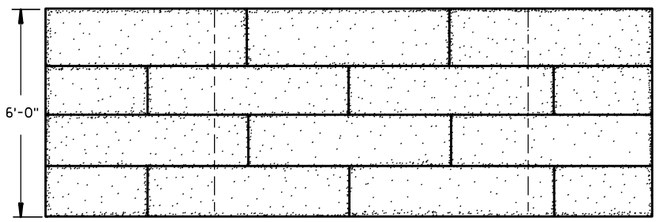


PLAN VIEW SHOWING MASONRY AND SOD

"+" - MASONRY THICKNESS SHALL BE 0'-9" FOR CONCRETE AND 1'-0" FOR MORTAR RUBBLE.



PROFILE OF DITCH GRADE



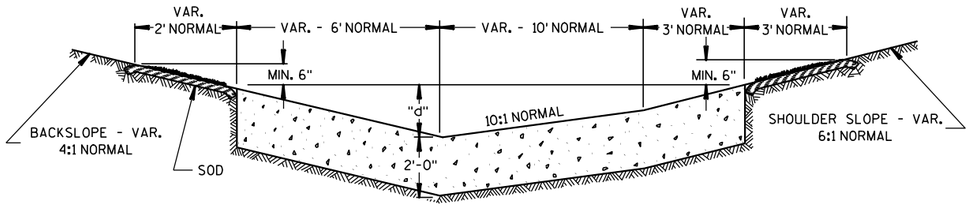
PLAN VIEW SHOWING SOD

GENERAL NOTES

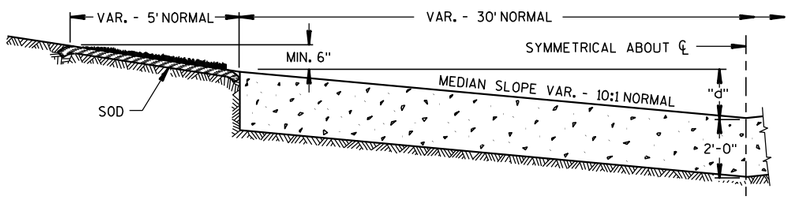
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATE DESIGNS FOR DITCH CHECKS, OF THE MATERIAL OR COMBINATION OF MATERIALS SHOWN HEREON, MAY BE USED UPON WRITTEN PERMISSION OF THE ENGINEER.

SOD STRIPS FOR DITCH CHECKS MAY BE PLACED EITHER TRANSVERSELY OR LONGITUDINALLY TO THE DIRECTION OF WATER FLOW.



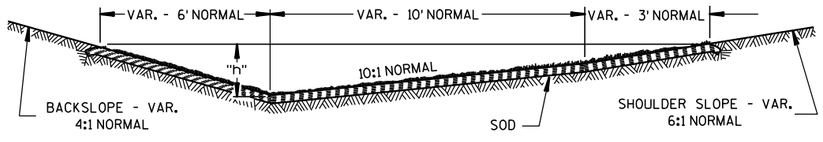
SIDE DITCH CROSS SECTION



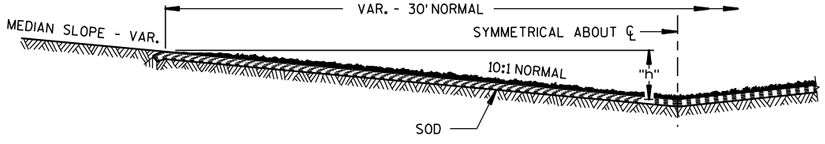
MEDIAN DITCH CROSS SECTION

"d" - THE MINIMUM DEPTH OF THE MASONRY PORTION OF THE DITCH CHECKS SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW. THE NORMAL "d" WILL BE 1'-6".

MASONRY AND SOD DITCH CHECKS



SIDE DITCH CROSS SECTION



MEDIAN DITCH CROSS SECTION

"h" - THE MINIMUM HEIGHT OF DITCH TO BE SODDED SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW PLUS 6". THE NORMAL "h" WILL BE 1'-6".

SOD DITCH CHECKS

SOD OR MASONRY AND SOD DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/7/71 — DATE

/S/ L.C. Harris — ACTING CHIEF DESIG

FHWA

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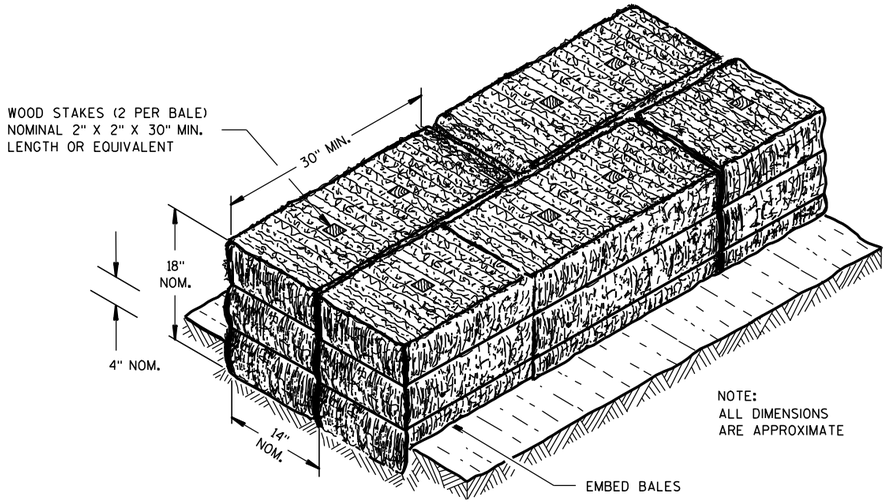
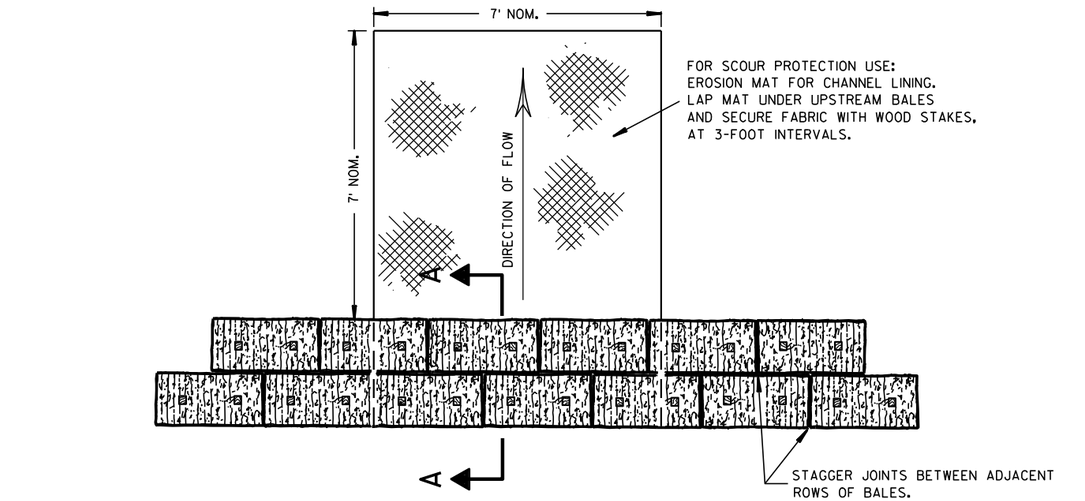
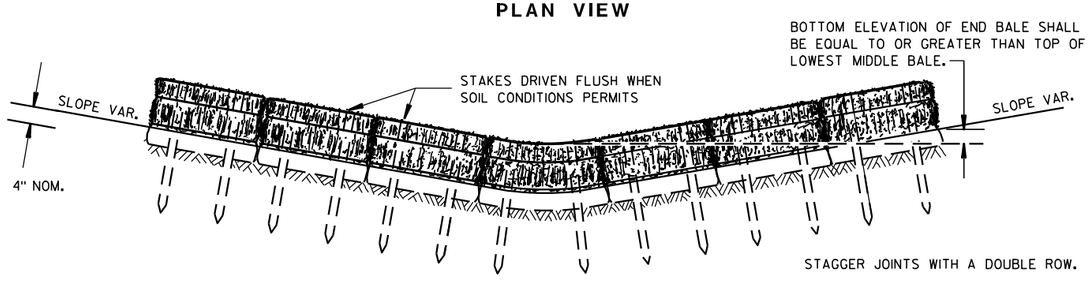


SECTION A-A



PLAN VIEW



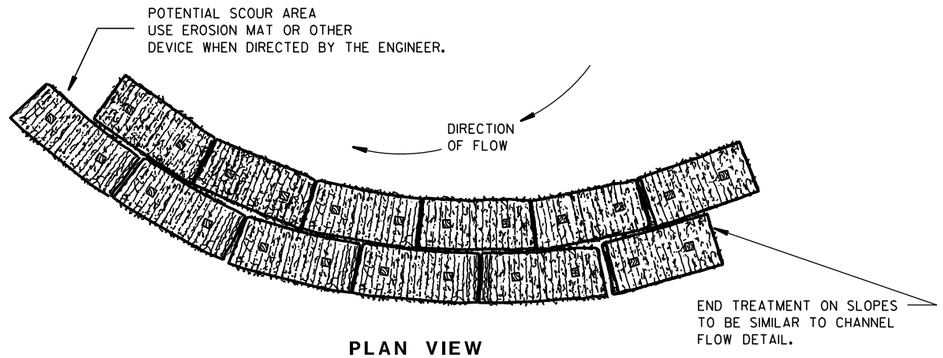
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

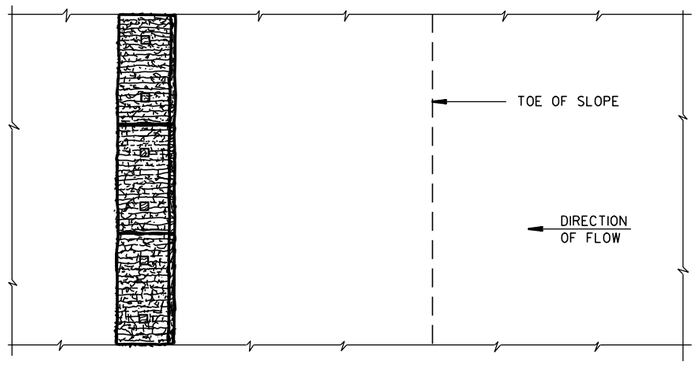
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

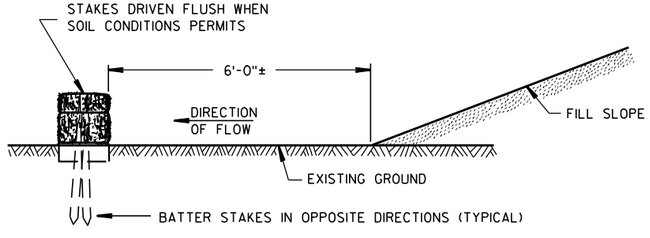


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 E 8-3

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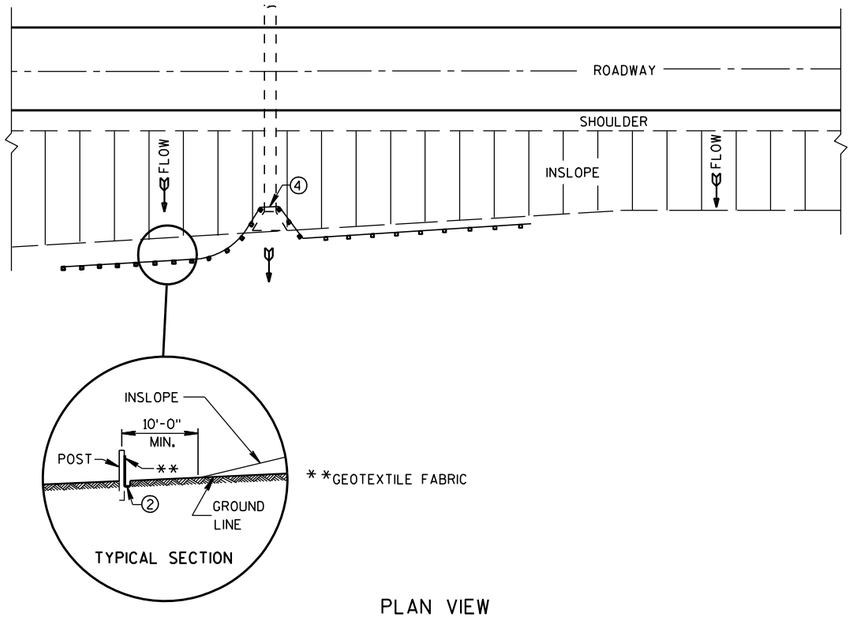
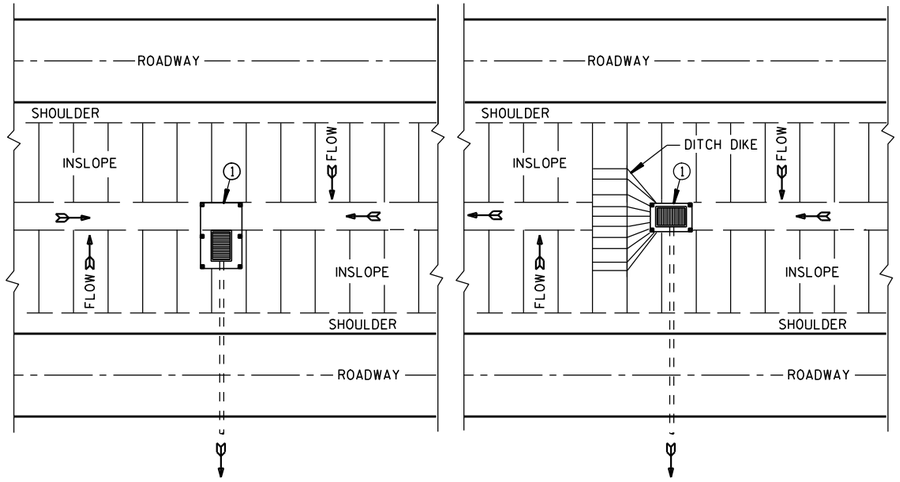
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



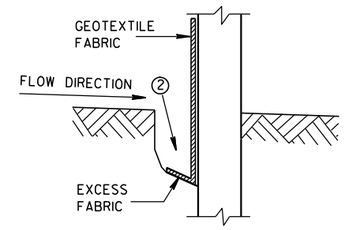
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

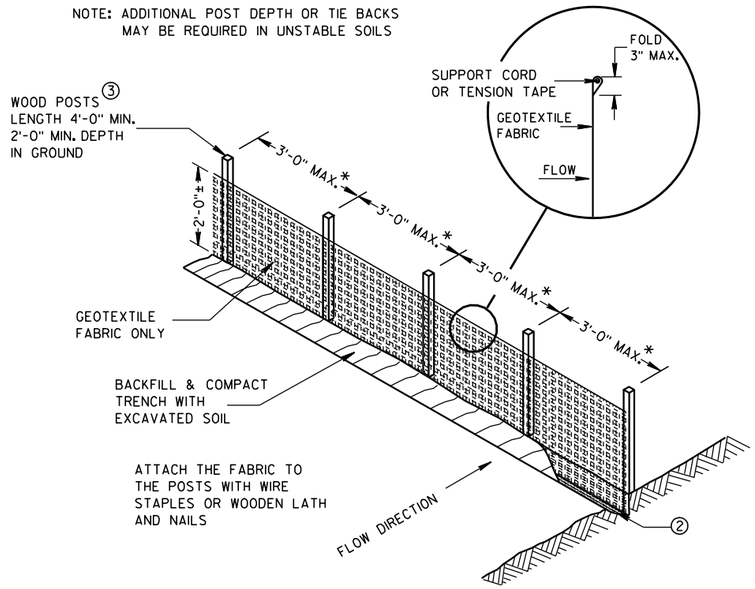
GENERAL NOTES

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

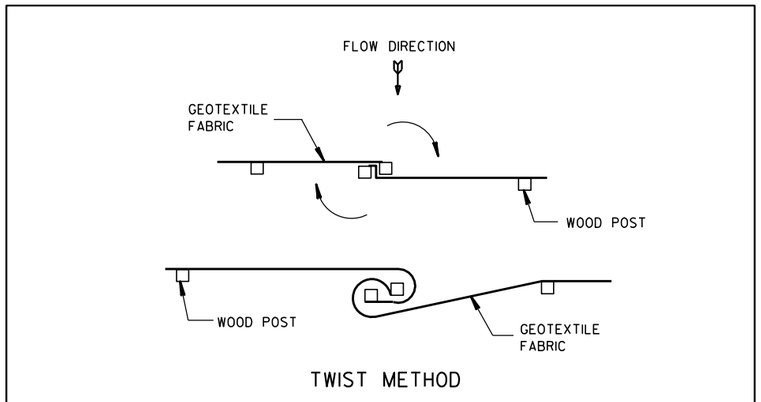
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



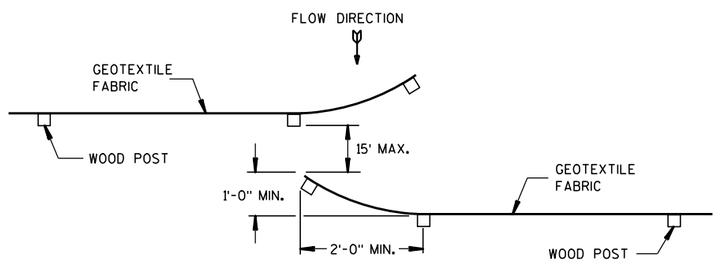
TRENCH DETAIL



SILT FENCE

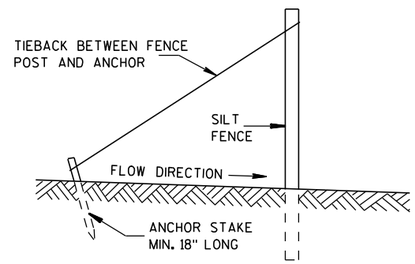


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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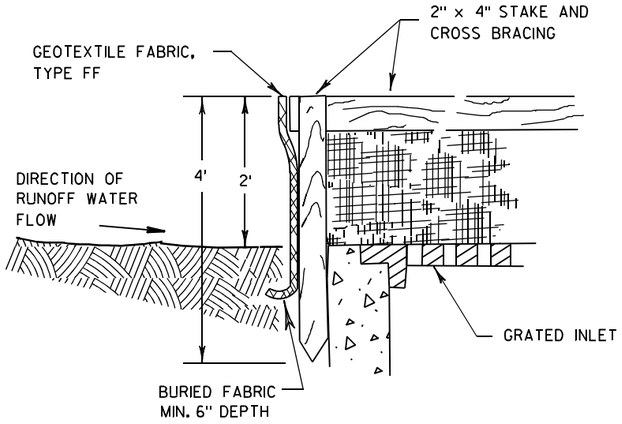
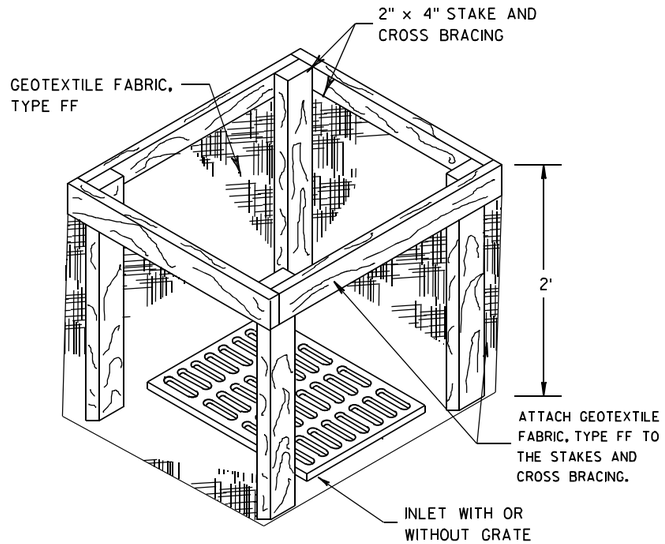
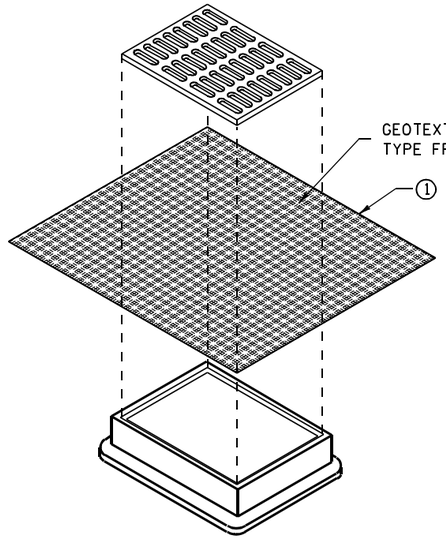
S.D.D. 8 E 9-6



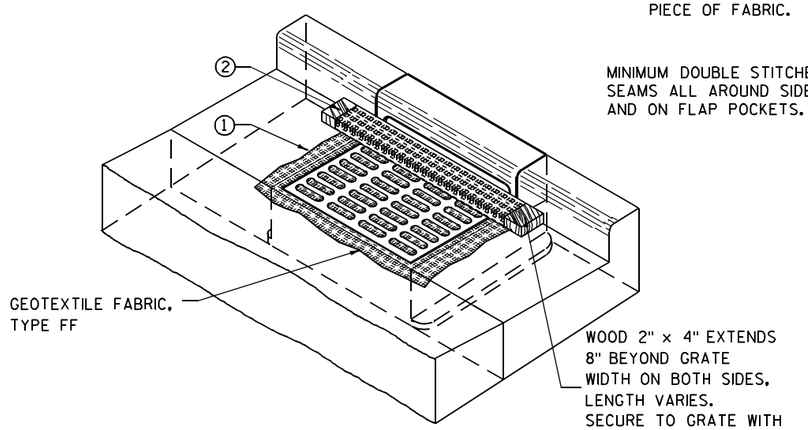


INLET PROTECTION, TYPE A

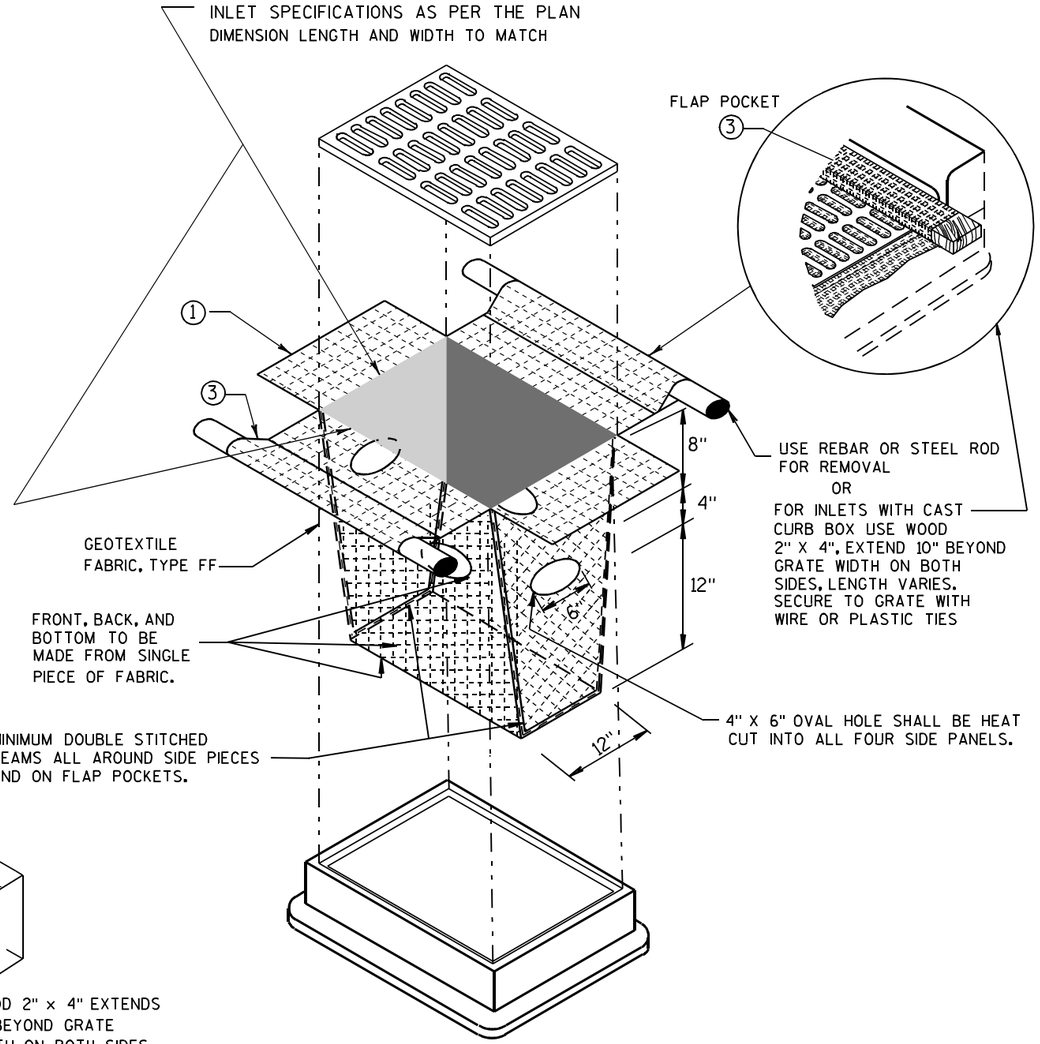


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

6

S.D.D. 8 E 10-2

METAL APRON ENDWALLS

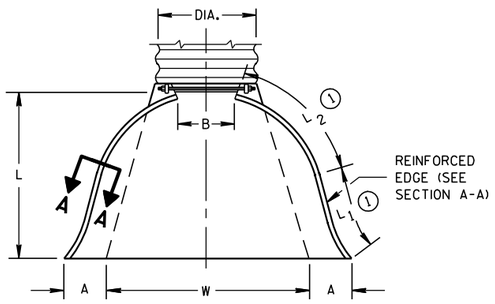
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

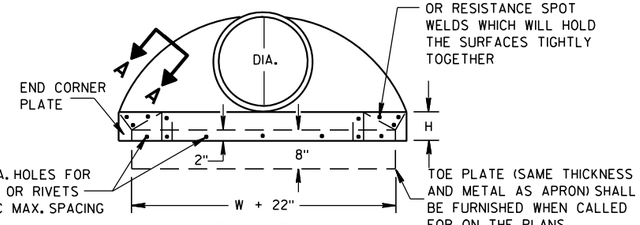
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

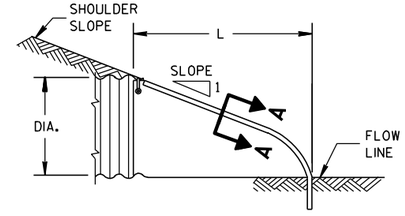
*MINIMUM
**MAXIMUM



PLAN VIEW

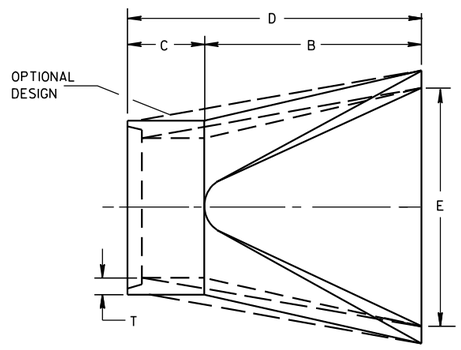


END VIEW

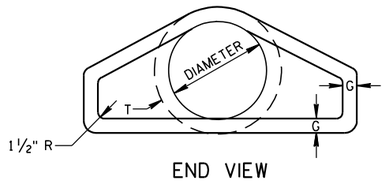


SIDE ELEVATION

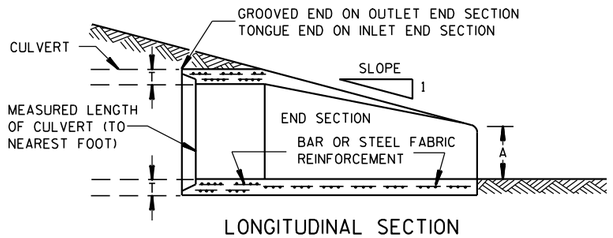
METAL ENDWALLS



PLAN

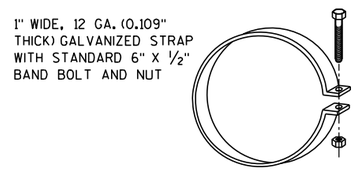


END VIEW



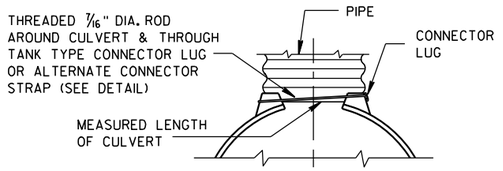
LONGITUDINAL SECTION

CONCRETE ENDWALLS

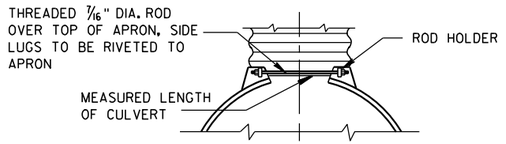


ALTERNATE FOR TYPE 1 CONNECTION

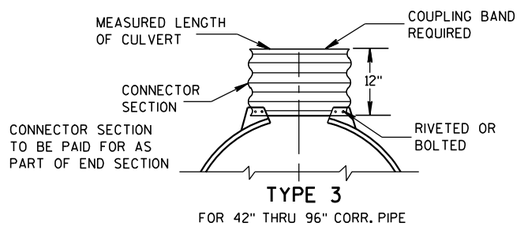
END SECTION CONNECTOR STRAP



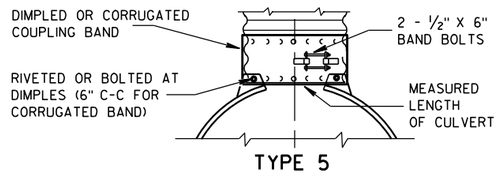
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

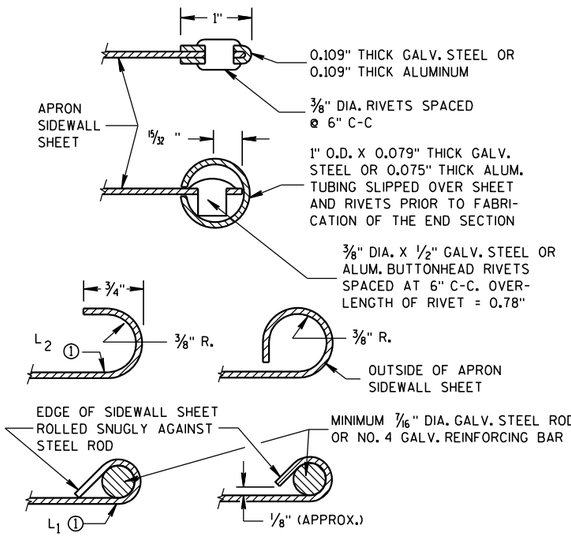
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

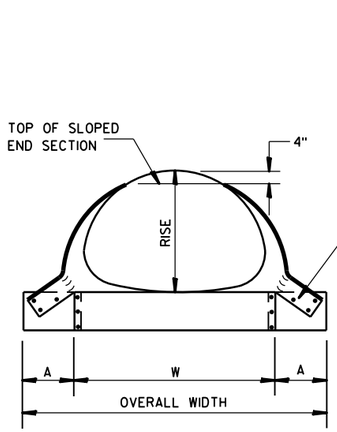
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

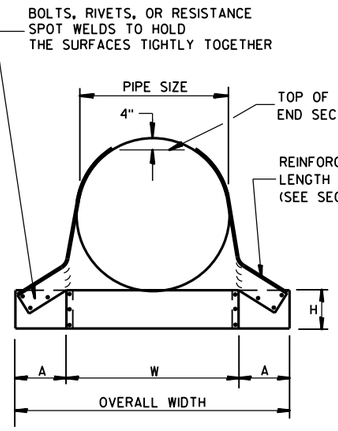
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

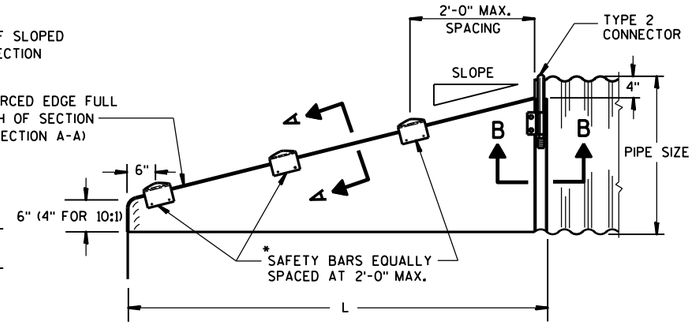
6
S.D.D. 8 F 1-11



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

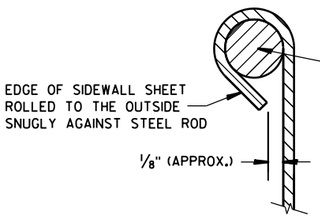
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

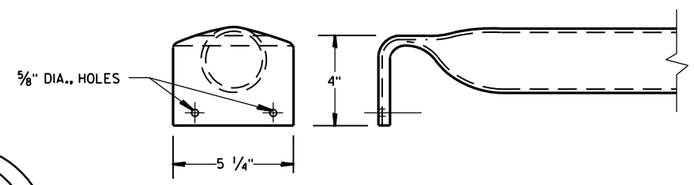
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

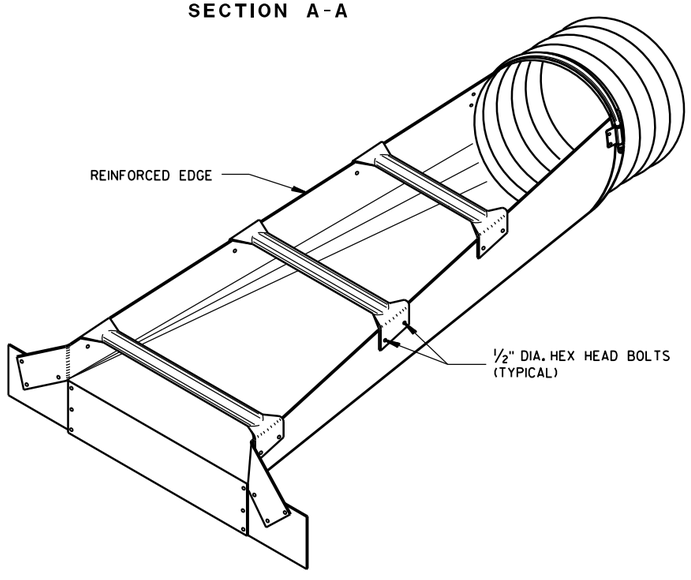


DETAIL OF SAFETY BAR

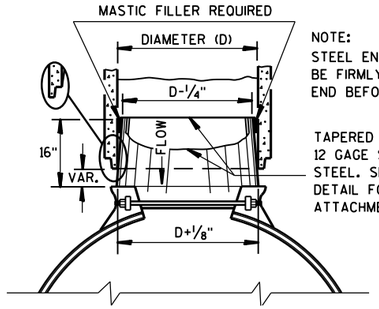
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

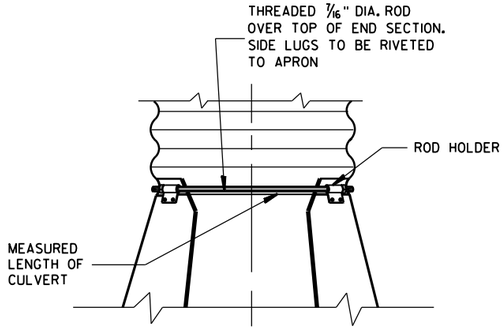
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



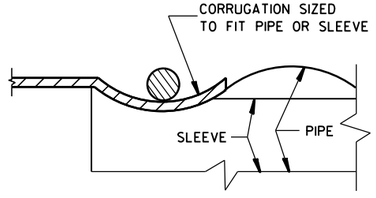
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 7-5

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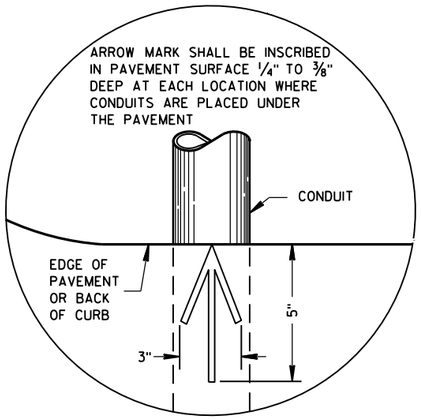
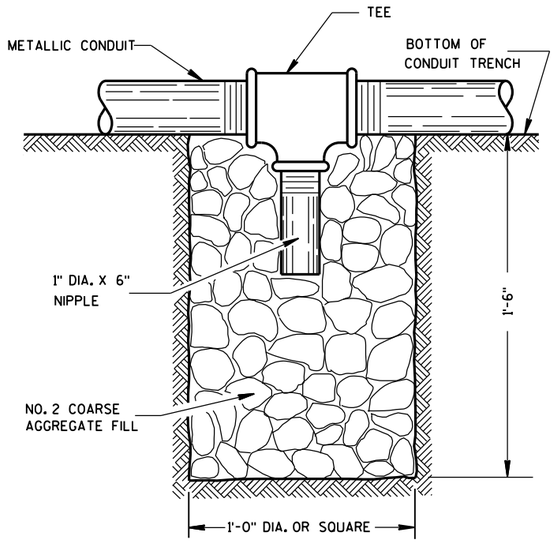
S.D.D. 8 F 7-5



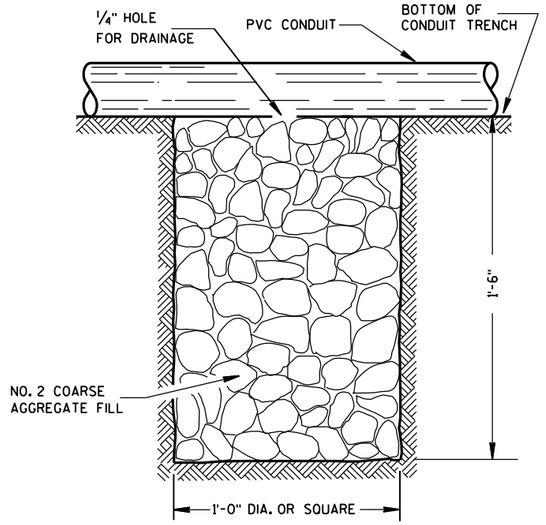
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

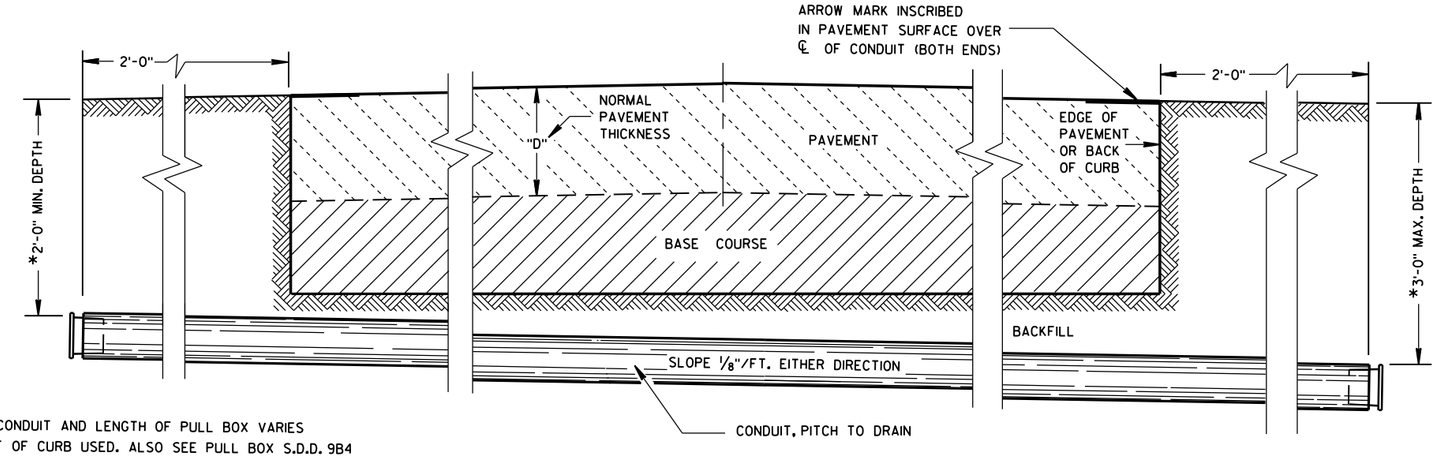
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

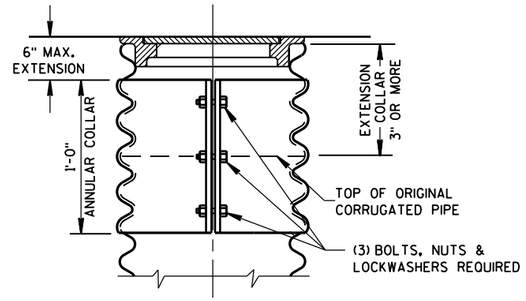
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

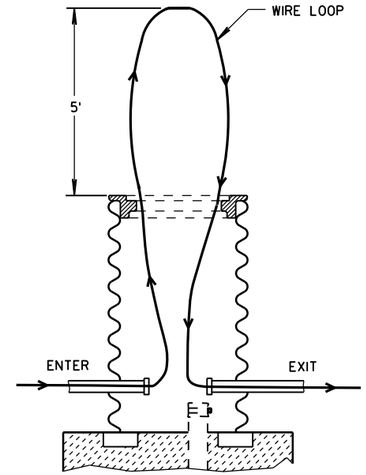
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

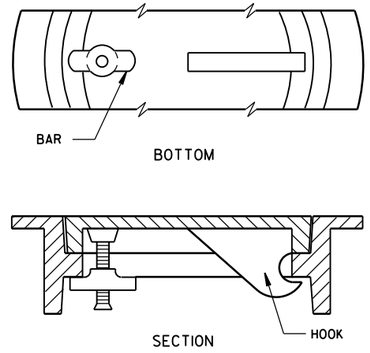
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

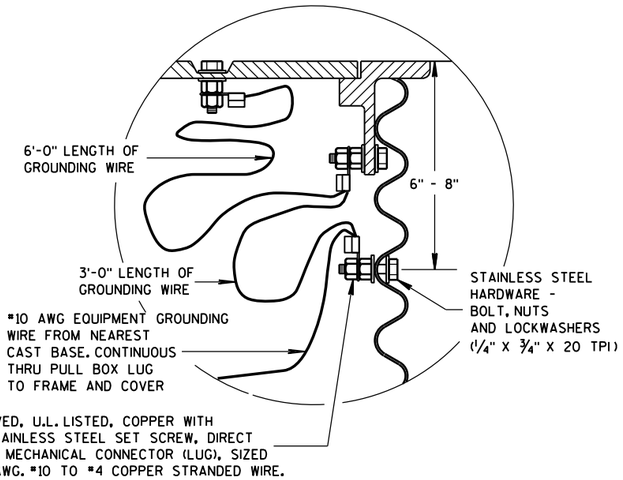


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

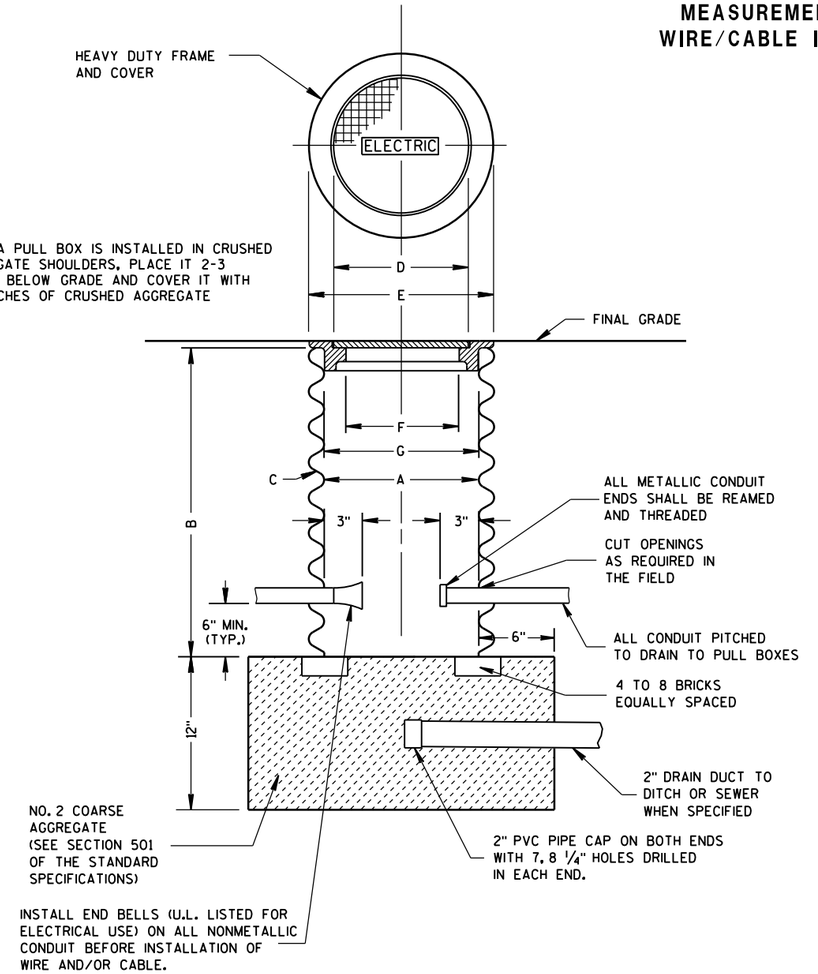


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

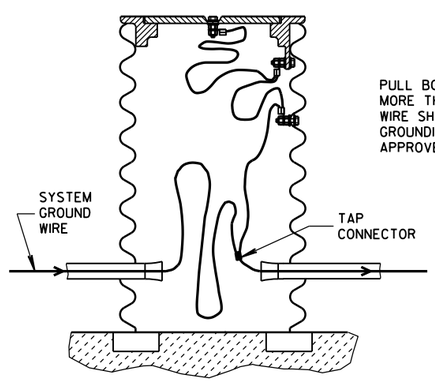
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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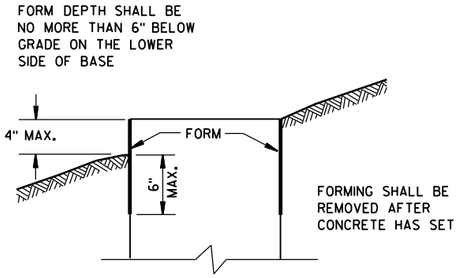


FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

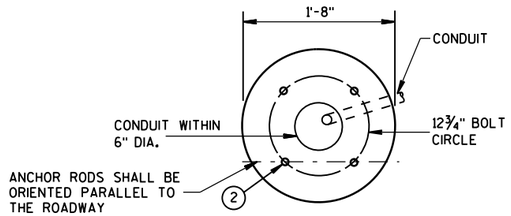
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

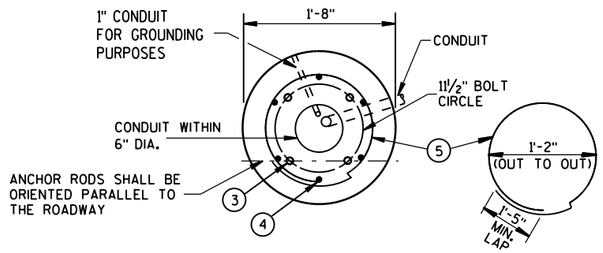
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

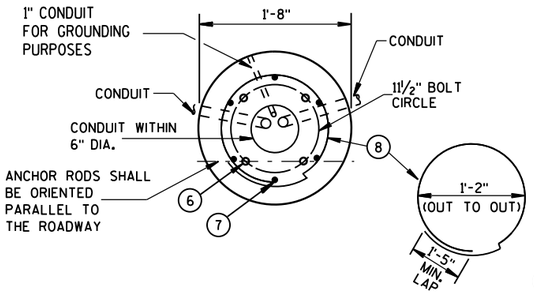
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

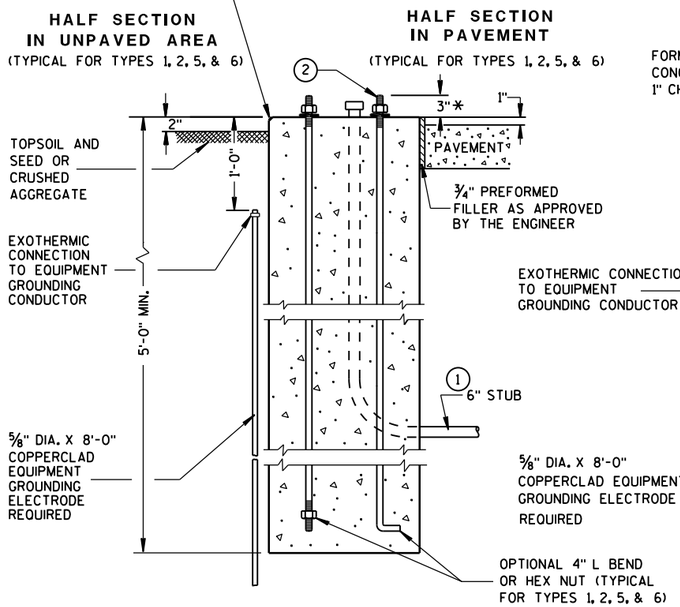






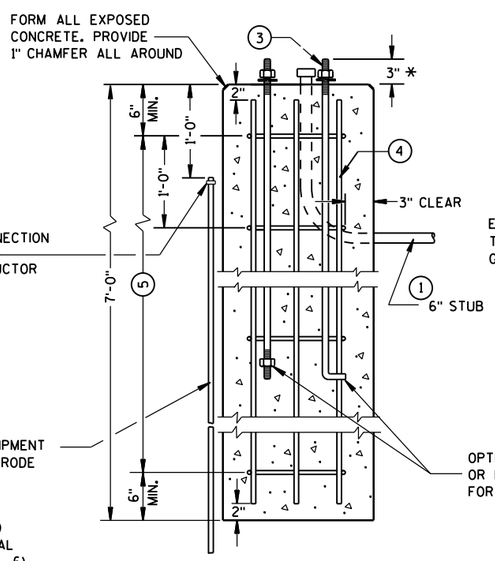
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

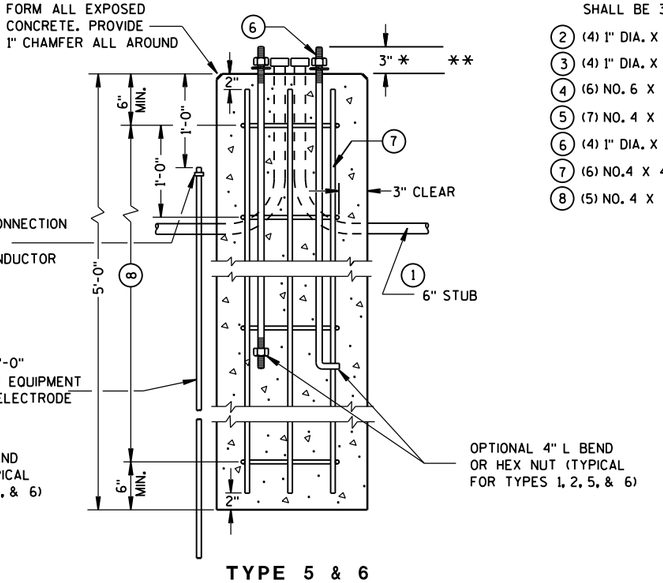


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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6

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GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

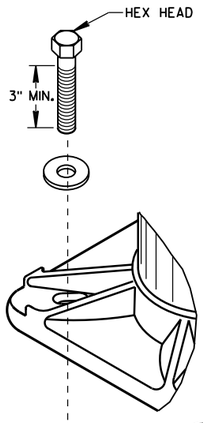
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

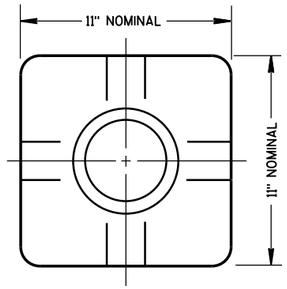
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

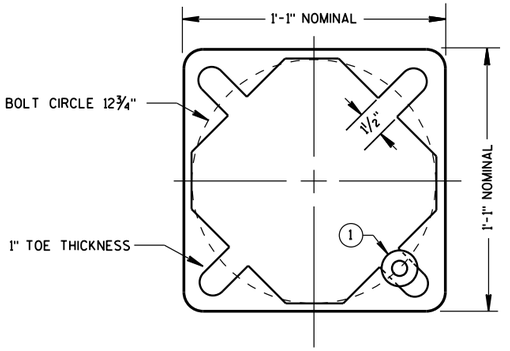
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

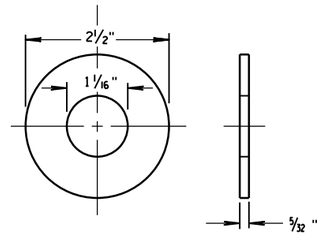




TOP VIEW
(PEDESTAL BASE)

