GRE

DEC 2016

PROJECT ID: 4630-05-71 & 4630-30-60

WITH: 4630-05-72

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 = 270

26

N

DESIGN DESIGNATION

A.A.D.T. (2017)	= 16,100
A.A.D.T. (2037)	= 18,600
D.H.V. (2037)	= 2,200
D.D.	= 59-41
T.	= 7.5%
DESIGN SPEED	= 30 MPH
ESALS	= 2,500,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CALUMET DRIVE, CITY OF SHEBOYGAN

MAIN AVENUE - 26TH STREET

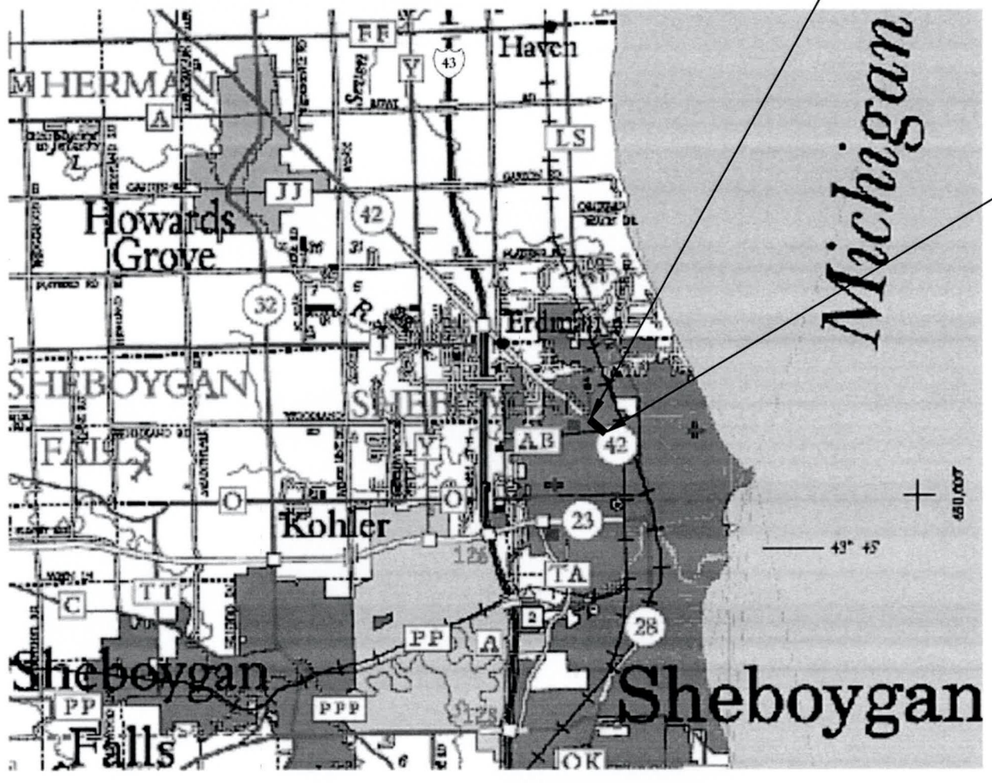
STH 42

SHEBOYGAN COUNTY

STATE PROJECT NUMBER		STATE PROJECT NUMBER
4630-05-71	AND	4630-05-72

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4630-05-71	WISC 2016487	1
4630-05-72	___	___

R-23-E



END PROJECT
4630-05-71
STA 27+41.48
N-186214.46
E-211645.94

BEGIN PROJECT
4630-05-71
STA 4+48.50
N-184589.59
E-213262.84

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.433 MILES

-ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 WITH 2007 ADJUSTMENT (NAVD 88 (2007))

-"COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), 'SHEBOYGAN COUNTY.'"

ACCEPTED FOR
CITY OF SHEBOYGAN

7/29/16 Ryan J. Sayan
DATE SIGNATURE & TITLE OF OFFICIAL
CITY ENGINEER

ORIGINAL PLANS PREPARED BY
McMAHON
ENGINEERS ARCHITECTS

WISCONSIN
COREY R. SCHUH
E-42462
NEENAH
WI
PROFESSIONAL ENGINEER

7/25/16 Corey R. Schuh
DATE SIGNATURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
SURVEYOR	NE REGION
DESIGNER	McMAHON
PROJECT MANAGER	PAUL BRAUER
REGIONAL EXAMINER	
REGIONAL SUPERVISOR	ROB WAGNER

APPROVED FOR THE DEPARTMENT

DATE: 7/25/16 Paul W. Brauer
(SIGNATURE)

E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ ORG DATE : _____ Originator : _____ PLOT SCALE : _____

WISDOT/CADDS SHEET 10

W:\PROJECTS\W005918\2017\00\01-Title\01 TITLE SHEET.dwg, 01 TITLE SHEET, 7/22/2016 3:41:32 PM, CClemens, 1:2

COUNTY SHEBOYGAN

GENERAL NOTES

BEARINGS AND COORDINATES SHOWN ON THIS PLAN ARE REFERENCED TO THE
WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SHEBOYGAN COUNTY
ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 WITH 2007 ADJUSTMENT (NAVD88(07)).

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

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

THE EXACT LOCATION OF ALL EROSION CONTROL ITEMS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL RADII SHOWN ON THE PLAN SHEETS ARE TO THE FACE OF CURB.

CONCRETE PAVEMENT JOINTS IN ADDITION TO THOSE REQUIRED TO MEET THE SPACING REQUIREMENTS OF THE STANDARD DETAIL DRAWING FOR URBAN DOWELED CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE ITEM CONCRETE PAVEMENT 9-INCH, AND CONCRETE PAVEMENT 8-INCH. THIS INCLUDES ALL ADDITIONAL JOINTS REQUIRED AT INTERSECTIONS, MANHOLES, INLETS AND OTHER APPURTENANCES LOCATED WITHIN THE PAVEMENT LIMITS.

THE ELEVATIONS SHOWN ON THE CROSS SECTIONS ARE FINISHED SUBGRADE ELEVATIONS AT THE REFERENCE LINE, PROFILE GRADE LINE, EDGE OF SUBGRADE, AND FINISHED SURFACE ELEVATIONS AT FRONT OF WALK AND SLOPE INTERCEPTS.

THE EXACT LIMITS OF CONCRETE, ASPHALT OR GRAVEL DRIVEWAY REMOVALS AND REPLACEMENT, AND CONCRETE SIDEWALK REMOVAL AND REPLACEMENT SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

RESIDENTIAL CONCRETE DRIVEWAYS SHALL CONSIST OF 6-INCHES CONCRETE AND 6-INCHES BASE AGGREGATE DENSE 1 1/4-INCH.
COMMERCIAL CONCRETE DRIVEWAYS SHALL CONSIST OF 7-INCHES CONCRETE AND 6-INCHES BASE AGGREGATE DENSE 1 1/4-INCH.

REMOVE ANY REINFORCEMENT AND MESH FOUND IN THE EXISTING CONCRETE. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE ITEM OF REMOVING PAVEMENT.

THE EXACT LOCATION AND LIMITS OF PRIVATE ENTRANCES AND COMMERCIAL ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

EXCAVATION BELOW SUBGRADE (EBS) AREAS ARE CALLED OUT AS UNDISTRIBUTED ON THE PLAN QUANTITIES FOR COMMON EXCAVATION. THESE AREAS ARE TO BE BACKFILLED WITH BREAKER RUN. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

TEMPORARY PAVEMENT MARKING TAPE SHALL BE USED ON PAVEMENTS THAT WILL REMAIN.
TEMPORARY PAVEMENT MARKING PAINT IS INCLUDED FOR USE ON PAVEMENTS THAT WILL BE REMOVED IN SUBSEQUENT STAGES.

TEMPORARY ASPHALT SIDEWALK WILL BE REQUIRED AT STORM SEWER, SANITARY SEWER AND WATERMAIN LATERAL LOCATIONS AND AT UNDISTRIBUTED LOCATIONS THROUGHOUT ALL STAGES OF THE PROJECT FOR MAINTAINING PEDESTRIAN ACCESS. QUANTITIES OF TEMPORARY PEDESTRIAN ASPHALT SURFACE AND BASE AGGREGATE DENSE 1 1/4-INCH HAVE BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY ASPHALT SIDEWALK. THE EXACT LOCATIONS FOR TEMPORARY ASPHALT SIDEWALK WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. STAGE WORK AND CONSTRUCT SIDEWALK DIVERSIONS AS NECESSARY TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. TEMPORARY ASPHALT SIDEWALK SHOULD BE A MINIMUM OF 4-FEET WIDE AND A MAXIMUM OF 5-FEET WIDE AND WILL CONSIST OF 2-INCHES OF TEMPORARY PEDESTRIAN SURFACE ASPHALT OVER 2-INCHES OF BASE AGGREGATE DENSE 1 1/4-INCH.

WHERE SECTIONS OF EXISTING STORM SEWER OR EXISTING STORM SEWER STRUCTURES ARE REMOVED, ADJACENT ENDS OF PIPE TEMPORARILY LEFT IN PLACE SHALL BE SEALED IN ACCORDANCE WITH SECTION 204.3.3.2 OF THE STANDARD SPECIFICATIONS. SEALING OF PIPES SHALL BE INCIDENTAL TO THE REMOVING STORM SEWER AND REMOVING STORM SEWER STRUCTURE ITEMS.

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

PRIOR TO ODERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

UTILITIES

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DNR LIAISON

DEPARTMENT OF NATURAL RESOURCES
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ATTENTION: JAY SCHIEFELBEIN
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SURVEYOR

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(920) 492–5638
CORMAC.MCINNIS@DOT.WI.GOV

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

STANDARD ABBREVIATIONS AND SYMBOLS

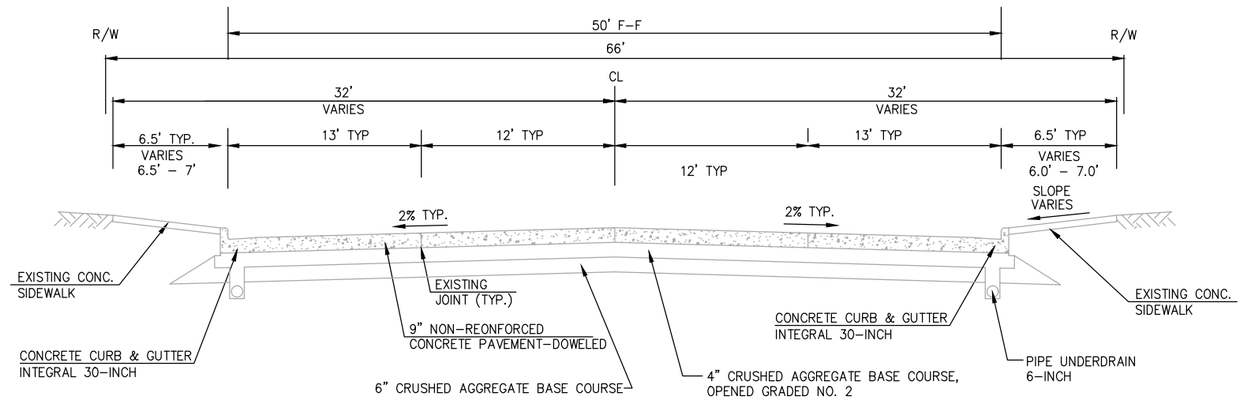
ADJ.	ADJUST
ASPH	ASPHALT
AVE.	AVENUE
⊕	BENCH MARK
B–B	BACK TO BACK OF CURB
B.A.D.	BASE AGGREGATE DENSE
B.O.C. or B/C	BACK OF CURB
℄ or CL	CENTERLINE
CONC.	CONCRETE
C.M.P.	CORRUGATED METAL CULVERT PIPE
C.T.H.	COUNTY TRUNK HIGHWAY
CL.	CLASS
△	DELTA
D.	DEGREE OF CURVE
DW	DRIVEWAY
E.	EAST
EB	EASTBOUND
E–MAT	EROSION MAT
ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EOR	END OF RADIUS
EXIST.	EXISTING
F–F	FACE TO FACE OF CURB
FL	FLOWLINE
GRAV	GRAVEL
GV	GAS VALVE
HDPE	HIGH DENSITY POLYETHYLENE CULVERT PIPE
HE	HIGHWAY EASEMENT
HMA	HMA
H.P.	HIGH POINT
HYD.	HYDRANT
L.	LENGTH OF CURVE
L.V.C.	LENGTH OF VERTICAL CURVE
L.S.	LANDSCAPING
LT.	LEFT
MH	MANHOLE
MAX	MAXIMUM
MIN	MINIMUM
NB	NORTH BOUND
NO.	NUMBER
NOR.	NORMAL
P.E.	PRIVATE ENTRANCE
P.G.L.	PROFILE GRADE LINE
P.I.	POINT OF INTERSECTION
PP	POWER POLE (OVERHEAD LINES)
P.T.	POINT OF TANGENCY
P.V.C.	POINT OF VERTICAL CURVATURE
P.V.I.	POINT OF VERTICAL INTERSECTION
P.V.T.	POINT OF VERTICAL TANGENCY
P/L	PROPERTY LINE
PVT.	PAVEMENT
PED.	PEDESTAL
R or RAD	RADIUS
R.C.P.	REINFORCED CONCRETE PIPE
RECON.	RECONSTRUCT
REQ'D	REQUIRED
R/L	REFERENCE LINE
REM.	REMOVE
R/W	RIGHT OF WAY
RD.	ROAD
RT.	RIGHT
S.	SOUTH
SAN	SANITARY SEWER
SB	SOUTH BOUND
S.D.D.	STANDARD DETAIL DRAWING
S.I.	SLOPE INTERCEPT
STA.	STATION
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
SW	CONCRETE SIDEWALK
T.I.	TEMPORARY INTEREST
TLE	TEMPORARY LIMITED INTEREST
TYP.	TYPICAL
V.C.	VERTICAL CURVE
WB	WESTBOUND
W	WATERMAIN
WV	WATER VALVE/SHUTOFF
⊕ –	HYDRANT W/AUXILIARY VALVE
●—☼	LIGHT POLE

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

TOTAL PROJECT AREA= 5.56 ACRES
TOTAL DISTRUBED AREA= 6.16 ACRES

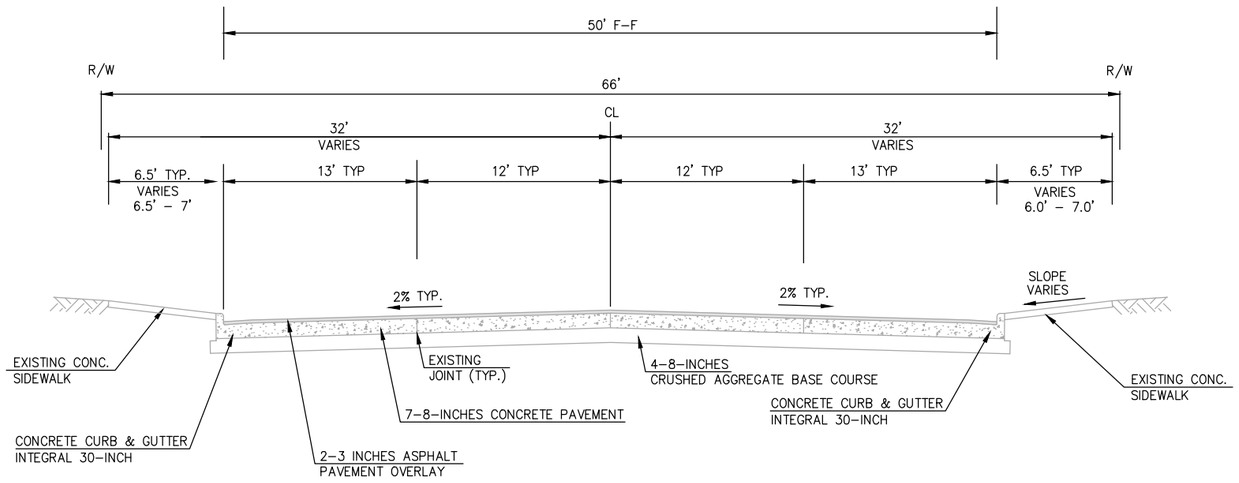
PROJECT NO: 4630-05-71/72	HWY: S.T.H. 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET: 4	E

2



EXISTING TYPICAL SECTION FOR CALUMET DR.

STATION 4+48.50 – STATION 5+57



EXISTING TYPICAL SECTION FOR CALUMET DR.

STATION 5+57 – STATION 6+53.16
STATION 12+37.73 – STATION 23+24.68

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET: 5	E

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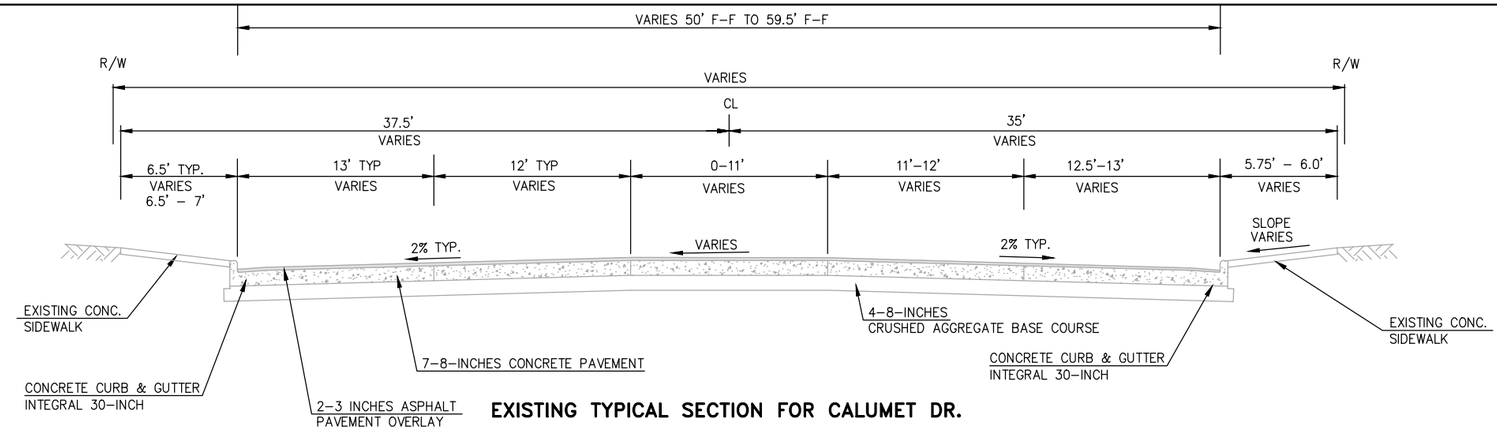
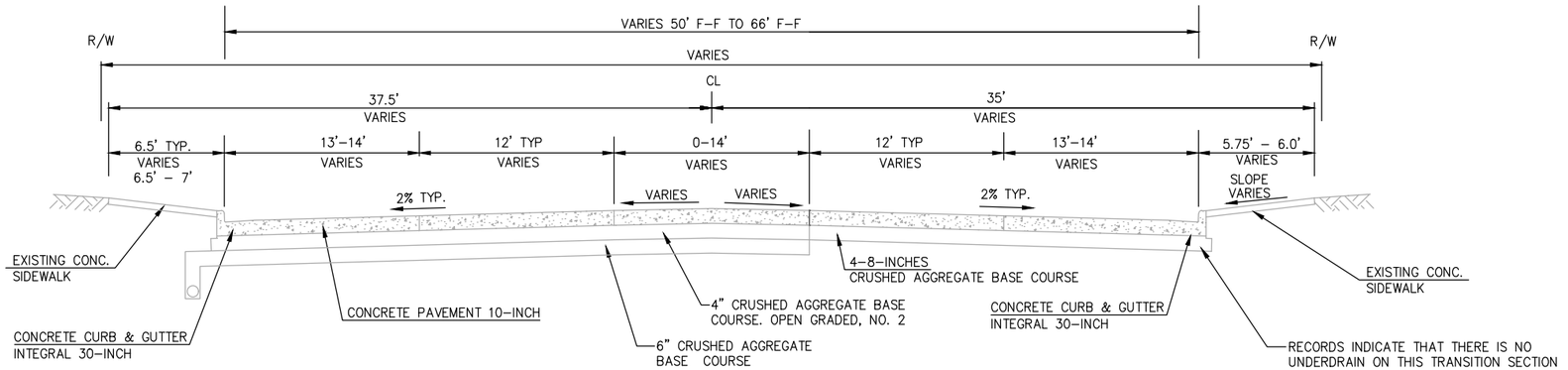


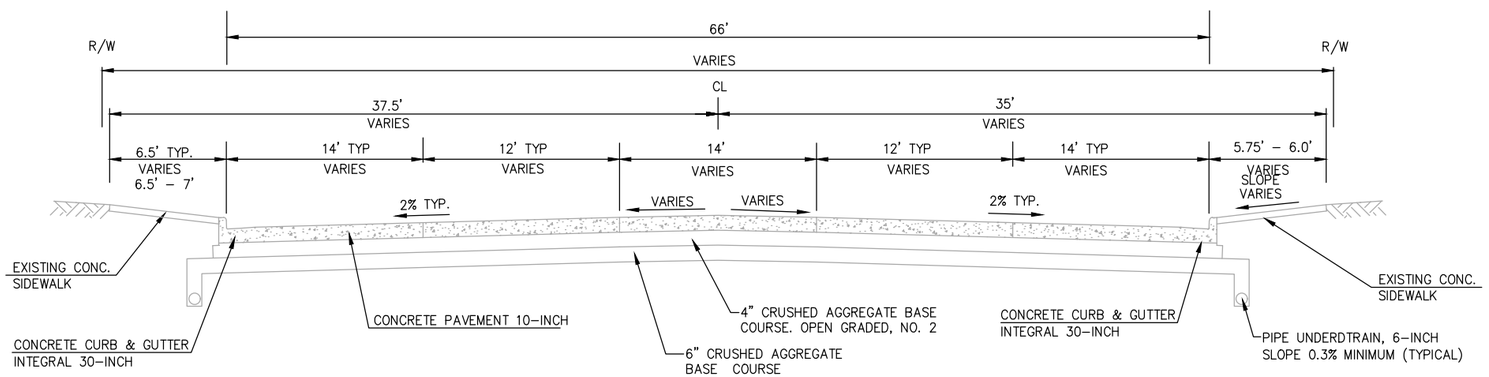
EXISTING TYPICAL SECTION FOR CALUMET DR.

STATION 6+53.16 - STATION 12+37.73



EXISTING TYPICAL SECTION FOR CALUMET DR.

STATION 23+24.68 - STATION 27+41.48



EXISTING TYPICAL SECTION FOR CALUMET DR.

STATION 27+41.48 - STATION 29+00

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET: 6	E

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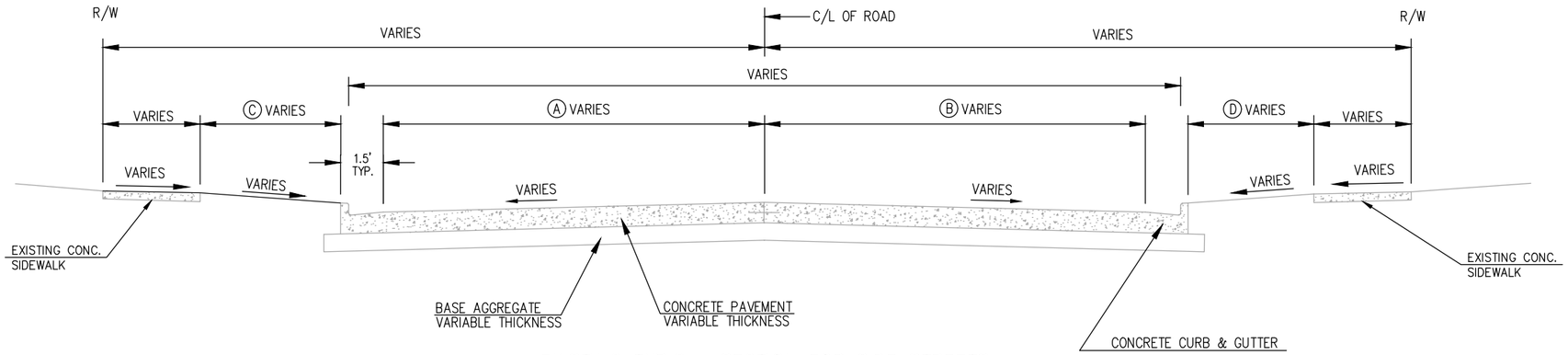
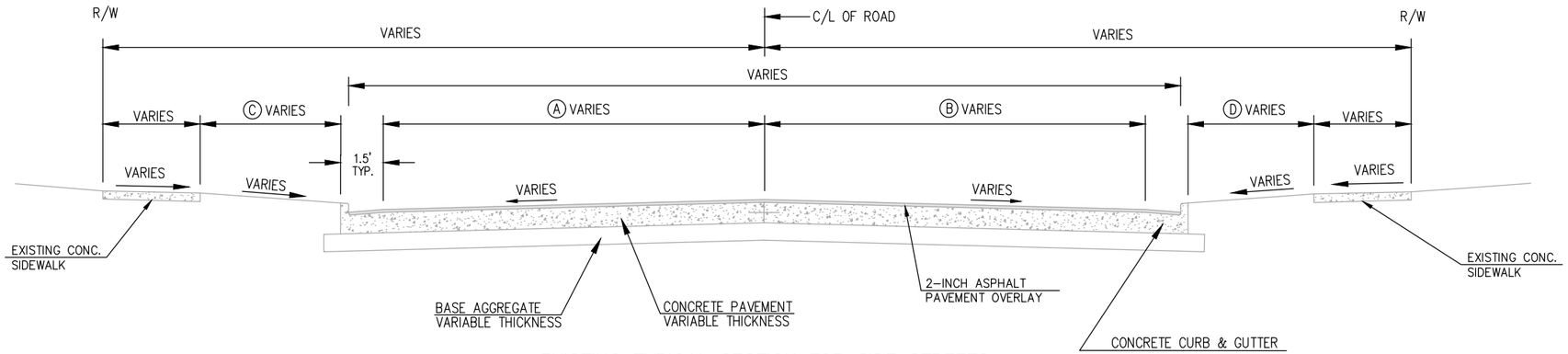


EXISTING TYPICAL SECTION FOR SIDE STREETS
CONCRETE PAVEMENT
(MAIN AVE., NORTH AVE., 25TH ST. (NORTH), 26TH ST.)



EXISTING TYPICAL SECTION FOR SIDE STREETS
CONCRETE PAVEMENT W/ ASPHALT OVERLAY
(25TH ST. (SOUTH))

STREET NAME	Ⓐ	Ⓑ	Ⓒ	Ⓓ
MAIN AVE.	17'	17'	2.3'	4'
NORTH AVE EAST	32.5'	32.5	5.5'	2'
NORTH AVE. WEST	27'	31'	7.5'	7.8'
25TH ST. SOUTH	21'	17'	10.1'	9.3'
25TH ST. NORTH	23'	23'	9.5'	9.1'
26TH ST. NORTH	16.5	16.5'	4.1'	15.5'

Ⓐ AND Ⓑ = DISTANCE FROM C/L TO GUTTER FLANGE

Ⓒ AND Ⓓ = DISTANCE FROM BACK OF CURB TO FACE OF WALK

*NOTES:
1. WIDTHS OF SIDE STREETS ARE AT THE END OF RADIUS

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET: 7	E

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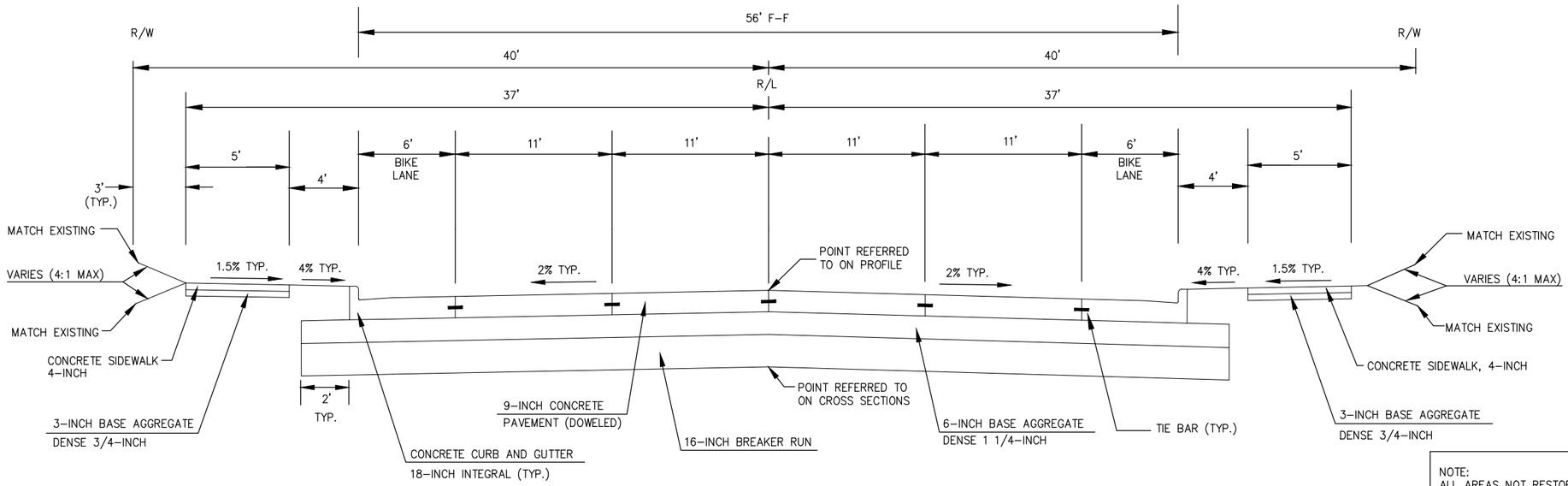
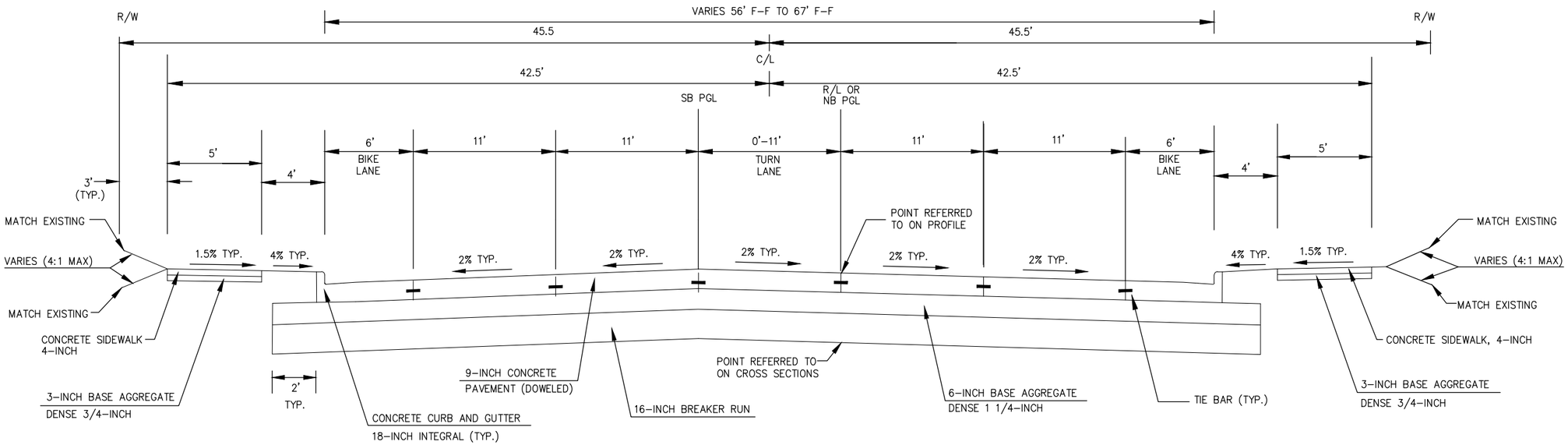


NOTE:
ALL AREAS NOT RESTORED WITH CONCRETE OR ASPHALT ARE TO BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND EROSION MAT URBAN CLASS I TYPE B.

CALUMET DRIVE PROPOSED TYPICAL SECTION

STATION 4+48.50 – STATION 6+20.58
STATION 13+07.83 – STATION 23+24.68



CALUMET DRIVE PROPOSED TYPICAL SECTION

STATION 6+20.683– STATION 13+07.83

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET: 8	E

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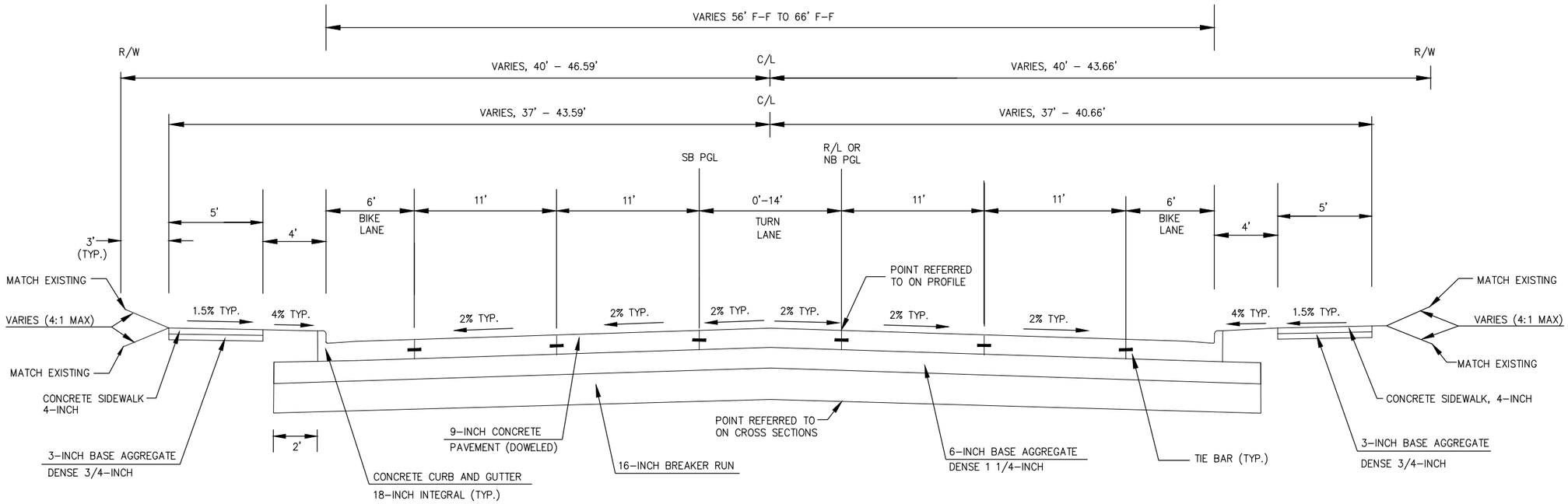

CALUMET DRIVE PROPOSED TYPICAL SECTION

STATION 23+24.68 - STATION 27+41.48

NOTE:
ALL AREAS NOT RESTORED WITH CONCRETE OR ASPHALT ARE TO BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND EROSION MAT URBAN CLASS I TYPE B.

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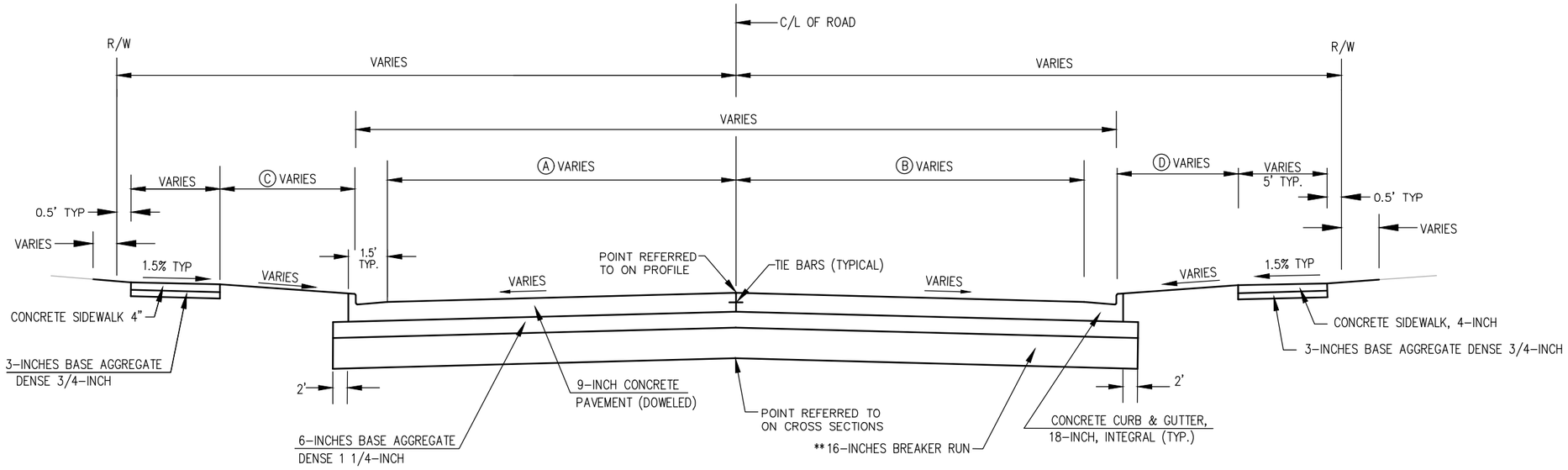

PROPOSED TYPICAL SECTION FOR SIDE STREETS

(SEE PAVING DETAILS FOR PAVING LIMITS)

** BREAKER RUN SHALL BE PLACED TAPERED FROM 0-INCHES AT THE MATCH POINT TO 16-INCHES OVER A DISTANCE OF 10-FEET.

NOTE:
ALL AREAS NOT RESTORED WITH CONCRETE OR ASPHALT ARE TO BE RESTORED WITH TOPSOIL, SEED, FERTILIZER, AND EROSION MAT URBAN CLASS I TYPE B.

STREET NAME	Ⓐ	Ⓑ	Ⓒ	Ⓓ
*** MAIN AVE.	17'	17'	2.3'	4'
NORTH AVE EAST	32.5'	32.5	5.5'	2'
NORTH AVE. WEST	27'	31'	7.5'	7.8'
25TH ST. SOUTH	21'	17'	10.1'	9.3'
25TH ST. NORTH	23'	23'	9.5'	9.1'
26TH ST. NORTH	16.5	16.5'	4.1'	15.5'

Ⓐ AND Ⓑ = DISTANCE FROM C/L TO GUTTER FLANGE

Ⓒ AND Ⓓ = DISTANCE FROM BACK OF CURB TO FACE OF WALK

*** MAIN AVE. FROM STA. 8+21 TO STA. 8+71 IS CONCRETE PAVEMENT 8-INCH

*NOTES:
1. MATCH EXISTING JOINT SPACING, LONGITUDINAL JOINT SPACING SHALL NOT EXCEED 15-FT.
2. WIDTHS OF SIDE STREETS ARE AT THE END OF RADIUS.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET: 10	E

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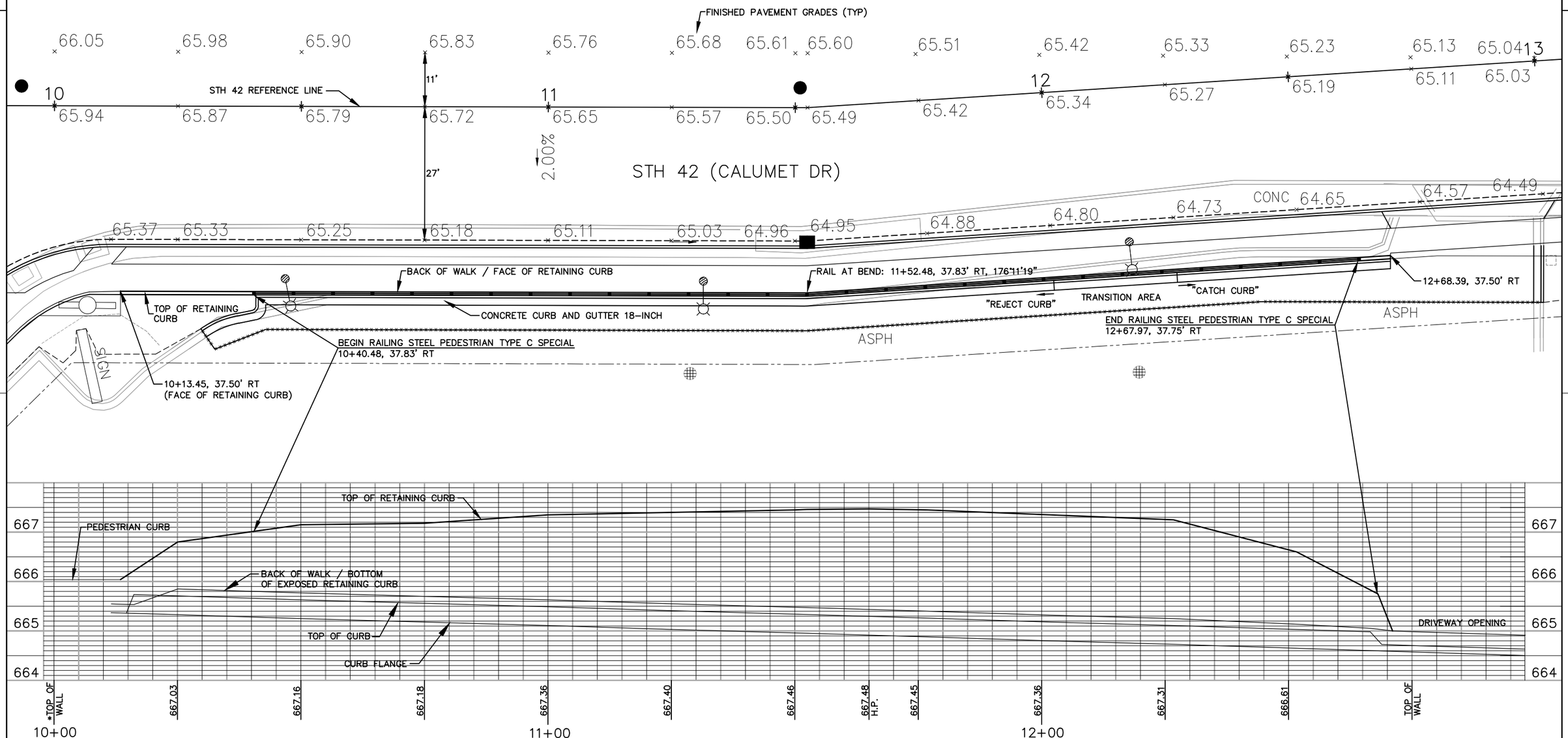

* VERIFY FIT OF PROPOSED RETAINING CURB ELEVATIONS IN THE FIELD PRIOR TO ORDERING AND INSTALLING RAILING.

NOTE: ALL STATION AND OFFSETS ON THIS DETAIL ARE FROM THE STH 42 REFERENCE LINE

CONCRETE RETAINING CURB DETAIL – SHEET 1 OF 2

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CONCRETE RETAINING CURB	SHEET: 11	E

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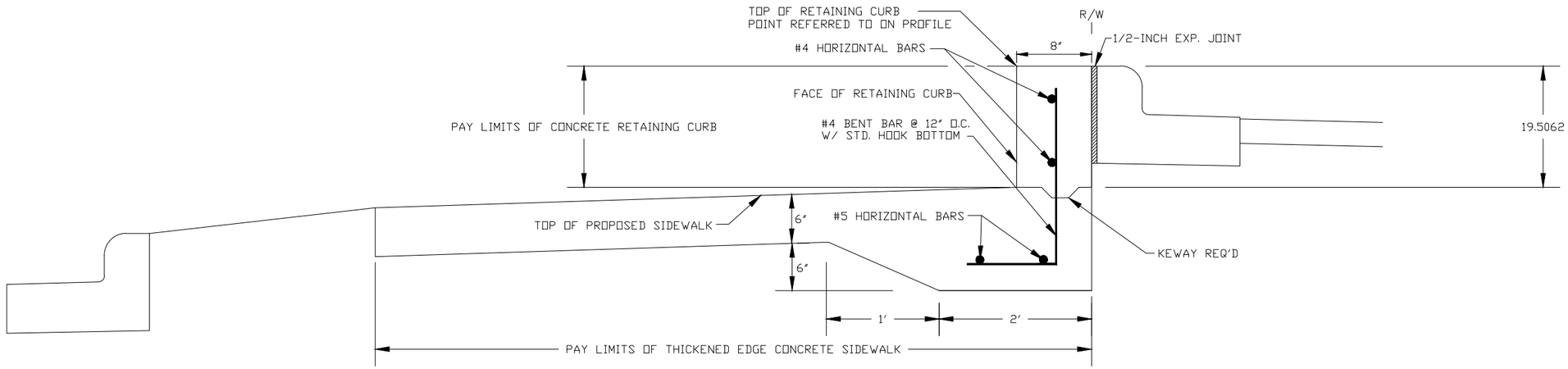

THICKENED EDGE CONCRETE SIDEWALK / CONCRETE RETAINING CURB DETAIL

NOTE:

VERTICAL REINFORCEMENT SHALL BE NO.4 EPOXY COATED BENT TIE BAR SPACED @ 30″ C-C. PROVIDE BAR LENGTH AS NECESSARY TO OBTAIN 2″ CLEAR FROM TOP OF WALL.

HORIZONTAL REINFORCEMENT NO. 4 EPOXY COATED BARS. EACH BAR SHALL BE TIED TO EACH VERTICAL BAR WITH THE UPPER HORIZONTAL BAR TIED 3″ FROM THE TOP OF THE VERTICAL BAR, AND THE LOWER HORIZONTAL BAR TIED 2″ ABOVE THE TOP OF WALK. HORIZONTAL BARS SHALL BE LAPPED AND TIED, 12″.

VERTICAL REINFORCEMENT AND LOWER HORIZONTAL BAR REQUIRED WHEN WALL HEIGHT ABOVE WALK EXCEEDS 4″. UPPER HORIZONTAL #4 BAR REQUIRED WHEN WALL HEIGHT ABOVE WALK EXCEEDS 9″.

HORIZONTAL #5 EPOXY COATED BARS REQUIRED WHEREVER THICKENED EDGE SIDEWALK IS CONSTRUCTED.

RETAINING CURB HEIGHT VARIES WITH A MAXIMUM HEIGHT OF 24 INCHES.

CURB LOCATED BEYOND THE RETAINING CURB TO BE CONSTRUCTED FLUSH WITH THE TOP OF THE RETAINING CURB. 1/2-INCH EXPANSION JOINT SHALL BE USED TO SEPARATE THE 18-INCH CURB AND GUTTER FROM THE RETAINING CURB.

MINIMUM OF 3-INCHES OF BASE AGGREGATE DENSE 3/4-INCH REQUIRED UNDER ALL SIDEWALKS AND PARKING LOT CURB.

WIDTH OF PEDESTRIAN CURB LOCATED ON THE SOUTH END OF RETAINING CURB TO BE TRANSITIONED TO MATCH RETAINING CURB. SEE CURB RAMP DETAILS FOR MORE INFORMATION.

VERIFY DRAINAGE OF EXISTING PARKING LOT PRIOR TO SETTING GRADES FOR WALL AND PARKING LOT CURB. ADJUST GRADES AS NECESSARY.

CONCRETE RETAINING CURB DETAIL – SHEET 2 OF 2

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – THICKENED EDGE CONCRETE SIDEWALK AND RETAINING CURB	SHEET: 12	E

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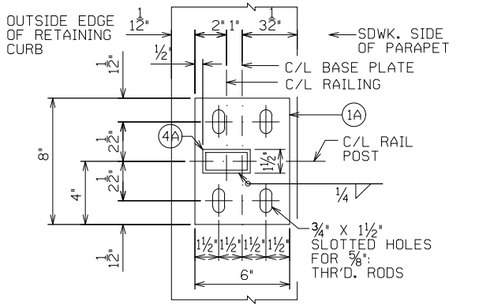
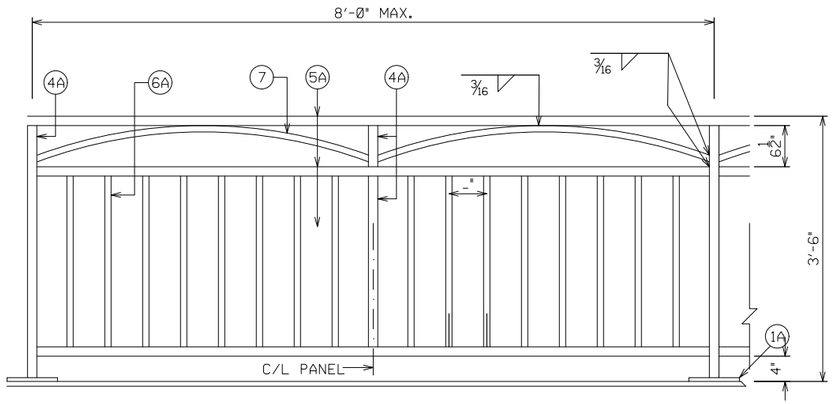


TYPICAL RAIL POST BASE PLATE



ELEVATION

LEGEND

(1A) PLATE 5/8" X 6" X 8" WITH 3/4" X 1 1/2" SLOTTED HOLES.

(1C) PLATE 5/8" X 8" X 1'-1" WITH 3/4" X 1 1/2" SLOTTED HOLES.

(2A) 1/4" X 5" X 7" ANCHOR PLATE WITH 11/16" : HOLES FOR THR'D. RODS NO. 3.

(2C) 1/4" X 2 1/2" X 7 1/4" ANCHOR PLATE WITH 11/16" : HOLES FOR THR'D. RODS NO. 3.

(3) 5/8" DIA. X 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. (ALTERNATE RAIL POST ANCHORAGE: 4 EQUIVALENT STAINLESS STEEL CONCRETE MASONRY ANCHORS TYPE S 5/8-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS.)

(4A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.

(5A) STRUCTURAL TUBING 3" X 1 1/2" X 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.

(6A) BAR 1" X 1" PICKETS. WELD TO NO. 5. PLACE VERTICAL.

(6C) BAR 1" X 1 1/2" PICKETS. WELD TO NO. 11. PLACE VERTICAL.

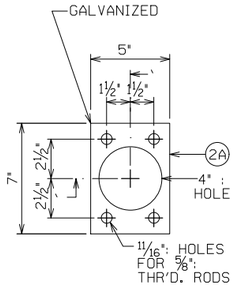
(7) BAR 1" X 1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.

(9A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".

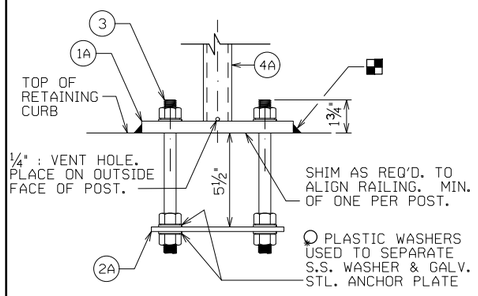
(10A) RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JTS.) (1'-4" @ STRIP SEAL EXP. JTS.)

(11A) BAR 2 1/2" X 1" X _'-_".

(12) 1/2" DIA. STAINLESS STEEL BOLT WITH NUT AND LOCKWASHER.

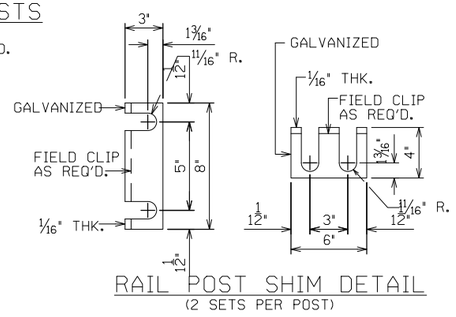


ANCHOR PLATE

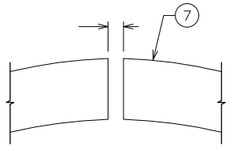


ANCHORAGE FOR RAIL POSTS

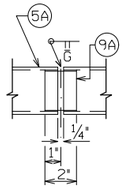
NOTE: ANCHOR PLATE NOT REQUIRED WHEN TYPE S ANCHORS ARE USED.



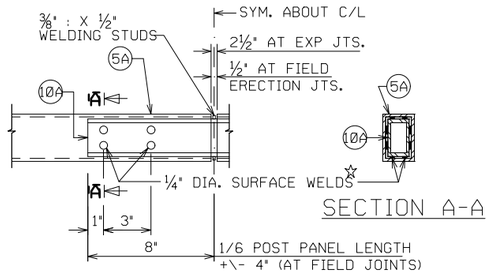
RAIL POST SHIM DETAIL
(2 SETS PER POST)



CURVED MEMBER JOINT DETAIL



SHOP RAIL SPLICE DETAIL
(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)



SECTION A-A

FIELD ERECTION JOINT DETAIL

☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

RAILING NOTES

BID ITEM FOR RAILING SHALL BE "RAILING STEEL PEDESTRIAN TYPE C3", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

■ CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3 & 12) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038, BLACK.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

COMBINATION RAIL TYPE "C3" PEDESTRIAN DETAILS

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – RAILING STEEL PEDESTRIAN TYPE C3	SHEET: 13	E

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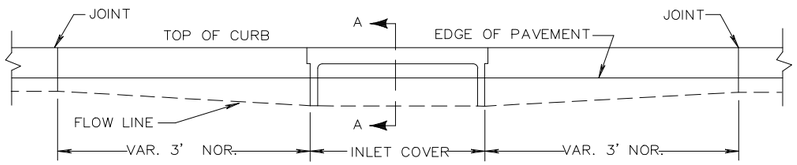
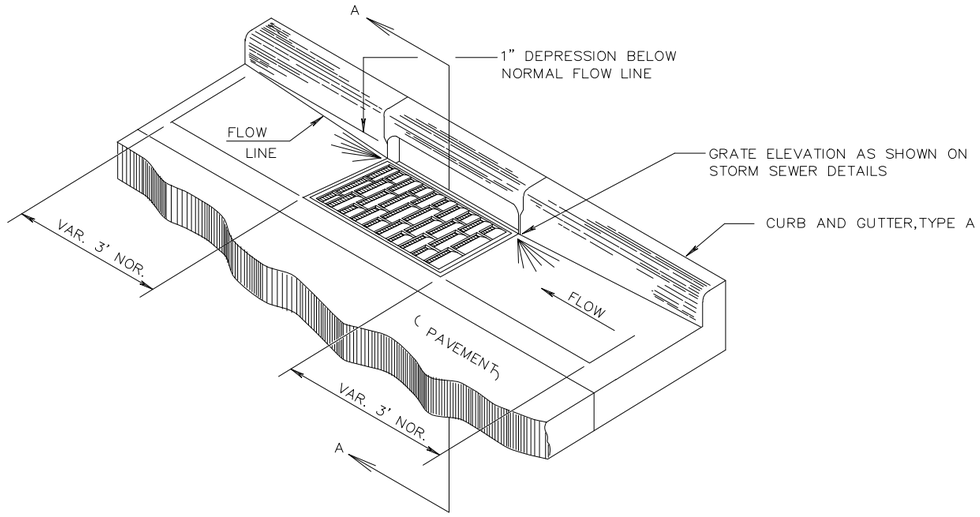
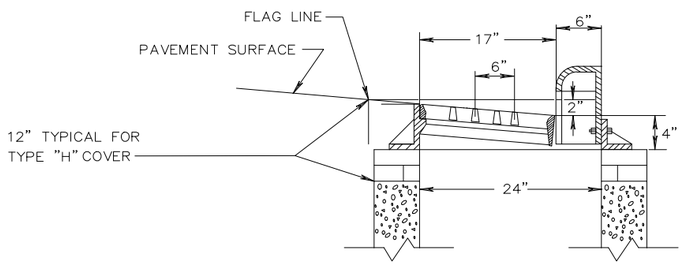


ELEVATION

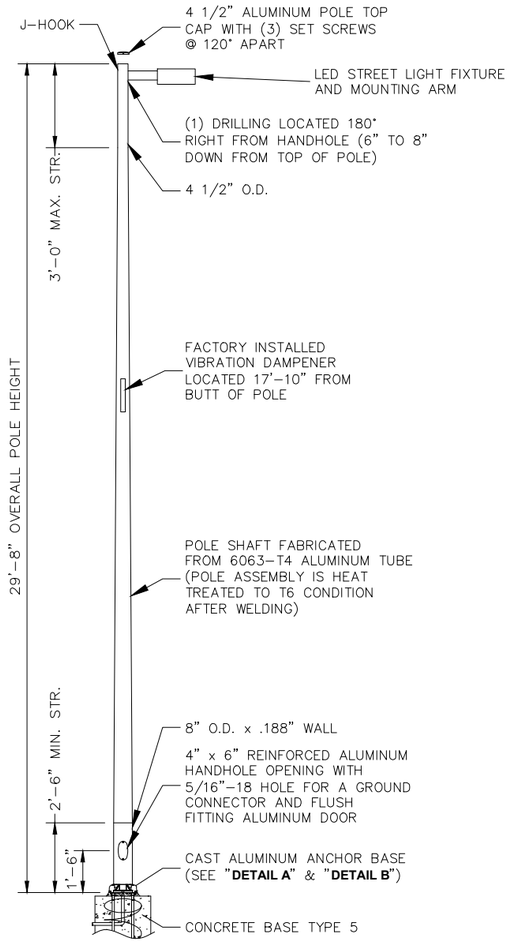


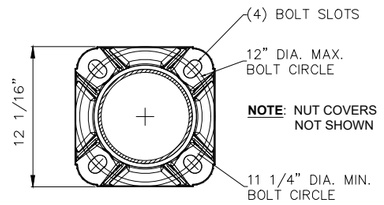


SECTION A–A

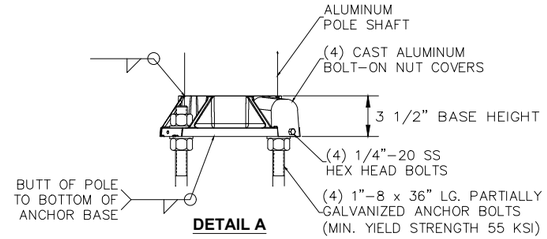
DETAIL OF CURB AND GUTTER AT INLETS

(TYPE 3–H INLET SHOWN)





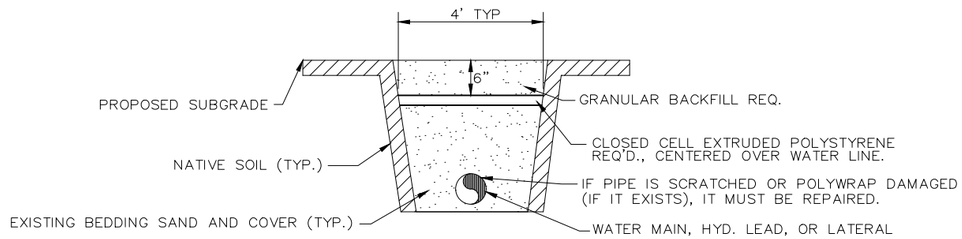
DETAIL B



DETAIL A

POLE RATING (PER AASHTO 2013):
3–SEC GUST WIND SPEED: 90 MPH MAX
EPA (LUMINAIRE): 12.0 SQ. FT. MAX
WEIGHT (LUMINAIRE): 150 LBS MAX

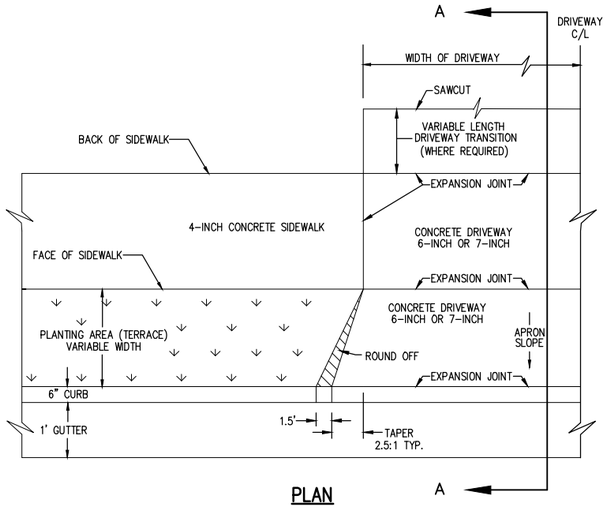
LIGHTING ASSEMBLY



GRANULAR BACKFILL SHALL BE LEVELED OUT SO INSULATION IS UNIFORMLY SUPPORTED, ESPECIALLY IF ANY SHEETS ARE OVERLAPPED

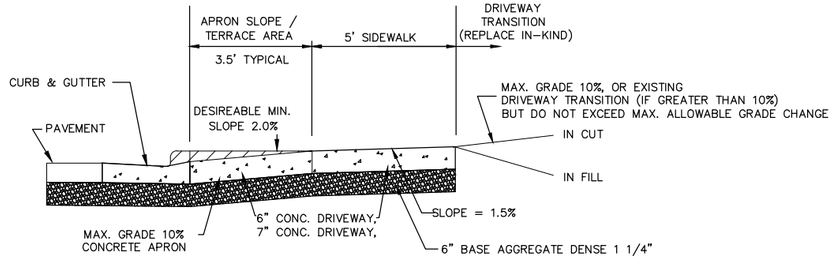
EXTRUDED POLYSTYRENE TO BE MIN. 2–INCH THICK UNLESS OTHERWISE SPECIFIED. SEE PLAN SHEETS FOR DETAILS

INSULATION BOARD POLYSTYRENE, 2–INCH OR 4–INCH

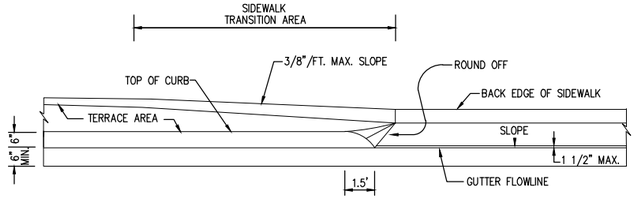


PLAN

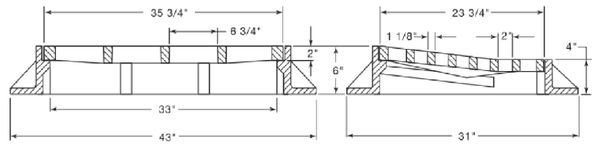
MAXIMUM GRADE CHANGE BETWEEN APRON SLOPE AND DRIVEWAY TRANSITION IS 15%

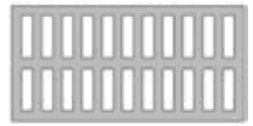


SECTION A-A



PROFILE PARALLEL TO CENTERLINE OF ROADWAY





USE COVERS THAT HAVE THE LONG DIMENSION OF OPENINGS ORIENTATED PERPENDICULAR TO TRAFFIC.

INLET COVERS TEMPORARY HEAVY DUTY

GENERAL NOTES FOR DRIVEWAYS AND SIDEWALKS

LOCATIONS FOR DRIVEWAY OPENINGS AND LENGTH OF TRANSITION AREAS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL RESIDENTIAL DRIVEWAY APRONS AND SIDEWALK THROUGH DRIVEWAYS SHALL BE REPLACED WITH CONCRETE DRIVEWAY 6-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4".

ALL COMMERCIAL DRIVEWAY APRONS AND SIDEWALK THROUGH DRIVEWAYS SHALL BE REPLACED WITH CONCRETE DRIVEWAY 7-INCH OVER 6" BASE AGGREGATE DENSE 1 1/4".

ASPHALT DRIVEWAYS & PARKING LOTS SHALL BE REPLACED WITH 4" OF ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES OVER 12" OF BASE AGGREGATE DENSE 1 1/4". SEE MISCELLANEOUS QUANTITIES FOR DRIVEWAY MATERIAL LOCATIONS.

CONCRETE SIDEWALK SHALL BE CONCRETE SIDEWALK 4-INCH OVER 3" BASE AGGREGATE DENSE 3/4".

DRIVEWAY TRANSITION MATERIALS AND TYPICAL SECTIONS ARE NOTED ON THE PAVING DETAIL SHEETS.

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PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL	SHEET: 15	E

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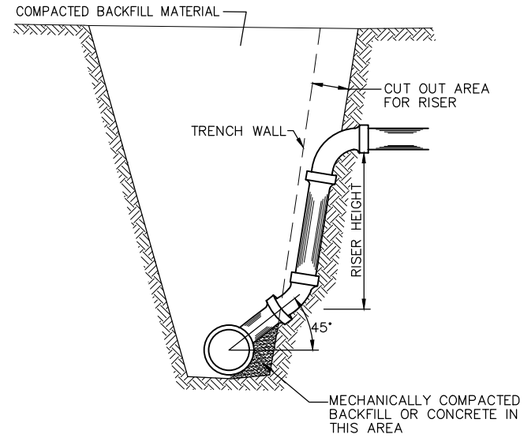
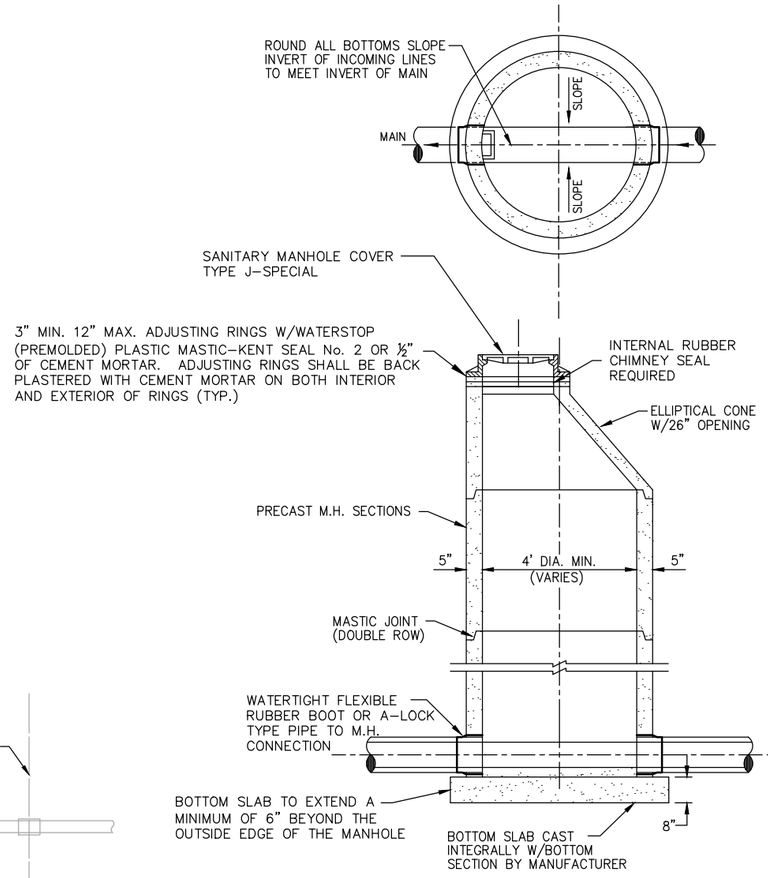
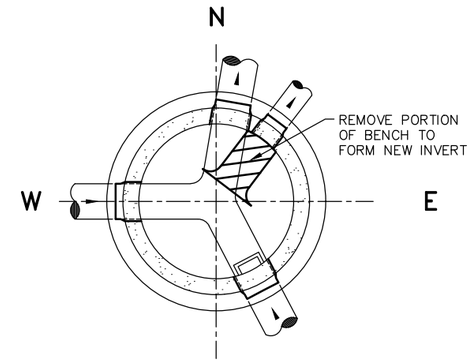
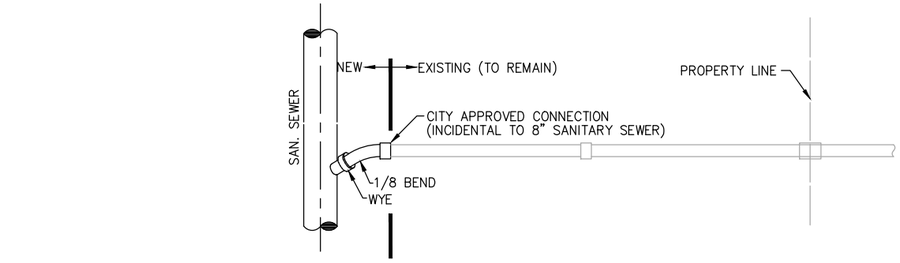


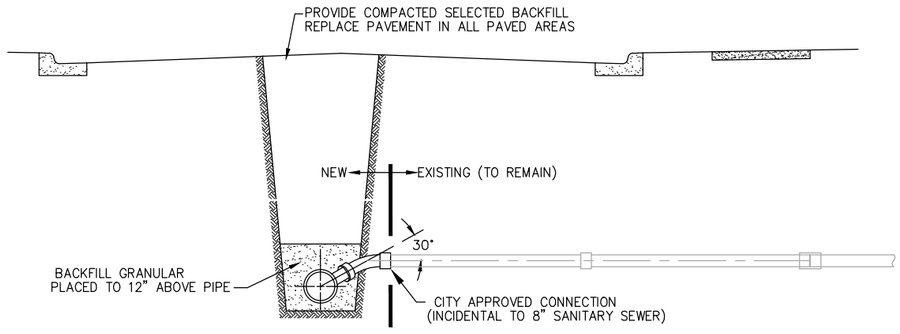
SANITARY LATERAL RISER



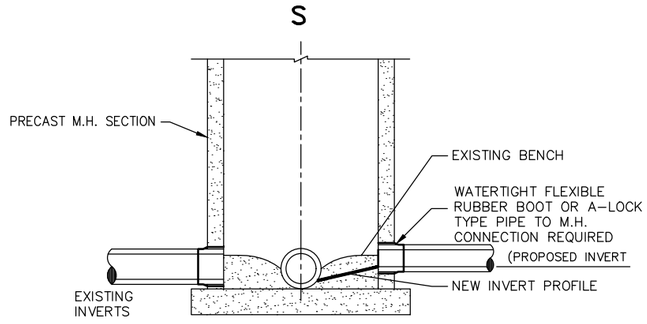
STANDARD PRECAST SANITARY MANHOLE







TYPICAL CONNECTION SEWER



CONNECTING TO EXISTING SANITARY MANHOLE

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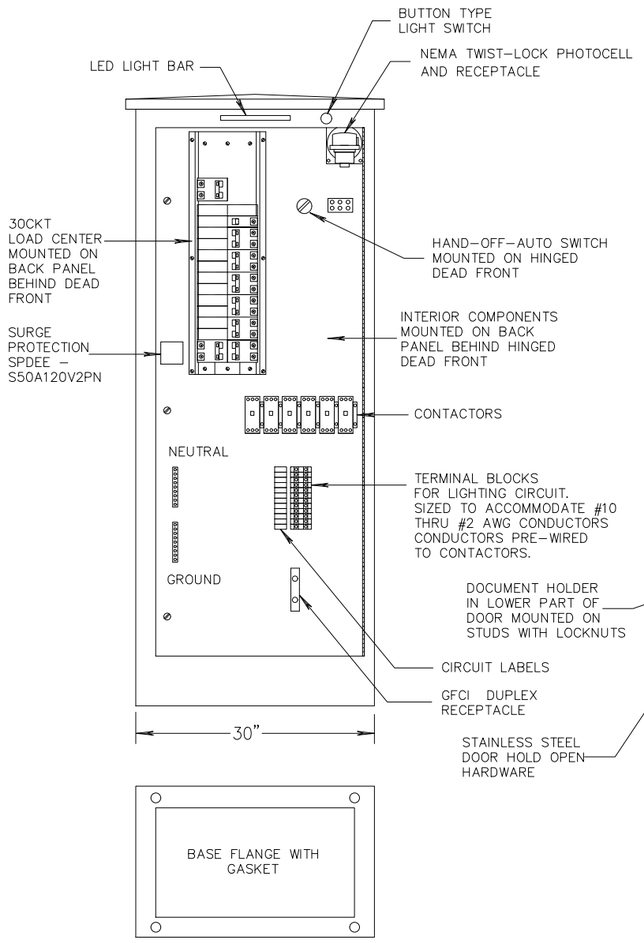
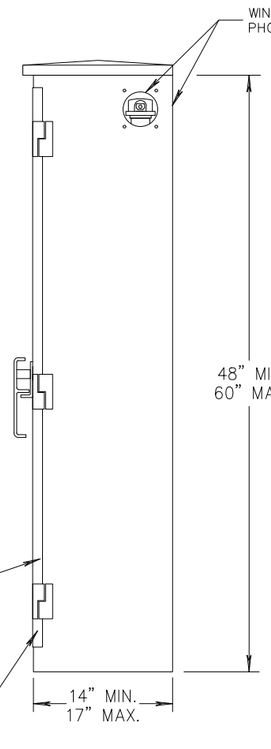
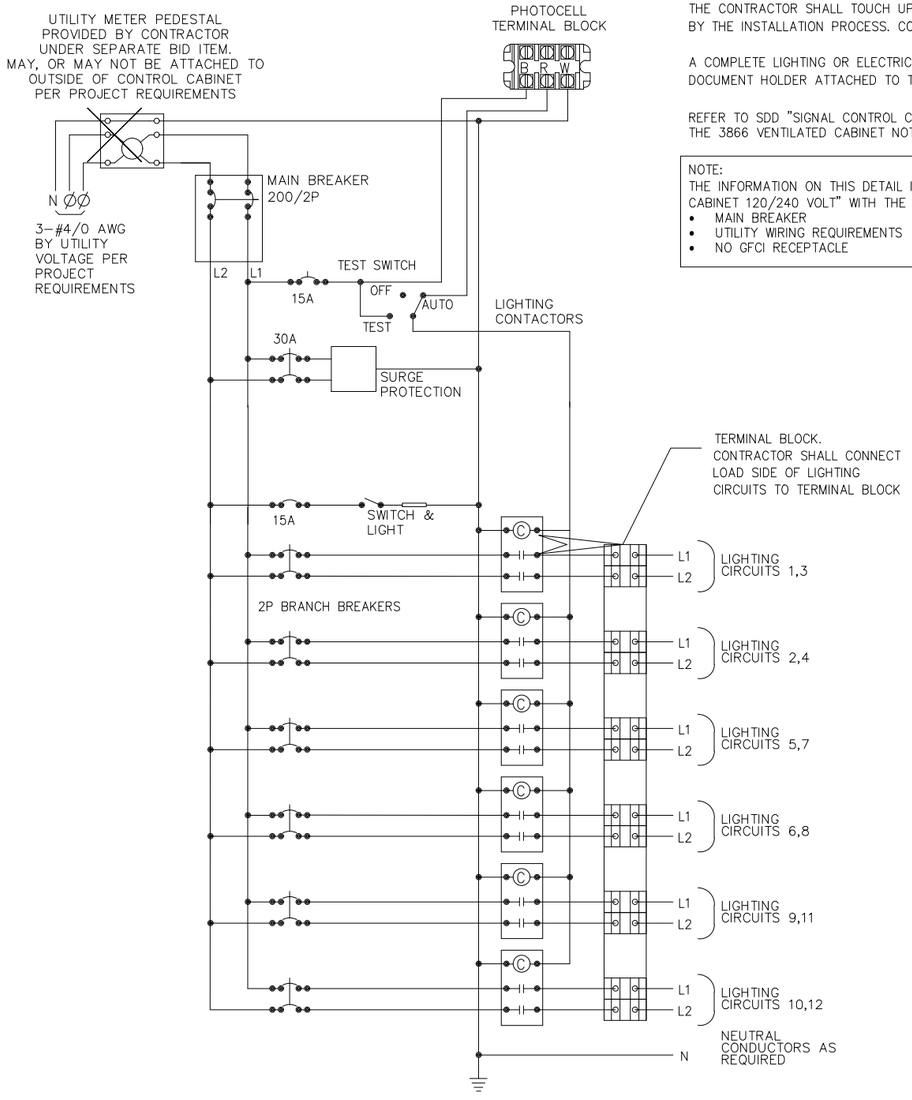
FRONT INTERIOR ELEVATION



SIDE VIEW



LIGHTING CONTROL CABINET 120/240 VOLT



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

REFER TO SDD "SIGNAL CONTROL CABINET" FOR ADDITIONAL INFORMATION REGARDING THE 3866 VENTILATED CABINET NOT SHOWN ON THIS DRAWING.

NOTE:
THE INFORMATION ON THIS DETAIL IS THE SAME AS ON "SDD LIGHTING CONTROL CABINET 120/240 VOLT" WITH THE FOLLOWING EXCEPTIONS:

- MAIN BREAKER
- UTILITY WIRING REQUIREMENTS
- NO GFCI RECEPTACLE

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PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – LIGHTING CONTROL CABINET	SHEET: 17	E

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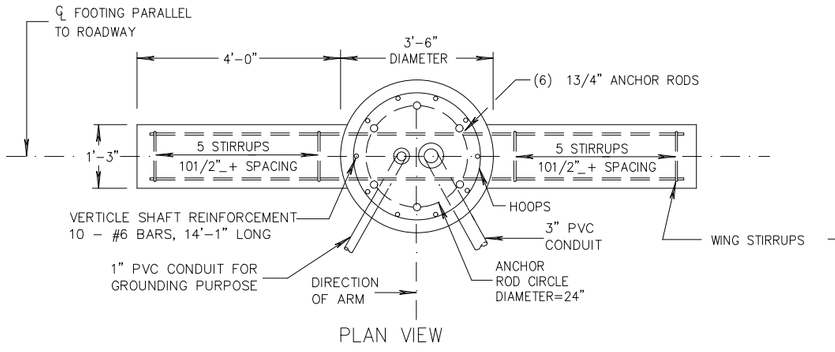
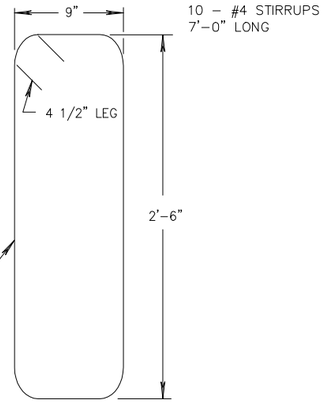
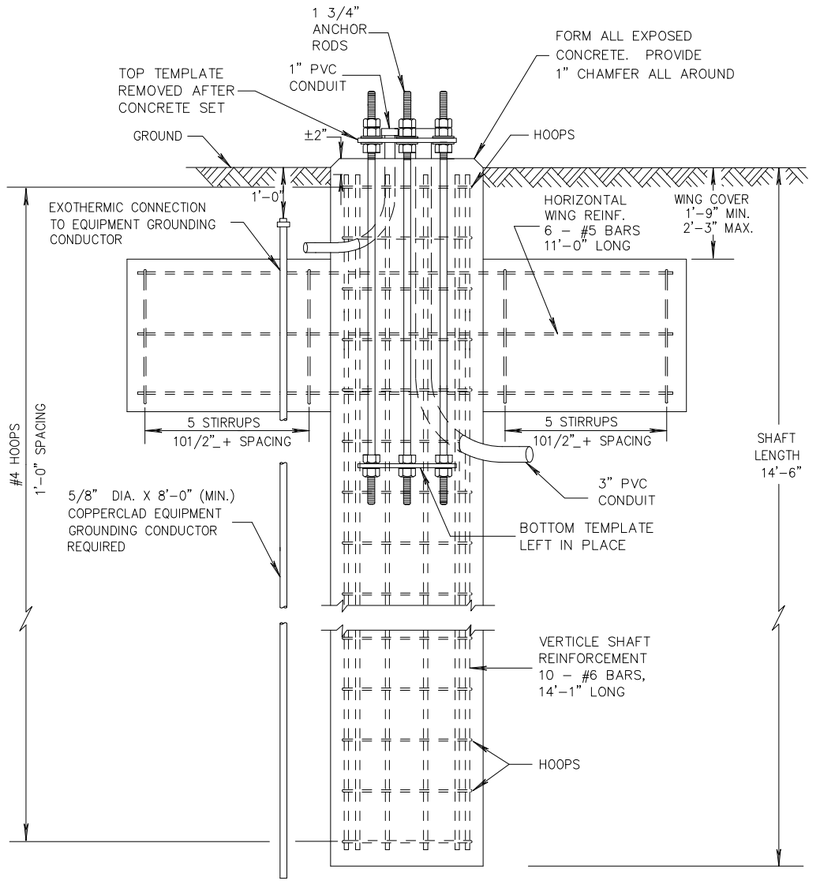


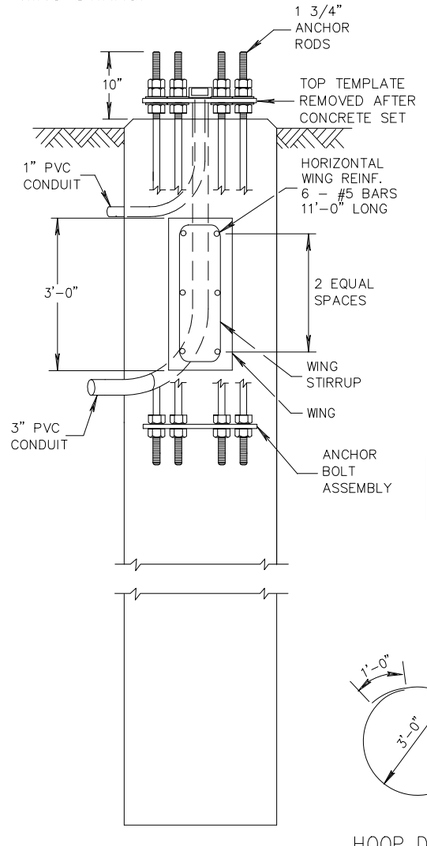
PLAN VIEW



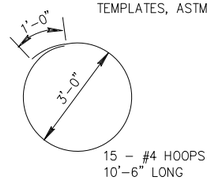
WING STIRRUP



ELEVATION VIEW



SIDE VIEW
DOES NOT SHOW HOOPS OR
VERTICAL SHAFT REINFORCEMENT



15 – #4 HOOPS
10'–6" LONG

HOOP DETAIL

CONCRETE BASE TYPE 13
CONTRACTOR SUPPLIED ANCHOR BOLTS AND ANCHOR RODS
(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13–2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 41/2" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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, (GREATER THAN 36–INCHES IF INSTALLED IN BREAKER–RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

NOTE:
THE INFORMATION ON THIS DETAIL IS THE SAME AS ON "SDD CONCRETE BASE TYPE 13" WITH THE FOLLOWING EXCEPTION:
- CONTRACTOR SUPPLIES THE ANCHOR BOLTS AND ANCHOR RODS

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CONCRETE BASE TYPE 13	SHEET: 18	E

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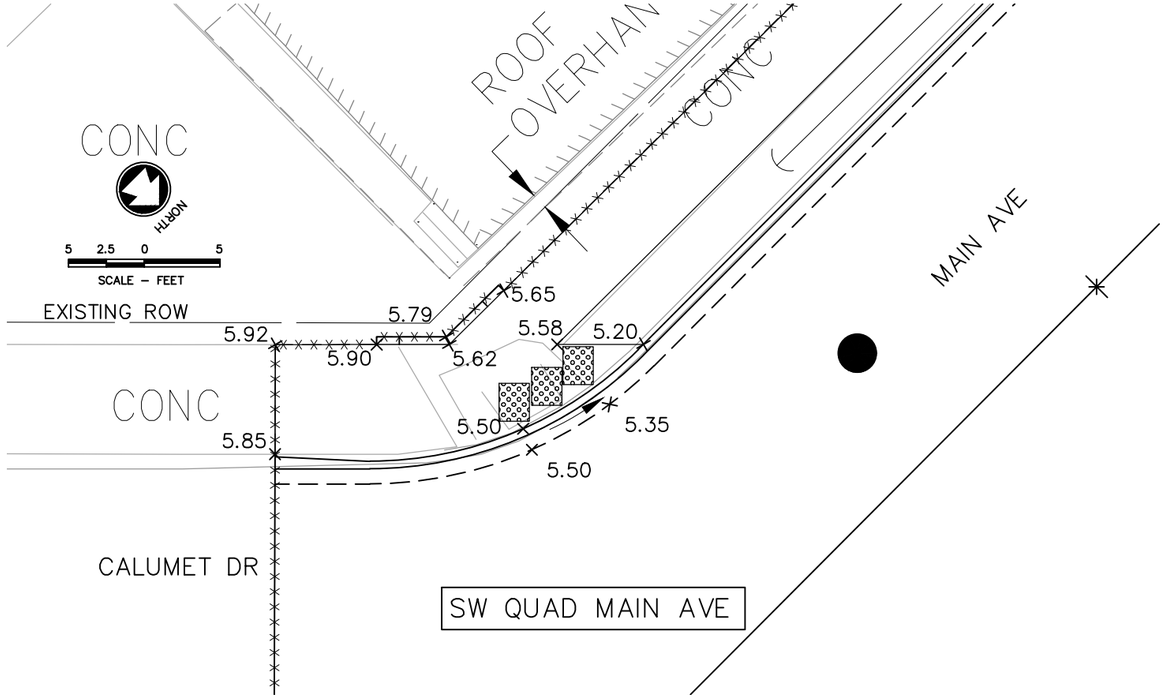

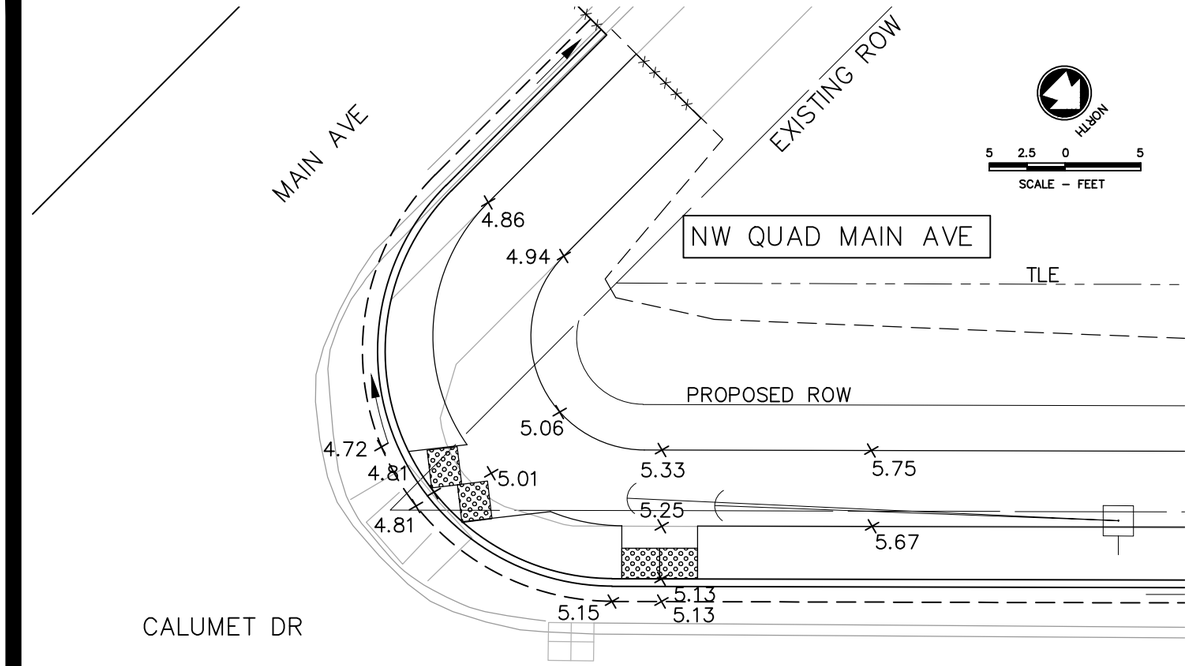

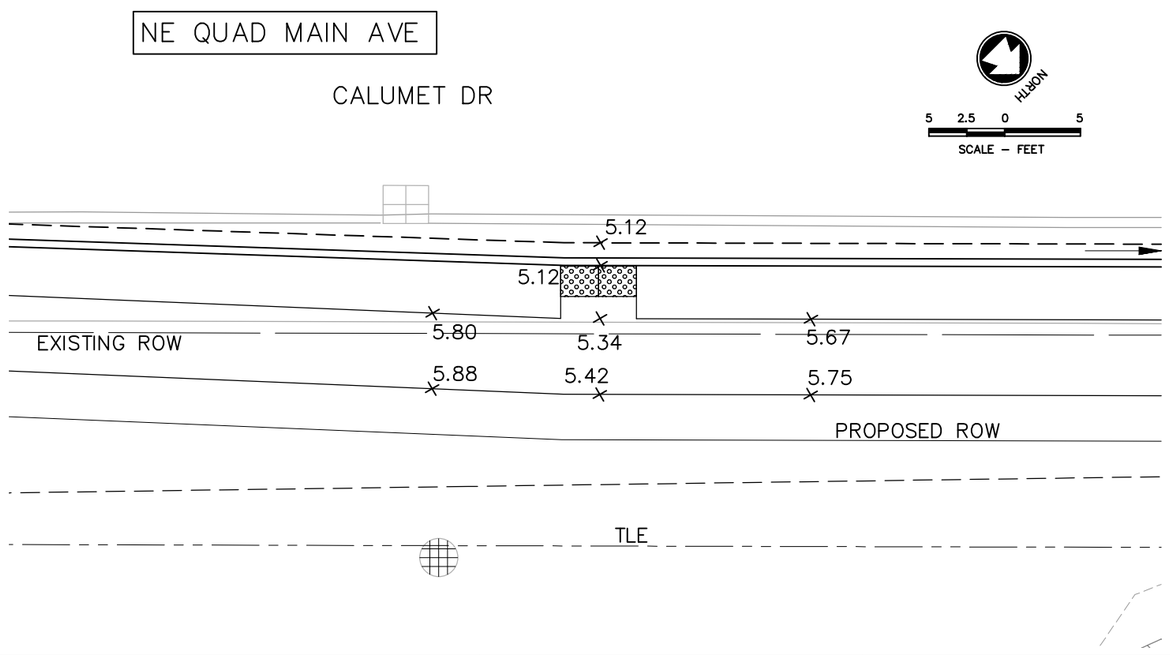

NOTES:

- ELEVATIONS SHOWN ON THESE CURB RAMP DETAILS ARE BASED ON THE TOPOGRAPHIC INFORMATION AVAILABLE AT THE TIME OF DESIGN AND ASSUMING ALL ITEMS OF CONSTRUCTION ARE BUILT TO THE EXACT LINES AND GRADES SHOWN ON THE PLANS. ALL ELEVATIONS SHALL BE VERIFIED IN THE FIELD TO ENSURE CURB RAMPS ARE IN CONFORMANCE WITH ADA REQUIREMENTS AND THE REQUIREMENTS SHOWN ON THE STANDARD DETAIL DRAWINGS.
- SPOT ELEVATIONS SHOWN ARE GENERALLY THE FINISHED GRADES AT THE EDGE OF PAVEMENT AND BACK OF CURB IN THE MIDDLE OF THE RAMP. SPOT ELEVATIONS ARE ALSO SHOWN ON THE FRONT AND BACK OF SIDEWALK IN ADVANCE OF THE CURB RAMP.
- ALL CURB RAMPS SHOWN ON THE PLANS SHALL BE TYPE 2 UNLESS OTHERWISE SPECIFIED ON THE PLANS. CURB RAMP DETECTABLE WARNING FIELDS ARE REQUIRED AT ALL CURB RAMP LOCATIONS.

