RHI MAY 2016

PROJECT ID: 6999-03-79
WITH: 6999-03-80, 6999-03-81

COUNTY: MARATHON

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 = 256

36

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C WAUSAU, HIGHWAY 52

17TH AVENUE TO 1ST AVENUE

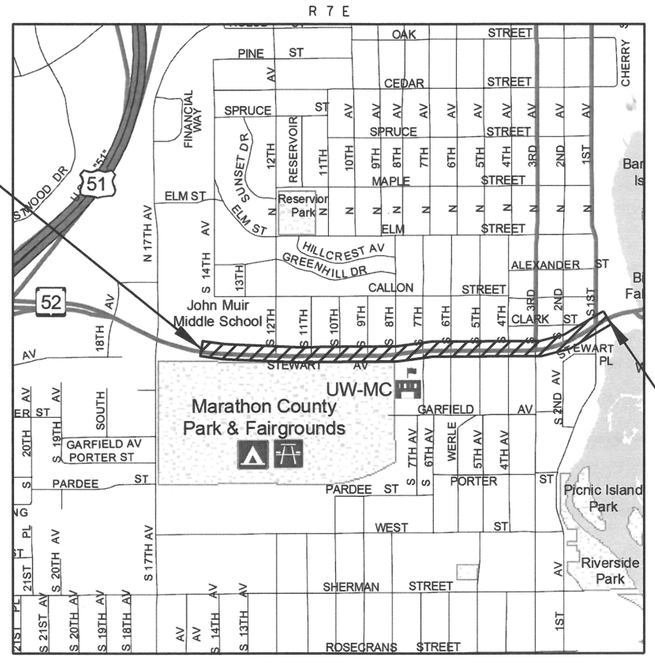
STH 52

MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-03-79	WISC 2016179	1

STATE PROJECT NUMBER
6999-03-79

BEGIN PROJECT
STA 206+49.97 EB
Y= 201872.082
X= 274977.145



END PROJECT
STA 253+35.81 EB

DESIGN DESIGNATION

A.A.D.T.	(2015)	=	23,400
A.A.D.T.	(2035)	=	27,000
D.H.V.	(2035)	=	2,889
D.D.		=	58/42
T.		=	7.0%
DESIGN SPEED		=	30-40 MPH
ESALS		=	N/A

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

LAYOUT
SCALE 0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.888 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARATHON COUNTY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2007).

ORIGINAL PLANS PREPARED BY:
CBS SQUARED INC.

WISCONSIN
BRIAN E. SMITS
E-27284
CHIPPEWA FALLS
WI
PROFESSIONAL ENGINEER

Brian E. Smits
2/1/2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS SQUARED INC.
Designer	CBS SQUARED INC.
Project Manager	MIKE GRAGE
Regional Examiner	CHERYL SIMON
Regional Supervisor	ROBIN STAFFORD

APPROVED FOR THE DEPARTMENT
DATE: 2/01/16 (Signature)

E

GENERAL NOTES:

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL IN THE PLANS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4 INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS AND CATCH BASINS REFER TO THE NORMAL CASTING FLOWLINE.

ALL STORM SEWER INVERT ELEVATIONS AND GRADES ARE COMPUTED OUTSIDE-TO-OUTSIDE OF STRUCTURE. STORM SEWER PIPE LENGTHS ARE COMPUTED CENTER-TO-CENTER OF STRUCTURE.

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
2	-	2
4	2.25	1.75

ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
STORM SEWER
PERMANENT SIGNING
TRAFFIC SIGNALS
SEQUENCE OF OPERATIONS
CABLE ROUTING
TEMPORARY SIGNALS
PAVEMENT MARKING
TRAFFIC CONTROL

UTILITY CONTACTS

WAUSAU WATER WORKS - WATER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 571-9774 (MOBILE)
ATTENTION: SHANNON LANE
SHANNON.LANE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - SEWER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 574-3149 (MOBILE)
ATTENTION: KEN RYE
KEN.RYE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - STREET LIGHTING
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6782
(715) 571-7684 (MOBILE)
ATTENTION: RICK PERGOLSKI
RICK.PERGOLSKI@CI.WAUSAU.WI.US

NET LEC LLC - COMMUNICATION LINE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
(920) 619-9774 (MOBILE)
ATTENTION: DENNIS LAFAVE
DLAFAVE@MI-TECH.US

CHARTER COMMUNICATIONS - COMMUNICATION LINE
853 MCINTOSH ST
WAUSAU, WI 54402
(715) 216-6204 (MOBILE)
ATTENTION: SCOTT OLSON
SCOTT.OLSON@CHARTER.COM

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7317
(715) 573-7806 (MOBILE)
ATTENTION: CLAYTON VIRCKS
CHVIRCKS@WISCONSINPUBLICSERVICE.COM

WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7344
(920)-841-5441 (MOBILE)
ATTENTION: JASON LINZMAIER
JRLINZMAIER@WISCONSINPUBLICSERVICE.COM

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
1851 N 14TH AVE
WAUSAU, WI 54401
(715) 847-1525
(715) 573-2110 (MOBILE)
ATTENTION: CALVIN KLADE
CALVIN.KLADE@FTR.COM

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

WAUSAU COMMUNITY AREA NETWORK - COMMUNICATION LINE
CITY-COUNTY INFORMATION TECHNOLOGY COMMISSION
407 GRANT STREET
WAUSAU, WI 54403-4783
(715) 261-6721
(715) 370-5974 (MOBILE)
ATTENTION: WALLY GELHAR
WALLY.GELHAR@CO.MARATHON.WI.US

WDNR CONTACT

DNR SERVICE CENTER
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
(715)421-7867
ATTENTION: MARC HERSHFIELD
MARC.HERSHFIELD@WISCONSIN.GOV

2

N

CITY OF WAUSAU

BEGIN PROJECT
6999-03-79
STA 206+49.97 EB

S 17TH AVENUE

JOHN MUIR
MIDDLE SCHOOL

12TH AVE
11TH AVE
10TH AVE
9TH AVE
8TH AVE
7TH AVE
6TH AVE
5TH AVE
4TH AVE
3RD AVE
2ND AVE
1ST AVE

205+00
210+00
215+00
220+00
225+00
230+00
235+00
240+00
245+00
250+00
255+00
260+00

STH 52 (STEWART AVE)

MARATHON
COUNTY PARK

WCLRR

WISCONSIN RIVER

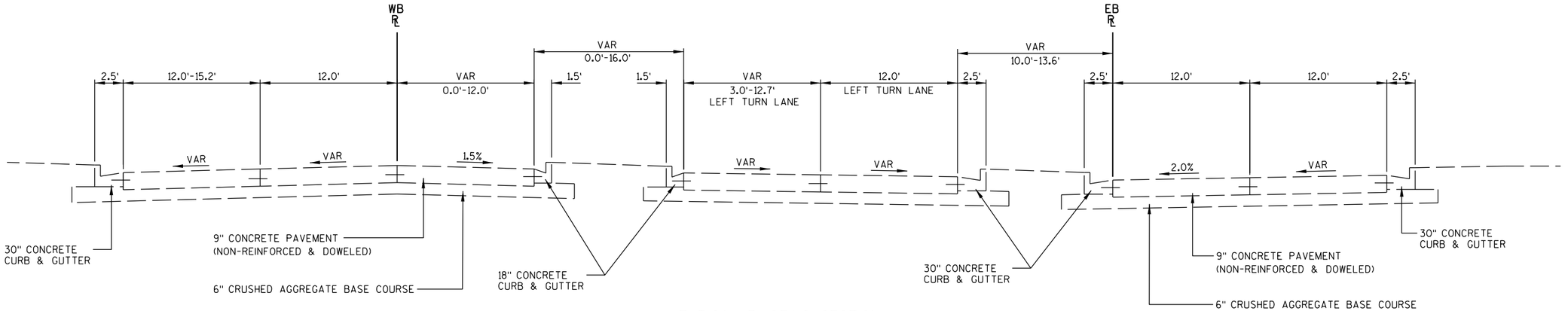
B-37-266

B-37-276

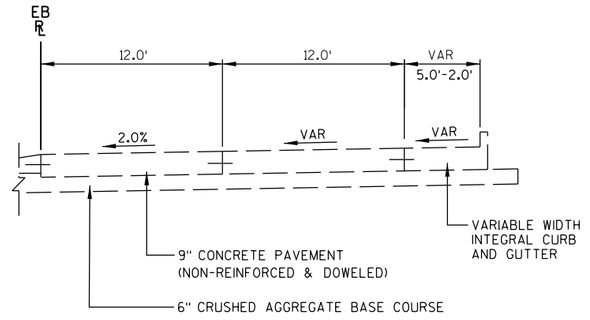
WASHINGTON STREET

END PROJECT
6999-03-79
STA 253+35.81 EB

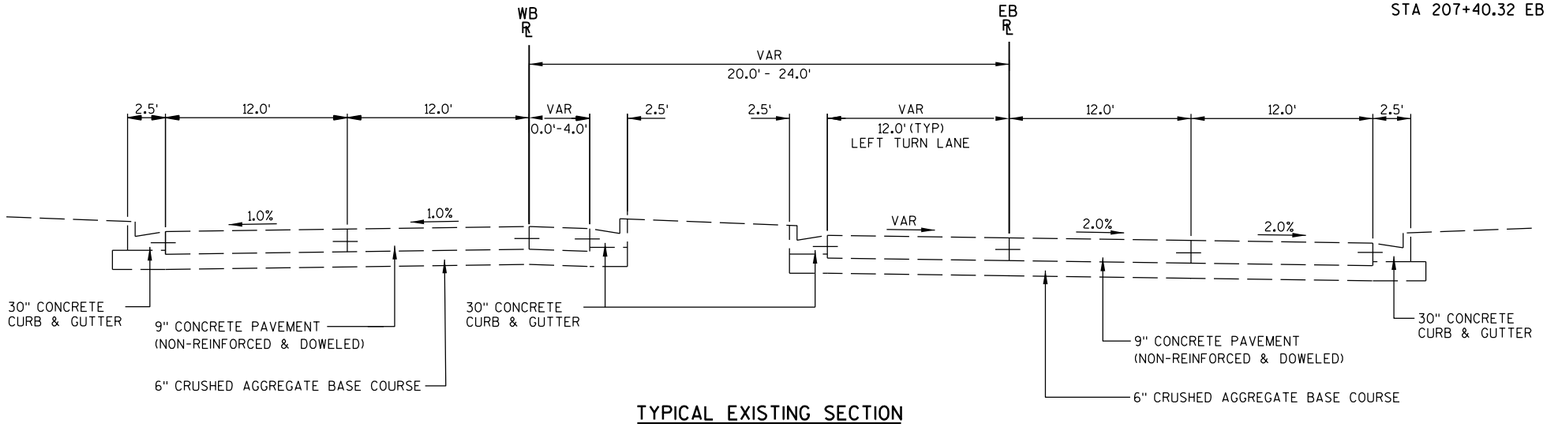
PROJECT NO:6999-03-79	HWY: STH 52	COUNTY:MARATHON	PROJECT OVERVIEW	SHEET 3	E



TYPICAL EXISTING SECTION
STH 52
STA 206+53.58 WB TO STA 211+05.15 WB
STA 207+40.32 EB TO STA 210+39.22 EB

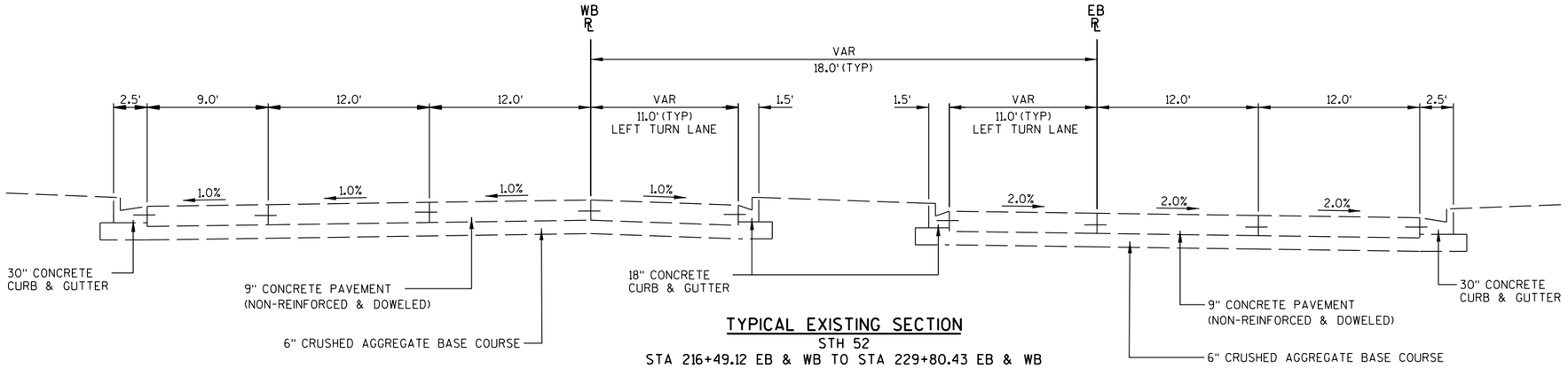


TYPICAL EXISTING SECTION
STH 52
STA 207+40.32 EB TO STA 207+83.32 EB

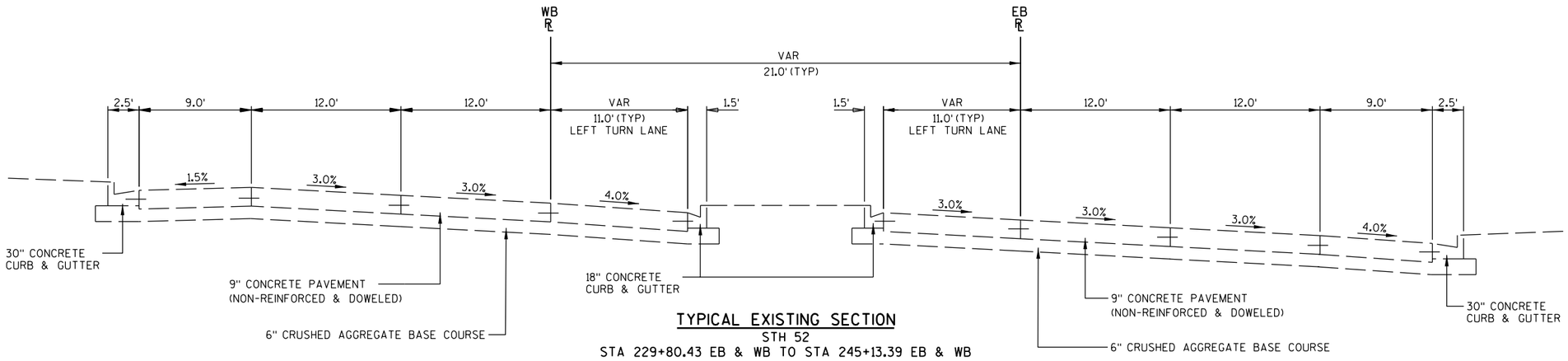


TYPICAL EXISTING SECTION
STH 52
STA 210+39.22 EB TO STA 216+49.12 EB
STA 211+05.15 WB TO STA 216+49.12 WB

2



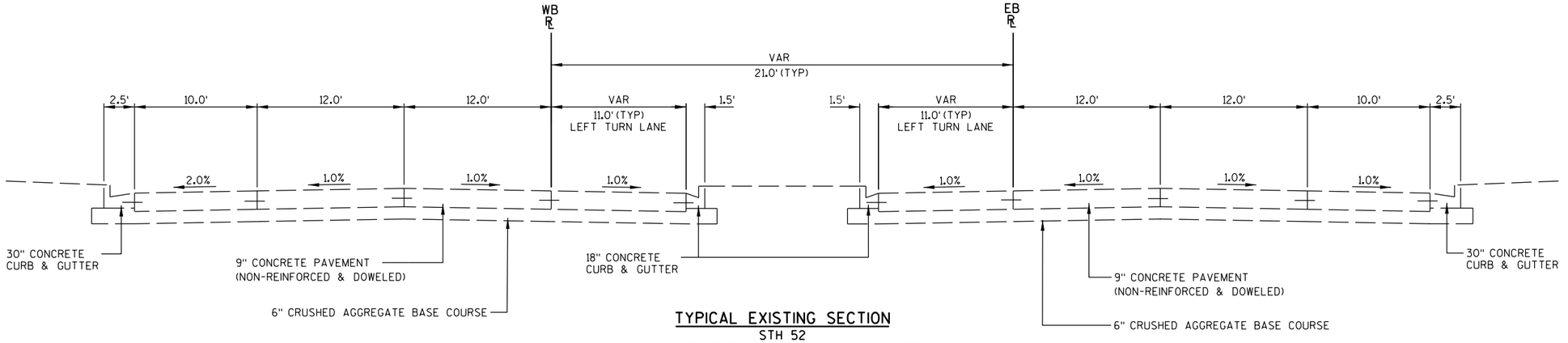
TYPICAL EXISTING SECTION
STH 52
STA 216+49.12 EB & WB TO STA 229+80.43 EB & WB



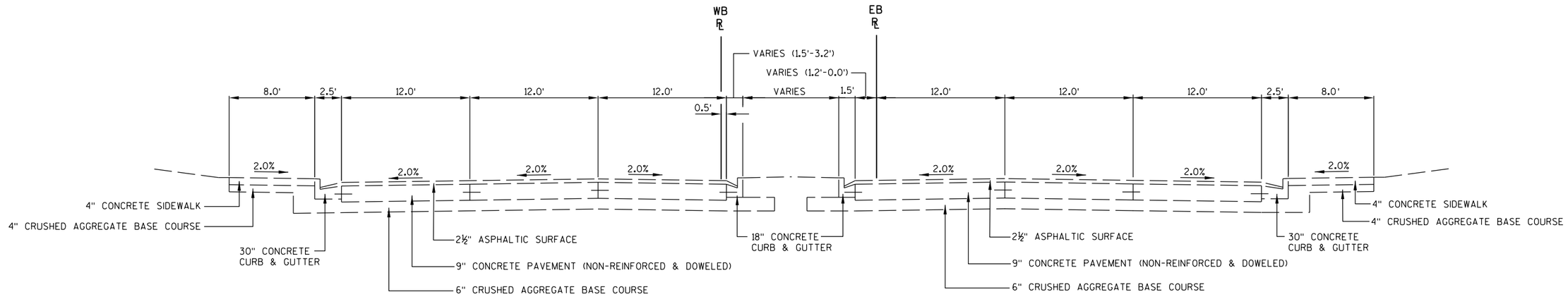
TYPICAL EXISTING SECTION
STH 52
STA 229+80.43 EB & WB TO STA 245+13.39 EB & WB

PROJECT NO:6999-03-79	HWY:STH 52	COUNTY:MARATHON	TYPICAL SECTIONS	SHEET 5	E

2

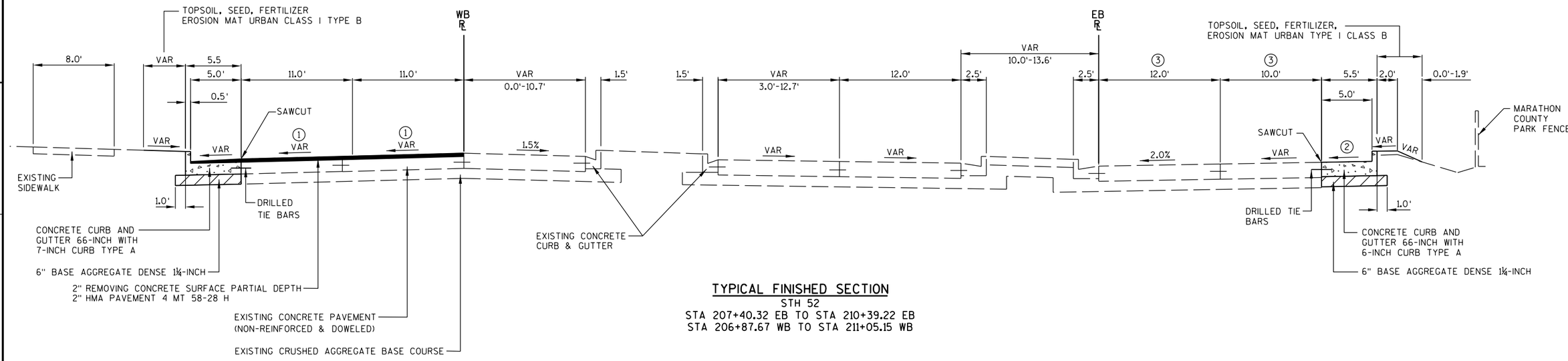


TYPICAL EXISTING SECTION
STH 52
STA 245+13.39 EB TO STA 252+78.09 EB
STA 245+13.39 WB TO STA 252+73.87 WB



TYPICAL EXISTING SECTION
STH 52
STA 252+78.09 EB TO STA 253+35.81 EB
STA 252+73.87 WB TO STA 253+13.21 WB

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 6	E



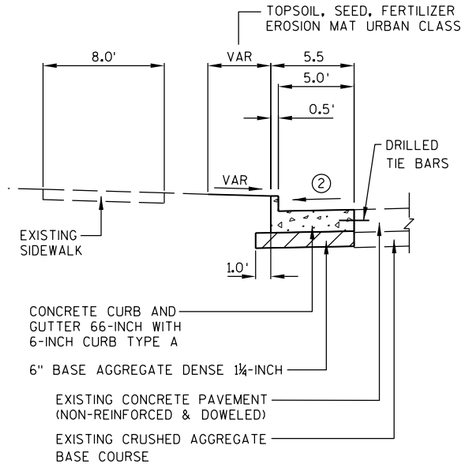
TYPICAL FINISHED SECTION
STH 52
STA 207+40.32 EB TO STA 210+39.22 EB
STA 206+87.67 WB TO STA 211+05.15 WB

NOTES:

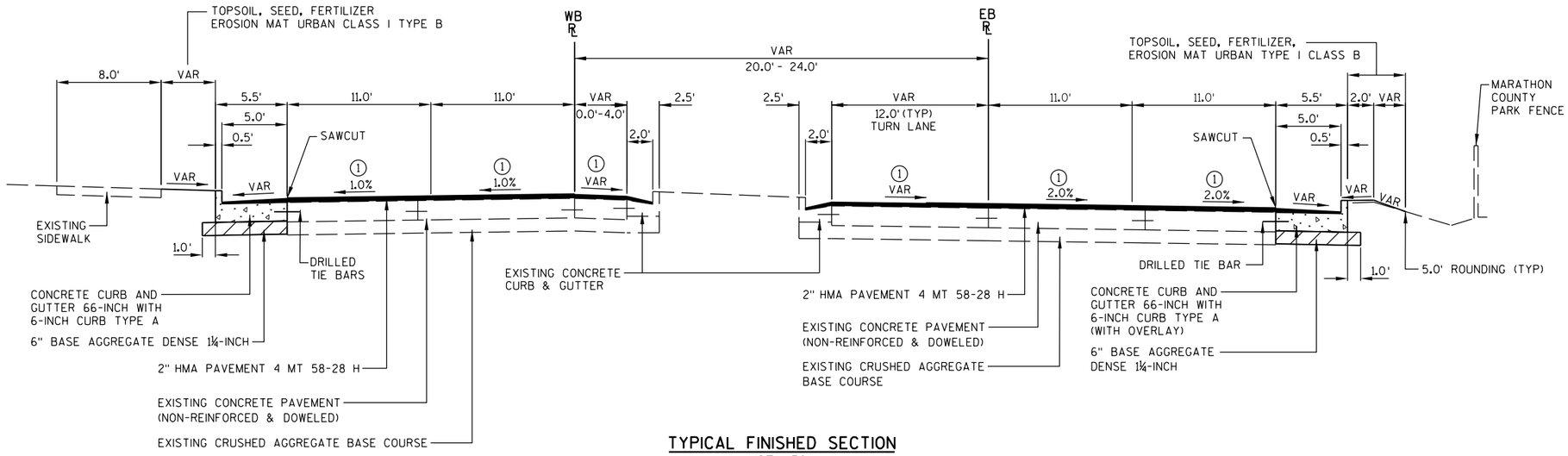
① MATCH EXISTING CROSS SLOPE

② MATCH ADJACENT CROSS SLOPE

③ TRANSITION FROM 12' TO 11' FROM STA 207+40.3 EB TO STA 207+79.5 EB



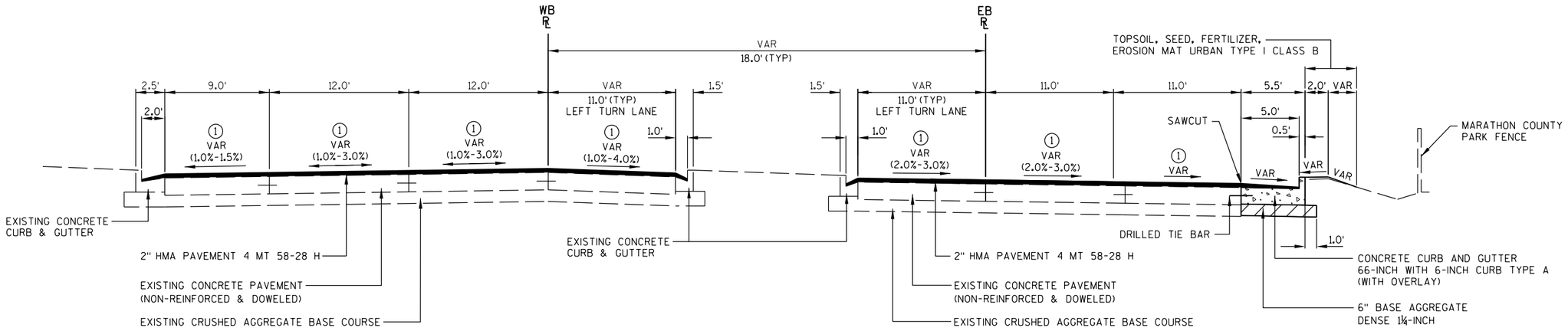
TYPICAL FINISHED SECTION
STH 52
STA 206+53.58 WB TO STA 206+87.67 WB



TYPICAL FINISHED SECTION
STH 52
STA 210+39.22 EB TO STA 216+49.12 EB
STA 211+05.15 WB TO STA 216+49.12 WB

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 7	E

2



TYPICAL FINISHED SECTION

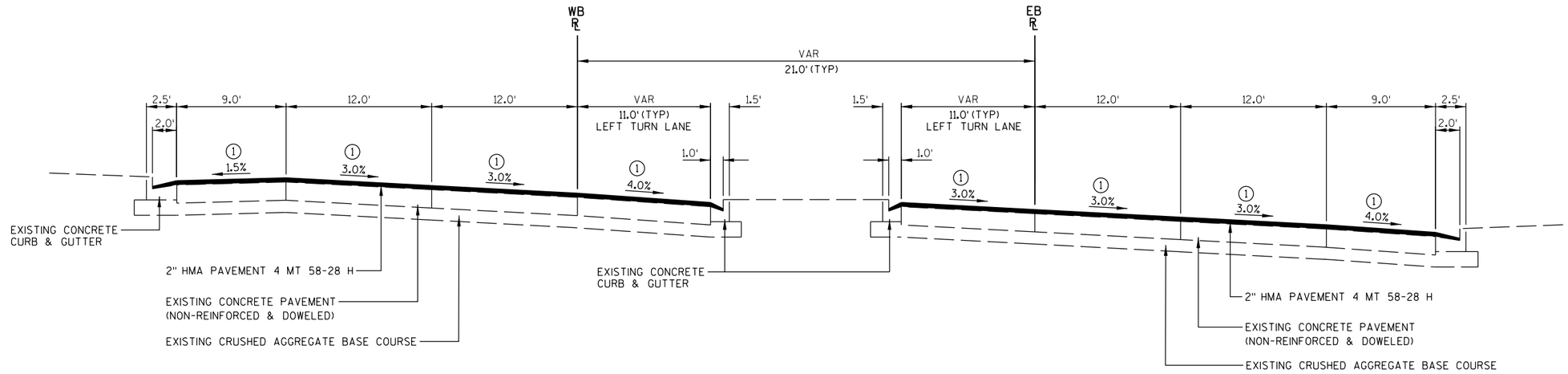
STH 52
STA 216+49.12 EB TO STA 228+25.50 EB

NOTES:

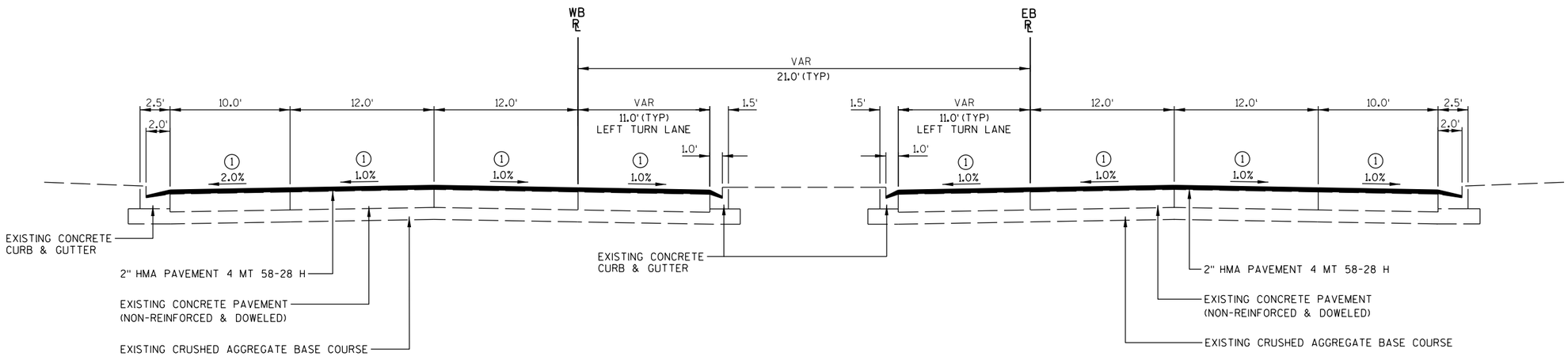
① MATCH EXISTING CROSS SLOPE

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 8	E

2



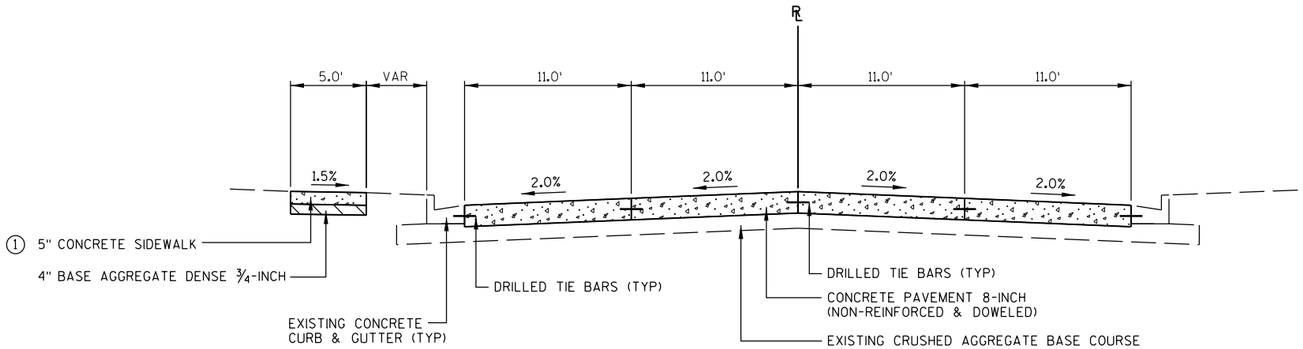
TYPICAL FINISHED SECTION
STH 52
STA 228+25.50 EB TO STA 245+13.39 EB



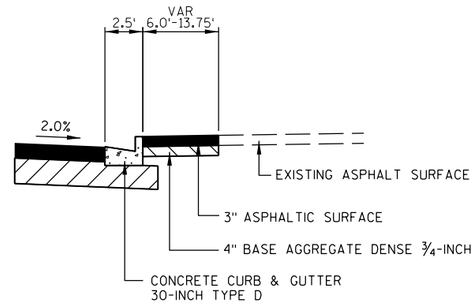
TYPICAL FINISHED SECTION
STH 52
STA 245+13.39 EB TO STA 253+35.81 EB & STA 253+13.21 WB

NOTES:

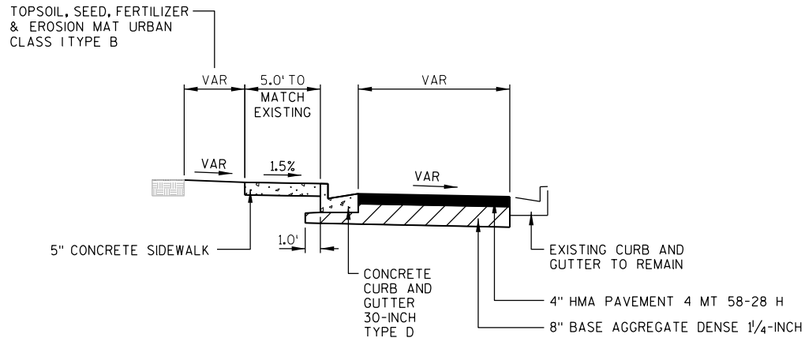
① MATCH EXISTING CROSS SLOPE



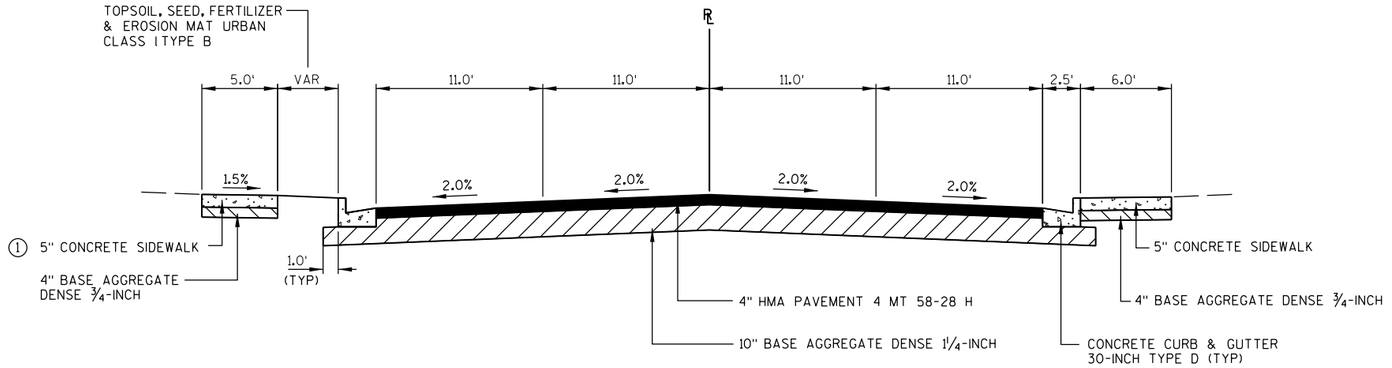
TYPICAL FINISHED SECTION
1ST AVE
STA 123+44.00 TO STA 123+65.92



TYPICAL FINISHED SECTION
1ST AVE
STA 123+75.49 TO STA 124+03.78 RT



TYPICAL FINISHED SECTION
CONNECTION FROM CUL-DE-SAC @ STA 250+70 WB LT



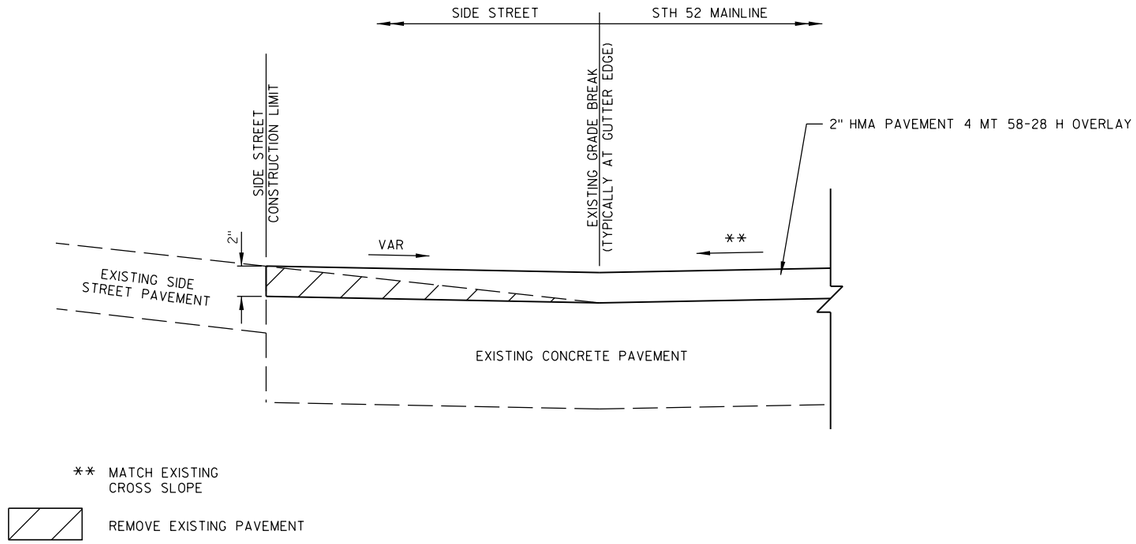
TYPICAL FINISHED SECTION
1ST AVE
STA 123+65.92 TO STA 124+08.90
STA 124+20.83 TO STA 124+35.47

NOTES:

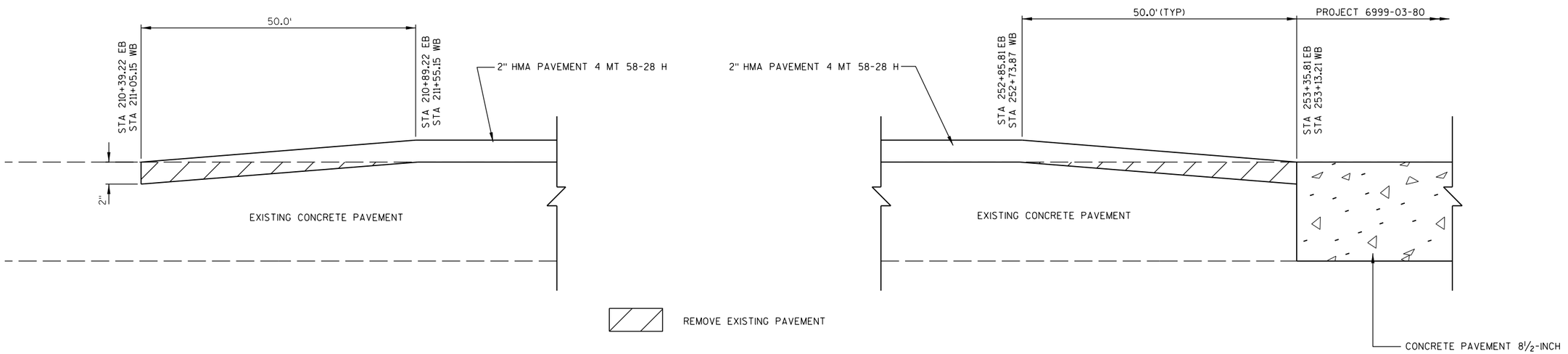
① 5" CONCRETE SIDEWALK FROM STA 123+57.00 TO STA 123+76.8 AND STA 124+11.5 TO STEWART AVE.

3" ASPHALTIC SURFACE FROM STA 123+76.8 TO STA 124+11.5 EXCEPT FOR RR CROSSING.

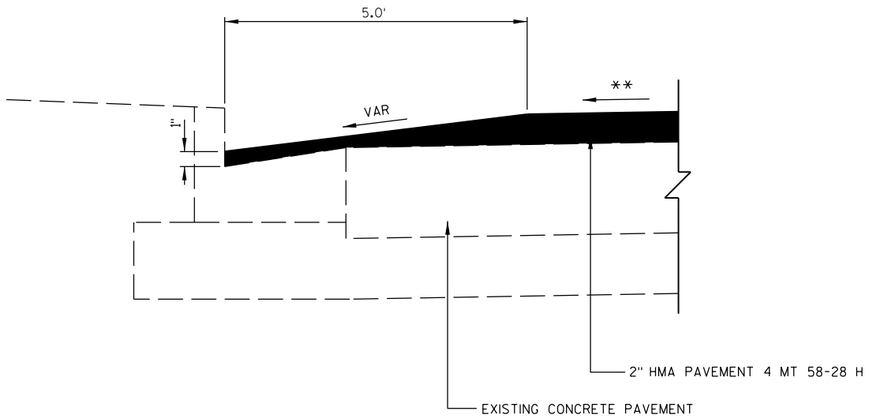
2



SIDE STREET BUTT JOINT



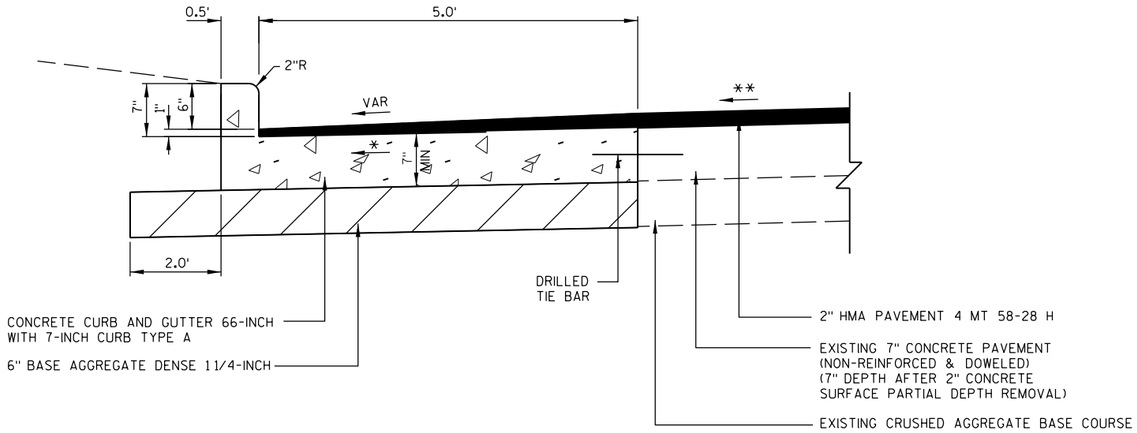
MAINLINE BUTT JOINT



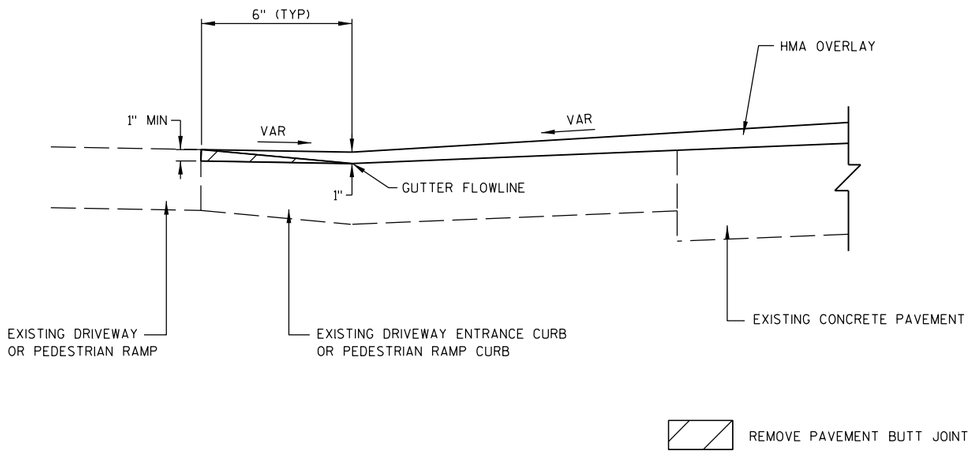
EXISTING CONCRETE CURB AND GUTTER OVERLAY

* MATCH ADJACENT CROSS SLOPE

** MATCH EXISTING CROSS SLOPE



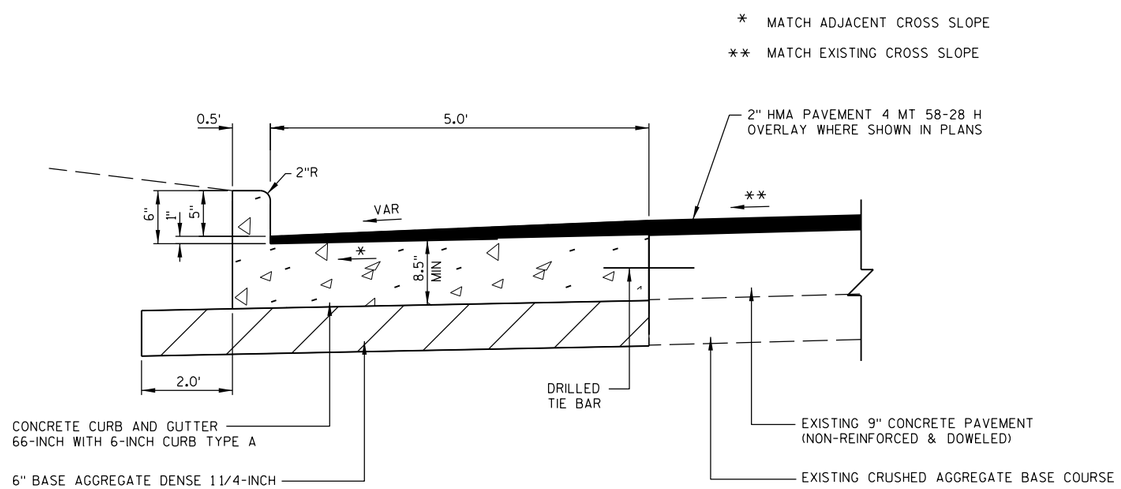
CONCRETE CURB AND GUTTER 66-INCH WITH 7-INCH CURB TYPE A



OVERLAY AT EXISTING DRIVEWAY ENTRANCES
AND PEDESTRIAN RAMPS

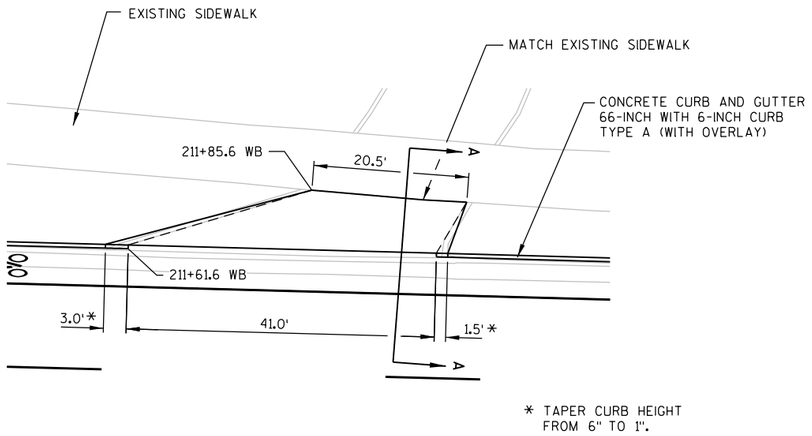
* MATCH ADJACENT CROSS SLOPE

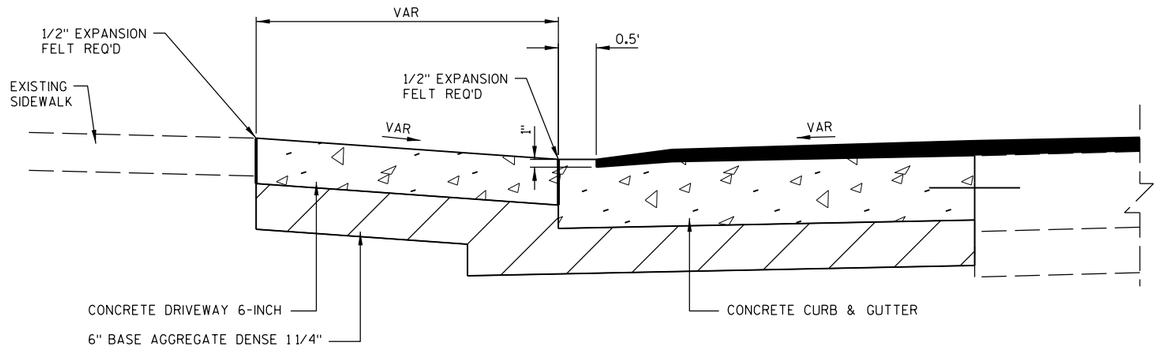
** MATCH EXISTING CROSS SLOPE



CONCRETE CURB AND GUTTER 66-INCH WITH 6-INCH CURB TYPE A

2





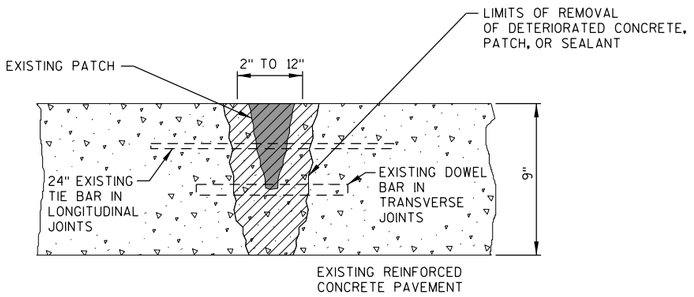
SECTION A-A

DRIVEWAY STA 211+82 WB LT

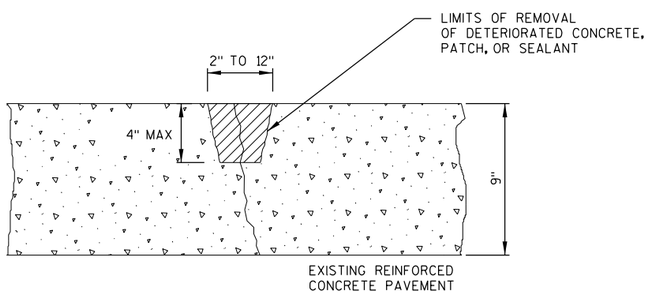
LEGEND

EXISTING PATCH

AREA TO BE REMOVED AND REPLACED WITH ASPHALTIC SURFACE IN PCC JOINTS/CRACKS



LONGITUDINAL AND TRANSVERSE JOINT REPAIR

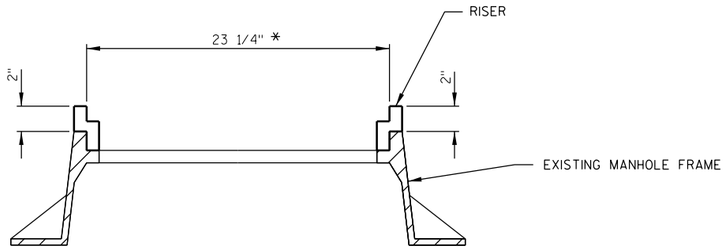


CRACK REPAIR

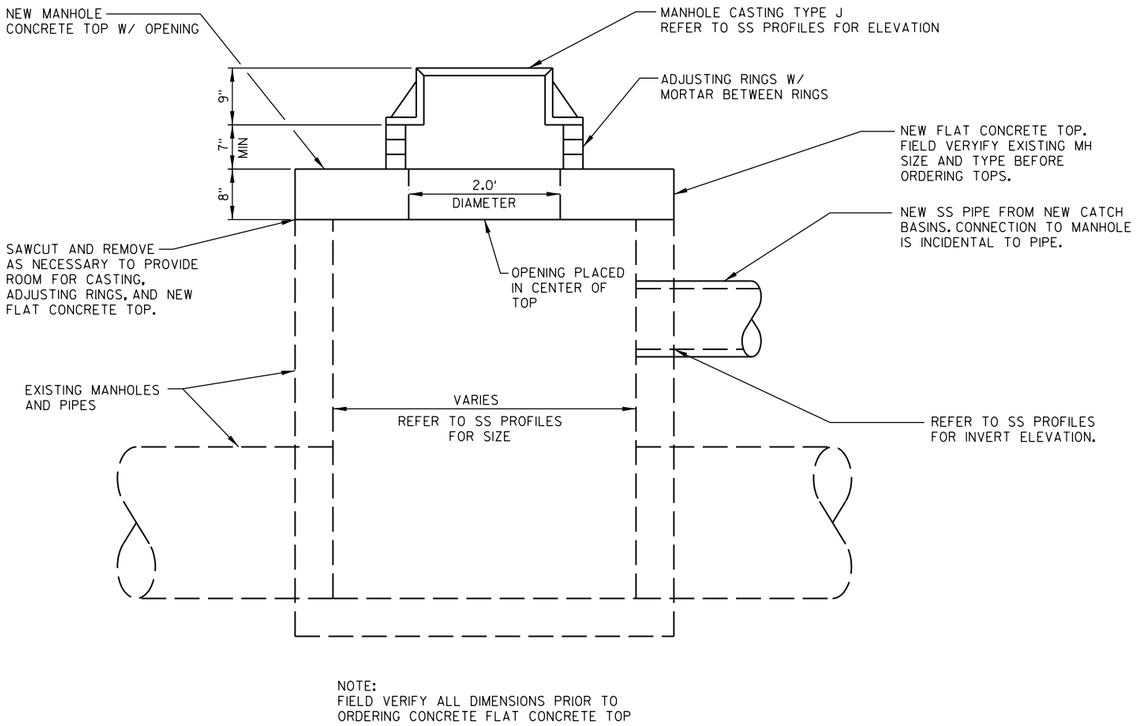
JOINT AND CRACK REPAIR

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 13	E

* FIELD CONFIRM ALL NECESSARY MEASUREMENTS ON EXISTING COVERS BEFORE ORDERING RISERS.



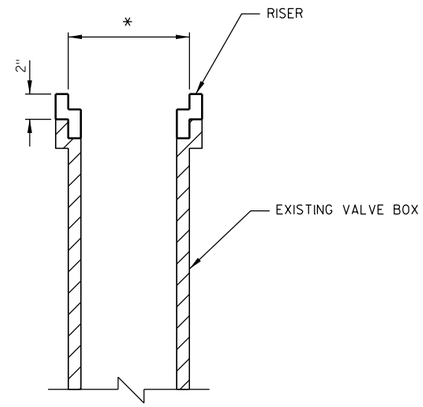
MANHOLE RISER 2-INCH



NOTE:
FIELD VERIFY ALL DIMENSIONS PRIOR TO ORDERING CONCRETE FLAT CONCRETE TOP

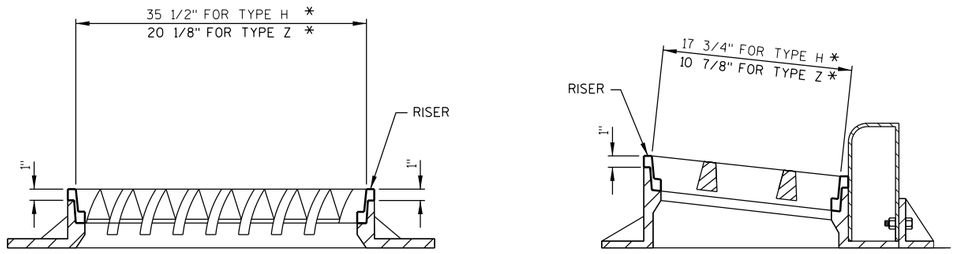
RECONSTRUCT MANHOLE

* TO BE MEASURED IN FIELD BEFORE ORDERING RISER.



VALVE BOX RISER 2-INCH

* FIELD CONFIRM ALL NECESSARY MEASUREMENTS ON EXISTING COVERS BEFORE ORDERING RISERS.

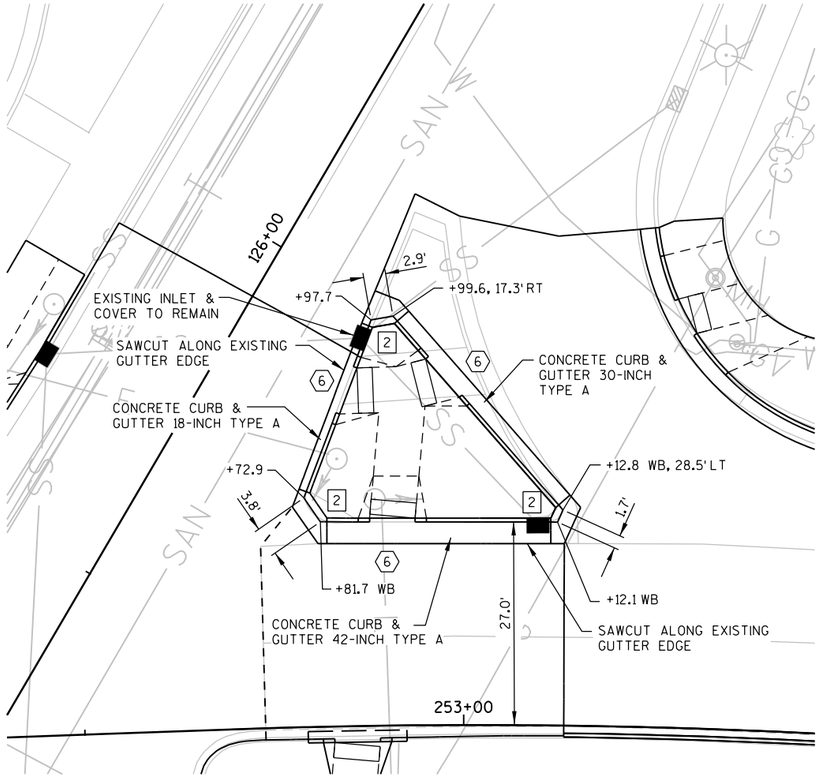


INLET RISERS 1-INCH TYPE H & Z

LEGEND

[2] CONCRETE MEDIAN SLOPED NOSE TYPE 2

⟨6⟩ CURB RAMP TYPE 6



ISLAND RECONSTRUCTION AT
STEWART AVENUE AND 1ST AVENUE INTERSECTION

LEGEND

* INSTALL SIGN AND BARRICADES WHEN SIDEWALK WITHIN PROJECT LIMITS IS CLOSED FOR CONSTRUCTION

DIRECTION OF PEDESTRIAN ACCESS

[1] TEMPORARY CURB RAMP

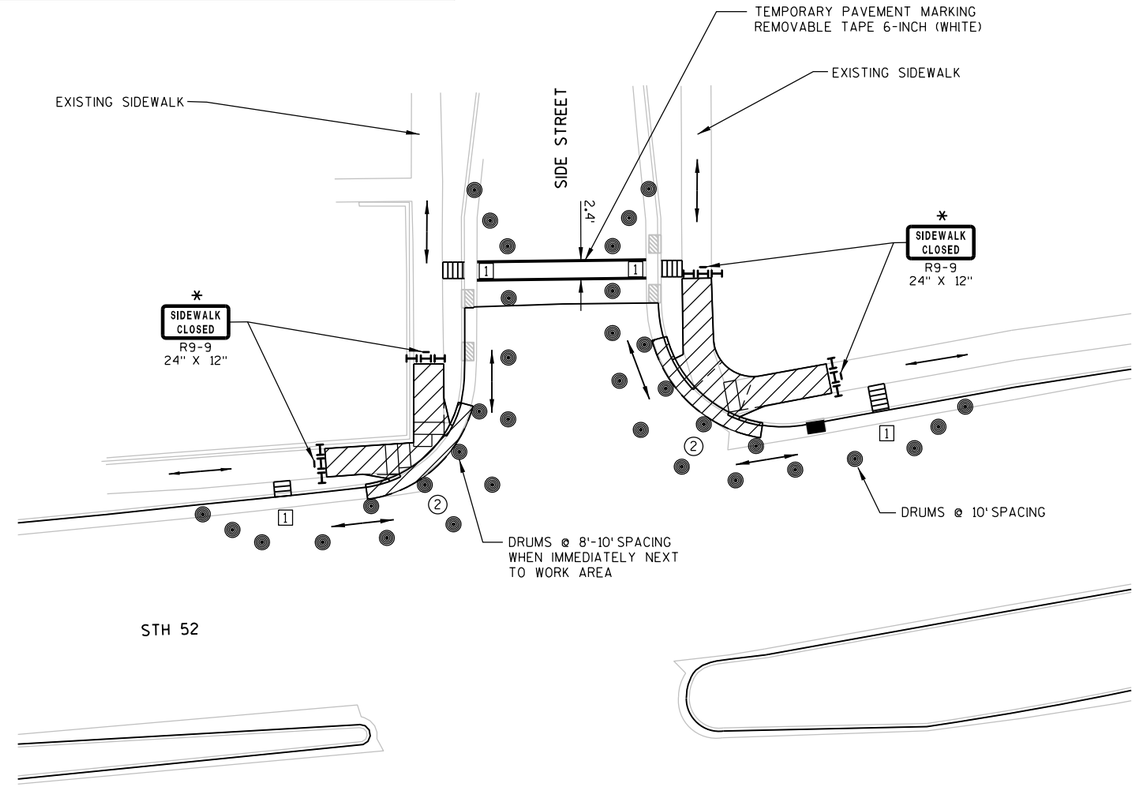
(2) WIDTH BETWEEN DRUMS TO ALLOW ROOM FOR PEDESTRIANS = 5' DESIRABLE, 4' MINIMUM

CHANNELIZER DRUM OR TRAFFIC CONTROL DRUM

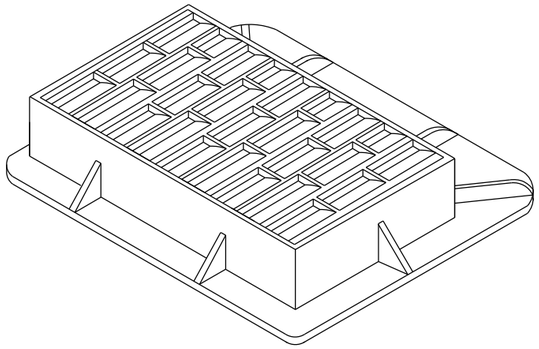
TYPE 2 BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT TYPE A, LOW-INTENSITY FLASHING)

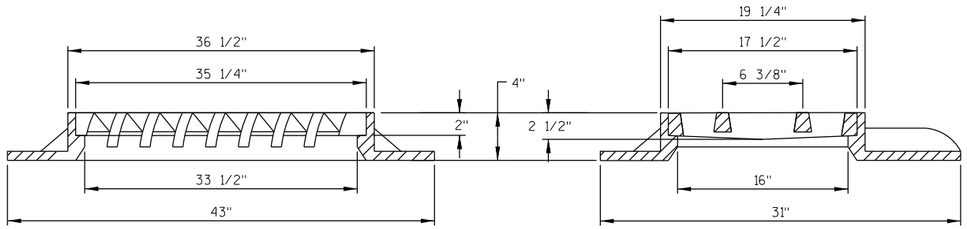
TEMPORARY PEDESTRIAN SURFACE PLYWOOD WHERE TERRACE IS GRASS

WORK AREA FOR SIDEWALK CURB RAMP REPLACEMENT

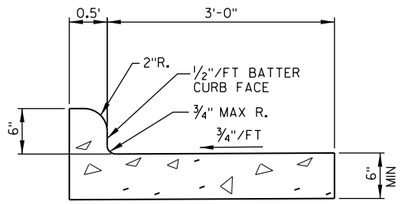


TEMPORARY PEDESTRIAN CROSSINGS/ACCESS WHERE CURB RAMPS ARE REPLACED

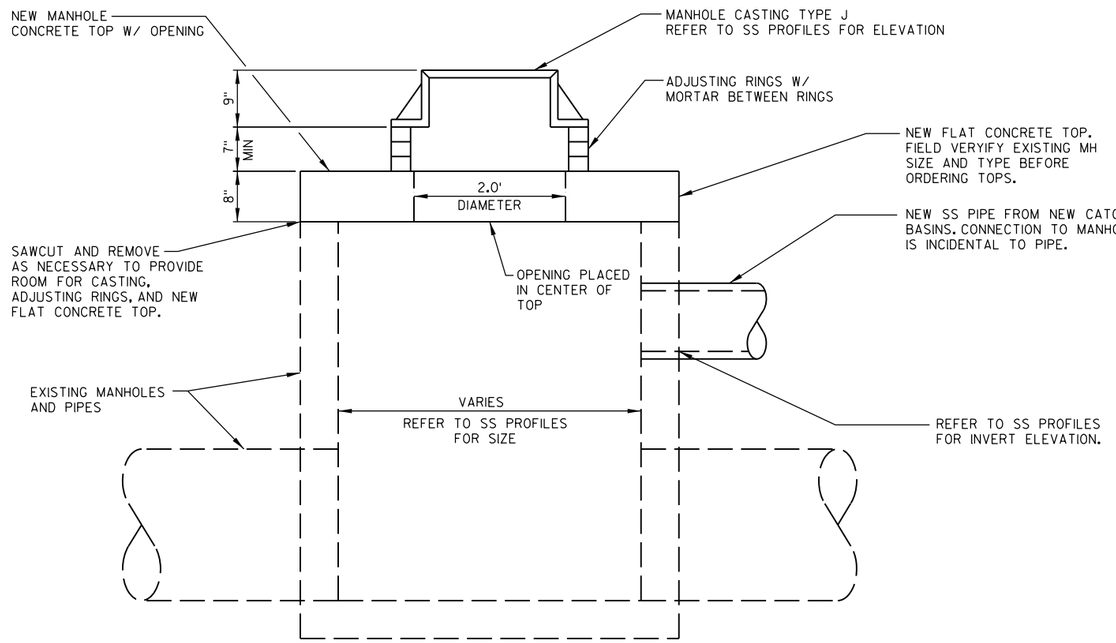




INLET COVERS TYPE H-D



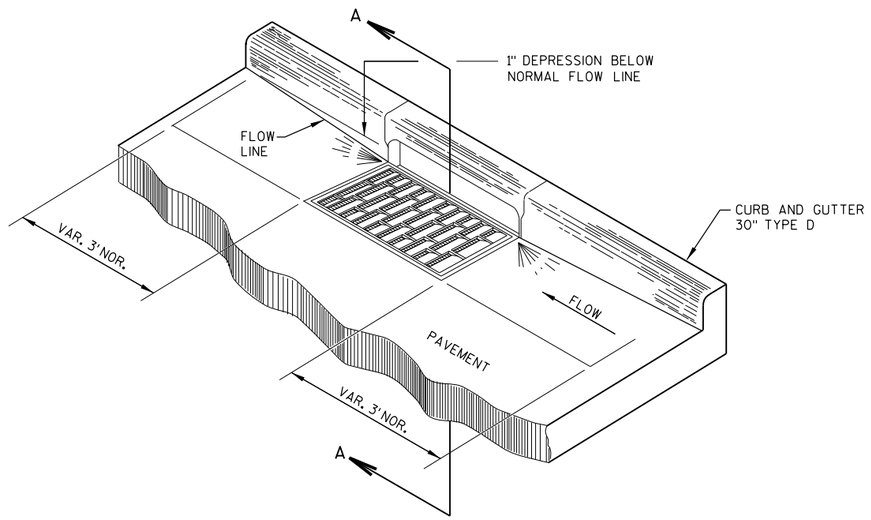
CONCRETE CURB AND GUTTER 42-INCH TYPE A



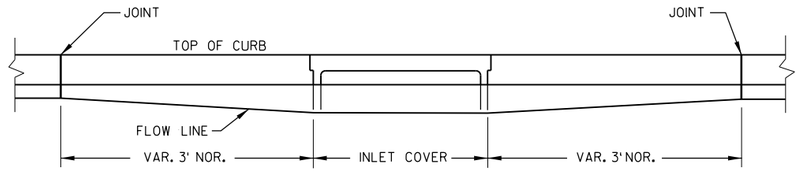
NOTE:
FIELD VERIFY ALL DIMENSIONS PRIOR TO
ORDERING CONCRETE FLAT CONCRETE TOP

RECONSTRUCT MANHOLE

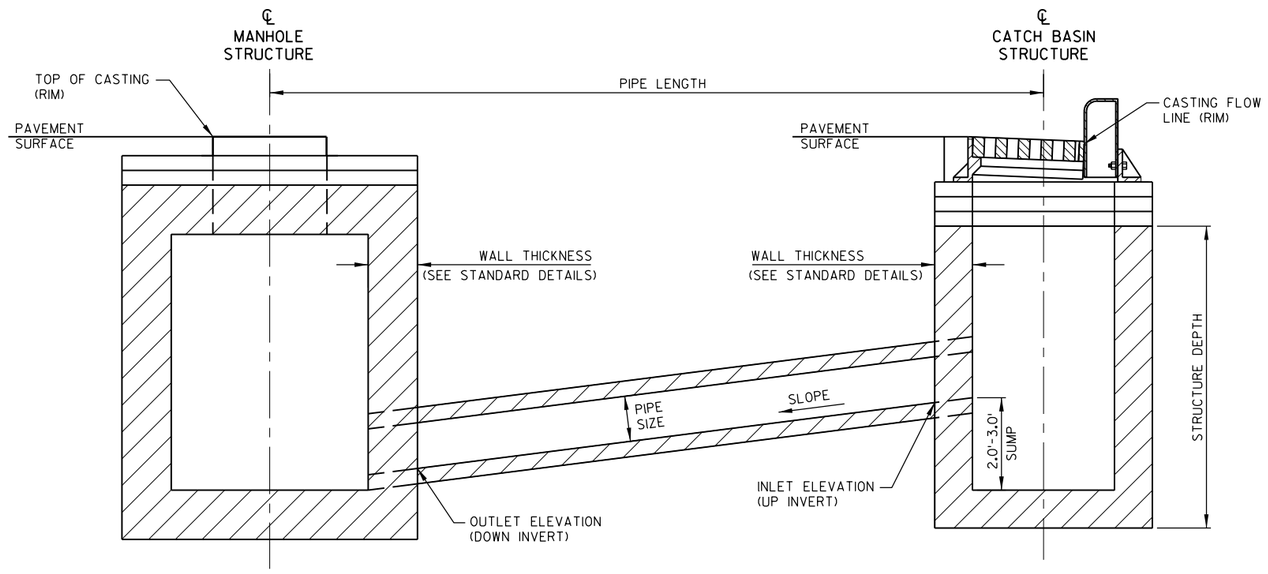
2



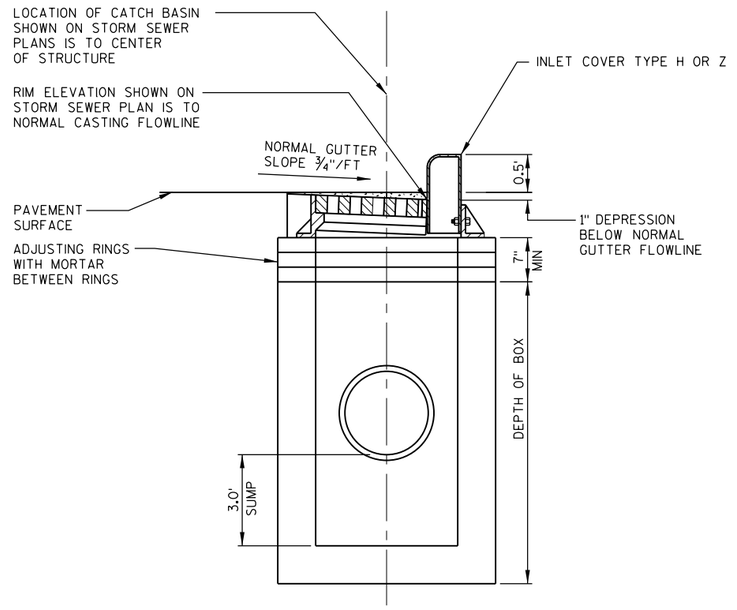
CATCH BASIN



ELEVATION

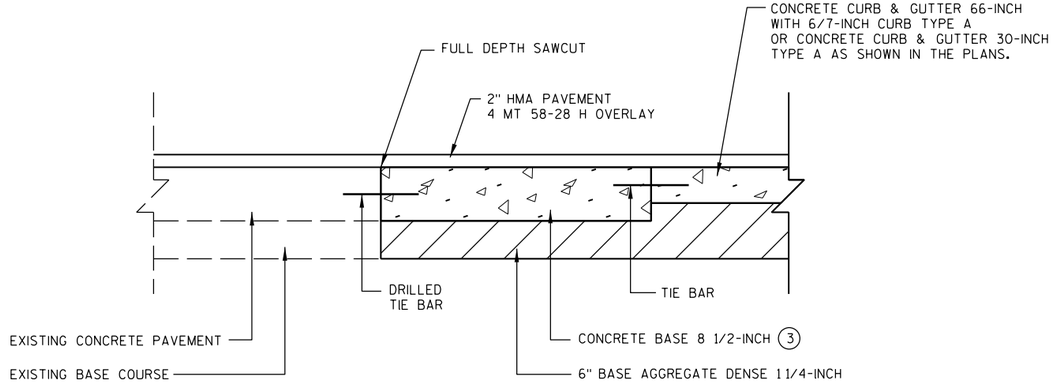


STORM SEWER MEASUREMENT

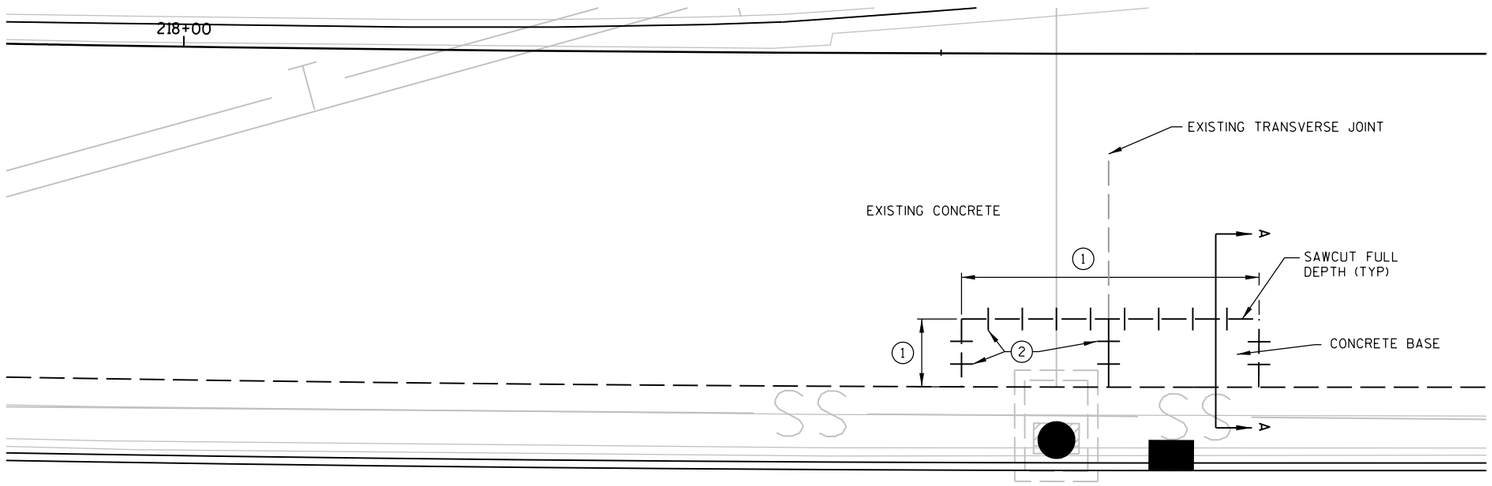


SECTION A-A

2



SECTION A-A



NOTES:

(1) LOCATION AND SIZE OF PAVEMENT REMOVAL AS SHOWN IN PLANS OR AS DIRECTED BY ENGINEER.

(2) REFER TO SDD "CONCRETE BASE" FOR JOINTING, DOWEL BAR, AND TIE BAR REQUIREMENTS.

(3) CONCRETE PAVEMENT 8 1/2-INCH WHERE NO HMA OVERLAY.

PAVEMENT REMOVAL & REPLACEMENT FOR
STORM SEWER REPLACEMENT AND/OR RECONSTRUCT

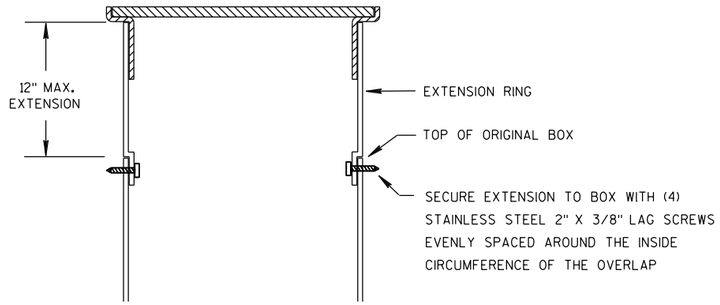
2

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

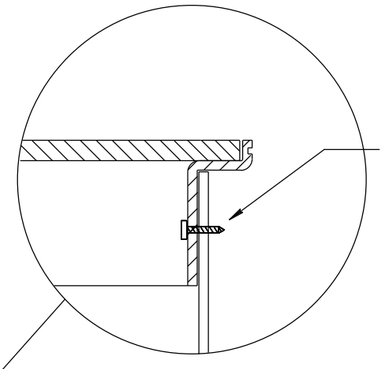
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

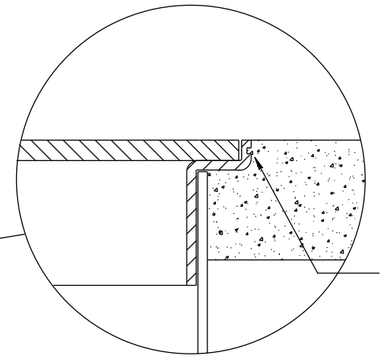


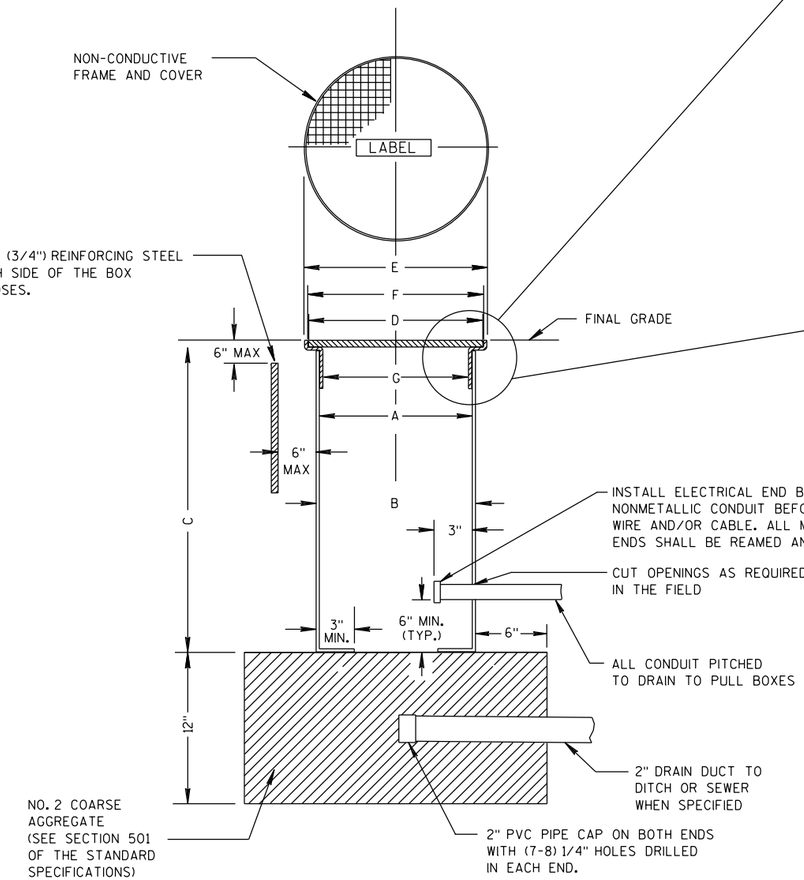
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE 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 BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL OR LIGHTING SYSTEMS. "COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.

ELECTRICAL DETAILS, SIGNAL PLANS, & LIGHTING DETAILS PREPARED BY:

KL Engineering
[A] Better Experience

WISCONSIN
MIKE D. SCARMON
E-37613
EVANSVILLE, WI
PROFESSIONAL ENGINEER

2-1-16
(DATE)

(SIGNATURE)

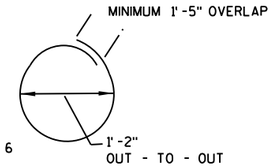
PROJECT NO: 6999-03-79/80/81	HWY: STH 52	COUNTY: MARATHON	ELECTRICAL DETAILS	SHEET 19	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024003_cd.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

SPREAD FOOTING DIMENSIONS
STEEL AND CONCRETE QUANTITIES ARE APPROXIMATE

TYPE OF BASE	D =	THEN L=	401 HOOPS LBS.	402 VERTICAL BARS LBS.	403 HORIZ BARS LBS.	TOTAL LBS. STEEL	CONCR YDS.
TYPE 1	3'	4' 6"	11	11	32	54	1.6



(401) HOOP, NO. 4 5'-1" BAR STEEL, QUANTITY 3

(402) VERTICAL, NO. 4 "D" - 4" BAR STEEL, QUANTITY 6

(403) HORIZONTAL, NO. 4 "L" - 6" BAR STEEL, QUANTITY 6

GENERAL NOTES

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

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.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL PER SECTION 5.17.6.3, AASHTO 2001 4TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS.

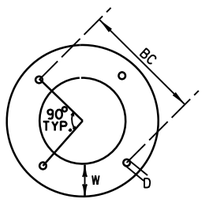
WELDING OF THE ANCHOR RODS TO THE CAGE OR TEMPLATE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

CONDUIT SHOWN FOR ILLUSTRATION ONLY AND VARIES BY "D"

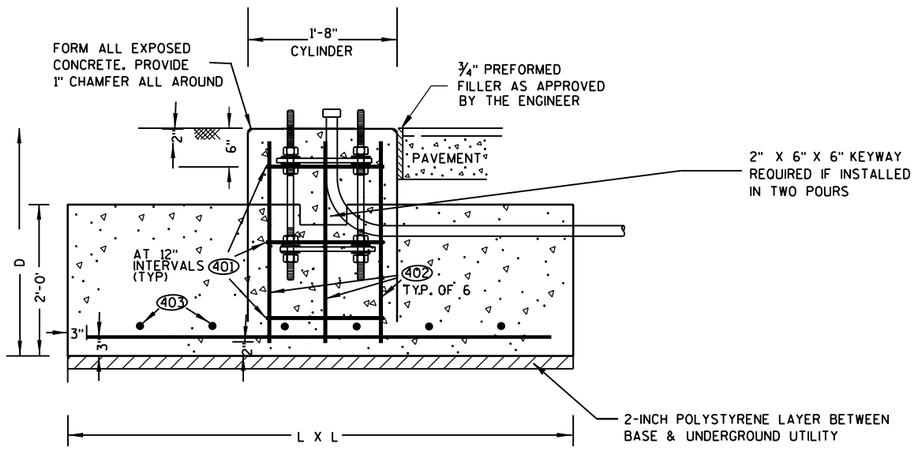
ANCHOR ROD PATTERN SHALL BE PARALLEL TO THE ROADWAY

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE 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.



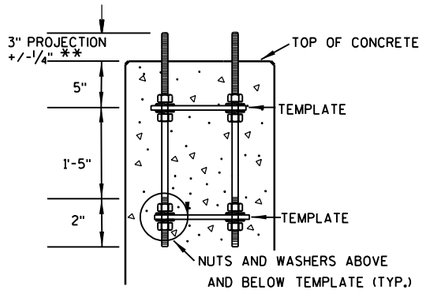
	TYPE 1
THICKNESS OF PLATE	1/2"
BOLT CIRCLE "BC"	12.75"
WIDTH "W"	3" +/-
HOLE DIAMETER "D"	1.125"
ANCHOR ROD	1" X 2'-3"

ANCHOR ROD TEMPLATE



CONCRETE BASE TYPE 1 WITH SPREAD FOOTING

NO SCALE



ANCHOR ROD ASSEMBLY

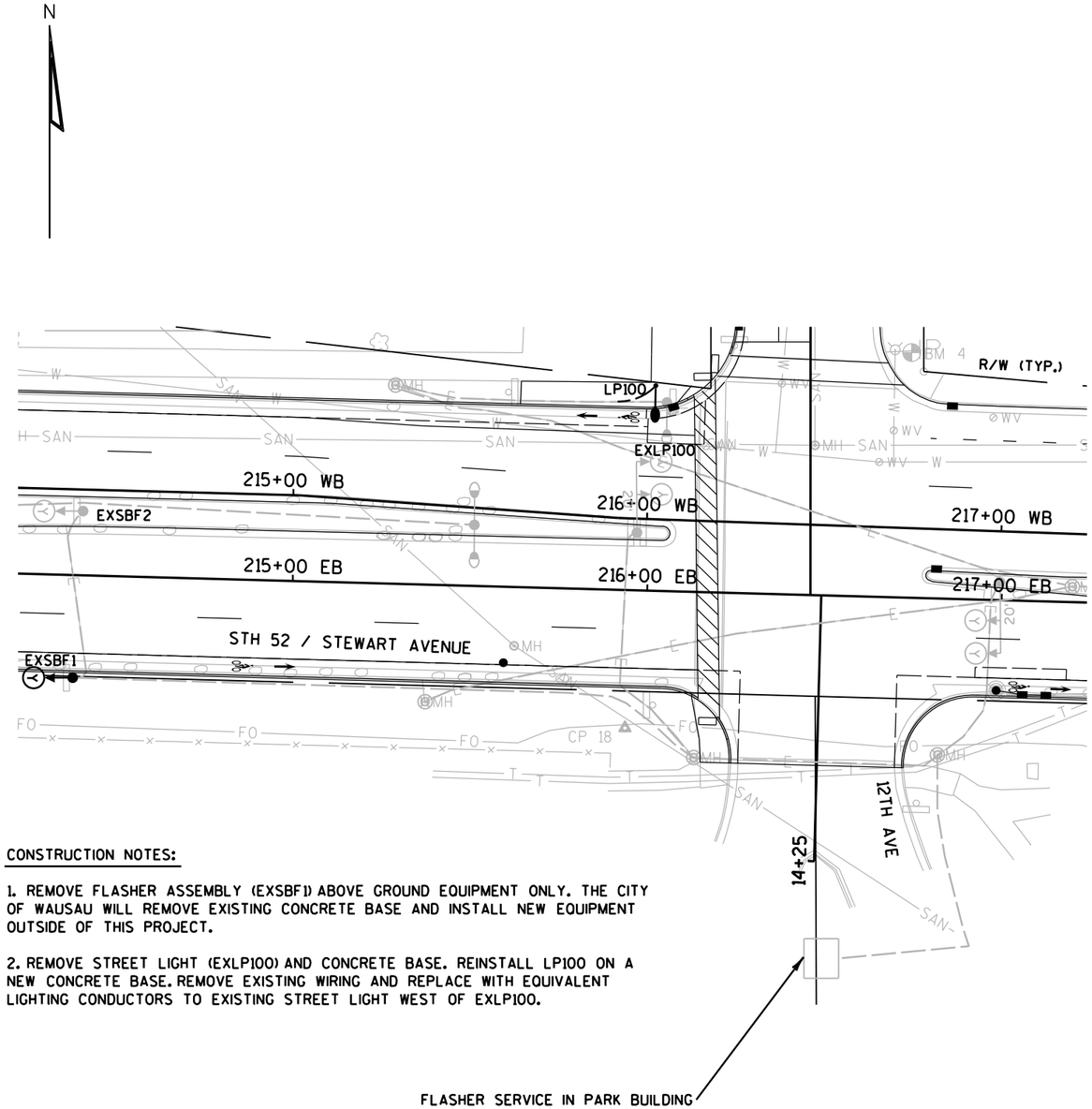
ANCHOR ROD SHALL BE ASTM A449/AASHTO M314-90 GR55 THREADED 12-INCH AT TOP; 4-INCH AT BOTTOM, HOT-DIP GAVANIZED TO ASTM A153, GR C

REQUIRED:

2 TEMPLATES
4 ANCHOR RODS
16 FLAT WASHERS HOT-DIP GALVANIZED
16 HEAVY DUTY HEX NUTS* HOT-DIP GALVANIZED

*CHASE THREADS FOR HOT-DIP GALVANIZED ANCHOR RODS
** FAILURE TO MEET TOLERANCE CONDEMNS THE BASE

2



CONSTRUCTION NOTES:

1. REMOVE FLASHER ASSEMBLY (EXSBF1) ABOVE GROUND EQUIPMENT ONLY. THE CITY OF WAUSAU WILL REMOVE EXISTING CONCRETE BASE AND INSTALL NEW EQUIPMENT OUTSIDE OF THIS PROJECT.

2. REMOVE STREET LIGHT (EXLP100) AND CONCRETE BASE. REINSTALL LP100 ON A NEW CONCRETE BASE. REMOVE EXISTING WIRING AND REPLACE WITH EQUIVALENT LIGHTING CONDUCTORS TO EXISTING STREET LIGHT WEST OF EXLP100.

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	ELECTRICAL DETAILS	SHEET	E

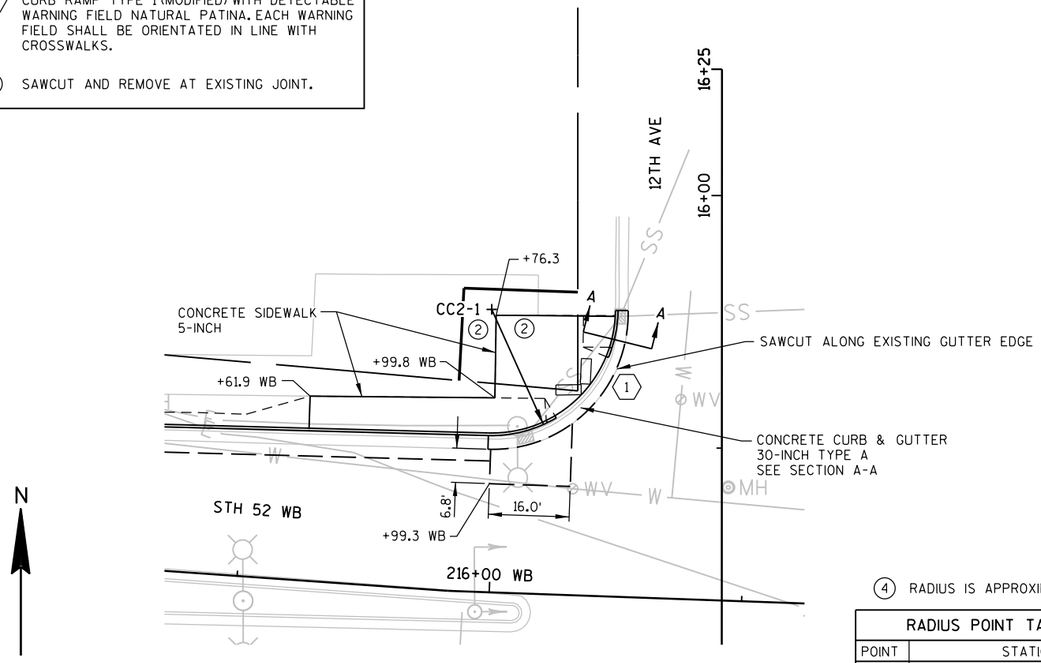
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024001_cd.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

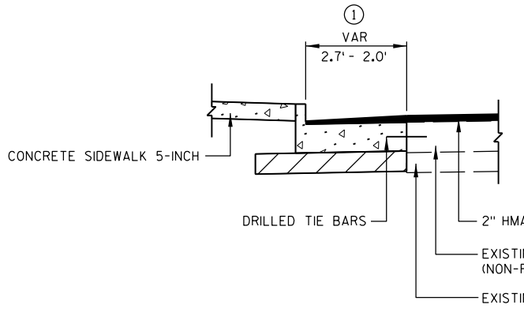
2

LEGEND

(1) CURB RAMP TYPE 1 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA. EACH WARNING FIELD SHALL BE ORIENTATED IN LINE WITH CROSSWALKS.

(2) SAWCUT AND REMOVE AT EXISTING JOINT.



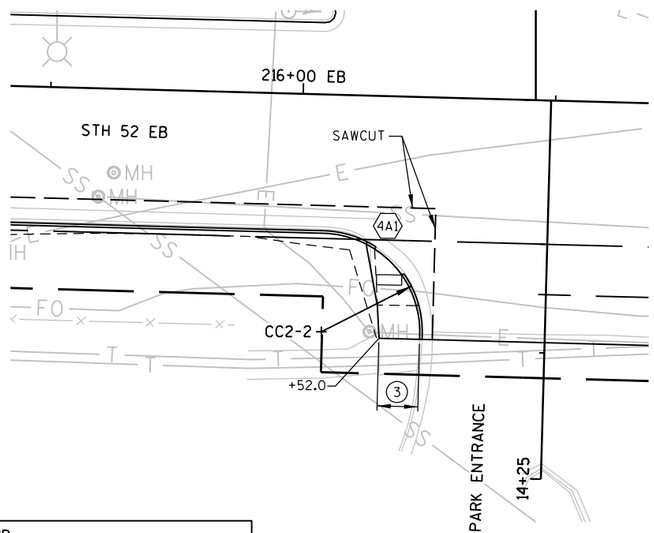


(1) GUTTER WIDTH VARIES FROM 2.7' TO 2.0' WIDE. PAID AS CONCRETE CURB AND GUTTER 30-INCH TYPE A.

SECTION A-A

(4) RADIUS IS APPROXIMATE, ADJUST TO MATCH EXISTING CONDITIONS.

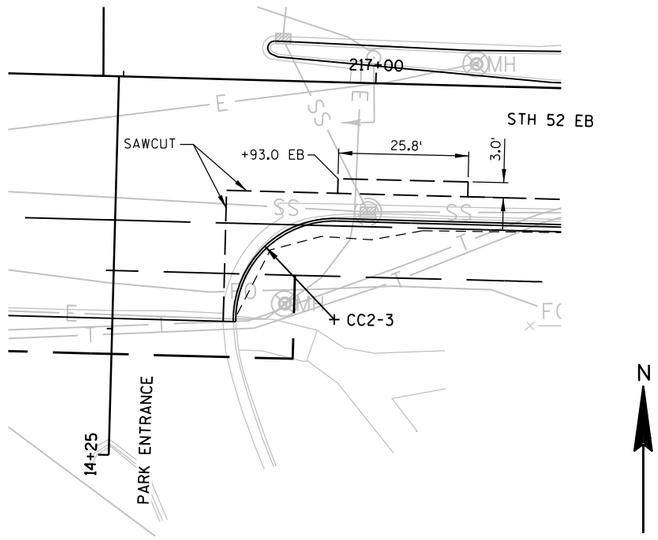
RADIUS POINT TABLE (MEASURED TO CURB FACE / FLOWLINE)				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC2-1	215+98.55 WB STH 52 15+77.45 12TH AVE	56.0' LT 45.6' LT	25.0' (4)	Y= 201911.568 X= 275926.545
CC2-2	216+04.84 EB STH 52 14+53.00 PARK ENTRANCE	47.0' RT 44.3' LT	20.0' (4)	Y= 201788.228 X= 275929.632
CC2-3	216+93.03 EB STH 52 14+53.00 PARK ENTRANCE	47.0' RT 43.9' RT	20.0' (4)	Y= 276017.787 X= 201785.844
CC3-1	226+24.32 WB STH 52 45+73.11 9TH AVE	55.1' LT 37.9' LT	20.0' (4)	Y= 201906.274 X= 276950.029



LEGEND

(4A1) CURB RAMP TYPE 4A1 WITH DETECTABLE WARNING FIELD NATURAL PATINA.

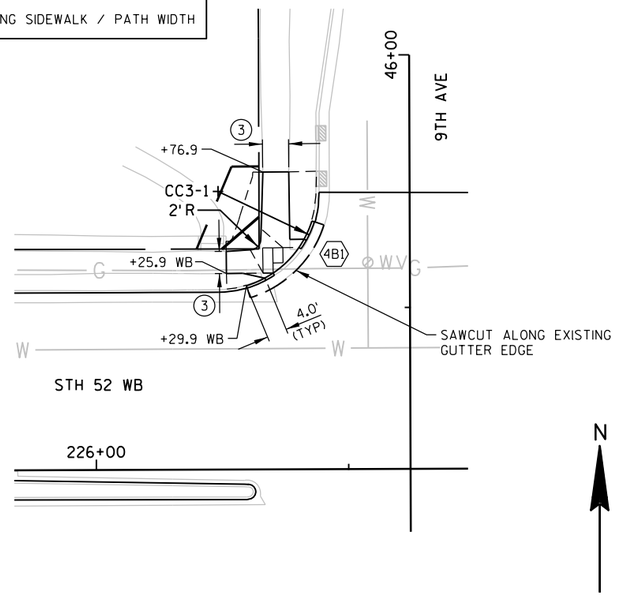
(3) MATCH EXISTING SIDEWALK / PATH WIDTH



LEGEND

(4B1) CURB RAMP TYPE 4B1 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(3) MATCH EXISTING SIDEWALK / PATH WIDTH

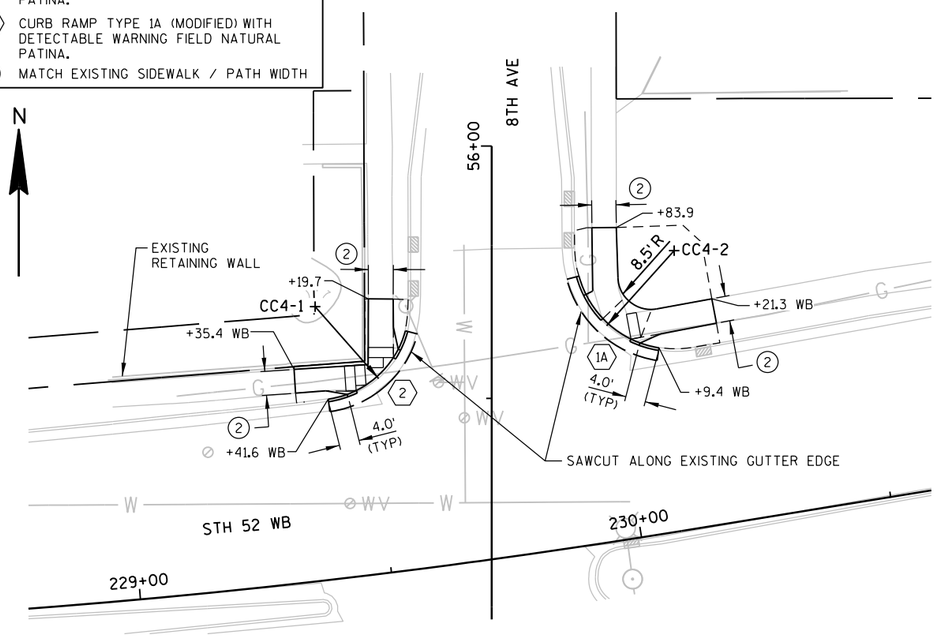


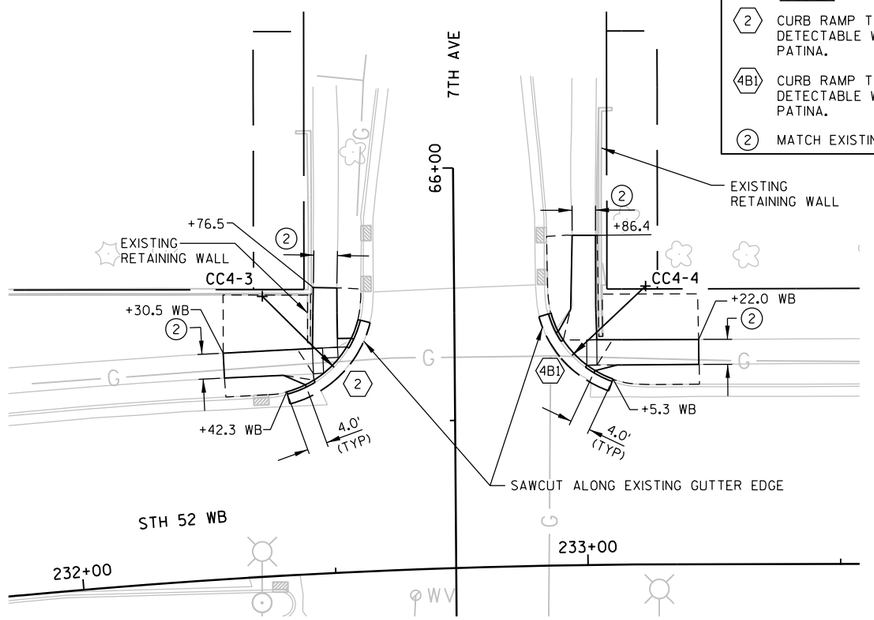
LEGEND

(2) CURB RAMP TYPE 2 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(1A) CURB RAMP TYPE 1A (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(2) MATCH EXISTING SIDEWALK / PATH WIDTH





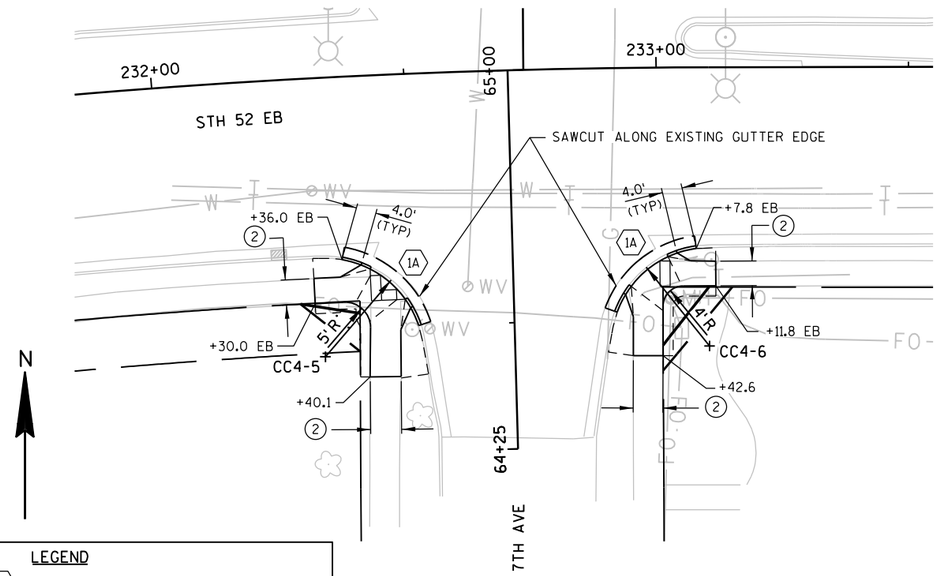
LEGEND

(2) CURB RAMP TYPE 2 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(4B1) CURB RAMP TYPE 4B1 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(2) MATCH EXISTING SIDEWALK / PATH WIDTH

2



LEGEND

(1A) CURB RAMP TYPE 1A (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(2) MATCH EXISTING SIDEWALK / PATH WIDTH

(1) RADIUS IS APPROXIMATE. ADJUST TO MATCH EXISTING CONDITIONS.

RADIUS POINT TABLE (MEASURED TO CURB FACE / FLOWLINE)				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC4-1	229+41.15 WB STH 52 55+68.17 8TH AVE	54.1' LT 35.0' LT	19.0' (1)	Y= 201915.916 X= 277260.318
CC4-2	230+15.50 WB STH 52 55+79.27 8TH AVE	55.0' LT 36.2' RT	20.0' (1)	Y= 201927.013 X= 277331.424
CC4-3	232+38.59 WB STH 52 65+74.89 7TH AVE	55.5' LT 38.0' LT	20.0' (1)	Y= 201956.217 X= 277558.260
CC4-4	233+11.73 WB STH 52 65+76.30 7TH AVE	55.1' LT 37.9' RT	20.0' (1)	Y= 201958.241 X= 277634.186
CC4-5	232+31.52 EB STH 52 64+44.30 7TH AVE	55.2' RT 37.6' LT	20.0' (1)	Y= 201824.818 X= 277557.644
CC4-6	233+10.50 EB STH 52 64+44.31 7TH AVE	55.2' RT 38.5' RT	20.0' (1)	Y= 201826.967 X= 277633.737

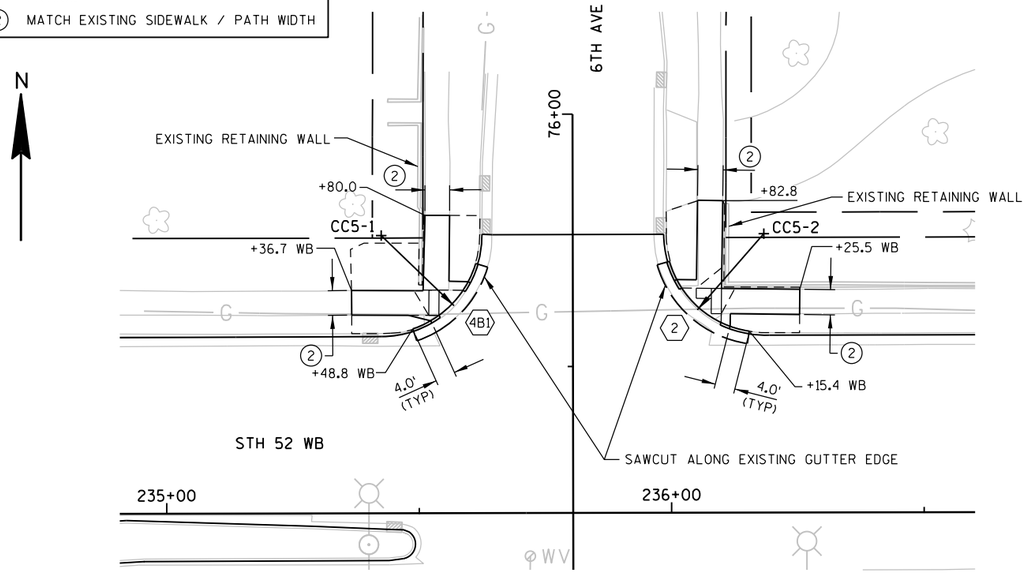
2

LEGEND

(2) CURB RAMP TYPE 2 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(4B1) CURB RAMP TYPE 4B1 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

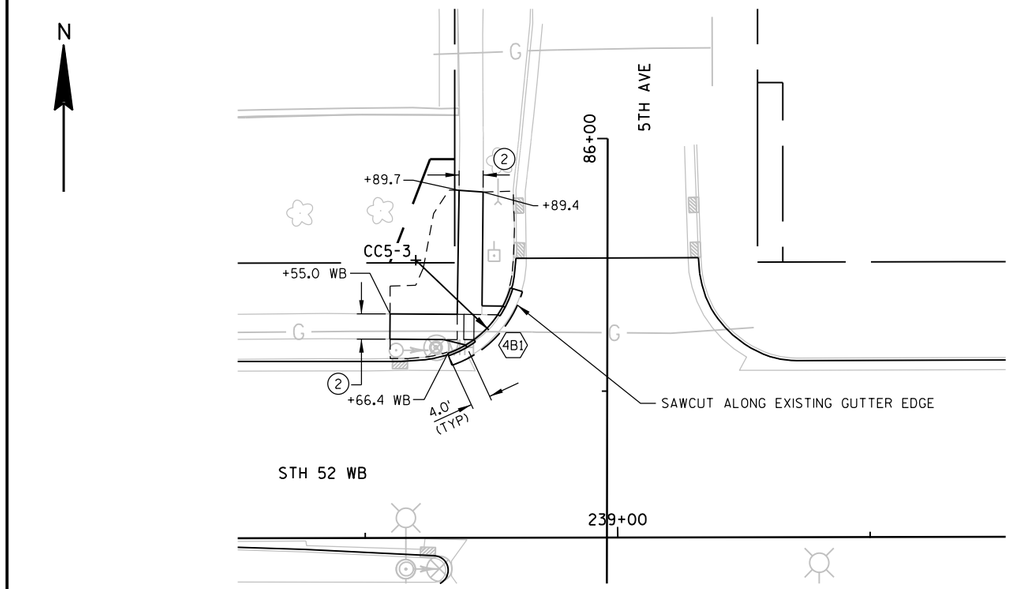
(2) MATCH EXISTING SIDEWALK / PATH WIDTH



LEGEND

(4B1) CURB RAMP TYPE 4B1 (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(2) MATCH EXISTING SIDEWALK / PATH WIDTH

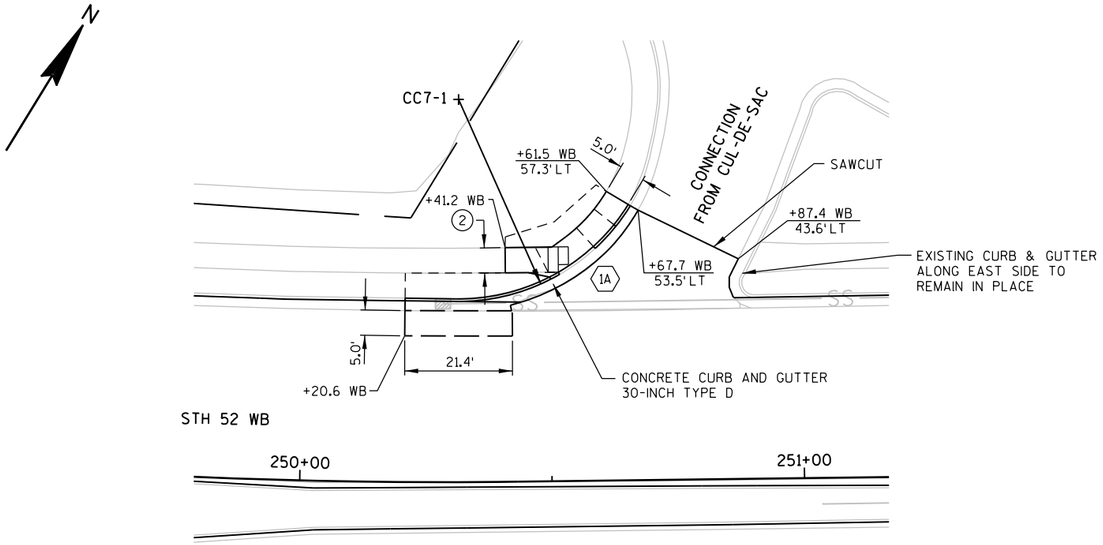


2

LEGEND

(1A) CURB RAMP TYPE 1A (MODIFIED) WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(2) MATCH EXISTING SIDEWALK / PATH WIDTH



(1) RADIUS IS APPROXIMATE, ADJUST TO MATCH EXISTING CONDITIONS.

RADIUS POINT TABLE (MEASURED TO CURB FACE / FLOWLINE)

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC5-1	235+42.58 WB STH 52 75+76.00 6TH AVE	55.0' LT 37.9' LT	20.0' (1)	Y= 201958.614 X= 277865.271
CC5-2	236+18.35 WB STH 52 75+76.22 6TH AVE	55.2' LT 37.8' RT	20.0' (1)	Y= 201958.987 X= 277941.035
CC5-3	238+10.14 WB STH 52 85+75.84 5TH AVE	55.0' LT 37.9' LT	20.0' (1)	Y= 201959.245 X= 278182.821
CC7-1	250+31.67 WB STH 52	75.8' LT	40.0' (1)	Y= 202142.215 X= 279283.181

2

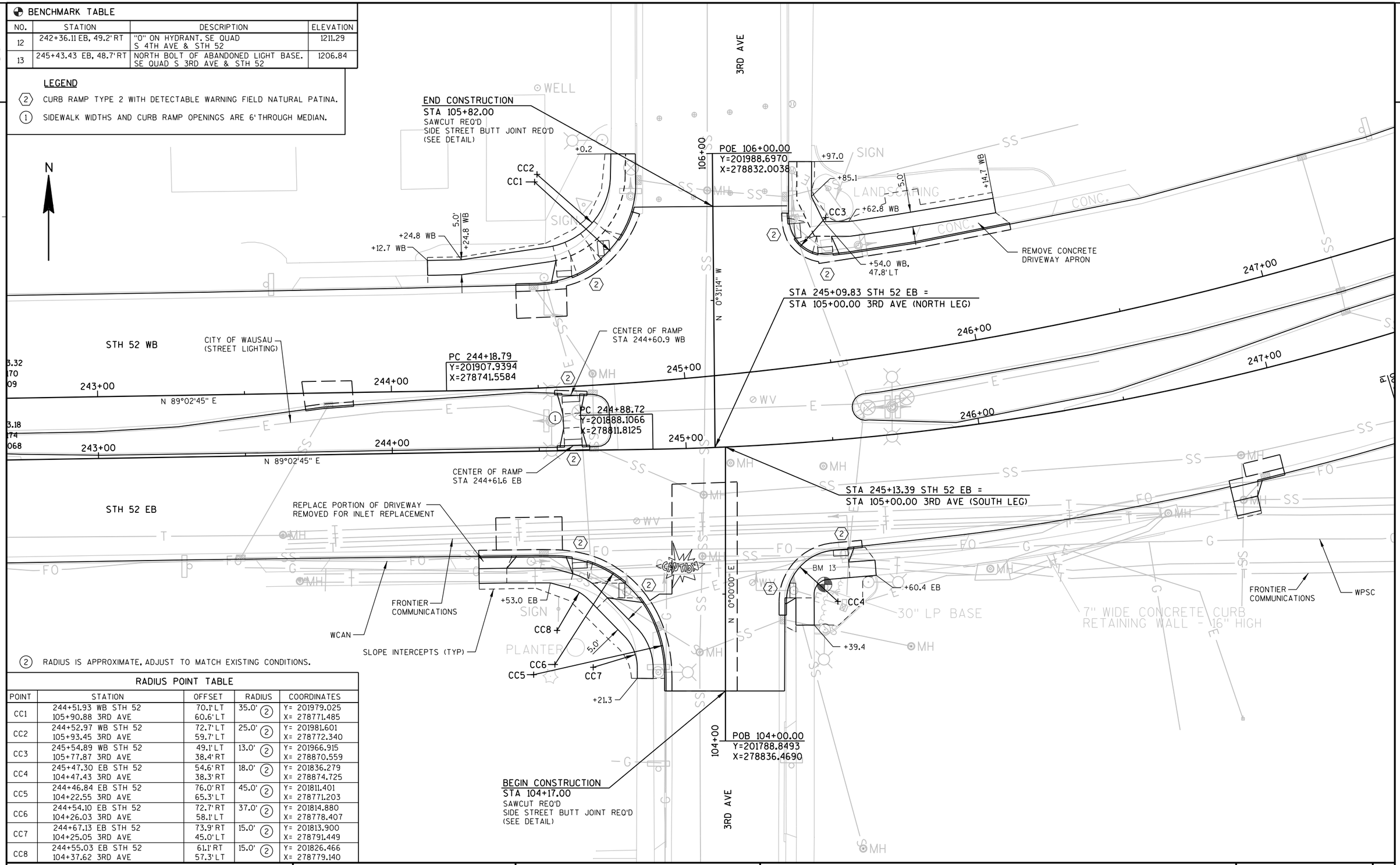
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
12	242+36.11 EB, 49.2' RT	"O" ON HYDRANT. SE QUAD S 4TH AVE & STH 52	1211.29
13	245+43.43 EB, 48.7' RT	NORTH BOLT OF ABANDONED LIGHT BASE. SE QUAD S 3RD AVE & STH 52	1206.84

LEGEND

(2) CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD NATURAL PATINA.

(1) SIDEWALK WIDTHS AND CURB RAMP OPENINGS ARE 6' THROUGH MEDIAN.



(2) RADIUS IS APPROXIMATE, ADJUST TO MATCH EXISTING CONDITIONS.

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	244+51.93 WB STH 52 105+90.88 3RD AVE	70.1' LT 60.6' LT	35.0' (2)	Y= 201979.025 X= 278771.485
CC2	244+52.97 WB STH 52 105+93.45 3RD AVE	72.7' LT 59.7' LT	25.0' (2)	Y= 201981.601 X= 278772.340
CC3	245+54.89 WB STH 52 105+77.87 3RD AVE	49.1' LT 38.4' RT	13.0' (2)	Y= 201966.915 X= 278870.559
CC4	245+47.30 EB STH 52 104+47.43 3RD AVE	54.6' RT 38.3' RT	18.0' (2)	Y= 201836.279 X= 278874.725
CC5	244+46.84 EB STH 52 104+22.55 3RD AVE	76.0' RT 65.3' LT	45.0' (2)	Y= 201811.401 X= 278771.203
CC6	244+54.10 EB STH 52 104+26.03 3RD AVE	72.7' RT 58.1' LT	37.0' (2)	Y= 201814.880 X= 278778.407
CC7	244+67.13 EB STH 52 104+25.05 3RD AVE	73.9' RT 45.0' LT	15.0' (2)	Y= 201813.900 X= 278791.449
CC8	244+55.03 EB STH 52 104+37.62 3RD AVE	61.1' RT 57.3' LT	15.0' (2)	Y= 201826.466 X= 278779.140

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	INTERSECTION DETAIL	SHEET 25	E

2

END CONSTRUCTION
STA 125+92.46
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

RECONSTRUCT ISLAND
(SEE DETAIL)

SLOPE INTERCEPTS (TYP)

STA 252+39.53 STH 52 EB =
STA 125+00.00 1ST AVE

1ST AVE

N 0°15'03" E

WPSC

CITY OF WAUSAU

CC1
CC2
CC3
+61.5
57.3' LT
SAWCUT REQ'D
+41.2 WB
RECONSTRUCT ISLAND
+83.7
+22.5 WB
+37.5 WB
+50.6 WB
+99.5 WB
+19.8 WB
+126.00
+15.0
+32.8
CC4
CC5
+56.6 WB
END CONSTRUCTION
STA 253+13.21 WB
SAWCUT REQ'D
BUTT JOINT REQ'D TO
MATCH NEW CONCRETE
PAVEMENT ON PROJECT
6999-03-80
+37.5 WB
+63.8 WB
+82.0 WB
CAUTION
PT 250+43.29
Y=202083.8082
X=279332.7540
STH 52 WB
5.5'
4.0'
7.5'
8.0'
CENTER OF RAMP
STA 251+60.3 WB
+53.9 WB
7.3'
CENTER OF RAMP
STA 252+86.0 WB
PC 252+69.28
Y=202204.1633
X=279524.0292
CITY OF WAUSAU
(STREET LIGHTING)
PI 254+54.21
50+00
251+00
252+00
253+00
254+00
N 57°49'15" E
+68.1 EB
CENTER OF RAMP
STA 251+74.7 EB
+83.8 EB
N 57°49'16" E
CENTER OF RAMP
STA 252+99.0 EB
PC 252+81.16
Y=202184.7594
X=279532.6258
+47.6 EB
20.0'
12.0'
22.2'
27.3'
STH 52 EB
29.9'
+87.6 EB
+18.7 EB
6.2'
CC8
+43.8
17.3'
+46.8 EB
WCAN
+18.2
+10.0
+7.5
CC6
ASPHALTIC SURFACE
END PROJECT
6999-03-79
STA 253+35.81 EB
SAWCUT REQ'D
BUTT JOINT REQ'D TO
MATCH NEW CONCRETE
PAVEMENT ON PROJECT
6999-03-80
CITY OF WAUSAU
(STREET LIGHTING)
ASPHALTIC SURFACE
+80.5
+75.4
+66.0
+57.0
CONCRETE SIDEWALK
124+00
N 0°00'00" E
CC7
END HMA PAVEMENT
BEGIN BUTT JOINT
STA 124+35.47
CONCRETE SIDEWALK
6.0'
+3.8
BEGIN HMA PAVEMENT
STA 124+20.83
(EDGE OF CROSSING)
4.0'
1.8'
+93.2
END HMA PAVEMENT
STA 124+08.90
(EDGE OF CROSSING)
+85.2
+81.2
+75.5
+73.2
END CONCRETE PAVEMENT
BEGIN HMA PAVEMENT
STA 123+65.92
BEGIN CONSTRUCTION
BEGIN CONCRETE PAVEMENT
STA 123+44.00
SAWCUT REQ'D
REPLACE CONCRETE DRIVEWAY REMOVED
FOR CURB AND GUTTER CONSTRUCTION

LEGEND

- (1A) CURB RAMP TYPE 1A WITH DETECTABLE WARNING FIELD NATURAL PATINA.
- (2) CURB RAMP TYPE 2 WITH DETECTABLE WARNING FIELD NATURAL PATINA.
- (3) CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD NATURAL PATINA.
- (5) CURB RAMP TYPE 5
- (6) CURB RAMP TYPE 6 WITH DETECTABLE WARNING FIELD NATURAL PATINA.
- [2] CONCRETE MEDIAN SLOPED NOSE TYPE 2
- (1) SIDEWALK WIDTHS AND CURB RAMP OPENINGS ARE 6' THROUGH MEDIAN.
- (2) RADIUS IS APPROXIMATE, ADJUST TO MATCH EXISTING CONDITIONS.

RADIUS POINT TABLE

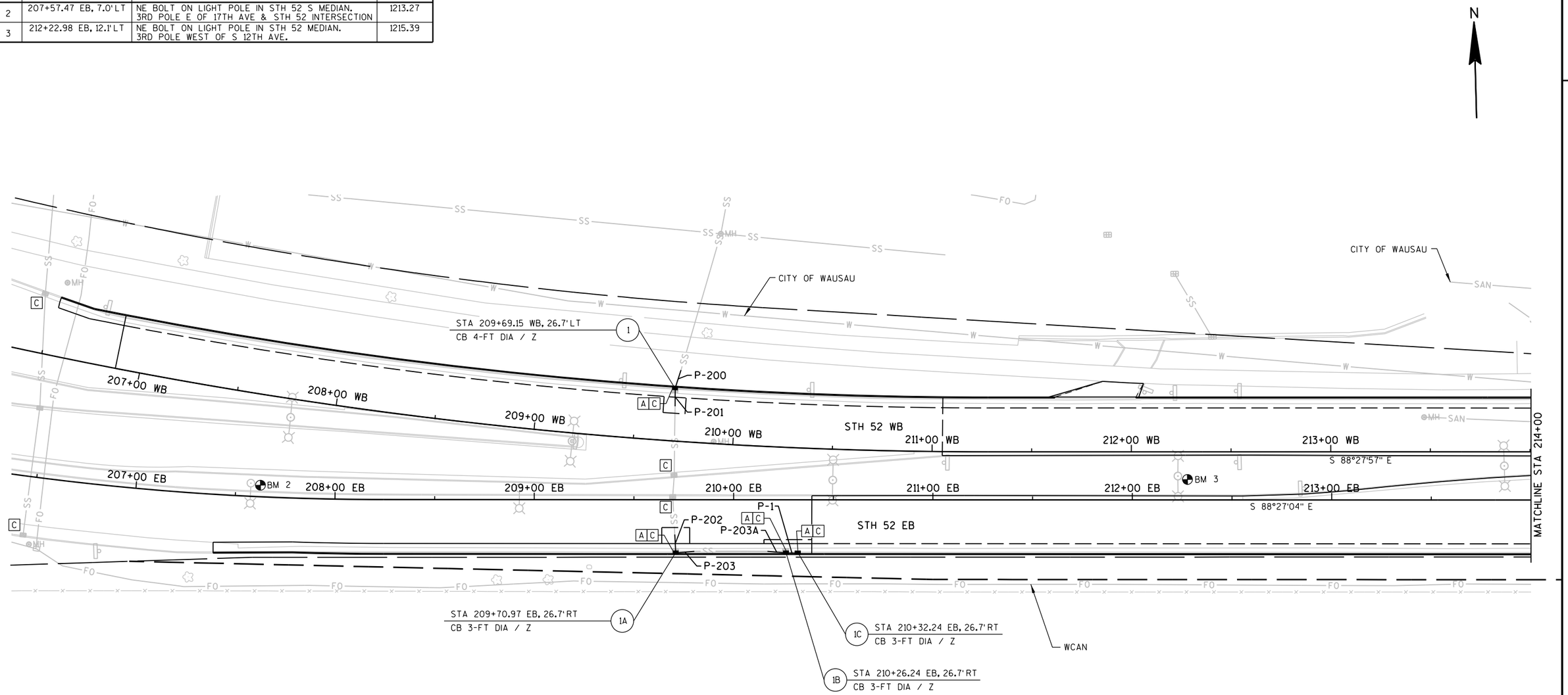
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	250+31.67 WB STH 52	75.8' LT	42.0' (2)	Y= 202142.215 X= 279283.181
CC2	250+33.65 WB WTH 52	73.0' LT	38.7' (2)	Y= 202140.818 X= 279286.217
CC3	250+34.28 WB STH 52	73.6' LT	31.2' (2)	Y= 202141.615 X= 279286.416
CC4	253+46.86 WB STH 52 126+40.56 1ST AVE	67.8' LT 62.3' RT	16.0' (2)	Y= 202302.871 X= 279560.327
CC5	253+54.02 WB STH 52 126+46.95 1ST AVE	71.0' LT 67.7' RT	35.0' (2)	Y= 202309.239 X= 279565.727
CC6	252+61.96 EB STH 52 124+65.63 1ST AVE	54.7' RT 48.1' RT	18.0' (2)	Y= 202128.217 X= 279545.519
CC7	252+71.34 EB STH 52 124+49.19 1ST AVE	80.0' RT 69.6' RT	45.0' (2)	Y= 202111.776 X= 279566.936
CC8	251+70.45 EB STH 52 124+23.99 1ST AVE	43.6' RT 33.8' LT	10.0' (2)	Y= 202086.574 X= 279463.599

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	INTERSECTION DETAIL	SHEET 26	E

2

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
2	207+57.47 EB, 7.0'LT	NE BOLT ON LIGHT POLE IN STH 52 S MEDIAN. 3RD POLE E OF 17TH AVE & STH 52 INTERSECTION	1213.27
3	212+22.98 EB, 12.1'LT	NE BOLT ON LIGHT POLE IN STH 52 MEDIAN. 3RD POLE WEST OF S 12TH AVE.	1215.39



CATCH BASIN TYPE		INLET COVERS TYPE	SSPRC-CLASS III	
3-FT DIA	4-FT DIA	Z	12-INCH	18-INCH
3	1	4	42	9

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
1	209+69.15 WB	26.7' LT	9	EXIST	CB	4-FT DIA	1211.64	1210.56	4.96	3.00	1208.60	1208.44	18	9	2.04%
EXIST	N/A	N/A	9	1	N/A	N/A	N/A	N/A	N/A	N/A	1208.66	1208.60	12	9	0.78%
1A	209+70.97 EB	26.7' RT	9	EXIST	CB	3-FT DIA	1212.03	1210.95	4.73	3.00	1209.22	1209.16	12	9	0.78%
EXIST	N/A	N/A	9	1A	N/A	N/A	N/A	N/A	N/A	N/A	1209.27	1209.22	12	9	0.63%
1B	210+26.24 EB	26.7' RT	9	EXIST	CB	3-FT DIA	1211.95	1210.87	4.32	3.00	1209.55	1209.50	12	9	0.63%
1C	210+32.24 EB	26.7' RT	6	1B	CB	3-FT DIA	1212.01	1210.93	4.34	3.00	1209.59	1209.55	12	6	1.33%

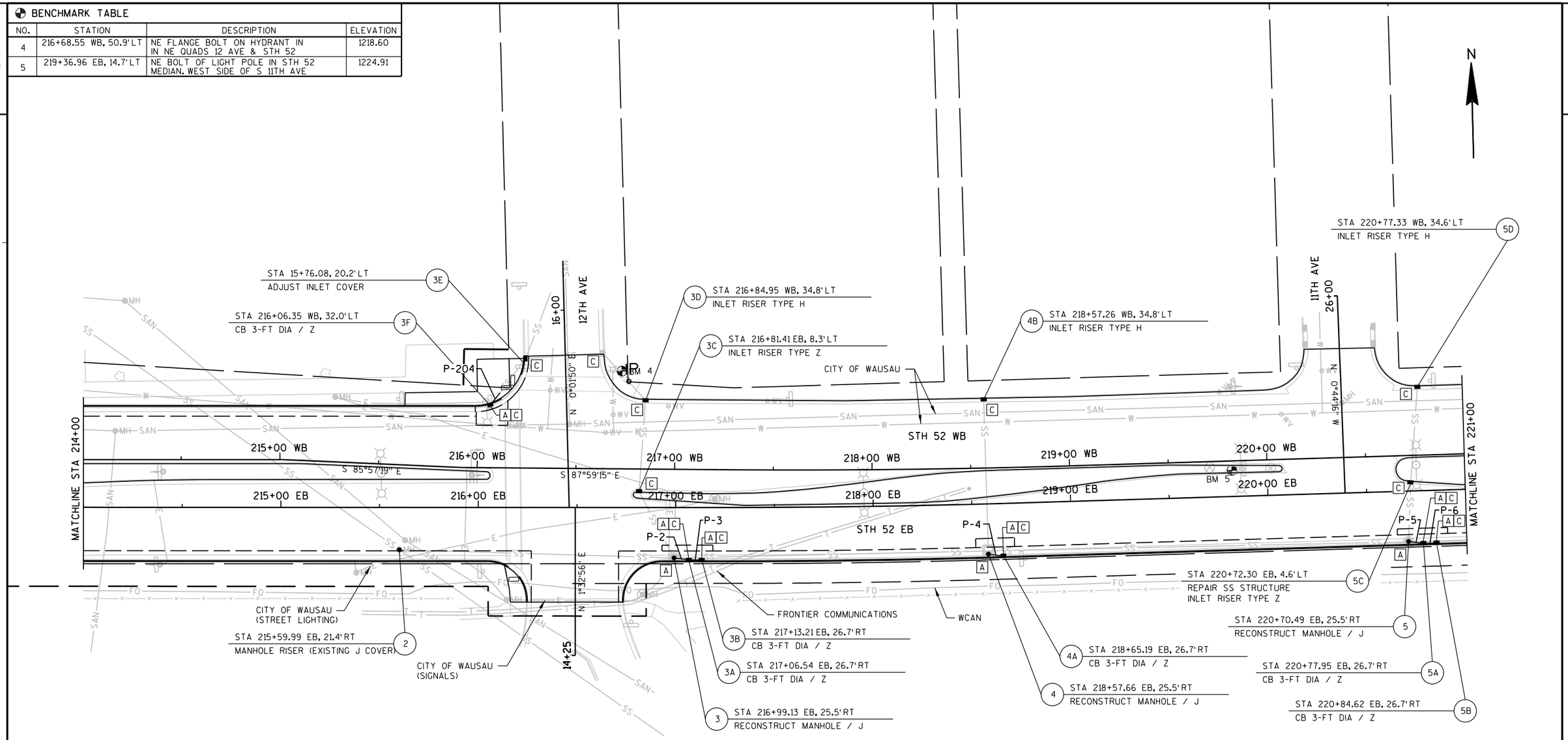
NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
- A INLET PROTECTION TYPE A
- C INLET PROTECTION TYPE C

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 27	E

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
4	216+68.55 WB, 50.9'LT	NE FLANGE BOLT ON HYDRANT IN IN NE QUADS 12 AVE & STH 52	1218.60
5	219+36.96 EB, 14.7'LT	NE BOLT OF LIGHT POLE IN STH 52 MEDIAN, WEST SIDE OF S 11TH AVE	1224.91



CATCH BASIN TYPE	MH COVERS TYPE	INLET COVERS TYPE	SSPRC-CLASS III
3-FT DIA	J	Z	12-INCH
6	3	6	45

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
3A	217+06.54 EB	26.7' RT	7	EXIST	CB	3-FT DIA	1216.22	1215.14	5.50	3.00	1212.64	1212.60	12	7	1.00%
3B	217+13.21 EB	26.7' RT	7	3A	CB	3-FT DIA	1216.28	1215.20	5.52	3.00	1212.68	1212.64	12	7	1.09%
3F	216+06.35 WB	32.0' LT	8	EXIST	CB	3-FT DIA	1215.52	1214.44	4.69	3.00	1212.75	1212.72	12	8	0.30%
4A	218+65.19 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1219.03	1217.95	5.50	3.00	1215.45	1215.41	12	8	0.96%
5A	220+77.95 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1222.51	1221.43	5.50	3.00	1218.93	1218.89	12	8	0.98%
5B	220+84.62 EB	26.7' RT	7	EXIST	CB	3-FT DIA	1222.60	1221.52	5.55	3.00	1218.97	1218.93	12	7	1.09%

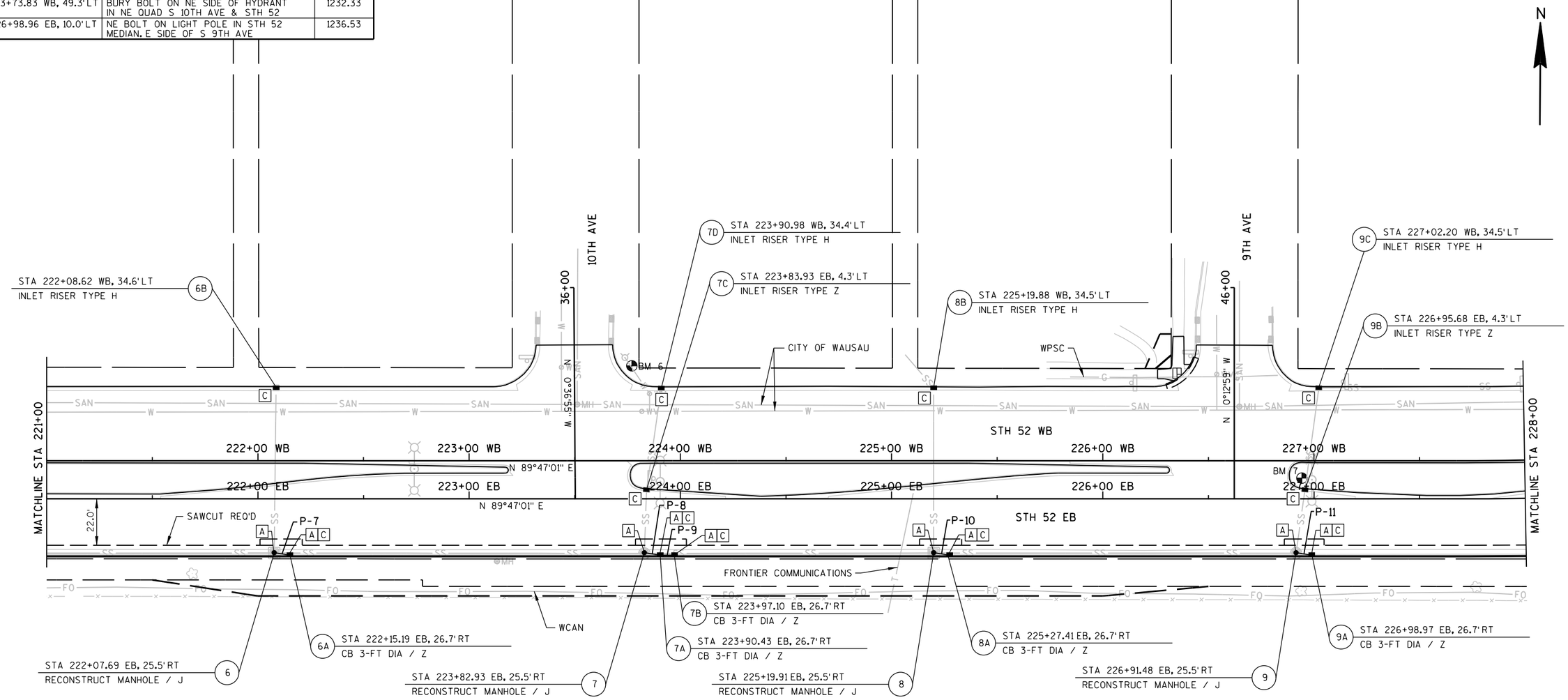
NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
- A INLET PROTECTION TYPE A
- C INLET PROTECTION TYPE C

2

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
6	223+73.83 WB, 49.3'LT	BURY BOLT ON NE SIDE OF HYDRANT IN NE QUAD S 10TH AVE & STH 52	1232.33
7	226+98.96 EB, 10.0'LT	NE BOLT ON LIGHT POLE IN STH 52 MEDIAN. E SIDE OF S 9TH AVE	1236.53



CATCH BASIN TYPE	MH COVERS TYPE	INLET COVERS TYPE	SSPRC-CLASS III
3-FT DIA	J	Z	12-INCH
5	4	5	39

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
6A	222+15.19 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1224.96	1223.88	5.50	3.00	1221.38	1221.34	12	8	0.98%
7A	223+90.43 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1228.45	1227.37	5.50	3.00	1224.87	1224.83	12	8	0.97%
7B	223+97.10 EB	26.7' RT	7	7A	CB	3-FT DIA	1228.53	1227.45	5.54	3.00	1224.91	1224.87	12	7	1.09%
8A	225+27.41 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1230.72	1229.64	5.52	3.00	1227.12	1227.08	12	8	0.97%
9A	226+98.97 EB	26.7' RT	8	EXIST	CB	3-FT DIA	1233.15	1232.07	5.50	3.00	1229.57	1229.53	12	8	0.98%

NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
- A INLET PROTECTION TYPE A
- C INLET PROTECTION TYPE C

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
8	229+59.52 WB, 51.5'LT	BURY BOLT ON SW SIDE OF HYDRANT. NE QUAD OF S 8TH AVE & STH 52	1238.11
9	232+49.78 EB, 51.3'RT	BOLT ON FLANGE (TAG#59) OF HYDRANT. SW QUAD S 7TH AVE & STH 52	1234.43

2

N

STA 232+37.37 WB, 34.9'LT
INLET RISER TYPE H
11B

STA 232+38.90 WB, 2.4'RT
REPAIR SS STRUCTURE
INLET RISER TYPE Z
11A

12B STA 234+15.84 WB, 34.5'LT
INLET RISER TYPE H

12A STA 234+15.47 WB, 7.6'RT
INLET RISER TYPE Z

STA 55+73.84, 15.8'LT
INLET RISER TYPE H
10B

9D STA 228+32.12 WB, 34.5'LT
INLET RISER TYPE H

CITY OF WAUSAU

BM 8

8TH AVE

56+00

WPSC

10A STA 230+17.99 WB, 34.3'LT
INLET RISER TYPE H

7TH AVE

66+00

N 0°27'36" W

STH 52 WB

232+00 WB

231+00 WB

233+00 WB

234+00 WB

235+00

N 80°45'50" E

231+00 EB

232+00 EB

233+00 EB

234+00 EB

235+00

MATCHLINE STA 228+00

WB

229+00 WB

EB

229+00 EB

55+00

230+00 EB

STH 52 EB

BM 9

N 1°36'28" W

64+25

MATCHLINE STA 235+00

FRONTIER COMMUNICATIONS

WCAN

CHARTER COMMUNICATIONS

STA 232+23.30 EB, 34.8'RT
INLET RISER TYPE H
11

STA 234+13.90 EB, 34.8'RT
REPAIR SS STRUCTURE
REPLACE CURB (7')
INLET RISER TYPE H
12

10 STA 229+97.89 WB, 0.7'RT
INLET RISER TYPE Z

NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
A INLET PROTECTION TYPE A
C INLET PROTECTION TYPE C

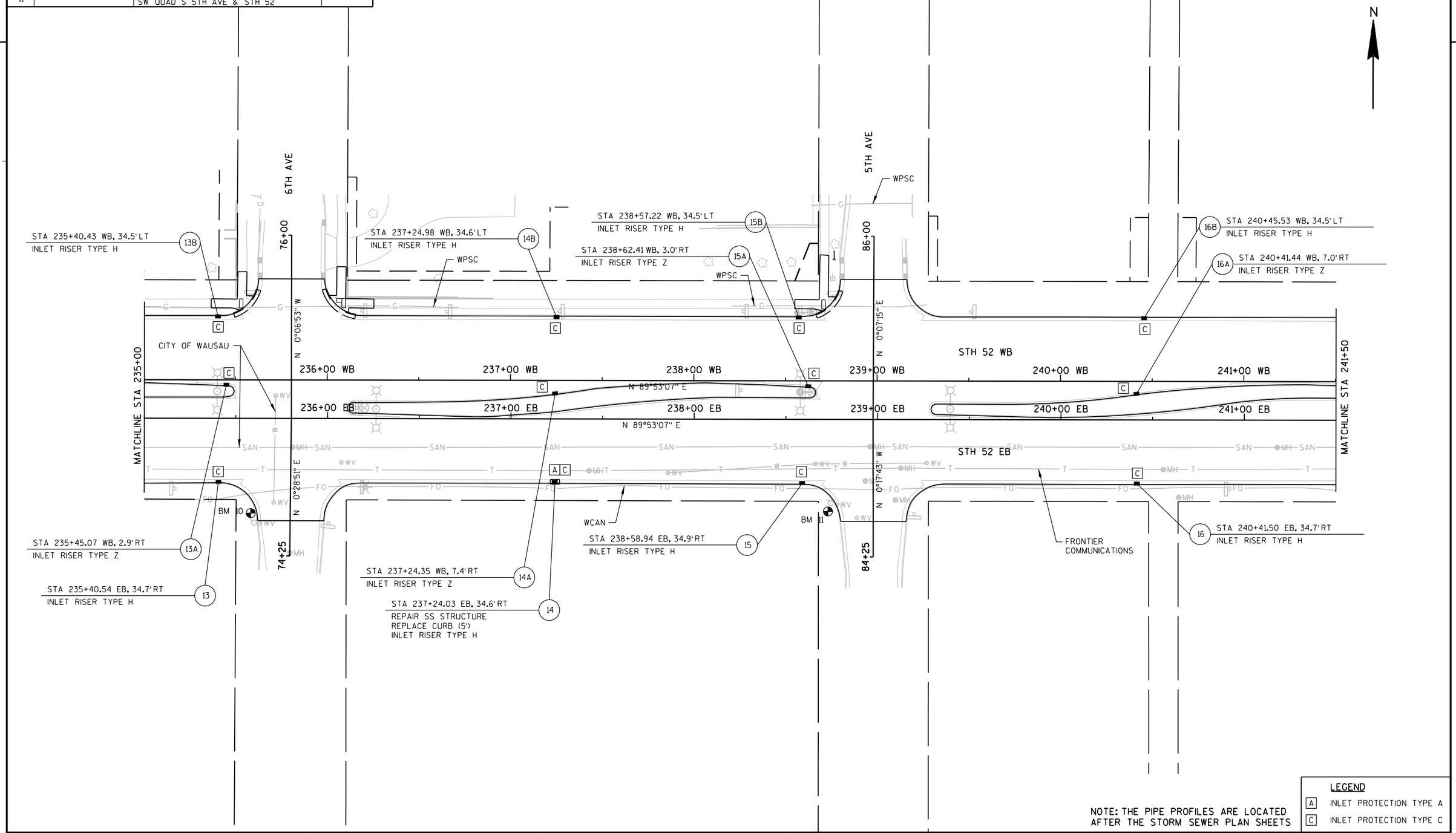
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 30	E

2

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
10	235+59.38 EB, 57.1'RT	NORTH MOST FLANGE BOLT OF HYDRANT. SW QUAD S 5TH AVE & STH 52	1229.72
11	238+74.38 EB, 45.6'RT	BURY BOLT SW SIDE HYDRANT. SW QUAD S 5TH AVE & STH 52	1223.08

2



NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND

- [A] INLET PROTECTION TYPE A
- [C] INLET PROTECTION TYPE C

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 31	E

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
12	242+36.11 EB, 49.2' RT	"O" ON HYDRANT. SE QUAD S 4TH AVE & STH 52	1211.29
13	245+43.43 EB, 48.7' RT	NORTH BOLT OF ABANDONED LIGHT BASE. SE QUAD S 3RD AVE & STH 52	1206.84

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
18A	243+78.48 WB	4.8' RT	10	EXIST	CB	3-FT DIA	1207.46	1206.38	5.56	3.00	1203.82	1203.54	12	10	3.46%
19	244+45.99 EB	36.0' RT	57	20	CB	5-FT DIA	1205.58	1204.66	6.71	3.00	1200.95	1200.47	30	57	0.92%
20	104+30.16	20.4' LT	12	21	CB	5-FT DIA	1205.28	1204.36	6.89	3.00	1200.47	1200.41	30	12	1.00%
21	104+30.21	8.8' LT	6	EXIST	MH	7-FT DIA	1205.67	1204.34	4.30	0.33	1200.37	1200.31	36	6	0.50%
EXIST	N/A	N/A	8	21	N/A	N/A	N/A	N/A	N/A	N/A	1201.49	1201.40	12	8	2.23%
24A	244+49.93 WB	34.6' LT	10	EXIST	CB	2X3-FT	1206.32	1205.40	4.99	3.00	1203.41	1203.37	12	10	0.55%
26B	246+90.85 EB	35.9' RT	11	EXIST	CB	2X3-FT	1204.45	1203.53	4.73	3.00	1201.80	1201.71	12	11	1.50%

MANHOLE TYPE	CATCH BASIN TYPE			MH COVERS TYPE	INLET COVERS TYPE			SSPRC-CLASS III		
7-FT DIA	2X3-FT	3-FT DIA	5-FT DIA	J	H	H-S	Z	12-INCH	30-INCH	36-INCH
1	2	1	2	1	2	2	1	39	69	6

N

STA 241+75.24 WB, 35.0' LT
INLET RISER TYPE H
17B

4TH AVE

96+00

STA 244+68.74 WB, 4.0' LT
INLET RISER TYPE Z
24

STA 244+49.93 WB, 34.6' LT
CB 2X3-FT / H
24A

STA 244+68.43 WB, 2.8' RT
INLET RISER TYPE Z
23B

STA 243+78.48 WB, 4.8' RT
CB 3-FT DIA / Z
18A

3RD AVE

106+00

STA 247+24.15 WB, 12.0' RT
INLET RISER TYPE Z
27B

STA 247+24.10 WB, 35.9' LT
INLET RISER TYPE H
27C

CITY OF WAUSAU
(STREET LIGHTING)

P-224

STH 52 WB

247+00 WB

246+00 WB

245+00 WB

244+00 WB

243+00 WB

242+00 WB

241+50

N 0°04'29" E

N 89°02'45" E

P-218

242+00 EB

243+00 EB

244+00 EB

245+00 EB

246+00 EB

247+00 EB

STH 52 EB

MATCHLINE STA 241+50

MATCHLINE STA 248+00

WCAN

FRONTIER COMMUNICATIONS

REMOVE INLET

REMOVE SS PIPE

ABANDON SS PIPE

P-15

27A STA 247+30.72 EB, 11.8' LT
INLET RISER TYPE Z

26B STA 246+90.85 EB, 35.9' RT
CB 2X3-FT / H

WPSC

FRONTIER COMMUNICATIONS

26 STA 246+84.60 EB, 26.8' RT
MANHOLE RISER (EXISTING J COVER)

CONNECT TO EXISTING
MH 26A

N 0°09'08" W

FOUND

BM 12

BM 13

94+25

STA 241+74.46 EB, 34.7' RT
INLET RISER TYPE H
17

STA 241+79.79 WB, 2.8' RT
INLET RISER TYPE Z
17A

STA 243+47.81 EB, 34.6' RT
INLET RISER TYPE H
18

STA 244+68.67 EB, 0.6' LT
INLET RISER TYPE Z
23A

STA 244+45.99 EB, 36.0' RT
CB 5-FT DIA / H-S
19

REMOVE SS PIPE

REMOVE INLET

STA 104+62.87, 7.8' LT
REMOVE MANHOLE
22

STA 104+30.16, 20.4' LT
CB 5-FT DIA / H-S
20

STA 104+30.21, 8.8' LT
MH 7-FT DIA / J
21

P-13

P-221

P-222

104+00

N 0°31'14" W

STA 104+83.74, 7.4' LT
MANHOLE RISER (EXISTING J COVER)
23

STA 104+41.33, 19.7' RT
REPAIR SS STRUCTURE
INLET RISER TYPE H
21A

7" WIDE CONCRETE CURB
RETAINING WALL - 16" HIGH

30" I.P. BASE

LANDSCAPING

SIGN

PLANTER

WELL

NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
- A INLET PROTECTION TYPE A
- C INLET PROTECTION TYPE C

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 32	E

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
29	251+57.64 EB	18.0' RT	18	30	MH	4-FT DIA	1204.47	1203.14	4.41	0.21	1198.94	1198.57	18	18	2.79%
30	251+57.64 EB	35.7' RT	28	31	MH	5-FT DIA	1204.02	1202.69	6.99	0.33	1196.03	1195.92	36	28	0.49%
31	251+85.18 EB	36.5' RT	N/A	EXIST	MH	5-FT DIA	1204.02	1202.69	7.10	0.33	1195.92	1195.63	36	N/A	N/A
EXIST	N/A	N/A	8	31A	N/A	N/A	N/A	N/A	N/A	N/A	1199.79	1199.30	12	8	3.12%
EXIST	N/A	N/A	8	31A	N/A	N/A	N/A	N/A	N/A	N/A	1199.38	1199.30	12	8	1.00%
31A	124+20.95	23.3' LT	18	31	CB	2X3-FT	1203.62	1202.70	6.40	3.00	1199.30	1199.00	12	18	1.94%
29D	250+28.37 WB	35.3' LT	8	EXIST	CB	2X3-FT	1204.56	1203.64	5.12	3.00	1201.52	1201.41	12	8	1.34%
EXIST	N/A	N/A	8	29C	N/A	N/A	N/A	N/A	N/A	N/A	1200.31	1200.20	12	8	1.34%
EXIST	N/A	N/A	8	29C	N/A	N/A	N/A	N/A	N/A	N/A	1200.33	1200.19	12	8	0.50%
29C	251+30.05 WB	35.6' LT	8	EXIST	CB	2X3-FT	1204.08	1203.16	5.97	3.00	1200.19	1200.02	12	8	0.50%
32	124+53.16	29.2' RT	8	EXIST	MH	3-FT DIA	1204.05	1202.72	5.69	0.17	1197.20	1197.03	12	8	2.18%
32A	124+53.65	24.3' RT	5	32	CB	2X3-FT	1203.46	1202.54	4.66	3.00	1200.88	1200.85	12	5	0.50%
33C	253+09.57 WB	26.6' LT	8	EXIST	CB	3-FT DIA	1205.56	1204.56	5.00	3.00	1202.56	1202.47	12	8	1.10%

MANHOLE TYPE			CATCH BASIN TYPE		MH COVERS TYPE	INLET COVERS TYPE				SSPRC-CLASS III TYPE		
3-FT DIA	4-FT DIA	5-FT DIA	2X3-FT	3-FT DIA	J	H	H-S	A	H-D	12-INCH	18-INCH	36-INCH
1	1	2	4	1	3	1	4	1	1	107	18	28

2

STA 115+82.54, 4.8' LT
MANHOLE RISER (EXISTING J COVER) — 28

STA 115+78.98, 18.4' LT
INLET RISER TYPE H — 28A

28B STA 115+98.90, 30.1' RT
INLET RISER TYPE H

STA 250+28.37 WB, 35.3' LT
CB 2X3-FT / H-S — 29D

28C STA 248+50.63 WB, 3.8' RT
INLET RISER TYPE Z

STA 125+72.13, 19.6' LT
REPAIR SS STRUCTURE
INLET RISER TYPE H — 33A

29C STA 251+30.05 WB, 35.6' LT
CB 2X3-FT / H-S

33D STA 125+94.88, 14.8' RT
ADJUST INLET COVER

33C STA 253+09.57 WB, 26.6' LT
CB 3-FT DIA / A

CITY OF WAUSAU

CITY OF WAUSAU
(STREET LIGHTING)

116+50
116+00
2ND AVE
N 0°05'16" E
MATCHLINE STA 248+00
127+50
127+00
1ST AVE
126+00
125+00
124+00
123+00
N 0°00'00" E
N 57°49'16" E

P-230
P-229
P-229A
P-231
P-239
P-16
P-17
P-18
P-236
P-237
P-237A
P-238A
P-238

REMOVE INLETS & SS PIPES

STH 52 WB
STH 52 EB

249+00 WB
250+00 WB
251+00 WB
252+00 WB
253+00 WB
254+00 WB
255+00 WB
249+00 EB
250+00 EB
251+00 EB
252+00 EB
253+00 EB
254+00 EB
255+00 EB

BM 14
WCAN
BORE

27 STA 248+02.29 EB, 35.9' RT
INLET RISER TYPE H

29B STA 251+30.11 WB, 1.5' RT
REPAIR SS STRUCTURE
INLET RISER TYPE Z

29A STA 251+45.09 EB, 11.9' LT
REPAIR SS STRUCTURE
INLET RISER TYPE Z

29 STA 251+57.64 EB, 18.0' RT
MH 4-FT DIA / J

30 STA 251+57.64 EB, 35.7' RT
MH 5-FT DIA / H-S

33 STA 252+51.96 EB, 38.5' RT
REPAIR SS STRUCTURE / H-D

32 STA 124+53.16, 29.2' RT
MH 3-FT DIA / J

32A STA 124+53.65, 24.3' RT
CB 2X3-FT / H

31 STA 251+85.18 EB, 36.5' RT
MH 5-FT DIA / J

31A STA 124+20.95, 23.3' LT
CB 2X3-FT / H-S

31B STA 123+97.12, 23.5' RT
ADJUST INLET COVER

CITY OF WAUSAU
(STREET LIGHTING)

FRONTIER COMMUNICATIONS
CITY OF WAUSAU
WPSC

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
14	249+26.05 EB, 52.4' RT	PINK BOLT ON N SIDE LT BLUE TOWER. S SIDE STH 52 E OF S 2ND AVE	1207.60

NOTE: THE PIPE PROFILES ARE LOCATED AFTER THE STORM SEWER PLAN SHEETS

LEGEND
A INLET PROTECTION TYPE A
C INLET PROTECTION TYPE C

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 33	E

NOTES:

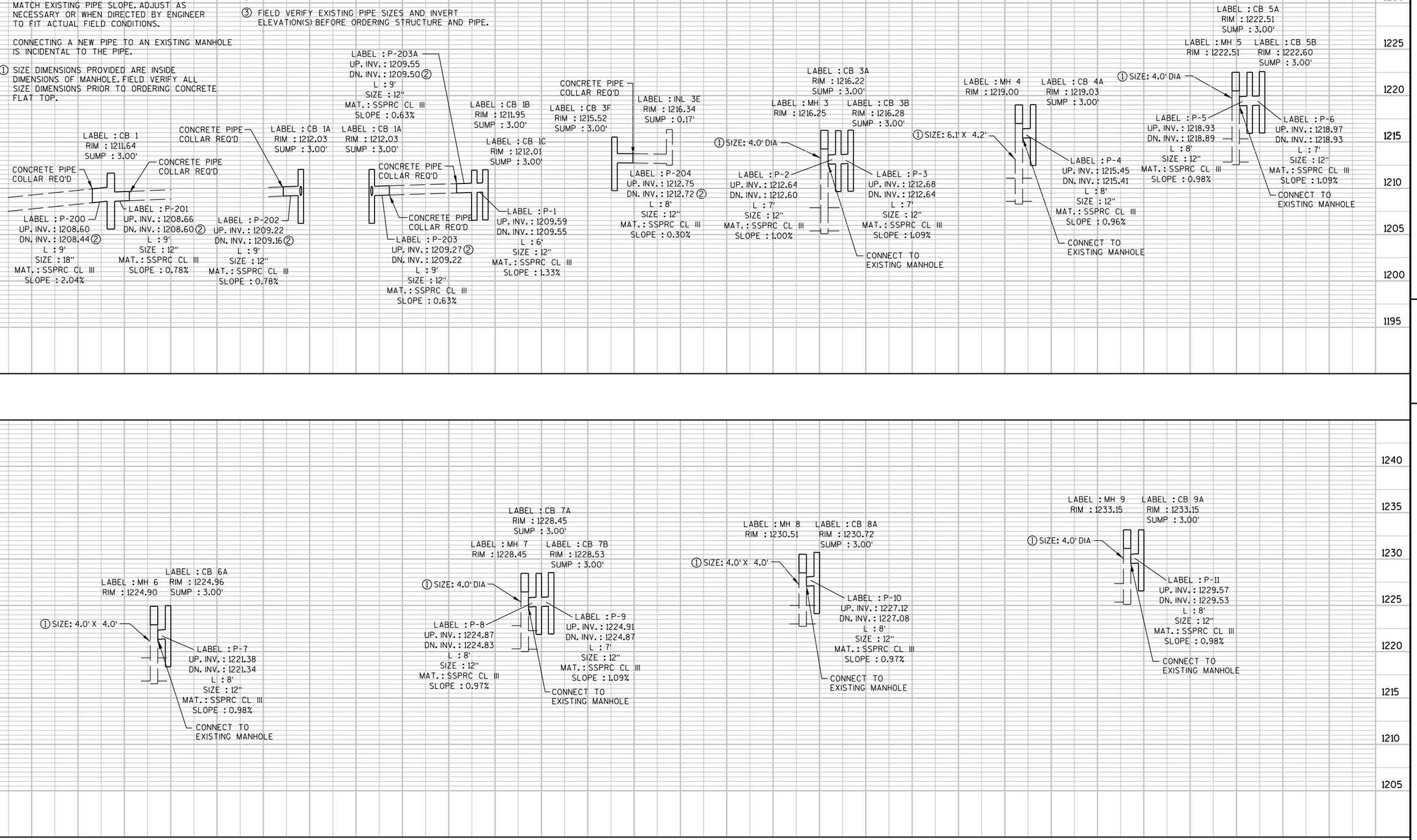
ALL PIPE SLOPES SHOWN WERE DESIGNED TO MATCH EXISTING PIPE SLOPE. ADJUST AS NECESSARY OR WHEN DIRECTED BY ENGINEER TO FIT ACTUAL FIELD CONDITIONS.

CONNECTING A NEW PIPE TO AN EXISTING MANHOLE IS INCIDENTAL TO THE PIPE.

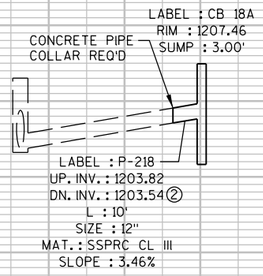
① SIZE DIMENSIONS PROVIDED ARE INSIDE DIMENSIONS OF MANHOLE. FIELD VERIFY ALL SIZE DIMENSIONS PRIOR TO ORDERING CONCRETE FLAT TOP.

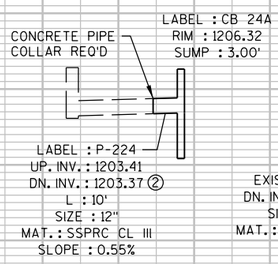
② INVERT ELEVATION TO BE FIELD VERIFIED.

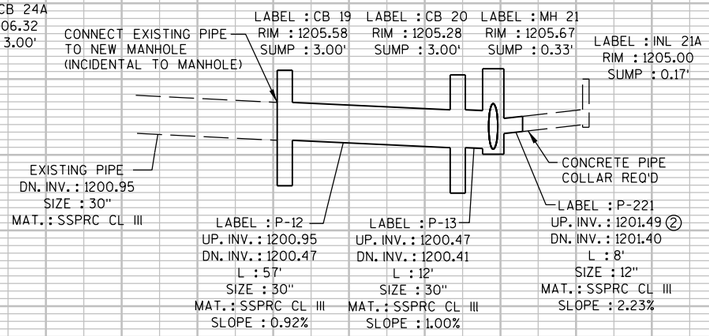
③ FIELD VERIFY EXISTING PIPE SIZES AND INVERT ELEVATIONS) BEFORE ORDERING STRUCTURE AND PIPE.

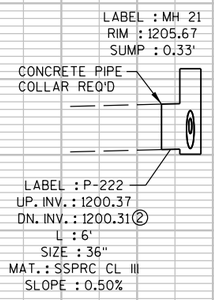


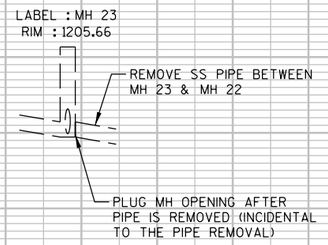
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER PROFILES	SHEET 34	E

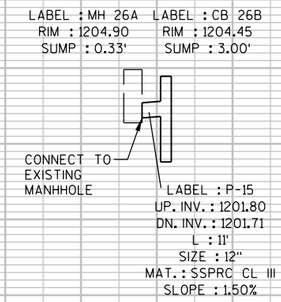


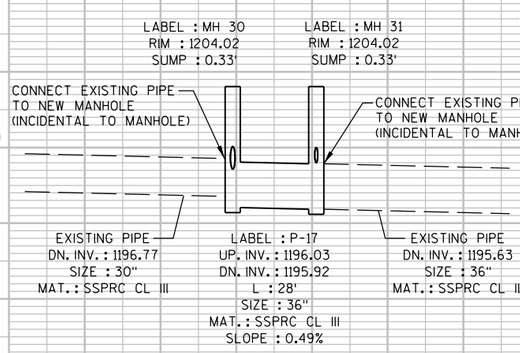


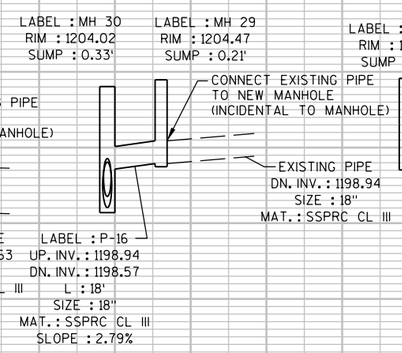


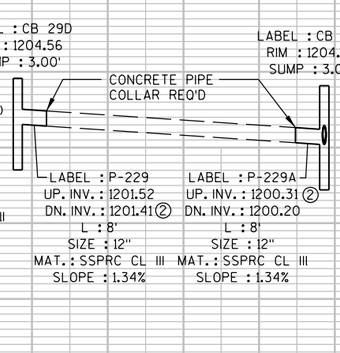


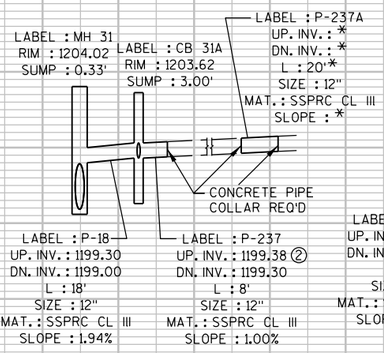


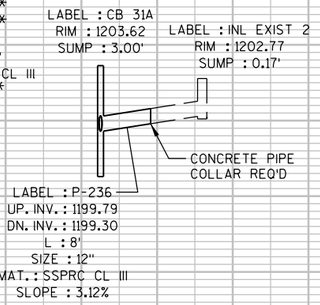


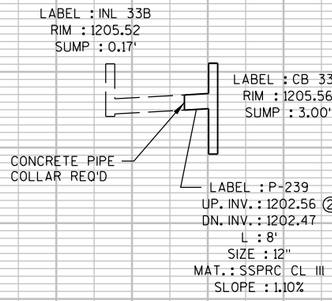






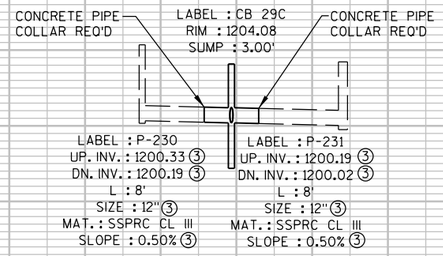


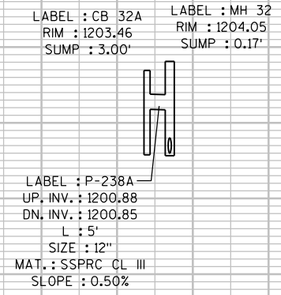


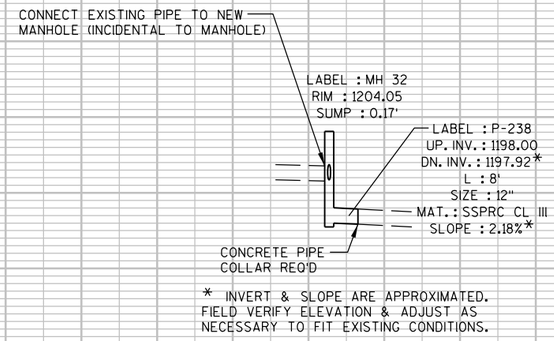


* TO BE DETERMINED IN THE FIELD. REMOVE AND REPLACE SS PIPE AS NEEDED TO PROVIDE ROOM FOR CONSTRUCTION OF RR SIGNAL BASE

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	STORM SEWER PROFILES	SHEET 35	E

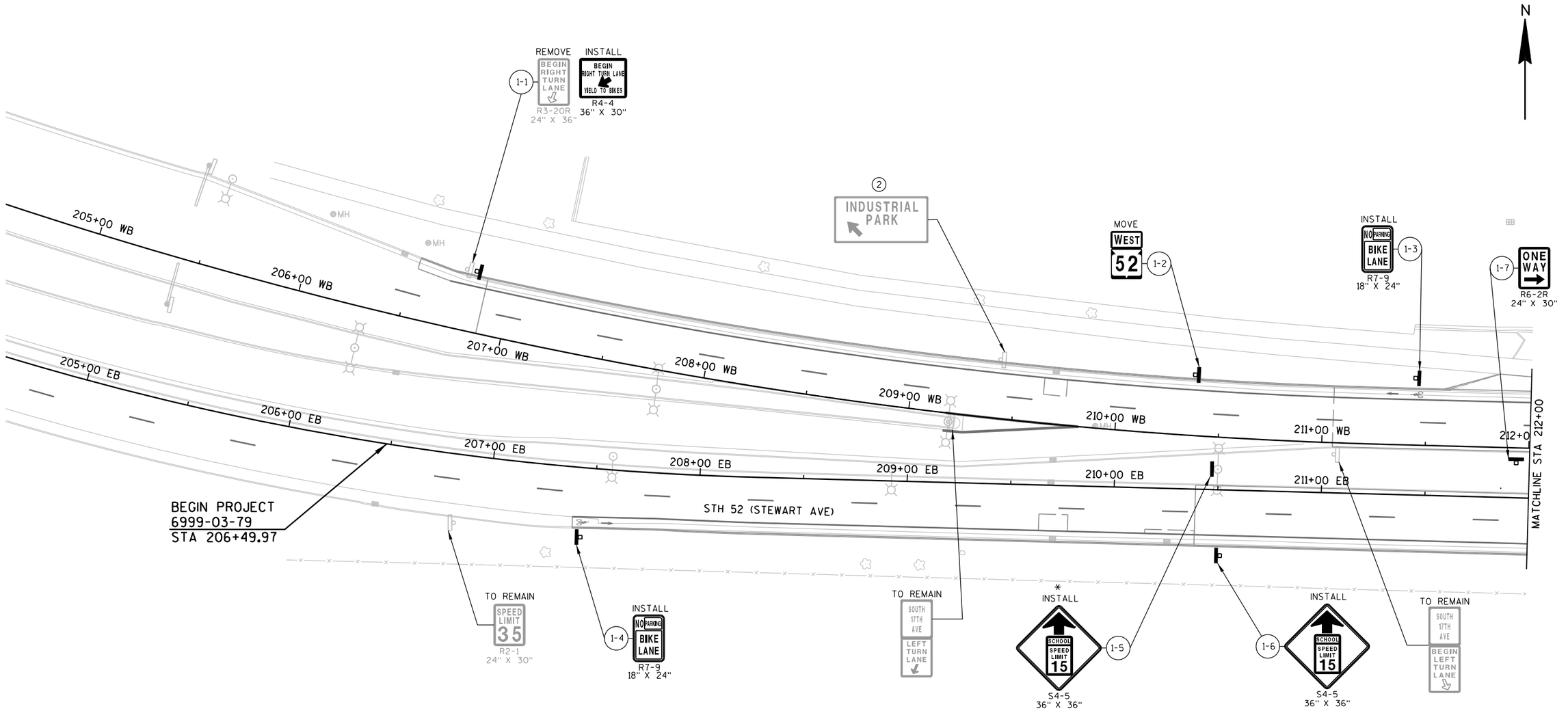






PROJECT NO:6999-03-79	HWY:STH 52	COUNTY:MARATHON	STORM SEWER PROFILES	SHEET 36	E

2



SIGNING GENERAL NOTES

SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGNS THAT ARE MOUNTED TO TRAFFIC SIGNAL OR LIGHT POLES AND OVERHANG THE SIDEWALK SHALL HAVE A MOUNTING HEIGHT OF 7'-3" MIN.

ALL J-ASSEMBLIES SHALL BE SINGLE-PIECE BOARDS.

REMOVE = REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS.

MOVE = MOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

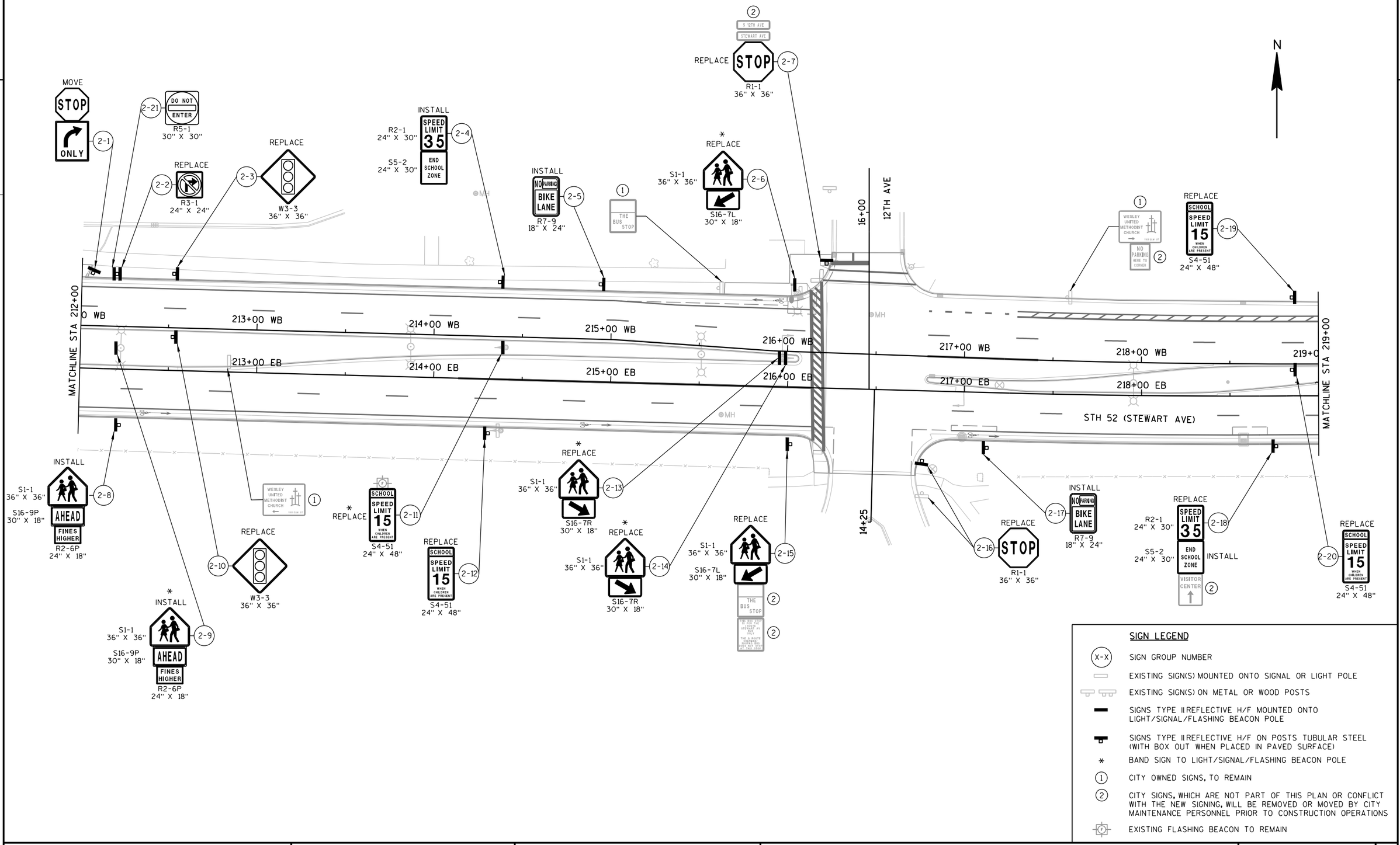
REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, SIGNS TYPE II REFLECTIVE H/F AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE)

INSTALL = SIGNS TYPE II REFLECTIVE H/F, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

SIGN LEGEND

X-X	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
1	CITY OWNED SIGNS, TO REMAIN
2	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

2



PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 38	E

2

N

* REPLACE S1-1 36" X 36"
S16-9P 30" X 18"
* INSTALL R2-6P 24" X 18"
3-2

INSTALL NO PARKING BIKE LANE R7-9 18" X 24"
3-1

2 S 11TH AVE / STEWART AVE
3-3 STOP REPLACE R1-1 36" X 36"

1 THE BUS STOP

26+00 11TH AVE

* INSTALL SCHOOL SPEED LIMIT 15 S4-5 36" X 36"
3-4

INSTALL NO PARKING BIKE LANE R7-9 18" X 24"
3-5

2 S 10TH AVE / STEWART AVE
REPLACE STOP R1-1 36" X 36"
3-6

36+00 10TH AVE

INSTALL NO PARKING BIKE LANE R7-9 18" X 24"
3-7

MATCHLINE STA 219+00

220+00 WB | 221+00 WB | 222+00 WB | 223+00 WB | 224+00 WB | 225+00 WB | 226+00

220+00 EB | 221+00 EB | 222+00 EB | 223+00 EB | 224+00 EB | 225+00 EB

STH 52 (STEWART AVE)

MATCHLINE STA 226+00

MH

* REPLACE S1-1 36" X 36"
S16-9P 30" X 18"
* INSTALL R2-6P 24" X 18"
3-8

INSTALL NO PARKING BIKE LANE R7-9 18" X 24"
3-9

* INSTALL SCHOOL SPEED LIMIT 15 S4-5 36" X 36"
3-10

1

INSTALL NO PARKING BIKE LANE R7-9 18" X 24"
3-11

SIGN LEGEND

X-X	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
1	CITY OWNED SIGNS, TO REMAIN
2	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS
	EXISTING FLASHING BEACON TO REMAIN

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 39	E

2

N

REPLACE
SPEED LIMIT 35
R2-1
24" X 30"
4-1

2
8TH AVE
STEWART AVE
4-2
STOP
R1-1
36" X 36"
REPLACE

1
THE BUS STOP

2
NO PARKING HERE TO CORNER

INSTALL
NO PARKING
BIKE LANE
R7-9
18" X 24"
4-3

2
S 8TH AVE
STEWART AVE
REPLACE
STOP
R1-1
36" X 36"
4-4

2
NO PARKING BACK TO CORNER

2
NO PARKING HERE TO CORNER

2
NO PARKING IN ALLEY WAY

2
NO PARKING BACK TO CORNER

1
THE BUS STOP

INSTALL
NO PARKING
BIKE LANE
R7-9
18" X 24"
4-5

2
S 7TH AVE
STEWART AVE
REPLACE
STOP
R1-1
36" X 36"
4-6

*
REPLACE
S1-1
36" X 36"
4-7
S16-9P
30" X 18"
*
INSTALL
AHEAD
FINES HIGHER
R2-6P
24" X 18"

46+00
9TH AVE
56+00
8TH AVE
66+00
7TH AVE
64+25
55+00
226+00
MATCHLINE STA 226+00
MATCHLINE STA 233+50

0 WB
227+00 WB
228+00 WB
229+00 WB
230+00 WB
231+00 WB
232+00 WB
233+00 WB
227+00 EB
228+00 EB
229+00 EB
230+00 EB
231+00 EB
232+00 EB
233+00 EB

MH

STH 52 (STEWART AVE)

INSTALL
NO PARKING
BIKE LANE
R7-9
18" X 24"
4-8

INSTALL
SCHOOL
SPEED LIMIT 15
S4-5
36" X 36"
4-9

*
INSTALL
SCHOOL
SPEED LIMIT 15
S4-5
36" X 36"
4-10

2
NO PARKING THIS SIDE OF STREET
THE BUS STOP
1

INSTALL
NO PARKING
BIKE LANE
R7-9
18" X 24"
4-11

1
ONE WAY

1
ONE WAY

*
INSTALL
S1-1
36" X 36"
S16-9P
30" X 18"
AHEAD
FINES HIGHER
R2-6P
24" X 18"
4-12

INSTALL
NO PARKING
BIKE LANE
R7-9
18" X 24"
4-13

SIGN LEGEND

- (X-X) SIGN GROUP NUMBER
- EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
- EXISTING SIGN(S) ON METAL OR WOOD POSTS
- SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
- SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
- * BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
- EXISTING FLASHING BEACON TO REMAIN
- (1) CITY OWNED SIGNS, TO REMAIN
- (2) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 40	E

2

N

REPLACE R2-1 24" X 30" — SPEED LIMIT 35 — 5-17
INSTALL — END SCHOOL ZONE — NO PARKING HERE TO CORNER — (2)
S5-2 24" X 30"

REPLACE — SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — 5-18
S4-51 24" X 48"

INSTALL — NO PARKING BIKE LANE — 5-1
R7-9 18" X 24"

(2) 6 STH AVE / STEWART AVE
REPLACE STOP — 5-2
R1-1 36" X 36"

REPLACE — S1-1 36" X 36" — 5-3
S16-7R 30" X 18"

REPLACE — S1-1 36" X 36" — 5-4
S16-7L 30" X 18"
(2) THE BUS STOP
(2) NO PARKING HERE TO CORNER

(2) NO PARKING IN DRIVEWAY

REPLACE — SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — 5-5
S4-51 24" X 48"

INSTALL — NO PARKING BIKE LANE — 5-20
R7-9 18" X 24"

* REPLACE — S1-1 36" X 36" — 5-6
S16-9P 30" X 18"
* INSTALL — AHEAD / FINES HIGHER
R2-6P 24" X 18"

(2) 5 STH AVE / STEWART AVE
5-7 STOP — REPLACE
R1-1 36" X 36"

(2) NO PARKING HERE TO CORNER

76+00 6TH AVE

86+00 5TH AVE

MATCHLINE STA 233+50

234+00 WB | 235+00 WB | 236+00 WB | 237+00 WB | 238+00 WB | 239+00 WB | 240+00 WB | 241+0

234+00 EB | 235+00 EB | 236+00 EB | 237+00 EB | 238+00 EB | 239+00 EB | 240+00 EB

STH 52 (STEWART AVE)

MH

MATCHLINE STA 241+00

NO PARKING

(1) THE BUS STOP
(1) NO PARKING THIS SIDE OF STREET

REPLACE — SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — 5-8
S4-51 24" X 48"
(2) NO PARKING THIS SIDE OF STREET

REPLACE — S1-1 36" X 36" — 5-9
S16-7R 30" X 18"

REPLACE STOP — 5-10
R1-1 36" X 36"

INSTALL — S1-1 36" X 36" — 5-11
S16-7L 30" X 18"
NO PARKING DURING SCHOOL HOURS — (2)

INSTALL — 5-12 — W11-1 30" X 30" — SHARE THE ROAD
W16-1P 18" X 24"

INSTALL — SPEED LIMIT 35 — END SCHOOL ZONE — 5-16
R2-1 24" X 30"
S5-2 24" X 30"

REPLACE — SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — 5-13
S4-51 24" X 48"

74+25

84+25

* REPLACE — S1-1 36" X 36" — 5-19
S16-9P 30" X 18"
* INSTALL — AHEAD / FINES HIGHER
R2-6P 24" X 18"

REPLACE STOP — 5-14
R1-1 36" X 36"

INSTALL — NO PARKING BIKE LANE — 5-15
R7-9 18" X 24"

REMOVE — SPEED LIMIT 35 — THE BUS STOP — (2)

SIGN LEGEND

- X-X — SIGN GROUP NUMBER
- EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
- EXISTING SIGN(S) ON METAL OR WOOD POSTS
- SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
- SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
- * BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
- EXISTING FLASHING BEACON TO REMAIN
- (1) CITY OWNED SIGNS, TO REMAIN
- (2) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 41	E

2

N

INSTALL
SCHOOL SPEED LIMIT 15
6-1
S4-5
36" X 36"

2
S 4TH AVE
STEWART AVE
REPLACE
STOP
6-2
R1-1
36" X 36"

INSTALL
NO PARKING
BIKE LANE
6-20
R7-9
18" X 24"

96+00

4TH AVE

1

REPLACE
R2-1
24" X 30"
SPEED LIMIT 35
THE BUS STOP
2
6-3

INSTALL
NO PARKING
BIKE LANE
6-5
R7-9
18" X 24"

* REPLACE
ONE WAY
6-4
R6-2L
24" X 30"

* REPLACE
STOP
6-7
R1-1F
36" X 36"

* REPLACE
DO NOT ENTER
3
6-6
R5-1
30" X 30"

WELL

SIGN

ONLY

ONLY

3RD AVE

106+00

* REPLACE
STOP
6-8
R1-1F
36" X 36"

3
* REPLACE
DO NOT ENTER
6-9
R5-1
30" X 30"

* REPLACE
ONE WAY
R6-2L
24" X 30"
STOP
6-10
R1-1F
36" X 36"
REMOVE

* REPLACE
STOP
6-18
R1-1F
36" X 36"

SIGN
LANDSCAPING
CONC.
CONC.

247+00 WB
246+00 WB
247+00 EB
246+00 EB
MATCHLINE STA 247+50

MATCHLINE STA 241+00
0 WB
242+00 WB
242+00 EB
243+00 WB
243+00 EB
244+00 WB
244+00 EB
245+00 WB
245+00 EB

STH 52 (STEWART AVE)

MH
MH
MH

* INSTALL
SCHOOL SPEED LIMIT 15
6-15
S4-5
36" X 36"

REPLACE
STOP
6-11
R1-1
36" X 36"

INSTALL
NO PARKING
BIKE LANE
6-12
R7-9
18" X 24"

94+25

REMOVE
RIGHT LANE MUST TURN RIGHT
NO PARKING HERE TO CORNER
2
6-21

* REPLACE
STOP
6-13
R1-1F
36" X 36"

* REPLACE
ONE WAY
R6-2R
24" X 30"
STOP
6-14
R1-1F
36" X 36"

1
R R
NO TRAIN HORN
7:00am-7:00pm

1
ONE WAY

SIGN
PLANTER

104+00

30" LP BASE

* REPLACE
ONE WAY
6-17
R6-2R
24" X 30"

INSTALL
NO PARKING
BIKE LANE
6-16
R7-9
18" X 24"

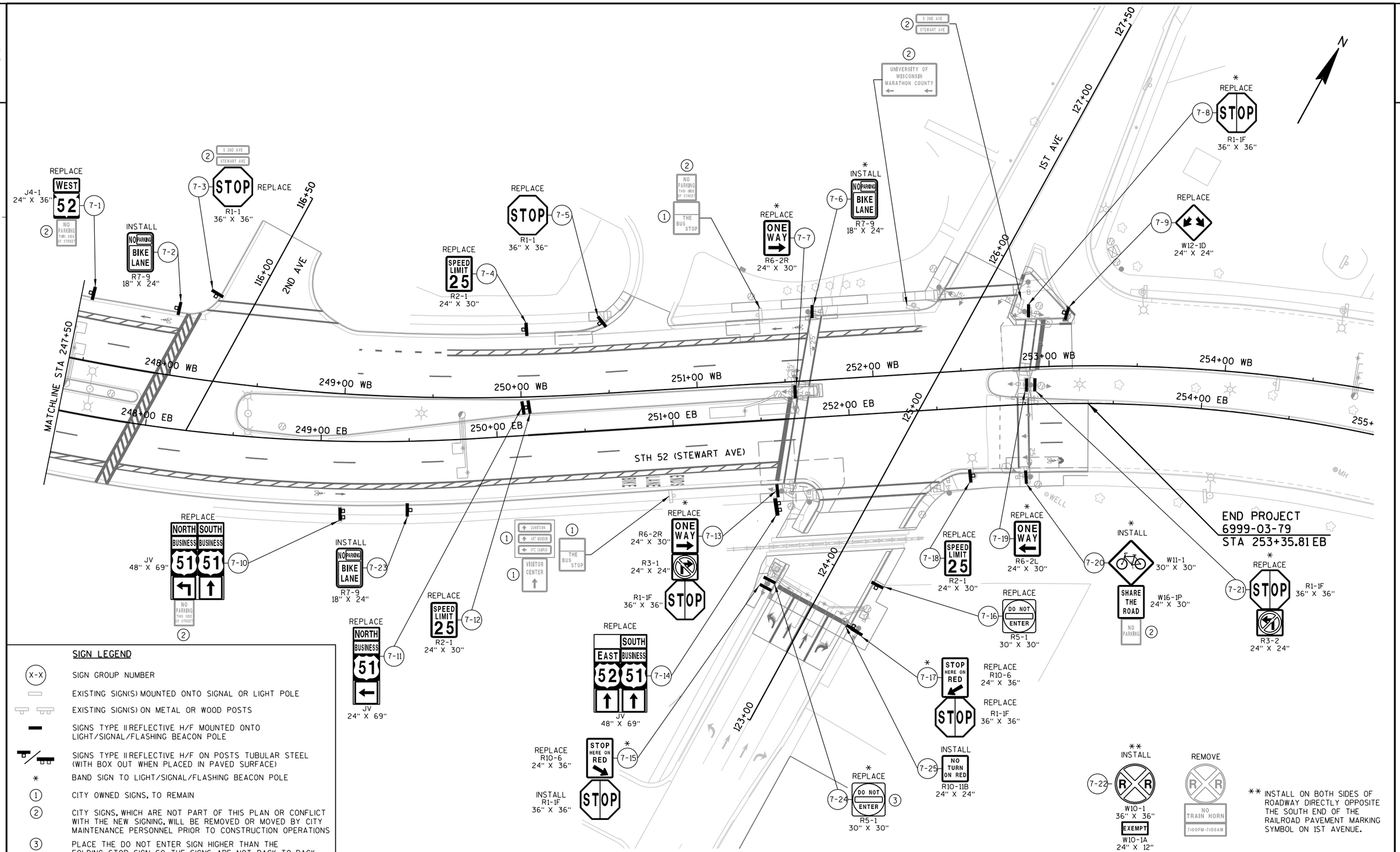
REPLACE
R2-1
24" X 30"
SPEED LIMIT 25
THE BUS STOP
2
6-19

SIGN LEGEND

X-X	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
1	CITY OWNED SIGNS, TO REMAIN
2	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS
3	PLACE THE DO NOT ENTER SIGN HIGHER THAN THE FOLDING STOP SIGN SO THE SIGNS ARE NOT BACK-TO-BACK

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 42	E

2



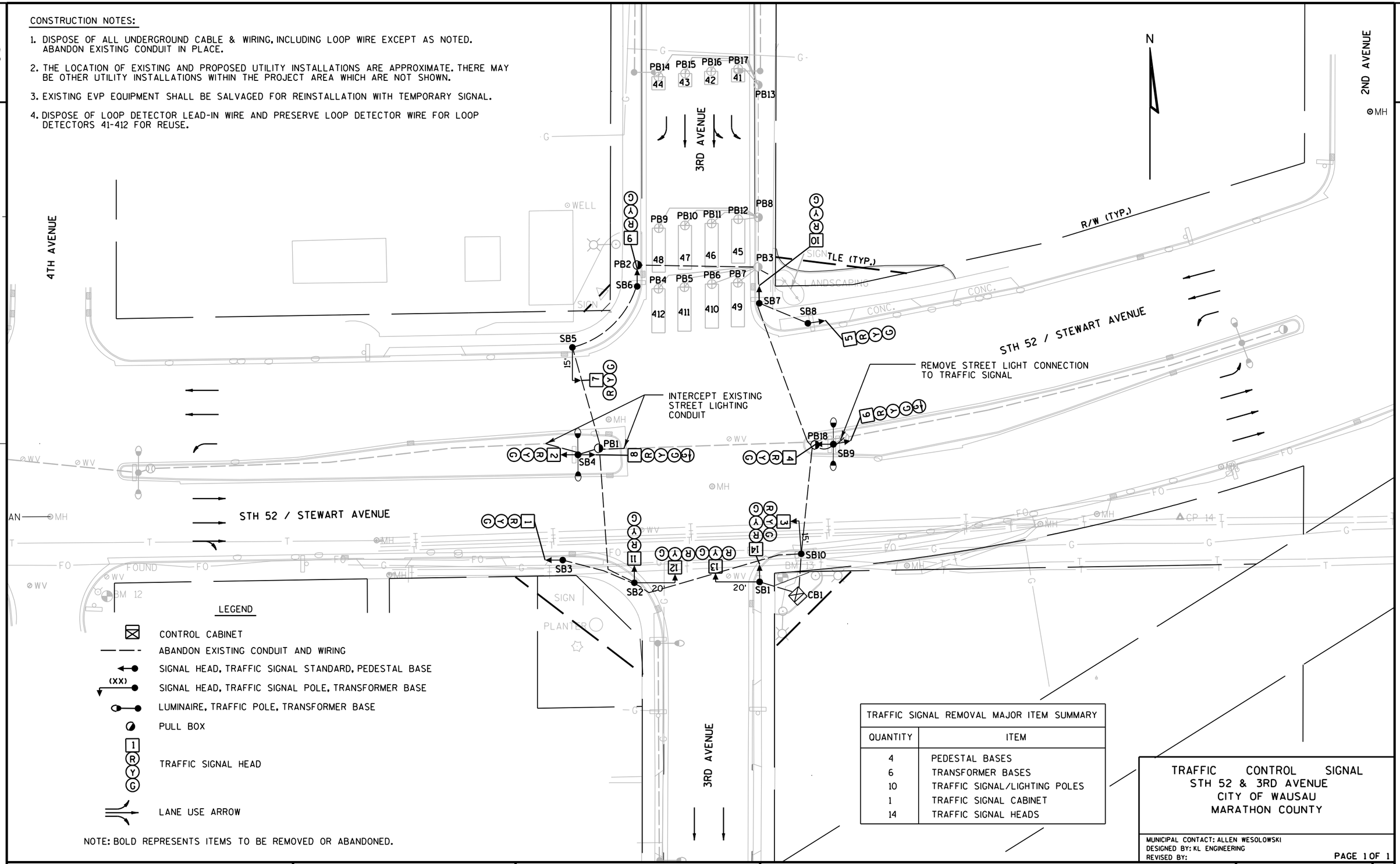
SIGN LEGEND

- X-X — SIGN GROUP NUMBER
- EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
- EXISTING SIGN(S) ON METAL OR WOOD POSTS
- SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
- SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
- * BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
- (1) CITY OWNED SIGNS, TO REMAIN
- (2) CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS
- (3) PLACE THE DO NOT ENTER SIGN HIGHER THAN THE FOLDING STOP SIGN SO THE SIGNS ARE NOT BACK-TO-BACK

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 43	E

CONSTRUCTION NOTES:

1. DISPOSE OF ALL UNDERGROUND CABLE & WIRING, INCLUDING LOOP WIRE EXCEPT AS NOTED. ABANDON EXISTING CONDUIT IN PLACE.
2. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. EXISTING EVP EQUIPMENT SHALL BE SALVAGED FOR REINSTALLATION WITH TEMPORARY SIGNAL.
4. DISPOSE OF LOOP DETECTOR LEAD-IN WIRE AND PRESERVE LOOP DETECTOR WIRE FOR LOOP DETECTORS 41-412 FOR REUSE.



LEGEND

- CONTROL CABINET
- ABANDON EXISTING CONDUIT AND WIRING
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX
- TRAFFIC SIGNAL HEAD
- LANE USE ARROW

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED OR ABANDONED.

TRAFFIC SIGNAL REMOVAL MAJOR ITEM SUMMARY	
QUANTITY	ITEM
4	PEDESTAL BASES
6	TRANSFORMER BASES
10	TRAFFIC SIGNAL/LIGHTING POLES
1	TRAFFIC SIGNAL CABINET
14	TRAFFIC SIGNAL HEADS

TRAFFIC CONTROL SIGNAL
STH 52 & 3RD AVENUE
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:
PAGE 1 OF 1

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 44	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- INTERCONNECT CONDUIT, NONMETALLIC CONDUIT 2"
- CSX CONDUIT SPECIAL 2", 3" OR 4"
- 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
- 4A PEDESTRIAN COUNTDOWN TIMER 16-INCH
- B PEDESTRIAN HEAD WITH PUSH BUTTON
- PULL BOX NON-CONDUCTIVE 24" X 36"
- PULL BOX NON-CONDUCTIVE 24" X 42"
- V COMMUNICATIONS VAULT
- TRAFFIC SIGNAL HEAD
- LANE USE ARROWS

NOTE: ALL LENSES ARE 12-INCH.
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. LOOPS 41-412 ARE EXISTING. NEW DETECTION CABLE IS TO BE PULLED, SEE MISCELLANEOUS QUANTITIES.
5. LOOPS 21 & 22 AND 61 & 62 SHALL BE INSTALLED IN THE EXISTING PAVEMENT AFTER MILLING OPERATIONS ARE COMPLETE AND BEFORE ASPHALT OVERLAY IS PLACED. INSTALLATION MUST BE STAGED.
6. SEE MISCELLANEOUS QUANTITIES FOR INCIDENTAL LANDSCAPE RESTORATION ITEMS.

SPEED LIMIT 25

SPEED LIMIT 35

3RD AVENUE

2ND AVENUE

STH 52 / STEWART AVENUE

243+00 WB
244+00 WB
245+00 WB
246+00 WB
247+00 WB
248+00 WB
243+00 EB
244+00 EB
245+00 EB
246+00 EB
247+00 EB
248+00 WB
104+00
106+00
116+00
116+50

180' TO STOP BAR
2-6'X6' 6 TURNS
2-6'X20' 3 TURNS
2-6'X6' 4 TURNS

SEE 1ST AVENUE SIGNAL PLAN

SB3 (SPREAD FOOTING REQUIRED, SEE DETAIL)

BASE	SIGN CODE	SIGN TO FACE
SB1	R10-3ER	WEST
SB3	R10-3EL	WEST
SB5	R10-3ER	NORTH
SB6	R10-3EL	NORTH
SB7	R10-3ER	EAST
SB8	R10-3ED	EAST
SB9	R10-3EL	EAST
SB10	R10-3ER	SOUTH
SB12	R10-3EL	SOUTH

TRAFFIC CONTROL SIGNAL
STH 52 & 3RD AVENUE
CITY OF WAUSAU
MARATHON COUNTY

CONTROLLER TYPE: SIEMENS

APPROVAL RECOMMENDED
Date _____ MUNICIPAL ENGINEER/REPRESENTATIVE

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL PLAN	SHEET 45	E

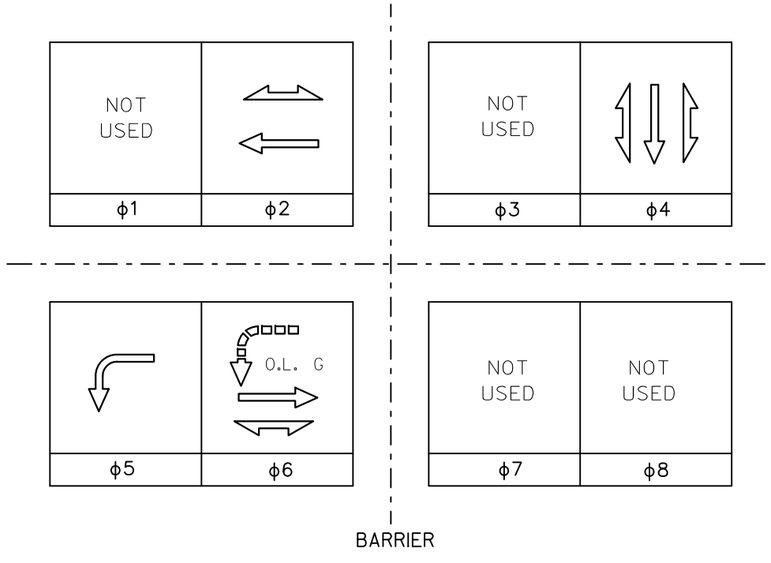
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024002_sp.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	5-7	R
Ø3		
Ø4	11-14	R
Ø5	8-10	R
Ø6	1-4	R
Ø7		
Ø8		
Ø2 PED	2A,2B	
Ø4 PED	4A-4F	
Ø6 PED	6A,6B	
Ø8 PED		

O.L.		O.L. ASSIGNMENTS
OLA		
OLB		
OLC		
OLD		
OLE		
OLF		
OLG	-	5+6
OLH		

N



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER: STH 52 & 3RD AVE
SIGNAL SYSTEM #:

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	PREEMPTED APPROACH
1	RESERVED			
2	RESERVED			
3	EVP	A	6	EB
4	EVP	B	2+5	WB
5	EVP	C	4	SB
6	NOT USED			
7	NOT USED			
8	NOT USED			

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 3 OR 4, CONTROLLER SHALL RETURN TO PHASE 2+6.
2. AFTER PREEMPTION SEQUENCE 5, CONTROLLER SHALL RETURN TO PHASE 4.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	21	22	41	42	43	44	51	61
PHASE CALLED	2	2					5	6
PHASE EXTENDED	2	2					5,6	6
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION			FUTURE	FUTURE	FUTURE	FUTURE		

19	17	23	21	27	25	31	29	DETECTOR INPUT
62								DETECTOR #(S)
6								PHASE CALLED
6								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)			45/49	46/410	47/411	48/412	52	
PHASE CALLED			4	4	4	4	5	
PHASE EXTENDED			4	4	4	4	5,6	
DISCONNECT TIME								
CALLING DELAY						8.0		
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

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

GENERAL NOTES:

1. Ø4 SHALL BE PROGRAMMED WITH A 4 SECOND LEADING PEDESTRIAN INTERVAL.
2. INTERSECTION TO OPERATE AT ALL TIMES WITH PHASE 5 LAGGING PHASE 6.

TRAFFIC CONTROL SIGNAL

STH 52 & 3RD AVENUE

CITY OF WAUSAU MARATHON COUNTY

CONTROLLER TYPE: SIEMENS

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	SEQUENCE OF OPERATIONS	SHEET 46	E

FILE NAME : G:\CBS SQUARED\11031 - STH 52 WAUSAU\DGN\SHEETS\024001-SEQ.DWG PLOT DATE : 1/28/2016 7:54 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : ********* WISDOT/CADDS SHEET 42

2

STH 52 & 3RD AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB1	9/C	5	WB	R	RED
				Y	ORG
				G	GRN
		2B	ϕ2 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4PED		WHT/BLK
CABINET TO SB2	12/C	3	EB	R	RED
				Y	ORG
				G	GRN
		8	WB LT	← R	RED/BLK
				← Y	ORG/BLK
				←FY	BLK/WHT
				← G	GRN/BLK
CABINET TO SB3	9/C	BUTTON	ϕ4 PED		WHT/BLK
CABINET TO SB4	9/C	4	EB	R	RED
				Y	ORG
				G	GRN
		4E	ϕ4 PED	DW	BLK
				W	BLU
CABINET TO SB5	9/C	13	SB	R	RED
				Y	ORG
				G	GRN
		6B	ϕ6 PED	DW	BLK
				W	BLU
		BUTTON	ϕ6 PED		WHT/BLK
CABINET TO SB6	9/C	14	SB	R	RED
				Y	ORG
				G	GRN
		4A	ϕ4 PED	DW	BLK
				W	BLU
		BUTTON	ϕ6 PED		WHT/BLK
CABINET TO SB7	12/C	2	EB	R	RED
				Y	ORG
				G	GRN
		9	WB LT	← R	RED/BLK
				← Y	ORG/BLK
				←FY	BLK/WHT
				← G	GRN/BLK
		6A	ϕ6 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4 PED		WHT/BLK

STH 52 & 3RD AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB8	15/C	1	EB	R	RED
				Y	ORG
				G	GRN
		6	WB	R	RED/WHT
				Y	BLU/WHT
				G	GRN/WHT
		10	WB LT	← R	RED/BLK
				← Y	ORG/BLK
				←FY	BLK/WHT
				← G	GRN/BLK
		4B	ϕ4 PED	DW	BLK
				W	BLU
		4C	ϕ4 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4 PED		WHT/BLK
CABINET TO SB9	9/C	7	WB	R	RED
				Y	ORG
				G	GRN
		4D	ϕ4 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4 PED	N/A	WHT/BLK
CABINET TO SB10	9/C	2A	ϕ2 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED		WHT/BLK
CABINET TO SB11	9/C	12	SB	R	RED
				Y	ORG
				G	GRN
CABINET TO SB12	9/C	11	SB	R	RED
				Y	ORG
				G	GRN
		4F	ϕ4 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED		WHT/BLK

STH 52 & 3RD AVENUE LIGHTING CABLING CHART TYPE UF 2-12 AWG GROUNDED	
FROM	TO
CB1	SB2
SB2	SB5
CB1	SB10
SB10	SB7

STH 52 & 3RD AVENUE EMERGENCY VEHICLE PREEMPT CABLE	
FROM	TO
CABINET	SB2

	BLK-black	RED-red	GRN-green
Signal Wire Color Coding	WHT-white	BLU-blue	ORG-orange

TRAFFIC CONTROL SIGNAL
STH 52 & 3RD AVENUE
CITY OF WAUSAU
MARATHON COUNTY

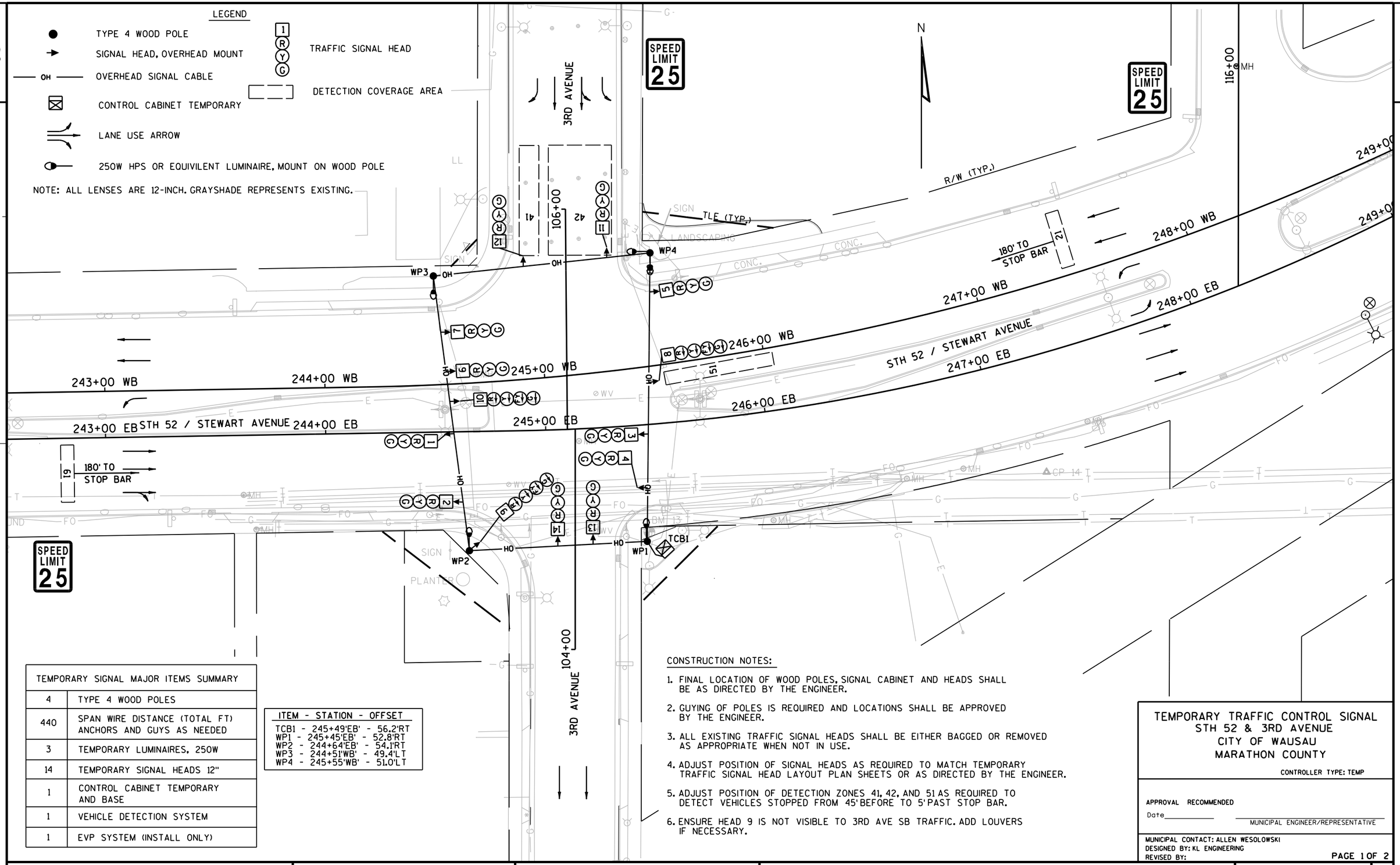
MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 3 OF 3

LEGEND

- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- OH — OVERHEAD SIGNAL CABLE
- CONTROL CABINET TEMPORARY
- LANE USE ARROW
- 250W HPS OR EQUIVILENT LUMINAIRE, MOUNT ON WOOD POLE
- TRAFFIC SIGNAL HEAD
- DETECTION COVERAGE AREA

NOTE: ALL LENSES ARE 12-INCH. GRAYSHADE REPRESENTS EXISTING.



TEMPORARY SIGNAL MAJOR ITEMS SUMMARY	
4	TYPE 4 WOOD POLES
440	SPAN WIRE DISTANCE (TOTAL FT) ANCHORS AND GUYS AS NEEDED
3	TEMPORARY LUMINAIRES, 250W
14	TEMPORARY SIGNAL HEADS 12"
1	CONTROL CABINET TEMPORARY AND BASE
1	VEHICLE DETECTION SYSTEM
1	EVP SYSTEM (INSTALL ONLY)

ITEM - STATION - OFFSET
TCB1 - 245+49'EB' - 56.2'RT
WP1 - 245+45'EB' - 52.8'RT
WP2 - 244+64'EB' - 54.1'RT
WP3 - 244+51'WB' - 49.4'LT
WP4 - 245+55'WB' - 51.0'LT

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
3. ALL EXISTING TRAFFIC SIGNAL HEADS SHALL BE EITHER BAGGED OR REMOVED AS APPROPRIATE WHEN NOT IN USE.
4. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT PLAN SHEETS OR AS DIRECTED BY THE ENGINEER.
5. ADJUST POSITION OF DETECTION ZONES 41, 42, AND 51 AS REQUIRED TO DETECT VEHICLES STOPPED FROM 45' BEFORE TO 5' PAST STOP BAR.
6. ENSURE HEAD 9 IS NOT VISIBLE TO 3RD AVE SB TRAFFIC. ADD LOUVERS IF NECESSARY.

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 52 & 3RD AVENUE
CITY OF WAUSAU
MARATHON COUNTY

CONTROLLER TYPE: TEMP

APPROVAL RECOMMENDED

Date_____ _____ MUNICIPAL ENGINEER/REPRESENTATIVE

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL PLAN	SHEET 48	E

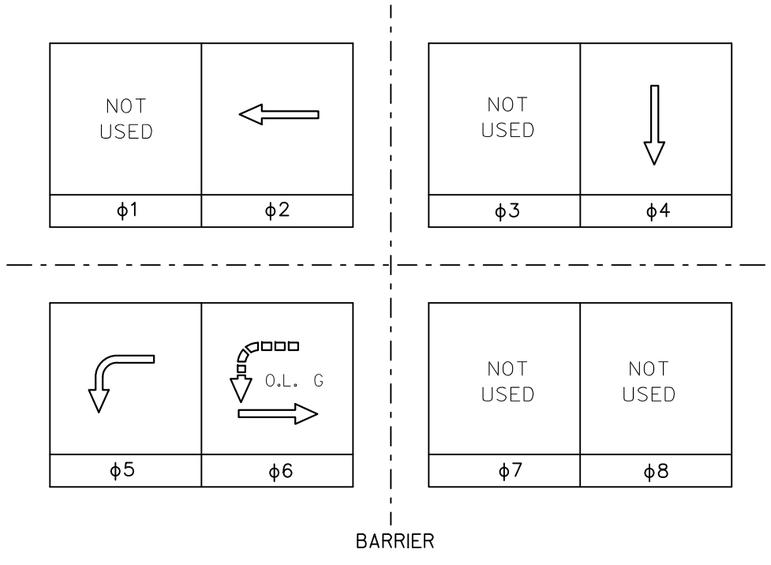
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024102_st.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	5-7	R
Ø3		
Ø4	11-14	R
Ø5	8-10	R
Ø6	1-4	R
Ø7		
Ø8		
Ø2 PED		
Ø4 PED		
Ø6 PED		
Ø8 PED		

O.L. ASSIGNMENTS			
OLA			
OLB			
OLC			
OLD			
OLE			
OLF			
OLG	8-10	-	5+6
OLH			

N



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER: STH 52 & 3RD AVE
SIGNAL SYSTEM #:

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	PREEMPTED APPROACH
1	RESERVED			
2	RESERVED			
3	EVP	A	6	EB
4	EVP	B	2+5	WB
5	EVP	C	4	SB
6	NOT USED			
7	NOT USED			
8	NOT USED			

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 3 OR 4, CONTROLLER SHALL RETURN TO PHASE 2+6.
2. AFTER PREEMPTION SEQUENCE 5, CONTROLLER SHALL RETURN TO PHASE 4.

GENERAL NOTES:

1. INTERSECTION TO OPERATE AT ALL TIMES WITH PHASE 5 LAGGING PHASE 6.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	21	41	42	51	61			
PHASE CALLED	2	4	4	5	6			
PHASE EXTENDED	2	4	4	5,6	6			
DISCONNECT TIME								
CALLING DELAY		8.0						
EXTENSION STRETCH								
LOOP FUNCTION								

19	17	23	21	27	25	31	29	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

20	18	24	22	28	26	32	30	DETECTOR INPUT
								DETECTOR #(S)
								PHASE CALLED
								PHASE EXTENDED
								DISCONNECT TIME
								CALLING DELAY
								EXTENSION STRETCH
								LOOP FUNCTION

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

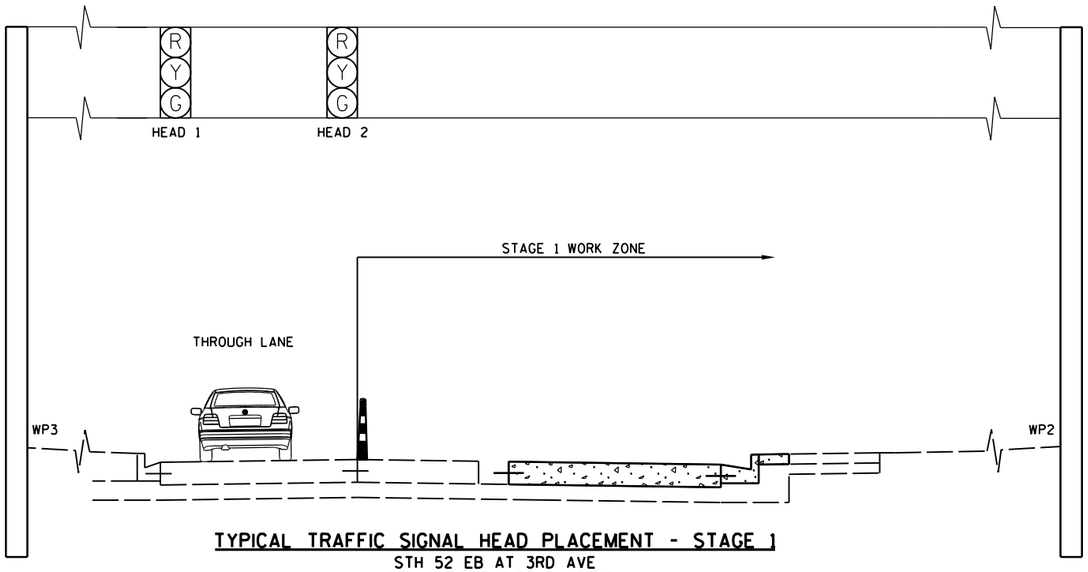
TEMPORARY TRAFFIC CONTROL SIGNAL
STH 52 & 3RD AVENUE
CITY OF WAUSAU — MARATHON COUNTY
CONTROLLER TYPE: TEMP

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

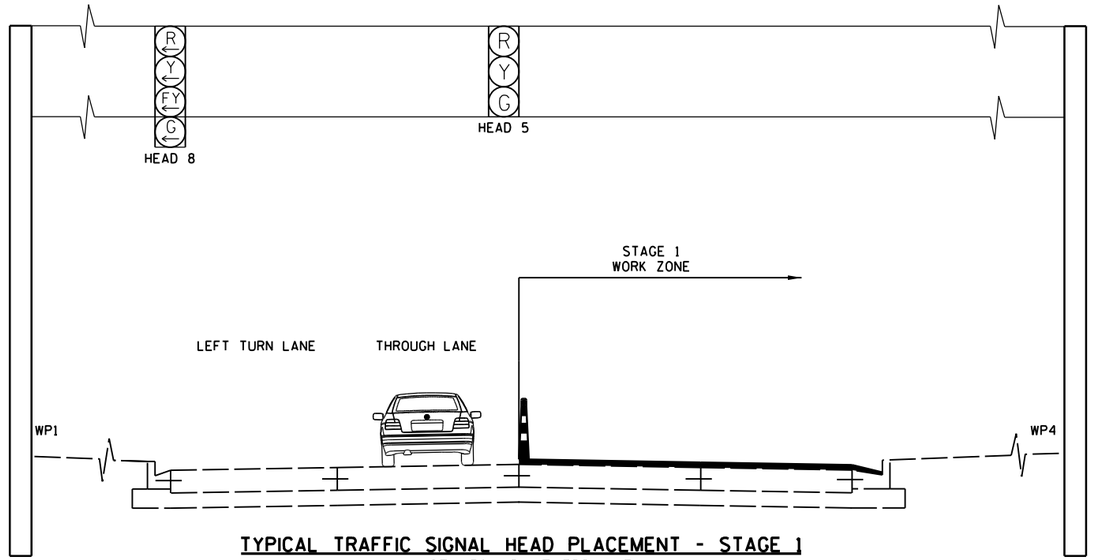
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 49	E

FILE NAME : G:\CBS SQUARED\11031 - STH 52 WAUSAU\DGN\SHEETS\024001-SEQ.DWG
PLOT DATE : 1/28/2016 7:55 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : *********
WISDOT/CADDS SHEET 42

2



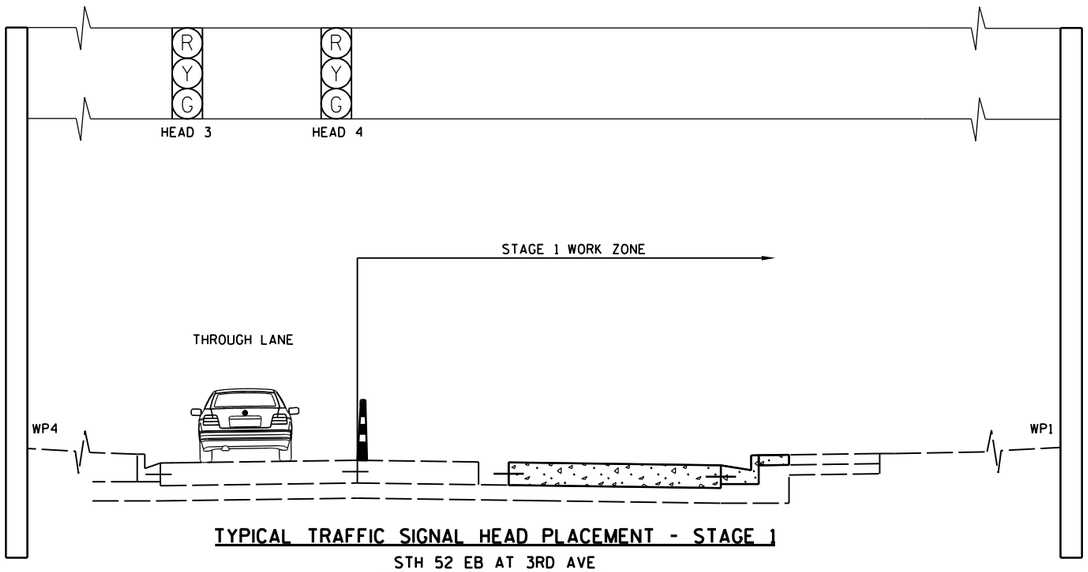
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 EB AT 3RD AVE
NEAR TRAFFIC SIGNAL HEADS



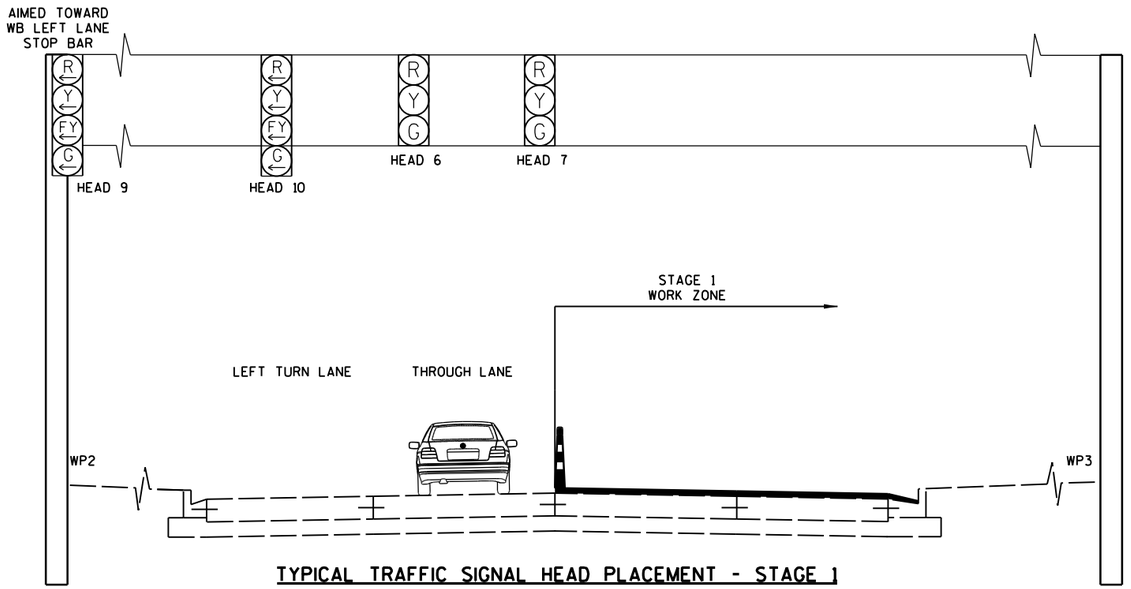
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 WB AT 3RD AVE
NEAR TRAFFIC SIGNAL HEADS

2

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.



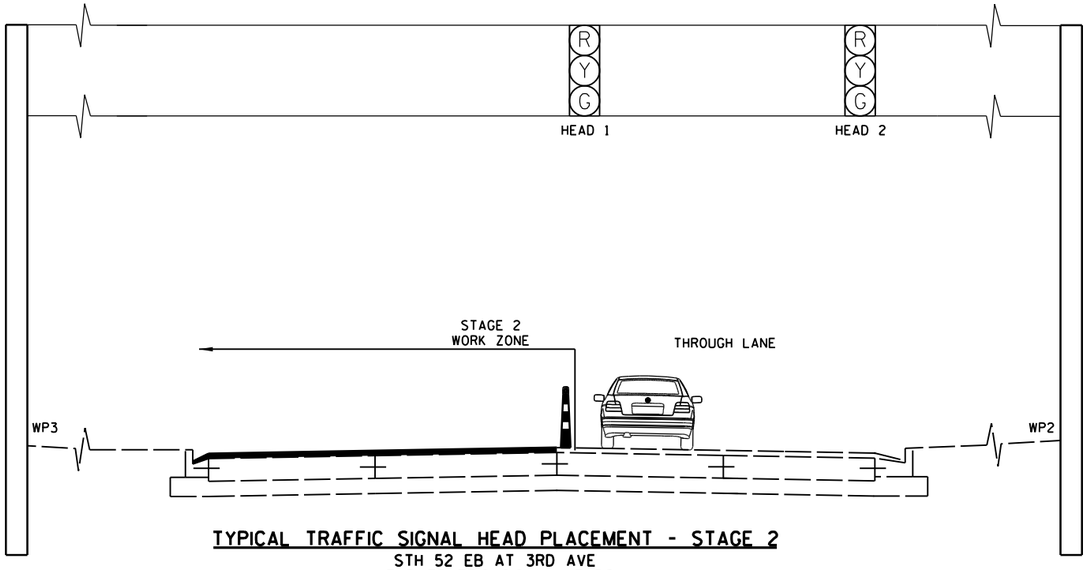
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 EB AT 3RD AVE
FAR TRAFFIC SIGNAL HEADS



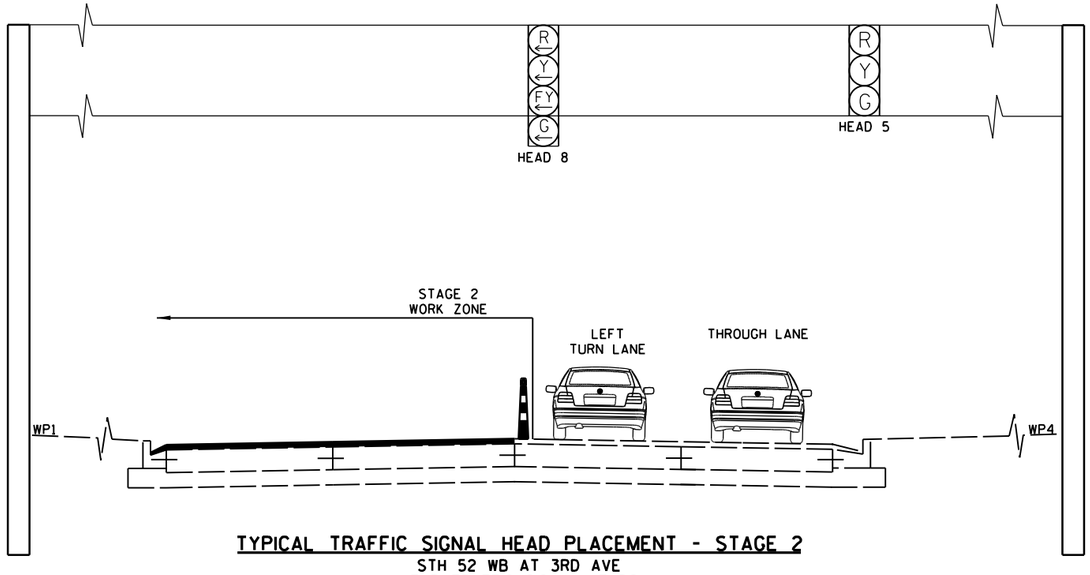
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 WB AT 3RD AVE
FAR TRAFFIC SIGNAL HEADS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET 50	E

2



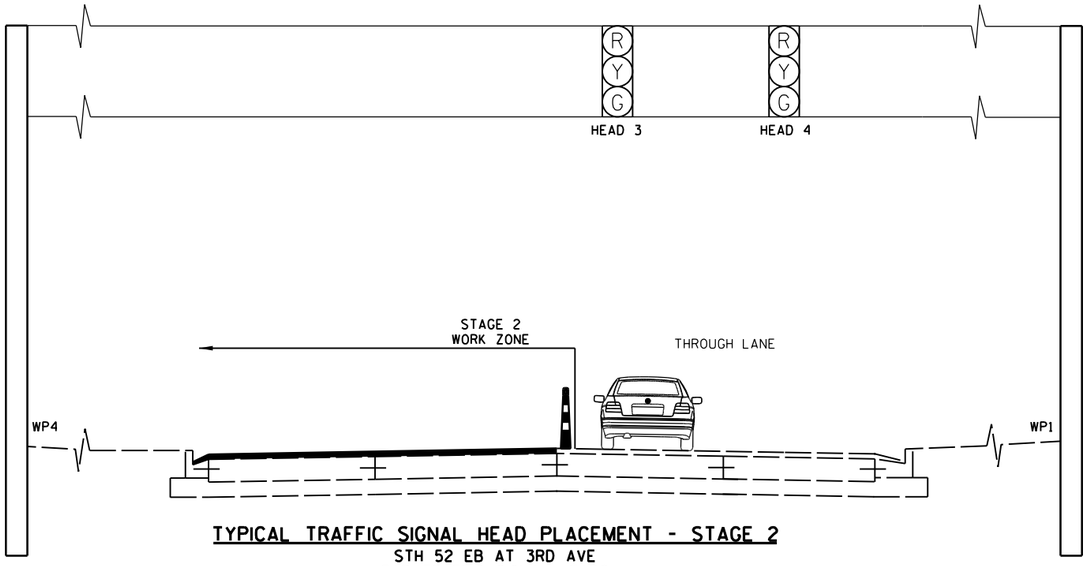
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 EB AT 3RD AVE
NEAR TRAFFIC SIGNAL HEADS



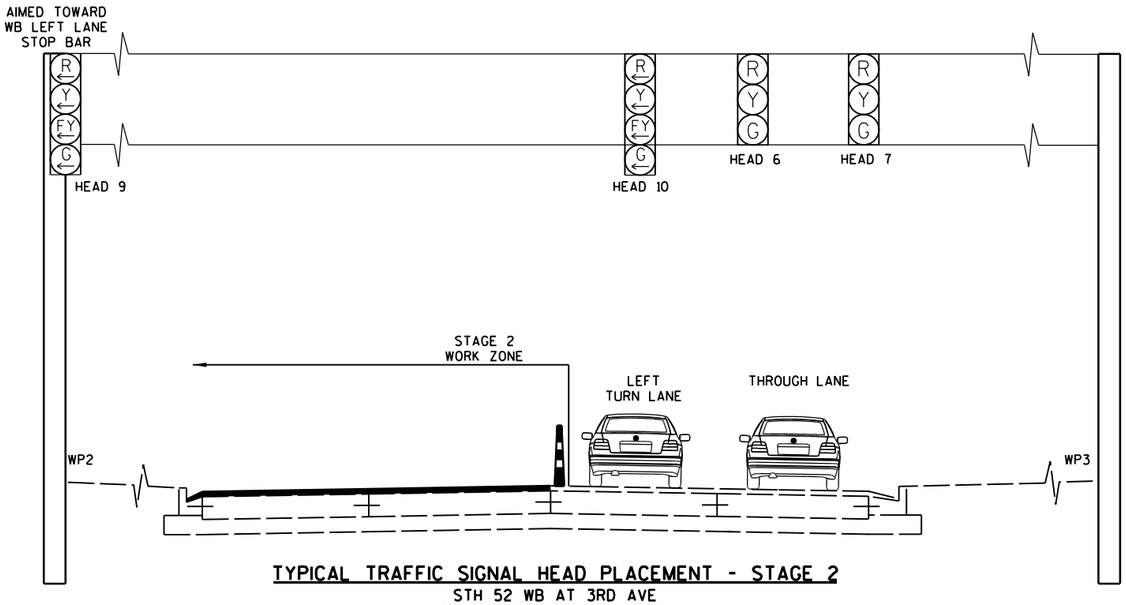
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 WB AT 3RD AVE
NEAR TRAFFIC SIGNAL HEADS

2

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.



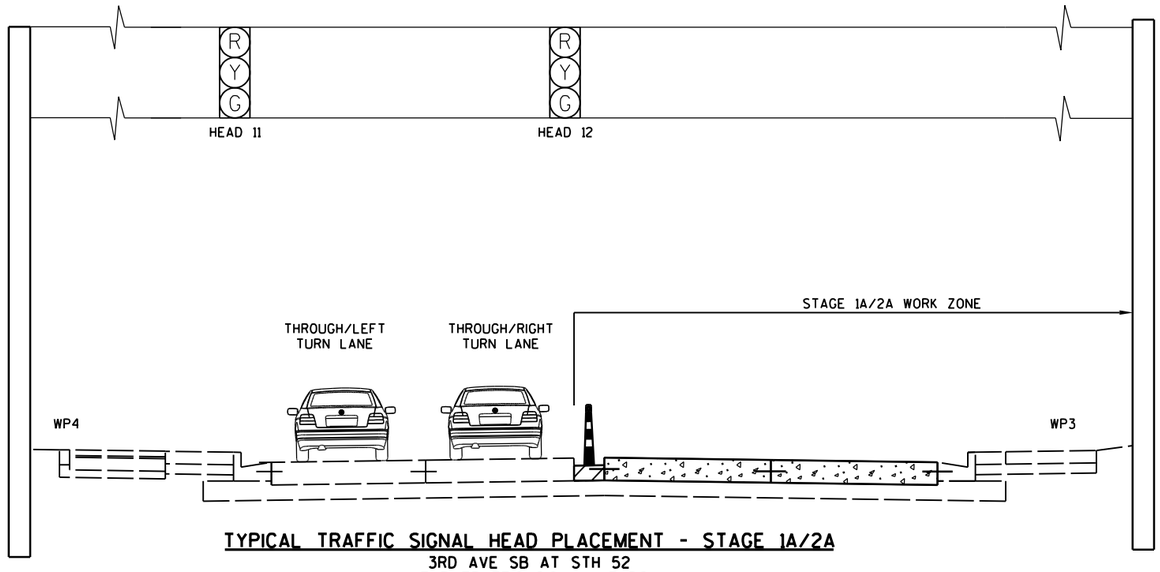
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 EB AT 3RD AVE
FAR TRAFFIC SIGNAL HEADS



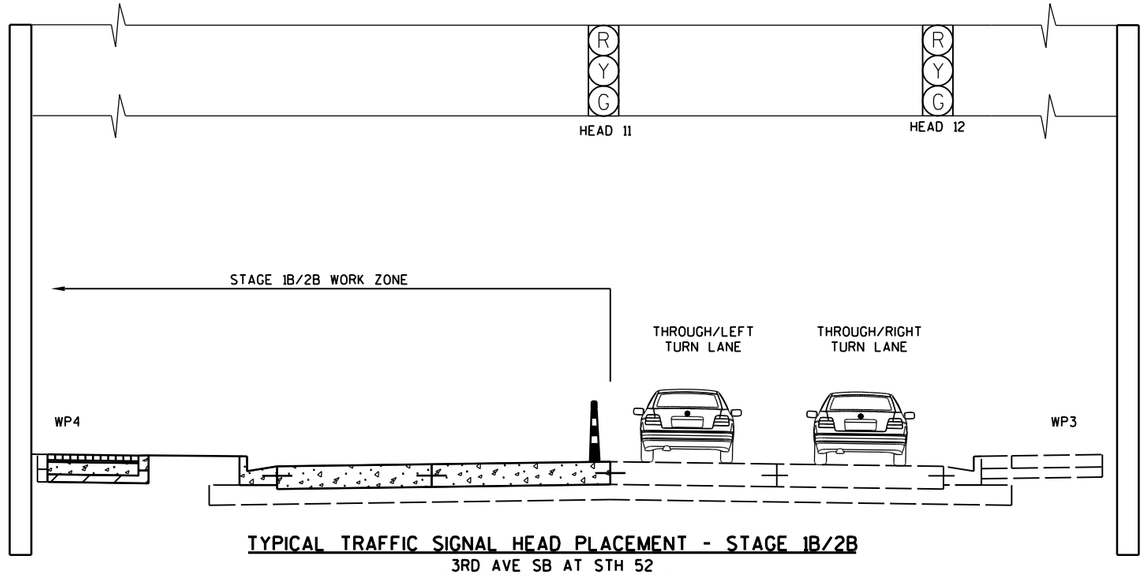
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 WB AT 3RD AVE
FAR TRAFFIC SIGNAL HEADS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET 51	E

2

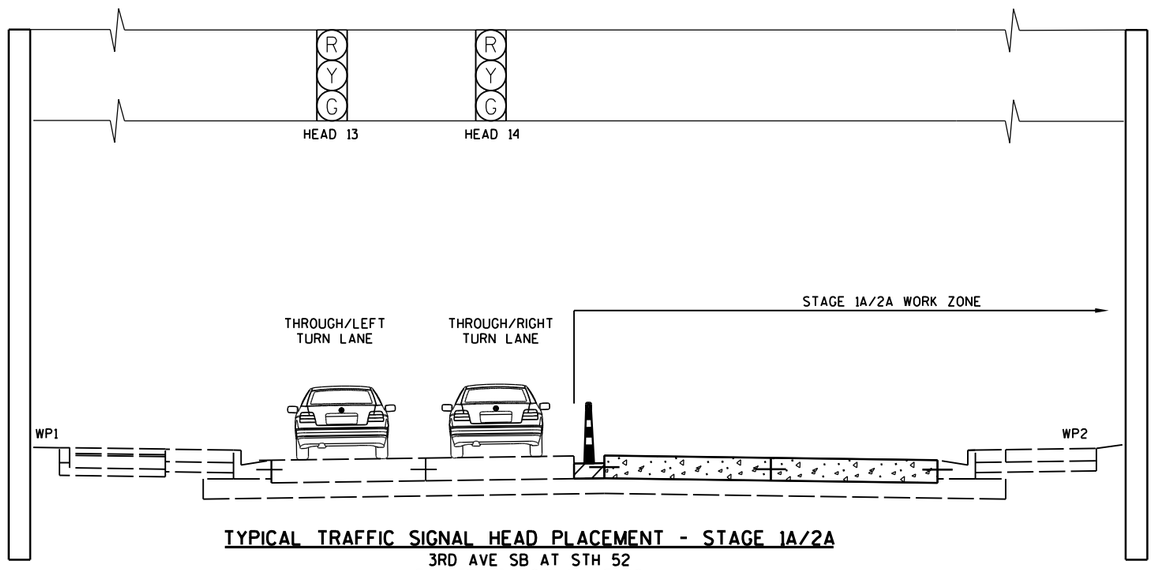


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1A/2A
3RD AVE SB AT STH 52
NEAR TRAFFIC SIGNAL HEADS

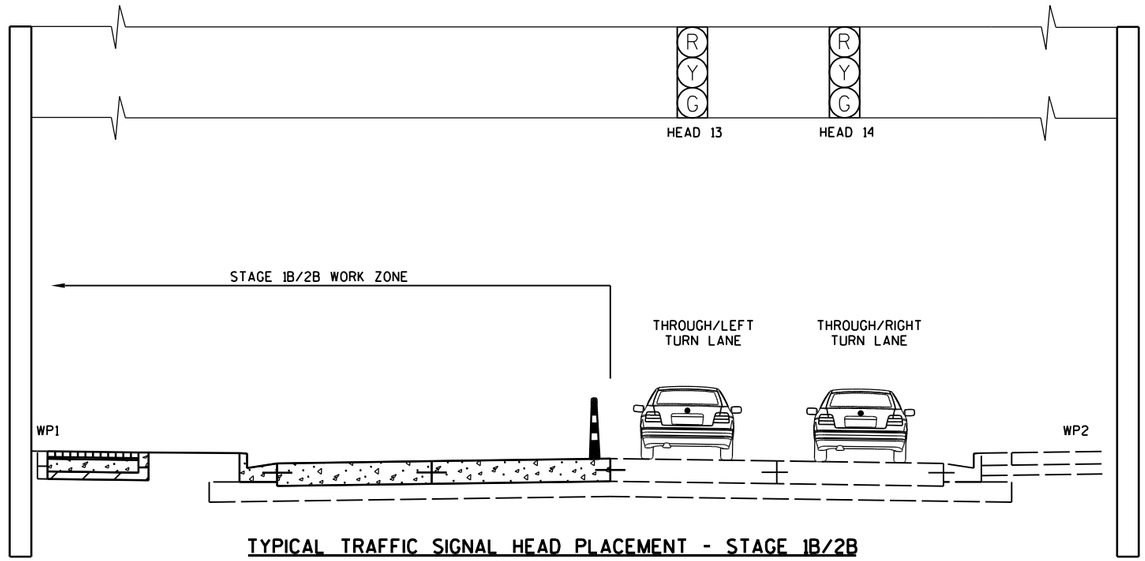


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1B/2B
3RD AVE SB AT STH 52
NEAR TRAFFIC SIGNAL HEADS

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.



TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1A/2A
3RD AVE SB AT STH 52
FAR TRAFFIC SIGNAL HEADS



TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1B/2B
3RD AVE SB AT STH 52
FAR TRAFFIC SIGNAL HEADS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET 52	E

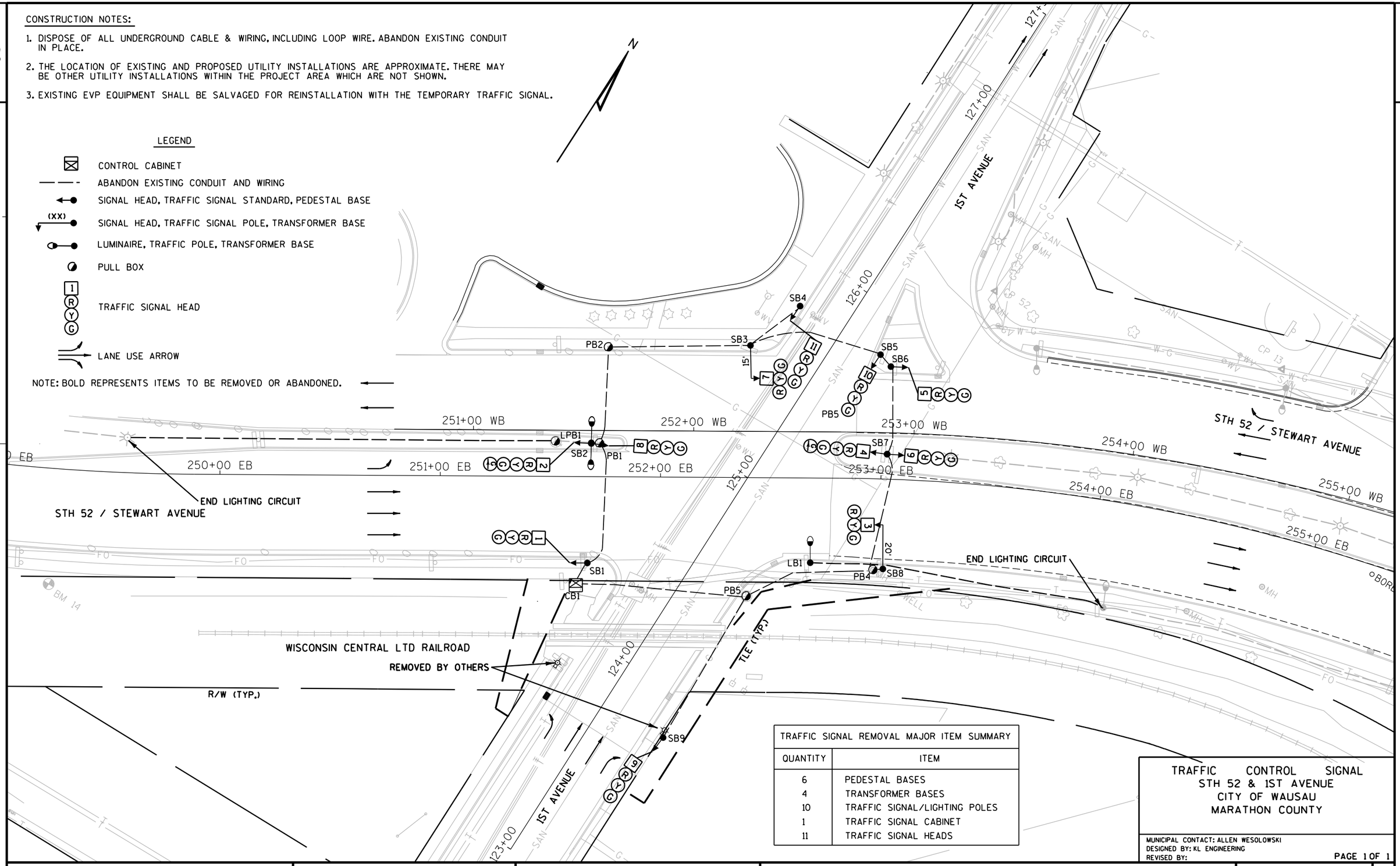
CONSTRUCTION NOTES:

1. DISPOSE OF ALL UNDERGROUND CABLE & WIRING, INCLUDING LOOP WIRE. ABANDON EXISTING CONDUIT IN PLACE.
2. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. EXISTING EVP EQUIPMENT SHALL BE SALVAGED FOR REINSTALLATION WITH THE TEMPORARY TRAFFIC SIGNAL.

LEGEND

- CONTROL CABINET
- ABANDON EXISTING CONDUIT AND WIRING
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX
- TRAFFIC SIGNAL HEAD
- LANE USE ARROW

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED OR ABANDONED.



TRAFFIC SIGNAL REMOVAL MAJOR ITEM SUMMARY	
QUANTITY	ITEM
6	PEDESTAL BASES
4	TRANSFORMER BASES
10	TRAFFIC SIGNAL/LIGHTING POLES
1	TRAFFIC SIGNAL CABINET
11	TRAFFIC SIGNAL HEADS

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST AVENUE
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 53	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024001_srp.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

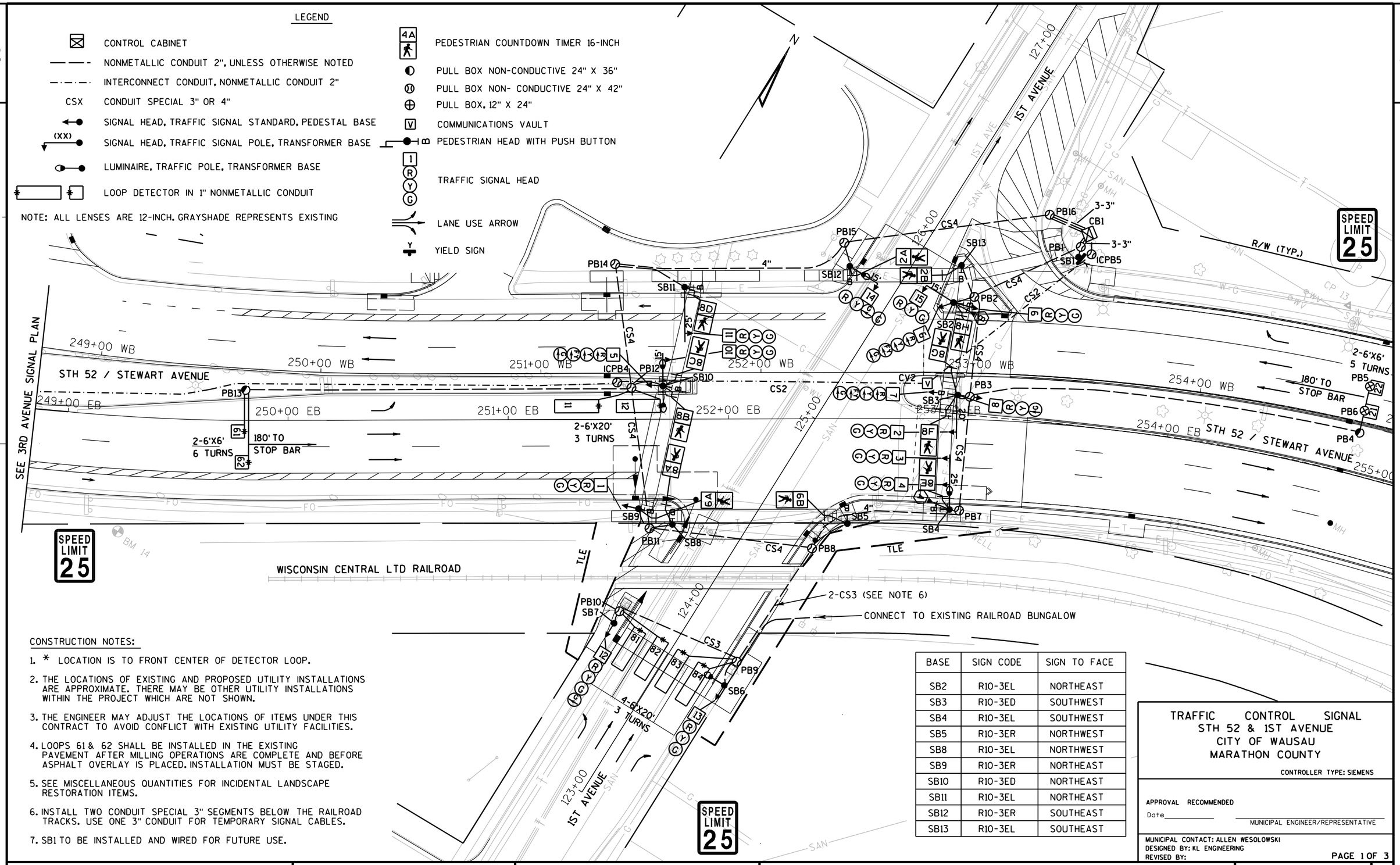
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- INTERCONNECT CONDUIT, NONMETALLIC CONDUIT 2"
- CSX CONDUIT SPECIAL 3" OR 4"
- 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

NOTE: ALL LENSES ARE 12-INCH. GRAYSHADE REPRESENTS EXISTING

- 4A PEDESTRIAN COUNTDOWN TIMER 16-INCH
- PULL BOX NON-CONDUCTIVE 24" X 36"
- PULL BOX NON- CONDUCTIVE 24" X 42"
- PULL BOX, 12" X 24"
- V COMMUNICATIONS VAULT
- B PEDESTRIAN HEAD WITH PUSH BUTTON
- 1 R Y G TRAFFIC SIGNAL HEAD
- LANE USE ARROW
- Y YIELD SIGN



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. LOOPS 61 & 62 SHALL BE INSTALLED IN THE EXISTING PAVEMENT AFTER MILLING OPERATIONS ARE COMPLETE AND BEFORE ASPHALT OVERLAY IS PLACED. INSTALLATION MUST BE STAGED.
5. SEE MISCELLANEOUS QUANTITIES FOR INCIDENTAL LANDSCAPE RESTORATION ITEMS.
6. INSTALL TWO CONDUIT SPECIAL 3" SEGMENTS BELOW THE RAILROAD TRACKS. USE ONE 3" CONDUIT FOR TEMPORARY SIGNAL CABLES.
7. SB1 TO BE INSTALLED AND WIRED FOR FUTURE USE.

BASE	SIGN CODE	SIGN TO FACE
SB2	R10-3EL	NORTHEAST
SB3	R10-3ED	SOUTHWEST
SB4	R10-3EL	SOUTHWEST
SB5	R10-3ER	NORTHWEST
SB8	R10-3EL	NORTHWEST
SB9	R10-3ER	NORTHEAST
SB10	R10-3ED	NORTHEAST
SB11	R10-3EL	NORTHEAST
SB12	R10-3ER	SOUTHEAST
SB13	R10-3EL	SOUTHEAST

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST AVENUE
CITY OF WAUSAU
MARATHON COUNTY

CONTROLLER TYPE: SIEMENS

APPROVAL RECOMMENDED

Date_____ _____ MUNICIPAL ENGINEER/REPRESENTATIVE

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL PLAN	SHEET 54	E

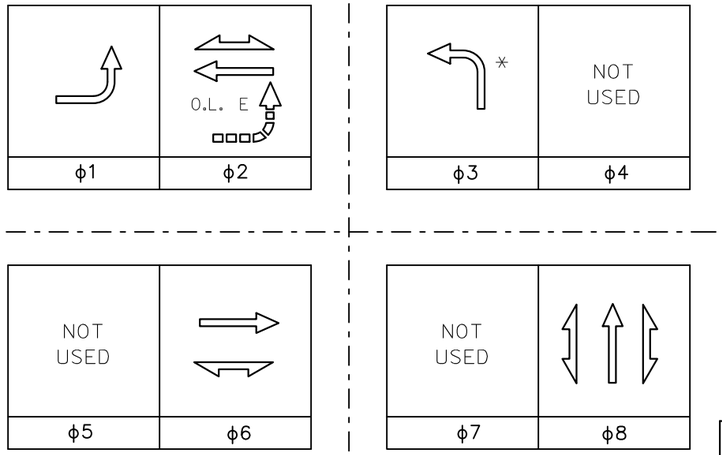
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024001_sp.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5-7	R
Ø2	8-11	R
Ø3	12,14	
Ø4	14,15	R
Ø5		
Ø6	1-4	R
Ø7		-
Ø8	12-15	R
Ø2 PED	2A,2B	
Ø4 PED		
Ø6 PED	6A,6B	
Ø8 PED	8A-8H	

O.L.	ASSIGNMENTS
OLA	
OLB	
OLC	
OLD	
OLE	1 + 2
OLF	
OLG	
OLH	

N



BARRIER

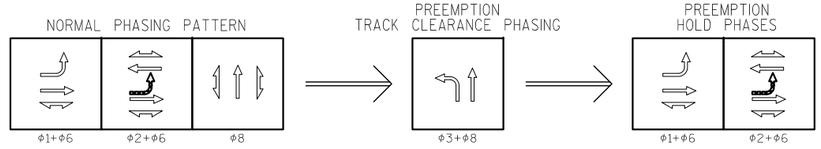
* ACTVE DURING PREEMPTION TRACK CLEARANCE PHASE ONLY

GENERAL NOTES:

1. INTERSECTION TO OPERATE AT ALL TIMES WITH PHASE 1 LAGGING PHASE 2.

RAILROAD PREEMPTION PHASING

SEE NOTES (1,2&3 BELOW)



RAILROAD PREEMPT NOTES:

1. IN THE EVENT OF A RAILROAD PREEMPTION CALL, PHASES 3 AND 8 SHALL RECEIVE A GREEN INDICATION TO CLEAR THE SOUTH APPROACH. FOLLOWING THE TRACK CLEARANCE INTERVAL, THE CONTROLLER SHALL CYCLE THROUGH PHASES 1, 2, AND 6 BASED ON DEMAND. AT THE END OF PREEMPTION, THE CONTROLLER SHALL RETURN TO PHASE 8 GREEN.
2. PEDESTRIAN GREEN SHALL NOT TIME DURING PREEMPTION TRACK CLEARANCE PHASING.
3. BATTERY BACKUP REQUIRED FOR PREEMPTION. REQUEST "GATE DOWN" AND "CLEARANCE TIMING".

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				
5				
6	X	2	MIN.	X
7				
8				X

* ACTVE DURING PREEMPTION TRACK CLEARANCE PHASE ONLY

PREEMPTION ASSIGNMENTS				
PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	PREEMTED APPROACH
1	RESERVED			
2	RESERVED			
3	EVP	A	1 + 6	EB
4	EVP	B	2	WB
5	EVP	C	8	NB
6	NOT USED			
7	NOT USED			
8	NOT USED			

PREEMPTION NOTES:

1. PREEMPTION SEQUENCE 1 SHALL BE PROGRAMMED TO OMIT ALL PEDESTRIAN PHASES DURING THE TRACK CLEAR GREEN INTERVAL.
2. AFTER PREEMPTION SEQUENCE 3 OR 4, CONTROLLER SHALL RETURN TO PHASE 2+6.
3. AFTER PREEMPTION SEQUENCE 5, CONTROLLER SHALL RETURN TO PHASE 8.

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR #(S)	11	21	22	61	62	81	82	83	84							
PHASE CALLED	1	2	2	6	6	8	8	8	8							
PHASE EXTENDED	1,2	2	2	6	6	8	8	8	8							
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR #(S)	12															
PHASE CALLED	1															
PHASE EXTENDED	1,2															
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER: STH 52 & 3RD AVE
SIGNAL SYSTEM #:

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

TYPE OF INTERCONNECT	
NONE	
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	X
RADIO	

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

TRAFFIC CONTROL SIGNAL

STH 52 & 1ST AVENUE

CITY OF WAUSAU MARATHON COUNTY

CONTROLLER TYPE: SIEMENS

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 2 OF 3

PROJECT NO:6999-03-79 | HWY: STH 52 | COUNTY: MARATHON | SEQUENCE OF OPERATIONS | SHEET 55 E

STH 52 & 1ST AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB1	9/C	N/A	-	-	-
CABINET TO SB2	15/C	6	EB LT	← R	RED/BLK
				← Y	ORG/BLK
				←FY	BLU/BLK
				← G	GRN/BLK
		9	WB	R	RED
				Y	ORG
				G	GRN
		15	NB	R	RED/WHT
				Y	BLK/WHT
				G	GRN/WHT
		8H	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ8 PED	N/A	WHT/BLK
CABINET TO SB3	15/C	2	EB	R	RED
				Y	ORG
				G	GRN
		7	EB LT	← R	RED/WHT
				← Y	BLU/WHT
				←FY	BLK/WHT
				← G	GRN/WHT
		8	WB	R	RED/BLK
				Y	ORG/BLK
				G↑	GRN/BLK
		8F	ϕ8 PED	DW	BLK
				W	BLU
		8G	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ8 PED	N/A	WHT/BLK
CABINET TO SB4	9/C	3	EB	R	RED
				Y	ORG
				G	GRN
		4	EB	R	RED
				Y	ORG
				G	GRN
		8E	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ8 PED	N/A	WHT/BLK
CABINET TO SB5	9/C	6B	ϕ6 PED	DW	BLK
				W	BLU
		BUTTON	ϕ6 PED	N/A	WHT/BLK
CABINET TO SB6	9/C	13	NB	R	RED
				Y	ORG
				G	GRN
CABINET TO SB7	9/C	13	NB	R	RED
				Y	ORG
				G	GRN
				← G	GRN/BLK

STH 52 & 1ST AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB8	9/C	8A	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ6 PED	N/A	WHT/BLK
CABINET TO SB9	9/C	1	EB	R	RED
				Y	ORG
				G	GRN
		6A	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ6 PED	N/A	WHT/BLK
CABINET TO SB10	12/C	5	EB LT	← R	RED/BLK
				← Y	ORG/BLK
				←FY	BLK/WHT
				← G	GRN/BLK
		10	WB	R	RED
				Y	ORG
				G	GRN
		8B	ϕ8 PED	DW	BLK
				W	BLU
		8C	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ8 PED	N/A	WHT/BLK
CABINET TO SB11	9/C	11	WB	R	RED
				Y	ORG
				G	GRN
		8D	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ8 PED	N/A	WHT/BLK
CABINET TO SB12	12/C	14	NB	R	RED
				Y	ORG
				← G	GRN/BLK
				G	GRN
		2A	ϕ2 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED	N/A	WHT/BLK
CABINET TO SB13	9/C	2B	ϕ2 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED	N/A	WHT/BLK

STH 52 & 1ST AVENUE LIGHTING CABLING CHART TYPE UF 2-12 AWG GROUNDED	
FROM	TO
CB1	SB4
SB4	SB6
CB1	SB12
SB12	SB10

STH 52 & 1ST AVENUE EMERGENCY VEHICLE PREEMPT CABLE	
FROM	TO
CABINET	SB3

STH 52 & 1ST AVENUE RR PREEMPTION CABLE	
FROM	TO
PB9	RR BUNGALOW

Signal Wire Color Coding	BLK-black	RED-red	GRN-green
	WHT-white	BLU-blue	ORG-orange

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST AVENUE
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

FILE NAME: G:\

2

LEGEND

- TYPE 4 WOOD POLE
- TRAFFIC SIGNAL HEAD
- OH — OVERHEAD SIGNAL CABLE
- Y — TEMPORARY YIELD SIGN
- CONTROL CABINET TEMPORARY
- LANE USE ARROW
- 250W HPS LUMINAIRE OR EQUIVALENT, MOUNT ON WOOD POLE

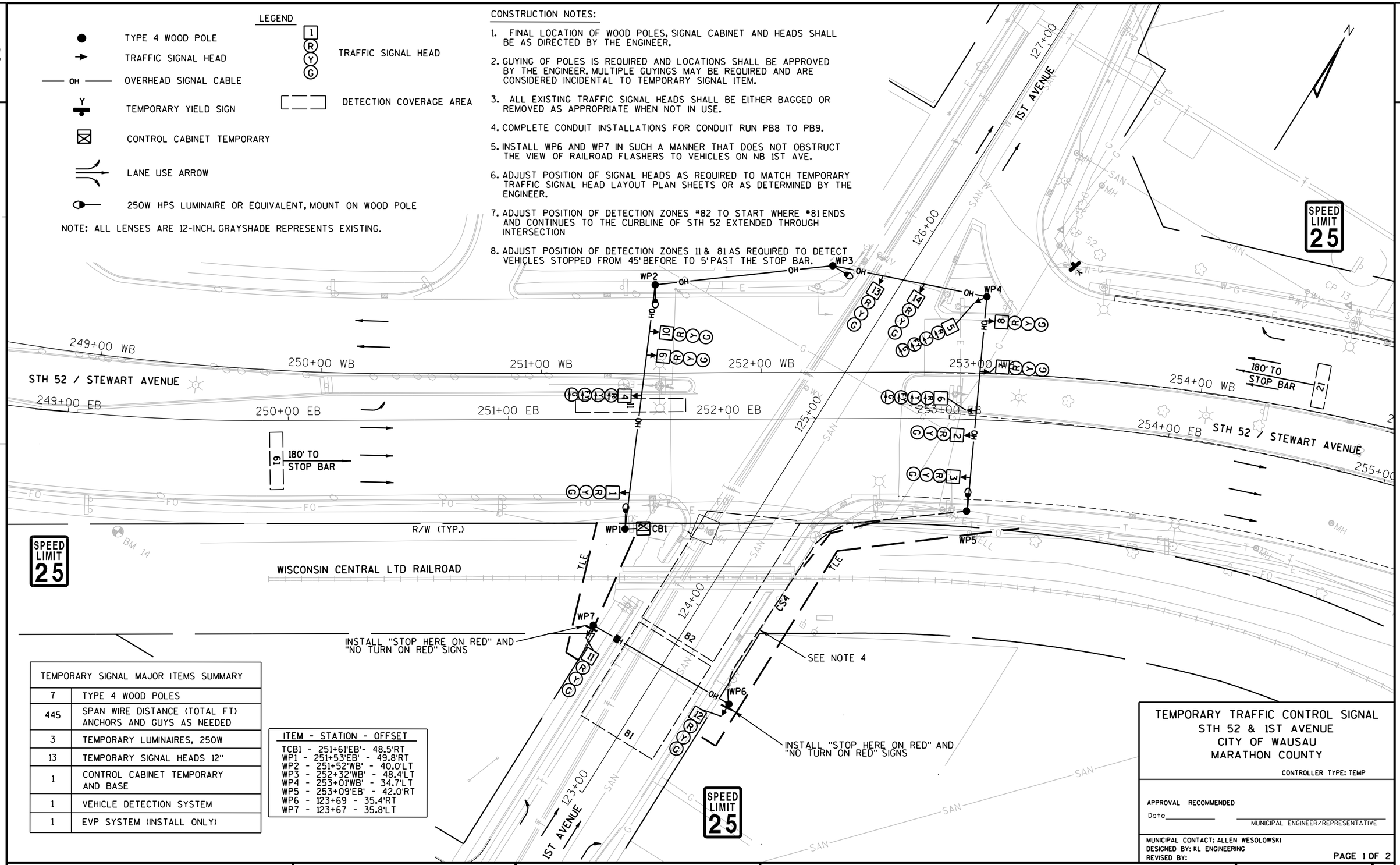
1 R Y G — TRAFFIC SIGNAL HEAD

DETECTION COVERAGE AREA

NOTE: ALL LENSES ARE 12-INCH. GRAYSHADE REPRESENTS EXISTING.

CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES, SIGNAL CABINET AND HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE GUYINGS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO TEMPORARY SIGNAL ITEM.
3. ALL EXISTING TRAFFIC SIGNAL HEADS SHALL BE EITHER BAGGED OR REMOVED AS APPROPRIATE WHEN NOT IN USE.
4. COMPLETE CONDUIT INSTALLATIONS FOR CONDUIT RUN PB8 TO PB9.
5. INSTALL WP6 AND WP7 IN SUCH A MANNER THAT DOES NOT OBSTRUCT THE VIEW OF RAILROAD FLASHERS TO VEHICLES ON NB 1ST AVE.
6. ADJUST POSITION OF SIGNAL HEADS AS REQUIRED TO MATCH TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT PLAN SHEETS OR AS DETERMINED BY THE ENGINEER.
7. ADJUST POSITION OF DETECTION ZONES #82 TO START WHERE #81 ENDS AND CONTINUES TO THE CURBLINE OF STH 52 EXTENDED THROUGH INTERSECTION
8. ADJUST POSITION OF DETECTION ZONES 11 & 81 AS REQUIRED TO DETECT VEHICLES STOPPED FROM 45' BEFORE TO 5' PAST THE STOP BAR.



TEMPORARY SIGNAL MAJOR ITEMS SUMMARY	
7	TYPE 4 WOOD POLES
445	SPAN WIRE DISTANCE (TOTAL FT) ANCHORS AND GUYS AS NEEDED
3	TEMPORARY LUMINAIRES, 250W
13	TEMPORARY SIGNAL HEADS 12"
1	CONTROL CABINET TEMPORARY AND BASE
1	VEHICLE DETECTION SYSTEM
1	EVP SYSTEM (INSTALL ONLY)

ITEM - STATION - OFFSET

TCB1 - 251+61'EB'- 48.5'RT
WP1 - 251+53'EB' - 49.8'RT
WP2 - 251+52'WB' - 40.0'LT
WP3 - 252+32'WB' - 48.4'LT
WP4 - 253+01'WB' - 34.7'LT
WP5 - 253+09'EB' - 42.0'RT
WP6 - 123+69 - 35.4'RT
WP7 - 123+67 - 35.8'LT

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 52 & 1ST AVENUE
CITY OF WAUSAU
MARATHON COUNTY

CONTROLLER TYPE: TEMP

APPROVAL RECOMMENDED

Date_____ _____
MUNICIPAL ENGINEER/REPRESENTATIVE

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL PLAN	SHEET 57	E

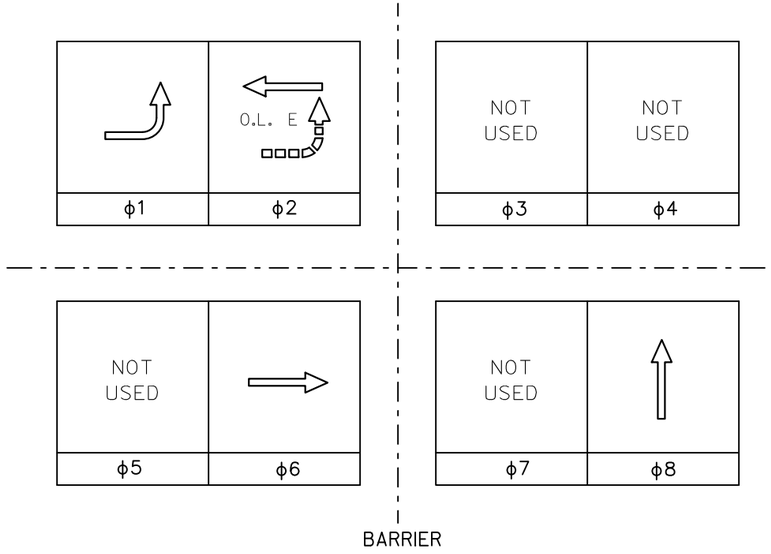
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024101_st.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4-6	R
Ø2	7-10	R
Ø3		
Ø4		
Ø5		
Ø6	1-3	R
Ø7		
Ø8	11-14	R
Ø2 PED		
Ø4 PED		
Ø6 PED		
Ø8 PED		

O.L.			O.L. ASSIGNMENTS
OLA			
OLB			
OLC			
OLD			
OLE	4-6		1 + 2
OLF			
OLG			
OLH			

N



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER: STH 52 & 3RD AVE
SIGNAL SYSTEM #:

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED	PREEMPTED APPROACH
1	RESERVED			
2	RESERVED			
3	EVP	A	1+6	EB
4	EVP	B	2	WB
5	EVP	C	8	SB
6	NOT USED			
7	NOT USED			
8	NOT USED			

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	11	21	61	81	82			
PHASE CALLED	1	2	6	8	8			
PHASE EXTENDED	1,2	2	6	8	8			
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

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

PREEMPTION NOTES:

1. AFTER PREEMPTION SEQUENCE 3 OR 4, CONTROLLER SHALL RETURN TO PHASE 2+6.
2. AFTER PREEMPTION SEQUENCE 5, CONTROLLER SHALL RETURN TO PHASE 8.

GENERAL NOTES:

1. INTERSECTION TO OPERATE AT ALL TIMES WITH PHASE 1 LAGGING PHASE 2.

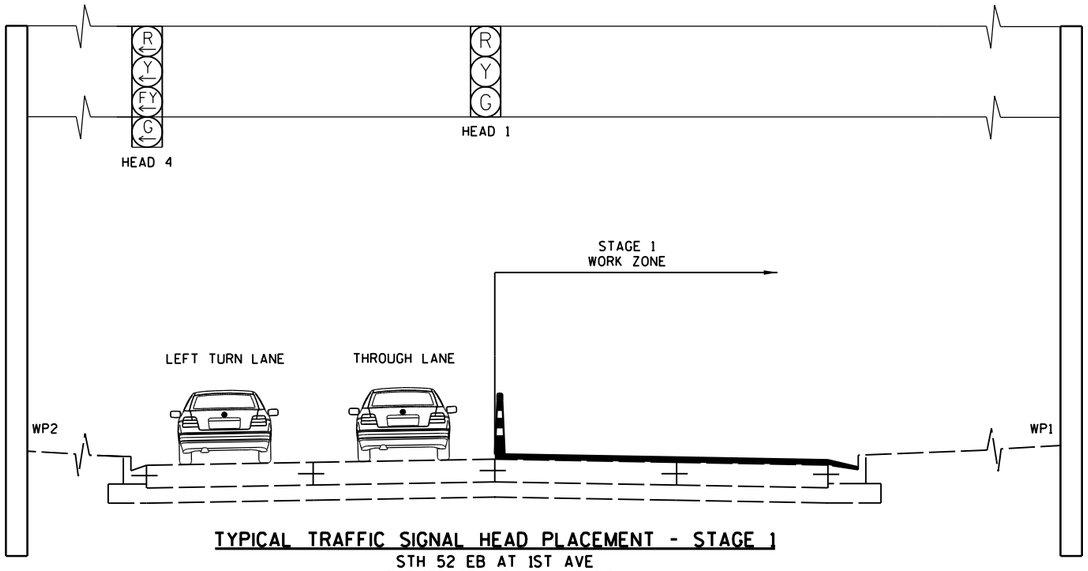
TEMPORARY TRAFFIC CONTROL SIGNAL
STH 52 & 1ST AVENUE
CITY OF WAUSAU — MARATHON COUNTY
CONTROLLER TYPE: TEMP

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

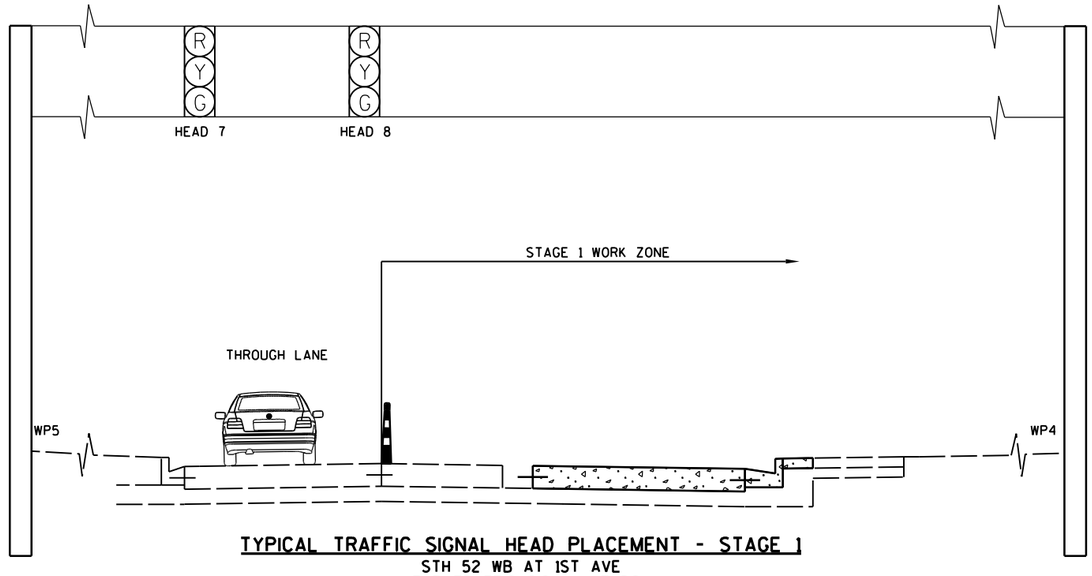
PROJECT NO:6999-03-79 | HWY: STH 52 | COUNTY: MARATHON | TEMPORARY SEQUENCE OF OPERATIONS | SHEET 58 | E

FILE NAME :G:\CBS SQUARED\11031 - STH 52 WAUSAU\DGN\SHEETS\024001-SEQ.DWG PLOT DATE :1/28/2016 2:15 PM PLOT BY :KL ENGINEERING PLOT NAME : PLOT SCALE :********* WISDOT/CADDS SHEET 42

2



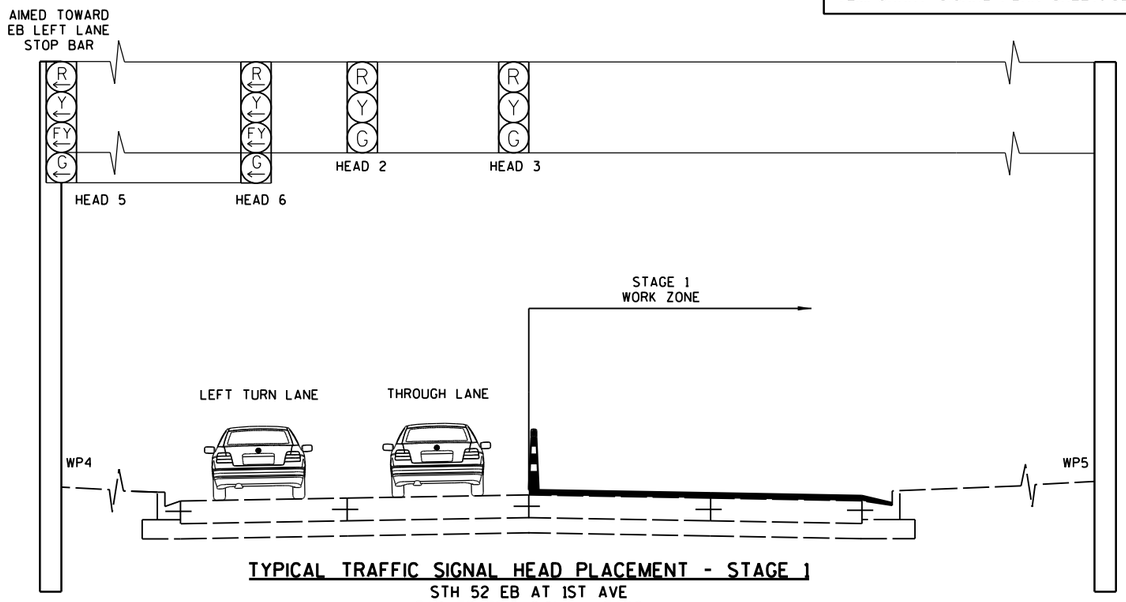
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 EB AT 1ST AVE
NEAR TRAFFIC SIGNAL HEADS



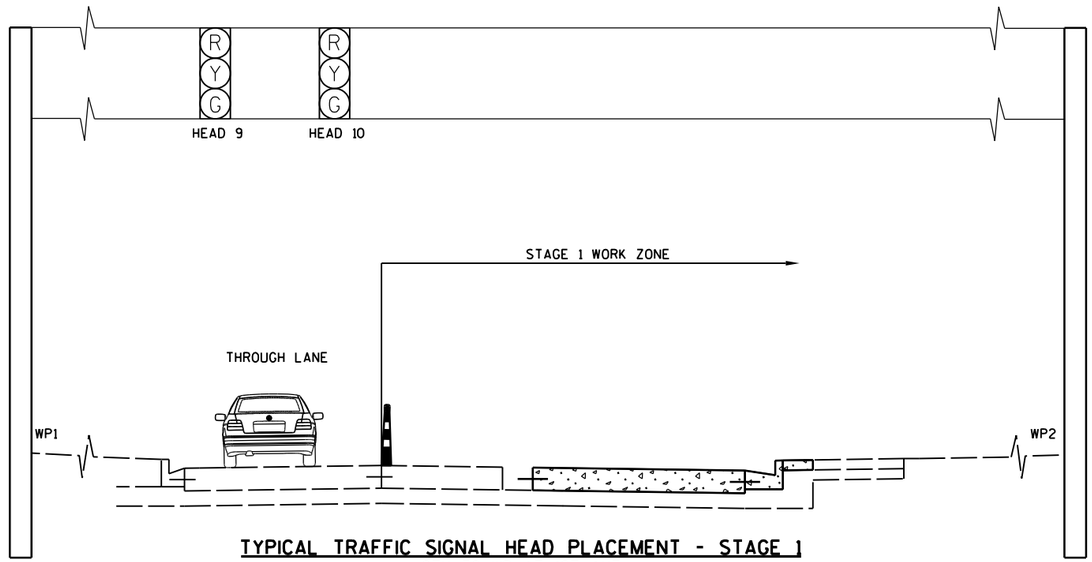
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 WB AT 1ST AVE
NEAR TRAFFIC SIGNAL HEADS

2

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.



TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 EB AT 1ST AVE
FAR TRAFFIC SIGNAL HEADS

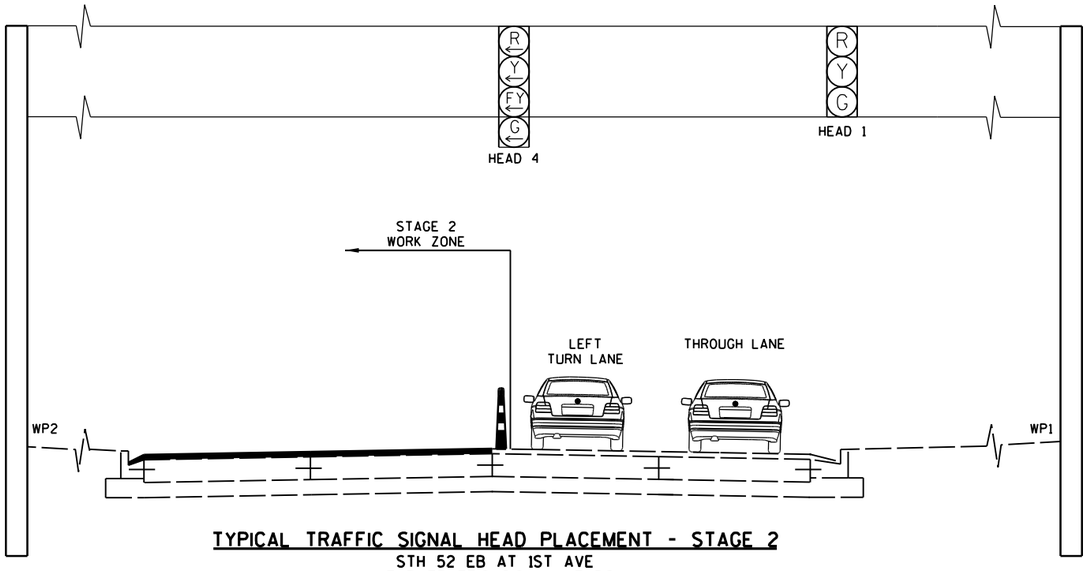


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1
STH 52 WB AT 1ST AVE
FAR TRAFFIC SIGNAL HEADS

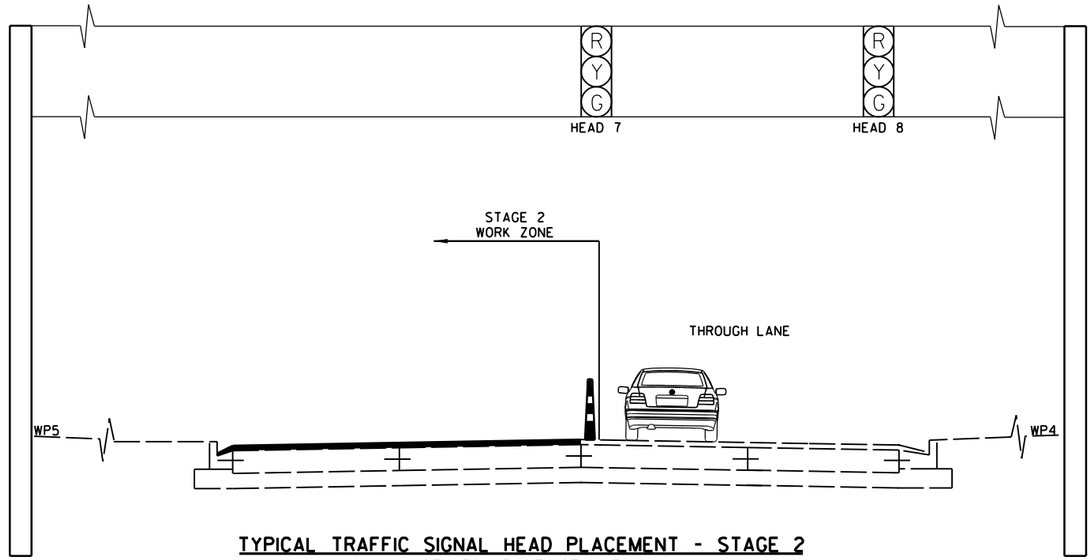
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024103_typ_st.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :
WISDOT/CADDS SHEET 42

2



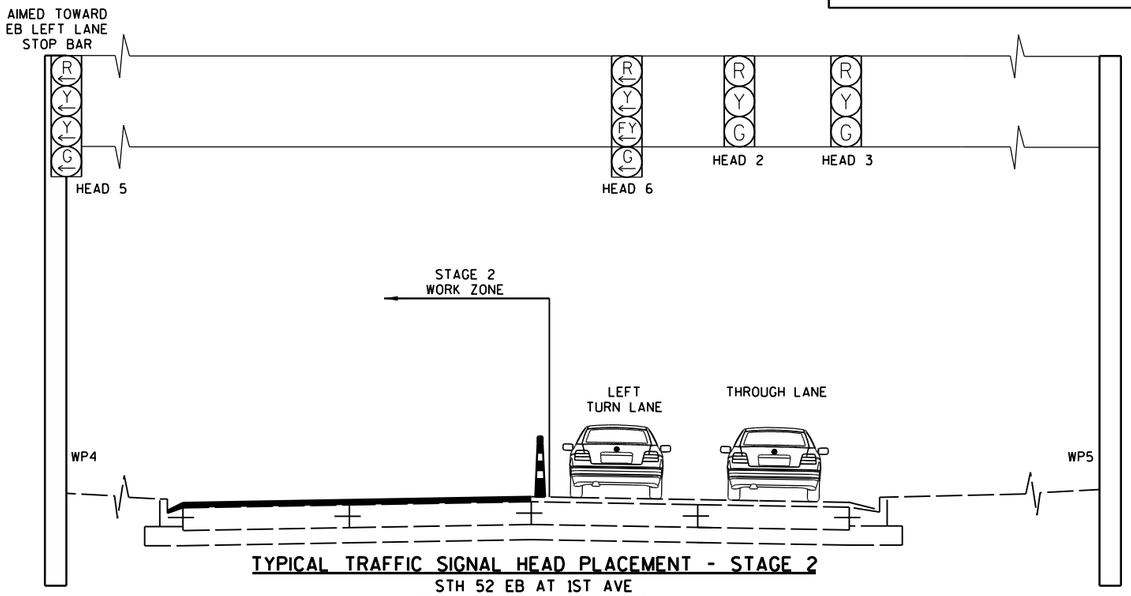
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 EB AT 1ST AVE
NEAR TRAFFIC SIGNAL HEADS



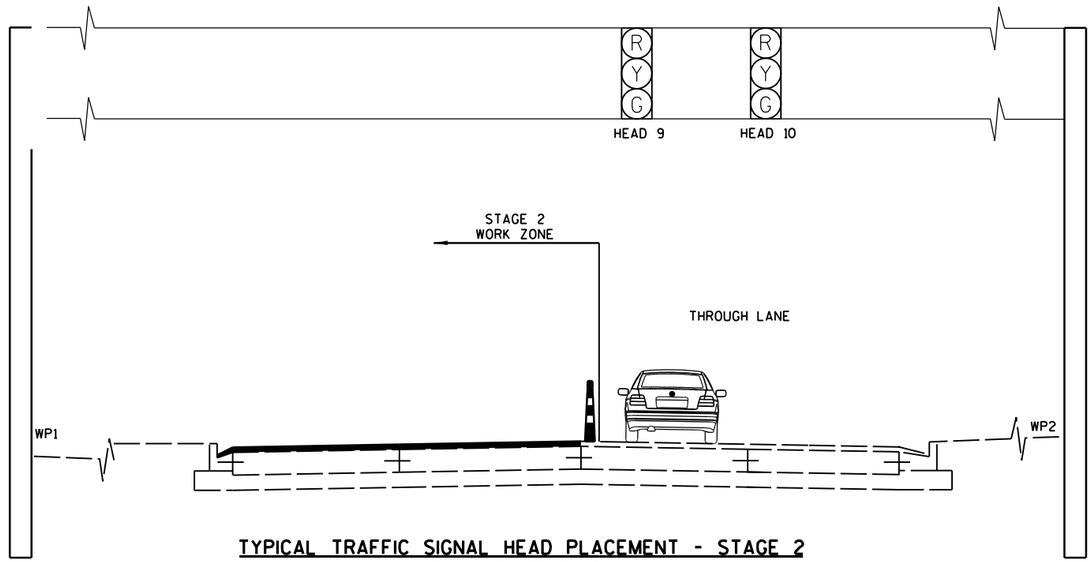
TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 WB AT 1ST AVE
NEAR TRAFFIC SIGNAL HEADS

2

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.