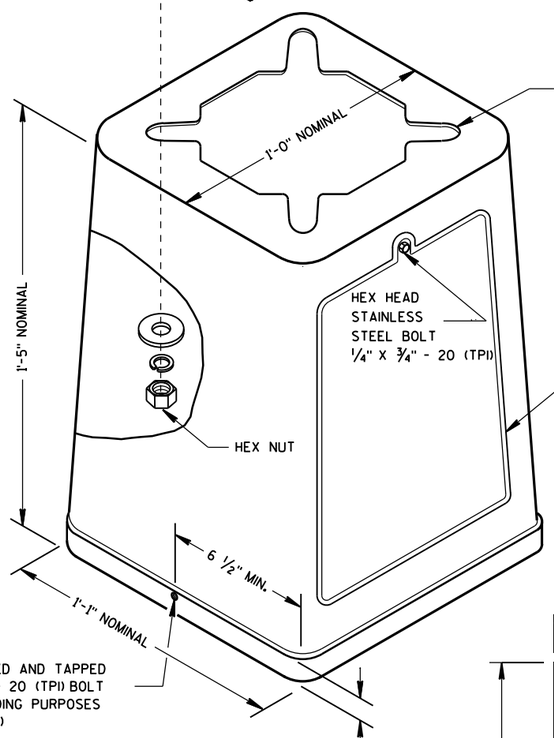


BOTTOM VIEW
(PEDESTAL BASE)

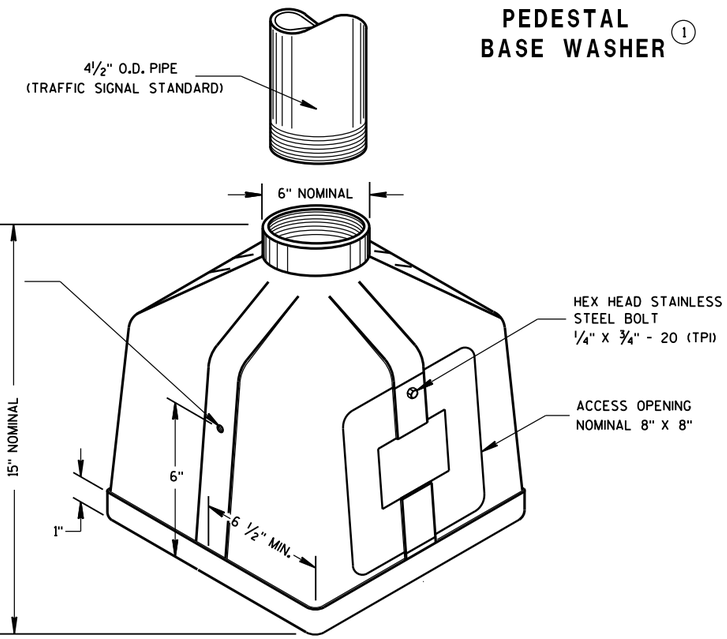


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

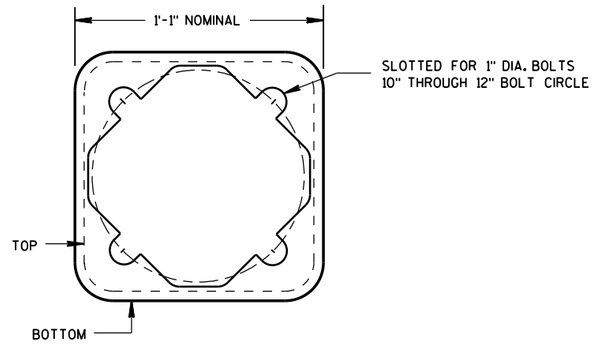


ISOMETRIC VIEW

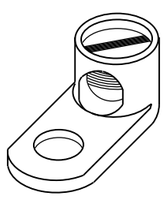


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

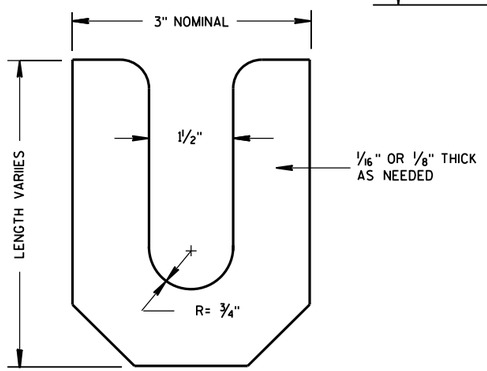


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
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6

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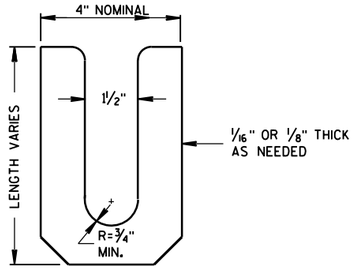
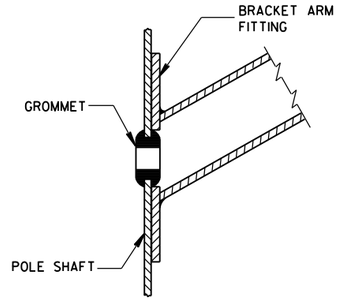
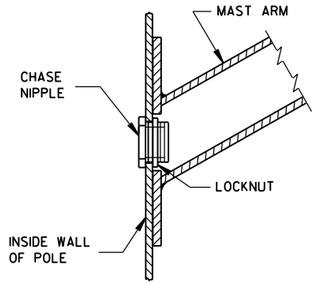


LEVELING SHIM (13)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

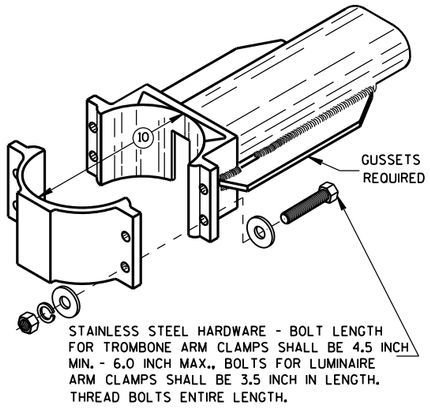
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

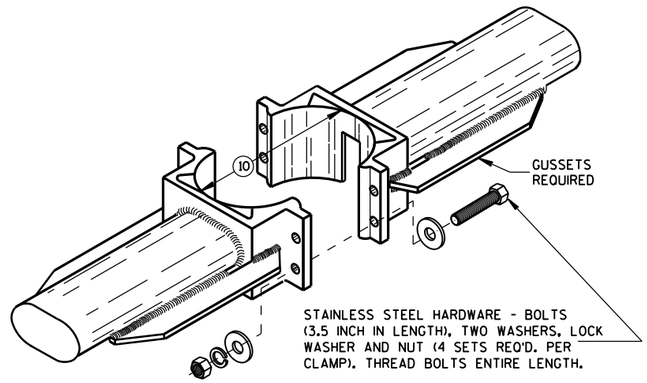
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

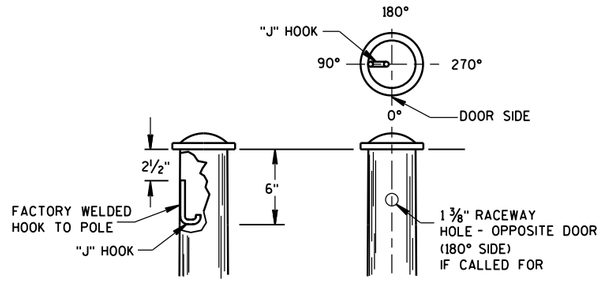
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



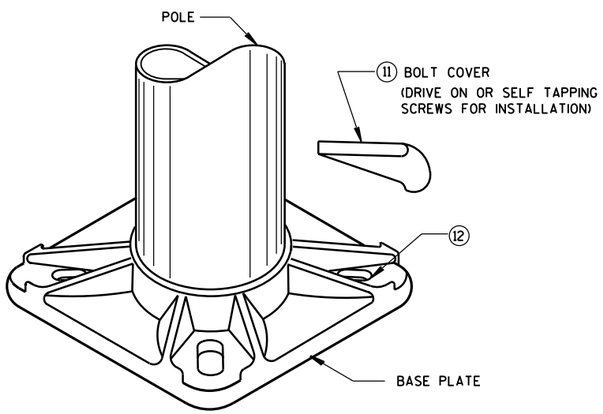
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



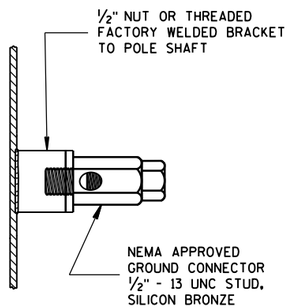
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

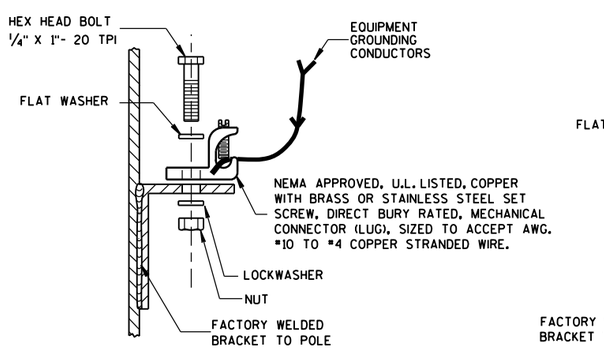


TYPICAL "J" HOOK LOCATION



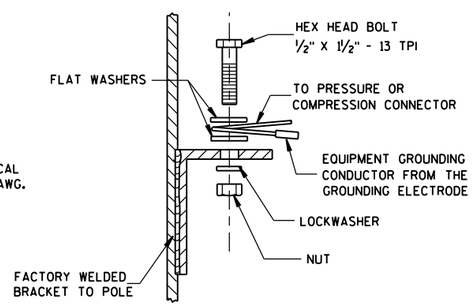
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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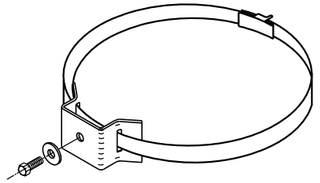
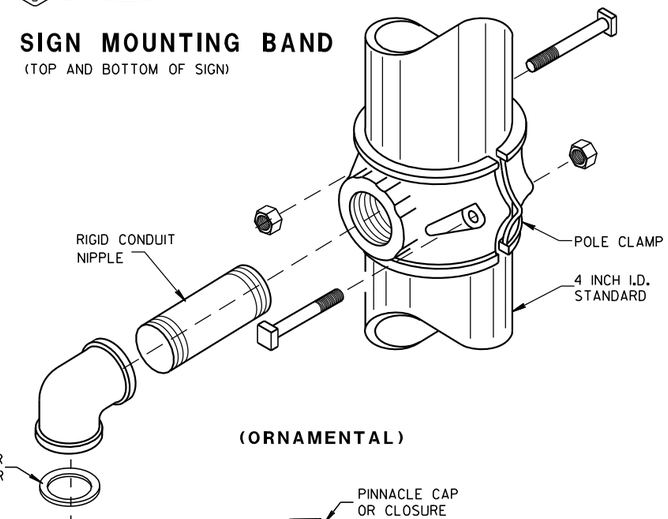


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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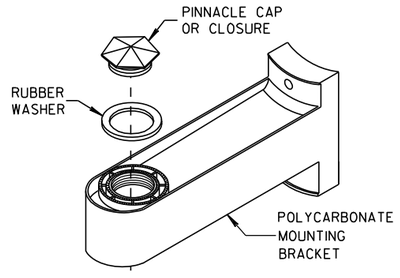

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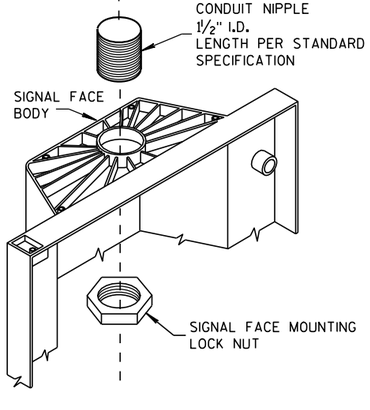
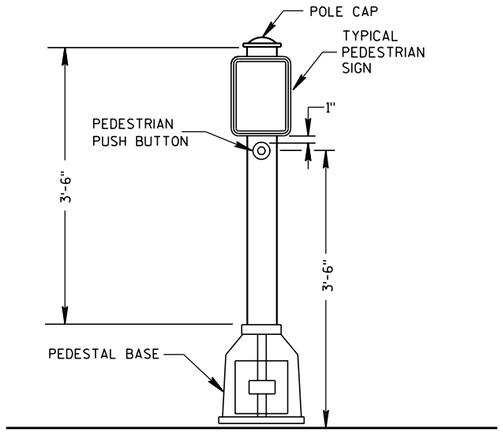


SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

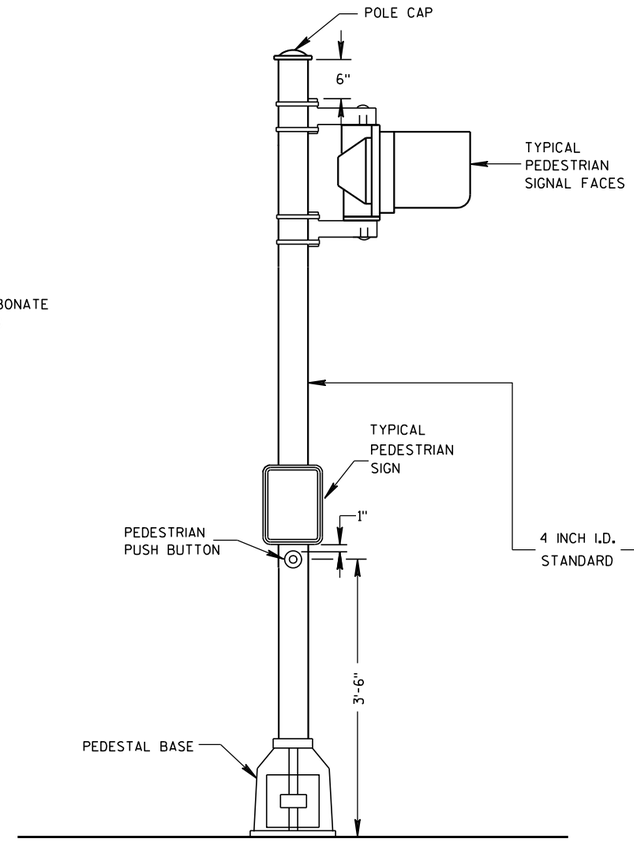
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

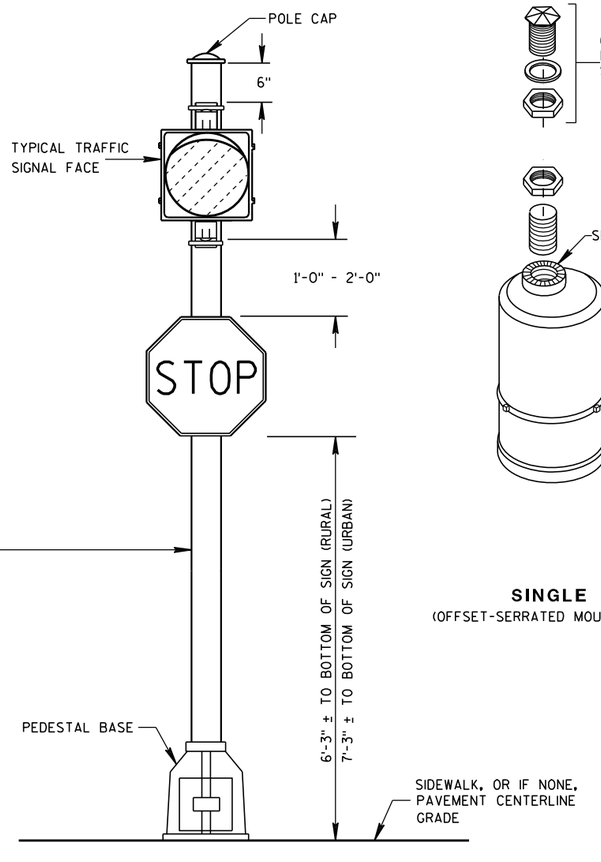
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

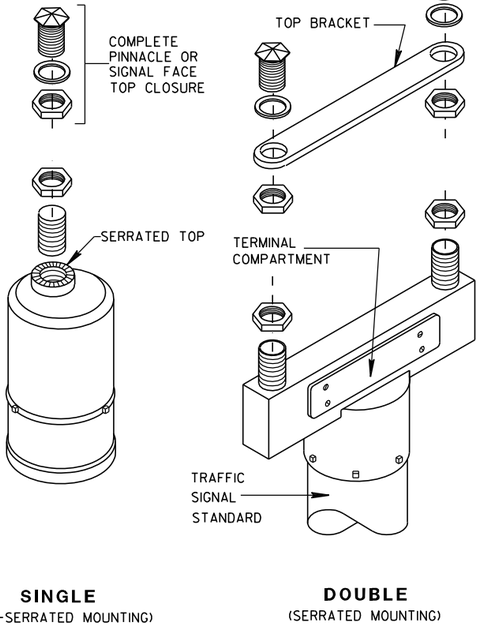
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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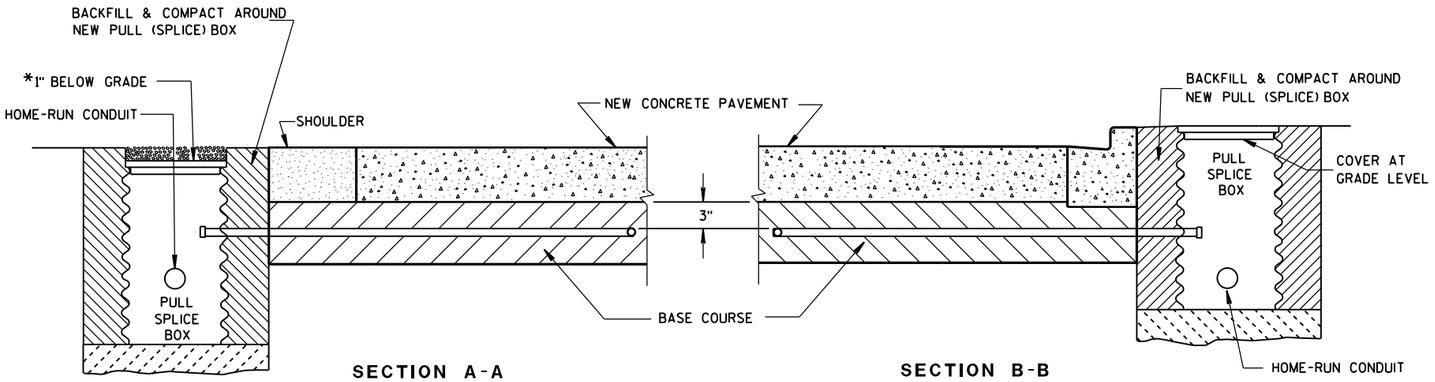


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

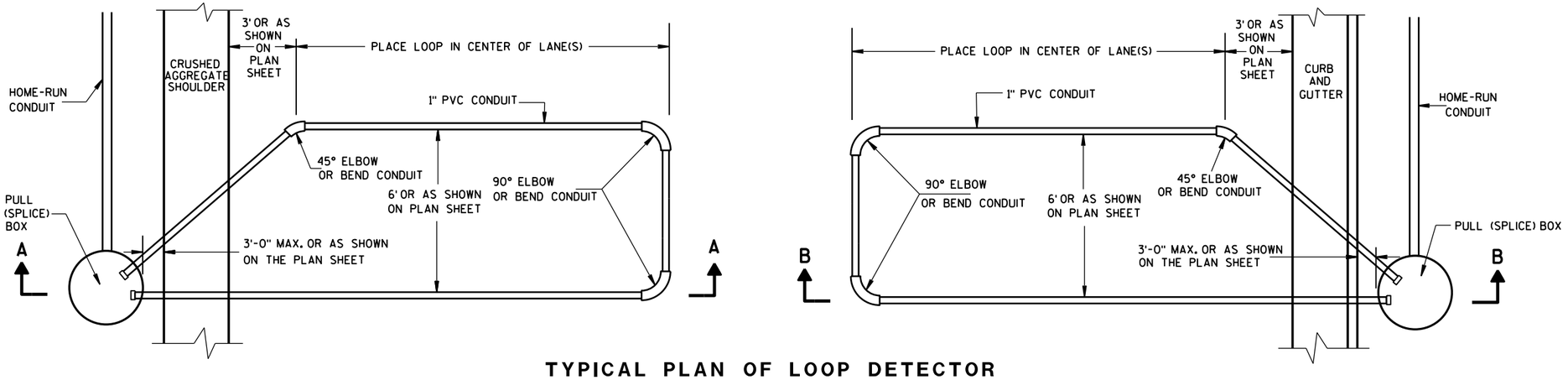
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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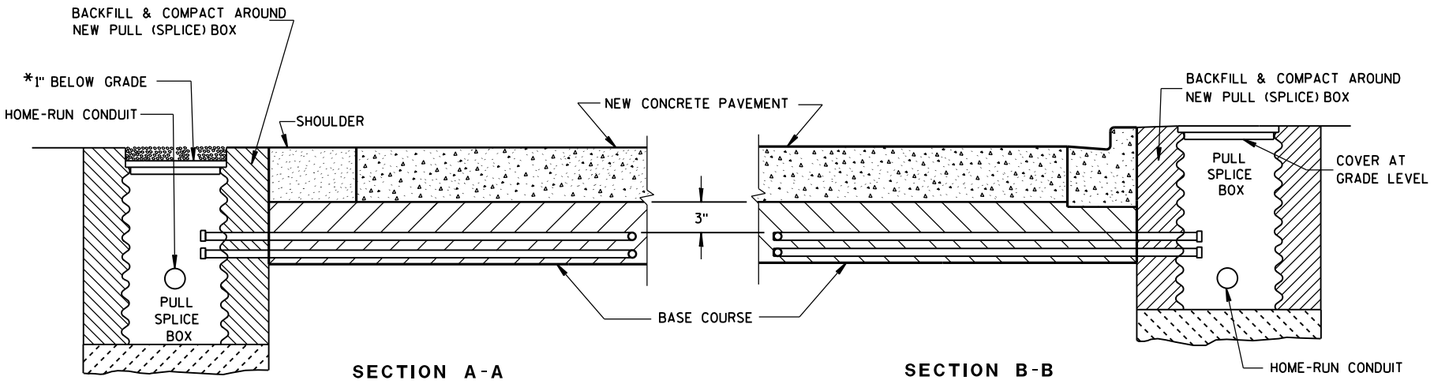


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

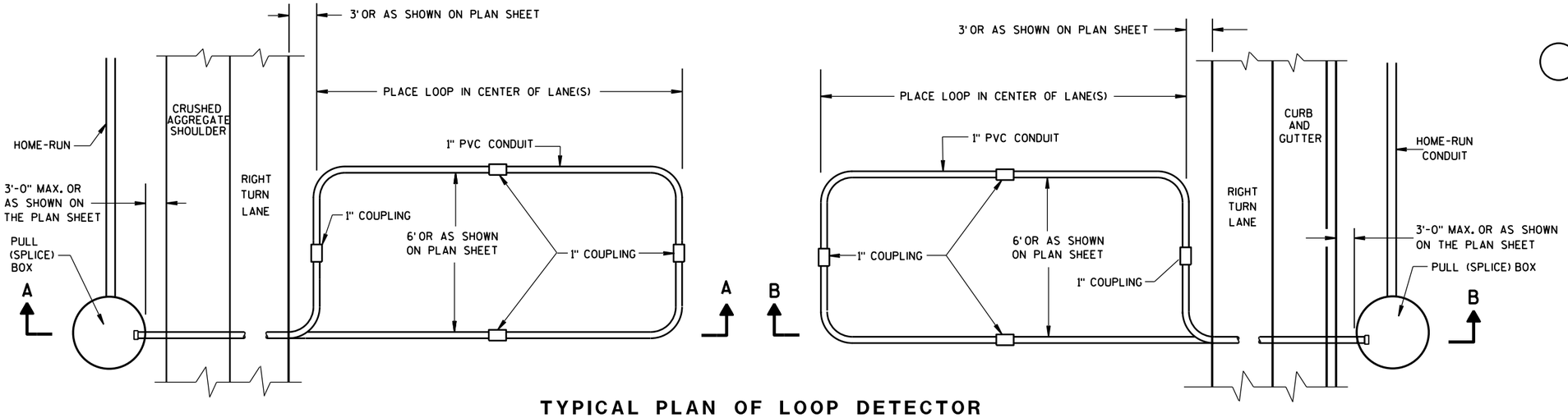
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

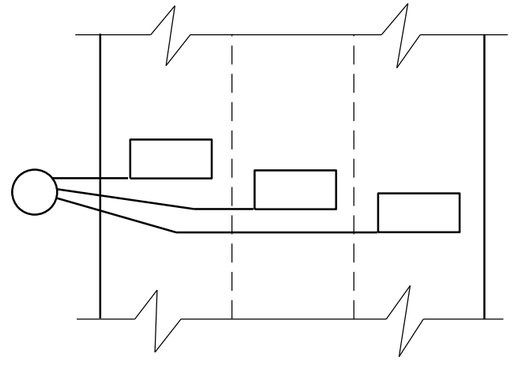
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICED CONTINUOUS LENGTH.

PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED Sept. 2014 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

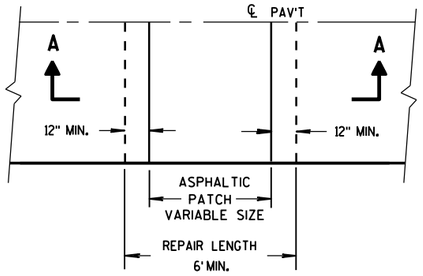
GENERAL NOTES

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. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

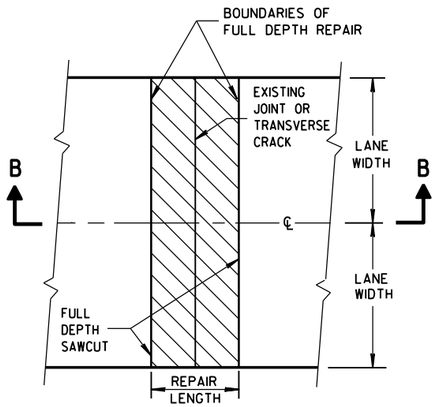
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

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

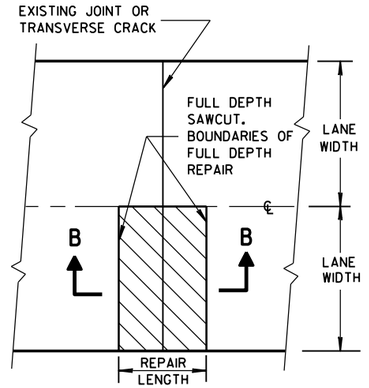
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

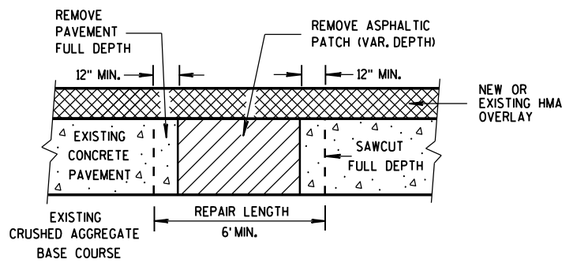


PLAN VIEW
(DOUBLE LANE REPAIR)



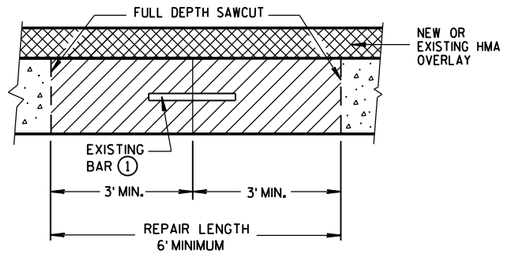
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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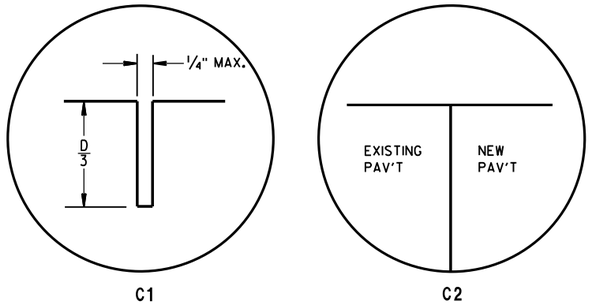
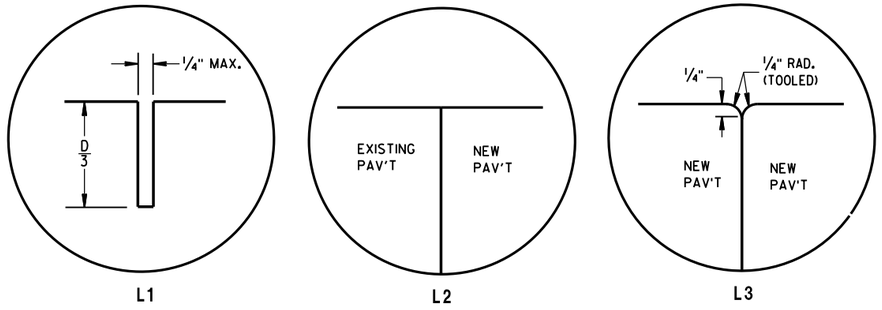
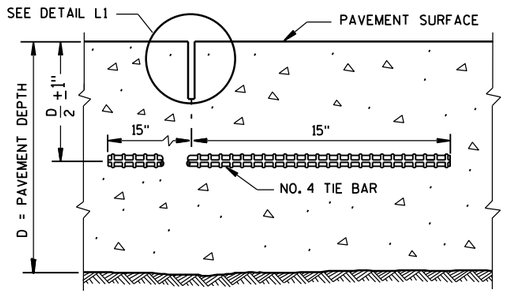


TRANSVERSE JOINTS

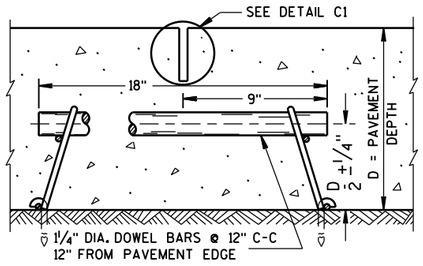


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

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

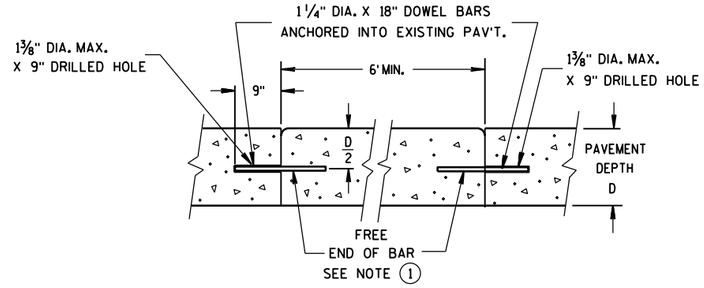
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

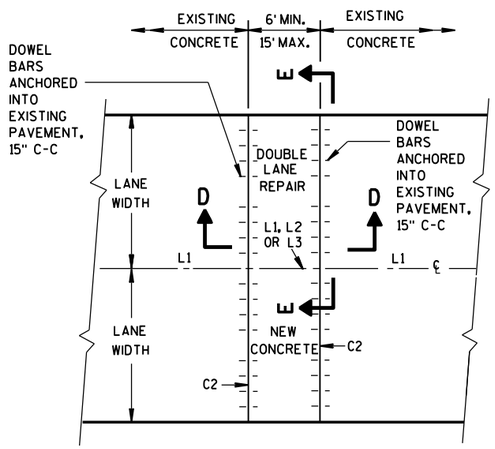
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE 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.

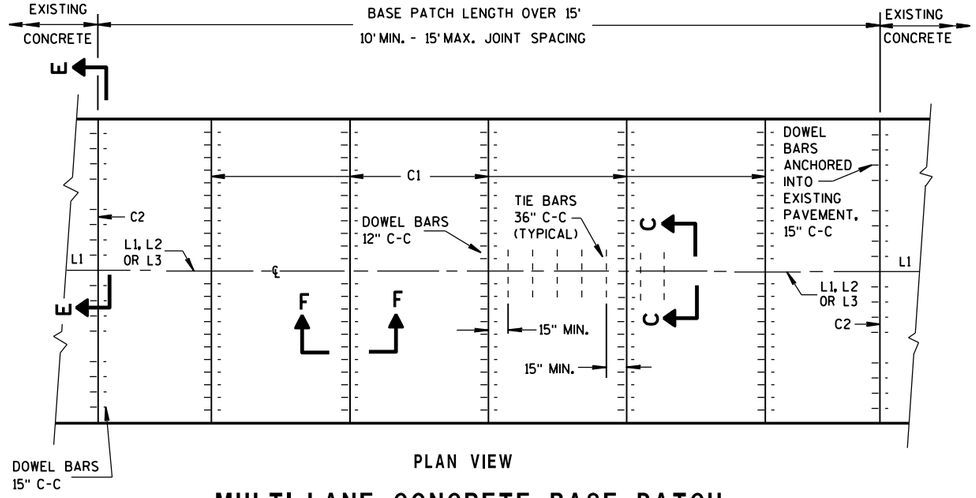


SECTION D-D



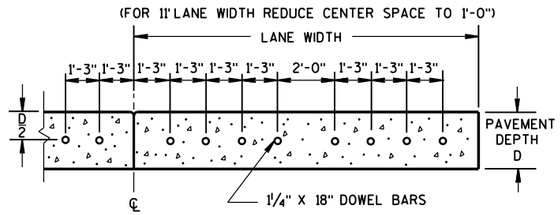
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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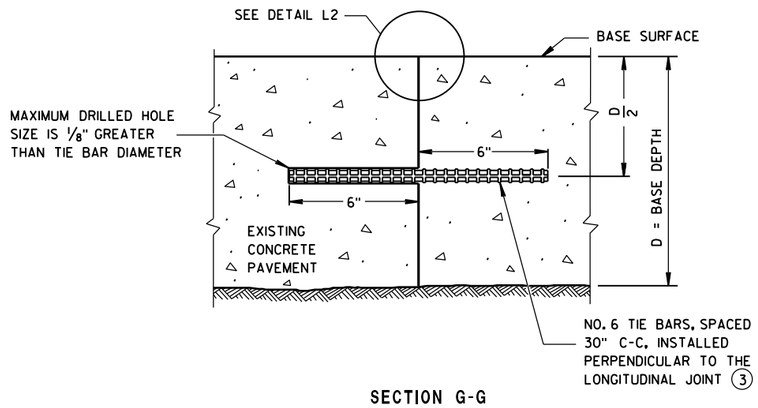
S.D.D. 13 C 14-5b



SECTION G-G

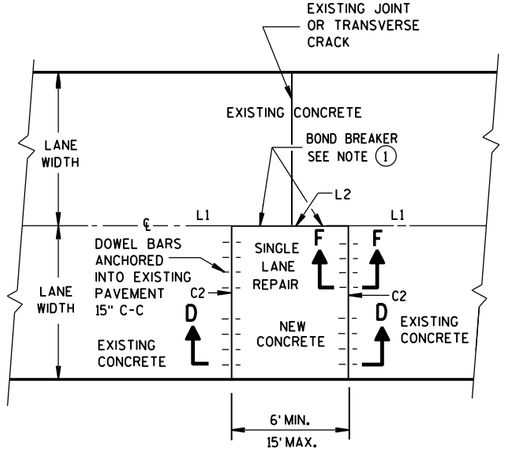
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

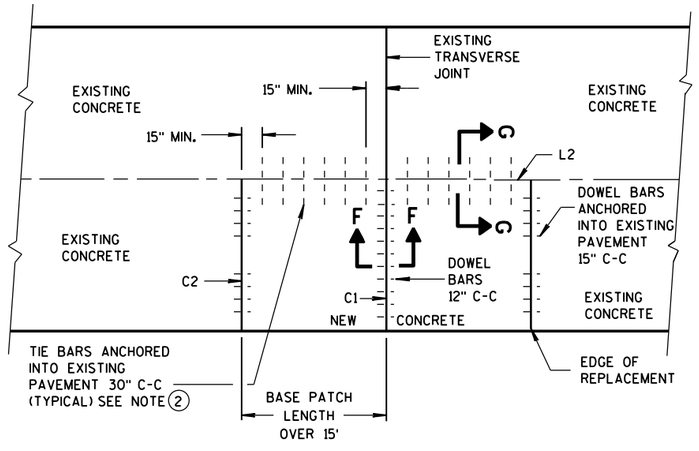
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

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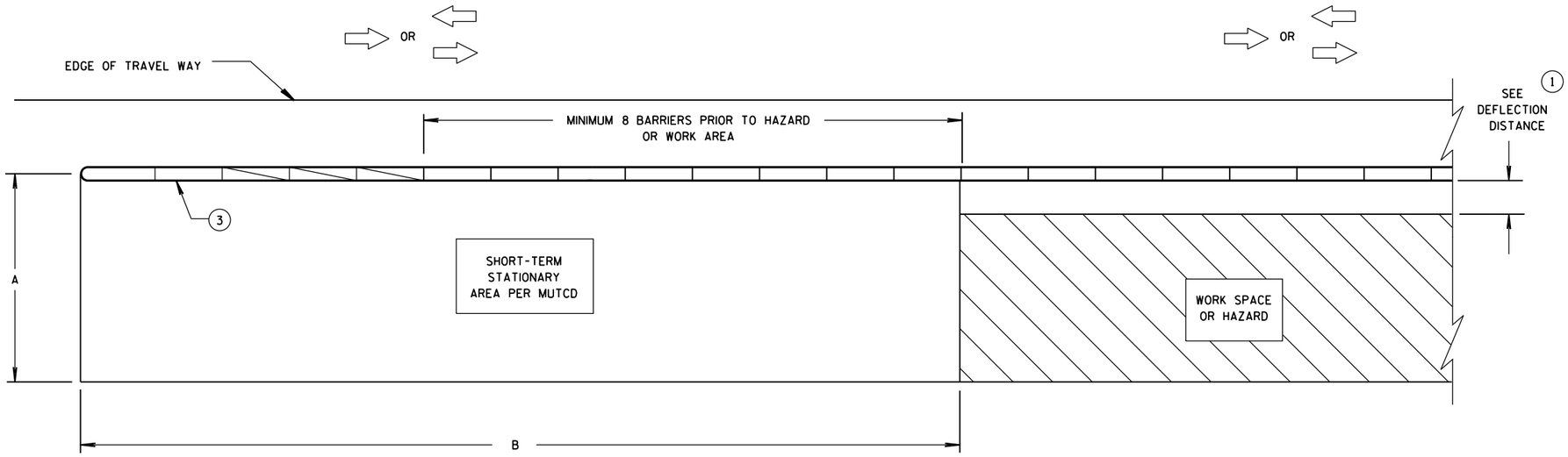
S.D.D. 13 C 14-5c



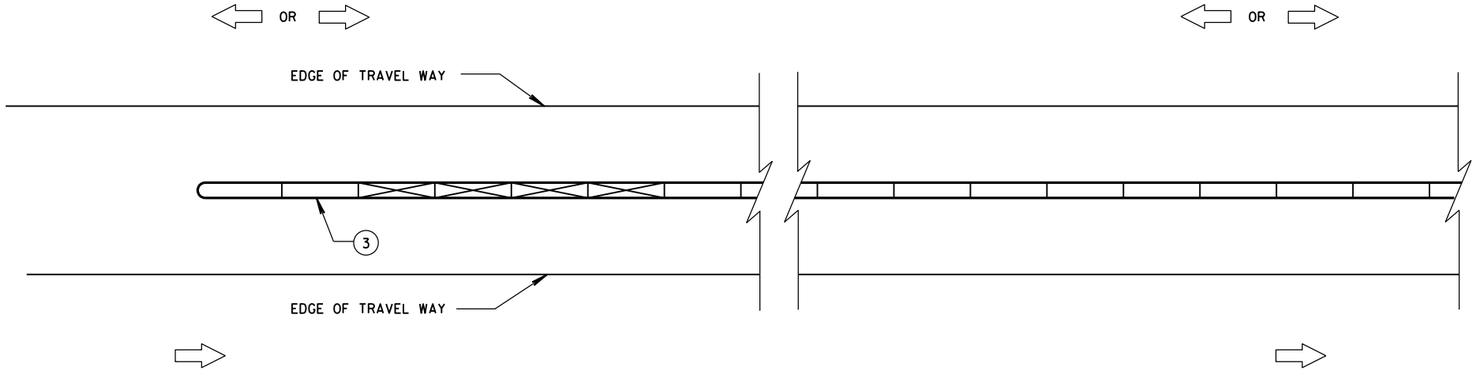
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

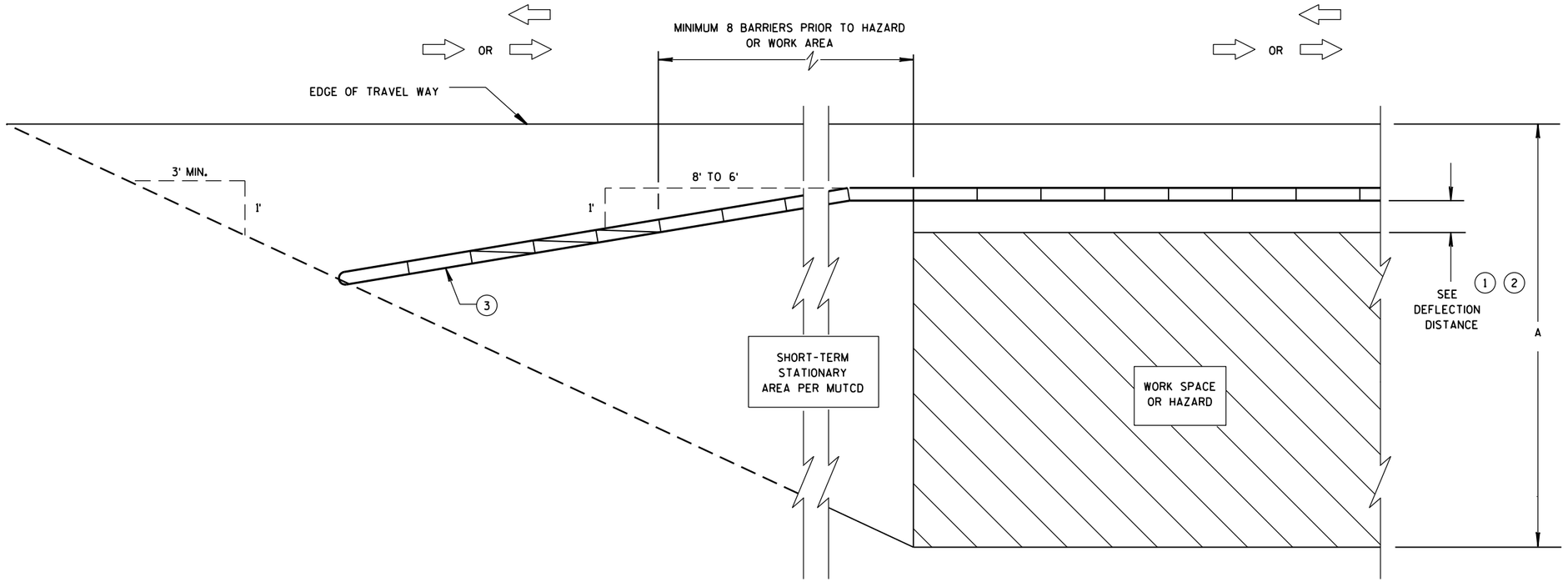
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

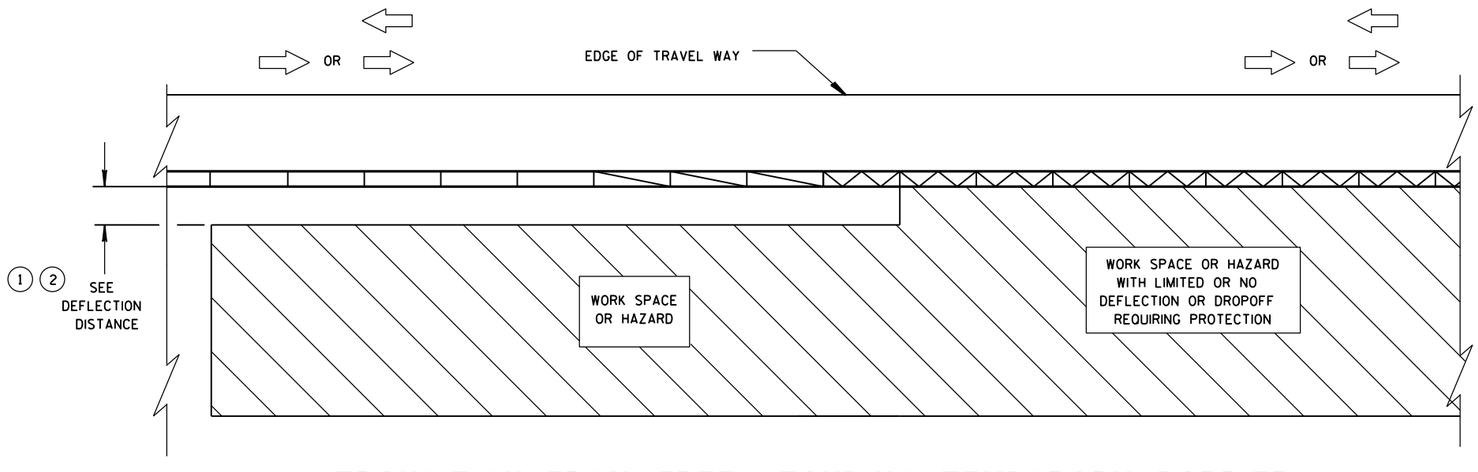
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

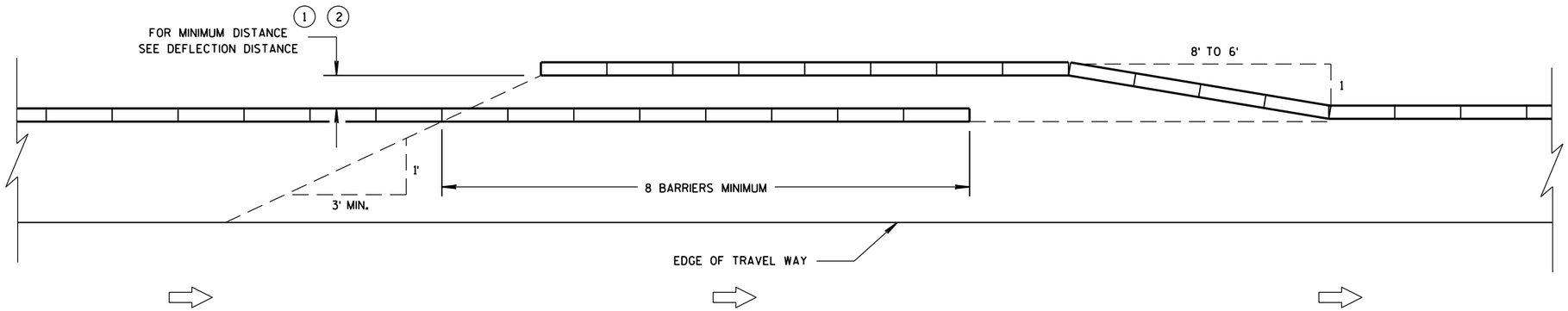
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

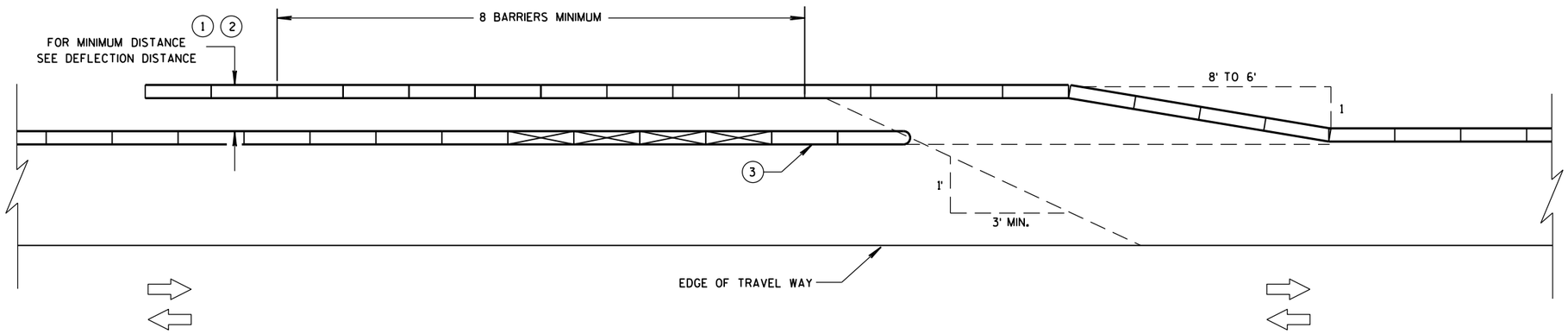
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

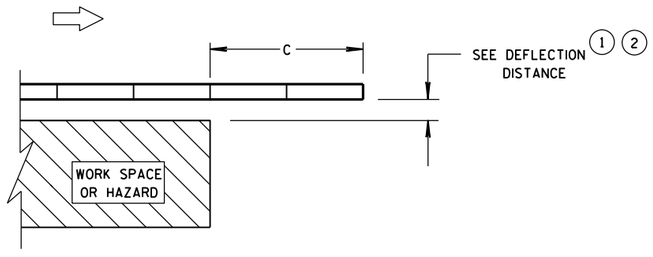
S.D.D. 14 B 8-2b



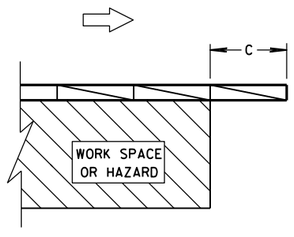
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

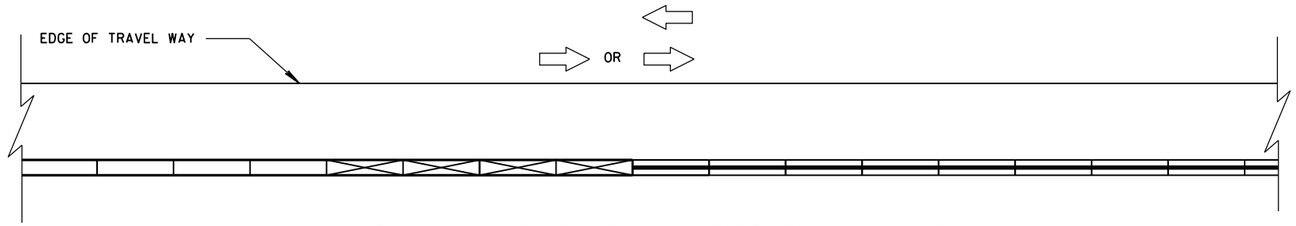
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

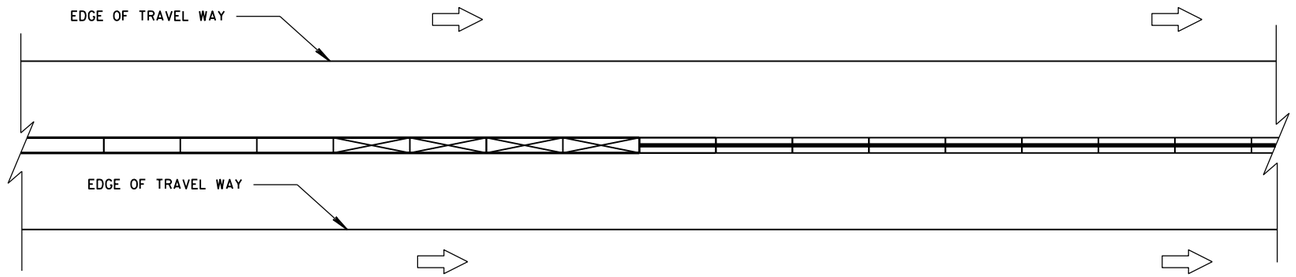
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



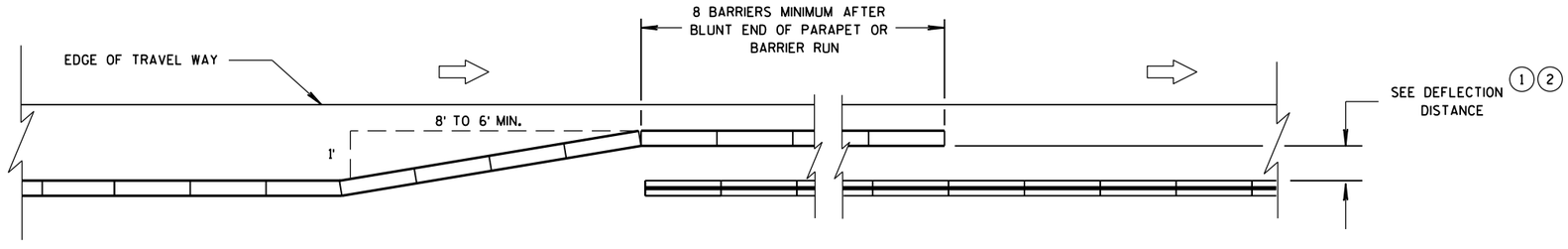
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