SHEET 1 of 4

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CURB RAMP DETAILS	SHEET: 19	E

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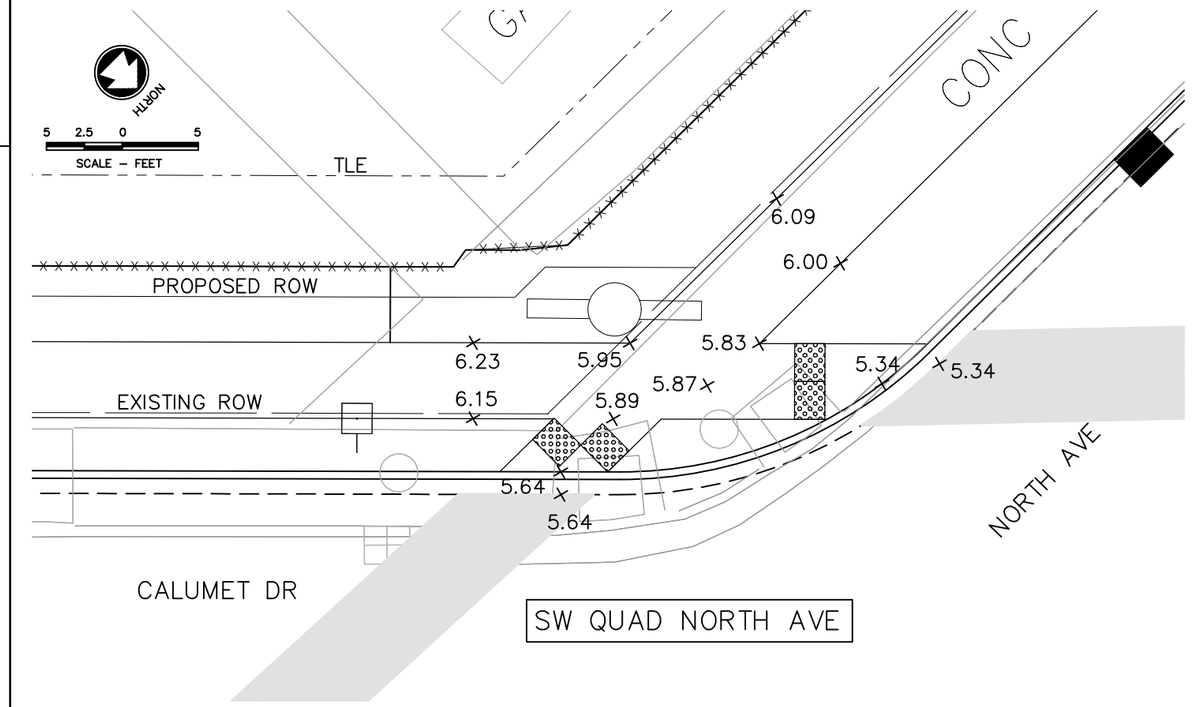

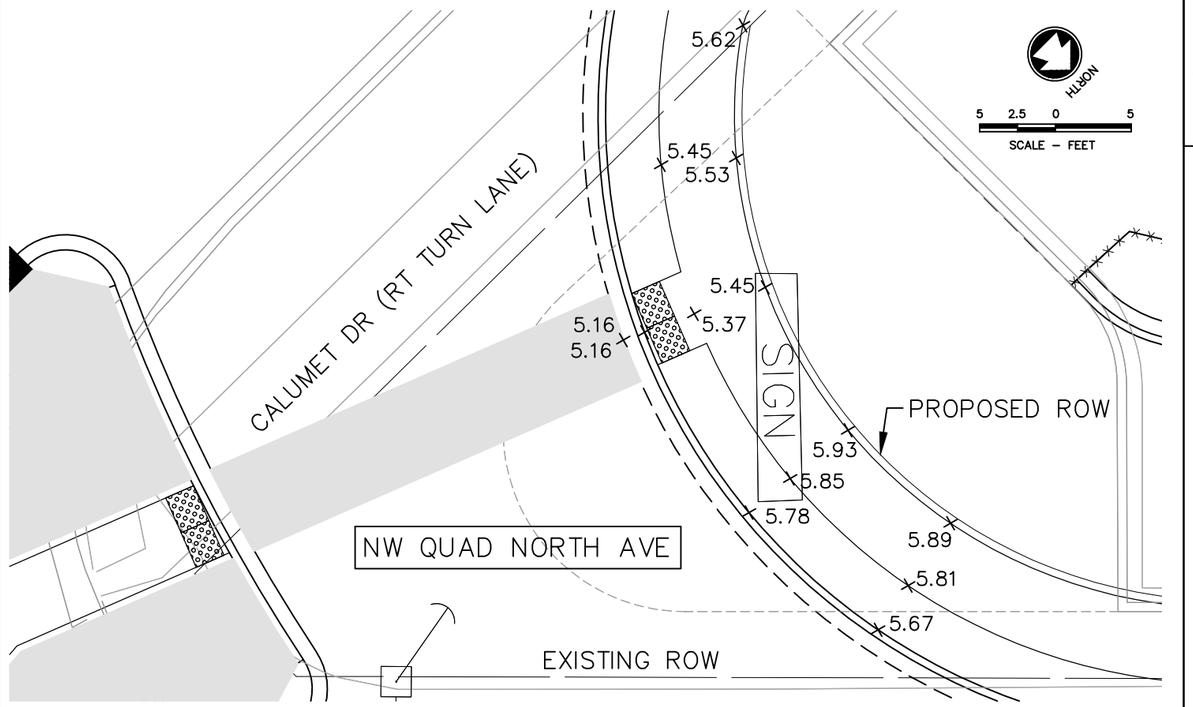

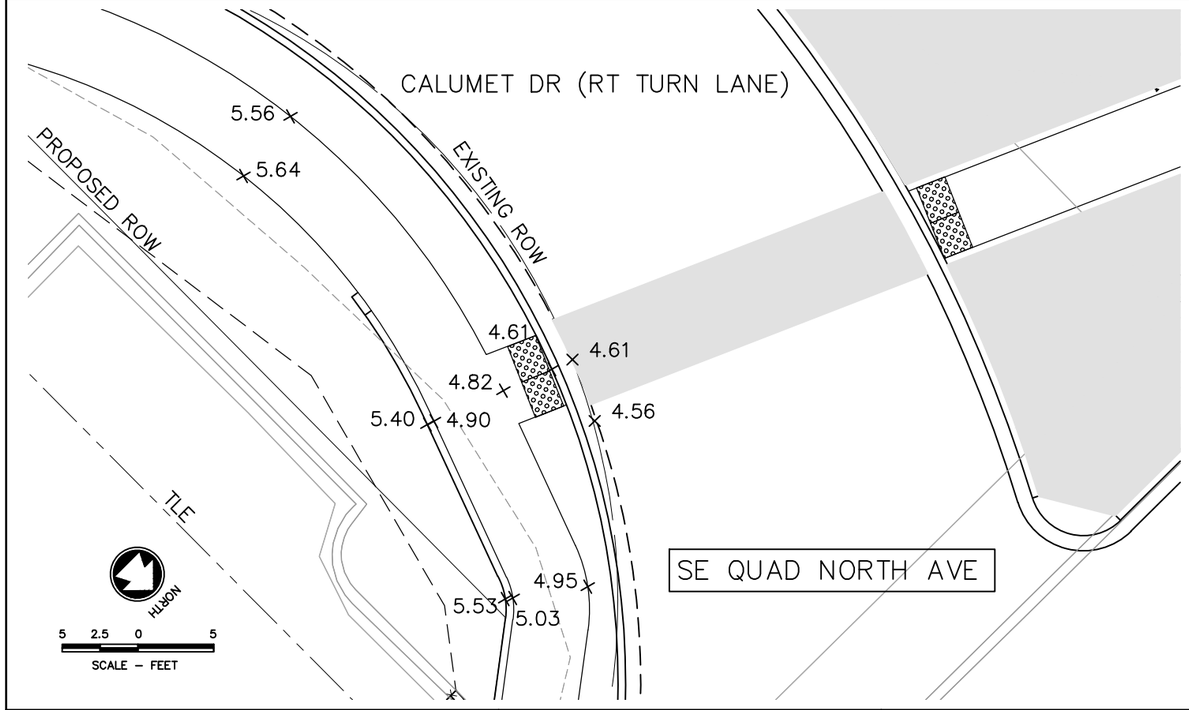

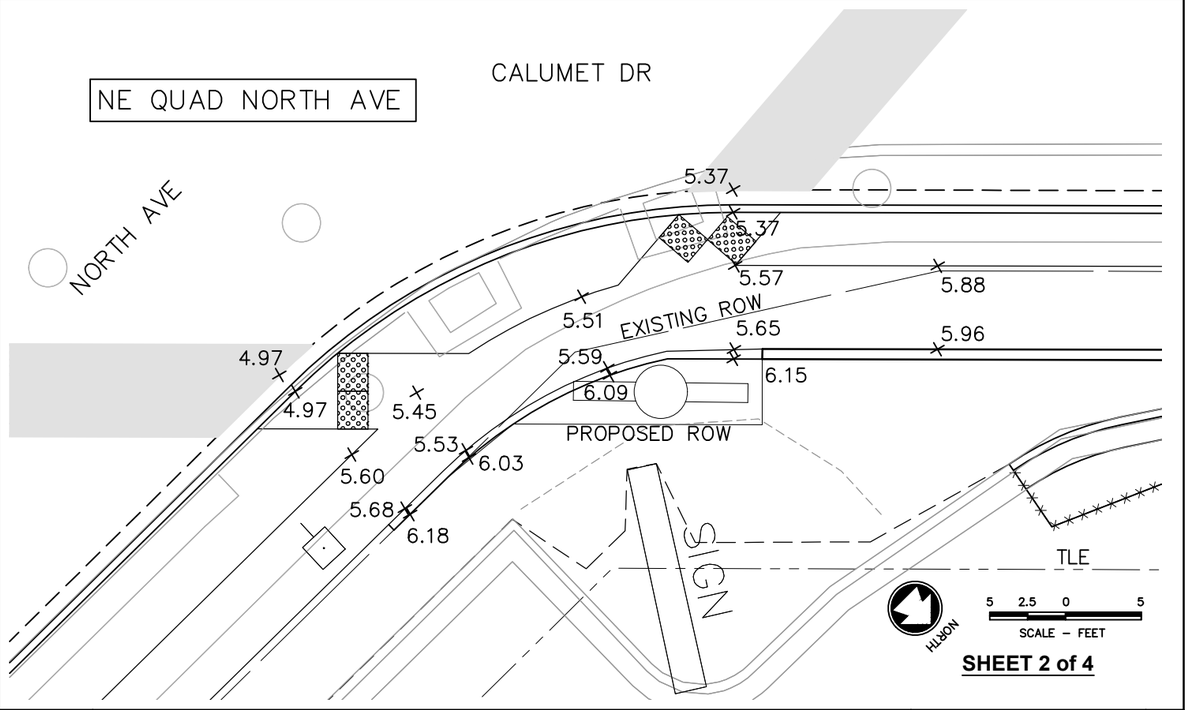

SHEET 2 of 4

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CURB RAMP DETAILS	SHEET: 20	E

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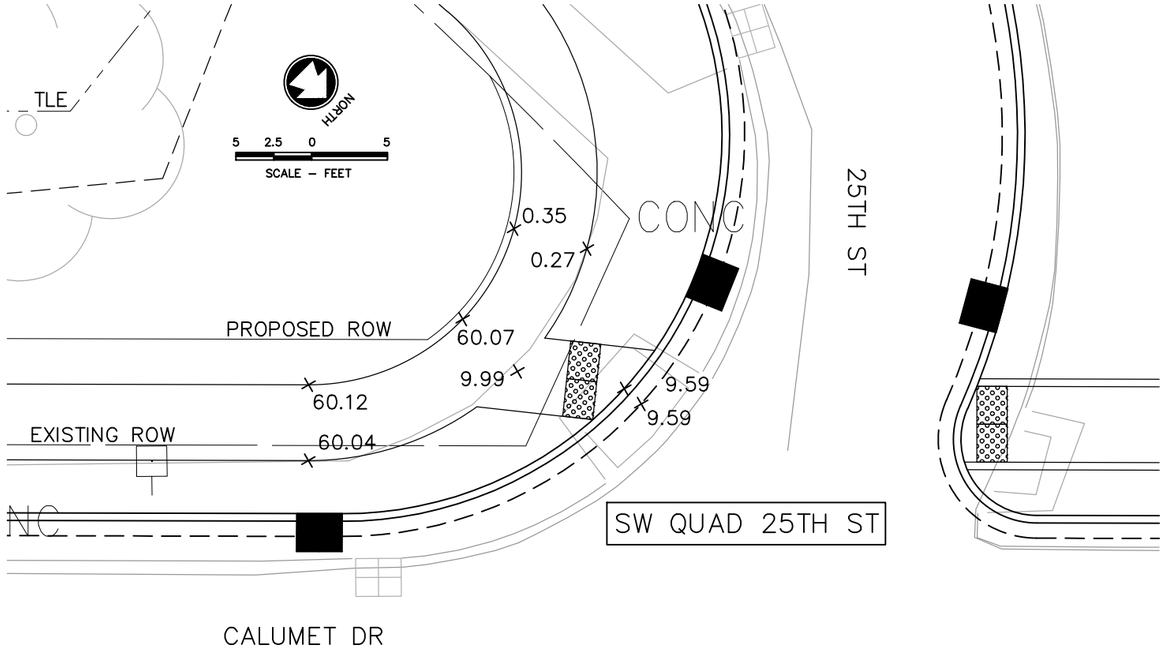

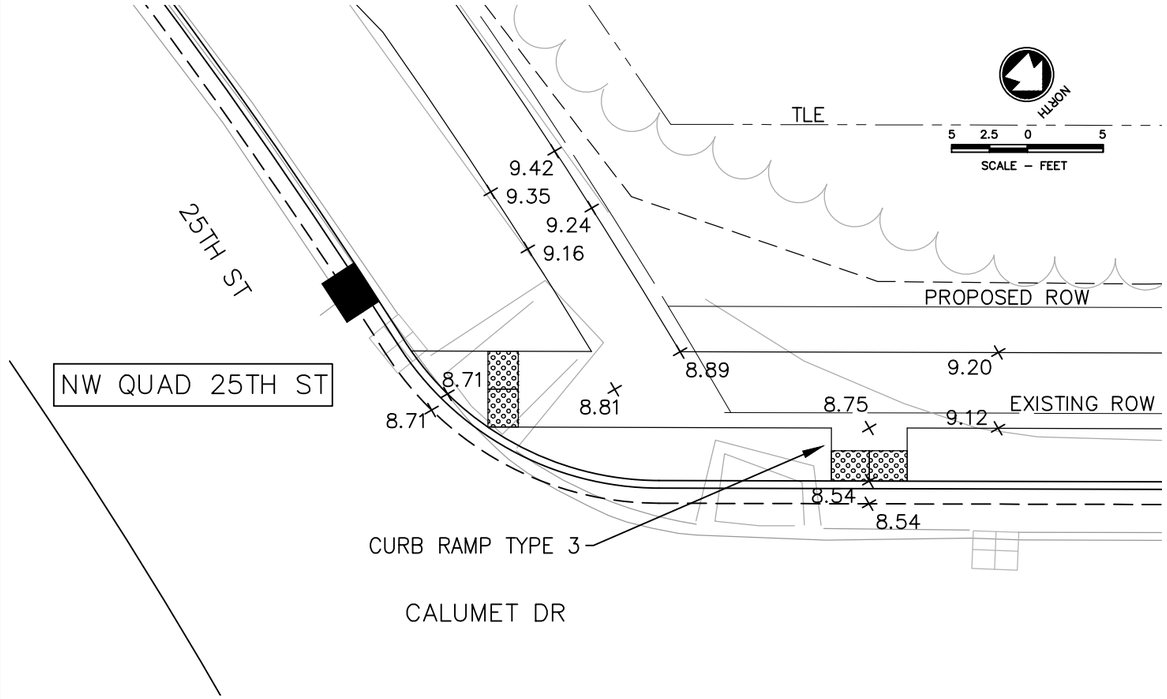

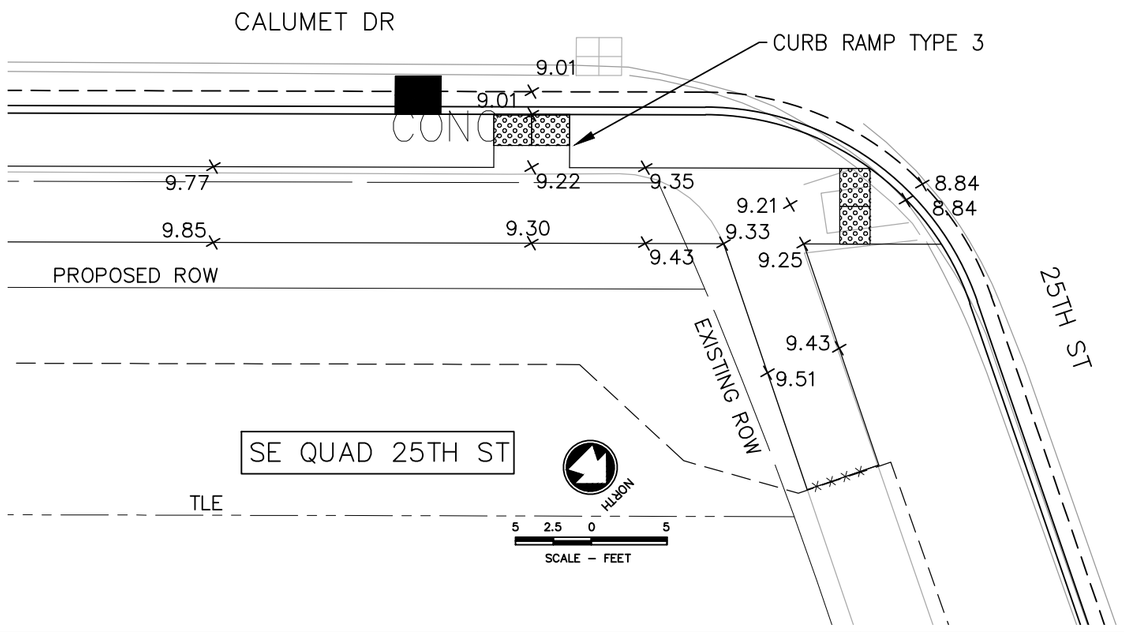

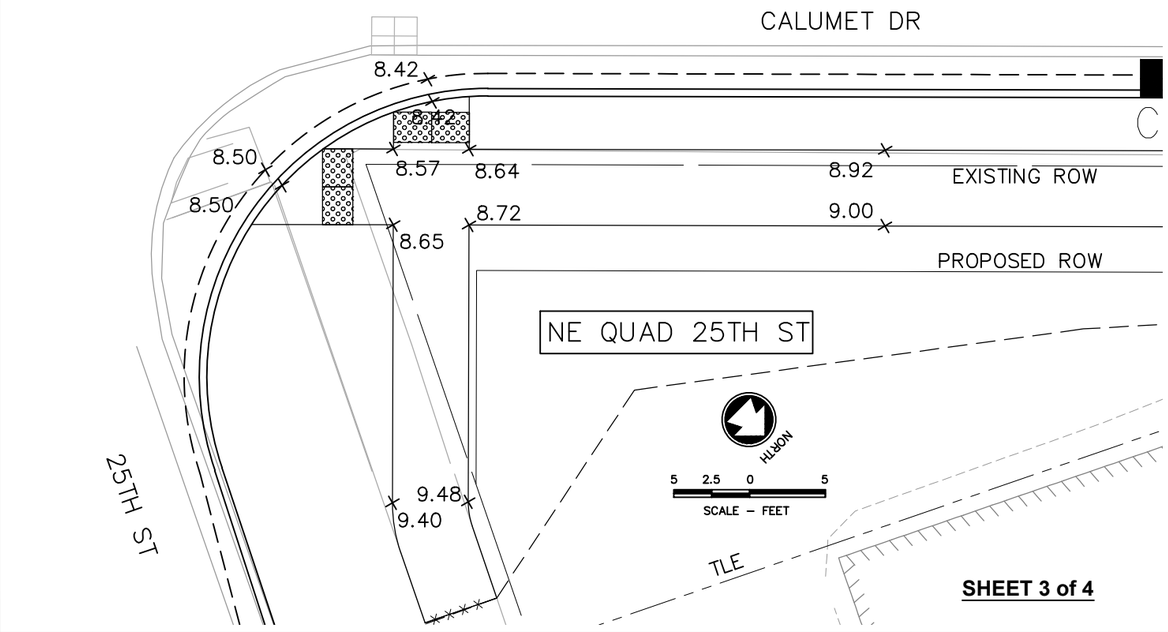

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CURB RAMP DETAILS	SHEET: 21	E

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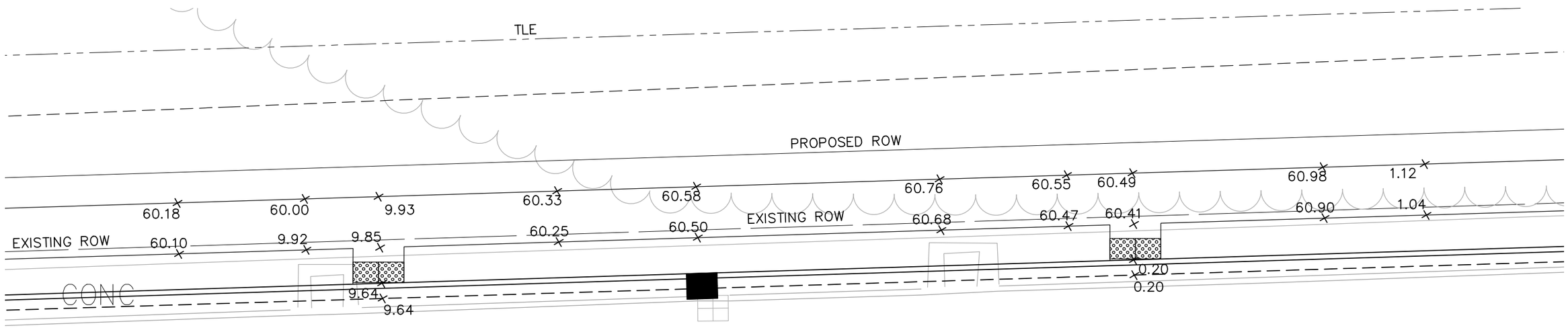


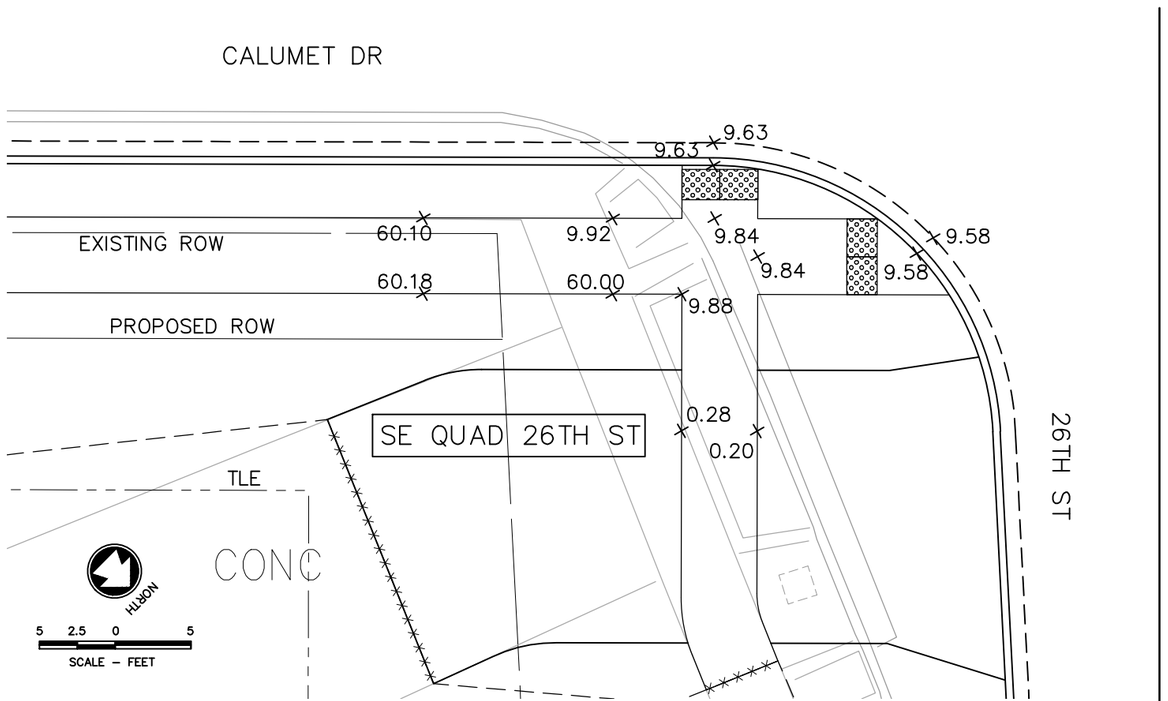
CALUMET DR

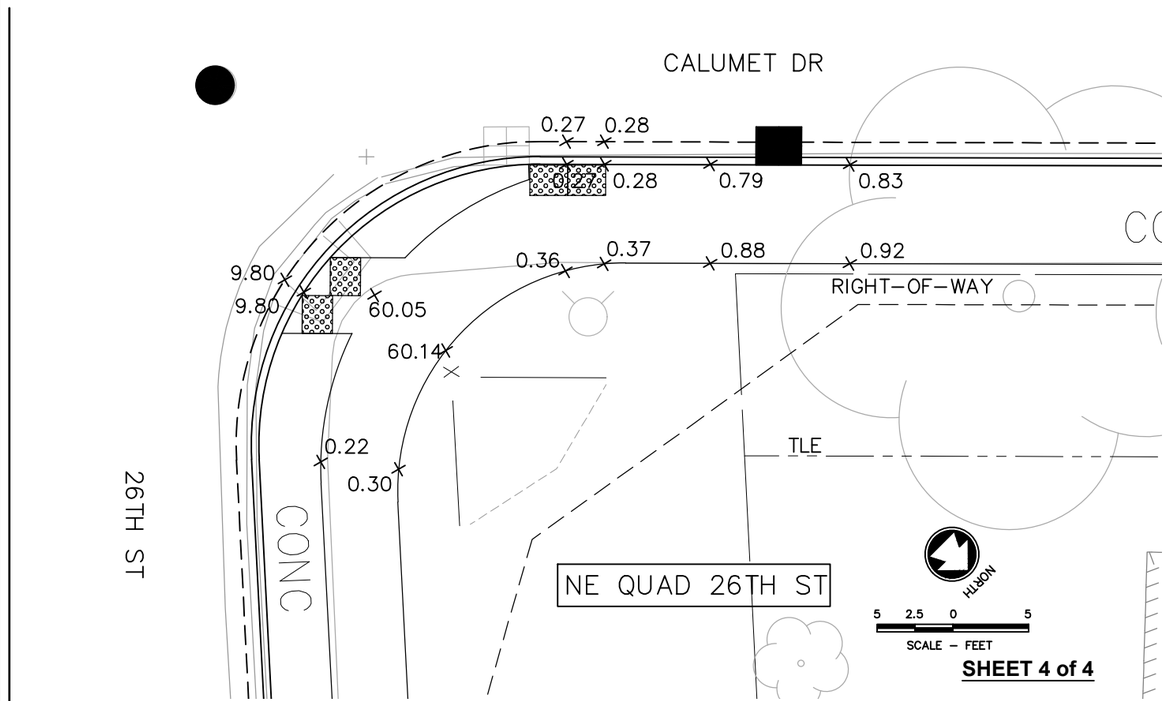
WEST SIDE OF CALUMET DR AT 26TH ST

NORTH

5 2.5 0 5

SCALE – FEET





SHEET 4 of 4

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL – CURB RAMP DETAILS	SHEET: 22	E

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SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS, PI'S, PVC'S, PVT'S, CL–CL'S, MATCH POINTS, AROUND RADII, AND AT INLET LOCATIONS.

THE CONTRACTOR IS TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

CURB FLANGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. ROADWAY TO BE CONSTRUCTED WITH INTEGRAL CURB AND GUTTER.

RADIUS POINTS FOR CURB AND GUTTER, PEDESTRIAN CURB, AND SIDEWALK ARE NOTED ON THE RADIUS POINT TABLE.

NOTE:

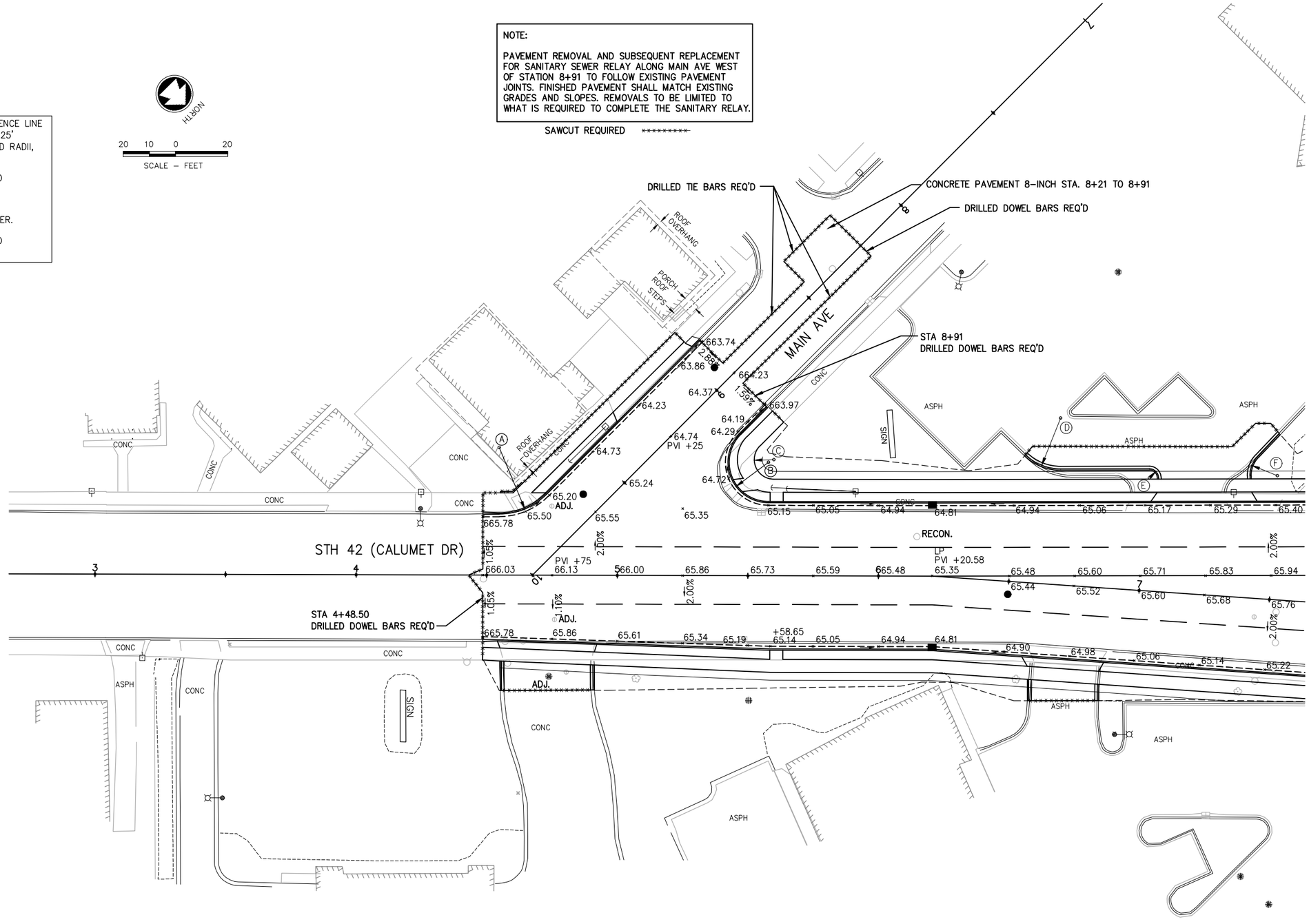
PAVEMENT REMOVAL AND SUBSEQUENT REPLACEMENT FOR SANITARY SEWER RELAY ALONG MAIN AVE WEST OF STATION 8+91 TO FOLLOW EXISTING PAVEMENT JOINTS. FINISHED PAVEMENT SHALL MATCH EXISTING GRADES AND SLOPES. REMOVALS TO BE LIMITED TO WHAT IS REQUIRED TO COMPLETE THE SANITARY RELAY.

SAWCUT REQUIRED

NORTH

20 10 0 20

SCALE – FEET



RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS
A	4+54.68 STH 42 9+74.30 MAIN AVE	48.88' LT 43.50' RT	25.5'
B	5+57.79 STH 42 9+05.52 MAIN AVE	43.50' LT 33.50' LT	15.5'
C	5+59.90 STH 42 9+03.33 MAIN AVE	44.50' LT 34.30' LT	7.5'
D	6+65.46 STH 42	63.84' LT	19.5'
E	7+00.97 STH 42	43.30' LT	3.5'
F	7+49.80 STH 42	47.54' LT	10.5'

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET: 23	E

CONTROL

BM 1	STA. 7+90.59 99.26' LT.	ELEV. 666.81 RR SPIKE IN PP.
CP 1	STA. 7+93.63 32.38' RT.	ELEV. 666.14 1" I.P. WITH DOT CAP
	N. 184875.863	
	E. 213051.843	

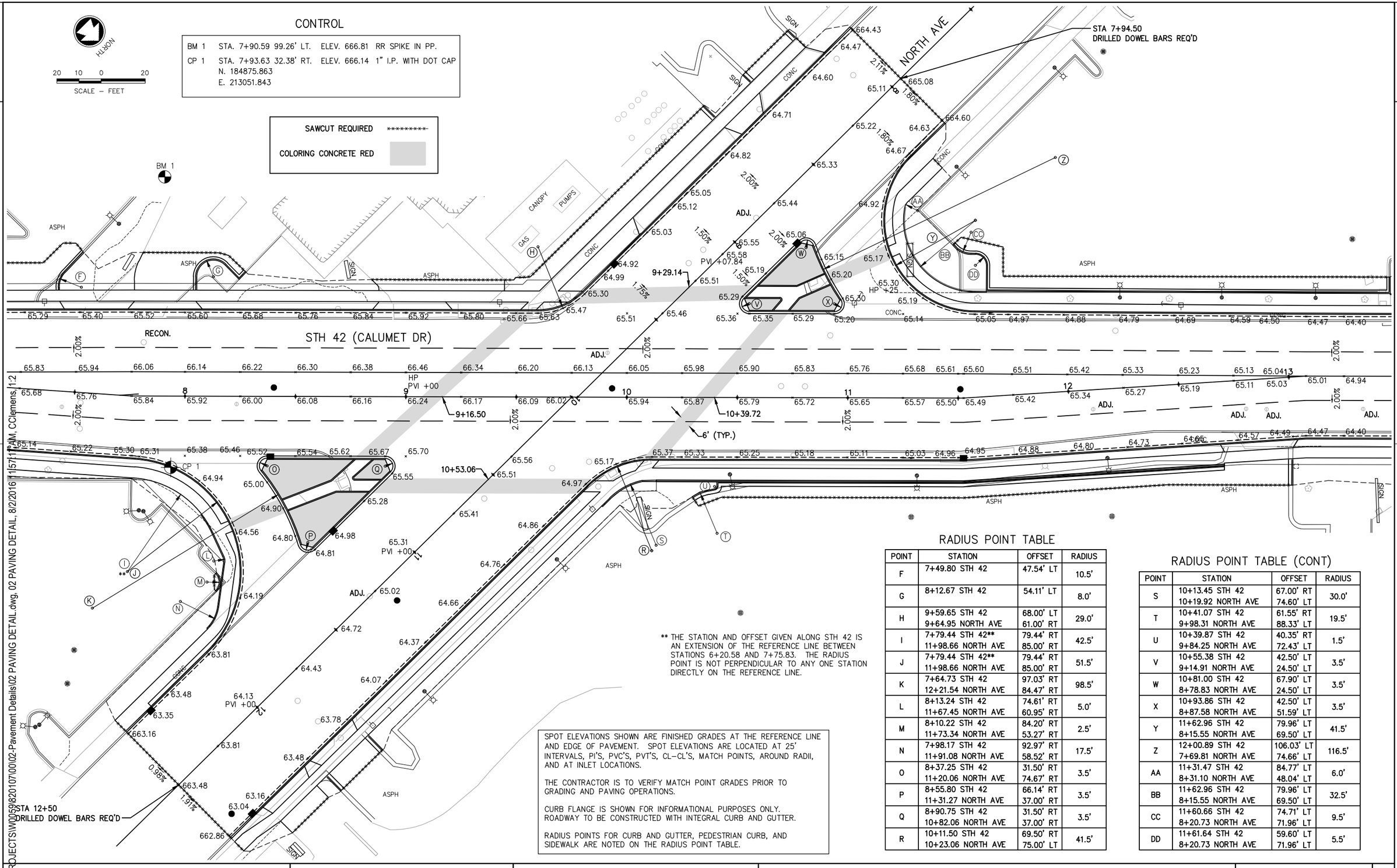
NORTH

20 10 0 20

SCALE – FEET

SAWCUT REQUIRED

COLORING CONCRETE RED



** THE STATION AND OFFSET GIVEN ALONG STH 42 IS AN EXTENSION OF THE REFERENCE LINE BETWEEN STATIONS 6+20.58 AND 7+75.83. THE RADIUS POINT IS NOT PERPENDICULAR TO ANY ONE STATION DIRECTLY ON THE REFERENCE LINE.

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS, PI'S, PVC'S, PVT'S, CL-CL'S, MATCH POINTS, AROUND RADII, AND AT INLET LOCATIONS.

THE CONTRACTOR IS TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

CURB FLANGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. ROADWAY TO BE CONSTRUCTED WITH INTEGRAL CURB AND GUTTER.

RADIUS POINTS FOR CURB AND GUTTER, PEDESTRIAN CURB, AND SIDEWALK ARE NOTED ON THE RADIUS POINT TABLE.

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS
F	7+49.80 STH 42	47.54' LT	10.5'
G	8+12.67 STH 42	54.11' LT	8.0'
H	9+59.65 STH 42 9+64.95 NORTH AVE	68.00' LT 61.00' RT	29.0'
I	7+79.44 STH 42** 11+98.66 NORTH AVE	79.44' RT 85.00' RT	42.5'
J	7+79.44 STH 42** 11+98.66 NORTH AVE	79.44' RT 85.00' RT	51.5'
K	7+64.73 STH 42 12+21.54 NORTH AVE	97.03' RT 84.47' RT	98.5'
L	8+13.24 STH 42 11+67.45 NORTH AVE	74.61' RT 60.95' RT	5.0'
M	8+10.22 STH 42 11+73.34 NORTH AVE	84.20' RT 53.27' RT	2.5'
N	7+98.17 STH 42 11+91.08 NORTH AVE	92.97' RT 58.52' RT	17.5'
O	8+37.25 STH 42 11+20.06 NORTH AVE	31.50' RT 74.67' RT	3.5'
P	8+55.80 STH 42 11+31.27 NORTH AVE	66.14' RT 37.00' RT	3.5'
Q	8+90.75 STH 42 10+82.06 NORTH AVE	31.50' RT 37.00' RT	3.5'
R	10+11.50 STH 42 10+23.06 NORTH AVE	69.50' RT 75.00' LT	41.5'

RADIUS POINT TABLE (CONT)

POINT	STATION	OFFSET	RADIUS
S	10+13.45 STH 42 10+19.92 NORTH AVE	67.00' RT 74.60' LT	30.0'
T	10+41.07 STH 42 9+98.31 NORTH AVE	61.55' RT 88.33' LT	19.5'
U	10+39.87 STH 42 9+84.25 NORTH AVE	40.35' RT 72.43' LT	1.5'
V	10+55.38 STH 42 9+14.91 NORTH AVE	42.50' LT 24.50' LT	3.5'
W	10+81.00 STH 42 8+78.83 NORTH AVE	67.90' LT 24.50' LT	3.5'
X	10+93.86 STH 42 8+87.58 NORTH AVE	42.50' LT 51.59' LT	3.5'
Y	11+62.96 STH 42 8+15.55 NORTH AVE	79.96' LT 69.50' LT	41.5'
Z	12+00.89 STH 42 7+69.81 NORTH AVE	106.03' LT 74.66' LT	116.5'
AA	11+31.47 STH 42 8+31.10 NORTH AVE	84.77' LT 48.04' LT	6.0'
BB	11+62.96 STH 42 8+15.55 NORTH AVE	79.96' LT 69.50' LT	32.5'
CC	11+60.66 STH 42 8+20.73 NORTH AVE	74.71' LT 71.96' LT	9.5'
DD	11+61.64 STH 42 8+20.73 NORTH AVE	59.60' LT 71.96' LT	5.5'

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET: 24	E

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SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS, PI'S, PVC'S, PVT'S, CL–CL'S, MATCH POINTS, AROUND RADII, AND AT INLET LOCATIONS.

THE CONTRACTOR IS TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

CURB FLANGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. ROADWAY TO BE CONSTRUCTED WITH INTEGRAL CURB AND GUTTER.

RADIUS POINTS FOR CURB AND GUTTER, PEDESTRIAN CURB, AND SIDEWALK ARE NOTED ON THE RADIUS POINT TABLE.

NORTH

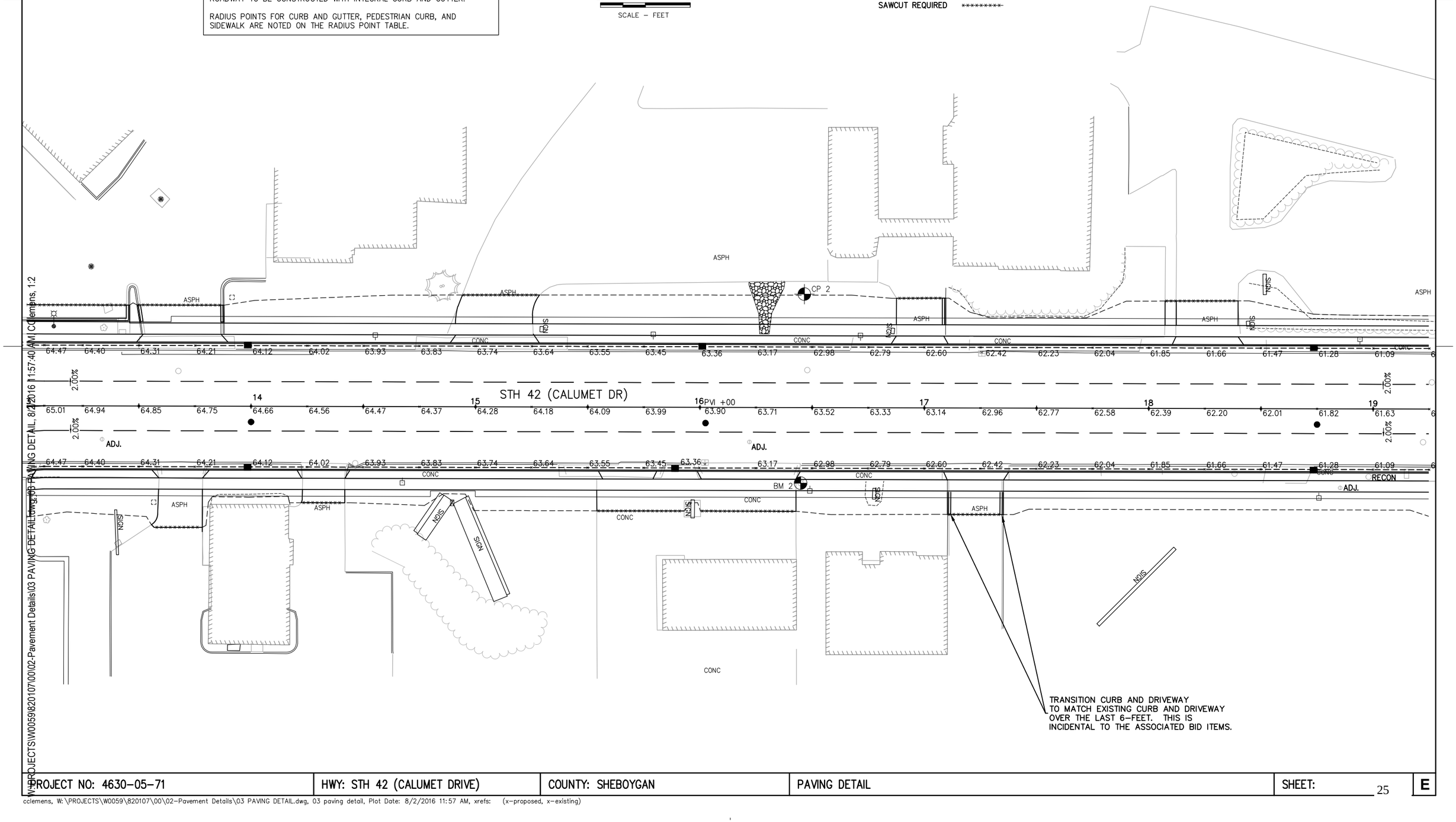
20 10 0 20

SCALE – FEET

CONTROL

BM 2	STA. 16+44.99	33.63' RT. ELEV. 665.68	BOLT WITH BLUE PAINT ON HYD.
CP 2	STA. 16+46.46	50.52' LT. ELEV. 665.83	1" I.P. WITH DOT CAP.
	N. 185402.63		
	E. 212382.519		

SAWCUT REQUIRED *********



TRANSITION CURB AND DRIVEWAY TO MATCH EXISTING CURB AND DRIVEWAY OVER THE LAST 6–FEET. THIS IS INCIDENTAL TO THE ASSOCIATED BID ITEMS.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET: 25	E

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cclemens, W:\PROJECTS\W0059\820107\00\02–Pavement Details\03 PAVING DETAIL.dwg, 03 paving detail, Plot Date: 8/2/2016 11:57 AM, xrefs: (x–proposed, x–existing)

EXISTING GUTTER ON 25TH ST WEST OF CALUMET DRIVE IS OVERLAID WITH HMA PAVEMENT. TRANSITION LAST 10' OF CURB AND GUTTER TO MATCH FLOWLINE OF OVERLAID GUTTER.

SAWCUT REQUIRED **********

STA 8+60.80
SAWCUT OF EXISTING ASPHALT OVERLAY ONLY

BM 3

STA 8+70.80 DRILLED DOWEL BARS REQ'D
THICKEN CONCRETE PAVEMENT TO MATCH BOTTOM OF EXISTING CONCRETE PAVEMENT OVER 5'

REMOVE ASPHALTIC SURFACE
REPLACE WITH ASPHALTIC SURFACE
DRIVEWAYS AND FIELD ENTRANCES
TACK COAT REQ'D.

NORTH

20 10 0 20
SCALE – FEET

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS, PI'S, PVC'S, PVT'S, CL–CL'S, MATCH POINTS, AROUND RADII, AND AT INLET LOCATIONS.

THE CONTRACTOR IS TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

CURB FLANGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. ROADWAY TO BE CONSTRUCTED WITH INTEGRAL CURB AND GUTTER.

RADIUS POINTS FOR CURB AND GUTTER, PEDESTRIAN CURB, AND SIDEWALK ARE NOTED ON THE RADIUS POINT TABLE.

RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS
EE	19+72.59 STH 42	42.96' RT	5.5'
FF	20+98.03 STH 42	42.92' RT	5.5'
GG	22+07.47 STH 42 10+34.82 25TH ST	47.00' RT 43.00' RT	19.0'
HH	22+98.50 STH 42 10+64.68 25TH ST	47.00' RT 43.00' LT	19.0'
II	23+02.28 STH 42 10+73.72 25TH ST	55.26' RT 43.87' LT	5.0'
JJ	21+28.78 STH 42 8+86.10 25TH ST	51.00' LT 54.35' RT	14.0'
KK	21+31.00 STH 42 8+85.98 25TH ST	53.50' LT 51.00' RT	25.5'
LL	21+31.00 STH 42 8+85.98 25TH ST	53.50' LT 51.00' RT	44.5'
MM	21+76.83 STH 42 9+37.83 25TH ST	33.50' LT 30.49' RT	5.5'
NN	21+65.09 STH 42 8+88.28 25TH ST	86.26' LT 3.77' RT	2.77'
OO	21+96.87 STH 42 9+46.50 25TH ST	38.50' LT 11.50' RT	10.5'
PP	22+55.46 STH 42 9+70.34 25TH ST	48.50' LT 42.50' LT	20.5'

CURB RAMP TYPE 3

CURB RAMP TYPE 3

STA 10+80
DRILLED DOWEL BARS REQ'D

25TH ST

STH 42 (CALUMET DR)

LP +43.08

PVI +66.79
59.00

CONTROL

BM 3	STA. 20+16.24 143.66' LT.	ELEV. 663.41	6" SPIKE IN L.P.# 15–23–10.3
CP 3	STA. 19+62.37 45.14' LT. N. 185630.354 E. 212163.500	ELEV. 662.25	MAG NAIL IN PARKING LOT

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET: 26	E

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CONTROL

BM 4	STA. 26+27.10 34.19' RT	ELEV. 662.45	BOLT WITH BLUE PAINT ON HYD.
CP 4	STA. 26+32.81 35.86' RT. N. 186157.506 E. 211750.855	ELEV. 660.76	1" I.P. WITH DOT CAP

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE REFERENCE LINE AND EDGE OF PAVEMENT. SPOT ELEVATIONS ARE LOCATED AT 25' INTERVALS, PI'S, PVC'S, PVT'S, CL–CL'S, MATCH POINTS, AROUND RADII, AND AT INLET LOCATIONS.

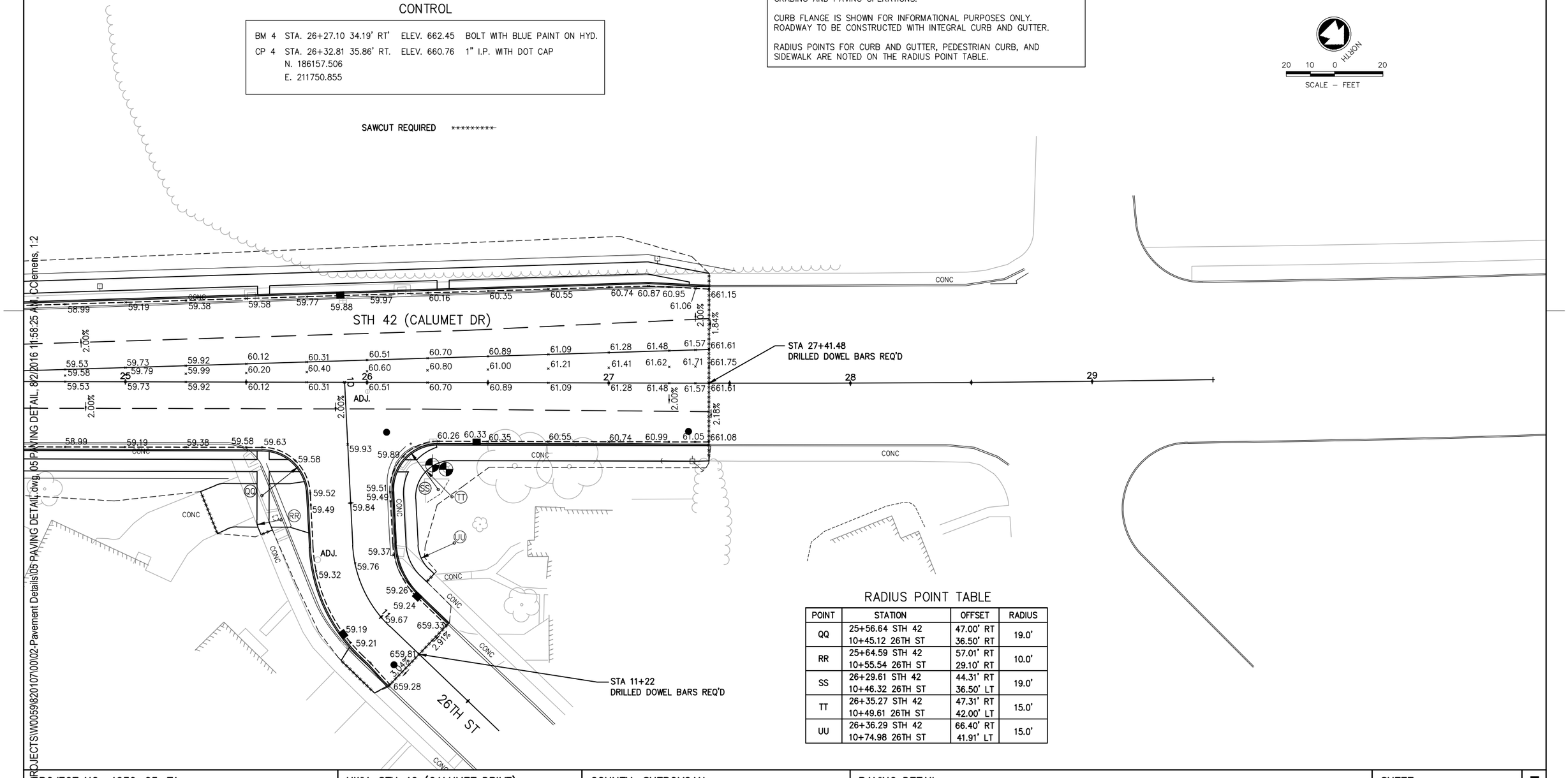
THE CONTRACTOR IS TO VERIFY MATCH POINT GRADES PRIOR TO GRADING AND PAVING OPERATIONS.

CURB FLANGE IS SHOWN FOR INFORMATIONAL PURPOSES ONLY. ROADWAY TO BE CONSTRUCTED WITH INTEGRAL CURB AND GUTTER.

RADIUS POINTS FOR CURB AND GUTTER, PEDESTRIAN CURB, AND SIDEWALK ARE NOTED ON THE RADIUS POINT TABLE.

NORTH
20 10 0 20
SCALE – FEET

SAWCUT REQUIRED



RADIUS POINT TABLE

POINT	STATION	OFFSET	RADIUS
QQ	25+56.64 STH 42 10+45.12 26TH ST	47.00' RT 36.50' RT	19.0'
RR	25+64.59 STH 42 10+55.54 26TH ST	57.01' RT 29.10' RT	10.0'
SS	26+29.61 STH 42 10+46.32 26TH ST	44.31' RT 36.50' LT	19.0'
TT	26+35.27 STH 42 10+49.61 26TH ST	47.31' RT 42.00' LT	15.0'
UU	26+36.29 STH 42 10+74.98 26TH ST	66.40' RT 41.91' LT	15.0'

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVING DETAIL	SHEET: 27	E

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2

2

NORTH

20 10 0 20

SCALE – FEET

MAIN AVE

STH 42 (CALUMET DR)

ROOF OVERHANG

PORCH ROOF STEPS

CONC

ASPH

SLOPE INTERCEPT

SIGN

CANOPY

PUMPS

GAS

LEGEND

- INLET PROTECTION (TYPE)
- SILT FENCE
- ROCK BAGS
- EROSION MAT CLASS 1 URBAN TYPE B

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET: 28	E

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2

LEGEND

- INLET PROTECTION (TYPE) Ⓐ
- SILT FENCE
- [F] ROCK BAGS
- EROSION MAT CLASS 1 URBAN TYPE B

NORTH

20 10 0 20

SCALE – FEET

NORTH AVE

STH 42 (CALUMET DR)

SLOPE INTERCEPT

SLOPE INTERCEPT

CANOPY

PUMPS

GAS

CONC

ASPH

SIGN

01 10 11 12 13 14 15

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET: 29	E

2

NORTH

20 10 0 20

SCALE – FEET

25TH ST

EXISTING RIP–RAP FLUME

ASPH

EXISTING RIP–RAP FLUME

ASPH

SLOPE INTERCEPT

CONC

NDIS

STH 42 (CALUMET DR)

16 17 18 19 20 21

CONC

SLOPE INTERCEPT

LEGEND

- INLET PROTECTION (TYPE) Ⓐ
- SILT FENCE
- ROCK BAGS
- EROSION MAT CLASS 1 URBAN TYPE B

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET: 30	E

2

HILLSON

20 10 0 20

SCALE – FEET

LEGEND

- Ⓐ INLET PROTECTION (TYPE)
- SILT FENCE
- F ROCK BAGS
- EROSION MAT CLASS 1 URBAN TYPE B

EVERGREEN PARK

25TH ST

SLOPE INTERCEPT

CONC

STH 42 (CALUMET DR)

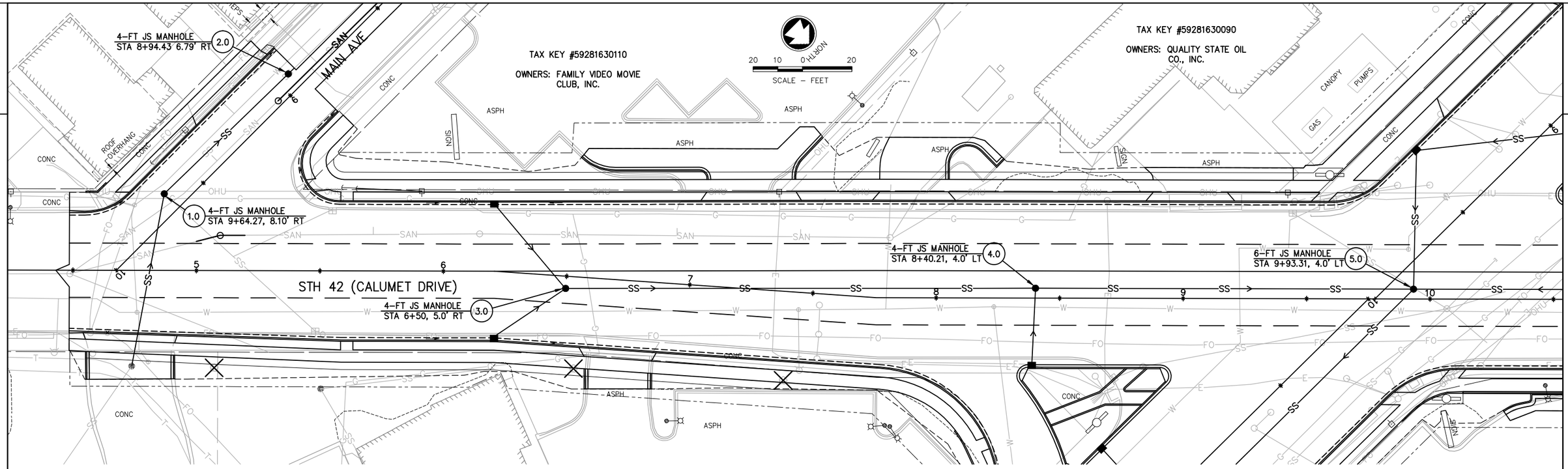
22 23 24 25 26 27

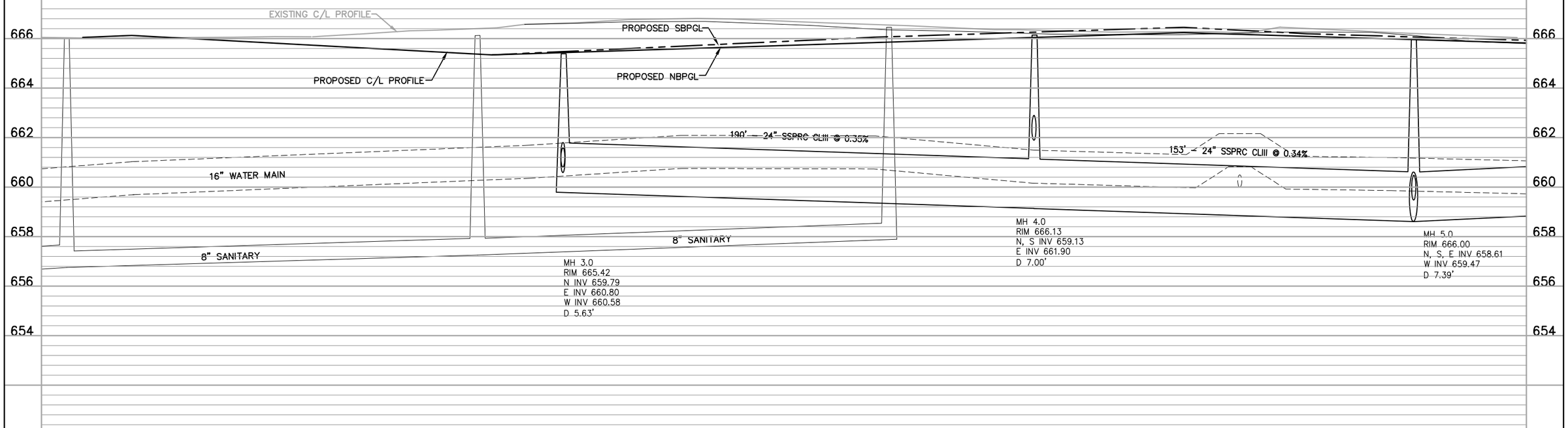
10 11 10 11

25TH ST

26TH ST

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET: 31	E





PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – MAINLINE	SHEET: 32	E

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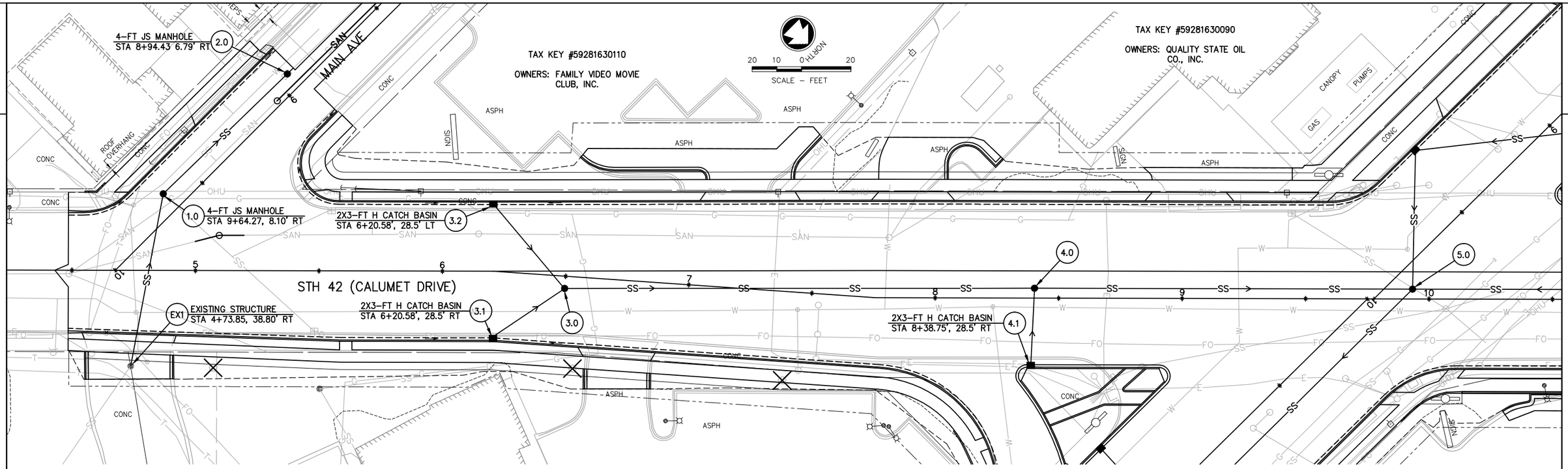
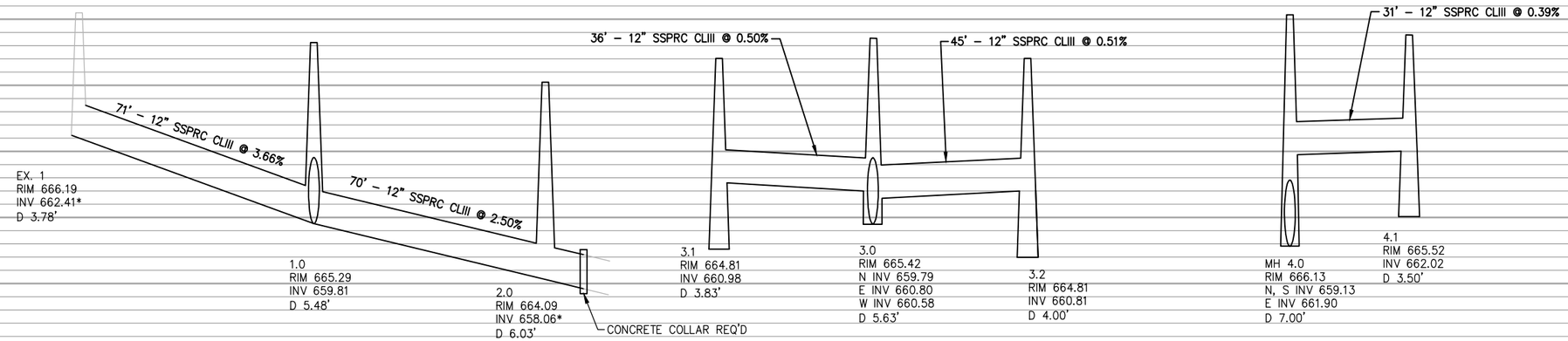
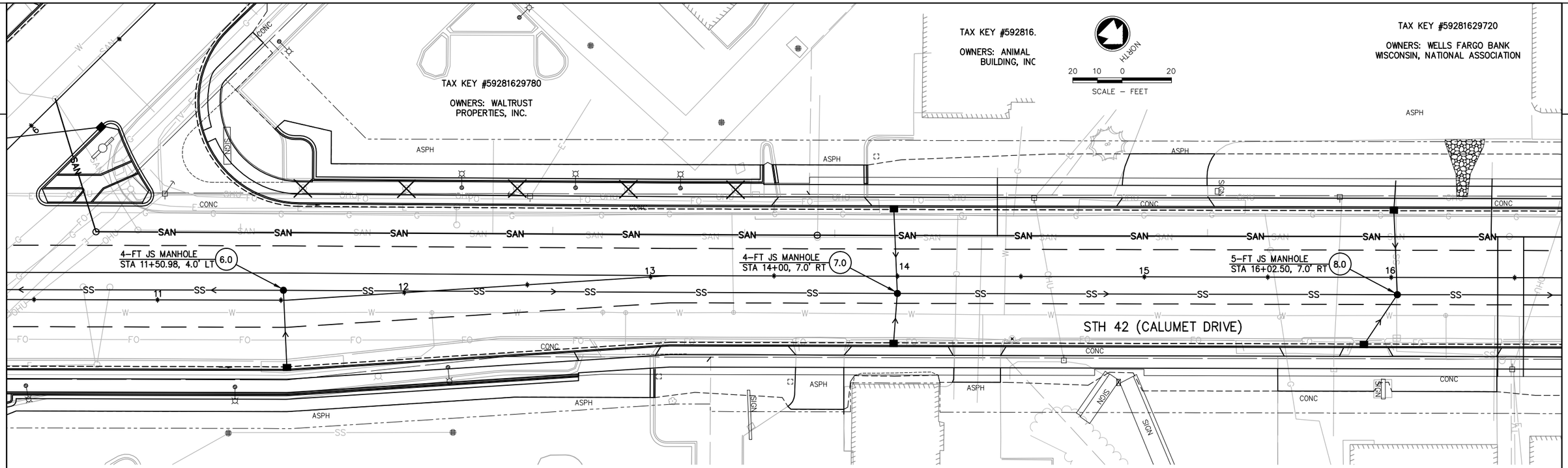
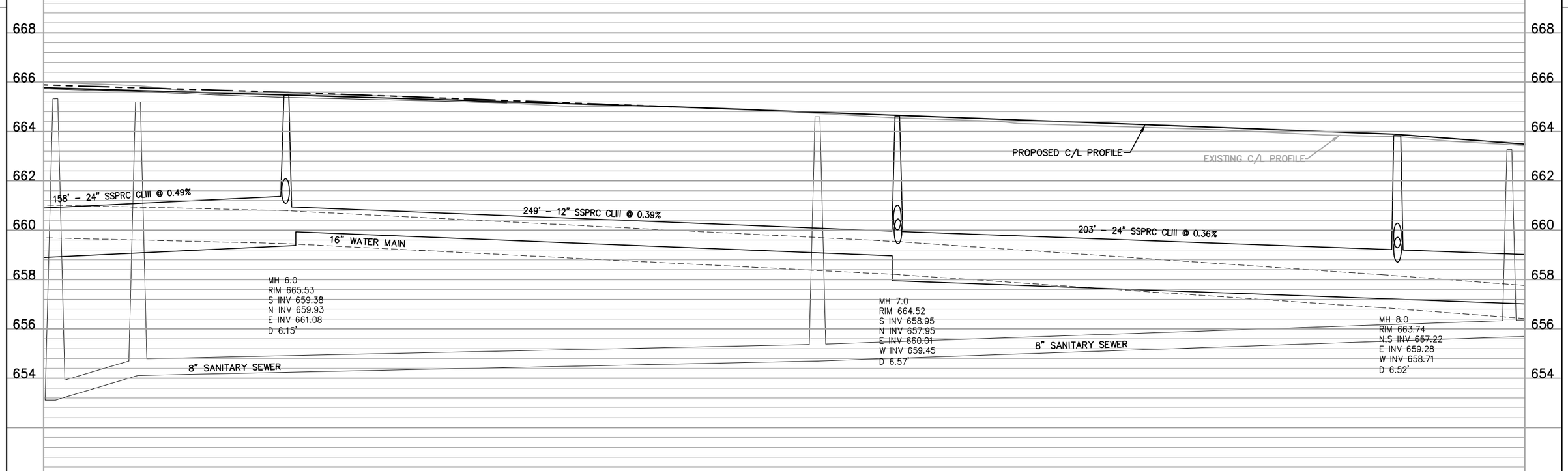




*VERIFY EXISTING PIPE SIZE AND ELEVATION PRIOR TO PLACING OR ORDERING PIPE AND STRUCTURES.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – INLETS AND LEADS	SHEET: 33	E





PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – MAINLINE	SHEET: 34	E

TAX KEY #59281629780

OWNERS: WALTRUST PROPERTIES, INC.

TAX KEY #592816.

OWNERS: ANIMAL BUILDING, INC

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK WISCONSIN, NATIONAL ASSOCIATION

NORTH

20 10 0 20

SCALE – FEET

2X3–FT H CATCH BASIN
STA 11+52.48, 28.5' RT (6.1)

2X3–FT H CATCH BASIN
STA 13+98.50, 28.5' LT (7.2)

2X3–FT H CATCH BASIN
STA 13+98.50, 28.5' RT (7.1)

2X3–FT H CATCH BASIN
STA 16+01, 28.5' LT (8.2)

2X3–FT H CATCH BASIN
15+89', 28.5' RT (8.1)

STH 42 (CALUMET DRIVE)

*VERIFY DEPTH AND LOCATION OF EXISTING STORM SEWER

CONNECT TO EXISTING
VERIFY SIZE AND DEPTH
CONCRETE COLLAR REQ'D

668
666
664
662
660
658
656
654

31' – 12" SSPRC CLIII @ 0.39%

6.0
RIM 665.53
S INV 659.38
N INV 659.93
E INV 661.08
D 6.15'

6.1
RIM 664.95
INV 661.20
D 3.75'

21' – 12" SSPRC CLIII @ 0.52%

34' – 12" SSPRC CLIII @ 0.50%

7.1
RIM 664.12
INV 660.12
D 4.00'

7.0
RIM 664.52
S INV 658.95
N INV 657.95
E INV 660.01
W INV 659.45
D 6.57'

7.2
RIM 664.12
INV 659.62
D 4.50'

36' – 12" SSPRC CLIII @ 0.33%

34' – 12" SSPRC CLIII @ 0.44%

12' – 12" SS PVC @ 1.00%

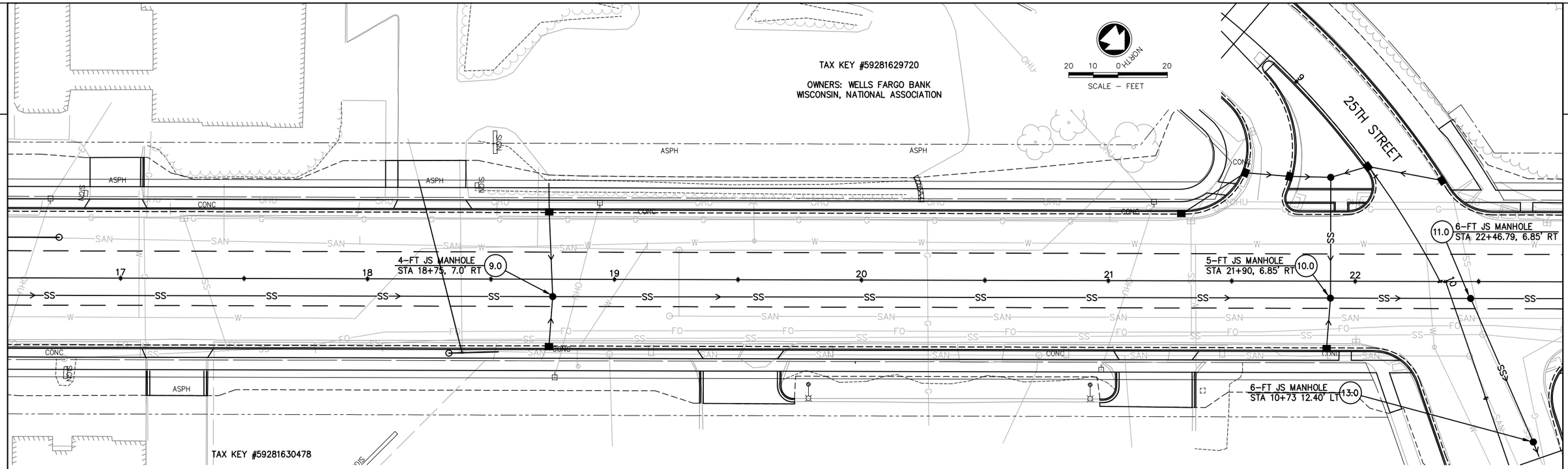
8.1
RIM 663.40
INV 659.40
D 4.00'

8.0
RIM 663.74
N,S INV 657.22
E INV 659.28
W INV 658.71
D 6.52'

8.2
RIM 663.36
* INV 658.86
D 4.50'

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – INLETS AND LEADS	SHEET: 35	E

2



PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – MAINLINE	SHEET: 36	E

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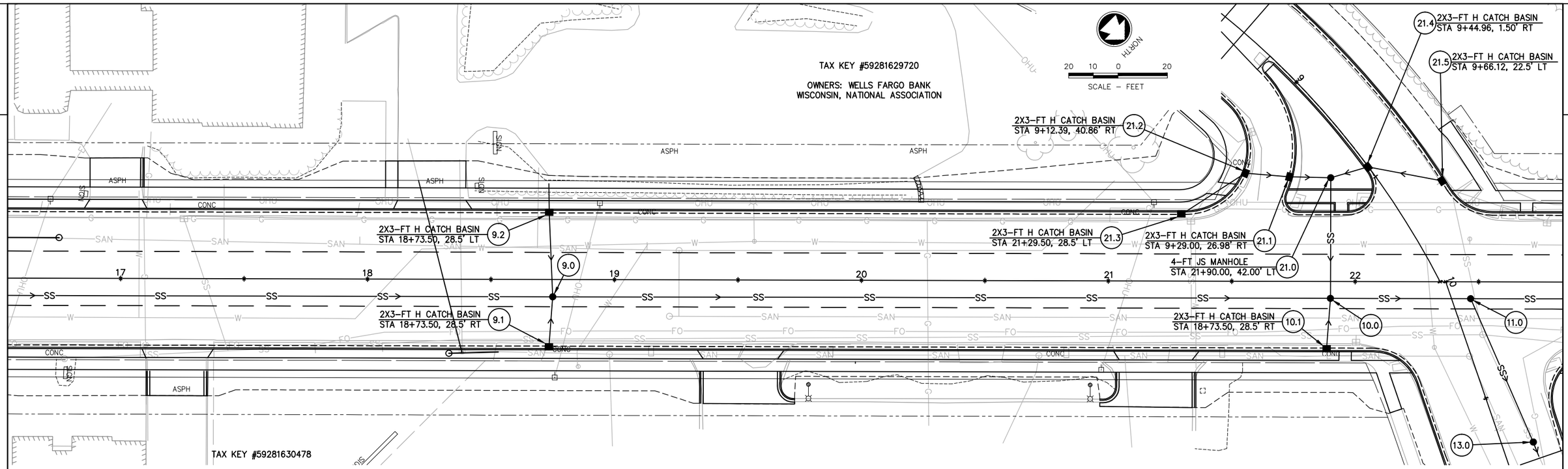

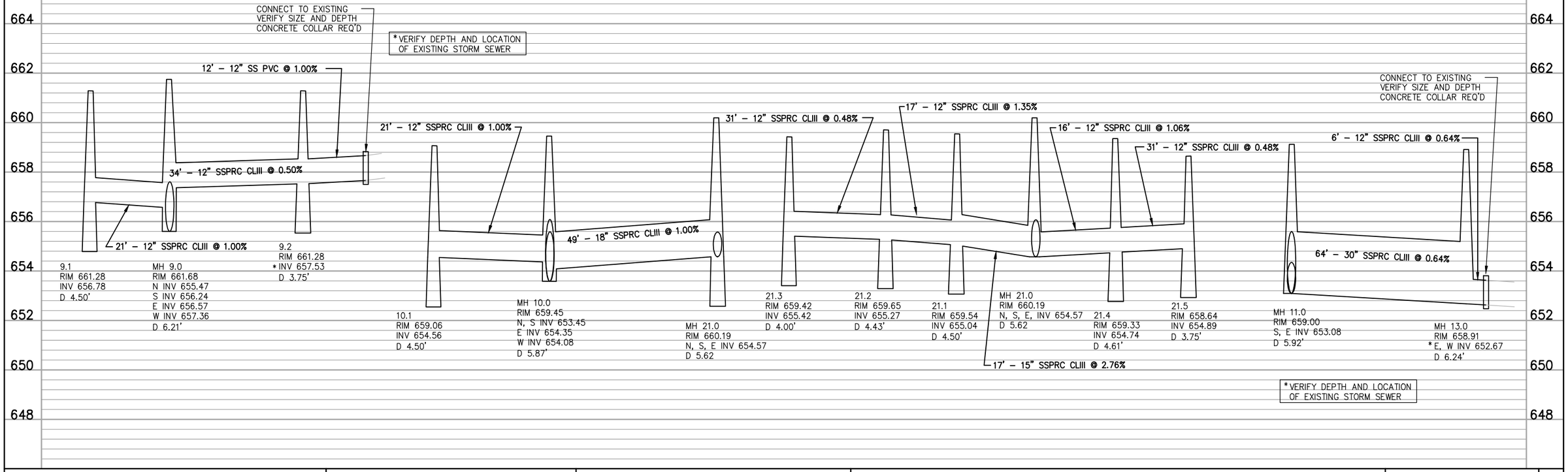

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – INLETS AND LEADS	SHEET: 37	E

2

TAX KEY #59281628960

OWNERS: CITY OF SHEBOYGAN,
A MUNICIPAL CORPORATION

EVERGREEN PARK

NORTH
20 10 0 20
SCALE – FEET

STH 42 (CALUMET DRIVE)

12.0 4–FT JS MANHOLE
STA 23+40 6.85' RT

13.0 6–FT JS MANHOLE
STA 10+73 12.40' LT

14.0 4–FT JS MANHOLE
STA 26+08.30, 20.66' RT

15.0 4–FT H INLET
STA 26+45.37, 25.81' RT

16.0 4–FT JS MANHOLE
STA 27+33.07, 19.95' RT

NOTE: THE EXISTING SANITARY SHOWN ON PLAN IS ABANDONED SANITARY FORCE MAIN. THERE IS NO DEPTH INFORMATION AVAILABLE.

EXISTING C/L PROFILE

PROPOSED C/L PROFILE

37' – 18" SSPRC CLIII @ 0.30%

88' – 15" SSPRC CLIII @ 0.31%

93' – 24" SSPRC CLIII @ 0.35%

16" WATER MAIN

CONNECT TO EXISTING
VERIFY SIZE AND DEPTH
CONCRETE COLLAR REQ'D

12.0
RIM 658.60
INV 653.41
D 5.19'

14.0
RIM 660.06
INV 655.74
D 4.32'

INL 15
RIM 660.33
INV 655.85
D 4.48'

16.0
RIM 661.12
INV 656.12
D 5.00'

662 660 658 656 654 652 650 648 646

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL – MAINLINE	SHEET: 38	E

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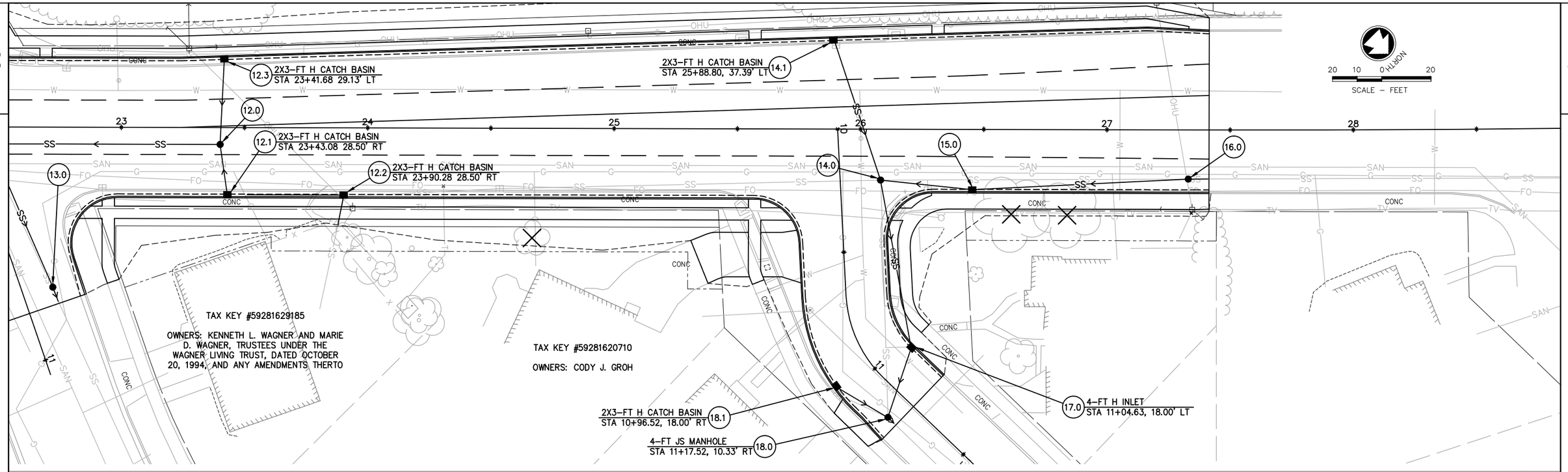
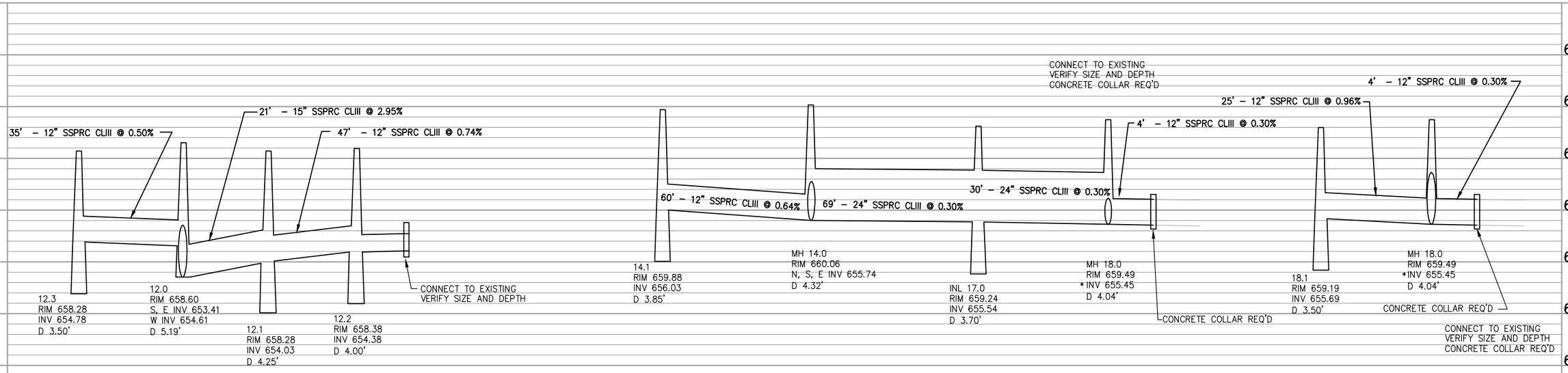
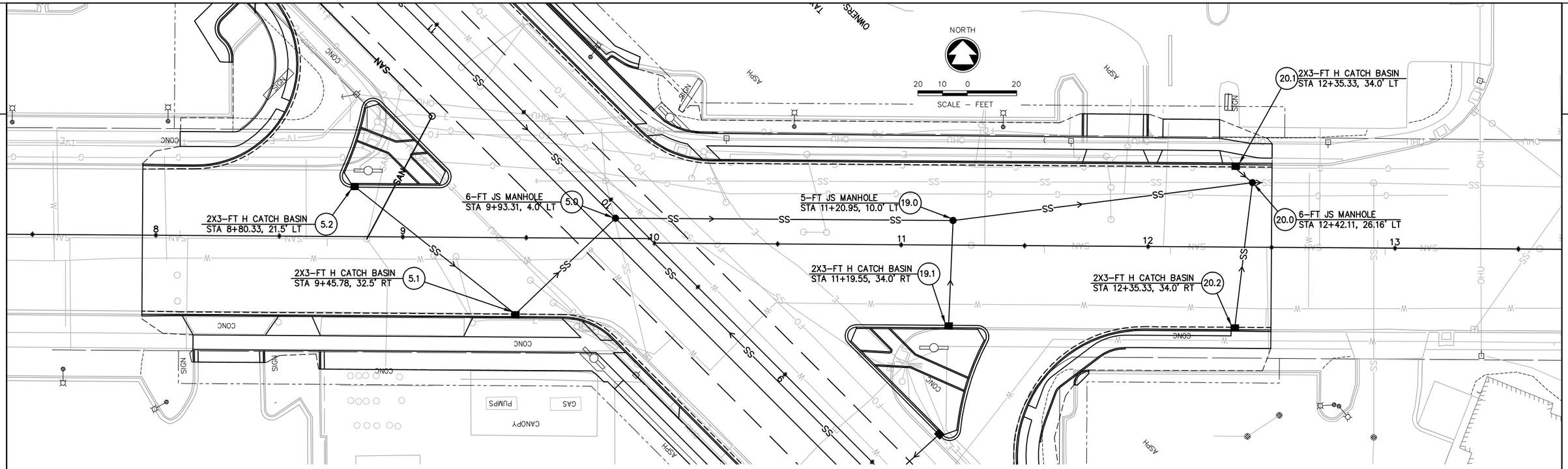
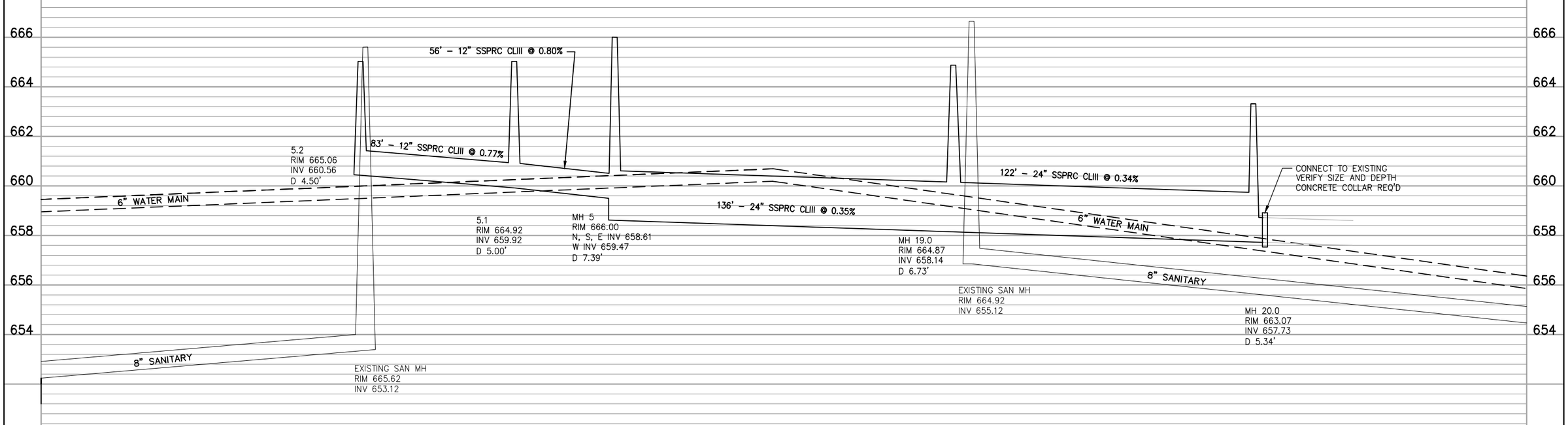
2



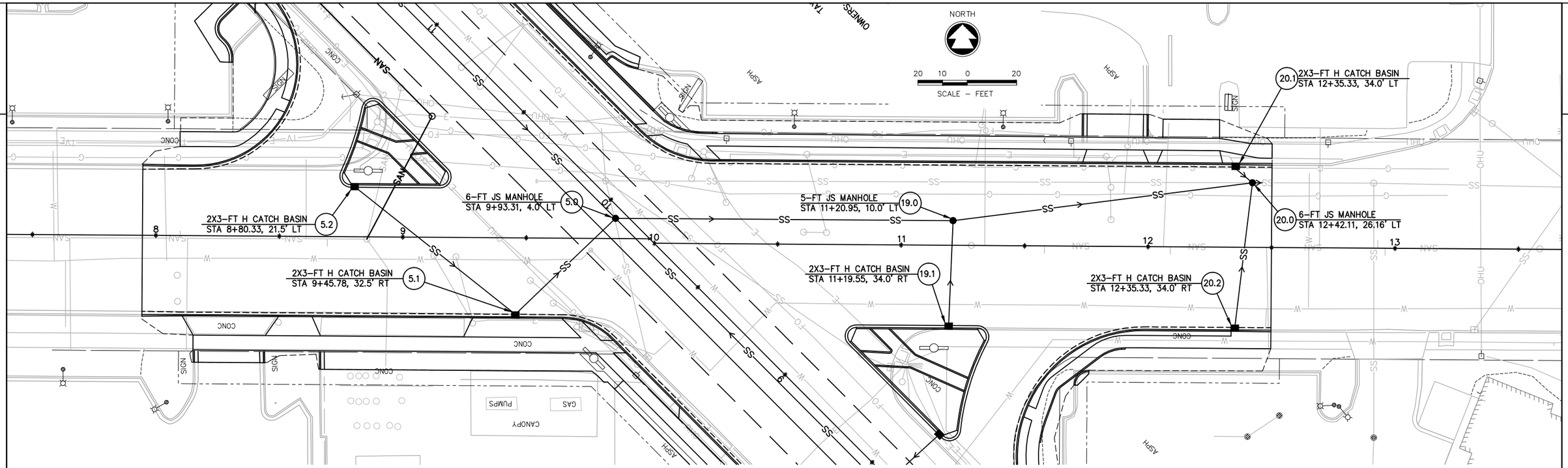


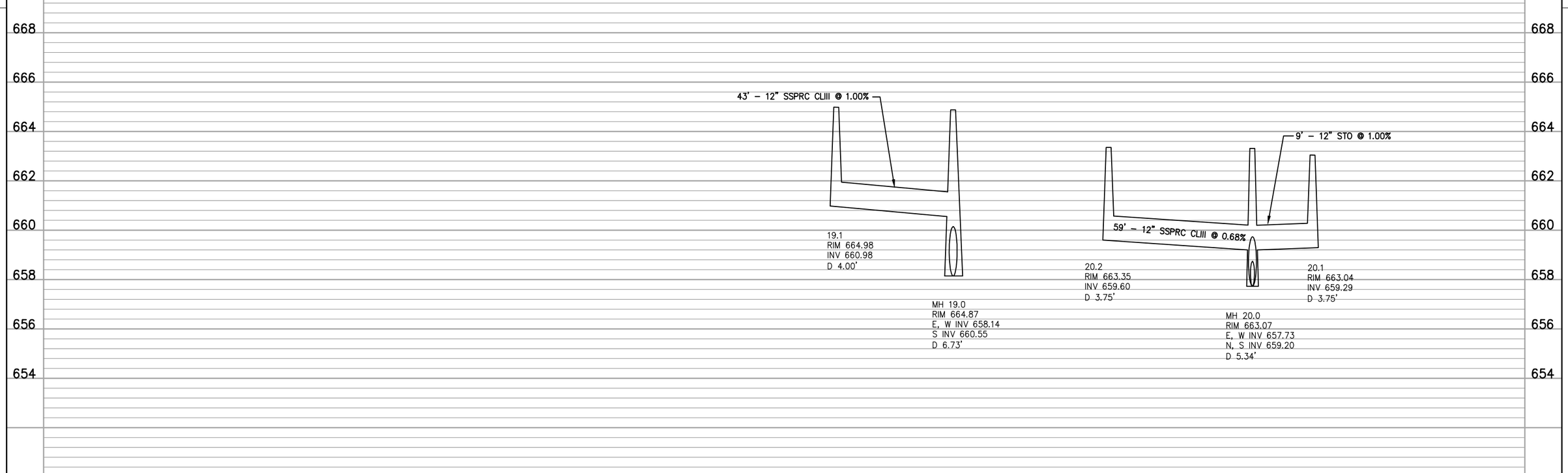
PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL INLETS AND LEADS	SHEET: 39	E





PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL	SHEET: 40	E





PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STORM SEWER DETAIL	SHEET: 41	E

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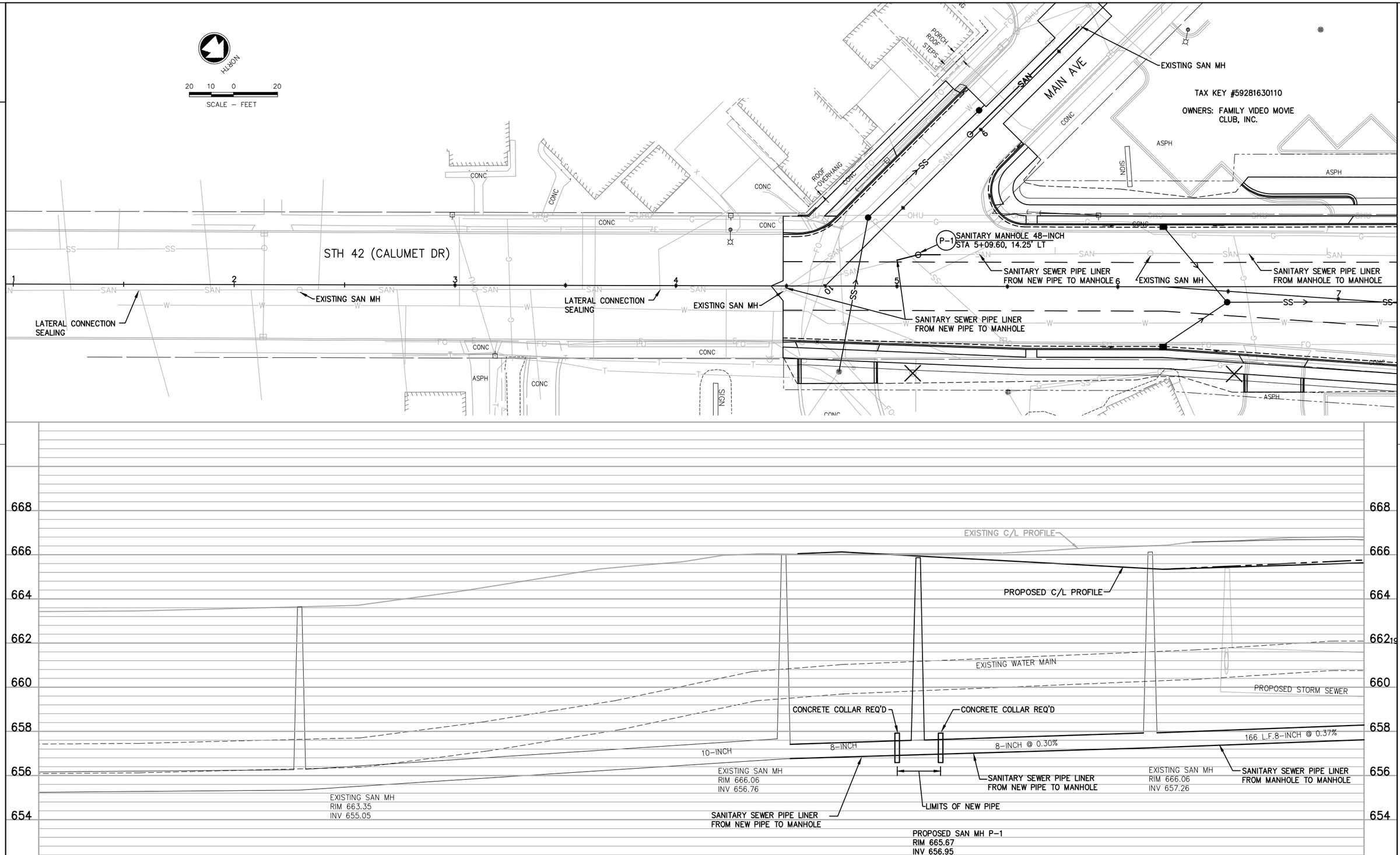


PROJECT NO: 4630-05-72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 42	E

2

NORTH

20 10 0 20

SCALE – FEET

ASPH

ASPH

ASPH

SIGN

CANOPY

PUMPS

GAS

CONC

CONC

EXISTING SAN MH

REMOVE SANITARY SEWER

SS

6

SAN

TAX KEY #59281629780

OWNERS: WALTRUST PROPERTIES, INC.