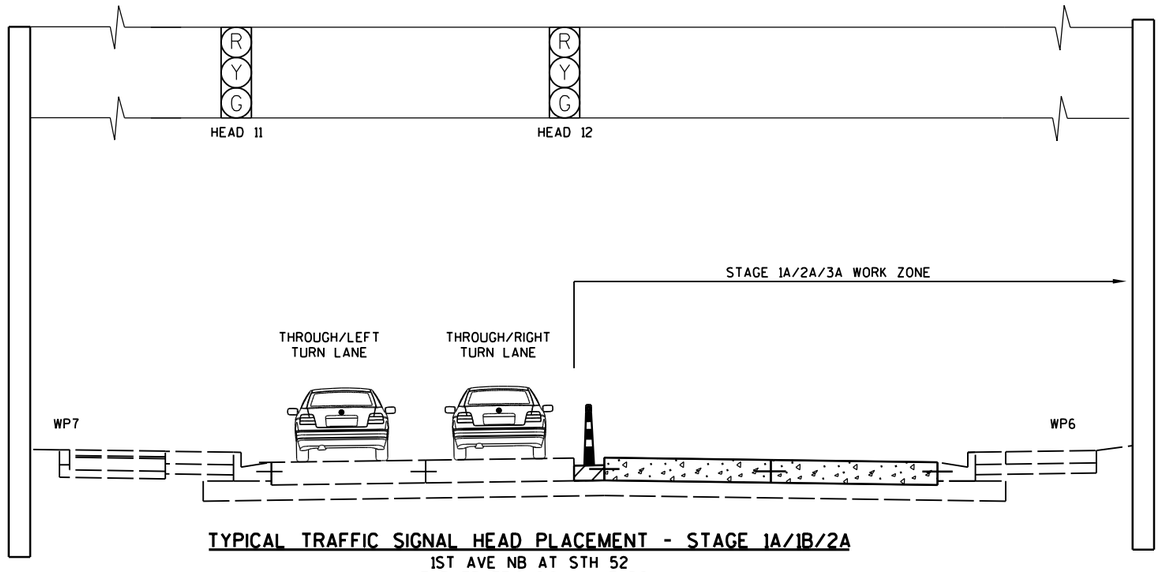


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 EB AT 1ST AVE
FAR TRAFFIC SIGNAL HEADS

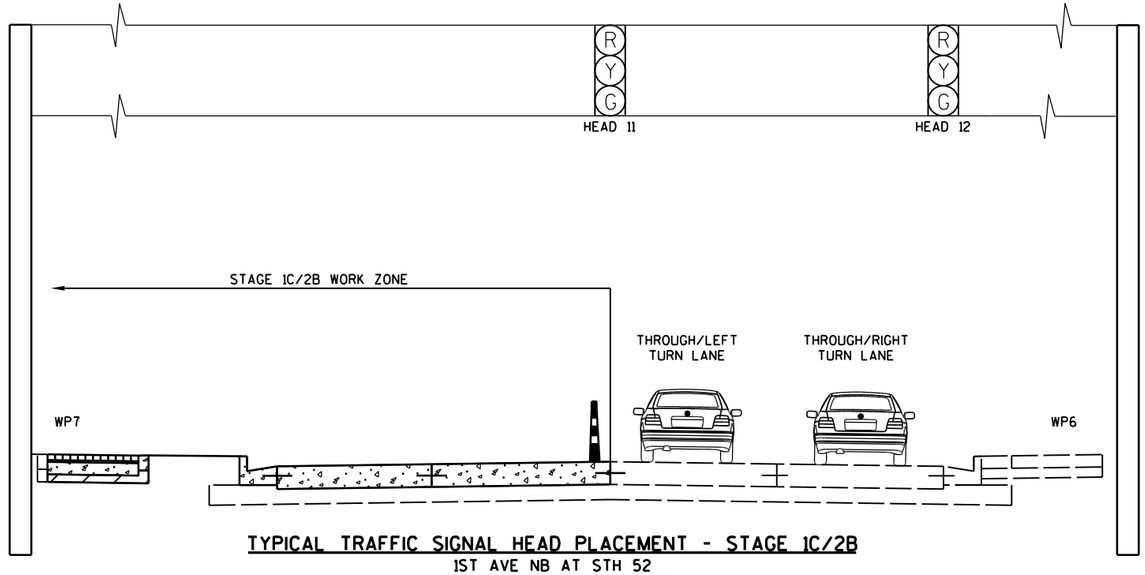


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 2
STH 52 WB AT 1ST AVE
FAR TRAFFIC SIGNAL HEADS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET 60	E

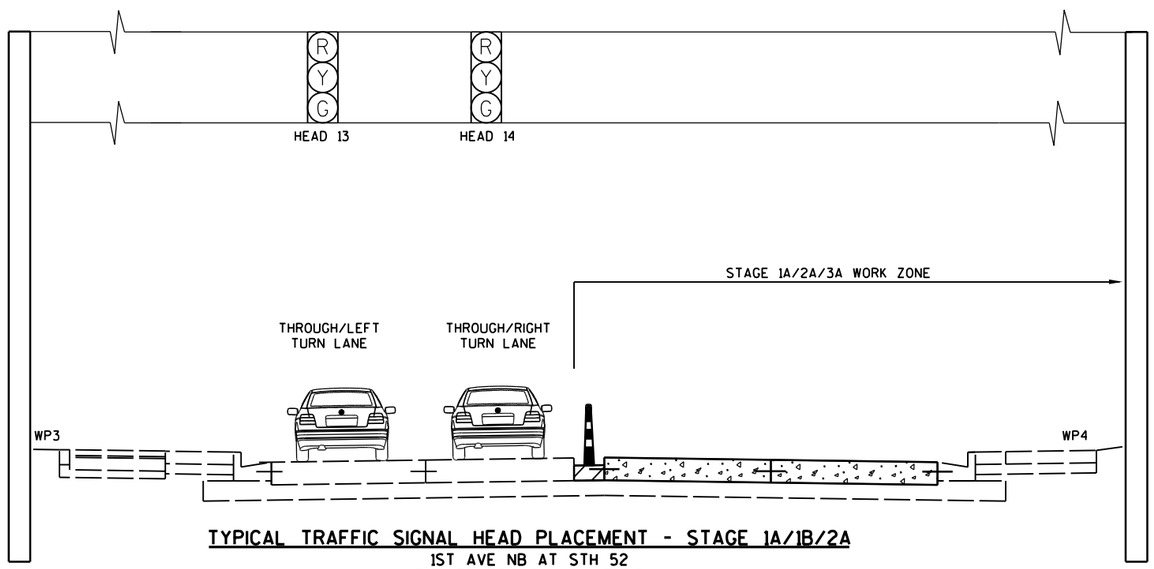


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1A/1B/2A
1ST AVE NB AT STH 52
NEAR TRAFFIC SIGNAL HEADS

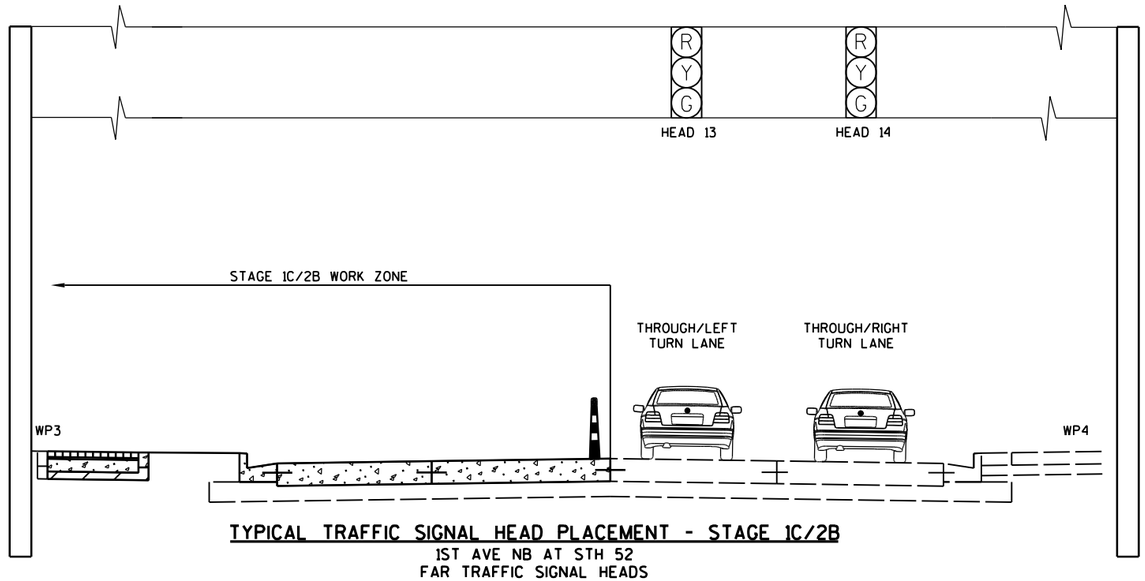


TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1C/2B
1ST AVE NB AT STH 52
NEAR TRAFFIC SIGNAL HEADS

NOTE: THIS SHEET PROVIDED FOR SIGNAL HEAD PLACEMENT ONLY AS A SUPPLEMENT TO THE TEMPORARY SIGNAL PLAN SHEET. SEE STAGING PLAN FOR ALL OTHER STAGING INFORMATION.



TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1A/1B/2A
1ST AVE NB AT STH 52
FAR TRAFFIC SIGNAL HEADS



TYPICAL TRAFFIC SIGNAL HEAD PLACEMENT - STAGE 1C/2B
1ST AVE NB AT STH 52
FAR TRAFFIC SIGNAL HEADS

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TEMPORARY TRAFFIC SIGNAL HEAD LAYOUT	SHEET 61	E

LEGEND

E10/100 - ETHERNET CABLE (INCIDENTAL TO FURNISH AND INSTALL COMMUNICATIONS IN TRAFFIC SIGNAL CABINET)

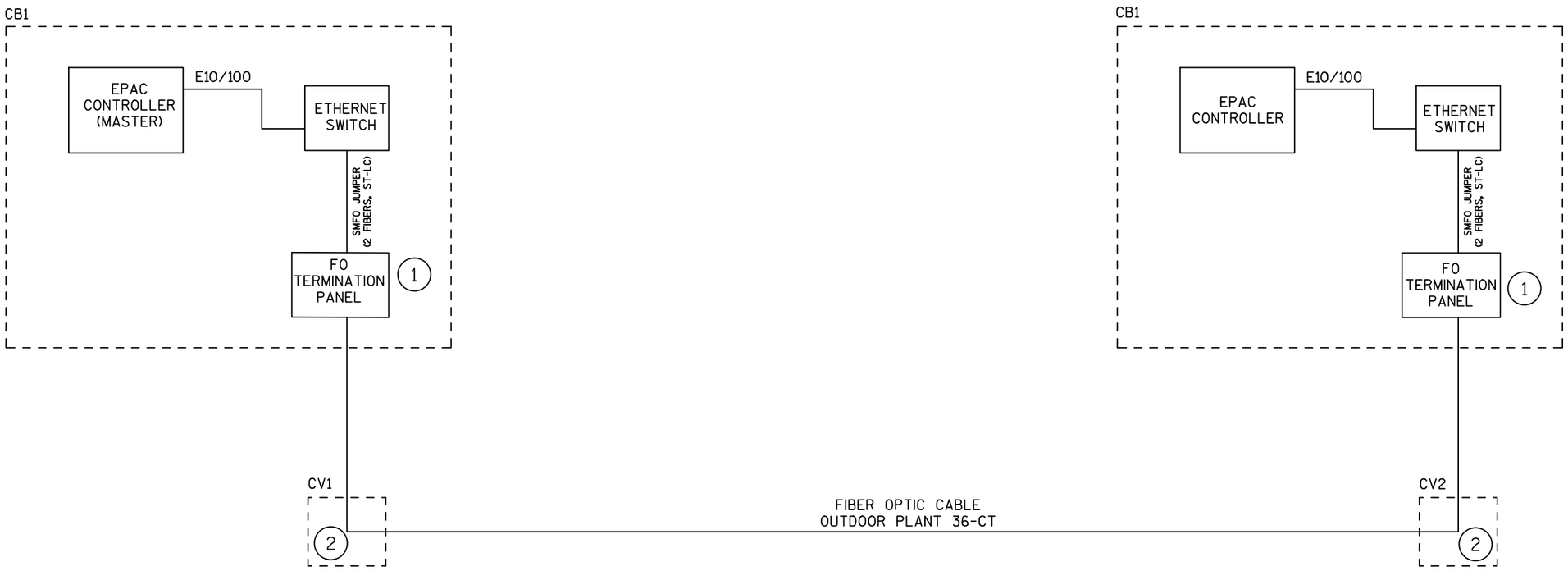
SMFO - SIGNAL MODE FIBER OPTIC (INCIDENTAL TO FURNISH AND INSTALL COMMUNICATIONS IN TRAFFIC SIGNAL CABINET)

CV - COMMUNICATIONS VAULT

CB - SIGNAL CABINET

(1) TERMINATE 6 FIBERS AND COIL UNTERMINATED FIBERS IN TERMINATION PANEL.

(2) COIL AT LEAST 200' OF FIBER OPTIC CABLE EACH AT CV1 AND CV2 FOR FUTURE INTERCONNECT EXTENSION.



PROJECT NO:6999-03-79	HWY: STH 52	COUNTY: MARATHON	COMMUNICATION SYSTEM OVERVIEW	SHEET 62	E

2

N

205+00 WB
206+00 WB
207+00 WB
208+00 WB
209+00 WB
210+00 WB
211+00 WB
212+00
+45.0 WB
+70.1 WB
+82.3 WB
12.0'
11.0'
5.0'
14.0'
STH 52 WB
205+00 EB
206+00 EB
207+00 EB
208+00 EB
209+00 EB
210+00 EB
211+00 EB
+40.3 EB
+79.5 EB
STH 52 EB
MATCHLINE STA 212+00

BEGIN PAVEMENT MARKING
STA 204+25.00 EB

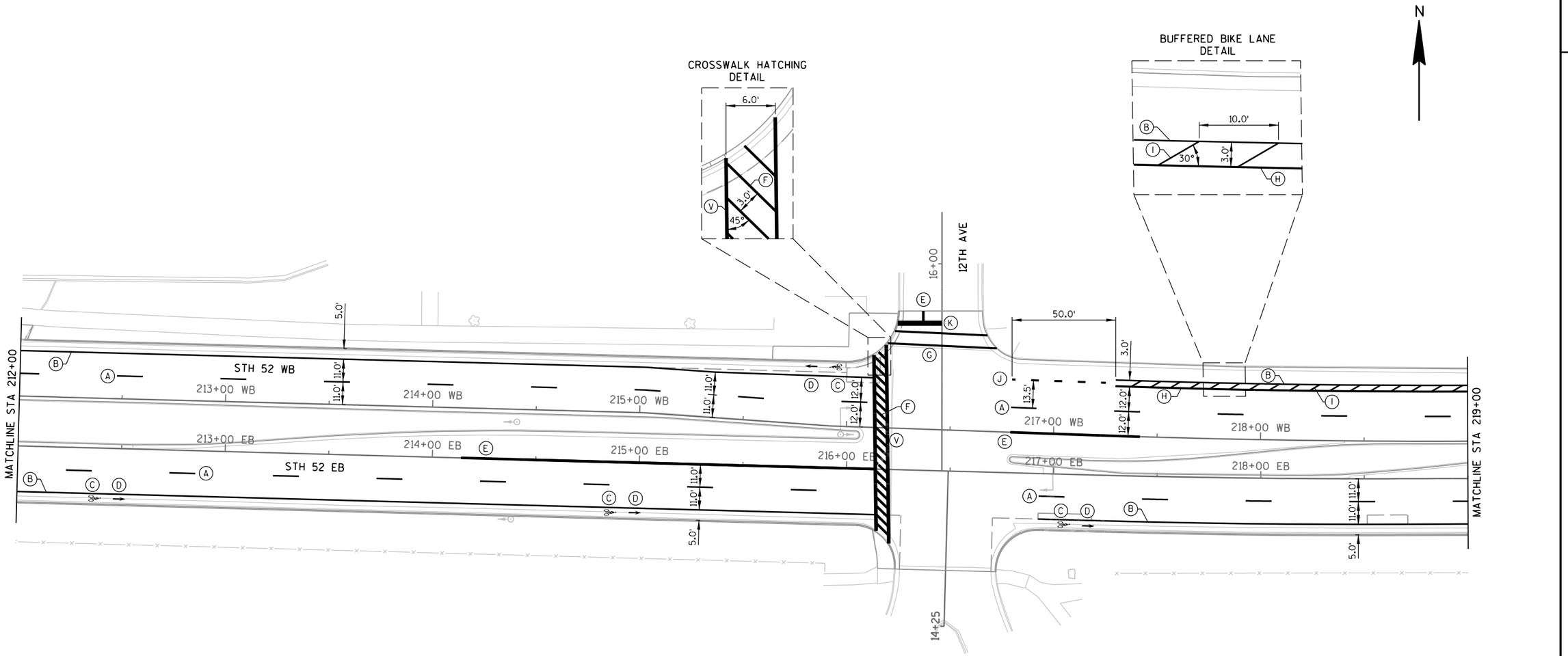
BEGIN PROJECT
6999-03-79
STA 206+49.97 EB

PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 63	E

2



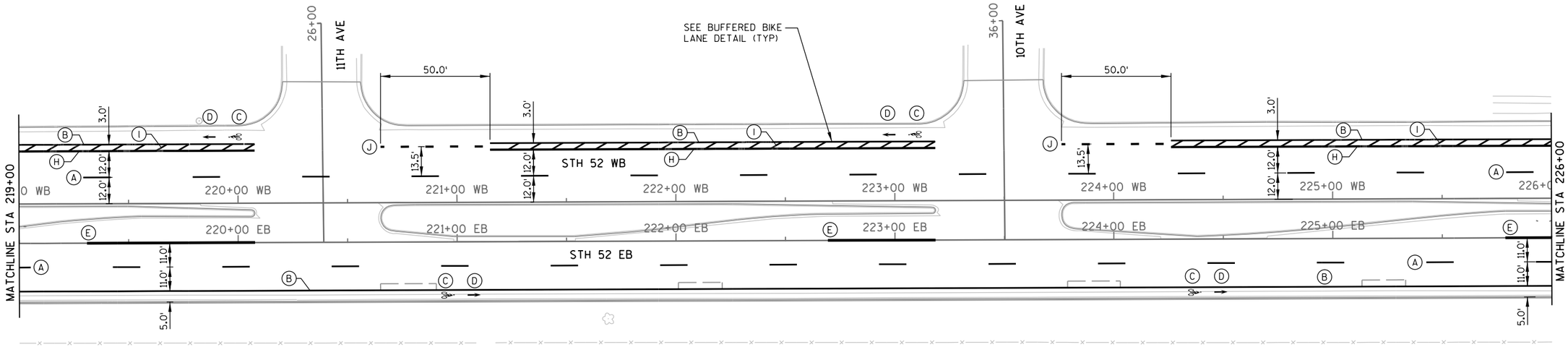
PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (F) PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3'SEGMENT 9'GAP)
- (K) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

PROJECT NO:6999-03-79	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 64	E

2

N



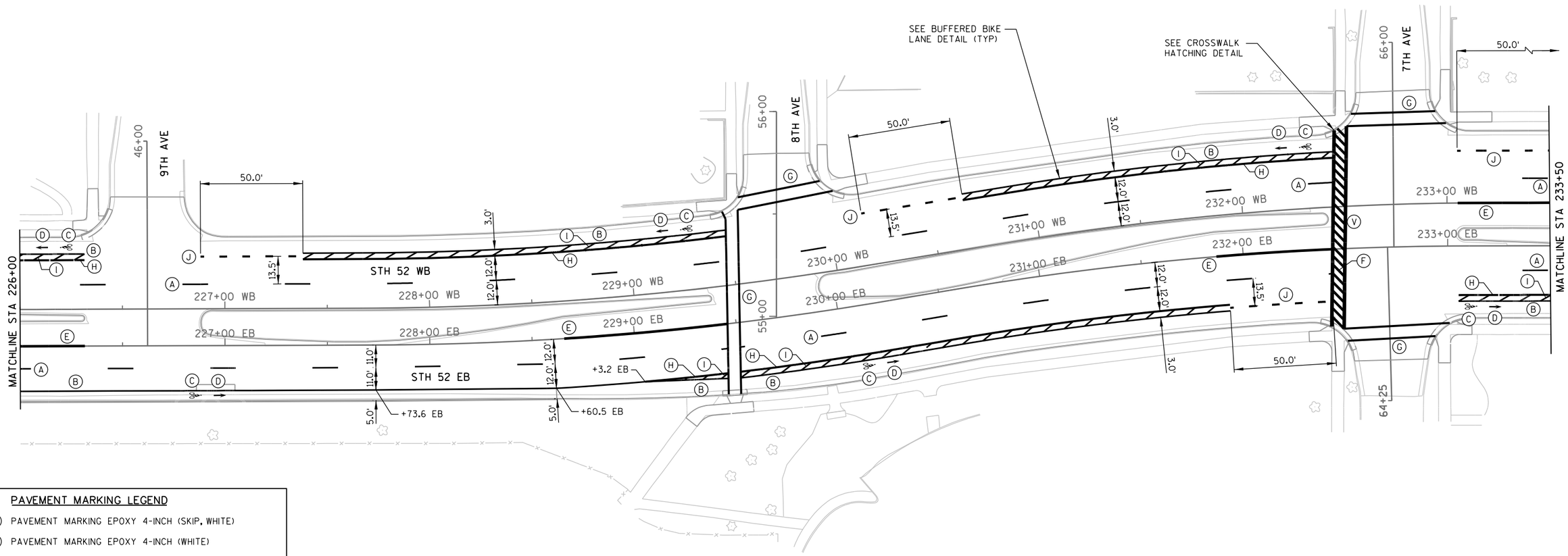
PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3'SEGMENT 9'GAP)

PROJECT NO:6999-03-79	HWY:STH 52	COUNTY:MARATHON	PAVEMENT MARKING	SHEET 65	E

2

N

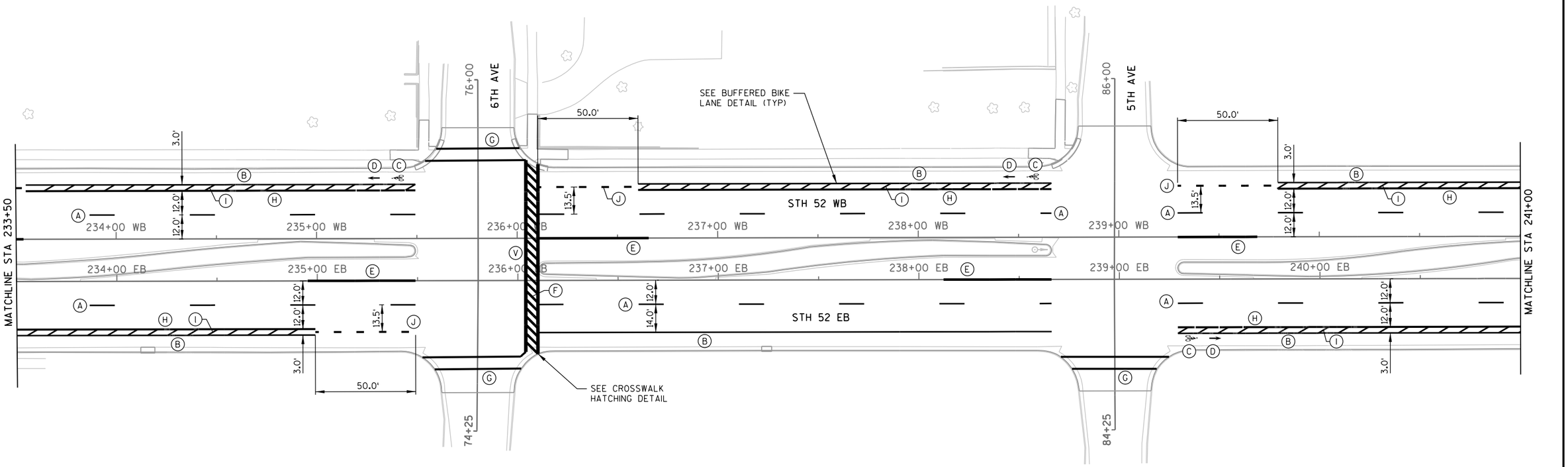


PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (F) PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3' SEGMENT 9' GAP)
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 66	E

2



PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (F) PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3' SEGMENT 9' GAP)
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

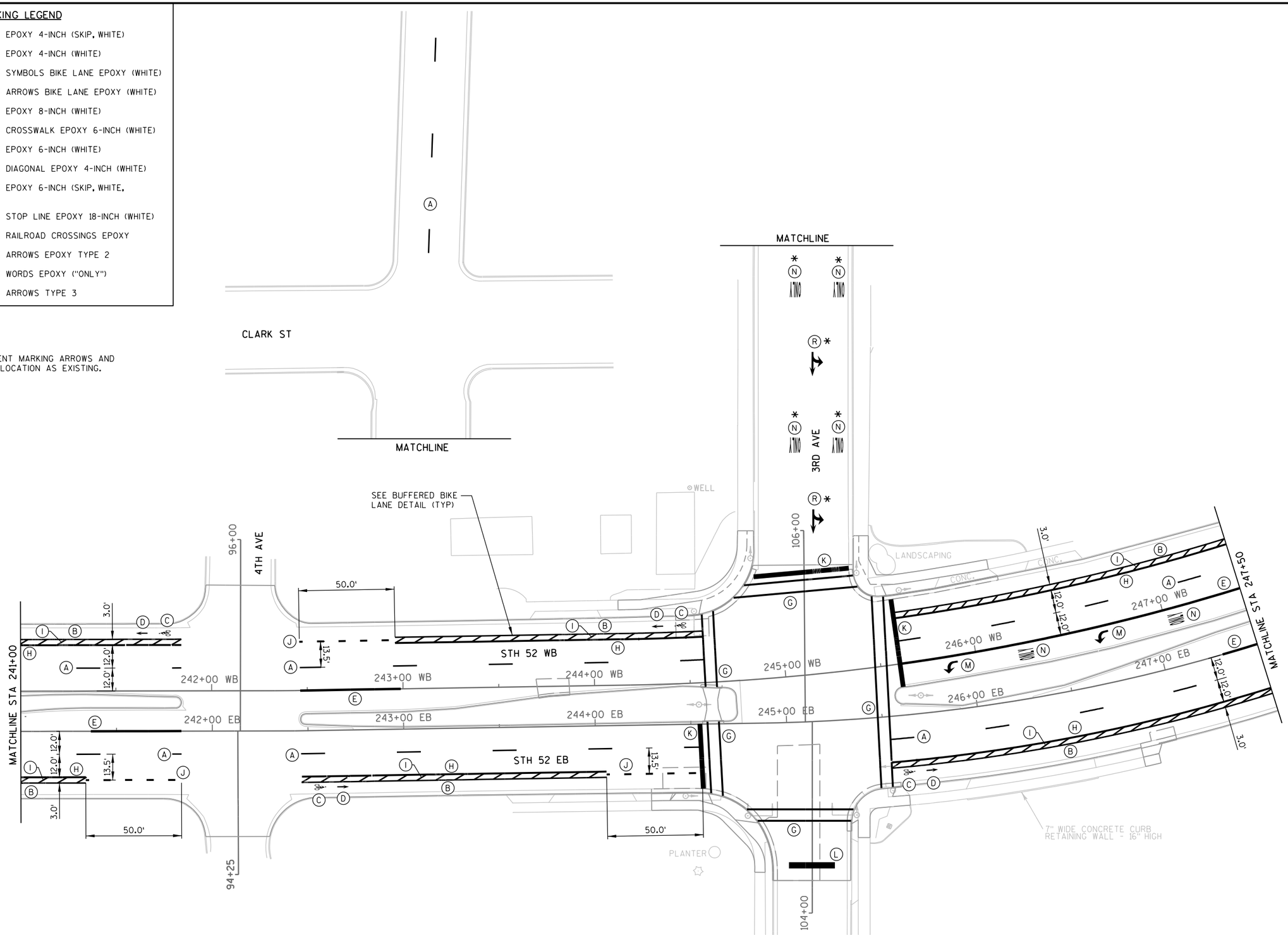
2

PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3'SEGMENT 9'GAP)
- (K) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (L) PAVEMENT MARKING RAILROAD CROSSINGS EPOXY
- (M) PAVEMENT MARKING ARROWS EPOXY TYPE 2
- (N) PAVEMENT MARKING WORDS EPOXY ("ONLY")
- (R) PAVEMENT MARKING ARROWS TYPE 3

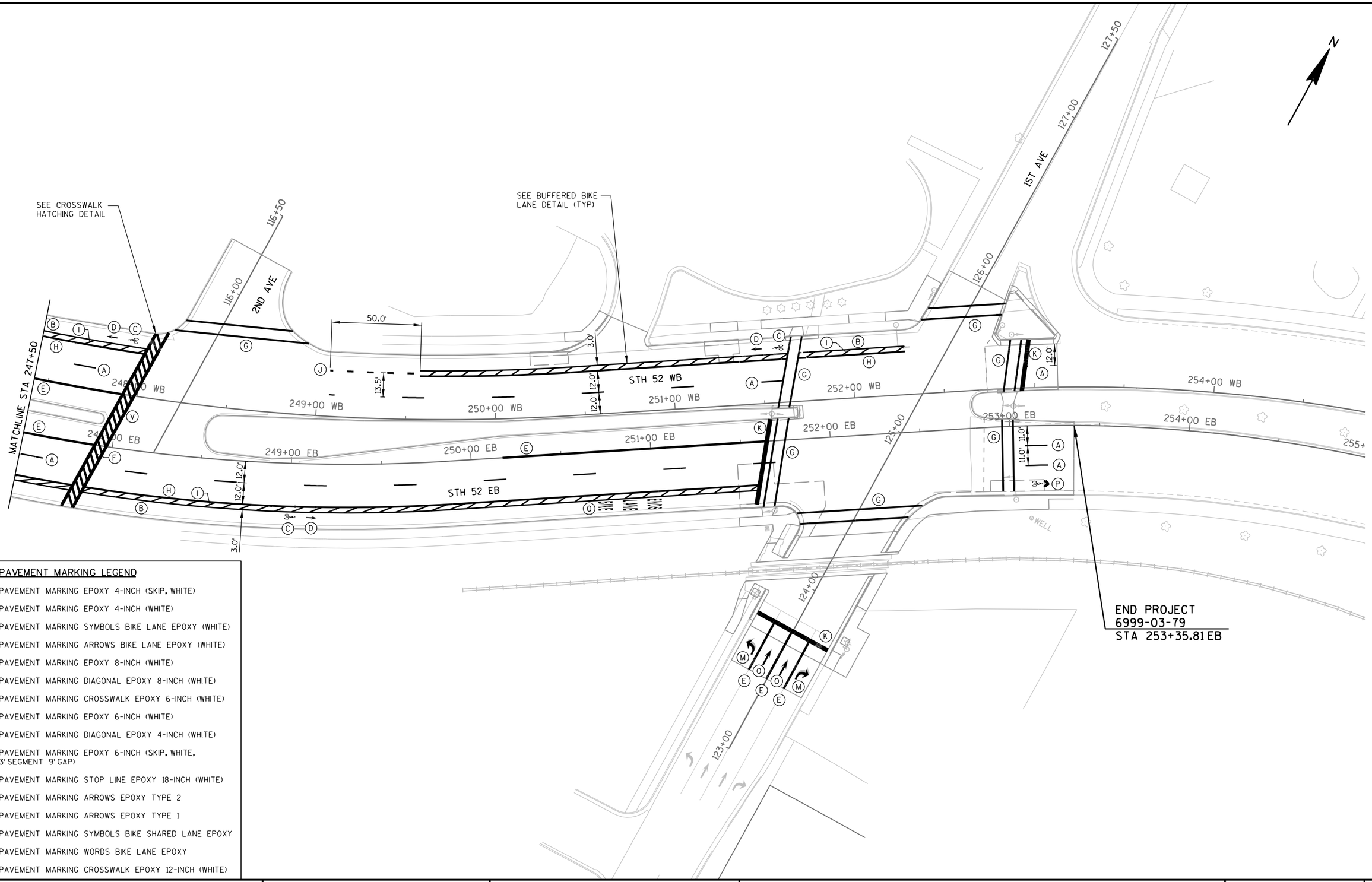
NOTE:

* REPLACE PAVEMENT MARKING ARROWS AND WORDS IN SAME LOCATION AS EXISTING.



PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 68	E

2



PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (C) PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY (WHITE)
- (D) PAVEMENT MARKING ARROWS BIKE LANE EPOXY (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (F) PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (H) PAVEMENT MARKING EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (J) PAVEMENT MARKING EPOXY 6-INCH (SKIP, WHITE, 3' SEGMENT 9' GAP)
- (K) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (M) PAVEMENT MARKING ARROWS EPOXY TYPE 2
- (O) PAVEMENT MARKING ARROWS EPOXY TYPE 1
- (P) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (Q) PAVEMENT MARKING WORDS BIKE LANE EPOXY
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)

GENERAL TRAFFIC CONTROL NOTES:

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

DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS TYPE A AND ALL DRUMS IN A TAPER SHALL HAVE TYPE C WARNING LIGHTS.

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

ALL SIGNS OR PAVEMENT MARKING, TEMPORARY OR EXISTING, WHICH MAY CONFLICT WITH THE CONSTRUCTION TRAFFIC PATTERN SHALL BE REMOVED OR COVERED.

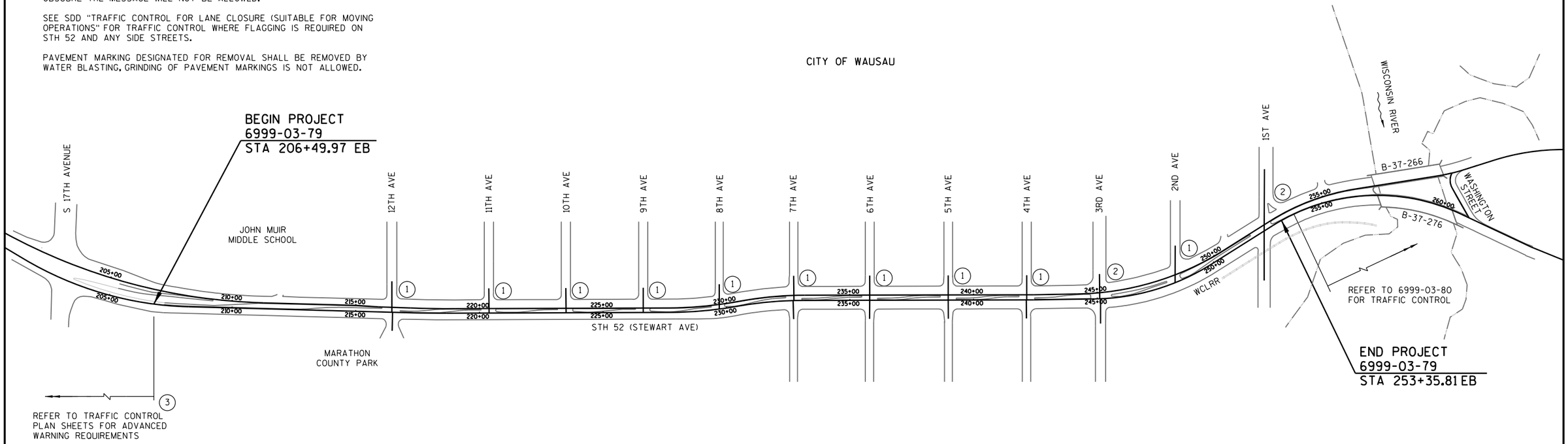
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND COLOR IS ORANGE.

ALL TYPE III BARRICADES SHALL BE 8-FOOT WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A LIGHTS.

THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

SEE SDD "TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS" FOR TRAFFIC CONTROL WHERE FLAGGING IS REQUIRED ON STH 52 AND ANY SIDE STREETS.

PAVEMENT MARKING DESIGNATED FOR REMOVAL SHALL BE REMOVED BY WATER BLASTING, GRINDING OF PAVEMENT MARKINGS IS NOT ALLOWED.



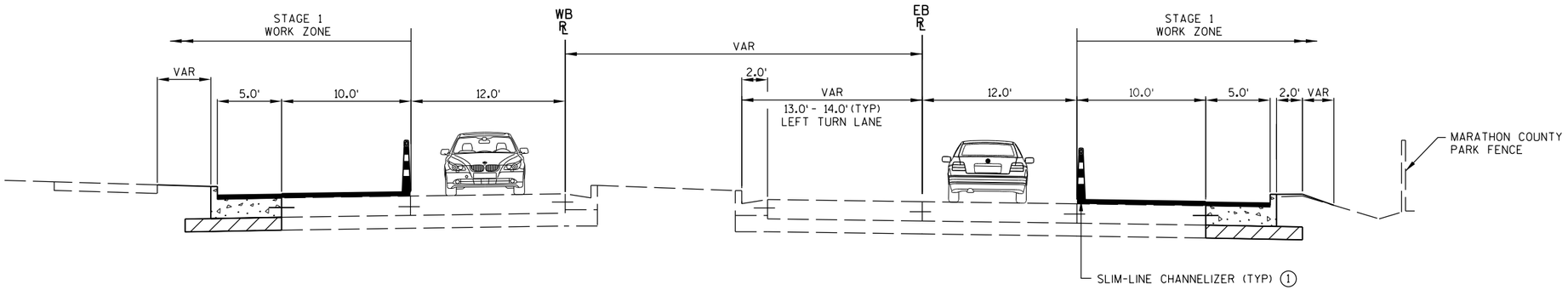
NOTES:

(1) INSTALL TRAFFIC CONTROL DEVICES, INCLUDING ADVANCED WARNING SIGNS, ALONG STH 52 (STEWART AVE) AND ON EACH SIDE STREET ACCORDING TO SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE".

(2) REFER TO STAGING PLANS FOR 3RD AND 1ST AVE TRAFFIC CONTROL.

(3) PRIOR TO JUNE 9TH, 2016, AND AFTER AUGUST 31ST, 2016, THE ADVANCE WARNING SIGNING, DEVICES, AND TEMPORARY PAVEMENT MARKINGS SHALL BEGIN AT STATION 220+80EB FOR THE EASTBOUND LANES AND END AT STATION 220+80WB FOR THE WESTBOUND LANES THE END ROAD WORK SIGN G20-2A LOCATED ON THE WESTBOUND LANES CAN REMAIN IN THE LOCATION SHOWN.

2

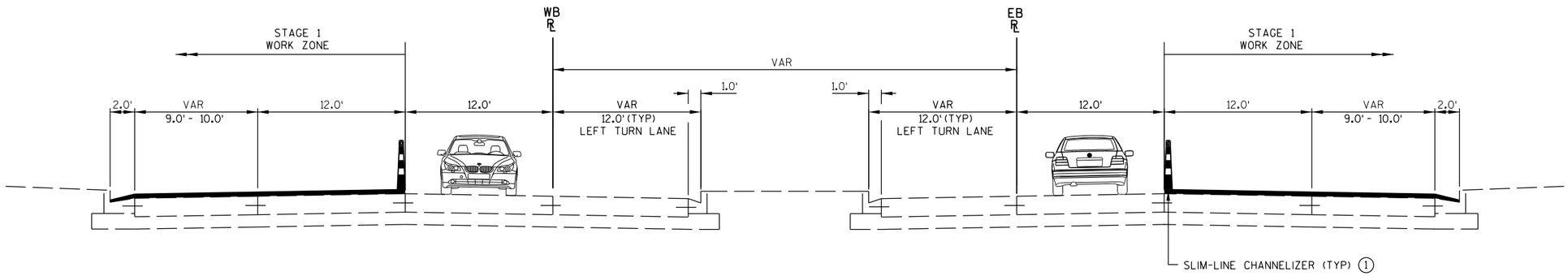


TYPICAL FINISHED SECTION - STAGE 1

STH 52
17TH AVENUE TO 8TH AVENUE (EB)
17TH AVENUE TO 12TH AVENUE (WB)

NOTES:

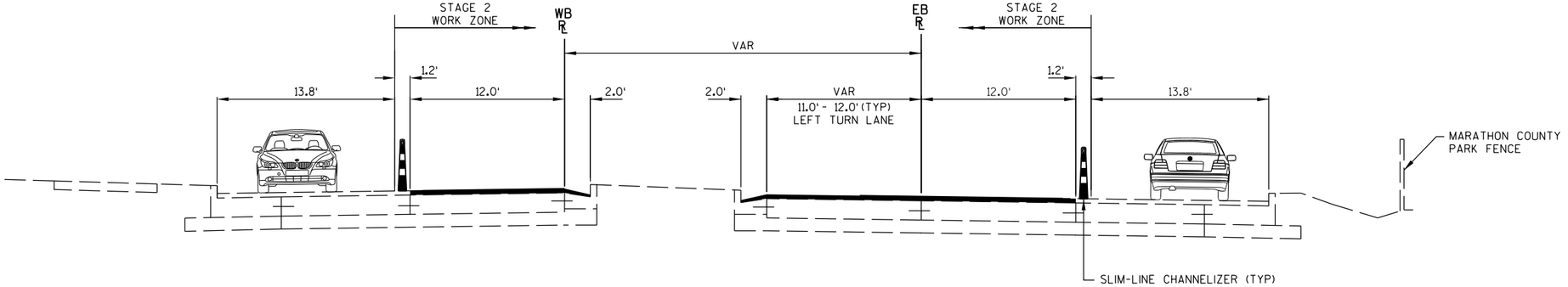
(1) MOVE SLIM-LINE CHANNELIZER DRUMS OVER TO TRAVEL LANE TO PROVIDE A 10.8' WIDE LANE WHEN IMMEDIATELY ADJACENT TO CONSTRUCTION OPERATIONS AND EQUIPMENT. IMMEDIATELY MOVE DRUMS BACK TO INSIDE EDGE OF WORK ZONE AFTER THE CONSTRUCTION OPERATIONS PROGRESSES DOWN THE ROADWAY.



TYPICAL FINISHED SECTION - STAGE 1

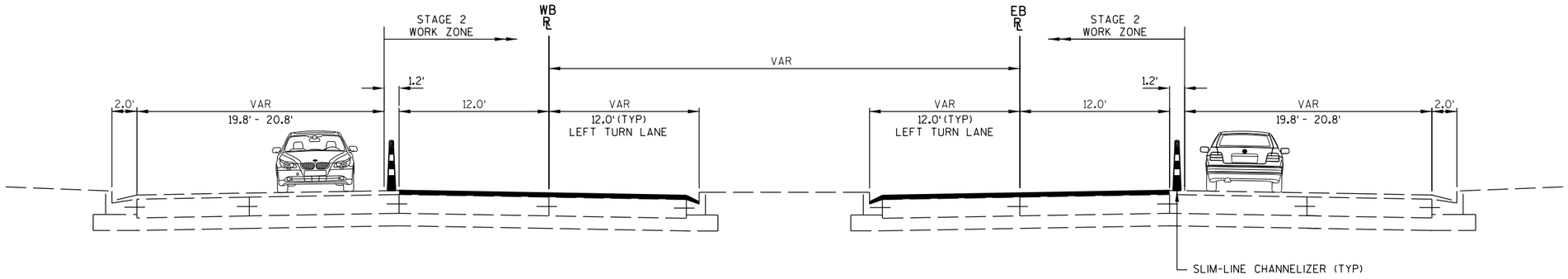
STH 52
8TH AVENUE TO 1ST AVENUE (EB)
12TH AVENUE TO 1ST AVENUE (WB)

2



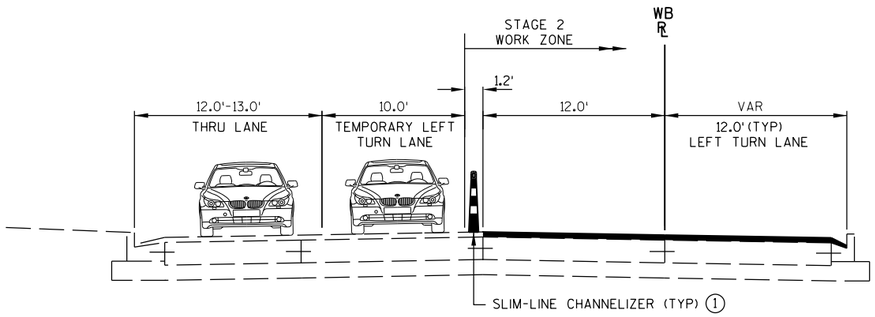
TYPICAL FINISHED SECTION - STAGE 2

STH 52
17TH AVENUE TO 8TH AVENUE (EB)
17TH AVENUE TO 12TH AVENUE (WB)



TYPICAL FINISHED SECTION - STAGE 2

STH 52
8TH AVENUE TO 1ST AVENUE (EB)
12TH AVENUE TO 1ST AVENUE (WB)

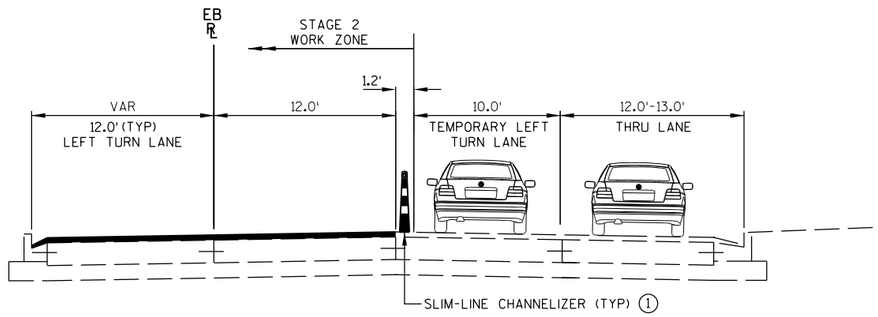


TYPICAL FINISHED SECTION - STAGE 2

STH 52 WB
LEFT TURN LANE AT 3RD AVENUE

NOTES:

(1) MOVE SLIM-LINE CHANNELIZER DRUMS OVER TO PROVIDE 11.2' WIDE LEFT TURN LANE WHEN CONSTRUCTION OPERATIONS ARE NOT OCCURRING IMMEDIATELY ADJACENT TO TURN LANE.

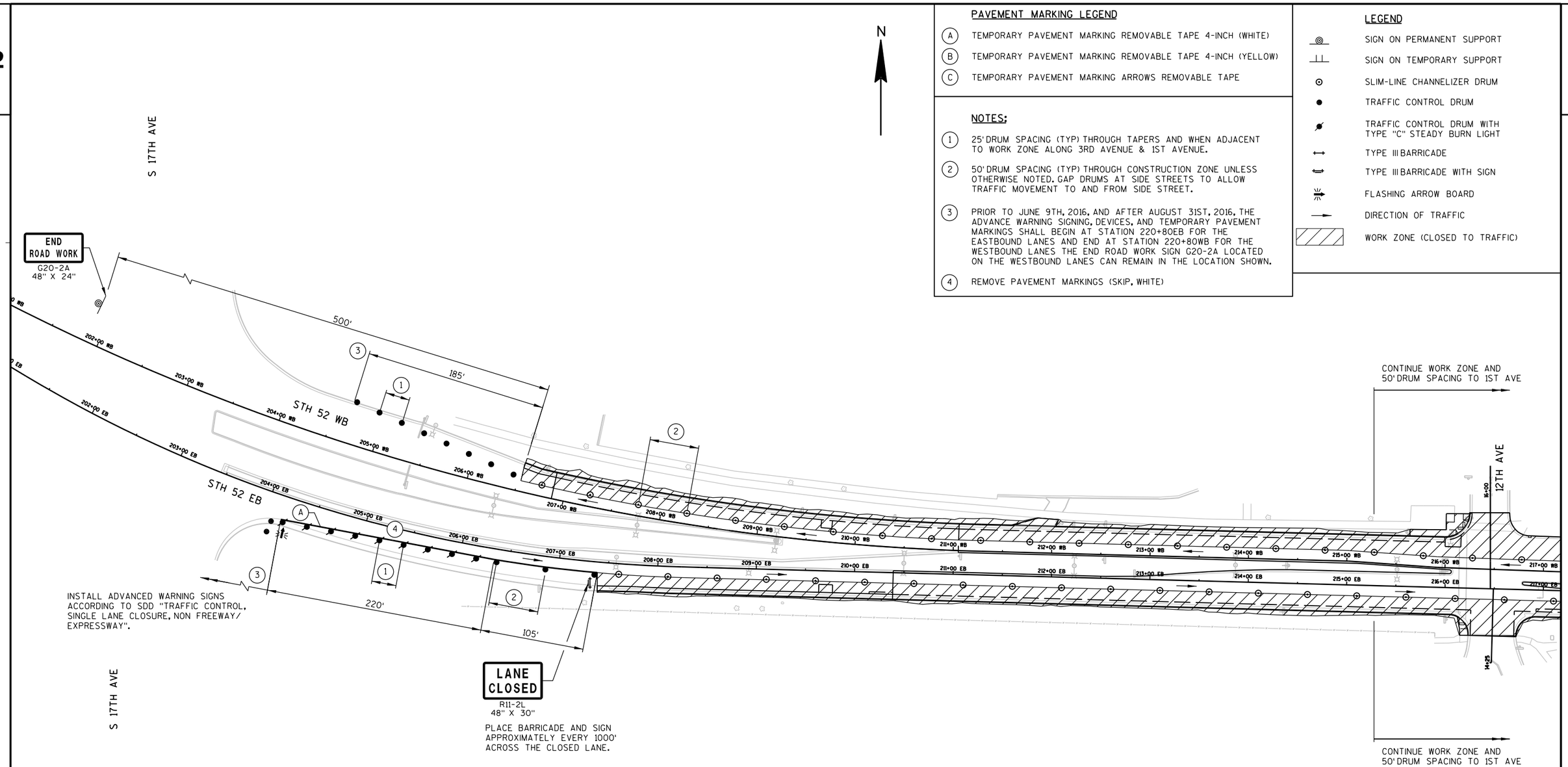


TYPICAL FINISHED SECTION - STAGE 2

STH 52 EB
LEFT TURN LANE AT 1ST AVENUE

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 72	E

2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. PRIOR TO JUNE 9TH, 2016, AND AFTER AUGUST 31ST, 2016, THE ADVANCE WARNING SIGNING, DEVICES, AND TEMPORARY PAVEMENT MARKINGS SHALL BEGIN AT STATION 220+80EB FOR THE EASTBOUND LANES AND END AT STATION 220+80WB FOR THE WESTBOUND LANES THE END ROAD WORK SIGN G20-2A LOCATED ON THE WESTBOUND LANES CAN REMAIN IN THE LOCATION SHOWN.
4. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

2

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1	SHEET 73	E

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. REMOVE PAVEMENT MARKING ARROWS
5. REMOVE PAVEMENT MARKING WORDS
6. 15' DRUM SPACING
7. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE RIGHT TURNING TRUCKS.
8. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)
- CONCRETE BASE HES

N

STH 52 EB

STH 52 WB

4TH AVE

3RD AVE

2ND AVE

CLARK ST

3RD AVE / BUS 51

500'

100'

167'

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ONLY
R3-8
36" X 30"

W01-6
48" X 24"

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

94+25
96+00
104+00
115+00
115+50

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

EXISTING PAVEMENT MARKING

MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 3RD AVE STAGE 1A	SHEET 74	E

2

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. REMOVE PAVEMENT MARKING ARROWS
5. REMOVE PAVEMENT MARKING WORDS
6. 15' DRUM SPACING

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

N

STH 52 EB

STH 52 WB

4TH AVE

CLARK ST

3RD AVE

3RD AVE / BUS 51

2ND AVE

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

ONLY
R3-8
36" X 30"

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

500'

100'

167'

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

EXISTING PAVEMENT MARKING

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 3RD AVE STAGE 1B	SHEET 75	E

2

2

N

2ND AVE

CLARK ST

STH 52 WB

STH 52 EB

1ST AVE

1ST AVE / BUS 51

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

100'

500'

125'

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

PAVEMENT MARKING LEGEND

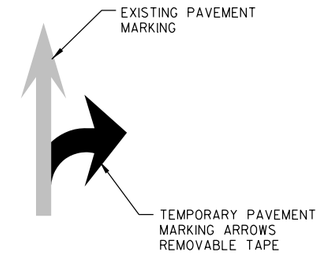
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. 15' DRUM SPACING
5. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE RIGHT TURNING TRUCKS.
6. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)
- HIGH EARLY STRENGTH (HES) CONCRETE



MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1A	SHEET 76	E

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. 15' DRUM SPACING
5. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE RIGHT TURNING TRUCKS.
6. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

N

2ND AVE

CLARK ST

STH 52 WB

STH 52 EB

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

1ST AVE

1ST AVE / BUS 51

100'

500'

125'

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
36" X 31"

80'

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

LANE CLOSED
R11-2L
48" X 30"

MODIFY EXISTING ARROW DETAIL

EXISTING PAVEMENT MARKING

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1B	SHEET 77	E

2

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. 15' DRUM SPACING
5. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE LEFT TURNING TRUCKS.
6. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

N

2ND AVE

CLARK ST

STH 52 WB

STH 52 EB

1ST AVE

1ST AVE / BUS 51

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

125'

100'

500'

80'

LANE CLOSED
R11-2L
48" X 30"

W01-6
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

YIELD
R1-2
36" X 31"

BEGIN RIGHT TURN LANE
R3-20R
24" X 36"

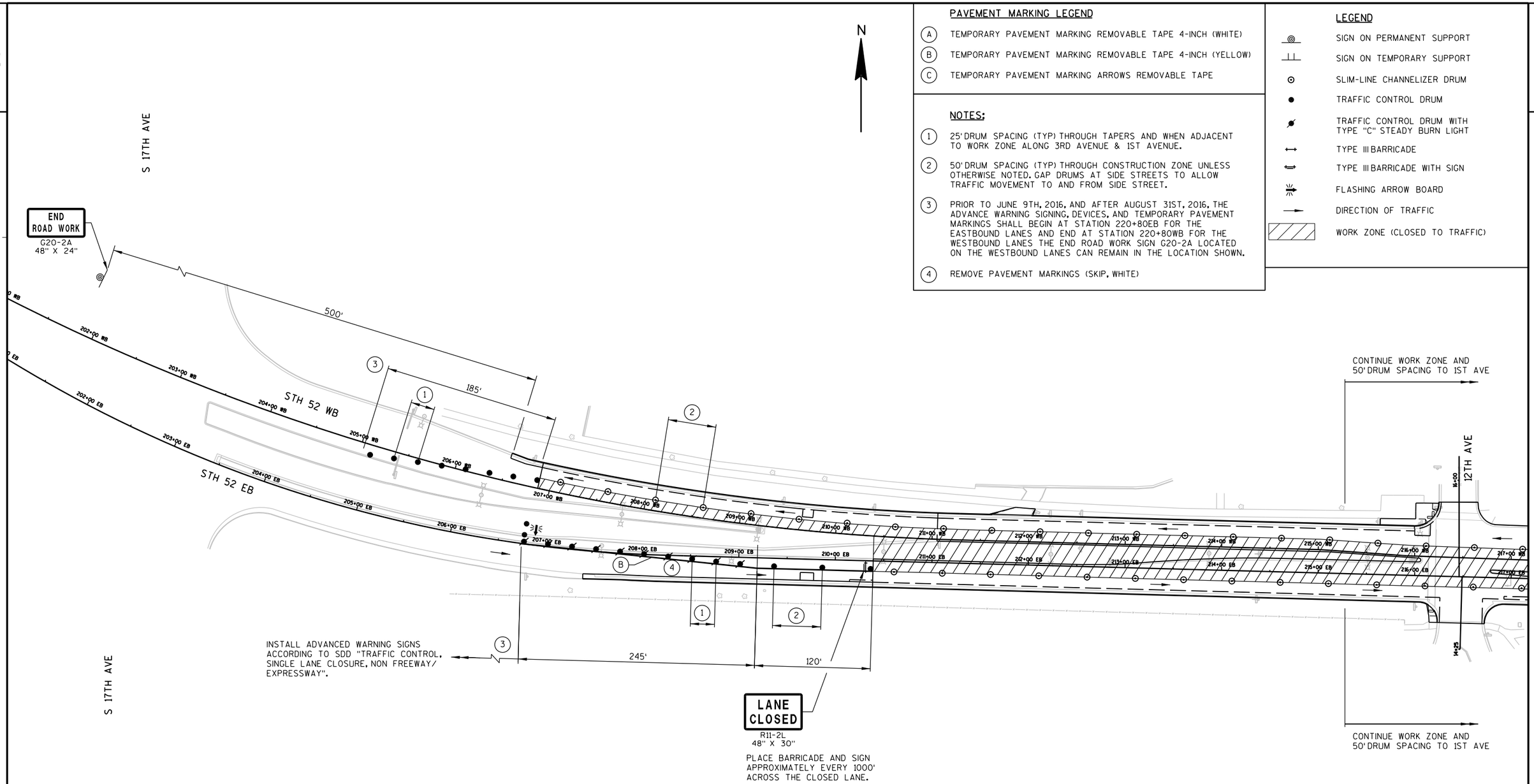
EXISTING PAVEMENT MARKING

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1C	SHEET 78	E

2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. PRIOR TO JUNE 9TH, 2016, AND AFTER AUGUST 31ST, 2016, THE ADVANCE WARNING SIGNING, DEVICES, AND TEMPORARY PAVEMENT MARKINGS SHALL BEGIN AT STATION 220+80EB FOR THE EASTBOUND LANES AND END AT STATION 220+80WB FOR THE WESTBOUND LANES THE END ROAD WORK SIGN G20-2A LOCATED ON THE WESTBOUND LANES CAN REMAIN IN THE LOCATION SHOWN.
4. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

2

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2	SHEET 79	E

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH
- (E) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (F) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (SKIP, WHITE, 2'LINE 6'GAP)

NOTES:

1. 25'DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50'DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. REMOVE PAVEMENT MARKING ARROWS
5. REMOVE PAVEMENT MARKING WORDS
6. 15'DRUM SPACING
7. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE LEFT TURNING TRUCKS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

N

STH 52 EB

STH 52 WB

4TH AVE

94+25

96+00

500'

3RD AVE

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

CLARK ST

W01-6
48" X 24"

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

167'

3RD AVE / BUS 51

104+00

ONLY
R3-8
36" X 30"

10.0'

150'LEFT TURN LANE

12.0'-13.0'

15:1 TAPER

LEFT LANE MUST TURN LEFT
R3-7L
36" X 36"

116+00

116+50

2ND AVE

W01-4R

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

EXISTING PAVEMENT MARKING

MODIFY EXISTING ARROW DETAIL

PROJECT NO:6999-03-79	HWY:STH 52	COUNTY:MARATHON	TRAFFIC CONTROL - 3RD AVE STAGE 2A	SHEET 80	E

2

2

STH 52 EB

STH 52 WB

N

4TH AVE

94+25

96+00

24+00 EB

24+00 WB

24+50 EB

24+50 WB

24+90 EB

24+90 WB

25+00 EB

25+00 WB

104+00

106+00

CLARK ST

3RD AVE

500'

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

ONLY
R3-8
36" X 30"

W01-6
48" X 24"

3RD AVE / BUS 51

167'

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

LANE CLOSED
R11-2L
48" X 30"

10.0'

150' LEFT TURN LANE

12.0'-13.0'

15:1 TAPER

LEFT LANE MUST TURN LEFT
R3-7L
36" X 36"

24+90 EB

24+90 WB

25+00 EB

25+00 WB

116+00

116+50

2ND AVE

W01-4R

PAVEMENT MARKING LEGEND

A	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
B	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
C	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
D	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH
E	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
F	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (SKIP, WHITE, 2'LINE 6'GAP)

NOTES:

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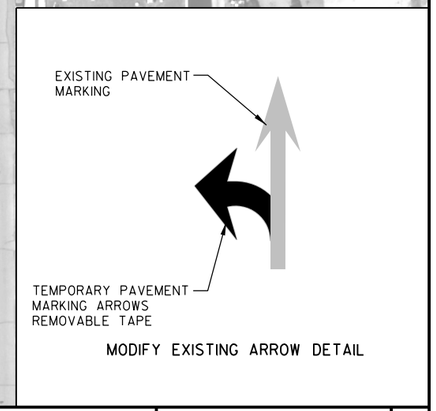
2. 50'DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. REMOVE PAVEMENT MARKING WORDS
5. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE LEFT TURNING TRUCKS.
6. 15'DRUM SPACING

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 3RD AVE STAGE 2B	SHEET 81	E

2

PAVEMENT MARKING LEGEND

A	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
B	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
C	TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
D	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH
E	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
F	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (SKIP, WHITE, 2'LINE 6'GAP)

NOTES:

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3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
5. 15'DRUM SPACING

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

N

STH 52 EB

STH 52 WB

2ND AVE

CLARK ST

1ST AVE

1ST AVE / BUS 51

W01-4R

15:1 TAPER

LEFT LANE MUST TURN LEFT
R3-7L
36" X 36"

10.0'

12.0'-13.0'

150' LEFT TURN LANE

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

500'

END ROAD WORK
G20-2A
48" X 24"

125'

INSTALL ADVANCED WARNING SIGNS ACCORDING TO SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY".

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

YIELD
R1-2
36" X 31"

LANE CLOSED
R11-2L
48" X 30"

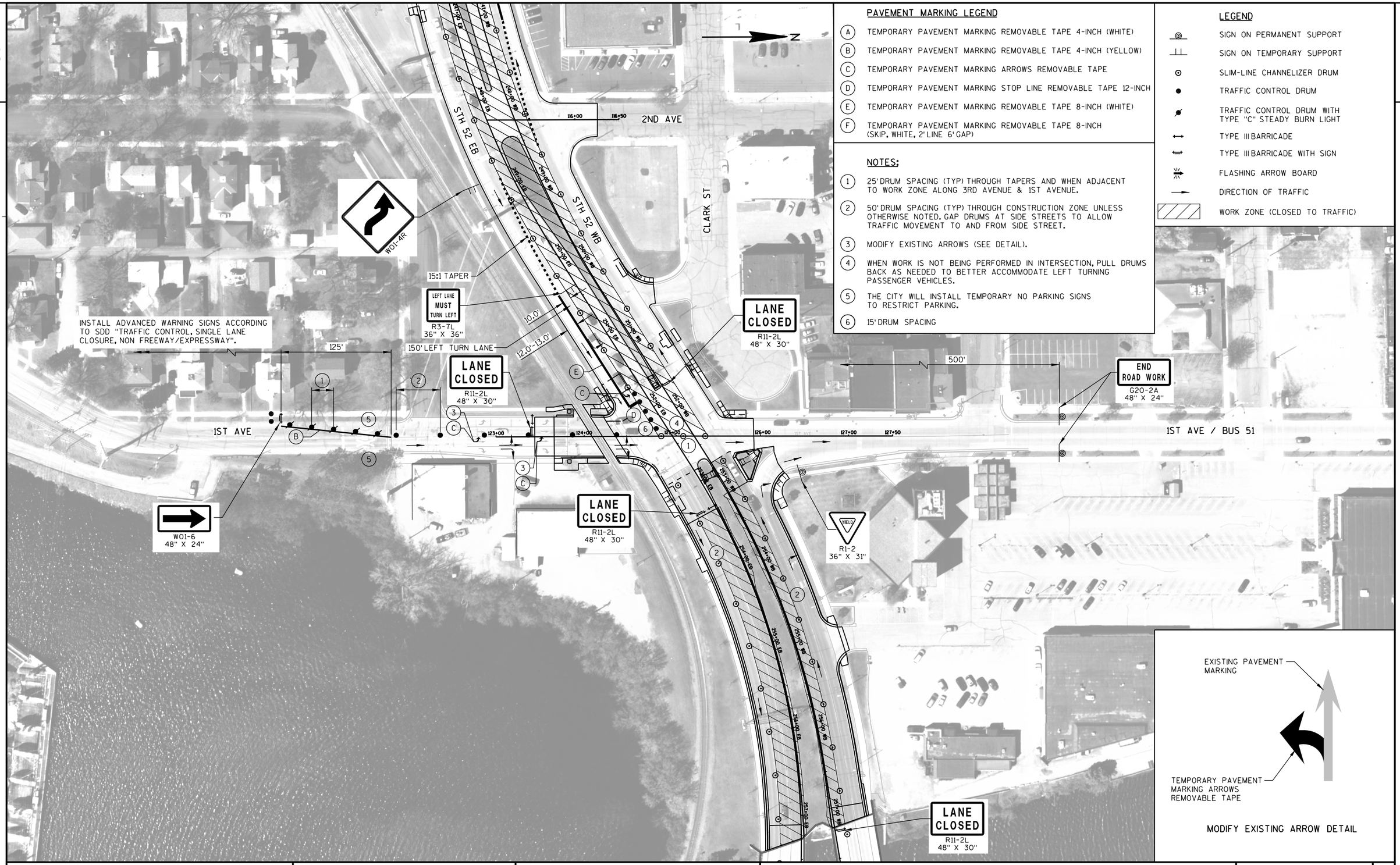
EXISTING PAVEMENT MARKING

TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 2A	SHEET 82	E

2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH
- (E) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (WHITE)
- (F) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH (SKIP, WHITE, 2'LINE 6'GAP)

NOTES:

1. 25'DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50'DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL).
4. WHEN WORK IS NOT BEING PERFORMED IN INTERSECTION, PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE LEFT TURNING PASSENGER VEHICLES.
5. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
6. 15'DRUM SPACING

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

MODIFY EXISTING ARROW DETAIL

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 2B	SHEET 83	E

DATE 11MAR16 — 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	6999-03-79 QUANTITY
0010	204.0100	Removing Pavement	SY	2,542.000	2,542.000
0020	204.0105	Removing Pavement Butt Joints	SY	3,243.000	3,243.000
0030	204.0109.S	Removing Concrete Surface Partial Depth	SF	9,050.000	9,050.000
0040	204.0150	Removing Curb & Gutter	LF	136.000	136.000
0050	204.0155	Removing Concrete Sidewalk	SY	771.000	771.000
0060	204.0195	Removing Concrete Bases	EACH	26.000	26.000
0070	204.0210	Removing Manholes	EACH	1.000	1.000
0080	204.0220	Removing Inlets	EACH	15.000	15.000
0090	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	163.000	163.000
0100	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	51.000	51.000
0120	204.0245	Removing Storm Sewer (size) 04. 30-Inch	LF	122.000	122.000
0130	204.0245	Removing Storm Sewer (size) 05. 36-Inch	LF	36.000	36.000
0140	204.0291.S	Abandoning Sewer	CY	1.000	1.000
0150	205.0100	Excavation Common	CY	1,294.000	1,294.000
0160	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 6999-03-79	LS	1.000	1.000
0170	213.0100	Finishing Roadway (project) 01. 6999-03-79	EACH	1.000	1.000
0200	305.0110	Base Aggregate Dense 3/4-Inch	TON	22.000	22.000
0210	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,442.000	1,442.000
0220	320.0150	Concrete Base 8 1/2-Inch	SY	318.000	318.000
0230	320.0350	Concrete Base HES 8 1/2-Inch	SY	183.000	183.000
0240	415.0080	Concrete Pavement 8-Inch	SY	108.000	108.000
0280	416.0160	Concrete Driveway 6-Inch	SY	54.000	54.000
0290	416.0610	Drilled Tie Bars	EACH	1,470.000	1,470.000
0300	416.0620	Drilled Dowel Bars	EACH	380.000	380.000
0310	440.4410	Incentive IRI Ride	DOL	7,104.000	7,104.000
0320	455.0605	Tack Coat	GAL	2,053.000	2,053.000
0330	460.2000	Incentive Density HMA Pavement	DOL	2,980.000	2,980.000
0340	460.4000	HMA Cold Weather Paving	TON	2,124.000	2,124.000
0350	460.6424	HMA Pavement 4 MT 58-28 H	TON	4,650.000	4,650.000
0360	465.0105	Asphaltic Surface	TON	10.000	10.000
0380	520.8000	Concrete Collars for Pipe	EACH	20.000	20.000
0390	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	98.000	98.000
0400	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	805.000	805.000
0410	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	135.000	135.000
0420	602.0410	Concrete Sidewalk 5-Inch	SF	7,786.000	7,786.000
0430	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	444.000	444.000
0440	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	272.000	272.000
0450	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	27.000	27.000
0470	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	69.000	69.000
0480	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	34.000	34.000
0490	611.0420	Reconstructing Manholes	EACH	7.000	7.000
0510	611.0530	Manhole Covers Type J	EACH	11.000	11.000
0520	611.0600	Inlet Covers Type A	EACH	1.000	1.000
0530	611.0624	Inlet Covers Type H	EACH	3.000	3.000
0540	611.0639	Inlet Covers Type H-S	EACH	6.000	6.000
0550	611.0666	Inlet Covers Type Z	EACH	16.000	16.000
0560	611.1003	Catch Basins 3-FT Diameter	EACH	16.000	16.000
0570	611.1004	Catch Basins 4-FT Diameter	EACH	1.000	1.000

3

DATE 11MAR16 — 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	6999-03-79 QUANTITY
0580	611.1005	Catch Basins 5-FT Diameter	EACH	2.000	2.000
0590	611.1230	Catch Basins 2x3-FT	EACH	6.000	6.000
0600	611.2003	Manholes 3-FT Diameter	EACH	1.000	1.000
0610	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0620	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0630	611.2007	Manholes 7-FT Diameter	EACH	1.000	1.000
0650	611.8115	Adjusting Inlet Covers	EACH	3.000	3.000
0670	619.1000	Mobilization	EACH	0.600	0.600
0680	620.0300	Concrete Median Sloped Nose	SF	75.000	75.000
0690	624.0100	Water	MGAL	10.000	10.000
0700	625.0100	Topsoil	SY	2,082.000	2,082.000
0710	628.1504	Silt Fence	LF	2,348.000	2,348.000
0720	628.1520	Silt Fence Maintenance	LF	4,691.000	4,691.000
0730	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0740	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0750	628.2008	Erosion Mat Urban Class I Type B	SY	2,082.000	2,082.000
0760	628.7005	Inlet Protection Type A	EACH	35.000	35.000
0770	628.7015	Inlet Protection Type C	EACH	86.000	86.000
0780	630.0140	Seeding Mixture No. 40	LB	38.000	38.000
0790	630.0200	Seeding Temporary	LB	50.000	50.000
0800	631.0300	Sod Water	MGAL	51.000	51.000
0810	634.0805	Posts Tubular Steel 2x2-Inch X 5-FT	EACH	1.000	1.000
0820	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	58.000	58.000
0830	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	24.000	24.000
0850	637.2210	Signs Type II Reflective H	SF	457.150	457.150
0860	637.2215	Signs Type II Reflective H Folding	SF	82.060	82.060
0870	637.2230	Signs Type II Reflective F	SF	353.890	353.890
0880	638.2102	Moving Signs Type II	EACH	2.000	2.000
0890	638.2602	Removing Signs Type II	EACH	72.000	72.000
0900	638.3000	Removing Small Sign Supports	EACH	45.000	45.000
0910	642.5201	Field Office Type C	EACH	0.650	0.650
0920	643.0100	Traffic Control (project) 01. 6999-03-79	EACH	1.000	1.000
0950	643.0300	Traffic Control Drums	DAY	66,710.000	66,710.000
0960	643.0410	Traffic Control Barricades Type II	DAY	8,190.000	8,190.000
0970	643.0420	Traffic Control Barricades Type III	DAY	4,050.000	4,050.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	14,790.000	14,790.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	3,120.000	3,120.000
1000	643.0800	Traffic Control Arrow Boards	DAY	2.000	2.000
1010	643.0900	Traffic Control Signs	DAY	12,570.000	12,570.000
1020	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
1030	644.1420.S	Temporary Pedestrian Surface Plywood	SF	1,700.000	1,700.000
1040	644.1601.S	Temporary Curb Ramp	EACH	39.000	39.000
1050	646.0106	Pavement Marking Epoxy 4-Inch	LF	9,331.000	9,331.000
1060	646.0116	Pavement Marking Epoxy 6-Inch	LF	3,982.000	3,982.000
1070	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,684.000	1,684.000
1080	646.0690.S	Removing Pavement Markings Water Blasting	LF	190.000	190.000
1090	647.0110	Pavement Marking Railroad Crossings Epoxy	EACH	1.000	1.000
1100	647.0156	Pavement Marking Arrows Epoxy Type 1	EACH	2.000	2.000
1110	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	4.000	4.000
1120	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000	2.000
1130	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	26.000	26.000
1140	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	26.000	26.000

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DATE 11MAR16 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	6999-03-79 QUANTITY
1150	647.0336	Pavement Marking Symbols Bike Shared Lane Epoxy	EACH	1.000	1.000
1160	647.0356	Pavement Marking Words Epoxy	EACH	6.000	6.000
1170	647.0406	Pavement Marking Words Bike Lane Epoxy	EACH	3.000	3.000
1180	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	280.000	280.000
1200	647.0716	Pavement Marking Diagonal Epoxy 8-Inch	LF	769.000	769.000
1210	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	2,083.000	2,083.000
1220	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	787.000	787.000
1230	647.0990.S	Removing Special Pavement Markings Water Blasting	EACH	6.000	6.000
1240	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	1,847.000	1,847.000
1250	649.0600	Temporary Pavement Marking Removable Tape 6-Inch	LF	760.000	760.000
1260	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	376.000	376.000
1270	649.1000	Temporary Pavement Marking Stop Line Removable Tape 12-Inch	LF	20.000	20.000
1280	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	14.000	14.000
1290	650.4000	Construction Staking Storm Sewer	EACH	30.000	30.000
1300	650.4500	Construction Staking Subgrade	LF	3,175.000	3,175.000
1310	650.5000	Construction Staking Base	LF	58.000	58.000
1320	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	135.000	135.000
1330	650.7000	Construction Staking Concrete Pavement	LF	22.000	22.000
1340	650.8000	Construction Staking Resurfacing Reference	LF	6,163.000	6,163.000
1350	650.8500	Construction Staking Electrical Installations (project) 01. 6999-03-79	LS	1.000	1.000
1380	650.9910	Construction Staking Supplemental Control (project) 01. 6999-03-79	LS	1.000	1.000
1410	650.9920	Construction Staking Slope Stakes	LF	3,175.000	3,175.000
1420	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,662.000	1,662.000
1430	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	290.000	290.000
1440	652.0240	Conduit Rigid Nonmetallic Schedule 40 4-Inch	LF	222.000	222.000
1450	652.0605	Conduit Special 2-Inch	LF	380.000	380.000
1460	652.0615	Conduit Special 3-Inch	LF	188.000	188.000
1470	652.0625	Conduit Special 4-Inch	LF	865.000	865.000
1480	652.0700.S	Install Conduit into Existing Item	EACH	2.000	2.000
1490	652.0800	Conduit Loop Detector	LF	948.000	948.000
1500	652.0900	Loop Detector Slots	LF	505.000	505.000
1510	653.0105	Pull Boxes Steel 12x24-Inch	EACH	2.000	2.000
1530	653.0905	Removing Pull Boxes	EACH	8.000	8.000
1540	654.0101	Concrete Bases Type 1	EACH	10.000	10.000
1550	654.0102	Concrete Bases Type 2	EACH	13.000	13.000
1560	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	2.000	2.000
1570	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,282.000	1,282.000
1590	655.0250	Cable Traffic Signal 9-14 AWG	LF	4,989.000	4,989.000
1600	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,005.000	1,005.000
1610	655.0270	Cable Traffic Signal 15-14 AWG	LF	528.000	528.000

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DATE 11MAR16 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	6999-03-79 QUANTITY
1620	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,548.000	1,548.000
1630	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,675.000	2,675.000
1640	655.0610	Electrical Wire Lighting 12 AWG	LF	1,353.000	1,353.000
1650	655.0700	Loop Detector Lead In Cable	LF	6,288.000	6,288.000
1660	655.0800	Loop Detector Wire	LF	2,936.000	2,936.000
1670	655.0900	Traffic Signal EVP Detector Cable	LF	358.000	358.000
1680	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. STH 52 & 3rd Ave	LS	1.000	1.000
1690	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. STH 52 & 1st Ave	LS	1.000	1.000
1700	657.0100	Pedestal Bases	EACH	11.000	11.000
1710	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	13.000	13.000
1720	657.0305	Poles Type 2	EACH	5.000	5.000
1730	657.0310	Poles Type 3	EACH	6.000	6.000
1740	657.0315	Poles Type 4	EACH	2.000	2.000
1750	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000
1760	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	4.000	4.000
1770	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
1780	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	4.000	4.000
1790	657.0585	Trombone Arms 15-FT	EACH	4.000	4.000
1800	657.0590	Trombone Arms 20-FT	EACH	3.000	3.000
1810	657.0595	Trombone Arms 25-FT	EACH	4.000	4.000
1820	657.0704	Luminaire Arms Truss Type 4-Inch Clamp 10-FT	EACH	11.000	11.000
1830	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	18.000	18.000
1840	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	7.000	7.000
1860	658.0155	Traffic Signal Face 3-12 Inch Horizontal	EACH	3.000	3.000
1870	658.0160	Traffic Signal Face 4-12 Inch Horizontal	EACH	1.000	1.000
1890	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	21.000	21.000
1900	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	7.000	7.000
1920	658.0416	Pedestrian Signal Face 16-Inch	EACH	22.000	22.000
1930	658.0500	Pedestrian Push Buttons	EACH	19.000	19.000
1940	658.0600	Led Modules 12-Inch Red Ball	EACH	23.000	23.000
1950	658.0605	Led Modules 12-Inch Yellow Ball	EACH	23.000	23.000
1960	658.0610	Led Modules 12-Inch Green Ball	EACH	21.000	21.000
1970	658.0615	Led Modules 12-Inch Red Arrow	EACH	6.000	6.000
1980	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	12.000	12.000
1990	658.0625	Led Modules 12-Inch Green Arrow	EACH	10.000	10.000
2000	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	22.000	22.000
2010	658.5069	Signal Mounting Hardware (location) 01. STH 52 & 3rd Ave	LS	1.000	1.000
2020	658.5069	Signal Mounting Hardware (location) 02. STH 52 & 1st Ave	LS	1.000	1.000
2030	659.0125	Luminaires Utility HPS 250 Watts	EACH	11.000	11.000
2040	661.0200	Temporary Traffic Signals for Intersections (location) 01. STH 52 & 3rd Ave	LS	1.000	1.000
2050	661.0200	Temporary Traffic Signals for Intersections (location) 02. STH 52 & 1st Ave	LS	1.000	1.000
2060	673.0105	Communication Vault Type 1	EACH	2.000	2.000
2070	678.0400	Fiber Optic Termination	EACH	12.000	12.000
2080	690.0150	Sawing Asphalt	LF	77.000	77.000
2090	690.0250	Sawing Concrete	LF	5,669.000	5,669.000

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DATE 11MAR16 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	6999-03-79 QUANTITY
2100	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000
2110	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	800.000	800.000
2120	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	400.000	400.000
2130	SPV.0030	Special 01. Fertilizer For Lawn Type Turf	CWT	1.600	1.600
2150	SPV.0060	Special 02. Manhole Risers 2-Inch	EACH	33.000	33.000
2160	SPV.0060	Special 03. Inlet Risers 1-Inch Type H	EACH	31.000	31.000
2170	SPV.0060	Special 04. Inlet Risers 1-Inch Type Z	EACH	20.000	20.000
2180	SPV.0060	Special 05. Valve Box Risers 2-Inch	EACH	35.000	35.000
2190	SPV.0060	Special 06. Inlet Covers Type H-D	EACH	1.000	1.000
2200	SPV.0060	Special 07. Repairing Storm Sewer Structures	EACH	9.000	9.000
2220	SPV.0060	Special 50. Salvage and Reinstall Street Light Assembly	EACH	1.000	1.000
2230	SPV.0060	Special 52. Utility Line Opening (ULO)	EACH	6.000	6.000
2240	SPV.0060	Special 53. Pull Box Non-conductive 24X36-Inch	EACH	5.000	5.000
2250	SPV.0060	Special 54. Pull Box Non-conductive 24X42-Inch	EACH	29.000	29.000
2260	SPV.0060	Special 55. Salvage Warning Flasher Assembly	EACH	1.000	1.000
2270	SPV.0060	Special 56. Concrete Base Type 1 With Spread Footing	EACH	1.000	1.000
2280	SPV.0060	Special 57. Furnish and Install 35-Foot Mast Arm Assembly	EACH	1.000	1.000
2290	SPV.0090	Special 01. Concrete Curb & Gutter 42-Inch Type A	LF	30.000	30.000
2300	SPV.0090	Special 02. Concrete Curb & Gutter 66-Inch With 6-Inch Curb Type A	LF	2,628.000	2,628.000
2310	SPV.0090	Special 03. Concrete Curb & Gutter 66-Inch With 7-Inch Curb Type A	LF	413.000	413.000
2320	SPV.0090	Special 04. Diagonal Epoxy 4-Inch	LF	2,382.000	2,382.000
2330	SPV.0090	Special 05. Clean and Repair Concrete Pavement	LF	22,681.000	22,681.000
2340	SPV.0090	Special 50. Fiber Optic Cable Outdoor Plant 36-CT	LF	1,462.000	1,462.000
2350	SPV.0090	Special 51. Fiber Optic Tracer Cable	LF	983.000	983.000
2360	SPV.0090	Special 52. Furnish and Install Equivalent Lighting Conductors	LF	3,500.000	3,500.000
2370	SPV.0105	Special 01. Concrete Pavement Joint Layout 6999-03-79	LS	1.000	1.000
2400	SPV.0105	Special 04. Research and Locate Existing Property Monuments 6999-03-79	LS	1.000	1.000
2430	SPV.0105	Special 07. Verify and Replace Existing Property Monuments 6999-03-79	LS	1.000	1.000
2460	SPV.0105	Special 50. Salvage Traffic Signal STH 52 & 3rd Ave	LS	1.000	1.000
2470	SPV.0105	Special 51. Salvage Traffic Signal STH 52 & 1st Ave	LS	1.000	1.000
2490	SPV.0105	Special 53. Salvage and Reinstall Emergency Vehicle Preemption Equipment STH52 & 3rd	LS	1.000	1.000
2500	SPV.0105	Special 54. Salvage and Reinstall Emergency Vehicle Preemption Equipment STH52 & 1st	LS	1.000	1.000

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DATE 11MAR16 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	6999-03-79 QUANTITY
2510	SPV.0105	Special 55. Furnish and Install Traffic Signal Cabinet STH 52 & 3rd Ave	LS	1.000	1.000
2520	SPV.0105	Special 56. Furnish and Install Traffic Signal Cabinet STH 52 & 1st Ave	LS	1.000	1.000
2530	SPV.0105	Special 57. Furnish and Install Communications Equipment in Signal Cabinet STH 52 & 3rd	LS	1.000	1.000
2540	SPV.0105	Special 58. Furnish and Install Communications Equipment in Signal Cabinet STH 52 & 1st	LS	1.000	1.000
2550	SPV.0105	Special 61. Traffic Signal Systems Integrator 6999-03-79	LS	1.000	1.000
2570	SPV.0180	Special 01. Preparing Topsoil For Lawn Type Turf	SY	2,082.000	2,082.000

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REMOVING PAVEMENT

STATION - STATION	LOCATION	204.0100 SY
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	531
221+00 - 230+50	LT	19
230+50 - 243+00	LT	30
243+00 - 249+00	LT	72
249+00 - 253+13.21	LT	79
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	775
221+00 - 230+50	RT	440
230+50 - 243+00	RT	16
243+00 - 249+00	RT	272
249+00 - 253+35.81	RT	169
1ST AVE		
123+44 - 124+35.47	LT & RT	108
STAGE 2		
STH 52 WB (STEWART AVE)		
243+00 - 249+00	LT & RT	19
249+00 - 253+13.21	LT	7
STH 52 EB (STEWART AVE)		
249+00 - 253+35.81	LT	5
ITEM TOTAL		2542

REMOVING CONCRETE SURFACE PARTIAL DEPTH

STATION - STATION	LOCATION	204.0109.S SF
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	4525
STAGE 2		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	4525
ITEM TOTAL		9050

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 SY
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	79
221+00 - 230+50	LT	52
230+50 - 243+00	LT	110
243+00 - 249+00	LT	133
249+00 - 253+13.21	LT	97
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	13
221+00 - 230+50	RT	30
230+50 - 243+00	RT	37
243+00 - 249+00	RT	97
249+00 - 253+35.81	RT	102
1ST AVE		
123+44 - 124+35.47	LT & RT	21
ITEM TOTAL		771

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REMOVING BUTT JOINTS

STATION - STATION	LOCATION	204.0105 SY	REMARKS
STAGE 1			
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT	340	
206+53.58 - 221+00	LT	5	DRIVEWAYS
221+00 - 230+50	LT	333	
221+00 - 230+50	LT	4	DRIVEWAYS
230+50 - 243+00	LT	438	
230+50 - 243+00	LT	6	DRIVEWAYS
243+00 - 249+00	LT	431	
243+00 - 249+00	LT	5	DRIVEWAYS
249+00 - 253+13.21	LT	217	
249+00 - 253+13.21	LT	1	DRIVEWAYS
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	RT	235	
230+50 - 243+00	RT	440	
230+50 - 243+00	RT	2	DRIVEWAYS
243+00 - 249+00	RT	237	
243+00 - 249+00	RT	7	DRIVEWAYS
249+00 - 253+35.81	RT	273	
249+00 - 253+35.81	RT	1	DRIVEWAYS
STAGE 2			
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT & RT	80	
249+00 - 253+13.21	LT & RT	38	
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	LT & RT	81	
249+00 - 253+35.81	LT & RT	69	
ITEM TOTAL		3243	

REMOVING CURB & GUTTER

STATION - STATION	LOCATION	204.0150 LF
STAGE 1		
STH 52 WB (STEWART AVE)		
249+00 - 253+13.21	LT	31
1ST AVE		
123+44 - 124+35.47	LT & RT	105
ITEM TOTAL		136

REMOVING CONCRETE BASES

STATION	LOCATION	204.0195 EACH
STAGE 1		
STH 52 EB (STEWART AVE)		
208+27.56	32.5' RT	1
245+43.30	49.5' RT	1
ITEM TOTAL		2*

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

PREPARE FOUNDATION FOR ASPHALTIC PAVING (6999-03-79)

STATION - STATION	LOCATION	211.0100 LS	REMARKS
STH 52			
206+87.67 - 253+35.81	LT & RT	1	INCLUDES EXISTING CONCRETE PAVEMENT
ITEM TOTAL		1	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC SIGNAL REMOVALS

LOCATION / ITEM	STATION	L/R	204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULL BOXES EACH	SPV.0060.55 SALVAGE WARNING FLASHER ASSEMBLY EACH
CATEGORY 0030					
STH 52 & 12TH AVENUE					
EXSBF1	214+39'EB'	R	1		1
STH 52 & 3RD AVENUE					
CB1	245+48'EB'	R	1		
SB1	245+33'EB'	R	1		
SB2	244+79'EB'	R	1		
SB3	244+47'EB'	R	1		
SB4	244+54'EB'	L	1		
SB5	244+54'WB'	L	1		
SB6	244+86'WB'	L	1		
SB7	245+43'WB'	L	1		
SB8	245+65'WB'	L	1		
SB9	245+71'EB'	L	1		
SB10	245+52'EB'	R	1		
PB1	244+64'EB'	L		1	
PB2	244+87'WB'	L		1	
PB18	245+63'EB'	L		1	
STH 52 & 1ST AVENUE					
CB1	251+62'EB'	R	1		
SB1	251+67'EB'	R	1		
SB2	251+54'WB'	R	1		
SB3	252+26'WB'	L	1		
SB4	252+48'WB'	L	1		
SB5	252+84'WB'	L	1		
SB6	252+89'WB'	L	1		
SB7	252+88'WB'	R	1		
SB8	253+02'EB'	R	1		
SB9	123+80	R	1		
PB1	251+57'WB'	R		1	
PB2	251+61'WB'	L		1	
PB4	252+98'EB'	R		1	
PB5	255+39'EB'	R		1	
ITEM TOTAL			22*	7*	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

STREET LIGHTING REMOVALS

LOCATION / ITEM	STATION	L/R	204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULL BOXES EACH
CATEGORY 0030				
STH 52 & 12TH AVENUE				
EXLP100	216+04'WB	L	1	
STH 52 & 1ST AVENUE				
LPB1	251+37'WB'	R		1
LB1	252+68'EB'	R	1	
ITEM TOTAL			2*	1*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
STH 52 WB (STEWART AVE)		
209+69.15	LT	1
216+06.35	LT	1
243+78.48	RT	1
244+49.93	LT	1
250+28.37	LT	1
251+30.05	LT	1
253+09.57	LT	1
STH 52 EB (STEWART AVE)		
209+70.97	RT	1
210+26.24	RT	1
244+50.99	RT	1
244+89.14	RT	1
246+84.60	RT	1
251+65.16	RT	1
252+38.53	RT	1
1ST AVE		
124+20.95	LT	1
ITEM TOTAL		15

REMOVING MANHOLES

STATION	LOCATION	204.0210 EACH
STH 52 EB (STEWART AVE)		
245+05.38	RT	1
ITEM TOTAL		1

REMOVING STORM SEWER

STATION - STATION	LOCATION	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.04 30-INCH LF	204.0245.05 36-INCH LF
STH 52 WB (STEWART AVE)					
206+53.58 - 221+00	LT	20	9		
243+00 - 249+00	LT & RT	20			
249+00 - 253+13.21	LT	40			
STH 52 EB (STEWART AVE)					
207+40.32 - 221+00	RT	26			
243+00 - 249+00	RT	8		122	8
249+00 - 253+35.81	RT	29	42		28
1ST AVE					
123+44 - 124+35.47	LT	20			
ITEM TOTAL		163	51	122	36

ABANDONING SEWER

STATION	LOCATION	204.0291.S CY
STH 52 EB (STEWART AVE)		
205+06	RT	1
ITEM TOTAL		1

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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EARTHWORK SUMMARY

DIVISION	STATION - STATION	LOCATION	(1) 205.0100 EXCAVATION COMMON CY	(2) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(3) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(4) EXPANDED FILL CY	(5) 208.0100 BORROW CY	(6) MASS ORDINATE CY	WASTE CY	REMARKS
DIVISION 1											
STAGE 1	STH 52 EB (STEWART AVE)										
	270+40.32 - 221+00	LT & RT	419	172	247	10	13	0	234	234	STH 52 WIDENING
	221+00 - 230+50	LT & RT	228	98	130	27	36	0	94	94	STH 52 WIDENING
	207+40.32 - 221+00	RT	4	0	4	0	0	0	4	4	SIDEWALK REPLACEMENT
	221+00 - 230+50	RT	6	0	6	0	0	0	6	6	SIDEWALK REPLACEMENT
	230+50 - 243+00	RT	11	0	11	0	0	0	11	11	SIDEWALK REPLACEMENT
	243+00 - 249+00	RT	26	0	26	0	0	0	26	26	SIDEWALK REPLACEMENT
	249+00 - 253+35.81	RT	11	0	11	0	0	0	11	11	SIDEWALK REPLACEMENT
	STH 52 WB (STEWART AVE)										
	206+53.58 - 221+00	LT & RT	303	118	185	22	28	0	157	157	STH 52 WIDENING
	206+53.58 - 221+00	LT & RT	13	4	9	0	0	0	9	9	SIDEWALK REPLACEMENT
	221+00 - 230+50	LT & RT	15	0	15	0	0	0	15	15	SIDEWALK REPLACEMENT
	230+50 - 243+00	LT & RT	29	0	29	0	0	0	29	29	SIDEWALK REPLACEMENT
	243+00 - 249+00	LT & RT	37	0	37	0	0	0	37	37	SIDEWALK REPLACEMENT
	249+00 - 253+13.21	LT & RT	18	0	18	0	0	0	18	18	SIDEWALK REPLACEMENT
	1ST AVE										
	123+44 - 123+65.92	LT & RT	14	0	14	0	0	0	14	14	
	123+65.92 - 124+08.90	LT & RT	54	0	54	0	0	0	54	54	
	124+20.83 - 124+35.47	LT & RT	19	0	19	0	0	0	19	19	
DIVISION 1 SUBTOTAL			1207	392	815	60	77	0	738	738	
DIVISION 2											
STAGE 2	1ST AVE										
	123+44 - 123+65.92	LT & RT	14	0	14	0	0	0	14	14	
	123+65.92 - 124+08.90	LT & RT	54	0	54	0	0	0	54	54	
	124+20.83 - 124+35.47	LT & RT	19	0	19	0	0	0	19	19	
DIVISION 2 SUBTOTAL			87	0	87	0	0	0	87	87	
ITEM TOTAL			1294	392	902	60	77	0	825	825	

(1) EXCAVATION COMMON, ITEM NUMBER 205.0100, IS THE TOTAL VOLUME OF CUT AND INCLUDES THE UNUSABLE PAVEMENT MATERIAL.
(2) SALVAGED/UNUSABLE MATERIAL IS INCLUDED IN THE EXCAVATION COMMON
(3) AVAILABLE MATERIAL = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL.
(4) EXPANDED FILL FACTOR = 1.30
(5) BORROW MATERIAL.
(6) THE MASS ORDINATE + OR - QTY FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL AND A MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
THE MASS ORDINATE IS = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL - EXPANDED FILL.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

BASE COURSE ITEMS

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
STAGE 1				
STH 52 WB (STEWART AVE)				
206+53.58 - 221+00	LT		350	
221+00 - 230+50	LT		11	
230+50 - 243+00	LT		17	
243+00 - 249+00	LT		28	
249+00 - 253+13.21	LT		55	
STH 52 EB (STEWART AVE)				
207+40.32 - 221+00	RT		387	
221+00 - 230+50	RT		221	
230+50 - 243+00	RT		9	
243+00 - 249+00	RT		102	
249+00 - 253+35.81	RT		72	
1ST AVE				
123+44 - 124+35.47	LT & RT	22	177	
UNDISTRIBUTED			6	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
STAGE 2				
STH 52 WB (STEWART AVE)				
243+00 - 249+00	LT & RT		9	
ITEM TOTAL		22	1442	

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	28
STH 52 EB (STEWART AVE)		
243+00 - 249+00	RT	20
1ST AVE		
123+44 - 124+35.47	RT	6
ITEM TOTAL		54

3

CONCRETE BASE

STATION - STATION	LOCATION	305.0150 8 1/2-INCH SY	320.0350 HES 8 1/2-INCH SY
STAGE 1			
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT	25	
243+00 - 249+00	LT	18	
249+00 - 253+13.21	LT	27	
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	RT	45	
221+00 - 230+50	RT	28	
243+00 - 249+00	RT	35	183
249+00 - 253+35.81	RT	125	
STAGE 2			
STH 52 WB (STEWART AVE)			
243+00 - 249+00	LT & RT	14	
249+00 - 253+13.21	RT	2	
ITEM TOTAL		318	183

CONCRETE PAVEMENT 8-INCH

STATION - STATION	LOCATION	415.0080 SY
STAGE 1		
1ST AVE		
123+44 - 124+35.47	LT & RT	108
ITEM TOTAL		108

CLEAN AND REPAIR CONCRETE PAVEMENT

STATION - STATION	LOCATION	SPV.0090.05 LF
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	869
221+00 - 230+50	LT	1393
230+50 - 243+00	LT	2079
243+00 - 249+00	LT	677
249+00 - 253+13.21	LT	688
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	633
221+00 - 230+50	RT	1114
230+50 - 243+00	RT	3438
243+00 - 249+00	RT	1052
249+00 - 253+35.81	RT	544
STAGE 2		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT & RT	797
221+00 - 230+50	LT & RT	822
230+50 - 243+00	LT & RT	2739
243+00 - 249+00	LT & RT	754
249+00 - 253+13.21	LT & RT	476
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	LT & RT	1046
221+00 - 230+50	LT & RT	1128
230+50 - 243+00	LT & RT	1408
243+00 - 249+00	LT & RT	457
249+00 - 253+35.81	LT & RT	568
ITEM TOTAL		22681

DRILLED TIE BARS

STATION	LOCATION	416.0610 EACH
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	332
221+00 - 230+50	LT	30
230+50 - 243+00	LT	47
243+00 - 249+00	LT	51
249+00 - 253+13.21	LT	53
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	461
221+00 - 230+50	RT	261
230+50 - 243+00	RT	28
243+00 - 249+00	RT	78
249+00 - 253+35.81	RT	77
1ST AVE		
123+44 - 124+35.47	LT & RT	15
STAGE 2		
STH 52 WB (STEWART AVE)		
243+00 - 249+00	LT & RT	11
249+00 - 253+13.21	RT	20
STH 52 EB (STEWART AVE)		
243+00 - 249+00	LT	5
249+00 - 253+35.81	LT	5
ITEM TOTAL		1470

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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DRILLED DOWEL BARS

STATION	LOCATION	416.0620 EACH
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	36
243+00 - 249+00	LT	20
249+00 - 253+13.21	LT	30
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	42
221+00 - 230+50	RT	27
243+00 - 249+00	RT	100
249+00 - 253+35.81	RT	62
1ST AVE		
123+44 - 124+35.47	LT & RT	45
STAGE 2		
STH 52 WB (STEWART AVE)		
243+00 - 249+00	LT & RT	18
ITEM TOTAL		380

CONCRETE COLLARS FOR PIPE

STATION - STATION	LOCATION	520.8000 EACH
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	3
243+00 - 249+00	LT & RT	2
249+00 - 253+13.21	LT	5
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	3
243+00 - 249+00	RT	2
249+00 - 253+35.81	RT	3
1ST AVE		
123+44 - 124+35.47	LT	2
ITEM TOTAL		20

CONCRETE SIDEWALK 5-INCH

STATION - STATION	LOCATION	602.0410 SF
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	668
221+00 - 230+50	LT	499
230+50 - 243+00	LT	1029
243+00 - 249+00	LT	1300
249+00 - 253+13.21	LT	1253
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	117
221+00 - 230+50	RT	199
230+50 - 243+00	RT	358
243+00 - 249+00	RT	805
249+00 - 253+35.81	RT	1030
1ST AVE		
123+44 - 124+35.47	LT & RT	235
STAGE 2		
STH 52 EB (STEWART AVE)		
243+00 - 249+00	LT	122
249+00 - 253+35.81	LT	171
ITEM TOTAL		7786

3

ASPHALTIC CONCRETE PAVEMENT ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	465.0105 ASPHALTIC SURFACE TON	460.4000 HMA COLD WEATHER PAVING TON
STAGE 1					
STH 52 WB (STEWART AVE)					
206+53.58 - 221+00	LT	146	327		
221+00 - 230+50	LT	127	284		
230+50 - 243+00	LT	156	349		
243+00 - 249+00	LT	104	232		
249+00 - 253+13.21	LT	65	156		
STH 52 EB (STEWART AVE)					
207+40.32 - 221+00	RT	94	210		
221+00 - 230+50	RT	86	192		
230+50 - 243+00	RT	157	351		
243+00 - 249+00	RT	89	199		
249+00 - 253+35.81	RT	71	160		
1ST AVE					
123+44 - 124+35.47	LT & RT	11	64	10	
STAGE 2					
STH 52 WB (STEWART AVE)					
206+53.58 - 221+00	LT & RT	120	268		268
221+00 - 230+50	LT & RT	85	189		189
230+50 - 243+00	LT & RT	156	349		349
243+00 - 249+00	LT & RT	69	155		155
249+00 - 253+13.21	LT & RT	28	63		63
STH 52 EB (STEWART AVE)					
207+40.32 - 221+00	LT & RT	115	257		257
221+00 - 230+50	LT & RT	105	235		235
230+50 - 243+00	LT & RT	157	351		351
243+00 - 249+00	LT & RT	67	150		150
249+00 - 253+35.81	LT & RT	48	107		107
ITEM TOTAL		2053	4650	10	2124

CONCRETE CURB & GUTTER ITEMS

STATION - STATION	LOCATION	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	SPV.0090.01 CONCRETE CURB & GUTTER 42-INCH TYPE A LF	SPV.0090.02 CONCRETE CURB & GUTTER 66-INCH WITH 6-INCH CURB TYPE A LF	SPV.0090.03 CONCRETE CURB & GUTTER 66-INCH WITH 7-INCH CURB TYPE A LF
STAGE 1							
STH 52 WB (STEWART AVE)							
206+53.58 - 221+00	LT		40			527	413
221+00 - 230+50	LT		65				
230+50 - 243+00	LT		102				
243+00 - 249+00	LT		137				
249+00 - 253+13.21	LT	23	90	31	30		
STH 52 EB (STEWART AVE)							
207+40.32 - 221+00	RT					1339	
221+00 - 230+50	RT		12			762	
230+50 - 243+00	RT		55				
243+00 - 249+00	RT		154				
249+00 - 253+35.81	RT		151				
1ST AVE							
123+44 - 124+35.47	LT & RT			104			
STAGE 2							
STH 52 WB (STEWART AVE)							
243+00 - 249+00	RT	12					
249+00 - 253+13.21	RT	25					
STH 52 EB (STEWART AVE)							
243+00 - 249+00	LT	12					
249+00 - 253+35.81	LT	25					
ITEM TOTAL		98	805	135	30	2628	413

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STATION - STATION	LOCATION	602.0515 SF
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	20
221+00 - 230+50	LT	60
230+50 - 243+00	LT	62
243+00 - 249+00	LT	46
249+00 - 253+13.21	LT	71
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	10
221+00 - 230+50	RT	10
230+50 - 243+00	RT	26
243+00 - 249+00	RT	40
249+00 - 253+35.81	RT	51
1ST AVE		
123+44 - 124+35.47		
STAGE 2		
STH 52 EB (STEWART AVE)		
243+00 - 249+00	LT	24
249+00 - 253+35.81	LT	24
ITEM TOTAL		444

STORM SEWER PIPE

STATION - STATION	LOCATION	608.0312 REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 REINFORCED CONCRETE CLASS III 18-INCH LF	608.0330 REINFORCED CONCRETE CLASS III 30-INCH LF	608.0336 REINFORCED CONCRETE CLASS III 36-INCH LF
STH 52 WB (STEWART AVE)					
206+53.58 - 221+00	LT	17	9		
221+00 - 230+50					
230+50 - 243+00					
243+00 - 249+00	LT & RT	20			
249+00 - 253+13.21	LT	40			
STH 52 EB (STEWART AVE)					
207+40.32 - 221+00	RT	33			
221+00 - 230+50	RT	76			
230+50 - 243+00					
243+00 - 249+00	RT	19		69	6
249+00 - 253+35.81	RT	47	18		28
1ST AVE					
123+44 - 124+35.47	LT	20			
ITEM TOTAL		272	27	69	34

3

STORM SEWER STRUCTURE ITEMS

STATION - STATION	LOCATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0600 INLET COVERS TYPE A EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0666 INLET COVERS TYPE Z EACH	SPV.0060.06 INLET COVERS TYPE H-D EACH	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.1005 CATCH BASINS 5-FT DIAMETER EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.2003 MANHOLES 3-FT DIAMETER EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.8115 ADJUSTING INLET COVERS EACH	SPV.0060.02 MANHOLE RISERS 2-INCH EACH	SPV.0060.03 INLET RISERS 1-INCH TYPE H EACH	SPV.0060.04 INLET RISERS 1-INCH TYPE Z EACH	SPV.0060.07 REPAIRING STORM SEWER STRUCTURES EACH
STH 52 WB (STEWART AVE)																					
206+53.58 - 221+00	LT						2		1	1							1		3		
221+00 - 230+50	LT & RT																		7	1	
230+50 - 243+00	LT & RT																		7	7	1
243+00 - 249+00	LT & RT				1		1		1			2						1	3	4	
249+00 - 253+13.21	LT & RT			1		2			1			1					1		1	1	2
STH 52 EB (STEWART AVE)																					
207+40.32 - 221+00	LT & RT	3	3				8		8									1		2	1
221+00 - 230+50	LT & RT	4	4				5		5											2	
230+50 - 243+00												1							7		2
243+00 - 249+00	LT & RT		1		1	2					2					1		2	3	2	1
249+00 - 253+35.81	LT & RT		3		1	2		1				2	1	1	2					1	2
1ST AVE																					
123+44 - 124+35.47	RT																1				
ITEM TOTAL		7	11	1	3	6	16	1	16	1	2	6	1	1	2	1	3	4*	31	20	9

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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UTILITY STRUCTURE ITEMS

STATION - STATION	LOCATION	SPV.0060.02 MANHOLE RISERS 2-INCH EACH	SPV.0060.05 VALVE BOX RISERS 2-INCH EACH
CATEGORY 0020			
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT & RT	5	8
221+00 - 230+50	LT & RT	4	8
230+50 - 243+00	LT & RT		4
243+00 - 249+00	LT & RT	1	1
249+00 - 253+13.21	LT & RT		2
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	RT	1	
230+50 - 243+00	RT	13	10
243+00 - 249+00	RT	3	2
249+00 - 253+35.81	RT	2	
ITEM TOTAL		29*	35

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE MEDIAN SLOPED NOSE

STATION - STATION	LOCATION	620.0300 SF
STAGE 1		
STH 52 WB (STEWART AVE)		
249+00 - 253+13.21	LT	53
STAGE 2		
STH 52 WB (STEWART AVE)		
249+00 - 253+13.21	RT	22
ITEM TOTAL		75

WATER

STATION - STATION	LOCATION	624.0100 MGAL
STH 52 WB (STEWART AVE)		
206+53.58 - 253+13.21	LT	0.77
STH 52 EB (STEWART AVE)		
207+40.32 - 253+35.81	RT	1.78
1ST AVE		
123+44 - 124+35.47	LT & RT	1.06
UNDISTRIBUTED		6
ITEM TOTAL		10

TURF ESTABLISHMENT ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY
STAGE 1							
STH 52 WB (STEWART AVE)							
206+53.58 - 221+00	LT	384	7		8.6	0.24	384
221+00 - 230+50	LT	57	1		1.3	0.04	57
230+50 - 243+00	LT	150	3		3.4	0.09	150
243+00 - 249+00	LT	94	2		2.1	0.06	94
249+00 - 253+13.21	LT	127	2		2.9	0.08	127
STH 52 EB (STEWART AVE)							
207+40.32 - 221+00	RT	334	6		7.5	0.21	334
221+00 - 230+50	RT	500	9		11.2	0.32	500
230+50 - 243+00	RT	24	0		0.5	0.02	24
243+00 - 249+00	RT	82	1		1.8	0.05	82
249+00 - 253+35.81	RT	34	1		0.8	0.02	34
1ST AVE							
123+44 - 124+35.47	LT & RT	46	1		1.0	0.03	46
STAGE 2							
STH 52 EB (STEWART AVE)							
249+00 - 253+35.81	LT	60	1		1.3	0.04	60
UNDISTRIBUTED		190	4	50	8.5	0.41	190
ITEM TOTAL		2082	38	50	51.0	1.60	2082

INLET PROTECTION

STATION - STATION	LOCATION	628.7005 TYPE A EACH	628.7015 TYPE C EACH
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT & RT	2	10
221+00 - 230+50	LT & RT		8
230+50 - 243+00	LT & RT		14
243+00 - 249+00	LT & RT	2	8
249+00 - 253+13.21	LT & RT	3	6
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	LT & RT	10	11
221+00 - 230+50	LT & RT	9	7
230+50 - 243+00	RT	2	7
243+00 - 249+00	LT & RT	3	8
249+00 - 253+35.81	LT & RT	4	5
1ST AVE			
123+44 - 124+35.47	LT & RT		2
ITEM TOTAL		35	86

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY
STAGE 1						
STH 52 WB (STEWART AVE)						
206+53.58 - 221+00	LT					384
221+00 - 230+50	LT					57
230+50 - 243+00	LT					150
243+00 - 249+00	LT					94
249+00 - 253+13.21	LT					127
STH 52 EB (STEWART AVE)						
207+40.32 - 221+00	RT	1308	2616			334
221+00 - 230+50	RT	825	1650			500
230+50 - 243+00	RT					24
243+00 - 249+00	RT					82
249+00 - 253+35.81	RT					34
1ST AVE						
123+44 - 124+35.47	LT & RT					46
STAGE 2						
STH 52 EB (STEWART AVE)						
249+00 - 253+35.81	LT					60
UNDISTRIBUTED		215	425	3	2	190
ITEM TOTAL		2348	4691	3	2	2082

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PERMANENT SIGNING ITEMS

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0805 POSTS TUBULAR STEEL 2X2-INCH 5-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1-1	R4-4	BEGIN RIGHT TURN LANE YIELD TO BIKES	36 X 30	7.50				1			1	1	
1-2		STH 52 WEST						1		1			
1-3	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
1-4	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
1-5	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00							BAND TO STREET LIGHT
1-6	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00		1					
1-7	R6-2R	ONE WAY ARROW	24 X 30	5.00				1					
2-1		STOP RT TURN ONLY							1	1	1	1	
2-2	R3-1	NO TURN	24 X 24	4.00				1			1	1	
2-3	W3-3	STOP LIGHTS	36 X 36			9.00		1			1	1	
2-4	R2-1	SPEED LIMIT	24 X 30	5.00					1				
	S5-2	END SCHOOL ZONE	24 X 30	5.00									
2-5	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
2-6	S1-1	PEDESTRIAN WALK	36 X 36			6.75			1		1		BAND TO STREET LIGHT
	S16-7L	ARROW	30 X 18			3.75							
2-7	R1-1	STOP	36 X 36	7.46					1		1	1	
2-8	S1-1	PEDESTRIAN WALK	36 X 36			6.75			1				
	S16-9P	AHEAD	30 X 18			3.75							
	R2-6P	FINES HIGHER	24 X 18	3.00									
2-9	S1-1	PEDESTRIAN WALK	36 X 36			6.75							BAND TO STREET LIGHT
	S16-9P	AHEAD	30 X 18			3.75							BAND TO STREET LIGHT
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO STREET LIGHT
2-10	W3-3	STOP LIGHTS	36 X 36			9.00		1			1	1	
2-11	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00					1		BAND TO FLASHING BEACON
2-12	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
2-13	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO FLASHING BEACON
	S16-7R	ARROW	30 X 18			3.75							BAND TO FLASHING BEACON
2-14	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO FLASHING BEACON
	S16-7R	ARROW	30 X 18			2.00							BAND TO FLASHING BEACON
2-15	S1-1	PEDESTRIAN WALK	36 X 36			6.75			1		1	1	
	S16-7L	ARROW	30 X 18			3.75							
2-16	R1-1	STOP	36 X 36	7.46				1			1	1	
2-17	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
2-18	R2-1	SPEED LIMIT	24 X 30	5.00					1		1	1	
	S5-2	END SCHOOL ZONE	24 X 30	5.00									
2-19	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
2-20	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
2-21	R5-1	DO NOT ENTER	30 X 30	6.25									
3-1	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
3-2	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO FLASHING BEACON
	S16-9P	AHEAD	30 X 18			3.75							BAND TO FLASHING BEACON
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO FLASHING BEACON
3-3	R1-1	STOP	36 X 36	7.46				1			1	1	
3-4	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00		1					
3-5	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
3-6	R1-1	STOP	36 X 36	7.46				1			1	1	
3-7	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
3-8	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO STREET LIGHT
	S16-9P	AHEAD	30 X 18			3.75							BAND TO STREET LIGHT
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO STREET LIGHT
3-9	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
3-10	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00							BAND TO STREET LIGHT
3-11	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PERMANENT SIGNING ITEMS (CONTINUED)

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0805 POSTS TUBULAR STEEL 2X2-INCH 5-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
4-1	R2-1	SPEED LIMIT	24 X 30	5.00				1			1	1	
4-2	R1-1	STOP	36 X 36	7.46				1			1	1	
4-3	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
4-4	R1-1	STOP	36 X 36	7.46				1			1	1	
4-5	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
4-6	R1-1	STOP	36 X 36	7.46				1			1	1	
4-7	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO STREET LIGHT
	S16-9P	AHEAD	30 X 18			3.75							BAND TO STREET LIGHT
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO STREET LIGHT
4-8	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
4-9	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00		1					
4-10	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00							BAND TO STREET LIGHT
4-11	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
4-12	S1-1	PEDESTRIAN WALK	36 X 36			6.75							BAND TO FLASHING BEACON
	S16-9P	AHEAD	30 X 18			3.75							BAND TO FLASHING BEACON
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO FLASHING BEACON
4-13	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
5-1	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
5-2	R1-1	STOP	36 X 36	7.46				1			1	1	
5-3	S1-1	PEDESTRIAN WALK	36 X 36			6.75			1		1	1	
	S16-7R	ARROW	30 X 18			3.75							
5-4	S1-1	PEDESTRIAN WALK	36 X 36			6.75			1		1	1	
	S16-7L	ARROW	30 X 18			3.75							
5-5	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
5-6	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO FLASHING BEACON
	S16-9P	AHEAD	30 X 18			3.75							BAND TO FLASHING BEACON
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO FLASHING BEACON
5-7	R1-1	STOP	36 X 36	7.46				1			1	1	
5-8	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
5-9	S1-1	PEDESTRIAN WALK	36 X 36			6.75							
	S16-7R	ARROW	30 X 18			3.75							
5-10	R1-1	STOP	36 X 36	7.46				1			1	1	
5-11	S1-1	PEDESTRIAN WALK	36 X 36			6.75		1					
	S16-7L	ARROW	30 X 18			3.75							
5-12	W11-1	BIKE	30 X 30			6.25			1				
	W16-1P	SHARE THE ROAD	18 X 24			3.00							
5-13	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
5-14	R1-1	STOP	36 X 36	7.46				1			1	1	
5-15	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
		SPEED LIMIT									1	1	
5-16	R2-1	SPEED LIMIT	24 X 30	5.00					1				
	S5-2	END SCHOOL ZONE	24 X 30	5.00									
5-17	R2-1	SPEED LIMIT	24 X 30	5.00					1		1	1	
	S5-2	END SCHOOL ZONE	24 X 30	5.00									
5-18	S4-51	SCHOOL SPEED LIMIT CHILDREN PRESENT	24 X 48			8.00			1		1	1	
5-19	S1-1	PEDESTRIAN WALK	36 X 36			6.75					1		BAND TO STREET LIGHT
	S16-9P	AHEAD	30 X 18			3.75							BAND TO STREET LIGHT
	R2-6P	FINES HIGHER	24 X 18	3.00									BAND TO STREET LIGHT
5-20	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

PERMANENT SIGNING ITEMS (CONTINUED)

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0805 POSTS TUBULAR STEEL 2X2-INCH 5-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
6-1	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00		1					
6-2	R1-1	STOP	36 X 36	7.46				1			1	1	
6-3	R2-1	SPEED LIMIT	24 X 30	5.00				1			1	1	
6-4	R6-2L	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
6-5	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
6-6	R5-1	DO NOT ENTER	30 X 30	6.25							1		BAND TO TRAFFIC SIGNAL
6-7	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
6-8	R1-1F	STOP	36 X 36		7.46						1		BAND TO TRAFFIC SIGNAL
6-9	R5-1	DO NOT ENTER	30 X 30	6.25									BAND TO TRAFFIC SIGNAL
6-10	R6-2L	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
6-11	R1-1	STOP	36 X 36	7.46				1			1	1	
6-12	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1			1		
6-13	R1-1F	STOP	36 X 36		7.46						1		BAND TO TRAFFIC SIGNAL
6-14	R6-2R	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
6-15	S4-5	SCHOOL SPEED LIMIT	36 X 36			9.00							BAND TO STREET LIGHT
6-16	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
6-17	R6-2R	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
6-18	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
6-19	R2-1	SPEED LIMIT	24 X 30	5.00				1			1	1	
6-20	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
6-21		RIGHT LANE MUST TURN RIGHT									1	1	
7-1	J4-1	WEST 52	24 X 36	6.00				1			1	1	
7-2	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
7-3	R1-1	STOP	36 X 36	7.46				1			1	1	
7-4	R2-1	SPEED LIMIT	24 X 30	5.00				1			1	1	
7-5	R1-1	STOP	36 X 36	7.46				1			1	1	
7-6	R7-9	NO PARKING BIKE LANE	18 X 24	3.00									BAND TO TRAFFIC SIGNAL
7-7	R6-2R	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
7-8	R1-1F	STOP	36 X 36		7.46						1		
7-9	W12-1D	DOUBLE DIAGONAL ARROW	24 X 24	4.00			1				1	1	
7-10	JV	NORTH BUS 51 ARROW / SOUTH BUS 51 SOUTH ARROW	48 X 69	23.00					2		2	2	
7-11	JV	NORTH BUS 51 ARROW	24 X 69	11.50					1		1	1	
7-12	R2-1	SPEED LIMIT	24 X 30	5.00									
7-13	R6-2R	ONE WAY ARROW	24 X 30	5.00									BAND TO TRAFFIC SIGNAL
	R3-1	NO TURN	24 X 24	4.00							1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
7-14	JV	EAST 52 ARROW / SOUTH BUS 51 ARROW	48 X 69	23.00					2		1	1	
7-15	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
	R10-6	STOP HERE ON RED	24 X 36	6.00							1		BAND TO TRAFFIC SIGNAL
7-16	R5-1	DO NOT ENTER	30 X 30	6.25				1			1		
7-17	R10-6	STOP HERE ON RED	24 X 36	6.00							1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46						1		BAND TO TRAFFIC SIGNAL
7-18	R2-1	SPEED LIMIT	24 X 30	5.00				1			1		
7-19	R6-2L	ONE WAY ARROW	24 X 30	5.00							1		BAND TO TRAFFIC SIGNAL
7-20	W11-1	BIKE	30 X 30			6.25							BAND TO TRAFFIC SIGNAL
	W16-1P	SHARE THE ROAD	24 X 30	5.00									BAND TO TRAFFIC SIGNAL
7-21	R3-2	NO TURN	24 X 24	4.00							1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46								BAND TO TRAFFIC SIGNAL
7-22	W10-1	RAILROAD CROSSING	36 X 36			7.07		1			1	1	
	W10-1A	EXEMPT	24 X 12			2							
	W10-1	RAILROAD CROSSING	36 X 36			7.07		1					
	W10-1A	EXEMPT	24 X 12			2.00							
7-23	R7-9	NO PARKING BIKE LANE	18 X 24	3.00				1					
7-24	R5-1	DO NOT ENTER	30 X 30	6.25									BAND TO TRAFFIC SIGNAL
7-25	R10-11B	NO TURN ON RED	24 X 24	4.00				1					
ITEM TOTAL				457.15	82.06	353.89	1	58	24	2	72	45	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL

STATION - STATION	LOCATION	643.0300 DRUMS DAY	643.0410 BARRICADES TYPE II DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0800 ARROW BOARDS DAY	643.0900 SIGNS DAY	REMARKS
STAGE 1									
STH 52 WB (STEWART AVE)	LT	28020	5460	840	6790			3430	INCLUDES BARRICADES TYPE II ALONG 3RD AVE & 1ST AVE
STH 52 EB (STEWART AVE)	RT	18220	2730	840	4060	840	1	2240	INCLUDES BARRICADES TYPE II ALONG 3RD AVE & 1ST AVE
3RD AVE	LT & RT	2665		560	840	560		1260	
1ST AVE	LT & RT	3155		210	350	420		840	
STAGE 2									
STH 52 WB (STEWART AVE)	LT & RT	6000		500	1000			1600	
STH 52 EB (STEWART AVE)	LT & RT	6000		500	1000	600	1	1400	
3RD AVE	LT & RT	1400		300	400	400		1400	
1ST AVE	LT & RT	1250		300	350	300		400	
ITEM TOTAL		66710	8190	4050	14790	3120	2	12570	

TRAFFIC CONTROL COVERING SIGNS TYPE II

STATION - STATION	LOCATION	643.0920 EACH	NUMBER OF CYCLES	NUMBER OF SIGNS	REMARKS
3RD AVE	LT & RT	6	1	6	4 SIGNS ON OVERHEAD SIGN SUPPORT
1ST AVE	LT	1	1	1	
ITEM TOTAL		7			

TEMPORARY PEDESTRIAN ITEMS

STATION - STATION	LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH
STAGE 1			
STH 52 WB (STEWART AVE)			
206+53.58 - 221+00	LT	50	2
221+00 - 230+50	LT	300	6
230+50 - 243+00	LT	600	12
243+00 - 249+00	LT	100	4
249+00 - 253+13.21	LT	100	2
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	RT	50	1
221+00 - 230+50	RT	50	1
230+50 - 243+00	RT	200	4
243+00 - 249+00	RT	150	4
249+00 - 253+35.81	RT	100	3
ITEM TOTAL		1700	39

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PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH (WHITE) LF	646.0116 EPOXY 6-INCH (WHITE) LF	646.0126 EPOXY 8-INCH (WHITE) LF	647.0110 RAILROAD CROSSINGS EPOXY EACH	647.0156 ARROWS EPOXY TYPE 1 (WHITE) EACH	647.0166 ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0176 ARROWS EPOXY TYPE 3 (WHITE) EACH	647.0206 ARROWS BIKE LANE EPOXY EACH	647.0306 SYMBOLS BIKE LANE EPOXY EACH	647.0336 SYMBOLS BIKE SHARED LANE EPOXY EACH	647.0356 WORDS EPOXY "ONLY" EACH	647.0406 WORDS BIKE LANE EPOXY "BIKE" EACH	647.0406 WORDS BIKE LANE EPOXY "LANE" EACH	647.0406 WORDS BIKE LANE EPOXY "ENDS" EACH	647.0566 STOP LINE EPOXY 18-INCH LF	647.0716 DIAGONAL EPOXY 8-INCH (WHITE) LF	647.0766 CROSSWALK EPOXY 6-INCH LF	647.0776 CROSSWALK EPOXY 12-INCH LF	SPV.0090.04 DIAGONAL EPOXY 4-INCH (WHITE) LF
STH 52 WB (STEWART AVE)																				
206+53.58 - 221+00	LT & RT	1579	300	200					3	3						22	82	98	90	170
221+00 - 230+50	LT & RT	854	655						3	3								181		375
230+50 - 243+00	LT & RT	1089	845	196					4	4							194	183	192	478
243+00 - 249+00	LT & RT	530	397	145			2	2	2	2		6				96	110	434	110	240
249+00 - 253+13.21	LT & RT	328	277						1	1	1					29		226		170
STH 52 EB (STEWART AVE)																				
204+25 - 221+00	LT & RT	1704		450					4	4							94		91	
221+00 - 230+50	LT & RT	1193	149	182					4	4								88		77
230+50 - 243+00	LT & RT	1142	628	212					3	3							187	283	193	349
243+00 - 249+00	LT & RT	583	469	60	1				1	1						40	102	280	111	332
249+00 - 253+35.81	LT & RT	329	262	148					1	1			1	1	1	48		310		191
1ST AVE																				
123+44 - 124+35.47	LT & RT			91		2	2									45				
ITEM TOTAL		9331	3982	1684	1	2	4	2	26	26	1	6		3		280	769	2083	787	2382

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REMOVING PAVEMENT MARKINGS ITEMS

STATION - STATION	LOCATION	646.0690.S REMOVING PAVEMENT MARKINGS WATER BLASTING LF	647.0990.S REMOVING SPECIAL PAVEMENT MARKINGS WATER BLASTING EACH
STH 52 WB (STEWART AVE)			
243+00 - 249+00	LT	35	6
STH 52 EB (STEWART AVE)			
207+40.32 - 221+00	RT	155	
ITEM TOTAL		190	6

TEMPORARY PAVEMENT MARKING

STATION - STATION	LOCATION	649.0400 REMOVABLE TAPE 4-INCH (WHITE) LF	649.0400 REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0600 REMOVABLE TAPE 6-INCH (WHITE) LF	649.0801 REMOVABLE TAPE 8-INCH (WHITE) LF	649.1000 STOP LINE REMOVABLE TAPE 12-INCH LF	649.1800 ARROWS REMOVABLE TAPE EACH
STAGE 1							
STH 52 WB (STEWART AVE)							
204+25 - 221+00	LT			70			
221+00 - 230+50	LT			140			
230+50 - 243+00	LT			210			
STH 52 EB (STEWART AVE)							
204+25 - 221+00	RT	327		70			
221+00 - 230+50	RT						
230+50 - 243+00	RT			70			
3RD AVE	LT & RT	150	175	100			6
1ST AVE	LT & RT	126	126	100			4
STAGE 2							
STH 52 WB (STEWART AVE)							
243+00 - 249+00	LT				188	10	2
STH 52 EB (STEWART AVE)							
204+25 - 221+00	LT & RT		366				
249+00 - 253+35.81	RT				188	10	2
3RD AVE	LT & RT	150	175				
1ST AVE	LT & RT	126	126				
ITEM TOTAL		1847		760	376	20	14

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.7000 CONCRETE PAVEMENT LF	650.8000 RESURFACING REFERENCE LF	650.9920 SLOPE STAKES LF	REMARKS
STH 52 WB (STEWART AVE)									
206+53.58 - 221+00	LT & RT	2	974				473	974	
221+00 - 230+50	LT & RT						950		
230+50 - 243+00	LT & RT						1250		
243+00 - 249+00	LT & RT	3					600		
249+00 - 253+13.21	LT & RT	2			31		414		
STH 52 EB (STEWART AVE)									
207+40.32 - 221+00	LT & RT	8	1360					1360	
221+00 - 230+50	LT & RT	5	761				190	761	
230+50 - 243+00	LT & RT	1					1250		
243+00 - 249+00	LT & RT	3					600		
249+00 - 253+35.81	LT & RT	6					436		
1ST AVE									
123+44 - 124+35.47	LT & RT		80	58	104	22		80	CONSTRUCTION STAKING BASE REQUIRED FOR ASPHALT LOCATIONS ONLY
ITEM TOTAL		30	3175	58	135	22	6163	3175	

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (6999-03-79)

STATION - STATION	LOCATION	650.8500 LS
CATEGORY 0030		
STH 52	LT & RT	1
ITEM TOTAL		1

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TRAFFIC SIGNAL LOOP DETECTORS

LOCATION / LOOP NO	*STATION	OFFSET	L/R	SIZE FT X FT	NO. OF TURNS	INSTALLATION METHOD	652.0900 LOOP DETECTOR SLOTS LF	652.0800* CONDUIT LOOP DETECTOR LF	655.0800* LOOP DETECTOR WIRE LF	**655.0700* LOOP DETECTOR LEAD IN CABLE LF
CATEGORY 0030										
STH 52 AND 3RD AVENUE										
21***	247+44'WB'	6.0'	L	6 X 6	4	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	42	44	136	260
22***	247+42'WB'	18.0'	L	6 X 6	4	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	54	54	156	260
41	EXISTING			6 X 6	-	EXISTING	-	-	-	140
42	EXISTING			6 X 6	-	EXISTING	-	-	-	140
43	EXISTING			6 X 6	-	EXISTING	-	-	-	140
44	EXISTING			6 X 6	-	EXISTING	-	-	-	140
45	EXISTING			6 X #	-	EXISTING	-	-	-	80
46	EXISTING			6 X #	-	EXISTING	-	-	-	80
47	EXISTING			6 X #	-	EXISTING	-	-	-	80
48	EXISTING			6 X #	-	EXISTING	-	-	-	80
49	EXISTING			6 X #	-	EXISTING	-	-	-	55
410	EXISTING			6 X #	-	EXISTING	-	-	-	55
411	EXISTING			6 X #	-	EXISTING	-	-	-	55
412	EXISTING			6 X #	-	EXISTING	-	-	-	55
51	245+85'WB'	5.5'	R	6 X #	3	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	57	72	196	90
52	245+57'WB'	5.8'	R	6 X #	3	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	57	72	196	90
61***	242+74'EB'	6.0'	R	6 X 6	6	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	34	44	184	375
62***	242+75'EB'	18.0'	R	6 X 6	6	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	44	44	184	375
STH 52 AND 1ST AVENUE INTERSECTION										
11	251+41'EB'	6.1'	L	6 X #	3	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	67	72	196	300
12	251+69'EB'	6.1'	L	6 X #	3	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	62	72	196	300
21	254+75'WB'	5.2'	L	6 X 6	5	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)	-	44	160	310
22	254+75'WB'	16.5'	L	6 X 6	5	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)	-	44	160	310
61***	249+80'EB'	5.0'	R	6 X 6	6	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	36	44	184	500
62***	249+82'EB'	19.0'	R	6 X 6	6	SDD: LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY	52	54	204	510
81	123+76	16.5'	L	6 X #	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALT PAVEMENT)	-	72	196	380
82	123+78	5.5'	L	6 X #	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALT PAVEMENT)	-	72	196	380
83	123+78	5.5'	R	6 X #	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALT PAVEMENT)	-	72	196	320
84	123+78	16.5'	R	6 X #	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALT PAVEMENT)	-	72	196	320
PROJECT TOTAL							505	948*	2936*	6180*

* LOCATION IS TO THE FRONT CENTER OF DETECTOR LOOP & FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
** ADDITIONAL QUANTITY FOUND IN "TRAFFIC SIGNAL CABLE AND WIRE-ABOVE GROUND" TABLE
*** LOOPS WILL BE INSTALLED UNDER TRAFFIC. PROVIDE TRAFFIC CONTROL AS NEEDED.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL AND LIGHTING CONDUIT

LOCATION	FROM	-	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0240 CONDUIT RIGID NONMETALLIC SCHEDULE 40 4-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	652.0625 CONDUIT SPECIAL 4-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
CATEGORY 0030									
STH 52 & 12TH AVENUE									
	SBF1	-	EXIST	9					1
STH 52 & 3RD AVENUE									
	CB1	-	PB1		36				
	PB1	-	PB2					55	
	PB2	-	SB2	5					
	PB2	-	PB3	18					
	PB3	-	PB4	164					
	PB2	-	PB5					54	
	PB5	-	SB3	5					
	PB5	-	SB4	15					
	PB5	-	PB6			32			
	PB6	-	SB5	5					
	PB6	-	PB7					77	
	PB7	-	SB6	19					
	PB7	-	SB7	9					
	PB7	-	PB8					59	
	PB8	-	SB8	9					
	PB8	-	PB9	175					
	PB8	-	PB10					50	
	PB10	-	PB11		19				
	PB10	-	SB9	15					
	PB11	-	SB10	20					
	PB11	-	SB11	26					
	PB10	-	PB12					117	
	PB12	-	SB12	16					
	PB12	-	PB13		25				
	PB12	-	CB1		60				
	UNDISTRIBUTED - LIGHTING			50	50				
STH 52 & 1ST AVENUE									
	CB1	-	PB1		30				
	PB1	-	SB1	5					
	PB1	-	PB2					50	
	PB2	-	SB2	12					
	PB2	-	SB13	15					
	PB2	-	PB3					46	
	PB3	-	SB3	6					
	PB3	-	PB4	185					
	PB3	-	PB7					57	
	PB7	-	SB4	6					
	PB7	-	PB8			70			
	PB8	-	SB5	20					
	PB8	-	PB9				130		
	PB9	-	SB6	12					
	PB9	-	PB10				58		
	PB10	-	SB7	6					
	PB8	-	PB11					75	
	PB11	-	SB8	11					
	PB11	-	SB9	10					
	PB11	-	PB12					64	
	PB12	-	SB10	10					
	PB12	-	PB13	180					
	PB12	-	PB14					57	
	PB14	-	SB11	36					
	PB14	-	PB15			120			
	PB15	-	SB12	11					
	PB15	-	PB16					104	
	PB16	-	CB1		70				
	PB9	-	RR BUNGALOW	70					1
ITEM TOTAL				1155*	290	222	188	865	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND

LOCATION	FROM	-	TO	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CATEGORY 0030									
STH 52 & 3RD AVENUE									
	CB1	-	SB1	54			54		
	CB1	-	SB2		111				
	CB1	-	SB3	183					
	CB1	-	SB4	193					
	CB1	-	SB5	227					
	CB1	-	SB6	335					
	CB1	-	SB7		325				
	CB1	-	SB8			250			
	CB1	-	SB9	221					
	CB1	-	SB10	230					
	CB1	-	SB11	236			236		
	CB1	-	SB12	59					
	CB1	-	SB1					51	
	SB1	-	SB2					109	
	SB2	-	SB3					97	
	SB3	-	SB4					35	
	SB4	-	SB5					50	
	SB5	-	SB6					134	134
	SB6	-	SB7					49	
	SB7	-	SB8					111	
	SB8	-	SB9					135	
	SB9	-	SB10					53	
	SB10	-	SB11					69	
	SB11	-	SB12					225	
	SB12	-	CB1					56	
	SB2	-	SB6				190		
	SB11	-	SB8				185		
STH 52 & 1ST AVENUE									
	CB1	-	SB1	36				36	
	CB1	-	SB2			114			
	CB1	-	SB3			164			164
	CB1	-	SB4	236			236		
	CB1	-	SB5	332					
	CB1	-	SB6	401					
	CB1	-	SB7	469					
	CB1	-	SB8	416					
	CB1	-	SB9	416					
	CB1	-	SB10		382				
	CB1	-	SB11	334					
	CB1	-	SB12		187		187		
	CB1	-	SB13	111					
	SB1	-	SB13					100	
	SB13	-	SB2					59	
	SB2	-	SB3					94	
	SB3	-	SB4					96	
	SB4	-	SB5					127	
	SB5	-	SB6					128	
	SB6	-	SB7					111	
	SB5	-	SB8					139	
	SB8	-	SB9					43	
	SB9	-	SB10					118	
	SB10	-	SB11					136	
	SB11	-	SB12					187	
	SB12	-	CB1					127	
	SB4	-	SB6				205		
	SB12	-	SB10				255		
	CB1	-	RR BUNGALOW	500					
ITEM TOTAL				4989*	1005*	528	1548*	2675*	298*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND

LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CATEGORY 0030							
STH 52 & 3RD AVENUE							
	SB1	-	5	19			
		-	2B	15			
		-	BUTTON			6	
	SB2	-	3	45			
		-	8	27			
			LUMINAIRES		246		
	SB3	-	BUTTON			6	
	SB4	-	4	50			
		-	4E	15			
	SB5	-	13	40			
		-	6B	15			
		-	BUTTON			6	
	SB6	-	14	50			
		-	4A	15			
			LUMINAIRE		123		
			GPS EVP UNIT				30
	SB7	-	2	23			
		-	9	23			
		-	6A	15			
		-	BUTTON			6	
	SB8	-	1	26			
		-	6	45			
		-	10	26			
		-	4B	15			
		-	4C	15			
		-	BUTTON			6	
			LUMINAIRES		246		
	SB9	-	7	50			
		-	4D	15			
		-	BUTTON			6	
	SB10	-	2A	15			
		-	BUTTON			6	
	SB11	-	12	19			
			LUMINAIRE		123		
	SB12	-	11	19			
		-	4F	15			
		-	BUTTON			6	

INTERCONNECT CONDUIT & FIBER OPTIC CABLE

FROM	-	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0605 CONDUIT SPECIAL 2-INCH LF	SPV.0090.50 FIBER OPTIC CABLE OUTDOOR PLANT 36-CT LF	SPV.0090.51 FIBER OPTIC TRACER CABLE LF
CATEGORY 0010						
CB1	-	ICPB1	10		60	22
ICPB1	-	CV1		60	75	72
CV1		ICPB2	205		405	217
ICPB2		ICPB3		95	110	107
ICPB3		ICPB4	277		292	289
ICPB4		CV2		132	147	144
CV2	-	ICPB5		93	293	105
ICPB5	-	CB1	15		80	27
ITEM TOTAL			507*	380	1462	983

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND (CONTINUED)

LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE LF
STH 52 & 1ST AVENUE							
	SB2	-	6	26			
		-	9	26			
			15	40			
			8H	15			
			BUTTON			6	
	SB3		2	45			
		-	7	22			
			8	22			
			8F	15			
			8G	15			
			BUTTON			6	
			GPS EVP UNIT				30
	SB4		3	50			
		-	4	40			
			8E	15			
			BUTTON			6	
			LUMINAURE		123		
	SB5		6B	15			
			BUTTON			6	
	SB6	-	13	19			
			LUMINAIRE		123		
	SB7		12	19			
	SB8	-	8A	15			
			BUTTON			6	
	SB9	-	1	19			
		-	6A	15			
			BUTTON			6	
	SB10		5	26			
		-	10	40			
			8B	15			
		-	8C	15			
			BUTTON			6	
			LUMINAIRE		246		
	SB11		11	50			
			8D	15			
			BUTTON			6	
	SB12		14	46			
		-	2A	15			
			BUTTON			6	
			LUMINAIRE		123		
	SB13		2B	15			
			BUTTON			6	
ITEM TOTAL				1282*	1353*	108*	60*

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC SIGNAL STRUCTURES

LOCATION / BASE	STATION	OFFSET	L/R	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	SPV.0060.56 CONCRETE BASE TYPE 1 WITH SPREAD FOOTING EACH	657.0100 PEDESTAL BASES EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0305 POLES TYPE 2 EACH	657.0310 POLES TYPE 3 EACH	657.0315 POLES TYPE 4 EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0585 TROMBONE ARMS 15-FT EACH	657.0590 TROMBONE ARMS 20-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH	SPV.0060.57 FURNISH AND INSTALL 35-FOOT MAST ARM ASSEMBLY EACH	657.0704 LUMINAIRE ARMS TRUSS TYPE 4-INCH CLAMP EACH	659.0125 LUMINAIRES UTILITY HPS 250 WATTS EACH
CATEGORY 0030																					
STH 52 & 3RD AVENUE																					
SB1	245+58'WB'	39.8'	L	1			1							1							
SB2	245+68'EB'	10.0'	L		1			1		1							1			2	2
SB3	245+53'EB'	40.9'	R			1	1					1									
SB4	245+48'EB'	48.5'	L																1		
SB5	245+33'EB'	53.8'	R		1			1	1							1					
SB6	244+76'EB'	52.1'	R		1			1		1								1		1	1
SB7	244+59'EB'	38.9'	R	1			1								1						
SB8	244+57'EB'	10.1'	L		1			1		1							1			2	2
SB9	244+56'WB'	39.3'	L		1			1	1									1			
SB10	244+79'WB'	52.0'	L	1			1						1								
SB11	244+83'WB'	60.6'	L		1			1			1									1	1
SB12	245+47'WB'	49.5'	L	1			1							1							
STH 52 & 1ST AVENUE																					
SB1	253+40'WB'	55.0'	L	1			1							1							
SB2	252+87'WB'	31.8'	L		1			1	1							1					
SB3	253+04'EB'	10.9'	L		1			1	1								1				
SB4	253+01'EB'	41.2'	L		1			1		1								1		1	1
SB5	252+54'EB'	47.6'	R	1			1						1								
SB6	123+75	29.1'	R		1			1			1									1	1
SB7	123+73	28.2'	L	1			1								1						
SB8	251+74'EB'	47.8'	R	1			1						1								
SB9	251+59'EB'	40.6'	R	1			1							1							
SB10	251+55'WB'	5.8'	R		1			1		1						1				2	2
SB11	251+65'WB'	39.0'	L		1			1	1									1			
SB12	252+40'WB'	48.3'	L		1			1		1						1				1	1
SB13	252+90'WB'	48.8'	L	1			1						1								
ITEM TOTAL				10	13*	1	11	13	5	6	2	1	4	4	2*	4	3	4*	1	11	11

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL HEADS

LOCATION	SIGNAL BASE NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0155 TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL EACH	658.0160 TRAFFIC SIGNAL FACE 4-12 INCH HORIZONTAL EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0215 BACK PLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACK PLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
CATEGORY 0030																
STH 52 & 3RD AVENUE																
	SB1	5	1				1	1	1				1			
		2B													1	1
	SB2	3	1				1	1	1				1			
		8		1						1	2	1		1		
	SB4	4	1				1	1	1				1			
		4E													1	1
	SB5	13			1		1	1	1				1			
		6B													1	1
	SB6	14			1		1	1	1				1			
		4A													1	1
	SB7	2	1				1	1	1				1			
		9		1						1	2	1		1		
		6A													1	1
	SB8	1	1				1	1				1	1			
		6	1				1	1	1				1			
		10		1						1	2	1		1		
		4B													1	1
		4C													1	1
	SB9	7	1				1	1	1				1			
		4D													1	1
	SB10	2A													1	1
	SB11	12	1				1	1	1				1			
	SB12	11	1				1	1	1				1			
		4F													1	1
STH 52 & 1ST AVENUE																
	SB2	6		1						1	2	1		1		
		9	1				1	1	1				1			
		15			1		1	1	1				1			
		8H													1	1
	SB3	2	1				1	1	1				1			
		7		1						1	2	1		1		
		8	1				1	1				1	1			
		8F													1	1
		8G													1	1
	SB4	3	1				1	1	1				1			
		4	1				1	1	1				1			
		8E													1	1
	SB5	6B													1	1
	SB6	13	1				1	1	1				1			
	SB7	12		1			1	1	1			1		1		
	SB8	8A													1	1
	SB9	1	1				1	1	1				1			
		6A													1	1
	SB10	5		1						1	2	1		1		
		10	1				1	1	1				1			
		8B													1	1
		8C													1	1
	SB11	11	1				1	1	1				1			
		8D													1	1
	SB12	14				1	1	1	1			1				
		2A													1	1
	SB13	2B													1	1
ITEM TOTAL			18	7	3	1	23*	23*	21*	6	12*	10*	21	7	22	22

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL CONTROL

LOCATION	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL (STH 52 & 3RD AVE) LS	658.5069.01 SIGNAL MOUNTING HARDWARE (STH 52 & 3RD AVE) LS	SPV.0105.50 SALVAGE TRAFFIC SIGNAL (STH 52 & 3RD AVE) LS	SPV.0105.53 SALVAGE AND REINSTALL EMERGENCY VEHICLE PREEMPTION EQUIPMENT (STH 52 & 3RD AVE) LS	SPV.0105.55 FURNISH AND INSTALL TRAFFIC SIGNAL CABINET (STH 52 & 3RD AVE) LS	SPV.0105.57 FURNISH AND INSTALL COMMUNICATIONS EQUIPMENT IN TRAFFIC SIGNAL CABINET (STH 52 & 3RD AVE) LS
CATEGORY 0030							
STH 52 & 3RD AVENUE							
CB1	1	1	1	1	1	1	1
ITEM TOTAL	1	1	1	1	1	1	1

TRAFFIC SIGNAL CONTROL

LOCATION	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL (STH 52 & 1ST AVE) LS	658.5069.02 SIGNAL MOUNTING HARDWARE (STH 52 & 1ST AVE) LS	SPV.0105.51 SALVAGE TRAFFIC SIGNAL (STH 52 & 1ST AVE) LS	SPV.0105.54 SALVAGE AND REINSTALL EMERGENCY VEHICLE PREEMPTION EQUIPMENT (STH 52 & 1ST AVE) LS	SPV.0105.56 FURNISH AND INSTALL TRAFFIC SIGNAL CABINET (STH 52 & 1ST AVE) LS	SPV.0105.58 FURNISH AND INSTALL COMMUNICATIONS EQUIPMENT IN TRAFFIC SIGNAL CABINET (STH 52 & 1ST AVE) LS
CATEGORY 0030							
STH 52 & 1ST AVENUE							
CB1	1	1	1	1	1	1	1
ITEM TOTAL	1	1	1	1	1	1	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS

	661.0200.01 (STH 52 & 3RD AVE) LS	661.0200.02 (STH 52 & 1ST AVE) LS
	1	1
ITEM TOTAL	1	1

TRAFFIC SIGNAL CONTROL

LOCATION	SPV.0105.61 TRAFFIC SIGNAL SYSTEMS INTEGRATOR (PROJECT) LS
CATEGORY 0030	
6999-03-79	1
ITEM TOTAL	1

PEDESTRIAN PUSH BUTTONS

LOCATION / BASE NUMBER	658.0500 PEDESTRIAN PUSH BUTTONS EACH
CATEGORY 0030	
STH 52 & 3RD AVENUE	
SB1	1
SB3	1
SB5	1
SB6	1
SB7	1
SB8	1
SB9	1
SB10	1
SB12	1
STH 52 & 1ST AVENUE	
SB2	1
SB3	1
SB4	1
SB5	1
SB8	1
SB9	1
SB10	1
SB11	1
SB12	1
SB13	1
ITEM TOTAL	19

INTERCONNECT FIBER OPTIC TERMINATION

LOCATION	678.0400 FIBER OPTIC TERMINATION EACH
CATEGORY 0030	
UNDISTRIBUTED	12
ITEM TOTAL	12

NOTE: FIBER OPTIC TERMINATION ITEM ACCOUNTS FOR EACH FIBER STRAND TO BE TERMINATED.

SAWING ASPHALT

STATION - STATION	LOCATION	690.0150 LF
STAGE 1		
STH 52 WB (STEWART AVE)		
249+00 - 253+13.21	LT	23
1ST AVE		
123+44 - 124+35.47	RT	54
ITEM TOTAL		77

SAWING CONCRETE

STATION - STATION	LOCATION	690.0250 LF
STAGE 1		
STH 52 WB (STEWART AVE)		
206+53.58 - 221+00	LT	1140
221+00 - 230+50	LT	120
230+50 - 243+00	LT	189
243+00 - 249+00	LT	221
249+00 - 253+13.21	LT	278
STH 52 EB (STEWART AVE)		
207+40.32 - 221+00	RT	1541
221+00 - 230+50	RT	911
230+50 - 243+00	RT	105
243+00 - 249+00	RT	450
249+00 - 253+35.81	RT	425
1ST AVE		
123+44 - 124+35.47	LT & RT	103
STAGE 2		
STH 52 WB (STEWART AVE)		
243+00 - 249+00	LT & RT	67
249+00 - 253+13.21	RT	72
STH 52 EB (STEWART AVE)		
243+00 - 249+00	LT	15
249+00 - 253+35.81	LT	32
ITEM TOTAL		5669

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

UTILITY LINE OPENING

LOCATION / ITEM NUMBER	SPV.0060.52 UTILITY LINE OPENING (ULO) EACH
CATEGORY 0030	
STH 52 & 3RD AVENUE	3
STH 52 & 1ST AVENUE	3
ITEM TOTAL	6

STREET LIGHTING

LOCATION / ITEM NUMBER	STATION	L/R	SPV.0060.50 SALVAGE AND REINSTALL STREET LIGHT ASSEMBLY EACH	SPV.0090.52 FURNISH AND INSTALL EQUIVALENT LIGHTING CONDUCTORS LF
CATEGORY 0030				
STH 52 & 12TH AVENUE				1250
LP100	216+01'WB'	L	1	
STH 52 & 3RD AVENUE				2250
SB2	245+68'EB'	L		
SB5	244+76'EB'	R		
SB7	244+57'EB'	L		
SB10	244+83'WB'	L		
STH 52 & 1ST AVENUE				
SB4	253+01'EB'	R		
SB6	123+75	R		
SB10	251+55'WB'	R		
SB12	252+40'WB'	L		
ITEM TOTAL			1	3500*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

STREET LIGHTING PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	SPV.0060.54 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
CATEGORY 0030				
STH 52 & 3RD AVENUE				
LPB1	244+50'WB'	5.5'	R	1
UNDISTRIBUTED	-	-	-	2
ITEM TOTAL				3*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	653.0105 PULL BOXES STEEL 12X24-INCH EACH	SPV.0060.53 PULL BOX NON-CONDUCTIVE 24X36-INCH EACH	SPV.0060.54 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
CATEGORY 0030						
STH 52 & 3RD AVENUE						
PB1	245+75'WB'	39.5'	L			1
PB2	245+66'EB'	12.7'	L			1
PB3	245+84'EB'	10.2'	L		1	
PB4	247+51'EB'	15.9'	L		1	
PB5	245+59'EB'	40.8'	R			1
PB6	245+33'EB'	57.2'	R			1
PB7	244+59'EB'	47.8'	R			1
PB8	244+49'EB'	10.4'	L			1
PB9	242+74'EB'	5.3'	L		1	
PB10	244+42'WB'	39.1'	L			1
PB11	244+58'WB'	50.2'	L			1
PB12	245+63'WB'	48.6'	L			1
STH 52 & 1ST AVENUE						
PB1	253+41'WB'	59.8'	L			1
PB2	252+96'WB'	34.5'	L			1
PB3	253+09'EB'	10.3'	L			1
PB4	254+75'WB'	5.0'	R		1	
PB5	254+75'WB'	16.5'	L	1		
PB6	254+75'WB'	5.2'	L	1		
PB7	253+06'EB'	45.6'	R			1
PB8	252+38'EB'	58.9'	R			1
PB9	123+87	28.2'	R			1
PB10	123+79	29.1'	L			1
PB11	251+64'EB'	49.6'	R			1
PB12	251+41'WB'	6.7'	R			1
PB13	249+81'EB'	13.9'	L		1	
PB14	251+34'WB'	49.6'	L			1
PB15	252+38'WB'	59.0'	L			1
PB16	253+27'WB'	73.3'	L			1
ITEM TOTAL				2	5*	21*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

INTERCONNECT PULLBOXES AND VAULTS

PULL BOX/VAULT NUMBER	STATION	OFFSET	L/R	673.0105 COMMUNICATION VAULT TYPE 1 EACH	SPV.0060.54 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
CATEGORY 0030					
ICPB1	245+80'WB'	39.5'	L		1
CV1	245+72'EB'	7.4'	L	1	
ICPB2	247+78'EB'	14.7'	L		1
ICPB3	248+78'EB'	7.1'	L		1
ICPB4	251+34'WB'	4.2'	R		1
CV2	252+76'WB'	5.2'	R	1	
ICPB5	253+46'WB'	56.7'	L		1
ITEM TOTAL				2	5*

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
SHEET 2 OF 2

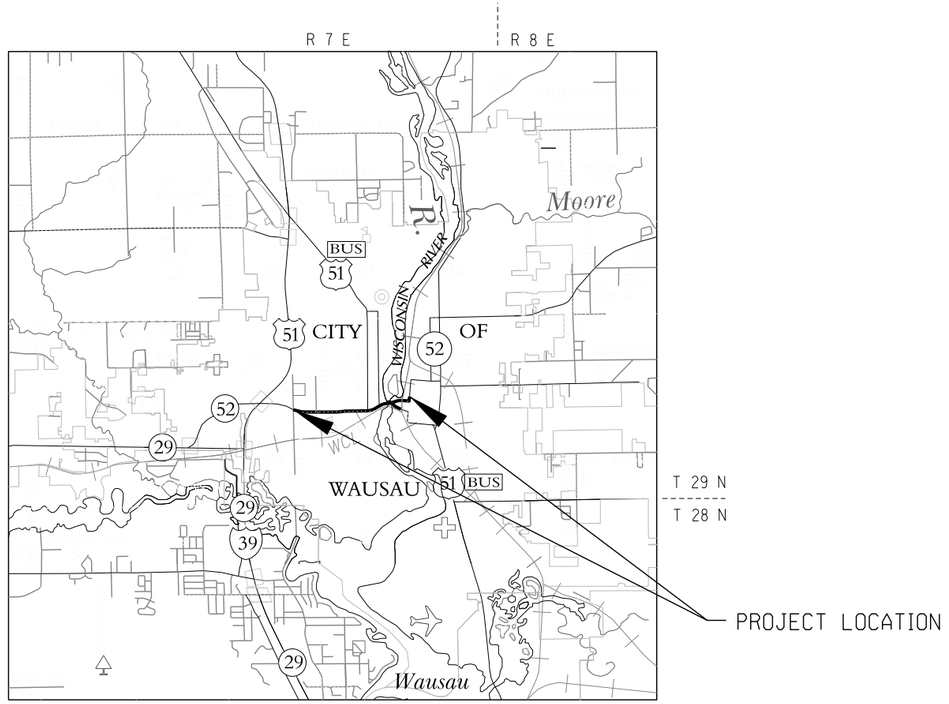
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 6999-03-28

C WAUSAU, HIGHWAY 52
17TH AVENUE TO FIRST STREET

STH 52
MARATHON COUNTY



N

LAYOUT
SCALE 0 1 MI.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MARATHON COUNTY, NAD 83, 2007, IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD". DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT-OF-WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 52 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38), 6999-01-04 AND 6999-01-57 .
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM RECORDED PLATS.
EXISTING ACCESS CONTROL ALONG USH 18, STH 60 AND STH 35 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38) AND 6999-01-04.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4"x24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT, DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
		POINT OF REVERSE CURVE	PRC

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP (1" UNLESS NOTED)	PROPOSED R/W LINE
		EXISTING H.E. LINE
R/W MONUMENT	●(SET)	PROPERTY LINE
R/W STANDARD	▲(SET)	LOT & TIE LINES
SIGN	ISIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT		CORPORATE LIMITS
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)		NO ACCESS (BY ACQUISITION)
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT		SECTION LINE
R/W BOUNDARY POINT	RWB20	QUARTER LINE
PARCEL NUMBER	102	SIXTEENTH LINE
UTILITY PARCEL NUMBER	32	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE)	21-1	BUILDING TO BE REMOVED
BUILDING		PROPOSED REFERENCE LINE
		PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE		○	●
TELEPHONE POLE		⊘	⊘
TELEPHONE PEDESTAL		⌑	⌑
ELECTRIC TOWER		⊠	

cbs2
770 TECHNOLOGY WAY
CH 109 WI 54729

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.01 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.01 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1706675 FILED IN CAB 3 ENV 544B

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF THE SE 1/4 OF THE SE 1/4, SECTION 27, AND PART OF THE NE 1/4 OF THE NE 1/4, SECTION 34, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22 WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
1	WAUSAU SCHOOL DISTRICT	FEE	435	-	435	-	
2	MARATHON COUNTY	TLE	-	-	-	9503	4.02,4.03

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

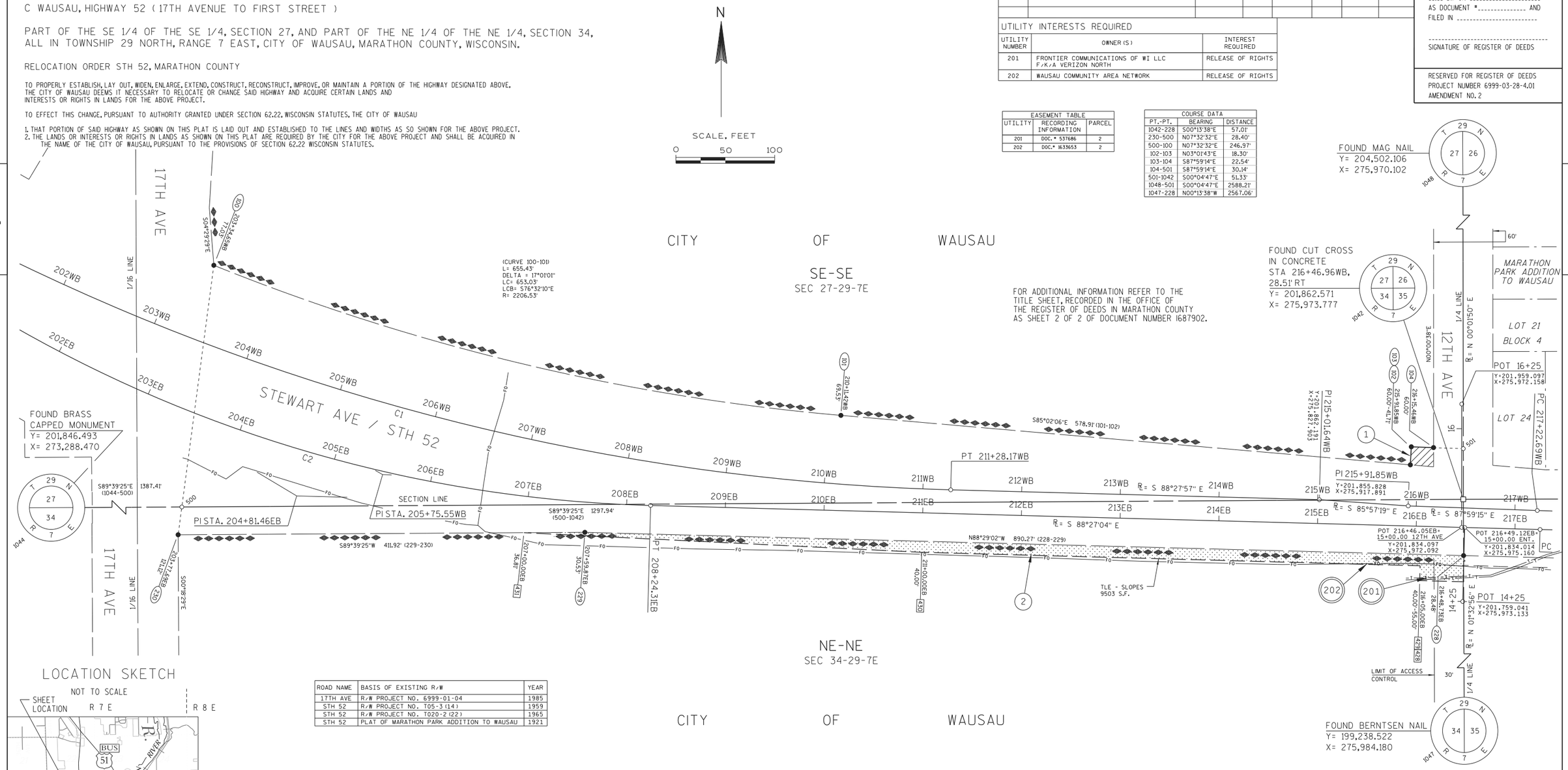
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ___:___ .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
AMENDMENT NO. 2

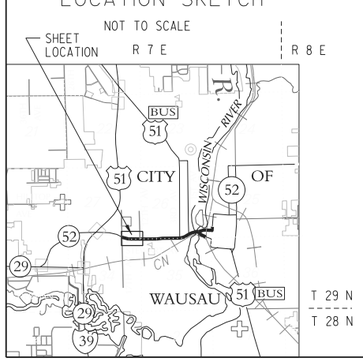
EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC.# 537686	2
202	DOC.# 1633653	2

COURSE DATA		
PT.-PT.	BEARING	DISTANCE
1042-228	S00°13'38"E	57.01'
230-500	N07°32'32"E	28.40'
500-100	N07°32'32"E	246.97'
102-103	N03°01'43"E	18.30'
103-104	S87°59'14"E	22.54'
104-501	S87°59'14"E	30.14'
501-1042	S00°04'47"E	51.33'
1048-501	S00°04'47"E	2588.21'
1047-228	N00°13'38"W	2567.06'



LOCATION SKETCH

NOT TO SCALE



ROAD NAME	BASIS OF EXISTING R/W	YEAR
17TH AVE	R/W PROJECT NO. 6999-01-04	1985
STH 52	R/W PROJECT NO. T05-3 (14)	1959
STH 52	R/W PROJECT NO. T020-2 (22)	1965
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921

CURVE 1
PISTA. 205+75.55WB
Y=201887.600
X=274879.223
DELTA= 27°57'30" LT.
T=575.55'
L=1128.17'
R=2312.00'

CURVE 2
PISTA. 204+81.46EB
Y=201866.000
X=274792.200
DELTA= 29°20'08" LT.
T=358.59'
L=701.44'
R=1370.00'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND REL[illegible] ROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5201-Amend No.2.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.01 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.02 AMENDMENT NO: 1
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.02
RECORDED AS DOCUMENT NO: 1688150 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 2, MARATHON PARK ADDITION TO WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 26, AND PART OF THE NW 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SW-SW
SEC 26-29-7E

N

SCALE, FEET
0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			TLE S.F.	SHEETS
			NEW	EXISTING	TOTAL		
2	MARATHON COUNTY	TLE	-	-	-	3204	4.01,4.03
-	---	---	-	-	-	----	
4	CREATIVE FINANCE GROUP	FEE/TLE	23	-	23	122	
-	---	---	-	-	-	----	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.02
AMENDMENT NO. 1

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC. # 537686	2
202	DOC. # 1633653	2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921
STH 52	R/W PROJECT NO. T020-2 (22)	1965

FOUND MAG NAIL
Y= 204,502.106
X= 275,970.102

FOUND CUT CROSS IN CONCRETE STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND BERNTSEN NAIL
Y= 199,238.522
X= 275,984.180

FOUND BRASS CAPPED MONUMENT STA 242+43.18EB, 14.59' RT
Y= 201,869.425
X= 278,566.497

CITY OF WAUSAU

NW-NW
SEC 35-29-7E

MARATHON PARK ADDITION TO THE CITY OF WAUSAU

WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU

12TH AVE | 11TH AVE | 10TH AVE | 9TH AVE | 8TH AVE | 1/4 LINE | 1/16 LINE | ALLEY

POT 16+25 Y=201,959.097 X=275,972.158
POT 26+00 Y=201,930.952 X=276,363.820
POT 36+00 Y=201,932.129 X=276,675.174
POT 46+00 Y=201,933.311 X=276,987.847
POT 56+00 Y=201,947.743 X=277,295.271
PI 55+74.24 Y=201,921.983 X=277,295.271

PC 217+22.69WB | PT 219+01.00WB | PC 227+67.50WB | PT 230+08.03WB

POT 216+49.12EB+ 15+00.00 ENT. Y=201,834.014 X=275,975.160
POT 216+46.05EB+ 15+00.00 12TH AVE Y=201,834.097 X=275,972.092
POT 220+39.11EB+ 25+00.00 11TH AVE Y=201,830.960 X=276,365.108
POT 223+50.25EB+ 35+00.00 10TH AVE Y=201,832.134 X=276,676.248
POT 226+62.23EB+ 45+00.00 9TH AVE Y=201,833.312 X=276,988.224
POT 228+88.02WB 55+00.00 8TH AVE Y=201,848.485 X=277,305.741

PC 217+25.46EB | PT 218+66.67EB | PISTA. 217+96.07EB | PISTA. 218+11.86WB | PC 227+73.63EB | PISTA. 228+99.95EB | PISTA. 228+88.02WB | POC 229+80.43EB+ 55+00.00 8TH AVE | PT 230+25.70EB

STEWART AVE / STH 52

TLE - DRIVEWAY 590 S.F.
TLE - SIDEWALK 122 S.F.
TLE - SLOPES 2357 S.F.
TLE - SIDEWALK 257 S.F.

L.H.E. FOR FILL SLOPES ACQUIRED BY DEED 576924 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574806 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574803 UNDER PROJECT T 020-2(22)

(CURVE 226-227)
L= 138.91'
DELTA = 01°43'32"
LC= 138.91'
LCB= N89°20'48"W
R= 4612.16'

LIMIT OF ACCESS CONTROL

* NOTE: 121 TO 225 NOT ON 1/16TH LINE

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1042-502	N00°04'47"W	36.93'
502-106	S85°11'58"E	83.70'
106-117	N89°50'55"E	893.62'
117-239	N49°19'52"E	9.74'
239-118	S84°08'03"E	60.34'
118-120	N89°50'55"E	132.00'
120-121	N85°20'44"E	120.37'
121-503	S00°15'39"E	39.15'
503-225	S00°15'39"E	60.13'
225-226	S89°47'26"W	1079.94'
227-228	N88°29'02"W	77.77'
228-1042	N00°13'38"W	57.01'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
502-105	S85°11'58"E	29.96'
105-106	S85°11'58"E	53.74'
106-107	N89°50'55"E	106.52'
107-108	N89°50'55"E	12.00'
108-109	N89°50'55"E	158.40'
109-110	N89°50'55"E	60.00'
110-111	N89°50'55"E	120.11'
111-112	N89°50'55"E	12.00'
112-113	N89°50'55"E	120.00'
113-114	N89°50'55"E	60.00'
114-115	N89°50'55"E	120.00'
115-116	N89°50'55"E	12.00'
116-117	N89°50'55"E	120.37'
118-119	N89°50'55"E	120.00'
119-120	N89°50'55"E	12.00'
1048-502	S00°04'47"E	2602.61'
1047-228	N00°13'38"W	2567.06'
1042-503	N89°50'55"E	1296.54'
1039-503	S89°50'55"W	1296.19'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1229	201894.19	276766.13	1" IRON PIPE

LOCATION SKETCH
NOT TO SCALE
R 7 E | R 8 E
T 29 N
T 28 N
SHEET LOCATION
WISCONSIN RIVER
CITY OF WAUSAU
BUS 51 | 51 | 52 | 29 | 39 | CN

CURVE 3
PI STA. 217+96.07EB
Y=201830.042
X=276122.059
DELTA=1°45'54" LT.
T=70.61'
L=141.21'
R=4583.66'

CURVE 4
PI STA. 218+11.86WB
Y=201848.101
X=276137.760
DELTA=2°13'44" LT.
T=89.17'
L=178.31'
R=4583.66'

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR , HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.03 AMENDMENT NO: 2
AMENDS UTILITY PARCEL NO: 202 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.03 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1696913 FILED IN CAB 3 ENV 541A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 2, BLOCK 7, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE SE 1/4 OF THE SW 1/4, SECTION 26 AND PART OF LOT 10, BLOCK 12, A. WARREN JR'S. WEST ADDITION AND PART OF LOT 1, CSM NO. 15830, DOCUMENT NO. 1572954 BEING A PART OF LOT 11, BLOCK 11, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE NE 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
2	MARATHON COUNTY	FEE/TLE	70	-	70	106	4.01,4.02
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
5	MICHAEL T. DODGE	TLE	-	-	-	181	
-	-	-	-	-	-	-	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.03
AMENDMENT NO. 2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAN OF A. WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU	1882
STH 52	R/W PROJECT NO. T020-2 (22)	1965

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
202	DOC.# 1633653	2

SE-SW
SEC 26-29-7E

CITY OF WAUSAU

FOUND CUT CROSS IN CONCRETE STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670

T 29 N, R 7 E, SEC 23, 26, 27, 34, 35

MARATHON PARK ADDITION TO WAUSAU

8TH AVE | 7TH AVE | 6TH AVE | 5TH AVE | 4TH AVE

A. WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU

A. STEWART'S ADDITION TO WAUSAU

LOT 1 | LOT 2 | LOT 3 | LOT 4 | LOT 9 | LOT 10 | LOT 11 | LOT 12 | LOT 18 | LOT 19 | LOT 20

BLOCK 5 | BLOCK 6 | BLOCK 7 | BLOCK 8 | BLOCK 9 | BLOCK 10 | BLOCK 11 | BLOCK 12 | BLOCK 1

STEWART AVE / STH 52

POT 56+00 Y=201,947.743 X=277,295.271
POT 66+00 Y=201,981,632 X=277,596,048
POT 76+00 Y=201,982,689 X=277,983,157
POT 86+00 Y=201,983,324 X=278,226,816
POT 96+00 Y=201,983,966 X=278,537,946
PI 242+43.32WB Y=201905.017 X=278566.111
POT 242+14.69EB+95+ Y=201,883,960 X=278,537,816
PI 242+43.18EB Y=201,884,017 X=278,566,307
POT 94+25 Y=201,808,958 X=278,536,833

PI 155+74.24 Y=201,921,983 X=277,295,271
PT 230+08.03WB
PC 230+89.57WB
PISTA. 232+03.83WB
PC 230+55.59EB
PT 230+25.70EB
PISTA. 228+88.02WB
PISTA. 228+99.95EB
PISTA. 231+83.28EB
PT 233+10.37EB
PT 233+17.60WB

POC 229+80.43EB+55+00.00 8TH AVE Y=201,848,485 X=277,305,741
POC 232+70.57EB+65+00.00 7TH AVE Y=201,881,550 X=277,593,695
POC 232+73.72EB+65+00.00 7TH AVE Y=201,881,635 X=277,596,851
POT 235+80.23EB+75+00.00 6TH AVE Y=201,882,689 X=277,903,357
POT 238+97.48EB+85+00.00 5TH AVE Y=201,883,325 X=278,220,605
POT 242+13.36EB+95+00.00 4TH AVE Y=201,883,958 X=278,536,481

POT 64+25 Y=201,896,799 X=277,596,599
POT 74+25 Y=201,807,691 X=277,902,727
POT 84+25 Y=201,808,326 X=278,220,991
POT 94+25 Y=201,808,958 X=278,536,833

(CURVE 223-224) L= 86.88' DELTA = 03°14'20" LC= 88.87' LCB= N81°57'26"W R= 1572.39'

(CURVE 221-222) L= 165.23' DELTA = 06°22'54" LC= 165.14' LCB= S83°31'43"W R= 1483.39'

L.H.E. FOR FILL SLOPES ACQUIRED BY DEED 576932 UNDER PROJECT T 020-2(22)

L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.*576932 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 577255 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 575978 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.2, R.P.485 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.3, R. P.197 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 574588 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.516, D, P.399 UNDER PROJECT T 020-2(22)

TLE - SLOPES 45 S.F.
TLE - SLOPES 61 S.F.
TLE - SLOPES 181 S.F.

CSM VOL 38, P 127

LIMIT OF ACCESS CONTROL

* NOTE: 121 TO 225 NOT ON 1/16TH LINE

FOUND BRASS CAPPED MON. STA 242+43.18EB, 14.59' RT
Y= 201,869.425
X= 278,566.497

COORDINATE VALUE PER MARATHON COUNTY RECORDS
Y= 196,627.870
X= 278,623.410

COURSE DATA (SEGMENTS)			COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
122-123	N89°53'26"E	117.28'	1039-211	S00°37'20"E	29.96'
123-124	N89°53'26"E	12.00'	211-215	S89°53'26"W	315.83'
124-125	N89°53'26"E	117.28'	215-216	S89°42'36"W	60.00'
125-126	N89°53'26"E	60.00'	216-217	S89°57'37"W	257.57'
126-127	N89°53'26"E	117.49'	217-218	S89°57'53"W	60.04'
127-128	N89°53'26"E	12.00'	218-219	N89°55'53"W	239.79'
128-129	N89°53'26"E	117.49'	219-220	S38°04'43"W	14.65'
129-130	N89°53'26"E	60.00'	220-242	N84°00'36"W	60.36'
130-131	N89°53'26"E	257.00'	242-221	N81°04'23"W	11.98'
131-132	N89°53'26"E	60.00'	222-223	S80°20'16"W	30.44'
132-133	N89°53'26"E	119.95'	224-225	N00°05'54"W	6.76'
133-134	N89°53'26"E	16.00'	225-503	N00°15'39"W	60.13'
134-135	N89°53'26"E	119.95'	503-121	N00°15'39"W	39.15'
135-504	N89°53'26"E	58.55'	121-122	N43°49'15"E	71.98'
211-212	S89°53'26"W	59.56'	122-504	N89°53'26"E	1244.98'
212-213	S89°53'26"W	120.13'	504-1039	S00°58'52"E	90.05'
213-214	S89°53'26"W	16.00'			
214-215	S89°53'26"W	120.15'			
1584-504	S00°58'52"E	5214.25'			
211-999	S00°37'20"E	2567.06'			
1042-503	N89°50'55"E	1296.54'			
1039-503	S89°50'55"W	1296.19'			

STATION - OUT TABLE		
POINT	STATION	OUT
242	232+39.09'EB'	47.00'RT

NE-NW
SEC 35-29-7E

CITY OF WAUSAU

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1414	201839.30	278507.25	40D NAIL
1415	201779.58	278507.60	1" PINCHED IRON PIPE
1444	201838.38	277933.42	1" IRON PIPE
1447	201838.35	277873.38	1" REBAR

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 6
PI STA. 232+03.83WB
Y=201902.933
X=277526.138
DELTA=9°07'17" RT.
T=114.26'
L=228.03'
R=1432.39'

CURVE 8
PI STA. 231+83.28EB
Y=201881.892
X=277505.813
DELTA=9°33'15" RT.
T=127.69'
L=254.78'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

LOCATION SKETCH
NOT TO SCALE
R 7 E | R 8 E
WISCONSIN RIVER
BUS 51 | CITY OF WAUSAU | 52 | CN | 29 | 39
SHEET LOCATION
T 29 N
T 28 N

N

SCALE, FEET
0 50 100

cbs²
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TYLER, MAYOR

WISCONSIN DUANE A. HOLMAN S-1294 BLOOMER WI LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5203-Amend No.2.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.03 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.04 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200,202,203 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.04 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1689206 FILED IN CAB 3 ENV 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 9 AND LOT 4, BLOCK 8, A. STEWART'S ADDITION TO WAUSAU AND PART OF LOT 1, CSM NO. 2663, DOCUMENT NO. 770570 BEING A PART LOT 1, BLOCK 1, A. STEWART'S SECOND ADDITION TO WAUSAU, IN AND INCLUDING GOVERNMENT LOT 4, SECTION 26, AND PART OF LOT 1, BLOCK 1, STEWART & ALEXANDER'S ADDITION TO WAUSAU, AND LOT 1, BLOCK 3, STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU LOCATED IN GOVERNMENT LOT 1, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.04
AMENDMENT NO. 2

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1002	201959.54	278566.41	3/4" REBAR
1003	201962.78	278791.90	MAG NAIL
1004	201967.41	278866.06	2"IRON PIPE (BENT)
1013	202061.57	279691.96	1" IRON PIPE
1014	202085.87	279227.28	1" IRON PIPE
1015	202117.26	279287.35	1" IRON PIPE
1016	202172.13	279287.28	1" IRON PIPE
1017	202238.24	279287.18	1" IRON PIPE
1083	201911.24	279279.68	3/4" REBAR
1085	202382.81	279803.54	3/4" REBAR W/ YELLOW CAP
1086	202381.97	279742.37	1" IRON PIPE

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER I687902.

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1039-504	N00°58'52"W	90.05'
504-136	N87°04'59"E	1.45'
136-137	N89°10'41"E	221.50'
137-138	N44°37'00"E	5.70'
138-139	N84°22'30"E	75.37'
139-140	N88°54'50"E	35.32'
140-141	N77°38'07"E	86.90'
141-142	N72°46'14"E	125.87'
142-143	N62°48'07"E	67.49'
143-144	N67°55'50"E	64.67'
144-145	N62°24'39"E	67.78'
145-1016	N00°04'31"W	54.87'
1016-146	N00°05'00"W	66.10'
146-149	N88°56'43"E	171.66'
149-150	N44°28'29"E	13.71'
150-151	N00°02'08"E	129.39'
151-153	N89°42'34"E	79.75'
153-154	S00°18'26"E	35.61'
154-155	S55°17'26"E	44.55'
155-156	N71°21'06"E	133.40'
156-157	N00°17'26"W	19.15'
157-1086	N89°41'43"E	31.01'
1086-158	N89°12'31"E	61.18'
158-505	N80°52'56"E	34.97'
505-197	S00°31'48"E	165.48'
198-199	S00°01'49"W	11.50'
199-231	S89°42'34"W	40.93'
232-233	S44°09'48"W	23.35'
233-241	S07°04'03"W	19.58'
241-235	S00°12'56"W	90.00'
235-236	S90°00'00"W	63.50'
236-238	N07°54'31"W	68.84'
238-200	S57°46'12"W	411.02'
200-201	N00°03'18"E	27.24'
202-203	S89°06'01"W	31.52'
203-204	S69°02'25"W	16.47'
204-205	S00°03'49"W	40.52'
205-206	S90°00'00"W	60.00'
206-207	N04°32'26"W	16.30'
207-208	N45°08'36"W	40.42'
208-211	S89°06'01"W	210.02'
211-1039	N00°37'20"W	29.96'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
146-147	N88°56'43"E	60.42
147-148	N88°56'43"E	12.00'
148-149	N88°56'43"E	99.24'
151-152	N89°42'34"E	65.15'
152-153	N89°42'34"E	14.60'
233-234	S00°12'56"W	55.11'
234-235	S00°12'56"W	55.22'
236-237	N07°54'31"W	13.97'
237-238	N07°54'31"W	54.87'
208-209	S89°06'01"W	85.00'
209-210	S89°06'01"W	10.00'
210-211	S89°06'01"W	115.02'
1584-504	S00°58'52"E	5214.25'
211-999	S00°37'20"E	2567.06'
1039-1035	N89°00'44"E	2552.41'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1087	202362.67	279711.48	2" IRON PIPE
1088	202319.99	279585.03	1" IRON PIPE
1089	202345.41	279548.43	1" IRON PIPE
1090	202381.12	279548.44	1" IRON PIPE
1091	202380.89	279533.65	1" IRON PIPE
1092	202026.77	279464.36	CHISLED CROSS IN WALK

STATION - OUT TABLE		
POINT	STATION	OUT
205	104+09.16	30.29'RT
206	104+09.16	29.71' LT
417	244+25.00	44.72'RT

FOUND BRASS CAPPED MON.
STA 242+43.18EB,
14.59'RT
Y= 201,869.425
X= 278,566.497

COORDINATE VALUE PER MARATHON COUNTY RECORDS
Y= 196,627.870
X= 278,623.410

FOUND BRASS CAP MONUMENT
Y= 201,913.426
X= 281,118.827

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF A. STEWART'S ADDITION TO WAUSAU	1874
STH 52	STEWART & ALEXANDER'S ADDITION TO WAUSAU	1882
STH 52	STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU	1893
STH 52	R/W PROJECT NO. T 05-3 (38)	1965
STH 52	C.S.M.* 4-63	1993
STH 52	C.S.M.* 10-136	1980
STH 52	C.S.M.* 23-53	1990
STH 52	C.S.M.* 34-167	1994
STH 52	C.S.M.* 50-119	2001

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
7	WAUSAU 308 STEWART WI	FEE,TLE	8	-	8	-	65
8	WCMR HOLDING COMPANY	TLE	-	-	-	-	483
-	-	-	-	-	-	-	-
10	CHAD SCHWENDEMAN	TLE	-	-	-	-	42
11	PANG XIONG	FEE/TLE	10	-	10	-	804
12	GLEN M. WITTER	FEE/TLE	58	-	58	-	626
13	WISCONSIN CENTRAL LTD.	HE/TLE	-	-	-	437	1769
14	CITY OF WAUSAU	TLE	-	-	-	-	551

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5204-Amend No 2.dgn
APPRAISAL PLAT DATE: -_-_20__

PLOT DATE : 1/14/2016

PLOT BY : $$...plotuser...$$ PLOT NAME :

6999-03-28-4.04 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.05 AMENDMENT NO: 1
ADDS PARCEL NO: 16 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.05
RECORDED AS DOCUMENT NO: 1688153 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, CSM NO. 15368, DOCUMENT NO. 15368 BEING A PART OF LOT 1, BLOCK 6, ORIGINAL PLAT OF THE CITY OF WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 25, PART OF CSM VOL.2, P.62, LOCATED IN GOVERNMENT LOT 6, SECTION 26, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
15	MARATHON COUNTY DEVELOPMENT, INC.	TLE	-	-	-	-	95
16	ONE WORLD INN, LLC.	TLE	-	-	-	-	455

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.05
AMENDMENT NO. 1

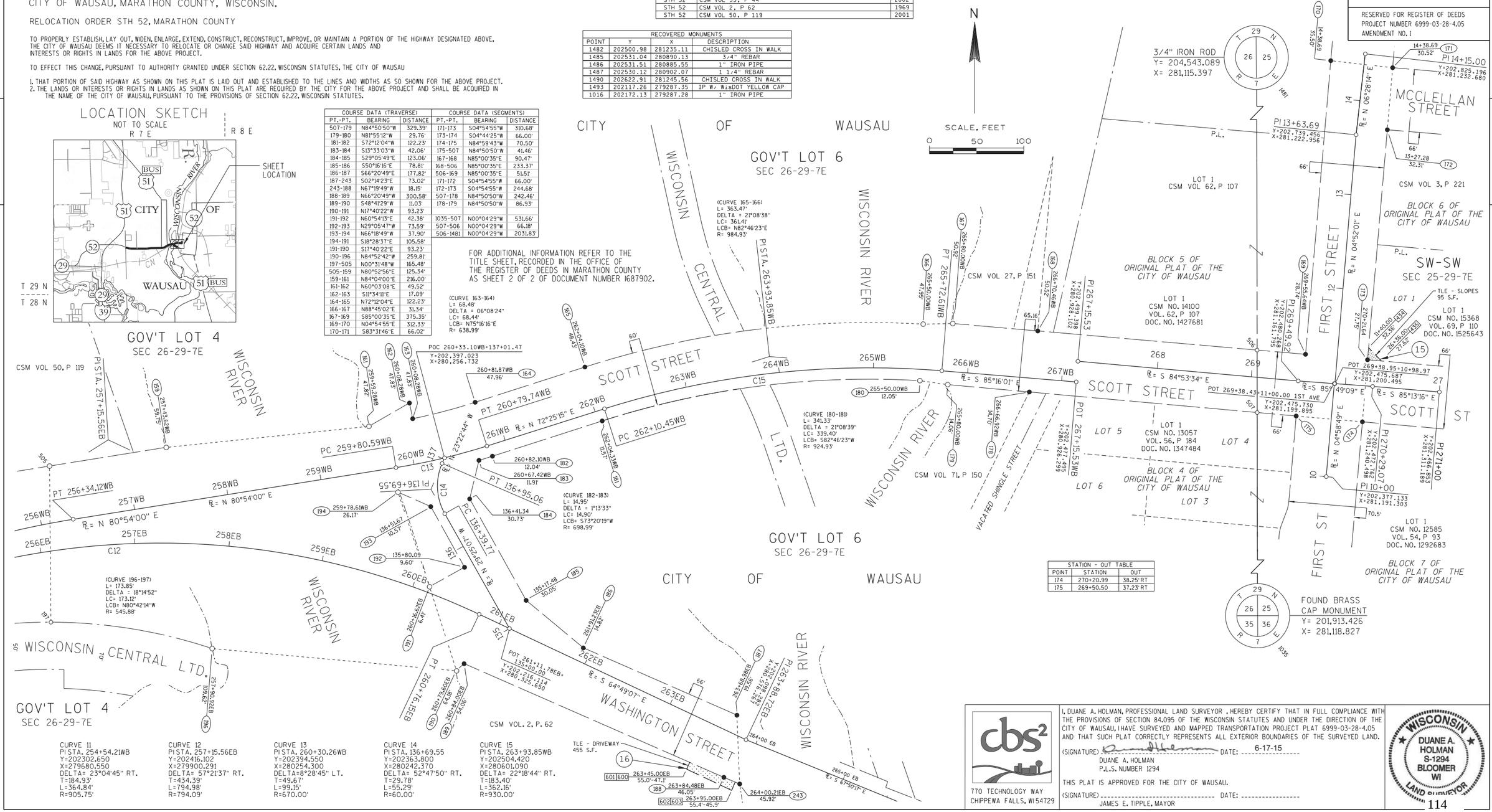
ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	ORIGINAL PLAT OF THE CITY OF WAUSAU	1852
STH 52	R/W PROJECT NO. 6999-01-57	1994
STH 52	R/W PROJECT NO. 6999-00-22	2003
STH 52	R/W PROJECT NO. T 05-3(38)	1965
STH 52	CSM VOL 54, P 93	2002
STH 52	CSM VOL 62, P 107	2005
STH 52	CSM VOL 69, P 110	2008
STH 52	CSM VOL 53, P 44	2002
STH 52	CSM VOL 2, P 62	1969
STH 52	CSM VOL 50, P 119	2001

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1482	202500.98	281235.11	CHISLED CROSS IN WALK
1485	202531.04	280890.13	3/4" REBAR
1486	202531.51	280885.55	1" IRON PIPE
1487	202530.12	280902.07	1 1/4" REBAR
1490	202622.91	281245.56	CHISLED CROSS IN WALK
1493	202117.26	279287.35	IP W/ WisDOT YELLOW CAP
1016	202172.13	279287.28	1" IRON PIPE

LOCATION SKETCH
NOT TO SCALE

COURSE DATA (TRAVERSE)			COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
507-179	N84°50'50"W	329.39'	171-173	S04°54'55"W	310.68'
179-180	N81°55'12"W	29.76'	173-174	S04°44'25"W	66.00'
181-182	S72°12'04"W	122.23'	174-175	N84°59'43"W	70.50'
183-184	S13°33'03"W	42.06'	175-507	N84°50'50"W	41.46'
184-185	S29°05'49"E	123.06'	167-168	N85°00'35"E	90.47'
185-186	S50°16'16"E	78.81'	168-506	N85°00'35"E	233.37'
186-187	S66°20'49"E	177.82'	506-169	N85°00'35"E	51.51'
187-243	S02°14'23"E	73.02'	171-172	S04°54'55"W	66.00'
243-188	N67°19'49"W	18.15'	172-173	S04°54'55"W	244.68'
188-189	N66°20'49"W	300.58'	507-178	N84°50'50"W	242.46'
189-190	S48°41'29"W	11.03'	178-179	N84°50'50"W	86.93'
190-191	N17°40'22"W	93.23'			
191-192	N60°54'13"E	42.38'	1035-507	N00°04'29"W	531.66'
192-193	N29°05'47"W	73.59'	507-506	N00°04'29"W	66.18'
193-194	N66°18'49"W	37.90'	506-1481	N00°04'29"W	2031.83'
194-191	S18°28'37"E	105.58'			
191-190	S17°40'22"E	93.23'			
190-196	N84°52'42"W	259.81'			
197-505	N00°31'48"W	165.48'			
505-159	N80°52'56"E	125.34'			
159-161	N84°04'00"E	216.00'			
161-162	N60°03'08"E	49.52'			
162-163	S11°34'11"E	17.09'			
164-165	N72°12'04"E	122.23'			
166-167	N88°45'02"E	31.34'			
167-169	S85°00'35"E	375.35'			
169-170	N04°54'55"E	312.33'			
170-171	S83°31'46"E	66.02'			

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.



STATION - OUT TABLE		
POINT	STATION	OUT
174	270+20.99	38.25'RT
175	269+50.50	37.23'RT

CURVE 11	CURVE 12	CURVE 13	CURVE 14	CURVE 15
PI STA. 254+54.21WB	PI STA. 257+15.56EB	PI STA. 260+30.26WB	PI STA. 136+69.55	PI STA. 263+93.85WB
Y=202302.650	Y=202416.102	Y=202394.550	Y=202363.800	Y=202504.420
X=279680.550	X=279900.291	X=280254.300	X=280242.370	X=280601.090
DELTA= 23°04'45" RT.	DELTA= 57°21'37" RT.	DELTA=8°28'45" LT.	DELTA= 52°47'50" RT.	DELTA= 22°18'44" RT.
T=184.93'	T=434.39'	T=49.67'	T=29.78'	T=183.40'
L=364.84'	L=794.98'	L=99.15'	L=55.29'	L=362.16'
R=905.75'	R=794.09'	R=670.00'	R=60.00'	R=930.00'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-03-28-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 6-17-15

DUANE A. HOLMAN
P.L.S. NUMBER 1294

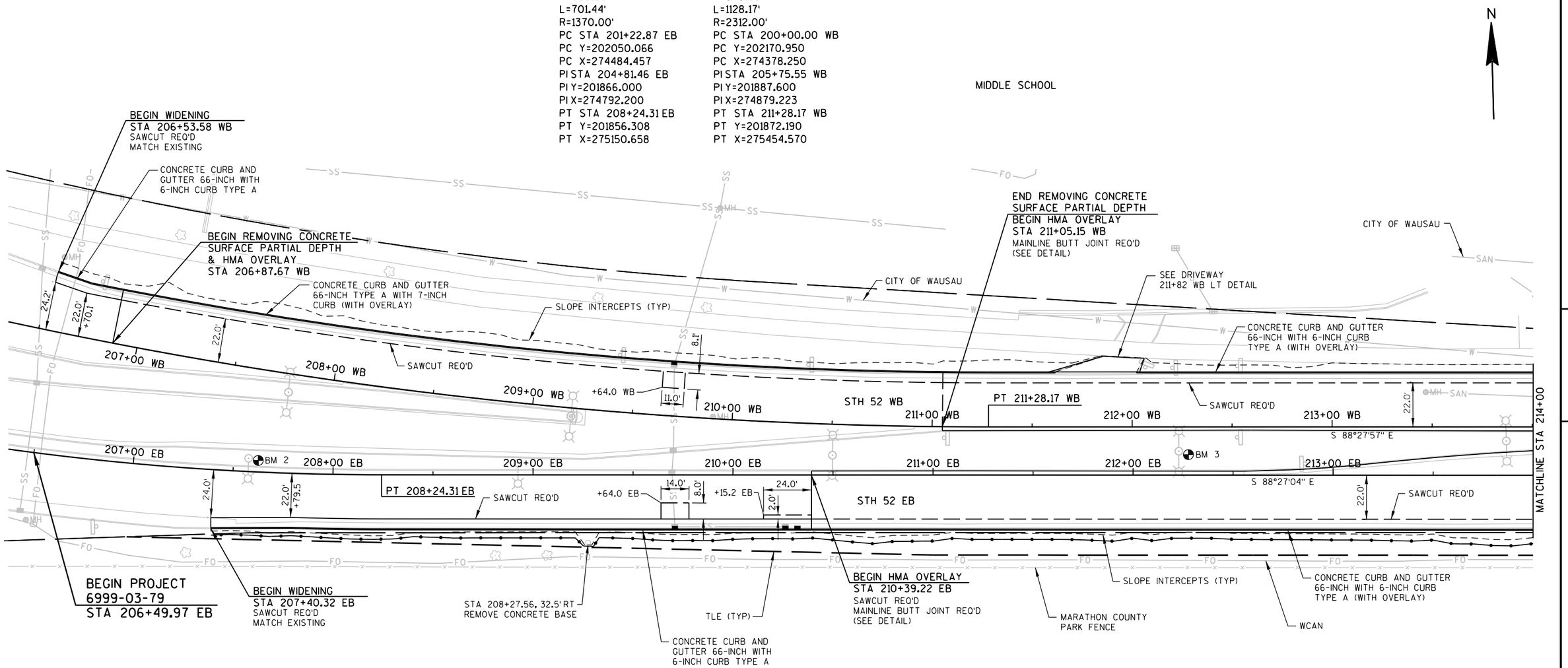
THIS PLAT IS APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: _____

JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

EB CURVE	WB CURVE
T=358.59'	T=575.55'
L=701.44'	L=1128.17'
R=1370.00'	R=2312.00'
PC STA 201+22.87 EB	PC STA 200+00.00 WB
PC Y=202050.066	PC Y=202170.950
PC X=274484.457	PC X=274378.250
PI STA 204+81.46 EB	PI STA 205+75.55 WB
PI Y=201866.000	PI Y=201887.600
PI X=274792.200	PI X=274879.223
PT STA 208+24.31 EB	PT STA 211+28.17 WB
PT Y=201856.308	PT Y=201872.190
PT X=275150.658	PT X=275454.570



EROSION CONTROL LEGEND

SILT FENCE

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
2	207+57.47 EB, 7.0' LT	NE BOLT ON LIGHT POLE IN STH 52 S MEDIAN, 3RD POLE E OF 17TH AVE & STH 52 INTERSECTION	1213.27
3	212+22.98 EB, 12.1' LT	NE BOLT ON LIGHT POLE IN STH 52 MEDIAN, 3RD POLE WEST OF S 12TH AVE.	1215.39

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 115	E

5

WB CURVE
T=89.17'
L=178.31'
R=4583.66'
PC STA 217+22.69 WB
PC Y=201851.2329
PC X=276048.6488
PI STA 218+11.86 WB
PI Y=201848.101
PI X=276137.760
PT STA 219+01.00 WB
PT Y=201848.4381
PT X=276226.9257

N

END WIDENING
STA 216+15.30 WB
MATCH EXISTING

EXISTING FLASHING BEACON, POLE AND BASE IN MEDIAN TO REMAIN IN PLACE.

SEE INTERSECTION DETAILS

STA 216+46.05 EB STH 52 =
STA 15+00.00 12TH AVE

SALVAGE AND RELOCATE LIGHT POLE

CONCRETE CURB AND GUTTER 66-INCH WITH 6-INCH CURB TYPE A (WITH OVERLAY)

16+00

12TH AVE

END CONSTRUCTION
STA 15+77.21
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

N 0°01'50" E

SAWCUT REQ'D

BM 4

CITY OF WAUSAU

STH 52 WB

END CONSTRUCTION
STA 25+73.27
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

11TH AVE

26+00

N 0°44'19" W

STA 216+46.05 EB STH 52 =
STA 15+00.00 11TH AVE

PI 215+01.64 WB
Y=201862.1910
X=275827.9030

PI 215+91.85 WB
Y=201855.8279
X=275917.8913

PC 217+22.69 WB

PT 219+01.00 WB

PT 218+66.67 EB

BM 5

MATCHLINE STA 214+00

215+00 WB

216+00 WB

217+00 WB

218+00 WB

219+00 WB

220+00 WB

S 85°57'19" E

S 87°59'15" E

215+00 EB

216+00 EB

217+00 EB

218+00 EB

219+00 EB

220+00 EB

MATCHLINE STA 221+00

PC 217+25.46 EB

SAWCUT REQ'D

SAWCUT REQ'D

+51.4 EB

19.7'

4.5'

+71.0 EB

STH 52 EB

3.0'

25.4'

22.0'

+65.0 EB

N 1°32'56" E

14+25

PARK ENTRANCE

CONCRETE CURB AND GUTTER 66-INCH WITH 6-INCH CURB TYPE A (WITH OVERLAY)

CITY OF WAUSAU (STREET LIGHTING)

SEE INTERSECTION DETAILS

CITY OF WAUSAU (SIGNALS)

STA 214+38.7 EB RT
REMOVE EXISTING FLASHING BEACON, POLE AND CONCRETE BASE, SEE CONSTRUCTION DETAILS.

MARATHON COUNTY PARK FENCE

BEGIN CONSTRUCTION
STA 14+28.61
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

FRONTIER COMMUNICATIONS

WCAN

SEE INTERSECTION DETAILS

STA 216+49.12 EB STH 52 =
STA 15+00.00 PARK ENTRANCE

CONCRETE CURB AND GUTTER 66-INCH WITH 6-INCH CURB TYPE A (WITH OVERLAY)

SLOPE INTERCEPTS (TYP)

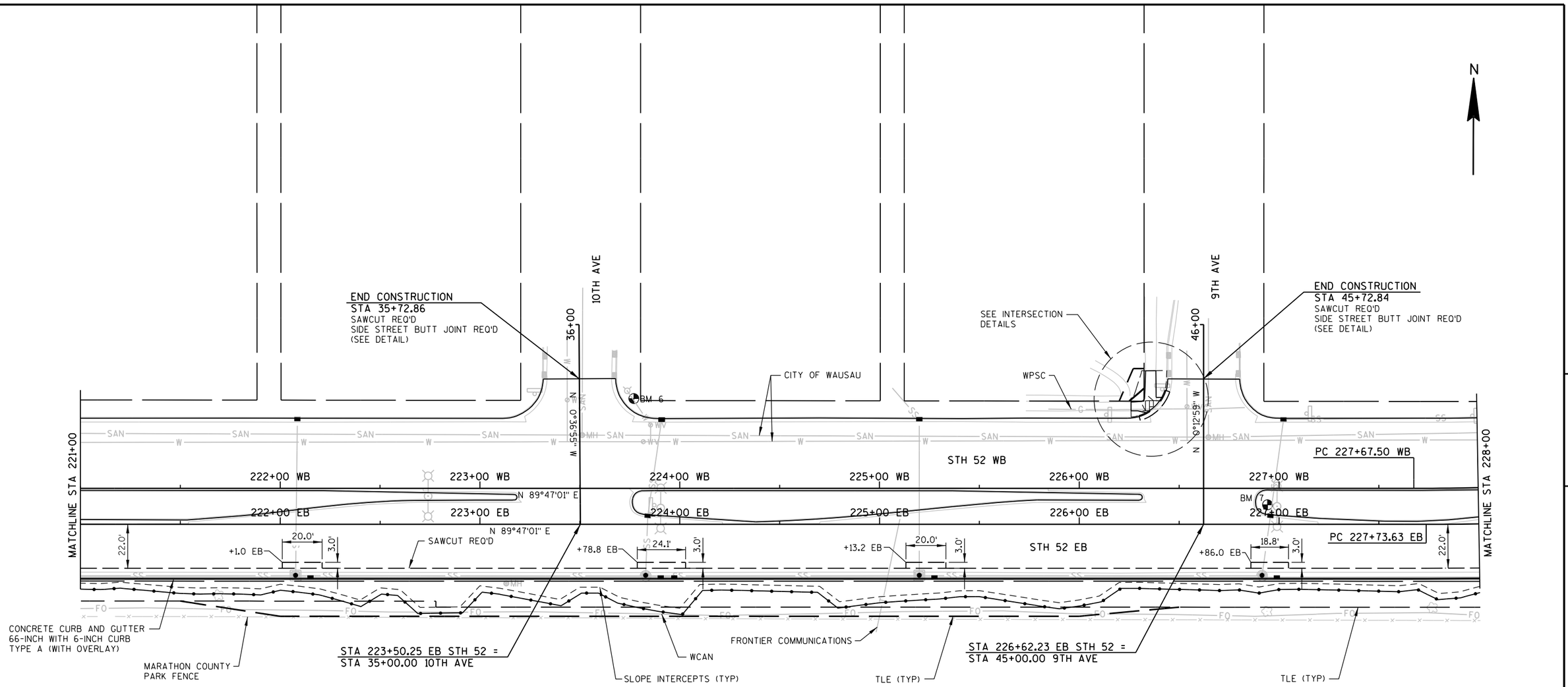
TLE (TYP)

EB CURVE
T=70.61'
L=141.21'
R=4583.66'
PC STA 217+25.46 EB
PC Y=201831.9506
PC X=276051.4742
PI STA 217+96.07 EB
PI Y=201830.042
PI X=276122.059
PT STA 218+66.67 EB
PT Y=201830.3086
PT X=276192.6686

EROSION CONTROL LEGEND
SILT FENCE

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
4	216+68.55 WB, 50.9'LT	NE FLANGE BOLT ON HYDRANT IN IN NE QUADS 12 AVE & STH 52	1218.60
5	219+36.96 EB, 14.7'LT	NE BOLT OF LIGHT POLE IN STH 52 MEDIAN. WEST SIDE OF S 11TH AVE	1224.91



EROSION CONTROL LEGEND

SILT FENCE

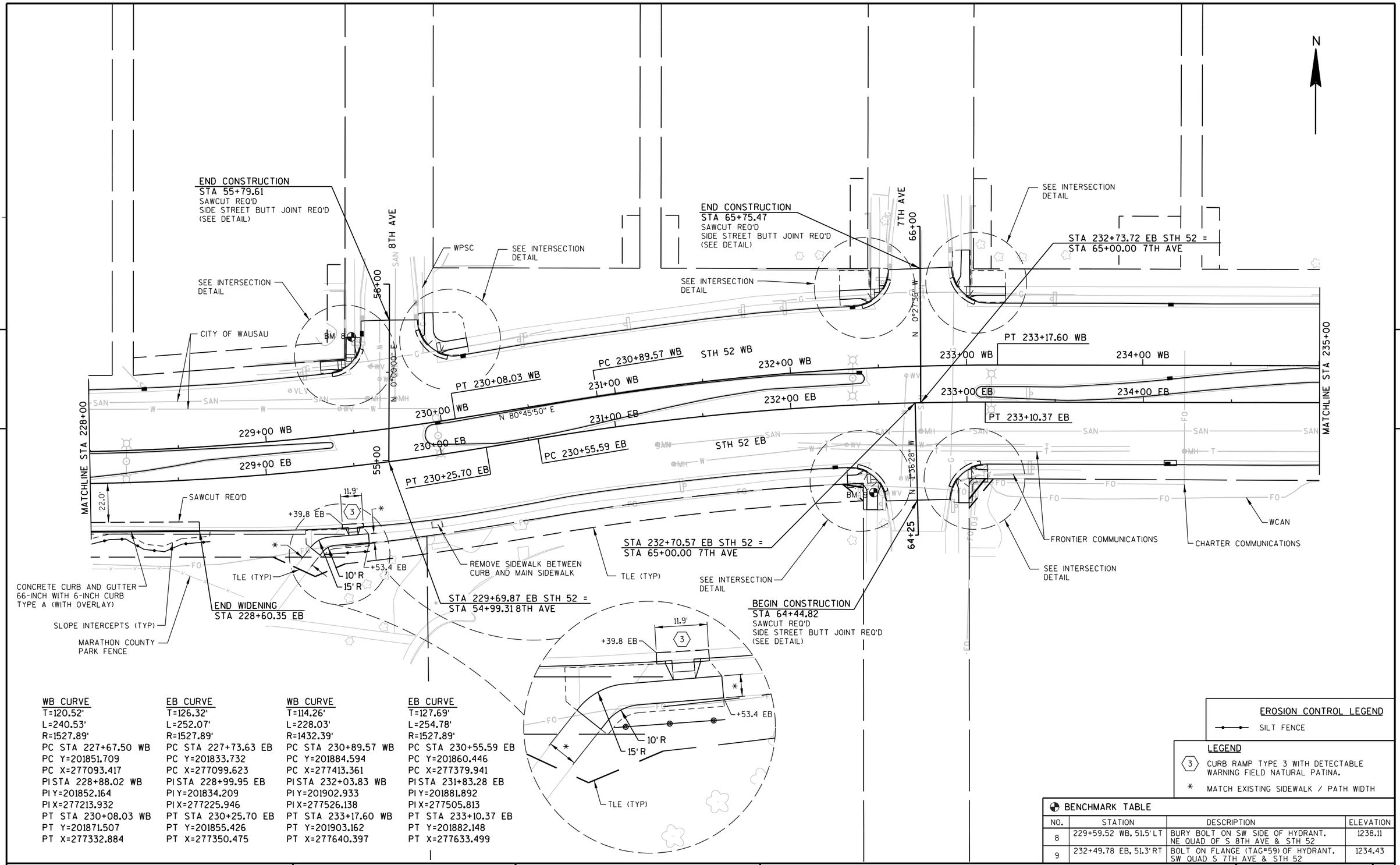
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
6	223+73.83 WB, 49.3'LT	BURY BOLT ON NE SIDE OF HYDRANT IN NE QUAD S 10TH AVE & STH 52	1232.33
7	226+98.96 EB, 10.0'LT	NE BOLT ON LIGHT POLE IN STH 52 MEDIAN. E SIDE OF S 9TH AVE	1236.53

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC3-1	226+24.32 WB STH 52 45+73.11 9TH AVE	55.1'LT 37.9'LT	20.0'	Y= 201906.274 X= 276950.029

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 117 E



WB CURVE	EB CURVE	WB CURVE	EB CURVE
T=120.52'	T=126.32'	T=114.26'	T=127.69'
L=240.53'	L=252.07'	L=228.03'	L=254.78'
R=1527.89'	R=1527.89'	R=1432.39'	R=1527.89'
PC STA 227+67.50 WB	PC STA 227+73.63 EB	PC STA 230+89.57 WB	PC STA 230+55.59 EB
PC Y=201851.709	PC Y=201833.732	PC Y=201884.594	PC Y=201860.446
PC X=277093.417	PC X=277099.623	PC X=277413.361	PC X=277379.941
PISTA 228+88.02 WB	PISTA 228+99.95 EB	PISTA 232+03.83 WB	PISTA 231+83.28 EB
PI Y=201852.164	PI Y=201834.209	PI Y=201902.933	PI Y=201881.892
PI X=277213.932	PI X=277225.946	PI X=277526.138	PI X=277505.813
PT STA 230+08.03 WB	PT STA 230+25.70 EB	PT STA 233+17.60 WB	PT STA 233+10.37 EB
PT Y=201871.507	PT Y=201855.426	PT Y=201903.162	PT Y=201882.148
PT X=277332.884	PT X=277350.475	PT X=277640.397	PT X=277633.499

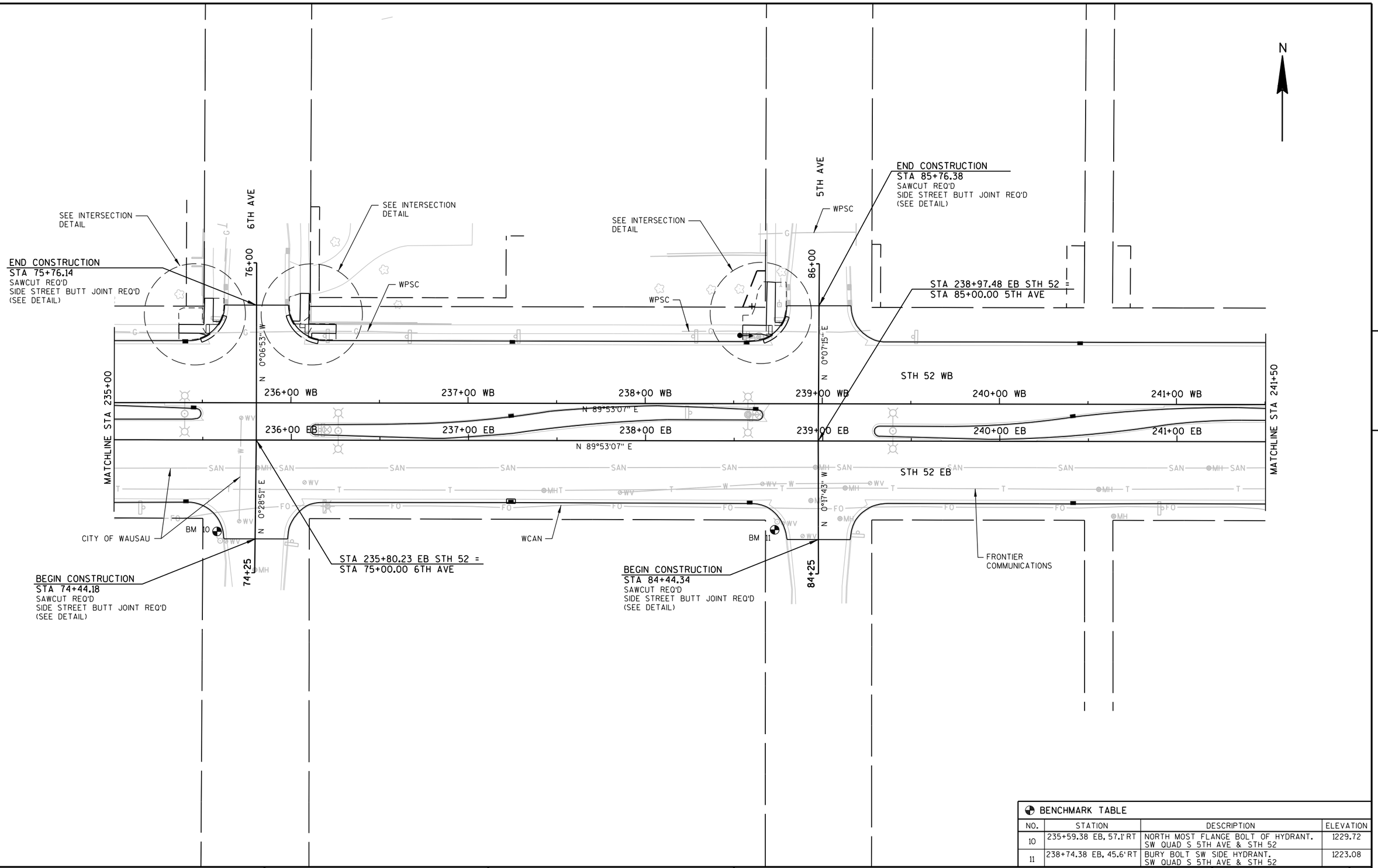
EROSION CONTROL LEGEND
SILT FENCE

LEGEND
(3) CURB RAMP TYPE 3 WITH DETECTABLE WARNING FIELD NATURAL PATINA.
* MATCH EXISTING SIDEWALK / PATH WIDTH

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
8	229+59.52 WB, 51.5' LT	BURY BOLT ON SW SIDE OF HYDRANT. NE QUAD OF S 8TH AVE & STH 52	1238.11
9	232+49.78 EB, 51.3' RT	BOLT ON FLANGE (TAG#59) OF HYDRANT. SW QUAD S 7TH AVE & STH 52	1234.43

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 118	E



5

5

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
10	235+59.38 EB, 57.1' RT	NORTH MOST FLANGE BOLT OF HYDRANT. SW QUAD S 5TH AVE & STH 52	1229.72
11	238+74.38 EB, 45.6' RT	BURY BOLT SW SIDE HYDRANT. SW QUAD S 5TH AVE & STH 52	1223.08

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 119	E

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
12	242+36.11 EB, 49.2' RT	"O" ON HYDRANT. SE QUAD S 4TH AVE & STH 52	1211.29
13	245+43.43 EB, 48.7' RT	NORTH BOLT OF ABANDONED LIGHT BASE. SE QUAD S 3RD AVE & STH 52	1206.84

WB CURVE
T=320.21'
L=624.50'
R=1145.92'
PC STA 244+18.79 WB
PC Y=201907.939
PC X=278741.558
PI STA 247+39.00 WB
PI Y=201913.272
PI X=279061.729
PT STA 250+43.29 WB
PT Y=202083.808
PT X=279332.754

N

END CONSTRUCTION
STA 95+76.15
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

END CONSTRUCTION
STA 105+82.00
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

STA 245+09.83 EB STH 52 =
STA 105+00.00 3RD AVE

4TH AVE
3RD AVE
96+00
106+00
MATCHLINE STA 241+50
MATCHLINE STA 248+00
N 0°04'29" E
N 0°31'14" W
N 89°02'45" E
N 0°16'08" W
N 0°00'00" E

STA 242+14.69 EB STH 52 =
STA 95+00.00 5TH AVE

CITY OF WAUSAU
(STREET LIGHTING)

PI 242+43.32 WB
Y=201905.0170
X=278566.1109

PC 244+18.79 WB

+43.5 WB
9.2'
17.2'

242+00 WB
243+00 WB
244+00 WB
245+00 WB
246+00 WB
247+00 WB
242+00 EB
243+00 EB
244+00 EB
245+00 EB
246+00 EB
247+00 EB

STH 52 WB
STH 52 EB

PI 242+43.18 EB
Y=201884.0174
X=278566.3068

PC 244+88.72 EB
22.2'
+34.8 EB
22.5'
+94.9 EB
11.0'
+84.6 EB
4.6'
12.9'

BM 12
BM 13
FOUND

FRONTIER COMMUNICATIONS
WCAN
WPSC
SLOPE INTERCEPTS (TYP)
TLE (TYP)

30" LP BASE
7" WIDE CONCRETE CURB
RETAINING WALL - 16" HIGH

STA 245+43.30 EB, 49.5' RT
REMOVE CONCRETE BASE

STA 245+13.39 EB STH 52 =
STA 105+00.00 3RD AVE

BEGIN CONSTRUCTION
STA 94+44.84
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

94+25
104+00

STA 242+13.36 EB STH 52 =
STA 95+00.00 4TH AVE

BEGIN CONSTRUCTION
STA 104+21.00
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

EB CURVE
T=256.17'
L=499.59'
R=916.73'
PC STA 244+88.72 EB
PC Y=201888.107
PC X=278811.813
PI STA 247+44.89 EB
PI Y=201892.373
PI X=279067.946
PT STA 249+88.32 EB
PT Y=202028.800
PT X=279284.764

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 120	E

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
14	249+26.05 EB, 52.4' RT	PINK BOLT ON N SIDE LT BLUE TOWER. S SIDE STH 52 E OF S 2ND AVE	1207.60

END CONSTRUCTION
STA 116+25.53
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

2ND AVE

116+50

116+00

N 0°05'16" E

SAWCUT REQ'D

SEE INTERSECTION DETAILS

CONNECTION FROM CUL-DE-SAC

RECONSTRUCT ISLAND
(SEE INTERSECTION DETAIL)

RECONSTRUCT ISLAND
(SEE DETAIL)

END CONSTRUCTION
STA 125+92.46
SAWCUT REQ'D
SIDE STREET BUTT JOINT REQ'D
(SEE DETAIL)

SLOPE INTERCEPTS (TYP)

126+00

N 0°15'03" E

1ST AVE

127+50

127+00

END CONSTRUCTION
STA 253+13.21 WB
SAWCUT REQ'D
MAINLINE BUTT JOINT REQ'D
TO MATCH NEW CONCRETE
PAVEMENT ON PROJECT
6999-03-80

CITY OF WAUSAU

CITY OF WAUSAU
(STREET LIGHTING)

MATCHLINE STA 248+00

STH 52 WB

PT 250+43.29 WB

249+00 WB

250+00 WB

251+00 WB

252+00 WB

PC 252+69.28 WB

253+00 WB

254+00 WB

255+00 WB

N 57°49'15" E

249+00 EB

250+00 EB

251+00 EB

252+00 EB

253+00 EB

254+00 EB

255+00 EB

N 57°49'16" E

PT 249+88.32 EB

STH 52 EB

PC 252+81.16 EB

125+00

BM 14

WCAN

STA 248+23.02 STH 52 EB =
STA 115+00.00 2ND AVE

END HMA PAVEMENT
BEGIN SIDE STREET
BUTT JOINT
STA 124+35.47

124+00

N 0°00'00" E

STA 252+39.53 STH 52 EB =
STA 125+00.00 1ST AVE

END PROJECT
6999-03-79
STA 253+35.81 EB
SAWCUT REQ'D
MAINLINE BUTT JOINT REQ'D
TO MATCH NEW CONCRETE
PAVEMENT ON PROJECT
6999-03-80

CITY OF WAUSAU
(STREET LIGHTING)

TLE (TYP)

END CONCRETE PAVEMENT
BEGIN HMA PAVEMENT
STA 123+65.92

BEGIN CONCRETE PAVEMENT
STA 123+44.00
SAWCUT REQ'D

BEGIN HMA PAVEMENT
STA 124+20.83
(EDGE OF CROSSING)

END HMA PAVEMENT
STA 124+08.92
(EDGE OF CROSSING)

FRONTIER COMMUNICATIONS

123+00

CITY OF WAUSAU

WPSC

EB CURVE	WB CURVE
T=256.17'	T=320.21'
L=499.59'	L=624.50'
R=916.73'	R=1145.92'
PC STA 244+88.72 EB	PC STA 244+18.79 WB
PC Y=201888.107	PC Y=201907.939
PC X=278811.813	PC X=278741.558
PI STA 247+44.89 EB	PI STA 247+39.00 WB
PI Y=201892.373	PI Y=201913.272
PI X=279067.946	PI X=279061.729
PT STA 249+88.32 EB	PT STA 250+43.29 WB
PT Y=202028.800	PT Y=202083.808
PT X=279284.764	PT X=279332.754

EB CURVE	WB CURVE
T=434.39'	T=184.93'
L=794.98'	L=364.84'
R=794.09'	R=905.75'
PC STA 252+81.16 EB	PC STA 252+69.28 WB
PC Y=202184.759	PC Y=202204.163
PC X=279532.626	PC X=279524.029
PI STA 257+15.56 EB	PI STA 254+54.21 WB
PI Y=202416.102	PI Y=202302.650
PI X=279900.291	PI X=279680.550
PT STA 260+76.15 EB	PT STA 256+34.12 WB
PT Y=202231.275	PT Y=202331.898
PT X=280293.403	PT X=279863.151

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	PLAN	SHEET 121	E

Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
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
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09E01-14A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-14B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-14C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F09-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F11-04	LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C15-06A	CONCRETE BASE
13C15-06B	CONCRETE BASE
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
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)
15C09-09A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-03A	BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C29-03F	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE

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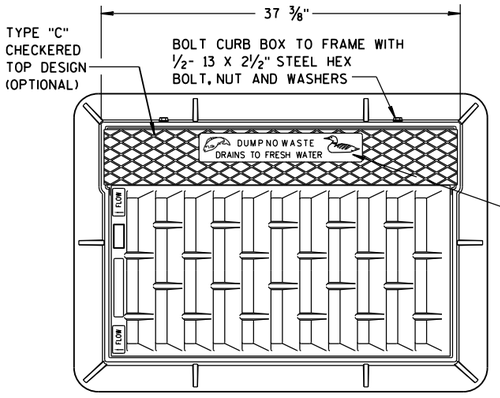
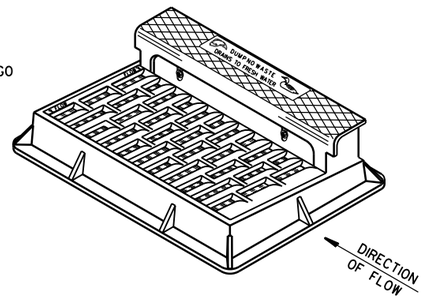
Standard Detail Drawing List

15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

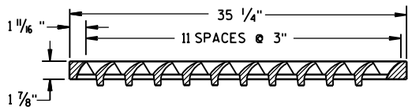
6

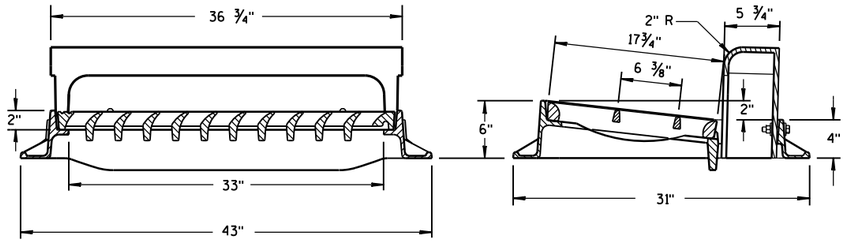


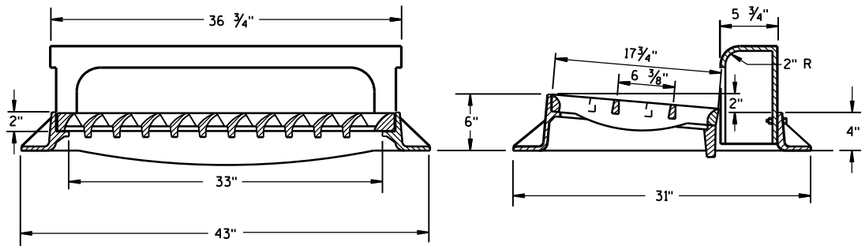
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

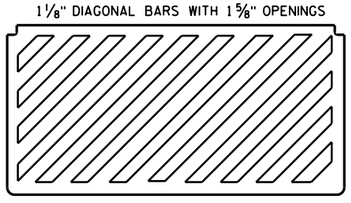






TYPE "H"

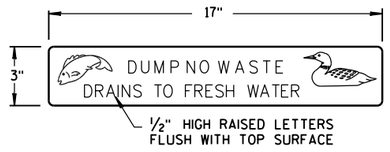
NOTE: EITHER CASTING IS ACCEPTABLE



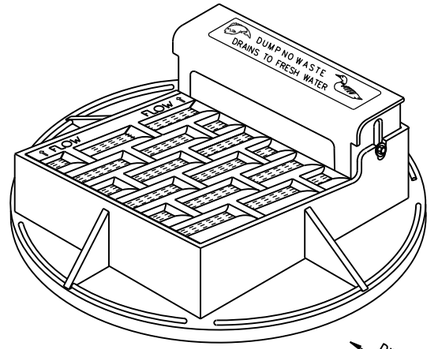
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

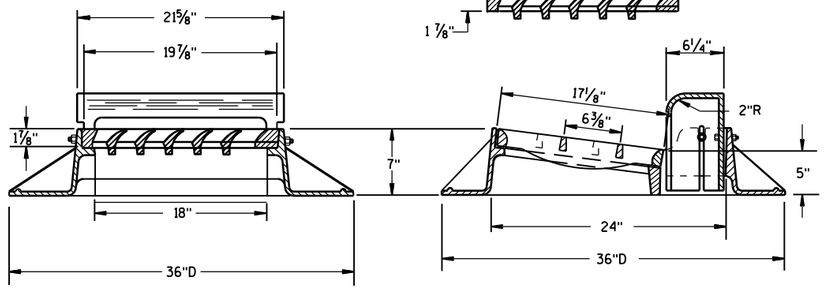


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



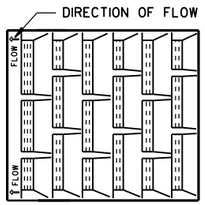
TYPE "A"

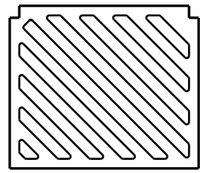
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

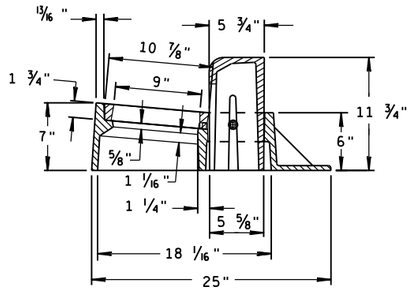


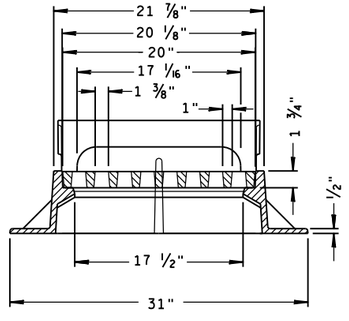


SPECIAL GRATE FOR TYPE "A" COVER

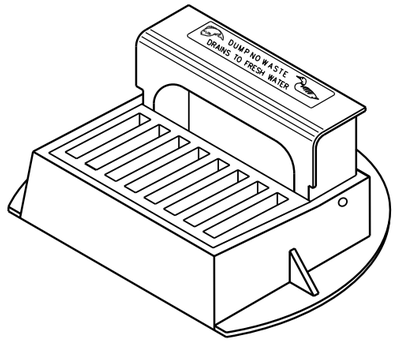
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"

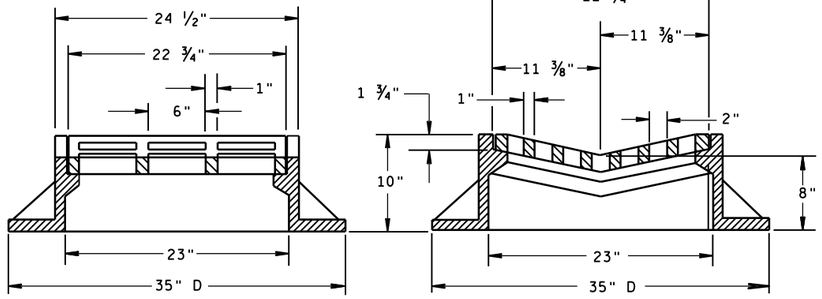


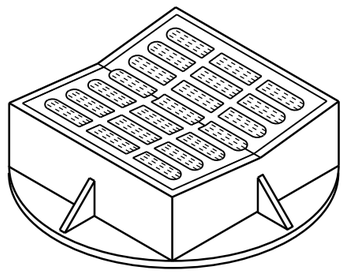
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

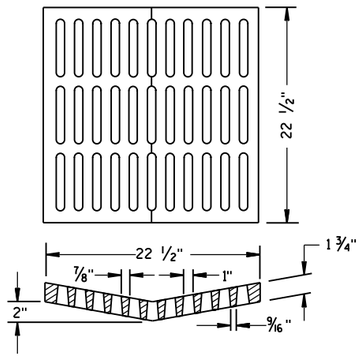
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 A 5-19a



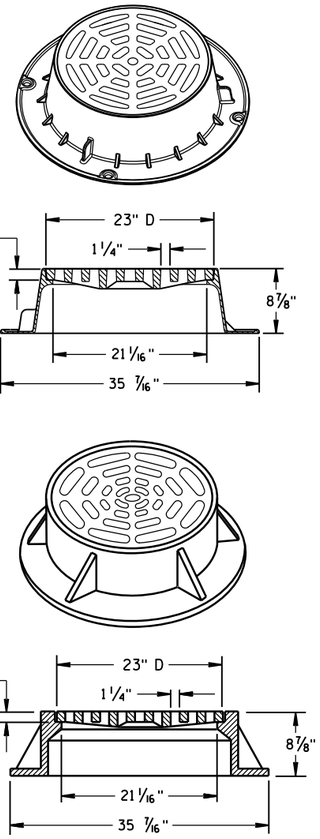


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

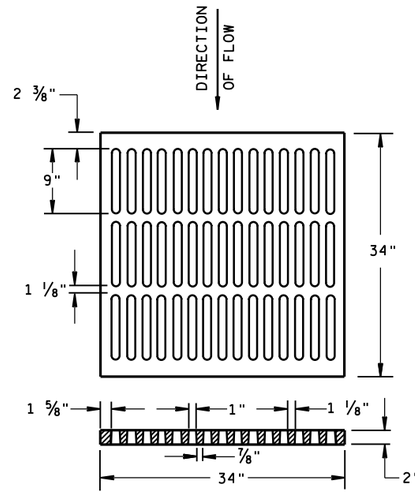
NOTE: EITHER CASTING IS ACCEPTABLE

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.

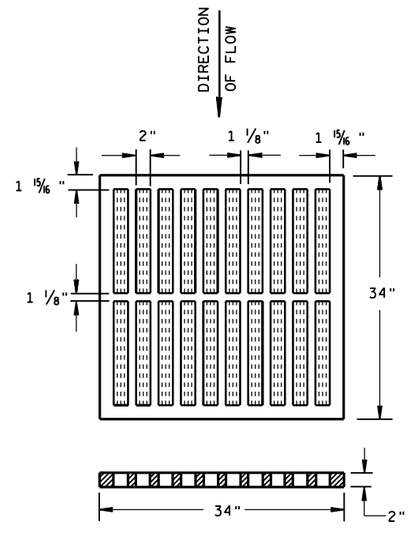
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



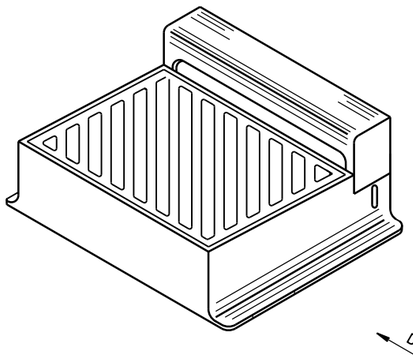
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

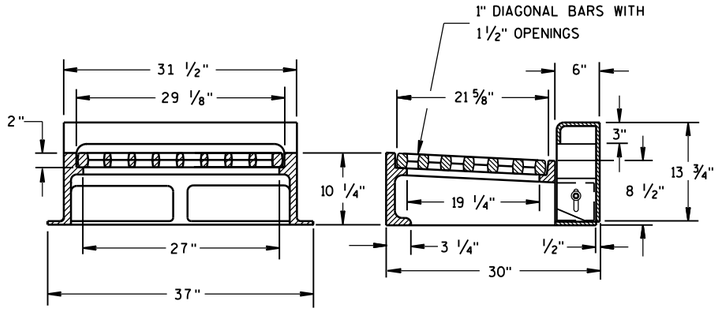


TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

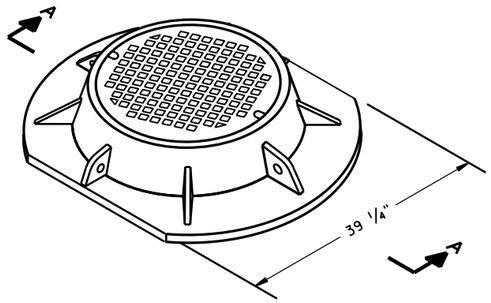
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

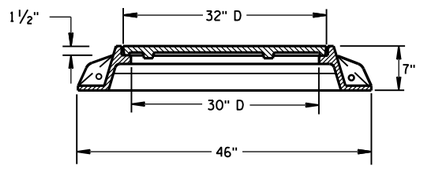
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

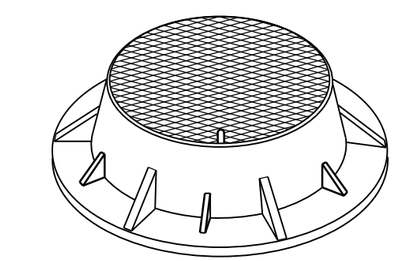
6

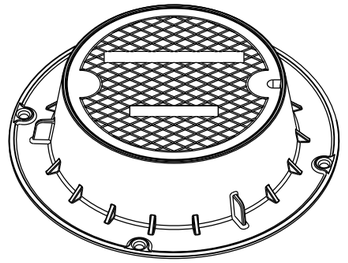
S.D.D. 8 A 5-19b

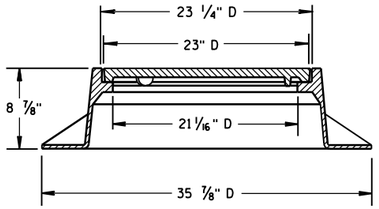


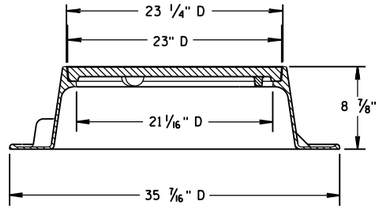


SECTION A-A
TYPE "K"









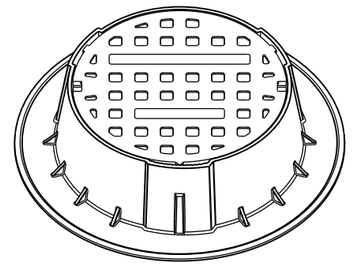
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

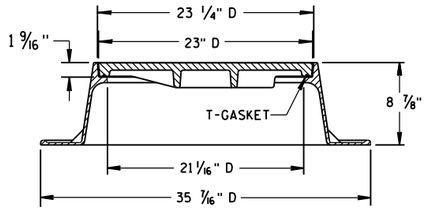
GENERAL NOTES

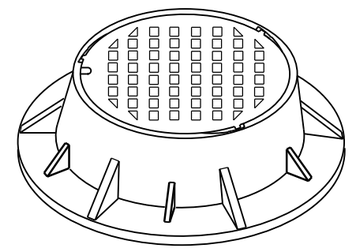
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

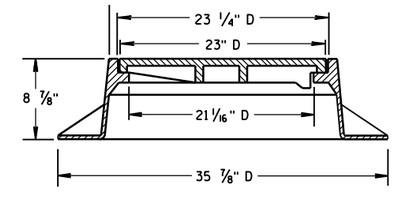
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

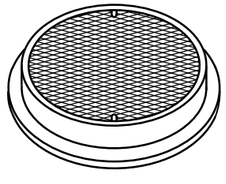


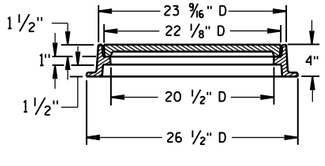






TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE





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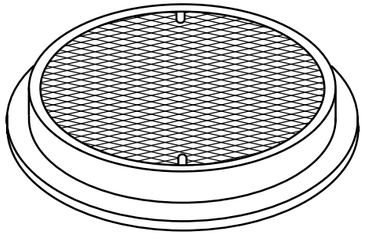
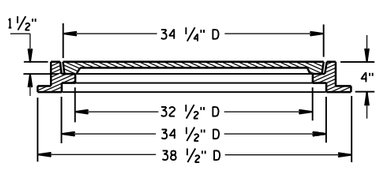
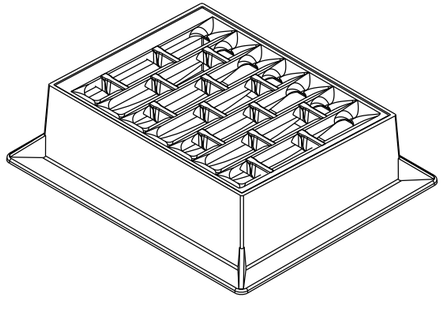
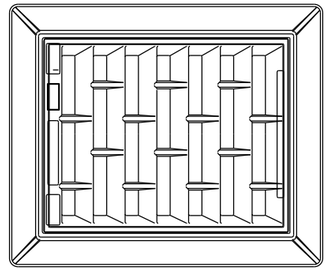
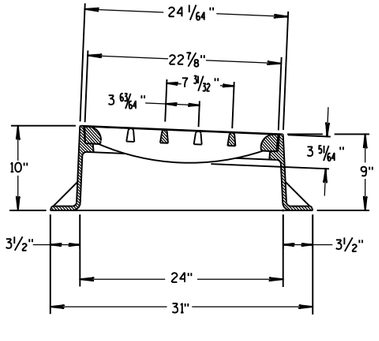


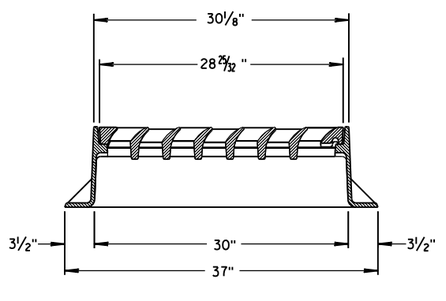


TYPE "M"









INLET COVER TYPE "BW"

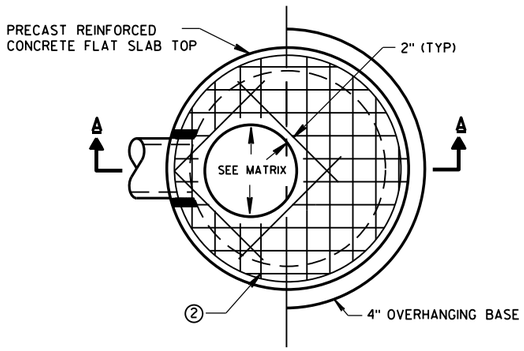
INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

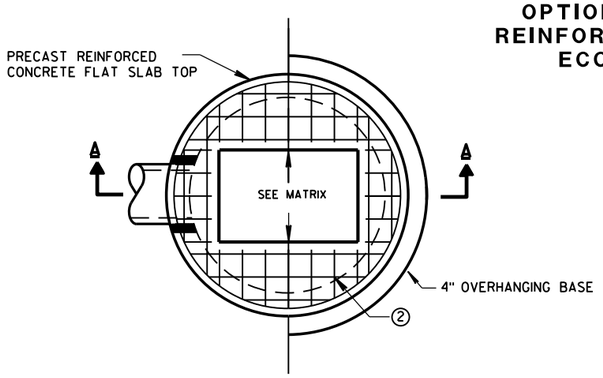
APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

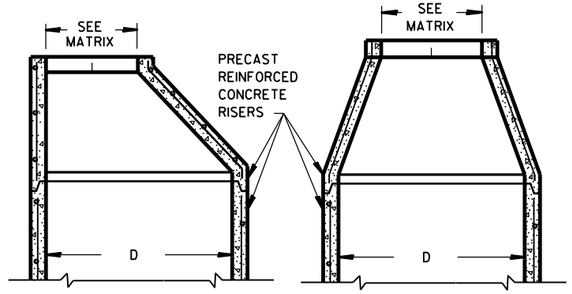
S.D.D. 8 A 5-19d



PLAN VIEW CIRCULAR OPENING

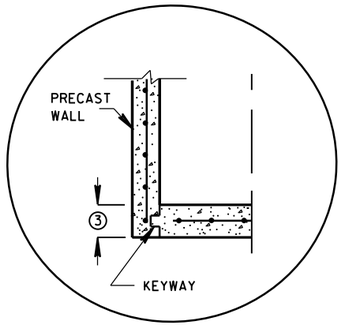


PLAN VIEW RECTANGULAR OPENING

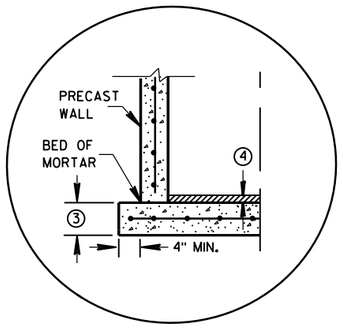


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

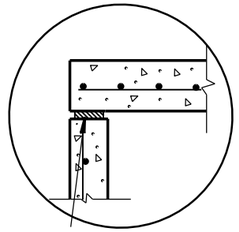


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



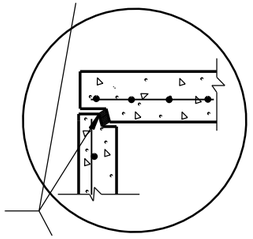
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

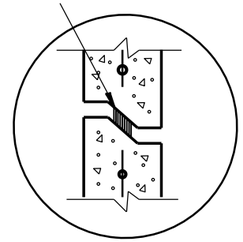


TOP WITH PLAIN END JOINT

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

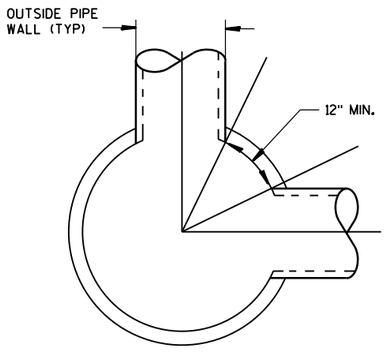


TOP WITH TONGUE AND GROOVE JOINT

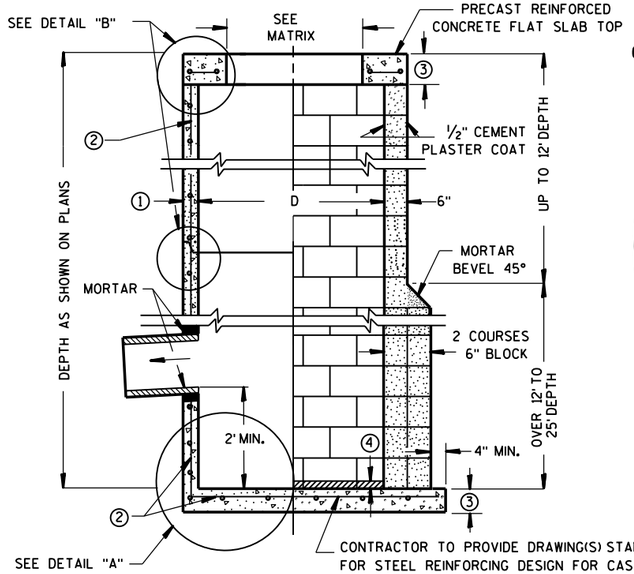


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

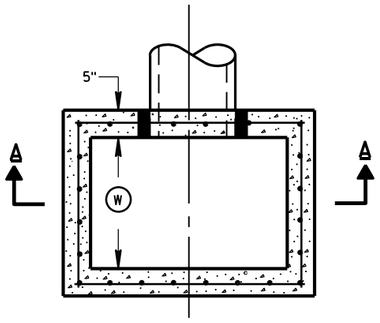
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

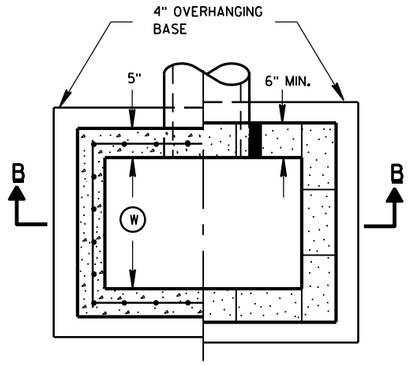
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

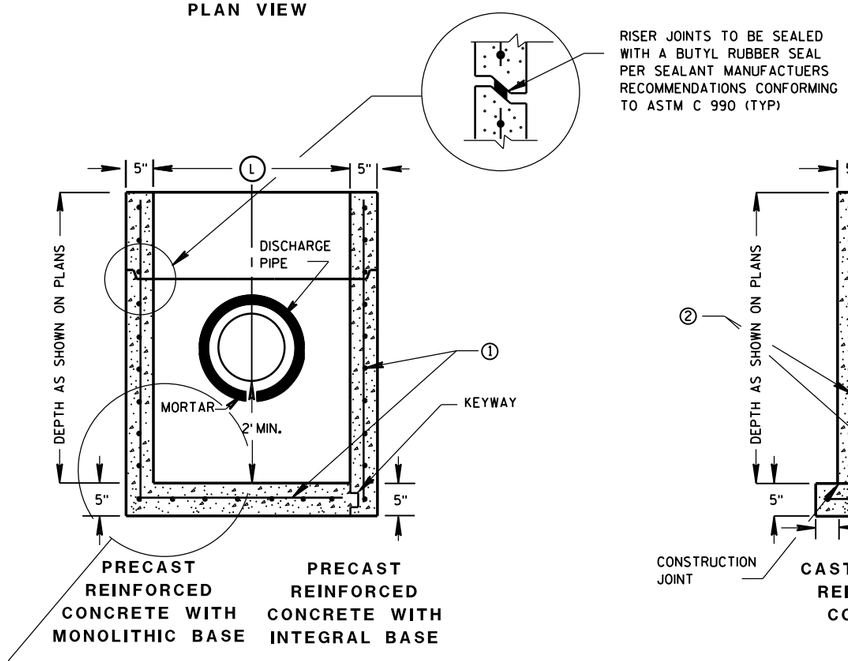
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER



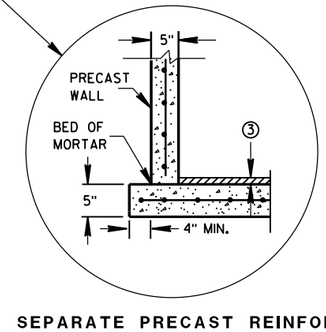
PLAN VIEW



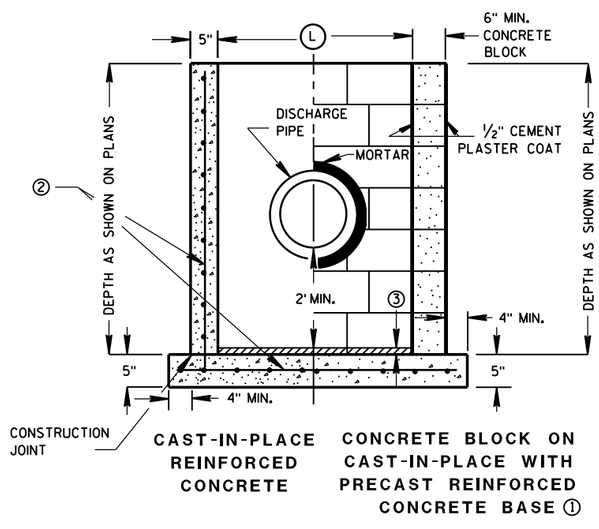
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

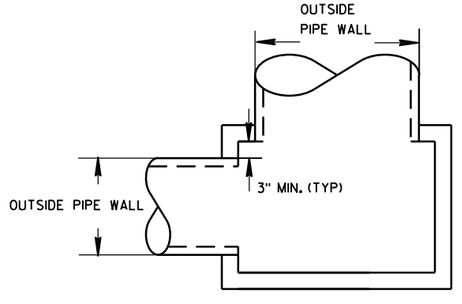
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

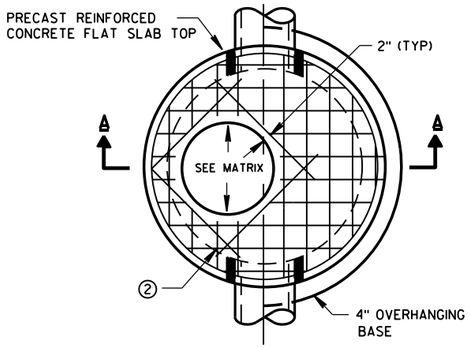
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

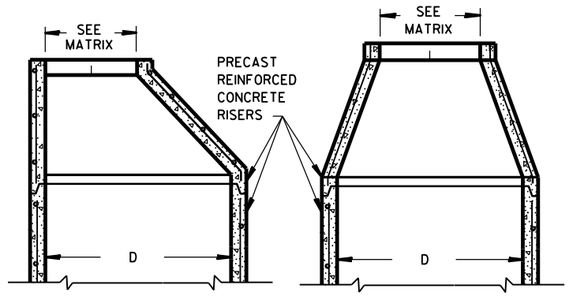
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 A 9-1

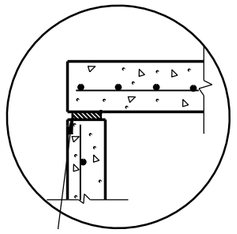


PLAN VIEW CIRCULAR OPENING

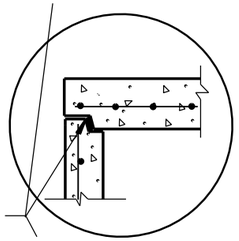


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

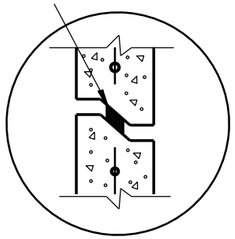


TOP WITH PLAIN END JOINT



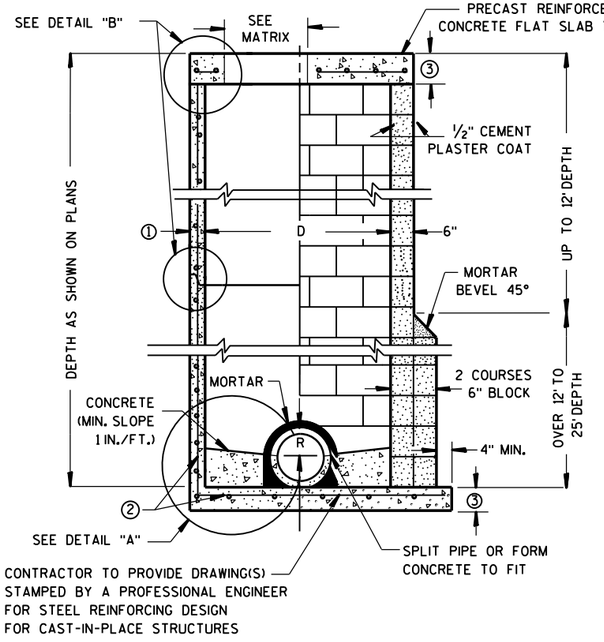
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



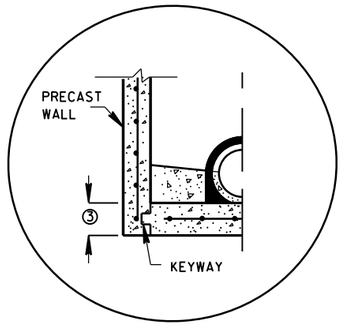
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

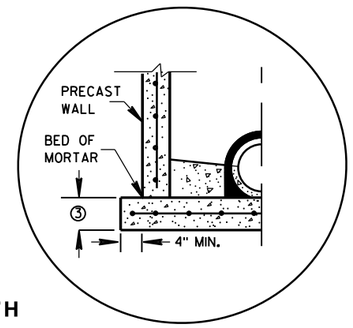


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

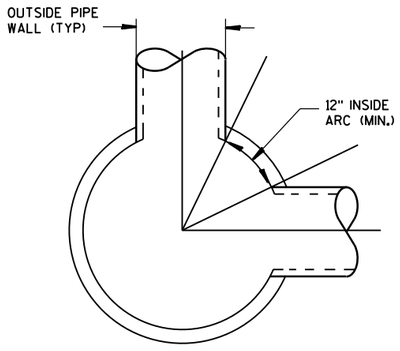


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

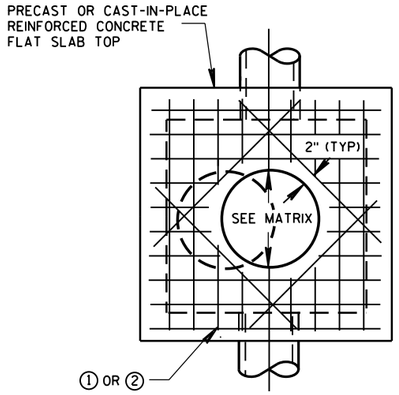
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

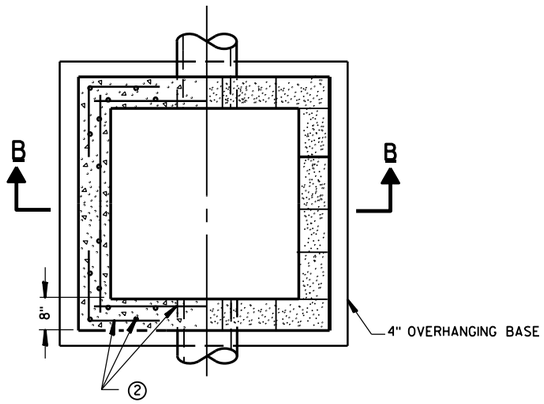
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

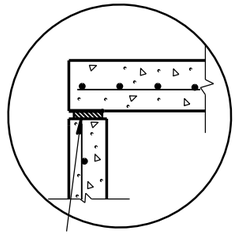
6
S.D.D. 8 B 9-1



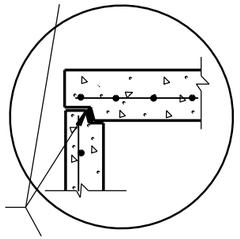
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

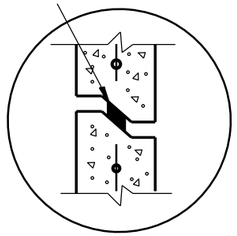


TOP WITH PLAIN END JOINT



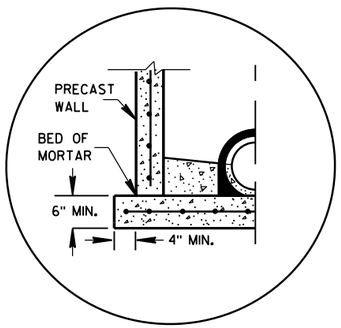
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



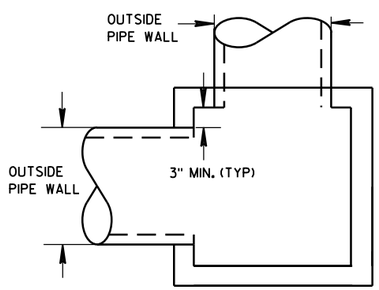
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

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

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

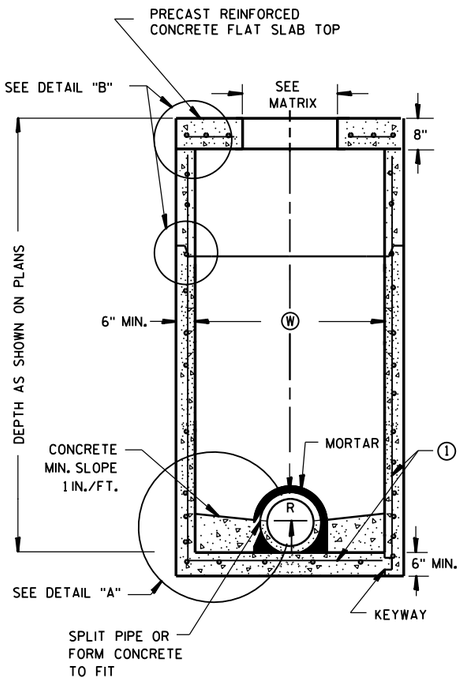
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

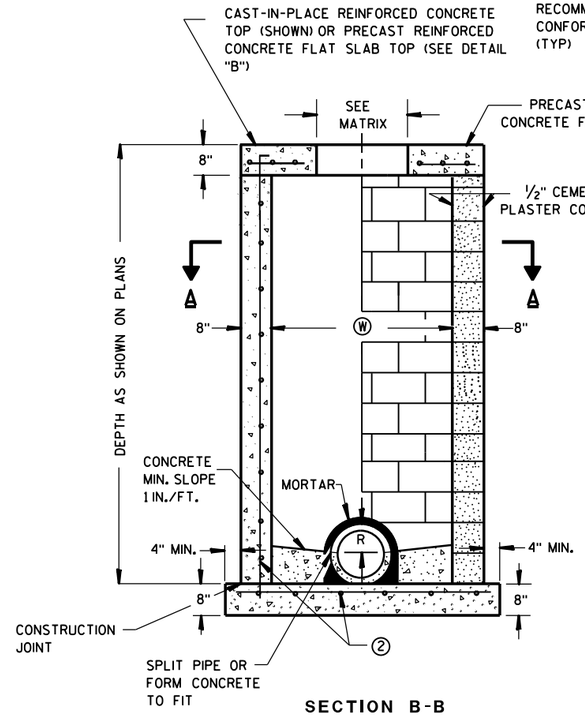
MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE



SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 B 10-1

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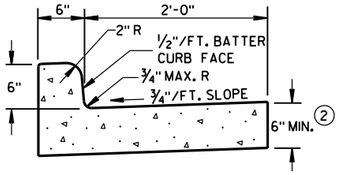
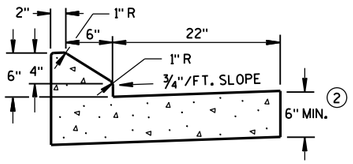
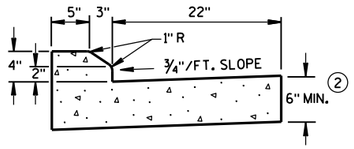
S.D.D. 8 B 10-1



TYPES A & D ①

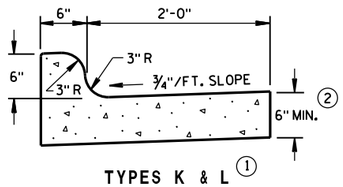


6" SLOPED CURB TYPES G & J ①

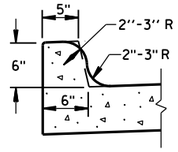


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

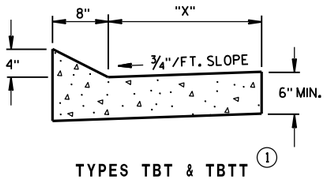


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

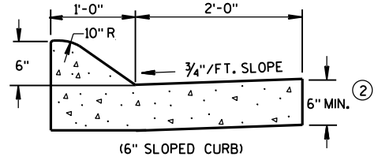
CONCRETE CURB & GUTTER 30"



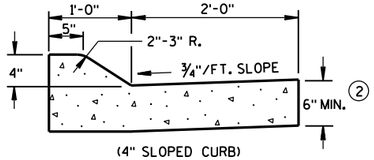
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

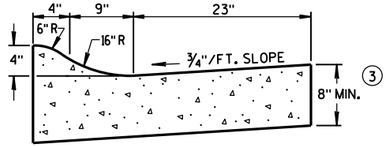


(6" SLOPED CURB)



(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.

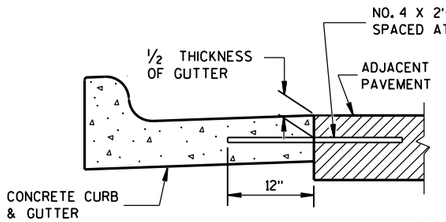
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

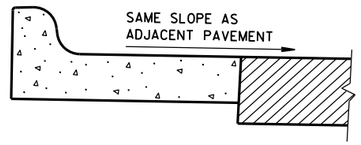
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

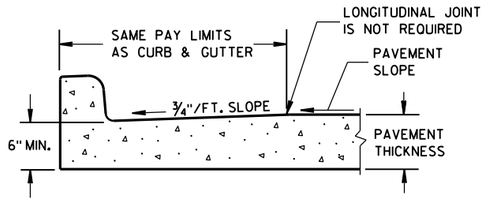
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



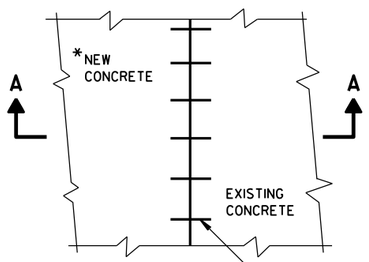
TYPICAL TIE BAR LOCATION ①



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

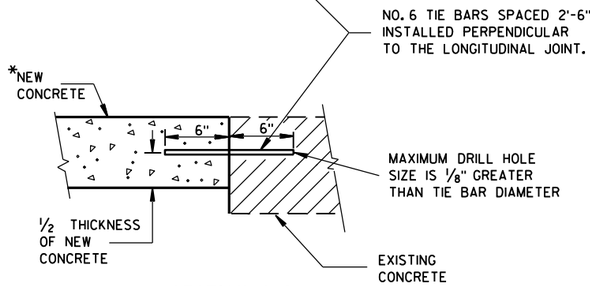


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



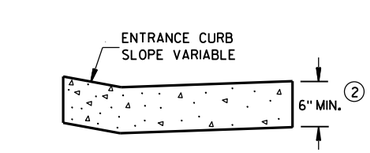
PLAN VIEW

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

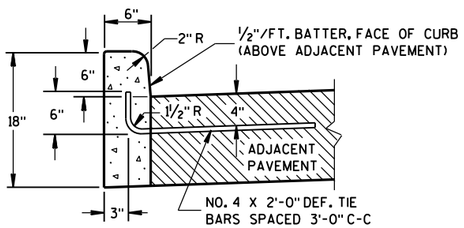


SECTION A-A

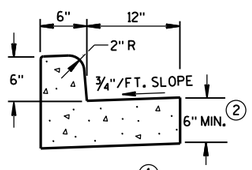
TIE BARS DRILLED
INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

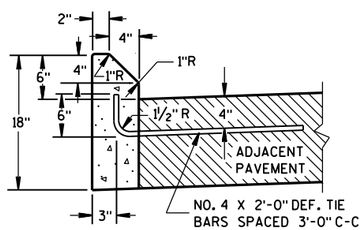


① TYPES A & D

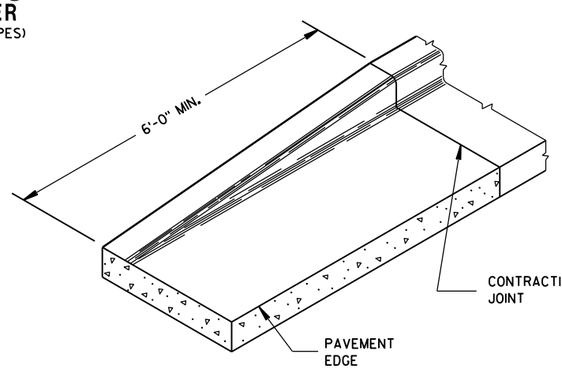


① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

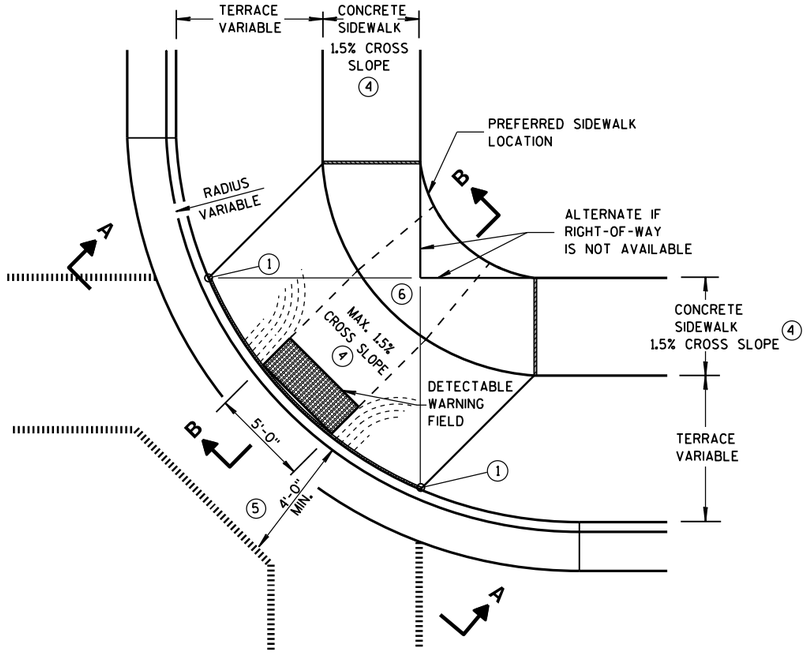
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

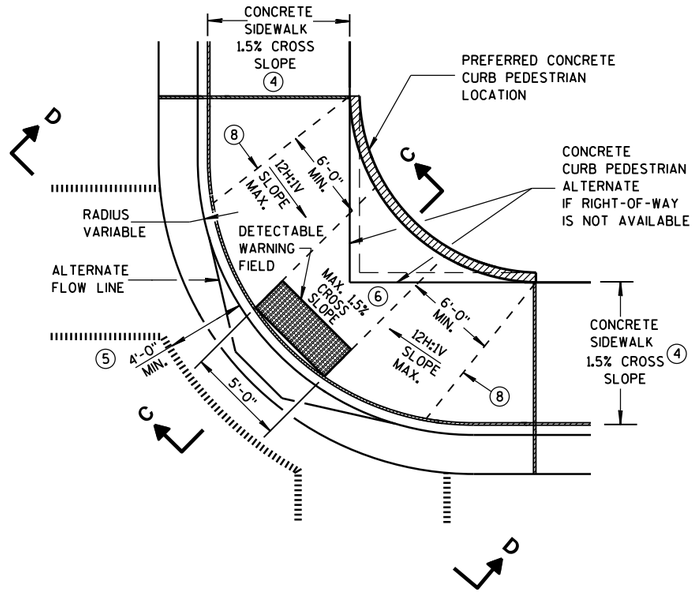
S.D.D. 8 D 1-18



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.

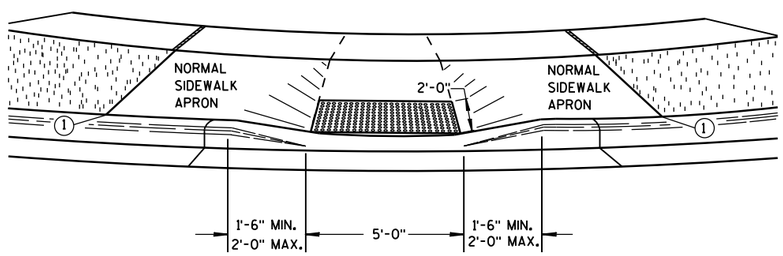
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

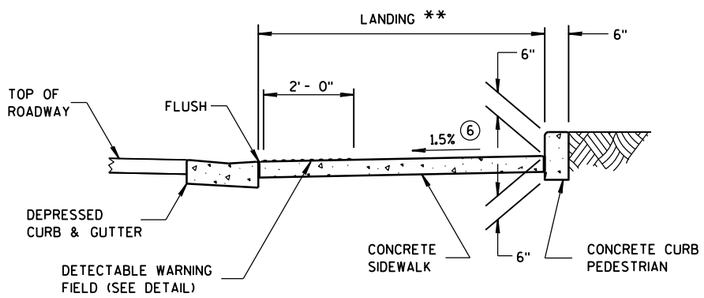
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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



VIEW A-A

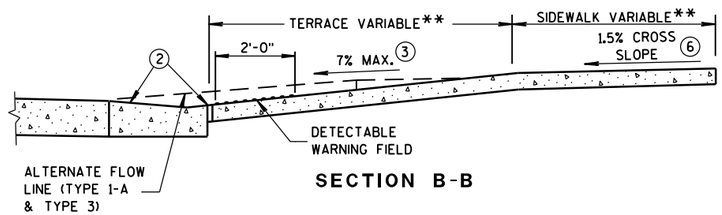
** WIDTH SHOWN ELSEWHERE IN THE PLANS



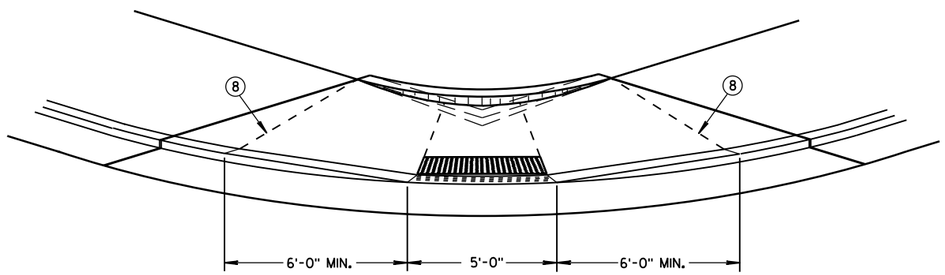
SECTION C-C

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

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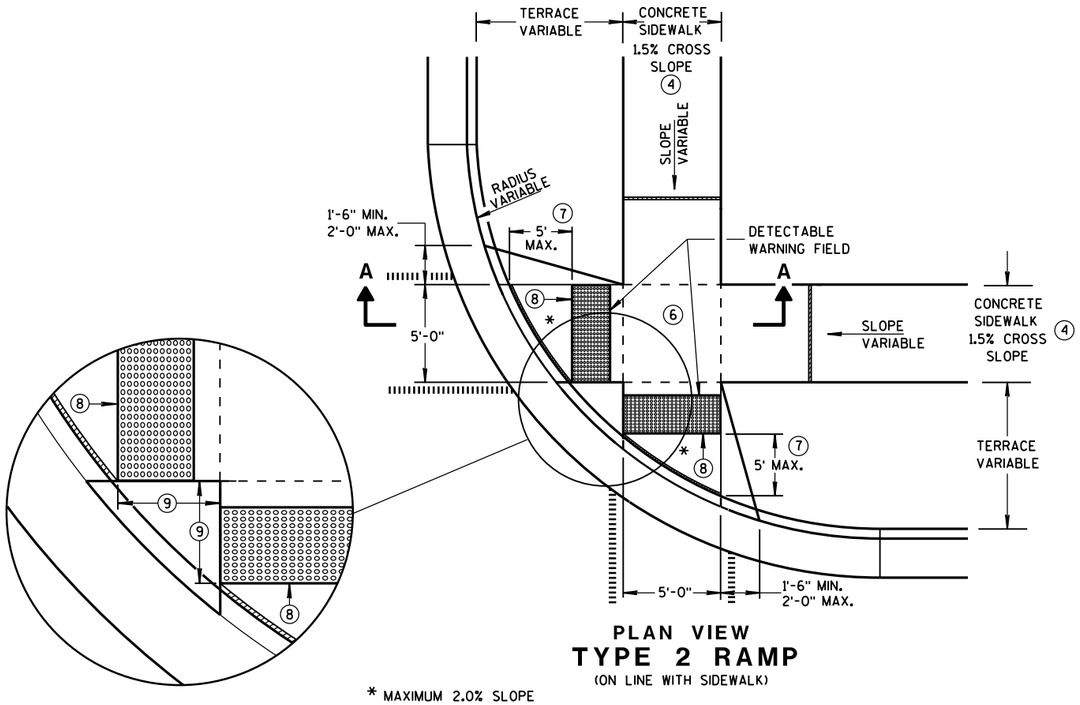
S.D.D. 8 D 5-16a

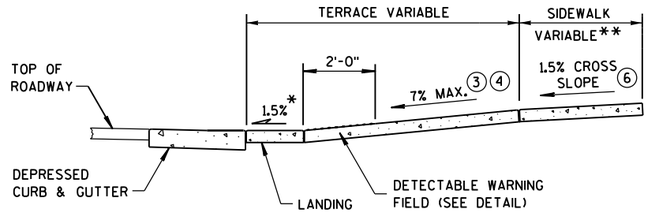


PLAN VIEW

TYPE 2 RAMP

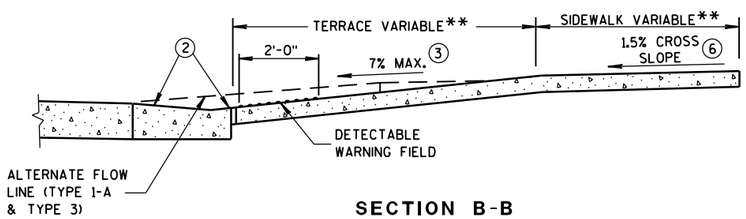
(ON LINE WITH SIDEWALK)

* 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).

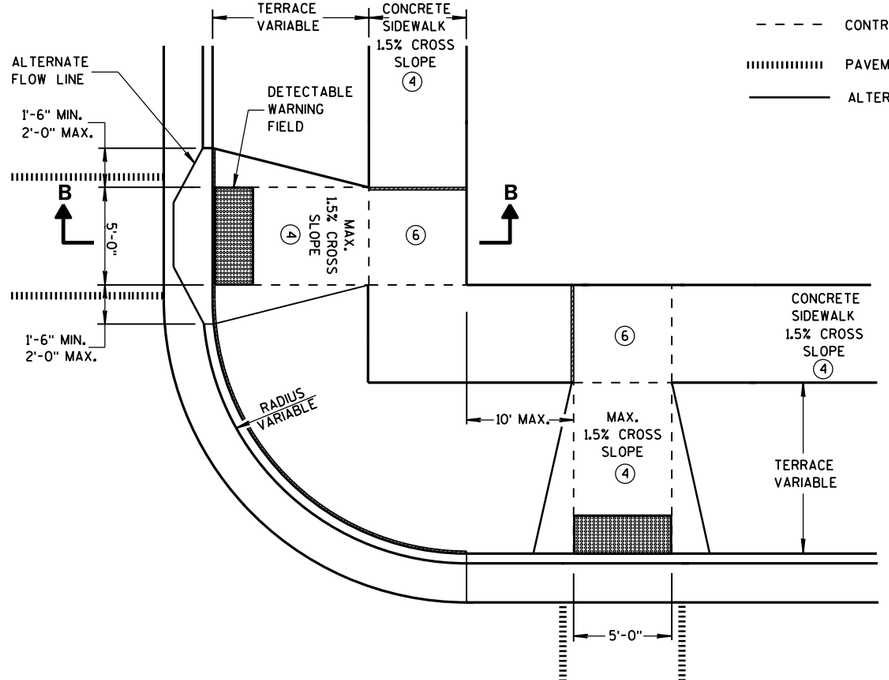
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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

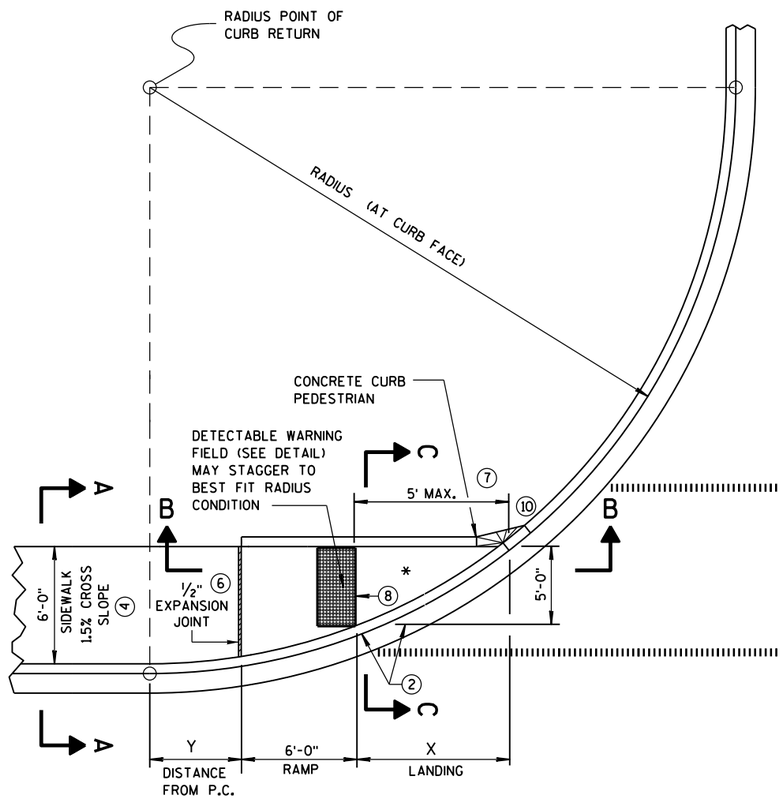
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

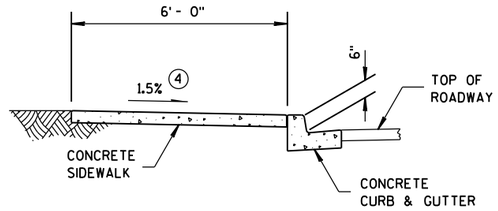
S.D.D. 8 D 5-16b



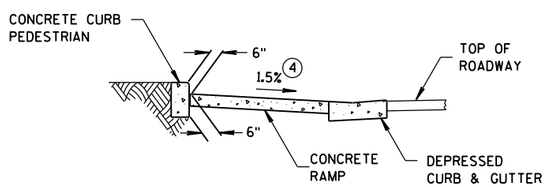
CURB RAMP TYPE 4A
PLAN VIEW

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"

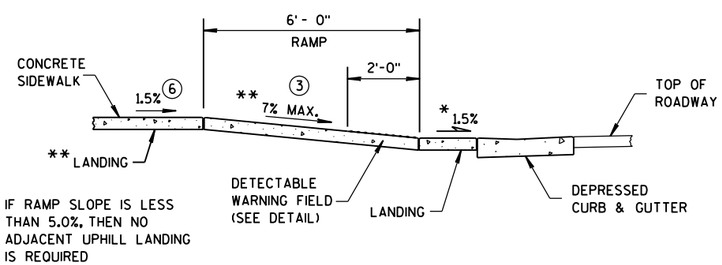
INTERMEDIATE RADII CAN BE INTERPOLATED



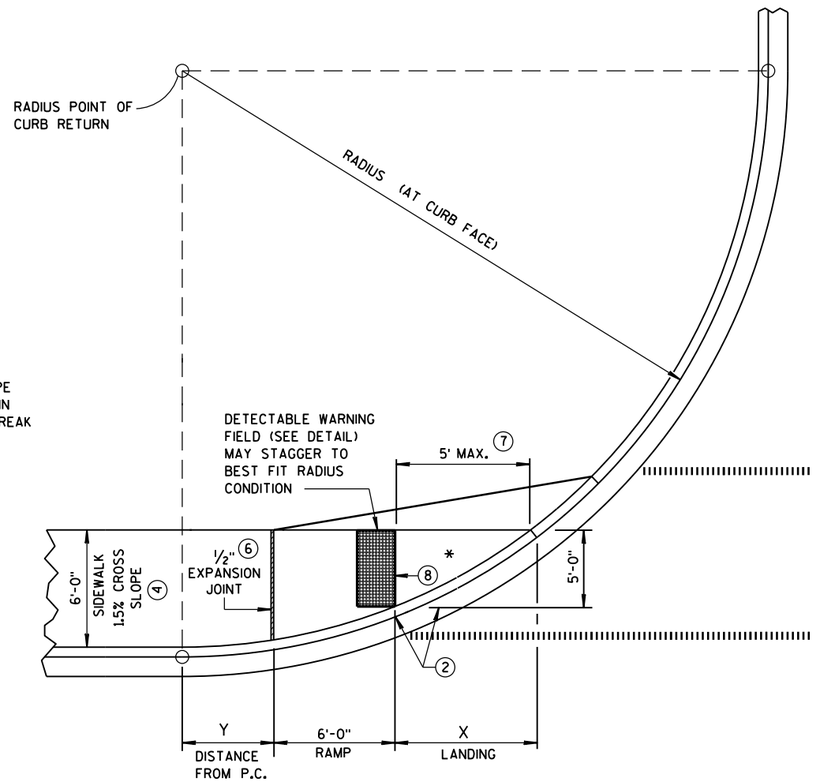
SECTION A-A FOR TYPE 4A



SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A



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.

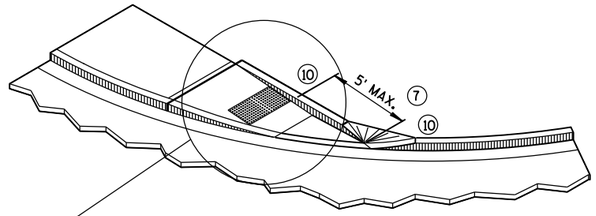
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

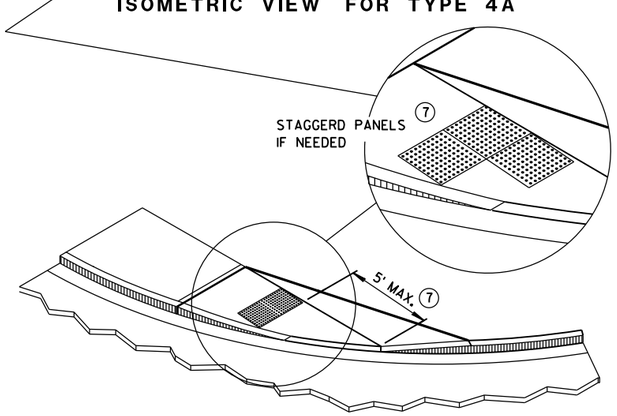
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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 TRANSPO

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

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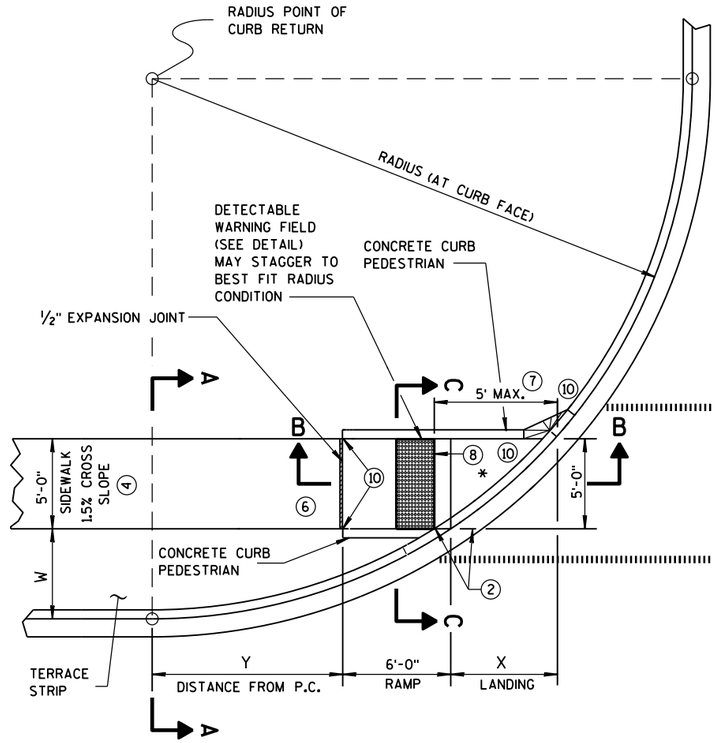
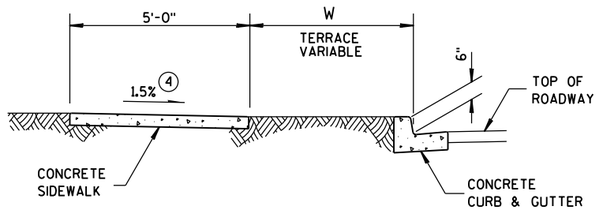
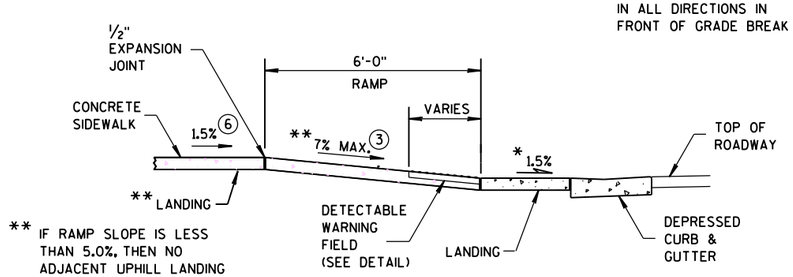
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



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

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

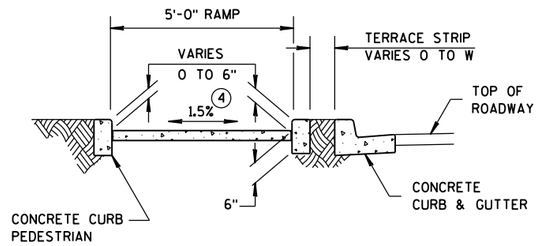
SECTION B-B FOR TYPE 4B

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.

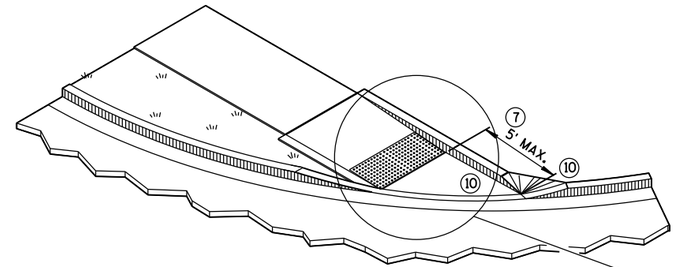
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

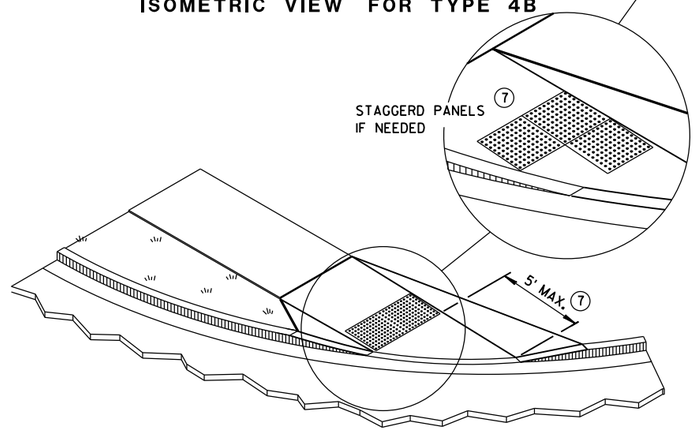
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

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

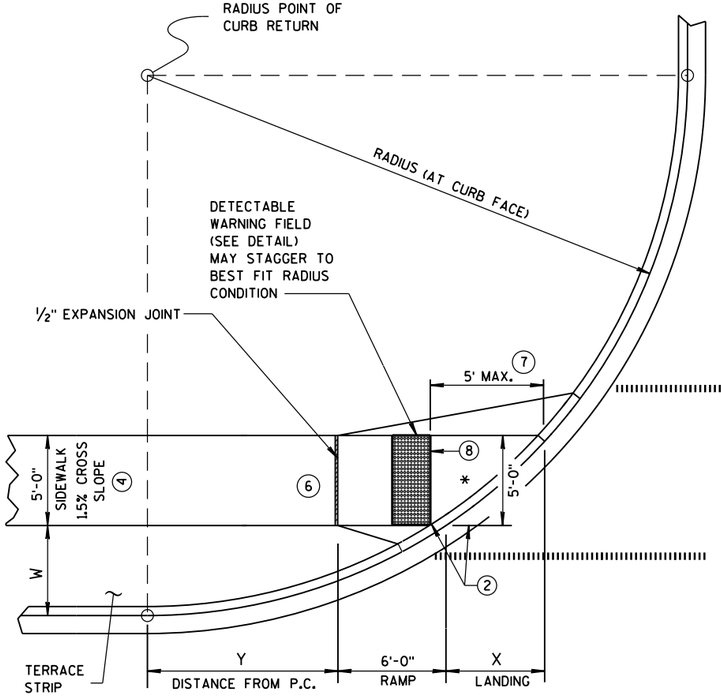
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



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

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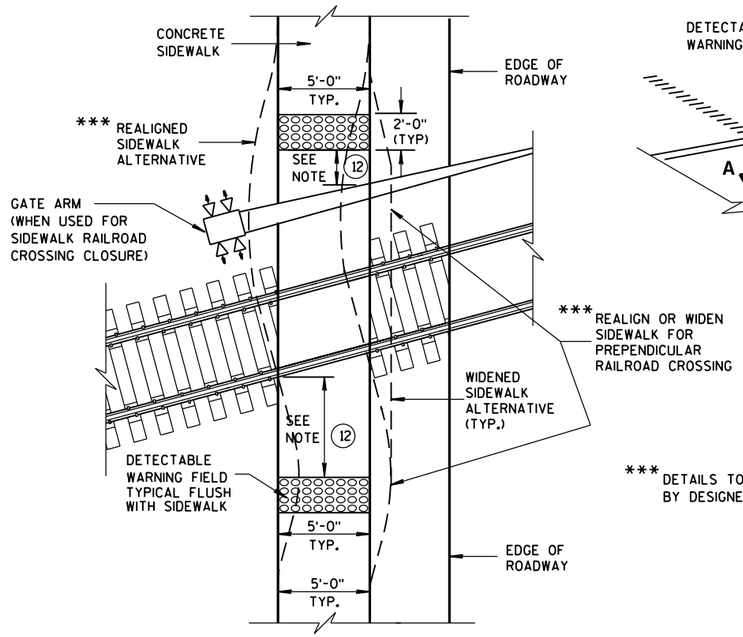
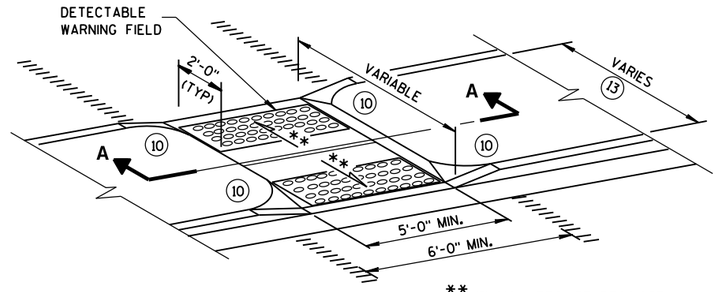
S.D.D. 8 D 5-16d



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.

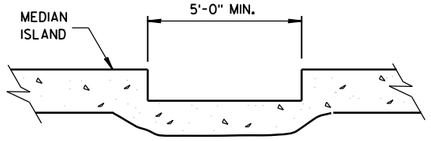
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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

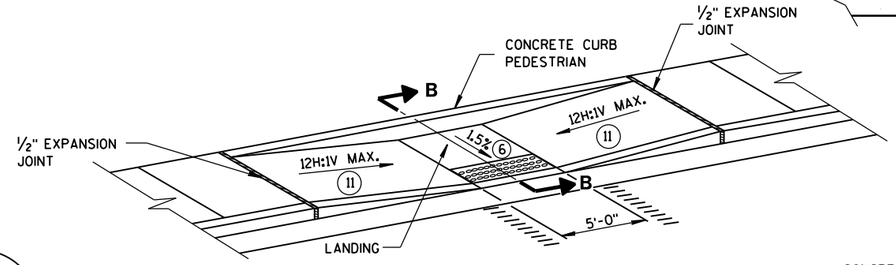
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.



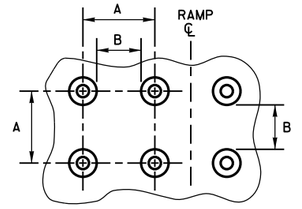
SECTION A-A



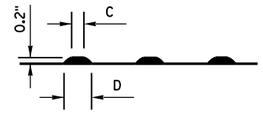
MID-BLOCK CROSSING
TYPE 7A

	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.

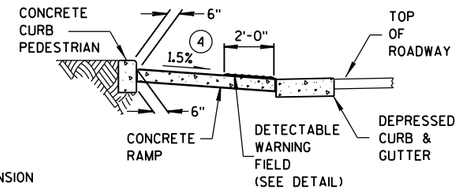


PLAN VIEW

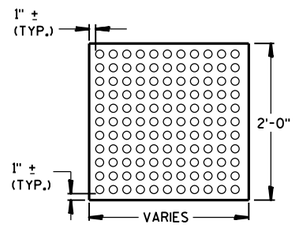


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



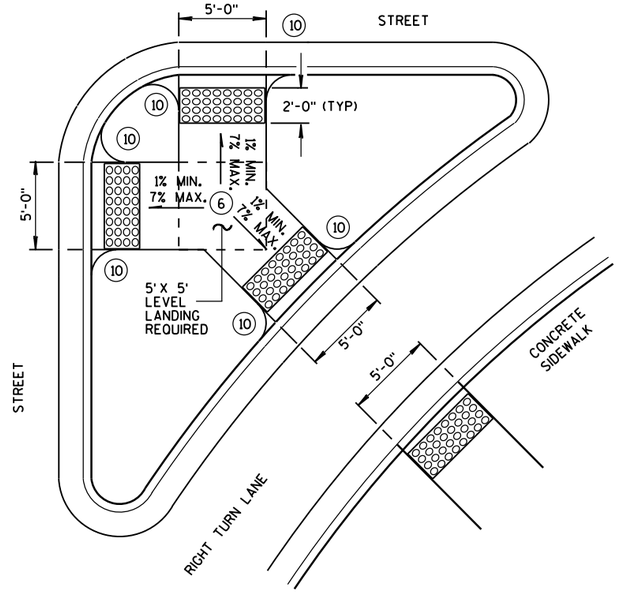
SECTION B-B



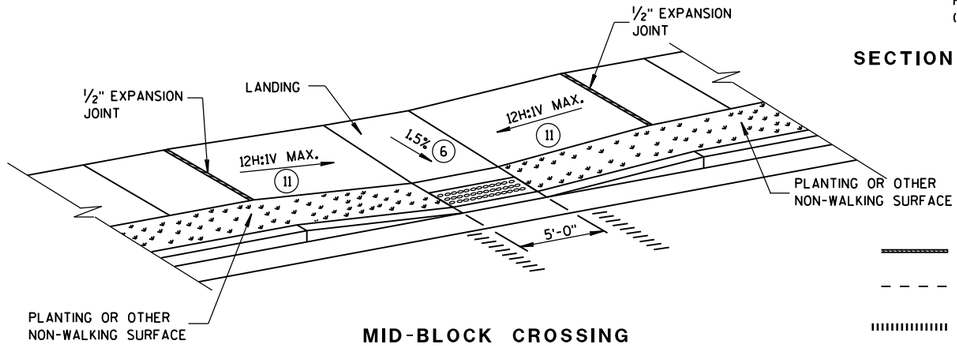
PLAN VIEW

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)

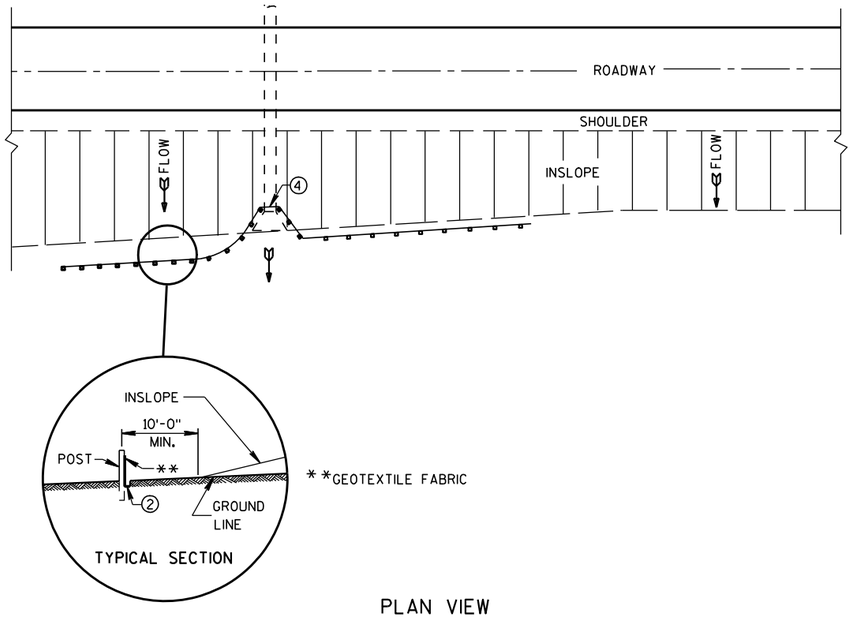
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

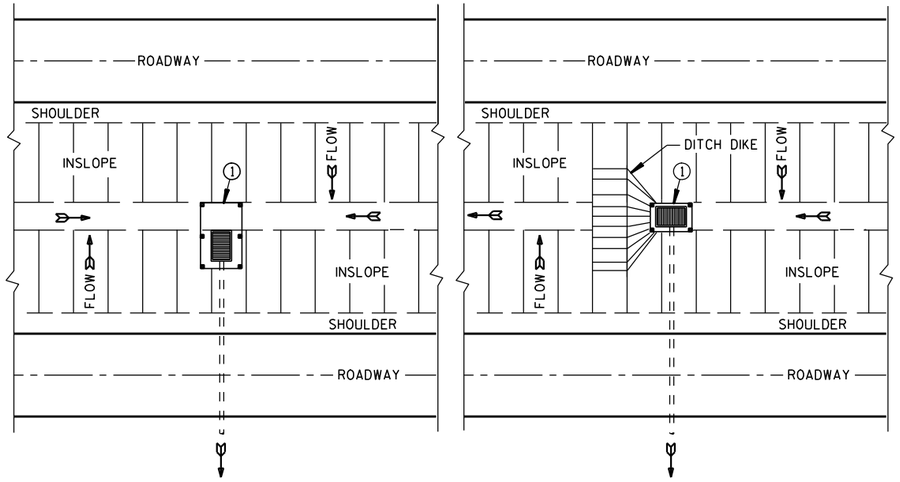
6

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



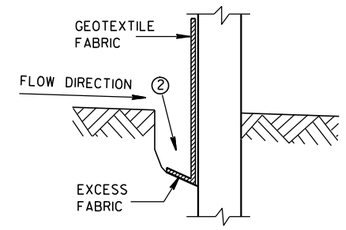
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

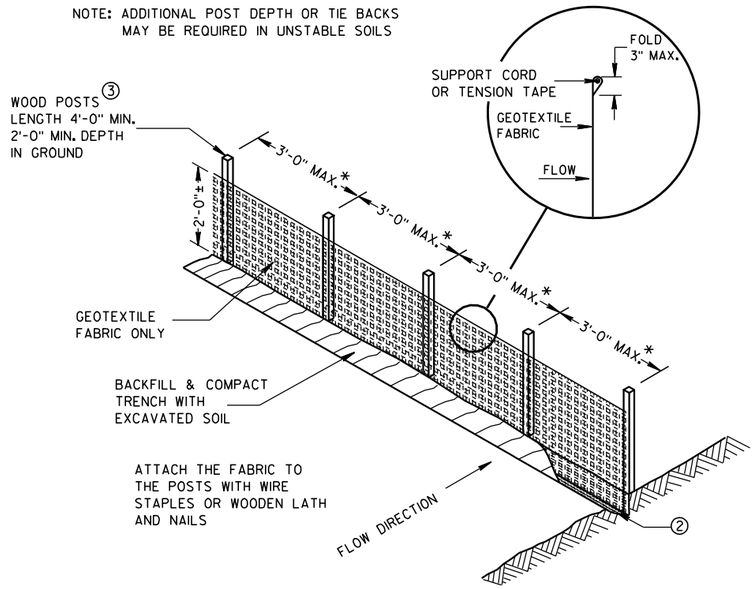
GENERAL NOTES

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.