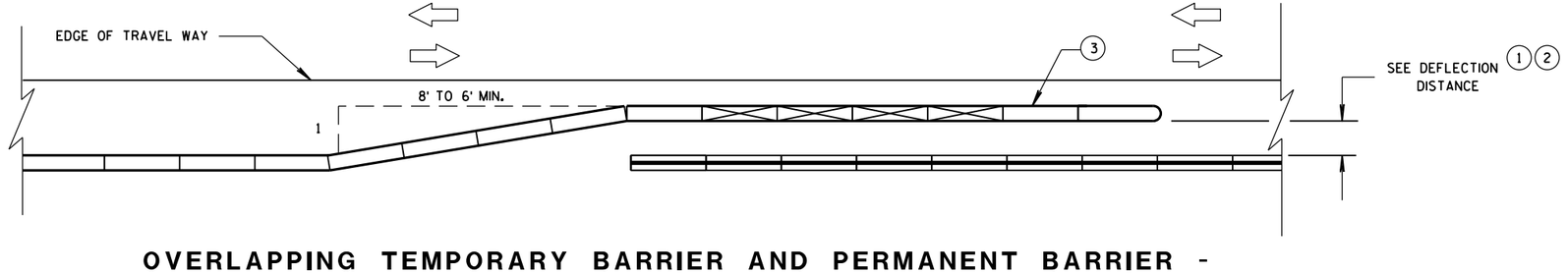
CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

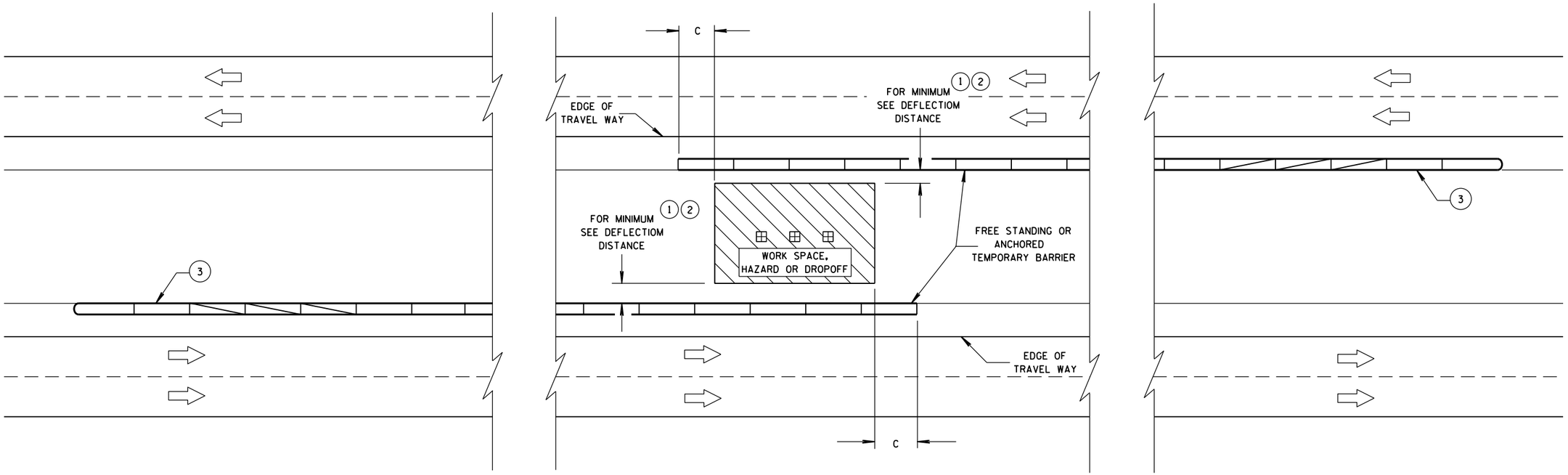
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



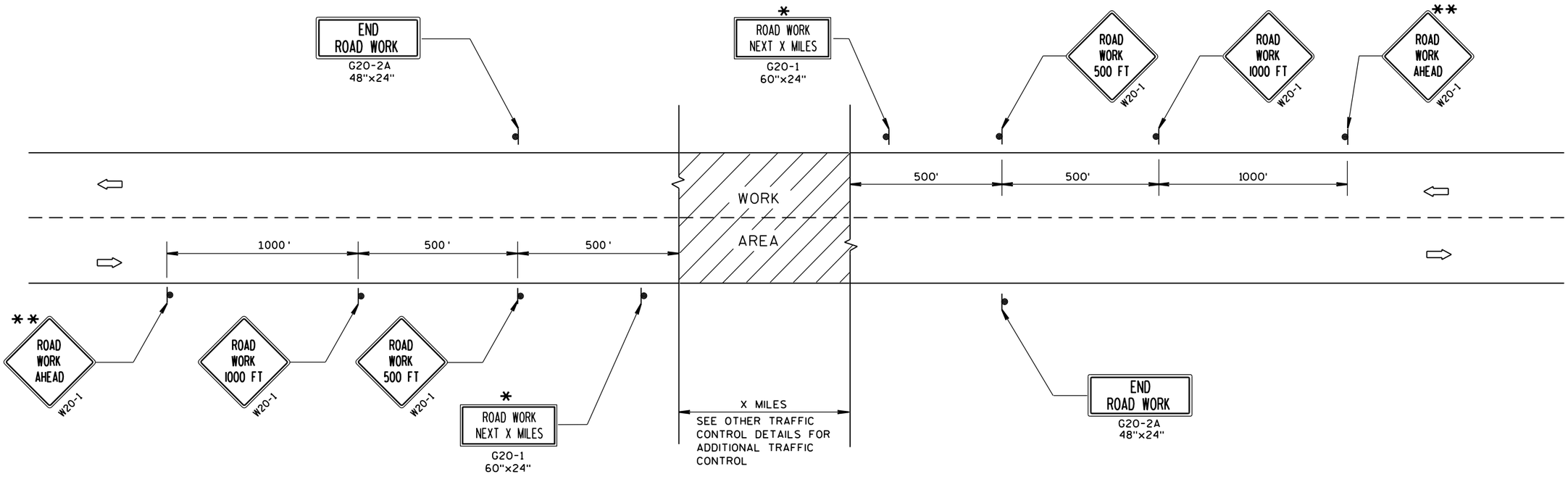
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

6

S.D.D. 14 B 8-2e



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

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

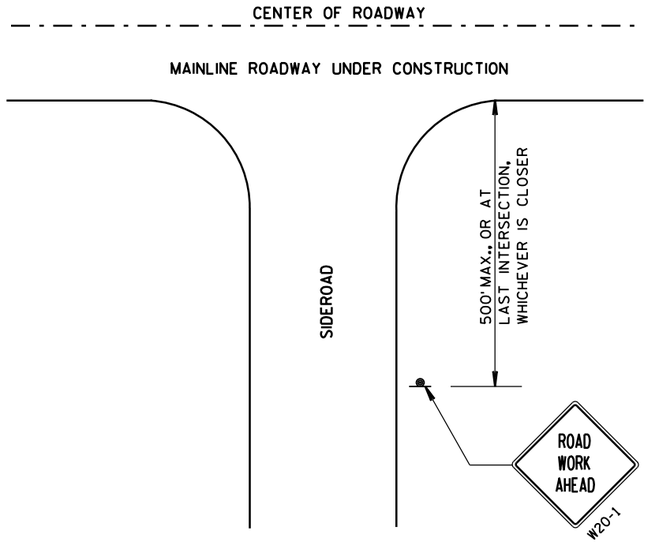
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

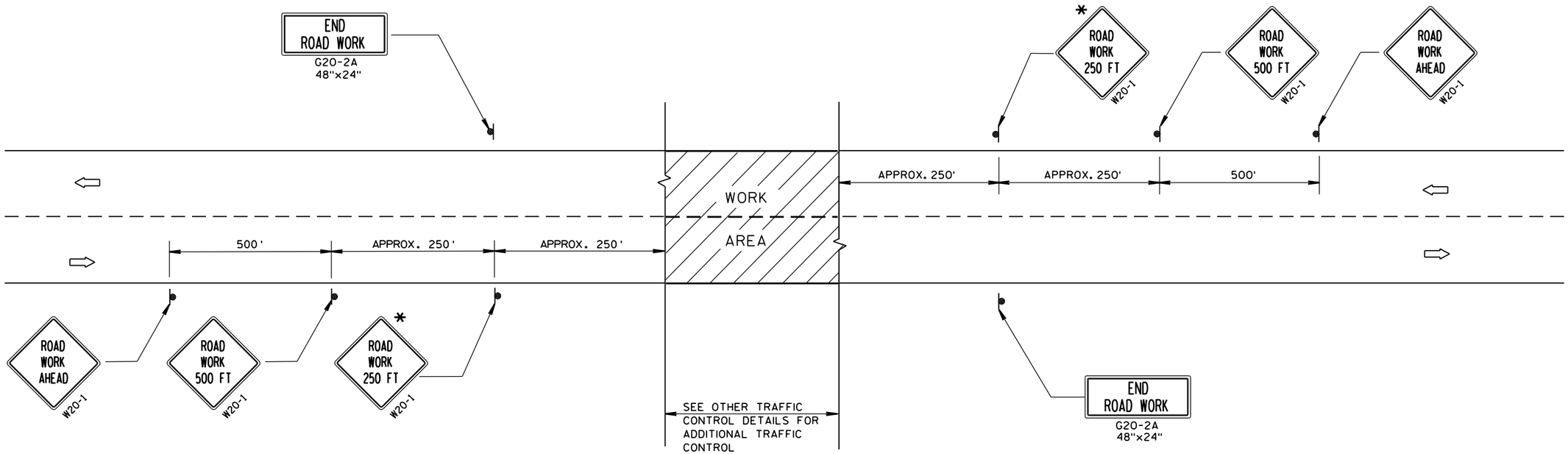
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

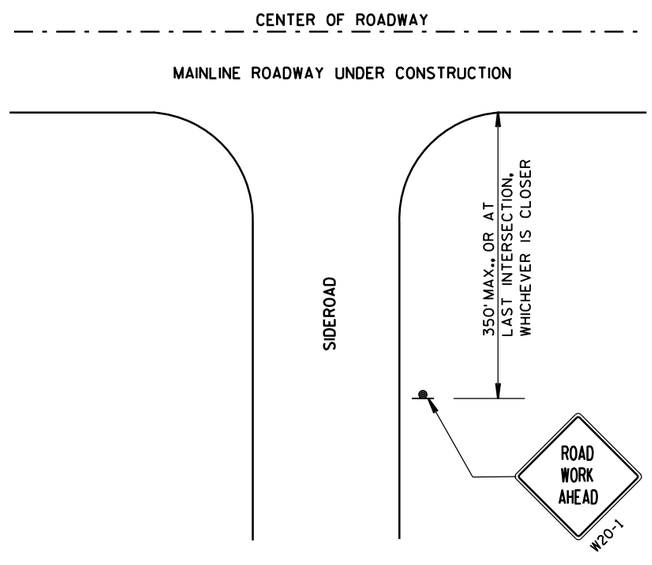
S.D.D. 15 C 4-2

6

S.D.D. 15 C 4-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

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

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

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

LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

SIGN

FHWA

6

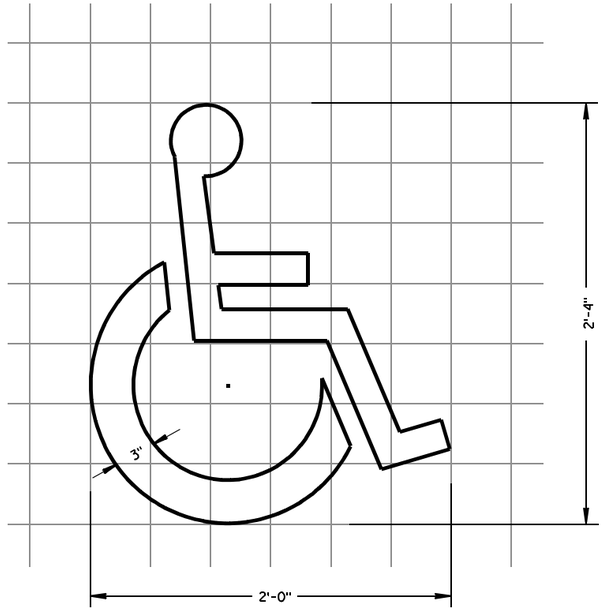
S.D.D. 15 C 5-2

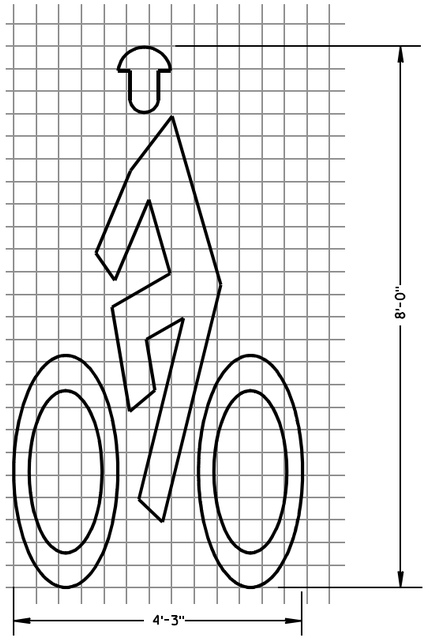
GENERAL NOTES

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.

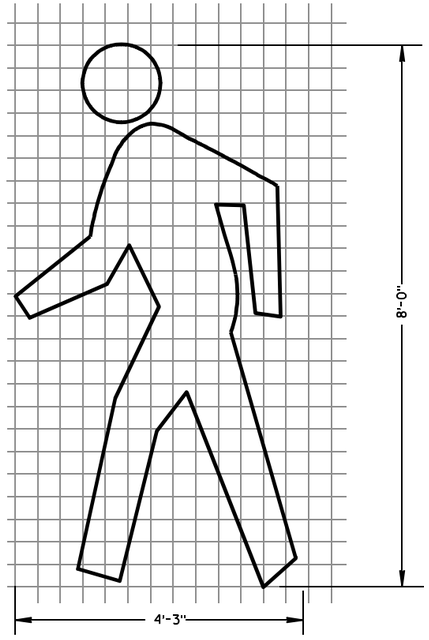
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

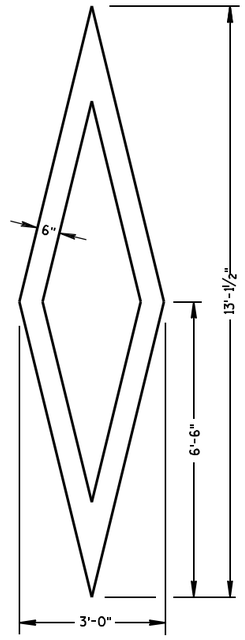




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

S.D.D. 15 C 7-12a

S.D.D. 15 C 7-12a

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 DATE

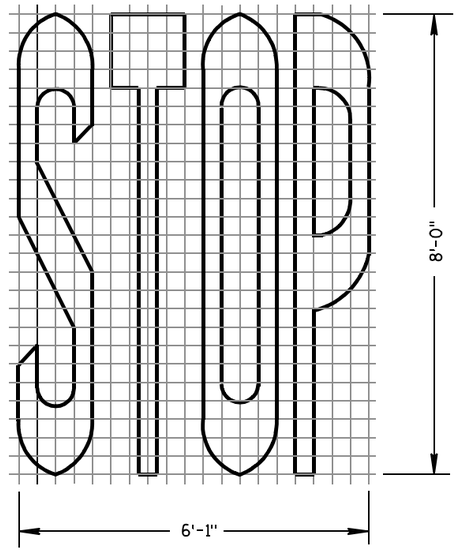
/S/ Thomas N Nathan STATE TRAFFIC ENGINEER

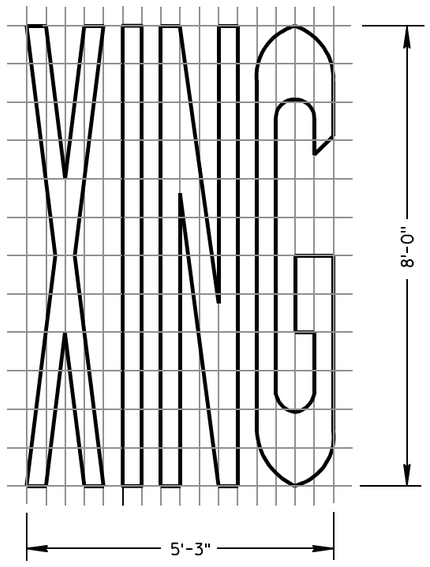
FHWA

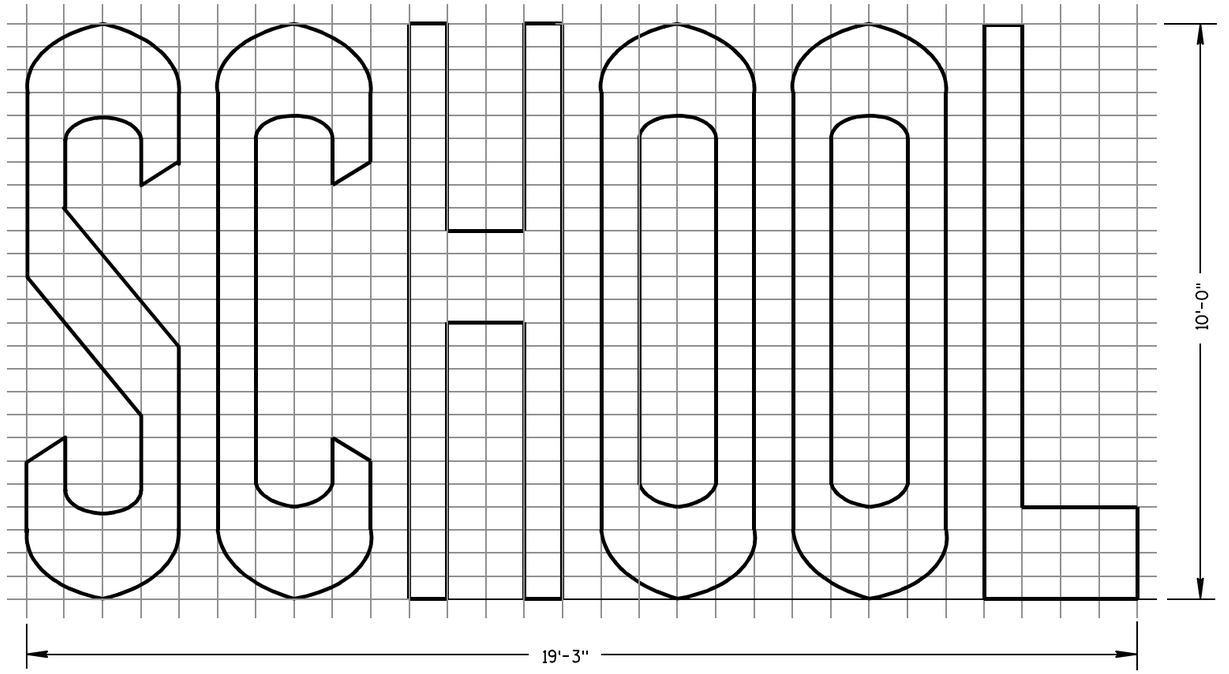
GENERAL NOTES

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.

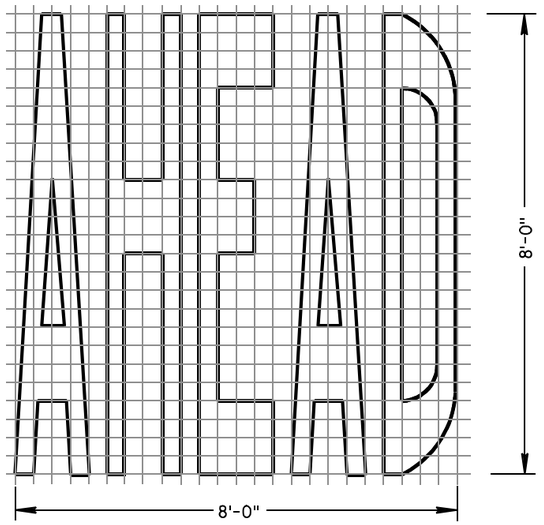
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

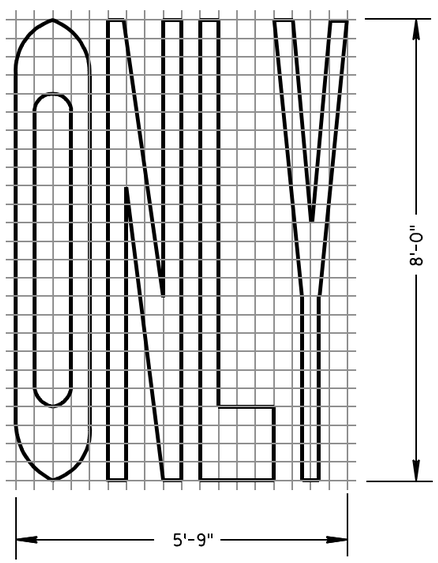


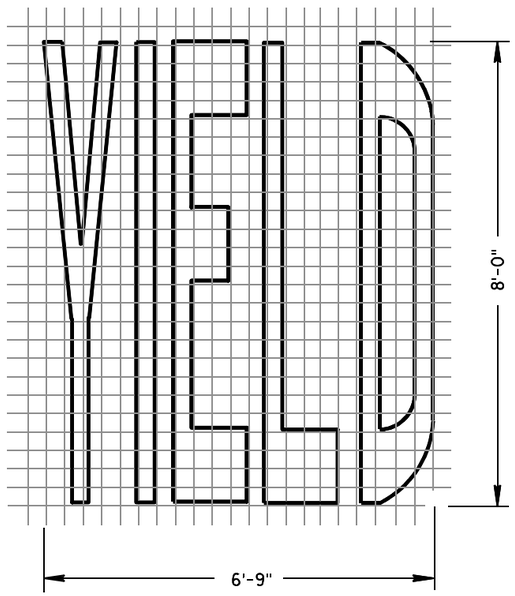


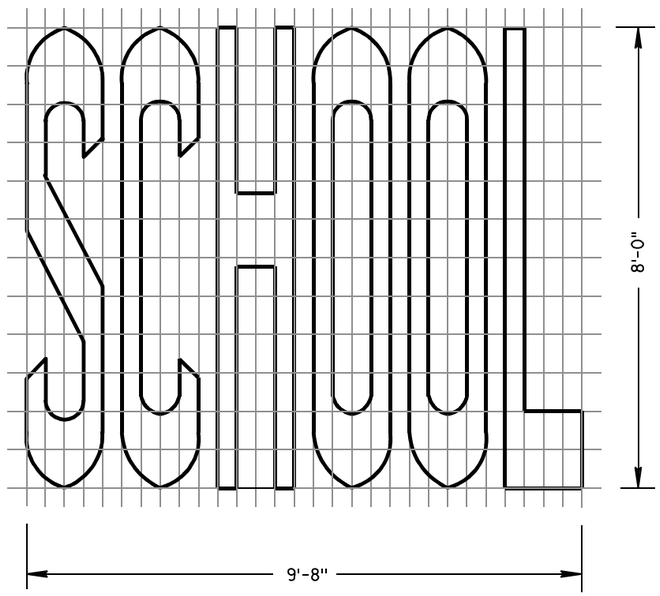


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

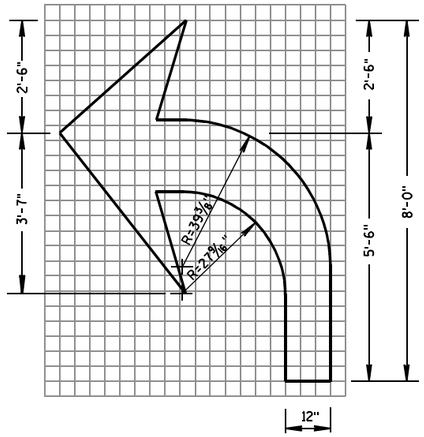
APPROVED

7-1-11 — DATE

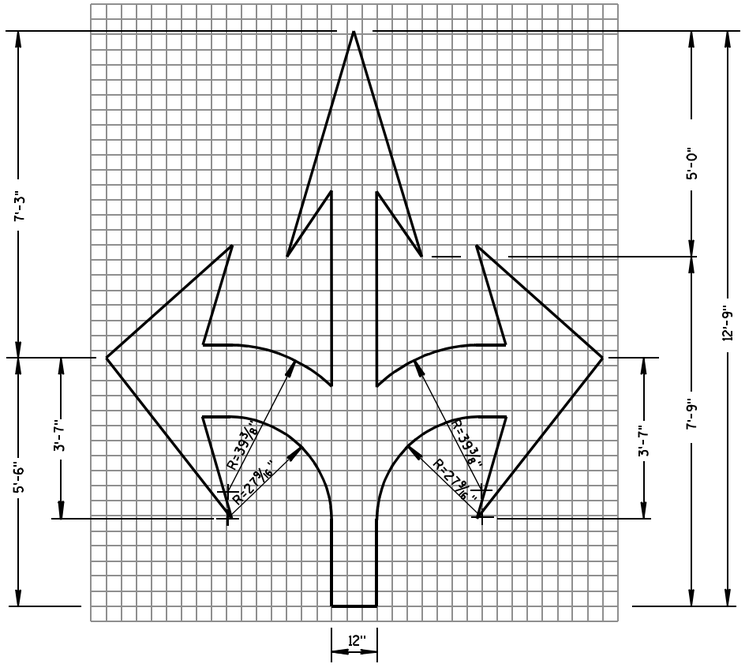
/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

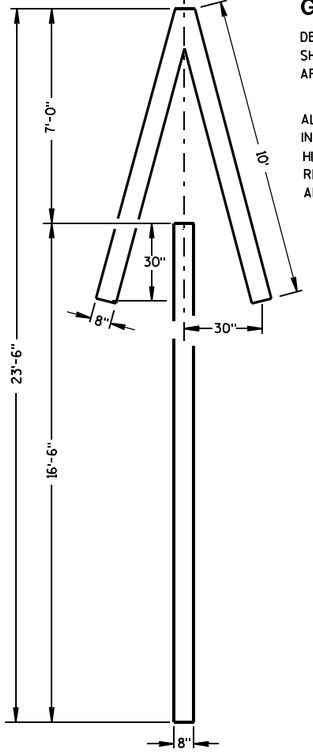
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

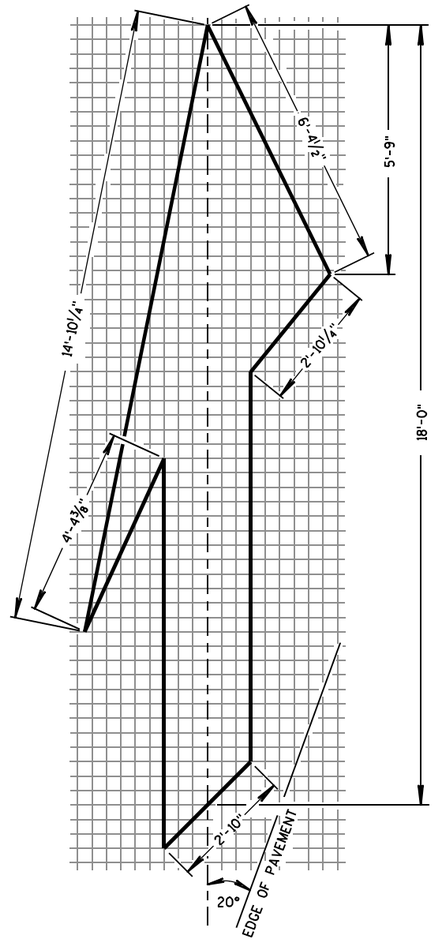


TYPE 4

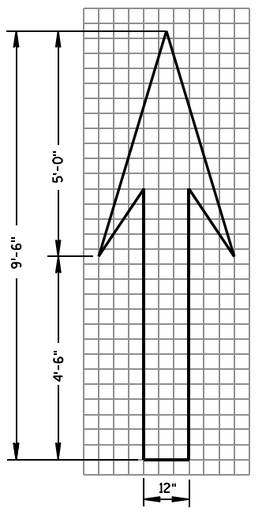
GENERAL NOTES

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.

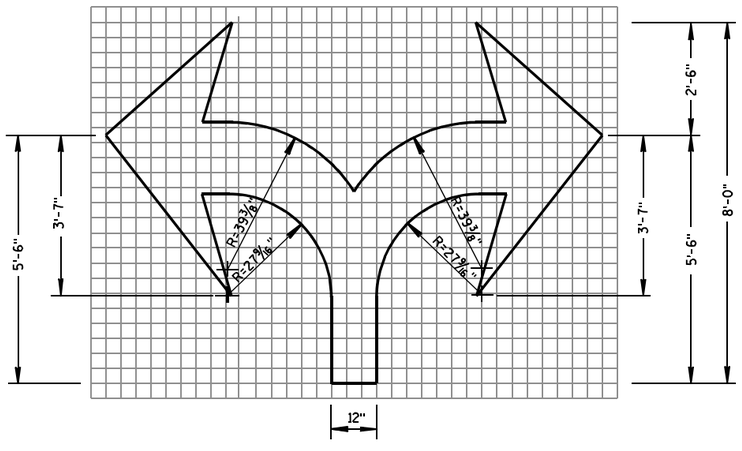
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



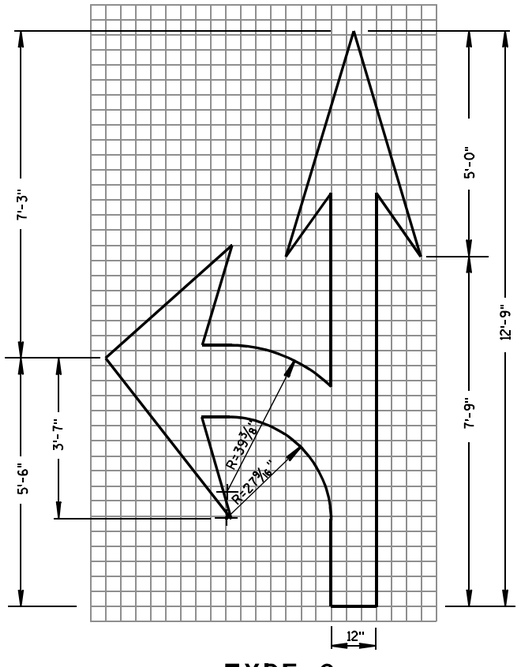
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

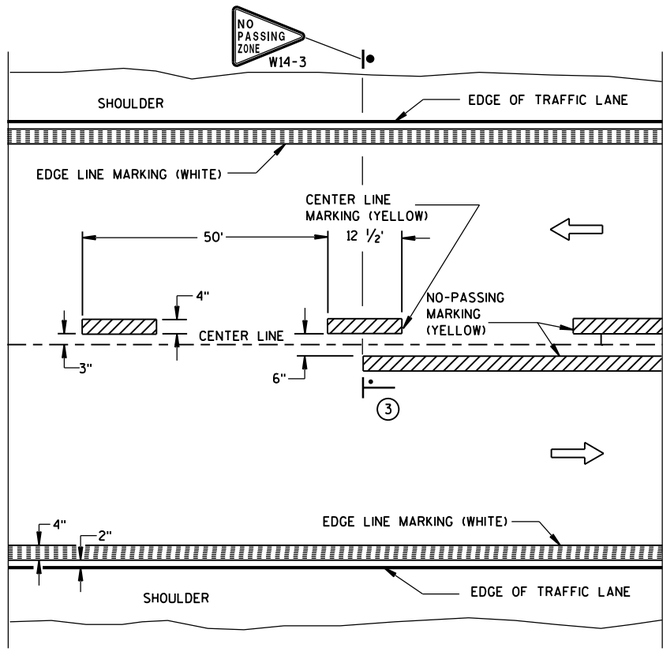
FHWA

6

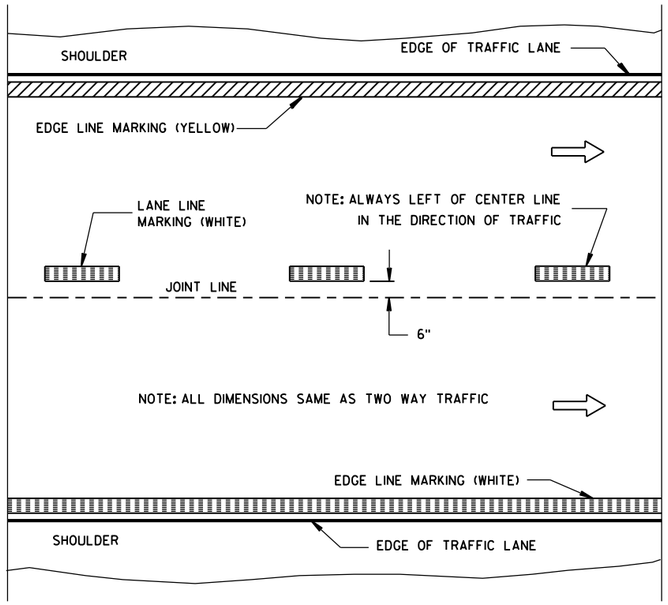
S.D.D. 15 C 7-12c

6

S.D.D. 15 C 7-12c

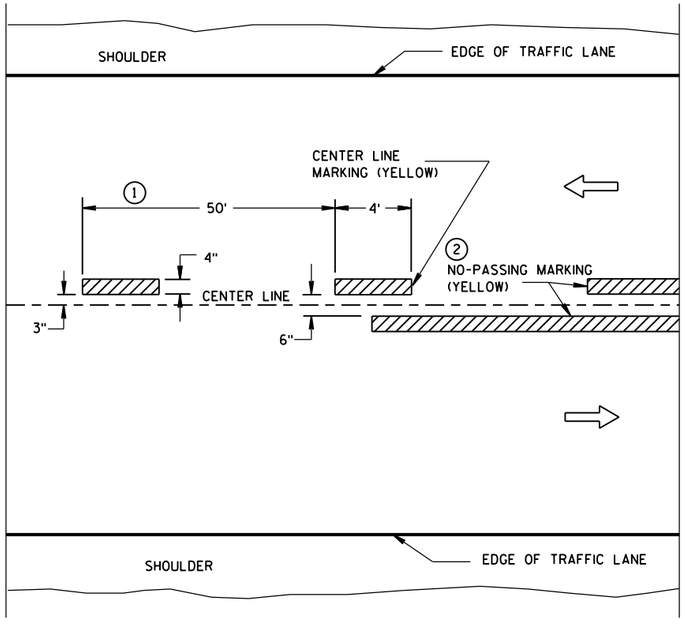


TWO WAY TRAFFIC

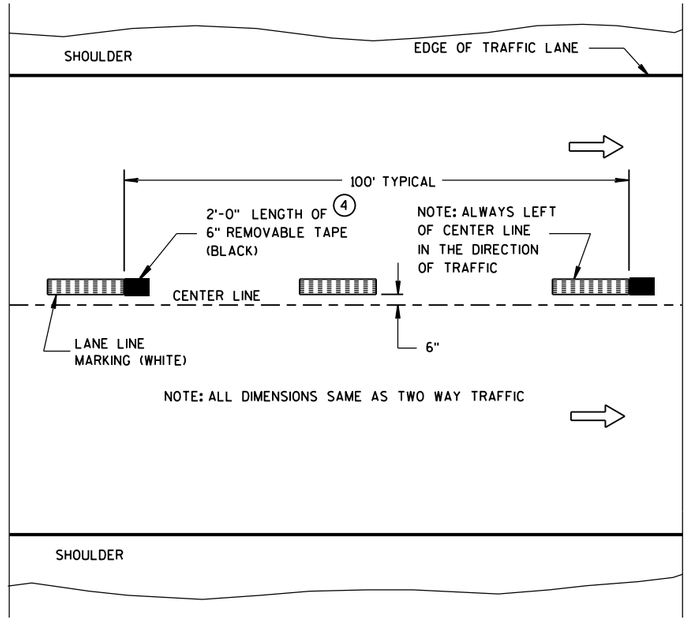


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

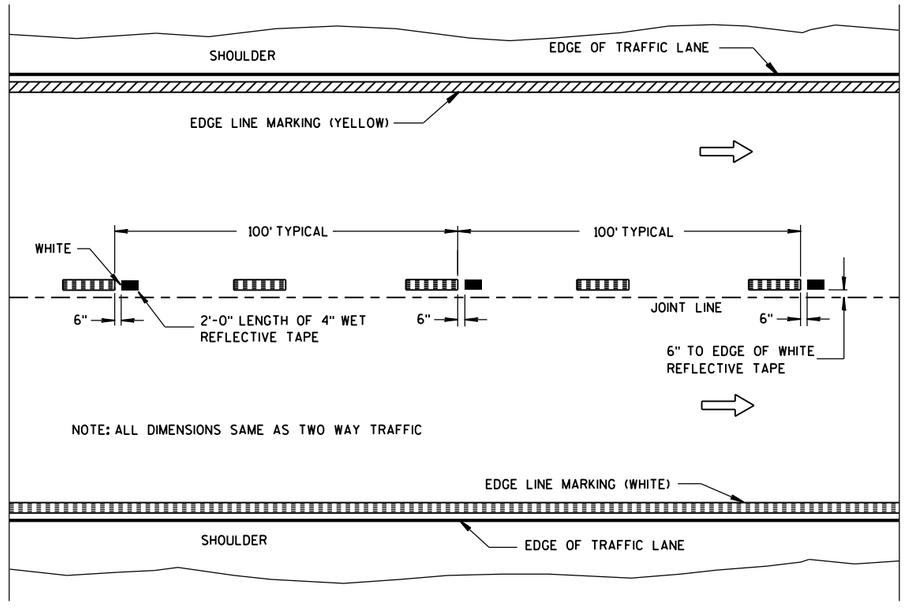
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

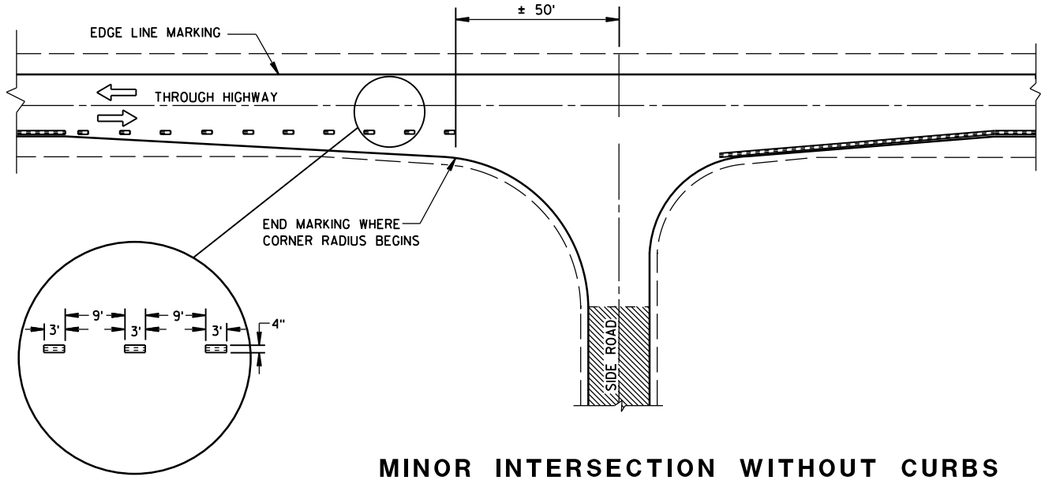
FHWA

6

S.D.D. 15 C 8-16a

6

S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

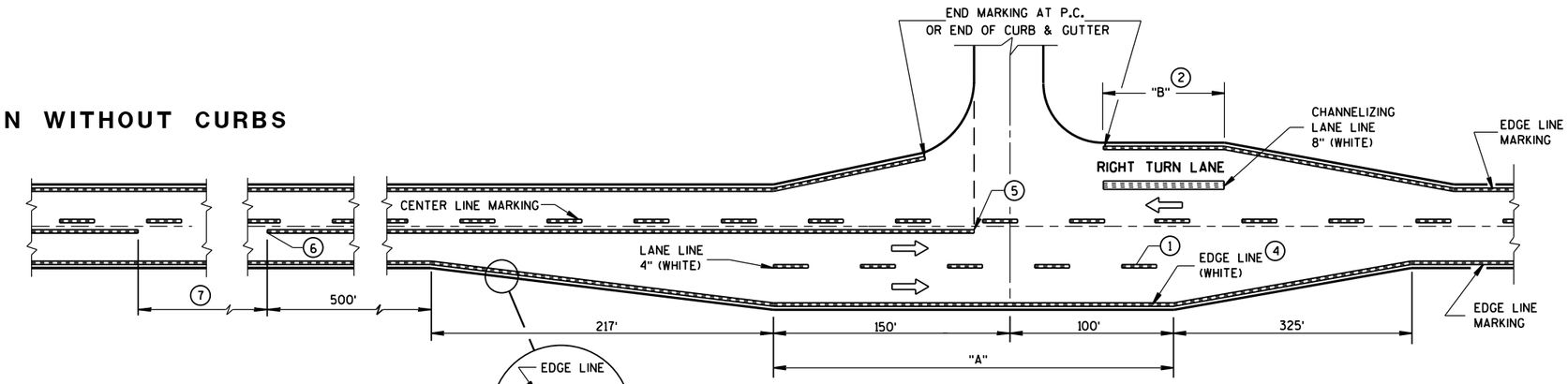
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

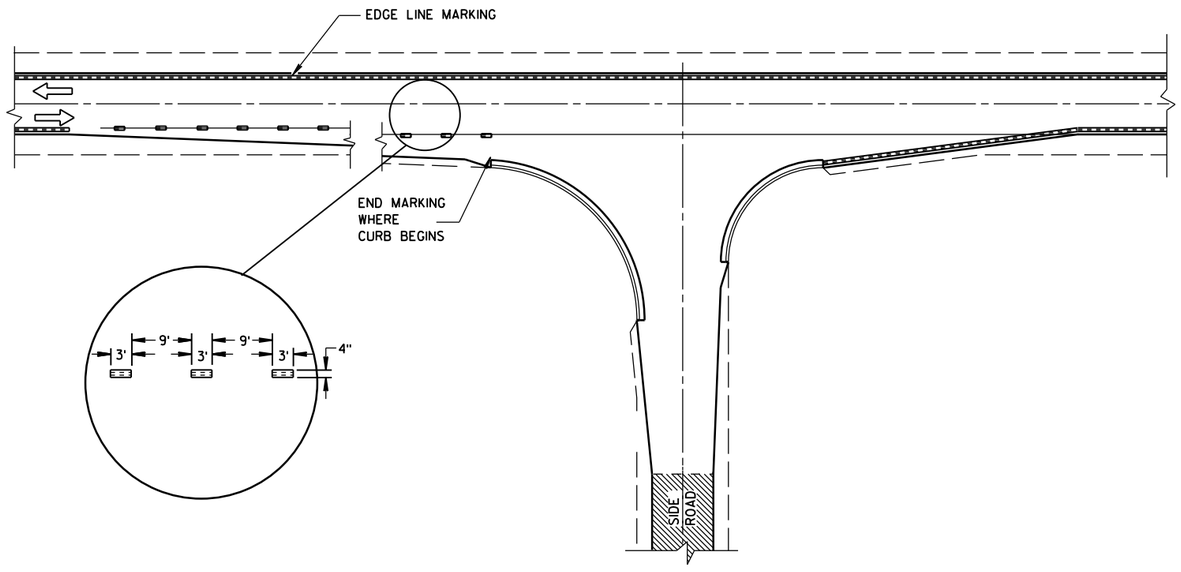
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



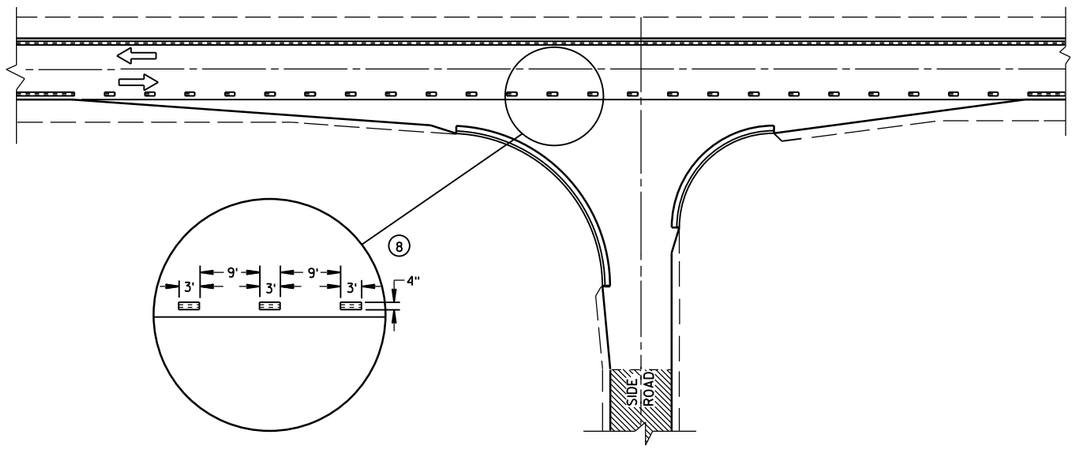
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

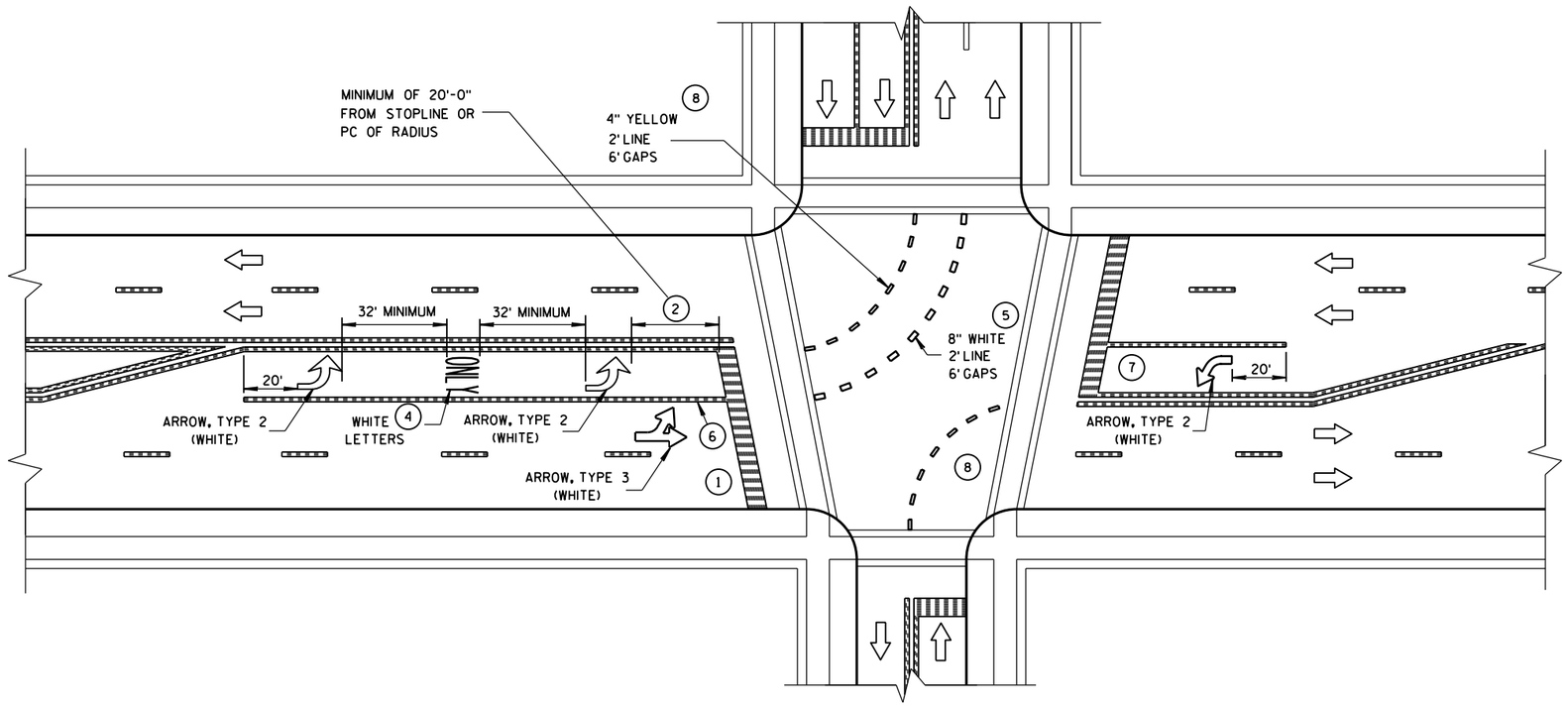
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

6

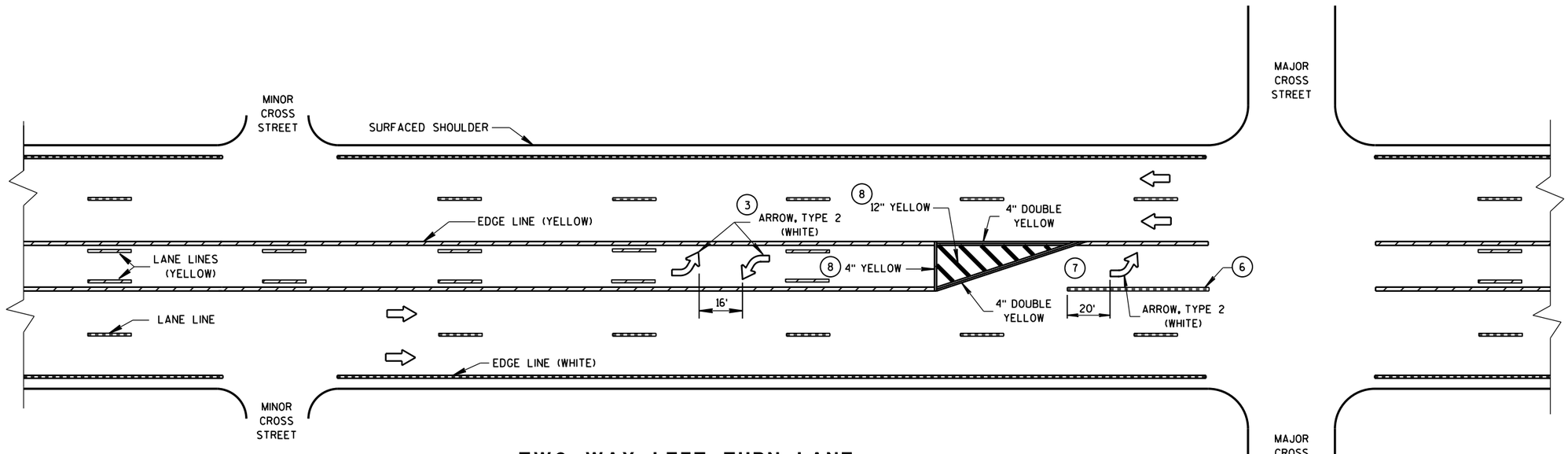
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

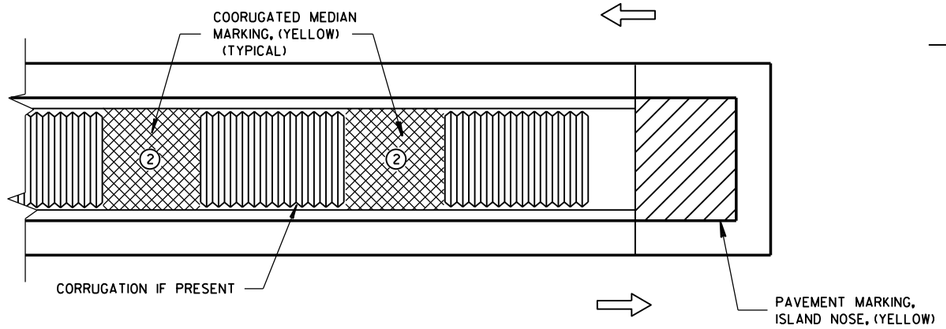
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