ASPH

SIGN

CONC

EXISTING SAN MH

SANITARY SEWER PIPE LINER FROM MANHOLE TO MANHOLE

SANITARY SEWER MANHOLE LINER

STH 42 (CALUMET DR)

REMOVE MANHOLE

SAN

EXISTING SAN MH

P–2

SANITARY MANHOLE 48–INCH

STA 10+75.00, 27.50' LT

SAN SAN SAN SAN SAN SAN SAN

REMOVE SANITARY SEWER

7 8 9 10 11 12 13

SS

SS

SS

TAX KEY #59281629740

OWNERS: ANIMAL CLINIC BUILDING, INC.

NORTH

20 10 0 20

SCALE – FEET

STH 42 (CALUMET DR)

TAX KEY #59281630478

SANITARY SEWER LATERAL 6–INCH

REMOVE SANITARY SEWER

EXISTING SAN MH

REMOVE MANHOLE

REMOVE MANHOLE
EXISTING SAN MH

SANITARY MANHOLE 48–INCH
STA 13+67.50, 16.50' LT
P–3

SANITARY MANHOLE 48–INCH
STA 16+75.00, 16.50' LT
P–4

SANITARY MANHOLE 48–INCH
STA 18+33.00, 30.00' RT
P–5

REMOVE MANHOLE
CONNECT LATERAL TO MAIN

PROPOSED C/L PROFILE

EXISTING C/L PROFILE

PROPOSED STORM SEWER

EXISTING WATER MAIN

EXISTING SAN MH
RIM 664.11
INV 654.71

292 L.F. 8–INCH SAN. @ 0.40%

306 L.F. 8–INCH SAN. @ 0.40%

20 L.F. 8–INCH SAN. @ 0.32%

8–INCH

CONCRETE COLLAR REQ'D

PROPOSED SAN MH P–3
RIM 664.45
INV 654.52

EXISTING SAN MH
RIM 662.98
INV 654.12

PROPOSED SAN MH P–4
RIM 663.00
INV 655.75

PROPOSED SAN MH P–5
RIM 662.16
INV 652.66

EXISTING SAN MH
RIM 661.97
INV 652.64

PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 44	E

2

NORTH

20 10 0 20

SCALE – FEET

25TH STREET

STH 42 (CALUMET DR)

SANITARY SEWER LATERAL 6–INCH

P–5 SANITARY MANHOLE 48–INCH
STA 18+33.00, 30.00' RT

REMOVE SANITARY SEWER

EXISTING SAN MH

REMOVE MANHOLE

EXISTING SAN MH

SANITARY SEWER MANHOLE LINER

EXISTING SAN MH

EXISTING SAN MH

REMOVE MANHOLE
CONNECT LATERAL TO MAIN

LATERAL CONNECTION SEALING
(138 FEET FROM MANHOLE AT STA. 18+98 RT)

664
662
660
658
656
654
652
650
648

EXISTING SAN MH
RIM 661.16
INV 656.46

PROPOSED STORM SEWER

EXISTING C/L PROFILE

PROPOSED C/L PROFILE

CONCRETE
COLLAR REQ'D

EXISTING WATER MAIN

EXISTING SAN MH
RIM 661.97
INV 652.64

EXISTING SAN MH
RIM 661.70
INV 652.45

SANITARY SEWER
MANHOLE LINER

PROPOSED SAN MH P–5
RIM 662.16
INV 652.66

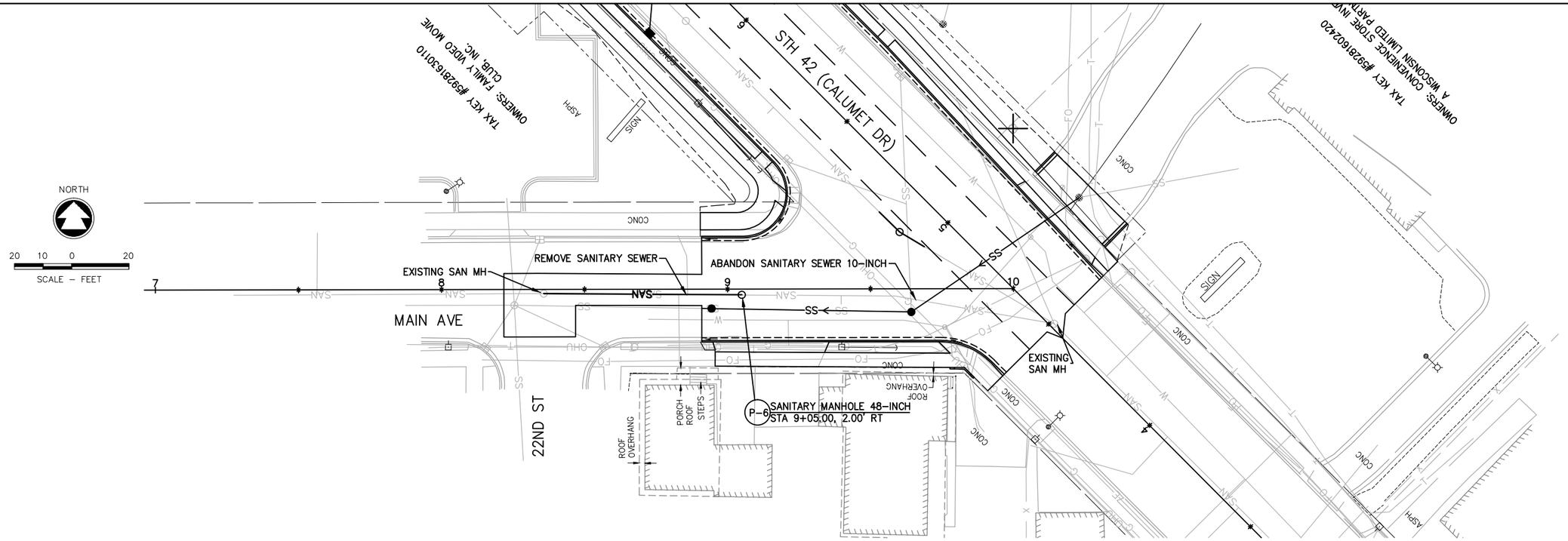
EXISTING SAN MH
RIM 660.46
INV 651.16

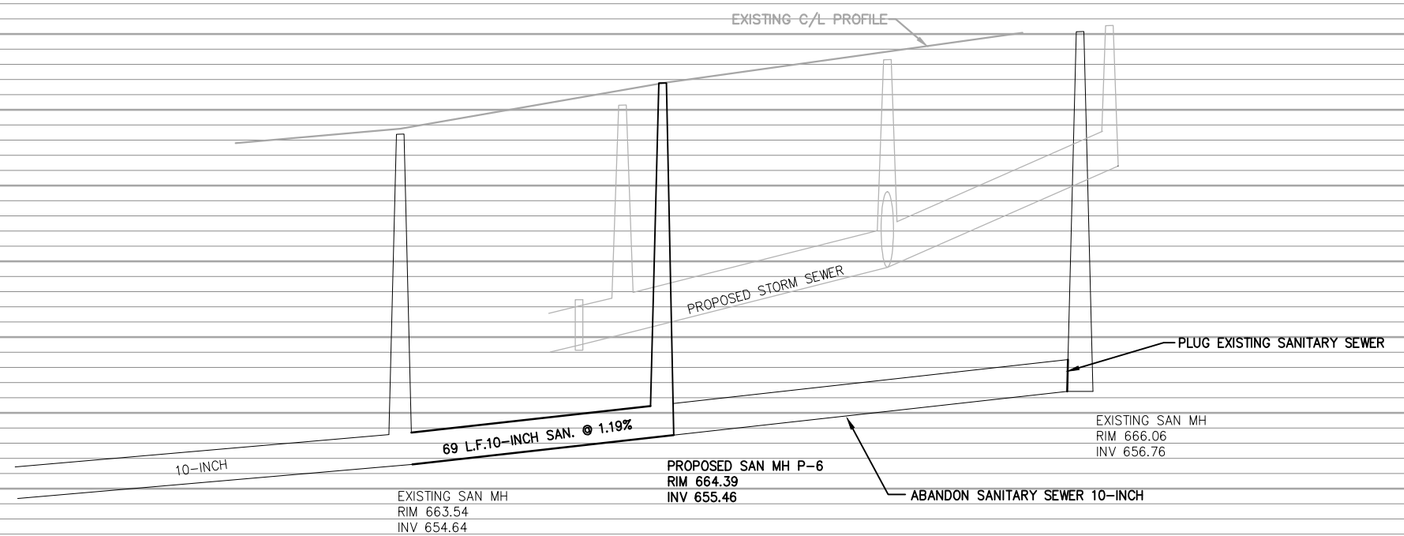
8–INCH

EXISTING SAN MH
RIM 659.45
INV 648.25

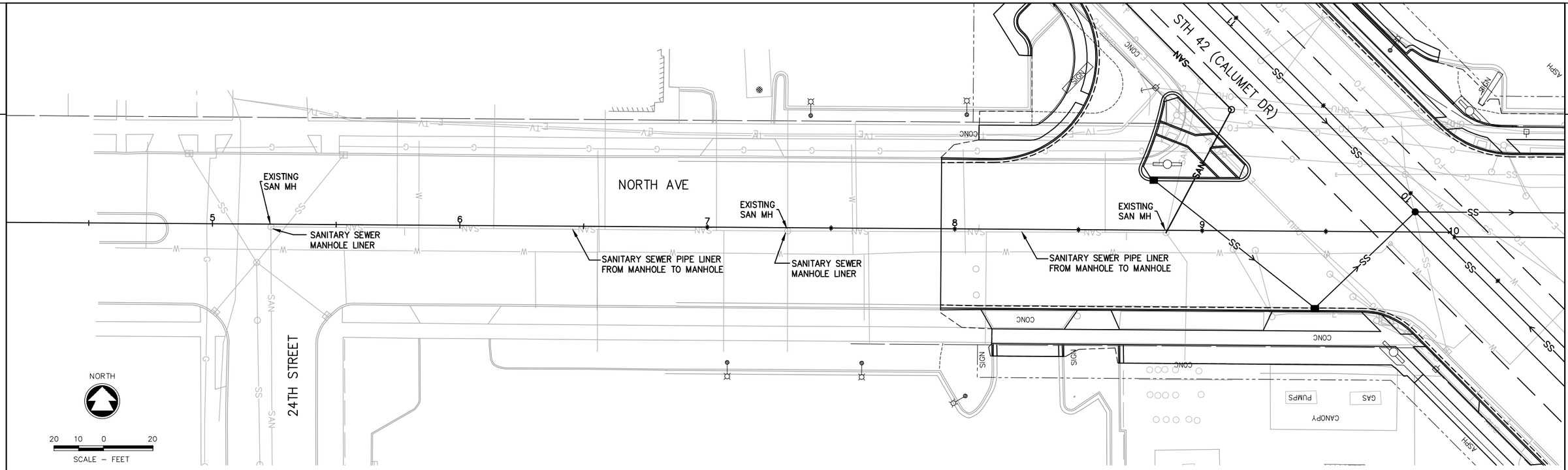
PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 45	E

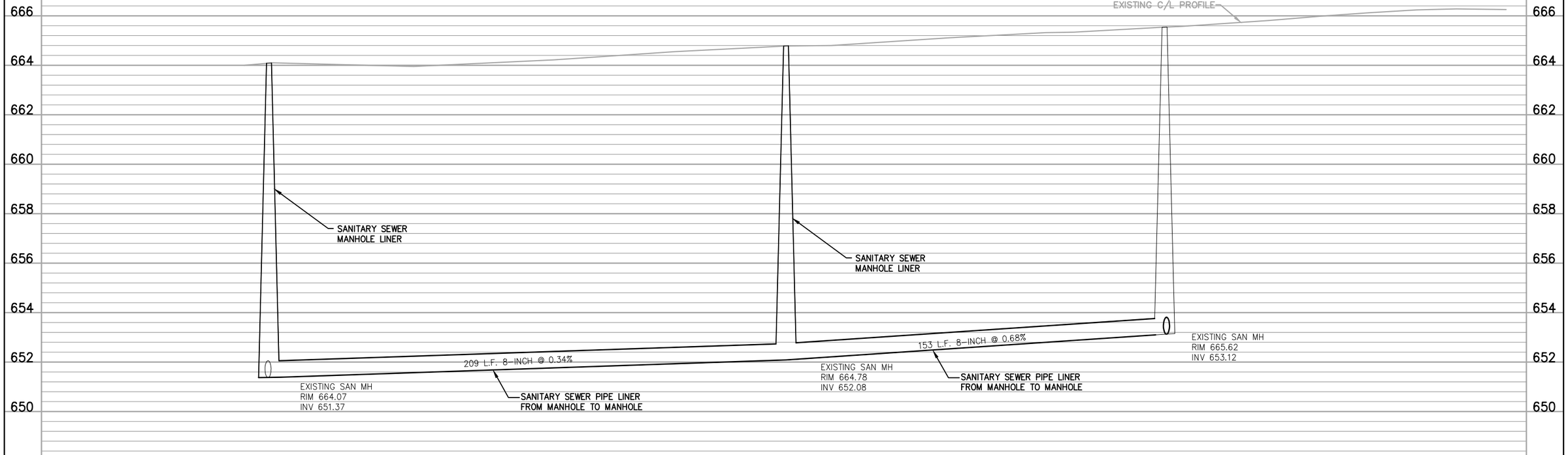
cschuh, W:\PROJECTS\W0059\820107\00\02–Sanitary\04 SAN.dwg, 01 san, Plot Date: 10/3/2016 1:27 PM, xrefs: (x–ss profile, x–ss, x–existing, x–proposed, x–existing right of way)



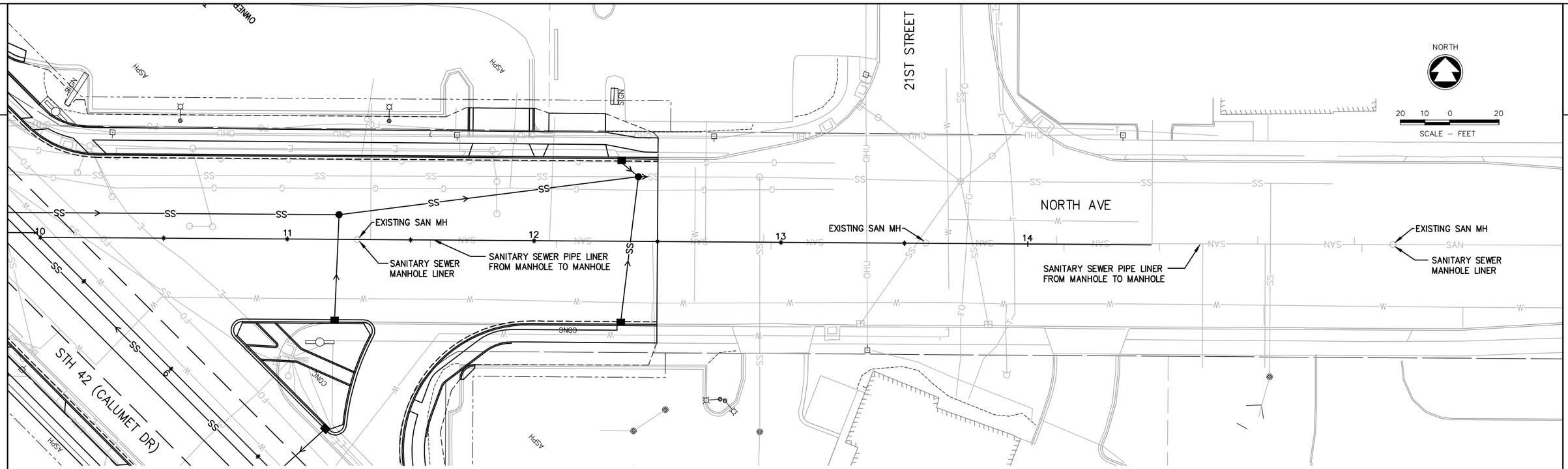


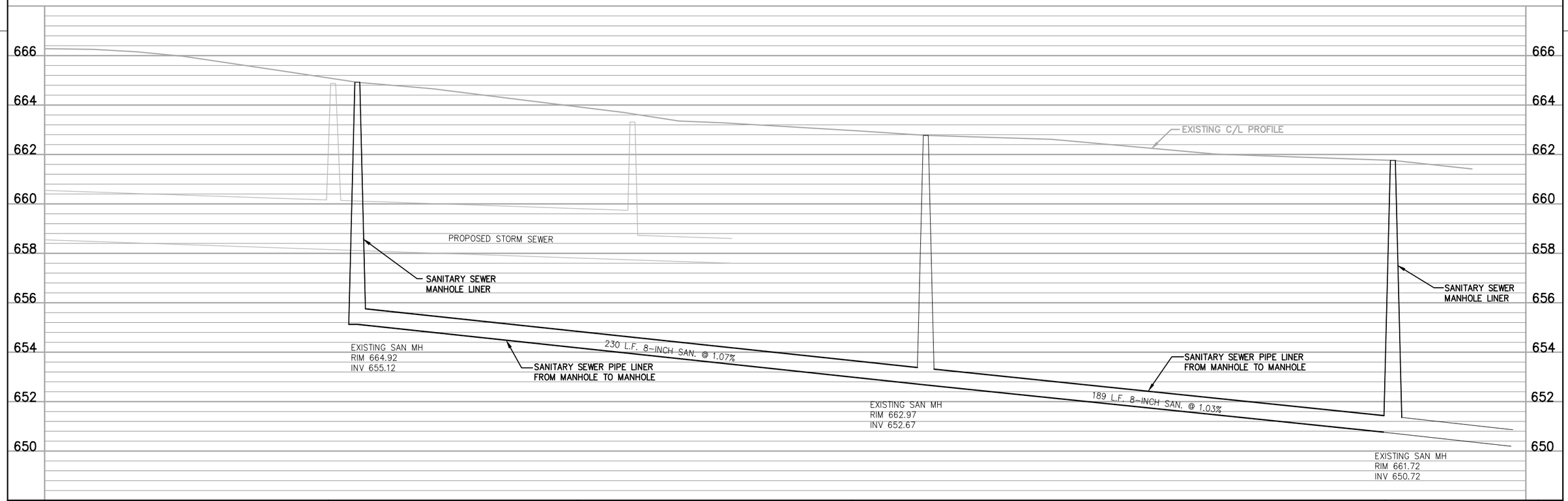
PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 46	E



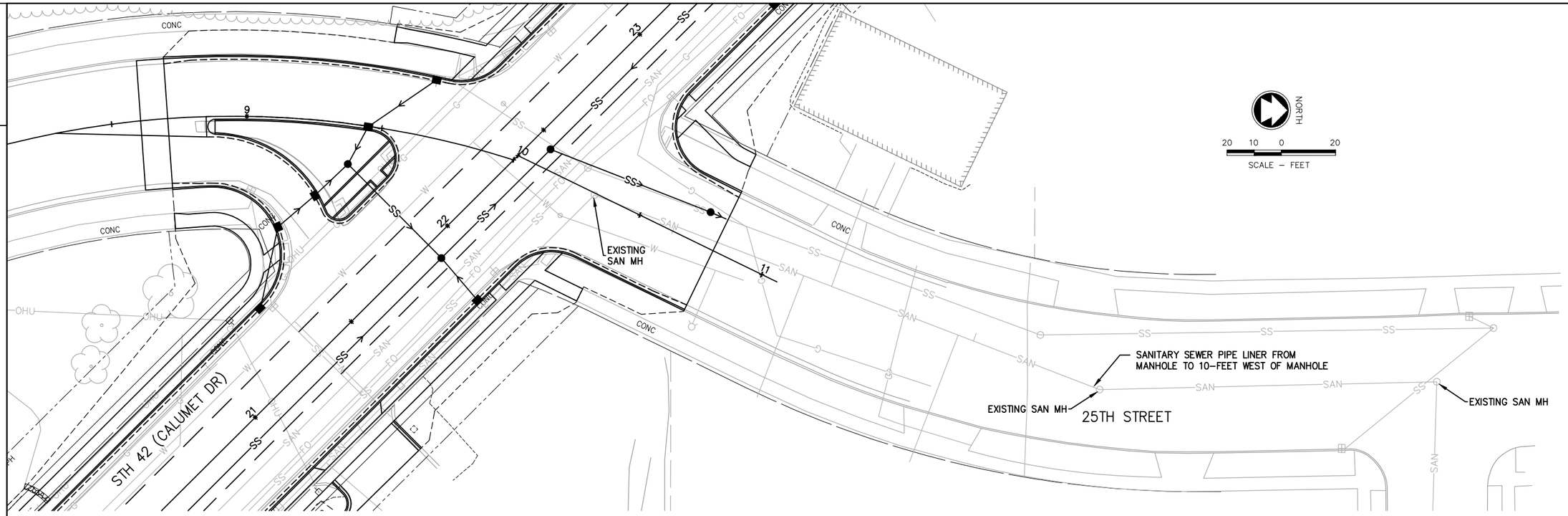


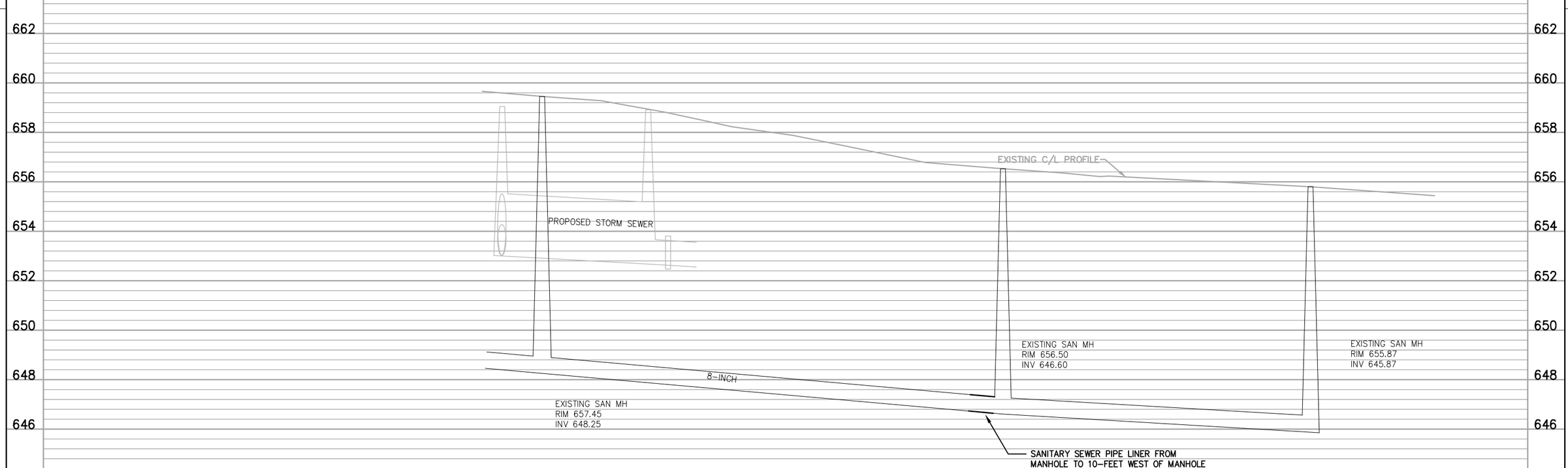
PROJECT NO: 4630-05-72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 47	E





PROJECT NO: 4630-05-72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 48	E





PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	SANITARY SEWER DETAIL	SHEET: 49	E

2

2

NORTH

20 10 0 20

SCALE – FEET

MAIN AVE

STH 42 (CALUMET DR)

NORTH AVE

TAX KEY #59281630110

OWNERS: FAMILY VIDEO MOVIE CLUB, INC.

TAX KEY #59281630090

OWNERS: QUALITY STATE OIL CO., INC.

TAX KEY #59281630220

OWNERS: 2100 NORTH LLC, A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281602420

OWNERS: CONVENIENCE STORE INVESTMENTS, A WISCONSIN LIMITED PARTNERSHIP

TAX KEY #59

OWNERS: NORTH/CALUM LIMITED LIABILI

LEGEND

INSULATION BOARD POLYSTYRENE, 2–INCH

INSULATION BOARD POLYSTYRENE, 4–INCH

PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	WATER MAIN	SHEET: 50	E

cclemens, W:\PROJECTS\W0059\820107\00\02–Water Main\01 WATER.dwg, 01 water, Plot Date: 8/2/2016 12:08 PM, xrefs: (existing right of way, x–existing, x–proposed)

W:\PROJECTS\W0059\820107\00\02-Water Main\01 WATER.dwg, 01 WATER, 8/2/2016 12:08:40 PM, CClemens, 1:2

2

2

LEGEND

INSULATION BOARD POLYSTYRENE, 2–INCH

INSULATION BOARD POLYSTYRENE, 4–INCH

NORTH

20 10 0 20

SCALE – FEET

NORTH AVE

STH 42 (CALUMET DR)

TAX KEY #59281629780

OWNERS: WALTRUST PROPERTIES, INC.

TAX KEY #59281629740

OWNERS: ANIMAL CLINIC BUILDING, INC.

TAX KEY #59281630535

OWNERS: NORTH/CALUMET, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630530

OWNERS: NORTH/CALUMET, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630520

OWNERS: GREGORY M. KRSIEC AND KAREN M. KRUSIEC

TAX KEY #59281630482

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	WATER MAIN	SHEET: 51	E

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cclemens, W:\PROJECTS\W0059\820107\00\02–Water Main\02 WATER.dwg, 02 water, Plot Date: 8/2/2016 12:08 PM, xrefs: (existing right of way, x–existing, x–proposed)

2

2

NORTH
20 10 0 20
SCALE – FEET

25TH ST

STH 42 (CALUMET DR)

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK
WISCONSIN, NATIONAL ASSOCIATION

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK
WISCONSIN, NATIONAL ASSOCIATION

TAX KEY #59281630480

OWNERS: LIGHTHOUSE LUBE REAL ESTATE, LLC, A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630481

OWNERS: NETT PROPERTIES, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630478

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281629150

OWNERS: O'REILLY AUTOMOTIVE STORES, INC., A MISSOURI CORPORATION

LEGEND

INSULATION BOARD POLYSTYRENE, 2–INCH

INSULATION BOARD POLYSTYRENE, 4–INCH

PROJECT NO: 4630–05–72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	WATER MAIN	SHEET: 52	E

cclemens, W:\PROJECTS\W0059\820107\00\02–Water Main\03 WATER.dwg, 03 water, Plot Date: 8/2/2016 12:09 PM, xrefs: (existing right of way, x–existing, x–proposed)

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2

2

LEGEND

INSULATION BOARD POLYSTYRENE, 2-INCH

INSULATION BOARD POLYSTYRENE, 4-INCH

NORTH

20 10 0 20

SCALE – FEET

TAX KEY #59281628960

OWNERS: CITY OF SHEBOYGAN, A MUNICIPAL CORPORATION

25TH ST

STH 42 (CALUMET DR)

12-INCH

10-INCH

6-INCH

8-INCH

TAX KEY #59281629185

OWNERS: KENNETH L. WAGNER AND MARIE D. WAGNER, TRUSTEES UNDER THE WAGNER LIVING TRUST, DATED OCTOBER 20, 1994, AND ANY AMENDMENTS THERTO

TAX KEY #59281620710

OWNERS: CODY J. GROH

26TH ST

PROJECT NO: 4630-05-72	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	WATER MAIN	SHEET: 53	E

cclemens, W:\PROJECTS\W0059\820107\00\02-Water Main\04 WATER.dwg, 04 water, Plot Date: 8/2/2016 12:09 PM, xrefs: (existing right of way, x-existing, x-proposed)

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2

NORTH

20 10 0 20

SCALE – FEET

LEGEND

- PROPOSED SIGN
- (X.X) SIGN – EXISTING
- [X.X] SIGN – NEW

STH 42 (CALUMET DR)

MAIN AVE

1.A STOP R1-1 30" X 30"

1.B SOUTH 42 J4-1 24" X 36"

1.1 STOP REMOVE

NO PARKING ANY TIME TO REMAIN

1.2 NO PARKING ANY TIME REMOVE

1.C BIKE LANE R3-17 30" X 24"

1.D ENDS R3-17B 30" X 12"

1.3 SOUTH 42 REMOVE

1.4 REMOVE

1.5 REMOVE

1.E BIKE LANE R3-17 30" X 24"

1.F S1-1 36" X 36"

1.G AHEAD W16-9P 24" X 8"

1.6 ONLY ONLY REMOVE

1.H ONLY ONLY R3-8M 54" X 30"

1.I TRUCK ROUTE R14-1 24" X 18"

1.J M6-6 21" X 21"

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 54	E

W:\PROJECTSW0059\820107\00\02-Signing\01 SIGNING.DWG, 01 PAVING DETAIL, 8/2/2016 12:09:53 PM, CClemens, 1:2

cclemens, W:\PROJECTS\W0059\820107\00\02-Signing\01 SIGNING.DWG, 01 paving detail, Plot Date: 8/2/2016 12:09 PM, xrefs: (existing right of way, x-existing, x-proposed)

2

2.1 SPEED LIMIT 25 — REMOVE

2.2 NO PARKING ANY TIME — REMOVE

2.A SPEED LIMIT 25 — R2-1, 24" X 30"

2.B NO PARKING ANY TIME — R7-1D, 18" X 24"

2.C BIKE LANE — R3-17, 30" X 24"

2.D — R3-4, 24" X 24"

2.3 — REMOVE

2.4 STOP — MOVE, PLACE ON NEW SIGNAL

NORTH AVE

2.E — R5-2, 24" X 24"

2.5 — REMOVE

2.6 SNOW ROUTE DURING SNOW EMERGENCY — MOVE

2.F YIELD — R1-2, 36" X 31"

2.7 STOP — MOVE, PLACE ON NEW SIGNAL

NORTH

SCALE – FEET 20 10 0 20

2.8 LAKE MICHIGAN CIRCLE TOUR — MOVE

2.9 — MOVE

2.10 NO PARKING ANY TIME — REMOVE

STH 42 (CALUMET DR)

ONLY

2.G BEGIN RIGHT TURN LANE YIELD TO BIKES — R4-4, 36" X 30"

2.11 TRUCK ROUTE — REMOVE

2.12 — REMOVE

2.H YIELD — R1-2, 36" X 31"

2.I — R3-4, 24" X 24"

2.15 STOP — MOVE, PLACE ON NEW SIGNAL

2.16 — REMOVE

2.17 SPEED LIMIT 25 — REMOVE

2.18 NO PARKING ANY TIME — REMOVE

2.J BIKE LANE — R3-17, 30" X 24"

2.K NO PARKING ANY TIME — R7-1D, 18" X 24"

2.19 TO — REMOVE

2.20 INTERSTATE 43 — REMOVE

2.21 (ADOPT-A-HIGHWAY) SPONSOR ST LUKE UNITED METHODIST CHURCH — REMOVE

2.13 — REMOVE

2.14 NO TURN ON RED WHEN CHILDREN ARE PRESENT — REMOVE

2.L TO — M4-5, 24" X 12"

2.M INTERSTATE 43 — M1-1, 24" X 24"

2.M.1 (ADOPT-A-HIGHWAY) SPONSOR ST LUKE UNITED METHODIST CHURCH — M1-93, 24" X 24"

2.N SPEED LIMIT 25 — R2-1, 24" X 30"

2.22 NO PARKING ANY TIME — REMOVE

SEE OTHER SHEETS FOR ADDITIONAL SIGNING NEAR NORTH AVE INTERSECTION

LEGEND

- PROPOSED SIGN
- (X.X) SIGN – EXISTING
- [X.X] SIGN – NEW

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 55	E

W:\PROJECTS\W0059\820107\00\02-Signing\02 SIGNING.dwg, 02 PAVEMENT MARKING, 8/2/2016 12:10:17 PM, CClemens, 1:2

cclemens, W:\PROJECTS\W0059\820107\00\02-Signing\02 SIGNING.dwg, 02 pavement marking, Plot Date: 8/2/2016 12:10 PM, xrefs: (x-proposed, existing right of way, x-existing)

2

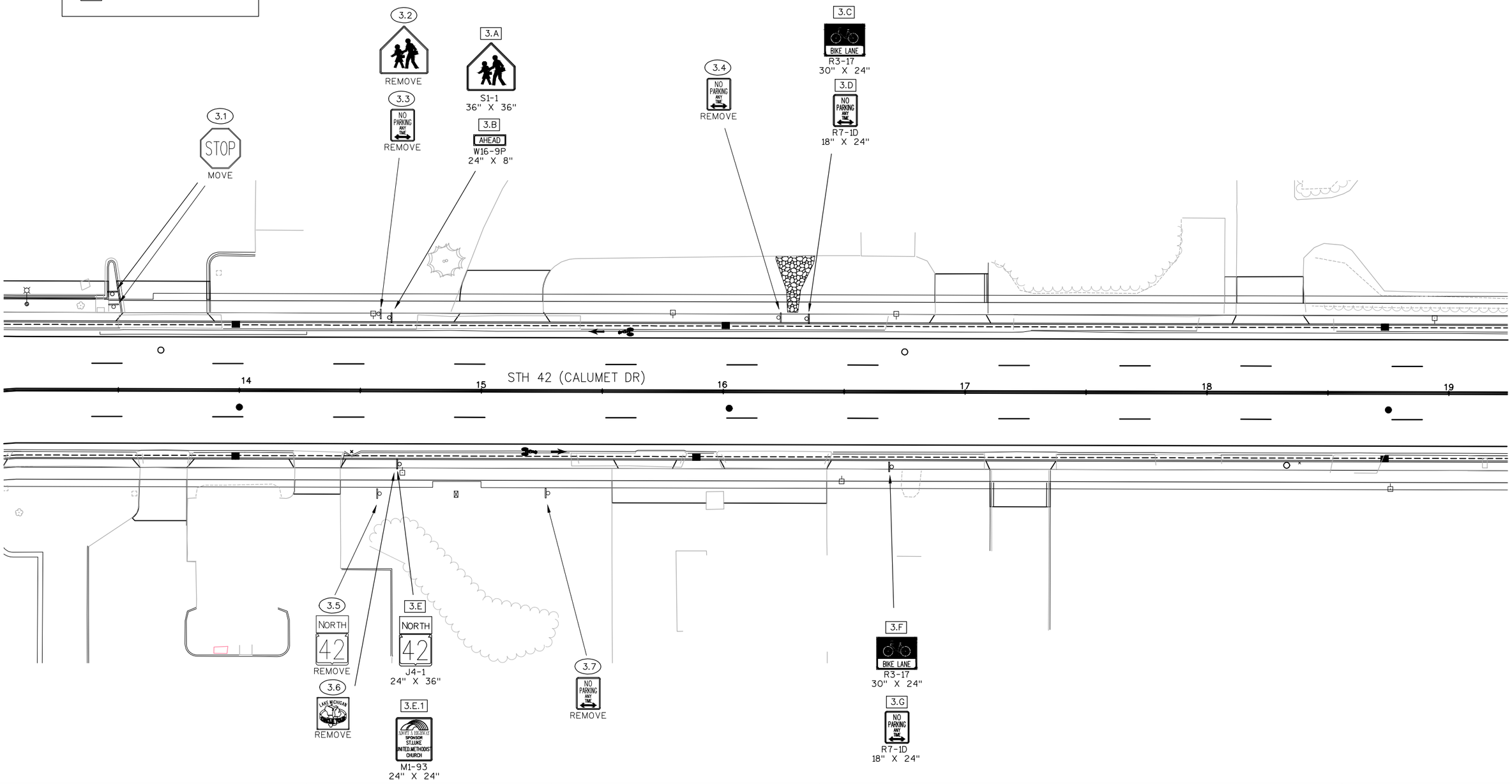
LEGEND

- PROPOSED SIGN
- (X.X) SIGN – EXISTING
- [X.X] SIGN – NEW

NORTH

20 10 0 20

SCALE – FEET



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 56	E

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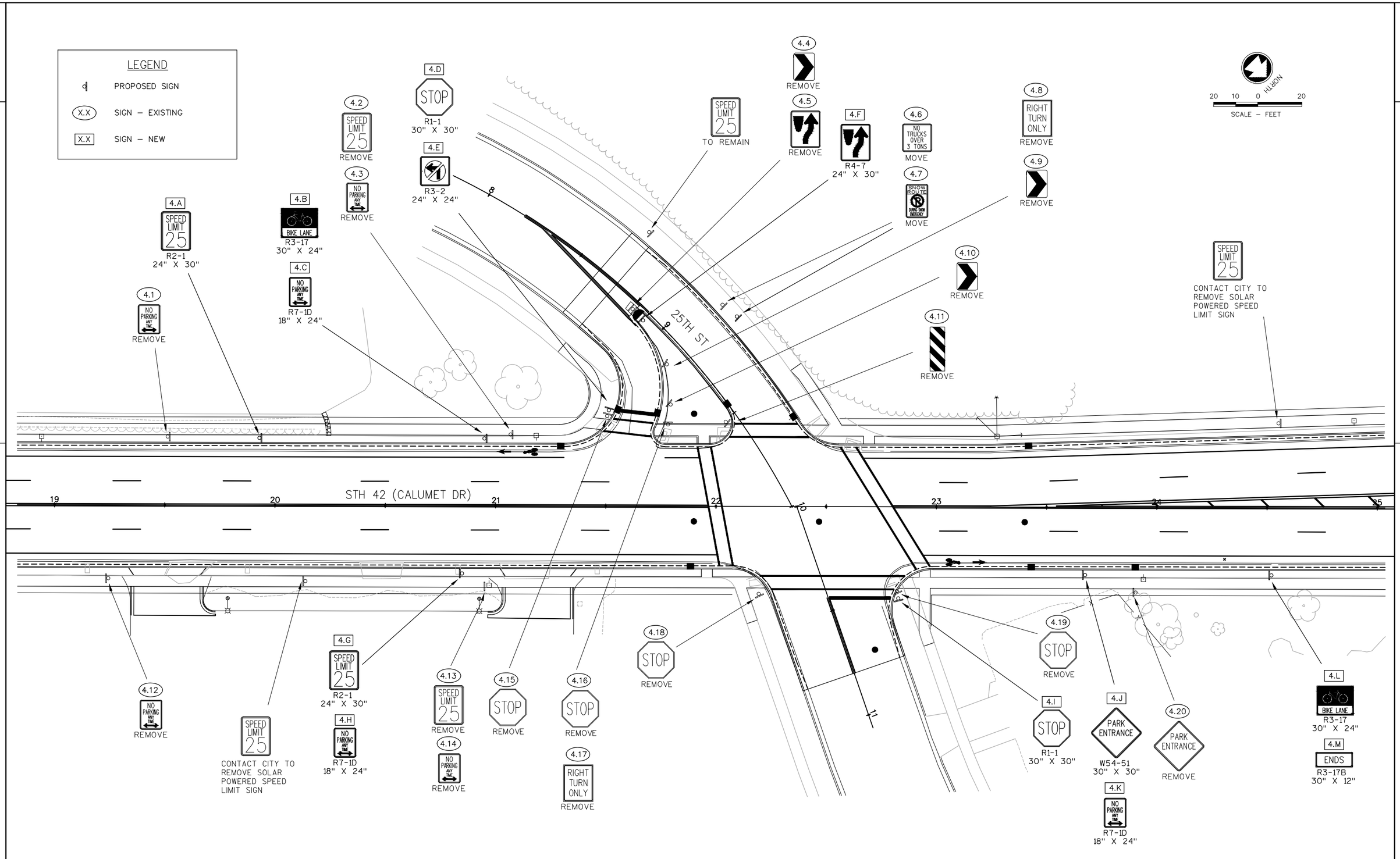
2



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 57	E

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2

LEGEND

- PROPOSED SIGN
- (X.X) SIGN – EXISTING
- [X.X] SIGN – NEW

NORTH

20 10 0 20

SCALE – FEET

5.A
BIKE LANE
R3-17
30" X 24"

5.B
NO PARKING ANY TIME
R7-1D
18" X 24"

TRUCKS
TO REMAIN

5.1
NEIGHBORHOOD WATCH SIGN
MOVE

5.2
STOP
REMOVE

5.3
STOP
REMOVE

5.C
STOP
R1-1
30" X 30"

STH 42 (CALUMET DR)

25 26 27 28 29

10 11

26TH ST

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 58	E

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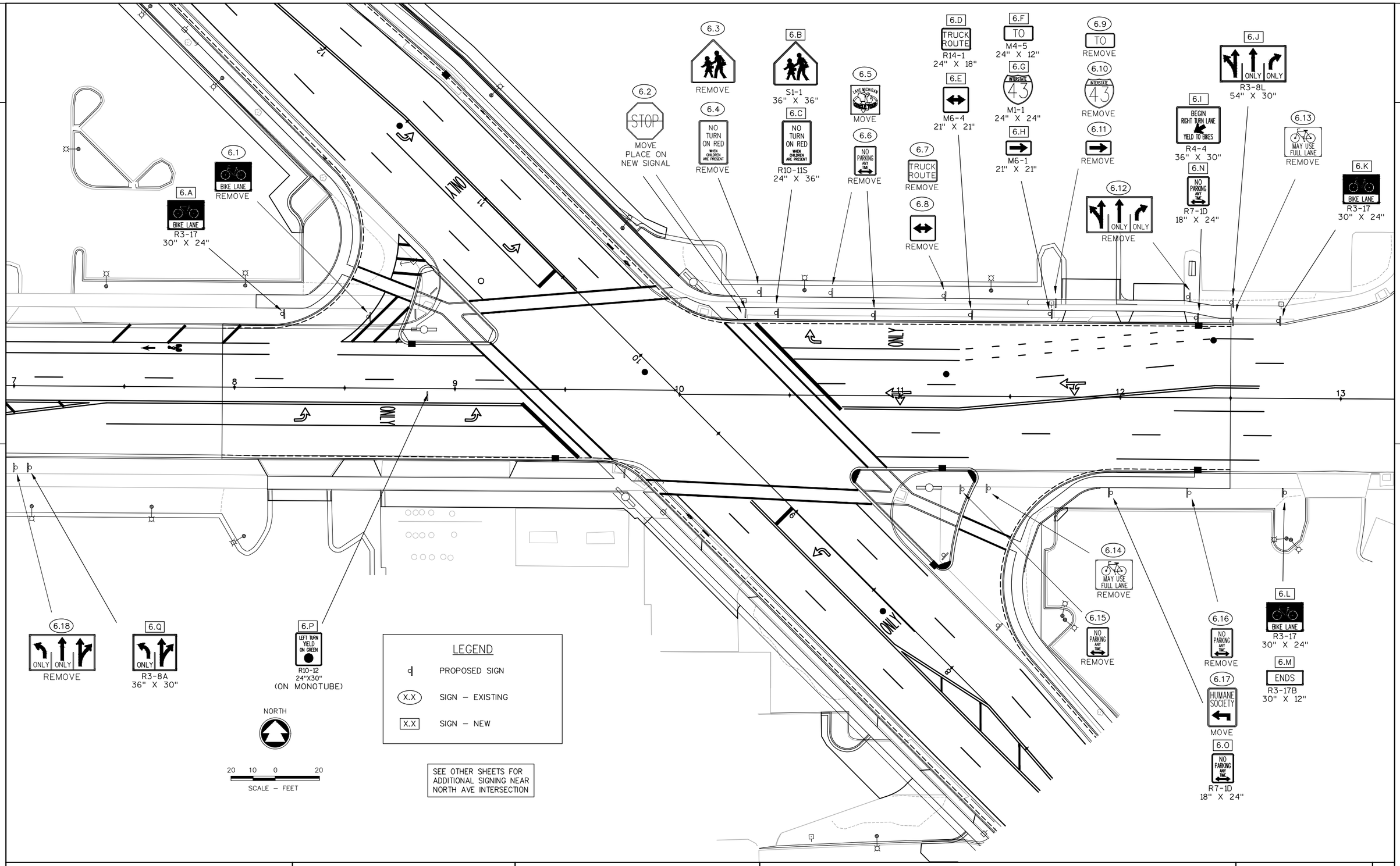
2



PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PERMANENT SIGNING AND REMOVING SIGNS	SHEET: 59	E

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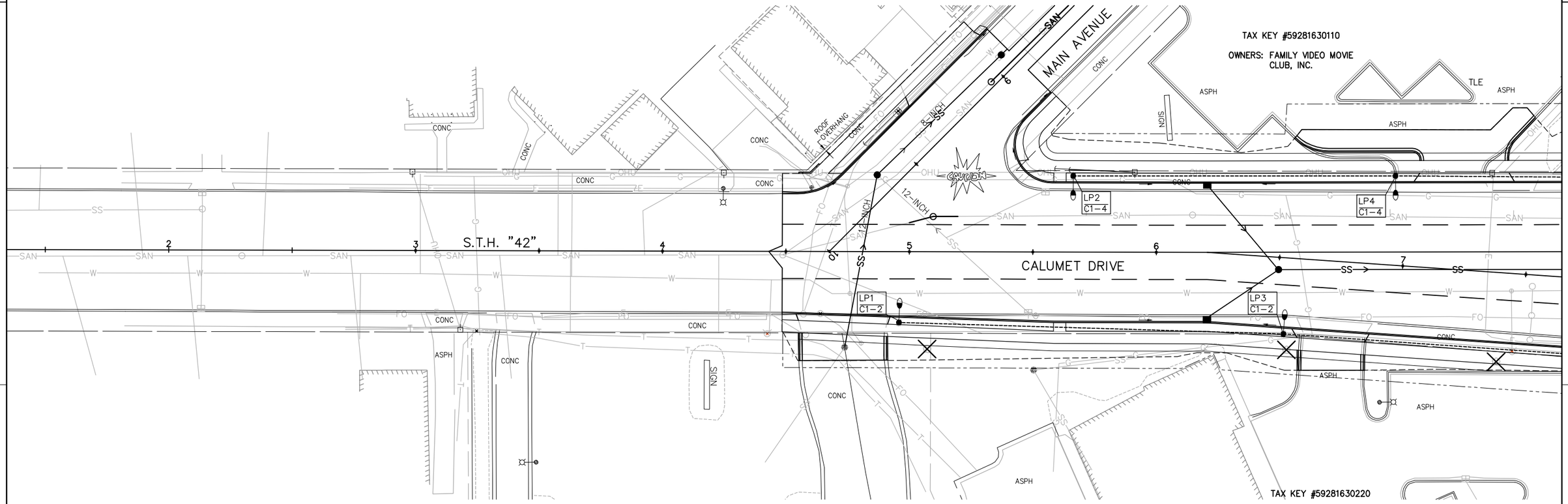
2



20 10 0 20

SCALE – FEET

NORTH

NOTES:
ALL CONDUIT FOR STREET LIGHTING AND TRAFFIC SIGNAL INTERCONNECT IS 2–INCH.

CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

THE DISTANCE FROM BACK OF CURB TO NEAREST EDGE OF THE TYPE 5 BASE SHALL BE 2–FT.

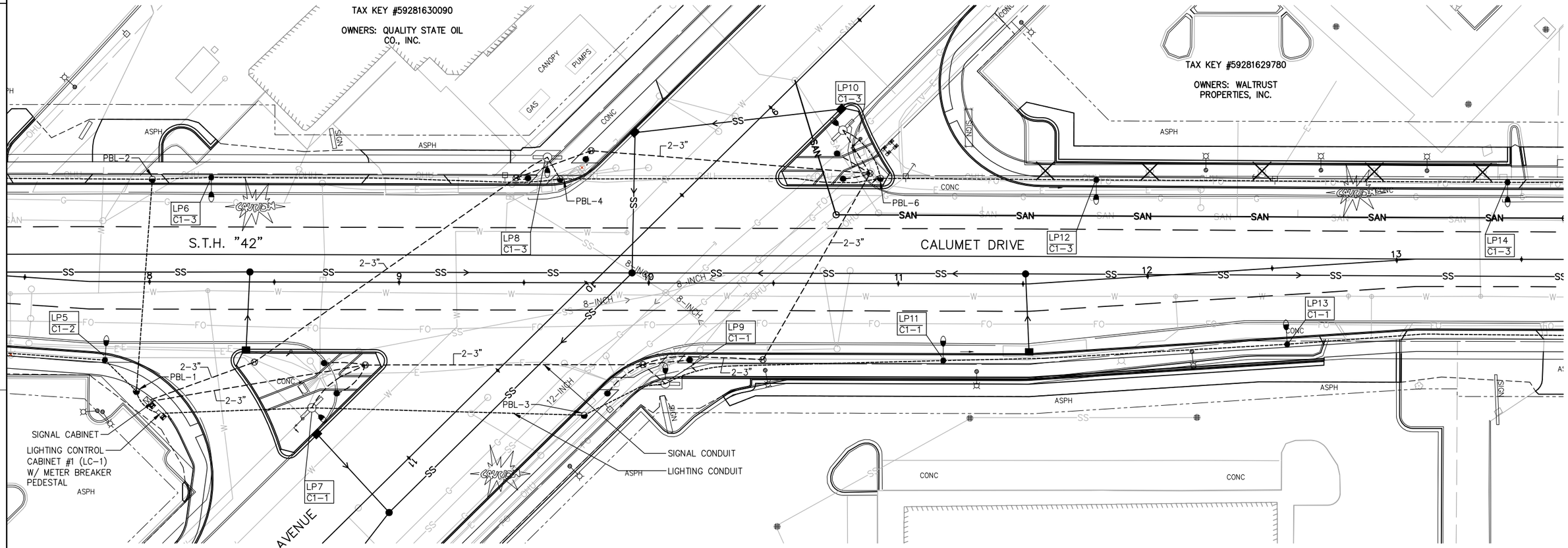
LEGEND:

- LUMINAIRE, ARM, 30–FT POLE, TYPE 2 BASE SPECIAL
- PBL–3 — LIGHTING PULL BOX
- METER BREAKER PEDESTAL
- LIGHTING CONTROL CABINET
- ----- CONDUIT; ALL CONDUIT IS 2–INCH UNLESS OTHERWISE NOTED
- LP1 / C1–2 — LIGHT POLE # / LIGHTING CONTROL CABINET # – CIRCUIT #

SHEET 1 of 5

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STREET LIGHTING	SHEET: 60	E

2



20 10 0 20
SCALE – FEET

NORTH

NOTES:
ALL CONDUIT FOR STREET LIGHTING AND TRAFFIC SIGNAL INTERCONNECT IS 2-INCH.

CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

THE DISTANCE FROM BACK OF CURB TO NEAREST EDGE OF THE TYPE 5 BASE SHALL BE 2-FT.

LEGEND:

- LUMINAIRE, ARM, 30-FT POLE, TYPE 2 BASE SPECIAL
- TRAFFIC SIGNAL, STANDARD 15-FT. WITH TYPE 1 BASE (SB1, SB3, SB5, SB7)
- TYPE 13 POLE WITH MONOTUBE ARM TYPE 13 BASE (LP7, LP8, LP9, LP10) AND LUMINAIRE POWERED FROM LIGHTING CABINET
- TRAFFIC SIGNAL PULL BOX
- PBL-3 LIGHTING PULL BOX
- TRAFFIC SIGNAL CONTROL CABINET
- METER BREAKER PEDESTAL
- LIGHTING CONTROL CABINET
- CONDUIT; ALL CONDUIT IS 2-INCH UNLESS OTHERWISE NOTED
- SIGNAL CONDUIT
- LP11 / C1-1 LIGHT POLE # / LIGHTING CONTROL CABINET # – CIRCUIT #

SHEET 2 of 5

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STREET LIGHTING	SHEET: 61	E

cschuh, W:\PROJECTS\W0059\820107\00\02-Street Lighting\02 STREET LIGHTING.dwg, layout1, Plot Date: 10/3/2016 1:35 PM, xrefs: (x-proposed, x-existing, x-existing right of way, x-street lighting and interconnect)

2

TAX KEY #59281629740

OWNERS: ANIMAL CLINIC BUILDING, INC.

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK WISCONSIN, NATIONAL ASSOCIATION

S.T.H. "42"

CALUMET DRIVE

LP14 C1–3

LP15 C1–1

LP16 C1–3

LP17 C1–1

LP18 C2–3

LP19 C2–1

LP20 C2–3

13 14 15 16 17 18 19

TAX KEY #59281630482

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630480

OWNERS: LIGHTHOUSE LUBE REAL ESTATE, LLC, A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630481

OWNERS: NETT PROPERTIES, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630478

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

20 10 0 20

SCALE – FEET

NORTH

NOTES:
ALL CONDUIT FOR STREET LIGHTING AND TRAFFIC SIGNAL INTERCONNECT IS 2–INCH.

CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

THE DISTANCE FROM BACK OF CURB TO NEAREST EDGE OF THE TYPE 5 BASE SHALL BE 2–FT.

LEGEND:

- LUMINAIRE, ARM, 30–FT POLE, TYPE 2 BASE SPECIAL
- PBL–3 LIGHTING PULL BOX
- METER BREAKER PEDESTAL
- LIGHTING CONTROL CABINET
- ----- CONDUIT; ALL CONDUIT IS 2–INCH UNLESS OTHERWISE NOTED
- LP15 / C1–1 LIGHT POLE # / LIGHTING CONTROL CABINET # – CIRCUIT #

SHEET 3 of 5

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STREET LIGHTING	SHEET: 62	E

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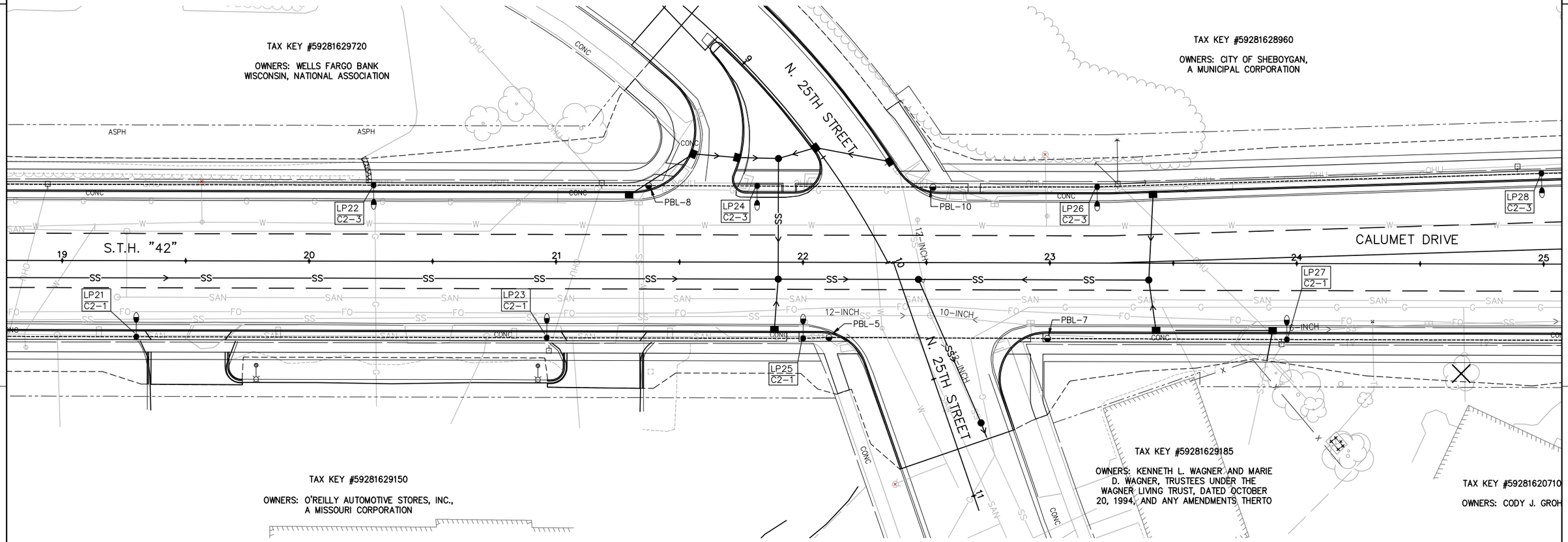
2



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SCALE – FEET

NORTH

NOTES:
ALL CONDUIT FOR STREET LIGHTING AND TRAFFIC SIGNAL INTERCONNECT IS 2-INCH.

CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

THE DISTANCE FROM BACK OF CURB TO NEAREST EDGE OF THE TYPE 5 BASE SHALL BE 2-FT.

LEGEND:

- LUMINAIRE, ARM, 30-FT POLE, TYPE 2 BASE SPECIAL
- PBL-3 — LIGHTING PULL BOX
- METER BREAKER PEDESTAL
- LIGHTING CONTROL CABINET
- ----- CONDUIT; ALL CONDUIT IS 2-INCH UNLESS OTHERWISE NOTED
- LP24 / C2-3 — LIGHT POLE # / LIGHTING CONTROL CABINET # – CIRCUIT #

SHEET 4 of 5

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STREET LIGHTING	SHEET: 63	E

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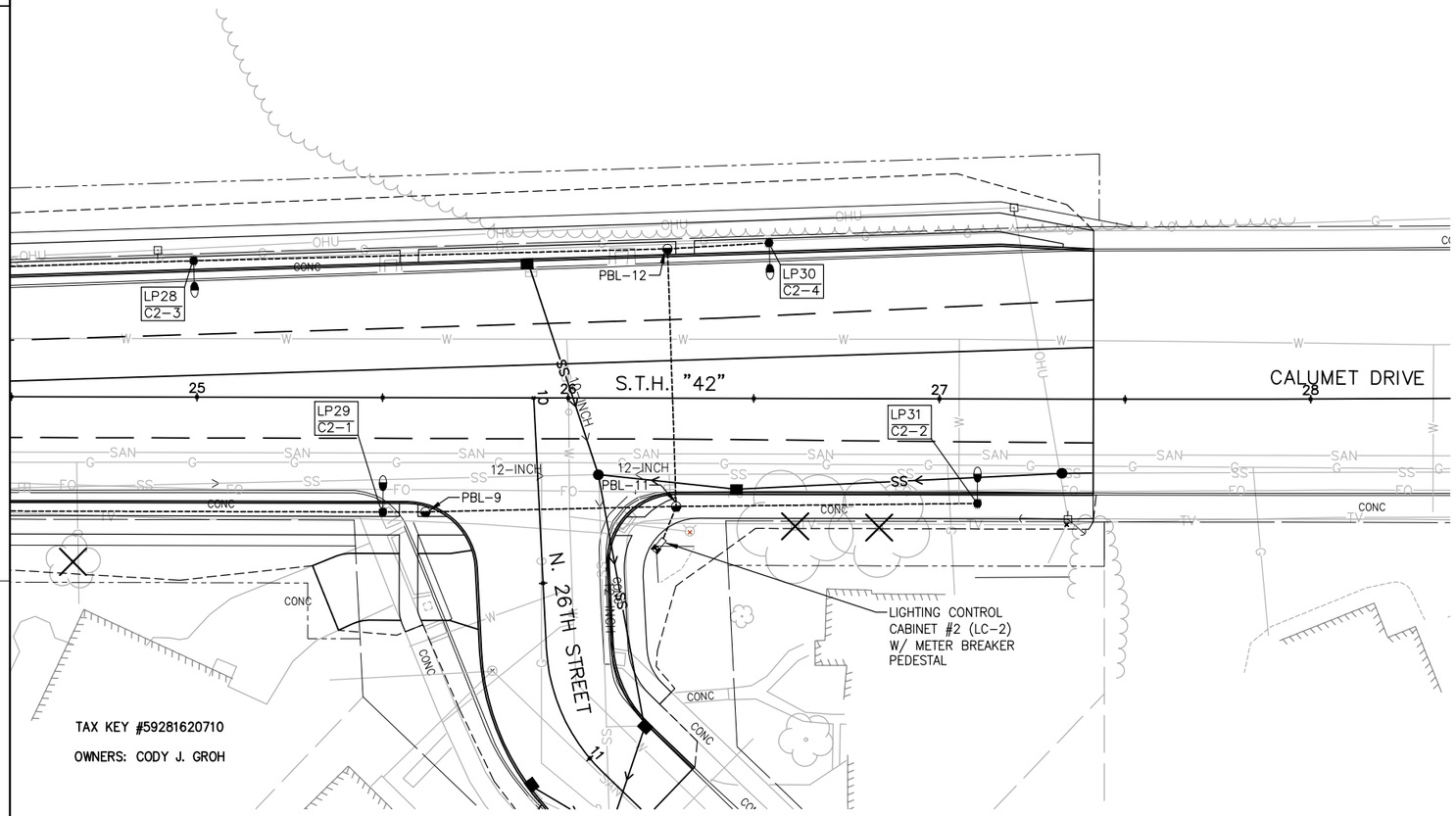
2



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SCALE – FEET

NORTH

NOTES:
ALL CONDUIT FOR STREET LIGHTING AND TRAFFIC SIGNAL INTERCONNECT IS 2-INCH.

CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30".

THE DISTANCE FROM BACK OF CURB TO NEAREST EDGE OF THE TYPE 5 BASE SHALL BE 2-FT.

LEGEND:

- LUMINAIRE, ARM, 30-FT POLE, TYPE 2 BASE SPECIAL
- PBL-3 LIGHTING PULL BOX
- METER BREAKER PEDESTAL
- LIGHTING CONTROL CABINET
- CONDUIT; ALL CONDUIT IS 2-INCH UNLESS OTHERWISE NOTED
- LP31 / C2-2 LIGHT POLE # / LIGHTING CONTROL CABINET # – CIRCUIT #

SHEET 5 of 5

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	STREET LIGHTING	SHEET: 64	E

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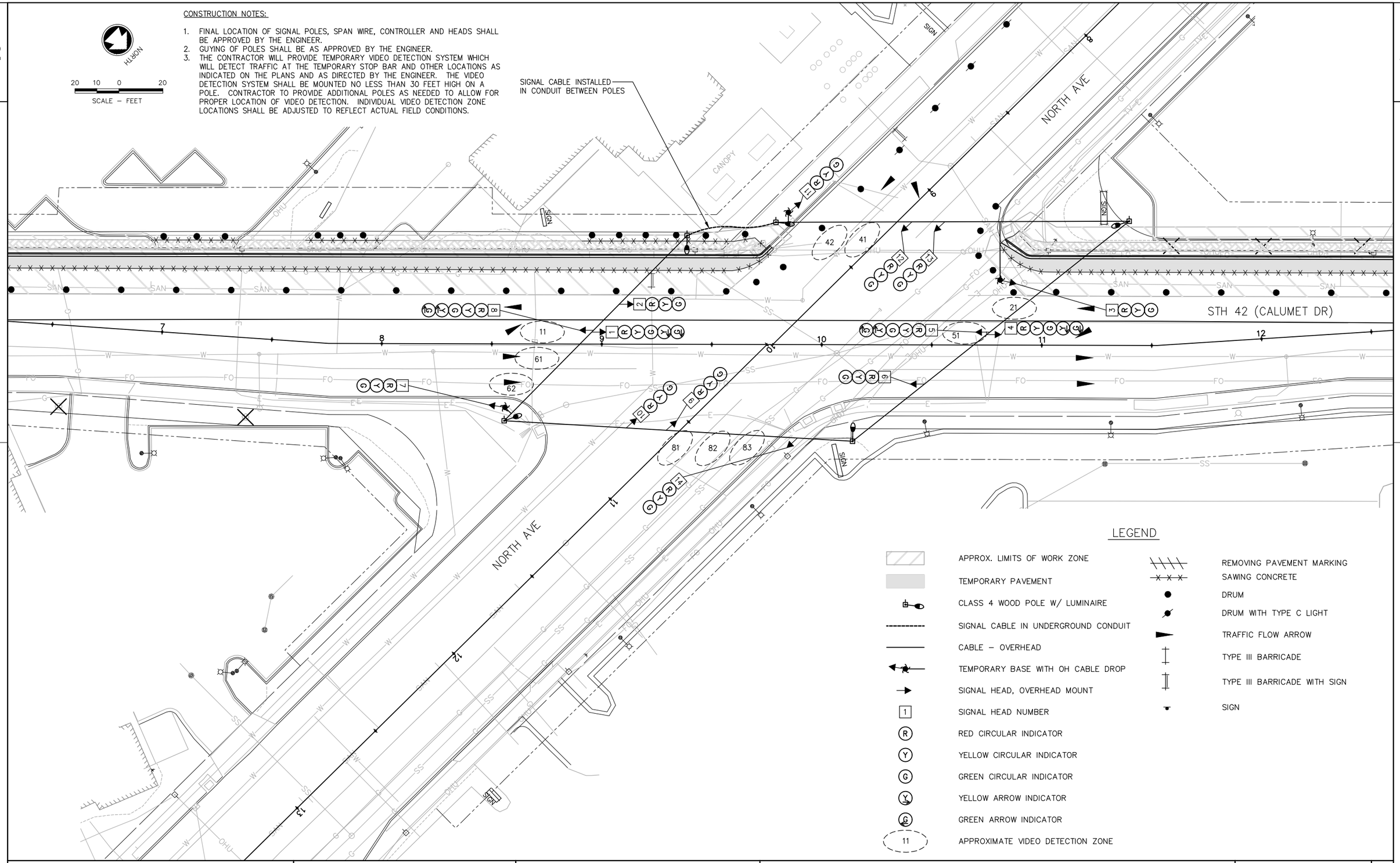
2

CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER AND HEADS SHALL BE APPROVED BY THE ENGINEER.
2. GUYING OF POLES SHALL BE AS APPROVED BY THE ENGINEER.
3. THE CONTRACTOR WILL PROVIDE TEMPORARY VIDEO DETECTION SYSTEM WHICH WILL DETECT TRAFFIC AT THE TEMPORARY STOP BAR AND OTHER LOCATIONS AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED NO LESS THAN 30 FEET HIGH ON A POLE. CONTRACTOR TO PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VIDEO DETECTION. INDIVIDUAL VIDEO DETECTION ZONE LOCATIONS SHALL BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.



LEGEND

- APPROX. LIMITS OF WORK ZONE
- TEMPORARY PAVEMENT
- CLASS 4 WOOD POLE W/ LUMINAIRE
- SIGNAL CABLE IN UNDERGROUND CONDUIT
- CABLE – OVERHEAD
- TEMPORARY BASE WITH OH CABLE DROP
- SIGNAL HEAD, OVERHEAD MOUNT
- 1 SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW INDICATOR
- (G) GREEN ARROW INDICATOR
- 11 APPROXIMATE VIDEO DETECTION ZONE
- REMOVING PAVEMENT MARKING
- SAWING CONCRETE
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SIGNAL PLAN – STAGE 1	SHEET: 65	E

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SEQUENCE OF OPERATION

RING 1

PHASE	HEAD NUMBERS	#1 R/W	#1 CLEAR TO * *	#1	#1	#2 R/W	#2 CLEAR TO * *	#2	#2	#3 R/W	#3 CLEAR TO * *	#3	#3	#4 R/W	#4 CLEAR TO * *	#4	#4	FLASH
1	5, 8	G	Y	R		–	–	–						–	–	–		R
2	1, 2, 3, 4	R	R	R		G	Y	R						R	R	R		R
4	9, 1Ø, 11	R	R	R		R	R	R						G	Y	R		R
5	1, 4	–	–	–		–	–	–						–	–	–		R
6	5, 6, 7, 8	R	R	R		R	R	R						R	R	R		R
8	12, 13, 14	R	R	R		R	R	R						R	R	R		R

RING 2

PHASE	HEAD NUMBERS	#5 R/W	#5 CLEAR TO * *	#5	#5	#6 R/W	#6 CLEAR TO * *	#6	#6	#7 R/W	#7 CLEAR TO * *	#7	#7	#8 R/W	#8 CLEAR TO * *	#8	#8
1	5, 8	–	–	–		–	–	–						–	–	–	
2	1, 2, 3, 4	R	R	R		R	R	R						R	R	R	
4	9, 1Ø, 11	R	R	R		R	R	R						R	R	R	
5	1, 4	G	Y	R		–	–	–						–	–	–	
6	5, 6, 7, 8	R	R	R		G	Y	R						R	R	R	
8	12, 13, 14	R	R	R		R	R	R						G	Y	R	

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. WHEN OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1					
21	2	X			2	2					
41	3	X			4	4					
42	4	X			4	4					
51	5	X			5	5					
61	6	X			6	6					
62	7	X			6	6					
81	8	X			8	8					
82	9	X			8	8					
83	9	X			8	8		X			

TYPE OF INTERCONNECT	
NONE	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
HARDWIRE	
TONE (FREQ)	
SIGNAL SYSTEM:	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	X
IN SEPARATE CONTROL CABINET	

CONTROLLER LOGIC

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

OVERLAPS

NONE

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE

CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. TEMP REV.

CONTROLLER TYPE: EPAC

DATE:

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SEQUENCE OF OPERATIONS – STAGE 1	SHEET: 66	E

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NORTH

20 10 0 20

SCALE – FEET

CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER AND HEADS SHALL BE APPROVED BY THE ENGINEER.
2. GUYING OF POLES SHALL BE AS APPROVED BY THE ENGINEER.
3. THE CONTRACTOR WILL PROVIDE TEMPORARY VIDEO DETECTION SYSTEM WHICH WILL DETECT TRAFFIC AT THE TEMPORARY STOP BAR AND OTHER LOCATIONS AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED NO LESS THAN 30 FEET HIGH ON A POLE. CONTRACTOR TO PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VIDEO DETECTION. INDIVIDUAL VIDEO DETECTION ZONE LOCATIONS SHALL BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.

SIGNAL CABLE INSTALLED IN CONDUIT BETWEEN POLES

R3-2
24" X 24"

R3-1
24" X 24"

R3-1
24" X 24"

R3-2
24" X 24"

NORTH AVE

NORTH AVE

STH 42 (CALUMET DR)

LEGEND

APPROX. LIMITS OF WORK ZONE	REMOVING PAVEMENT MARKING
TEMPORARY PAVEMENT	SAWING CONCRETE
CLASS 4 WOOD POLE W/ LUMINAIRE	DRUM
SIGNAL CABLE IN UNDERGROUND CONDUIT	DRUM WITH TYPE C LIGHT
CABLE – OVERHEAD	TRAFFIC FLOW ARROW
TEMPORARY BASE WITH OH CABLE DROP	TYPE III BARRICADE
SIGNAL HEAD, OVERHEAD MOUNT	TYPE III BARRICADE WITH SIGN
1 SIGNAL HEAD NUMBER	SIGN
(R) RED CIRCULAR INDICATOR	
(Y) YELLOW CIRCULAR INDICATOR	
(G) GREEN CIRCULAR INDICATOR	
(Y) YELLOW ARROW INDICATOR	
(G) GREEN ARROW INDICATOR	
11 APPROXIMATE VIDEO DETECTION ZONE	

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SIGNAL PLAN – STAGE 2	SHEET: 67	E

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CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER AND HEADS SHALL BE APPROVED BY THE ENGINEER.
2. GUYING OF POLES SHALL BE AS APPROVED BY THE ENGINEER.
3. THE CONTRACTOR WILL PROVIDE TEMPORARY VIDEO DETECTION SYSTEM WHICH WILL DETECT TRAFFIC AT THE TEMPORARY STOP BAR AND OTHER LOCATIONS AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED NO LESS THAN 30 FEET HIGH ON A POLE. CONTRACTOR TO PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VIDEO DETECTION. INDIVIDUAL VIDEO DETECTION ZONE LOCATIONS SHALL BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.

NORTH

20 10 0 20

SCALE – FEET

SIGNAL CABLE INSTALLED IN CONDUIT BETWEEN POLES

R3-2
24" X 24"

R3-1
24" X 24"

NORTH AVE

STH 42 (CALUMET DR)

R3-1
24" X 24"

R3-2
24" X 24"

LEGEND

- APPROX. LIMITS OF WORK ZONE
- TEMPORARY PAVEMENT
- CLASS 4 WOOD POLE W/ LUMINAIRE
- SIGNAL CABLE IN UNDERGROUND CONDUIT
- CABLE – OVERHEAD
- TEMPORARY BASE WITH OH CABLE DROP
- SIGNAL HEAD, OVERHEAD MOUNT
- 1 SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW INDICATOR
- (G) GREEN ARROW INDICATOR
- 11 APPROXIMATE VIDEO DETECTION ZONE
- REMOVING PAVEMENT MARKING
- SAWING CONCRETE
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SIGNAL PLAN – STAGE 2A	SHEET: 68	E

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SEQUENCE OF OPERATION

RING 1

PHASE	HEAD NUMBERS	#1 NOT USED R/W	#1 CLEAR TO * *	#2 ← R/W	#2 CLEAR TO * *	#3 NOT USED R/W	#3 CLEAR TO * *	#4 ↓ R/W	#4 CLEAR TO * *	FLASH
2	1, 2, 3			G	Y R			R	R R	R
4	7, 8, 9			R	R R			G	Y R	R
6	4, 5, 6			R	R R			R	R R	R
8	1Ø, 11, 12			R	R R			R	R R	R

RING 2

PHASE	HEAD NUMBERS	#5 NOT USED R/W	#5 CLEAR TO * *	#6 → R/W	#6 CLEAR TO * *	#7 NOT USED R/W	#7 CLEAR TO * *	#8 ↑ R/W	#8 CLEAR TO * *
2	1, 2, 3			R	R R			R	R R
4	7, 8, 9			R	R R			R	R R
6	4, 5, 6			G	Y R			R	R R
8	1Ø, 11, 12			R	R R			G	Y R

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. WHEN OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
2	6	4, 8
4	8	2, 6
6	2	4, 8
8	4	2, 6

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21	1	X			2	2					
41	2	X			4	4					
61	3	X			6	6					
81	4	X			8	8					

TYPE OF INTERCONNECT	
NONE	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
HARDWIRE	
TONE (FREQ)	
SIGNAL SYSTEM:	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	X
IN SEPARATE CONTROL CABINET	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
2			MIN	YES
4		8		YES
6			MIN	YES
8		4		YES

OVERLAPS

NONE

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE

CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. TEMP REV.

CONTROLLER TYPE: EPAC

DATE:

PROJECT NO: 4630-05-71 | HWY: STH 42 (CALUMET DRIVE) | COUNTY: SHEBOYGAN | TEMPORARY SEQUENCE OF OPERATIONS – STAGE 2 & 2A | SHEET: 69 | E

2

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2

NORTH

20 10 0 20

SCALE – FEET

CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER AND HEADS SHALL BE APPROVED BY THE ENGINEER.
2. GUYING OF POLES SHALL BE AS APPROVED BY THE ENGINEER.
3. THE CONTRACTOR WILL PROVIDE TEMPORARY VIDEO DETECTION SYSTEM WHICH WILL DETECT TRAFFIC AT THE TEMPORARY STOP BAR AND OTHER LOCATIONS AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED NO LESS THAN 30 FEET HIGH ON A POLE. CONTRACTOR TO PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VIDEO DETECTION. INDIVIDUAL VIDEO DETECTION ZONE LOCATIONS SHALL BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.

SIGNAL CABLE INSTALLED IN CONDUIT BETWEEN POLES

NORTH AVE

STH 42 (CALUMET DR)

R3-2
24" X 24"

R3-1
24" X 24"

R3-2
24" X 24"

LEGEND

APPROX. LIMITS OF WORK ZONE	REMOVING PAVEMENT MARKING
TEMPORARY PAVEMENT	SAWING CONCRETE
CLASS 4 WOOD POLE W/ LUMINAIRE	DRUM
SIGNAL CABLE IN UNDERGROUND CONDUIT	DRUM WITH TYPE C LIGHT
CABLE – OVERHEAD	TRAFFIC FLOW ARROW
TEMPORARY BASE WITH OH CABLE DROP	TYPE III BARRICADE
SIGNAL HEAD, OVERHEAD MOUNT	TYPE III BARRICADE WITH SIGN
1 SIGNAL HEAD NUMBER	SIGN
(R) RED CIRCULAR INDICATOR	
(Y) YELLOW CIRCULAR INDICATOR	
(G) GREEN CIRCULAR INDICATOR	
(Y) YELLOW ARROW INDICATOR	
(G) GREEN ARROW INDICATOR	
11 APPROXIMATE VIDEO DETECTION ZONE	

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SIGNAL PLAN – STAGE 3	SHEET: 70	E

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SEQUENCE OF OPERATION

RING 1

PHASE	HEAD NUMBERS	#1 R/W	#1 CLEAR TO * *	#1	#1	#1	#2 R/W	#2 CLEAR TO * *	#2	#2	#2	#3 R/W	#3 CLEAR TO * *	#3	#3	#3	#4 R/W	#4 CLEAR TO * *	#4	#4	#4	FLASH
1	5, 8	G	Y	R			–	–	–								–	–	–			R
2	1, 2, 3, 4	R	R	R			G	Y	R								R	R	R			R
4	9, 1Ø, 11	R	R	R			R	R	R								G	Y	R			R
5	1, 4	–	–	–			–	–	–								–	–	–			R
6	5, 6, 7, 8	R	R	R			R	R	R								R	R	R			R
8	12, 13, 14	R	R	R			R	R	R								R	R	R			R

RING 2

PHASE	HEAD NUMBERS	#5 R/W	#5 CLEAR TO * *	#5	#5	#5	#6 R/W	#6 CLEAR TO * *	#6	#6	#6	#7 R/W	#7 CLEAR TO * *	#7	#7	#7	#8 R/W	#8 CLEAR TO * *	#8	#8	#8
1	5, 8	–	–	–			–	–	–								–	–	–		
2	1, 2, 3, 4	R	R	R			R	R	R								R	R	R		
4	9, 1Ø, 11	R	R	R			R	R	R								R	R	R		
5	1, 4	G	Y	R			–	–	–								–	–	–		
6	5, 6, 7, 8	R	R	R			G	Y	R								R	R	R		
8	12, 13, 14	R	R	R			R	R	R								G	Y	R		

NOT USED

NOT USED

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. WHEN OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1					
21	2	X			2	2					
41	3	X			4	4					
51	4	X			5	5					
61	5	X			6	6					
81	6	X			8	8					

TYPE OF INTERCONNECT	
NONE	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
HARDWIRE	
TONE (FREQ)	
SIGNAL SYSTEM:	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	X
IN SEPARATE CONTROL CABINET	

CONTROLLER LOGIC

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

OVERLAPS

NONE

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE

CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. TEMP REV.

CONTROLLER TYPE: EPAC

DATE:

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SEQUENCE OF OPERATIONS – STAGE 3	SHEET: 71	E

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CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SPAN WIRE, CONTROLLER AND HEADS SHALL BE APPROVED BY THE ENGINEER.
2. GUYING OF POLES SHALL BE AS APPROVED BY THE ENGINEER.
3. THE CONTRACTOR WILL PROVIDE TEMPORARY VIDEO DETECTION SYSTEM WHICH WILL DETECT TRAFFIC AT THE TEMPORARY STOP BAR AND OTHER LOCATIONS AS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED NO LESS THAN 30 FEET HIGH ON A POLE. CONTRACTOR TO PROVIDE ADDITIONAL POLES AS NEEDED TO ALLOW FOR PROPER LOCATION OF VIDEO DETECTION. INDIVIDUAL VIDEO DETECTION ZONE LOCATIONS SHALL BE ADJUSTED TO REFLECT ACTUAL FIELD CONDITIONS.

NORTH

20 10 0 20

SCALE – FEET

SIGNAL CABLE INSTALLED IN CONDUIT BETWEEN POLES

R3-2
24" X 24"

STH 42 (CALUMET DR.)

NOFTH AVE

NORTH AVE

R3-1
24" X 24"

R3-2
24" X 24"

LEGEND

APPROX. LIMITS OF WORK ZONE	REMOVING PAVEMENT MARKING
TEMPORARY PAVEMENT	SAWING CONCRETE
CLASS 4 WOOD POLE W/ LUMINAIRE	DRUM
SIGNAL CABLE IN UNDERGROUND CONDUIT	DRUM WITH TYPE C LIGHT
CABLE – OVERHEAD	TRAFFIC FLOW ARROW
TEMPORARY BASE WITH OH CABLE DROP	TYPE III BARRICADE
SIGNAL HEAD, OVERHEAD MOUNT	TYPE III BARRICADE WITH SIGN
1 SIGNAL HEAD NUMBER	SIGN
R RED CIRCULAR INDICATOR	
Y YELLOW CIRCULAR INDICATOR	
G GREEN CIRCULAR INDICATOR	
Y YELLOW ARROW INDICATOR	
G GREEN ARROW INDICATOR	
11 APPROXIMATE VIDEO DETECTION ZONE	

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SIGNAL PLAN – STAGE 3A	SHEET: 72	E

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SEQUENCE OF OPERATION

NOT USED

RING 1 PHASE	HEAD NUMBERS	#1 R/W	#1 CLEAR TO * *	#2 R/W	#2 CLEAR TO * *	#3 R/W	#3 CLEAR TO * *	#4 R/W	#4 CLEAR TO * *	FLASH
1	5, 8	G	Y R	–	– –			–	– –	R
2	1, 2, 3, 4	R	R R	G	Y R			R	R R	R
4	9, 10, 11	R	R R	R	R R			G	Y R	R
5	1, 4	–	– –	–	– –			–	– –	R
6	5, 6, 7, 8	R	R R	R	R R			R	R R	R
8	12, 13, 14	R	R R	R	R R			R	R R	R

NOT USED

RING 2 PHASE	HEAD NUMBERS	#5 R/W	#5 CLEAR TO * *	#6 R/W	#6 CLEAR TO * *	#7 R/W	#7 CLEAR TO * *	#8 R/W	#8 CLEAR TO * *
1	5, 8	–	– –	–	– –			–	– –
2	1, 2, 3, 4	R	R R	R	R R			R	R R
4	9, 10, 11	R	R R	R	R R			R	R R
5	1, 4	G	Y R	–	– –			–	– –
6	5, 6, 7, 8	R	R R	G	Y R			R	R R
8	12, 13, 14	R	R R	R	R R			G	Y R

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON-CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. WHEN OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.

CHART 1

PHASE ON	NON-CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 4, 8
2	5 OR 6	1, 4, 8
4	8	1, 2, 5, 6
5	1 OR 2	4, 6, 8
6	1 OR 2	4, 5, 8
8	4	1, 2, 5, 6

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1					
21	2	X			2	2					
41	3	X			4	4					
51	4	X			5	5					
61	5	X			6	6					
81	6	X			8	8					
82	7	X			8	8		X			

TYPE OF INTERCONNECT	
NONE	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
HARDWIRE	
TONE (FREQ)	
SIGNAL SYSTEM:	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	X
IN SEPARATE CONTROL CABINET	

CONTROLLER LOGIC

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

OVERLAPS

NONE

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE

CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. TEMP REV.

CONTROLLER TYPE: EPAC

DATE:

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TEMPORARY SEQUENCE OF OPERATIONS – STAGE 3A	SHEET: 73	E

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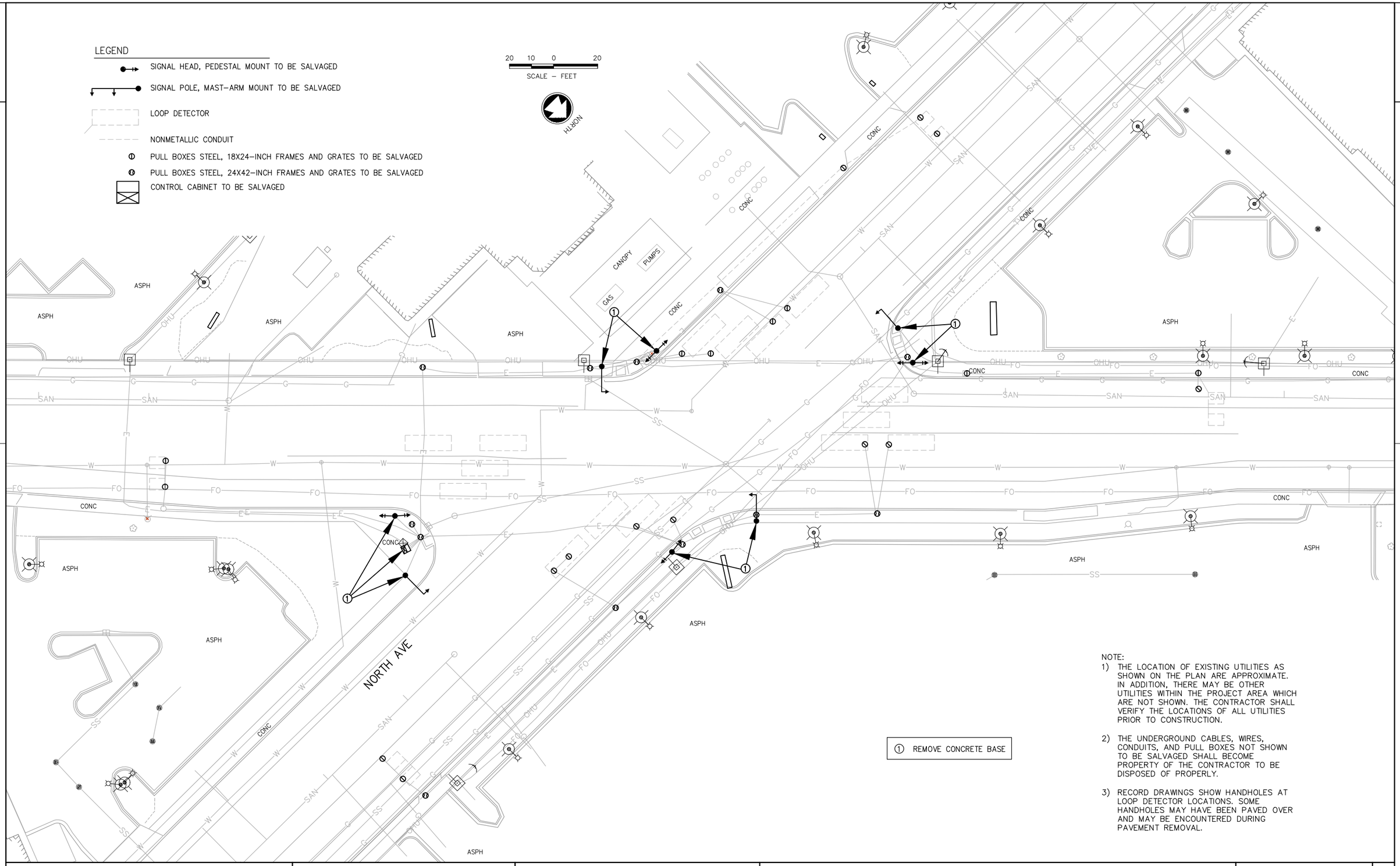
2

LEGEND

- SIGNAL HEAD, PEDESTAL MOUNT TO BE SALVAGED
- SIGNAL POLE, MAST-ARM MOUNT TO BE SALVAGED
- LOOP DETECTOR
- NONMETALLIC CONDUIT
- PULL BOXES STEEL, 18X24-INCH FRAMES AND GRATES TO BE SALVAGED
- PULL BOXES STEEL, 24X42-INCH FRAMES AND GRATES TO BE SALVAGED
- CONTROL CABINET TO BE SALVAGED

20 10 0 20
SCALE – FEET

NORTH



① REMOVE CONCRETE BASE

NOTE:
1) THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

2) THE UNDERGROUND CABLES, WIRES, CONDUITS, AND PULL BOXES NOT SHOWN TO BE SALVAGED SHALL BECOME PROPERTY OF THE CONTRACTOR TO BE DISPOSED OF PROPERLY.

3) RECORD DRAWINGS SHOW HANDHOLES AT LOOP DETECTOR LOCATIONS. SOME HANDHOLES MAY HAVE BEEN PAVED OVER AND MAY BE ENCOUNTERED DURING PAVEMENT REMOVAL.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	REMOVE AND SALVAGE TRAFFIC SIGNALS	SHEET: 74	E

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MOUNTING CONFIGURATION WITH HEAD NUMBER				
PROPOSED SIGNAL FACES				
3-V	4-VLP	5-VL	5-VR	
R Y G	R SY FY G	R Y G Y G	R Y G Y G	PH2-1 PH2-2 PH4-1 PH4-2 PH6-1 PH6-2 PH8-1 PH8-2
3, 4, 5 8, 9, 10 13, 14, 15 18	1, 2 6, 7 11, 12	16, 17	19, 20	
NOTE: ALL LENSES ARE 12-INCHES LED				

20 10 0 20
SCALE – FEET

HUMON

STRUCTURE NUMBERS
SB8 – STRUCTURE NUMBER S-59-0073
SB2 – STRUCTURE NUMBER S-59-0074
SB10 – STRUCTURE NUMBER S-59-0075
SB4 – STRUCTURE NUMBER S-59-0076
NO ID PLAQUES REQUIRED

LEFT TURN YIELD ON GREEN

TAX KEY #59281629780
OWNERS: WALTRUST PROPERTIES, INC.

POSTED SPEED LIMIT = 25 MPH
180' FROM DETECTION ZONE TO NEAR SIGNAL

S.T.H. "42"

CALUMET DRIVE

NORTH AVENUE

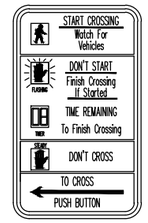
SIGNAL CONDUIT 2-3"

SIGNAL CABINET
LIGHTING CONTROL CABINET #1 (LC-1)

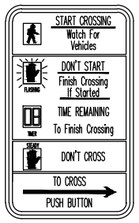
LIGHTING CONDUIT

281630220
LLC, A WISCONSIN
Y COMPANY

NOTE:
DETECTION ZONES 31 AND 32 TO BE AIMED AS NEAR AS POSSIBLE TO THE END OF RADIUS AT 21ST ST



SB1
SB5
SB7
SB11



SB3
SB6
SB9
SB12

LEGEND

- SIGNAL HEAD, PEDESTAL MOUNT, TYPE 1 BASE (WITH BACK PLATE)
- 45' SIGNAL POLE, MONOTUBE-ARM, TYPE 13 BASE (WITH BACK PLATE)
- PEDESTRIAN HEAD WITH PUSHBUTTON, TYPE 1 BASE
- SIGNAL POLE, TYPE 13 BASE, LUMINAIRE POWERED OUT OF SEPARATE LIGHTING CABINET
- WALK/DON'T WALK INDICATOR, 16-INCH (COUNTDOWN TIMER)
- 3 SIGNAL HEAD NUMBER
- NONMETALLIC CONDUIT 2", UNLESS NOTED OTHERWISE
- PULL BOXES STEEL, 12x24-INCH
- PULL BOXES STEEL, 24x42-INCH
- SIGNAL CONTROL CABINET
- LANE DESIGNATION FOR REFERENCE ONLY
- EVP DETECTOR HEAD (MOUNTED ON MONOTUBE ARM)
- VIDEO DETECTION CAMERA (MOUNTED ON TYPE 13 POLE)*
- METER BREAKER PEDESTAL
- C EVP DETECTOR NUMBER
- VDC1 VIDEO DETECTION CAMERA NUMBER
- 11 APPROXIMATE VIDEO DETECTION ZONE

* VDC 4 TO BE VIDEO / RADAR HYBRID DETECTOR
VDC 1, 2, AND 3 TO BE VIDEO DETECTOR

TRAFFIC CONTROL SIGNAL
CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

CITY CONTACT: MIKE WILLMAS
DESIGNED BY: MCMAHON
REVISED BY:

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC SIGNAL PLAN	SHEET: 75	E

SEQUENCE OF OPERATION

RING 1

PHASE	HEAD NUMBERS	#1 R/W	#1 CLEAR TO *	*				#2 R/W	#2 CLEAR TO *	*				#3 R/W	#3 CLEAR TO *	*				#4 R/W	#4 CLEAR TO *	*				FLASH
1	6, 7	G	–	–				–	–	–				–	–	–				–	–	–				
2	3, 4, 5	R	R	R				G	Y	R				R	R	R				R	R	R				R
3	16, 17	R	R	R				R	R	R				G	Y	–				R	R	R				
4	13, 14, 15	R	R	R				R	R	R				R	R	R				G	Y	R				R
5	1, 2	–	–	–				–	–	–				–	–	–				–	–	–				
6	8, 9, 10	R	R	R				R	R	R				R	R	R				R	R	R				R
7	11, 12	–	–	–				–	–	–				–	–	–				–	–	–				
8	16,17,18,19,20	R	R	R				R	R	R				R	R	R				R	R	R				R
OL "A"	6, 7	–	Y	R				FY	Y	R				R	R	R				R	R	R				R
OL "C"	1, 2	R	R	R				R	R	R				R	R	R				R	R	R				R
OL "D"	11, 12	R	R	R				R	R	R				R	R	R				R	R	R				R
OL "E"	19, 2Ø	–	–	–				–	–	–				G	Y	–				–	–	–				
2P	PH2–1, PH2–2	D	D	D				*	D	D				D	D	D				D	D	D				
4P	PH4–1, PH4–2	D	D	D				D	D	D				D	D	D				*	D	D				
6P	PH6–1, PH6–2	D	D	D				D	D	D				D	D	D				D	D	D				
8P	PH8–1, PH8–2	D	D	D				D	D	D				D	D	D				D	D	D				

RING 2

PHASE	HEAD NUMBERS	#5 R/W	#5 CLEAR TO *	*				#6 R/W	#6 CLEAR TO *	*				#7 R/W	#7 CLEAR TO *	*				#8 R/W	#8 CLEAR TO *	*			
1	6, 7	–	–	–				–	–	–				–	–	–				–	–	–			
2	3, 4, 5	R	R	R				R	R	R				R	R	R				R	R	R			
3	16, 17	R	R	R				R	R	R				R	R	R				R	R	R			
4	13, 14, 15	R	R	R				R	R	R				R	R	R				R	R	R			
5	1, 2	G	–	–				–	–	–				–	–	–				–	–	–			
6	8, 9, 10	R	R	R				G	Y	R				R	R	R				R	R	R			
7	11, 12	–	–	–				–	–	–				G	–	–				–	–	–			
8	16,17,18,19,20	R	R	R				R	R	R				R	R	R				G	Y	R			
OL "A"	6, 7	R	R	R				R	R	R				R	R	R				R	R	R			
OL "C"	1, 2	–	Y	R				FY	Y	R				R	R	R				R	R	R			
OL "D"	11, 12	R	R	R				R	R	R				R	Y	R				FY	Y	R			
OL "E"	19, 2Ø	G	Y	–				–	–	–				–	–	–				–	–	–			
2P	PH2–1, PH2–2	D	D	D				D	D	D				D	D	D				D	D	D			
4P	PH4–1, PH4–2	D	D	D				D	D	D				D	D	D				D	D	D			
6P	PH6–1, PH6–2	D	D	D				*	D	D				D	D	D				D	D	D			
8P	PH8–1, PH8–2	D	D	D				D	D	D				D	D	D				*	D	D			

BARRIER

* WHEN CALLED TIMED STEADY WALK, FOLLOWED BY A FLASHING DON'T WALK, THEN STEADY DON'T WALK

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1 BELOW)

NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NON–CONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL (SEE CHART 1).
3. WHEN OPPOSING THRU PHASES ARE TIMED CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. VIDEO DETECTION LOCATIONS AND ZONE SIZES SHOWN ON THE PLANS ARE APPROXIMATE. FINAL LOCATIONS AND SIZES TO BE DETERMINED IN THE FIELD BY THE CITY OF SHEBOYGAN TRAFFIC DIVISION.