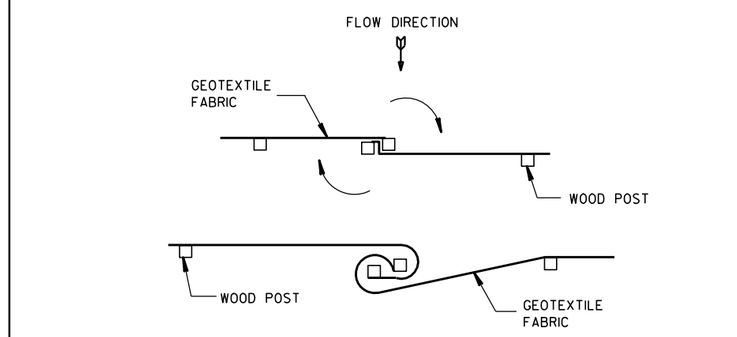


TRENCH DETAIL

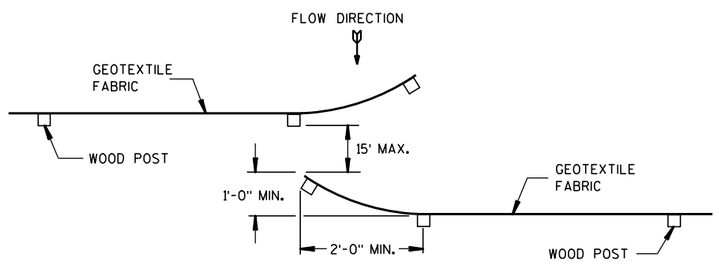


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

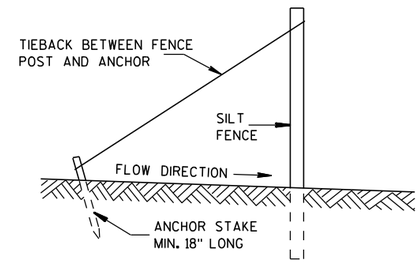


TWIST METHOD



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

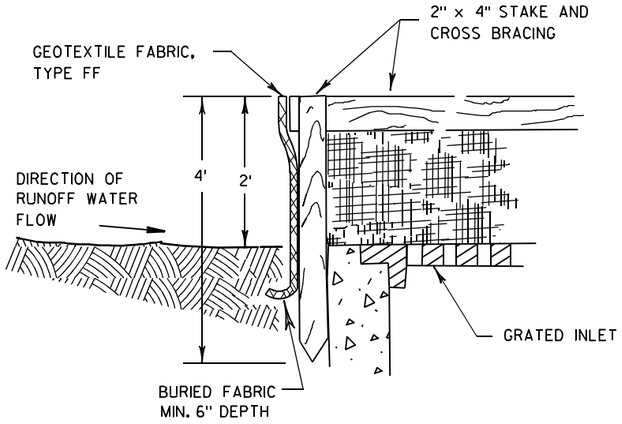
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

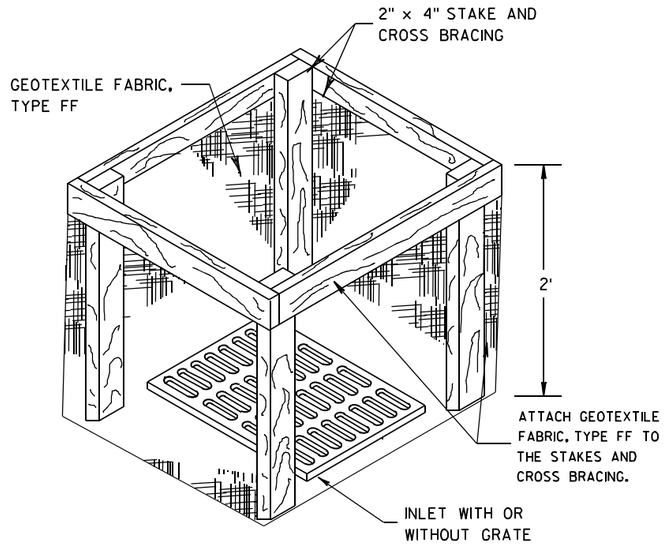
6

S.D.D. 8 E 9-6

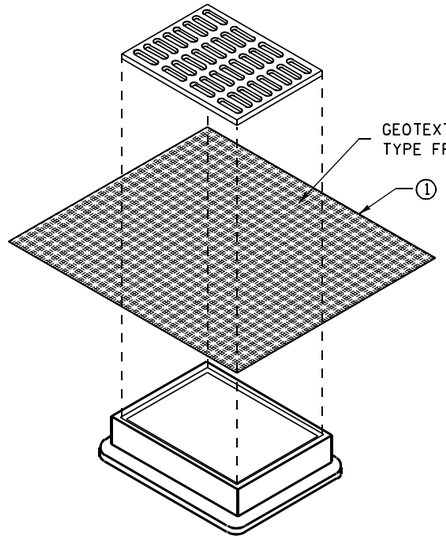
6

S.D.D. 8 E 9-6



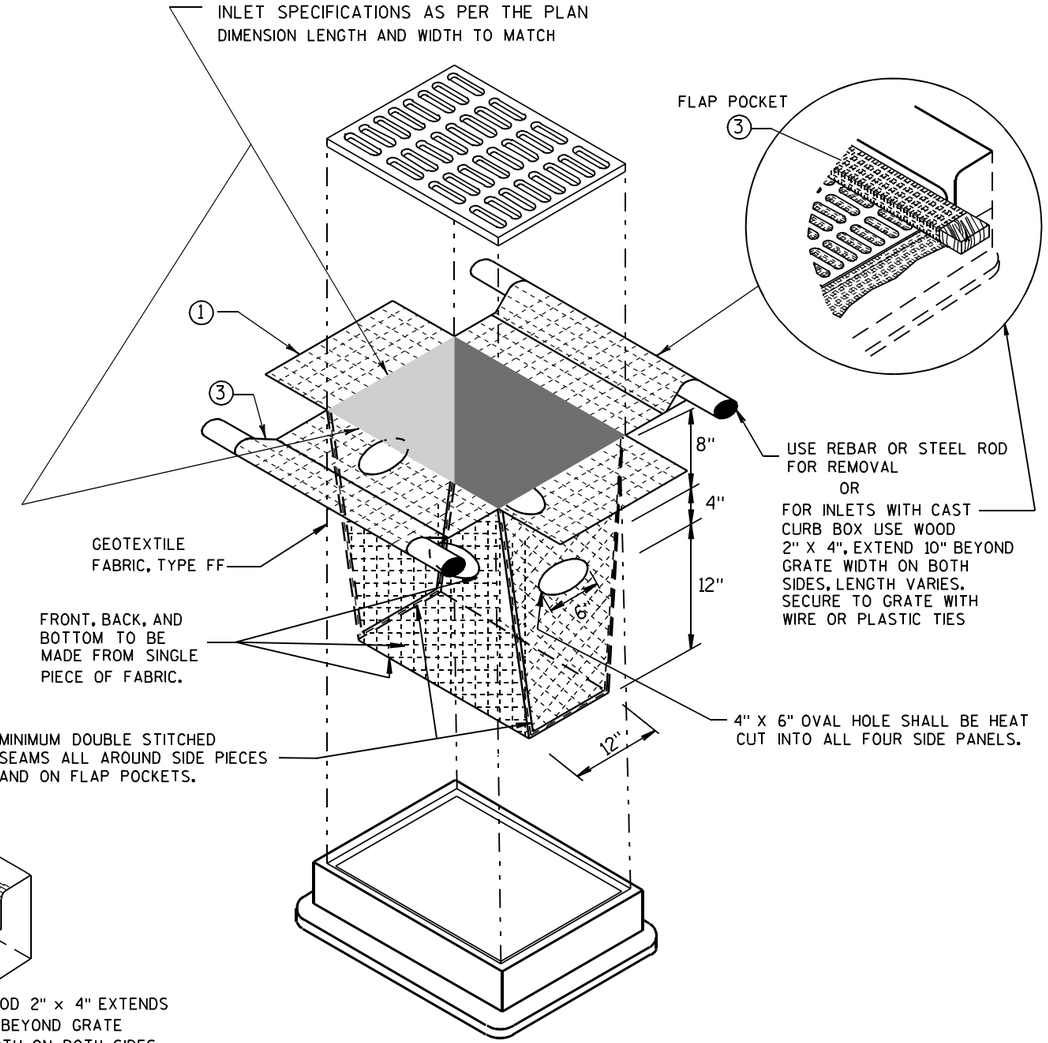


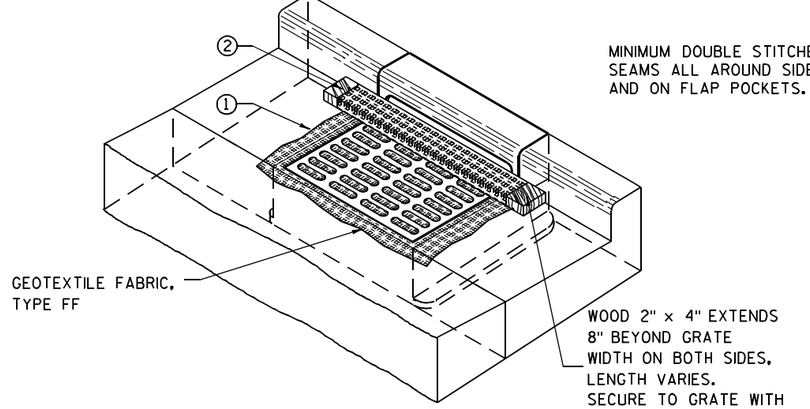
INLET PROTECTION, TYPE A



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

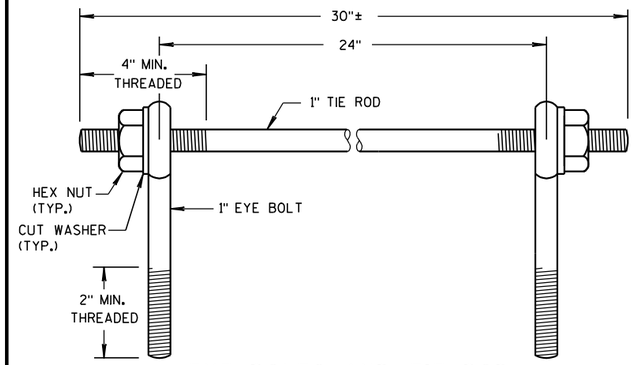
APPROVED

10/16/02
DATE

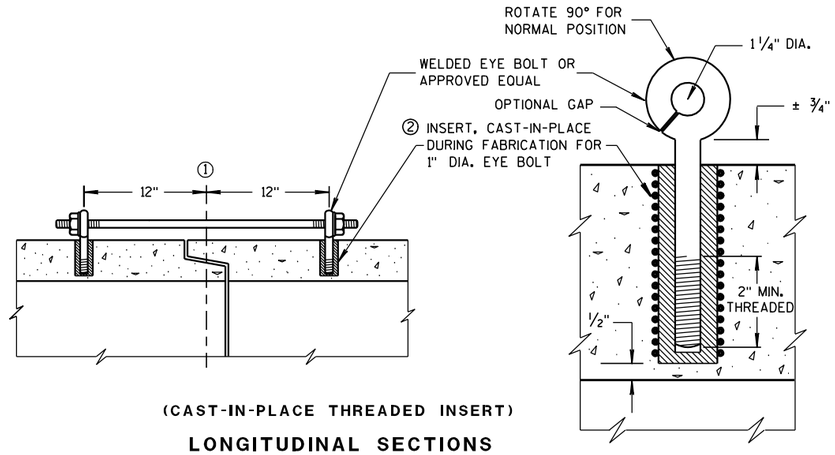
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 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 APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

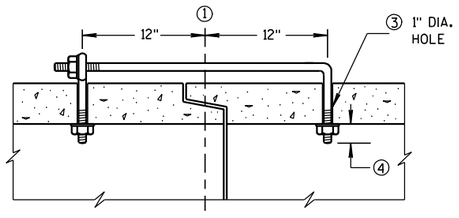
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

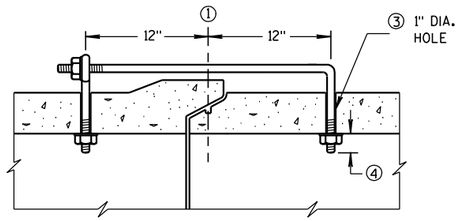
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

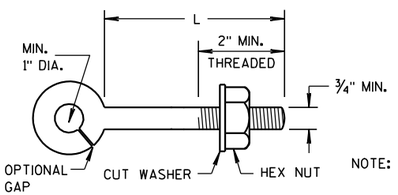


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

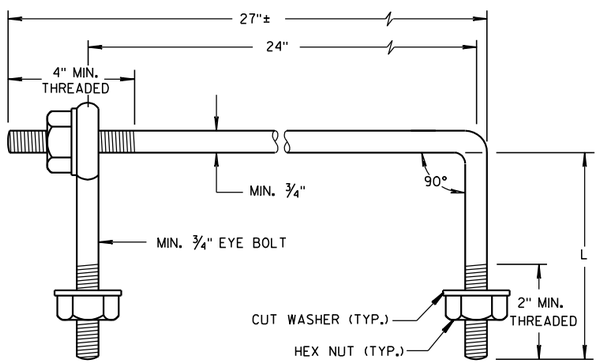
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

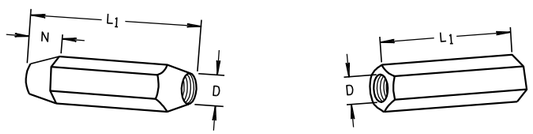
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

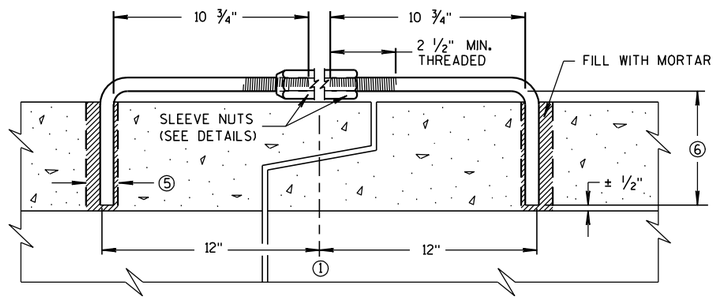
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

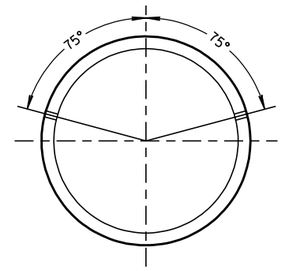
SLEEVE NUTS



LONGITUDINAL SECTION

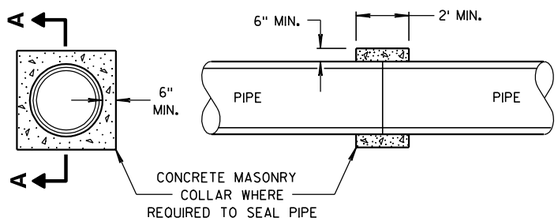
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

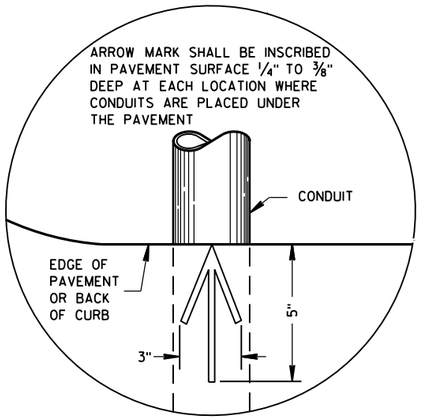
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

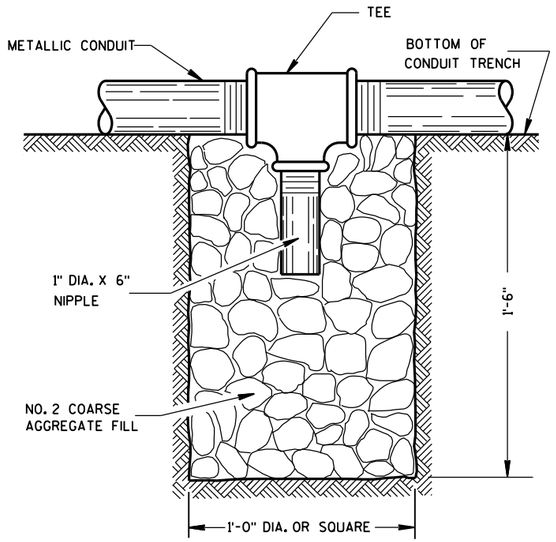
6

S.D.D. 8 F 4-7



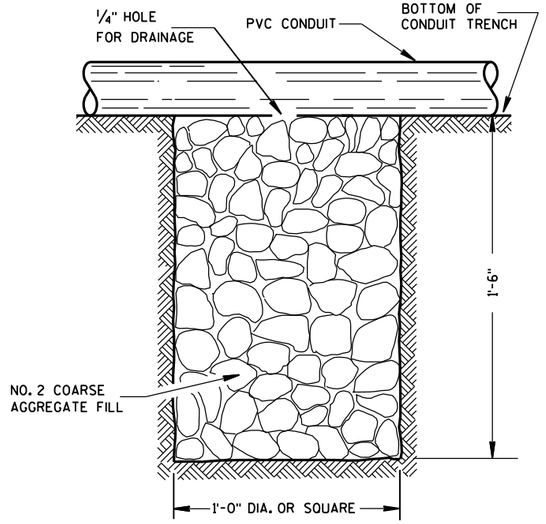
PLAN VIEW

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.

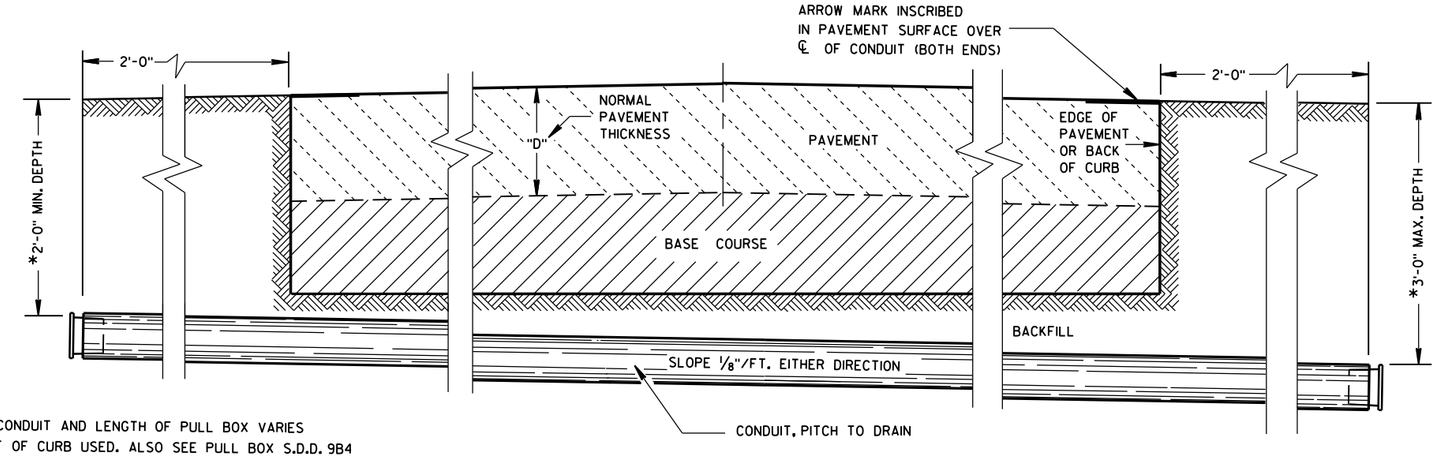
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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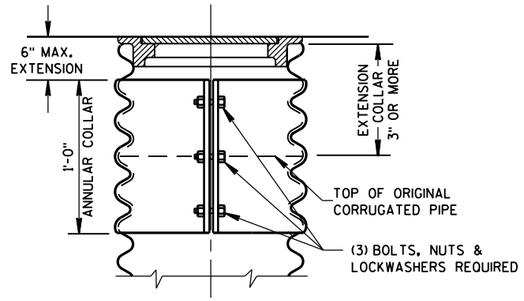
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

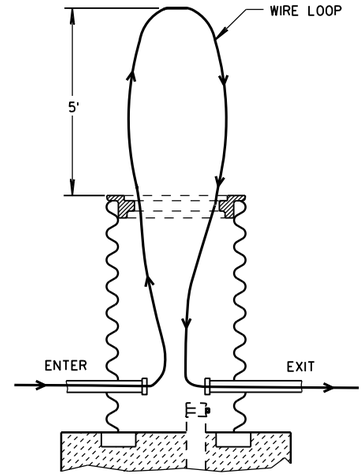
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

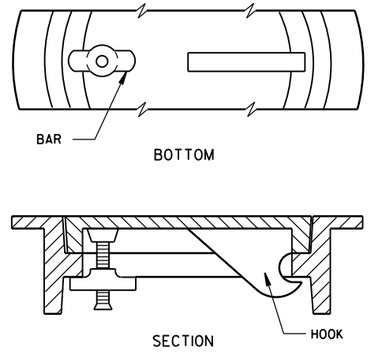
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

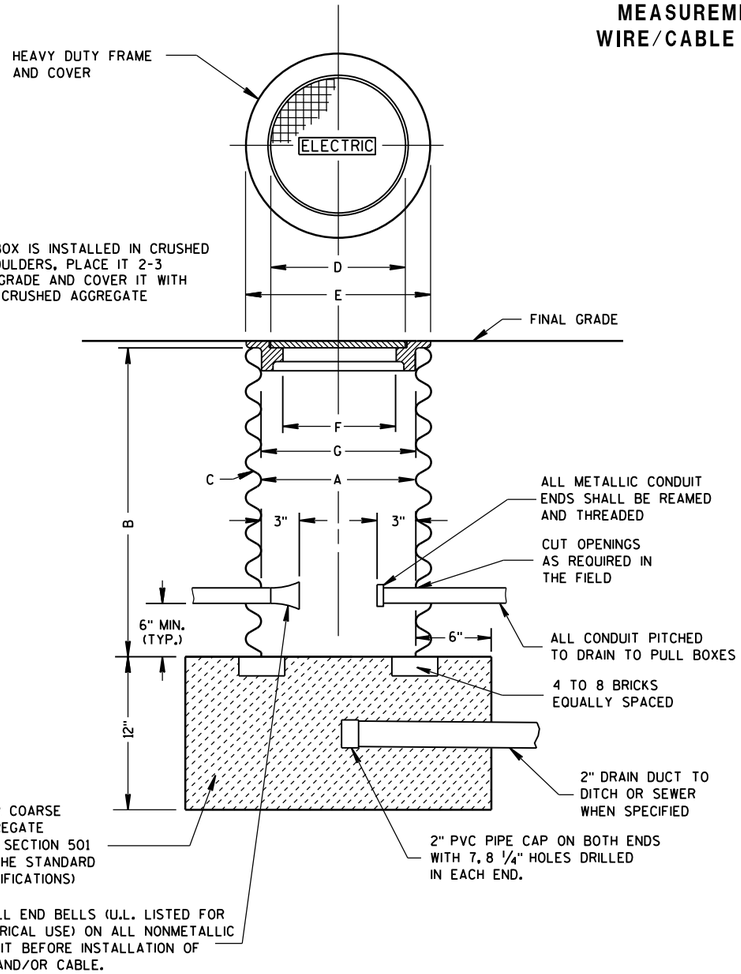


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



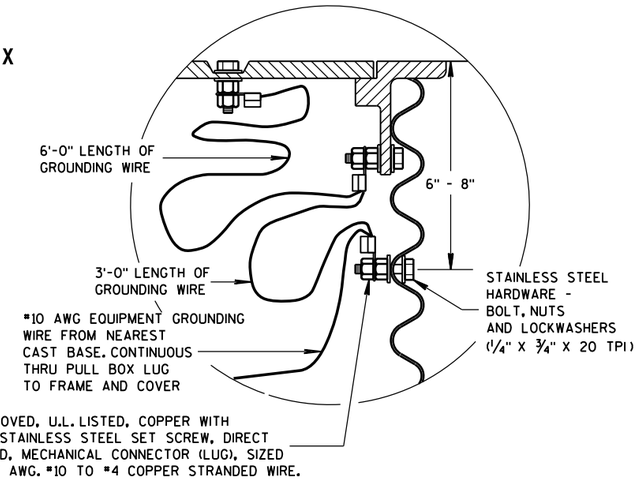
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

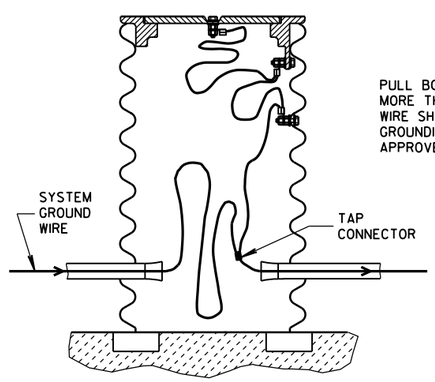


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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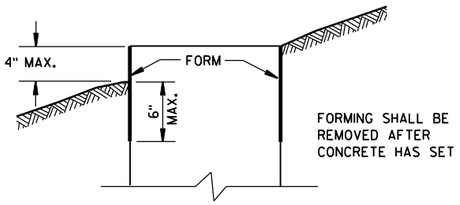
S.D.D. 9 B 4-11

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



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.

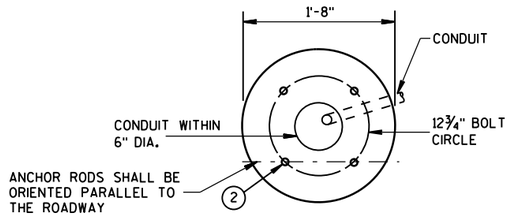
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

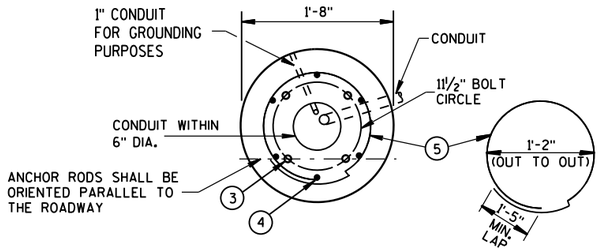
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

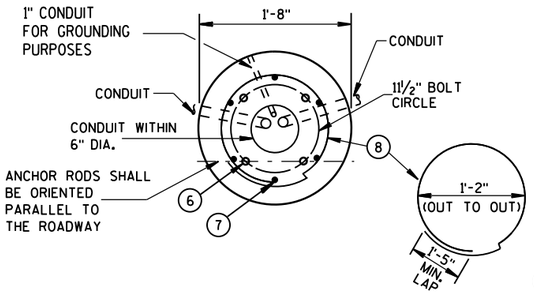
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

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

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



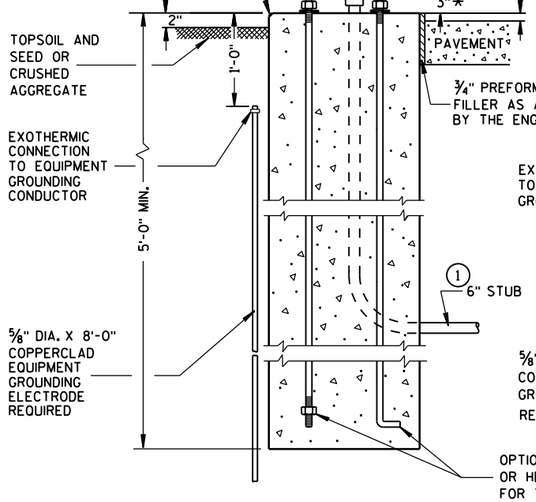




FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

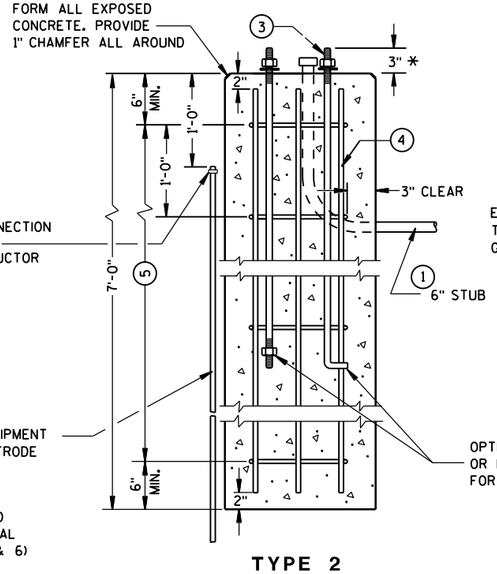
HALF SECTION IN UNPAVED AREA

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

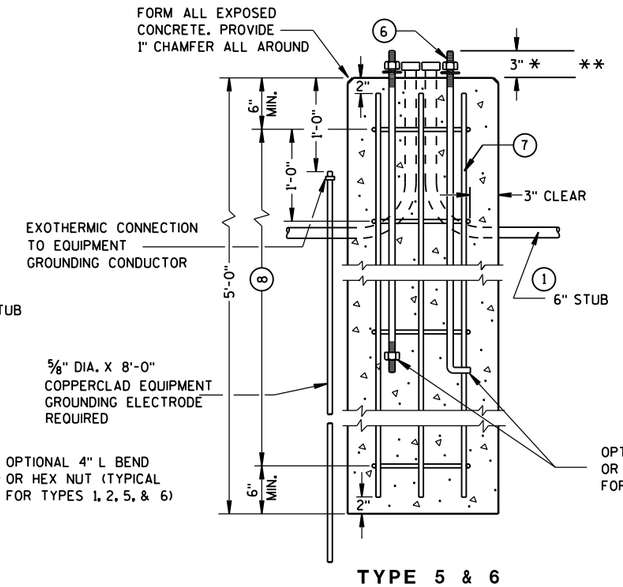


HALF SECTION IN PAVEMENT

(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
FHWA

6

S.D.D. 9 C 2-7

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.

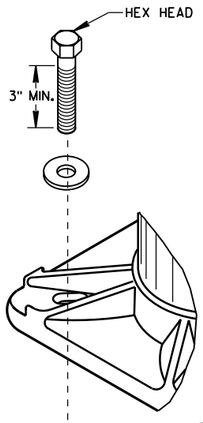
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

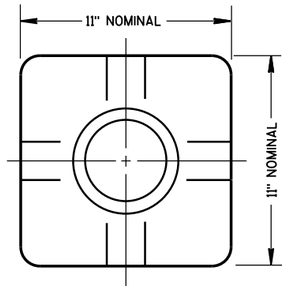
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

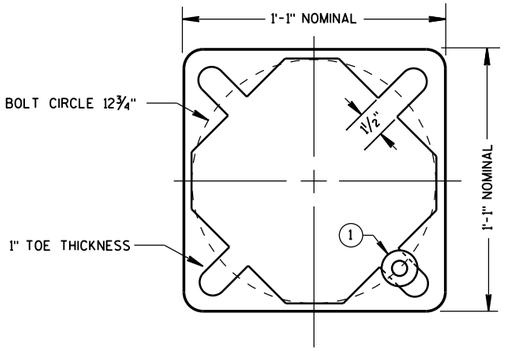
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

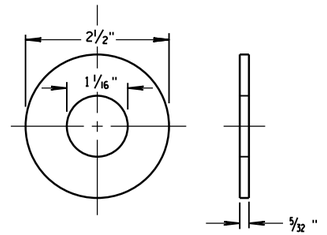




TOP VIEW
(PEDESTAL BASE)

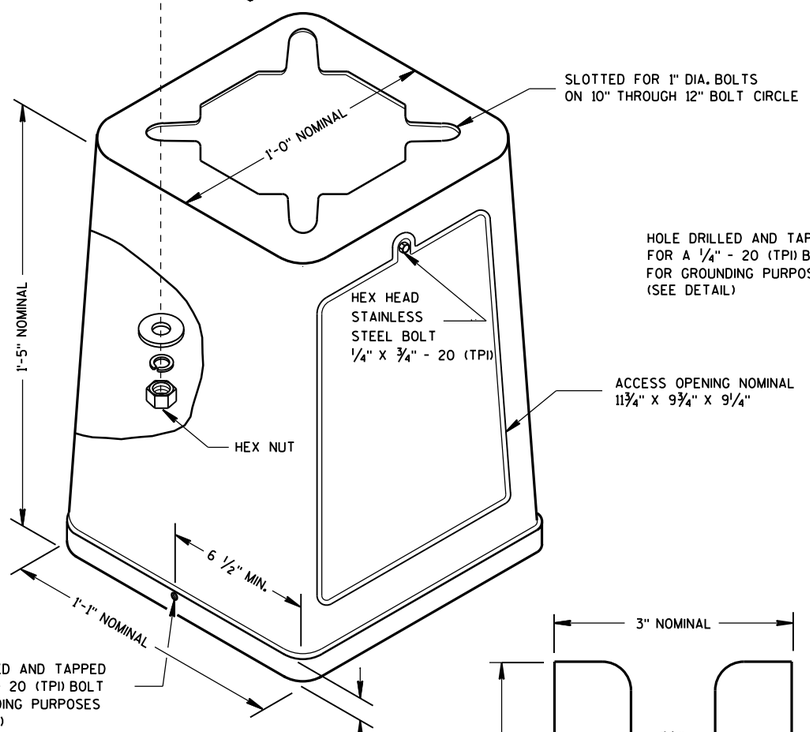


BOTTOM VIEW
(PEDESTAL BASE)

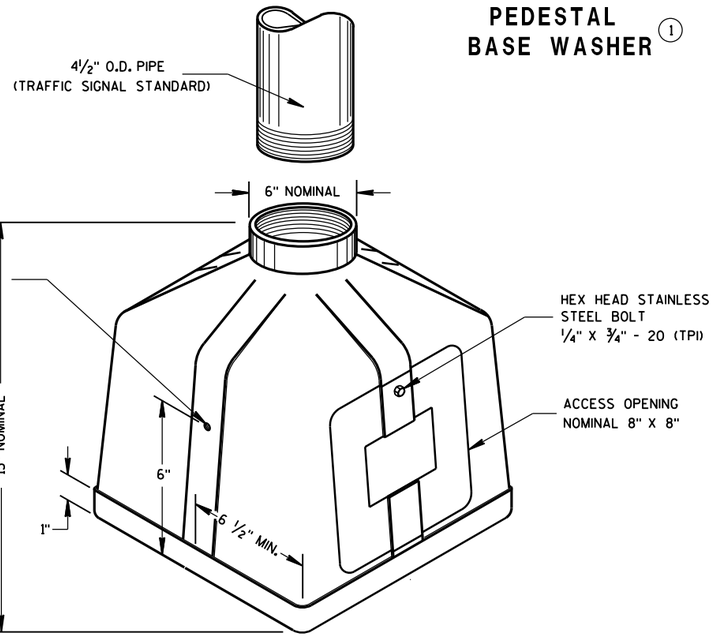


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

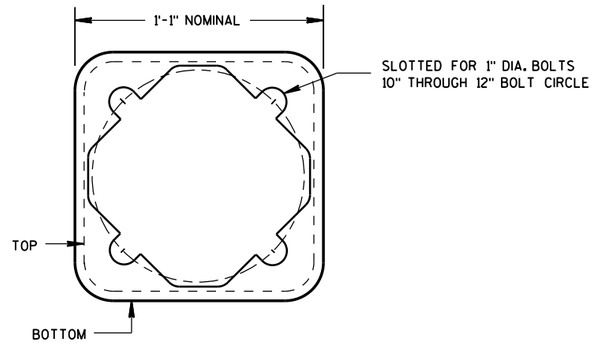


ISOMETRIC VIEW

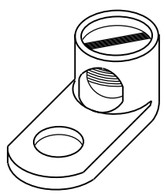


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

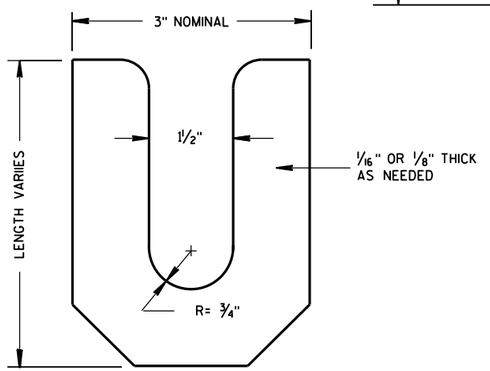


TYPICAL MECHANICAL CONNECTOR LUG

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
DEPARTMENT OF TRANSPORTATION

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Sept. 2014 — DATE
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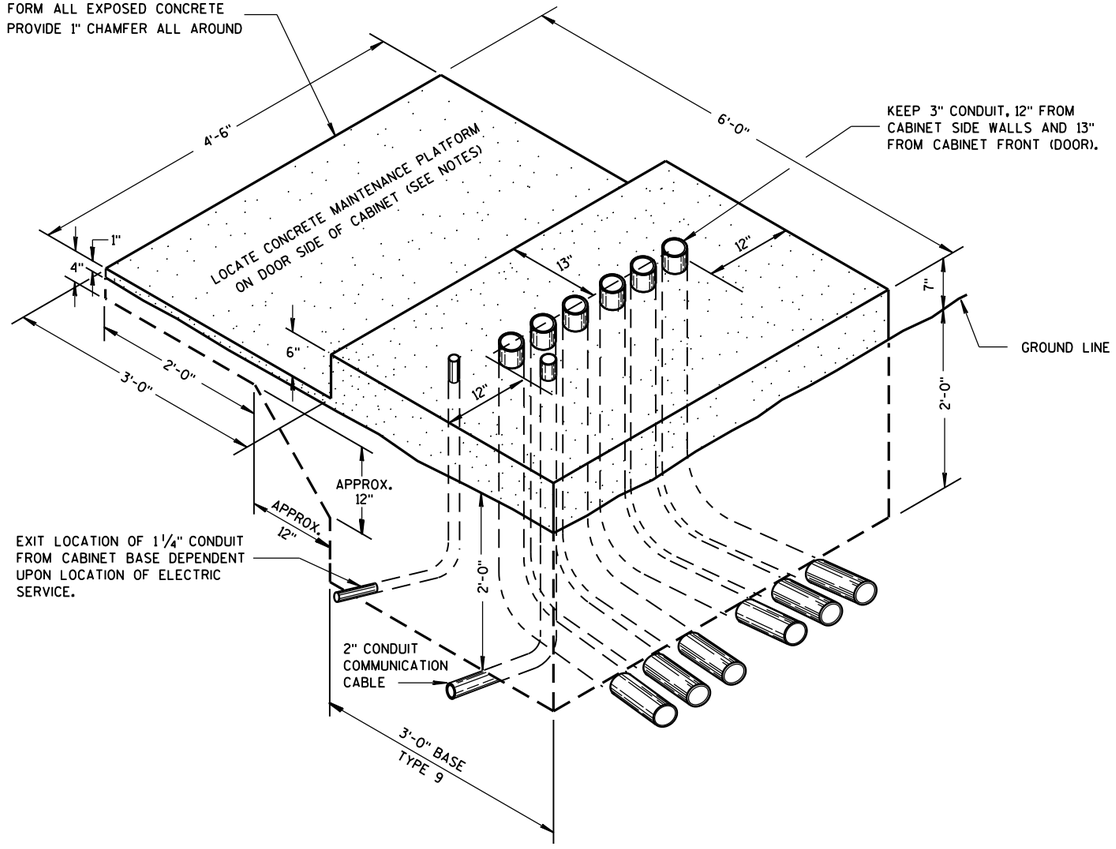
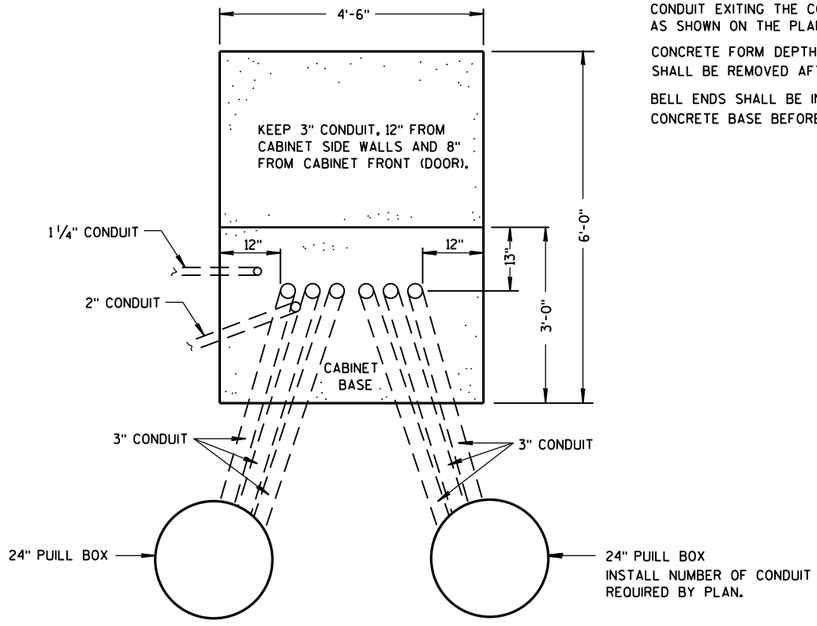


ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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 BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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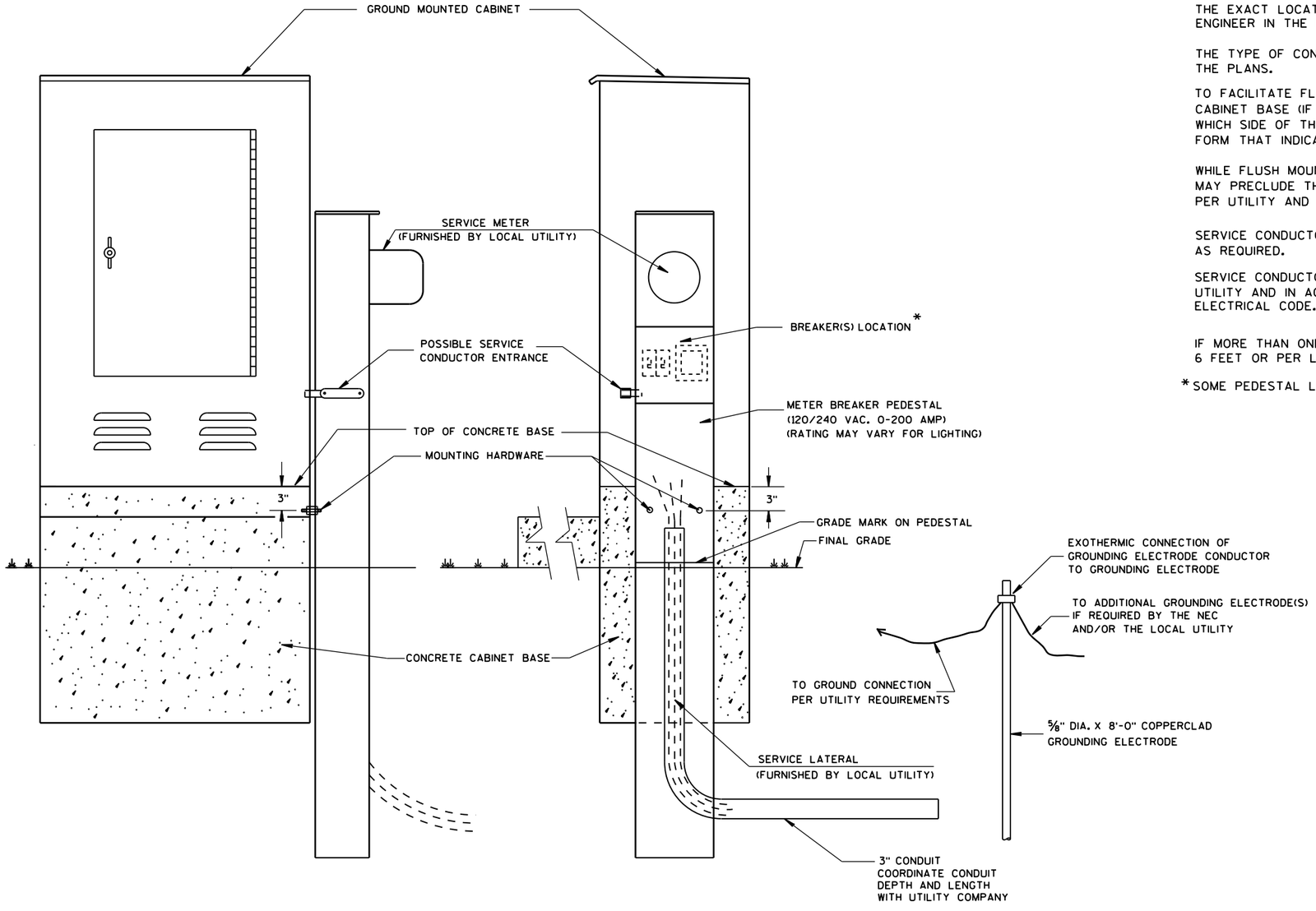

TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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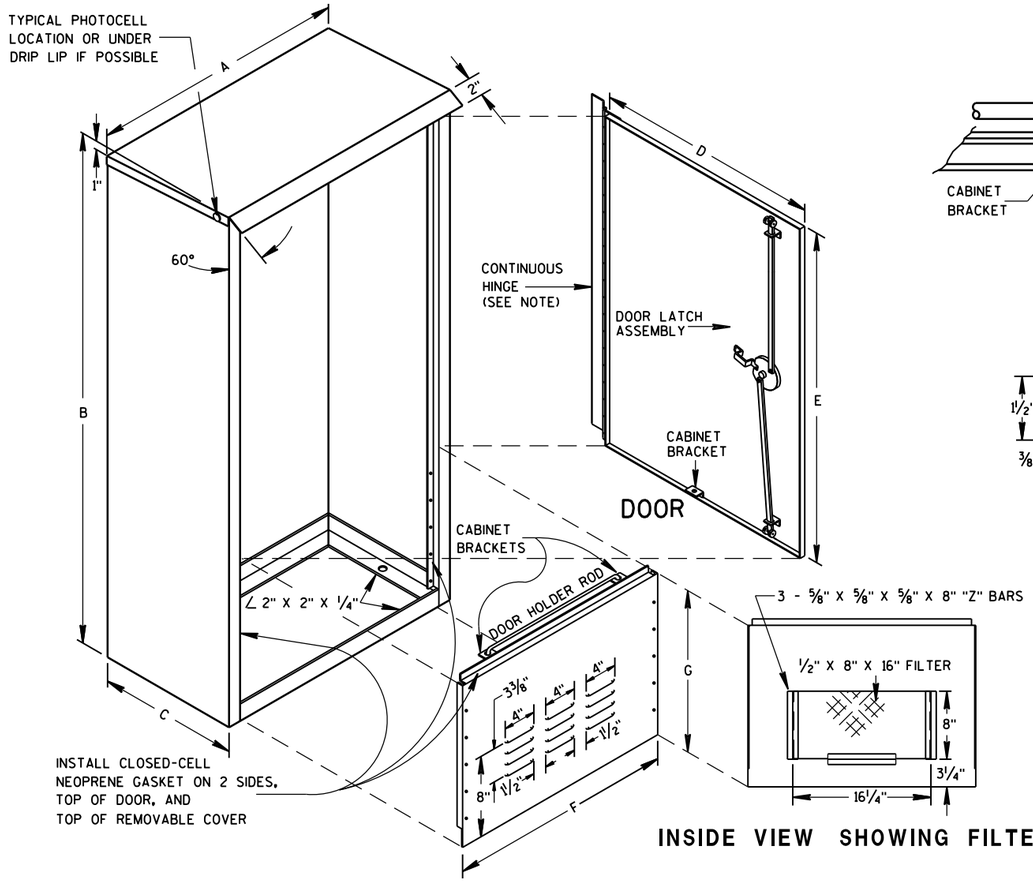
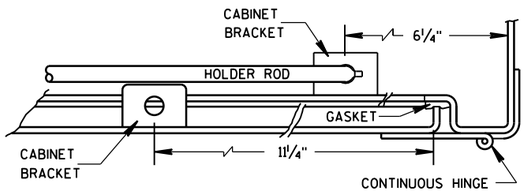
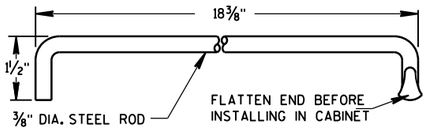


REMOVABLE COVER

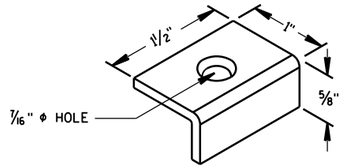
INSIDE VIEW SHOWING FILTER



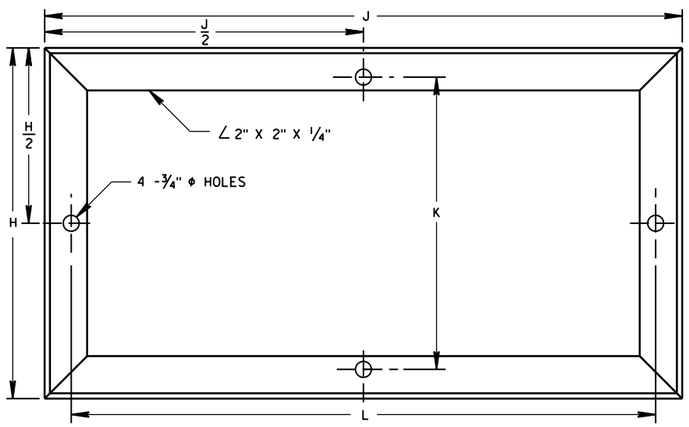
HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

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

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

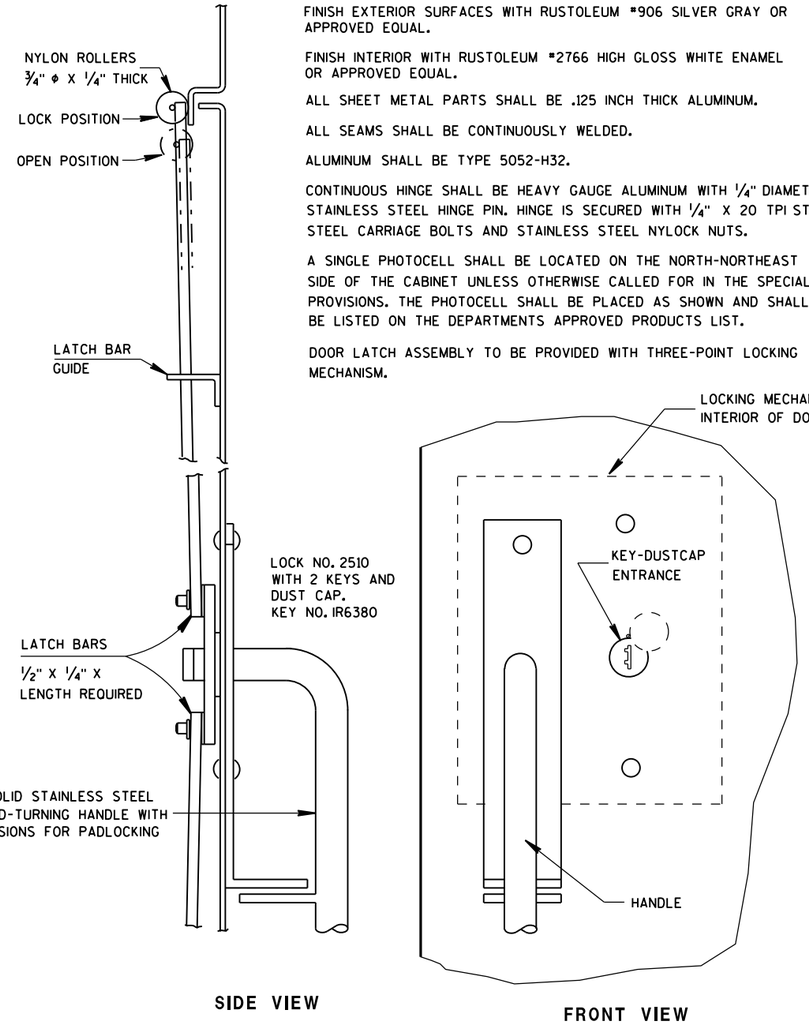
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

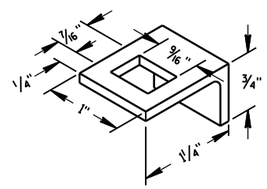
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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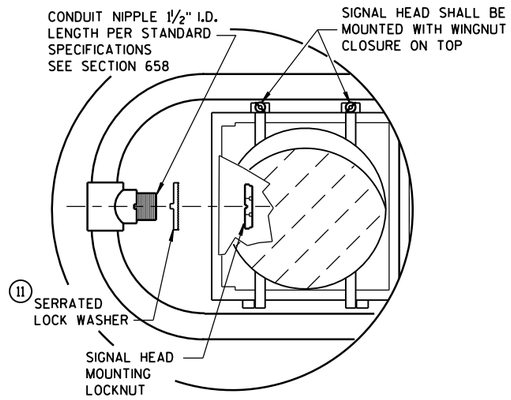
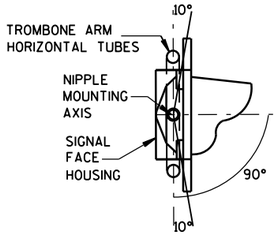


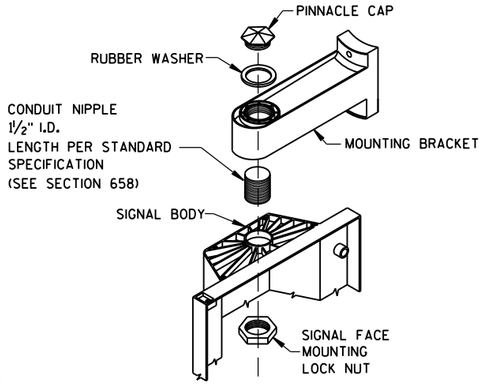
HORIZONTAL SIGNAL HEAD MOUNTING DETAIL *

* SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR



SECTION A-A

(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652 SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658).

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" LONG - 20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

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

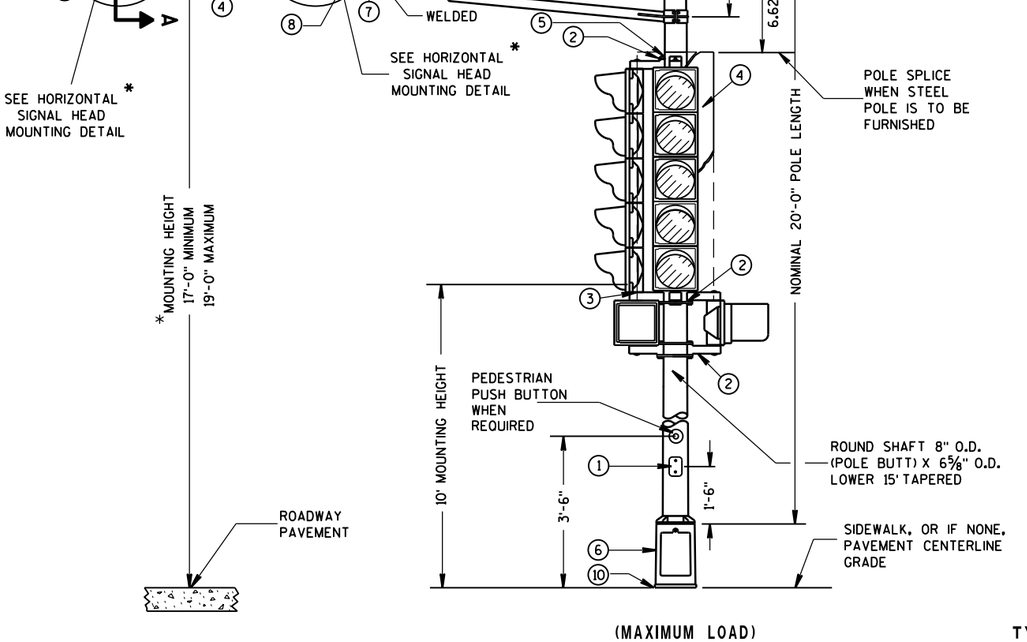
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

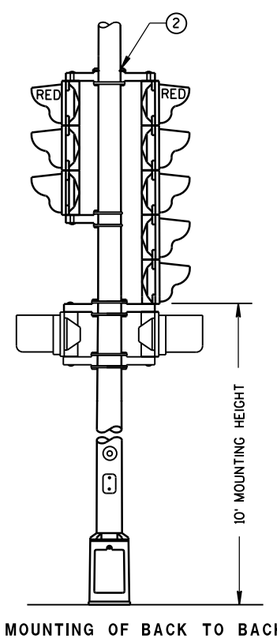
*MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE/NON-USE OF A TRANSFORMER BASE.

FOR MANUFACTURERS USE ONLY

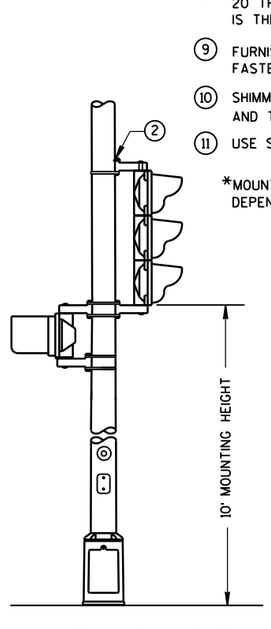
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



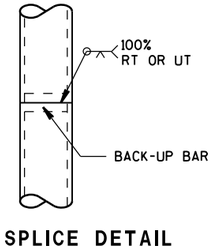
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



POLE SPLICE DETAIL

TYPE 2 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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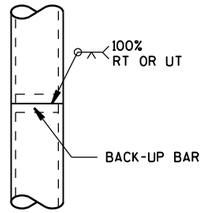
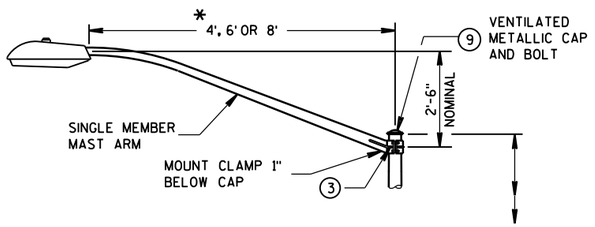
FOR MANUFACTURERS USE ONLY

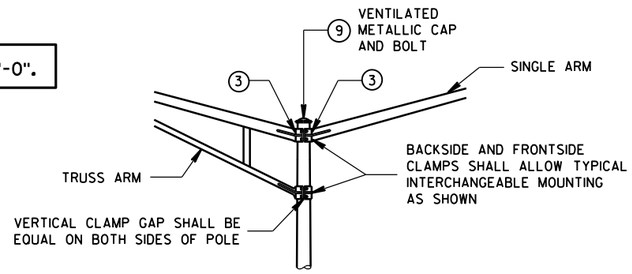
WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN/BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL

* RISE FOR 4' ARM SHALL BE 2'-0".

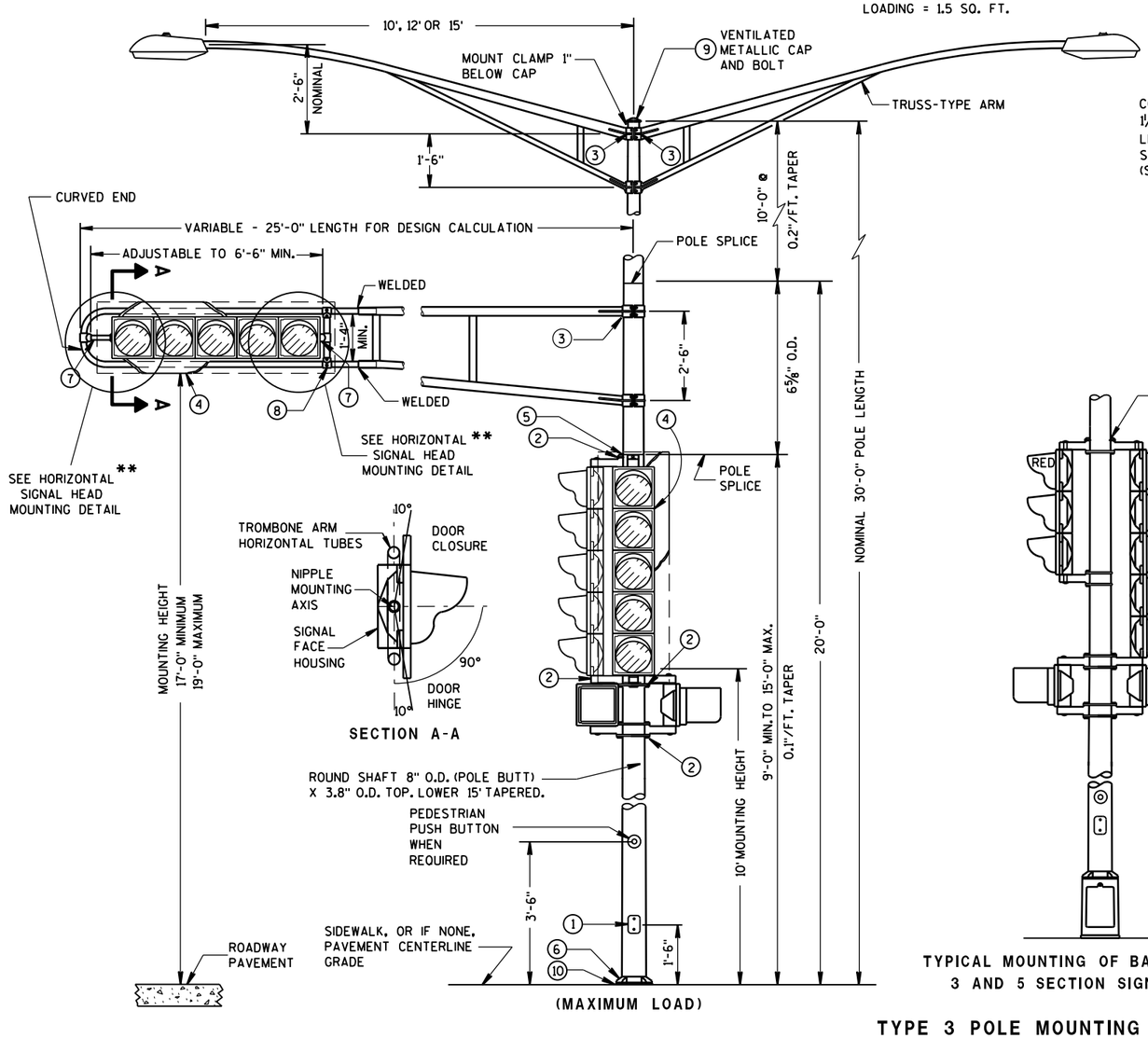


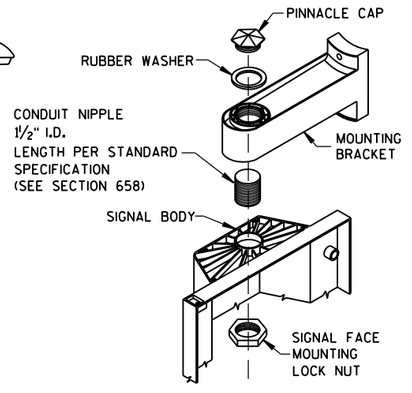


INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

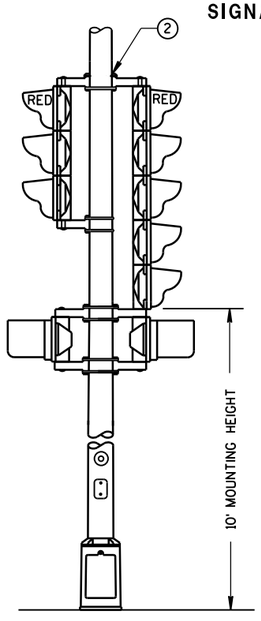
WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.



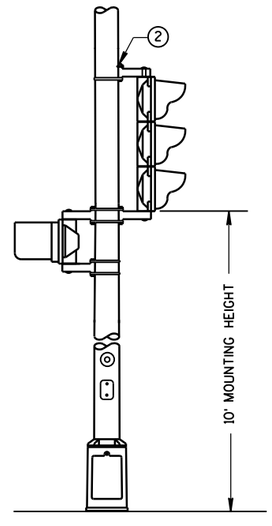


SIGNAL FACE MOUNTING DETAIL

(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE/ROPE IN ACCORDANCE WITH STANDARD SPECIFICATION 652, SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658)

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) TYPE 3 POLE CONFIGURATIONS SHALL BE MOUNTED DIRECTLY TO THEIR CONCRETE BASES.

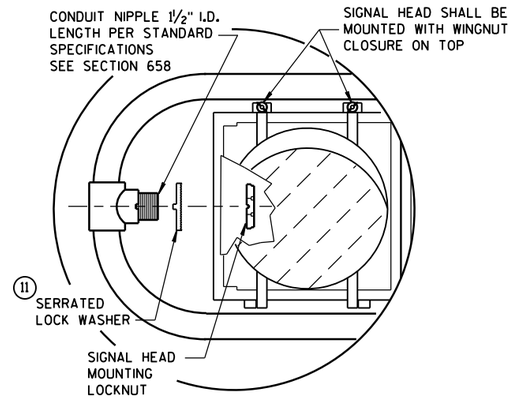
(7) MOUNTING BRACKET NIPPLES FOR THE SIGNAL FACE(S) SHALL BE 2 INCHES IN LENGTH AND 1½ INCHES IN DIAMETER. (SEE STANDARD SPECIFICATION - SECTION 658)

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (1/4 " X ¾" -20 TPI, STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

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

(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

** SIGNAL HEAD ATTACHMENT ALSO APPLYS TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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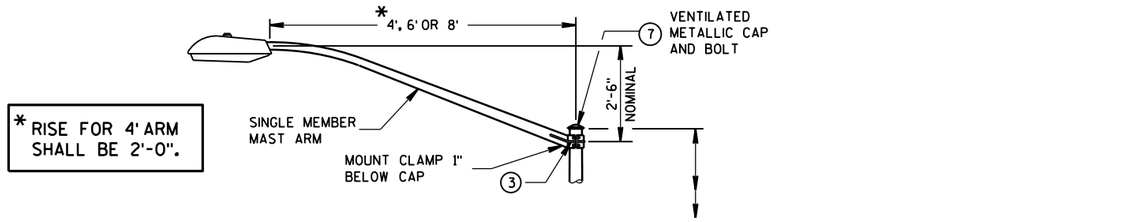
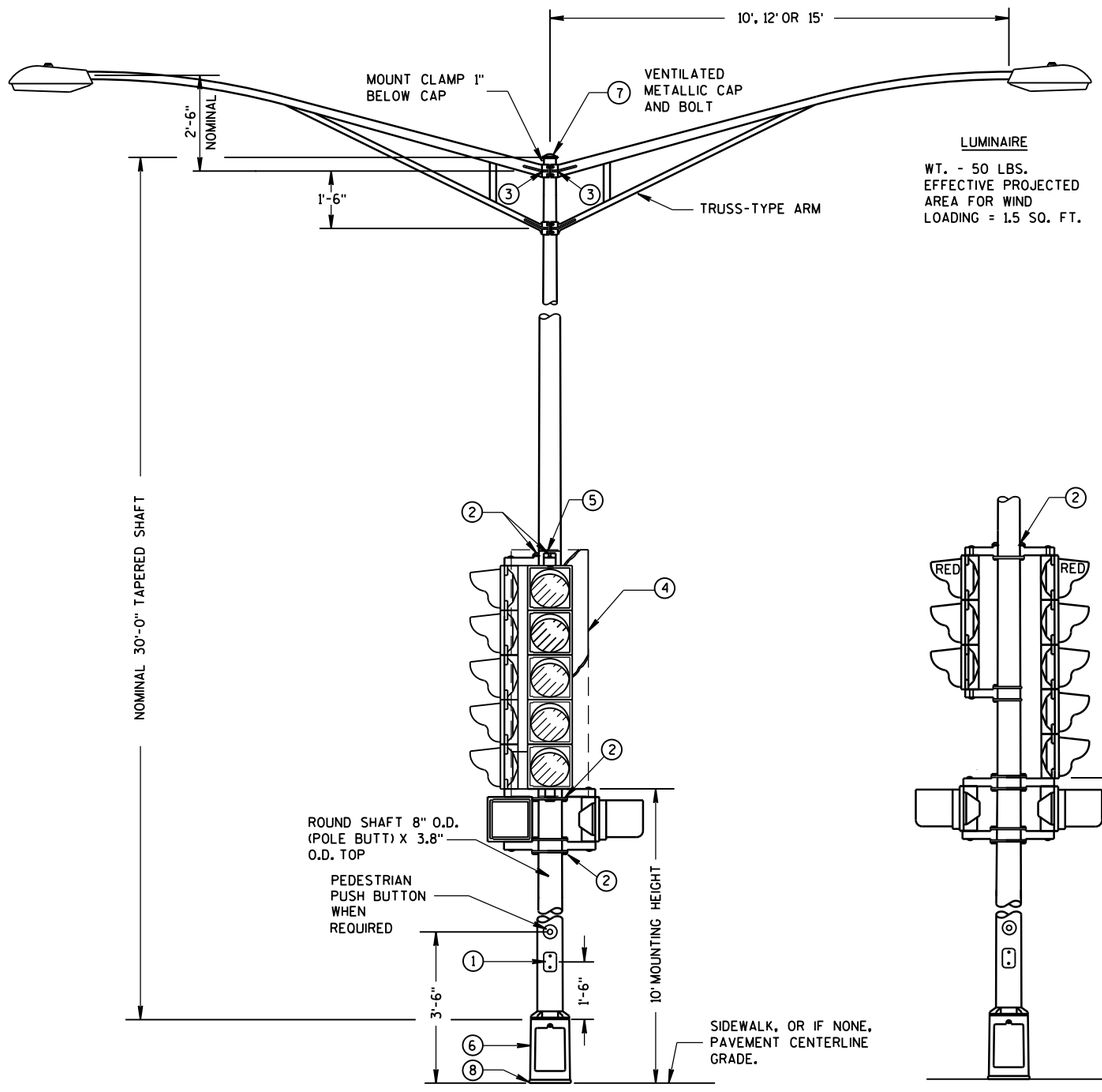
S.D.D. 9 E 1-14b

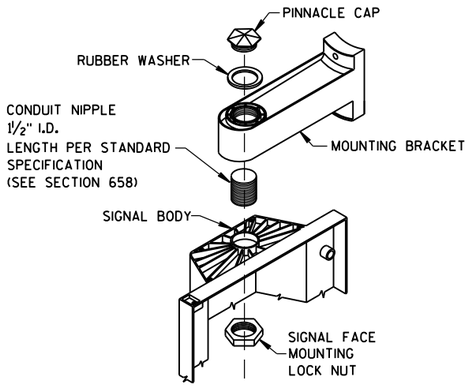




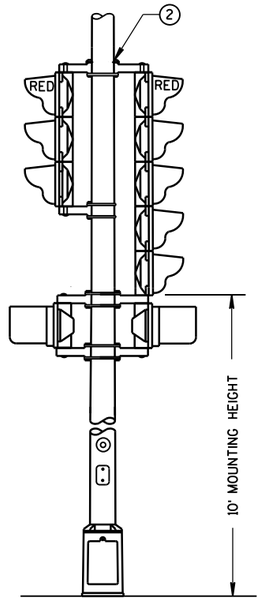
LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

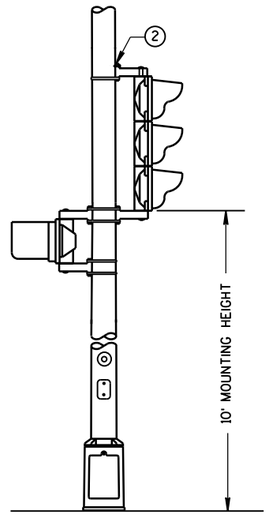
(MAXIMUM LOAD)



SIGNAL FACE MOUNTING DETAIL
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

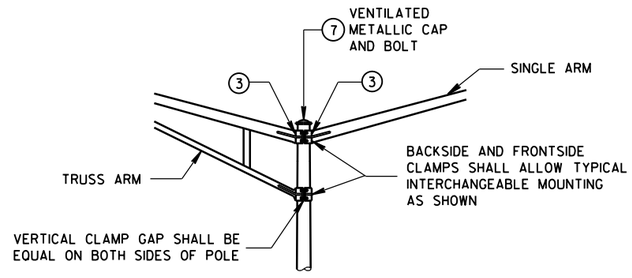
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

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

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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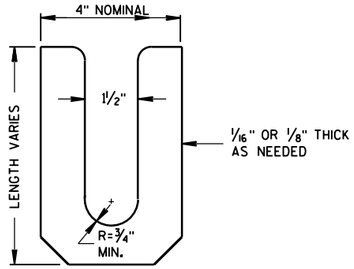
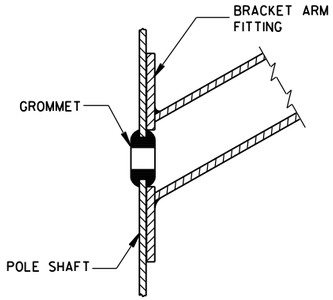
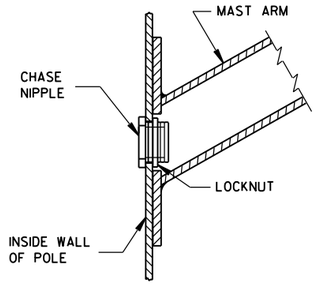


LEVELING SHIM (13)

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.

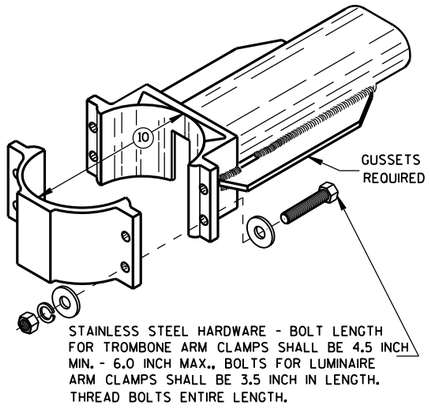
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

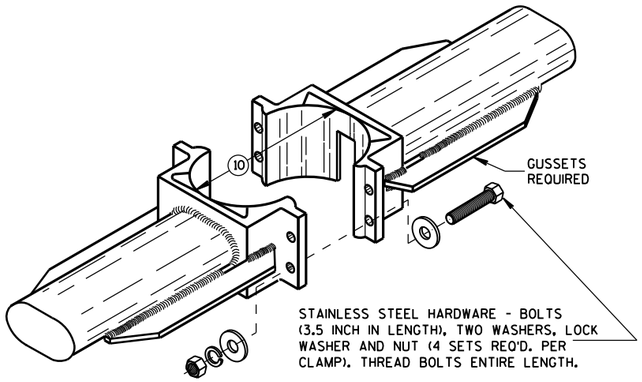
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

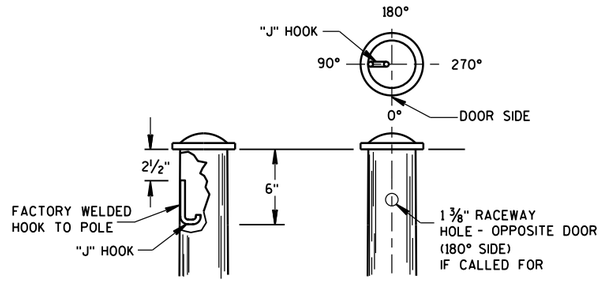
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



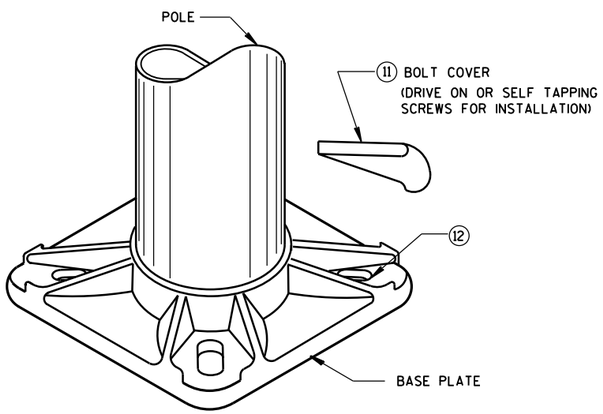
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



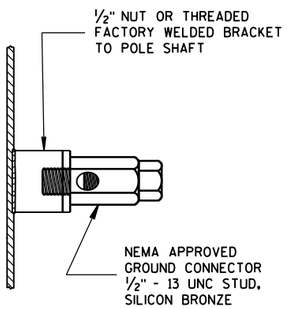
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

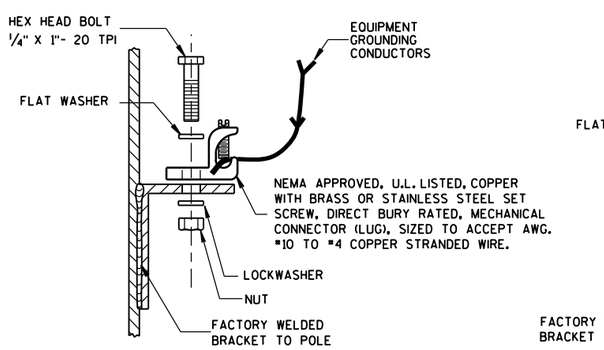


TYPICAL "J" HOOK LOCATION



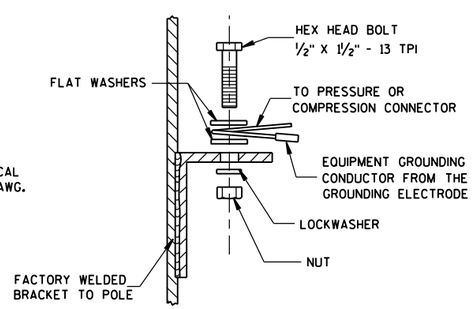
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

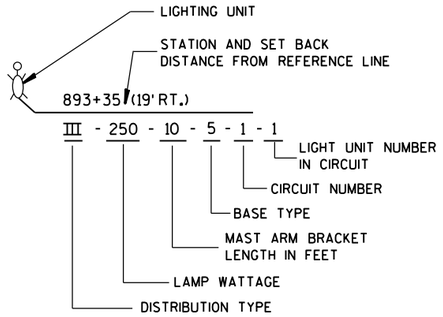
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

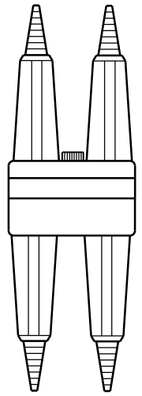
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

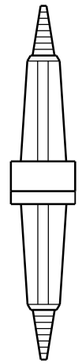
6
S.D.D. 9 E 1-14g



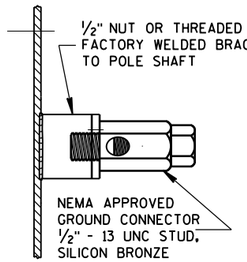
LIGHTING UNIT CODE
(TYPICAL)

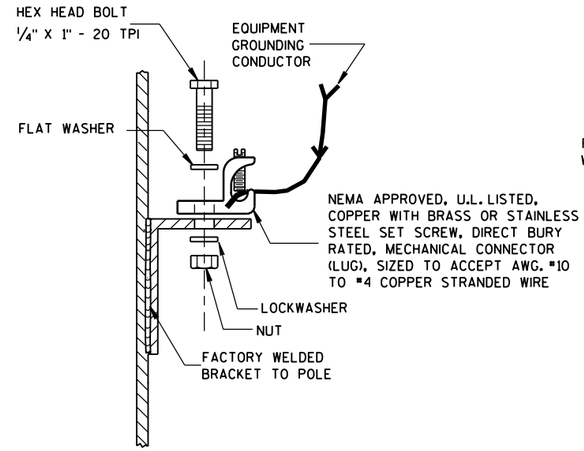


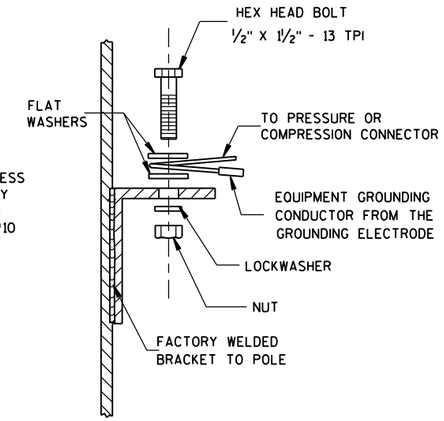
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



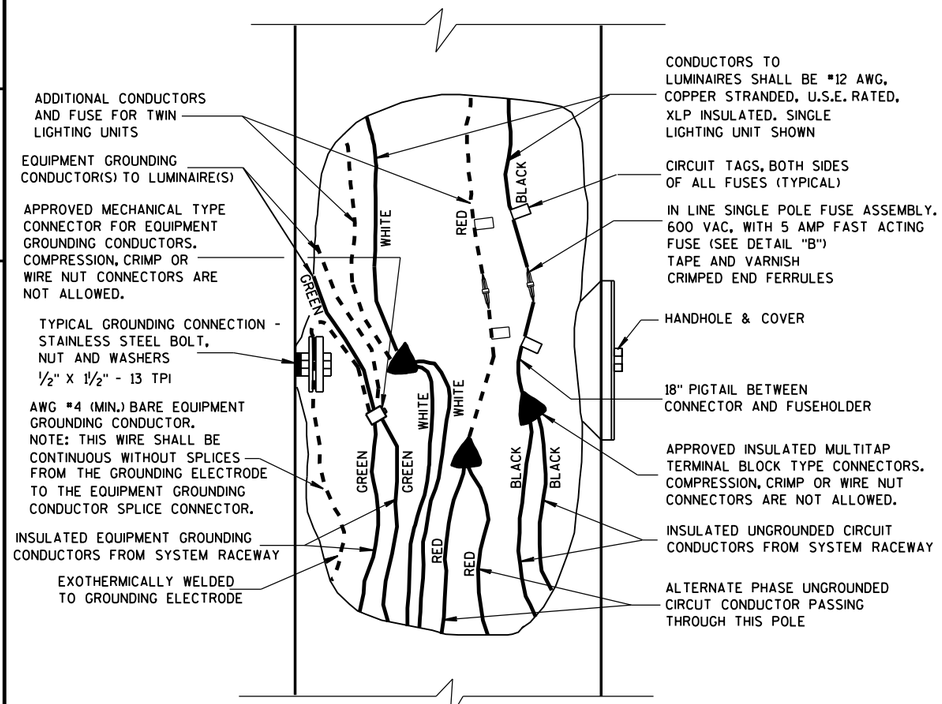
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



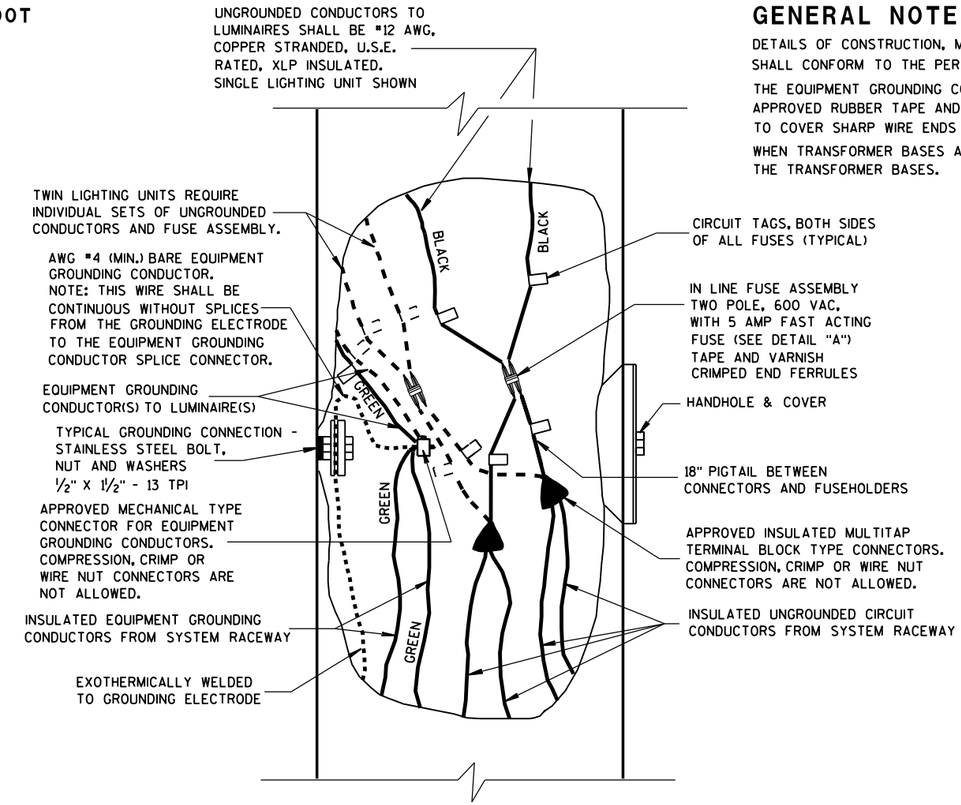




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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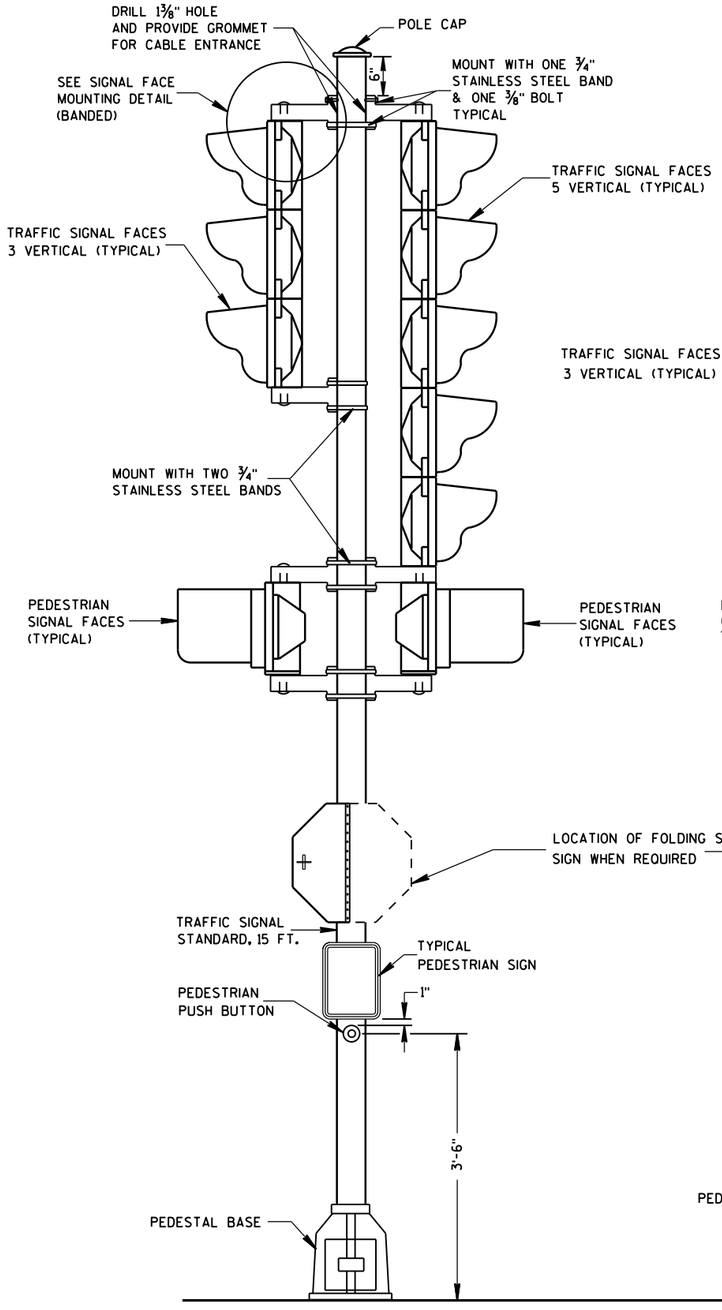
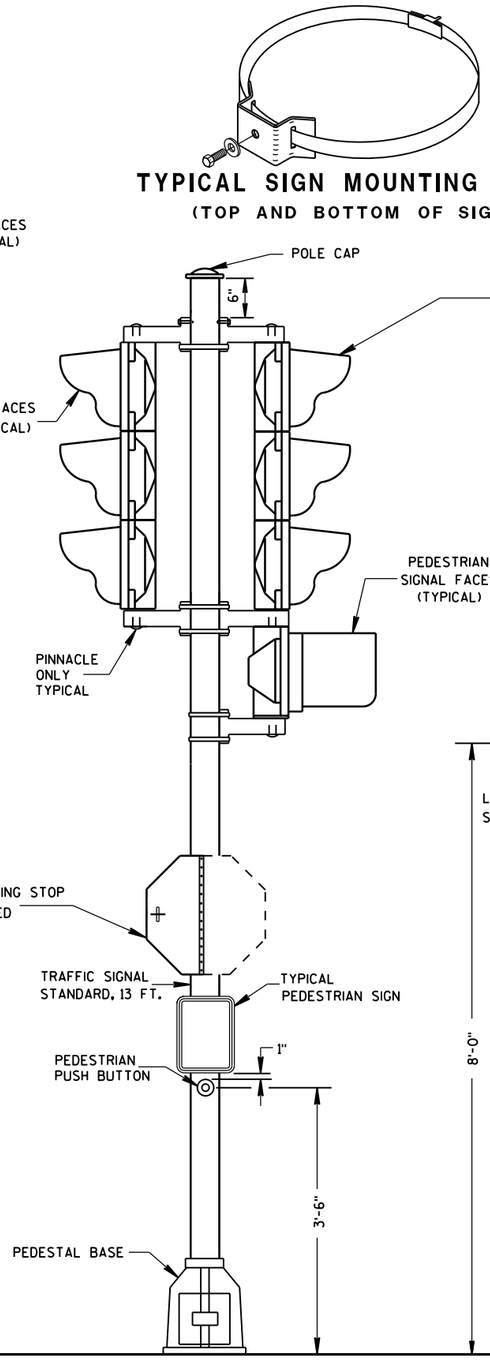
S.D.D. 9 E 3-5

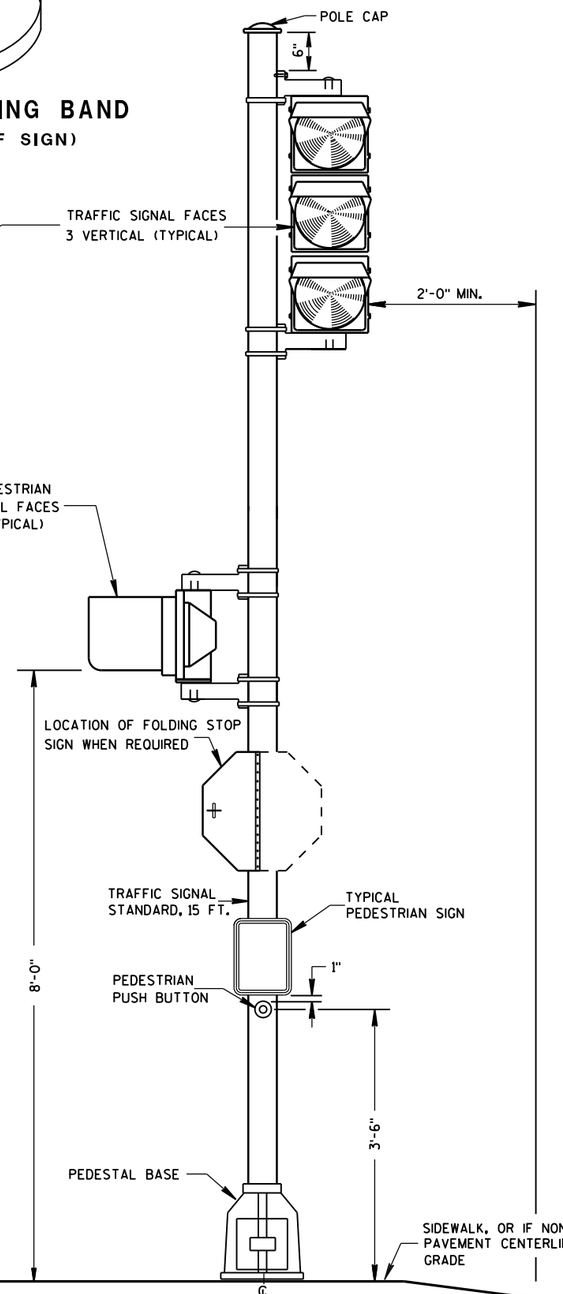


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

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.

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

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

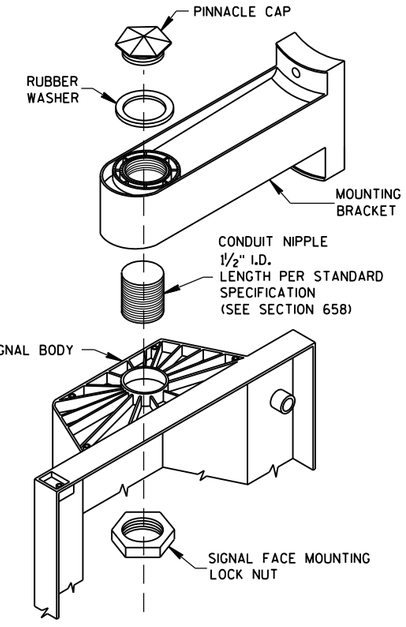
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

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.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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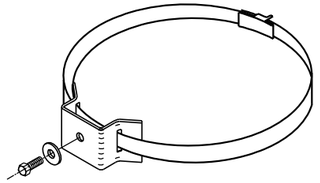
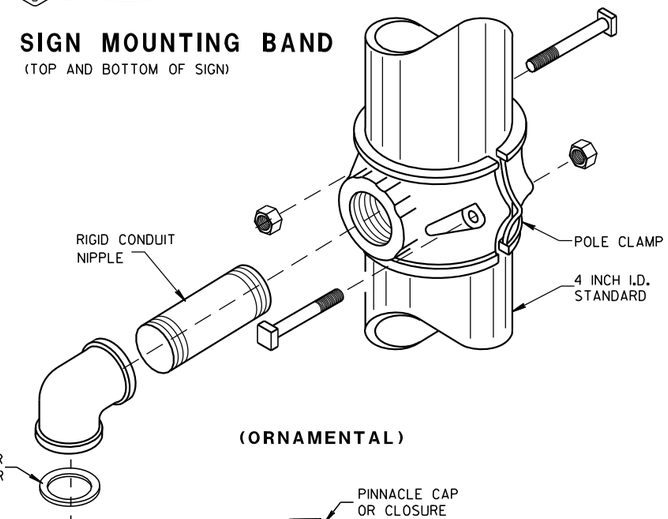


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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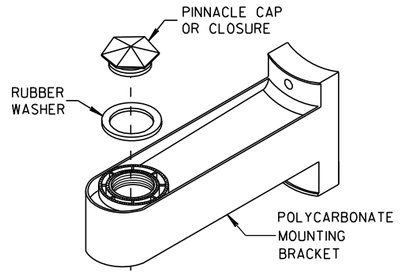

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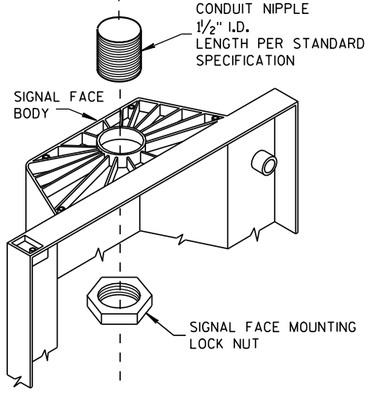
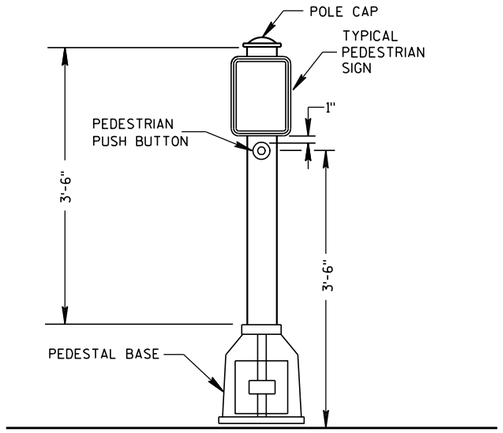


SIGNAL FACE MOUNTING DETAILS



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.

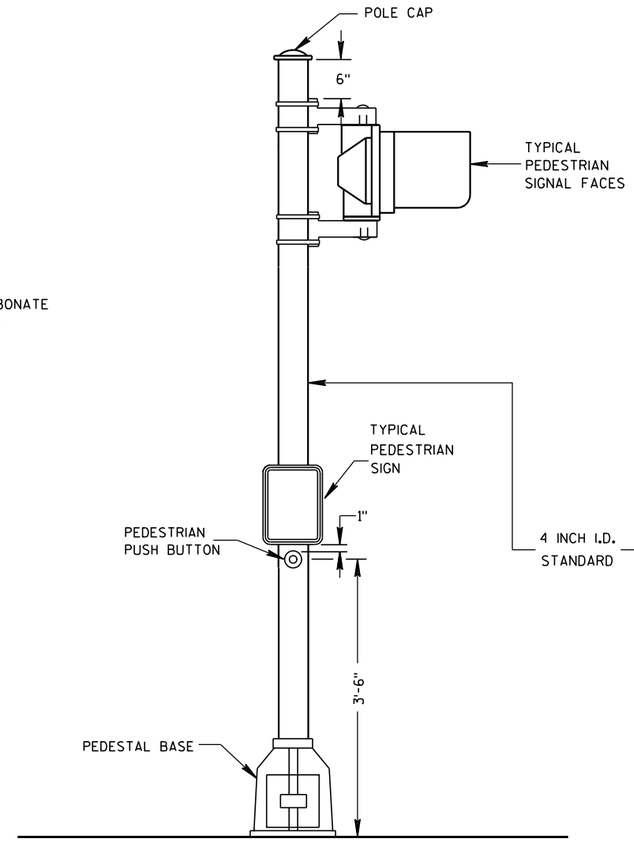
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

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

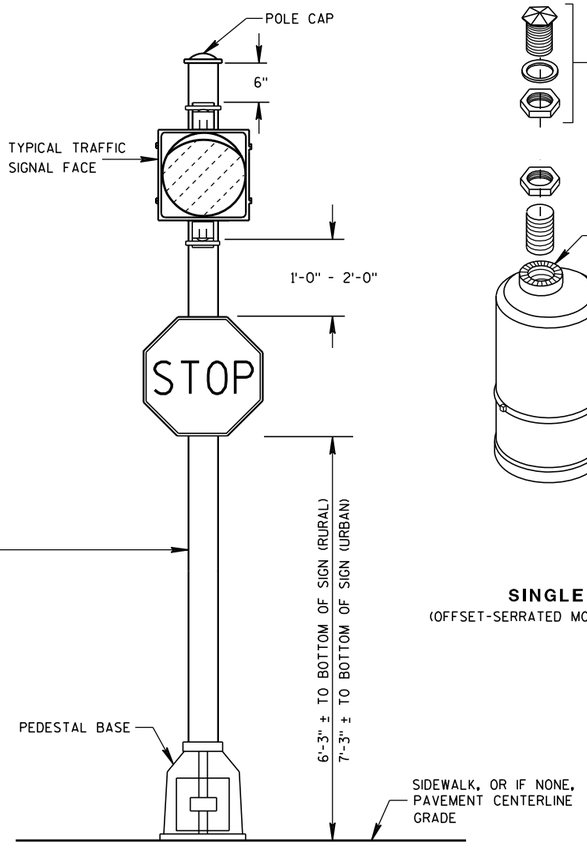
MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

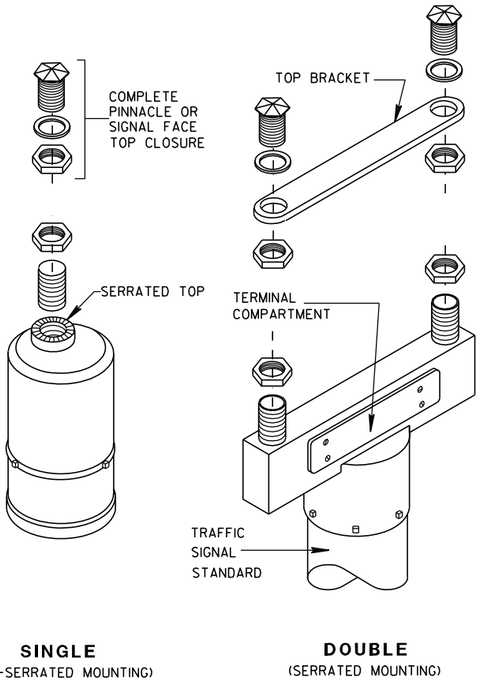
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



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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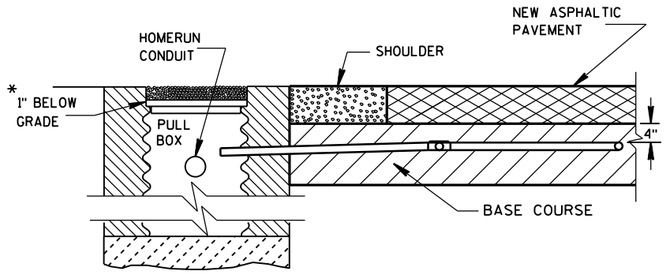
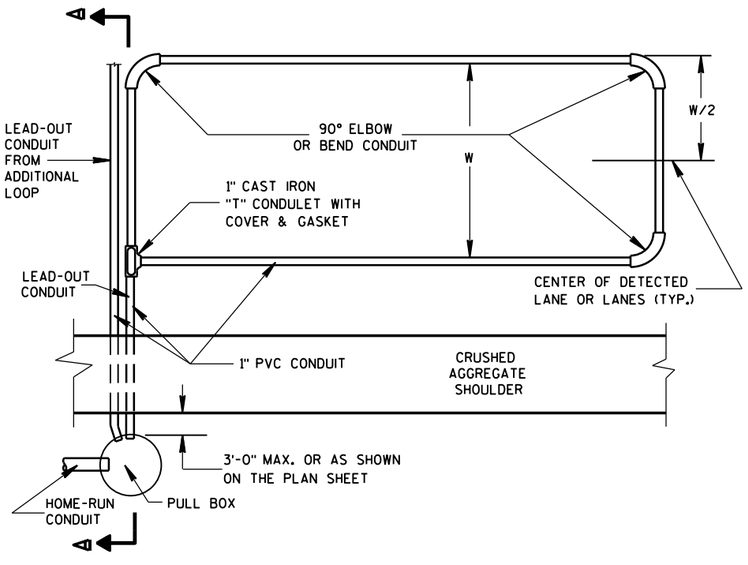


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL 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.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

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

LOOP SIZE, 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 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 FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

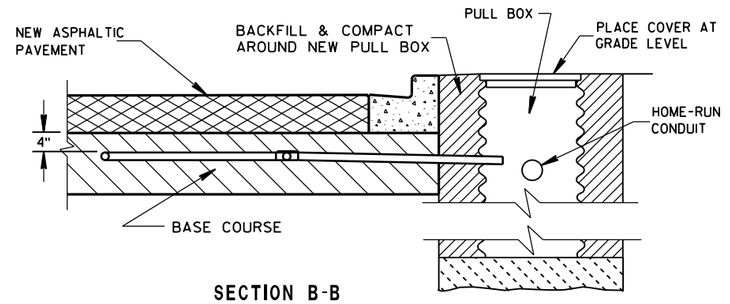
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

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

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

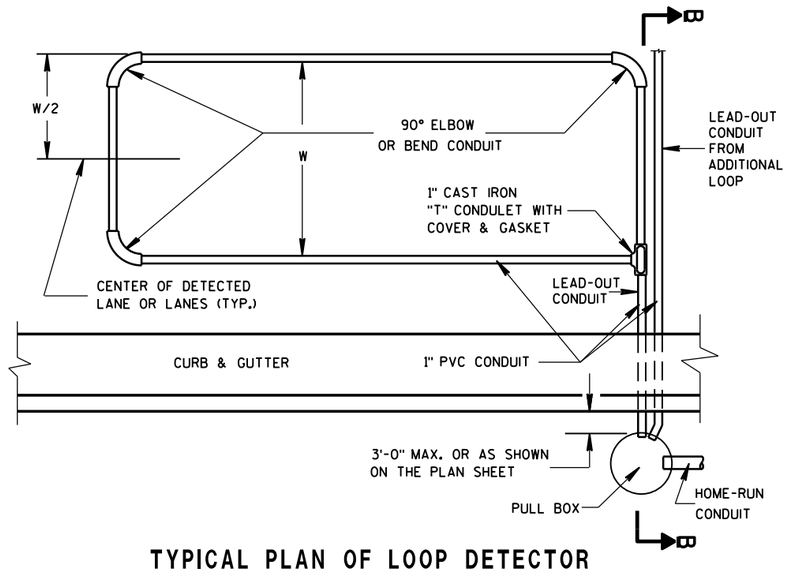
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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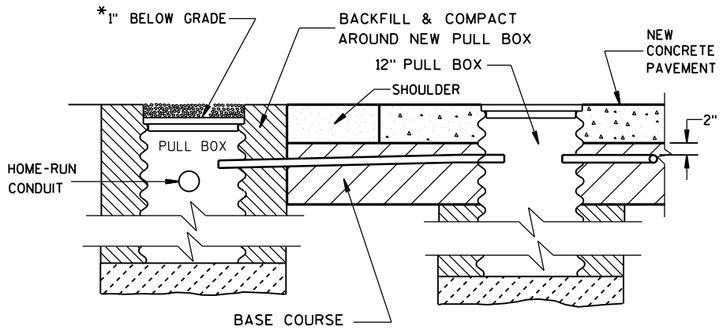

SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

*RECESS PULL 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.

GENERAL NOTES

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PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL 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.

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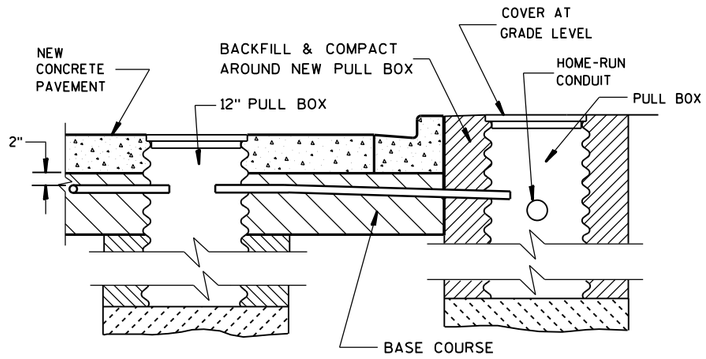
PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

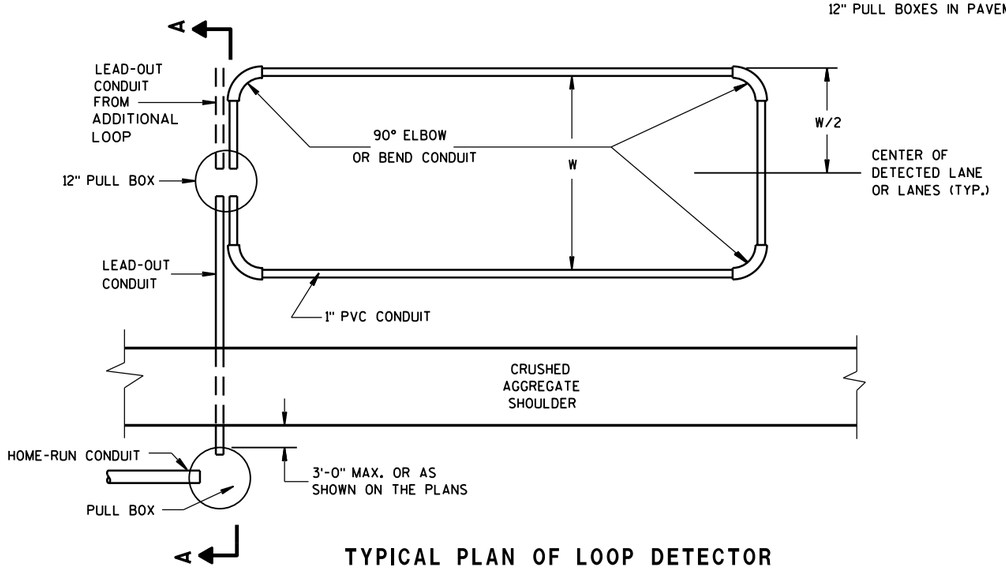
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



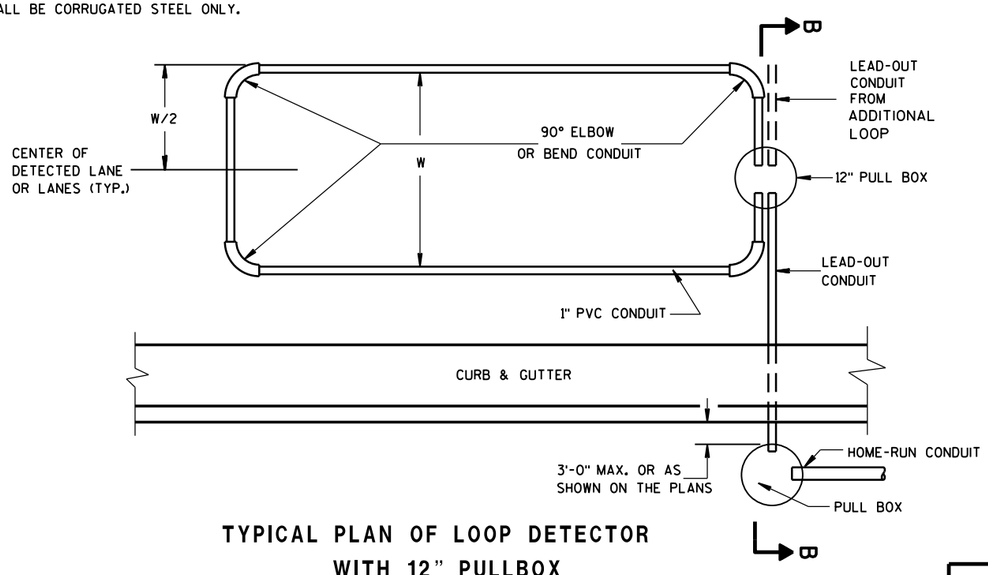
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2014 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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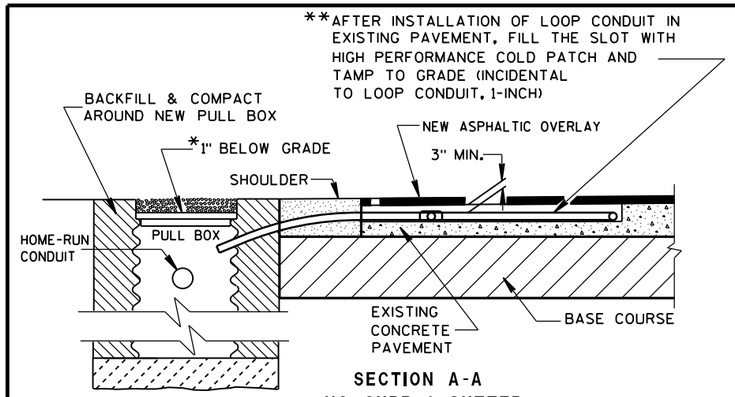

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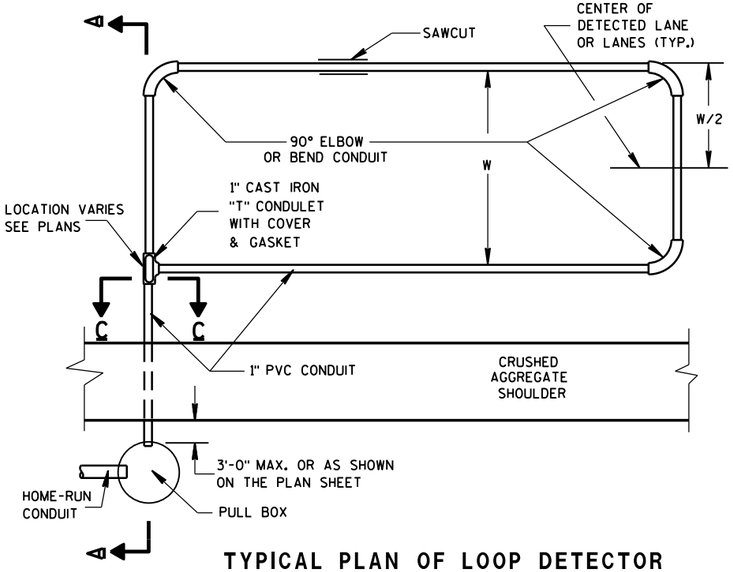
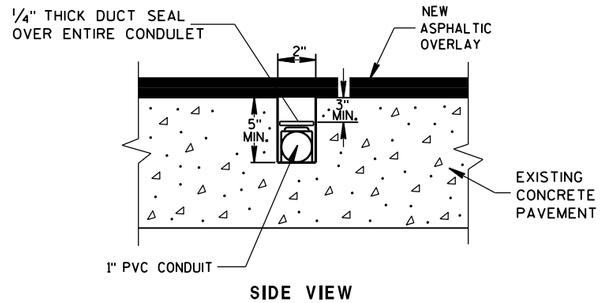


TYPICAL PLAN OF LOOP DETECTOR



SIDE VIEW
SECTION C-C

LOOP DETECTOR SLOT DETAIL

GENERAL NOTES

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IN THE EVENT EPOXY IS USED AS A LOOP SLOT FILLER, THE SLOT SHALL BE TOTALLY CLEAN AND DRY BEFORE ITS INSTALLATION.

BEFORE PLACING THE 1 INCH CONDUIT IN THE CLEANED OUT SLOT, PLACE SOME OF THE TAR OR EPOXY SEALANT IN THE SLOT TO A DEPTH OF APPROXIMATELY 1/2 INCH.

ONCE THE 2" LOOP SLOT HAS BEEN CHIPPED OUT, THE LOOP INSTALLATION SHALL BE COMPLETED PRIOR TO OPENING THE LANE(S) TO TRAFFIC.

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.

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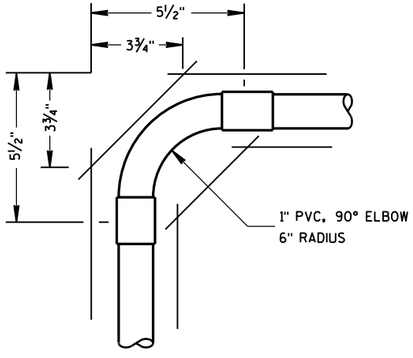
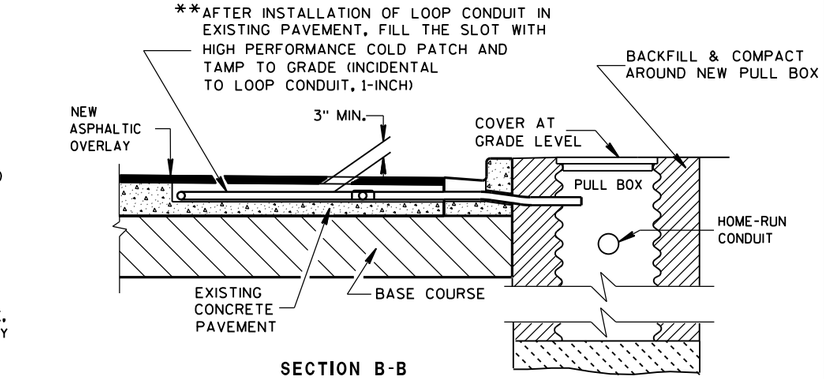
** AFTER THE HIGH PERFORMANCE COLD PATCH HAS BEEN TAMPED, SEAL THE SLOT/HIGH PERFORMANCE COLD PATCH/ PAVEMENT OPENING WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



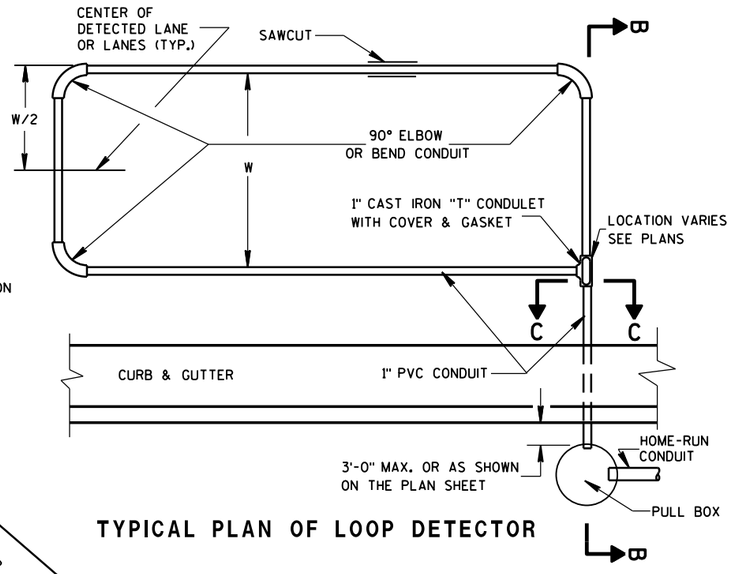
TOP VIEW

CORNER SAW SLOT DETAIL

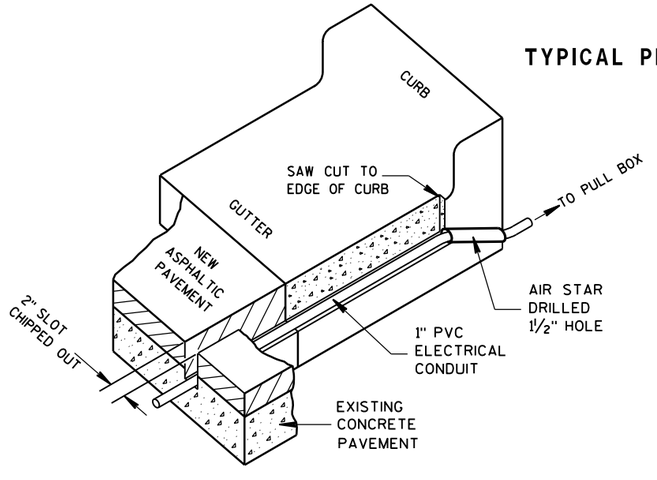


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR



ISOMETRIC VIEW

TYPICAL SAW CUT DETAIL FOR LEAD-IN CONDUIT

LOOP DETECTOR INSTALLED IN EXISTING CONCRETE PAVEMENT WITH NEW ASPHALTIC OVERLAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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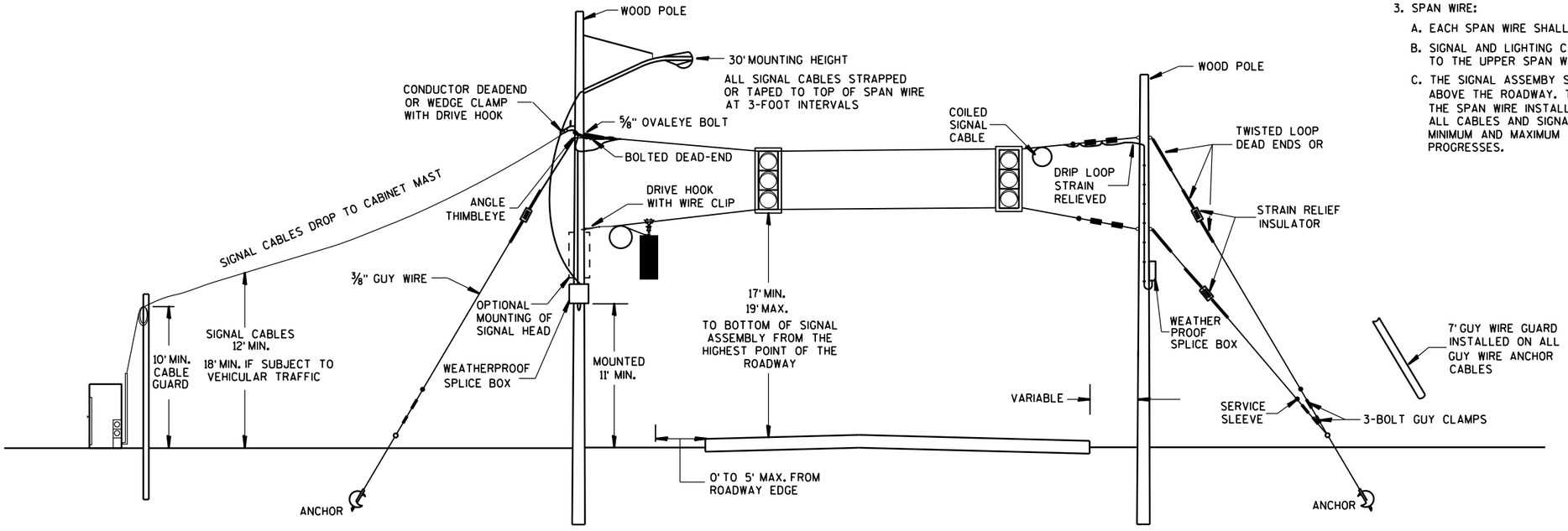
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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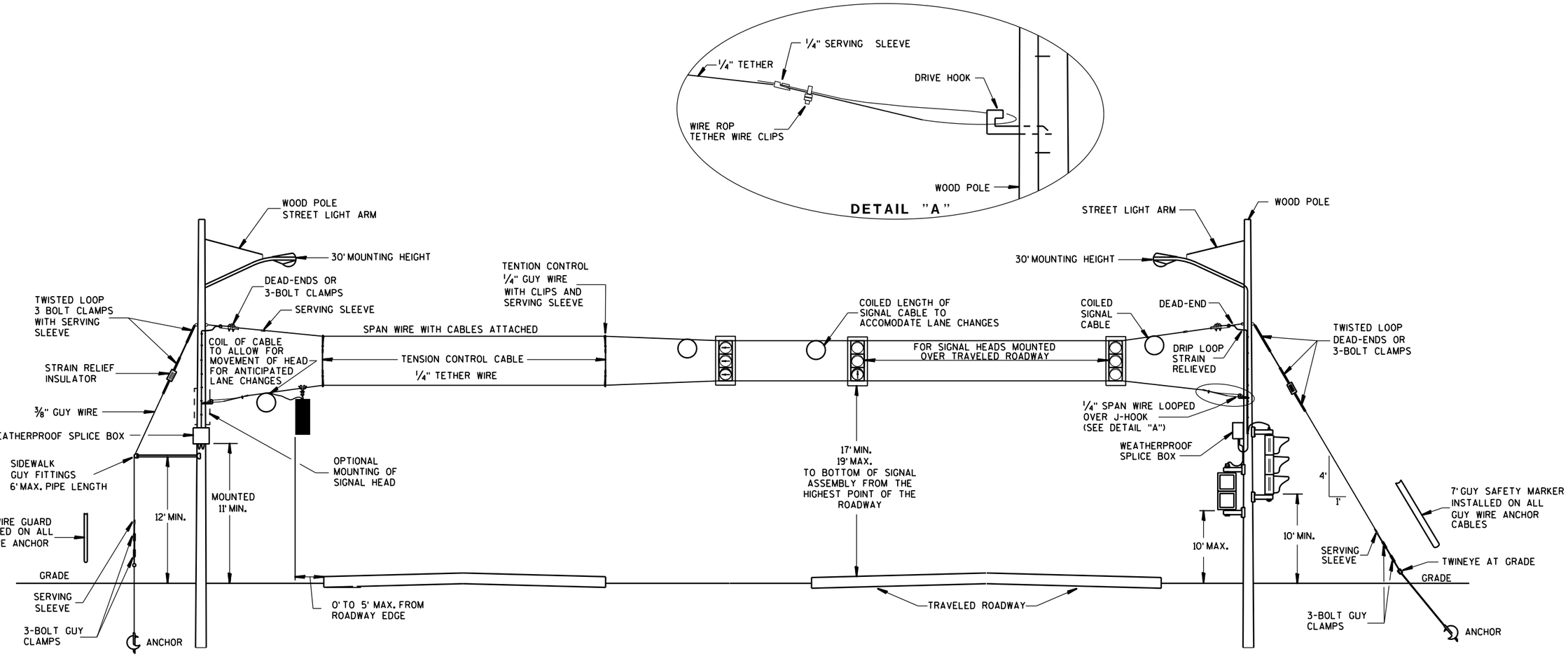

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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/S/ Ahmet Demirbilek — STATE ELECTRICAL
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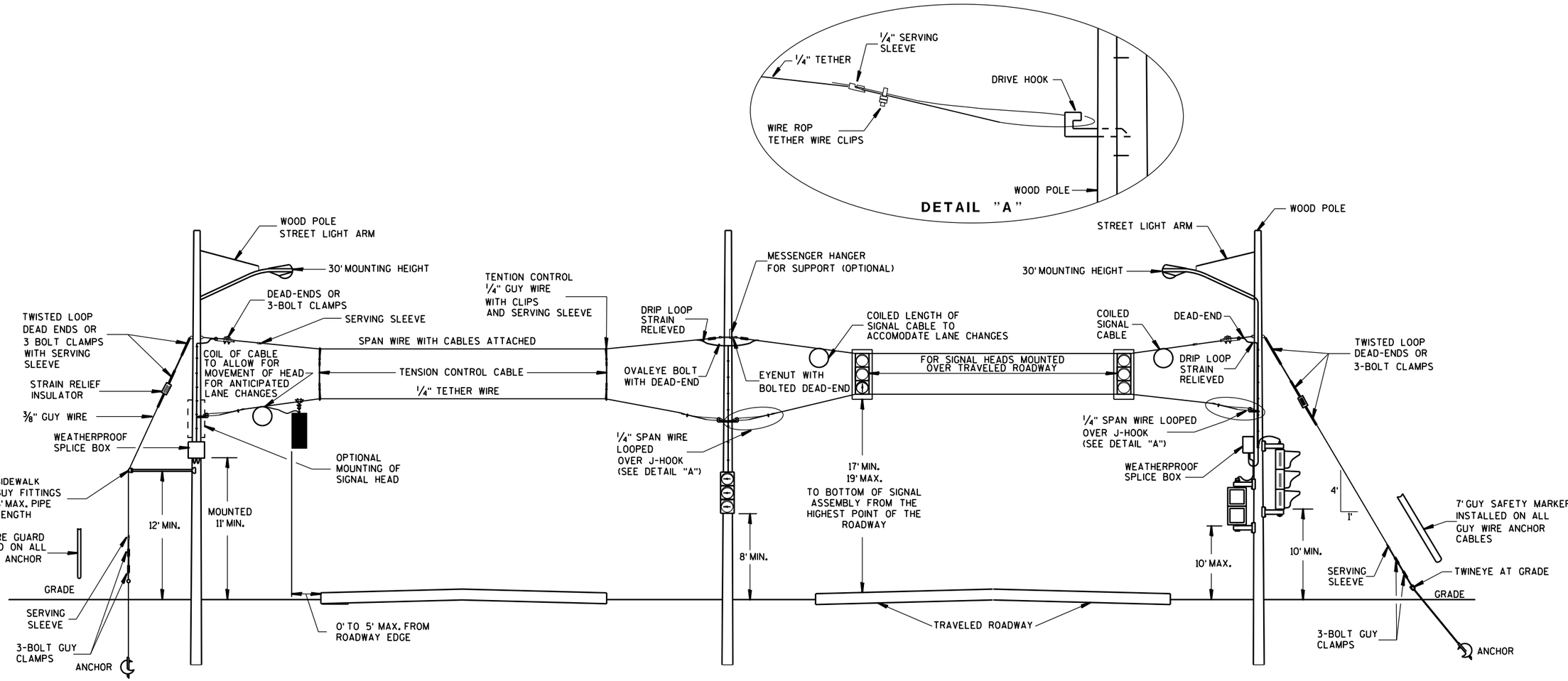

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

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MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

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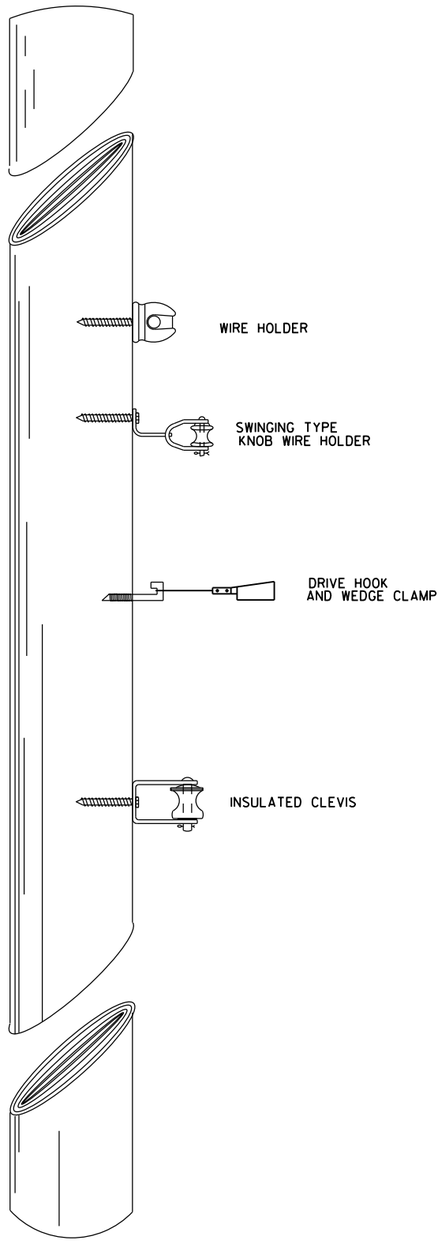
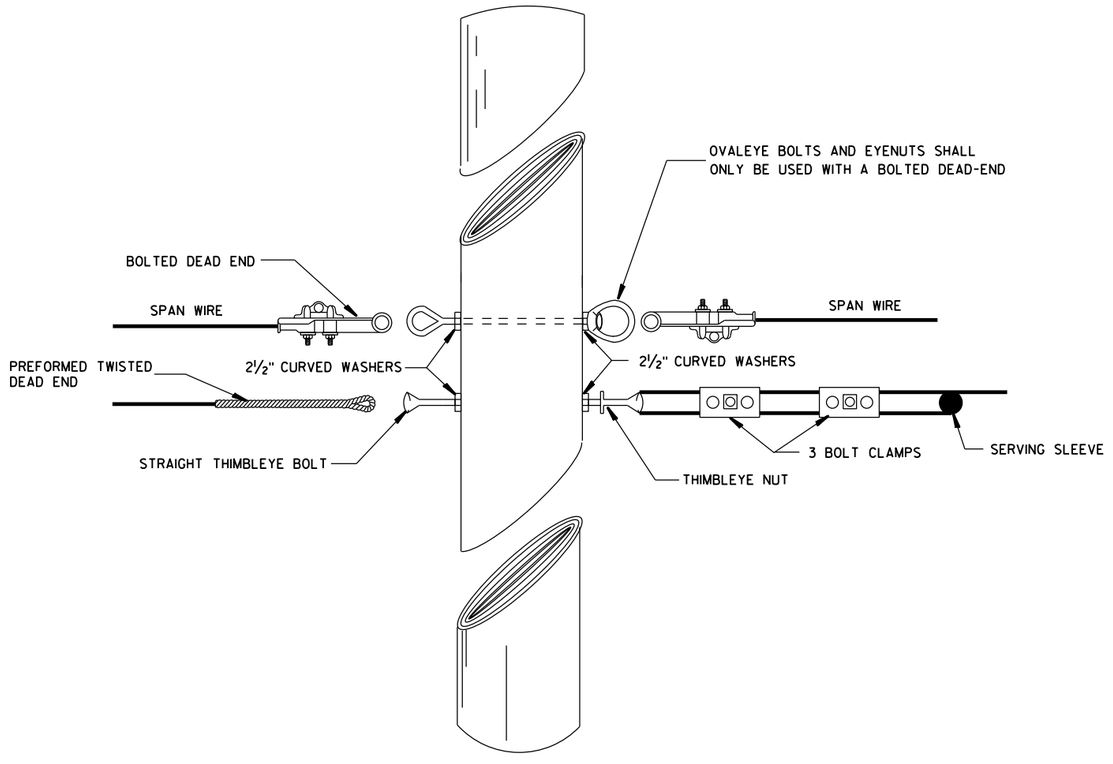


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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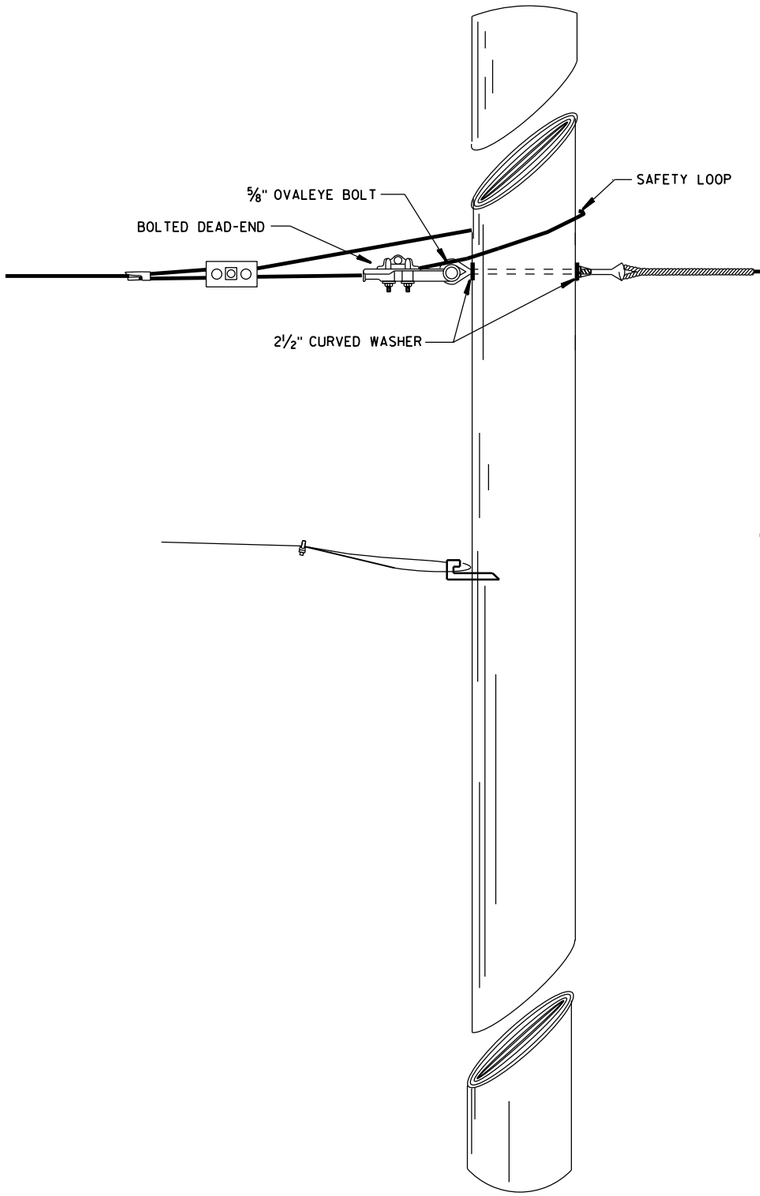
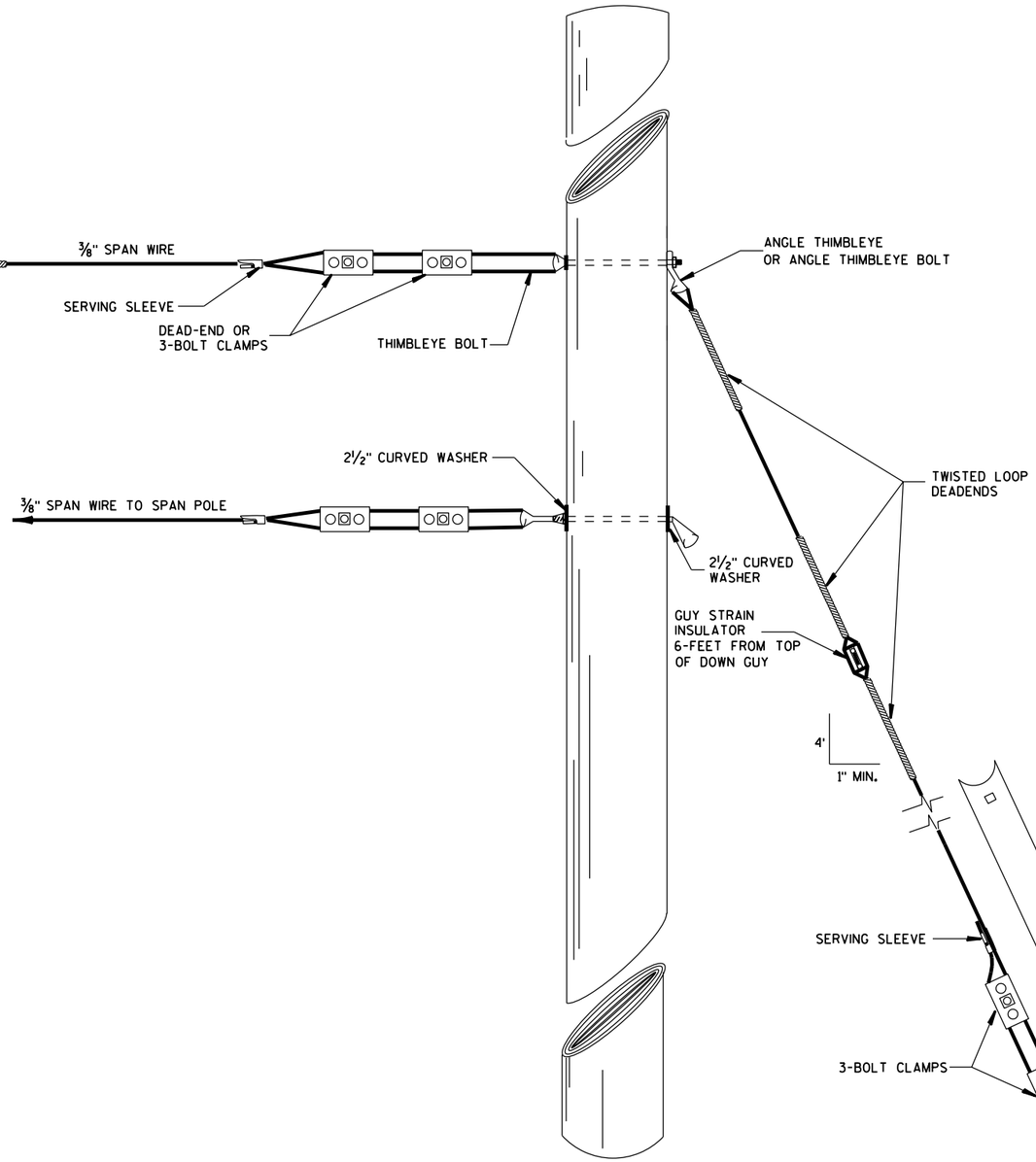
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



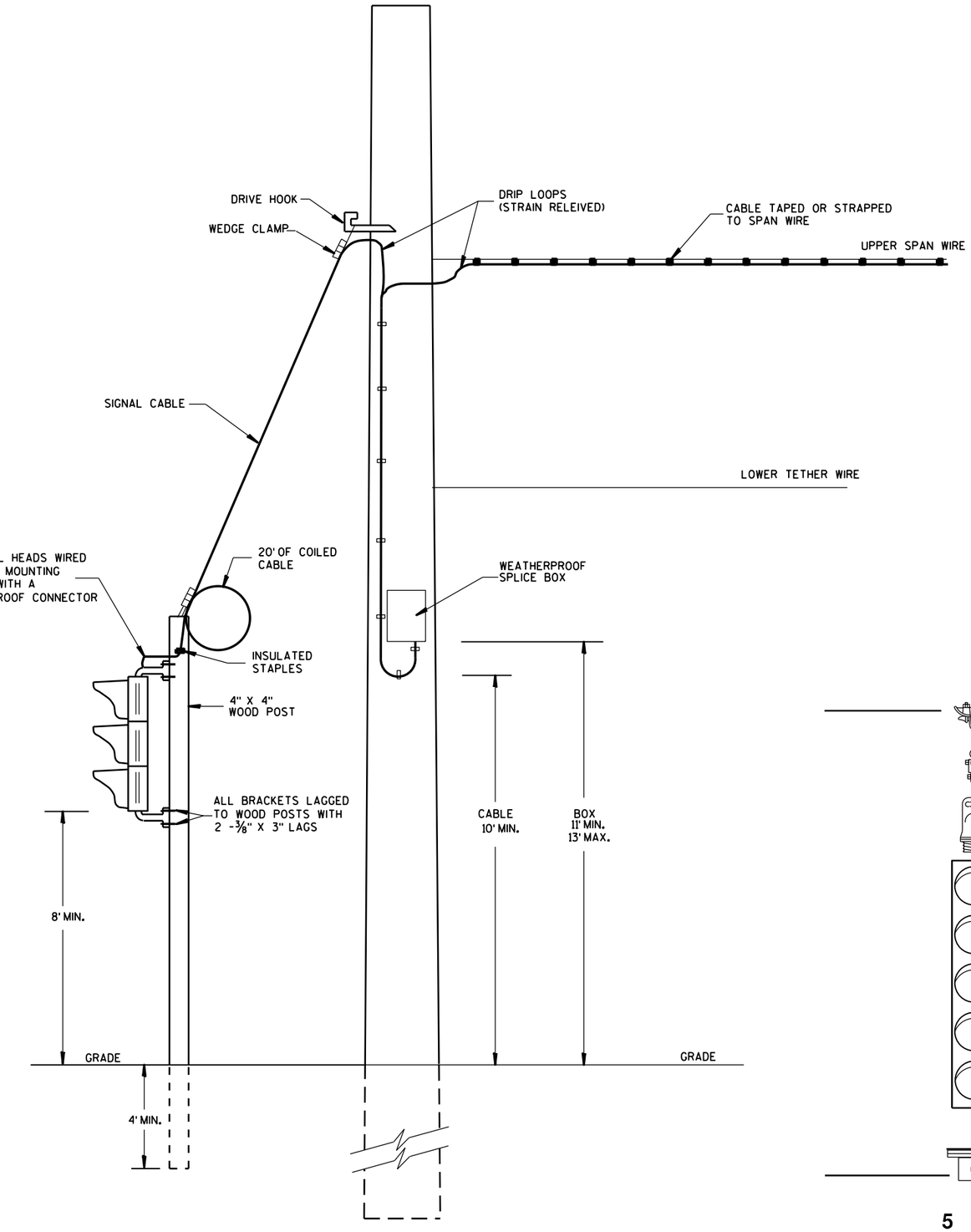
SPAN WIRE POLE



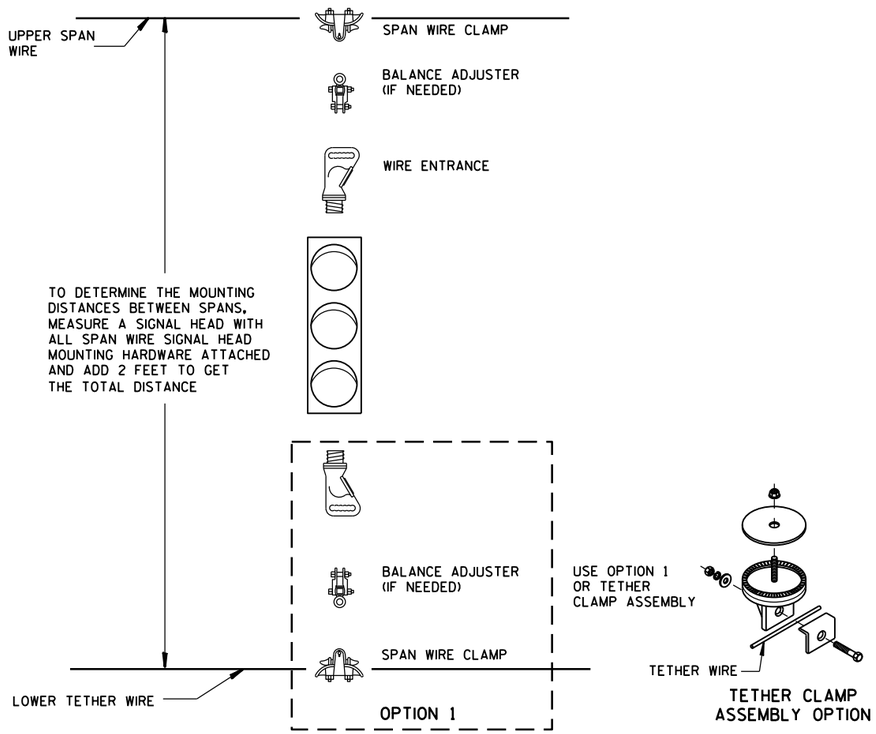
GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June. 2015 (DATE) /S/ Ahmet Demirbilek (STATE ELECTRICAL) FHWA

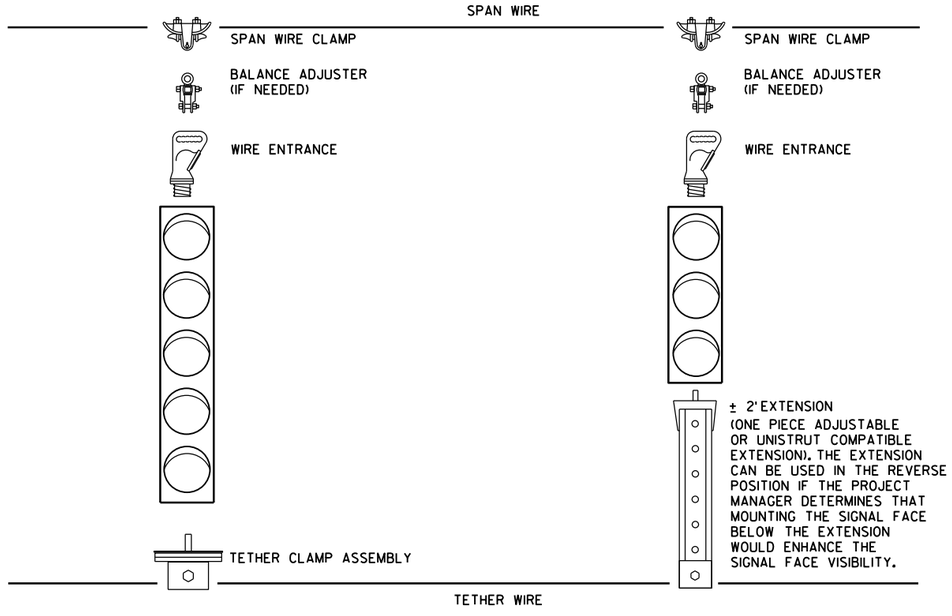


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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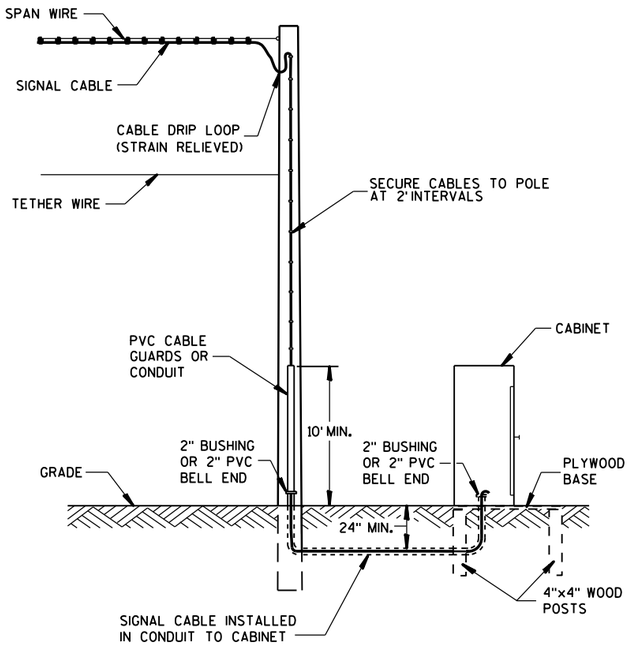

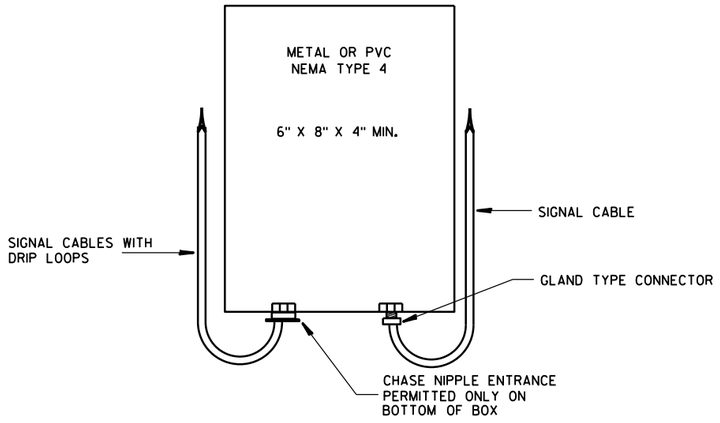

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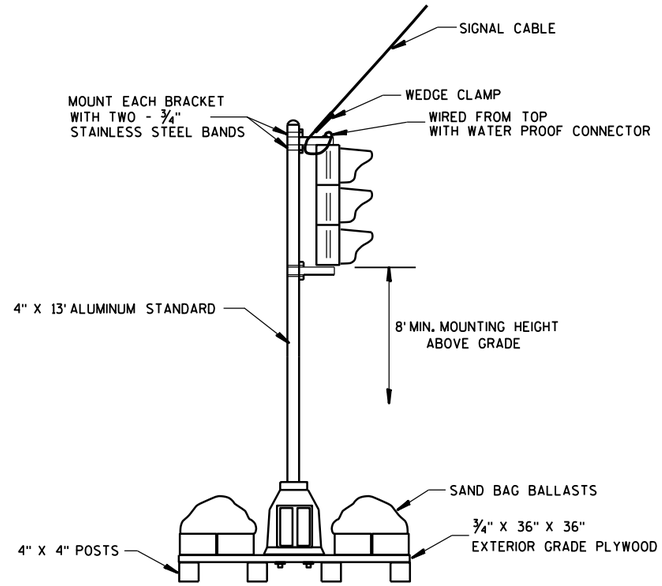
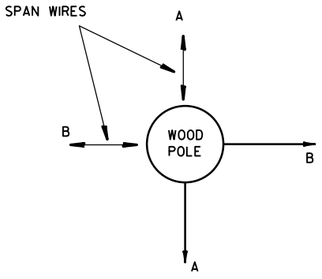
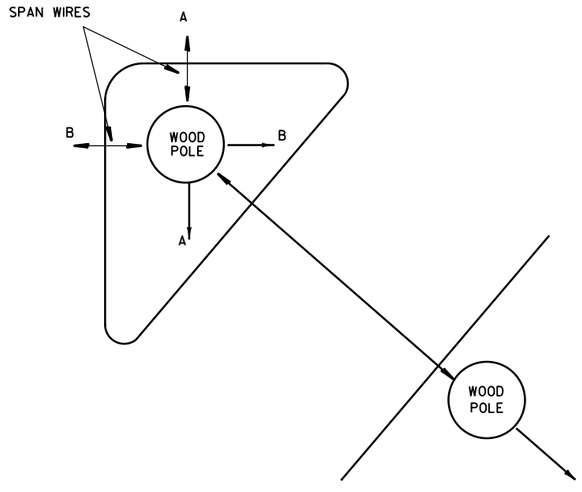


TYPICAL SKID TYPE TEMPORARY

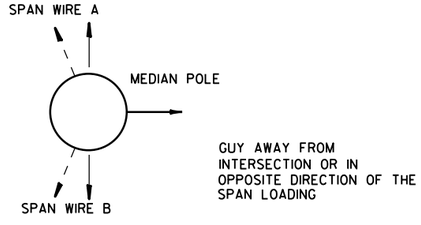


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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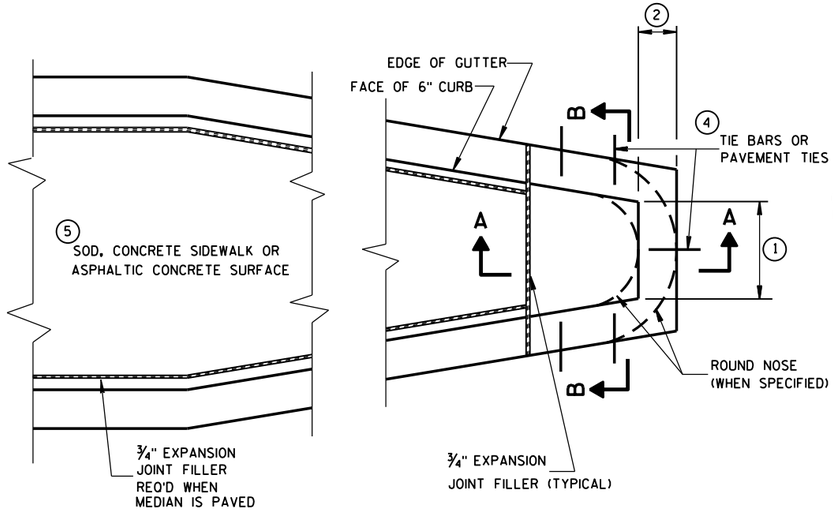
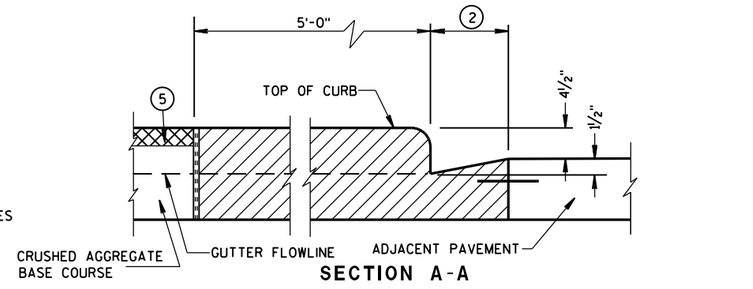
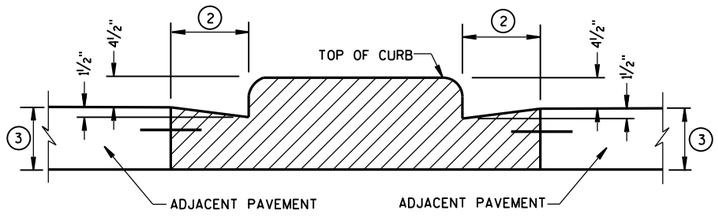
S.D.D. 9 G 1-4g







CONCRETE MEDIAN BLUNT NOSE DETAIL

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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

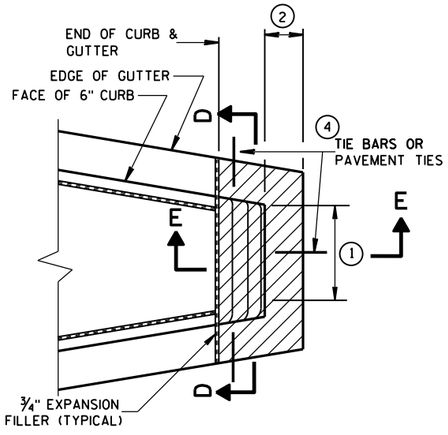
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

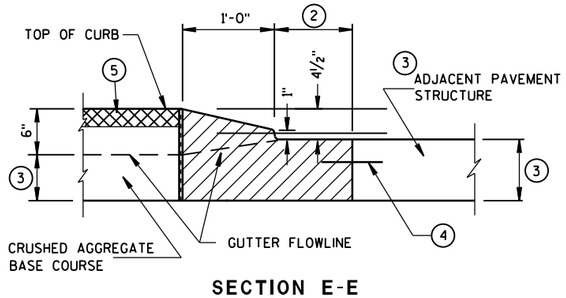
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

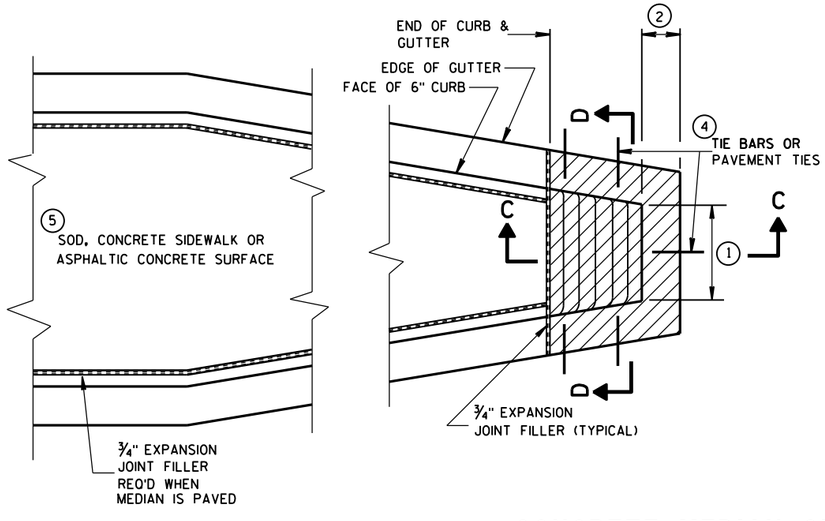
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



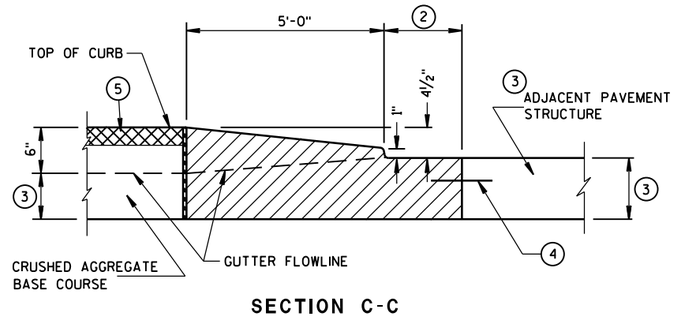


SECTION E-E

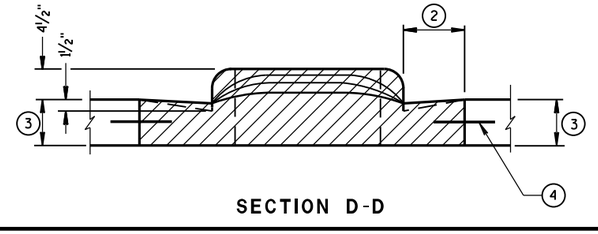
CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION C-C



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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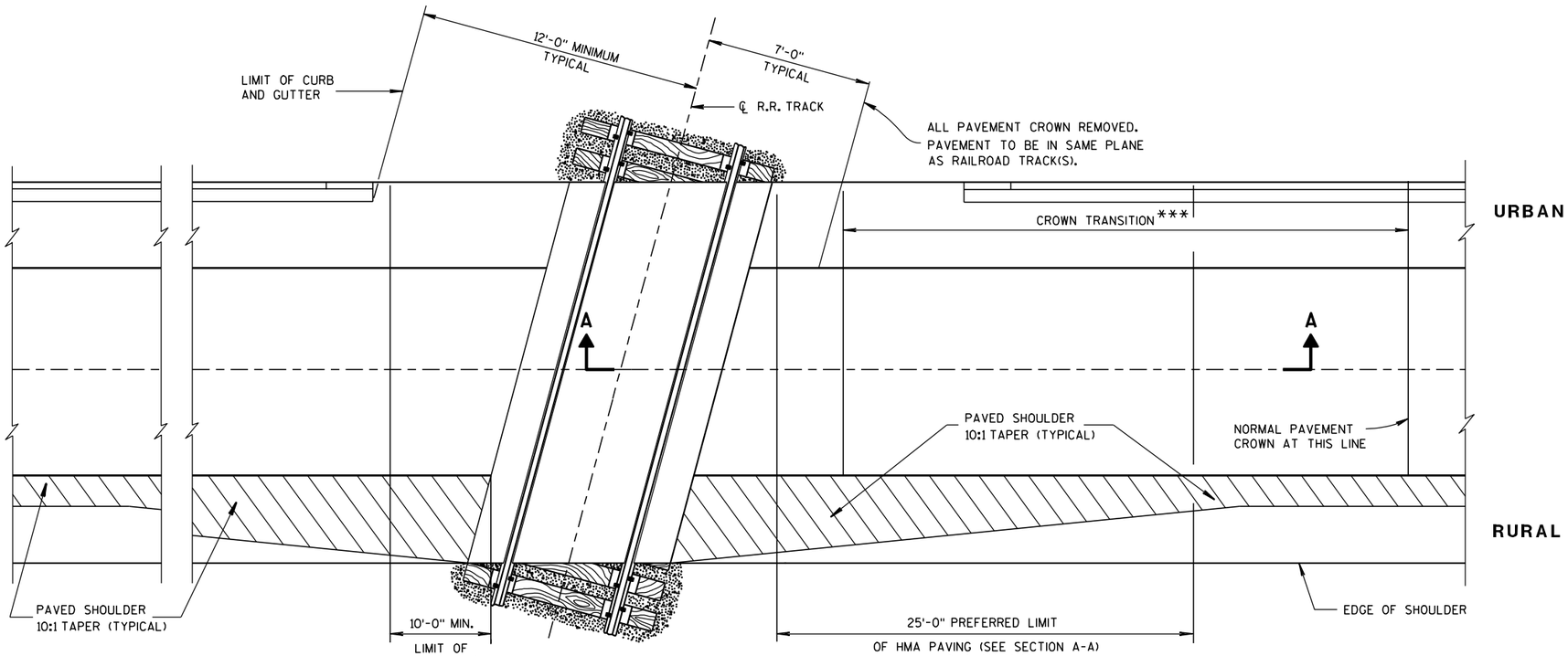
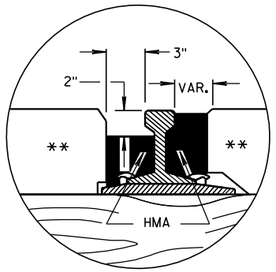




DETAIL B

HMA FLANGEWAY AND FIELD FILLERS

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

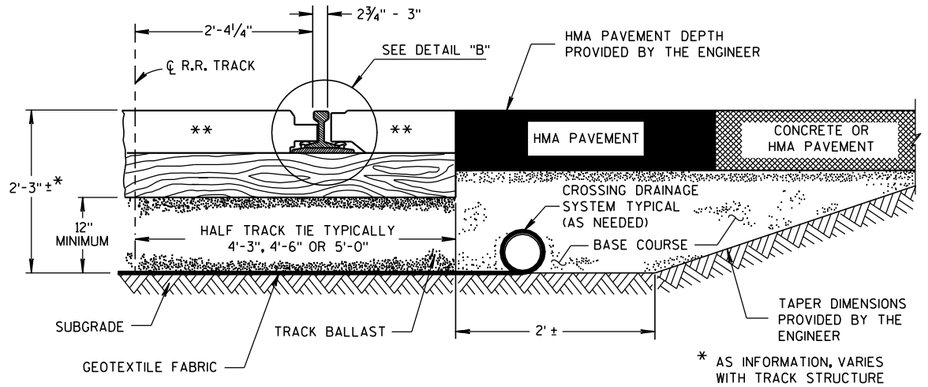
HMA PAVEMENT APPROACHES AND HMA PAVEMET CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

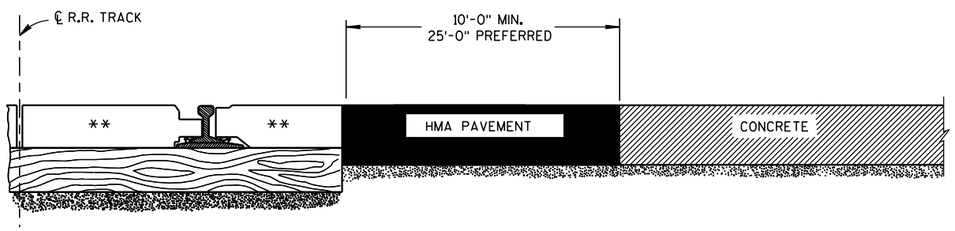
HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.



TYPICAL HALF SECTION



SECTION A-A

CONCRETE PAVEMENT APPROACH

SECTION A-A

HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-28-09 DATE
/S/ Ronald E. Adams
CHIEF, RAILROADS & HAI[illegible] 165 CTION
FHWA

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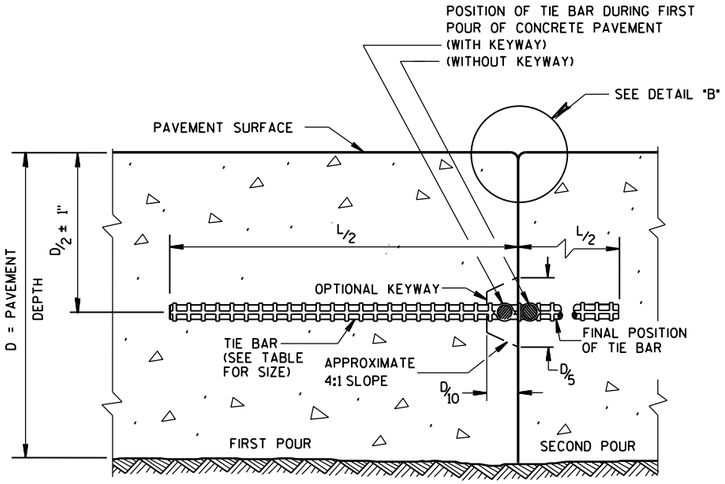
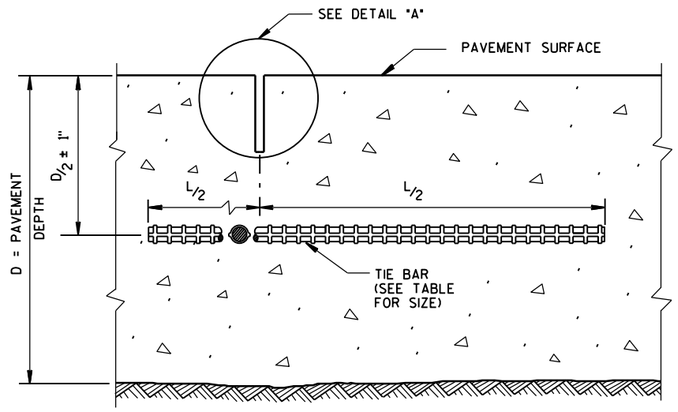
S.D.D. 13 B 1-10



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

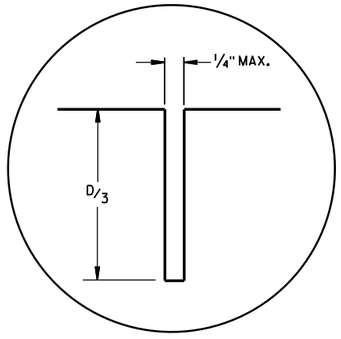
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

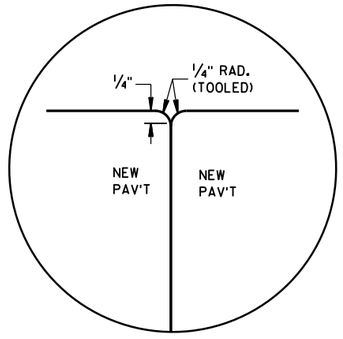
PLAN VIEW

SECTION A-A

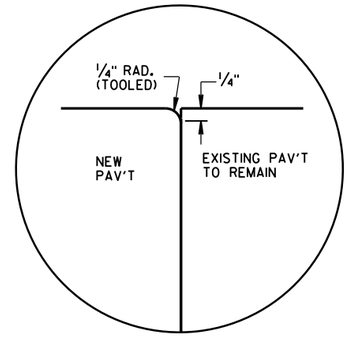
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



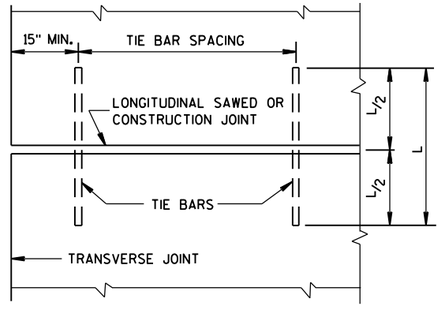
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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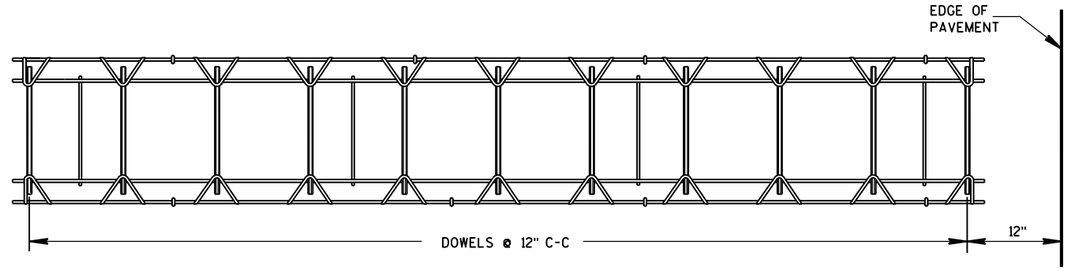
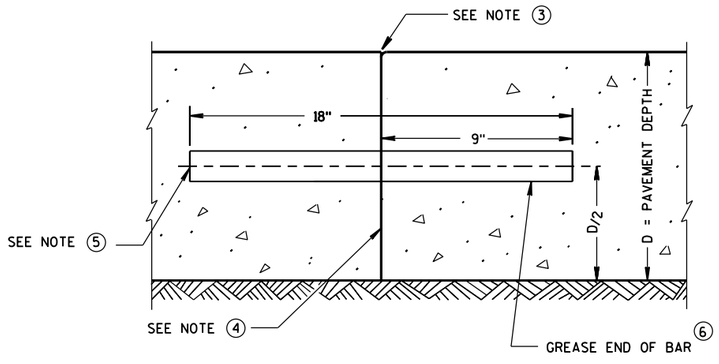


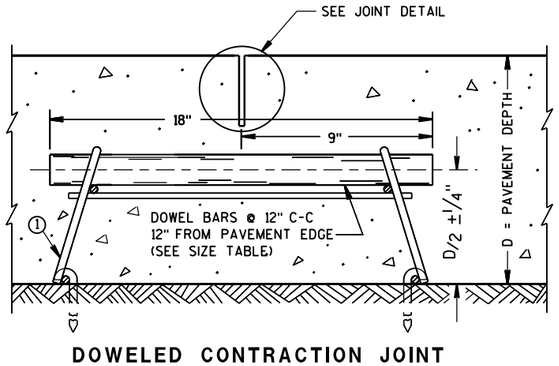
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



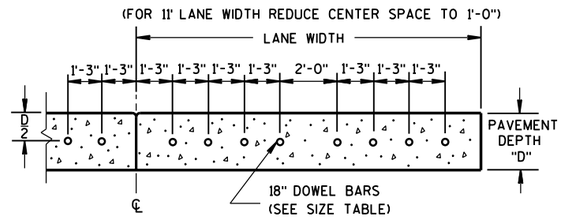
TRANSVERSE CONSTRUCTION JOINT



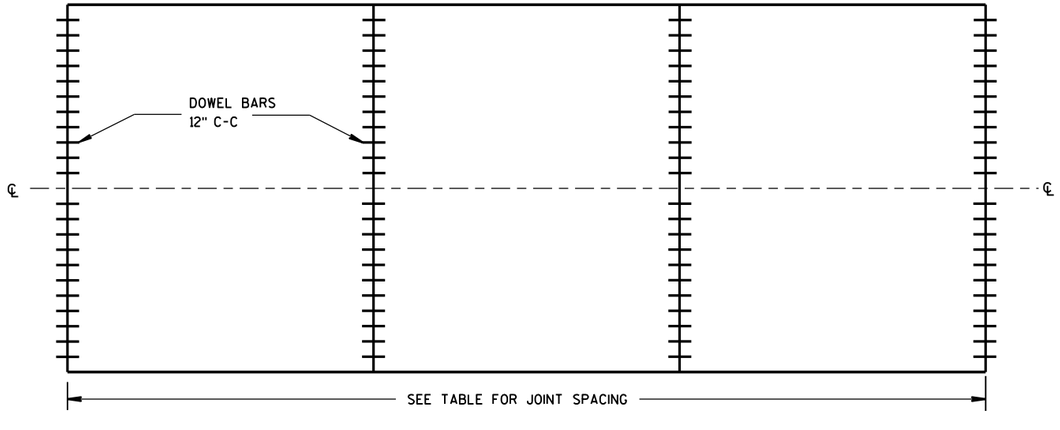
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

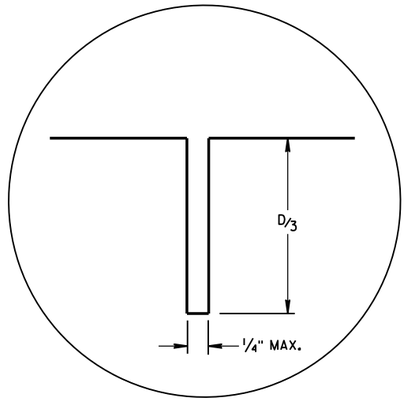
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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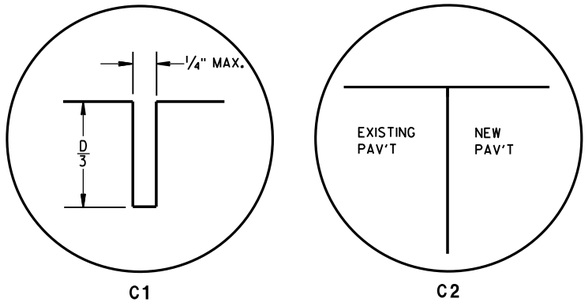
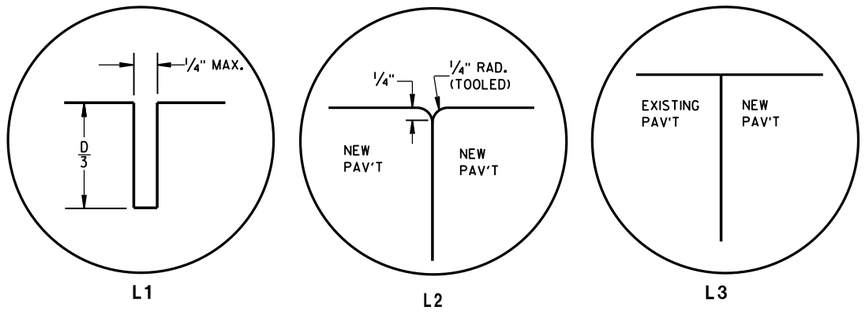
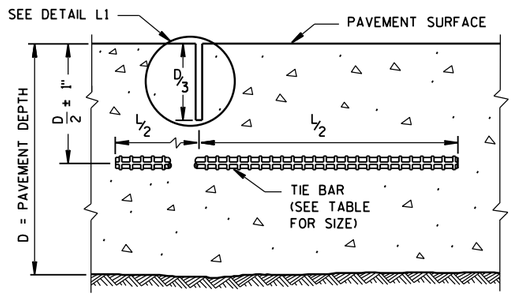
S.D.D. 13 C 13-8



TRANSVERSE JOINTS

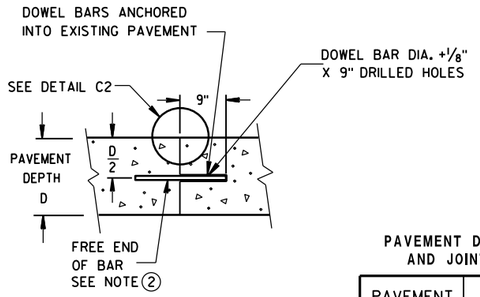


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

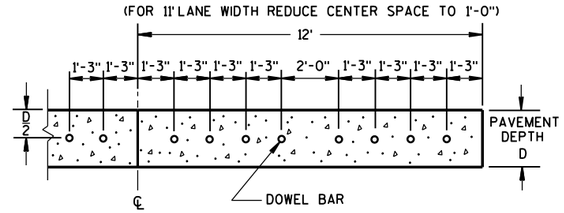
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL 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) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

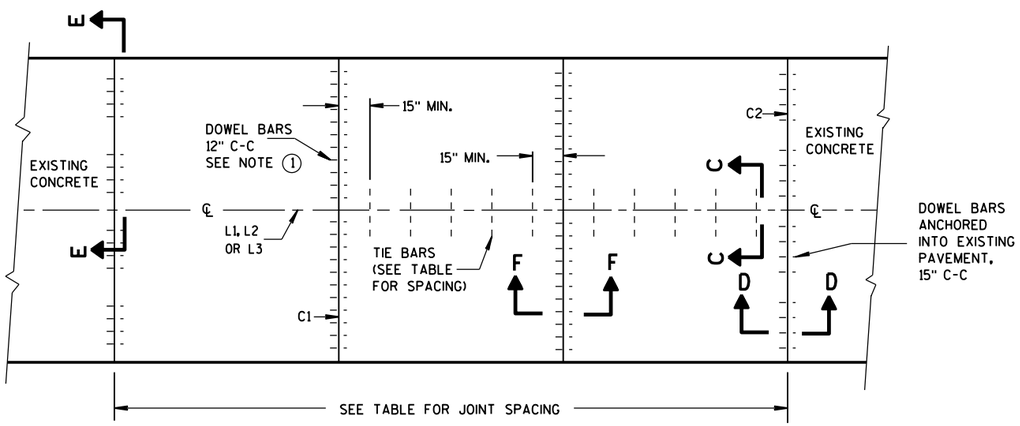
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

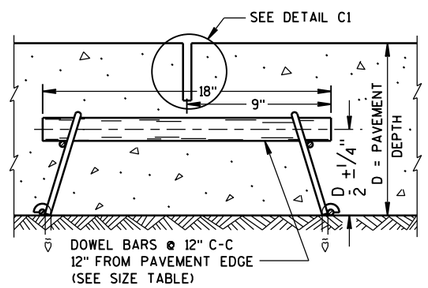
* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

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



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

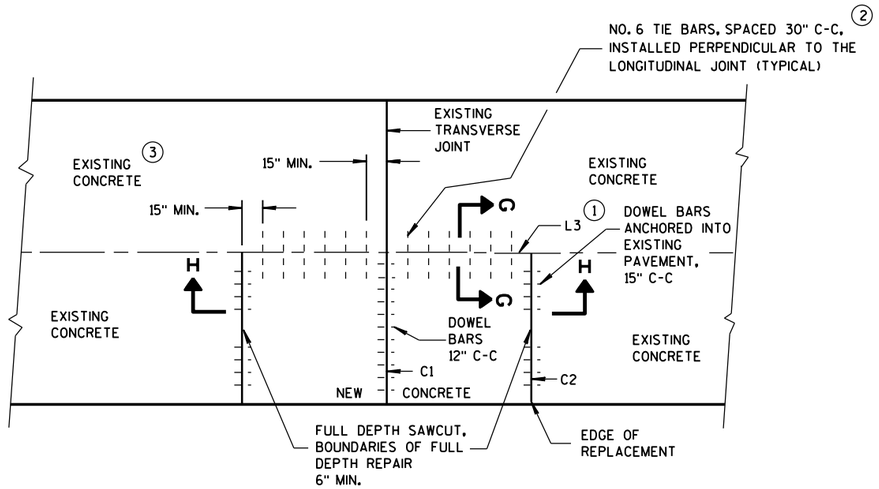
6
S.D.D. 13 C 15-6a

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.

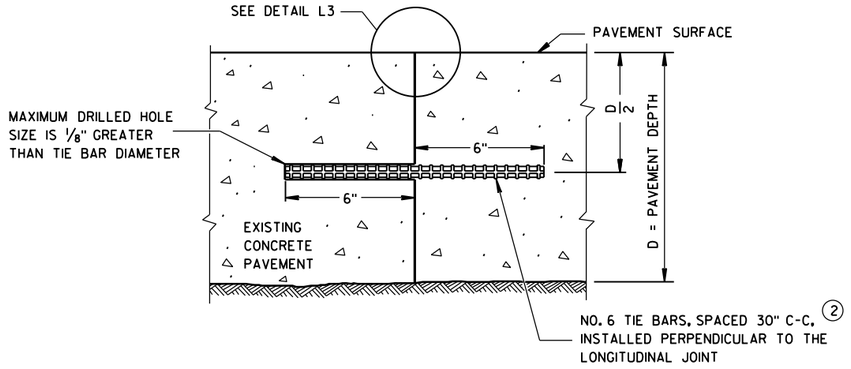
(2) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(3) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



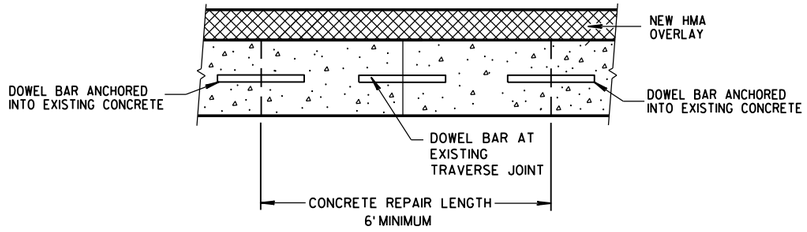
PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR



SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H-H

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 13 C 15-6b

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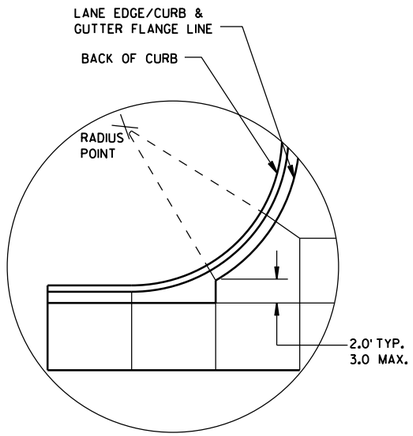
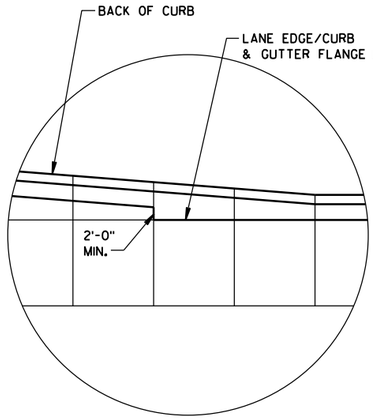
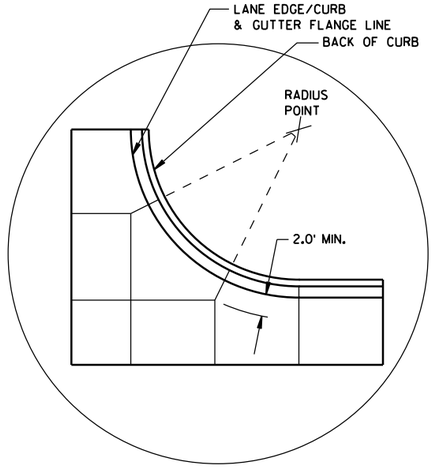
S.D.D. 13 C 15-6b



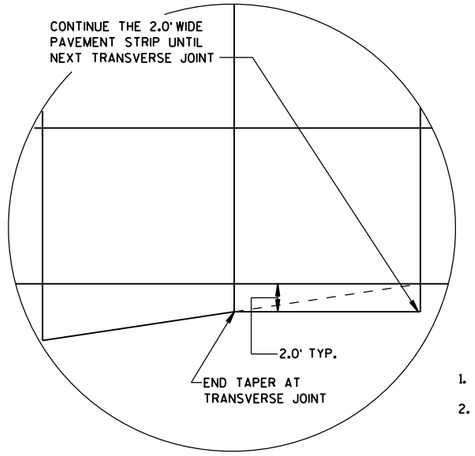
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

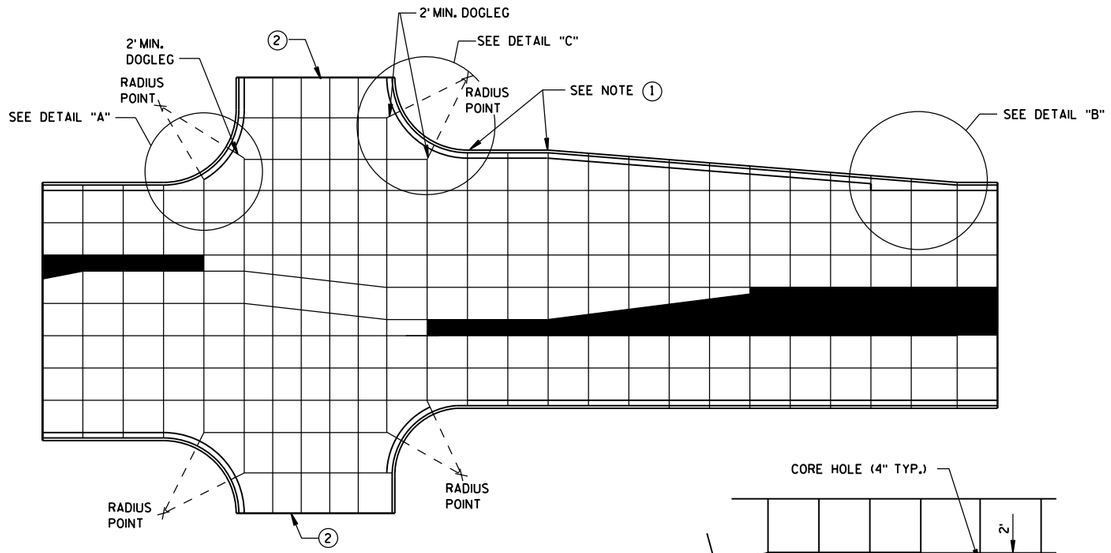
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

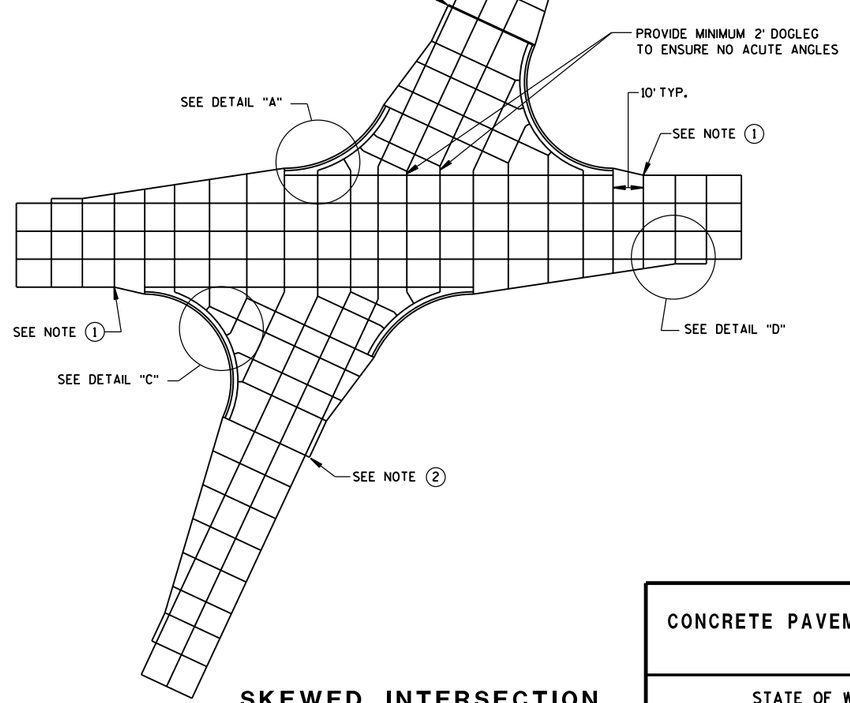
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



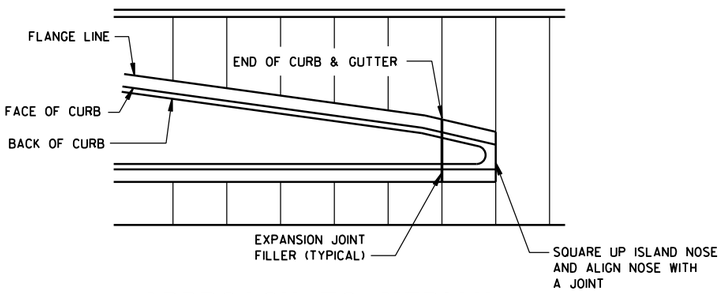
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

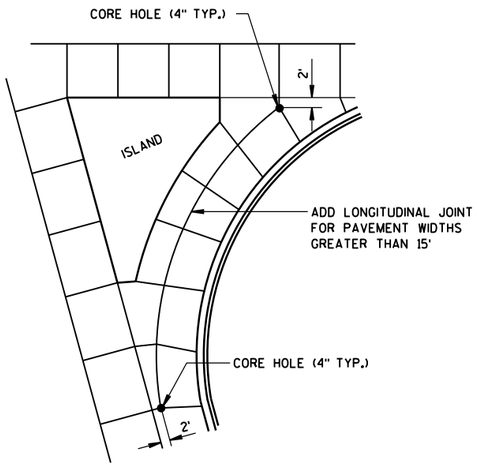
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

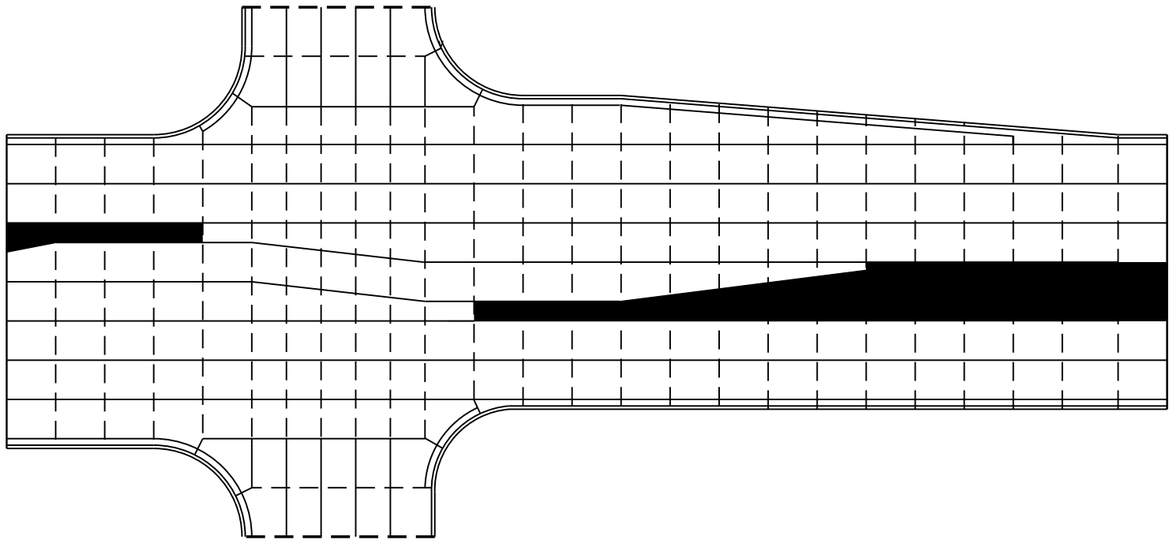
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

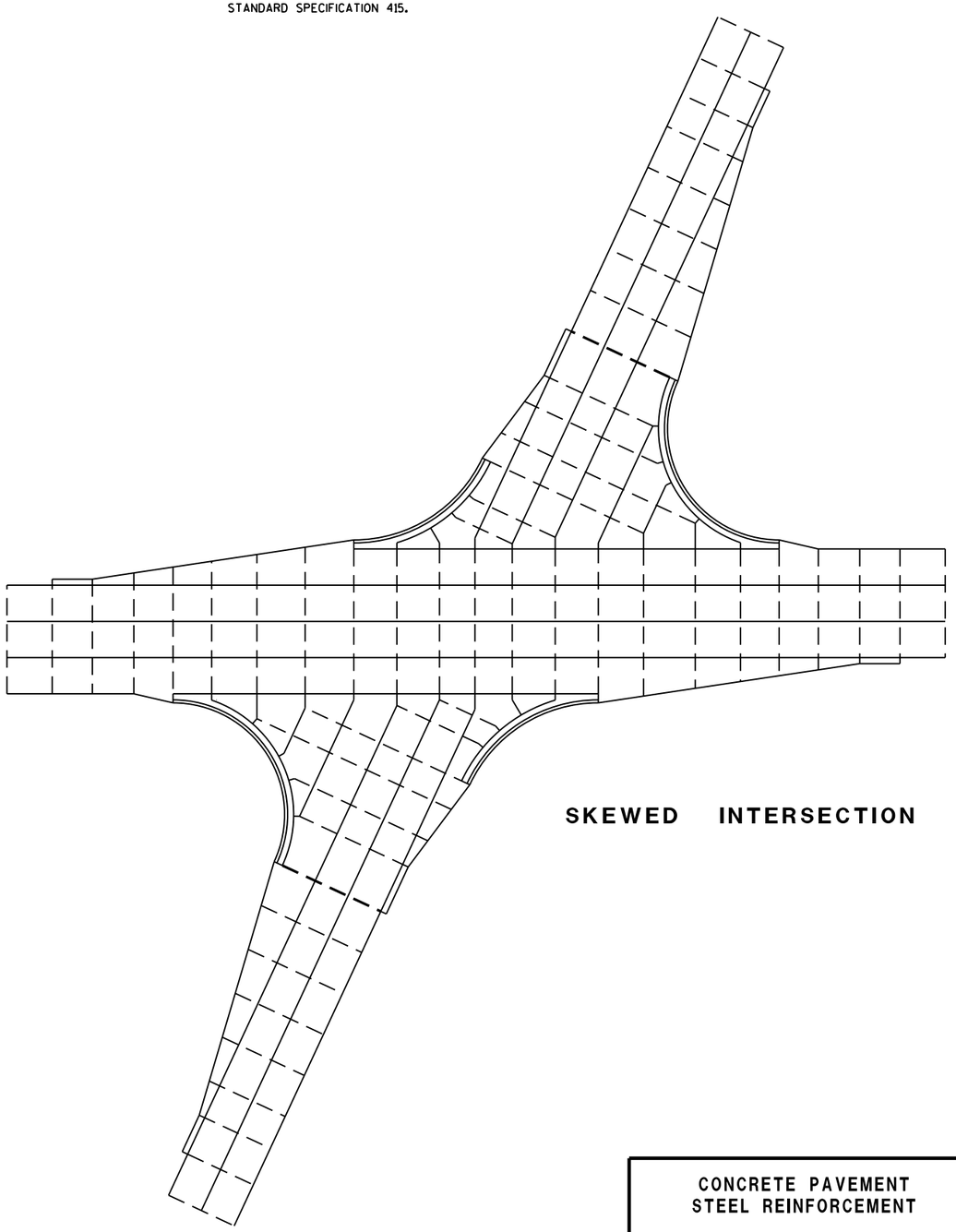
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

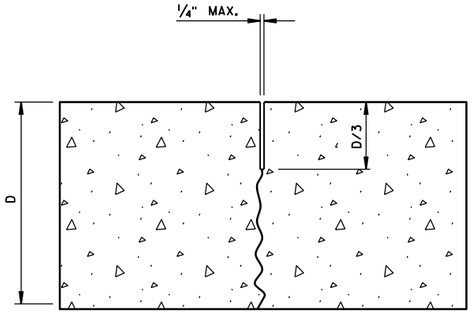
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

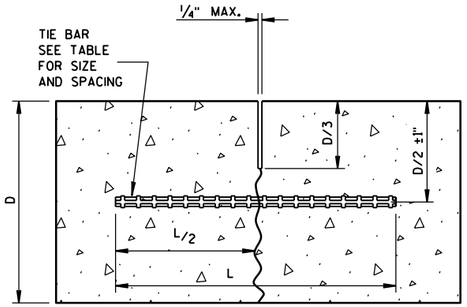
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

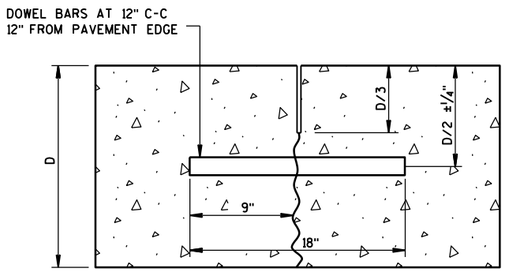
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

GENERAL NOTES

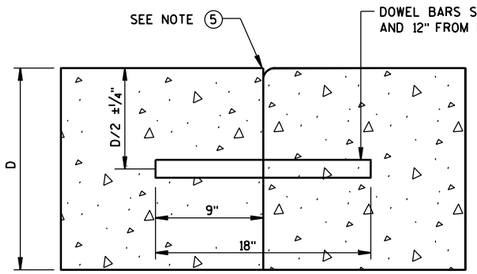
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



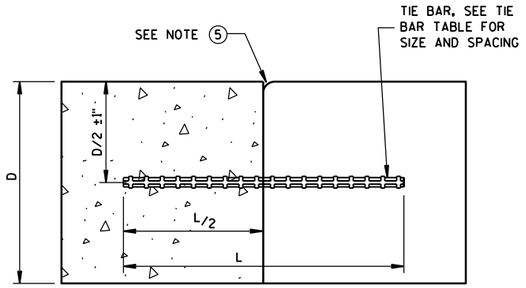
DOWELED-TRANSVERSE

CONTRACTION JOINTS

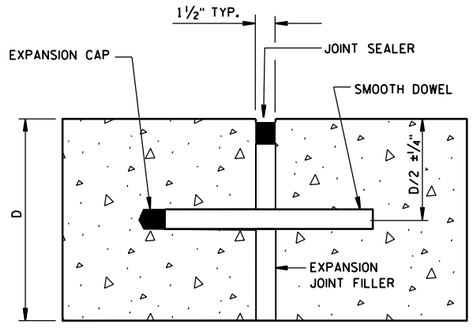
SEE NOTE (2)



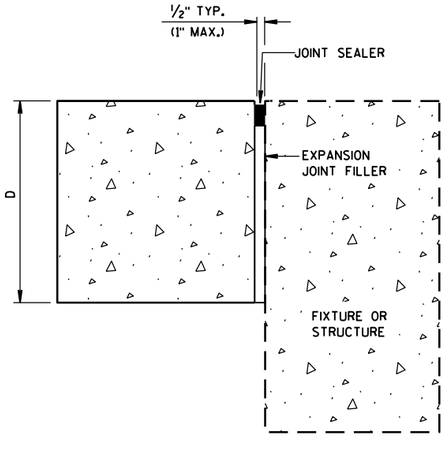
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL

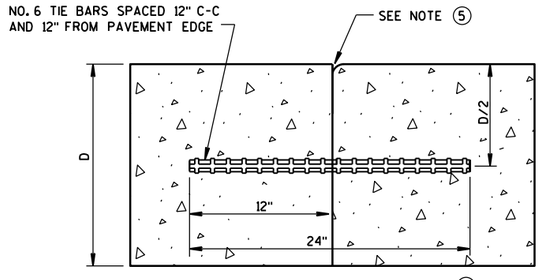


DOWELED-TRANSVERSE
SEE NOTE (1)

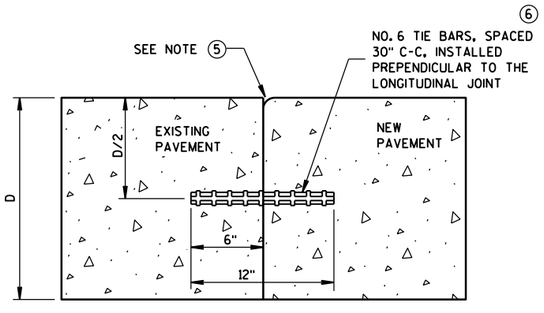


UNTIED-LONGITUDINAL

EXPANSION JOINTS



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

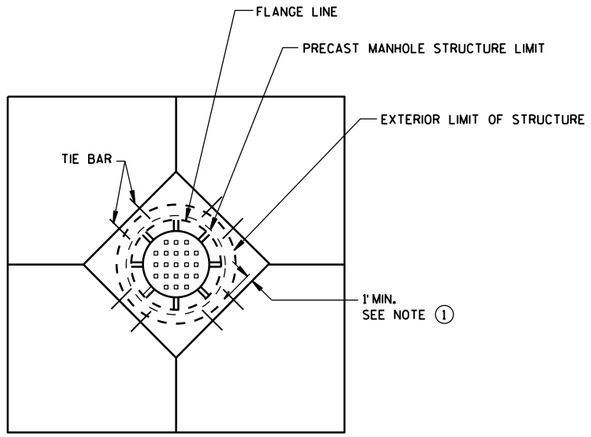
SEE NOTE (4)

CONCRETE PAVEMENT
JOINT TYPES

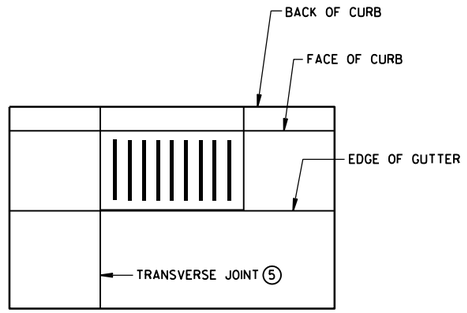
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

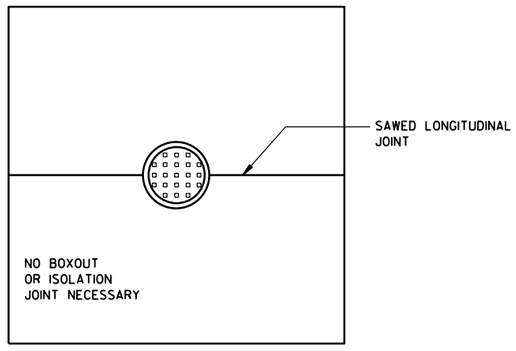
S.D.D. 13 C 18-3c



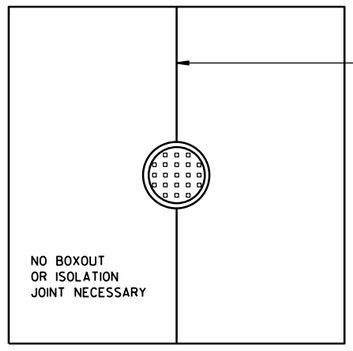
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



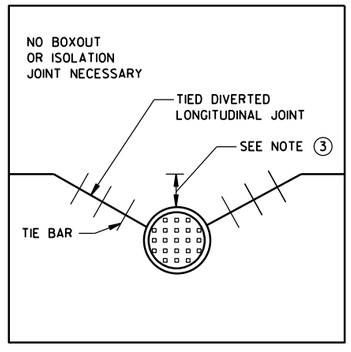
INLET WITH TRANSVERSE JOINT



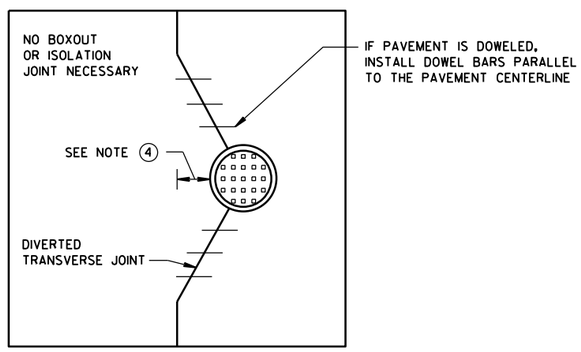
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

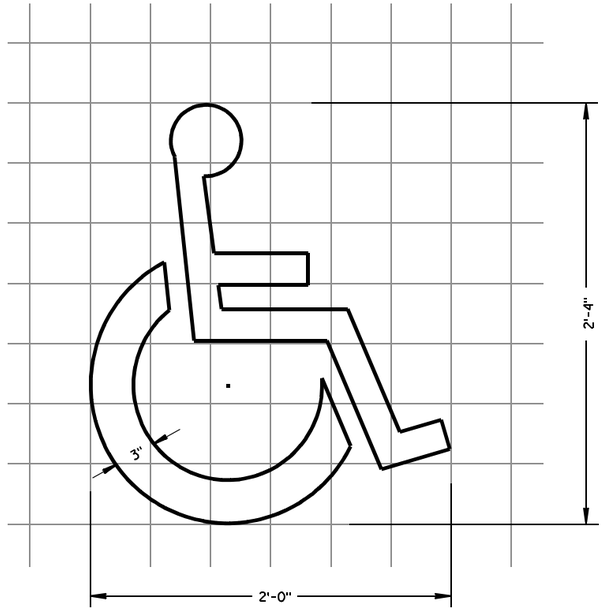
S.D.D. 13 C 18-3d

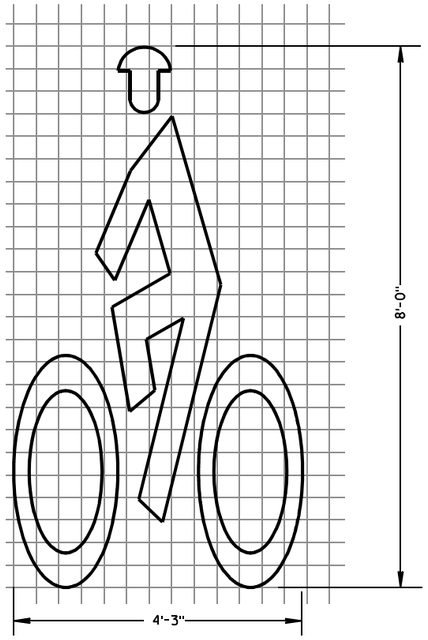
GENERAL NOTES

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.

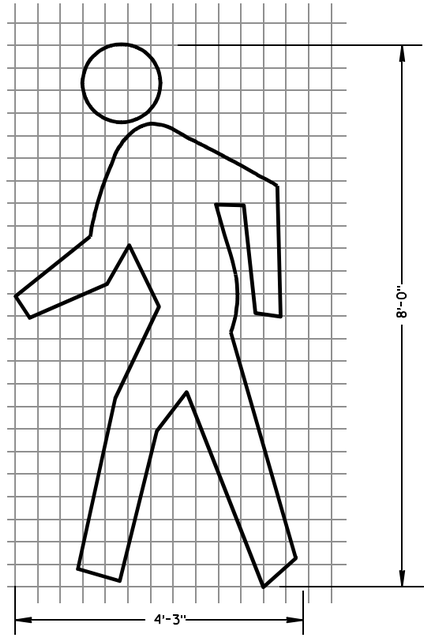
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

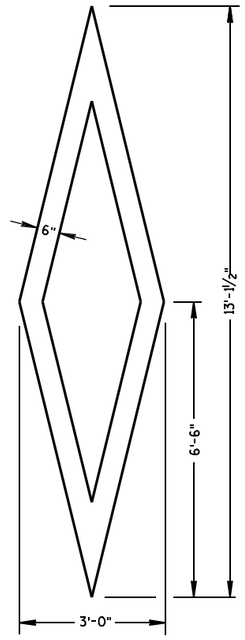




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N Nathan — STATE TRAFFIC ENGINEER

FHWA

6

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

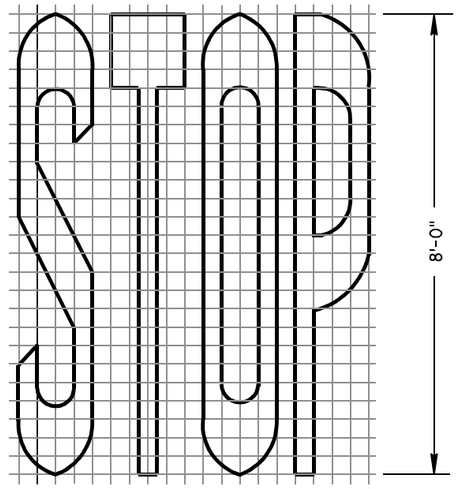
6

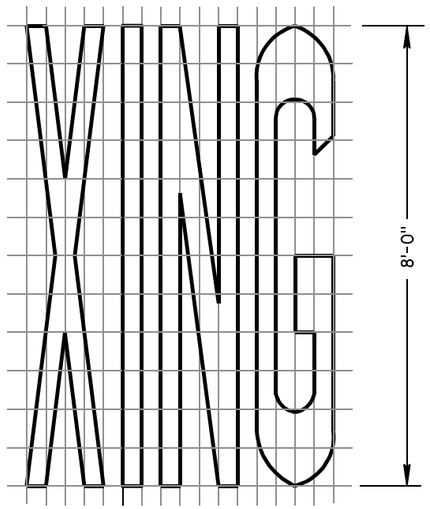
S.D.D. 15 C 7-12a

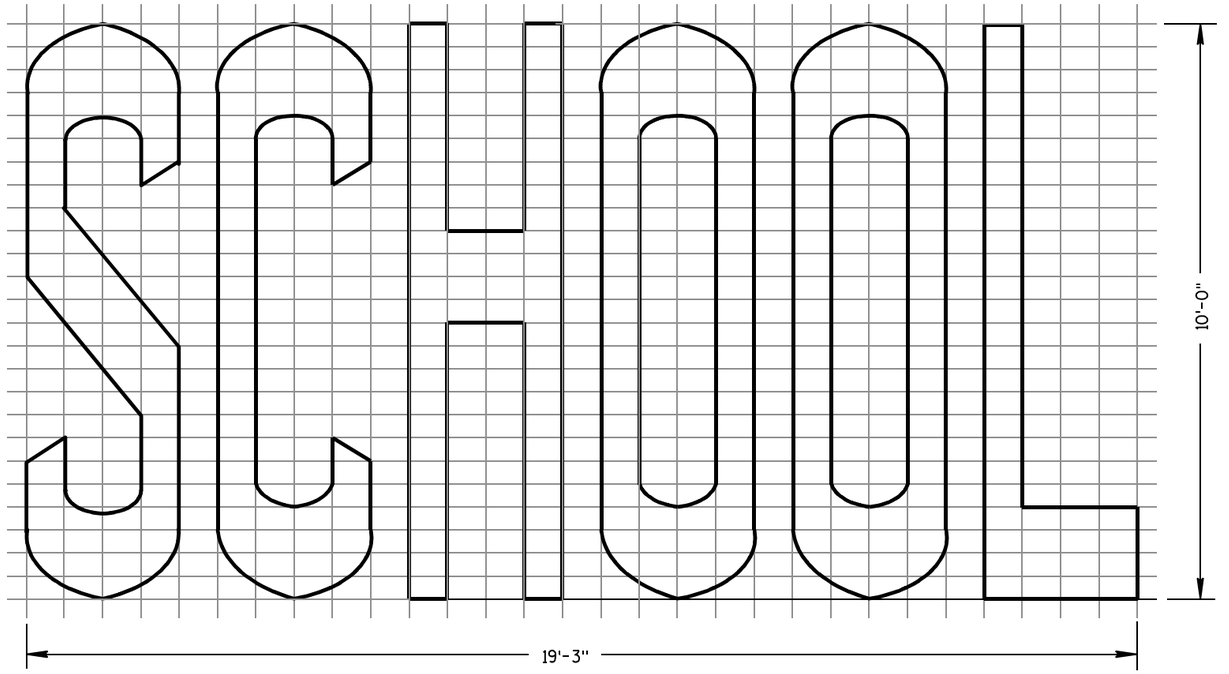
GENERAL NOTES

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.

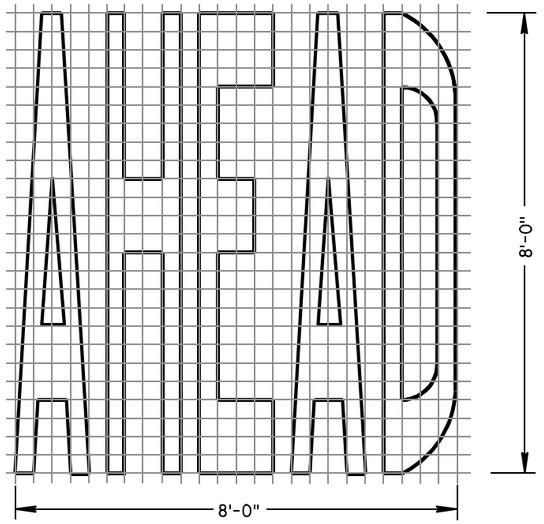
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

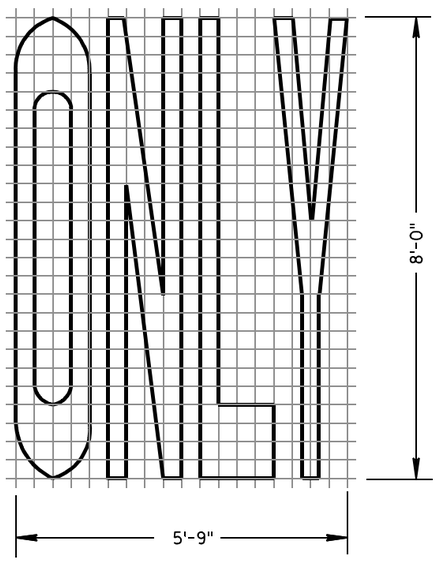


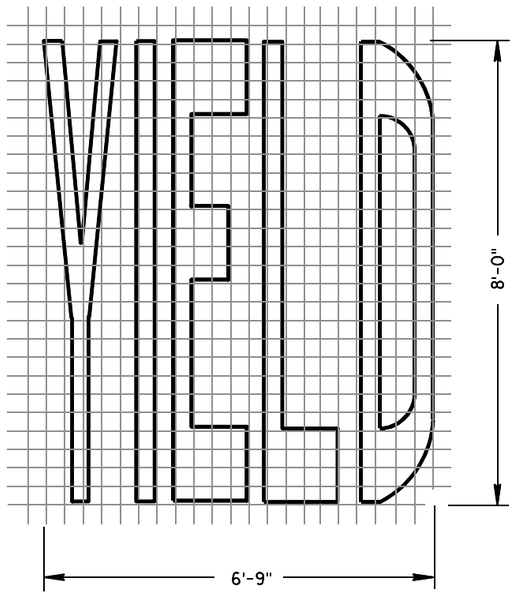


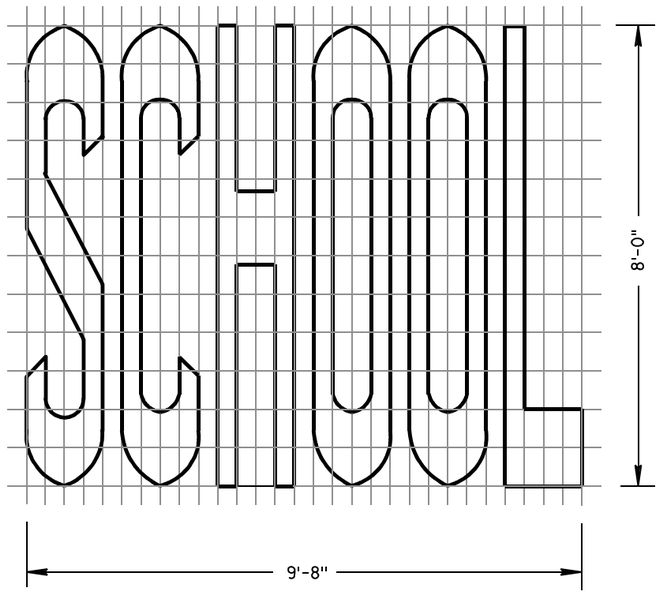


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

6

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

6

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

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.

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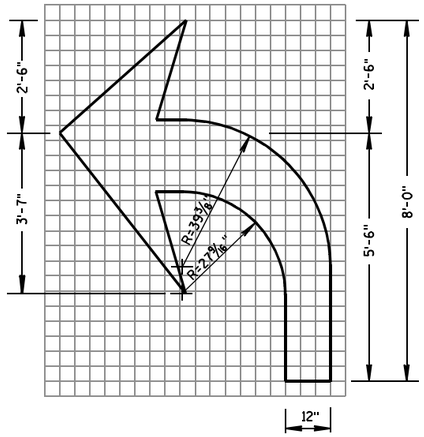
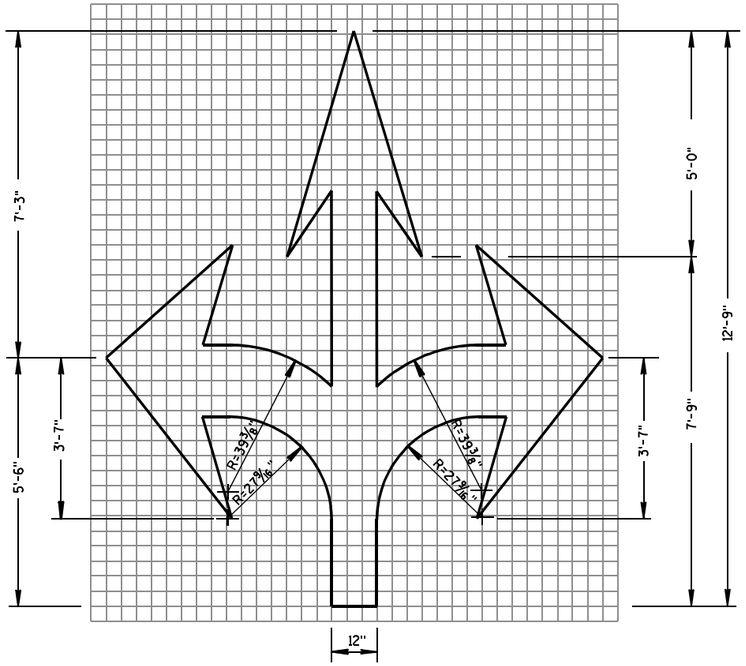


TYPE 2



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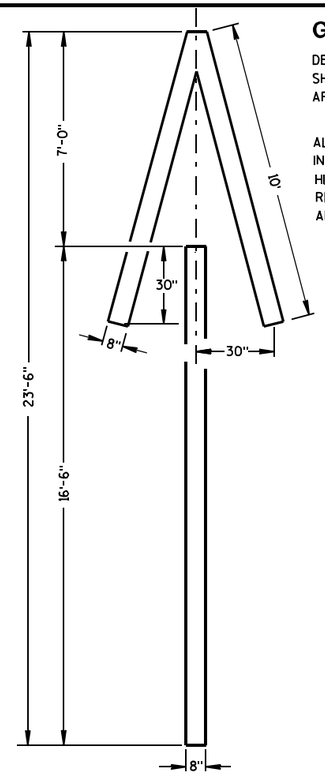

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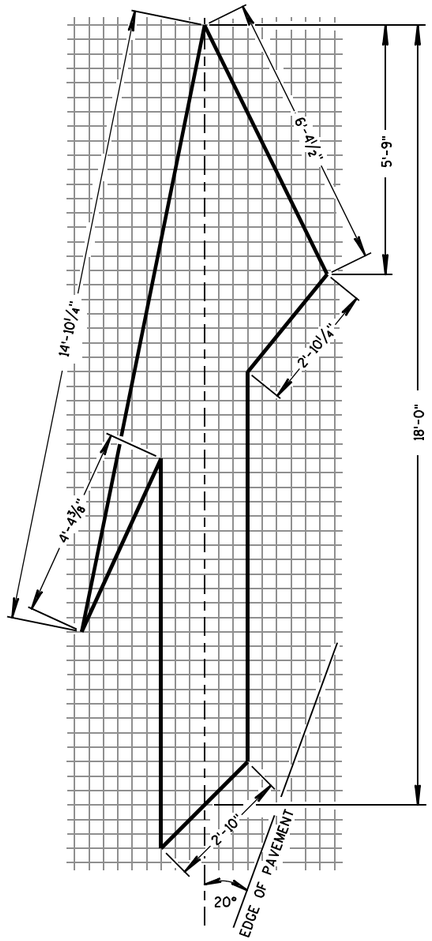
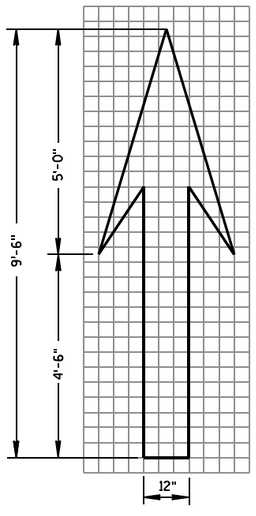
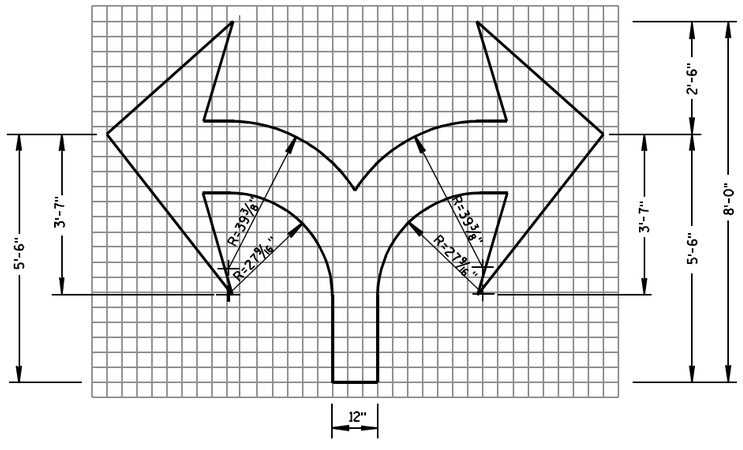


TYPE 5 LANE DROP ARROW



TYPE 1



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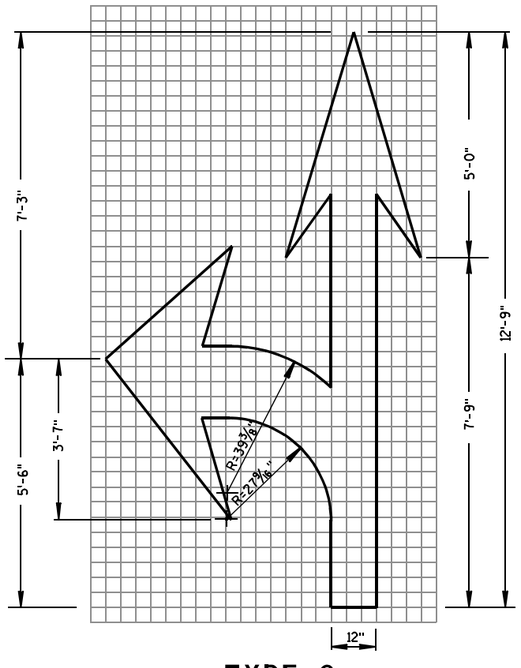

TYPE 3

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

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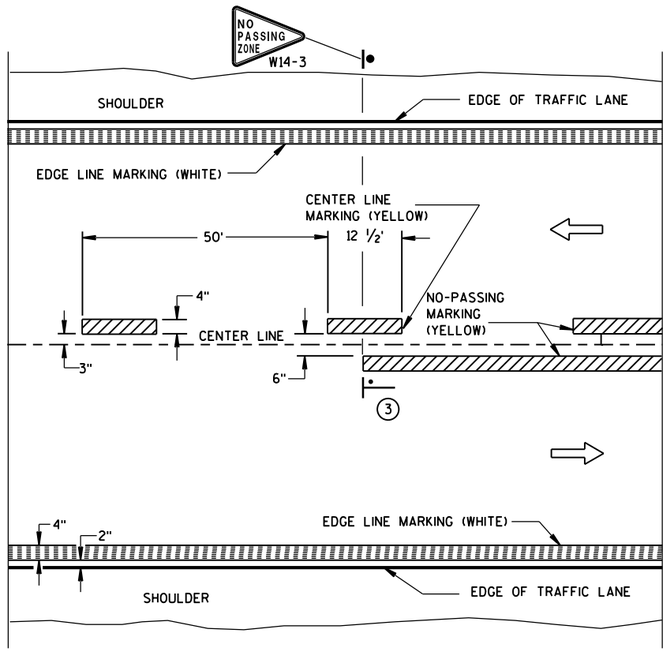
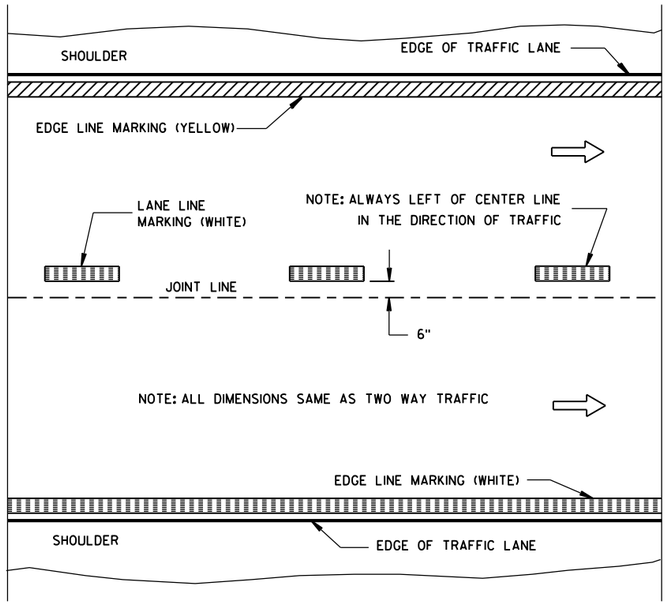
S.D.D. 15 C 7-12c

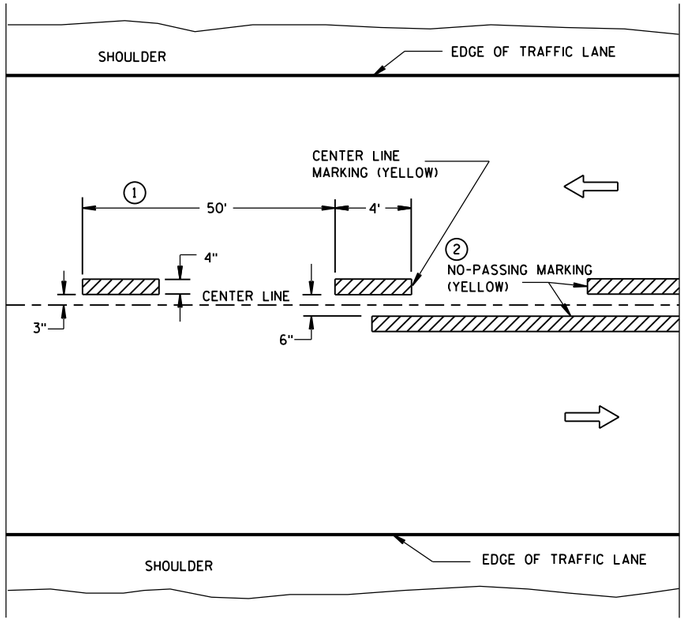


TWO WAY TRAFFIC

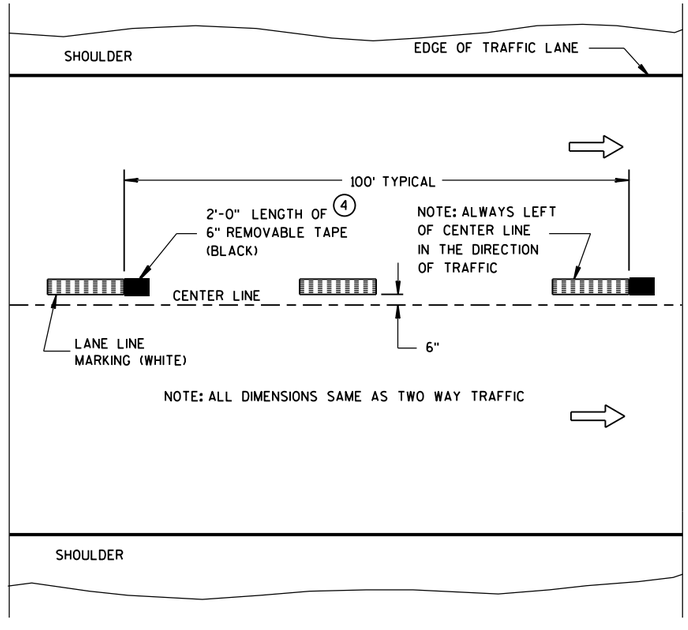


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

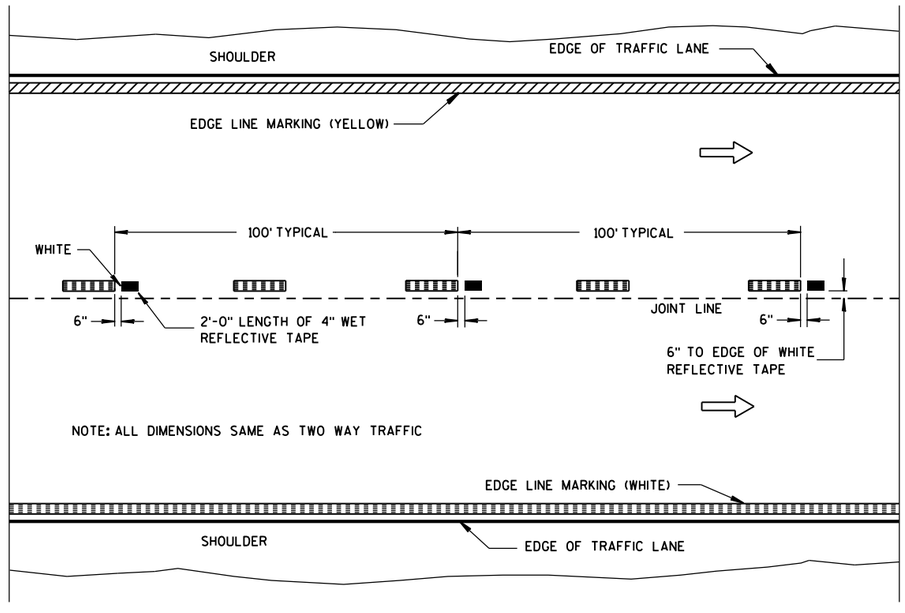
GENERAL NOTES

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

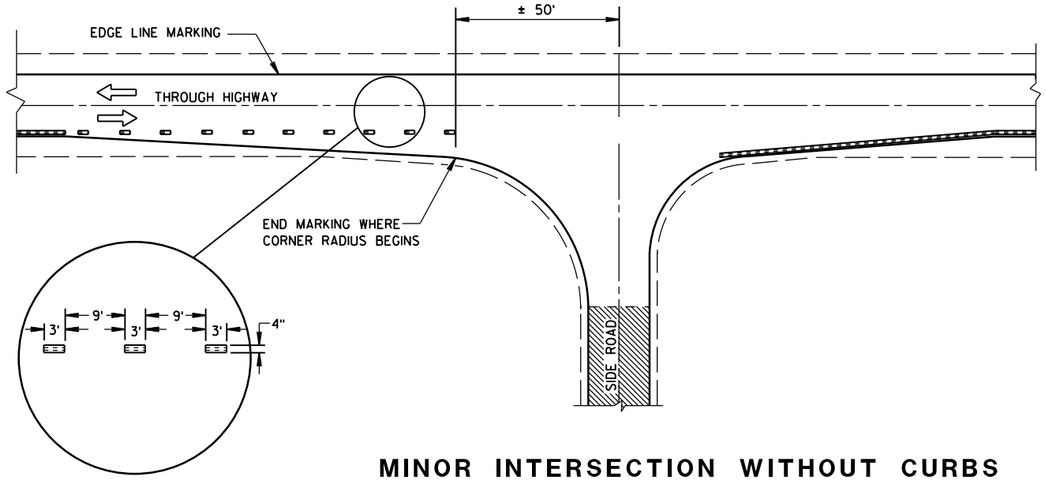
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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.

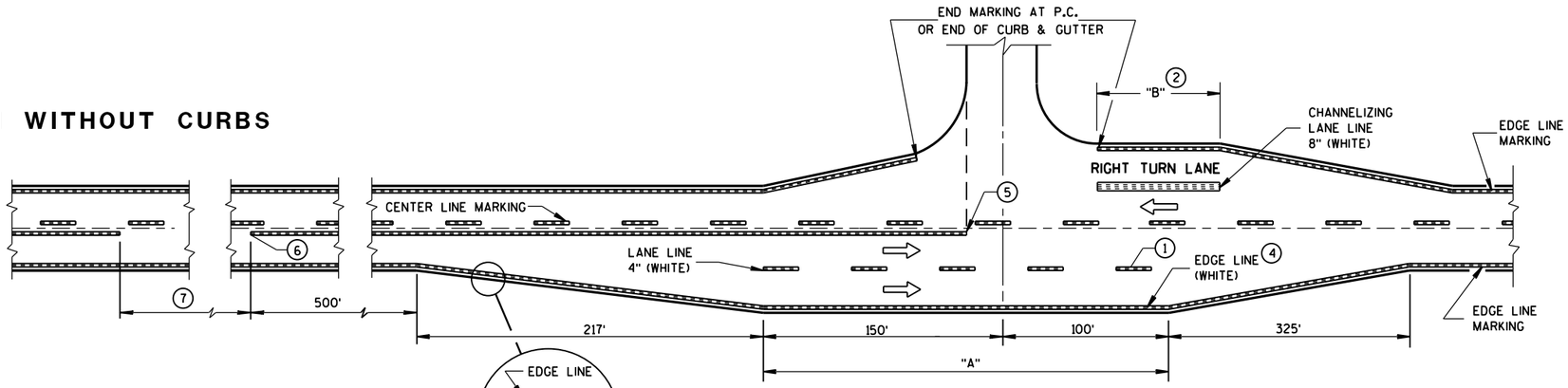
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

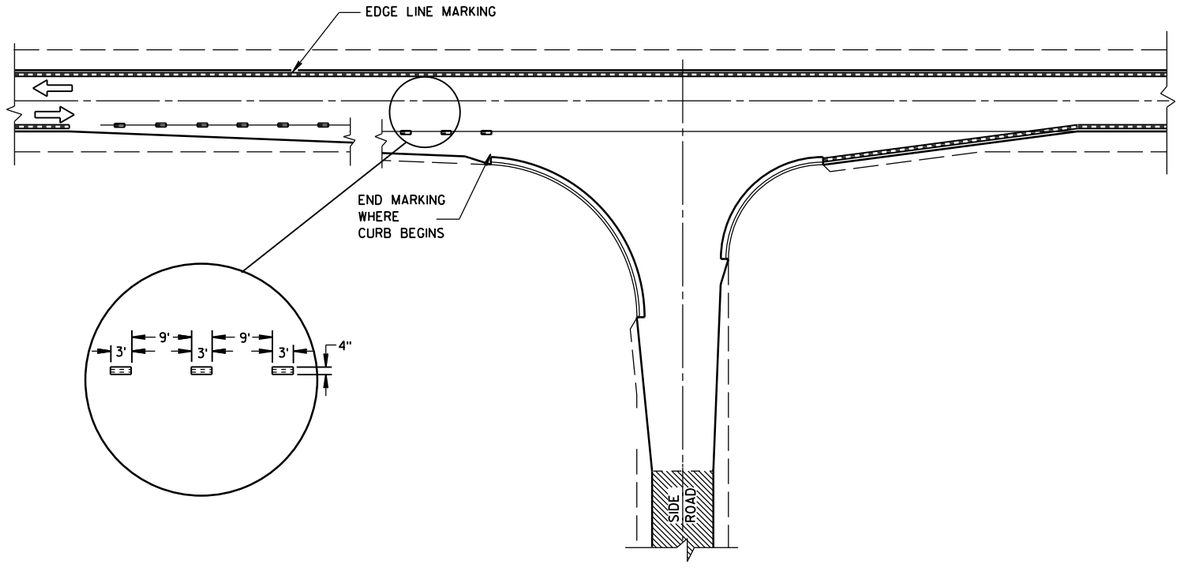
(7)

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



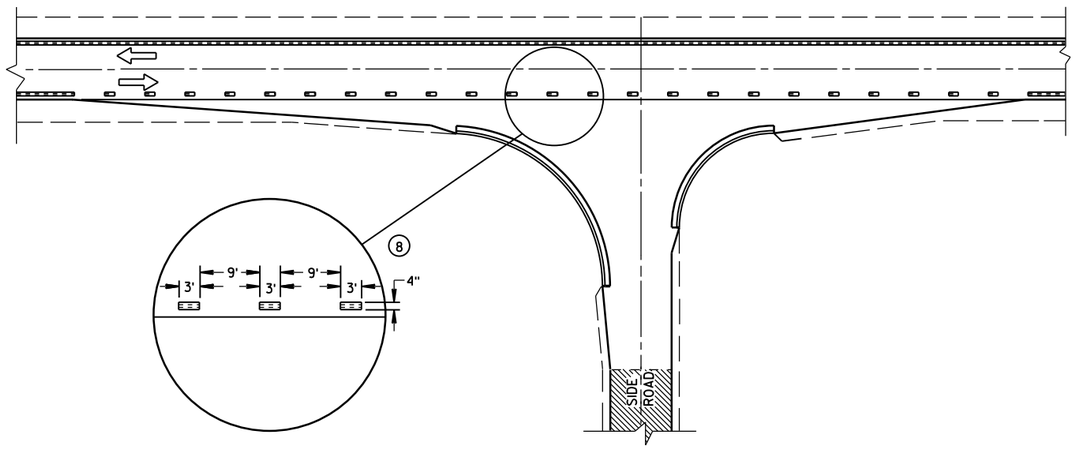
MAJOR INTERSECTIONS

(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)

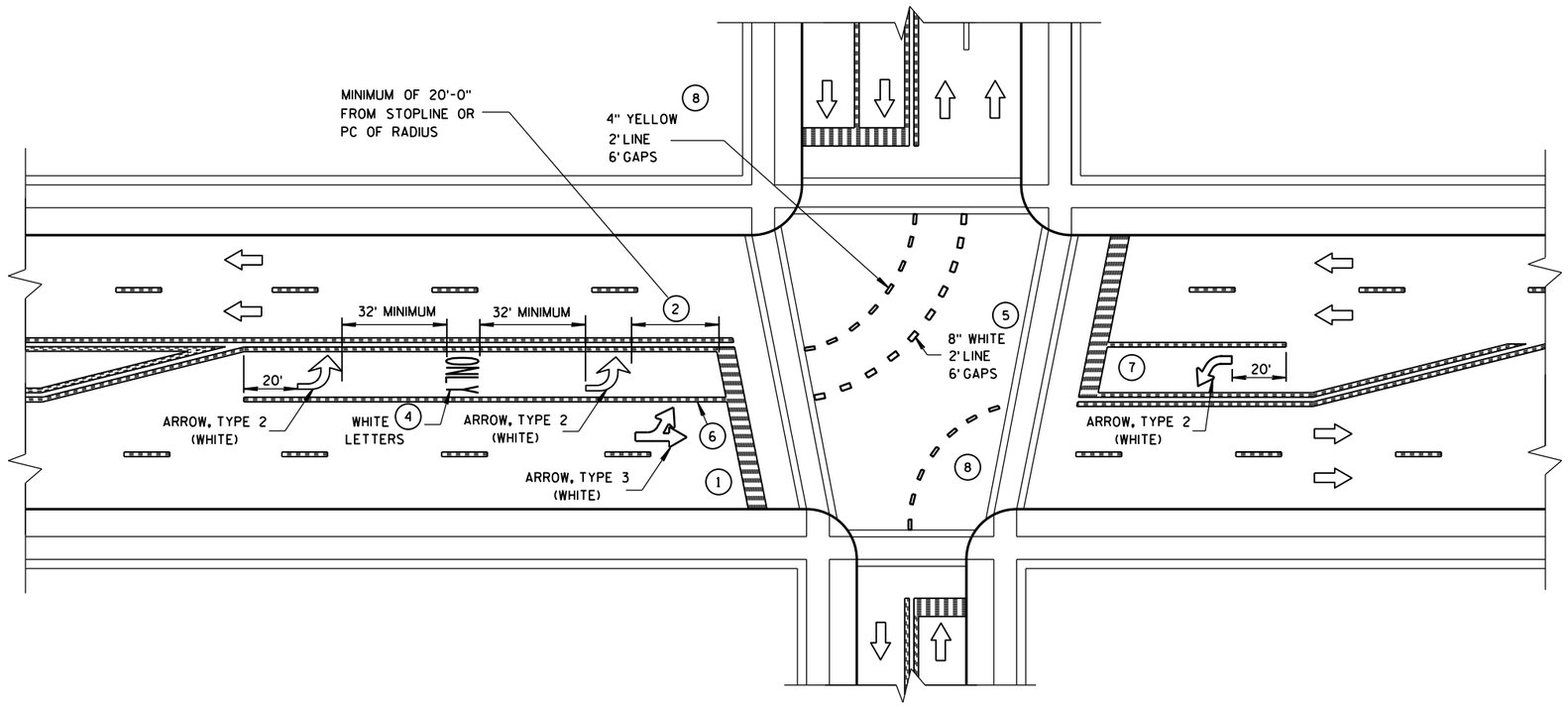
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

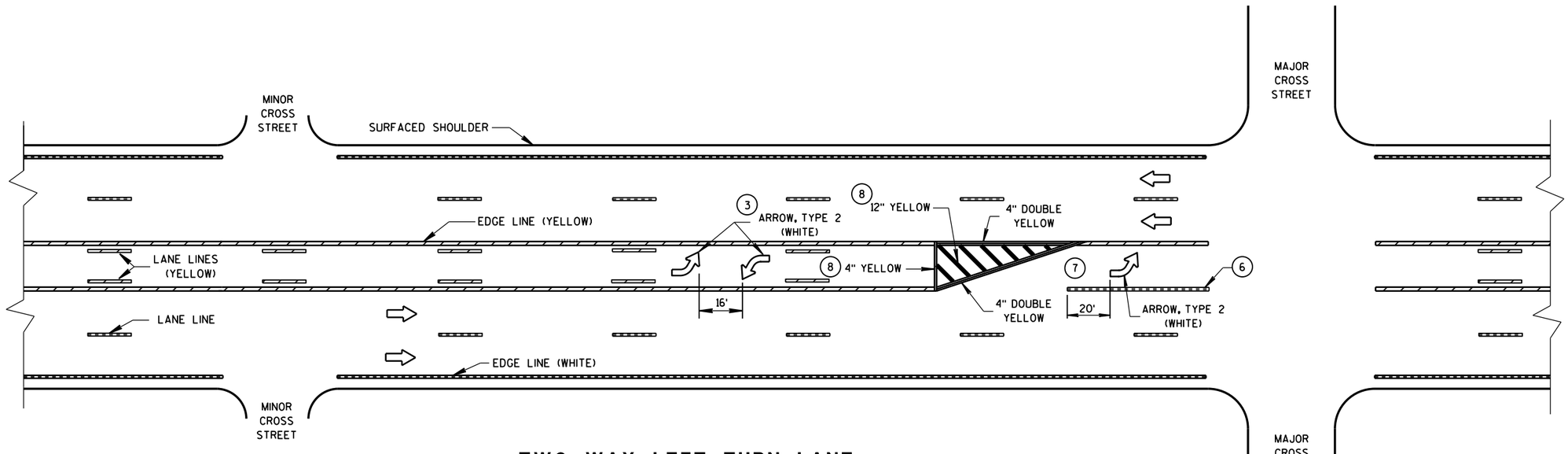
S.D.D. 15 C 8-16b



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)

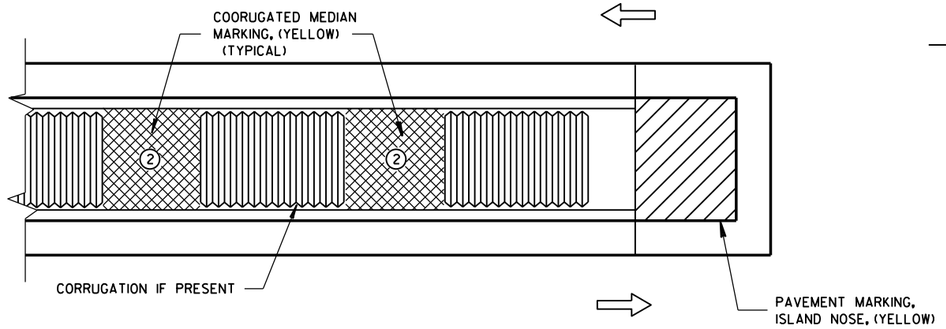
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

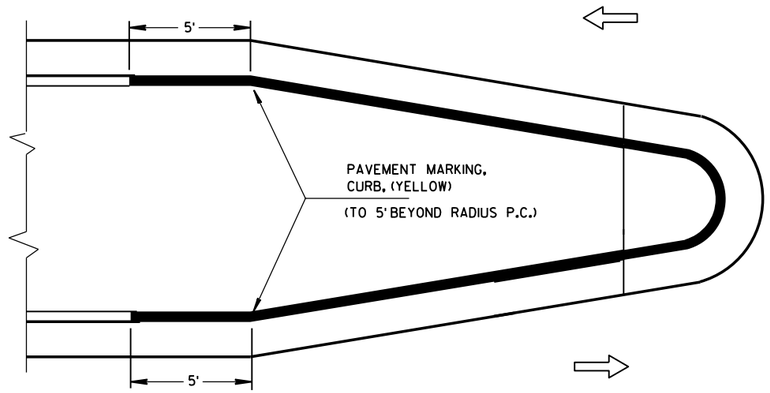
S.D.D. 15 C 8-16e

6

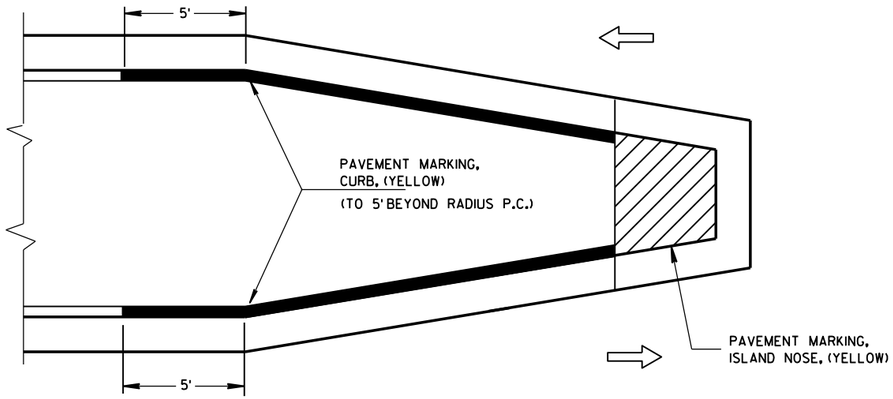
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

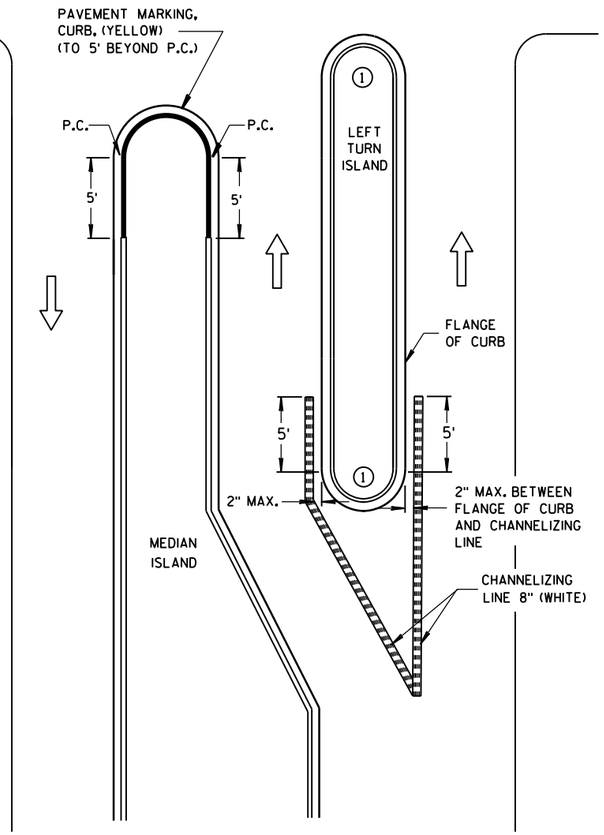


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

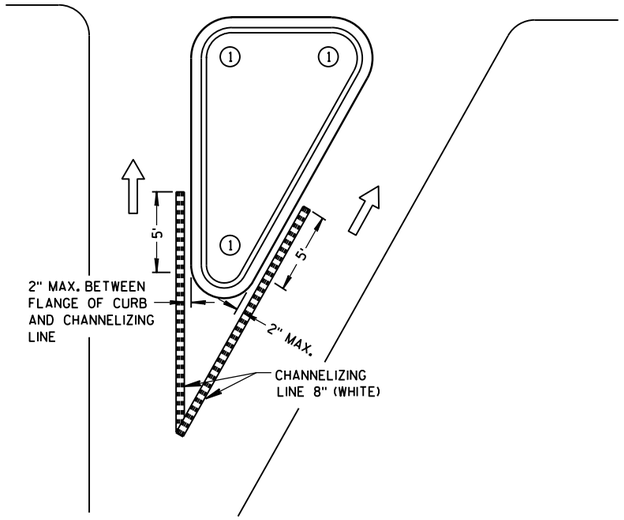


LEFT TURN & MEDIAN ISLAND

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

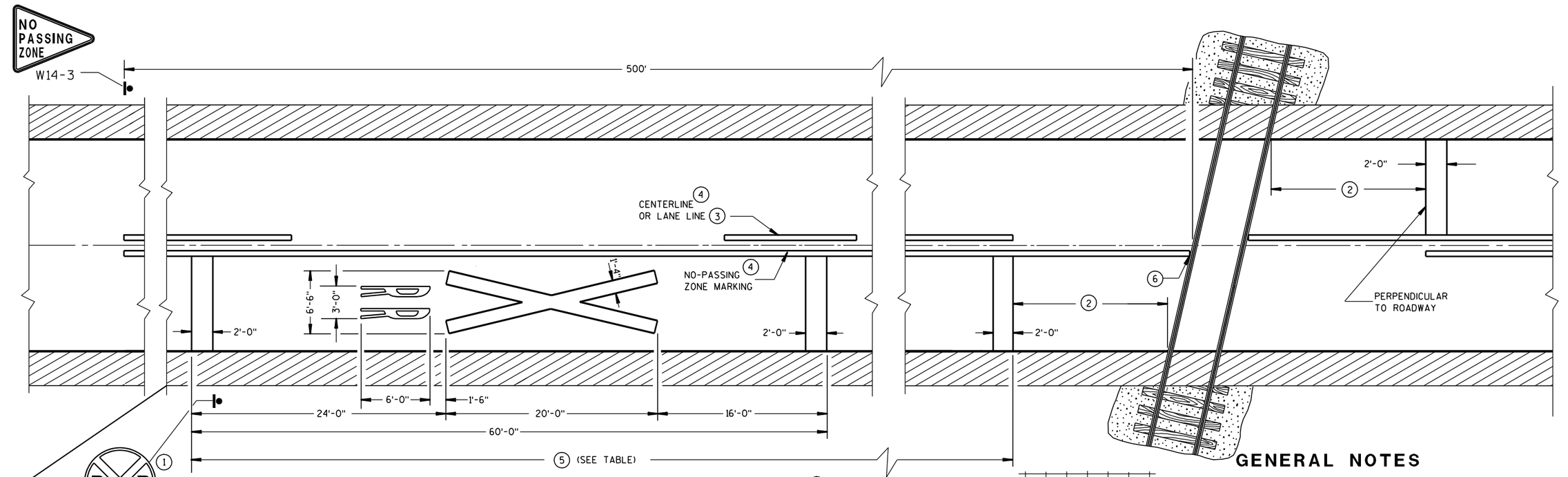
- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

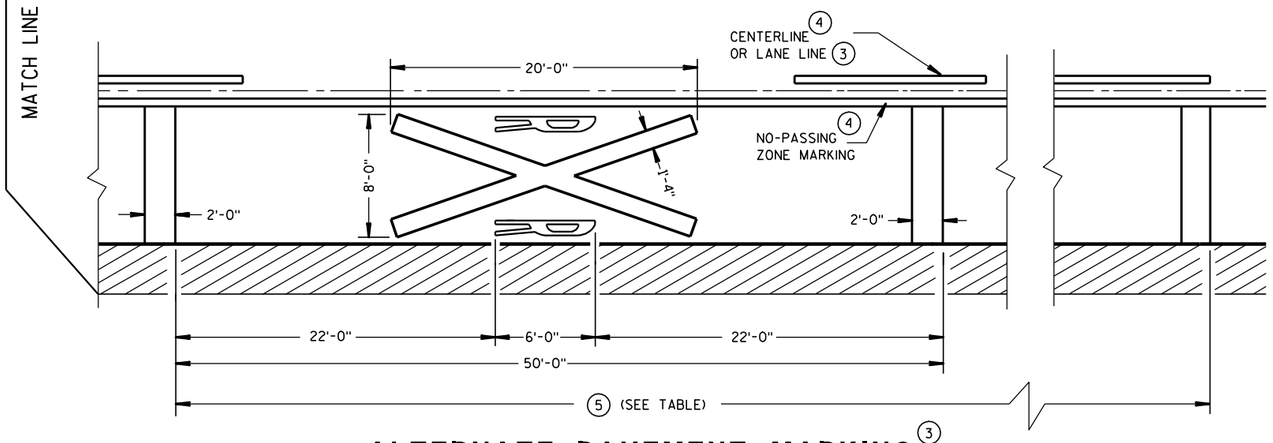
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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



PREFERRED PAVEMENT MARKING (3)

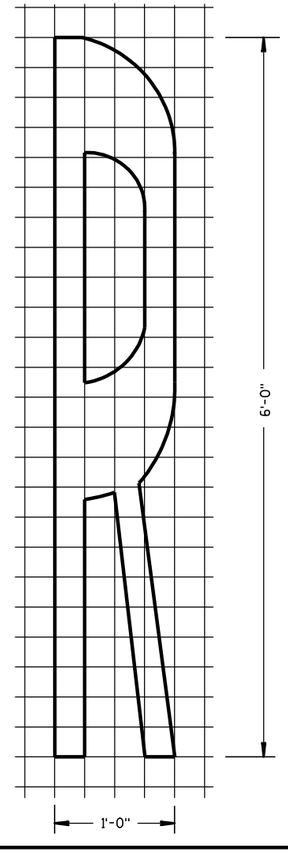


ALTERNATE PAVEMENT MARKING (3)

(5)

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



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.

A THREE-LANE ROADWAY SHOULD BE MARKED WITH A CENTERLINE FOR TWO-LANE APPROACH OPERATION ON THE APPROACH TO A CROSSING.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE. ALL LETTERS AND SYMBOLS SHALL BE IN CONFORMANCE WITH THE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" (ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION).

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

(1) A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).

(2) MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.

(3) REFLECTIVE WHITE.

(4) REFLECTIVE YELLOW 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(5) TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

(6) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1-9-2012
DATE

/S/ Thomas N. [illegible]
STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 9-9a

6

S.D.D. 15 C 9-9a

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

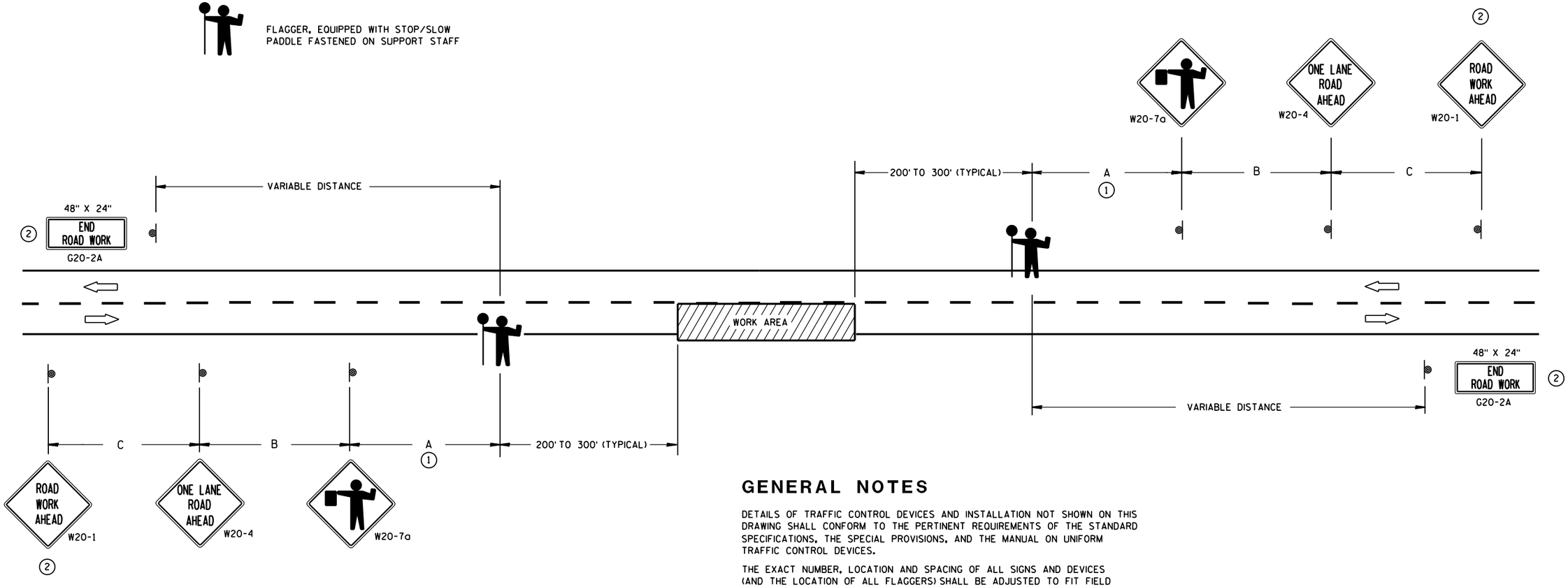
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

BE PREPARED TO STOP
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
FHWA

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S.D.D. 15 C 12-4

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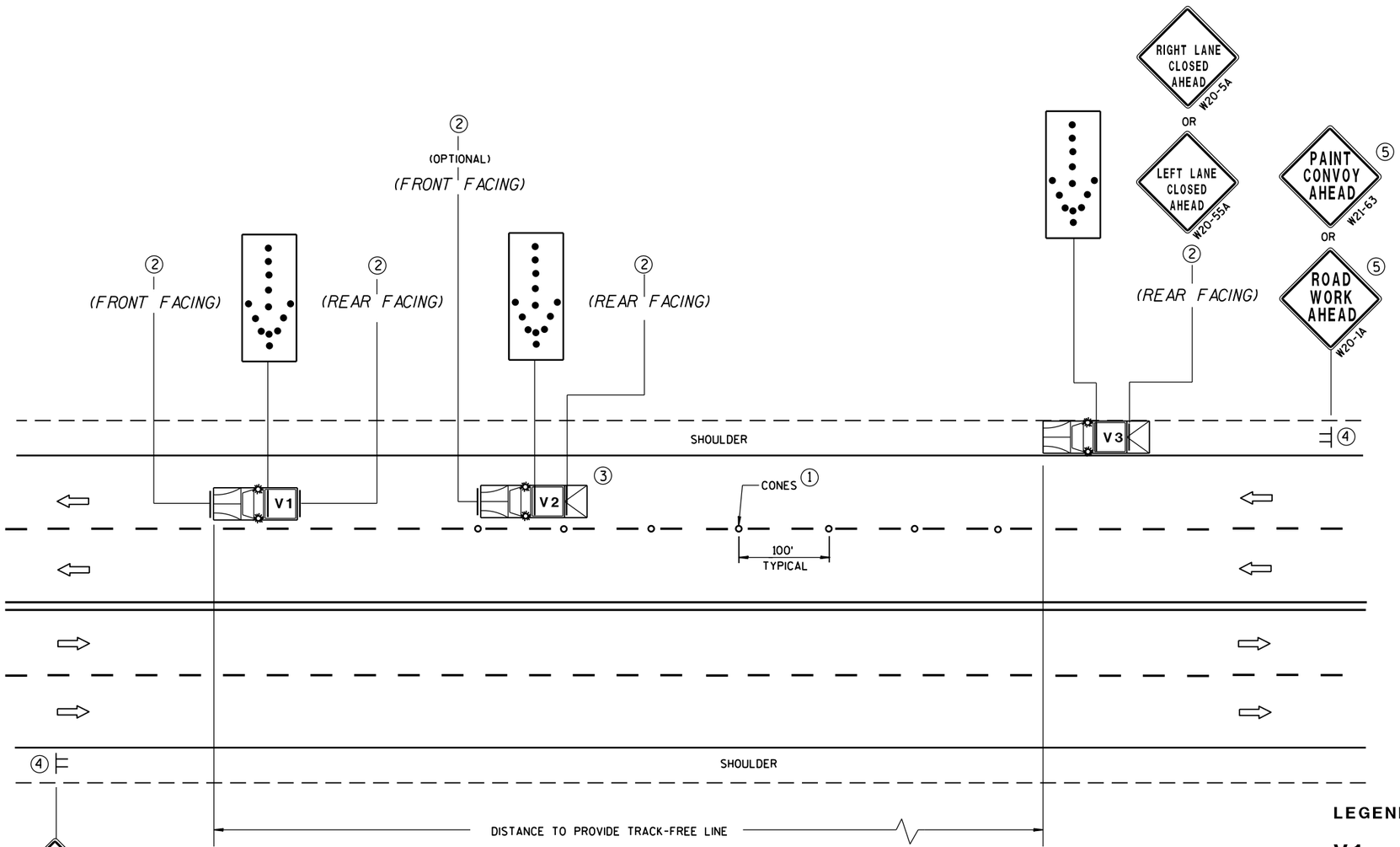
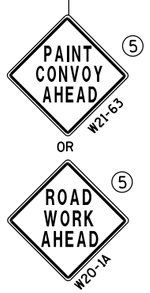
S.D.D. 15 C 12-4





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

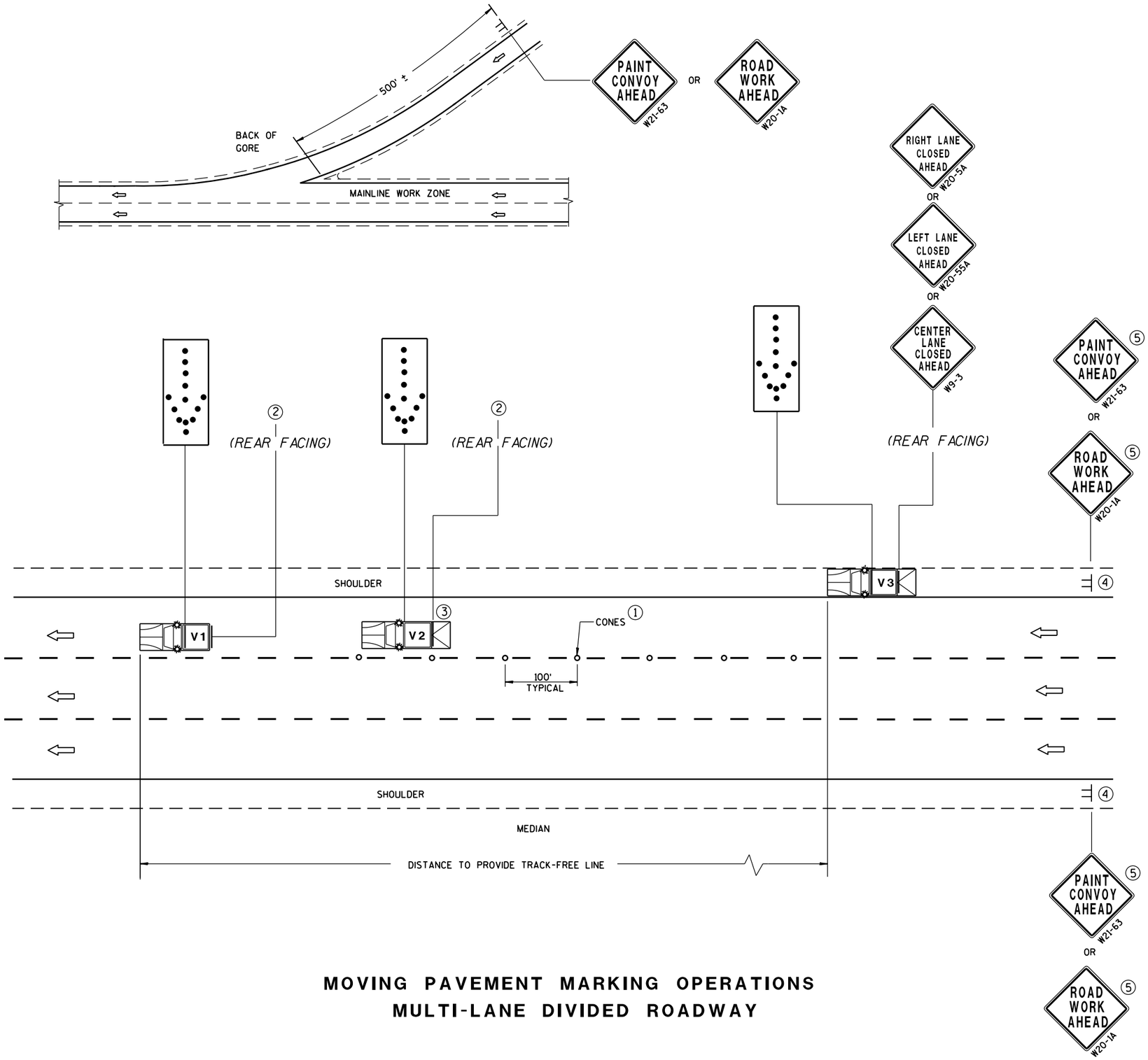
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015
DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGINE

6

S.D.D. 15 C 19-3b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED 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. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED 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 AFTER EVERY ON RAMP OR 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)

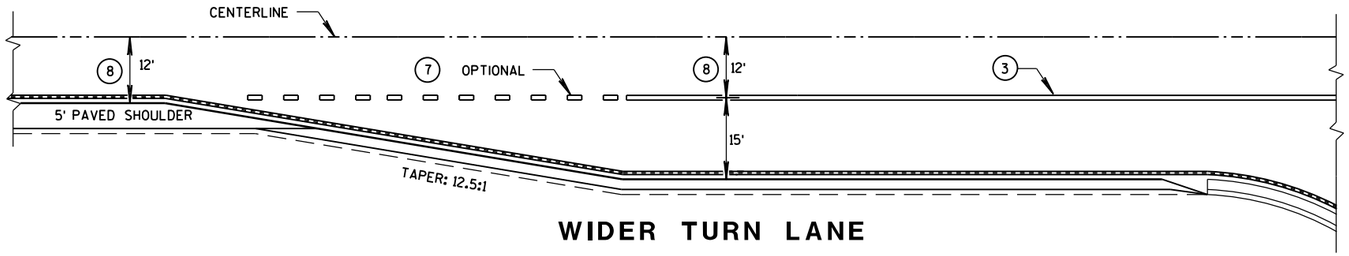
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

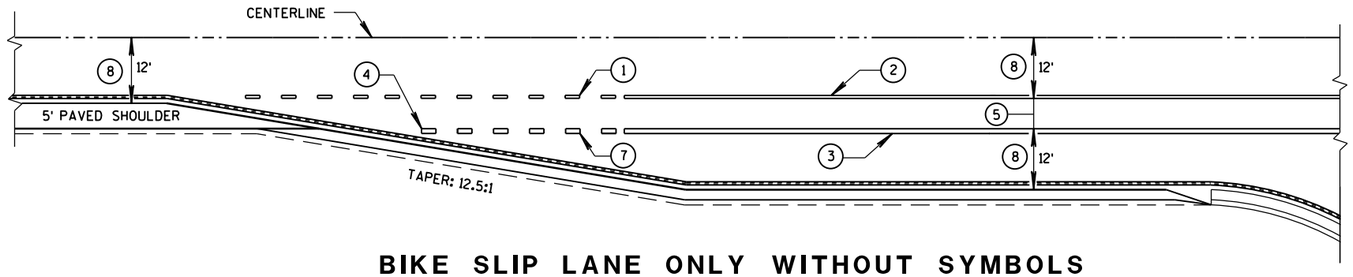
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6 S.D.D. 15 C 19-3c

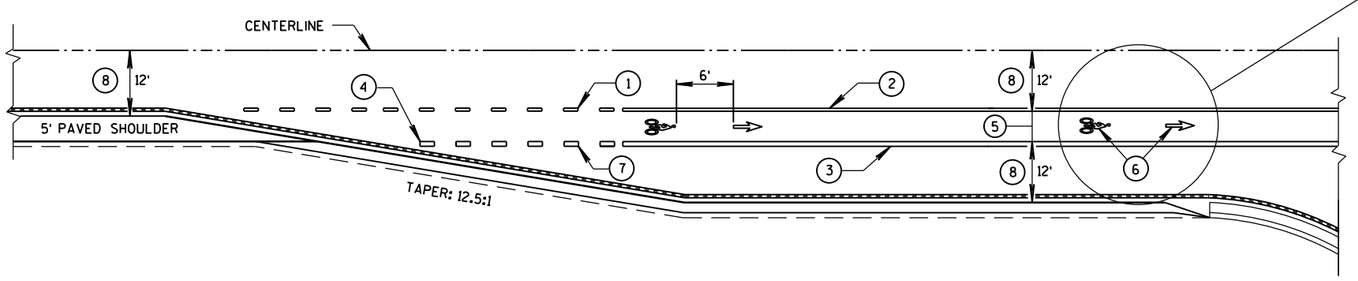
6 S.D.D. 15 C 19-3c



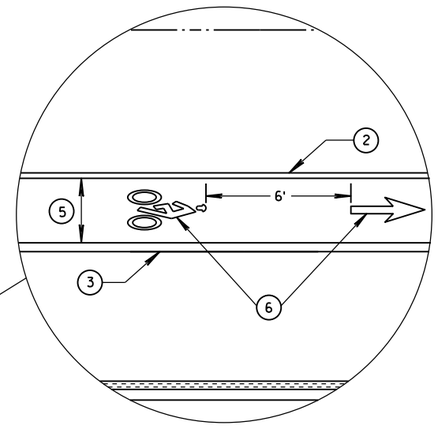
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

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S.D.D. 15 C 29-3a

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

FHWA

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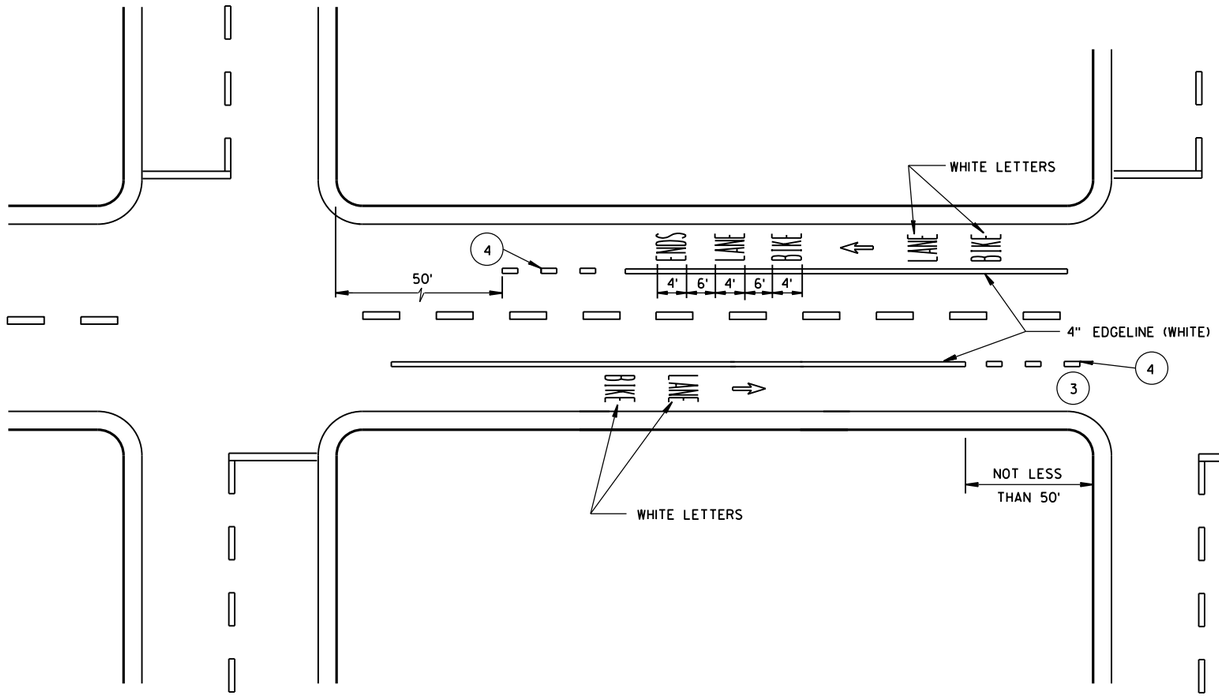
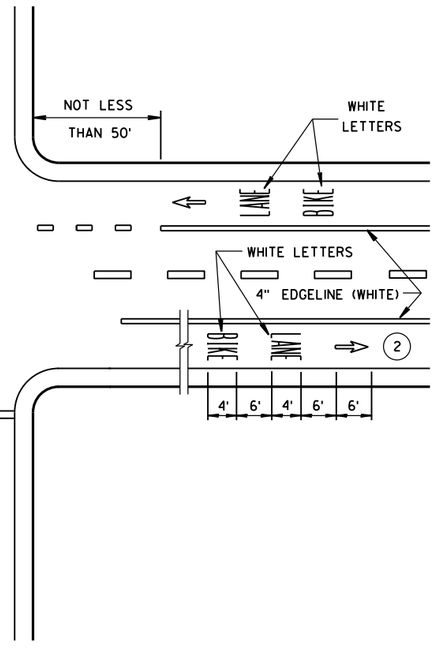
S.D.D. 15 C 29-3a

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

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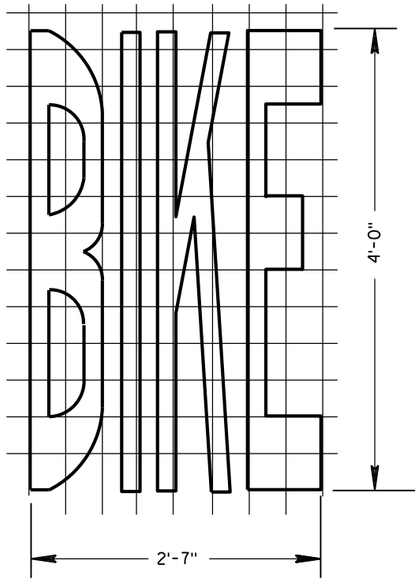
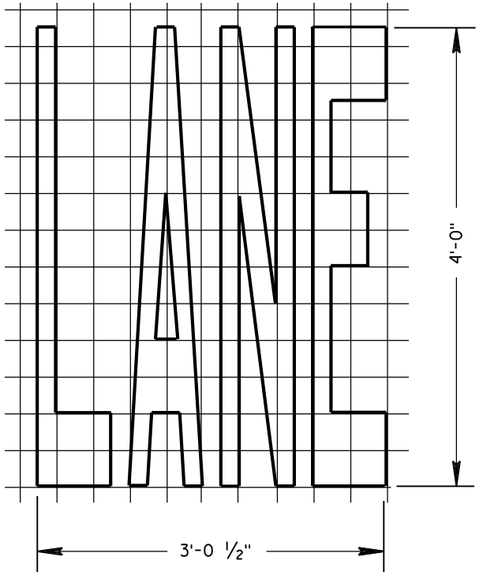
S.D.D. 15 C 29-3d

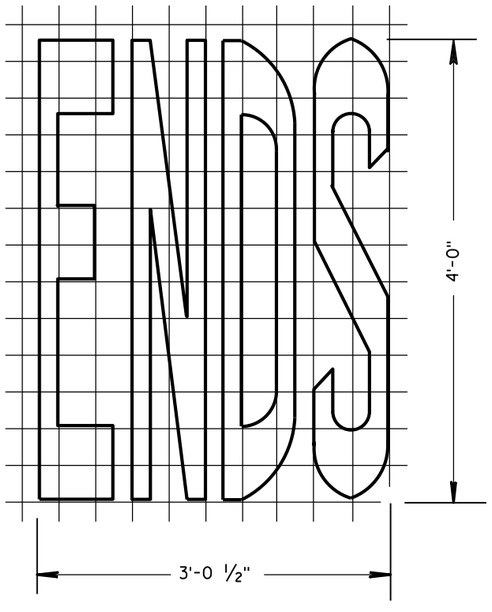
GENERAL NOTES

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.

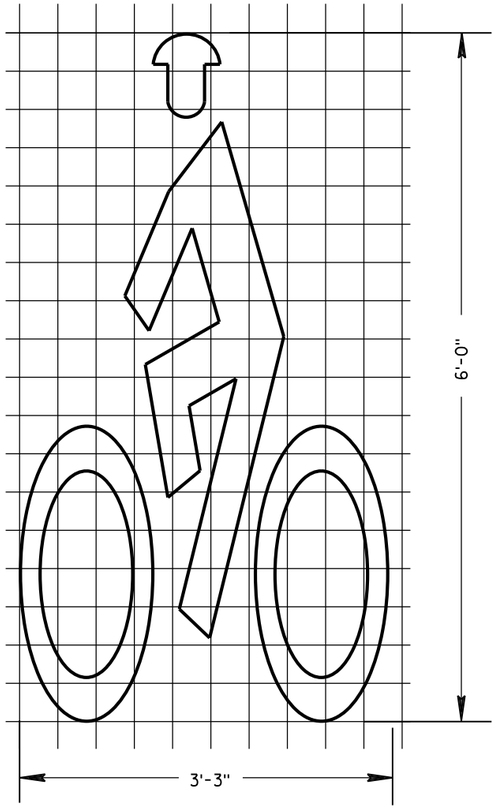
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



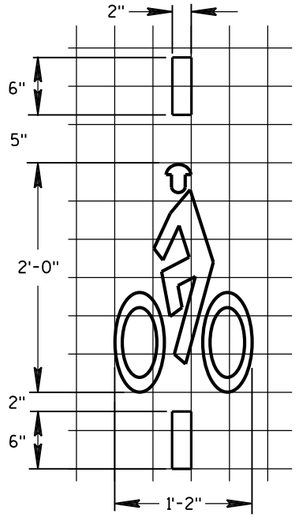




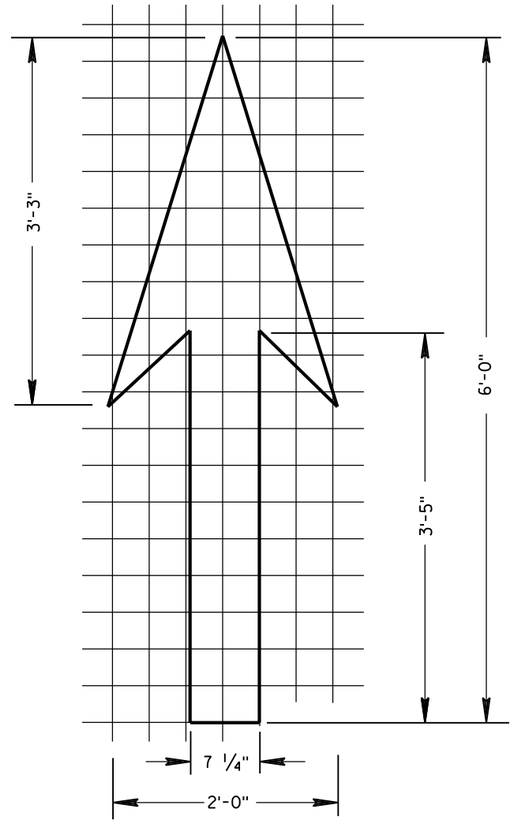
BIKE LANE WORDS



BIKE LANE SYMBOL

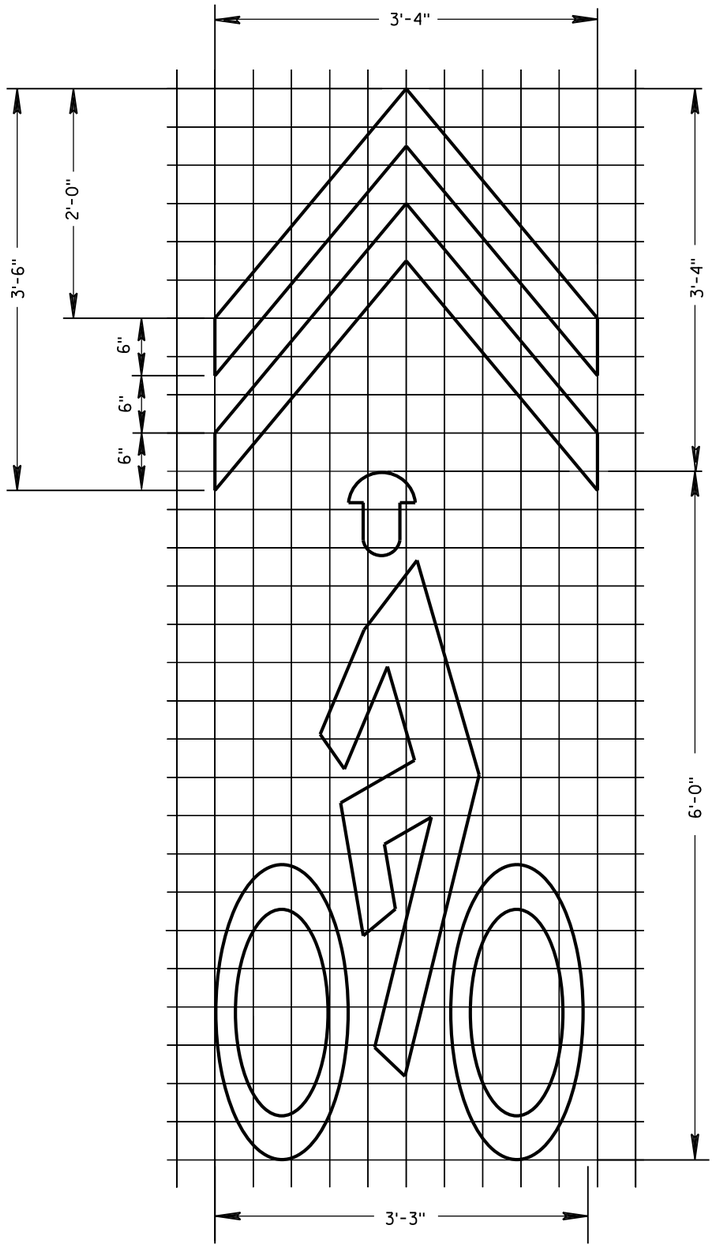


BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-30-2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	



BIKE SYMBOL FOR SHARED LANE

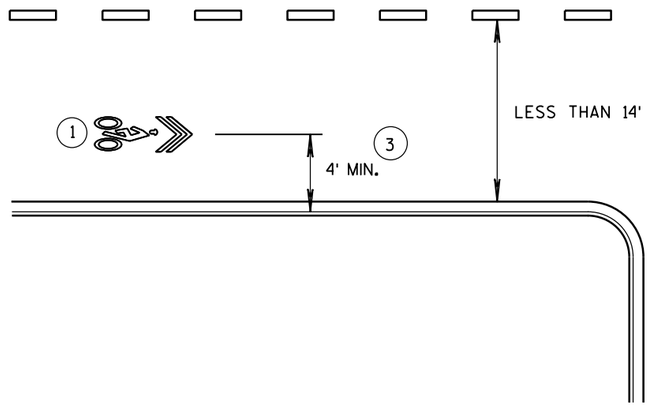
GENERAL NOTES

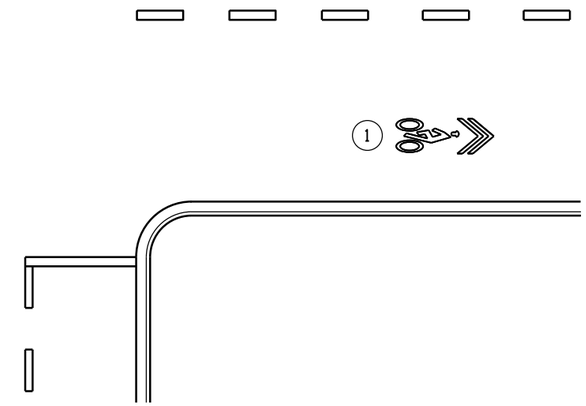
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

(1) SPACED A MAXIMUM OF 250 FEET.