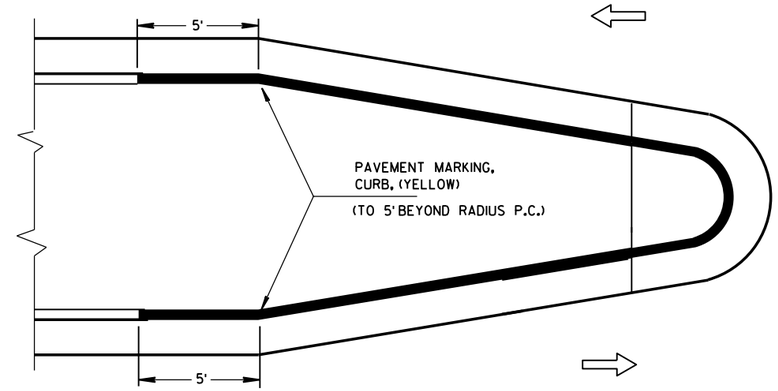
S.D.D. 15 C 8-16e

6

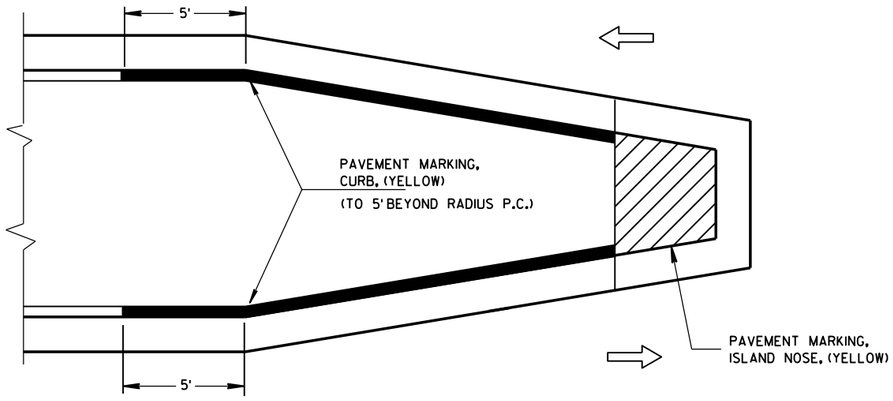
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

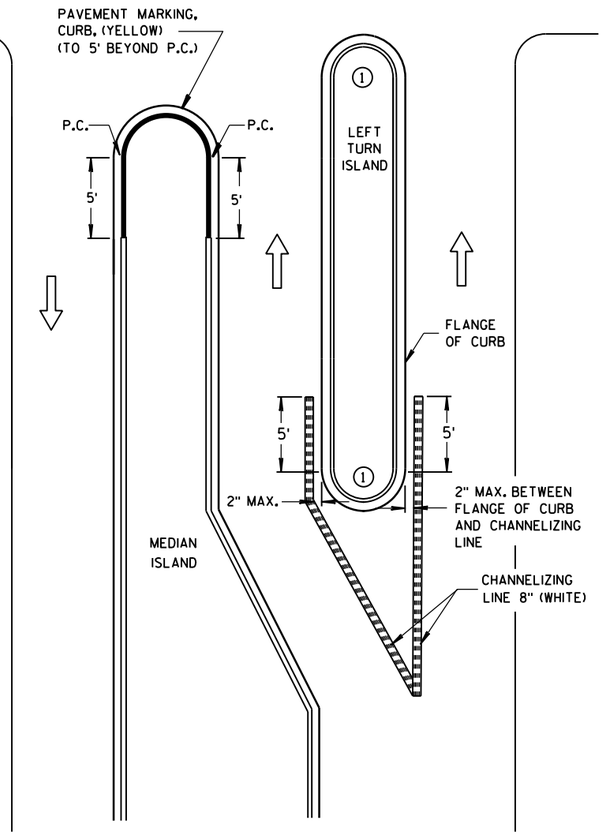


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

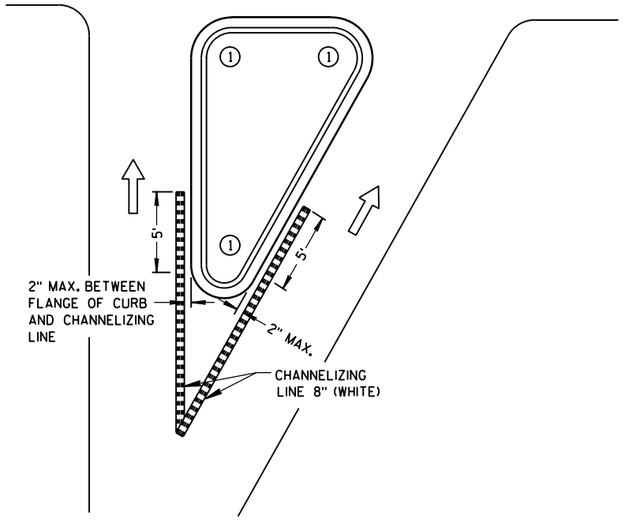


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-16f

6

S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

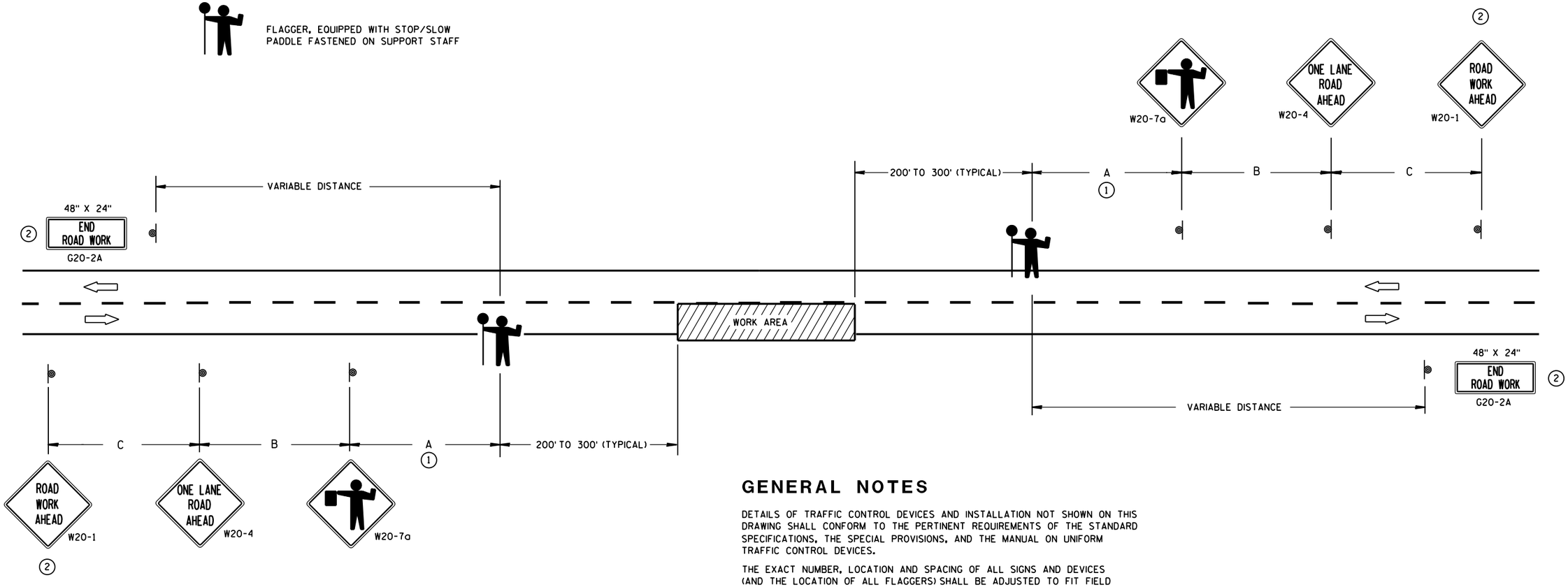
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

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

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

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

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

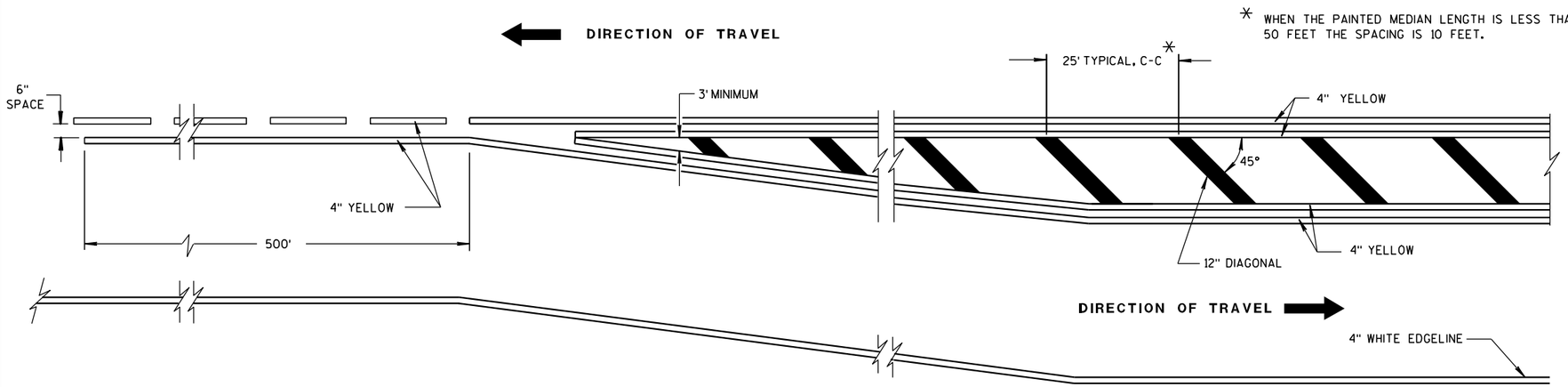
APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
DESIGN
FHWA

6

S.D.D. 15 C 12-4

6

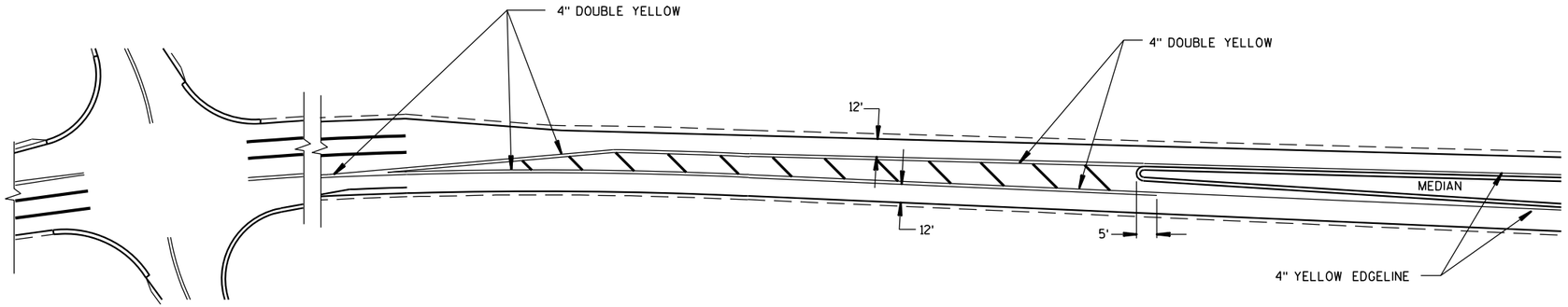
S.D.D. 15 C 12-4



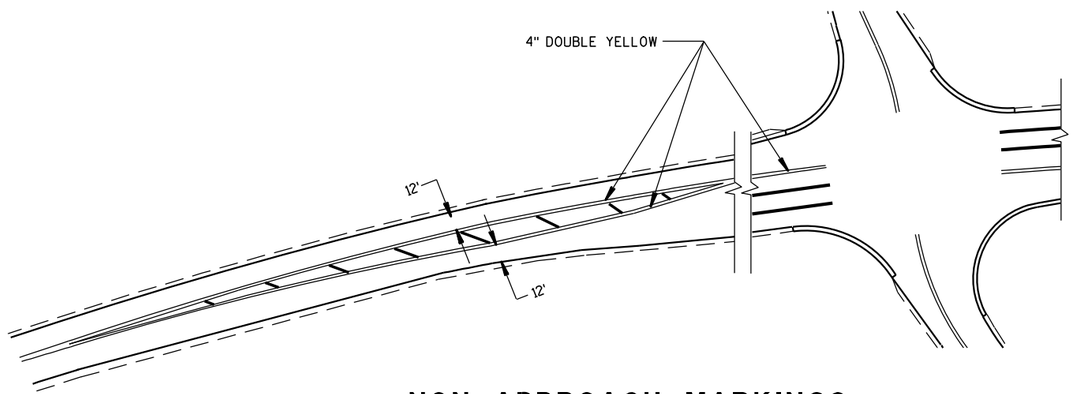
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

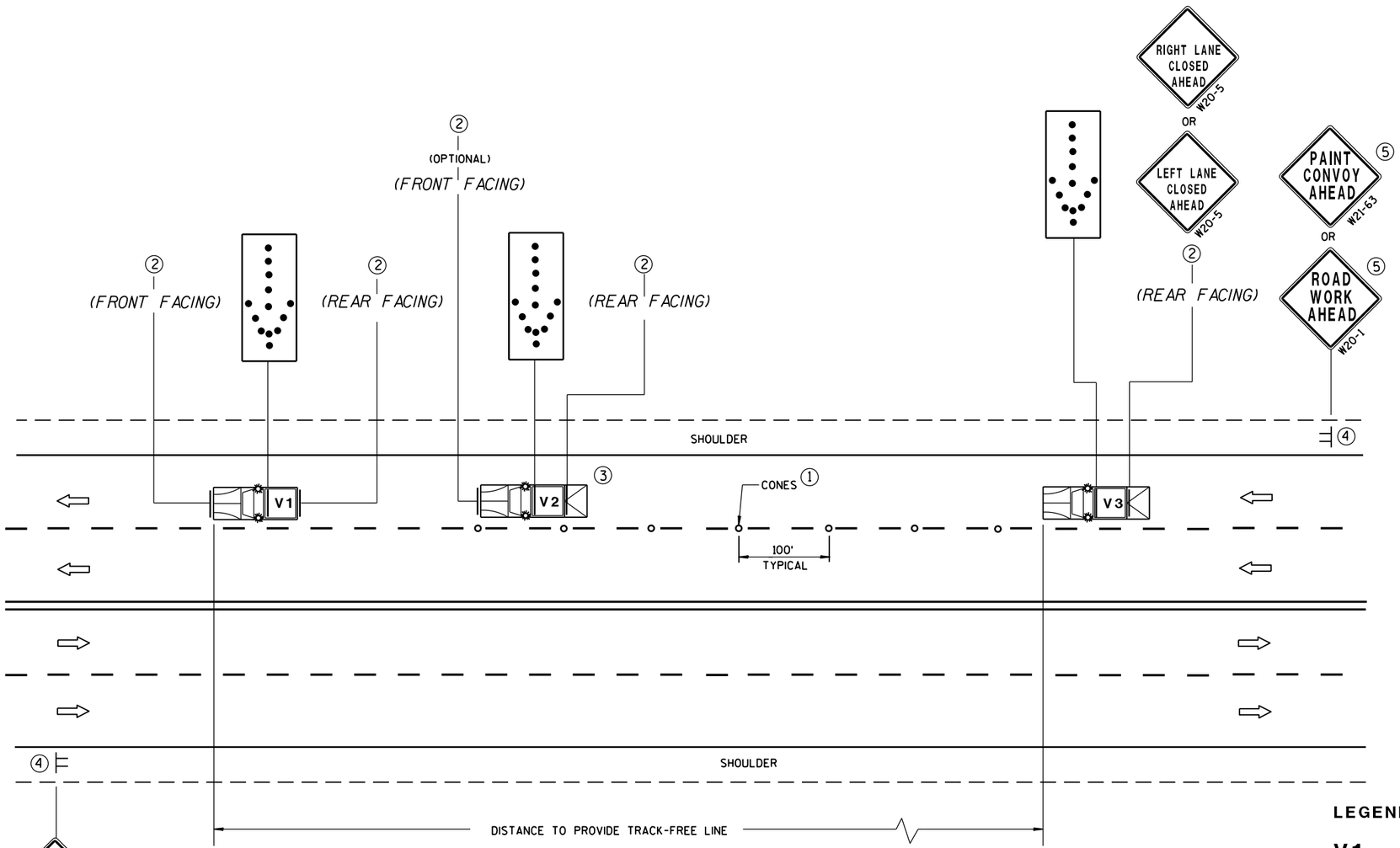
MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	133 IGN

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3



PAINT CONVOY AHEAD W21-63
OR
ROAD WORK AHEAD W20-1

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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.

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

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 REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

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

MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

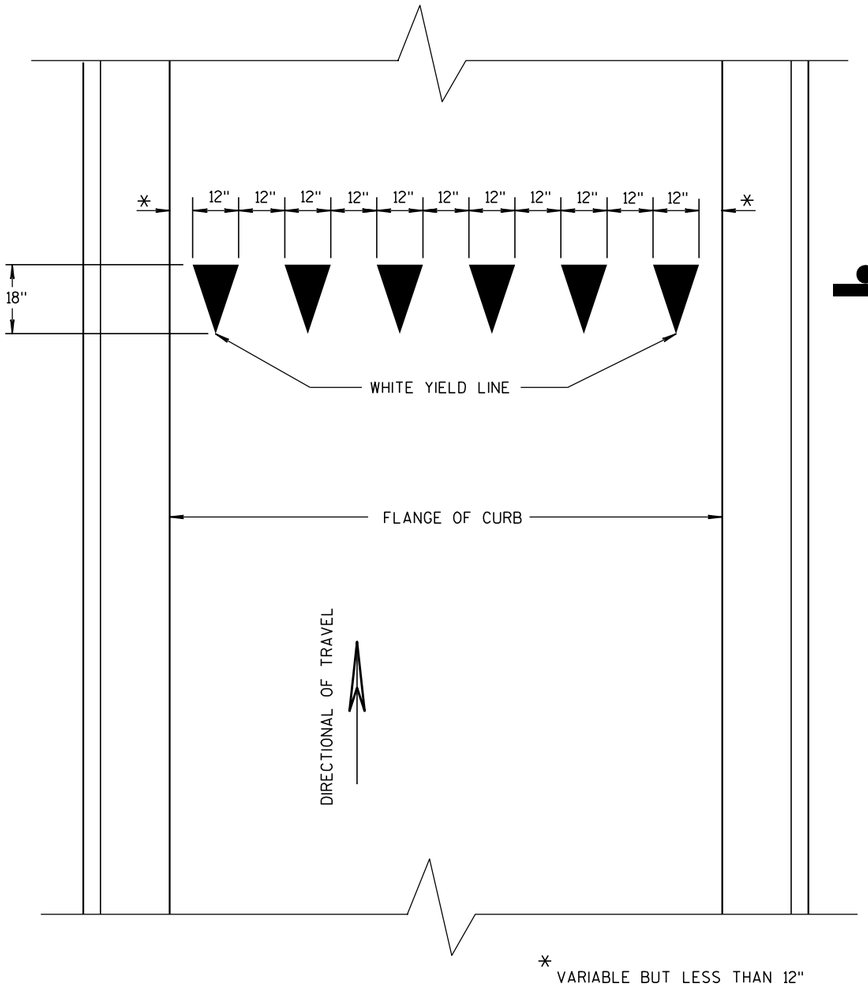
APPROVED
5/3/2013 DATE
/S/ Travis Feltes STATE TRAFFIC EN
FHWA

6

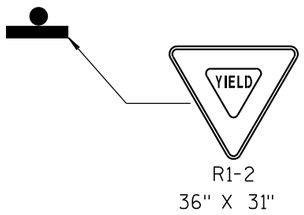
S.D.D. 15 C 19-2b

6

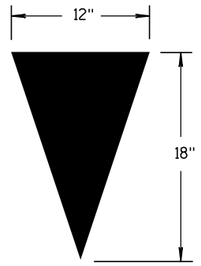
S.D.D. 15 C 19-2b



YIELD LINE



R1-2
36" X 31"



YIELD TRIANGLE

6

S.D.D. 15 C 20-1

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/28/05 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 20-1

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

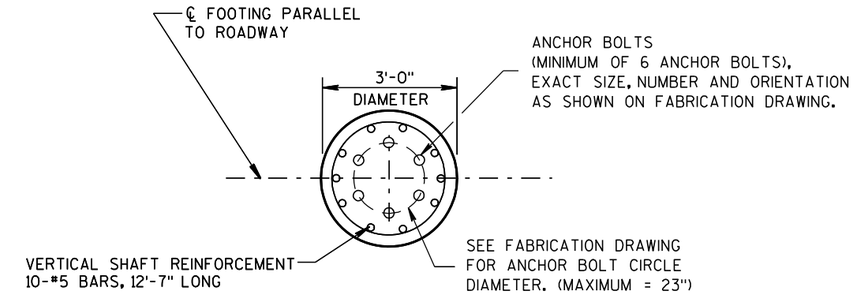
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

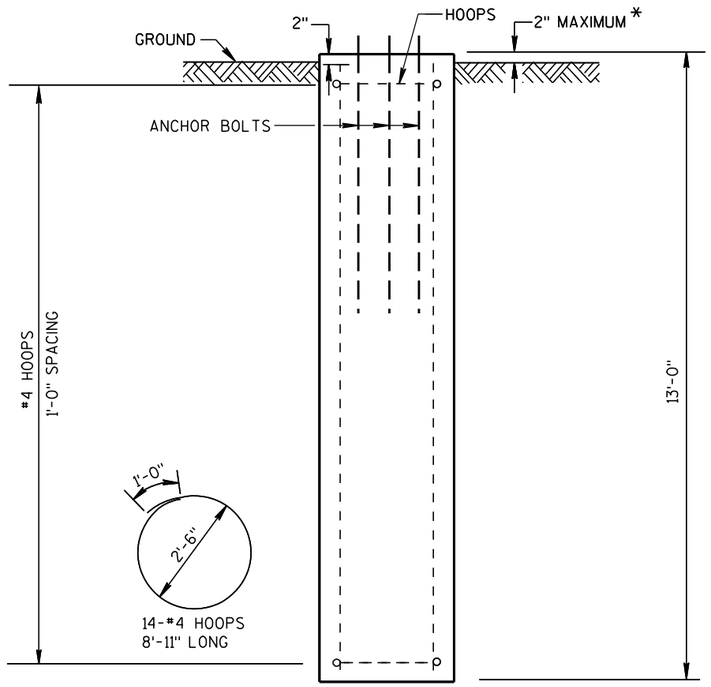
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.



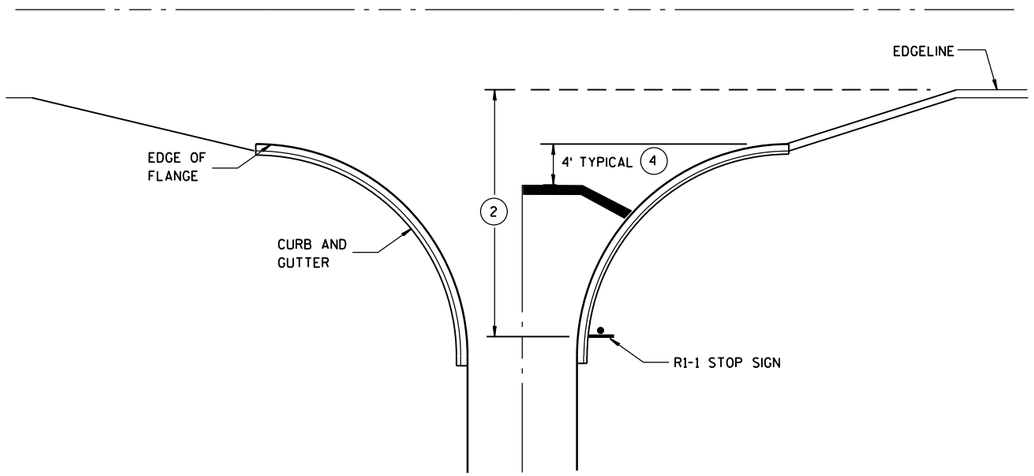
ELEVATION VIEW

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

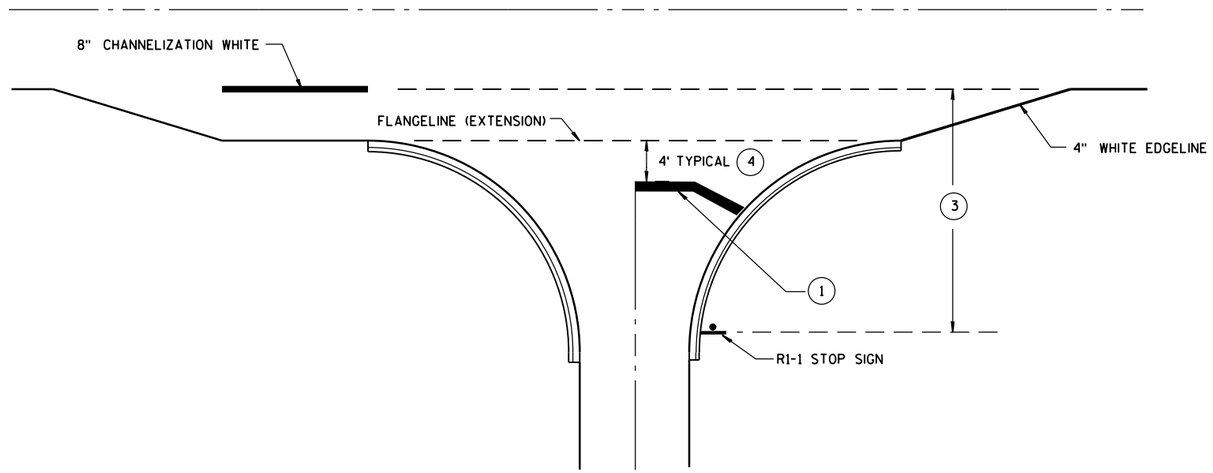
36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

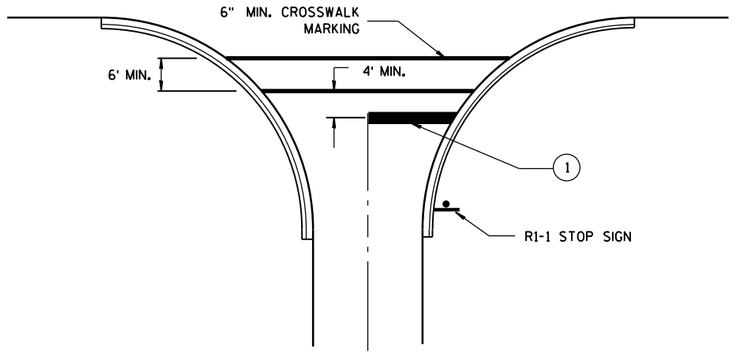
APPROVED
4/17/2009 DATE
/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINEER
FHWA



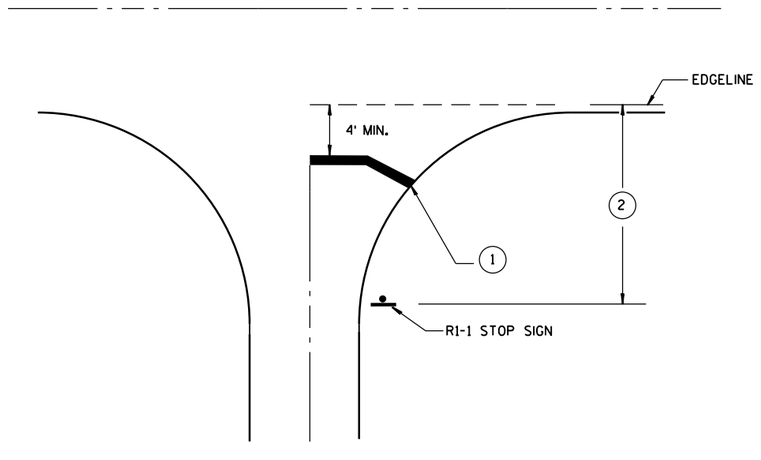
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

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

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

6

S.D.D. 15 C 33-1

LEGEND

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

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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 "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD 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.

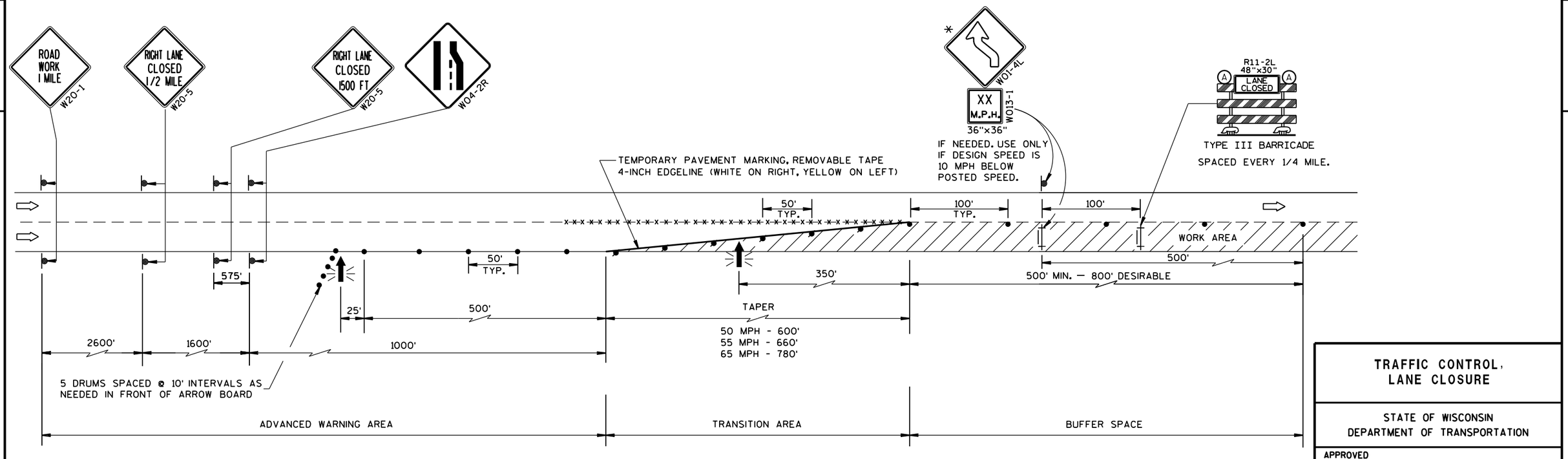
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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 CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST 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.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 12-5a

LEGEND

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

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 DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" 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 "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD 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 IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

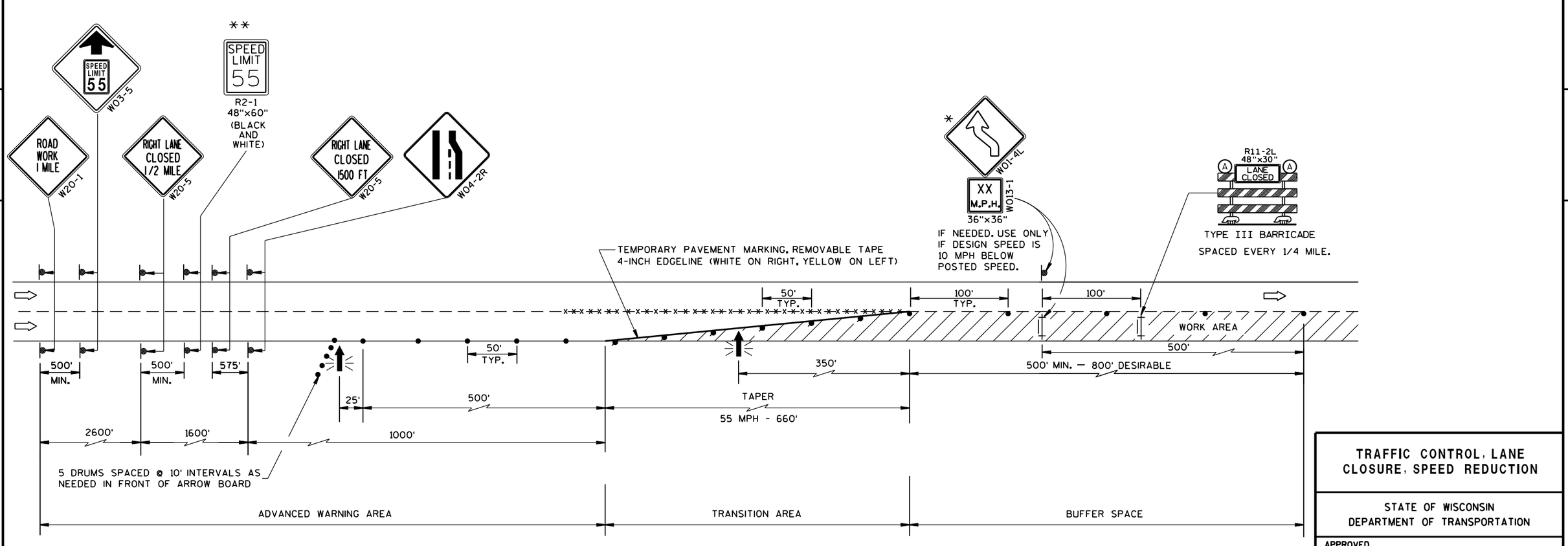
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST 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.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A 65 MPH RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

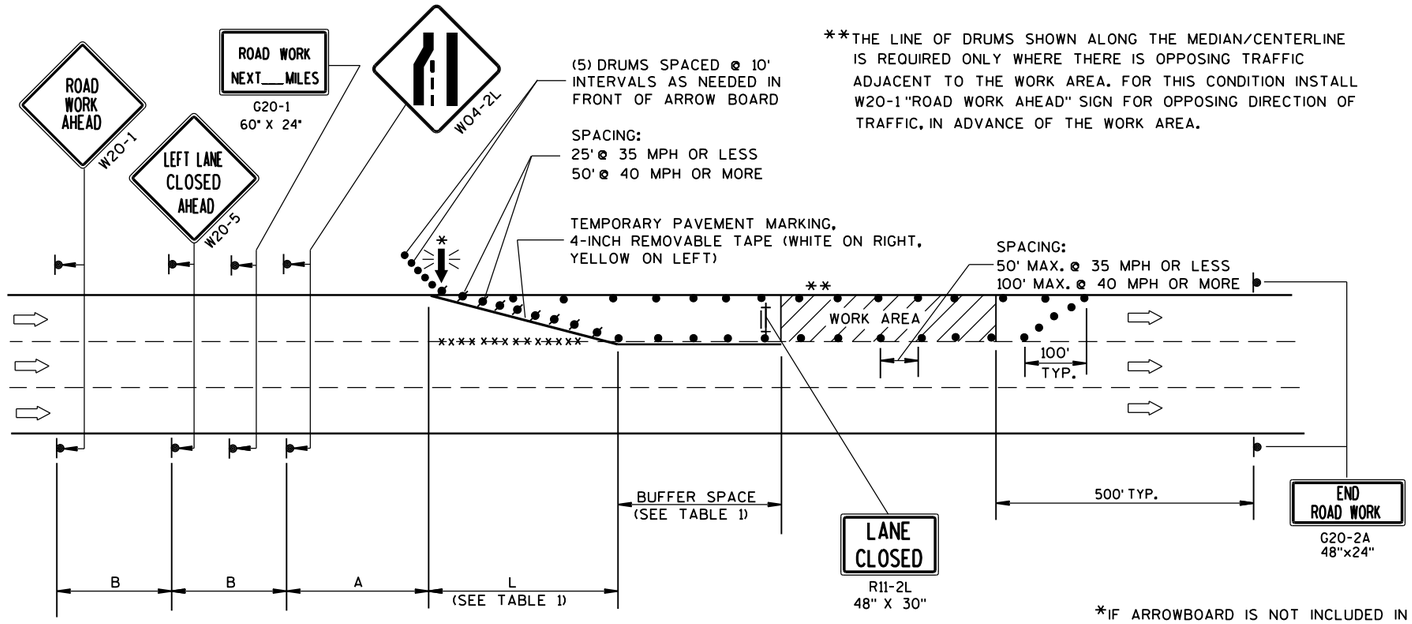
Feb. 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

S.D.D. 15 D 12-5b

S.D.D. 15 D 12-5b



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

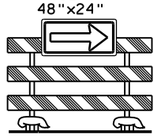


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

GENERAL NOTES

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.

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

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

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

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, 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.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

BARRICADES IN A CLOSED LANE 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.

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 D 20-3

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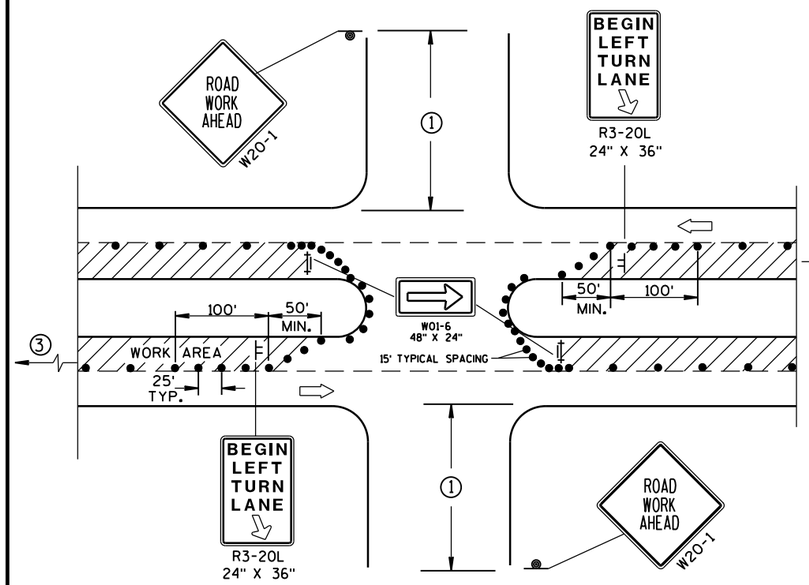
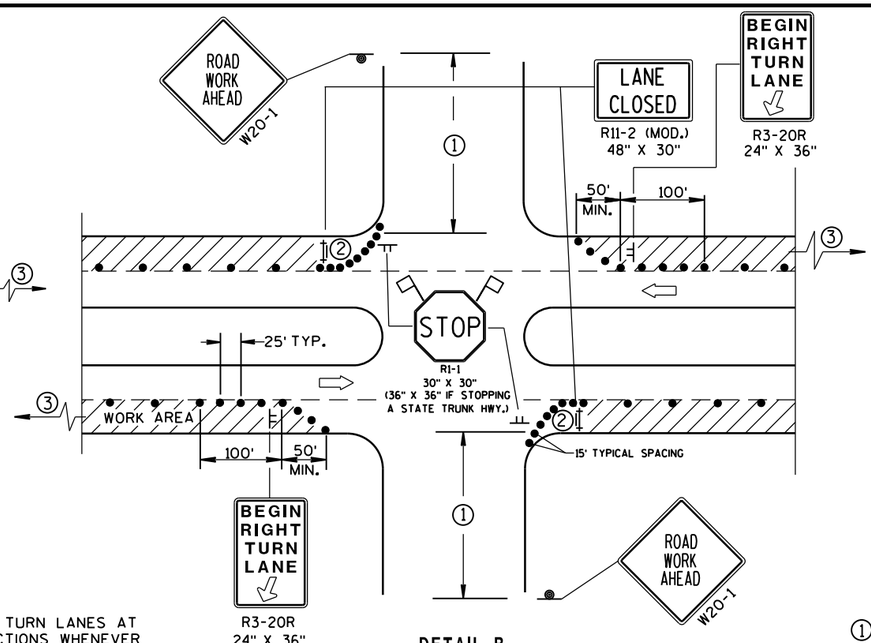
S.D.D. 15 D 20-3



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

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 SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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 DISTRICT TRAFFIC UNIT.

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

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

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 PORTABLE SUPPORTS.

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

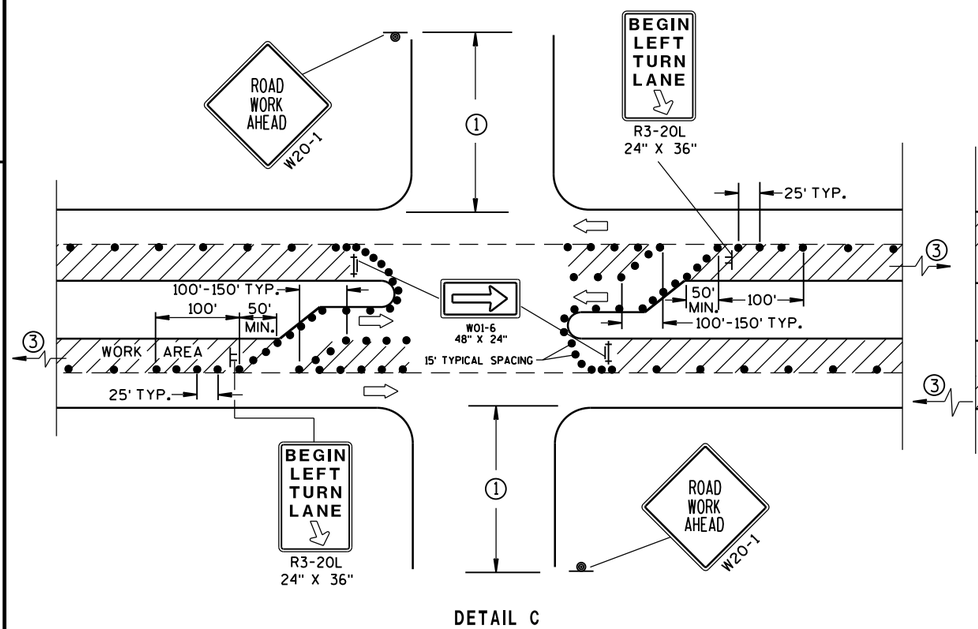
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE 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.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

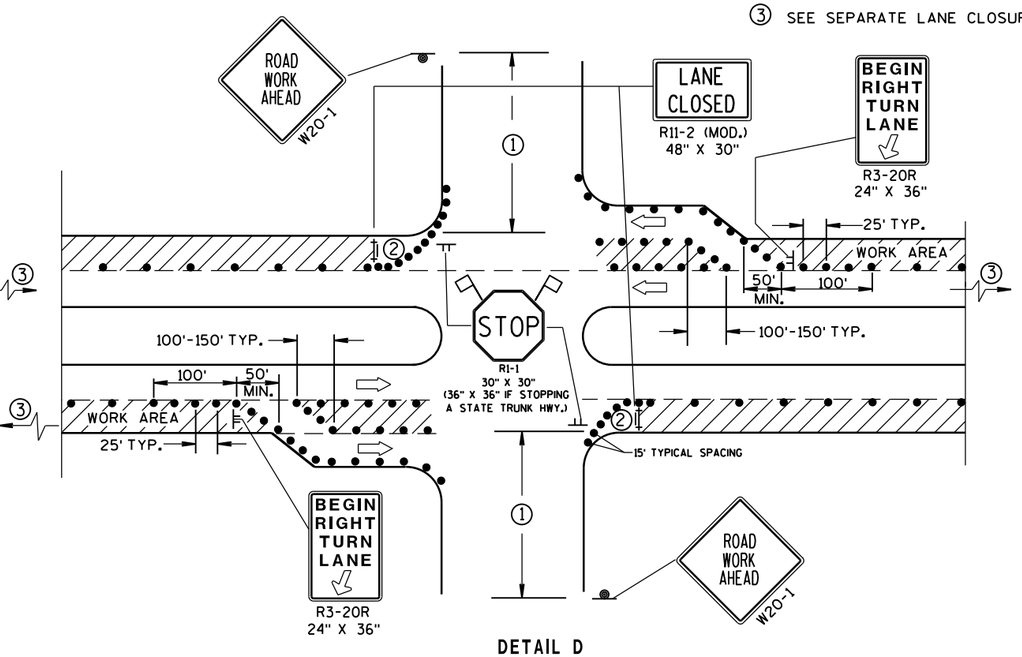
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

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



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 21-3

GENERAL NOTES

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

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

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

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

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

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

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

TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

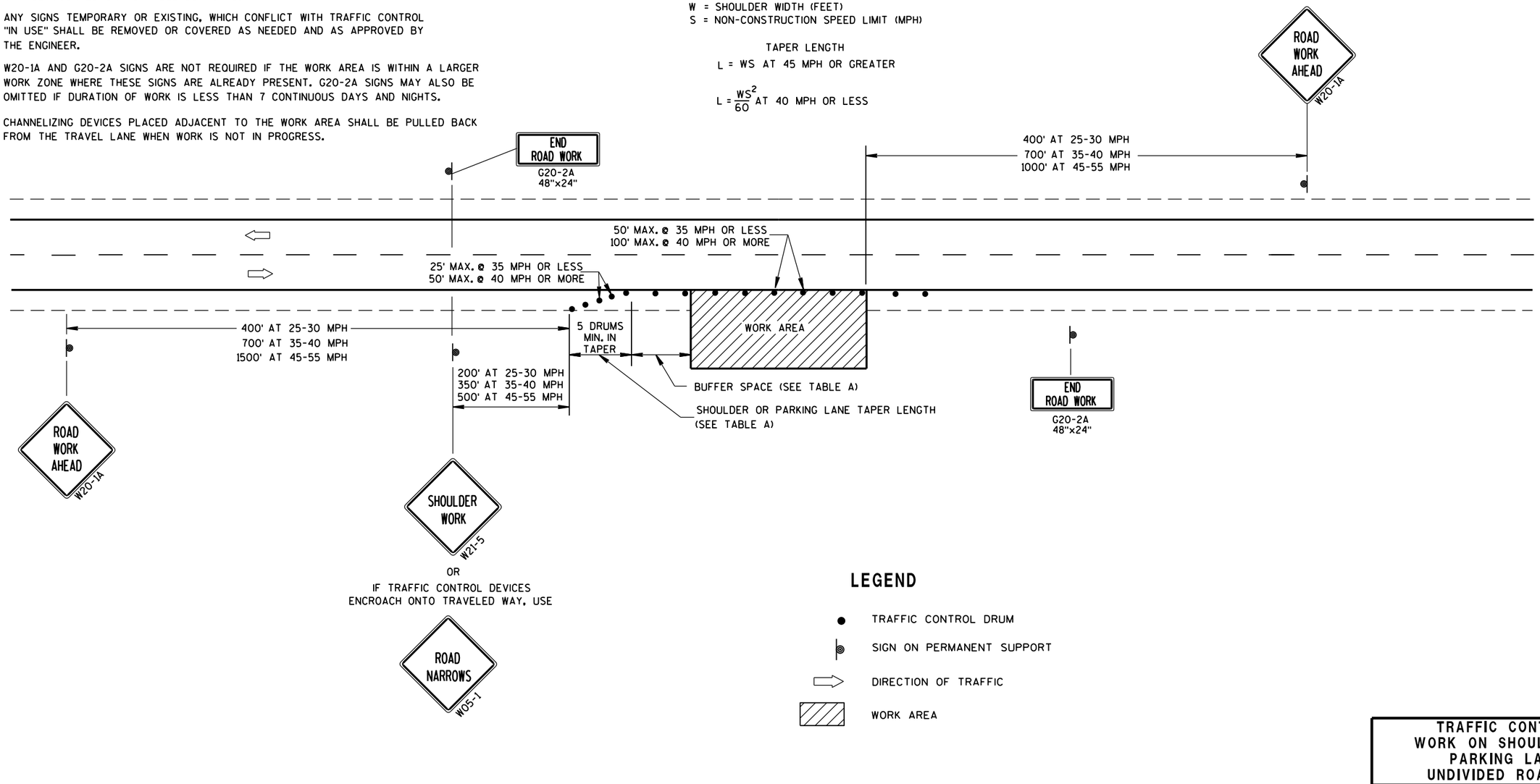
W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH

L = WS AT 45 MPH OR GREATER

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

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



LEGEND

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

July 14, 2015 — DATE

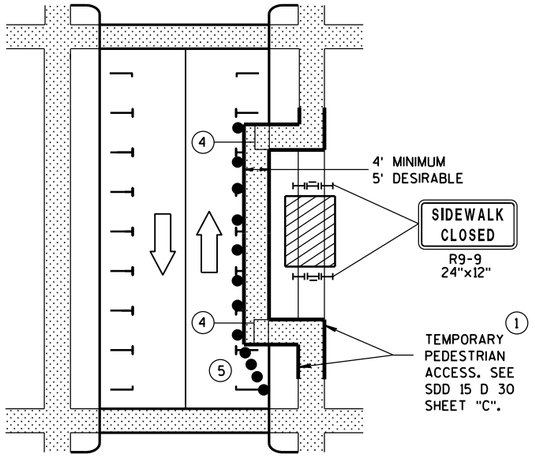
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

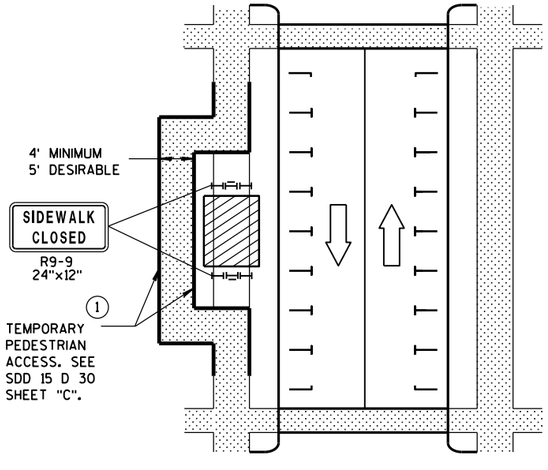
S.D.D. 15 D 28-3

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

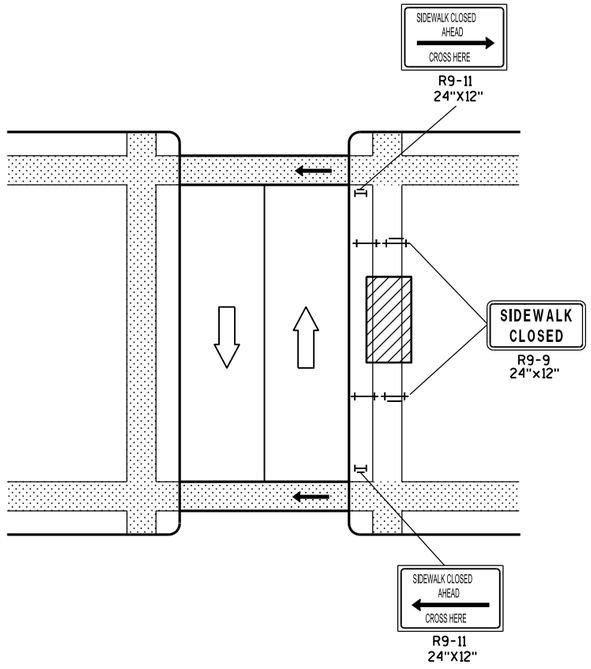


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

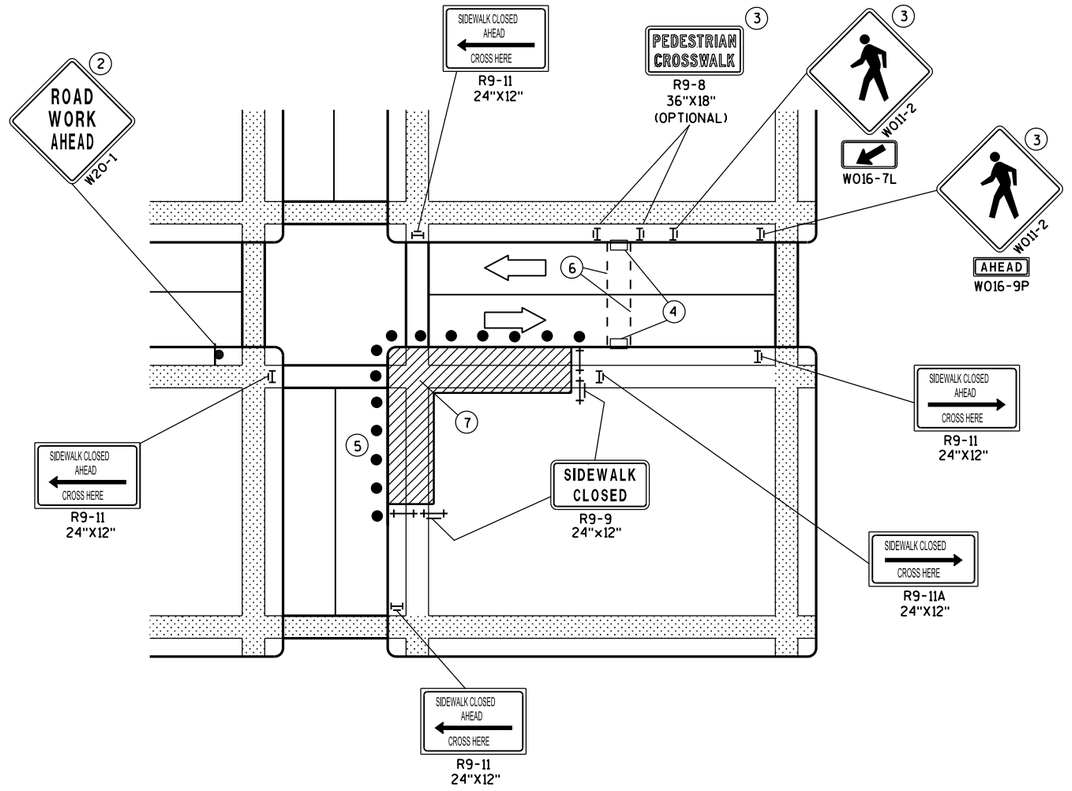
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