CHART 1

PHASE ON	NON–CONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2, 3, 4, 7, 8
2	5 OR 6	1, 3, 4, 7, 8
3	8	1, 2, 4, 5, 6, 7
4	7 OR 8	1, 2, 3, 5, 6
5	1 OR 2	3, 4, 6, 7, 8
6	1 OR 2	3, 4, 5, 7, 8
7	4	1, 2, 3, 5, 6, 8
8	3, 4	1, 2, 5, 6, 7

DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL NUMBER	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	APPROX SIZE	NUMBER OF TURNS
11		X			1	1				6x2Ø	
21		X			2	2				6x2Ø	
22				X		2			X	6x6	
23				X		2			X	6x6	
31			X		3			X		6x2Ø	
32			X		3			X		6x2Ø	
41		X			4	4				6x2Ø	
42		X			4	4				6x2Ø	
51		X			5	5				6x2Ø	
61		X			6	6				6x2Ø	
62				X		6			X	6x6	
63				X		6			X	6x6	
71		X			7	7				6x2Ø	
72		X			7	7				6x2Ø	
81		X			8	8				6x2Ø	
82		X			8	8				6x2Ø	
83		X			8	8				6x2Ø	
84		X			8	8				6x2Ø	
85		X			8	8		X		6x2Ø	
86		X			8	8		X		6x2Ø	

REFER TO NOTE #4 FOR DETECTOR LOCATION INFORMATION.

TYPE OF INTERCONNECT	
NONE	X
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	
HARDWIRE	
TONE (FREQ)	
SIGNAL SYSTEM:	

TYPE OF PRE–EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC CONTROL CABINET	
IN SEPARATE CONTROL CABINET	X

EMERGENCY VEHICLE PREEMPTION SEQUENCE				
EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT	←	→	↓	↑
PHASE	2 AND 5	1 AND 6	4 AND 7	3 AND 8

OVERLAPS

OL "E" = PHASE 3 AND 5

CONTROLLER LOGIC

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

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
OL "A"	1	2
OL "B"	–	–
OL "C"	5	6
OL "D"	7	8

CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. REV.

CONTROLLER TYPE: EPAC

DATE:

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PROJECT ID: 4630-05-71
INTERSECTION: CALUMET DR & NORTH AVE

SIGNAL WIRE COLOR CODING	BLK – BLACK	RED – RED	GRN – GREEN
	WHT – WHITE	BLU – BLUE	ORG – ORANGE

CB-1 TO	JUMPER	# OF COND.	HEAD NO.	PHASE	SIGNAL INDICATION WIRE COLOR								WALK	PED BUTTON
					RED	YELLOW	GREEN	<RED>	<YELLOW> SOLID	<YELLOW> FLASHING	<GREEN>	D/WALK		
SB1		7	PH4-2	4P								BLK	BLU	
			4B	4P										WHT/BLK
SB2		15	2	5				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			3	2	RED	ORG	GRN							
			4	2	RED/BLK	ORG/BLK	GRN/BLK							
SB3		15	15	4	RED	ORG	GRN							
			16	3,8	RED/BLK	ORG/BLK	GRN/BLK		ORG/RED		GRN/WHT			
			PH2-1	2P								BLK	BLU	
			2B	2P										WHT/BLK
SB4		21	17	3,8	RED/BLK	ORG/BLK	GRN/BLK		ORG/RED		GRN/WHT			
			18	8	RED	ORG	GRN							
			19	8	RED/WHT	ORG/RED	RED/GRN		ORG/GRN		WHT/RED			
SB5		7	PH2-2	2P								BLK	BLU	
			2B	2P										WHT/BLK
SB6		15	5	2	RED	ORG	GRN							
			6	1				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			PH8-1	8P								BLK	BLU	
			8B	8P										WHT/BLK
SB7		7	PH8-2	8P								BLK	BLU	
			8B	8P										WHT/BLK
SB8		15	7	1				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			8	6	RED	ORG	GRN							
			9	6	RED/BLK	ORG/BLK	GRN/BLK							
SB9		21	11	7				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			20	8	RED	ORG	GRN		ORG/BLK		GRN/BLK			
			PH6-1	6P								BLK	BLU	
			6B	6P										WHT/BLK
SB10		15	12	7				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			13	4	RED	ORG	GRN							
			14	4	RED/BLK	ORG/BLK	GRN/BLK							
SB11		7	PH6-2	6P								BLK	BLU	
			6B	6P										WHT/BLK
SB12		15	1	5				RED/WHT	ORG/RED	BLU/RED	GRN/WHT			
			10	6	RED	ORG	GRN							
			PH4-1	4P								BLK	BLU	
			4B	4P										WHT/BLK

NOTES:
1. USE THE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 12" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSHBUTTONS TO THE COLOR INDICATED IN THE CHART, CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GREEN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	CB1

PULL BOX BONDING JUMPER 10 AWG GREEN XLP	
FROM	TO
PB1	CB1
PB2	SB1
PB3	SB3
PB4	SB6
PB5	SB8
PB6	SB8
PB7	SB11

EMERGENCY VEHICLE PREEPMPTION CABLE	
FROM	TO
CB1	SB2
SB2	HEAD A
CB1	SB8
SB8	HEAD B
CB1	SB10
SB10	HEAD C
CB1	SB4
SB4	HEAD D

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB2
SB2	VDC1
CB1	SB8
SB8	VDC2
CB1	SB10
SB10	VDC3
CB1	SB4
SB4	VDC4

TRAFFIC CONTROL SIGNAL
CALUMET DRIVE & NORTH AVENUE
CITY OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. CONTROLLER TYPE: EPAC

CITY CONTACT: MIKE WILLMAS
DESIGNED BY: MCMAHON
REVISED BY:

cschuh, W:\PROJECTS\W0059\820107\00\02-Signals\03 CABLE ROUTING.dwg, 09 cable routing - walnut street, Plot Date: 10/3/2016 9:18 AM, xrefs:none

2

LEGEND

A	PAVEMENT MARKING, EPOXY, 4–INCH, (YELLOW)	H	PAVT MARKING, WORDS,, BIKE LANE, EPOXY (WHITE)
B	PAVEMENT MARKING, EPOXY, 4–INCH, (WHITE)	I	PAVT MARKING, ARROWS BIKE LANE, EPOXY (WHITE)
C	PAVT MARKING, DIAGONAL, EPOXY, 12–INCH (YELLOW)	J	PAVT MARKING, SYMBOLS BIKE LANE, EPOXY (WHITE)
D	PAVEMENT MARKING, WORDS, EPOXY (WHITE)	K	PAVT MARKING, EPOXY, 8–INCH (WHITE)
E	PAVEMENT MARKING, CROSSWALK, EPOXY, 6–INCH (WHITE)	L	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
F	PAVEMENT MARKING, STOP LINE, EPOXY, 12–INCH (WHITE)	M	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
G	PAVEMENT MARKING, ISLAND NOSE, EPOXY (YELLOW)	N	PAVT MARKING, EPOXY, 8–INCH (YELLOW)

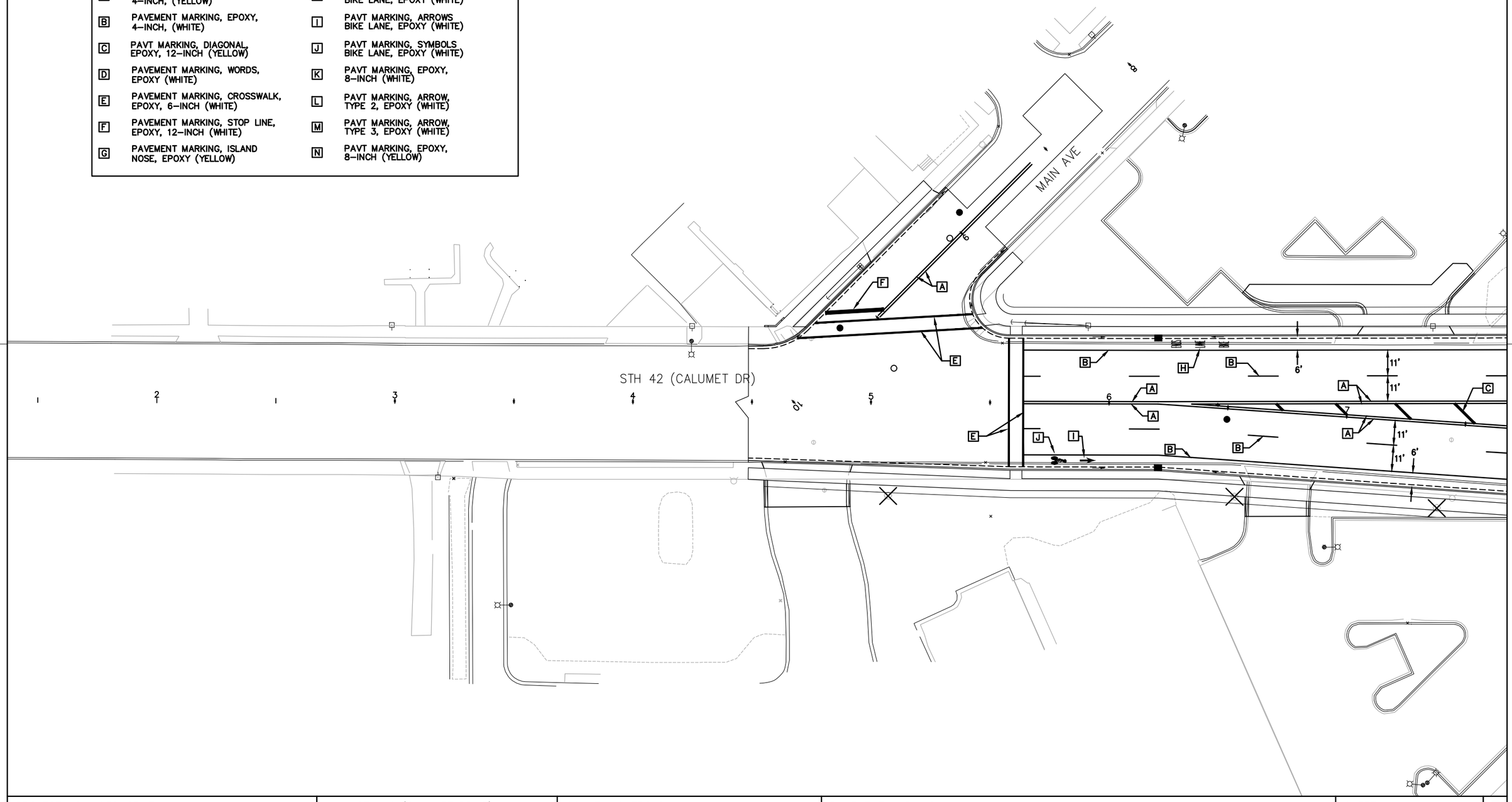
NORTH

20 10 0 20

SCALE – FEET

NOTE:

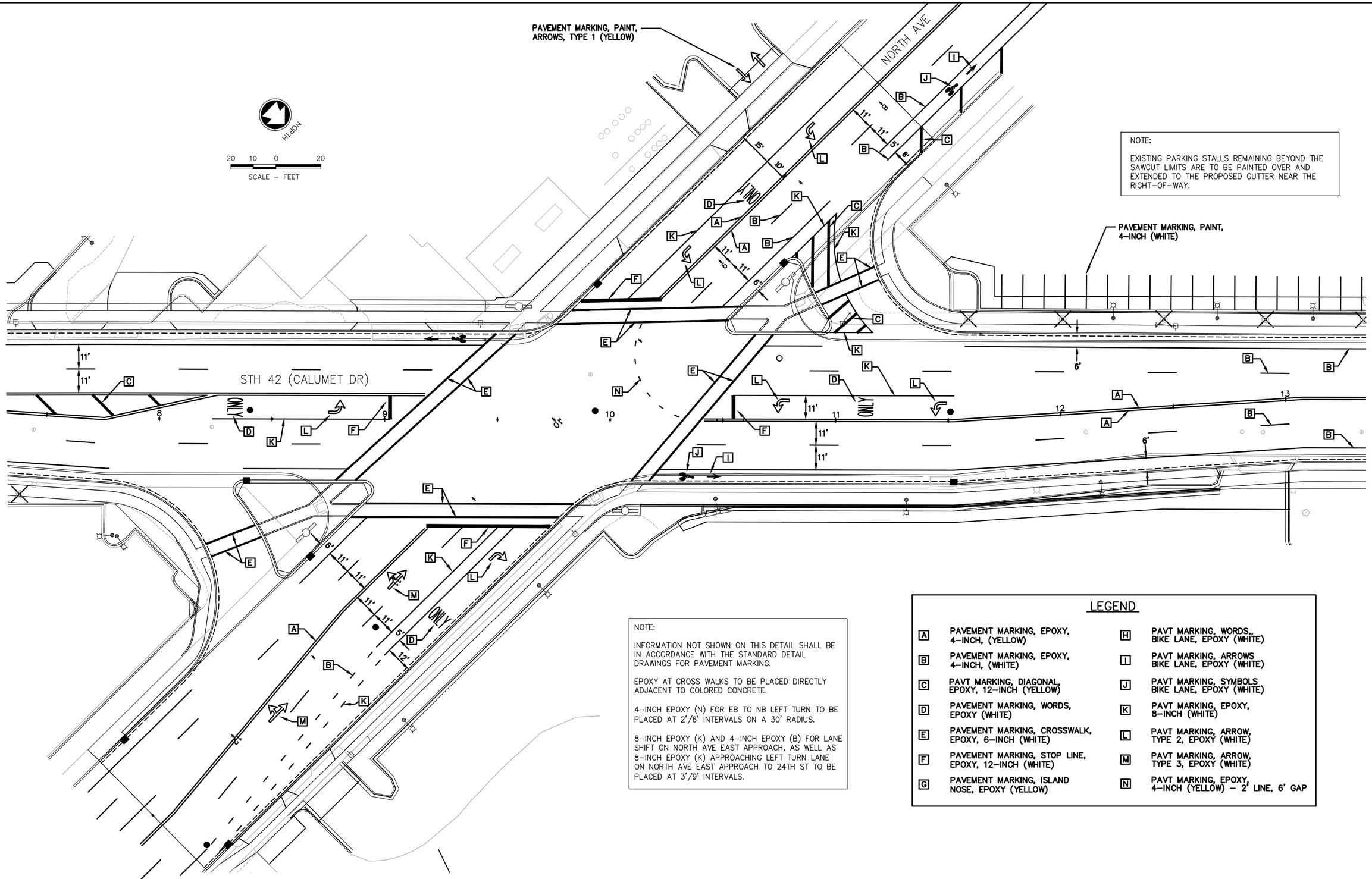
INFORMATION NOT SHOWN ON THIS DETAIL SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKING.



PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET: 78	E

cschuh, W:\PROJECTS\W0059\820107\00\02–Pavement Marking\01 PAVEMENT MARKING.dwg, 01 paving detail, Plot Date: 10/3/2016 1:38 PM, xrefs: (existing right of way, x–existing, x–proposed)

2



PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET: 79	E

2

NOTE:

EXISTING PARKING STALLS REMAINING BEYOND THE SAWCUT LIMITS ARE TO BE PAINTED OVER AND EXTENDED TO THE PROPOSED GUTTER NEAR THE RIGHT-OF-WAY.

LEGEND

A	PAVEMENT MARKING, EPOXY, 4-INCH, (YELLOW)	H	PAVT MARKING, WORDS,, BIKE LANE, EPOXY (WHITE)
B	PAVEMENT MARKING, EPOXY, 4-INCH, (WHITE)	I	PAVT MARKING, ARROWS BIKE LANE, EPOXY (WHITE)
C	PAVT MARKING, DIAGONAL, EPOXY, 12-INCH (YELLOW)	J	PAVT MARKING, SYMBOLS BIKE LANE, EPOXY (WHITE)
D	PAVEMENT MARKING, WORDS, EPOXY (WHITE)	K	PAVT MARKING, EPOXY, 8-INCH (WHITE)
E	PAVEMENT MARKING, CROSSWALK, EPOXY, 6-INCH (WHITE)	L	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
F	PAVEMENT MARKING, STOP LINE, EPOXY, 12-INCH (WHITE)	M	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
G	PAVEMENT MARKING, ISLAND NOSE, EPOXY (YELLOW)	N	PAVT MARKING, EPOXY, 8-INCH (YELLOW)

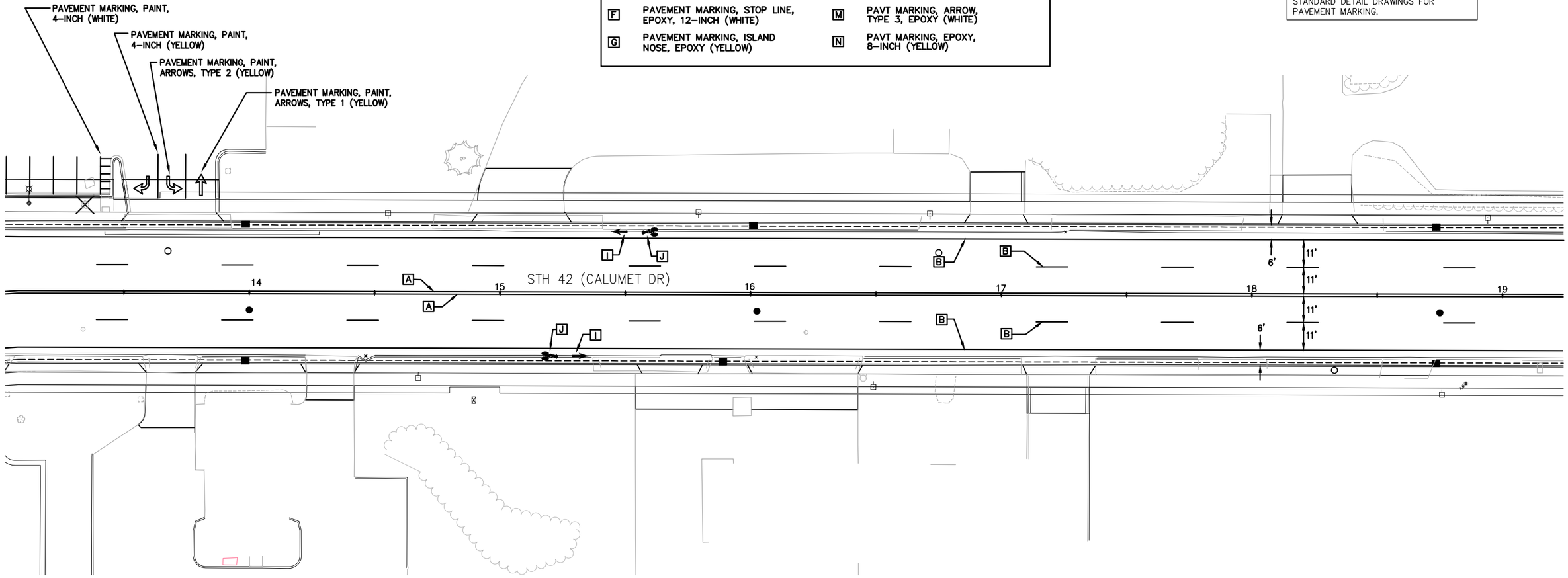
NORTH

20 10 0 20

SCALE - FEET

NOTE:

INFORMATION NOT SHOWN ON THIS DETAIL SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKING.



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET: 80	E

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2

NOTE:

INFORMATION NOT SHOWN ON THIS DETAIL SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKING.

LEGEND

A	PAVEMENT MARKING, EPOXY, 4–INCH, (YELLOW)	H	PAVT MARKING, WORDS,, BIKE LANE, EPOXY (WHITE)
B	PAVEMENT MARKING, EPOXY, 4–INCH, (WHITE)	I	PAVT MARKING, ARROWS BIKE LANE, EPOXY (WHITE)
C	PAVT MARKING, DIAGONAL, EPOXY, 12–INCH (YELLOW)	J	PAVT MARKING, SYMBOLS BIKE LANE, EPOXY (WHITE)
D	PAVEMENT MARKING, WORDS, EPOXY (WHITE)	K	PAVT MARKING, EPOXY, 8–INCH (WHITE)
E	PAVEMENT MARKING, CROSSWALK, EPOXY, 6–INCH (WHITE)	L	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
F	PAVEMENT MARKING, STOP LINE, EPOXY, 12–INCH (WHITE)	M	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
G	PAVEMENT MARKING, ISLAND NOSE, EPOXY (YELLOW)	N	PAVT MARKING, EPOXY, 8–INCH (YELLOW)

NORTH

20 10 0 20

SCALE – FEET

25TH ST

STH 42 (CALUMET DR)

11' 11' 11' 11' 6' 6'

19 20 21 22 23 24 25

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET:	E

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2

NORTH

20 10 0 20

SCALE – FEET

NOTE:

INFORMATION NOT SHOWN ON THIS DETAIL SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKING.

LEGEND

A	PAVEMENT MARKING, EPOXY, 4–INCH, (YELLOW)	H	PAVT MARKING, WORDS,, BIKE LANE, EPOXY (WHITE)
B	PAVEMENT MARKING, EPOXY, 4–INCH, (WHITE)	I	PAVT MARKING, ARROWS BIKE LANE, EPOXY (WHITE)
C	PAVT MARKING, DIAGONAL, EPOXY, 12–INCH (YELLOW)	J	PAVT MARKING, SYMBOLS BIKE LANE, EPOXY (WHITE)
D	PAVEMENT MARKING, WORDS, EPOXY (WHITE)	K	PAVT MARKING, EPOXY, 8–INCH (WHITE)
E	PAVEMENT MARKING, CROSSWALK, EPOXY, 6–INCH (WHITE)	L	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
F	PAVEMENT MARKING, STOP LINE, EPOXY, 12–INCH (WHITE)	M	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
G	PAVEMENT MARKING, ISLAND NOSE, EPOXY (YELLOW)	N	PAVT MARKING, EPOXY, 8–INCH (YELLOW)

STH 42 (CALUMET DR)

25 26 27 28 29

10

11

26TH ST

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET: 82	E

2

2

STH 42 (CALUMET DR)

NORTH AVE

24TH ST

ONLY

N

LEGEND

A	PAVEMENT MARKING, EPOXY, 4–INCH, (YELLOW)	H	PAVT MARKING, WORDS,, BIKE LANE, EPOXY (WHITE)
B	PAVEMENT MARKING, EPOXY, 4–INCH, (WHITE)	I	PAVT MARKING, ARROWS BIKE LANE, EPOXY (WHITE)
C	PAVT MARKING, DIAGONAL, EPOXY, 12–INCH (YELLOW)	J	PAVT MARKING, SYMBOLS BIKE LANE, EPOXY (WHITE)
D	PAVEMENT MARKING, WORDS, EPOXY (WHITE)	K	PAVT MARKING, EPOXY, 8–INCH (WHITE)
E	PAVEMENT MARKING, CROSSWALK, EPOXY, 6–INCH (WHITE)	L	PAVT MARKING, ARROW, TYPE 2, EPOXY (WHITE)
F	PAVEMENT MARKING, STOP LINE, EPOXY, 12–INCH (WHITE)	M	PAVT MARKING, ARROW, TYPE 3, EPOXY (WHITE)
G	PAVEMENT MARKING, ISLAND NOSE, EPOXY (YELLOW)	N	PAVT MARKING, EPOXY, 4–INCH (YELLOW) – 2' LINE, 6' GAP

NORTH

20 10 0 20

SCALE – FEET

NOTE:

INFORMATION NOT SHOWN ON THIS DETAIL SHALL BE IN ACCORDANCE WITH THE STANDARD DETAIL DRAWINGS FOR PAVEMENT MARKING.

EPOXY AT CROSS WALKS TO BE PLACED DIRECTLY ADJACENT TO COLORED CONCRETE.

4–INCH EPOXY (N) FOR EB TO NB LEFT TURN TO BE PLACED AT 2'/6' INTERVALS ON A 30' RADIUS.

8–INCH EPOXY (K) AND 4–INCH EPOXY (B) FOR LANE SHIFT ON NORTH AVE EAST APPROACH, AS WELL AS 8–INCH EPOXY (K) APPROACHING LEFT TURN LANE ON NORTH AVE EAST APPROACH TO 24TH ST TO BE PLACED AT 3'/9' INTERVALS.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET: 83	E

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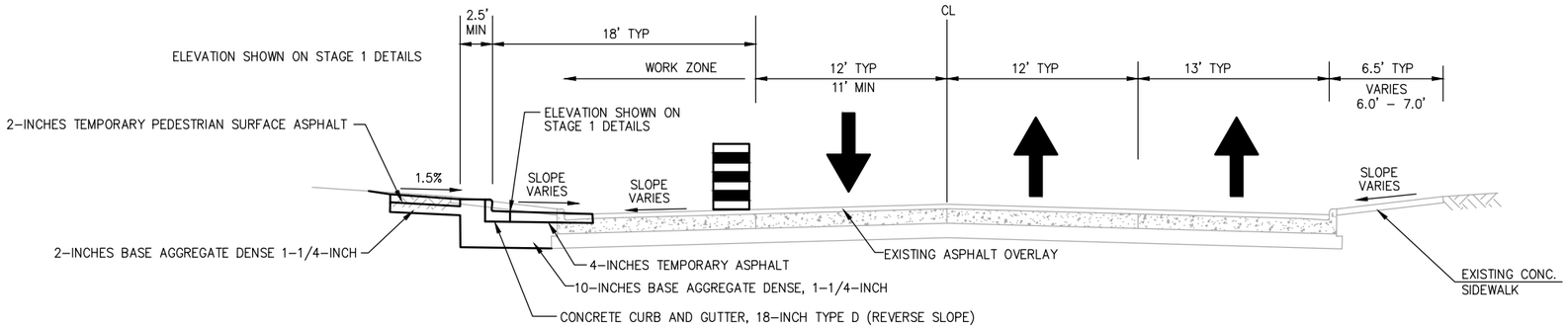


NOTE:

REMOVE EXISTING CURB AND CONSTRUCT TEMPORARY WIDENING AND TEMPORARY SIDEWALK ALONG WEST HALF OF ROADWAY IN ANTICIPATION FOR STAGE TWO. GENERALLY 5' WIDTH OF TEMPORARY ASPHALT IS REQUIRED FOR THE ROADWAY. TEMPORARY SIDEWALK TO BE 4' WIDE WITH A 5' X 5' SEGMENT SPACED AT 200' MAXIMUM INTERVALS.

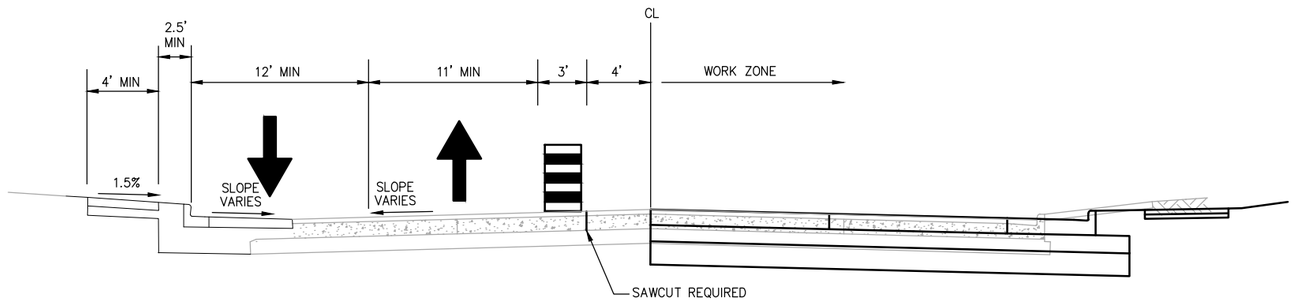
SLOPE TEMPORARY GUTTER AND TEMPORARY PAVEMENT SO THAT ROADWAY DRAINS TOWARD EXISTING INLETS.

MODIFY DRAINAGE STRUCTURE CASTINGS AS WELL AS ELEVATIONS OF CASTINGS TO ACCOMMODATE STAGE TWO TRAFFIC IN ACCORDANCE WITH THE INLET COVERS TEMPORARY BID ITEM. INSTALL TEMPORARY DRAINAGE UNDERDRAIN PIPE FROM THE INLET IN THE NW QUADRANT OF 25TH ST TO THE SOUTH TO ACCOMMODATE DRAINAGE DURING REMAINING STAGES. OTHER TEMPORARY DRAINAGE ACCOMMODATIONS MAY BE REQUIRED AS WELL, INCLUDING TEMPORARY GRADING BEHIND THE TEMPORARY SIDEWALK. ALL NECESSARY MODIFICATIONS (OTHER THAN INLET COVERS TEMPORARY AND TEMPORARY PIPE UNDERDRAIN UNPERFORATED 8–INCH) ARE INCIDENTAL TO CONSTRUCTION.

MAINTAIN TWO LANES FOR NORTHBOUND TRAFFIC AND ONE LANE FOR SOUTHBOUND TRAFFIC AT ALL TIMES. MAINTAIN EXISTING LEFT TURN LANES AT NORTH AVENUE. ALL TURNING MOVEMENTS AT INTERSECTIONS ARE TO BE MAINTAINED WITH THE EXCEPTION OF A FULL CLOSURE OF 25TH ST WEST OF CALUMET DR.

STAGE 1 SECTION

CONSTRUCT TEMPORARY WIDENING



NOTE:

SAWCUT NO GREATER THAN 4 FEET WEST OF PROPOSED REFERENCE LINE, AND SB PGL WHERE PRESENT.

CONSTRUCT MAINLINE STORM SEWER AND NORTHBOUND LANES IN STAGE 2. STUBS AND TEMPORARY CONNECTIONS ARE REQUIRED TO MAINTAIN DRAINAGE AND SERVICES.

CONSTRUCT LEFT TURN LANES ON CALUMET DRIVE AT THE NORTH AVE INTERSECTION.

MAINTAIN ONE TRAVEL LANE IN EACH DIRECTION AT ALL TIMES.

CONSTRUCT THE NORTH AVENUE INTERSECTION IN TWO STAGES:
STAGE 2 = CONSTRUCT WESTBOUND LANES, MAINTAIN 2–WAY TRAFFIC ON EASTBOUND LANES
STAGE 2A = CONSTRUCT EASTBOUND LANES, MAINTAIN 2–WAY TRAFFIC ON WESTBOUND LANES

MAINTAIN ALL TURNING MOVEMENTS AT THE NORTH AVE INTERSECTION WITH THE EXCEPTION OF:
STAGE 2 = EASTBOUND LEFT, WESTBOUND LEFT, SOUTHBOUND RIGHT, NORTHBOUND RIGHT
STAGE 2A = EASTBOUND LEFT, WESTBOUND LEFT, SOUTHBOUND RIGHT, NORTHBOUND RIGHT

MAINTAIN TRAFFIC AT OTHER INTERSECTIONS WITH THE EXCEPTION OF:
FULL CLOSURE OF THE EAST APPROACH OF 25TH ST INTERSECTION.
FULL CLOSURE OF THE 26TH ST INTERSECTION.

LANE WIDTHS GENERALLY 11' MINIMUM OTHER THAN AT THE SOUTH MATCH POINT. FROM THE NORTH END OF RADIUS ON MAIN AVE TO THE SOUTH MATCH POINT, LANE WIDTHS MAY BE REDUCED TO 10'

STAGE 2 SECTION

CONSTRUCT NORTHBOUND LANES

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL TYPICAL SECTIONS	SHEET: 84	E

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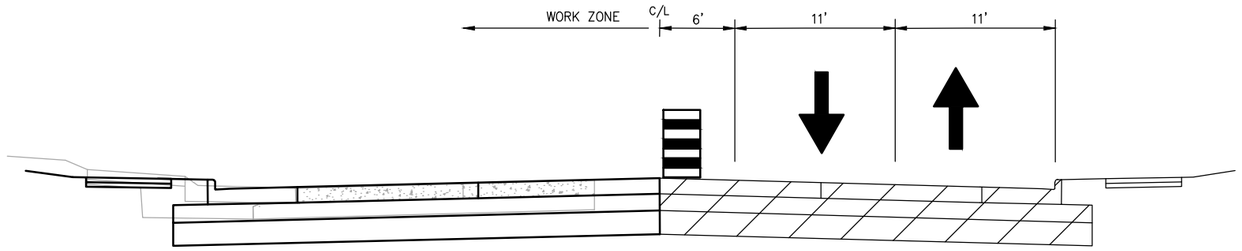
2



NOTE:

CONSTRUCT REMAINING STORM SEWER, SANITARY SEWER, AND SERVICES. CONSTRUCT SOUTHBOUND LANES IN STAGE 3.

MAINTAIN ONE TRAVEL LANE IN EACH DIRECTION AT ALL TIMES.

CONSTRUCT THE NORTH AVENUE INTERSECTION IN TWO STAGES:
STAGE 3 = CONSTRUCT EASTBOUND LANES, MAINTAIN 2-WAY TRAFFIC ON WESTBOUND LANES
STAGE 3A = CONSTRUCT WESTBOUND LANES, MAINTAIN 2-WAY TRAFFIC ON EASTBOUND LANES

MAINTAIN ALL TURNING MOVEMENTS AT THE NORTH AVE INTERSECTION WITH THE EXCEPTION OF:
STAGE 3 = EASTBOUND LEFT, WESTBOUND LEFT, SOUTHBOUND RIGHT
STAGE 3A = EASTBOUND LEFT, WESTBOUND LEFT, SOUTHBOUND RIGHT

THE CONTRACTOR IS NOT REQUIRED TO MAINTAIN EASTBOUND TRAFFIC ON 25TH ST WEST OF CALUMET DR BETWEEN PINE GROVE AVE AND CALUMET DR.

STAGE 3 SECTION

CONSTRUCT SOUTHBOUND LANES

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2

SEE STANDARD DETAIL DRAWING 15C5-3 FOR MAIN AVE WEST OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY
- INLET COVERS TEMPORARY

NORTH

20 10 0 20
SCALE – FEET

LANE CLOSED
R11-2L
48" X 30"

MAIN AVE

CONCRETE CURB & GUTTER
18-INCH TYPE D (TEMPORARY)

SIGN

65.68 66.09 66.31 66.49 66.72 66.52 66.35 66.20 65.95

29' 29'

STH 42 (CALUMET DR)

NORTH AVE

SEE STANDARD DETAIL DRAWING 15C5-3 FOR CALUMET DRIVE SOUTH OF PROJECT LIMITS.

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE FLANGE OF THE TEMPORARY CURB & GUTTER. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, AND ARE APPROXIMATE BASED ON THE AVAILABLE TOPOGRAPHIC SHOTS TAKEN ON THE EXISTING PAVEMENT. THE CONTRACTOR IS TO VERIFY THAT DRAINAGE WILL BE MAINTAINED BOTH ON THE ROADWAY, AND BEHIND THE TEMPORARY CURB & TEMPORARY SIDEWALK.

SEE STANDARD DETAIL DRAWING 15C5-3 FOR NORTH AVE EAST OF PROJECT LIMITS.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 1	SHEET: 86	E

SEE STANDARD DETAIL DRAWING 15C5-3 FOR NORTH AVE WEST OF PROJECT LIMITS.

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

NORTH AVE

STH 42 (CALUMET DR)

CONCRETE CURB & GUTTER
18-INCH TYPE D (TEMPORARY)

HUMON

20 10 0 20
SCALE - FEET

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY
- INLET COVERS TEMPORARY

65.20 65.30 65.19 64.95 64.79 64.51 64.28 64.04 63.91 63.80 63.54

11 12 13 14 15 16

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE FLANGE OF THE TEMPORARY CURB & GUTTER. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, AND ARE APPROXIMATE BASED ON THE AVAILABLE TOPOGRAPHIC SHOTS TAKEN ON THE EXISTING PAVEMENT. THE CONTRACTOR IS TO VERIFY THAT DRAINAGE WILL BE MAINTAINED BOTH ON THE ROADWAY, AND BEHIND THE TEMPORARY CURB & TEMPORARY SIDEWALK.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL - STAGE 1	SHEET: 87	E

2

LEGEND

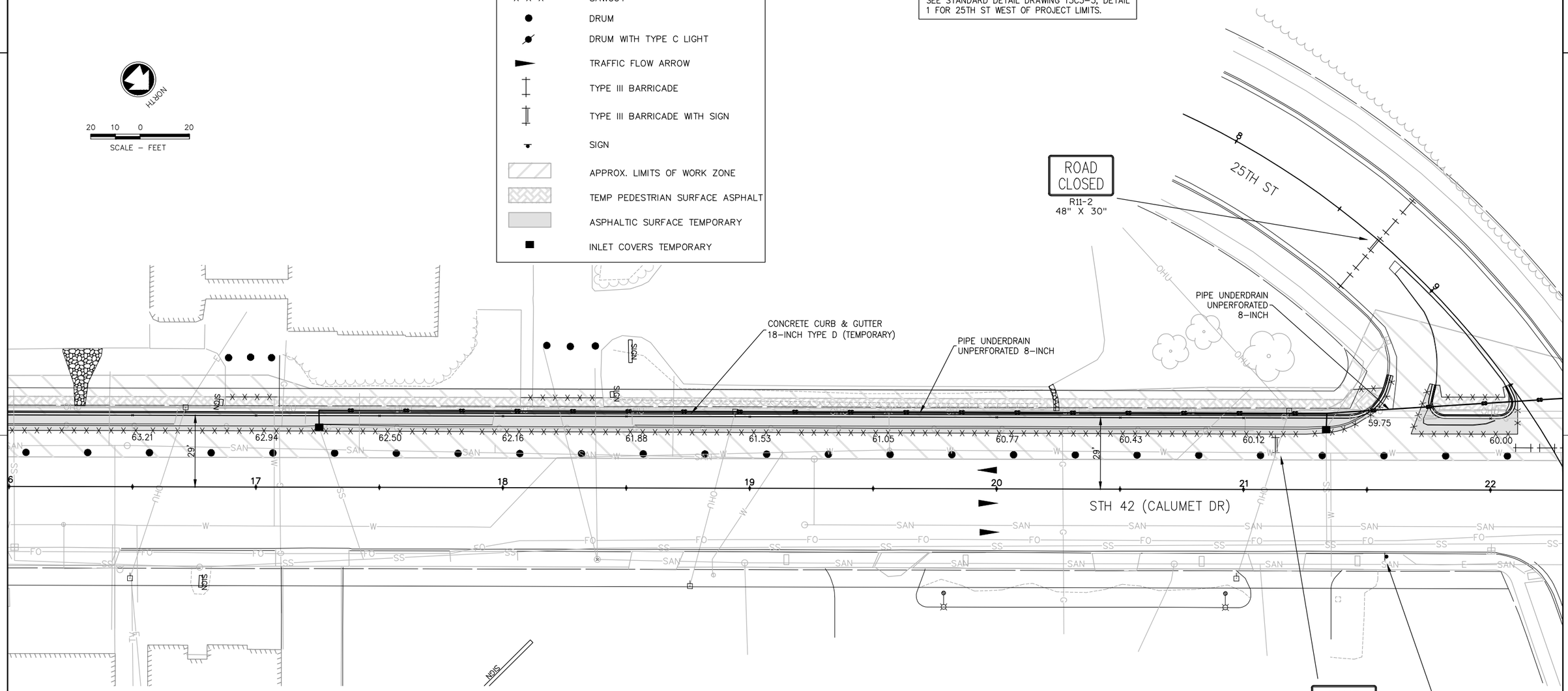
- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY
- INLET COVERS TEMPORARY

NORTH

20 10 0 20

SCALE – FEET

SEE STANDARD DETAIL DRAWING 15C3-3, DETAIL 1 FOR 25TH ST WEST OF PROJECT LIMITS.



SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE FLANGE OF THE TEMPORARY CURB & GUTTER. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, AND ARE APPROXIMATE BASED ON THE AVAILABLE TOPOGRAPHIC SHOTS TAKEN ON THE EXISTING PAVEMENT. THE CONTRACTOR IS TO VERIFY THAT DRAINAGE WILL BE MAINTAINED BOTH ON THE ROADWAY, AND BEHIND THE TEMPORARY CURB & TEMPORARY SIDEWALK.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 1	SHEET: 88	E

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2

ROAD CLOSED
R11-2
48" X 30"

SEE STANDARD DETAIL DRAWING 15C3-3, DETAIL 1 FOR 25TH ST WEST OF PROJECT LIMITS.

PLACE DISCHARGE UNDERDRAIN IN EXISTING INLET AT AN ELEVATION THAT ALLOWS FOR DRAINAGE TO THE NORTH. INLET WILL OPERATE AS A SUMP DURING CONSTRUCTION.

PIPE UNDERDRAIN UNPERFORATED 8-INCH

ROAD CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

PIPE UNDERDRAIN UNPERFORATED 8-INCH.

CONCRETE CURB & GUTTER 18-INCH TYPE D (TEMPORARY)

LANE CLOSED
R11-2L
48" X 30"

FLASHING ARROW BOARD

LANE CLOSED
R11-2L
48" X 30"

R3-2
24" X 24"

25TH ST

26TH ST

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 25TH ST EAST OF PROJECT LIMITS.

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 26TH ST EAST OF PROJECT LIMITS.

LEGEND

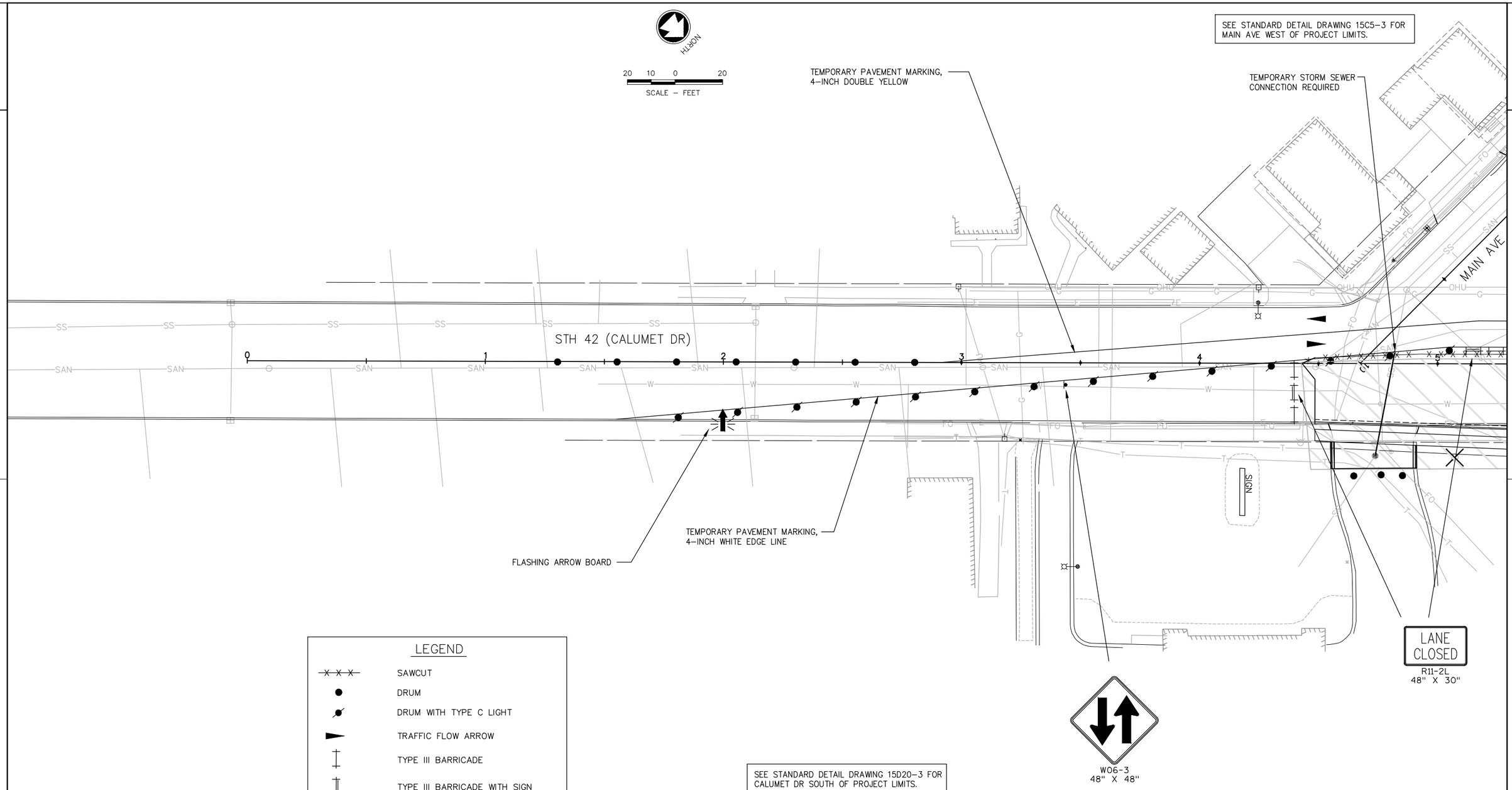
- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY
- INLET COVERS TEMPORARY

SPOT ELEVATIONS SHOWN ARE FINISHED GRADES AT THE FLANGE OF THE TEMPORARY CURB & GUTTER. SPOT ELEVATIONS ARE LOCATED AT 50' INTERVALS, AND ARE APPROXIMATE BASED ON THE AVAILABLE TOPOGRAPHIC SHOTS TAKEN ON THE EXISTING PAVEMENT. THE CONTRACTOR IS TO VERIFY THAT DRAINAGE WILL BE MAINTAINED BOTH ON THE ROADWAY, AND BEHIND THE TEMPORARY CURB & TEMPORARY SIDEWALK.

NORTH

20 10 0 20
SCALE - FEET

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL - STAGE 1	SHEET: 89	E



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2	SHEET: 90	E

2

NORTH

20 10 0 20

SCALE – FEET

SEE STANDARD DETAIL DRAWING 15C5-3 FOR MAIN AVE WEST OF PROJECT LIMITS.

TEMPORARY STORM SEWER CONNECTION REQUIRED

MAIN AVE

STH 42 (CALUMET DR)

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

SIGN

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING, STOP LINE 12-INCH (WHITE)

TEMPORARY STORM SEWER CONNECTION REQUIRED

R3-1
24" X 24"

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

NORTH AVE

R3-2
24" X 24"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

SEE STANDARD DETAIL DRAWING 15D20-3 FOR NORTH AVE EAST OF PROJECT LIMITS.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2	SHEET: 91	E

2

SEE STANDARD DETAIL DRAWING 15D20-3
FOR NORTH AVE WEST OF PROJECT LIMITS.

NORTH

20 10 0 20
SCALE – FEET

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

R3-2
24" X 24"

TEMPORARY PAVEMENT MARKING,
STOP LINE 12-INCH (WHITE)

R3-1
24" X 24"

TEMPORARY PAVEMENT MARKING,
4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING,
4-INCH WHITE EDGE LINE

TEMPORARY STORM SEWER
CONNECTION REQUIRED

NORTH AVE

STH 42 (CALUMET DR)

LANE
CLOSED
R11-2L
48" X 30"

SIGN

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2	SHEET: 92	E

2

NORTH

20 10 0 20

SCALE – FEET

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 25TH ST WEST OF PROJECT LIMITS.

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

25TH ST

STH 42 (CALUMET DR)

LANE CLOSED
R11-2L
48" X 30"

R3-1
24" X 24"

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2	SHEET: 93	E

2

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

NORTH

20 10 0 20

SCALE – FEET

R3-2
24" X 24"

TEMPORARY PAVEMENT MARKING,
4–INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

R3-2
24" X 24"

BEGIN RIGHT TURN LANE

R3-20R
24" X 36"

STH 42 (CALUMET DR)

TEMPORARY STORM SEWER
CONNECTION REQUIRED

R3-1
24" X 24"

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

25TH ST

26TH ST

SEE STANDARD DETAIL DRAWING 15C3–3, DETAIL 1 FOR 25TH ST EAST OF PROJECT LIMITS.

SEE STANDARD DETAIL DRAWING 15C3–3, DETAIL 1 FOR 26TH ST EAST OF PROJECT LIMITS.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2	SHEET: 94	E

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2

2

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- 18"x18" FLAG
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 27TH ST WEST OF STH 42.

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

W06-3
48" X 48"

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

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING, 4-INCH YELLOW EDGE LINE

SEE STANDARD DETAIL DRAWING 15D20-3 FOR CALUMET DR NORTH OF PROJECT LIMITS.

FLASHING ARROW BOARD

NORTH

20 10 0 20
SCALE - FEET

STH 42 (CALUMET DR)

28

29

STOP
R1-1
30" X 30"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

LANE CLOSED
R11-2L
48" X 30"

27TH ST

TEMPORARY PAVEMENT MARKING, 4-INCH YELLOW EDGE LINE

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 27TH ST EAST OF STH 42.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL - STAGE 2	SHEET: 95	E

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2

NORTH

20 10 0 20

SCALE – FEET

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING,
STOP LINE 12–INCH (WHITE)

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

R3-2
24" X 24"

NORTH AVE

SEE STANDARD DETAIL DRAWING 15D20–3
FOR NORTH AVE WEST OF PROJECT LIMITS.

TEMPORARY PAVEMENT MARKING,
4–INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING,
STOP LINE 12–INCH (WHITE)

R3-1
24" X 24"

STH 42 (CALUMET DR)

R3-1
24" X 24"

TEMPORARY PAVEMENT MARKING,
4–INCH DOUBLE YELLOW

NORTH AVE

TEMPORARY PAVEMENT MARKING,
STOP LINE 12–INCH (WHITE)

LANE
CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

R3-2
24" X 24"

LANE
CLOSED
R11-2L
48" X 30"

SEE STANDARD DETAIL DRAWING 15D20–3
FOR NORTH AVE EAST OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE
- TEMP PEDESTRIAN SURFACE ASPHALT
- ASPHALTIC SURFACE TEMPORARY

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 2A (STAGED NORTH AVE)	SHEET: 96	E

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2

NORTH

20 10 0 20

SCALE – FEET

SEE STANDARD DETAIL DRAWING 15C3-3, DETAIL 1 FOR MAIN AVE WEST OF PROJECT LIMITS.

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

LANE CLOSED
R11-2L
48" X 30"

W01-6
48" X 24"

STH 42 (CALUMET DR)

MAIN AVE

SIGN

FLASHING ARROW BOARD

TEMPORARY PAVEMENT MARKING, 4-INCH YELLOW EDGE LINE

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

ROAD CLOSED
R11-2
48" X 30"

W06-3
48" X 48"

SEE STANDARD DETAIL DRAWING 15D20-3 FOR CALUMET DR SOUTH OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3	SHEET: 97	E

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SEE STANDARD DETAIL DRAWING 15C3-3, DETAIL 1 FOR MAIN AVE WEST OF PROJECT LIMITS.

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

NORTH

20 10 0 20
SCALE - FEET

MAIN AVE

STH 42 (CALUMET DR)

NORTH AVE

TEMPORARY PAVEMENT MARKING, 8-INCH

TEMPORARY PAVEMENT MARKING, STOP LINE 12-INCH (WHITE)

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING, STOP LINE 12-INCH (WHITE)

R3-2
24" X 24"

ROAD CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

W04-6
48" X 48"

W04-3
48" X 48"

R3-2
24" X 24"

FLASHING ARROW BOARD

SEE STANDARD DETAIL DRAWING 15D20-3 FOR NORTH AVE EAST OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL - STAGE 3	SHEET: 98	E

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2

SEE STANDARD DETAIL DRAWING 15D20-3
FOR NORTH AVE WEST OF PROJECT LIMITS.

NORTH

20 10 0 20
SCALE – FEET

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

R3-2
24" X 24"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING,
4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING,
4-INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING,
STOP LINE 12-INCH (WHITE)

TEMPORARY SANITARY SEWER
CONNECTION REQUIRED

NORTH AVE

STH 42 (CALUMET DR)

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT
MARKING, 8-INCH

R3-1
24" X 24"

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3	SHEET: 99	E

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2

NORTH

20 10 0 20

SCALE – FEET

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

SEE STANDARD DETAIL DRAWING 15C3-3, DETAIL 1 FOR 25TH ST WEST OF PROJECT LIMITS.

ROAD CLOSED
R11-2
48" X 30"

25TH ST

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

LANE CLOSED
R11-2L
48" X 30"

STH 42 (CALUMET DR)

R3-2
24" X 24"

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3	SHEET: 100	E

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2

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

NORTH

20 10 0 20

SCALE – FEET

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING,
4–INCH WHITE EDGE LINE

LANE CLOSED
R11-2L
48" X 30"

STH 42 (CALUMET DR)

R3-1
24" X 24"

TEMPORARY PAVEMENT MARKING,
4–INCH DOUBLE YELLOW

25TH ST

26TH ST

SEE STANDARD DETAIL DRAWING 15C5–3
FOR 25TH ST EAST OF PROJECT LIMITS.

SEE STANDARD DETAIL DRAWING 15C5–3
FOR 26TH ST EAST OF PROJECT LIMITS.

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3	SHEET: 101	E

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2

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 27TH ST WEST OF STH 42.

SEE STANDARD DETAIL DRAWING 15D20-3 FOR CALUMET DR NORTH OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- 18"x18" FLAG
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

NORTH

20 10 0 20

SCALE – FEET

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

LANE CLOSED
R11-2L
48" X 30"

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

W06-3
48" X 48"

TEMPORARY PAVEMENT MARKING, 4-INCH WHITE EDGE LINE

FLASHING ARROW BOARD

STH 42 (CALUMET DR)

28

29

STOP
R1-1
30" X 30"

27TH ST

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW

SEE STANDARD DETAIL DRAWING 15C5-3 FOR 27TH ST EAST OF STH 42.

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3	SHEET: 102	E

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2

NORTH

20 10 0 20

SCALE – FEET

LANE CLOSED
R11-2L
48" X 30"

R3-2
24" X 24"

TEMPORARY PAVEMENT MARKING, STOP LINE 12–INCH (WHITE)

LANE CLOSED
R11-2L
48" X 30"

SEE STANDARD DETAIL DRAWING 15D20–3 FOR NORTH AVE WEST OF PROJECT LIMITS.

NORTH AVE

STH 42 (CALUMET DR)

TEMPORARY PAVEMENT MARKING, 8–INCH

TEMPORARY PAVEMENT MARKING, 4–INCH DOUBLE YELLOW

TEMPORARY PAVEMENT MARKING, 4–INCH WHITE EDGE LINE

TEMPORARY PAVEMENT MARKING, STOP LINE 12–INCH (WHITE)

R3-1
24" X 24"

R3-2
24" X 24"

FLASHING ARROW BOARD

SEE STANDARD DETAIL DRAWING 15D20–3 FOR NORTH AVE EAST OF PROJECT LIMITS.

LEGEND

- SAWCUT
- DRUM
- DRUM WITH TYPE C LIGHT
- TRAFFIC FLOW ARROW
- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- SIGN
- APPROX. LIMITS OF WORK ZONE

PROJECT NO: 4630–05–71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	TRAFFIC CONTROL – STAGE 3A (STAGED NORTH AVE)	SHEET: 103	E

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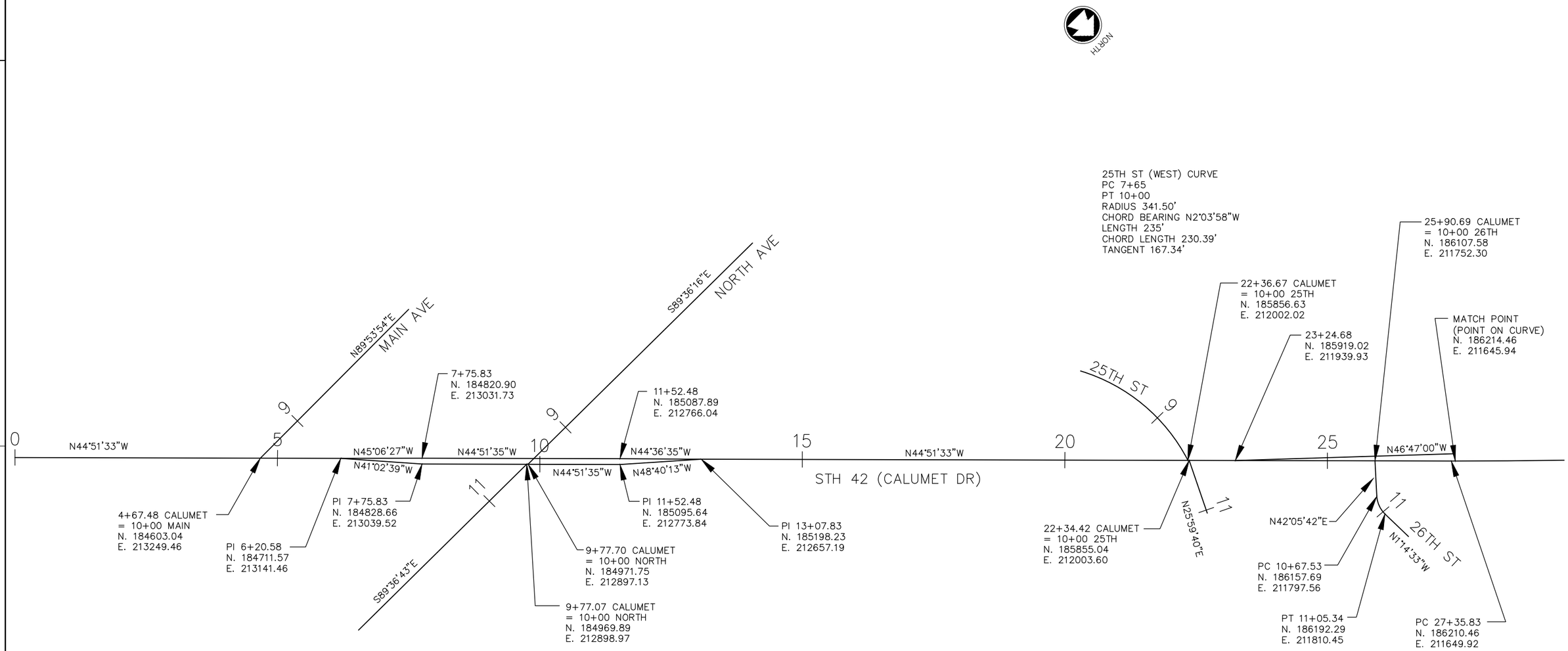
2



26TH ST (EAST) CURVE
PC 10+67.53
PT 11+05.34
RADIUS 50'
CHORD BEARING N20°25'25"E
LENGTH 37.8147'
CHORD LENGTH 36.9199'
TANGENT 19.8633'

CALUMET DR CURVE
PC 27+35.83
PT 29+50
RADIUS 11459.16'
CHORD BEARING N45°23'47"W
LENGTH 214.17'
CHORD LENGTH 214.17'
TANGENT 107.43'

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	HORIZONTAL ALIGNMENT	SHEET: 104	E

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					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0010	201.0105	Clearing	STA	4.000	4.000		
0020	201.0120	Clearing	ID	42.000	42.000		
0030	201.0205	Grubbing	STA	4.000	4.000		
0040	201.0220	Grubbing	ID	42.000	42.000		
0050	204.0100	Removing Pavement	SY	19,389.000	19,199.000		190.000
0060	204.0110	Removing Asphaltic Surface	SY	53.000	53.000		
0070	204.0150	Removing Curb & Gutter	LF	5,347.000	4,370.000		977.000
0080	204.0155	Removing Concrete Sidewalk	SY	3,074.000	3,065.000		9.000
0090	204.0195	Removing Concrete Bases	EACH	11.000	9.000		2.000
0100	204.0210	Removing Manholes	EACH	13.000	7.000	6.000	
0110	204.0220	Removing Inlets	EACH	17.000	17.000		
0120	204.0245	Removing Storm Sewer (size) 01. 12-Inch or Less	LF	2,451.000	2,451.000		
0130	205.0100	Excavation Common	CY	22,403.000	22,403.000		
0140	213.0100	Finishing Roadway (project) 01. 4630-05-71	EACH	1.000	1.000		
0150	213.0100	Finishing Roadway (project) 03. 4630-30-60	EACH	1.000			1.000
0160	305.0110	Base Aggregate Dense 3/4-Inch	TON	449.000	449.000		
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,644.000	9,593.000		51.000
0180	311.0110	Breaker Run	TON	21,014.000	21,014.000		
0190	405.0100	Coloring Concrete WisDOT Red	CY	86.000	86.000		
0200	415.0080	Concrete Pavement 8-Inch	SY	115.000	115.000		
0210	415.0090	Concrete Pavement 9-Inch	SY	18,913.000	18,913.000		
0220	415.0100	Concrete Pavement 10-Inch	SY	190.000			190.000
0230	415.0210	Concrete Pavement Gaps	EACH	11.000	11.000		
0240	416.0160	Concrete Driveway 6-Inch	SY	135.000	135.000		
0250	416.0170	Concrete Driveway 7-Inch	SY	1,041.000	1,041.000		
0260	416.0610	Drilled Tie Bars	EACH	848.000	46.000		802.000
0270	416.0620	Drilled Dowel Bars	EACH	3,954.000	282.000		3,672.000
0280	416.1710	Concrete Pavement Repair	SY	2,226.000			2,226.000
0290	416.1720	Concrete Pavement Replacement	SY	748.000			748.000
0300	440.4410	Incentive IRI Ride	DOL	3,474.000	3,474.000		
0310	455.0605	Tack Coat	GAL	165.000	163.000		2.000
0320	465.0105	Asphaltic Surface	TON	6.000			6.000
0330	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	174.000	174.000		
0340	465.0125	Asphaltic Surface Temporary	TON	378.000	378.000		
0350	520.8000	Concrete Collars for Pipe	EACH	8.000	4.000	4.000	
0360	601.0342	Concrete Curb & Gutter Integral 18-Inch	LF	6,223.000	5,278.000		945.000
0370	601.0405	Concrete Curb & Gutter 18-Inch Type A	LF	430.000	430.000		
0380	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	2,480.000	2,480.000		
0390	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	30.000			30.000
0400	601.0600	Concrete Curb Pedestrian	LF	329.000	329.000		

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0410	602.0405	Concrete Sidewalk 4-Inch	SF	22,461.000	22,218.000		243.000
0420	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	363.000	325.000		38.000
0430	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	1,268.000	1,268.000		
0440	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	134.000	134.000		
0450	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	86.000	86.000		
0460	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	1,742.000	1,742.000		
0470	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	134.000	134.000		
0480	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	54.000			54.000
0490	611.0420	Reconstructing Manholes	EACH	10.000		6.000	4.000
0500	611.0430	Reconstructing Inlets	EACH	39.000			39.000
0510	611.0530	Manhole Covers Type J	EACH	1.000			1.000
0520	611.0624	Inlet Covers Type H	EACH	28.000	28.000		
0530	611.0639	Inlet Covers Type H-S	EACH	1.000			1.000
0540	611.1230	Catch Basins 2x3-FT	EACH	26.000	26.000		
0550	611.2004	Manholes 4-FT Diameter	EACH	14.000	13.000		1.000
0560	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000		
0570	611.2006	Manholes 6-FT Diameter	EACH	4.000	4.000		
0580	611.3004	Inlets 4-FT Diameter	EACH	2.000	2.000		
0590	611.3230	Inlets 2x3-FT	EACH	1.000			1.000
0600	611.8110	Adjusting Manhole Covers	EACH	3.000	1.000	2.000	
0610	612.0208	Pipe Underdrain Unperforated 8-Inch	LF	720.000	720.000		
0620	612.0902.S	Insulation Board Polystyrene (inch) 01. 2-INCH	SY	692.000		692.000	
0630	612.0902.S	Insulation Board Polystyrene (inch) 02. 4-INCH	SY	398.000		398.000	
0640	619.1000	Mobilization	EACH	1.000	0.880		0.120
0650	620.0300	Concrete Median Sloped Nose	SF	69.000	69.000		
0660	624.0100	Water	MGAL	80.000	80.000		
0670	625.0100	Topsoil	SY	5,594.000	5,480.000		114.000
0680	627.0200	Mulching	SY	500.000	500.000		
0690	628.1504	Silt Fence	LF	625.000	625.000		
0700	628.1520	Silt Fence Maintenance	LF	625.000	625.000		
0710	628.2008	Erosion Mat Urban Class I Type B	SY	5,094.000	4,980.000		114.000
0720	628.7005	Inlet Protection Type A	EACH	26.000	26.000		
0730	628.7010	Inlet Protection Type B	EACH	14.000	14.000		
0740	628.7015	Inlet Protection Type C	EACH	82.000	41.000		41.000
0750	628.7020	Inlet Protection Type D	EACH	6.000	6.000		

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
0760	628.7560	Tracking Pads	EACH	4.000	4.000		
0770	628.7570	Rock Bags	EACH	12.000	12.000		
0780	629.0210	Fertilizer Type B	CWT	3.870	3.800		0.070
0790	630.0140	Seeding Mixture No. 40	LB	101.000	98.000		3.000
0800	630.0200	Seeding Temporary	LB	148.000	148.000		
0810	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000			5.000
0820	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	36.000			36.000
0830	634.0812	Posts Tubular Steel 2x2-Inch X 12-FT	EACH	2.000	2.000		
0840	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	27.000	27.000		
0850	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	18.000	18.000		
0860	637.2210	Signs Type II Reflective H	SF	581.380	289.910		291.470
0870	637.2215	Signs Type II Reflective H Folding	SF	44.760			44.760
0880	637.2230	Signs Type II Reflective F	SF	63.750	28.250		35.500
0890	638.2102	Moving Signs Type II	EACH	13.000	13.000		
0900	638.2602	Removing Signs Type II	EACH	98.000	64.000		34.000
0910	638.3000	Removing Small Sign Supports	EACH	78.000	44.000		34.000
0920	642.5201	Field Office Type C	EACH	1.000	1.000		
0930	643.0100	Traffic Control (project) 01. 4630-05-71	EACH	1.000	1.000		
0940	643.0100	Traffic Control (project) 03. 4630-30-60	EACH	1.000			1.000
0950	643.0300	Traffic Control Drums	DAY	37,470.000	33,520.000		3,950.000
0960	643.0410	Traffic Control Barricades Type II	DAY	2,142.000	2,142.000		
0970	643.0420	Traffic Control Barricades Type III	DAY	8,694.000	8,394.000		300.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	14,975.000	14,175.000		800.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	7,438.000	6,838.000		600.000
1000	643.0800	Traffic Control Arrow Boards	DAY	649.000	449.000		200.000
1010	643.0900	Traffic Control Signs	DAY	10,903.000	9,603.000		1,300.000
1020	643.1050	Traffic Control Signs PCMS	DAY	126.000	112.000		14.000
1030	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	9,250.000	9,250.000		
1040	644.1601.S	Temporary Curb Ramp	EACH	14.000	14.000		
1050	644.1616.S	Temporary Pedestrian Safety Fence	LF	500.000	500.000		
1060	646.0103	Pavement Marking Paint 4-Inch	LF	330.000	330.000		
1070	646.0106	Pavement Marking Epoxy 4-Inch	LF	24,003.000	14,421.000		9,582.000
1080	646.0126	Pavement Marking Epoxy 8-Inch	LF	1,277.000	667.000		610.000
1090	646.0600	Removing Pavement Markings	LF	4,645.000	4,645.000		
1100	647.0153	Pavement Marking Arrows Paint Type 1	EACH	3.000	3.000		
1110	647.0163	Pavement Marking Arrows Paint Type 2	EACH	2.000	2.000		
1120	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	44.000	18.000		26.000
1130	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	2.000	2.000		
1140	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	8.000	8.000		
1150	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	8.000	8.000		

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
1160	647.0356	Pavement Marking Words Epoxy	EACH	8.000	4.000		4.000
1170	647.0406	Pavement Marking Words Bike Lane Epoxy	EACH	6.000	6.000		
1180	647.0556	Pavement Marking Stop Line Epoxy 12-Inch	LF	210.000	210.000		
1190	647.0606	Pavement Marking Island Nose Epoxy	EACH	1.000	1.000		
1200	647.0716	Pavement Marking Diagonal Epoxy 8-Inch	LF	164.000	164.000		
1210	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	350.000			350.000
1220	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	1,869.000	1,869.000		
1230	647.0955	Removing Pavement Markings Arrows	EACH	14.000	14.000		
1240	647.0965	Removing Pavement Markings Words	EACH	5.000	5.000		
1250	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	17,595.000	17,595.000		
1260	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	6,400.000	6,400.000		
1270	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	270.000	270.000		
1280	649.1000	Temporary Pavement Marking Stop Line Removable Tape 12-Inch	LF	165.000	165.000		
1290	650.4000	Construction Staking Storm Sewer	EACH	49.000	47.000		2.000
1300	650.4500	Construction Staking Subgrade	LF	3,191.000	3,191.000		
1310	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,480.000	2,480.000		
1320	650.7000	Construction Staking Concrete Pavement	LF	3,191.000	3,191.000		
1330	650.8500	Construction Staking Electrical Installations (project) 01. 4630-05-71	LS	1.000	1.000		
1340	650.8500	Construction Staking Electrical Installations (project) 03. 4630-30-60	LS	1.000			1.000
1350	650.9910	Construction Staking Supplemental Control (project) 01. 4630-05-71	LS	1.000	1.000		
1360	650.9910	Construction Staking Supplemental Control (project) 03. 4630-30-60	LS	1.000			1.000
1370	650.9920	Construction Staking Slope Stakes	LF	3,191.000	3,191.000		
1380	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	4,551.000	4,551.000		
1390	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	1,520.000	1,480.000		40.000
1400	652.0800	Conduit Loop Detector	LF	300.000			300.000
1410	653.0105	Pull Boxes Steel 12x24-Inch	EACH	4.000			4.000
1420	653.0115	Pull Boxes Steel 12x36-Inch	EACH	12.000	12.000		
1430	653.0140	Pull Boxes Steel 24x42-Inch	EACH	7.000	7.000		
1440	653.0905	Removing Pull Boxes	EACH	33.000	33.000		
1450	654.0101	Concrete Bases Type 1	EACH	8.000	8.000		
1460	654.0105	Concrete Bases Type 5	EACH	31.000	31.000		
1470	654.0113	Concrete Bases Type 13	EACH	2.000			2.000
1480	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	1.000	1.000		
1490	654.0230	Concrete Control Cabinet Bases Type L30	EACH	2.000	2.000		
1500	655.0230	Cable Traffic Signal 5-14 AWG	LF	1,212.000	472.000		740.000
1510	655.0240	Cable Traffic Signal 7-14 AWG	LF	1,589.000	1,389.000		200.000

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
1520	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,250.000			1,250.000
1530	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,429.000	1,429.000		
1540	655.0290	Cable Traffic Signal 21-14 AWG	LF	669.000	669.000		
1550	655.0305	Cable Type UF 2-12 AWG Grounded	LF	880.000			880.000
1560	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	3,260.000	1,200.000		2,060.000
1570	655.0610	Electrical Wire Lighting 12 AWG	LF	2,160.000	1,860.000		300.000
1580	655.0620	Electrical Wire Lighting 8 AWG	LF	3,628.000	3,628.000		
1590	655.0625	Electrical Wire Lighting 6 AWG	LF	8,906.000	8,906.000		
1600	655.0630	Electrical Wire Lighting 4 AWG	LF	2,252.000	2,252.000		
1610	655.0700	Loop Detector Lead In Cable	LF	1,918.000	48.000		1,870.000
1620	655.0800	Loop Detector Wire	LF	910.000			910.000
1630	655.0900	Traffic Signal EVP Detector Cable	LF	890.000			890.000
1640	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. STH 42 & North Ave Signals	LS	1.000	1.000		
1650	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. STH 42 and North Ave Lighting	LS	1.000	1.000		
1660	656.0200	Electrical Service Meter Breaker Pedestal (location) 03. STH 42 and 26th St Lighting	LS	1.000	1.000		
1670	657.0100	Pedestal Bases	EACH	10.000	8.000		2.000
1680	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	6.000	4.000		2.000
1690	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	4.000	4.000		
1700	657.1360	Install Poles Type 13	EACH	2.000			2.000
1710	657.1550	Install Monotube Arms 50-FT	EACH	2.000			2.000
1720	657.1812	Install Luminaire Arms Steel 12-FT	EACH	2.000			2.000
1730	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	16.000	10.000		6.000
1740	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	10.000	6.000		4.000
1750	658.0120	Traffic Signal Face 5-12 Inch Vertical	EACH	4.000	4.000		
1760	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	16.000	10.000		6.000
1770	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	10.000	6.000		4.000
1780	658.0225	Backplates Signal Face 5 Section 12-Inch	EACH	4.000	4.000		
1790	658.0416	Pedestrian Signal Face 16-Inch	EACH	8.000	8.000		
1800	658.0500	Pedestrian Push Buttons	EACH	8.000	8.000		
1810	658.0600	Led Modules 12-Inch Red Ball	EACH	20.000	14.000		6.000
1820	658.0605	Led Modules 12-Inch Yellow Ball	EACH	20.000	14.000		6.000
1830	658.0610	Led Modules 12-Inch Green Ball	EACH	20.000	14.000		6.000
1840	658.0615	Led Modules 12-Inch Red Arrow	EACH	10.000	6.000		4.000
1850	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	24.000	16.000		8.000
1860	658.0625	Led Modules 12-Inch Green Arrow	EACH	14.000	10.000		4.000
1870	658.0635	Led Modules Pedestrian Countdown Timer 16-Inch	EACH	8.000	8.000		
1880	658.5069	Signal Mounting Hardware (location) 01. STH 42 & North Ave	LS	1.000	1.000		

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
1890	658.5069	Signal Mounting Hardware (location) 03. STH 42 & CTH J/CTH DL	LS	1.000			1.000
1900	659.1120	Luminaires Utility LED B	EACH	4.000			4.000
1910	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	2.000	2.000		
1920	661.0200	Temporary Traffic Signals for Intersections (location) 01. STH 42 & North Ave	LS	1.000	1.000		
1930	690.0150	Sawing Asphalt	LF	1,351.000	1,287.000		64.000
1940	690.0250	Sawing Concrete	LF	17,768.000	5,979.000		11,789.000
1950	715.0415	Incentive Strength Concrete Pavement	DOL	5,672.700	5,672.700		
1960	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000		
1970	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000		
1980	SPV.0060	Special 03. Inlet Covers Temporary	EACH	5.000	5.000		
1990	SPV.0060	Special 04. Storm Sewer Manhole Covers Type J-Modified	EACH	19.000	19.000		
2000	SPV.0060	Special 05. Traffic Signal Controller and Cabinet	EACH	1.000	1.000		
2010	SPV.0060	Special 06. Poles Type 13	EACH	4.000	4.000		
2020	SPV.0060	Special 10. Monotube Arms 35-Ft	EACH	2.000	2.000		
2030	SPV.0060	Special 12. Monotube Arms 50-Ft	EACH	2.000	2.000		
2040	SPV.0060	Special 15. Concrete Bases Type 13 Contractor Supplied Anchor Bolts and Rods	EACH	4.000	4.000		
2050	SPV.0060	Special 20. Lighting Assembly	EACH	31.000	31.000		
2060	SPV.0060	Special 26. Sanitary Manhole Cover Type J-Specia	EACH	6.000			6.000
2070	SPV.0060	Special 27. Internal Chimney Seal	EACH	19.000			19.000
2080	SPV.0060	Special 28. Lateral Connection Sealing	EACH	3.000			3.000
2090	SPV.0060	Special 30. Adjusting Water Valve Boxes	EACH	16.000			16.000
2100	SPV.0075	Special 01. Street Sweeping	HRS	100.000	100.000		
2110	SPV.0090	Special 03. Storm Sewer Pipe PVC 8-Inch	LF	12.000	12.000		
2120	SPV.0090	Special 04. Storm Sewer Pipe PVC 12-Inch	LF	24.000	24.000		
2130	SPV.0090	Special 05. Televising Storm Sewer	LF	3,400.000			3,400.000
2140	SPV.0090	Special 10. Abandoning Sanitary Sewer 10-Inch	LF	110.000			110.000
2150	SPV.0090	Special 11. Remove Sanitary Sewer	LF	1,001.000			1,001.000
2160	SPV.0090	Special 12. Sanitary Sewer Cured-In-Place Liner	LF	1,104.000			1,104.000
2170	SPV.0090	Special 14. Sanitary Sewer 8 Inch	LF	764.000			764.000
2180	SPV.0090	Special 16. Sanitary Sewer Laterals 6 Inch	LF	228.000			228.000
2190	SPV.0090	Special 17. Televising Sanitary Sewer	LF	764.000			764.000
2200	SPV.0090	Special 20. Railing Steel Pedestrian, Type C3, Special	LF	230.000	230.000		
2210	SPV.0105	Special 01. Concrete Pavement Joint Layout	LS	1.000	1.000		
2220	SPV.0105	Special 03. Grading and Shaping for Widening Calumet Drive	LS	1.000	1.000		
2230	SPV.0105	Special 05. Construction Staking Sanitary Sewer	LS	1.000			1.000
2240	SPV.0105	Special 06. Remove and Salvage Traffic Signals STH	LS	1.000	1.000		

					4630-05-71	4630-05-72	4630-30-60
Line	Item	Item Description	Unit	Total	Qty	Qty	Qty
		42 & North Ave					
2250	SPV.0105	Special 10. Vehicular Video Detection System 4-Camera (Calumet Dr and North Ave)	LS	1.000	1.000		
2260	SPV.0105	Special 12. Traffic Signal Preemption and Priority Control System	LS	1.000	1.000		
2270	SPV.0105	Special 13. Remove Traffic Signals STH 42 & CTH J / DL	LS	1.000			1.000
2280	SPV.0120	Special 01. Water for Seeded Areas	MGAL	7.000	7.000		
2290	SPV.0165	Special 01. Thickened Edge Concrete Sidewalk	SF	1,587.000	1,587.000		
2300	SPV.0165	Special 02. Concrete Retaining Curb	SF	420.000	420.000		
2310	SPV.0180	Special 01. Sealing Concrete Pavement Joints	SY	19,781.000		19,781.000	
2320	SPV.0195	Special 01. Exc Haul & Disposal Of Petrol Contam Soil & Manage Petrol Contam Groundwater	TON	500.000		500.000	
2330	SPV.0200	Special 01. Sanitary Sewer Manholes 48-Inch Diameter	VF	56.480		56.480	
2340	SPV.0200	Special 02. Sanitary Sewer Manhole Liner	VF	64.000		64.000	

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CLEARING AND GRUBBING

STATION	LOCATION	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
5+05	RT	-	4	-	4
6+55	RT	-	4	-	4
7+40	RT	-	4	-	4
11+50	LT	-	3	-	3
12+00	LT	-	3	-	3
12+50	LT	-	3	-	3
12+90	LT	-	3	-	3
13+40	LT	-	3	-	3
23+00 - 24+00	LT	1	-	1	-
24+60	RT	-	15	-	15
25+00 - 28+00	RT, LT	3	-	3	-
PROJECT TOTALS		4	42	4	42

REMOVING PAVEMENT

204.0100

STATION	LOCATION	S.Y.
4+48.50 - 27+41.48	STH 42 LT	9542
4+48.50 - 27+41.48	STH 42 RT	9657
PROJECT TOTAL		19199

REMOVING ASPHALTIC SURFACE

204.0110

STATION	LOCATION	S.Y.
8+60 - 8+70	25TH ST	53
PROJECT TOTAL		53

REMOVING SIDEWALK

204.0155

STATION	LOCATION	S.Y.
4+48.50 - 10+50	STH 42 LT	403
10+50 - 21+70	STH 42 LT	709
21+70 - 22+20	STH 42 LT	124
22+20 - 27+41+48	STH 42 LT	324
4+48.50 - 9+00	STH 42 RT	398
9+00 - 22+50	STH 42 RT	767
22+50 - 26+00	STH 42 RT	223
26+00 - 27+41.48	STH 42 RT	117
PROJECT TOTAL		3065

REMOVING CURB AND GUTTER

204.0150

STATION TO STATION	LOCATION	LF	REMARKS
6+50 - 7+50	STH 42 LT	78	PARKING LOT
6+50 - 7+00	STH 42 RT	28	DRIVEWAY
8+00	STH 42 LT	43	PARKING LOT
8+10	STH 42 RT	10	PARKING LOT
8+00 - 8+50	NORTH AVE RT	12	DRIVEWAY
11+60 - 12+00	NORTH AVE LT	28	DRIVEWAY
10+25 - 13+00	STH 42 RT	264	PARKING LOT
11+50 - 14+00	STH 42 LT	249	PARKING LOT
17+10	STH 42 LT	18	DRIVEWAY
17+10 - 17+40	STH 42 RT	30	DRIVEWAY
5+35 - 27+41.48	STH 42 LT	1805	FOR STAGE 1
5+35 - 27+41.48	STH 42 LT	1805	TEMPORARY CURB
PROJECT TOTAL		4370	

REMOVING CONCRETE BASES

204.0195

STATION	LOCATION	EACH
8+57	28' RT	1
8+62	43' RT	1
11+19 (NORTH)	41' RT	1
9+50	40' LT	1
9+68 (NORTH)	35' RT	1
8+83 (NORTH)	34' LT	1
10+91	42' LT	1
10+21	30' RT	1
10+25 (NORTH)	36' LT	1
PROJECT TOTAL		9

EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM-CONTAMINATED SOIL AND MANAGEMENT OF PETROLEUM-CONTAMINATED GROUNDWATER

SPV.0195.01

STATION TO STATION	LOCATION	TON	REMARKS
10+00 - 12+50	STH 42 LT	125	WALGREENS SITE 3
7+75 - 10+00	NORTH AVE. LT.	125	WALGREENS SITE 3
8+60 - 9+40	NORTH AVE. RT.	125	Q-MART SITE 4
8+75 - 9+60	STH 42 20' LT.	125	Q-MART SITE 4
PROJECT TOTAL		500	

THIS ITEM IS PART OF PROJECT 4630-05-72

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REMOVING STORM SEWER 12-INCH OR LESS

204.0245.01

STATION	STRUCTURE	TO	STATION	STRUCTURE	LOCATION	LF
8+92 (MAIN)	NA	-	9+64 (MAIN)	MH	RT	73
4+74	MH	-	4+86	MH	RT TO LT	71
4+86	MH	-	5+48	INL	LT TO RT	84
5+15	TEE	-	5+55	INL	LT	45
8+71	INL	-	10+06	MH	RT	138
9+45	INL	-	10+06	MH	LT TO RT	75
10+06	MH	-	10+27	STUB	RT TO LT	28
10+06	MH	-	10+30	STUB	RT TO LT	25
10+06	MH	-	10+23	STUB	RT	21
10+06	MH	-	12+46 (NORTH)	NA	RT	266
16+00	NA	-	16+02	INL	LT TO RT	65
16+02	INL	-	16+77	MH	RT	80
16+77	MH	-	17+44	TEE	RT	66
17+25	INL	-	17+44	TEE	LT TO RT	56
17+44	TEE	-	21+34	TEE	RT	390
21+34	INL	-	21+34	TEE	LT TO RT	47
21+34	INL	-	21+59	INL	LT	44
21+34	INL	-	22+00	TEE	RT	67
22+00	TEE	-	22+00	INL	RT	3
22+00	TEE	-	22+52	MH	RT	52
22+38	INL	-	22+52	MH	LT TO RT	60
22+38	INL	-	22+78	INL	LT	42
22+52	MH	-	22+92	INL	RT	41
10+25 (25TH)	MH	-	10+79 (25TH)	NA	LT	54
23+88	NA	-	23+90	MH	RT	12
23+90	MH	-	24+54	INL	RT	63
24+54	INL	-	26+08	MH	RT	155
25+95	INL	-	26+08	MH	LT TO RT	57
26+08	MH	-	26+27	TEE	RT	19
26+27	TEE	-	26+27	INL	RT	4
26+27	TEE	-	27+41	NA	RT	114
10+20 (26TH)	MH	-	10+96 (26TH)	TEE	LT	68
10+96 (26TH)	TEE	-	11+02 (26TH)	INL	LT	10
10+96 (26TH)	TEE	-	11+16 (26TH)	MH	LT TO RT	28
11+00 (26TH)	INL	-	11+16 (26TH)	MH	RT	23
11+16 (26TH)	MH	-	11+21 (26TH)	NA	RT	5

PROJECT TOTAL 2451

REMOVING STRUCTURES

STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	REMARKS
9+65 (MAIN)	8' RT	1	-	
5+50	25' RT	-	1	
5+55	25' LT	-	1	
8+70	33' RT	-	1	
9+40	35' LT	-	1	
10+08	4' RT	1	-	
10+92	28' LT	1	-	4630-05-72
13+70	16' LT	1	-	4630-05-72
16+00	25' RT	-	1	
16+50	16' LT	1	-	4630-05-72
16+75	33' RT	1	-	
17+25	25' LT	-	1	
18+40	29' RT	1	-	4630-05-72
19+20	15' RT	1	-	4630-05-72
19+25	12' LT	1	-	4630-05-72
21+35	25' LT	-	1	
9+00 (25TH)	28' RT	-	1	
22+00	25' RT	-	1	
9+70 (25TH)	22' LT	-	1	
22+50	22' RT	1	-	
22+78	25' LT	-	1	
22+92	25' RT	-	1	
23+88	28' RT	1	-	
24+55	25' RT	-	1	
25+88	35' LT	-	1	
26+07	26' RT	1	-	
26+27	25' RT	-	1	
11+00 (26TH)	18' RT	-	1	
11+00 (26TH)	18' LT	-	1	
11+18 (26TH)	10' RT	1	-	
PROJECT TOTALS		7	17	4630-05-71
PROJECT TOTALS		6	0	4630-05-72
CONTRACT TOTALS		13	17	

3

EARTHWORK SUMMARY

Division	From/To Station	Location	Common Excavation (item # 205.0100)		Salvaged/Unusable Pavement Material	Available Material	Unexpanded Fill	*Expanded Fill	Mass Ordinate +/-	Comment:
			Cut	EBS Excavation				Factor 1.33		
0010 - STH 42	4+48.50 - 27+41.48	STH 42 MAINLINE	9267	0	2035	7232	43	57	7175	STAGE 2
	4+48.50 - 27+41.48	STH 42 MAINLINE	7582	0	1665	5917	36	48	5869	STAGE 3
Subtotal			16849	0	3700	13149	79	105	13044	
0020 - SIDEROADS, DRIVEWAYS, AND UNDISTRIBUTED	8+81 - 9+50	MAIN AVE	234	0	80	154	0	0	154	
	7+94.50 - 9+40	NORTH AVE (WEST)	994	0	240	754	2	3	751	
	10+50 - 12+50	NORTH AVE (EAST)	1763	0	360	1403	8	11	1392	
	8+70.80 - 9+70	25TH ST (WEST)	457	0	150	307	2	3	304	
	10+50 - 10+80	25TH ST (EAST)	264	0	75	189	1	1	188	
	10+30 - 11+22	26TH ST	417	0	125	292	1	1	291	
	4+48.50 - 27+41.48	STH 42	300	0	150	150	0	0	150	CONCRETE DRIVEWAYS
	4+48.50 - 27+41.48	STH 42	125	0	50	75	0	0	75	ASPHALT DRIVEWAYS
	4+48.50 - 27+41.48	STH 42	0	1000	0	0	0	0	0	UNDISTRIBUTED
Subtotal			4554	1000	1230	3324	14	19	3305	
Grand Total			21403	1000	4930	16473	93	124	16349	
			Total Common Exc	22403						

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Breaker Run material.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusable Pavement Material
13) Expanded Fill. Factor = 1.33
14) All excavation required for Stage 1 widening is measured and paid for separately under the Grading and Shaping for Widening Calumet Drive bid item.
15) All excavation required for Stage 3 includes removal of temporary widening work constructed in stage 1.