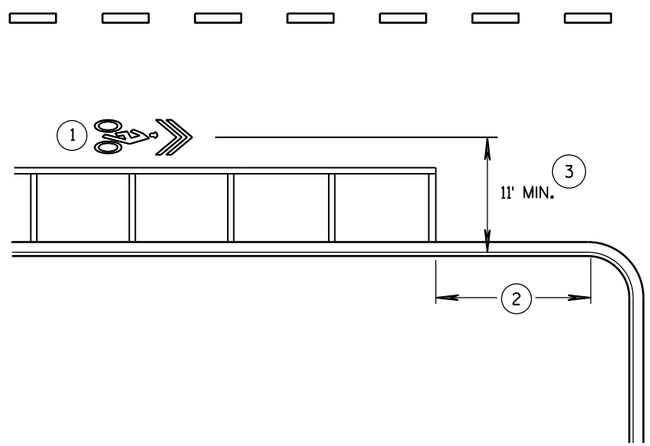
(2) 20 FOOT MINIMUM FROM CURB RADIUS.

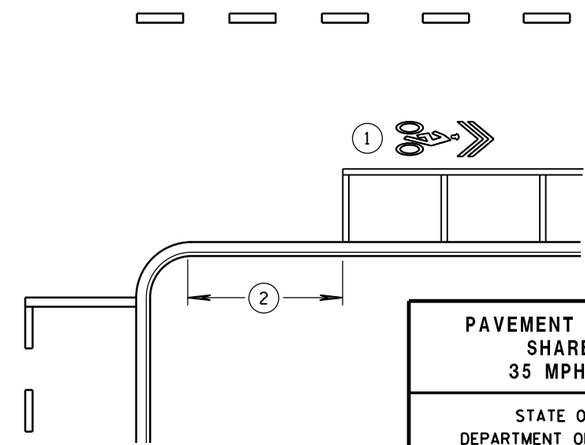
(3) OR TO EDGE OF PAVEMENT WITHOUT CURB.





WITHOUT PARKING





WITH PARKING

PAVEMENT MARKING FOR
SHARED LANE
35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3f

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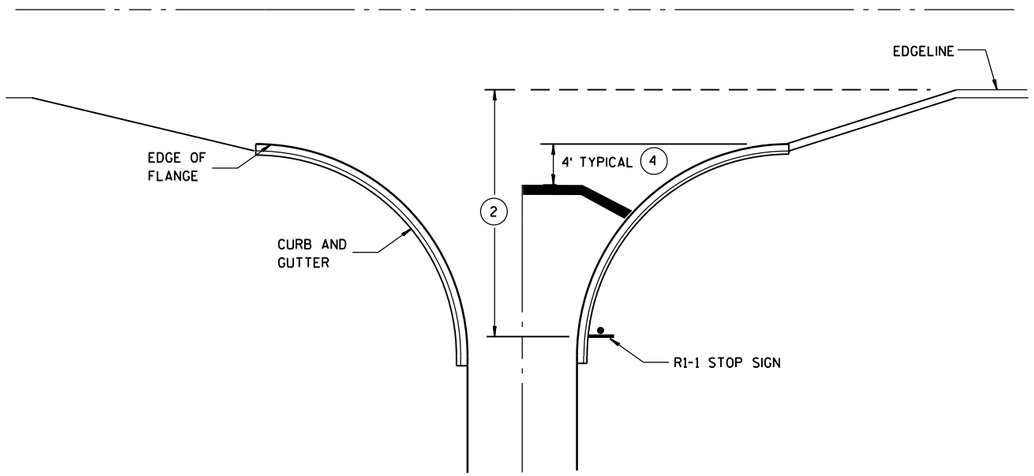
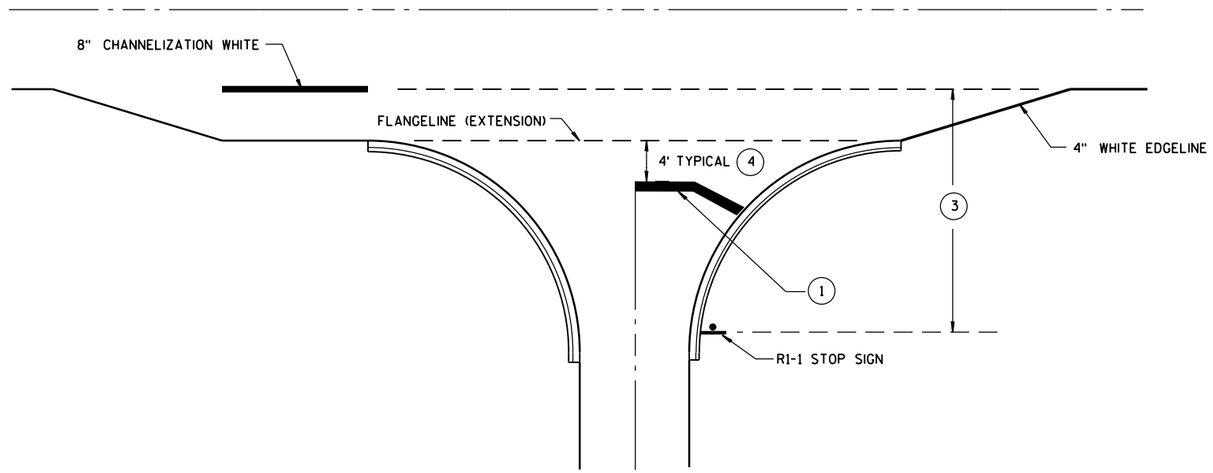
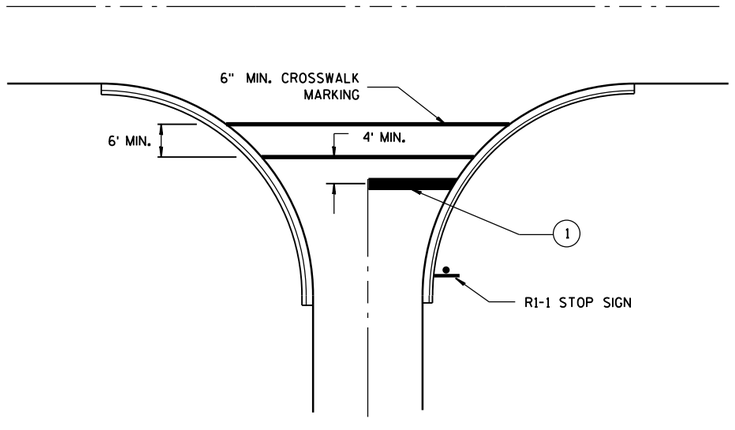
S.D.D. 15 C 29-3f



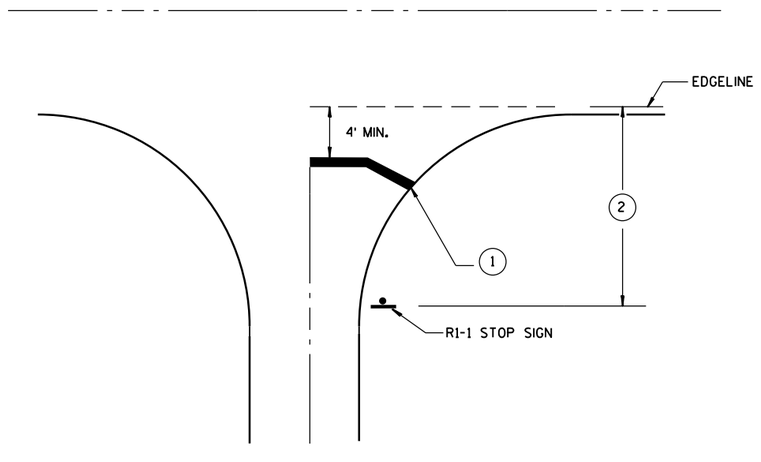
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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.

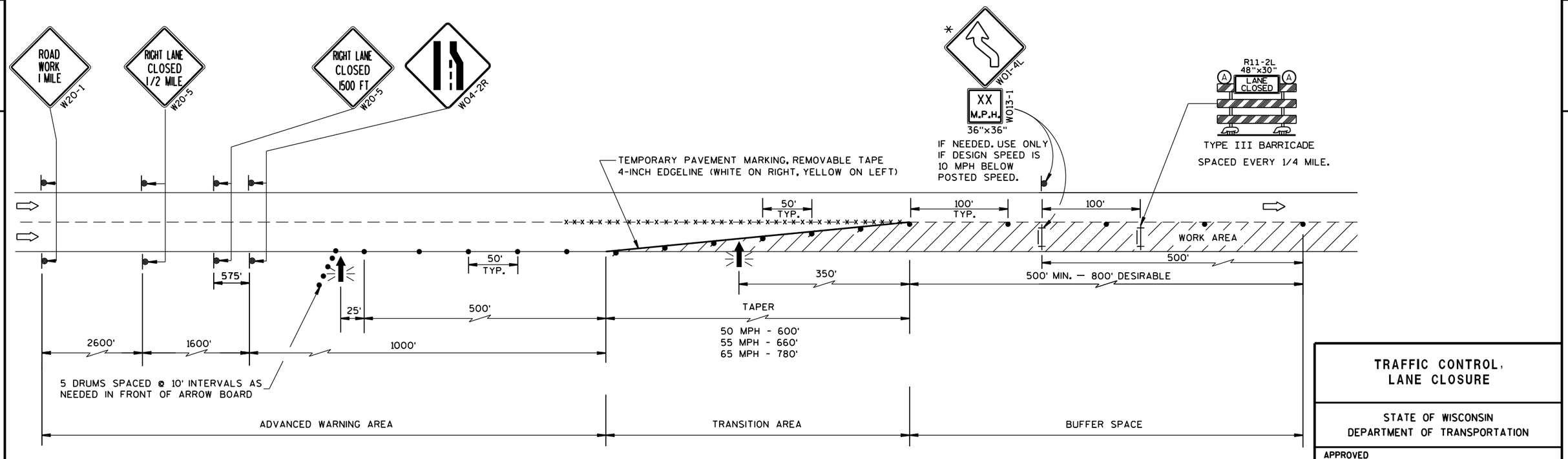
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.



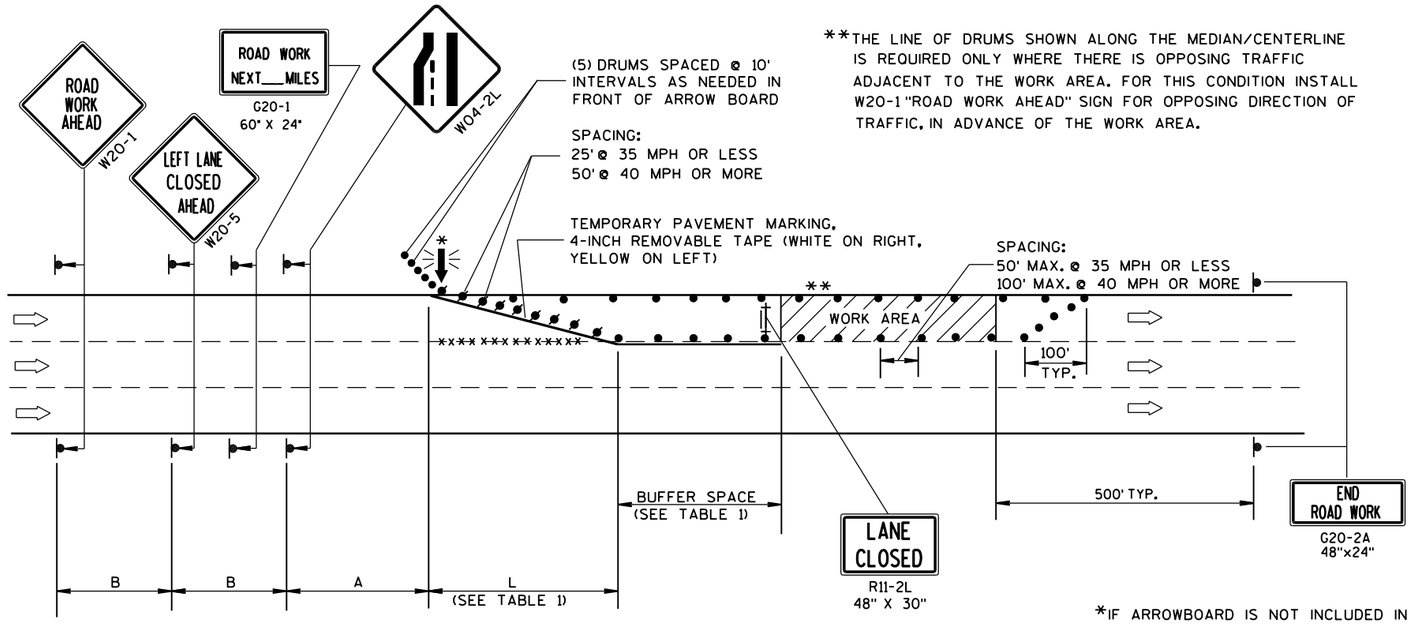
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5a

S.D.D. 15 D 12-5a



**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"

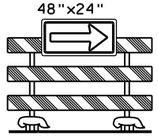


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

6

S.D.D. 15 D 20-3

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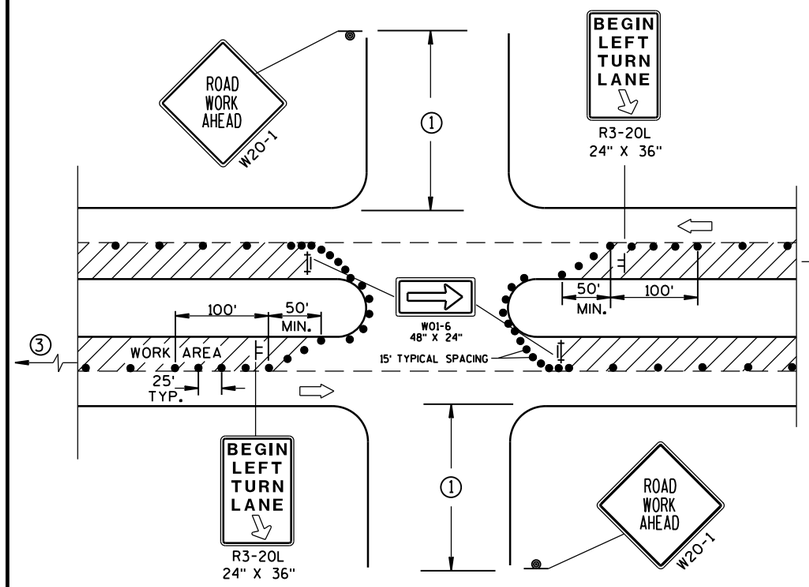
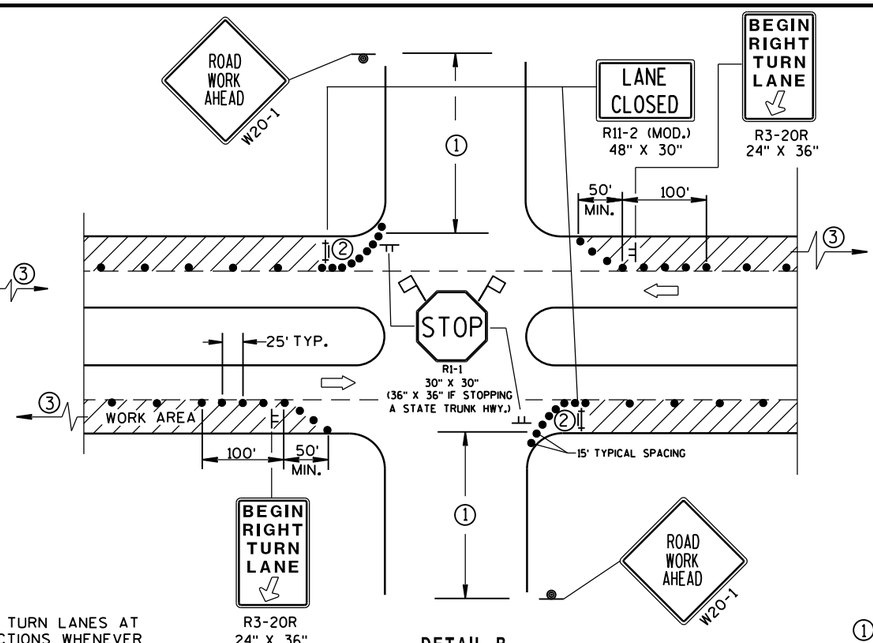
S.D.D. 15 D 20-3



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.

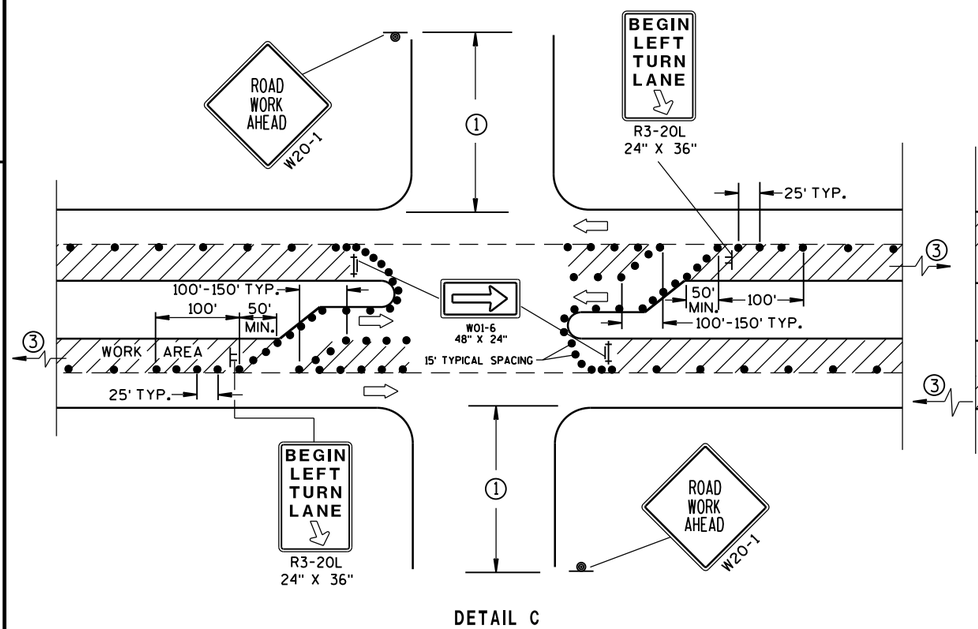
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

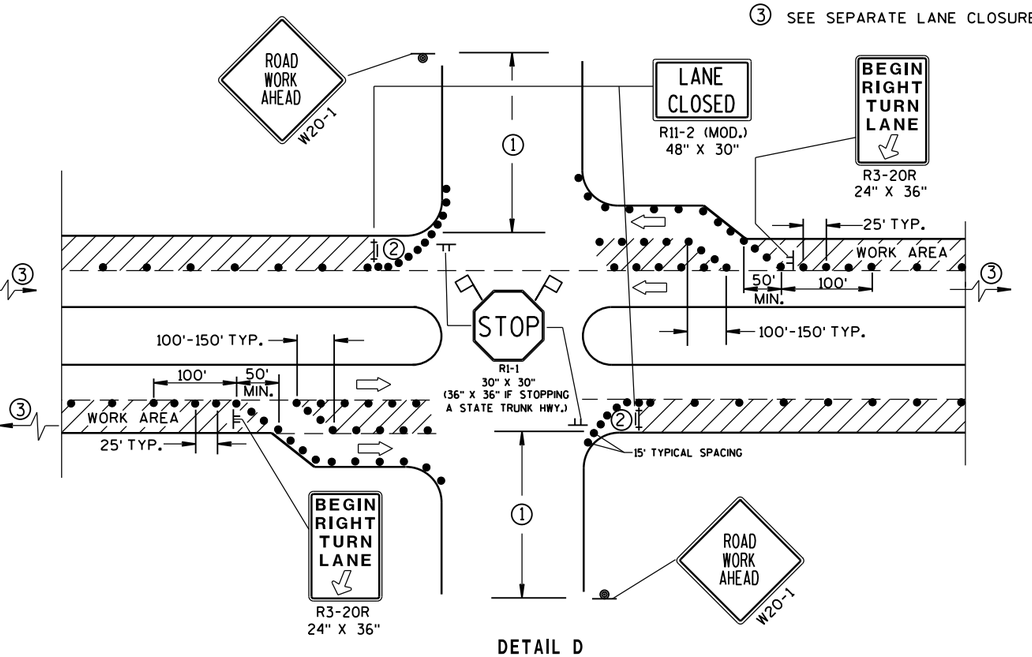
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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

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

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 TWO LANES. FOR CLOSING THE LEFT TWO LANES, 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.

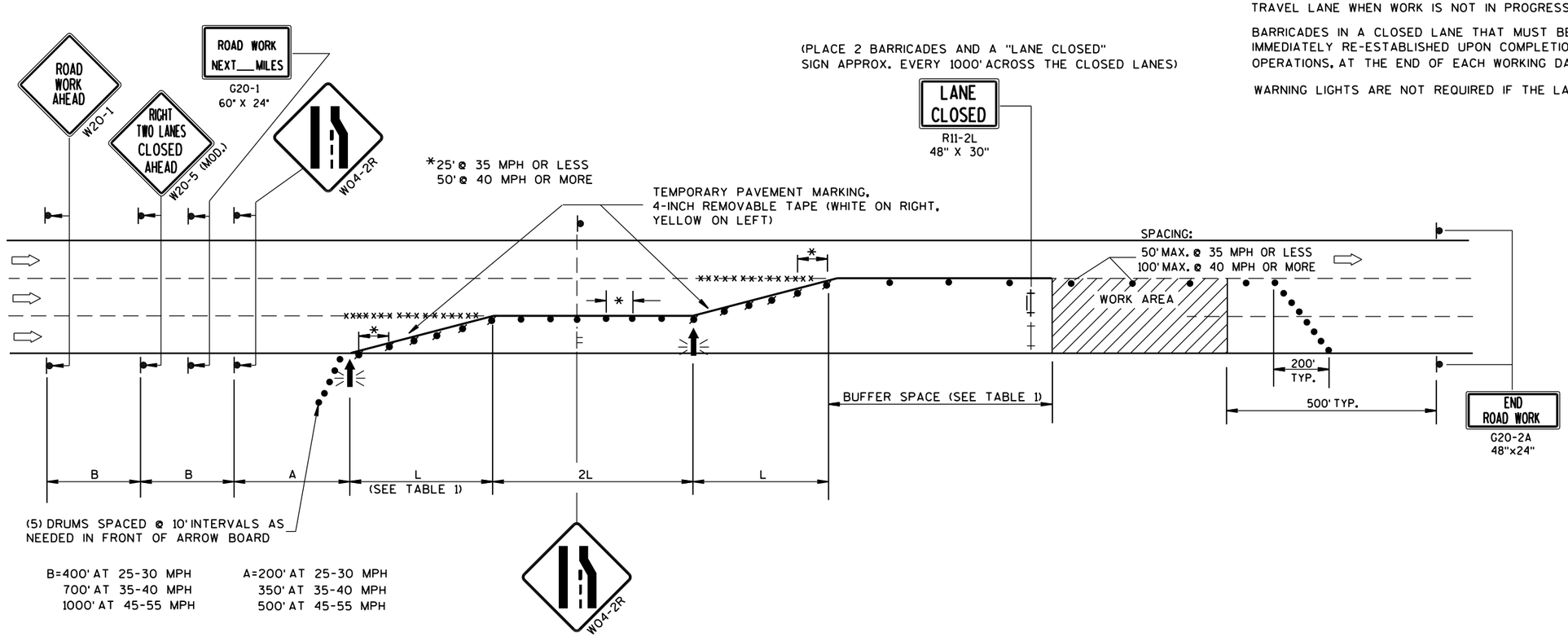
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

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.



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

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

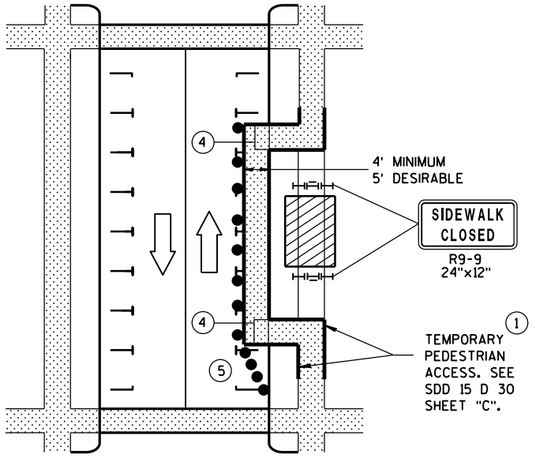
FHWA

SIGN

S.D.D. 15 D 22-2

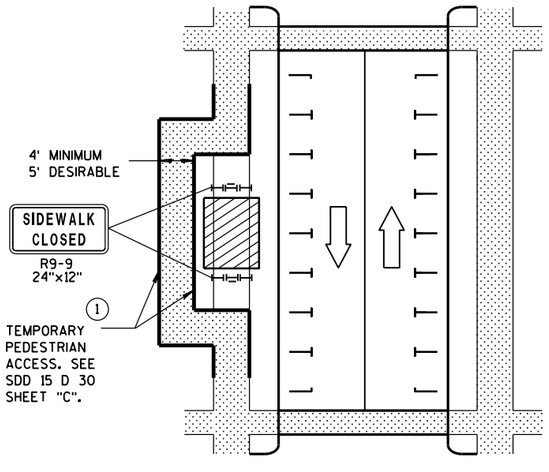
S.D.D. 15 D 22-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

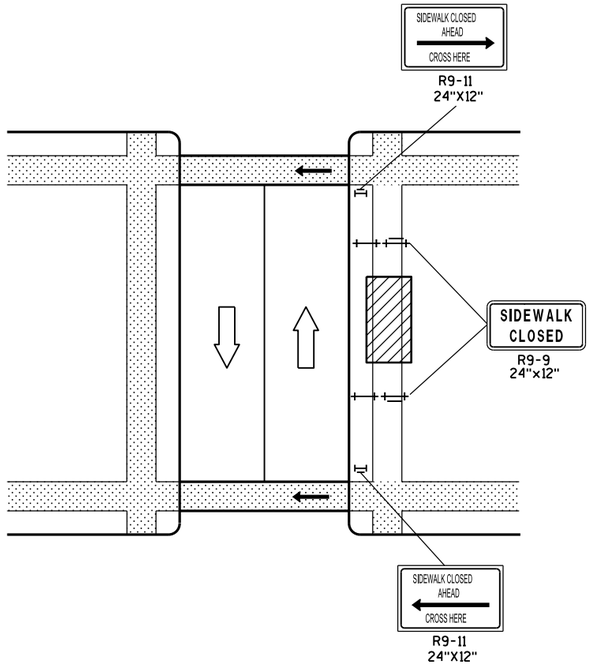


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

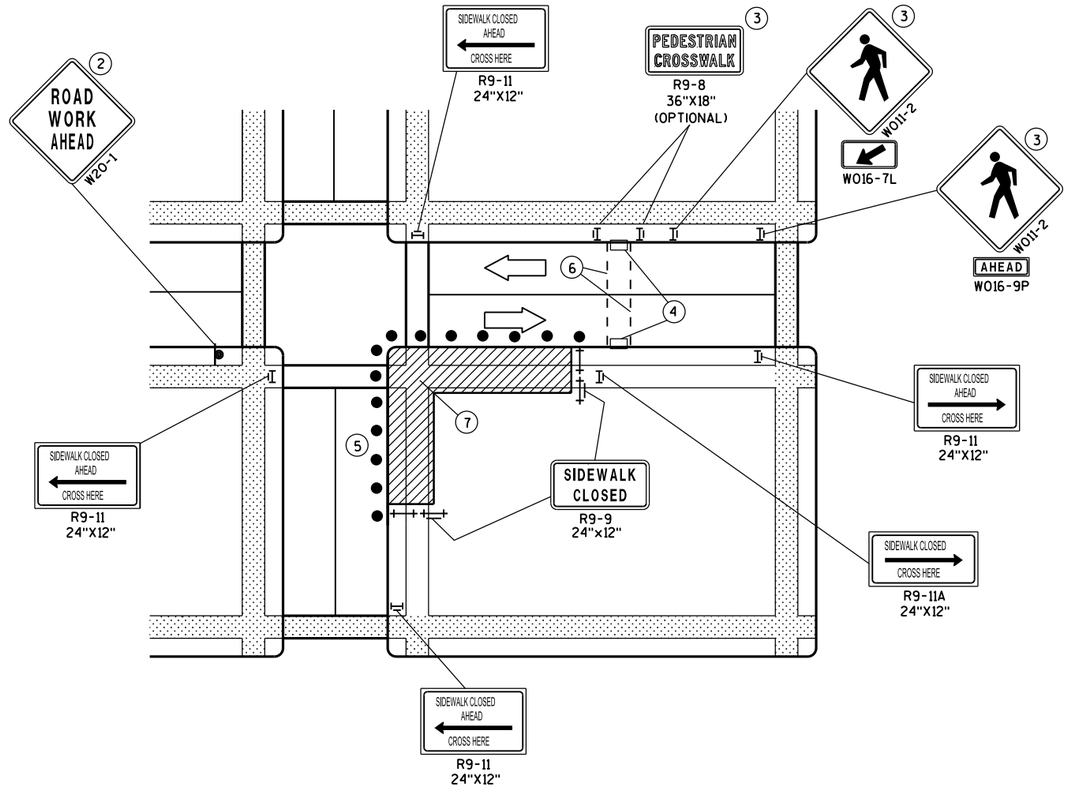
NOTE: LAYOUT SAME AS ABOVE.



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

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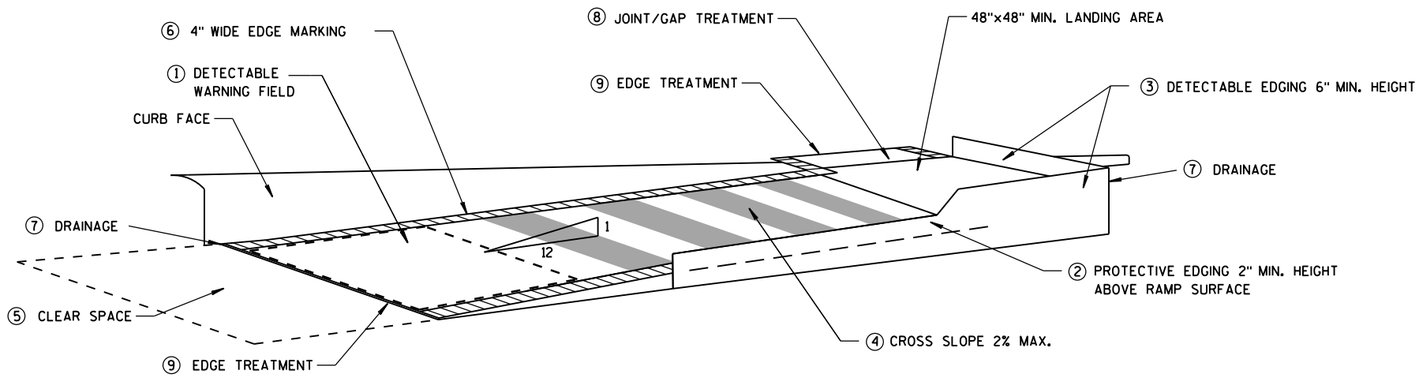
S.D.D. 15 D 30-2a



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.

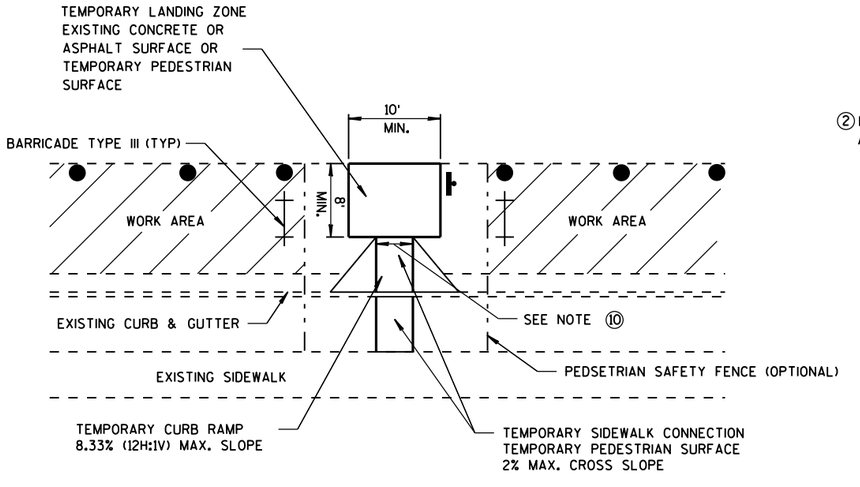
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

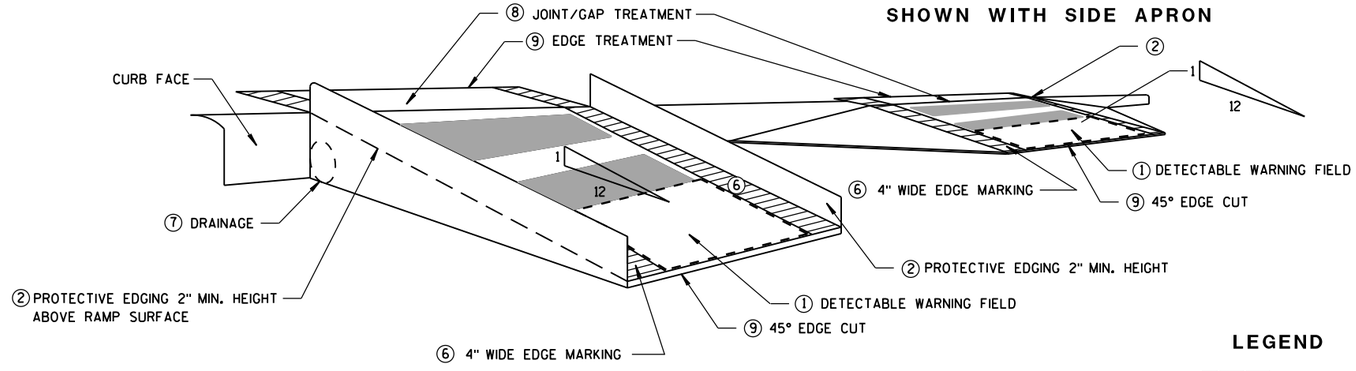
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

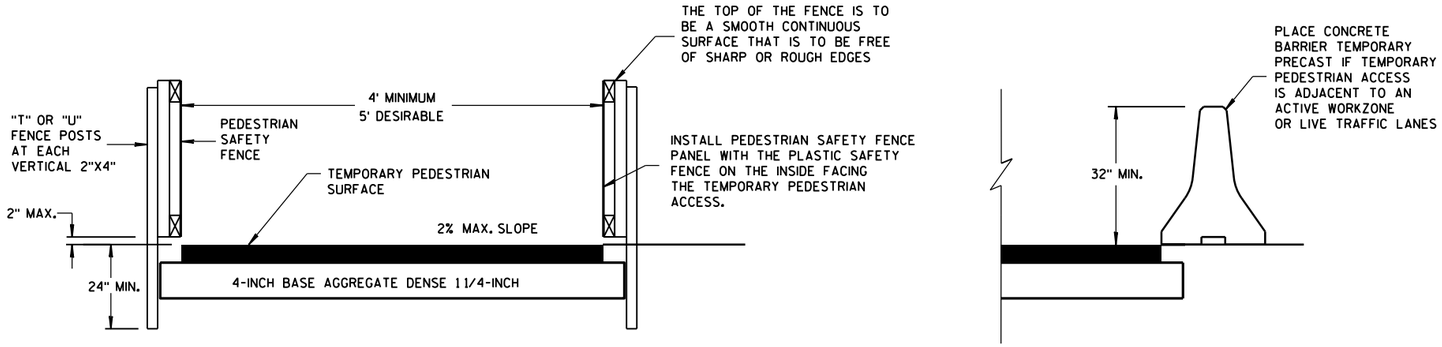
FHWA

6

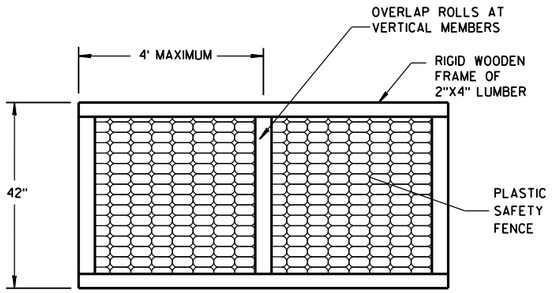
S.D.D. 15 D 30-2b

6

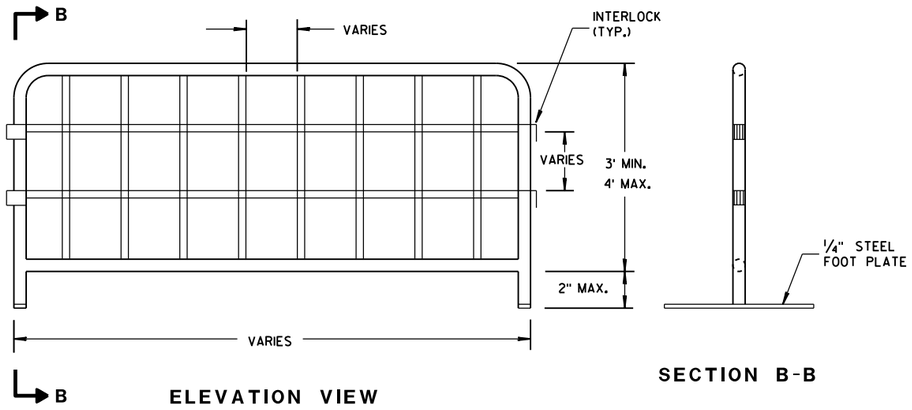
S.D.D. 15 D 30-2b



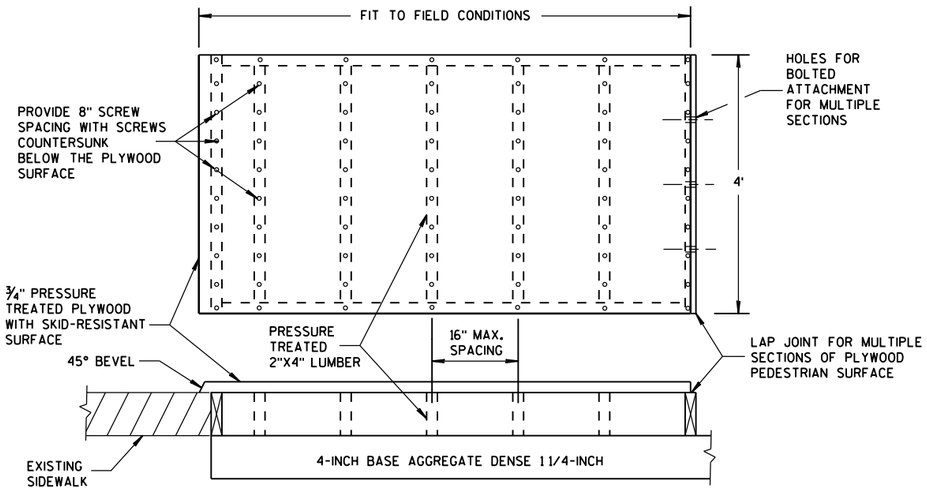
TEMPORARY PEDESTRIAN ACCESS



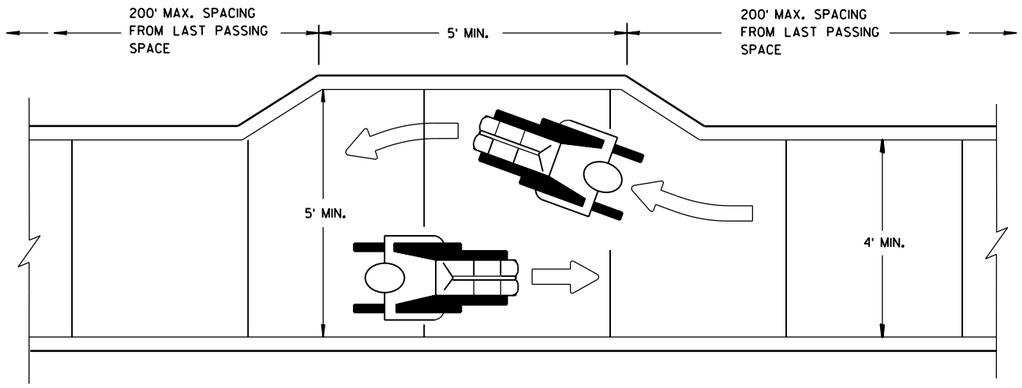
PEDESTRIAN SAFETY FENCE



TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



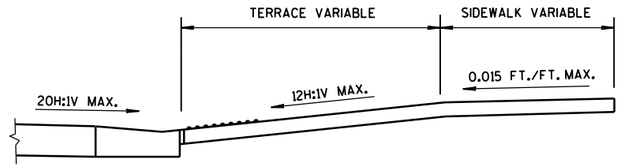
TEMPORARY PEDESTRIAN SURFACE PLYWOOD



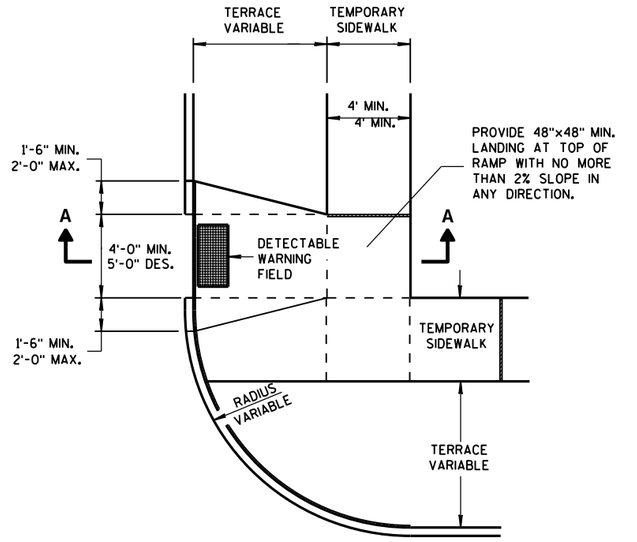
NARROW SIDEWALK PASSING DETAIL

GENERAL NOTES

(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A

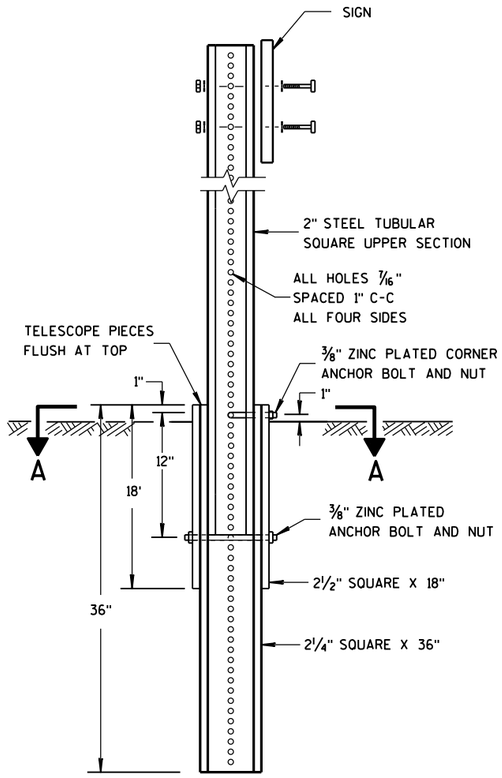


PLAN VIEW

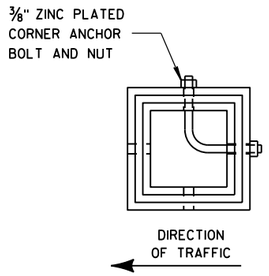
TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
March 2015	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER 196 SIGN
FHWA	



DETAIL OF TUBULAR STEEL SIGN POST



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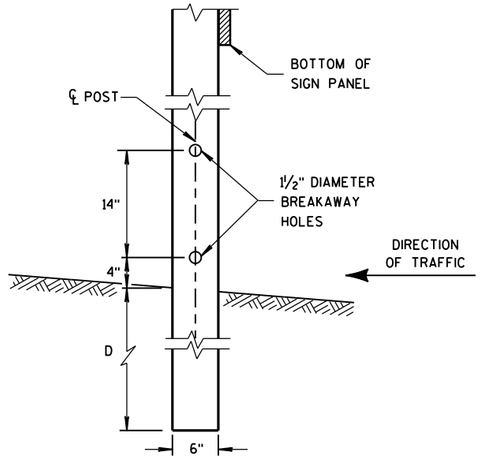


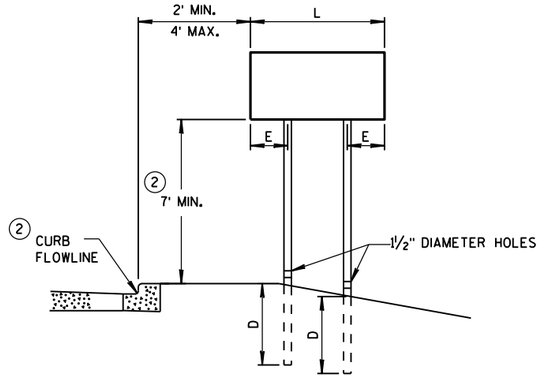
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

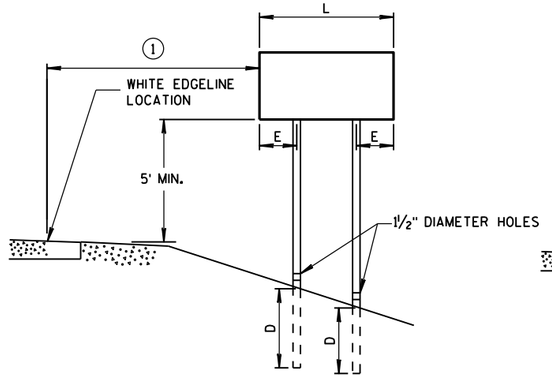
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

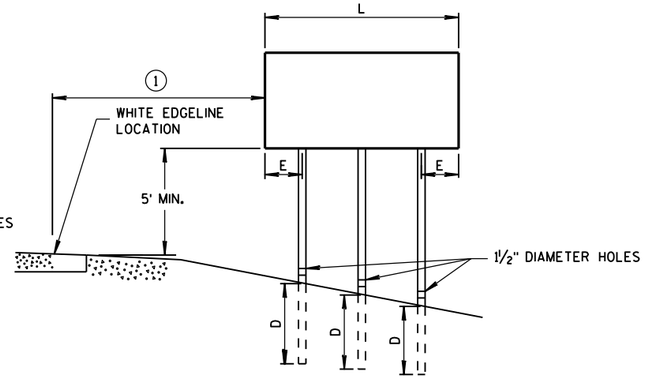
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

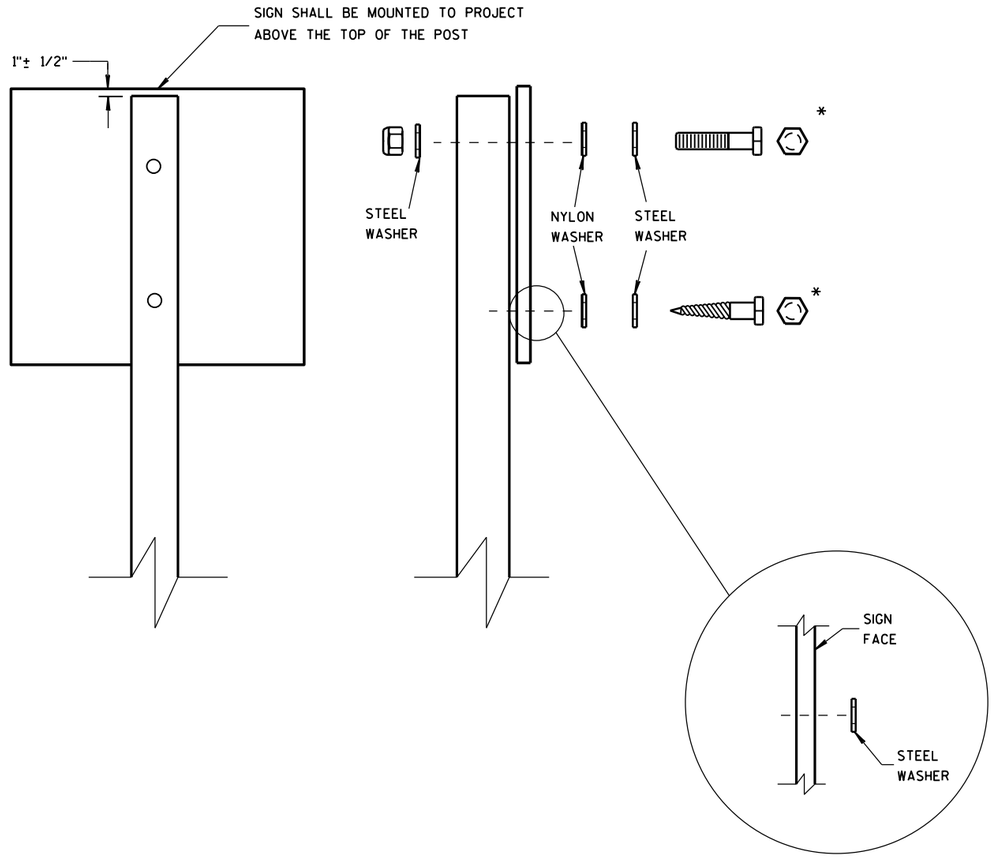
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-1a



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

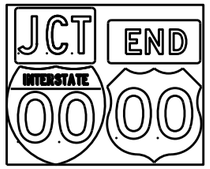
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

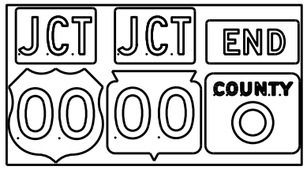
SIGN

TYPICAL ASSEMBLIES

J1-1

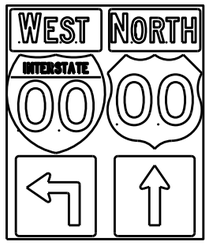


J1-2

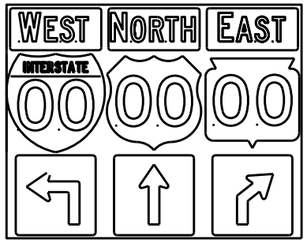


J1-3

J2-1



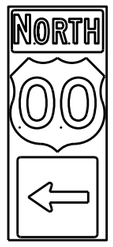
J2-2



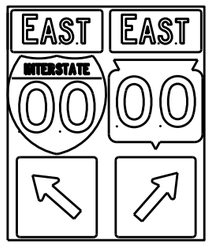
J2-3

JV

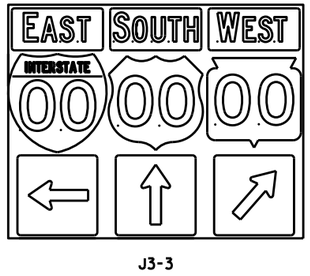
(Typical Vertical J-Assembly
See Note 10 and 11)



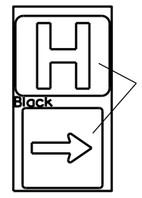
J3-1



J3-2



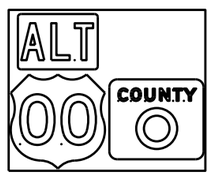
J3-3



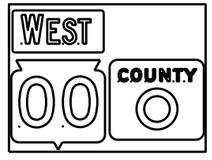
Blue Background

JH-1

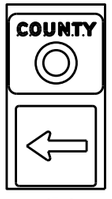
J4-1



J4-2



J4-2



J13-1

J12-1

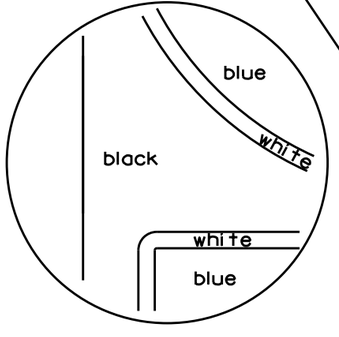
J32-1

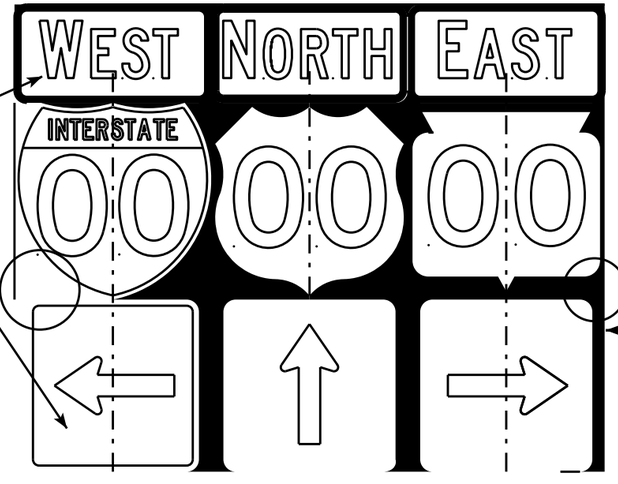
J33-1

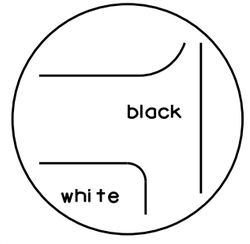
J23-1

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

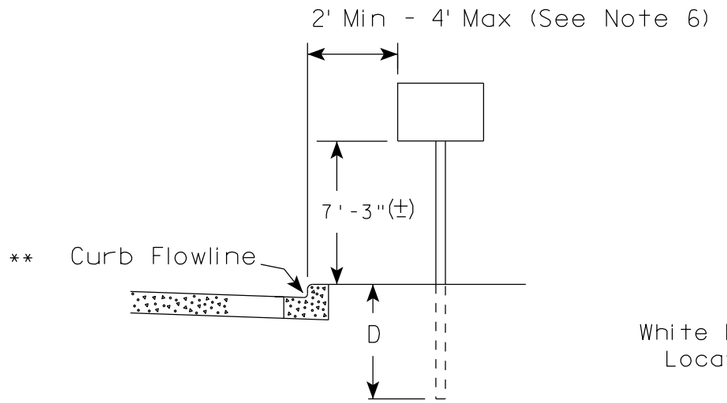
PROJECT NO:

SHEET NO: E

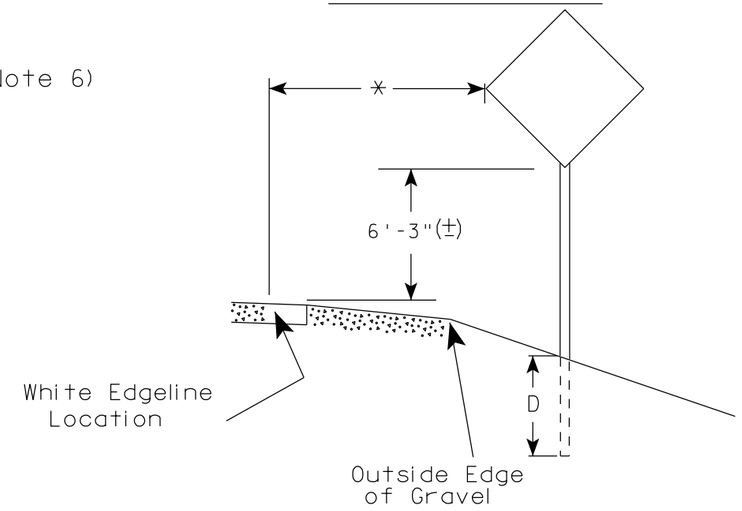
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

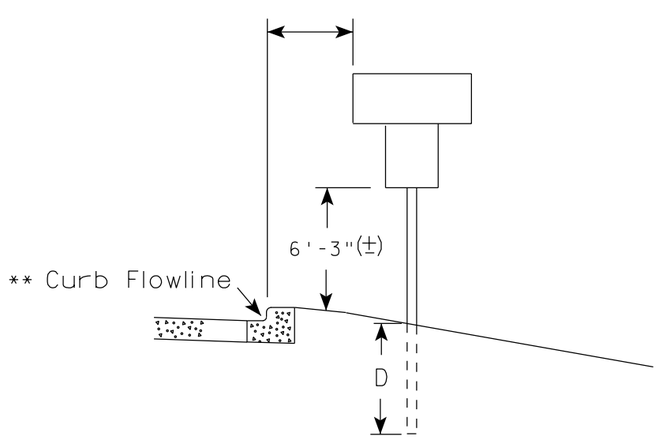
WISDOT/CADDS SHEET 42

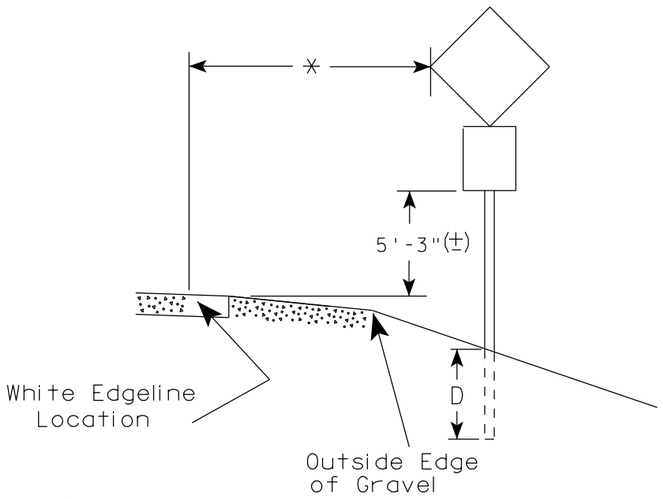
URBAN AREA



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" (±).

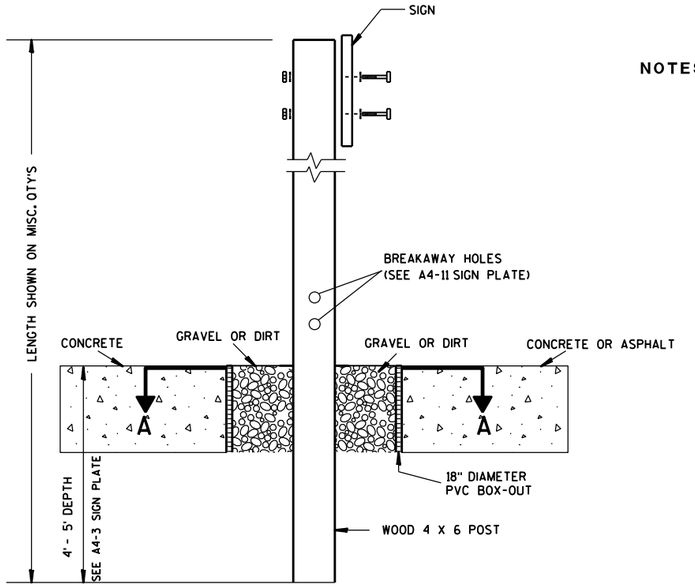
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

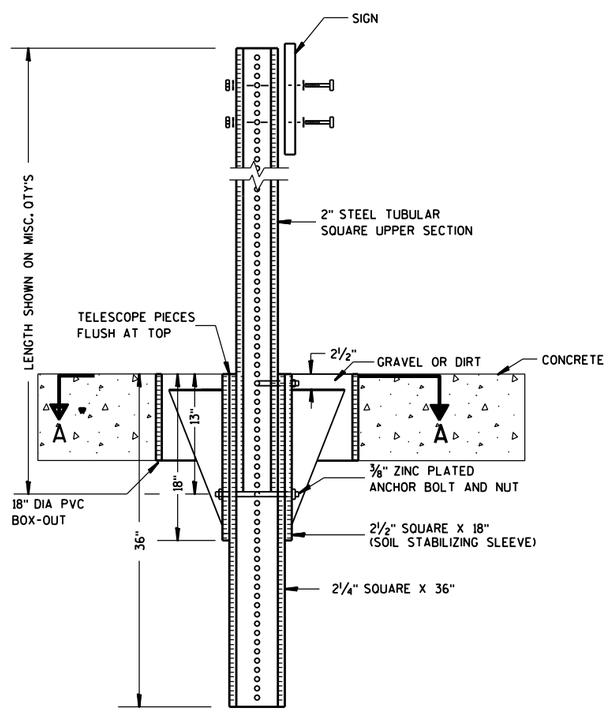
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

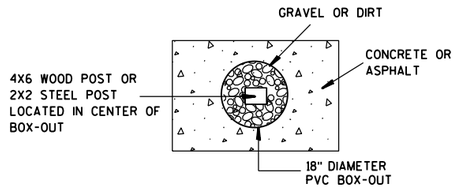
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

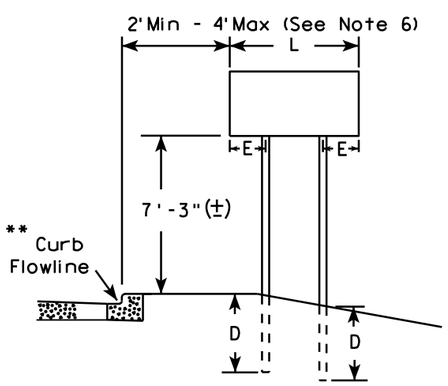
APPROVED Matthew R Rauch
for State Traffic Engineer

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

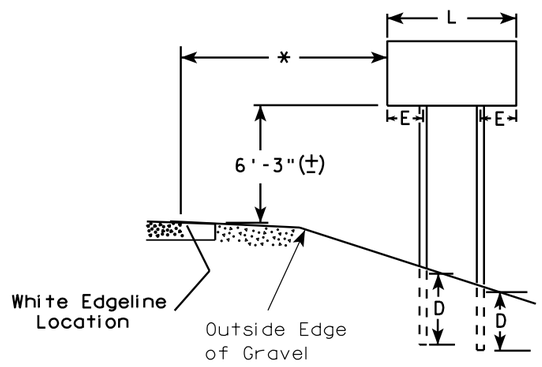
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

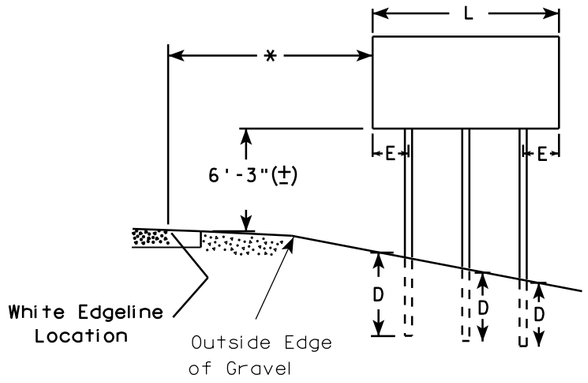
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

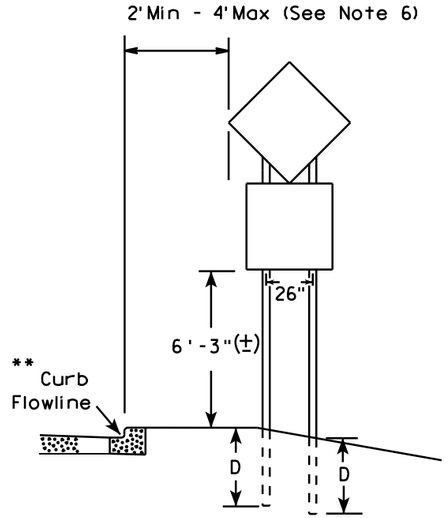
URBAN AREA



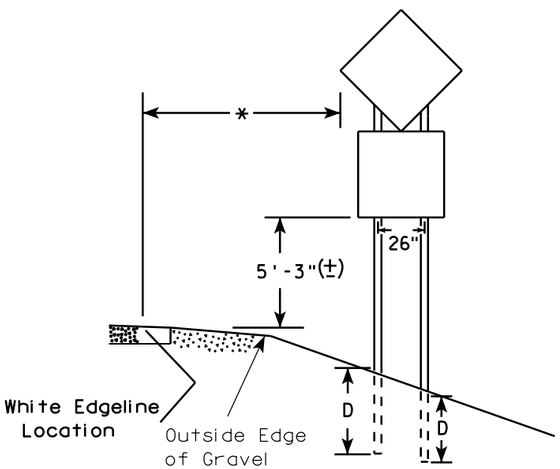
RURAL AREA (See Note 3)







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'

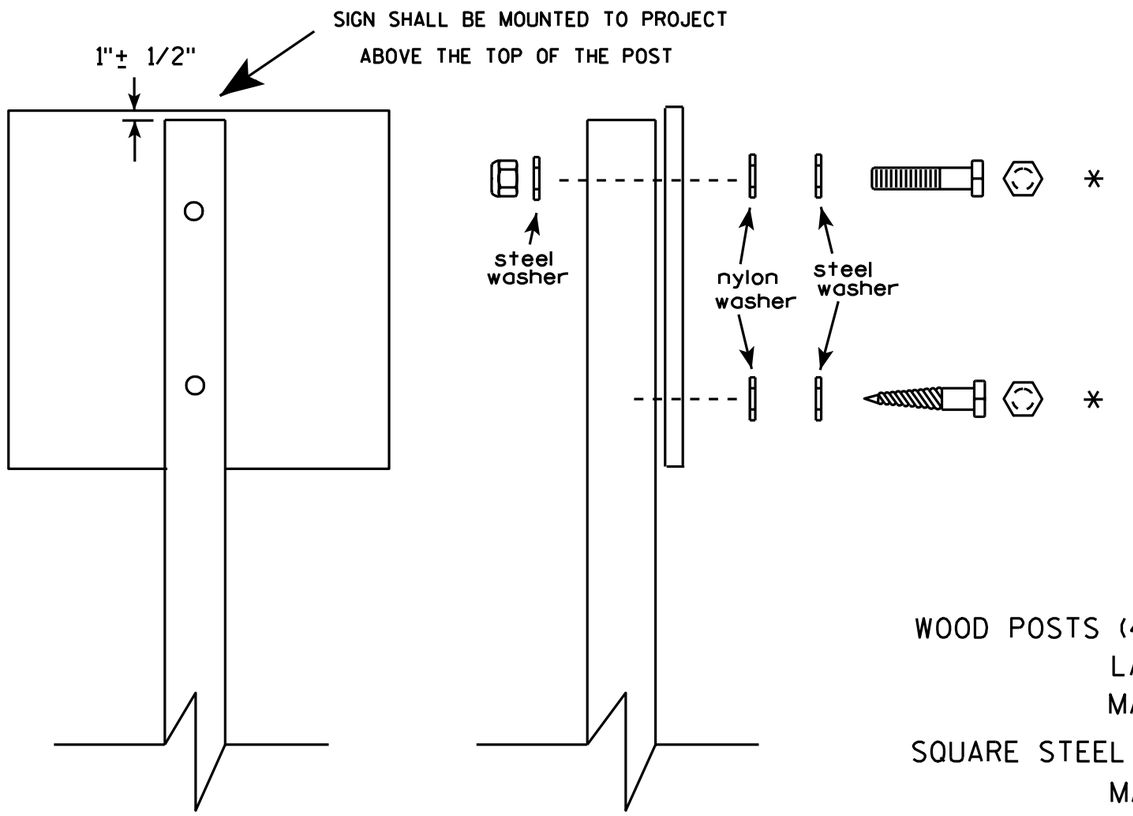
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 202 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



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

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

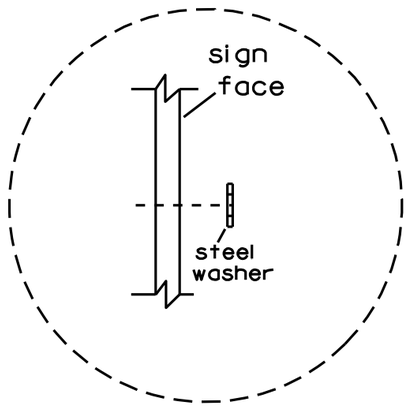
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

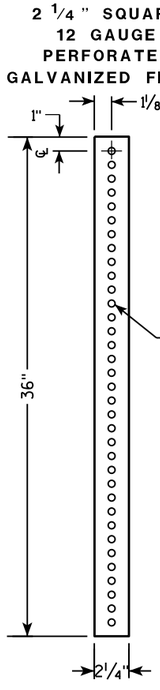
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

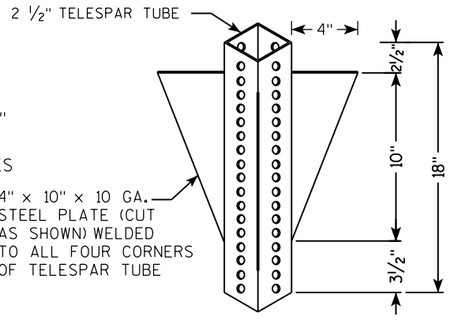
DATE 3/23/10 PLATE NO. A4-8.7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

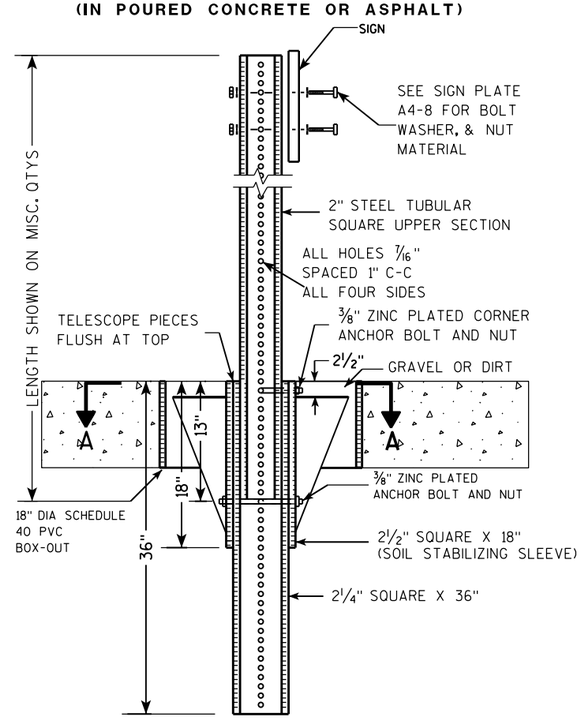
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



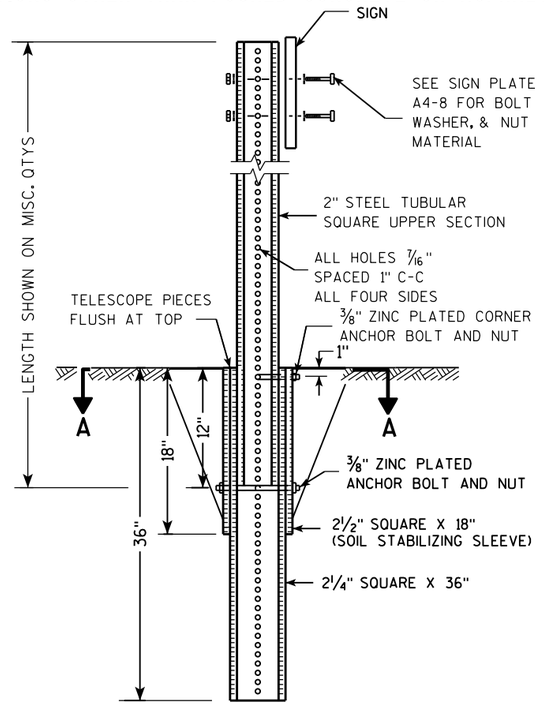
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

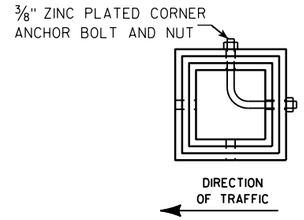


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

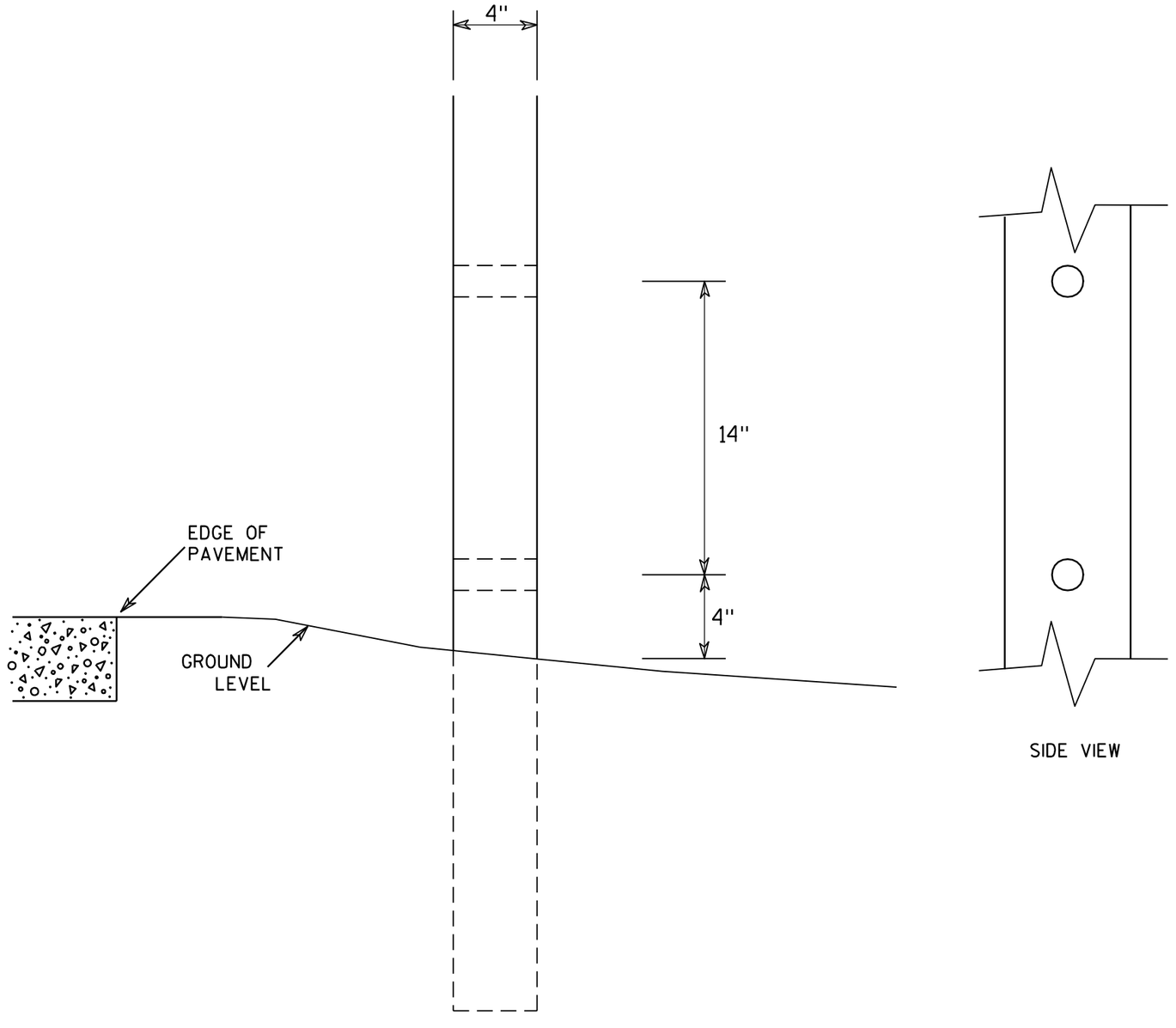
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 204 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

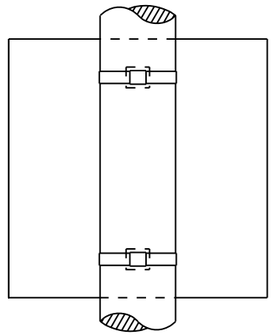
APPROVED Chester J Spang
for State Traffic Engineer

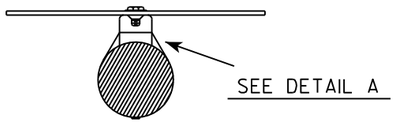
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E

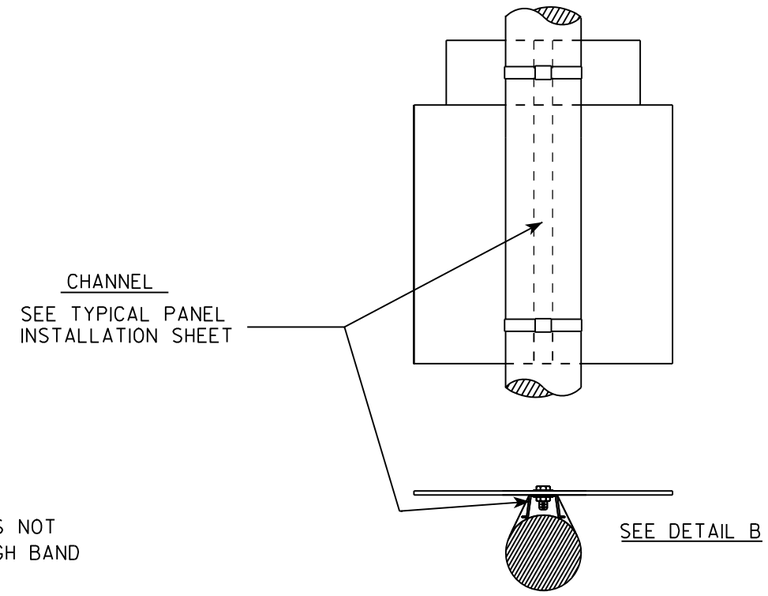
BANDING

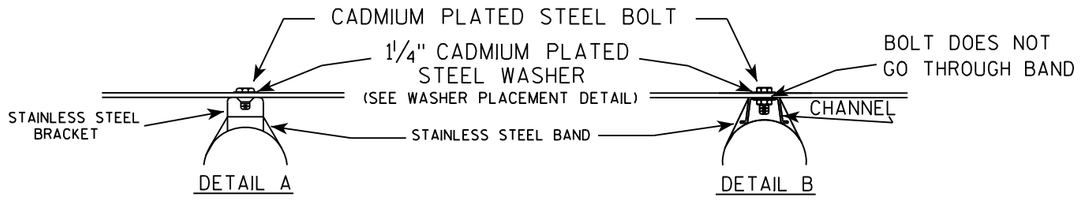
SINGLE SIGN



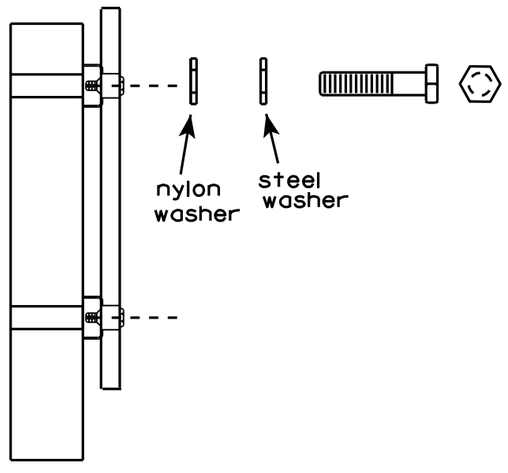


"J" ASSEMBLY





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 3/4" in width and 0.025" thickness.

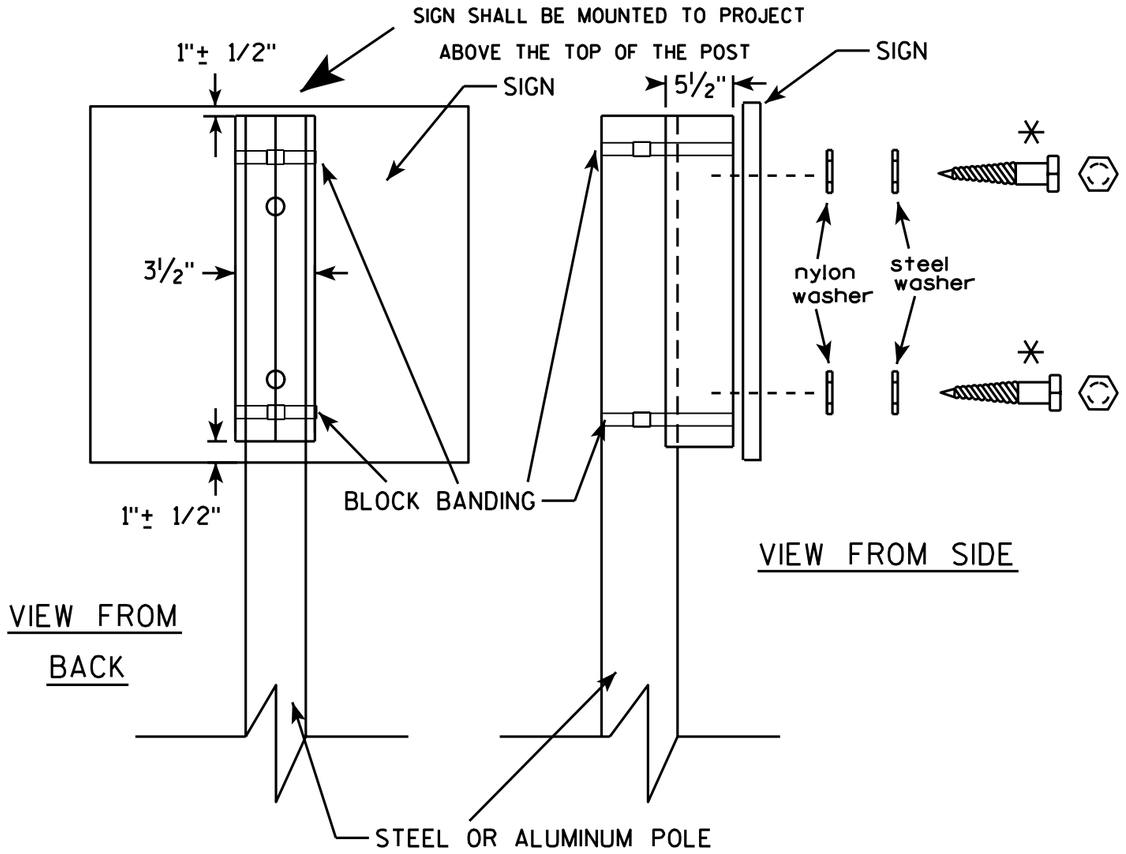
STANDARD SIGN
SIGN BANDING DETAILS

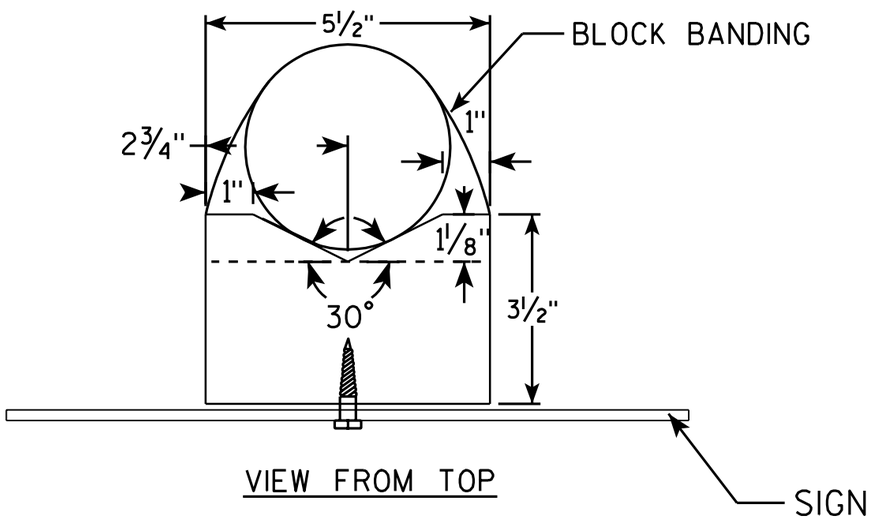
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 206	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

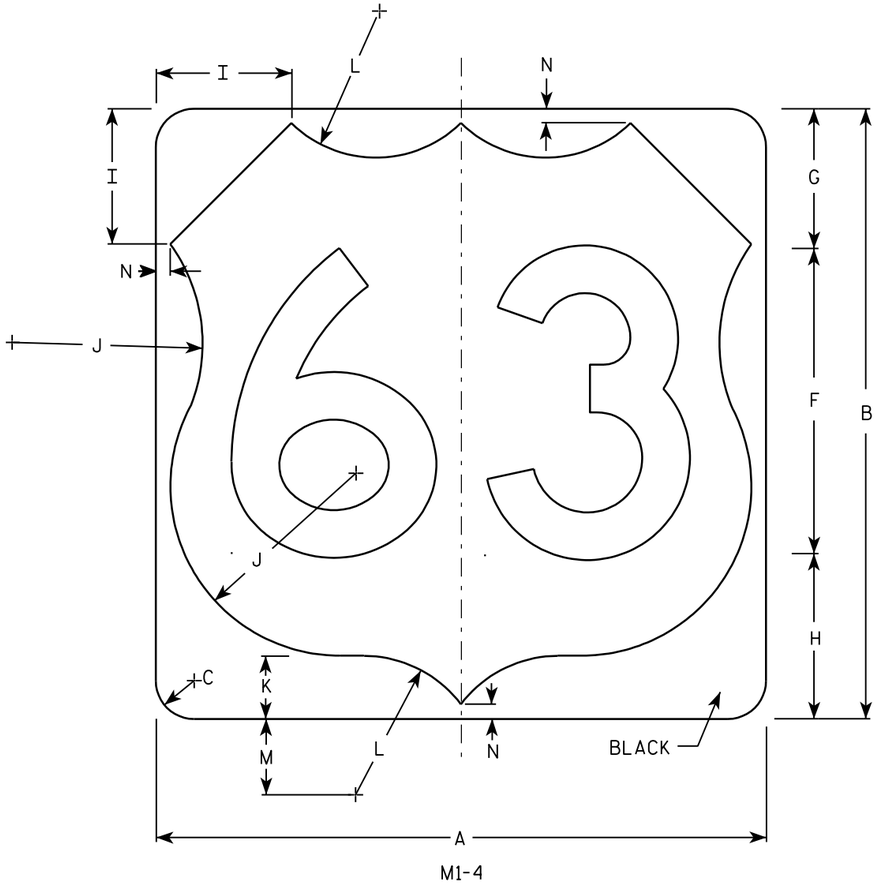
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

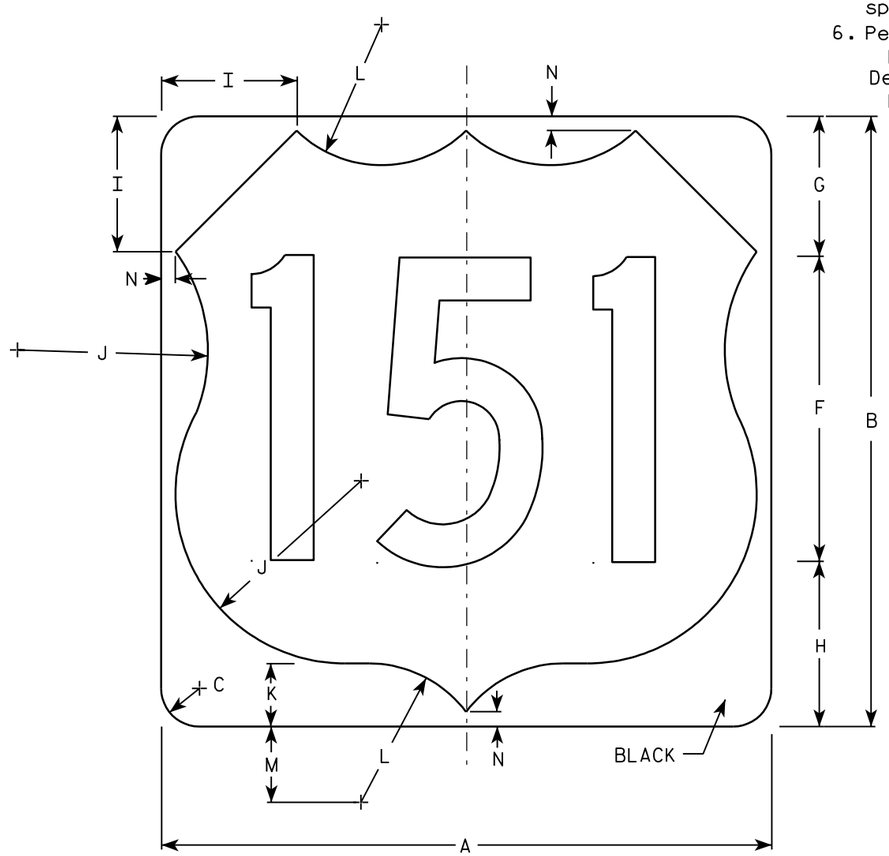
SHEET NO: 207 E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.	Area m2
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

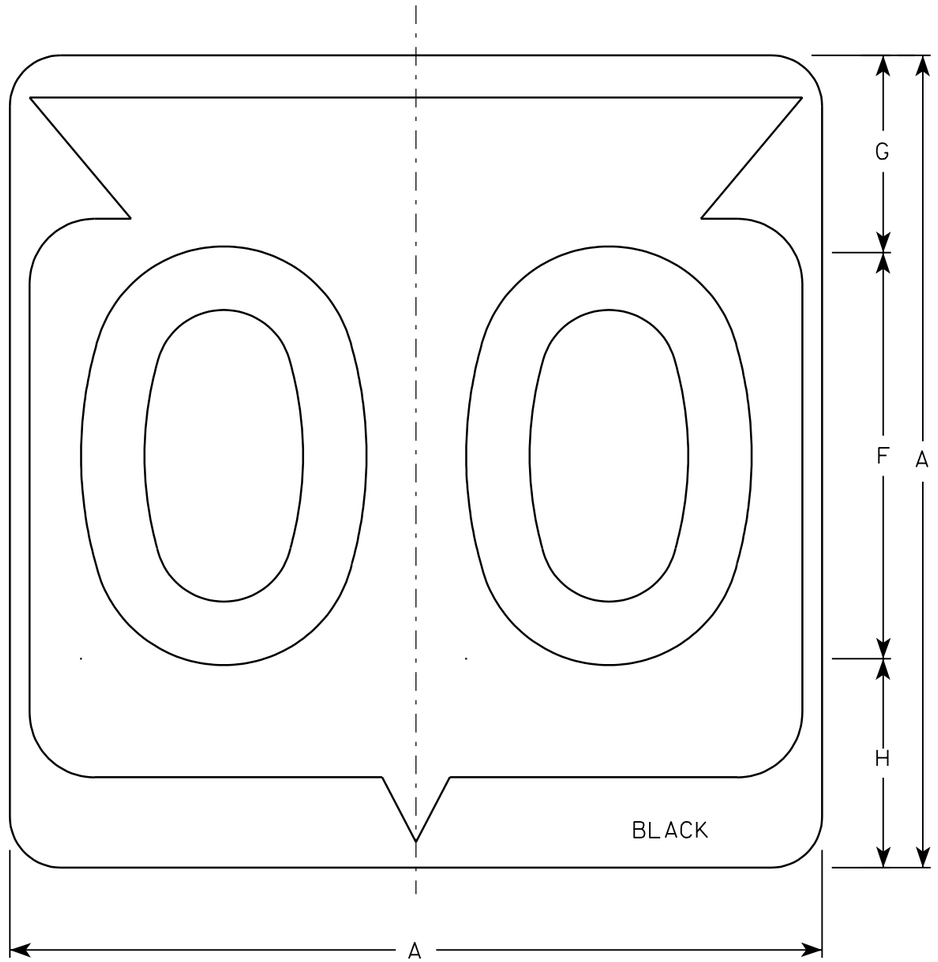
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

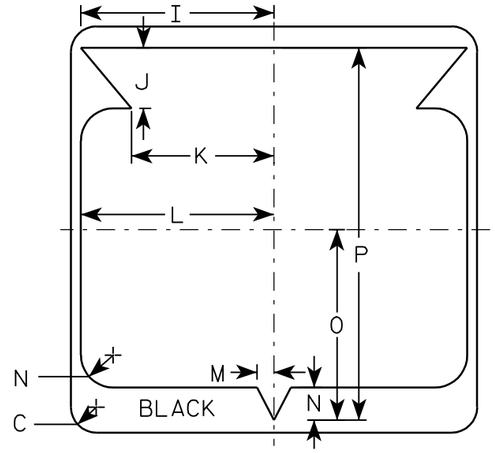
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E



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

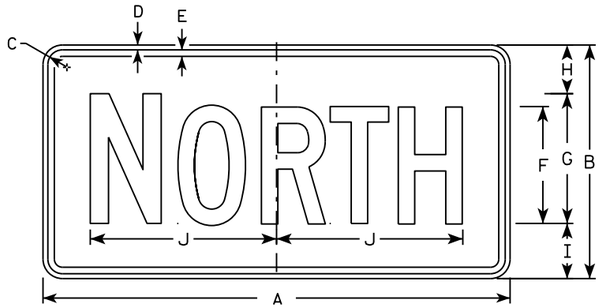
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

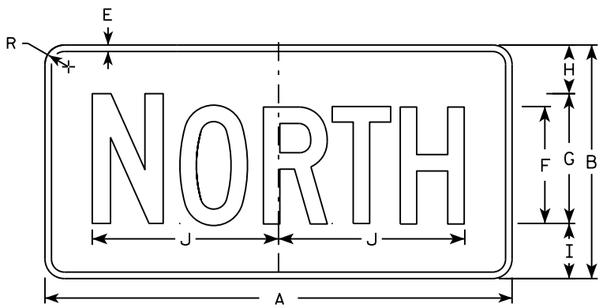
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 209	E



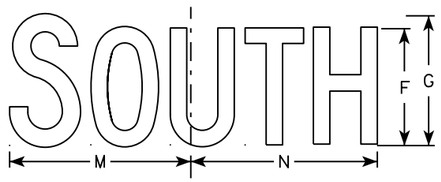
M3-1
MM3-1
MP3-1



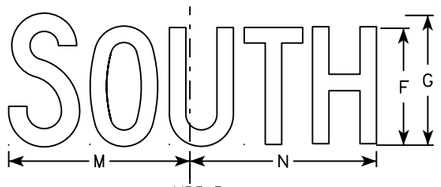
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

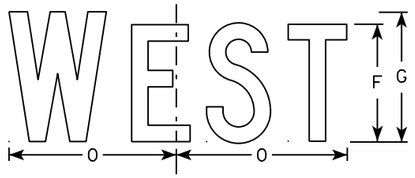
MB3-2
MK3-2
MN3-2



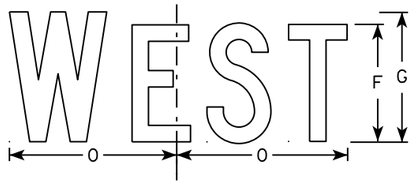
M3-3
MM3-3
MP3-3



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

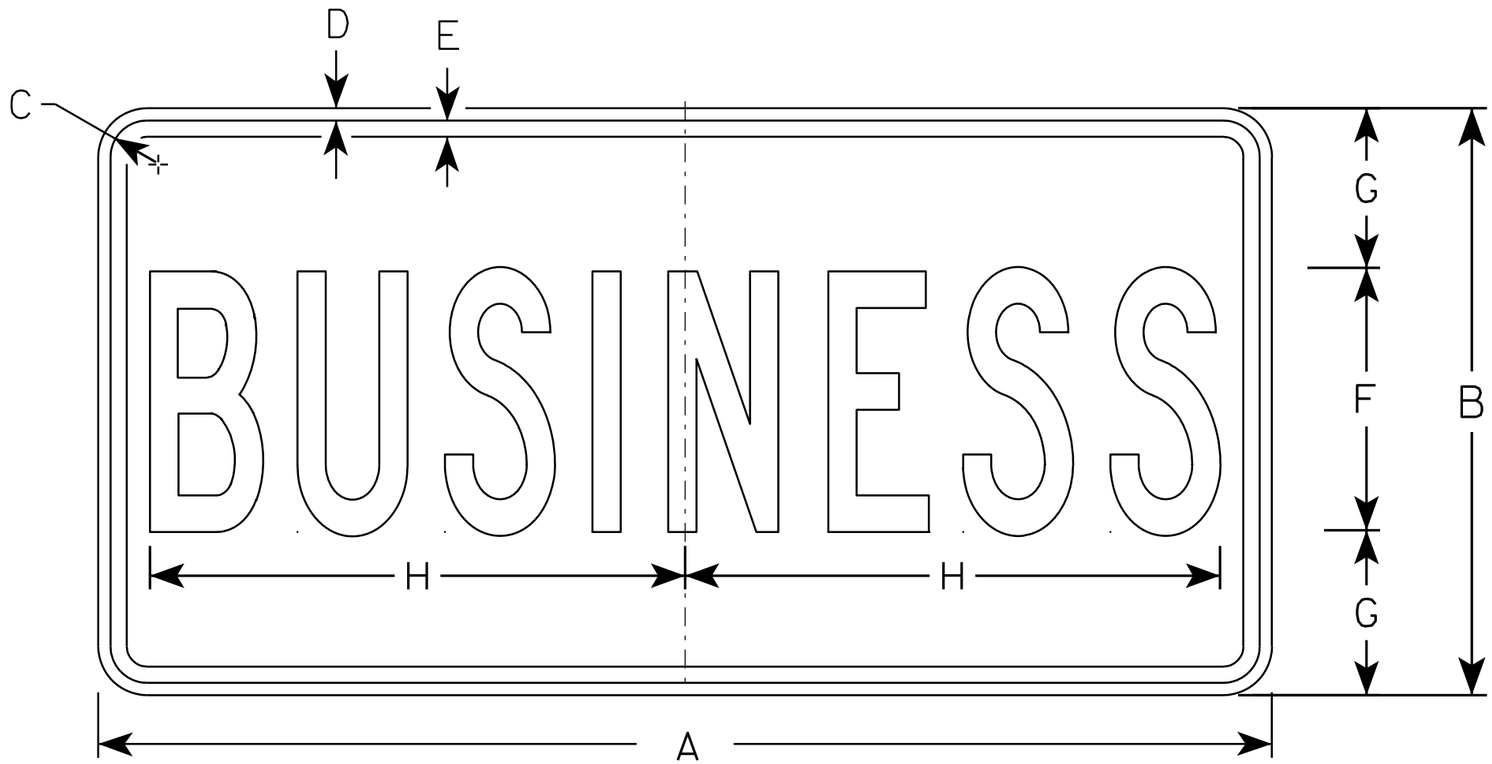
WISCONSIN DEPT OF TRANSPORTATION

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



M4-3

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary Signs
   Background - Reflective

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	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

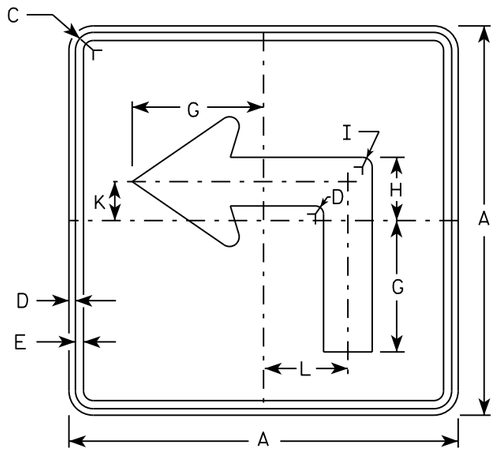
STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

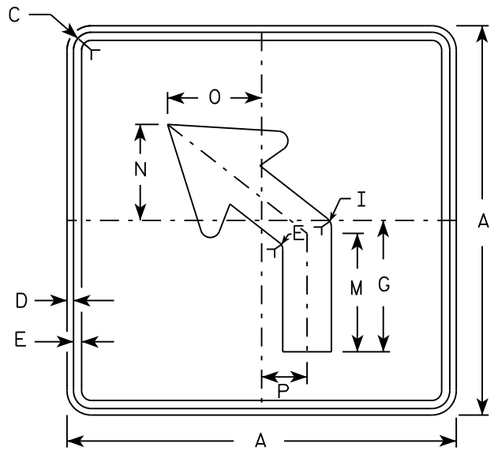
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

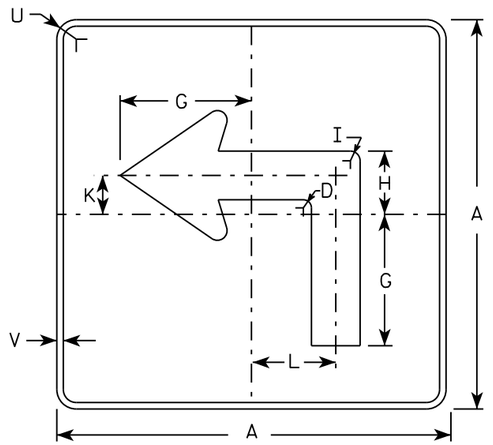
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 211 | E



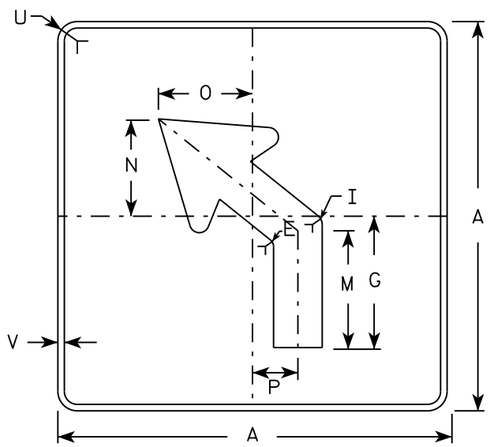
M5-1L
MM5-1L
MO5-1L
MP5-1L



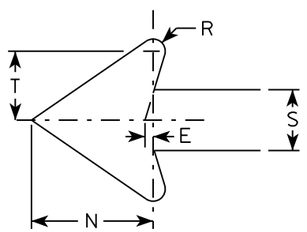
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective 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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

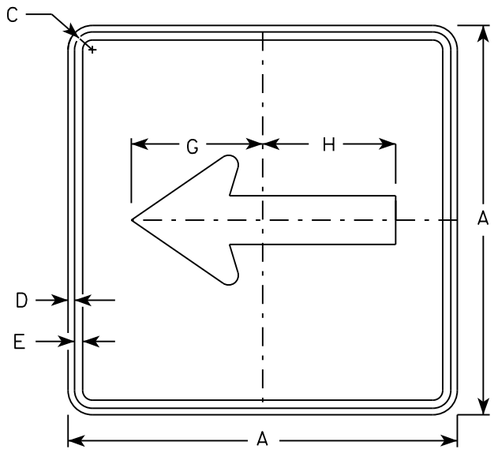
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

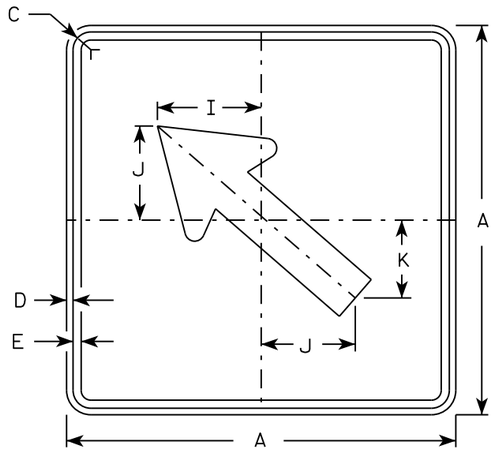
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



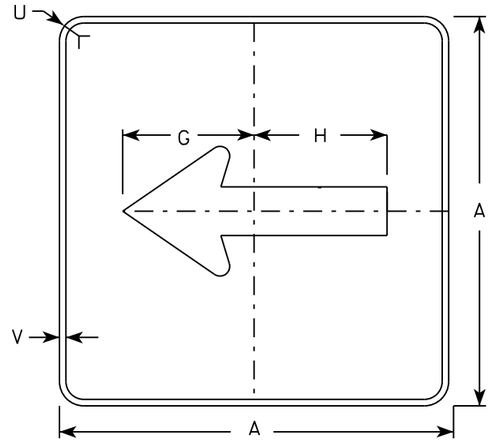
M6-1
MM6-1
MO6-1
MP6-1



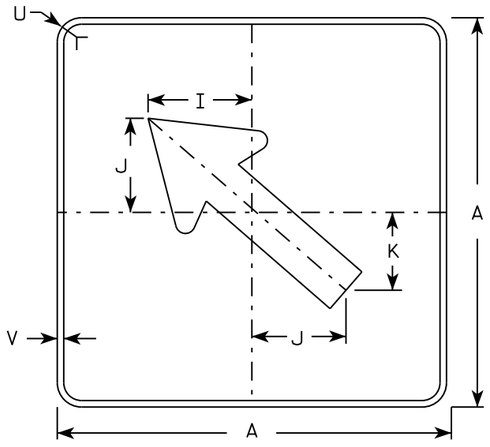
M6-2
MM6-2
MO6-2
MP6-2

NOTES

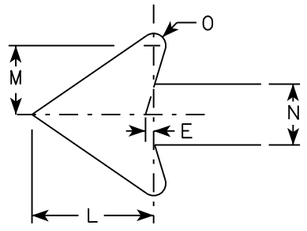
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN M6-1 & M6-2 SERIES

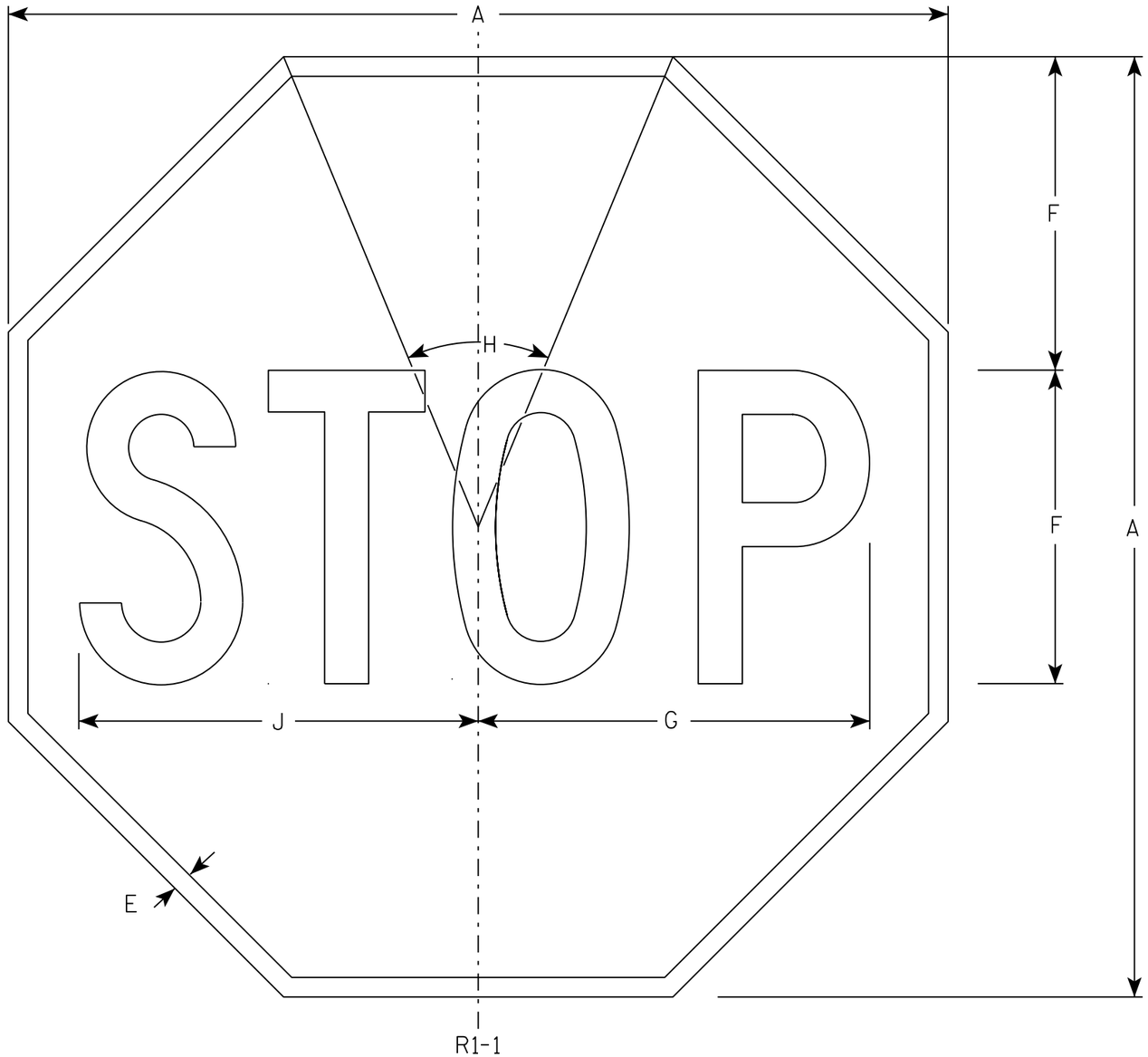
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 213 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-1

NOTES

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

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

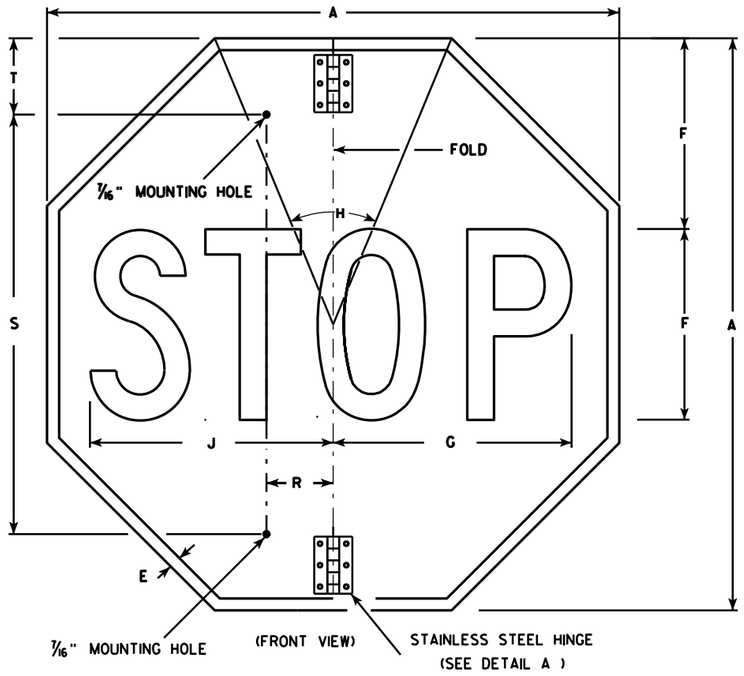
WISCONSIN DEPT OF TRANSPORTATION

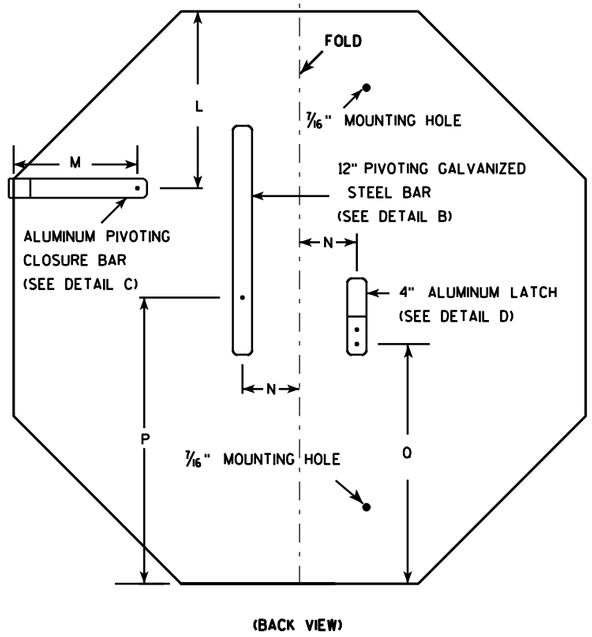
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 214 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

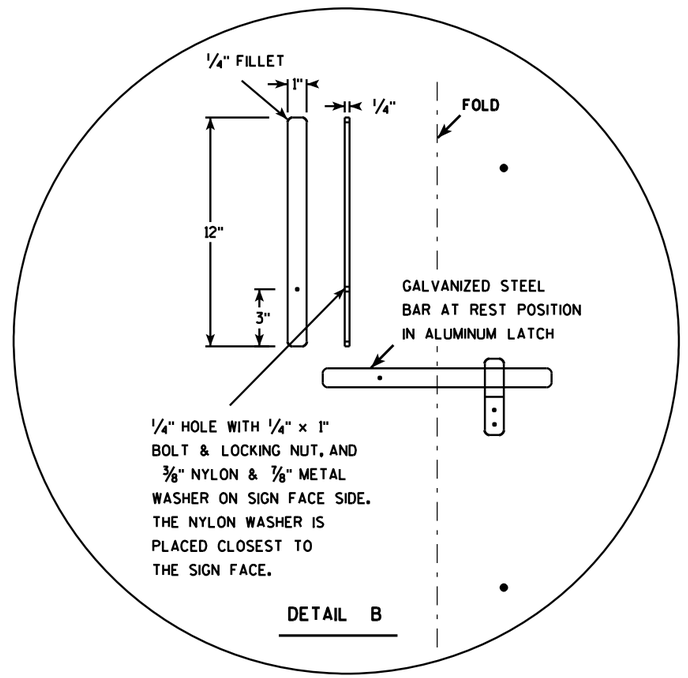
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000

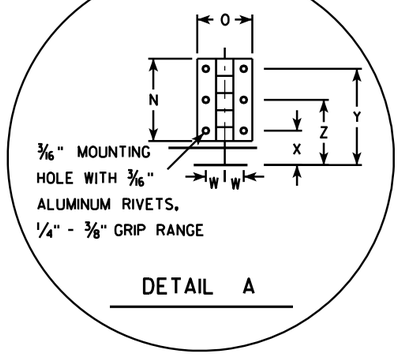


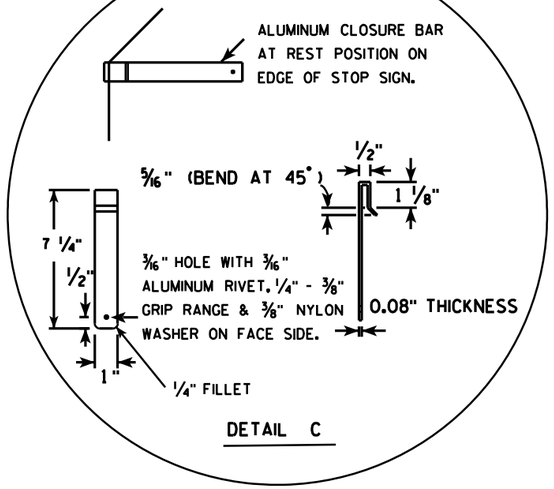


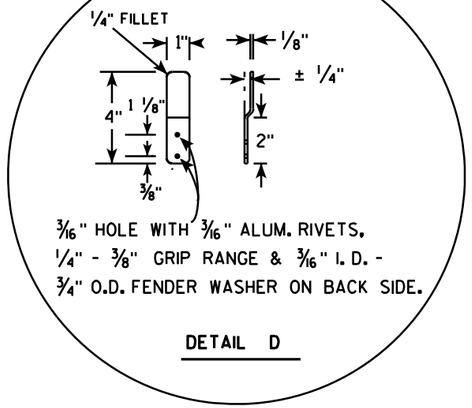
NOTES

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.









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																											

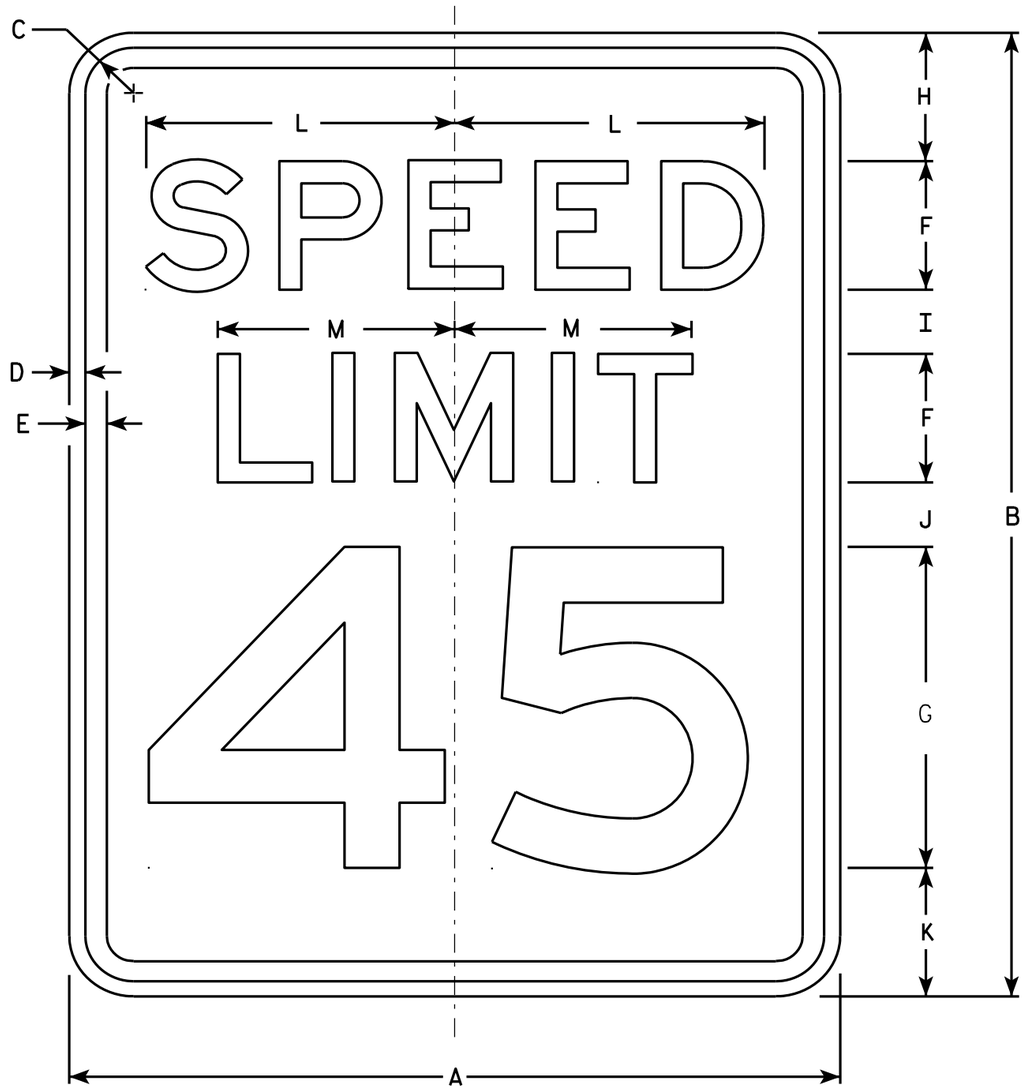
STANDARD SIGN
R1-1F

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: 215	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

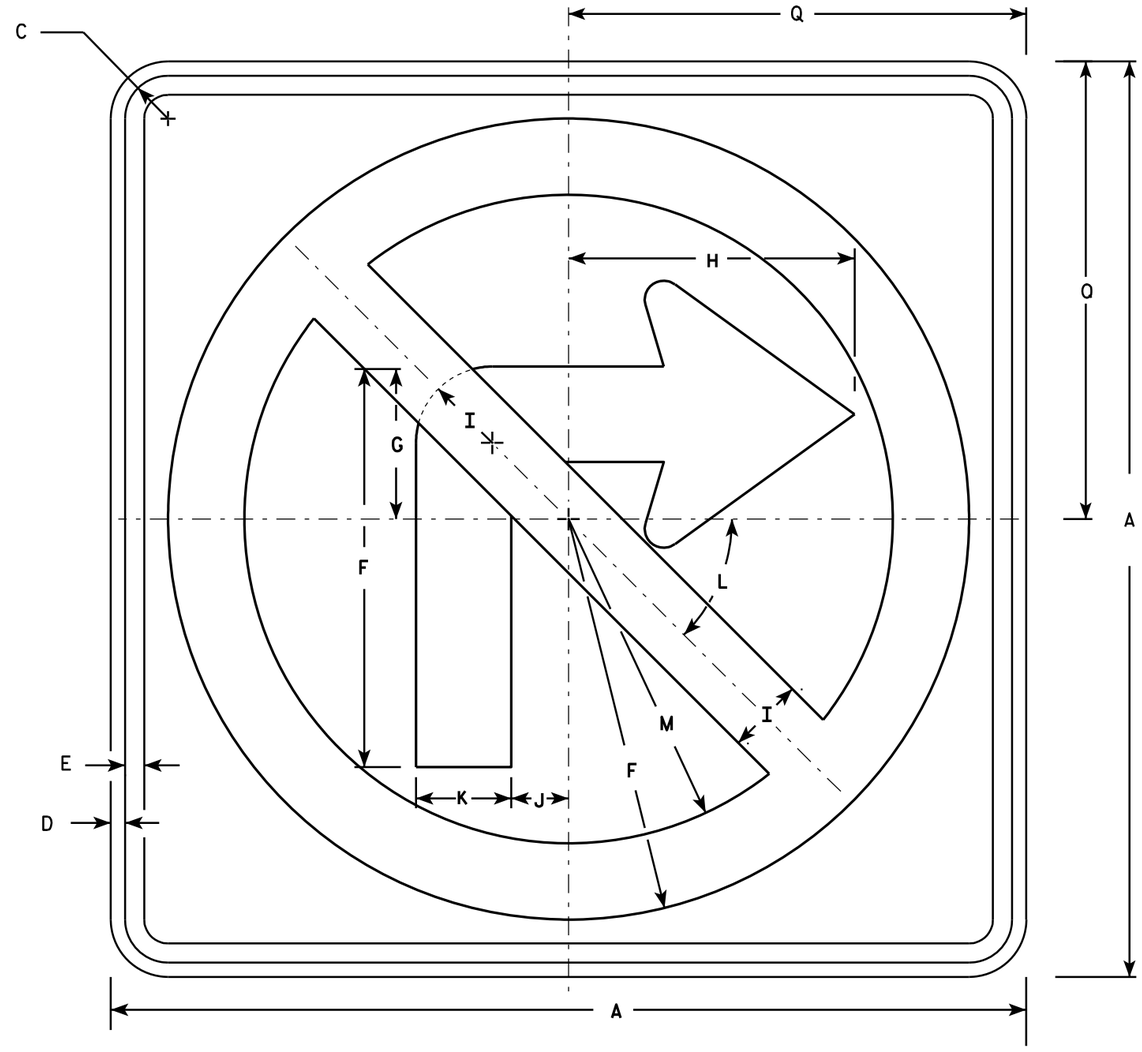
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

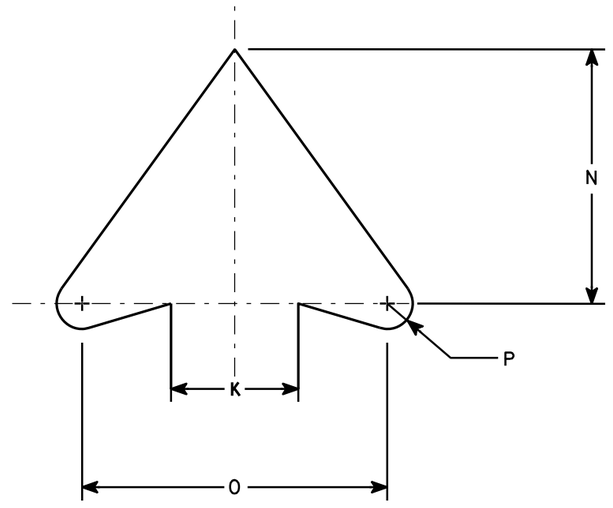
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 216 | E



R3-1

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 - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

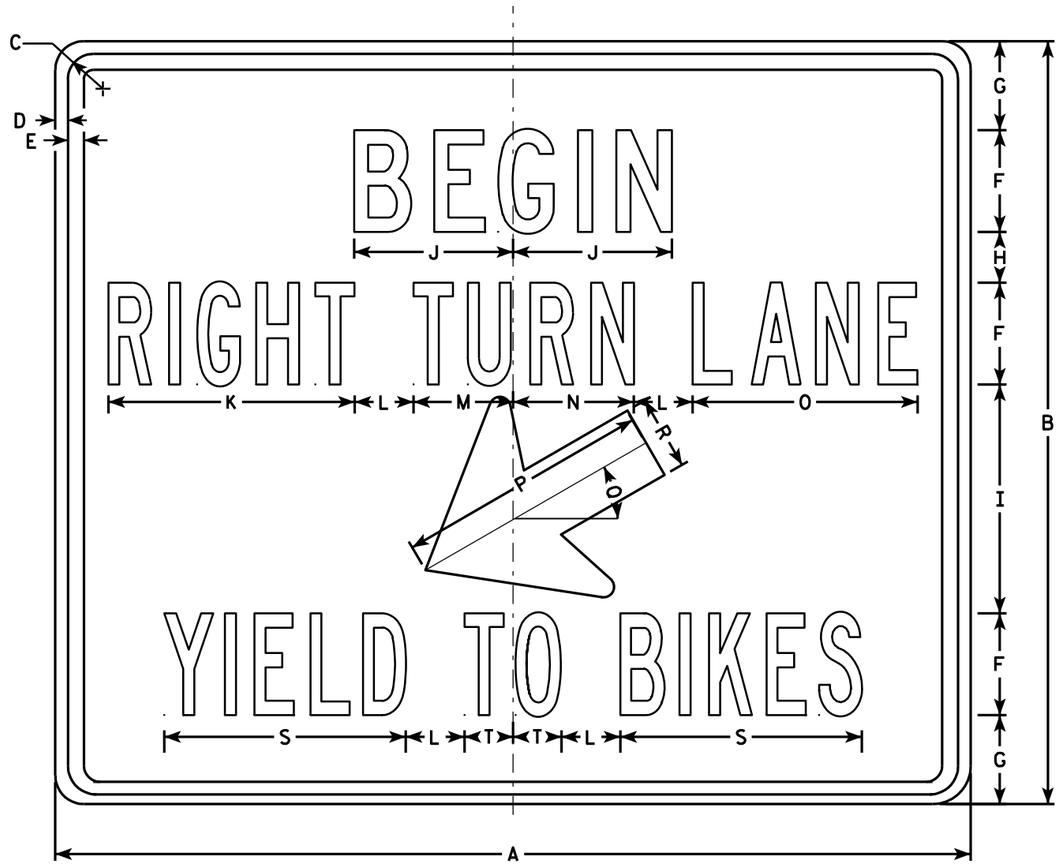
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E



R4-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 & 3 are Series B

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

STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

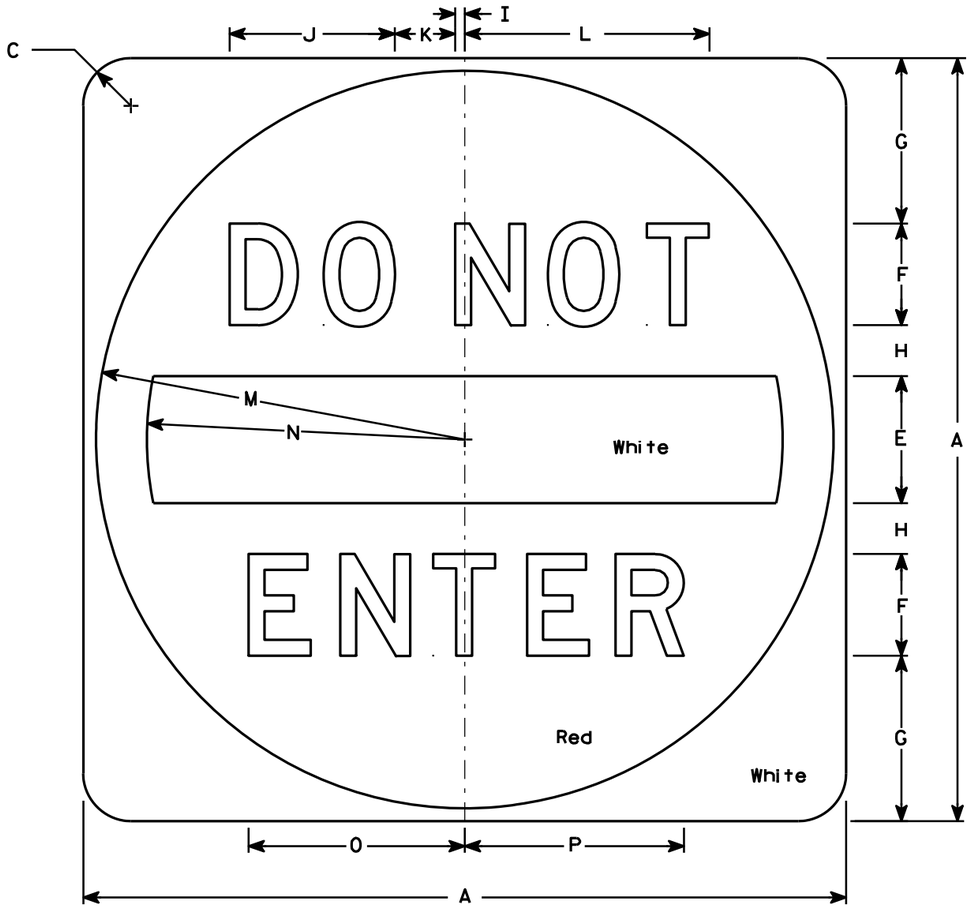
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 218 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R44.DGN PLOT DATE : 25-MAR-2011 13:45 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



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

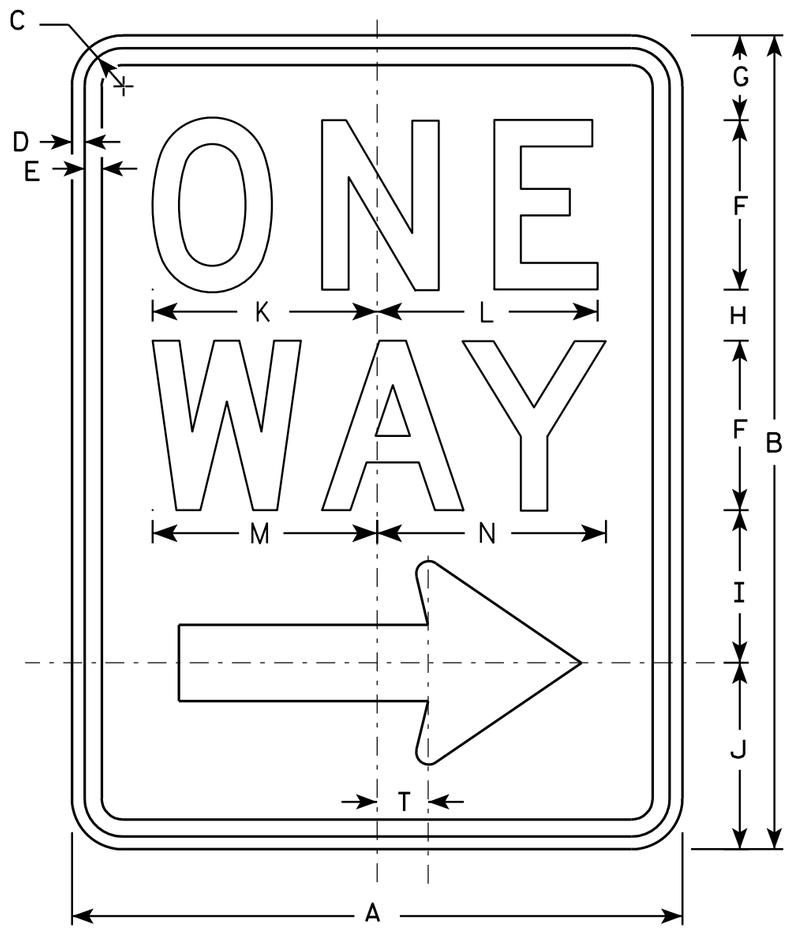
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

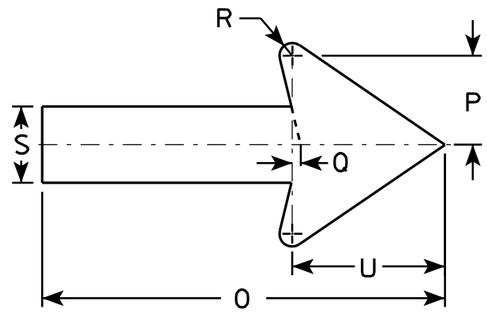
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 219 | E



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: 220	E

R9-9

NOTES

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

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

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

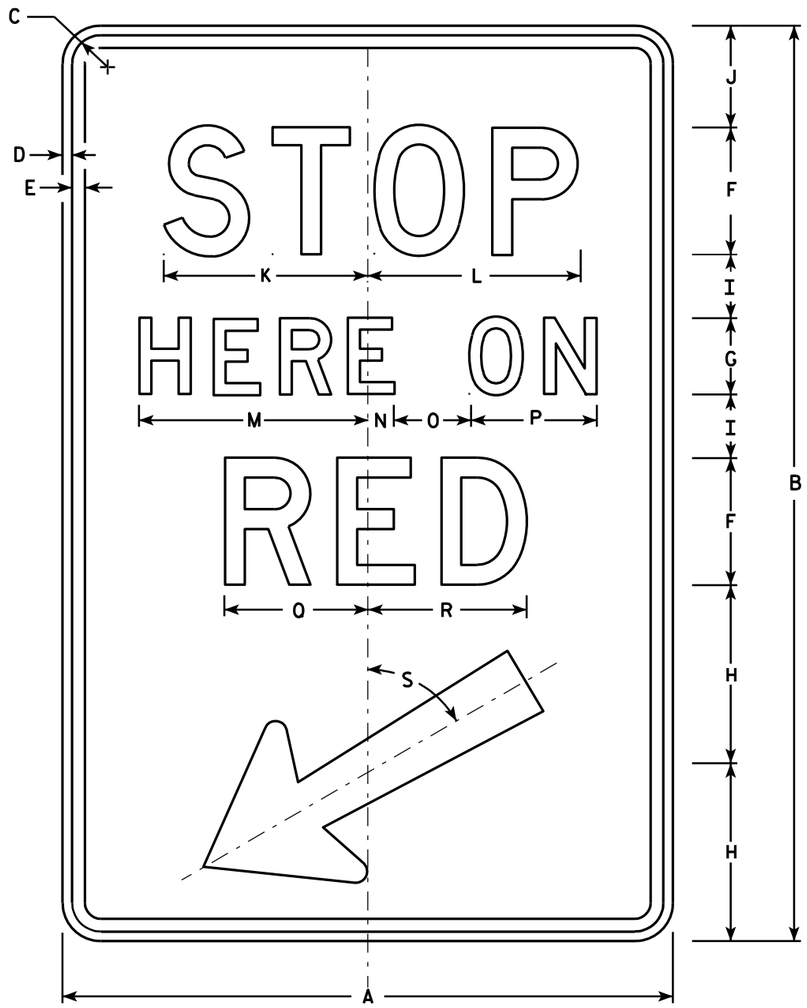
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 221 | E

7

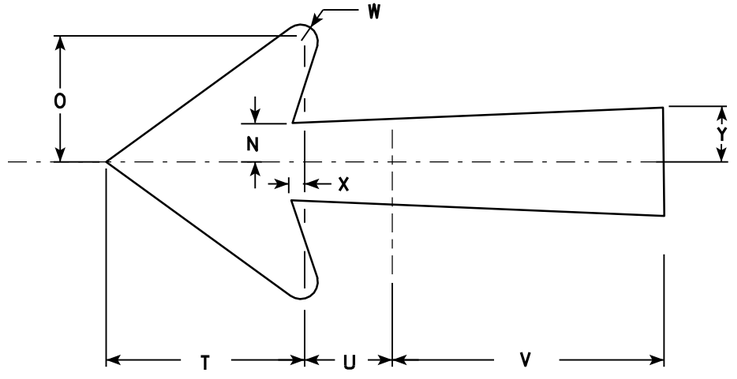
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R99.DGN PLOT DATE : 01-APR-2011 11:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 2.979520:1.000000
WISDOT/CADDS SHEET 42



R10-6

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.



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	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
2M	24	36	1 1/8	3/8	1/2	5	3	7	2 1/2	4	8	8 3/8	9	1	3	5	5 5/8	6 1/4	60°	5 1/4	2 1/4	7 1/8	1/2	3/8	1 3/8		6.0
3																											
4																											
5																											

STANDARD SIGN
R10-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-6.6

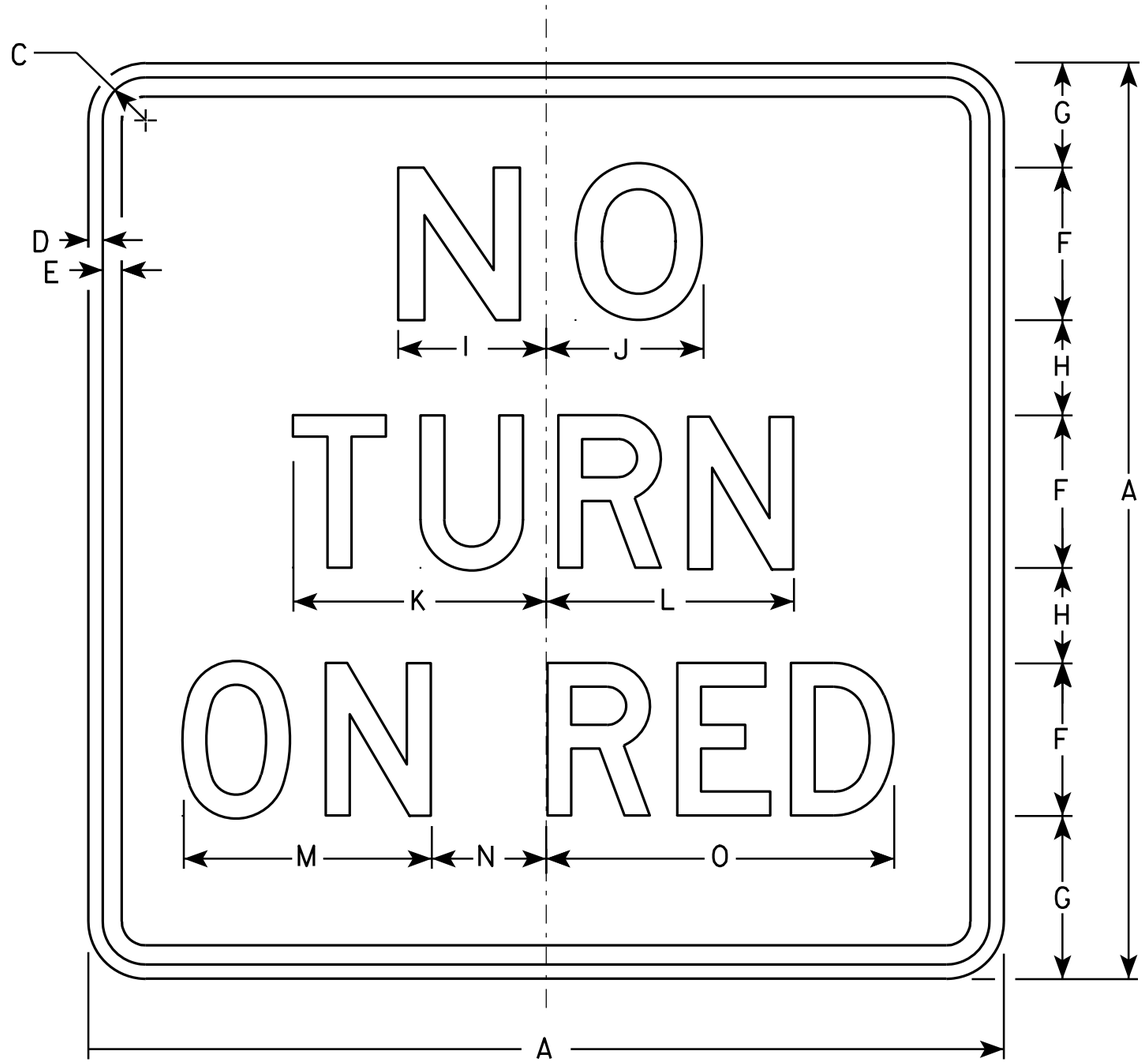
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 222	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R106.DGN PLOT DATE : 05-APR-2011 09:50 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.959043:1.000000

WISDOT/CADDS SHEET 42

7

7



R10-11B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8	3/8	3/8	3	2 3/4	1 3/4	3	3 1/8	5	4 7/8	5 1/4	1 7/8	7 1/8												2.25
2S	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
2M	24		1 1/8	3/8	1/2	4	3 1/2	2 1/2	3 7/8	4 1/8	6 5/8	6 1/2	6 1/2	3	9 1/8												4.0
3	30		1 3/8	1/2	5/8	5	4 1/2	3	4 7/8	5 1/4	8 1/4	8 1/8	7 3/4	4 1/8	11 7/8												6.25
4																											
5																											

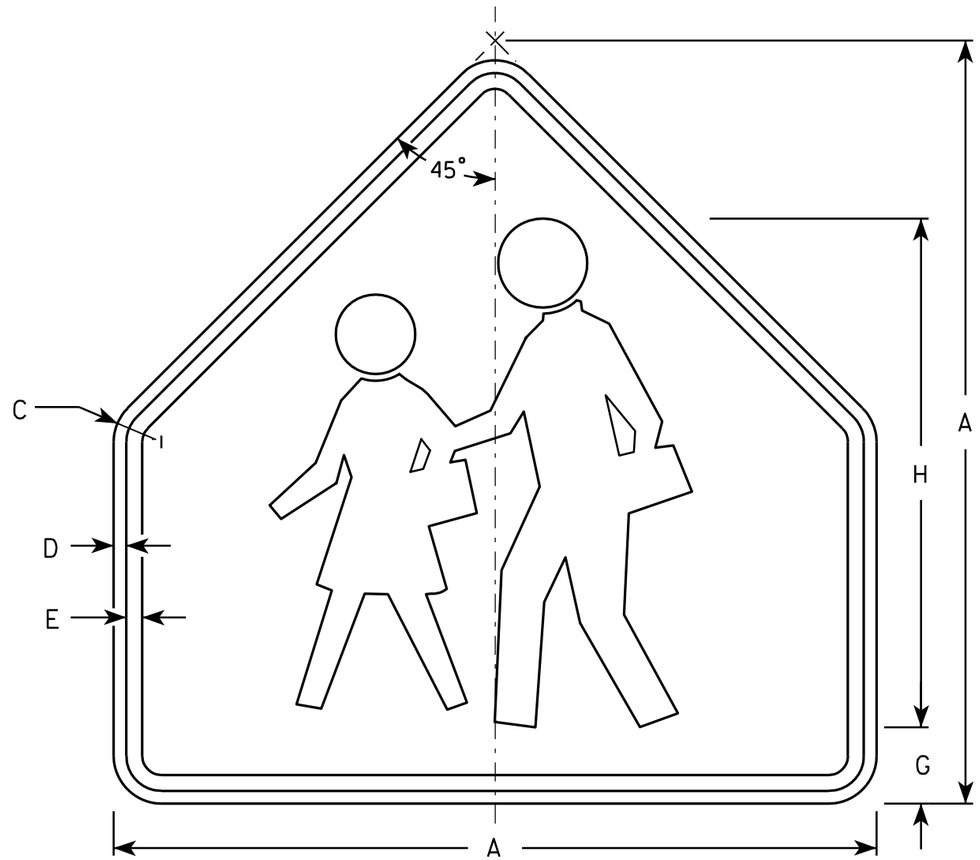
STANDARD SIGN
R10-11B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11B.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 223 | 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																											

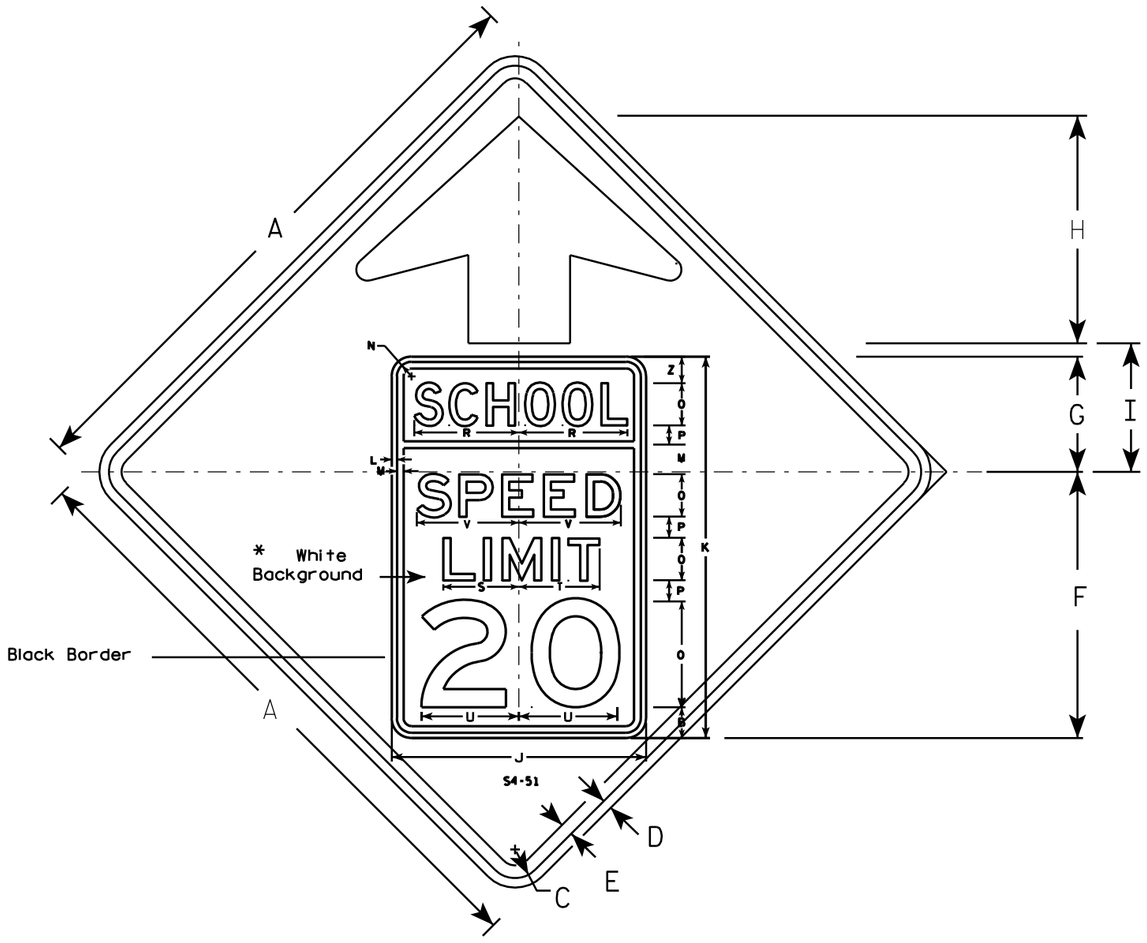
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

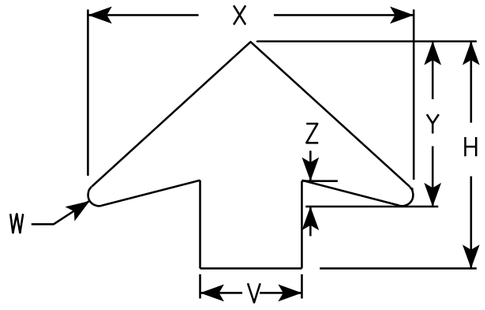
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 224	E



S4-5

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: See Note 5
   Background - Flourescent Yellow Green
   Message - BLACK
3. Message Series - See note 6
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance
5. SCHOOL background - Yellow Green -Type F Reflective.
   Speed Limit panel background - White -Type H Reflective.
6. From top to bottom:
   School is series D
   All other lines are series E
7. 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	36	1 7/8	1 5/8	5/8	3/4	15 3/4	6 3/4	13 3/8	7 5/8	15	22 1/2	1/4	3/8	7/8	6 1/4	1 1/4	2 1/2	6 3/8	4 1/2	4 3/4	5 3/4	6	5/8	19 1/4	9 3/4	1 5/8	9.0
3	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
4	48	2 3/8	2 1/4	3/4	1	18 3/4	10 1/8	17 7/8	10 1/8	20	30	3/8	1/2	1 1/8	8 3/8	1 5/8	3 3/8	8 1/2	5 7/8	6 3/8	7 3/4	8	7/8	25 5/8	13	2	16.0
5																											

STANDARD SIGN
S4-5

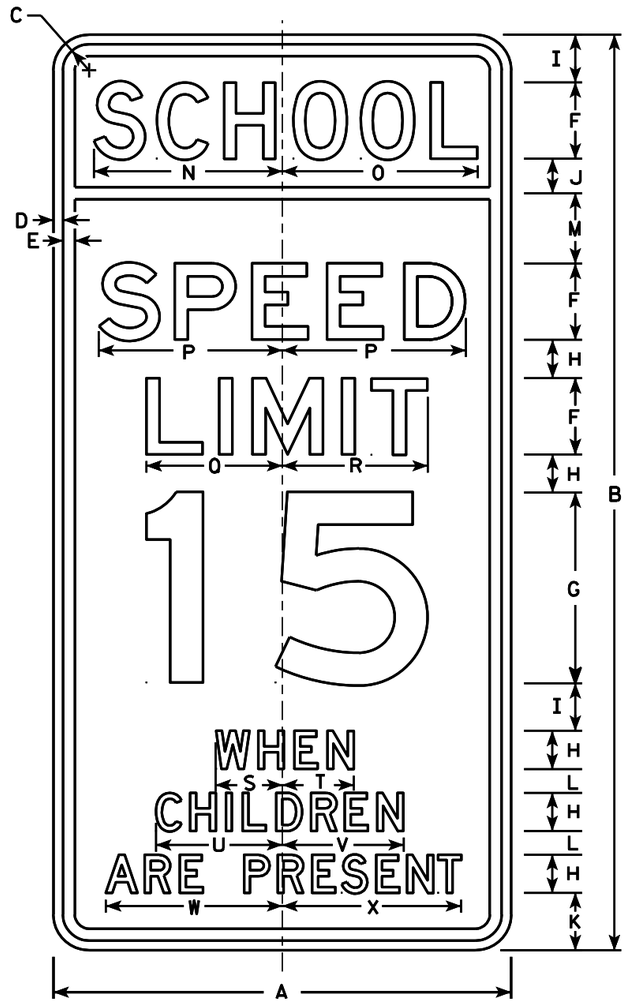
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. S4-5.3

PROJECT NO:

SHEET NO: 225 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																												

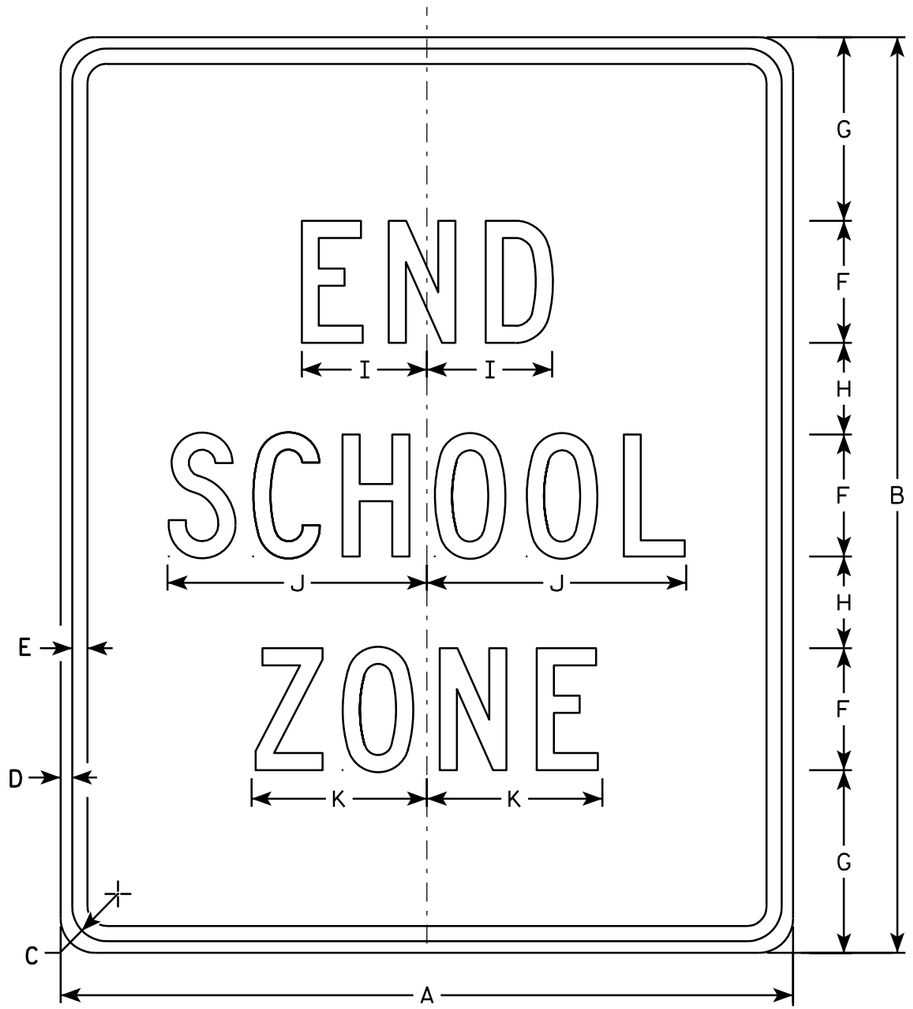
STANDARD SIGN
S4-51

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: 226 | 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																											

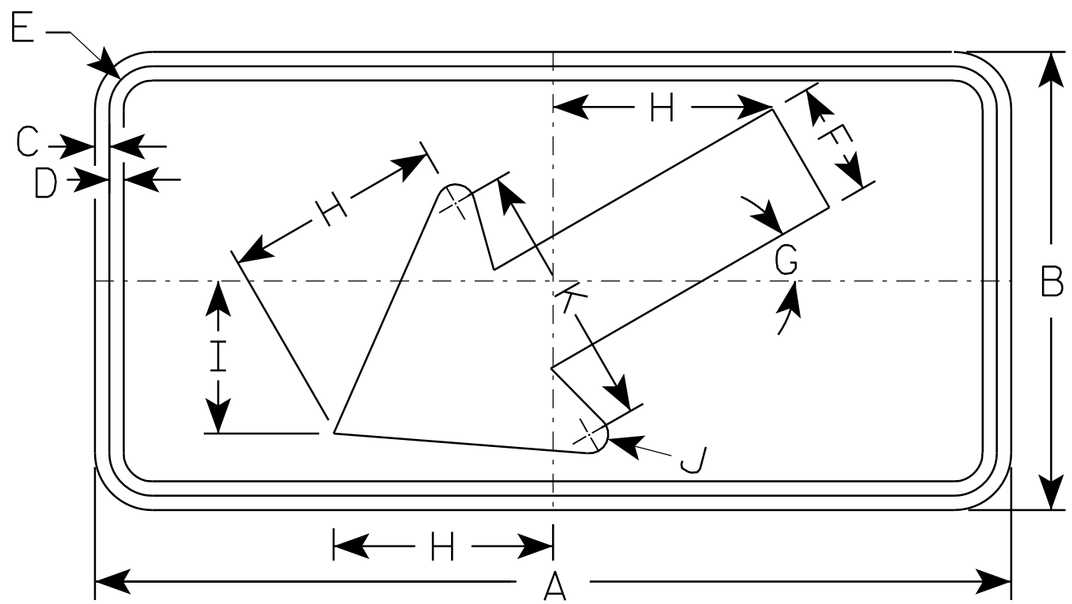
STANDARD SIGN
S5-2

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: 227 | 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																											

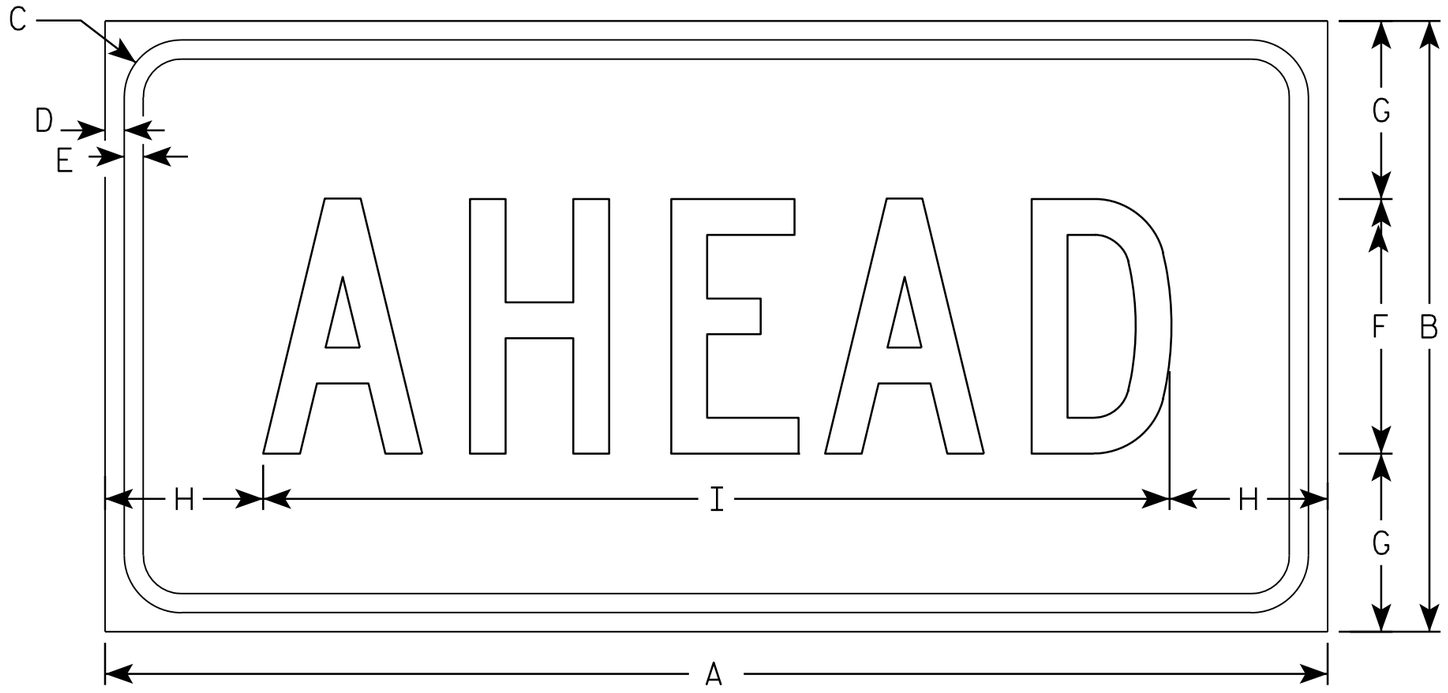
STANDARD SIGN
S16-7

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: 228 | 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

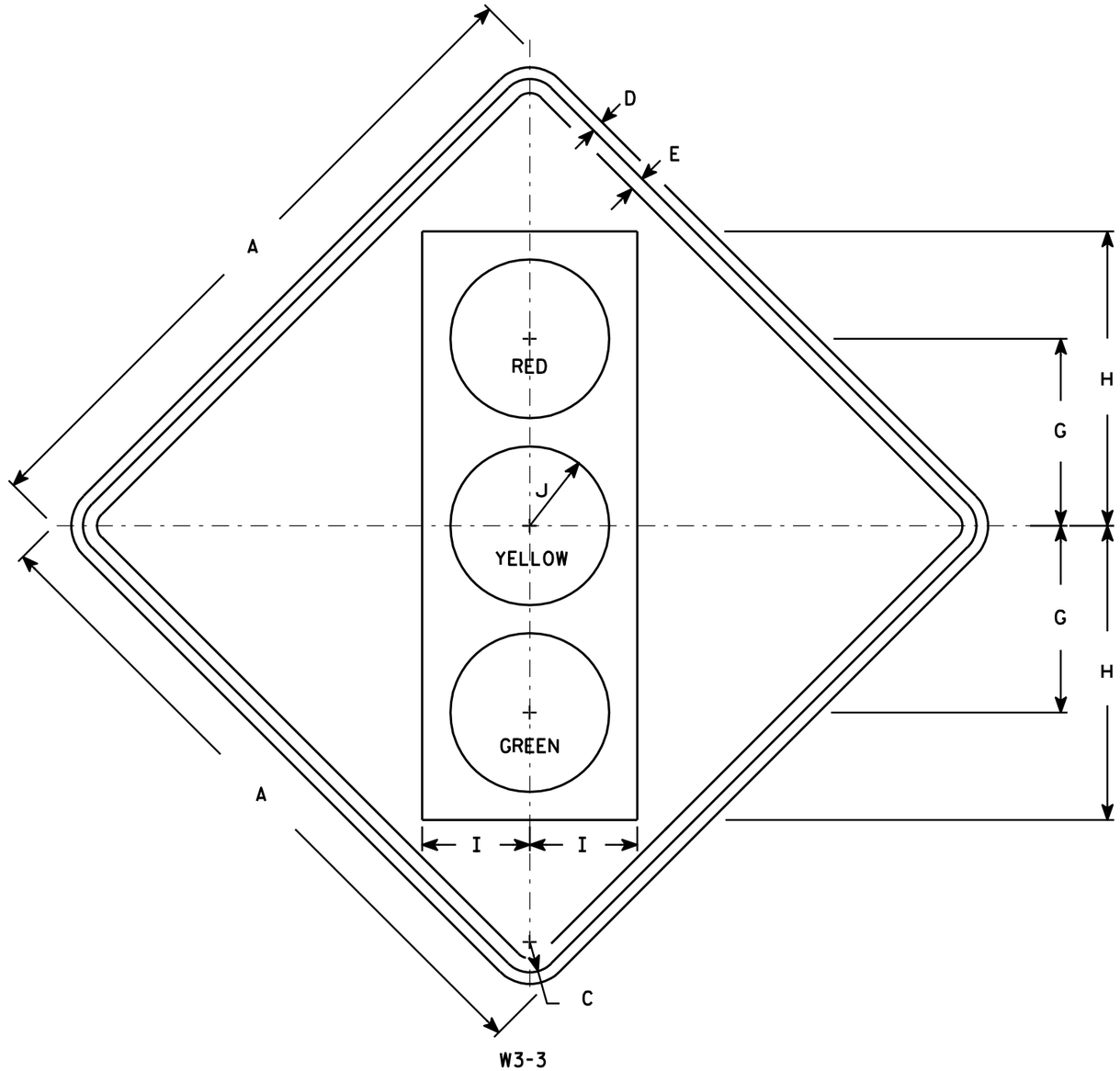
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 229 | 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

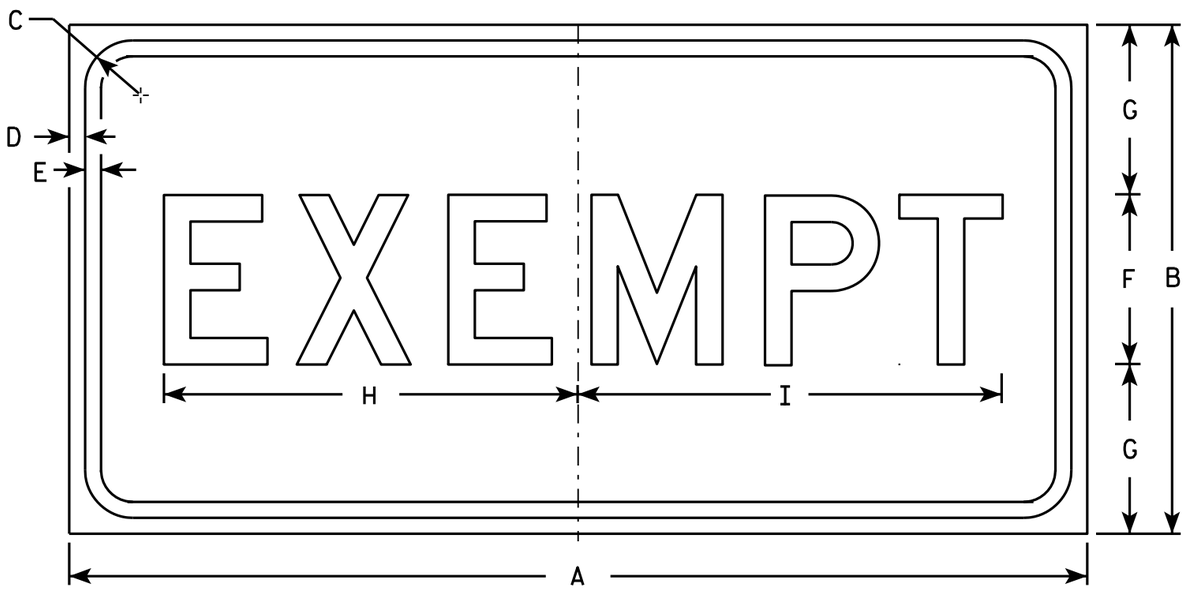
STANDARD SIGN
W3-3

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: 230 | E



R15-3
and
W10-1A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 5
   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. Background - R15-3 is White Type H Reflective
   W10-1A is Yellow.

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

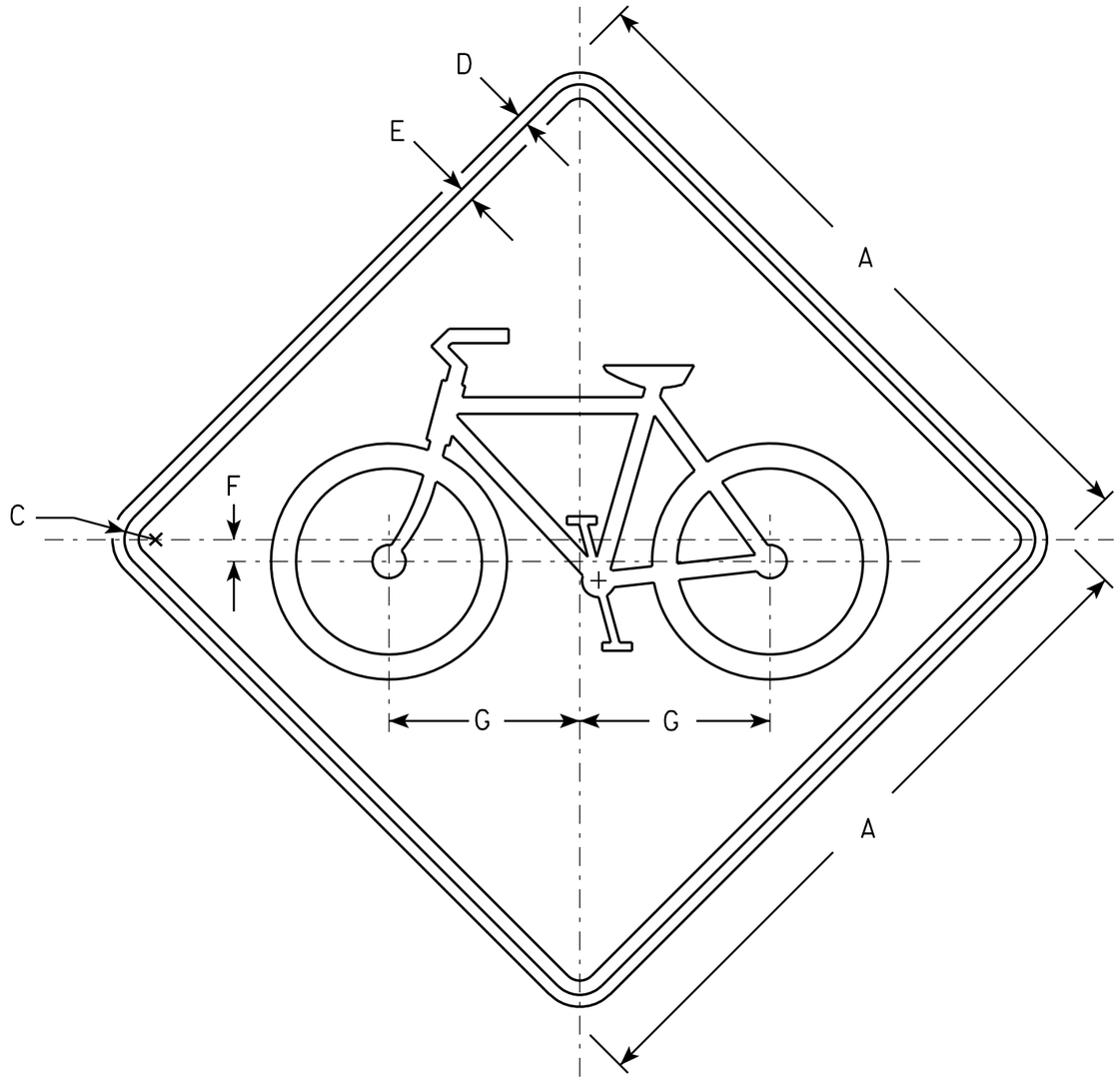
STANDARD SIGN
R15-3 & W10-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. R15-3.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 231	E



W11-1

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. 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	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 3/8	1/2	5/8	1	8 1/2																				6.25
2M	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
3	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
4	48		2 1/4	3/4	1	1 5/8	13 3/8																				16.0
5																											16.0

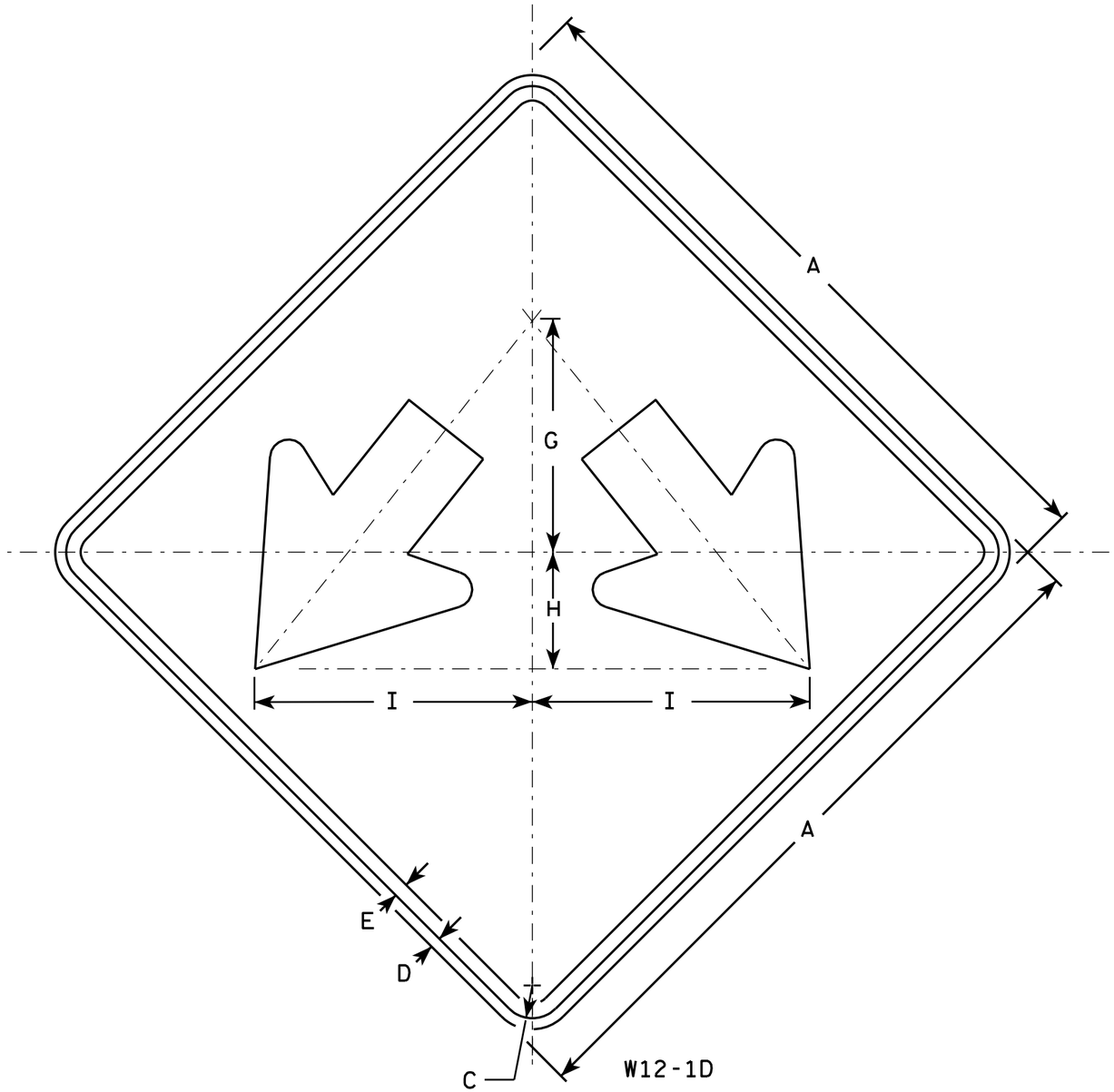
STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

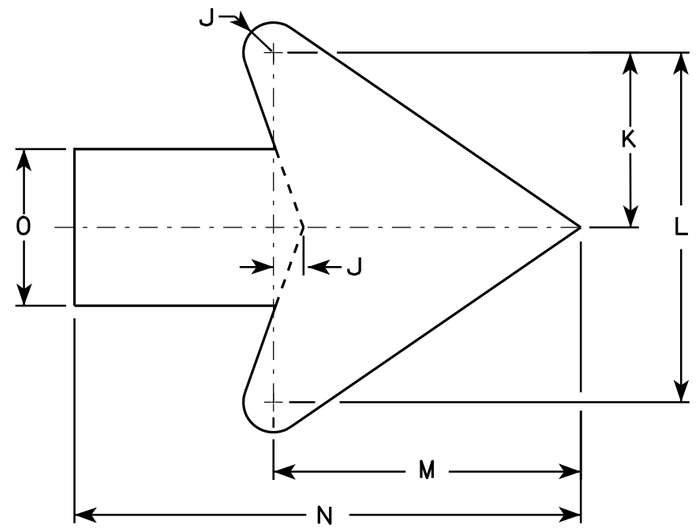
DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 232 | 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

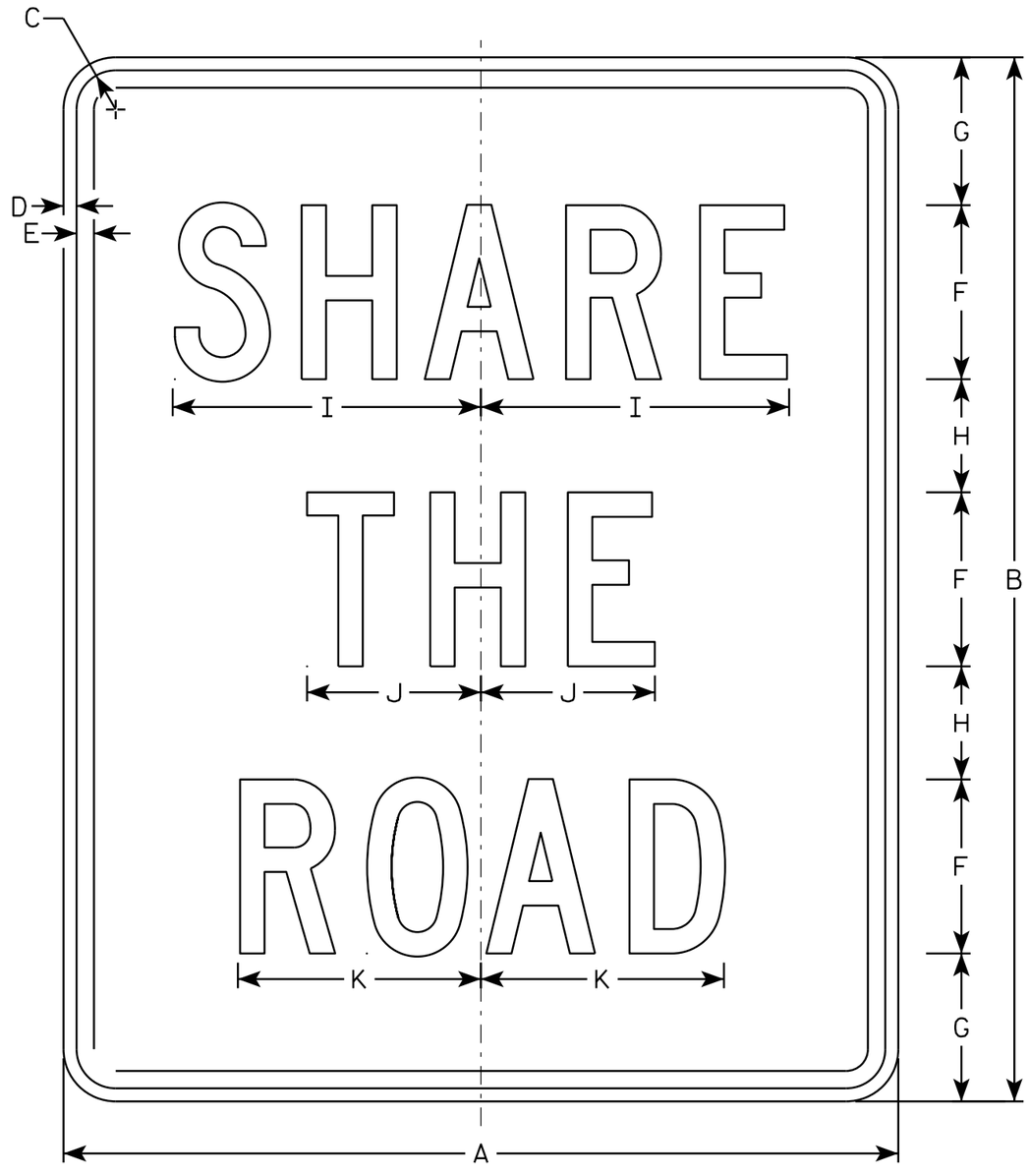
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 233	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W121D.DGN PLOT DATE : 13-MAR-2013 13:26 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.713802:1.000000

WISDOT/CADDS SHEET 42

7

7



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.

W16-1P

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	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

STANDARD SIGN
W16-1P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/21/11 PLATE NO. W16-1P.2

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W161P.DGN PLOT DATE : 27-JUL-2015 13:51 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 4.280853:1.000000
WISDOT/CADDS SHEET 42

STH 52 EB (STAGE 1) *EXPANDED= 1.3

	END AREA		VOLUME		CUMULATIVE VOLUME		
	CUT	FILL	CUT	FILL	CUT	*FILL	MASS HAUL
STATION	(S.F.)	(S.F.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)
207+40	7.9	0.1					
208+00	8.0	0.3	17.67	0.44	18	1	17
209+00	8.7	0.0	30.93	0.56	49	1	47
210+00	8.4	0.0	31.67	-	80	1	79
211+00	8.4	0.0	31.11	-	111	1	110
212+00	8.4	0.1	31.11	0.19	142	2	141
213+00	8.4	0.0	31.11	0.19	174	2	172
214+00	8.0	0.8	30.37	1.48	204	4	200
215+00	7.8	0.7	29.26	2.78	233	7	226
216+00	8.5	0.0	30.19	1.30	263	9	254
217+00	8.4	0.0	31.30	-	295	9	286
218+00	8.2	0.5	30.74	0.93	325	10	315
219+00	8.4	0.4	30.74	1.67	356	12	344
220+00	8.3	0.0	30.93	0.74	387	13	374
221+00	8.7	0.0	31.48	-	419	13	405
222+00	8.7	0.5	32.22	0.93	451	15	436
223+00	8.4	0.1	31.67	1.11	482	16	466
224+00	8.4	0.1	31.11	0.37	514	16	497
225+00	7.3	3.5	29.07	6.67	543	25	518
226+00	7.7	3.1	27.78	12.22	570	41	529
227+00	8.5	0.1	30.00	5.93	600	49	552
228+00	8.2	0.0	30.93	0.19	631	49	582
228+50	7.9	0.0	14.91	-	646	49	597

STH 52 WB (STAGE 1) *EXPANDED= 1.3

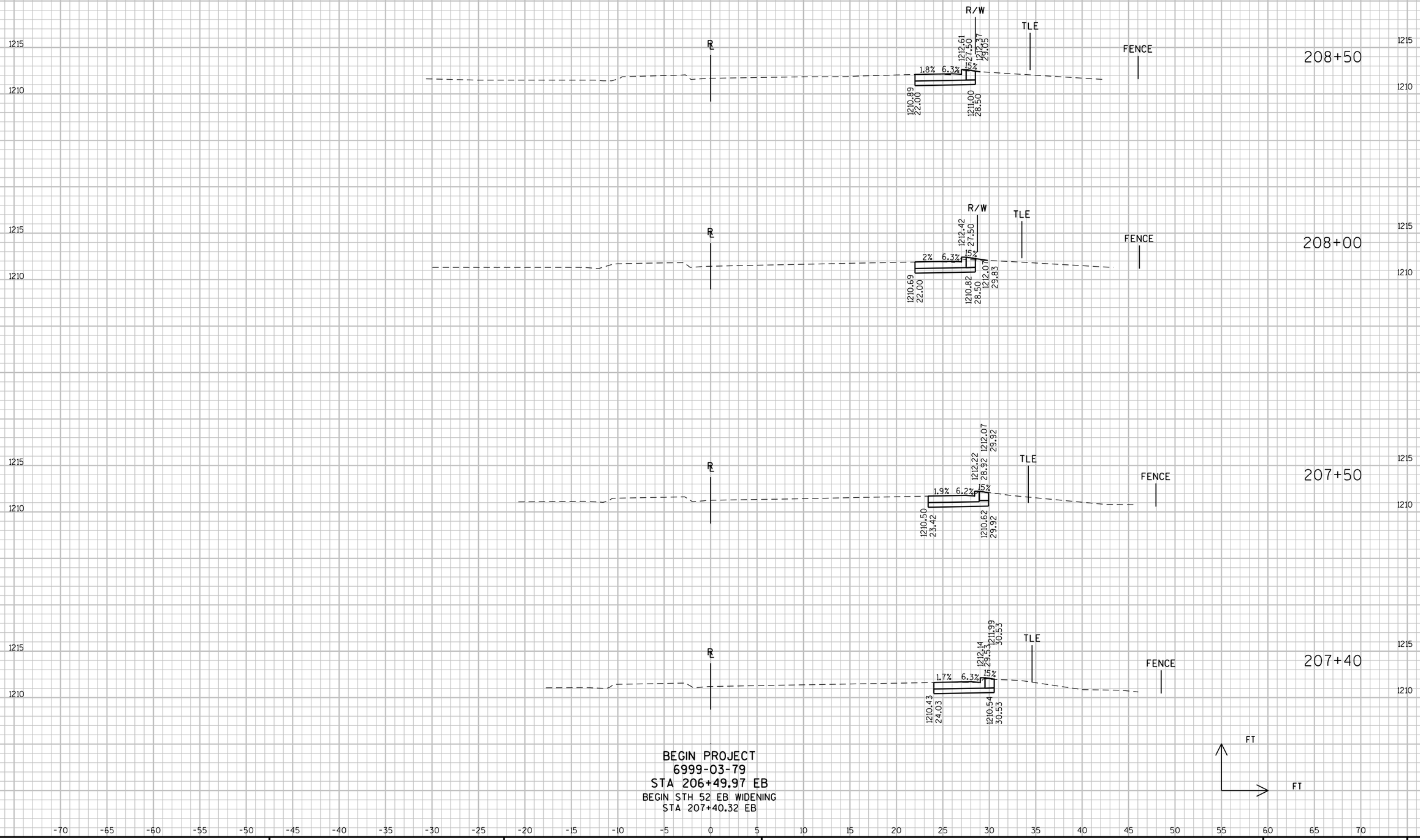
	END AREA		VOLUME		CUMULATIVE VOLUME		
	CUT	FILL	CUT	FILL	CUT	*FILL	MASS HAUL
STATION	(S.F.)	(S.F.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)
206+54	7.5						
207+00	9.1	0.7	14.27	0.60	14	1	13
208+00	8.8	0.9	33.15	2.96	47	5	43
209+00	8.8	0.8	32.59	3.15	80	9	71
210+00	8.7	0.4	32.41	2.22	112	12	101
211+00	8.7	0.3	32.22	1.30	145	13	131
212+00	7.9	1.5	30.74	3.33	175	18	158
213+00	9.1	0.3	31.48	3.33	207	22	185
214+00	8.4	0.8	32.41	2.04	239	25	215
215+00	8.4	0.4	31.11	2.22	270	28	243
216+00	9.1	0.0	32.41	0.74	303	28	274

9

9

PROJECT NO:6999-03-79	HWY:STH 52	COUNTY:MARATHON	EARTHWORK	SHEET 235	E

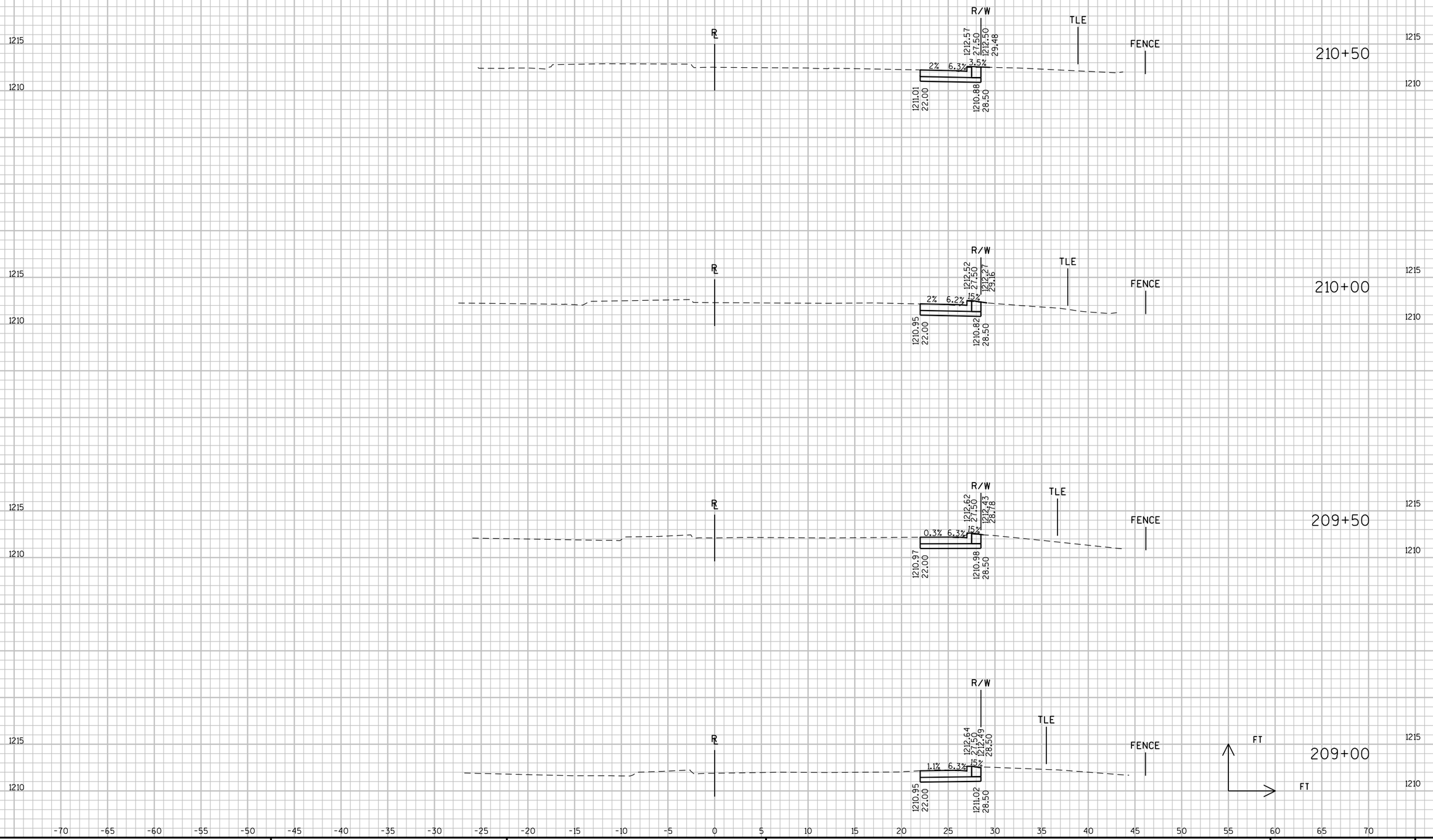
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\6999-03-79 (Overlay)\EWSTH5201.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$



PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 236	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



9

9

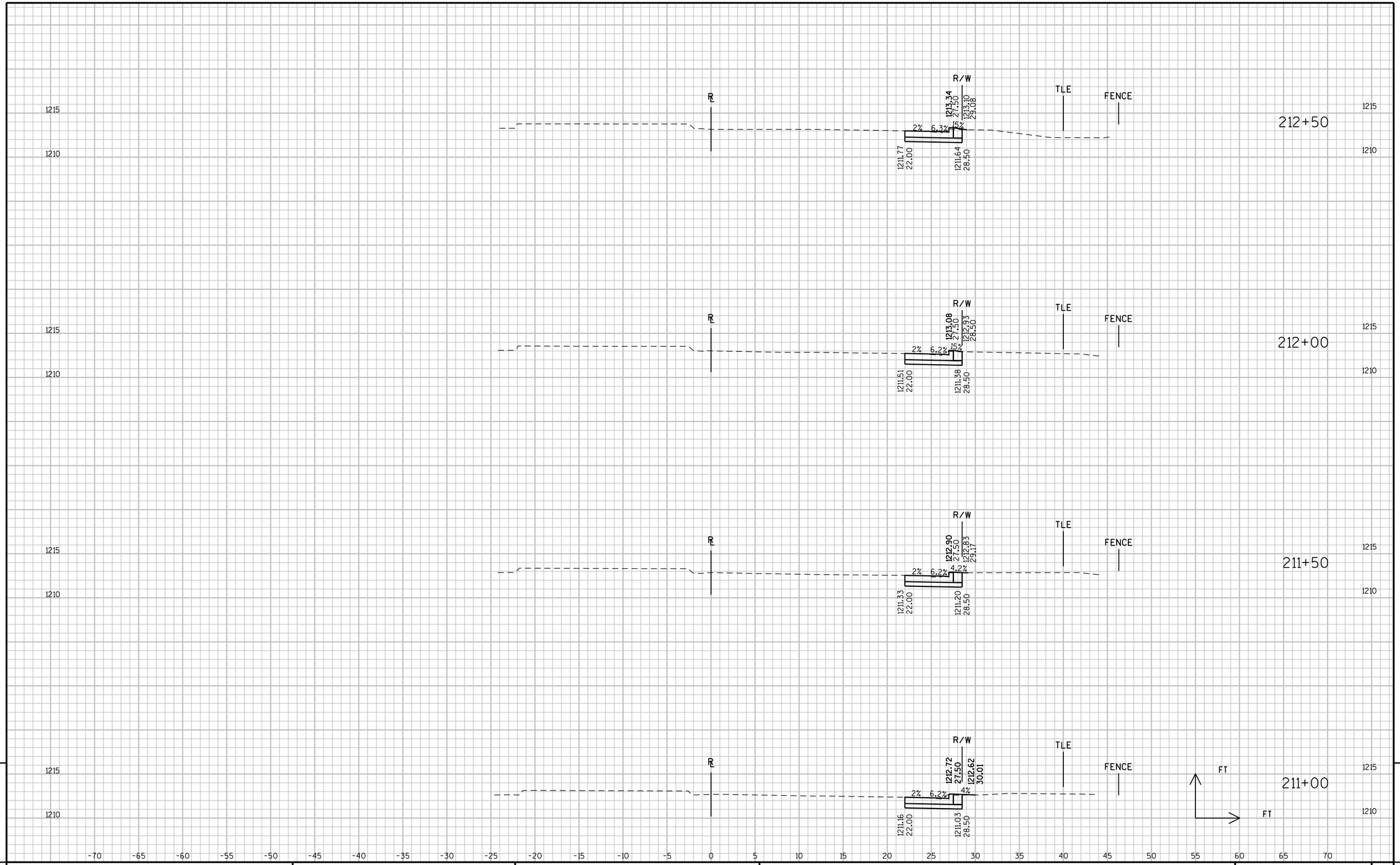
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 237	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

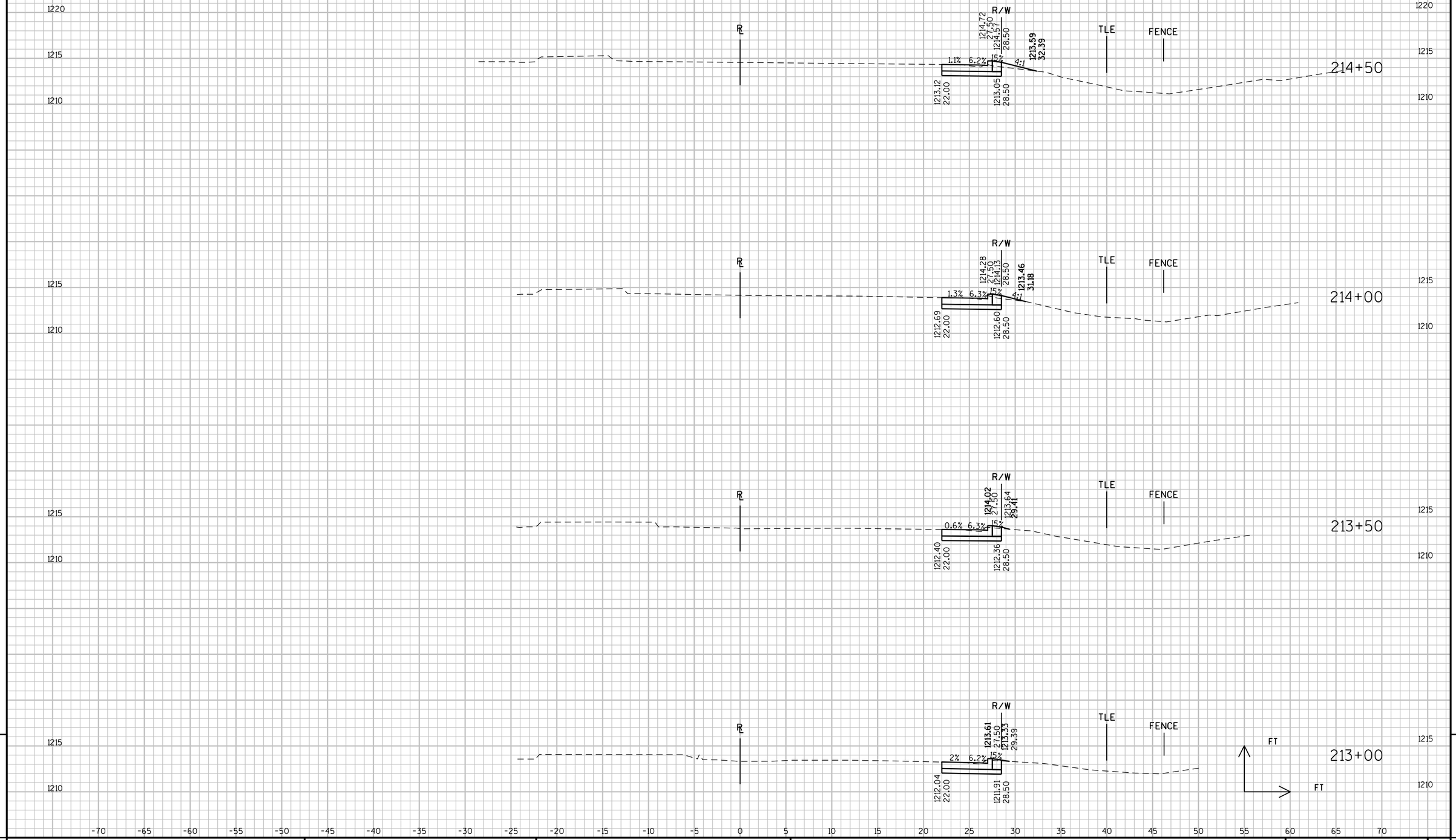
WISDOT/CADDS SHEET 21



PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 238	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

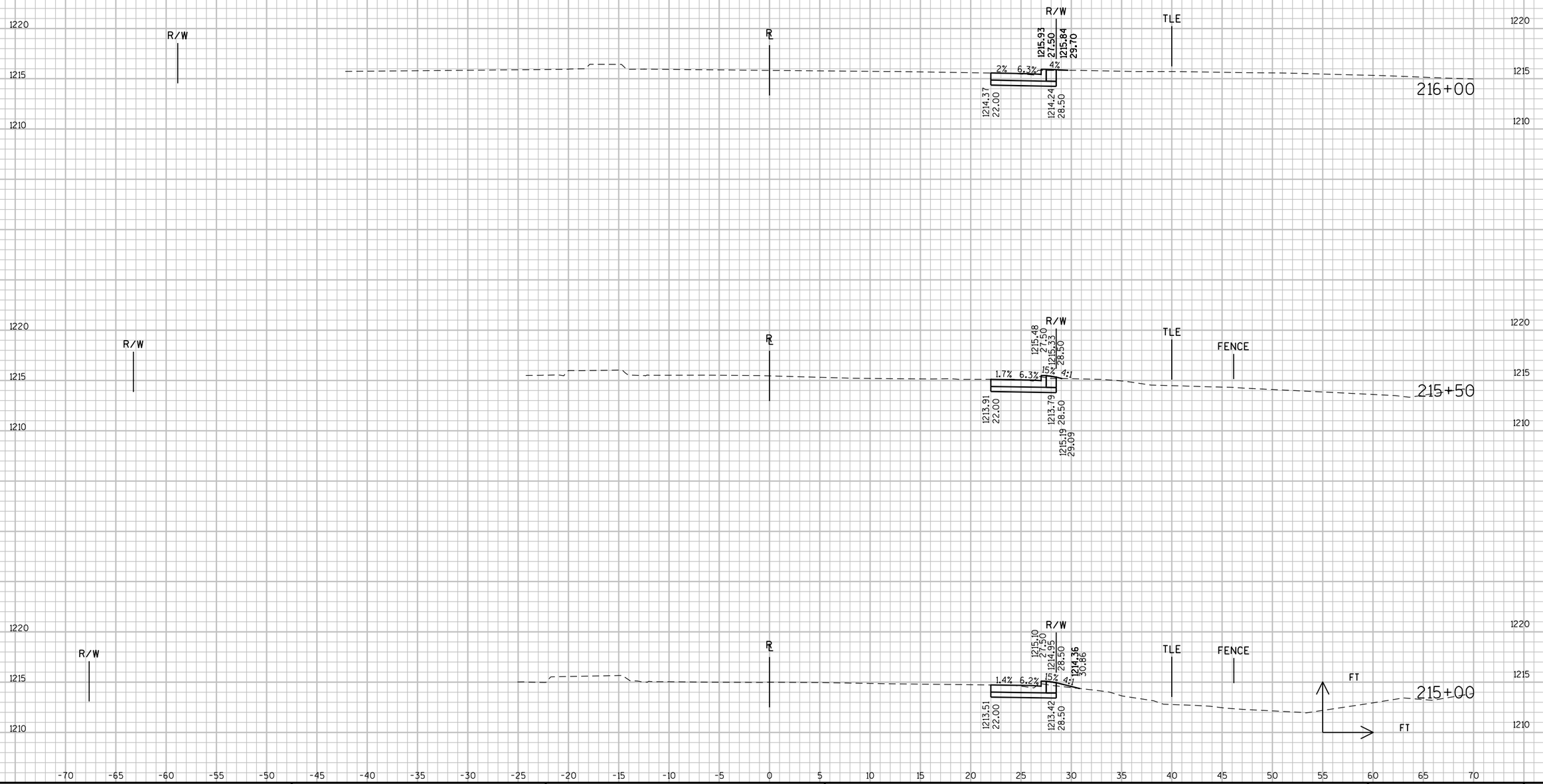


9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 239	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

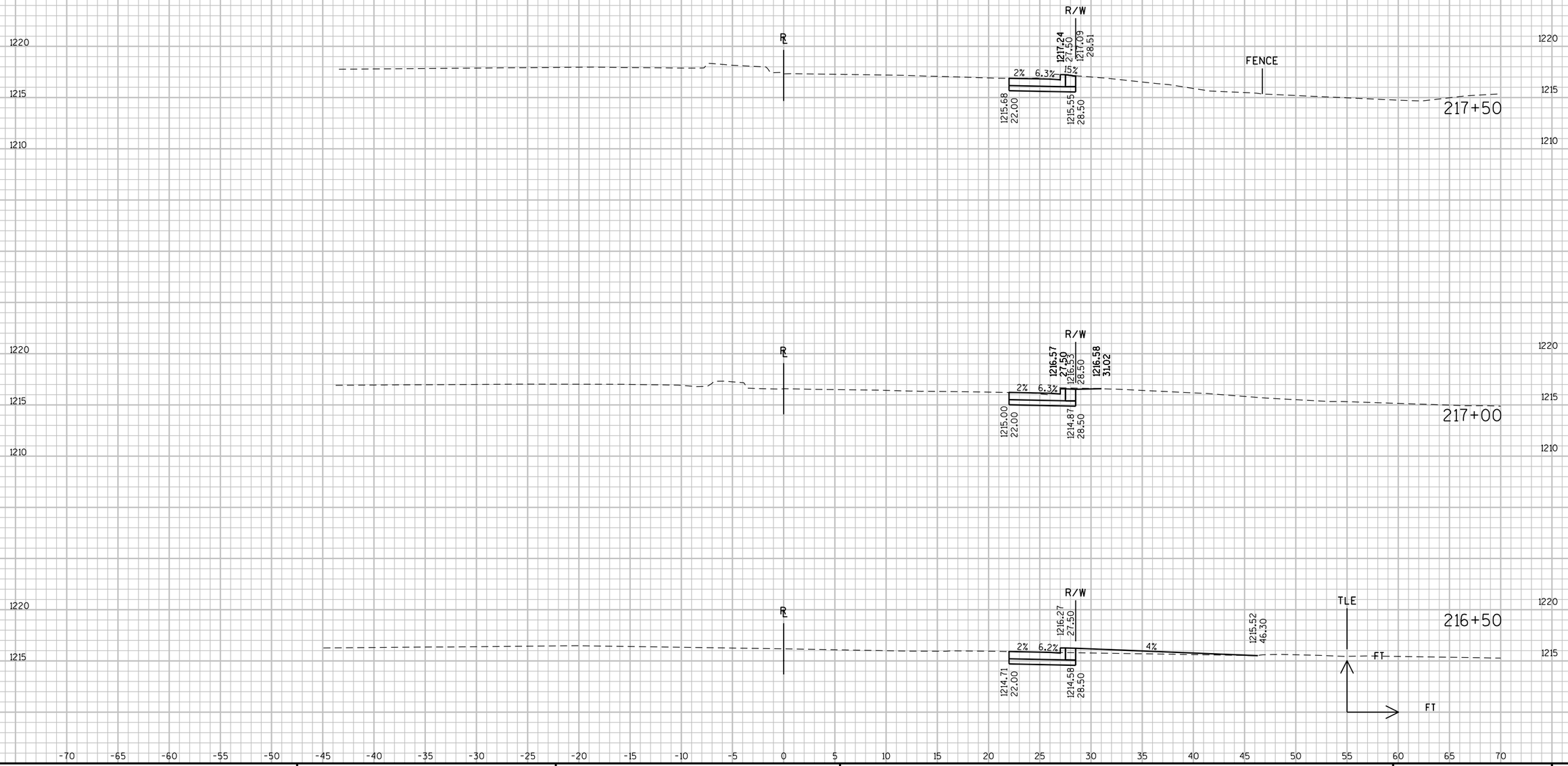


9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 240	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



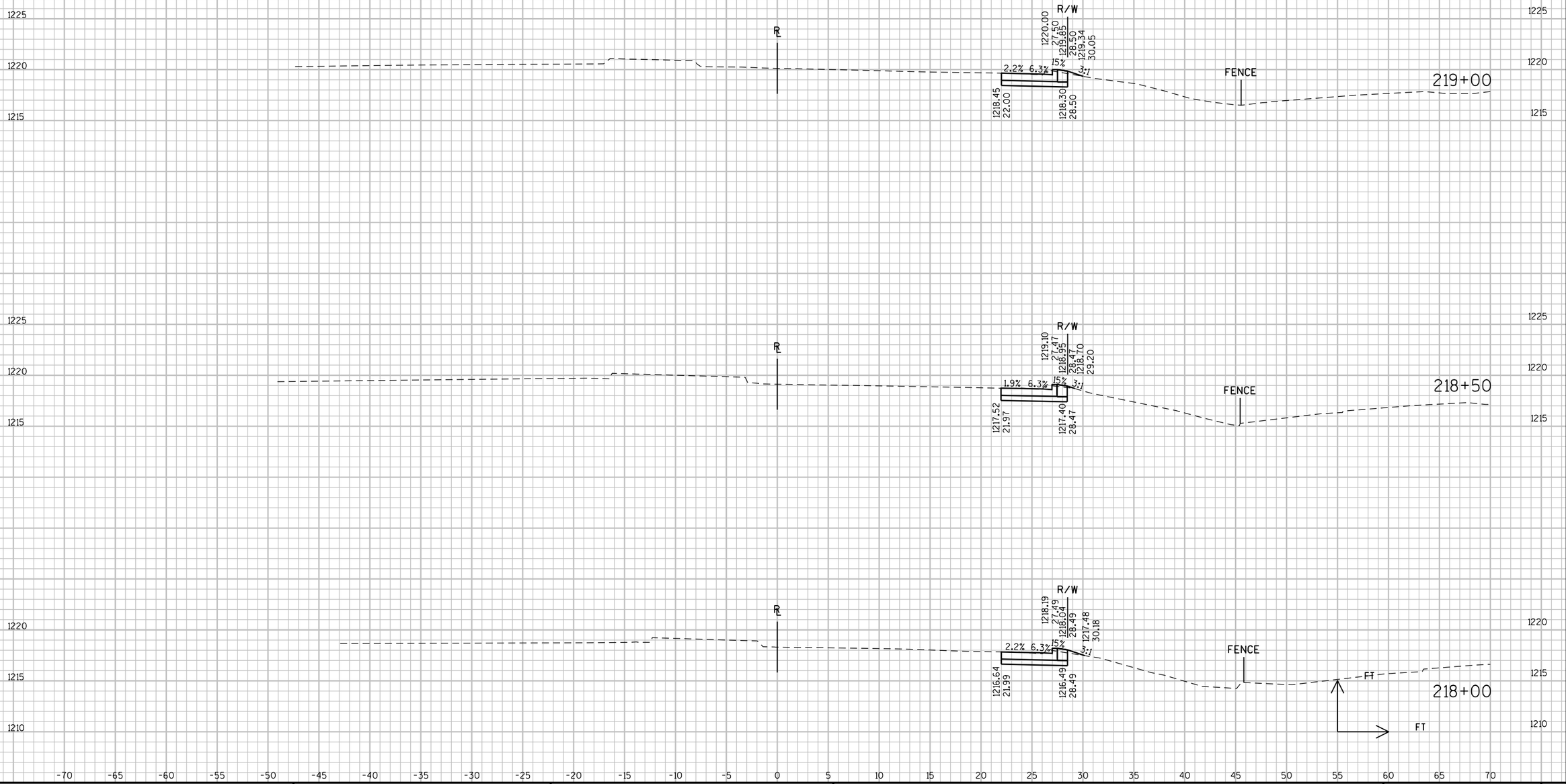
9

9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 241	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



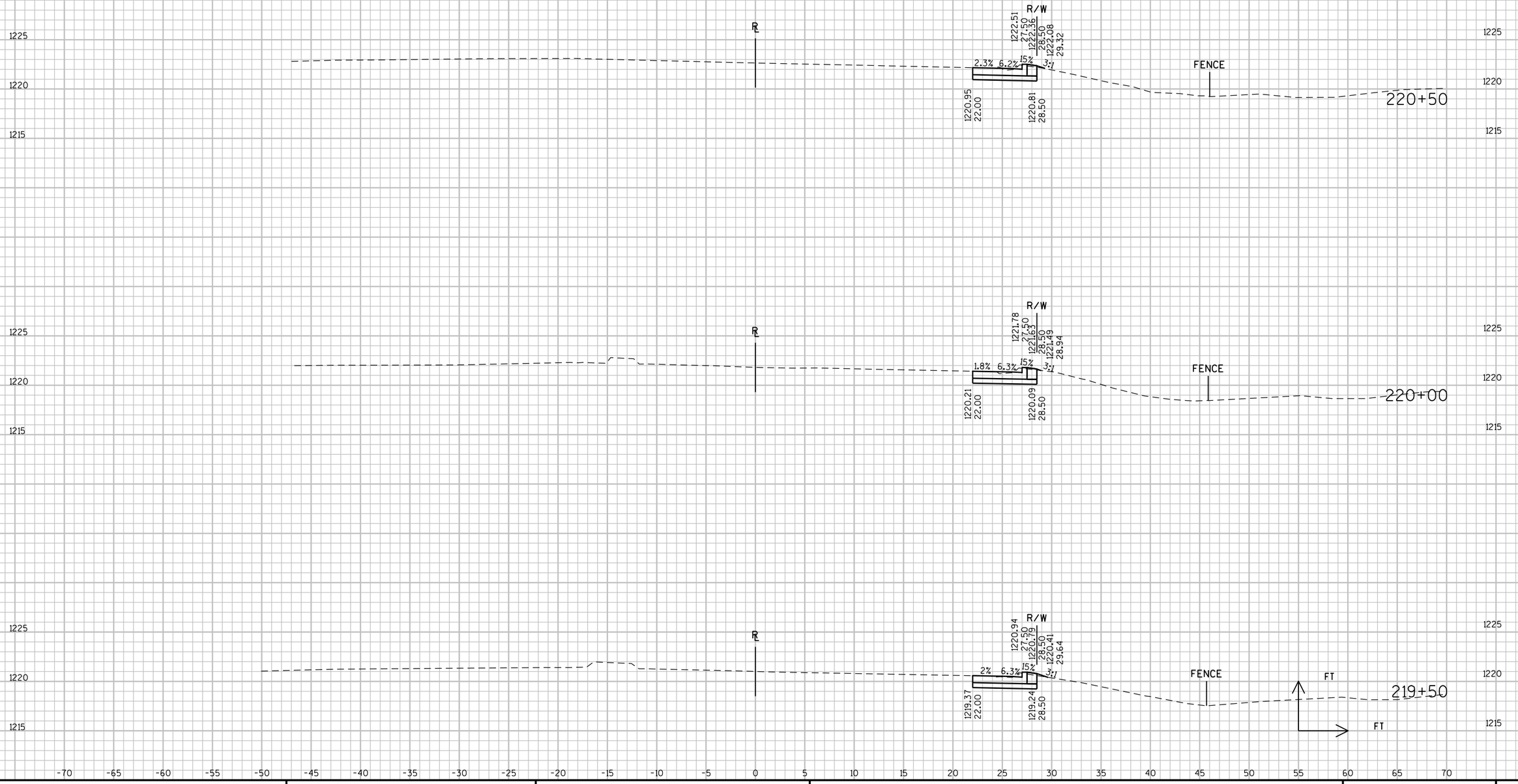
9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 242	E

9

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



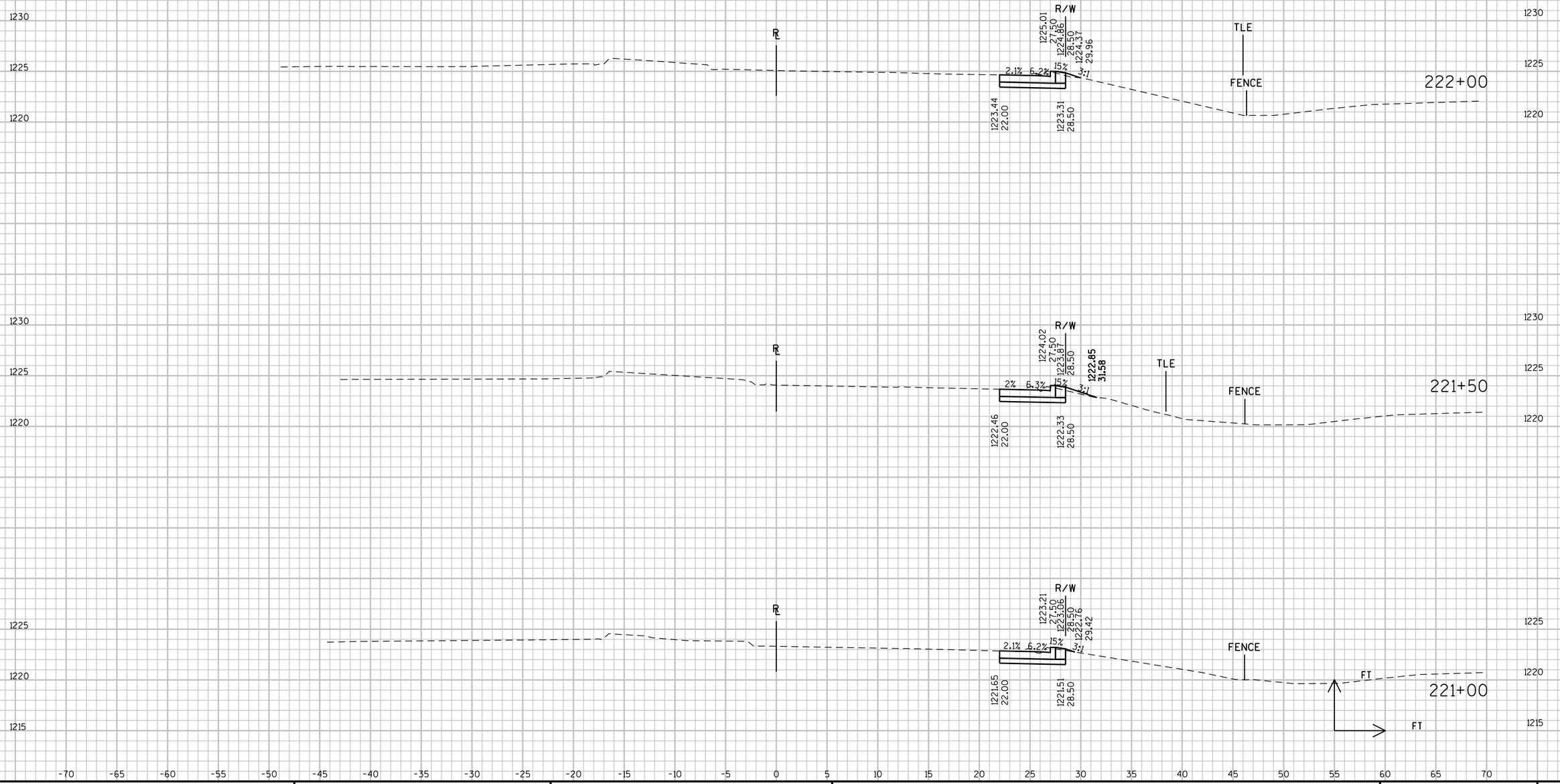
9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 243	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

9

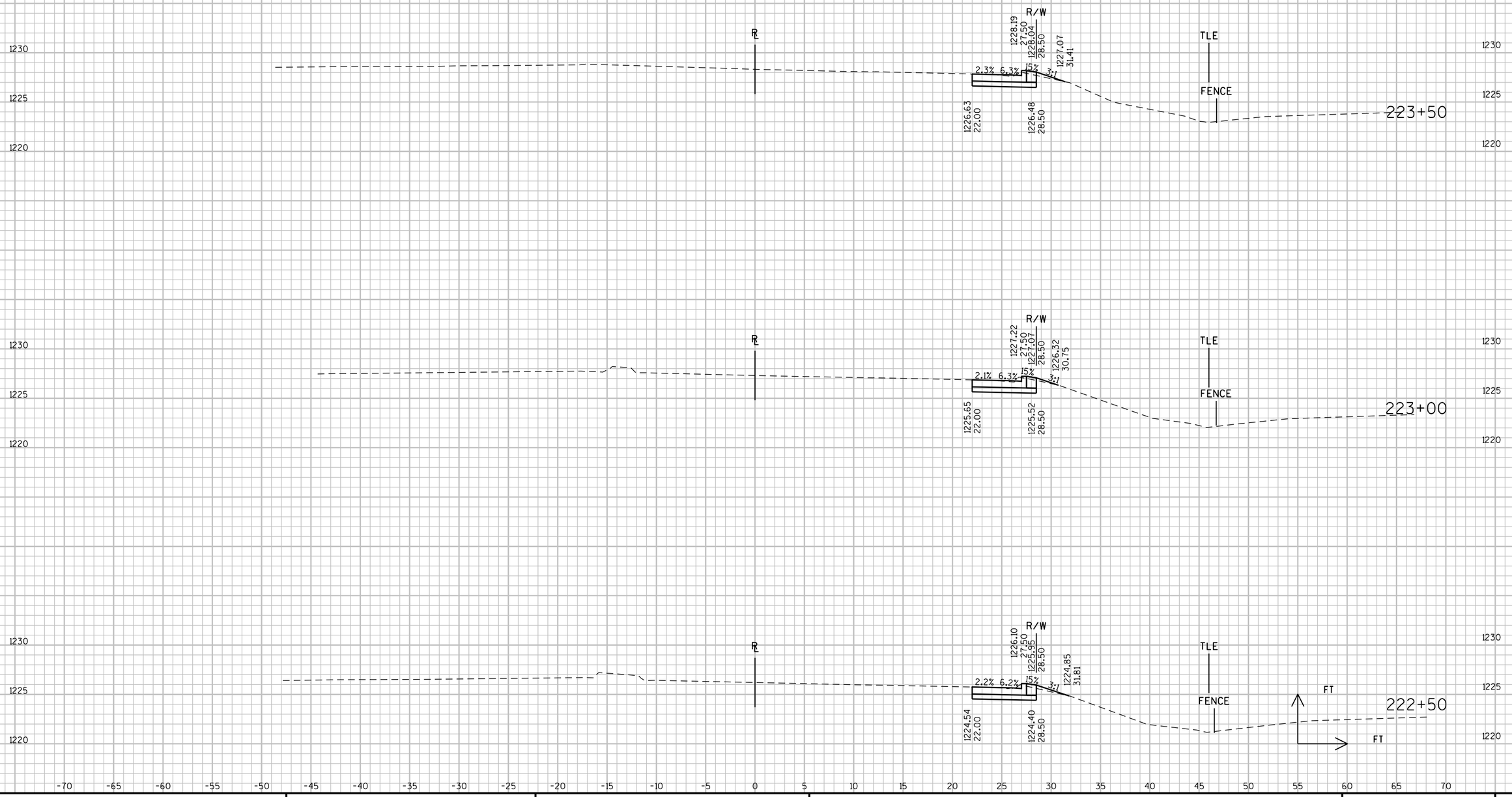


9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 244	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



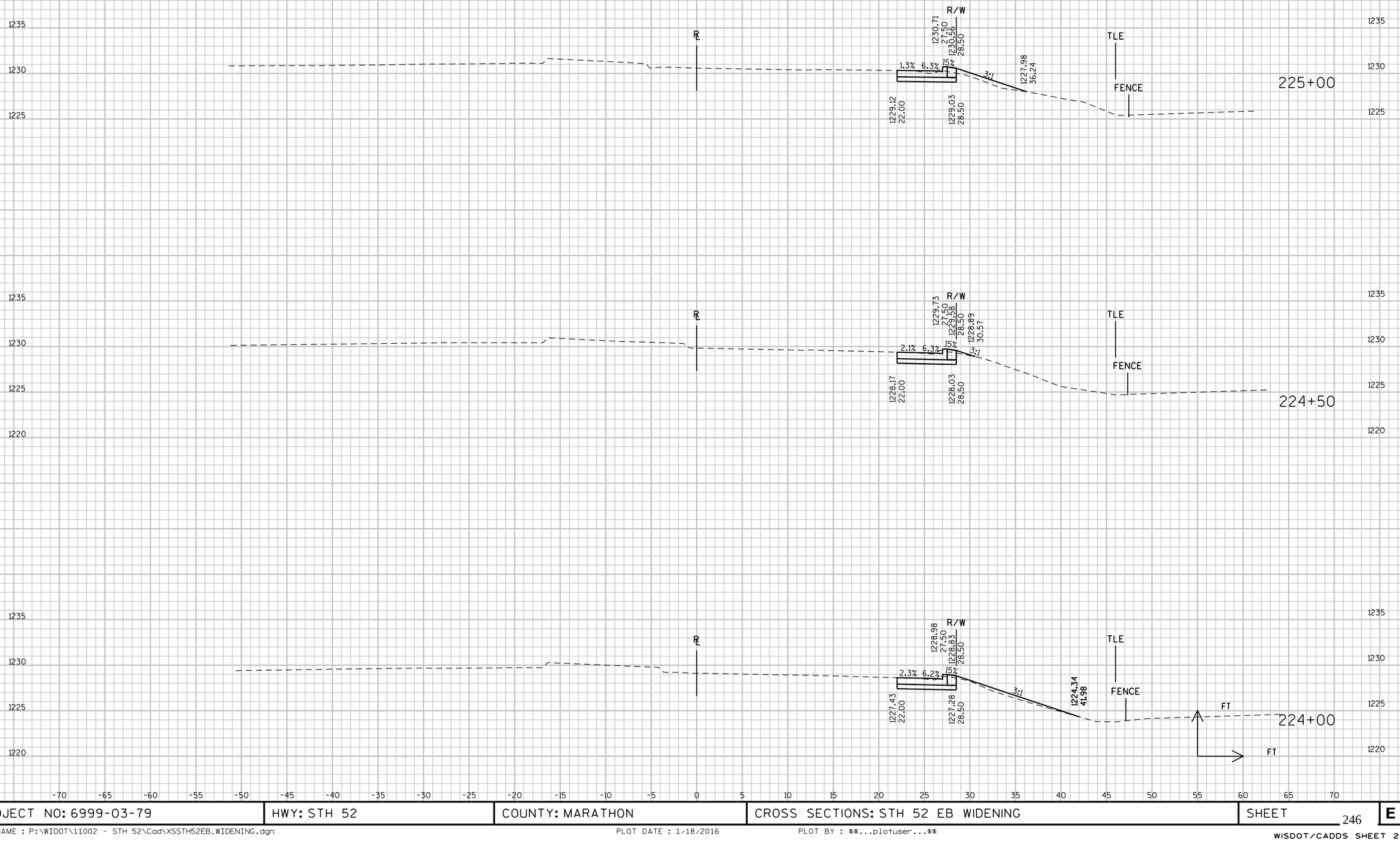
9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 245	E

9

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



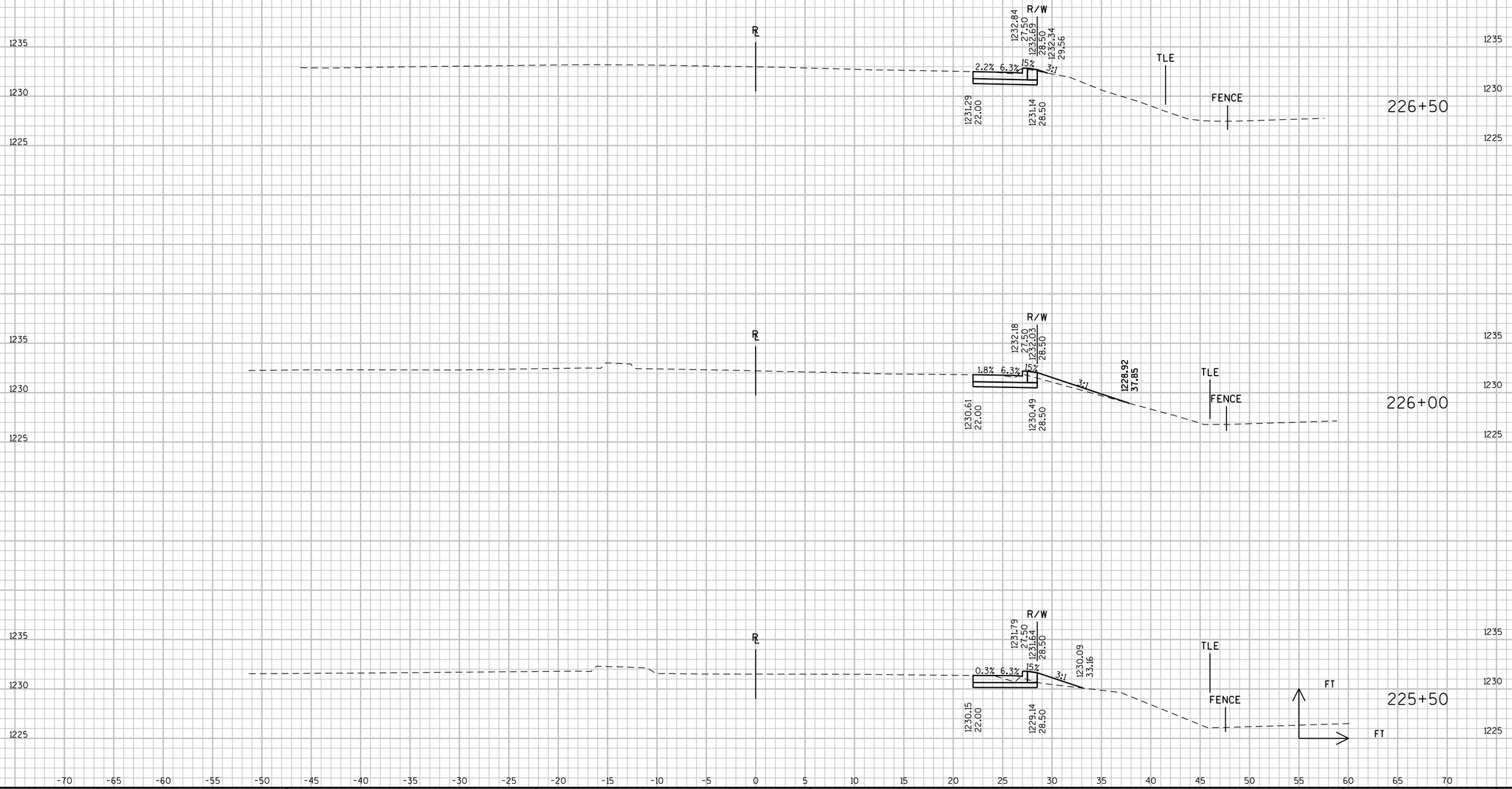
9

9

PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 246	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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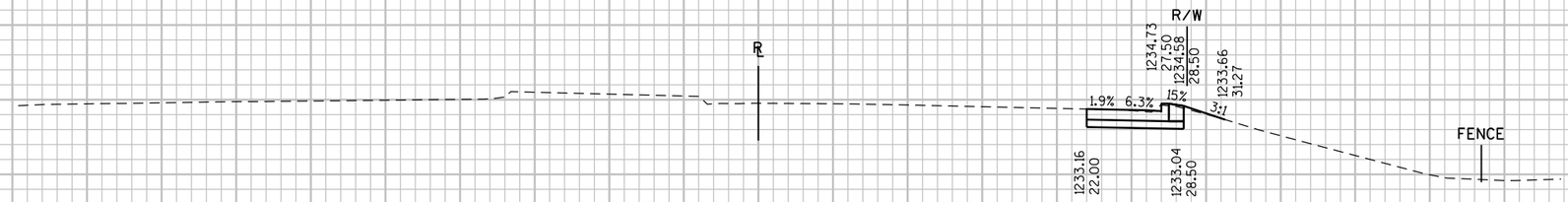
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 247	E

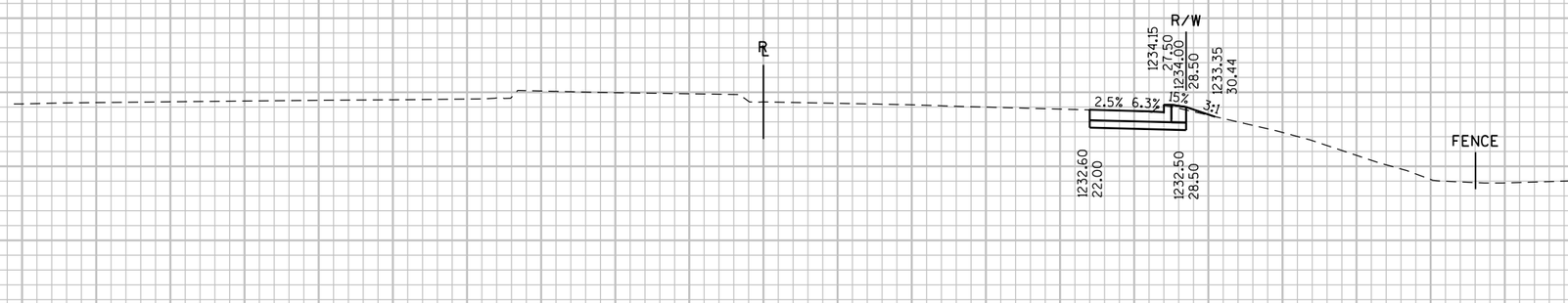
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21


R/W
1234.73
27.50
1234.58
28.50
1233.66
31.27
1.9%
6.3%
1.5%
3:1
FENCE
1233.16
22.00
1233.04
28.50
228+00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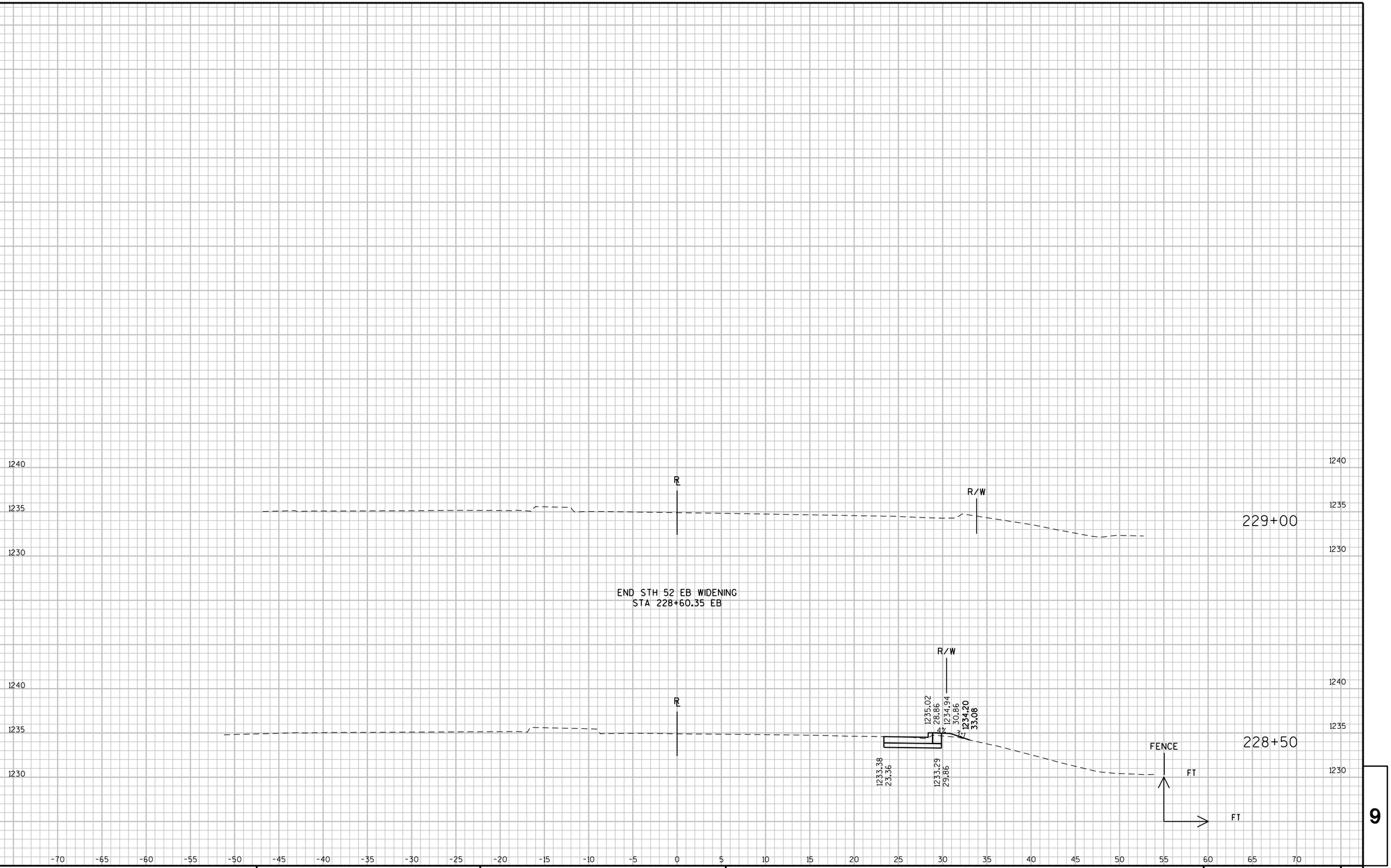
1234.15
27.50
1234.00
28.50
1233.35
30.44
2.5%
6.3%
1.5%
3:1
FENCE
1232.60
22.00
1232.50
28.50
227+50

R/W
1233.54
27.50
1233.39
28.50
1233.02
29.60
2.2%
6.3%
1.5%
3:1
FENCE
FT
FT
1231.98
22.00
1231.84
28.50
227+00



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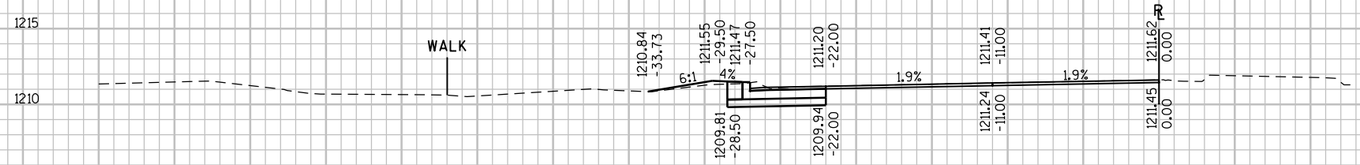
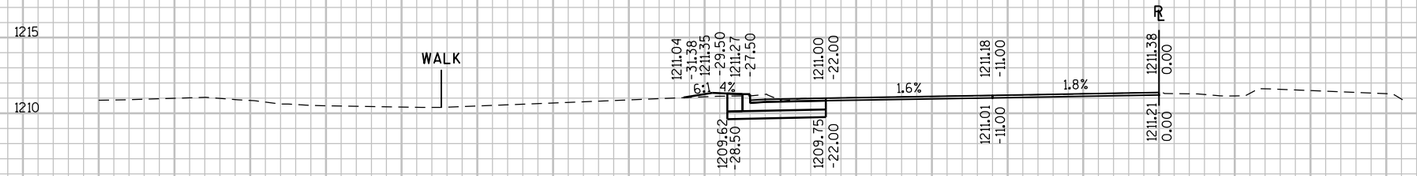
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB WIDENING	SHEET 249	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21





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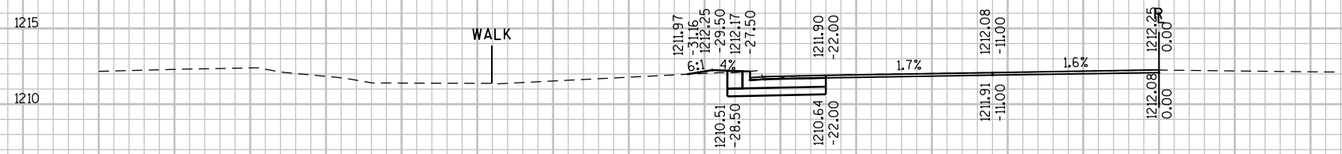
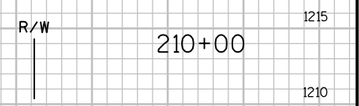
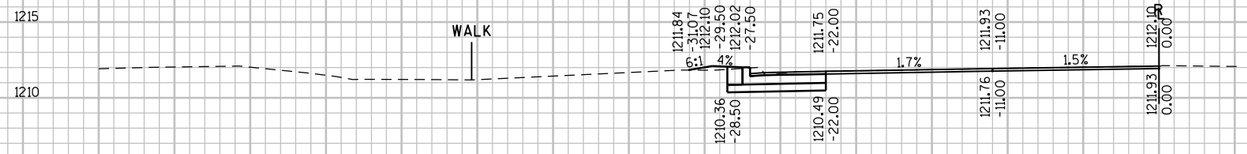
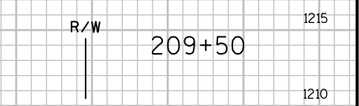
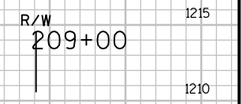
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB WIDENING	SHEET 250	E

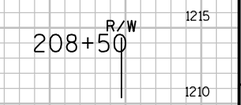


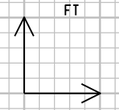


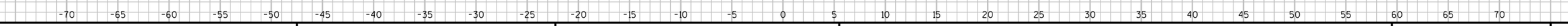












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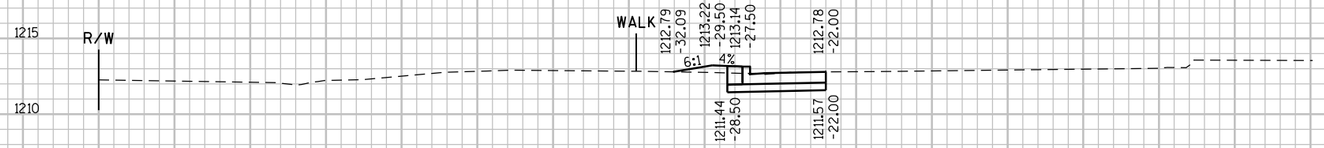
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB WIDENING	SHEET 251	E

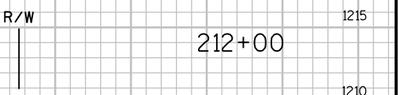
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB_WIDENING.dgn

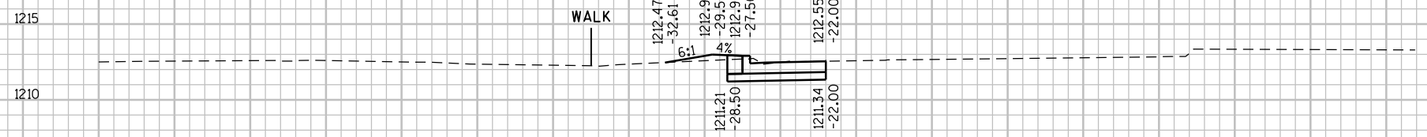
PLOT DATE : 1/18/2016

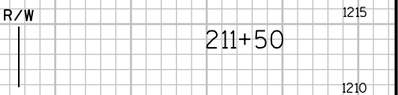
PLOT BY : $$...plotuser...$$

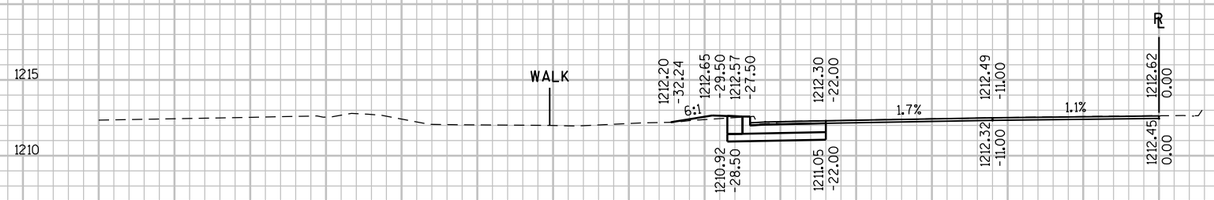
WISDOT/CADDS SHEET 21

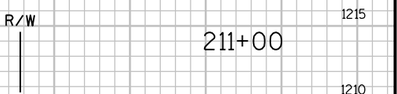


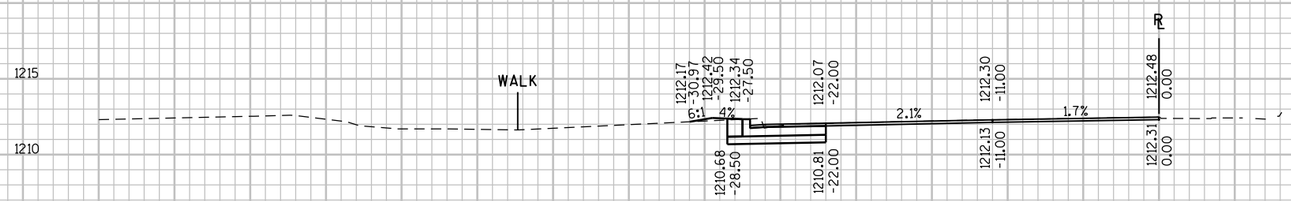


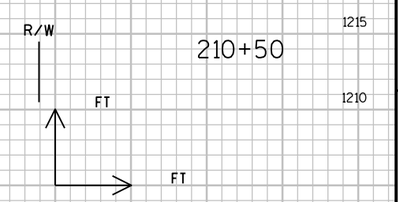












-70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

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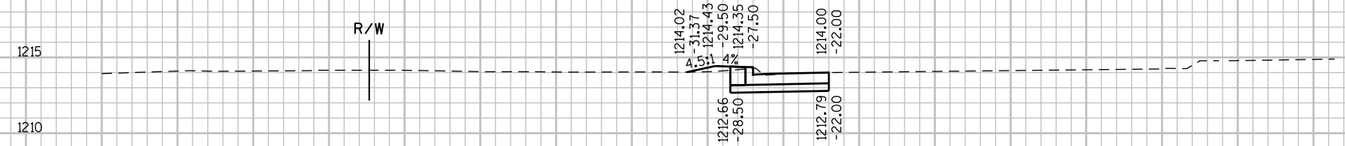
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB WIDENING	SHEET 252	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB_WIDENING.dgn

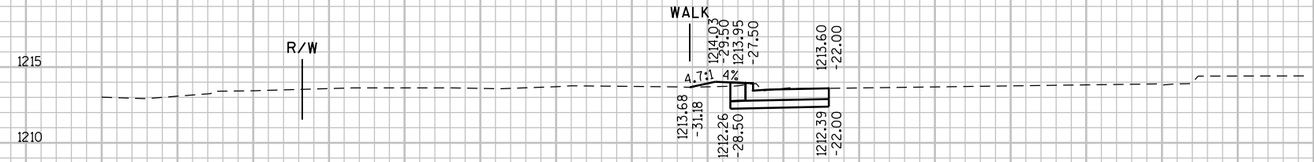
PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

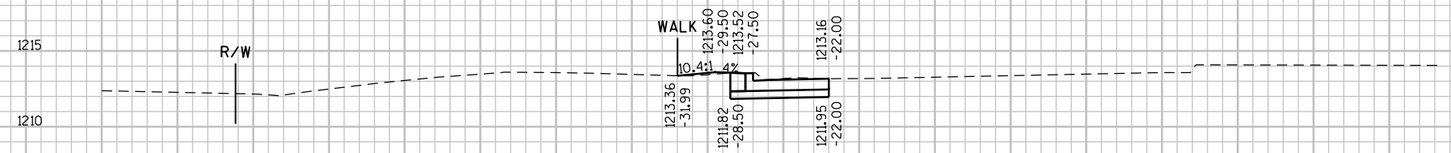
WISDOT/CADDS SHEET 21



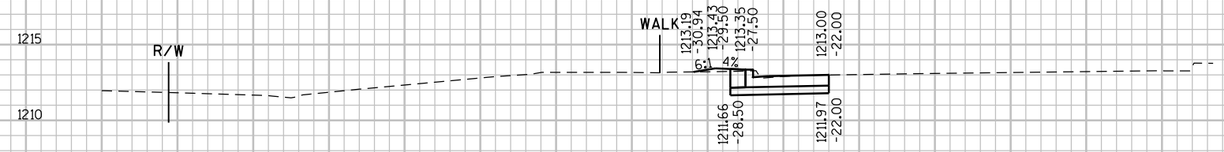
214+00



213+50



213+00



212+50

-70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

9

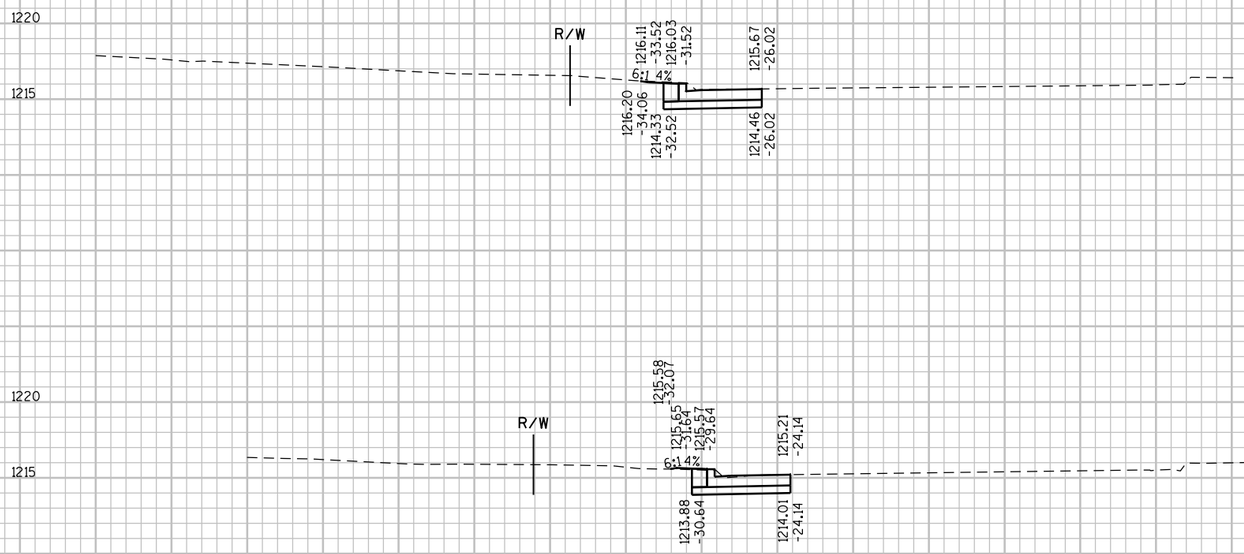
9

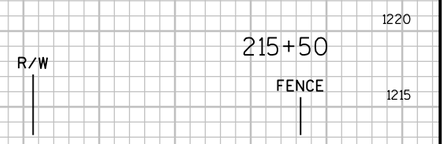
PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB WIDENING	SHEET 253	E

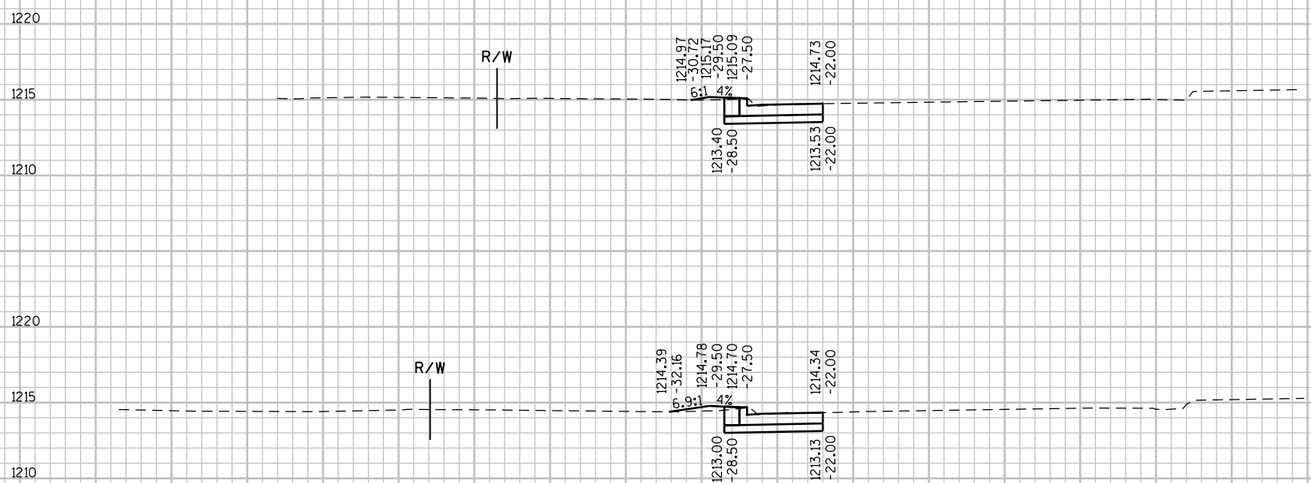
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB_WIDENING.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

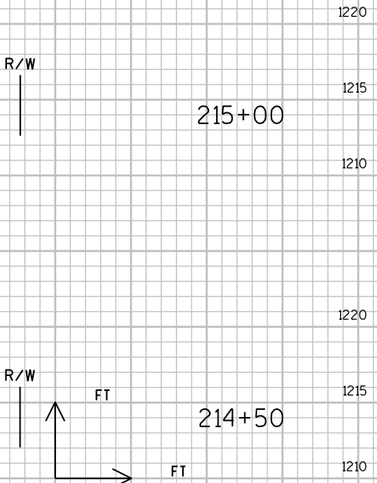
WISDOT/CADDS SHEET 21

END STH 52 WB WIDENING
STA 216+15.30 WB









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PROJECT NO: 6999-03-79	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB WIDENING	SHEET 254	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB_WIDENING.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

RHI MAY 2016

PROJECT ID: 6999-03-80

WITH:

COUNTY: MARATHON

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 = 138

36

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C WAUSAU, HIGHWAY 52

1ST AVENUE TO FIRST STREET

STH 52

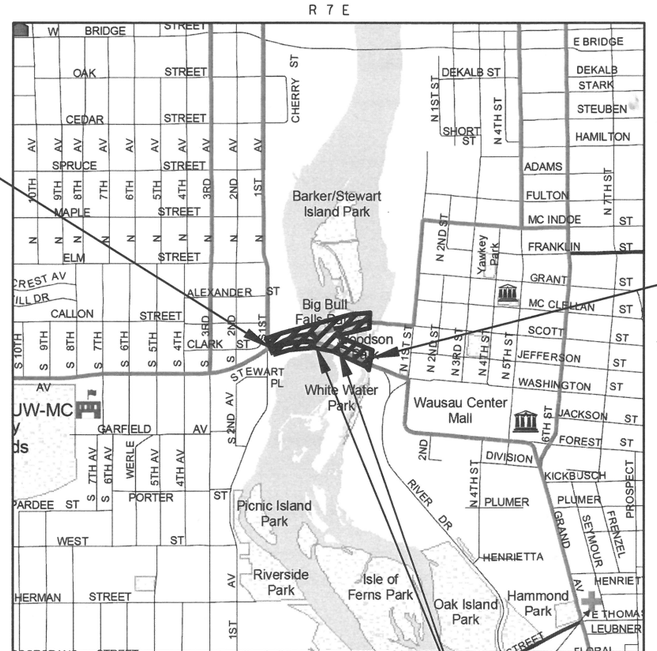
MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-03-80	WISC 2016180	1

STATE PROJECT NUMBER

6999-03-80

BEGIN PROJECT
STA 253+35.81 EB
Y=202212.247
X=279579.840



END PROJECT
STA 263+88.72 EB

EXCEPTION TO NET CENTERLINE LENGTH
STA 257+26.36 EB TO STA 260+38.38 EB
STRUCTURE B-37-273

DESIGN DESIGNATION

A.A.D.T.	(2015)	=	12,100
A.A.D.T.	(2035)	=	13,500
D.H.V.	(2035)	=	1,445
D.D.		=	58/42
T.		=	7.0%
DESIGN SPEED		=	30 MPH
ESALS		=	3,445,600

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

LAYOUT
SCALE 0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.140 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARATHON COUNTY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2007).

ORIGINAL PLANS PREPARED BY:
CBS SQUARED INC.

2/1/2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS SQUARED INC.
Designer	CBS SQUARED INC.
Project Manager	MIKE GRAGE
Regional Examiner	CHERYL SIMON
Regional Supervisor	ROBIN STAFFORD

APPROVED FOR THE DEPARTMENT

DATE: 2/01/16 (Signature)

E

GENERAL NOTES:

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL IN THE PLANS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

CONSTRUCT INSIDE EDGE OF SIDEWALK 1/4 INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS AND CATCH BASINS REFER TO THE NORMAL CASTING FLOWLINE.

ALL STORM SEWER INVERT ELEVATIONS AND GRADES ARE COMPUTED OUTSIDE-TO-OUTSIDE OF STRUCTURE. STORM SEWER PIPE LENGTHS ARE COMPUTED CENTER-TO-CENTER OF STRUCTURE.

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
2	-	2
4	2.25	1.75

UTILITY CONTACTS

WAUSAU WATER WORKS - WATER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 571-9774 (MOBILE)
ATTENTION: SHANNON LANE
SHANNON.LANE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - SEWER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 574-3149 (MOBILE)
ATTENTION: KEN RYE
KEN.RYE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - STREET LIGHTING
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6782
(715) 571-7684 (MOBILE)
ATTENTION: RICK PERGOLSKI
RICK.PERGOLSKI@CI.WAUSAU.WI.US

NET LEC LLC - COMMUNICATION LINE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
(920) 619-9774 (MOBILE)
ATTENTION: DENNIS LAFAVE
DLAFAVE@MI-TECH.US

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

CHARTER COMMUNICATIONS - COMMUNICATION LINE
853 MCINTOSH ST
WAUSAU, WI 54402
(715) 216-6204 (MOBILE)
ATTENTION: SCOTT OLSON
SCOTT.OLSON@CHARTER.COM

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7317
(715) 573-7806 (MOBILE)
ATTENTION: CLAYTON VIRCKS
CHVIRCKS@WISCONSINPUBLICSERVICE.COM

WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7344
(920)-841-5441 (MOBILE)
ATTENTION: JASON LINZMAIER
JRLINZMAIER@WISCONSINPUBLICSERVICE.COM

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
1851 N 14TH AVE
WAUSAU, WI 54401
(715) 847-1525
(715) 573-2110 (MOBILE)
ATTENTION: CALVIN KLADE
CALVIN.KLADE@FTR.COM

WAUSAU COMMUNITY AREA NETWORK - COMMUNICATION LINE
CITY-COUNTY INFORMATION TECHNOLOGY COMMISSION
407 GRANT STREET
WAUSAU, WI 54403-4783
(715) 261-6721
(715) 370-5974 (MOBILE)
ATTENTION: WALLY GELHAR
WALLY.GELHAR@CO.MARATHON.WI.US

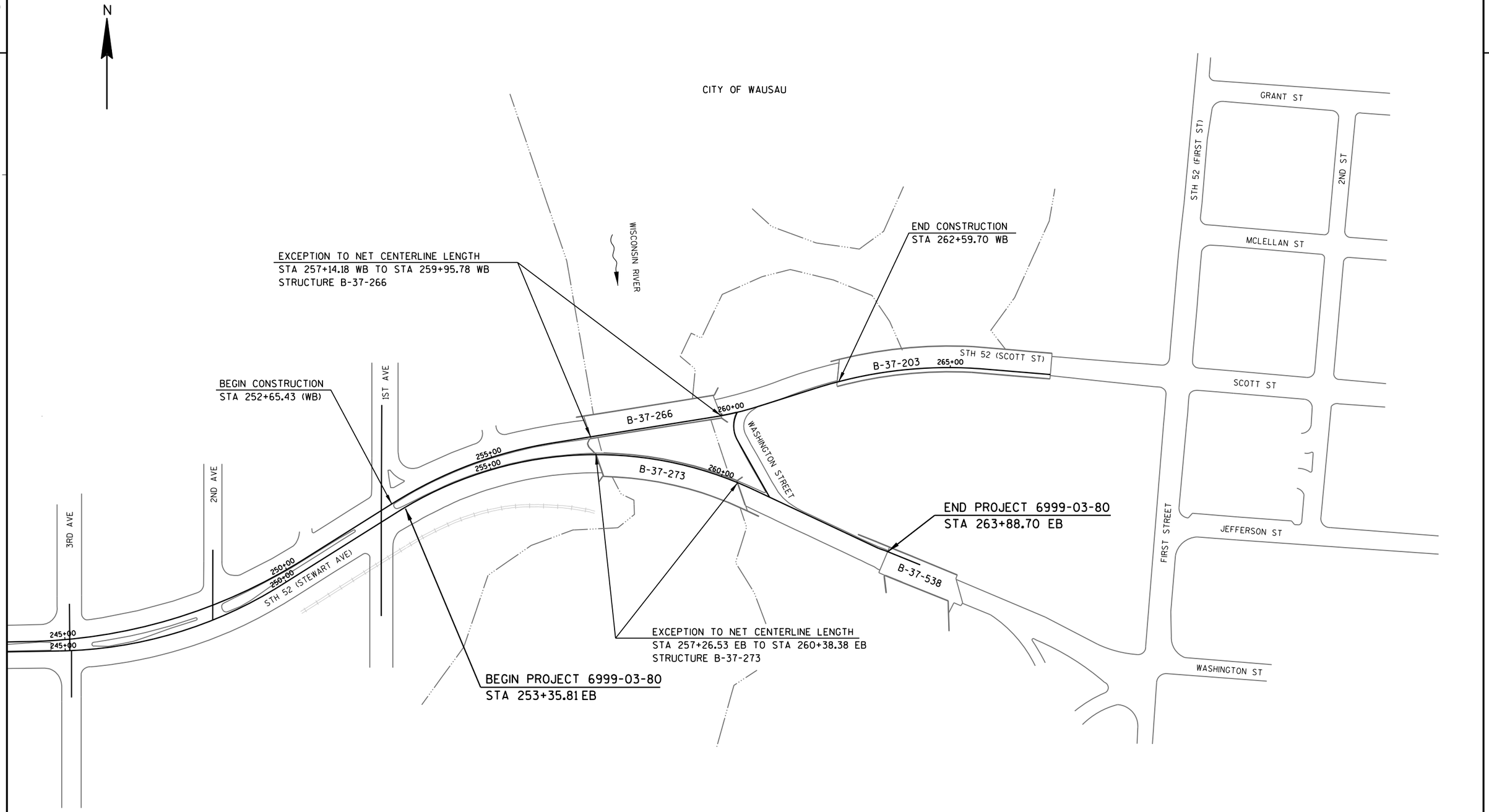
ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
STORM SEWER
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL

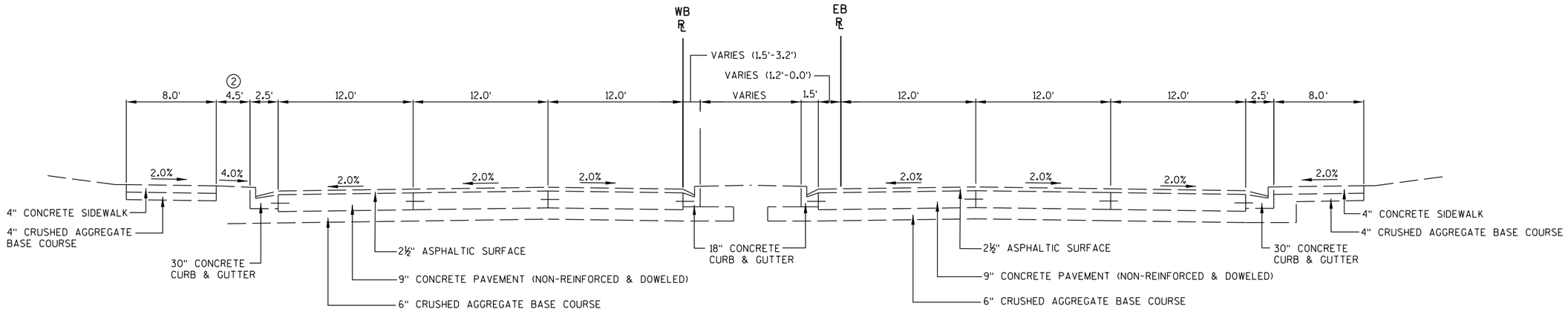
WDNR CONTACT

DNR SERVICE CENTER
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
(715)421-7867
ATTENTION: MARC HERSHFIELD
MARC.HERSHFIELD@WISCONSIN.GOV

2

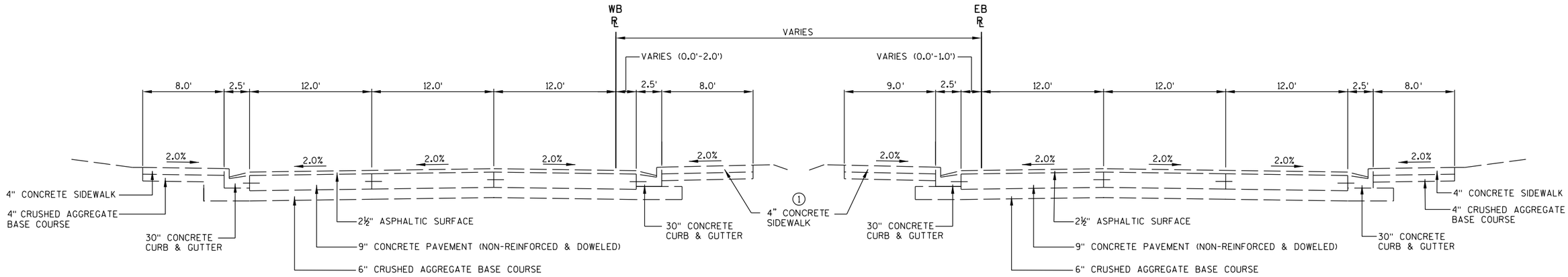


PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET 3	E



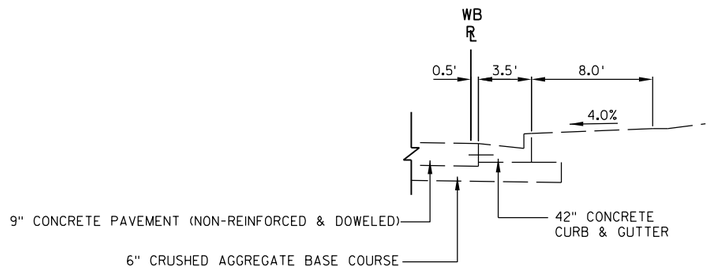
TYPICAL EXISTING SECTION

STH 52
STA 253+35.81 EB TO STA 257+26.36 EB
STA 253+13.21 WB TO STA 257+14.10 WB



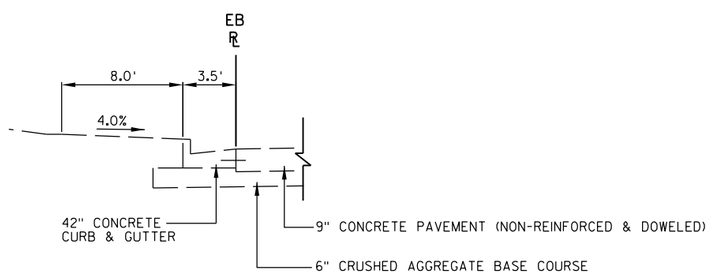
TYPICAL EXISTING SECTION

STH 52
STA 260+37.38 EB TO STA 263+88.72 EB
STA 259+95.74 WB TO STA 262+59.64 WB



TYPICAL EXISTING SECTION

STH 52
STA 259+95.74 WB TO STA 260+29.95 WB



TYPICAL EXISTING SECTION

STH 52
STA 260+37.38 EB TO STA 261+00.00 EB

NOTES:

① EXISTING CONCRETE SIDEWALK STARTS AT STA 260+06.40 EB & STA 260+76.5 WB

② 0' FROM STA 256+70.6 WB TO STA 257+07.1 WB

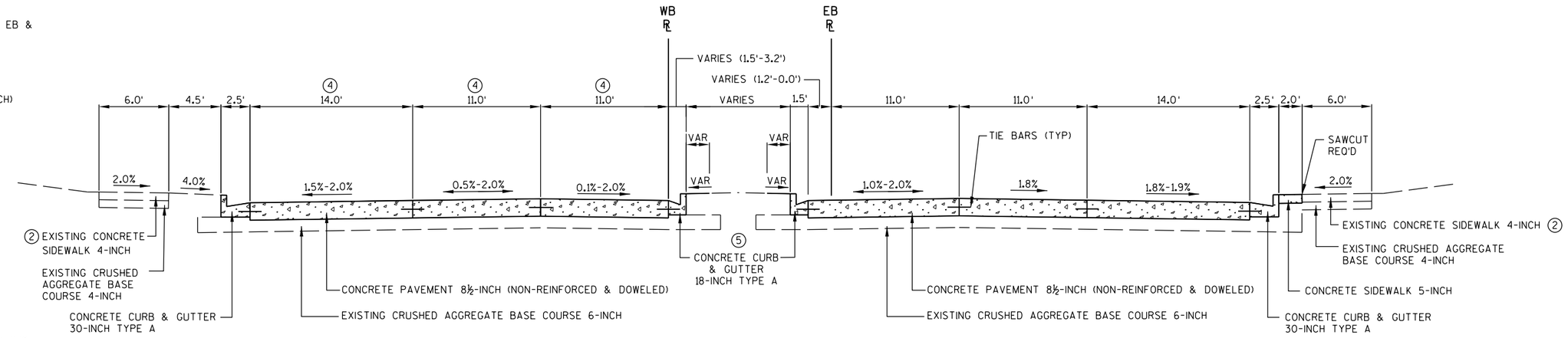
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 4	E

2

NOTES:

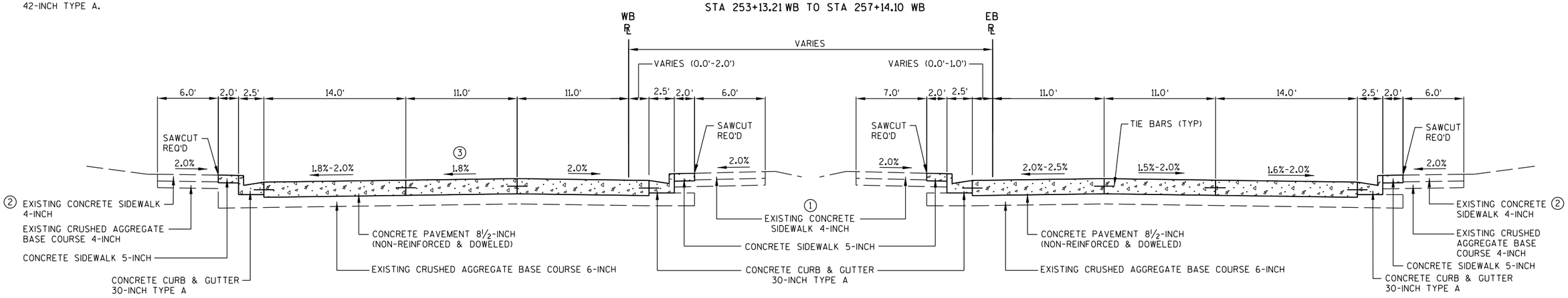
1. EXISTING CONCRETE SIDEWALK STARTS AT STA 262+06.30 LT EB & STA 260+76.5 RT WB
2. REFER TO PLAN & PROFILE SHEETS FOR LOCATIONS OF SIDEWALK REPLACEMENT (WITH CONCRETE SIDEWALK 5-INCH)
3. CROWN AT 18' LT FROM STA 262+44.03 TO STA 262+59.68
4. 12.0' WIDE OUTSIDE LANE (RT TURN LANE), 12.0' WIDE CENTER INSIDE LANES FROM STA 253+13.21 WB TO STA 254+77.90 WB

   OUTSIDE LANE TRANSITIONS FROM 12.0' TO 14.0', CENTER AND INSIDE LANES TRANSITION FROM 12.0' TO 11.0' FROM STA 254+77.90 WB TO STA 255+46.38 WB
5. TRANSITION CONCRETE CURB & GUTTER TO MATCH BRIDGE BEGINNING AT STA 256+59.49 WB AND STA 256+63.65 EB TO BE PAID AS CONCRETE CURB & GUTTER 42-INCH TYPE A.



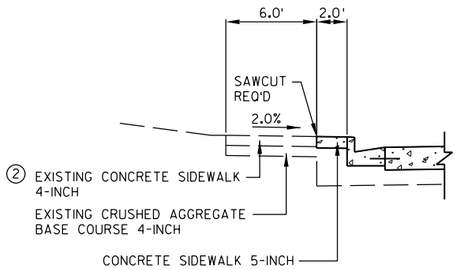
TYPICAL FINISHED SECTION

STH 52
STA 253+35.81 EB TO STA 257+26.36 EB
STA 253+13.21 WB TO STA 257+14.10 WB



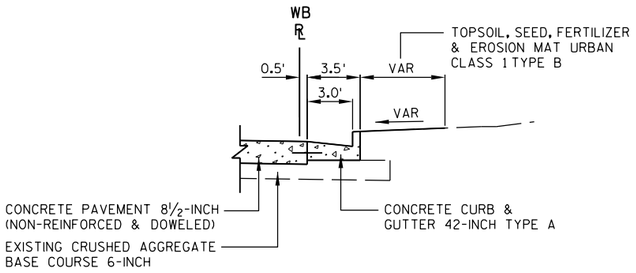
TYPICAL FINISHED SECTION

STH 52
STA 260+37.38 EB TO STA 263+88.72 EB
STA 259+95.74 WB TO STA 262+59.64 WB



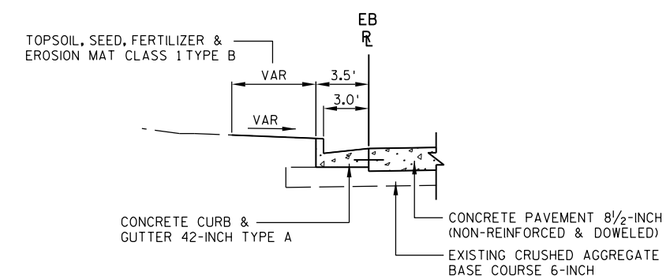
TYPICAL FINISHED SECTION

STH 52
STA 256+70.6 WB TO STA 257+07.1 WB



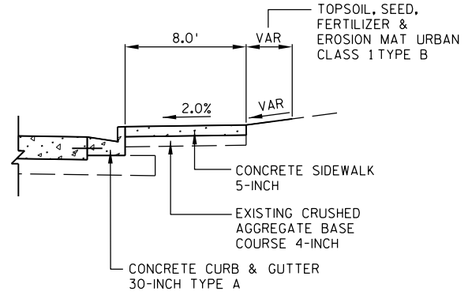
TYPICAL FINISHED SECTION

STH 52
STA 259+95.78 WB TO STA 260+29.95 WB



TYPICAL FINISHED SECTION

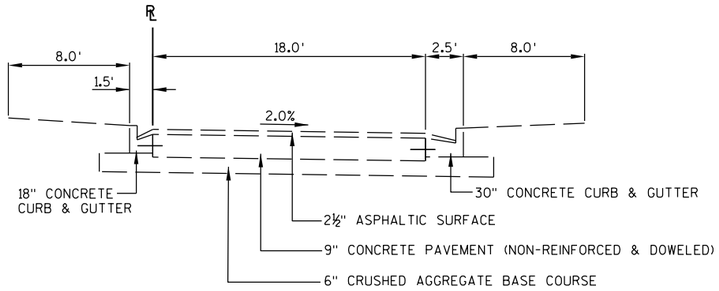
STH 52
STA 260+38.38 EB TO STA 261+00.00 EB



TYPICAL FINISHED SECTION

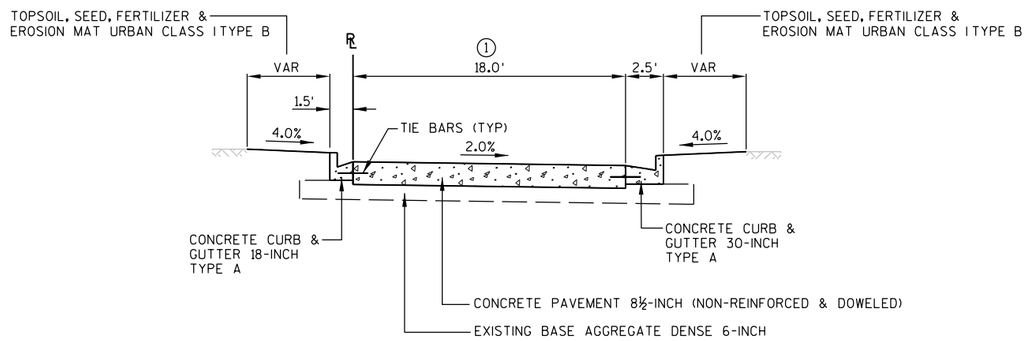
STH 52
(2)

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 5	E



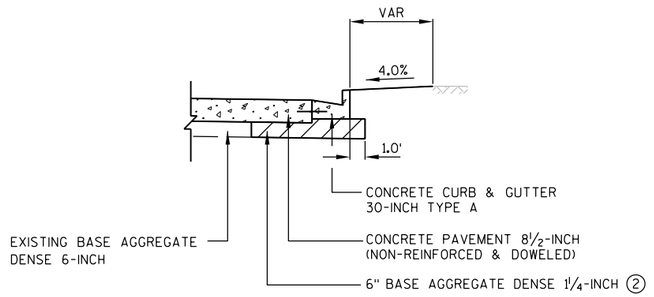
TYPICAL EXISTING SECTION

WASHINGTON STREET
STA 135+00.00 TO STA 137+00.31



TYPICAL FINISHED SECTION

WASHINGTON STREET
STA 135+00.00 TO STA 137+00.31



TYPICAL FINISHED SECTION

WASHINGTON STREET
STA 136+21.45 TO STA 137+00.31

NOTES:

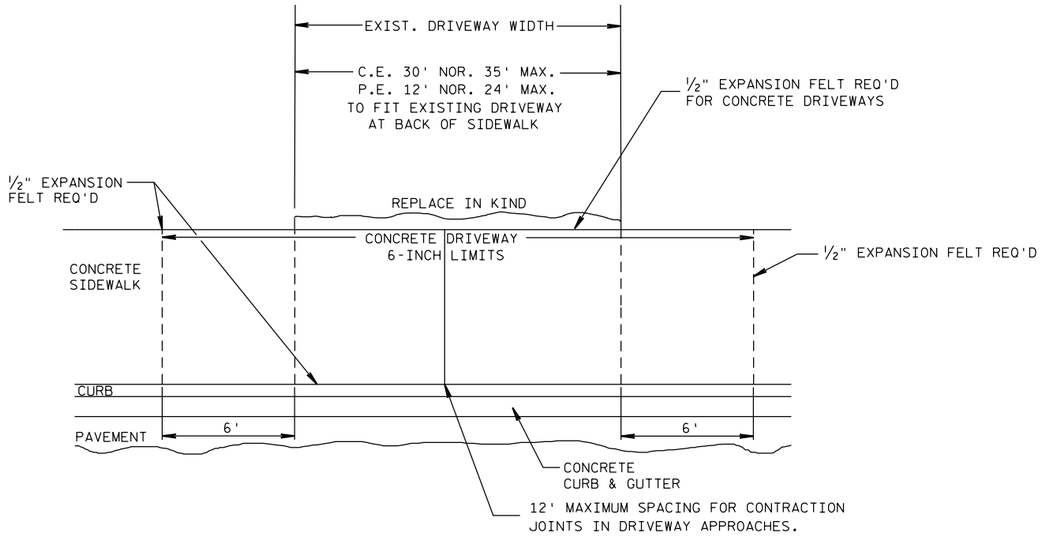
① WIDTH VARIES THRU CURVE FROM 18.0' TO 22.8', FROM STA 136+21.45 TO STA 137+00.31

② NEW 6" BASE AGGREGATE DENSE 1¼-INCH REQUIRED WHERE WASHINGTON STREET IS WIDENED BEYOND EXISTING WIDTH THRU CURVE.

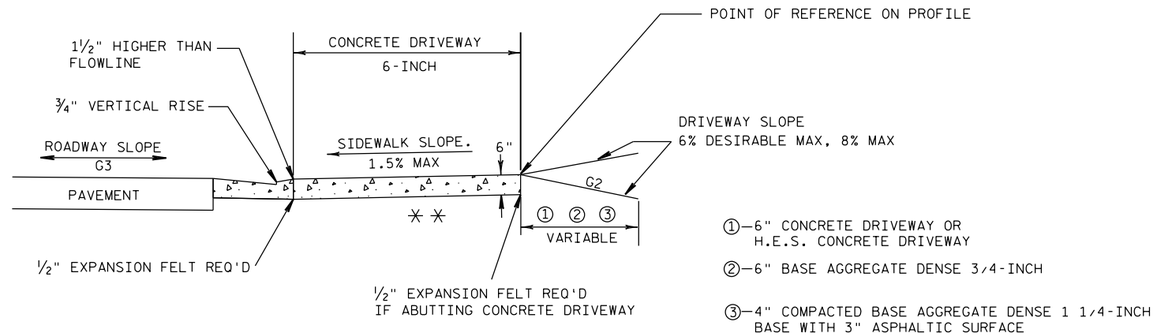
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 6	E

2

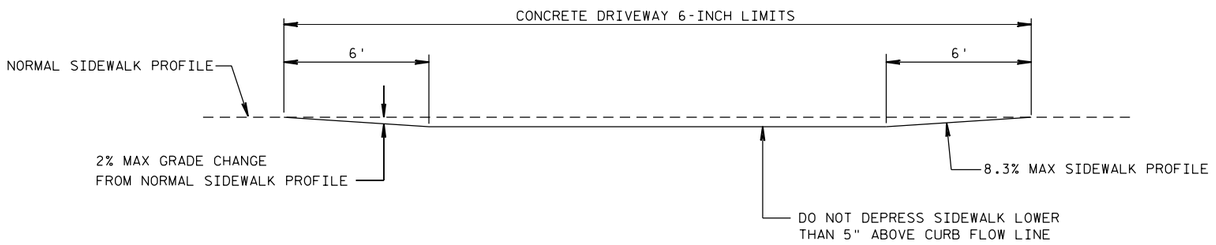
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



PLAN VIEW



TYPICAL SIDEWALK SECTION



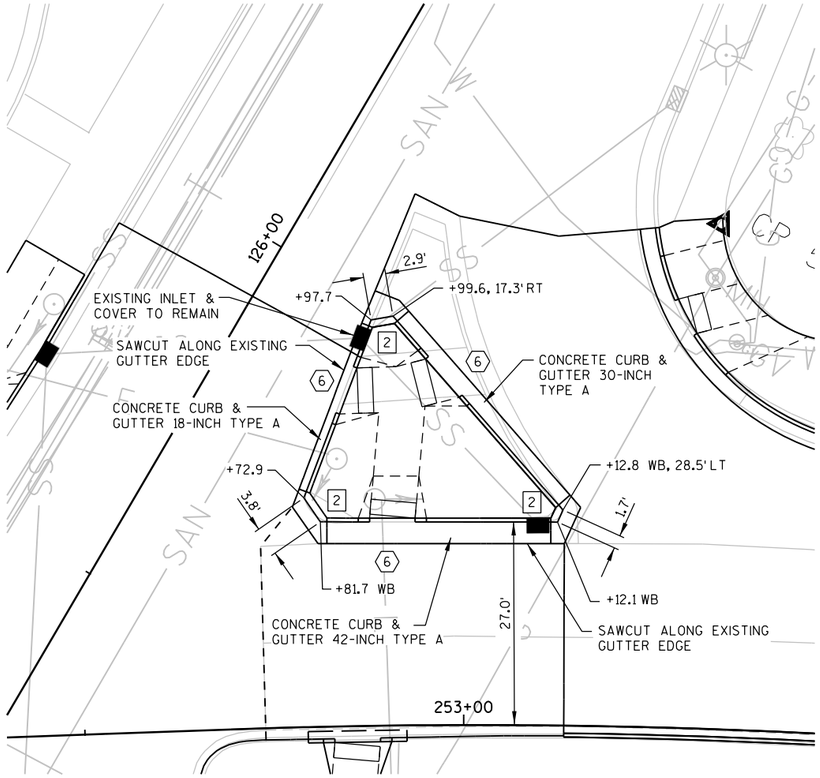
DEPRESSED SIDEWALK PROFILE DETAIL

PROJECT NO:6999-03-80	HWY:STH 52	COUNTY:MARATHON	CONSTRUCTION DETAILS	SHEET 7	E

LEGEND

2 — CONCRETE MEDIAN SLOPED NOSE TYPE 2

6 — CURB RAMP TYPE 6



ISLAND RECONSTRUCTION AT
STEWART AVENUE AND 1ST AVENUE

LEGEND

* — INSTALL SIGN AND BARRICADES WHEN SIDEWALK WITHIN PROJECT LIMITS IS CLOSED FOR CONSTRUCTION

DIRECTION OF PEDESTRIAN ACCESS

1 — TEMPORARY CURB RAMP

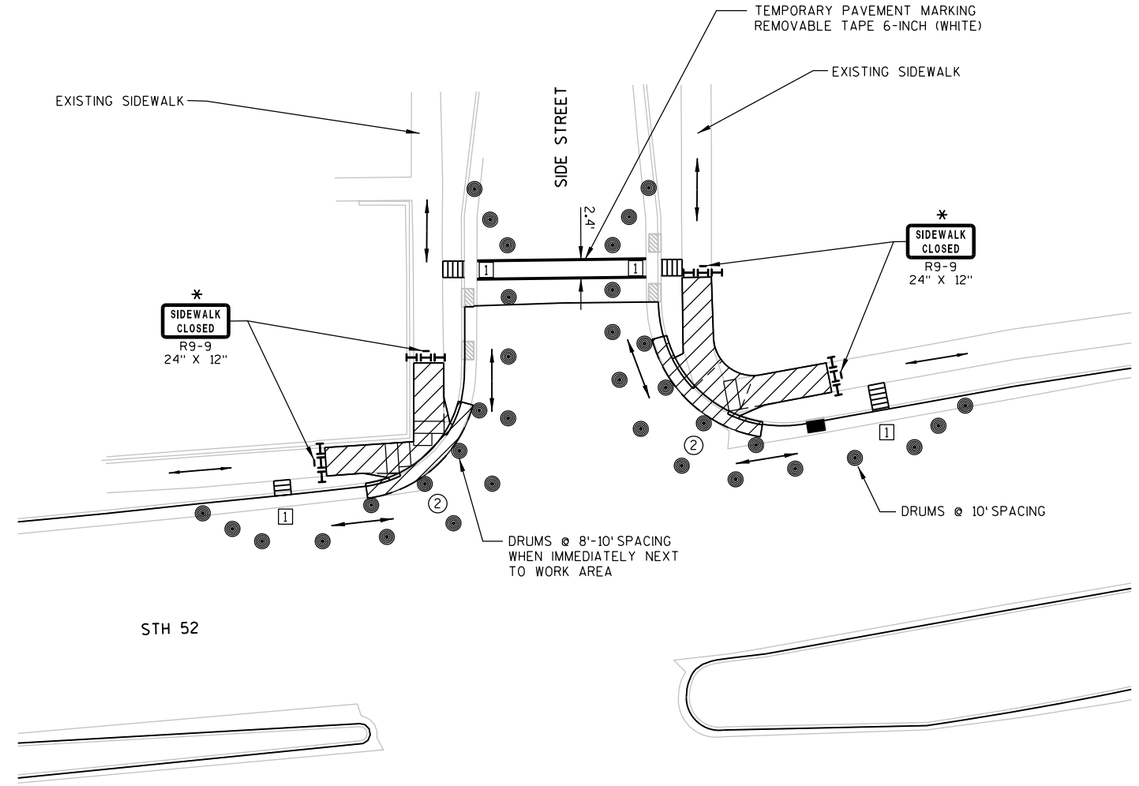
2 — WIDTH BETWEEN DRUMS TO ALLOW ROOM FOR PEDESTRIANS = 5' DESIRABLE, 4' MINIMUM

CHANNELIZER DRUM OR TRAFFIC CONTROL DRUM

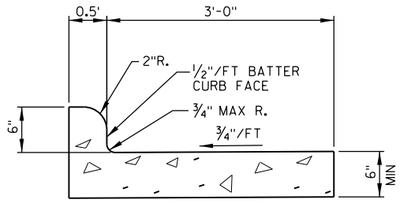
TYPE 2 BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT TYPE A, LOW-INTENSITY FLASHING)

TEMPORARY PEDESTRIAN SURFACE PLYWOOD WHERE TERRACE IS GRASS

WORK AREA FOR SIDEWALK CURB RAMP REPLACEMENT

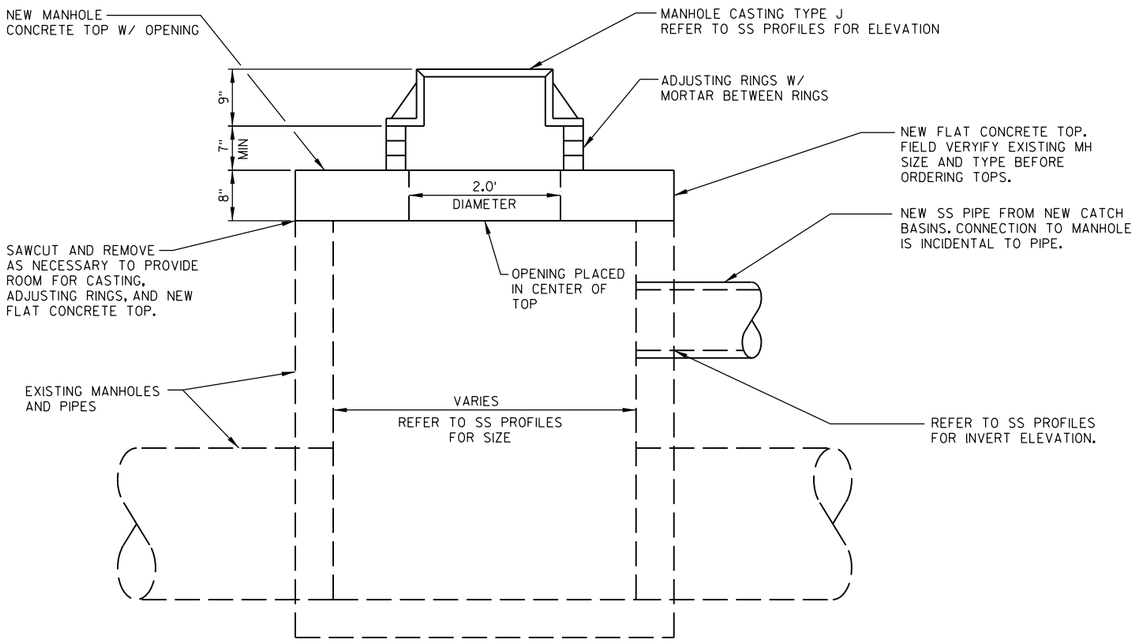


TEMPORARY PEDESTRIAN CROSSINGS/ACCESS WHERE CURB RAMPS ARE REPLACED



CONCRETE CURB AND GUTTER 42-INCH TYPE A

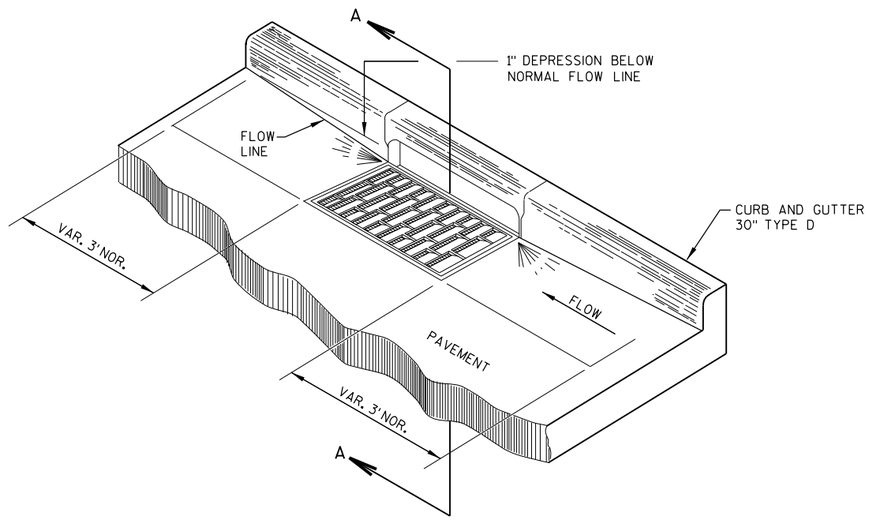
2



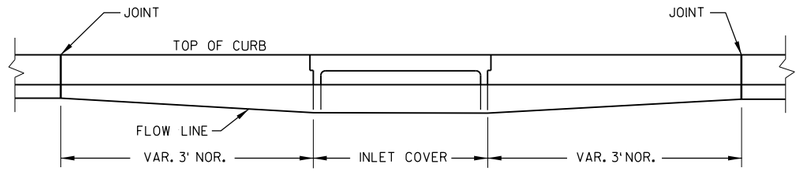
NOTE:
FIELD VERIFY ALL DIMENSIONS PRIOR TO
ORDERING CONCRETE FLAT CONCRETE TOP

RECONSTRUCT MANHOLE

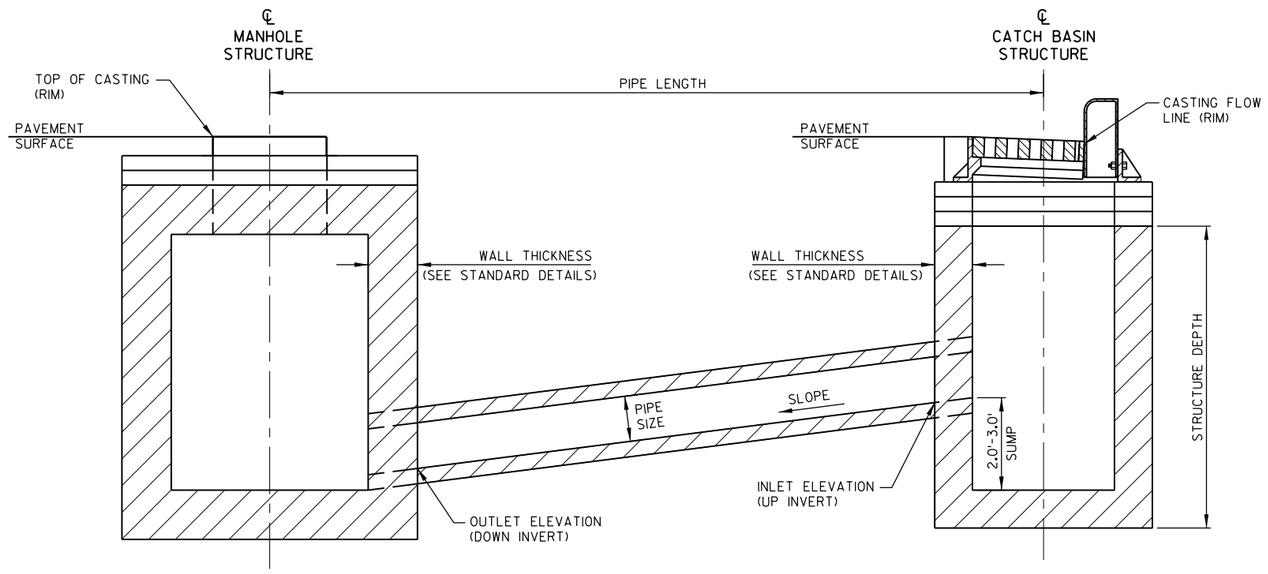
2



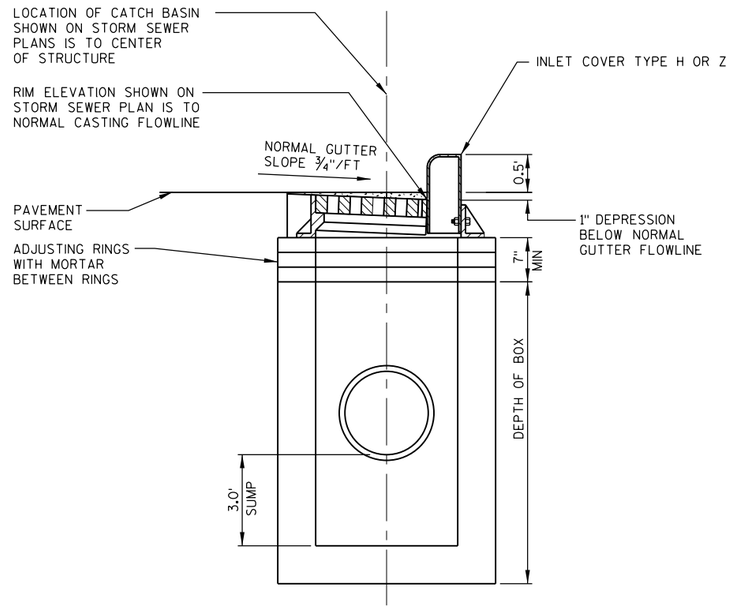
CATCH BASIN



ELEVATION



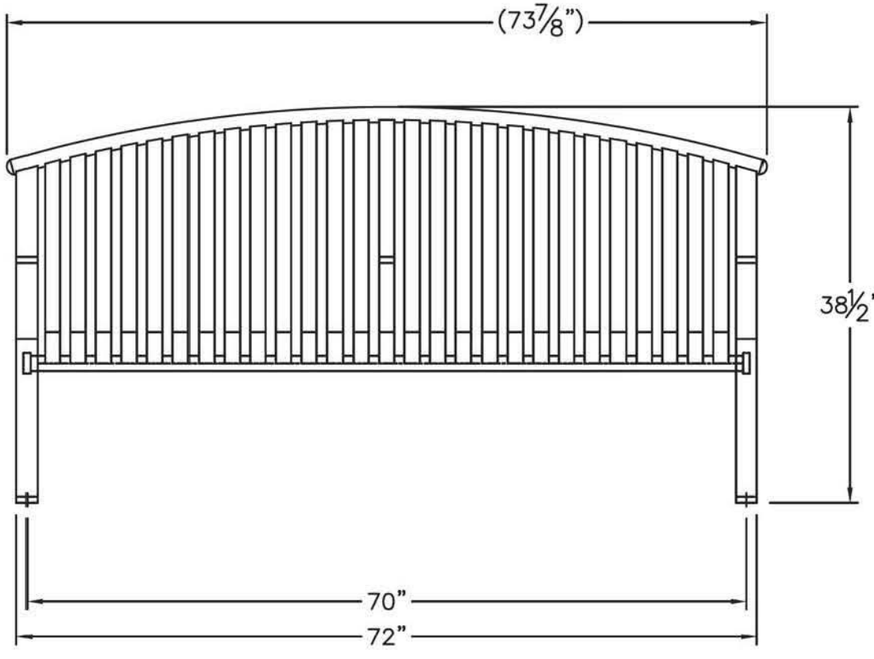
STORM SEWER MEASUREMENT

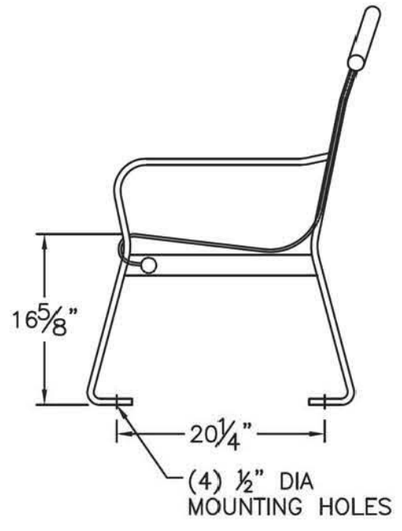


SECTION A-A

PROJECT NO:6999-03-80	HWY:STH 52	COUNTY:MARATHON	CONSTRUCTION DETAILS	SHEET 10	E

2





SECTION OF BRACE

BENCH

NOTE:
FINAL BENCH LOCATIONS TO BE DETERMINED BY CITY ENGINEER.