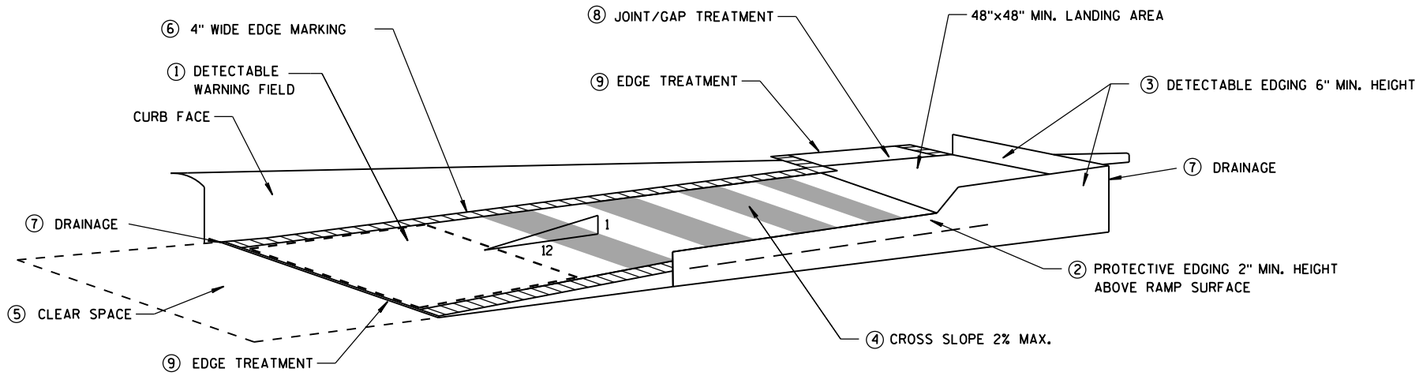
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 D 30-2a

6

S.D.D. 15 D 30-2a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

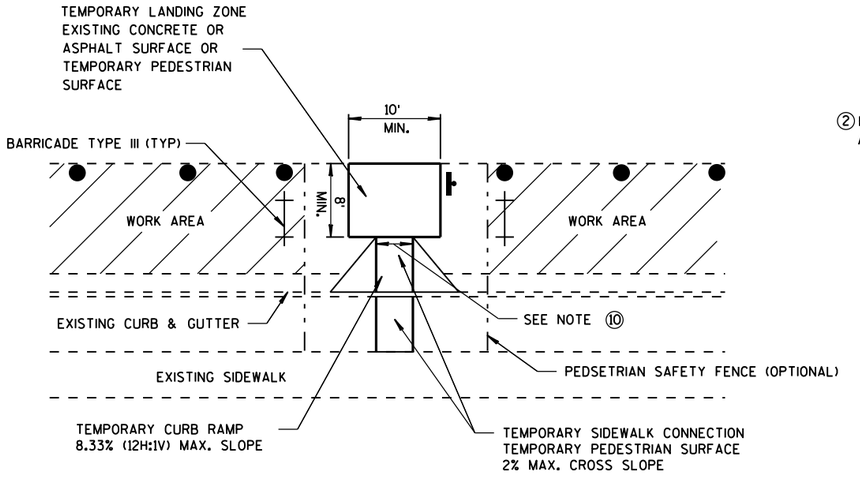
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

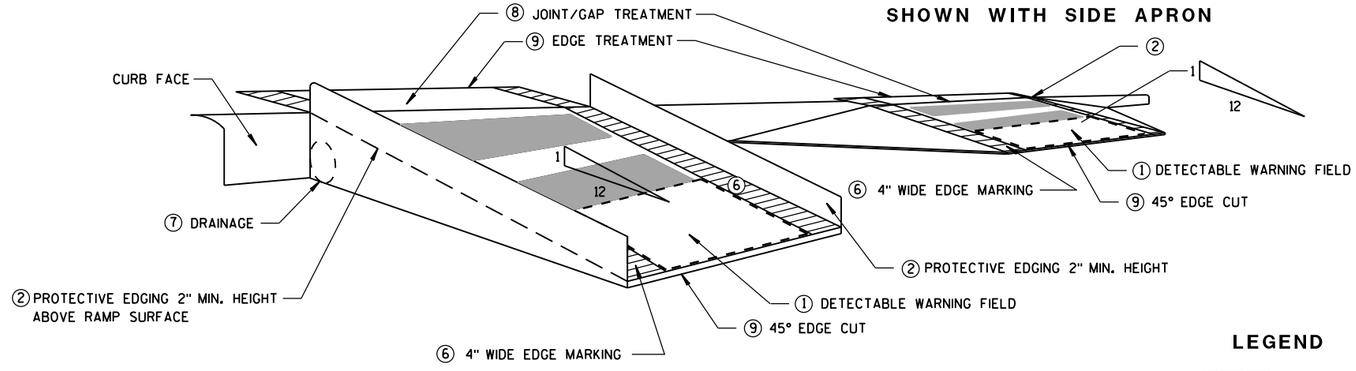
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH SIDE APRON

SHOWN WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

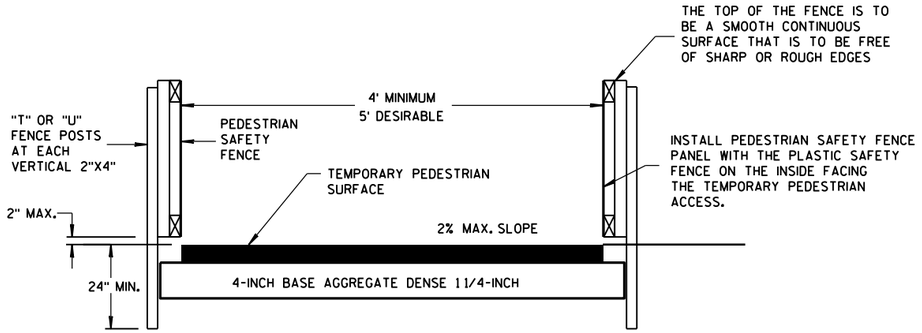
FHWA

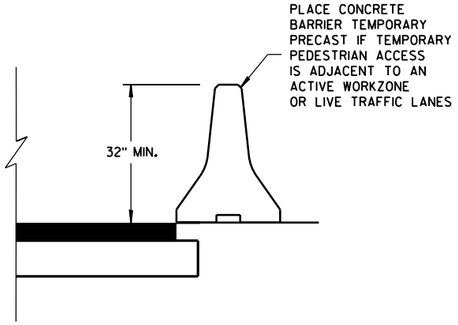
6

S.D.D. 15 D 30-2b

6

S.D.D. 15 D 30-2b

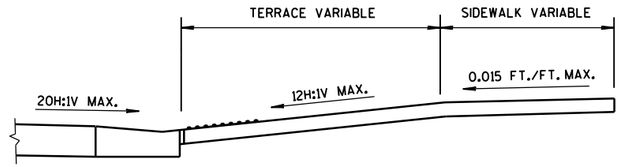




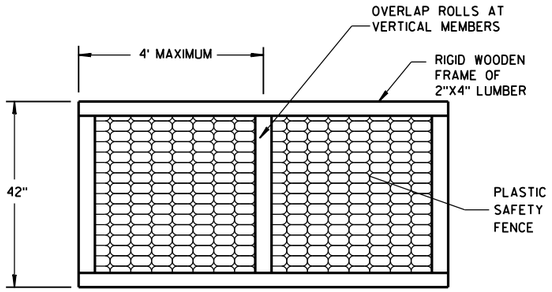
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

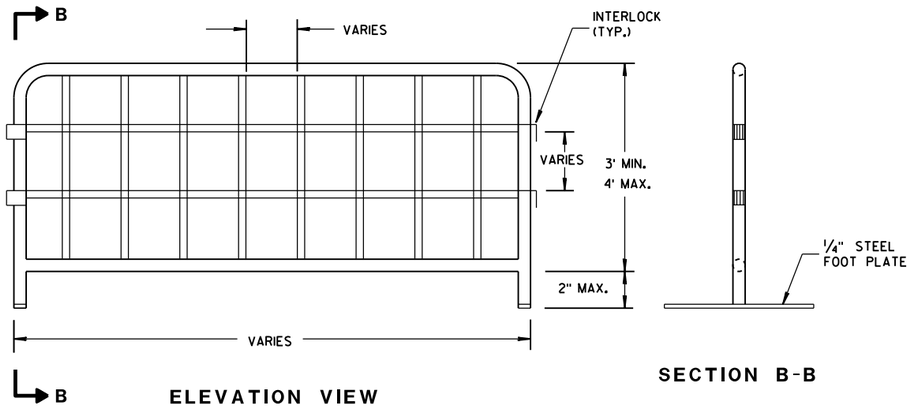
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



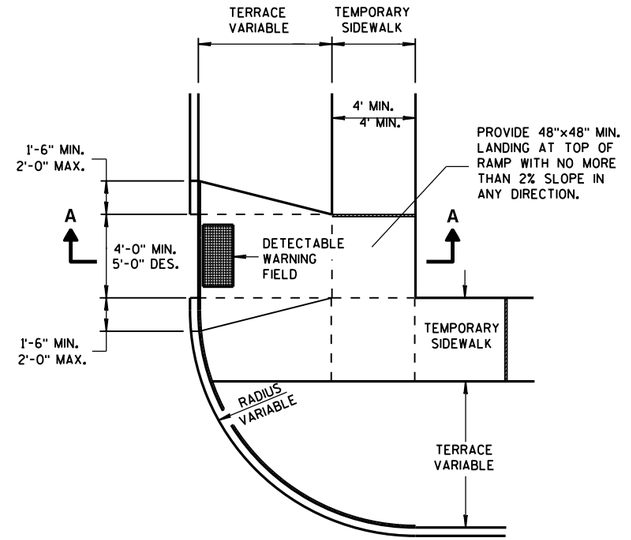
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

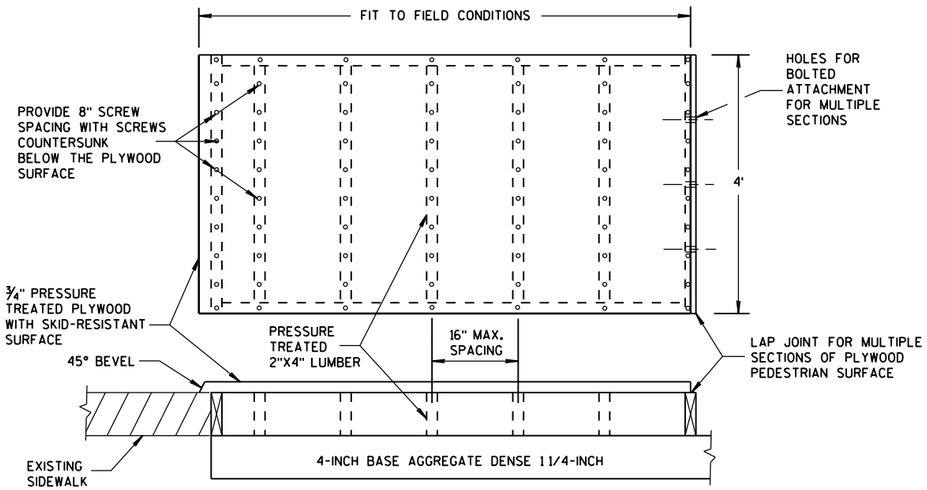
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



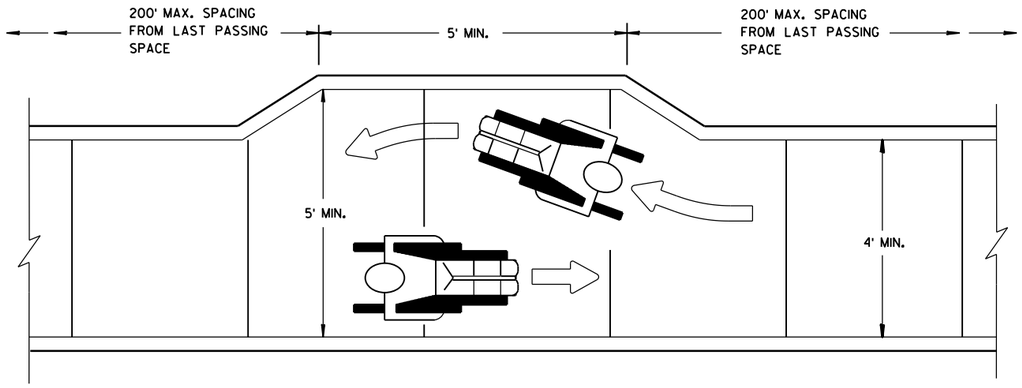
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



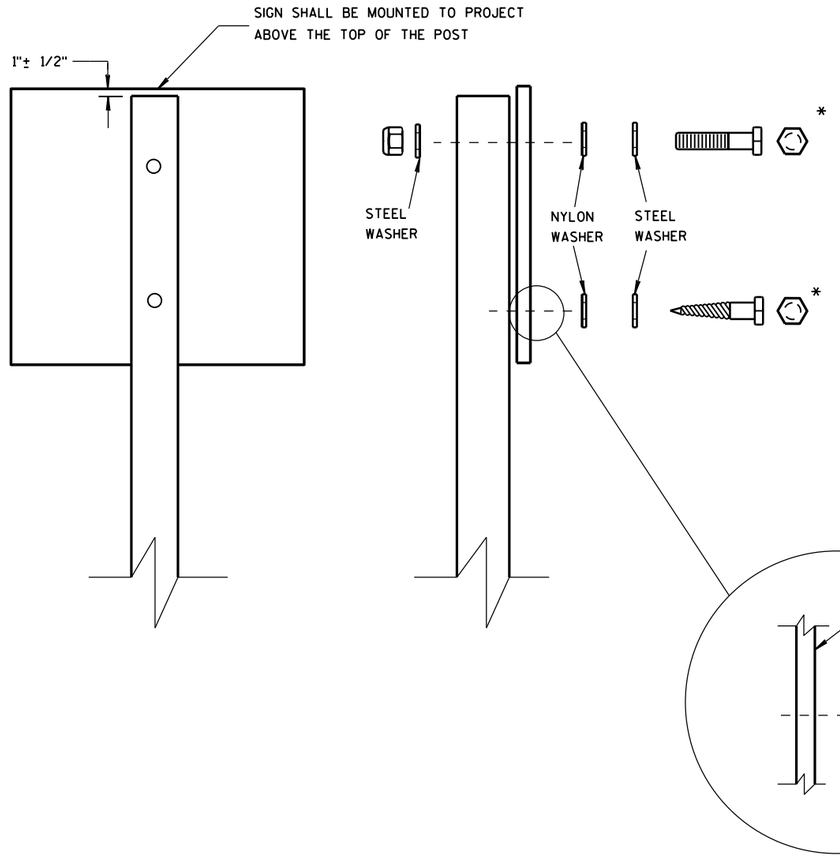
NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

6
S.D.D. 15 D 30-2c



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

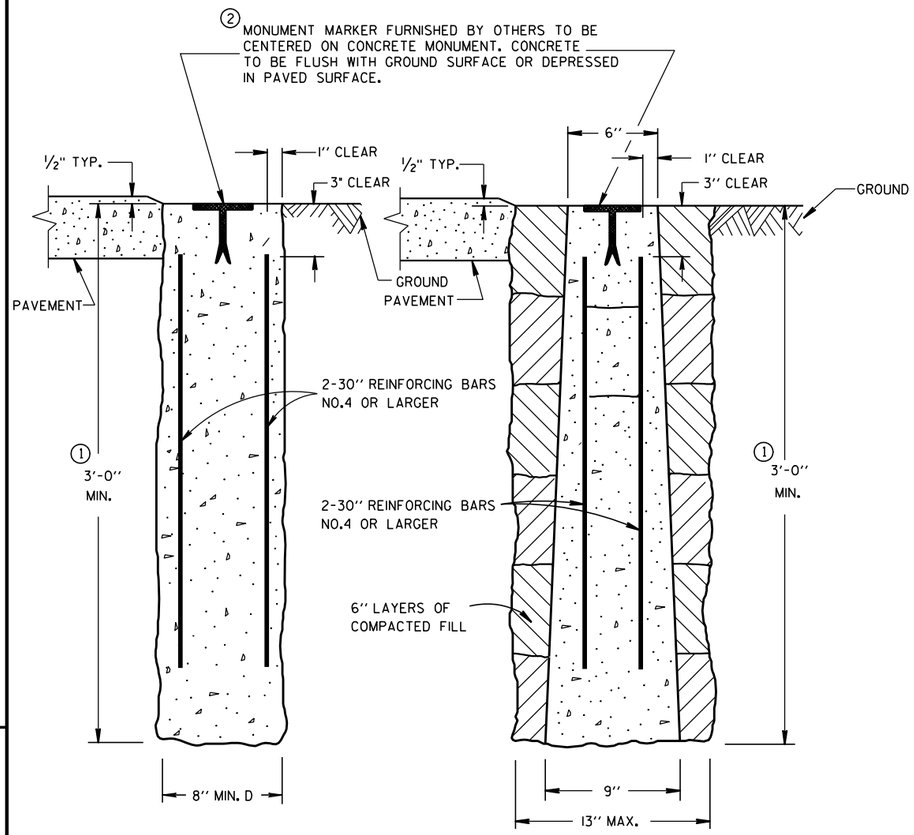
APPROVED

Feb. 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

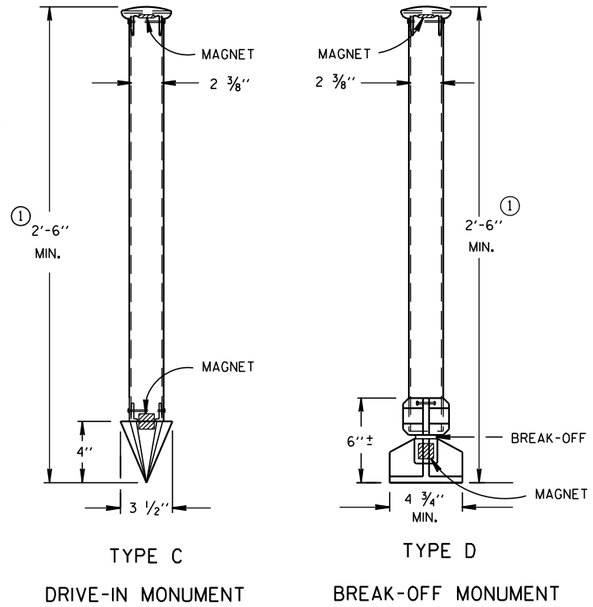
SIGN



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

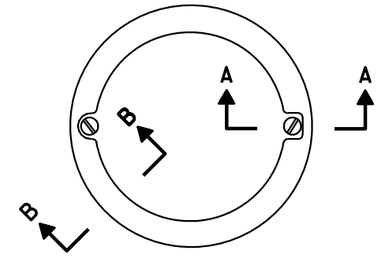
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

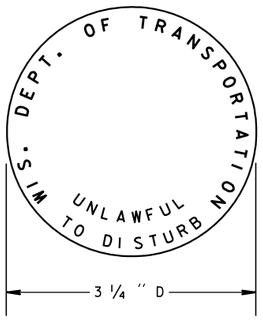
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

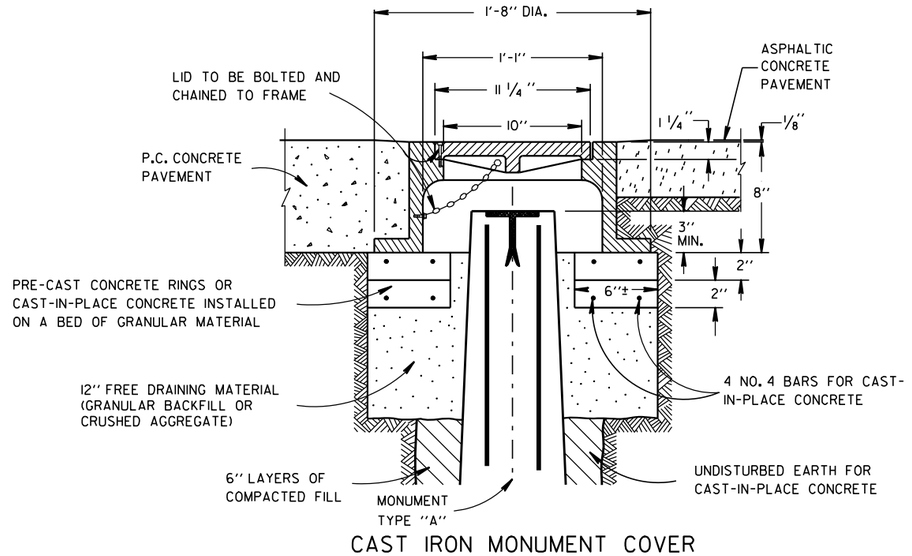
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

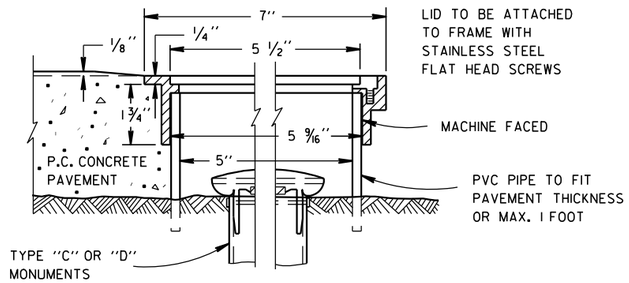


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

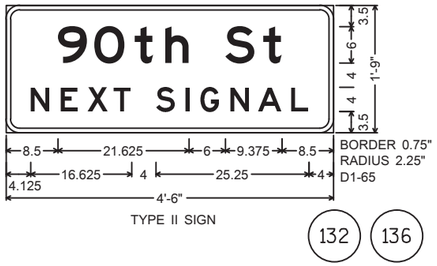
9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

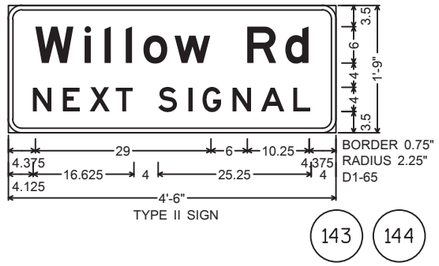
6

S.D.D. 16 A 1-6



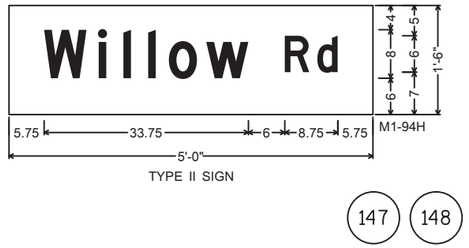
TYPE II SIGN

132 136



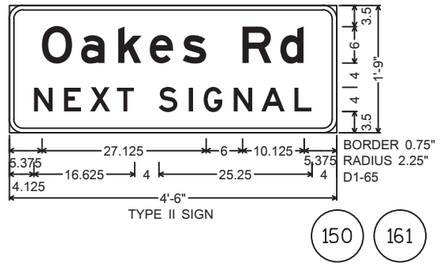
TYPE II SIGN

143 144



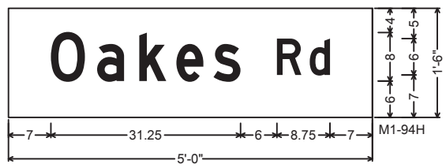
TYPE II SIGN

147 148



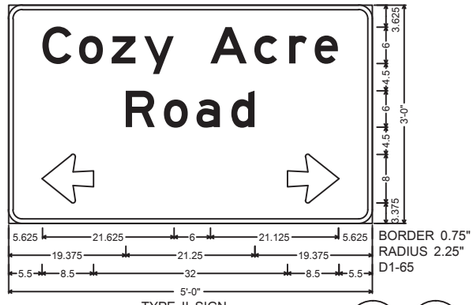
TYPE II SIGN

150 161



TYPE II SIGN

156 157



TYPE II SIGN

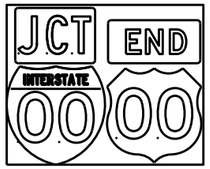
163 167

GENERAL NOTES:

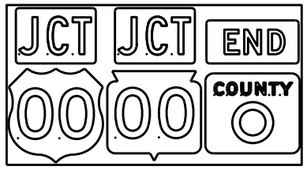
1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".
3. UNLESS OTHERWISE NOTED,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

TYPICAL ASSEMBLIES

J1-1

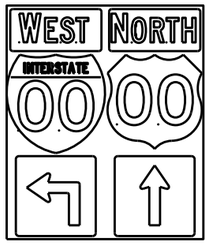


J1-2

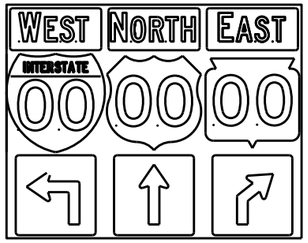


J1-3

J2-1



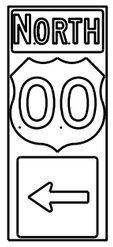
J2-2



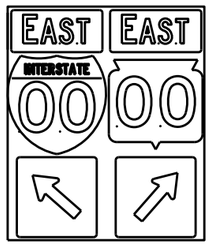
J2-3

JV

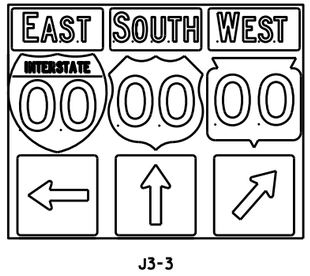
(Typical Vertical J-Assembly
See Note 10 and 11)



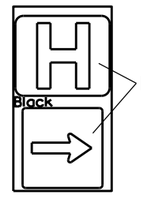
J3-1



J3-2

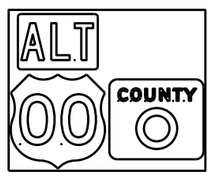


J3-3

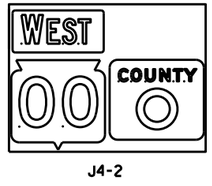


JH-1

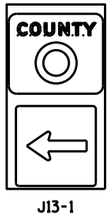
J4-1



J4-2



J4-2



J13-1

J12-1

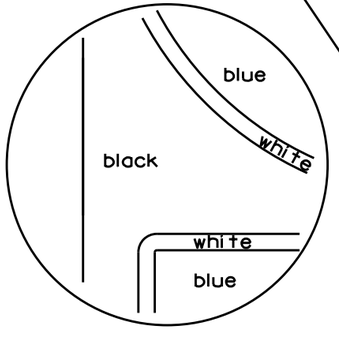
J32-1

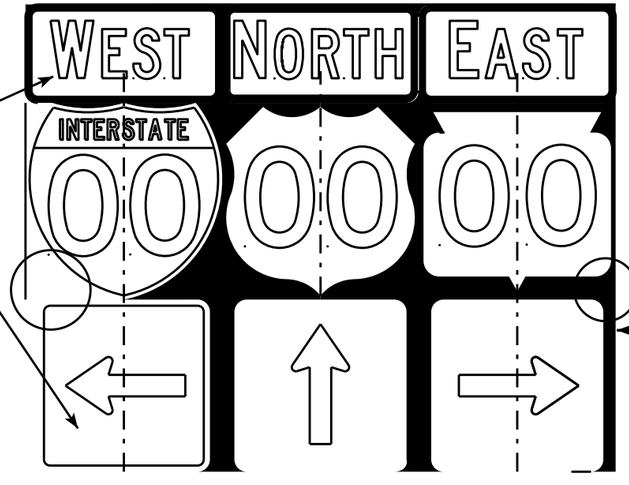
J33-1

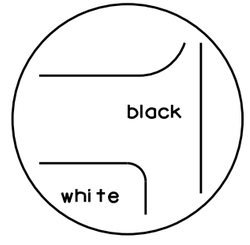
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

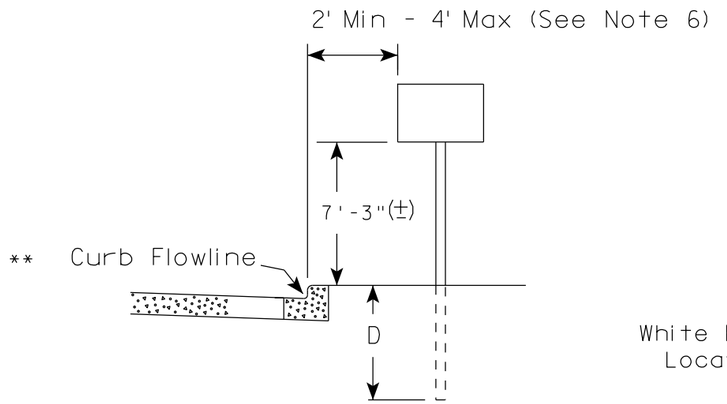
APPROVED Matthew R Rauch
for State Traffic Engineer

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

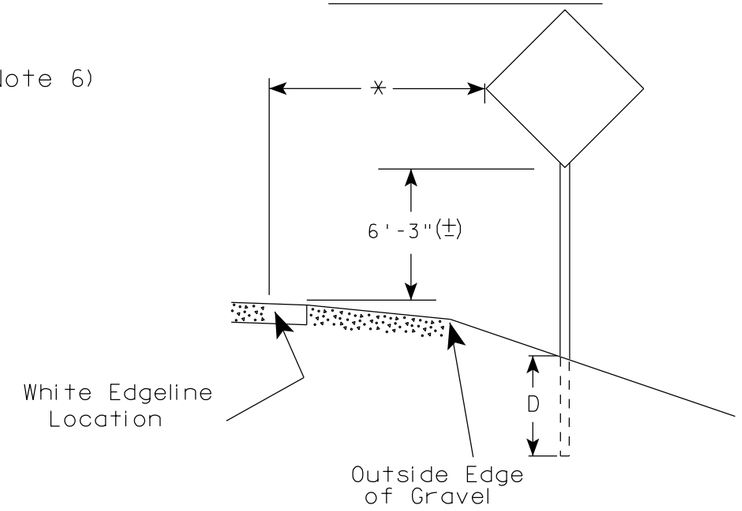
PROJECT NO: SHEET NO: E

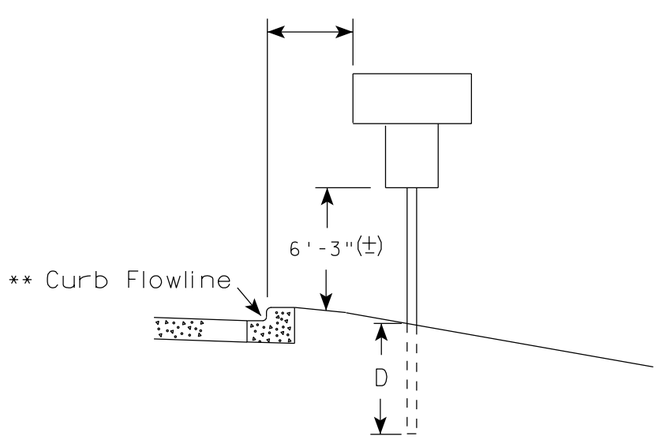
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :
WISDOT/CADDS SHEET 42

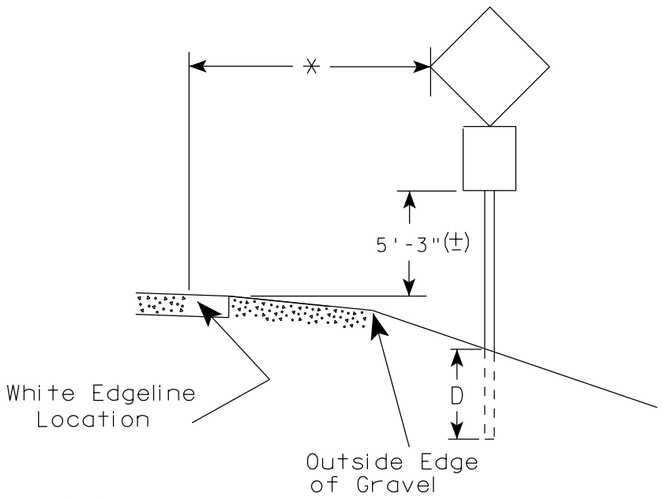
URBAN AREA



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

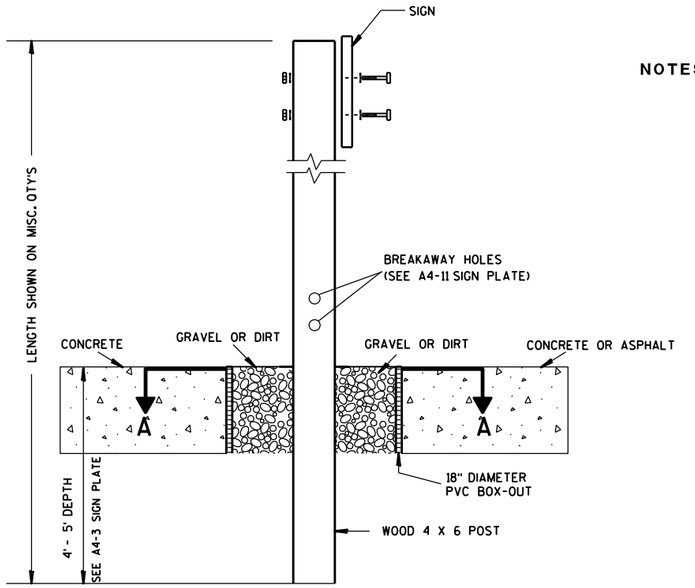
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

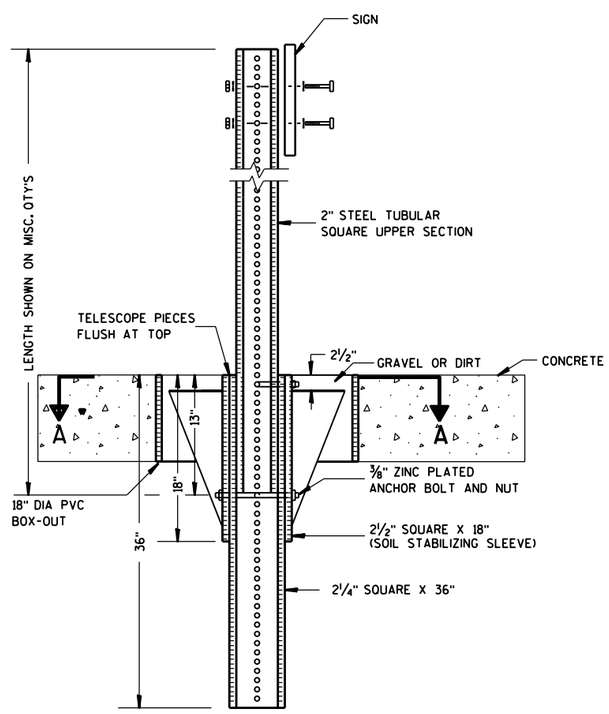
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

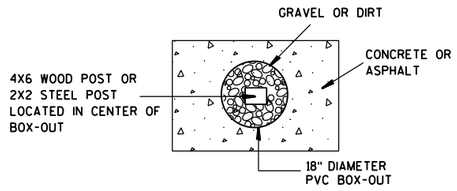
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

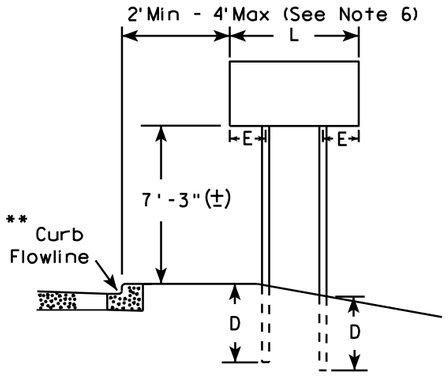
APPROVED Matthew R Rauch
for State Traffic Engineer

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

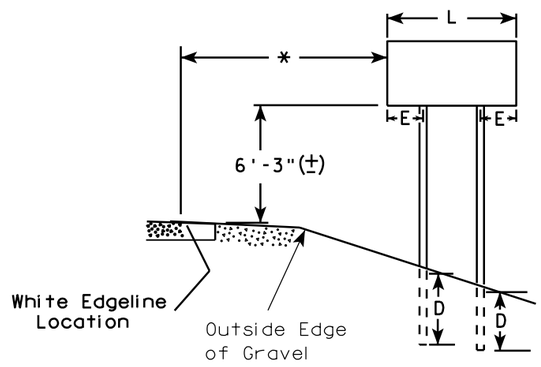
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

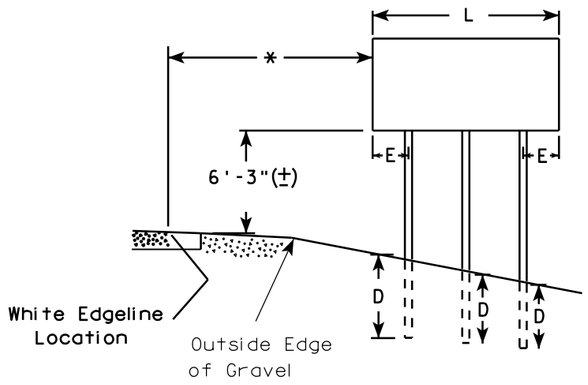
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

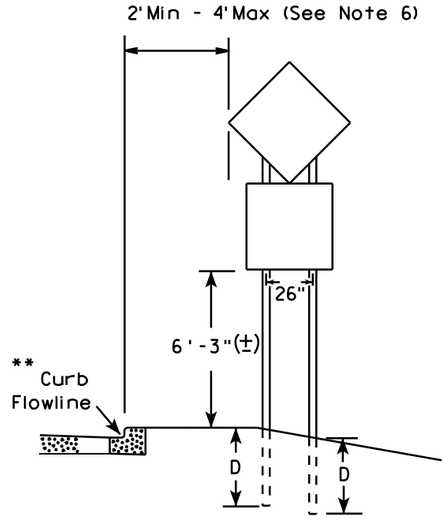
URBAN AREA



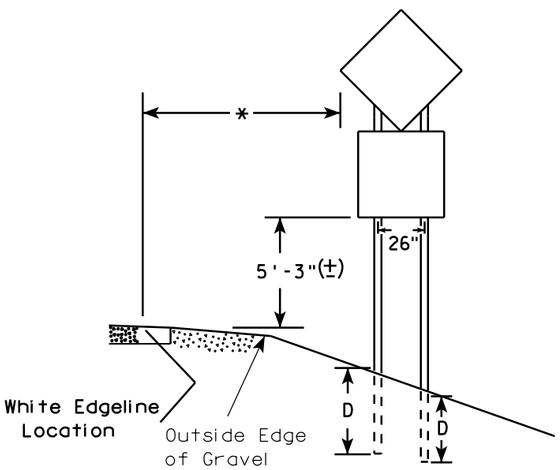
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

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

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

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

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

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

***

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

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

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

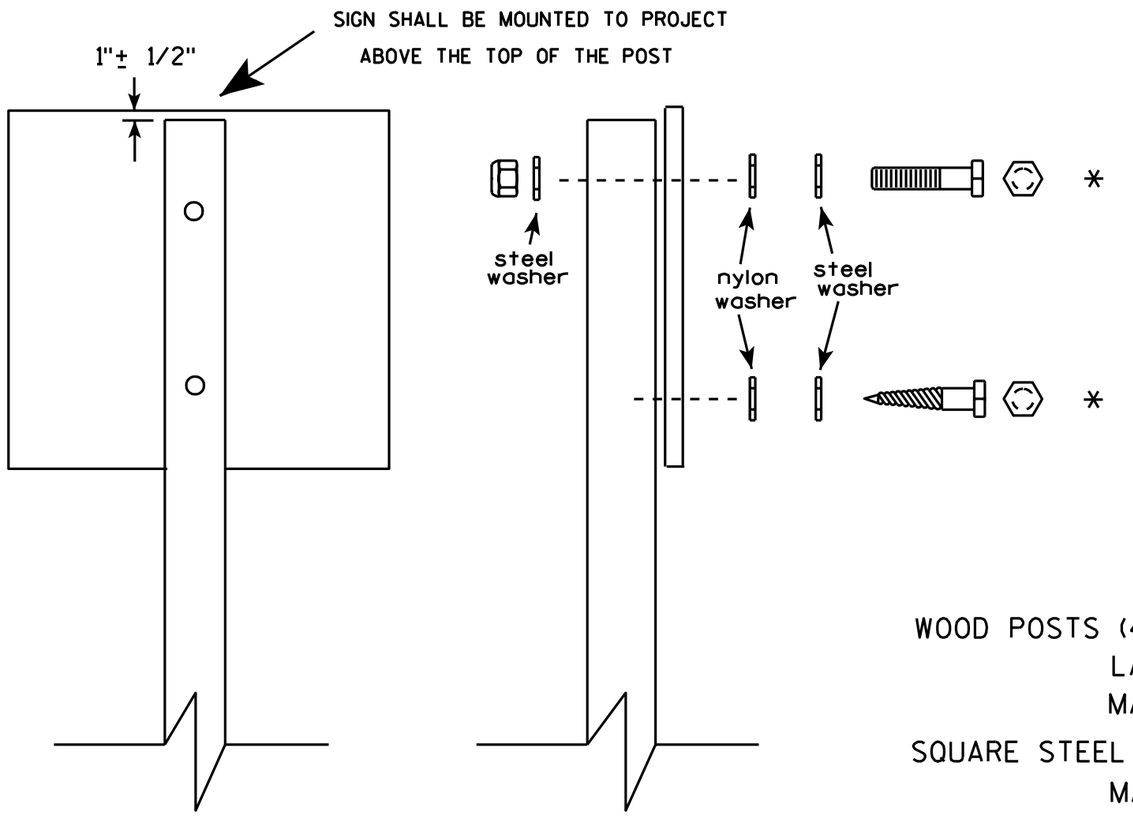
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14
152

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42



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

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

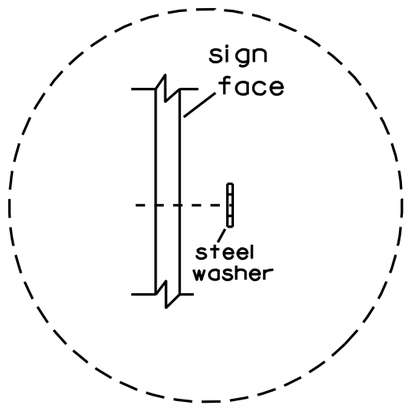
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

7

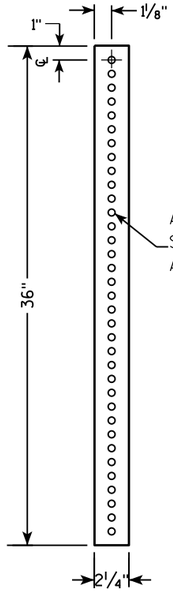
7

PROJECT NO:

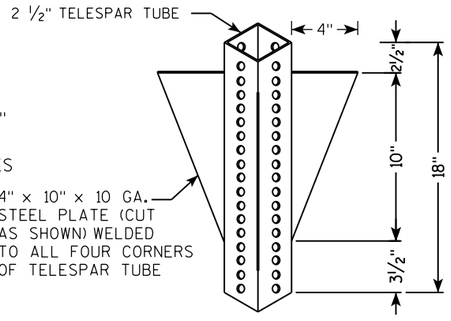
SHEET NO: 153 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

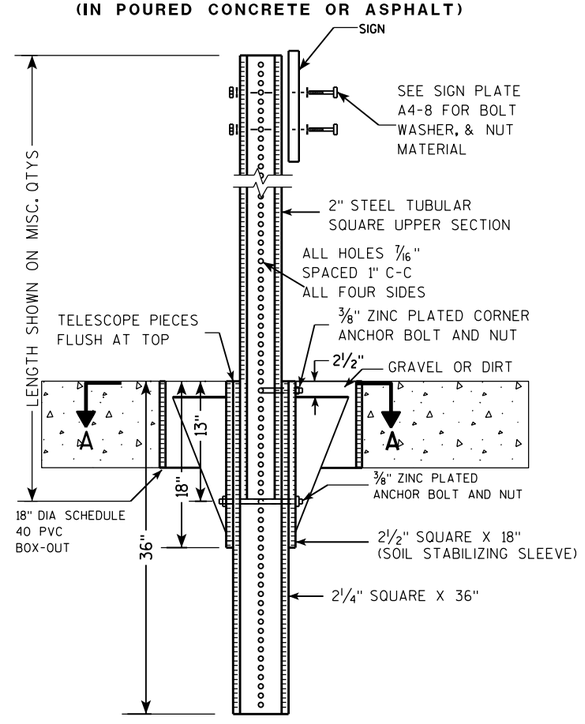
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



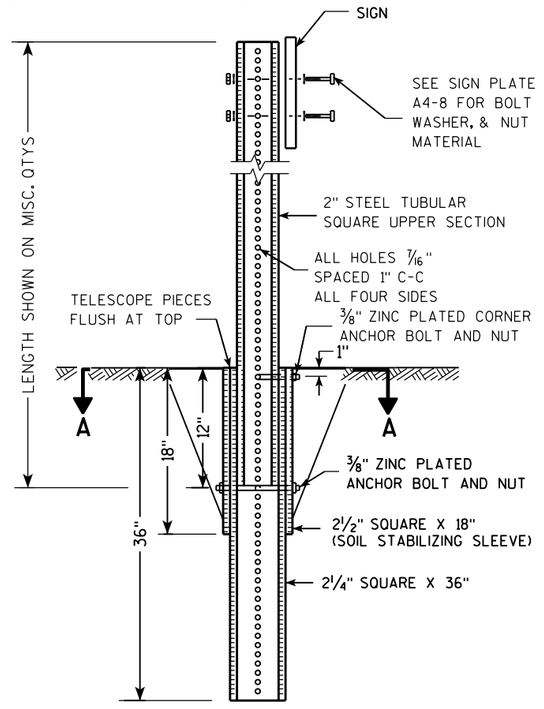
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

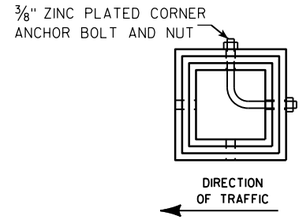


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

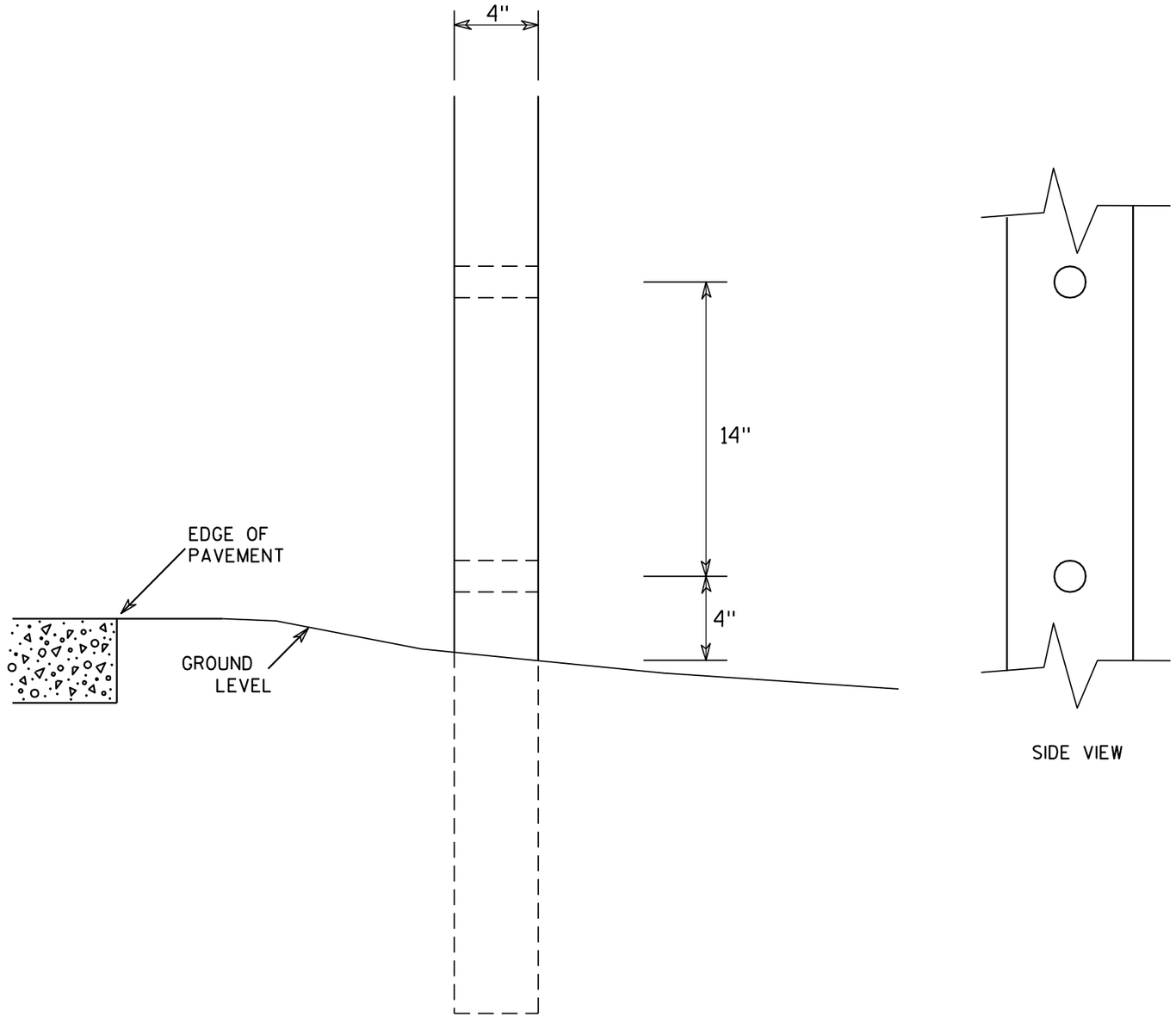
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 154 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

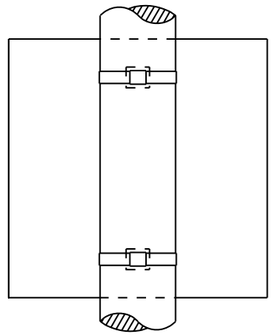
APPROVED Chester J Spang for State Traffic Engineer

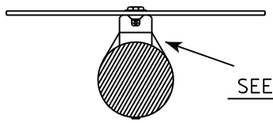
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	E

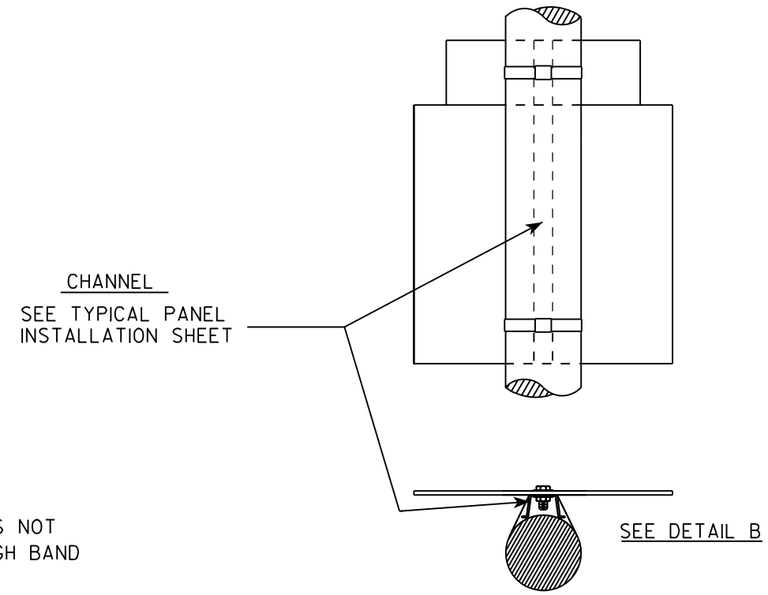
BANDING

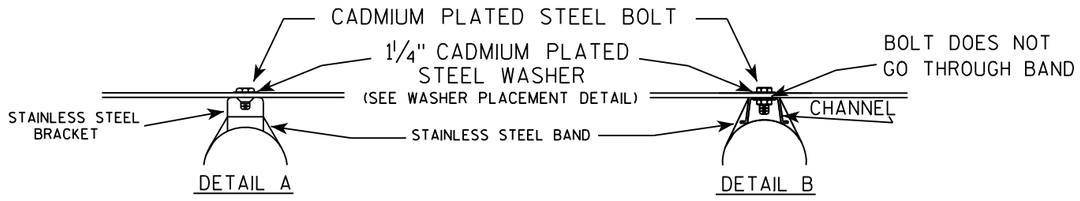
SINGLE SIGN



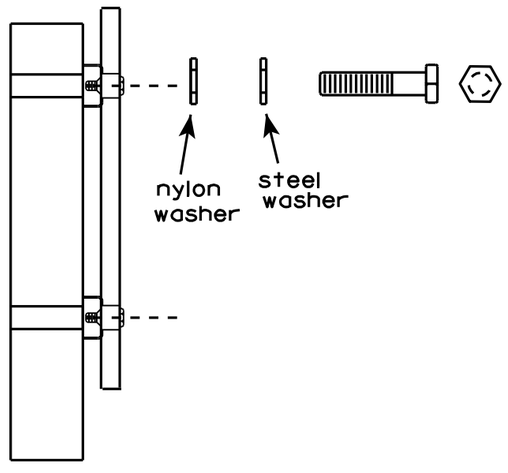


"J" ASSEMBLY





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

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 ¾" in width and 0.025" thickness.