BASE AGGREGATE

STATION TO STATION	LOCATION	305.0110 DENSE 3/4-INCH TON	305.0120 DENSE 1-1/4-INCH TON	311.0110 BREAKER RUN TON	REMARKS
4+48.50 - 27+41.48	STH 42 RT	-	3502	9320	STAGE 2, NB LANES
4+48.50 - 27+41.48	STH 42 LT	-	3350	8917	STAGE 3, SB LANES
6+20.58 - 13+07.83	STH 42	-	217	579	STAGE 3 (NORTH AVE TURN LANES)
23+48.68 - 27+41.48	STH 42	-	108	288	STAGE 3 (TWLTL)
4+48.50 - 27+41.48	SIDEWALK AREAS	449	-	-	SIDEWALK
4+48.50 - 27+41.48	CONCRETE DRIVEWAYS	-	392	-	
4+48.50 - 27+41.48	ASPHALT DRIVEWAYS	-	515	-	
5+35 - 24+65	TEMPORARY WIDENING	-	643	-	
4+48.50 - 27+41.48	TEMPORARY ACCESS	-	150	-	
4+48.50 - 27+41.48	UNDISTRIBUTED	-	716	1910	
	PROJECT TOTALS	449	9593	21014	

PAVING GAPS

415.0210

STATION	LOCATION	EACH	STAGE
10+00	STH 42 AT NORTH AVE	1	2
11+75 NORTH AVE	DRIVEWAY LT	1	2
13+60	DRIVEWAY RT	1	2
15+75	DRIVEWAY RT	1	2
17+25	DRIVEWAY RT	1	2
19+50	DRIVEWAY RT	1	2
10+00	STH 42 AT NORTH AVE	1	3
9+00 NORTH AVE	DRIVEWAY RT	1	3
13+75	DRIVEWAY LT	1	3
17+00	DRIVEWAY LT	1	3
18+25	DRIVEWAY LT	1	3
	PROJECT TOTAL	11	

3

CONCRETE PAVEMENT SUMMARY

STATION TO STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0610 DRILLED TIE BARS	416.0620 DRILLED DOWEL BARS EACH	SPV.0105.01 JOINT LAYOUT LS	4630-05-72 SPV.0180.01 CONCRETE JOINT SEALING SY	REMARKS
4+48.50 - 27+41.48	STH 42 RT	-	9208	-	34	-	9652	STAGE 2, NB LANES
4+48.50 - 27+41.48	STH 42 LT	-	8761	-	34	-	9185	STAGE 3, SB LANES
6+20.58 - 13+07.83	NORTH AVE	-	620	-	-	-	620	STAGE 3 (NORTH AVE TURN LANES)
23+48.68 - 27+41.48	STH 42	-	324	-	8	-	324	STAGE 3 (STH 42 TURN LANE)
8+21 - 8+91	MAIN AVE	115	-	46	24	-	-	
7+94.50	NORTH AVE	-	-	-	44	-	-	
12+50	NORTH AVE	-	-	-	50	-	-	
8+70.80	25TH ST	-	-	-	32	-	-	
10+80	25TH ST	-	-	-	32	-	-	
11+22	26TH ST	-	-	-	24	-	-	
	PROJECT TOTALS	115	18913	46	282	1	19781	

ASPHALTIC ITEMS

STATION TO STATION	LOCATION	455.0605 TACK COAT GAL	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TONS	465.0125 ASPHALTIC SURFACE TEMPORARY TONS	REMARKS
4+48.50 - 27+41.48	STH 42	80	-	278	TEMPORARY WIDENING, STAGE 1
4+48.50 - 27+41.48	STH 42	25	-	100	TEMPORARY PATCHING ON ROADWAY, UNDISTRIBUTED
6+75	STH 42 RT	1	4	-	
7+00	STH 42 LT	7	22	-	
7+80	STH 42 LT	4	12	-	
9+00	STH 42 LT	2	7	-	
8+25	NORTH AVE RT	1	3	-	
11+90	NORTH AVE LT	2	5	-	
12+20	NORTH AVE LT	1	4	-	
10+25 - 13+00	STH 42 RT	12	36	-	
11+50 - 14+00	STH 42 LT	11	33	-	
13+60	STH 42 RT	3	8	-	
14+25	STH 42 RT	1	3	-	
15+00	STH 42 LT	4	11	-	
17+00	STH 42 LT	2	6	-	
17+25	STH 42 RT	2	5	-	
18+25	STH 42 LT	2	7	-	
8+60 - 8+70	25TH ST	3	8	-	
	PROJECT TOTALS	163	174	378	

CONCRETE DRIVEWAYS

STATION	LOCATION	416.0160 6-INCH S.Y.	416.0170 7-INCH S.Y.
9+15	MAIN AVE RT	37	-
4+75	STH 42 RT	-	70
6+75	STH 42 RT	-	27
7+00	STH 42 LT	-	35
7+80	STH 42 LT	-	28
9+00	STH 42 LT	-	30
8+25	NORTH AVE RT	-	47
9+00	NORTH AVE RT	-	224
11+90	NORTH AVE LT	-	27
12+20	NORTH AVE LT	-	27
12+90	STH 42 RT	-	29
13+60	STH 42 LT	-	34
13+60	STH 42 RT	-	20
14+25	STH 42 RT	-	19
15+00	STH 42 LT	-	34
16+00	STH 42 RT	-	165
17+00	STH 42 LT	-	21
17+25	STH 42 RT	-	24
18+25	STH 42 LT	-	27
19+50	STH 42 RT	-	75
21+20	STH 42 RT	-	78
10+50	26TH ST RT	84	-
11+10	26TH ST RT	14	-
	PROJECT TOTALS	135	1041

INCENTIVE IRI RIDE

440.4410

STATION	LOCATION	DOL	STAGE
4+48.50 - 27+41.48	STH 42 RT	1737	2
4+48.50 - 27+41.48	STH 42 LT	1737	3
PROJECT TOTAL		3474	

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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CURB AND GUTTER

STATION TO STATION	LOCATION	601.0342 18-INCH INTEGRAL LF	601.0405 18-INCH TYPE A LF	601.0407 18-INCH TYPE D LF	601.0600 CONC. CURB PEDESTRIAN LF	REMARKS
4+48.50 - 5+35	STH 42 LT	111	-	-	-	
5+35 - 11+00	STH 42 LT	649	-	-	-	
11+00 - 21+75	STH 42 LT	1172	-	-	-	
21+75 - 27+41.48	STH 42 LT	614	-	-	-	
4+48.50 - 8+40	STH 42 RT	501	-	-	-	
8+40 - 22+50	STH 42 RT	1526	-	-	-	
22+50 - 26+00	STH 42 RT	431	-	-	-	
26+00 - 27+41.48	STH 42 RT	208	-	-	-	
4+60	STH 42 LT	-	-	-	10	
8+15	STH 42 RT	-	-	-	56	BEHIND SIDEWALK
8+30 - 9+00	STH 42 RT	-	141	-	102	ISLAND
10+00	STH 42 RT	-	-	-	28	BEHIND SIDEWALK
10+50 - 11+00	STH 42 LT	-	102	-	64	ISLAND
8+85 - 9+65	25TH ST	-	167	-	69	ISLAND
4+75	STH 42 RT	-	20	-	-	DRIVEWAY
6+75	STH 42 RT	-	-	15	-	DRIVEWAY
6+50 - 7+50	STH 42 LT	-	-	78	-	DRIVEWAY
8+00	STH 42 LT	-	-	35	-	DRIVEWAY
8+25	NORTH AVE RT	-	-	10	-	DRIVEWAY
8+60	NORTH AVE RT	8	-	-	-	DRIVEWAY
11+70	NORTH AVE RT	-	-	13	-	PARKING LOT
10+25 - 13+00	STH 42 RT	-	-	256	-	PARKING LOT
11+50 - 14+00	STH 42 LT	-	-	236	-	PARKING LOT
17+10	STH 42 LT			12		DRIVEWAY
17+25	STH 42 RT	-	-	20	-	DRIVEWAY
19+50	STH 42 RT	28	-	-	-	DRIVEWAY
21+25	STH 42 RT	30	-	-	-	DRIVEWAY
5+35 - 27+41.48	STH 42 LT	-	-	1805	-	TEMPORARY CURB (STAGE 1)
	PROJECT TOTALS	5278	430	2480	329	

CONCRETE MEDIAN SLOPED NOSE

620.0300

STATION	LOCATION	SF
8+35	STH 42 RT	10
8+55	STH 42 RT	9
8+93	STH 42 RT	11
10+64	STH 42 LT	11
10+83	STH 42 LT	8
10+96	STH 42 LT	9
8+88	25TH ST RT	11
PROJECT TOTAL		69

CONCRETE SIDEWALK

STATION TO STATION	LOCATION	602.0405 4-INCH SF	SPV.0165.01 THICKENED EDGE SF	REMARKS
4+48.50 - 5+35	STH 42 LT	368	-	
5+35 - 11+00	STH 42 LT	2051	-	
11+00 - 21+75	STH 42 LT	5103	-	
21+75 - 27+41.48	STH 42 LT	2722	-	
4+48.50 - 8+40	STH 42 RT	2186	-	
8+40 - 22+50	STH 42 RT	4765	1587	
22+50 - 26+00	STH 42 RT	1623	-	
26+00 - 27+41.48	STH 42 RT	1064	-	
8+30 - 9+00	STH 42 RT	1323	-	ISLAND
10+50 - 11+00	STH 42 LT	794	-	ISLAND
8+85 - 9+65	25TH ST	219	-	ISLAND
	PROJECT TOTALS	22218	1587	

COLORING CONCRETE

405.0100

STATION TO STATION	LOCATION	CY	REMARKS
8+75 - 9+50	STH 42	16	CROSS WALK
8+25 - 8+50	STH 42	4	RT TURN CROSS WALK
10+15 - 10+70	STH 42	14	CROSS WALK
10+80 - 11+15	STH 42	5	RT TURN CROSS WALK
9+40	NORTH AVE	12	CROSS WALK
10+60	NORTH AVE	16	CROSS WALK
8+30 - 9+00	STH 42 RT	12	ISLAND
10+50 - 11+00	STH 42 LT	7	ISLAND
PROJECT TOTALS		86	

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

602.0515

INTERSECTION	LOCATION	SF
MAIN AVE	NE QUAD	10
MAIN AVE	SW QUAD	15
MAIN AVE	NW QUAD	20
NORTH AVE	NE QUAD	20
NORTH AVE	SE QUAD	40
NORTH AVE	SW QUAD	20
NORTH AVE	NW QUAD	40
25TH ST	NE QUAD	20
25TH ST	SE QUAD	20
25TH ST	SW QUAD	40
25TH ST	NW QUAD	20
26TH ST	NE QUAD	20
26TH ST	SE QUAD	20
26TH ST	SW QUAD	10
26TH ST	NW QUAD	10
PROJECT TOTAL		325

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ADJUSTING / RECONSTRUCTING MANHOLES

STATION	LOCATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLE COVERS EACH
PROJECT 4630-05-71			
4+74	39' RT	-	1
PROJECT 4630-05-72			
6+15	15' LT	1	-
7+82	24' LT	1	-
8+85 (NORTH AVE)	1' RT	-	1
11+28 (NORTH AVE)	0' OFFSET	-	1
18+98	30' RT	1	-
20+72	30' RT	1	-
10+32 (25TH)	1' RT	1	-
10+72 (26TH)	15' RT	1	-
PROJECT 4630-05-71 TOTAL		0	1
PROJECT 4630-05-72 TOTAL		6	2
CONTRACT TOTALS		6	3

LANDSCAPING SUMMARY

STATION	LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.2008 EROSION MAT, CLASS I URBAN, TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	SPV.0120.01 WATER FOR SEEDED AREAS MGAL
4+48.50 - 5+25 LT	BEGIN PROJECT - MAIN AVE	19	-	19	0.1	0.3	0.5	0.0
5+25 - 10+50 LT	MAIN AVE - NORTH AVE	422	-	422	0.3	8	11	0.5
10+50 - 22+00 LT	NORTH AVE - 25TH ST	1232	-	1232	0.8	22	33	1.5
22+00 - 27+41.48 LT	25TH ST - END PROJECT	891	-	891	0.6	16	24	1.1
4+48.50 - 9+00 RT	BEGIN PROJECT - NORTH AVE	401	-	401	0.3	7	11	0.5
9+00 - 22+50 RT	NORTH AVE - 25TH ST	1360	-	1360	0.9	24	37	1.7
22+50 - 26+00 RT	25TH ST - 26TH ST	439	-	439	0.3	8	12	0.5
26+00 - 27+41.48	26TH ST - END PROJECT	116	-	116	0.1	2	3	0.1
UNDISTRIBUTED	STH 42	600	500	100	0.4	11	16	0.8
	PROJECT TOTALS	5480	500	4980	3.8	98	148	7

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE L.F.	628.1520 SILT FENCE MAINTENANCE L.F.
22+50 - 27+41.48	STH 42	500	500
UNDISTRIBUTED	STH 42	125	125
	PROJECT TOTAL	625	625

TRACKING PAD

628.7560

STATION	LOCATION	EACH
4+48.50	STH 42	2
27+41.48	STH 42	2
	PROJECT TOTAL	4

WATER

624.0100

STATION TO STATION	*LOCATION	MGAL
4+48.50 - 27+41.48	CALUMET DR AND SIDEROADS	80
	PROJECT TOTAL	80

*FOR BASE AGGREGATE DENSE COMPACTION AND DUST CONTROL.

INLET PROTECTION

STRUCTURE TYPE	LOCATION	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH	628.7570 ROCK BAGS EACH	REMARKS
EXISTING	STH 42 LT	-	-	-	1	-	SOUTH OF PROJECT LIMITS
EXISTING	STH 42 RT	-	-	-	1	-	SOUTH OF PROJECT LIMITS
EXISTING	STH 42 LT	-	6	1	-	-	WITHIN PROJECT LIMITS (FOR STAGE 1)
EXISTING	MAIN AVE	-	1	1	-	12	INTERSECTION OF 22ND ST
EXISTING	NORTH AVE WEST	-	-	2	-	-	INTERSECTION OF 24TH ST
EXISTING	25TH ST WEST	-	-	2	-	-	
EXISTING	STH 42 RT	-	-	8	-	-	WITHIN PROJECT LIMITS
EXISTING	NORTH AVE EAST	-	-	2	-	-	INTERSECTION OF 21ST ST
EXISTING	25TH ST EAST	-	-	2	-	-	INTERSECTION OF MAYFLOWER AVE
EXISTING	26TH ST	-	-	2	-	-	
EXISTING	STH 42 RT	1	3	-	-	-	GRASS / PARKING LOTS AT 4+50 - 8+00
EXISTING	STH 42 RT	-	3	-	-	-	PARKING LOT (11+00 - 13+00) & 21+40
EXISTING	STH 42 LT	-	1	-	-	-	PARKING LOT AT 13+25 LT
PROPOSED	STAGE 2 STRUCTURES	12	-	10	2	-	TYPE D AT STH 42 LOW POINTS
PROPOSED	STAGE 3 STRUCTURES	13	-	11	2	-	TYPE D AT STH 42 LOW POINTS
	PROJECT TOTALS	26	14	41	6	12	

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STORM SEWER SUMMARY

FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	* 520.8000 CONCRETE COLLAR EA	608.0312 RCPSS CLASS III 12-INCH LF	608.0315 RCPSS CLASS III 15-INCH LF	608.0318 RCPSS CLASS III 18-INCH LF	608.0324 RCPSS CLASS III 24-INCH LF	608.0330 RCPSS CLASS III 30-INCH LF	SPV.0090.03 PVC 8-INCH LF	SPV.0090.04 PVC 12-INCH LF	** SPV.0090.05 TELEVISING STORM SEWER LF	SLOPE %	PIPE REMARKS
EX 1	1.0	662.41	659.81	-	71	-	-	-	-	-	-	71	3.66	VERIFY INLET ELEV.
1.0	2.0	659.81	658.06	-	70	-	-	-	-	-	-	70	2.50	
2.0	EXISTING	658.06	657.86	1	8	-	-	-	-	-	-	8	2.50	
3.1	3.0	660.98	660.80	-	36	-	-	-	-	-	-	36	0.50	
3.2	3.0	660.81	660.58	-	45	-	-	-	-	-	-	45	0.51	
3.0	4.0	659.79	659.13	-	-	-	-	190	-	-	-	190	0.35	
4.1	4.0	662.02	661.90	-	31	-	-	-	-	-	-	31	0.39	
4.0	5.0	659.13	658.61	-	-	-	-	153	-	-	-	153	0.34	
6.0	5.0	659.38	658.61	-	-	-	-	158	-	-	-	158	0.49	
6.0	7.0	659.93	658.95	-	249	-	-	-	-	-	-	249	0.39	
6.1	6.0	661.20	661.08	-	31	-	-	-	-	-	-	31	0.39	
7.1	7.0	660.12	660.01	-	21	-	-	-	-	-	-	21	0.52	
7.2	7.0	659.62	659.45	-	34	-	-	-	-	-	-	34	0.50	
7.0	8.0	657.95	657.22	-	-	-	-	203	-	-	-	203	0.36	
8.1	8.0	659.40	659.28	-	36	-	-	-	-	-	-	36	0.33	
8.2	8.0	658.86	658.71	-	34	-	-	-	-	-	-	34	0.44	
8.0	9.0	657.22	656.24	-	-	-	-	273	-	-	-	273	0.36	
9.1	9.0	656.78	656.57	-	21	-	-	-	-	-	-	21	1.00	
9.2	9.0	657.53	657.36	-	34	-	-	-	-	-	-	34	0.50	
9.0	10.0	655.47	653.45	-	-	-	-	315	-	-	-	315	0.64	
10.1	10.0	654.56	654.35	-	21	-	-	-	-	-	-	21	1.00	
10.0	11.0	653.45	653.08	-	-	-	-	-	70	-	-	70	0.53	
11.0	13.0	653.08	652.67	-	-	-	-	-	64	-	-	64	0.64	
13.0	EXISTING	652.67	652.63	-	6	-	-	-	-	-	-	6	0.64	
12.0	11.0	653.41	653.08	-	-	-	-	93	-	-	-	93	0.35	
12.1	12.0	654.03	653.41	-	-	21	-	-	-	-	-	21	2.95	
12.2	12.1	654.38	654.03	-	47	-	-	-	-	-	-	47	0.74	
12.3	12.0	654.78	654.61	-	35	-	-	-	-	-	-	35	0.50	
14.0	17.0	655.74	655.54	-	-	-	-	69	-	-	-	69	0.30	
14.1	14.0	656.03	655.74	-	60	-	-	-		-	-	60	0.64	
	SUBTOTALS			1	890	21	0	1454	134	0	0	2499		

* ADDITIONAL QUANTITIES ELSEWHERE
** ITEM PART OF PROJECT ID 4630-05-72

3

STORM SEWER SUMMARY

FROM STRUCTURE	TO STRUCTURE	INLET ELEVATION	OUTLET ELEVATION	* 520.8000 CONCRETE COLLAR EA	608.0312 RCPSS CLASS III 12-INCH LF	608.0315 RCPSS CLASS III 15-INCH LF	608.0318 RCPSS CLASS III 18-INCH LF	608.0324 RCPSS CLASS III 24-INCH LF	608.0330 RCPSS CLASS III 30-INCH LF	SPV.0090.03 PVC 8-INCH LF	SPV.0090.04 PVC 12-INCH LF	** SPV.0090.05 TELEVISING STORM SEWER LF	SLOPE %	PIPE REMARKS
15.0	14.0	655.85	655.74	-	-	-	37	-	-	-	-	37	0.30	
16.0	15.0	656.12	655.85	-	-	88	-	-	-	-	-	88	0.31	
EXISTING	16.0	656.15	656.12	1	-	8	-	-	-	-	-	8	0.31	
17	18.0	655.54	655.45	-	-	-	-	30	-	-	-	66	0.30	
18.1	18.0	655.69	655.45	-	25	-	-	-	-	-	-	25	0.96	
18.0	EXISTING	655.45	655.44	1	4	-	-	-	-	-	-	4	0.30	
5.2	5.1	660.56	659.92	-	83	-	-	-	-	-	-	83	0.77	
5.1	5.0	659.92	659.47	-	56	-	-	-	-	-	-	56	0.80	
5.0	19.0	658.61	658.14	-	-	-	-	136	-	-	-	136	0.34	
19.1	19.0	660.98	660.55	-	43	-	-	-	-	-	-	43	1.00	
19.0	20.0	658.14	657.73	-	-	-	-	122	-	-	-	122	0.34	
20.0	EXISTING	657.73	657.71	1	4	-	-	-	-	-	-	4	0.34	
20.1	20.0	659.29	659.20	-	9	-	-	-	-	-	-	9	1.00	
20.2	20.0	659.60	659.20	-	59	-	-	-	-	-	-	59	0.68	
21.0	10.0	654.57	654.08	-	-	-	49	-	-	-	-	49	1.00	
21.1	21.0	655.04	654.57	-	-	17	-	-	-	-	-	17	2.76	
21.2	21.1	655.27	655.04	-	17	-	-	-	-	-	-	17	1.35	
21.3	21.2	655.42	655.27	-	31	-	-	-	-	-	-	31	0.48	
21.4	21.0	654.74	654.57	-	16	-	-	-	-	-	-	16	1.06	
21.5	21.4	654.89	654.74	-	31	-	-	-	-	-	-	31	0.48	
EXISTING	8.2	EXISTING	658.86	-	-	-	-	-	-	-	12	-	-	VERIFY CONNECTION
EXISTING	9.2	EXISTING	657.53	-	-	-	-	-	-	-	12	-	-	VERIFY CONNECTION
EXISTING	12.2	EXISTING	654.38	-	-	-	-	-	-	12	-	-	-	VERIFY CONNECTION
		SUBTOTALS		3	378	113	86	288	0	12	24	901		
		PROJECT TOTALS		4	1268	134	86	1742	134	12	24	3400		

* ADDITIONAL QUANTITIES ELSEWHERE
** ITEM PART OF PROJECT ID 4630-05-72

3

3

STORM SEWER STRUCTURES

STRUCTURE NO.	STATION	LOCATION	MANHOLES 611.2004 4-FT DIA. EACH	MANHOLES 611.2005 5-FT DIA. EACH	MANHOLES 611.2006 6-FT DIA. EACH	CATCH BASINS 611.1230 2X3-FT EACH	INLETS 611.3004 4-FT DIA EACH	INLET COVERS 611.0624 TYPE H EACH	MANHOLE COVERS SPV.0060.04 TYPE J MODIFIED EACH	RIM ELEVATION	FLOWLINE OF STRUCTURE	STRUCTURE DEPTH
1.0	9+64.27 (MAIN)	6.79' RT	1	-	-	-	-	-	1	665.29	659.81	4.23
2.0	8+94.43 (MAIN)	8.10' RT	1	-	-	-	-	-	1	664.09	658.06	4.78
3.0	6+50	5.00' RT	1	-	-	-	-	-	1	665.42	659.49	4.68
3.1	6+20.58	28.50' RT	-	-	-	1	-	1	-	664.81	660.98	2.83
3.2	6+20.58	28.50' LT	-	-	-	1	-	1	-	664.81	660.81	3.00
4.0	8+40.21	4.00' LT	1	-	-	-	-	-	1	666.13	659.13	5.75
4.1	8+38.75	28.50' RT	-	-	-	1	-	1	-	665.52	662.02	2.50
5.0	9+93.31	4.00' LT	-	-	1	-	-	-	1	666.00	658.61	6.14
5.1	9+45.78 (NORTH)	32.50' RT	-	-	-	1	-	1	-	664.92	659.92	4
5.2	8+80.33 (NORTH)	21.50' LT	-	-	-	1	-	1	-	665.06	660.56	3.50
6.0	11+50.98	4.00' LT	1	-	-	-	-	-	1	665.53	659.38	4.90
6.1	11+52.48	28.50' RT	-	-	-	1	-	1	-	664.95	661.2	2.75
7.0	14+00	7.00' RT	1	-	-	-	-	-	1	664.52	657.95	5.32
7.1	13+98.50	28.50' RT	-	-	-	1	-	1	-	664.12	660.12	3
7.2	13+98.50	28.50' LT	-	-	-	1	-	1	-	664.12	659.62	3.5
8.0	16+02.50	7.00' RT	1	-	-	-	-	-	1	663.74	657.22	5.27
8.1	15+89	28.50' RT	-	-	-	1	-	1	-	663.40	659.4	3
8.2	16+01	28.50' LT	-	-	-	1	-	1	-	663.36	658.86	3.5
9.0	18+75	7.00' RT	1	-	-	-	-	-	1	661.68	655.47	4.96
9.1	18+73.50	28.50' LT	-	-	-	1	-	1	-	661.28	656.78	3.5
9.2	18+73.50	28.50' RT	-	-	-	1	-	1	-	661.28	657.53	2.75
10.0	21+90	6.85' RT	-	1	-	-	-	-	1	659.45	653.45	4.75
10.1	18+73.50	28.50' RT	-	-	-	1	-	1	-	659.06	654.56	3.50
11.0	22+46.79	6.85' RT	-	-	1	-	-	-	1	659.00	653.08	4.67
12.0	23+40	6.85' RT	1	-	-	-	-	-	1	658.60	653.41	3.94
		SUBTOTALS	9	1	2	13	0	13	12			

LOCATION IS TO CENTER OF STRUCTURE FOR MANHOLES
LOCATION IS TO CENTER BACK OF CURB FOR INLETS
FLOW LINE OF STRUCTURE = LOWEST PIPE FLOW LINE ELEVATION ENTERING STRUCTURES

RIM ELEVATION = FINISHED EDGE OF PAVEMENT FOR STRUCTURES WITH TYPE H CASTING
RIM ELEVATION = TOP OF CASTING FOR STRUCTURES WITH TYPE J SPECIAL MANHOLE CASTINGS

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 12" FOR INLETS WITH TYPE H CASTINGS
STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 15" FOR MANHOLES WITH TYPE J SPECIAL MANHOLE CASTINGS

ALL INLETS TO BE CONSTRUCTED WITH 2-FOOT SUMP BENEATH LOWEST PIPE ELEVATION

3

STORM SEWER STRUCTURES

STRUCTURE NO.	STATION	LOCATION	MANHOLES 611.2004 4-FT DIA. EACH	MANHOLES 611.2005 5-FT DIA. EACH	MANHOLES 611.2006 6-FT DIA. EACH	CATCH BASINS 611.1230 2X3-FT EACH	INLETS 611.3004 4-FT DIA EACH	INLET COVERS 611.0624 TYPE H EACH	MANHOLE COVERS SPV.0060.04 TYPE J MODIFIED EACH	RIM ELEVATION	FLOWLINE OF STRUCTURE	STRUCTURE DEPTH
12.1	23+43.08	28.50' RT	-	-	-	1	-	1	-	658.23	654.03	3.20
12.2	23+90.28	28.50' RT	-	-	-	1	-	1	-	658.38	654.38	3.00
12.3	23+41.68	29.13' LT	-	-	-	1	-	1	-	658.23	654.78	2.45
13.0	10+73 (25TH)	12.40' LT	-	-	1	-	-	-	1	658.91	652.67	4.99
14.0	26+08.30	20.66' RT	1	-	-	-	-	-	1	660.06	655.74	3.07
14.1	25.88.80	37.39' LT	-	-	-	1	-	1	-	659.88	656.03	2.85
15.0	26+45.37	25.81' RT	-	-	-	-	1	1	-	660.33	655.85	3.48
16.0	27+33.07	19.95' RT	1	-	-	-	-	-	1	661.12	656.12	3.75
17.0	11+04.63 (26TH)	18.00' LT	-	-	-	-	1	1	-	659.24	655.54	2.7
18.0	11+17.52 (26TH)	10.33' RT	1	-	-	-	-	-	1	659.49	655.45	2.79
18.1	10+96.52 (26TH)	18.00' RT	-	-	-	1	-	1	-	659.19	655.69	2.50
19.0	11+20.95 (NORTH)	10.00' LT	-	1	-	-	-	-	1	664.87	658.14	5.48
19.1	11+19.55 (NORTH)	34.00' RT	-	-	-	1	-	1	-	664.98	660.98	3.00
20.0	12+42.11 (NORTH)	26.16' LT	-	-	1	-	-	-	1	663.07	657.73	4.09
20.1	12+35.33 (NORTH)	34.00' LT	-	-	-	1	-	1	-	663.04	659.29	2.75
20.2	12+35.33 (NORTH)	34.00' RT	-	-	-	1	-	1	-	663.35	659.6	2.75
21.0	21+90	42.00' LT	1	-	-	-	-	-	1	660.19	654.57	4.37
21.1	9+29.00 (25TH)	26.98' RT	-	-	-	1	-	1	-	659.54	655.04	3.50
21.2	9+12.39 (25TH)	40.86' RT	-	-	-	1	-	1	-	659.65	655.27	3.38
21.3	21+29.50	28.50' RT	-	-	-	1	-	1	-	659.42	655.42	3
21.4	9+44.96 (25TH)	1.50' RT	-	-	-	1	-	1	-	659.33	654.74	3.59
21.5	9+66.12 (25TH)	22.50' LT	-	-	-	1	-	1	-	658.64	654.89	2.75
		SUBTOTALS	4	1	2	13	2	15	7			
		PROJECT TOTALS	13	2	4	26	2	28	19			

LOCATION IS TO CENTER OF STRUCTURE FOR MANHOLES
LOCATION IS TO CENTER BACK OF CURB FOR INLETS
FLOW LINE OF STRUCTURE = LOWEST PIPE FLOW LINE ELEVATION ENTERING STRUCTURES

RIM ELEVATION = FINISHED EDGE OF PAVEMENT FOR STRUCTURES WITH TYPE H CASTING
RIM ELEVATION = TOP OF CASTING FOR STRUCTURES WITH TYPE J SPECIAL MANHOLE CASTINGS

STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 12" FOR INLETS WITH TYPE H CASTINGS
STRUCTURE DEPTH = RIM ELEVATION MINUS FLOW LINE OF STRUCTURE MINUS 15" FOR MANHOLES WITH TYPE J SPECIAL MANHOLE CASTINGS

ALL INLETS TO BE CONSTRUCTED WITH 2-FOOT SUMP BENEATH LOWEST PIPE ELEVATION

PAGE 2 OF 2

PIPE UNDERDRAIN UNPERFORATED 8-INCH
612.0208

STATION	LOCATION	LF	REMARKS
17+25 - 23+45	STH 42 LT	620	
UNDISTRIBUTED	STH 42	100	AT TEMP CONNECTIONS
	PROJECT TOTAL	720	

INLET COVERS TEMPORARY
SPV.0060.03

STATION	LOCATION	EACH
5+55	STH 42 LT	1
9+44	STH 42 LT	1
17+26	STH 42 LT	1
21+33	STH 42 LT	1
22+78	STH 42 LT	1
	PROJECT TOTAL	5

PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0812 POSTS TUBULAR STEEL 2x2x12 EACH	634.0814 POSTS TUBULAR STEEL 2x2x14 EACH	634.0816 POSTS TUBULAR STEEL 2x2x16 EACH	REMARKS
1.A	STA. 4+76.82 39' LT.	R1-1	30" X 30"	5.18			1		STH 42
1.E	STA. 5+73.01 30' RT.	R3-17	30" X 24"	5.00			1		STH 42
1.B	STA. 4+45.00 26' LT.	J4-1	24" X 36"	6.00				1	STH 42
1.F	STA. 6+33.94 30' LT.	S1.1	36" X 36"		9.00			1	STH 42
1.G		S16-9P	24" X 12"		2.00				STH 42
1.C	STA. 6+56.66 33' LT.	R3-17	30" X 24"	5.00				1	STH 42
1.D		R3-17B	30" X 12"	2.50					STH 42
1.H	STA. 6+96.22 30' RT.	R3-8M	54" X 30"	11.25			1		STH 42
1.I	STA. 7+40.77 30' RT.	R14-1	24" X 18"	3.00			1		STH 42
1.J		M6-6	21" X 21"	3.06					STH 42
2.G	STA. 7+75.60 30' RT.	R4-4	36" X 30"	7.50			1		STH 42
2.H	STA. 8+16.57 53' RT.	R1-2	36" X 31"	7.75			1		STH 42
2.A	STA. 8+24.20 41' LT.	R2-1	24" X 30"	5.00				1	STH 42
2.B		R7-1D	18" X 24"	3.00					STH 42
2.C	STA. 8+75.18 41' LT.	R3-17	30" X 24"	5.00			1		STH 42
2.D	STA. 9+62.95 41' LT.	R3-4	24" X 24"	4.00					STH 42 (ON NEW SIGNAL)
2.I	STA. 10+03.10 32' RT.	R3-4	24" X 24"	4.00			1		STH 42
2.J	STA. 10+81.90 31'RT.	R3-17	30" X 24"	5.00				1	STH 42
2.K		R7-10	18" X 24"	3.00					STH 42
2.F	STA. 11+24.70 59' LT.	R1-2	36" X 31"	7.75			1		STH 42
2.E	STA. 7+65.33 33' LT.	R5-2	24" X 24"	4.00			1		NORTH AVE.
2.L	STA. 11+57.11 30' RT.	M4-5	24" X 12"	2.00			1		STH 42
2.M		M1-1	24" X 24"	4.00					STH 42
2.M.1		M1-93	24" X 24"	4.00					
2.N	STA. 12+50.16 30' RT.	R2-1	24" X 30"	5.00			1		STH 42
2.8 & 2.9	STA. 13+14 LT	MOVE					1		STH 42
3.1	13+58 LT.	MOVE					1		STH 42
3.A	STA. 14+61.88 30' LT.	S1-1	36" X 36"		9.00			1	STH 42
3.B		S16-9P	24" X 12"		2.00				STH 42
3.E	STA. 14+66.23 30' RT.	J4-1	24" X 36"	6.00				1	STH 42
3.E.1		M1-93	24" X 24"	4.00					STH 42
3.C	STA. 16+34.39 30' LT.	R3-17	30" X 24"	5.00				1	STH 42
3.D		R7-1D	18" X 24"	3.00					STH 42
3.F	STA. 16+69.66 31' RT.	R3-17	30" X 24"	5.00				1	STH 42
3.G	STA. 16+69.66 31' RT.	R7-1D	18" X 24"	3.00					STH 42
SUBTOTALS				137.99	22.00	0	14	9	

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0812 POSTS TUBULAR STEEL 2x2x12 EACH	634.0814 POSTS TUBULAR STEEL 2x2x14 EACH	634.0816 POSTS TUBULAR STEEL 2x2x16 EACH	REMARKS
3.H		R7-1D	18" X 24"	3.00					STH 42
4.6 & 4.7	STA. 9+18 LT.	MOVE					1		STH 42
4.A	STA. 19+92.81 31' LT.	R2-1	24" X 30"	5.00			1		STH 42
4.G	STA. 20+84.86 31' RT.	R2-1	24" X 30"	5.00				1	STH 42
4.H		R7-1D	18" X 24"	3.00					STH 42
4.B	STA. 20+94.91 31' LT.	R3-17	30" X 24"	5.00				1	STH 42
4.C		R7-1D	18" X 24"	3.00					STH 42
4.D	STA. 21+51.29 43' LT.	R1-1	30" X 30"	5.18				1	STH 42
4.E		R3-2	24" X 24"	4.00					STH 42
4.F	STA. 8+90.85 4' RT.	R4-7	24" X 30"	5.00			1		25TH STREET
4.I	STA. 22+82.77 42' RT.	R1-1	30" X 30"	5.18			1		STH 42
4.J	STA. 23+67.48 31' RT.	W54-51	30" X 30"		6.25			1	STH 42
4.K		R7-10	18" X 24"	3.00					STH 42
4.L	STA. 24+51.99 31' RT.	R3-17	30" X 24"	5.00				1	STH 42
4.M		R3-17B	30" X 12"	2.50					STH 42
5.1	STA. 10+66 28' RT.	MOVE				1			STH 42
5.C	STA. 26+13.28 41' RT.	R1-1	30" X 30"	5.18			1		STH 42
5.A	STA. 25+36.40 37' LT.	R3-17	30" X 24"	5.00				1	STH 42
5.B		R7-1D	18" X 24"	3.00					STH 42
6.5	STA. 10+88 LT.	MOVE				1			STH 42
6.A	STA. 8+21.39 33' LT.	R3-17	30" X 24"	5.00			1		NORTH AVE.
6.P	STA. 8+81.40 33' LT.	R10-12	24" X 30"	5.00					NORTH AVE. (ON SB4)
6.B	STA. 10+43.56 37' LT.	S1-1	36" X 36"	9.00				1	NORTH AVE.
6.C		R10-11S	24" X 36"	6.00					NORTH AVE.
6.D	STA/ 11+31.56 37' LT.	R14-1	24" X 18"	3.00			1		NORTH AVE.
6.E		M6-4	21" X 21"	3.06					NORTH AVE.
6.F	STA. 11+67.66 38' LT.	M4-5	24" X 12"	2.00				1	NORTH AVE.
6.G		M1-1	24" X 24"	4.00					NORTH AVE.
6.H		M6-1	21" X 21"	3.06					NORTH AVE.
6.O	STA. 11+96.02 43' RT.	R7-10	18" X 24"	3.00			1		NORTH AVE.
6.I	STA. 12+34.02 36' LT.	R4-4	36" X 30"	7.50				1	NORTH AVE.
6.N		R7-1O	18" X 24"	3.00					NORTH AVE.
6.J	STA. 12+49.98 43' LT.	R3-8L	54" X 30"	11.25			2		NORTH AVE.
6.K	STA. 12+71.32 35' LT.	R3-17	30" X 24"	5.00			1		NORTH AVE.
6.L	STA. 12+74.89 43' RT.	R3-17	30" X 24"	5.00			1		NORTH AVE.
6.M		R3-17B	30" X 12"	2.50					NORTH AVE.
6.Q	STA. 7+00 36' RT	R3-8A	36" X 30"	7.50			1		NORTH AVE.
SUBTOTALS				151.92	6.25	2	13	9	
PROJECT TOTALS				289.91	28.25	2	27	18	

3

REMOVING SIGNS

STATION	LOCATION	SIGN #	638.2102 MOVING SIGNS TYPE II EA	638.2602 REMOVING SIGNS TYPE II EA	638.3000 REMOVING SMALL SIGN SUPPORTS EA	REMARKS
9+74 RT.	MAIN AVE	1.1	-	1	1	
4+98 RT.	STH 42	1.4	-	1	1	
5+67 RT.	STH 42	1.5	-	1	1	
6+26 LT.	STH 42	1.2	-	1	1	
6+68 LT.	STH 42	1.3	-	1	1	
7+11 RT.	STH 42	1.6	-	1	1	
7+42 LT.	STH 42	2.1 & 2.2	-	2	1	
8+02 RT.	STH 42	2.11 & 2.12	-	2	1	
8+39 RT.	STH 42	2.13 & 2.14	-	2	1	
8+63 RT.	STH 42	2.15	1	-	-	PLACE ON NEW SIGN
9+64 LT.	STH 42	2.3	-	1	-	ON SIGNAL
9+66 LT	STH 42	2.4	1	-	-	PLACE ON NEW SIGNAL
10+08 RT.	STH 42	2.16	-	1	-	ON SIGNAL
10+46 RT.	STH 42	2.17 & 2.18	-	2	-	ON LIGHT POLE
10+85 LT.	STH 42	2.5 & 2.6	1	1	-	PLACE AT STA 7+66 LT. (NORTH AVE.)
10+87 LT.	STH 42	2.7	1	-	-	PLACE ON NEW SIGNAL
11+26 RT.	STH 42	2.19, 2.20, 2.21	-	3	1	PLACE AT STA. 11+57 RT
13+18 LT.	STH 42	2.8, 2.9, 2.10	2	1	1	PLACE AT STA. 13+14 LT
13+32 RT.	STH 42	2.22	-	1	1	
13+58 LT.	STH 42	3.1	1	-	1	MOVE TO 13+58 LT.
14+57 LT.	STH 42	3.2 & 3.3	-	2	1	
14+58 RT.	STH 42	3.5 & 3.6	-	2	1	MOVE SIGN 3.6 TO 14+66 RT.
15+28 RT.	STH 42	3.7	-	1	1	
16+23 LT.	STH 42	3.4	-	1	1	
19+24 RT.	STH 42	4.12	-	1	1	
19+51 LT.	STH 42	4.1	-	1	1	
20+95 RT.	STH 42	4.13 & 4.14	-	2	1	
21+07 LT.	STH 42	4.2 & 4.3	-	2	1	
21+50 LT.	STH 42	4.15	-	1	1	
21+78 LT.	STH 42	4.16 & 4.17	-	2	1	
21+79 LT.	STH 42	4.1	-	1	1	
22+04 LT.	STH 42	4.11	-	1	1	
22+19 RT.	STH 42	4.18	-	1	1	
8+83 RT.	25TH ST.	4.4 & 4.5	-	2	1	IN MEDIAN
9+10 LT.	25TH ST.	4.6 & 4.7	2	-	1	MOVE SIGNS TO STA. 9+18 LT.
9+16 RT.	25TH ST.	4.8 & 4.9	-	2	1	
9+29 RT.	25TH ST.	4.10	-	1	1	
22+82 RT.	STH 42	4.19	-	1	1	
23+90 RT.	STH 42	4.2	-	1	1	
10+57 RT.	26TH ST.	5.1 & 5.2	1	1	1	MOVE SIGN 5.1 TO 10+66 RT.
10+41 LT.	26TH ST.	5.3	-	1	1	
8+60 LT.	NORTH AVE.	6.1	-	1	1	
10+30 LT.	NORTH AVE.	6.2	1	-	-	PLACE ON NEW SIGNAL
10+36 LT.	NORTH AVE.	6.3 & 6.4	-	2	1	
10+68 LT.	NORTH AVE.	6.5 & 6.6	1	1	1	MOVE SIGN 6.5 TO STA. 10+88 LT.
11+19 LT.	NORTH AVE.	6.7 & 6.8	-	2	1	
11+29 RT.	NORTH AVE.	6.15	-	1	1	
11+41 RT.	NORTH AVE.	6.14	-	1	1	
11+70 LT.	NORTH AVE.	6.9, 6.10, 6.11	-	3	-	ON PP
12+30 LT.	NORTH AVE.	6.12	-	1	1	
12+32 RT.	NORTH AVE.	6.16 & 6.17	1	1	1	MOVE SIGN 6.16 TO STA 11+96 RT.
12+50 LT.	NORTH AVE.	6.13	-	1	1	
7+00 RT.	NORTH AVE.	6.18	-	1	1	
		PROJECT TOTALS	13	64	44	

TEMPORARY PEDESTRIAN FACILITIES

LOCATION	644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1601.S TEMPORARY CURB RAMP EACH	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF	REMARKS
STH 42	7250	6	100	STAGE 1 TEMPORARY SIDEWALK
STH 42 - UNDISTRIBUTED	1000	4	200	STAGE 2 SIDEWALK ACCESS
STH 42 - UNDISTRIBUTED	1000	4	200	STAGE 3 SIDEWALK ACCESS
PROJECT TOTALS	9250	14	500	

CONSTRUCTION STAKING

STATION		TO STATION	LOCATION	650.4000 STORM SEWER EACH	650.4500 SUBGRADE LF	650.5500 CURB GUTTER AND C&G LF	650.7000 CONCRETE PAVEMENT LF	650.8500 ELECTRICAL INSTALLATIONS LS	650.9920 SLOPE STAKES LF	650.9910 SUPPLEMENTAL CONTROL LS	SPV.0105.05 SANITARY SEWER LS	REMARKS
4+48.50	-	27+41.48	STH 42	47	2294	-	2294	1	2294	1	-	
4+48.50	-	27+41.48	STH 42	-	-	2480	-	-	-	-	-	18" TYPE D
4+48.50	-	27+41.48	STH 42	-	-	-	-	-	-	-	1	4630-05-72
8+91	-	10+00	MAIN AVE	-	109	-	109	-	109	-	-	
7+94.50	-	10+00	NORTH AVE (WEST)	-	206	-	206	-	206	-	-	
10+00	-	12+50	NORTH AVE (EAST)	-	250	-	250	-	250	-	-	
8+70.80	-	10+00	25TH ST (WEST)	-	130	-	130	-	130	-	-	
10+00	-	10+80	25TH ST (EAST)	-	80	-	80	-	80	-	-	
10+00	-	11+22	26TH ST	-	122	-	122	-	122	-	-	
			PROJECT 4630-05-71 TOTALS	47	3191	2480	3191	1	3191	1	-	
			PROJECT 4630-05-72 TOTALS	-	-	-	-	-	-	-	1	

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TRAFFIC CONTROL SUMMARY

LOCATION	SERVICE DAYS	643.0300 DRUMS NO	643.0300 DRUMS DAYS	643.0410 BARRICADES TYPE II NO	643.0410 BARRICADES TYPE II DAYS	643.0420 BARRICADES TYPE III NO	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO	643.0900 SIGNS DAYS	REMARKS
STH 42	9	120	1080	-	-	15	135	22	198	12	108	1	9	21	189	STAGE 1
STH 42, NORTH AVE	57	230	13110	-	-	52	2964	88	5016	60	3420	4	228	50	2850	STAGE 2, 2A
STH 42, NORTH AVE	53	230	12190	-	-	55	2915	86	4558	40	2120	4	212	52	2756	STAGE 3, 3A
STH 42, NORTH AVE	119	10	1190	12	1428	10	1190	22	2618	-	-	-	-	12	1428	SIDEWALK CLOSURES / DETOURS
UNDISTRIBUTED	119	50	5950	6	714	10	1190	15	1785	10	1190	-	0	20	2380	DRIVEWAYS, ETC
PROJECT TOTALS			33520		2142		8394		14175		6838		449		9603	

TRAFFIC CONTROL PCMS SIGNS

643.1050

LOCATION	SERVICE DAYS	DAYS	REMARKS
	7		
STH 42		14	STAGE 1
NORTH AVE		14	STAGE 1
STH 42		14	STAGE 2
NORTH AVE		14	STAGE 2
NORTH AVE		14	STAGE 2A
STH 42		14	STAGE 3
NORTH AVE		14	STAGE 3
NORTH AVE		14	STAGE 3A
PROJECT TOTAL		112	

PAVEMENT MARKING EPOXY

STATION TO STATION	LOCATION	646.0106 4-INCH LF	646.0126 8-INCH LF	647.0106 ARROWS TYPE 2 EA	647.0176 ARROWS TYPE 3 EA	647.0206 ARROWS BIKE LANE EA	647.0306 SYMBOLS BIKE LANE EA	647.0356 WORDS EA	647.0406 WORDS BIKE LANE EA	647.0556 STOP LINE 12 INCH LF	647.0606 ISLAND NOSE EPOXY EA	647.0726 DIAGONAL 12 INCH LF	647.0766 CROSS WALK 6 INCH LF
1+50 - 4+48.50	SOUTH OF PROJECT LIMITS	440	-	-	-	-	-	-	-	-	-	-	-
4+48.50 - 10+0	BEGIN PROJECT - NORTH AVE	3401	272	4	2	2	2	3	3	137	-	53	846
10+0 - 22+50	NORTH AVE - 26TH ST	5463	127	2	-	4	4	1	-	57	1	-	564
22+50 - 26+00	25TH ST - 26TH ST	1859	-	-	-	2	2	-	3	16	-	41	253
26+0 - 27+41.48	26TH ST - END OF PROJECT	383	73	1	-	-	-	-	-	-	-	-	206
27+41.48 - 34+15	NORTH OF PORJECT LIMITS	1275	125	6	-	-	-	-	-	-	-	70	-
-	NORTH AVE (E&W OF PROJECT LIMITS	1600	70	5	-	-	-	-	-	-	-	-	-
PROJECT TOTALS		14421	667	18	2	8	8	4	6	210	1	164	1869

TEMPORARY PAVEMENT MARKING

LOCATION	STAGE	649.0400 TAPE 4-INCH LF	649.0402 PAINT 4-INCH LF	649.0801 TAPE 8-INCH LF	649.1000 12-INCH STOP BAR TAPE LF
SOUTH OF PROJECT LIMITS	STAGE 2	610	-	-	-
MAIN AVE - NORTH AVE	STAGE 2	-	1350	-	11
NORTH AVE WEST APP	STAGE 2	850	-	-	11
NORTH AVE EAST APP	STAGE 2	1600	-	-	11
NORTH AVE - END OF PROJECT	STAGE 2	-	5050	-	11
NORTH OF PROJECT LIMITS	STAGE 2	825	-	-	-
NORTH AVE WEST APP	STAGE 2A	950	-	-	11
NORTH AVE EAST APP	STAGE 2A	1275	-	-	11
SOUTH OF PROJECT LIMITS	STAGE 3	710	-	-	-
MAIN AVE - NORTH AVE	STAGE 3	1400	-	100	22
NORTH AVE WEST APP	STAGE 3	975	-	-	11
NORTH AVE EAST APP	STAGE 3	650	-	-	11
NORTH AVE - END OF PROJECT	STAGE 3	4825	-	100	22
NORTH OF PROJECT LIMITS	STAGE 3	1200	-	-	-
NORTH AVE WEST APP	STAGE 3A	1100	-	-	11
NORTH AVE EAST APP	STAGE 3A	625	-	70	22
PROJECT TOTALS		17595	6400	270	165

PAVEMENT MARKING REMOVAL

LOCATION	STAGE	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING ARROWS LF	647.0965 REMOVING WORDS EA	REMARKS
25TH - END OF PROJECT	STAGE 1	25	-	-	THROUGH TAPER
SOUTH OF PROJECT LIMITS	STAGE 2	320	-	-	THROUGH TAPER
MAIN AVE - NORTH AVE	STAGE 2	100	-	-	
NORTH AVE WEST APP	STAGE 2	900	4	2	
NORTH AVE EAST APP	STAGE 2	725	3	-	
NORTH AVE - 25TH ST	STAGE 2	410	2	1	
25TH - END OF PROJECT	STAGE 2	215	-	-	
NORTH OF PROJECT LIMITS	STAGE 2	900	5	2	THROUGH TAPER
NORTH AVE EAST APP	STAGE 2A	475	-	-	THROUGH TAPER
SOUTH OF PROJECT LIMITS	STAGE 3	75	-	-	THROUGH TAPER
NORTH OF PROJECT LIMITS	STAGE 3	500	-	-	THROUGH TAPER
PROJECT TOTALS		4645	14	5	

PAVEMENT MARKING PAINT

STATION	LOCATION	646.0103 4-INCH LF	647.0153 ARROWS TYPE 1 EA	647.0163 ARROWS TYPE 2 EA	REMARKS
8+25	NORTH AVE RT	-	2	-	WHITE
11+50 - 13+50	LT	300	-	-	WHITE
13+75	LT	30	1	2	YELLOW
PROJECT TOTALS		330	3	2	

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

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SAWING ASPHALT
690.0150

STATION	LOCATION	LF	DESCRIPTION
6+50 - 7+50	STH 42 LT	102	PARKING LOT
7+75 - 8+25	STH 42 LT	50	DRIVEWAY / PARKING LOT
8+75 - 9+50	STH 42 LT	60	DRIVEWAY / PARKING LOT
8+00 - 8+50	NORTH AVE RT	25	DRIVEWAY
11+50 - 13+50	STH 42 LT	210	PARKING LOT
13+50 - 14+00	STH 42 LT	39	DRIVEWAY
14+90 - 15+30	STH 42 LT	35	DRIVEWAY
16+85 - 17+10	STH 42 LT	21	DRIVEWAY
18+10 - 18+40	STH 42 LT	28	DRIVEWAY
6+50 - 6+90	STH 42 RT	27	DRIVEWAY
11+50 - 11+60	NORTH AVE RT	7	PARKING LOT
11+75 - 12+00	NORTH AVE LT	23	DRIVEWAY
12+05 - 12+30	NORTH AVE LT	23	DRIVEWAY
10+25 - 13+00	STH 42 RT	273	DRIVEWAY / PARKING LOT
13+50 - 13+75	STH 42 RT	25	DRIVEWAY
14+20 - 14+40	STH 42 RT	20	DRIVEWAY
17+05 - 17+40	STH 42 RT	22	DRIVEWAY
8+60.80	25TH ST	48	ASPHALT OVERLAY
FOR STAGE 1 CONSTRUCTION			
7+25	STH 42 LT	36	DRIVEWAY
7+75	STH 42 LT	35	DRIVEWAY
9+25	STH 42 LT	52	DRIVEWAY
13+65	STH 42 LT	35	DRIVEWAY
15+10	STH 42 LT	37	DRIVEWAY
17+00	STH 42 LT	21	DRIVEWAY
18+25	STH 42 LT	33	DRIVEWAY
PROJECT TOTAL		1287	

STREET SWEEPING
SPV.0075.01

STATION TO STATION	LOCATION	HRS
4+48.5 - 27+41	STH 42	100
PROJECT TOTAL		100

RAILING STEEL PEDESTRIAN TYPE C3 SPECIAL
SPV.0090.20

STATION TO STATION	LOCATION	LF
10+40 - 12+68	STH 42 RT	230
PROJECT TOTAL		230

GRADING AND SHAPING FOR WIDENING CALUMET DRIVE
SPV.0105.03

STATION TO STATION	LOCATION	LS
4+48.5 - 27+41	STH 42	1
PROJECT TOTAL		1

CONCRETE RETAINING CURB
SPV.0165.02

STATION TO STATION	LOCATION	SF
10+13 - 12+68	STH 42 RT	420
PROJECT TOTAL		420

SAWING CONCRETE
690.0250

STATION	LOCATION	LF	DESCRIPTION
4+48.50	STH 42	55	MATCH POINT
4+48.50	STH 42 LT	7	SIDEWALK
8+21.83 - 8+91	MAIN AVE	171	SANITARY TRENCH
8+91	MAIN AVE	26	MATCH POINT
8+91	MAIN AVE LT	6	SIDEWALK
8+95	MAIN AVE RT	5	SIDEWALK
6+52	STH 42 LT	1.5	CURB
7+50	STH 42 LT	1.5	CURB
8+27	STH 42 LT	1.5	CURB
7+94.50	NORTH AVE	61.5	MATCH POINT
8+09.50	NORTH AVE LT	5	SIDEWALK
8+15	NORTH AVE RT	5	SIDEWALK
8+15	NORTH AVE RT	1.5	CURB
8+43	NORTH VAE RT	1.5	CURB
8+68 - 9+75	NORTH AVE RT	121	PARKING LOT
FOR STAGE 1 CONSTRUCTION			
11+50	STH 42 LT	1.5	CURB
13+45	STH 42 LT	1.5	CURB
13+50	STH 42 LT	1.5	CURB
13+87	STH 42 LT	1.5	CURB
17+07	STH 42 LT	1.5	CURB
18+10	STH 42 LT	5	SERVICE WALK
8+70.80	25TH ST	49	MATCH POINT
8+70.80	25TH ST RT	6	SIDEWALK
9+49	25TH ST LT	6	SIDEWALK
27+41.48	STH 42	66	MATCH POINT
27+41.48	STH 42 LT	5	SIDEWALK
4+48.50	STH 42 RT	7	SIDEWALK
4+75	STH 42 RT	36	DRIVEWAY
6+61	STH 42 RT	1.5	CURB
6+85	STH 42 RT	1.5	CURB
11+72	NORTH AVE RT	3	CURB (2)
11+75	NORTH AVE LT	1.5	CURB
12+00	NORTH AVE LT	1.5	CURB
12+50	NORTH AVE	68	MATCH POINT
12+50	NORTH AVE RT	7	SIDEWALK
12+50	NORTH AVE LT	6	SIDEWALK
10+30	STH 42 RT	1.5	CURB
13+00	STH 42 RT	1.5	CURB
15+55 - 16+45	STH 42 RT	89	DRIVEWAY
17+35	STH 42 RT	1.5	CURB
SUBTOTAL		841	

STATION	LOCATION	LF	DESCRIPTION
19+50	STH 42 RT	40	DRIVEWAY
21+25	STH 42 RT	40	DRIVEWAY
10+43	25TH ST RT	5	SIDEWALK
10+79	25TH ST LT	5	SIDEWALK
10+80	25TH ST	49	MATCH POINT
10+50	26TH ST RT	19	DRIVEWAY
10+60	26TH ST RT	5	SIDEWALK
11+02	26TH ST LT	5	SIDEWALK
11+05	26TH ST RT	19	DRIVEWAY
11+22	26TH ST	37	MATCH POINT
27+41.48	STH 42 RT	7	SIDEWALK
FOR STAGE 1 CONSTRUCTION			
5+25- 10+00	STH 42 LT	457	ALONG CURB
7+00	STH 42 LT	1.5	CURB
7+30	STH 42 LT	1.5	CURB
7+90	STH 42 LT	1.5	CURB
9+50	STH 42 LT	36	DRIVEWAY / SIDEWALK
10+50 - 21+60	STH 42 LT	1108	ALONG CURB
13+45	STH 42 LT	5	SERVICE WALK
13+50	STH 42 LT	1.5	CURB
13+85	STH 42 LT	1.5	CURB
17+05	STH 42 LT	1.5	CURB
21+50	STH 42 LT	13	SIDEWALK
21+60 - 22+20	STH 42 LT	130	ALONG CURB / ISLAND
22+40 - 24+65	STH 42 LT	230	ALONG CURB
22+50	STH 42 LT	22	SIDEWALK
24+65	STH 42 LT	5	SIDEWALK
FOR STAGE 2 CONSTRUCTION			
4+48.50 - 22+41.48	STH 42	2297	LONGITUDINAL CUT
10+00 - 12+50	NORTH AVE	250	LONGITUDINAL CUT
10+50 - 11+10	NORTH AVE RT	60	LONGITUDINAL CUT
8+85 - 9+75	STH 42	90	FOR STORM TRENCH
24+65	STH 42 LT	5	SIDEWALK
FOR STAGE 3 CONSTRUCTION			
7+94.50 - 9+85	NORTH AVE	190	LONGITUDINAL CUT
SUBTOTAL		5138	
PROJECT TOTAL		5979	

ELECTRICAL WIRE & CONDUIT FOR STREET LIGHTING

ALL ITEMS ON THIS SHEET ARE CATEGORY 0020 UNLESS OTHERWISE NOTED

LOCATION FROM	LOCATION TO	655.0610 12 AWG LF	655.0620 8 AWG LF	655.0625 6 AWG LF	655.0630 4 AWG LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	
EAST SIDE							
LC-1	LP7	-	70	140	-	60	
	LP7	60	-	-	-	-	
LP7	PBL-3	-	119	238	-	109	
PBL-3	LP9	-	48	96	-	38	
	LP9	60	-	-	-	-	
LP9	LP11	-	123	246	-	113	
	LP11	60	-	-	-	-	
LP11	LP13	-	148	296	-	138	
	LP13	60	-	-	-	-	
LP13	LP15	-	168	336	-	158	
	LP15	60	-	-	-	-	
LP15	LP17	-	190	380	-	180	
	LP17	60	-	-	-	-	
SUBTOTALS (CABINET 1-CIRCUIT 1)		360	866	1732	0	796	
LC-1	PBL-1	-	23	46	-	13	
PBL-1	LP5	-	28	56	-	18	
	LP5	60	-	-	-	-	
LP5	LP3	-	141	282	-	131	
	LP3	60	-	-	-	-	
LP3	LP1	-	166	332	-	156	
	LP1	60	-	-	-	-	
LC-1		-	-	-	-	20	**
SUBTOTALS (CABINET 1-CIRCUIT 2)		180	358	716	0	338	
LC-2	PBL-11	-	-	42	-	11	
PBL-11	PBL-9	-	78	156	-	68	
PBL-9	LP29	-	21	42	-	11	
	LP29	60	-	-	-	-	
LP29	LP27	-	164	328	-	154	
	LP27	60	-	-	-	-	
LP27	PBL-7	-	107	214	-	97	
PBL-7	PBL-5	60	99	198	-	89	
PBL-5	LP25	-	21	42	-	11	
	LP25	60	-	-	-	-	
LP25	LP23	-	114	228	-	104	
	LP23	60	-	-	-	-	
LP23	LP21	-	176	352	-	166	
	LP21	60	-	-	-	-	
LP21	LP19	-	184	368	-	174	
	LP19	60	-	-	-	-	
LP19	LP17	-	172	344	-	162	***
SUBTOTALS (CABINET 2-CIRCUIT 1)		420	1136	2314	0	1047	
LC-2	PBL-11	-	-	-	-	-	
PBL-11	LP31	-	91	182	-	81	
	LP31	60	-	-	-	-	
LC-2		-	-	-	-	20	**
SUBTOTALS (CABINET 2-CIRCUIT 2)		60	91	182	0	101	
SUBTOTALS (EAST)		1020	2451	4944	0	2282	

LOCATION FROM	LOCATION TO	655.0610 12 AWG LF	655.0620 8 AWG LF	655.0625 6 AWG LF	655.0630 4 AWG LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	
WEST SIDE							
LC-1	PBL-1	-	-	46	-	-	
PBL-1	PBL-2	-	95	190	-	85	
PBL-2	LP6	-	34	68	-	24	
	LP6	60	-	-	-	-	
LP6	PBL-4	-	150	300	-	140	
PBL-4	LP8	-	20	40	-	10	
	LP8	60	-	-	-	-	
PBL-4	PBL-6	-	138	276	-	128	
PBL-6	LP10	-	28	56	-	18	
	LP10	60	-	-	-	-	
PBL-6	LP12	-	97	194	-	87	
	LP12	60	-	-	-	-	
LP12	LP14	-	175	350	-	165	
	LP14	60	-	-	-	-	
LP14	LP16	-	148	296	-	138	
	LP16	60	-	-	-	-	
SUBTOTALS (CABINET 1-CIRCUIT 3)		360	885	1816	0	795	
LC-1	PBL-1	-	-	46	-	-	
PBL-1	PBL-2	-	-	190	-	-	
PBL-2	LP4	-	114	228	-	104	
	LP4	60	-	-	-	-	
LP4	LP2	-	141	282	-	131	
	LP2	60	-	-	-	-	
SUBTOTALS (CABINET 1-CIRCUIT 4)		120	255	746	0	235	
LC-2	PBL-11	-	-	21	42	-	
PBL-11	PBL-12	-	-	79	158	69	
PBL-12	LP28	-	-	138	276	128	
	LP28	60	-	-	-	-	
LP28	LP26	-	-	190	380	180	
	LP26	60	-	-	-	-	
LP26	PBL-10	-	-	76	152	66	
PBL-10	LP24	-	-	81	162	71	
	LP24	60	-	-	-	-	
LP24	PBL-8	-	-	54	108	44	
PBL-8	LP22	-	-	121	242	111	
	LP22	60	-	-	-	-	
LP22	LP20	-	-	190	380	180	
	LP20	60	-	-	-	-	
LP20	LP18	-	-	176	352	166	
	LP18	60	-	-	-	-	
LP18	LP16	-	-	-	-	197	***
SUBTOTALS (CABINET 2-CIRCUIT 3)		360	0	1126	2252	1212	
LC-2	PBL-11	-		42	-	-	
PBL-11	PBL-12	-	-	158	-	-	
PBL-12	LP30	-	37	74	-	27	
SUBTOTALS (CABINET 2-CIRCUIT 4)		0	37	274	0	27	
SUBTOTALS (WEST)		840	1177	3962	2252	2269	
PROJECT TOTALS		1860	3628	8906	2252	4551	

NOTES CABINET 2-CIRCUIT 3: 2x4 AWG AND 1x6 AWG ARE FROM BASE TO BASE
ALL OTHER CIRCUITS: 2x6 AWG AND 1x8 AWG ARE FROM BASE TO BASE
12 AWG IS FROM FIXTURE TO HAND HOLE

** CONDUIT REQUIRED FOR SERVICE LATERAL TO METER BREAKER PEDESTAL.
*** EMPTY CONDUIT FOR FUTURE USE

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LIGHTING SUMMARY

LP / PBL	STATION	LOCATION	653.0115 PULL BOXES 12x36-INCH EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH	SPV.0060.20 LIGHTING ASSEMBLY EACH
LP1	4+95.84 28.65' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP2	5+66.30 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP3	6+53.66 30.77' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP4	6+94.58 36.17' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP5	7+82.21 31.45' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-1	7+94.85 43.90' RT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-2	8+01.04 41.03' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP6	8+24.63 41.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP7	8+65.14 50.38' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP8	9+59.31 50.22' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-3	9+74.26 53.07' RT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-4	9+64.42 41.58' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP9	10+06.75 40.36' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP10	10+83.74 59.02' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-6	10+92.72 42.17' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP11	11+18.05 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP12	11+81.95 39.85' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP13	12+54.08 30.17' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP14	13+44.34 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP15	14+14.4430.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP16	14+82.69 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP17	15+94.08 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP18	16+80.15 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP19	17+56.34 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP20	18+46.06 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP21	19+30.05 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP22	20+26.06 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP23	20+96.34 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-8	21+37.46 30.89' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP24	21+81.36 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP25	22+00.14 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-5	22+10.64 30.46' RT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-10	22+52.60 30.55' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-7	22+99.16 30.63' RT	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP26	23+19.09 30.83' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP27	23+96.05 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP28	24+99.00 36.71' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP29	25+50.15 30.83' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
PBL-9	25+61.63 30.77' RT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-11	26+29.16 29.14' RT	STH 42 (CALUMET DR.)	1	-	-	-	-	-
PBL-12	26+26.65 40.25' LT.	STH 42 (CALUMET DR.)	1	-	-	-	-	-
LP30	26+54.02 41.91' LT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LP31	27+10.31 28.14' RT.	STH 42 (CALUMET DR.)	-	1	-	-	-	1
LC 1: NORTH AVE	8+04.94 52.27' RT.	STH 42 (CALUMET DR.)	-	-	1	1	1	-
LC 2: 26TH ST	26+25.04 39.15' RT.	STH 42 (CALUMET DR.)	-	-	1	1	1	-
	PROJECT TOTALS		12	31	2	2	2	31

3

CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0235

FROM	TO	LF
CBI	PB1	89
CBI	PB7	174
PB1	PB2	256
PB2	SB1	5
PB2	SB2	15
PB2	PB3	64
PB3	SB3	4
PB3	PB4	224
PB4	SB4	16
PB4	SB5	16
PB4	SB6	11
PB4	PB5	172
PB5	PB6	98
PB6	SB7	19
PB6	SB8	12
PB6	SB9	19
PB6	PB7	224
PB7	SB10	28
PB7	SB11	17
PB7	SB12	17
PROJECT TOTAL		1,480

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101 TYPE 1 EACH	SPV.0060.15 TYPE 13 CONTRACTOR SUPPLIED ANCHOR BOLTS AND RODS EACH
SB1	9+51.53 STH 42	41.83' LT.	1	-
SB2	9+59.31 STH 42	50.22' LT.	-	1
SB3	9+74.67 STH 42	49.51' LT.	1	-
SB4	10+83.74 STH 42	59.02' LT.	-	1
SB5	10+75.34 STH 42	52.01 LT.	1	-
SB6	10+77.75 STH 42	41.93' LT.	1	-
SB7	10+20.65 STH 42	26.90' RT.	1	-
SB8	10+06.75 STH 42	40.36' RT.	-	1
SB9	9+83.55 STH 42	44.33' RT.	1	-
SB10	8+65.14 STH 42	50.38' RT.	-	1
SB11	8+75.13 STH 42	44.54' RT.	1	-
SB12	8+70.01 STH 42	32.46' RT.	1	-
PROJECT TOTALS			8	4

ELECTRICAL SERVICE METER BREAKER PEDESTAL (STH 42 & NORTH AVE)
656.0200.01

STATION	LOCATION	LS
-	STH 42 & NORTH AVE SIGNAL CABINET	1
	PROJECT TOTAL	1

VIDEO DETECTION, PREEMPTION, AND TRAFFIC SIGNAL CONTROLLER & CABINET

BASE NO.	SPV.0105.10 VEHICULAR VIDEO DETECTION SYSTEM 4-CAMERA LS	SPV.0105.12 TRAFFIC SIGNAL PRE-EMPTION AND PRIORITY CONTROL SYSTEM LS	SPV.0060.05 TRAFFIC SIGNAL CONTROLLER & CABINET EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	1	1	1	1
PROJECT TOTALS	1	1	1	1

REMOVING PULLBOXES
653.0905

STATION	LOCATION	EACH
4+58	34' RT	1
7+53	26' RT	1
7+53	16' RT	1
7+53	5' RT	1
8+65	32' RT	1
8+68	37' RT	1
10+21	27' RT	1
10+70	5' LT	1
10+76	26' RT	1
10+81	5' LT	1
8+69	40' LT	1
9+45	39' LT	1
10+89	45' LT	1
12+24	33' LT	1
12+23	26' LT	1
8+09 (NORTH)	27' RT	1
8+09 (NORTH)	16' RT	1
8+50 (NORTH)	35' RT	1
9+13 (NORTH)	8' RT	1
9+22 (NORTH)	8' RT	1
9+28 (NORTH)	35' RT	1
9+52 (NORTH)	17' RT	1
9+61 (NORTH)	26' RT	1
9+78 (NORTH)	38' RT	1
10+15 (NORTH)	26' LT	1
10+20 (NORTH)	37' LT	1
10+29 (NORTH)	17' LT	1
10+60 (NORTH)	5' LT	1
10+62 (NORTH)	35' LT	1
10+70 (NORTH)	5' LT	1
11+83 (NORTH)	36' LT	1
11+85 (NORTH)	24' LT	1
11+85 (NORTH)	11' LT	1
PROJECT TOTAL		33

PULL BOXES STEEL 24X42-INCH
653.0140

PULL BOX NO.	STATION	LOCATION	EACH
PB1	8+42.09 STH 42	32.12' RT.	1
PB2	9+46.78 STH 42	41.90' LT.	1
PB3	9+76.82 STH 42	52.92' LT.	1
PB4	10+88.53 STH 42	44.12' LT.	1
PB5	10+45.83 STH 42	30.64' RT.	1
PB6	9+97.77 STH 42	32.76' RT.	1
PB7	8+86.53 STH 42	33.17' RT.	1
PROJECT TOTAL			7

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG
655.0515

FROM	TO	LF
CB-1	SB1	200
SB1	SB2	20
SB2	SB3	60
SB3	SB4	141
SB4	SB5	32
SB5	SB6	27
SB6	SB7	133
SB7	SB8	31
SB8	SB9	31
SB9	SB10	168
SB10	SB11	45
SB11	SB12	34
SB12	CB1	109
PB1	CB1	45
PB2	SB1	5
PB3	SB3	4
PB4	SB6	11
PB5	SB8	68
PB6	SB8	19
PB7	SB11	17
PROJECT TOTAL		1,200

ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (STH 42 & NORTH AVE)

661.0200.01

STATION	LOCATION	LS
-	STH 42 & NORTH AVE INTERSECTION	1
	PROJECT TOTAL	1

SIGNAL MOUNTING HARDWARE (STH 42 & NORTH AVE)

658.5069.01

STATION	LOCATION	LS
-	STH 42 & NORTH AVE INTERSECTION	1
	PROJECT TOTAL	1

PEDESTAL BASES, TRAFFIC SIGNAL STANDARDS, PEDESTRIAN PUSH BUTTONS, POLES, MONOTUBE POLES & ARMS

SIGNAL BASE NO.	657.0100 PEDESTAL BASES EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.10 MONOTUBE ARM 35-FT EACH	SPV.0060.12 MONOTUBE ARM 50-FT EACH	SPV.0060.06 POLES TYPE 13 EACH
SB1	1	-	1	1	-	-	-
SB2	-	-	-	-	-	1	1
SB3	1	1	-	1	-	-	-
SB4	-	-	-	-	1	-	1
SB5	1	-	1	1	-	-	-
SB6	1	1	-	1	-	-	-
SB7	1	-	1	1	-	-	-
SB8	-	-	-	-	-	1	1
SB9	1	1	-	1	-	-	-
SB10	-	-	-	-	1	-	1
SB11	1	-	1	1	-	-	-
SB12	1	1	-	1	-	-	-
PROJECT TOTALS	8	4	4	8	2	2	4

REMOVE AND SALVAGE TRAFFIC SIGNALS

SPV.0105.06

STATION	LOCATION	LS
-	STH 42 & NORTH AVE INTERSECTION	1
	PROJECT TOTAL	1

CABLE TRAFFIC SIGNAL & LOOP DETECTOR LEAD IN CABLE

FROM	TO	655.0230 5-14 AWG LF	655.0240 7-14 AWG LF	655.0270 15-14 AWG LF	655.0290 21-14 AWG LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF
CB1	SB1	-	221	-	-	-
SB1	HEAD PH4-2	11	-	-	-	-
SB1	B4-2	-	-	-	-	6
CB1	SB2	-	-	231	-	-
SB2	HEAD 2	-	69	-	-	-
SB2	HEAD 3	58	-	-	-	-
SB2	HEAD 4	47	-	-	-	-
CB1	SB3	-	-	268	-	-
SB3	HEAD 15	17	-	-	-	-
SB3	HEAD 16	-	17	-	-	-
SB3	HEAD PH2-1	11	-	-	-	-
SB3	B2-1	-	-	-	-	6
CB1	SB4	-	-	-	408	-
SB4	HEAD 17	-	59	-	-	-
SB4	HEAD 18	48	-	-	-	-
SB4	HEAD 19	-	32	-	-	-
CB1	SB5	-	408	-	-	-
SB5	HEAD PH2-2	11	-	-	-	-
SB5	B2-2	-	-	-	-	6
CB1	SB6	-	-	403	-	-
SB6	HEAD 5	17	-	-	-	-
SB6	HEAD 6	-	17	-	-	-
SB6	HEAD PH8-1	11	-	-	-	-
SB6	B8-1	-	-	-	-	6
CB1	SB7	-	261	-	-	-
SB7	HEAD PH8-2	11	-	-	-	-
SB7	B8-2	-	-	-	-	6
CB1	SB8	-	-	254	-	-
SB8	HEAD 7	-	65	-	-	-
SB8	HEAD 8	54	-	-	-	-
SB8	HEAD 9	43	-	-	-	-
CB1	SB9	-	-	-	261	-
SB9	HEAD 11	-	17	-	-	-
SB9	HEAD 20	-	17	-	-	-
SB9	HEAD PH6-1	11	-	-	-	-
SB9	B6-1	-	-	-	-	6
CB1	SB10	-	-	142	-	-
SB10	HEAD 12	-	58	-	-	-
SB10	HEAD 13	47	-	-	-	-
SB10	HEAD 14	36	-	-	-	-
CB1	SB11	-	131	-	-	-
SB11	HEAD PH6-2	11	-	-	-	-
SB11	B6-2	-	-	-	-	6
CB1	SB12	-	-	131	-	-
SB12	HEAD 1	-	17	-	-	-
SB12	HEAD 10	17	-	-	-	-
SB12	HEAD PH4-1	11	-	-	-	-
SB12	B4-1	-	-	-	-	6
PROJECT TOTALS		472	1,389	1,429	669	48

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TRAFFIC SIGNAL FACES, BACKPLATES, AND LED MODULES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL EACH	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0225 BACKPLATES SIGNAL FACE 5 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0600 LED MODULE 12-INCH RED BALL EACH	658.0605 LED MODULE 12-INCH YELLOW BALL EACH	658.0610 LED MODULE 12-INCH GREEN BALL EACH	658.0615 LED MODULE 12-INCH RED ARROW EACH	658.0620 LED MODULE 12-INCH YELLOW ARROW EACH	658.0625 LED MODULE 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
1	SB12	-	1	-	-	1	-	-	-	-	-	1	2	1	-
2	SB2	-	1	-	-	1	-	-	-	-	-	1	2	1	-
3	SB2	1	-	-	1	-	-	-	1	1	1	-	-	-	-
4	SB2	1	-	-	1	-	-	-	1	1	1	-	-	-	-
5	SB6	1	-	-	1	-	-	-	1	1	1	-	-	-	-
6	SB6	-	1	-	-	1	-	-	-	-	-	1	2	1	-
7	SB8	-	1	-	-	1	-	-	-	-	-	1	2	1	-
8	SB8	1	-	-	1	-	-	-	1	1	1	-	-	-	-
9	SB8	1	-	-	1	-	-	-	1	1	1	-	-	-	-
10	SB12	1	-	-	1	-	-	-	1	1	1	-	-	-	-
11	SB9	-	1	-	-	1	-	-	-	-	-	1	2	1	-
12	SB10	-	1	-	-	1	-	-	-	-	-	1	2	1	-
13	SB10	1	-	-	1	-	-	-	1	1	1	-	-	-	-
14	SB10	1	-	-	1	-	-	-	1	1	1	-	-	-	-
15	SB3	1	-	-	1	-	-	-	1	1	1	-	-	-	-
16	SB3	-	-	1	-	-	1	-	1	1	1	-	1	1	-
17	SB4	-	-	1	-	-	1	-	1	1	1	-	1	1	-
18	SB4	1	-	-	1	-	-	-	1	1	1	-	-	-	-
19	SB4	-	-	1	-	-	1	-	1	1	1	-	1	1	-
20	SB9	-	-	1	-	-	1	-	1	1	1	-	1	1	-
PH2-1	SB3	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH2-2	SB5	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH4-1	SB12	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH4-2	SB1	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH6-1	SB9	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH6-2	SB11	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH8-1	SB6	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PH8-2	SB7	-	-	-	-	-	-	1	-	-	-	-	-	-	1
PROJECT TOTALS		10	6	4	10	6	4	8	14	14	14	6	16	10	8

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ADJUSTING WATER VALVE BOXES
SPV.0060.30

STATION	LOCATION	EACH
4+75	26.5' LT	1
4+76	17' RT	1
4+80	37' RT	1
7+45	7' RT	1
8+23	4' RT	1
9+91	20' LT	1
12+10	9' RT	1
12+80	13' RT	1
12+89	14' RT	1
13+34	15' RT	1
16+22	15' RT	1
18+85	35' RT	1
19+57	16' LT	1
22+46	30' RT	1
22+98	19' LT	1
26+00	4' RT	1
PROJECT TOTAL		16

SANITARY SEWER LATERALS 6-INCH
SPV.0090.16

STATION	LOCATION	LF
14+41	LT	23
16+41	LT	23
16+43	RT	56
16+54	RT	56
18+38	LT	70
PROJECT TOTAL		228

SANITARY SEWER STRUCTURES

STRUCTURE NO.	STATION	LOCATION	MANHOLE SPV.0200.01 48-INCH VF	MANHOLE COVERS SPV.0060.26 TYPE J SPECIAL EACH
P-1	5+09.60	14.25' LT	8.72	1
P-2	10+75	27.50' LT	12.15	1
P-3	13+67.50	16.50' LT	9.93	1
P-4	16+75	16.50' LT	7.25	1
P-5	18+33	30.00' RT	9.5	1
P-6	9+05 (MAIN)	2.00' RT	8.93	1
PROJECT TOTALS			56.48	6

SANITARY SEWER SUMMARY

FROM STRUCTURE	TO STRUCTURE	520.8000 * CONCRETE COLLAR EA	SPV.0090.14 8-INCH LF	SPV.0090.17 TELEVISING SANITARY SEWER LF
EXISTING PIPE	P-1	1	10	10
P-1	EXISTING PIPE	1	10	10
EXISTING STRUCTURE	P-2	1	56	56
P-2	P-3	-	292	292
P-3	P-5	-	307	307
P-5	EXISTING PIPE	1	20	20
P-6	EXISTING STRUCTURE	-	69	69
	PROJECT TOTALS	4	764	764

* ADDITIONAL QUANTITIES ELSEWHERE

INSULATION BOARD POLYSTYRENE

STATION TO STATION	LOCATION	612.0902.S.01 2-INCH SY	612.0902.S.02 4-INCH SY	REMARKS
4+48.50 - 4+77	STH 42 RT	14	-	N-S MAIN
4+77	STH 42 LT	18	-	E-W MAIN TO MAIN AVE
4+77	STH 42 RT	4	-	LEAD
4+77 - 13+09	STH 42 RT	-	369	N-S MAIN
7+43	STH 42 RT	-	10	LEAD
8+22 - 8+36	STH 42 RT	44	-	E-W MAIN TO NORTH AVE
13+09 - 18+10	STH 42 RT	226	-	N-S MAIN
18+10 - 26+00	STH 42 LT	353	-	N-S MAIN
4+48.50 - 27+41.48	UNDISTRIBUTED	33	19	
	PROJECT TOTALS	692	398	

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SANITARY SEWER REHAB AND REMOVALS

STATION	LOCATION	SPV.0060.28 LATERAL CONNECTION SEALING EACH	SPV.0090.10 ABANDONING SANITARY SEWER 10-INCH LF	SPV.0090.11 REMOVE SANITARY SEWER LF	SPV.0090.12 SANITARY SEWER PIPE LINER LF	SPV.0200.02 MANHOLE LINER VF
1+57	WYE	1	-	-	-	-
3+93	WYE	1	-	-	-	-
4+49 - 5+00	SANITARY PIPE	-	-	-	52	-
5+00 - 5+20	SANITARY PIPE	-	-	20	-	-
5+20 - 6+15	SANITARY PIPE	-	-	-	95	-
6+15 - 7+82	SANITARY PIPE	-	-	-	166	-
7+82	SANITARY MANHOLE	-	-	-	-	8.5
10+58 - 19+26	SANITARY PIPE	-	-	897	-	-
18+38 - 18+53	SANITARY PIPE	-	-	15	-	-
20+36	CAPPED WYE	1	-	-	-	-
20+72	SANITARY MANHOLE	-	-	-	-	9.3
8+37 - 9+06 (MAIN)	SANITARY PIPE	-	-	69	-	-
9+06 - 10+14 (MAIN)	SANITARY PIPE	-	110	-	-	-
5+24 (NORTH)	SANITARY MANHOLE	-	-	-	-	12.7
5+24 - 7+32 (NORTH)	SANITARY PIPE	-	-	-	208	-
7+32 (NORTH)	SANITARY MANHOLE	-	-	-	-	12.7
7+32 - 8+85 (NORTH)	SANITARY PIPE	-	-	-	153	-
11+28 (NORTH)	SANITARY MANHOLE	-	-	-	-	9.8
11+28 - 13+59 (NORTH)	SANITARY PIPE	-	-	-	231	-
13+59 - 15+48 (NORTH)	SANITARY PIPE	-	-	-	189	-
15+48 (NORTH)	SANITARY MANHOLE	-	-	-	-	11.0
12+21 - 12+31 (25TH)	SANITARY PIPE	-	-	-	10	-
	PROJECT TOTALS	3	110	1001	1104	64

INTERNAL CHIMNEY SEAL

SPV.0060.27

STATION	LOCATION	EACH
4+49	1.5' RT	1
8+36 (MAIN)	1.5' RT	1
9+00 (MAIN)	2' RT	1
5+09.60	14' LT	1
6+15	15' LT	1
7+82	24' LT	1
10+75	27.5' LT	1
13+67.50	16.5' LT	1
16+75	16.5' LT	1
18+33	30' RT	1
20+72	30' RT	1
10+32 (25TH)	1' RT	1
5+24 (NORTH)	1' RT	1
7+32 (NORTH)	1' RT	1
8+85 (NORTH)	1' RT	1
11+28 (NORTH)	0' OFFSET	1
15+48 (NORTH)	0' OFFSET	1
10+72 (26TH)	15' RT	1
18+98	30' RT	1
	PROJECT TOTAL	19

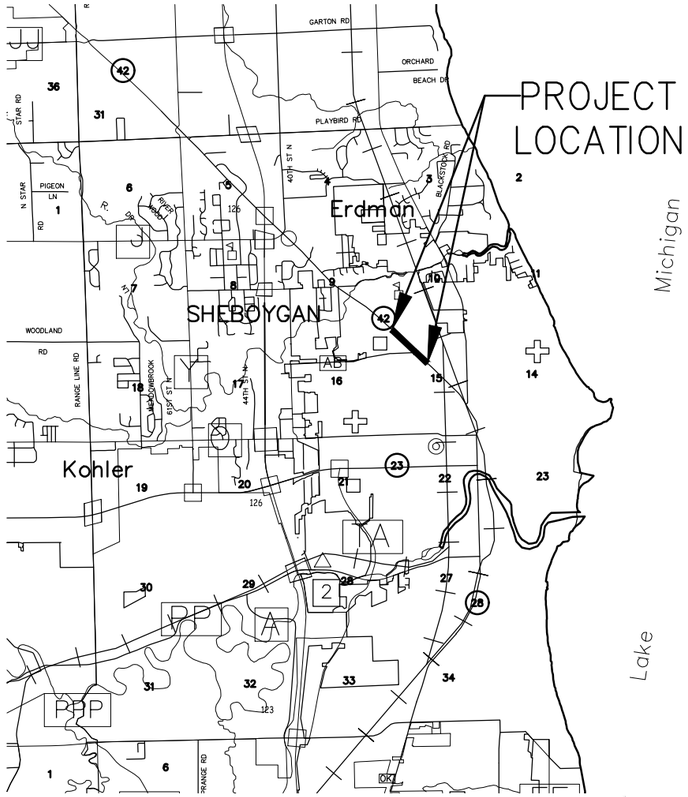
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

4630-05-21

CALUMET DRIVE, CITY OF SHEBOYGAN

MAIN AVENUE - 26TH STREET

STH 42
SHEBOYGAN COUNTY



GN

CONVENTIONAL SYMBOLS

SECTION LINE		SECTION	23 24 26 15
QUARTER LINE		CORNER	
SIXTEENTH LINE		NOTATION FOR COMBUSTABLE FLUIDS	CAUTION
NEW REFERENCE LINE		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	CAUTION
NEW R/W LINE		- PRIVATE LIGHT POLE	
EXISTING R/W LINE			
PROPERTY LINE	P.L.		
LOT, TIE & OTHER MINOR LINES			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	W (TYPE)		
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMPORARY LIMITED EASEMENT AREA			
HIGHWAY EASEMENT AREA			
TRANSMISSION STRUCTURES			
BUILDING			
NATIONAL GEODETIC SURVEY MONUMENT			
SIXTEENTH CORNER MONUMENT			

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC/LIGHT POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		
FIRE HYDRANT		

TREE	
R/W MONUMENT	
NON-MONUMENTED R/W POINT	
FOUND IRON PIN	IP
VALVE (GAS, WATER, ETC.)	(TYPE)
SIGN	SIGN
OFF-PREMISE SIGN	41-25 SIGN
ACCESS RESTRICTED BY ACQUISITION	
NO ACCESS (BY STATUTORY AUTHORITY)	
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BRIDGE	
PARCEL NUMBER	25
UTILITY NUMBER	40

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	PAGE	P
ACRES	AC	POINT OF TANGENCY	PT
AHEAD	AH	PERMANENT LIMITED EASEMENT	PLE
ALUMINUM	ALUM	POINT OF BEGINNING	POB
AND OTHERS	ET AL	POINT OF CURVATURE	PC
BACK	BK	POINT OF COMPOUND CURVE	PCC
BLOCK	BLK	POINT OF INTERSECTION	PI
BUILDING	BLDG	PROPERTY LINE	PL
CENTERLINE	C/L	PROPOSED R/W POINT #	PRW135
CERTIFIED SURVEY MAP	CSM	RECORDED AS	(100')
CONCRETE	CONC	REFERENCE LINE	R/L
COUNTY	CO	REMAINING	REM
COUNTY TRUNK HIGHWAY	CTH	RIGHT	RT
DISTANCE	DIST	RIGHT OF WAY	R/W
CORNER	COR	SECTION	SEC
DOCUMENT NUMBER	DOC	SEPTIC VENT	SEPV
EASEMENT	EASE	SQUARE FEET	SF
EXISTING	EX	STATE TRUNK HIGHWAY	STH
EXISTING R/W POINT #	ERW135	STATION	STA
GAS VALVE	GV	SUBDIVISION	SUBD
GARAGE	GAR	TANGENT	TAN
GRID NORTH	GN	TELEPHONE PEDESTAL	TP
HIGHWAY EASEMENT	HE	TEMPORARY LIMITED EASEMENT	TLE
HOUSE	HSE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	T

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS

LAYOUT
SCALE 0 1 MILE

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 4630-05-21

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, COUNTY, NAD83(07), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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 THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, 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 DESIRABLE. ALL (TLEs) ON THIS PLAT 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 DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS 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 DESIRABLE.

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

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING ACCESS CONTROL ALONG STH 42 (CALUMET DRIVE) HAS BEEN ESTABLISHED FROM PREVIOUS PROJECT CALUMET DRIVE BY THE CITY OF SHEBOYGAN 1983

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: HILLSIDE ADDITION, A RECORDED PLAT, CSM VOL 6 PAGE 220, CSM VOL 12 PAGES 53-54, CSM VOL 17 PAGES 66-67, CSM VOL 23 PAGES 271-274, CSM VOL 24 PAGES 35-37, CSM VOL 25 PAGE 143, CSM VOL 25 PAGES 176-178, UNRECORDED PROPERTY SURVEYS AS FILED WITH THE SHEBOYGAN COUNTY LAND SURVEYOR

WISCONSIN
DAVID M. SCHMALZ
S-1284
NEENAH, WI
LAND SURVEYOR
03-24-2015

Revised this 15th day of May, 2015

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4630-05-21
SHEET 2 OF 2
AMENDMENT NO:

W:\PROJECTS\W0059\820107\00\04-RW Plat\00 TITLE.dwg, 00 TITLE, 8/2/2016 12:30:20 PM, CClemens, 1:2

FILE NAME : cclemens, W:\PROJECTS\W0059\820107\00\04-RW Plat\00 TITLE.dwg, 00 title, Plot Date: 8/2/2016 12:30 PM, xrefs: (location map)
APPRAISAL PLAT DATE :
PLOT DATE : 8/2/2016 12:30 PM
PLOT BY : CHRIS CLEMENS PLOT NAME : _____

TRANSPORTATION PROJECT PLAT NO: 4630-05-21 - 4.01

CALUMET DRIVE (STH 42)

(MAIN AVENUE TO 26TH STREET)

THAT PART OF LOTS 1 AND 2 OF CERTIFIED SURVEY MAP VOLUME 24 PAGES 35-37 AS DOCUMENT NO. 1866132 AND LOT 1 CERTIFIED SURVEY MAP VOLUME 25 PAGES 176-178 AS DOCUMENT NO. 1946379 AND LOT 1 CERTIFIED SURVEY MAP VOLUME 23 PAGES 271-274 AS DOCUMENT NO. 1850406 AND A PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 ALL IN SECTION 15, TOWNSHIP 15 NORTH, RANGE 23 EAST, CITY OF SHEBOYGAN, SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER CALUMET DRIVE (STH 42) SHEBOYGAN COUNTY:

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 62.22, WISCONSIN STATUTES, THE CITY OF SHEBOYGAN HEREBY ORDERS THAT:

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 NAMED 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 SHEBOYGAN, PURSUANT TO THE PROVISIONS OF SUBSECTION 62.22, WISCONSIN STATUTES.

2003997
SHEBOYGAN COUNTY WI
RECORDED ON
06/04/2015 4:09 PM
ELLEN R. SCHLEICHER
REGISTER OF DEEDS
PLAT FEE: 25.00
Cashier ID: 9
Vol: 1Page(s): 146

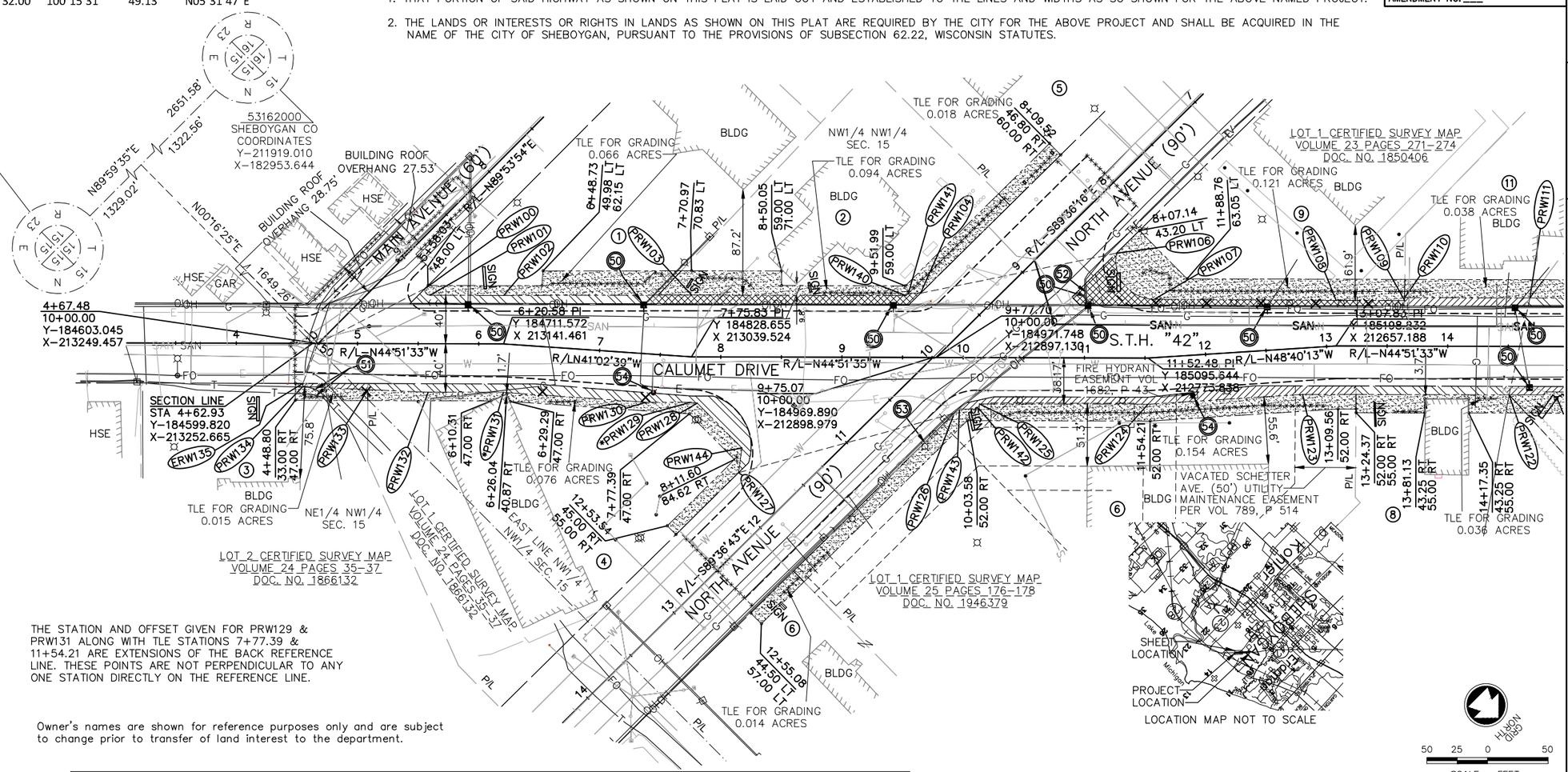
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4630-05-21
SHEET 1 OF 2
AMENDMENT NO: ___

PT#-PT#	BEARING	DISTANCE
50-100	N72°11'09"W	99.15'
101-102	N44°51'33"W	60.77'
102-103	N45°06'26"W	155.03'
103-140	N44°51'35"W	176.78'
140-141	N89°36'16"W	2.84'
141-104	N44°51'35"W	9.94'
104-106	N56°31'15"W	164.88'
107-108	N44°36'35"W	150.00'
108-109	N44°51'33"W	56.48'
109-110	S45°49'12"W	2.50'
110-111	N44°51'33"W	103.39'
111-122	N57°09'06"E	81.79'
122-123	S44°51'33"E	170.33'
123-124	S48°40'13"E	127.83'
124-125	S44°51'33"E	139.04'
125-142	N45°08'28"E	4.33'
142-143	S44°51'32"E	16.43'
143-126	S84°05'16"E	5.53'
126-127	S60°22'12"E	184.44'
127-144	S52°45'58"W	20.37'
144-128	S00°13'45"W	52.33'
128-129	S38°38'17"E	5.72'
129-130	S44°56'03"E	36.86'
130-131	S41°02'41"E	117.64'
131-132	S44°51'28"E	61.97'
132-133	S42°36'46"E	50.03'
133-134	S42°08'49"E	53.54'
134-135	S45°08'53"W	2.50'
135-50	S65°45'55"W	35.27'

UTILITY INTEREST REQUIRED		
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED
50	WISCONSIN POWER AND LIGHT COMPANY	RELEASE OF RIGHTS
51	AT&T	RELEASE OF RIGHTS
52	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
53	PAETEC (a.k.a Windstream)	RELEASE OF RIGHTS
54	CITY OF SHEBOYGAN (WATER)	RELEASE OF RIGHTS

CURVE DATA TABLE

CURVE #	LENGTH	RADIUS	DELTA	CHORD DISTANCE	CHORD BEARING
100-101	8.04'	4.39'	104°48'26"	6.96'	N07°32'40"E
106-107	56.00'	32.00'	100°15'31"	49.13'	N05°31'47"E



POINT #	STATION	OFFSET	Y	X
PT50	4+67.48	0.00'	184603.045	213249.457
PRW100	5+55.56	45.52' LT	184633.377	213155.062
PRW101	5+59.81	40.00' LT	184640.278	213155.976
PRW102	6+20.58	40.00' LT	184683.353	213113.112
PRW103	7+72.56	50.90' LT	184792.769	213003.286
PRW104	9+64.69	53.00' LT	184925.143	212868.737
PRW106	11+26.16	86.33' LT	185016.094	212731.215
PRW107	11+60.69	48.04' LT	185064.992	212735.949
PRW108	13+07.83	37.50' LT	185171.781	212630.606
PRW109	13+64.31	37.50' LT	185211.816	212590.767
PRW110	13+64.34	40.00' LT	185210.073	212588.974
PRW111	14+67.73	40.00' LT	185283.363	212516.044
PRW122	14+50.71	40.00' RT	185327.728	212584.757
PRW123	12+77.78	38.09' RT	185206.989	212704.903
PRW124	11+52.48	38.17' RT	185122.569	212800.896
PRW125	10+13.45	38.17' RT	185024.015	212898.967
PRW126	9+92.73	46.00' RT	185014.852	212919.129
PRW127	8+15.01	95.32' RT	184923.667	213079.448
PRW128	7+80.77	38.07' RT	184859.013	213063.019
*PRW129	7+77.58	37.41' RT	184854.546	213066.591
PRW130	7+40.81	39.92' RT	184828.442	213092.633
*PRW131	6+20.50	40.00' RT	184739.727	213169.873
PRW132	5+58.53	40.00' RT	184695.800	213213.583
PRW133	5+08.54	38.04' RT	184659.086	213247.358
PRW134	4+55.06	35.50' RT	184619.281	213283.384
ERW135	4+55.06	33.01' RT	184617.520	213281.614
PRW140	9+52.73	51.00' LT	184918.074	212878.592
PRW141	9+54.74	53.00' LT	184918.094	212875.751
PRW142	10+13.45	42.50' RT	185027.069	212902.036
PRW143	9+97.02	42.50' RT	185015.422	212913.626
PRW144	8+17.72	75.13' RT	184911.340	213063.229

THE STATION AND OFFSET GIVEN FOR PRW129 & PRW131 ALONG WITH TLE STATIONS 7+77.39 & 11+54.21 ARE EXTENSIONS OF THE BACK REFERENCE LINE. THESE POINTS ARE NOT PERPENDICULAR TO ANY ONE STATION DIRECTLY ON THE REFERENCE LINE.

Owner's names are shown for reference purposes only and are subject to change prior to transfer of land interest to the department.