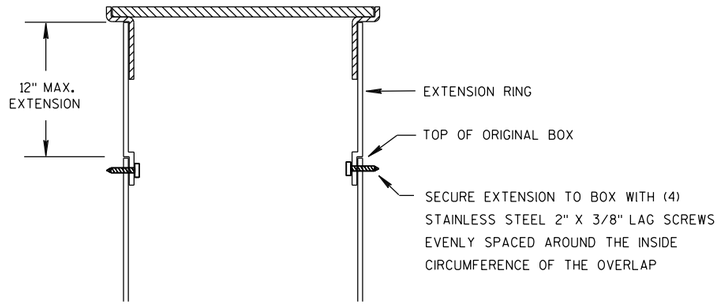
2

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

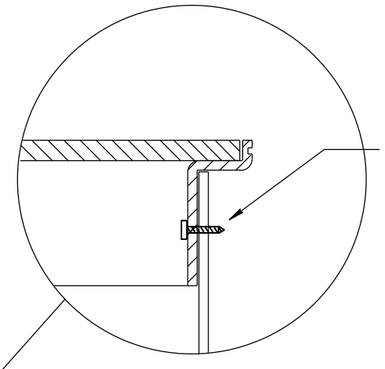
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

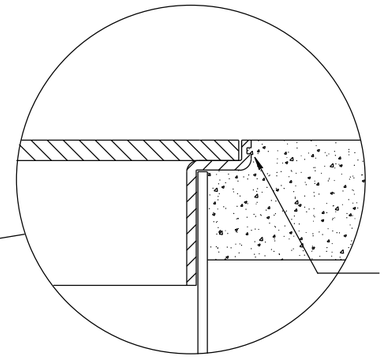


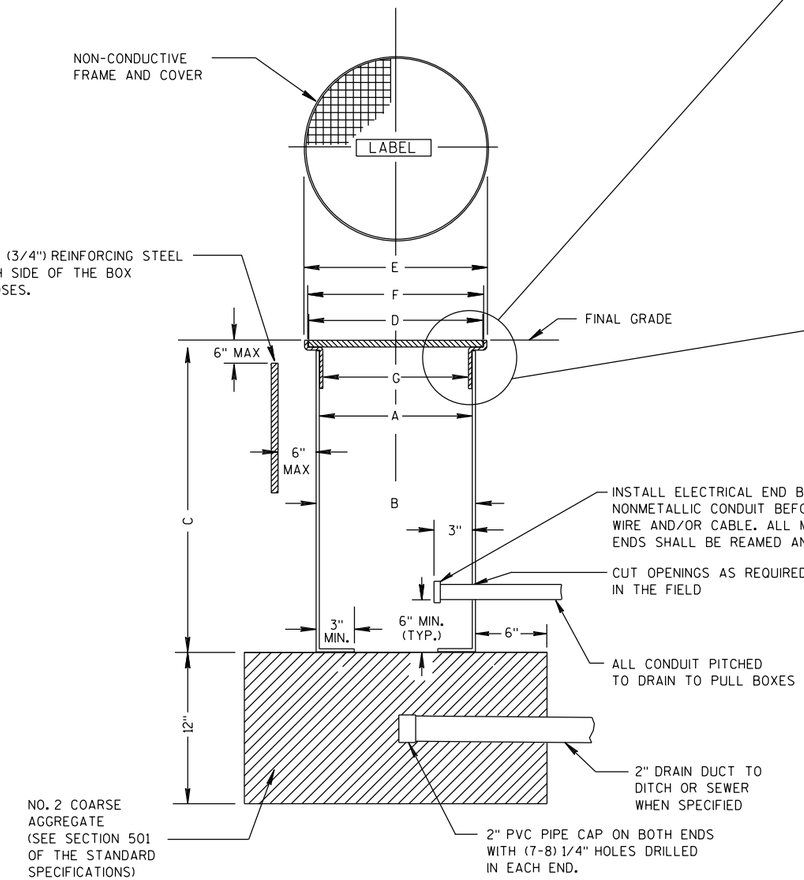
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE 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 BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL OR LIGHTING SYSTEMS. "COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.

ELECTRICAL DETAILS, SIGNAL PLANS, & LIGHTING DETAILS PREPARED BY:

KL Engineering
[A] Better Experience

WISCONSIN
MIKE D. SCARMON
E-37613
EVANSVILLE, WI
PROFESSIONAL ENGINEER

2-1-16
(DATE)

(SIGNATURE)

PROJECT NO: 6999-03-79/80/81	HWY: STH 52	COUNTY: MARATHON	ELECTRICAL DETAILS	SHEET 12	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024003_cd.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

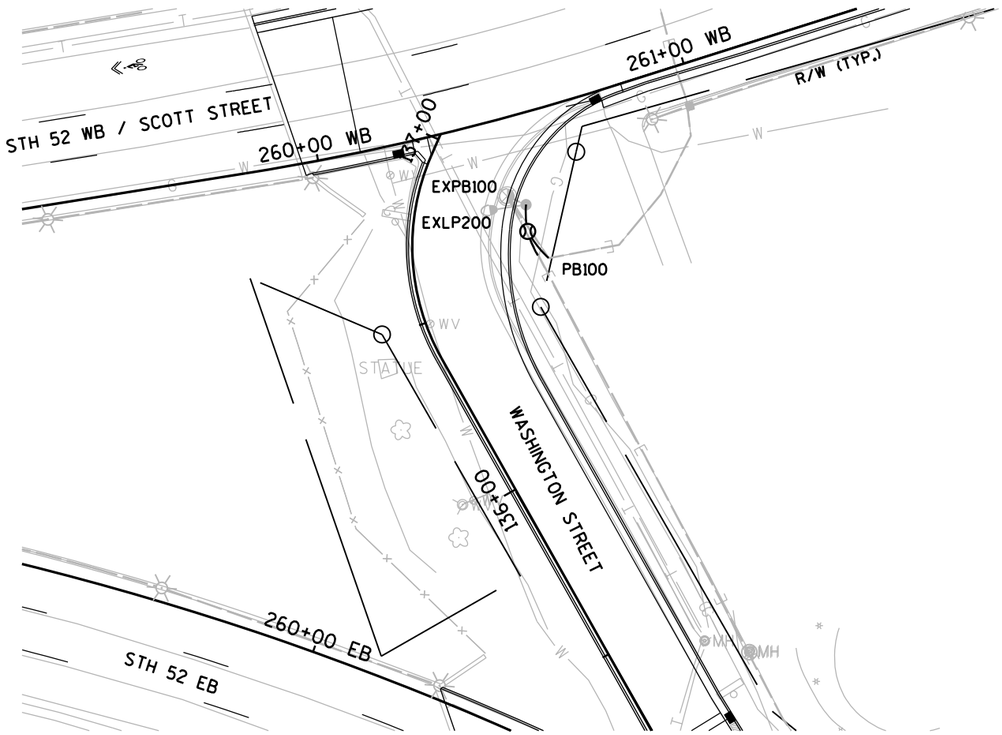
WISDOT/CADDS SHEET 42

2

N

CONSTRUCTION NOTES:

1. REMOVE PULLBOX (EXPB100) AND UNDERLYING CONCRETE BASE. INSTALL A NEW PULLBOX (PB100) INTERCEPTING EXISTING CONDUITS AND MAKING A NEW 2" CONNECTION TO STREET LIGHT EXLP200. REMOVE EXISTING WIRING AND REPLACE WITH EQUIVALENT CONDUCTORS TO EXISTING STREET LIGHT SOUTH OF EXLP200 AND ON THE SOUTHWEST CORNER OF THE STRUCTURE.



PROJECT NO:6999-03-80	HWY:STH 52	COUNTY:MARATHON	ELECTRICAL DETAILS	SHEET 13	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024002_cd.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

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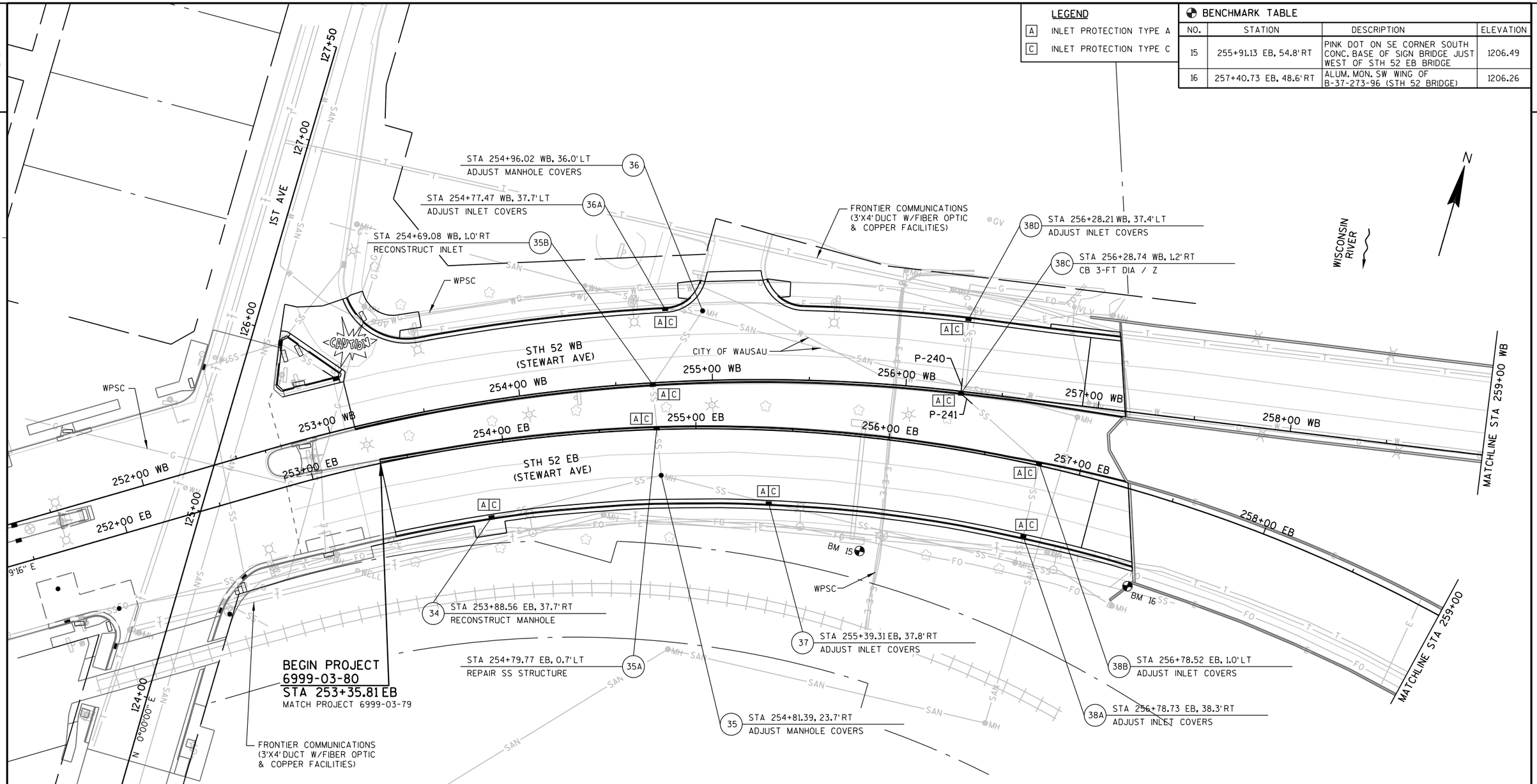
LEGEND

[A] INLET PROTECTION TYPE A

[C] INLET PROTECTION TYPE C

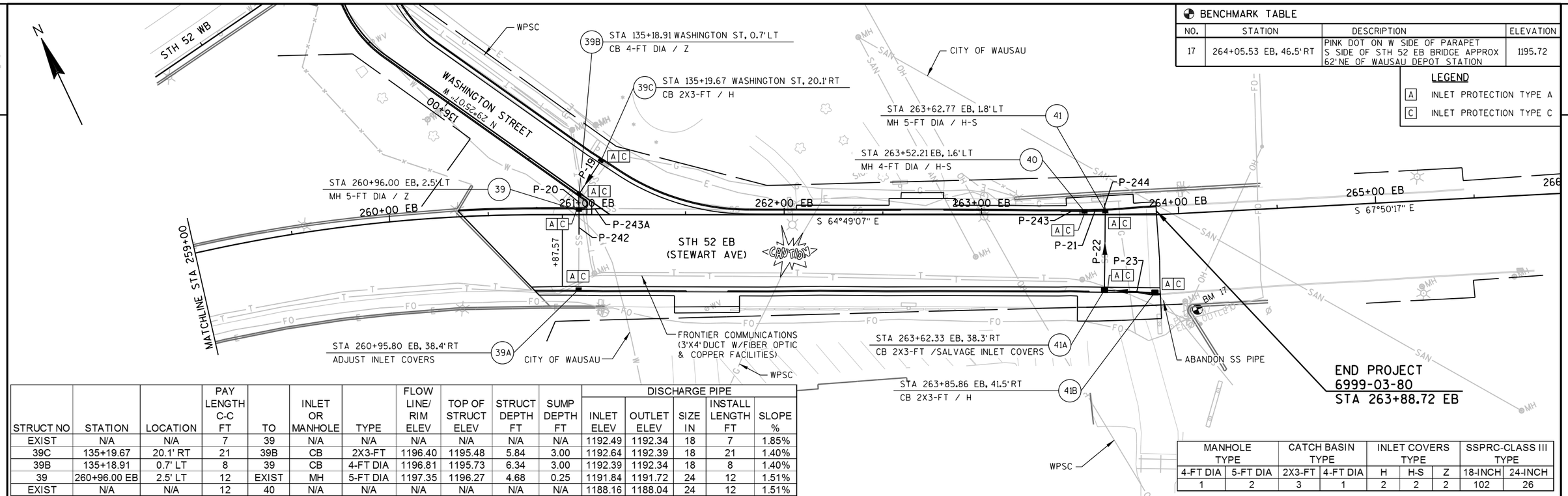
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
15	255+91.13 EB, 54.8' RT	PINK DOT ON SE CORNER SOUTH CONC. BASE OF SIGN BRIDGE JUST WEST OF STH 52 EB BRIDGE	1206.49
16	257+40.73 EB, 48.6' RT	ALUM. MON. SW WING OF B-37-273-96 (STH 52 BRIDGE)	1206.26



CATCH BASIN TYPE	INLET COVERS TYPE	SSPRC-CLASS III
3-FT DIA	Z	12-INCH
1	1	16

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
EXIST	N/A	N/A	8	38C	CB	N/A	N/A	N/A	N/A	N/A	1198.28	1198.07	12	8	2.60%
38C	256+28.74 WB	1.2' RT	8	EXIST	CB	3-FT DIA	1202.98	1201.90	6.83	3.00	1198.07	1198.03	12	8	0.52%



BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
17	264+05.53 EB, 46.5' RT	PINK DOT ON W SIDE OF PARAPET S SIDE OF STH 52 EB BRIDGE APPROX 62' NE OF WAUSAU DEPOT STATION	1195.72

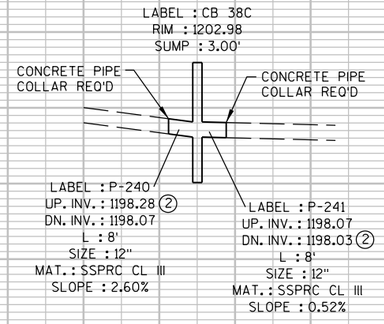
LEGEND

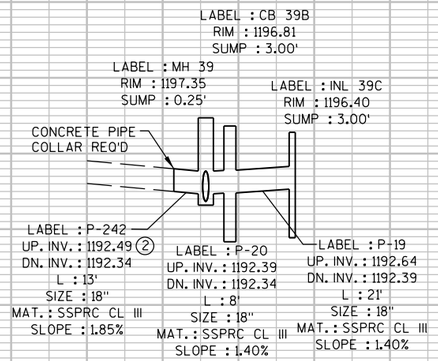
[A] INLET PROTECTION TYPE A

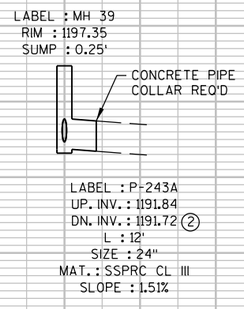
[C] INLET PROTECTION TYPE C

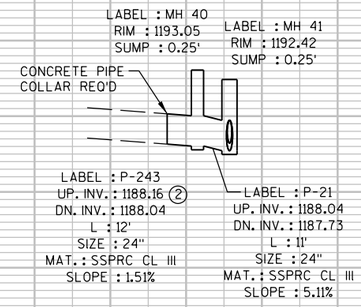
STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
EXIST	N/A	N/A	7	39	N/A	N/A	N/A	N/A	N/A	N/A	1192.49	1192.34	18	7	1.85%
39C	135+19.67	20.1' RT	21	39B	CB	2X3-FT	1196.40	1195.48	5.84	3.00	1192.64	1192.39	18	21	1.40%
39B	135+18.91	0.7' LT	8	39	CB	4-FT DIA	1196.81	1195.73	6.34	3.00	1192.39	1192.34	18	8	1.40%
39	260+96.00 EB	2.5' LT	12	EXIST	MH	5-FT DIA	1197.35	1196.27	4.68	0.25	1191.84	1191.72	24	12	1.51%
EXIST	N/A	N/A	12	40	N/A	N/A	N/A	N/A	N/A	N/A	1188.16	1188.04	24	12	1.51%
40	263+52.21 EB	1.6' LT	11	41	MH	4-FT DIA	1193.05	1192.13	4.34	0.25	1188.04	1187.73	24	11	5.11%
41B	263+85.86 EB	41.5' RT	26	41A	CB	2X3-FT	1192.51	1191.59	5.66	3.00	1188.93	1188.66	18	26	1.19%
41A	263+62.33 EB	38.3' RT	40	41	CB	2X3-FT	1192.27	1191.35	5.69	3.00	1188.66	1188.23	18	40	1.17%
41	263+62.77 EB	1.8' LT	4	EXIST	MH	5-FT DIA	1192.42	1191.50	4.02	0.25	1187.73	1187.53	24	4	5.00%

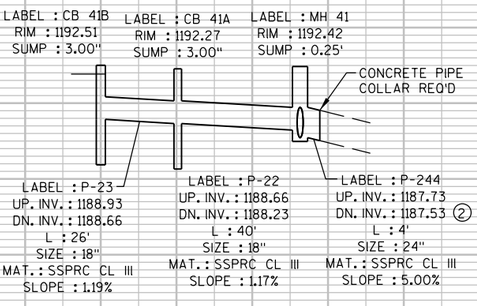
MANHOLE TYPE		CATCH BASIN TYPE		INLET COVERS TYPE			SSPRC-CLASS III TYPE	
4-FT DIA	5-FT DIA	2X3-FT	4-FT DIA	H	H-S	Z	18-INCH	24-INCH
1	2	3	1	2	2	2	102	26











NOTES:

ALL PIPE SLOPES SHOWN WERE DESIGNED TO MATCH EXISTING PIPE SLOPE. ADJUST AS NECESSARY OR WHEN DIRECTED BY ENGINEER TO FIT ACTUAL FIELD CONDITIONS.

CONNECTING A NEW PIPE TO AN EXISTING MANHOLE IS INCIDENTAL TO THE PIPE.

(1) SIZE DIMENSIONS PROVIDED ARE INSIDE DIMENSIONS OF MANHOLE. FIELD VERIFY ALL SIZE DIMENSIONS PRIOR TO ORDERING CONCRETE FLAT TOP.

(2) INVERT ELEVATION TO BE FIELD VERIFIED.

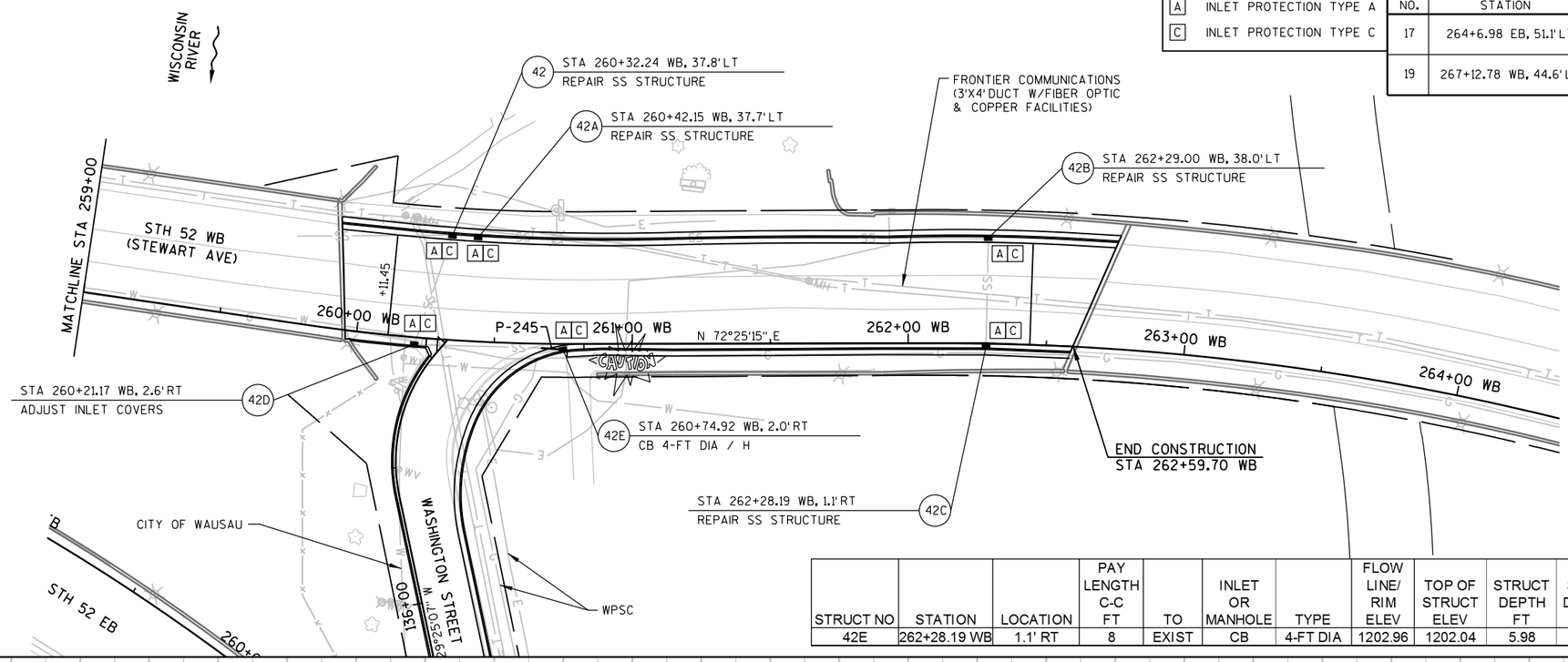
2

LEGEND

A	INLET PROTECTION TYPE A
C	INLET PROTECTION TYPE C

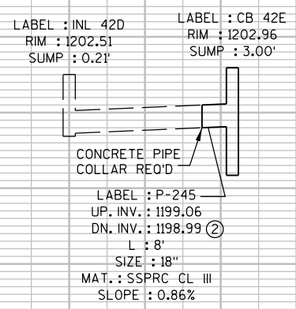
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
17	264+6.98 EB, 51.1'LT	PINK DOT ON W SIDE OF PARAPET S SIDE OF STH 52 EB BRIDGE APPROX 62'NE OF WAUSAU DEPOT STATION	1195.72
19	267+12.78 WB, 44.6'LT	BRASS MON. ON NE SIDE STH 52 WB BRIDGE OVER WIS RIVER APPROX 65'SW OF MIRON BUILDING	1212.59



CATCH BASIN TYPE	INLET COVERS TYPE	SSPRC-CLASS III
4-FT DIA	H	18-INCH
1	1	8

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
42E	262+28.19 WB	1.1' RT	8	EXIST	CB	4-FT DIA	1202.96	1202.04	5.98	3.00	1199.06	1198.99	18	8	0.86%



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 16	E

2

SIGN LEGEND

(X-X)	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
(1)	CITY OWNED SIGNS, TO REMAIN
(2)	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

N

REPLACE WEST 52 ↑ — 8-2
J3-1
24" X 57"

* REPLACE NORTH BUSINESS 51 ↱ — 8-3
JV
24" X 69"

INSTALL STOP — 8-4
R1-1
36" X 36"

* REPLACE NORTH BUSINESS 51 / USE RIGHT LANE — 8-5
JV
24" X 48"
R3-54R
24" X 24"

* REPLACE YIELD — 8-1
R1-2
36" X 31"
RIGHT TURN OBEY THIS SIGN
R1-53
24" X 30"

* REPLACE SOUTH EAST BUSINESS 52 51 — 8-6
JV
48" X 48"

* REPLACE Downtown ONLY ↓ | BUS 52 51 AHEAD | River Dr USE RIGHT LANE — 8-9
E SERIES
120" X 78"
E SERIES
96" X 72"
E SERIES
120" X 72"

(2) NO PARKING

* REPLACE SPEED LIMIT 25 — 8-7
R2-1
24" X 30"

* REPLACE SPEED LIMIT 25 — 8-8
R2-1
24" X 30"

1ST AVE
STH 52 (STEWART AVE)
127+50
127+00
126+00
125+00
124+00
123+00
252+00 WB
252+00 EB
253+00 WB
253+00 EB
254+00 WB
254+00 EB
255+00 WB
255+00 EB
256+00 WB
256+00 EB
257+00 WB
257+00 EB
258+00 WB
258+00 EB
MATCHLINE STA 259+00
MATCHLINE STA 259+00

BEGIN PROJECT
6999-03-08
STA 253+35.81 EB

SIGNING GENERAL NOTES

SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGNS THAT ARE MOUNTED TO TRAFFIC SIGNAL OR LIGHT POLES AND OVERHANG THE SIDEWALK SHALL HAVE A MOUNTING HEIGHT OF 7'-3" MIN.

ALL J-ASSEMBLIES SHALL BE SINGLE-PIECE BOARDS.

REMOVE = REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS.

MOVE = MOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, SIGNS TYPE II REFLECTIVE H/F AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE)

INSTALL = SIGNS TYPE II REFLECTIVE H/F, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

2

2

SIGN LEGEND

X-X	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
1	CITY OWNED SIGNS, TO REMAIN
2	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

N

MATCHLINE STA 259+00

260+00 WB

261+00 WB

262+00 WB

END CONSTRUCTION
STA 262+59.70 WB

2
NO PARKING

REPLACE
DO NOT ENTER 9-2
R5-1
30" X 30"

REPLACE
R1-1
36" X 36"
STOP 9-1
ONE WAY
R6-2L
24" X 30"

WASHINGTON STREET

136+00

*
REPLACE
R R 9-3
W10-1
36" X 36"

1
STOP

REPLACE
ONE WAY 9-5
R6-2R
24" X 30"

260+00 EB

261+00 EB

263+00 EB

264+00 EB

265+00 EB

STH 52 (STEWART AVE)

MATCHLINE STA 259+00

*
REPLACE
R R 9-5
W10-1
36" X 36"

REPLACE
ONE WAY 9-6
R6-2L
24" X 30"

1
NO PARKING FIRE LANE

END PROJECT
6999-02-80
STA 263+88.72 EB

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 18	E

2

N

SEE DIAGONAL MARKING DETAIL

1ST AVE

127+50

127+00

126+00

125+00

124+00

123+00

252+00 WB

252+00 EB

253+00 WB

253+00 EB

254+00 WB

254+00 EB

255+00 WB

255+00 EB

256+00 WB

256+00 EB

257+00 WB

257+00 EB

258+00 WB

258+00 EB

STH 52 (STEWART AVE)

+19.3

+60.5 WB

+78.0 WB

+46.4 WB

14.3'

16.0'

16.1'

14.4'

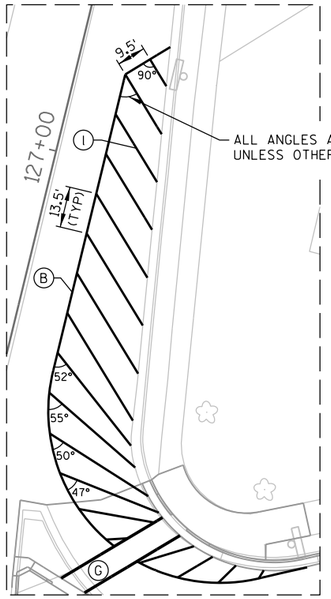
MATCHLINE STA 259+00 WB

MATCHLINE STA 259+00

WELL

BEGIN PROJECT
6999-03-80
STA 253+35.81 EB

DIAGONAL MARKING DETAIL



ALL ANGLES ARE 45°
UNLESS OTHERWISE NOTED.

PAVEMENT MARKING LEGEND

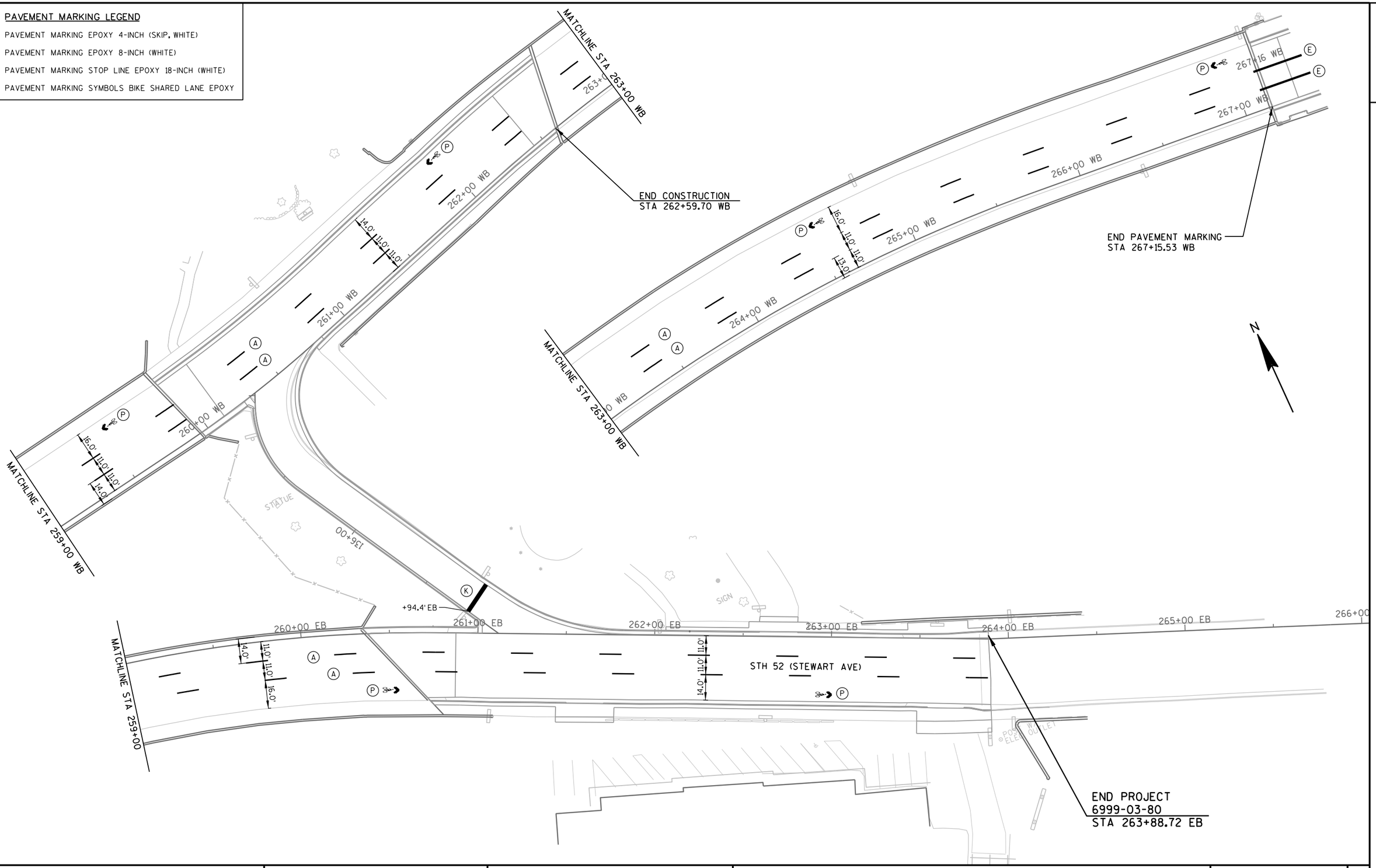
- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (B) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (I) PAVEMENT MARKING DIAGONAL EPOXY 4-INCH (WHITE)
- (M) PAVEMENT MARKING ARROWS EPOXY TYPE 2
- (N) PAVEMENT MARKING WORDS EPOXY ("ONLY")
- (P) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 19	E

2

PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (K) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (P) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY



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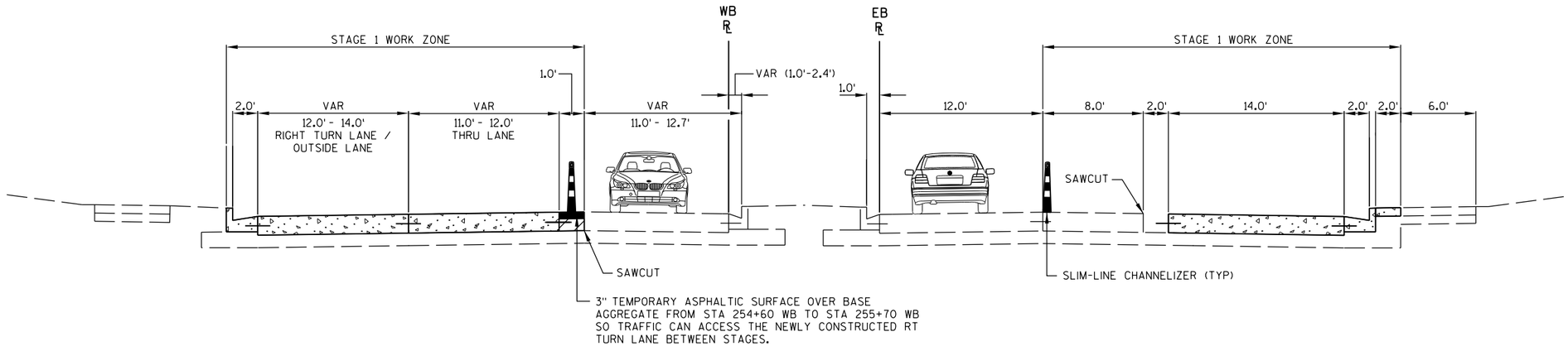
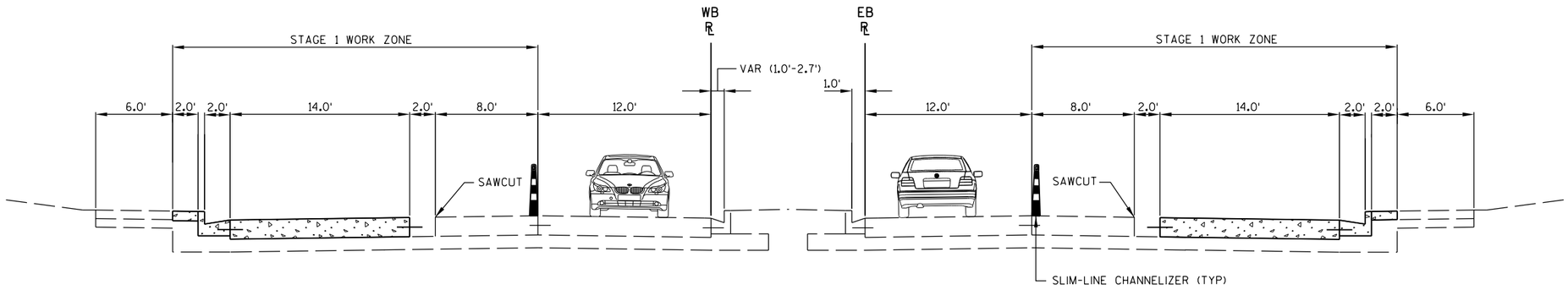
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 20	E

2



TYPICAL FINISHED SECTION - STAGE 1

STH 52
1ST AVENUE TO WI RIVER BRIDGE (EB)
1ST AVENUE TO WI RIVER BRIDGE (WB)

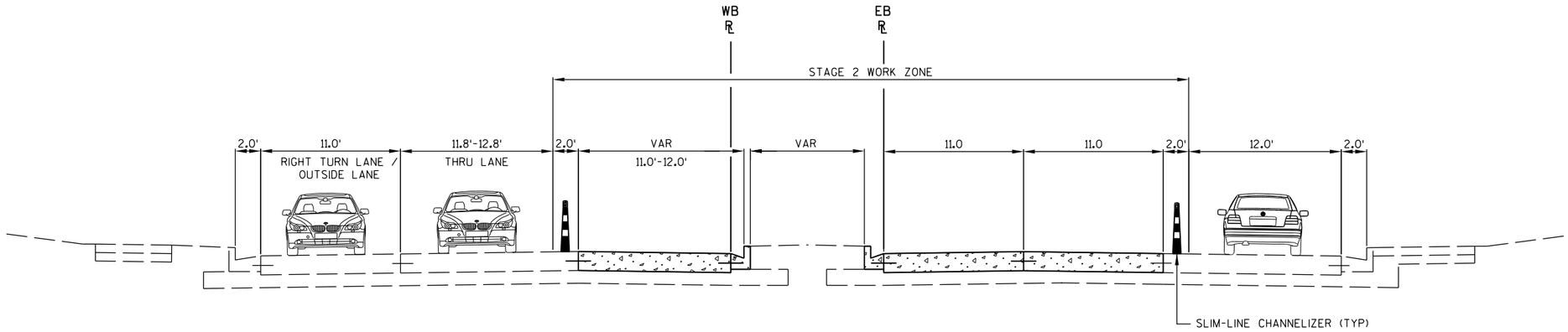


TYPICAL FINISHED SECTION - STAGE 1

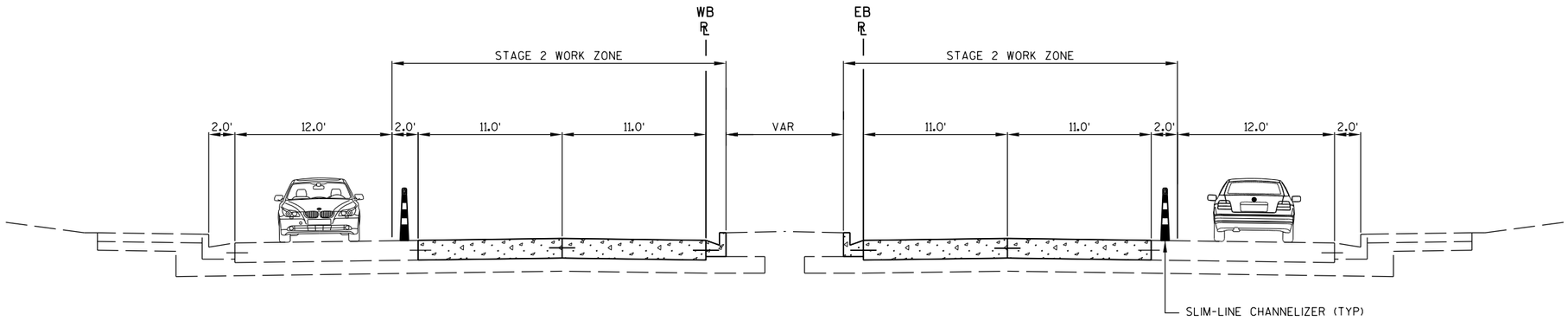
STH 52
WI RIVER BRIDGE TO SLOUGH BRIDGE (EB)
WI RIVER BRIDGE TO SLOUGH BRIDGE (WB)

PROJECT NO:6999-03-80	HWY: STH 52	COUNTY:MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 21	E

2



TYPICAL FINISHED SECTION - STAGE 2
STH 52
1ST AVENUE TO WI RIVER BRIDGE (EB)
1ST AVENUE TO WI RIVER BRIDGE (WB)



TYPICAL FINISHED SECTION - STAGE 2
STH 52
WI RIVER BRIDGE TO SLOUGH BRIDGE (EB)
WI RIVER BRIDGE TO SLOUGH BRIDGE (WB)

PROJECT NO:6999-03-80	HWY:STH 52	COUNTY:MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 22	E

2

PAVEMENT MARKING LEGEND

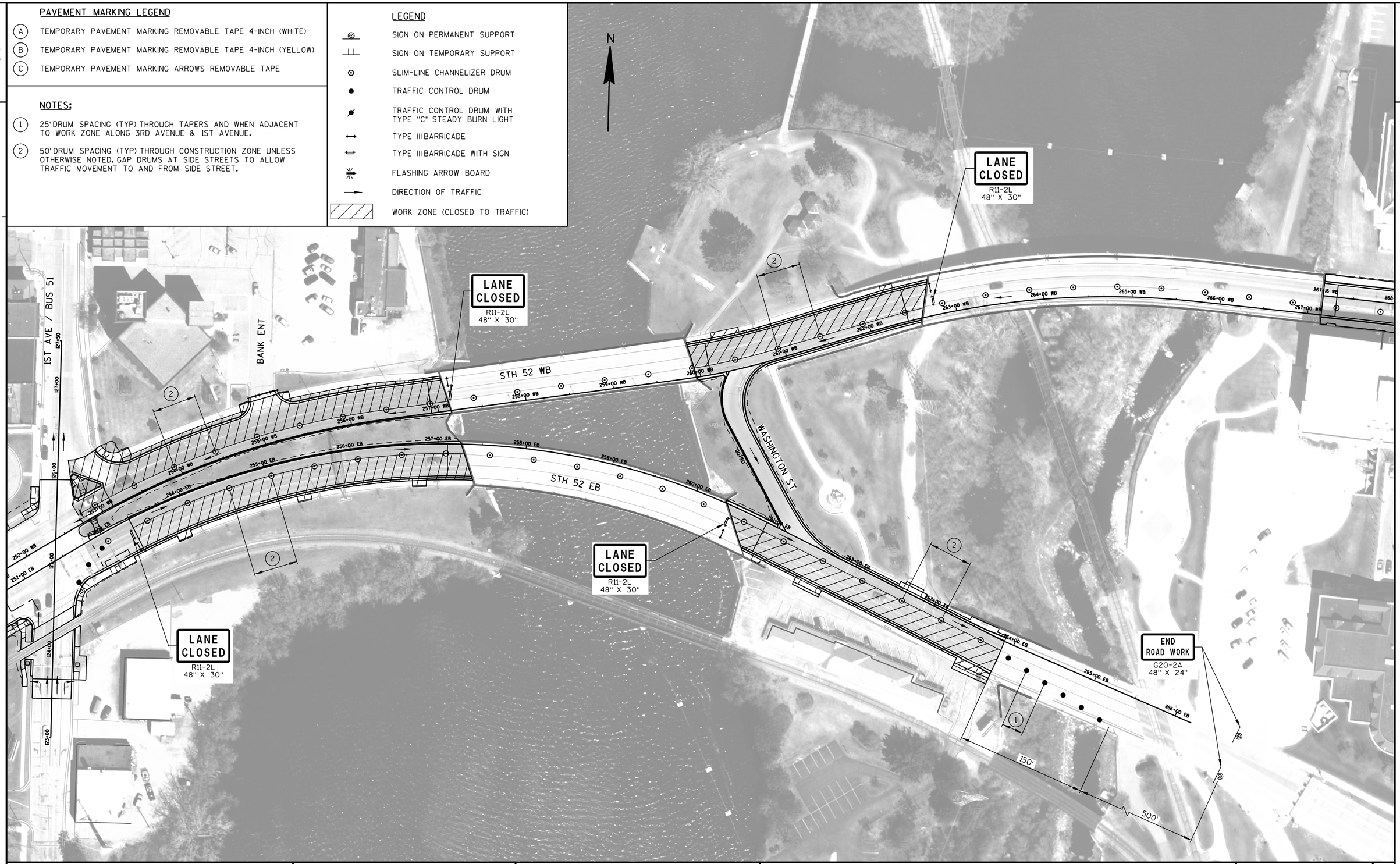
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1	SHEET 23	E

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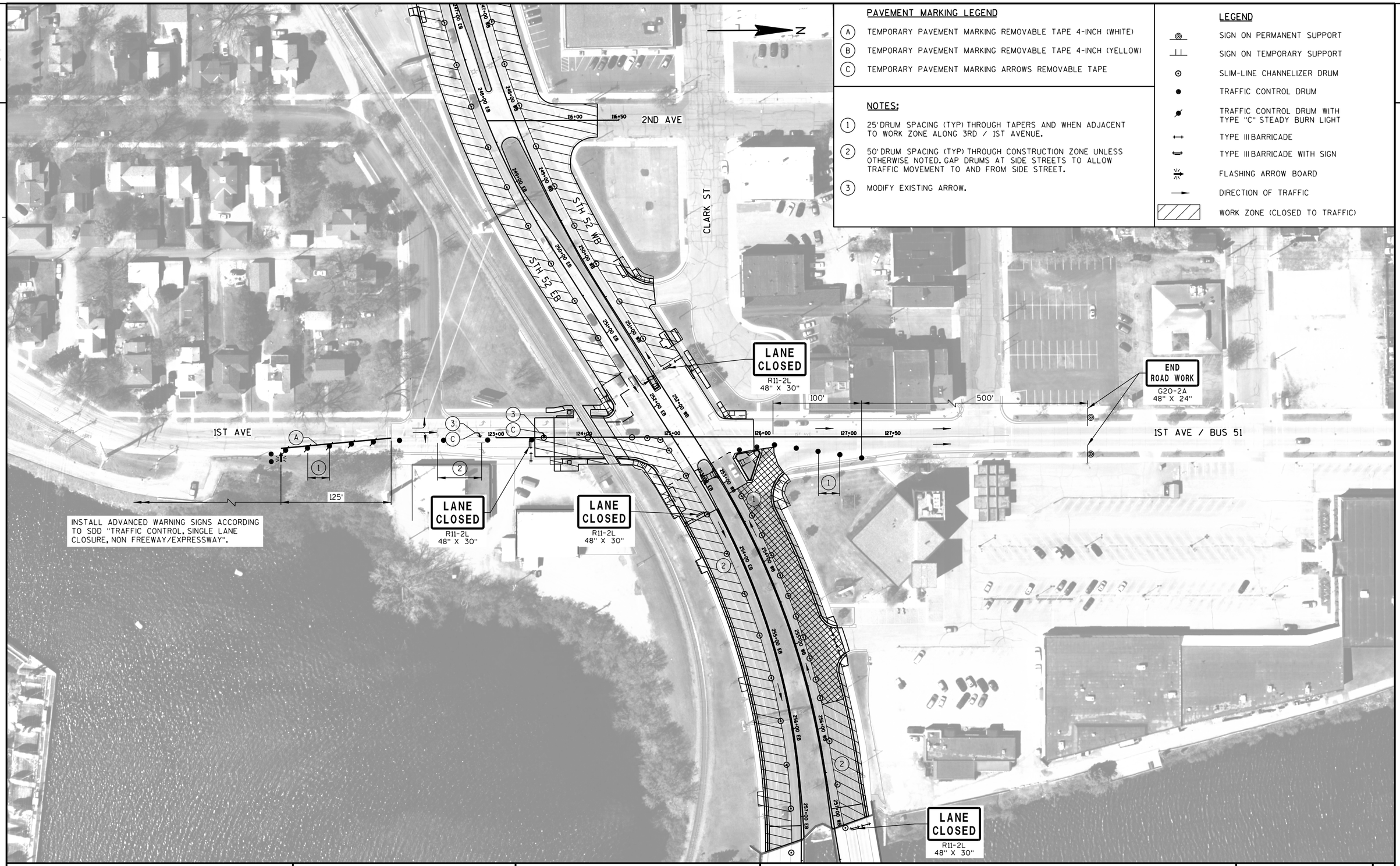
2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD / 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROW.

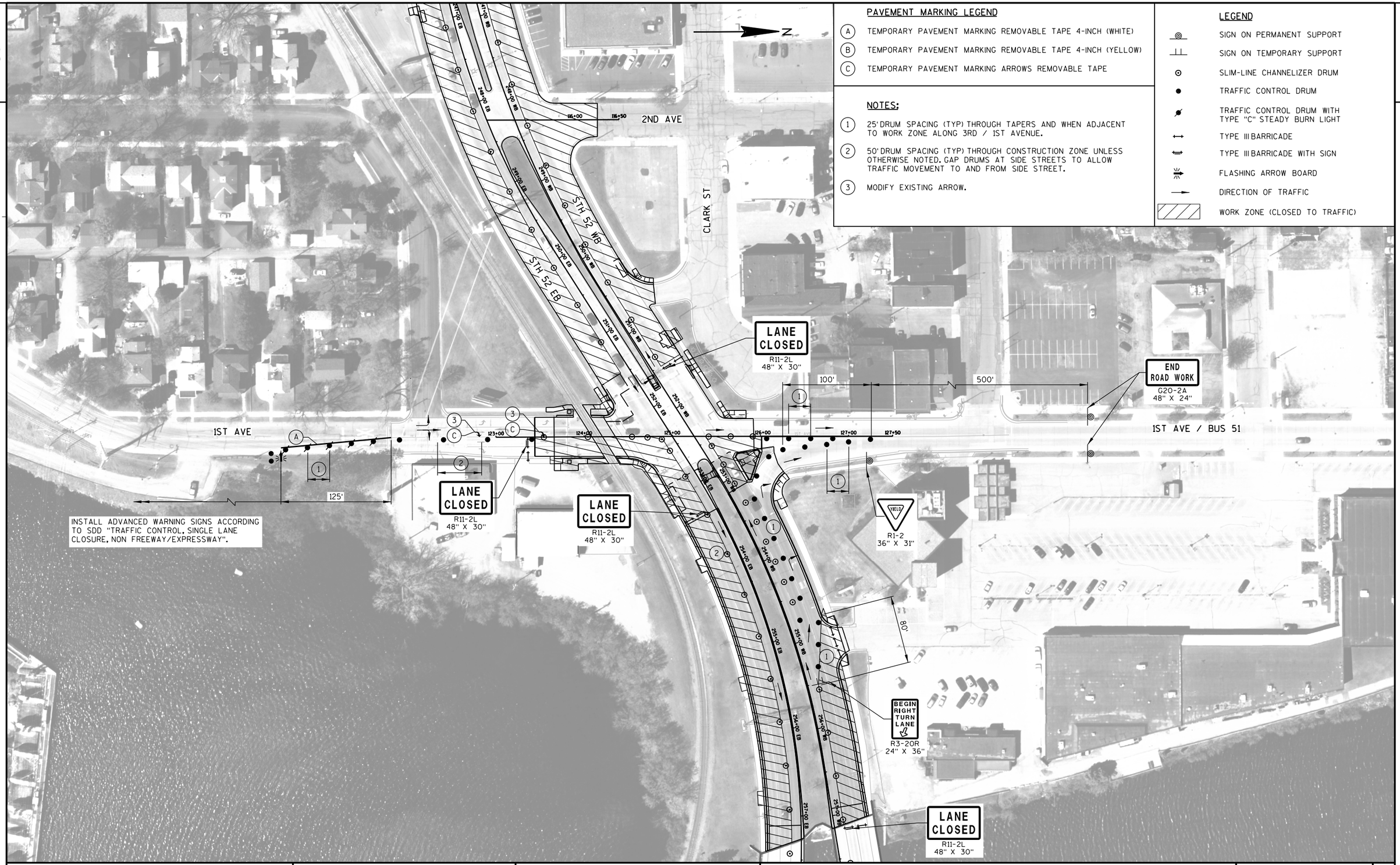
LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

2

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1A	SHEET 24	E

2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD / 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROW.

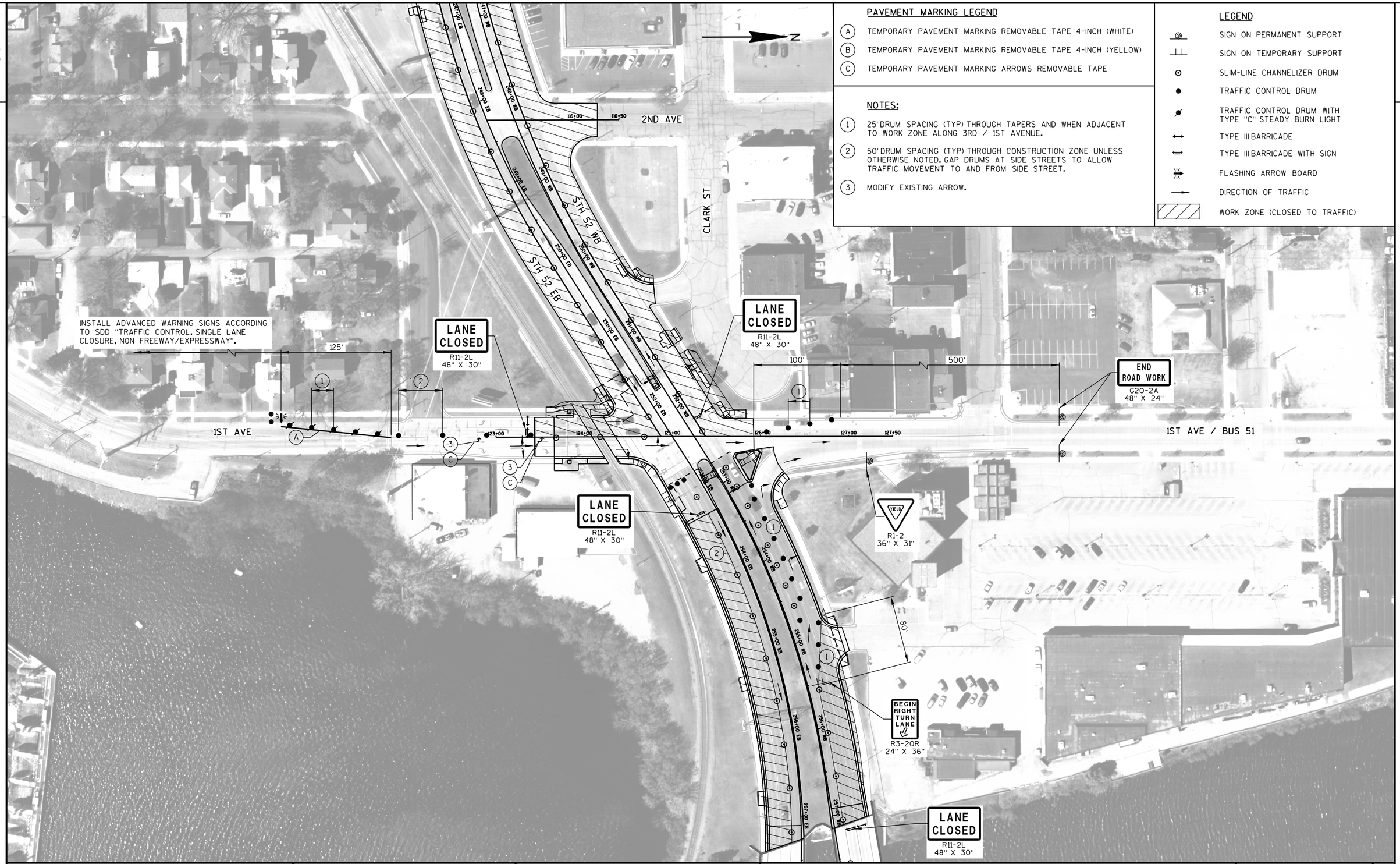
LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

2

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1B	SHEET 25	E

2



PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD / 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROW.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)

PROJECT NO: 6999-03-79, 80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - 1ST AVE STAGE 1C	SHEET 26	E

2

PAVEMENT MARKING LEGEND

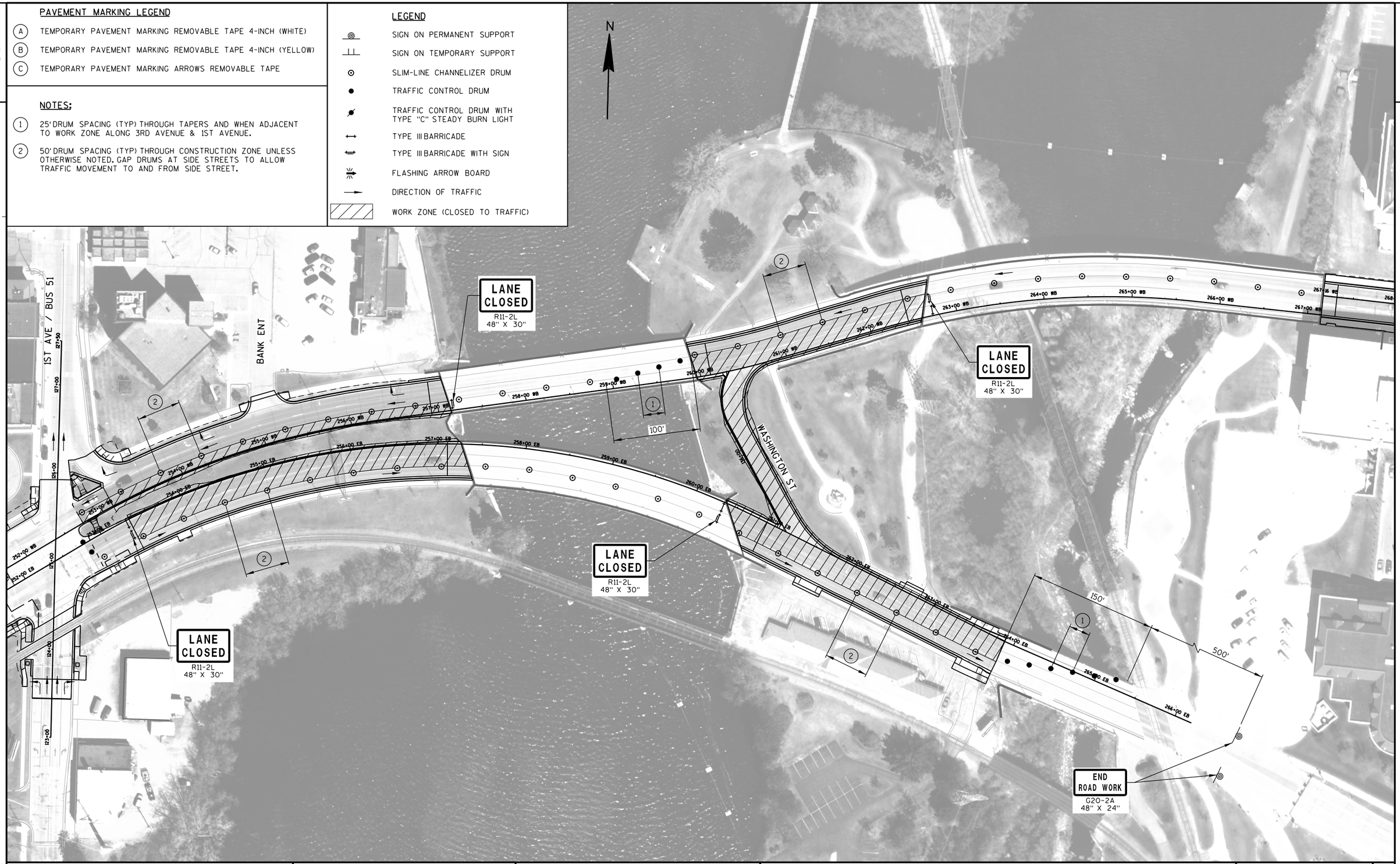
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2	SHEET 27	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\6999-03-80 (EB Conc Pavt)\TCSTH5205_STG2.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

DATE 11MAR16 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	6999-03-80 QUANTITY
0010	204.0100	Removing Pavement	SY	7,079.000	7,079.000
0050	204.0155	Removing Concrete Sidewalk	SY	446.000	446.000
0060	204.0195	Removing Concrete Bases	EACH	1.000	1.000
0080	204.0220	Removing Inlets	EACH	9.000	9.000
0090	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	16.000	16.000
0100	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	89.000	89.000
0110	204.0245	Removing Storm Sewer (size) 03. 24-Inch	LF	39.000	39.000
0140	204.0291.S	Abandoning Sewer	CY	4.000	4.000
0150	205.0100	Excavation Common	CY	1,861.000	1,861.000
0180	213.0100	Finishing Roadway (project) 02. 6999-03-80	EACH	1.000	1.000
0210	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	397.000	397.000
0250	415.0085	Concrete Pavement 8 1/2-Inch	SY	4,986.000	4,986.000
0260	415.0410	Concrete Pavement Approach Slab	SY	464.000	464.000
0270	415.1085	Concrete Pavement HES 8 1/2-Inch	SY	933.000	933.000
0280	416.0160	Concrete Driveway 6-Inch	SY	76.000	76.000
0290	416.0610	Drilled Tie Bars	EACH	13.000	13.000
0300	416.0620	Drilled Dowel Bars	EACH	126.000	126.000
0310	440.4410	Incentive IRI Ride	DOL	1,829.000	1,829.000
0360	465.0105	Asphaltic Surface	TON	13.000	13.000
0370	465.0125	Asphaltic Surface Temporary	TON	7.000	7.000
0380	520.8000	Concrete Collars for Pipe	EACH	7.000	7.000
0390	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	859.000	859.000
0400	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	1,971.000	1,971.000
0420	602.0410	Concrete Sidewalk 5-Inch	SF	3,917.000	3,917.000
0430	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	10.000	10.000
0440	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	16.000	16.000
0450	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	110.000	110.000
0460	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	39.000	39.000
0490	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0500	611.0430	Reconstructing Inlets	EACH	1.000	1.000
0530	611.0624	Inlet Covers Type H	EACH	3.000	3.000
0540	611.0639	Inlet Covers Type H-S	EACH	2.000	2.000
0550	611.0666	Inlet Covers Type Z	EACH	3.000	3.000
0560	611.1003	Catch Basins 3-FT Diameter	EACH	1.000	1.000
0570	611.1004	Catch Basins 4-FT Diameter	EACH	2.000	2.000
0590	611.1230	Catch Basins 2x3-FT	EACH	3.000	3.000
0610	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0620	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000
0640	611.8110	Adjusting Manhole Covers	EACH	7.000	7.000
0650	611.8115	Adjusting Inlet Covers	EACH	7.000	7.000
0660	611.9710	Salvaged Inlet Covers	EACH	1.000	1.000
0670	619.1000	Mobilization	EACH	0.250	0.250
0680	620.0300	Concrete Median Sloped Nose	SF	24.000	24.000
0690	624.0100	Water	MGAL	20.000	20.000
0700	625.0100	Topsoil	SY	548.000	548.000
0730	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0740	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0750	628.2008	Erosion Mat Urban Class I Type B	SY	548.000	548.000
0760	628.7005	Inlet Protection Type A	EACH	24.000	24.000
0770	628.7015	Inlet Protection Type C	EACH	24.000	24.000

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DATE 11MAR16 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	6999-03-80 QUANTITY
0780	630.0140	Seeding Mixture No. 40	LB	9.900	9.900
0790	630.0200	Seeding Temporary	LB	15.000	15.000
0800	631.0300	Sod Water	MGAL	13.200	13.200
0820	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	4.000	4.000
0830	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	2.000	2.000
0840	637.1220	Signs Type I Reflective SH	SF	168.000	168.000
0850	637.2210	Signs Type II Reflective H	SF	104.050	104.050
0870	637.2230	Signs Type II Reflective F	SF	14.140	14.140
0890	638.2602	Removing Signs Type II	EACH	14.000	14.000
0900	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0910	642.5201	Field Office Type C	EACH	0.200	0.200
0930	643.0100	Traffic Control (project) 02. 6999-03-80	EACH	1.000	1.000
0950	643.0300	Traffic Control Drums	DAY	10,650.000	10,650.000
0960	643.0410	Traffic Control Barricades Type II	DAY	840.000	840.000
0970	643.0420	Traffic Control Barricades Type III	DAY	1,120.000	1,120.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	1,670.000	1,670.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	840.000	840.000
1010	643.0900	Traffic Control Signs	DAY	930.000	930.000
1030	644.1420.S	Temporary Pedestrian Surface Plywood	SF	200.000	200.000
1040	644.1601.S	Temporary Curb Ramp	EACH	4.000	4.000
1050	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,366.000	1,366.000
1070	646.0126	Pavement Marking Epoxy 8-Inch	LF	172.000	172.000
1080	646.0690.S	Removing Pavement Markings Water Blasting	LF	600.000	600.000
1110	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	2.000	2.000
1150	647.0336	Pavement Marking Symbols Bike Shared Lane Epoxy	EACH	9.000	9.000
1160	647.0356	Pavement Marking Words Epoxy	EACH	1.000	1.000
1180	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	18.000	18.000
1210	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	56.000	56.000
1250	649.0600	Temporary Pavement Marking Removable Tape 6-Inch	LF	110.000	110.000
1290	650.4000	Construction Staking Storm Sewer	EACH	9.000	9.000
1330	650.7000	Construction Staking Concrete Pavement	LF	1,609.000	1,609.000
1360	650.8500	Construction Staking Electrical Installations (project) 02. 6999-03-80	LS	1.000	1.000
1390	650.9910	Construction Staking Supplemental Control (project) 02. 6999-03-80	LS	1.000	1.000
1420	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	52.000	52.000
1480	652.0700.S	Install Conduit into Existing Item	EACH	2.000	2.000
1530	653.0905	Removing Pull Boxes	EACH	1.000	1.000
2080	690.0150	Sawing Asphalt	LF	151.000	151.000
2090	690.0250	Sawing Concrete	LF	2,875.000	2,875.000
2100	715.0415	Incentive Strength Concrete Pavement	DOL	1,635.000	1,635.000
2110	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	260.000	260.000
2120	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	130.000	130.000
2130	SPV.0030	Special 01. Fertilizer For Lawn Type Turf	CWT	0.400	0.400
2140	SPV.0060	Special 01. Adjusting Valve Boxes	EACH	2.000	2.000
2200	SPV.0060	Special 07. Repairing Storm Sewer Structures	EACH	5.000	5.000
2210	SPV.0060	Special 08. Bench	EACH	1.700	1.700

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DATE 11MAR16 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	6999-03-80 QUANTITY
2250	SPV.0060	Special 54. Pull Box Non-conductive 24X42-Inch	EACH	1.000	1.000
2290	SPV.0090	Special 01. Concrete Curb & Gutter 42-Inch Type A	LF	219.000	219.000
2320	SPV.0090	Special 04. Diagonal Epoxy 4-Inch	LF	343.000	343.000
2360	SPV.0090	Special 52. Furnish and Install Equivalent Lighting Conductors	LF	2,300.000	2,300.000
2380	SPV.0105	Special 02. Concrete Pavement Joint Layout 6999-03-80	LS	1.000	1.000
2410	SPV.0105	Special 05. Research and Locate Existing Property Monuments 6999-03-80	LS	1.000	1.000
2440	SPV.0105	Special 08. Verify and Replace Existing Property Monuments 6999-03-80	LS	1.000	1.000
2570	SPV.0180	Special 01. Preparing Topsoil For Lawn Type Turf	SY	548.000	548.000

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REMOVING PAVEMENT

STATION - STATION	LOCATION	204.0100 SY
STAGE 1		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	1440
259+95.78 - 262+59.70	LT & RT	492
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	LT & RT	696
260+38.38 - 263+88.72	LT & RT	616
STAGE 2		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	547
259+95.78 - 262+59.70	LT & RT	738
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	LT & RT	1044
260+38.38 - 263+88.72	LT & RT	925
WASHINGTON STREET		
135+00 - 137+01.47	LT & RT	581
ITEM TOTAL		7079

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 SY
STAGE 1		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	64
259+95.78 - 262+59.70	LT & RT	61
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	LT & RT	96
260+38.38 - 263+88.72	LT & RT	112
STAGE 2		
STH 52 WB (STEWART AVE)		
259+95.78 - 262+59.70	LT & RT	41
STH 52 EB (STEWART AVE)		
260+38.38 - 263+88.72	LT & RT	72
ITEM TOTAL		446

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
STAGE 1		
STH 52 EB (STEWART AVE)		
263+62.33	RT	1
263+85.86	RT	1
STAGE 2		
STH 52 WB (STEWART AVE)		
256+28.74	RT	1
260+74.92	RT	1
STH 52 EB (STEWART AVE)		
260+96.00	LT	1
263+52.21	LT	1
263+62.77	LT	1
WASHINGTON STREET		
135+18.91	LT	1
135+19.67	LT	1
ITEM TOTAL		9

REMOVING STORM SEWER

STATION - STATION	LOCATION	204.0245.01 12-INCH LF	204.0245.02 18-INCH LF	204.0245.03 24-INCH LF
STAGE 1				
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	LT & RT		12	
STAGE 2				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT	16		
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	LT & RT		41	39
WASHINGTON STREET				
135+00 - 137+01.47	LT & RT		36	
ITEM TOTAL		16	89	39

ABANDONING SEWER

STATION	LOCATION	204.0291.S CY
STAGE 1		
STH 52 EB (STEWART AVE)		
263+90	RT	4
ITEM TOTAL		4

STREET LIGHTING REMOVALS

LOCATION / ITEM	STATION	L/R	204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULL BOXES EACH
STH 52 & WASHINGTON ST				
EXPB100	260+46'WB'	R	1	1
ITEM TOTAL			1*	1*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

EARTHWORK SUMMARY

DIVISION	STATION - STATION	LOCATION	(1) 205.0100 EXCAVATION COMMON CY	SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(2) AVAILABLE MATERIAL CY	(3) UNEXPANDED FILL CY	(4) EXPANDED FILL CY	(5) 208.0100 BORROW CY	(6) MASS ORDINATE CY	WASTE CY
DIVISION 1										
STAGE 1	STH 52 EB (STEWART AVE)									
	253+35.81 - 257+26.36	LT & RT	223	164	59	0	0	0	59	59
	260+38.38 - 263+88.72	LT & RT	191	145	46	0	0	0	46	46
	STH 52 WB (STEWART AVE)									
	253+13.21 - 257+14.10	LT & RT	310	305	5	1	1	0	4	4
	259+95.78 - 262+59.70	LT & RT	131	125	6	0	0	0	6	6
DIVISION 1 SUBTOTAL			855	739	116	1	1	0	115	115
DIVISION 2										
STAGE 2	STH 52 EB (STEWART AVE)									
	253+35.81 - 257+26.36	LT & RT	257	247	10	0	0	0	10	10
	260+38.38 - 263+88.72	LT & RT	219	218	1	0	0	0	1	1
	STH 52 WB (STEWART AVE)									
	253+13.21 - 257+14.10	LT & RT	161	145	16	0	0	0	16	16
	259+95.78 - 262+59.70	LT & RT	159	155	4	0	0	0	4	4
	WASHINGTON STREET									
	135+00 - 137+01.47	LT & RT	210	138	72	0	0	0	72	72
DIVISION 2 SUBTOTAL			1006	903	103	0	0	0	103	103
ITEM TOTAL			1861	1642	219	1	1	0	218	218

(1) EXCAVATION COMMON, ITEM NUMBER 205.0100, IS THE TOTAL VOLUME OF CUT AND INCLUDES THE UNUSABLE PAVEMENT MATERIAL.
(2) SALVAGED/UNUSABLE MATERIAL IS INCLUDED IN THE EXCAVATION COMMON
(3) AVAILABLE MATERIAL = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL.
(4) EXPANDED FILL FACTOR = 1.30
(5) BORROW MATERIAL.
(6) THE MASS ORDINATE + OR - QTY FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL AND A MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
THE MASS ORDINATE IS = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL - EXPANDED FILL.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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BASE COURSE ITEMS

STATION - STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
STAGE 1			
STH 52 WB (STEWART AVE)			
254+60 - 255+70	LT	9	BASE AGGREGATE UNDER TEMPORARY ASPHALT
255+12.60	LT	8	
STH 52 EB (STEWART AVE)			
260+38.38 - 263+88.72	RT	10	
UNDISTRIBUTED		142	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
STAGE 2			
STH 52 EB (STEWART AVE)			
260+38.38 - 263+88.72	LT	2	
WASHINGTON STREET			
135+00 - 137+01.47	LT & RT	13	
UNDISTRIBUTED		213	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
ITEM TOTAL		397	

DRILLED TIE BARS

STATION	LOCATION	416.0610 EACH
STAGE 1		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	13
ITEM TOTAL		13

DRILLED DOWEL BARS

STATION	LOCATION	416.0620 EACH
STAGE 1		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	36
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	LT & RT	14
260+38.38 - 263+88.72	RT	16
STAGE 2		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	12
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	LT & RT	24
260+38.38 - 263+88.72	LT & RT	24
ITEM TOTAL		126

3

CONCRETE PAVEMENT

STATION - STATION	LOCATION	415.0085 8 1/2-INCH SY	415.0410 APPROACH SLAB SY	415.1085 HES 8 1/2-INCH SY
STAGE 1				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10		383		933
259+95.78 - 262+59.70		398		
256+91.87			46	
260+11.42			29	
262+44.03			37	
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36		575		
260+38.38 - 263+88.72		478		
257+10.68 EB			28	
260+87.56 EB			34	
WASHINGTON STREET				
135+00 - 137+01.47				
STAGE 2				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT	386		
259+95.78 - 262+59.70	LT & RT	626		
256+91.87	LT		30	
260+11.42	LT		44	
262+44.03	LT		56	
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36	LT & RT	902		
260+38.38 - 263+88.72	LT & RT	748		
257+10.68 EB	RT		59	
260+87.56 EB	RT		101	
WASHINGTON STREET				
135+00 - 137+01.47	LT & RT	490		
ITEM TOTAL		4986	464	933

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
STAGE 1		
STH 52 EB (STEWART AVE)		
260+38.38 - 263+88.72	RT	55
STAGE 2		
STH 52 EB (STEWART AVE)		
260+38.38 - 263+88.72	LT	21
ITEM TOTAL		76

ASPHALTIC SURFACE

STATION	LOCATION	465.0105 TON	465.0125 TEMPORARY TON	REMARKS
STAGE 1				
STH 52 WB (STEWART AVE)				
254+60 - 255+70	LT		7	ASPHALT FOR TRAFFIC CONTROL STAGE 1
255+12	LT	4		
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	RT	8		
STAGE 2				
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	LT	1		
ITEM TOTAL		13	7	

CONCRETE COLLARS FOR PIPE

STATION - STATION	LOCATION	520.8000 EACH
STAGE 2		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT & RT	2
STH 52 EB (STEWART AVE)		
260+38.38 - 263+88.72	LT & RT	4
WASHINGTON STREET		
135+00 - 137+01.47	RT	1
ITEM TOTAL		7

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONCRETE CURB & GUTTER

STATION - STATION	LOCATION	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	SPV.0090.01 42-INCH TYPE A LF
STAGE 1				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT		390	
259+95.78 - 262+59.70	LT & RT		281	
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36	RT		385	
260+38.38 - 263+88.72	LT & RT		281	
STAGE 2				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT	345		56
259+95.78 - 262+59.70	LT & RT		182	30
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36	LT & RT	328		63
260+38.38 - 263+88.72	LT & RT		182	70
WASHINGTON STREET				
135+00 - 137+01.47	LT & RT	186	270	
ITEM TOTAL		859	1971	219

CONCRETE SIDEWALK 5-INCH

STATION - STATION	LOCATION	602.0410 SF
STAGE 1		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT	597
259+95.78 - 262+59.70	LT & RT	556
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	RT	870
260+38.38 - 263+88.72	LT & RT	533
STAGE 2		
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT	
259+95.78 - 262+59.70	LT & RT	929
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	RT	
260+38.38 - 263+88.72	LT	432
ITEM TOTAL		3917

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STATION - STATION	LOCATION	602.0515 SF
STAGE 1		
STH 52 (STEWART AVE)		
253+29.48 WB	LT	10
ITEM TOTAL		10

STORM SEWER PIPE

STATION - STATION	LOCATION	608.0312 REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 REINFORCED CONCRETE CLASS III 24-INCH LF
STAGE 1				
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	LT & RT		44	
STAGE 2				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT	16		
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	LT & RT		29	39
WASHINGTON STREET				
135+00 - 137+01.47			37	
ITEM TOTAL		16	110	39

3

STORM SEWER STRUCTURE ITEMS

STATION - STATION	LOCATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0666 INLET COVERS TYPE Z EACH	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115 ADJUSTING INLET COVERS EACH	611.9710 SALVAGED INLET COVERS EACH	SPV.0060.07 REPAIRING STORM SEWER STRUCTURES EACH
STAGE 1															
STH 52 WB (STEWART AVE)															
253+13.21 - 257+14.10	LT & RT											1	2		
259+95.78 - 262+59.70	LT & RT														3
STH 52 EB (STEWART AVE)															
253+35.81 - 257+26.36	LT & RT	1										1	2		
260+38.38 - 263+88.72	LT & RT			1					2				1	1	
STAGE 2															
STH 52 WB (STEWART AVE)															
253+13.21 - 257+14.10	LT & RT		1			1	1								
259+95.78 - 262+59.70	LT & RT			1				1					1		1
STH 52 EB (STEWART AVE)															
253+35.81 - 257+26.36	LT & RT												1		1
260+38.38 - 263+88.72	LT & RT				2	1				1	2				
WASHINGTON STREET															
135+00 - 137+01.47	LT & RT			1		1		1	1						
ITEM TOTAL		1	1	3	2	3	1	2	3	1	2	2*	7	1	5

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

UTILITY STRUCTURE ITEMS

STATION - STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.01 ADJUSTING VALVE BOXES EACH	REMARKS
CATEGORY 0020				
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	RT		1	WATER VALVE BOXES FURNISHED BY CITY IF NECESSARY
259+95.78 - 262+59.70	LT	1		
STH 52 EB (STEWART AVE)				
260+38.38 - 263+88.72	RT	3		
WASHINGTON STREET				
135+00 - 137+01.47	RT	1	1	WATER VALVE BOXES FURNISHED BY CITY IF NECESSARY
ITEM TOTAL		5*	2	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

CONCRETE MEDIAN SLOPED NOSE

STATION - STATION	LOCATION	620.0300 SF
STAGE 2		
STH 52 (STEWART AVE)		
260+29.49 WB	RT	24
ITEM TOTAL		24

WATER

STATION - STATION	LOCATION	624.0100 MGAL
UNDISTRIBUTED	LT & RT	20
ITEM TOTAL		20

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT			256
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36	RT			102
260+38.38 - 263+88.72	LT & RT			21
WASHINGTON STREET				
135+00 - 137+01.47	LT & RT			119
UNDISTRIBUTED		3	2	50
ITEM TOTAL		3	2	548

TURF ESTABLISHMENT ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY
STH 52 WB (STEWART AVE)							
253+13.21 - 257+14.10	LT & RT	256	4.6		5.7	0.16	256
STH 52 EB (STEWART AVE)							
253+35.81 - 257+26.36	RT	102	1.8		2.3	0.06	102
260+38.38 - 263+88.72	LT & RT	21	0.4		0.5	0.01	21
WASHINGTON STREET							
135+00 - 137+01.47	LT & RT	119	2.1		2.7	0.07	119
UNDISTRIBUTED		50	1.0	15.0	2.0	0.10	50
ITEM TOTAL		548	9.9	15.0	13.2	0.40	548

INLET PROTECTION

STATION - STATION	LOCATION	628.7005 TYPE A EACH	628.7015 TYPE C EACH
STH 52 WB (STEWART AVE)			
253+13.21 - 259+95.78	LT & RT	5	5
259+95.78 - 267+15.53	LT & RT	6	6
STH 52 EB (STEWART AVE)			
253+35.81 - 260+38.38	LT & RT	5	5
260+38.38 - 265+50.00	LT & RT	6	6
WASHINGTON STREET			
135+00 - 137+01.47	LT & RT	2	2
ITEM TOTAL		24	24

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

PERMANENT SIGNING ITEMS

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	637.1220 SIGNS TYPE I REFLECTIVE SH SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
8-1	R1-2	RIGHT TURN OBEY THIS SIGN	24 X 30		5.00				1		BAND TO STREET LIGHT
	R1-2	YIELD	36 X 31		3.88						BAND TO STREET LIGHT
8-2	J3-1	WEST 52/ARROW	24 X 57		9.50			1	1	1	
8-3	JV	NORTH BUS 51 ARROW	24 X 69		11.50				1		BAND TO STREET LIGHT
8-4	R1-1	STOP	36 X 36		7.46		1				
8-5	JV	NORTH BUS 51	24 X 48		8.00				1		BAND TO STREET LIGHT
	R3-54R	USE RIGHT LANE	24 X 24		4.00						BAND TO STREET LIGHT
8-6	JV	EAST 52 / SOUTH BUS 51	48 X 48		16.00				1		BAND TO STREET LIGHT
8-7	R2-1	SPEED LIMIT 25	24 X 30		5.00				1		BAND TO STREET LIGHT
8-8	R2-1	SPEED LIMIT 25	24 X 30		5.00				1		BAND TO STREET LIGHT
8-9	E SERIES	DOWNTOWN ONLY ARROW	120 X 72	60.00					1		BAND TO OVERHEAD SIGN SUPPORT
	E SERIES	52 BUS 51 AHEAD	96 X 72	48.00							BAND TO OVERHEAD SIGN SUPPORT
	E SERIES	RIVER DR USE RIGHT LANE	120 X 72	60.00							BAND TO OVERHEAD SIGN SUPPORT
9-1	R1-1	STOP	36 X 36		7.46			1	1	1	
	R6-2L	ONE WAY ARROW	24 X 30		5.00						
9-2	R5-1	DO NOT ENTER	30 X 30		6.25		1		1	1	
9-3	W10-1	RAILROAD	36 X 36			7.07			1		BAND TO STREET LIGHT
9-4	R6-2R	ONE WAY ARROW	24 X 30		5.00		1		1	1	
9-5	W10-1	RAILROAD	36 X 36			7.07			1		BAND TO STREET LIGHT
9-6	R6-2L	ONE WAY ARROW	24 X 30		5.00		1		1	1	
ITEM TOTAL				168.00	104.05	14.14	4	2	14	5	

3

TRAFFIC CONTROL

STATION - STATION	LOCATION	643.0300 DRUMS DAY	643.0410 BARRICADES TYPE II DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS DAY
STAGE 1							
STH 52 WB (STEWART AVE)	LT & RT	4200	840	490	700	840	350
STH 52 EB (STEWART AVE)	LT & RT	2450		280	420		280
STAGE 2							
STH 52 WB (STEWART AVE)	RT	2000		150	250		100
STH 52 EB (STEWART AVE)	LT & RT	2000		200	300		200
ITEM TOTAL		10650	840	1120	1670	840	930

TEMPORARY PEDESTRIAN ITEMS

STATION - STATION	LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH
STAGE 1			
STH 52 WB (STEWART AVE)			
253+13.21 - 257+14.10	LT	200	4
ITEM TOTAL		200	4

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH (WHITE) LF	646.0126 EPOXY 8-INCH (WHITE) LF	647.0166 ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0336 SYMBOLS BIKE SHARED LANE EPOXY EACH	647.0356 WORDS EPOXY "ONLY" EACH	647.0566 STOP LINE EPOXY 18-INCH LF	647.0766 CROSSWALK EPOXY 6-INCH LF	SPV.0090.04 DIAGONAL EPOXY 4-INCH (WHITE) LF
STH 52 WB (STEWART AVE)									
253+13.21 - 259+95.78	LT & RT	485	172	2	2	1		56	343
259+95.78 - 267+15.53	LT & RT	362			3				
STH 52 EB (STEWART AVE)									
253+35.81 - 260+38.38	LT & RT	351			3				
260+38.38 - 265+50.00	LT & RT	168			1				
WASHINGTON STREET									
135+00 - 137+01.47	LT & RT						18		
ITEM TOTAL		1366	172	2	9	1	18	56	343

TEMPORARY PAVEMENT MARKING

STATION - STATION	LOCATION	649.0600 REMOVABLE TAPE 6-INCH (WHITE) LF
1ST AVENUE	LT & RT	110
ITEM TOTAL		110

3

BENCH

STATION - STATION	LOCATION	SPV.0060.08 EACH
CATEGORY 0030		
W WASHINGTON ST / RIVER DR / N 1ST ST	SW CORNER	1.7
ITEM TOTAL		1.7

STREET LIGHTING CONDUIT

LOCATION	FROM - TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH
STH 52 & WASHINGTON STREET			
	PB100 - EXLP200	25	
	PB100 - EXIST	14	1
	PB100 - EXIST	13	1
ITEM TOTAL		52*	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

LIGHTING PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	SPV.0060.54 PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
STH 52 & WASHINGTON STREET				
PB100	260+49'WB'	30.6'	R	1
ITEM TOTAL				1*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

REMOVING PAVEMENT MARKINGS WATER BLASTING

STATION - STATION	LOCATION	646.0690.S LF	REMARKS
STH 52 WB (STEWART AVE)			
253+13.21 - 259+95.78	LT & RT	125	BRIDGE DECK SURFACE
259+95.78 - 267+15.53	LT & RT	225	BRIDGE DECK SURFACE
STH 52 EB (STEWART AVE)			
253+35.81 - 260+38.38	LT & RT	175	BRIDGE DECK SURFACE
260+38.38 - 265+50.00	LT & RT	75	BRIDGE DECK SURFACE
ITEM TOTAL		600	

SAWING CONCRETE

STATION - STATION	LOCATION	690.0250 LF
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT	606
259+95.78 - 262+59.70	LT & RT	734
STH 52 EB (STEWART AVE)		
253+35.81 - 257+26.36	RT	770
260+38.38 - 263+88.72	LT & RT	765
ITEM TOTAL		2875

STREET LIGHTING WIRE - BELOW GROUND

LOCATION	FROM - TO	SPV.0090.52 FURNISH AND INSTALL EQUIVALENT LIGHTING CONDUCTORS LF
STH 52 & WASHINGTON STREET		
	EXISTING - PB100	750
	EXISTING - PB100	1500
	PB100 - EXLP200	50
ITEM TOTAL		2300*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4000 STORM SEWER EACH	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS LS
STH 52 WB (STEWART AVE)				
253+13.21 - 257+14.10	LT & RT	1	401	
259+95.78 - 262+59.70	LT & RT	1	264	
STH 52 EB (STEWART AVE)				
253+35.81 - 257+26.36	LT & RT		391	
260+38.38 - 263+88.72	LT & RT	5	351	
WASHINGTON STREET				
135+00 - 137+01.47	LT & RT	2	202	1
ITEM TOTAL		9	1609	1

SAWING ASPHALT

STATION - STATION	LOCATION	690.0150 LF
STH 52 WB (STEWART AVE)		
253+13.21 - 257+14.10	LT	28
STH 52 EB (STEWART AVE)		
260+38.38 - 263+88.72	LT & RT	123
ITEM TOTAL		151

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
SHEET 2 OF 2

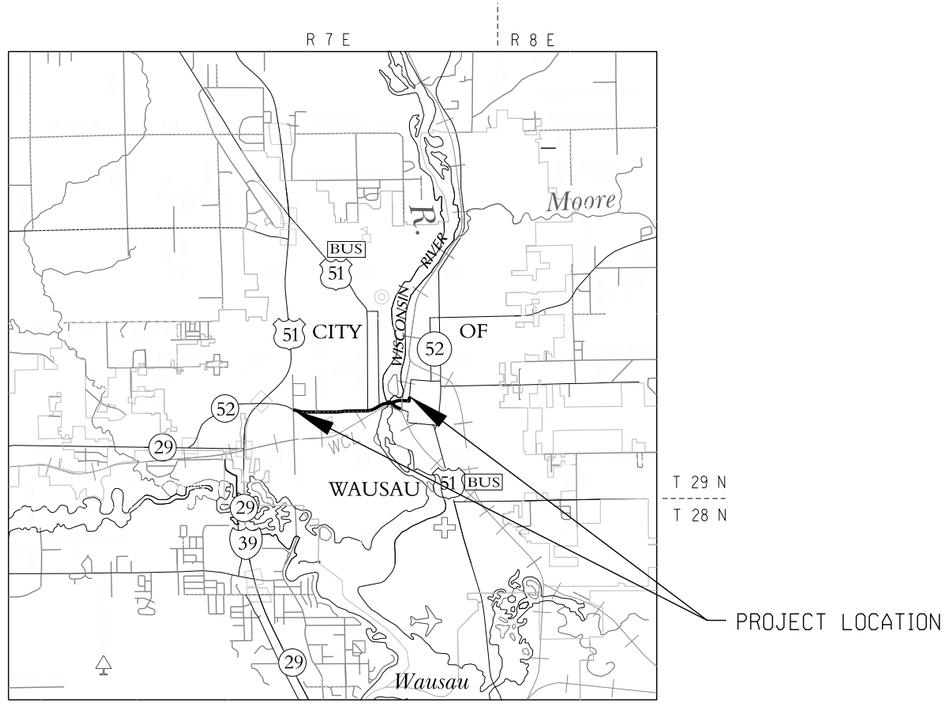
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 6999-03-28

C WAUSAU, HIGHWAY 52
17TH AVENUE TO FIRST STREET

STH 52
MARATHON COUNTY



LAYOUT
SCALE 0 1 MI.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MARATHON COUNTY, NAD 83, 2007, IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD". DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT-OF-WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 52 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38), 6999-01-04 AND 6999-01-57 .
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM RECORDED PLATS.
EXISTING ACCESS CONTROL ALONG USH 18, STH 60 AND STH 35 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38) AND 6999-01-04.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4"x24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT, DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
		POINT OF REVERSE CURVE	PRC

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP (1" UNLESS NOTED)	PROPOSED R/W LINE
		EXISTING H.E. LINE
R/W MONUMENT	●(SET)	PROPERTY LINE
R/W STANDARD	▲(SET)	LOT & TIE LINES
SIGN	ISIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT		CORPORATE LIMITS
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)		NO ACCESS (BY ACQUISITION)
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT		SECTION LINE
R/W BOUNDARY POINT	RWB20	QUARTER LINE
PARCEL NUMBER	103	SIXTEENTH LINE
UTILITY PARCEL NUMBER	32	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE)	21-1	BUILDING TO BE REMOVED
BUILDING		PROPOSED REFERENCE LINE
		PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

cbs2
770 TECHNOLOGY WAY
CH 37 WI 54729

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.01 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.01 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1706675 FILED IN CAB 3 ENV 544B

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF THE SE 1/4 OF THE SE 1/4, SECTION 27, AND PART OF THE NE 1/4 OF THE NE 1/4, SECTION 34, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22 WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
1	WAUSAU SCHOOL DISTRICT	FEE	435	-	435	-	
2	MARATHON COUNTY	TLE	-	-	-	9503	4.02,4.03

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

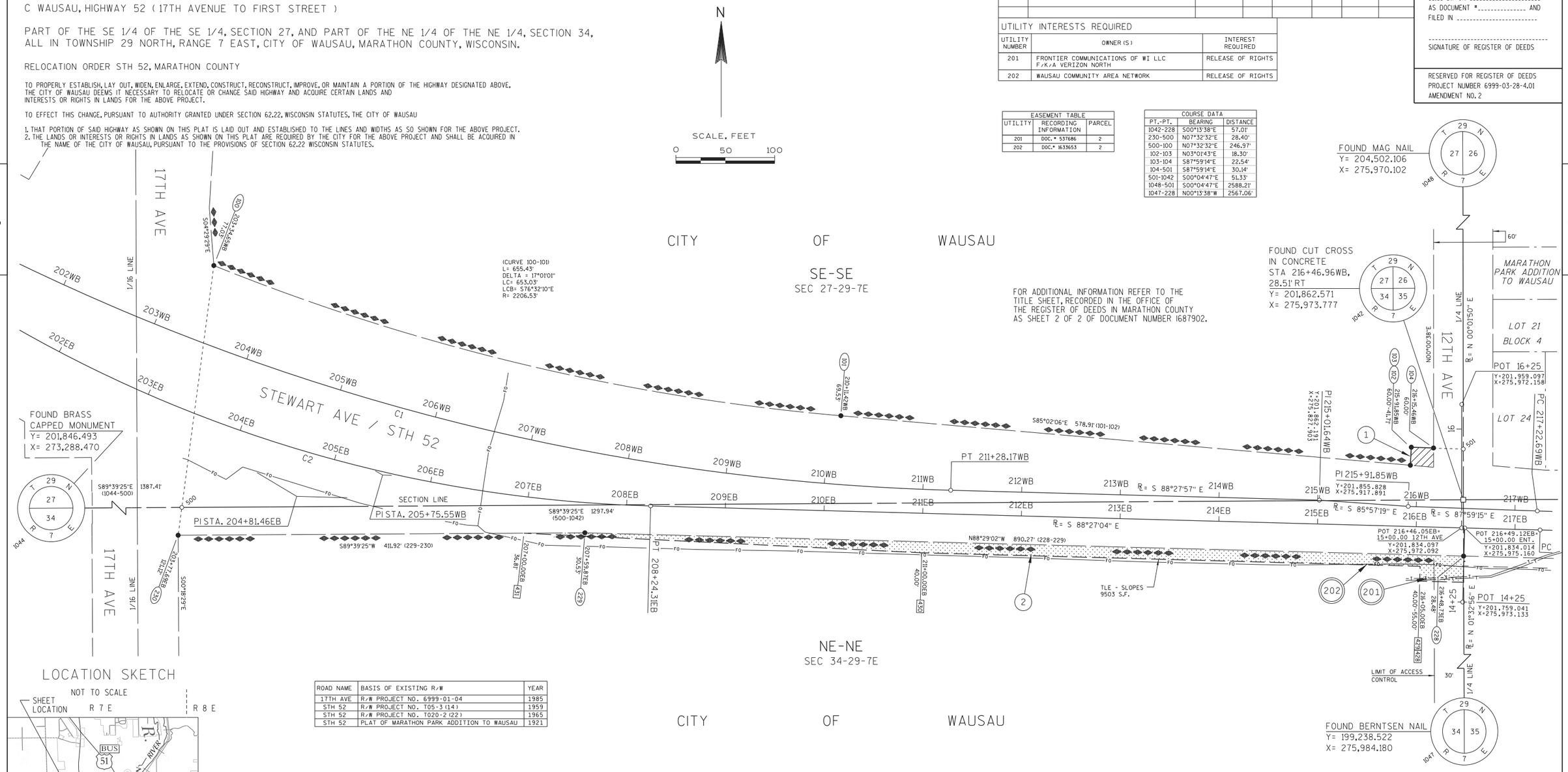
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ___:___ .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
AMENDMENT NO. 2

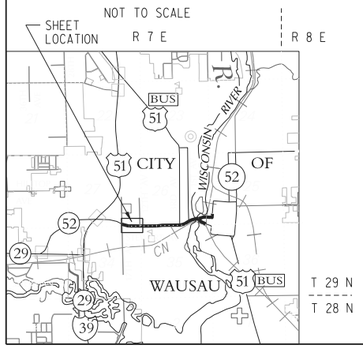
EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC.# 537686	2
202	DOC.# 1633653	2

COURSE DATA		
PT.-PT.	BEARING	DISTANCE
1042-228	S00°13'38"E	57.01'
230-500	N07°32'32"E	28.40'
500-100	N07°32'32"E	246.97'
102-103	N03°01'43"E	18.30'
103-104	S87°59'14"E	22.54'
104-501	S87°59'14"E	30.14'
501-1042	S00°04'47"E	51.33'
1048-501	S00°04'47"E	2588.21'
1047-228	N00°13'38"W	2567.06'



LOCATION SKETCH

NOT TO SCALE



ROAD NAME	BASIS OF EXISTING R/W	YEAR
17TH AVE	R/W PROJECT NO. 6999-01-04	1985
STH 52	R/W PROJECT NO. T05-3 (14)	1959
STH 52	R/W PROJECT NO. T020-2 (22)	1965
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921

CURVE 1
PI STA. 205+75.55WB
Y=201887.600
X=274879.223
DELTA= 27°57'30" LT.
T=575.55'
L=1128.17'
R=2312.00'

CURVE 2
PI STA. 204+81.46EB
Y=201866.000
X=274792.200
DELTA= 29°20'08" LT.
T=358.59'
L=701.44'
R=1370.00'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND REL[illegible] ROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN DUANE A. HOLMAN S-1294 BLOOMER WI LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5201-Amend No.2.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.01 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.02 AMENDMENT NO: 1
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.02
RECORDED AS DOCUMENT NO: 1688150 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 2, MARATHON PARK ADDITION TO WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 26, AND PART OF THE NW 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SW-SW
SEC 26-29-7E

N

SCALE, FEET
0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			TLE S.F.	SHEETS
			NEW	EXISTING	TOTAL		
2	MARATHON COUNTY	TLE	-	-	-	3204	4.01,4.03
-	---	---	-	-	-	----	
4	CREATIVE FINANCE GROUP	FEE/TLE	23	-	23	122	
-	---	---	-	-	-	----	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.02
AMENDMENT NO. 1

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC. # 537686	2
202	DOC. # 1633653	2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921
STH 52	R/W PROJECT NO. T020-2 (22)	1965

FOUND MAG NAIL
Y= 204,502.106
X= 275,970.102

FOUND CUT CROSS IN CONCRETE STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND BERNTSEN NAIL
Y= 199,238.522
X= 275,984.180

FOUND BRASS CAPPED MONUMENT STA 242+43.18EB, 14.59' RT
Y= 201,869.425
X= 278,566.497

CITY OF WAUSAU

NW-NW
SEC 35-29-7E

MARATHON PARK ADDITION TO THE CITY OF WAUSAU

WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU

12TH AVE | 11TH AVE | 10TH AVE | 9TH AVE | 8TH AVE | 1/4 LINE | 1/16 LINE | ALLEY

STEWART AVE / STH 52

POT 16+25 Y=201,959.097 X=275,972.158
POT 26+00 Y=201,930.952 X=276,363.820
POT 36+00 Y=201,932.129 X=276,675.174
POT 46+00 Y=201,933.311 X=276,987.847
POT 56+00 Y=201,947.743 X=277,295.271
PI 55+74.24 Y=201,921.983 X=277,295.271
POT 216+46.05EB+ 15+00.00 12TH AVE Y=201,834.097 X=275,972.092
POT 216+49.12EB+ 15+00.00 ENT. Y=201,834.014 X=275,975.160
POT 14+25 Y=201,759.041 X=275,973.133
POT 220+39.11EB+ 25+00.00 11TH AVE Y=201,830.960 X=276,365.108
POT 223+50.25EB+ 35+00.00 10TH AVE Y=201,832.134 X=276,676.248
POT 226+62.23EB+ 45+00.00 9TH AVE Y=201,833.312 X=276,988.224

PC 217+22.69WB | PT 219+01.00WB | PC 217+25.46EB | PT 218+66.67EB | PISTA. 217+96.07EB | PISTA. 218+11.86WB | PISTA. 228+88.02WB | PISTA. 228+99.95EB | PC 227+67.50WB | PC 227+73.63EB | PT 230+08.03WB | PT 230+25.70EB

TLE - DRIVEWAY 590 S.F.
TLE - SIDEWALK 122 S.F.
TLE - SLOPES 2357 S.F.
TLE - SIDEWALK 257 S.F.

L.H.E. FOR FILL SLOPES ACQUIRED BY DEED 576924 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574806 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574803 UNDER PROJECT T 020-2(22)

(CURVE 226-227)
L= 138.91'
DELTA = 01°43'32"
LC= 138.91'
LCB= N89°20'48"W
R= 4612.16'

LIMIT OF ACCESS CONTROL

* NOTE: 121 TO 225 NOT ON 1/16TH LINE

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1042-502	N00°04'47"W	36.93'
502-106	S85°11'58"E	83.70'
106-117	N89°50'55"E	893.62'
117-239	N49°19'52"E	9.74'
239-118	S84°08'03"E	60.34'
118-120	N89°50'55"E	132.00'
120-121	N85°20'44"E	120.37'
121-503	S00°15'39"E	39.15'
503-225	S00°15'39"E	60.13'
225-226	S89°47'26"W	1079.94'
227-228	N88°29'02"W	77.77'
228-1042	N00°13'38"W	57.01'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
502-105	S85°11'58"E	29.96'
105-106	S85°11'58"E	53.74'
106-107	N89°50'55"E	106.52'
107-108	N89°50'55"E	12.00'
108-109	N89°50'55"E	158.40'
109-110	N89°50'55"E	60.00'
110-111	N89°50'55"E	120.11'
111-112	N89°50'55"E	12.00'
112-113	N89°50'55"E	120.00'
113-114	N89°50'55"E	60.00'
114-115	N89°50'55"E	120.00'
115-116	N89°50'55"E	12.00'
116-117	N89°50'55"E	120.37'
118-119	N89°50'55"E	120.00'
119-120	N89°50'55"E	12.00'
1048-502	S00°04'47"E	2602.61'
1047-228	N00°13'38"W	2567.06'
1042-503	N89°50'55"E	1296.54'
1039-503	S89°50'55"W	1296.19'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1229	201894.19	276766.13	1" IRON PIPE

LOCATION SKETCH
NOT TO SCALE

SHEET LOCATION

T 29 N
T 28 N
R 7 E
R 8 E

CURVE 3
PI STA. 217+96.07EB
Y=201830.042
X=276122.059
DELTA=1°45'54" LT.
T=70.61'
L=141.21'
R=4583.66'

CURVE 4
PI STA. 218+11.86WB
Y=201848.101
X=276137.760
DELTA=2°13'44" LT.
T=89.17'
L=178.31'
R=4583.66'

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR , HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN DUANE A. HOLMAN S-1294 BLOOMER WI LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5202-Amend No.1.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.02 AMENDMENT NO. 1

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.03 AMENDMENT NO: 2
AMENDS UTILITY PARCEL NO: 202 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.03 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1696913 FILED IN CAB 3 ENV 541A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 2, BLOCK 7, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE SE 1/4 OF THE SW 1/4, SECTION 26 AND PART OF LOT 10, BLOCK 12, A. WARREN JR'S. WEST ADDITION AND PART OF LOT 1, CSM NO. 15830, DOCUMENT NO. 1572954 BEING A PART OF LOT 11, BLOCK 11, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE NE 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
2	MARATHON COUNTY	FEE/TLE	70	-	70	106	4.01,4.02
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
5	MICHAEL T. DODGE	TLE	-	-	-	181	
-	-	-	-	-	-	-	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.03
AMENDMENT NO. 2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAN OF A. WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU	1882
STH 52	R/W PROJECT NO. T020-2 (22)	1965

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
202	DOC.# 1633653	2

SE-SW
SEC 26-29-7E

CITY OF WAUSAU

FOUND CUT CROSS IN CONCRETE STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670

T 29 N, R 7 E, SECTIONS 27, 26, 34, 35

MARATHON PARK ADDITION TO WAUSAU

8TH AVE | 7TH AVE | 6TH AVE | 5TH AVE | 4TH AVE

A. WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU

A. STEWART'S ADDITION TO WAUSAU

STEWART AVE / STH 52

BLOCK 12 | BLOCK 11 | BLOCK 10 | BLOCK 9 | BLOCK 8 | BLOCK 7 | BLOCK 6 | BLOCK 5 | BLOCK 1

LOT 1 | LOT 2 | LOT 3 | LOT 4 | LOT 9 | LOT 10 | LOT 11 | LOT 12 | LOT 18 | LOT 19 | LOT 20

CSM VOL 38, P 127

LOT 1 CSM NO. 15830 VOL 72, P 101 DOC. NO. 1572954

POT 56+00 Y=201.947.743 X=277.295.271
POT 66+00 Y=201.981.632 X=277.596.048
POT 76+00 Y=201.982.689 X=277.983.157
POT 86+00 Y=201.983.324 X=278.226.816
POT 96+00 Y=201.983.960 X=278.537.946
POT 64+25 Y=201.896.799 X=277.450.159
POT 74+25 Y=201.807.691 X=277.902.727
POT 84+25 Y=201.808.326 X=278.220.991
POT 94+25 Y=201.808.958 X=278.536.833
PI 155+74.25 Y=201.921.983 X=277.295.271
POT 230+08.03WB
PC 230+89.57WB
PISTA. 232+03.83WB
POT 232+70.57EB+65+00.00 7TH AVE Y=201.881.550 X=277.593.695
POT 232+73.72EB+65+00.00 7TH AVE Y=201.881.635 X=277.596.851
POT 235+80.23EB+75+00.00 6TH AVE Y=201.882.689 X=277.903.357
POT 238+97.48EB+85+00.00 5TH AVE Y=201.883.325 X=278.220.605
POT 242+13.36EB+95+00.00 4TH AVE Y=201.883.958 X=278.536.481
POT 242+14.69EB+95+ Y=201.883.960 X=278.537.816
PI 242+43.32WB Y=201905.017 X=278566.111
PI 242+43.18EB Y=201.884.017 X=278.566.307
POC 229+80.43EB+55+00.00 8TH AVE Y=201.848.485 X=277.305.741
PC 230+55.59EB
PC 230+25.70EB
PISTA. 228+88.02WB
PISTA. 228+99.95EB
PC 227+73.63EB
PISTA. 231+83.28EB

(CURVE 223-224) L= 86.88' DELTA = 03°14'20" LC= 88.87' LCB= N81°57'26"W R= 1572.39'

(CURVE 221-222) L= 165.23' DELTA = 06°22'54" LC= 165.14' LCB= S83°31'43"W R= 1483.39'

L.H.E. FOR FILL SLOPES ACQUIRED BY DEED 576932 UNDER PROJECT T 020-2(22)

L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.*576932 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 577255 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 575978 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.2, R.P.485 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.3, R. P.197 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.* 574588 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED BY VOL.516, D, P.399 UNDER PROJECT T 020-2(22)
L.H.E. FOR RETAINING WALL ACQUIRED UNDER PROJECT T 020-2(22)

TLE - SLOPES 45 S.F.
TLE - SLOPES 61 S.F.
TLE - SLOPES 181 S.F.

LIMIT OF ACCESS CONTROL

* NOTE: 121 TO 225 NOT ON 1/16TH LINE

FOUND BRASS CAPPED MON. STA 242+43.18EB, 14.59' RT Y= 201,869.425 X= 278,566.497

COORDINATE VALUE PER MARATHON COUNTY RECORDS Y= 196,627.870 X= 278,623.410

COURSE DATA (SEGMENTS)			COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
122-123	N89°53'26"E	117.28'	1039-211	S00°37'20"E	29.96'
123-124	N89°53'26"E	12.00'	211-215	S89°53'26"W	315.83'
124-125	N89°53'26"E	117.28'	215-216	S89°42'36"W	60.00'
125-126	N89°53'26"E	60.00'	216-217	S89°57'37"W	257.57'
126-127	N89°53'26"E	117.49'	217-218	S89°57'53"W	60.04'
127-128	N89°53'26"E	12.00'	218-219	N89°55'53"W	239.79'
128-129	N89°53'26"E	117.49'	219-220	S38°04'43"W	14.65'
129-130	N89°53'26"E	60.00'	220-242	N84°00'36"W	60.36'
130-131	N89°53'26"E	257.00'	242-221	N81°04'23"W	11.98'
131-132	N89°53'26"E	60.00'	222-223	S80°20'16"W	30.44'
132-133	N89°53'26"E	119.95'	224-225	N00°05'54"W	6.76'
133-134	N89°53'26"E	16.00'	225-503	N00°15'39"W	60.13'
134-135	N89°53'26"E	119.95'	503-121	N00°15'39"W	39.15'
135-504	N89°53'26"E	58.55'	121-122	N43°49'15"E	71.98'
211-212	S89°53'26"W	59.56'	122-504	N89°53'26"E	1244.98'
212-213	S89°53'26"W	120.13'	504-1039	S00°58'52"E	90.05'
213-214	S89°53'26"W	16.00'			
214-215	S89°53'26"W	120.15'			
1584-504	S00°58'52"E	5214.25'			
211-999	S00°37'20"E	2567.06'			
1042-503	N89°50'55"E	1296.54'			
1039-503	S89°50'55"W	1296.19'			

STATION - OUT TABLE		
POINT	STATION	OUT
242	232+39.09'EB'	47.00'RT

NE-NW
SEC 35-29-7E

CITY OF WAUSAU

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1414	201839.30	278507.25	40D NAIL
1415	201779.58	278507.60	1" PINCHED IRON PIPE
1444	201838.38	277933.42	1" IRON PIPE
1447	201838.35	277873.38	1" REBAR

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 6
PI STA. 232+03.83WB
Y=201902.933
X=277526.138
DELTA=9°07'17" RT.
T=114.26'
L=228.03'
R=1432.39'

CURVE 8
PI STA. 231+83.28EB
Y=201881.892
X=277505.813
DELTA=9°33'15" RT.
T=127.69'
L=254.78'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

LOCATION SKETCH
NOT TO SCALE
R 7 E | R 8 E
T 29 N | T 28 N
WISCONSIN RIVER
BUS 51 | CITY OF WAUSAU | 52 | 29 | 39 | CN
SHEET LOCATION

N

SCALE, FEET
0 50 100

cbs²
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TYPPELMATOR

WISCONSIN ★ DUANE A. HOLMAN S-1294 BLOOMER WI ★ LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5203-Amend No.2.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.03 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.04 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200,202,203 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.04 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1689206 FILED IN CAB 3 ENV 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 9 AND LOT 4, BLOCK 8, A. STEWART'S ADDITION TO WAUSAU AND PART OF LOT 1, CSM NO. 2663, DOCUMENT NO. 770570 BEING A PART LOT 1, BLOCK 1, A. STEWART'S SECOND ADDITION TO WAUSAU, IN AND INCLUDING GOVERNMENT LOT 4, SECTION 26, AND PART OF LOT 1, BLOCK 1, STEWART & ALEXANDER'S ADDITION TO WAUSAU, AND LOT 1, BLOCK 3, STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU LOCATED IN GOVERNMENT LOT 1, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.04
AMENDMENT NO. 2

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1002	201959.54	278566.41	3/4" REBAR
1003	201962.78	278791.90	MAG NAIL
1004	201967.41	278866.06	2"IRON PIPE (BENT)
1013	202061.57	279691.96	1" IRON PIPE
1014	202085.87	279227.28	1" IRON PIPE
1015	202117.26	279287.35	1" IRON PIPE
1016	202172.13	279287.28	1" IRON PIPE
1017	202238.24	279287.18	1" IRON PIPE
1083	201911.24	279279.68	3/4" REBAR
1085	202382.81	279803.54	3/4" REBAR W/ YELLOW CAP
1086	202381.97	279742.37	1" IRON PIPE

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER I687902.

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1039-504	N00°58'52"W	90.05'
504-136	N87°04'59"E	1.45'
136-137	N89°10'41"E	221.50'
137-138	N44°37'00"E	5.70'
138-139	N84°22'30"E	75.37'
139-140	N88°54'50"E	35.32'
140-141	N77°38'07"E	86.90'
141-142	N72°46'14"E	125.87'
142-143	N62°48'07"E	67.49'
143-144	N67°55'50"E	64.67'
144-145	N62°24'39"E	67.78'
145-1016	N00°04'31"W	54.87'
1016-146	N00°05'00"W	66.10'
146-149	N88°56'43"E	171.66'
149-150	N44°28'29"E	13.71'
150-151	N00°02'08"E	129.39'
151-153	N89°42'34"E	79.75'
153-154	S00°18'26"E	35.61'
154-155	S55°17'26"E	44.55'
155-156	N71°21'06"E	133.40'
156-157	N00°17'26"W	19.15'
157-1086	N89°41'43"E	31.01'
1086-158	N89°12'31"E	61.18'
158-505	N80°52'56"E	34.97'
505-197	S00°31'48"E	165.48'
198-199	S00°01'49"W	11.50'
199-231	S89°42'34"W	40.93'
232-233	S44°09'48"W	23.35'
233-241	S07°04'03"W	19.58'
241-235	S00°12'56"W	90.00'
235-236	S90°00'00"W	63.50'
236-238	N07°54'31"W	68.84'
238-200	S57°46'12"W	411.02'
200-201	N00°03'18"E	27.24'
202-203	S89°06'01"W	31.52'
203-204	S69°02'25"W	16.47'
204-205	S00°03'49"W	40.52'
205-206	S90°00'00"W	60.00'
206-207	N04°32'26"W	16.30'
207-208	N45°08'36"W	40.42'
208-211	S89°06'01"W	210.02'
211-1039	N00°37'20"W	29.96'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
146-147	N88°56'43"E	60.42
147-148	N88°56'43"E	12.00'
148-149	N88°56'43"E	99.24'
151-152	N89°42'34"E	65.15'
152-153	N89°42'34"E	14.60'
233-234	S00°12'56"W	55.11'
234-235	S00°12'56"W	55.22'
236-237	N07°54'31"W	13.97'
237-238	N07°54'31"W	54.87'
208-209	S89°06'01"W	85.00'
209-210	S89°06'01"W	10.00'
210-211	S89°06'01"W	115.02'
1584-504	S00°58'52"E	5214.25'
211-999	S00°37'20"E	2567.06'
1039-1035	N89°00'44"E	2552.41'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1087	202362.67	279711.48	2" IRON PIPE
1088	202319.99	279585.03	1" IRON PIPE
1089	202345.41	279548.43	1" IRON PIPE
1090	202381.12	279548.44	1" IRON PIPE
1091	202380.89	279533.65	1" IRON PIPE
1092	202026.77	279464.36	CHISLED CROSS IN WALK

STATION - OUT TABLE		
POINT	STATION	OUT
205	104+09.16	30.29'RT
206	104+09.16	29.71' LT
417	244+25.00	44.72'RT

FOUND BRASS CAPPED MON. STA 242+43.18EB, 14.59'RT
Y= 201,869.425
X= 278,566.497

COORDINATE VALUE PER MARATHON COUNTY RECORDS
Y= 196,627.870
X= 278,623.410

FOUND BRASS CAP MONUMENT
Y= 201,913.426
X= 281,118.827

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF A. STEWART'S ADDITION TO WAUSAU	1874
STH 52	STEWART & ALEXANDER'S ADDITION TO WAUSAU	1882
STH 52	STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU	1893
STH 52	R/W PROJECT NO. T 05-3 (38)	1965
STH 52	C.S.M.* 4-63	1993
STH 52	C.S.M.* 10-136	1980
STH 52	C.S.M.* 23-53	1990
STH 52	C.S.M.* 34-167	1994
STH 52	C.S.M.* 50-119	2001

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
7	WAUSAU 308 STEWART WI	FEE,TLE	8	-	8	-	65
8	WCMR HOLDING COMPANY	TLE	-	-	-	-	483
-	-	-	-	-	-	-	-
10	CHAD SCHWENDEMAN	TLE	-	-	-	-	42
11	PANG XIONG	FEE/TLE	10	-	10	-	804
12	GLEN M. WITTER	FEE/TLE	58	-	58	-	626
13	WISCONSIN CENTRAL LTD.	HE/TLE	-	-	-	437	1769
14	CITY OF WAUSAU	TLE	-	-	-	-	551

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5204-Amend No 2.dgn
APPRAISAL PLAT DATE: -_-_-20__

PLOT DATE : 1/14/2016

PLOT BY : $$...plotuser...$$ PLOT NAME :

6999-03-28-4.04 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.05 AMENDMENT NO: 1
ADDS PARCEL NO: 16 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.05
RECORDED AS DOCUMENT NO: 1688153 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, CSM NO. 15368, DOCUMENT NO. 15368 BEING A PART OF LOT 1, BLOCK 6, ORIGINAL PLAT OF THE CITY OF WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 25, PART OF CSM VOL.2, P.62, LOCATED IN GOVERNMENT LOT 6, SECTION 26, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	ORIGINAL PLAT OF THE CITY OF WAUSAU	1852
STH 52	R/W PROJECT NO. 6999-01-57	1994
STH 52	R/W PROJECT NO. 6999-00-22	2003
STH 52	R/W PROJECT NO. T 05-3(38)	1965
STH 52	CSM VOL 54, P 93	2002
STH 52	CSM VOL 62, P 107	2005
STH 52	CSM VOL 69, P 110	2008
STH 52	CSM VOL 53, P 44	2002
STH 52	CSM VOL 2, P 62	1969
STH 52	CSM VOL 50, P 119	2001

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1482	202500.98	281235.11	CHISLED CROSS IN WALK
1485	202531.04	280890.13	3/4" REBAR
1486	202531.51	280885.55	1" IRON PIPE
1487	202530.12	280902.07	1 1/4" REBAR
1490	202622.91	281245.56	CHISLED CROSS IN WALK
1493	202117.26	279287.35	IP W/ WisDOT YELLOW CAP
1016	202172.13	279287.28	1" IRON PIPE

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
15	MARATHON COUNTY DEVELOPMENT, INC.	TLE	-	-	-	-	95
16	ONE WORLD INN, LLC.	TLE	-	-	-	-	455

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

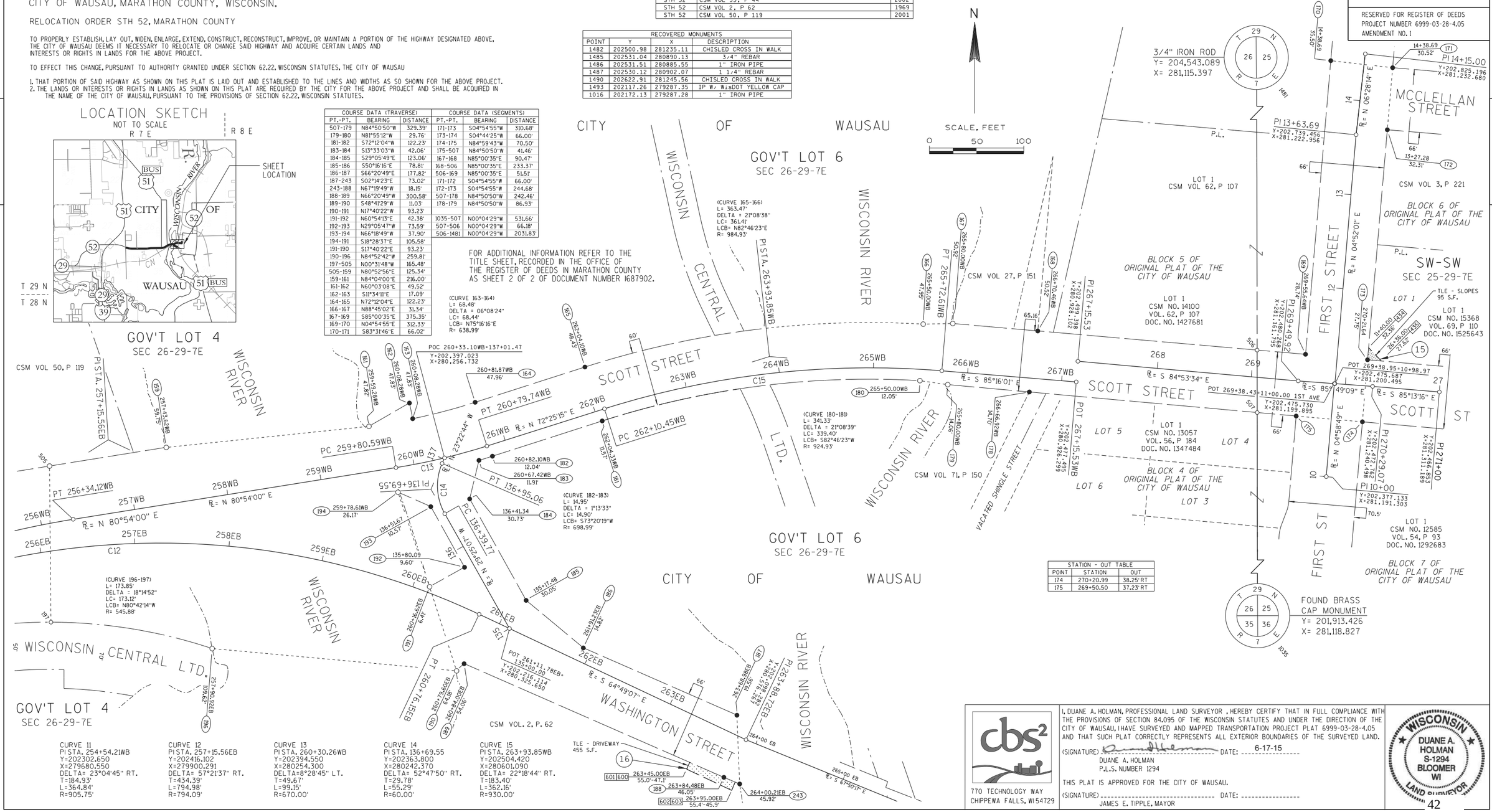
_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.05
AMENDMENT NO. 1

LOCATION SKETCH
NOT TO SCALE

COURSE DATA (TRAVERSE)			COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
507-179	N84°50'50"W	329.39'	171-173	S04°54'55"W	310.68'
179-180	N81°55'12"W	29.76'	173-174	S04°44'25"W	66.00'
181-182	S72°12'04"W	122.23'	174-175	N84°59'43"W	70.50'
183-184	S13°33'03"W	42.06'	175-507	N84°50'50"W	41.46'
184-185	S29°05'49"E	123.06'	167-168	N85°00'35"E	90.47'
185-186	S50°16'16"E	78.81'	168-506	N85°00'35"E	233.37'
186-187	S66°20'49"E	177.82'	506-169	N85°00'35"E	51.51'
187-243	S02°14'23"E	73.02'	171-172	S04°54'55"W	66.00'
243-188	N67°19'49"W	18.15'	172-173	S04°54'55"W	244.68'
188-189	N66°20'49"W	300.58'	507-178	N84°50'50"W	242.46'
189-190	S48°41'29"W	11.03'	178-179	N84°50'50"W	86.93'
190-191	N17°40'22"W	93.23'			
191-192	N60°54'13"E	42.38'	1035-507	N00°04'29"W	531.66'
192-193	N29°05'47"W	73.59'	507-506	N00°04'29"W	66.18'
193-194	N66°18'49"W	37.90'	506-1481	N00°04'29"W	2031.83'
194-191	S18°28'37"E	105.58'			
191-190	S17°40'22"E	93.23'			
190-196	N84°52'42"W	259.81'			
197-505	N00°31'48"W	165.48'			
505-159	N80°52'56"E	125.34'			
159-161	N84°04'00"E	216.00'			
161-162	N60°03'08"E	49.52'			
162-163	S11°34'11"E	17.09'			
164-165	N72°12'04"E	122.23'			
166-167	N88°45'02"E	31.34'			
167-169	S85°00'35"E	375.35'			
169-170	N04°54'55"E	312.33'			
170-171	S83°31'46"E	66.02'			

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.



STATION - OUT TABLE		
POINT	STATION	OUT
174	270+20.99	38.25'RT
175	269+50.50	37.23'RT

CURVE 11
PI STA. 254+54.21WB
Y=202302.650
X=279680.550
DELTA= 23°04'45" RT.
T=184.93'
L=364.84'
R=905.75'

CURVE 12
PI STA. 257+15.56EB
Y=202416.102
X=279900.291
DELTA= 57°21'37" RT.
T=434.39'
L=794.98'
R=794.09'

CURVE 13
PI STA. 260+30.26WB
Y=202394.550
X=280254.300
DELTA=8°28'45" LT.
T=49.67'
L=99.15'
R=670.00'

CURVE 14
PI STA. 136+69.55
Y=202363.800
X=280242.370
DELTA= 52°47'50" RT.
T=29.78'
L=55.29'
R=60.00'

CURVE 15
PI STA. 263+93.85WB
Y=202504.420
X=280601.090
DELTA= 22°18'44" RT.
T=183.40'
L=362.16'
R=930.00'

cbs2
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-03-28-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

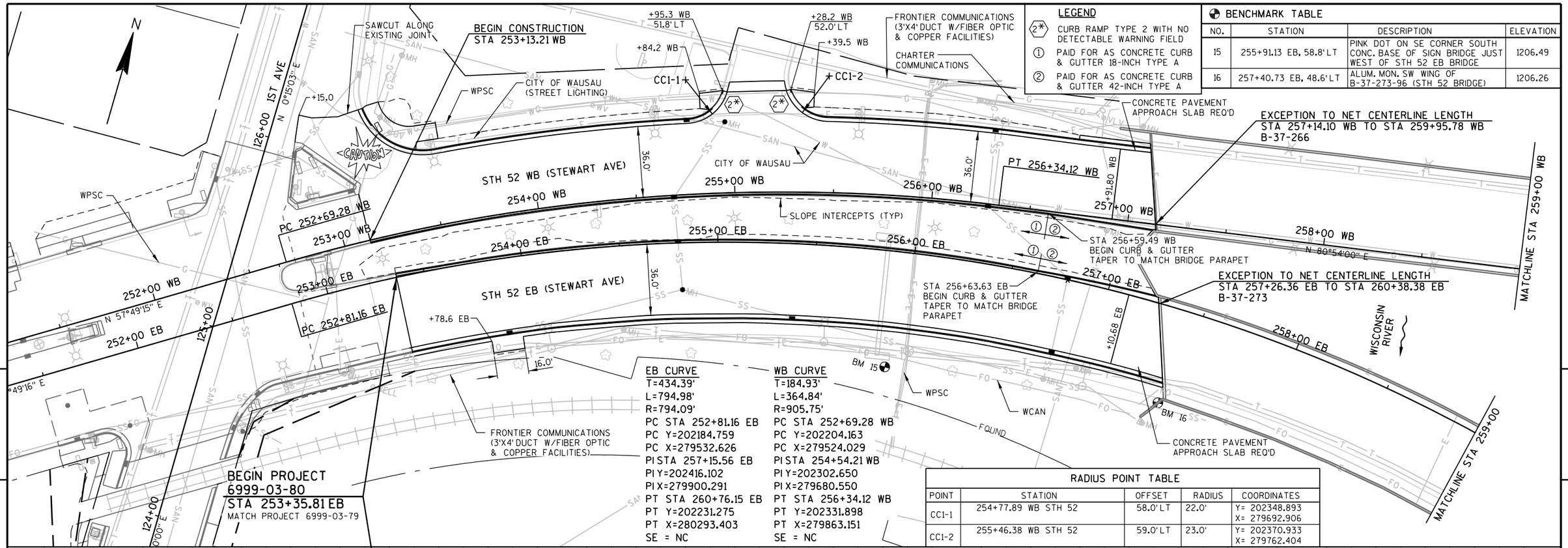
(SIGNATURE) _____ DATE: 6-17-15

DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT IS APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: _____
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR



LEGEND

2*	CURB RAMP TYPE 2 WITH NO DETECTABLE WARNING FIELD
①	PAID FOR AS CONCRETE CURB & GUTTER 18-INCH TYPE A
②	PAID FOR AS CONCRETE CURB & GUTTER 42-INCH TYPE A

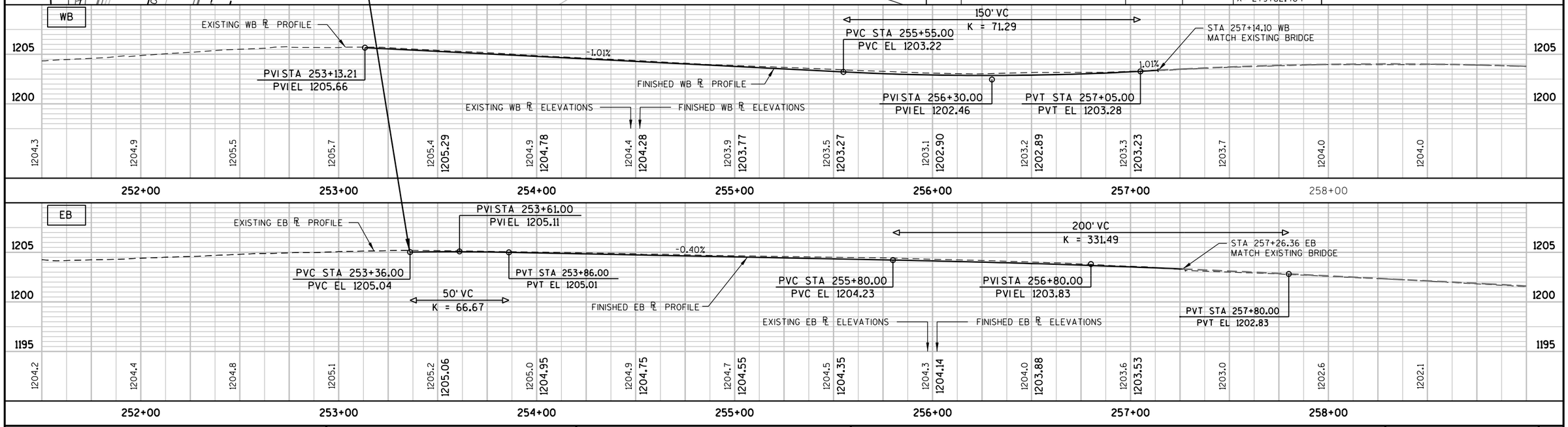
BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
15	255+91.13 EB, 58.8' LT	PINK DOT ON SE CORNER SOUTH CONC. BASE OF SIGN BRIDGE JUST WEST OF STH 52 EB BRIDGE	1206.49
16	257+40.73 EB, 48.6' LT	ALUM. MON. SW WING OF B-37-273-96 (STH 52 BRIDGE)	1206.26

EB CURVE	WB CURVE
T=434.39'	T=184.93'
L=794.98'	L=364.84'
R=794.09'	R=905.75'
PC STA 252+81.16 EB	PC STA 252+69.28 WB
PC Y=202184.759	PC Y=202204.163
PC X=279532.626	PC X=279524.029
PI STA 257+15.56 EB	PI STA 254+54.21 WB
PI Y=202416.102	PI Y=202302.650
PI X=279900.291	PI X=279680.550
PT STA 260+76.15 EB	PT STA 256+34.12 WB
PT Y=202231.275	PT Y=202331.898
PT X=280293.403	PT X=279863.151
SE = NC	SE = NC

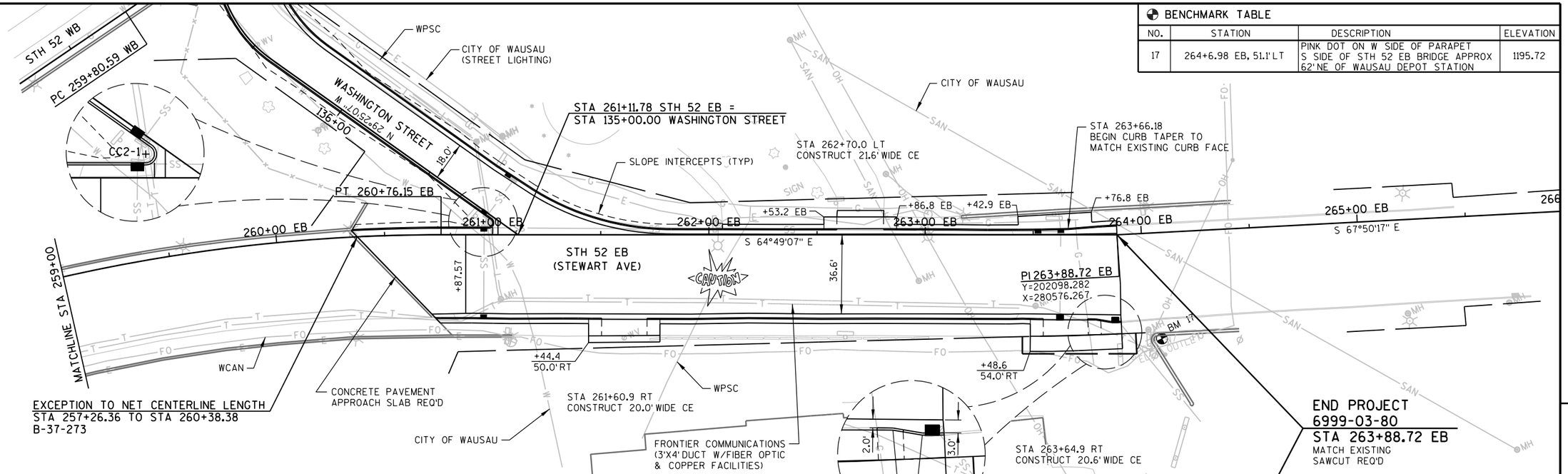
RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1-1	254+77.89 WB STH 52	58.0' LT	22.0'	Y= 202348.893 X= 279692.906
CC1-2	255+46.38 WB STH 52	59.0' LT	23.0'	Y= 202370.933 X= 279762.404

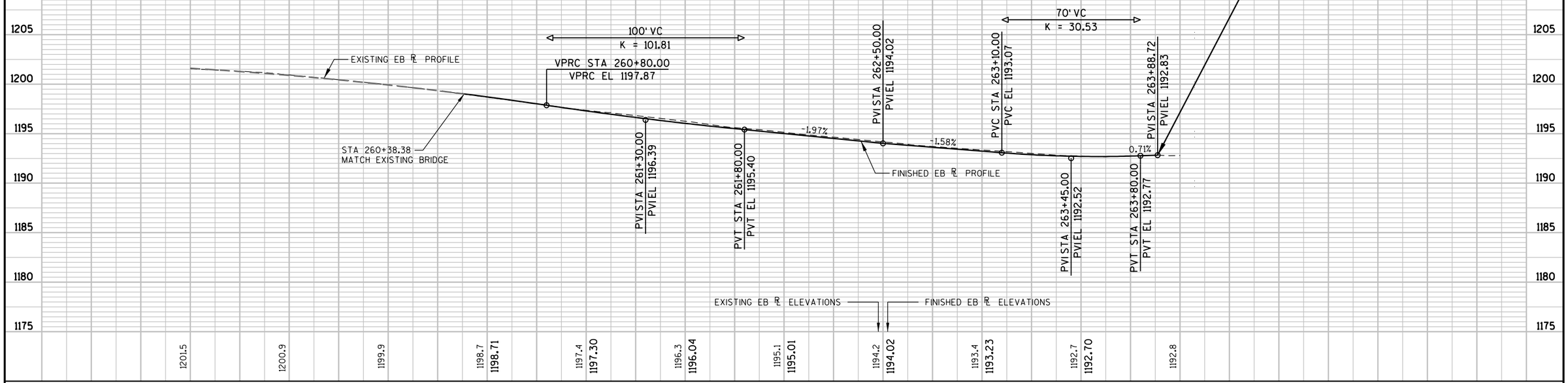


PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 43	E

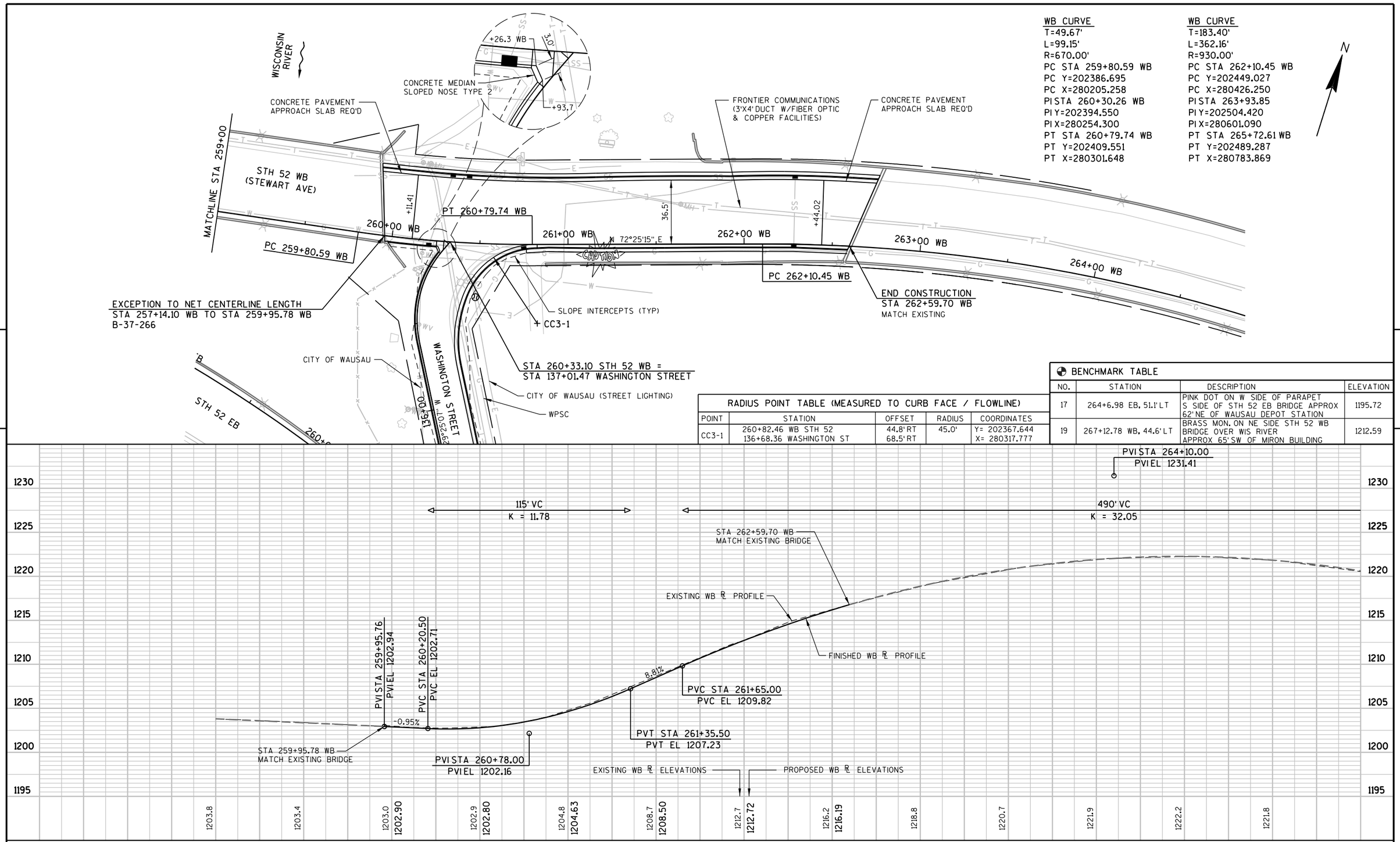
BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
17	264+6.98 EB, 51.1' LT	PINK DOT ON W SIDE OF PARAPET S SIDE OF STH 52 EB BRIDGE APPROX 62' NE OF WAUSAU DEPOT STATION	1195.72



RADIUS POINT TABLE (MEASURED TO CURB FACE / FLOWLINE)				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC2-1	260+98.00 EB STH 52 135+14.42 WASHINGTON ST	5.5'LT 3.5'LT	2.5'	Y= 202226.955 X= 280315.518



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 44	E



RADIUS POINT TABLE (MEASURED TO CURB FACE / FLOWLINE)

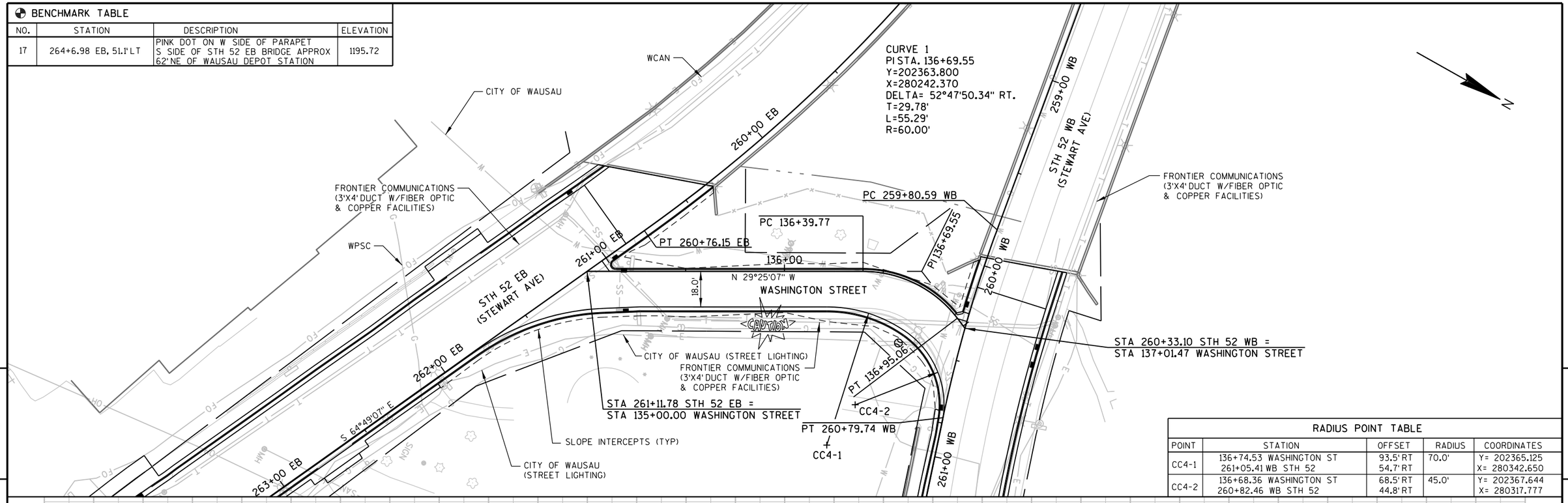
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC3-1	260+82.46 WB STH 52 136+68.36 WASHINGTON ST	44.8' RT 68.5' RT	45.0'	Y= 202367.644 X= 280317.777

BENCHMARK TABLE

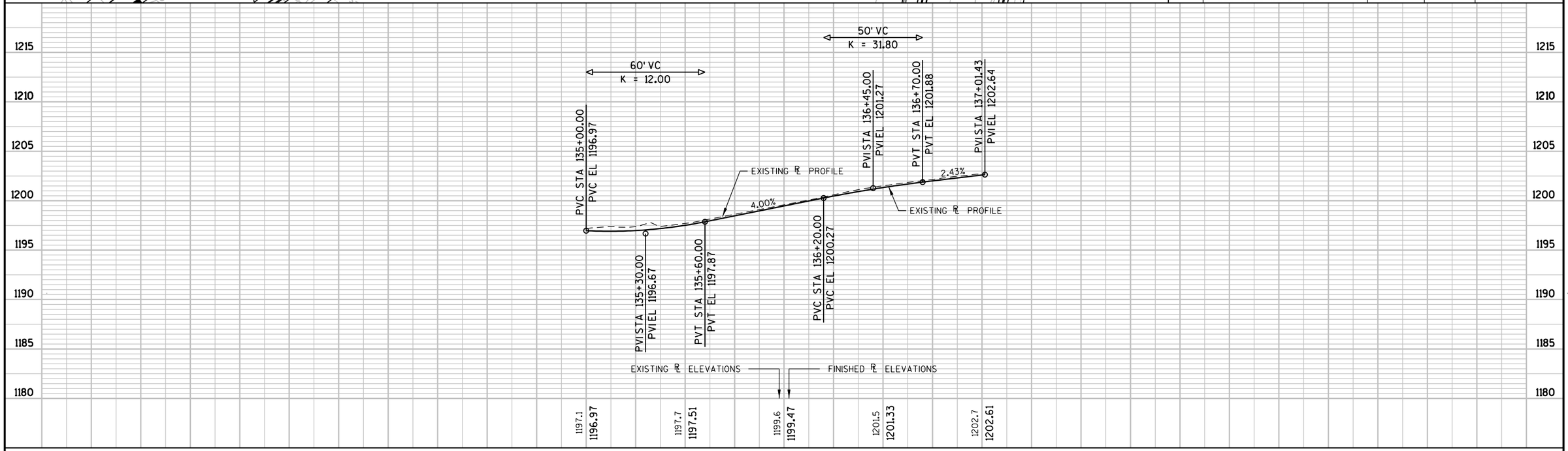
NO.	STATION	DESCRIPTION	ELEVATION
17	264+6.98 EB, 51.1' LT	PINK DOT ON W SIDE OF PARAPET S SIDE OF STH 52 EB BRIDGE APPROX 62' NE OF WAUSAU DEPOT STATION	1195.72
19	267+12.78 WB, 44.6' LT	BRASS MON. ON NE SIDE STH 52 WB BRIDGE OVER WIS RIVER APPROX 65' SW OF MIRON BUILDING	1212.59

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 45	E

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
17	264+6.98 EB, 51.1' LT	PINK DOT ON W SIDE OF PARAPET S SIDE OF STH 52 EB BRIDGE APPROX 62' NE OF WAUSAU DEPOT STATION	1195.72



RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC4-1	136+74.53 WASHINGTON ST 261+05.41 WB STH 52	93.5' RT 54.7' RT	70.0'	Y= 202365.125 X= 280342.650
CC4-2	136+68.36 WASHINGTON ST 260+82.46 WB STH 52	68.5' RT 44.8' RT	45.0'	Y= 202367.644 X= 280317.777

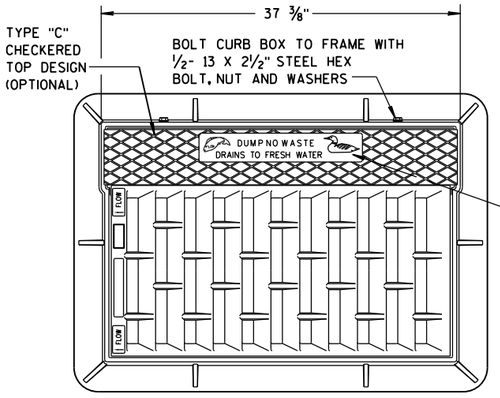


PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 46	E

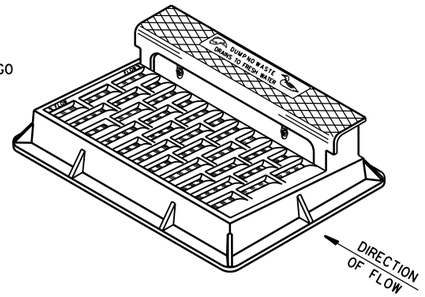
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
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
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
11B02-02	CONCRETE MEDIAN NOSE
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
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)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-03B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-03A	BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C29-03F	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

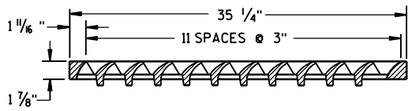
6

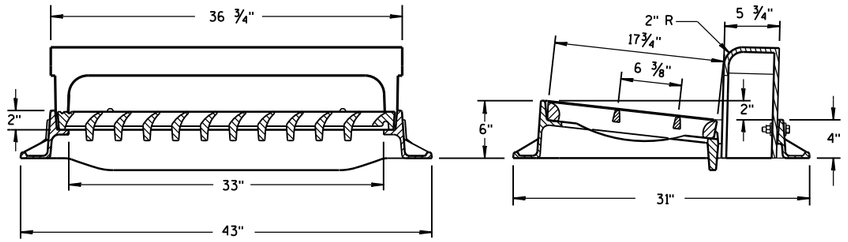


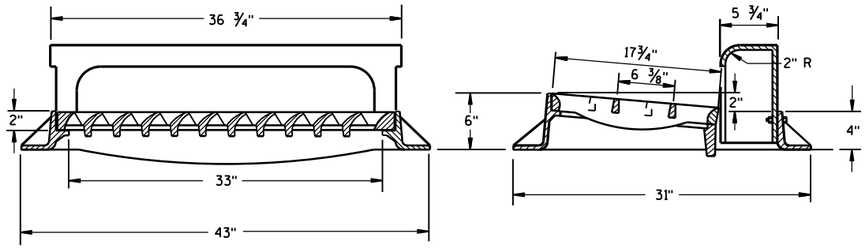
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

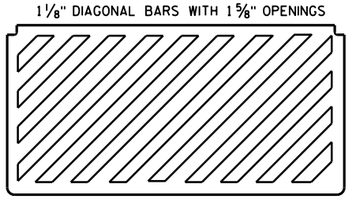






TYPE "H"

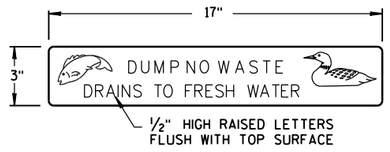
NOTE: EITHER CASTING IS ACCEPTABLE



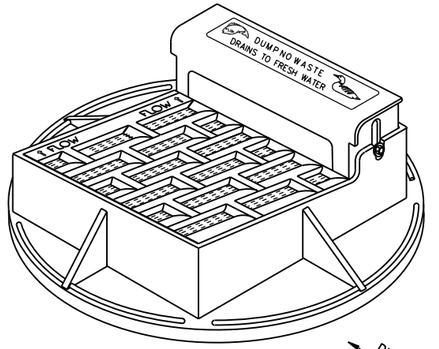
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

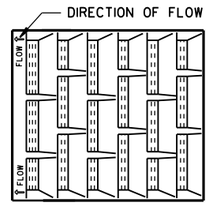
NOTE:
GRATE IS REVERSIBLE.

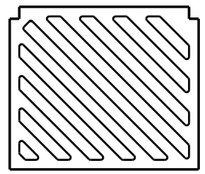
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

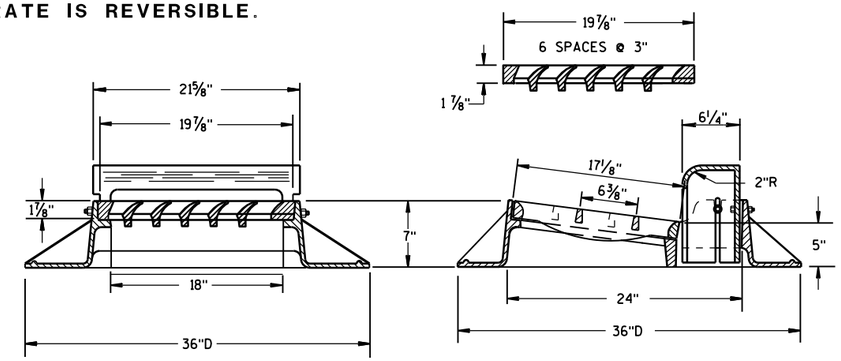




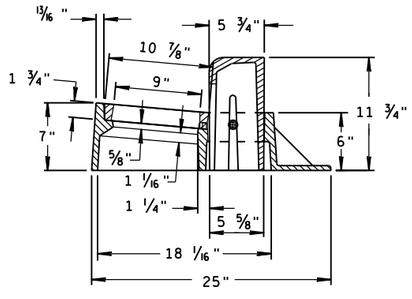
SPECIAL GRATE FOR TYPE "A" COVER

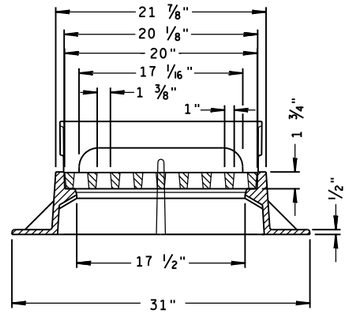
(MEASURES 19 3/4" X 17" X 1 7/8")

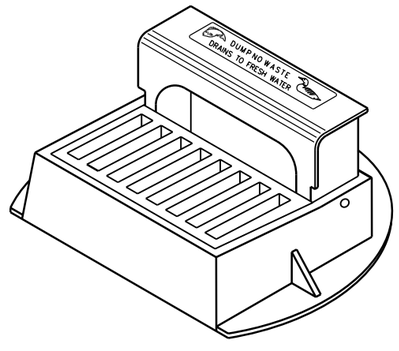
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

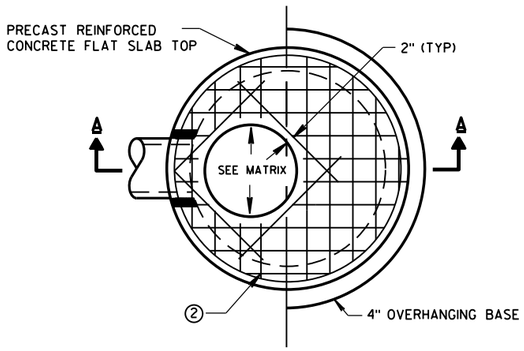
INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

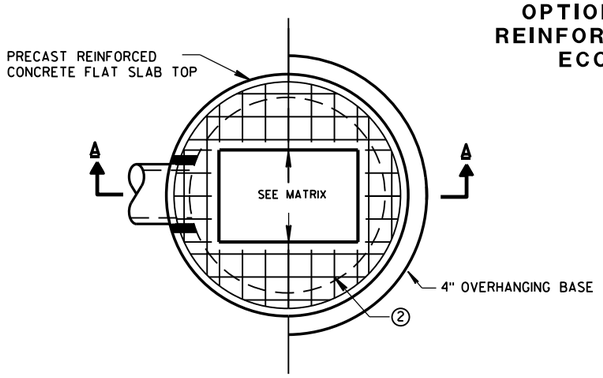
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

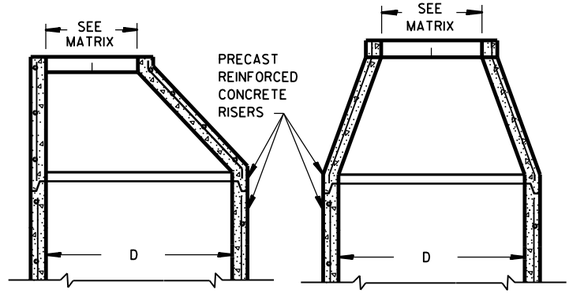
S.D.D. 8 A 5-19a



PLAN VIEW CIRCULAR OPENING

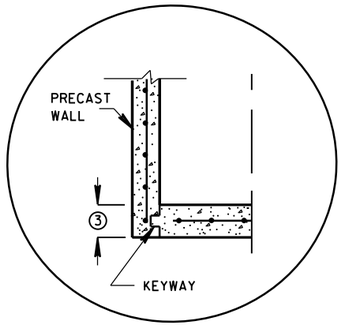


PLAN VIEW RECTANGULAR OPENING

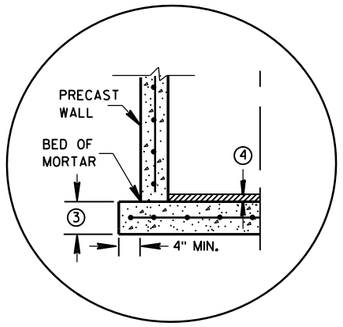


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

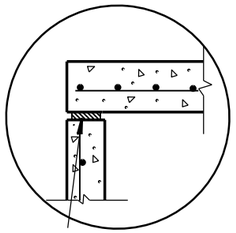


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



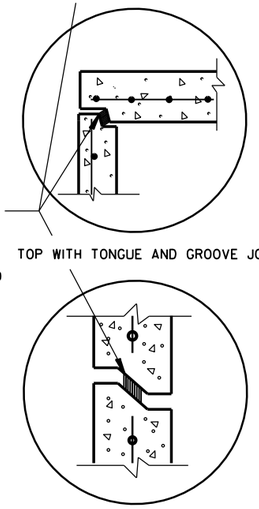
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

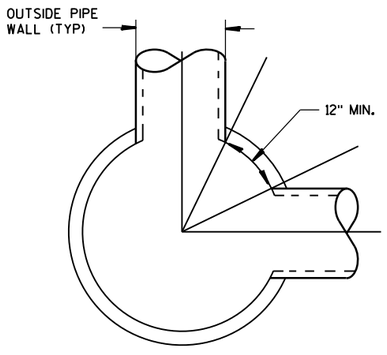
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



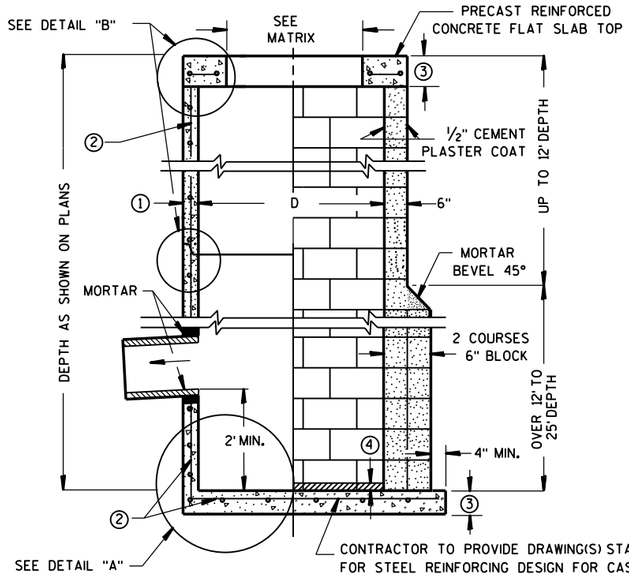
TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

PIPE MATRIX

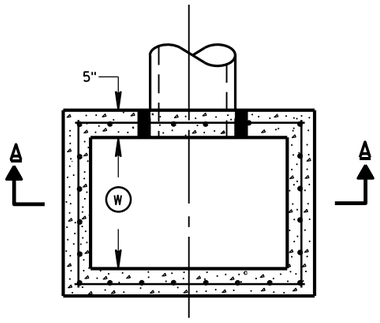
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

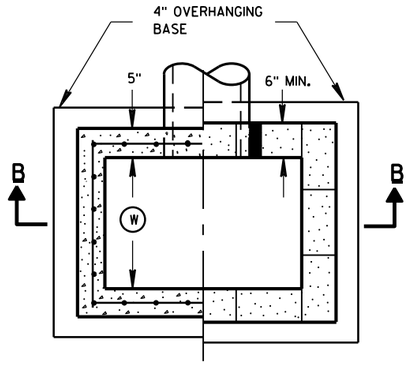
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

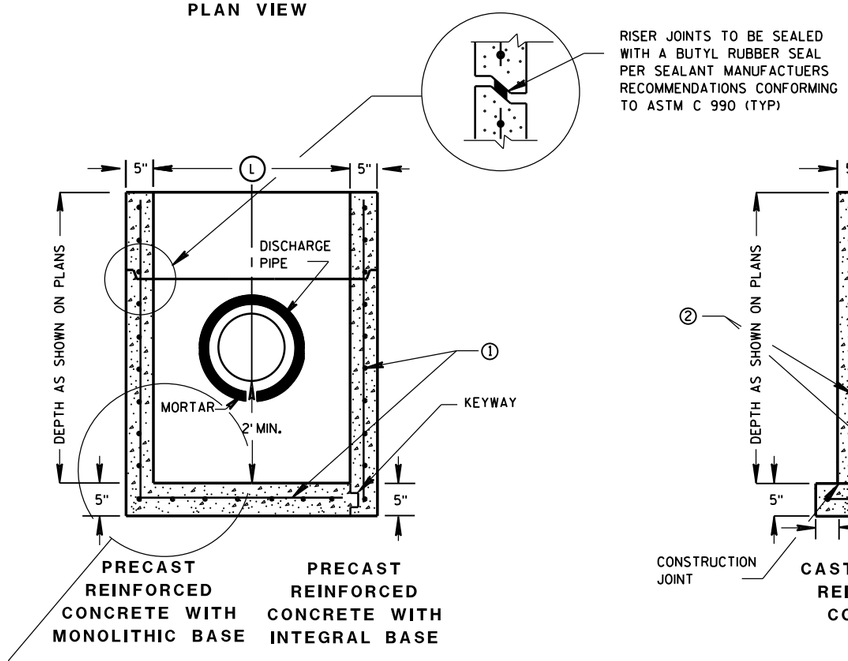
6
S.D.D. 8 A 8-1



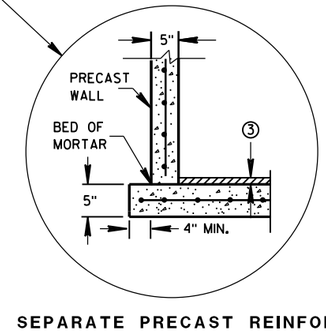
PLAN VIEW



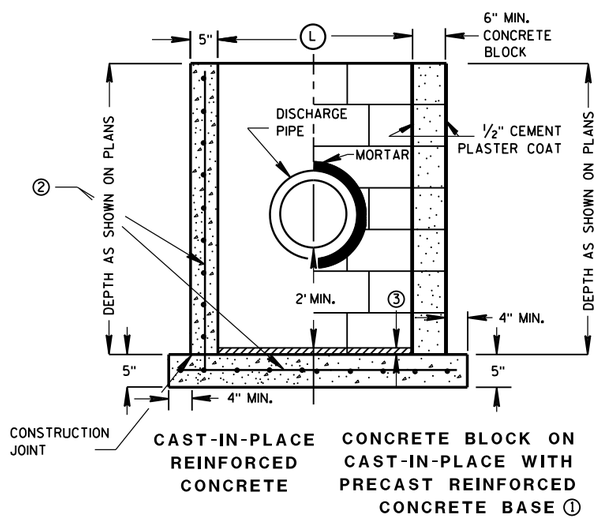
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

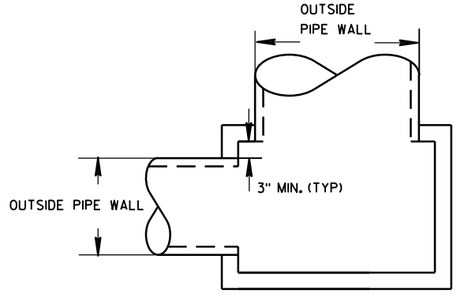
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
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6/5/2012 — DATE
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FHWA

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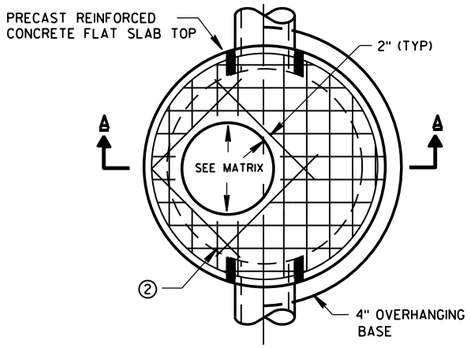
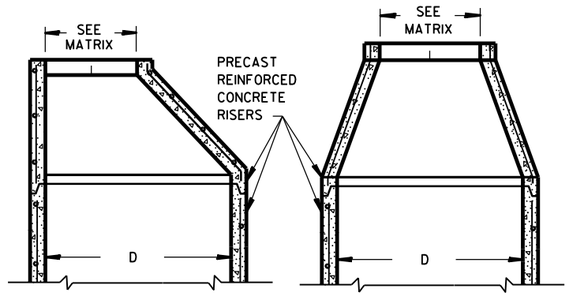
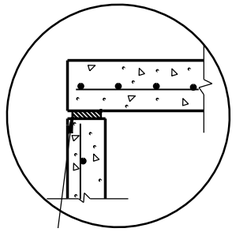


PLAN VIEW CIRCULAR OPENING

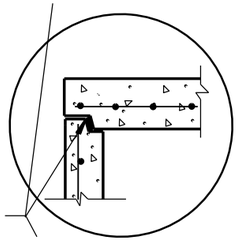


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

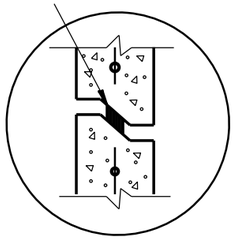


TOP WITH PLAIN END JOINT



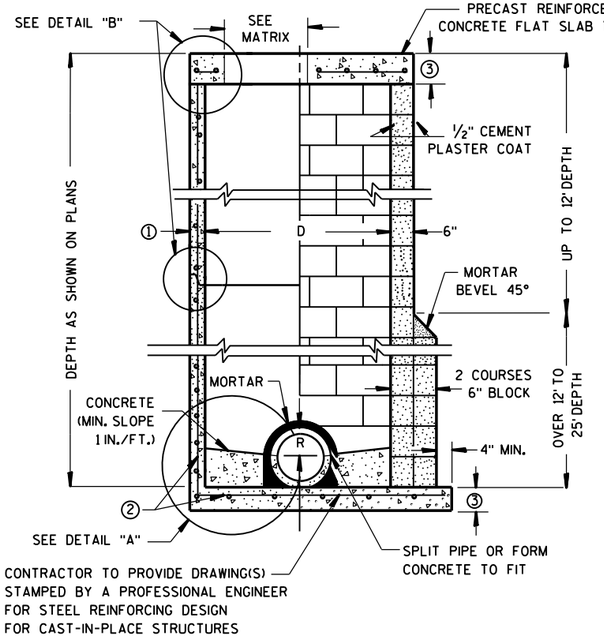
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



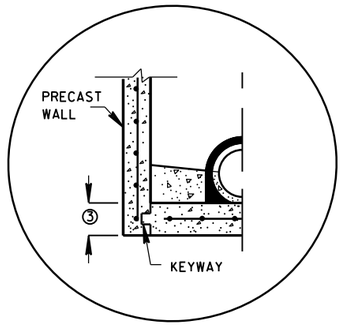
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

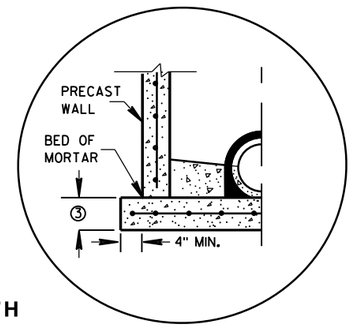


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

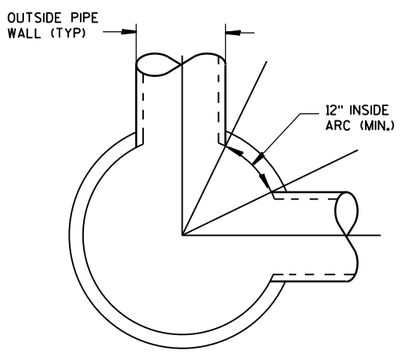


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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.

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
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APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
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MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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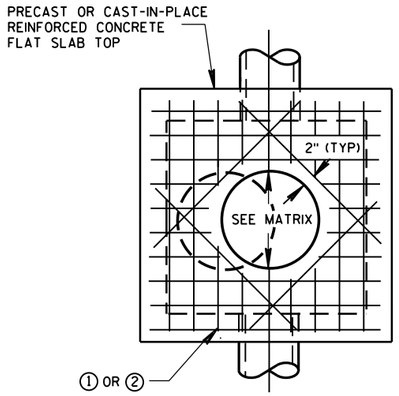
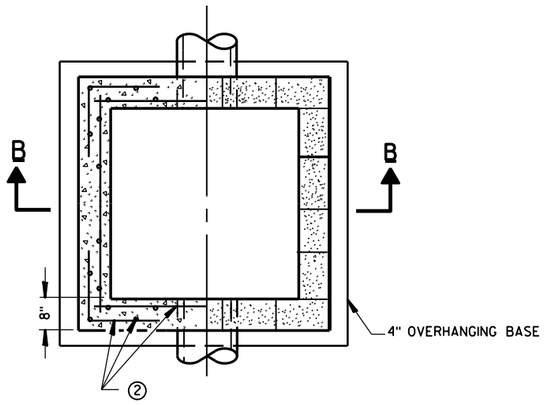
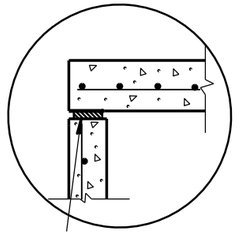


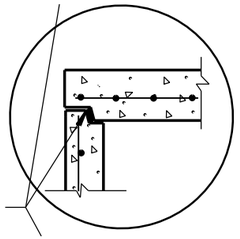
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

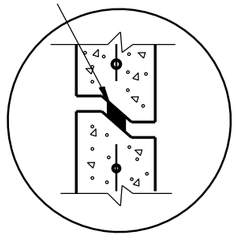


TOP WITH PLAIN END JOINT



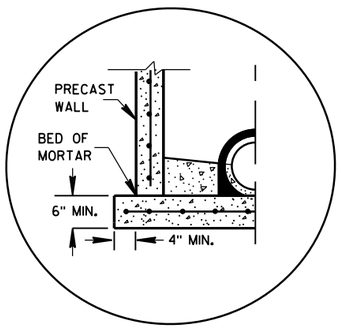
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE

GENERAL NOTES

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

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

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

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CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

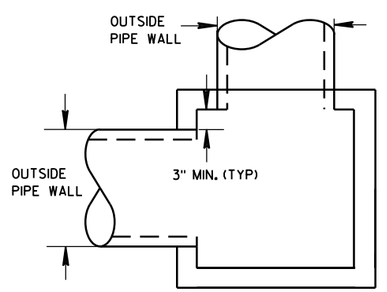
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

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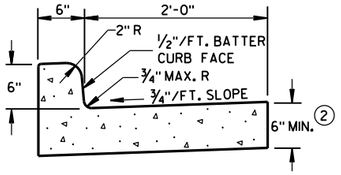
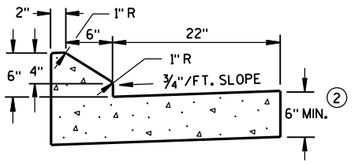
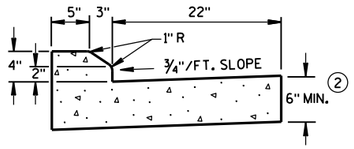


TYPES A & D ①

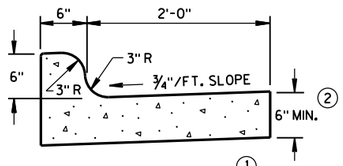


6" SLOPED CURB TYPES G & J ①

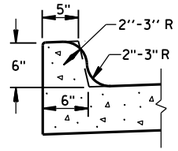


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

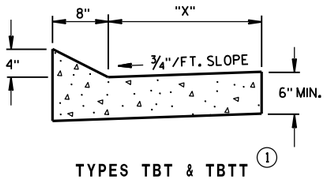


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

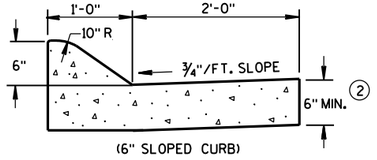
CONCRETE CURB & GUTTER 30"



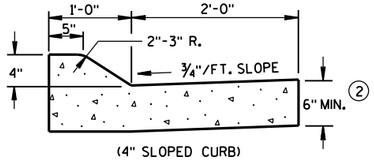
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

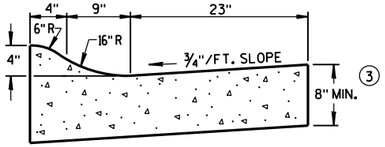


(6" SLOPED CURB)



(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.

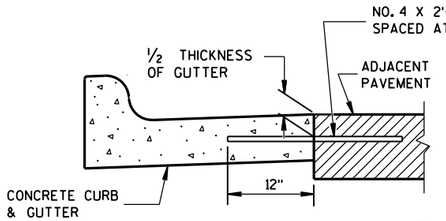
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

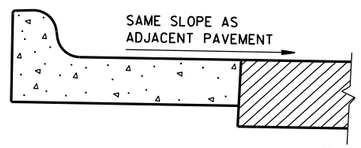
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

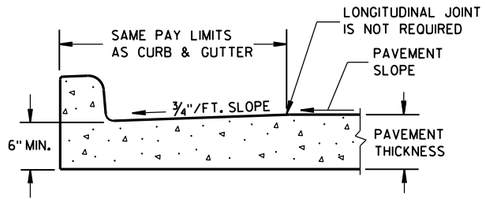
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



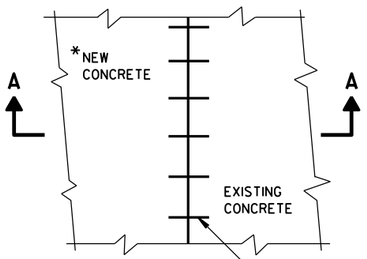
TYPICAL TIE BAR LOCATION ①



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

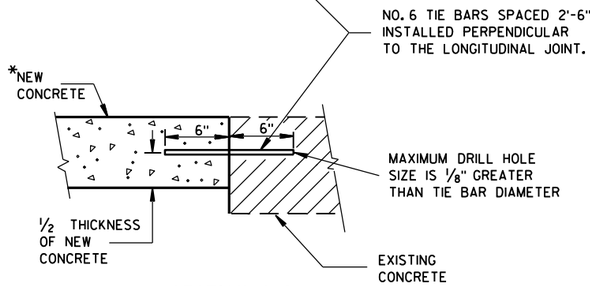


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



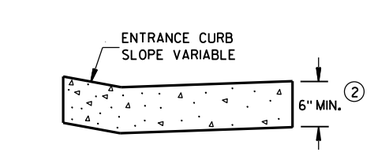
PLAN VIEW

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

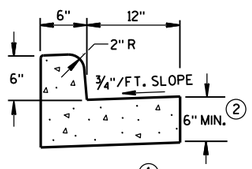


SECTION A-A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

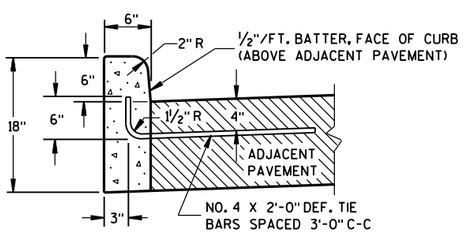


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

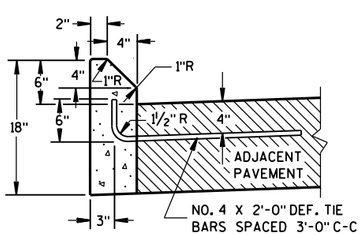


① TYPES A & D

CONCRETE CURB & GUTTER 18"

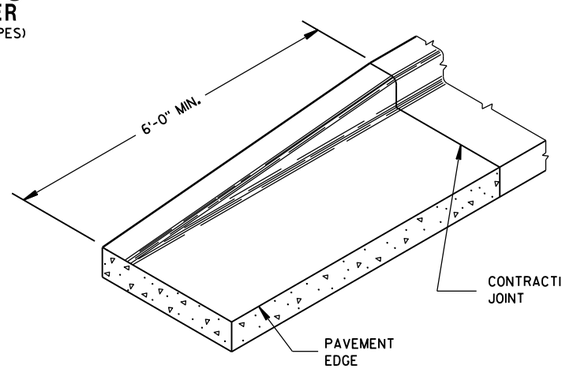


① TYPES A & D



① TYPES G & J

CONCRETE CURB



END SECTION CURB & GUTTER

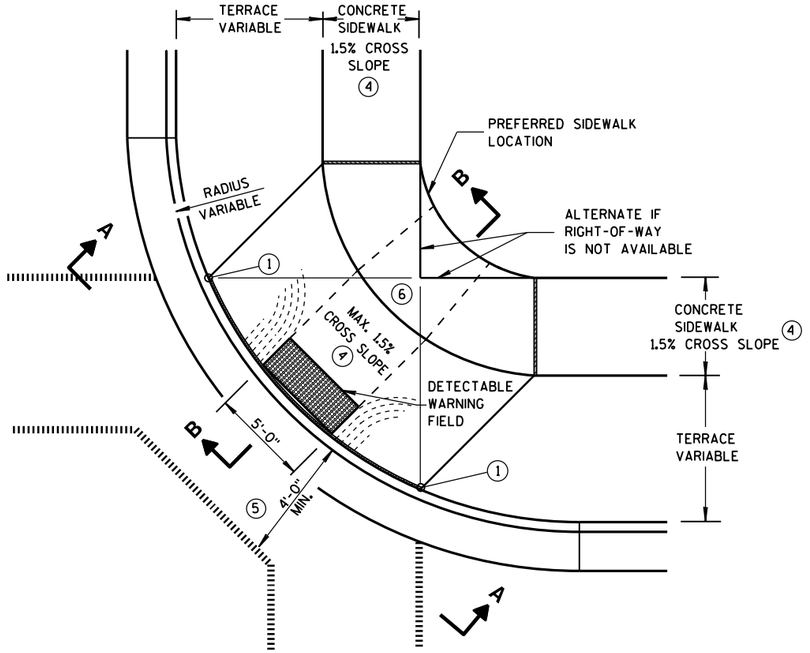
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

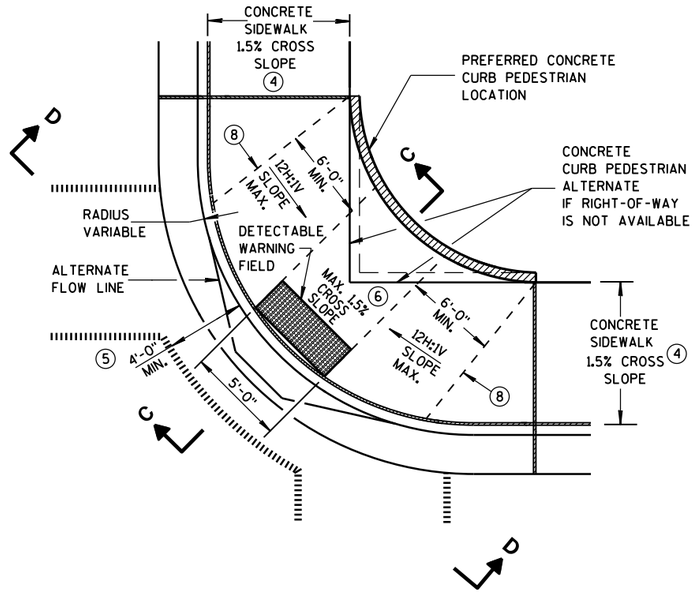
S.D.D. 8 D 1-18



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.

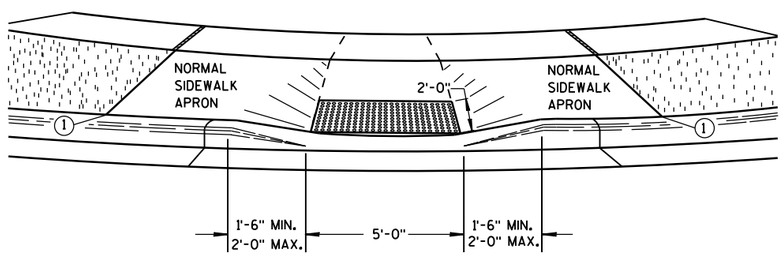
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

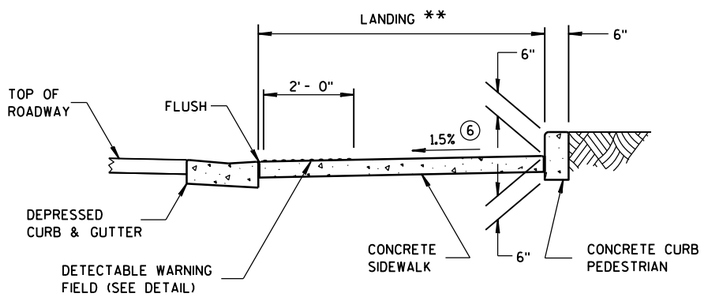
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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



VIEW A-A

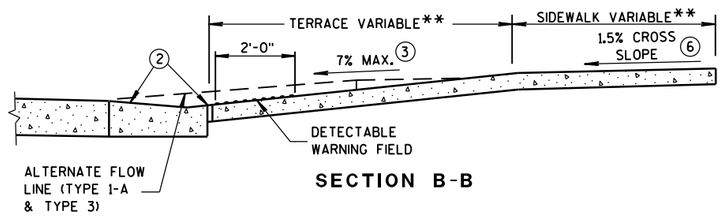
** WIDTH SHOWN ELSEWHERE IN THE PLANS



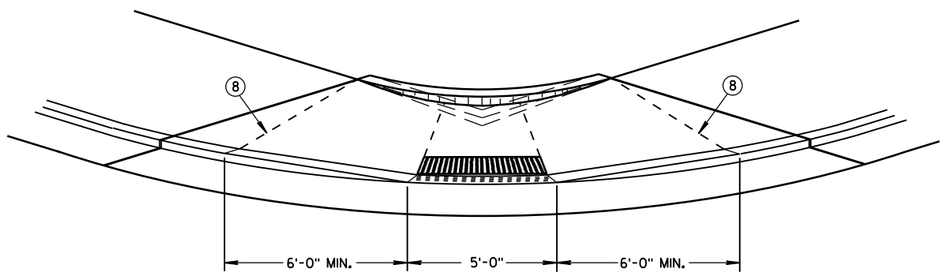
SECTION C-C

LEGEND

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



SECTION B-B



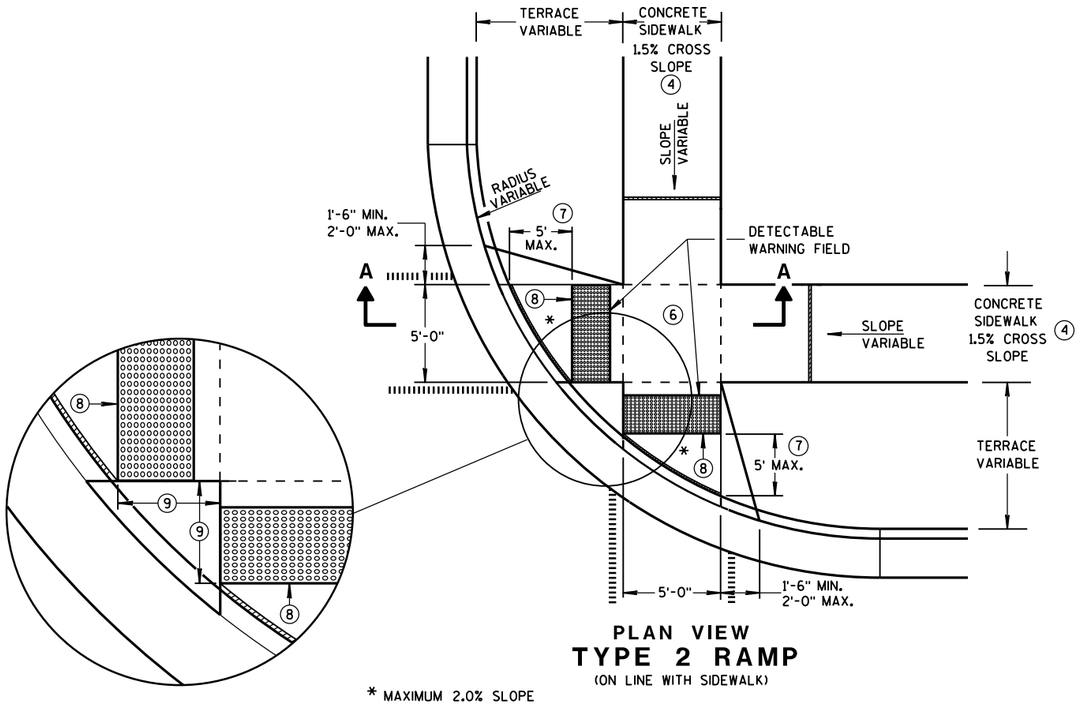
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

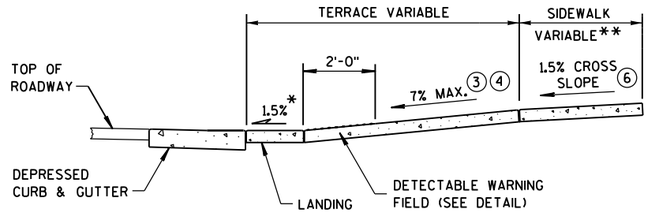


PLAN VIEW

TYPE 2 RAMP

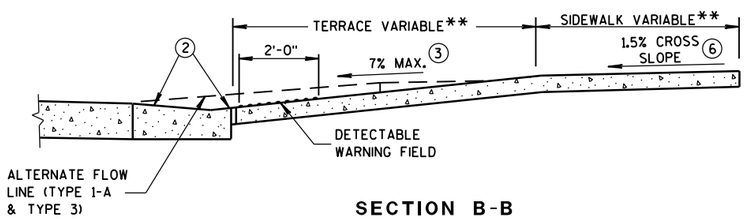
(ON LINE WITH SIDEWALK)

* 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).

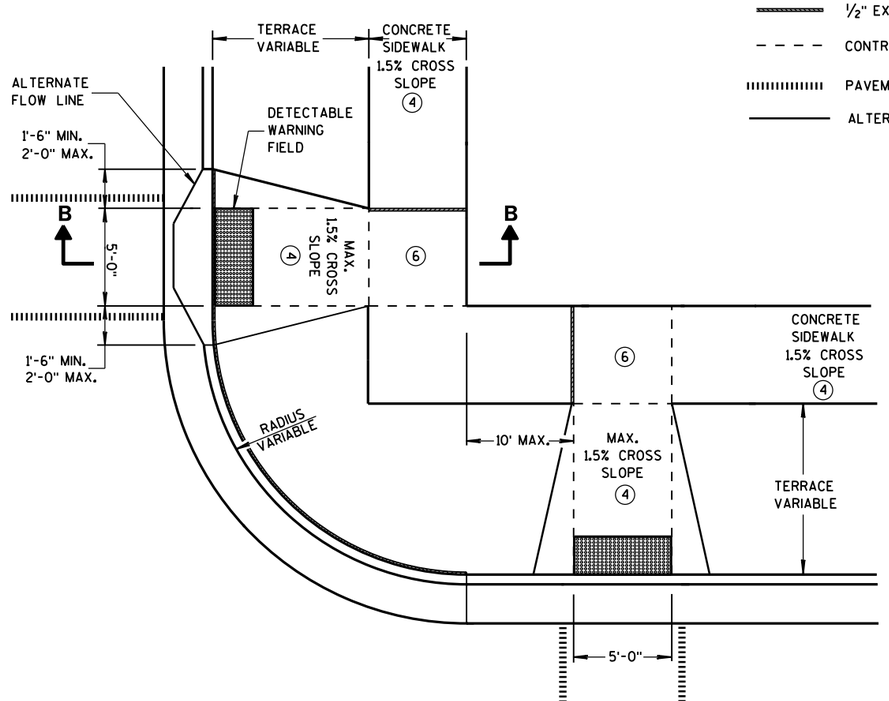
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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

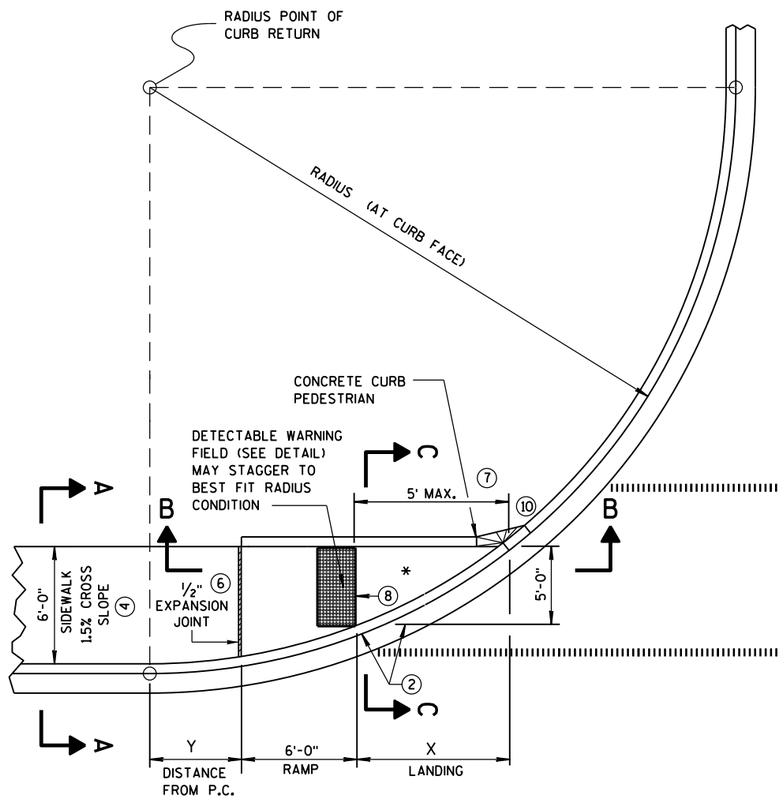
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

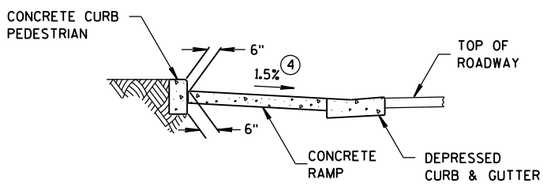


CURB RAMP TYPE 4A

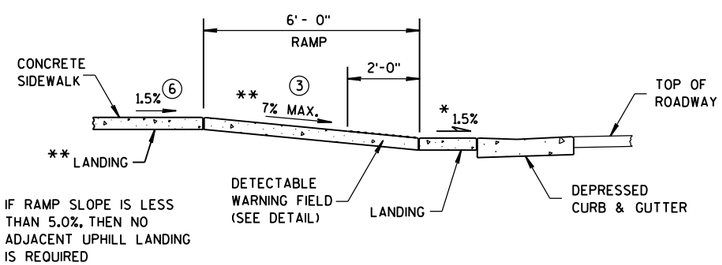
PLAN VIEW

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"

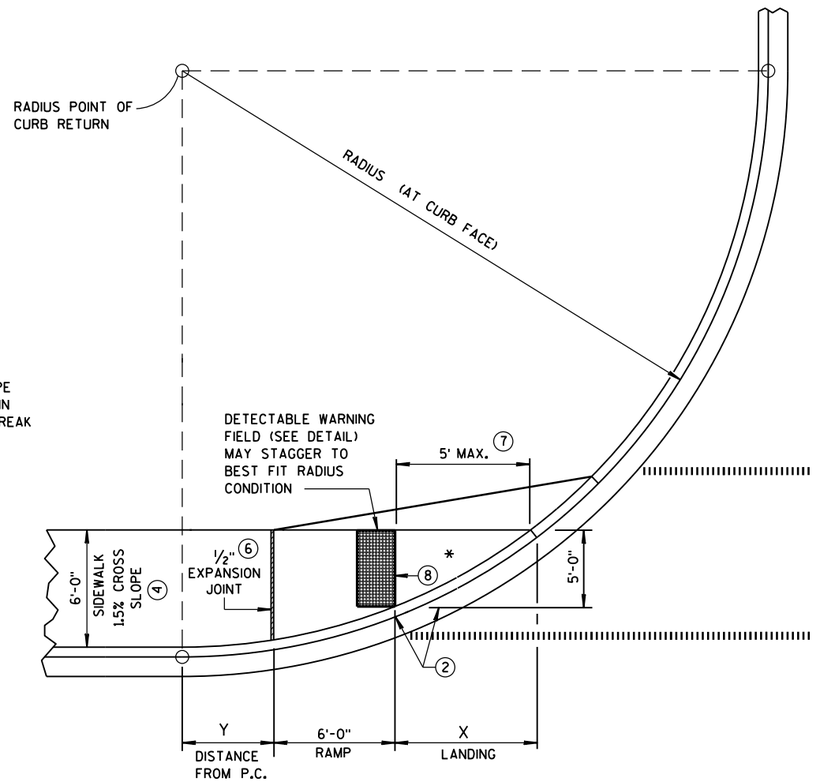
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A



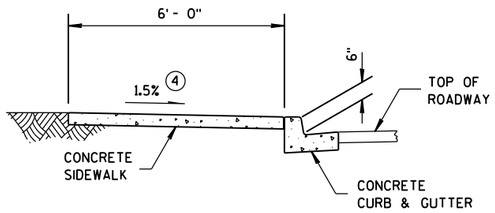
SECTION B-B FOR TYPE 4A



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

CURB RAMP TYPE 4A1

PLAN VIEW



SECTION A-A FOR TYPE 4A

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.

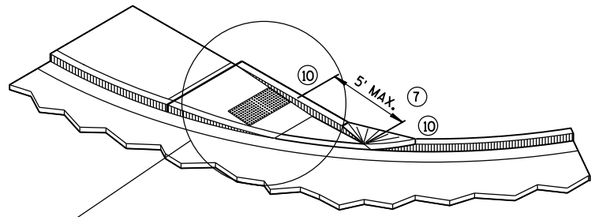
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

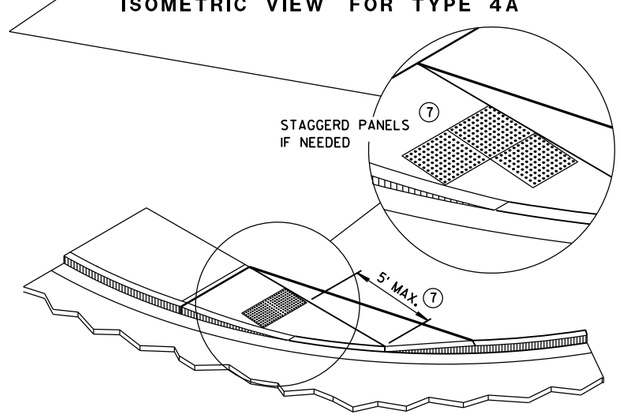
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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

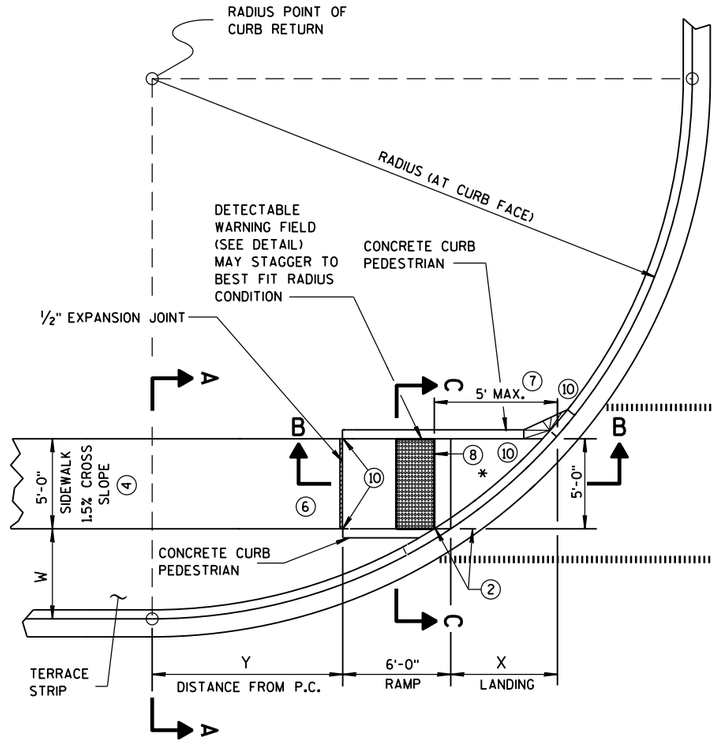
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

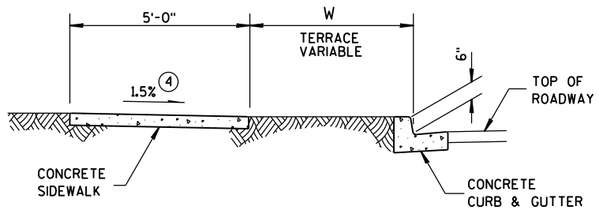
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

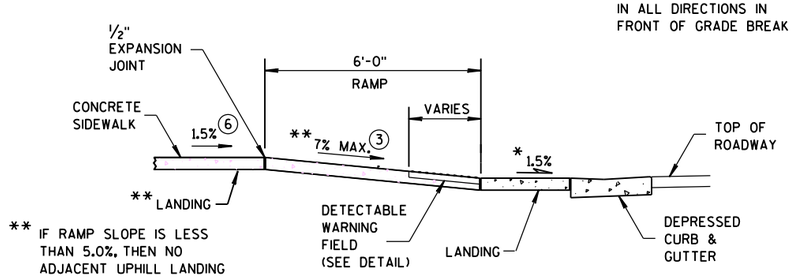
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



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

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

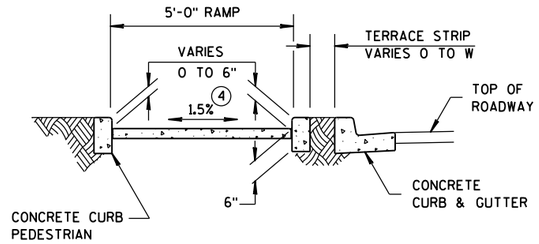
SECTION B-B FOR TYPE 4B

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.

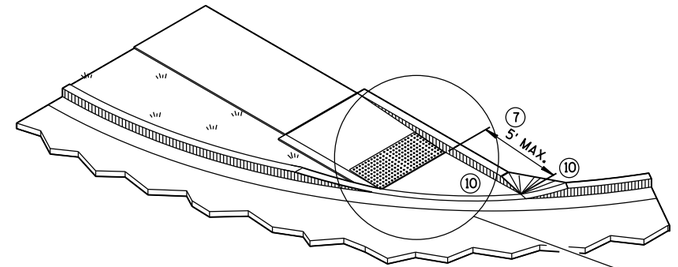
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

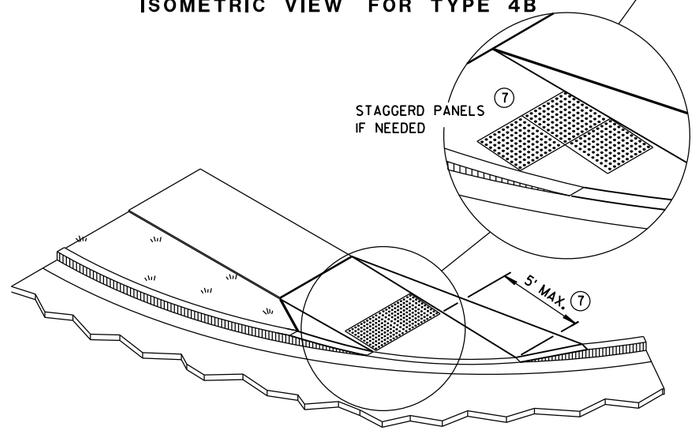
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

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

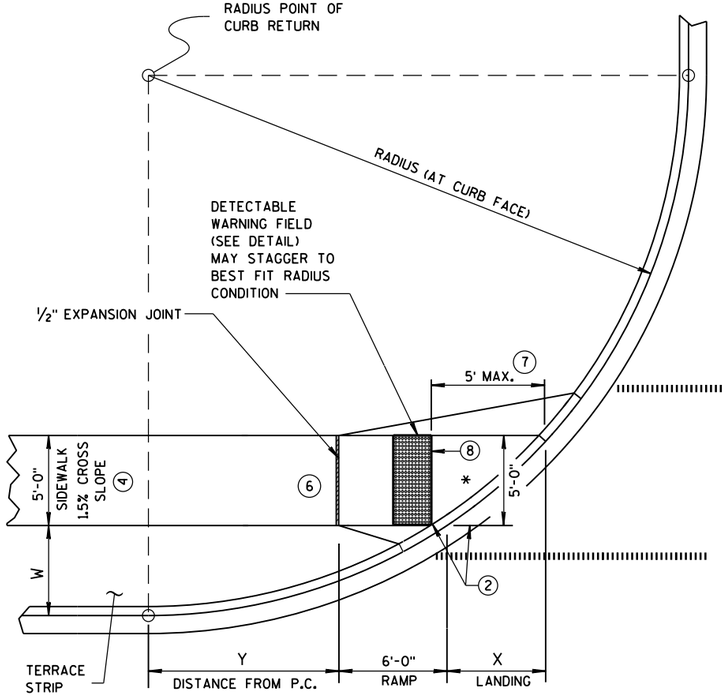
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



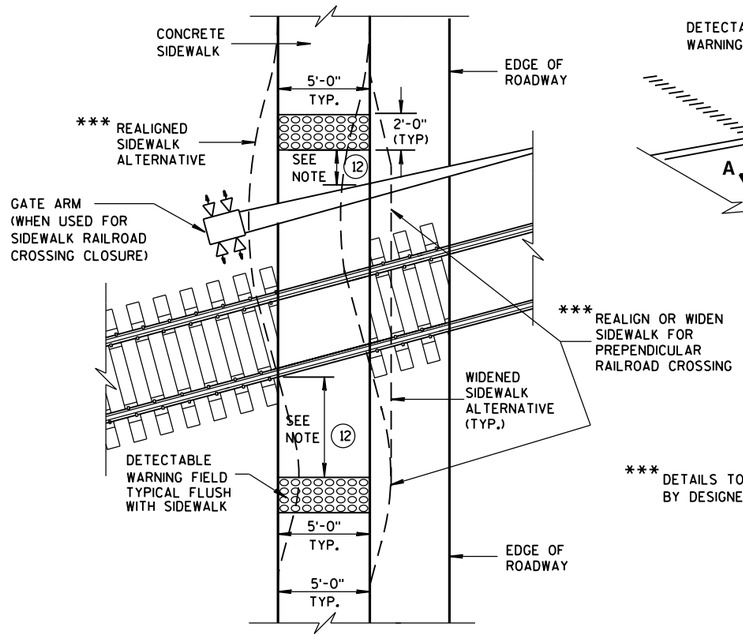
CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

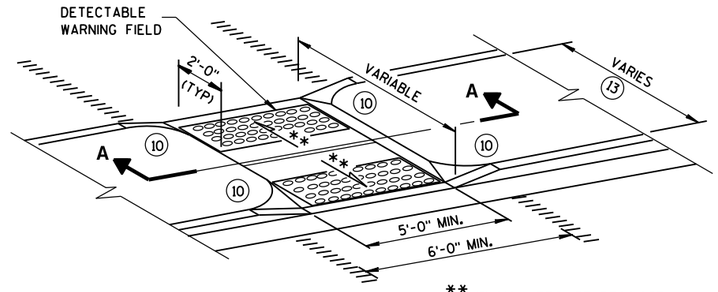
6

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



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



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.

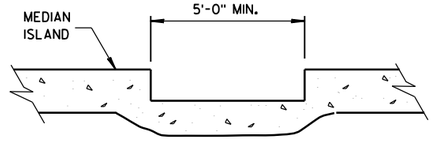
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

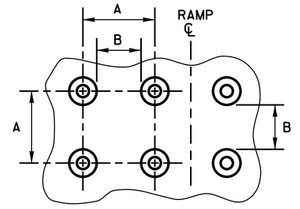
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



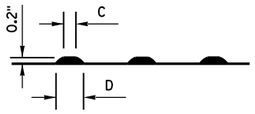
SECTION A-A

	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.

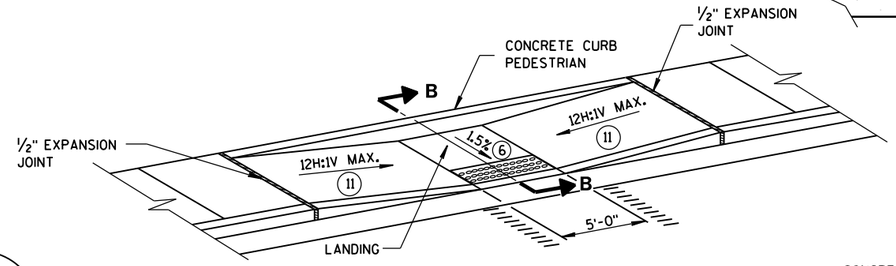


PLAN VIEW

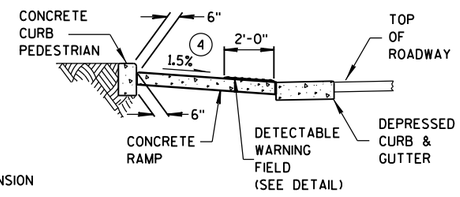


ELEVATION VIEW

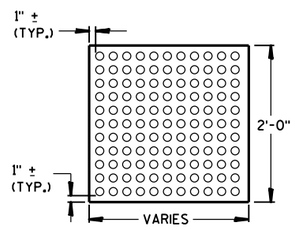
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A

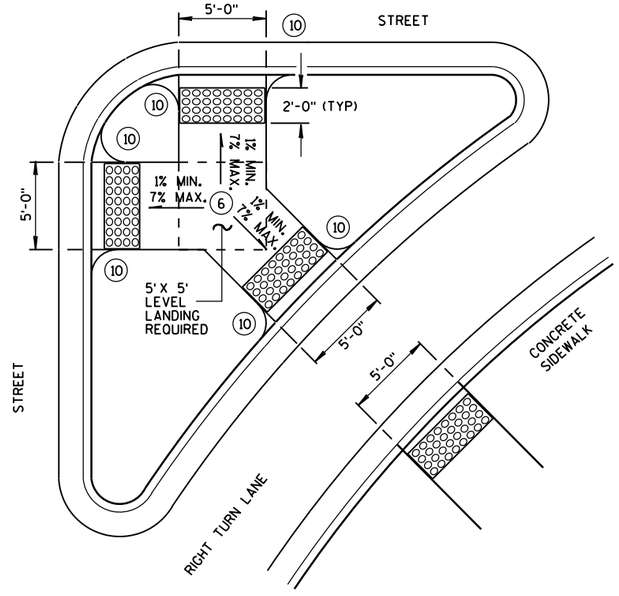


SECTION B-B

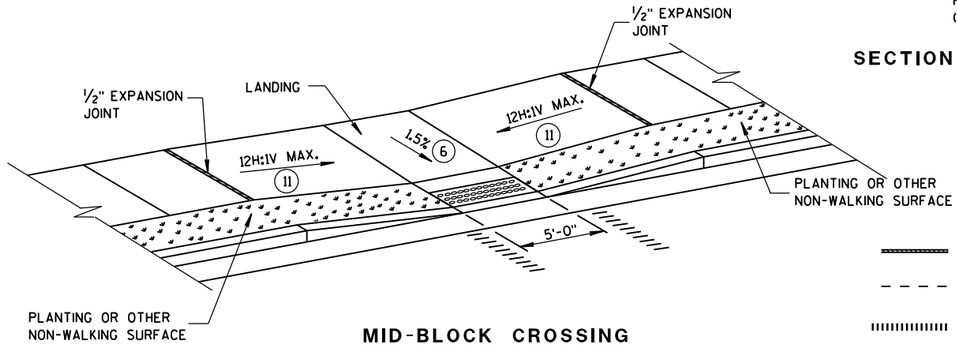


PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

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

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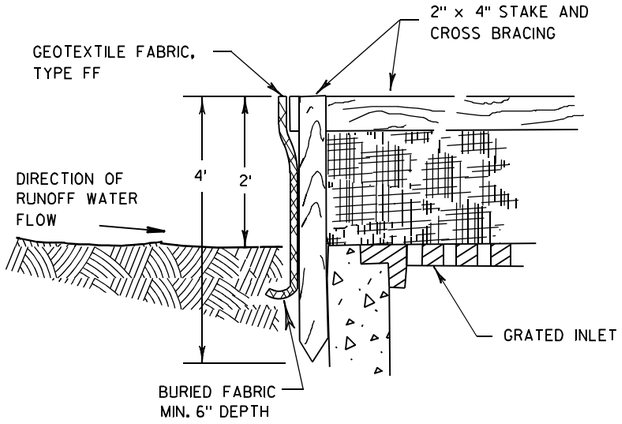
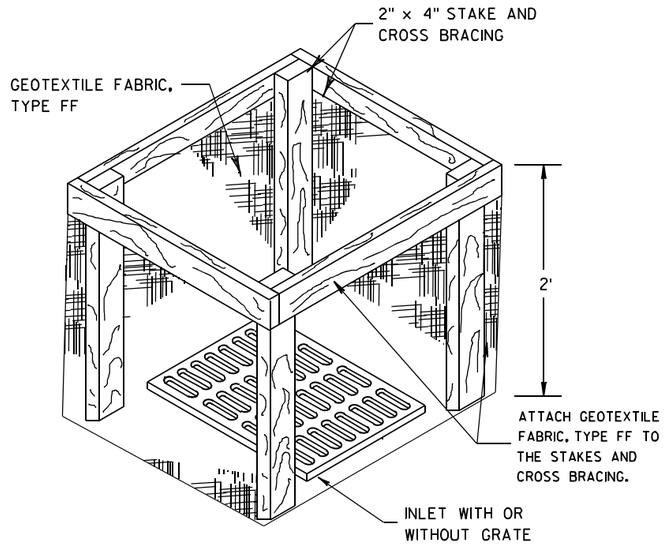
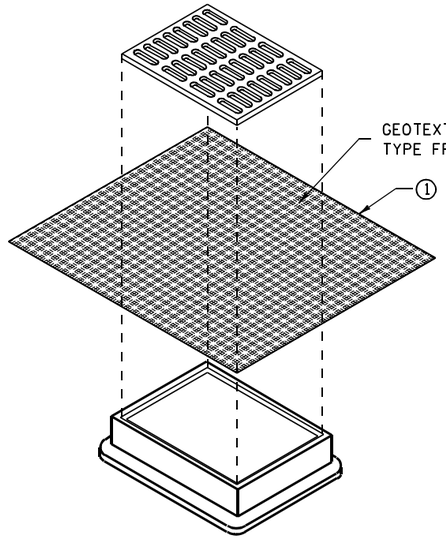


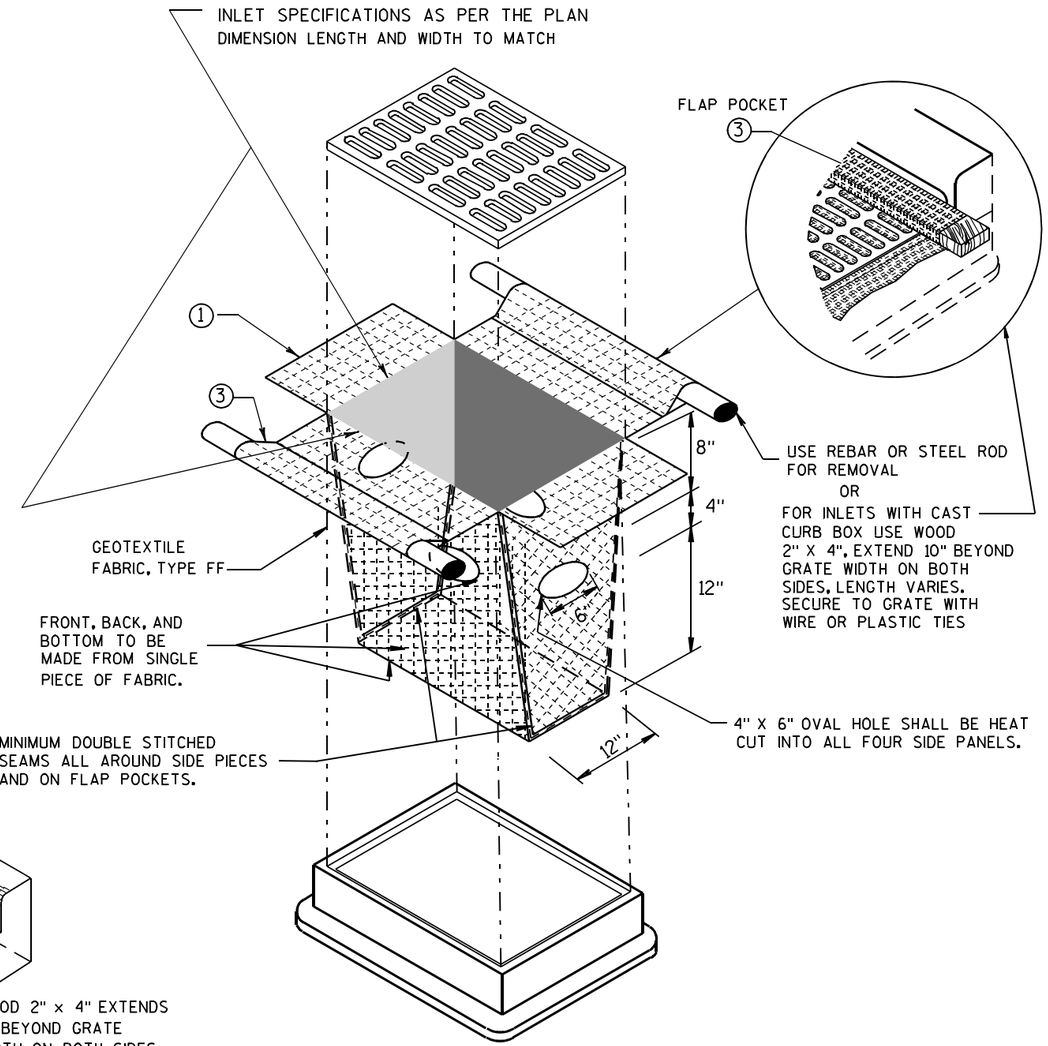


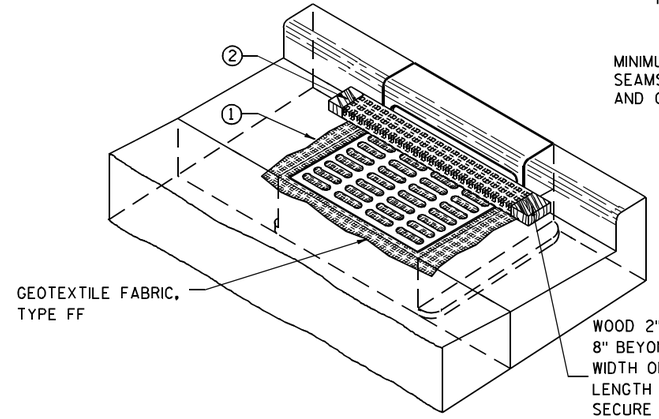
INLET PROTECTION, TYPE A



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

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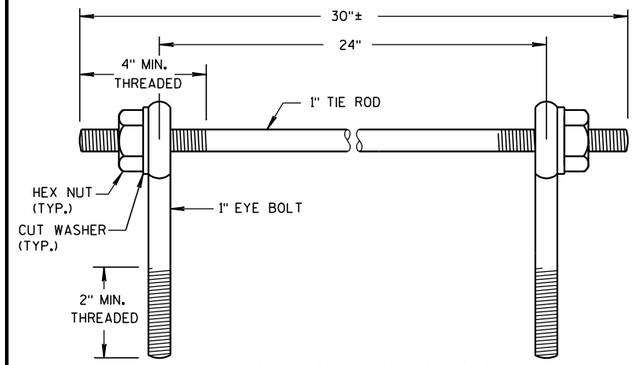
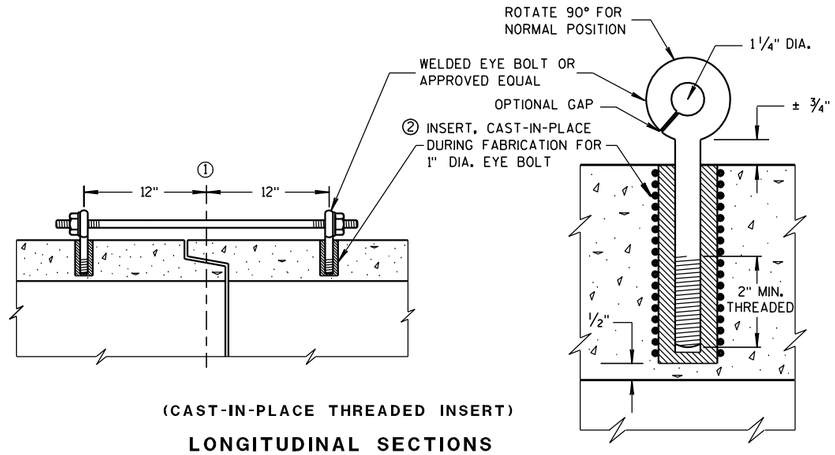
S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 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 APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

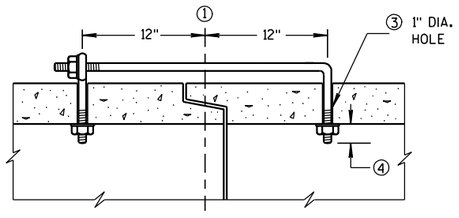
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

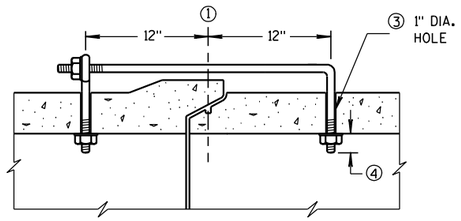
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

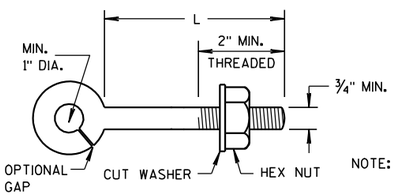


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

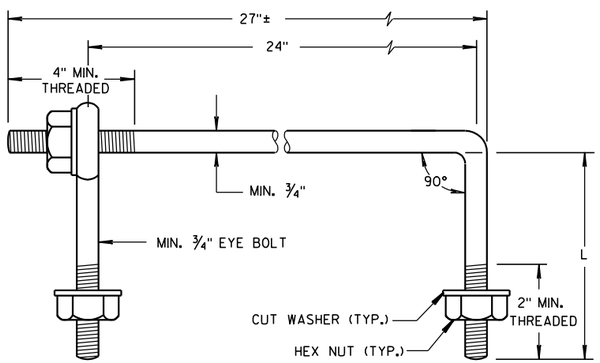
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

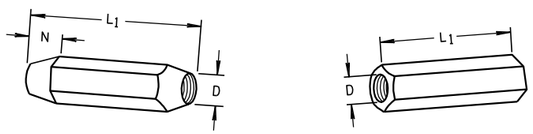
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

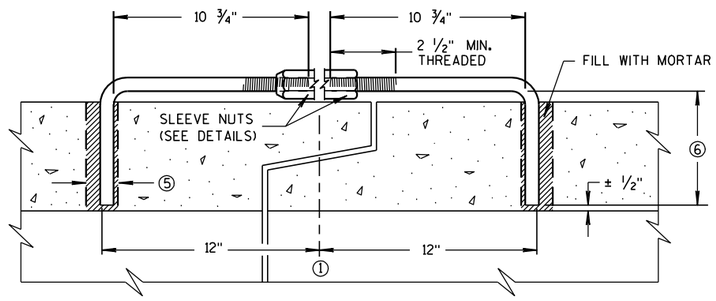
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

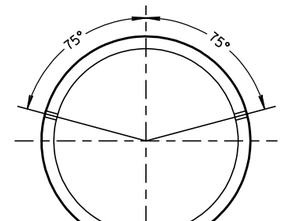
SLEEVE NUTS



LONGITUDINAL SECTION

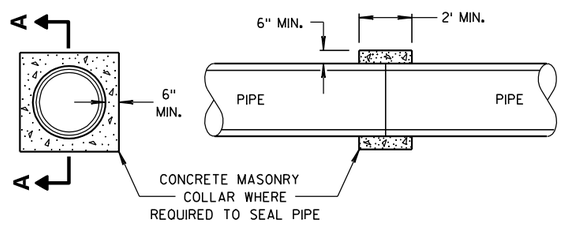
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

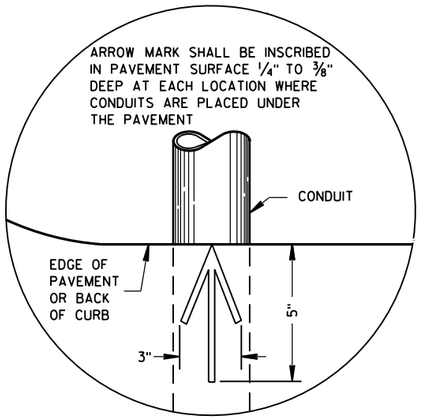
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
60
FHWA

6

S.D.D. 8 F 4-7

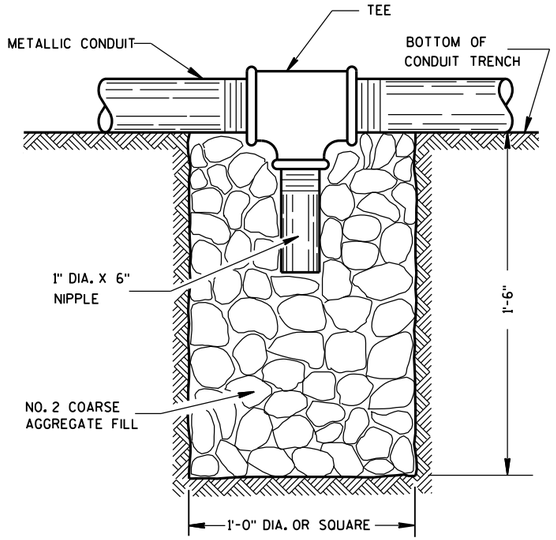
6

S.D.D. 8 F 4-7



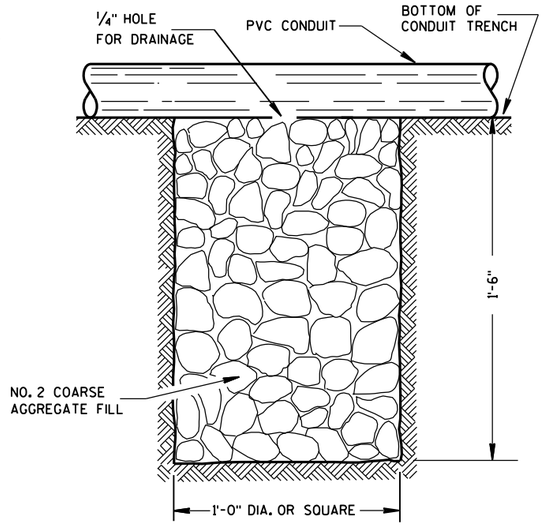
PLAN VIEW

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.

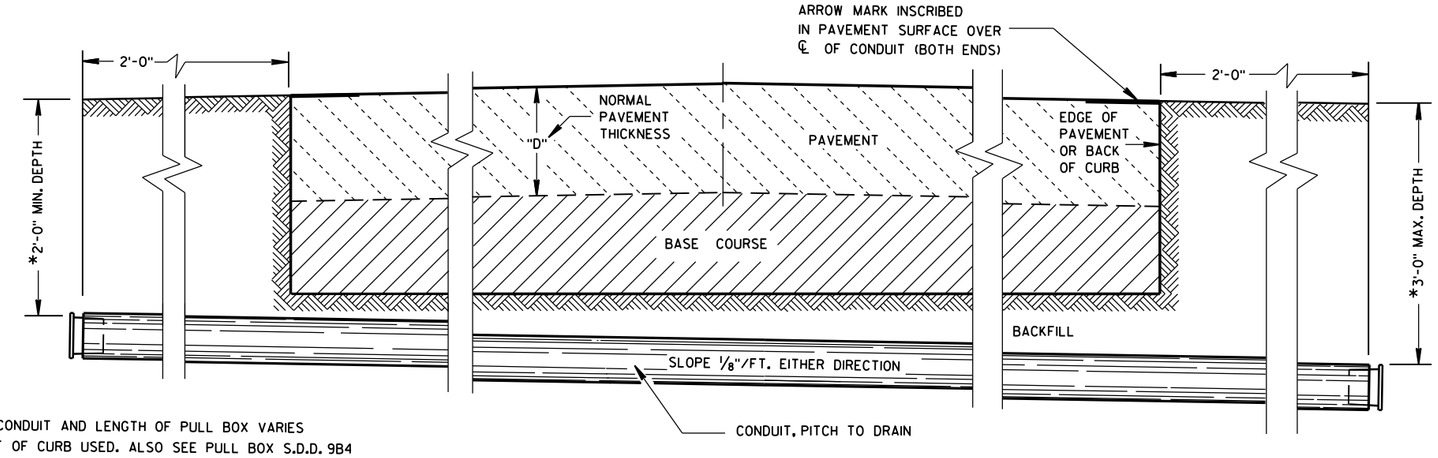
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

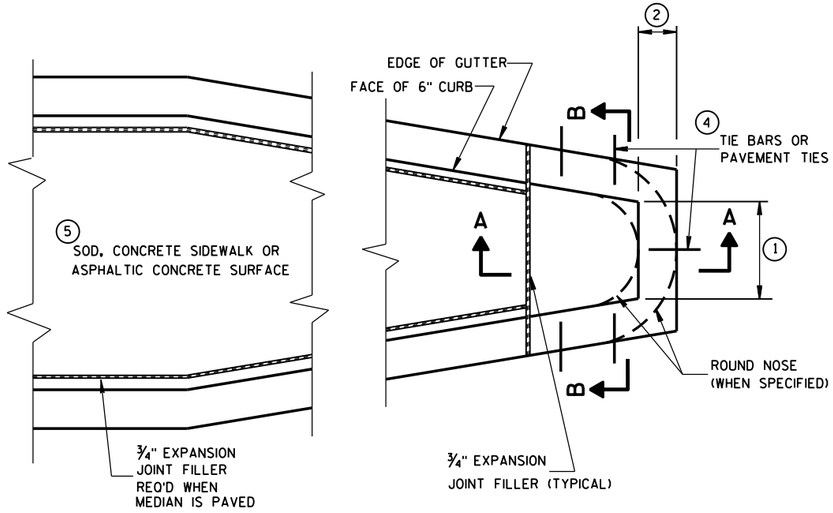
CONDUIT

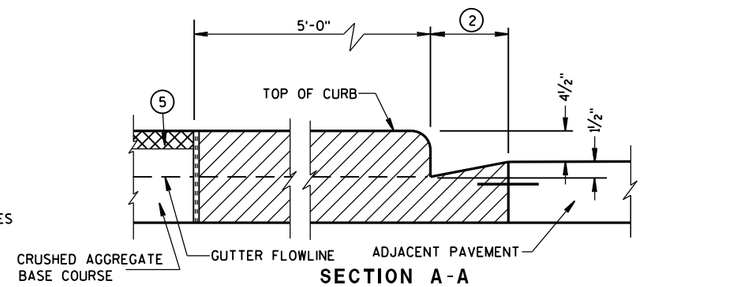
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

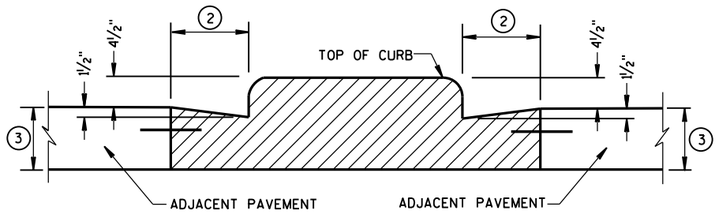
APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-9







CONCRETE MEDIAN BLUNT NOSE DETAIL

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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

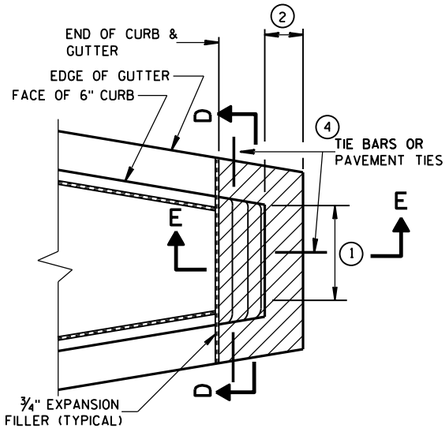
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

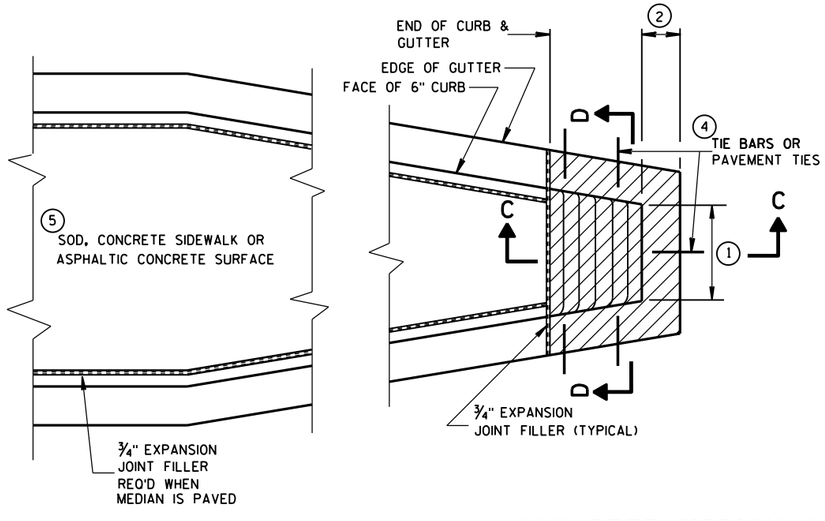
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

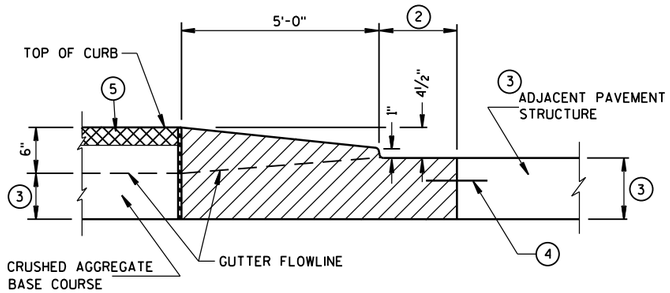
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

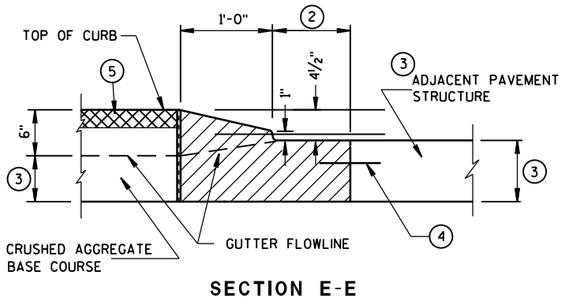
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



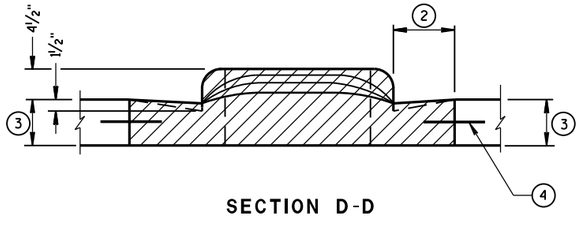




CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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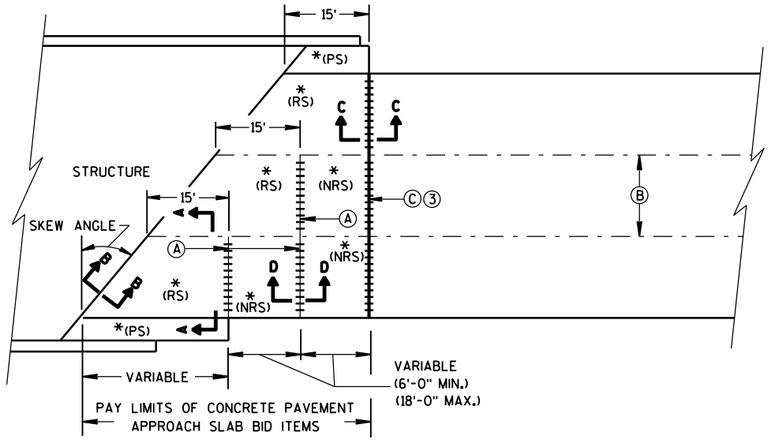
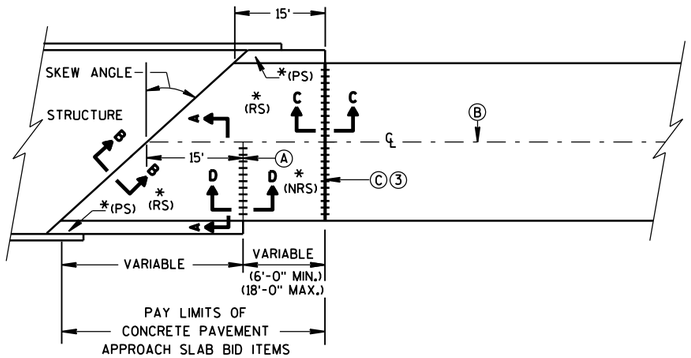
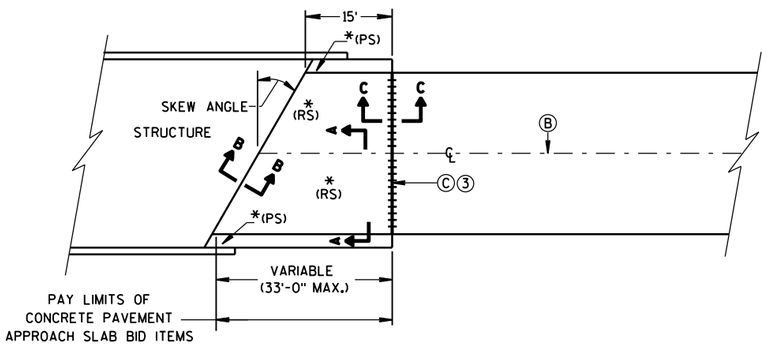
S.D.D. 11 B 2-2



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

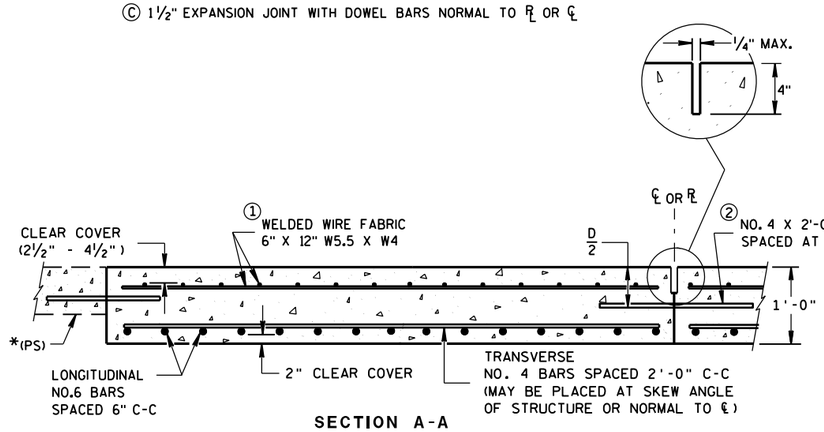
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

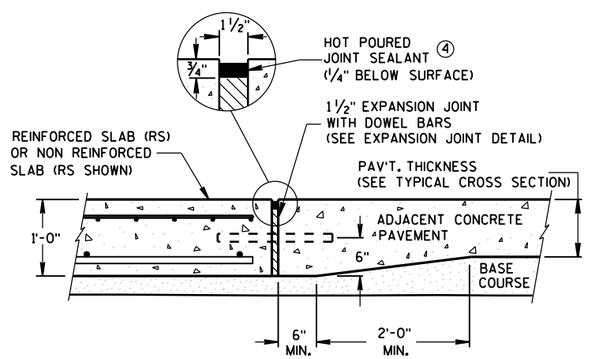
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

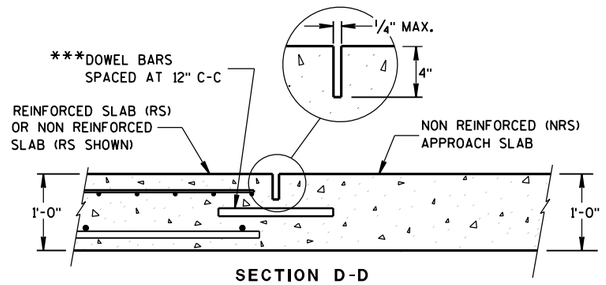
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

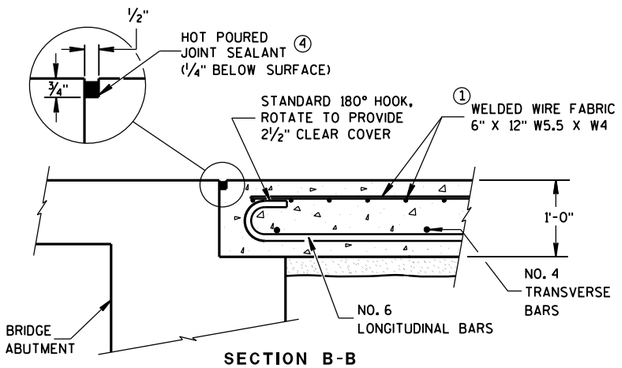
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

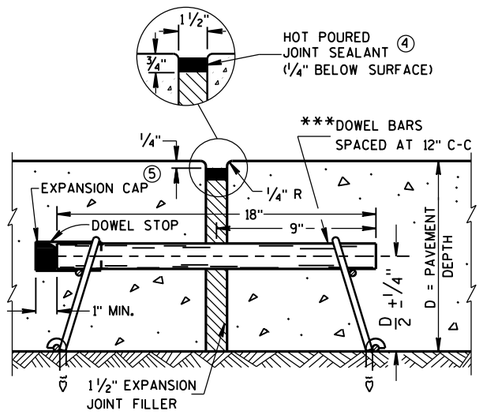
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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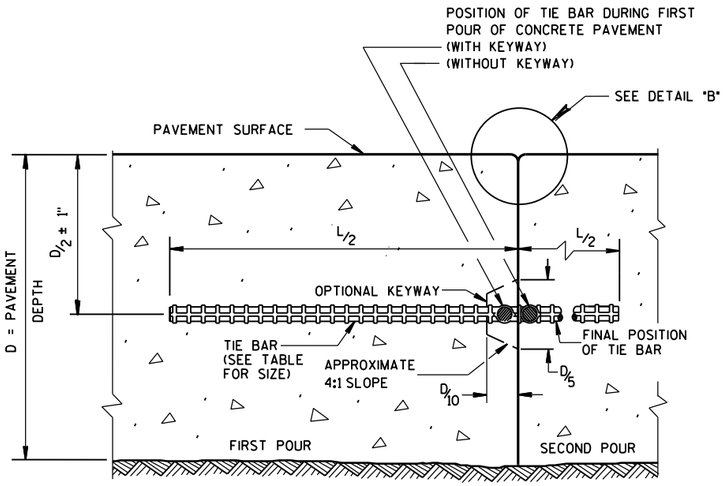
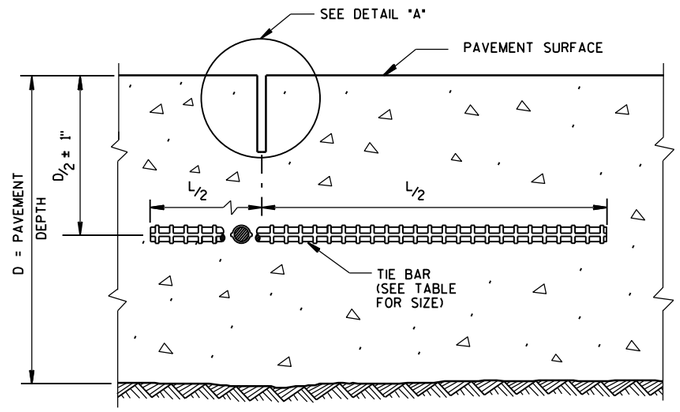
S.D.D. 13 B 2-8a



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

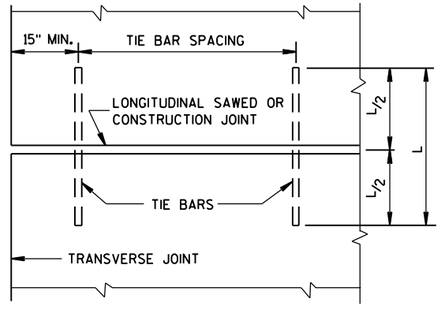
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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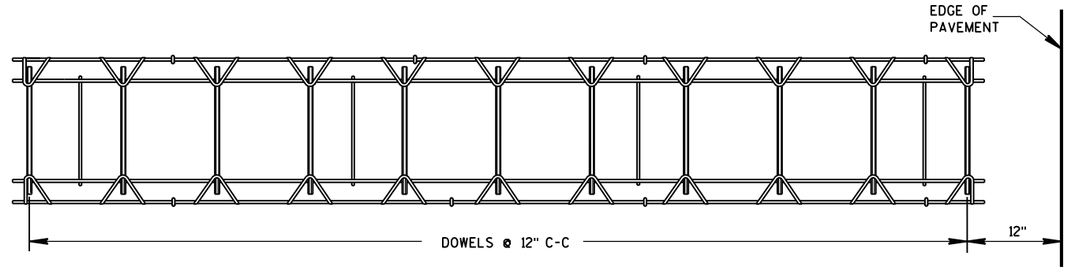
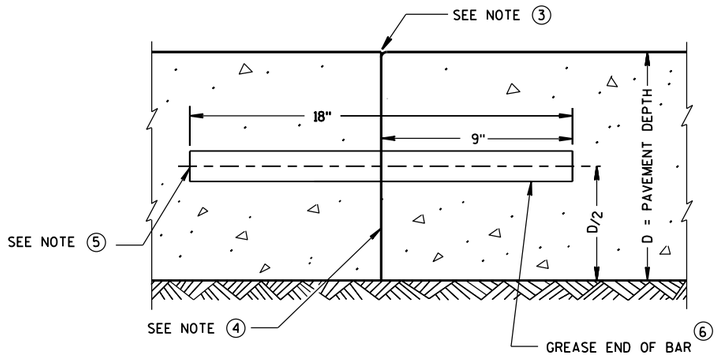
S.D.D. 13 C 1-18



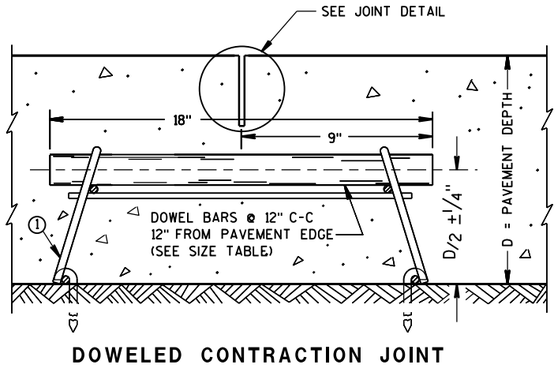
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



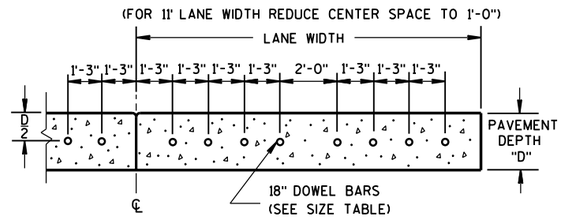
TRANSVERSE CONSTRUCTION JOINT



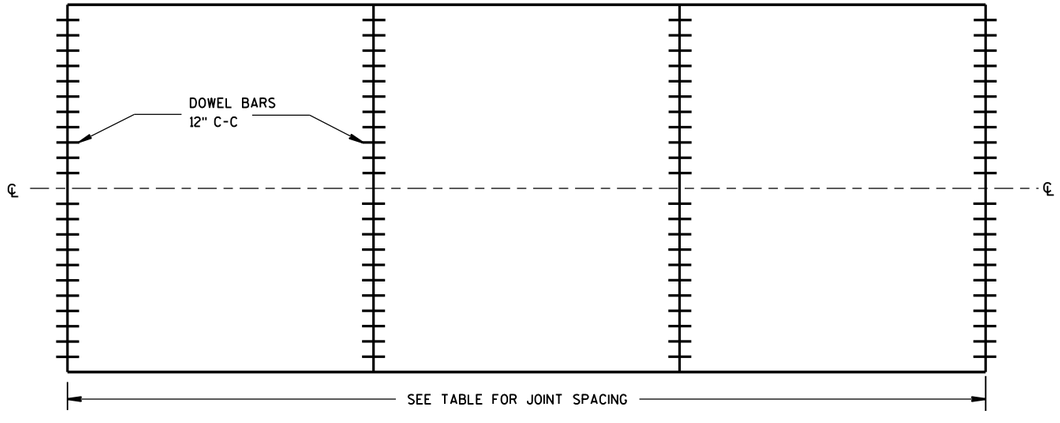
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

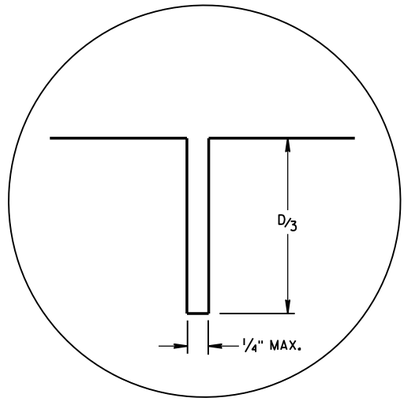
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

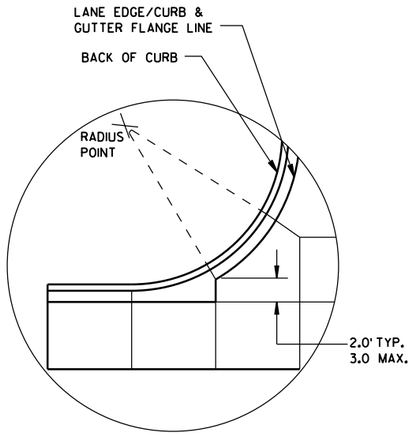
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

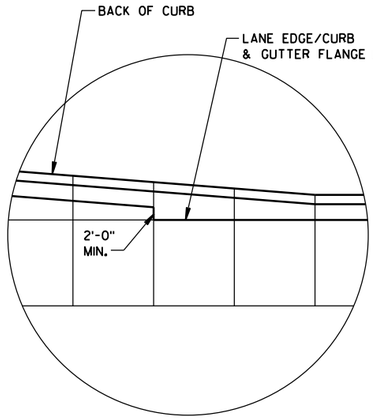
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

6

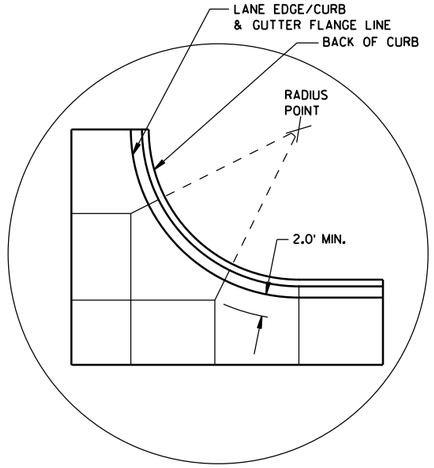
S.D.D. 13 C 13-8



DETAIL "A"



DETAIL "B"



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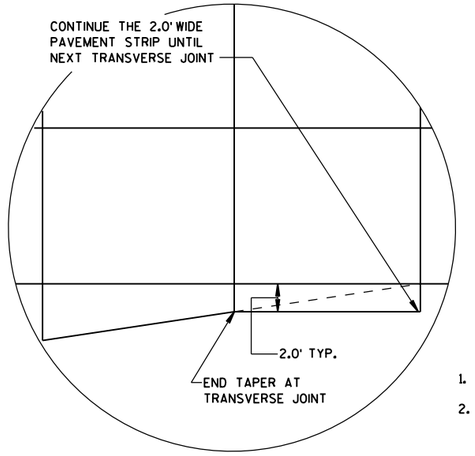


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

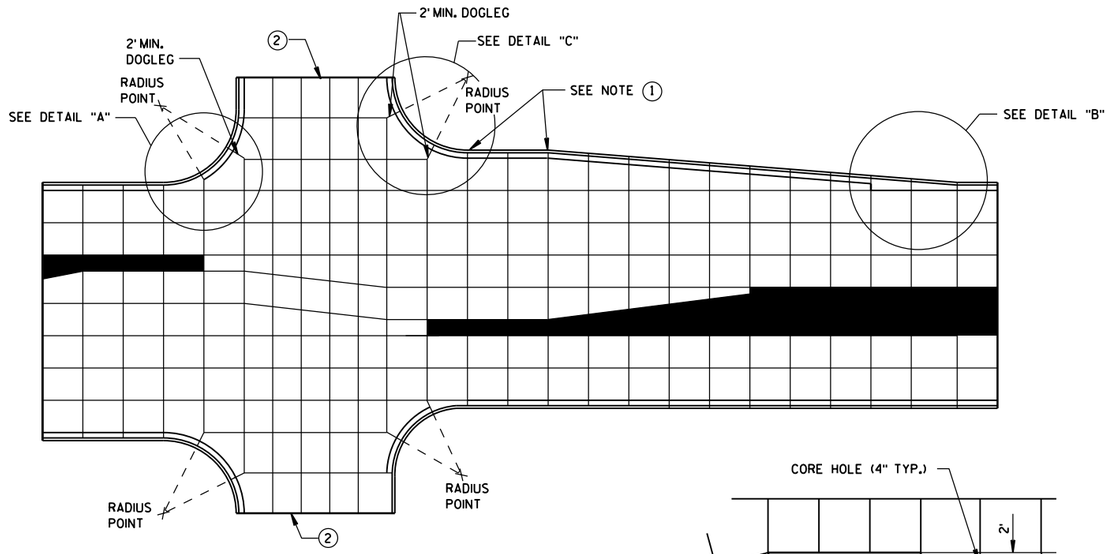
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

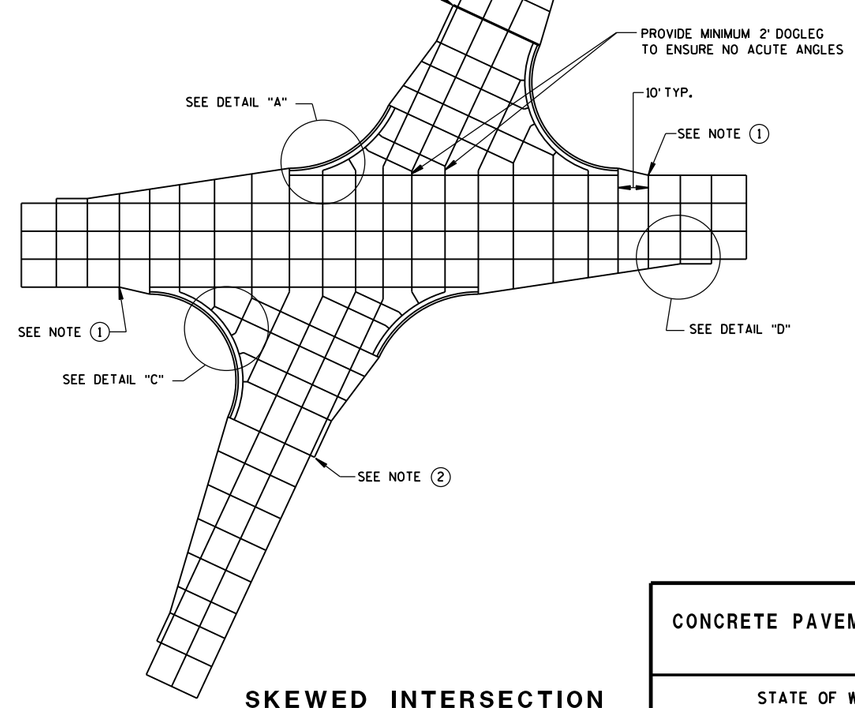
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



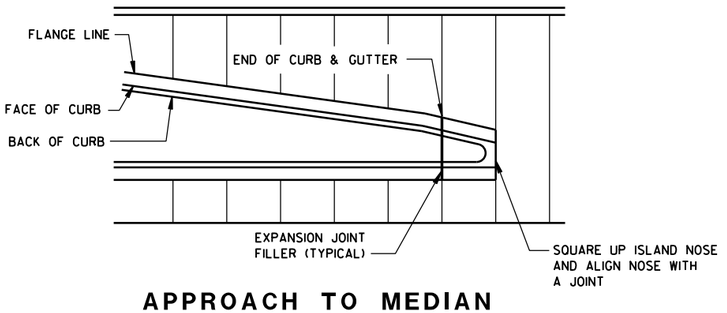
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

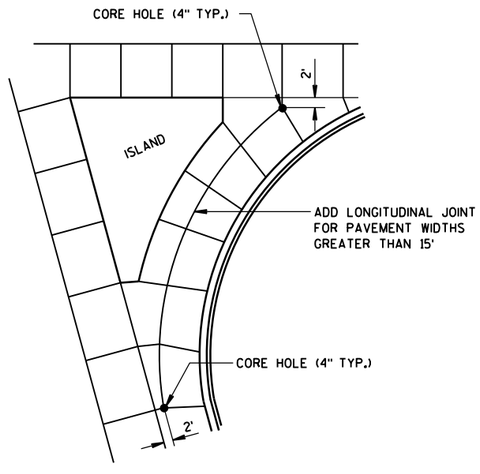
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

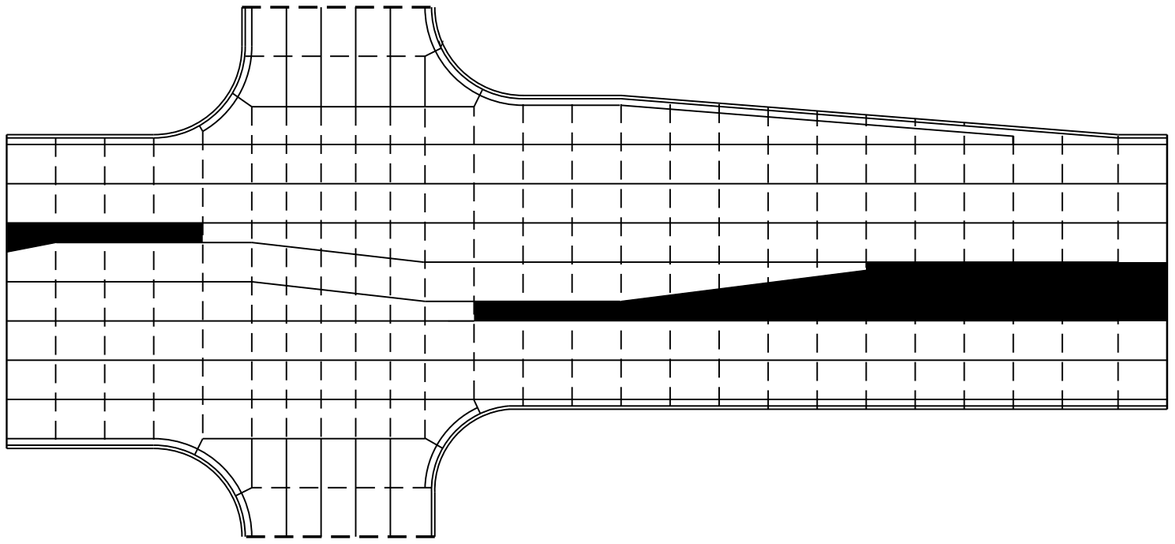
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

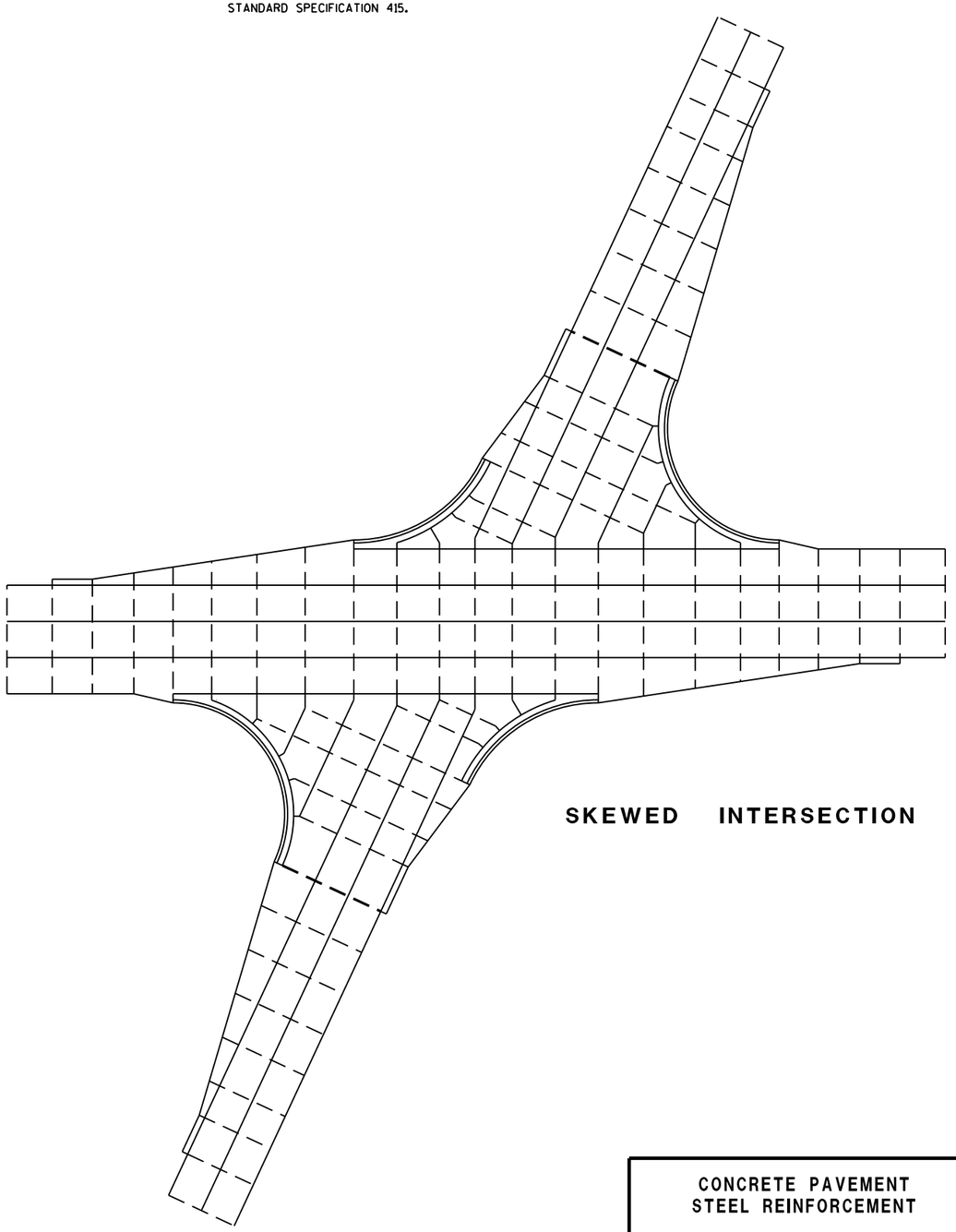
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

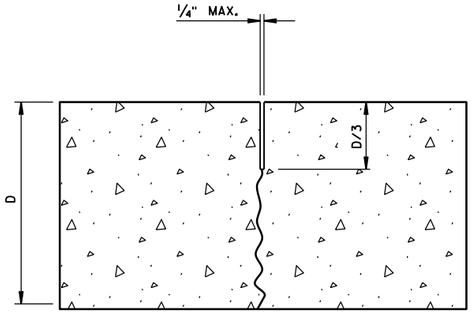
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

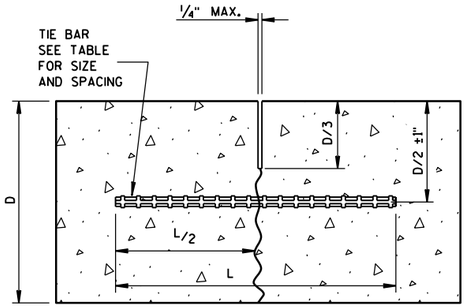
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

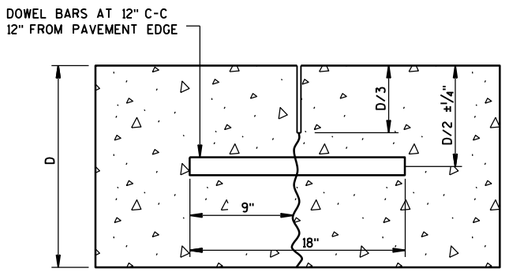
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

GENERAL NOTES

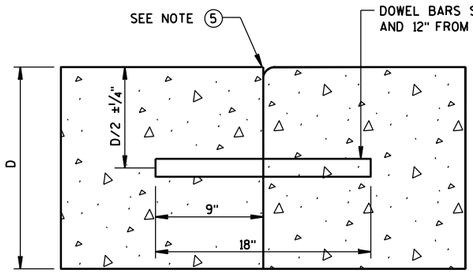
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



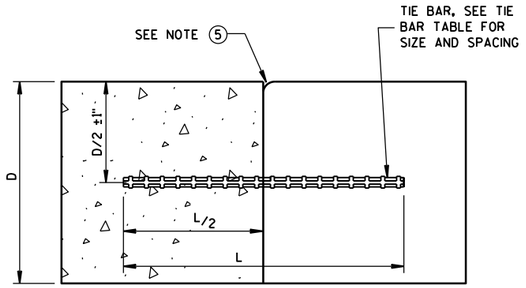
DOWELED-TRANSVERSE

CONTRACTION JOINTS

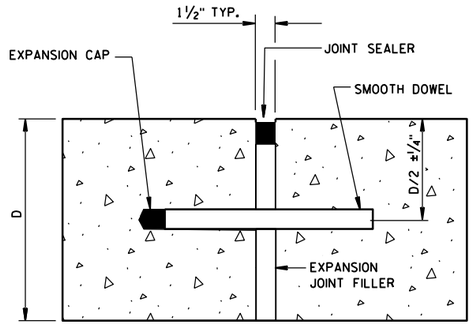
SEE NOTE (2)



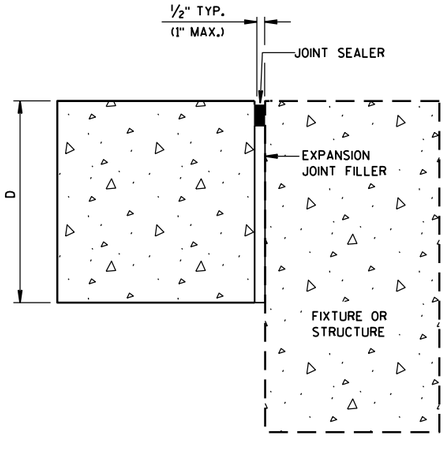
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL

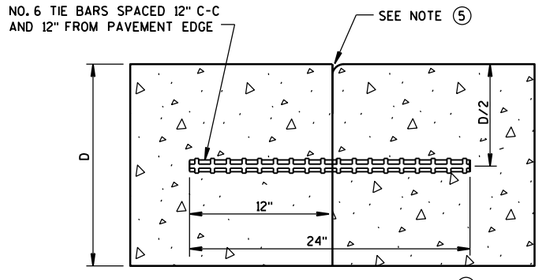


DOWELED-TRANSVERSE
SEE NOTE (1)

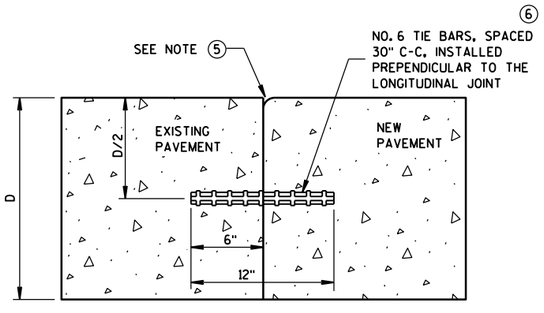


UNTIED-LONGITUDINAL

EXPANSION JOINTS



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS

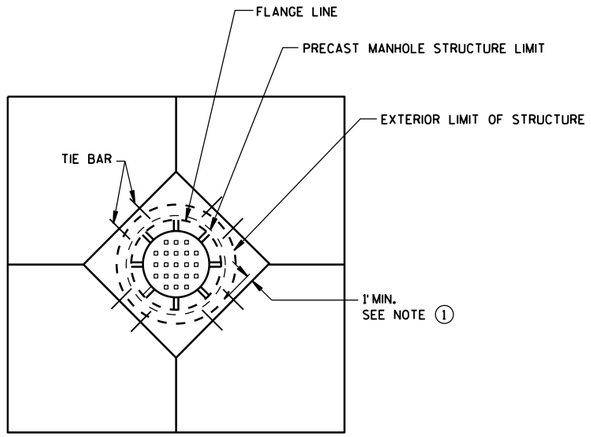
SEE NOTE (4)

CONCRETE PAVEMENT
JOINT TYPES

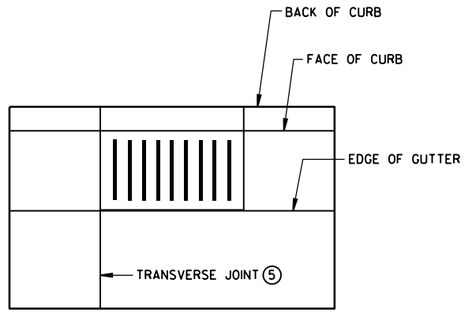
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

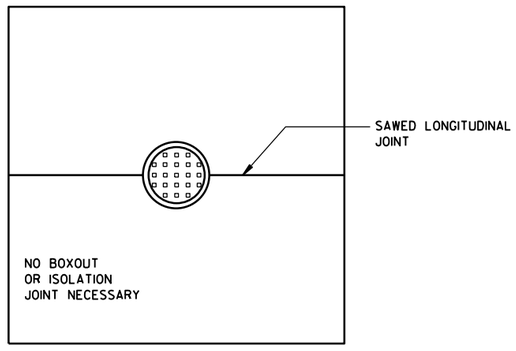
S.D.D. 13 C 18-3c



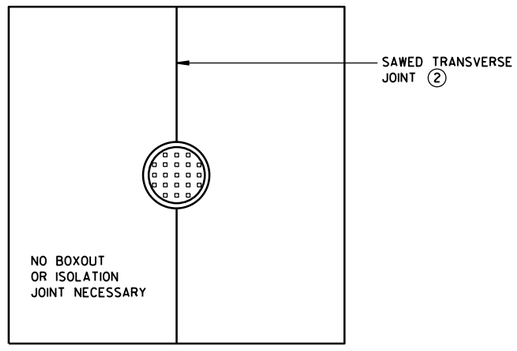
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



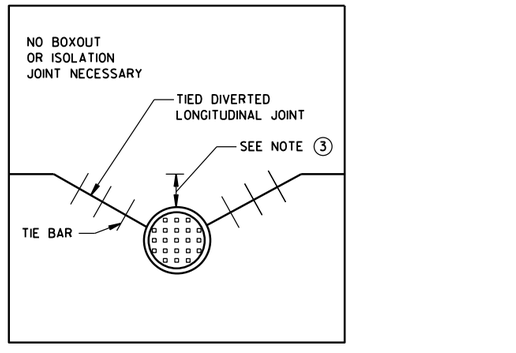
INLET WITH TRANSVERSE JOINT



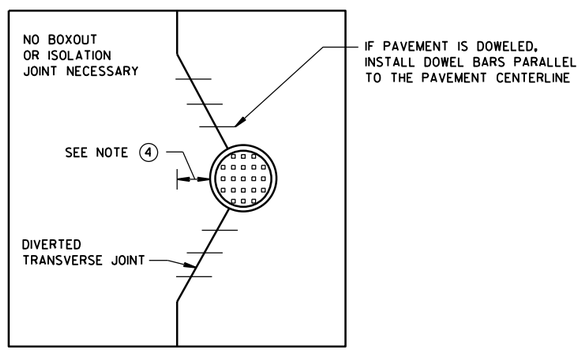
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

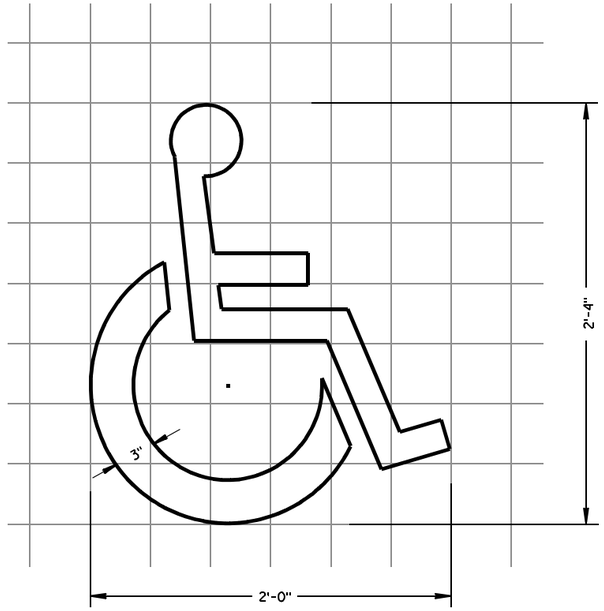
S.D.D. 13 C 18-3d

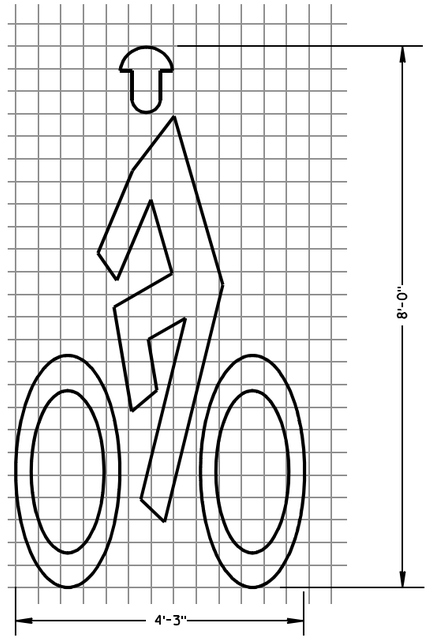
GENERAL NOTES

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.