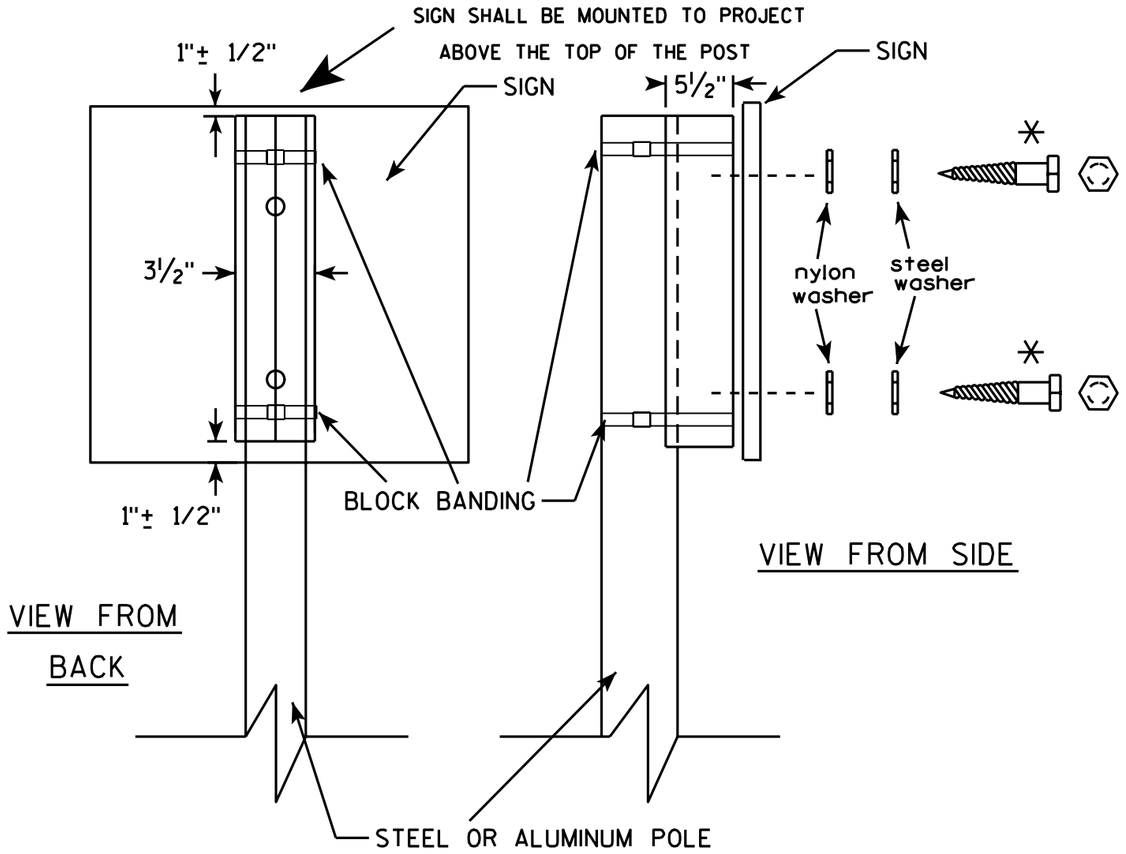
STANDARD SIGN
SIGN BANDING DETAILS

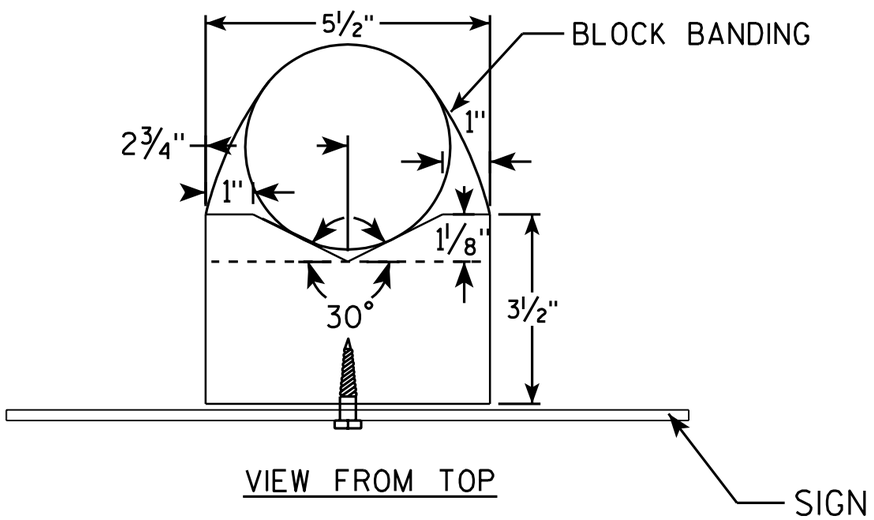
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 156	E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" 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 NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

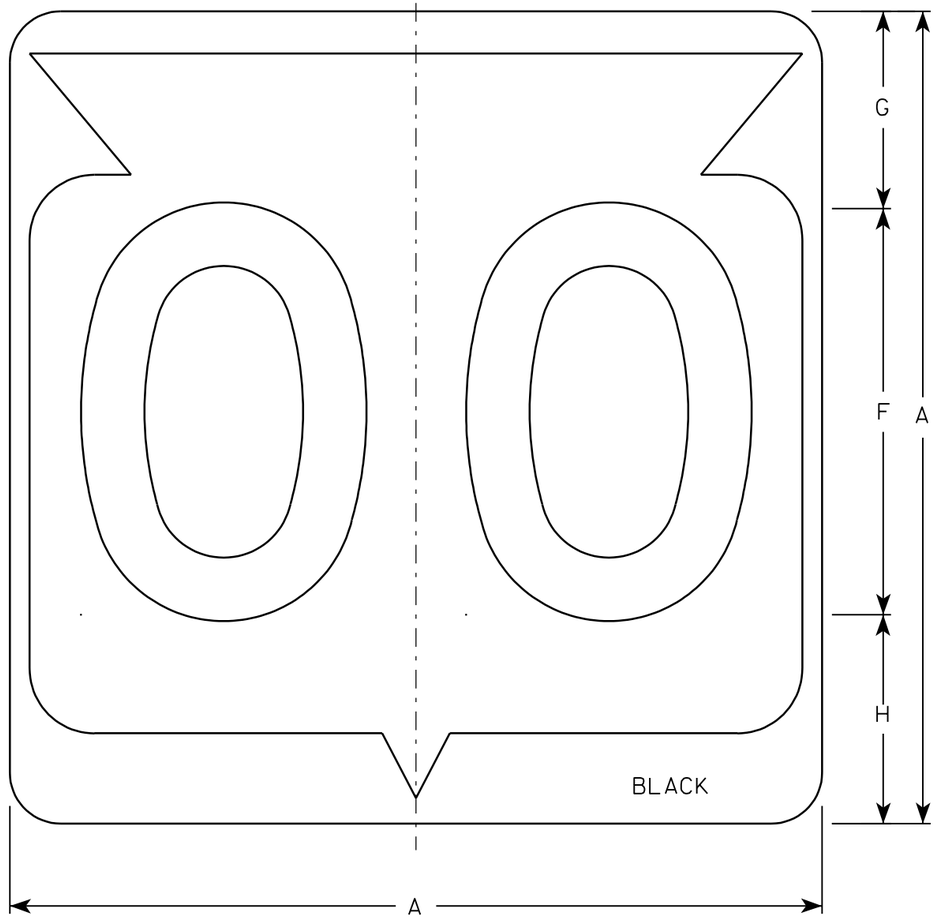
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 157 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

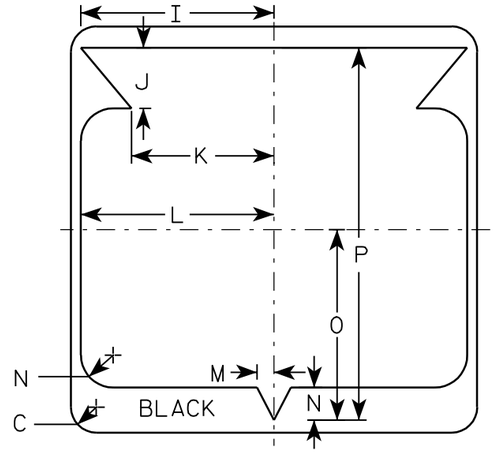
WISDOT/CADDS SHEET 42



M1-6

NOTES

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



Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

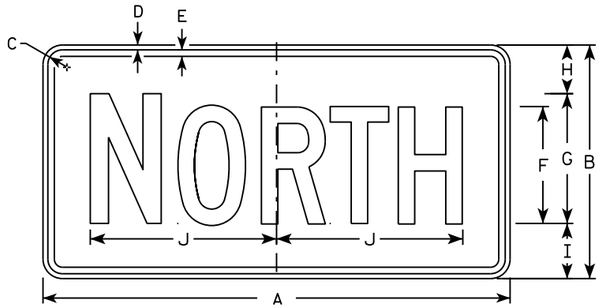
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

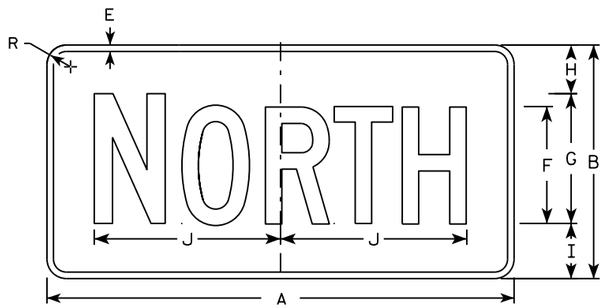
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 158	E



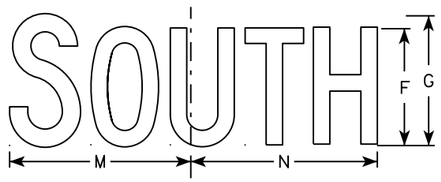
M3-1
MM3-1
MP3-1



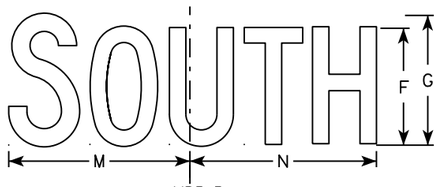
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

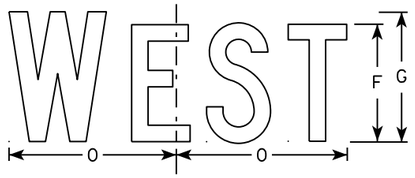
MB3-2
MK3-2
MN3-2



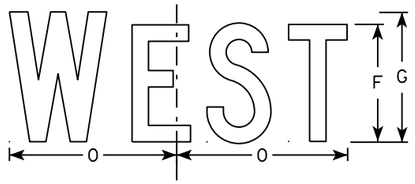
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

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

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

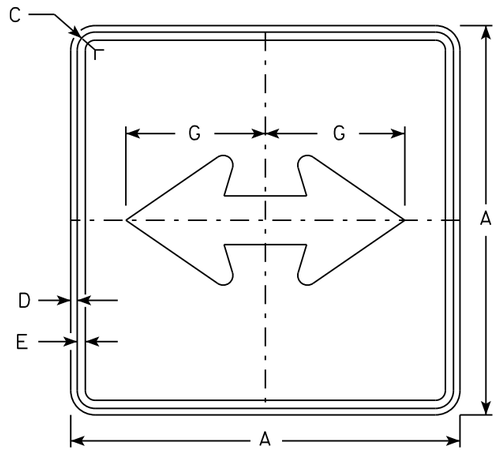
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

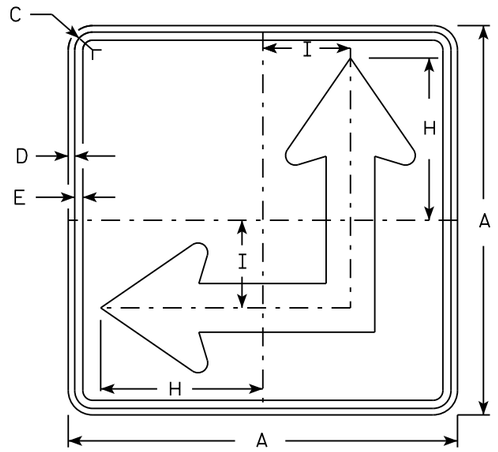
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



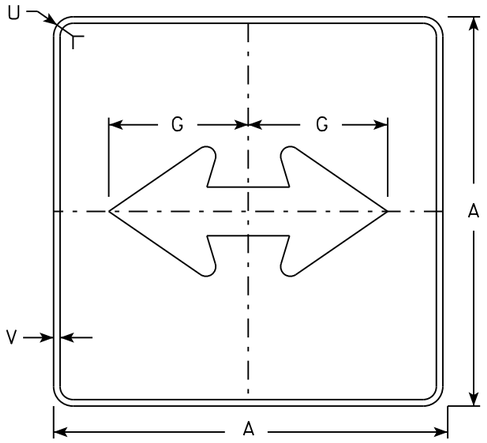
M6-4
MM6-4
MO6-4
MP6-4



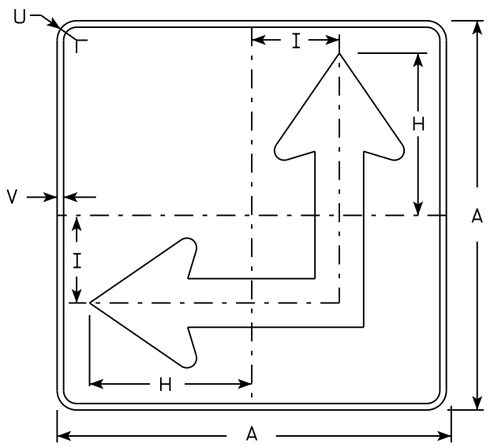
M6-6
MM6-6
MO6-6
MP6-6

NOTES

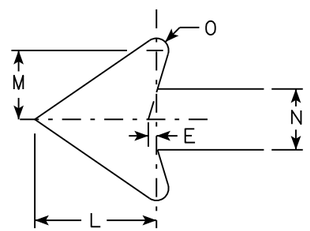
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

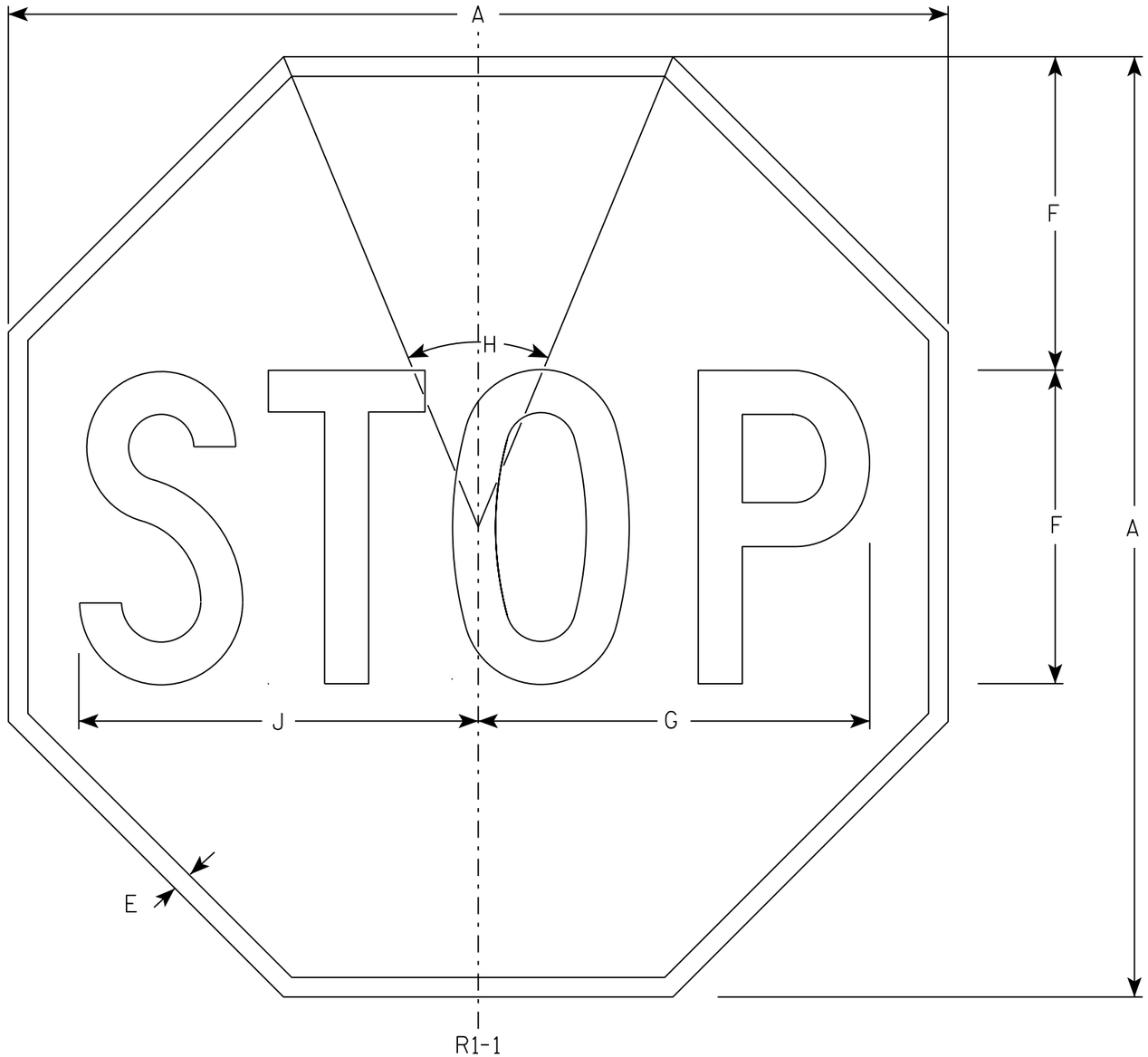
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 160 M6-4.10

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 - Red
   Message - White
3. Message Series - C

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

STANDARD SIGN
R1-1

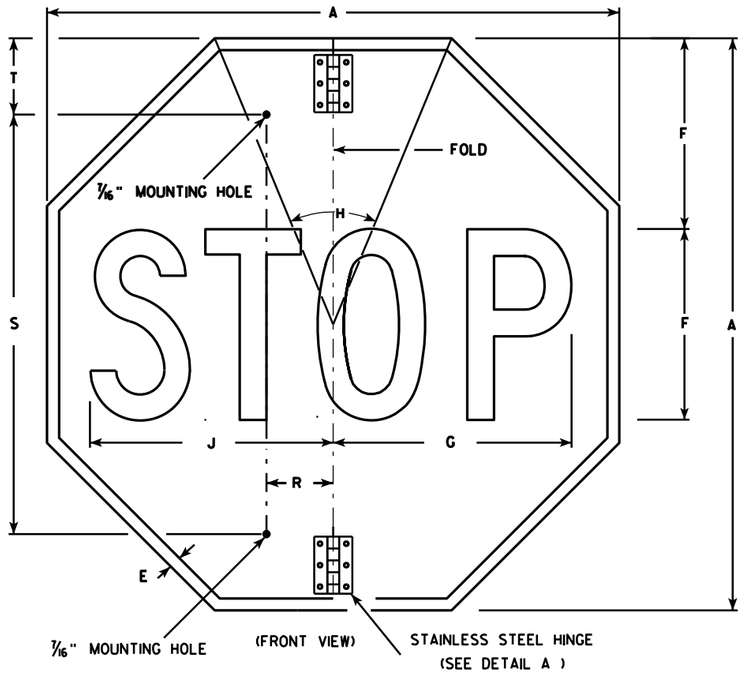
WISCONSIN DEPT OF TRANSPORTATION

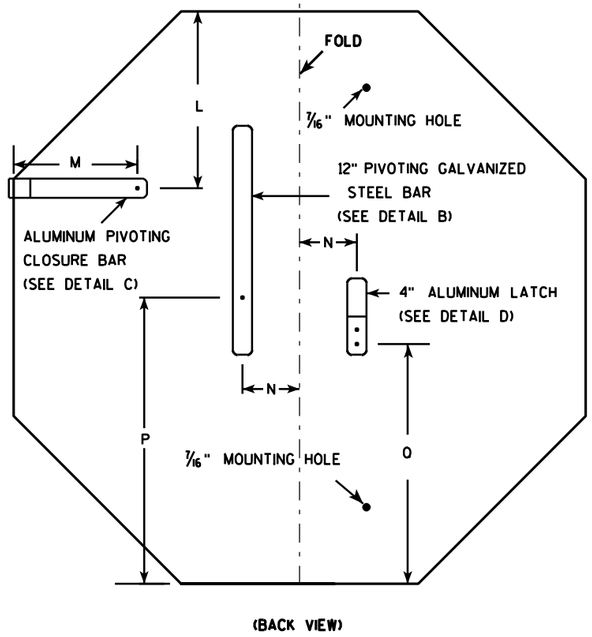
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

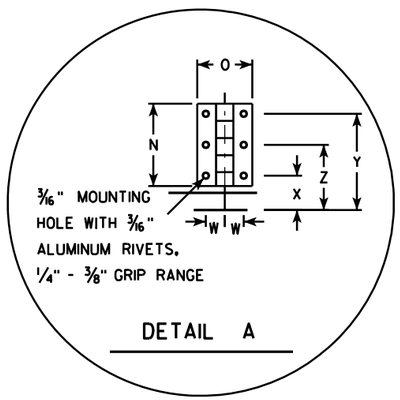
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



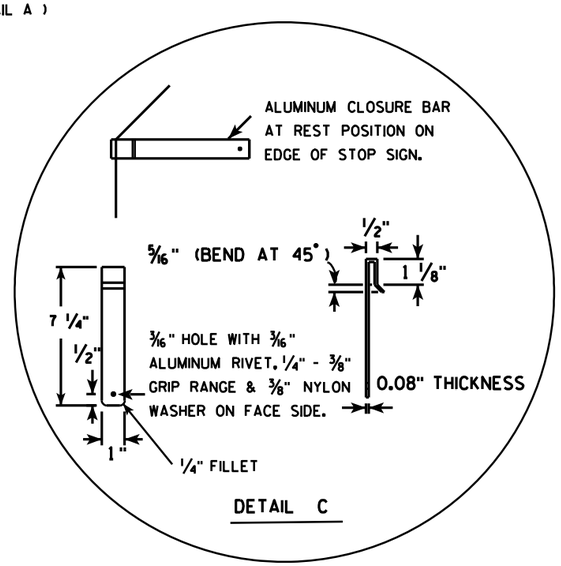


NOTES

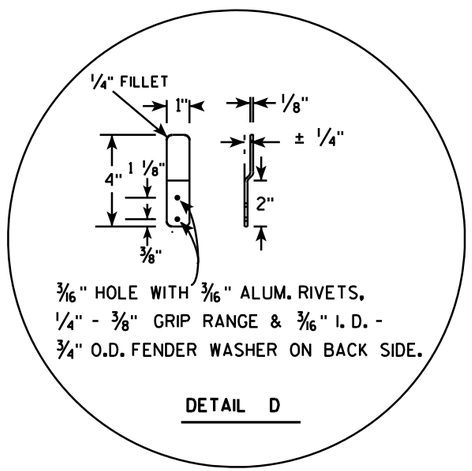
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS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



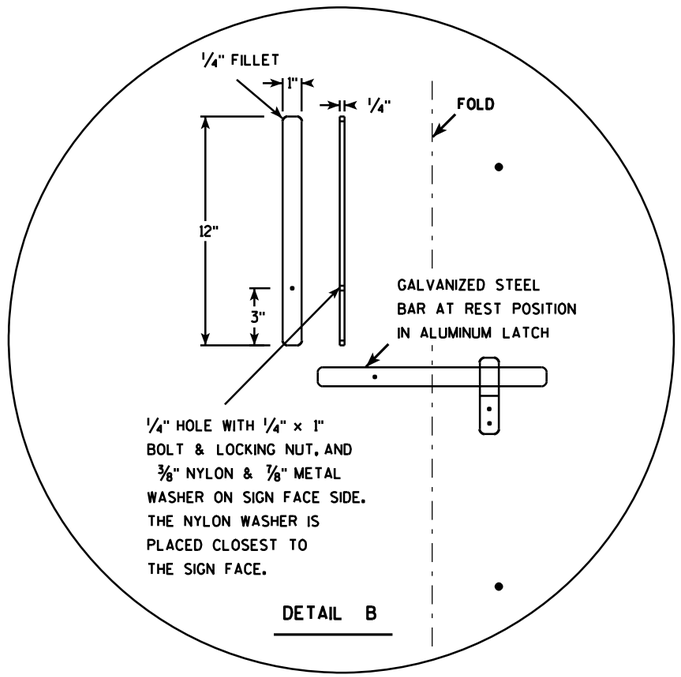
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
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			11/16	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			11/16	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			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

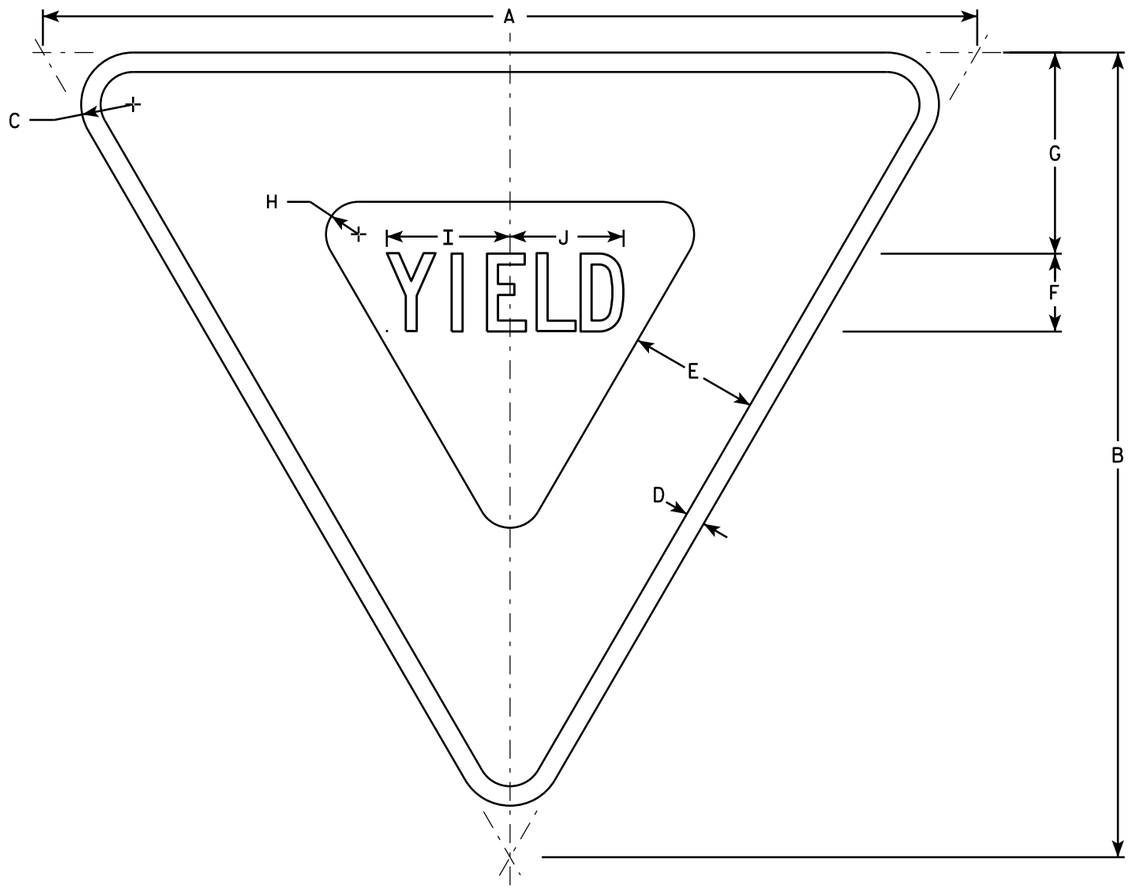
STANDARD SIGN
R1-1F

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: 162	E



R1-2

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 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.

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

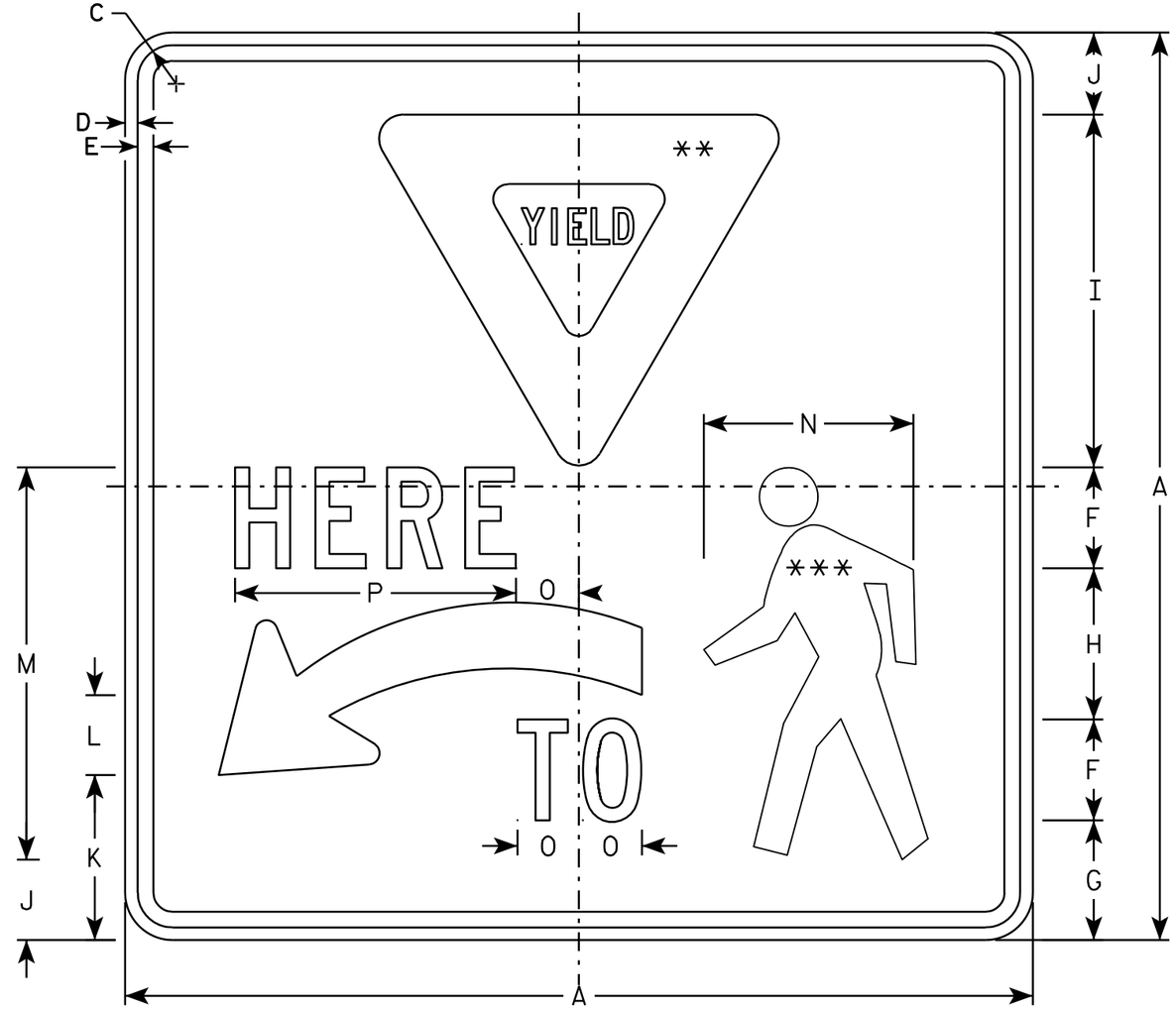
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE P1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



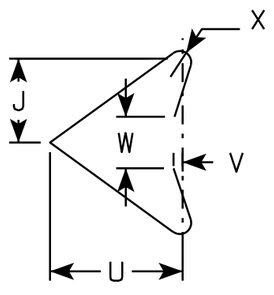
R1-5L

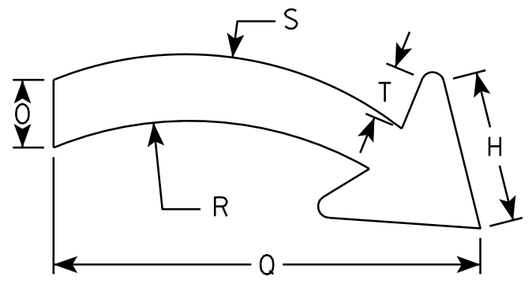
NOTES

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

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT





Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
2M	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
3	30		1 3/8	1/2	5/8	3	4	5 3/8	12	2 3/4	5 1/2	2 5/8	13	6 7/8	1 7/8	8 3/8	14	23 3/4	23	1 3/4	4 3/8	1/4	1 3/4	3/4			6.25
4	36		1 3/8	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
5																											

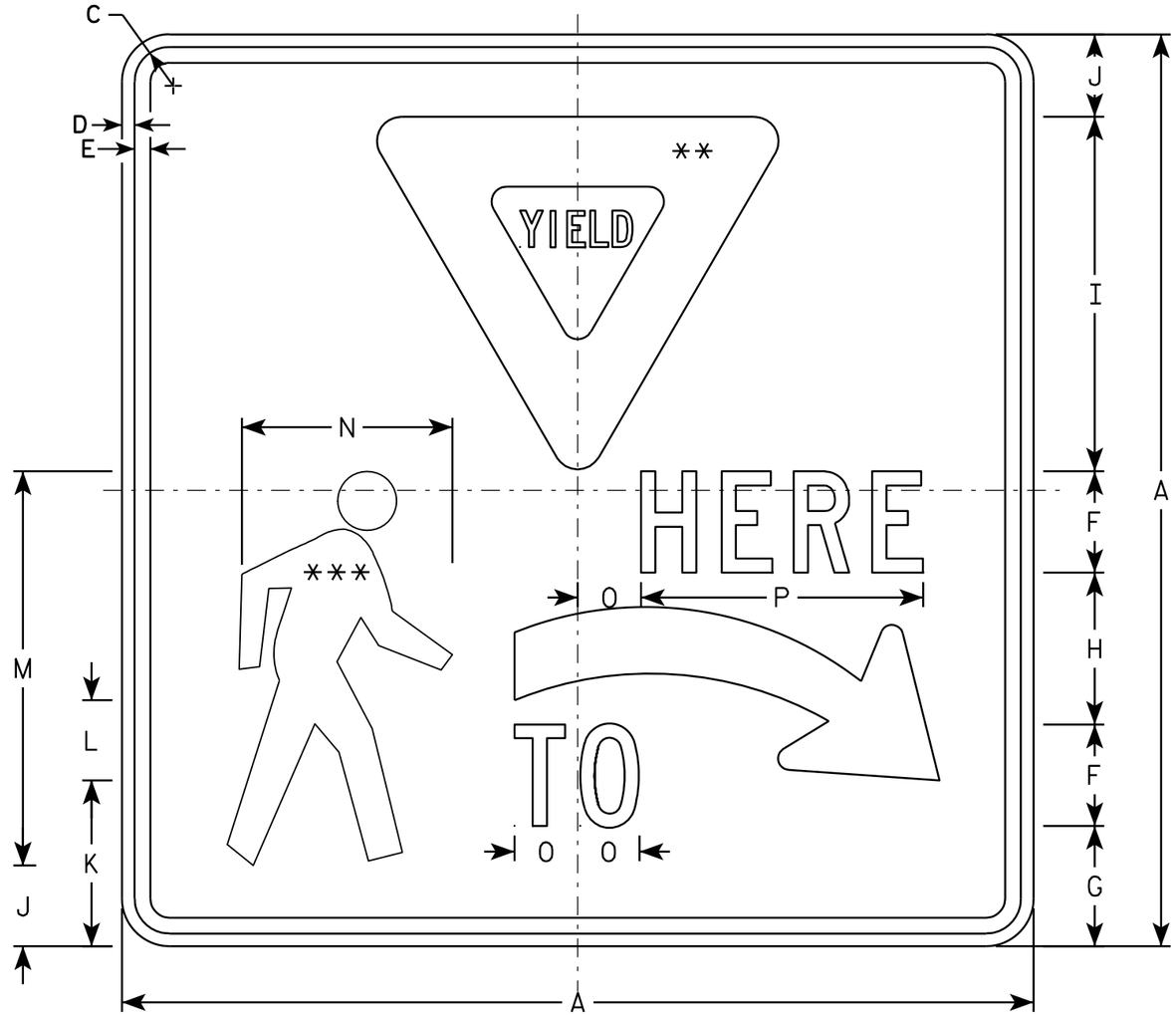
STANDARD SIGN
R1-5L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-5L.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | E



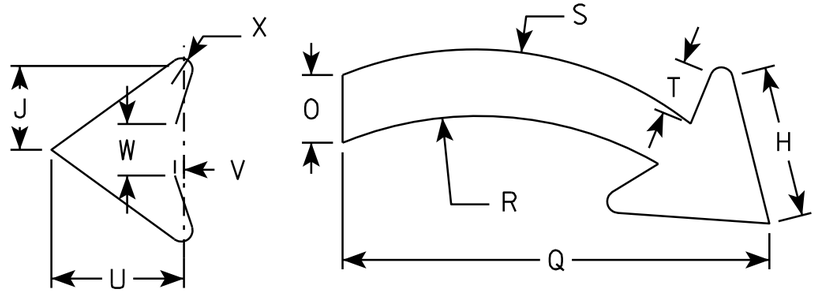
R1-5R

NOTES

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

** INSERT R1-2 AND SIZE TO FIT

*** INSERT W11-2 AND SIZE TO FIT



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
2M	18		1 1/8	3/8	3/8	2	2 3/8	3	7	1 5/8	3 1/4	1 5/8	7 3/4	4 1/8	1 1/4	5 5/8	1 3/8	14 1/4	13 3/4	1 1/8	2 5/8	1/8	1	1/2			2.25
3	30		1 3/8	1/2	5/8	3	4	5 3/8	12	2 3/4	5 1/2	2 5/8	13	6 7/8	1 7/8	8 3/8	14	23 3/4	23	1 3/4	4 3/8	1/4	1 3/4	3/4			6.25
4	36		1 3/8	1/2	5/8	4	4 3/4	6	14	3 1/4	6 1/2	3 1/8	15	8 1/4	2 1/2	11 1/8	16 3/4	28 1/2	27 3/4	2 1/8	5 1/4	3/8	2	1			9.0
5																											

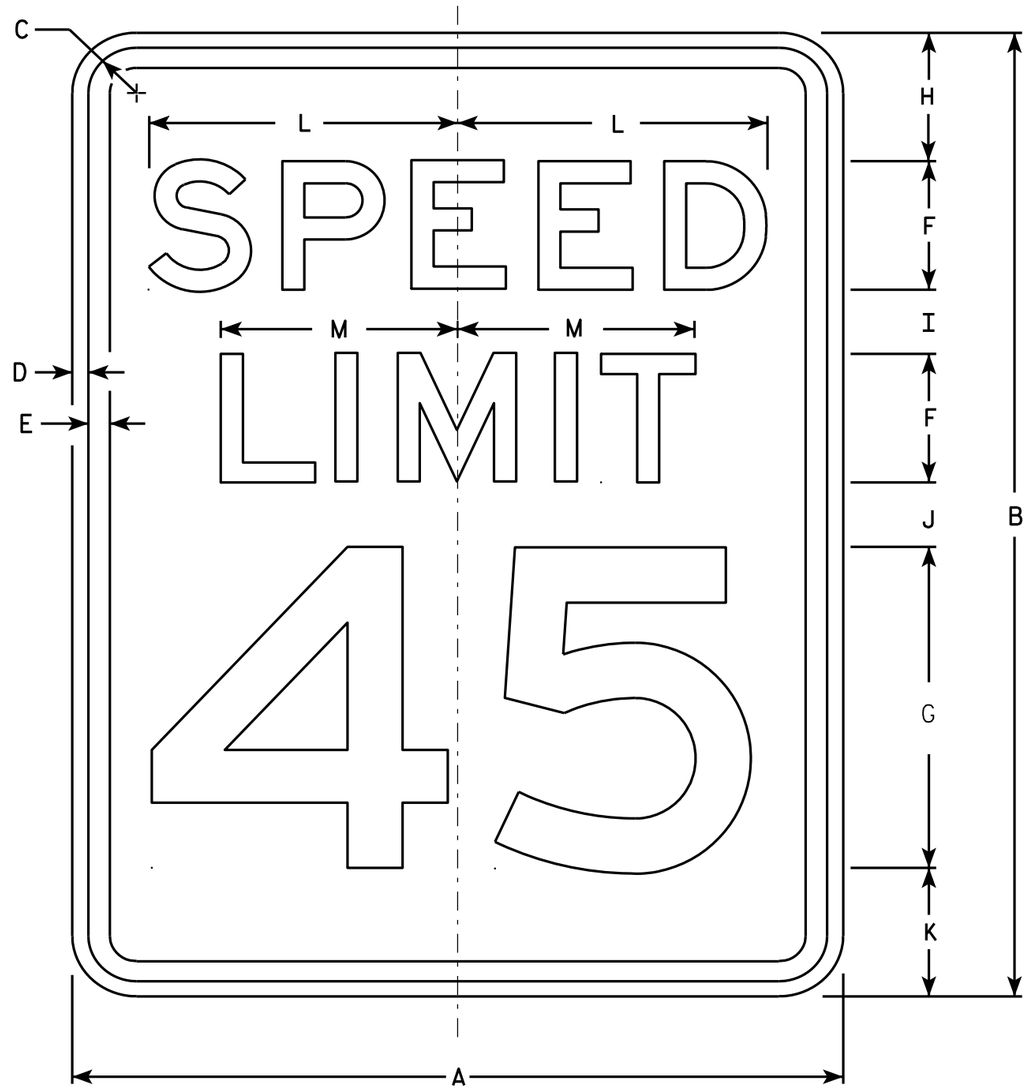
STANDARD SIGN
R1-5R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-5R.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 165 | 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.

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

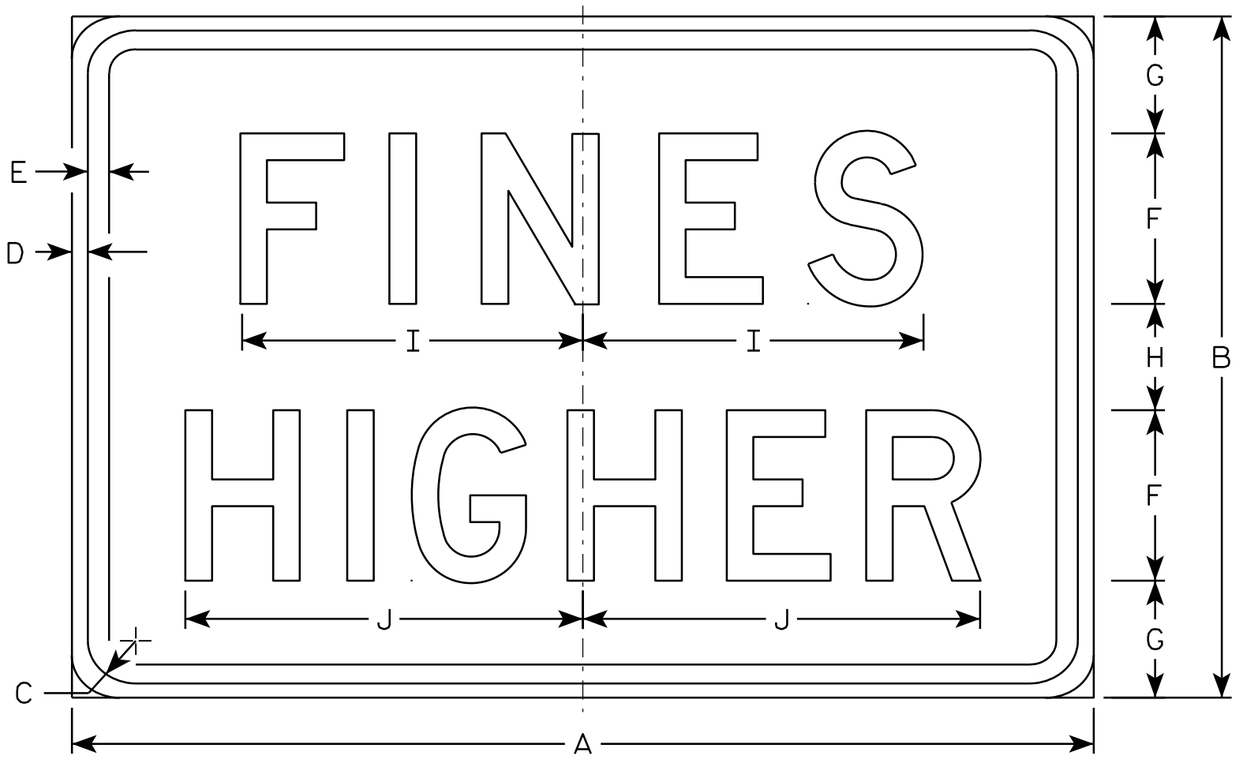
STANDARD SIGN
R2-1

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: 166 | E



R2-6P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

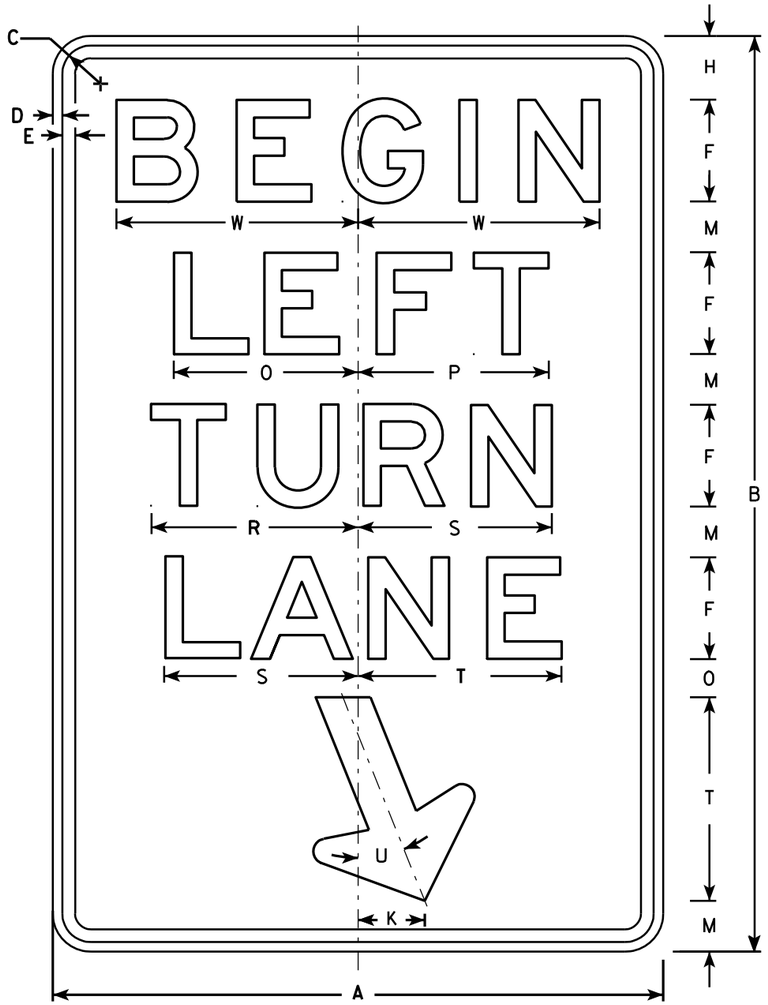
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 167 | E

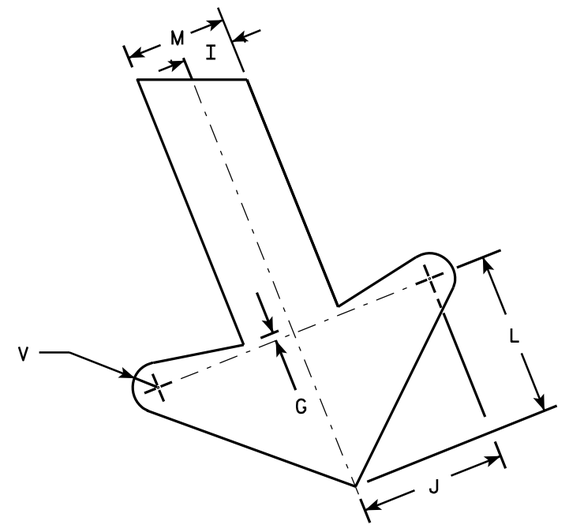
7



R3-20L

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.



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	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																											

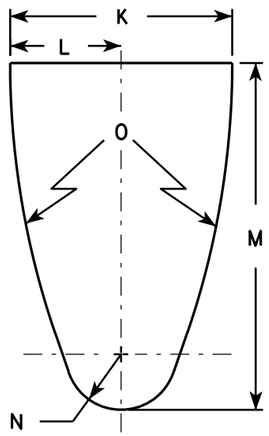
STANDARD SIGN
R3-20L

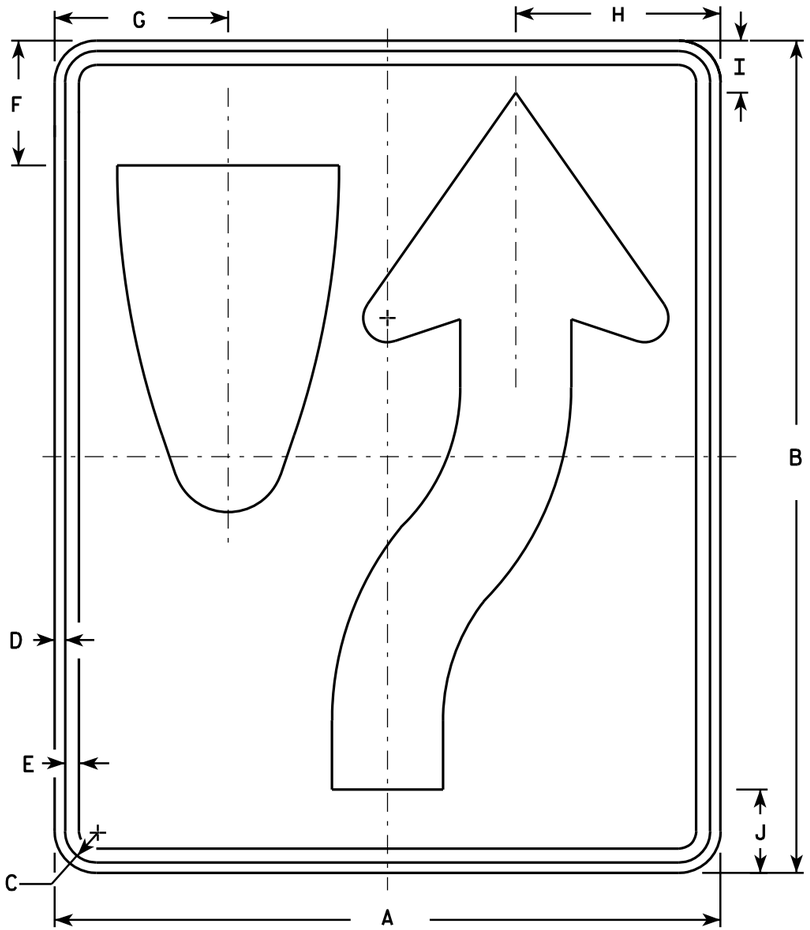
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 168 | E

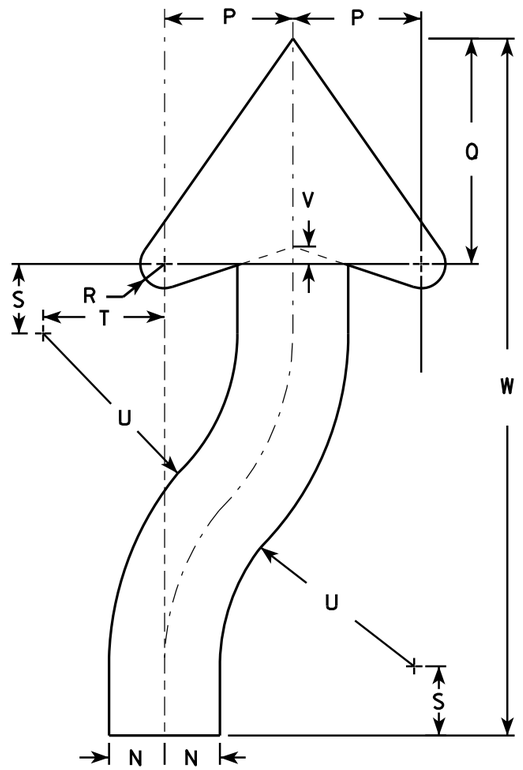




R4-7

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.