SCHEDULE OF LAND & INTEREST REQUIRED							
PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	HE ACRES	TLE ACRES
1	FAMILY VIDEO MOVIE CLUB, INC.	TLE, FEE	0.033	0.000	0.033		0.066
2	QUALITY STATE OIL CO., INC.	TLE, HE		0.000	0.000	0.038	0.094
3	CONVENIENCE STORE INVESTMENTS, A WISCONSIN LIMITED PARTNERSHIP	TLE, FEE	0.005	0.000	0.005		0.015
4	2100 NORTH LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE, FEE	0.068	0.000	0.068		0.076
5	McDONALD'S USA, A DELAWARE LIIMITED LIABILITY COMPANY	TLE		0.000	0.000		0.018
6	NORTH/CALUMET, LLC A WISCONSIN LIMITED LIABILITY COMPANY	TLE, FEE	0.051	0.000	0.051		0.154
8	GREGORY M. KRUSIEC AND KAREN M. KRUSIEC	TLE, FEE	0.020	0.000	0.020		0.036
9	WALTRUST PROPERTIES, INC., A DELAWARE CORPORATION	TLE, HE		0.000	0.000	0.051	0.121
11	ANIMAL CLINIC BUILDING, INC.	TLE, FEE	0.016	0.000	0.016		0.038

McMAHON
ENGINEERS
148 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1026 NEENAH, WI 54957-1026
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgrp.com

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENT OF SECTION 84.095 OF THE WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

WISCONSIN DAVID M. SCHMALZ S-1284 NEENAH, WI LAND SURVEYOR

SIGNATURE: [signature] DATE: 03-24-2015
PRINT NAME: DAVID M. SCHMALZ
REGISTRATION NUMBER: S-1284

Revised this 15th day of May, 2015

THE PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF SHEBOYGAN

SIGNATURE: [signature] DATE: 6/02/15
PRINT NAME: RYAN J. SAZAMA

FILE NAME : cclemens, W:\PROJECTS\W0059\820107\00\04-RW Plat\01 RW PLAT.dwg, 01 rw plat, Plot Date: 8/2/2016 12:30 PM,
APPRAISAL PLAT DATE : _____
PLOT DATE :
PLOT BY :
PLOT NAME :
PLOT SCALE :

W:\PROJECTS\W0059\820107\00\04-RW Plat\01 RW PLAT.dwg, 01 RW PLAT, 8/2/2016 12:30:49 PM, CClemens, 1:2

TRANSPORTATION PROJECT PLAT NO: 4630-05-21 - 4.02

CALUMET DRIVE (STH 42)

(MAIN AVENUE TO 26TH STREET)

THAT PART OF LOT 1 AND LOT 42 OF HILLSIDE ADDITION AND THAT PART OF TRACT 1 OF CERTIFIED SURVEY MAP VOLUME 6 PAGE 220 DOC. NO. 1083641 AND LOTS 1 AND 3 OF CERTIFIED SURVEY MAP VOLUME 12 PAGES 53-54 DOC. NO. 1422286 AND LOTS 4 AND 5 OF CERTIFIED SURVEY MAP VOLUME 17 PAGES 66-67 DOC. NO. 1578170 AND LOT 1 OF CERTIFIED SURVEY MAP VOLUME 25 PAGE 143 DOC. NO. 1942369 AND PART OF THE SOUTHEAST 1/4 OF SECTION 9 AND A PART OF THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 10 ALL IN TOWNSHIP 15 NORTH, RANGE 23 EAST, CITY OF SHEBOYGAN, SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER CALUMET DRIVE (STH 42) SHEBOYGAN COUNTY:

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 62.22, WISCONSIN STATUTES, THE CITY OF SHEBOYGAN HEREBY ORDERS THAT:

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 NAMED 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 SHEBOYGAN, PURSUANT TO THE PROVISIONS OF SUBSECTION 62.22, WISCONSIN STATUTES.

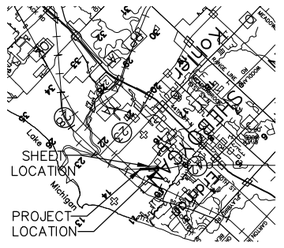
2003998
SHEBOYGAN COUNTY WI
RECORDED ON
06/04/2015 4:09 PM
ELLEN R. SCHLEICHER
REGISTER OF DEEDS
PLAT FEE: 25.00
Cashier ID: 9
Vol.: [Page(s): 148
Ellen R. Schleicher

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4630-05-21
AMENDMENT NO: ____

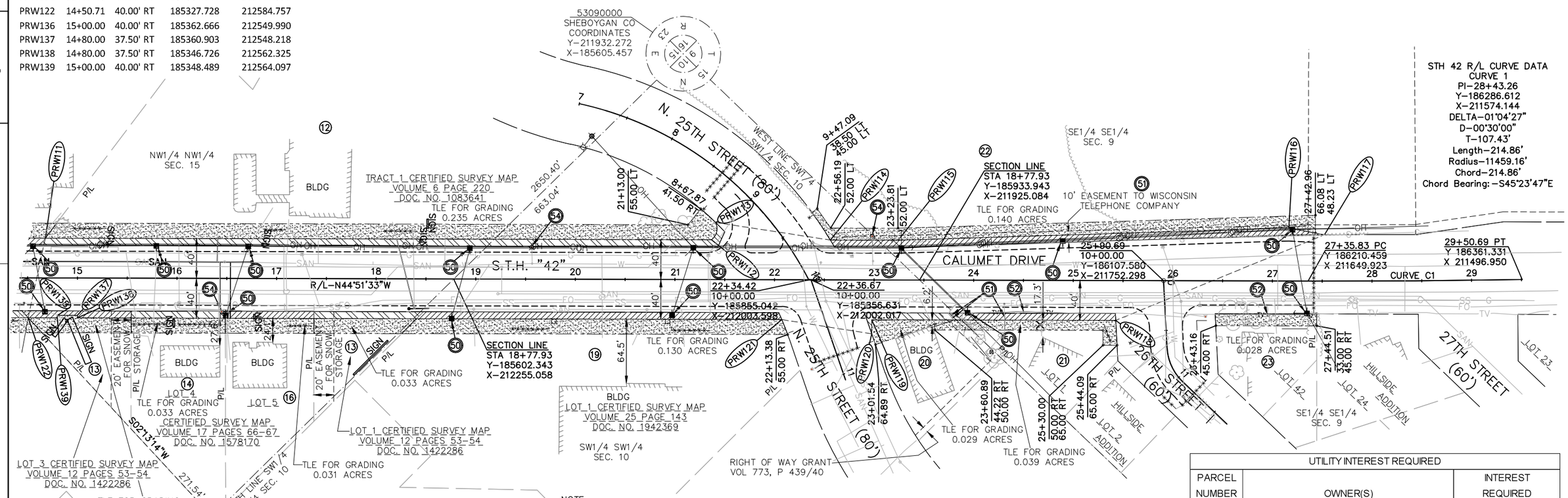
CURVE DATA TABLE

CURVE #	LENGTH	RADIUS	DELTA	CHORD DISTANCE	CHORD BEARING
112-113	19.52'	13.50'	82°51'32"	17.87'	S58°16'50"W

POINT #	STATION	OFFSET	Y	X
PRW111	14+67.73	40.00' LT	185283.363	212516.044
PRW112	21+40.67	40.00' LT	185757.489	212044.243
PRW113	21+36.60	57.40' LT	185748.096	212029.045
PRW114	22+56.04	40.00' LT	185842.152	211959.994
PRW115	23+24.01	40.00' LT	185890.331	211912.052
PRW116	27+16.30	53.18' LT	186159.108	211626.001
PRW117	27+52.26	46.50' LT	186189.251	211605.411
PRW118	25+42.75	40.00' RT	186101.813	211814.466
PRW119	22+97.78	40.00' RT	185928.170	211987.259
PRW120	22+97.78	54.08' RT	185938.104	211997.242
PRW121	22+07.46	40.00' RT	185864.143	212050.972
PRW122	14+50.71	40.00' RT	185327.728	212584.757
PRW136	15+00.00	40.00' RT	185362.666	212549.990
PRW137	14+80.00	37.50' RT	185360.903	212548.218
PRW138	14+80.00	37.50' RT	185346.726	212562.325
PRW139	15+00.00	40.00' RT	185348.489	212564.097



LOCATION MAP NOT TO SCALE



NOTE:
REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN VOLUME __ OF TRANSPORTATION PROJECT PLATS, PAGE _____ AS DOCUMENT NO. _____ FOR ADDITIONAL INFORMATION.

Owner's names are shown for reference purposes only and are subject to change prior to transfer of land interest to the department.

SCHEDULE OF LAND & INTEREST REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
12	WELLS FARGO BANK WISCONSIN, NATIONAL ASSOCIATION	TLE, FEE	0.111	0.000	0.111	0.235
13	CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY	TLE, FEE	0.034	0.000	0.034	0.066
14	LIGHTHOUSE LUBE REAL ESTATE, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE, FEE	0.015	0.000	0.015	0.033
16	NETT PROPERTIES, LLC A WISCONSIN LIMITED LIABILITY COMPANY	TLE, FEE	0.014	0.000	0.014	0.031
19	O'REILLY AUTOMOTIVE STORES, INC., A MISSOURI CORPORATION	TLE, FEE	0.058	0.000	0.058	0.130
20	KENNETH L. WAGNER AND MARIE D. WAGNER, TRUSTEES UNDER THE WAGNER LIVING TRUST, DATED OCTOBER 20, 1994, AND ANY AMENDMENTS THERTO	TLE, FEE	0.016	0.000	0.016	0.029
21	CODY J. GROH	TLE, FEE	0.025	0.000	0.025	0.039
22	CITY OF SHEBOYGAN, A MUNICIPAL CORPORATION	TLE, FEE	0.079	0.000	0.079	0.14
23	NATHAN T. MILLER & STACEY E. RIETBROCK	TLE	0.000	0.000	0.000	0.028

UTILITY INTEREST REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED
50	WISCONSIN POWER AND LIGHT COMPANY	RELEASE OF RIGHTS
51	AT&T	RELEASE OF RIGHTS
52	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
54	CITY OF SHEBOYGAN (WATER)	RELEASE OF RIGHTS

PT#-PT#	BEARING	DISTANCE
122-111	S57°09'06"W	81.79'
111-112	N44°51'33"W	668.87'
113-114	N36°17'03"W	116.68'
114-115	N44°51'33"W	67.97'
115-116	N46°47'00"W	392.51'
116-117	N34°20'09"W	36.50'
117-118	S67°18'10"E	226.60'
118-119	S44°51'33"E	244.97'
119-120	N45°08'27"E	14.08'
120-121	S35°59'49"E	91.42'
121-136	S44°51'33"E	707.46'
136-137	S45°08'27"W	2.50'
137-138	S44°51'33"E	20.00'
138-139	N45°08'27"E	2.50'
139-122	S44°51'33"E	29.29'

GRID NORTH

50 25 0 50
SCALE - FEET

McMAHON
145 McMAHON DRIVE NEENAH, WI 54956
Mailing: P.O.BOX 1025 NEENAH, WI 54957-1025
Tel: (920) 751-4200 Fax: (920) 751-4284
www.mcmgin.com

HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENT OF SECTION 84.095 OF THE WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

WISCONSIN DAVID M. SCHMALZ S-1284 MEENAH, WI LAND SURVEYOR

SIGNATURE: David M. Schmalz DATE: 03-24-2015
PRINT NAME: DAVID M. SCHMALZ
REGISTRATION NUMBER: S-1284

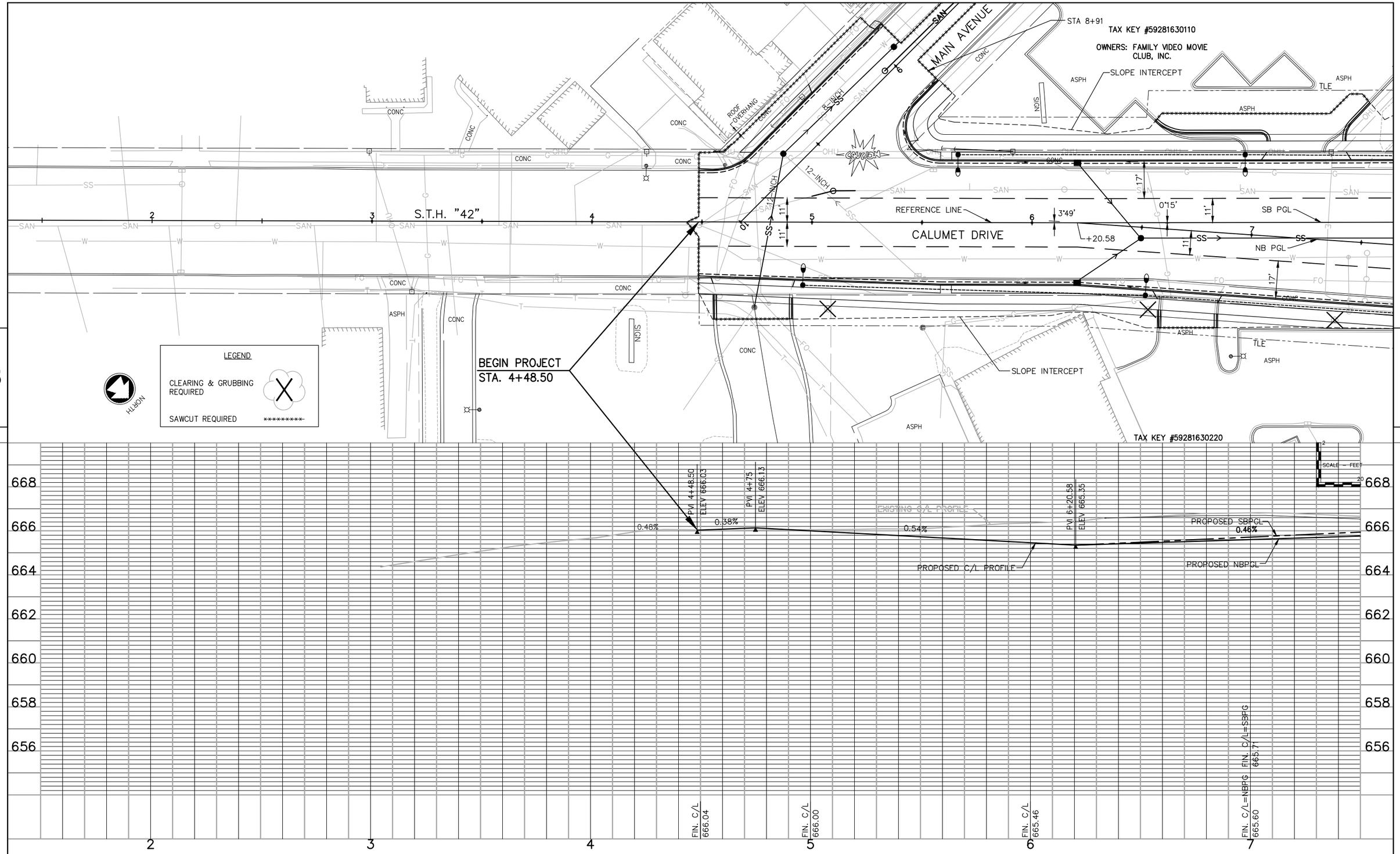
Revised this 15th day of May, 2015

THE PLAT AND RELOCATION ORDER ARE APPROVED FOR THE CITY OF SHEBOYGAN

SIGNATURE: Ryan J. Stazama DATE: 6/23/15
PRINT NAME: RYAN J. STAZAMA

FILE NAME : cclemens, W:\PROJECTS\W0059\820107\00\04-RW Plat\02 RW PLAT.dwg xrefs: (x-rw plat info, x-proposed, x-existing right of way, x-rw acq areas, x-tle, location map on sheet 1 only) PLOT DATE:
PLOT BY : PLOT NAME : PLOT SCALE :
APPRAISAL PLAT DATE : _____
WISDOT/CADDS SHEET 75

W:\PROJECTS\W0059\820107\00\04-RW Plat\02 RW PLAT.dwg, 02 RW PLAT, 8/2/2016 12:31:25 PM, CClemens, 1:2



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET: 136	E

cschuh, W:\PROJECTS\W0059\820107\00\05-Plan and Profile\01 PLAN AND PROFILE.dwg, 01 plan and profile, Plot Date: 10/3/2016 1:53 PM, xrefs: (x-proposed, x-existing, x-42 profile, x-existing right of way, x-street lighting and interconnect)

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
7+90.59, 99.26' LT	RR SPIKE IN PP	666.81

TAX KEY #59281630090

OWNERS: QUALITY STATE OIL CO., INC.

TAX KEY #59281629780

OWNERS: WALTRUST PROPERTIES, INC.

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED

S.T.H. "42"

CALUMET DRIVE

NORTH AVENUE

SB PGL

NB PGL

REFERENCE LINE

SLOPE INTERCEPT

RETAINING WALL

MAILBOX

TREE (TO REMAIN)

8-INCH SS

12-INCH SS

PROPOSED SBPGL

PROPOSED NBPGL

EXISTING C/L PROFILE

PVI 7+75.83 ELEV 665.06

PVI 9+00 ELEV 666.46

PVI 9+50 ELEV 666.20

PVI 11+52.48 ELEV 665.59

PVI 13+07.83 ELEV 665.01

PVI 9+00 ELEV 666.24

PVI 11+52.48 ELEV 665.49

0.32%

0.32%

0.52%

0.30%

0.30%

0.38%

0.31%

FIN. C/L=SBPG 666.14

FIN. C/L=NBPG 665.92

FIN. C/L=SBPG 666.46

FIN. C/L=NBPG 666.24

FIN. C/L=SBPG 666.05

FIN. C/L=NBPG 665.94

FIN. C/L=SBPG 665.76

FIN. C/L=NBPG 665.64

FIN. C/L=SBPG 665.42

FIN. C/L=NBPG 665.34

FIN. C/L 665.04

8 9 10 11 12 13

668 666 664 662 660 658 656

SCALE — FEET 0 20

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET: 137	E

TAX KEY #59281629740

OWNERS: ANIMAL CLINIC BUILDING, INC.

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK WISCONSIN, NATIONAL ASSOCIATION

NORTH

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED

MAILBOX

SLOPE INTERCEPT

S.T.H. "42"

REFERENCE LINE

CALUMET DRIVE

TREE (TO REMAIN)

TAX KEY #59281630482

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630480

OWNERS: LIGHTHOUSE LUBE REAL ESTATE, LLC, A WISCONSIN LIMITED LIABILITY COMPANY

TAX KEY #59281630481

OWNERS: NETT PROPERTIES, LLC A WISCONSIN LIMITED LIABILITY

TAX KEY #59281630478

OWNERS: CRAMER HOLDINGS, LLC A WISCONSIN LIMITED LIABILITY COMPANY

BENCH MARKS

LOCATION	DESCRIPTION	ELEVATION
16+44.99, 33.63' RT	BOLT WITH BLUE PAIN ON HYD.	665.68

ELEV 665.01

0.38%

PVI 16+00
ELEV 663.90

PROPOSED C/L PROFILE

0.78%

SCALE — FEET

	FIN. C/L
14	664.74
15	664.44
16	664.14
17	663.44
18	662.74
19	662.04

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET: 138	E

TAX KEY #59281629720

OWNERS: WELLS FARGO BANK WISCONSIN, NATIONAL ASSOCIATION

TAX KEY #59281628960

OWNERS: CITY OF SHEBOYGAN, A MUNICIPAL CORPORATION

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED

STA 8+60.80

STA 8+70.80

N. 25TH STREET

S.T.H. "42"

CALUMET DRIVE

REFERENCE LINE

SLOPE INTERCEPT

TLE

ASPH

CONC

SAN

SS

FO

12-INCH

10-INCH

6-INCH

8-INCH

1'55'

MAILBOX

STA 10+80

BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
20+16.24, 143.66' LT	6" SPIKE IN L.P.#15-23-10.3	663.41

TAX KEY #59281629150

TAX KEY #59281629185

OWNERS: KENNETH L. WAGNER AND MARIE D. WAGNER, TRUSTEES UNDER THE WAGNER LIVING TRUST, DATED OCTOBER

TAX KEY #5928162071

SCALE — FEET

0 20

PVI 20+50
ELEV 660.50

0.65%

PROPOSED C/L PROFILE

PVC 22+75
ELEV 659.04

150' V.C.
L.P. 23+43.08
C/L= 658.87

PVI 23+50
ELEV 658.56

EXISTING C/L PROFILE

PVT 24+25
ELEV 659.14

662
660
658
656
654
652
650

FIN. C/L 662.04 — 19
FIN. C/L 661.34 — 20
FIN. C/L 660.56 — 21
FIN. C/L 659.76 — 22
FIN. C/L 658.99 — 23
FIN. C/L 658.98 — 24

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET: 139	E

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BENCH MARKS		
LOCATION	DESCRIPTION	ELEVATION
26+27.10, 34.19' RT	BOLT WITH BLUE PAINT ON HYD.	662.45

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED

SLOPE INTERCEPT

TLE

CONC

CAUTION

17'

W

S.T.H. "42" REFERENCE LINE

CALUMET DRIVE

25 26 27 28 29

SS

12-INCH

14'

SAN

FO

TV

OHU

N. 26TH STREET

END PROJECT
STA. 27+41.48

TLE

SLOPE INTERCEPT

MAILBOX

TAX KEY #59281620710

5

5

NORTH

SCALE – FEET

664
662
660
658
656
654
652

EXISTING C/L PROFILE

PROPOSED C/L PROFILE

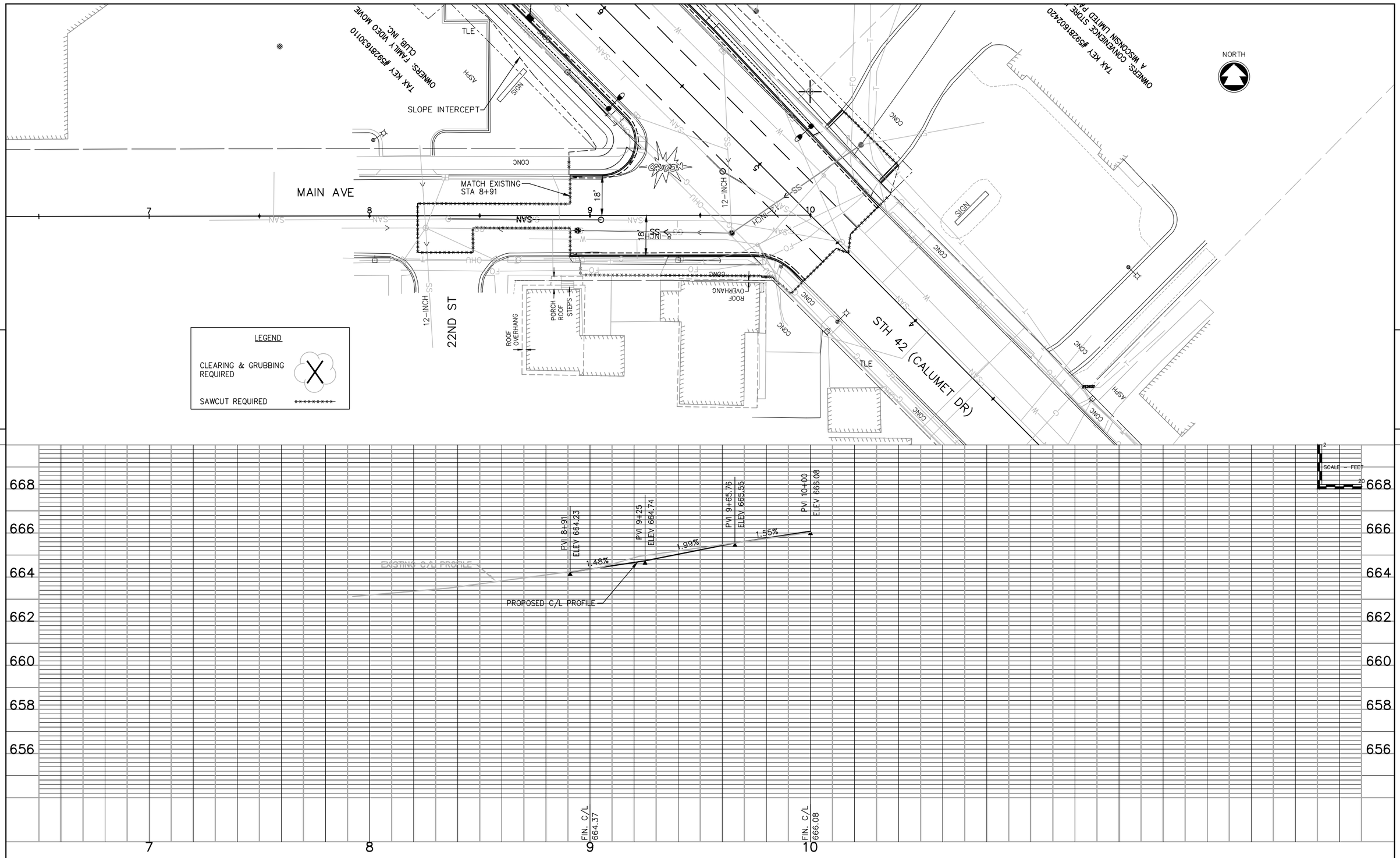
0.78%

0.76%

FVI 27+41.48
F-ELV 661.61

FIN. C/L
25 659.73
26 660.51
27 661.29

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET: 140	E



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE – MAIN AVE	SHEET: 141	E

NORTH

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED

STH 42 (CALUMET DR)

NORTH AVE

24TH ST

SLOPE INTERCEPT

MATCH EXISTING STA 7+94.50

27'

31'

TLE

CONC

SIGN

SAN

SS

W

G

E

TV

FO

ASPH

8-INCH

12-INCH

CANOPY

GAS

PUMPS

5

6

7

8

9

10

SCALE – FEET

0 20

PVI 7+94.50 ELEV 665.08

PVI 9+07.48 ELEV 665.58

PVI 7+46.02 ELEV 665.46

PVI 10+00 ELEV 666.00

EXISTING C/L PROFILE

PROPOSED C/L PROFILE

0.44%

0.31%

1.00%

FIN. C/L 665.11

FIN. C/L 665.55

FIN. C/L 666.00

668

666

664

662

660

658

656

2

3

7

8

9

10

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE – NORTH AVE	SHEET: 142	E

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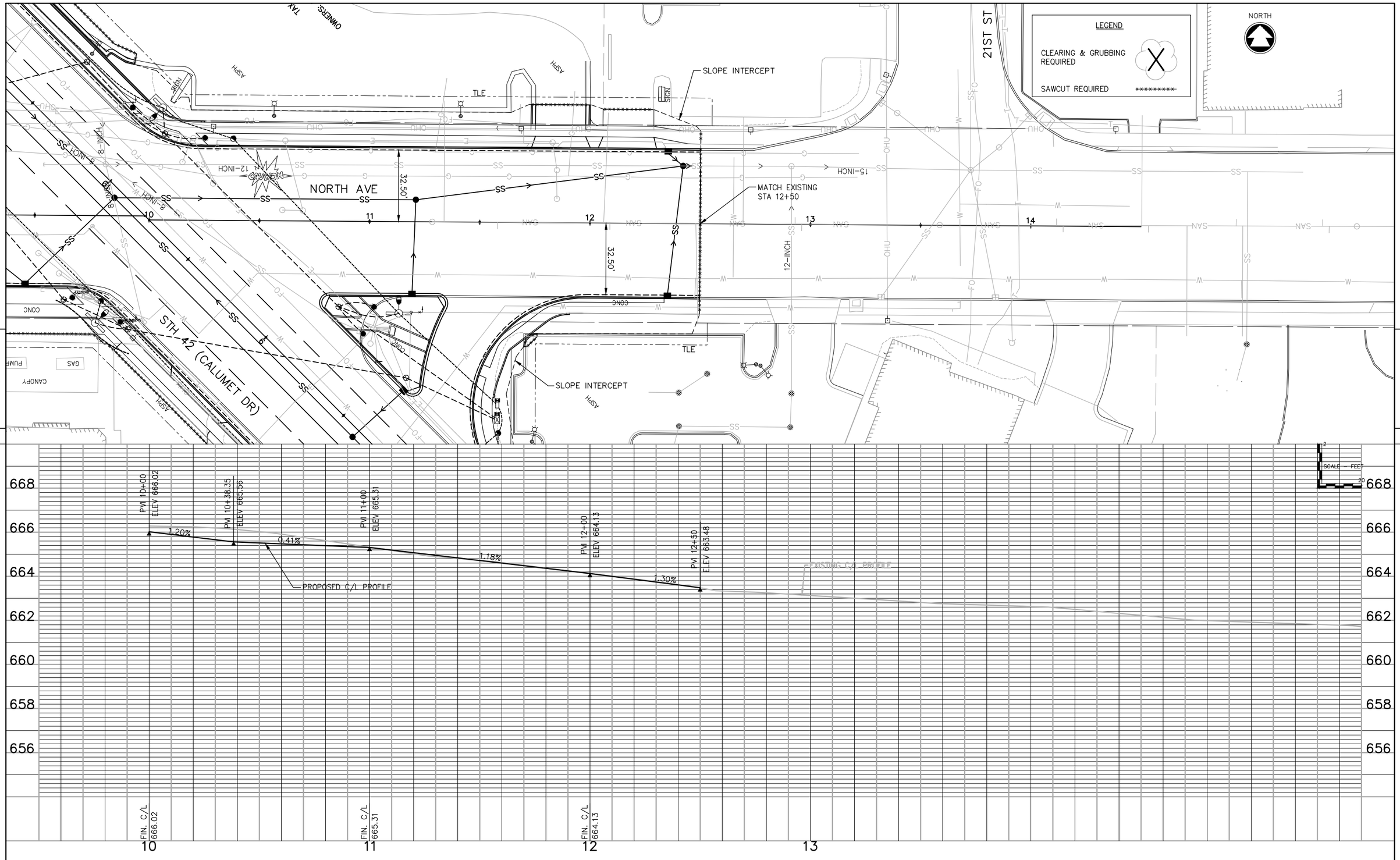
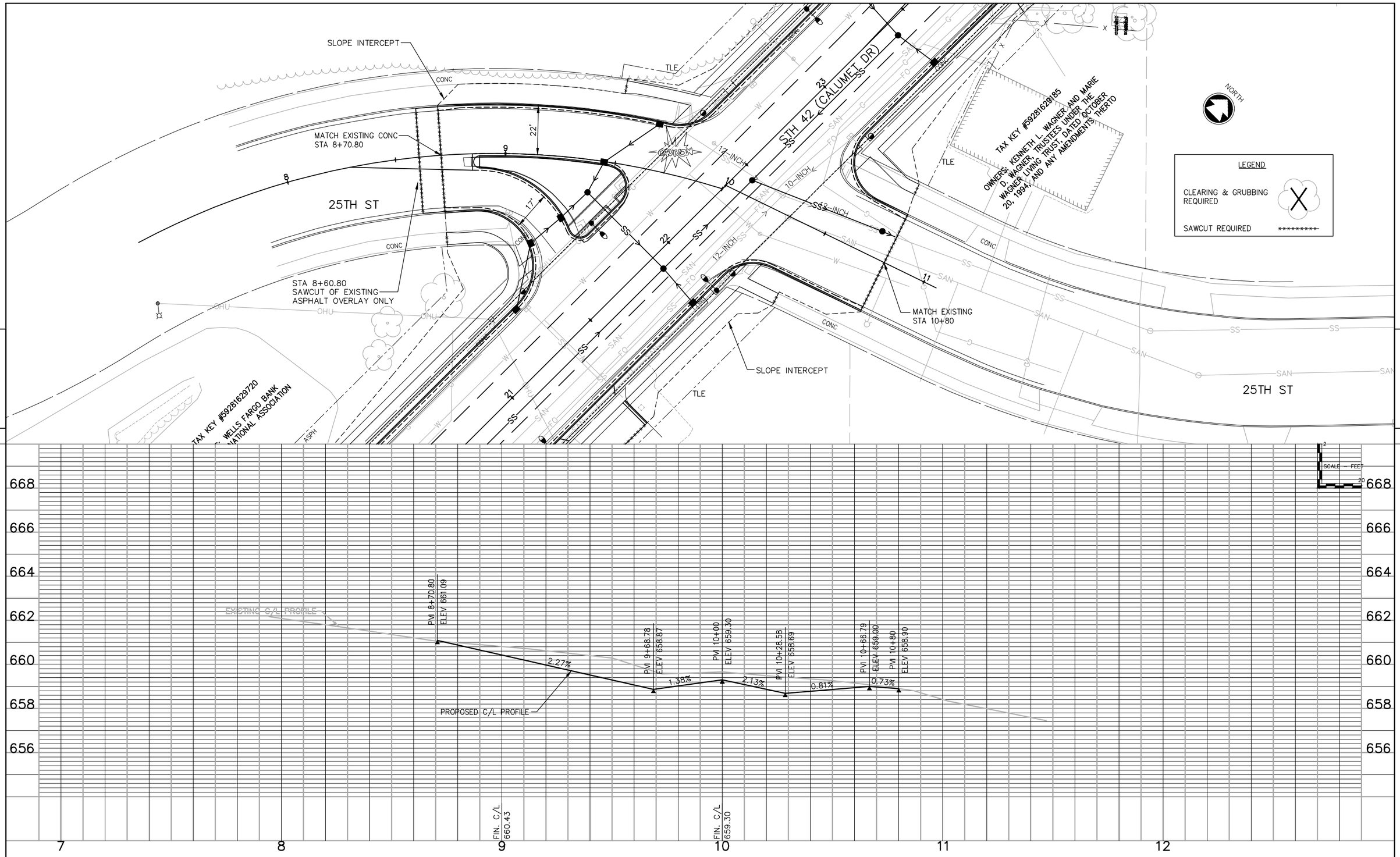


PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE – NORTH AVE	SHEET: 143	E



PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE – 25TH ST	SHEET: 144	E

NORTH

LEGEND

CLEARING & GRUBBING REQUIRED

SAWCUT REQUIRED **********

STH 42 (CALUMET DR)

TAX KEY #59281628960
OWNERS: CITY OF SHEBOYGAN,
A MUNICIPAL CORPORATION

SS-10-INCH

12-INCH

12-INCH

SS-8-INCH

CRUSHER

TLE

TLE

CONC

CONC

CONC

CONC

CONC

CONC

CONC

MATCH EXISTING
STA 11+22

26TH ST

16.5'

16.5'

SLOPE INTERCEPT

TAX KEY #59281620710
...ODY J. GROH

PROPOSED C/L PROFILE

EXISTING C/L PROFILE

PVI 10+00
ELEV 660.43

PVI 10+25.73
ELEV 658.93

PVI 11+00
ELEV 659.67

PVI 11+22
ELEV 659.81

7.94%

0.35%

0.64%

FIN. C/L
660.43

FIN. C/L
659.67

SCALE – FEET
0 2 20

PROJECT NO: 4630-05-71	HWY: STH 42 (CALUMET DRIVE)	COUNTY: SHEBOYGAN	PLAN AND PROFILE – 26TH ST	SHEET: 145	E

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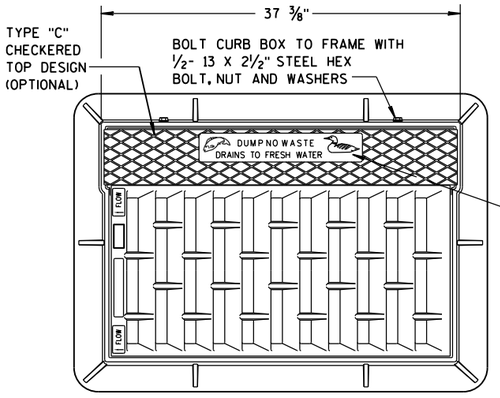
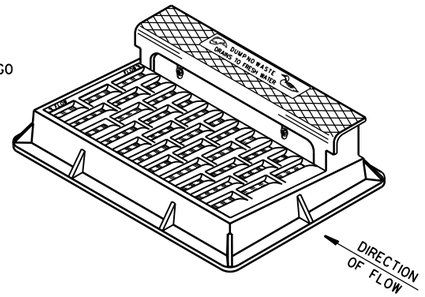
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
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
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-17A	CURB RAMPS TYPES 1 AND 1-A
08D05-17B	CURB RAMPS TYPES 2 AND 3
08D05-17C	CURB RAMPS TYPES 4A AND 4A1
08D05-17D	CURB RAMPS TYPE 4B AND 4B1
08D05-17E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
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
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E05-06	TRAFFIC SIGNAL STANDARD ORNAMENTAL BRACKET MOUNTINGS TYPICAL FOR 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-07D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-07E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
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
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
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
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-13A	PAVEMENT MARKING SYMBOLS
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	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)
15C29-04A	BICYCLE LANE MARKING
15C29-04B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D30-03A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-03B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-03C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

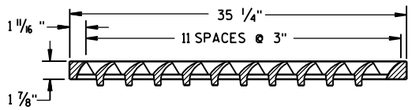
6

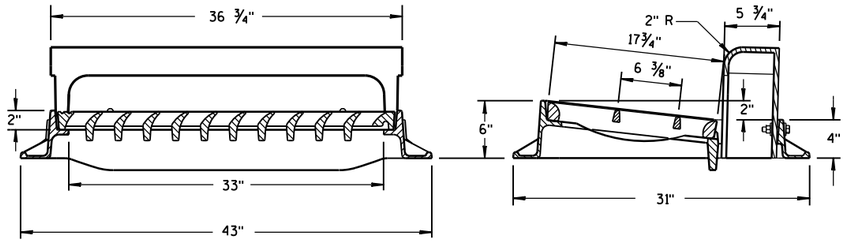


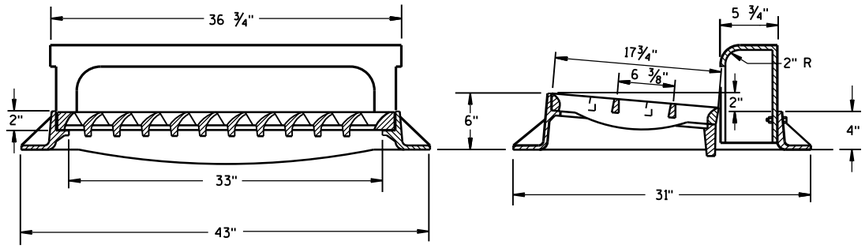
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

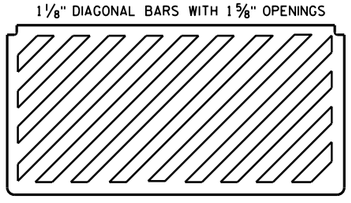






TYPE "H"

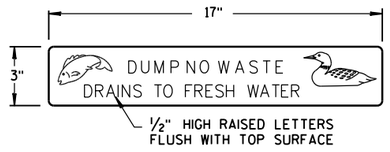
NOTE: EITHER CASTING IS ACCEPTABLE



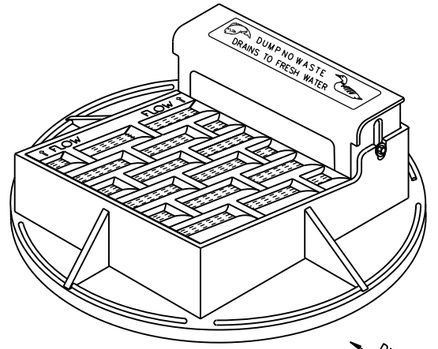
SPECIAL GRATE FOR TYPE "H" COVER

(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"

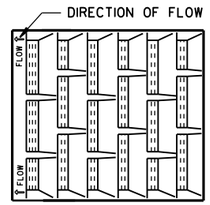
NOTE:
GRATE IS REVERSIBLE.

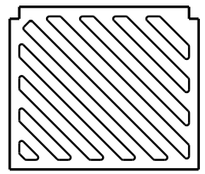
GENERAL NOTES

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.

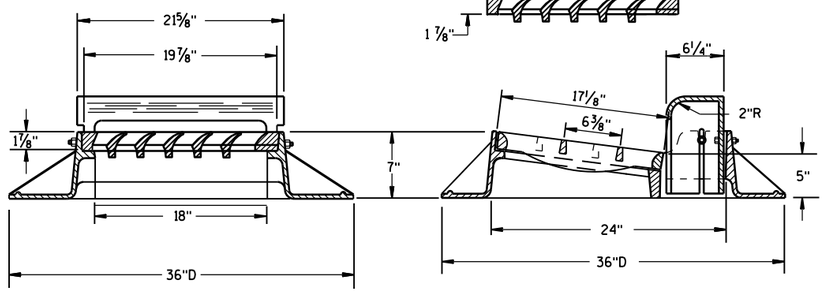




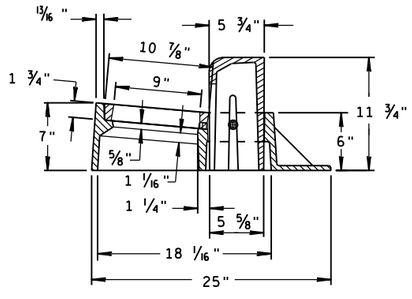
SPECIAL GRATE FOR TYPE "A" COVER

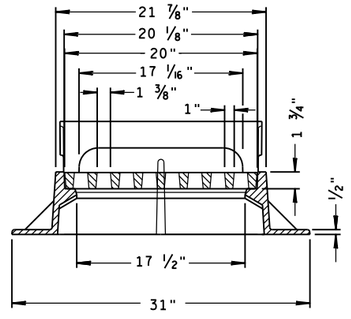
(MEASURES 19 3/4" X 17" X 1 7/8")

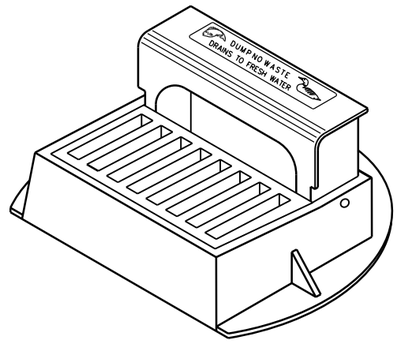
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"







TYPE "Z"

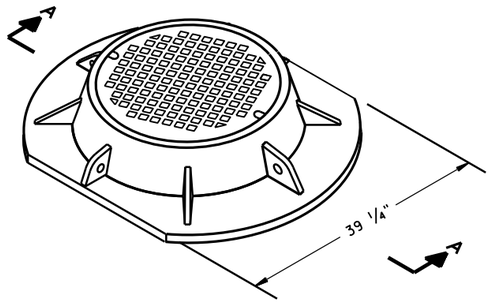
INLET COVERS
TYPE A, H, A-S, H-S & Z

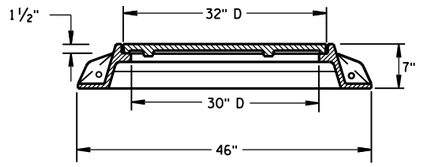
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

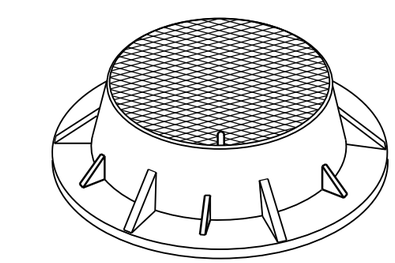
6

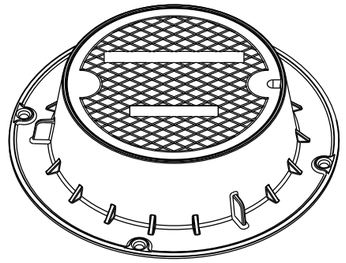
S.D.D. 8 A 5-19a

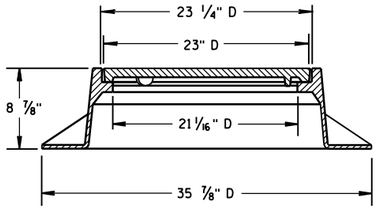


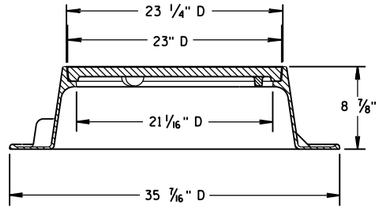


SECTION A-A
TYPE "K"









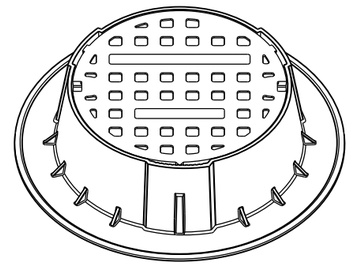
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

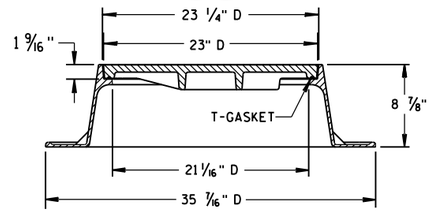
GENERAL NOTES

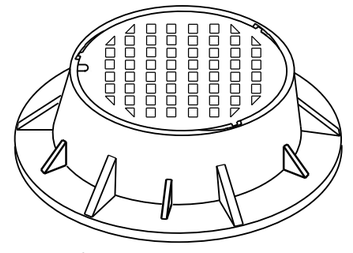
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

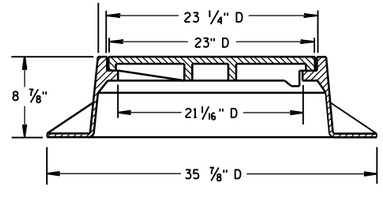
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

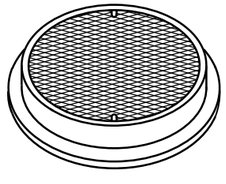


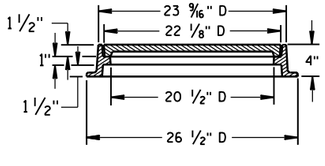




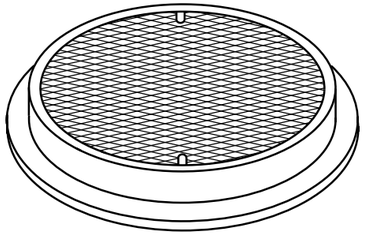


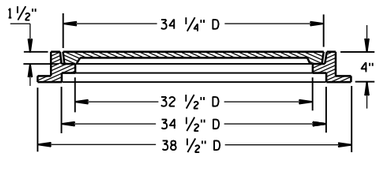
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



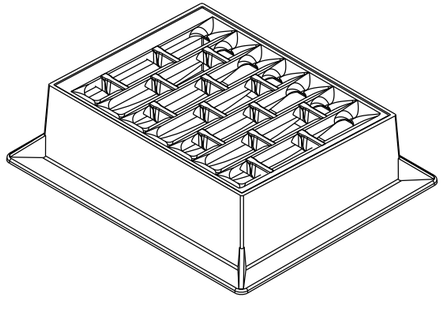


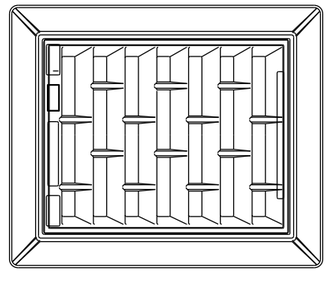
TYPE "L"

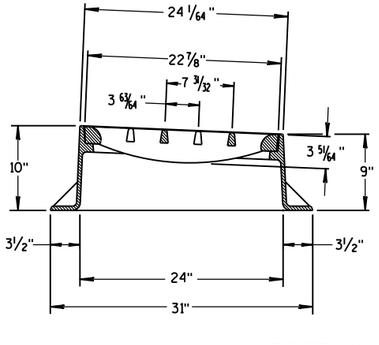


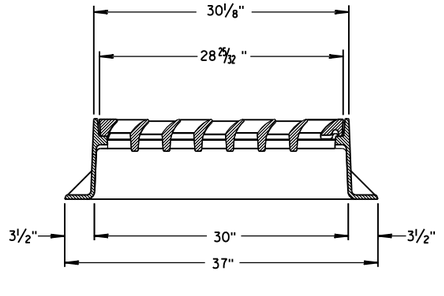


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

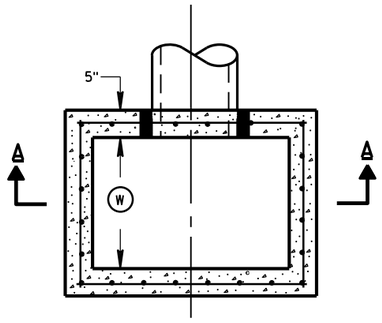
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

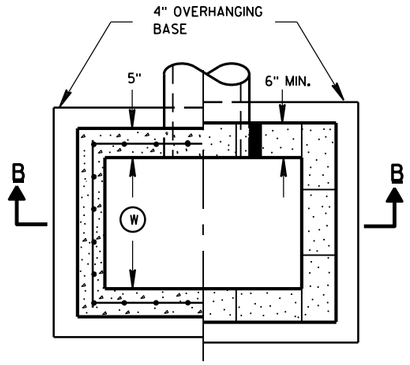
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

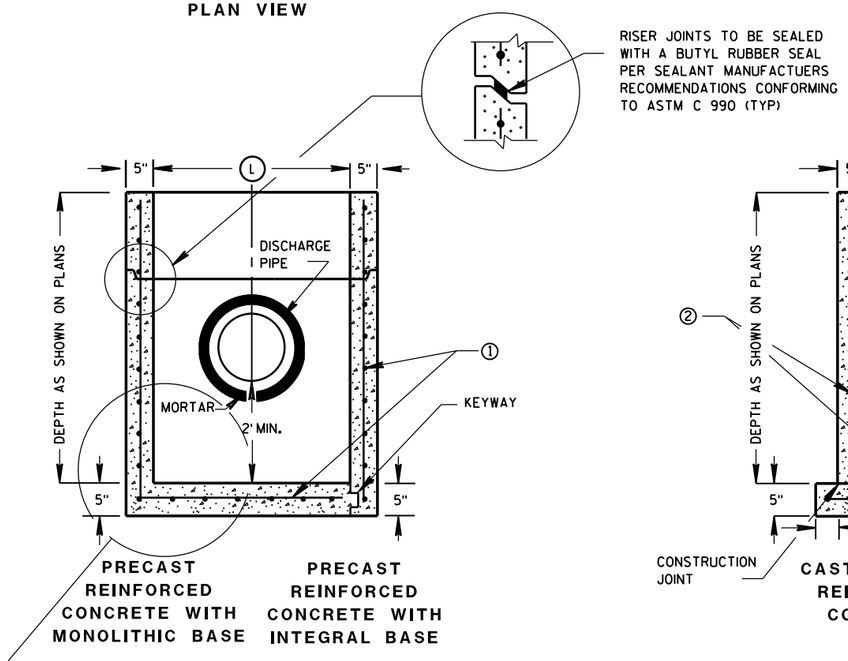
S.D.D. 8 A 5-19d



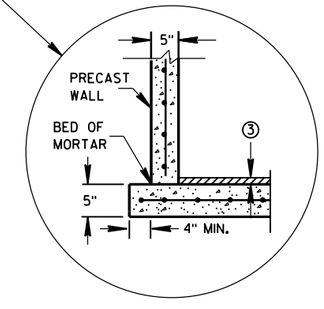
PLAN VIEW



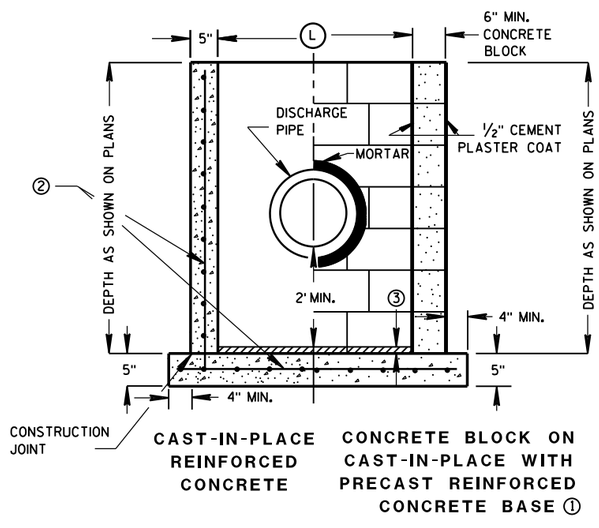
PLAN VIEW



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.

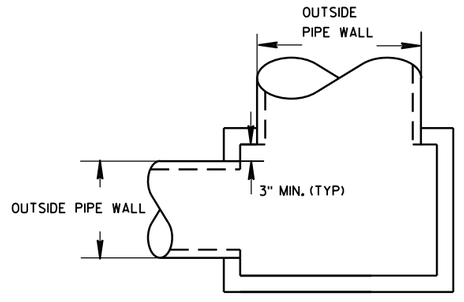
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

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
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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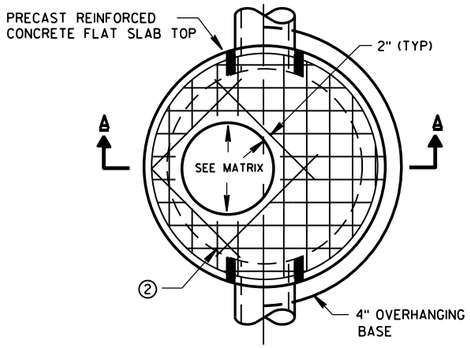
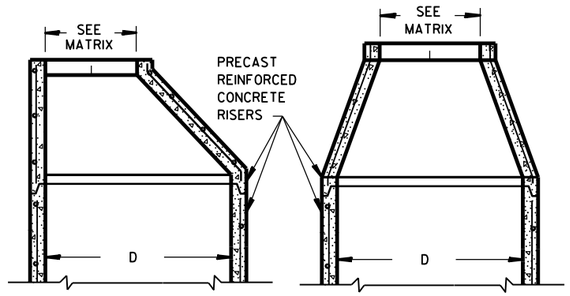
S.D.D. 8 A 9-1

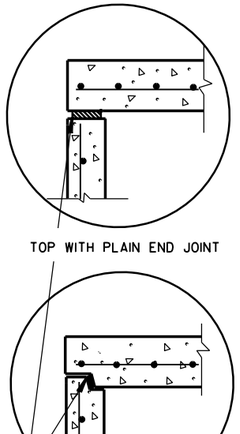


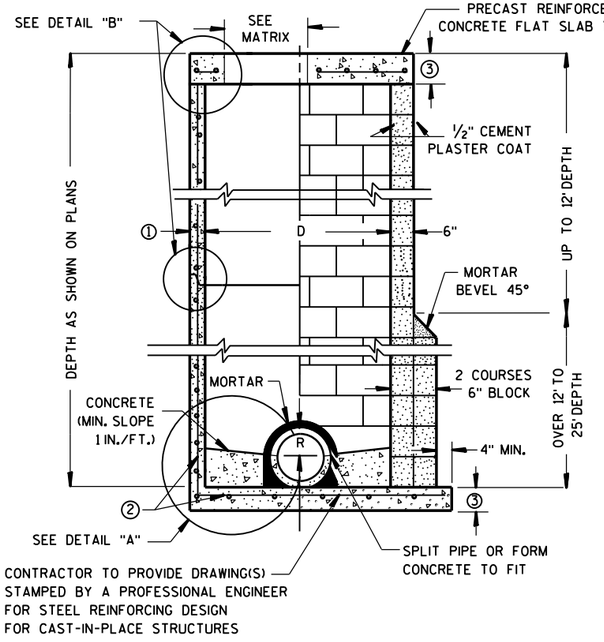
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

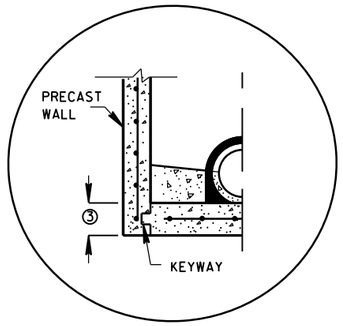
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



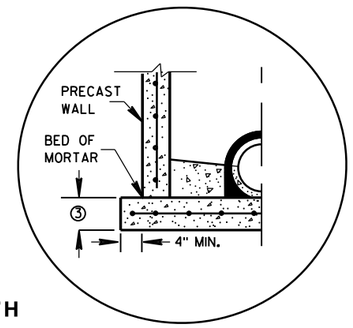


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

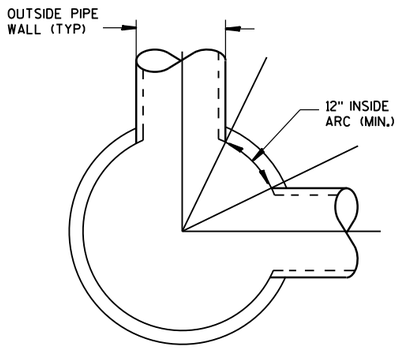


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

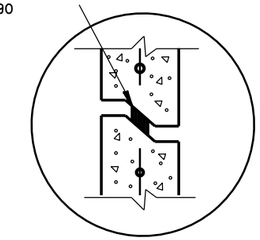


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "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 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

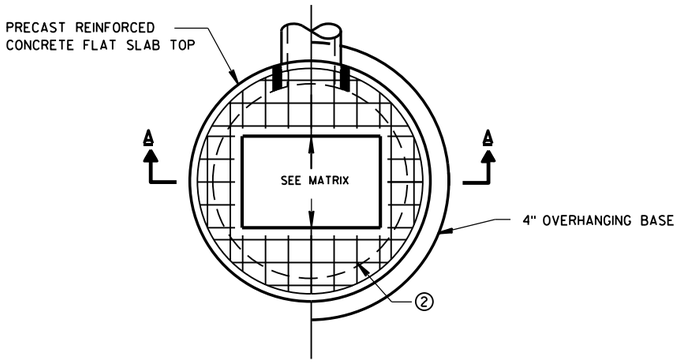
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

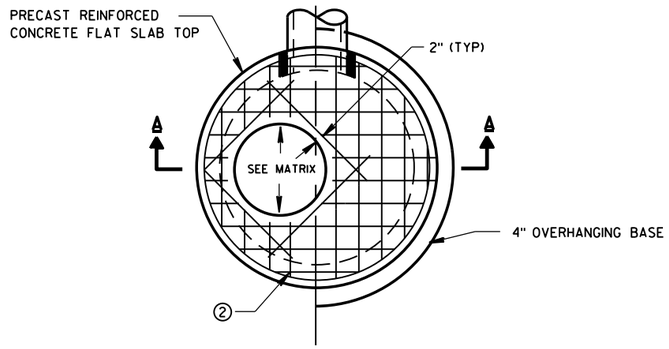
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

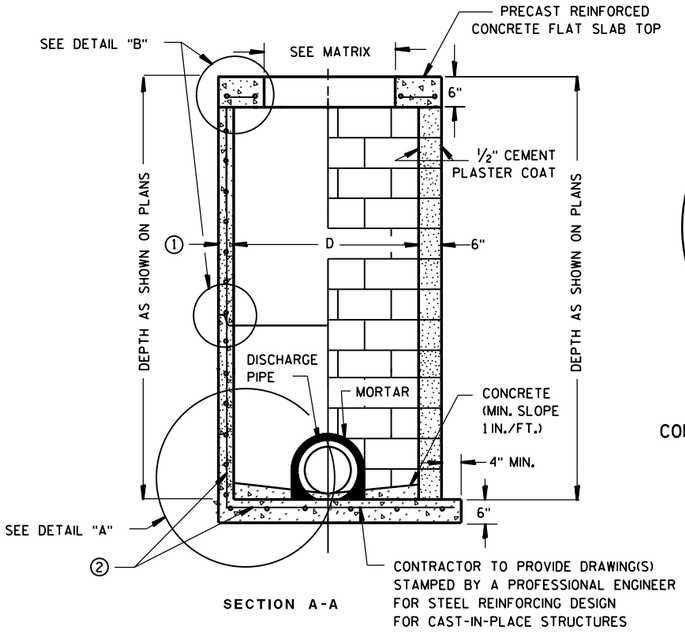
6
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

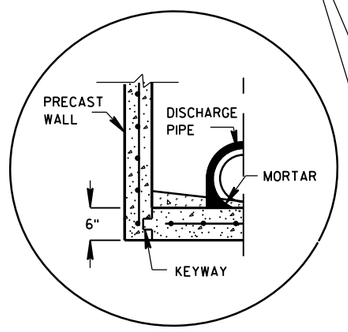


SECTION A-A

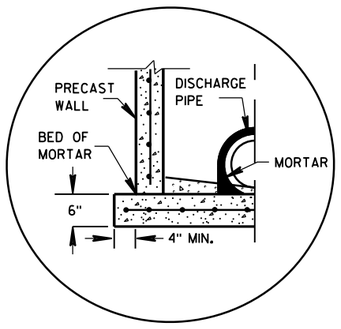
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

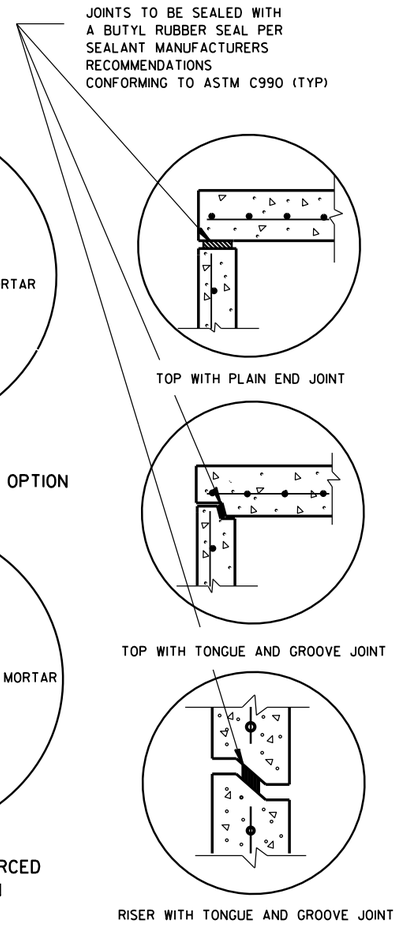


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "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 INLET 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.

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.

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.

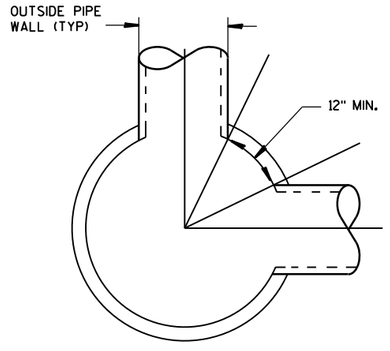
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

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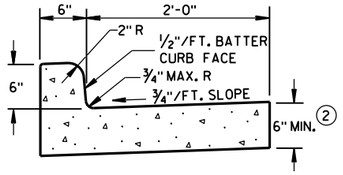
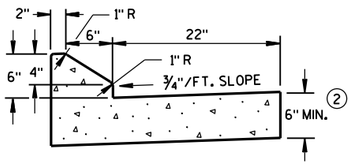
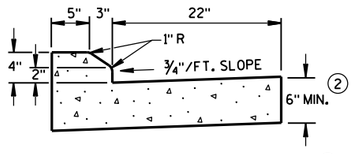
INLETS 3-FT AND 4-FT DIAMETER



TYPES A & D ①

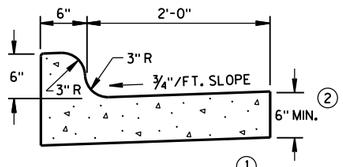


6" SLOPED CURB TYPES G & J ①

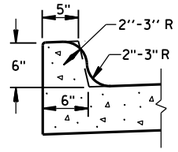


4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"

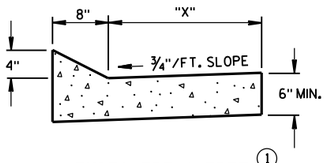


TYPES K & L ①



OPTIONAL CURB SHAPE FOR TYPES K & L ①

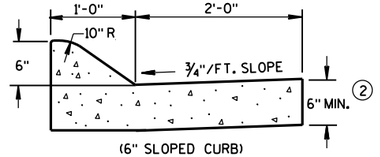
CONCRETE CURB & GUTTER 30"



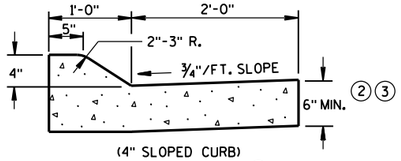
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

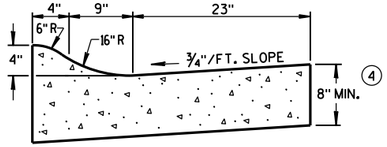


(6" SLOPED CURB)



(4" SLOPED CURB)

TYPES A & D ①



4" SLOPED CURB TYPES R & T ①⑤

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.

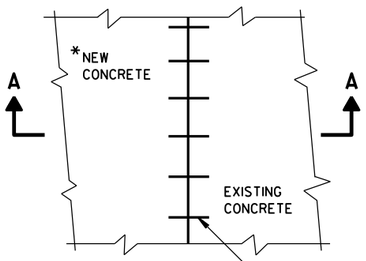
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

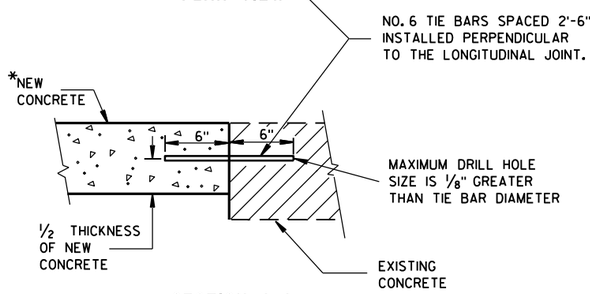
⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



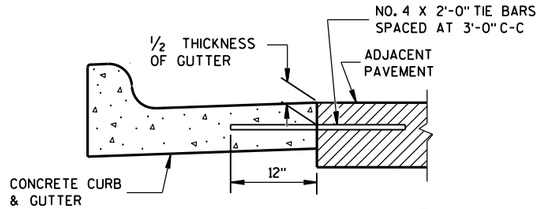
PLAN VIEW

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

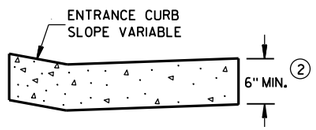


SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

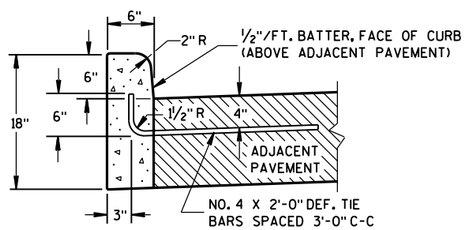


TYPICAL TIE BAR LOCATION ①

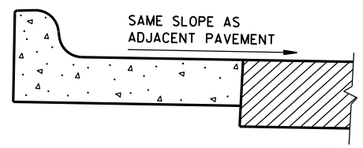


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

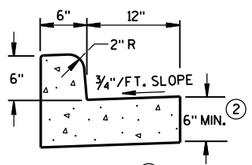


① TYPES A & D



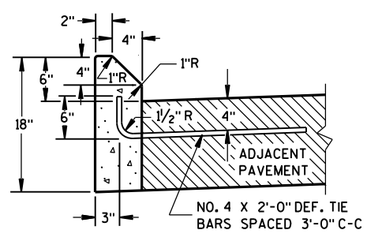
⑥ REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)



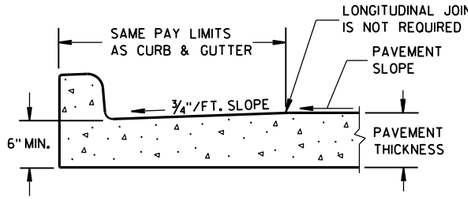
① TYPES A & D

CONCRETE CURB & GUTTER 18"

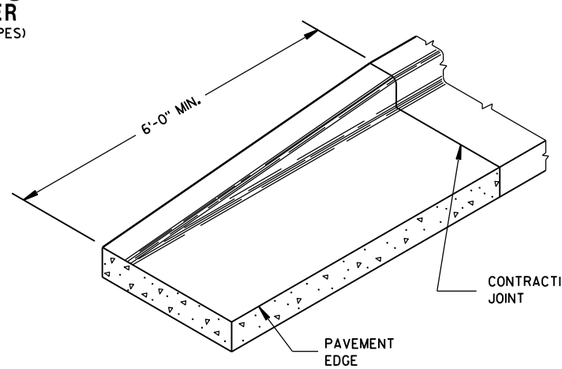


① TYPES G & J

CONCRETE CURB



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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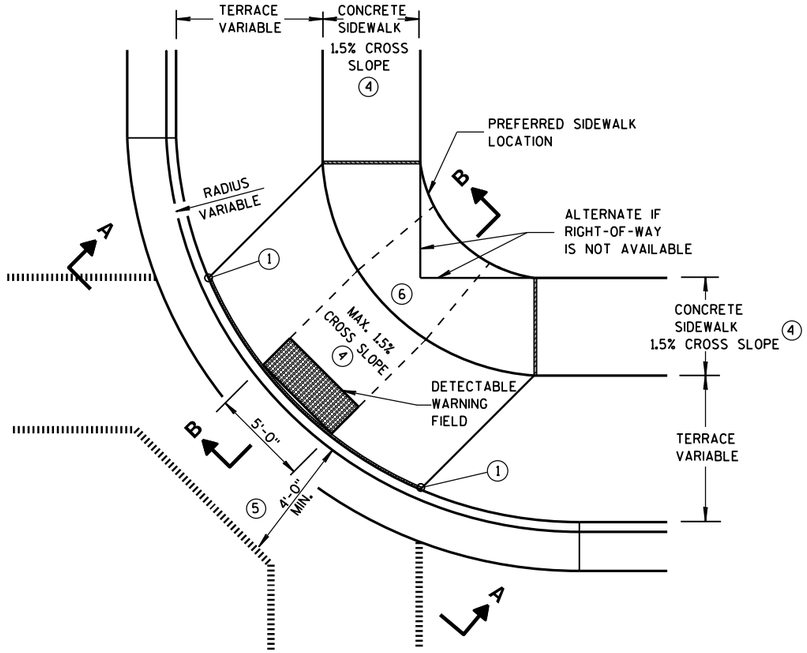
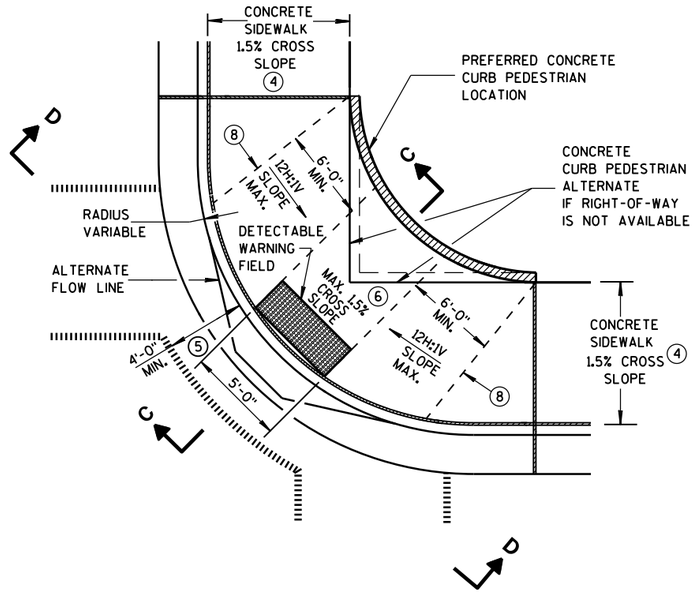
S.D.D. 8 D 1-19



PLAN VIEW

TYPE 1 RAMP

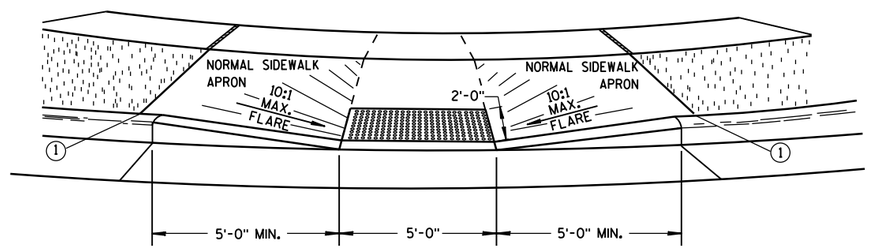
(CENTER OF CORNER RADIUS)



PLAN VIEW

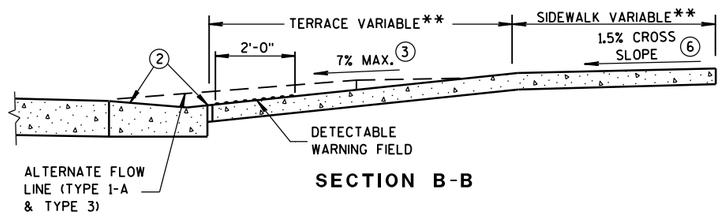
TYPE 1-A RAMP

(NO TERRACE)

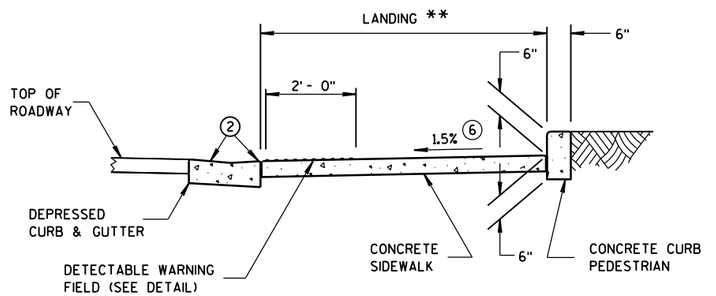


VIEW A-A

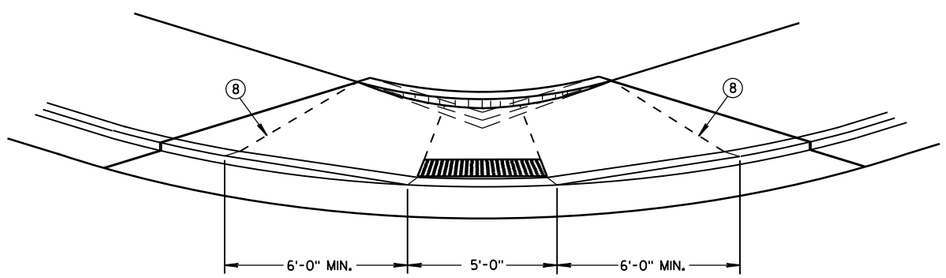
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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.

LEGEND

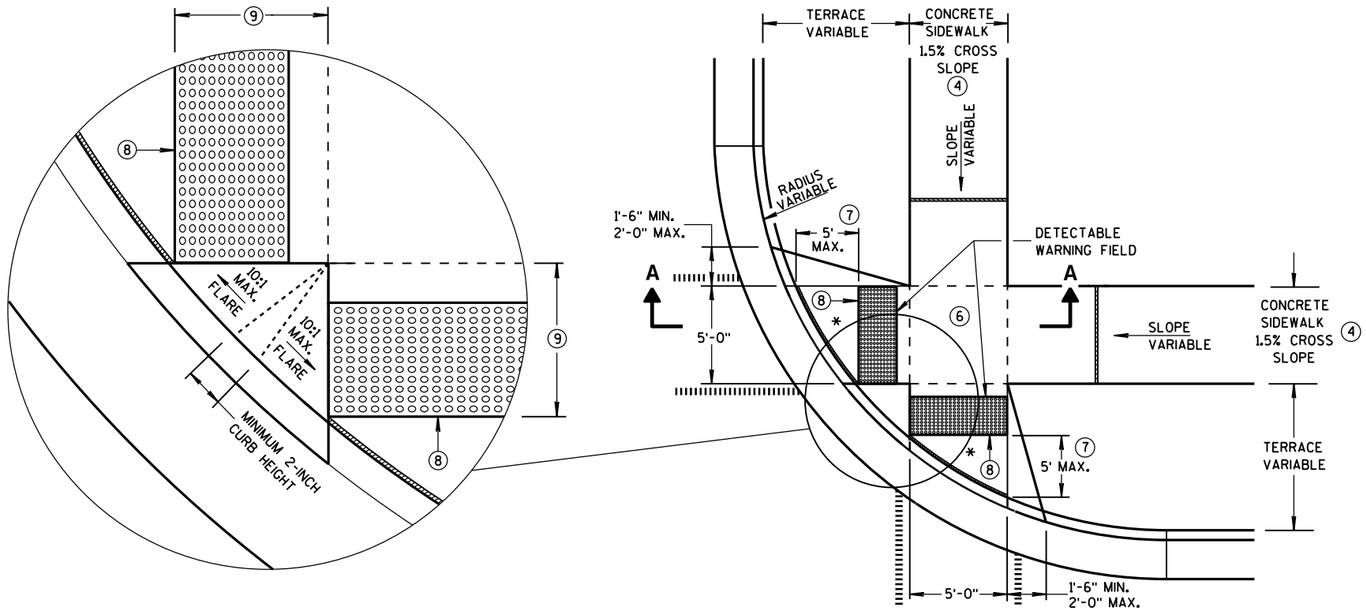
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-17a

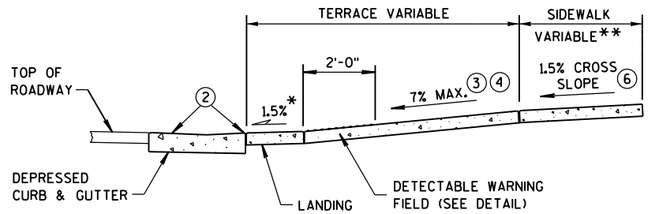


PLAN VIEW

TYPE 2 RAMP

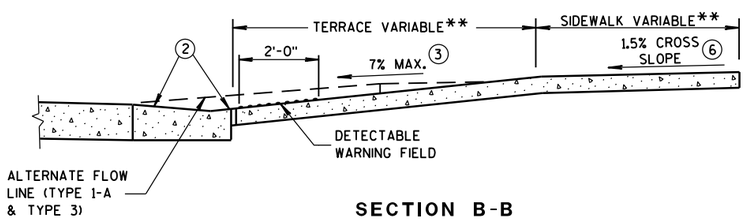
(ON LINE WITH SIDEWALK)

* 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

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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).

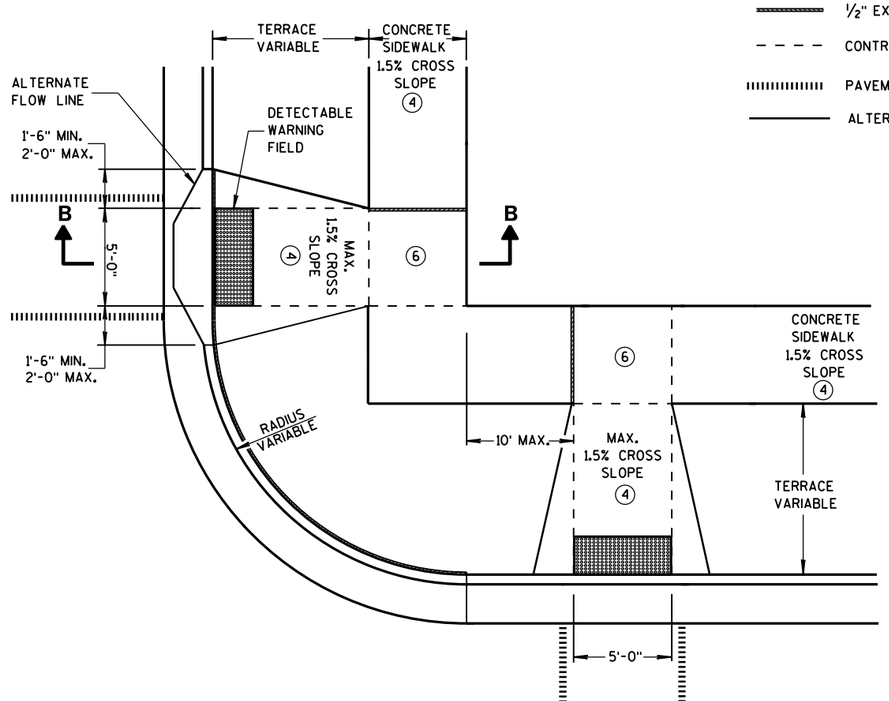
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(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. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

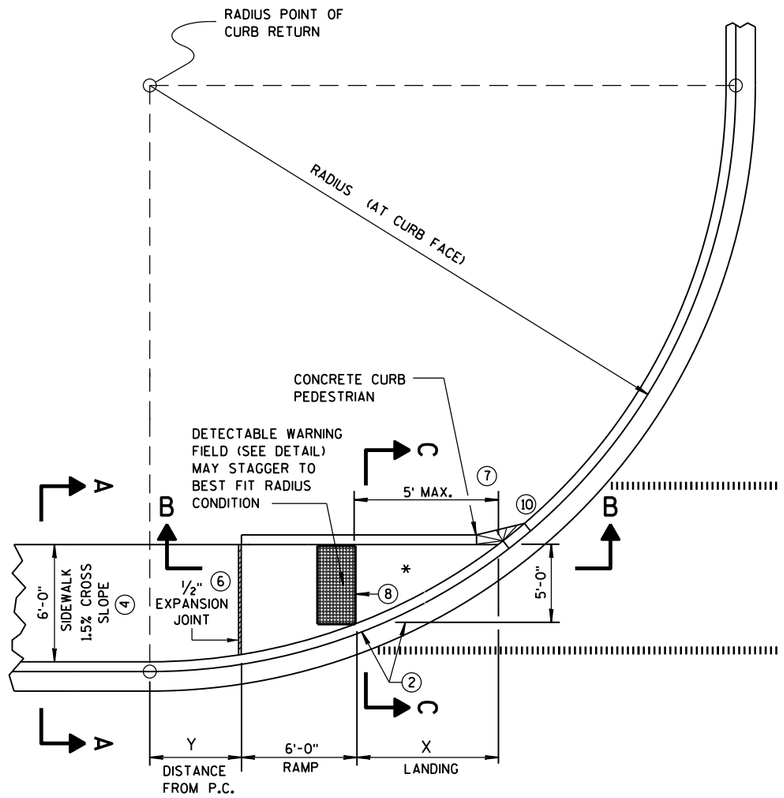
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

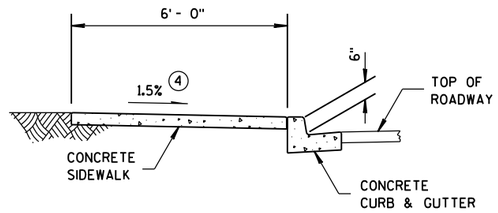
S.D.D. 8 D 5-17b



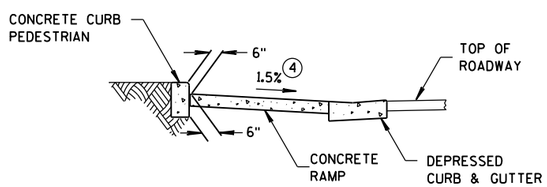
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

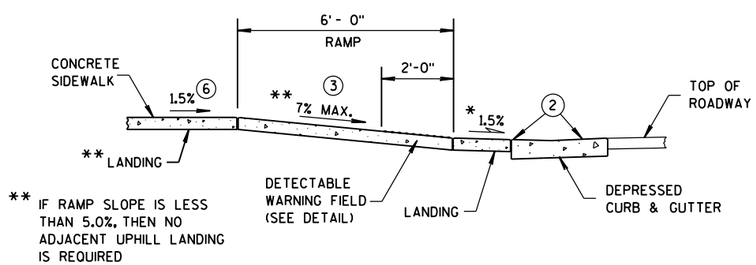
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

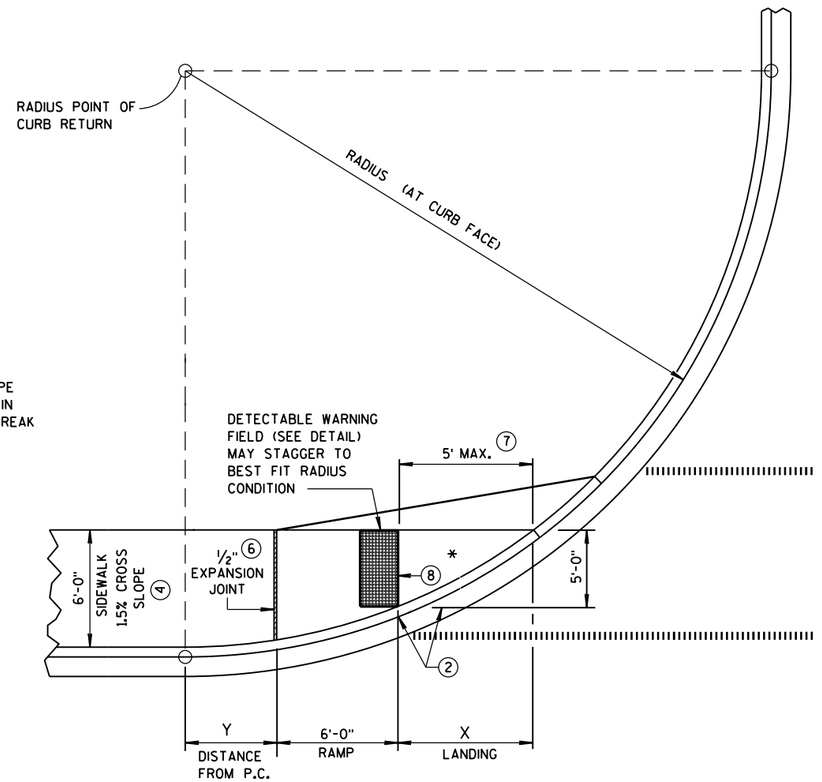


SECTION C-C FOR TYPE 4A



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

SECTION B-B FOR TYPE 4A



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

CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

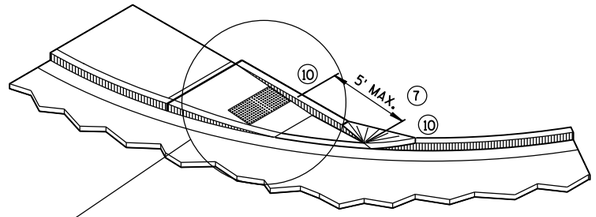
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

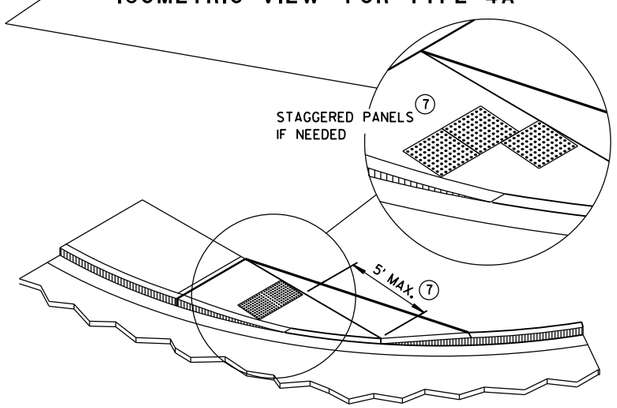
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(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

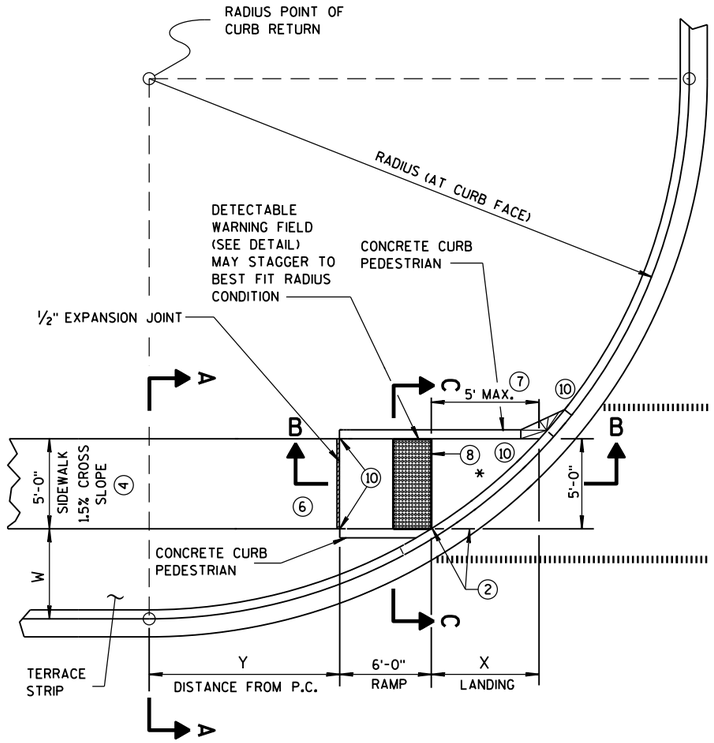
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

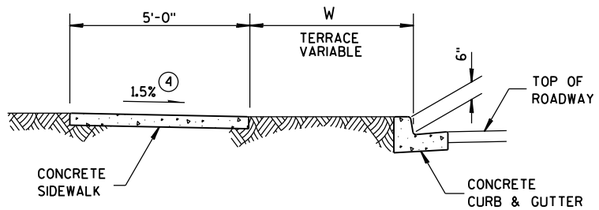
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

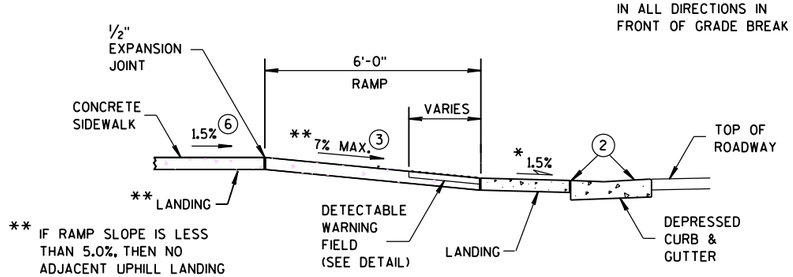
S.D.D. 8 D 5-17c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



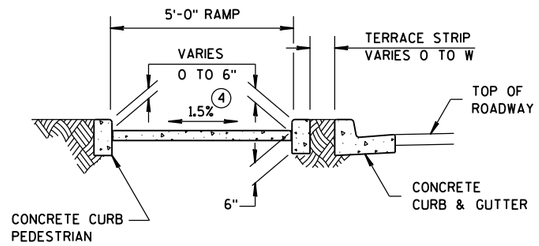
SECTION B-B FOR TYPE 4B

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'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

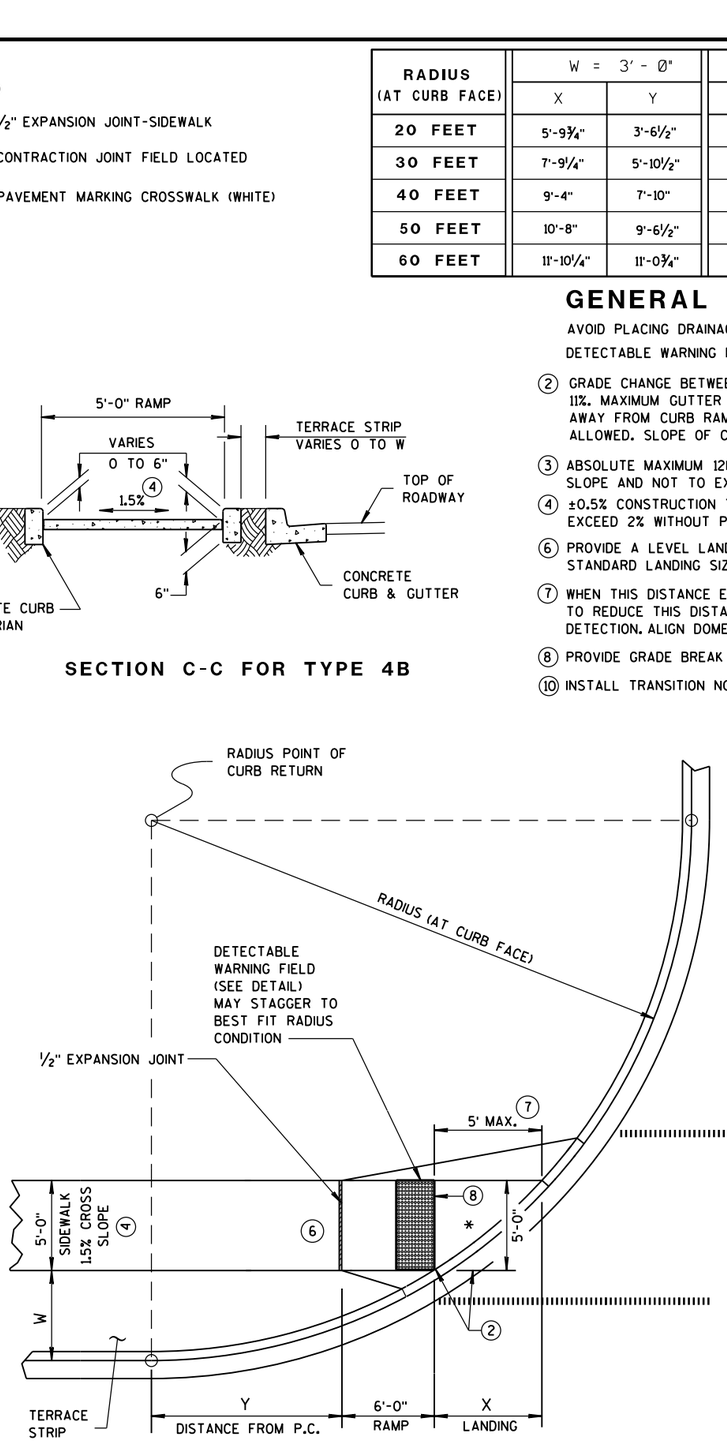
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

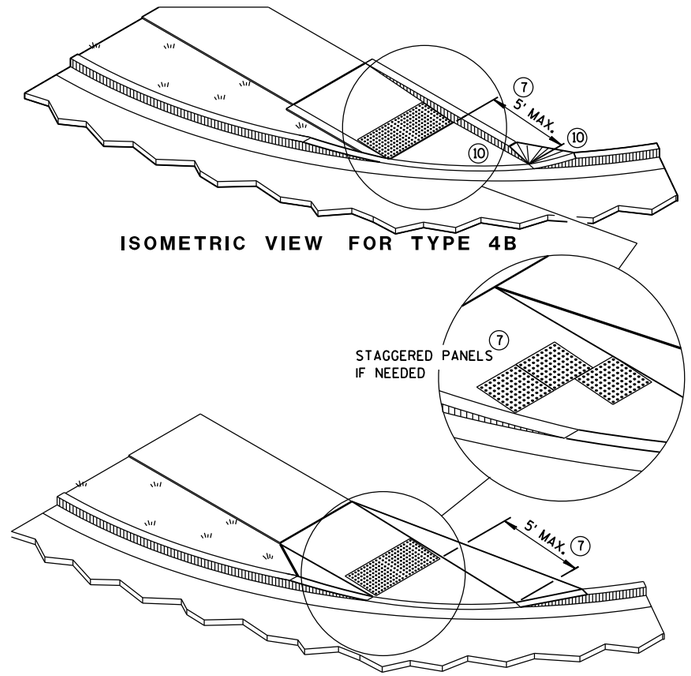
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

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

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



CURB RAMP TYPE 4B1
PLAN VIEW

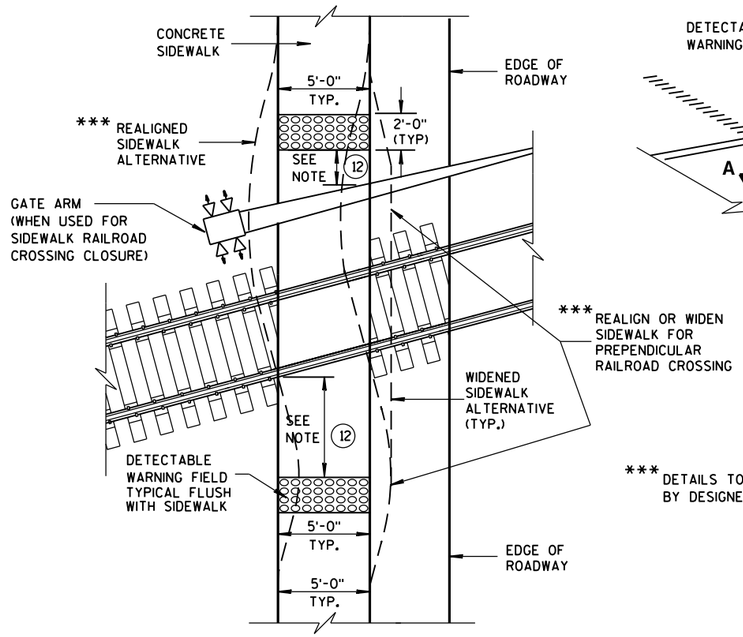


ISOMETRIC VIEW FOR TYPE 4B

ISOMETRIC VIEW FOR TYPE 4B1

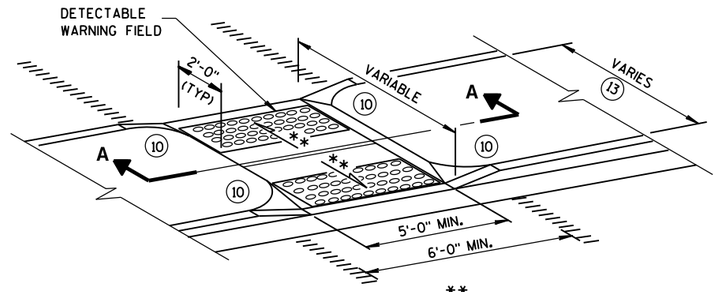
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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.