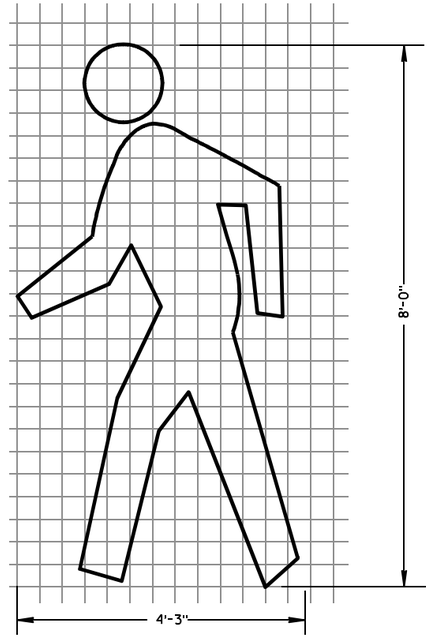
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

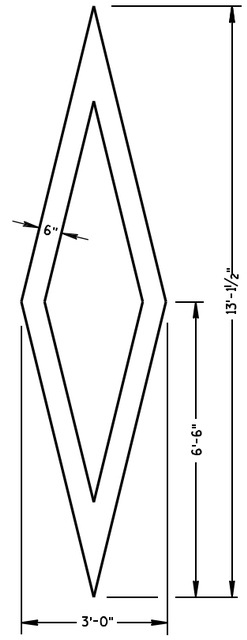




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N Nathan — STATE TRAFFIC ENGINEER

FHWA

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

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

GENERAL NOTES

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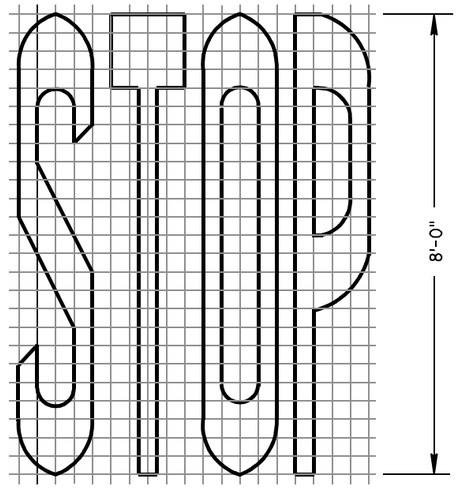
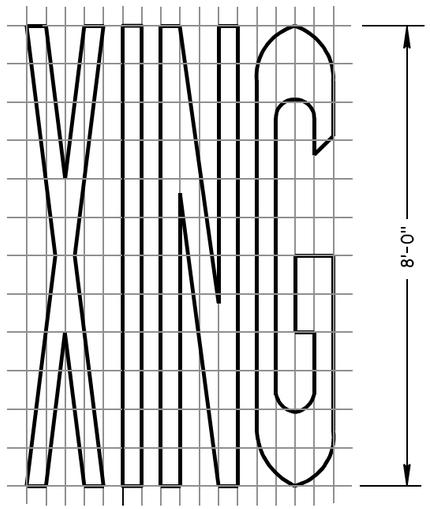
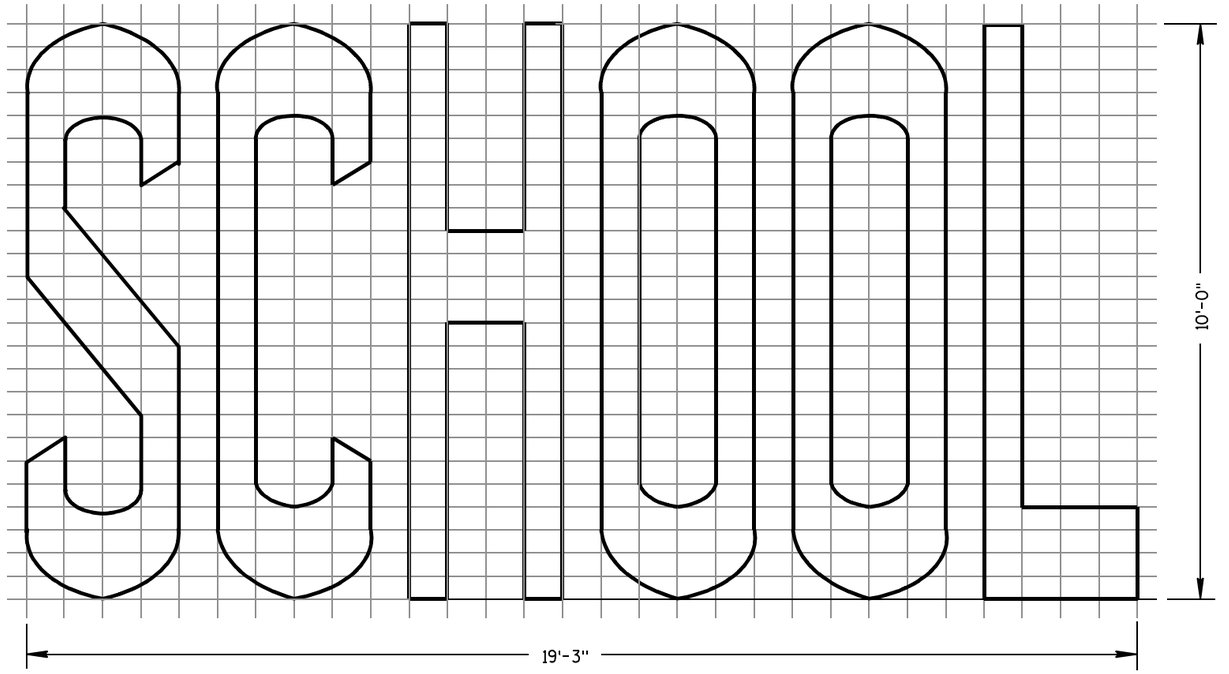
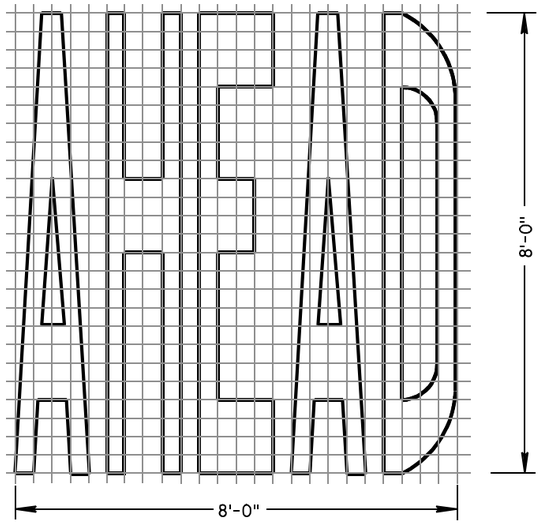
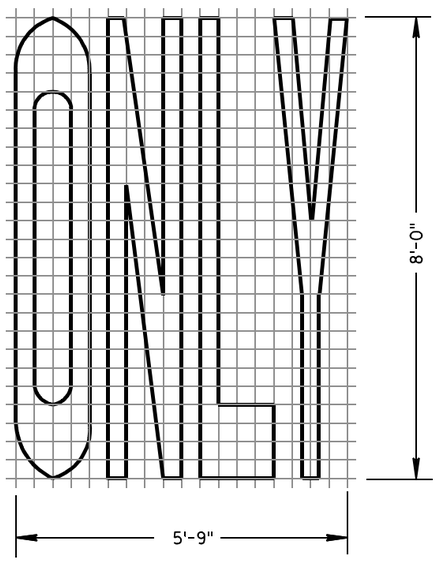


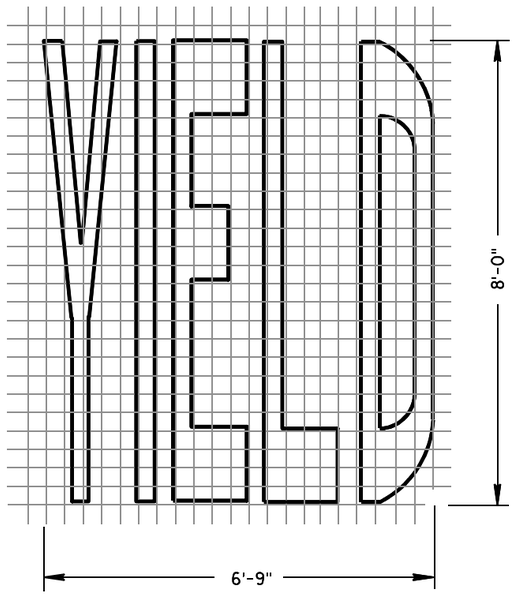


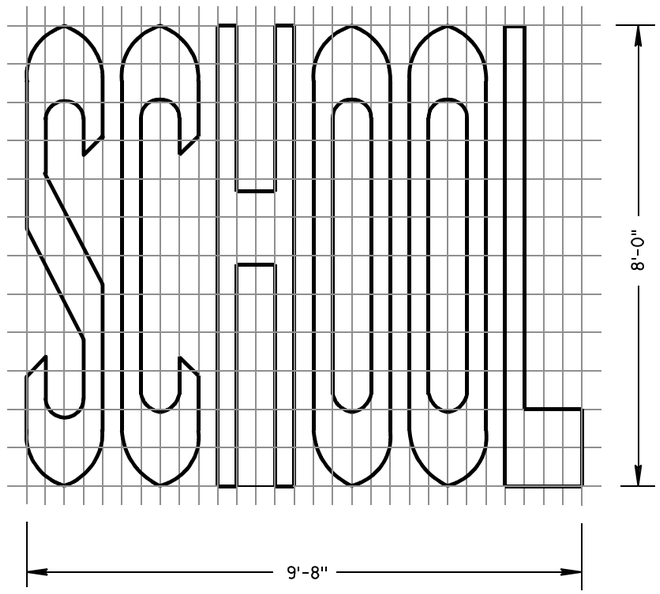


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

FHWA

6

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

6

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

GENERAL NOTES

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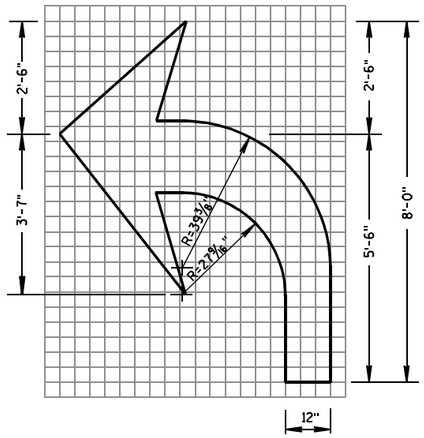

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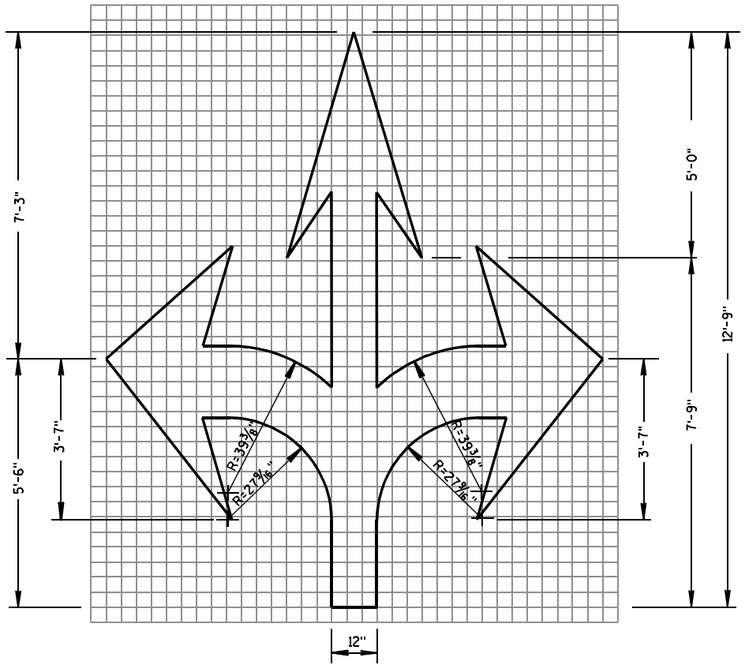

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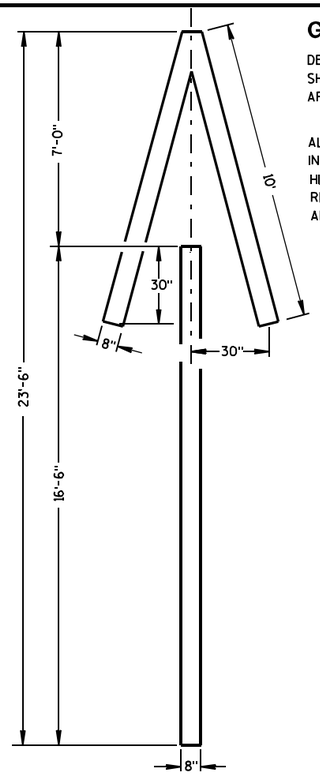

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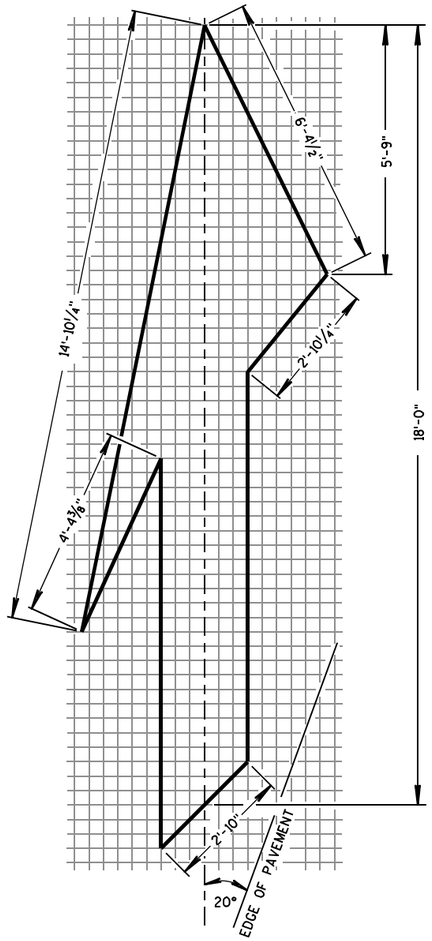
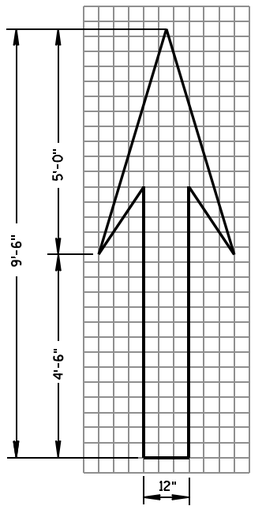


TYPE 5 LANE DROP ARROW



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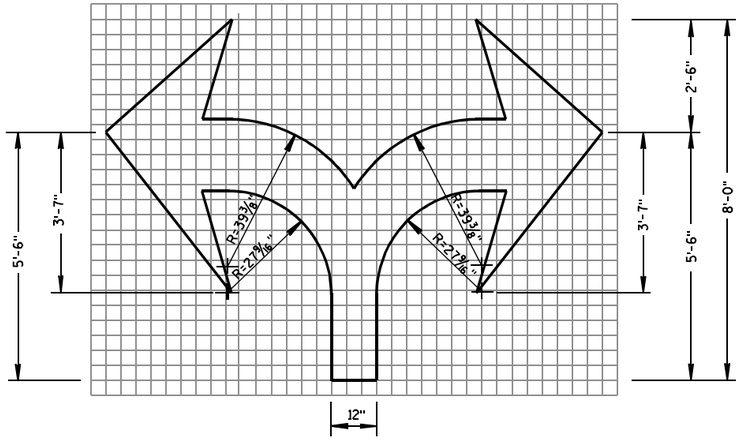
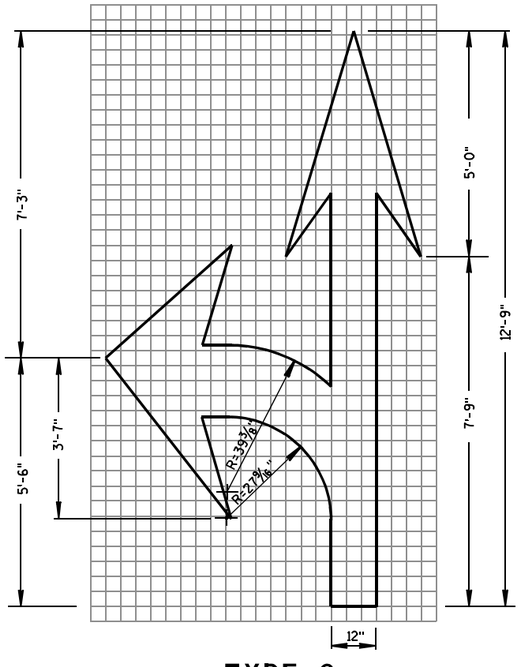


TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

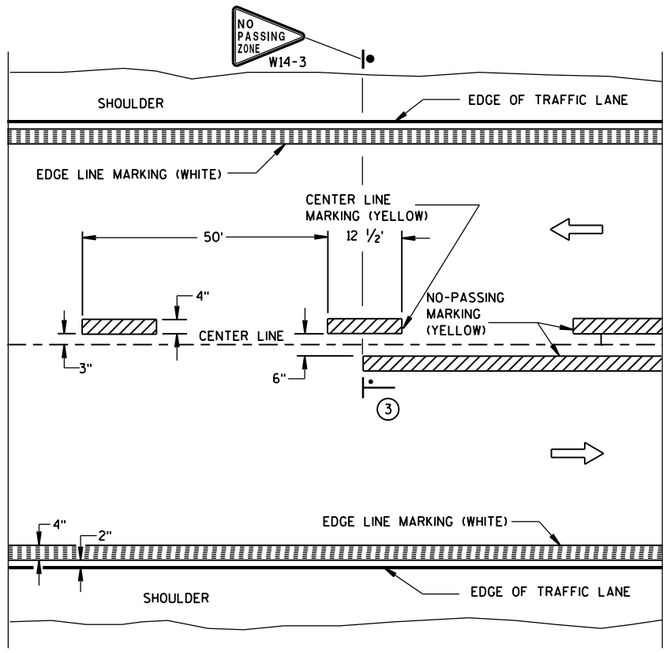
7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

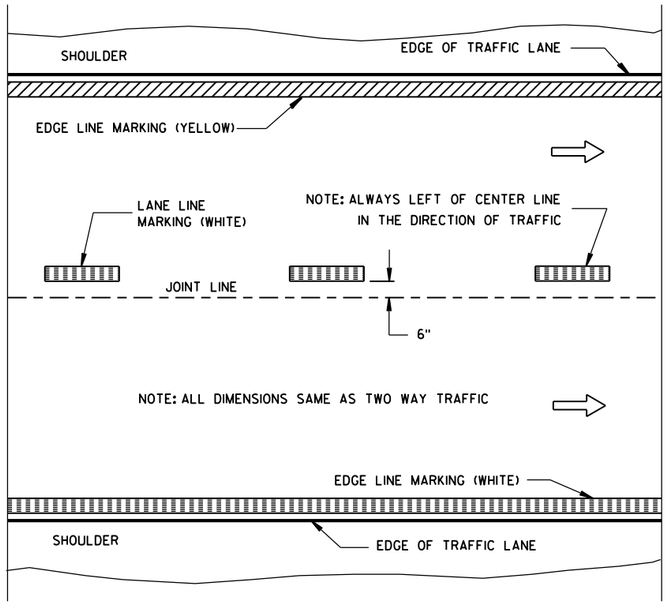
FHWA

6

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

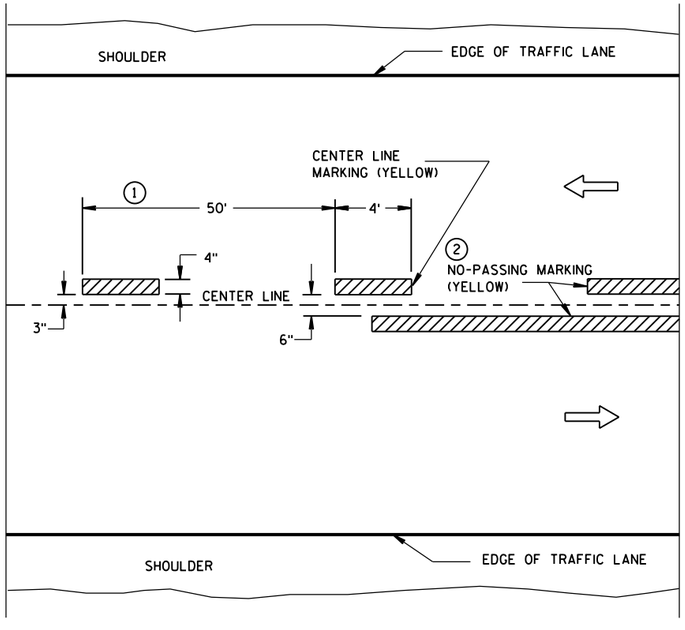


TWO WAY TRAFFIC

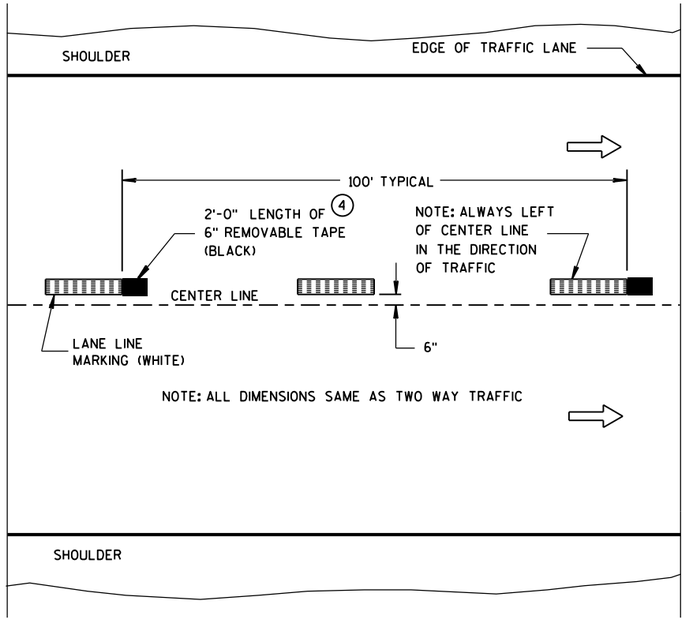


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

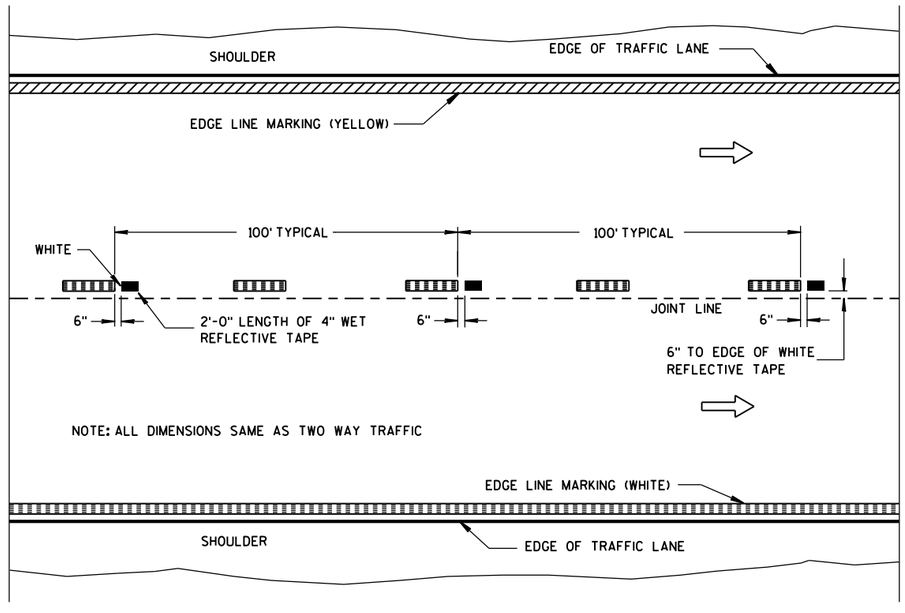
GENERAL NOTES

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

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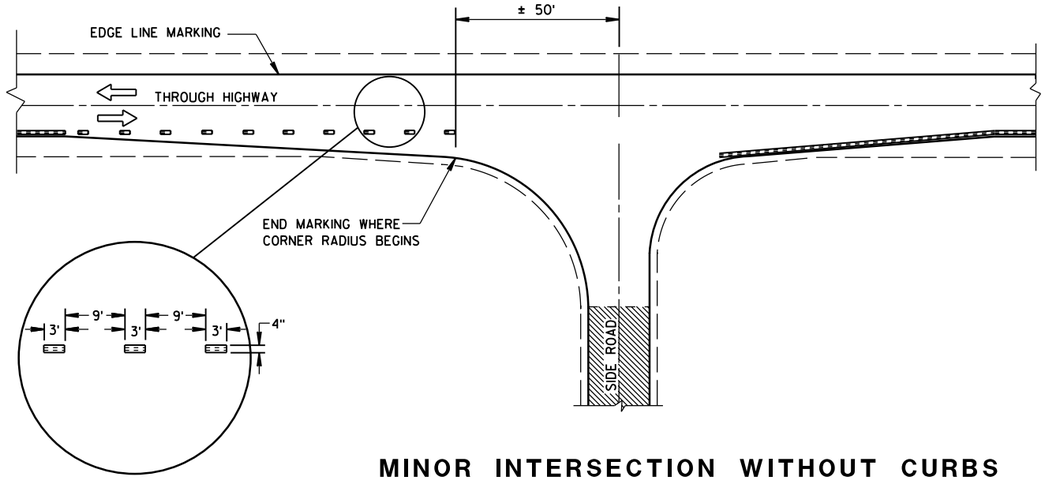
S.D.D. 15 C 8-16a



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.

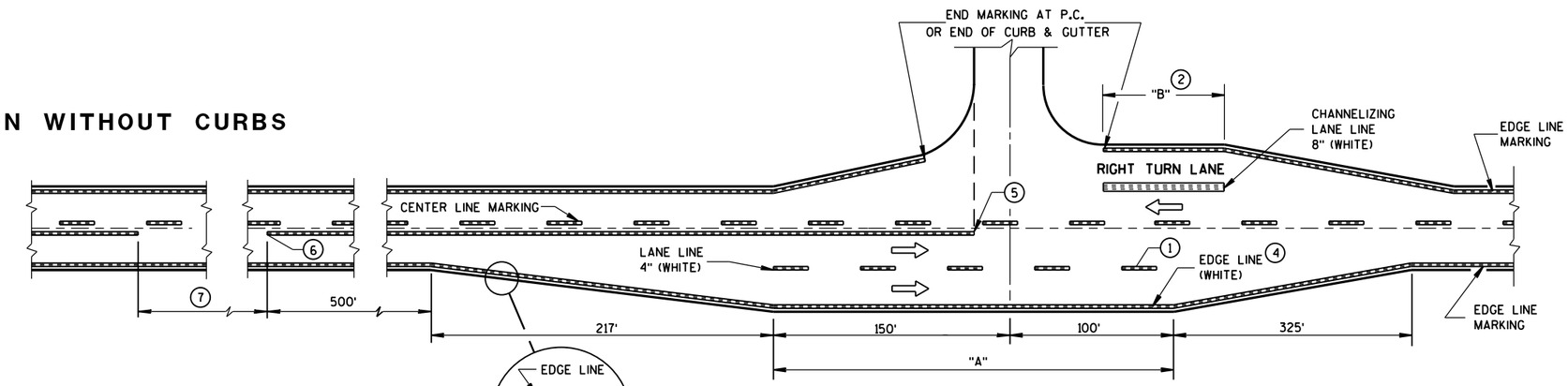
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

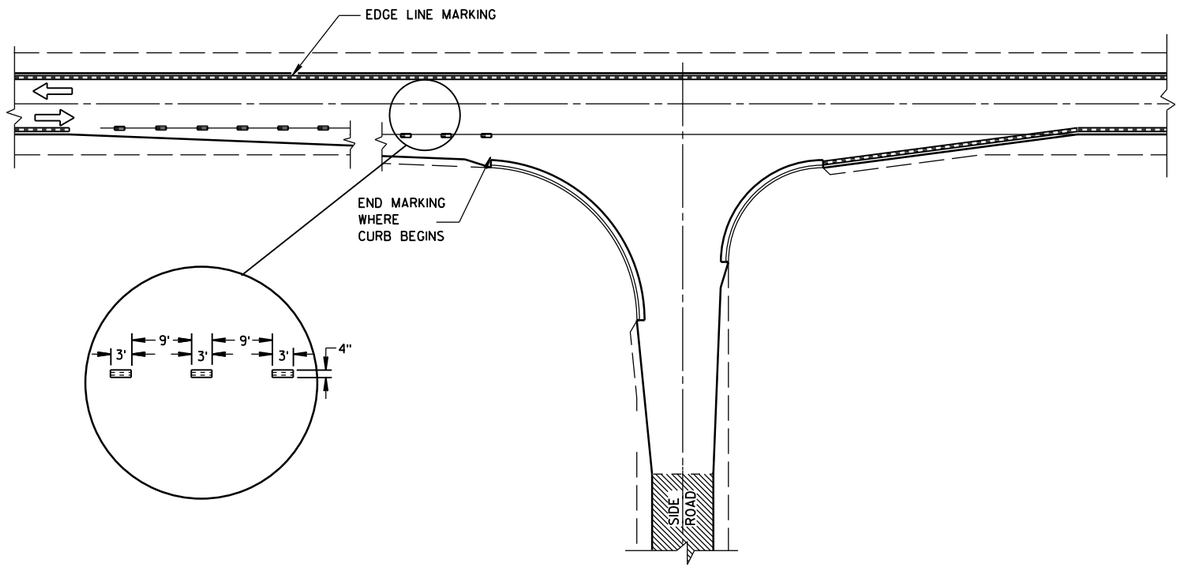
(7)

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



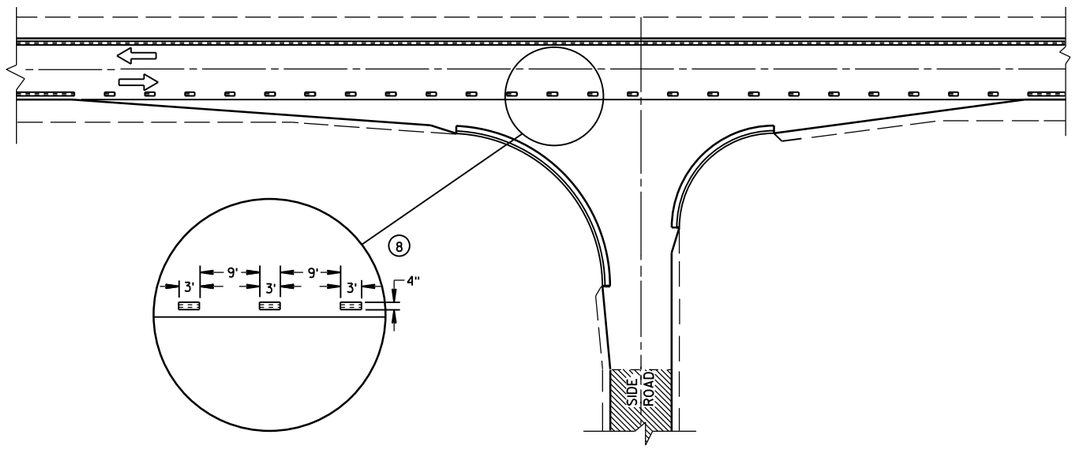
MAJOR INTERSECTIONS

(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)

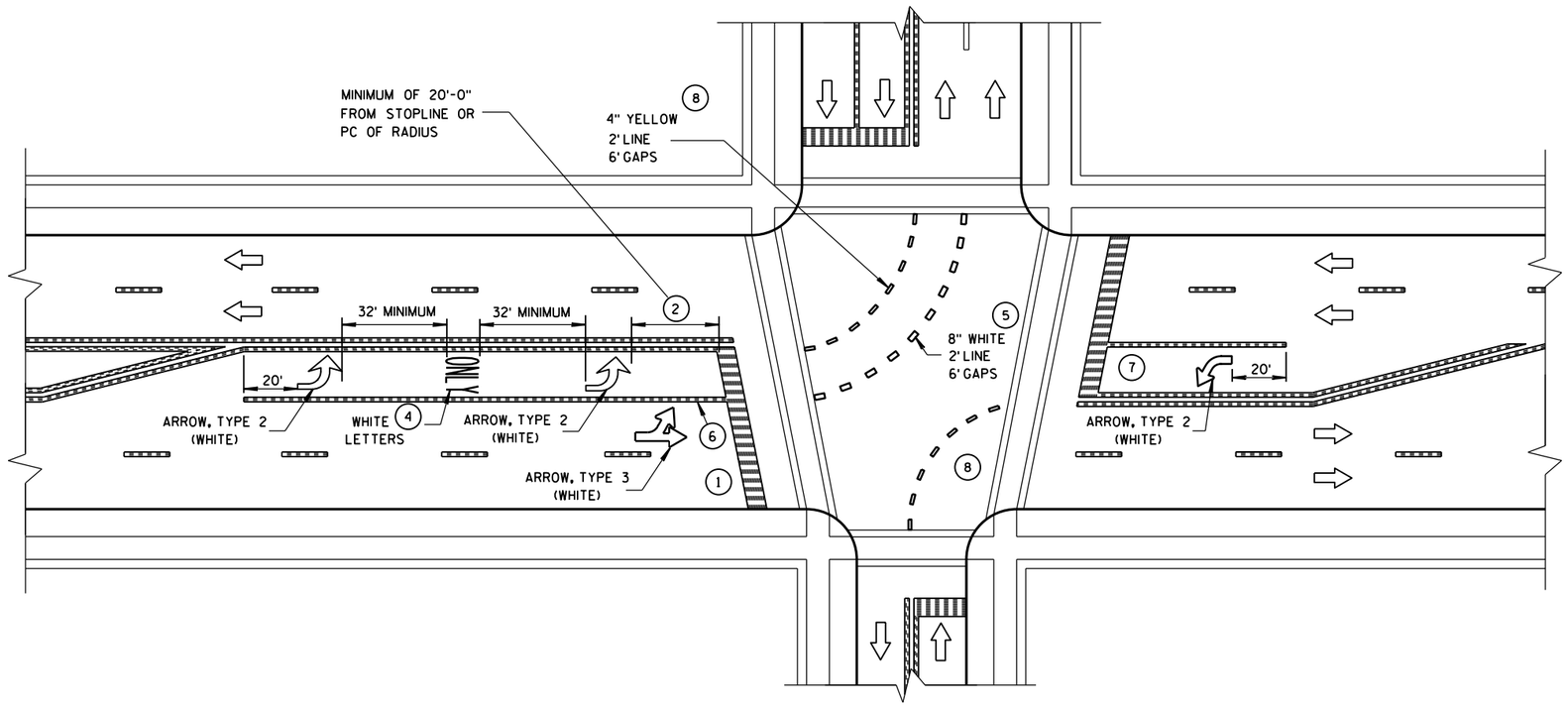
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

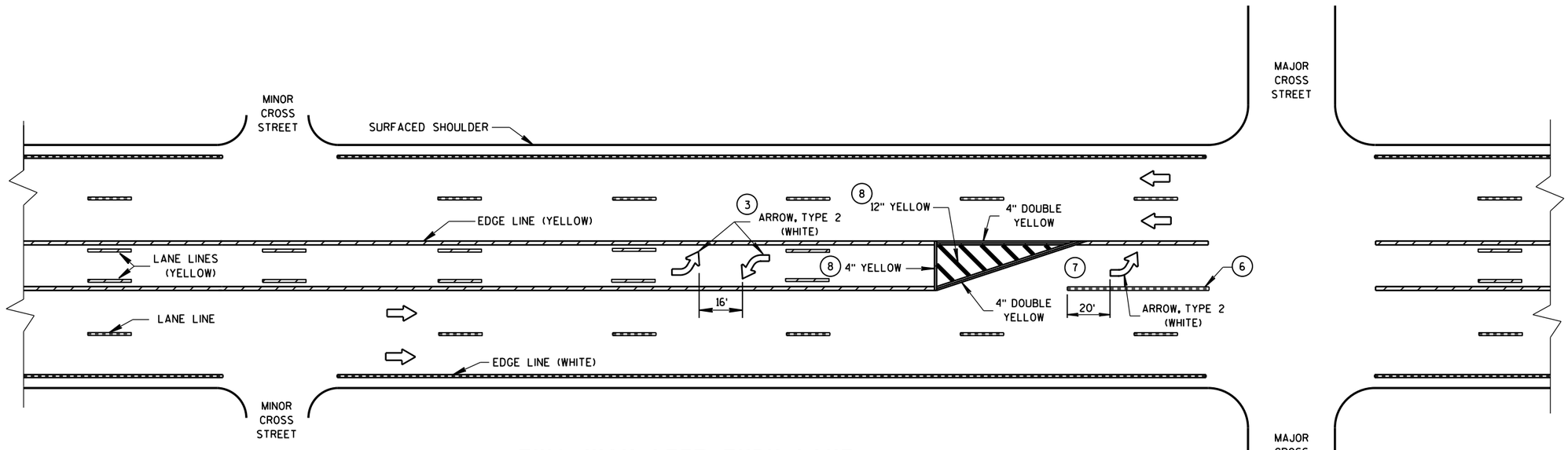
S.D.D. 15 C 8-16b



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

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

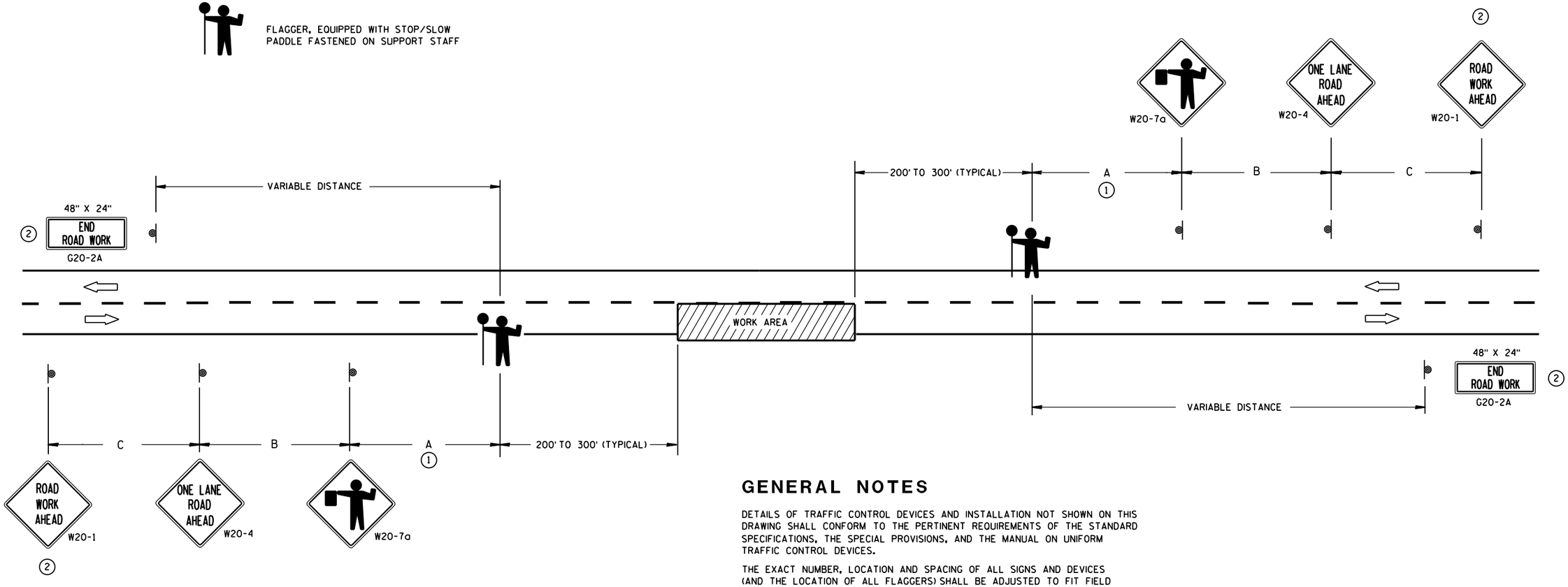
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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

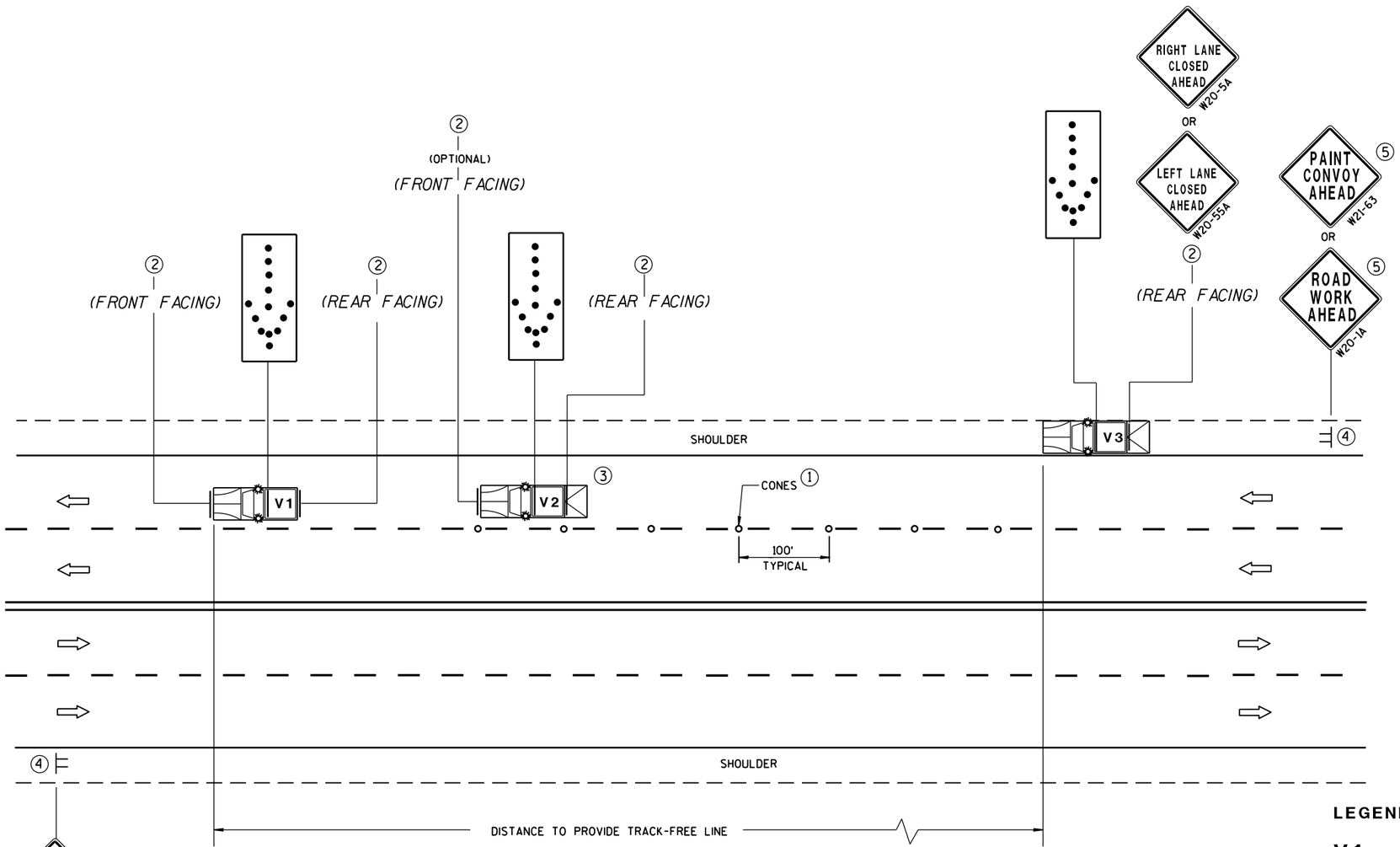
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

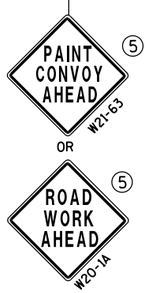
6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4





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)

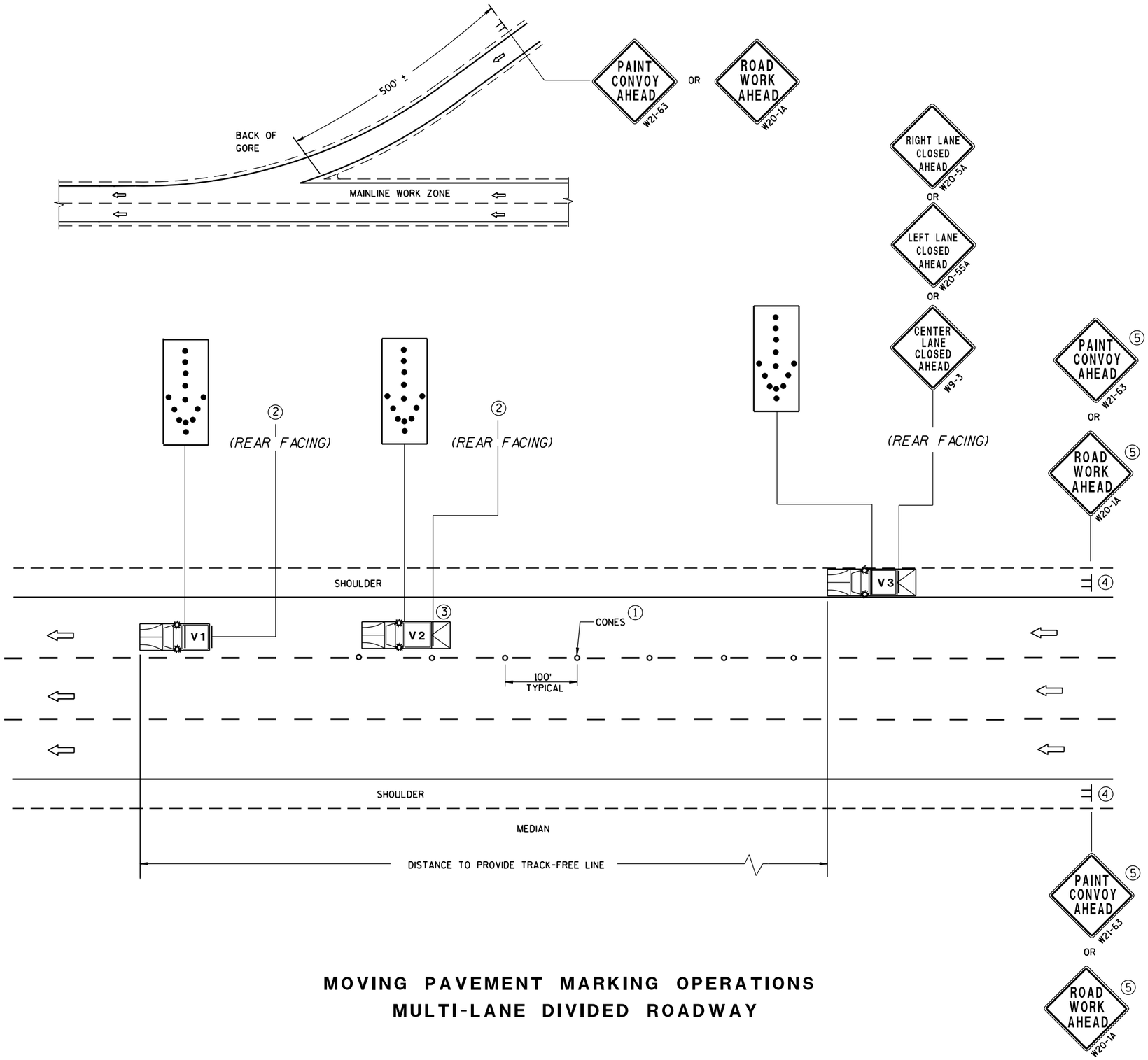
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

6

S.D.D. 15 C 19-3b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED 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. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED 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 AFTER EVERY ON RAMP OR 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)

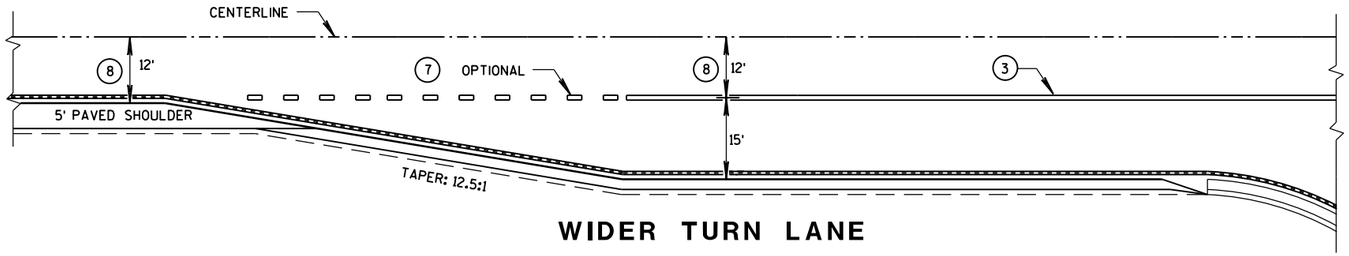
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

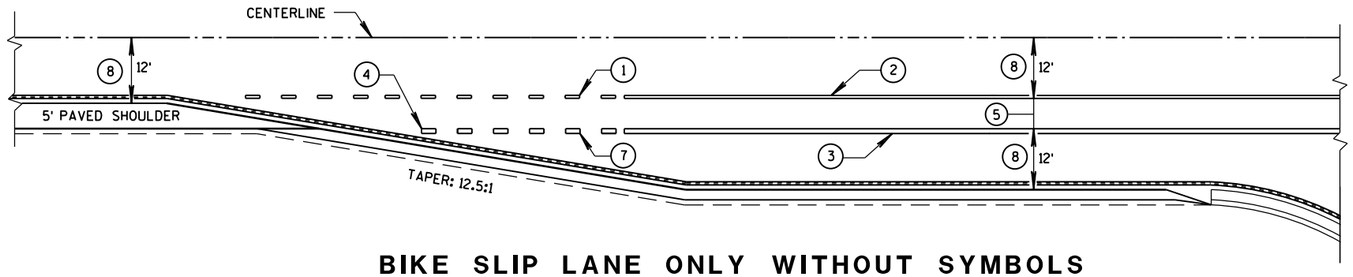
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6 S.D.D. 15 C 19-3c

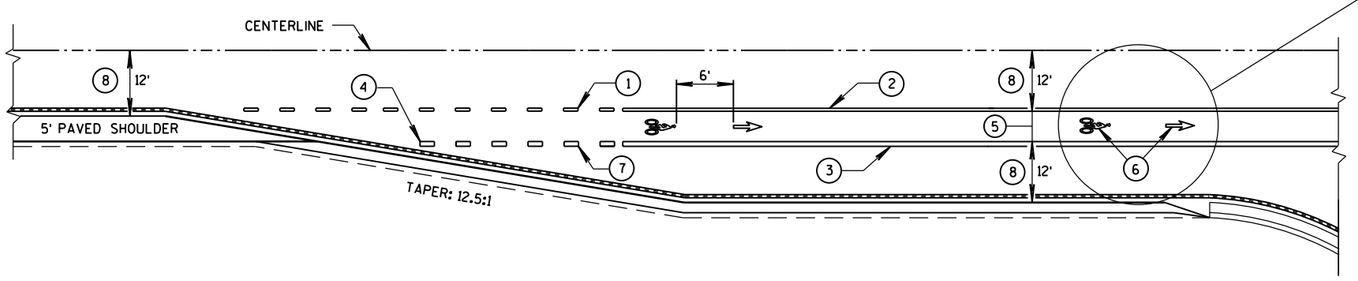
6 S.D.D. 15 C 19-3c



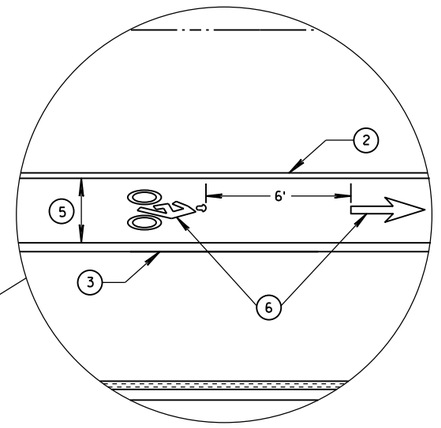
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

6

S.D.D. 15 C 29-3a

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

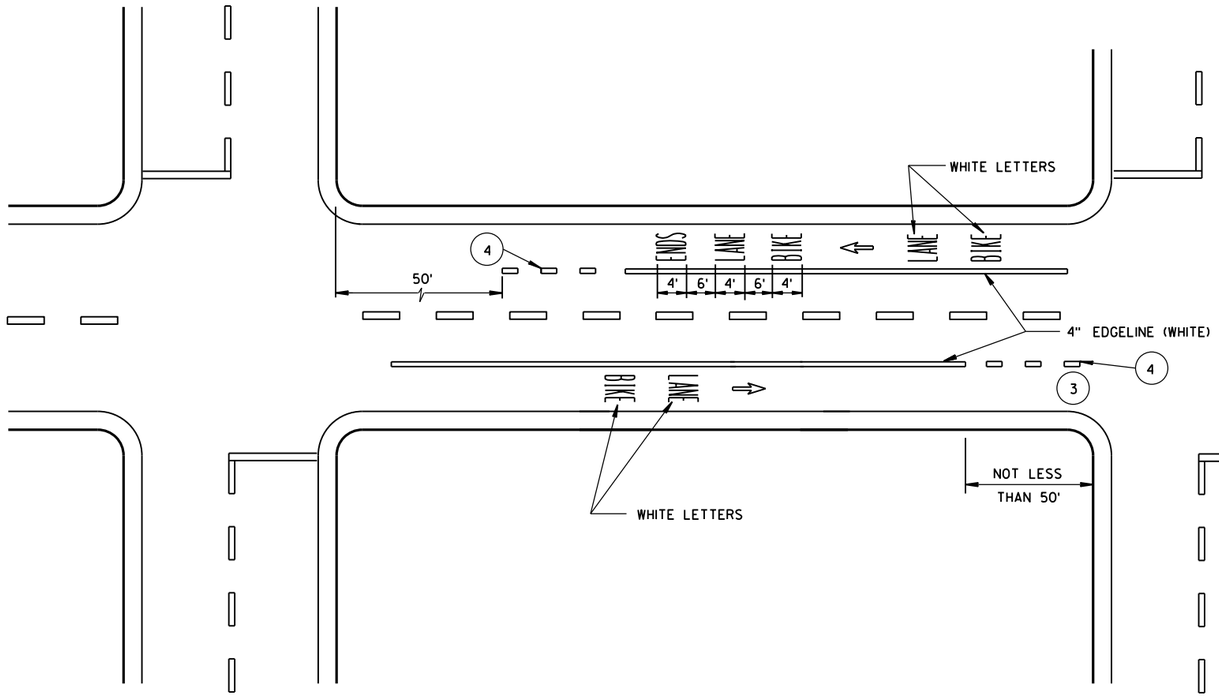
FHWA

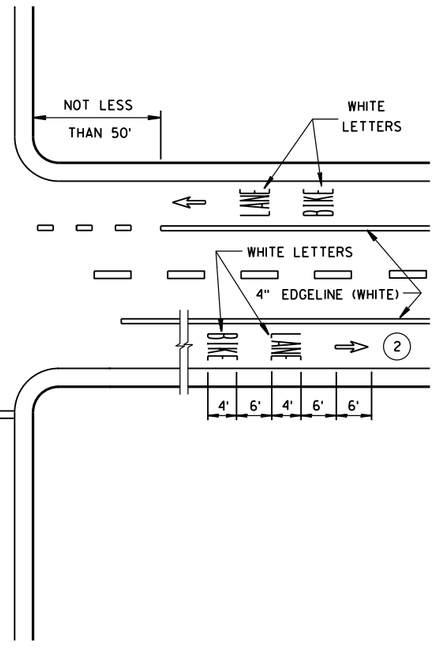
6

S.D.D. 15 C 29-3a

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

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S.D.D. 15 C 29-3d

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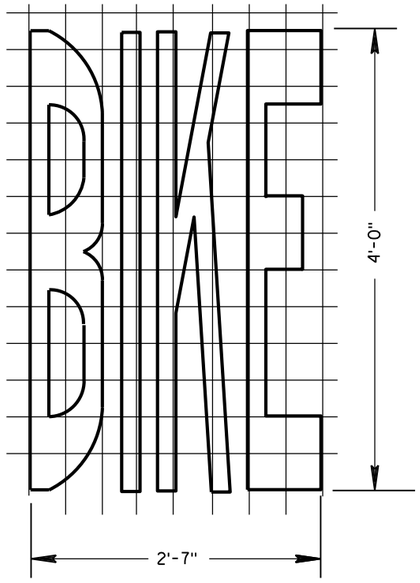
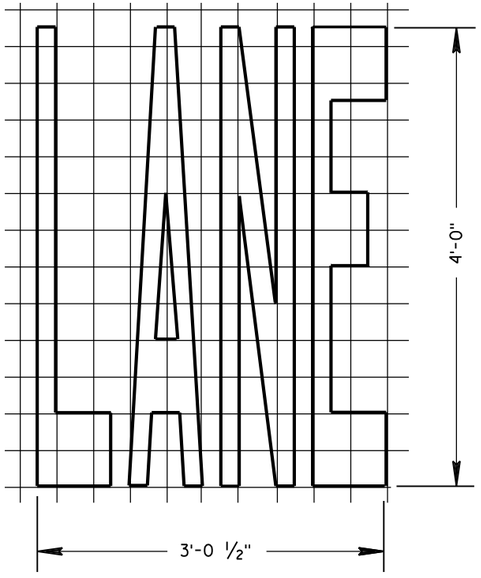
S.D.D. 15 C 29-3d

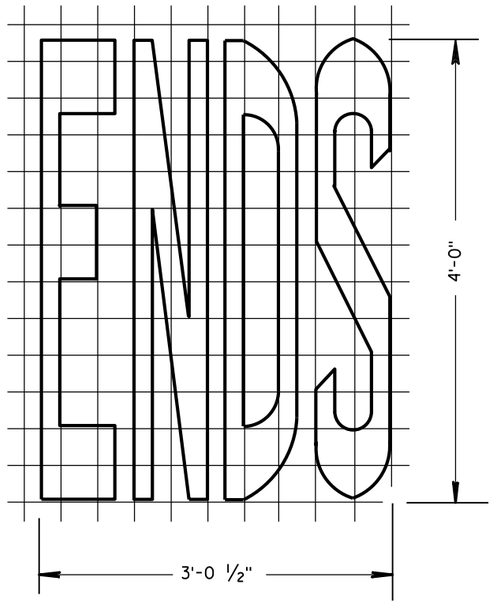
GENERAL NOTES

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.

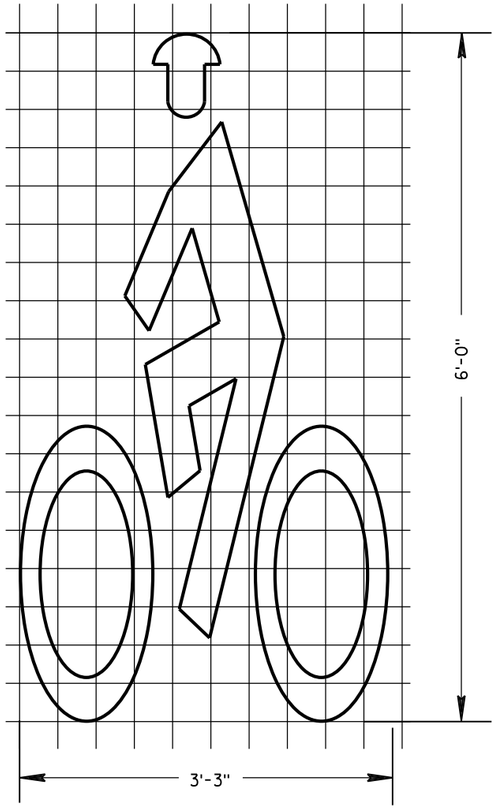
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



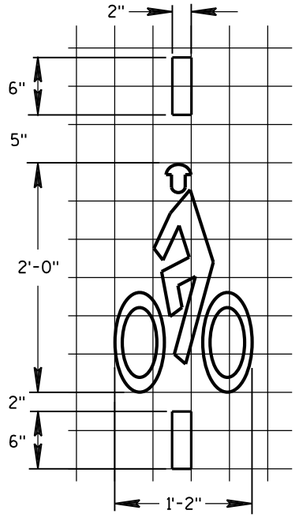




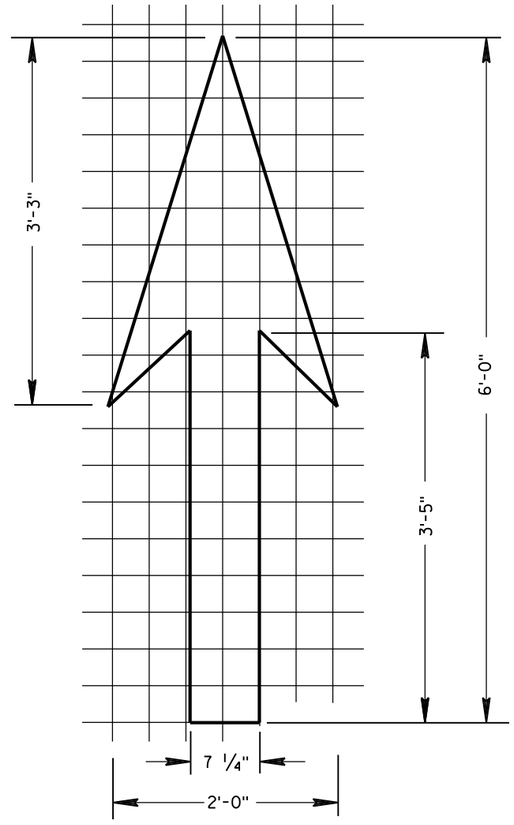
BIKE LANE WORDS



BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-30-2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

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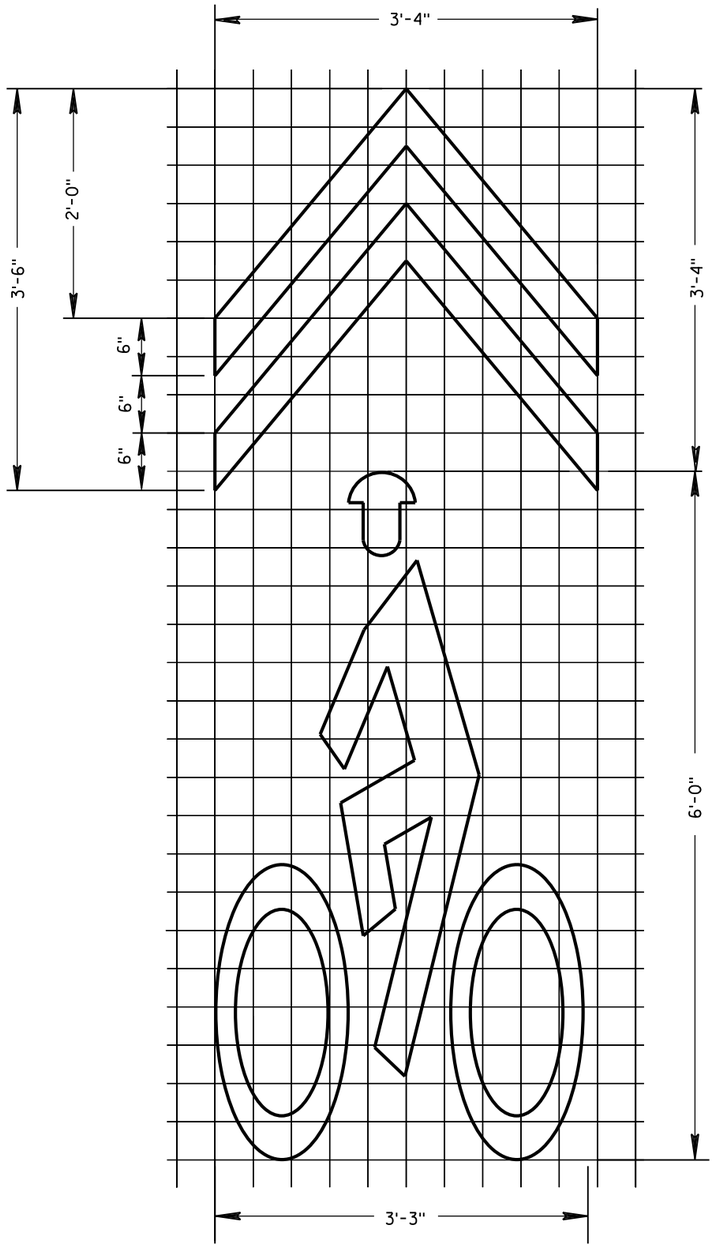
S.D.D. 15 C 29-3e



BIKE SYMBOL FOR SHARED LANE

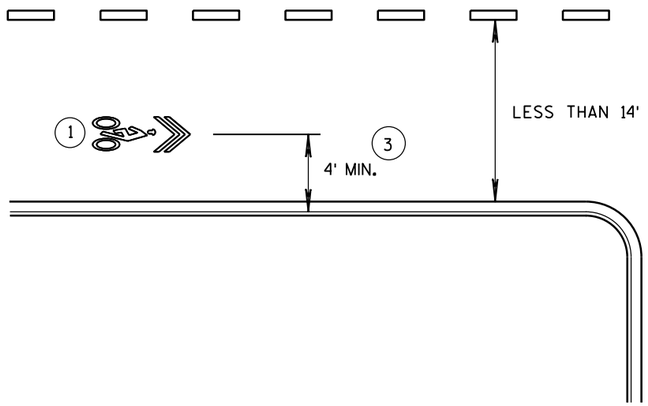
GENERAL NOTES

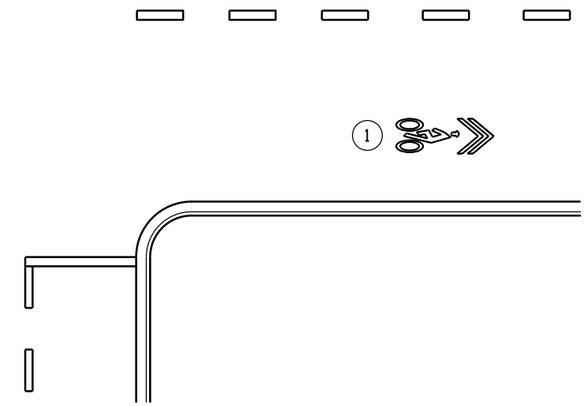
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

(1) SPACED A MAXIMUM OF 250 FEET.

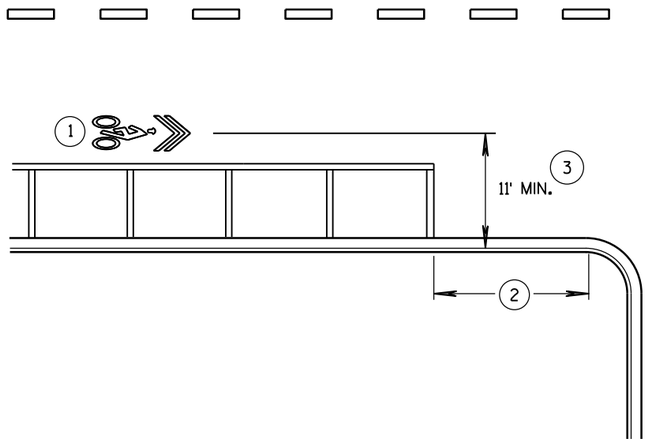
(2) 20 FOOT MINIMUM FROM CURB RADIUS.

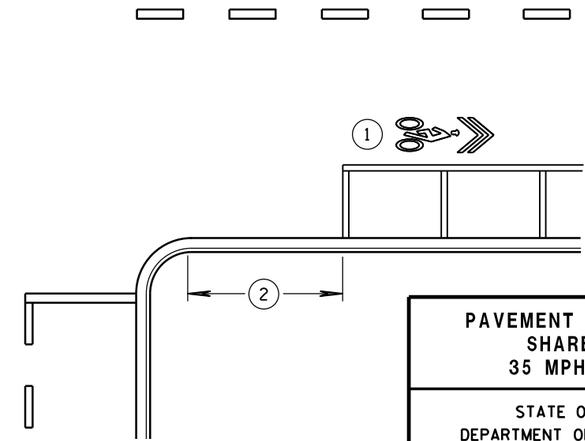
(3) OR TO EDGE OF PAVEMENT WITHOUT CURB.





WITHOUT PARKING





WITH PARKING

PAVEMENT MARKING FOR
SHARED LANE
35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013 DATE
/S/ Travis Feltes
STATE TRAFFIC EN
FHWA

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S.D.D. 15 C 29-3f

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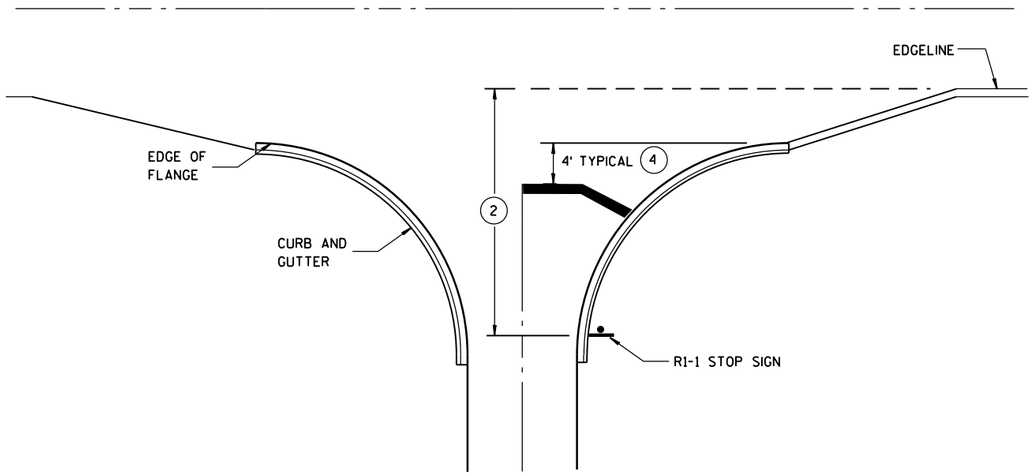
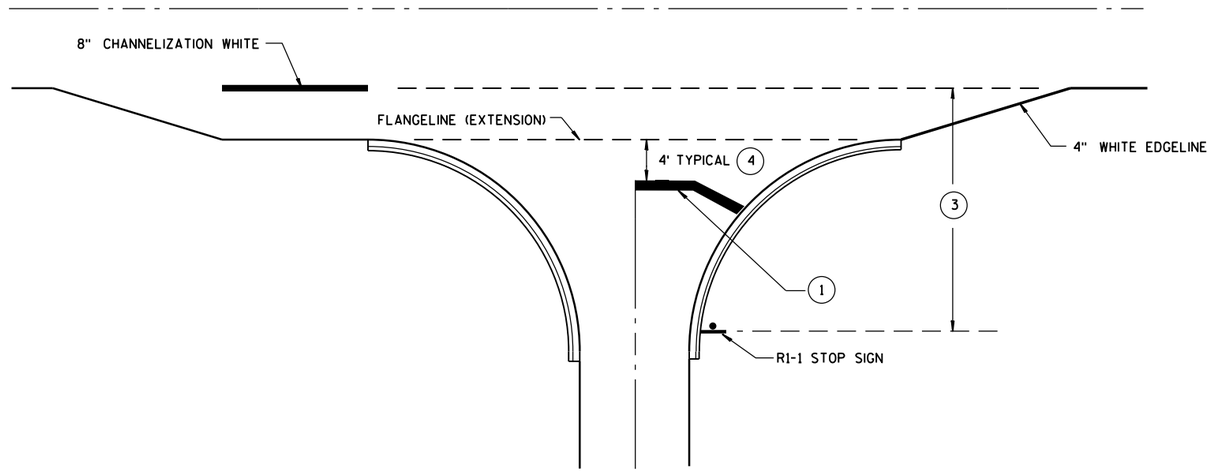
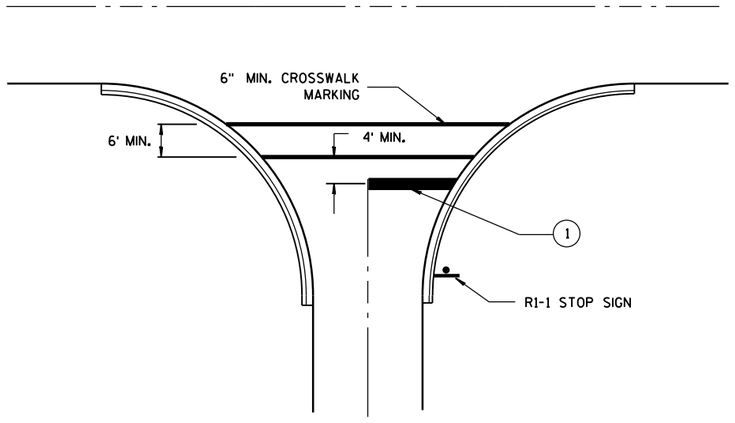


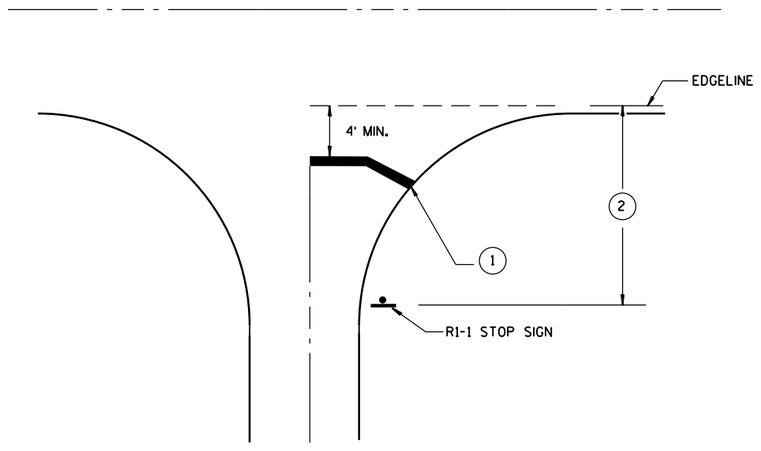
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

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S.D.D. 15 C 33-1

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.

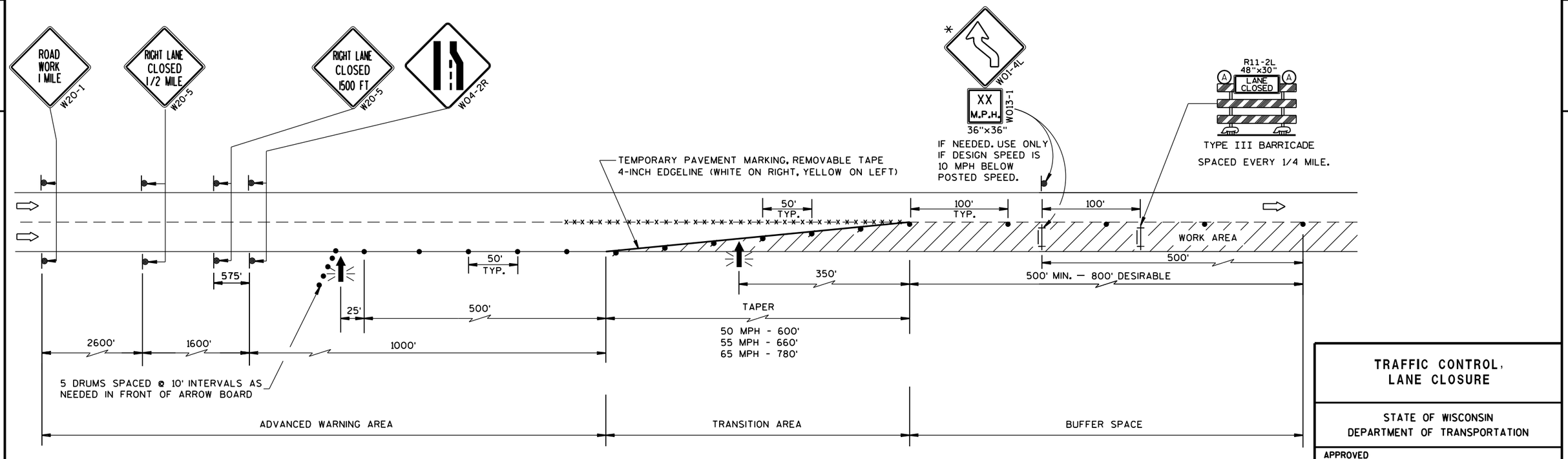
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.



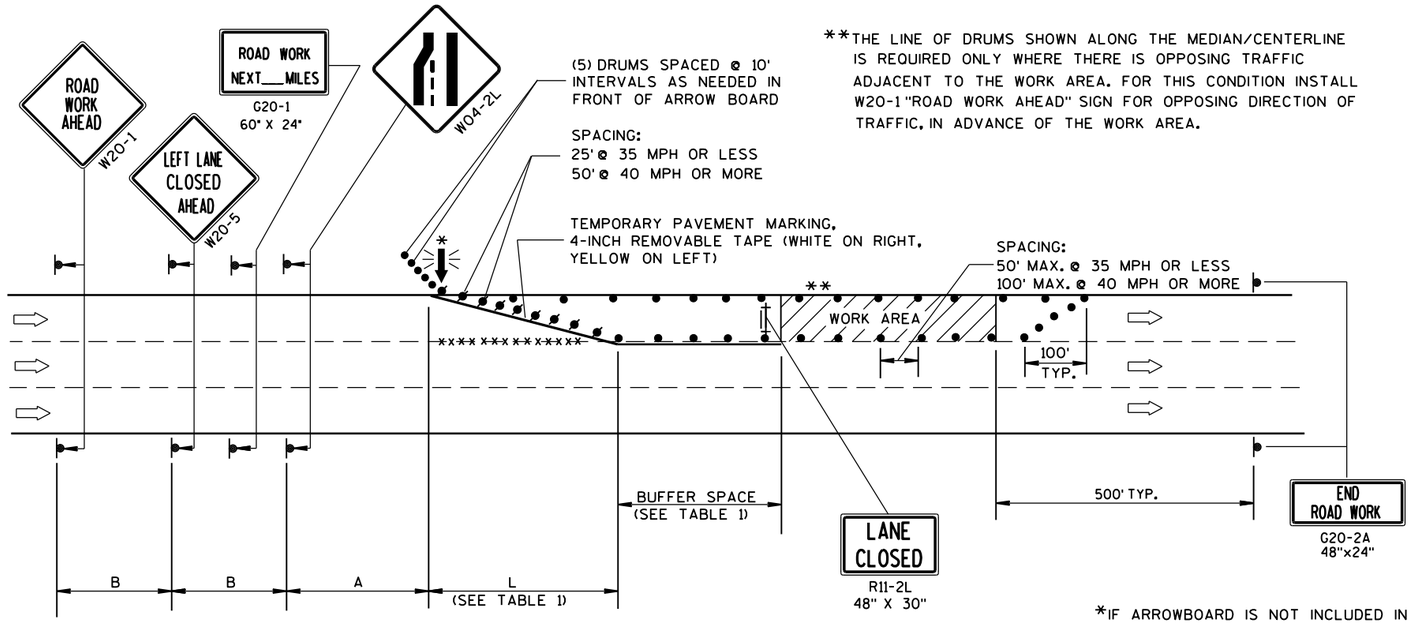
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 12-5a

S.D.D. 15 D 12-5a



**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"

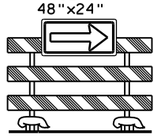


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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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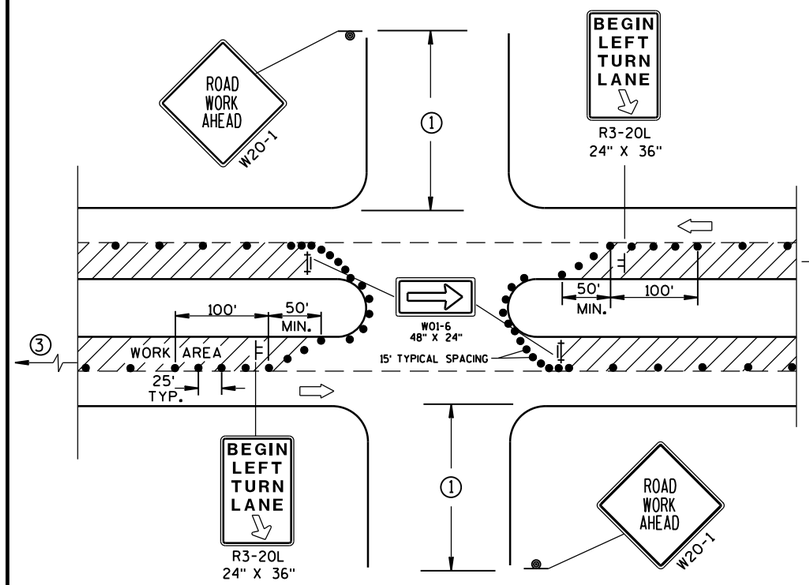
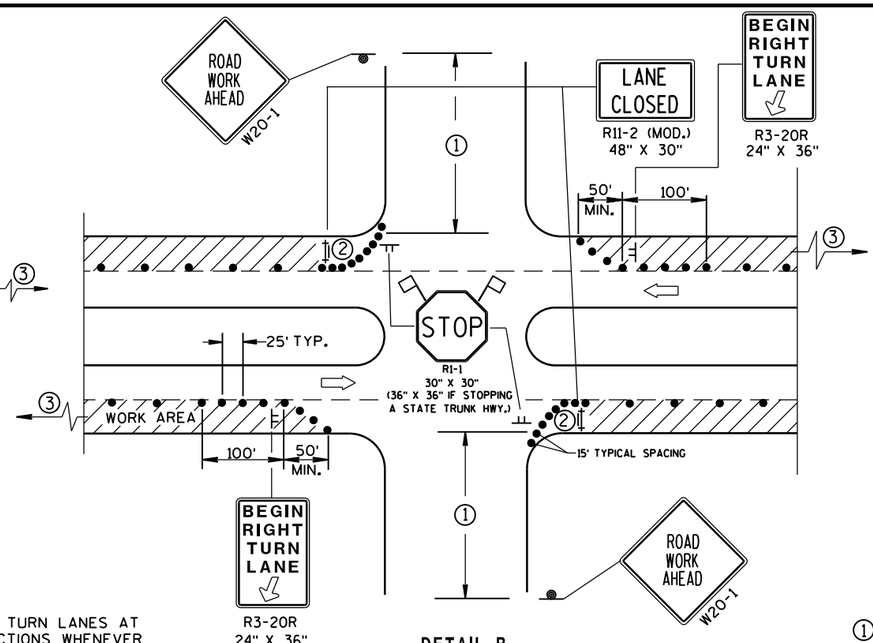
S.D.D. 15 D 20-3



DETAIL A

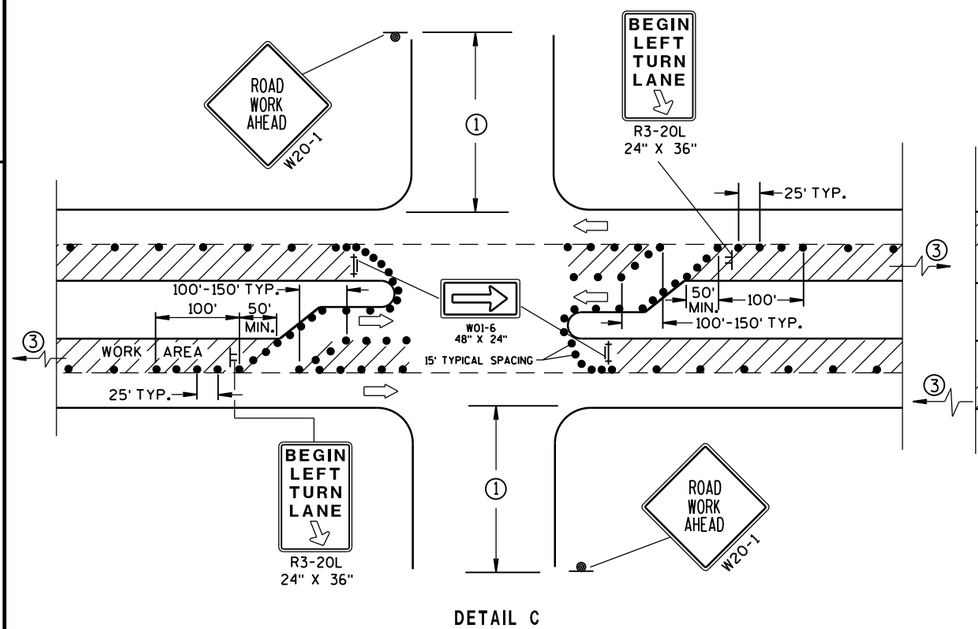
FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

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



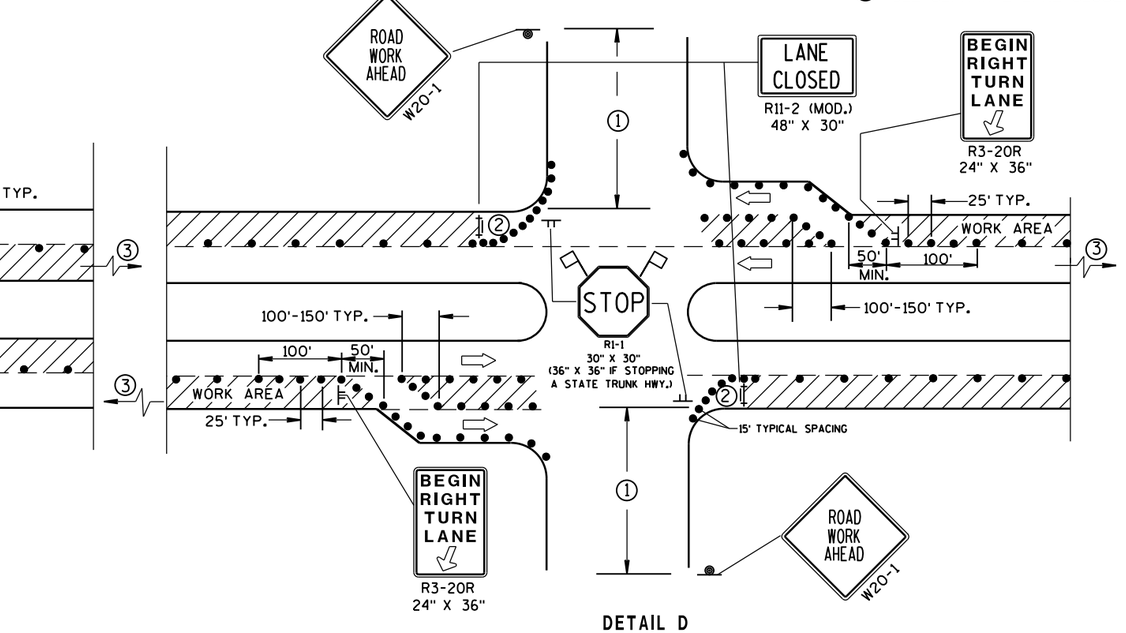
DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION



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)

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.

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

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
- 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 TWO LANES. FOR CLOSING THE LEFT TWO LANES, 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.

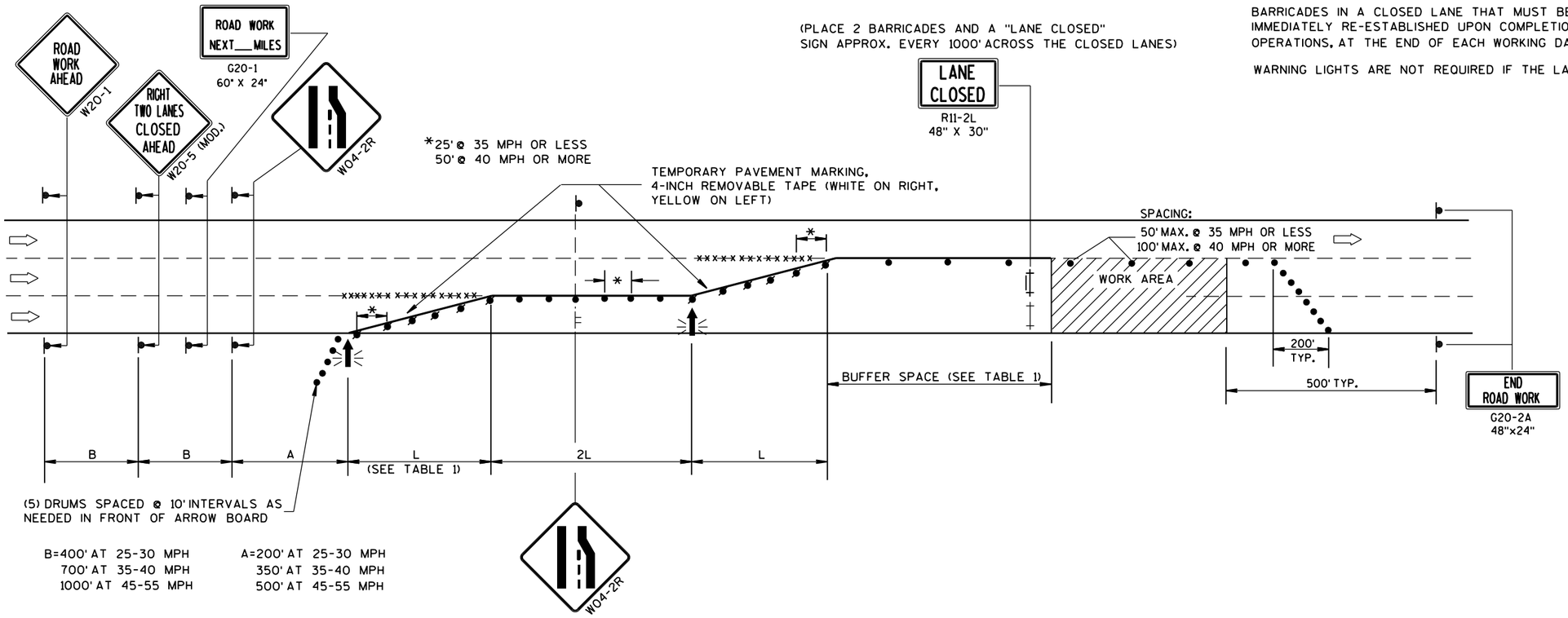
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

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.



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

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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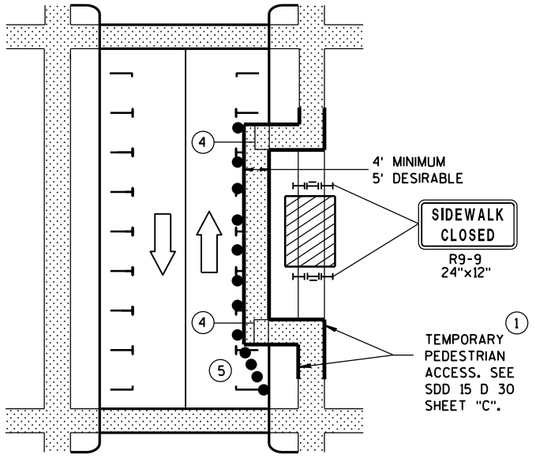
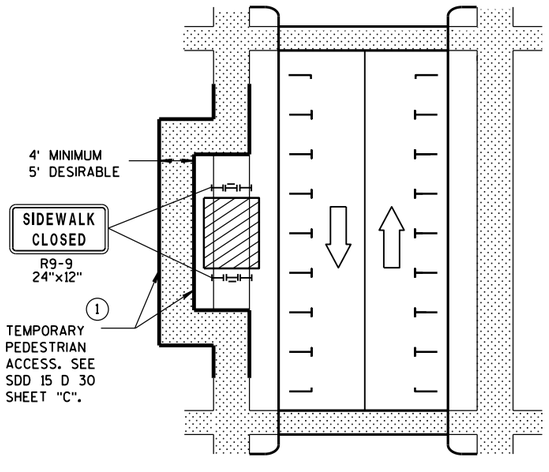
S.D.D. 15 D 22-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

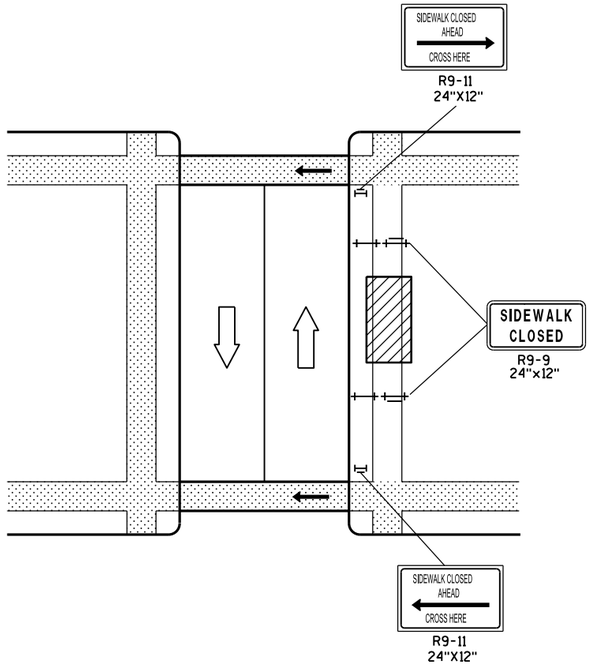


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

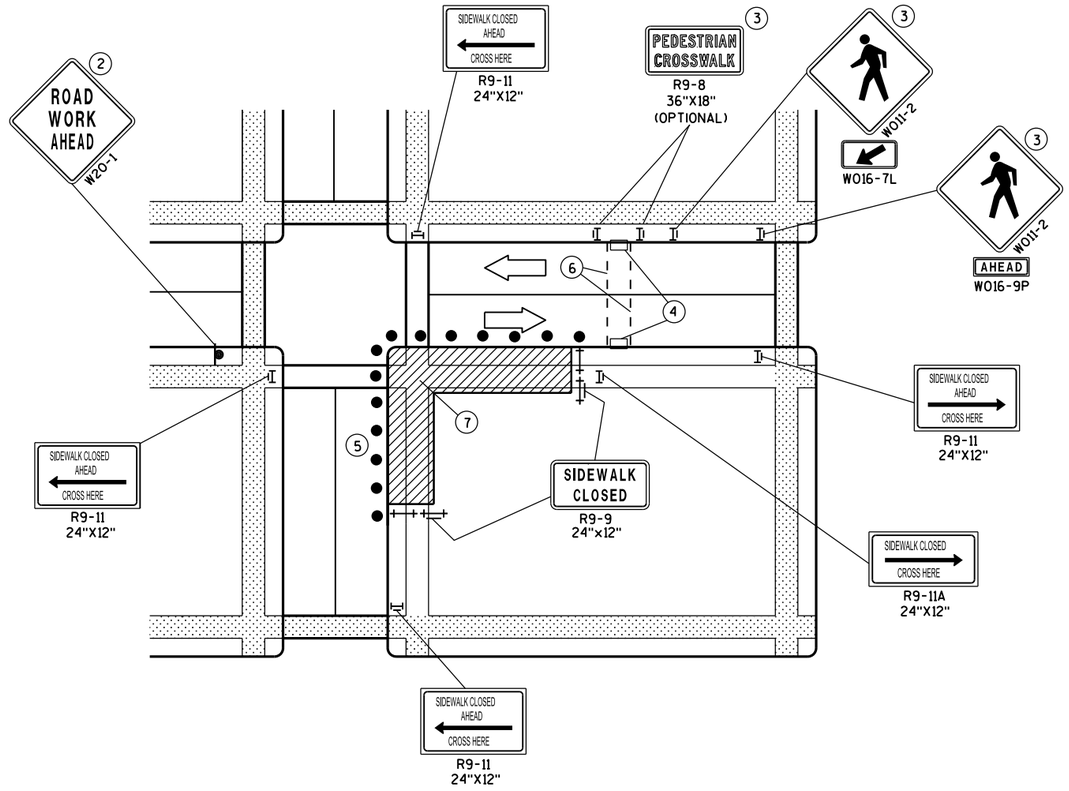
NOTE: LAYOUT SAME AS ABOVE.



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

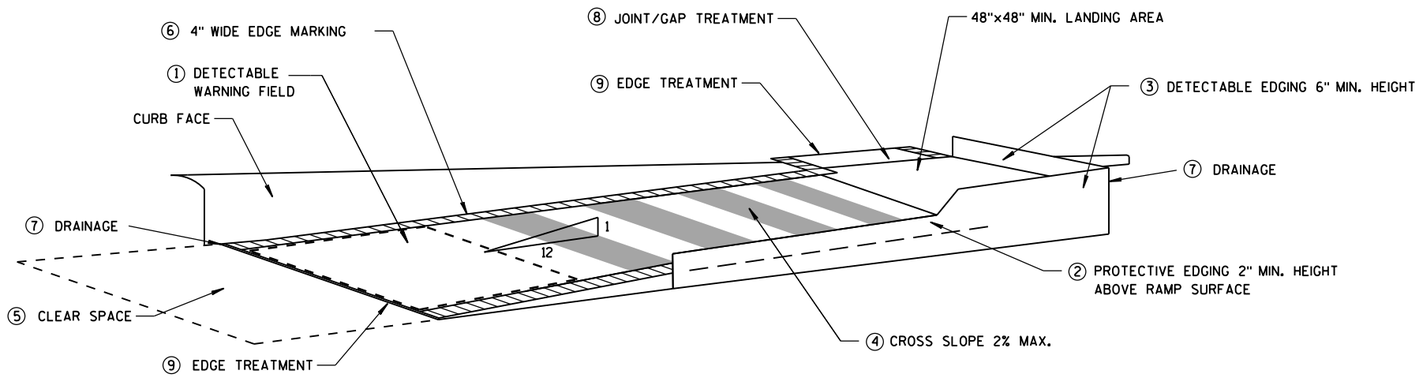
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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.

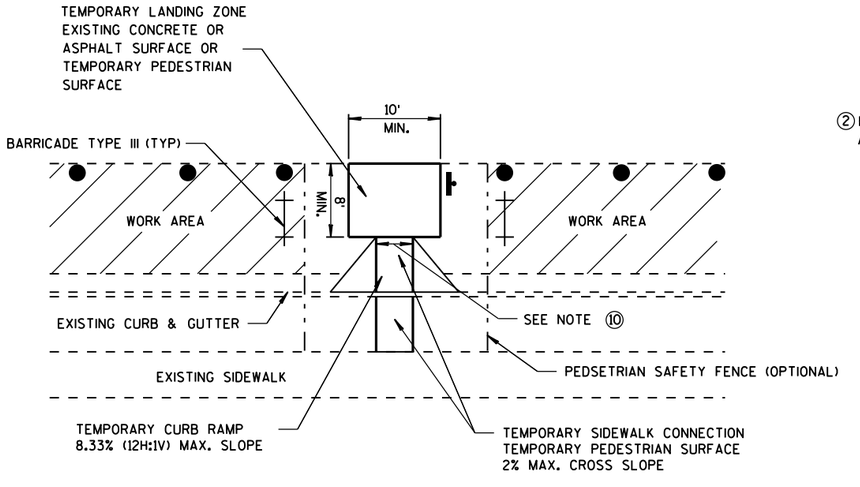
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

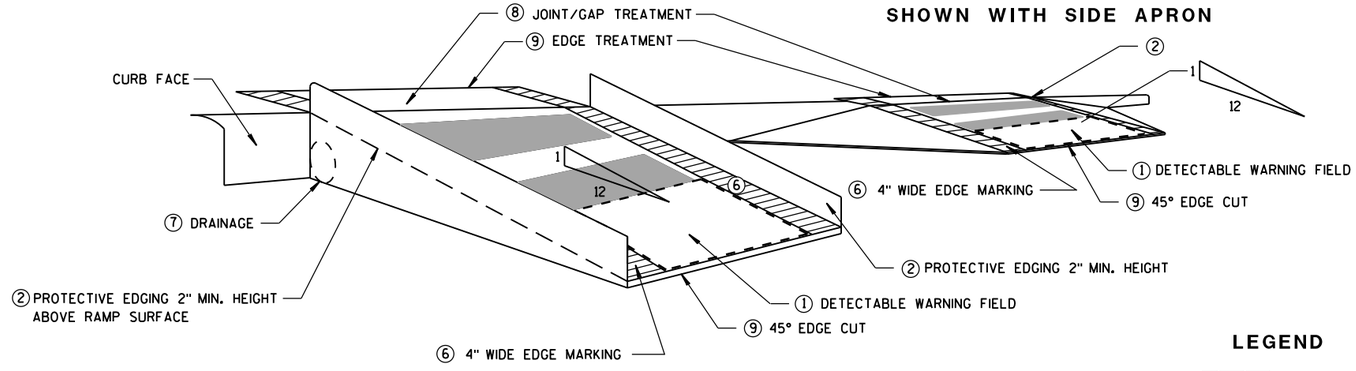
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

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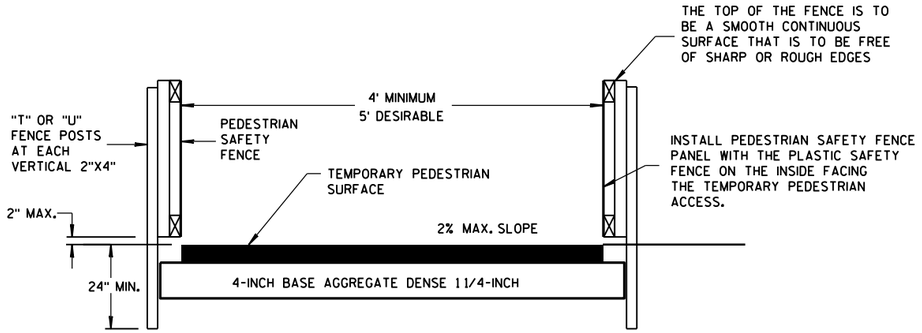
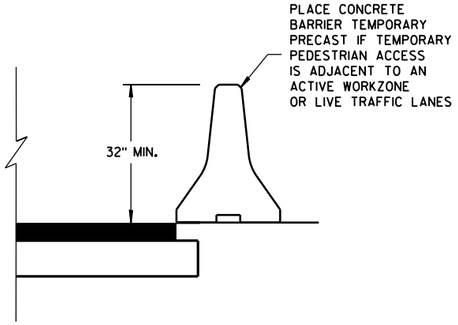
S.D.D. 15 D 30-2b

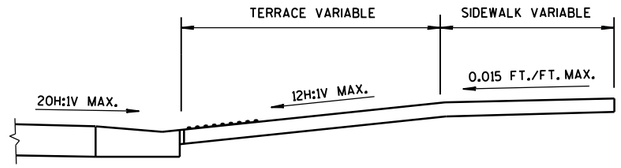




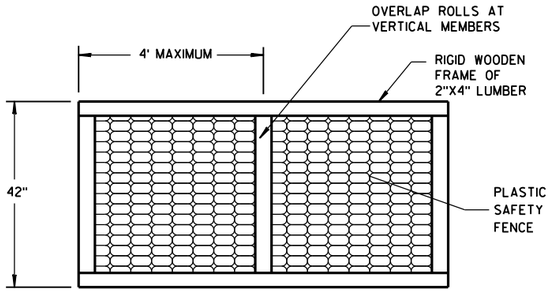
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

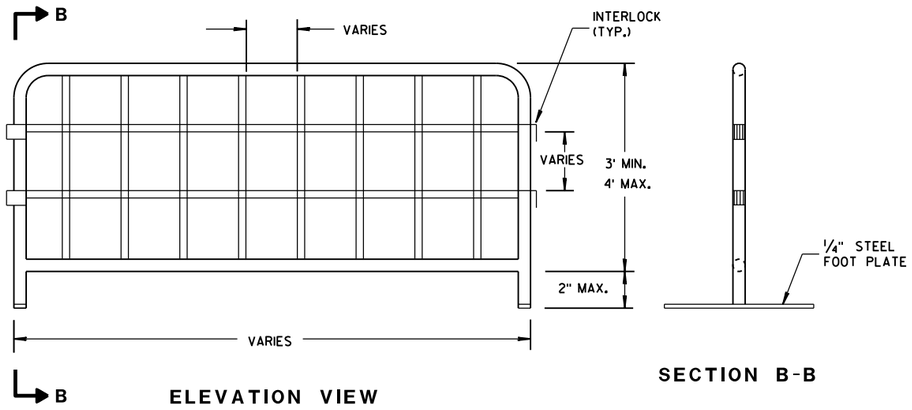
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



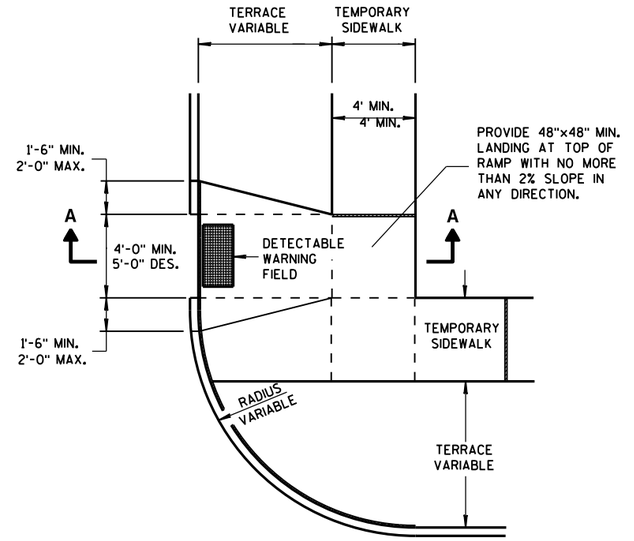
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

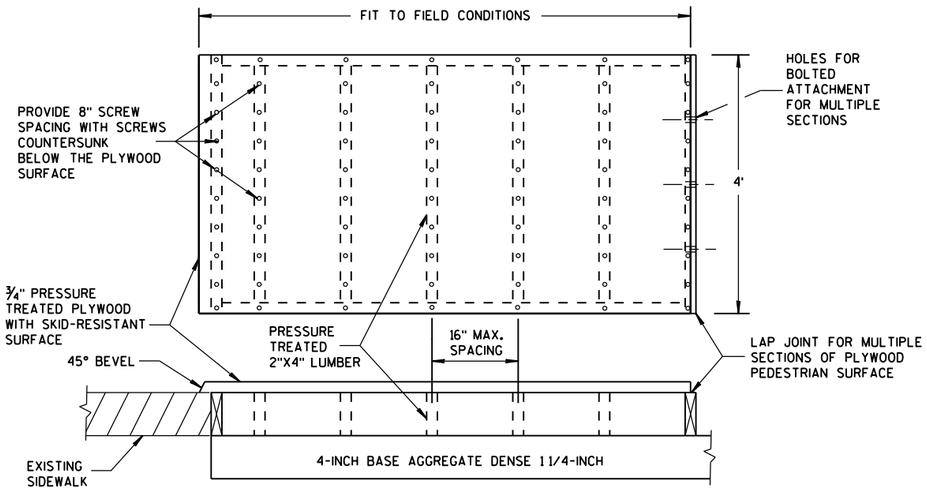
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



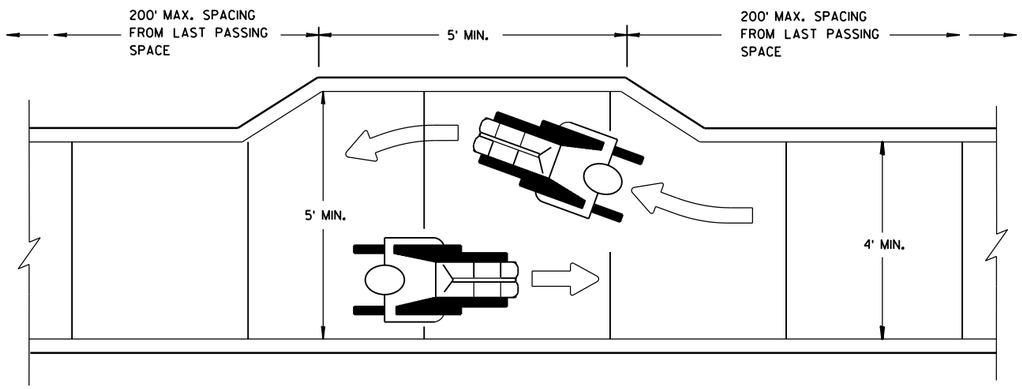
PLAN VIEW

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

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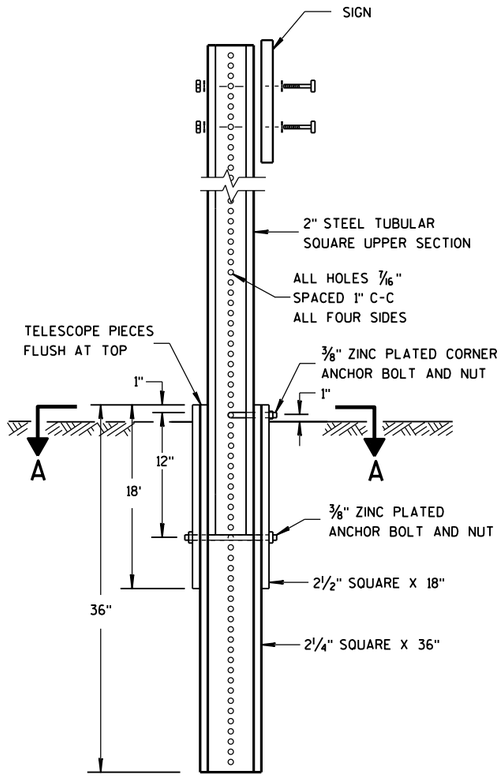
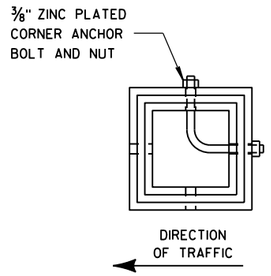
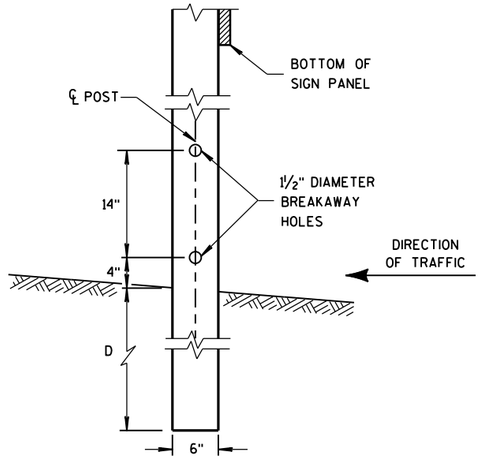
S.D.D. 15 D 30-2c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



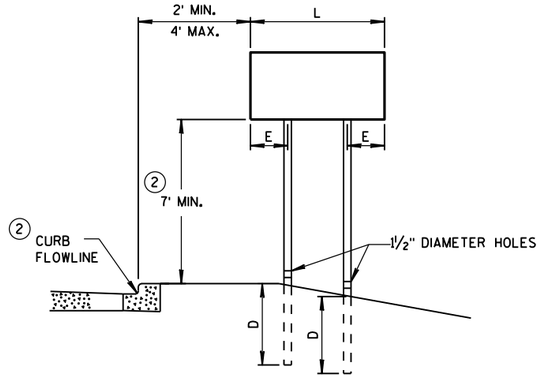
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

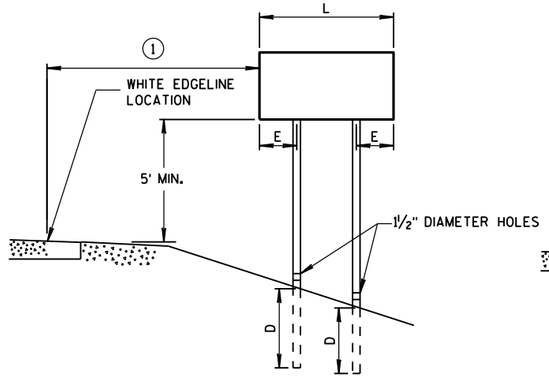
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

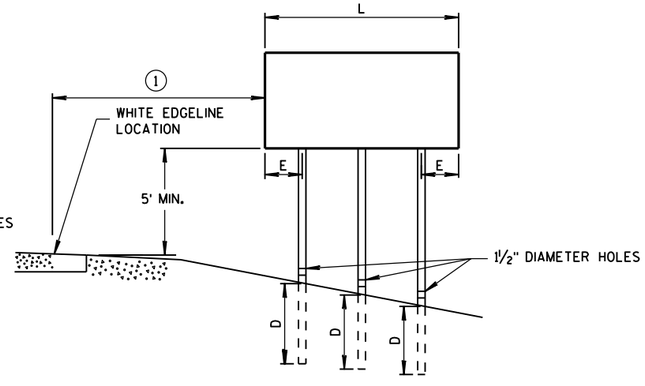
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

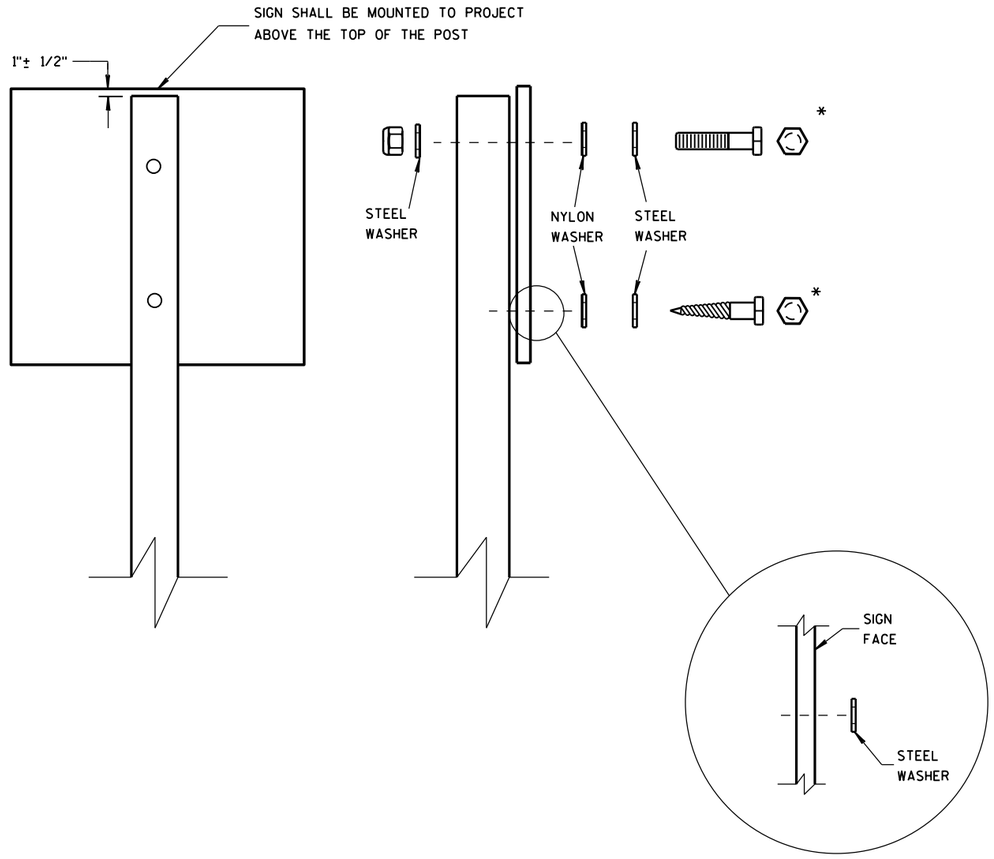
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

6

S.D.D. 15 D 38-1a



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

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S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

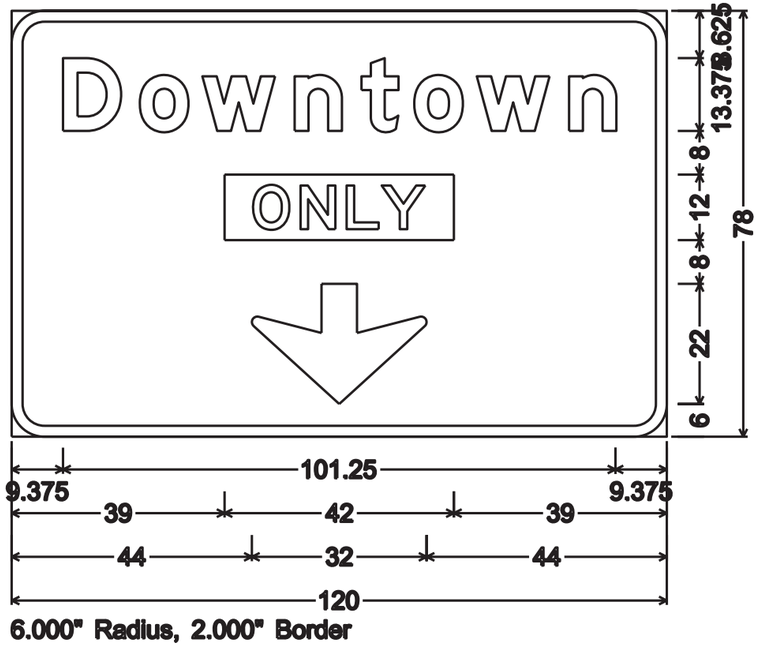
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

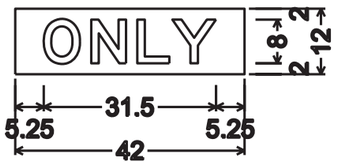
SIGN

NOTES

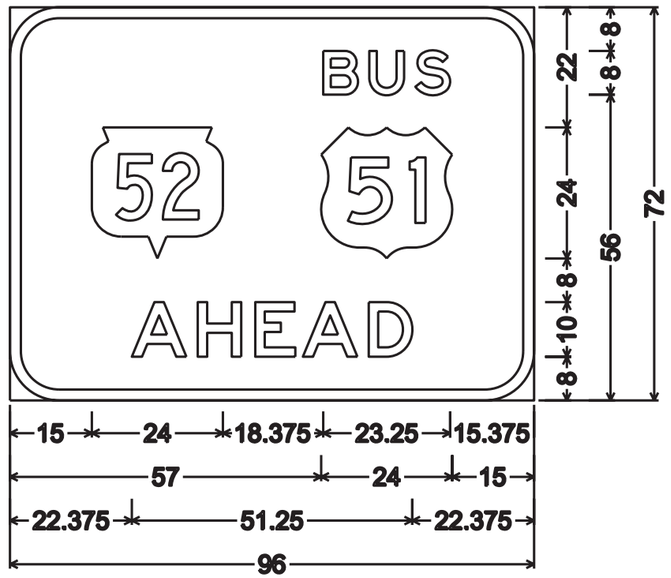
1. All Signs Type I - Type SH Reflective except as noted
2. Color:
   Background - GREEN except as noted
   Message - WHITE except as noted
3. Message Series - E Modified except all CAP words Series E



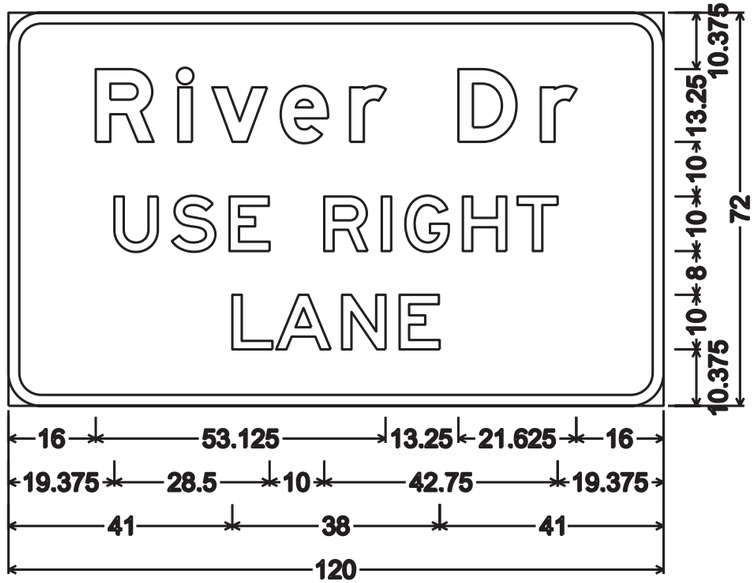
6.000" Radius, 2.000" Border



No border, Black on Fluorescent yellow;



9.000" Radius, 2.000" Border



6.000" Radius, 2.000" Border

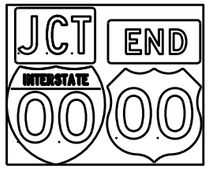
7

7

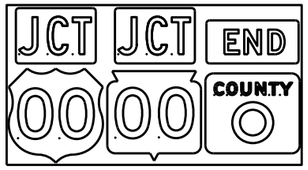
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET NO. 93	E

TYPICAL ASSEMBLIES

J1-1

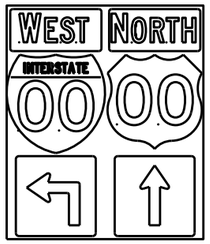


J1-2

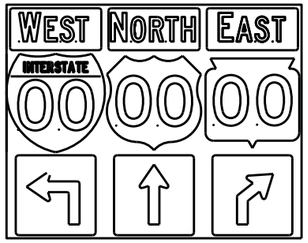


J1-3

J2-1



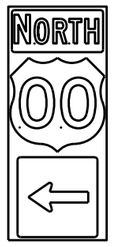
J2-2



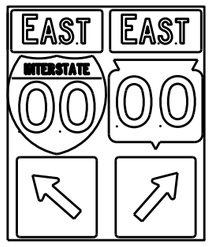
J2-3

JV

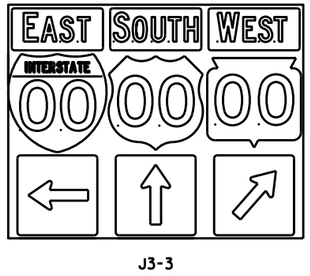
(Typical Vertical J-Assembly
See Note 10 and 11)



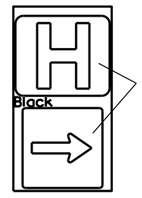
J3-1



J3-2



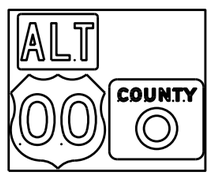
J3-3



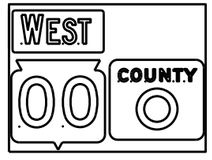
Blue Background

JH-1

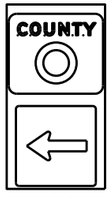
J4-1



J4-2



J4-2



J13-1

J12-1

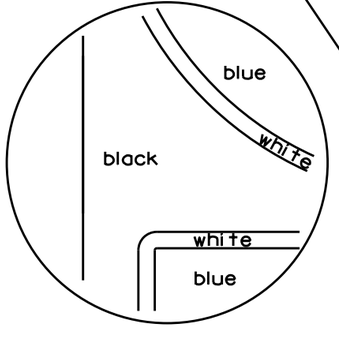
J32-1

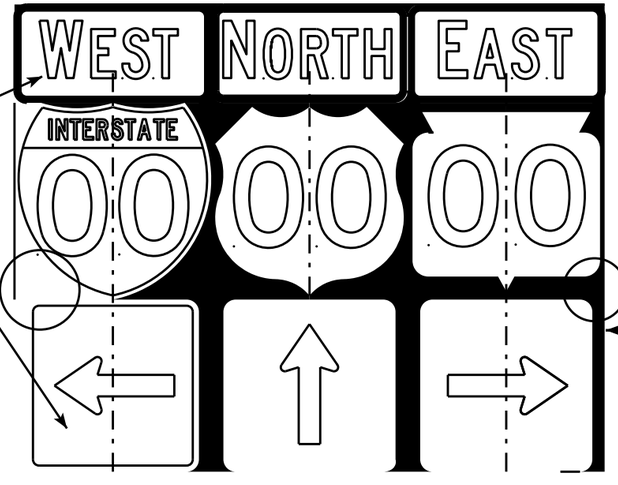
J33-1

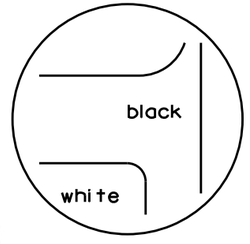
J23-1

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

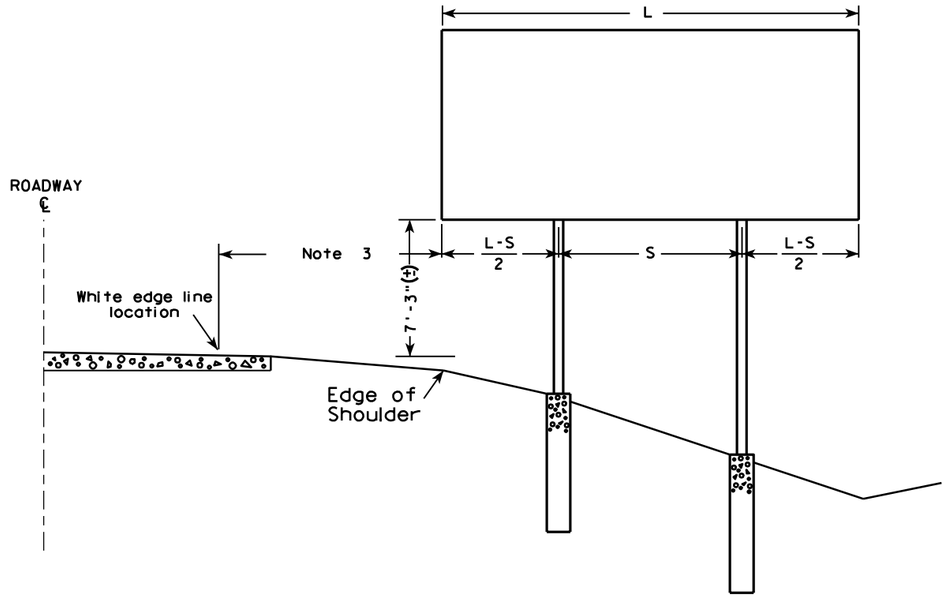
WISCONSIN DEPT OF TRANSPORTATION

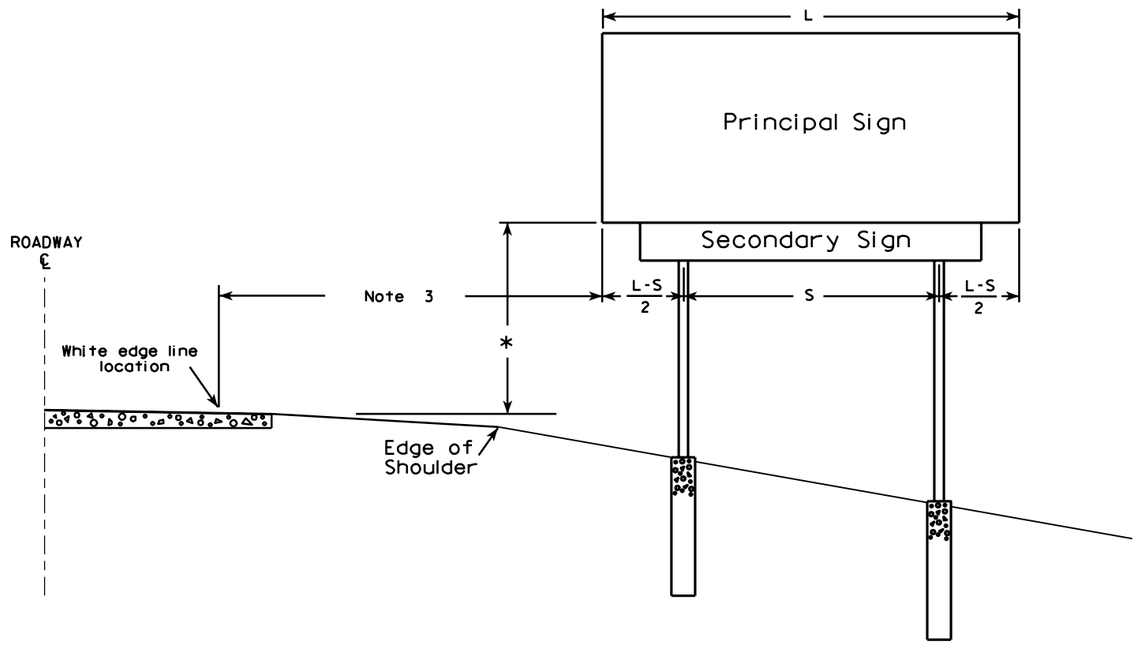
APPROVED Matthew R Rauch
for State Traffic Engineer

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





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

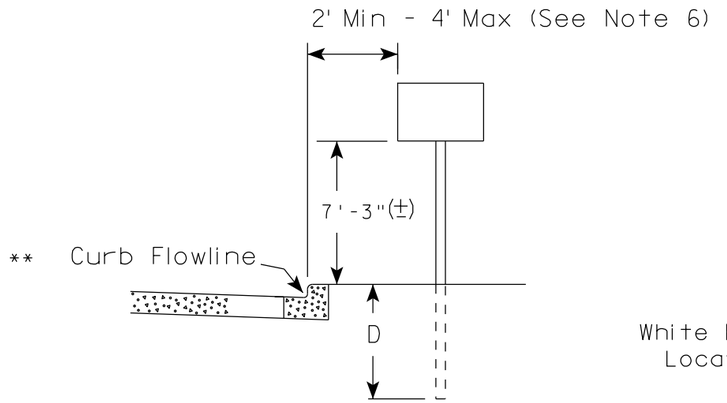
TYPICAL INSTALLATION
OF TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

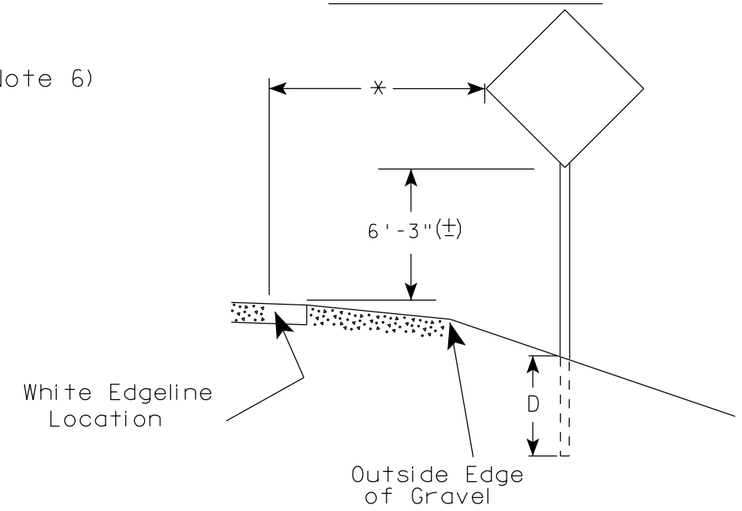
APPROVED Matthew R Rauch
for State Traffic Engineer

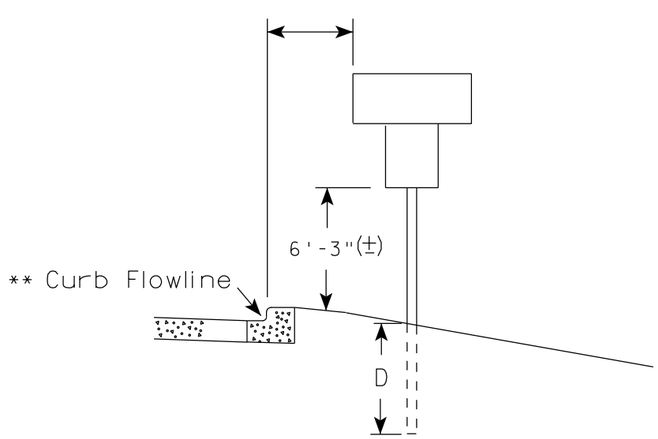
DATE 4/02/08 PLATE NO. A4-1.9

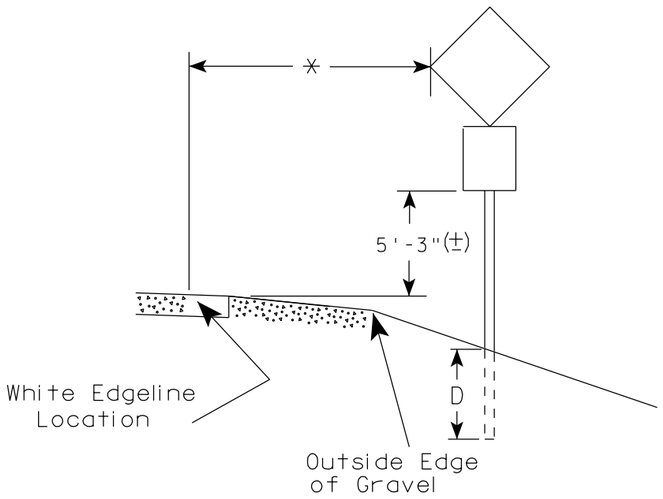
URBAN AREA



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" (±).

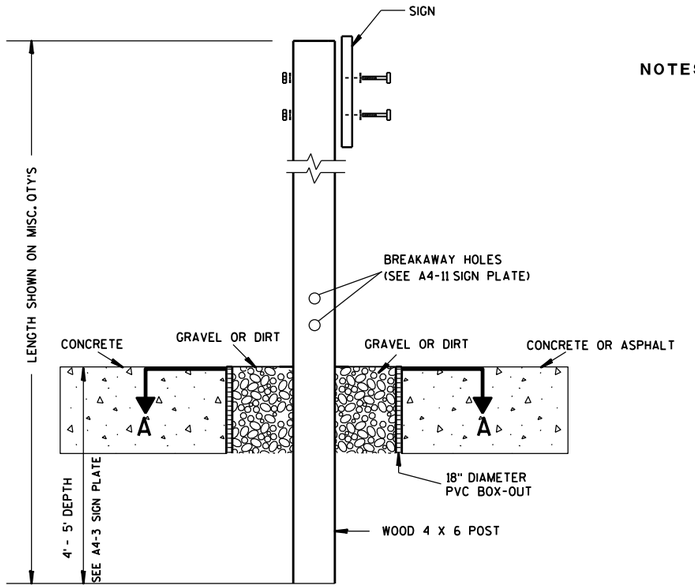
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

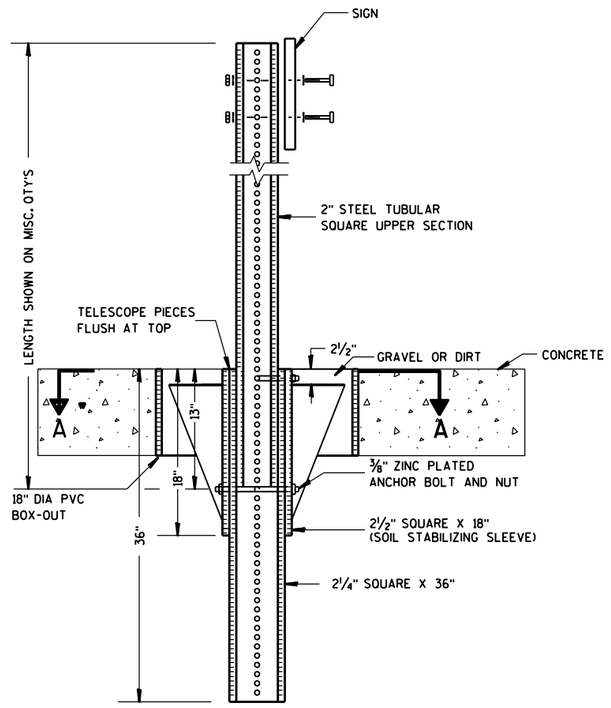
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

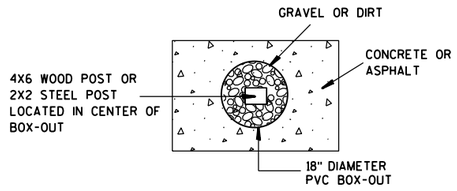
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

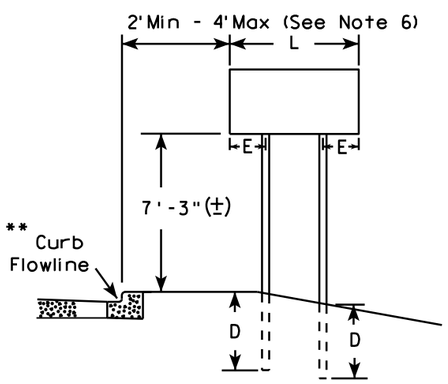
APPROVED Matthew R Rauch
for State Traffic Engineer

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

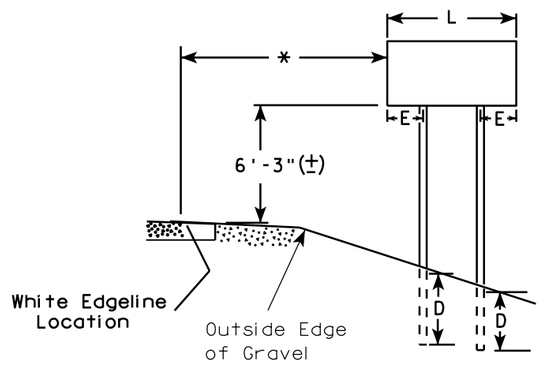
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

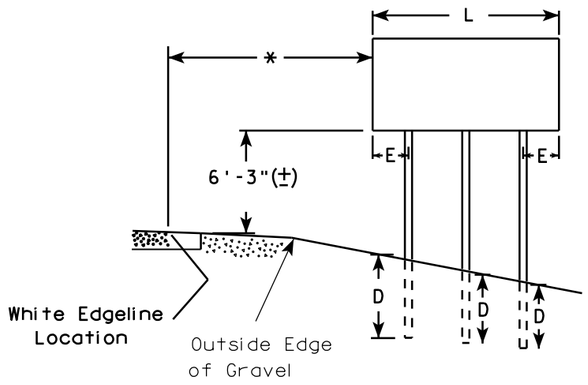
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

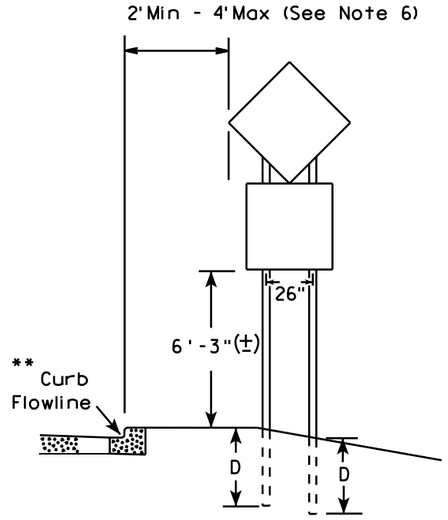
URBAN AREA



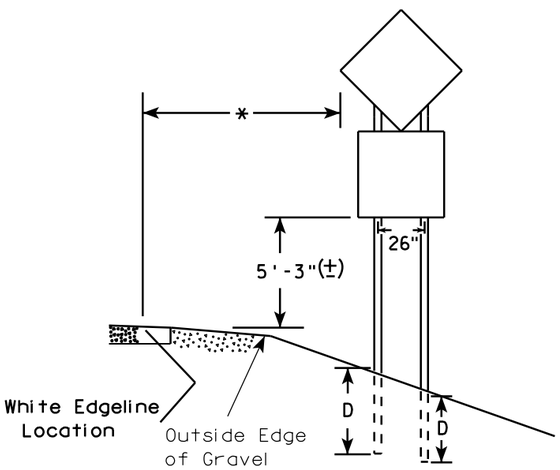
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

***	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"

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.

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

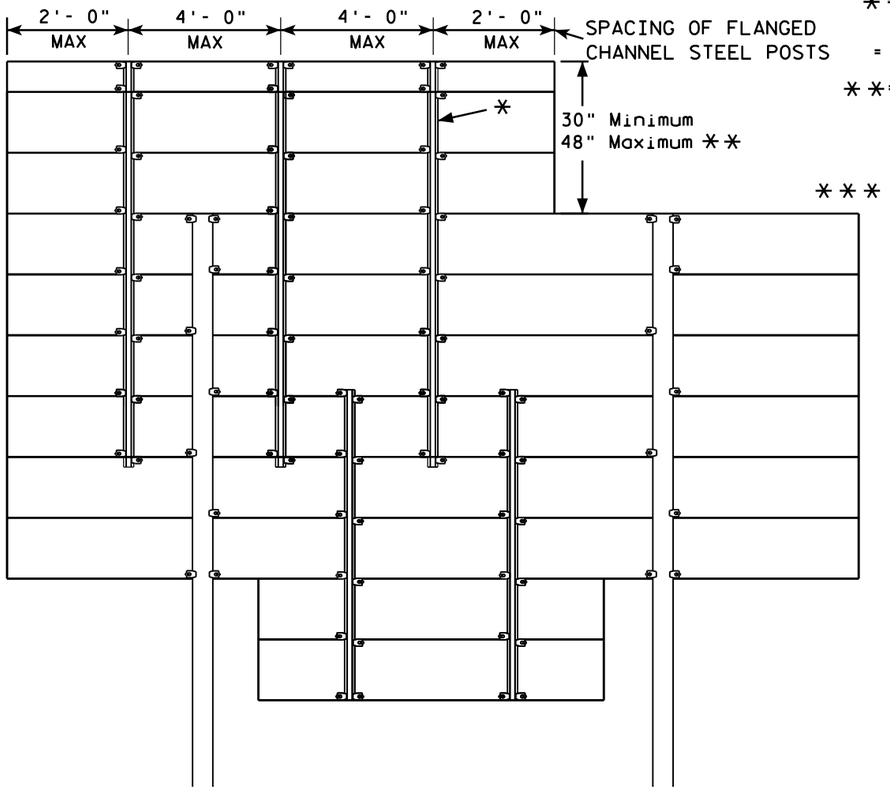
DATE 7/23/15 PLATE NO. A4-4 98 14

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

GROUND MOUNTED SIGN

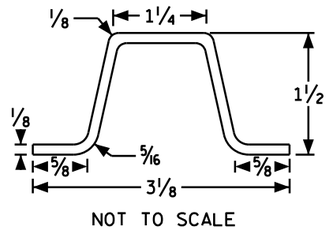


*=2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

**=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

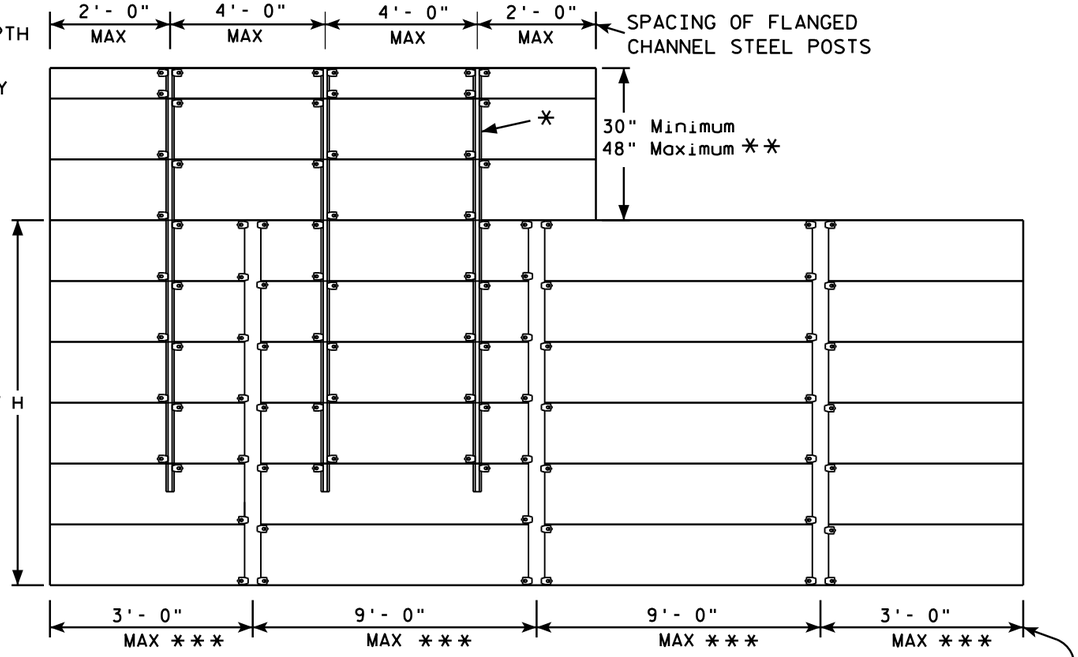
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

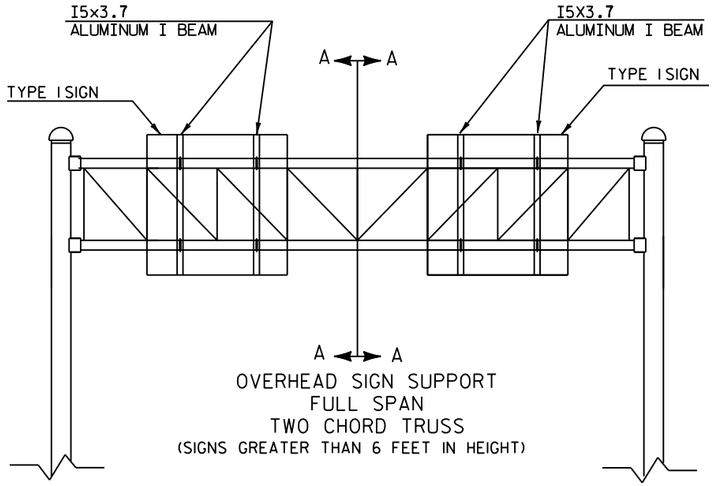
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

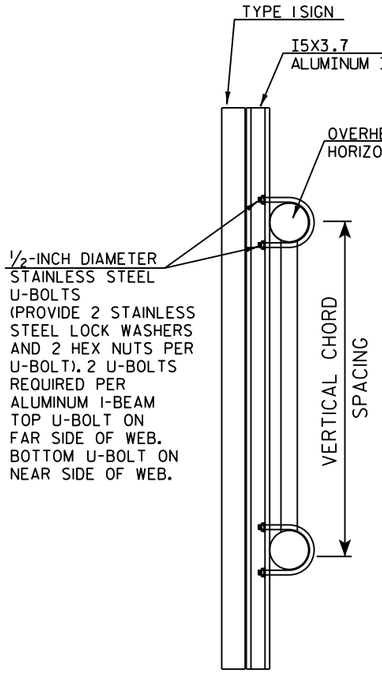
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 99 A4-6.12

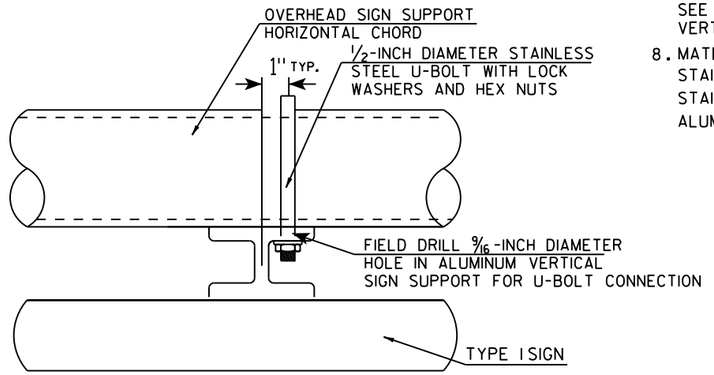
PROJECT NO: | SHEET NO: E



OVERHEAD SIGN SUPPORT
FULL SPAN
TWO CHORD TRUSS
(SIGNS GREATER THAN 6 FEET IN HEIGHT)



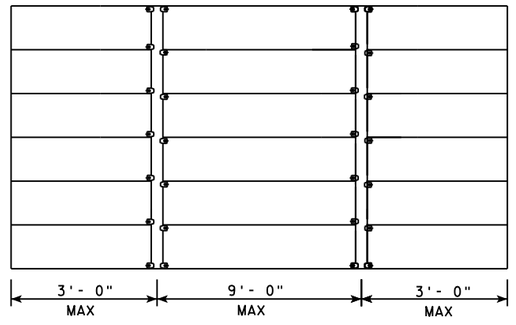
CUT SECTION A-A



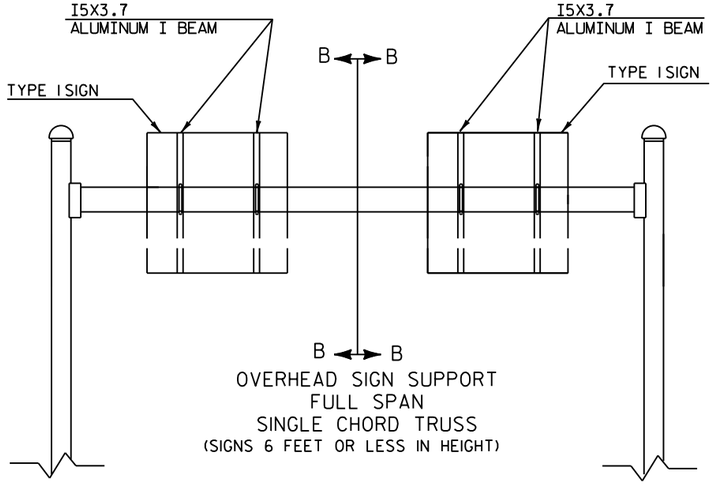
TYPICAL SIGN CONNECTION FOR
TWO CHORD TRUSS
PLAN VIEW

GENERAL NOTES

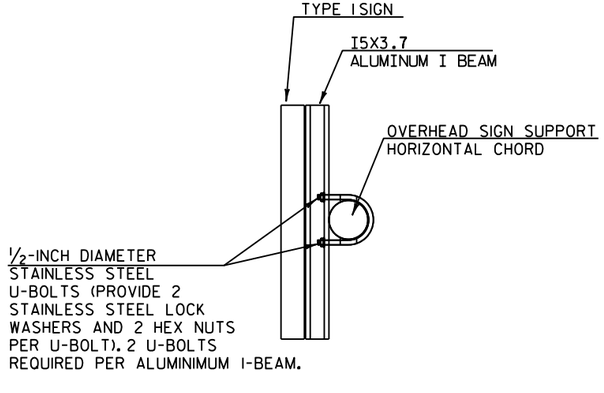
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.



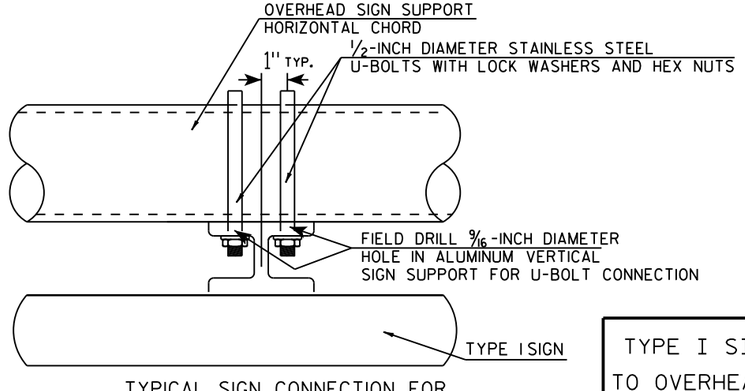
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
SINGLE CHORD TRUSS
(SIGNS 6 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
SINGLE CHORD TRUSS
PLAN VIEW

TYPE I SIGN CONNECTION TO OVERHEAD SIGN SUPPORT

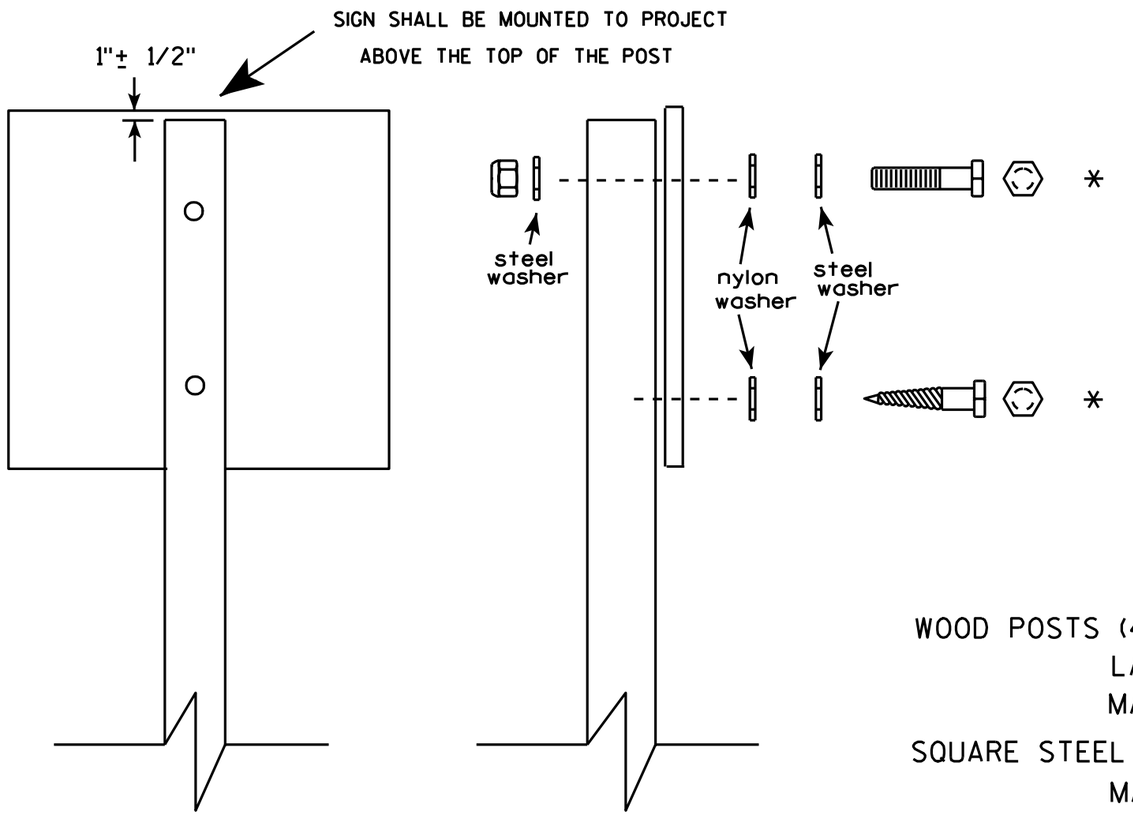
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO. A4-7.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A47.DGN PLOT DATE : 01-DEC-2015 17:42 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 38.916838:1.000000



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

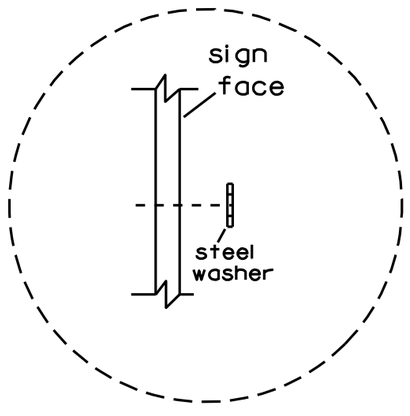
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

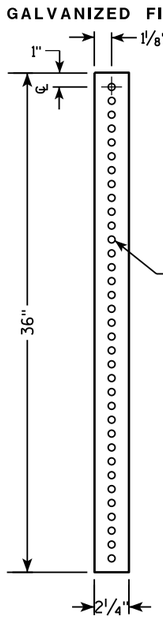
7

PROJECT NO:

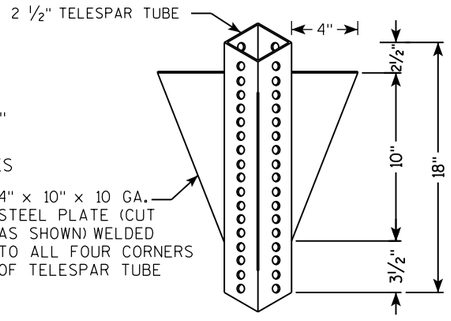
SHEET NO: 101 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

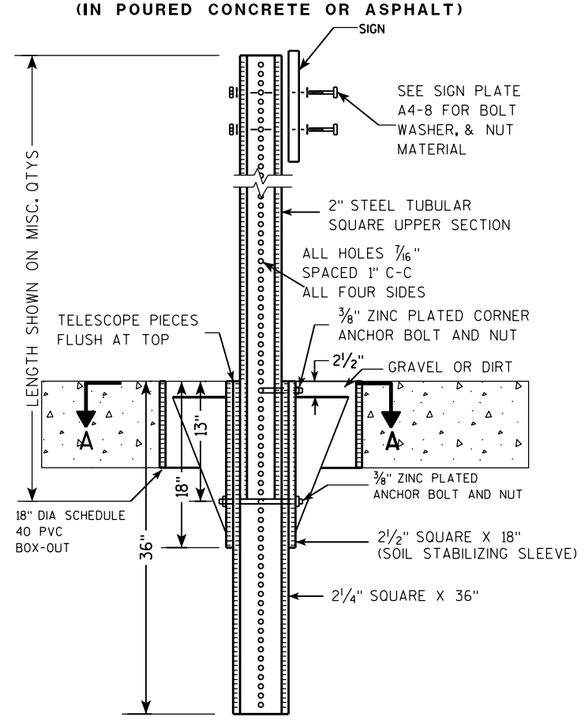
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



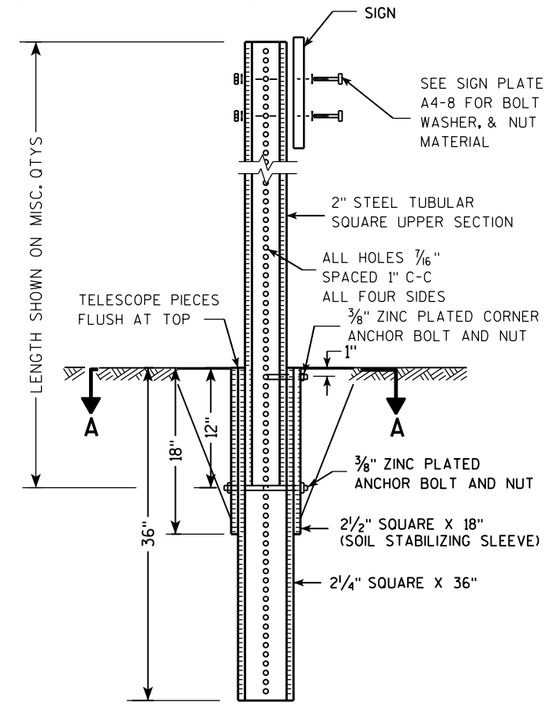
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

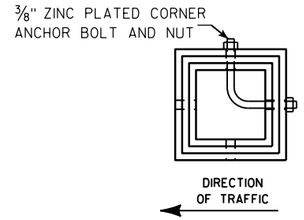


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

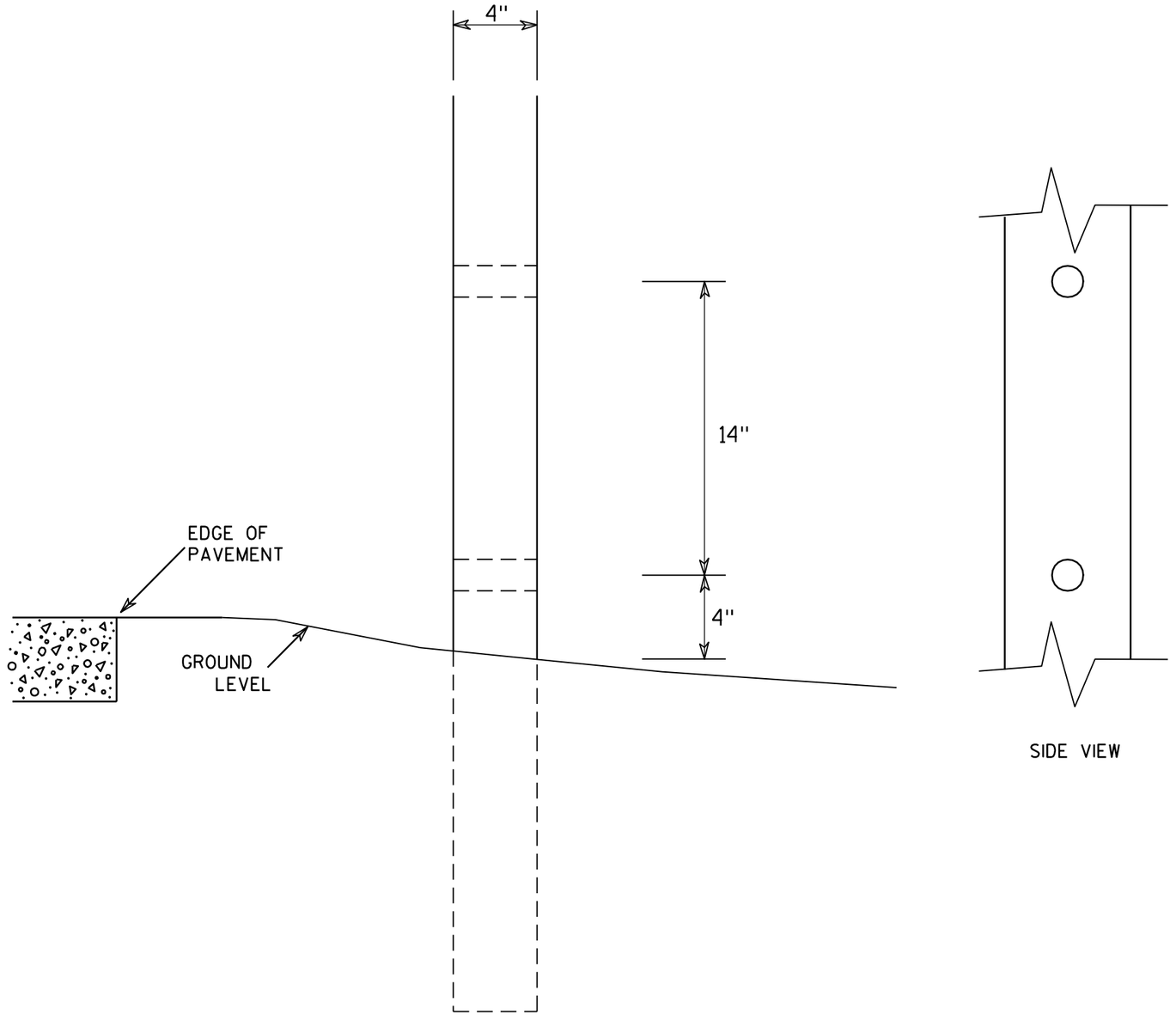
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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.

4 X 6 WOOD POST MODIFICATIONS

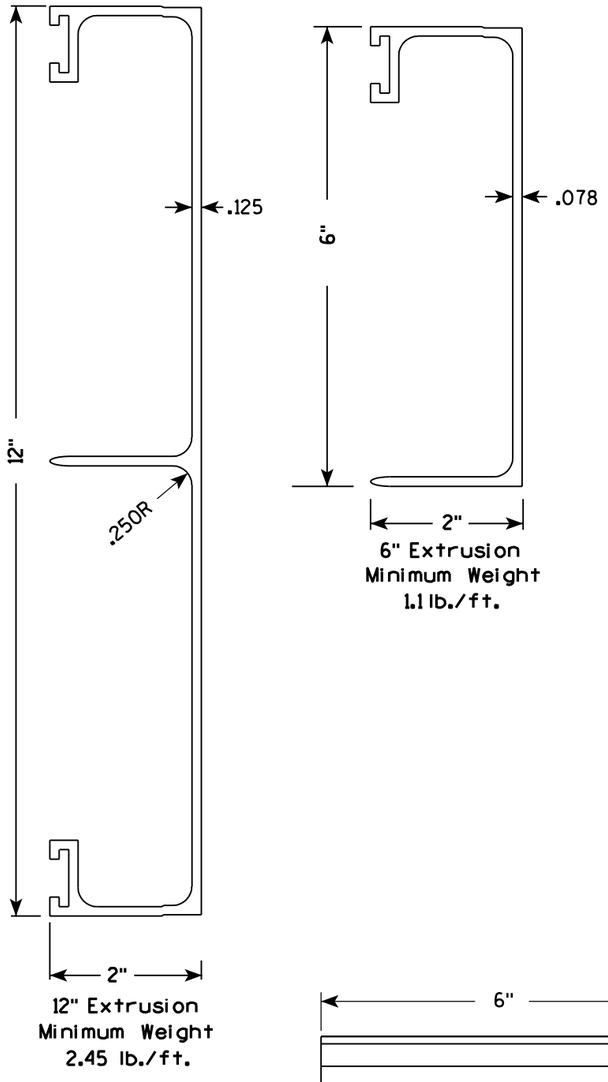
WISCONSIN DEPT OF TRANSPORTATION

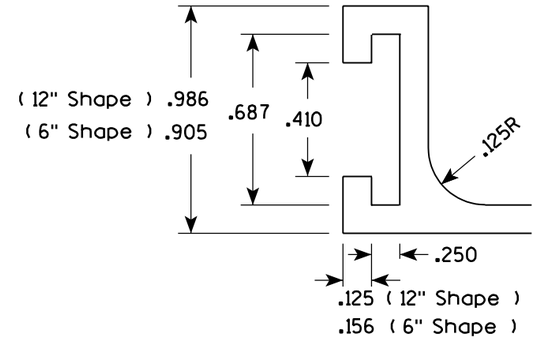
APPROVED Chester J Spang for State Traffic Engineer

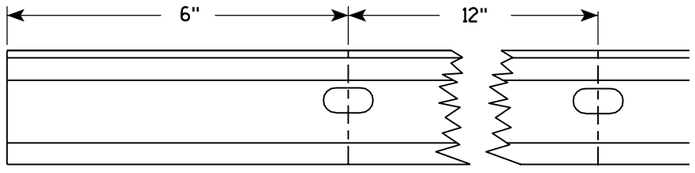
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E

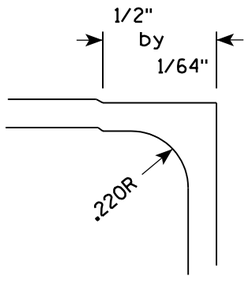
Extruded Shape







Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

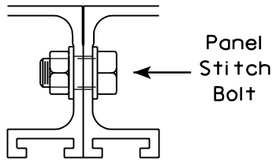


Hardware

STITCH BOLT, WASHER & NUT

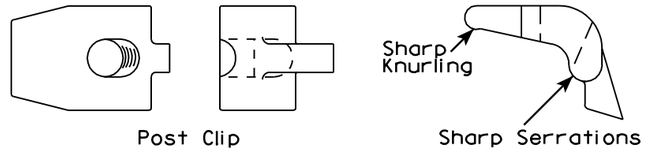
The hardware includes:

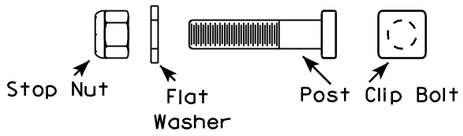
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

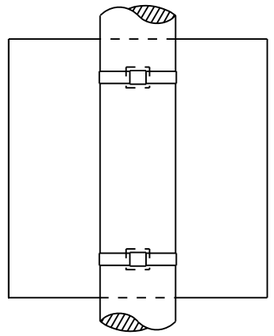
DATE 11/18/99 PLATE NO. A5-2.9

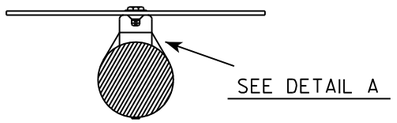
PROJECT NO:

SHEET NO: 104 E

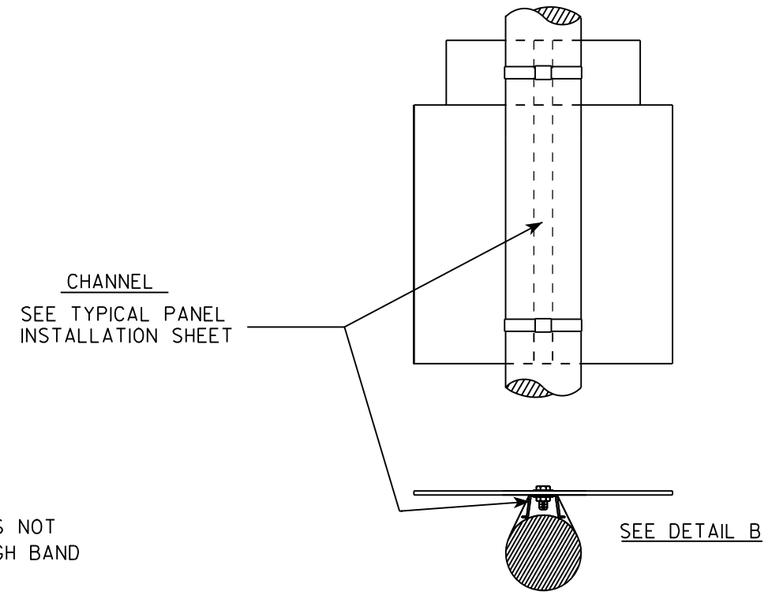
BANDING

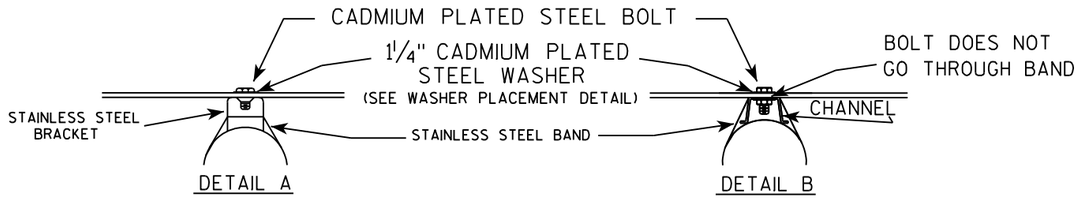
SINGLE SIGN



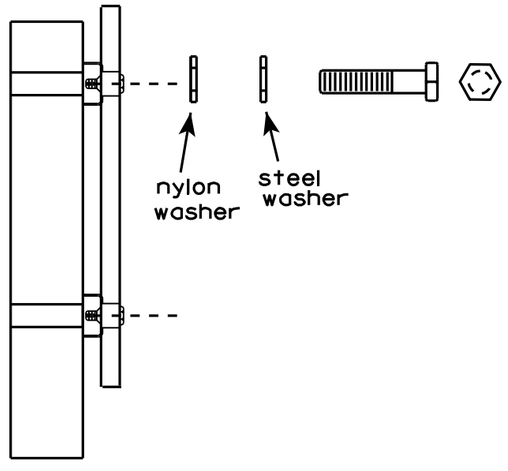


"J" ASSEMBLY





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 3/4" in width and 0.025" thickness.

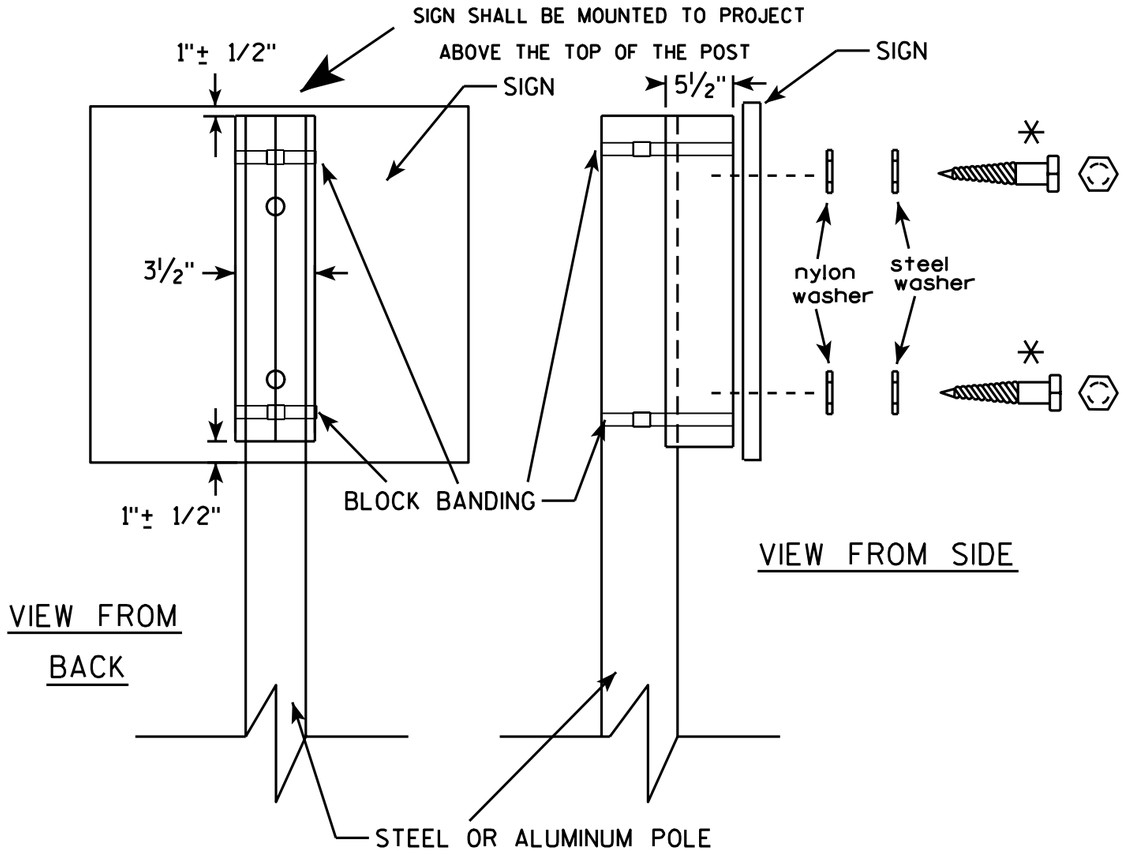
STANDARD SIGN
SIGN BANDING DETAILS

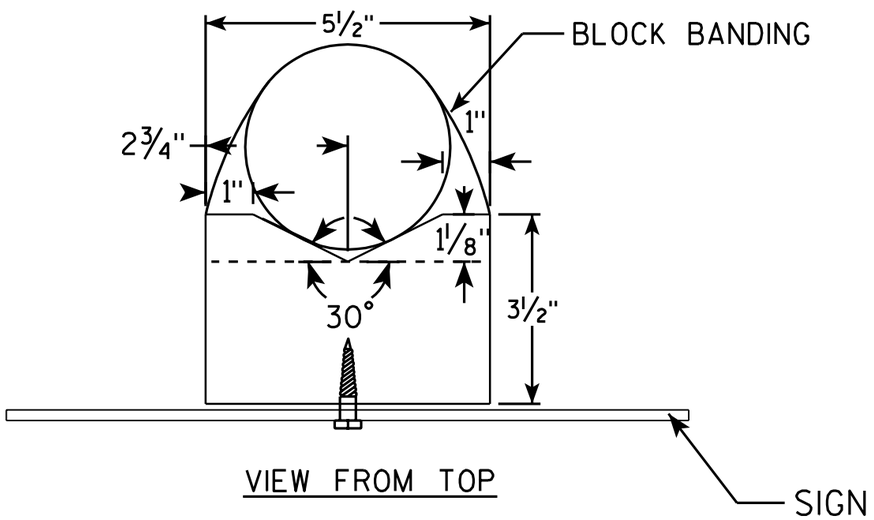
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	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)

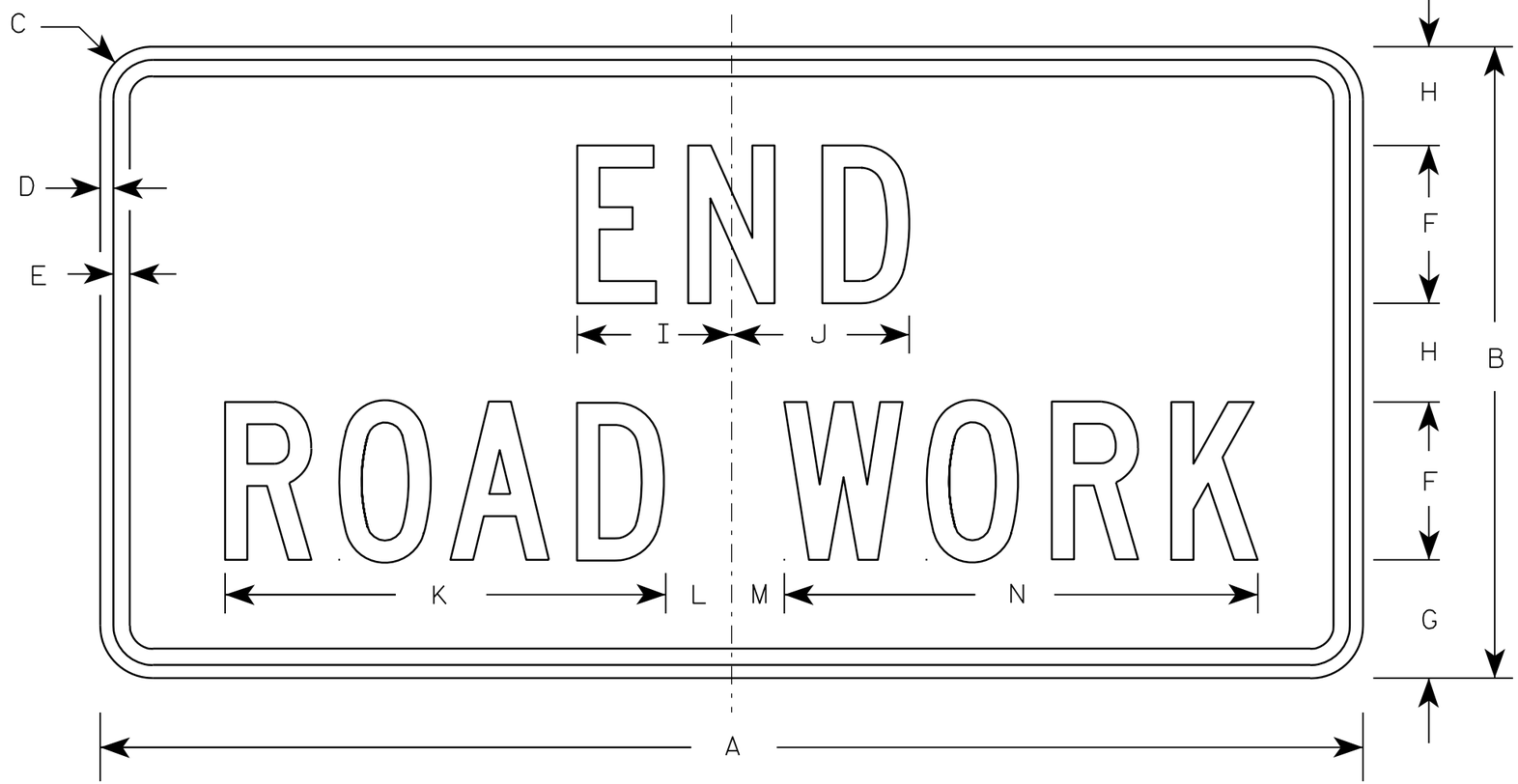
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 106 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

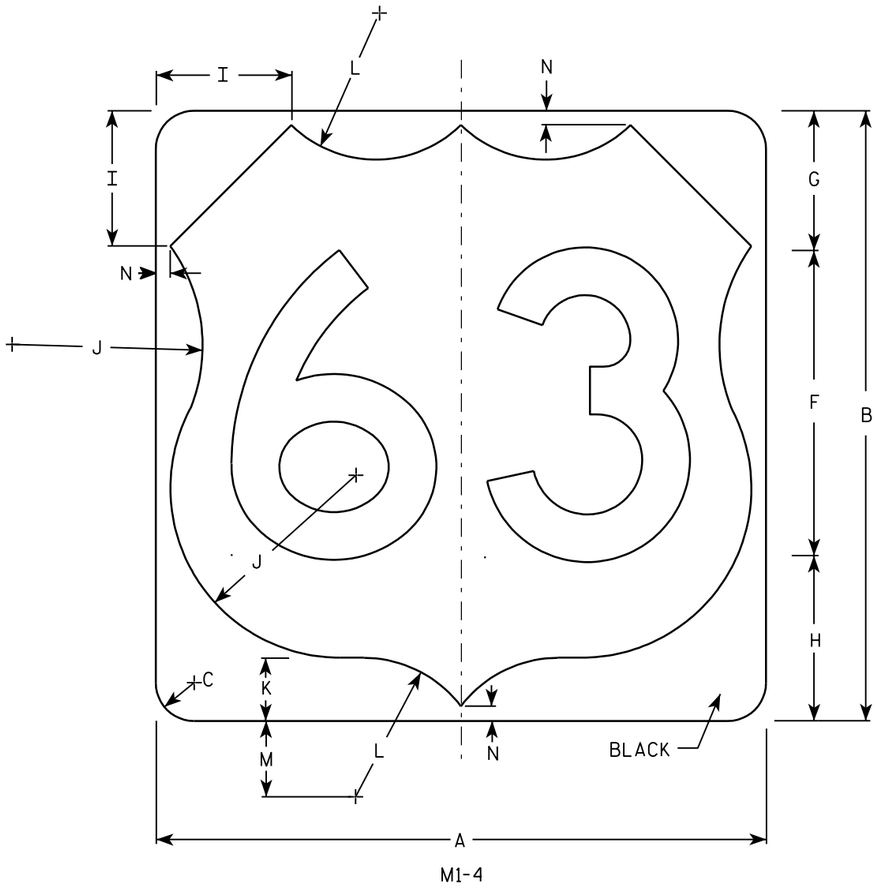
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

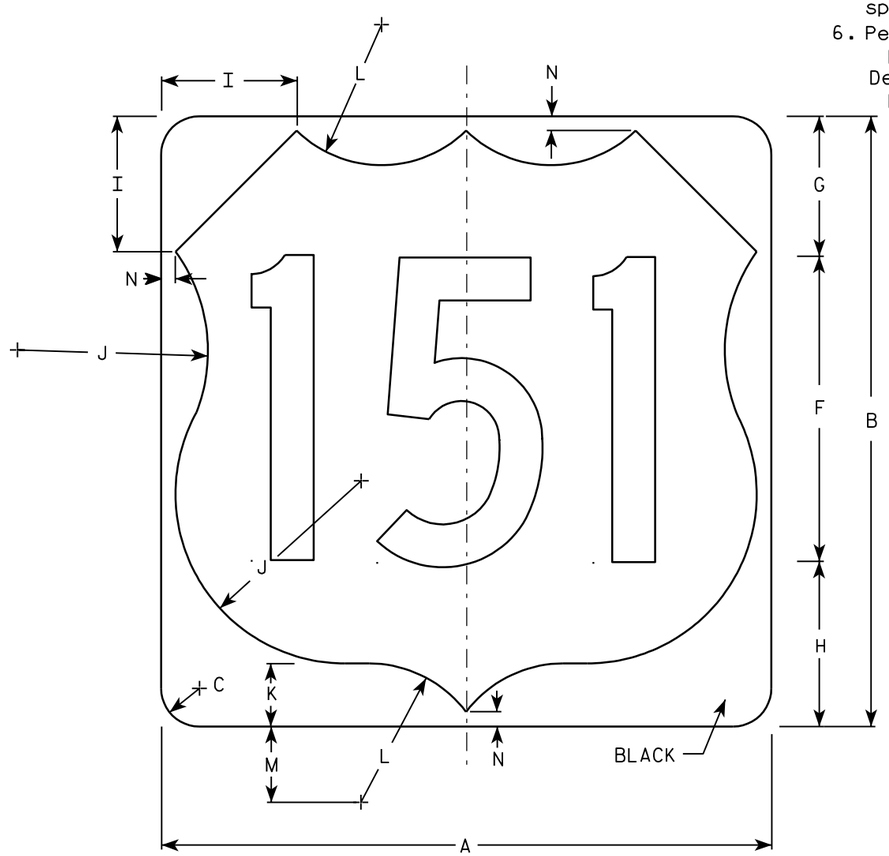
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

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	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0	.36
3	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
4	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
5	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81

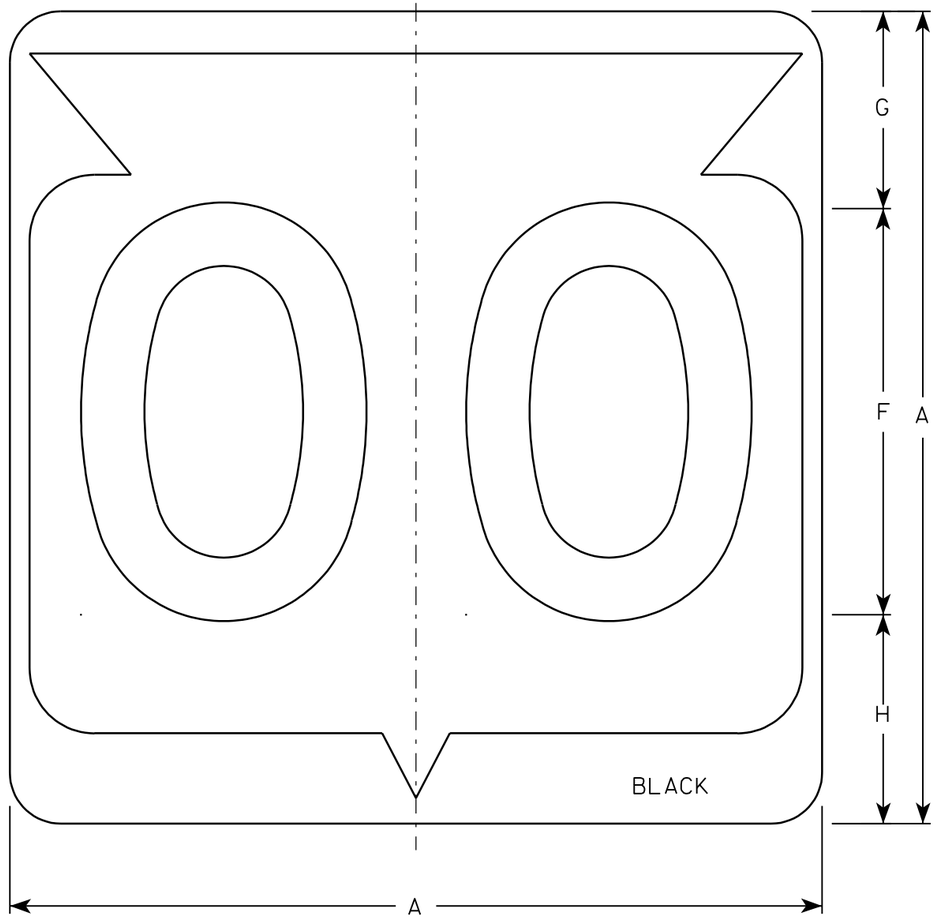
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

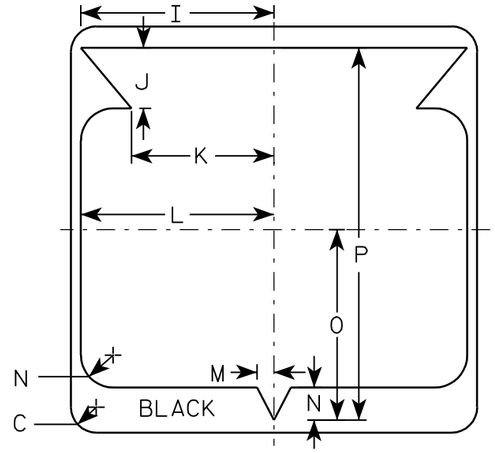
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 108 | E



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

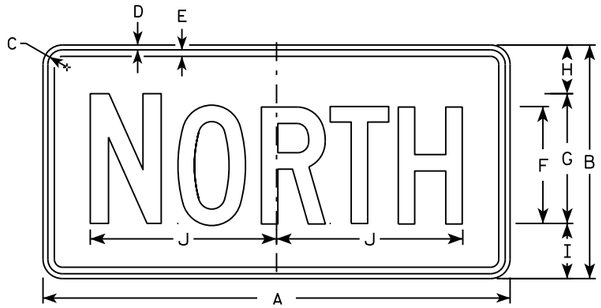
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

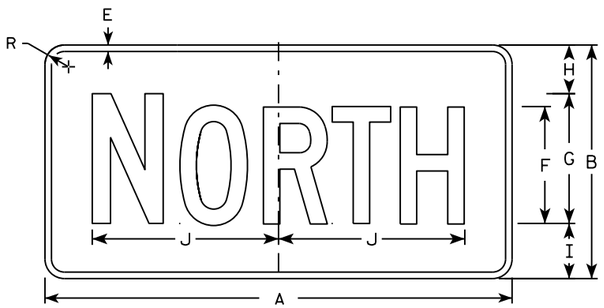
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E



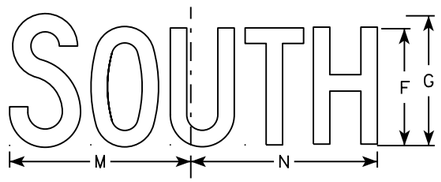
M3-1
MM3-1
MP3-1



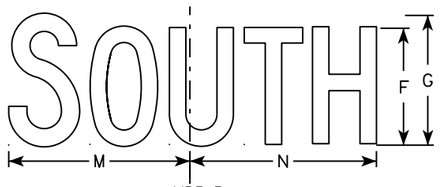
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

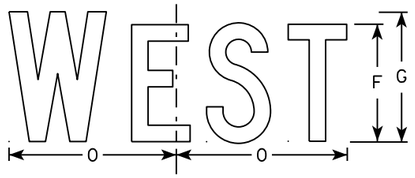
MB3-2
MK3-2
MN3-2



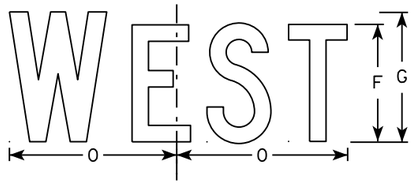
M3-3
MM3-3
MP3-3



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

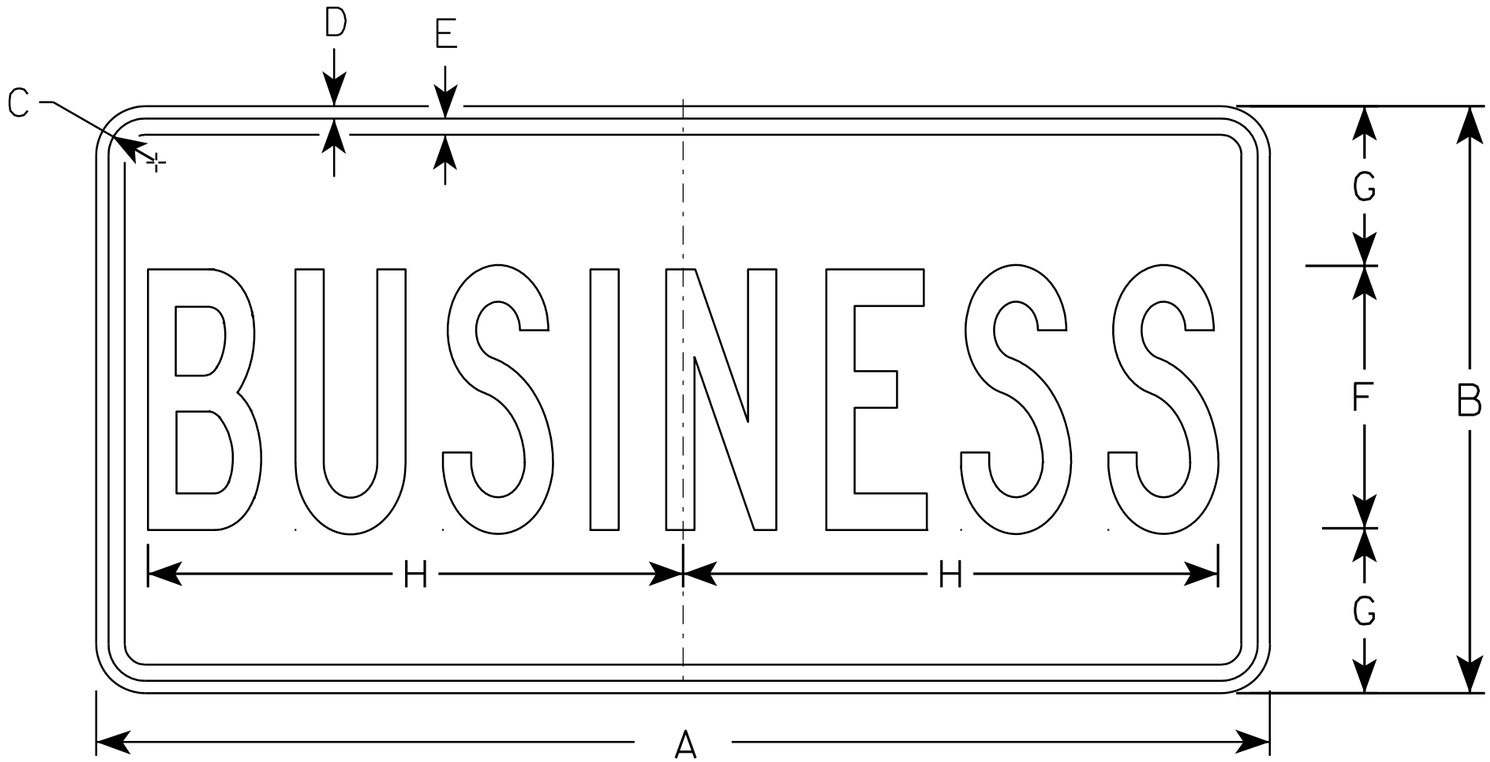
WISCONSIN DEPT OF TRANSPORTATION

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



M4-3

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary Signs
   Background - Reflective

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	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

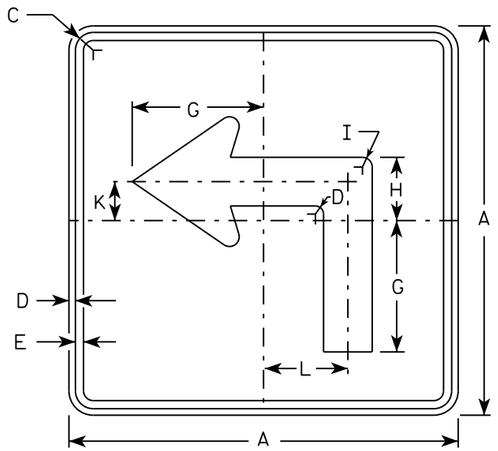
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\M43.DGN PLOT DATE : 10-NOV-2010 10:45 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.648056:1.000000

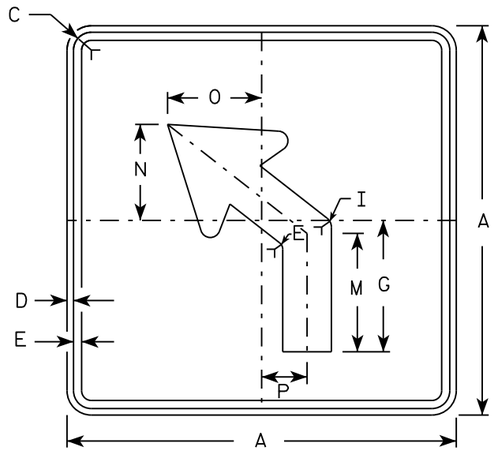
WISDOT/CADDS SHEET 42

7

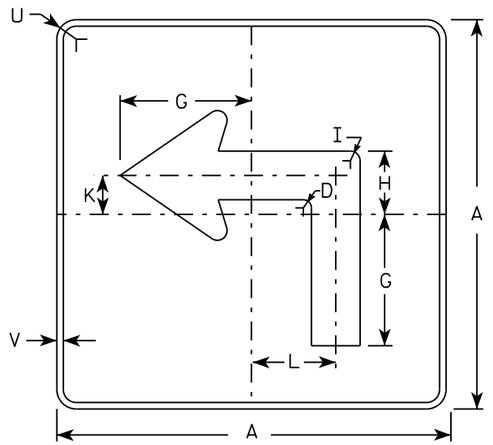
7



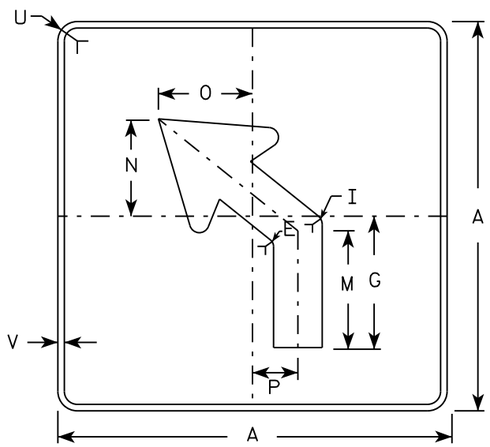
M5-1L
MM5-1L
MO5-1L
MP5-1L



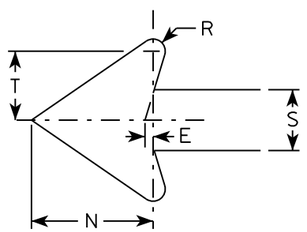
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective 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. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

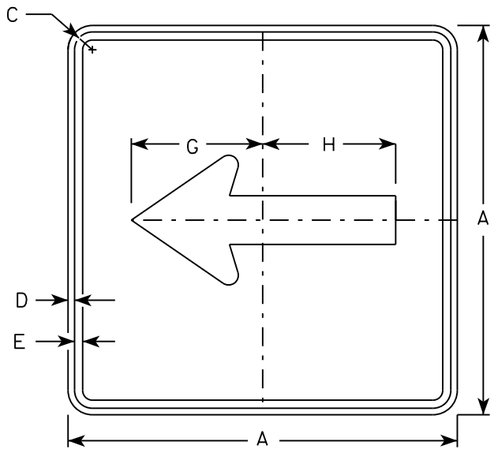
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

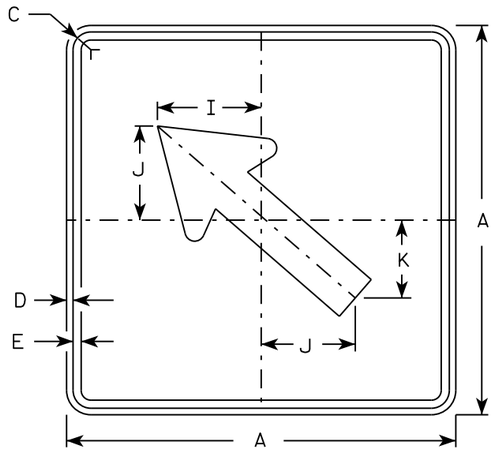
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



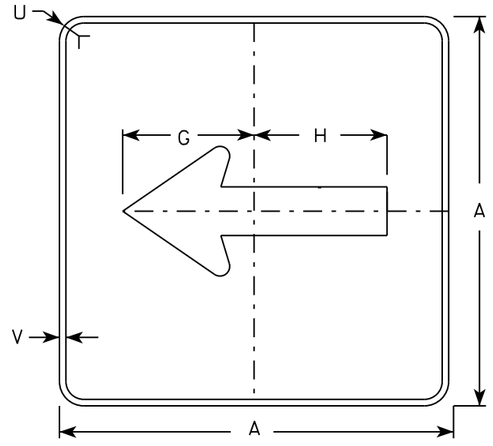
M6-1
MM6-1
MO6-1
MP6-1



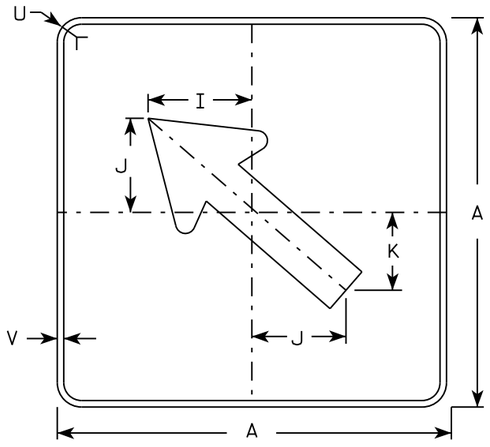
M6-2
MM6-2
MO6-2
MP6-2

NOTES

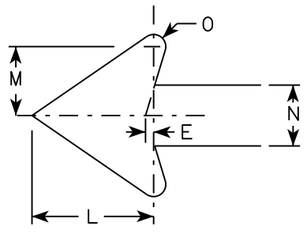
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN M6-1 & M6-2 SERIES

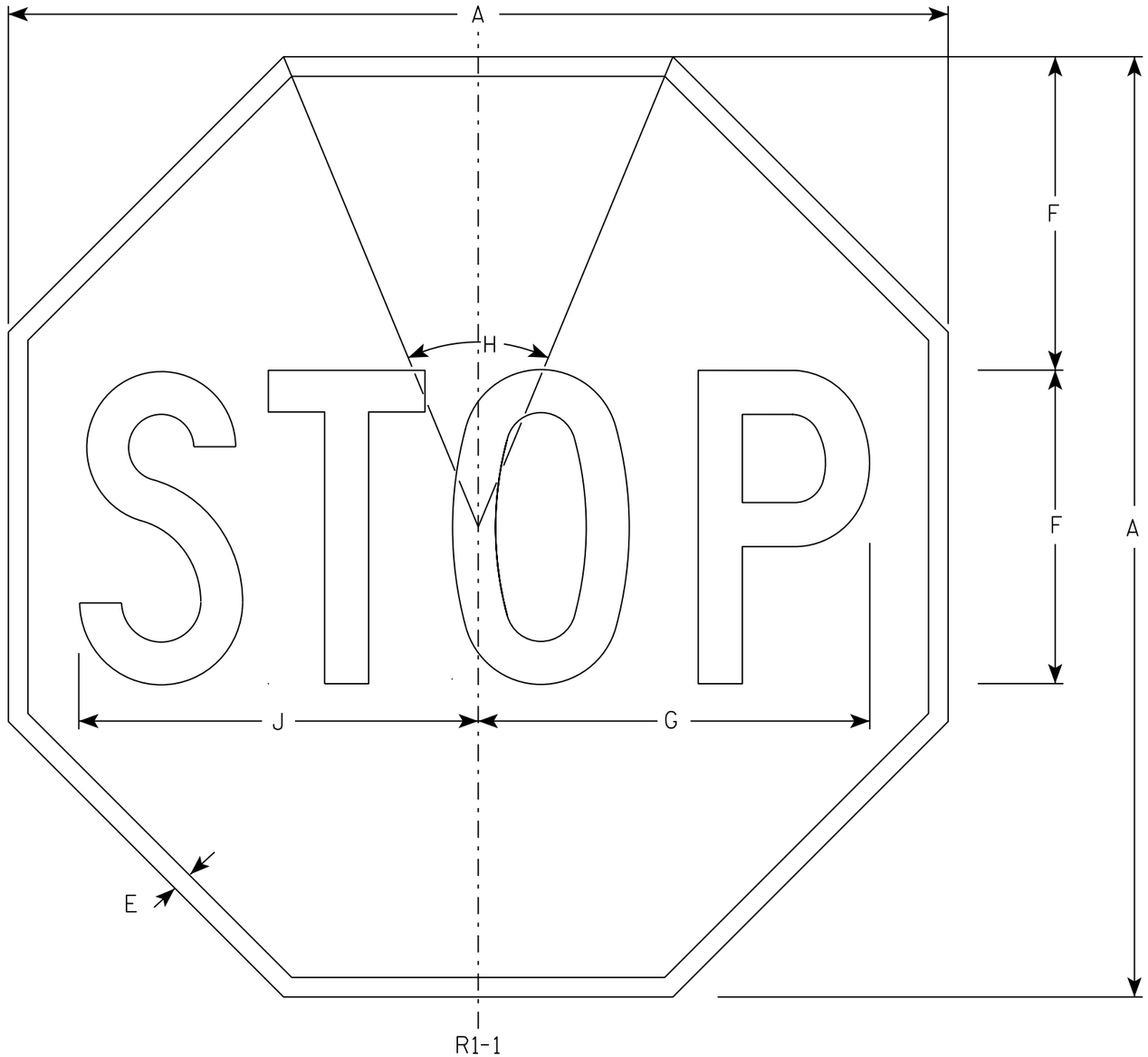
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 113 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-1

NOTES

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

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

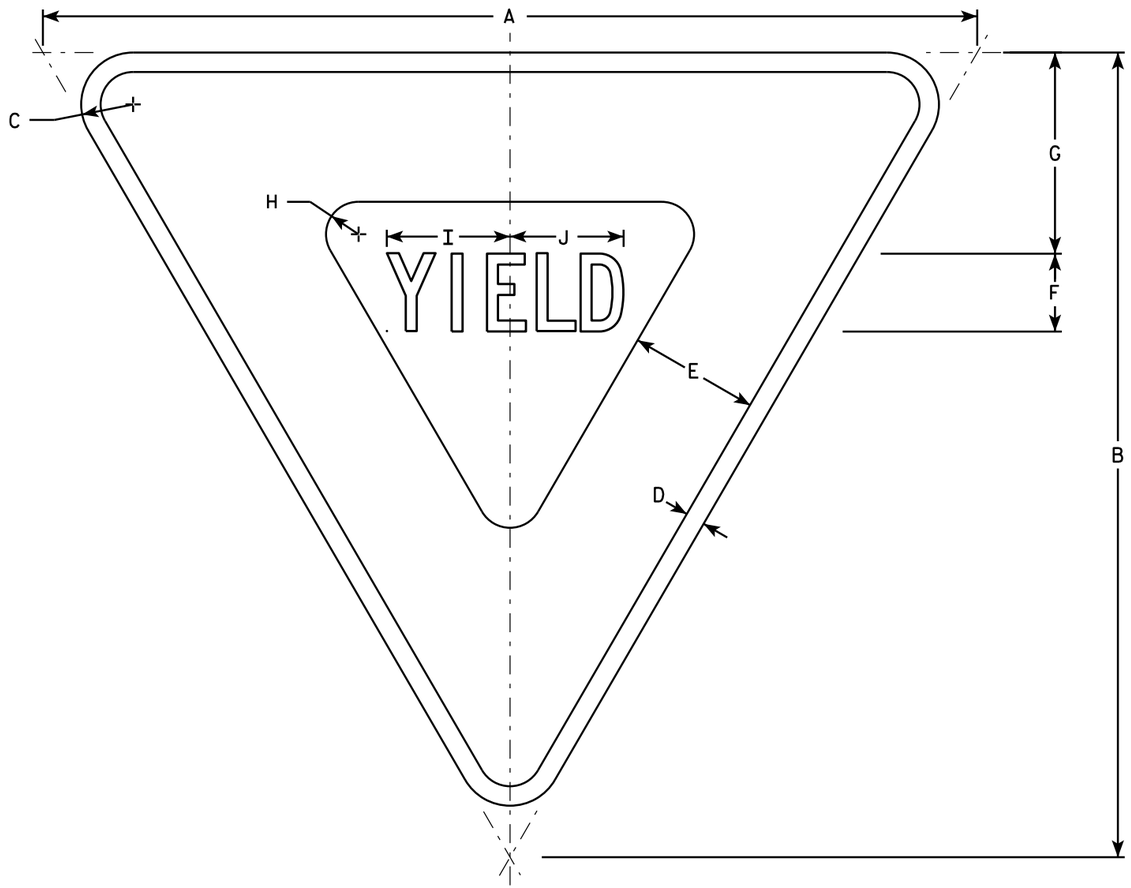
WISCONSIN DEPT OF TRANSPORTATION

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



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

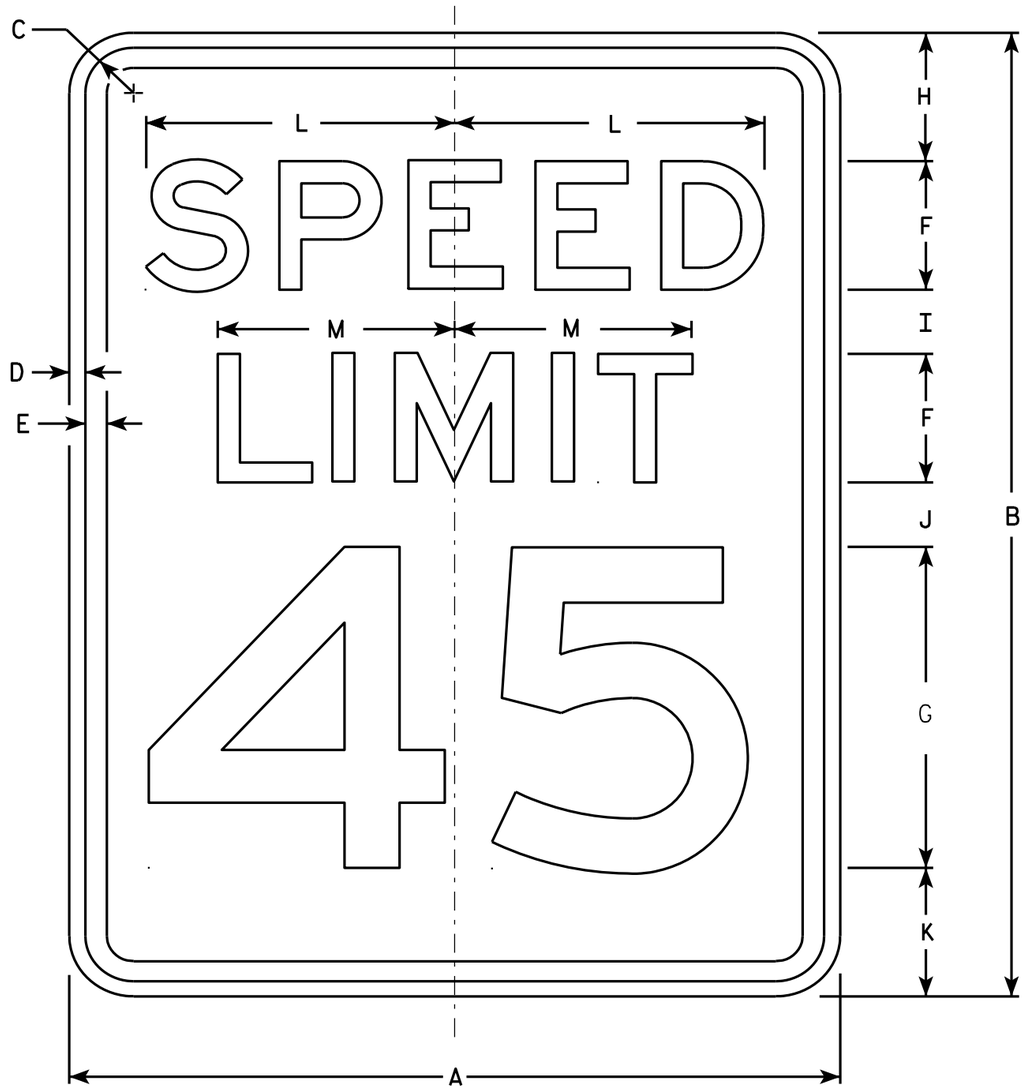
WISCONSIN DEPT OF TRANSPORTATION

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



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

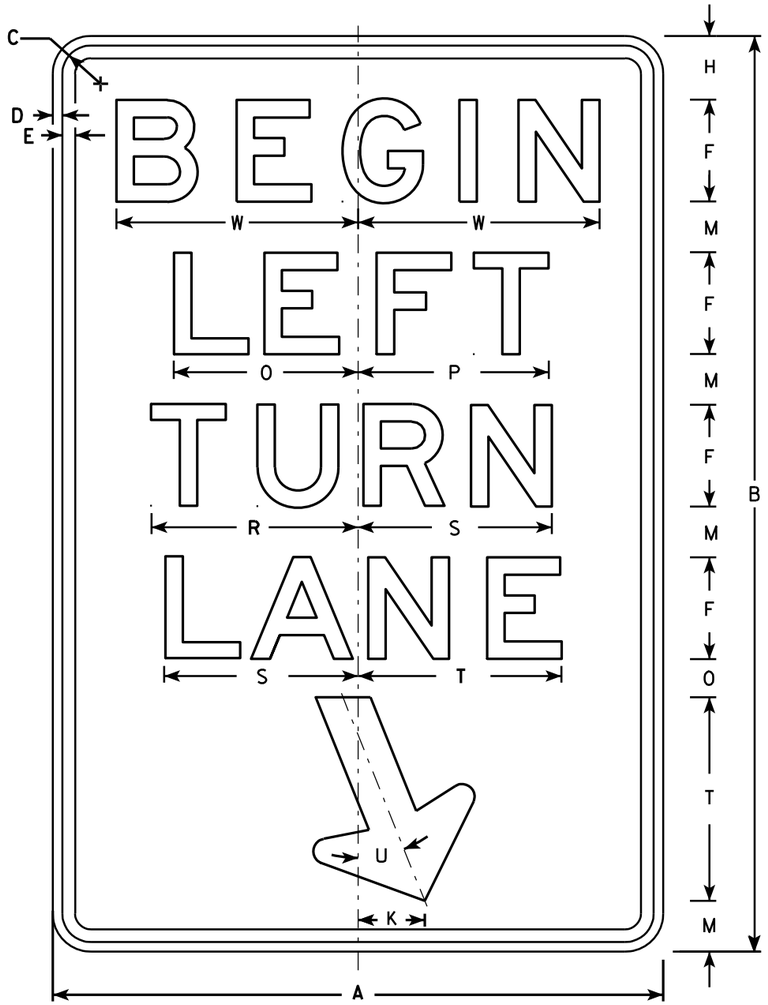
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 116 | E

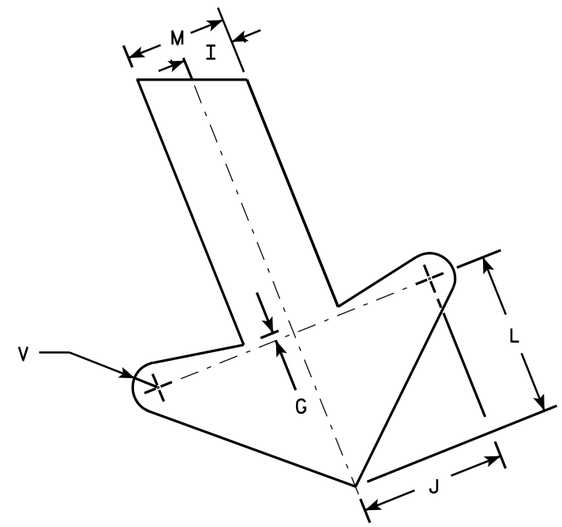
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42



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																											

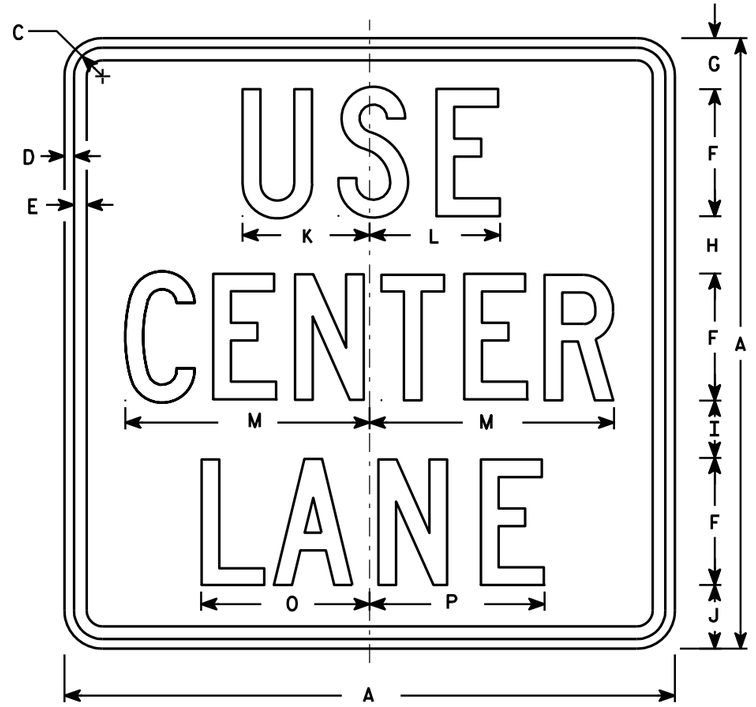
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

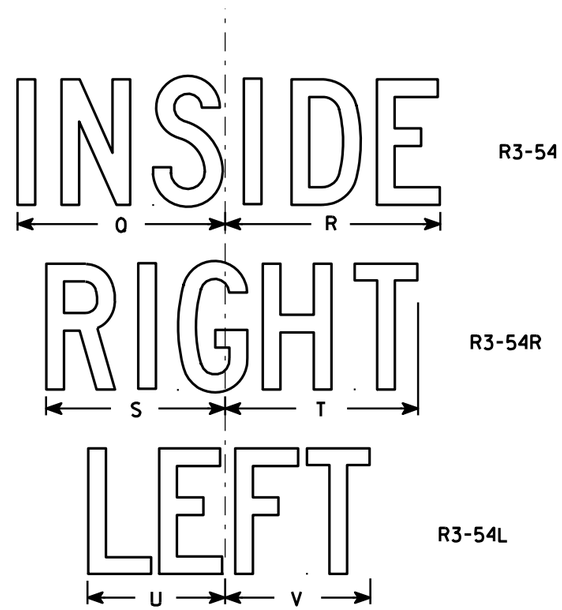
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E



R3-54C

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.



R3-54I

R3-54R

R3-54L

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	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	9 5/8		6 5/8	6 7/8	8 1/8	8 1/2	7	7 5/8	5 3/8	5 3/4					4.0
2M	24		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8	9 5/8		6 5/8	6 7/8	8 1/8	8 1/2	7	7 5/8	5 3/8	5 3/4					4.0
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4	14 3/8		9 7/8	10 1/4	12 1/8	12 3/4	10 3/8	11 3/8	8	8 5/8					9.0
4																											
5																											

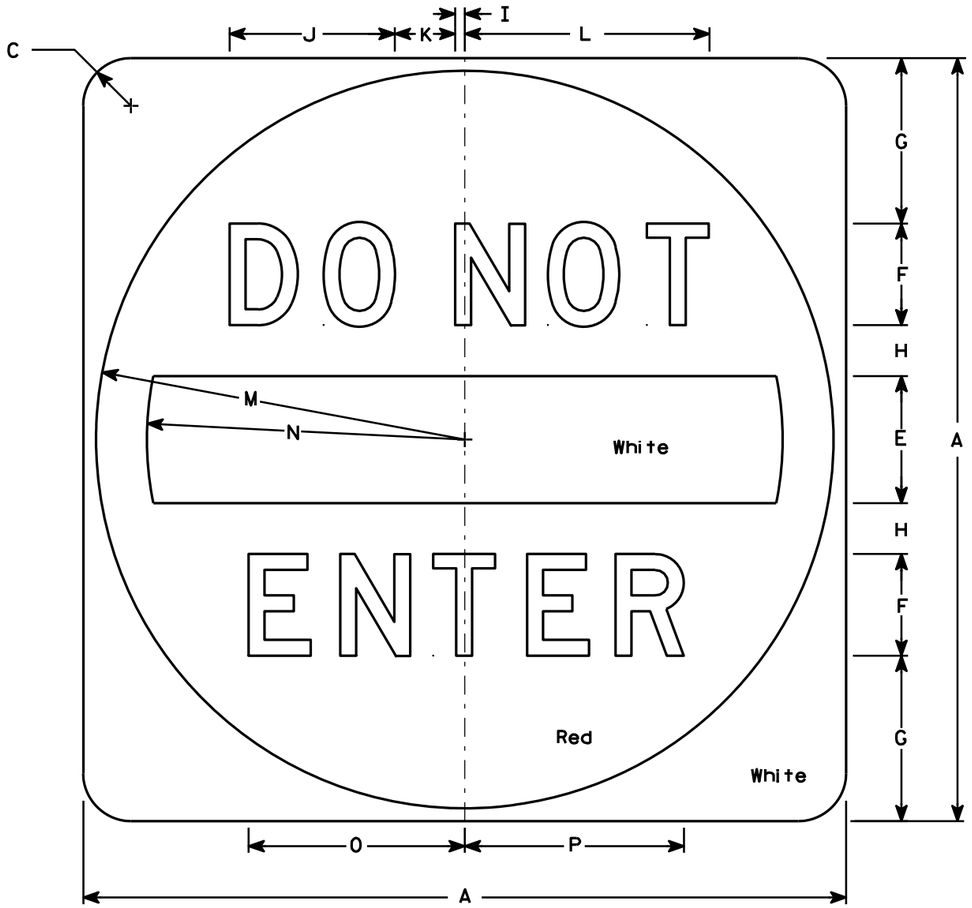
STANDARD SIGN
R3-54C, I ,L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-54.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 118 | 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

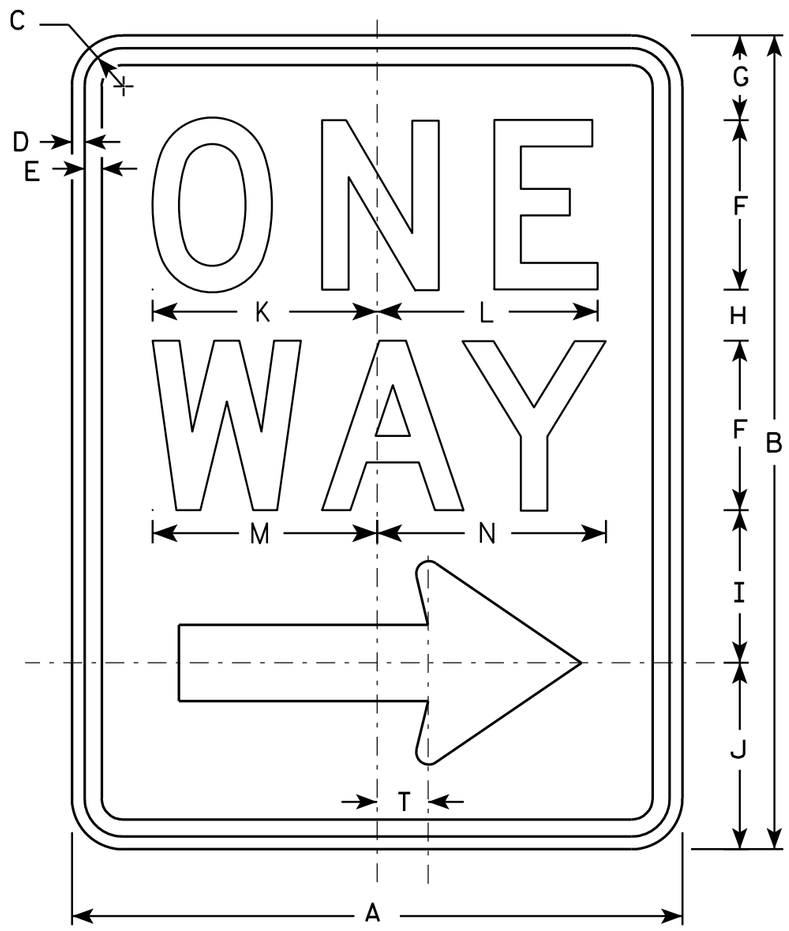
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

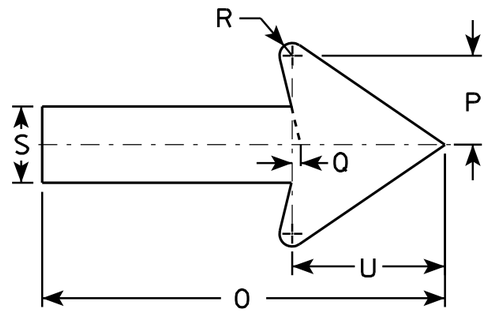
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 119 | E



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	Q	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																										

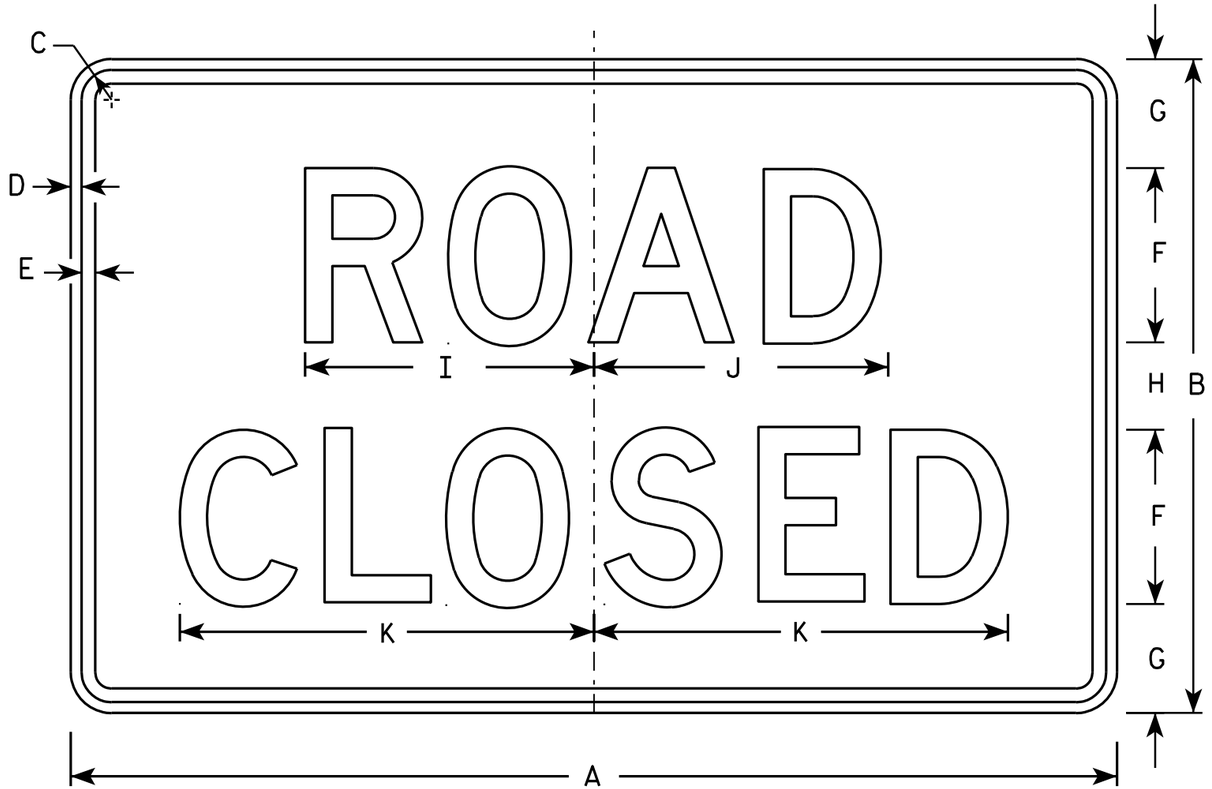
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

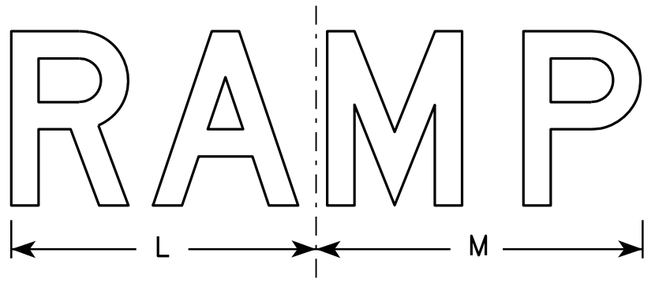
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 120	E



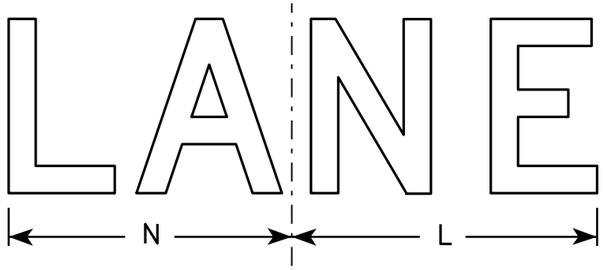
R11-2

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

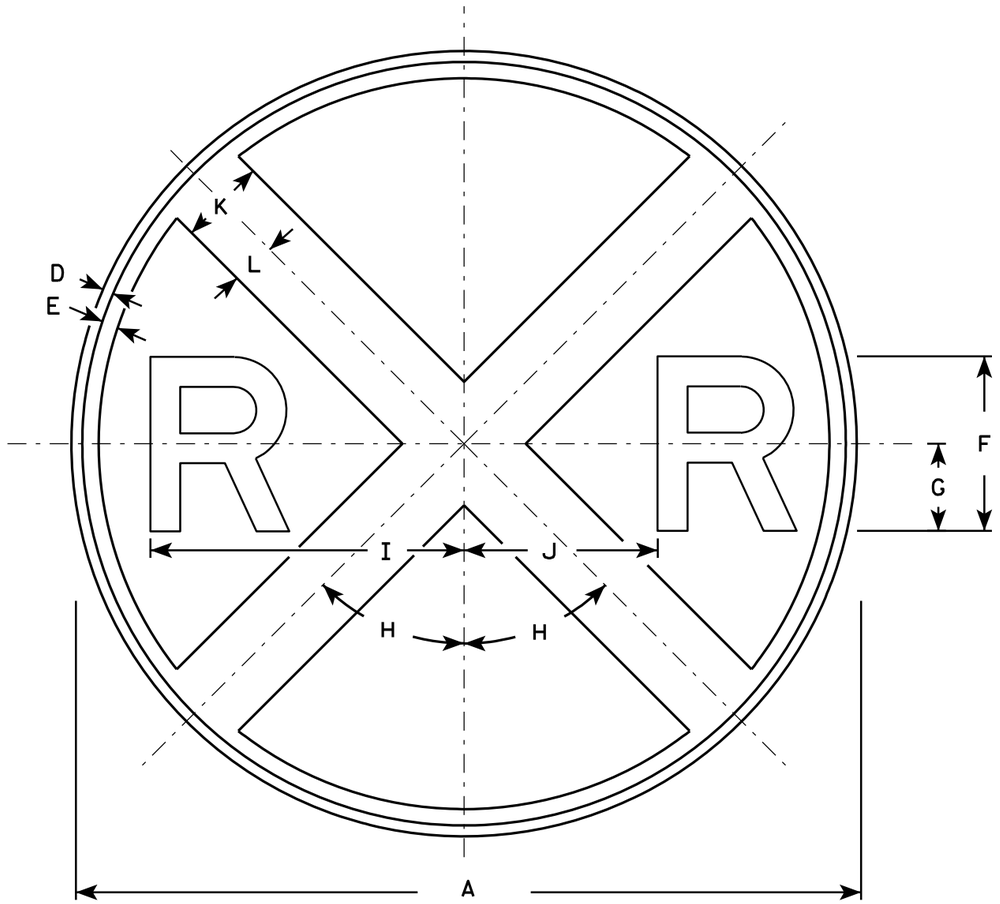
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 121	E



W10-1

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 - E

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			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 122	E

STH 52 EB (STAGE 1) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
253+36	15.8	0.0					
253+50	16.0	0.0	8.36	-	8	0	8
254+00	16.0	0.0	29.63	-	38	0	38
255+00	15.8	0.0	58.83	-	97	0	97
256+00	16.2	0.0	59.26	-	156	0	156
257+00	15.6	0.0	59.00	-	215	0	215
257+26	0.0	0.0	7.64	-	223	0	223
260+37	0.0	0.0	-	-	223	0	223
261+00	15.6	0.0	18.06	-	241	0	241
262+00	15.7	0.0	57.88	-	299	0	299
263+00	16.7	0.0	60.03	-	359	0	359
263+89	16.7	0.0	55.07	-	414	0	414

STH 52 WB (STAGE 1) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
253+13	23.4	0.0					
254+00	20.8	0.0	71.13	-	71	0	71
255+46	21.1	0.0	113.55	-	185	0	185
256+00	18.4	0.0	39.15	-	224	0	224
256+92	25.9	0.3	75.28	0.51	299	1	298
257+14	0.0	0.0	10.66	0.12	310	1	309
259+96	0.0	0.0	-	-	310	1	309
260+11	0.0	0.7			310	1	309
261+00	16.3	0.0	31.43	-	341	1	340
262+00	16.6	0.0	60.92	-	402	1	401
262+60	17.8	0.0	38.01	-	440	1	439

STH 52 EB (STAGE 2) *EXPANDED= 1.3

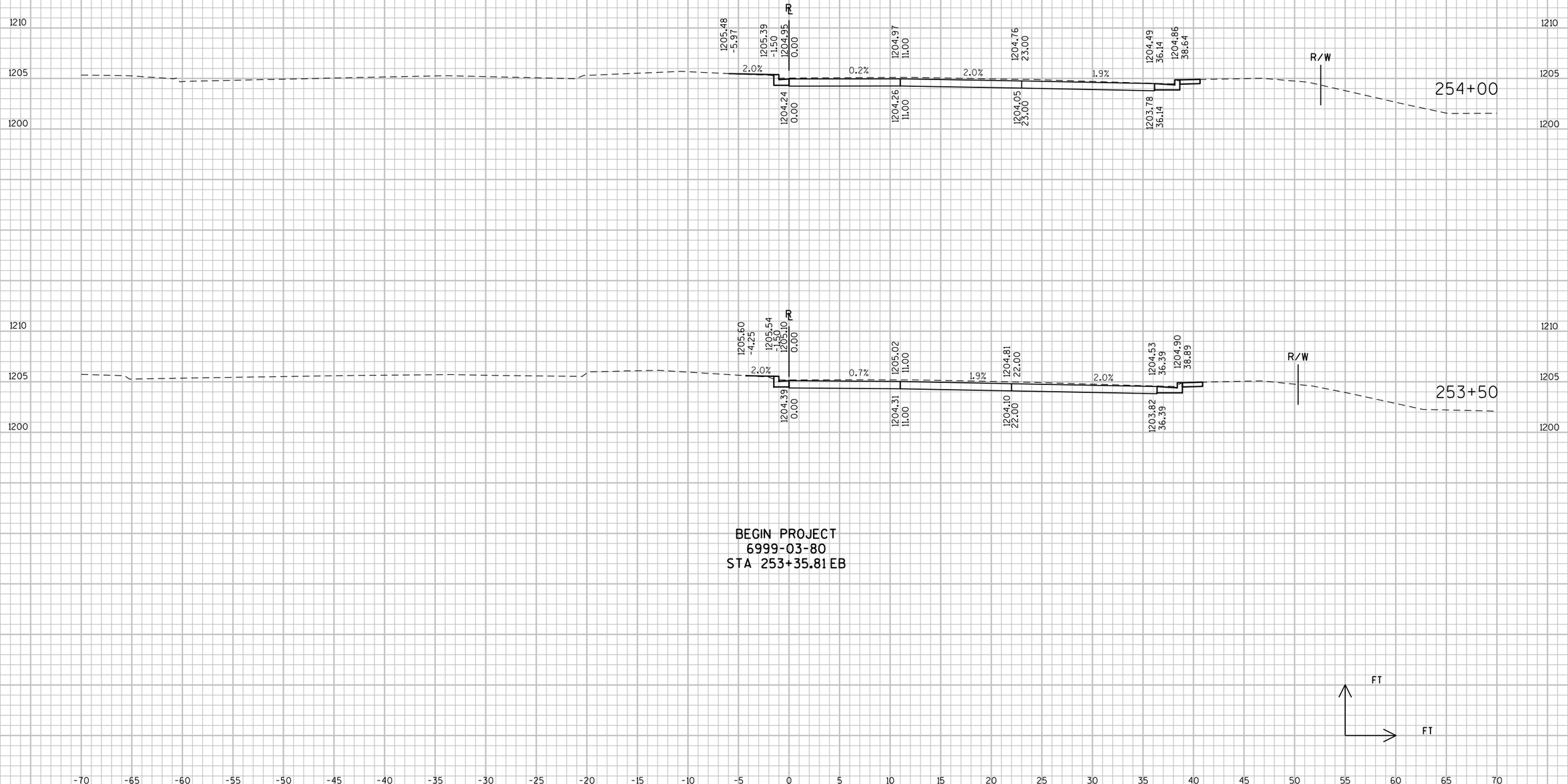
STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
253+36	18.2	0.0					
253+50	18.4	0.0	9.61	-	10	0	10
254+00	18.4	0.0	34.07	-	44	0	44
255+00	18.1	0.0	67.65	-	111	0	111
256+00	18.7	0.0	68.15	-	179	0	179
257+00	18.0	0.0	67.85	-	247	0	247
257+26	0.0	0.0	8.79	-	256	0	256
260+37	0.0	0.0	-	-	256	0	256
261+00	17.9	0.0	20.77	-	277	0	277
262+00	18.0	0.0	66.56	-	343	0	343
263+00	19.3	0.0	69.04	-	413	0	413
263+89	19.3	0.0	63.33	-	476	0	476

STH 52 WB (STAGE 2) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
253+13	12.2	0.0					
254+00	10.8	0.0	36.88	-	37	0	37
255+46	10.9	0.0	58.88	-	96	0	96
256+00	9.5	0.0	20.30	-	116	0	116
256+92	13.4	0.0	39.03	-	155	0	155
257+14	0.0	0.0	5.53	-	161	0	161
259+96	0.0	0.0	-	-	161	0	161
260+11	0.0	0.0			161	0	161
261+00	19.9	0.0	38.42	-	199	0	199
262+00	20.3	0.0	74.45	-	273	0	273
262+60	21.7	0.0	46.46	-	320	0	320

WASHINGTON STREET *EXPANDED= 1.3

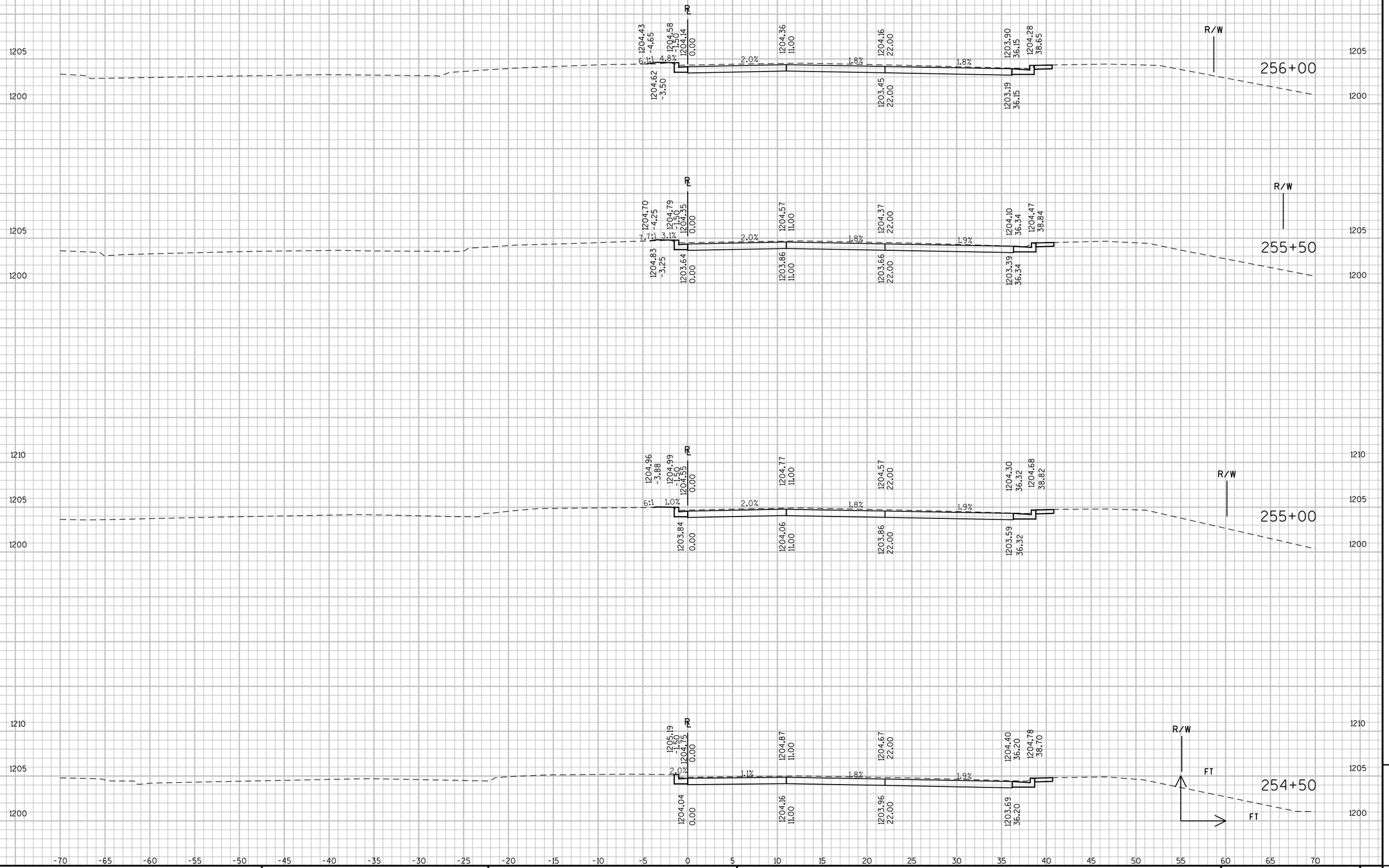
STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
135+00	0.0	0.0					
135+17	22.3	0.0	7.02	-	7	0	7
135+50	46.4	0.0	41.98	-	49	0	49
136+00	19.9	0.0	61.39	-	110	0	110
136+21	19.9	0.0	15.48	-	126	0	126
136+40	28.6	0.0	17.06	-	143	0	143
136+50	30.1	0.0	10.87	-	154	0	154
136+75	30.3	0.0	27.96	-	182	0	182
137+00	30.0	0.0	27.92	-	210	0	210



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 124	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



9

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 125	E

9

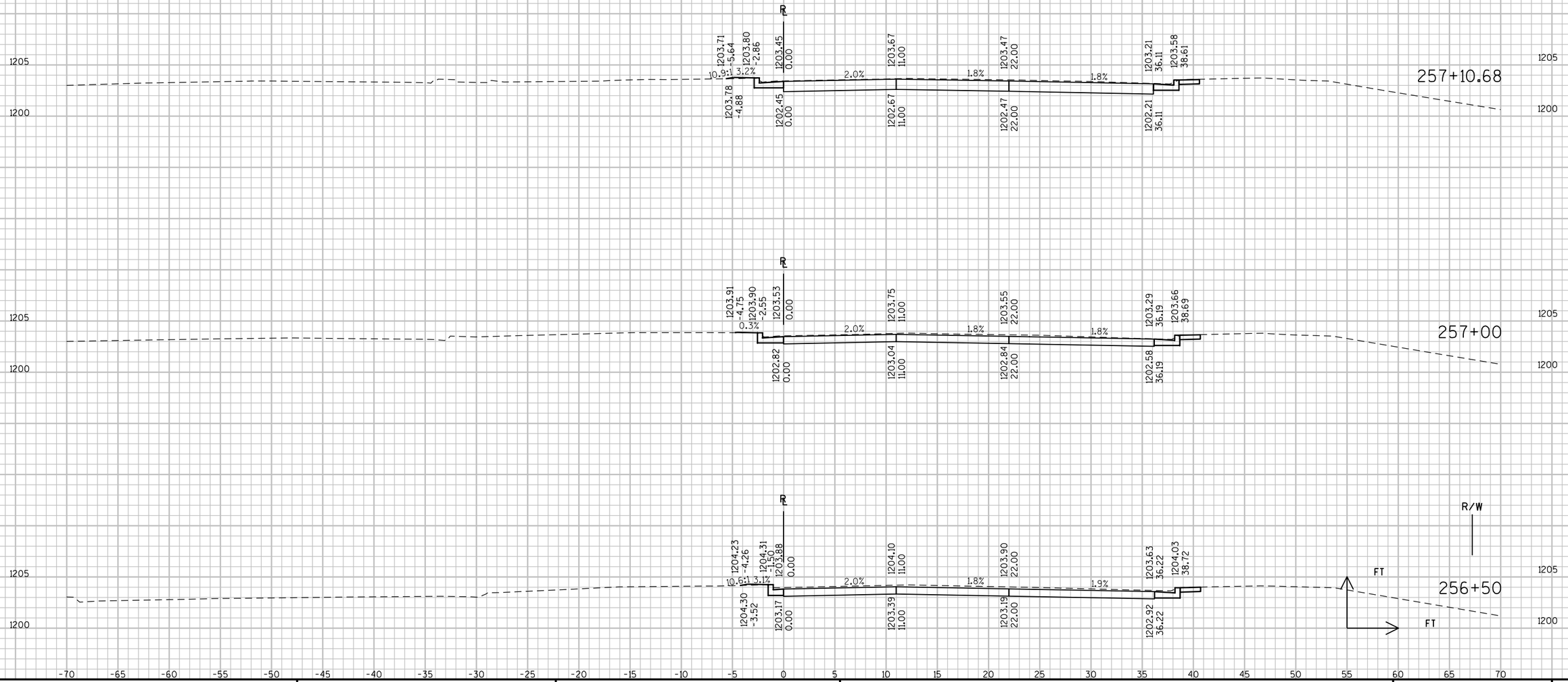
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

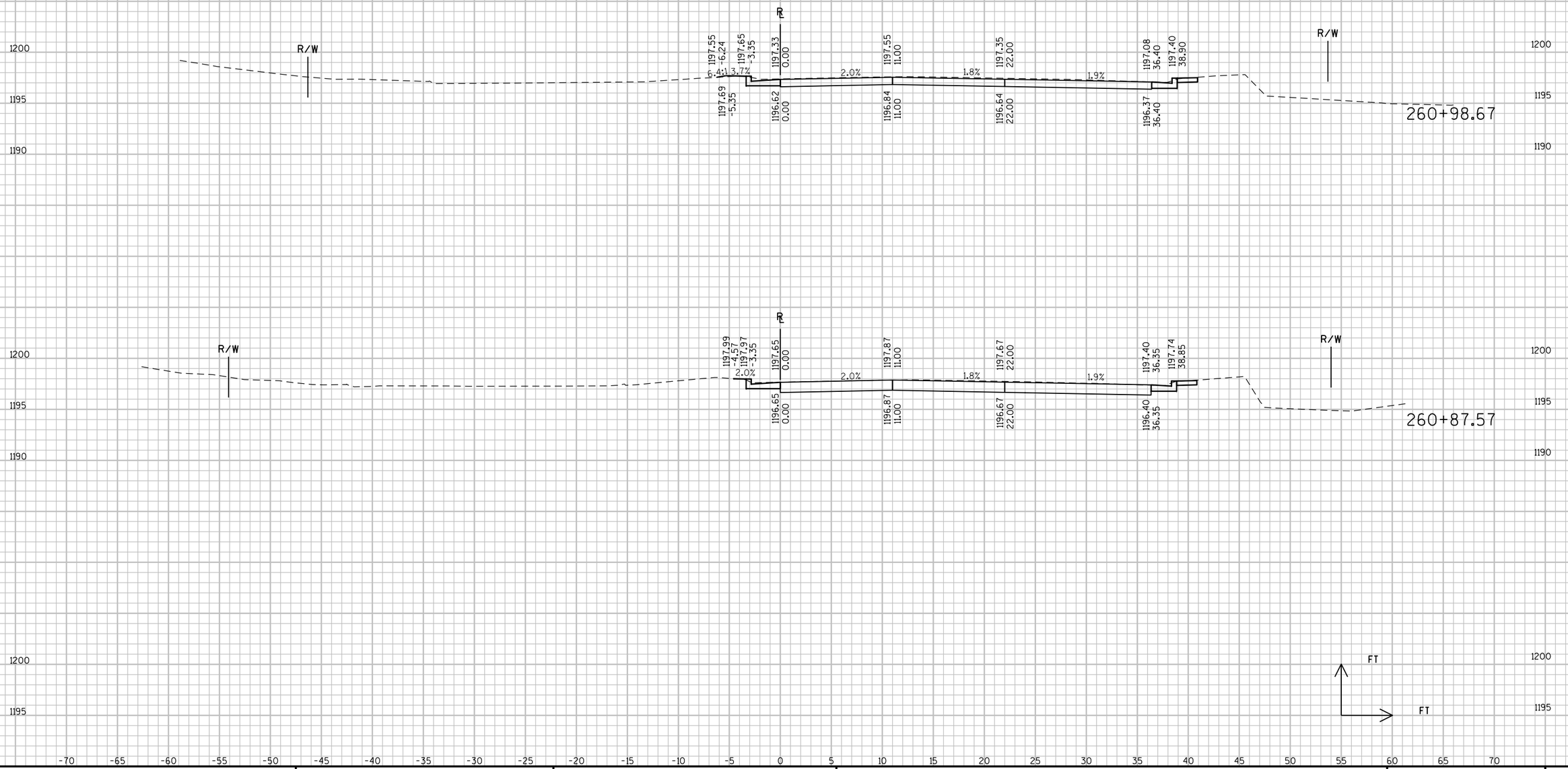
EXCEPTION TO NET CENTERLINE LENGTH
STA 257+26.36 EB TO STA 260+38.38 EB
B-37-273



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 126	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn
PLOT DATE : 1/18/2016
PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



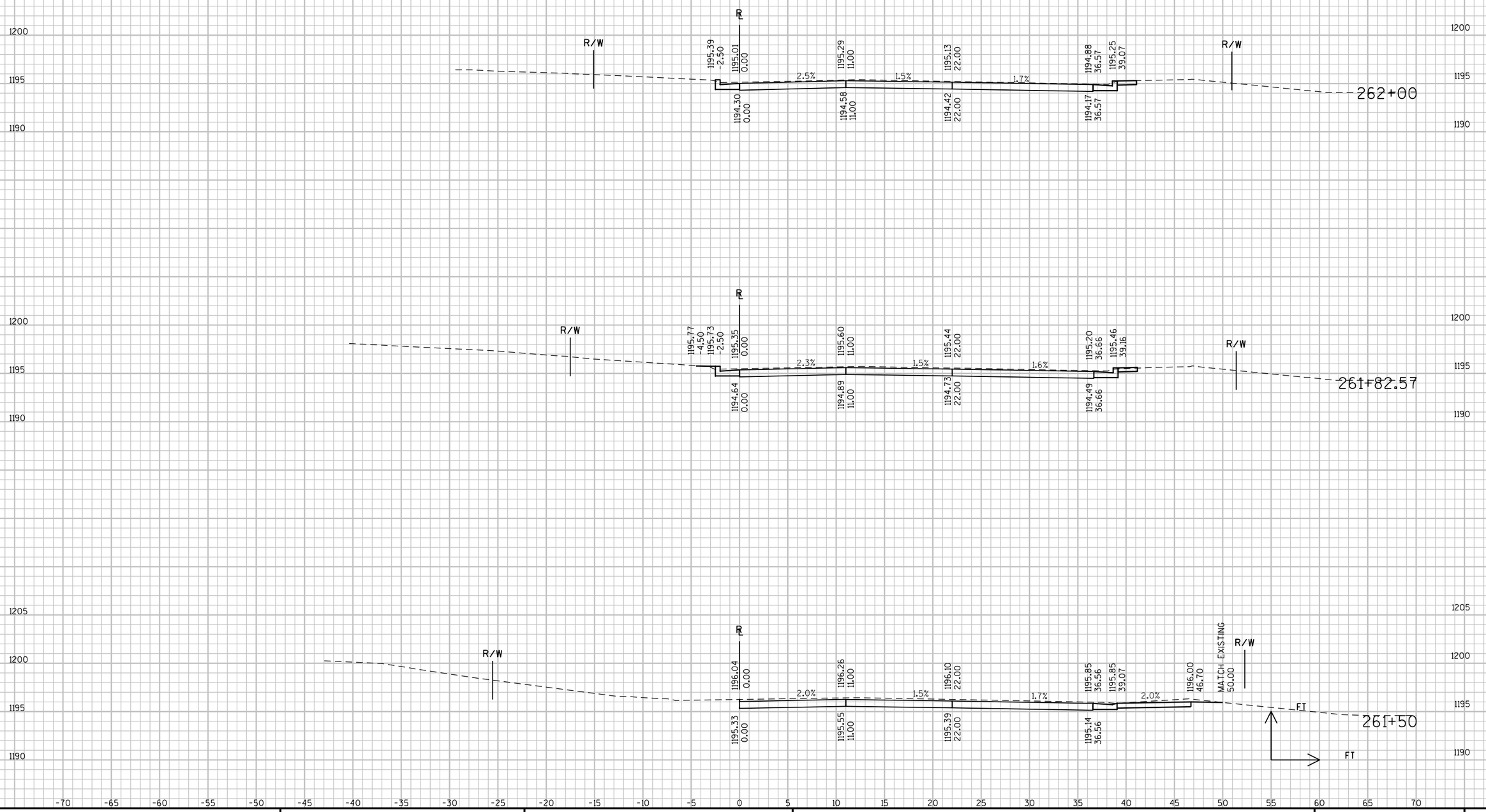
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 127	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 128	E

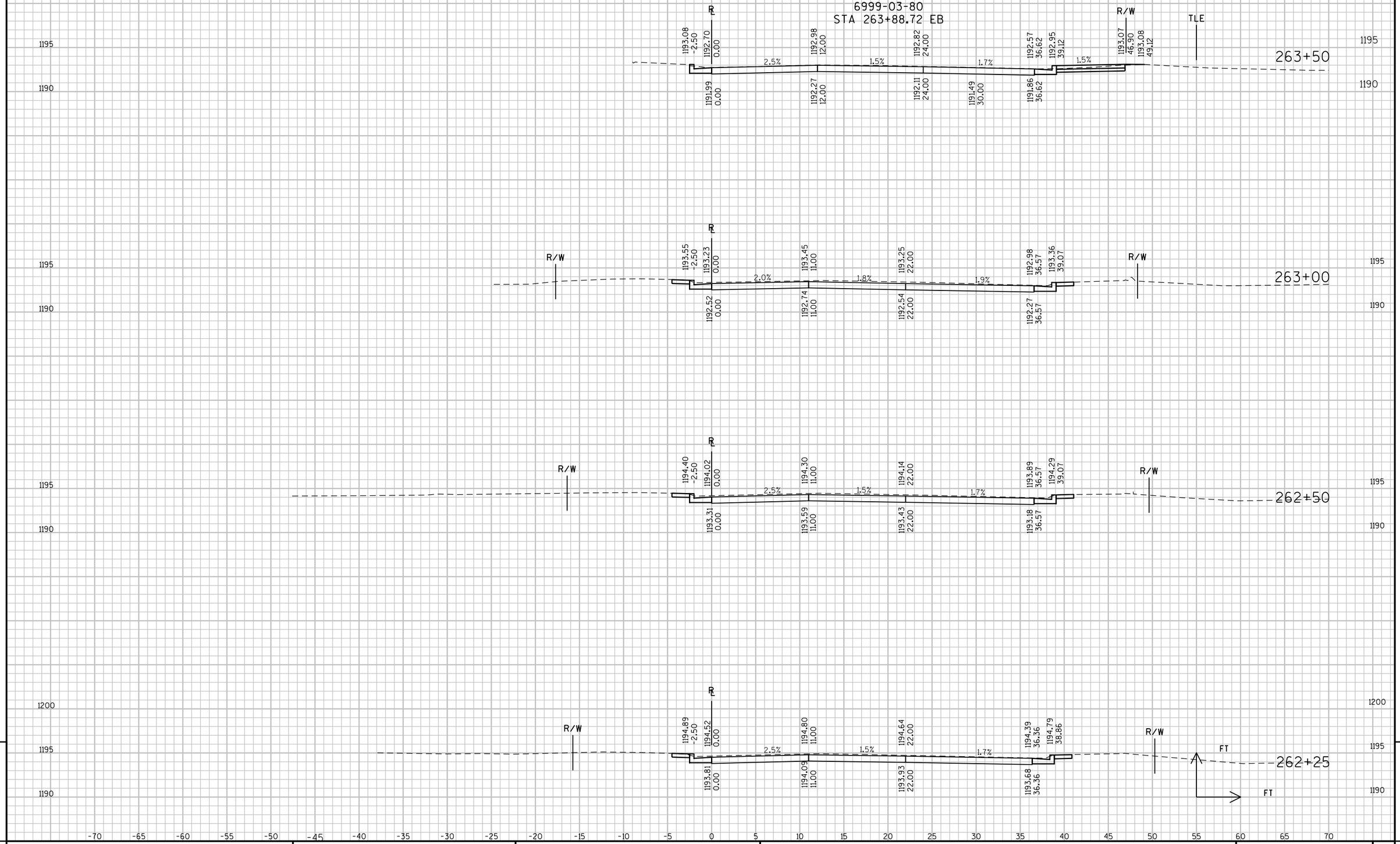
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

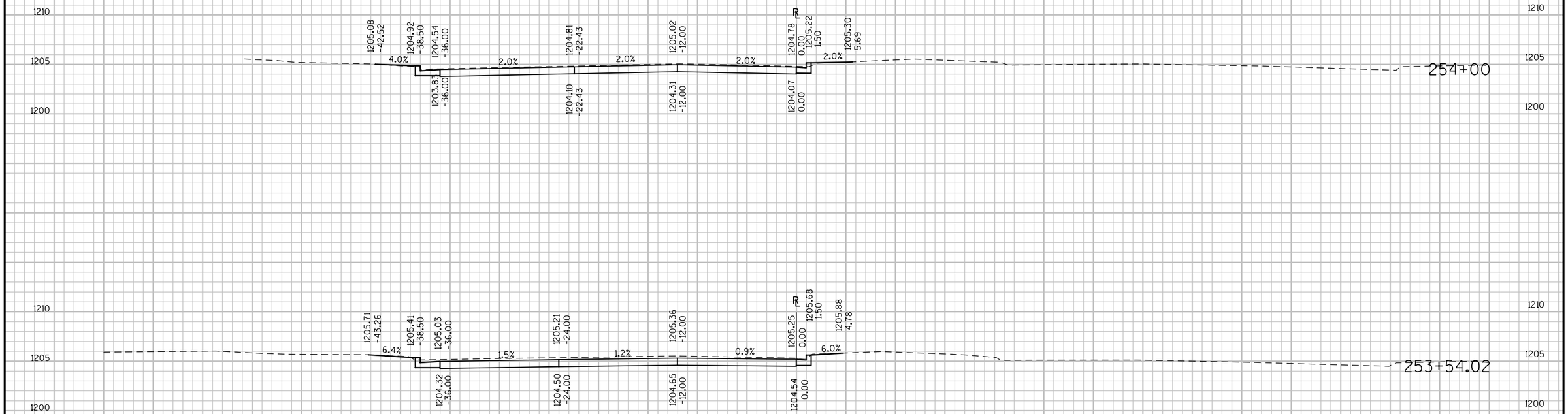
WISDOT/CADDS SHEET 21

END PROJECT
6999-03-80
STA 263+88.72 EB



PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 EB	SHEET 129	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52EB.dgn
PLOT DATE : 1/18/2016
PLOT BY : $$...plotuser...$$
WISDOT/CADDS SHEET 21



BEGIN PROJECT
6999-03-80
STA 253+35.81 EB
BEGIN CONSTRUCTION
STA 253+13.21 WB

FT
FT

-70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

9 9

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB	SHEET 130	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

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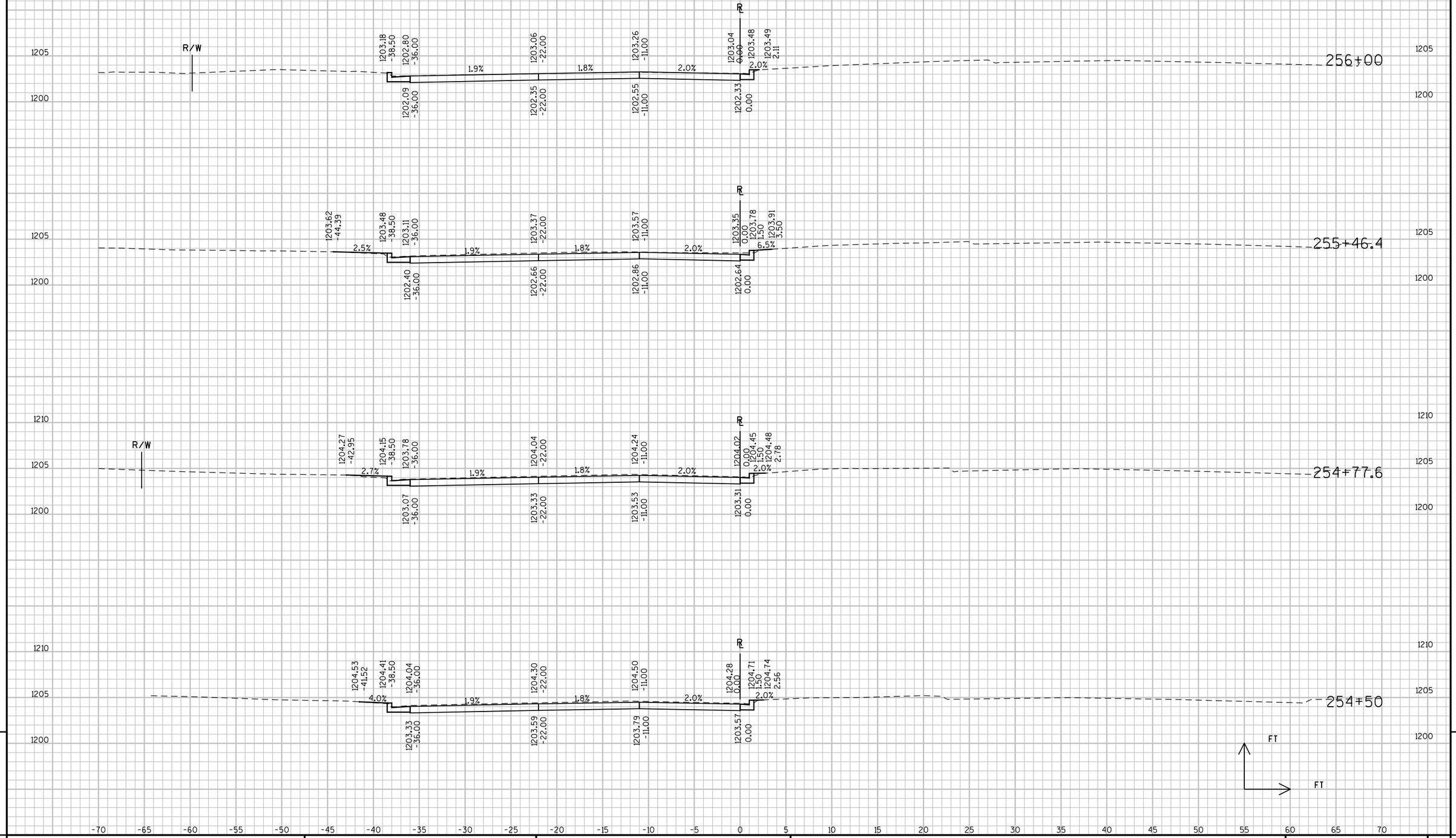

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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB	SHEET 131	E

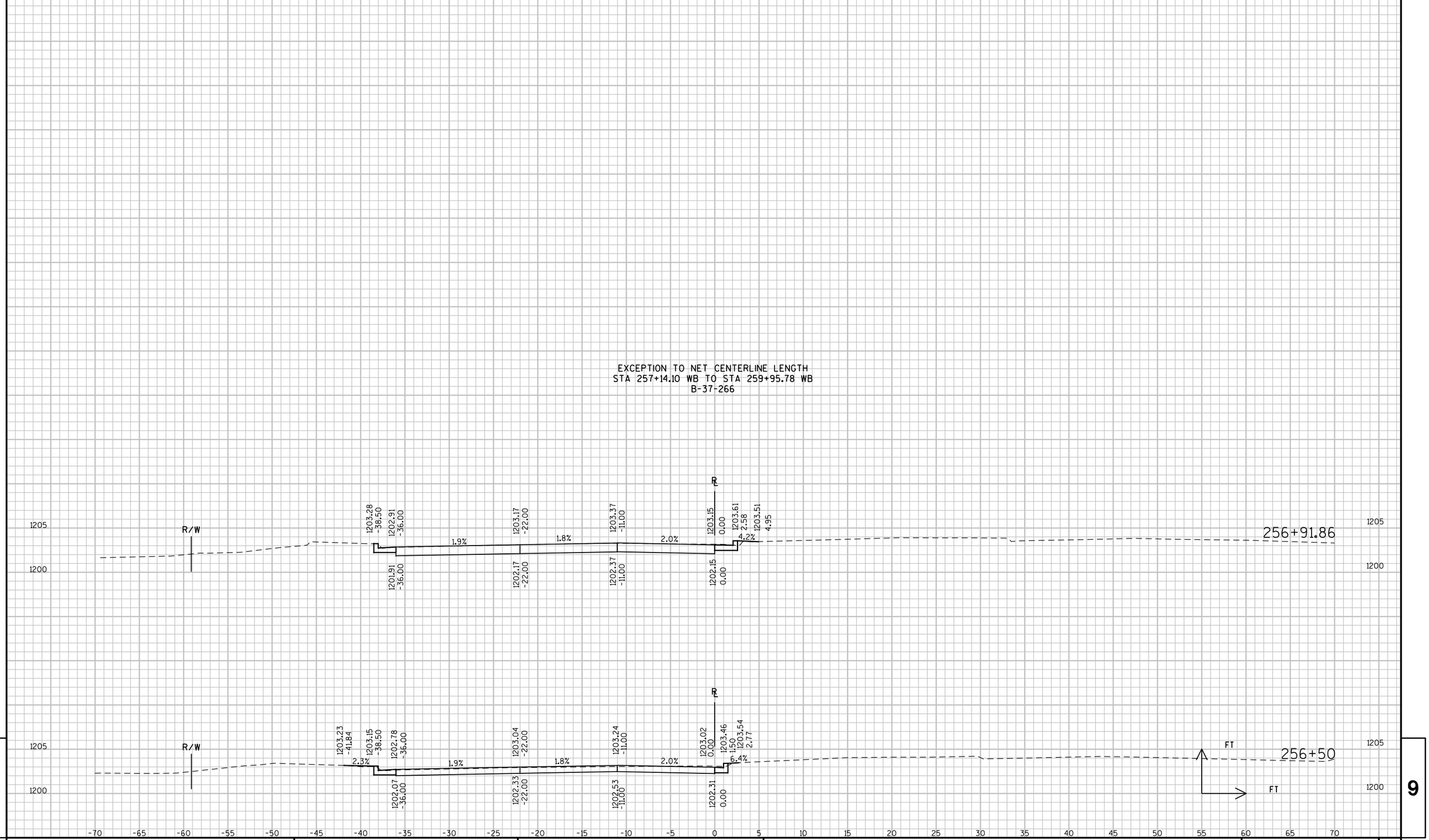
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

EXCEPTION TO NET CENTERLINE LENGTH
STA 257+14.10 WB TO STA 259+95.78 WB
B-37-266



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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB	SHEET 132	E

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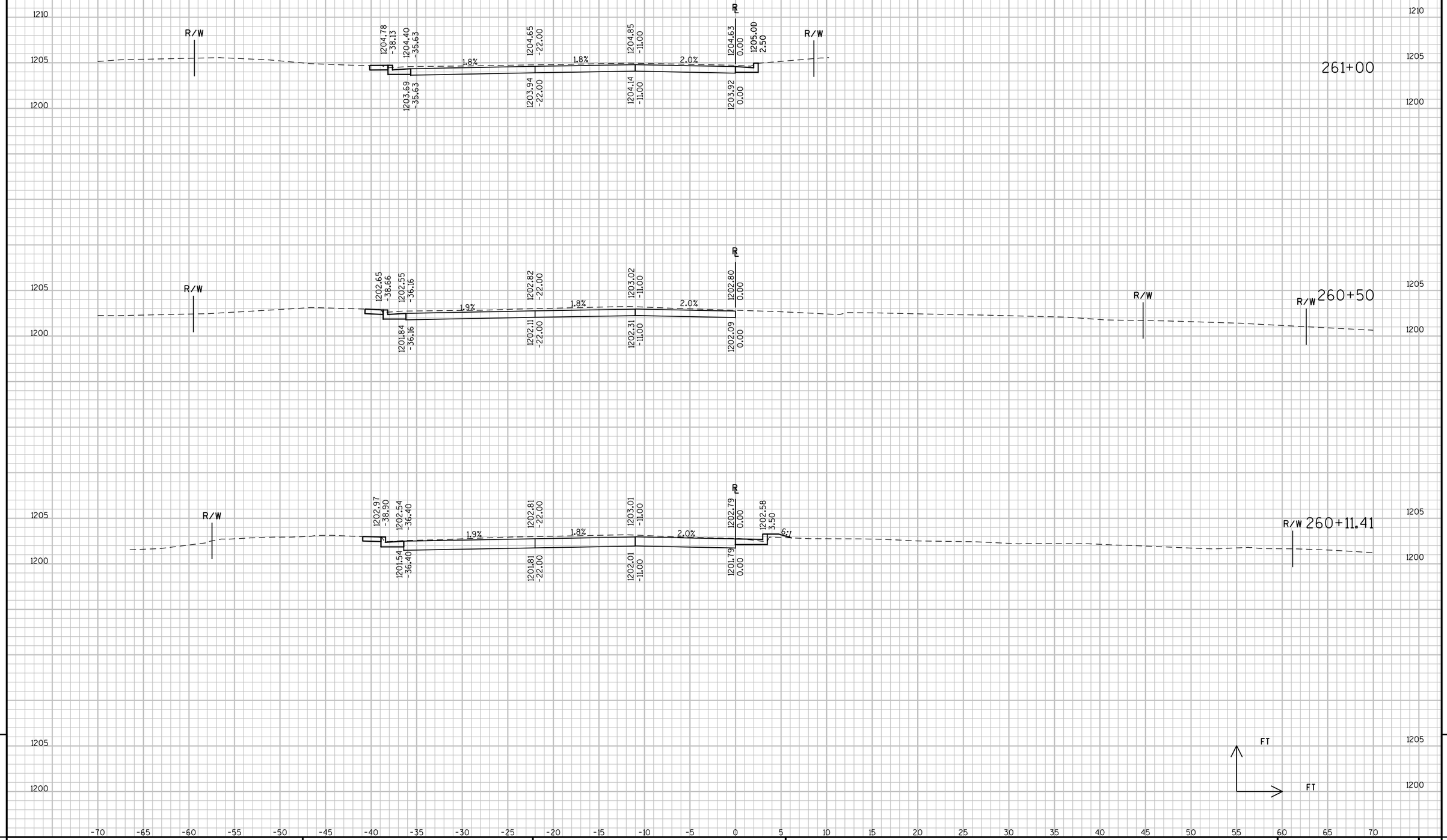

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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB	SHEET 133	E

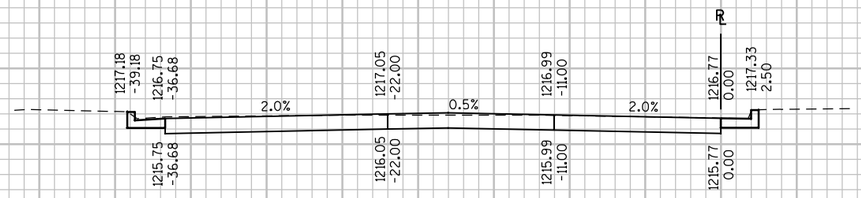
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB.dgn

PLOT DATE : 1/18/2016

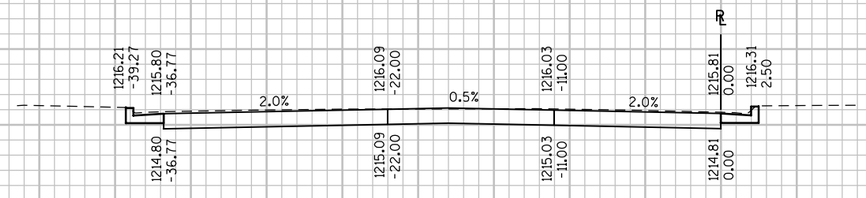
PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

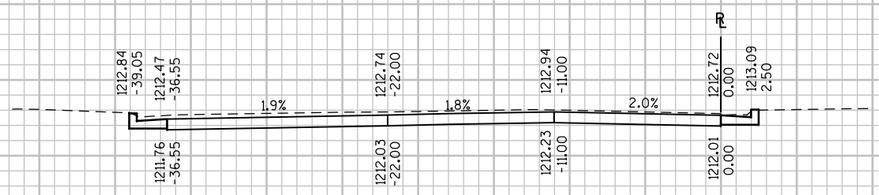
END CONSTRUCTION
STA 262+59.70 WB



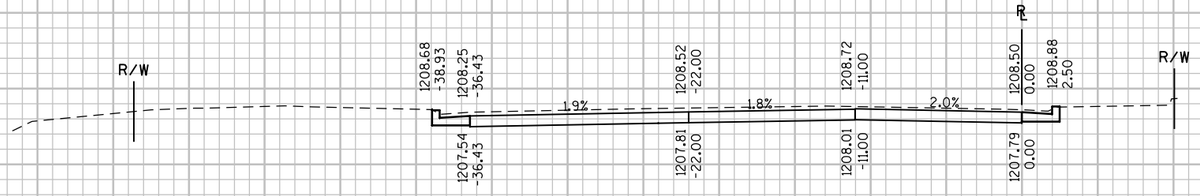
262+59.68

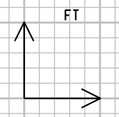


262+44.03



262+00





261+50

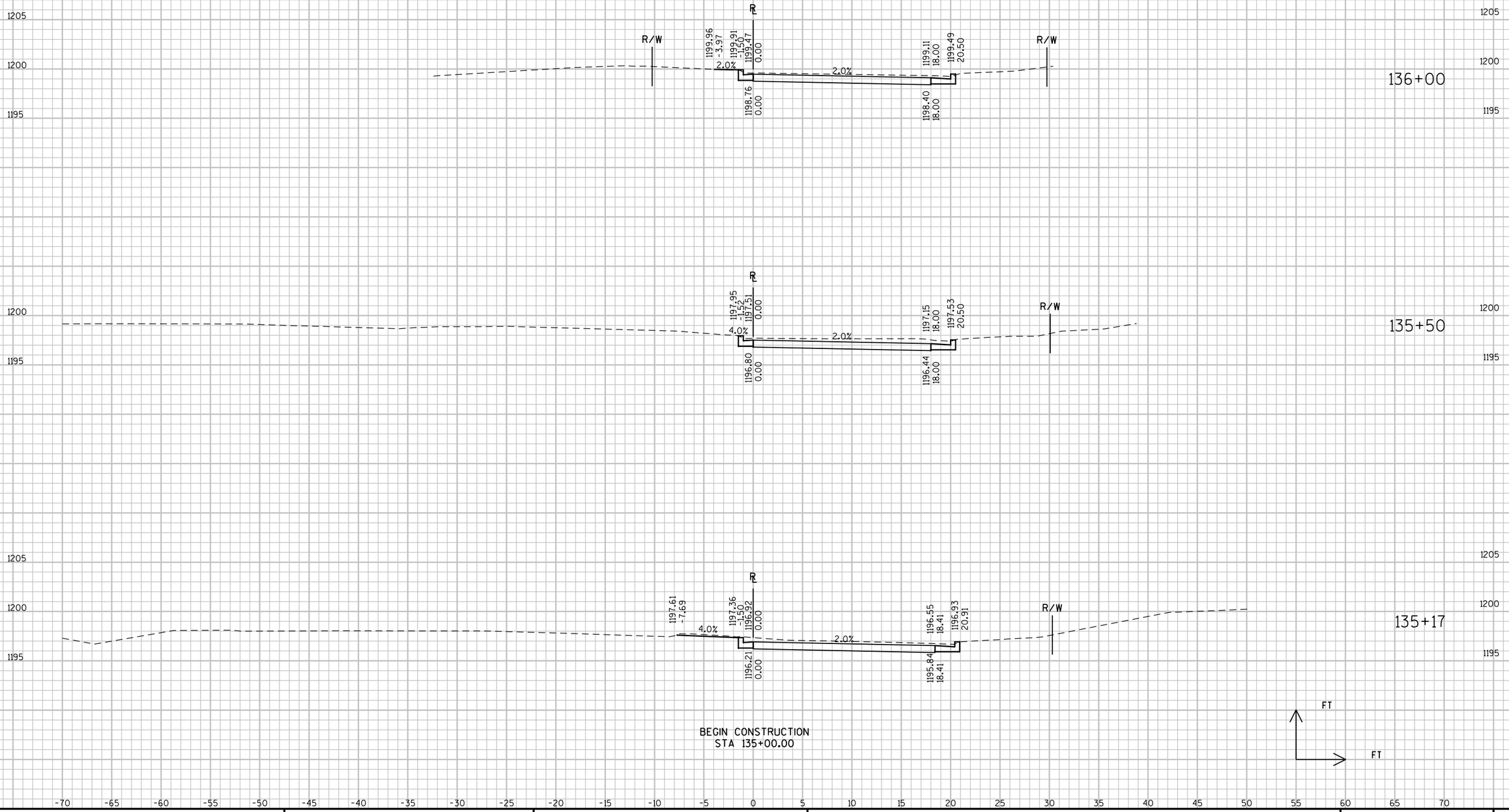
-70 -65 -60 -55 -50 -45 -40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

9 9

PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 WB	SHEET 134	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSTH52WB.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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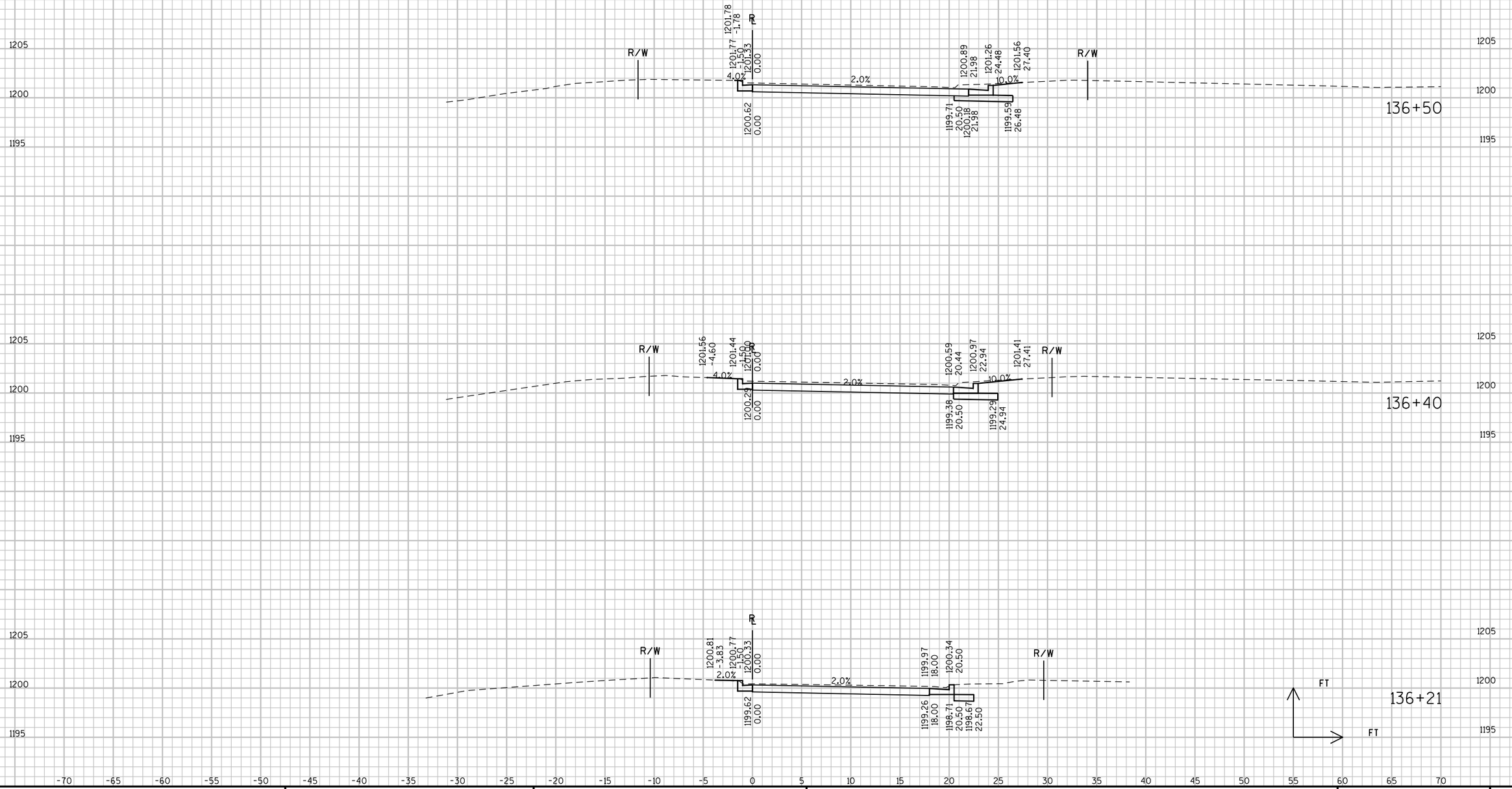
PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: WASHINGTON ST	SHEET 135	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSWASHTN01.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: WASHINGTON ST	SHEET 136	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSWASHTN01.dgn

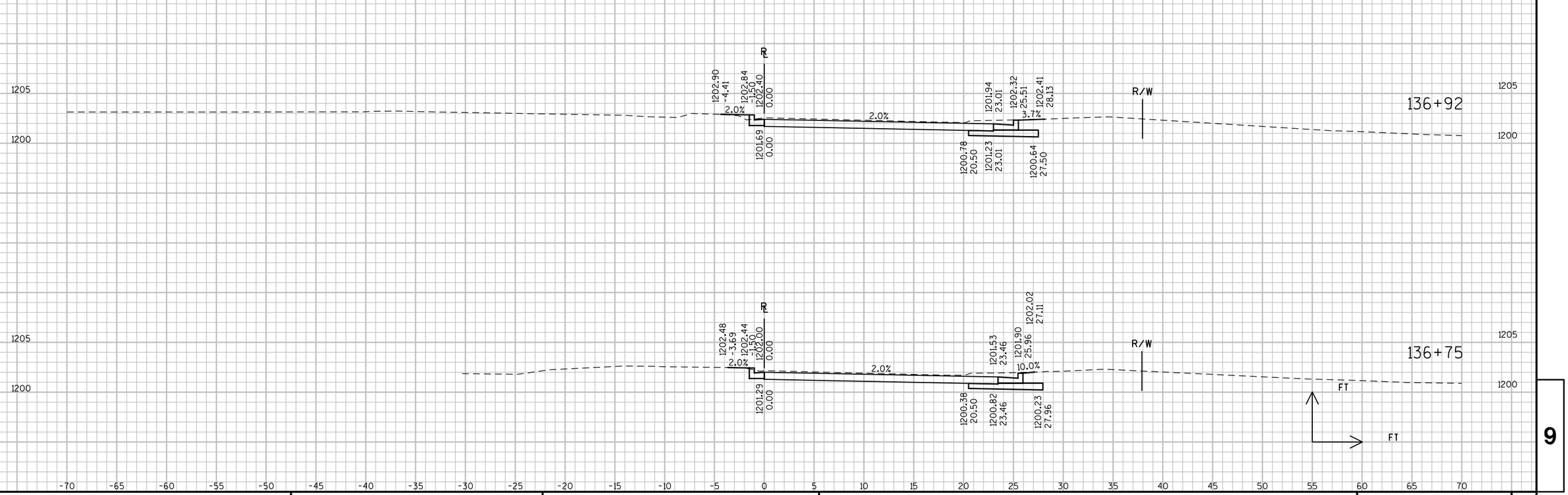
PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

9

END CONSTRUCTION
STA 137+01.47



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PROJECT NO: 6999-03-80	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: WASHINGTON ST	SHEET 137	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSWASHTN01.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

RHI MAY 2016

PROJECT ID: 6999-03-81

WITH:

COUNTY: MARATHON

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 = 130

36

N

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C WAUSAU, HIGHWAY 52

WISCONSIN RIVER TO McCLELLAN ST, WB

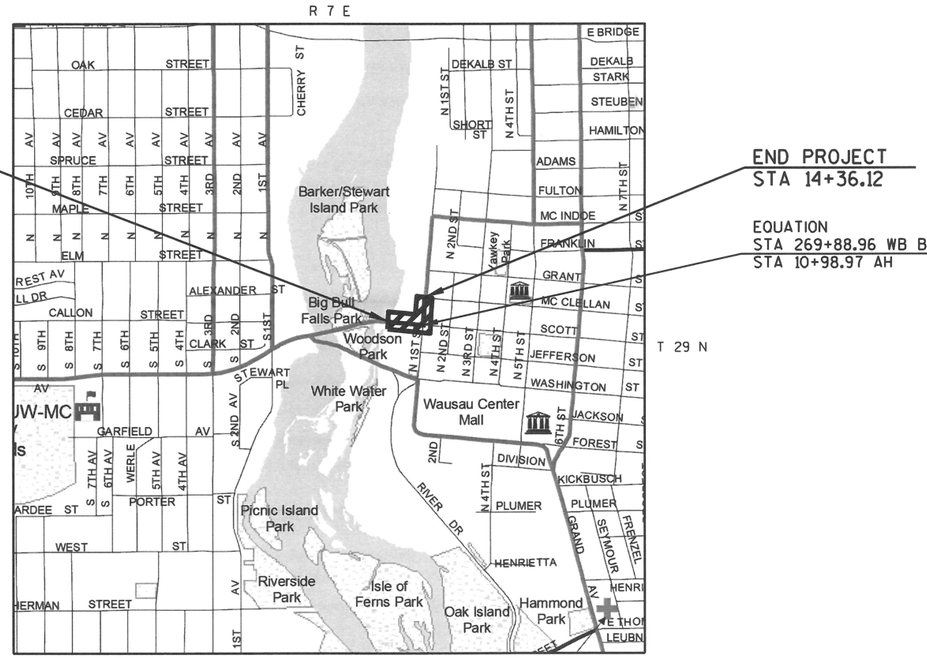
STH 52

MARATHON COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6999-03-81	WISC 2016101	1

STATE PROJECT NUMBER

6999-03-81



LAYOUT

SCALE 0 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.116 MI.

DESIGN DESIGNATION

A.A.D.T.	(2015)	=	12,100
A.A.D.T.	(2035)	=	13,500
D.H.V.	(2035)	=	1,445
D.D.		=	58/42
T.		=	7.0%
DESIGN SPEED		=	30 MPH
ESALS		=	3,445,600

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

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MARATHON COUNTY.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 NAVD 88 (2007).

ORIGINAL PLANS PREPARED BY:
CBS SQUARED INC.

WISCONSIN PROFESSIONAL ENGINEER
BRIAN E. SMITS
E-27284
CHIPPEWA FALLS
WI

Brian E. Smits 2/1/2016

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CBS SQUARED INC.
Designer	CBS SQUARED INC.
Project Manager	MIKE GRAGE
Regional Examiner	CHERYL SIMON
Regional Supervisor	ROBIN STAFFORD

APPROVED FOR THE DEPARTMENT

DATE: 2/01/16 Michael Grage (Signature)

E

GENERAL NOTES:

WHEN THE QUANTITY OF BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON OR CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

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

ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL IN THE PLANS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

FINISHED SEEDED SURFACE SHALL BE 1-INCH BELOW THE TOP OF ADJACENT CONCRETE.

ALL CURB AND GUTTER RADII, PAVEMENT DIMENSIONS AND STATIONS ARE SHOWN TO THE EDGE OF PAVEMENT UNLESS NOTED OTHERWISE.

CONSTRUCT INSIDE EDGE OF SIDEWALK ¼ INCH HIGHER THAN THE TOP OF CURB, WHEN THEY ARE ADJACENT TO EACH OTHER.

TOP OF CASTING ELEVATIONS SHOWN FOR INLETS AND CATCH BASINS REFER TO THE NORMAL CASTING FLOWLINE.

ALL STORM SEWER INVERT ELEVATIONS AND GRADES ARE COMPUTED OUTSIDE-TO-OUTSIDE OF STRUCTURE. STORM SEWER PIPE LENGTHS ARE COMPUTED CENTER-TO-CENTER OF STRUCTURE.

HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYER THICKNESSES:

PAVEMENT THICKNESS (INCH)	LOWER (INCH)	UPPER (INCH)
2	-	2
4	2.25	1.75

UTILITY CONTACTS

WAUSAU WATER WORKS - WATER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 571-9774 (MOBILE)
ATTENTION: SHANNON LANE
SHANNON.LANE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - SEWER
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6530
(715) 574-3149 (MOBILE)
ATTENTION: KEN RYE
KEN.RYE@CI.WAUSAU.WI.US

WAUSAU WATER WORKS - STREET LIGHTING
407 GRANT ST
WAUSAU, WI 54403
(715) 261-6782
(715) 571-7684 (MOBILE)
ATTENTION: RICK PERGOLSKI
RICK.PERGOLSKI@CI.WAUSAU.WI.US

NET LEC LLC - COMMUNICATION LINE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
(920) 619-9774 (MOBILE)
ATTENTION: DENNIS LAFAVE
DLAFAVE@MI-TECH.US

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

CHARTER COMMUNICATIONS - COMMUNICATION LINE
853 MCINTOSH ST
WAUSAU, WI 54402
(715) 216-6204 (MOBILE)
ATTENTION: SCOTT OLSON
SCOTT.OLSON@CHARTER.COM

WISCONSIN PUBLIC SERVICE CORPORATION - ELECTRICITY
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7317
(715) 573-7806 (MOBILE)
ATTENTION: CLAYTON VIRCKS
CHVIRCKS@WISCONSINPUBLICSERVICE.COM

WISCONSIN PUBLIC SERVICE CORPORATION - GAS/PETROLEUM
1700 SHERMAN STREET
P.O. BOX 1166
WAUSAU, WI 54402
(715) 848-7344
(920)-841-5441 (MOBILE)
ATTENTION: JASON LINZMAIER
JRLINZMAIER@WISCONSINPUBLICSERVICE.COM

FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
1851 N 14TH AVE
WAUSAU, WI 54401
(715) 847-1525
(715) 573-2110 (MOBILE)
ATTENTION: CALVIN KLADE
CALVIN.KLADE@FTR.COM

WAUSAU COMMUNITY AREA NETWORK - COMMUNICATION LINE
CITY-COUNTY INFORMATION TECHNOLOGY COMMISSION
407 GRANT STREET
WAUSAU, WI 54403-4783
(715) 261-6721
(715) 370-5974 (MOBILE)
ATTENTION: WALLY GELHAR
WALLY.GELHAR@CO.MARATHON.WI.US

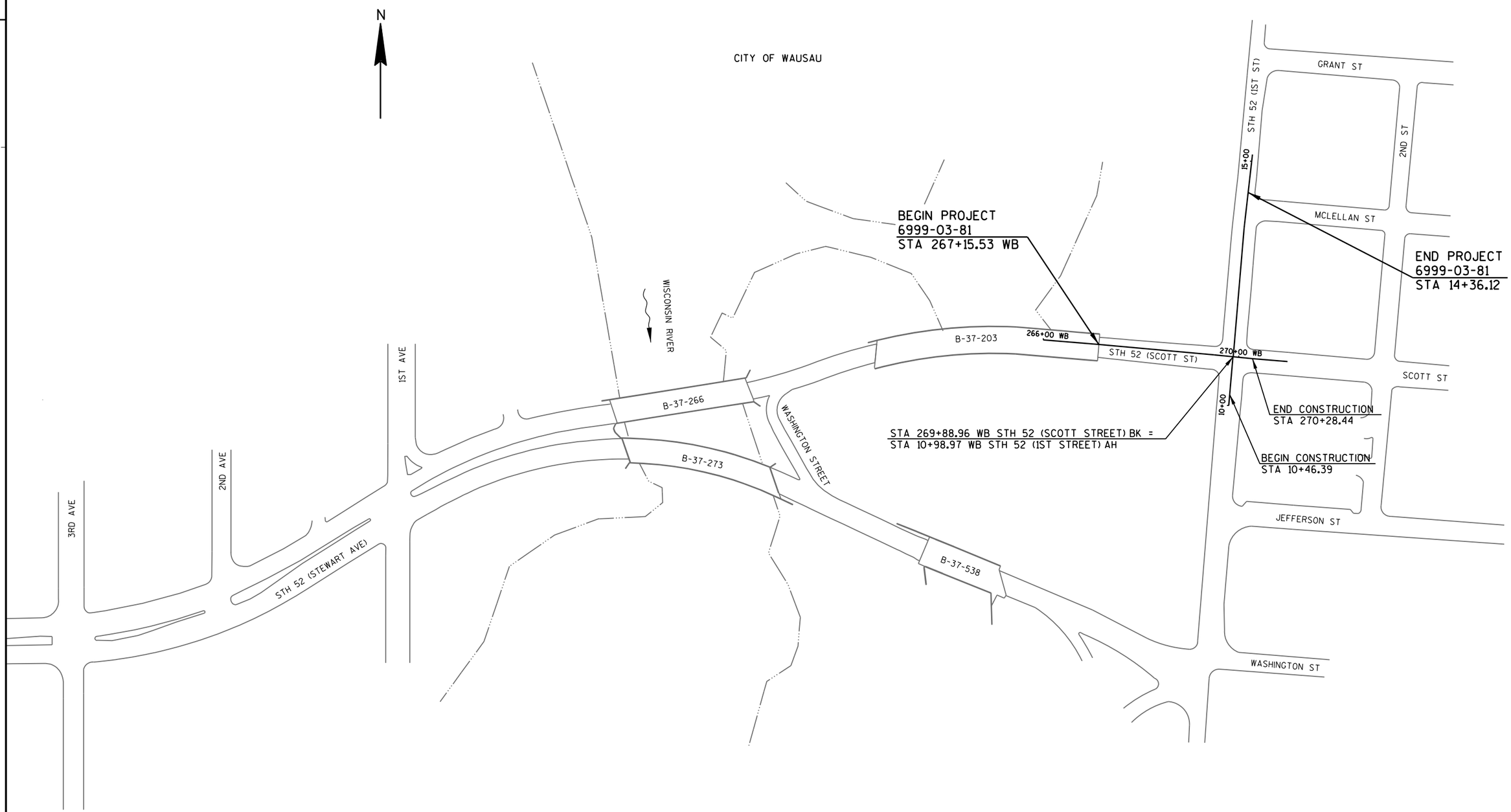
ORDER OF TYPICAL SECTION AND DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
STORM SEWER
PERMANENT SIGNING
TRAFFIC SIGNALS
SEQUENCE OF OPERATIONS
CABLE ROUTING
PAVEMENT MARKING
TRAFFIC CONTROL

WDNR CONTACT

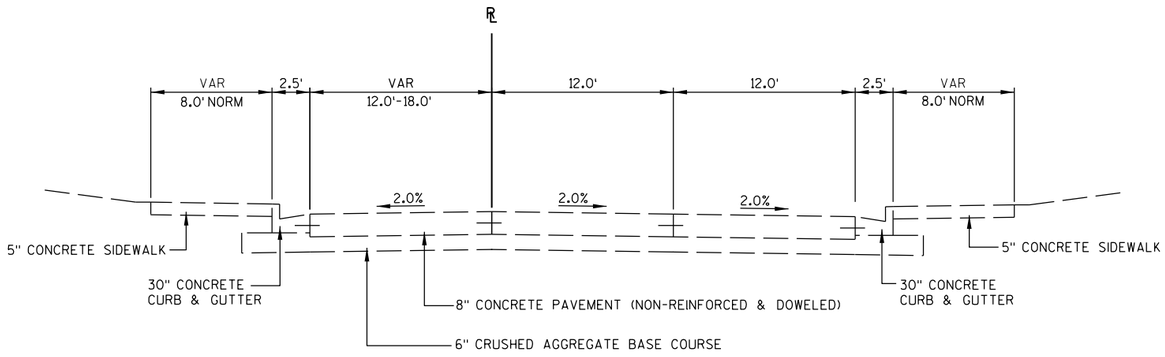
DNR SERVICE CENTER
473 GRIFFITH DRIVE
WISCONSIN RAPIDS, WI 54494
(715)421-7867
ATTENTION: MARC HERSHFIELD
MARC.HERSHFIELD@WISCONSIN.GOV

2

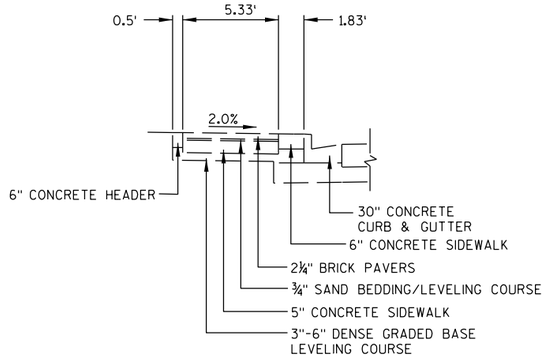


PROJECT NO:6999-03-81	HWY:STH 52	COUNTY:MARATHON	PROJECT OVERVIEW	SHEET 3	E

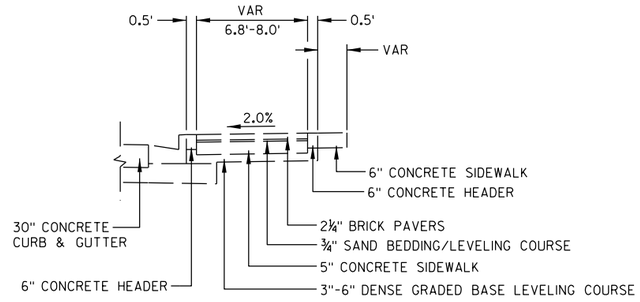
2



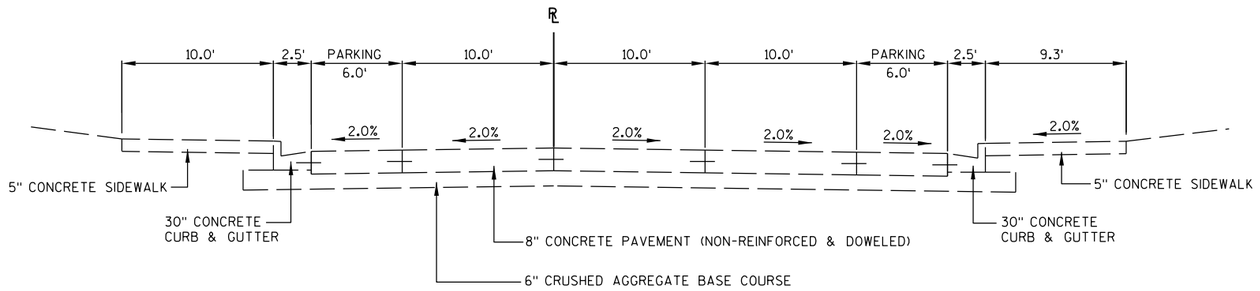
TYPICAL EXISTING SECTION
STH 52 (SCOTT STREET)
STA 267+15.53 WB TO STA 269+88.96 WB



TYPICAL EXISTING SECTION
STH 52 (SCOTT STREET)
STA 268+94.3 WB TO STA 269+62.2 WB LT

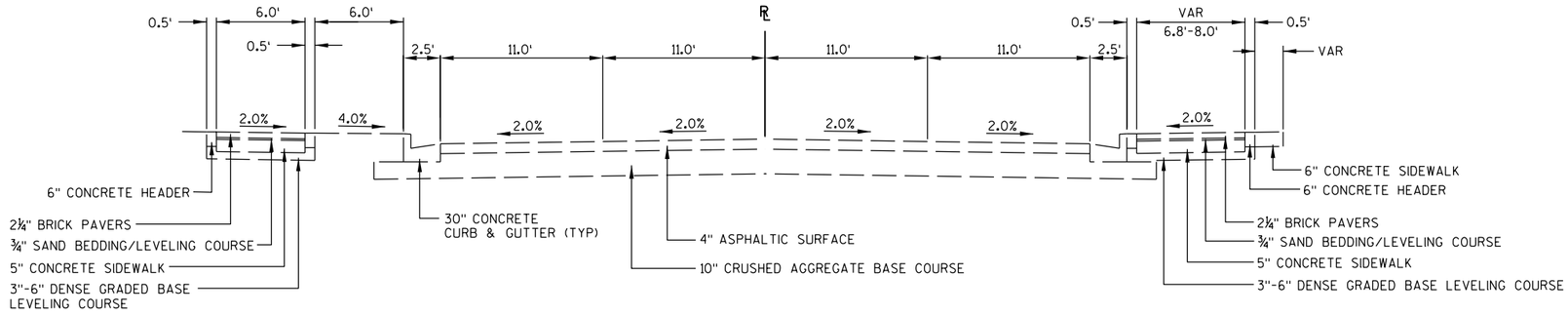


TYPICAL EXISTING SECTION
SCOTT STREET
STA 269+37.5 WB TO STA 269+62.3 WB RT
STA 270+13.3 WB TO STA 270+28.4 WB RT

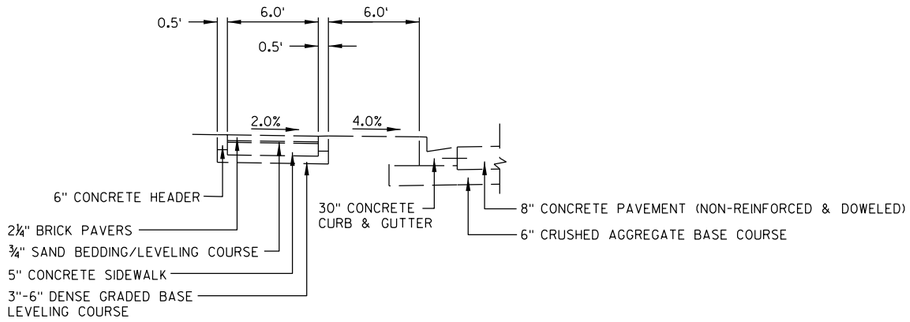


TYPICAL EXISTING SECTION
SCOTT STREET
STA 269+88.96 WB TO STA 270+28.44 WB

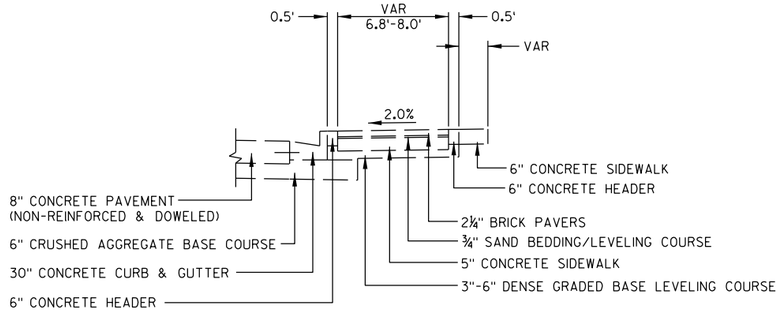
2



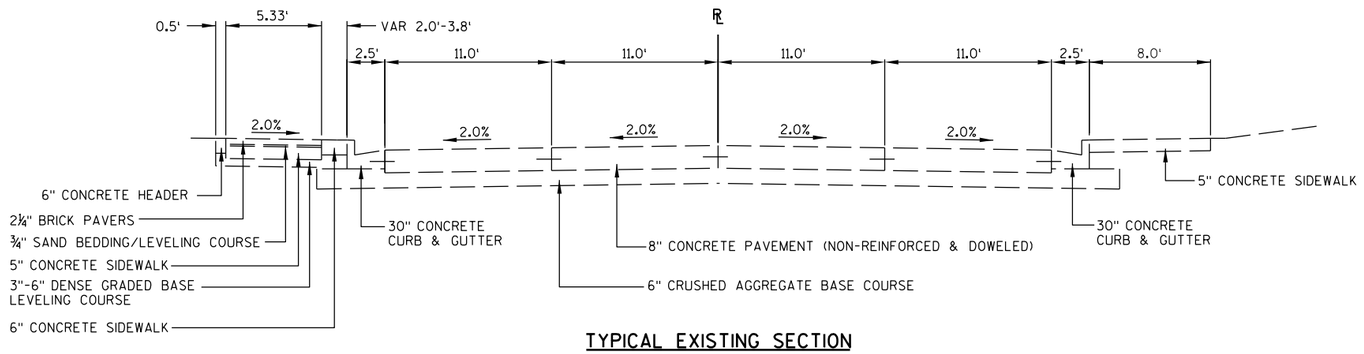
TYPICAL EXISTING SECTION
1ST STREET
STA 10+46.4 TO STA 10+56.0



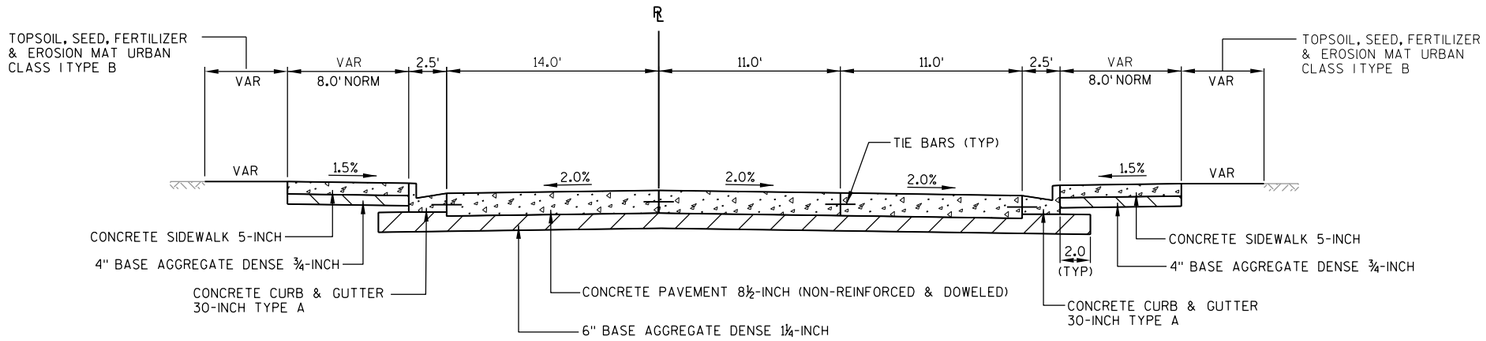
TYPICAL EXISTING SECTION
1ST STREET
STA 10+56.0 TO STA 10+58.0 LT



TYPICAL EXISTING SECTION
1ST STREET
STA 10+56.0 TO STA 11+00.0 RT

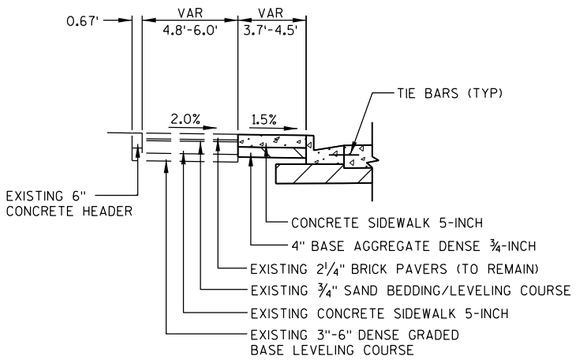


TYPICAL EXISTING SECTION
1ST STREET
STA 10+56.0 TO STA 11+00.0
STH 52 (1ST STREET)
STA 11+00.0 TO STA 14+36.1



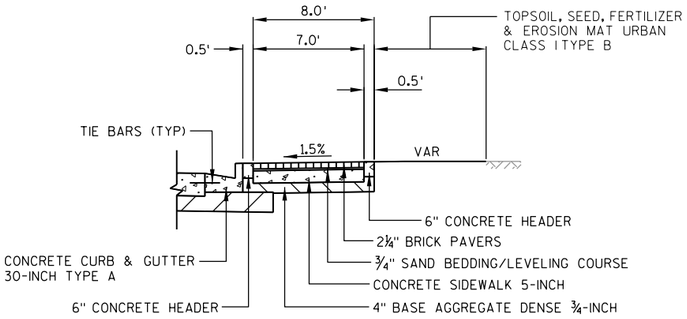
TYPICAL FINISHED SECTION

STH 52 (SCOTT STREET)
STA 267+15.53 WB TO STA 269+88.96 WB (1)



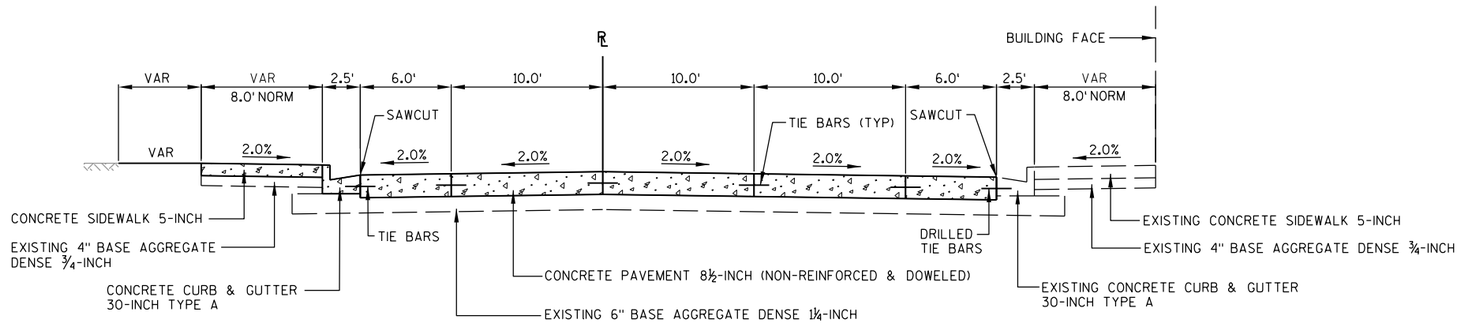
TYPICAL FINISHED SECTION

STH 52 (SCOTT STREET)
STA 268+94.32 WB TO STA 269+62.20 WB LT



TYPICAL FINISHED SECTION

STH 52 (SCOTT STREET)
STA 269+37.48 WB TO STA 269+51.44 WB RT



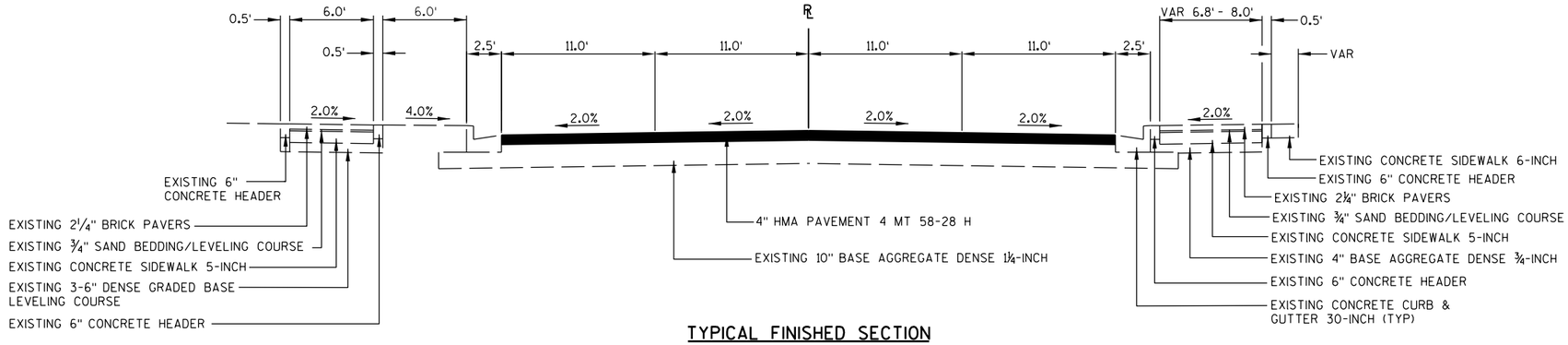
TYPICAL FINISHED SECTION

SCOTT STREET
STA 269+88.96 WB TO STA 270+28.44 WB

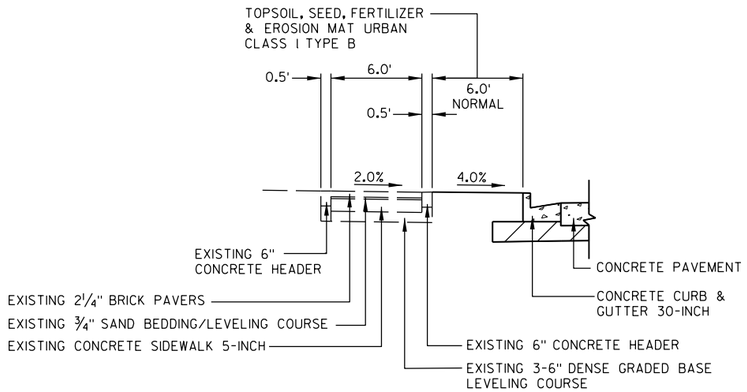
NOTES:

(1) USE EXISTING BASE COURSE BEGINNING AT STA 269+67.70 WB

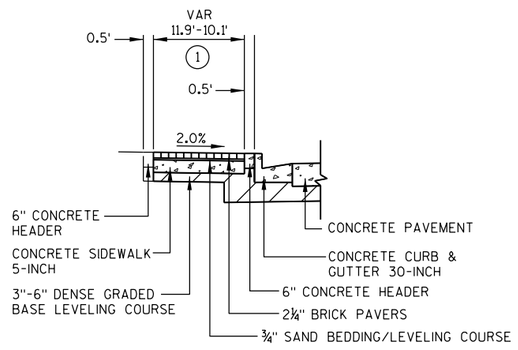
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 6	E



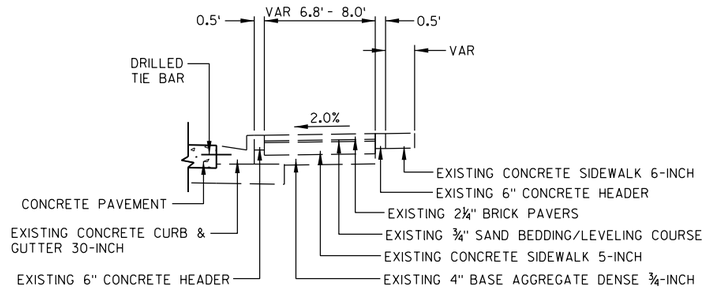
TYPICAL FINISHED SECTION
1ST STREET
STA 10+46.39 TO STA 10+55.26



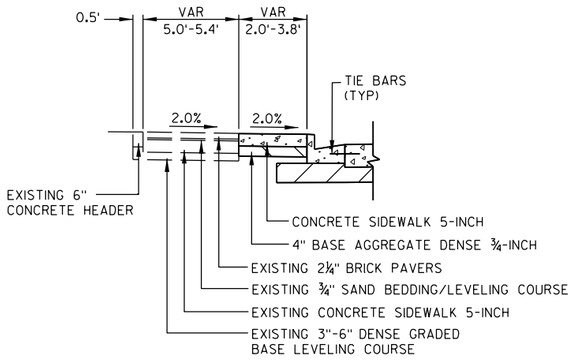
TYPICAL FINISHED SECTION
1ST STREET
STA 10+55.26 TO STA 10+58.53 LT



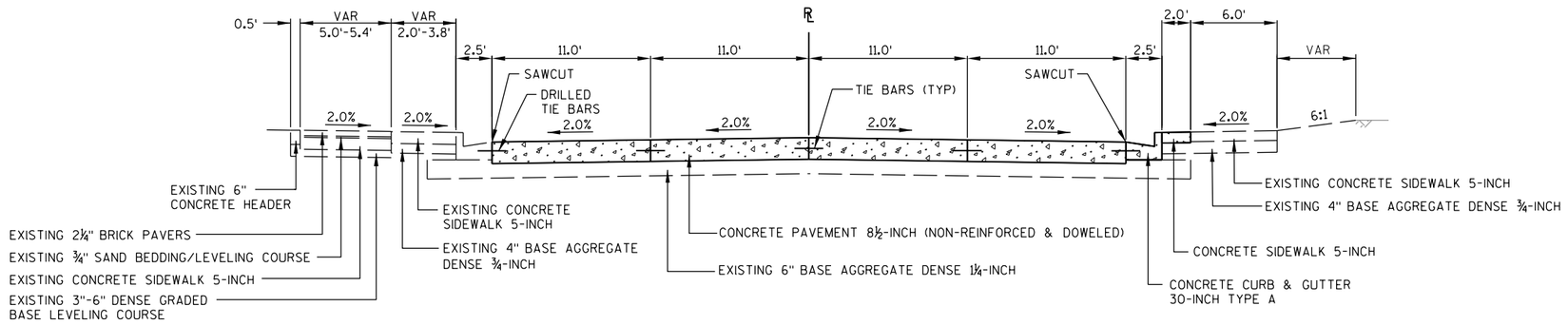
TYPICAL FINISHED SECTION
1ST STREET
STA 10+58.53 TO STA 10+66.43 LT



TYPICAL FINISHED SECTION
1ST STREET
STA 10+55.26 TO STA 10+73.27 RT



TYPICAL FINISHED SECTION
STH 52 (1ST STREET)
STA 11+26.74 TO STA 11+34.41 LT



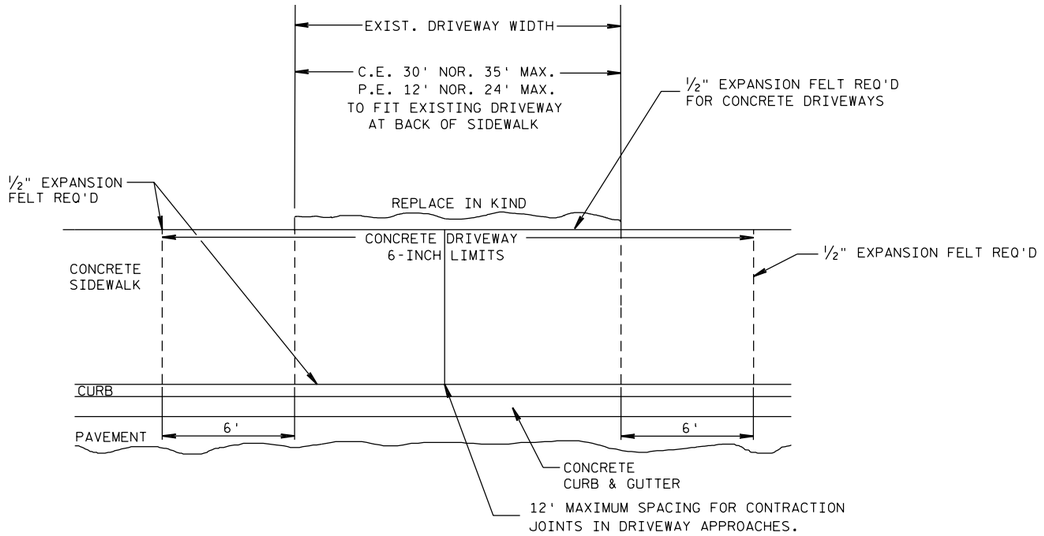
TYPICAL FINISHED SECTION
1ST STREET
STA 10+55.26 TO STA 11+00.00
STH 52 (1ST STREET)
STA 11+00.00 TO STA 14+36.12

NOTES:

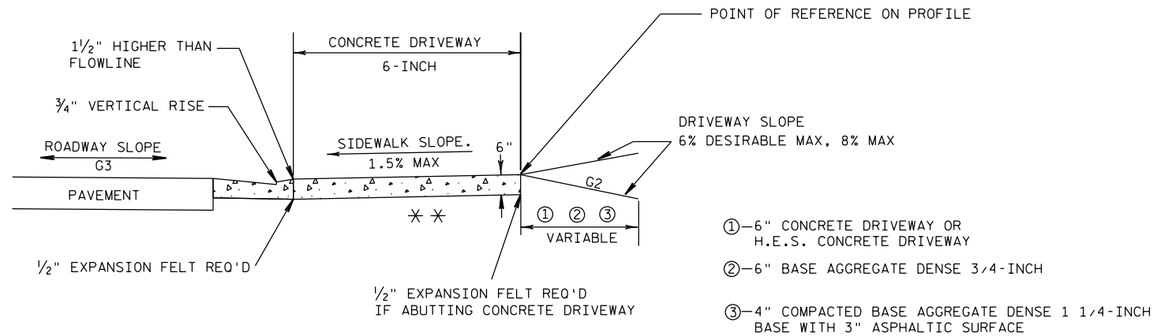
(1) SEE INTERSECTION DETAILS FOR SIDEWALK PAVER LOCATIONS

2

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

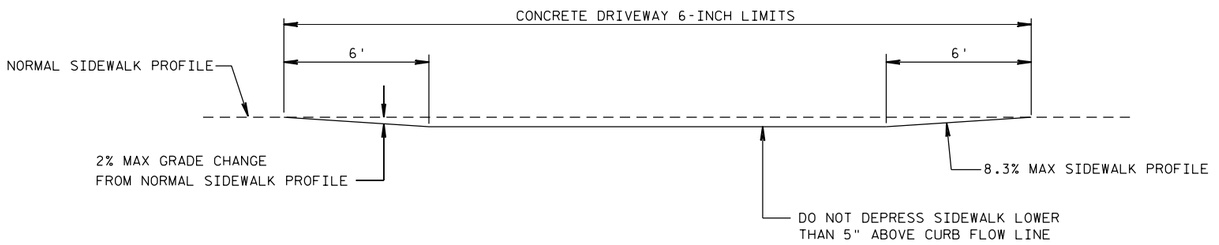


PLAN VIEW



TYPICAL SIDEWALK SECTION

NOTE: DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

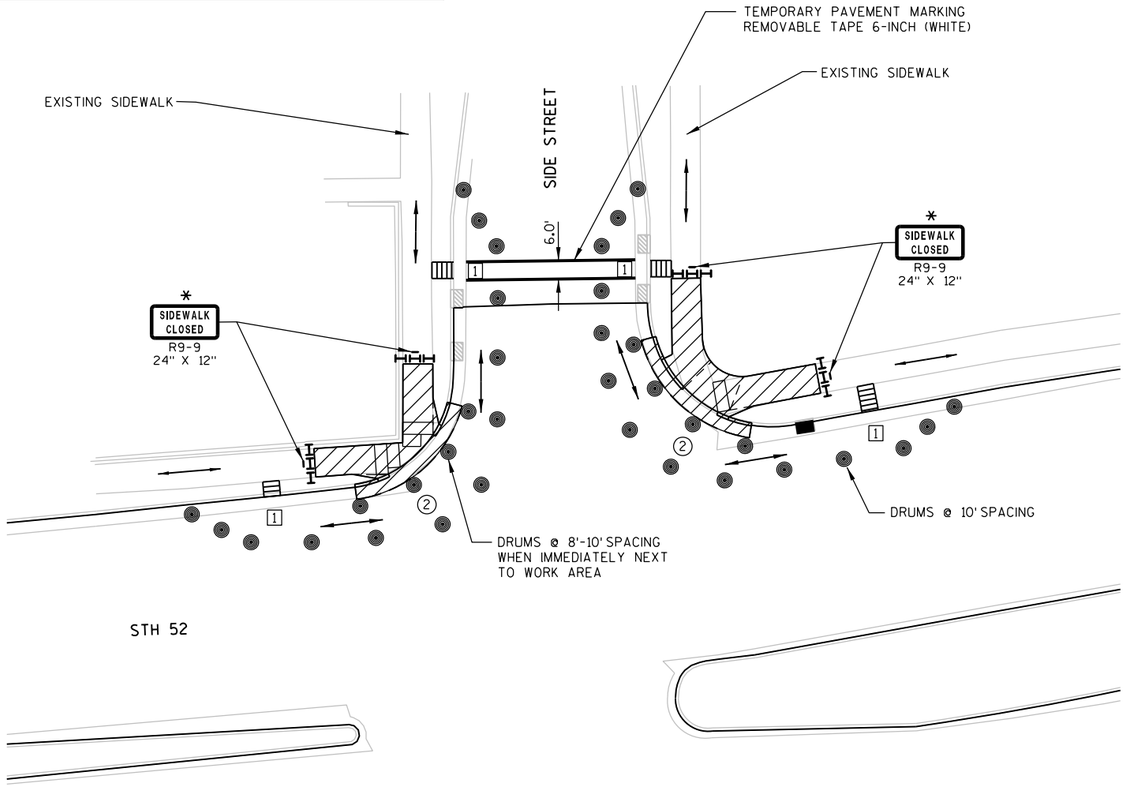


DEPRESSED SIDEWALK PROFILE DETAIL

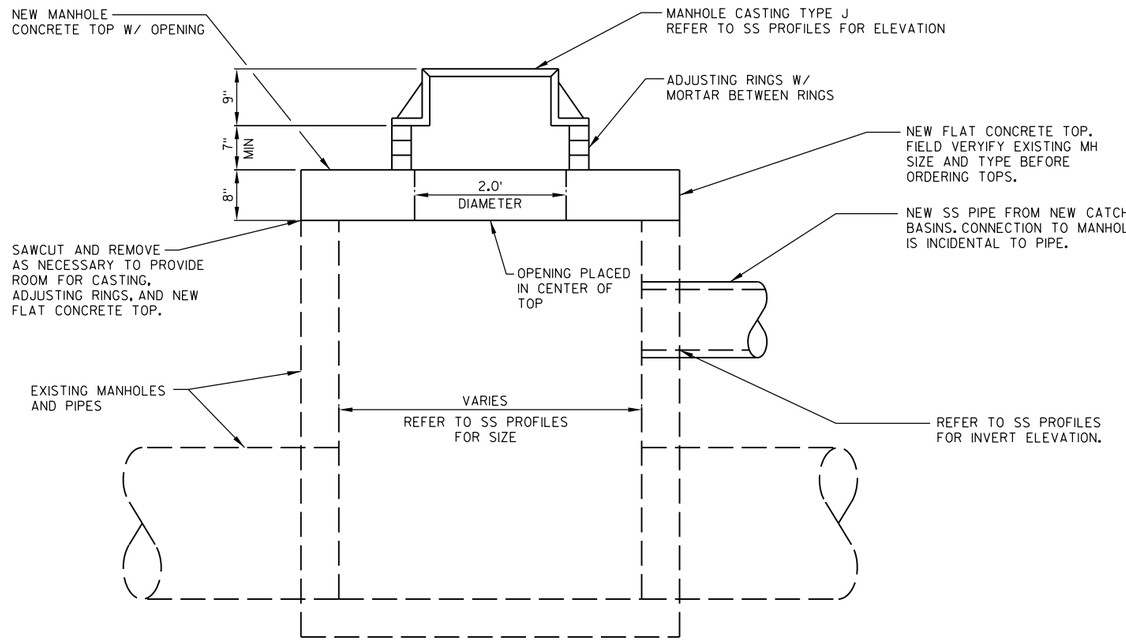
2

LEGEND

*	INSTALL SIGN AND BARRICADES WHEN SIDEWALK WITHIN PROJECT LIMITS IS CLOSED FOR CONSTRUCTION
⟷	DIRECTION OF PEDESTRIAN ACCESS
[1]	TEMPORARY CURB RAMP
(2)	WIDTH BETWEEN DRUMS TO ALLOW ROOM FOR PEDESTRIANS = 5' DESIRABLE, 4' MINIMUM
●	CHANNELIZER DRUM OR TRAFFIC CONTROL DRUM
H / H	TYPE 2 BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT TYPE A, LOW-INTENSITY FLASHING)
▥	TEMPORARY PEDESTRIAN SURFACE PLYWOOD WHERE TERRACE IS GRASS
▨	WORK AREA FOR SIDEWALK CURB RAMP REPLACEMENT



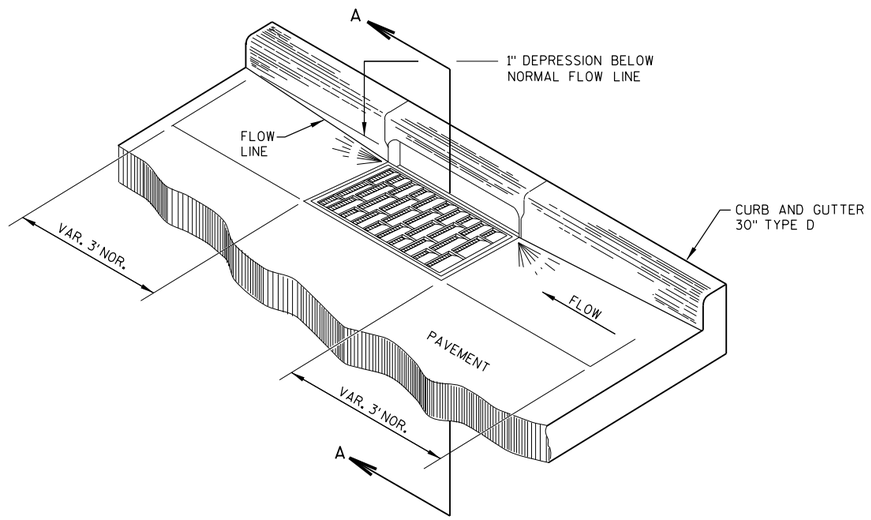
TEMPORARY PEDESTRIAN CROSSINGS/ACCESS WHERE CURB RAMPS ARE REPLACED



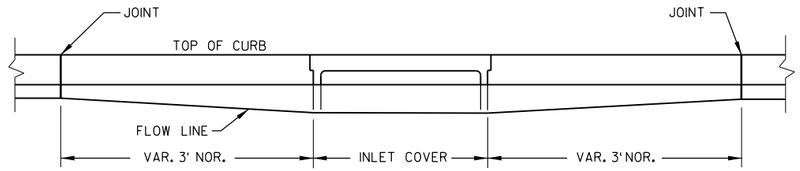
NOTE:
FIELD VERIFY ALL DIMENSIONS PRIOR TO
ORDERING CONCRETE FLAT CONCRETE TOP

RECONSTRUCT MANHOLE

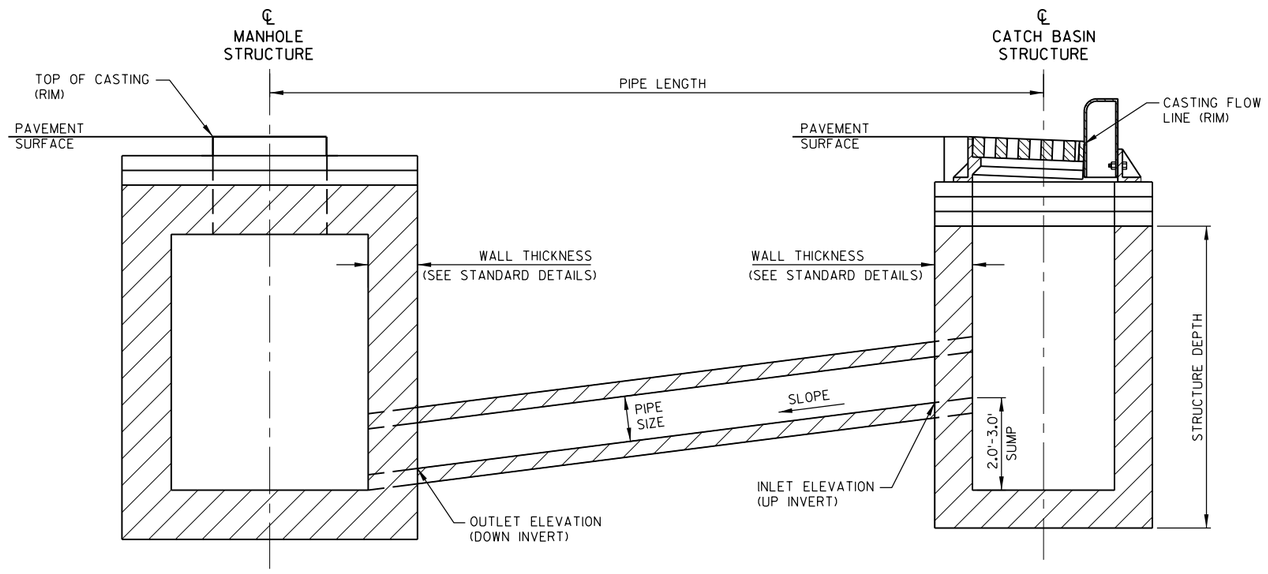
2



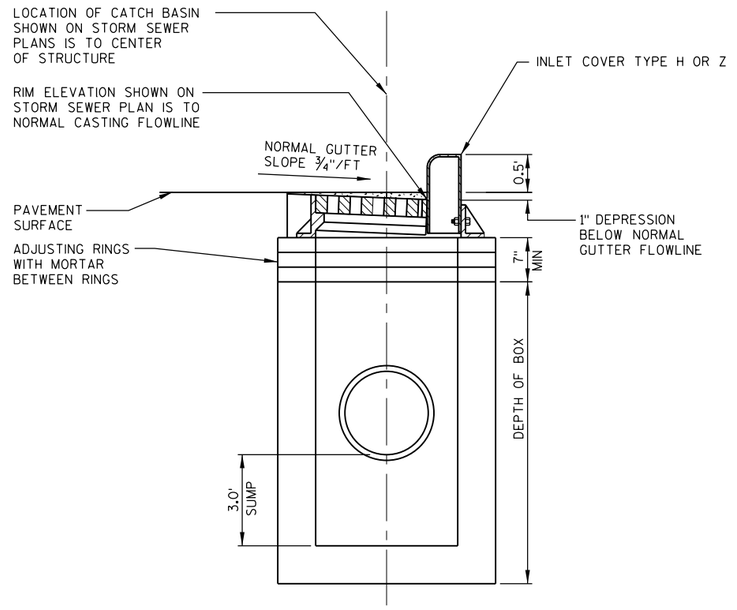
CATCH BASIN



ELEVATION



STORM SEWER MEASUREMENT



SECTION A-A

PROJECT NO:6999-03-81	HWY:STH 52	COUNTY:MARATHON	CONSTRUCTION DETAILS	SHEET 10	E

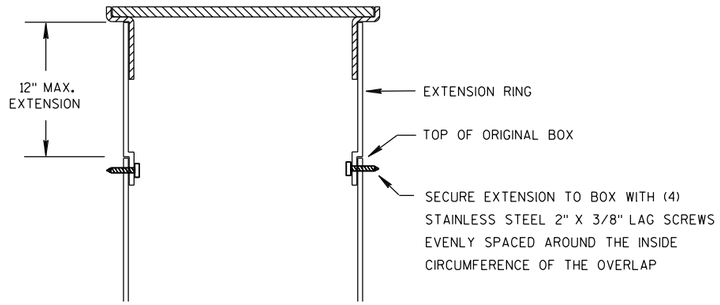
2

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

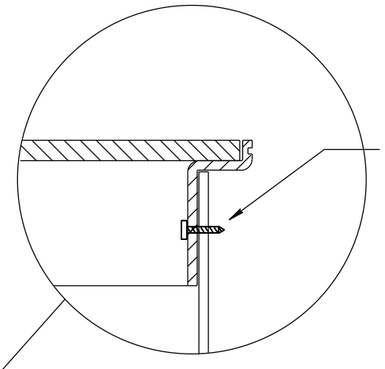
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE

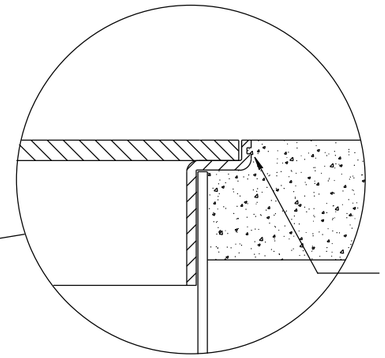


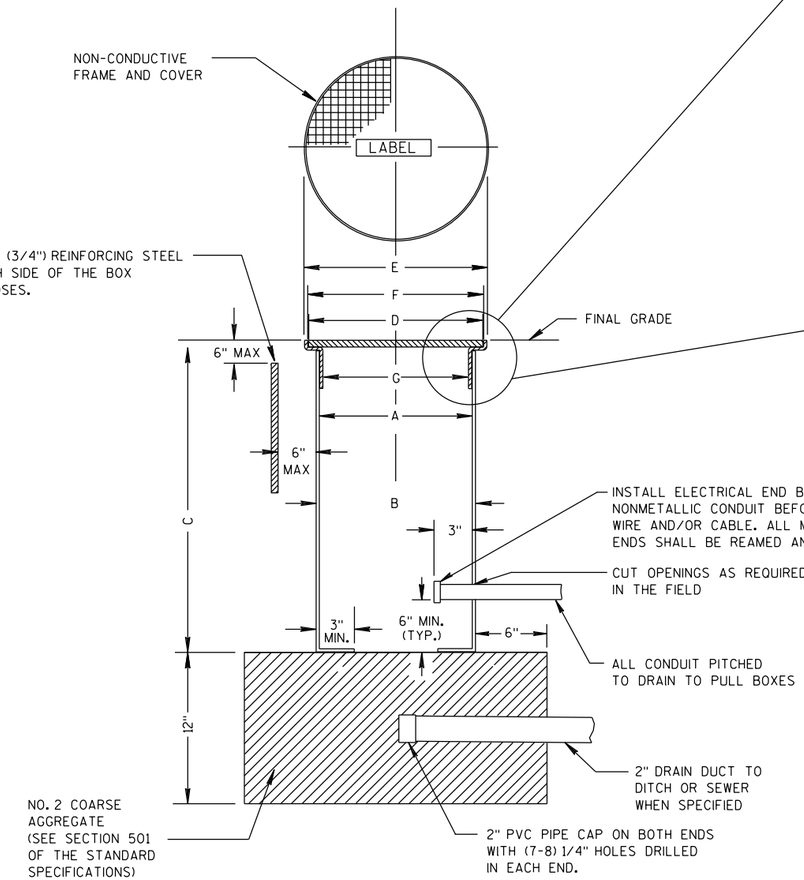
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE 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 BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

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.

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

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL OR LIGHTING SYSTEMS. "COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.

ELECTRICAL DETAILS, SIGNAL PLANS, & LIGHTING DETAILS PREPARED BY:

KL Engineering
[A] Better Experience

WISCONSIN
MIKE D. SCARMON
E-37613
EVANSVILLE, WI
PROFESSIONAL ENGINEER

2-1-16
(DATE)

(SIGNATURE)

PROJECT NO: 6999-03-79/80/81	HWY: STH 52	COUNTY: MARATHON	ELECTRICAL DETAILS	SHEET 11	E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024003_cd.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

2

CITY OF WAUSAU

STA 269+88.36 STH 52 (SCOTT STREET) =
STA 10+98.97 1ST STREET

EXISTING BRICK PAVERS TO REMAIN

FRONTIER COMMUNICATIONS
(3'X4' DUCT W/FIBER OPTIC
& COPPER FACILITIES)

CITY OF WAUSAU
(STREET LIGHTING)

+82.24 WB

BM 18

+34.45

CC1 +

B

A

DETECTABLE
WARNING FIELD
NATURAL PATINA.

14.0'

269+00 WB

S 84°53'34" E

1ST STREET

STA 269+88.96 STH 52 (SCOTT STREET) (BK) =
STA 10+98.97 STH 52 (1ST STREET) (AH)

+37.85

3' R

14' R
(MATCH EXISTING)

WPSC

+35.84

DETECTABLE
WARNING FIELD
NATURAL PATINA.

270+00 WB

S 85°49'09" E

271+00 WB

S 85°13'16" E

N

22.0'

STH 52 (SCOTT STREET)

8.0'

BRICK PAVERS

C

D

CONCRETE SIDEWALK
FOR DETECTABLE
WARNING FIELD
NATURAL PATINA.

N 4°58'49" E

CAUTION

CC2 +

+58.52

+36.98 WB

22.0'

22.0'

WPSC

SLOPE INTERCEPTS (TYP)

FRONTIER COMMUNICATIONS
(3'X4' DUCT W/FIBER OPTIC
& COPPER FACILITIES)

END CONSTRUCTION
END CONCRETE PAVEMENT
STA 270+28.44
MATCH EXISTING
SAWCUT REQ'D

END HMA PAVEMENT
BEGIN CONCRETE PAVEMENT
STA 10+55.26
SAWCUT REQ'D

NET LEC

WPSC

CHARTER COMMUNICATIONS

1ST STREET

10+00

BEGIN CONSTRUCTION
BEGIN HMA PAVEMENT
STA 10+46.39
SAWCUT REQ'D

CITY OF WAUSAU

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
18	11+47.67, 31.9' LT	ARROW ON FLANGE OF HYDRANT. NW QUAD N 1ST ST AND SCOTT ST	1208.34
19	267+11.64 WB, 42.0' LT	BRASS ON. ON NE SIDE STH 52 BRIDGE OVER WISCONSIN RIVER. APPROX. 65' SW OF MIRON BUILDING	1212.59

ELEVATION TABLE

POINT	ELEVATION	COMMENTS
A	1205.69	EOR
B	1205.84	MOR
C	1205.52	EOR
D	1205.71	MOR

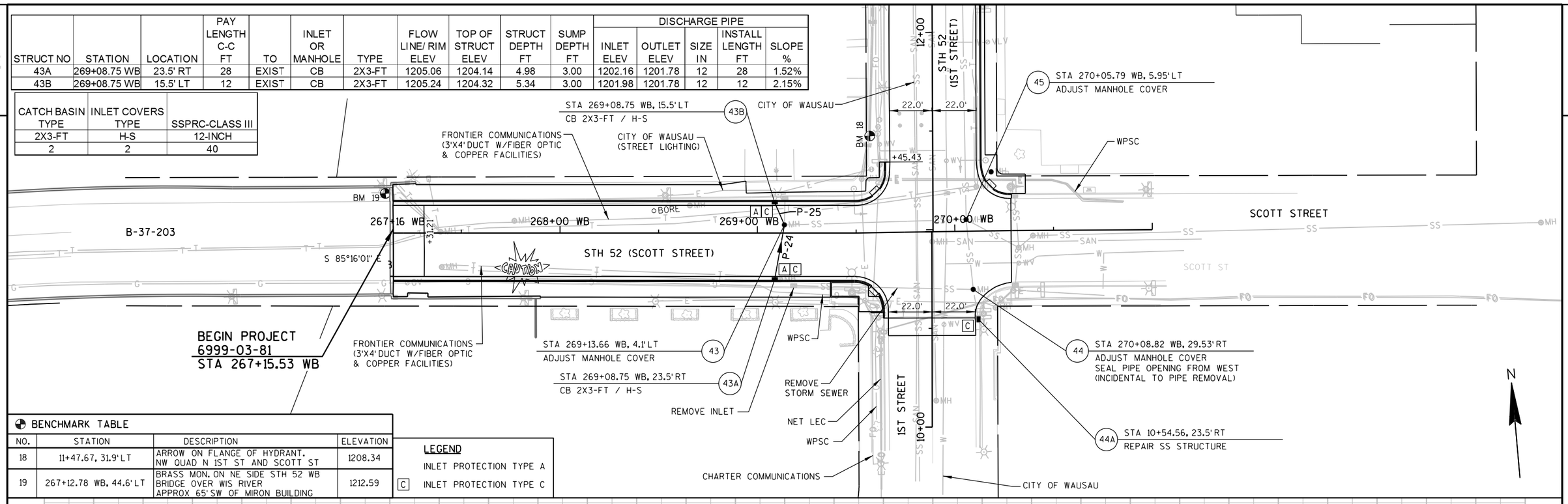
RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	269+50.42 STH 52 11+29.52 1ST STREET	31.0' LT 38.9' LT	15.0'	Y= 202509.410 X= 281164.320
CC2	269+49.31 STH 52 10+59.43 1ST STREET	39.0' RT 39.1' LT	15.0'	Y= 202439.742 X= 281157.480

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	INTERSECTION DETAIL	SHEET 12	E

STRUCT NO	STATION	LOCATION	PAY LENGTH C-C FT	TO	INLET OR MANHOLE	TYPE	FLOW LINE/ RIM ELEV	TOP OF STRUCT ELEV	STRUCT DEPTH FT	SUMP DEPTH FT	DISCHARGE PIPE				
											INLET ELEV	OUTLET ELEV	SIZE IN	INSTALL LENGTH FT	SLOPE %
43A	269+08.75 WB	23.5' RT	28	EXIST	CB	2X3-FT	1205.06	1204.14	4.98	3.00	1202.16	1201.78	12	28	1.52%
43B	269+08.75 WB	15.5' LT	12	EXIST	CB	2X3-FT	1205.24	1204.32	5.34	3.00	1201.98	1201.78	12	12	2.15%

CATCH BASIN TYPE	INLET COVERS TYPE	SSPRC-CLASS III
2X3-FT	H-S	12-INCH
2	2	40



BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
18	11+47.67, 31.9' LT	ARROW ON FLANGE OF HYDRANT. NW QUAD N 1ST ST AND SCOTT ST	1208.34
19	267+12.78 WB, 44.6' LT	BRASS MON. ON NE SIDE STH 52 WB BRIDGE OVER WIS RIVER APPROX 65' SW OF MIRON BUILDING	1212.59

LEGEND

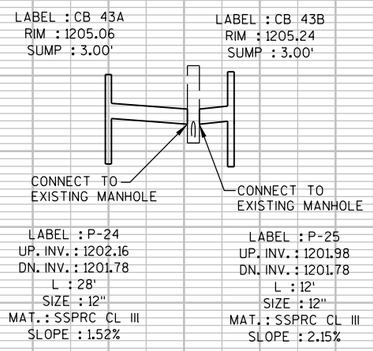
INLET PROTECTION TYPE A

[C] INLET PROTECTION TYPE C

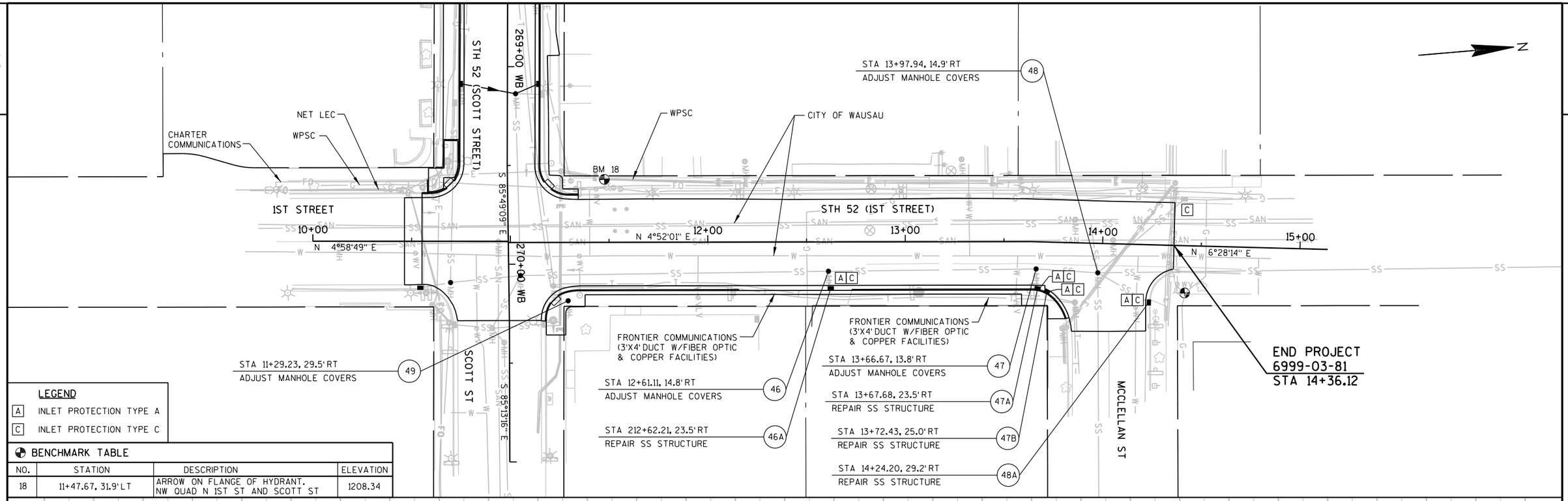
NOTES:

ALL PIPE SLOPES SHOWN WERE DESIGNED TO MATCH EXISTING PIPE SLOPE. ADJUST AS NECESSARY OR WHEN DIRECTED BY ENGINEER TO FIT ACTUAL FIELD CONDITIONS.

CONNECTING A NEW PIPE TO AN EXISTING MANHOLE IS INCIDENTAL TO THE PIPE.



PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	STORM SEWER	SHEET 13	E



LEGEND

- A — INLET PROTECTION TYPE A
- C — INLET PROTECTION TYPE C

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
18	11+47.67, 31.9' LT	ARROW ON FLANGE OF HYDRANT. NW QUAD N 1ST ST AND SCOTT ST	1208.34

SIGNING GENERAL NOTES

SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL SIGNS THAT ARE MOUNTED TO TRAFFIC SIGNAL OR LIGHT POLES AND OVERHANG THE SIDEWALK SHALL HAVE A MOUNTING HEIGHT OF 7'-3" MIN.

ALL J-ASSEMBLIES SHALL BE SINGLE-PIECE BOARDS.

REMOVE = REMOVING SIGNS TYPE II AND REMOVING SMALL SIGN SUPPORTS.

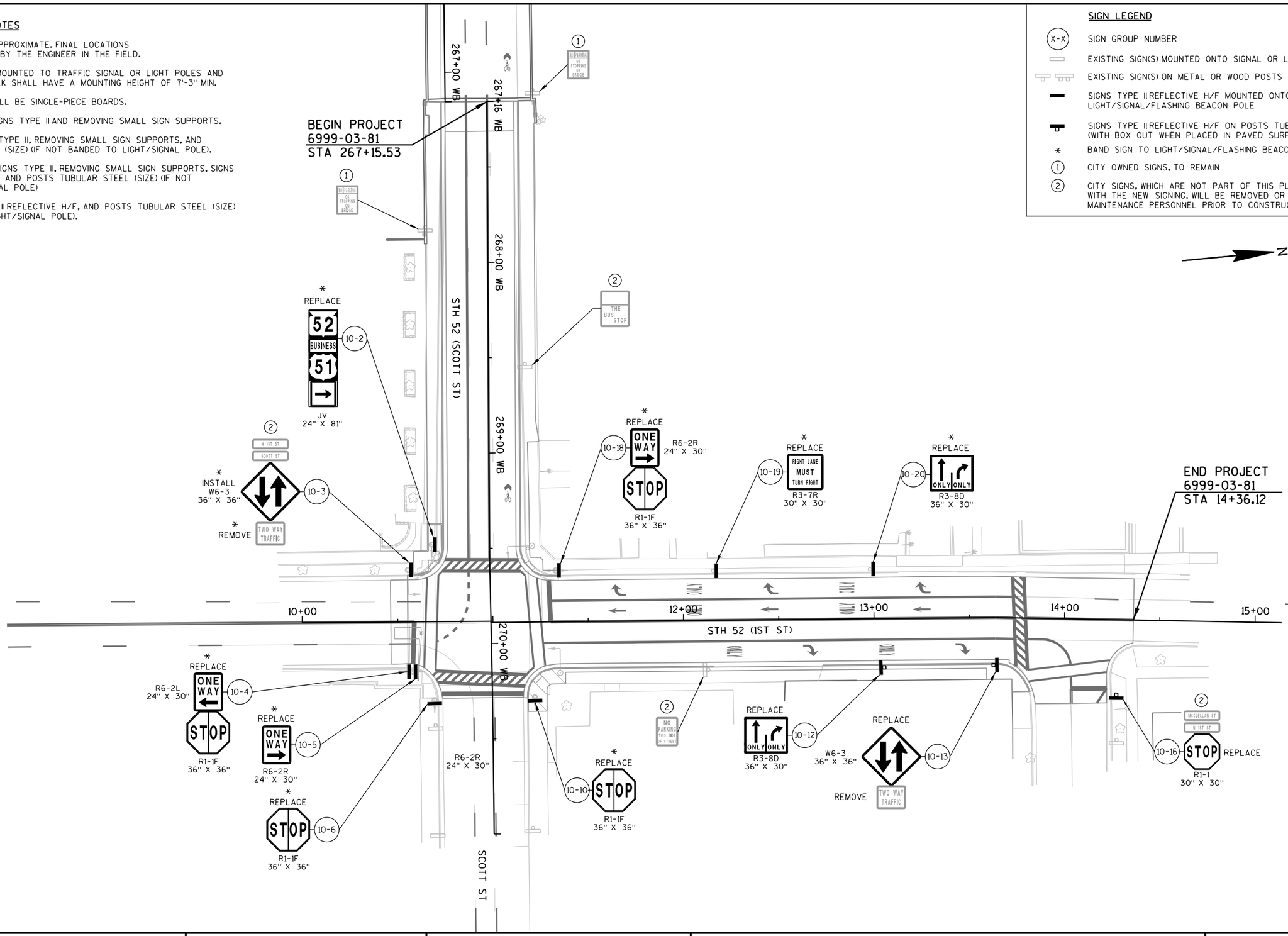
MOVE = MOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

REPLACE = REMOVING SIGNS TYPE II, REMOVING SMALL SIGN SUPPORTS, SIGNS TYPE II REFLECTIVE H/F AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE)

INSTALL = SIGNS TYPE II REFLECTIVE H/F, AND POSTS TUBULAR STEEL (SIZE) (IF NOT BANDED TO LIGHT/SIGNAL POLE).

SIGN LEGEND

X-X	SIGN GROUP NUMBER
	EXISTING SIGN(S) MOUNTED ONTO SIGNAL OR LIGHT POLE
	EXISTING SIGN(S) ON METAL OR WOOD POSTS
	SIGNS TYPE II REFLECTIVE H/F MOUNTED ONTO LIGHT/SIGNAL/FLASHING BEACON POLE
	SIGNS TYPE II REFLECTIVE H/F ON POSTS TUBULAR STEEL (WITH BOX OUT WHEN PLACED IN PAVED SURFACE)
*	BAND SIGN TO LIGHT/SIGNAL/FLASHING BEACON POLE
(1)	CITY OWNED SIGNS, TO REMAIN
(2)	CITY SIGNS, WHICH ARE NOT PART OF THIS PLAN OR CONFLICT WITH THE NEW SIGNING, WILL BE REMOVED OR MOVED BY CITY MAINTENANCE PERSONNEL PRIOR TO CONSTRUCTION OPERATIONS

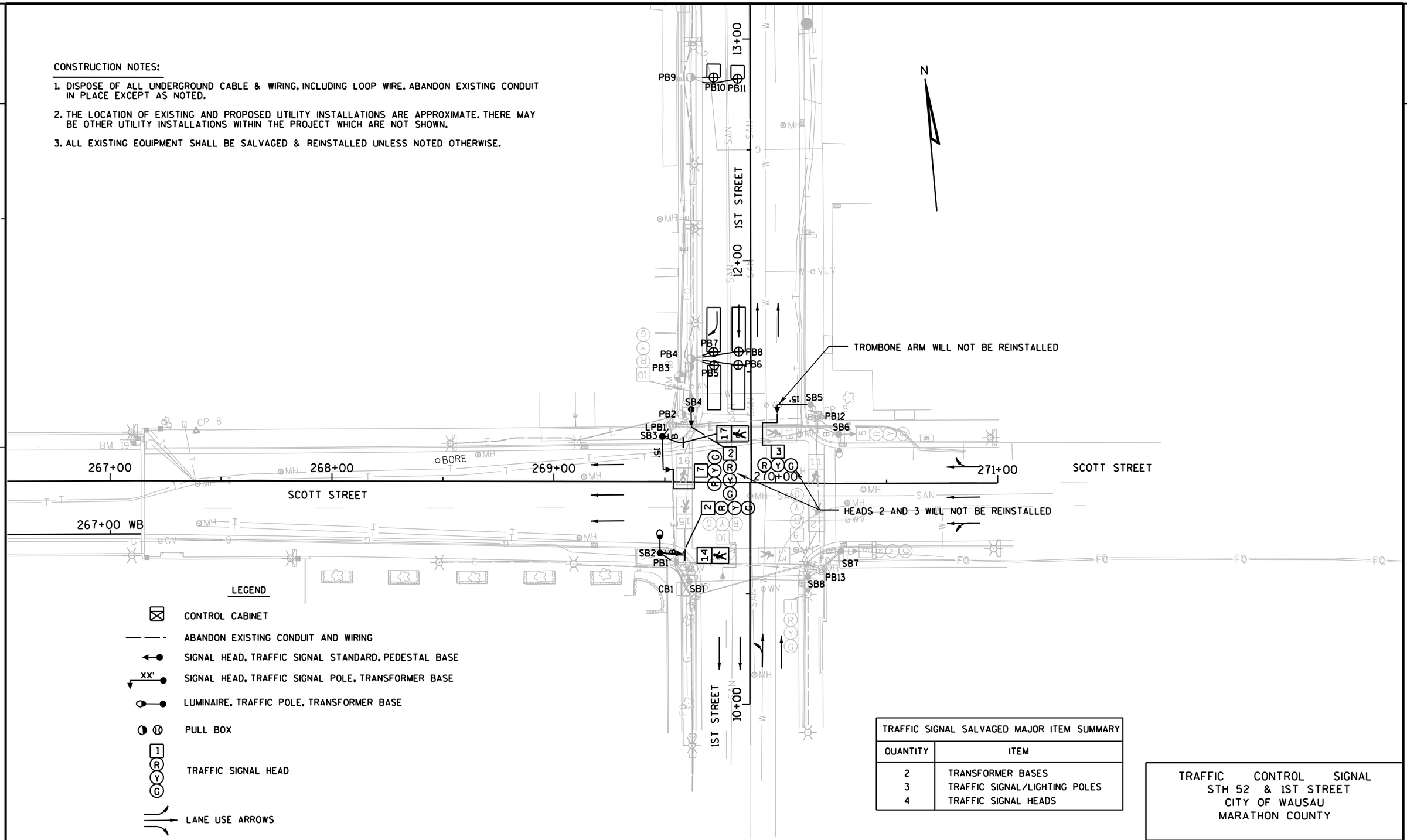


PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	PERMANENT SIGNING	SHEET 15	E

2

CONSTRUCTION NOTES:

1. DISPOSE OF ALL UNDERGROUND CABLE & WIRING, INCLUDING LOOP WIRE. ABANDON EXISTING CONDUIT IN PLACE EXCEPT AS NOTED.
2. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. ALL EXISTING EQUIPMENT SHALL BE SALVAGED & REINSTALLED UNLESS NOTED OTHERWISE.



LEGEND

- CONTROL CABINET
- ABANDON EXISTING CONDUIT AND WIRING
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX
- TRAFFIC SIGNAL HEAD
- LANE USE ARROWS

NOTE: BOLD REPRESENTS ITEMS TO BE SALVAGED OR ABANDONED.

TRAFFIC SIGNAL SALVAGED MAJOR ITEM SUMMARY	
QUANTITY	ITEM
2	TRANSFORMER BASES
3	TRAFFIC SIGNAL/LIGHTING POLES
4	TRAFFIC SIGNAL HEADS

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST STREET
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL REMOVAL PLAN	SHEET E

FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024003_srp.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

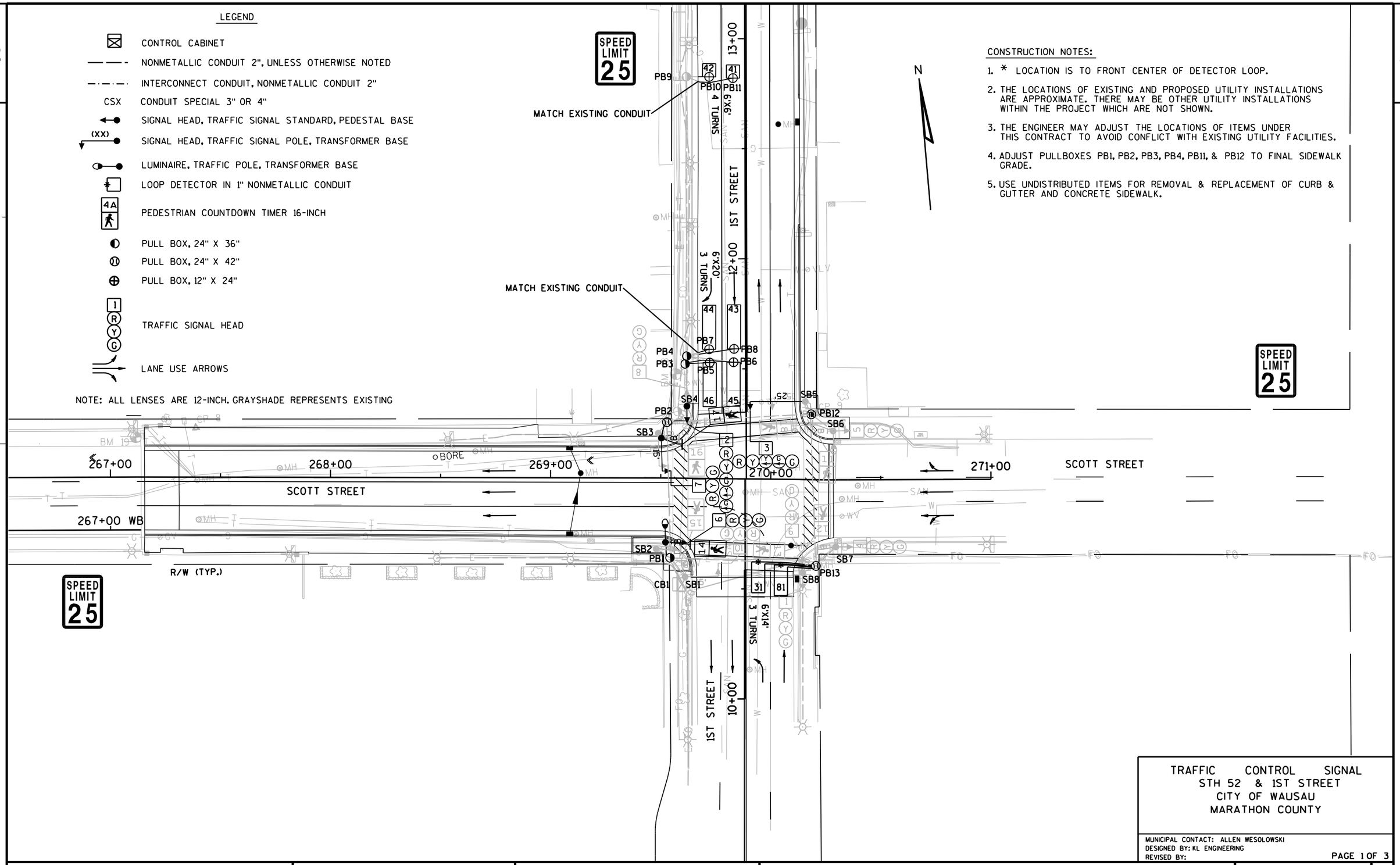
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- INTERCONNECT CONDUIT, NONMETALLIC CONDUIT 2"
- CSX CONDUIT SPECIAL 3" OR 4"
- 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
- 4A PEDESTRIAN COUNTDOWN TIMER 16-INCH
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- PULL BOX, 12" X 24"
- 1 R Y G TRAFFIC SIGNAL HEAD
- LANE USE ARROWS

NOTE: ALL LENSES ARE 12-INCH. GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. ADJUST PULLBOXES PB1, PB2, PB3, PB4, PB11, & PB12 TO FINAL SIDEWALK GRADE.
5. USE UNDISTRIBUTED ITEMS FOR REMOVAL & REPLACEMENT OF CURB & GUTTER AND CONCRETE SIDEWALK.



TRAFFIC CONTROL SIGNAL
STH 52 & 1ST STREET
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC SIGNAL PLAN	SHEET	E

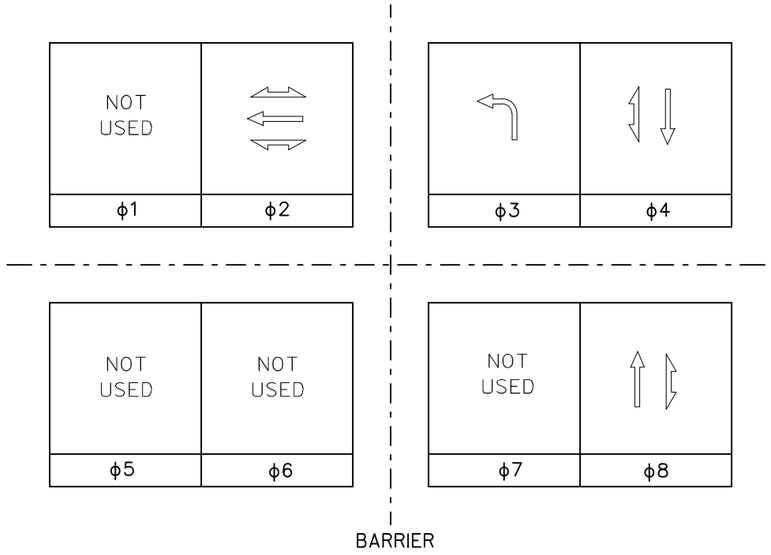
FILE NAME : G:\CBS Squared\11031 - STH 52 Wausau\DGN\SHEETS\024003_sp.dgn PLOT DATE : 1/29/2016 PLOT BY : KL Engineering PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4-7	R
Ø3	2,3	
Ø4	8-10	R
Ø5		
Ø6		
Ø7		
Ø8	1-3	R
Ø2 PED	13,14,17,18	
Ø4 PED	15,16	
Ø6 PED		
Ø8 PED	11,12	

O.L. ASSIGNMENTS
OLA
OLB
OLC
OLD
OLE
OLF
OLG
OLH

N



CONTROLLER LOGIC

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

TYPE OF INTERCONNECT	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
RADIO	

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

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

CENTRAL SYSTEM
LOCATION OF MASTER CONTROLLER:
SIGNAL SYSTEM #:

PREEMPTION ASSIGNMENTS

PREEMPTION DESIGNATION	PREEMPTION TYPE	EVP CHANNEL	PHASE(S) CALLED
1	RESERVED		
2	RESERVED		
3	EVP	A	2
4	EVP	B	4
5	EVP	C	8
6	NOT USED		
7	NOT USED		
8	NOT USED		

EVP NOTES:

1. AFTER PREEMPTION SEQUENCE 3, 4, OR 5, CONTROLLER SHALL RETURN TO PHASE 2+6

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
DETECTOR #(S)	31	41	43	42	44			
PHASE CALLED	3		4		4			
PHASE EXTENDED	3		4		4			
DISCONNECT TIME								
CALLING DELAY					8.0			
EXTENSION STRETCH								
LOOP FUNCTION		FUTURE		FUTURE				

DETECTOR INPUT	19	17	23	21	27	25	31	29
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	4	2	8	6	12	10	16	14
DETECTOR #(S)			45		46			
PHASE CALLED			4		4			
PHASE EXTENDED			4		4			
DISCONNECT TIME								
CALLING DELAY					8.0			
EXTENSION STRETCH								
LOOP FUNCTION								

DETECTOR INPUT	20	18	24	22	28	26	32	30
DETECTOR #(S)								
PHASE CALLED								
PHASE EXTENDED								
DISCONNECT TIME								
CALLING DELAY								
EXTENSION STRETCH								
LOOP FUNCTION								

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

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST STREET
CITY OF WAUSAU MARATHON COUNTY
CONTROLLER TYPE: SIEMENS

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	SEQUENCE OF OPERATIONS	SHEET 18	E

FILE NAME : G:\CBS SQUARED\11031 - STH 52 WAUSAU\DGN\SHEETS\024001-SEQ.DWG PLOT DATE : 1/29/2016 2:50 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : *********
WISDOT/CADDS SHEET 42

STH 52 & 1ST STREET NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB1 (EXISTING CABLE)	??	10	SB TH	R	*
				Y	*
				G	*
		15	ϕ4 PED	DW	*
				W	*
		BUTTON	ϕ6 PED	N/A	*
CABINET TO SB2	9/C	6	WB TH	R	RED
				Y	ORG
				G	GRN
		14	ϕ6 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4 PED	N/A	WHT/BLK
CABINET TO SB3	9/C	7	WB TH	R	RED
				Y	ORG
				G	GRN
		17	ϕ2 PED	DW	BLK
				W	BLU
		BUTTON	ϕ4 PED	N/A	WHT/BLK
CABINET TO SB4	12/C	2	NB TH & LT	R	RED
				Y	ORG
				G	GRN
				← Y	BLK/WHT
				← G	BLU/BLK
		8	SB TH	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		16	ϕ4 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED	N/A	WHT/BLK
CABINET TO SB5	12/C	3	NB TH & LT	R	RED
				Y	ORG
				G	GRN
				← Y	ORG/BLK
				← G	GRN/BLK
		11	ϕ8 PED	DW	BLK
				W	BLU
		BUTTON	ϕ2 PED	N/A	WHT/BLK
CABINET TO SB6 (EXISTING CABLE)	??	5	WB TH	R	*
				Y	*
				G	*
		18	ϕ2 PED	DW	*
				W	*
		BUTTON	ϕ8 PED	N/A	*

STH 52 & 1ST STREET NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CABINET TO SB7 (EXISTING CABLE)	??	4	WB TH	R	??
				Y	??
				G	??
		13	ϕ6 PED	DW	??
				W	??
		BUTTON	ϕ8 PED	N/A	??
CABINET TO SB8 (EXISTING CABLE)	??	1	NB TH	R	??
				Y	??
				G	??
		9	SB TH	R	??
				Y	??
				G	??
		12	ϕ8 PED	DW	??
				W	??
		BUTTON	ϕ6 PED	N/A	??

*EXISTING CABLE RUN LISTED FOR INFORMATION ONLY. CONDUCTOR COLORS UNKNOWN.
NOTE: CONDUCTOR SELECTION MAY BE MODIFIED TO MATCH EXISTING SCHEME.

	BLK-black	RED-red	GRN-green
Signal Wire Color Coding	WHT-white	BLU-blue	ORG-orange

TRAFFIC CONTROL SIGNAL
STH 52 & 1ST STREET
CITY OF WAUSAU
MARATHON COUNTY

MUNICIPAL CONTACT: ALLEN WESOLOWSKI
DESIGNED BY: KL ENGINEERING
REVISED BY:

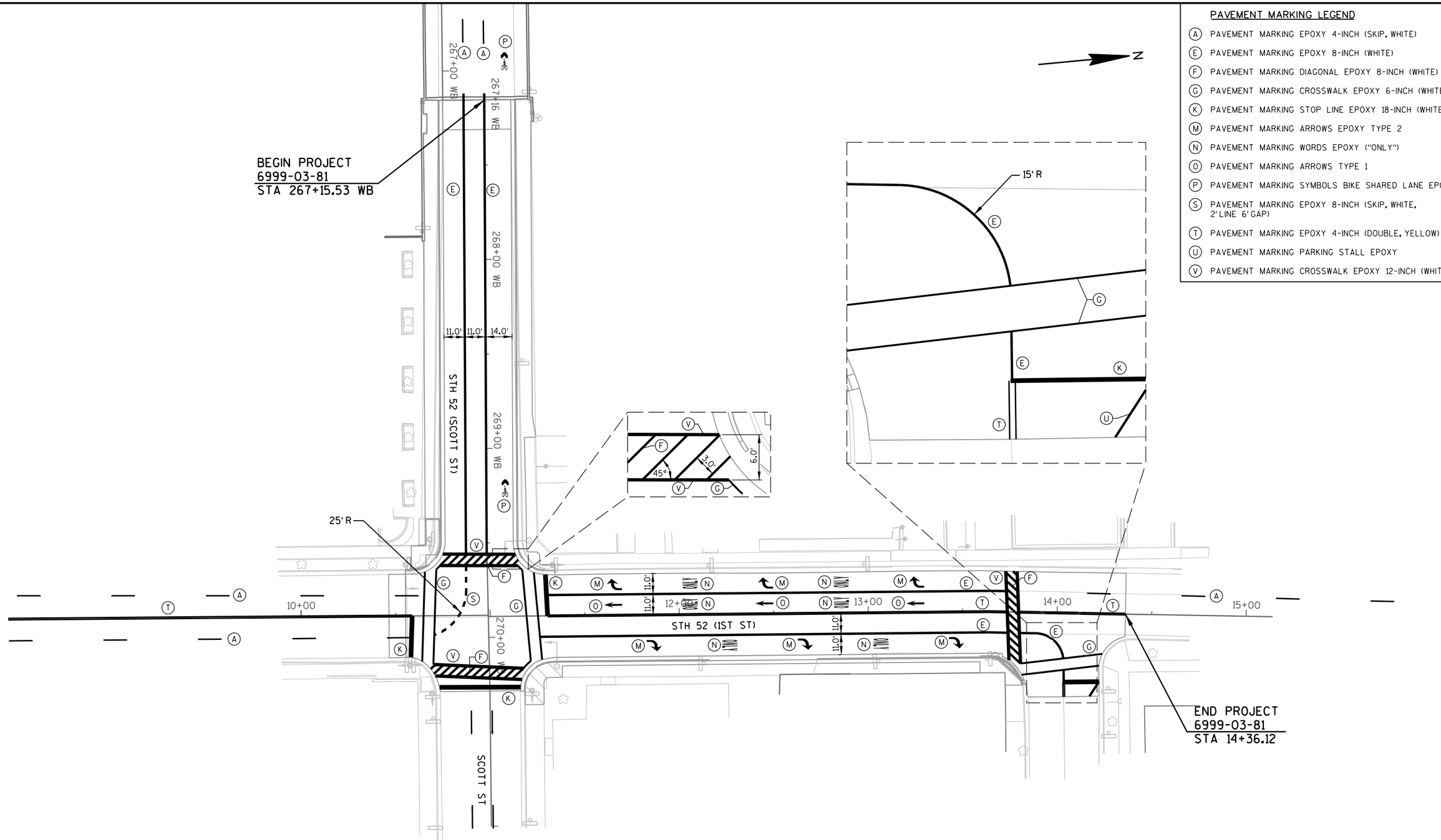
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CABLE ROUTING PLAN	SHEET 19 E

FILE NAME: G:\

2

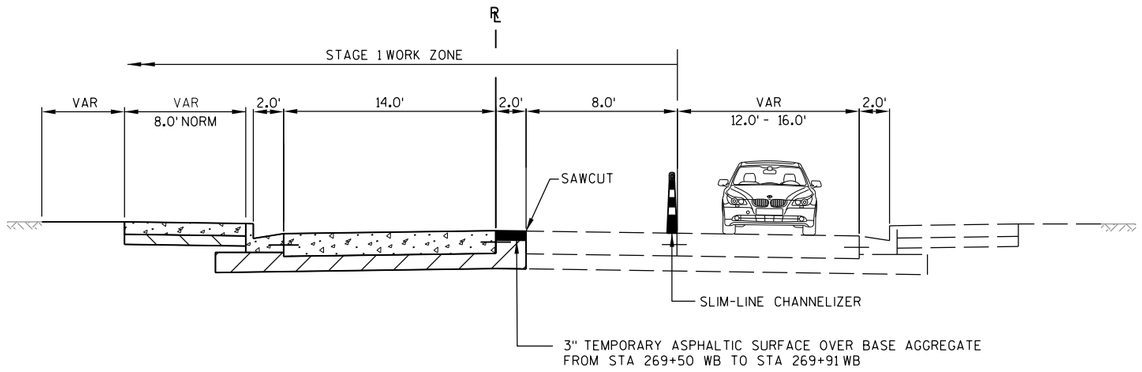
PAVEMENT MARKING LEGEND

- (A) PAVEMENT MARKING EPOXY 4-INCH (SKIP, WHITE)
- (E) PAVEMENT MARKING EPOXY 8-INCH (WHITE)
- (F) PAVEMENT MARKING DIAGONAL EPOXY 8-INCH (WHITE)
- (G) PAVEMENT MARKING CROSSWALK EPOXY 6-INCH (WHITE)
- (K) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (M) PAVEMENT MARKING ARROWS EPOXY TYPE 2
- (N) PAVEMENT MARKING WORDS EPOXY ("ONLY")
- (O) PAVEMENT MARKING ARROWS TYPE 1
- (P) PAVEMENT MARKING SYMBOLS BIKE SHARED LANE EPOXY
- (S) PAVEMENT MARKING EPOXY 8-INCH (SKIP, WHITE, 2'LINE 6'GAP)
- (T) PAVEMENT MARKING EPOXY 4-INCH (DOUBLE, YELLOW)
- (U) PAVEMENT MARKING PARKING STALL EPOXY
- (V) PAVEMENT MARKING CROSSWALK EPOXY 12-INCH (WHITE)



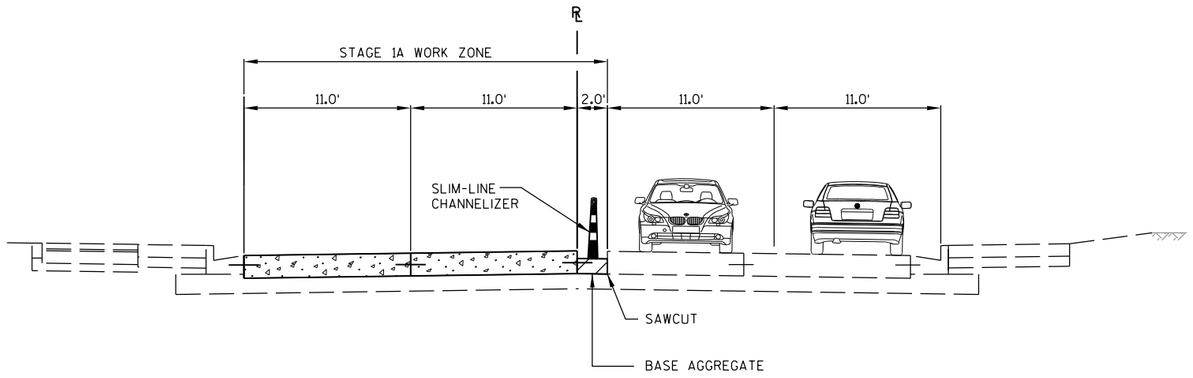
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	PAVEMENT MARKING	SHEET 20	E

2



TYPICAL FINISHED SECTION - STAGE 1A, 1B & 1C

STH 52 (SCOTT STREET)
WI RIVER BRIDGE TO 1ST STREET

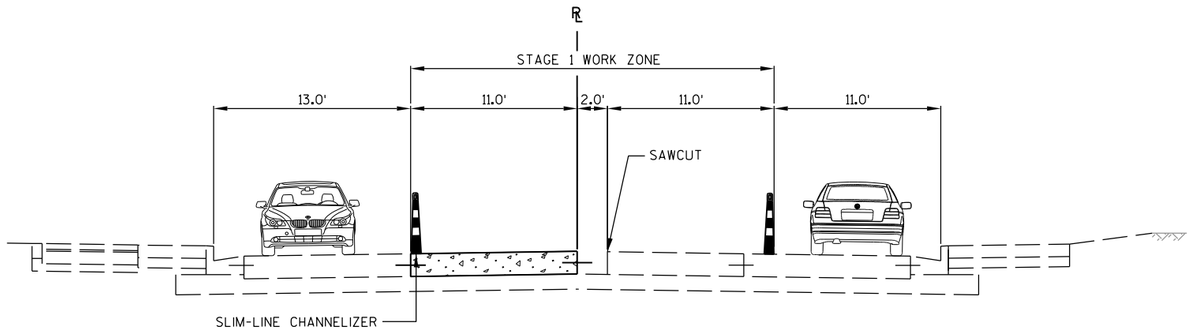


TYPICAL FINISHED SECTION - STAGE 1A

STH 52 (1ST STREET)
SCOTT STREET TO MCCLELLAN STREET

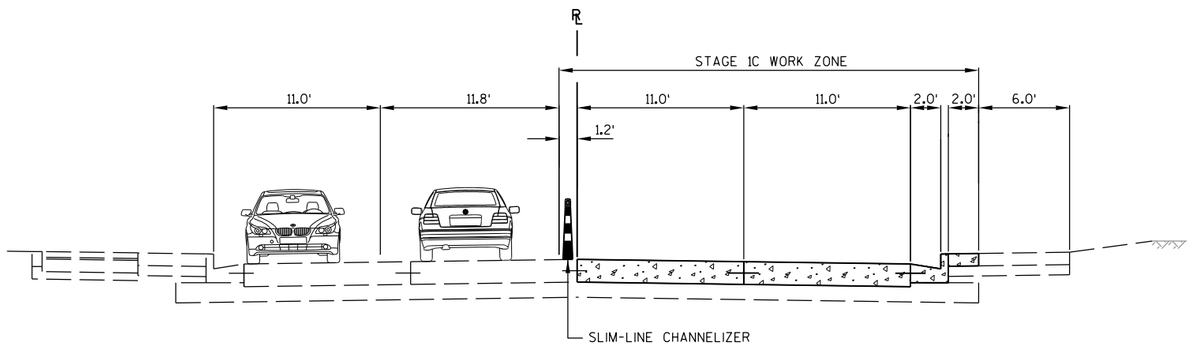
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 21	E

2



TYPICAL FINISHED SECTION - STAGE 1B

STH 52 (1ST STREET)
SCOTT STREET TO MCCLELLAN STREET

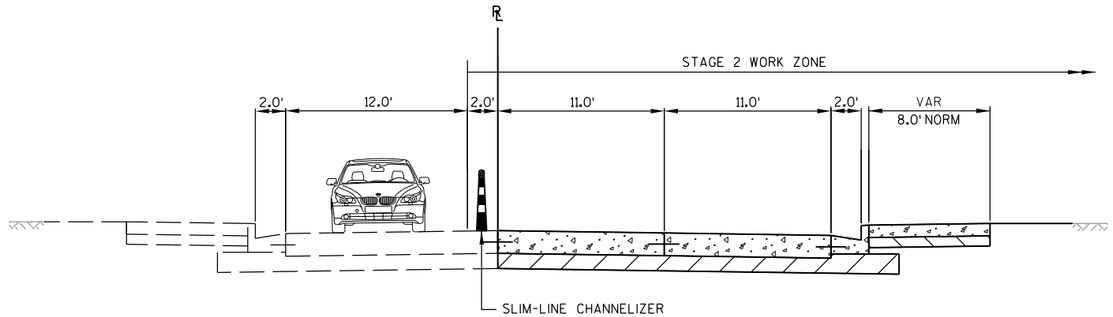


TYPICAL FINISHED SECTION - STAGE 1C

STH 52 (1ST STREET)
SCOTT STREET TO MCCLELLAN STREET

PROJECT NO:6999-03-81	HWY:STH 52	COUNTY:MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 22	E

2

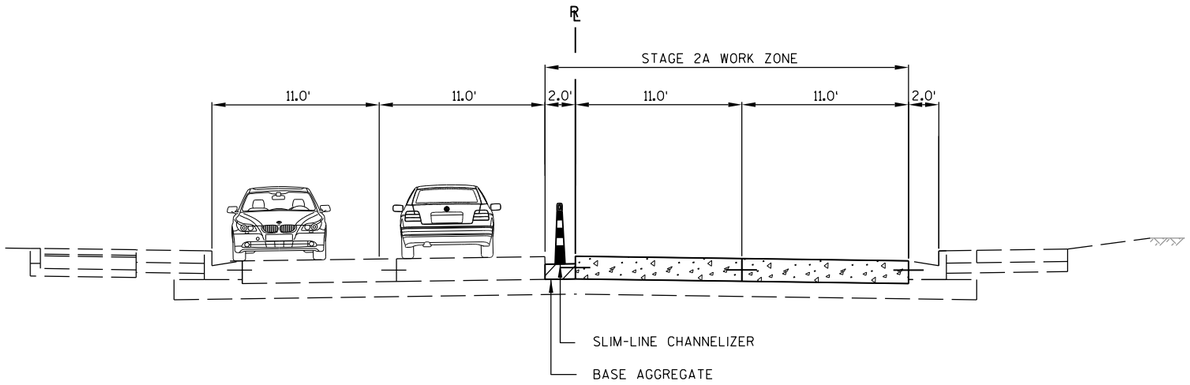


TYPICAL FINISHED SECTION - STAGE 2A & 2B

STH 52 (SCOTT STREET)
WI RIVER BRIDGE TO 1ST STREET

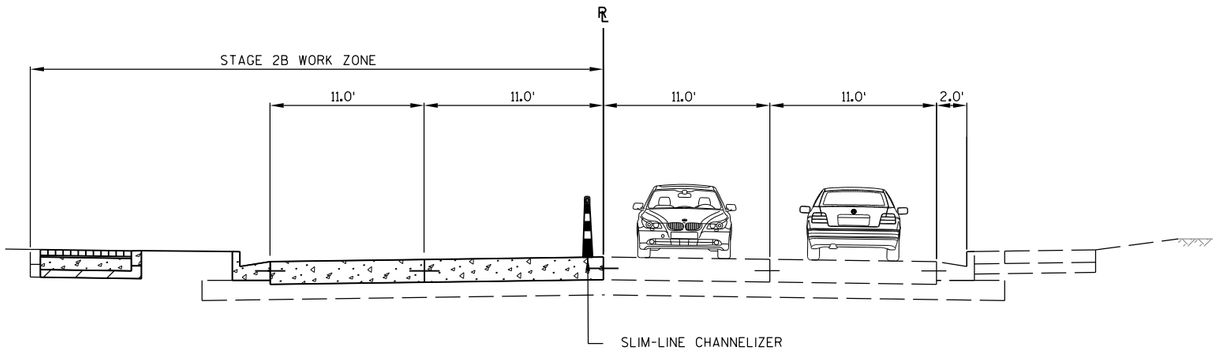
PROJECT NO:6999-03-81	HWY:STH 52	COUNTY:MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 23	E

2



TYPICAL FINISHED SECTION - STAGE 2A

1ST STREET



TYPICAL FINISHED SECTION - STAGE 2B

1ST STREET

PROJECT NO:6999-03-81	HWY:STH 52	COUNTY:MARATHON	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET 24	E

2

PAVEMENT MARKING LEGEND

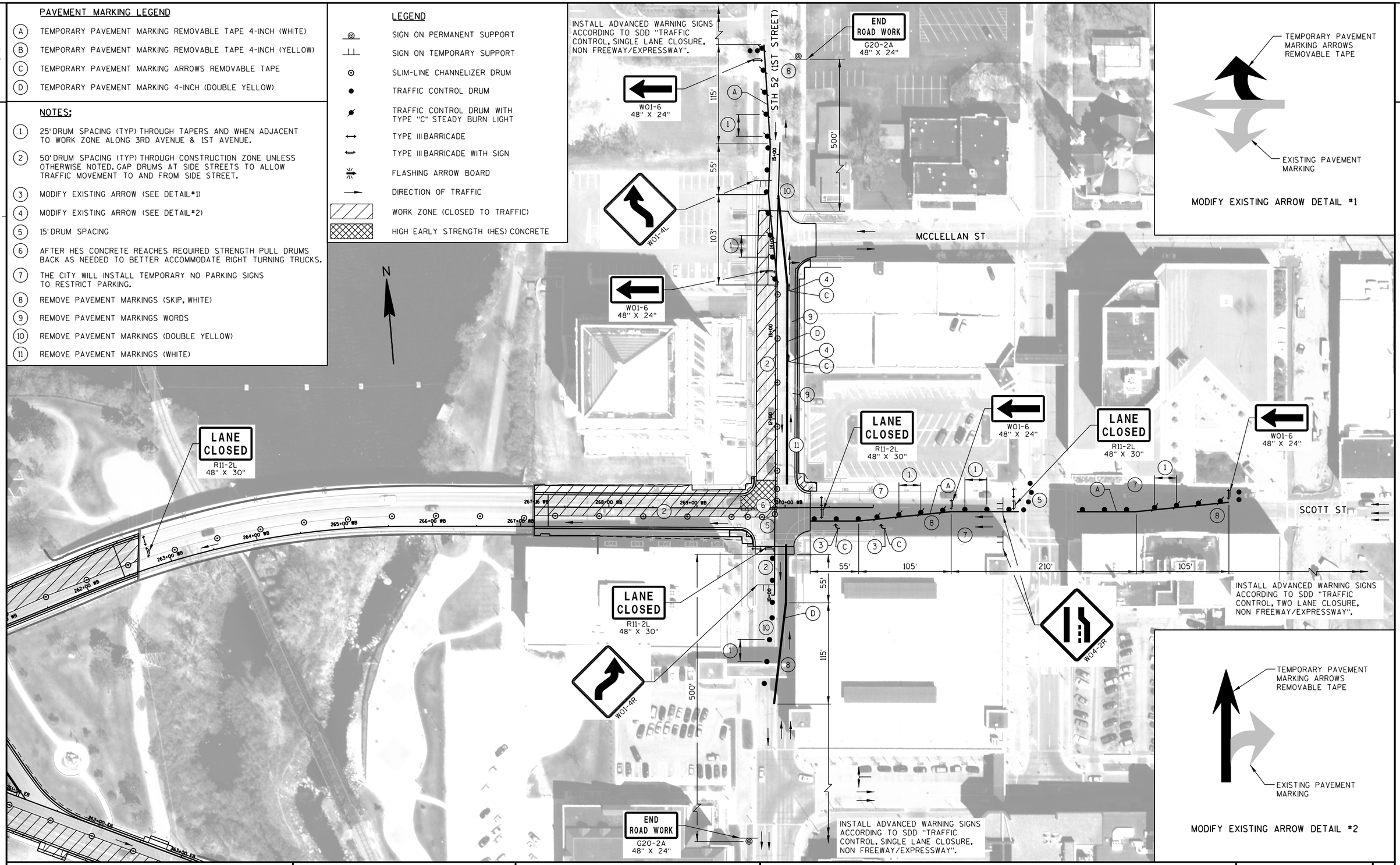
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROW (SEE DETAIL #1)
4. MODIFY EXISTING ARROW (SEE DETAIL #2)
5. 15' DRUM SPACING
6. AFTER HES CONCRETE REACHES REQUIRED STRENGTH PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE RIGHT TURNING TRUCKS.
7. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
8. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)
9. REMOVE PAVEMENT MARKINGS WORDS
10. REMOVE PAVEMENT MARKINGS (DOUBLE YELLOW)
11. REMOVE PAVEMENT MARKINGS (WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)
- HIGH EARLY STRENGTH (HES) CONCRETE



MODIFY EXISTING ARROW DETAIL #1

MODIFY EXISTING ARROW DETAIL #2

2

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1A	SHEET 25	E

2

PAVEMENT MARKING LEGEND

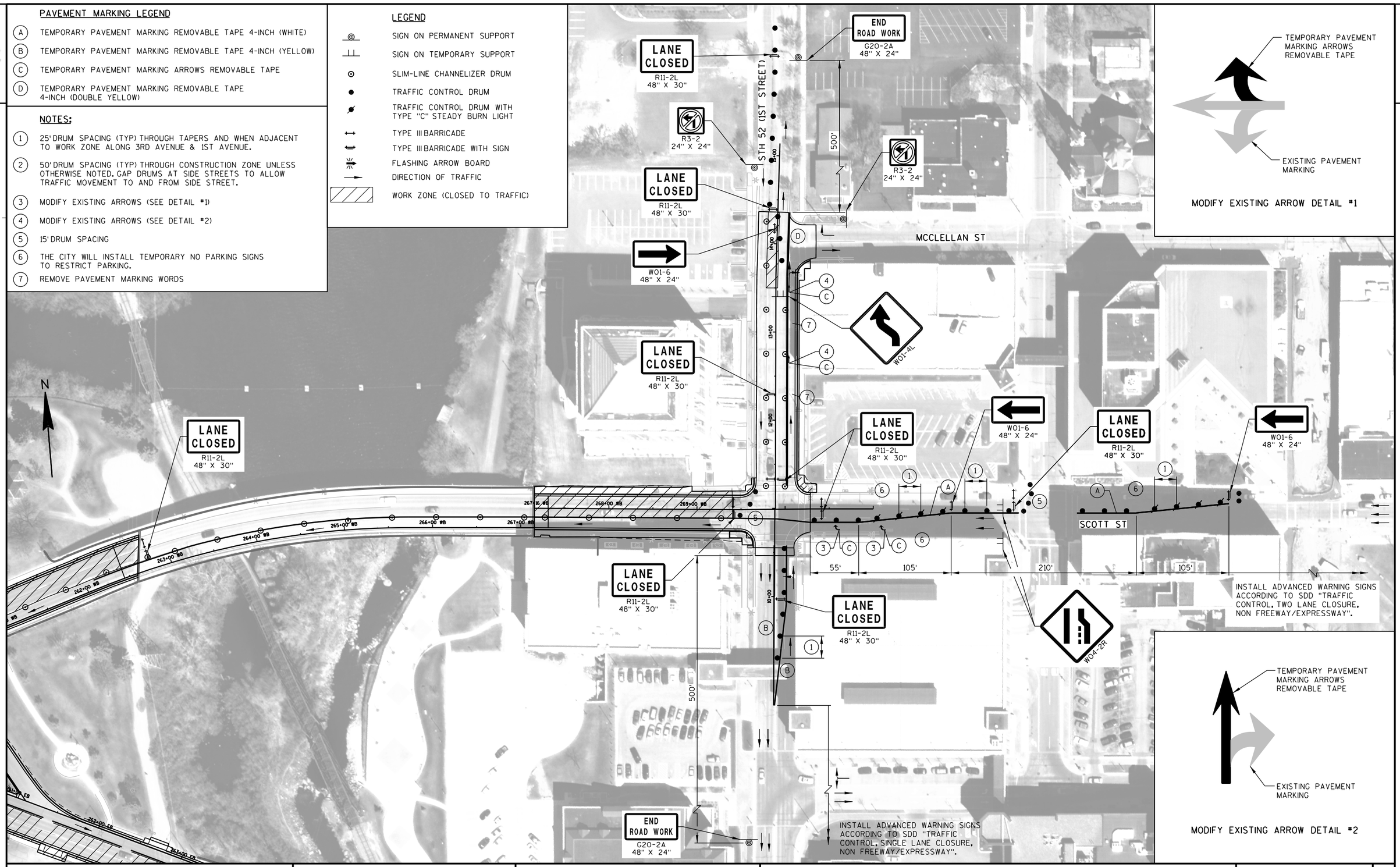
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL #1)
4. MODIFY EXISTING ARROWS (SEE DETAIL #2)
5. 15' DRUM SPACING
6. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
7. REMOVE PAVEMENT MARKING WORDS

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



MODIFY EXISTING ARROW DETAIL #1

MODIFY EXISTING ARROW DETAIL #2

2

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1B	SHEET E

2

PAVEMENT MARKING LEGEND

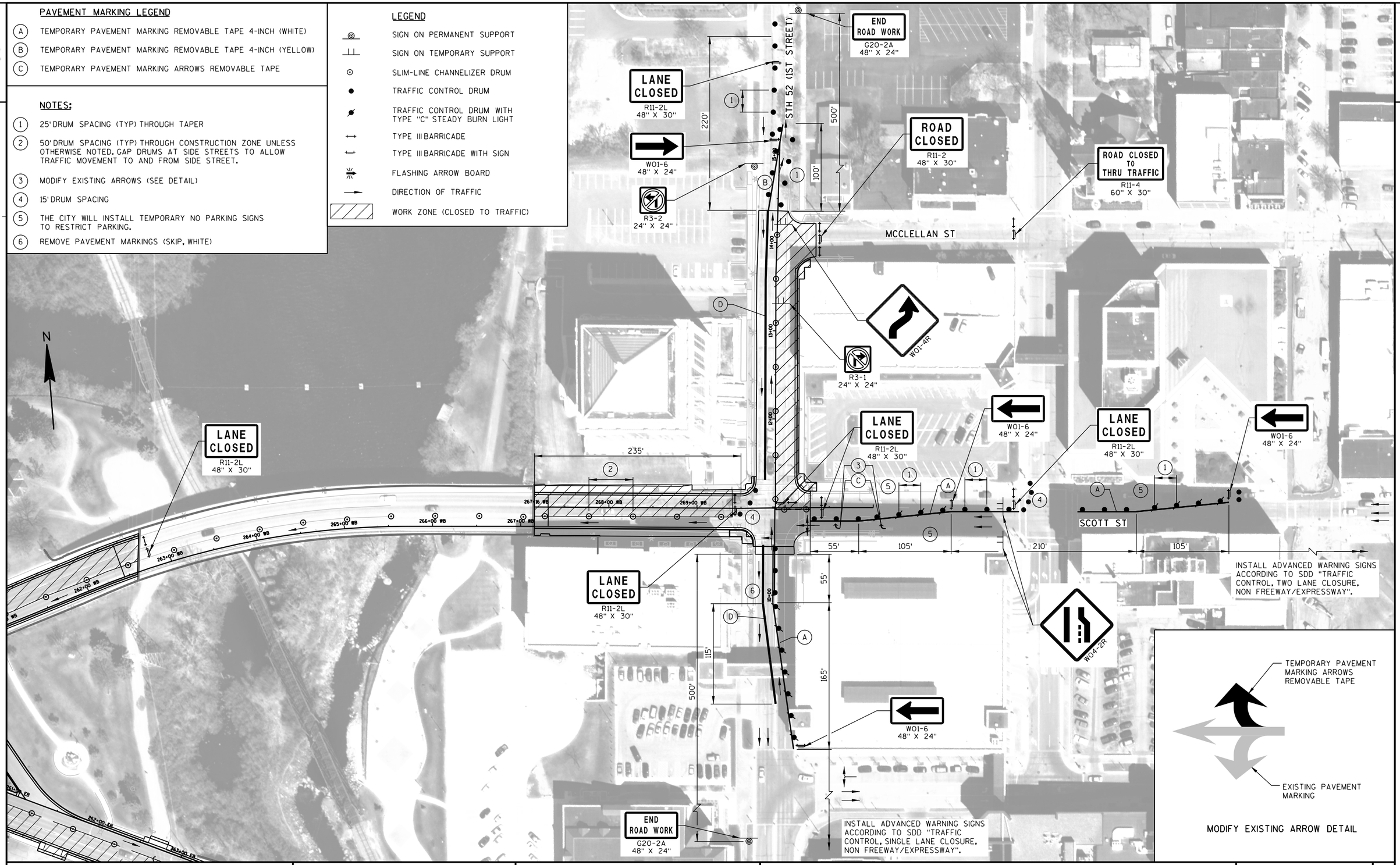
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPER
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. 15' DRUM SPACING
5. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
6. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 1C	SHEET 27	E

2

PAVEMENT MARKING LEGEND

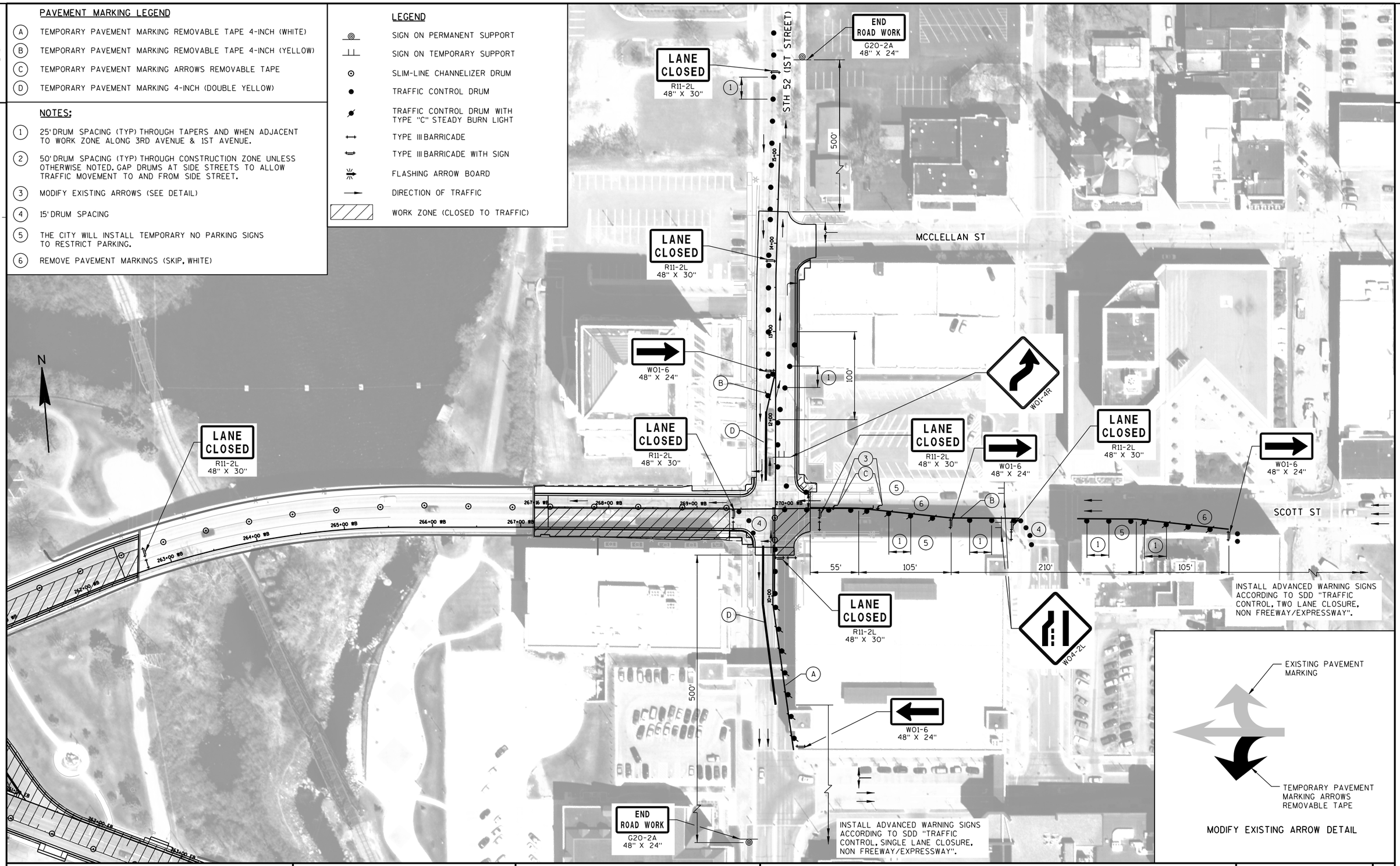
- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)

NOTES:

1. 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.
2. 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.
3. MODIFY EXISTING ARROWS (SEE DETAIL)
4. 15' DRUM SPACING
5. THE CITY WILL INSTALL TEMPORARY NO PARKING SIGNS TO RESTRICT PARKING.
6. REMOVE PAVEMENT MARKINGS (SKIP, WHITE)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)



PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2A	SHEET 28	E

2

PAVEMENT MARKING LEGEND

- (A) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (C) TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE
- (D) TEMPORARY PAVEMENT MARKING 4-INCH (DOUBLE YELLOW)

NOTES:

AFTER HES CONCRETE HAS REACHED REQUIRED STRENGTH PULL BACK DRUMS TO ACCOMMODATE LEFT TURNING VEHICLES.

(1) 25' DRUM SPACING (TYP) THROUGH TAPERS AND WHEN ADJACENT TO WORK ZONE ALONG 3RD AVENUE & 1ST AVENUE.

(2) 50' DRUM SPACING (TYP) THROUGH CONSTRUCTION ZONE UNLESS OTHERWISE NOTED. GAP DRUMS AT SIDE STREETS TO ALLOW TRAFFIC MOVEMENT TO AND FROM SIDE STREET.

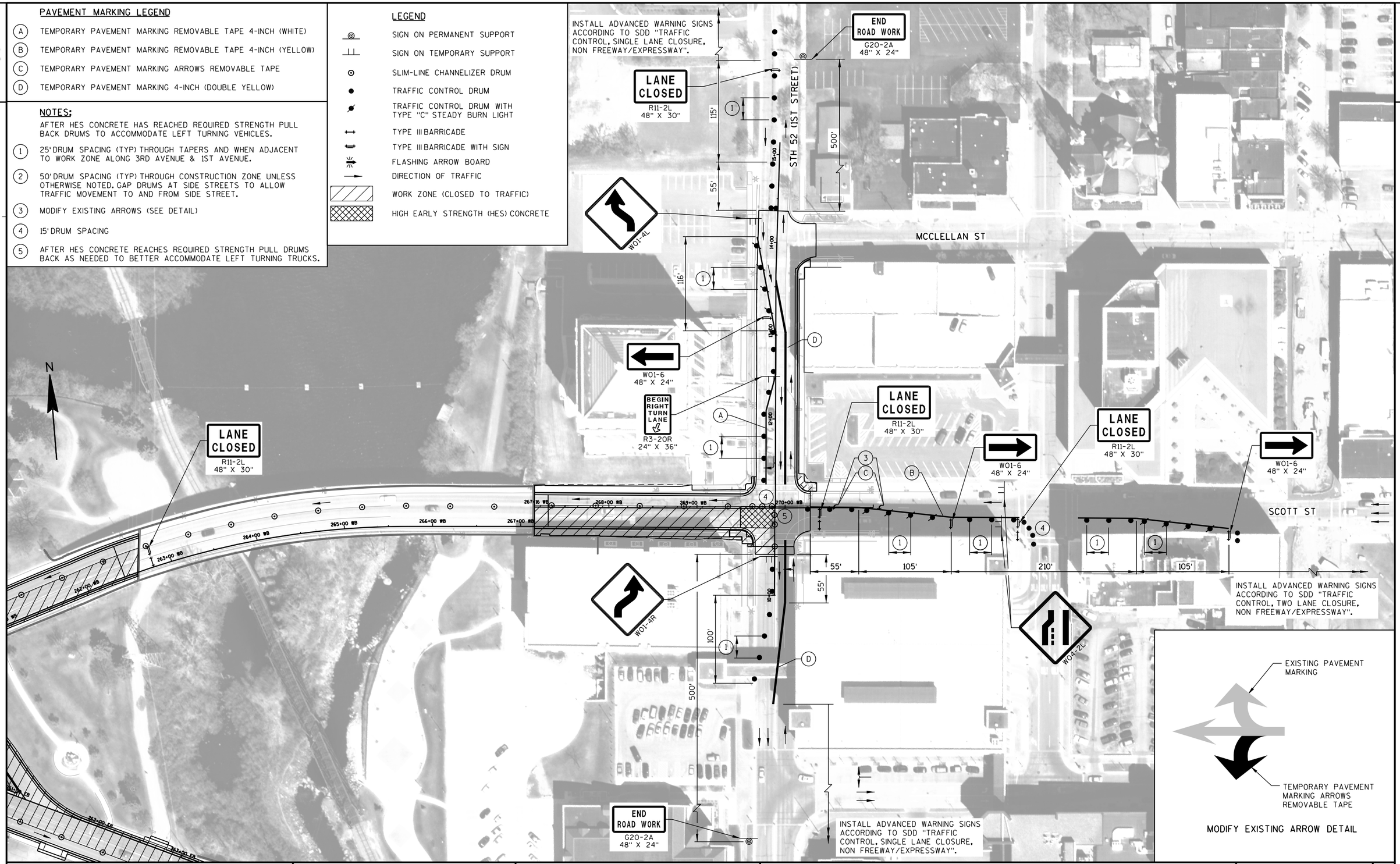
(3) MODIFY EXISTING ARROWS (SEE DETAIL)

(4) 15' DRUM SPACING

(5) AFTER HES CONCRETE REACHES REQUIRED STRENGTH PULL DRUMS BACK AS NEEDED TO BETTER ACCOMMODATE LEFT TURNING TRUCKS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- SLIM-LINE CHANNELIZER DRUM
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- WORK ZONE (CLOSED TO TRAFFIC)
- HIGH EARLY STRENGTH (HES) CONCRETE



PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	TRAFFIC CONTROL - STAGE 2B	SHEET 29	E

DATE 14MAR16 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	6999-03-81 QUANTITY
0010	204.0100	Removing Pavement	SY	3,483.000	3,483.000
0050	204.0155	Removing Concrete Sidewalk	SY	577.000	577.000
0060	204.0195	Removing Concrete Bases	EACH	3.000	3.000
0080	204.0220	Removing Inlets	EACH	2.000	2.000
0090	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	105.000	105.000
0150	205.0100	Excavation Common	CY	1,127.000	1,127.000
0190	213.0100	Finishing Roadway (project) 03. 6999-03-81	EACH	1.000	1.000
0200	305.0110	Base Aggregate Dense 3/4-Inch	TON	19.000	19.000
0210	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	650.000	650.000
0250	415.0085	Concrete Pavement 8 1/2-Inch	SY	2,905.000	2,905.000
0260	415.0410	Concrete Pavement Approach Slab	SY	64.000	64.000
0270	415.1085	Concrete Pavement HES 8 1/2-Inch	SY	106.000	106.000
0280	416.0160	Concrete Driveway 6-Inch	SY	48.000	48.000
0290	416.0610	Drilled Tie Bars	EACH	126.000	126.000
0300	416.0620	Drilled Dowel Bars	EACH	195.000	195.000
0320	455.0605	Tack Coat	GAL	2.200	2.200
0330	460.2000	Incentive Density HMA Pavement	DOL	10.000	10.000
0340	460.4000	HMA Cold Weather Paving	TON	10.000	10.000
0350	460.6424	HMA Pavement 4 MT 58-28 H	TON	10.000	10.000
0370	465.0125	Asphaltic Surface Temporary	TON	13.000	13.000
0400	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	756.000	756.000
0420	602.0410	Concrete Sidewalk 5-Inch	SF	4,608.000	4,608.000
0430	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	30.000	30.000
0440	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	40.000	40.000
0540	611.0639	Inlet Covers Type H-S	EACH	2.000	2.000
0590	611.1230	Catch Basins 2x3-FT	EACH	2.000	2.000
0640	611.8110	Adjusting Manhole Covers	EACH	22.000	22.000
0670	619.1000	Mobilization	EACH	0.150	0.150
0690	624.0100	Water	MGAL	10.000	10.000
0700	625.0100	Topsoil	SY	72.000	72.000
0730	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0740	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0750	628.2008	Erosion Mat Urban Class I Type B	SY	72.000	72.000
0760	628.7005	Inlet Protection Type A	EACH	6.000	6.000
0770	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0780	630.0140	Seeding Mixture No. 40	LB	1.290	1.290
0790	630.0200	Seeding Temporary	LB	1.800	1.800
0800	631.0300	Sod Water	MGAL	1.700	1.700
0820	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	2.000	2.000
0830	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	1.000	1.000
0850	637.2210	Signs Type II Reflective H	SF	54.930	54.930
0860	637.2215	Signs Type II Reflective H Folding	SF	29.840	29.840
0870	637.2230	Signs Type II Reflective F	SF	18.000	18.000
0890	638.2602	Removing Signs Type II	EACH	11.000	11.000
0900	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0910	642.5201	Field Office Type C	EACH	0.150	0.150
0940	643.0100	Traffic Control (project) 03. 6999-03-81	EACH	1.000	1.000
0950	643.0300	Traffic Control Drums	DAY	9,902.000	9,902.000
0960	643.0410	Traffic Control Barricades Type II	DAY	404.000	404.000
0970	643.0420	Traffic Control Barricades Type III	DAY	1,419.000	1,419.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	2,768.000	2,768.000

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DATE 14MAR16 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	6999-03-81 QUANTITY
0990	643.0715	Traffic Control Warning Lights Type C	DAY	1,879.000	1,879.000
1010	643.0900	Traffic Control Signs	DAY	3,571.000	3,571.000
1020	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
1030	644.1420.S	Temporary Pedestrian Surface Plywood	SF	344.000	344.000
1040	644.1601.S	Temporary Curb Ramp	EACH	8.000	8.000
1050	646.0106	Pavement Marking Epoxy 4-Inch	LF	1,471.000	1,471.000
1070	646.0126	Pavement Marking Epoxy 8-Inch	LF	954.000	954.000
1080	646.0690.S	Removing Pavement Markings Water Blasting	LF	1,234.000	1,234.000
1100	647.0156	Pavement Marking Arrows Epoxy Type 1	EACH	3.000	3.000
1110	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	6.000	6.000
1150	647.0336	Pavement Marking Symbols Bike Shared Lane Epoxy	EACH	2.000	2.000
1160	647.0356	Pavement Marking Words Epoxy	EACH	6.000	6.000
1180	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	106.000	106.000
1190	647.0656	Pavement Marking Parking Stall Epoxy	LF	10.000	10.000
1200	647.0716	Pavement Marking Diagonal Epoxy 8-Inch	LF	273.000	273.000
1210	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	290.000	290.000
1220	647.0776	Pavement Marking Crosswalk Epoxy 12-Inch	LF	270.000	270.000
1230	647.0990.S	Removing Special Pavement Markings Water Blasting	EACH	2.000	2.000
1240	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	5,085.000	5,085.000
1250	649.0600	Temporary Pavement Marking Removable Tape 6-Inch	LF	260.000	260.000
1280	649.1800	Temporary Pavement Marking Arrows Removable Tape	EACH	6.000	6.000
1290	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
1300	650.4500	Construction Staking Subgrade	LF	253.000	253.000
1330	650.7000	Construction Staking Concrete Pavement	LF	694.000	694.000
1370	650.8500	Construction Staking Electrical Installations (project) 03. 6999-03-81	LS	1.000	1.000
1400	650.9910	Construction Staking Supplemental Control (project) 03. 6999-03-81	LS	1.000	1.000
1410	650.9920	Construction Staking Slope Stakes	LF	253.000	253.000
1420	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	20.000	20.000
1490	652.0800	Conduit Loop Detector	LF	456.000	456.000
1510	653.0105	Pull Boxes Steel 12x24-Inch	EACH	6.000	6.000
1520	653.0900	Adjusting Pull Boxes	EACH	6.000	6.000
1550	654.0102	Concrete Bases Type 2	EACH	2.000	2.000
1570	655.0230	Cable Traffic Signal 5-14 AWG	LF	142.000	142.000
1580	655.0240	Cable Traffic Signal 7-14 AWG	LF	75.000	75.000
1590	655.0250	Cable Traffic Signal 9-14 AWG	LF	171.000	171.000
1600	655.0260	Cable Traffic Signal 12-14 AWG	LF	356.000	356.000
1620	655.0305	Cable Type UF 2-12 AWG Grounded	LF	48.000	48.000
1630	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	432.000	432.000
1640	655.0610	Electrical Wire Lighting 12 AWG	LF	123.000	123.000
1650	655.0700	Loop Detector Lead In Cable	LF	1,134.000	1,134.000
1660	655.0800	Loop Detector Wire	LF	1,296.000	1,296.000
1770	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	1.000	1.000
1810	657.0595	Trombone Arms 25-FT	EACH	1.000	1.000
1850	658.0120	Traffic Signal Face 5-12 Inch Vertical	EACH	1.000	1.000
1880	658.0165	Traffic Signal Face 5-12 Inch Horizontal	EACH	1.000	1.000
1910	658.0225	Backplates Signal Face 5 Section 12-Inch	EACH	2.000	2.000

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DATE 14MAR16 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	6999-03-81 QUANTITY
1940	658.0600	Led Modules 12-Inch Red Ball	EACH	2.000	2.000
1950	658.0605	Led Modules 12-Inch Yellow Ball	EACH	2.000	2.000
1960	658.0610	Led Modules 12-Inch Green Ball	EACH	2.000	2.000
1980	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	2.000	2.000
1990	658.0625	Led Modules 12-Inch Green Arrow	EACH	2.000	2.000
2080	690.0150	Sawing Asphalt	LF	62.000	62.000
2090	690.0250	Sawing Concrete	LF	1,767.000	1,767.000
2100	715.0415	Incentive Strength Concrete Pavement	DOL	891.000	891.000
2110	ASP.1T0A	On-the-Job Training Apprentice at $5. 00/HR	HRS	140.000	140.000
2120	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	70.000	70.000
2130	SPV.0030	Special 01. Fertilizer For Lawn Type Turf	CWT	0.060	0.060
2140	SPV.0060	Special 01. Adjusting Valve Boxes	EACH	4.000	4.000
2200	SPV.0060	Special 07. Repairing Storm Sewer Structures	EACH	5.000	5.000
2210	SPV.0060	Special 08. Bench	EACH	0.300	0.300
2390	SPV.0105	Special 03. Concrete Pavement Joint Layout 6999-03-81	LS	1.000	1.000
2420	SPV.0105	Special 06. Research and Locate Existing Property Monuments 6999-03-81	LS	1.000	1.000
2450	SPV.0105	Special 09. Verify and Replace Existing Property Monuments 6999-03-81	LS	1.000	1.000
2480	SPV.0105	Special 52. Salvage and Reinstall Traffic Signal STH 52 & 1st St	LS	1.000	1.000
2560	SPV.0165	Special 01. Salvage And Reinstall Brick Pavers	SF	216.000	216.000
2570	SPV.0180	Special 01. Preparing Topsoil For Lawn Type Turf	SY	72.000	72.000

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REMOVING PAVEMENT

STATION - STATION	LOCATION	204.0100 SY
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	847
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	688
STAGE 1B		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	86
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	945
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	741
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	176
ITEM TOTAL		3483

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 SY
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	179
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	68
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	158
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	172
ITEM TOTAL		577

TRAFFIC SIGNAL REMOVALS

LOCATION / ITEM NUMBER	STATION	L/R	204.0195 REMOVING CONCRETE BASES EACH
CATEGORY 0040			
STH 52 & 1ST STREET			
SB2	269+48	R	1
SB3	269+49	L	1
SB4	12+33	L	1
ITEM TOTAL			3*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

REMOVING INLETS

STATION	LOCATION	204.0220 EACH
STH 52 (SCOTT STREET)		
269+13.94	LT	1
269+18.37	LT	1
ITEM TOTAL		2

REMOVING STORM SEWER

STATION - STATION	LOCATION	204.0245.01 12-INCH LF
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	105
ITEM TOTAL		105

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EARTHWORK SUMMARY

DIVISION	STATION - STATION	LOCATION	(1) 205.0100 EXCAVATION COMMON CY	(2) SALVAGED/ UNUSABLE PAVEMENT MATERIAL CY	(3) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(4) EXPANDED FILL CY	(5) 208.0100 BORROW CY	(6) MASS ORDINATE CY	WASTE CY
DIVISION 1 STAGE 1	STH 52 (SCOTT STREET) 267+15.53 - 270+28.44 WB	LT & RT	337	188	149	0	0	0	149	149
	STH 52 (1ST STREET) 11+37 - 14+36.12	LT & RT	358	350	8	1	1	0	7	7
DIVISION 1 SUBTOTAL			695	538	157	1	1	0	156	156
DIVISION 2 STAGE 2	STH 52 (SCOTT STREET) 267+15.53 - 270+28.44 WB	LT & RT	432	204	228	0	0	0	228	228
DIVISION 2 SUBTOTAL			432	204	228	0	0	0	228	228
ITEM TOTAL			1127	742	385	1	1	0	384	384

(1) EXCAVATION COMMON, ITEM NUMBER 205.0100, IS THE TOTAL VOLUME OF CUT AND INCLUDES THE UNUSABLE PAVEMENT MATERIAL.
(2) SALVAGED/UNUSABLE MATERIAL IS INCLUDED IN THE EXCAVATION COMMON
(3) AVAILABLE MATERIAL = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL.
(4) EXPANDED FILL FACTOR = 1.30
(5) BORROW MATERIAL.
(6) THE MASS ORDINATE + OR - QTY FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL AND A MINUS QUANTITY INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
THE MASS ORDINATE IS = EXCAVATION COMMON - UNUSABLE PAVEMENT MATERIAL - EXPANDED FILL.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

BASE COURSE ITEMS

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
STAGE 1A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	6	250	
UNDISTRIBUTED	LT & RT		64	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
STAGE 1B				
UNDISTRIBUTED	LT & RT		79	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
STAGE 1C				
STH 52 (1ST STREET)				
11+37 - 14+36.12	LT & RT	3		
UNDISTRIBUTED	LT & RT		7	FOR ADDITIONAL BASE AGGREGATE AS NEEDED UNDER NEW CONCRETE PAVEMENT
STAGE 2A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	5	200	
STAGE 2B				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	5	50	
ITEM TOTAL		19	650	

CONCRETE PAVEMENT

STATION - STATION	LOCATION	415.0085 8 1/2-INCH SY	415.0410 APPROACH SLAB SY	415.1085 HES 8 1/2-INCH SY
STAGE 1A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	701	32	64
STH 52 (1ST STREET)				
11+37 - 14+36.12	LT & RT	622		
STAGE 1B				
STH 52 (1ST STREET)				
11+37 - 14+36.12	LT & RT	78		
STAGE 1C				
STH 52 (1ST STREET)				
11+37 - 14+36.12	LT & RT	856		
STAGE 2A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	621	32	
STAGE 2B				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	27		42
ITEM TOTAL		2905	64	106

DRILLED TIE BARS

STATION	LOCATION	416.0610 EACH
STAGE 1A		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	100
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	15
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	11
ITEM TOTAL		126

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	416.0160 SY
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	RT	48
ITEM TOTAL		48

DRILLED DOWEL BARS

STATION	LOCATION	416.0620 EACH
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	20
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	46
STAGE 1B		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	6
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	63
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	40
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	20
ITEM TOTAL		195

ASPHALTIC CONCRETE PAVEMENT ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6424 HMA PAVEMENT 4 MT 58-28 H TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	460.4000 HMA COLD WEATHER PAVING TON
STAGE 1A					
STH 52 (SCOTT STREET)					
267+15.53 WB - 270+28.44 WB	LT & RT			13	
STAGE 2A					
STH 52 (SCOTT STREET)					
267+15.53 WB - 270+28.44 WB	LT & RT	1.1	5		5
STAGE 2B					
STH 52 (SCOTT STREET)					
267+15.53 WB - 270+28.44 WB	LT & RT	1.1	5		5
ITEM TOTAL		2.2	10	13	10

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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CONCRETE CURB & GUTTER 30-INCH TYPE A

STATION - STATION	LOCATION	601.0409 LF
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	250
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	256
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	250
ITEM TOTAL		756

STORM SEWER PIPE

STATION - STATION	LOCATION	608.0312 REINFORCED CONCRETE CLASS III 12-INCH LF
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	40
ITEM TOTAL		40

STORM SEWER STRUCTURE ITEMS

STATION - STATION	LOCATION	611.0639 INLET COVERS TYPE H-S EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.07 REPAIRING STORM SEWER STRUCTURES EACH
STH 52 (SCOTT STREET)					
267+15.53 WB - 270+28.44 WB	LT & RT	2	2	4	1
STH 52 (1ST STREET)					
11+37 - 14+36.12	RT			3	4
ITEM TOTAL		2	2	7*	5

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

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CONCRETE SIDEWALK 5-INCH

STATION - STATION	LOCATION	602.0410 SF	REMARKS
STAGE 1A			
STH 52 (SCOTT STREET)			
267+15.53 WB - 270+28.44 WB	LT	1788	
STAGE 1C			
STH 52 (1ST STREET)			
11+37 - 14+36.12	LT & RT	850	
STAGE 2B			
STH 52 (SCOTT STREET)			
267+15.53 WB - 270+28.44 WB	RT	1970	INCLUDES 216 SF UNDERNEATH BRICK PAVERS
ITEM TOTAL		4608	

UTILITY STRUCTURE ITEMS

STATION - STATION	LOCATION	611.8110 ADJUSTING MANHOLE COVERS EACH	SPV.0060.01 ADJUSTING VALVE BOXES EACH	REMARKS
CATEGORY 0020				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT	6	2	WATER VALVE STACKS FURNISHED BY CITY
STH 52 (1ST STREET)				
11+37 - 14+36.12	LT & RT	9	2	WATER VALVE STACKS FURNISHED BY CITY
ITEM TOTAL		15*	4	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STATION - STATION	LOCATION	602.0515 SF
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	10
STAGE 1C		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	10
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	10
ITEM TOTAL		30

WATER

STATION - STATION	LOCATION	624.0100 MGAL
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	4.17
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	2.78
UNDISTRIBUTED		3.00
ITEM TOTAL		10

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TURF ESTABLISHMENT ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	SPV.0030.01 FERTILIZER FOR LAWN TYPE TURF CWT	SPV.0180.01 PREPARING TOPSOIL FOR LAWN TYPE TURF SY
STAGE 1A							
STH 52 (SCOTT STREET)							
267+15.53 WB - 270+28.44 WB	LT & RT	29	0.52		0.65	0.02	29
STAGE 2A							
STH 52 (SCOTT STREET)							
267+15.53 WB - 270+28.44 WB	LT & RT	33	0.59		0.74	0.02	33
STAGE 2B							
STH 52 (SCOTT STREET)							
267+15.53 WB - 270+28.44 WB	LT & RT	3	0.05		0.07	0.01	3
UNDISTRIBUTED		7	0.12	1.80	0.24	0.01	7
ITEM TOTAL		72	1.29	1.80	1.70	0.06	72

EROSION CONTROL ITEMS

STATION - STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT CLASS I TYPE B SY
STAGE 1A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT			29
STAGE 2A				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT			33
STAGE 2B				
STH 52 (SCOTT STREET)				
267+15.53 WB - 270+28.44 WB	LT & RT			3
UNDISTRIBUTED		2	1	7
ITEM TOTAL		2	1	72

3

INLET PROTECTION

STATION - STATION	LOCATION	628.7005 TYPE A EACH	628.7015 TYPE C EACH
STH 52 (SCOTT STREET)			
267+15.53 WB - 270+28.44 WB	LT & RT	2	3
STH 52 (1ST STREET)			
11+37 - 14+36.12	LT & RT	4	5
ITEM TOTAL		6	8

PERMANENT SIGNING ITEMS

SIGN GROUP NUMBER	SIGN CODE	SIGN MESSAGE	SIZE	637.2210 REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 REFLECTIVE F SF	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16-FT EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
10-2	JV	52 BUS 51 ARROW	24 X 81	13.50					1		BAND TO TRAFFIC SIGNAL
10-3	W6-3	TWO WAY TRAFFIC	36 X 36			9.00			1		BAND TO TRAFFIC SIGNAL
10-4	R6-2L	ONE WAY ARROW	24 X 30	5.00					1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46						BAND TO TRAFFIC SIGNAL
10-5	R6-2R	ONE WAY ARROW	24 X 30	5.00							BAND TO TRAFFIC SIGNAL
10-6	R1-1F	STOP	36 X 36		7.46				1		BAND TO TRAFFIC SIGNAL
10-10	R1-1F	STOP	36 X 36		7.46				1		BAND TO TRAFFIC SIGNAL
10-12	R3-8D	THRU ARROW ONLY/TURN ARROW ONLY	36 X 30	7.50			1		1	1	
10-13	W6-3	TWO WAY TRAFFIC	36 X 36			9.00		1	1	1	
10-16	R1-1	STOP	30 X 30	5.18			1		1	1	
10-18	R6-2R	ONE WAY	24 X 30	5.00					1		BAND TO TRAFFIC SIGNAL
	R1-1F	STOP	36 X 36		7.46						BAND TO TRAFFIC SIGNAL
10-19	R3-7R	RIGHT LANE MUST TURN RIGHT	30 X 30	6.25					1		BAND TO STREET LIGHT
10-20	R3-8D	THRU ARROW ONLY/TURN ARROW ONLY	36 X 30	7.50					1		BAND TO STREET LIGHT
ITEM TOTAL				54.93	29.84	18.00	2	1	11	3	

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

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TRAFFIC CONTROL

STATION - STATION	LOCATION	643.0300 DRUMS DAY	643.0410 BARRICADES TYPE II DAY	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C DAY	643.0900 SIGNS DAY
STAGE 1A							
STH 52 (SCOTT STREET)	LT & RT	875	140		140		70
STH 52 (1ST STREET)	LT & RT	770		35	70	315	280
SCOTT STREET	LT & RT	875		175	280	280	490
1ST STREET	LT & RT	280		70	105		245
STAGE 1B							
STH 52 (SCOTT STREET)	LT & RT	144		24	36		12
STH 52 (1ST STREET)	LT & RT	360		72	132		108
SCOTT STREET	LT & RT	300		60	96	96	168
1ST STREET	LT & RT	96		12	24		72
STAGE 1C							
STH 52 (SCOTT STREET)	LT & RT	276		46	69		23
STH 52 (1ST STREET)	LT & RT	805	184	207	506		253
SCOTT STREET	LT & RT	575		115	184	184	322
1ST STREET	LT & RT	276		23	46	184	138
STAGE 2A							
STH 52 (SCOTT STREET)	LT & RT	300		60	90		30
STH 52 (1ST STREET)	LT & RT	900		90	180	30	150
SCOTT STREET	LT & RT	840		180	300	270	420
1ST STREET	LT & RT	450		90	150	240	210
STAGE 2B							
STH 52 (SCOTT STREET)	LT & RT	520	80		80		
STH 52 (1ST STREET)	LT & RT	500		40	80	100	180
SCOTT STREET	LT & RT	560		120	200	180	280
1ST STREET	LT & RT	200					120
ITEM TOTAL		9902	404	1419	2768	1879	3571

TEMPORARY PEDESTRIAN ITEMS

STATION - STATION	LOCATION	644.1420.S TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	644.1601.S TEMPORARY CURB RAMP EACH
STAGE 1A STH 52 (SCOTT STREET)	LT	86	2
STAGE 1C STH 52 (1ST STREET)	RT	172	4
STAGE 2B STH 52 (SCOTT STREET)	RT	86	2
ITEM TOTAL		344	8

TRAFFIC CONTROL COVERING SIGNS TYPE II

STATION - STATION	LOCATION	643.0920 EACH	NUMBER OF CYCLES	NUMBER OF SIGNS
STH 52 (1ST STREET)	LT & RT	3	1	3
SCOTT STREET	LT & RT	6	1	6
ITEM TOTAL		9		

PAVEMENT MARKING

STATION - STATION	LOCATION	646.0106 EPOXY 4-INCH (WHITE) LF	646.0106 EPOXY 4-INCH (YELLOW) LF	646.0126 EPOXY 8-INCH (WHITE) LF	647.0156 ARROWS EPOXY TYPE 1 (WHITE) EACH	647.0166 ARROWS EPOXY TYPE 2 (WHITE) EACH	647.0336 SYMBOLS BIKE SHARED LANE EPOXY EACH	647.0356 WORDS EPOXY "ONLY" EACH	647.0566 STOP LINE EPOXY 18-INCH LF	647.0716 DIAGONAL EPOXY 8-INCH (WHITE) LF	647.0656 PARKING STALL EPOXY LF	647.0766 CROSSWALK EPOXY 6-INCH LF	647.0776 CROSSWALK EPOXY 12-INCH LF
STH 52 (SCOTT STREET	LT & RT		14	511			2		87	176		205	174
STH 52 (1ST STREET)	LT & RT	22	621	443	3	6		6	19	97	10	85	96
SCOTT STREET	LT & RT	277											
1ST STREET	LT & RT	109	428										
ITEM TOTAL		1471		954	3	6	2	6	106	273	10	290	270

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

REMOVING PAVEMENT MARKINGS ITEMS

STATION - STATION	LOCATION	646.0690.S REMOVING PAVEMENT MARKINGS WATER BLASTING LF	647.0990.S REMOVING SPECIAL PAVEMENT MARKINGS WATER BLASTING EACH
STH 52 (1ST STREET)	LT & RT	420	2
SCOTT STREET	LT & RT	277	
1ST STREET	LT & RT	537	
ITEM TOTAL		1234	2

TEMPORARY PAVEMENT MARKING

STATION - STATION	LOCATION	649.0400 REMOVABLE TAPE 4-INCH (WHITE) LF	649.0400 REMOVABLE TAPE 4-INCH (YELLOW) LF	649.0600 REMOVABLE TAPE 6-INCH (WHITE) LF	649.1800 ARROWS REMOVABLE TAPE EACH
STAGE 1A					
STH 52 (1ST STREET)	LT & RT	274	657		2
SCOTT STREET	LT & RT	411			2
1ST STREET	LT & RT		365		
STAGE 1B					
STH 52 (1ST STREET)	RT		182		
1ST STREET	LT & RT		145		
STAGE 1C					
STH 52 (1ST STREET)	LT & RT				
SCOTT STREET	LT & RT	711			
1ST STREET	LT & RT	234	363		
STAGE 2A					
STH 52 (1ST STREET)	LT & RT		205		
SCOTT STREET	LT & RT		411		2
STAGE 2B					
STH 52 (1ST STREET)	LT & RT	290	462		
1ST STREET	LT & RT		375		
UNDISTRIBUTED				260	
ITEM TOTAL		5085		260	6

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.7000 CONCRETE PAVEMENT LF	650.9920 SLOPE STAKES LF
STH 52 (SCOTT STREET)					
267+15.53 WB - 270+28.44 WB	LT & RT	2	253	313	253
STH 52 (1ST STREET)					
11+37 - 14+36.12	LT & RT			381	
ITEM TOTAL		2	253	694	253

CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (6999-03-81)

STATION - STATION	LOCATION	650.8500 LS
CATEGORY 0040		
STH 52 (SCOTT STREET)	LT & RT	1
ITEM TOTAL		1

TRAFFIC SIGNAL CONDUIT

LOCATION	FROM - TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF
CATEGORY 0040		
STH 52 & 1ST STREET		
	PB2 - SB3	10
	PB1 - SB2	10
ITEM TOTAL		20*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL PULL BOXES

LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	653.0900 ADJUSTING PULL BOXES EACH
CATEGORY 0040				
STH 52 & 1ST STREET				
PB1	269+55	36.2'	R	1
PB2	269+53	25.4'	L	1
PB3	11+52	27.6'	L	1
PB4	11+56	26.9'	L	1
PB12	11+29	29.5'	R	1
PB13	10+60	32.2'	R	1
ITEM TOTAL				6

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

TRAFFIC SIGNAL LOOP DETECTORS

LOCATION / LOOP NO.	# STATION	OFFSET	L/R	SIZE FT	X	FT	NO. OF TURNS	INSTALLATION METHOD	653.0105 PULL BOXES STEEL 12X24-INCH EACH	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF	**655.0700 LOOP DETECTOR LEAD IN CABLE LF
CATEGORY 0040												
STH 52 & 1ST STREET												
31	10+62	5.9'	R	6	X	14	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE/ASPHALT PAVEMENT)		65	170	80
41	12+82	5.7'	L	6	X	6	4	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	39	126	240
42	12+83	16.5'	L	6	X	6	4	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	39	126	240
43	11+59	5.5'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	67	186	110
44	11+59	16.8'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	62	176	110
45	11+53	5.7'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	67	186	110
46	11+53	16.5'	L	6	X	20	3	SDD: LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)	1	62	176	110
81	11+53	16.5'	L	6	X	14	3	SDD: LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE/ASPHALT PAVEMENT)		55	150	110
PROJECT TOTAL									6	456*	1296*	1110*

LOCATION IS TO THE FRONT CENTER OF DETECTOR LOOP & FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
** ADDITIONAL QUANTITY FOUND IN "TRAFFIC SIGNAL CABLE AND WIRE-ABOVE GROUND" TABLE
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL STRUCTURES

LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0102 CONCRETE BASES TYPE 2 EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINIUM 15-FT EACH	657.0595 TROMBONE ARMS 25-FT EACH
CATEGORY 0040						
STH 52 & 1ST STREET						
SB2	269+52	29.2'	R	1		
SB3	269+50	18.1'	L	1		
SB4	11+33	26.9'	L		1	
SB5	11+35	26.8'	R			1
ITEM TOTAL				2*	1*	1*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND

LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF
CATEGORY 0040							
STH 52 & 1ST AVENUE							
	SB2	-	6	19			
		-	14	15			
		-	BUTTON				6
		-	LUMINAIRE			123	
	SB3	-	7	40			
		-	17	15			
		-	BUTTON				6
	SB4	-	2		23		
			8	23			
		-	16	15			
		-	BUTTON				6
	SB5	-	3		52		
		-	11	15			
		-	BUTTON				6
ITEM TOTAL				142*	75	123*	24*

* ADDITIONAL QUANITITIES SHOWN ELSEWHERE.

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND

LOCATION	FROM - TO	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG LF	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CATEGORY 0040					
STH 52 & 1ST STREET					
	CB1 - SB2	48		48	
	CB1 - SB3	123			
	CB1 - SB4		143		
	CB1 - SB5		213		
	SB1 - SB2				45
	SB2 - SB3				115
	SB3 - SB4				47
	SB4 - SB5				125
	SB5 - SB6				45
	PB1 - SB2				20
	PB2 - SB3				17
	PB11 - SB5				18
ITEM TOTAL		171*	356*	48*	432*

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE.

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

3

TRAFFIC SIGNAL HEADS

LOCATION	SIGNAL BASE NO.	HEAD NO.	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL EACH	658.0165 TRAFFIC SIGNAL FACE 5-12 INCH HORIZONTAL EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0225 BACK PLATES SIGNAL FACE 5 SECTION 12-INCH EACH
CATEGORY 0040										
STH 52 & 1ST STREET										
	SB4	2	1		1	1	1	1	1	1
	SB5	3		1	1	1	1	1	1	1
ITEM TOTAL			1	1	2*	2*	2*	2*	2*	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

BENCH

STATION - STATION	LOCATION	SPV.0060.08 EACH
CATEGORY 0030		
W WASHINGTON ST / RIVER DR / N 1ST ST	SW CORNER	0.3
ITEM TOTAL		0.3

3

SAWING ASPHALT

STATION - STATION	LOCATION	690.0150 LF
STAGE 2A		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	31
STAGE 2B		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	31
ITEM TOTAL		62

SAWING CONCRETE

STATION - STATION	LOCATION	690.0250 LF
STAGE 1A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	514
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	577
STAGE 1B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	31
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	85
STAGE 1C		
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	434
STAGE 2A		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	28
STH 52 (1ST STREET)		
11+37 - 14+36.12	LT & RT	42
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	LT & RT	56
ITEM TOTAL		1767

TRAFFIC SIGNAL REMOVALS

LOCATION	SPV.0105.52 SALVAGE AND REINSTALL TRAFFIC SIGNAL (STH 52 & 1ST ST) LS
CATEGORY 0040	
STH 52 & 1ST STREET	
INTERSECTION	1
ITEM TOTAL	1

SALVAGE AND REINSTALL BRICK PAVERS

STATION - STATION	LOCATION	SPV.0165.01 SF
STAGE 2B		
STH 52 (SCOTT STREET)		
267+15.53 WB - 270+28.44 WB	RT	216
ITEM TOTAL		216

NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE FOR ENGINEER ESTIMATE CATEGORY 0010 UNLESS OTHERWISE NOTED.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
SHEET 2 OF 2

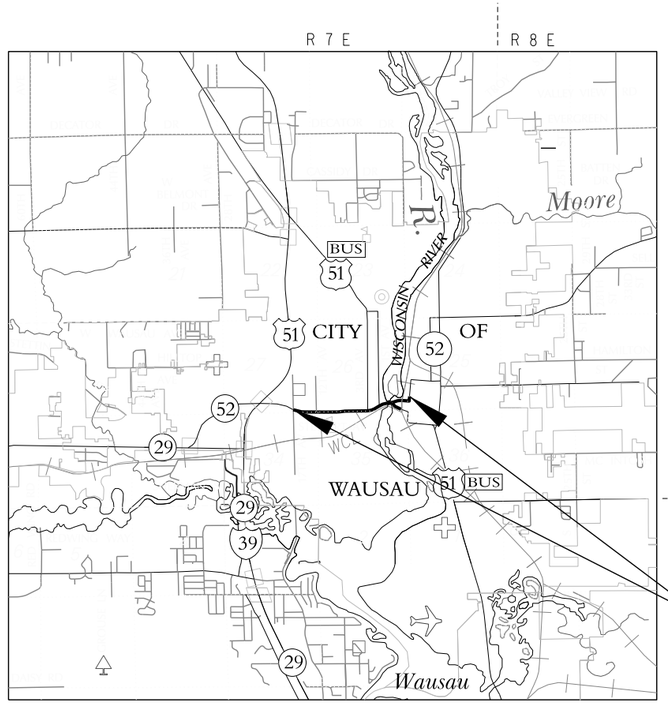
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 6999-03-28

C WAUSAU, HIGHWAY 52
17TH AVENUE TO FIRST STREET

STH 52
MARATHON COUNTY



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LAYOUT
SCALE 0 1 MI.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MARATHON COUNTY, NAD 83, 2007, IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD". DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. EXCLUDING RIGHT-OF-WAY LINES, THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 52 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38), 6999-01-04 AND 6999-01-57 .
EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM RECORDED PLATS.
EXISTING ACCESS CONTROL ALONG USH 18, STH 60 AND STH 35 ESTABLISHED FROM PREVIOUS PROJECTS T 05-3(14), T 020-2(22), T 05-3(38) AND 6999-01-04.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 3/4"x24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A **HIGHWAY EASEMENT** (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT, DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN
		POINT OF REVERSE CURVE	PRC

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP (1" UNLESS NOTED)	PROPOSED R/W LINE
		EXISTING H.E. LINE
R/W MONUMENT	●(SET)	PROPERTY LINE
R/W STANDARD	▲(SET)	LOT & TIE LINES
SIGN	ISIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT		CORPORATE LIMITS
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)		NO ACCESS (BY ACQUISITION)
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT		SECTION LINE
R/W BOUNDARY POINT	RWB20	QUARTER LINE
PARCEL NUMBER	102	SIXTEENTH LINE
UTILITY PARCEL NUMBER	32	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE)	21-1	BUILDING TO BE REMOVED
BUILDING		PROPOSED REFERENCE LINE
		PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

		NON COMPENSABLE	COMPENSABLE
WATER	W		
GAS	G		
TELEPHONE	T		
OVERHEAD TRANSMISSION LINES	OH		
ELECTRIC	E		
CABLE TELEVISION	TV		
FIBER OPTIC	FO		
SANITARY SEWER	SAN		
STORM SEWER	SS		
POWER POLE		○	●
TELEPHONE POLE		⊘	⊘
TELEPHONE PEDESTAL		⌑	⌑
ELECTRIC TOWER		⊠	

cbs2
770 TECHNOLOGY WAY
CH 41 WI 54729

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.01 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.01 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1706675 FILED IN CAB 3 ENV 544B

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF THE SE 1/4 OF THE SE 1/4, SECTION 27, AND PART OF THE NE 1/4 OF THE NE 1/4, SECTION 34, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22 WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
1	WAUSAU SCHOOL DISTRICT	FEE	435	-	435	-	
2	MARATHON COUNTY	TLE	-	-	-	9503	4.02,4.03

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

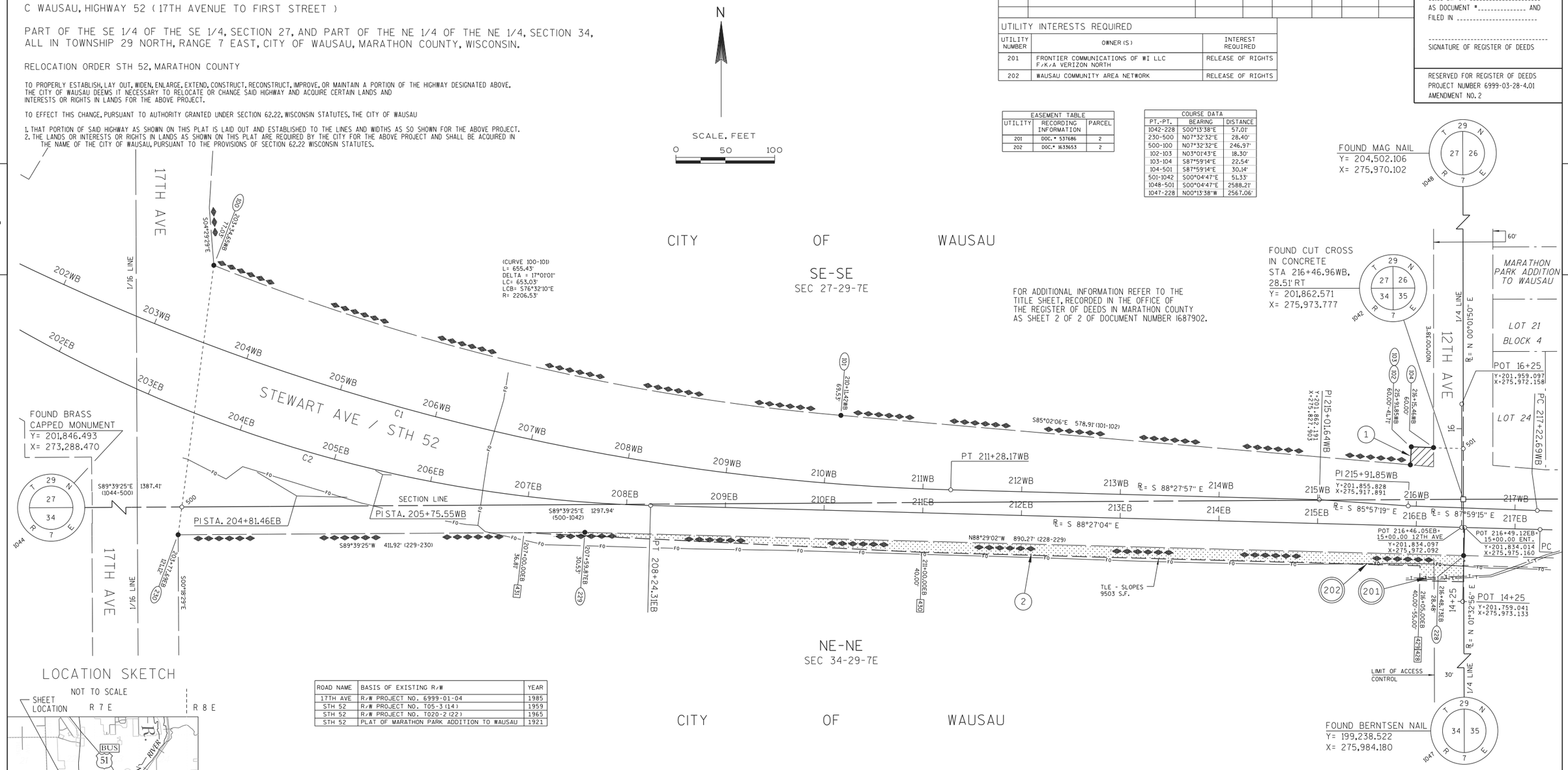
ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ___:___ .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.01
AMENDMENT NO. 2

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC.# 537686	2
202	DOC.# 1633653	2

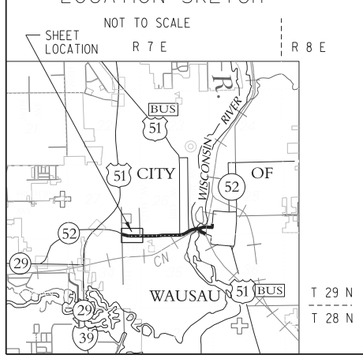
COURSE DATA		
PT.-PT.	BEARING	DISTANCE
1042-228	S00°13'38"E	57.01'
230-500	N07°32'32"E	28.40'
500-100	N07°32'32"E	246.97'
102-103	N03°01'43"E	18.30'
103-104	S87°59'14"E	22.54'
104-501	S87°59'14"E	30.14'
501-1042	S00°04'47"E	51.33'
1048-501	S00°04'47"E	2588.21'
1047-228	N00°13'38"W	2567.06'



FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

LOCATION SKETCH

NOT TO SCALE



ROAD NAME	BASIS OF EXISTING R/W	YEAR
17TH AVE	R/W PROJECT NO. 6999-01-04	1985
STH 52	R/W PROJECT NO. T05-3 (14)	1959
STH 52	R/W PROJECT NO. T020-2 (22)	1965
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921

CURVE 1
PISTA. 205+75.55WB
Y=201887.600
X=274879.223
DELTA= 27°57'30" LT.
T=575.55'
L=1128.17'
R=2312.00'

CURVE 2
PISTA. 204+81.46EB
Y=201866.000
X=274792.200
DELTA= 29°20'08" LT.
T=358.59'
L=701.44'
R=1370.00'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND REL[illegible] APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.02 AMENDMENT NO: 1
REMOVES UTILITY PARCEL NO: 200 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.02
RECORDED AS DOCUMENT NO: 1688150 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 2, MARATHON PARK ADDITION TO WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 26, AND PART OF THE NW 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SW-SW
SEC 26-29-7E

N

SCALE, FEET
0 50 100

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			TLE S.F.	SHEETS
			NEW	EXISTING	TOTAL		
2	MARATHON COUNTY	TLE	-	-	-	3204	4.01,4.03
-	---	---	-	-	-	----	
4	CREATIVE FINANCE GROUP	FEE/TLE	23	-	23	122	
-	---	---	-	-	-	----	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
201	FRONTIER COMMUNICATIONS OF WI LLC F/K/A VERIZON NORTH	RELEASE OF RIGHTS
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.02
AMENDMENT NO. 1

EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
201	DOC. # 537686	2
202	DOC. # 1633653	2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF MARATHON PARK ADDITION TO WAUSAU	1921
STH 52	R/W PROJECT NO. T020-2 (22)	1965

FOUND MAG NAIL
Y= 204,502.106
X= 275,970.102

FOUND CUT CROSS IN CONCRETE STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND BERNTSEN NAIL
Y= 199,238.522
X= 275,984.180

FOUND BRASS CAPPED MONUMENT STA 242+43.18EB, 14.59' RT
Y= 201,869.425
X= 278,566.497

MARATHON PARK ADDITION TO THE CITY OF WAUSAU

CITY OF WAUSAU

STEWART AVE / STH 52

12TH AVE | 11TH AVE | 10TH AVE | 9TH AVE | 8TH AVE

POT 16+25 Y=201,959.097 X=275,972.158
POT 26+00 Y=201,930.952 X=276,363.820
POT 36+00 Y=201,932.129 X=276,675.174
POT 46+00 Y=201,933.311 X=276,987.847
POT 56+00 Y=201,947.743 X=277,295.271
PI 55+74.24 Y=201,921.983 X=277,295.271
POT 14+25 Y=201,759.041 X=275,973.133
POT 216+46.05EB+ 15+00.00 12TH AVE Y=201,834.097 X=275,972.092
POT 216+49.12EB+ 15+00.00 ENT. Y=201,834.014 X=275,975.160
POT 220+39.11EB+ 25+00.00 11TH AVE Y=201,830.960 X=276,365.108
POT 223+50.25EB+ 35+00.00 10TH AVE Y=201,832.134 X=276,676.248
POT 226+62.23EB+ 45+00.00 9TH AVE Y=201,833.312 X=276,988.224
POT 229+80.43EB+ 55+00.00 8TH AVE Y=201,848.485 X=277,305.741

PC 217+22.69WB | PT 219+01.00WB | PC 217+25.46EB | PT 218+66.67EB | PISTA. 217+96.07EB
PC 227+67.50WB | PISTA. 228+88.02WB | PC 227+73.63EB | PISTA. 228+99.95EB
PI 230+08.03WB | PT 230+25.70EB

(CURVE 226-227)
L= 138.91'
DELTA = 0°43'32"
LC= 138.91'
LCB= N89°20'48"W
R= 4612.16'

L.H.E. FOR FILL SLOPES ACQUIRED BY DEED 576924 UNDER PROJECT T 020-2(22)

L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574803 UNDER PROJECT T 020-2(22)

L.H.E. FOR RETAINING WALL ACQUIRED BY DOC.#574806 UNDER PROJECT T 020-2(22)

TLE - DRIVEWAY 590 S.F.
TLE - SIDEWALK 122 S.F.
TLE - SLOPES 2357 S.F.
TLE - SIDEWALK 257 S.F.

LIMIT OF ACCESS CONTROL

* NOTE: 121 TO 225 NOT ON 1/16TH LINE

WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU

LOT 11

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1042-502	N00°04'47"W	36.93'
502-106	S85°11'58"E	83.70'
106-117	N89°50'55"E	893.62'
117-239	N49°19'52"E	9.74'
239-118	S84°08'03"E	60.34'
118-120	N89°50'55"E	132.00'
120-121	N85°20'44"E	120.37'
121-503	S00°15'39"E	39.15'
503-225	S00°15'39"E	60.13'
225-226	S89°47'26"W	1079.94'
227-228	N88°29'02"W	77.77'
228-1042	N00°13'38"W	57.01'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
502-105	S85°11'58"E	29.96'
105-106	S85°11'58"E	53.74'
106-107	N89°50'55"E	106.52'
107-108	N89°50'55"E	12.00'
108-109	N89°50'55"E	158.40'
109-110	N89°50'55"E	60.00'
110-111	N89°50'55"E	120.11'
111-112	N89°50'55"E	12.00'
112-113	N89°50'55"E	120.00'
113-114	N89°50'55"E	60.00'
114-115	N89°50'55"E	120.00'
115-116	N89°50'55"E	12.00'
116-117	N89°50'55"E	120.37'
118-119	N89°50'55"E	120.00'
119-120	N89°50'55"E	12.00'
1048-502	S00°04'47"E	2602.61'
1047-228	N00°13'38"W	2567.06'
1042-503	N89°50'55"E	1296.54'
1039-503	S89°50'55"W	1296.19'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1229	201894.19	276766.13	1" IRON PIPE

LOCATION SKETCH
NOT TO SCALE
R 7 E | R 8 E
T 29 N
T 28 N
SHEET LOCATION
CITY OF WAUSAU
WISCONSIN RIVER
BUS 51 | 51 | 52 | 29 | 39

NW-NW
SEC 35-29-7E

CURVE 3
PI STA. 217+96.07EB
Y=201830.042
X=276122.059
DELTA=1°45'54" LT.
T=70.61'
L=141.21'
R=4583.66'

CURVE 4
PI STA. 218+11.86WB
Y=201848.101
X=276137.760
DELTA=2°13'44" LT.
T=89.17'
L=178.31'
R=4583.66'

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR , HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIMPLE, MAYOR

WISCONSIN DUANE A. HOLMAN S-1294 BLOOMER WI LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5202-Amend No.1.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.02 AMENDMENT NO. 1

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.03 AMENDMENT NO: 2
AMENDS UTILITY PARCEL NO: 202 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.03 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1696913 FILED IN CAB 3 ENV 541A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 2, BLOCK 7, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE SE 1/4 OF THE SW 1/4, SECTION 26 AND PART OF LOT 10, BLOCK 12, A. WARREN JR'S. WEST ADDITION AND PART OF LOT 1, CSM NO. 15830, DOCUMENT NO. 1572954 BEING A PART OF LOT 11, BLOCK 11, A. WARREN JR'S. WEST ADDITION TO THE CITY OF WAUSAU, LOCATED IN THE NE 1/4 OF THE NW 1/4, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	R/W S.F. REQUIRED EXISTING	R/W S.F. REQUIRED TOTAL	TLE S.F.	SHEETS
2	MARATHON COUNTY	FEE/TLE	70	-	70	106	4.01,4.02
-	-	-	-	-	-	-	
-	-	-	-	-	-	-	
5	MICHAEL T. DODGE	TLE	-	-	-	181	
-	-	-	-	-	-	-	

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
202	WAUSAU COMMUNITY AREA NETWORK	RELEASE OF RIGHTS

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.03
AMENDMENT NO. 2

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAN OF A. WARREN JRS. WEST ADDITION TO THE CITY OF WAUSAU	1882
STH 52	R/W PROJECT NO. T020-2 (22)	1965

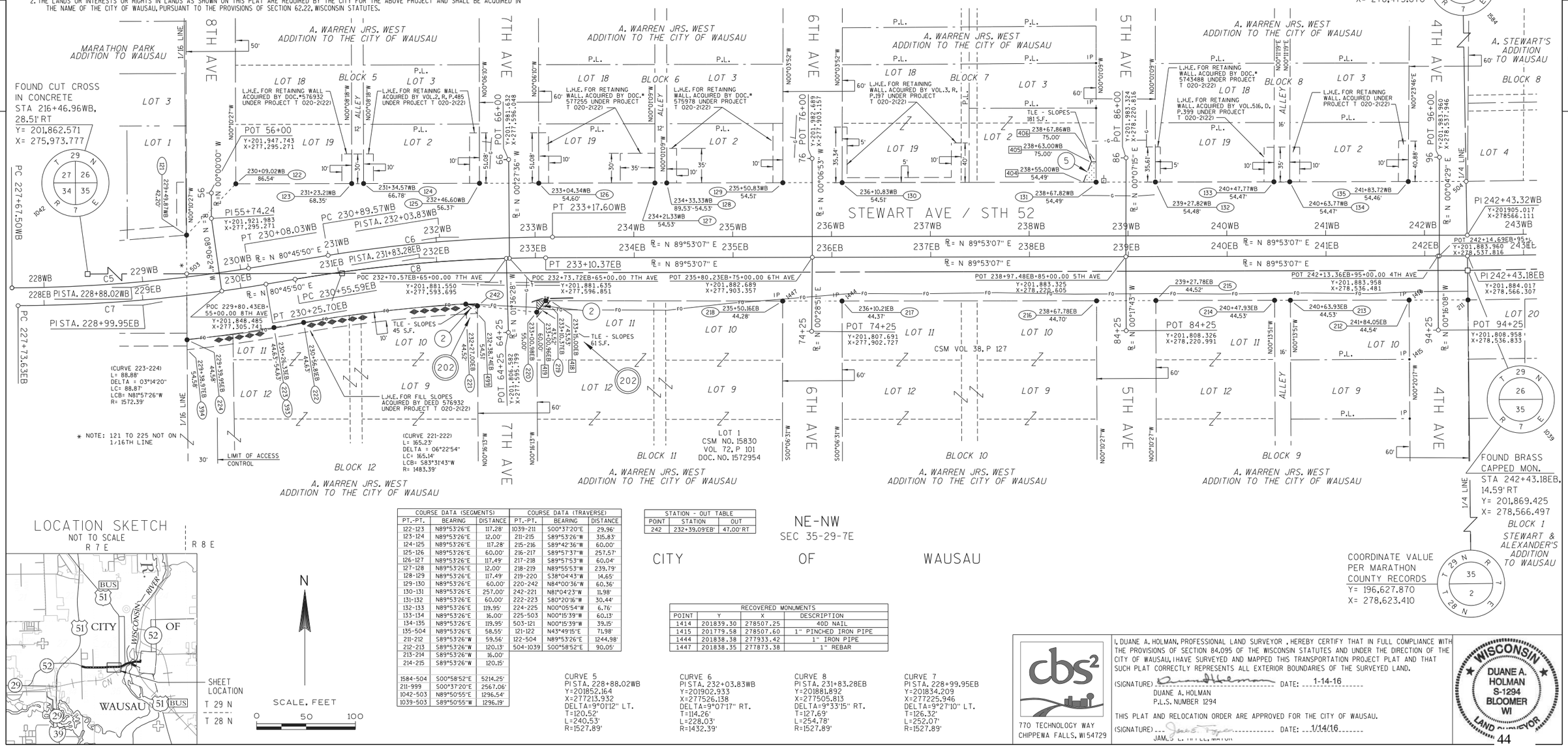
EASEMENT TABLE		
UTILITY	RECORDING INFORMATION	PARCEL
202	DOC.# 1633653	2

SE-SW
SEC 26-29-7E

CITY OF WAUSAU

FOUND CUT CROSS IN CONCRETE
STA 216+46.96WB, 28.51' RT
Y= 201,862.571
X= 275,973.777

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670



COURSE DATA (SEGMENTS)			COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
122-123	N89°53'26"E	117.28'	1039-211	S00°37'20"E	29.96'
123-124	N89°53'26"E	12.00'	211-215	S89°53'26"W	315.83'
124-125	N89°53'26"E	117.28'	215-216	S89°42'36"W	60.00'
125-126	N89°53'26"E	60.00'	216-217	S89°57'37"W	257.57'
126-127	N89°53'26"E	117.49'	217-218	S89°57'53"W	60.04'
127-128	N89°53'26"E	12.00'	218-219	N89°55'53"W	239.79'
128-129	N89°53'26"E	117.49'	219-220	S38°04'43"W	14.65'
129-130	N89°53'26"E	60.00'	220-242	N84°00'36"W	60.36'
130-131	N89°53'26"E	257.00'	242-221	N81°04'23"W	11.98'
131-132	N89°53'26"E	60.00'	222-223	S80°20'16"W	30.44'
132-133	N89°53'26"E	119.95'	224-225	N00°05'54"W	6.76'
133-134	N89°53'26"E	16.00'	225-503	N00°15'39"W	60.13'
134-135	N89°53'26"E	119.95'	503-121	N00°15'39"W	39.15'
135-504	N89°53'26"E	58.55'	121-122	N43°49'15"E	71.98'
211-212	S89°53'26"W	59.56'	122-504	N89°53'26"E	1244.98'
212-213	S89°53'26"W	120.13'	504-1039	S00°58'52"E	90.05'
213-214	S89°53'26"W	16.00'			
214-215	S89°53'26"W	120.15'			
1584-504	S00°58'52"E	5214.25'			
211-999	S00°37'20"E	2567.06'			
1042-503	N89°50'55"E	1296.54'			
1039-503	S89°50'55"W	1296.19'			

STATION - OUT TABLE		
POINT	STATION	OUT
242	232+39.09'EB'	47.00'RT

NE-NW
SEC 35-29-7E

CITY OF WAUSAU

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1414	201839.30	278507.25	40D NAIL
1415	201779.58	278507.60	1" PINCHED IRON PIPE
1444	201838.38	277933.42	1" IRON PIPE
1447	201838.35	277873.38	1" REBAR

LOCATION SKETCH
NOT TO SCALE

CURVE 5
PI STA. 228+88.02WB
Y=201852.164
X=277213.932
DELTA=9°01'12" LT.
T=120.52'
L=240.53'
R=1527.89'

CURVE 6
PI STA. 232+03.83WB
Y=201902.933
X=277526.138
DELTA=9°07'17" RT.
T=114.26'
L=228.03'
R=1432.39'

CURVE 8
PI STA. 231+83.28EB
Y=201881.892
X=277505.813
DELTA=9°33'15" RT.
T=127.69'
L=254.78'
R=1527.89'

CURVE 7
PI STA. 228+99.95EB
Y=201834.209
X=277225.946
DELTA=9°27'10" LT.
T=126.32'
L=252.07'
R=1527.89'

cbs²
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIFFANY, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5203-Amend No.2.dgn
APPRAISAL PLAT DATE: --/--/20--
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.03 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.04 AMENDMENT NO: 2
REMOVES UTILITY PARCEL NO: 200,202,203 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.04 AMENDMENT NO. 1
RECORDED AS DOCUMENT NO: 1689206 FILED IN CAB 3 ENV 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, BLOCK 9 AND LOT 4, BLOCK 8, A. STEWART'S ADDITION TO WAUSAU AND PART OF LOT 1, CSM NO. 2663, DOCUMENT NO. 770570 BEING A PART LOT 1, BLOCK 1, A. STEWART'S SECOND ADDITION TO WAUSAU, IN AND INCLUDING GOVERNMENT LOT 4, SECTION 26, AND PART OF LOT 1, BLOCK 1, STEWART & ALEXANDER'S ADDITION TO WAUSAU, AND LOT 1, BLOCK 3, STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU LOCATED IN GOVERNMENT LOT 1, SECTION 35, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT #_____ AND FILED IN _____

_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.04
AMENDMENT NO. 2

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1002	201959.54	278566.41	3/4" REBAR
1003	201962.78	278791.90	MAG NAIL
1004	201967.41	278866.06	2"IRON PIPE (BENT)
1013	202061.57	279691.96	1" IRON PIPE
1014	202085.87	279227.28	1" IRON PIPE
1015	202117.26	279287.35	1" IRON PIPE
1016	202172.13	279287.28	1" IRON PIPE
1017	202238.24	279287.18	1" IRON PIPE
1083	201911.24	279279.68	3/4" REBAR
1085	202382.81	279803.54	3/4" REBAR W/ YELLOW CAP
1086	202381.97	279742.37	1" IRON PIPE

FOUND SURVEY MARKER PIN
Y= 207,172.940
X= 278,475.670

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER I687902.

COURSE DATA (TRAVERSE)		
PT.-PT.	BEARING	DISTANCE
1039-504	N00°58'52"W	90.05'
504-136	N87°04'59"E	1.45'
136-137	N89°10'41"E	221.50'
137-138	N44°37'00"E	5.70'
138-139	N84°22'30"E	75.37'
139-140	N88°54'50"E	35.32'
140-141	N77°38'07"E	86.90'
141-142	N72°46'14"E	125.87'
142-143	N62°48'07"E	67.49'
143-144	N67°55'50"E	64.67'
144-145	N62°24'39"E	67.78'
145-1016	N00°04'31"W	54.87'
1016-146	N00°05'00"W	66.10'
146-149	N88°56'43"E	171.66'
149-150	N44°28'29"E	13.71'
150-151	N00°02'08"E	129.39'
151-153	N89°42'34"E	79.75'
153-154	S00°18'26"E	35.61'
154-155	S55°17'26"E	44.55'
155-156	N71°21'06"E	133.40'
156-157	N00°17'26"W	19.15'
157-1086	N89°41'43"E	31.01'
1086-158	N89°12'31"E	61.18'
158-505	N80°52'56"E	34.97'
505-197	S00°31'48"E	165.48'
198-199	S00°01'49"W	11.50'
199-231	S89°42'34"W	40.93'
232-233	S44°09'48"W	23.35'
233-241	S07°04'03"W	19.58'
241-235	S00°12'56"W	90.00'
235-236	S90°00'00"W	63.50'
236-238	N07°54'31"W	68.84'
238-200	S57°46'12"W	411.02'
200-201	N00°03'18"E	27.24'
202-203	S89°06'01"W	31.52'
203-204	S69°02'25"W	16.47'
204-205	S00°03'49"W	40.52'
205-206	S90°00'00"W	60.00'
206-207	N04°32'26"W	16.30'
207-208	N45°08'36"W	40.42'
208-211	S89°06'01"W	210.02'
211-1039	N00°37'20"W	29.96'

COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE
146-147	N88°56'43"E	60.42
147-148	N88°56'43"E	12.00'
148-149	N88°56'43"E	99.24'
151-152	N89°42'34"E	65.15'
152-153	N89°42'34"E	14.60'
233-234	S00°12'56"W	55.11'
234-235	S00°12'56"W	55.22'
236-237	N07°54'31"W	13.97'
237-238	N07°54'31"W	54.87'
208-209	S89°06'01"W	85.00'
209-210	S89°06'01"W	10.00'
210-211	S89°06'01"W	115.02'
1584-504	S00°58'52"E	5214.25'
211-999	S00°37'20"E	2567.06'
1039-1035	N89°00'44"E	2552.41'

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1087	202362.67	279711.48	2" IRON PIPE
1088	202319.99	279585.03	1" IRON PIPE
1089	202345.41	279548.43	1" IRON PIPE
1090	202381.12	279548.44	1" IRON PIPE
1091	202380.89	279533.65	1" IRON PIPE
1092	202026.77	279464.36	CHISLED CROSS IN WALK

STATION - OUT TABLE		
POINT	STATION	OUT
205	104+09.16	30.29'RT
206	104+09.16	29.71' LT
417	244+25.00	44.72'RT

FOUND BRASS CAPPED MON. STA 242+43.18EB, 14.59'RT
Y= 201,869.425
X= 278,566.497

COORDINATE VALUE PER MARATHON COUNTY RECORDS
Y= 196,627.870
X= 278,623.410

FOUND BRASS CAP MONUMENT
Y= 201,913.426
X= 281,118.827

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	PLAT OF A. STEWART'S ADDITION TO WAUSAU	1874
STH 52	STEWART & ALEXANDER'S ADDITION TO WAUSAU	1882
STH 52	STEWART & ALEXANDER'S SECOND ADDITION TO WAUSAU	1893
STH 52	R/W PROJECT NO. T 05-3 (38)	1965
STH 52	C.S.M.* 4-63	1993
STH 52	C.S.M.* 10-136	1980
STH 52	C.S.M.* 23-53	1990
STH 52	C.S.M.* 34-167	1994
STH 52	C.S.M.* 50-119	2001

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
7	WAUSAU 308 STEWART WI	FEE,TLE	8	-	8	-	65
8	WCMR HOLDING COMPANY	TLE	-	-	-	-	483
-	-	-	-	-	-	-	-
10	CHAD SCHWENDEMAN	TLE	-	-	-	-	42
11	PANG XIONG	FEE/TLE	10	-	10	-	804
12	GLEN M. WITTER	FEE/TLE	58	-	58	-	626
13	WISCONSIN CENTRAL LTD.	HE/TLE	-	-	-	437	1769
14	CITY OF WAUSAU	TLE	-	-	-	-	551

(CURVE 197-198)
L= 132.45'
DELTA = 13°54'09"
LC= 132.13'
LCB= S83°13'15"W
R= 545.88'

(CURVE 231-232)
L= 133.67'
DELTA = 14°01'48"
LC= 133.34'
LCB= S64°47'06"W
R= 545.88'

(CURVE 201-202)
L= 198.74'
DELTA = 11°46'45"
LC= 198.39'
LCB= S77°12'59"W
R= 966.70'

CURVE 9
PI STA. 247+44.89EB
Y=201892.373
X=279067.946
DELTA= 31°13'29" LT.
T=256.17'
L=499.59'
R=916.73'

CURVE 10
PI STA. 247+39.00WB
Y=201913.272
X=279061.729
DELTA= 31°13'29" LT.
T=320.21'
L=624.50'
R=1145.92'

CURVE 11
PI STA. 254+54.21WB
Y=202302.650
X=279680.550
DELTA= 23°04'45" RT.
T=184.93'
L=364.84'
R=905.75'

CURVE 12
PI STA. 257+15.56EB
Y=202416.102
X=279900.291
DELTA= 57°21'37" RT.
T=434.39'
L=794.98'
R=794.09'

LOCATION SKETCH
NOT TO SCALE
R 7 E
R 8 E
T 29 N
T 28 N
SHEET LOCATION
BUS 51
51 CITY OF WAUSAU
WISCONSIN RIVER
52
29
39
CN

SCALE, FEET
0 50 100

cbs2
770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 1-14-16
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: 1/14/16
JAMES E. TIPPLE, MAYOR

WISCONSIN
DUANE A. HOLMAN
S-1294
BLOOMER
WI
LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5204-Amend No 2.dgn
APPRAISAL PLAT DATE: -_-_-20__
PLOT DATE : 1/14/2016
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.04 AMENDMENT NO. 2

TRANSPORTATION PROJECT PLAT NO: 6999-03-28 - 4.05 AMENDMENT NO: 1
ADDS PARCEL NO: 16 OF TRANSPORTATION PROJECT PLAT 6999-03-28 - 4.05
RECORDED AS DOCUMENT NO: 1688153 FILED IN CAB 3 PG 540A

C WAUSAU, HIGHWAY 52 (17TH AVENUE TO FIRST STREET)

PART OF LOT 1, CSM NO. 15368, DOCUMENT NO. 15368 BEING A PART OF LOT 1, BLOCK 6, ORIGINAL PLAT OF THE CITY OF WAUSAU, LOCATED IN THE SW 1/4 OF THE SW 1/4, SECTION 25, PART OF CSM VOL.2, P.62, LOCATED IN GOVERNMENT LOT 6, SECTION 26, ALL IN TOWNSHIP 29 NORTH, RANGE 7 EAST, CITY OF WAUSAU, MARATHON COUNTY, WISCONSIN.

RELOCATION ORDER STH 52, MARATHON COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF WAUSAU DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF WAUSAU

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF WAUSAU, PURSUANT TO THE PROVISIONS OF SECTION 62.22, WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W S.F. REQUIRED			H.E. S.F.	TLE S.F.
			NEW	EXISTING	TOTAL		
15	MARATHON COUNTY DEVELOPMENT, INC.	TLE	-	-	-	-	95
16	ONE WORLD INN, LLC.	TLE	-	-	-	-	455

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY, WISCONSIN AT ..:.. .M ON _____ AS DOCUMENT *_____ AND FILED IN _____

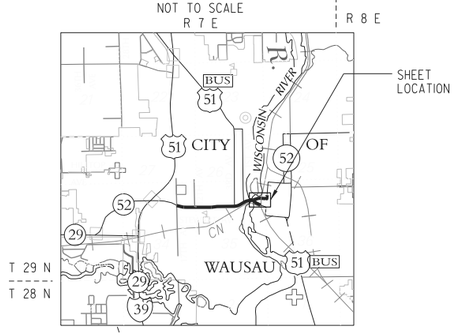
_____
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6999-03-28-4.05
AMENDMENT NO. 1

ROAD NAME	BASIS OF EXISTING R/W	YEAR
STH 52	ORIGINAL PLAT OF THE CITY OF WAUSAU	1852
STH 52	R/W PROJECT NO. 6999-01-57	1994
STH 52	R/W PROJECT NO. 6999-00-22	2003
STH 52	R/W PROJECT NO. T 05-3(38)	1965
STH 52	CSM VOL 54, P 93	2002
STH 52	CSM VOL 62, P 107	2005
STH 52	CSM VOL 69, P 110	2008
STH 52	CSM VOL 53, P 44	2002
STH 52	CSM VOL 2, P 62	1969
STH 52	CSM VOL 50, P 119	2001

RECOVERED MONUMENTS			
POINT	Y	X	DESCRIPTION
1482	202500.98	281235.11	CHISLED CROSS IN WALK
1485	202531.04	280890.13	3/4" REBAR
1486	202531.51	280885.55	1" IRON PIPE
1487	202530.12	280902.07	1 1/4" REBAR
1490	202622.91	281245.56	CHISLED CROSS IN WALK
1493	202117.26	279287.35	IP W/ WisDOT YELLOW CAP
1016	202172.13	279287.28	1" IRON PIPE

LOCATION SKETCH
NOT TO SCALE



COURSE DATA (TRAVERSE)			COURSE DATA (SEGMENTS)		
PT.-PT.	BEARING	DISTANCE	PT.-PT.	BEARING	DISTANCE
507-179	N84°50'50"W	329.39'	171-173	S04°54'55"W	310.68'
179-180	N81°55'12"W	29.76'	173-174	S04°44'25"W	66.00'
181-182	S72°12'04"W	122.23'	174-175	N84°59'43"W	70.50'
183-184	S13°33'03"W	42.06'	175-507	N84°50'50"W	41.46'
184-185	S29°05'49"E	123.06'	167-168	N85°00'35"E	90.47'
185-186	S50°16'16"E	78.81'	168-506	N85°00'35"E	233.37'
186-187	S66°20'49"E	177.82'	506-169	N85°00'35"E	51.51'
187-243	S02°14'23"E	73.02'	171-172	S04°54'55"W	66.00'
243-188	N67°19'49"W	18.15'	172-173	S04°54'55"W	244.68'
188-189	N66°20'49"W	300.58'	507-178	N84°50'50"W	242.46'
189-190	S48°41'29"W	11.03'	178-179	N84°50'50"W	86.93'
190-191	N17°40'22"W	93.23'			
191-192	N60°54'13"E	42.38'	1035-507	N00°04'29"W	531.66'
192-193	N29°05'47"W	73.59'	507-506	N00°04'29"W	66.18'
193-194	N66°18'49"W	37.90'	506-1481	N00°04'29"W	2031.83'
194-191	S18°28'37"E	105.58'			
191-190	S17°40'22"E	93.23'			
190-196	N84°52'42"W	259.81'			
197-505	N00°31'48"W	165.48'			
505-159	N80°52'56"E	125.34'			
159-161	N84°04'00"E	216.00'			
161-162	N60°03'08"E	49.52'			
162-163	S11°34'11"E	17.09'			
164-165	N72°12'04"E	122.23'			
166-167	N88°45'02"E	31.34'			
167-169	S85°00'35"E	375.35'			
169-170	N04°54'55"E	312.33'			
170-171	S83°31'46"E	66.02'			

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN MARATHON COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1687902.

(CURVE 163-164)
L= 68.48'
DELTA = 06°08'24"
LC= 68.44'
LCB= N75°16'16"E
R= 638.99'

(CURVE 165-166)
L= 363.47'
DELTA = 21°08'38"
LC= 361.41'
LCB= N82°46'23"E
R= 984.93'

(CURVE 180-181)
L= 341.33'
DELTA = 21°08'39"
LC= 339.40'
LCB= S82°46'23"W
R= 924.93'

(CURVE 182-183)
L= 14.95'
DELTA = 1°13'33"
LC= 14.90'
LCB= S73°20'19"W
R= 698.99'

(CURVE 196-197)
L= 173.85'
DELTA = 18°14'52"
LC= 173.12'
LCB= N80°42'14"W
R= 545.88'

CURVE 11	CURVE 12	CURVE 13	CURVE 14	CURVE 15
PI STA. 254+54.21WB	PI STA. 257+15.56EB	PI STA. 260+30.26WB	PI STA. 136+69.55	PI STA. 263+93.85WB
Y=202302.650	Y=202416.102	Y=202394.550	Y=202363.800	Y=202504.420
X=279680.550	X=279900.291	X=280254.300	X=280242.370	X=280601.090
DELTA= 23°04'45" RT.	DELTA= 57°21'37" RT.	DELTA=8°28'45" LT.	DELTA= 52°47'50" RT.	DELTA= 22°18'44" RT.
T=184.93'	T=434.39'	T=49.67'	T=29.78'	T=183.40'
L=364.84'	L=794.98'	L=99.15'	L=55.29'	L=362.16'
R=905.75'	R=794.09'	R=670.00'	R=60.00'	R=930.00'

STATION - OUT TABLE		
POINT	STATION	OUT
174	270+20.99	38.25'RT
175	269+50.50	37.23'RT

3/4" IRON ROD
Y= 204,543.089
X= 281,115.397

FOUND BRASS CAP MONUMENT
Y= 201,913.426
X= 281,118.827

CSM VOL 50, P 119 — CSM VOL 2, P. 62 — CSM VOL 27, P 151 — CSM VOL 71, P 150 — CSM VOL 3, P 221

LOT 1 CSM VOL 62, P 107 — LOT 1 CSM NO. 14100 VOL. 62, P 107 DOC. NO. 1427681 — LOT 1 CSM NO. 13057 VOL. 56, P 184 DOC. NO. 1347484 — LOT 1 CSM NO. 15368 VOL. 69, P 110 DOC. NO. 1525643 — LOT 1 CSM NO. 12585 VOL. 54, P 93 DOC. NO. 1292683

BLOCK 5 OF ORIGINAL PLAT OF THE CITY OF WAUSAU — BLOCK 4 OF ORIGINAL PLAT OF THE CITY OF WAUSAU — BLOCK 6 OF ORIGINAL PLAT OF THE CITY OF WAUSAU — BLOCK 7 OF ORIGINAL PLAT OF THE CITY OF WAUSAU

GOV'T LOT 4 SEC 26-29-7E — GOV'T LOT 6 SEC 26-29-7E

WISCONSIN CENTRAL LTD. — WISCONSIN RIVER — CENTRAL — SCOTT STREET — WASHINGTON STREET — MCCLELLAN STREET — FIRST STREET — SW-SW SEC 25-29-7E

TLE - DRIVEWAY 455 S.F. — TLE - SLOPES 95 S.F.

VACATED SHINGLE STREET — LTD.

770 TECHNOLOGY WAY
CHIPPEWA FALLS, WI 54729

I, DUANE A. HOLMAN, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF WAUSAU, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6999-03-28-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

(SIGNATURE) _____ DATE: 6-17-15
DUANE A. HOLMAN
P.L.S. NUMBER 1294

THIS PLAT IS APPROVED FOR THE CITY OF WAUSAU.

(SIGNATURE) _____ DATE: _____
JAMES E. TIPPLE, MAYOR

WISCONSIN DUANE A. HOLMAN S-1294 BLOOMER WI LAND SURVEYOR

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\RDSTH5205-Amend No.1.dgn
APPRAISAL PLAT DATE: _-_-20__
PLOT DATE : 6/30/2015
PLOT BY : $$...plotuser...$$ PLOT NAME :
6999-03-28-4.05 AMENDMENT NO. 1

BENCHMARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
18	11+47.67, 31.9' LT	ARROW ON FLANGE OF HYDRANT. NW QUAD N 1ST ST AND SCOTT ST	1208.34
19	267+11.64 WB, 42.0' LT	BRASS ON. ON NE SIDE STH 52 BRIDGE OVER WISCONSIN RIVER. APPROX. 65' SW OF MIRON BUILDING	1212.59

CITY OF WAUSAU

STA 269+88.36 WB STH 52 (SCOTT STREET) =
STA 10+98.97 1ST STREET
SEE INTERSECTION DETAIL

CITY OF WAUSAU
(STREET LIGHTING)

SLOPE INTERCEPTS (TYP)

FRONTIER COMMUNICATIONS
(3'X4' DUCT W/FIBER OPTIC
& COPPER FACILITIES)

PI 269+49.92
Y=202478.533
X=281161.560

BM 18

N 4°52'01" E

12+00

STH 52
(1ST STREET)

22.0'

22.0'

STA 269+88.96 WB STH 52 (SCOTT STREET) BK =
STA 10+98.97 STH 52 (1ST STREET) AH

PI 270+29.07
Y=202472.762
X=281240.498

WPSC

N

BM 19

B-37-203

267+16 WB

268+00 WB

269+00 WB

270+00 WB

SCOTT STREET

S 84°53'34" E

S 85°49'09" E

S 85°13'16" E

+31.20

14.0'

22.0'

STH 52 (SCOTT STREET)

CAUTION

266+00 WB

267+00 WB

S 85°16'01" E

22.0'

22.0'

END CONSTRUCTION
END CONCRETE PAVEMENT
STA 270+28.44
SAWCUT REQ'D
MATCH EXISTING

BEGIN PROJECT
6999-03-81
STA 267+15.53 WB
MATCH EXISTING BRIDGE
Y= 202499.398
X= 280928.102

CONCRETE PAVEMENT
APPROACH SLAB REQ'D

FRONTIER COMMUNICATIONS
(3'X4' DUCT W/FIBER OPTIC
& COPPER FACILITIES)

WPSC

SEE INTERSECTION DETAILS
FOR SIDEWALK PAVER LOCATIONS (TYP)

END HMA PAVEMENT
BEGIN CONCRETE PAVEMENT
STA 10+55.26

BEGIN CONSTRUCTION
BEGIN HMA PAVEMENT
STA 10+46.39
SAWCUT REQ'D
MATCH EXISTING

NET LEC

WPSC

CHARTER COMMUNICATIONS

1ST STREET

10+00

N 4°58'49" E

CITY OF WAUSAU

5

5

220' VC
K = 29.86

PVC STA 267+30.00
PVC EL 1211.09

PVI STA 267+15.53
PVI EL 1211.96

-6.01%

EXISTING ℄ PROFILE

PVI STA 268+40.00
PVI EL 1204.48

EXISTING ℄ PROFILE

PVT STA 269+50.00
PVT EL 1205.97

1.36%

PVI STA 270+28.43
PVI EL 1207.03

EXISTING ℄ ELEVATIONS

PROPOSED ℄ ELEVATIONS

1218.7	1215.9	1212.8	1209.7 / 1209.95	1207.5 / 1207.69	1206.5 / 1206.27	1205.7 / 1205.69
1206.0 / 1205.96	1206.7 / 1206.64	1207.4				

1230 1225 1220 1215 1210 1205 1200 1195

266+00 267+00 268+00 269+00 270+00 271+00

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 47	E

BENCHMARK TABLE			
NO.	STATION	DESCRIPTION	ELEVATION
18	11+47.67, 31.9' LT	ARROW ON FLANGE OF HYDRANT. NW QUAD N 1ST ST AND SCOTT ST	1208.34

SEE INTERSECTION DETAILS FOR SIDEWALK PAVER LOCATIONS (TYP)

END HMA PAVEMENT
BEGIN CONCRETE PAVEMENT
STA 10+55.26

CHARTER COMMUNICATIONS
NET LEC
WPSC
CITY OF WAUSAU (STREET LIGHTING)

22.0' 14.0'
269+00 WB
STH 52 (SCOTT STREET)
S 85°49'09" E
270+00 WB
S 85°13'16" E
SCOTT ST

STA 269+88.36 WB STH 52 (SCOTT STREET) =
STA 10+98.97 1ST STREET

PI 269+49.92
Y=202478.533
X=281161.560

BM 18

1ST STREET
10+00
N 4°58'49" E
22.0'

STH 52 (1ST STREET)
12+00
N 4°52'01" E
13+00
14+00
15+00
N 6°28'14" E
21.5'

PI 13+63.69
Y=202739.456
X=281222.956

SLOPE INTERCEPTS (TYP)

PI 270+29.07
Y=202472.762
X=281240.498

STA 269+88.96 WB STH 52 (SCOTT ST) BK =
STA 10+98.97 STH 52 (1ST STREET) AH

CITY OF WAUSAU
FRONTIER COMMUNICATIONS (3"X4" DUCT W/FIBER OPTIC & COPPER FACILITIES)

+58.8
+73.2
38.8' RT

BEGIN CONSTRUCTION
BEGIN HMA PAVEMENT
STA 10+46.39
SAWCUT REQ'D
MATCH EXISTING

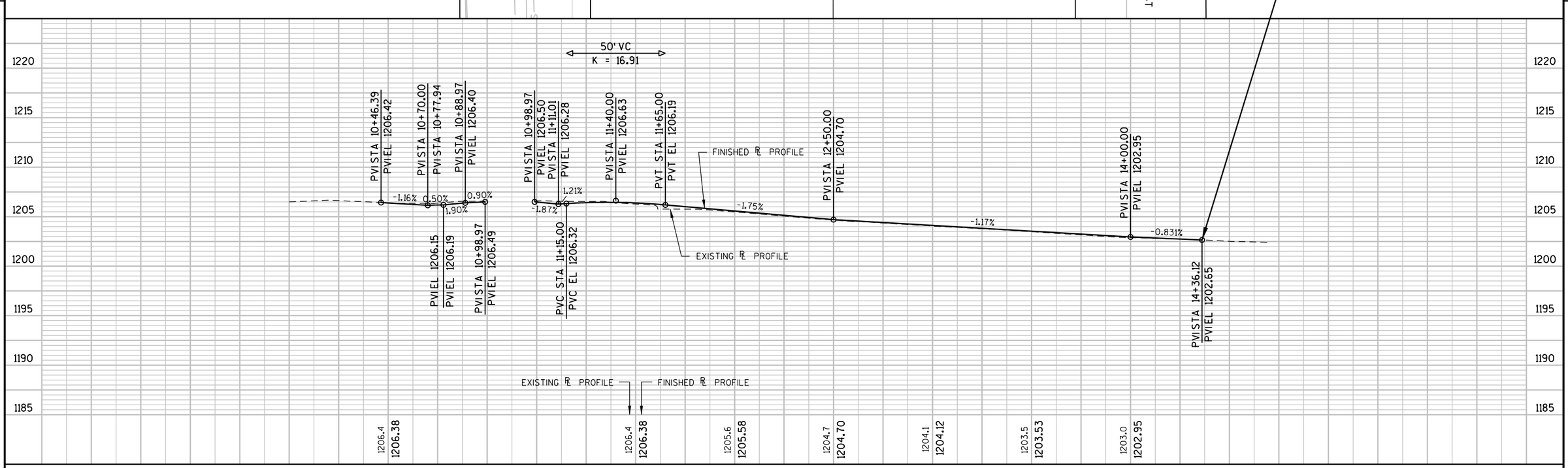
END CONSTRUCTION
END CONCRETE PAVEMENT
STA 270+28.44
SAWCUT REQ'D
MATCH EXISTING

END CONSTRUCTION
END CONCRETE PAVEMENT
STA 14+04.37, 44.4' RT
SAWCUT REQ'D
MATCH EXISTING

MCCLELLAN ST

END PROJECT
6999-03-81
STA 14+36.12
SAWCUT REQ'D
MATCH EXISTING

5

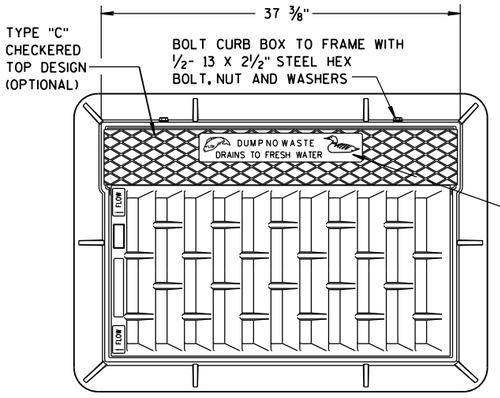


PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	PLAN AND PROFILE	SHEET 48	E

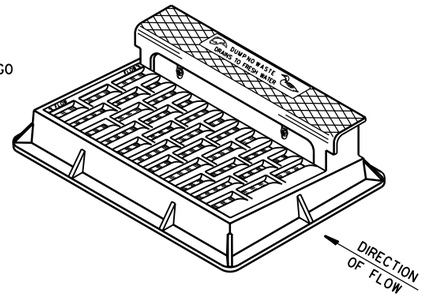
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
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
08E10-02	INLET PROTECTION TYPE A, B, C AND D
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09F05-04	LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)
09F08-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
09F09-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
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)
15C19-03B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-03C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C29-03A	BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C29-03F	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-03	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS

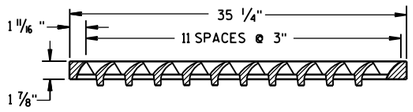
6

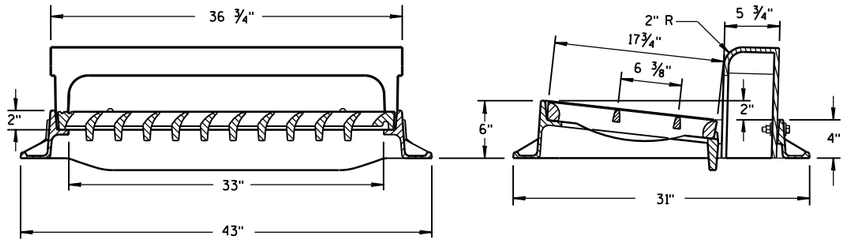


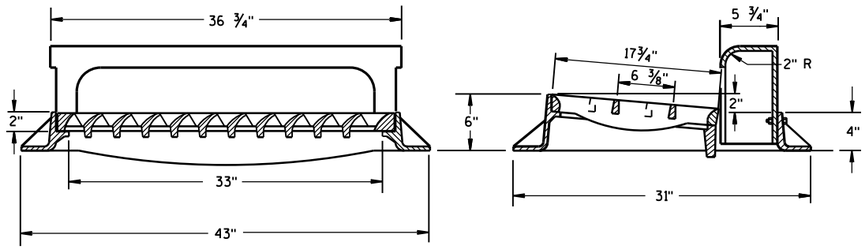
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

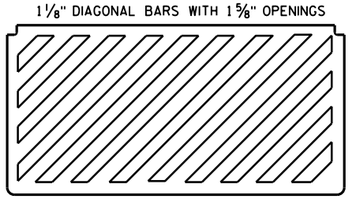






TYPE "H"

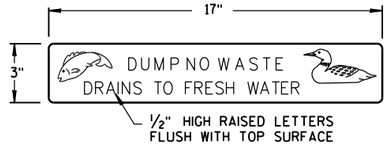
NOTE: EITHER CASTING IS ACCEPTABLE



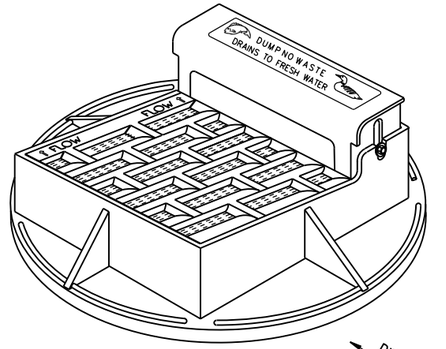
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

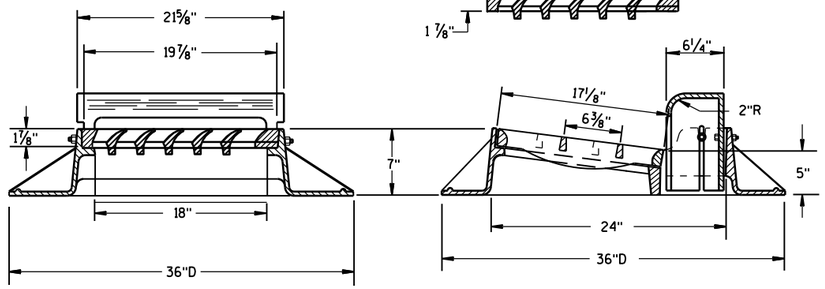


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



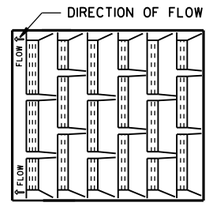
TYPE "A"

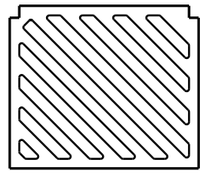
GENERAL NOTES

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

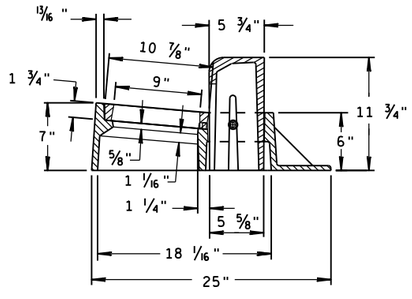


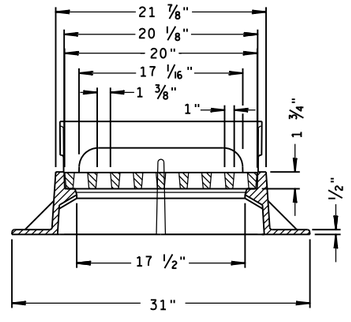


SPECIAL GRATE FOR TYPE "A" COVER

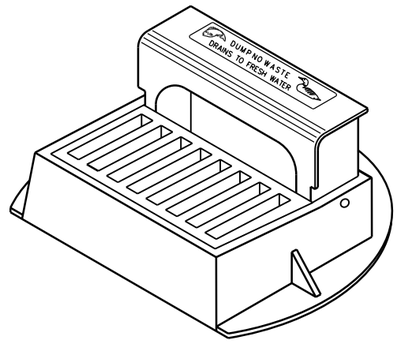
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



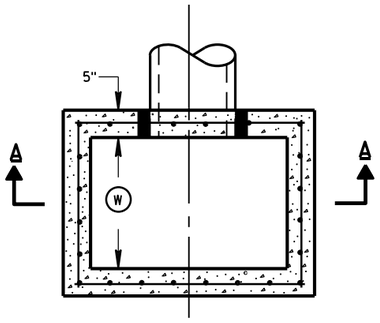
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

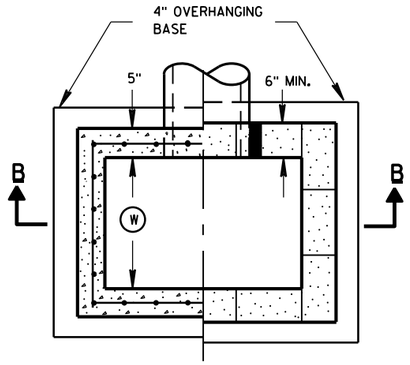
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

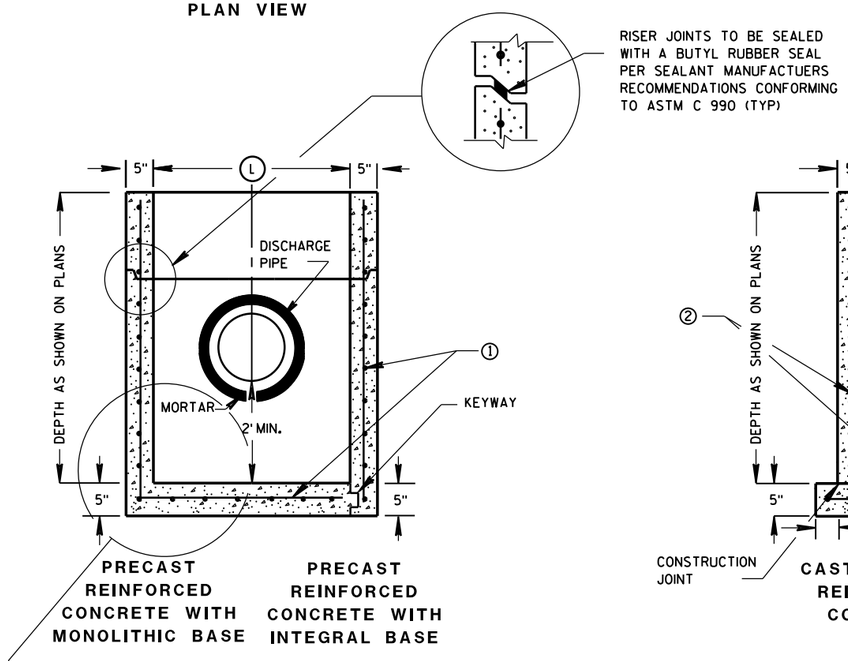
S.D.D. 8 A 5-19a



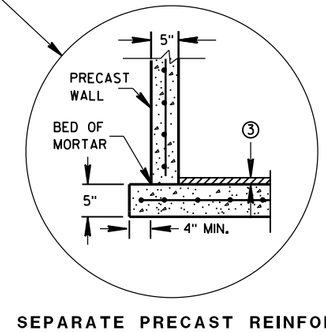
PLAN VIEW



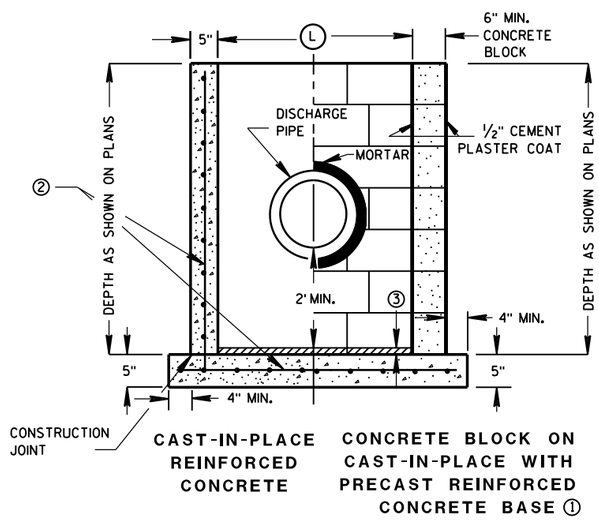
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST CATCH BASIN UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

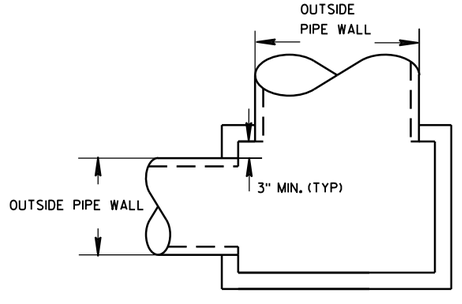
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

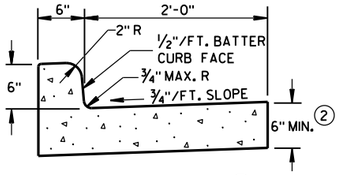
CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS 2X3-FT AND 2.5X3-FT

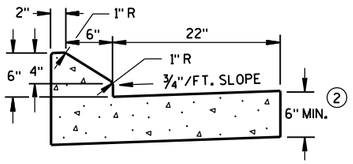
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA
NT

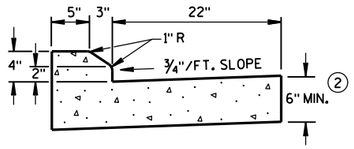
6
S.D.D. 8 A 9-1



TYPES A & D ①

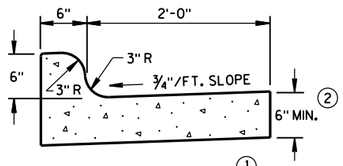


6" SLOPED CURB TYPES G & J ①

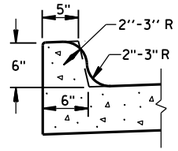


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

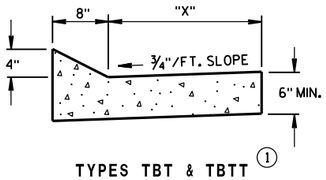


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

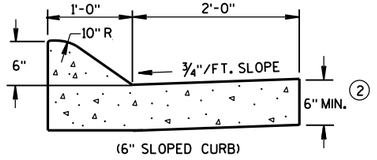
CONCRETE CURB & GUTTER 30"



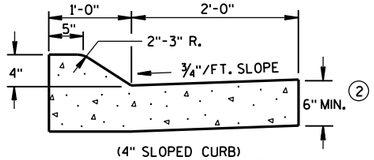
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

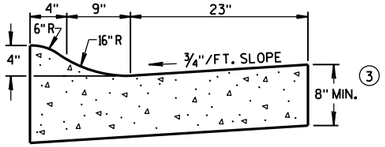


(6" SLOPED CURB)



(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.

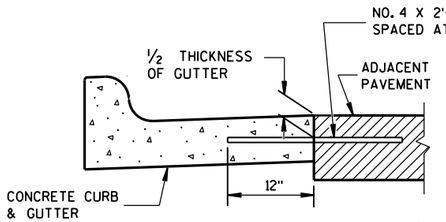
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

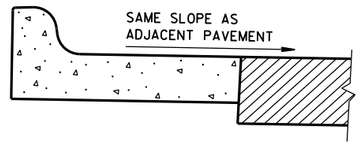
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

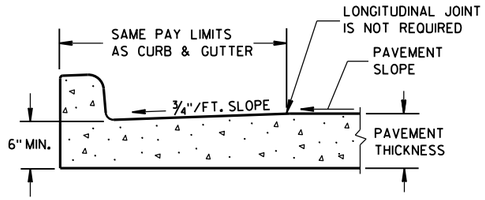
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



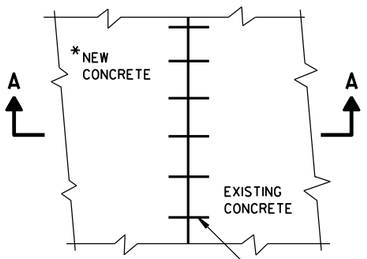
TYPICAL TIE BAR LOCATION ①



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

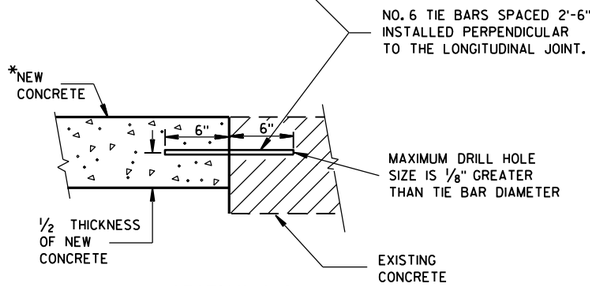


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



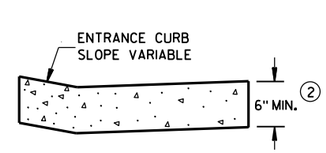
PLAN VIEW

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

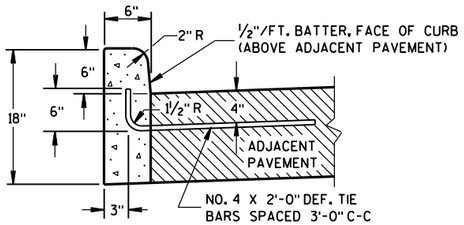


SECTION A-A

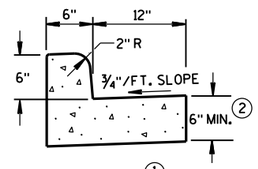
TIE BARS DRILLED
INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

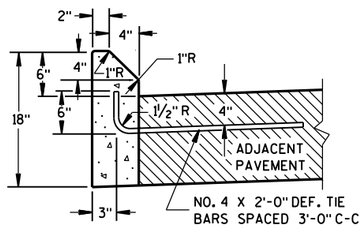


① TYPES A & D

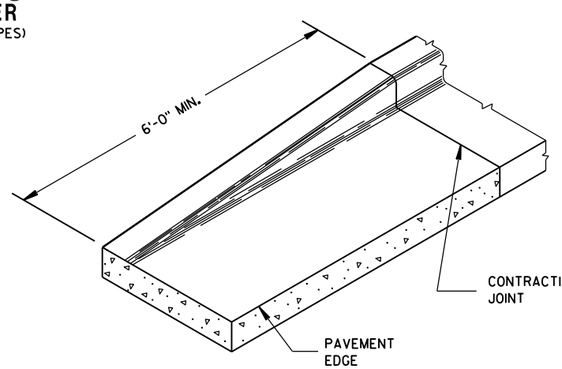


① TYPES A & D

CONCRETE CURB & GUTTER 18"



① TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

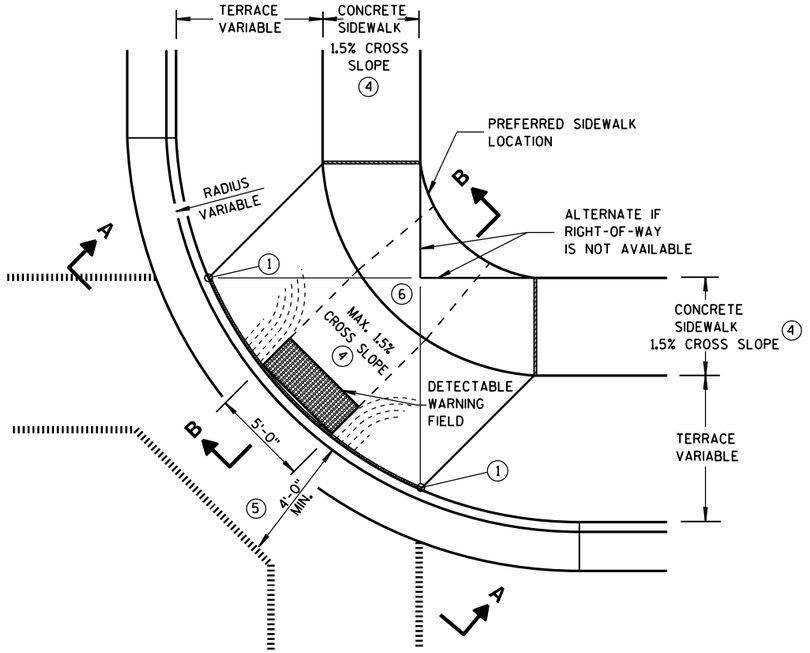
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

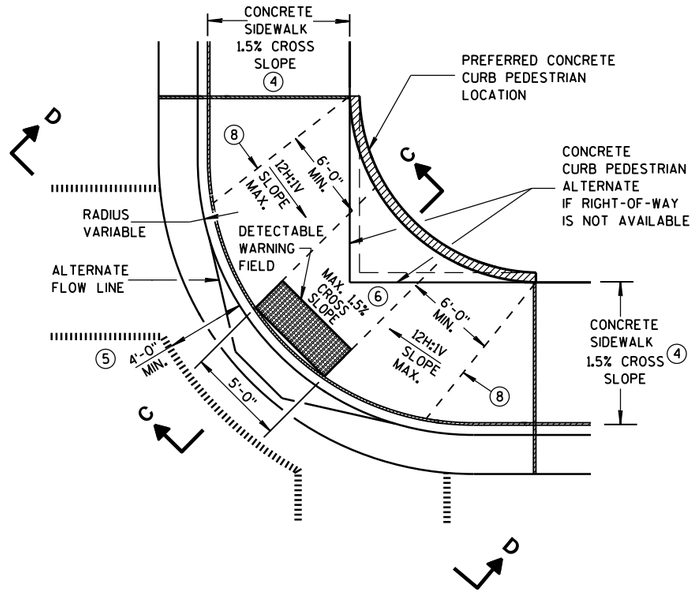
S.D.D. 8 D 1-18



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.

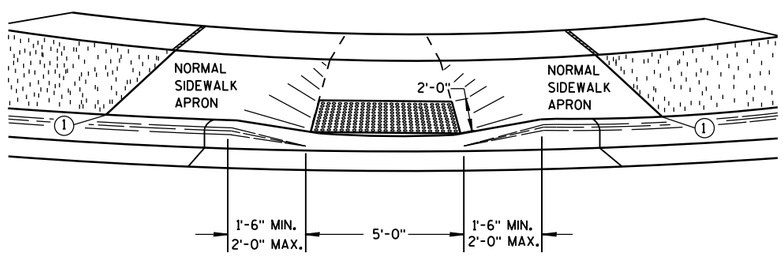
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(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.

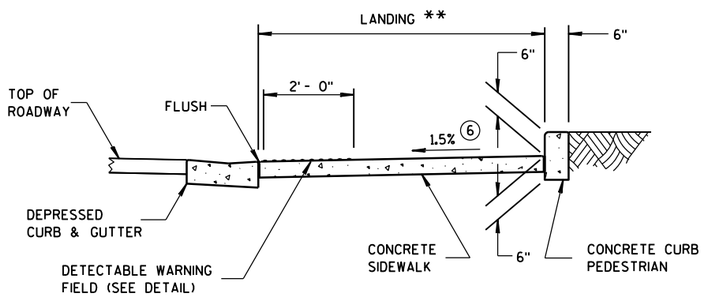
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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



VIEW A-A

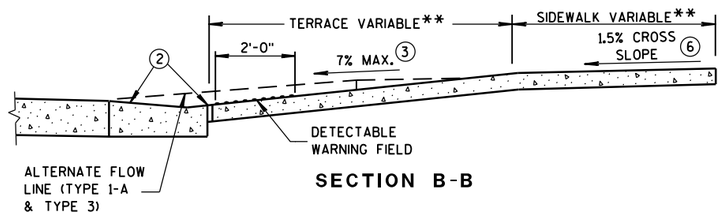
** WIDTH SHOWN ELSEWHERE IN THE PLANS



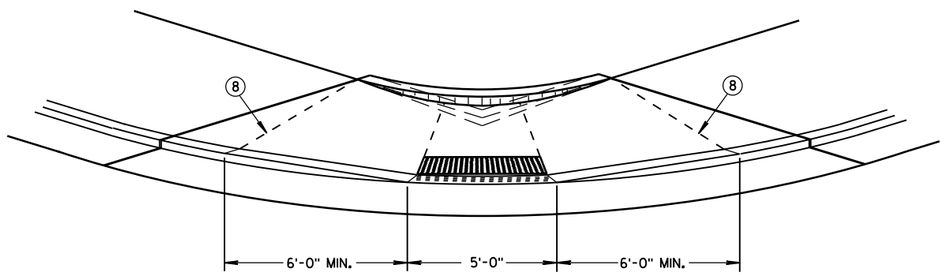
SECTION C-C

LEGEND

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



SECTION B-B



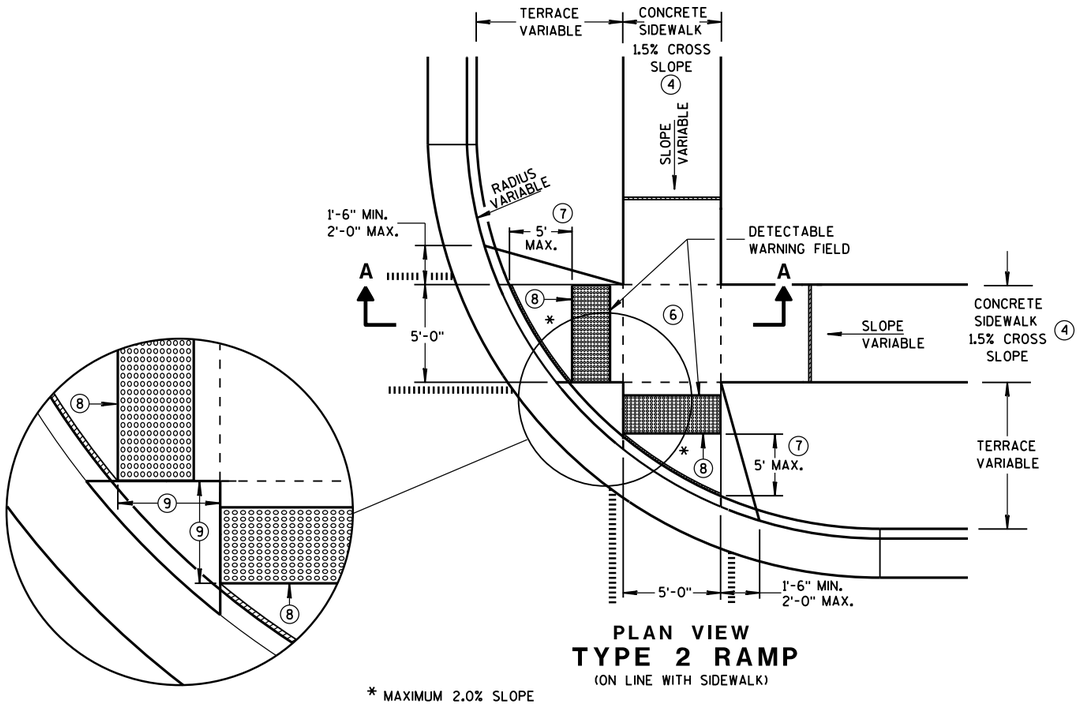
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

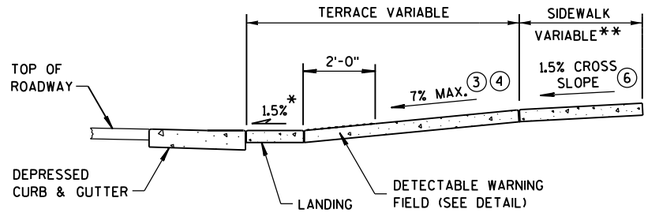


PLAN VIEW

TYPE 2 RAMP

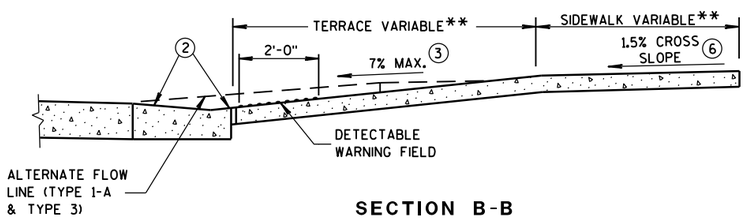
(ON LINE WITH SIDEWALK)

* 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).

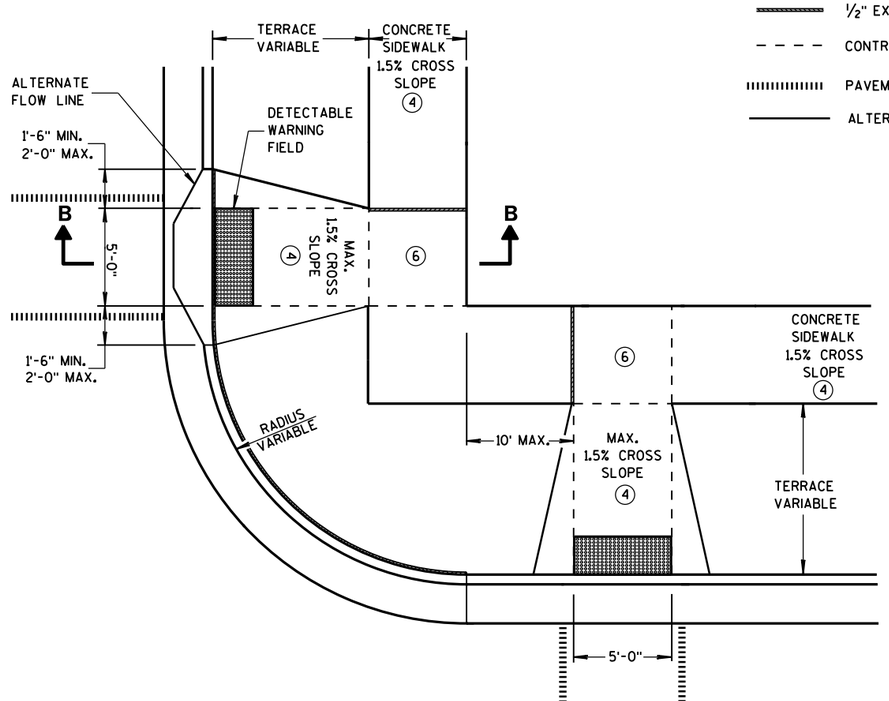
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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

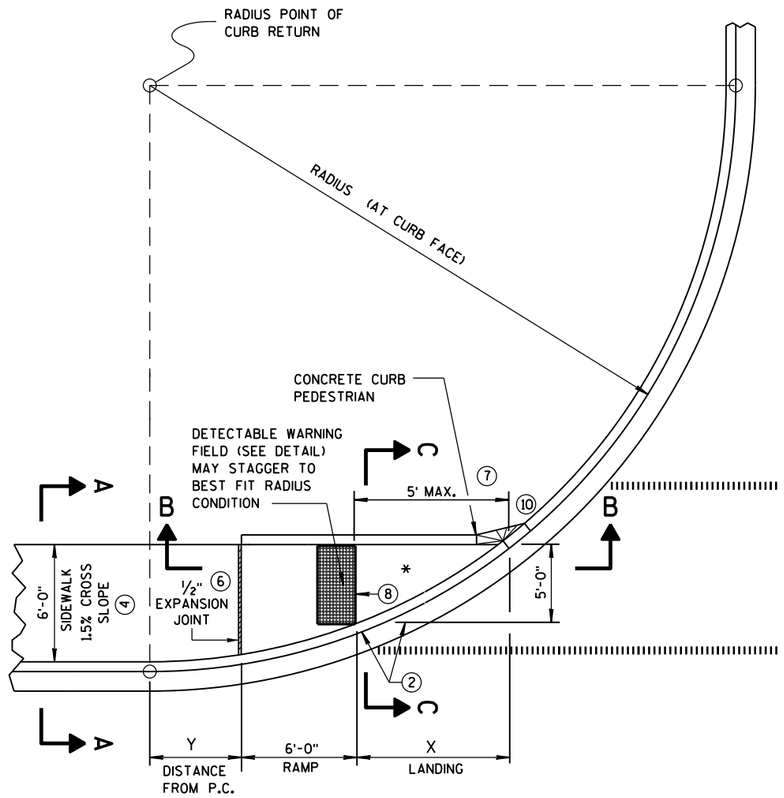
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

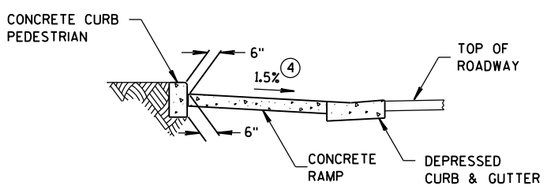
S.D.D. 8 D 5-16b



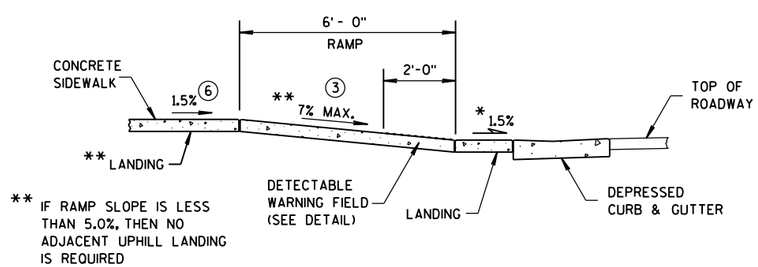
CURB RAMP TYPE 4A
PLAN VIEW

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"

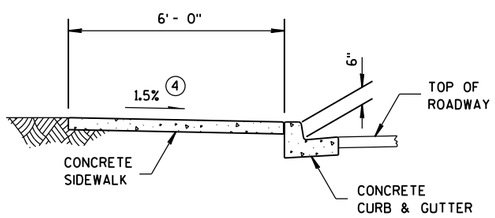
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

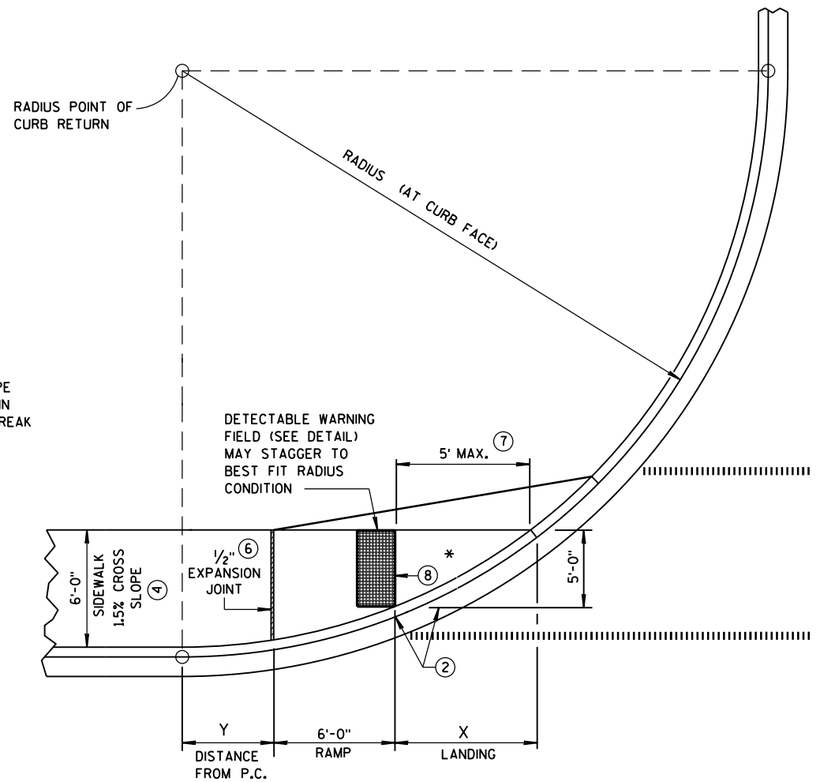


SECTION B-B FOR TYPE 4A



SECTION A-A 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.

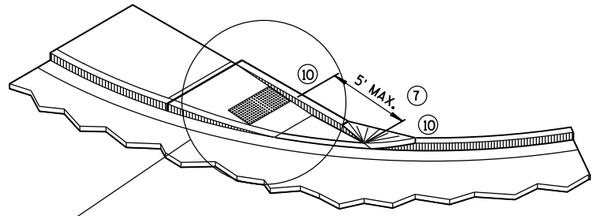
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

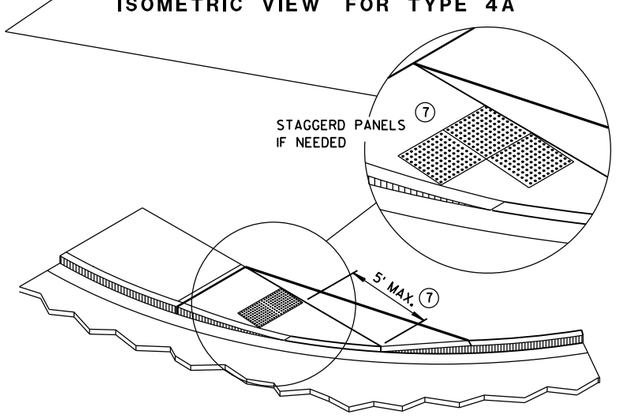
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(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

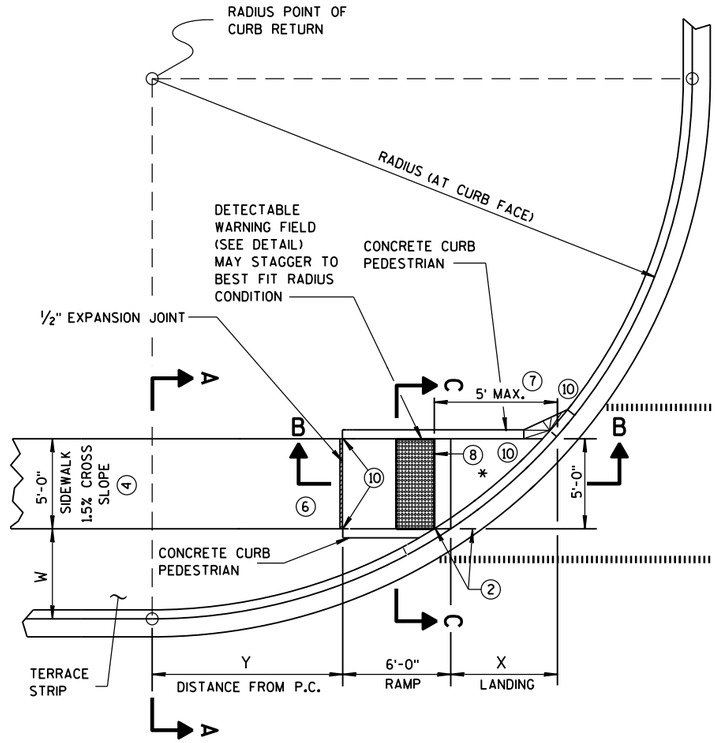
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

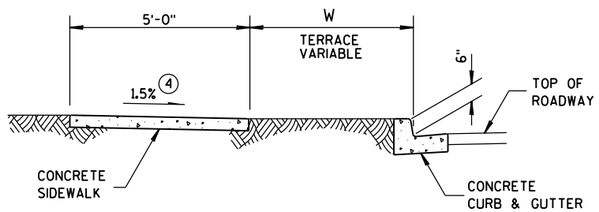
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

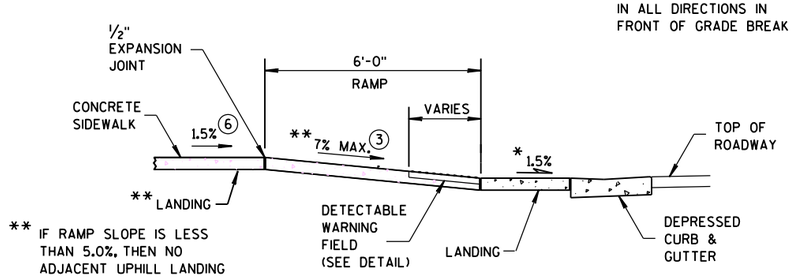
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



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

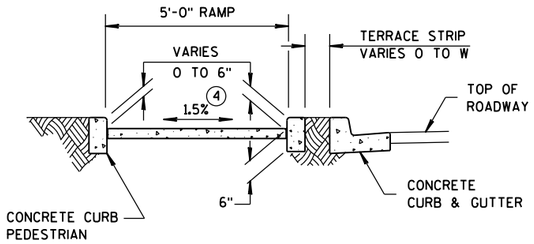
SECTION B-B FOR TYPE 4B

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.

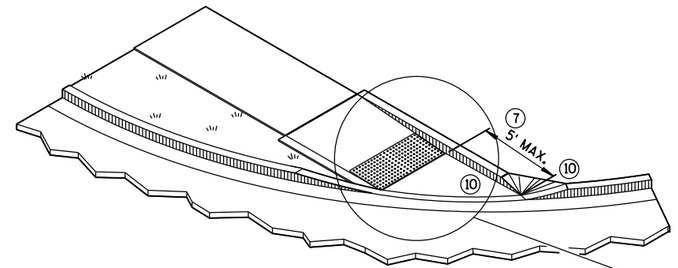
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

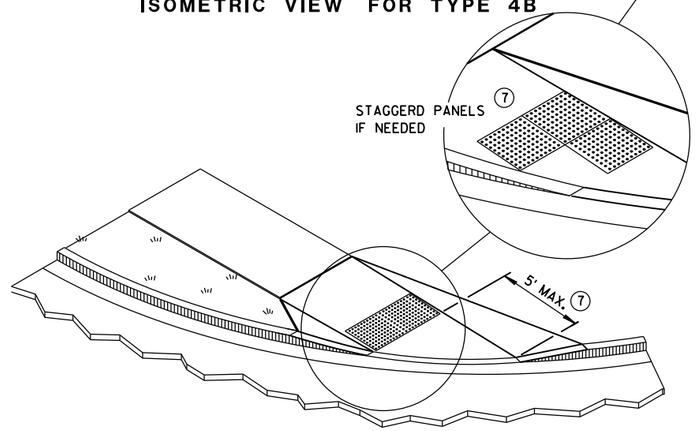
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

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

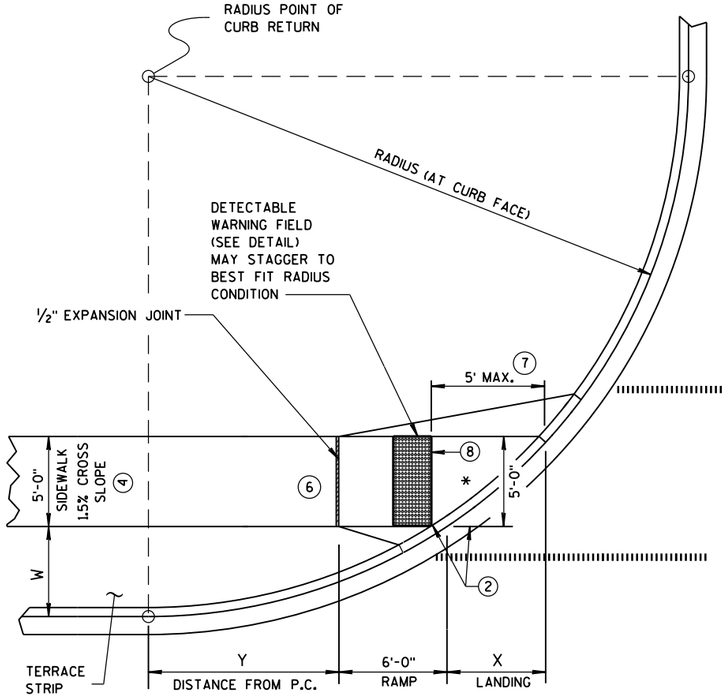
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



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

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

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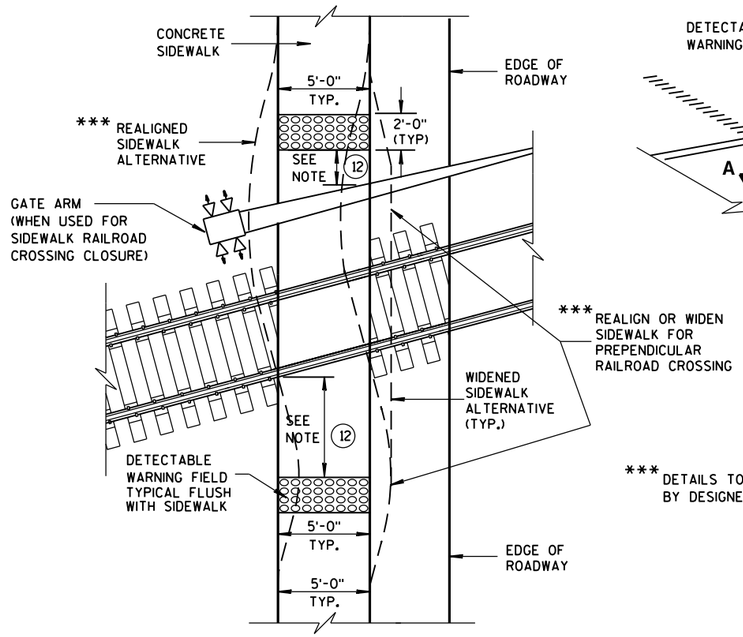
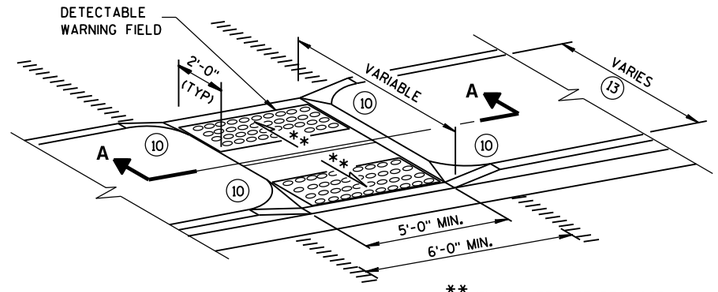
S.D.D. 8 D 5-16d



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.

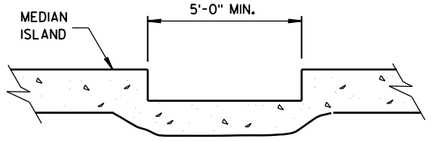
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

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

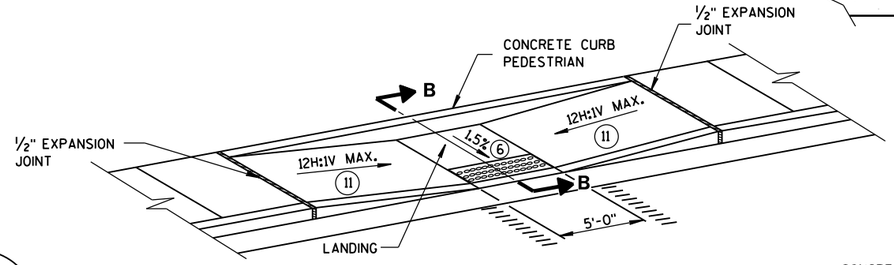
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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.



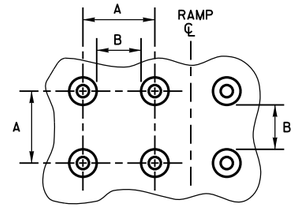
SECTION A-A



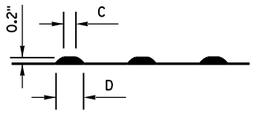
MID-BLOCK CROSSING
TYPE 7A

	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.

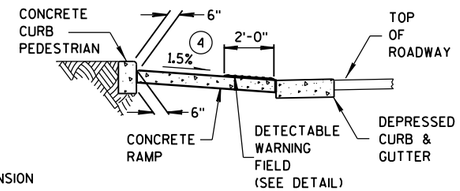


PLAN VIEW

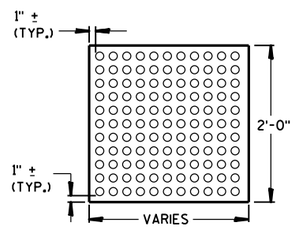


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



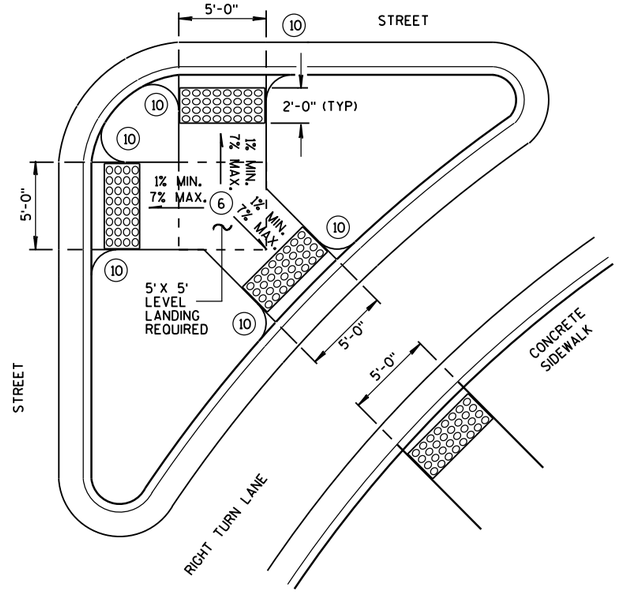
SECTION B-B



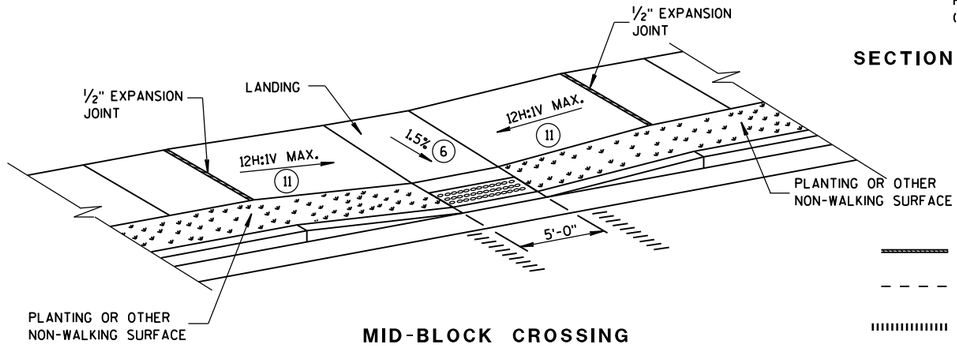
PLAN VIEW

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)

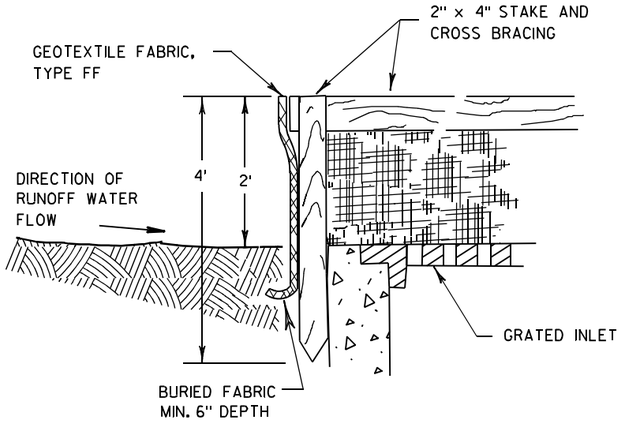
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

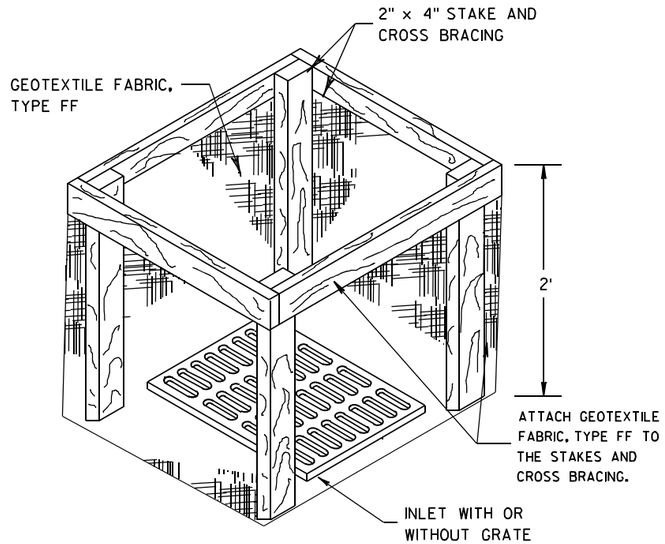
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

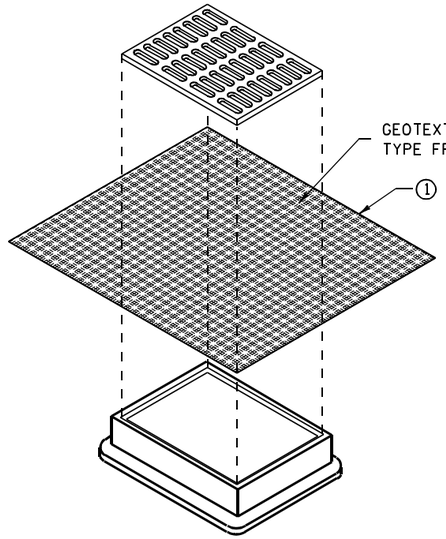
6

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



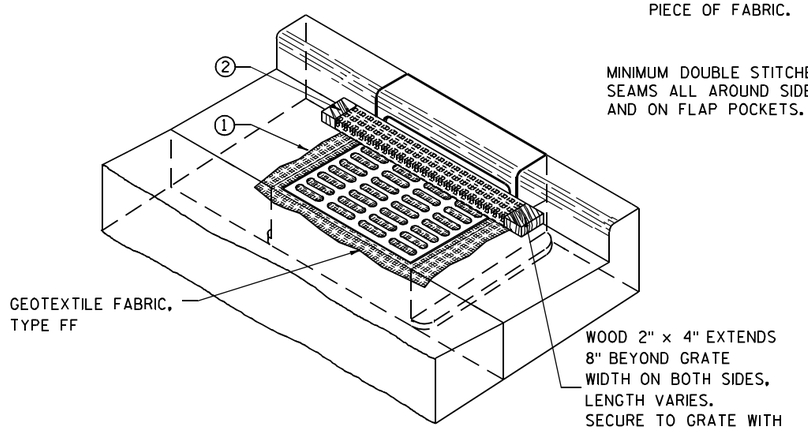


INLET PROTECTION, TYPE A

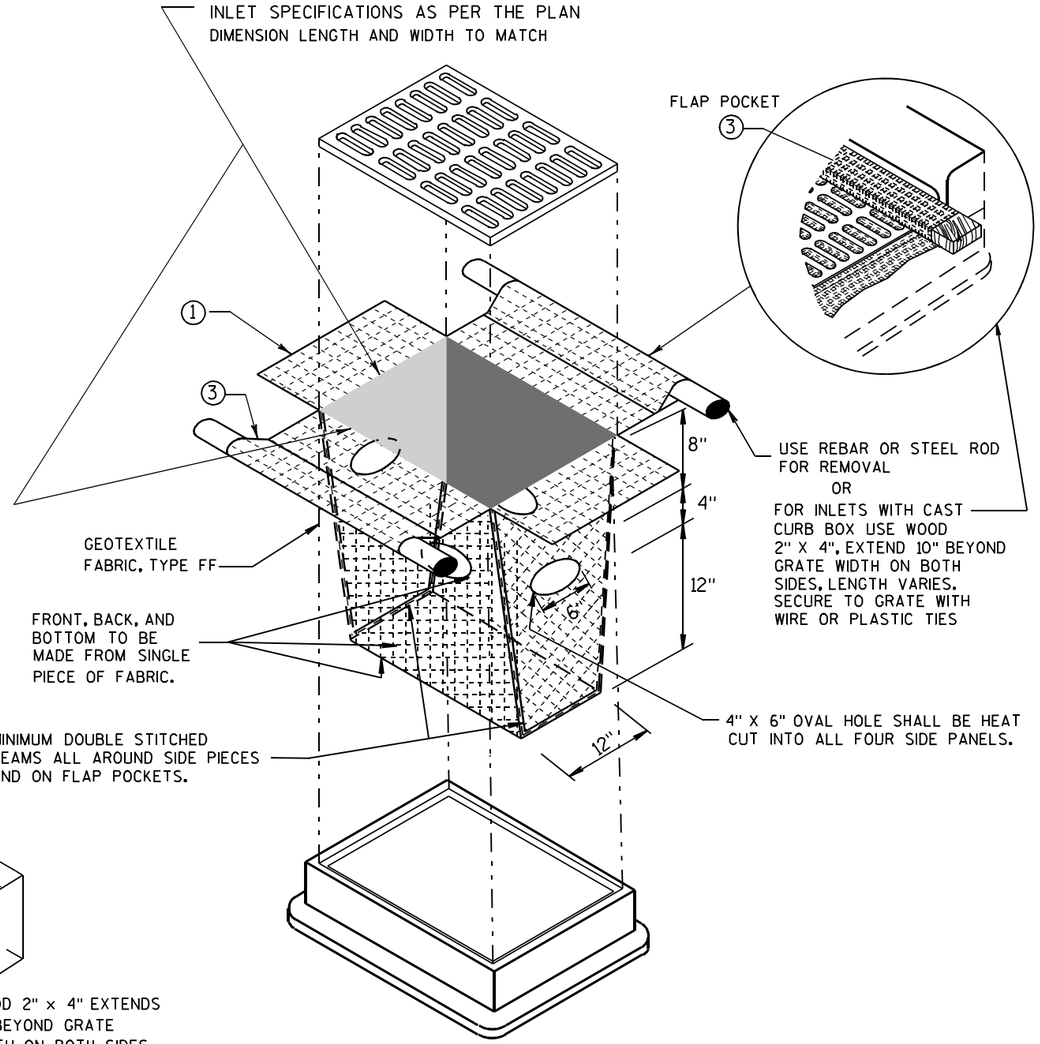


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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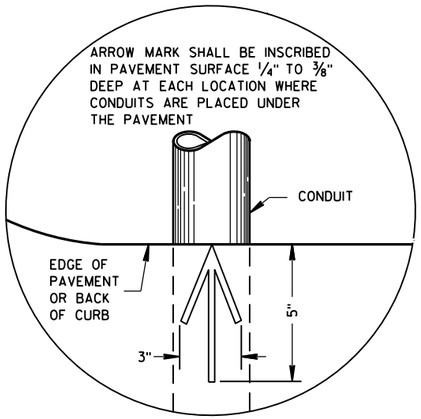
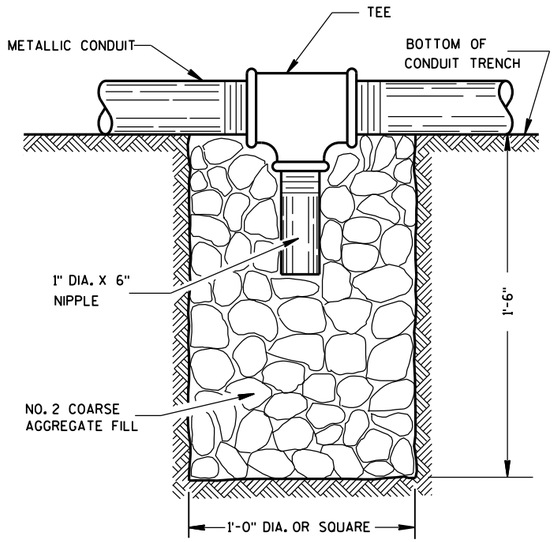
S.D.D. 8 E 10-2



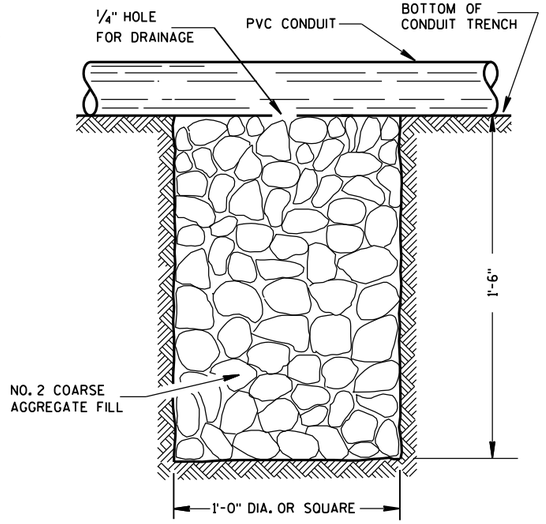
PLAN VIEW

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.

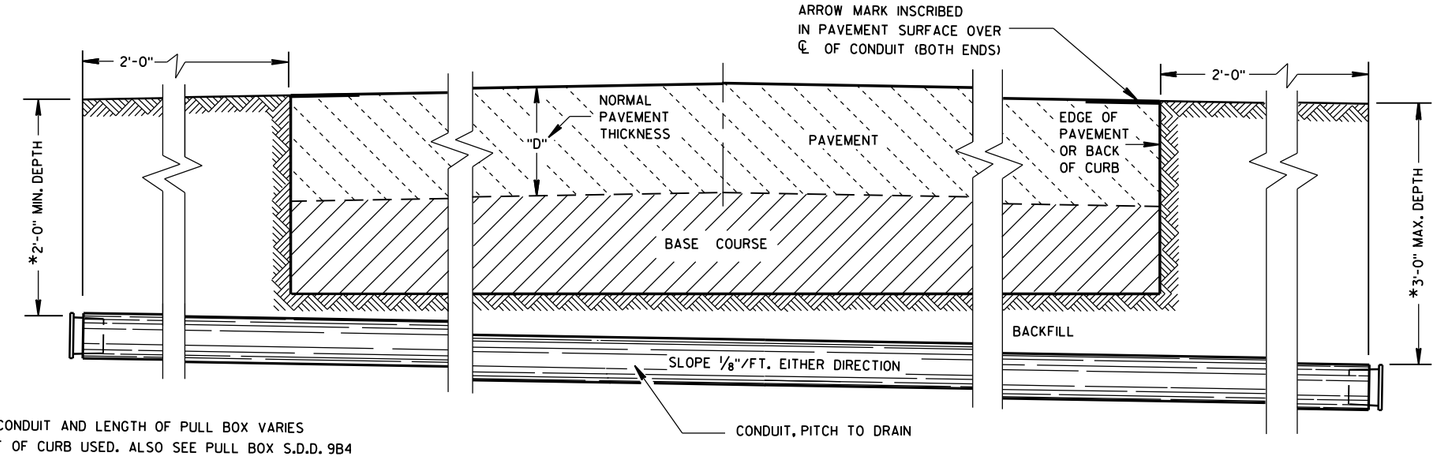
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

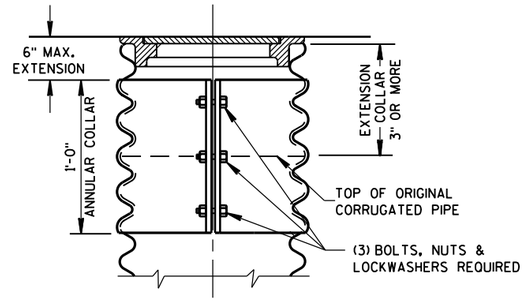
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

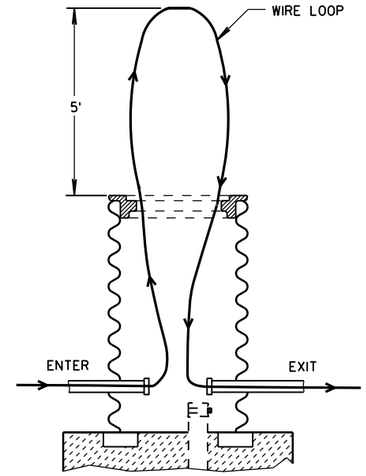
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

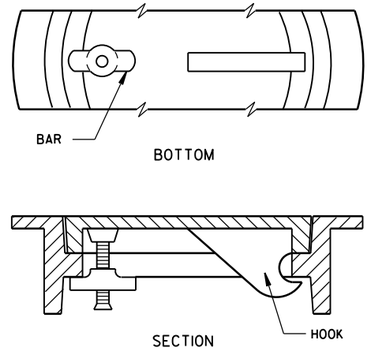
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

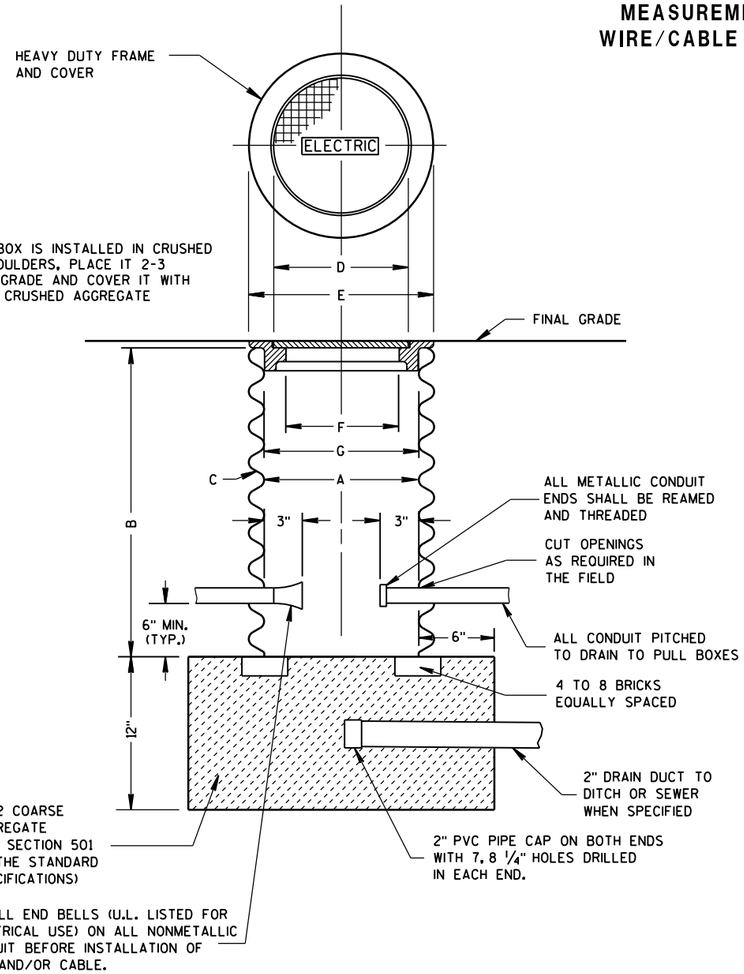


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



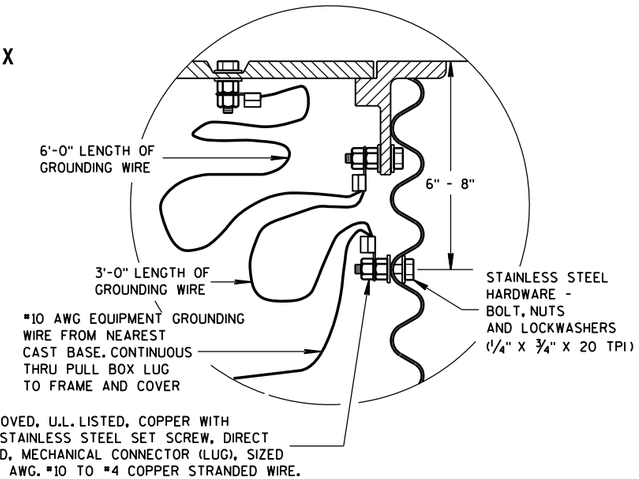
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

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.

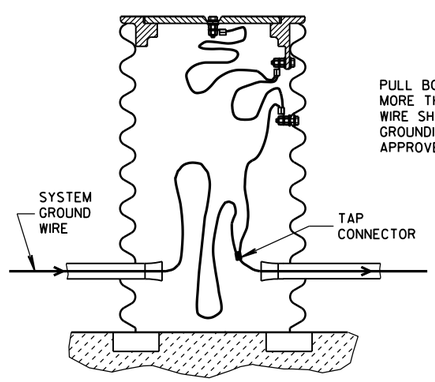
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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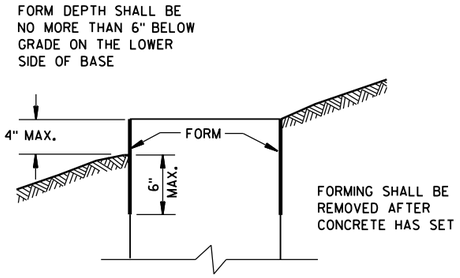


FORMING DETAIL

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.

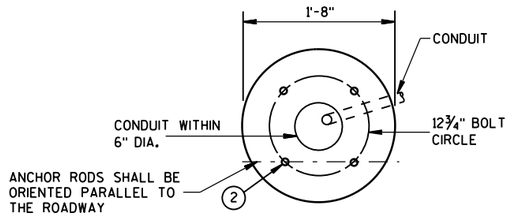
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

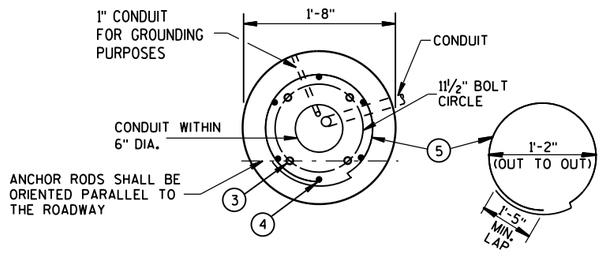
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

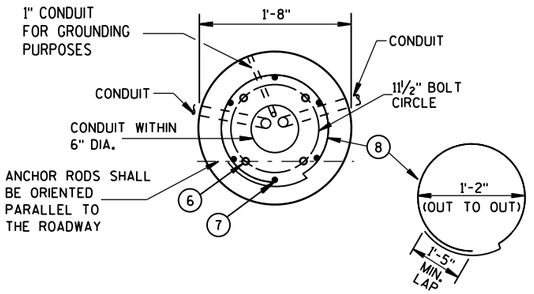
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

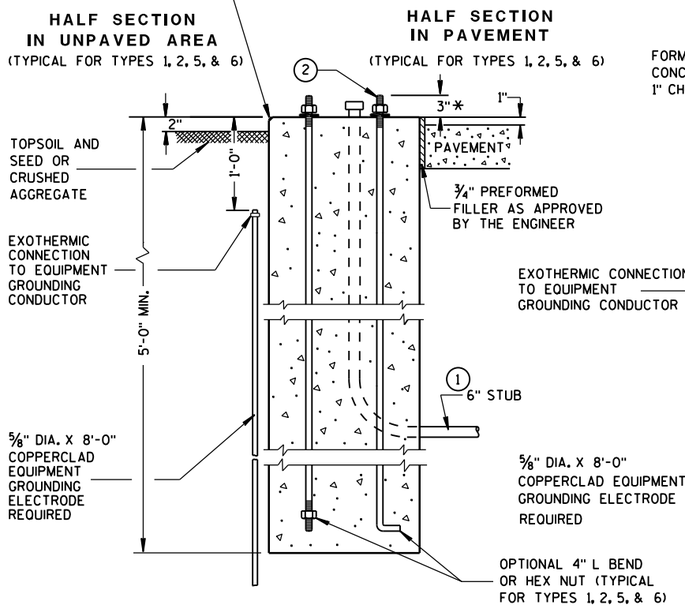
(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

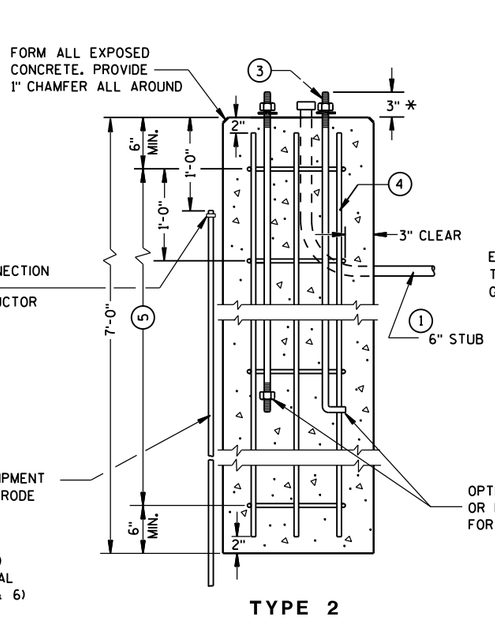
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



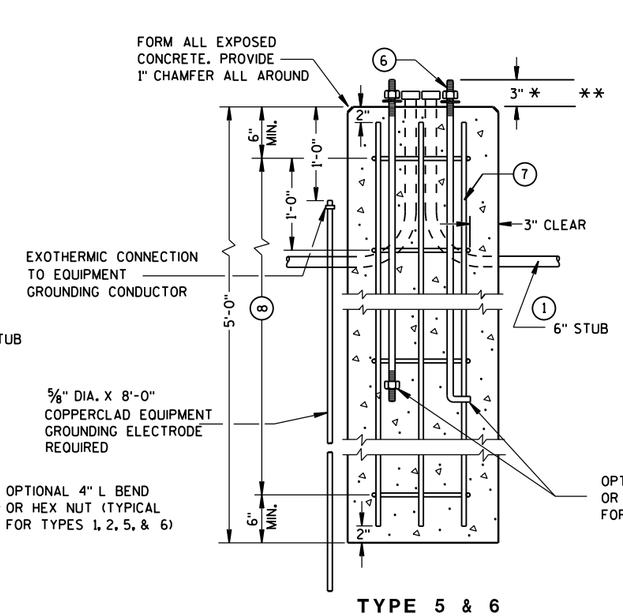








TYPE 2



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

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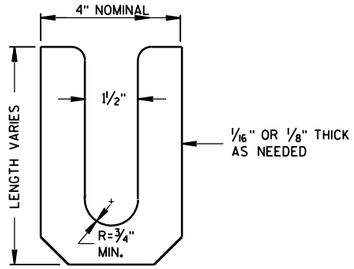
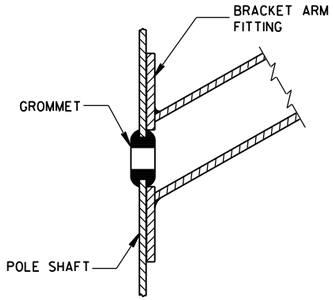
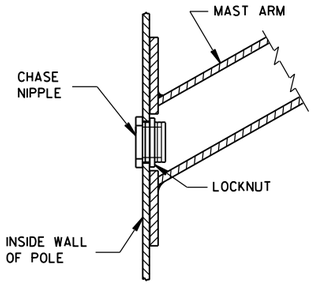


LEVELING SHIM (13)

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.

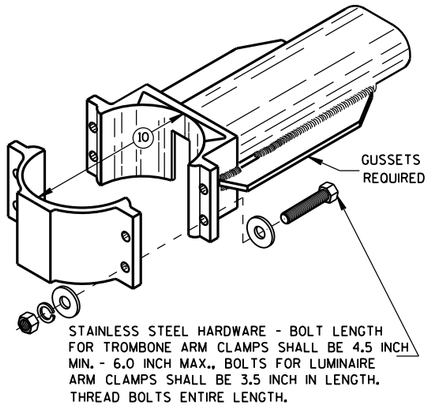
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

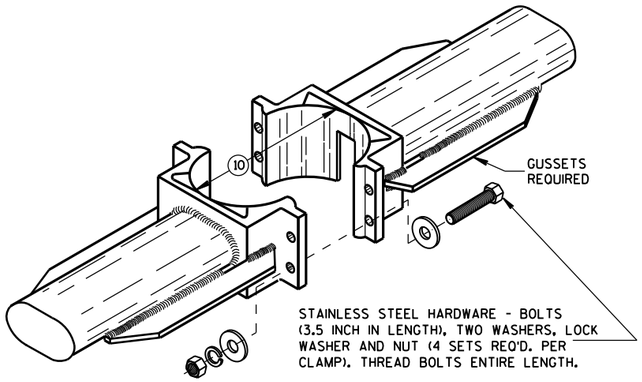
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

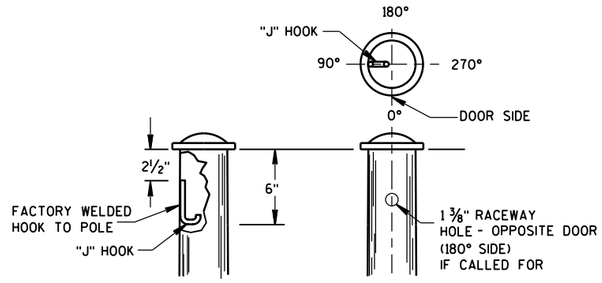
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



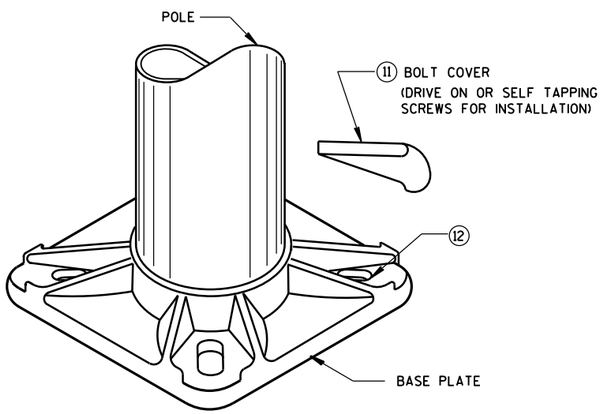
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



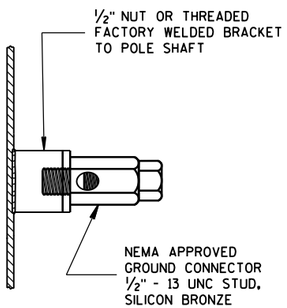
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

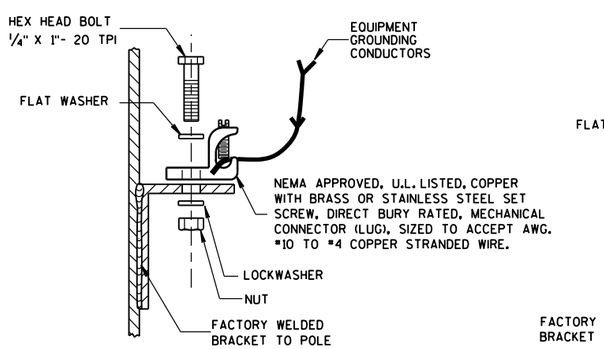


TYPICAL "J" HOOK LOCATION



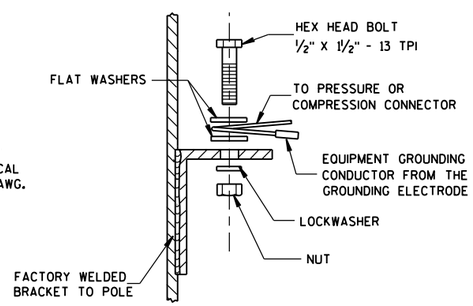
BASE PLATE





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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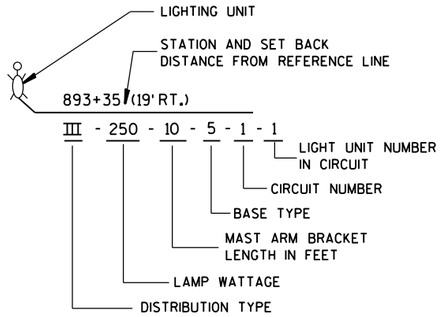
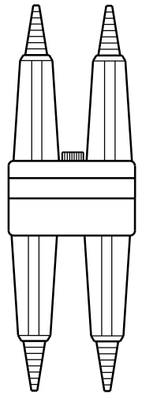
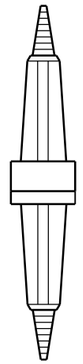


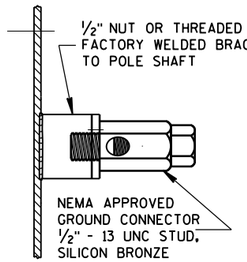
LIGHTING UNIT CODE
(TYPICAL)

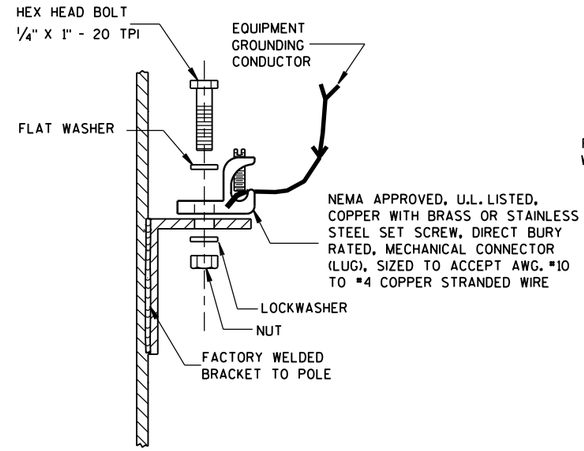


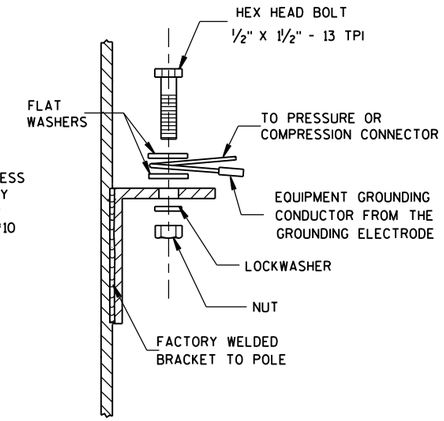
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



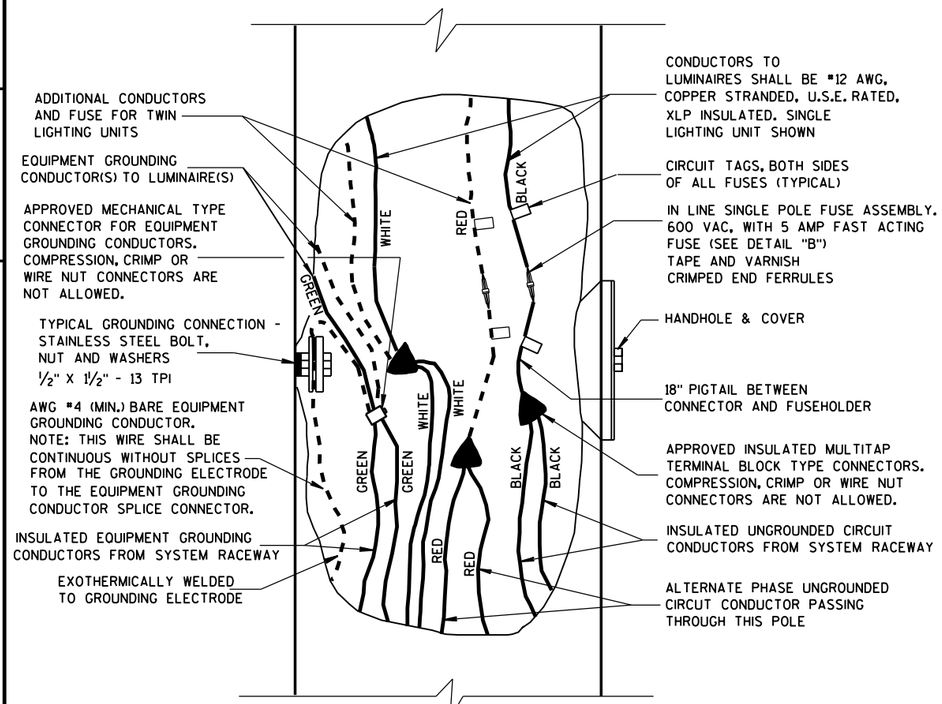
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



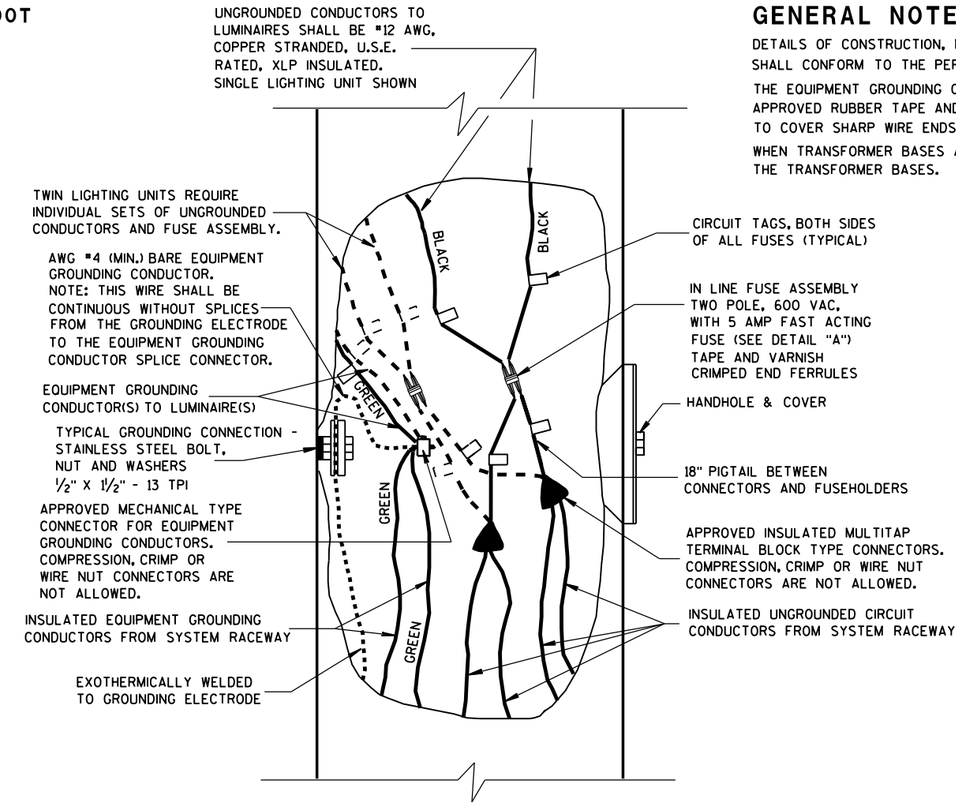




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
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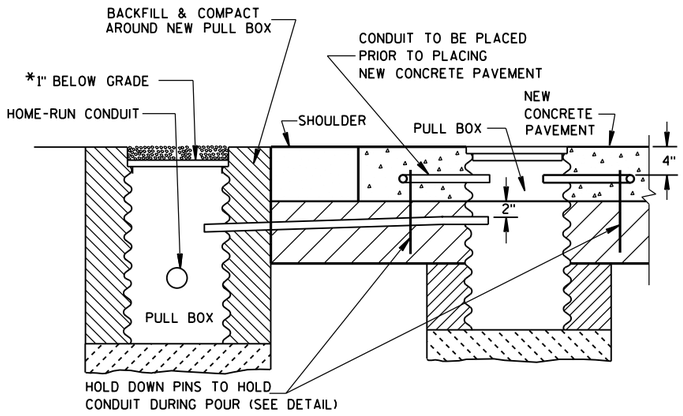

SECTION A-A
NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL

*RECESS PULL 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.

GENERAL NOTES

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

LOOP SIZE, 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 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.

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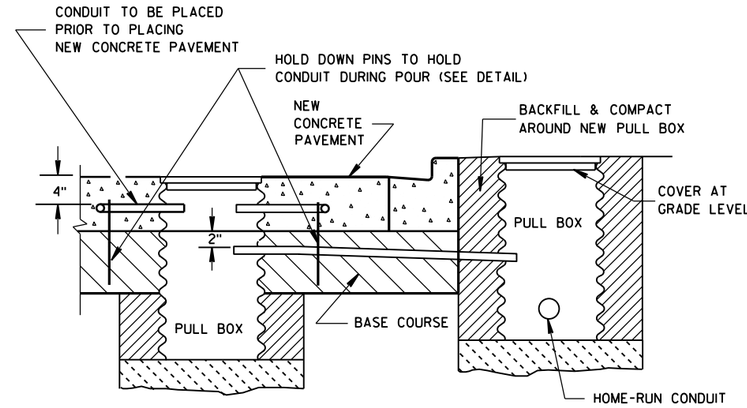
SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

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

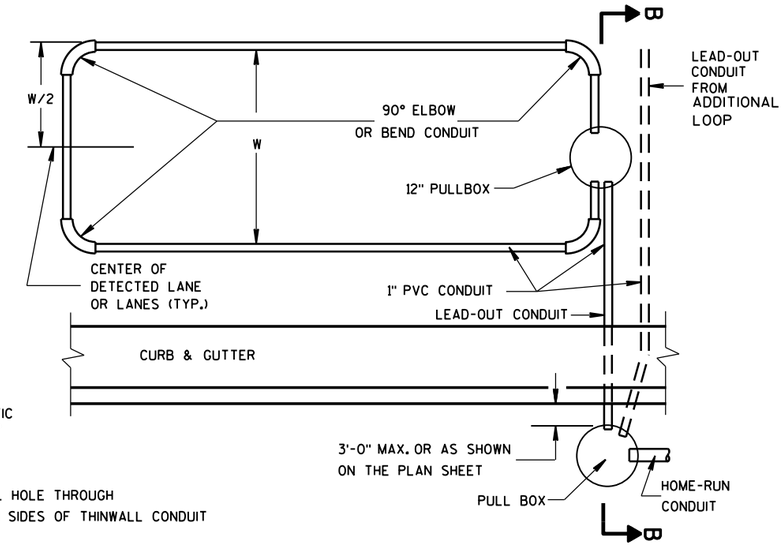
PROTECTION OF THE PULL BOX AND RELATED CONDUITS SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW CONCRETE PAVEMENT IS POURED.

12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.

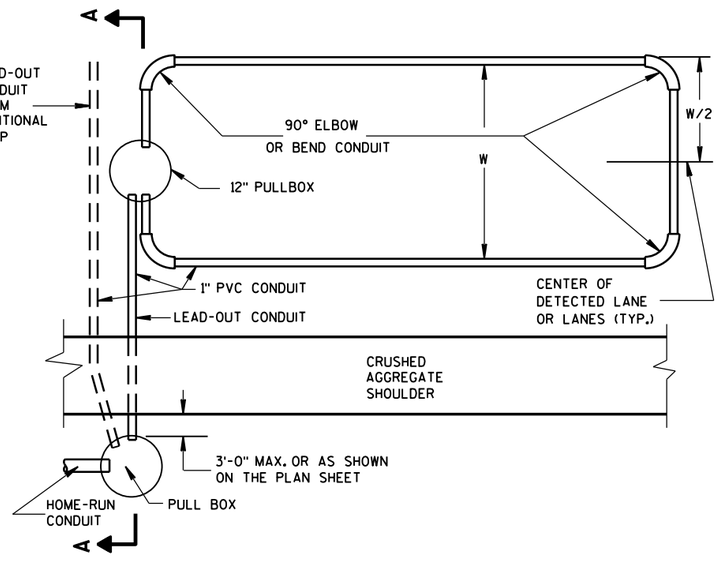


SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



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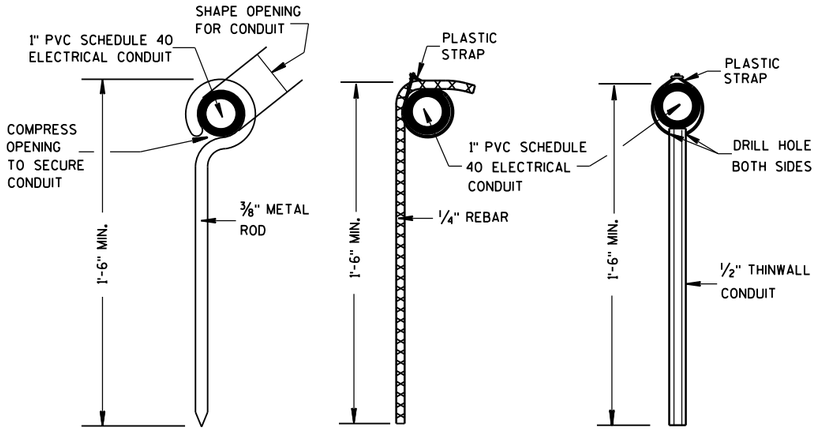

TYPICAL DETAILS FOR HOLD DOWN PINS

LOOP DETECTOR INSTALLED IN NEW CONCRETE PAVEMENT ROUND CSCP PULLBOX (MULTIPLE LEAD-OUT)

STATE OF WISCONSIN
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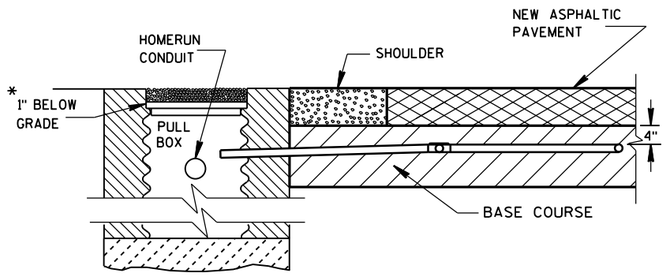
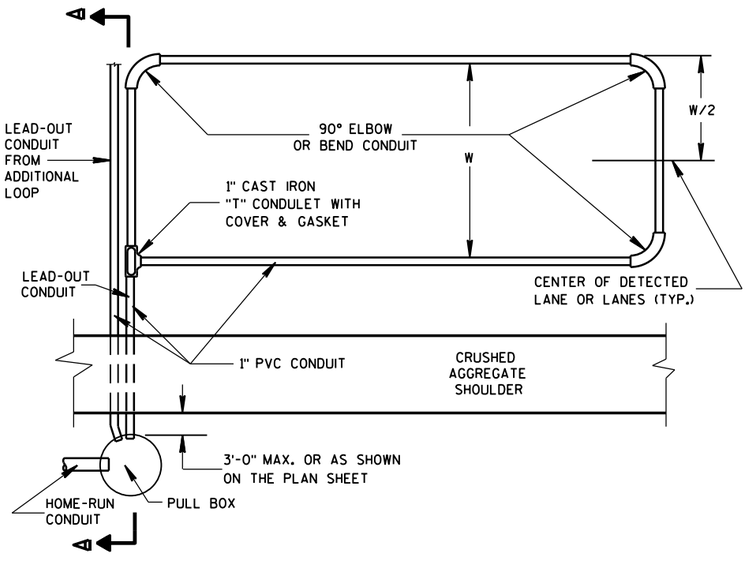


SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL 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.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

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

LOOP SIZE, 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 BOX.