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

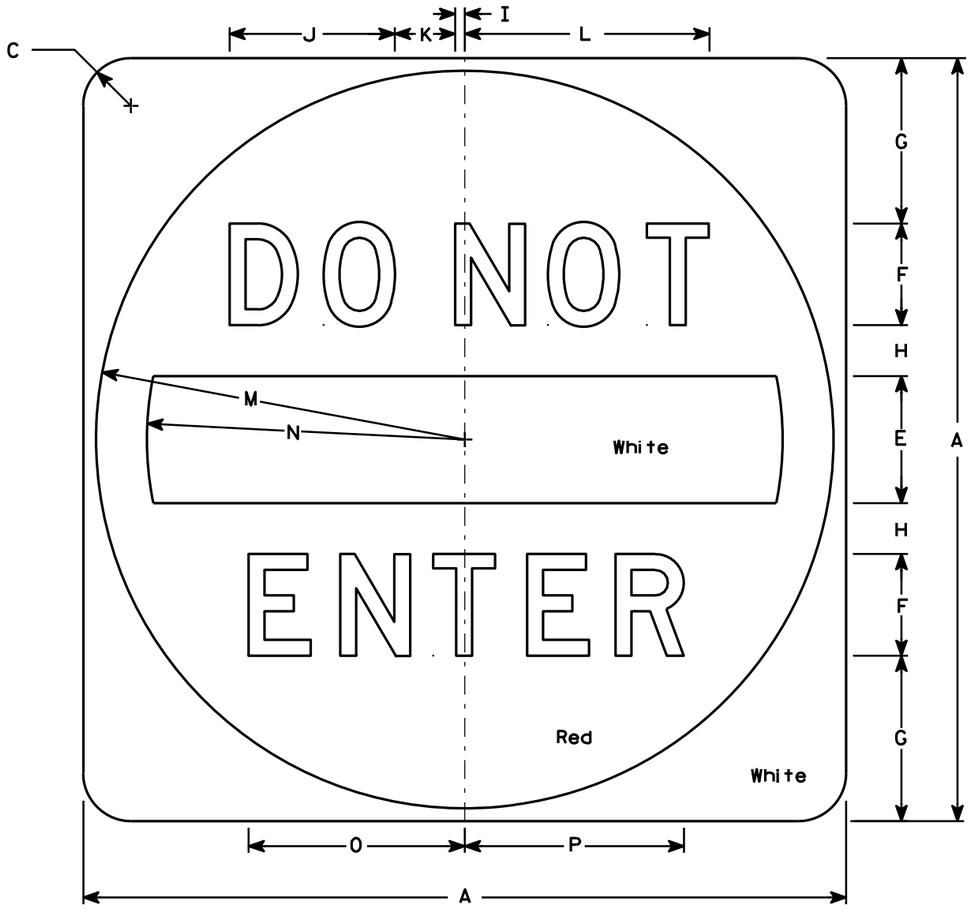
STANDARD SIGN
R4-7 & R4-8

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: 169	E



R5-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

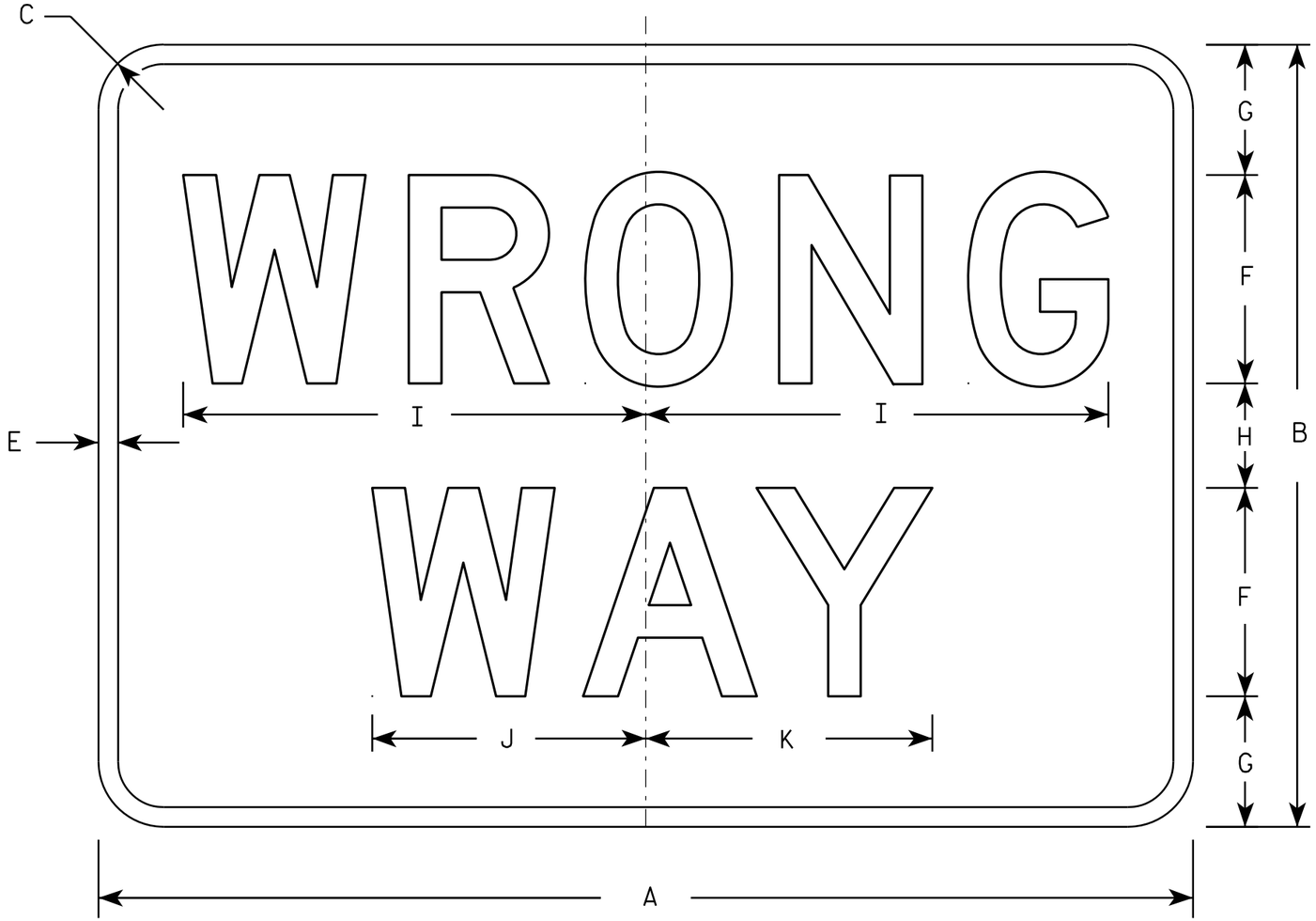
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 170 | E



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

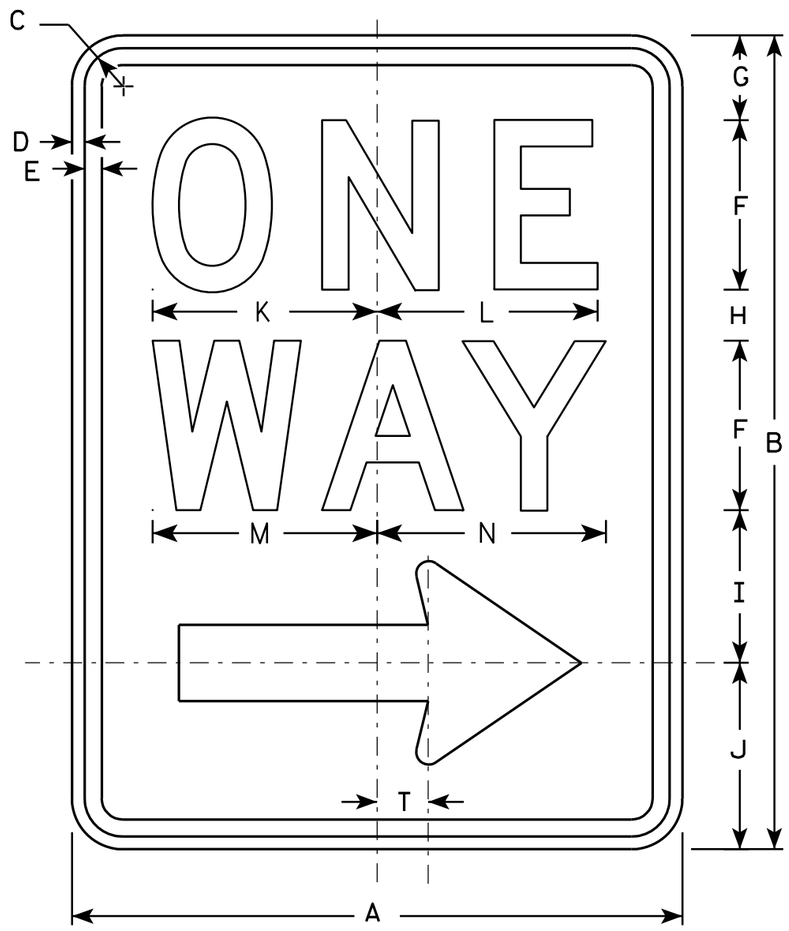
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

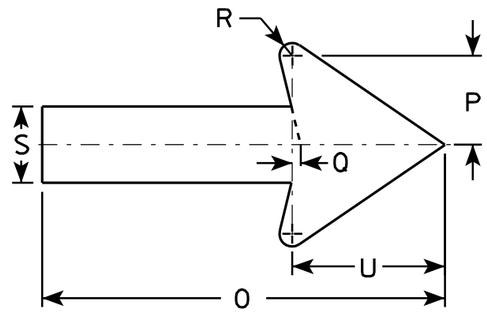
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E



R6-2R

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. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

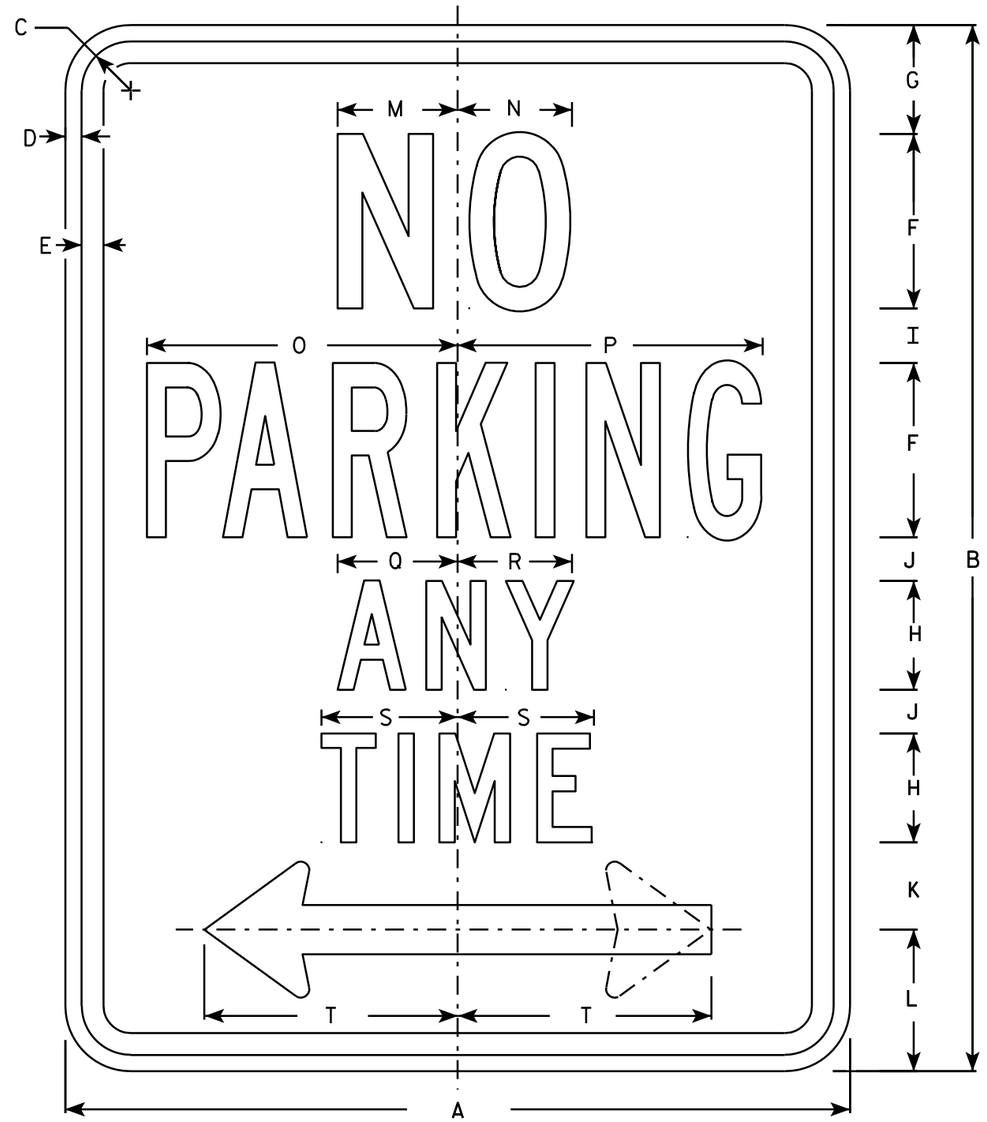
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

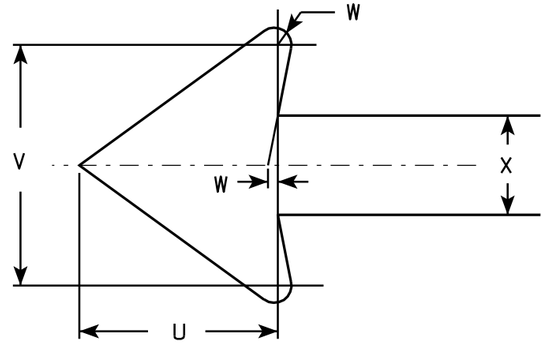
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 172	E



R7-1

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 - Red
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, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



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

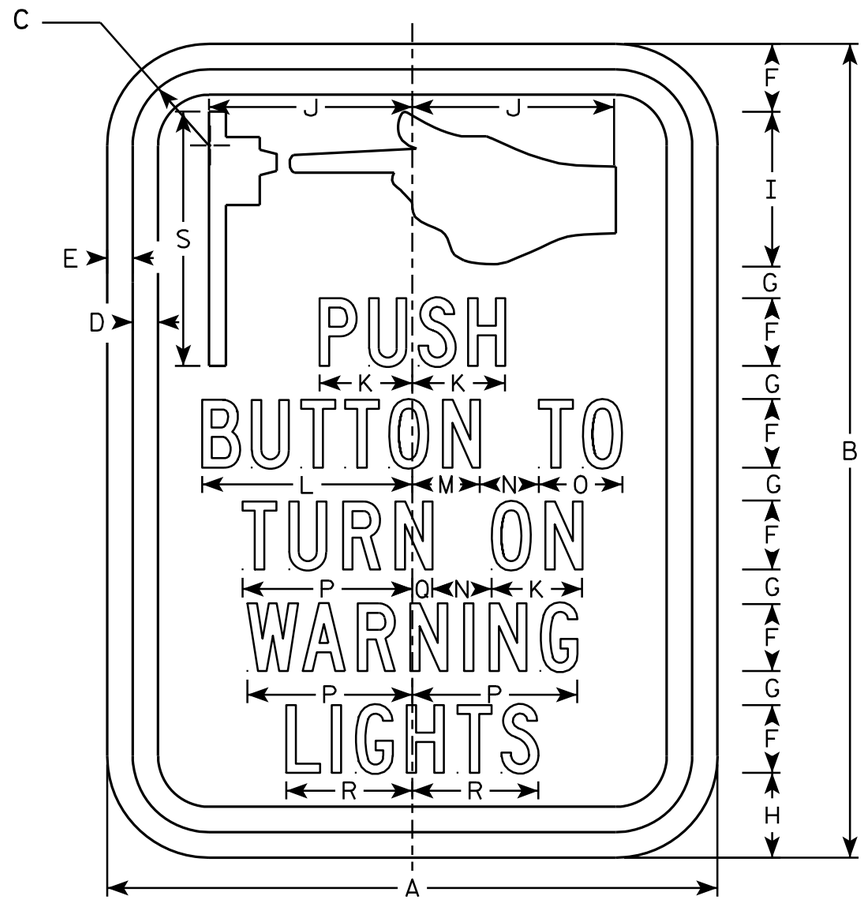
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 173 | E



R10-25

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.
5. Size (1) comes as a decal only.

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	6	9	1 1/8	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

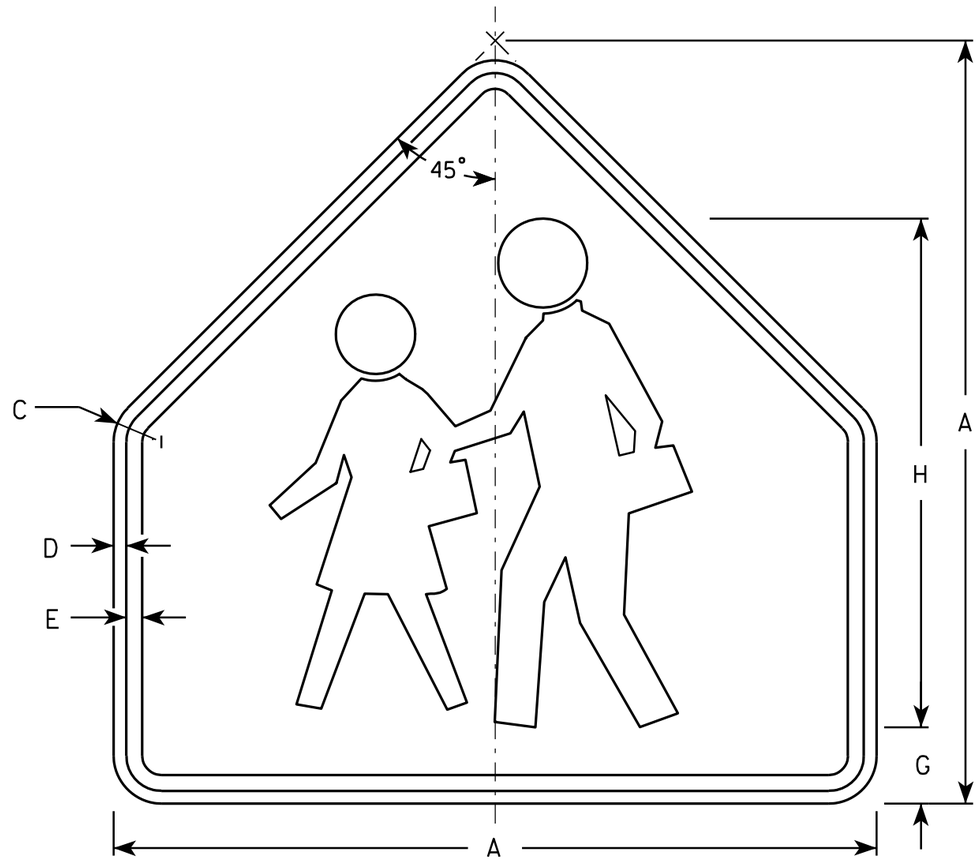
STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. R10-25.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 174	E



S1-1

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.

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																											

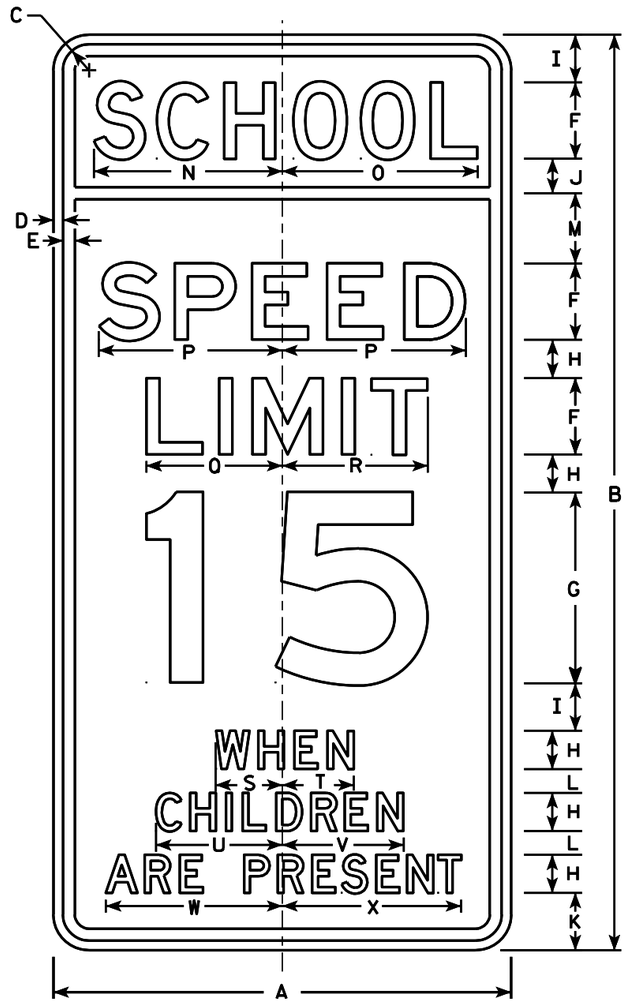
STANDARD SIGN
S1-1

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: 175	E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
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	0.72
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	1.62
4																												
5																												

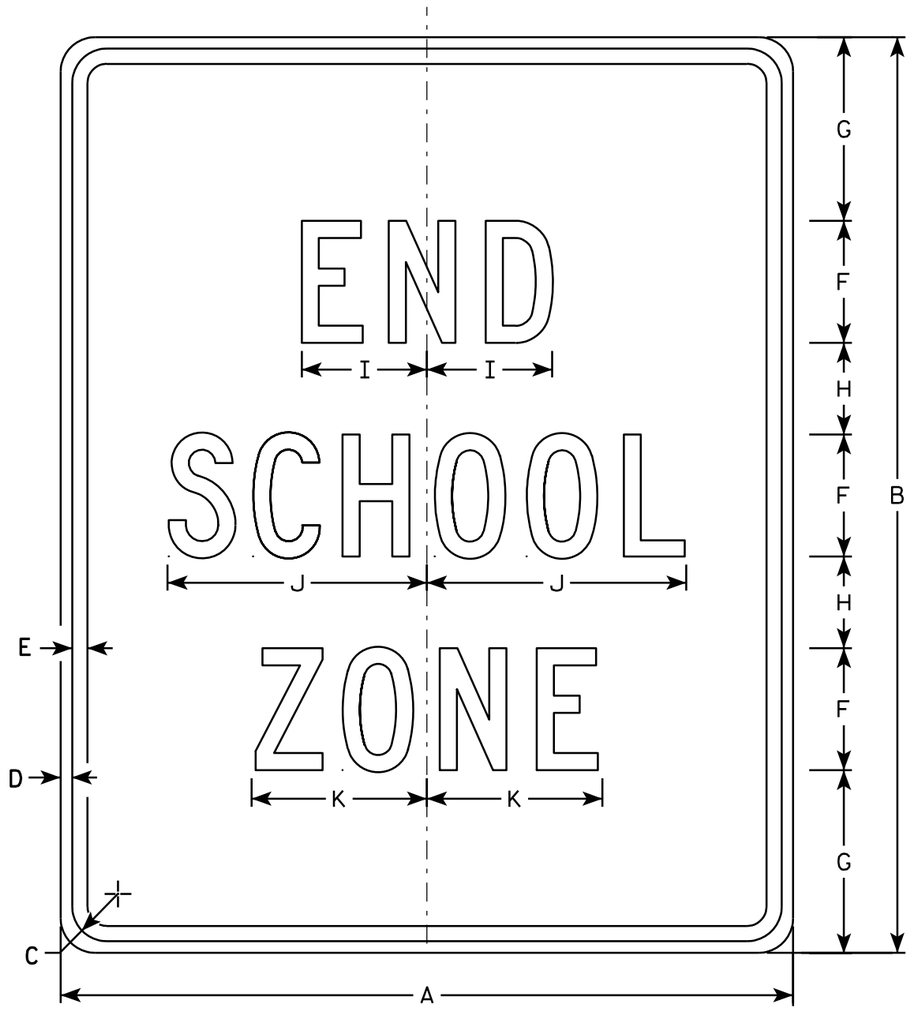
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 176	E



S5-2

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 - 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																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

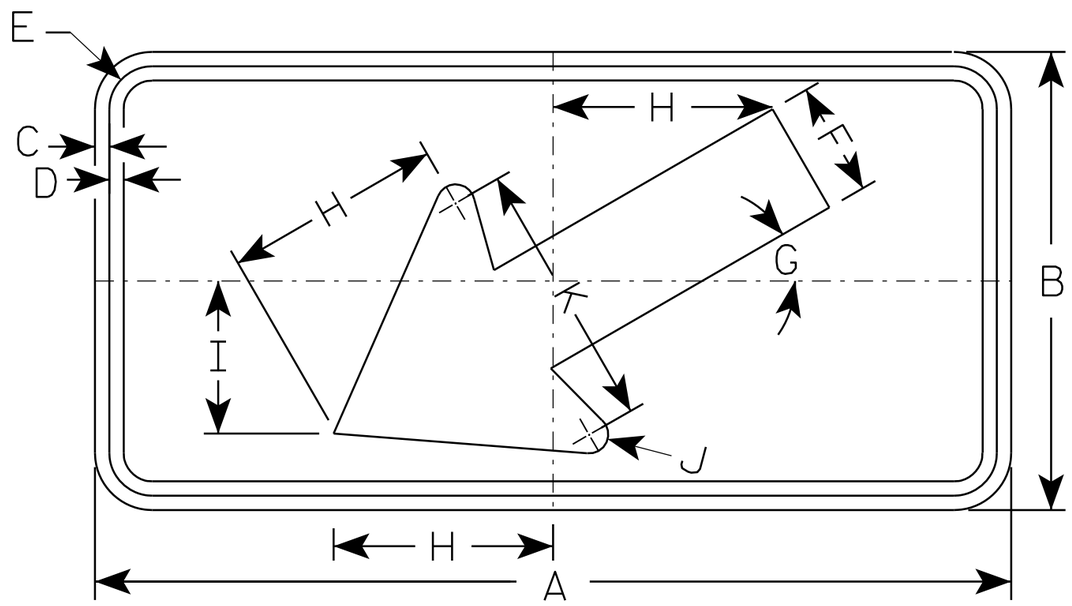
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 177 | E



S16-7L

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.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

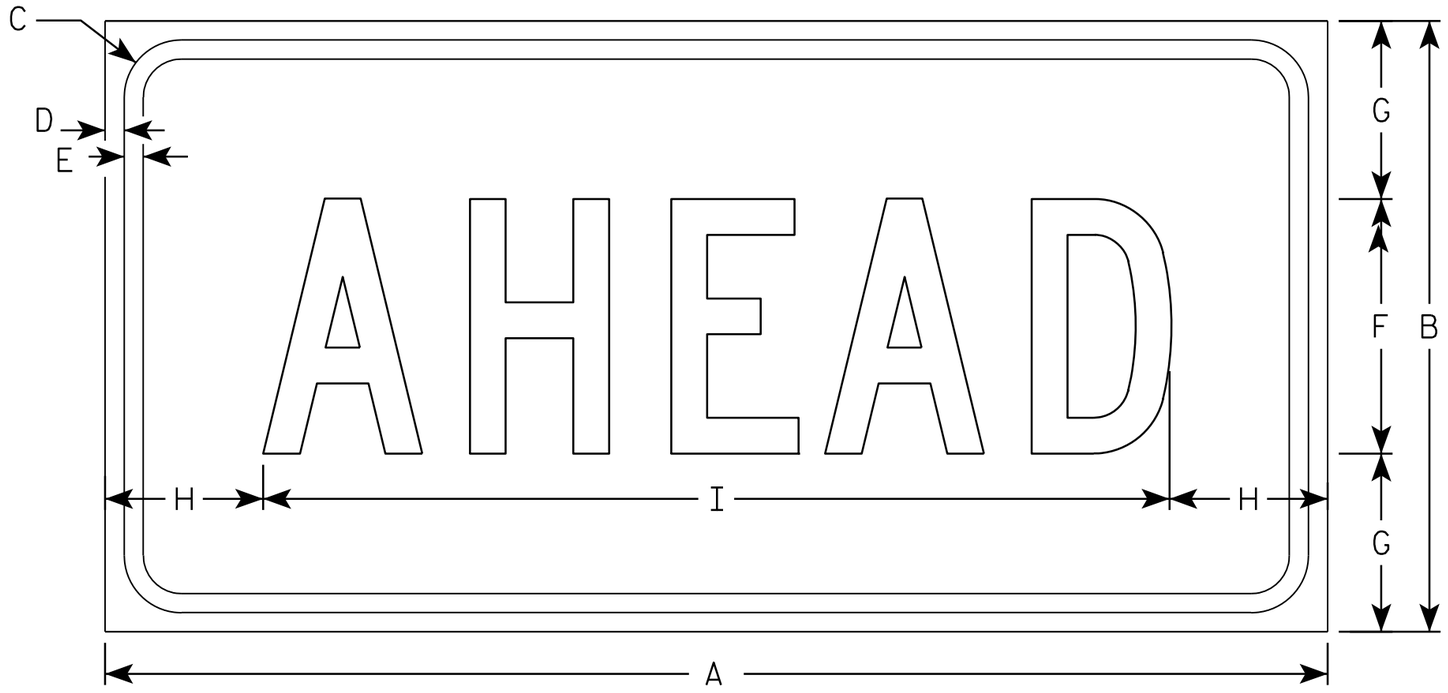
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 178 | E



S16-9P

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.

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

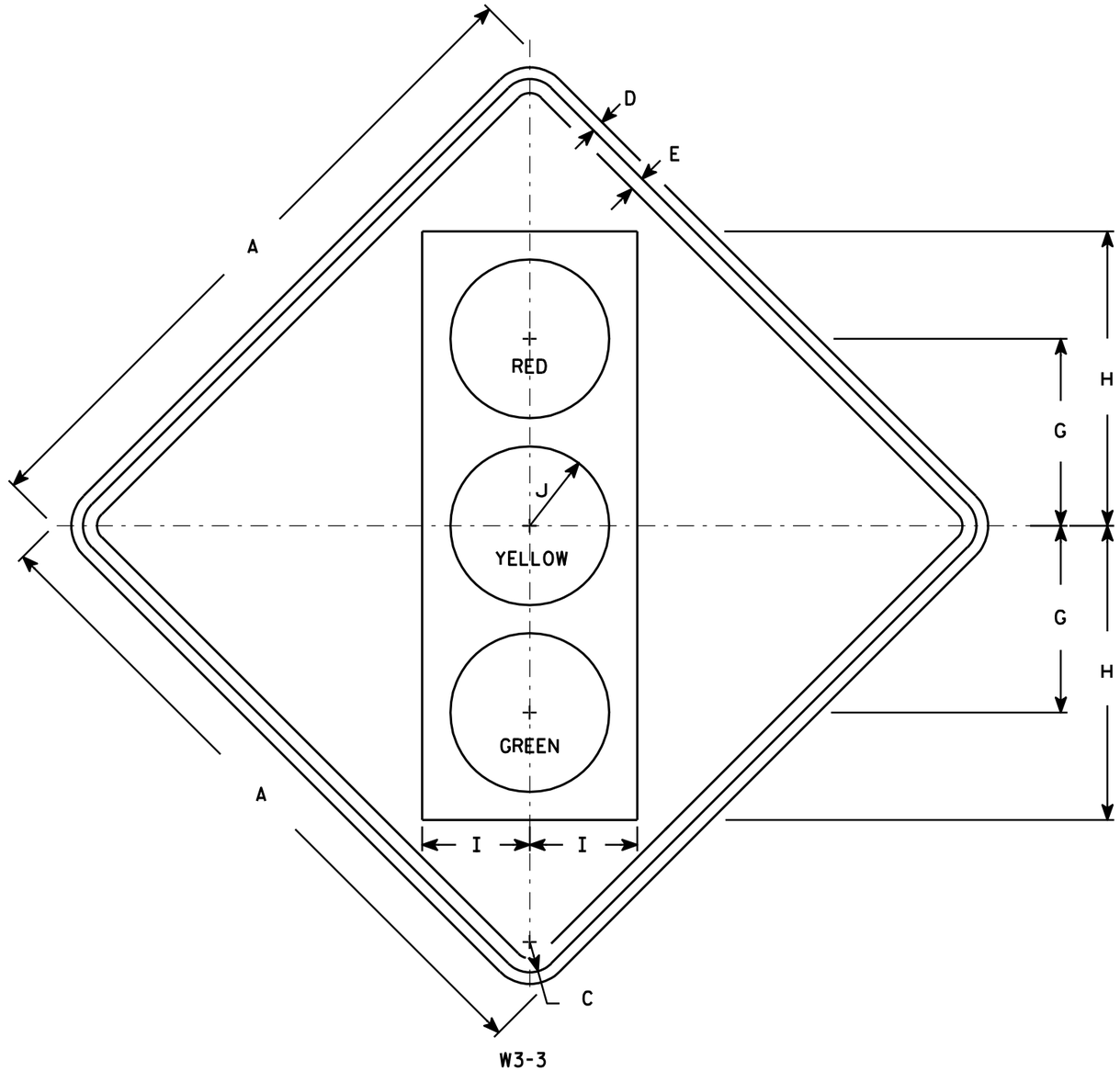
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 179 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000



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

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

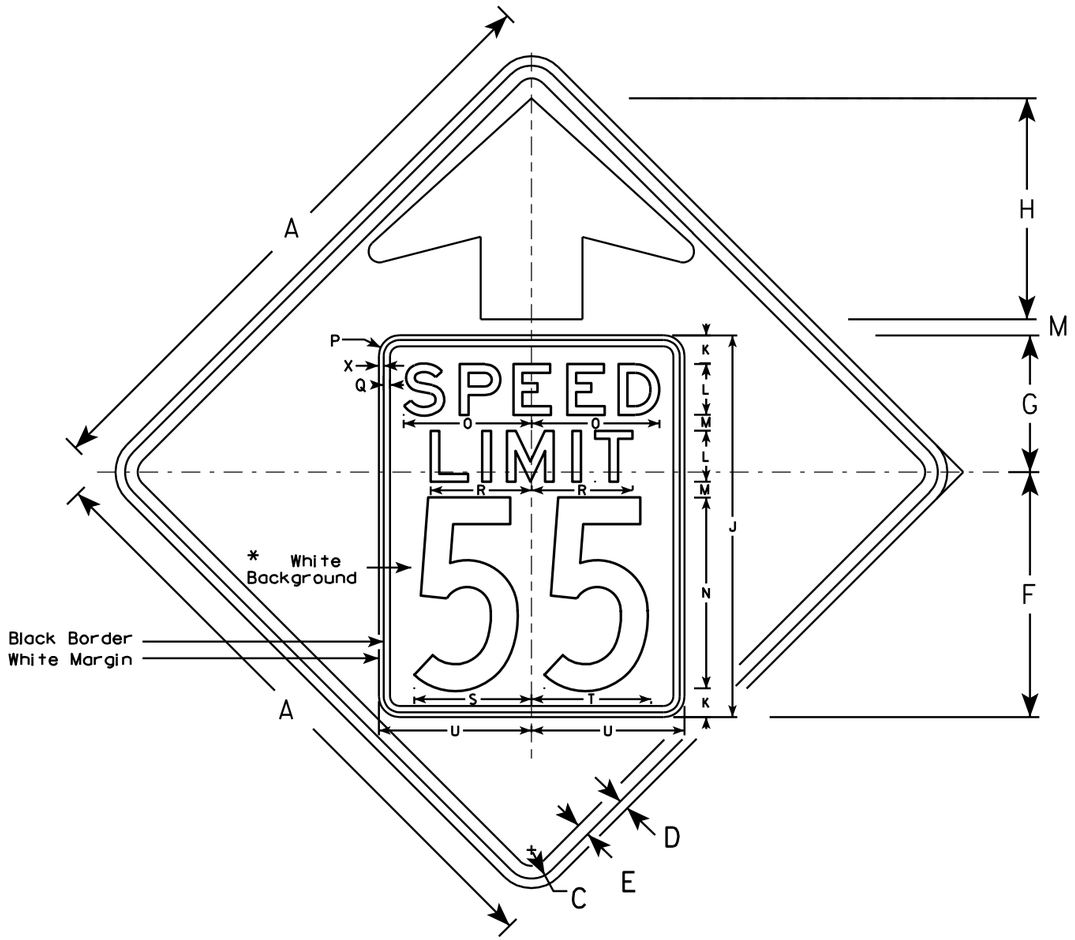
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 180 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000

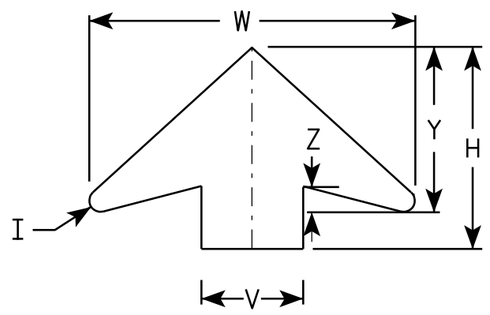


W3-5

NOTES

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

*Speed Limit Sign shall have a White Background



ARROW DETAIL

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

STANDARD SIGN
W3-5

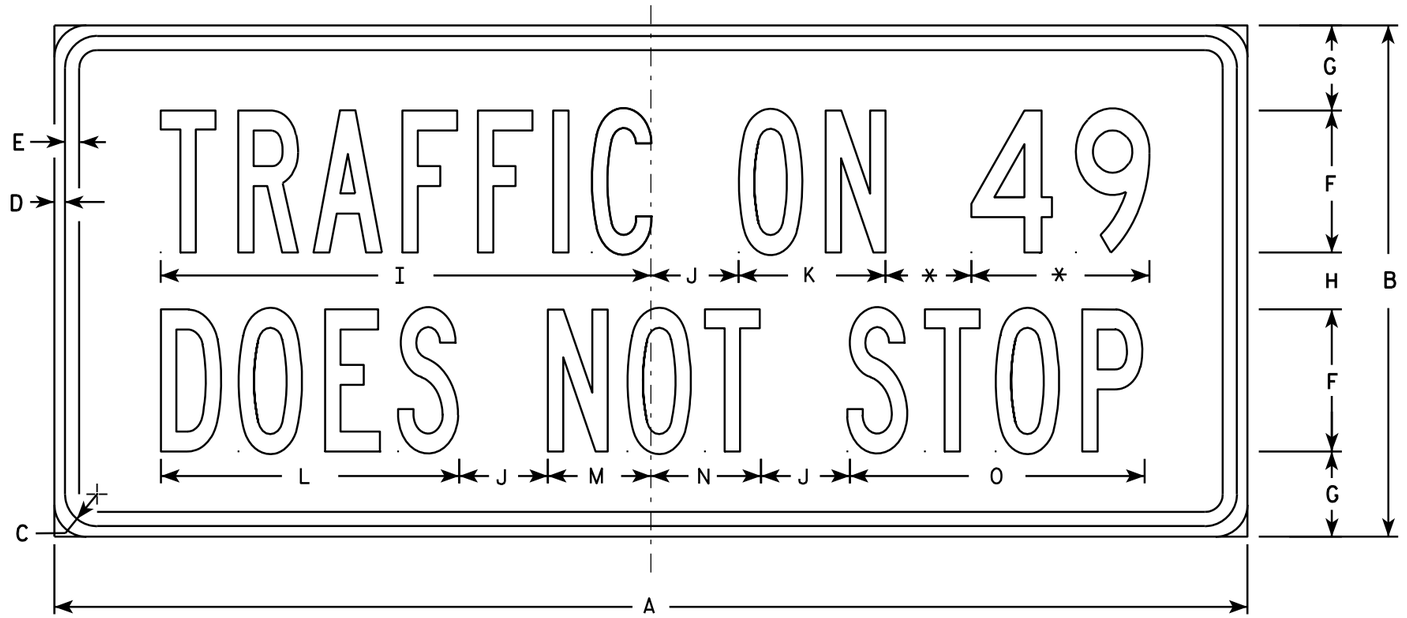
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 181 E



W4-4C

NOTES

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

* VARIES

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

STANDARD SIGN
W4-4C

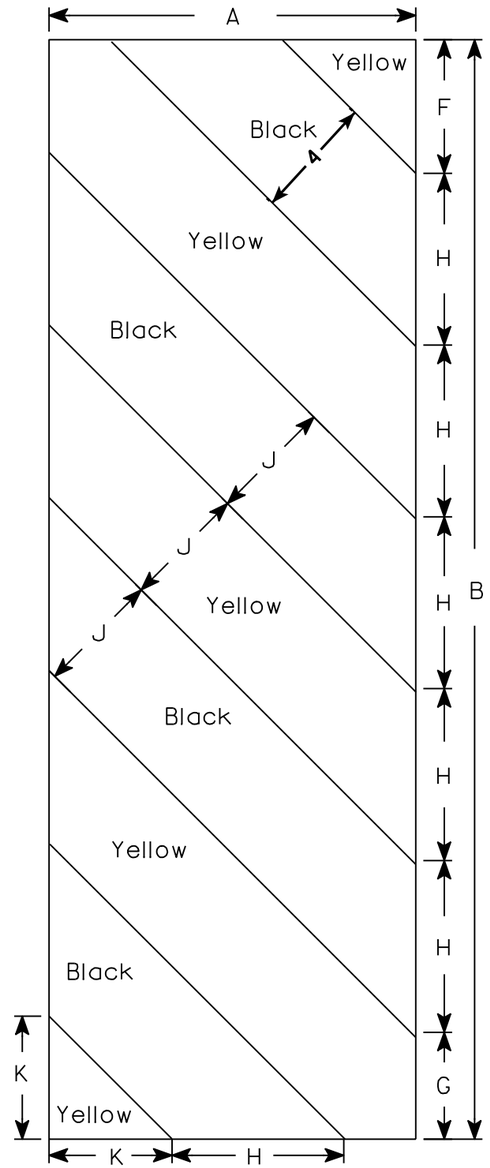
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

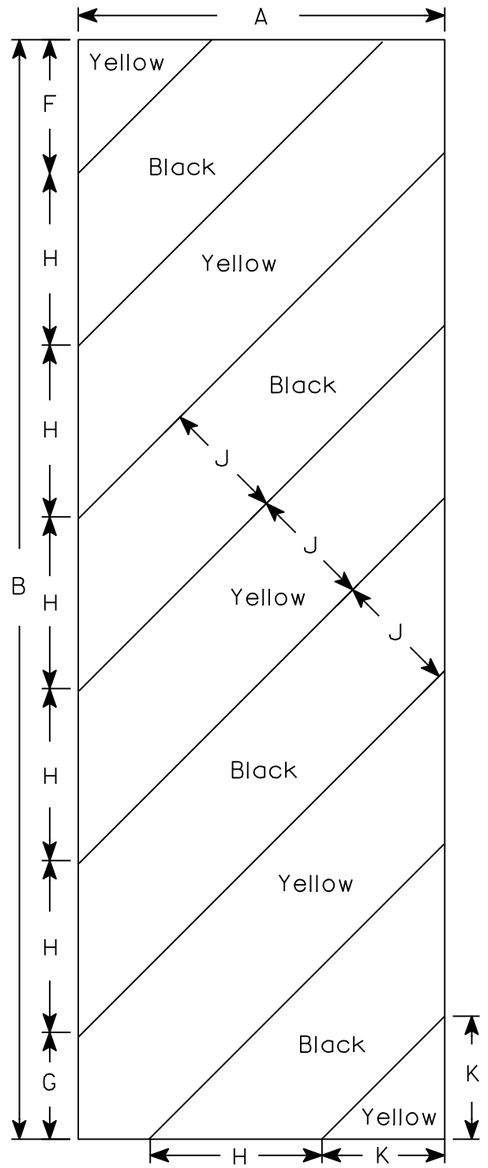
DATE 03/12/13 PLATE NO. W4-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 182 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W44C.DGN PLOT DATE : 12-MAR-2013 11:39 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.334037:1.000000
WISDOT/CADDS SHEET 42



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

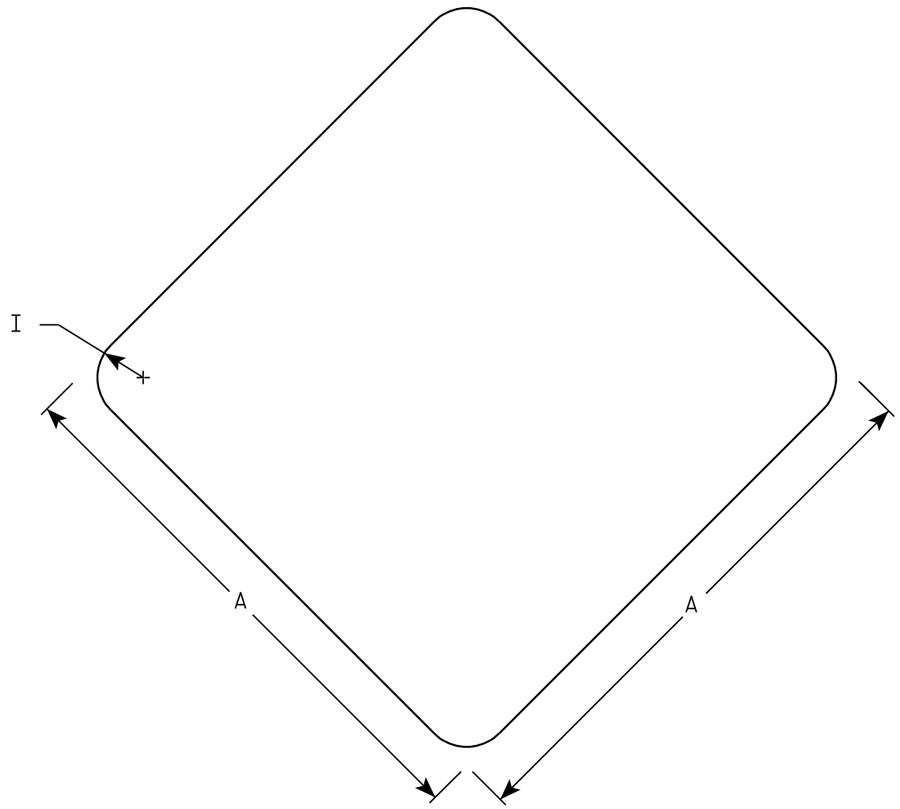
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 183	E



W5-54

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
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

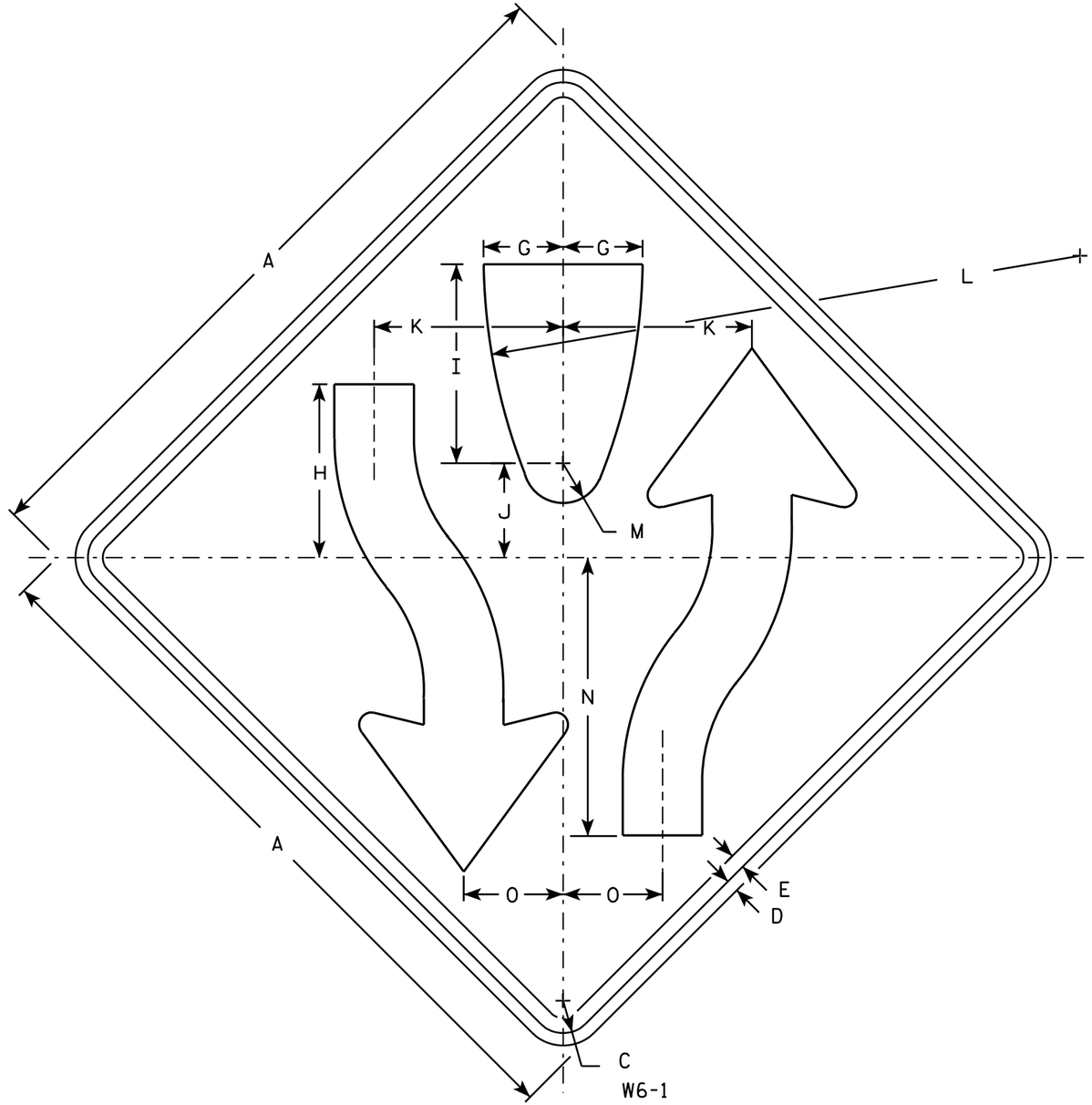
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

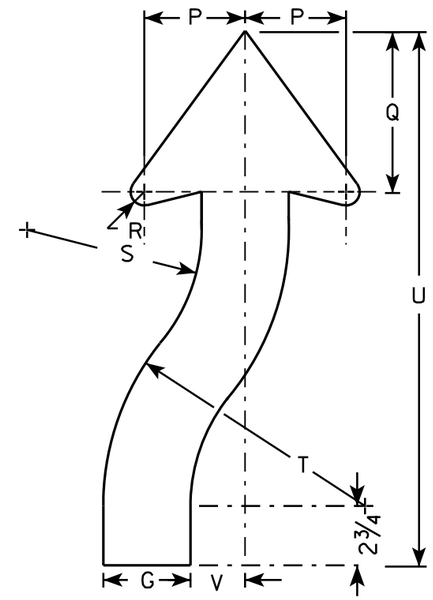
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 184 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

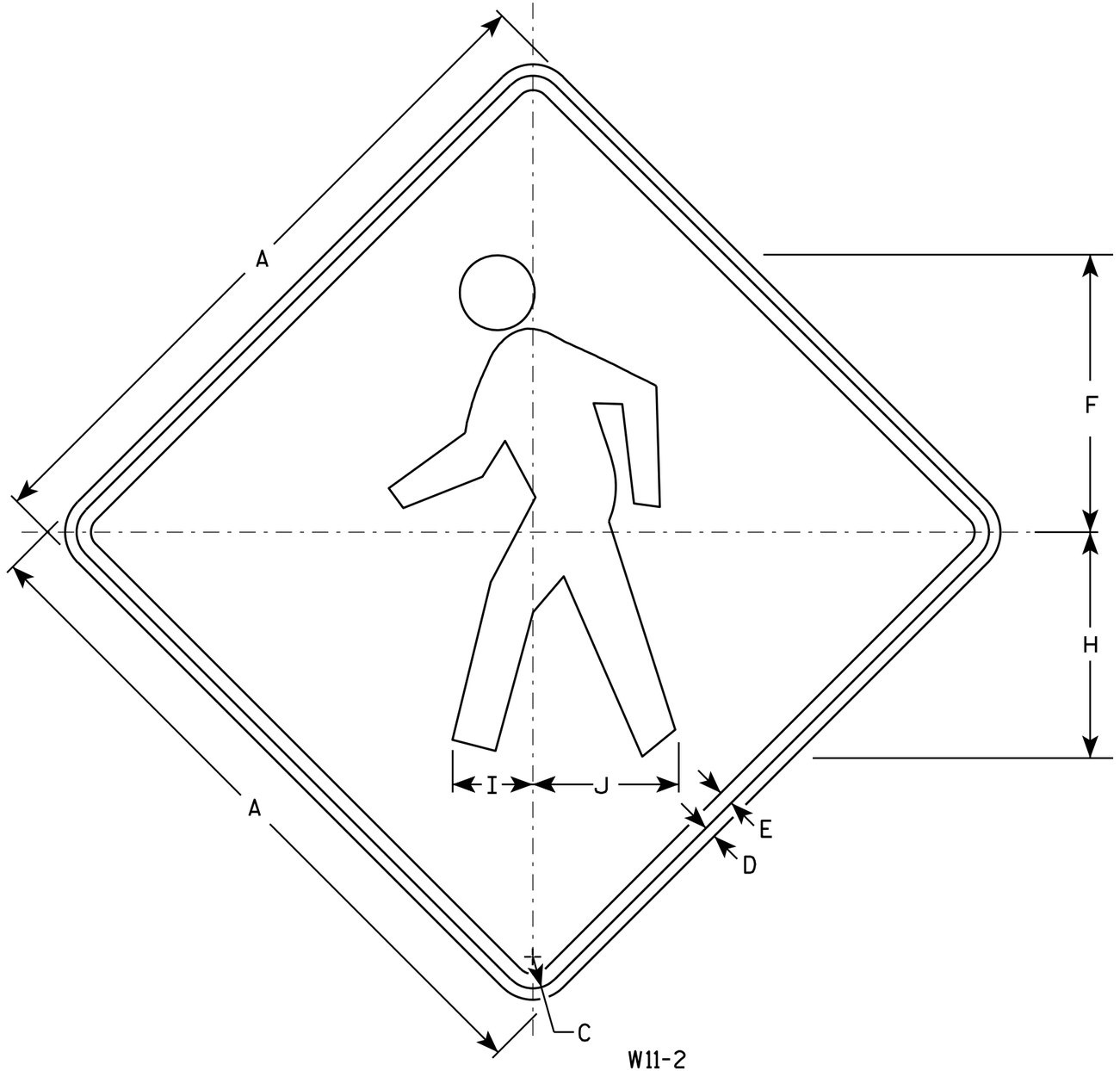
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 185	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W11-2