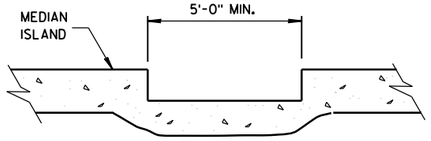
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

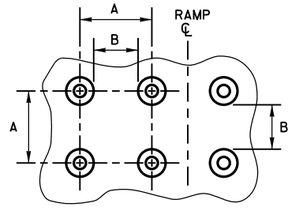
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



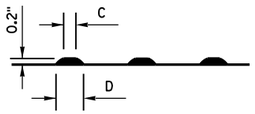
SECTION A-A

	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.

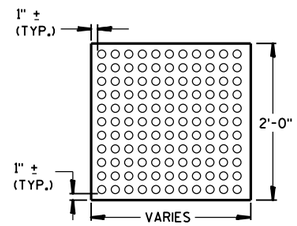


PLAN VIEW



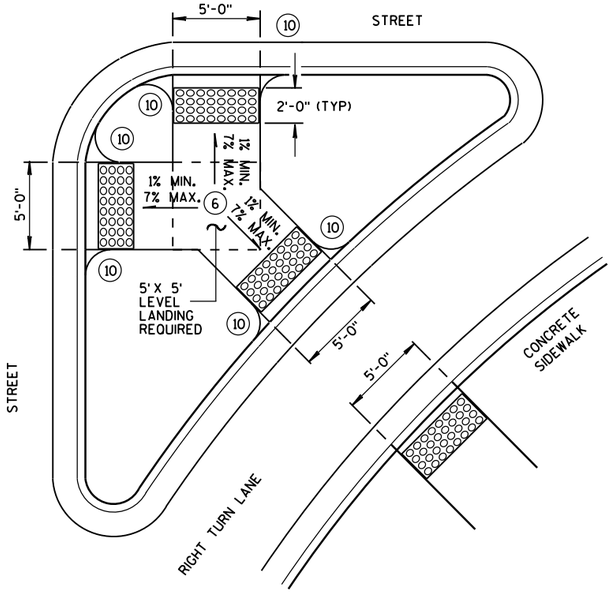
ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

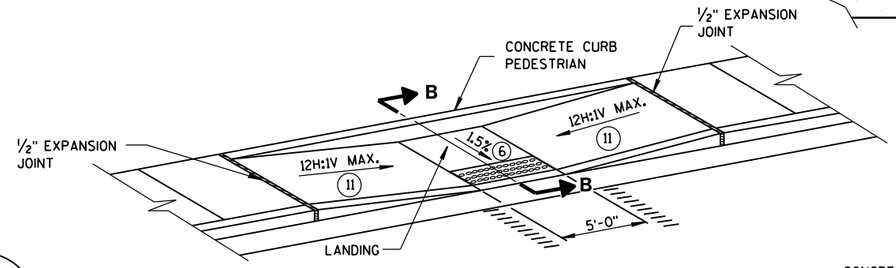


PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

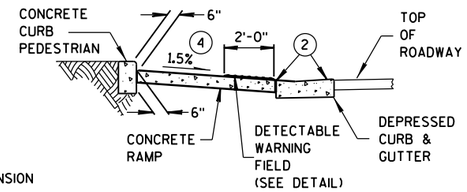
REFER TO GENERAL NOTES (2) AND (3) FOR ALL ISLAND CURB RAMPS



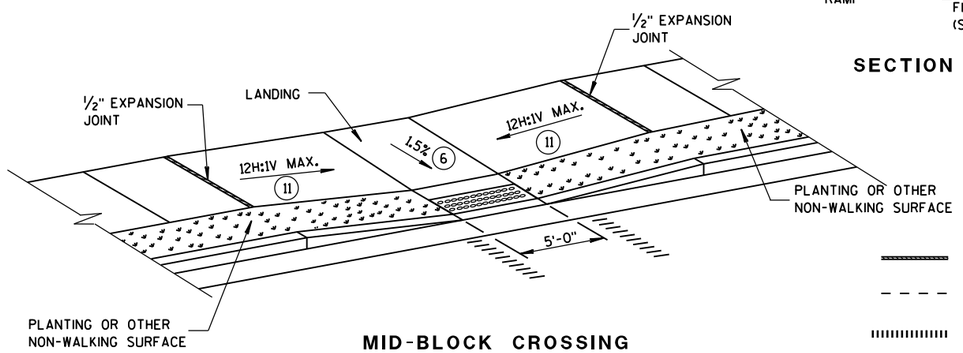
TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

- ½" 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, 2016
DATE
FHWA

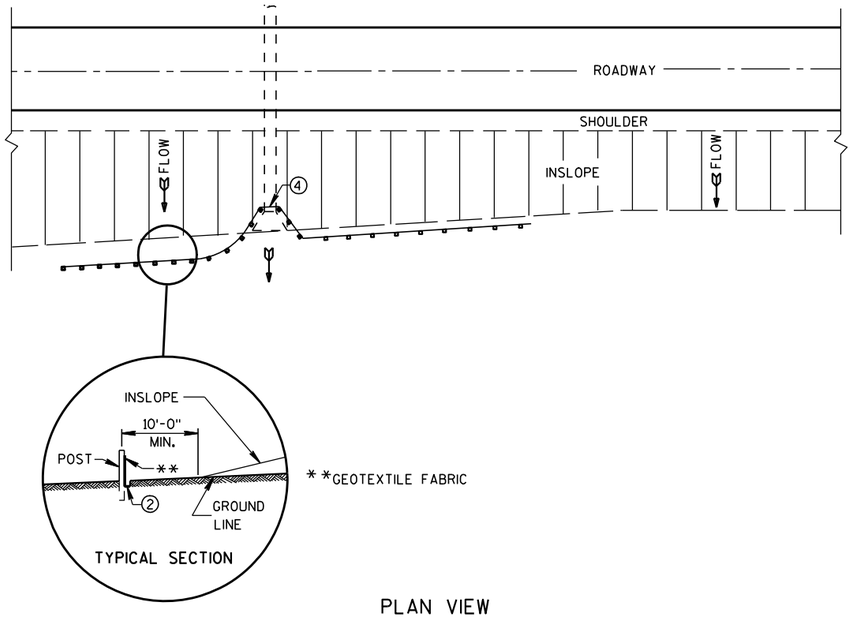
/S/ Jerry H. Zogg
ROADWAY STANDARDS [illegible] ENGINEER

6

S.D.D. 8 D 5-17e

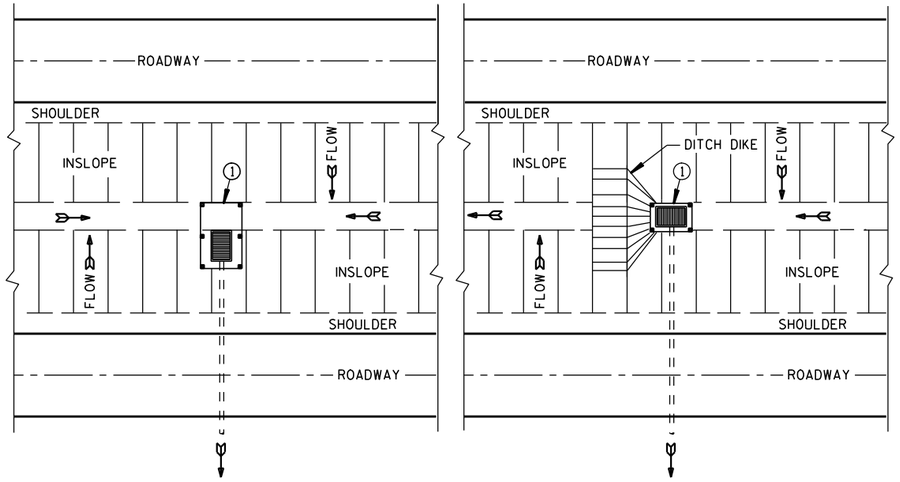
6

S.D.D. 8 D 5-17e



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

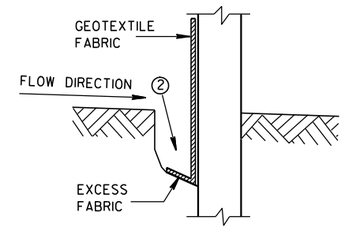
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

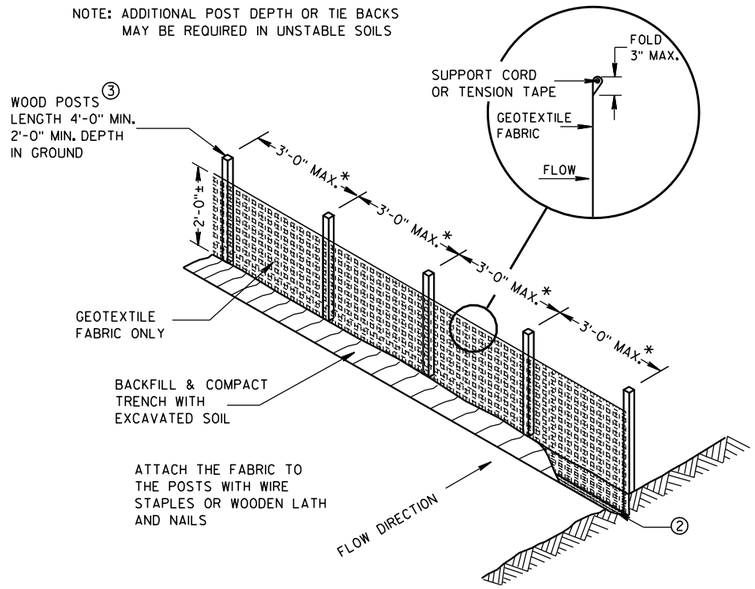
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

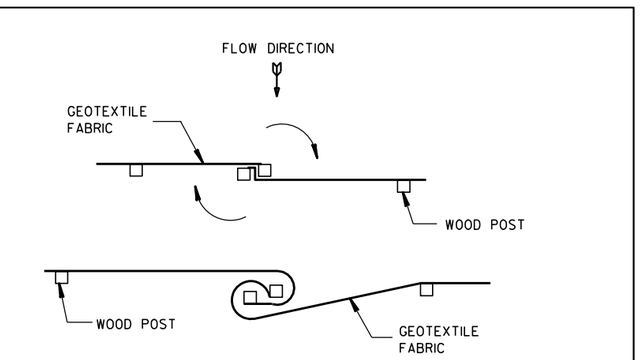
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



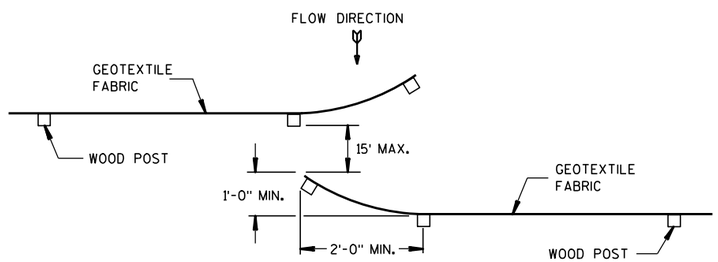
TRENCH DETAIL



SILT FENCE

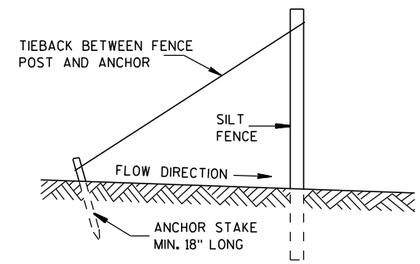


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

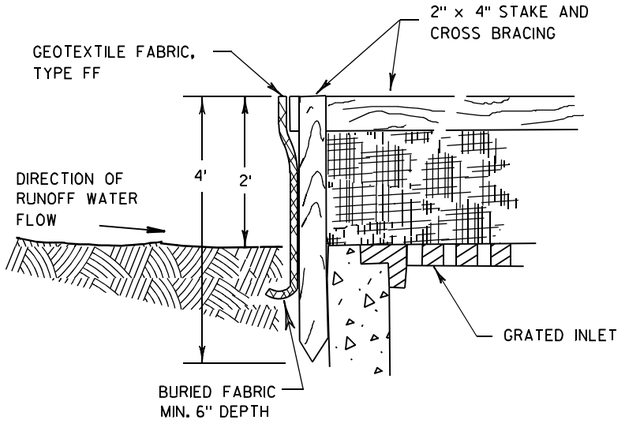
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

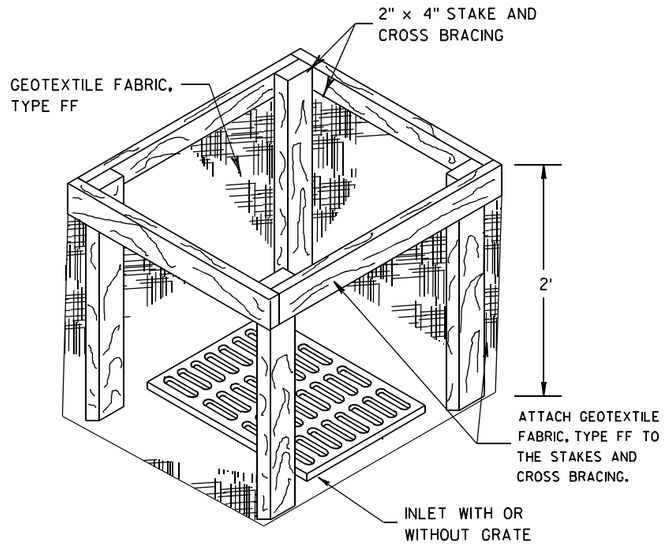
6

S.D.D. 8 E 9-6

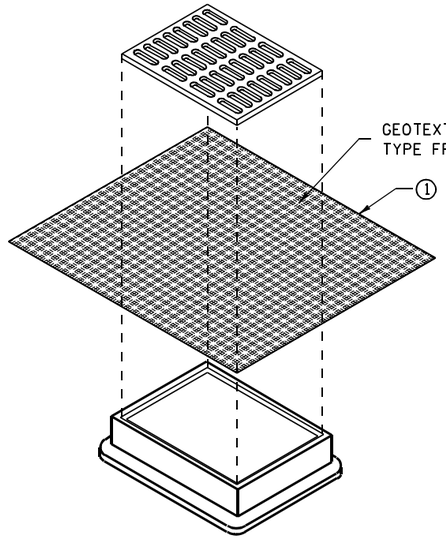
6

S.D.D. 8 E 9-6



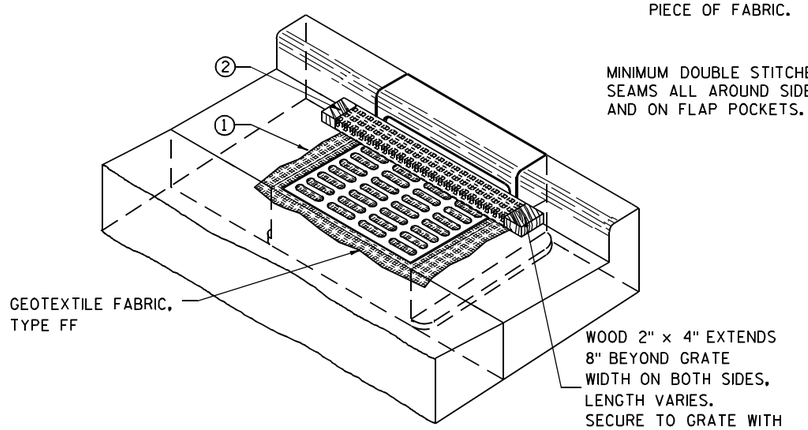


INLET PROTECTION, TYPE A

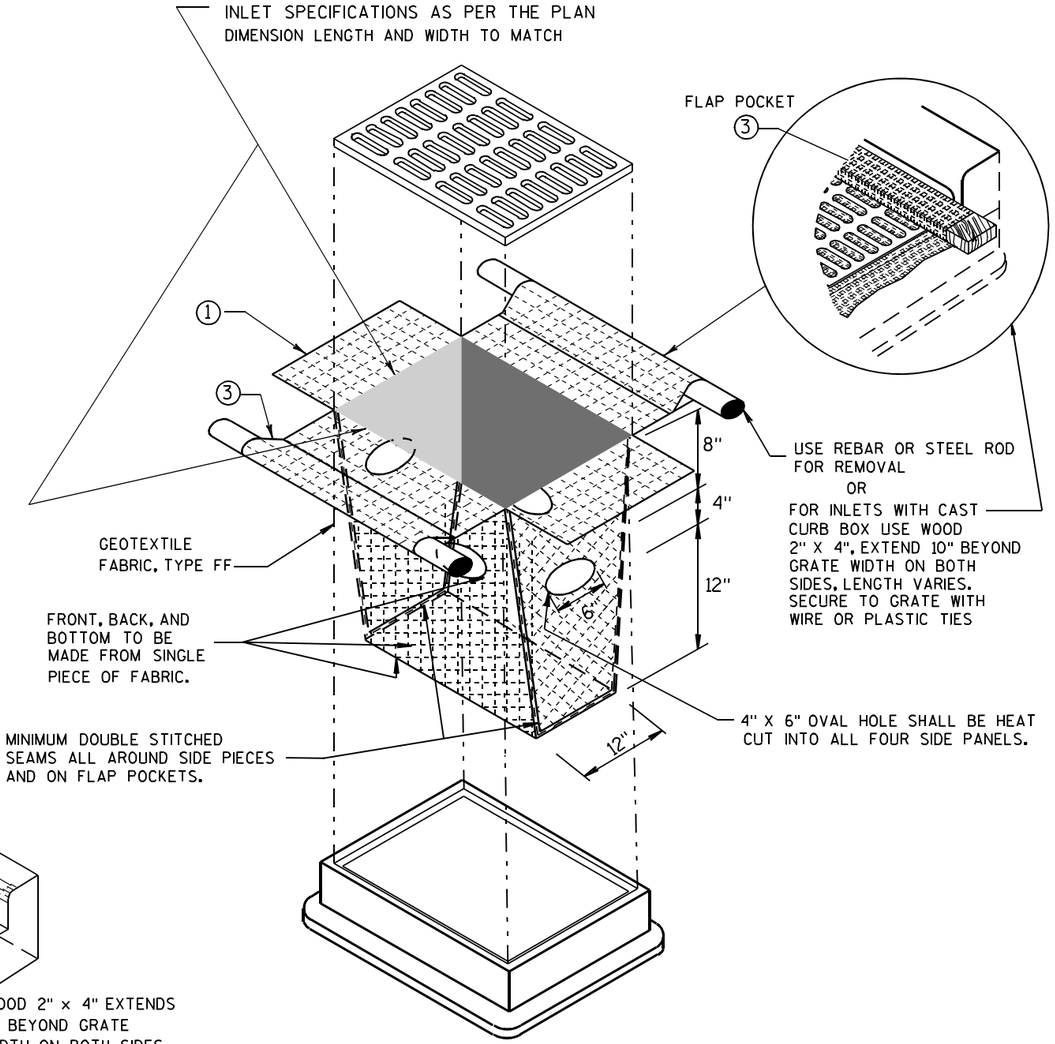


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

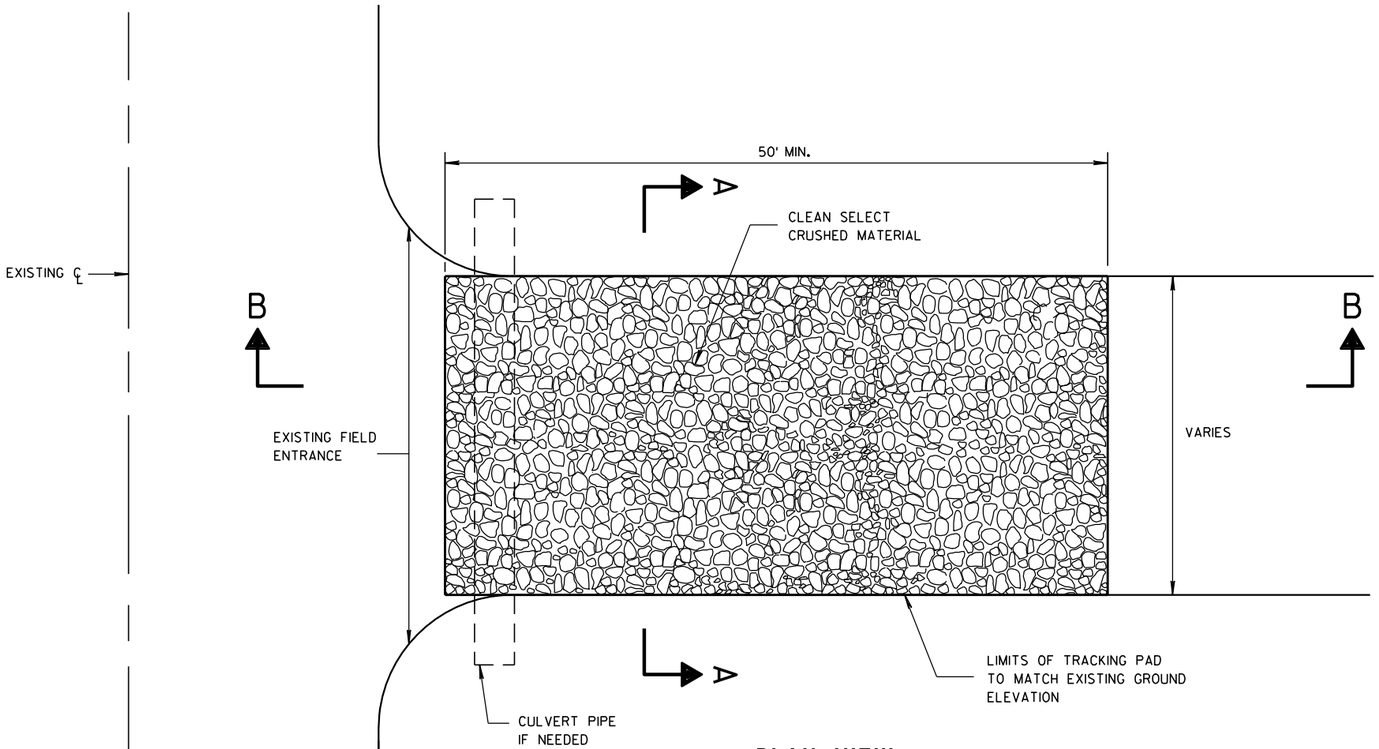
10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

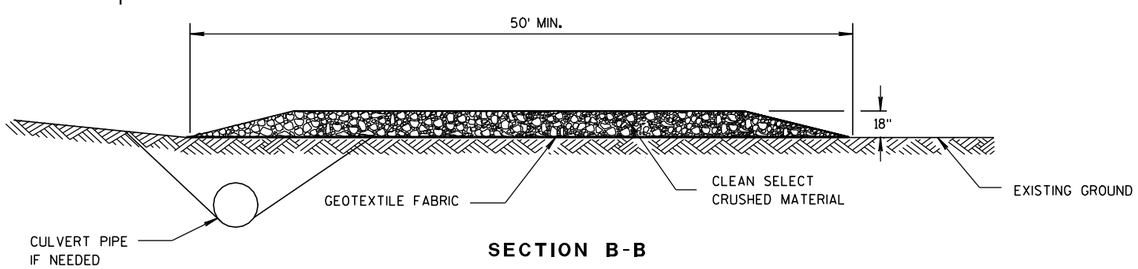
FHWA

6

S.D.D. 8 E 10-2



PLAN VIEW



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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

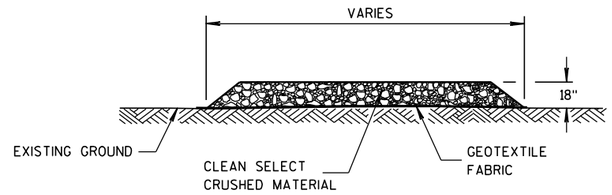
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER

6

S.D.D. 8 E 14-1

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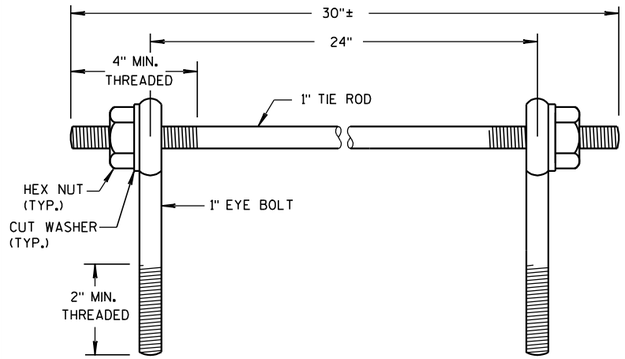
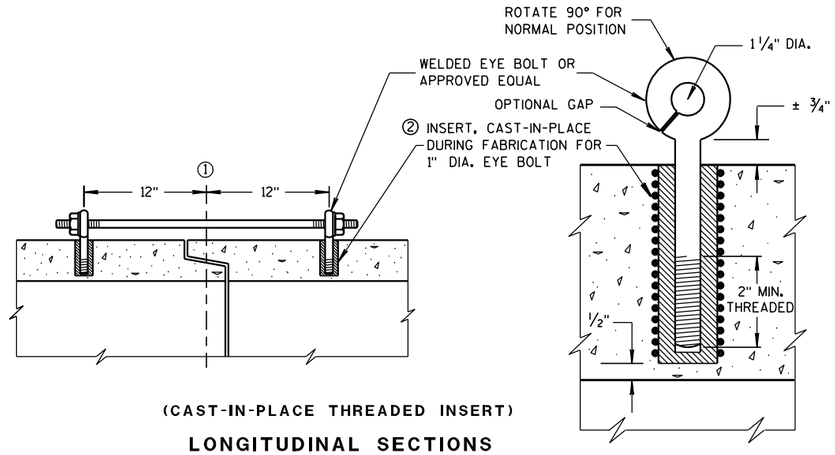
S.D.D. 8 E 14-1



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.

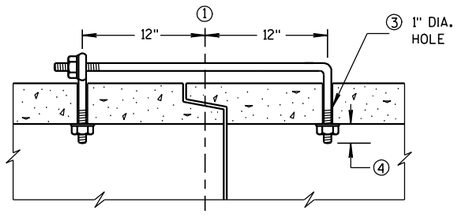
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

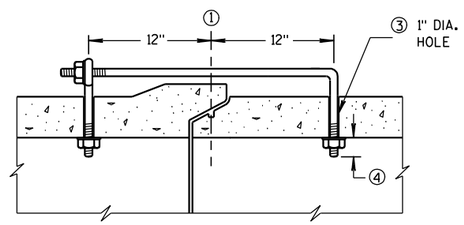
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

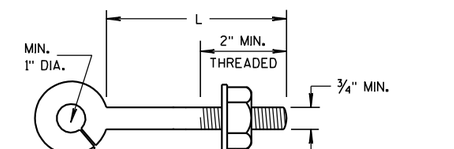


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

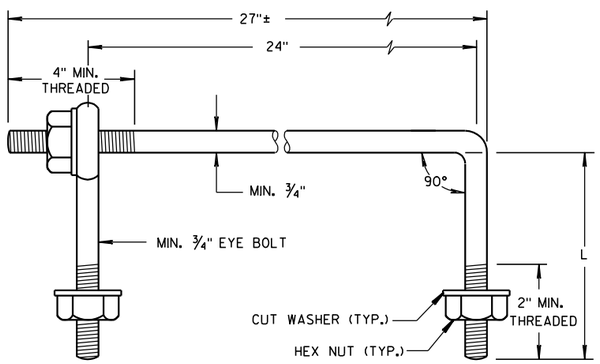
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

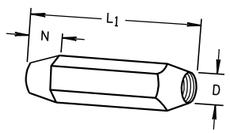
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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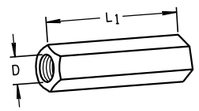
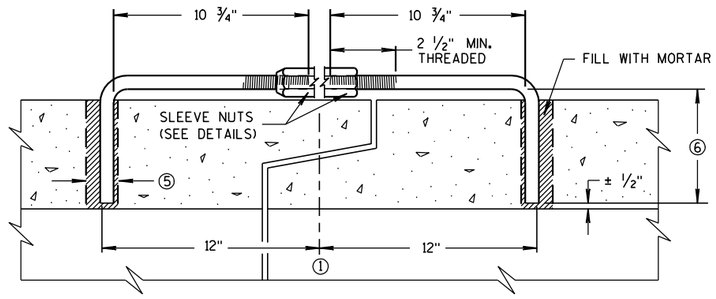


PLAIN

RIGHT AND LEFT THREADS

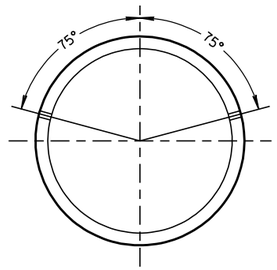
SLEEVE NUTS



LONGITUDINAL SECTION

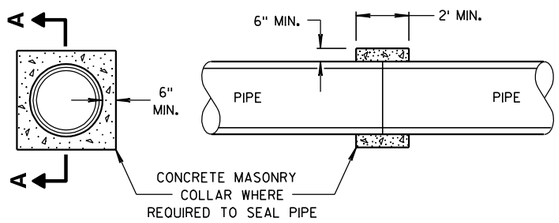
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

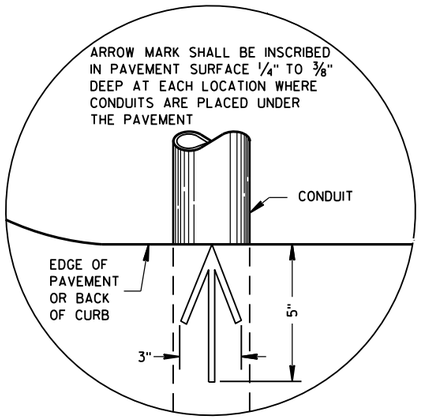
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 F 4-7

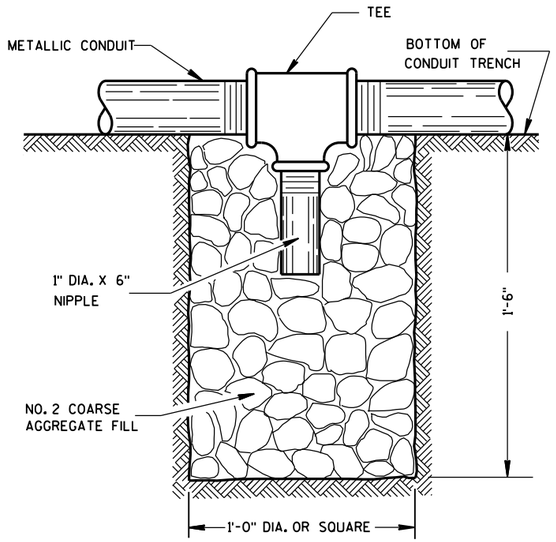
6

S.D.D. 8 F 4-7



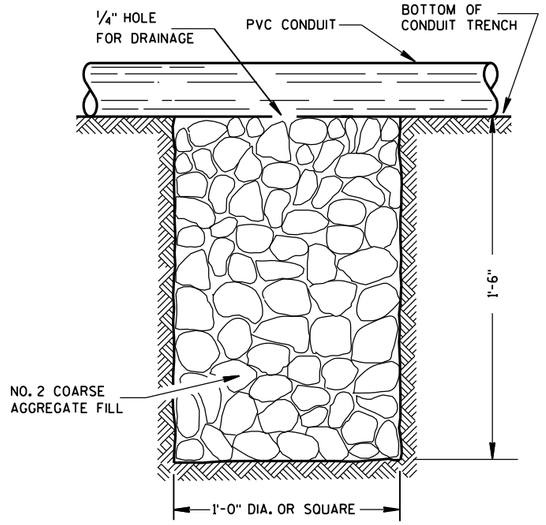
PLAN VIEW

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.

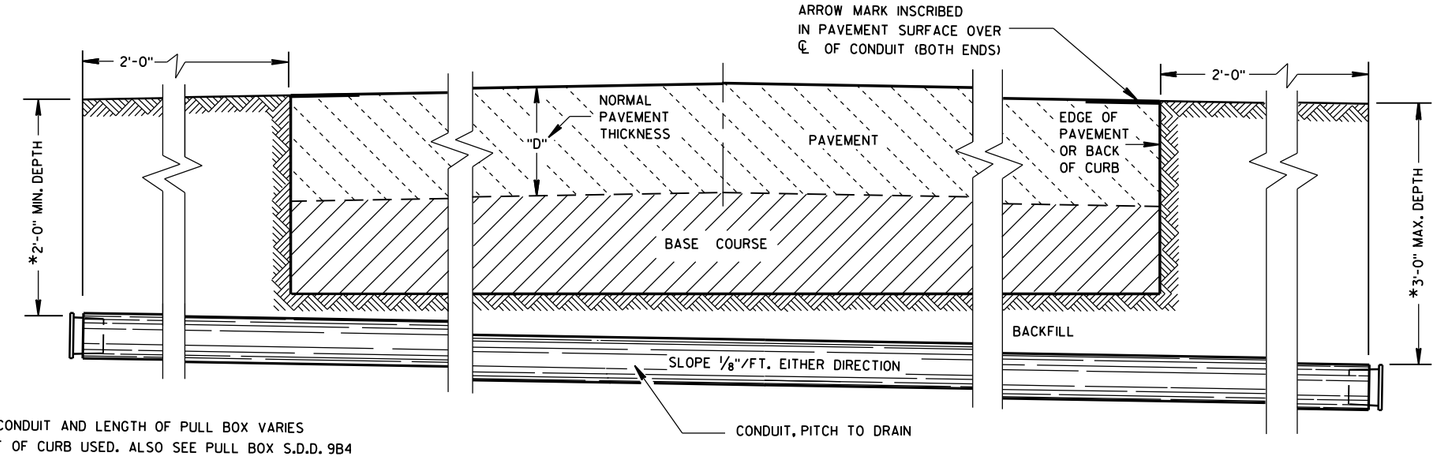
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

6

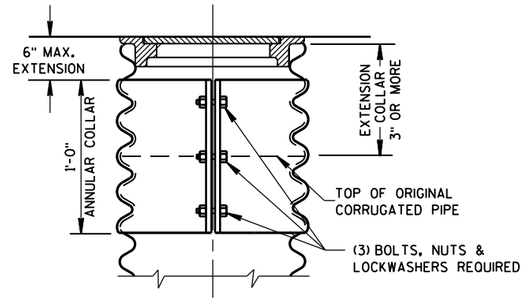
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

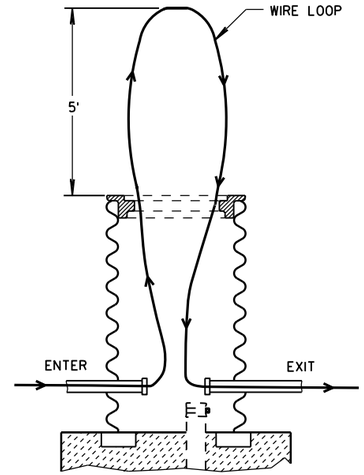
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2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

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

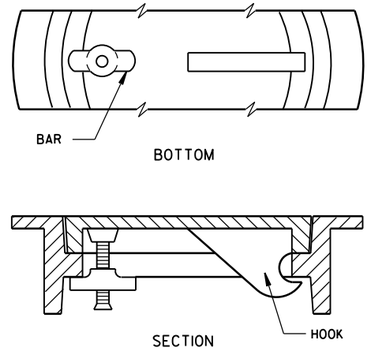
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

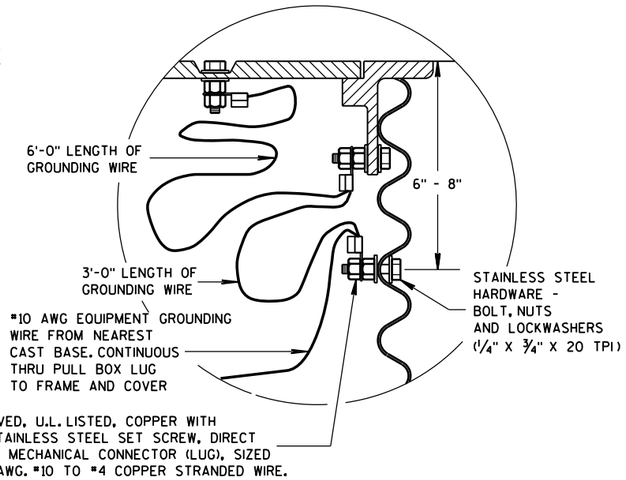


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

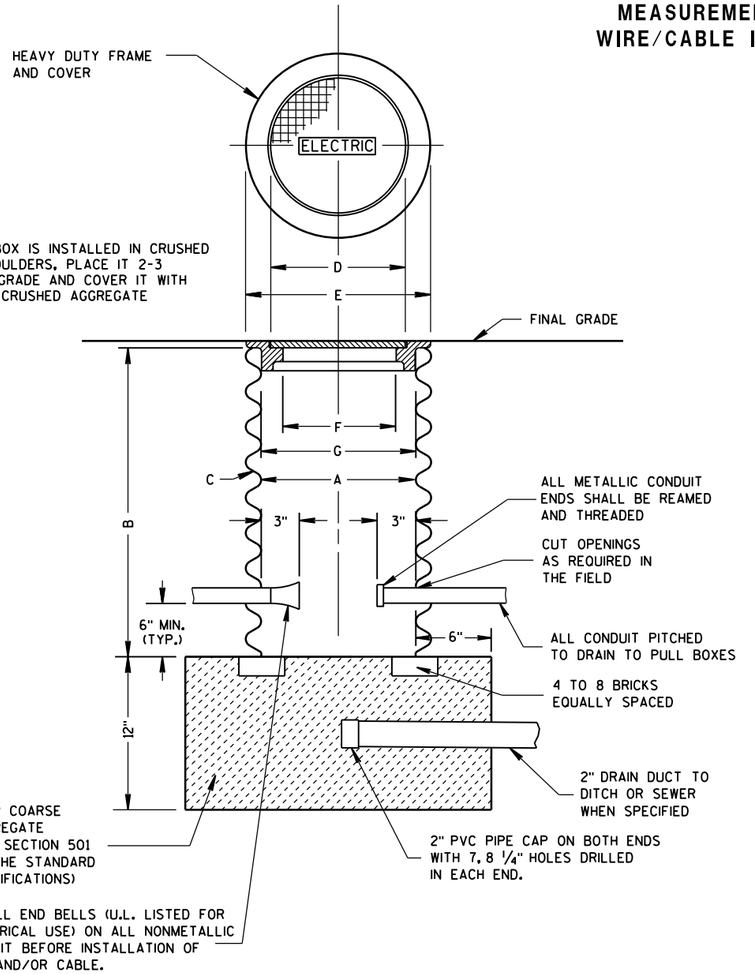


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

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

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

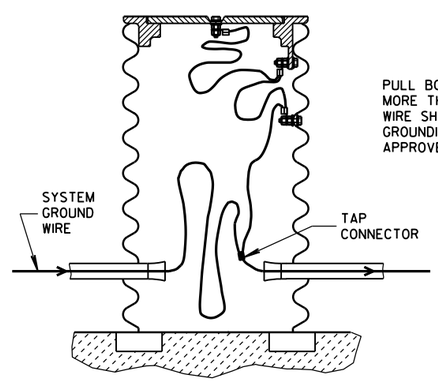
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

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

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

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



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

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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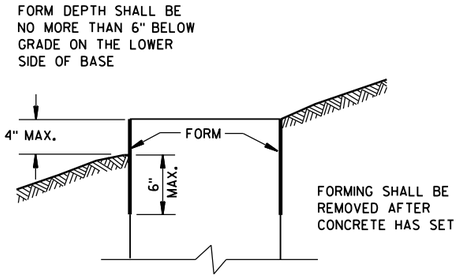


FORMING DETAIL

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.

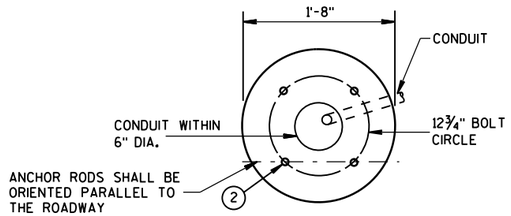
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

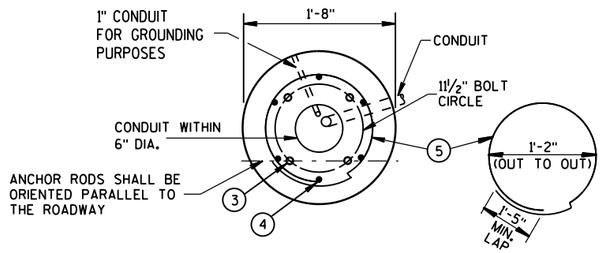
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

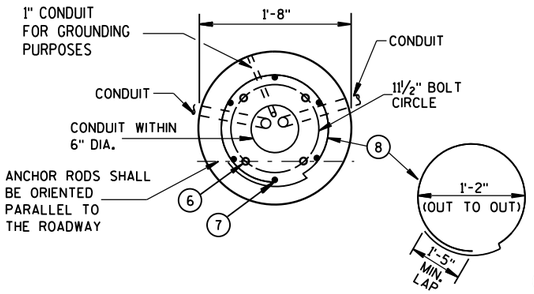
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

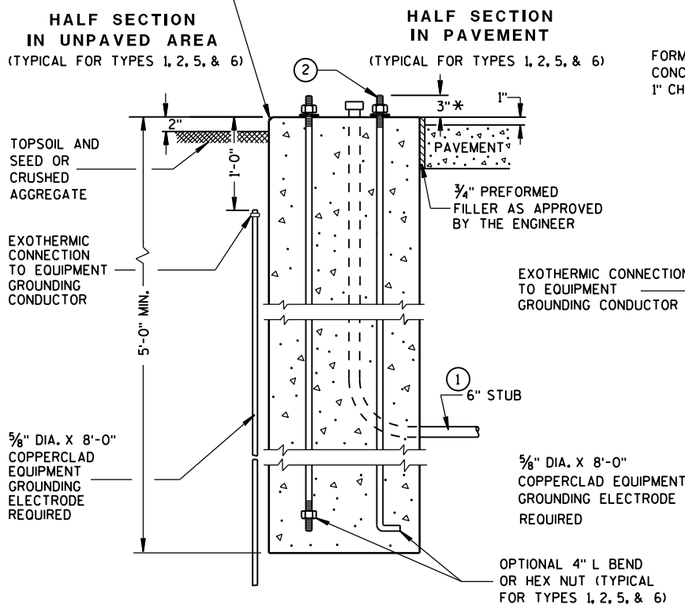
(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

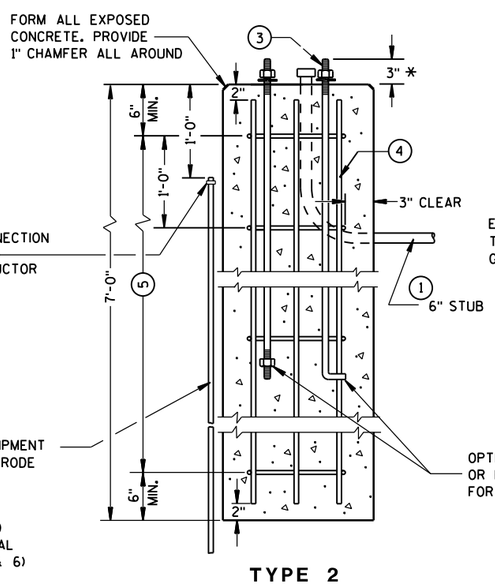
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



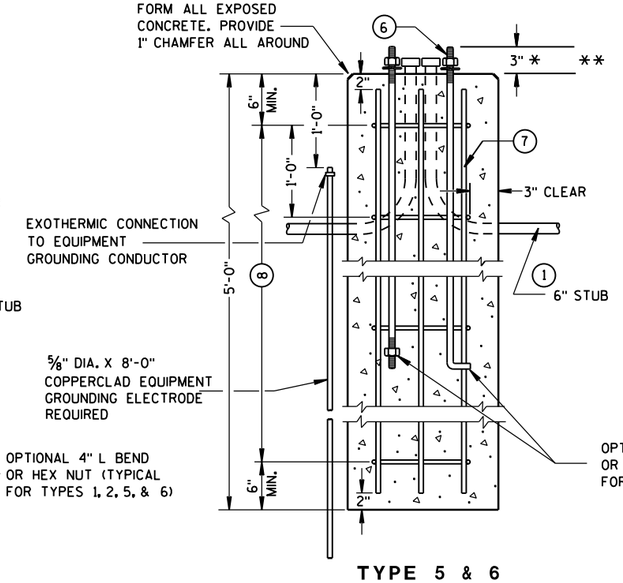








TYPE 2



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

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

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GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

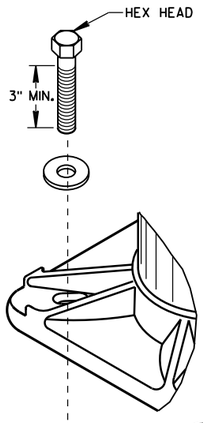
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

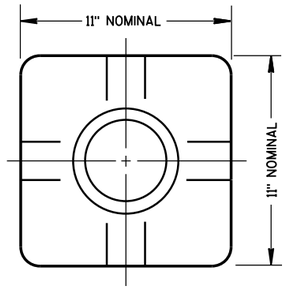
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

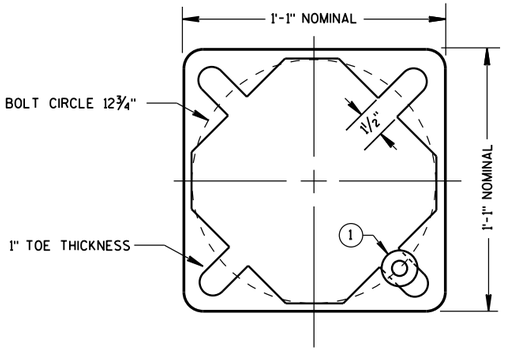
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

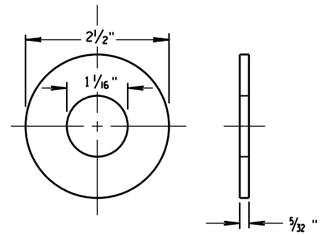




TOP VIEW
(PEDESTAL BASE)

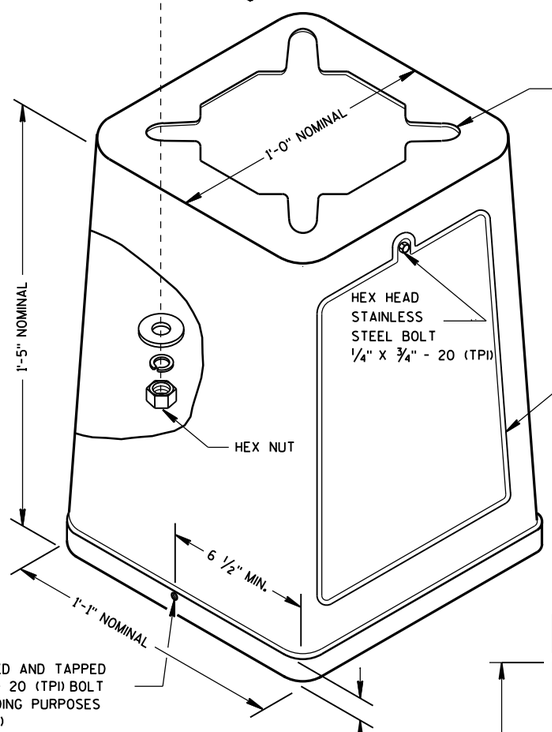


BOTTOM VIEW
(PEDESTAL BASE)

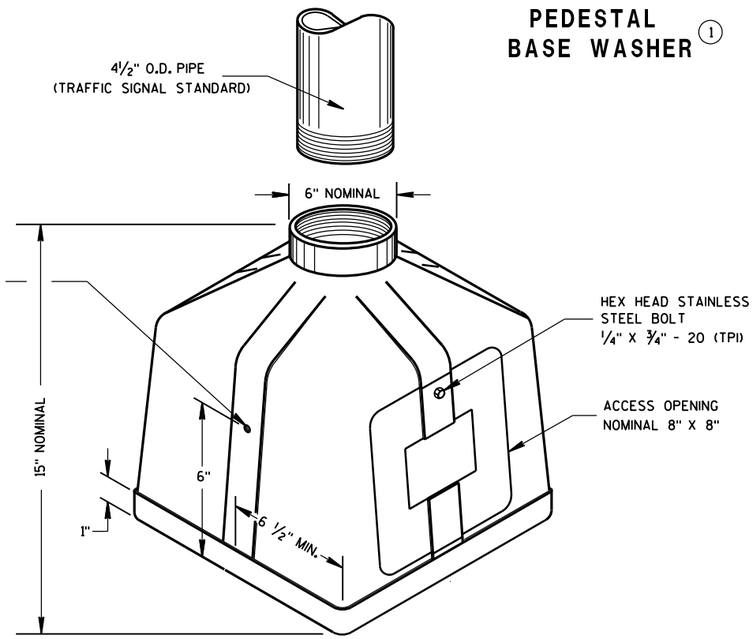


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

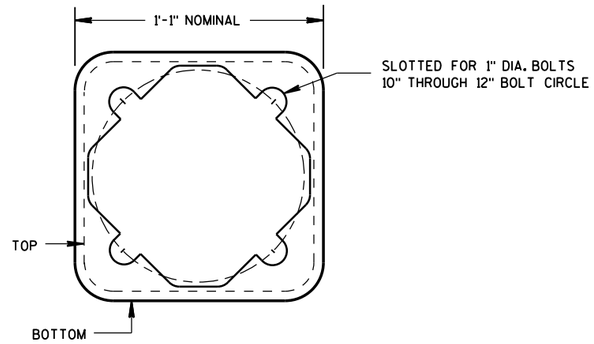


ISOMETRIC VIEW

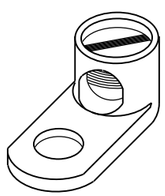


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

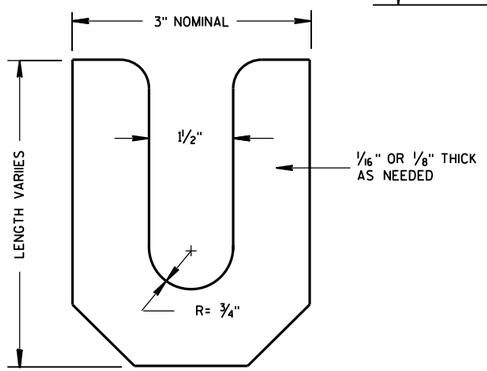


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
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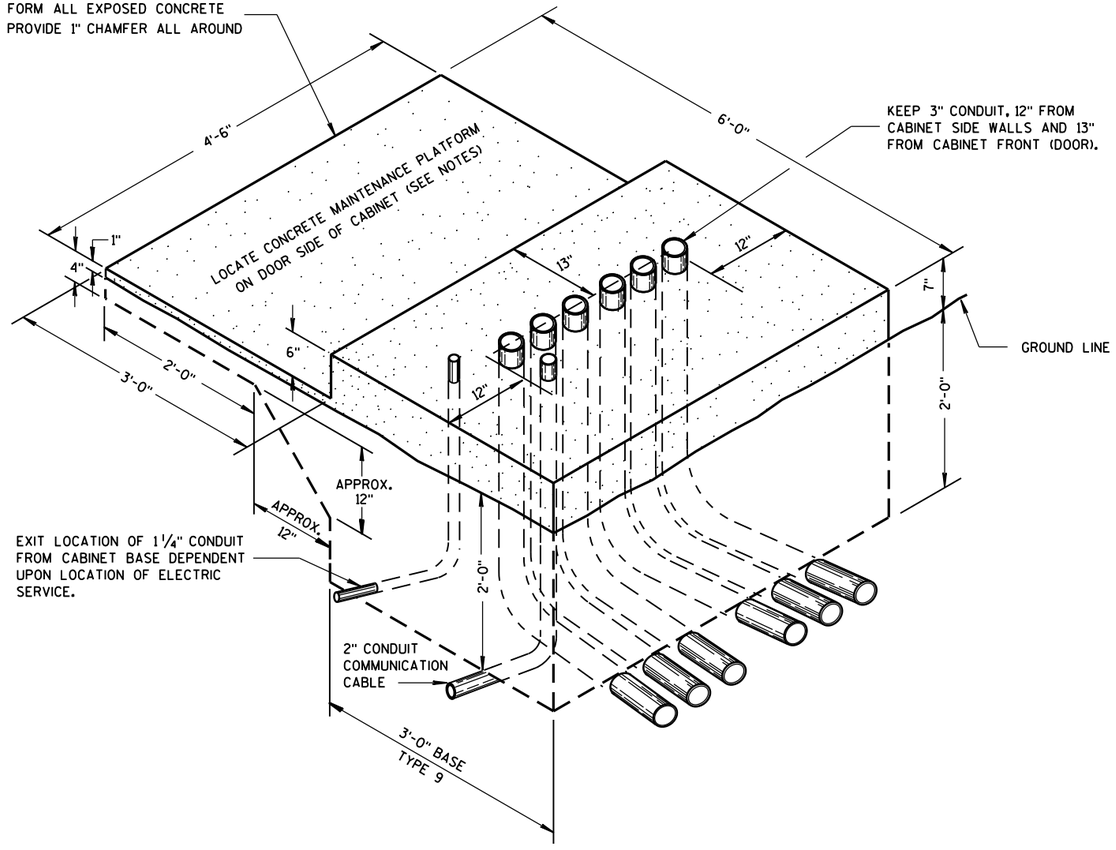
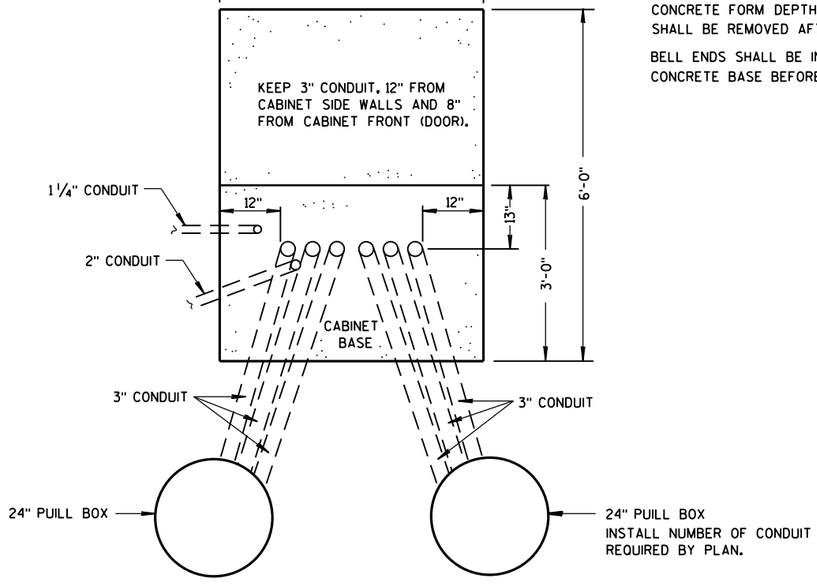


ISOMETRIC VIEW

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.

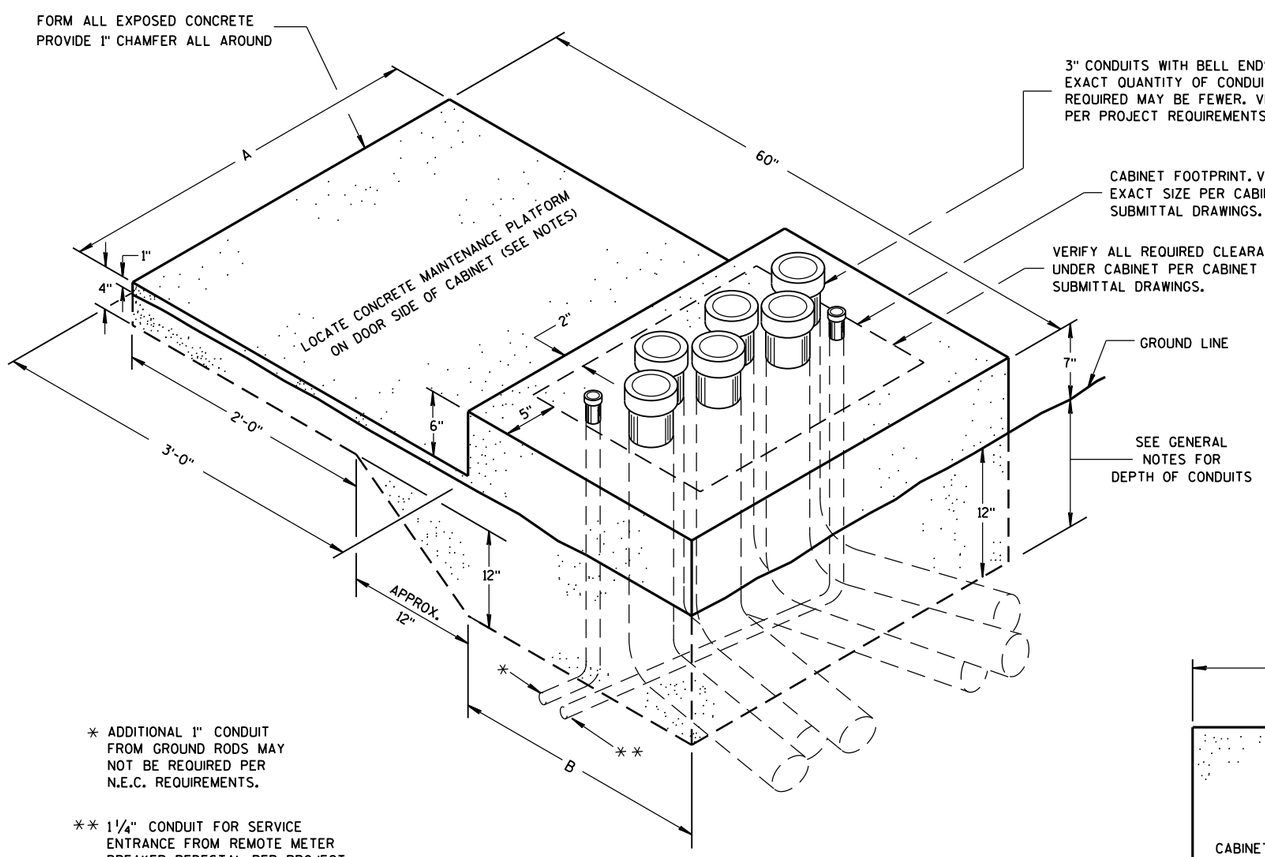
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

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



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

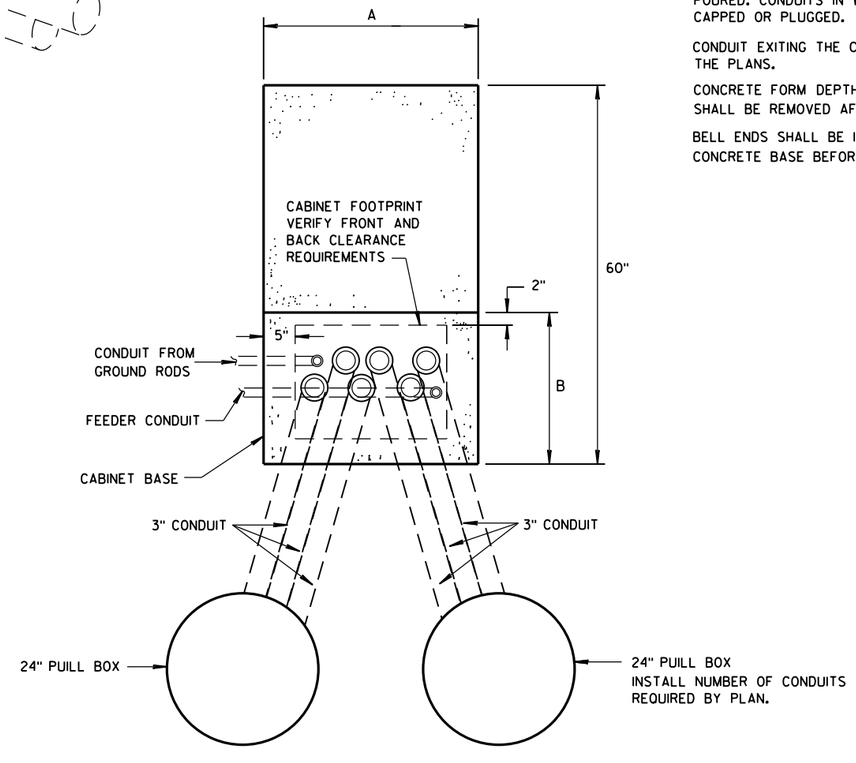
** 1¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS 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 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 L

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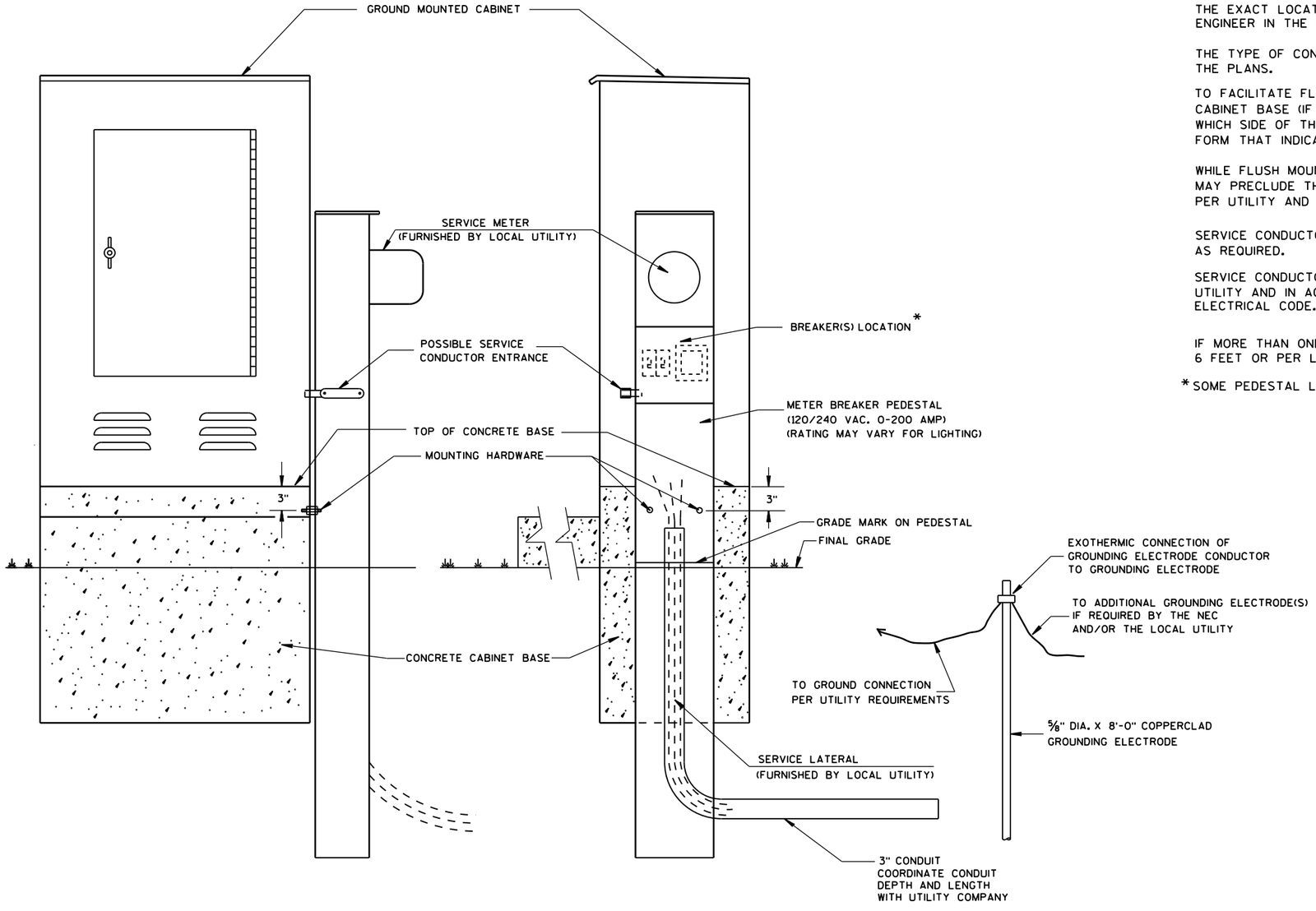

TYPICAL CABINET SERVICE INSTALLATION

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.

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CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

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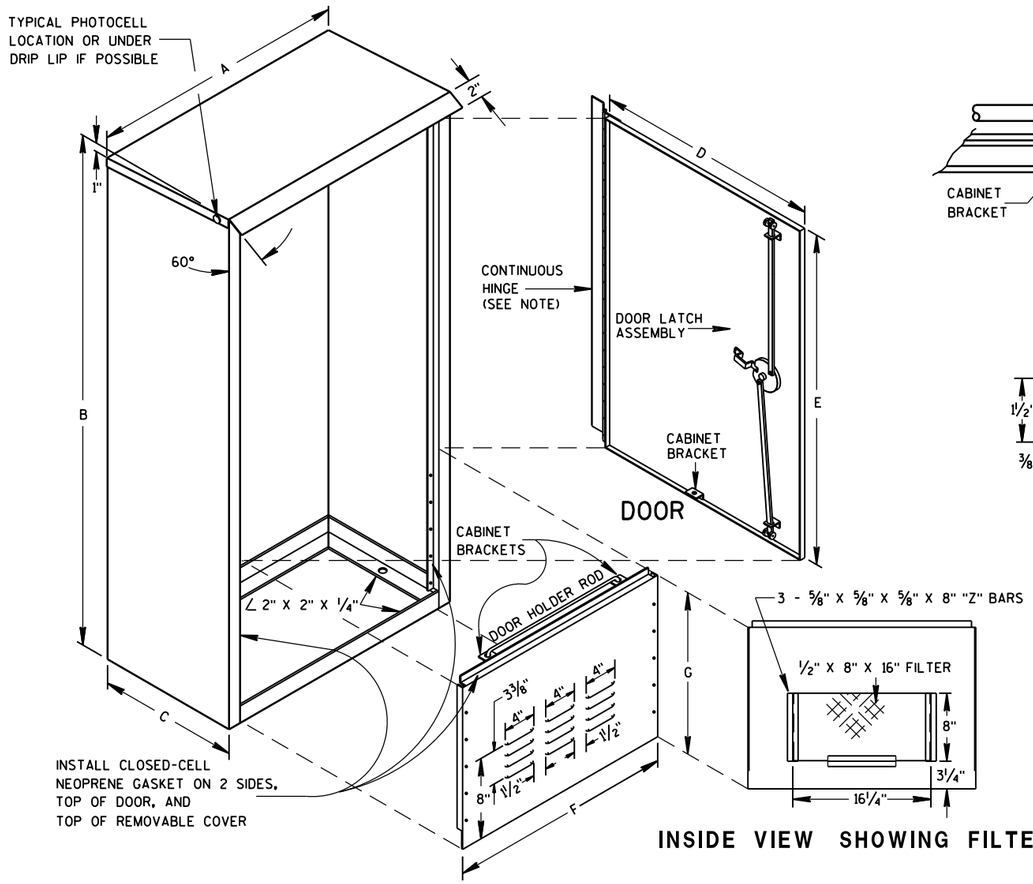
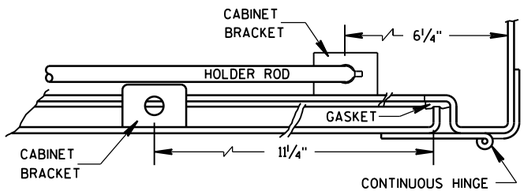
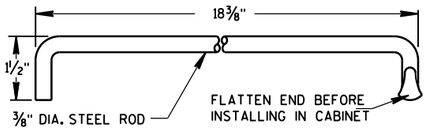


REMOVABLE COVER

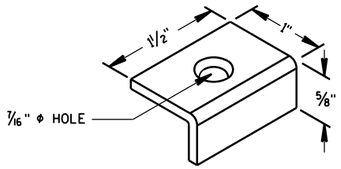
INSIDE VIEW SHOWING FILTER



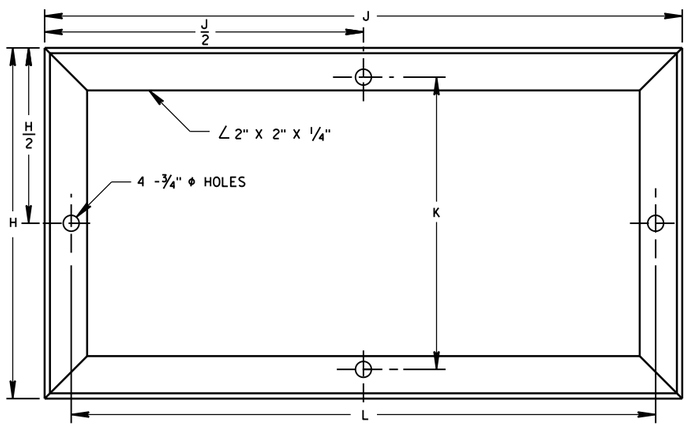
HINGE & DOOR HOLDER



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.

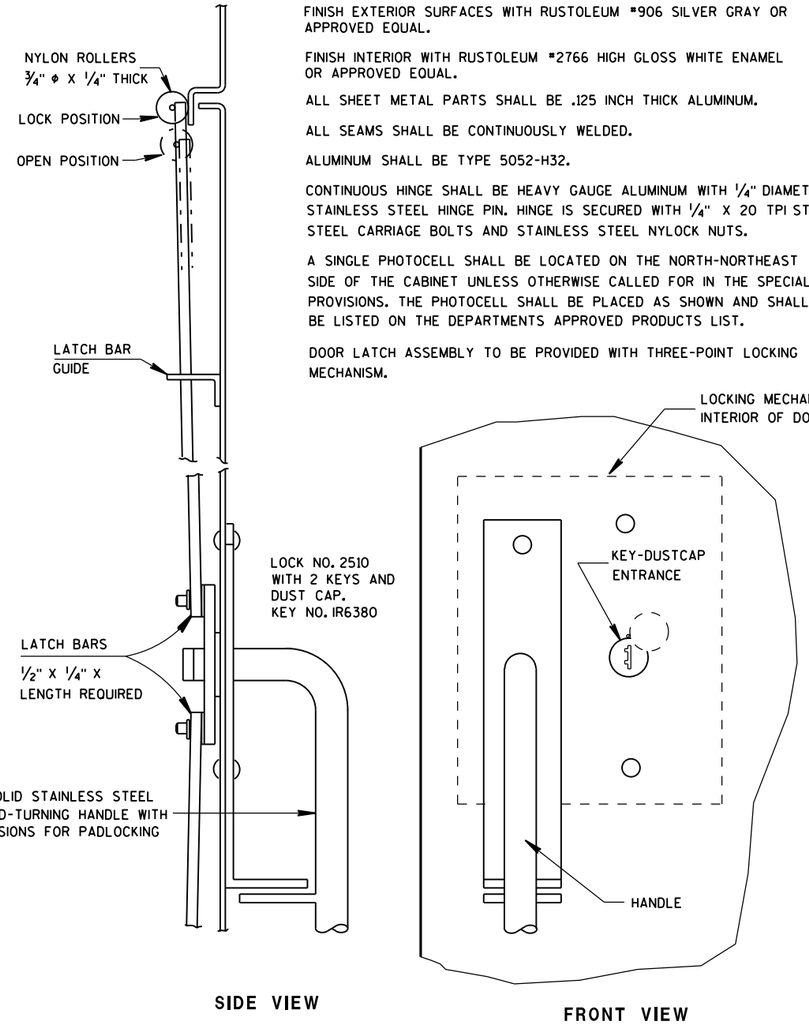
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

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.

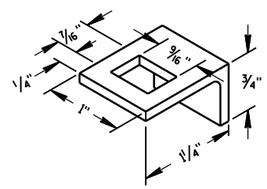
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



SIDE VIEW

FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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Sept. 2014
DATE
/S/ Ahmet Demirbilek
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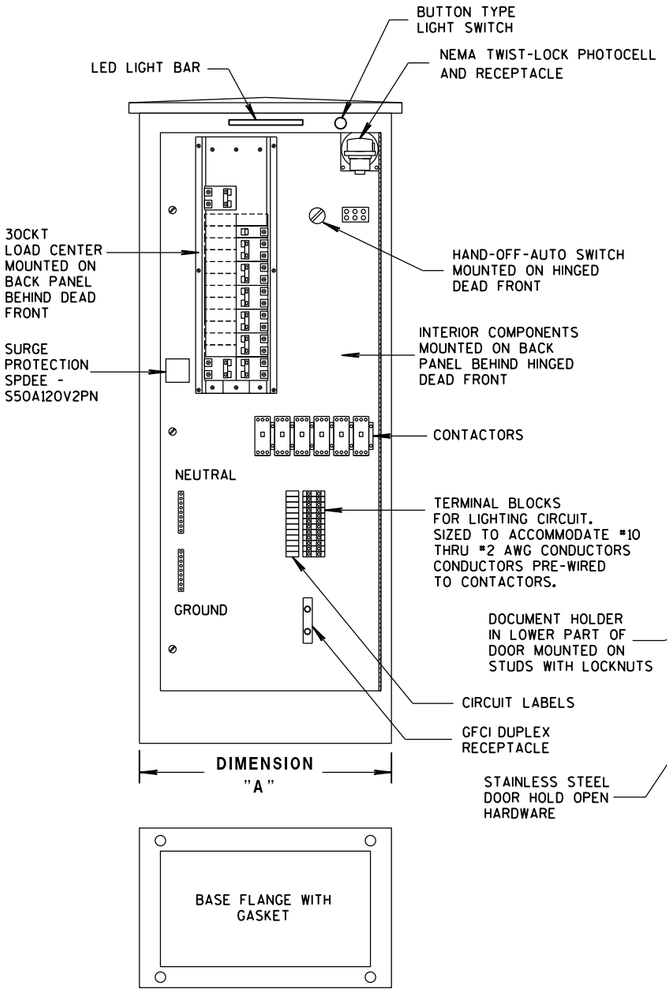
FRONT INTERIOR ELEVATION



SIDE VIEW

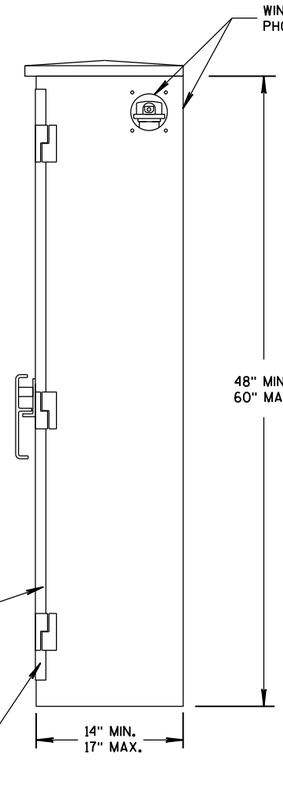
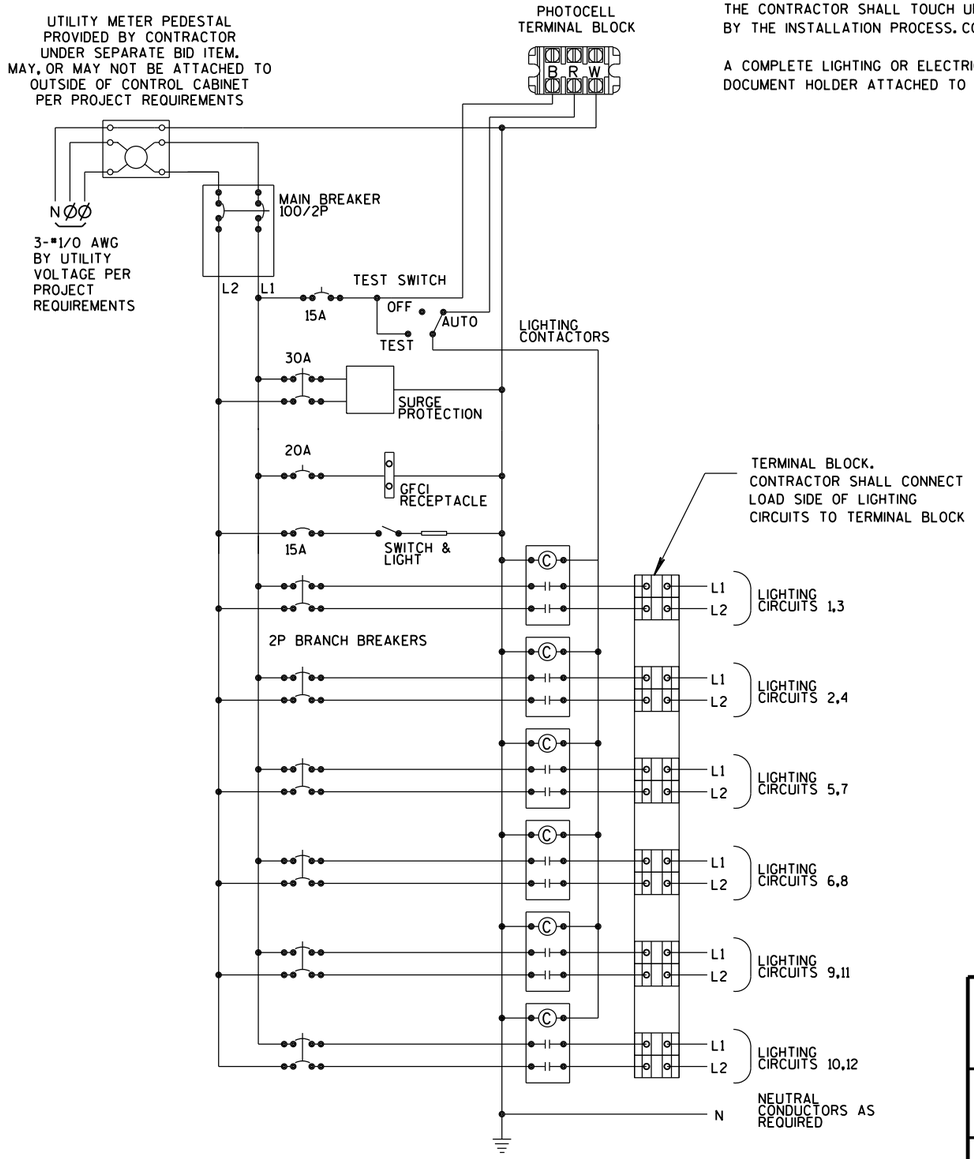


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE-WIRED BY THE CABINET FABRICATOR.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET 120/240 VOLT

STATE OF WISCONSIN
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Sept. 2014 DATE
/S/ Thomas Gonring STATE LIGHTING ENGINEER
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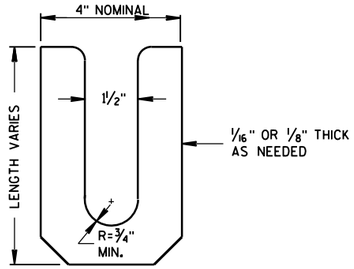
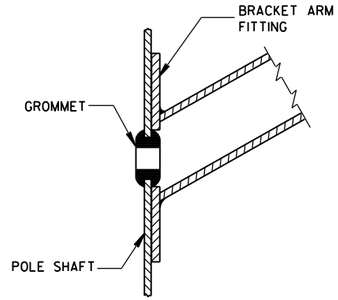
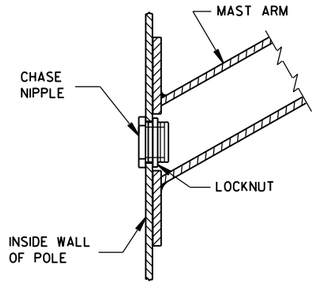


LEVELING SHIM (13)

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.

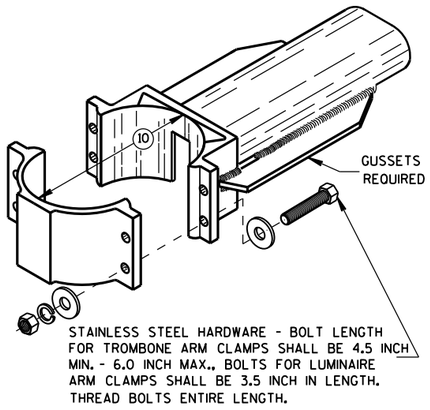
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

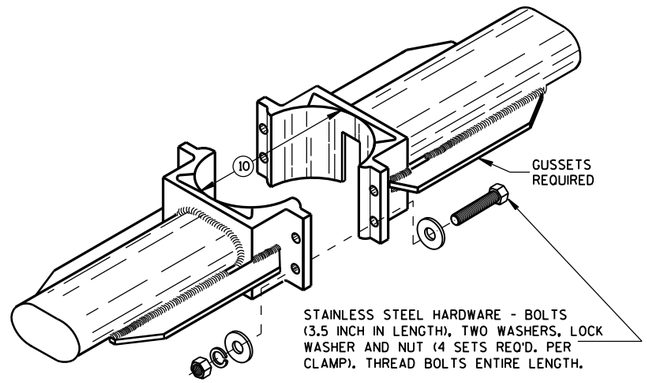
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(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.

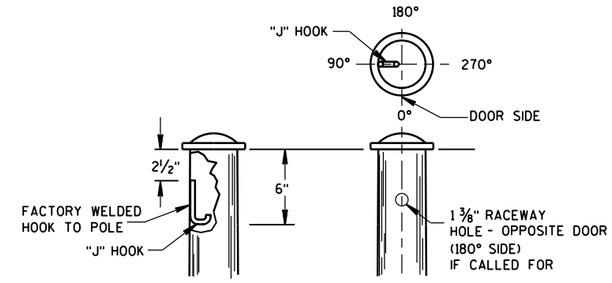
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



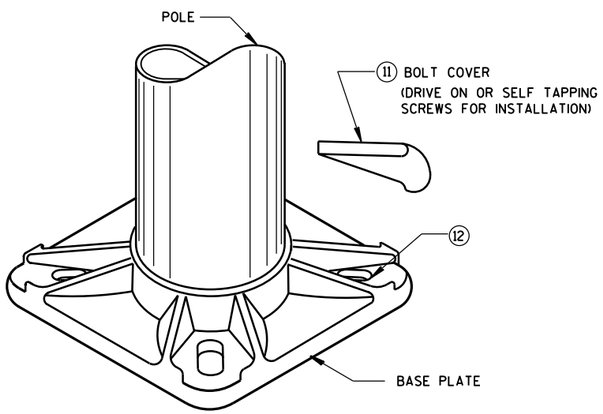
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



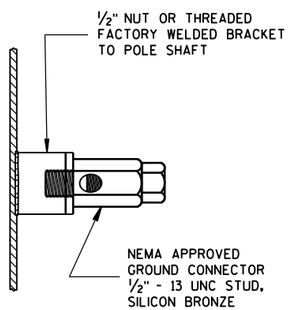
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

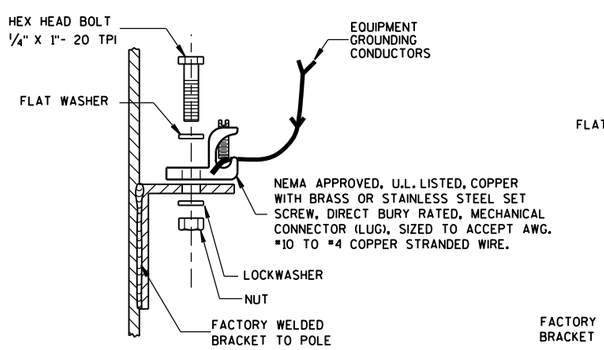


TYPICAL "J" HOOK LOCATION



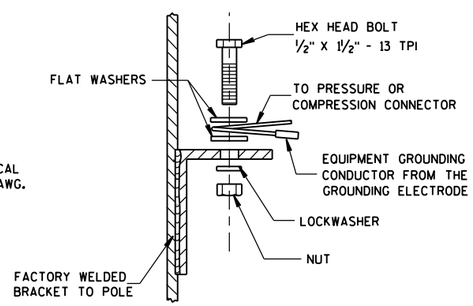
BASE PLATE





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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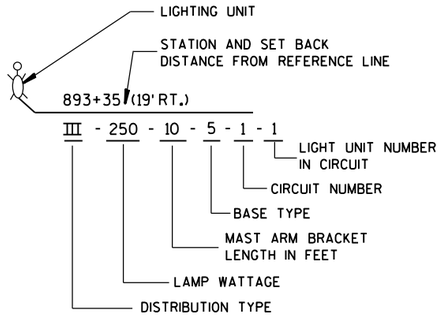
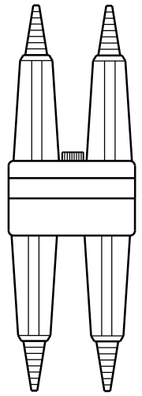
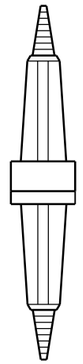


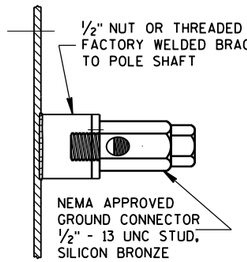
LIGHTING UNIT CODE
(TYPICAL)

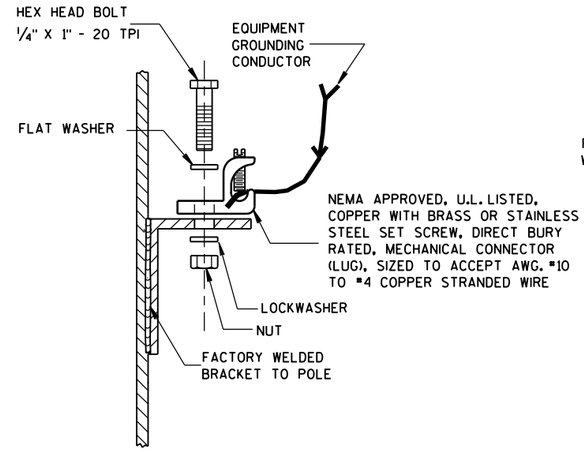


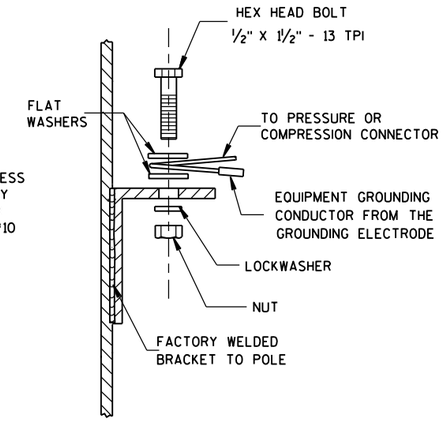
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



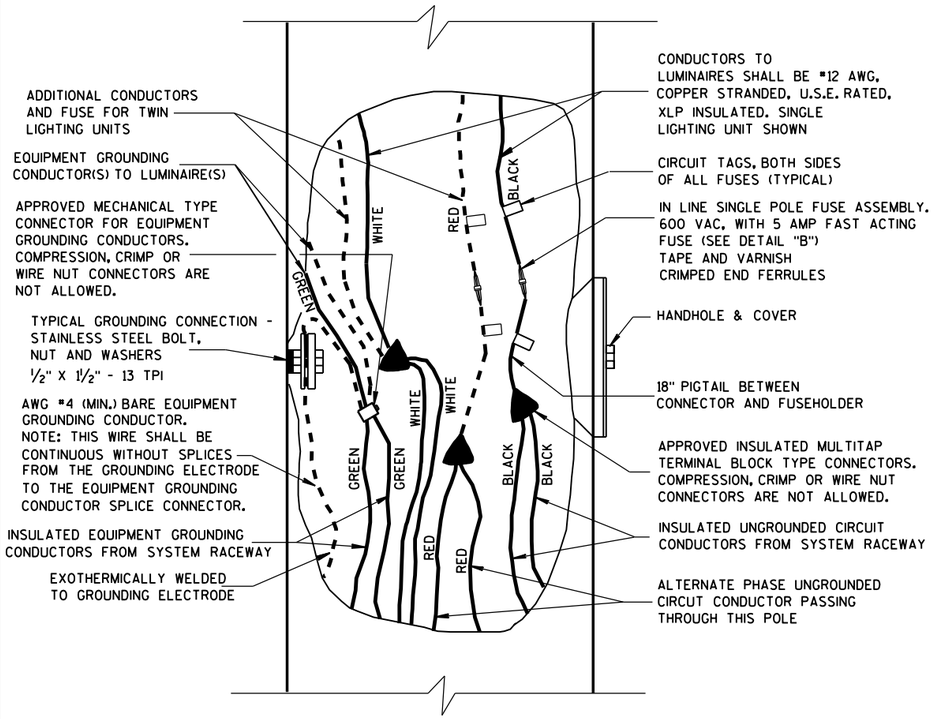
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



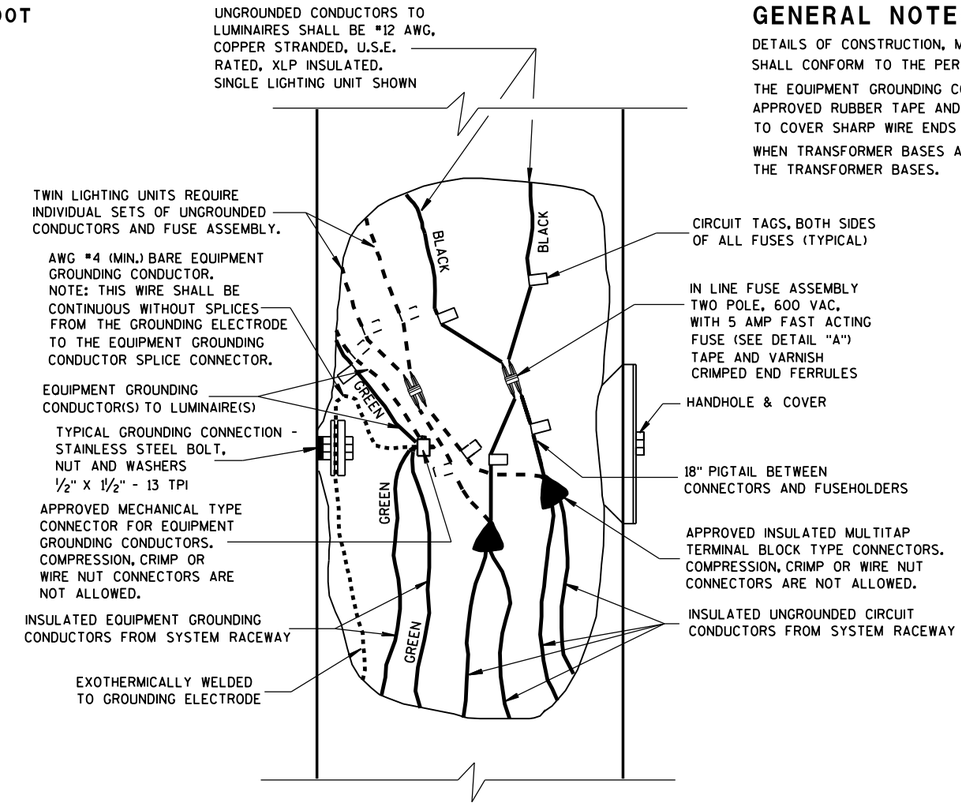




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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
/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.

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.

POLE CLAMP (AS SHOWN) MOUNTING BRACKETS SHALL BE USED.