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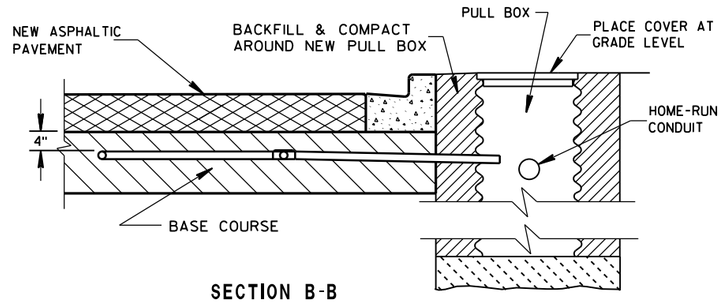
PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

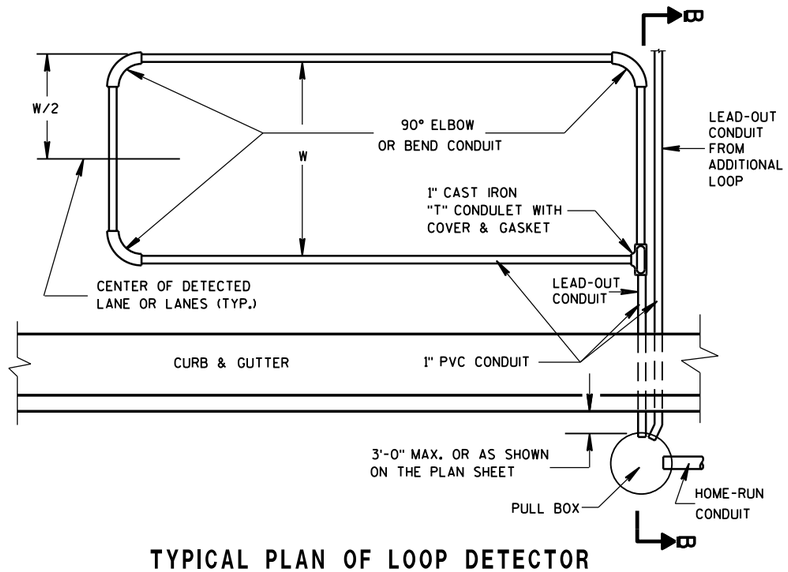
WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE, PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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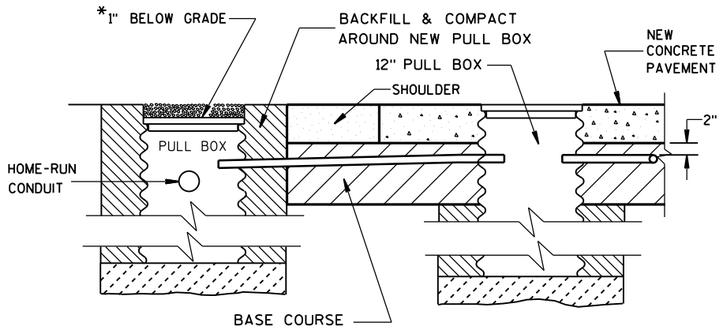

SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

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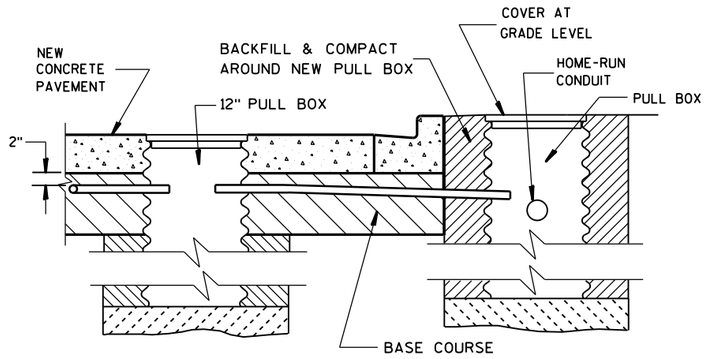
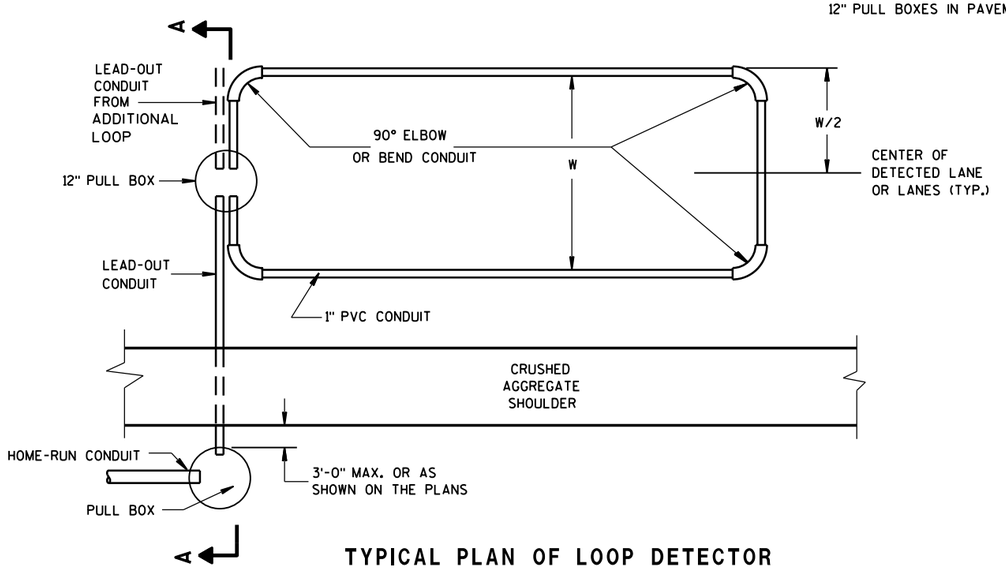


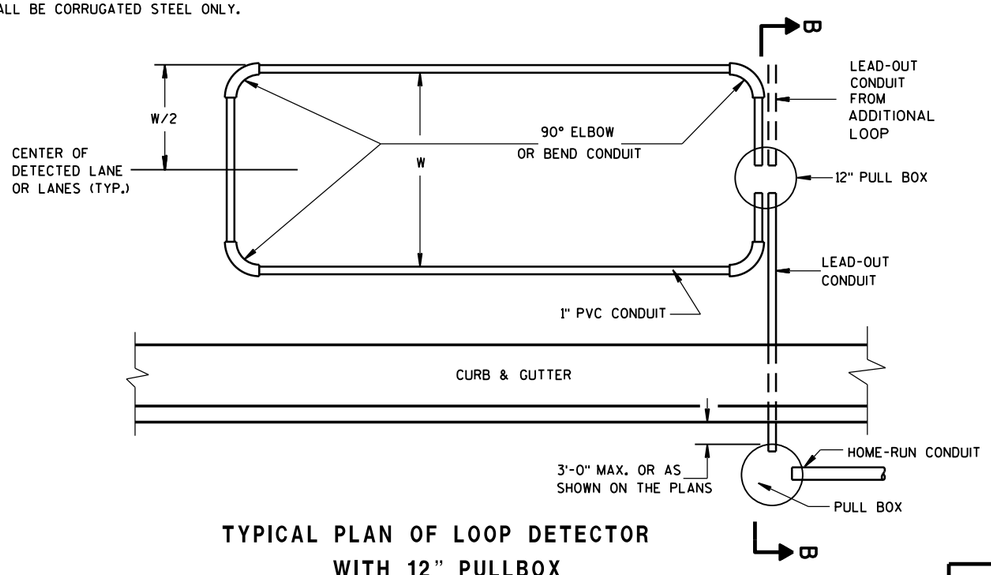
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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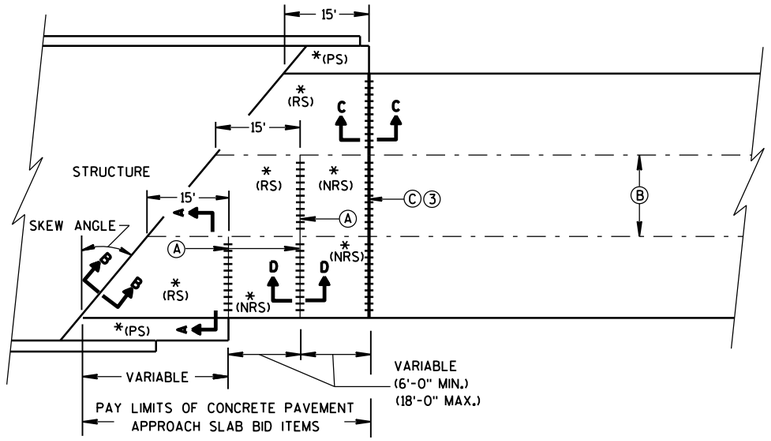
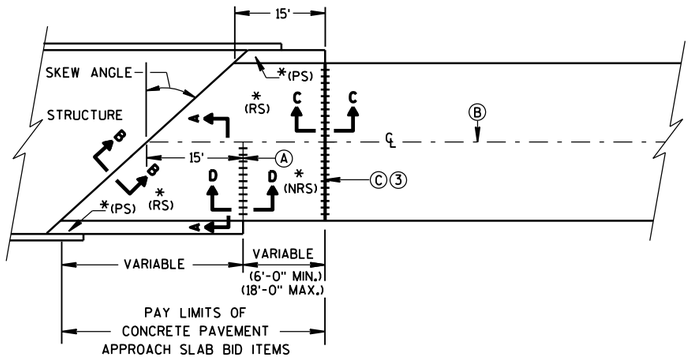
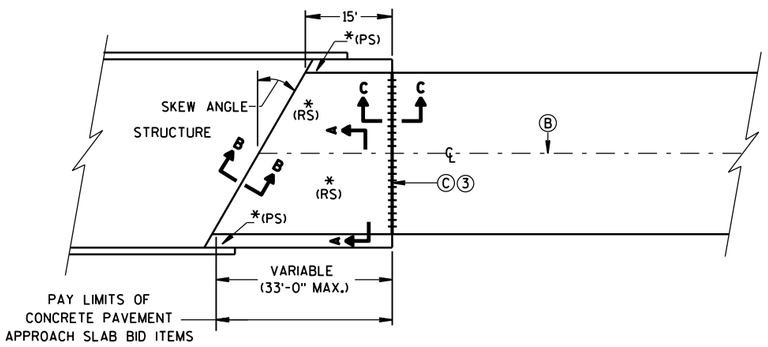


SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

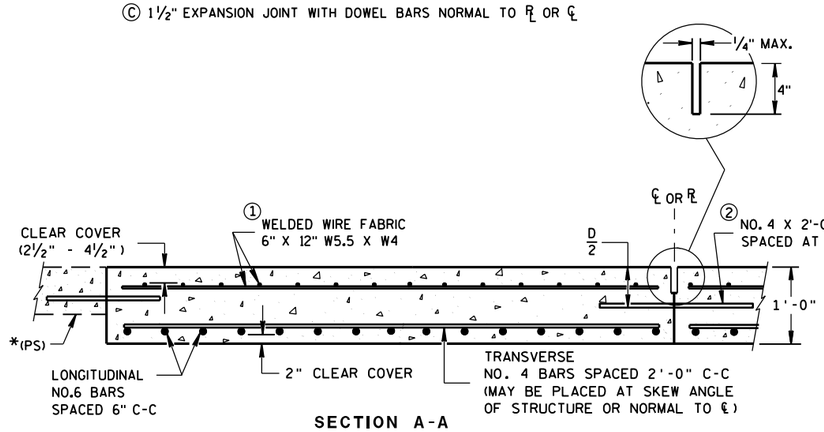
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

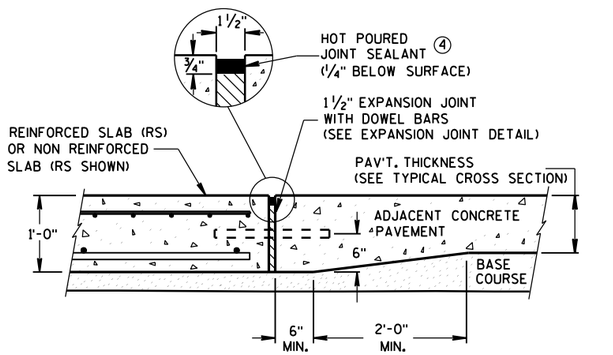
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

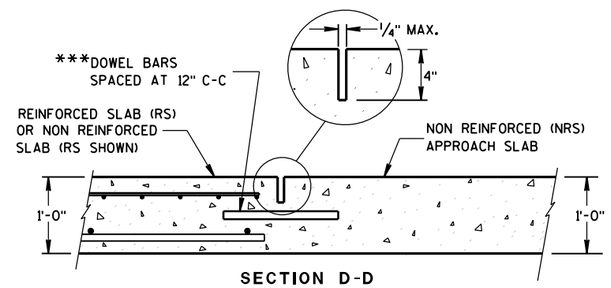
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

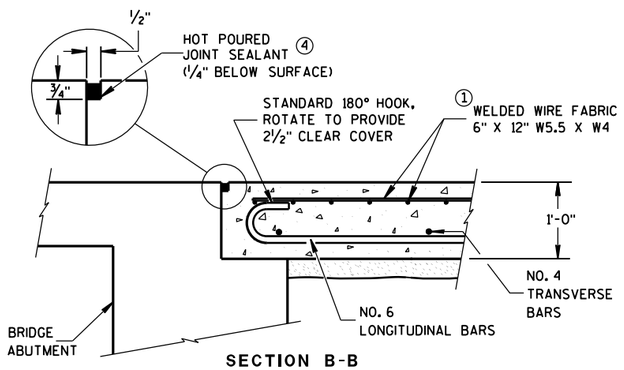
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

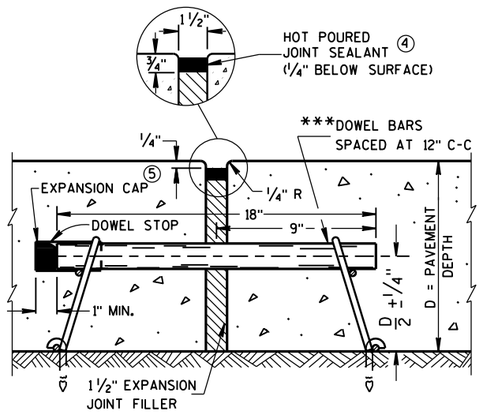
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
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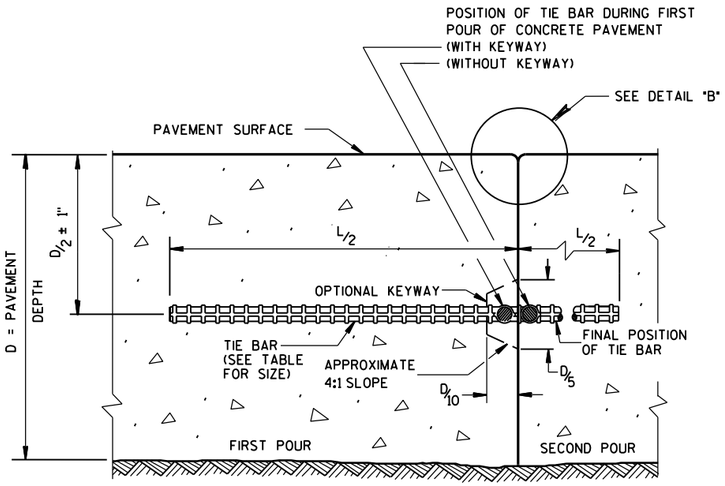
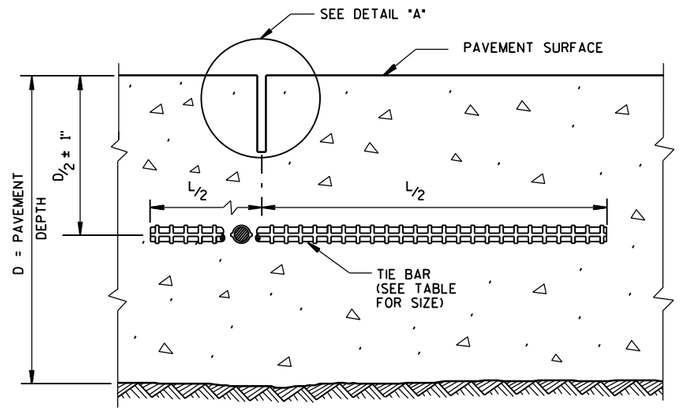


CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

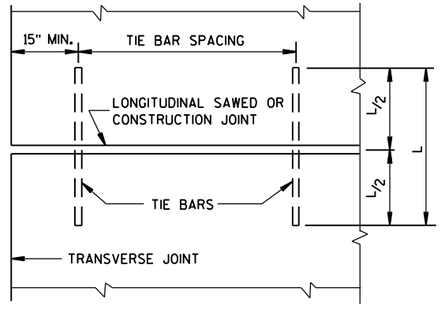
DETAIL "C"

TIE BAR TABLE

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

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

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



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
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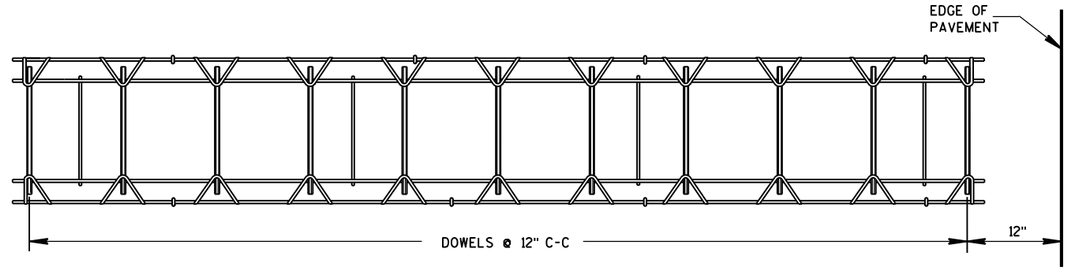
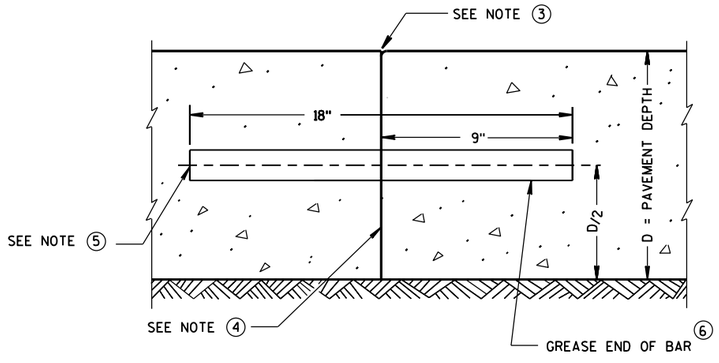


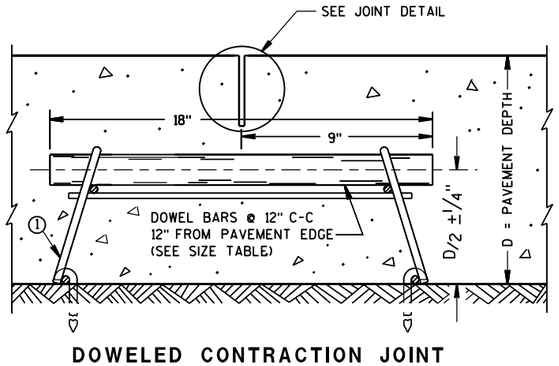
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



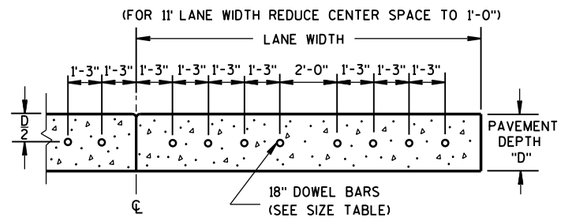
TRANSVERSE CONSTRUCTION JOINT



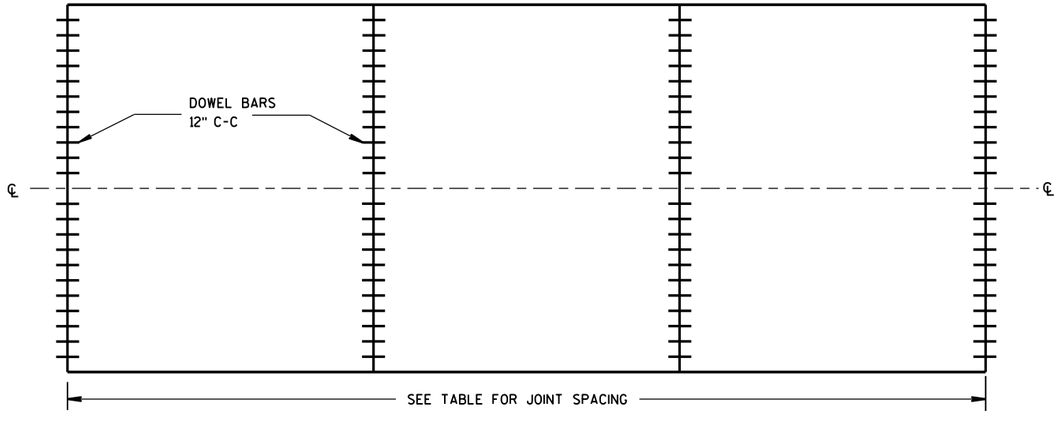
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

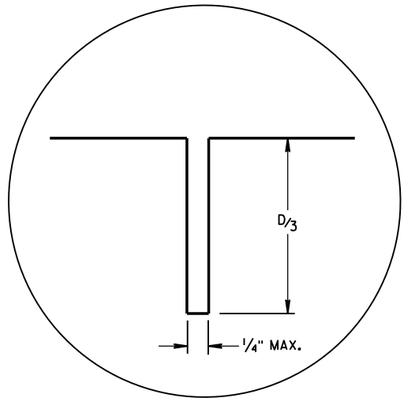
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

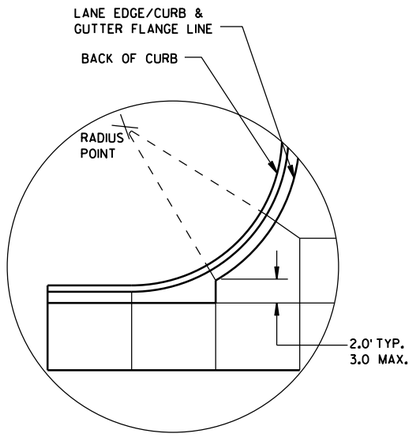
URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

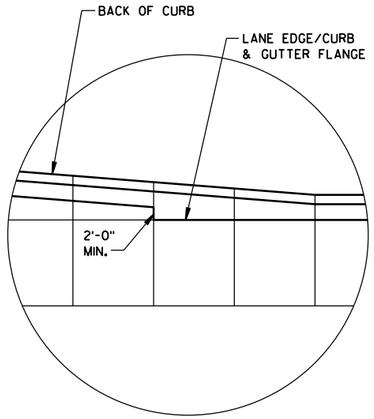
APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

6

S.D.D. 13 C 13-8



DETAIL "A"



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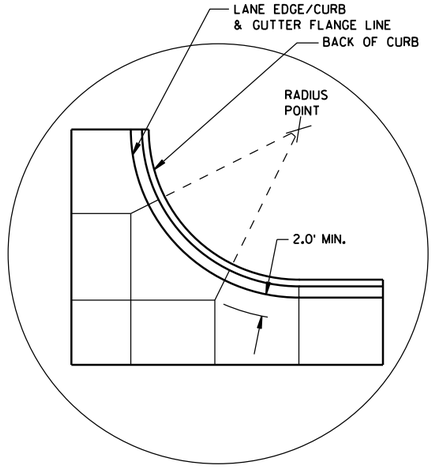

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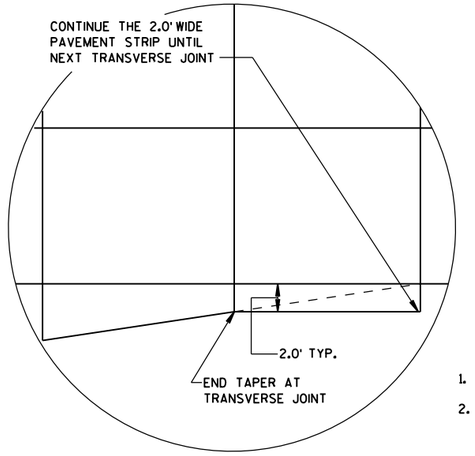


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

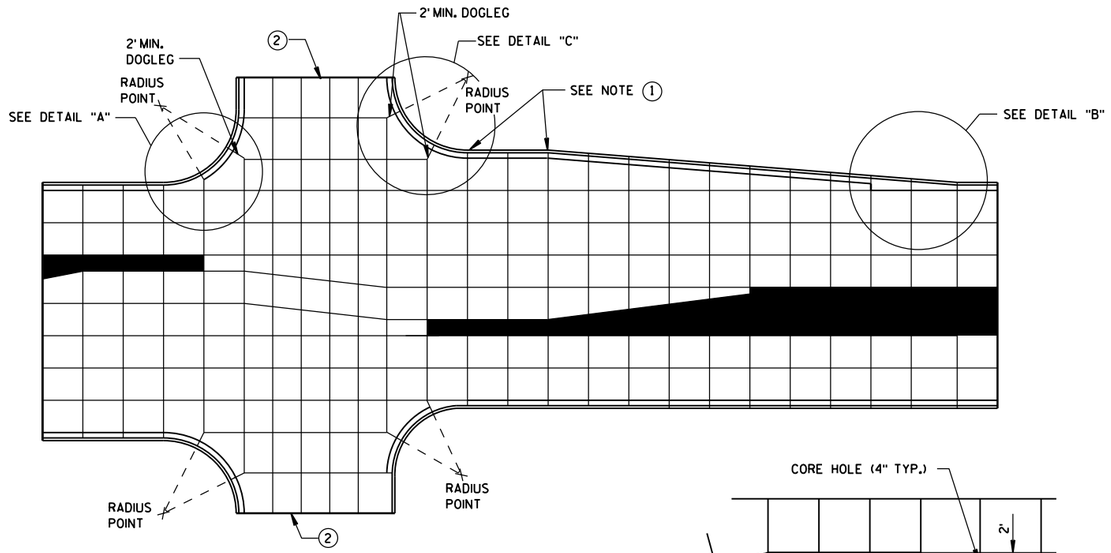
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

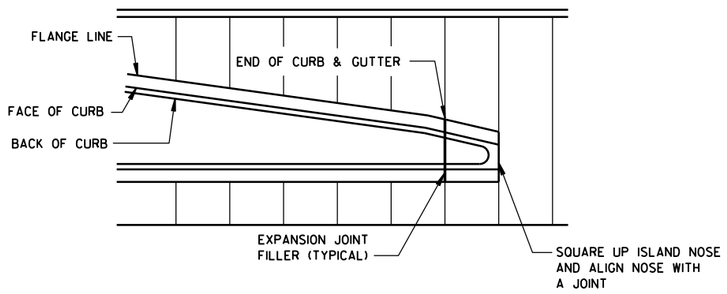
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



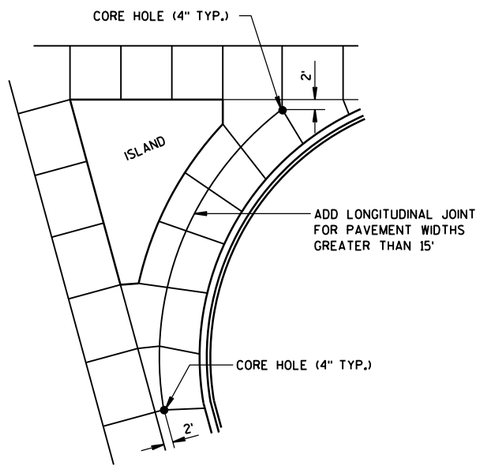
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

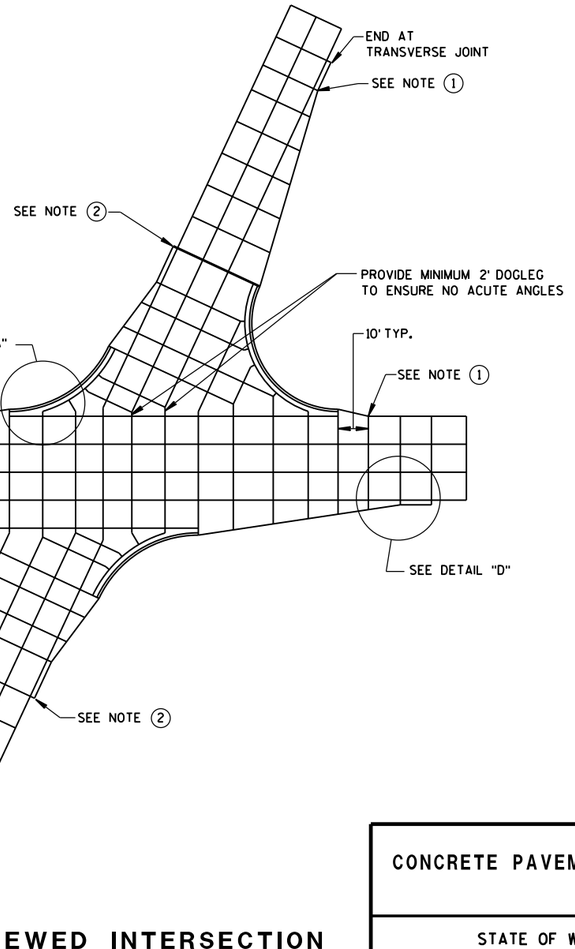
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

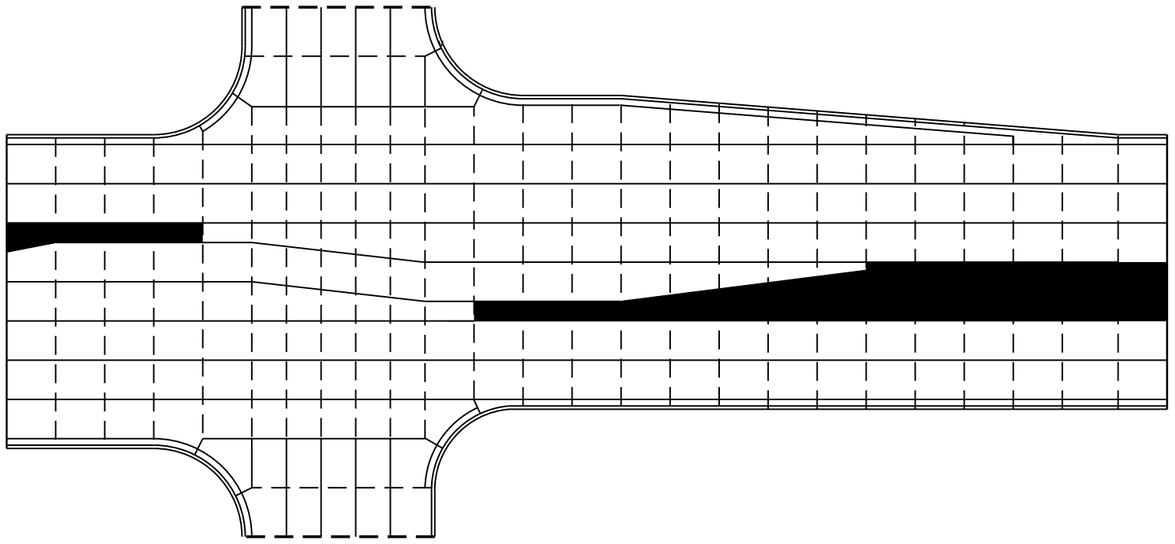
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

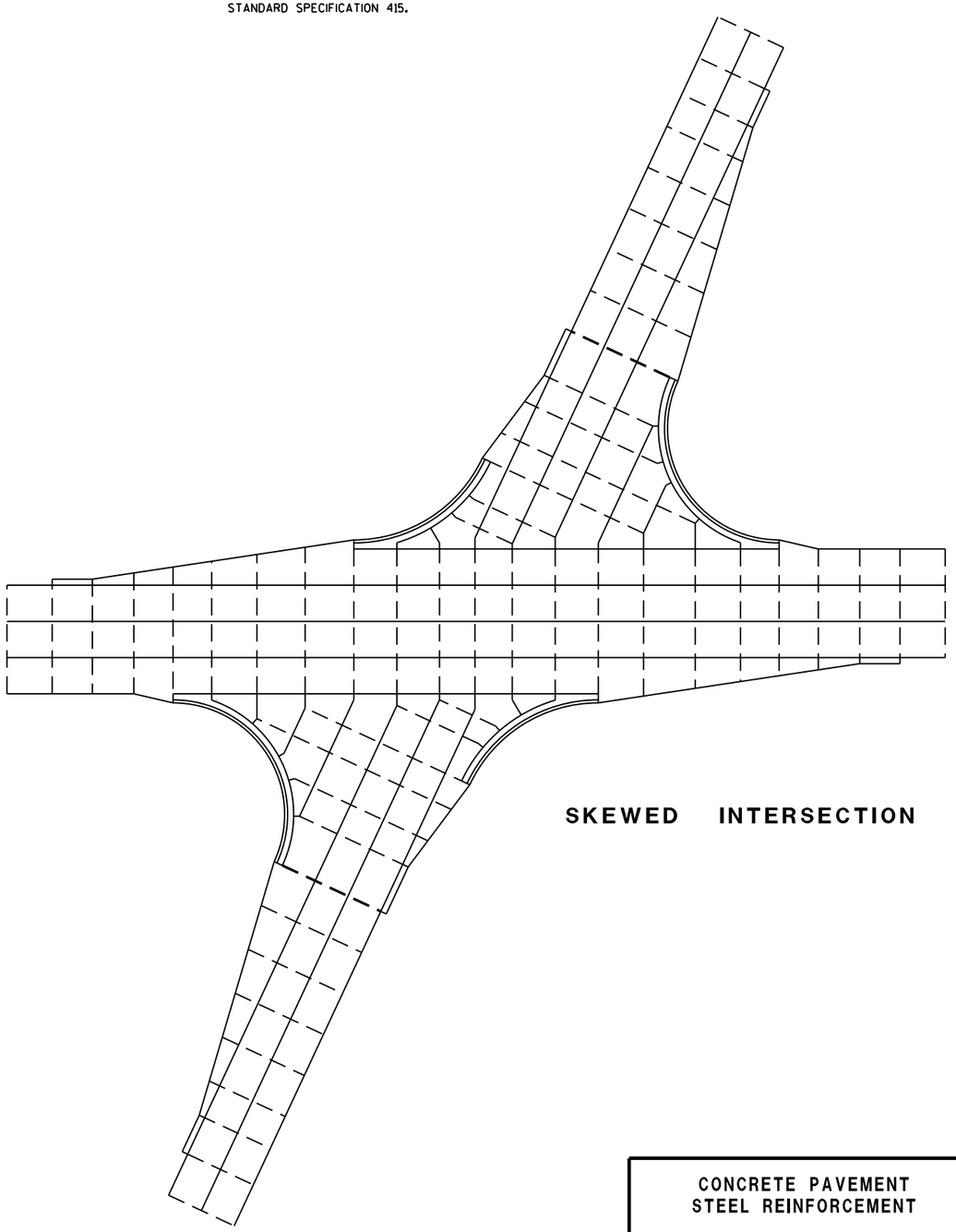
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

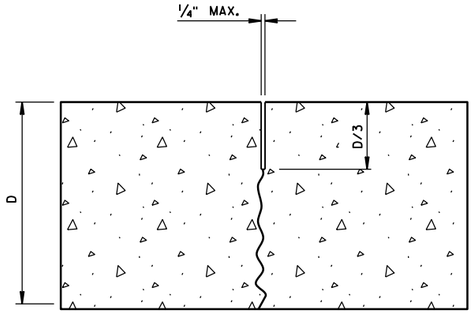
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

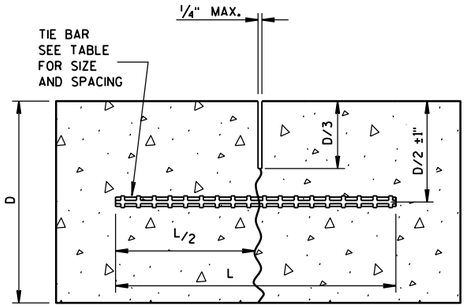
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

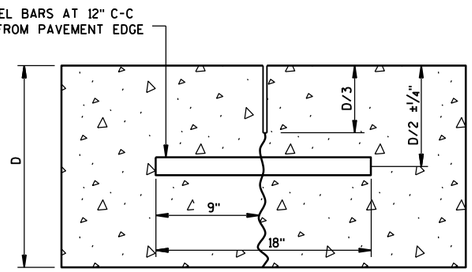
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

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

GENERAL NOTES

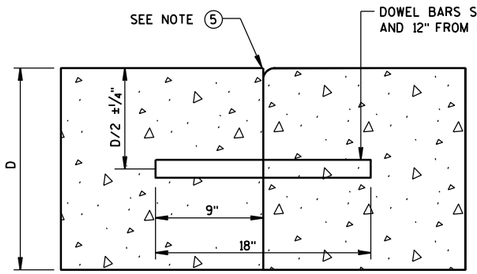
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



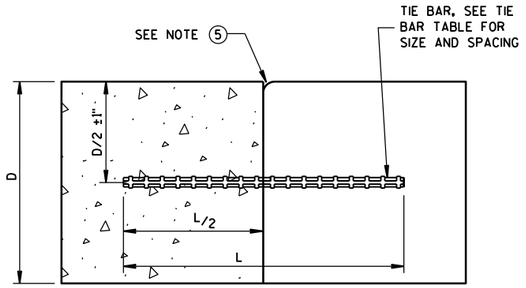
DOWELED-TRANSVERSE

CONTRACTION JOINTS

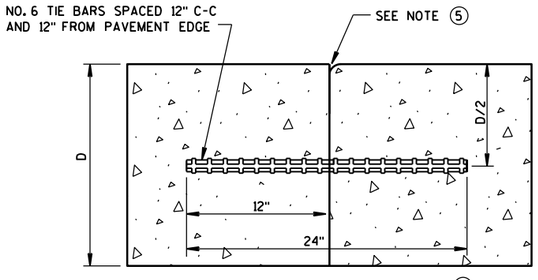
SEE NOTE (2)



DOWELED TRANSVERSE (3)

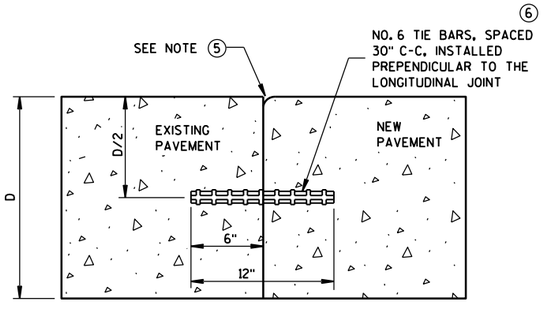


TIED LONGITUDINAL



TIED TRANSVERSE (3)

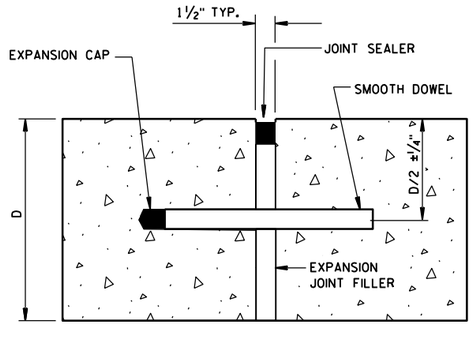
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

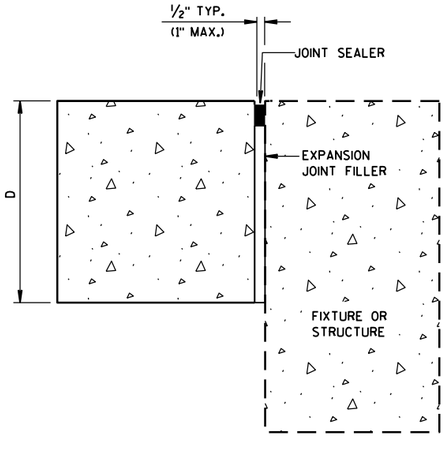
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

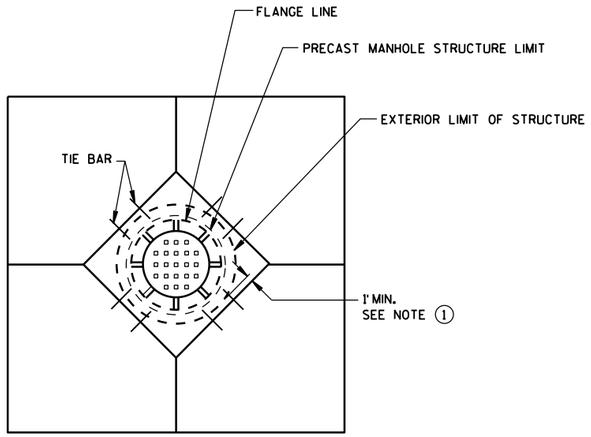
6

S.D.D. 13 C 18-3c

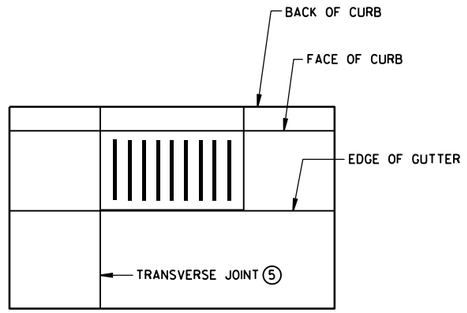
S.D.D. 13 C 18-3c

CONCRETE PAVEMENT
JOINT TYPES

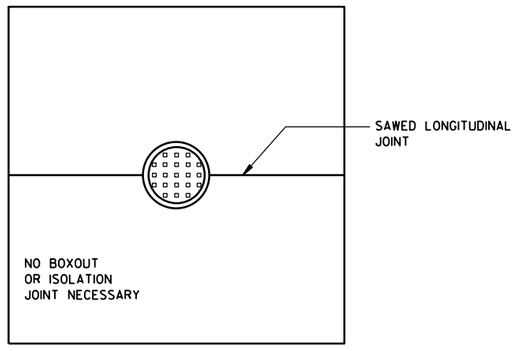
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



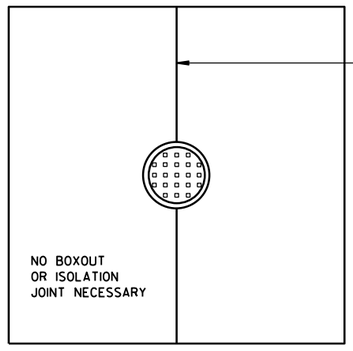
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



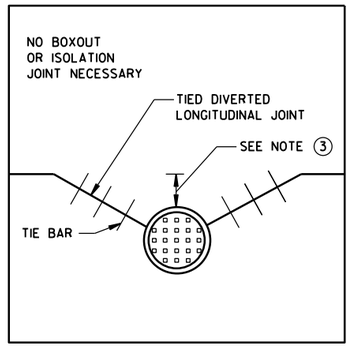
INLET WITH TRANSVERSE JOINT



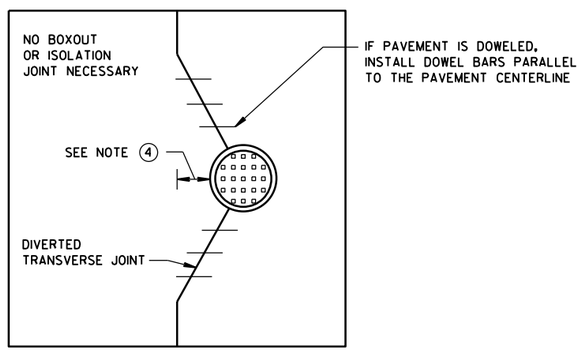
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

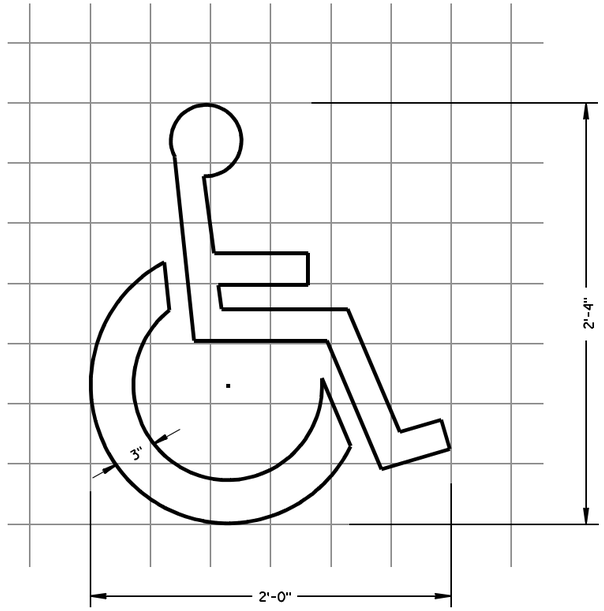
6
S.D.D. 13 C 18-3d

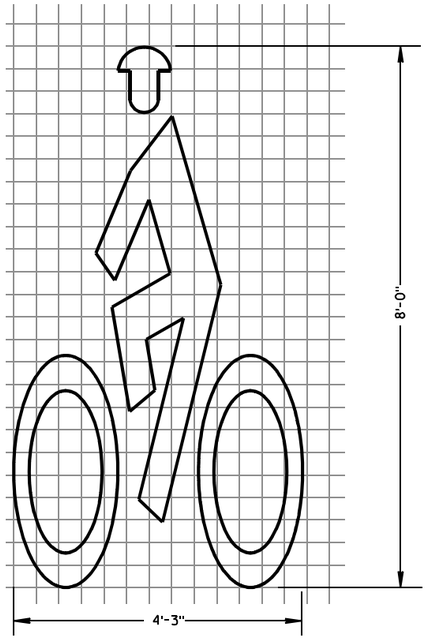
GENERAL NOTES

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.

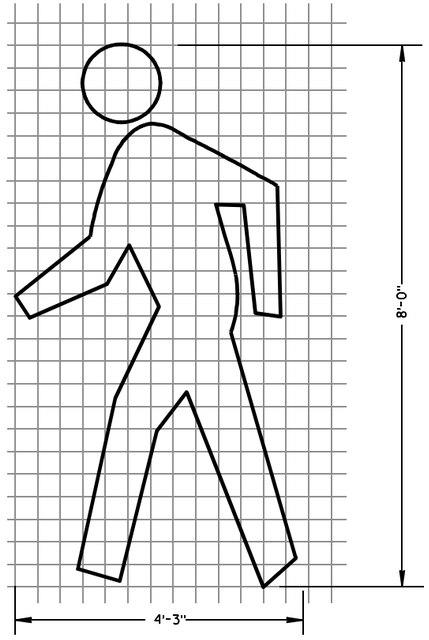
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

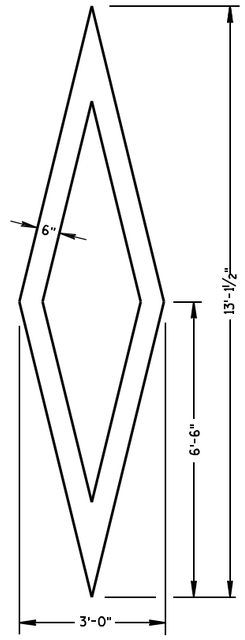




BIKE CROSSING SYMBOL



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

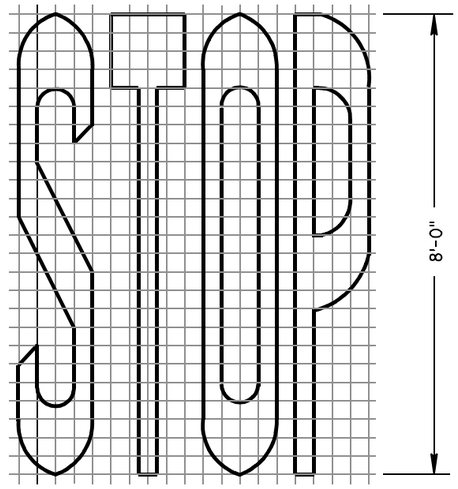
/S/ Thomas N Nathan
STATE TRAFFIC ENGINEER

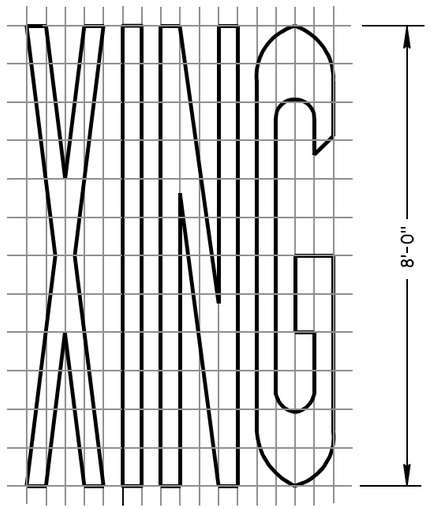
FHWA

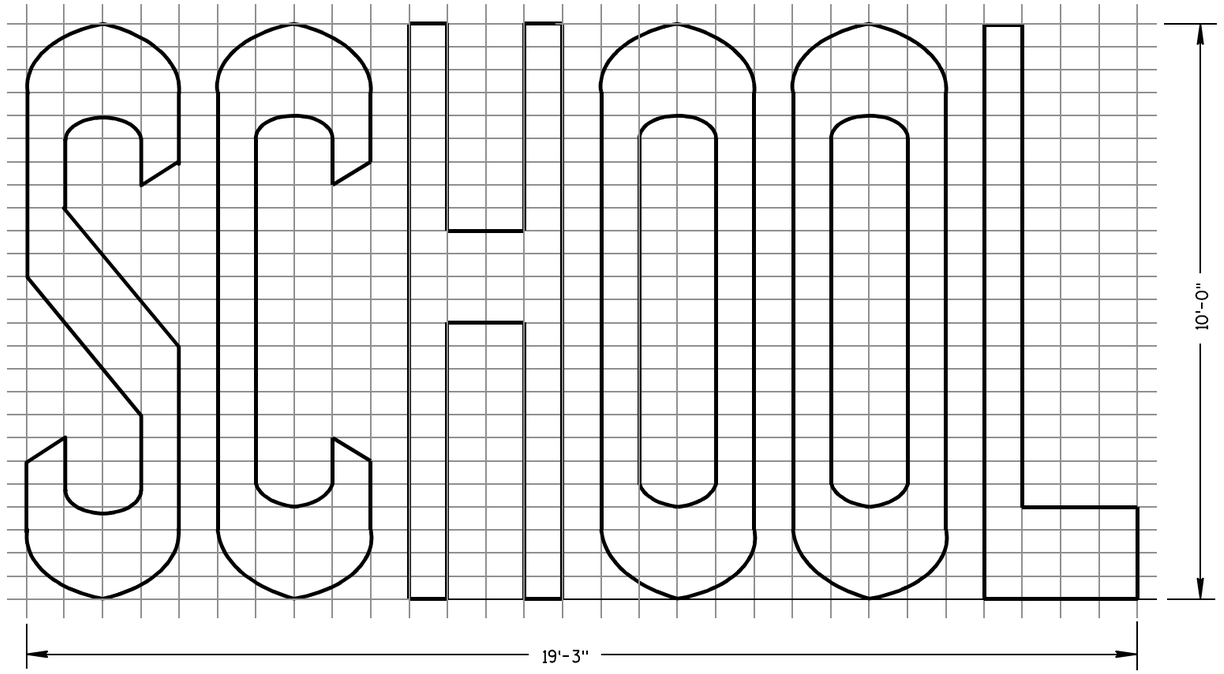
GENERAL NOTES

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.

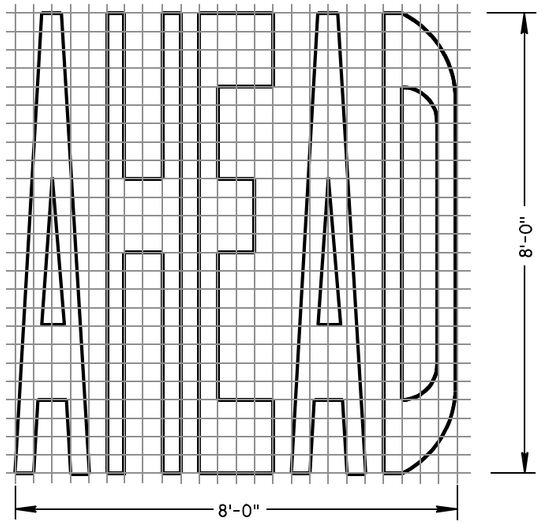
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

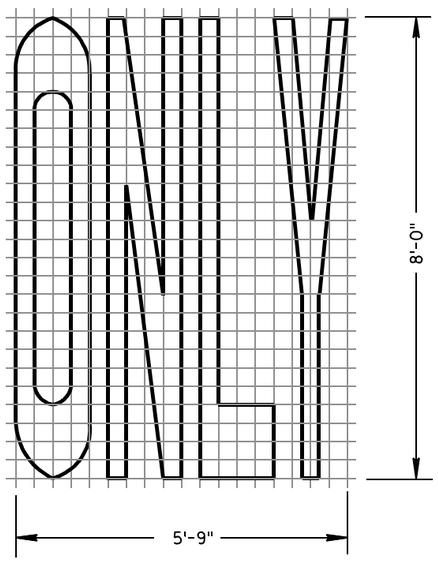


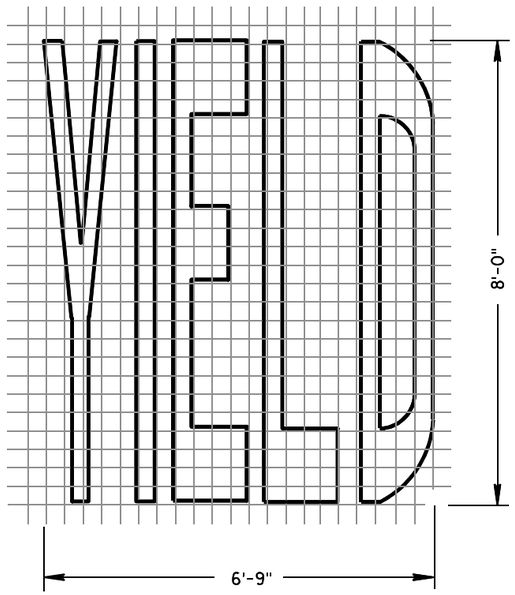


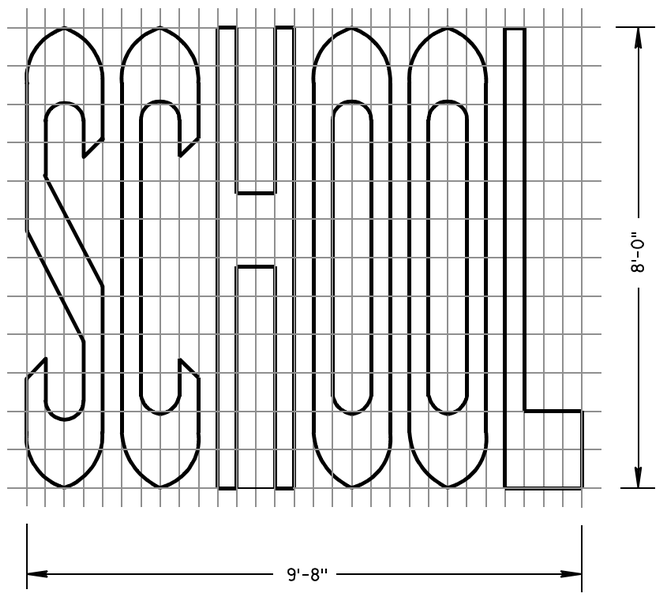


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

6

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

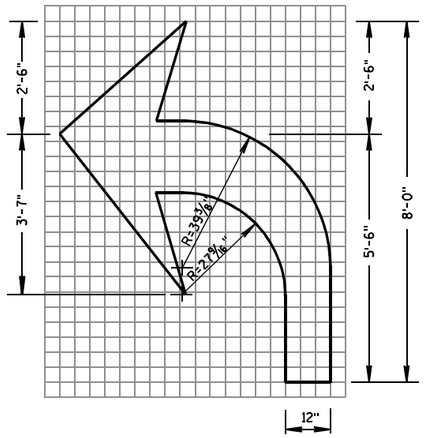
6

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

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.



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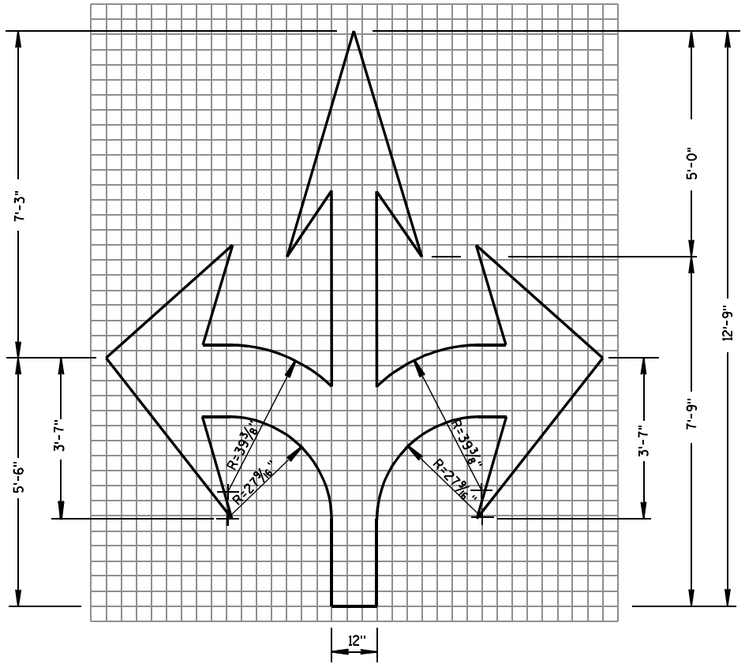

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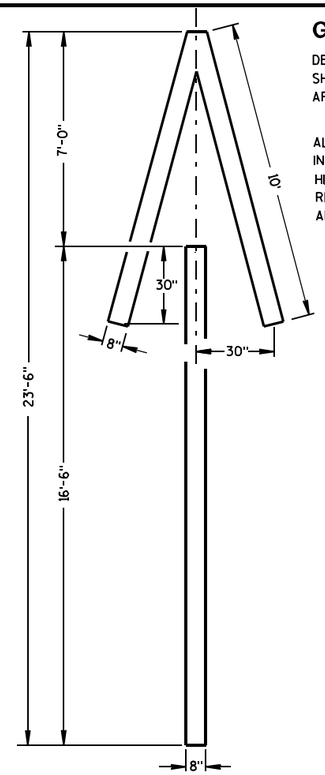

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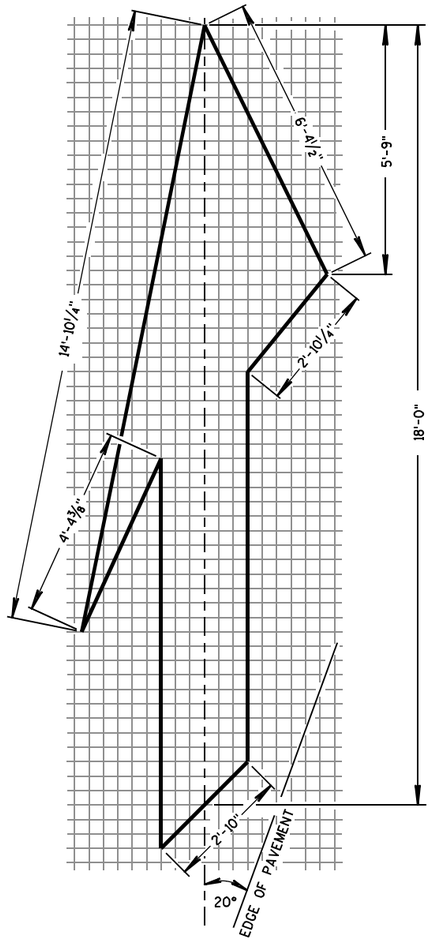
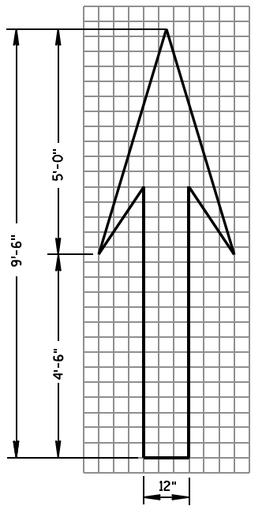
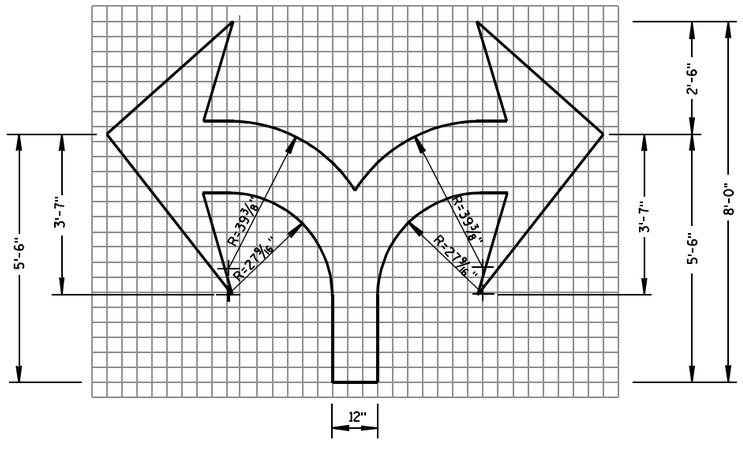


TYPE 5 LANE DROP ARROW



TYPE 1



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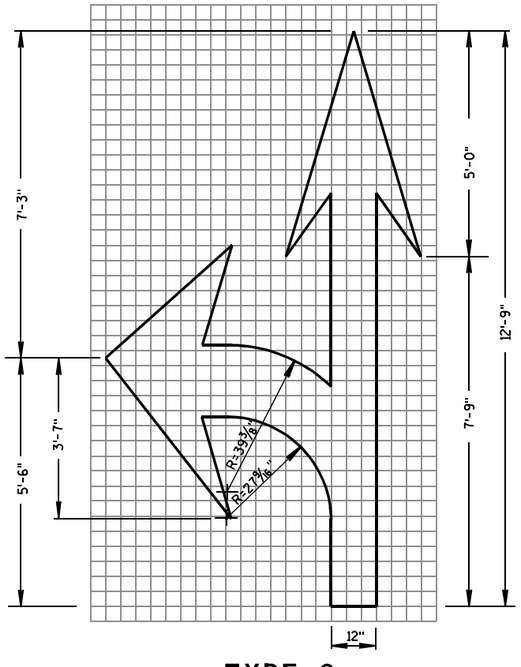


TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

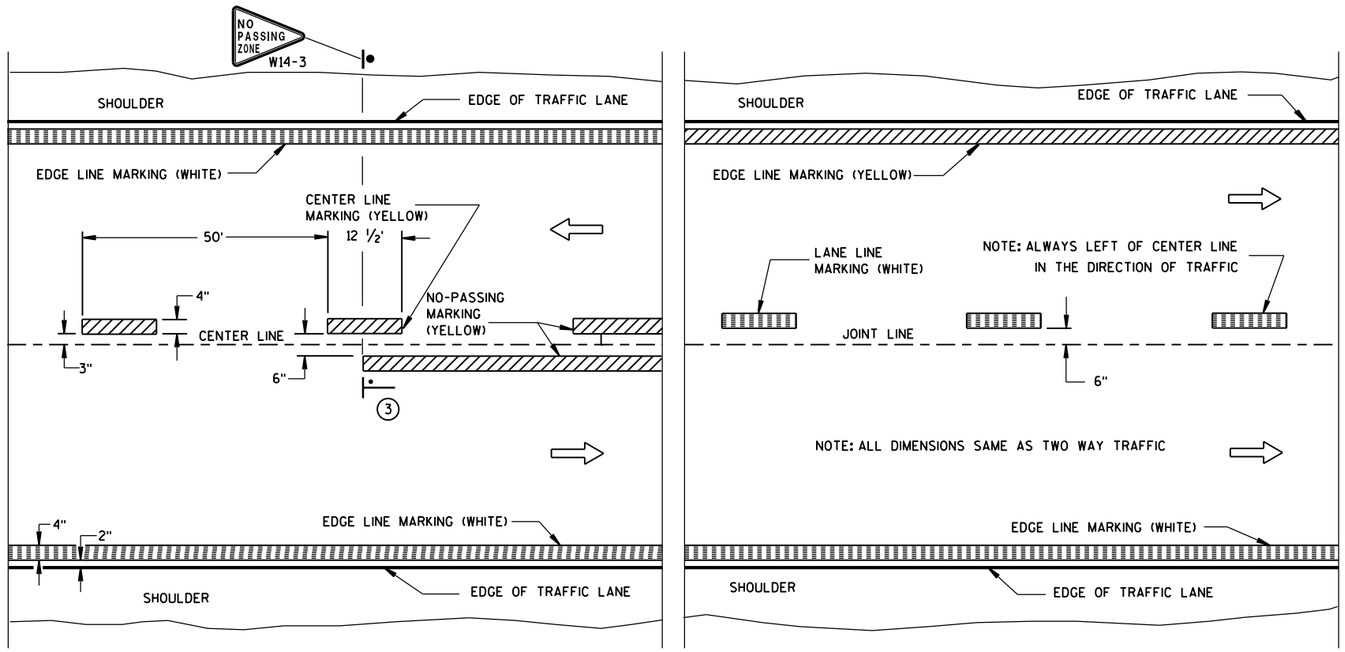
FHWA

6

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

6

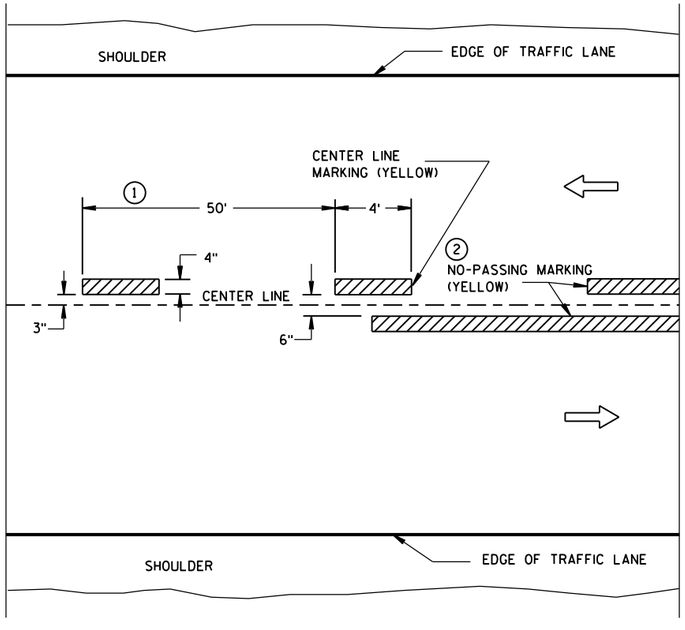
S.D.D. 15 C 7-12c



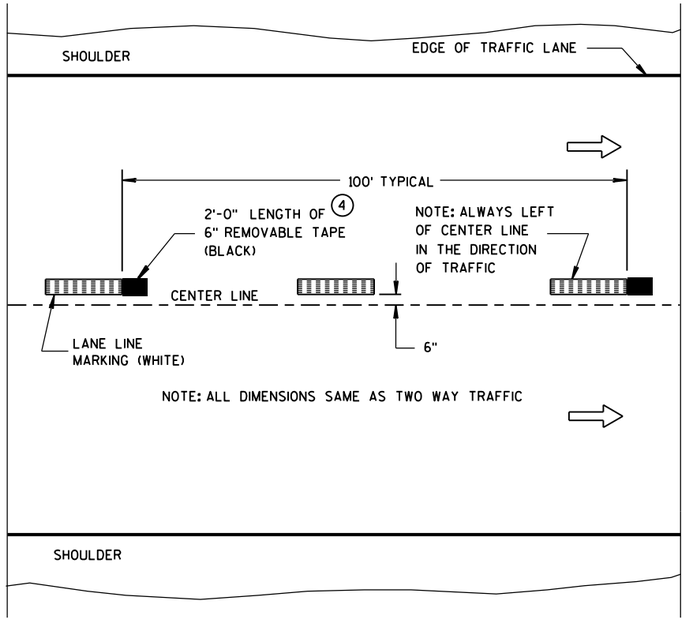
TWO WAY TRAFFIC

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)

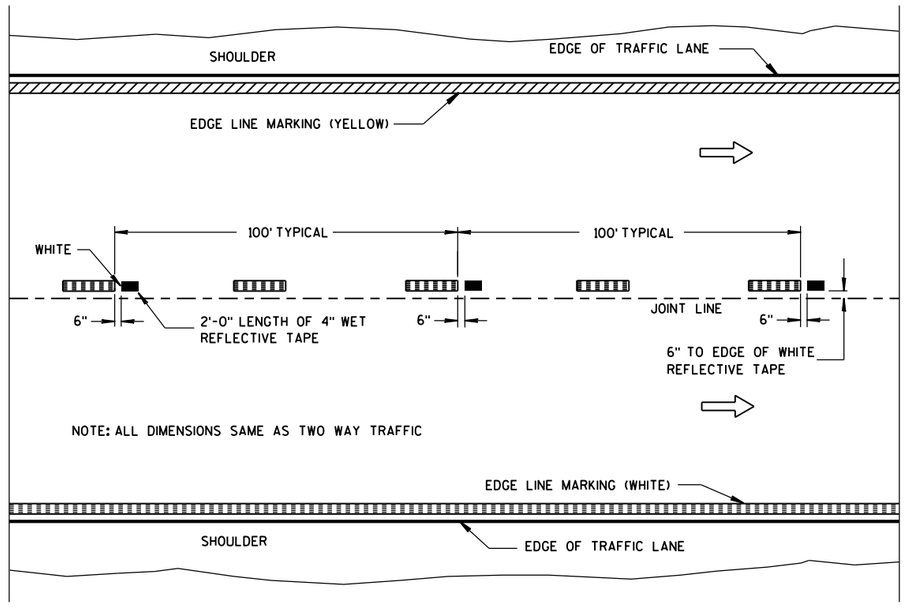
GENERAL NOTES

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 77
FHWA

6

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

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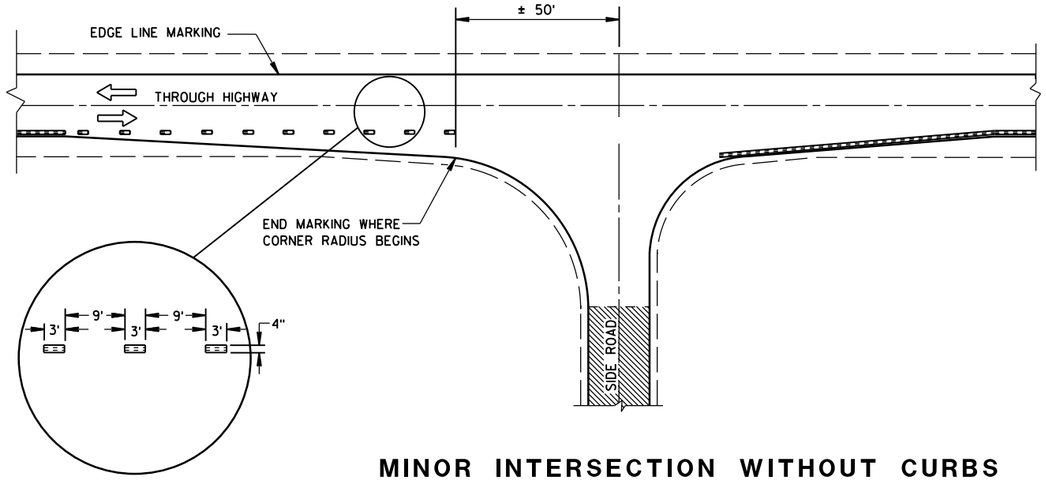
S.D.D. 15 C 8-16a



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.

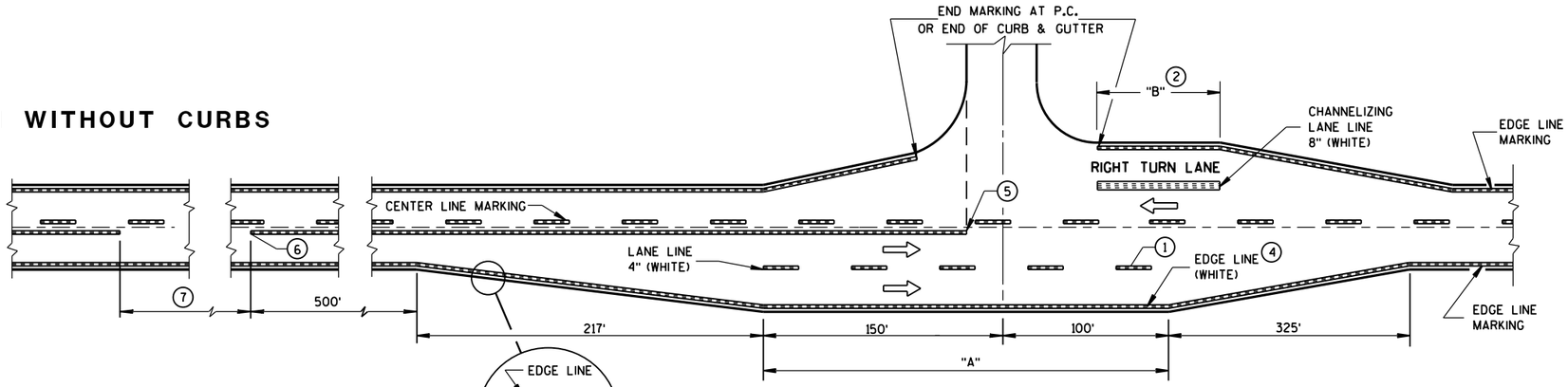
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

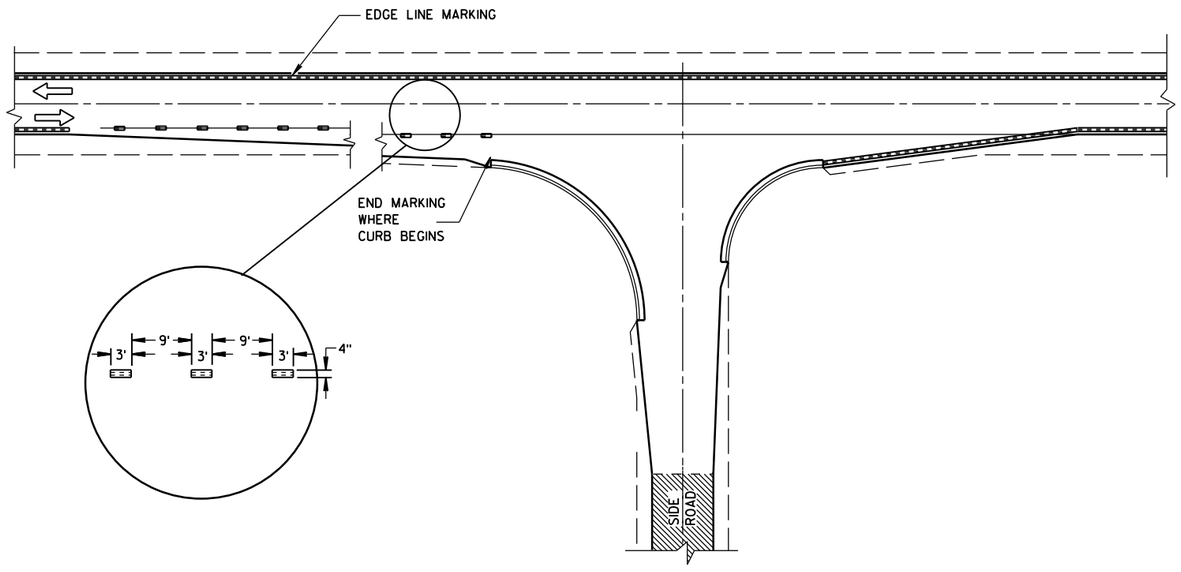
(7)

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



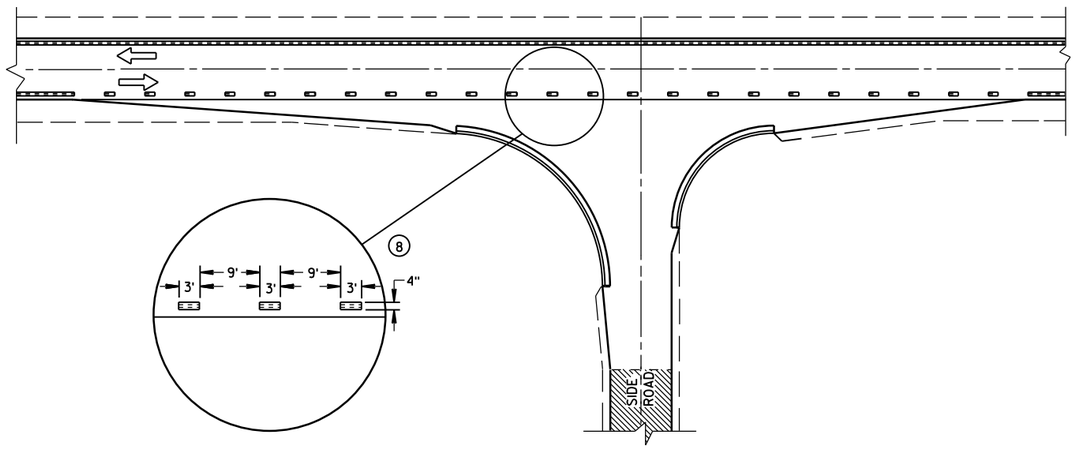
MAJOR INTERSECTIONS

(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)

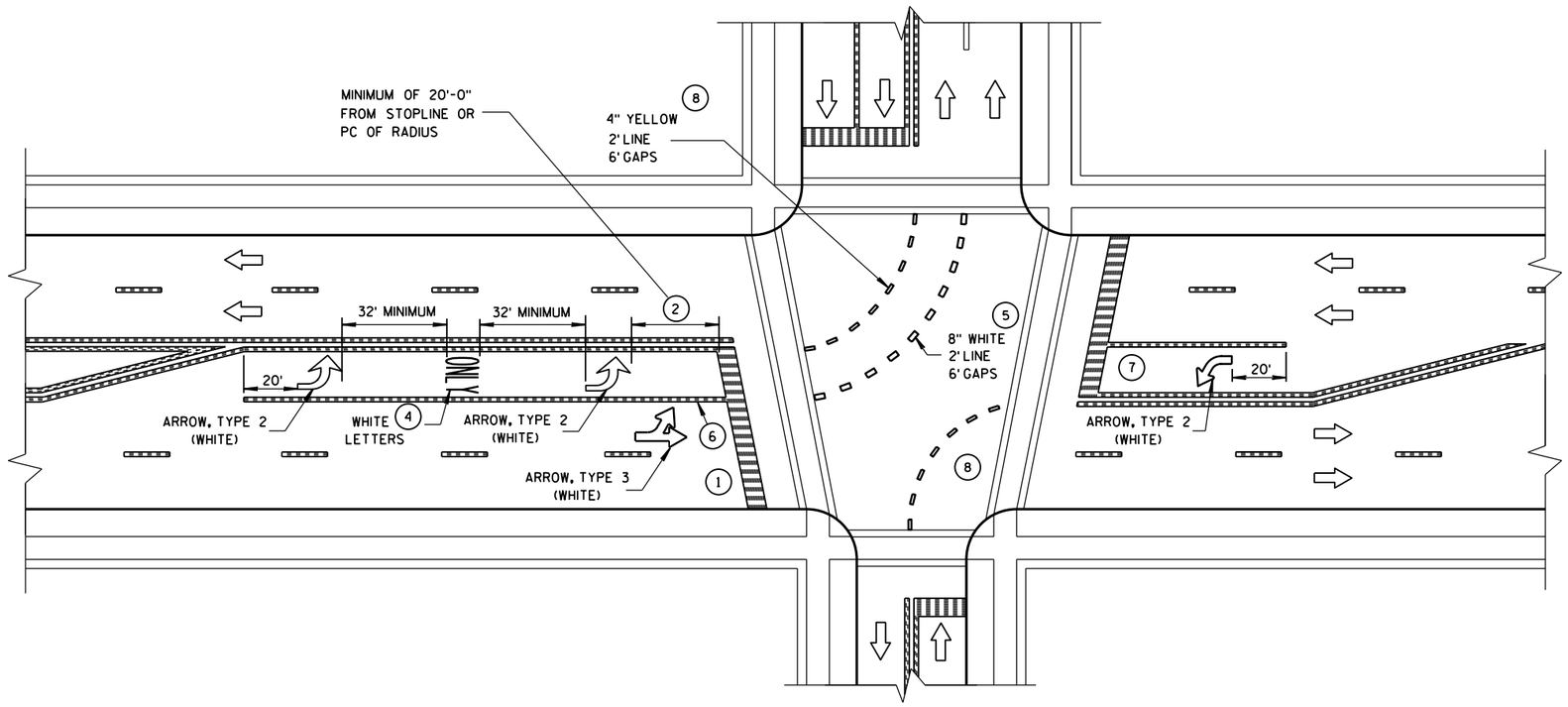
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

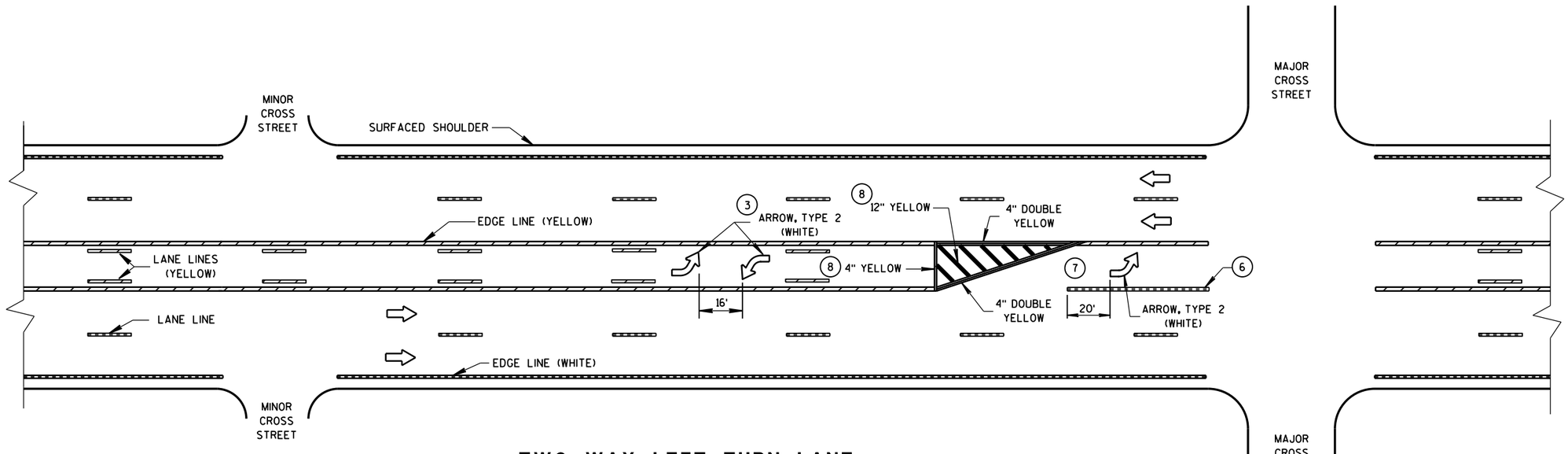
S.D.D. 15 C 8-16b



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



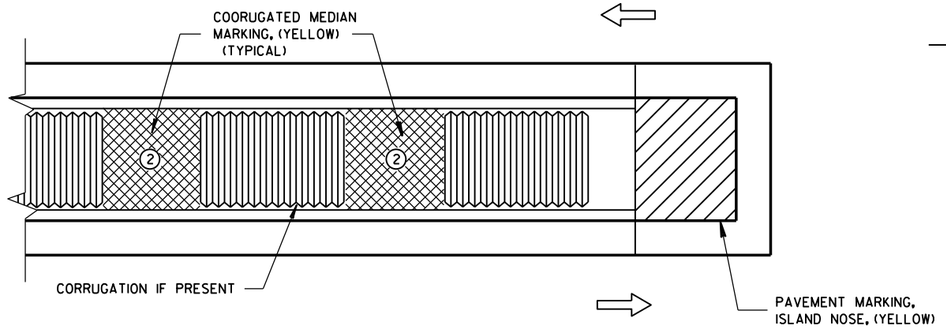
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

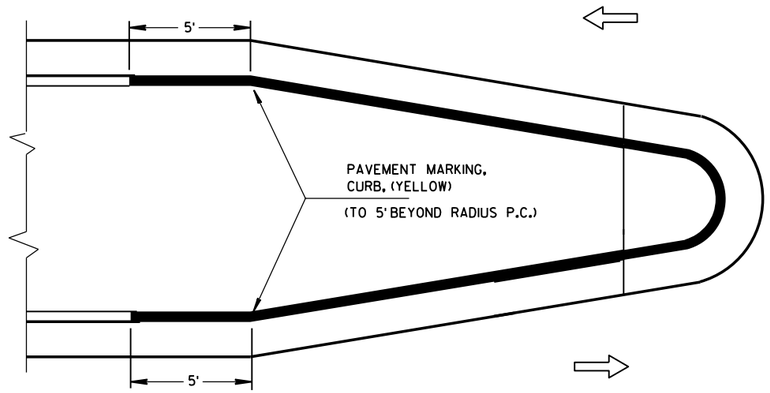
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

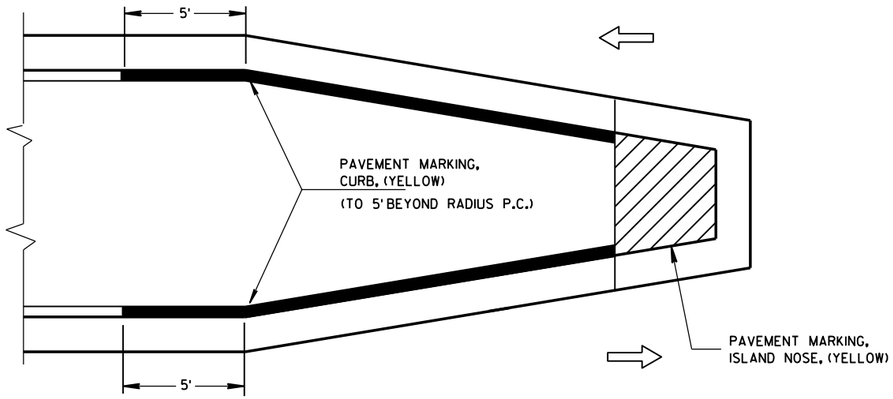
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

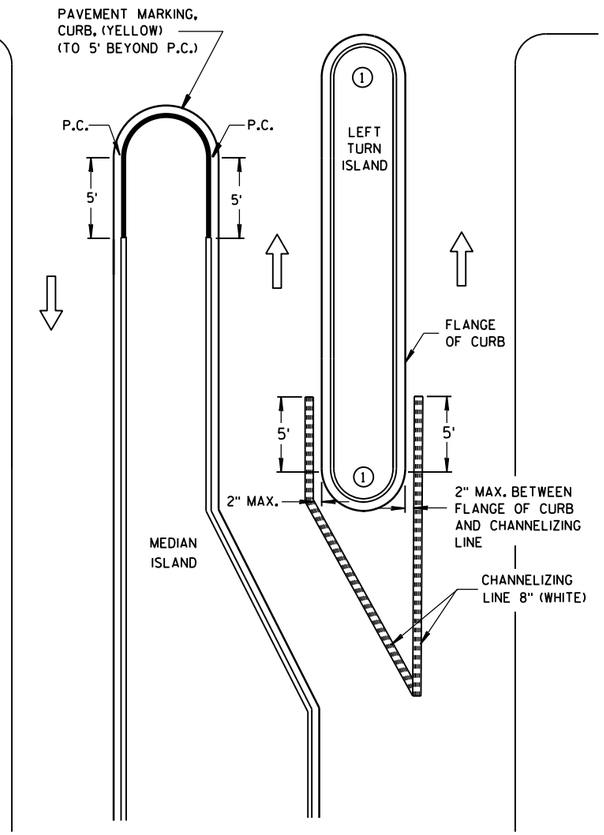


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

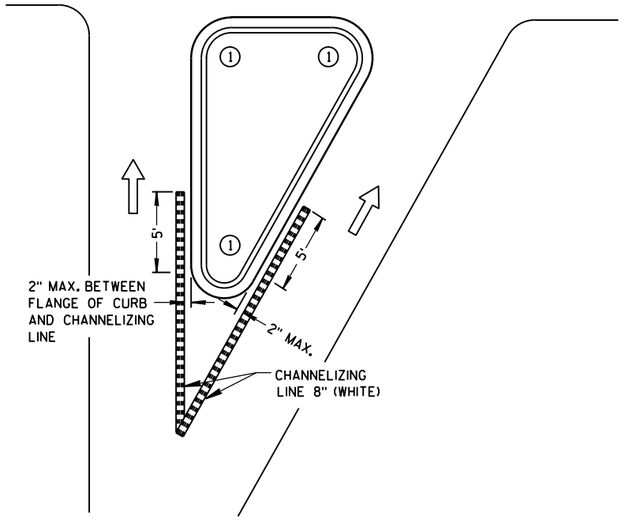


LEFT TURN & MEDIAN ISLAND

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

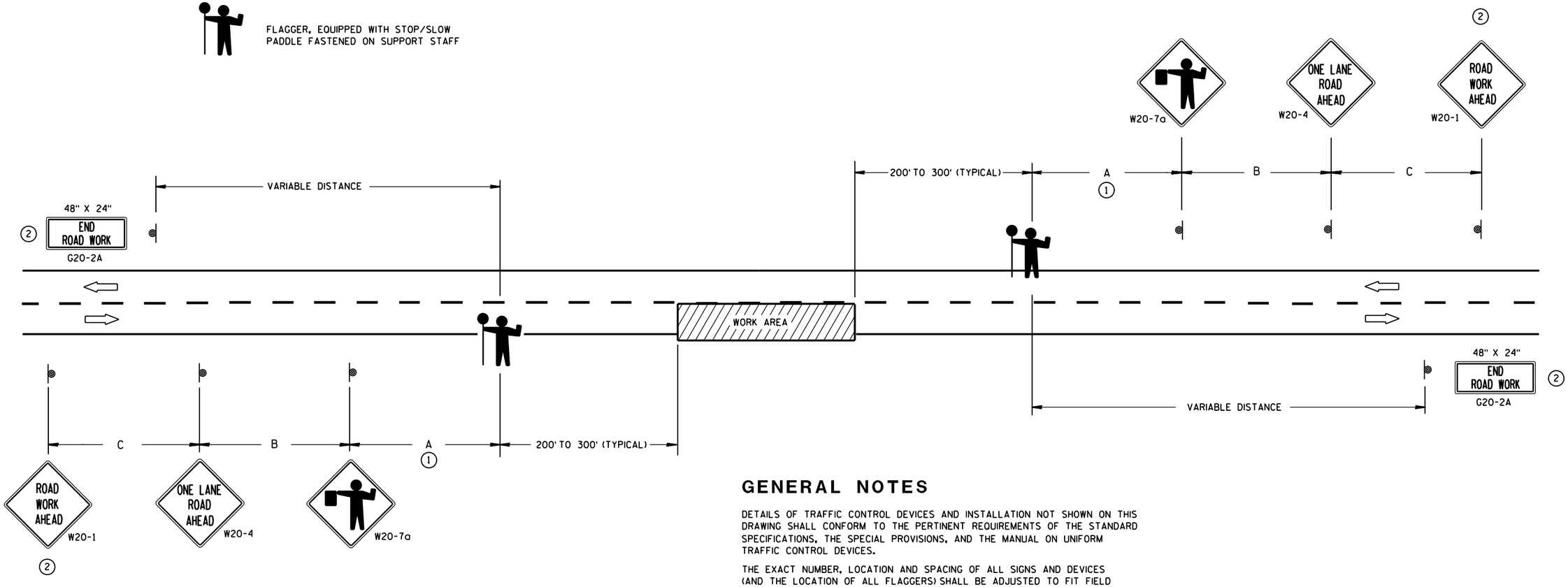
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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

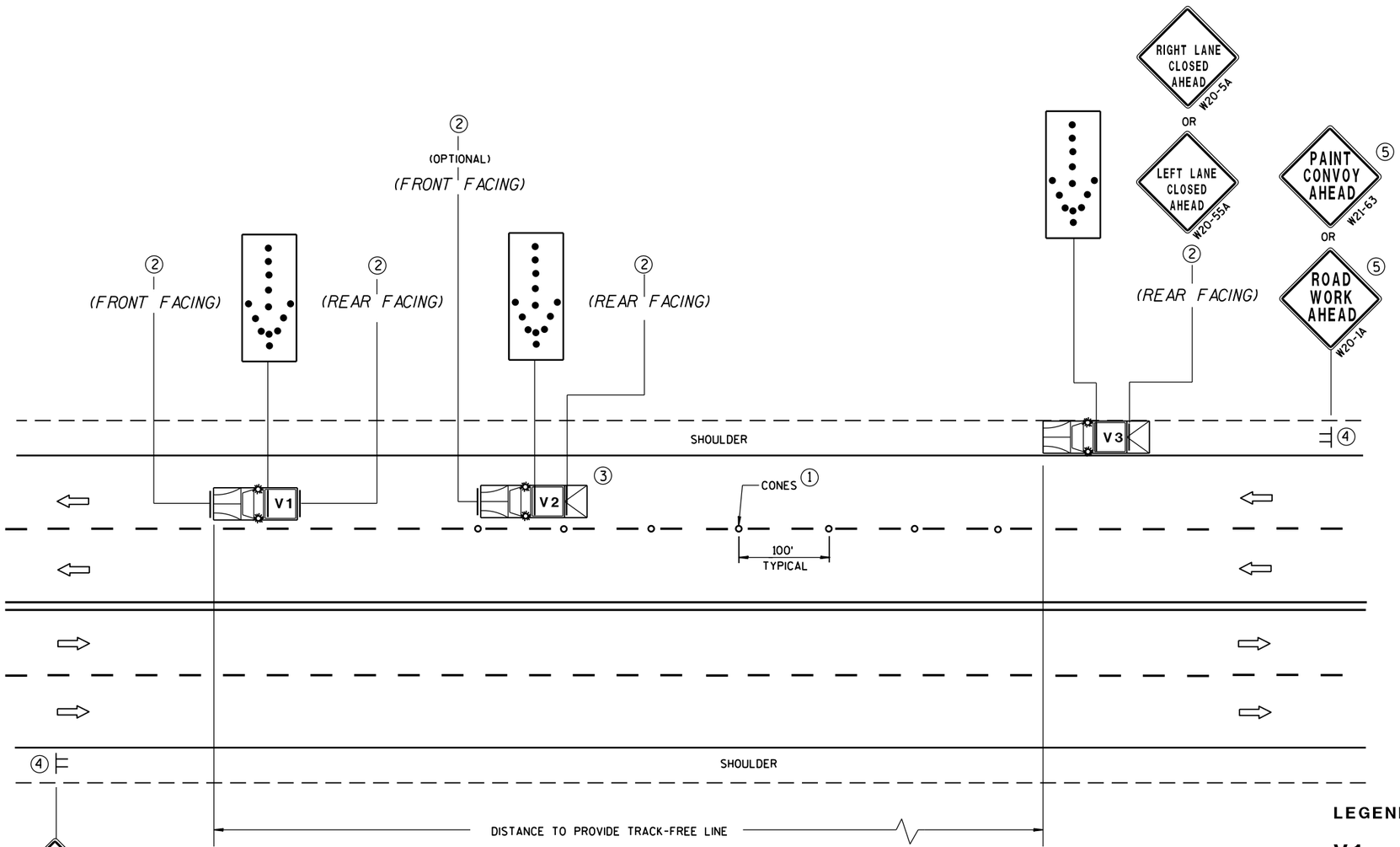
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
DESIGN
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



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.

MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY

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)

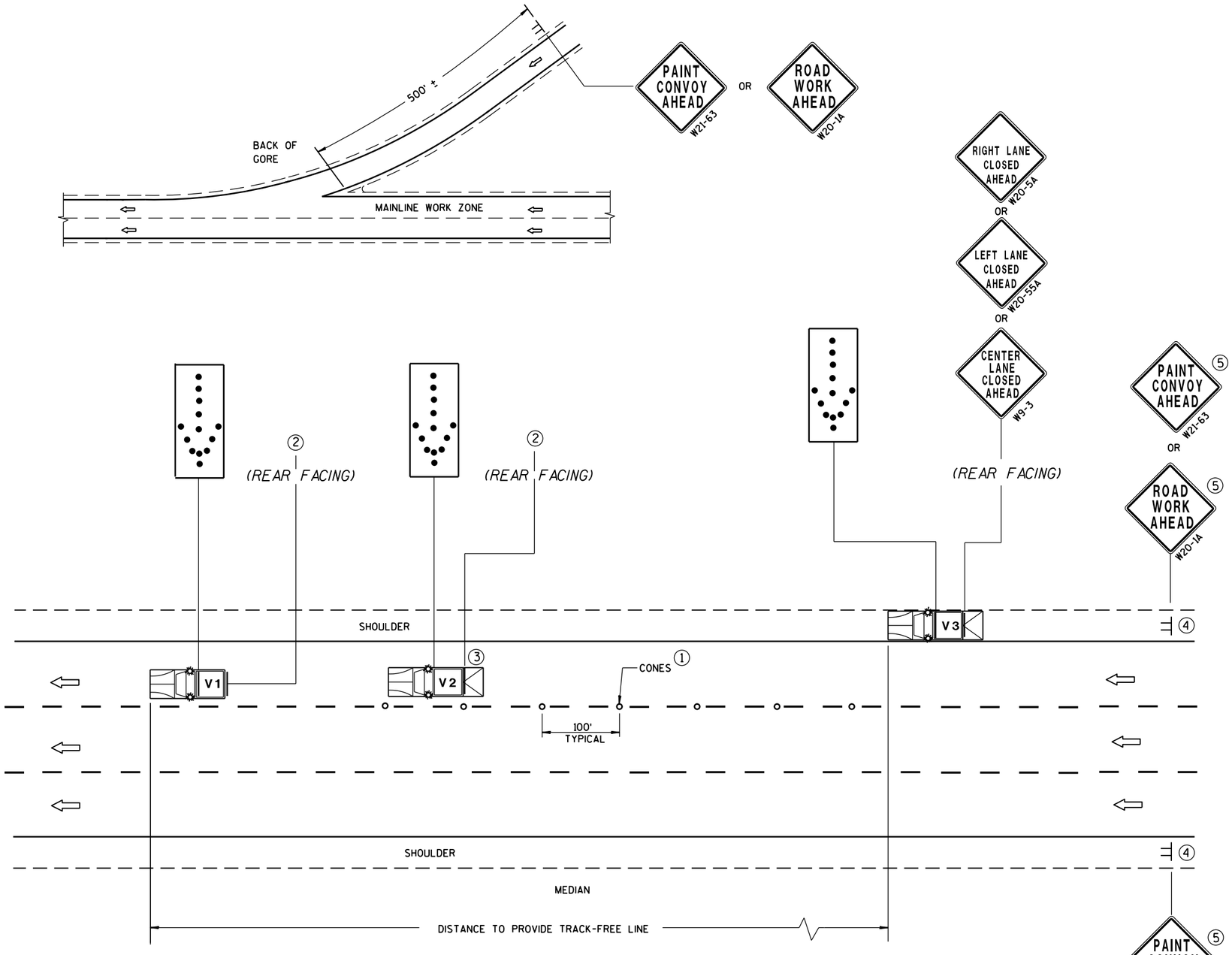
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINE
FHWA

6

S.D.D. 15 C 19-3b



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED 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. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED 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 AFTER EVERY ON RAMP OR 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)

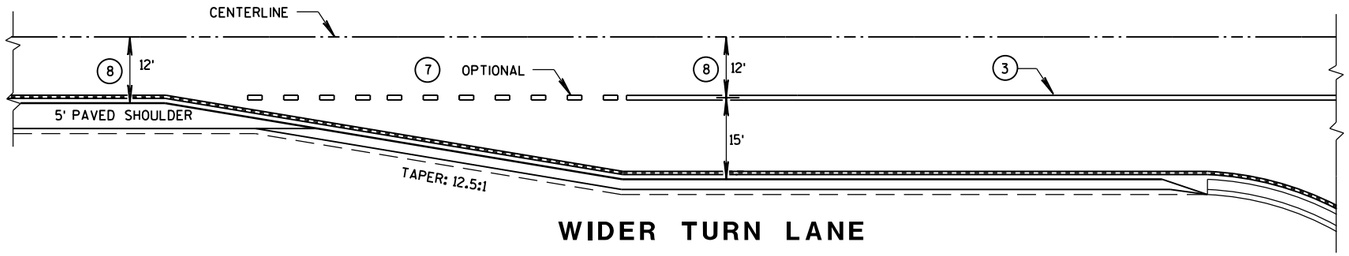
MOVING PAVEMENT MARKING OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

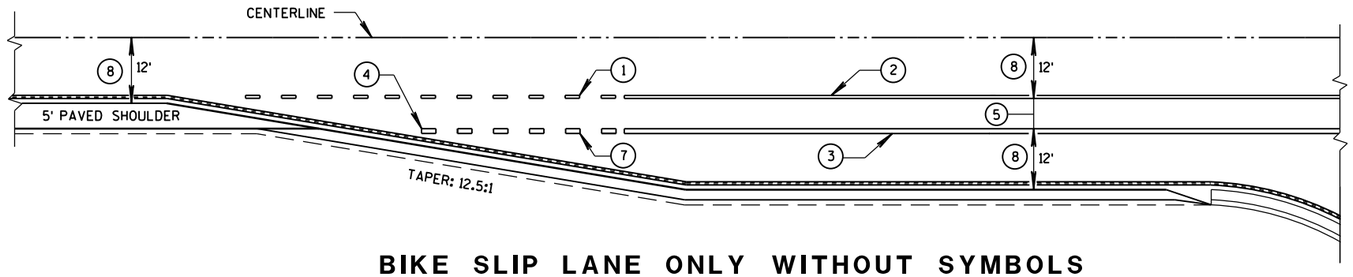
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZON SAFETY ENGINI
FHWA

6 S.D.D. 15 C 19-3c

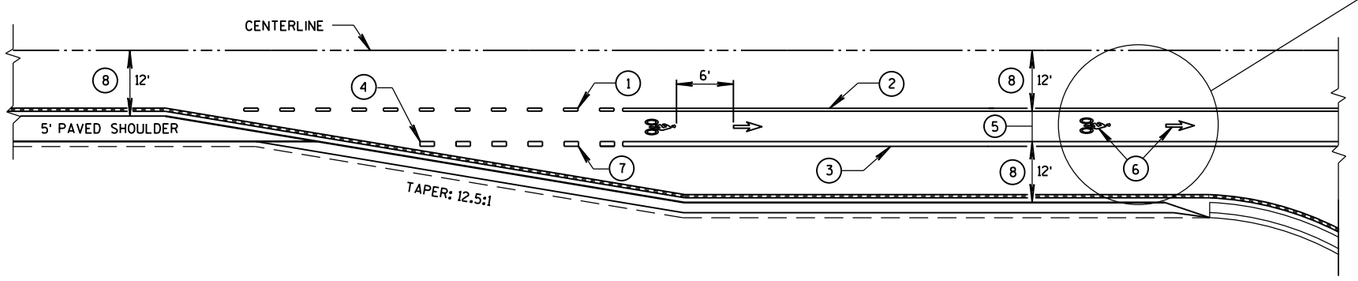
6 S.D.D. 15 C 19-3c



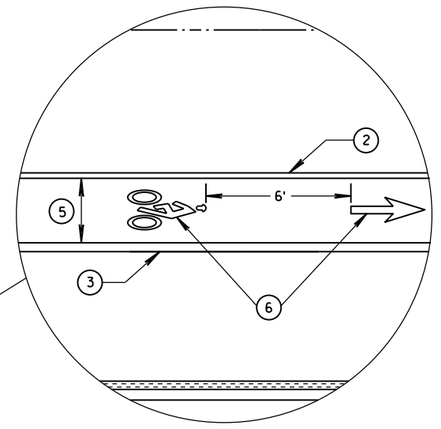
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE.
   BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

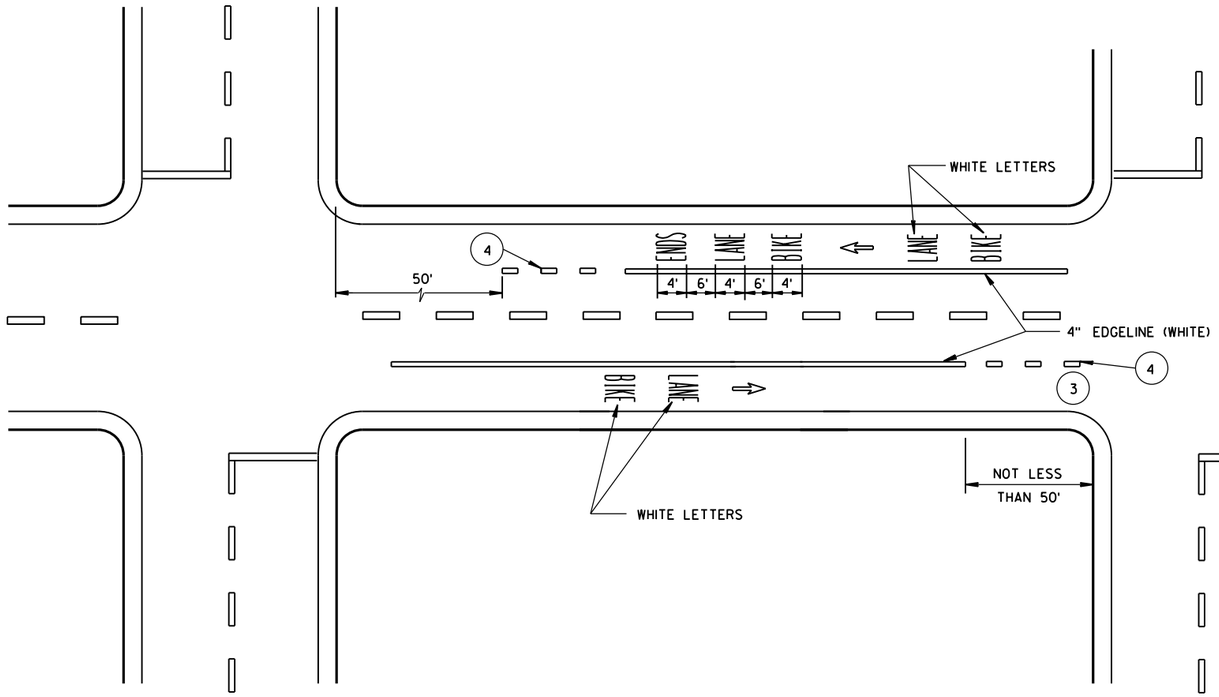
FHWA

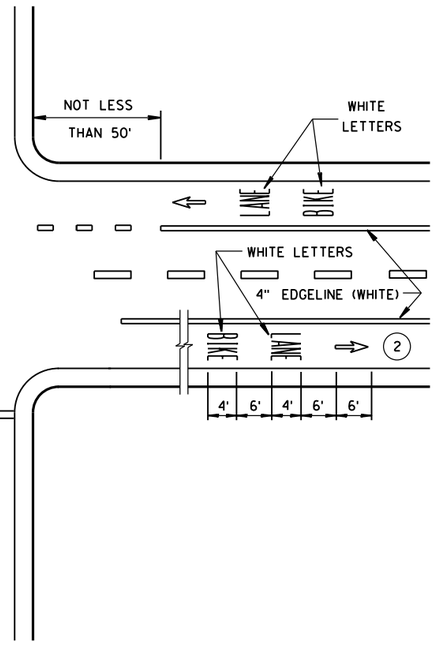
6

S.D.D. 15 C 29-3a

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

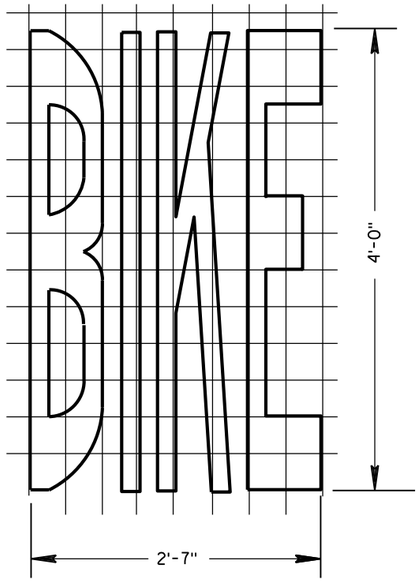
URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
FHWA	

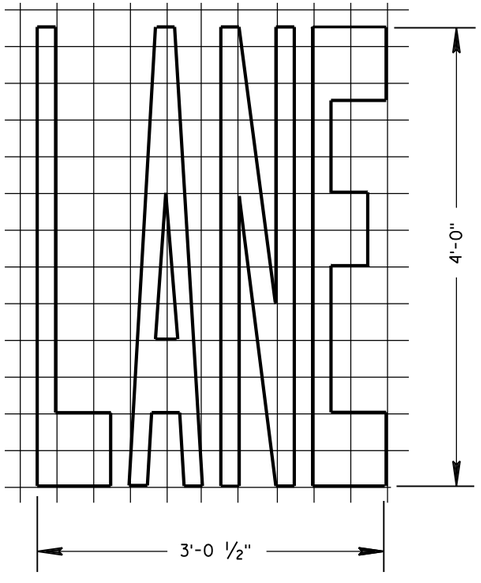
6
S.D.D. 15 C 29-3d

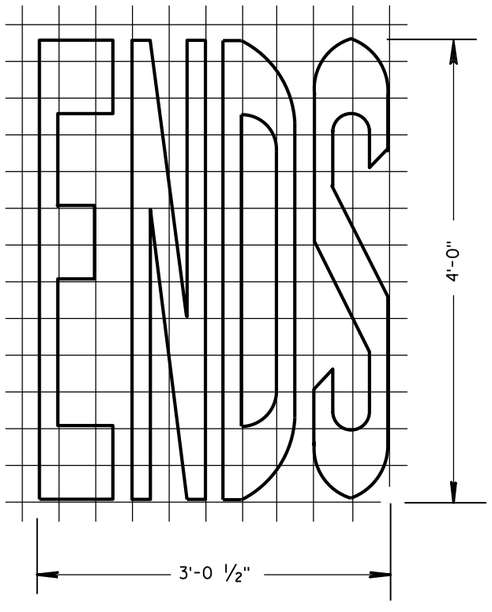
GENERAL NOTES

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.

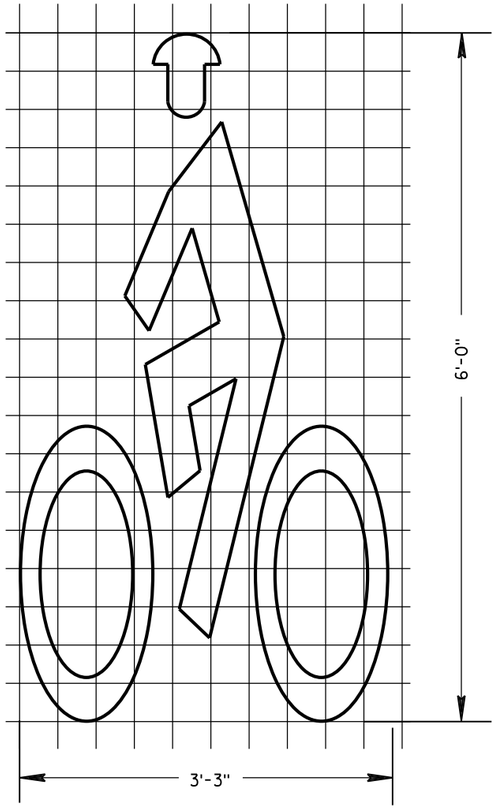
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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



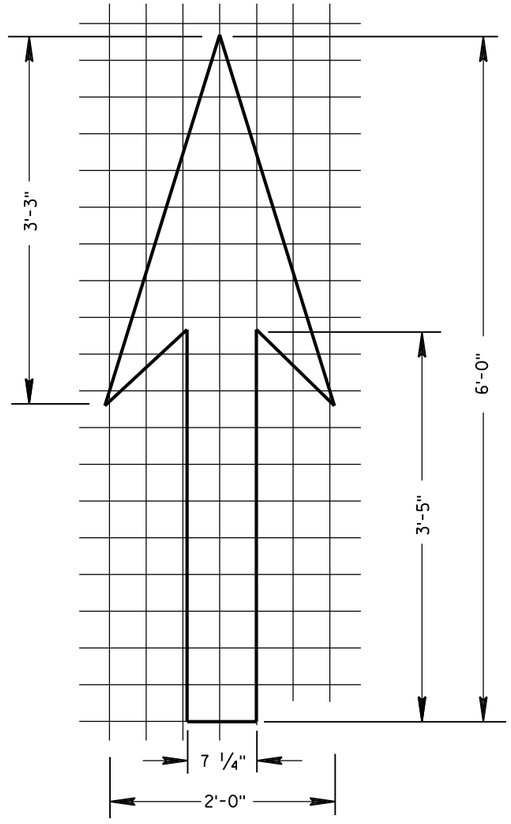




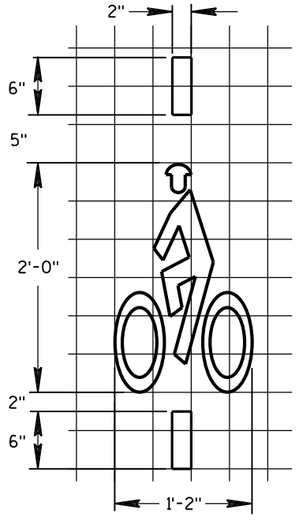
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3e

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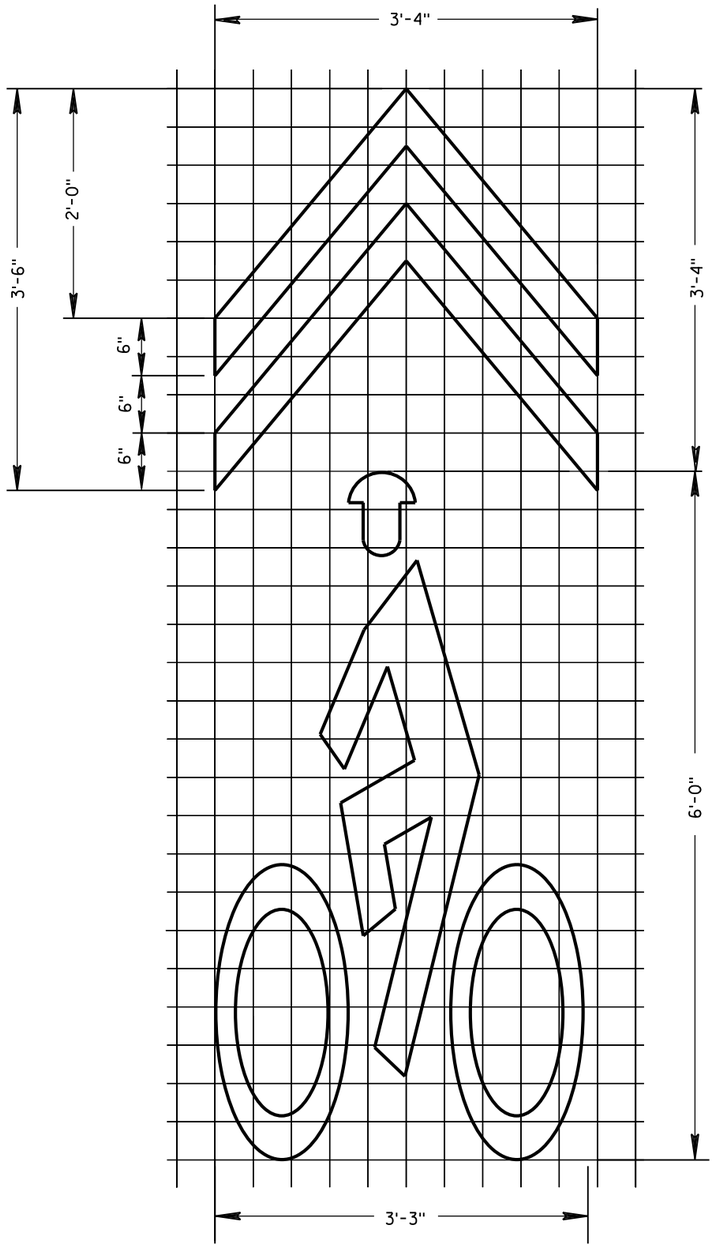
S.D.D. 15 C 29-3e



BIKE SYMBOL FOR SHARED LANE

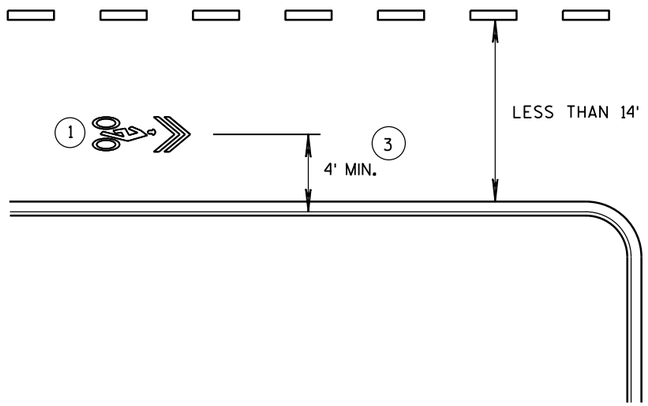
GENERAL NOTES

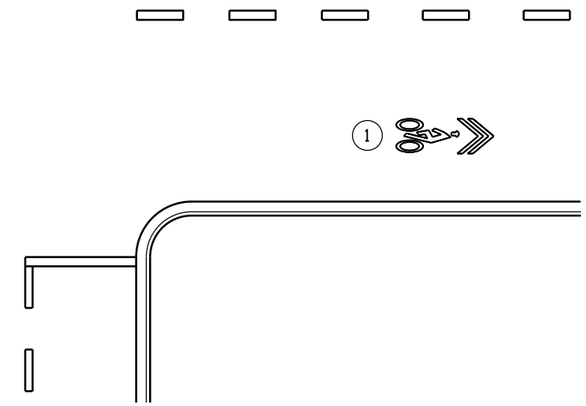
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES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

(1) SPACED A MAXIMUM OF 250 FEET.

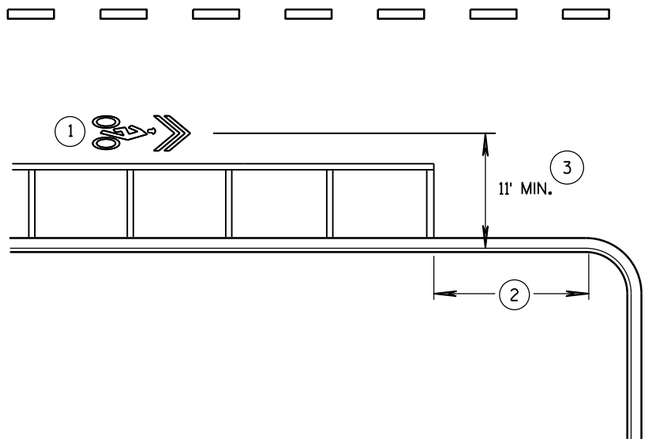
(2) 20 FOOT MINIMUM FROM CURB RADIUS.

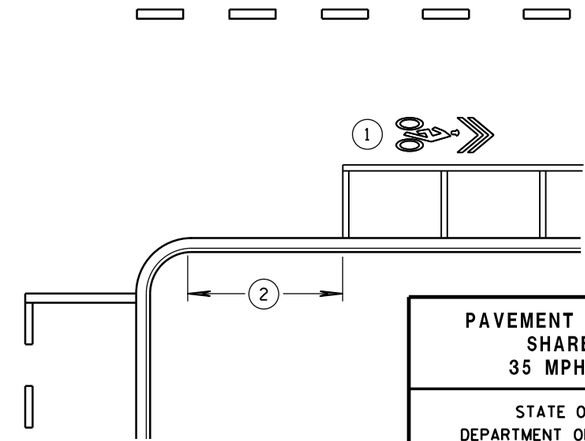
(3) OR TO EDGE OF PAVEMENT WITHOUT CURB.





WITHOUT PARKING





WITH PARKING

PAVEMENT MARKING FOR
SHARED LANE
35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013 DATE
/S/ Travis Feltes
STATE TRAFFIC EN
FHWA

6

S.D.D. 15 C 29-3f

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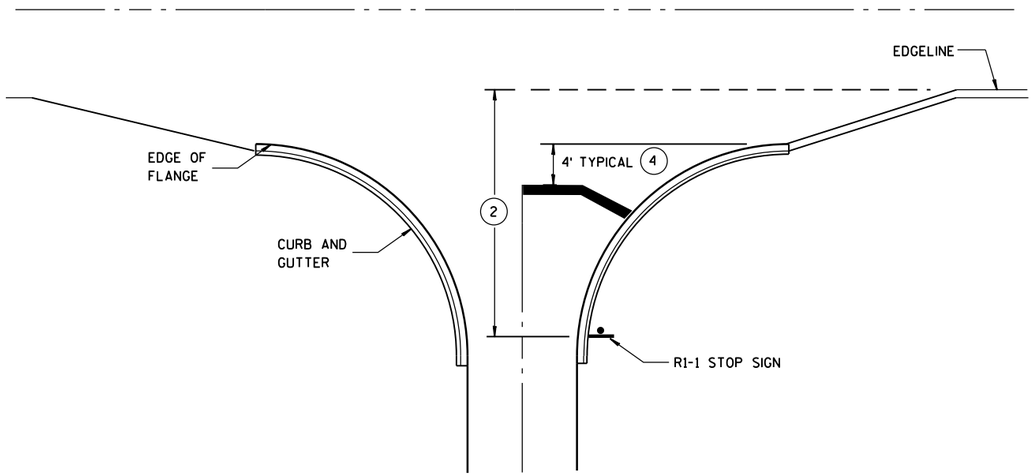
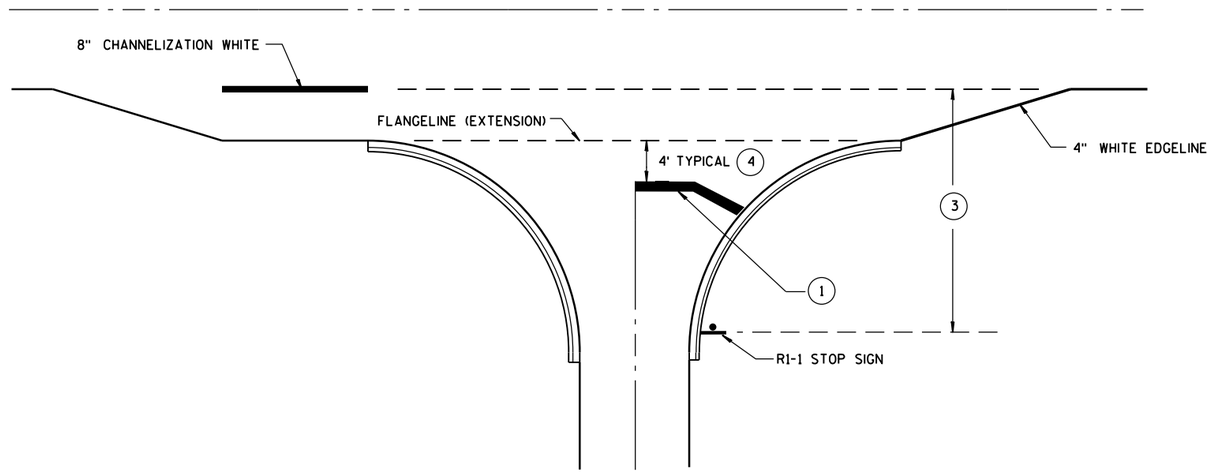
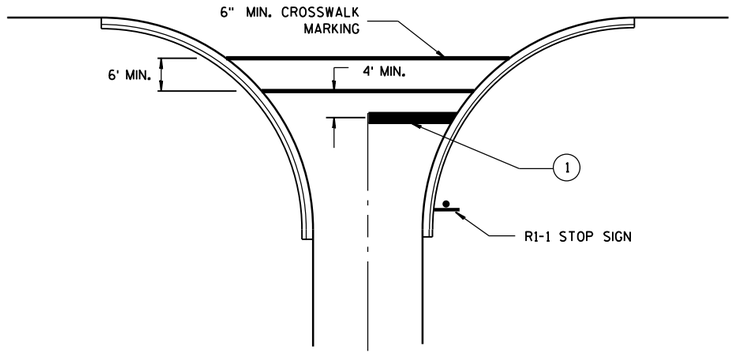
S.D.D. 15 C 29-3f



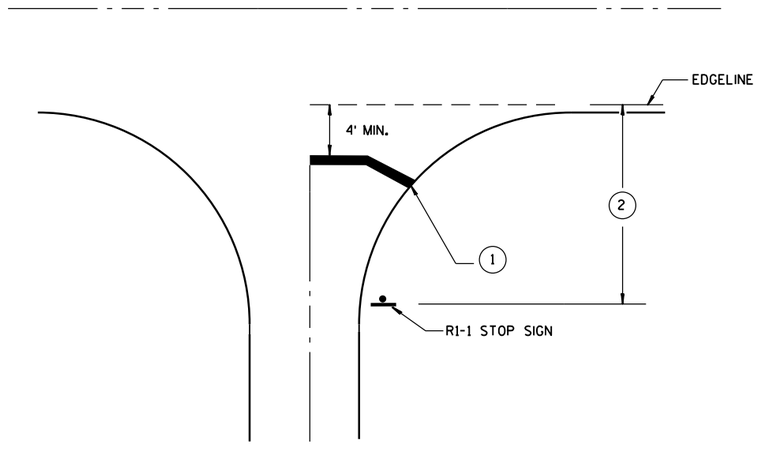
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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.

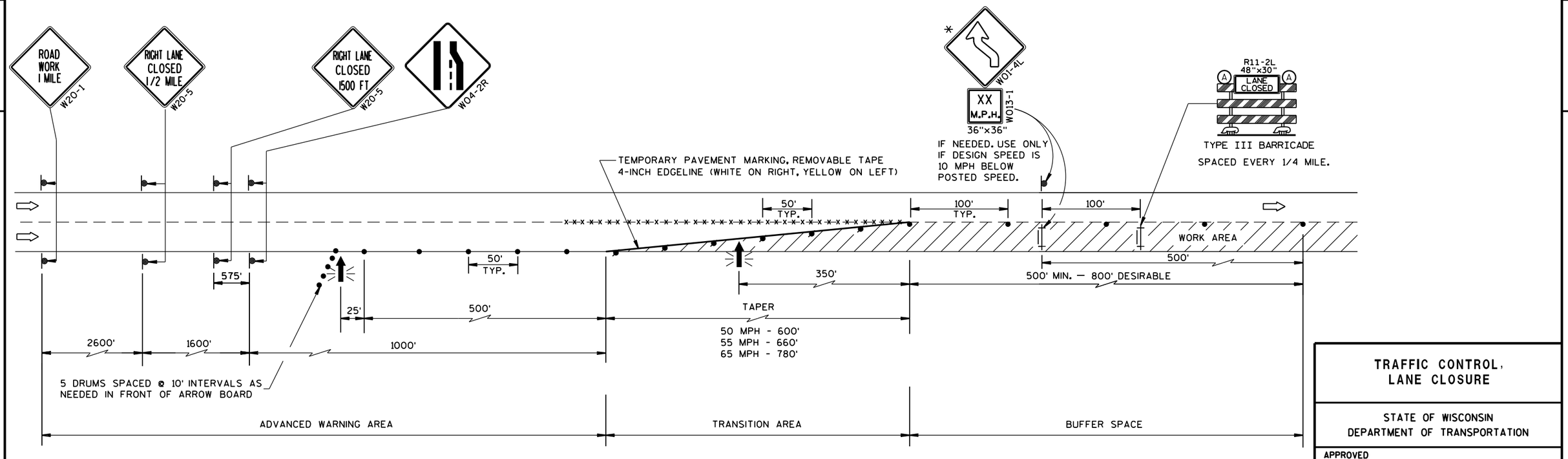
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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.



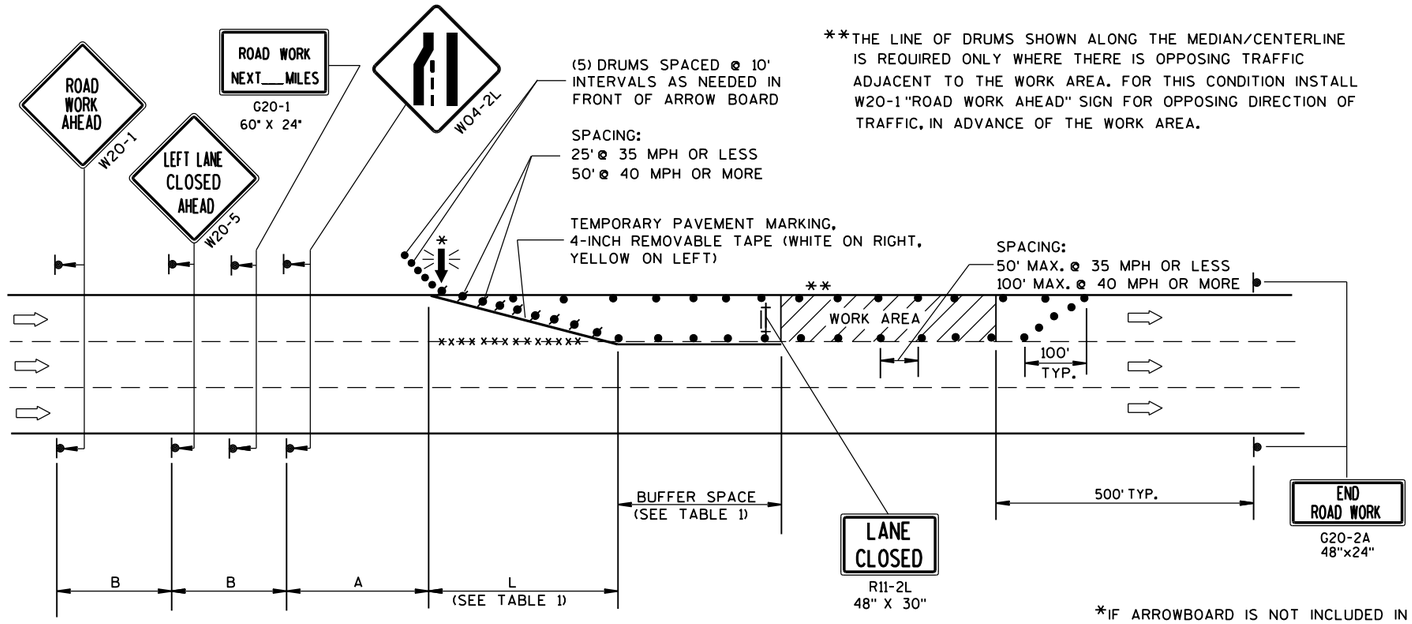
TRAFFIC CONTROL, LANE CLOSURE

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



**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"

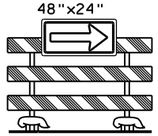


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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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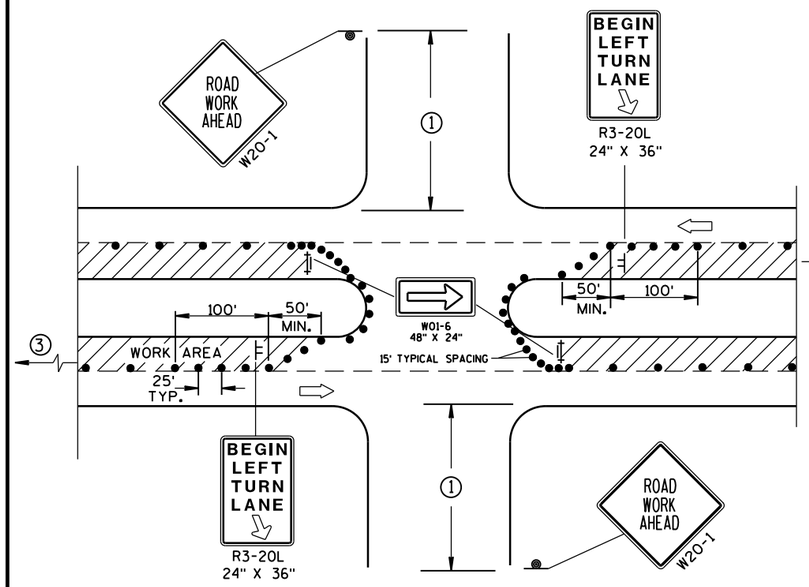
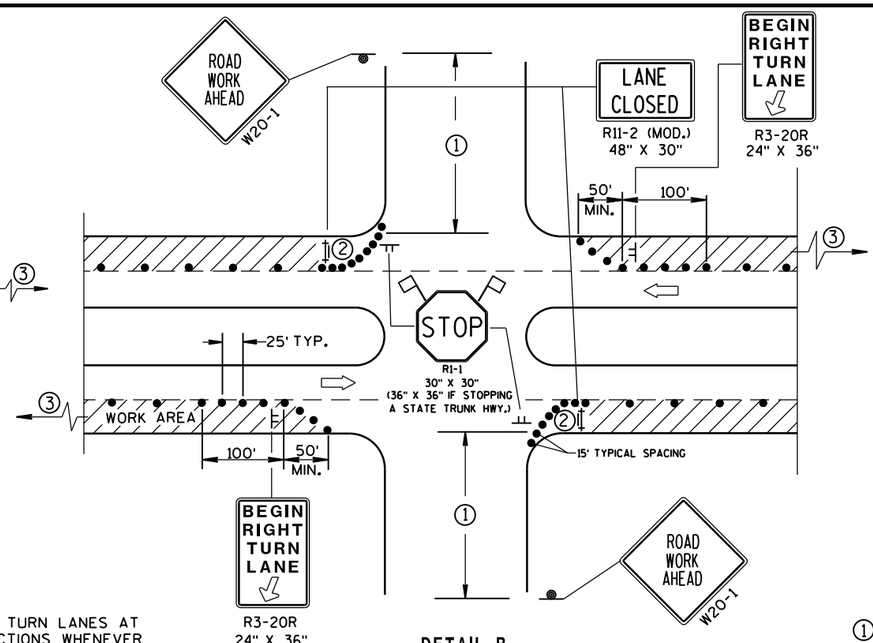
S.D.D. 15 D 20-3



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.

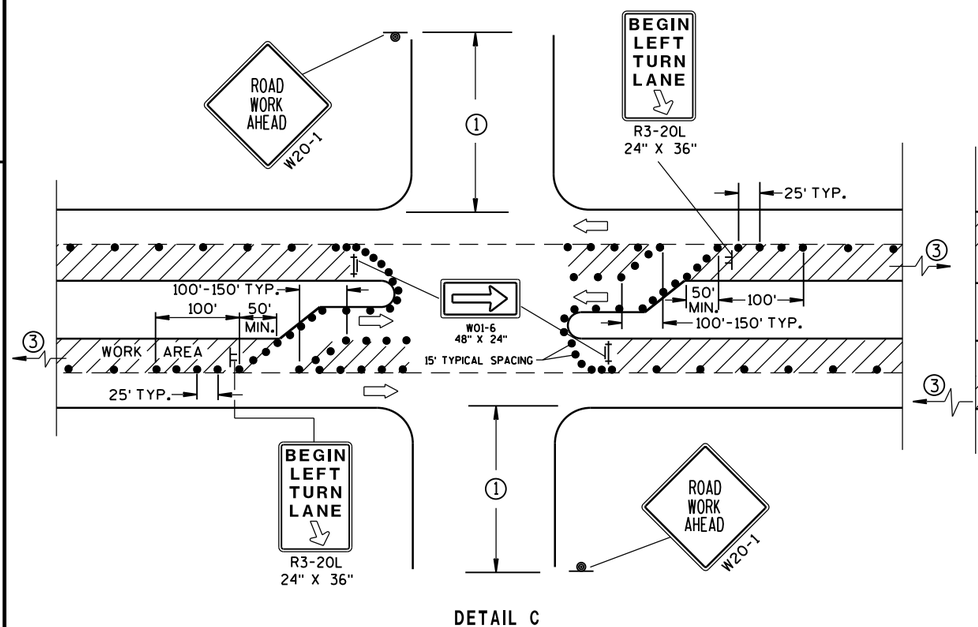
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

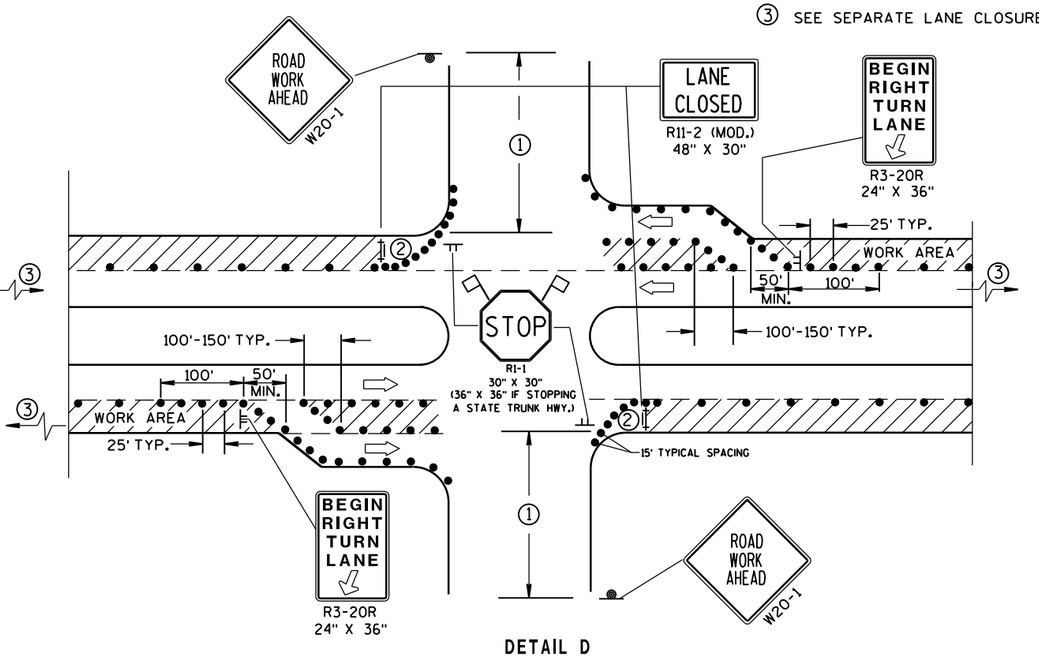
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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

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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
- 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 TWO LANES. FOR CLOSING THE LEFT TWO LANES, 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.

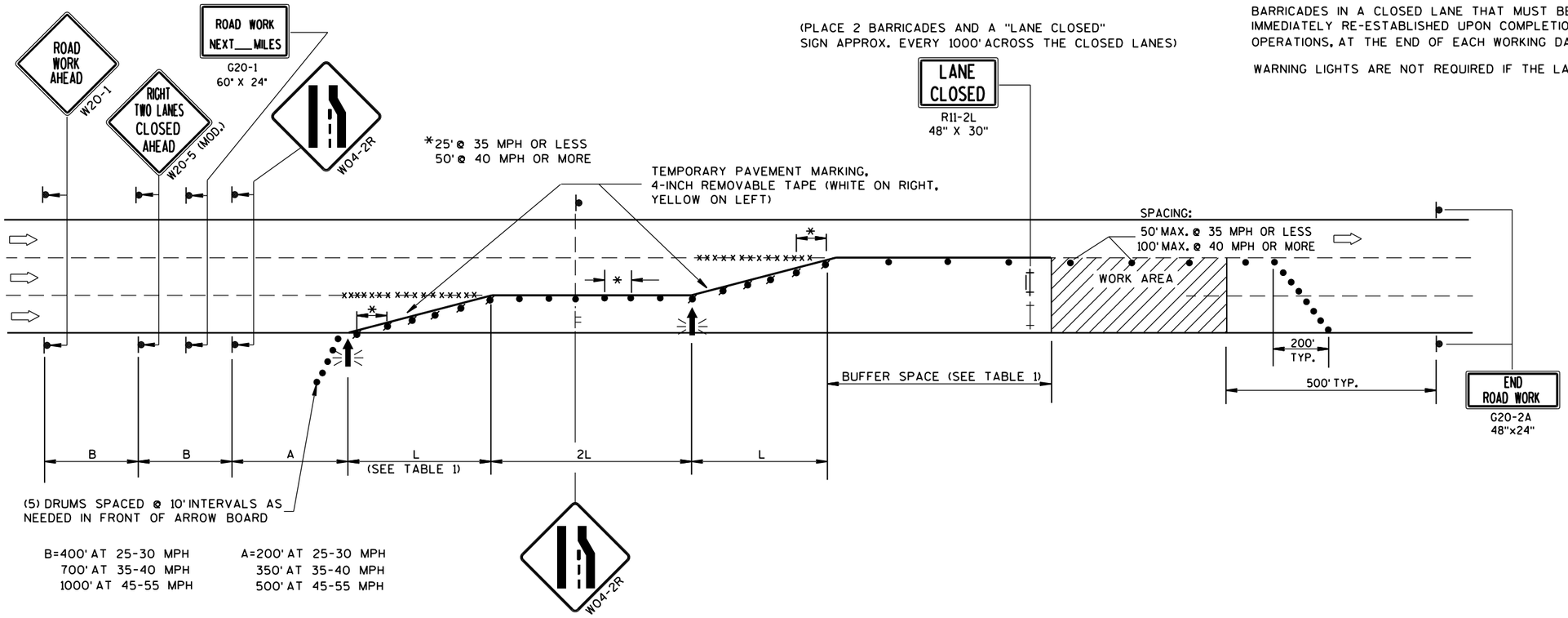
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

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.



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

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

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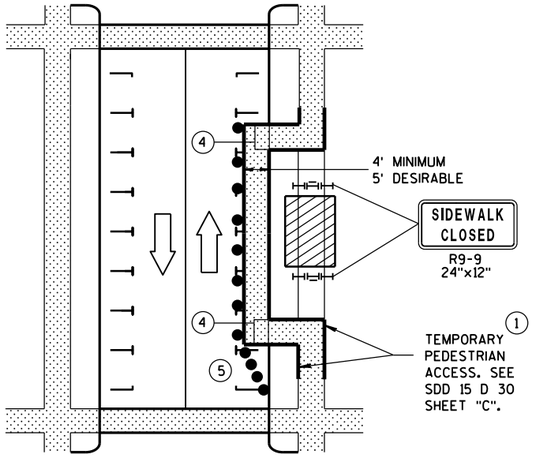
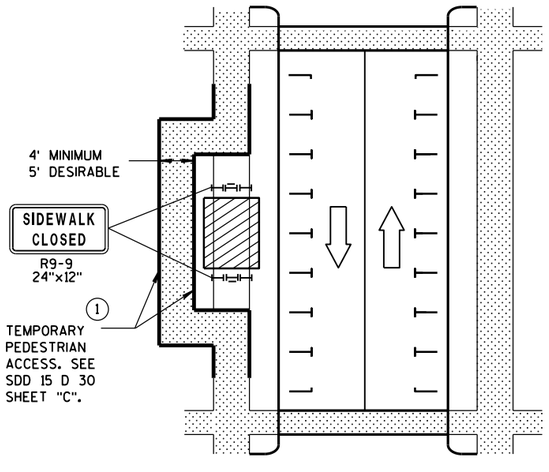
NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

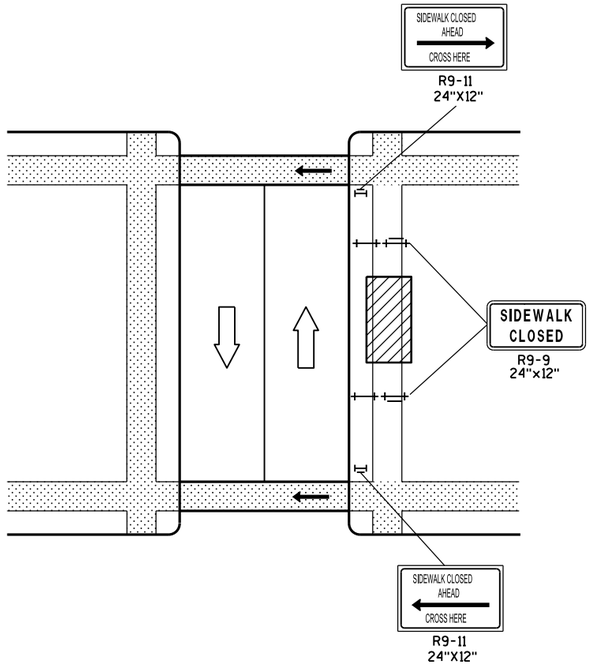


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

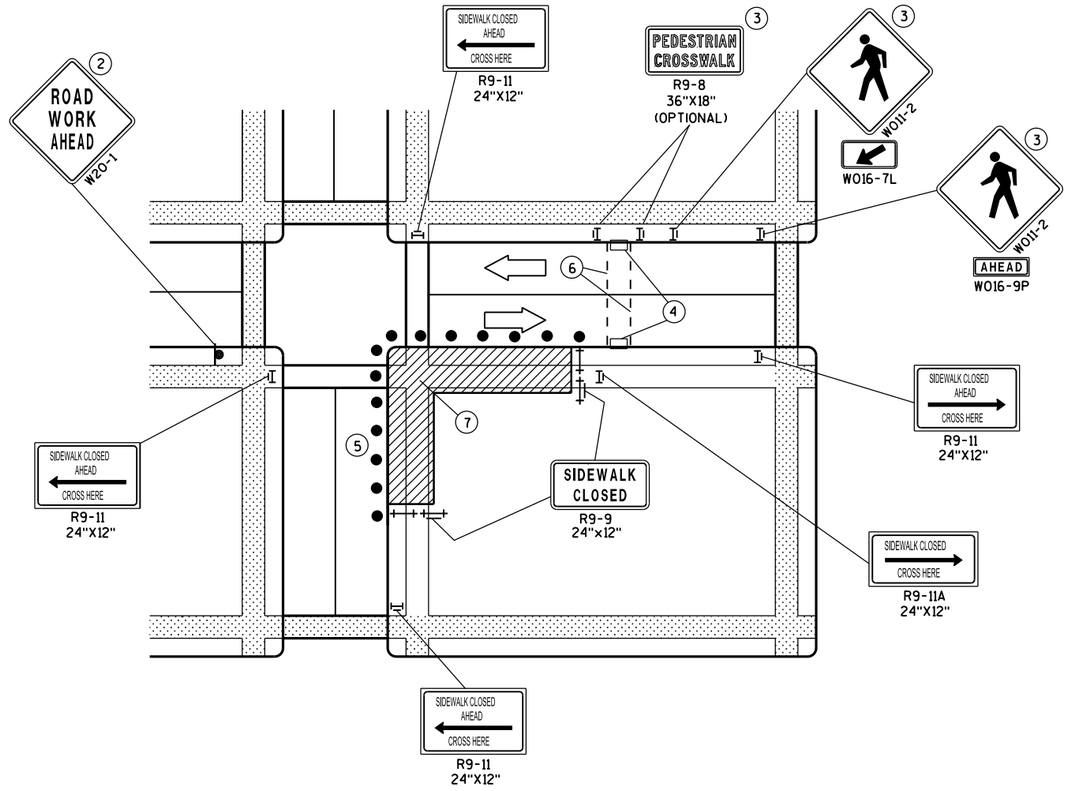
NOTE: LAYOUT SAME AS ABOVE.



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 TRANSPOR

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S.D.D. 15 D 30-2a

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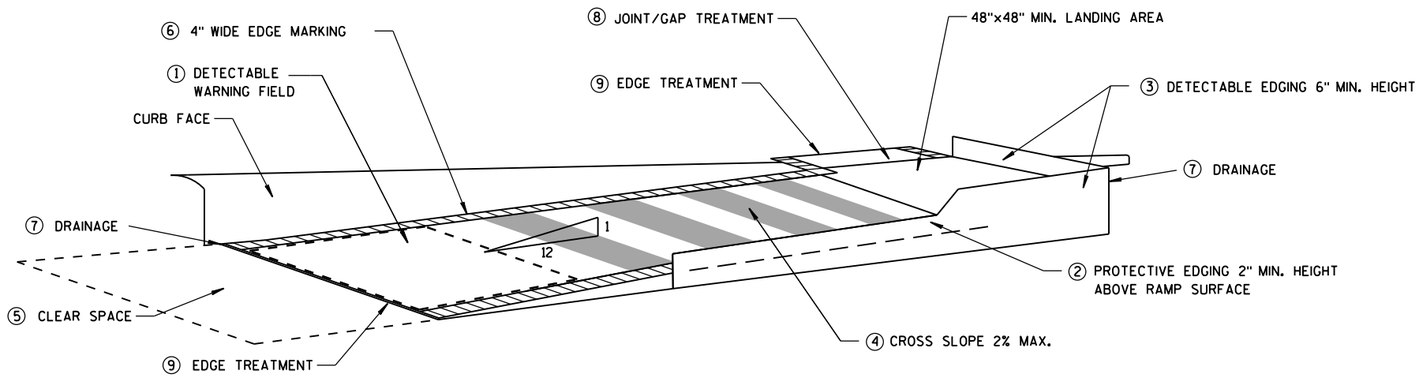


TEMPORARY CURB RAMP PARALLEL TO CURB

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.

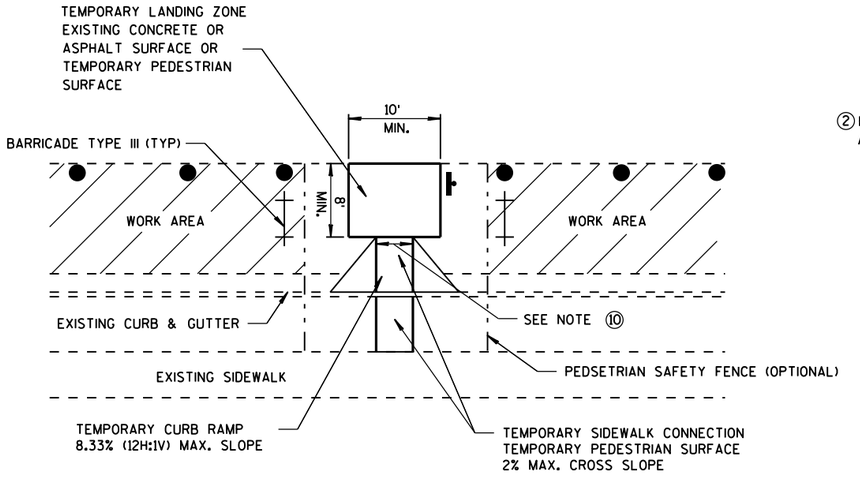
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

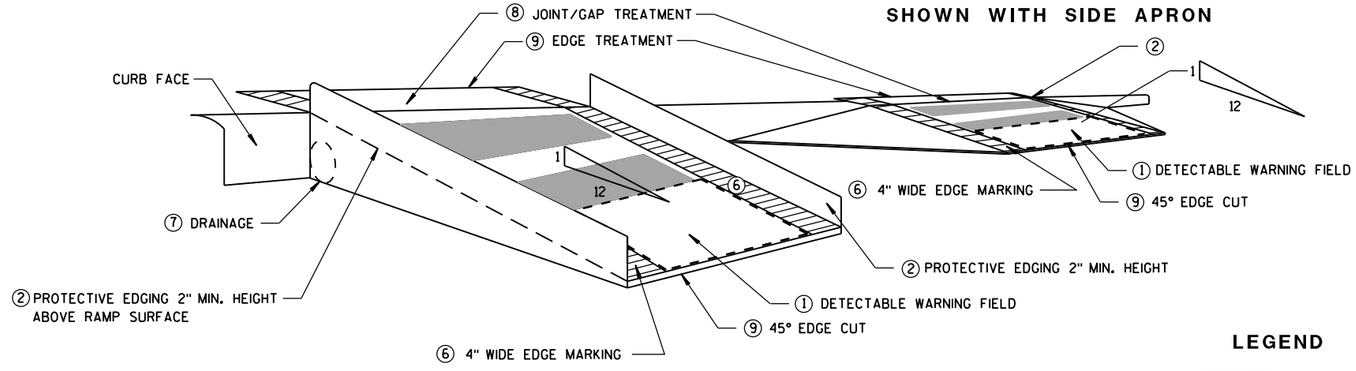
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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 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

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S.D.D. 15 D 30-2b

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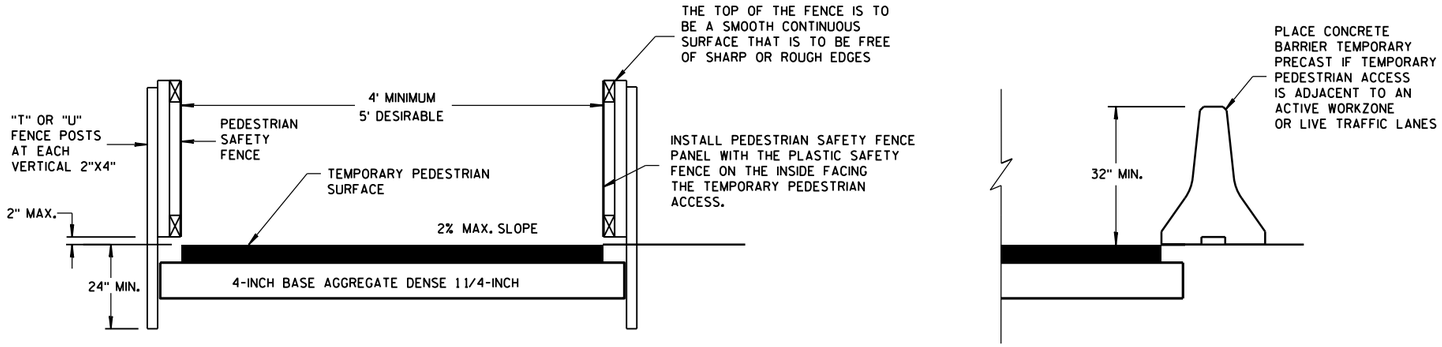
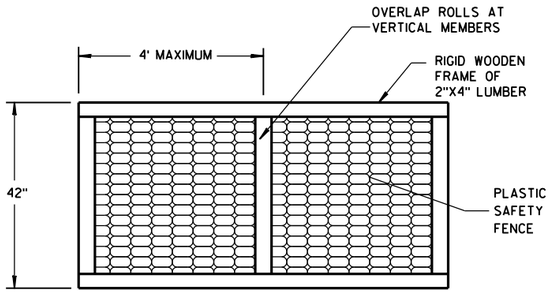
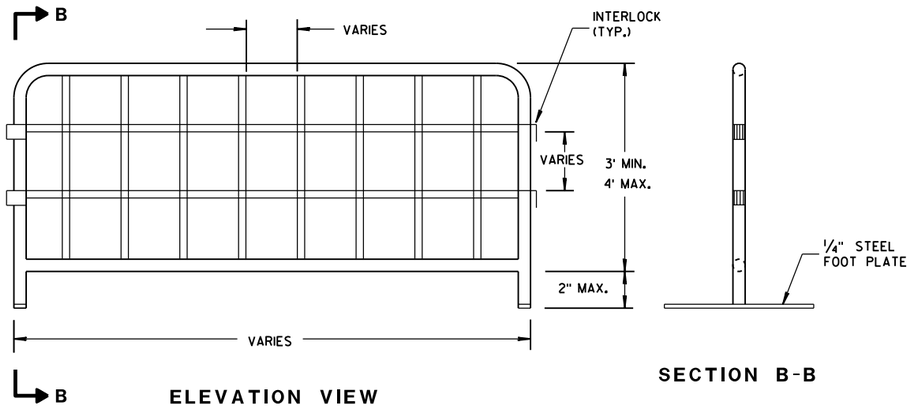


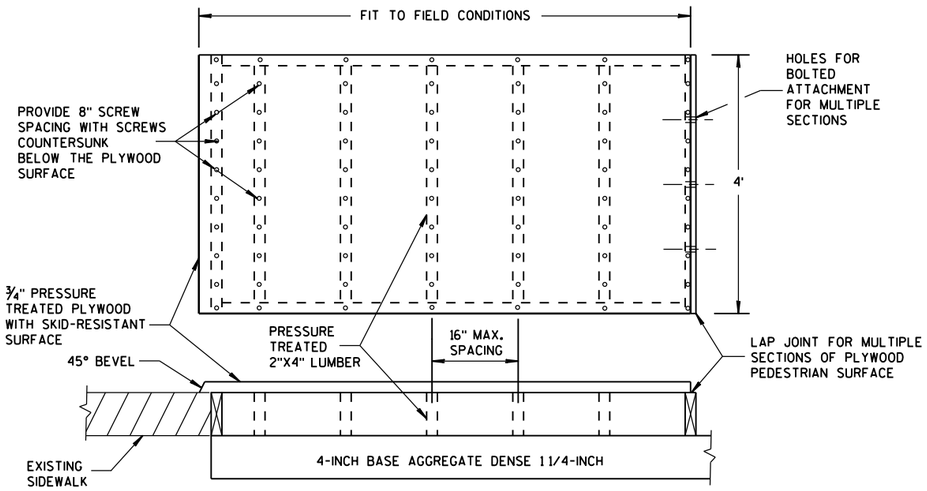
TEMPORARY PEDESTRIAN ACCESS



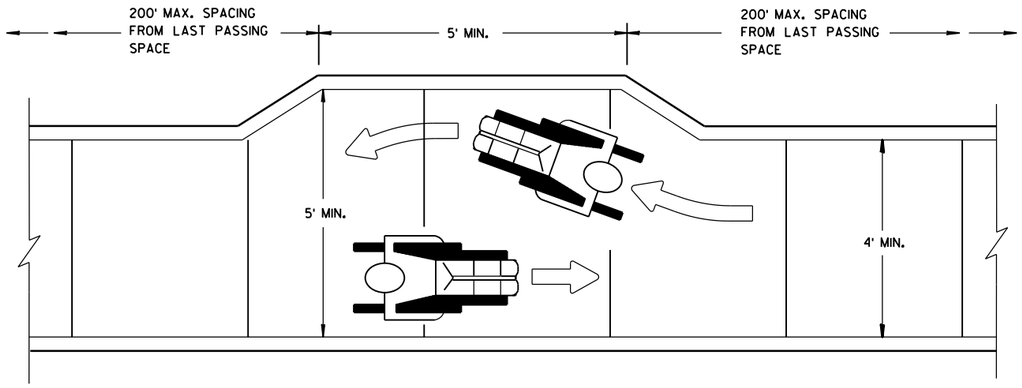
PEDESTRIAN SAFETY FENCE



TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



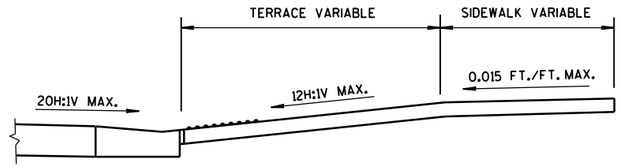
TEMPORARY PEDESTRIAN SURFACE PLYWOOD



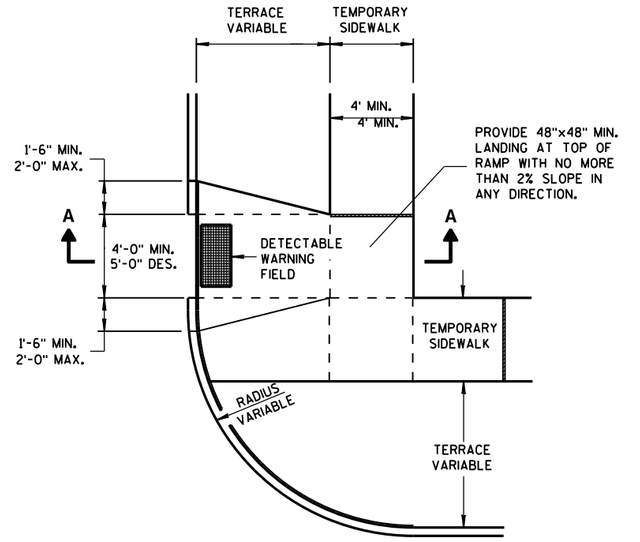
NARROW SIDEWALK PASSING DETAIL

GENERAL NOTES

(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
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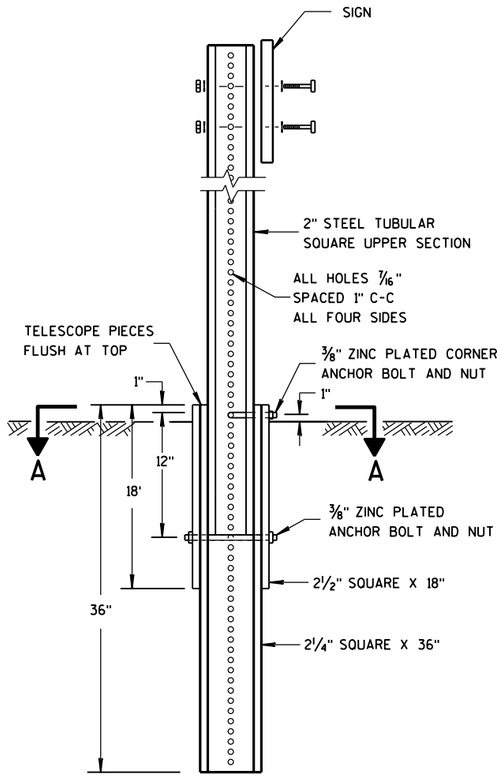
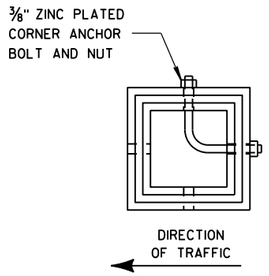
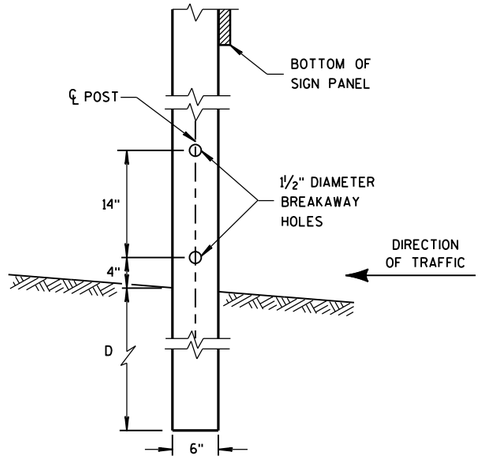


DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



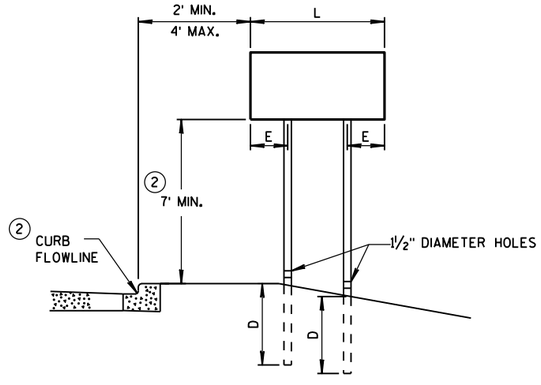
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

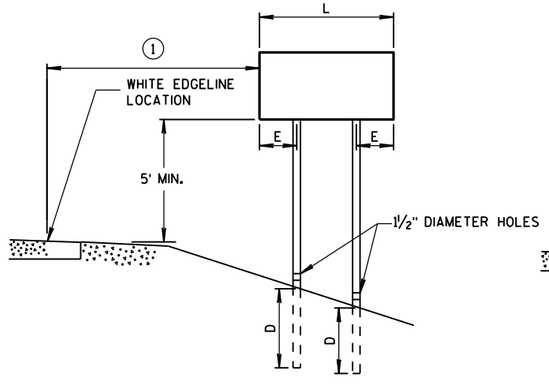
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

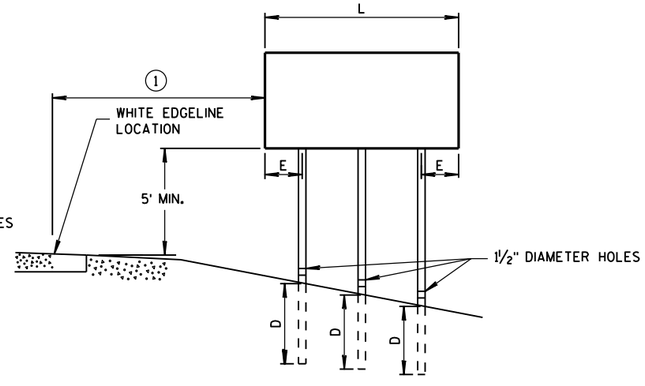
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

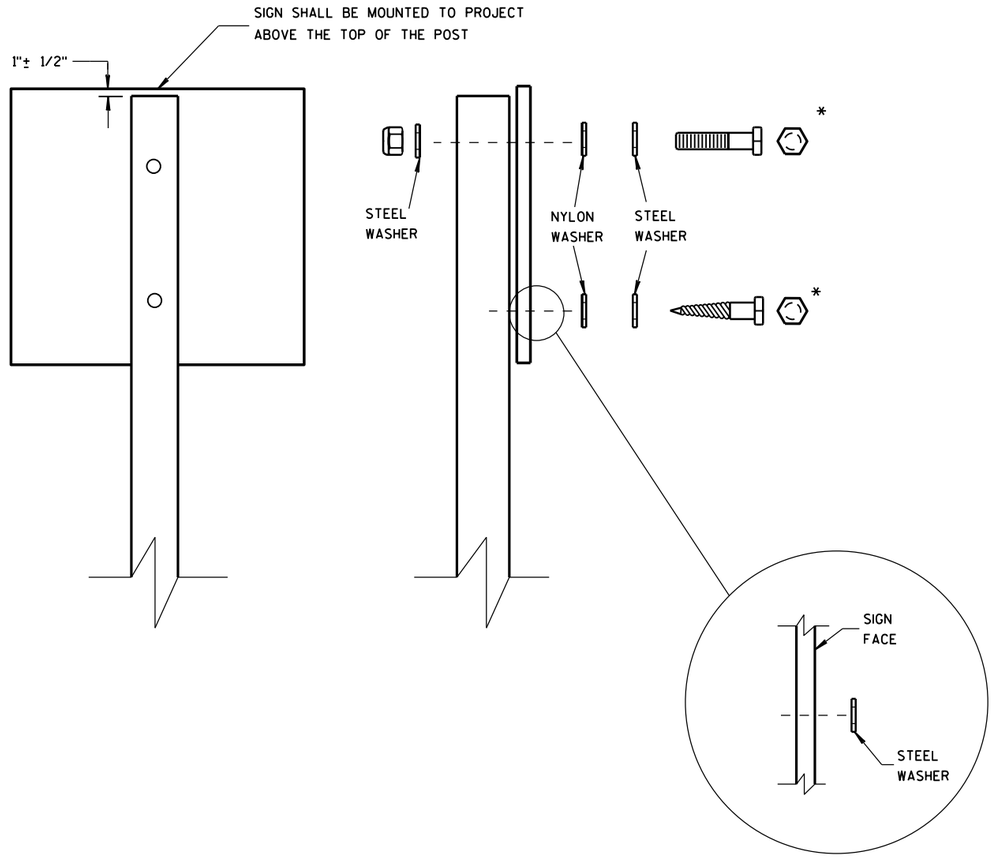
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-1a



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

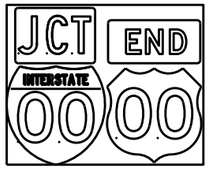
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

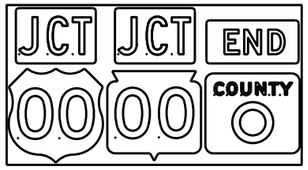
SIGN

TYPICAL ASSEMBLIES

J1-1

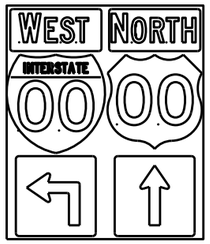


J1-2

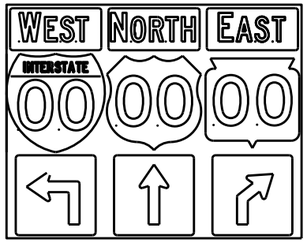


J1-3

J2-1



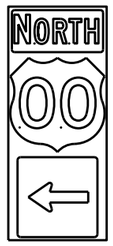
J2-2



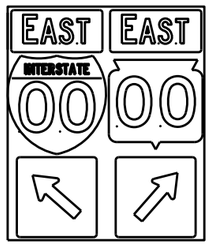
J2-3

JV

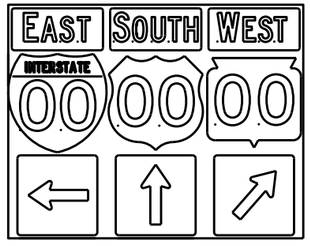
(Typical Vertical J-Assembly
See Note 10 and 11)



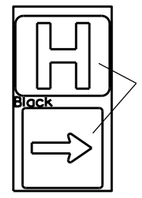
J3-1



J3-2



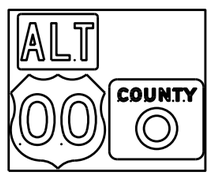
J3-3



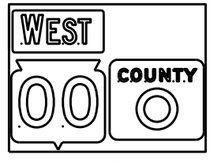
Blue Background

JH-1

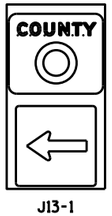
J4-1



J4-2



J4-2



J13-1

J12-1

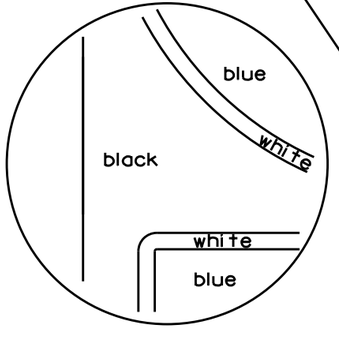
J32-1

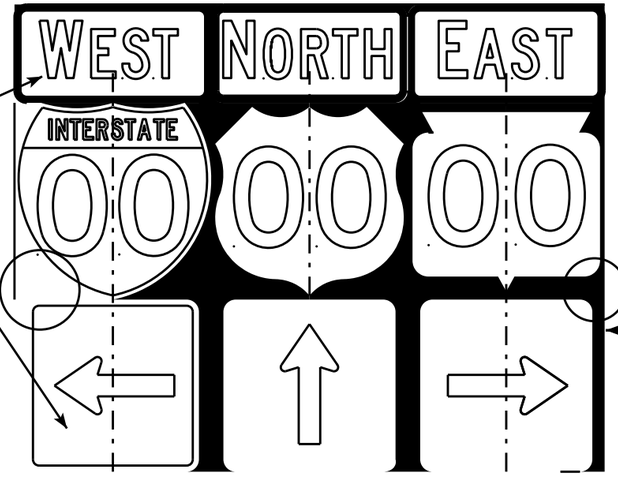
J33-1

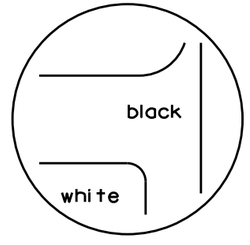
J23-1

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

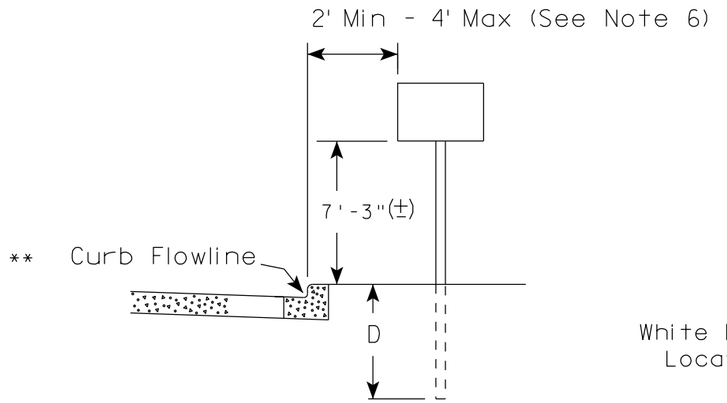
PROJECT NO:

SHEET NO: E

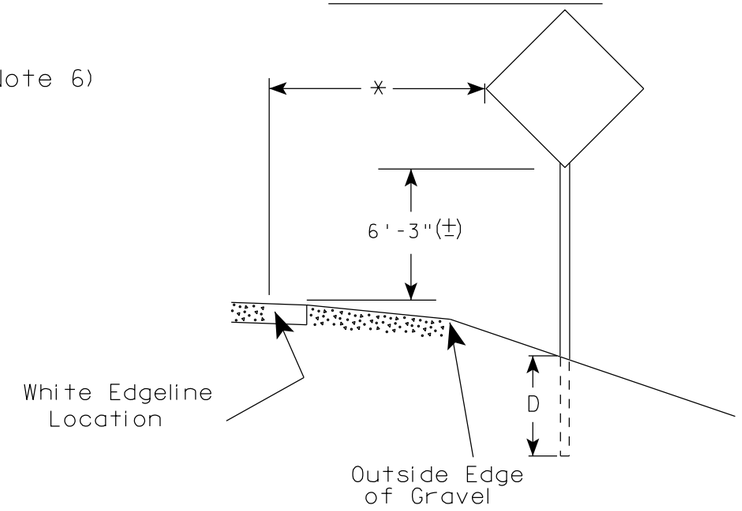
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

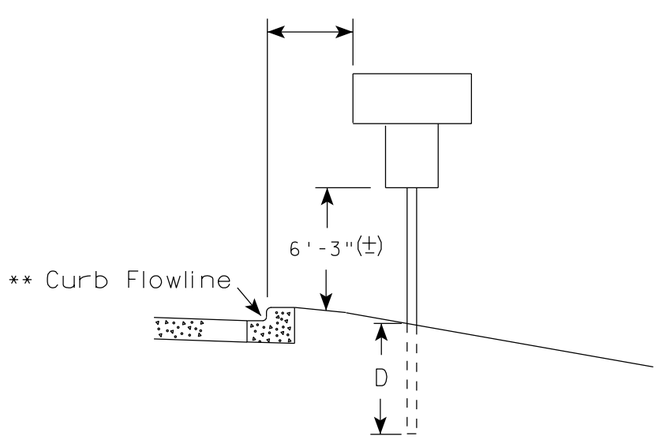
WISDOT/CADDS SHEET 42

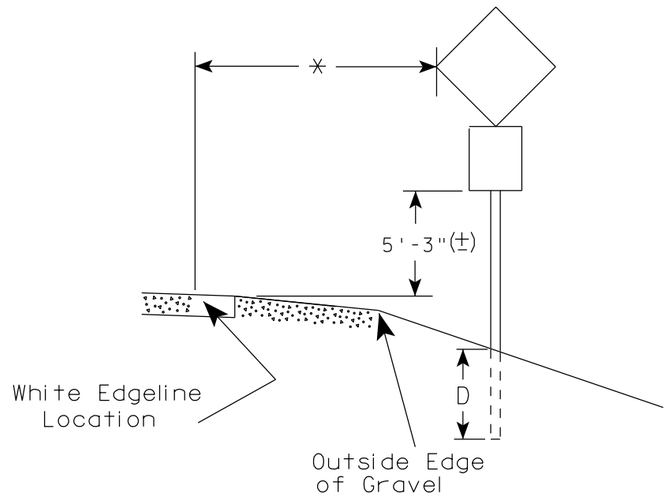
URBAN AREA



RURAL AREA (See Note 2)







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" (±).

POST EMBEDMENT DEPTH

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

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

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

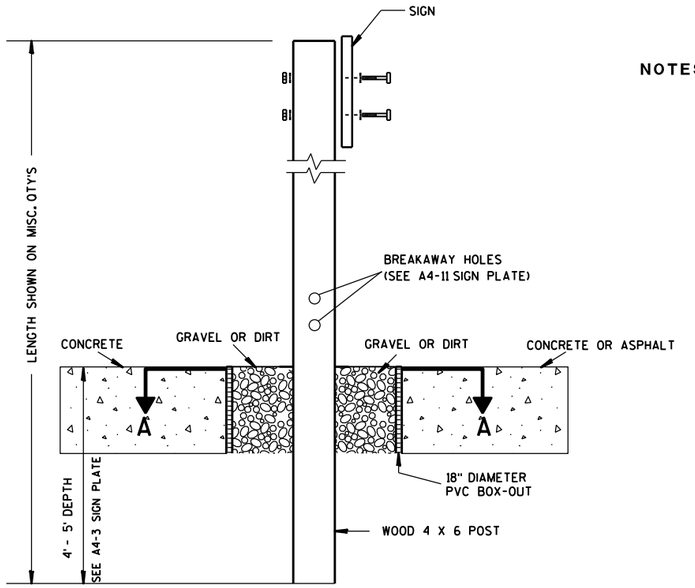
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

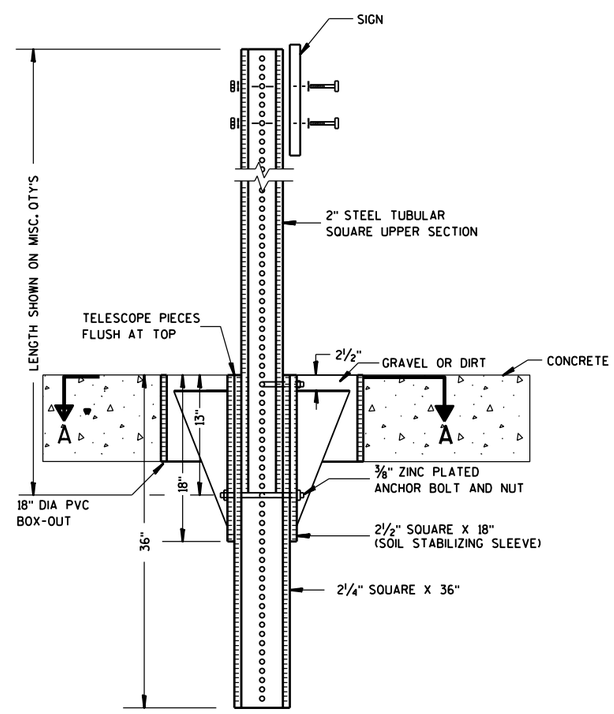
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

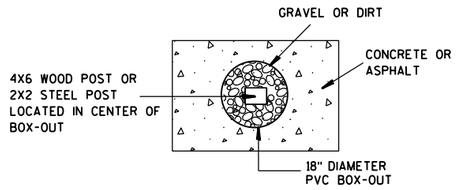
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

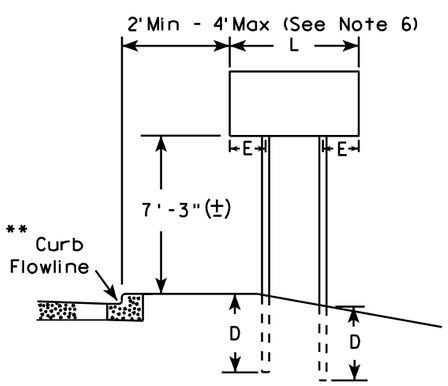
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

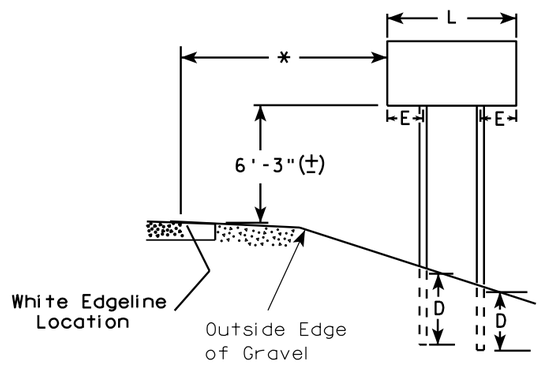
DATE 1/27/14 PLATE NO. A4-3B.1

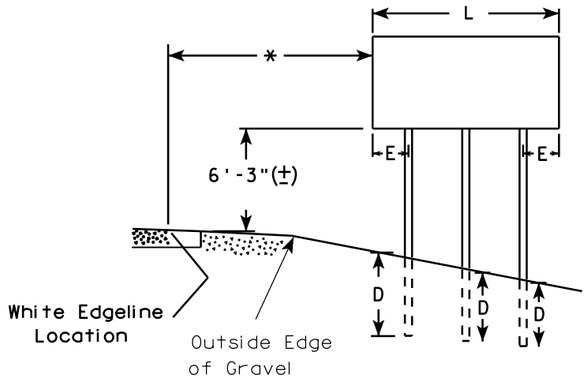
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

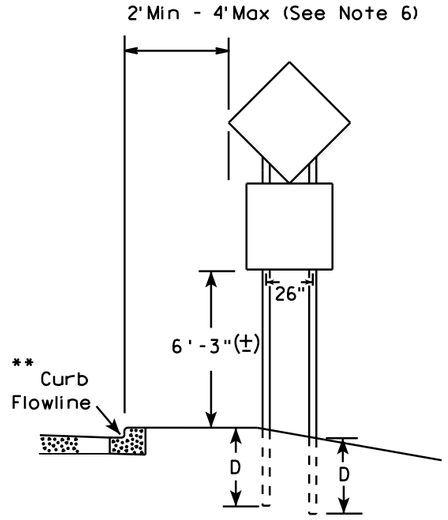
URBAN AREA



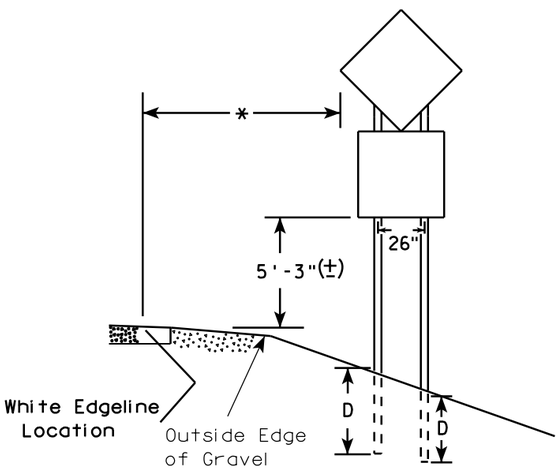
RURAL AREA (See Note 3)







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

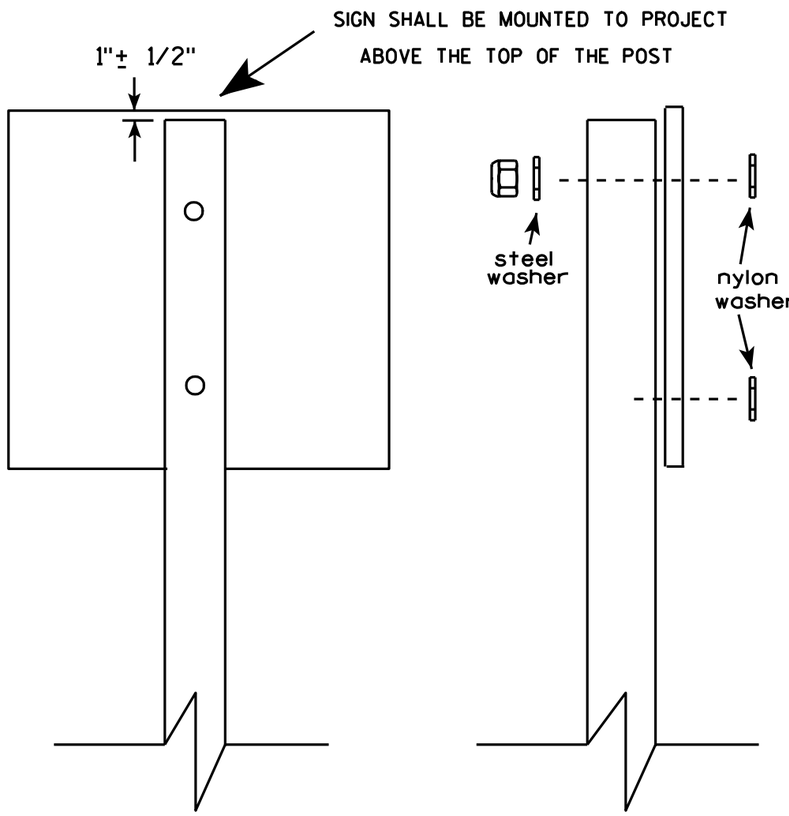
APPROVED Matthew R Rauch
for State Traffic Engineer

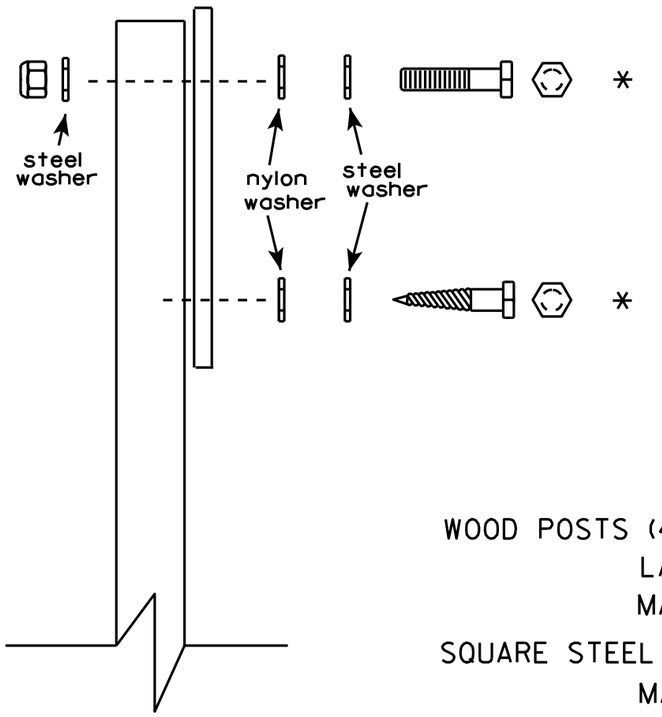
DATE 7/23/15 PLATE NO. A4-4 14
101

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 :

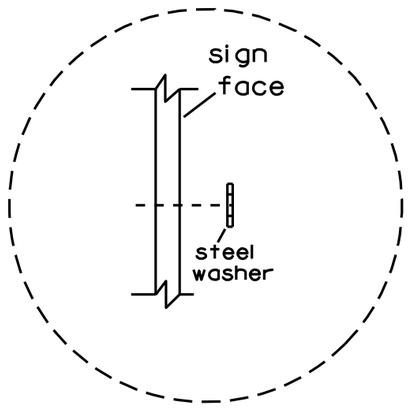
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

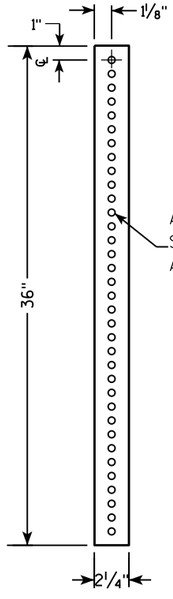
7

PROJECT NO:

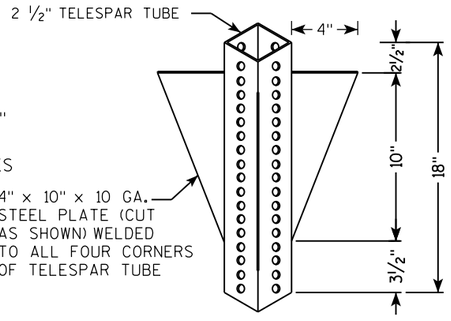
SHEET NO: 102 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

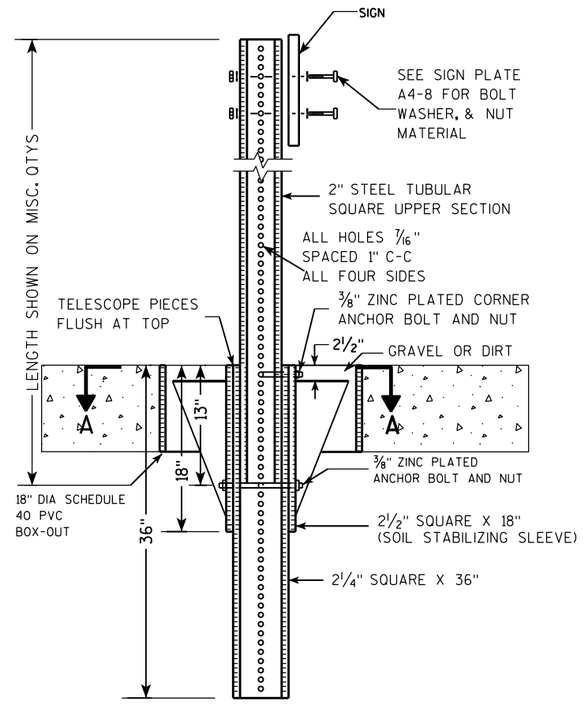
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



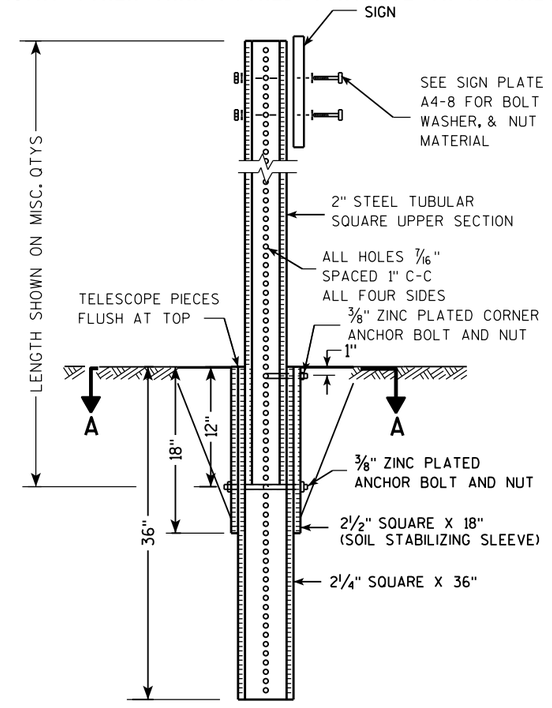
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

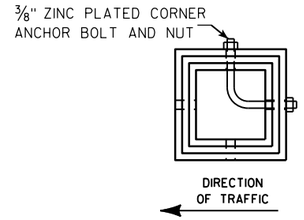


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

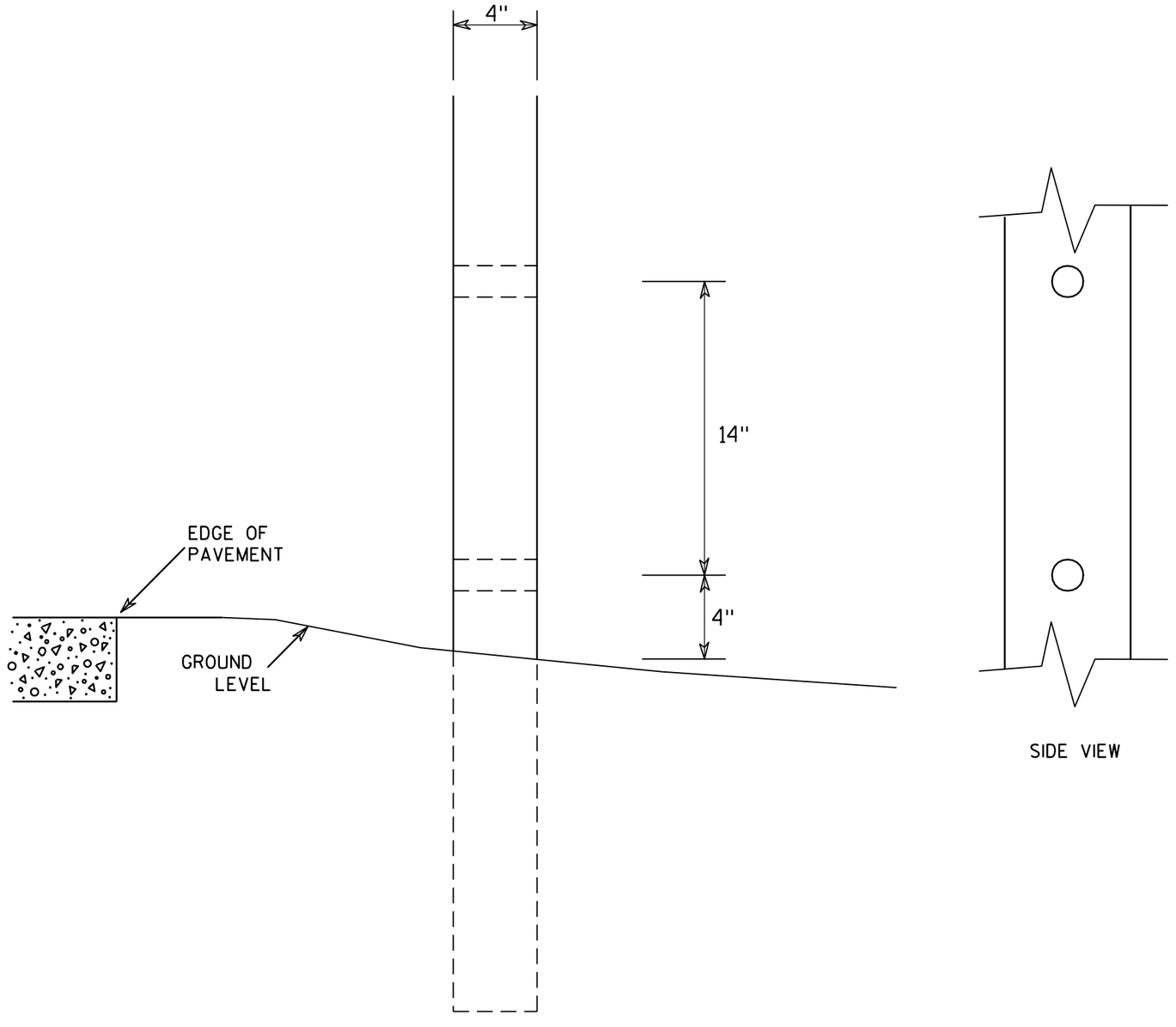
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



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

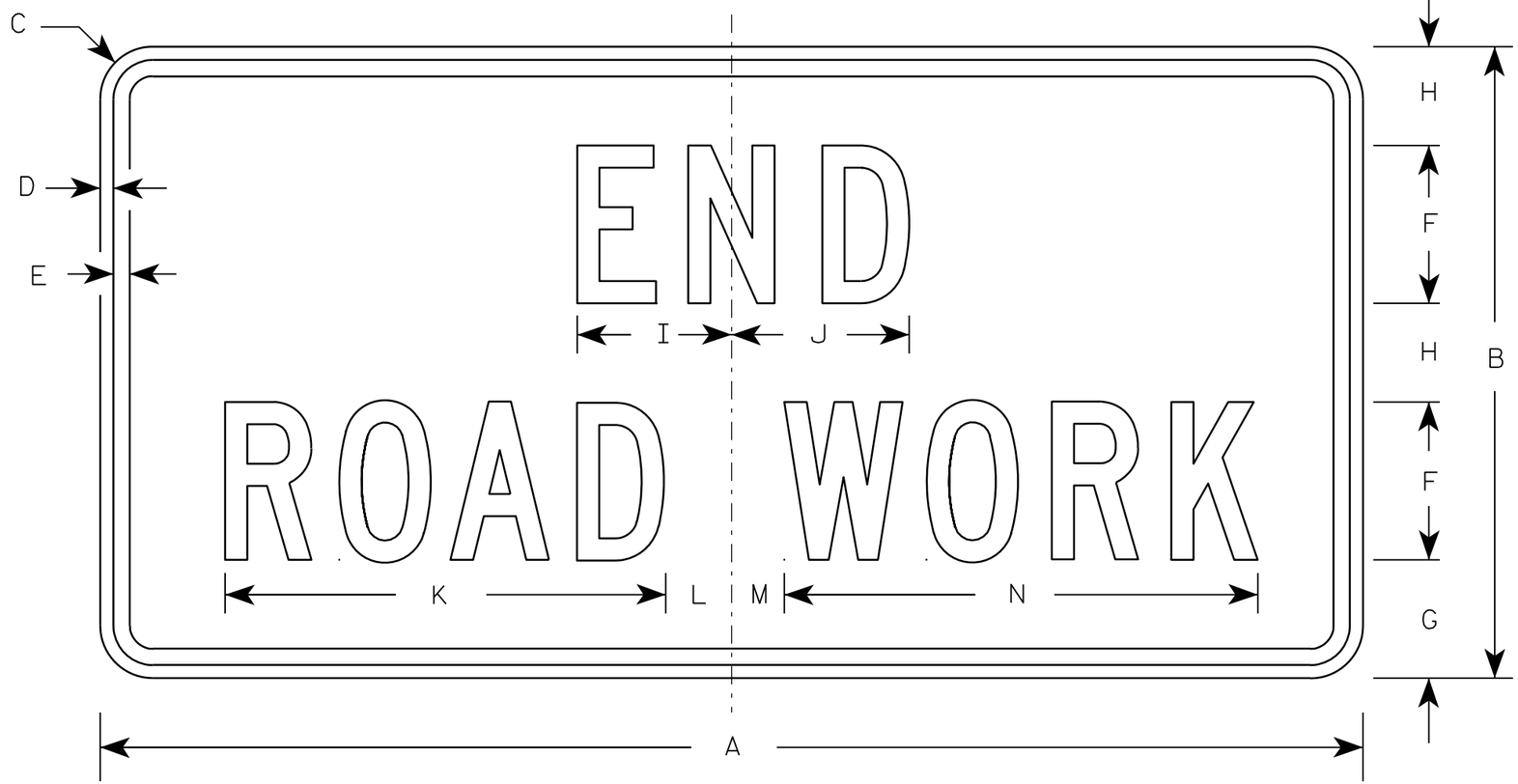
4 X 6 WOOD POST MODIFICATIONS

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: 104	E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

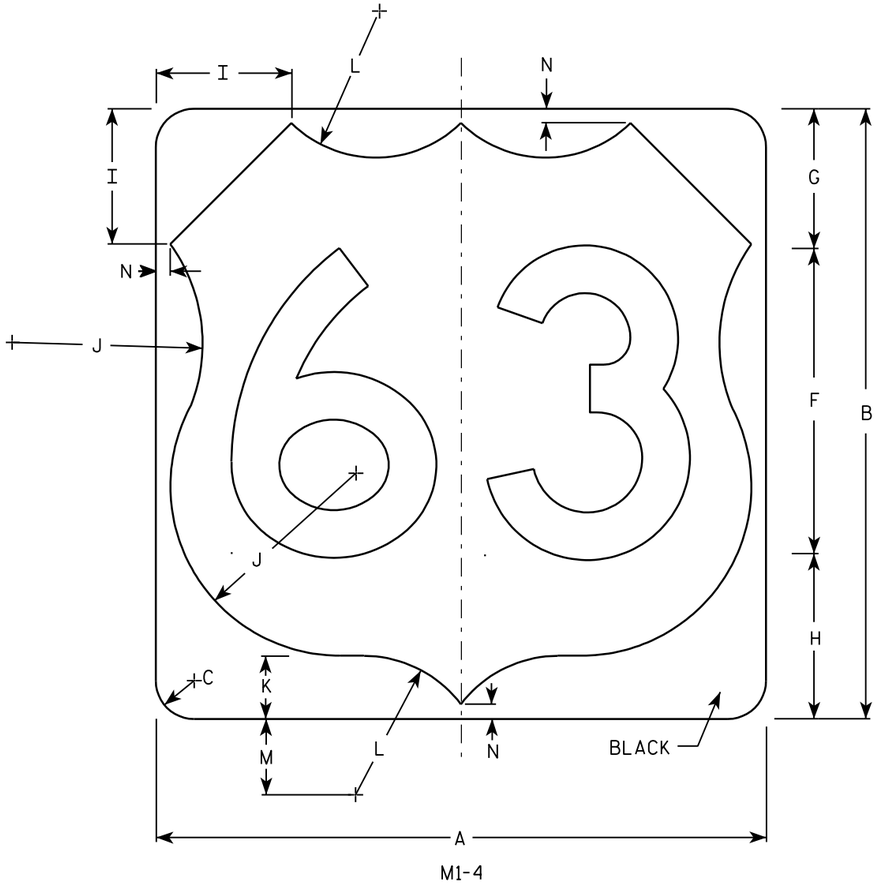
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

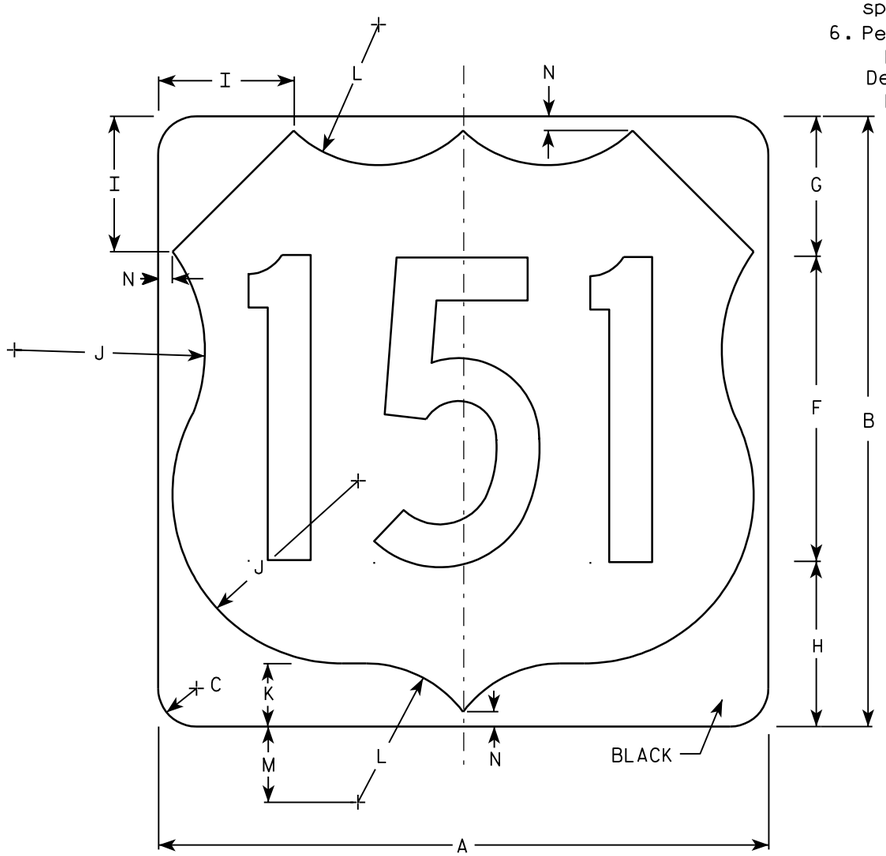
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 105	E

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0	.36
3	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
4	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
5	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81

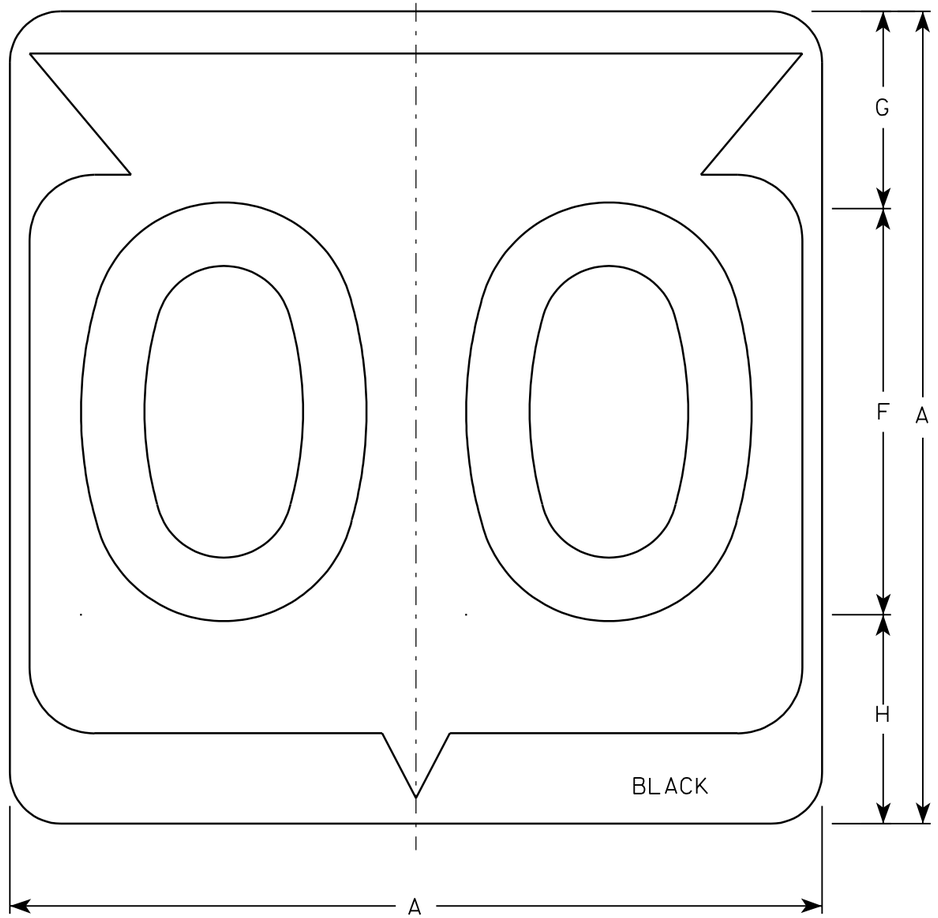
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

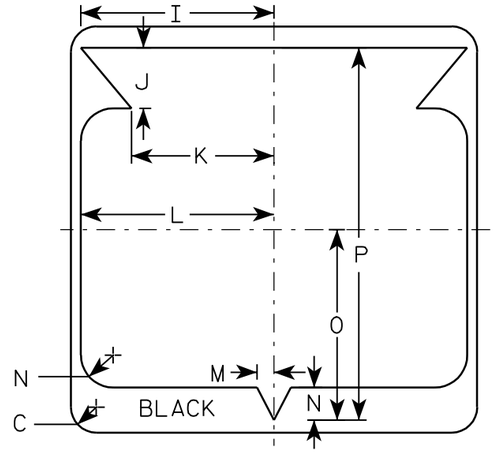
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 106	E



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

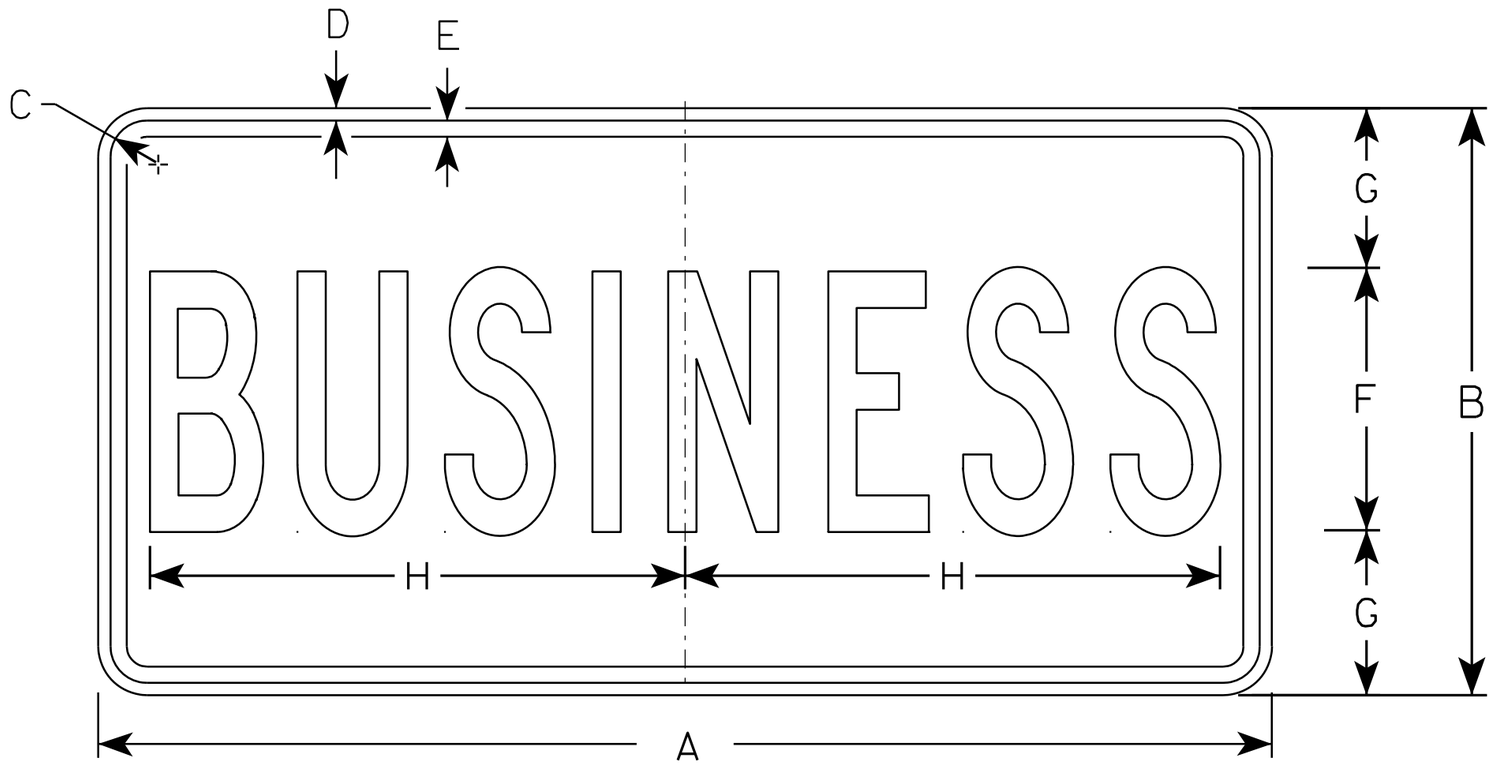
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

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: 107	E



M4-3

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary Signs
   Background - Reflective

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	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

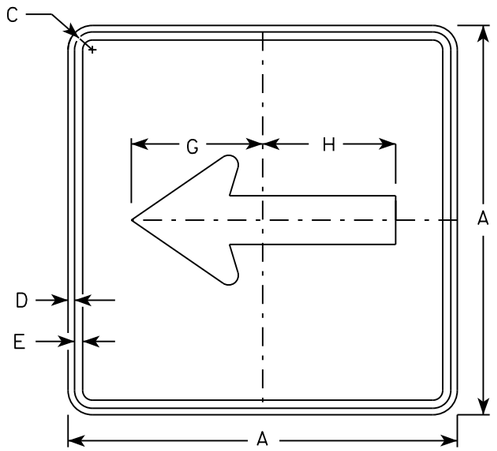
STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

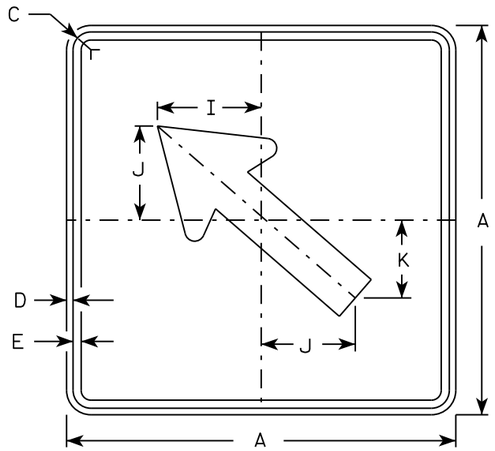
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 108 | E



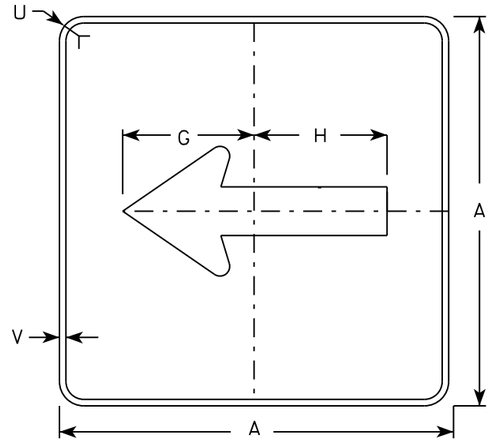
M6-1
MM6-1
MO6-1
MP6-1



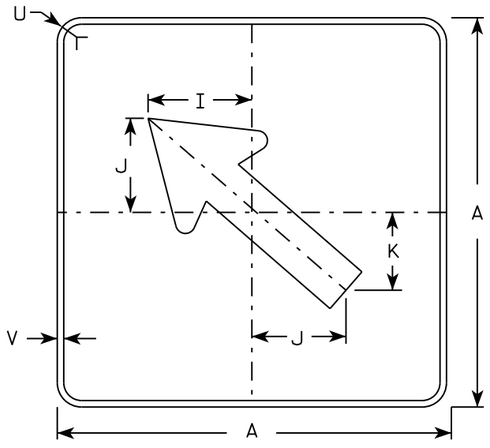
M6-2
MM6-2
MO6-2
MP6-2

NOTES

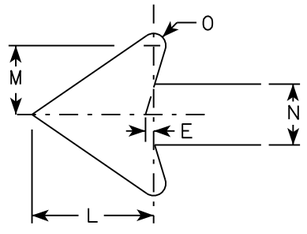
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

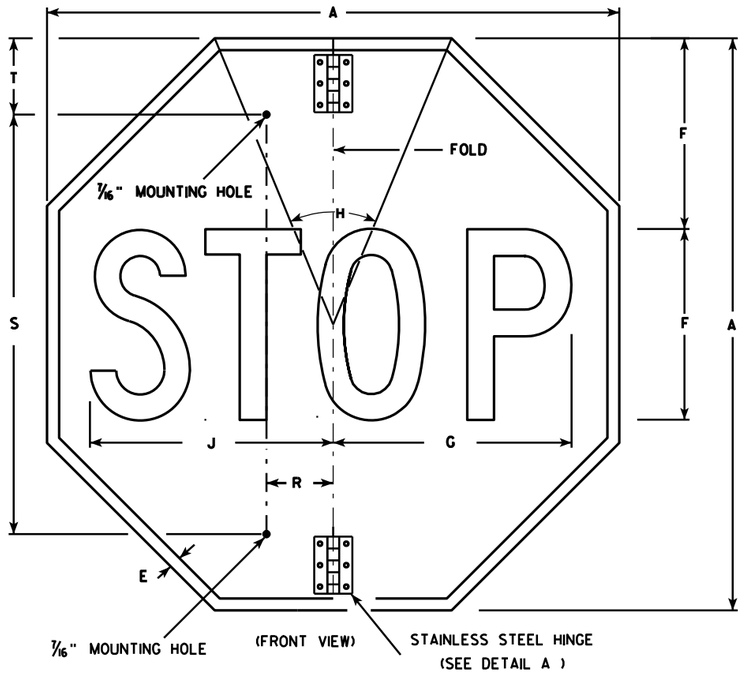
WISCONSIN DEPT OF TRANSPORTATION

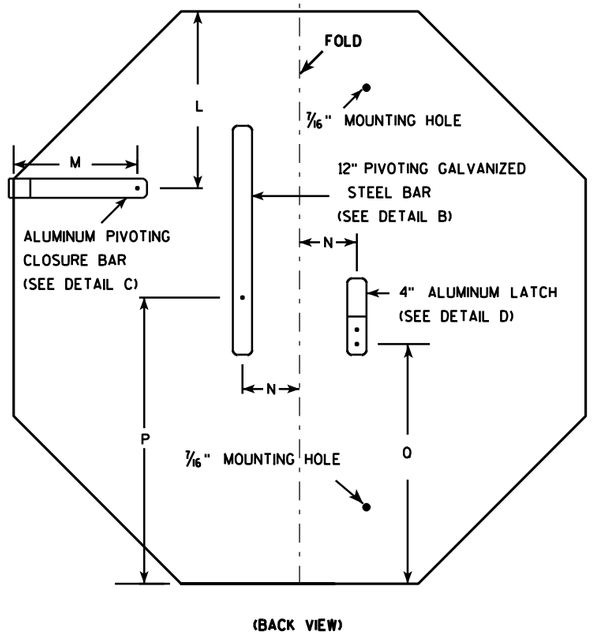
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 109 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

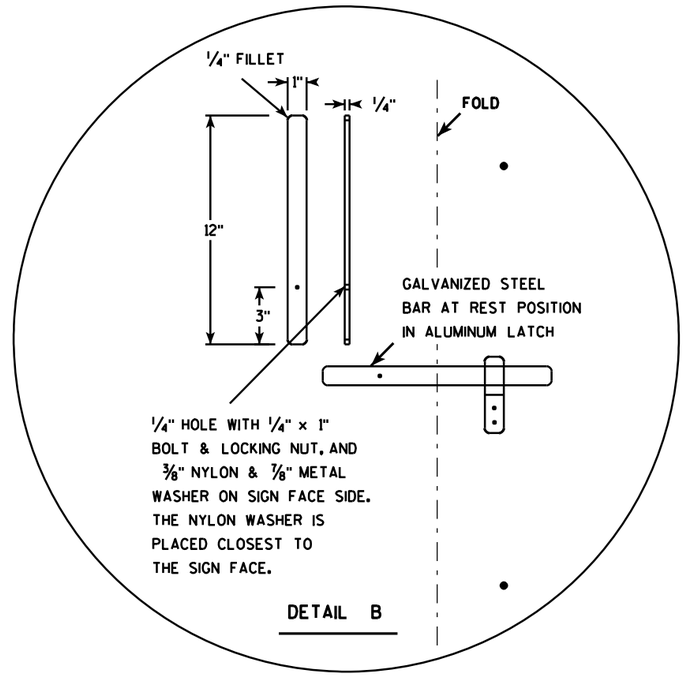
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000

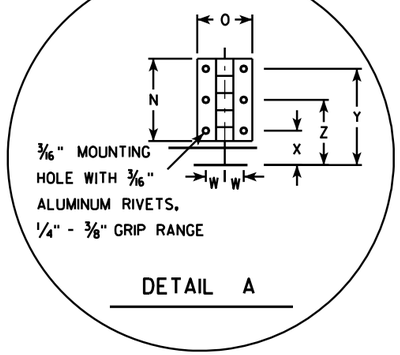


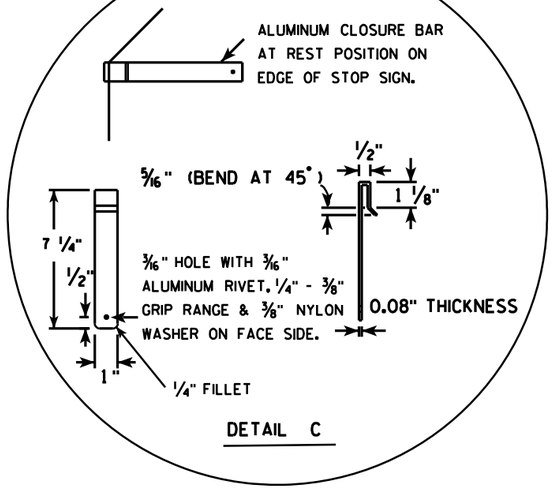


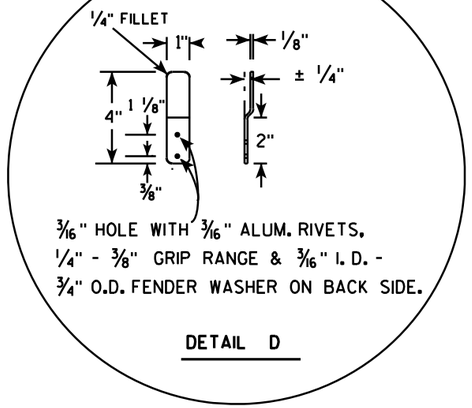
NOTES

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.









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																											

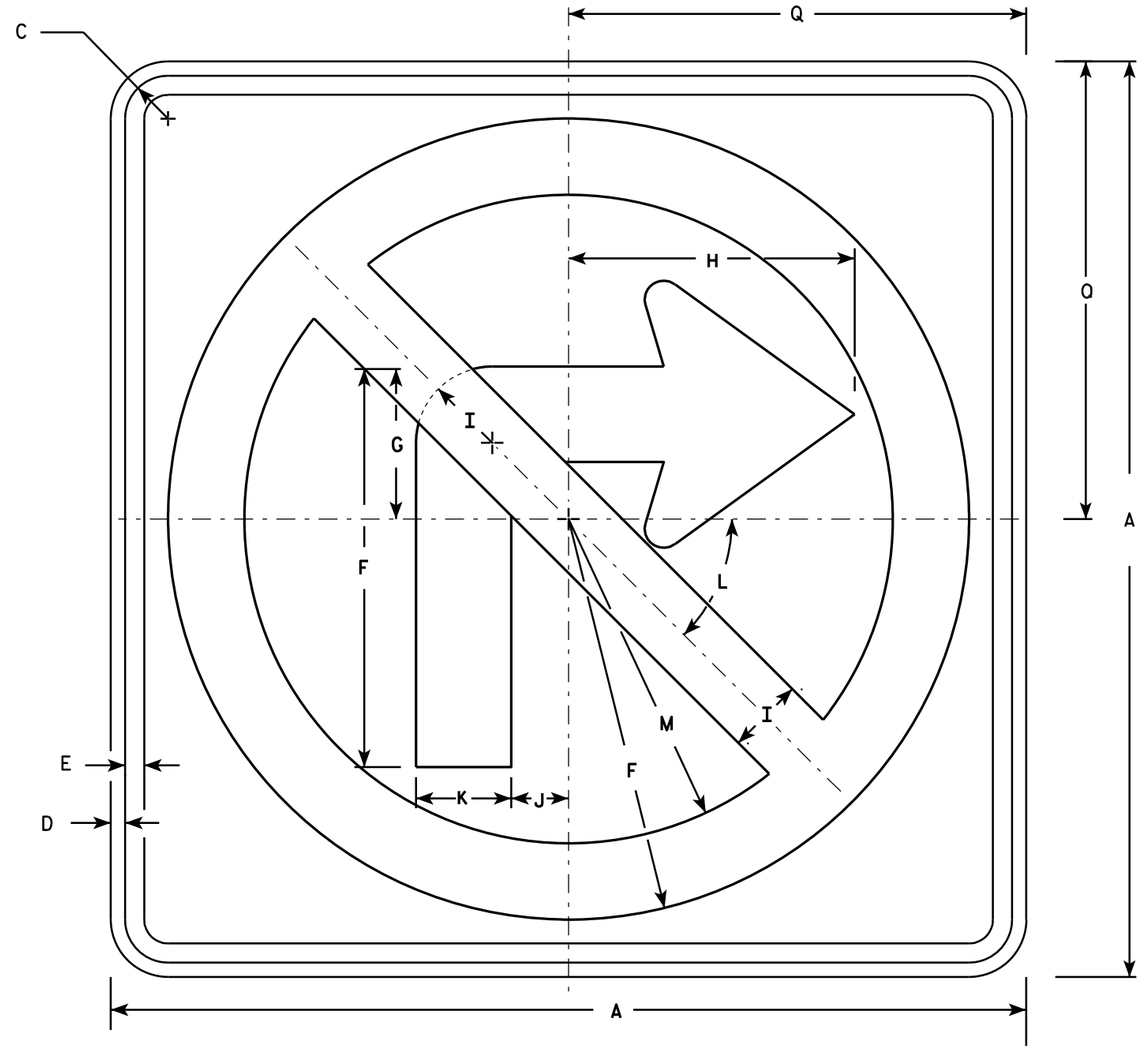
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

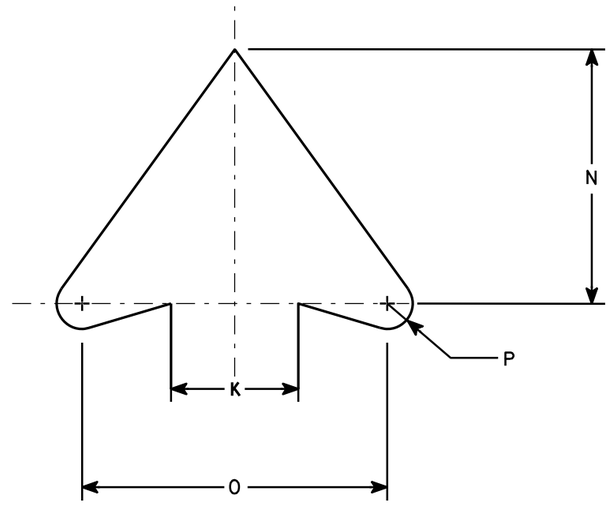
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E



R3-1

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 - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

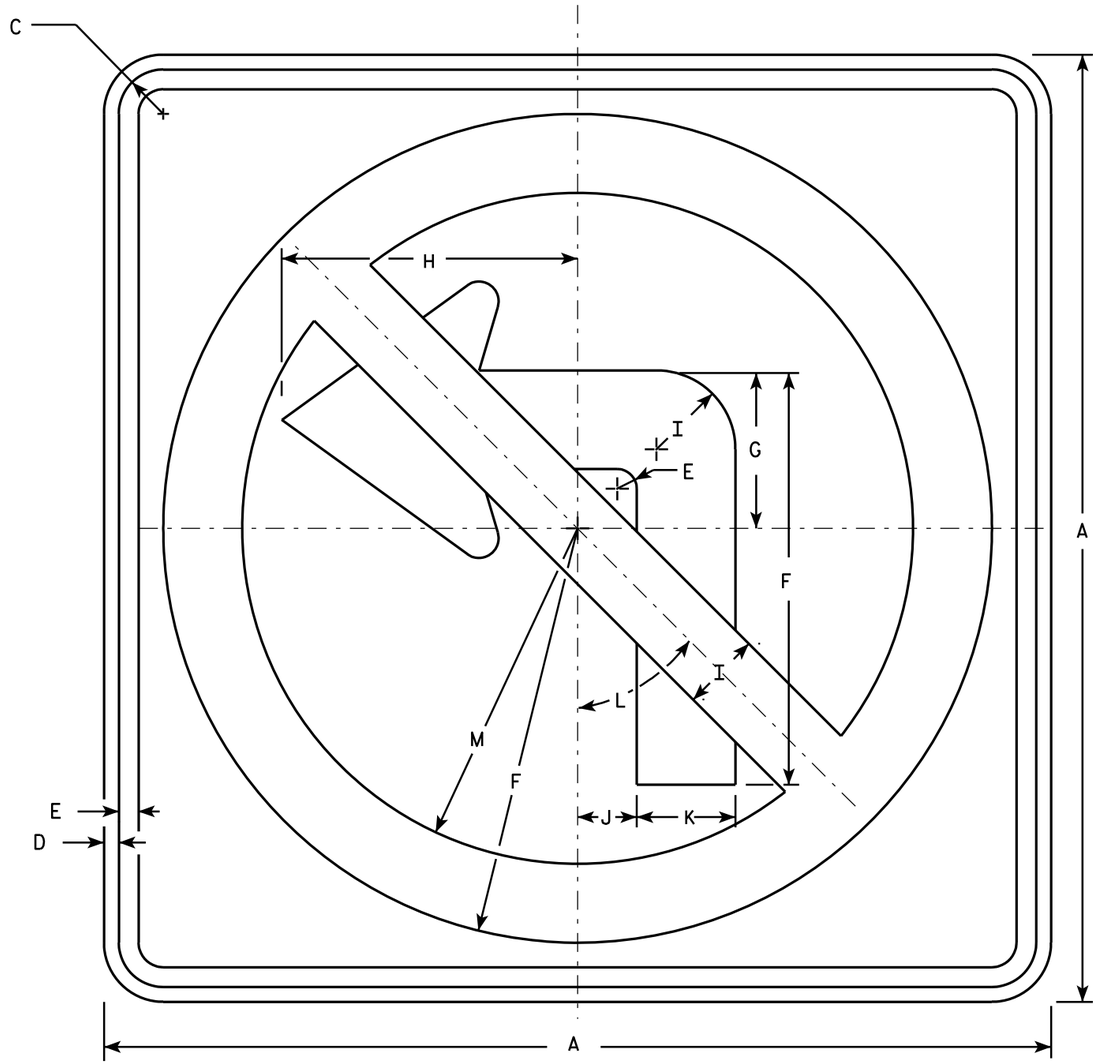
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

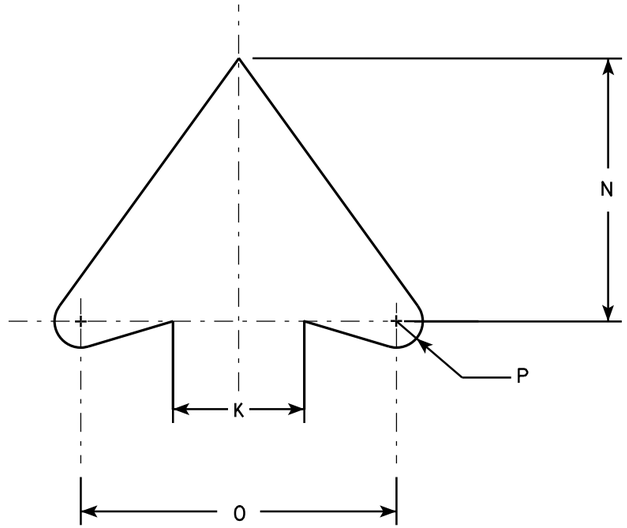
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 111	E



R3-2

NOTES

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



ARROW DETAIL

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

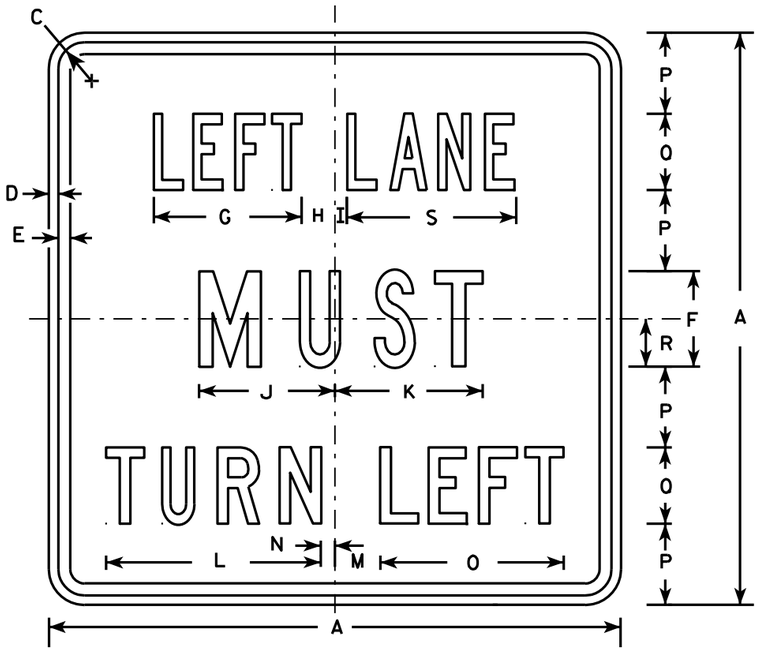
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

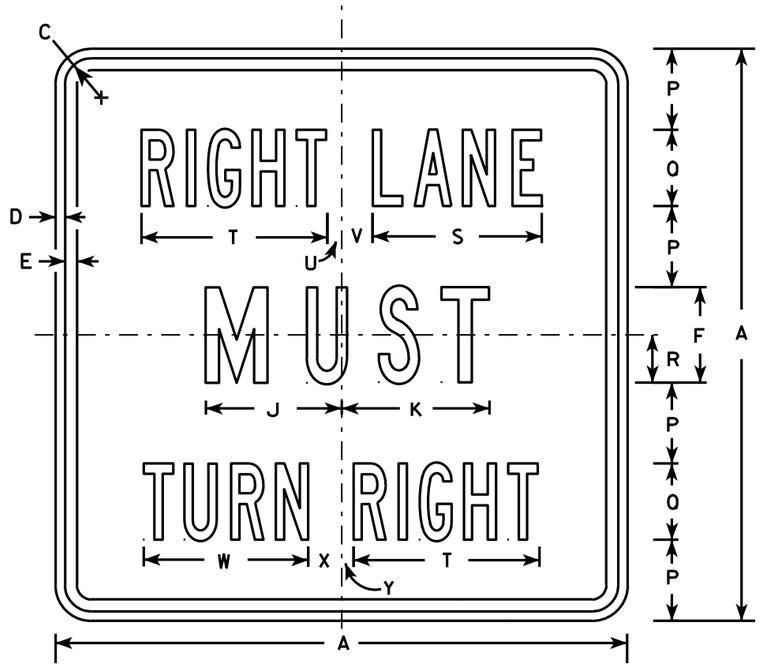
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 112	E



R3-7L



R3-7R

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 3/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		1 5/8	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

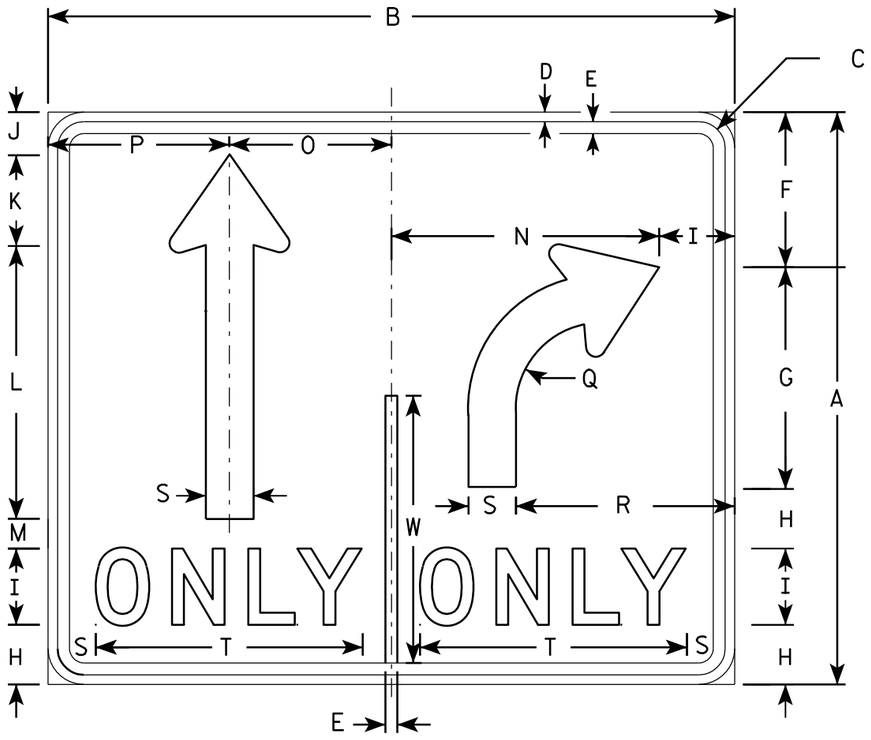
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

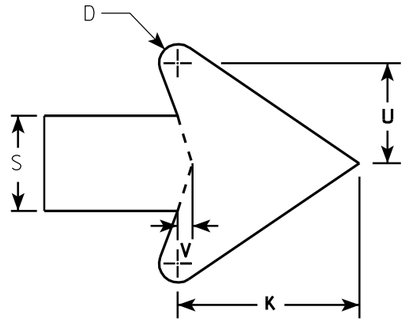
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 113 | E



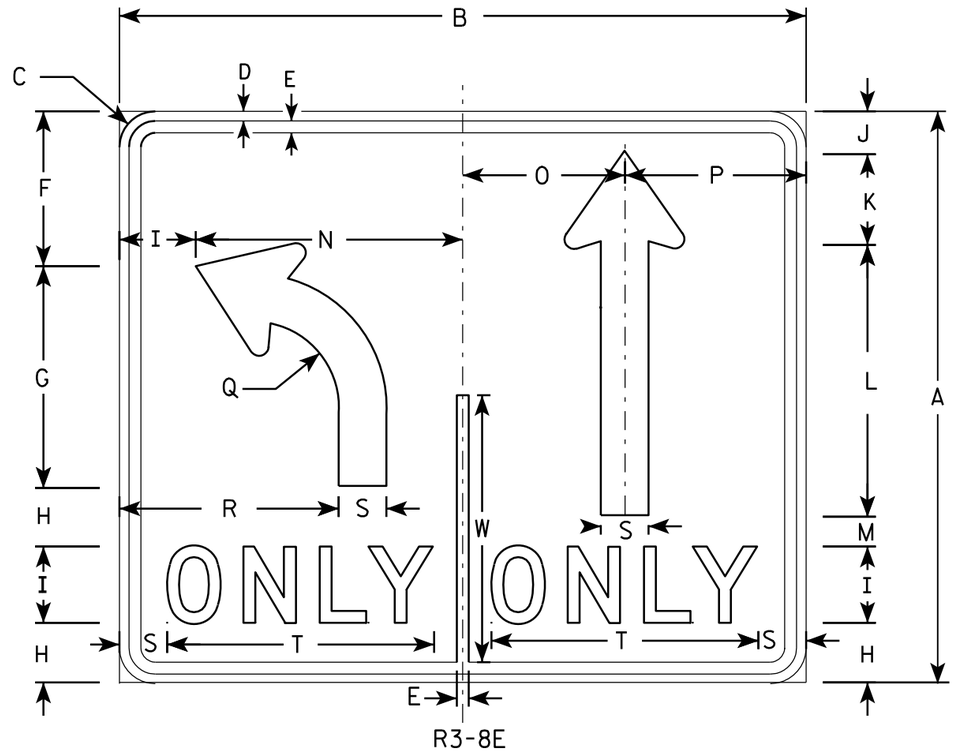
R3-8D



ARROW DETAIL

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.



R3-8E

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	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	2 1/4	4 3/4	14 1/4	1 5/8	14	8 1/2	9 1/2	4 1/2	11 1/2	2 1/2	14	2 5/8	3/8	14				7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7 1/8	21 1/2	4 3/4	21	12 3/4	14 1/4	7 1/4	17 1/8	3 3/4	20 5/8	4	5/8	22 3/8				18.0

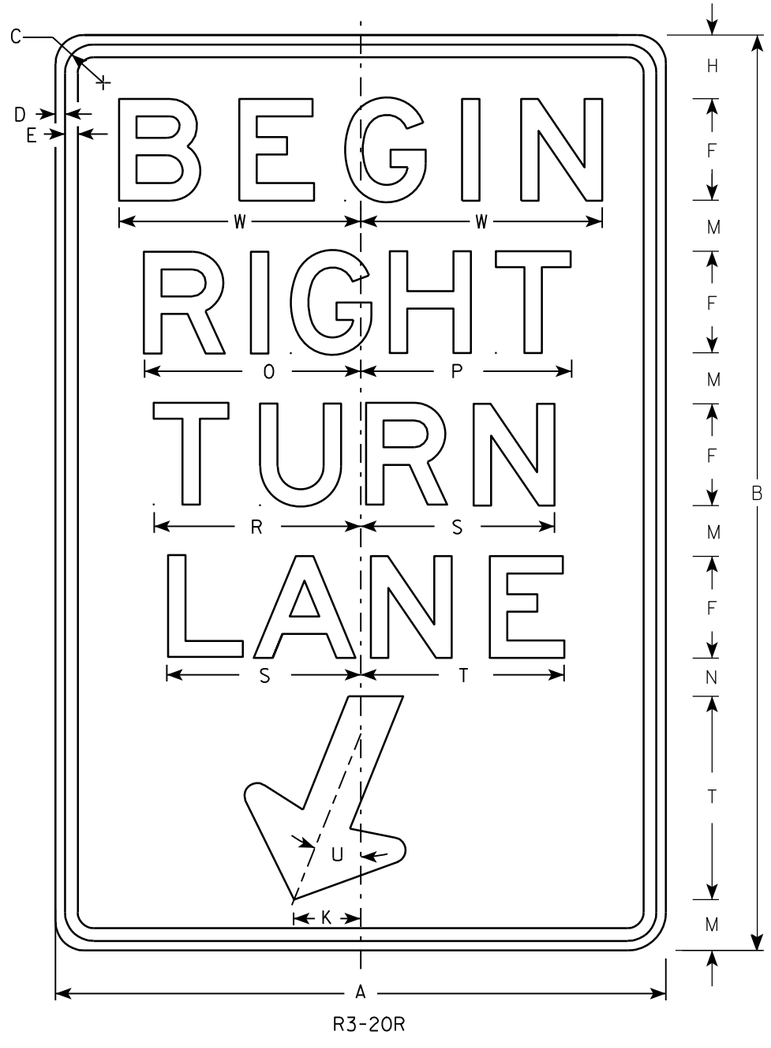
STANDARD SIGN
R3-8D & R3-8E

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/2011 PLATE NO. R3-8D.2

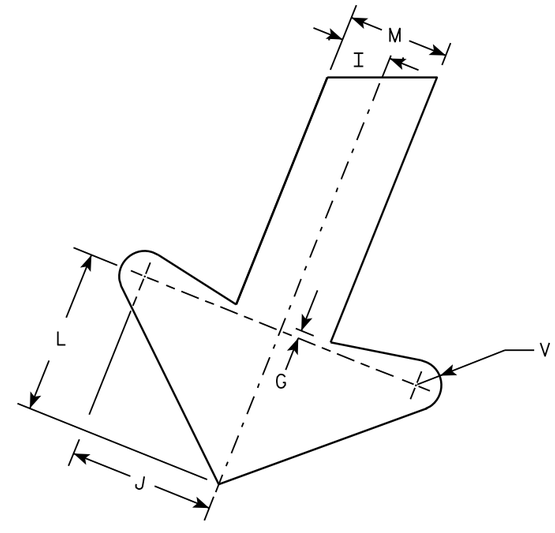
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



R3-20R

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	8 1/2	8 1/4		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	8 1/2	8 1/4		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	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

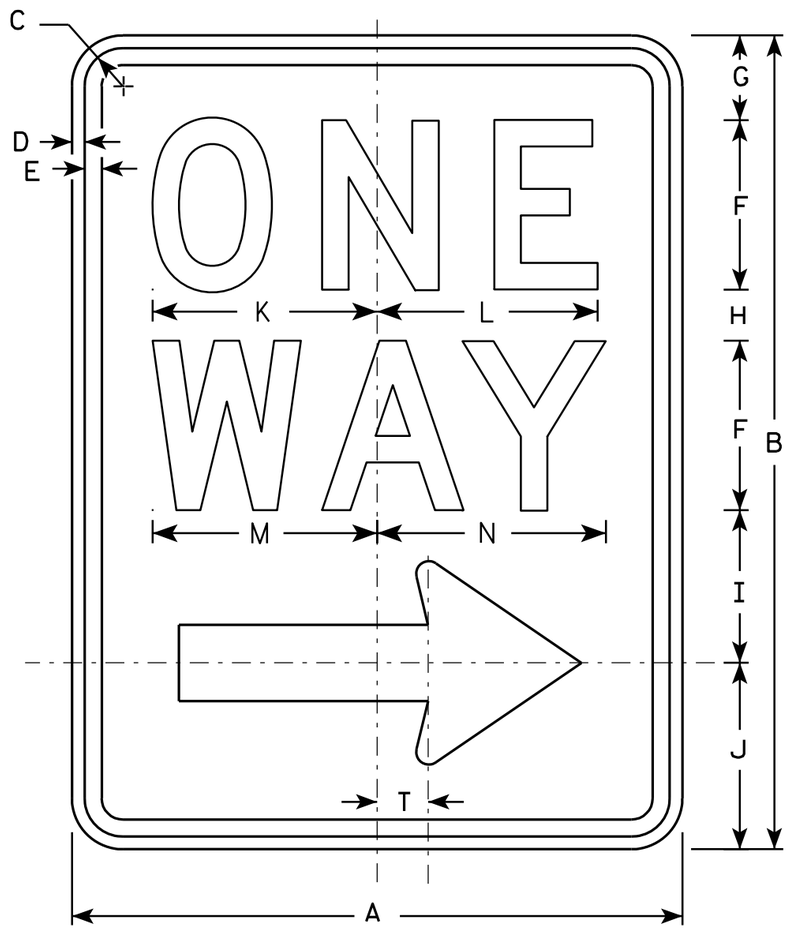
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 115 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320R.DGN PLOT DATE : 15-OCT-2010 14:59 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

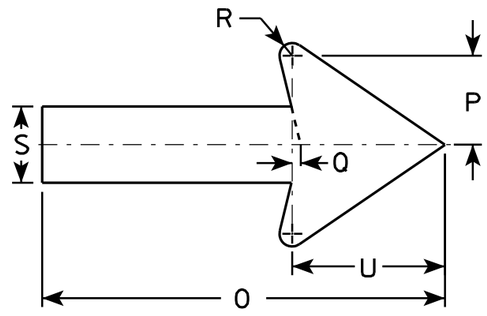
WISDOT/CADDS SHEET 42



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	Q	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																										

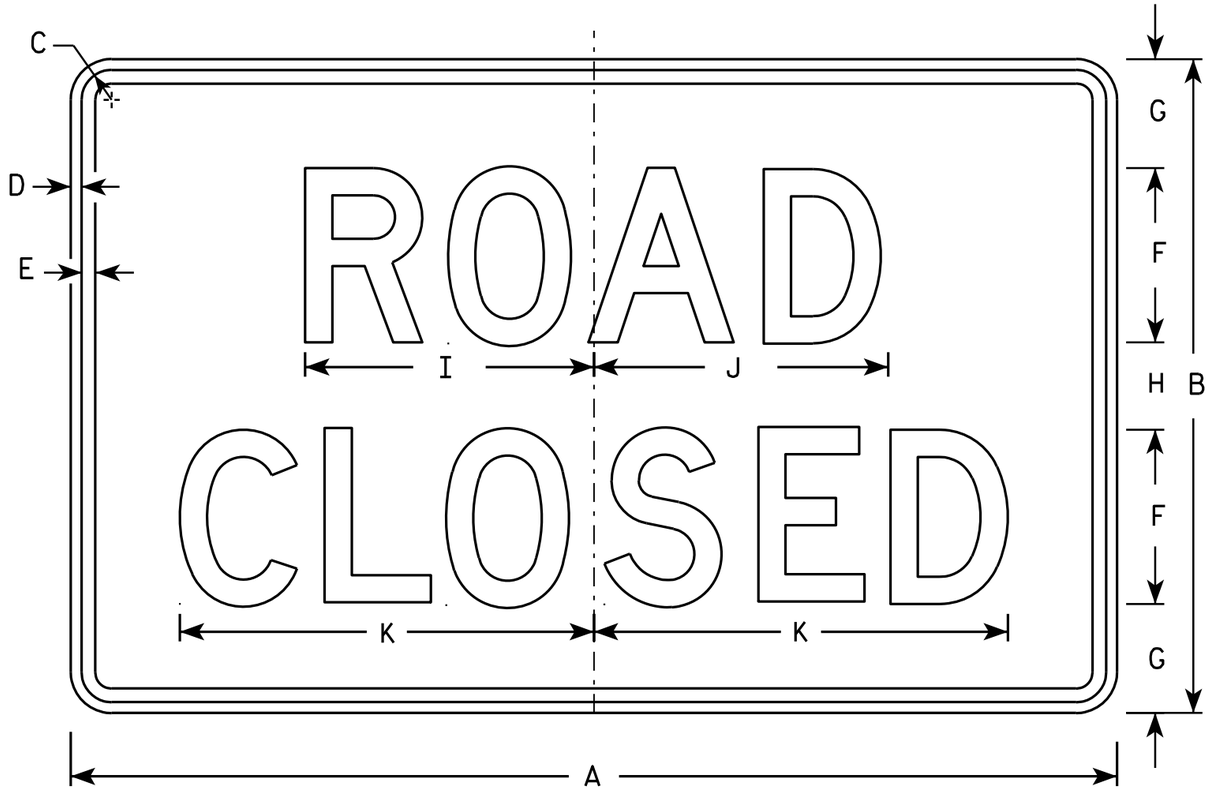
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

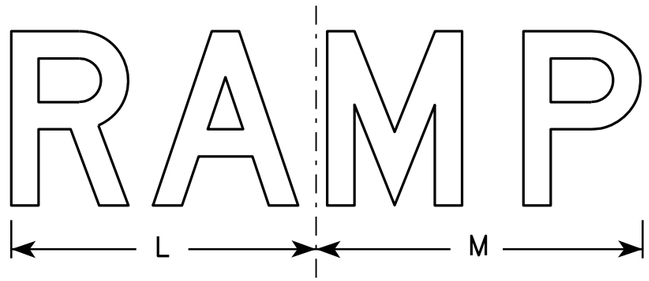
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 116	E



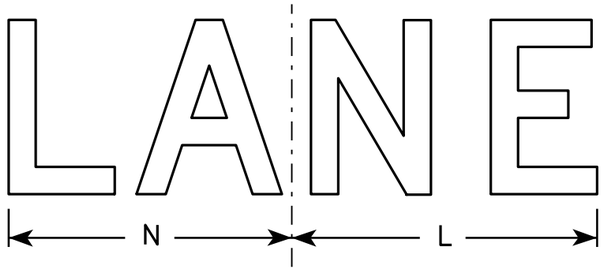
R11-2

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



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

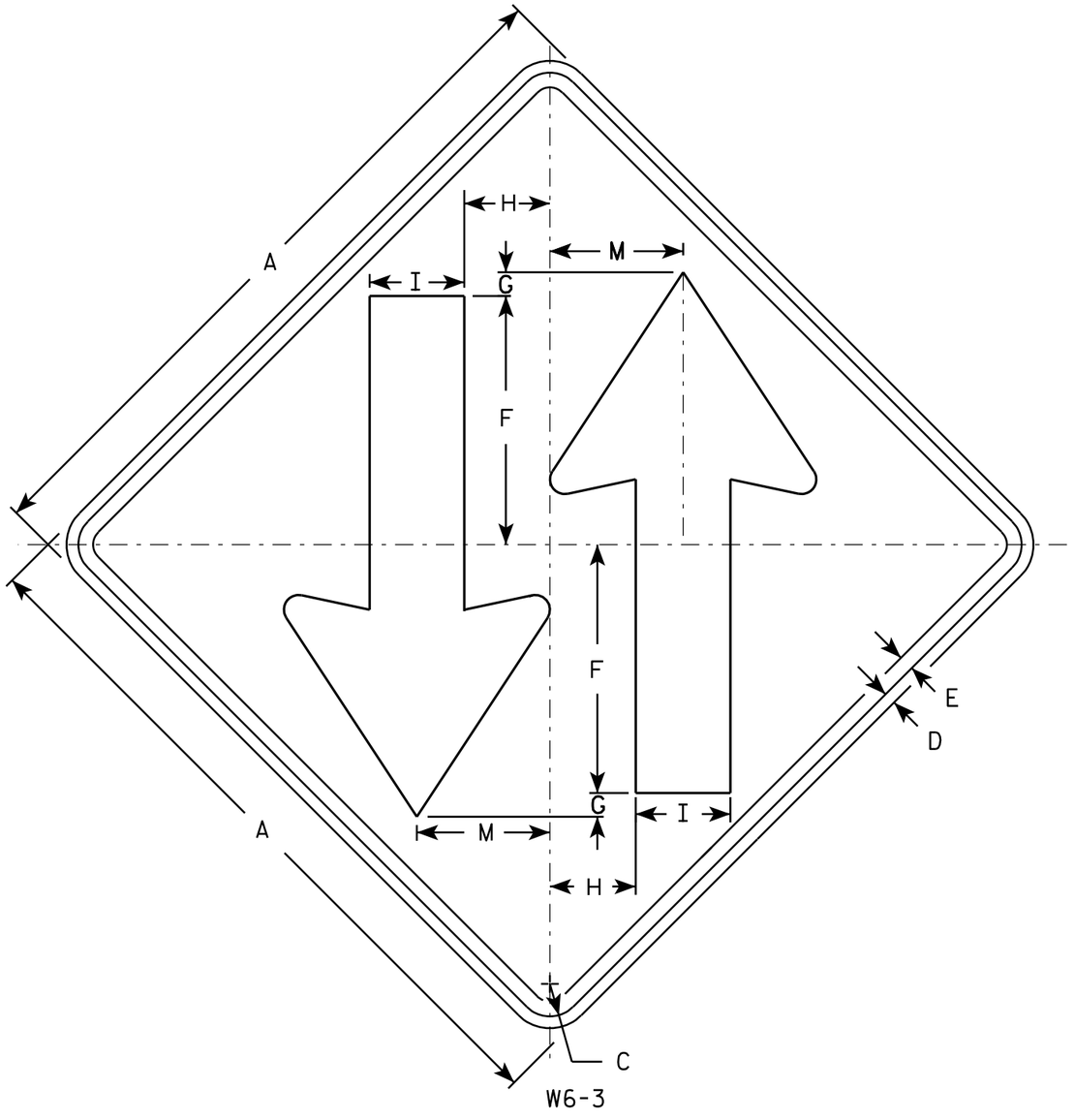
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

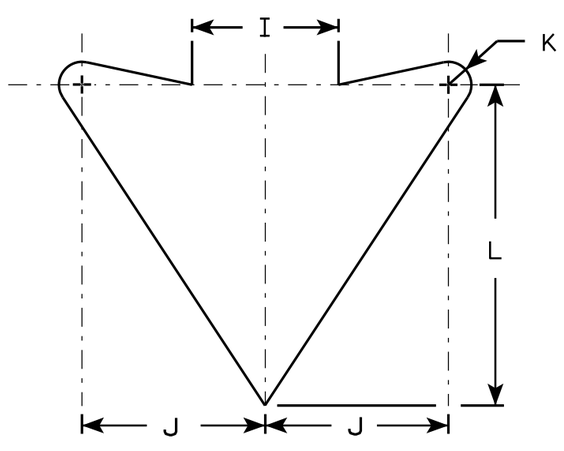
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 117 | E



W6-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - 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	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

STANDARD SIGN
W6-3

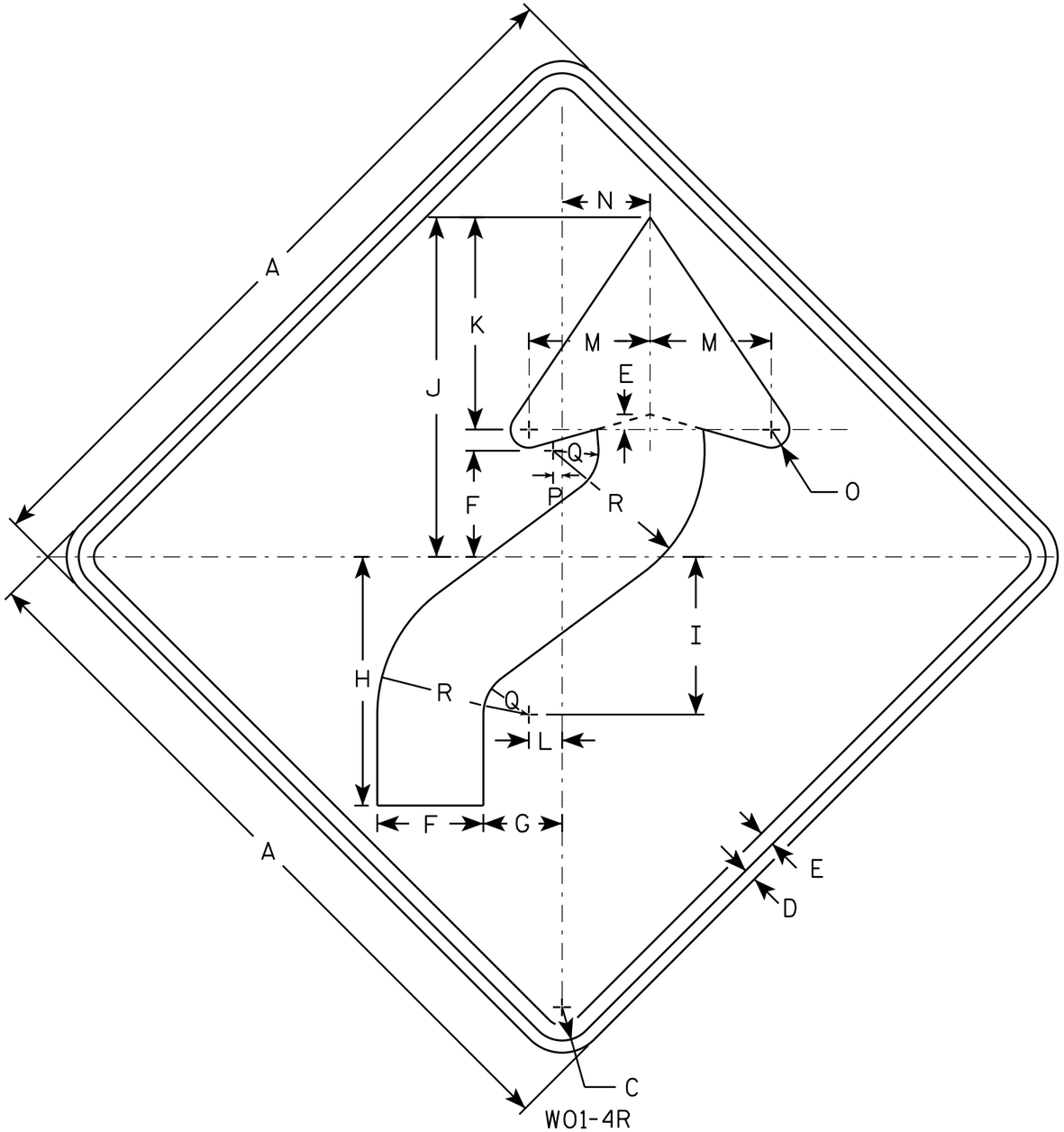
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 118 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 12-MAR-2013 14:11 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.202372:1.000000
WISDOT/CADDS SHEET 42



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R 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	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

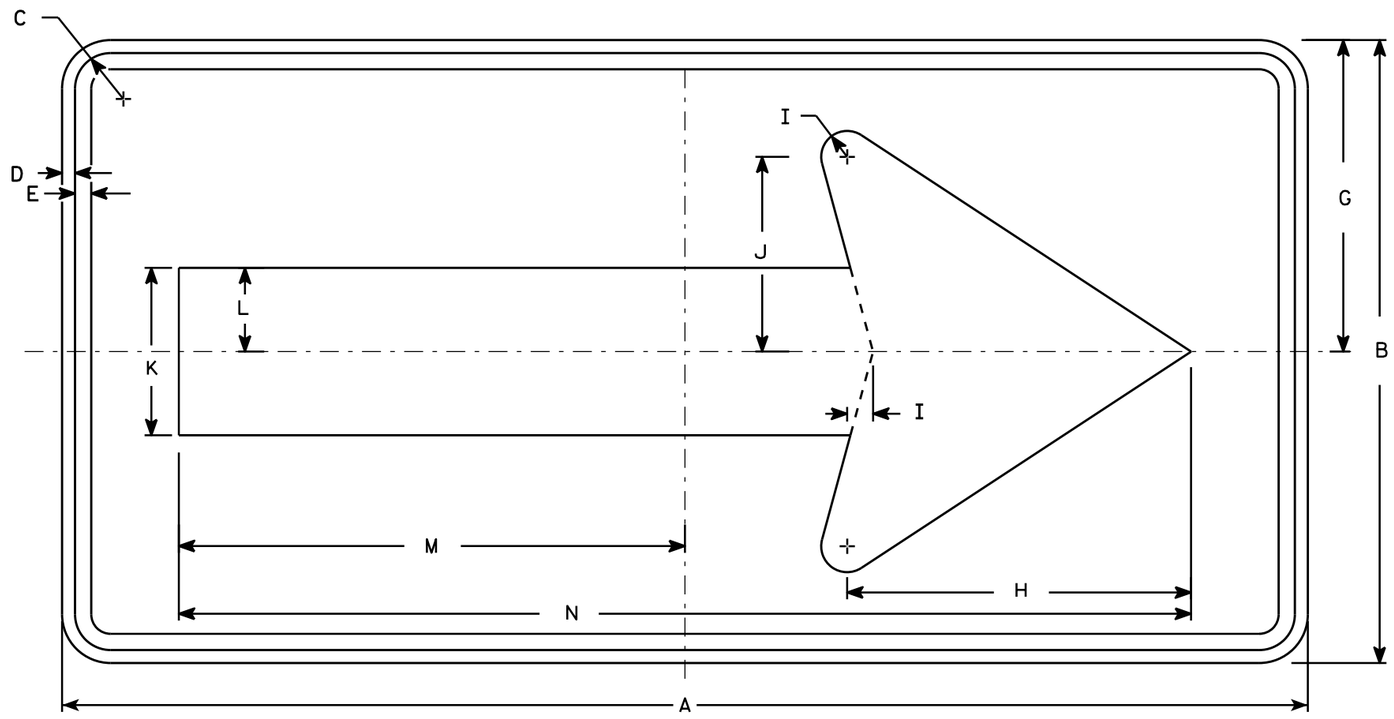
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

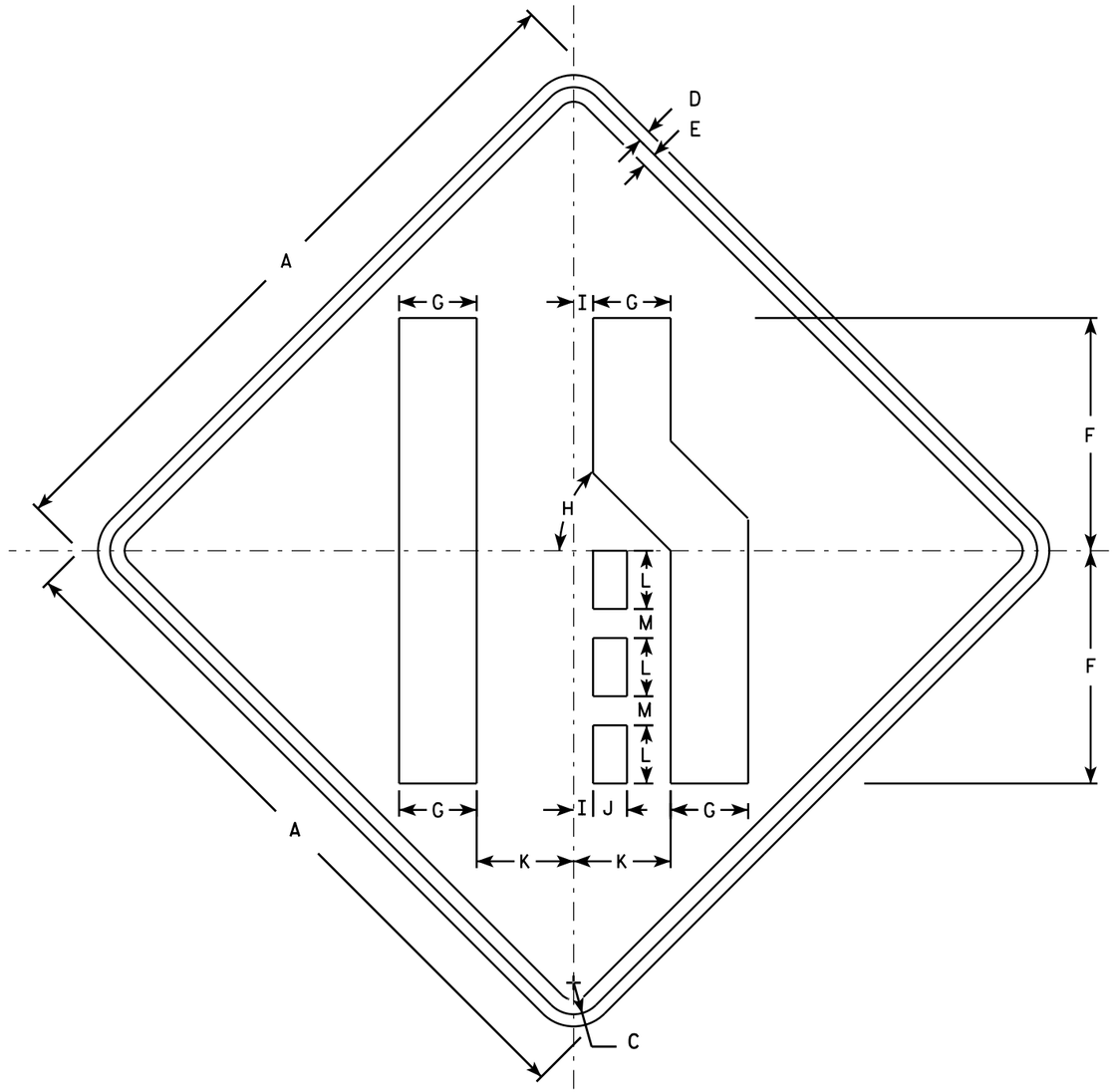
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE W01-6.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol 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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 121 W04-2.1

PROJECT NO:

SHEET NO: E

STH 52 (SCOTT STREET) (STAGE 1) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
267+16	0.0	0.0					
267+31	30.6	0.0	8.8	0.0	8.76	-	9
267+50	25.3	0.0	19.7	0.0	28.42	-	28
268+00	26.2	0.0	47.7	0.0	76.10	-	76
268+50	33.7	0.0	55.4	0.0	131.53	-	132
269+00	29.8	0.0	58.8	0.0	190.33	-	190
269+50	31.1	0.0	56.4	0.0	246.78	-	247
270+00	31.0	0.0	57.5	0.0	304.33	-	304
270+28	30.7	0.0	32.5	0.0	336.83	-	337

STH 52 (SCOTT STREET) (STAGE 2) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
267+16	0.0	0.0					
267+31	39.1	0.0	11.2	0.0	11.21	-	11
267+50	32.4	0.0	25.2	0.0	36.38	-	36
268+00	33.5	0.0	61.0	0.0	97.40	-	97
268+50	43.1	0.0	71.0	0.0	168.36	-	168
269+00	38.2	0.0	75.3	0.0	243.63	-	244
269+50	39.9	0.0	72.3	0.0	315.88	-	316
270+00	39.7	0.0	73.7	0.0	389.54	-	390
270+28	39.3	0.0	41.6	0.0	431.14	-	431

STH 52 (1ST STREET) *EXPANDED= 1.3

STATION	END AREA CUT (S.F.)	END AREA FILL (S.F.)	VOLUME CUT (C.Y.)	VOLUME FILL (C.Y.)	CUMULATIVE VOLUME CUT (C.Y.)	CUMULATIVE VOLUME *FILL (C.Y.)	MASS HAUL (C.Y.)
10+46	0.0	0.0					
10+55	34.7	0.7	5.7	0.4	5.70	0.58	5
10+70	35.0	0.0	19.0	0.1	24.73	0.87	24
11+20	40.0						
11+30	40.8	0.0	14.2	0.0	14.24	-	14
11+50	30.1	0.0	26.9	0.0	41.13	-	41
12+00	29.9	0.0	55.6	0.0	96.69	-	97
12+50	32.0	0.0	57.3	0.0	154.00	-	154
13+00	32.0	0.0	59.3	0.0	213.26	-	213
13+50	32.3	0.0	59.5	0.0	272.80	-	273
14+03	53.6	0.0	84.3	0.0	357.11	-	357

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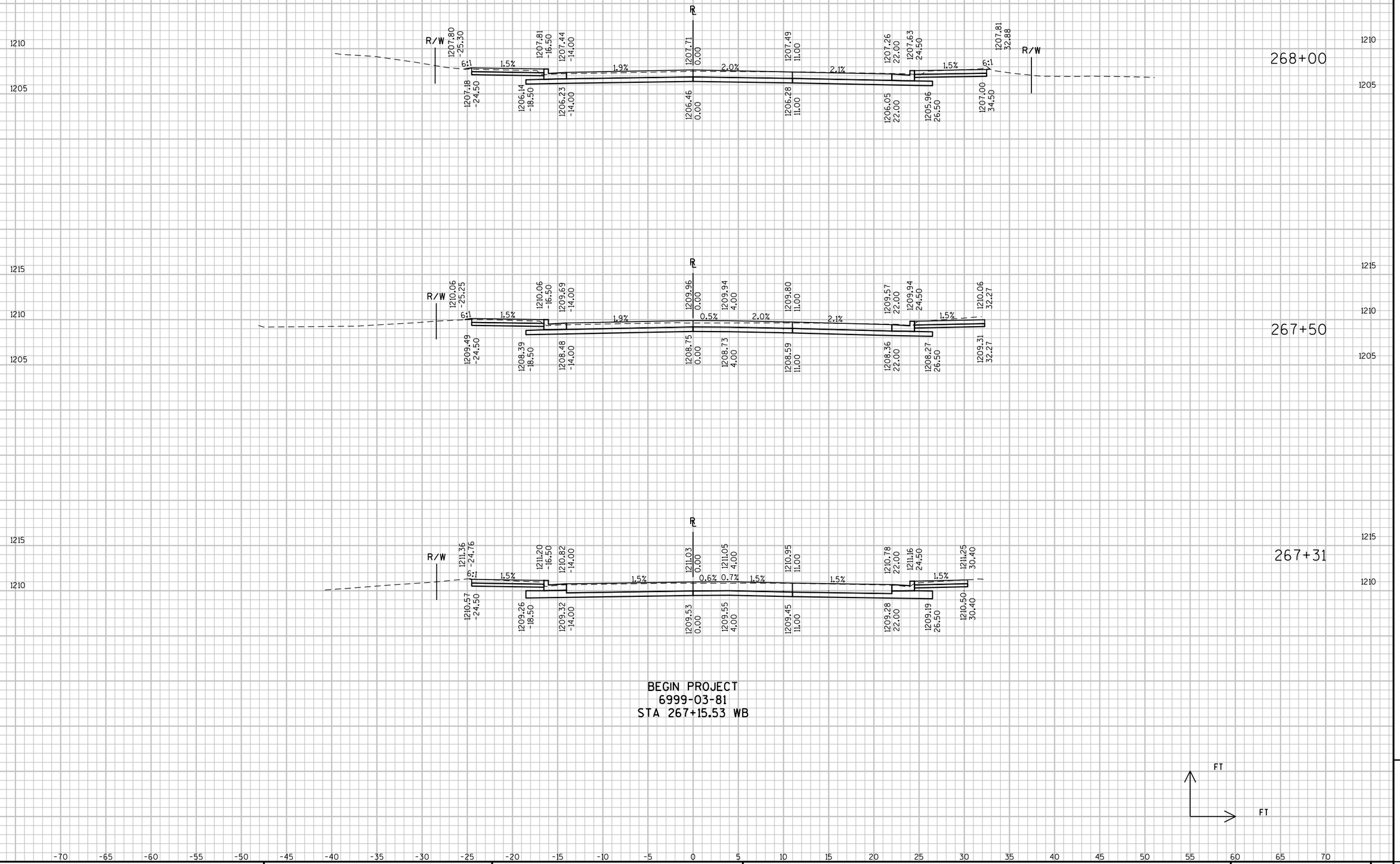

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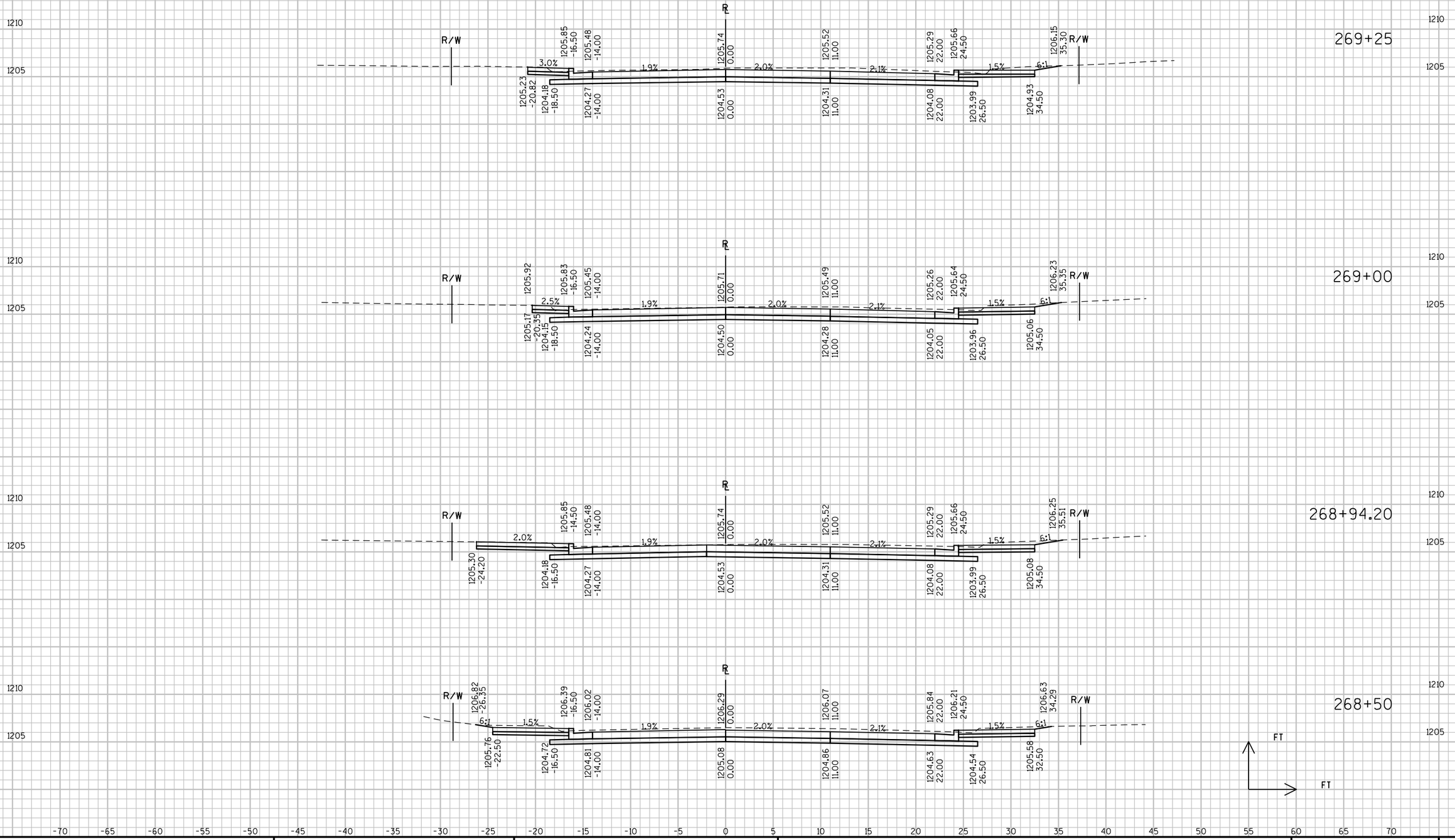
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (SCOTT STREET)	SHEET 123	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSCOTT01.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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9

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (SCOTT STREET)	SHEET 124	E

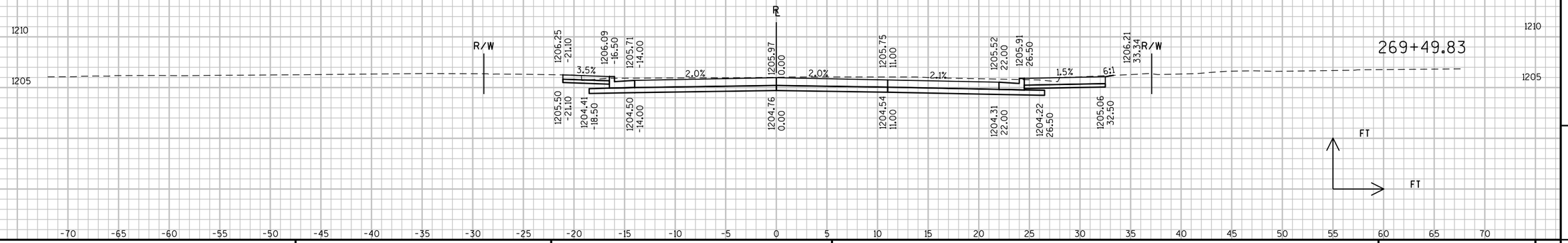
FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSCOTT01.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

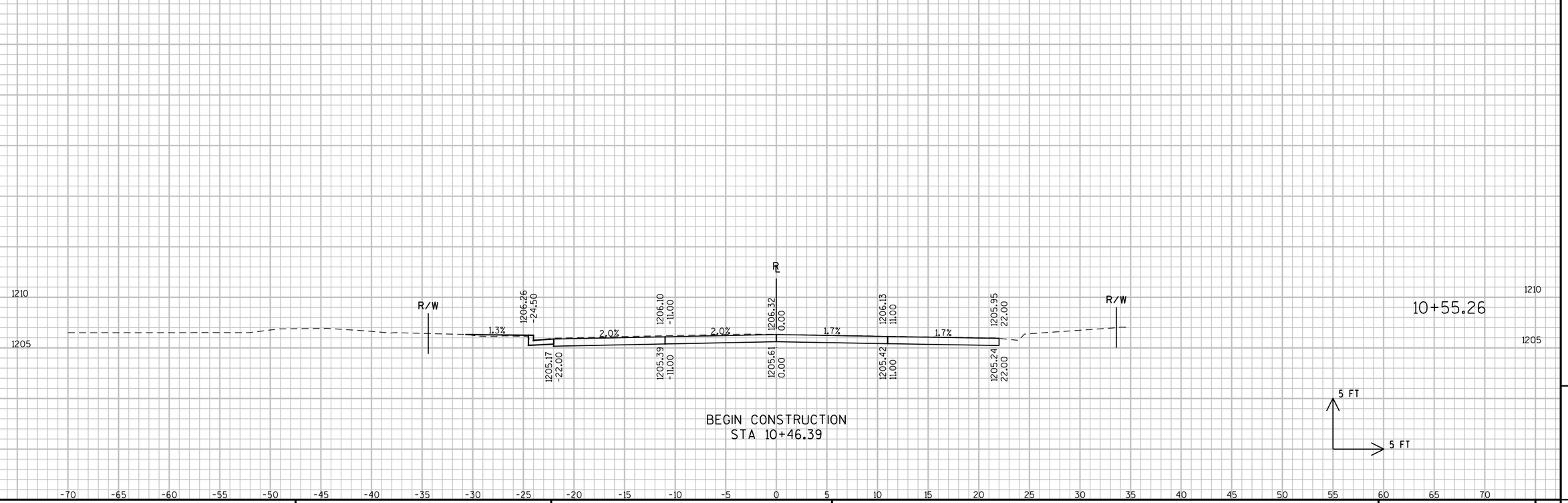
END CONSTRUCTION
STA 270+28.44



PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (SCOTT STREET)	SHEET 125	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSSCOTT01.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

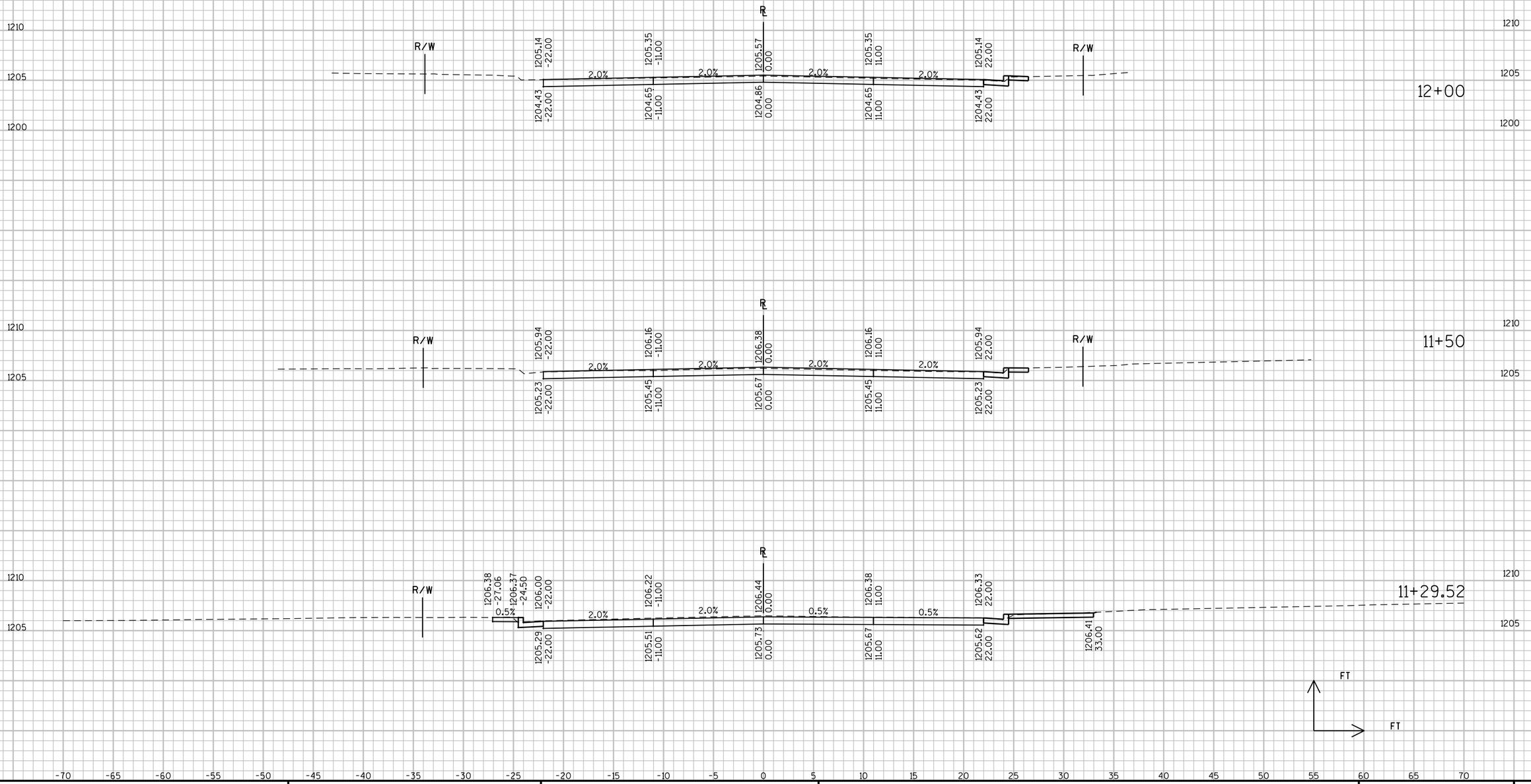


9 9

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: 1ST STREET	SHEET 126	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSFIRSTS01.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



9

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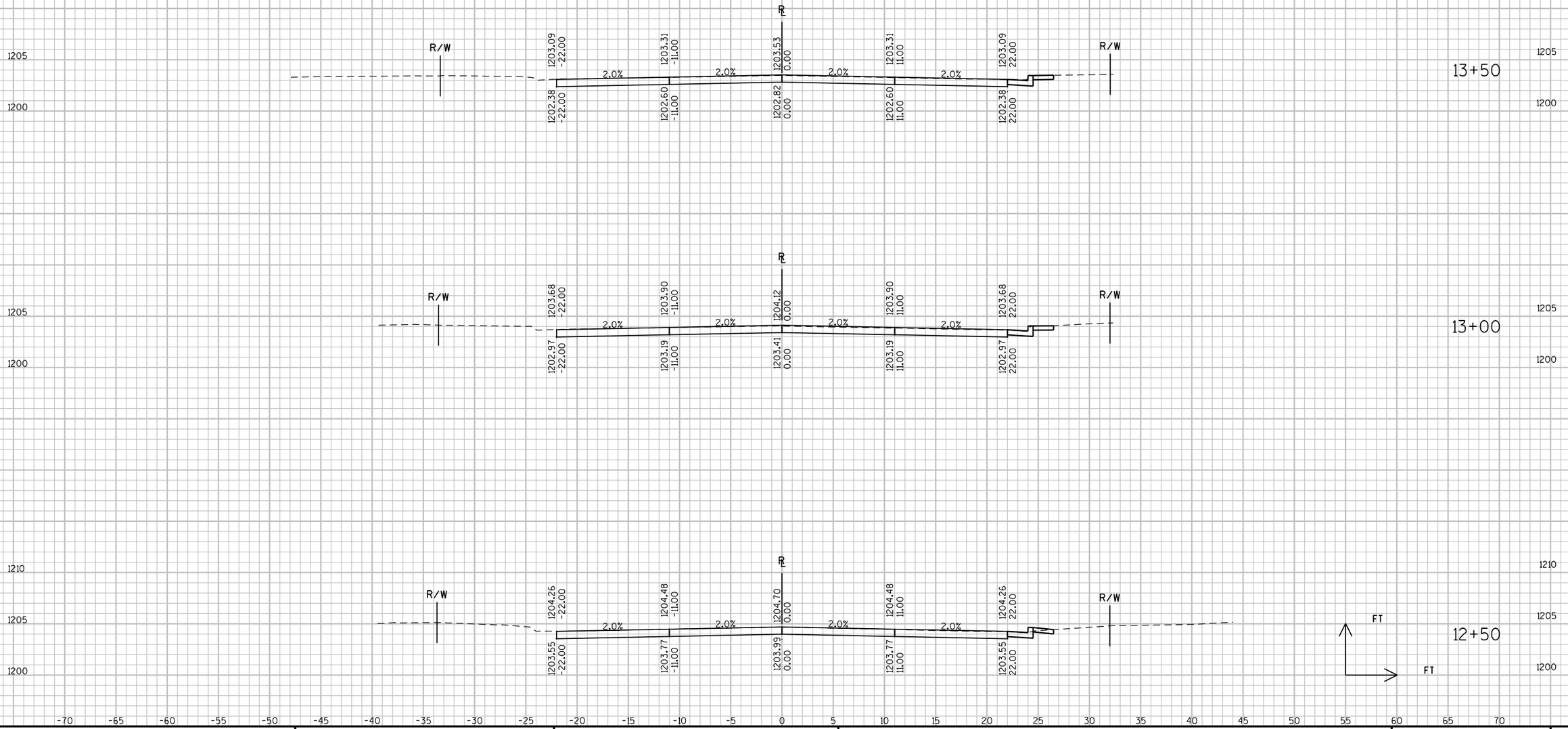
PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (1ST STREET)	SHEET 127	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSFIRSTN01.dgn

PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21



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PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (1ST STREET)	SHEET 128	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSFIRSTN01.dgn

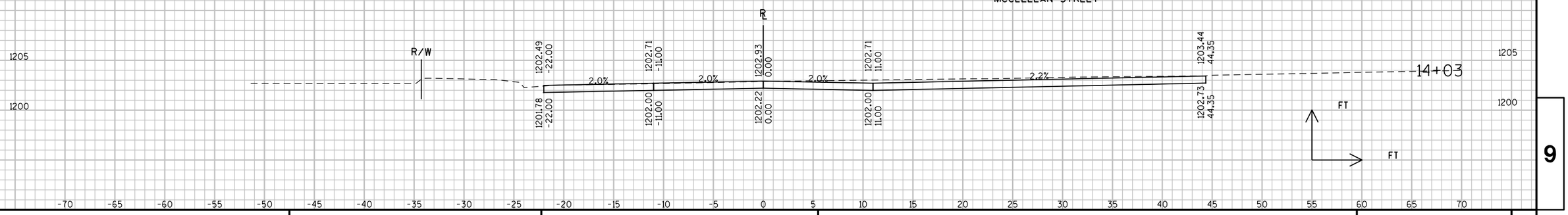
PLOT DATE : 1/18/2016

PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

END PROJECT
6999-03-81
STA 14+36.12

MCCLELLAN STREET



9 9

PROJECT NO: 6999-03-81	HWY: STH 52	COUNTY: MARATHON	CROSS SECTIONS: STH 52 (1ST STREET)	SHEET 129	E

FILE NAME : P:\WIDOT\11002 - STH 52\Cad\XSFIRSTN01.dgn PLOT DATE : 1/18/2016 PLOT BY : $$...plotuser...$$

WISDOT/CADDS SHEET 21

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