NOTES

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

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	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

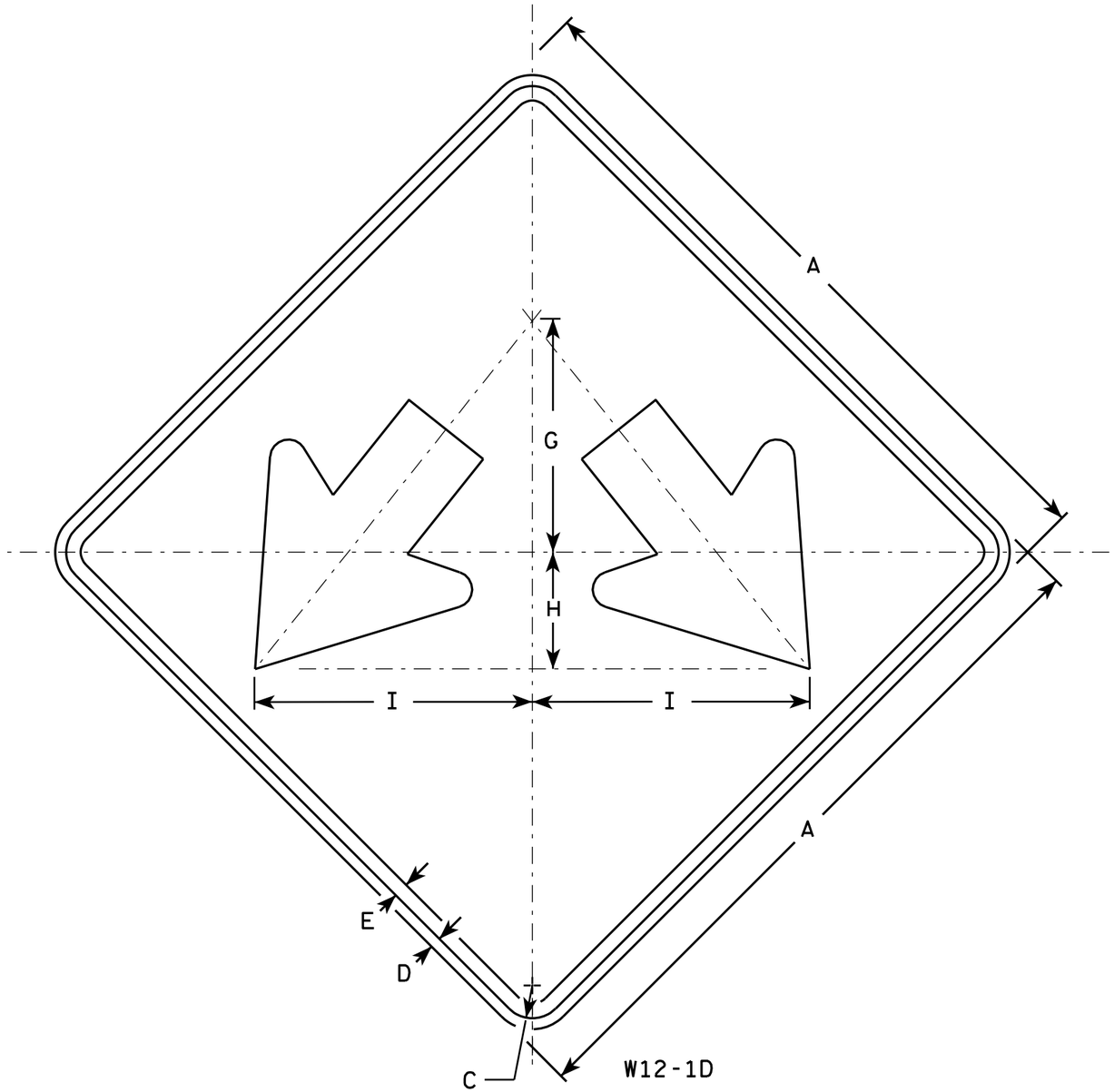
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

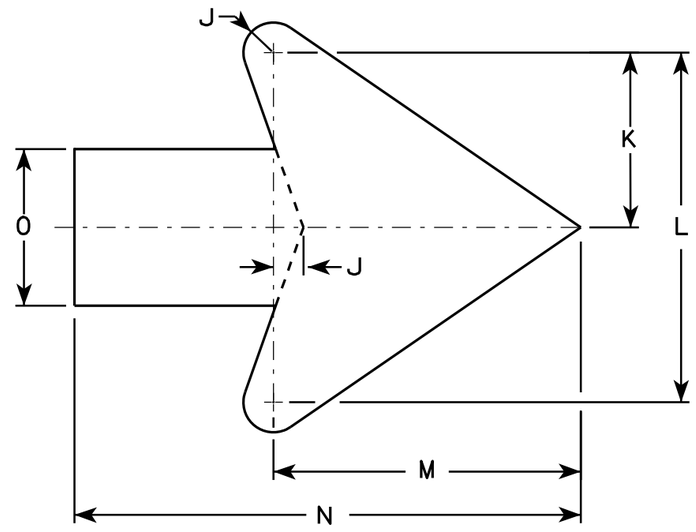
DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 186	E



NOTES

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



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

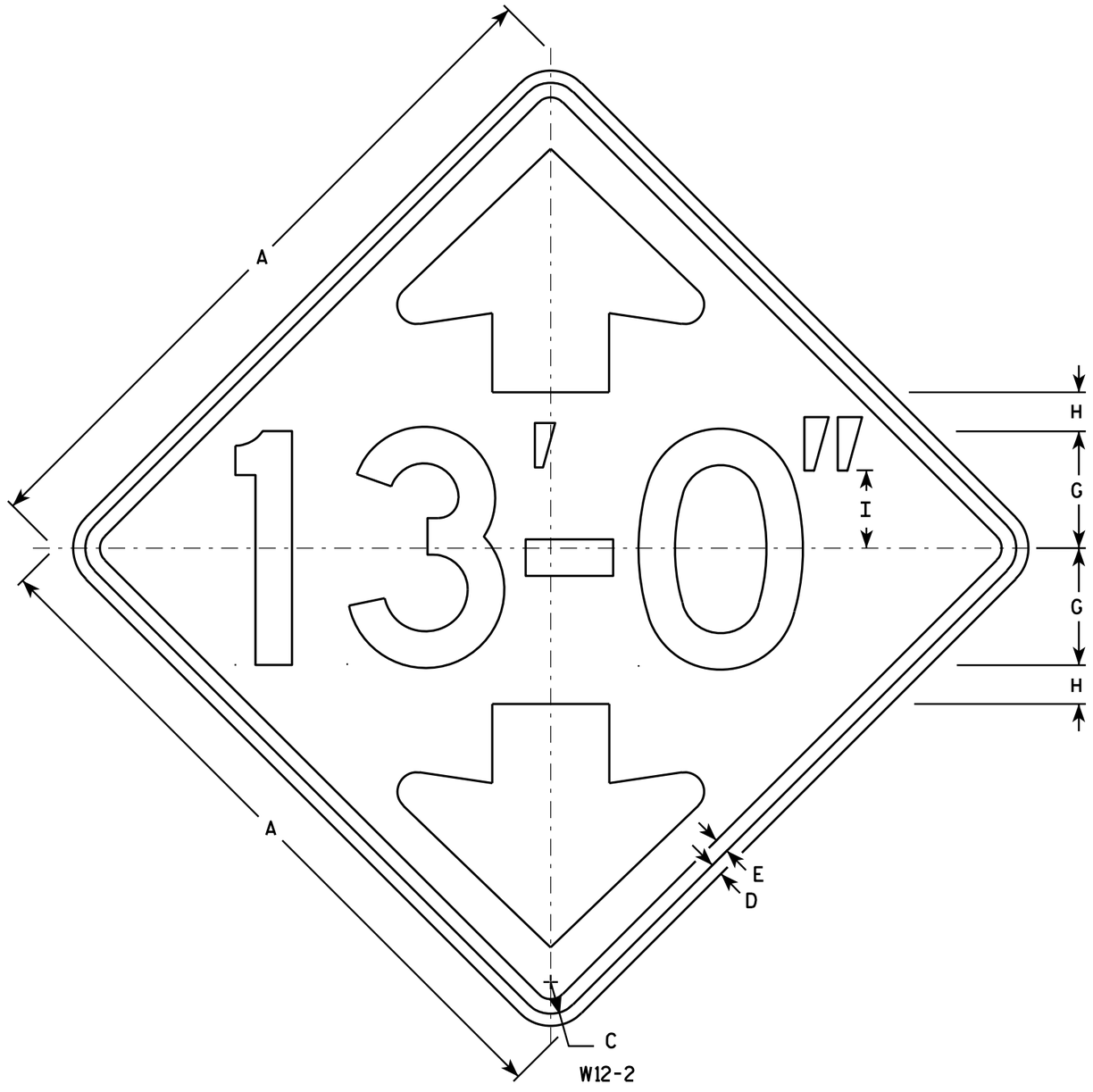
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

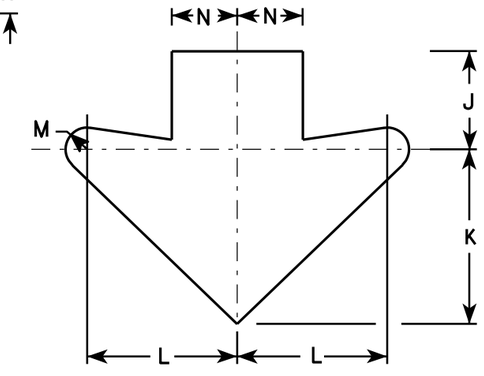
DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	E

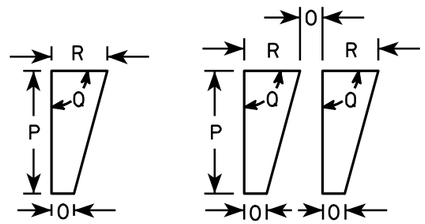


NOTES

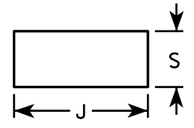
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded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



Arrow Detail



Foot Mark & Inch Mark Detail



Hyphen Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		5	1 5/8	3 3/8	3 3/4	6 5/8	5 3/4	3/4	2 1/2	1/2	2 1/4	90°	1	1 5/8								6.25
2S	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
2M	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
3	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
4	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
5	48		2 1/4	3/4	1		8	2 5/8	5 1/2	5 7/8	10 5/8	9 1/4	1 3/8	4	5/8	3 5/8	90°	1 5/8	2 1/2								16.00

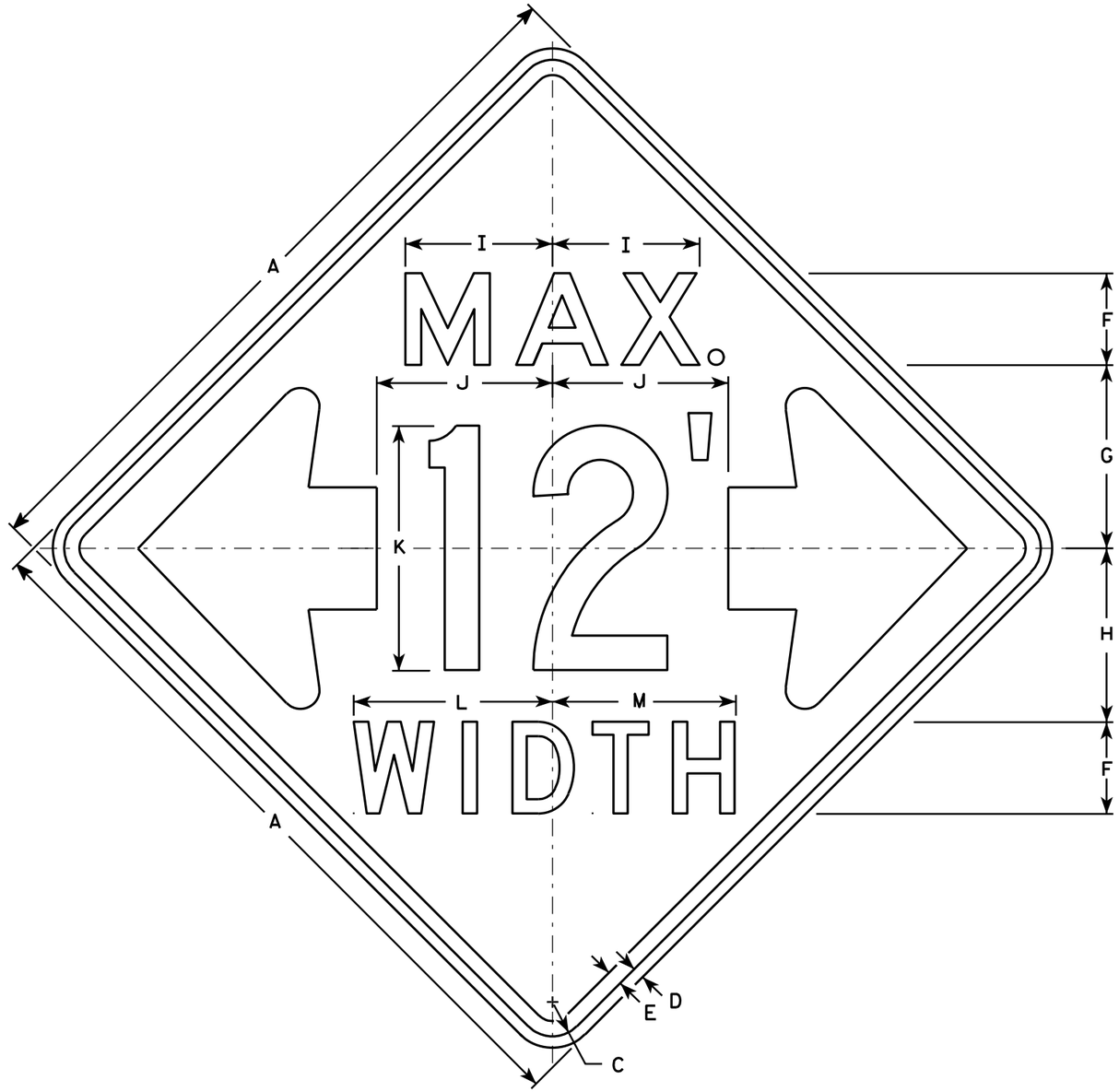
STANDARD SIGN
W12-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-2.9

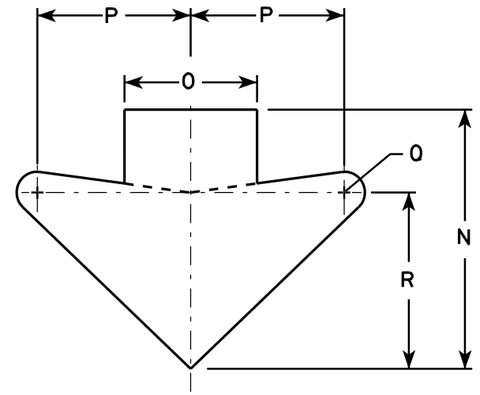
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 188	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

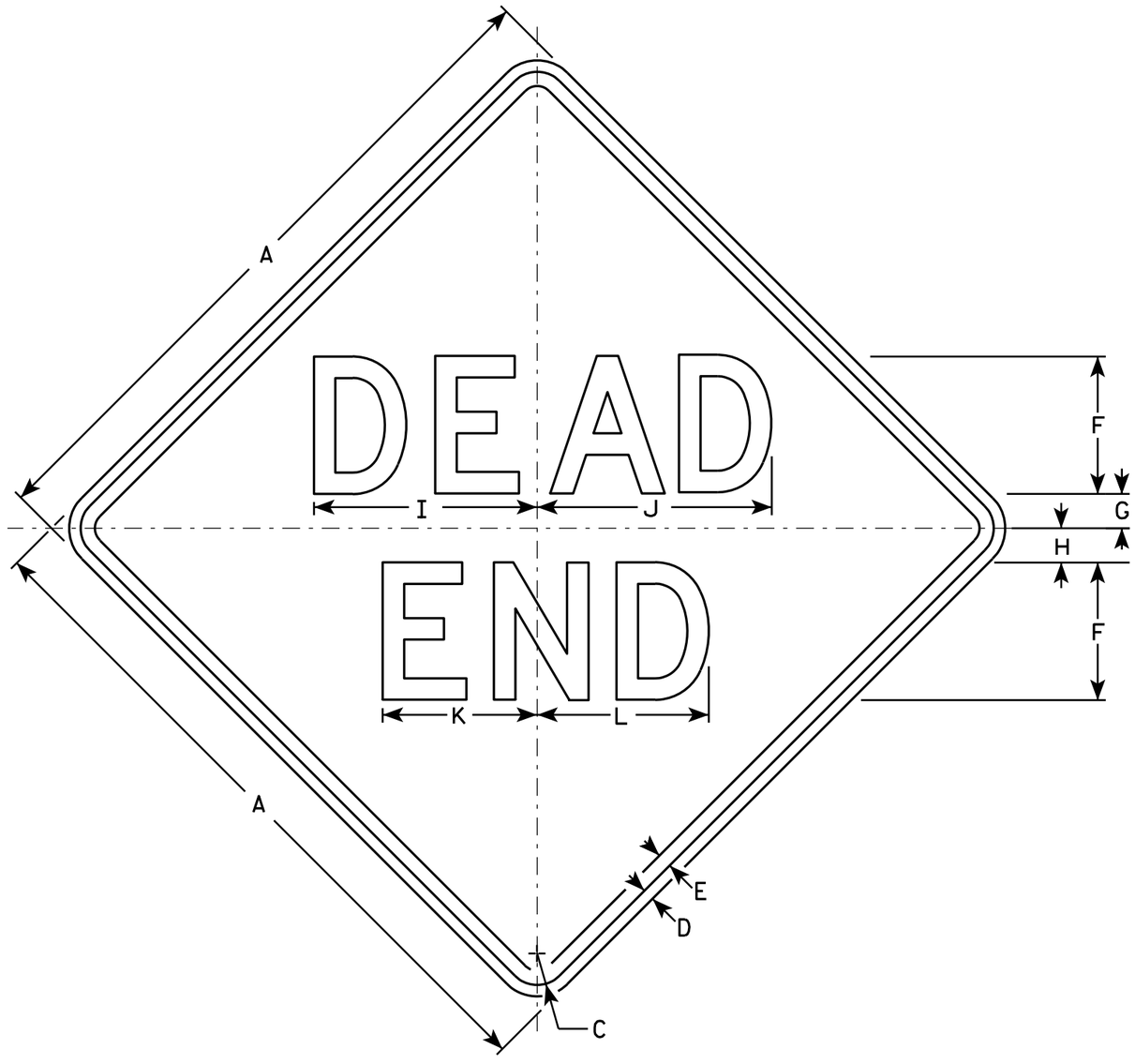
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 189 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000

WISDOT/CADDS SHEET 42

7

7



W14-1

NOTES

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

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

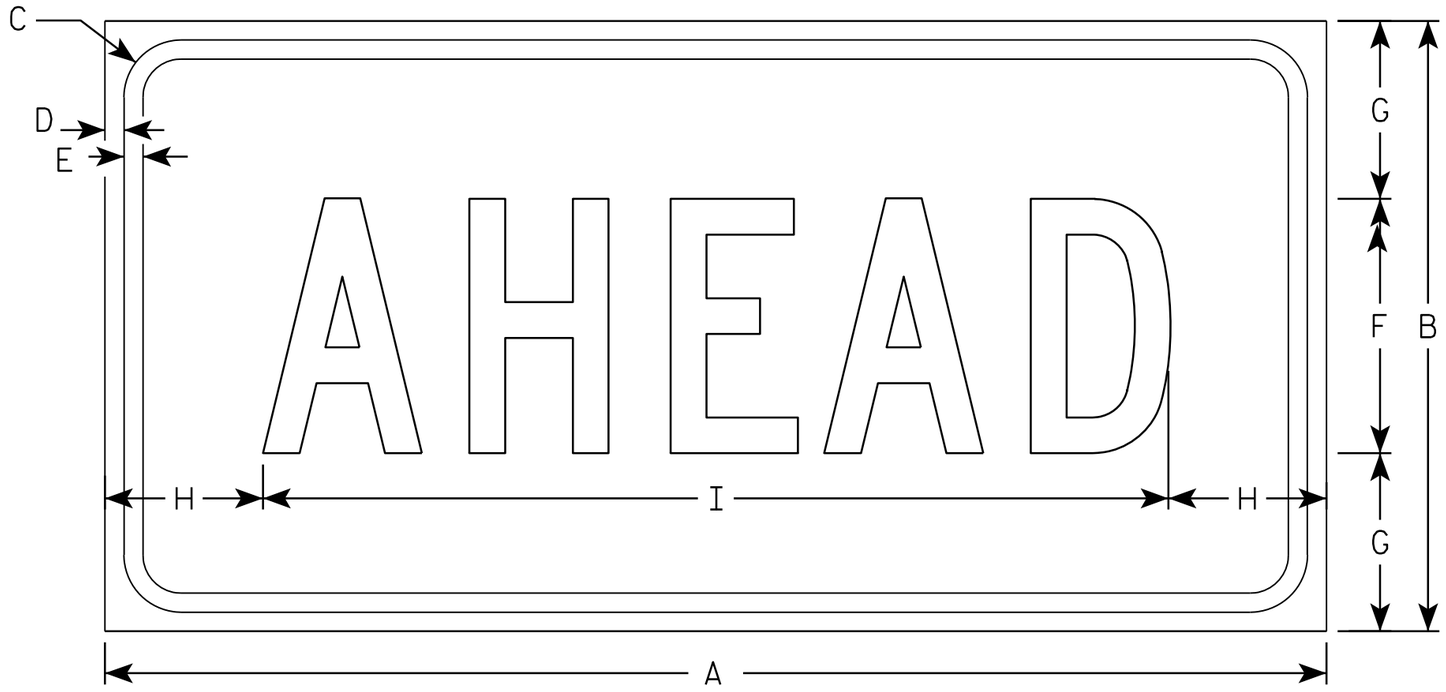
STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E



W16-9P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
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
W16-9P

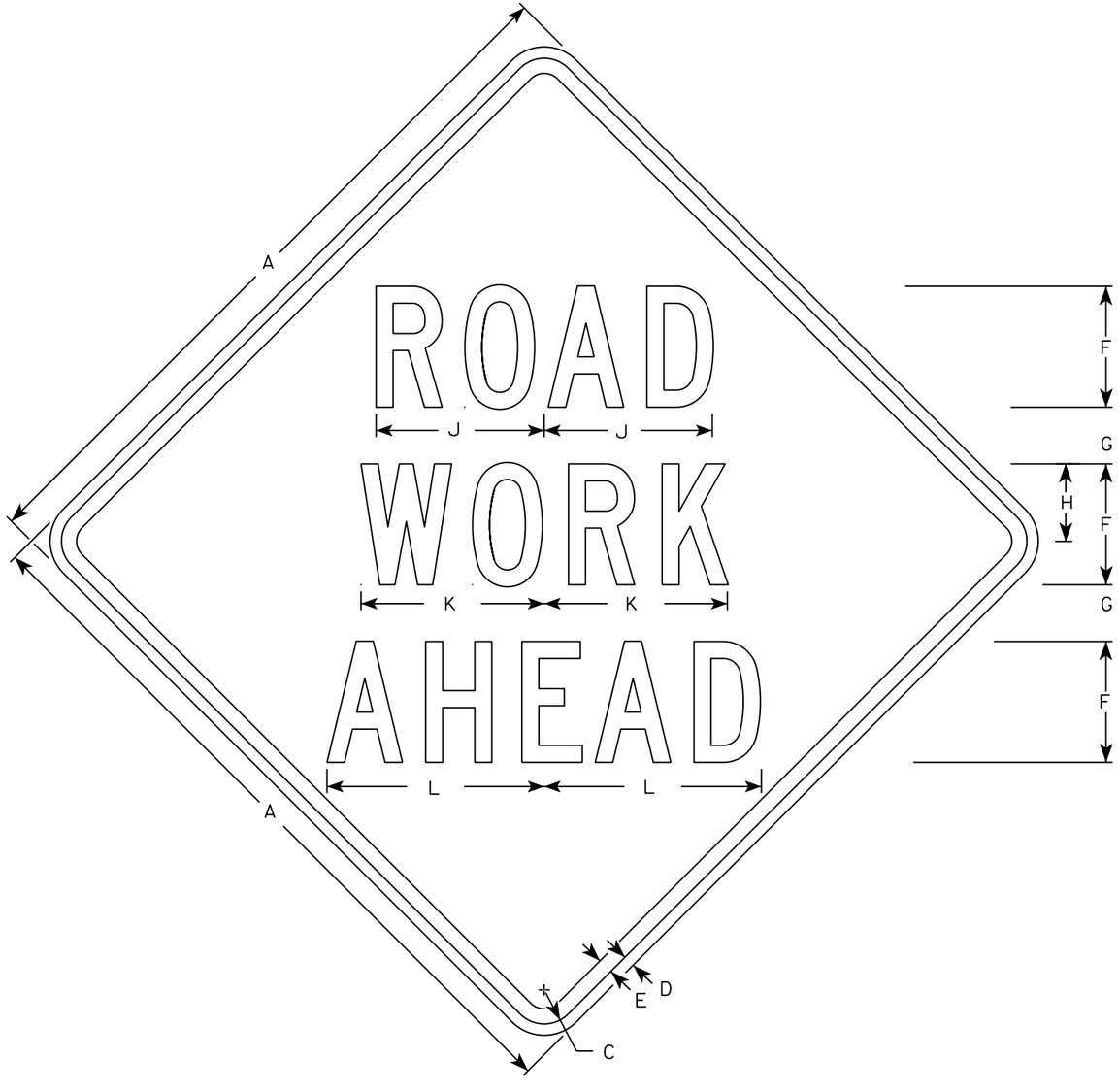
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

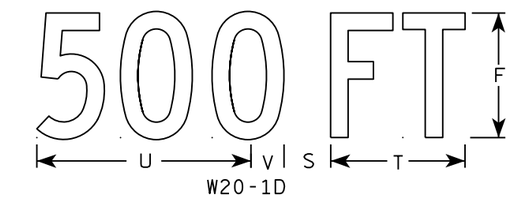
DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 191 | E

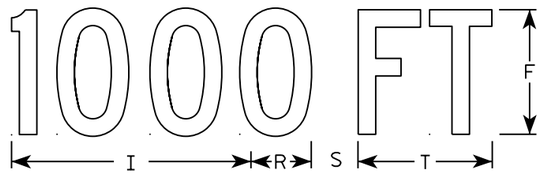
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000



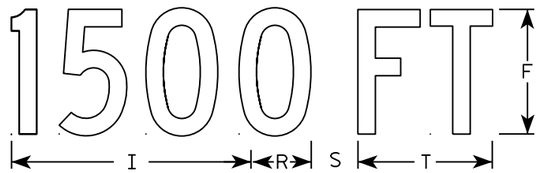
W20-1A



W20-1D

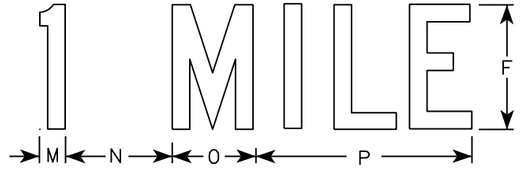


W20-1C

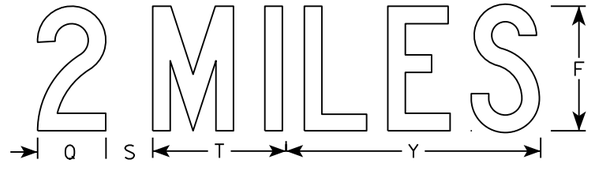


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

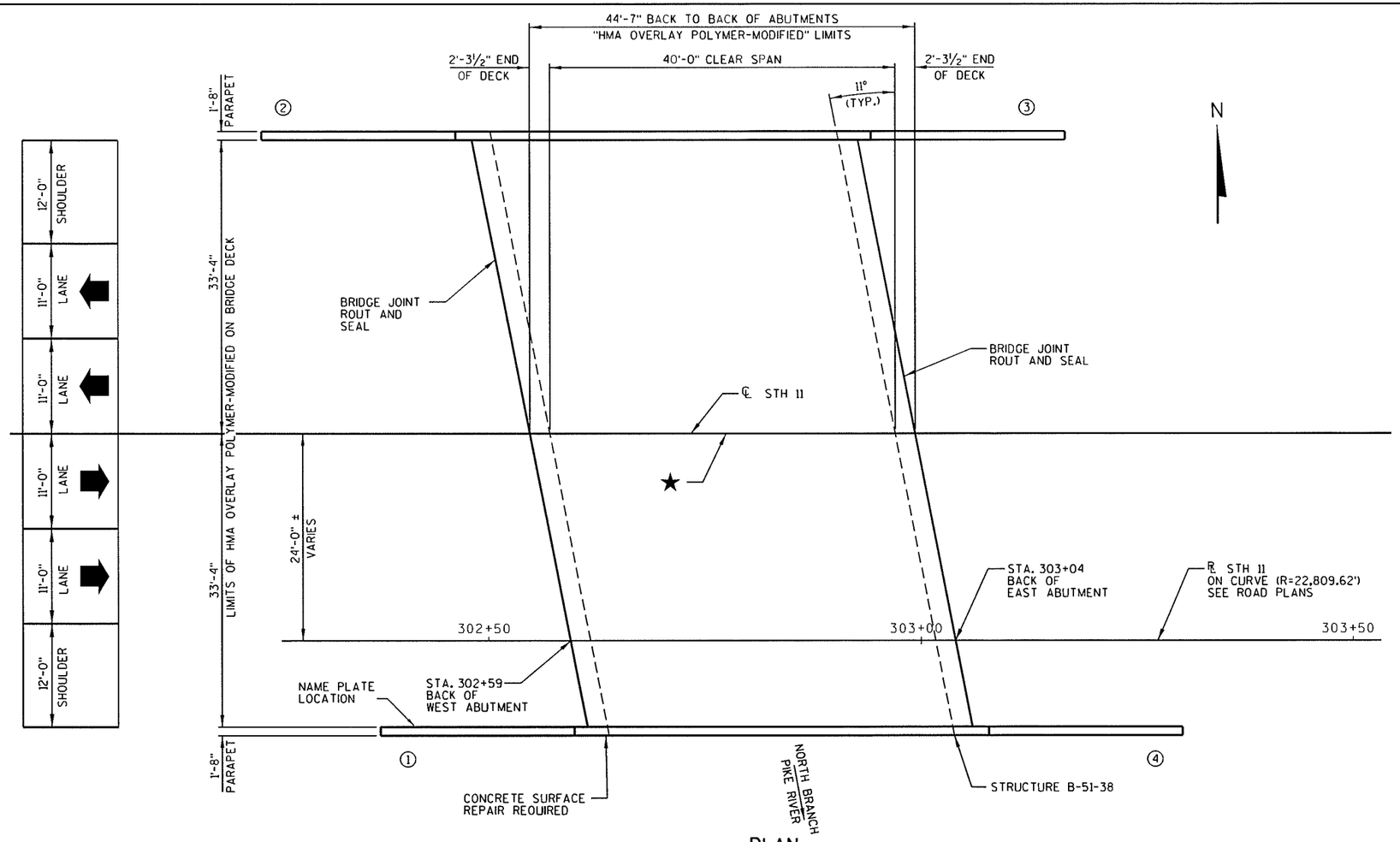
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

STATE PROJECT NUMBER
1320-19-60



PLAN

(REHAB - HMA OVERLAY POLYMER-MODIFIED ON EXISTING SINGLE SPAN RIGID FRAME)

DESIGN DATA

LIVE LOAD:

INVENTORY RATING : HS-29
OPERATIONAL RATING : HS-48
MAXIMUM STANDARD PERMIT VEHICLE LOAD = 190 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY - DECK PATCHING — f'c = 4,000 P.S.I.
CONCRETE MASONRY - BRIDGES ——— f'c = 4,000 P.S.I.

LIST OF DRAWINGS

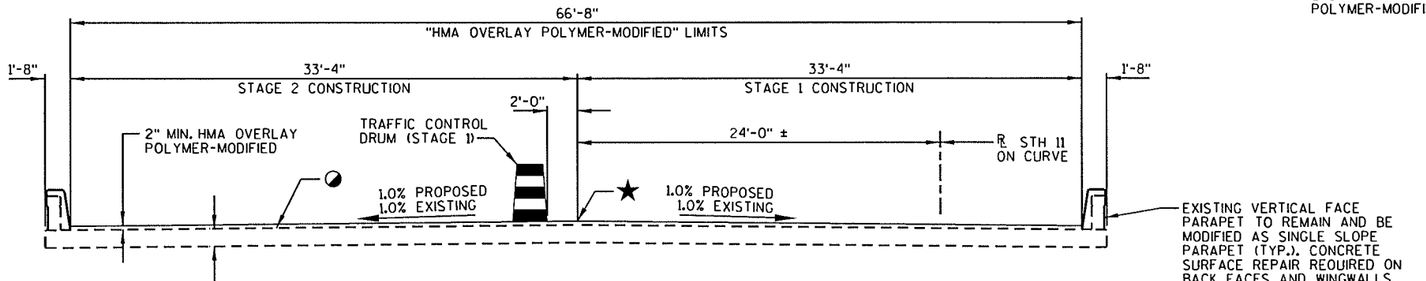
1. OVERLAY PLAN
2. NOTES AND DETAILS
3. PARAPET REHAB

LEGEND

★ — LONGITUDINAL CONSTRUCTION JOINT IN OVERLAY

◯ — INDICATES WING NUMBER.

◕ — REMOVE EXISTING THIN EPOXY OVERLAY BY SHOT BLASTING AS PART OF THE DECK SURFACE PREPARATION INCLUDED UNDER THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED".



CROSS SECTION THRU BRIDGE

(LOOKING EAST)
SHOWING TYPICAL TRAFFIC CONTROL ON BRIDGE FOR STAGE 1 CONSTRUCTION. STAGE 2 SIMILAR

DESIGN CONTACT:
DANIEL WAGNER
(608) 355-8952

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489

WISCONSIN
DANIEL H. WAGNER
E-19220
BARABOO, WI
PROFESSIONAL ENGINEER
Daniel H. Wagner
1-14-2016

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4503 Fax: 608-356-2770

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 02/09/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-51-38

DURAND AVE. (STH 11) OVER N. BR. PIKE RIVER

COUNTY	TOWN/~~CITY/VILLAGE~~
RACINE	MOUNT PLEASANT

DESIGN SPEC.
REHABILITATION - N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DHW	LJR	RLR	DHW

OVERLAY PLAN

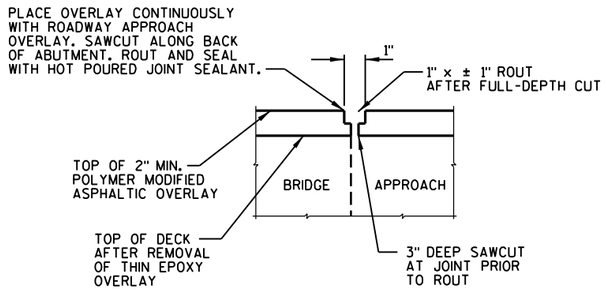
SHEET 1 OF 3
193

FILE= 93300_01.DGN
DATE= 1/5/2016

00093300_01.dgn 1/5/2016 3:00:33 PM rrabska

STATE PROJECT NUMBER

1320-19-60



JOINT SEALANT DETAIL

NOTE: ALL WORK SHOWN TO COMPLETE JOINT SEALANT WORK IS INCLUDED IN THE BID ITEM "BRIDGE JOINT ROUT AND SEAL".

ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 302+81.5	LS	1
502.0100	CONCRETE MASONRY BRIDGES	CY	11
502.3210	PIGMENTED SURFACE SEALER	SY	79
502.6102	MASONRY ANCHORS TYPE S 1/2-INCH	EACH	232
502.6105	MASONRY ANCHORS TYPE S 5/8-INCH	EACH	232
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1830
509.0301	PREPARATION DECKS TYPE 1	SY	17
509.0302	PREPARATION DECKS TYPE 2	SY	3
509.1500	CONCRETE SURFACE REPAIR	SF	35
509.2000	FULL-DEPTH DECK REPAIR	SY	1
509.3500.S	HMA OVERLAY POLYMER-MODIFIED	TON	46
509.9050.S	CLEANING PARAPETS	LF	186
SPV.0035.01	CONCRETE MASONRY DECK PATCHING	CY	3
SPV.0090.04	BRIDGE JOINT ROUT AND SEAL	LF	136
SPV.0090.05	SAWING PAVEMENT DECK PREPARATION AREAS	LF	240
	NON-BID ITEM		
	PREFORMED FILLER	SIZE	1/2"

NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS. ORIGINAL 1971 PLANS AND 1992 CONCRETE OVERLAY PLANS ARE AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

THIS PROJECT WILL REHABILITATE THE EXISTING STRUCTURE, B-51-38, A SINGLE SPAN, 44.6' CONCRETE RIGID FRAME BRIDGE. APPLY "HMA OVERLAY POLYMER-MODIFIED" TO THE BRIDGE DECK. MODIFY EXISTING VERTICAL PARAPETS TO BE SINGLE SLOPE PARAPETS. COMPLETE CONCRETE SURFACE REPAIR AS DIRECTED BY THE ENGINEER.

SEE THE ROAD PLANS FOR TRAFFIC CONTROL DETAILS. FOR DETAILS OF WORK TO BE COMPLETED ON THE CONCRETE APPROACH SLABS AND SHOULDERS. FOR DETAILS FOR BEAM GUARD REMOVAL AND CRASH CUSHION INSTALLATION OFF THE SOUTHWEST WING WALL, AND FOR APPROXIMATE LOCATIONS OF EXISTING UTILITY INSTALLATIONS. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

REMOVING OLD STRUCTURE (STA. 302+81.50) SHALL INCLUDE THE FOLLOWING ITEMS OF WORK ON THE EXISTING PARAPETS AS DIRECTED BY THE ENGINEER.

MECHANICALLY SCARIFY AND CLEAN EXISTING TRAFFIC FACES AND TOPS.

REMOVE ALL LOOSE OR UNSOUND CONCRETE.

REMOVE PORTIONS OF CONCRETE AS NECESSARY TO MAINTAIN THE MINIMUM THICKNESS OF NEW CONCRETE.

BLAST CLEAN AND REUSE EXISTING BAR STEEL REINFORCEMENT EXPOSED AS A RESULT OF THE ABOVE OPERATIONS.

PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND FULL-DEPTH DECK REPAIR AREAS ARE BASED ON THE PLANS AND AS DETERMINED BY THE ENGINEER. DECK PREPARATION AND FULL-DEPTH DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MANSONRY DECK PATCHING". AREAS OF "PREPARATION DECKS TYPE 1" AND "PREPARATION DECKS TYPE 2" SHALL BE DEFINED BY A SAW CUT.

REMOVE THE EXISTING THIN COAT EPOXY OVERLAY FROM THE BRIDGE DECK BY SHOT BLAST METHODS PER THE SPECIFICATIONS.

PROFILE GRADE LINE SHALL BE DETERMINED IN THE FIELD BASED ON A MINIMUM OVERLAY THICKNESS OF 2" PLACED ABOVE THE DECK SURFACE AFTER THE EXISTING THIN COAT EPOXY OVERLAY HAS BEEN REMOVED. EXPECTED AVERAGE OVERLAY THICKNESS IS 2½". IF EXPECTED AVERAGE OVERLAY THICKNESS IS EXCEEDED BY MORE THAN ½", CONTACT THE STRUCTURES DESIGN SECTION.

THE PLAN QUANTITY FOR THE BID ITEM "HMA OVERLAY POLYMER-MODIFIED" IS BASED ON THE AVERAGE OVERLAY THICKNESS.

CONCRETE MASONRY DECK PATCHING REQUIRES A MINIMUM CURE TIME OF 7 DAYS BEFORE HMA OVERLAY POLYMER-MODIFIED CAN BE APPLIED.

UNDER THE BID ITEMS FOR "MASONRY ANCHORS TYPE S", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT. MECHANICAL TYPE S ANCHORS ARE NOT ALLOWED.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FINISHED TOP AND TRAFFIC FACES OF ALL PARAPETS.

AT JOINTS IN PARAPETS, REMOVE EXISTING JOINT SEALER AND INSTALL NEW NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. JOINT SEALER IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1971.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-38

DRAWN BY RLR | PLANS CK'D. DHW

NOTES AND DETAILS

SHEET 2 OF 3

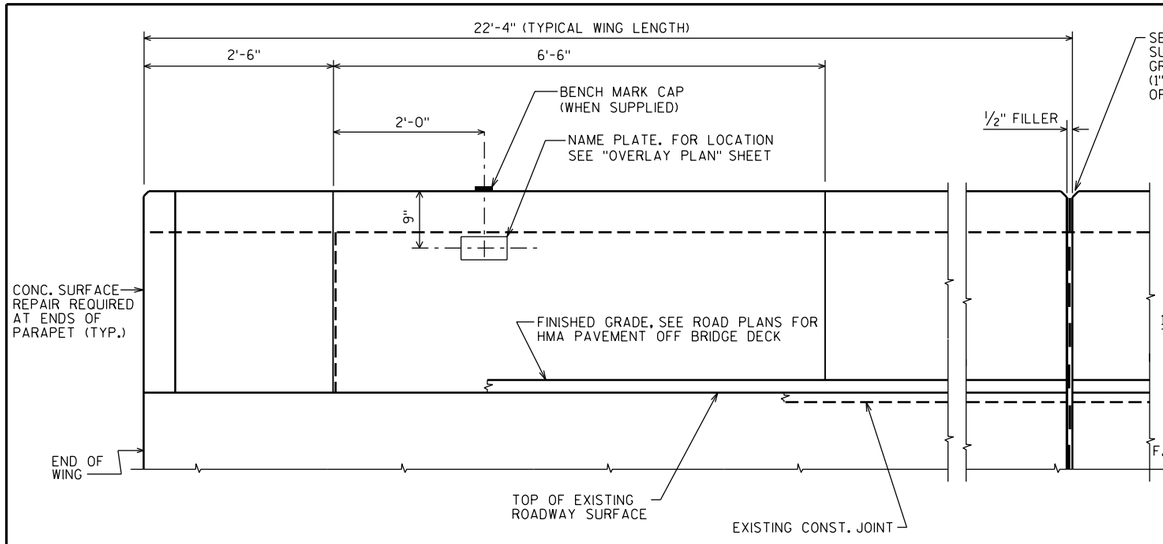
194

FILE= 93300_02.DGN
DATE= 1/14/2016

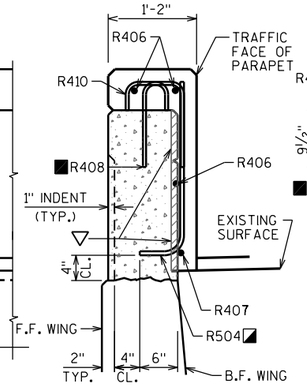
00093300_02.dgn 1/14/2016 2:46:10 PM rrabska

STATE PROJECT NUMBER

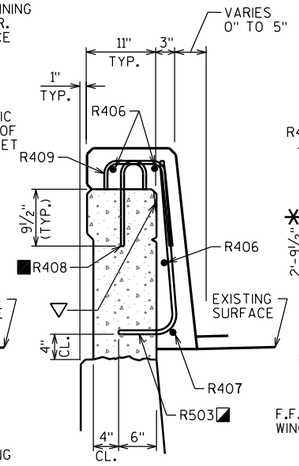
1320-19-60



INSIDE ELEVATION



SECTION A



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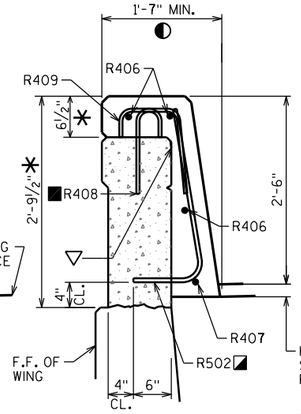

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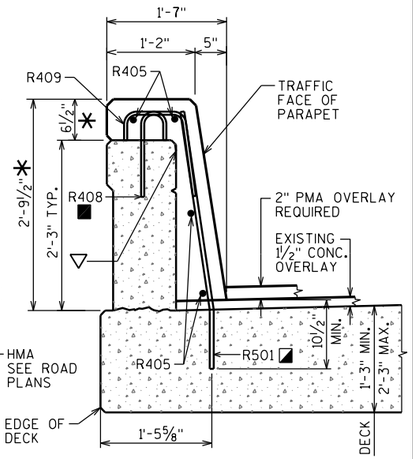
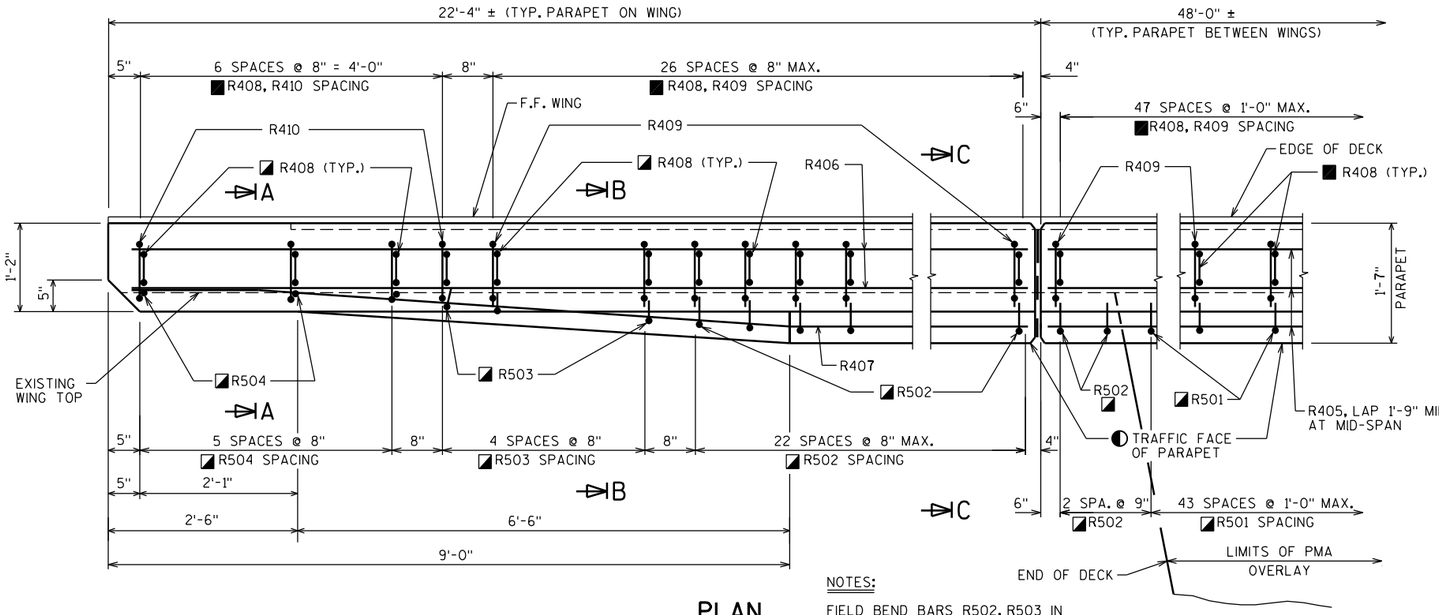


SECTION THRU PARAPET ON BRIDGE DECK



PLAN

NOTES:

FIELD BEND BARS R502, R503 IN END OF PARAPET TO MAINTAIN MINIMUM 2" CLEARANCE.

WINGS 2 & 4 SHOWN, WINGS 1 & 3 SIMILAR.

LEGEND

F.F. - FRONT FACE

B.F. - BACK FACE

CL. - CLEAR

PMA - HMA OVERLAY POLYMER-MODIFIED

HMA - HOT MIX ASPHALT (SEE ROAD PLANS)

■ MASONRY ANCHOR TYPE S 1/2-INCH. EMBED AS SHOWN.

◪ MASONRY ANCHOR TYPE S 5/8-INCH. EMBED AS SHOWN.

✳ ADJUST AS NECESSARY TO PROVIDE MINIMUM 2'-6" HEIGHT ABOVE TOP OF PMA OR APPROACH OVERLAY.

▽ REMOVE EXISTING PARAPET CONCRETE AS NECESSARY TO PROVIDE 4" MINIMUM THICKNESS OF NEW CONCRETE.

◐ TRAFFIC FACE OF PARAPET ON DECK TO MATCH PARAPET ON WING. THICKEN PARAPET ON WING TO CORRECT EXISTING MISALIGNMENT.

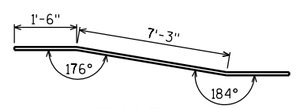
BILL OF BARS

COATED 1,830 LBS.

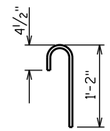
	MARK	NUMBER REQUIRED	LENGTH	BENT	
◪	R501	88	3'-4"	X	VERT. - TYPE S - DOWEL ON DECK
◪	R502	100	3'-1"	X	VERT. - TYPE S - WING TIE
◪	R503	20	2'-10"	X	VERT. - TYPE S - WING TIE
◪	R504	24	2'-8"	X	VERT. - TYPE S - WING TIE
	R405	16	24'-9"		LONGIT. - ON DECK
	R406	12	22'-0"		LONGIT. - ON WING
	R407	4	21'-10"	X	LONGIT. - ON WING
■	R408	232	1'-8"	X	VERT. - TOP TIE - DECK & WING
	R409	204	2'-1"	X	VERT. - TOP TIE - DECK & WING
	R410	28	2'-1"	X	VERT. - TOP TIE - WING END

EPOXY COAT ALL NEW PARAPET BAR STEEL.

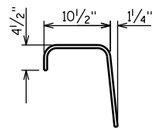
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



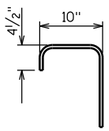
R407



R408
180° HOOK



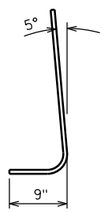
R409
TIE



R410
TIE

R501

R502
TIE



R503
TIE

R504
TIE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-38

DRAWN BY RLR | PLANS CK'D. DHW

PARAPET REHAB

SHEET 3 OF 3
195

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DATE=12/21/2015

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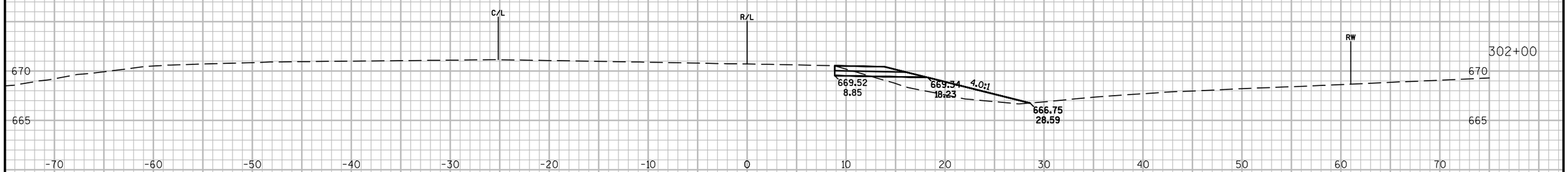

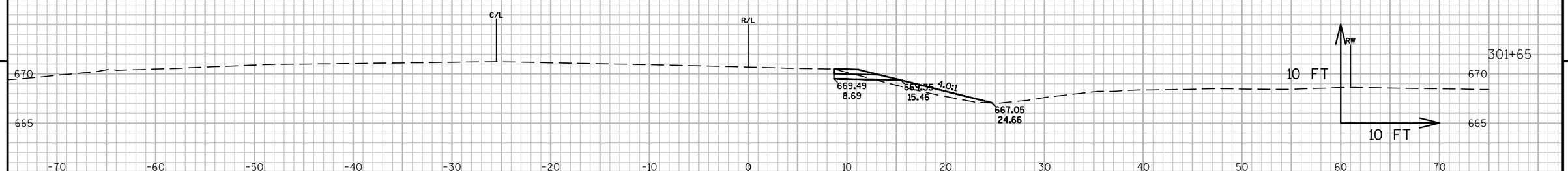

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PROJECT NO: 1320-19-60	HWY: STH 11	COUNTY: RACINE	CROSS SECTIONS:	SHEET 196	E

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PLOT DATE : 7/29/2015 11:56 AM PLOT BY : ROSBECK, JACOB D PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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