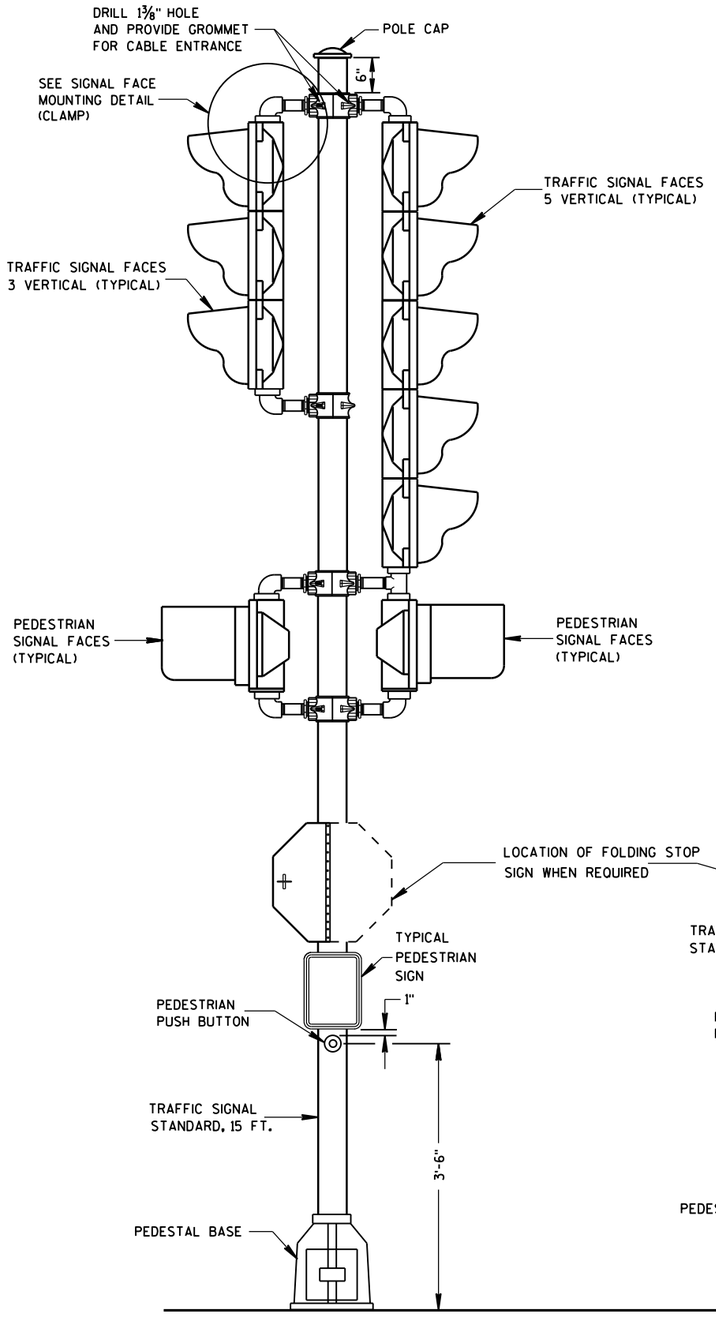
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

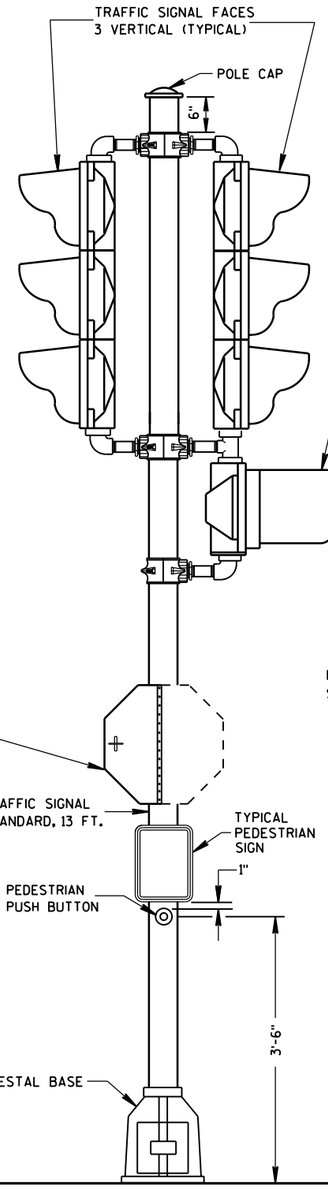
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

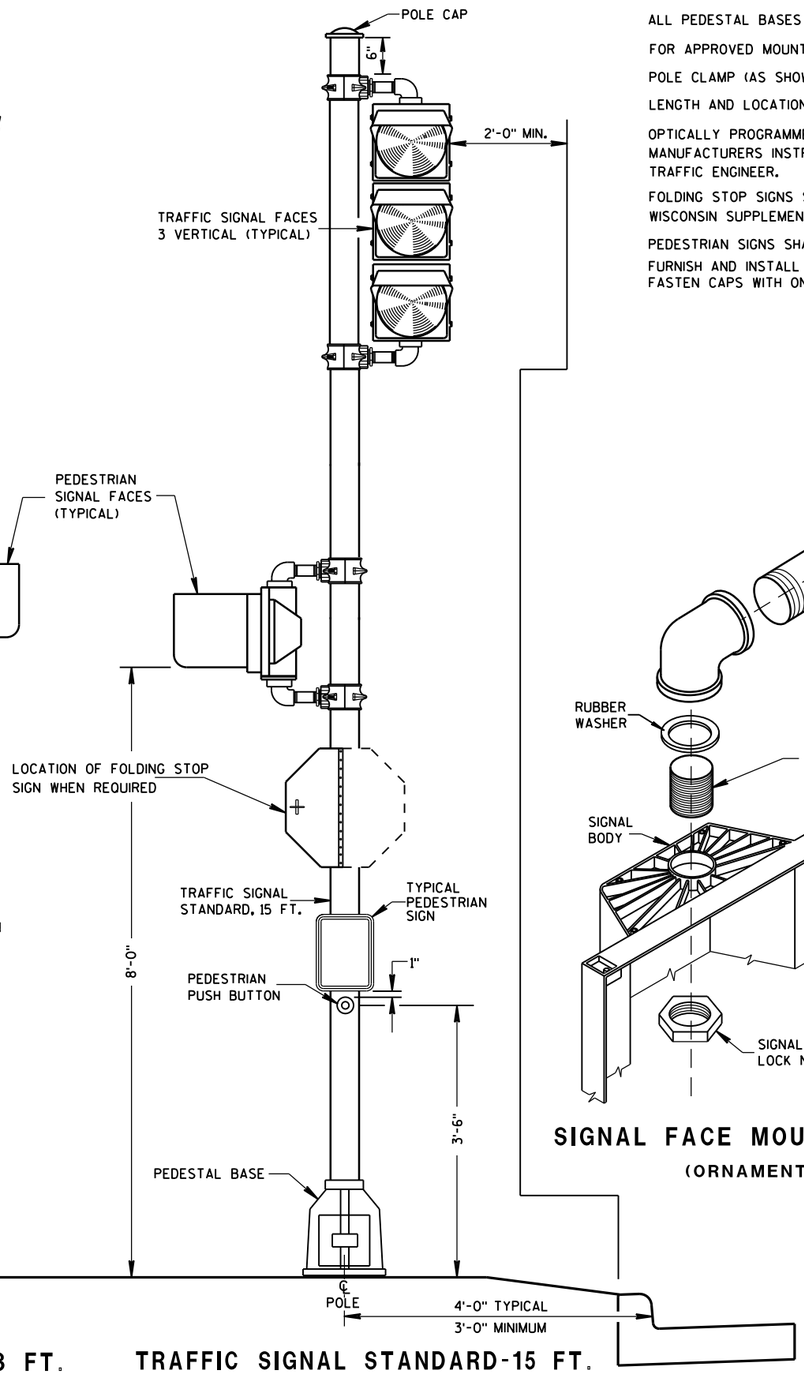
FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



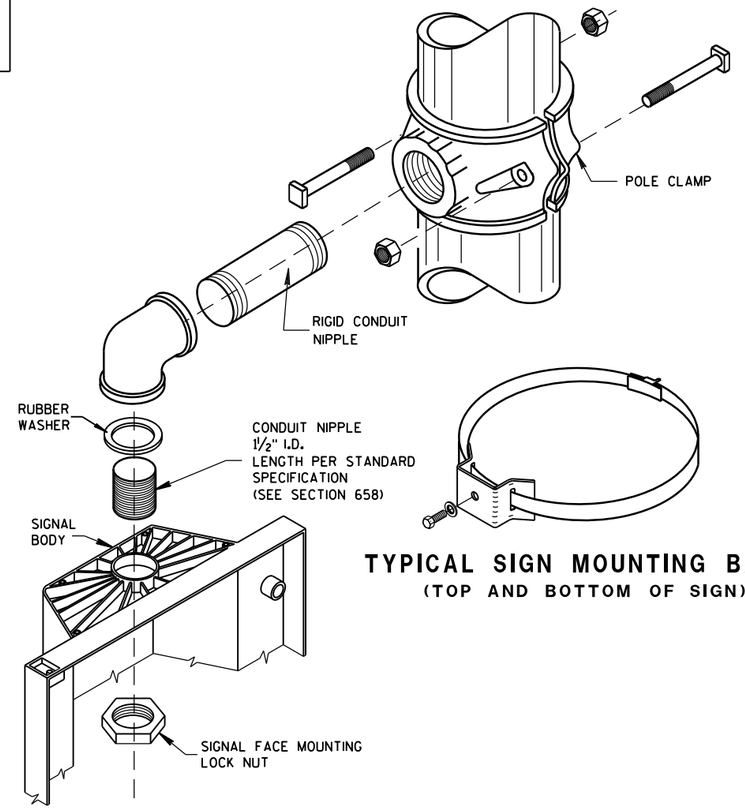
TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)



SIGNAL FACE MOUNTING DETAIL
(ORNAMENTAL)

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

TRAFFIC SIGNAL STANDARD
ORNAMENTAL BRACKET MOUNTINGS
TYPICAL FOR 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
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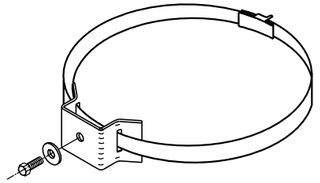
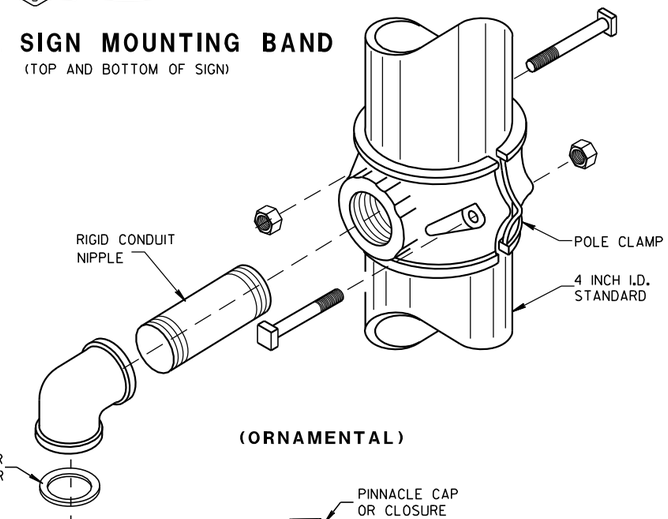
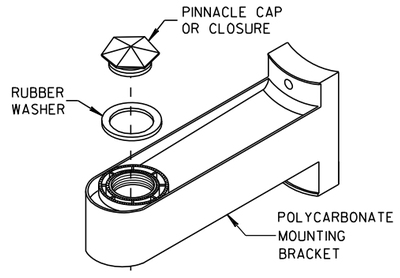


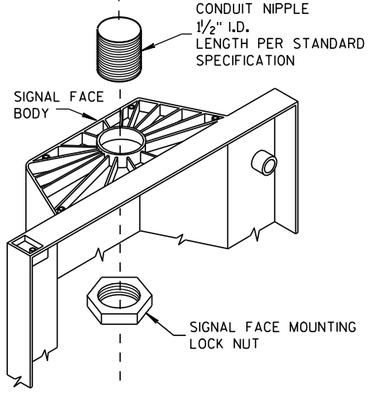
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



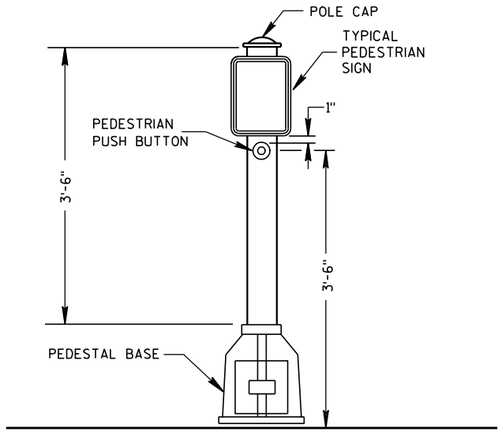
(ORNAMENTAL)



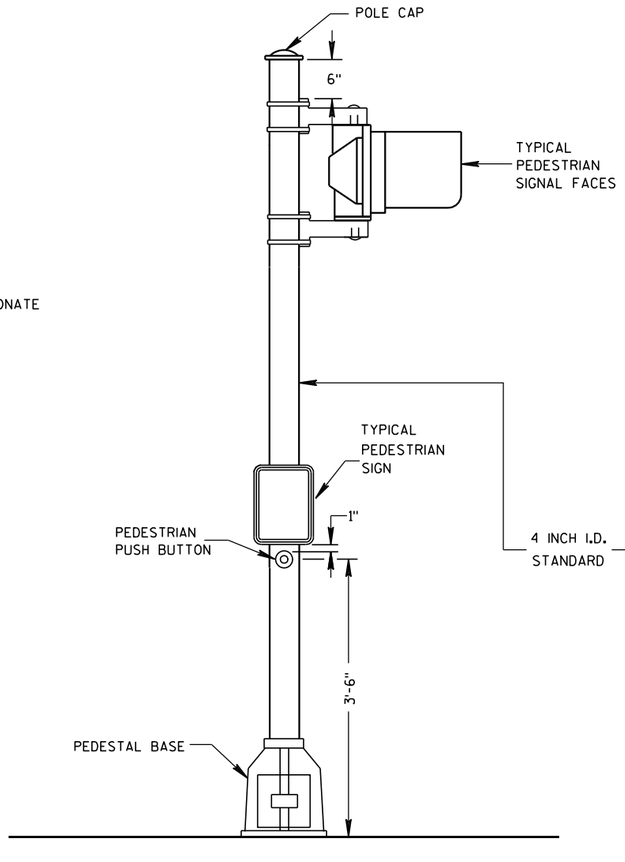
(BANDED)



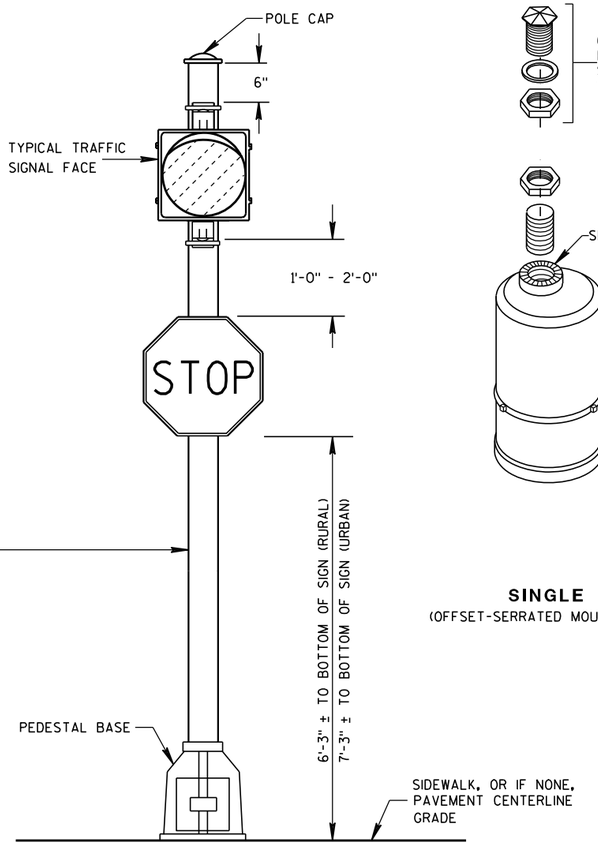
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



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



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

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.

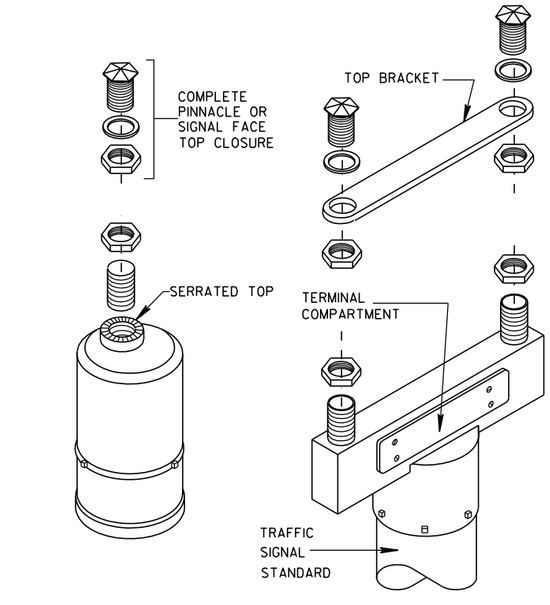
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

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.



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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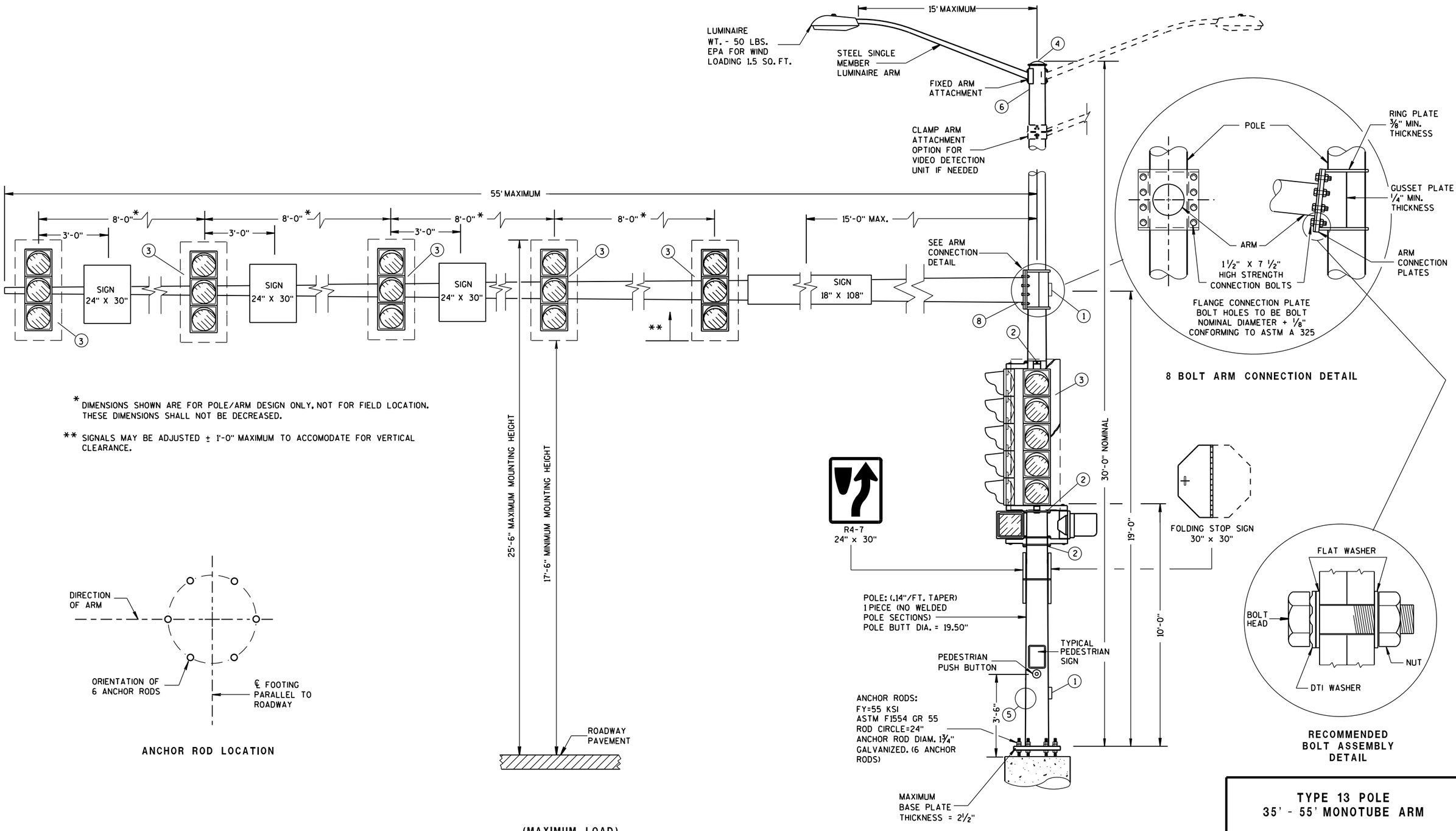

8 BOLT ARM CONNECTION DETAIL

RECOMMENDED
BOLT ASSEMBLY
DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED June. 2015 — DATE /S/ Ahmet Demirbilek — STATE ELECTRICAL FHWA

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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.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

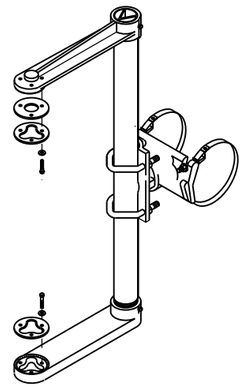
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

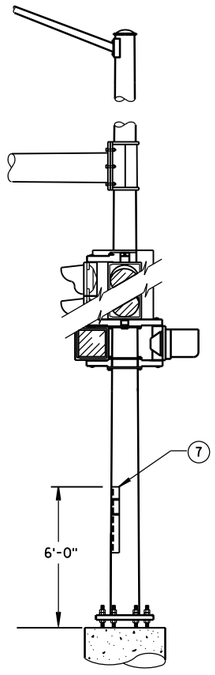
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

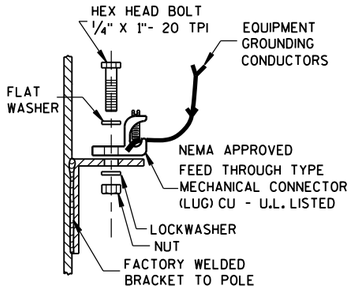


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

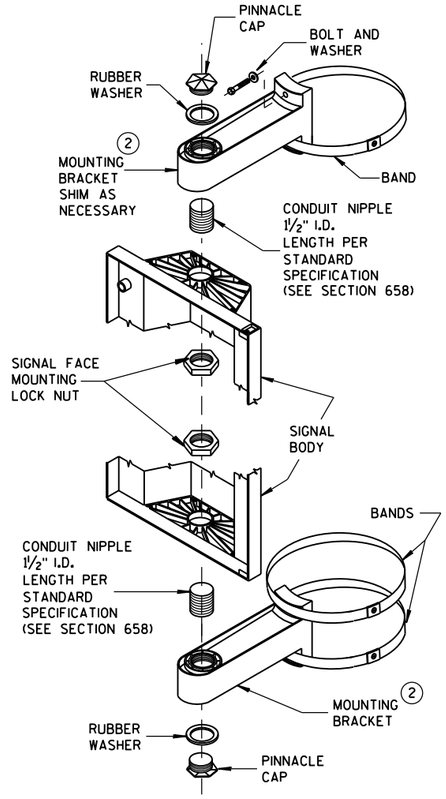


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

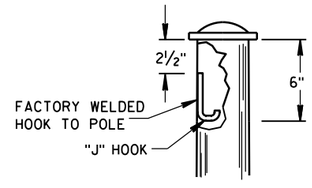


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2015 — DATE

/S/ Ahmet Demirbilek — STATE ELECTRICAL

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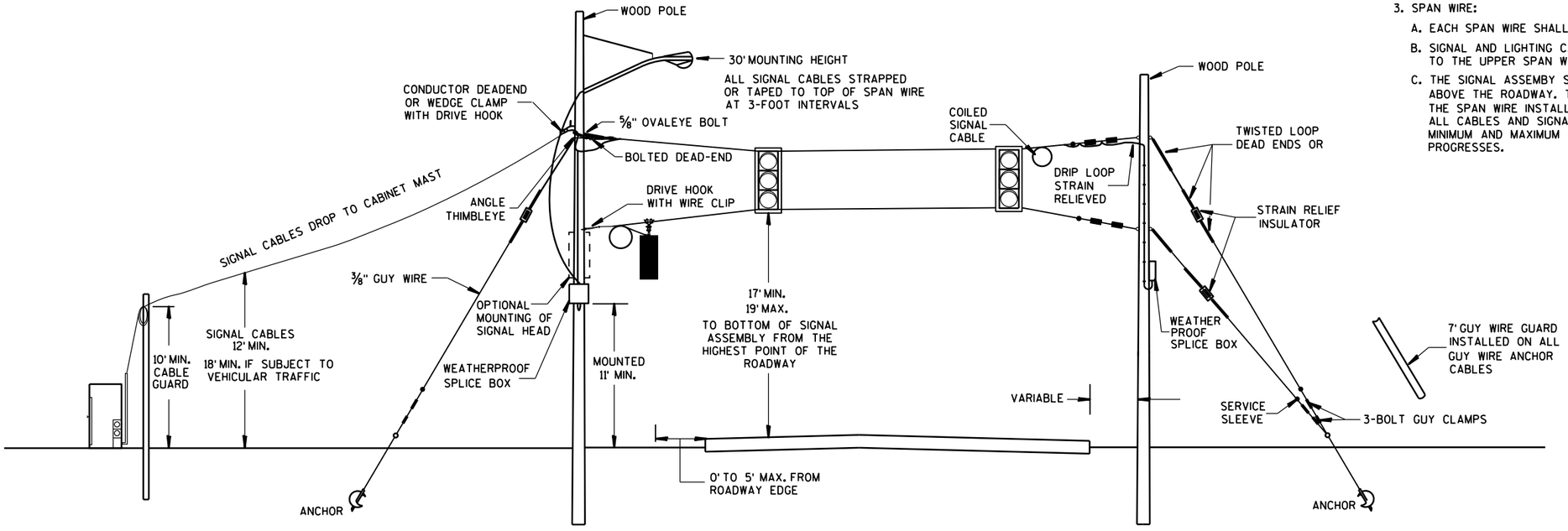
GENERAL NOTES

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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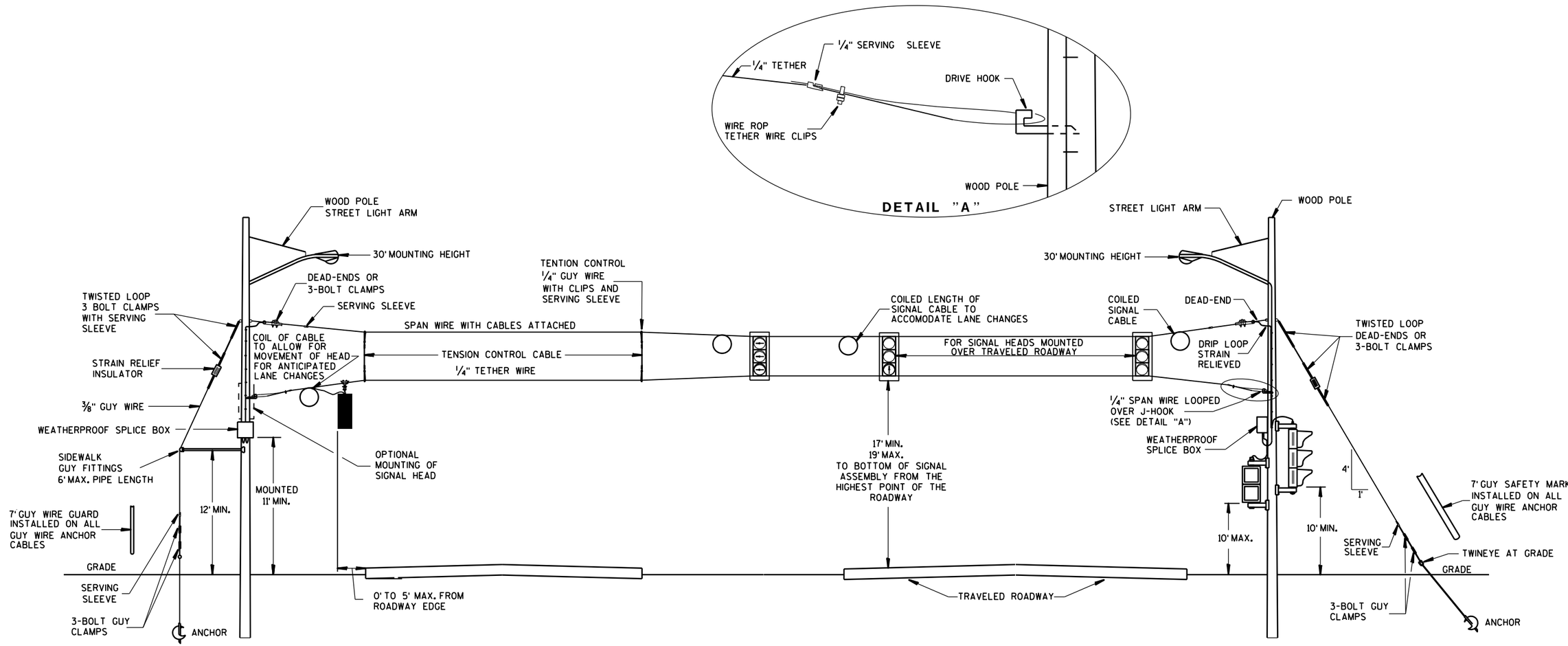
S.D.D. 9 G 1-4a



GENERAL NOTES

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
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
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
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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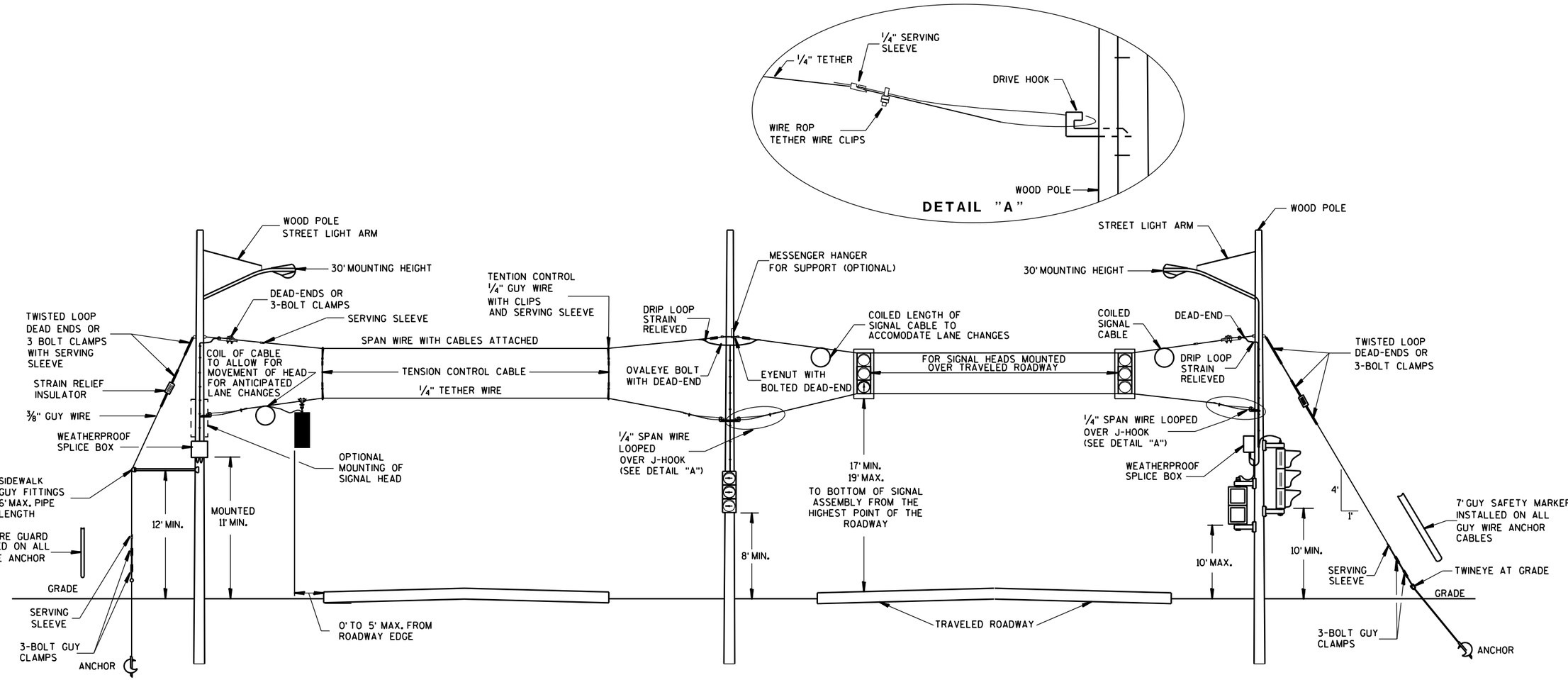

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

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2. SIGNAL FACES:
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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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.

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
June. 2015 — DATE
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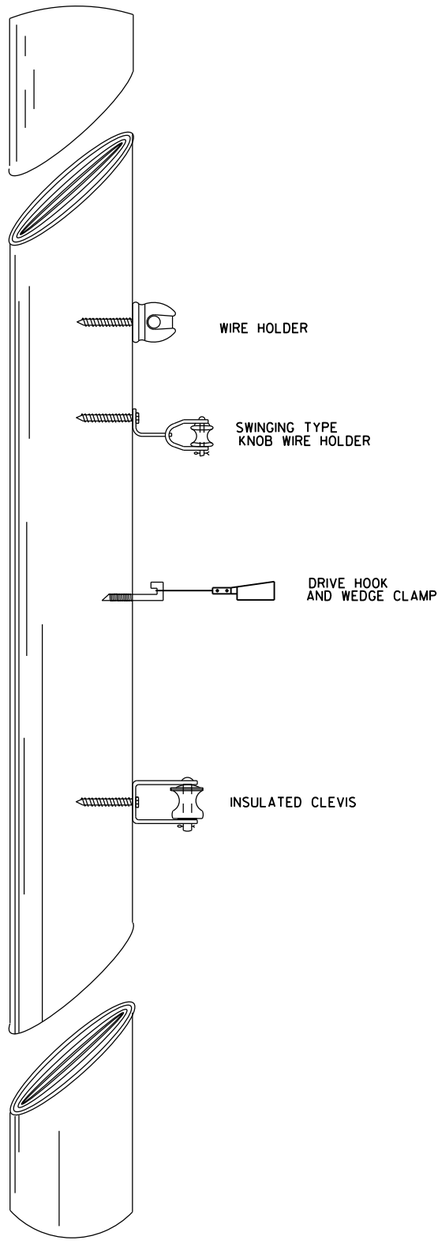
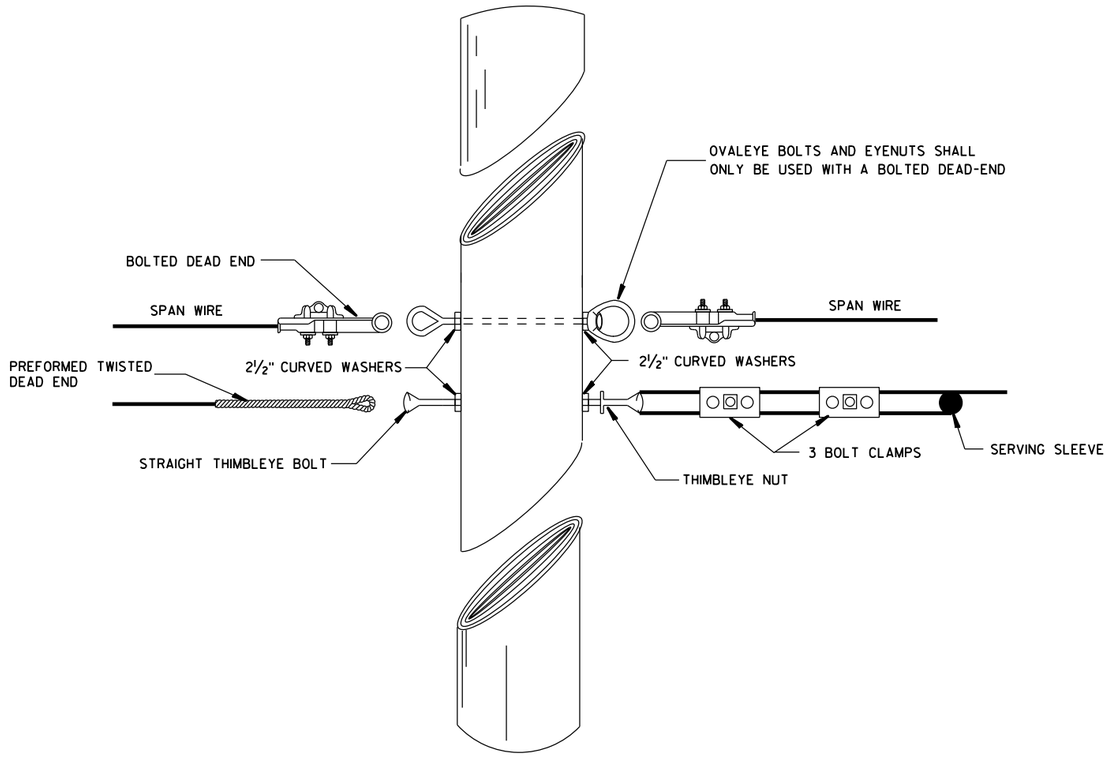


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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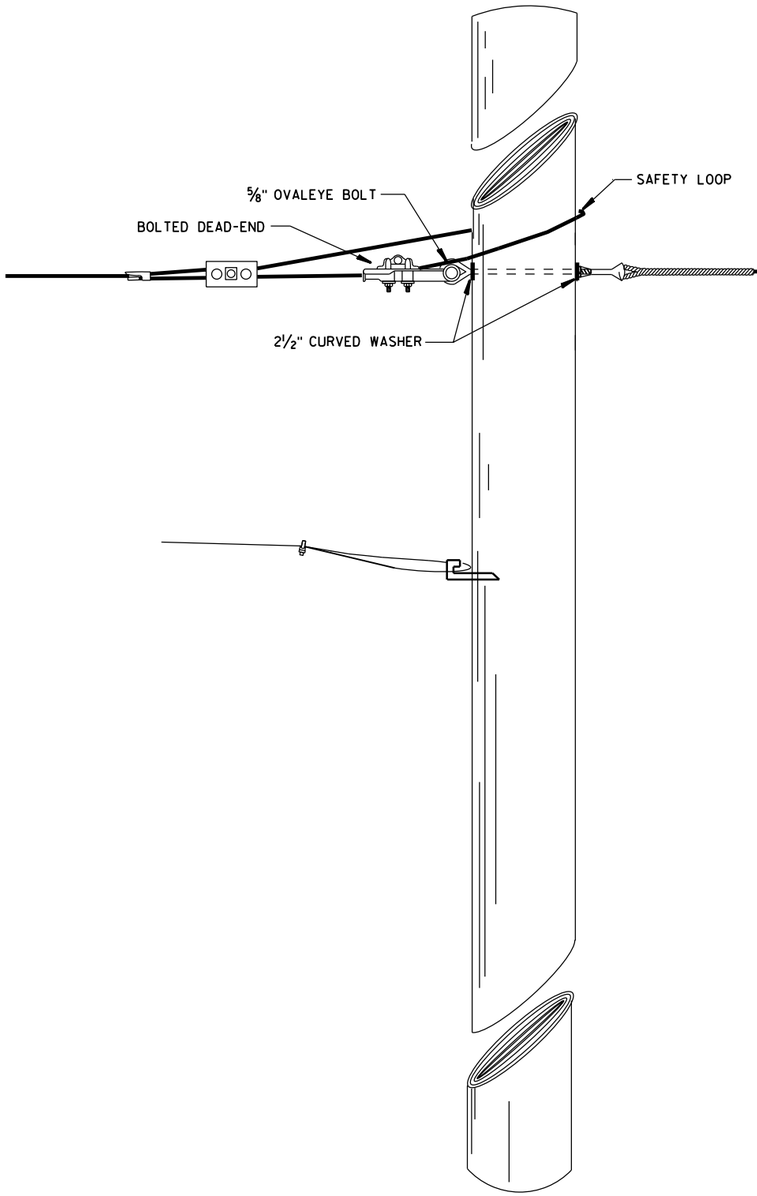
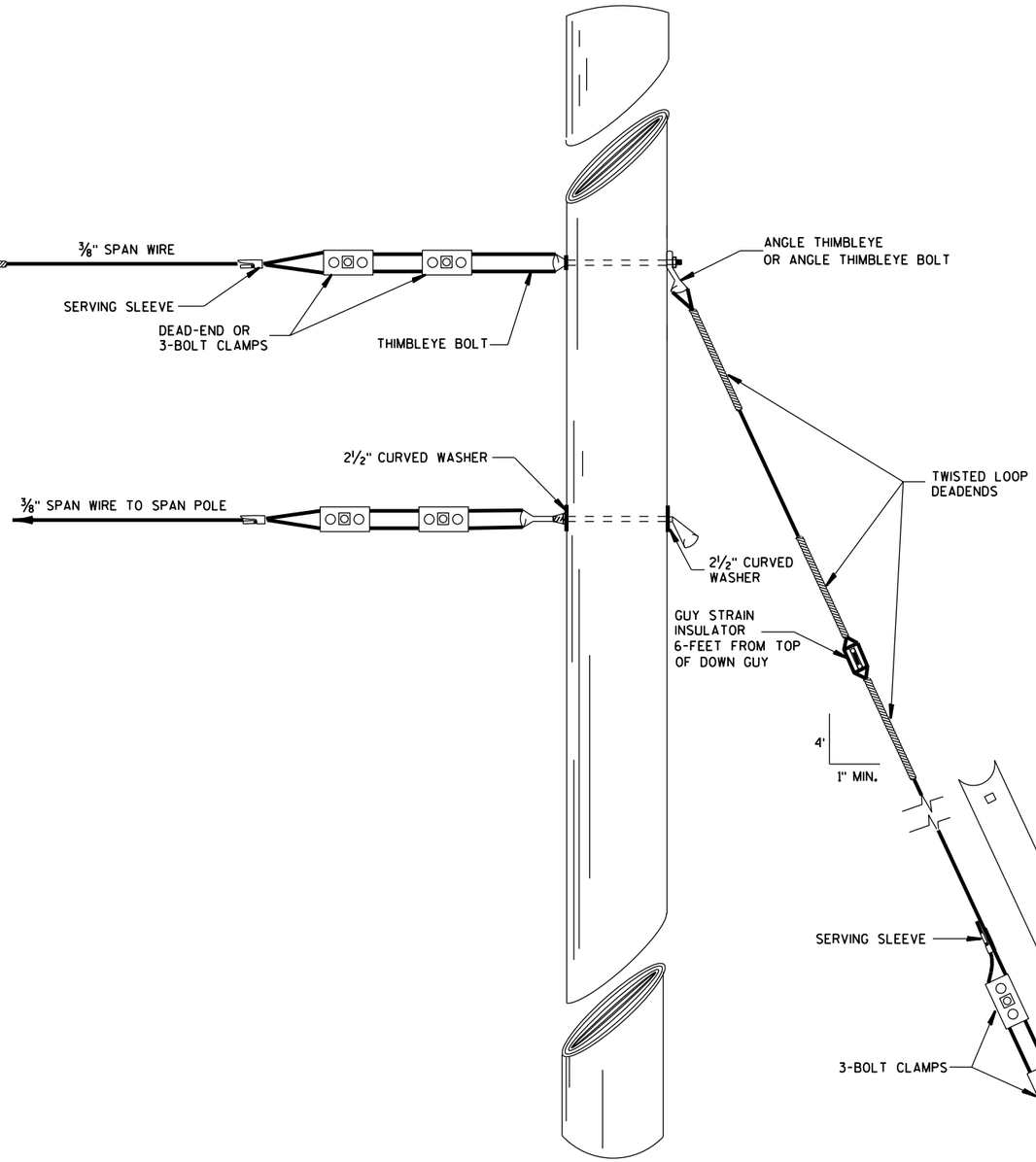
S.D.D. 9 G 1-4d

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
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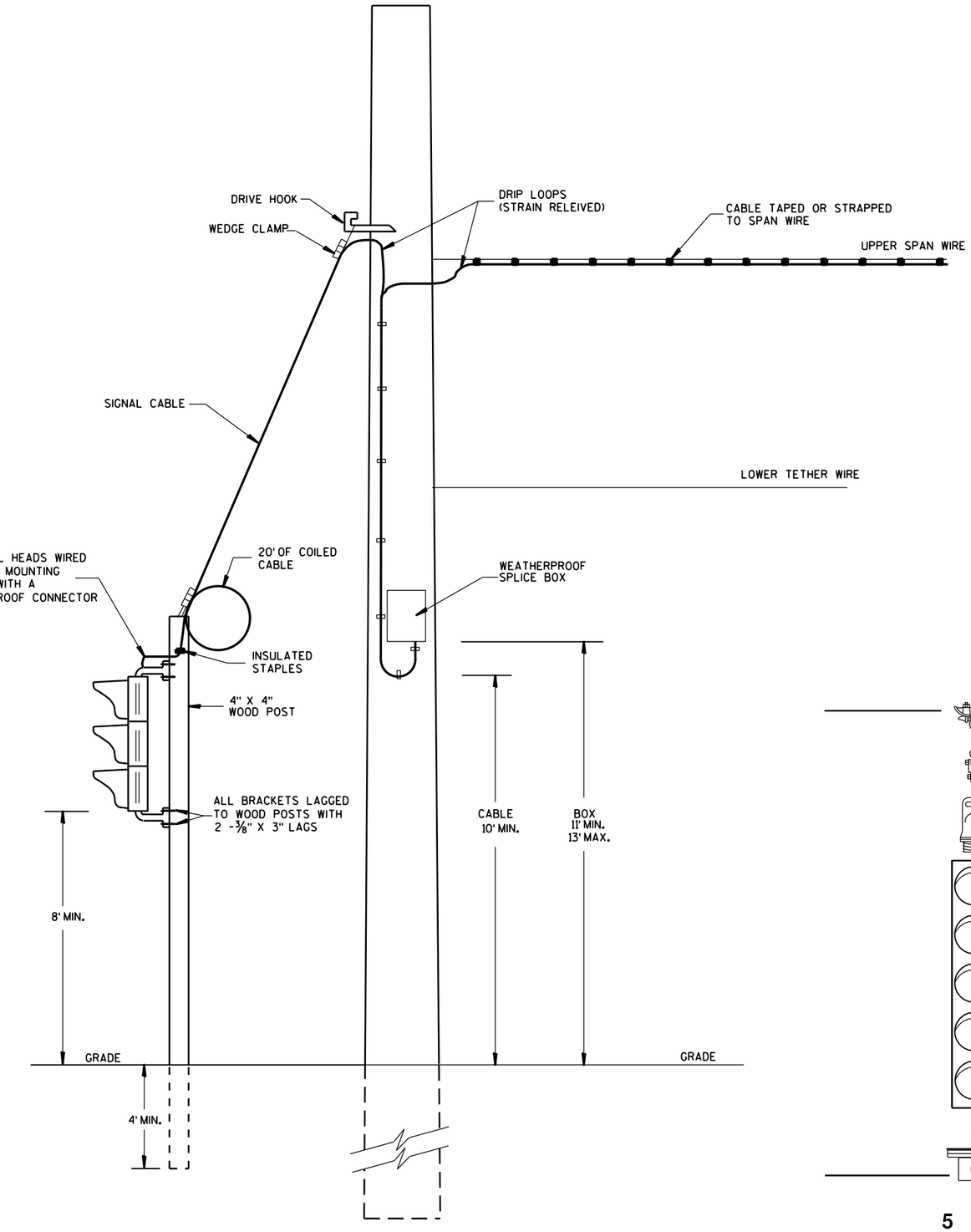
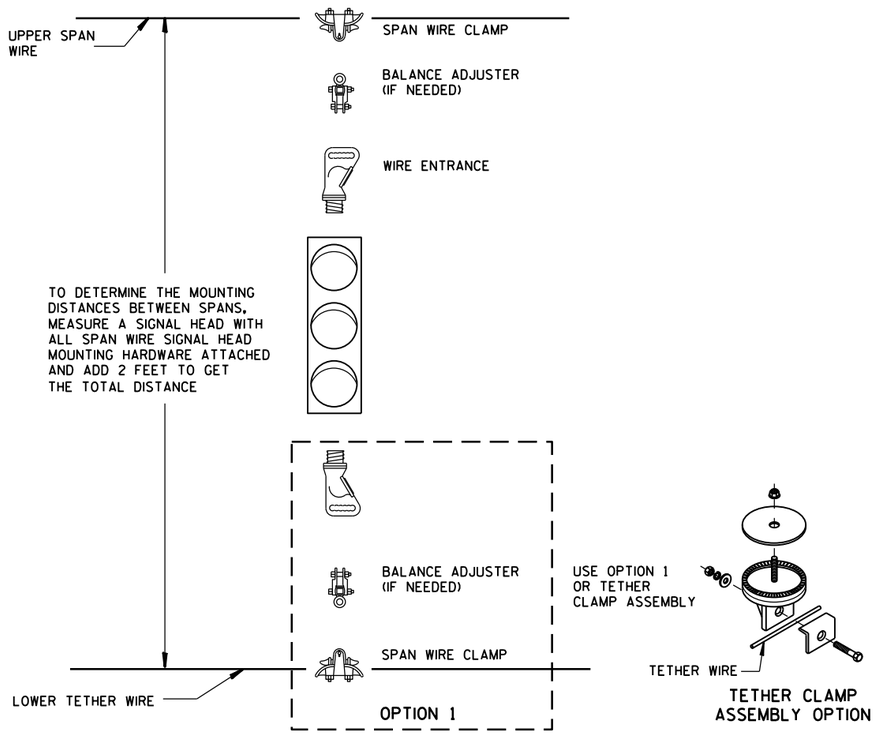
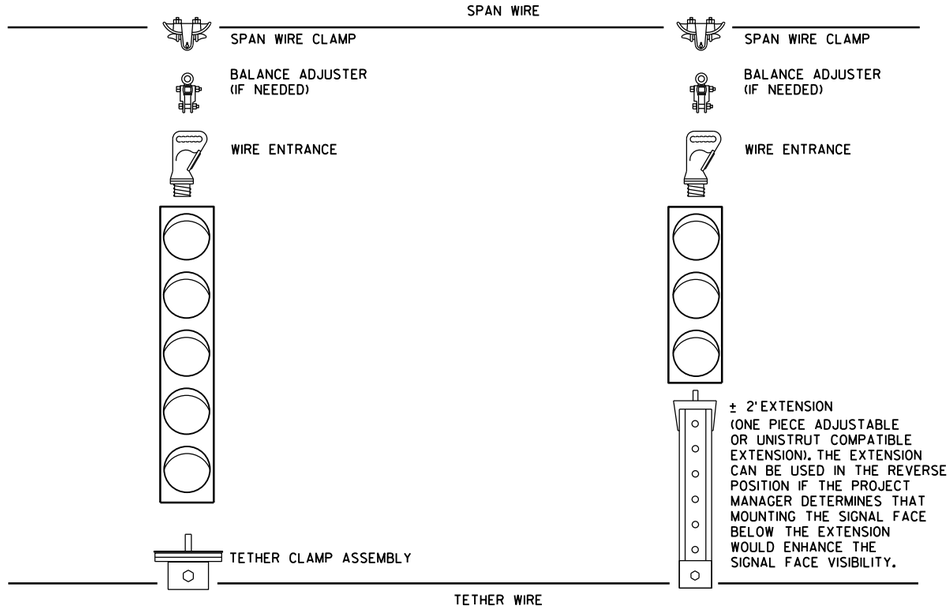


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



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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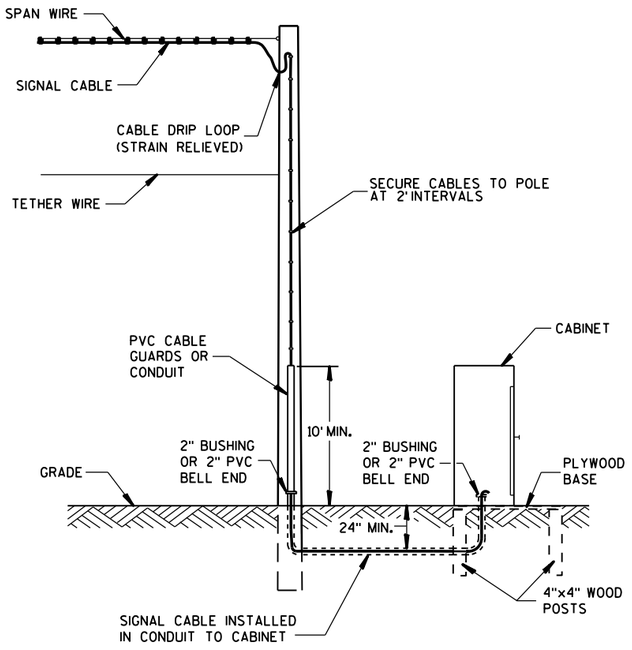
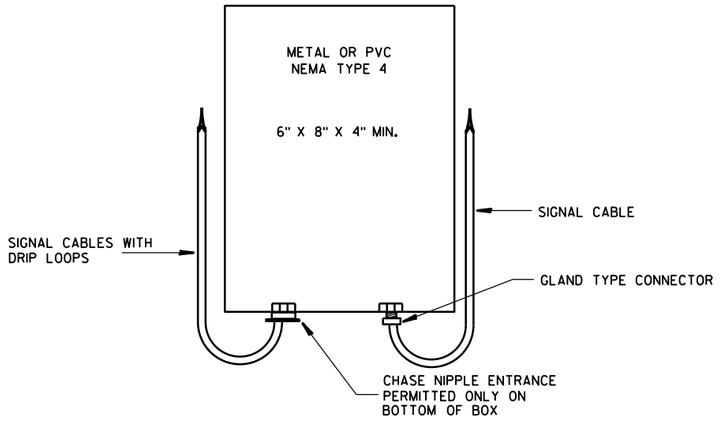
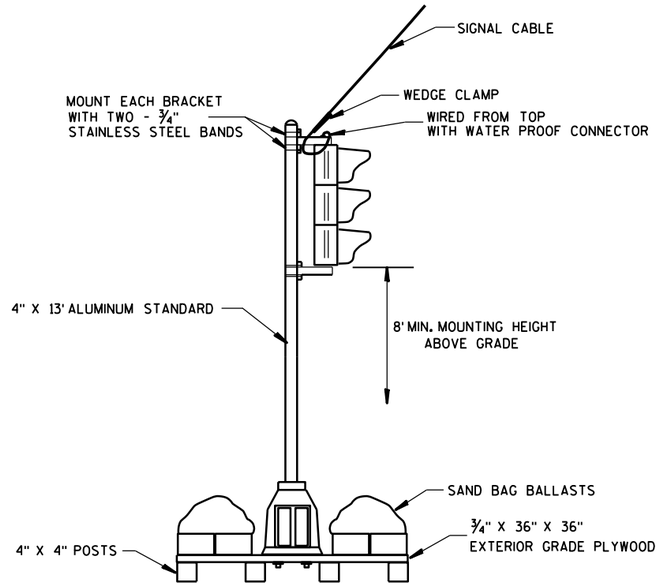
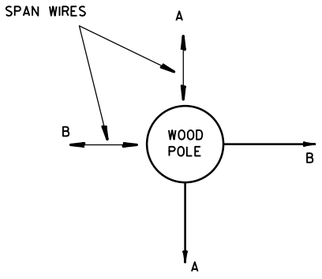




SPLICE BOX

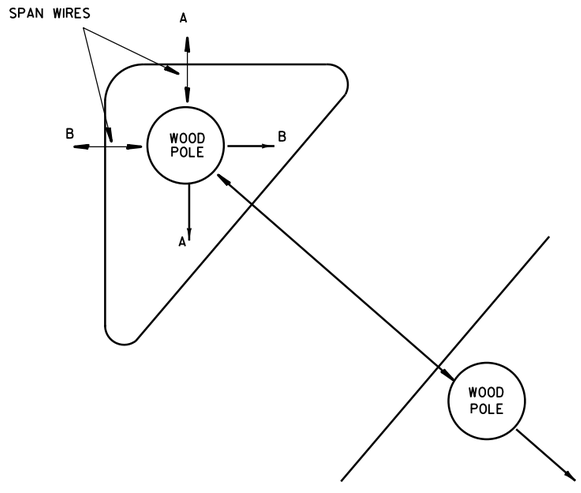


TYPICAL SKID TYPE TEMPORARY

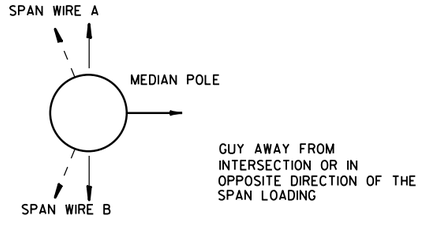


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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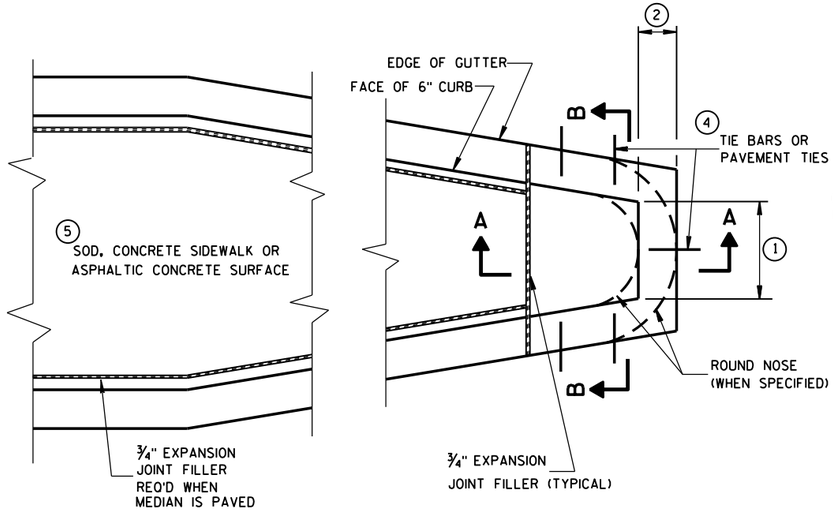
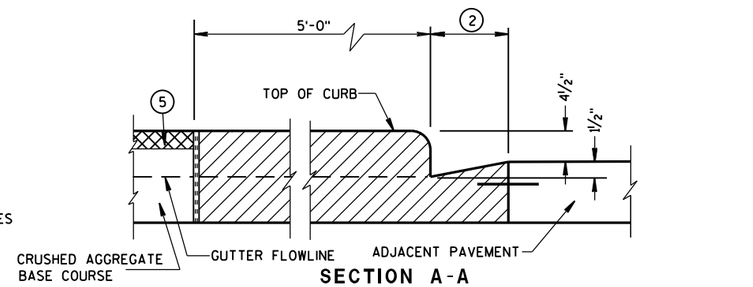
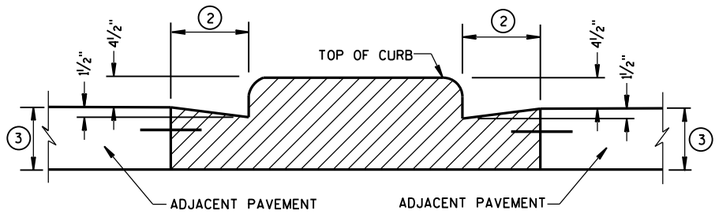






CONCRETE MEDIAN BLUNT NOSE DETAIL

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.

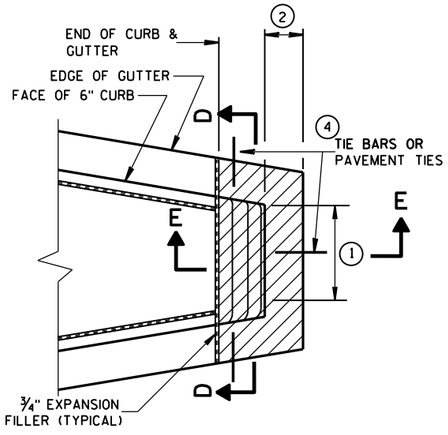
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

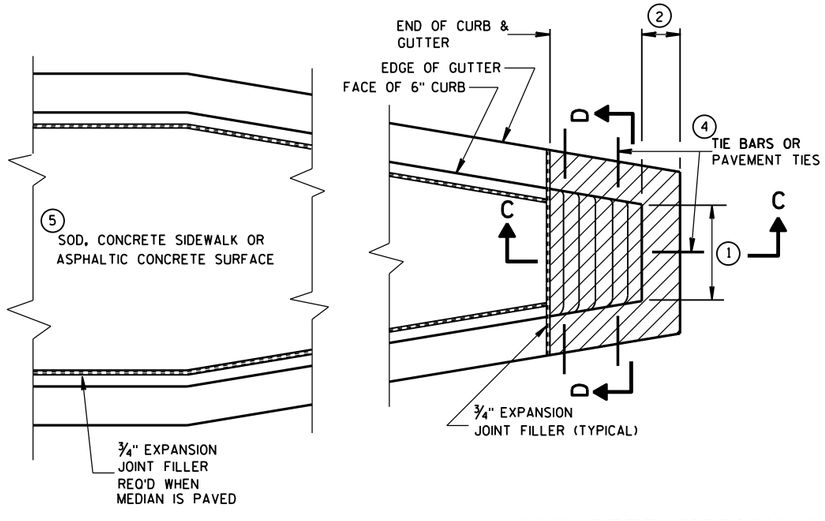
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

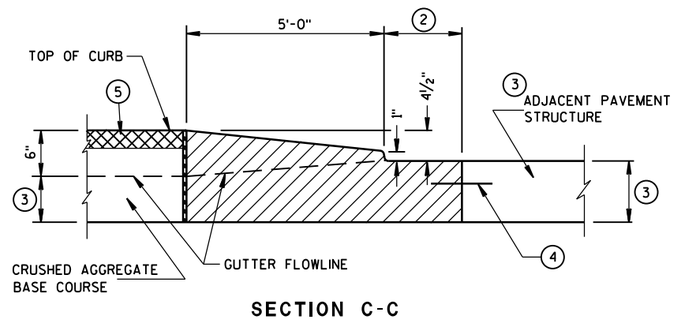
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

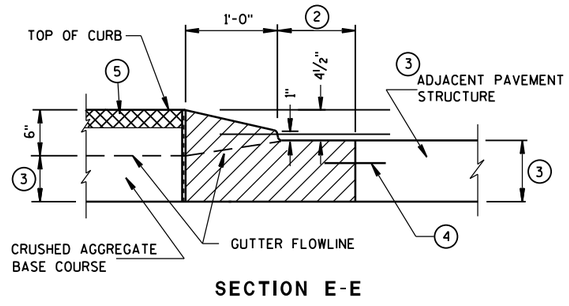
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



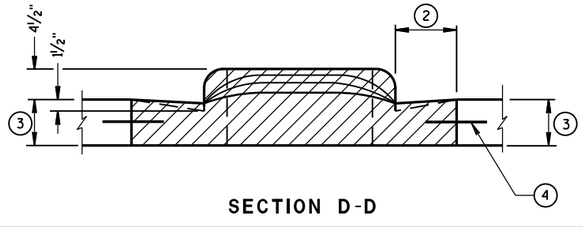






CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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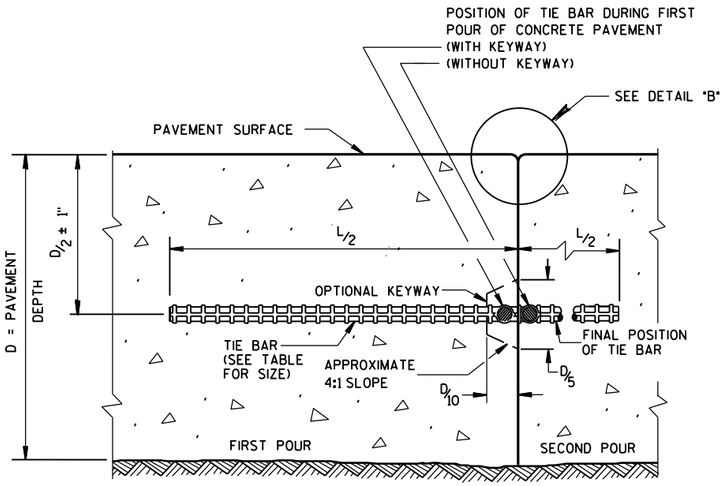
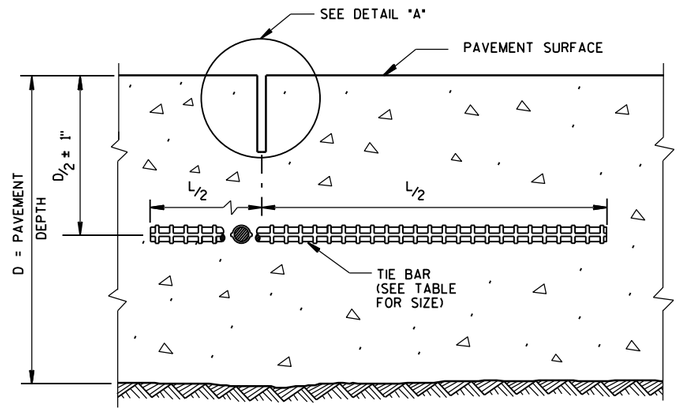
S.D.D. 11 B 2-2



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.

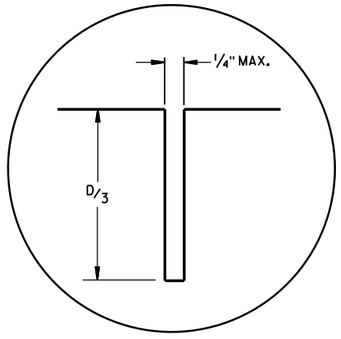
(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

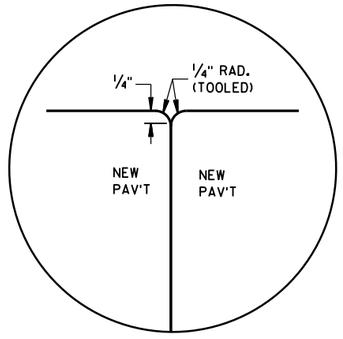
PLAN VIEW

SECTION A-A

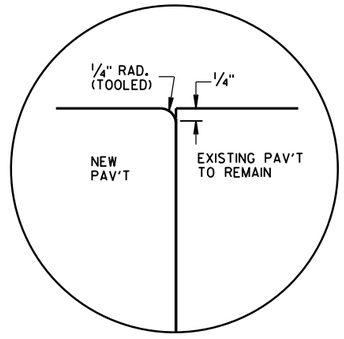
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



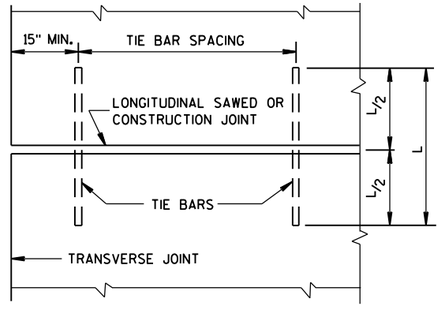
DETAIL "C"

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

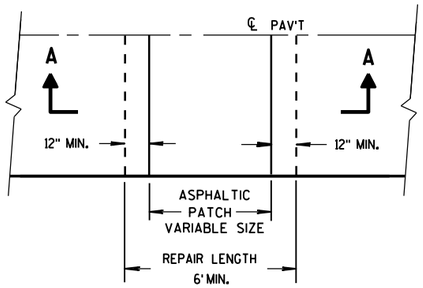
GENERAL NOTES

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

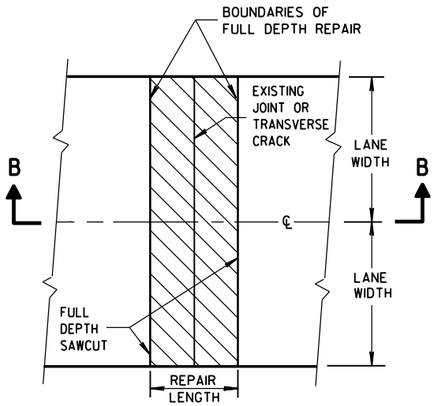
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

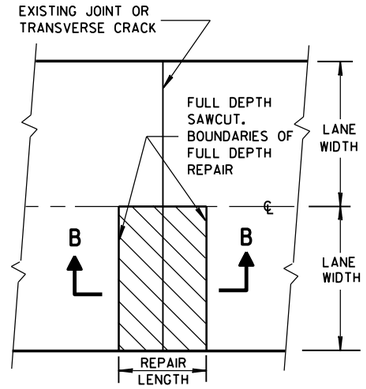
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

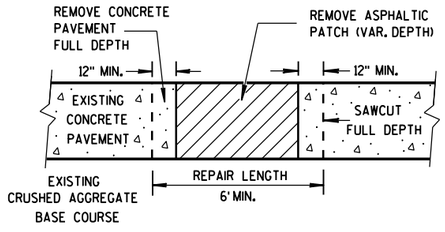


PLAN VIEW
(DOUBLE LANE REPAIR)



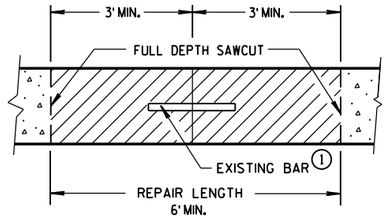
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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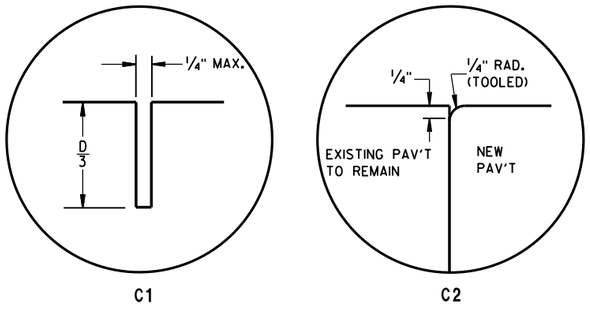


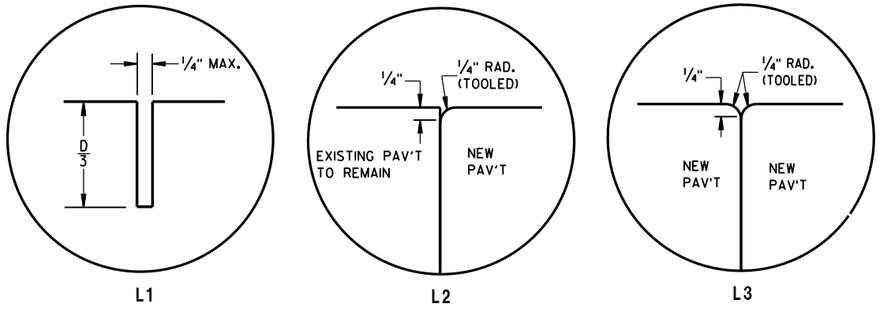
TRANSVERSE JOINTS

TIE BAR TABLE

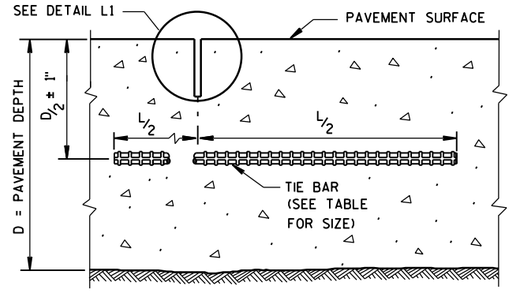
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* 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.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

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

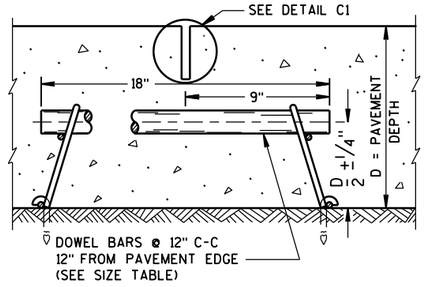
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

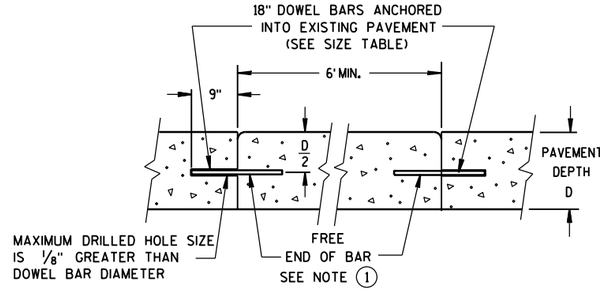
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

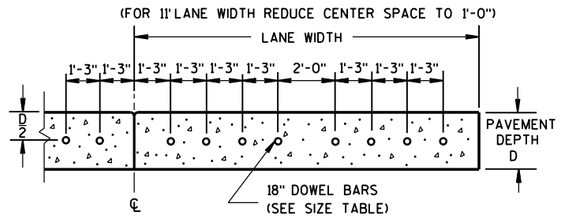


SECTION F-F

CONTRACTION JOINT



SECTION D-D

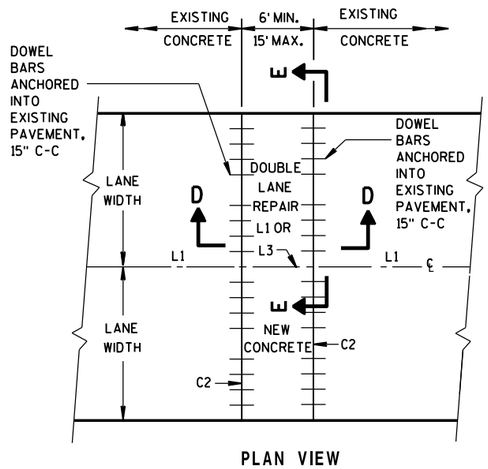


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

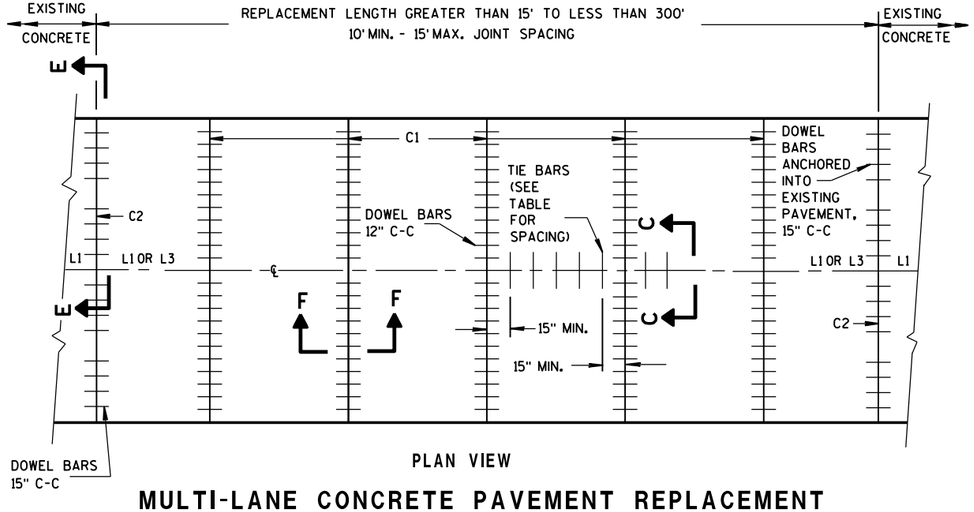
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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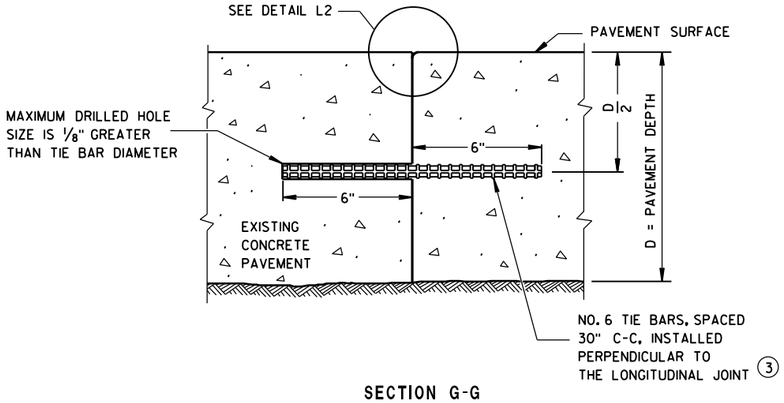


SECTION G-G

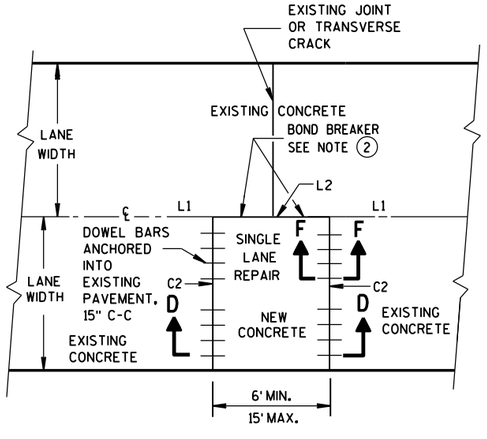
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

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

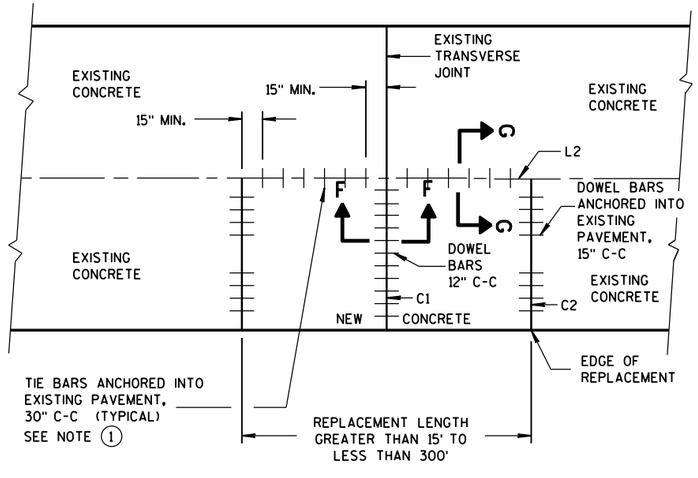
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

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



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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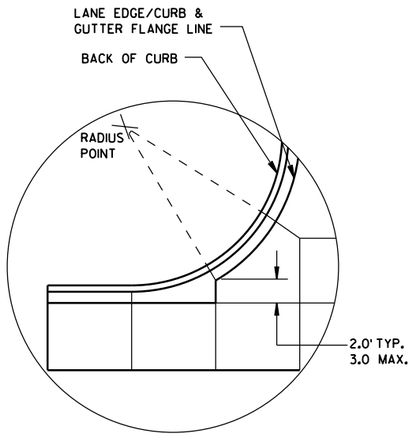
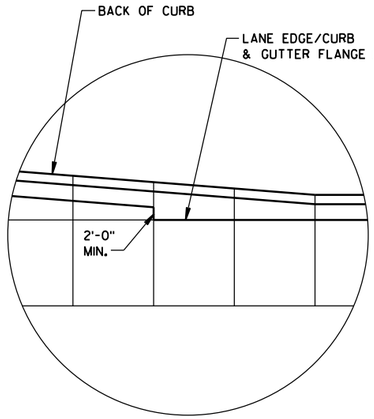
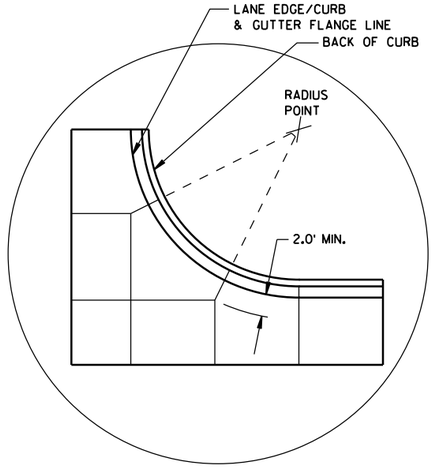
S.D.D. 13 C 9-13c



DETAIL "A"



DETAIL "B"



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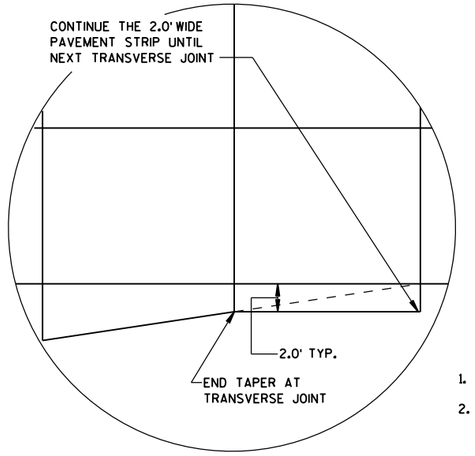


DETAIL "D"

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.

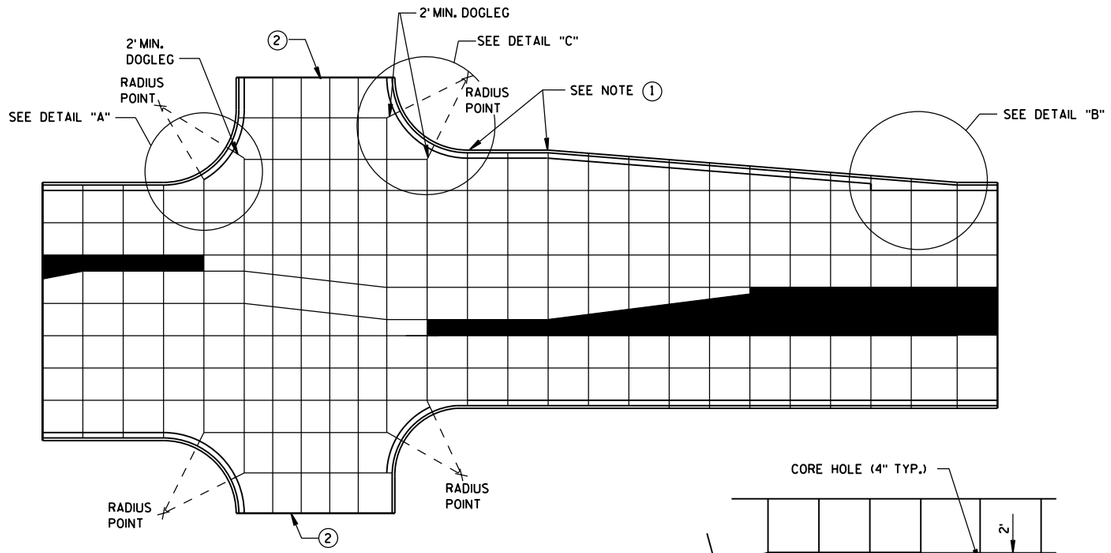
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

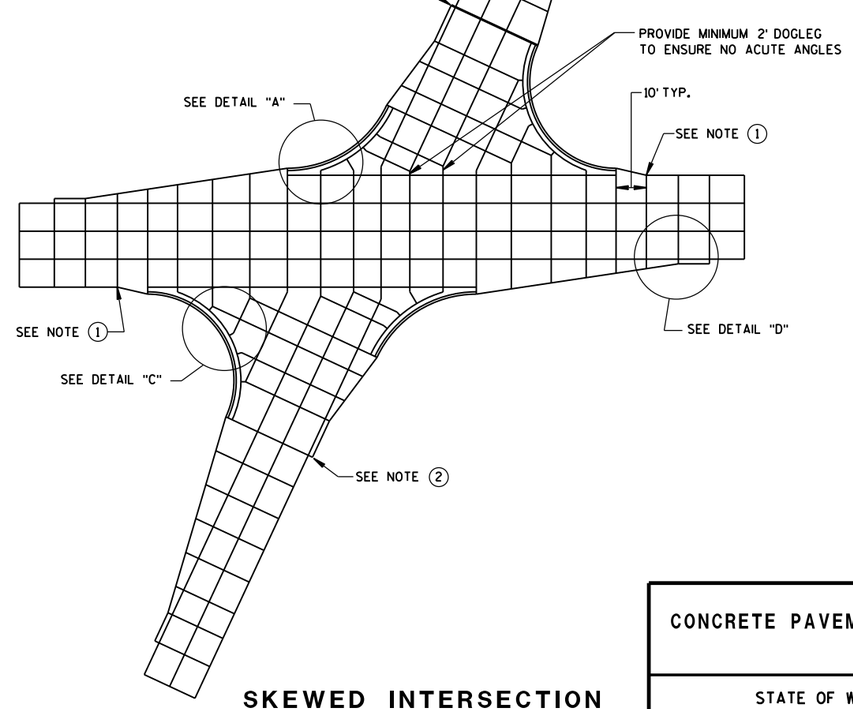
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



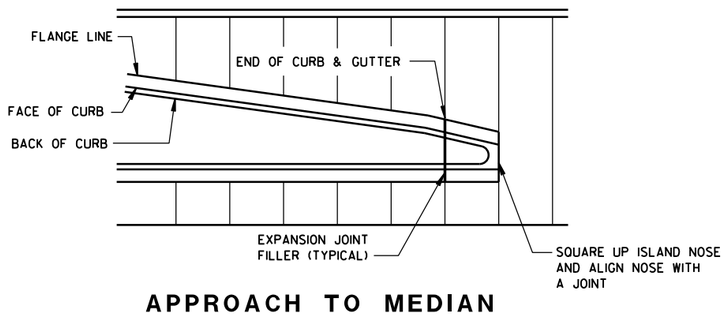
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

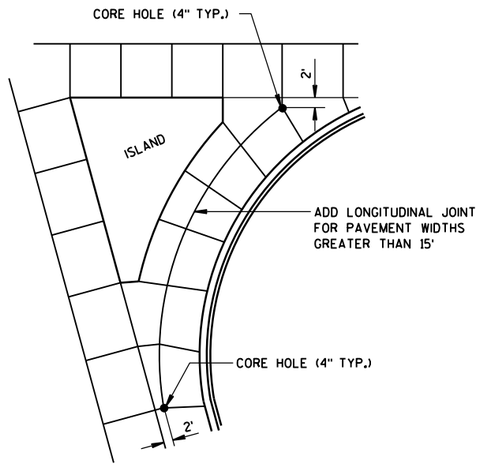
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

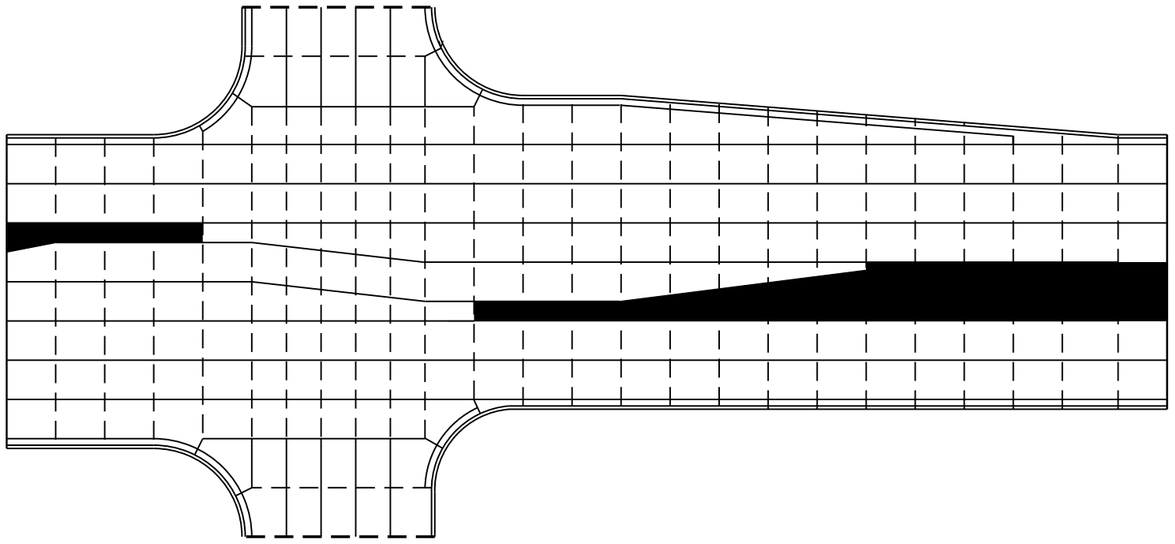
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

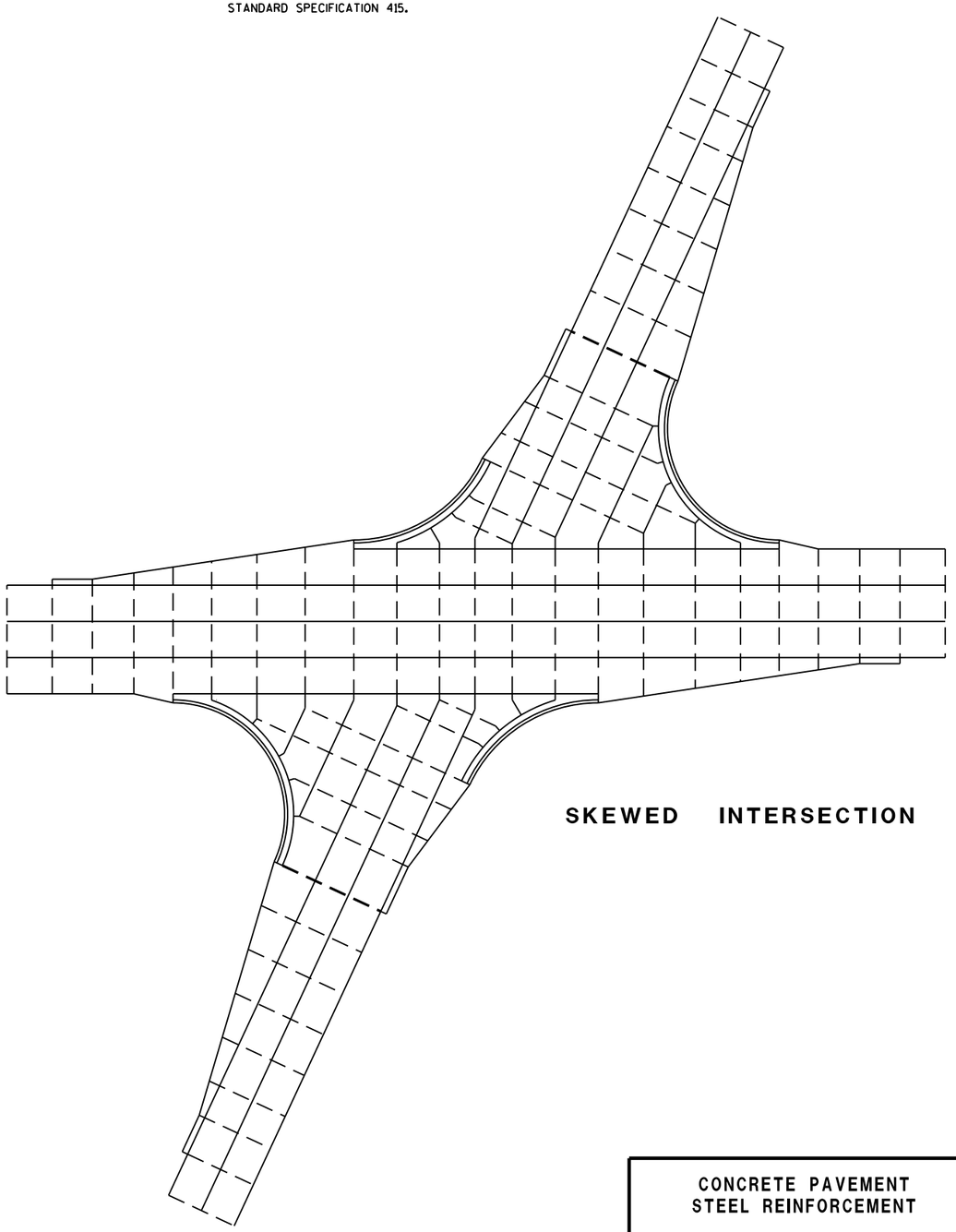
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

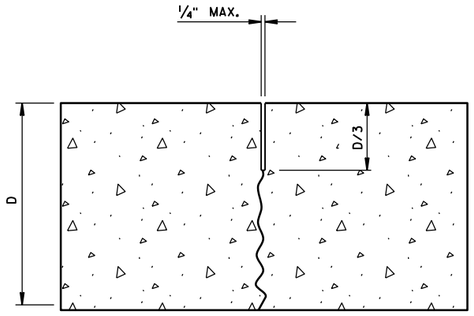
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

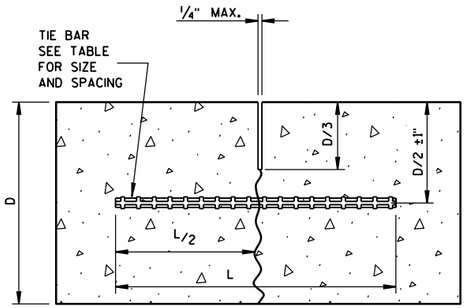
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

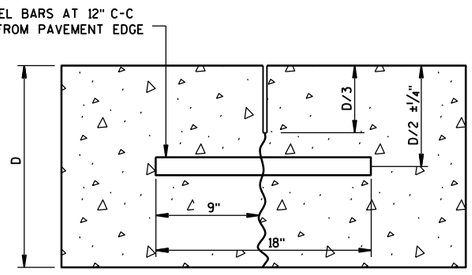
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* 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

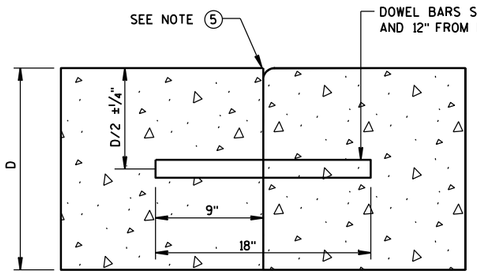
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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.



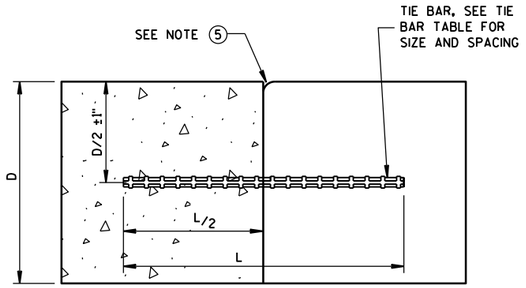
DOWELED-TRANSVERSE

CONTRACTION JOINTS

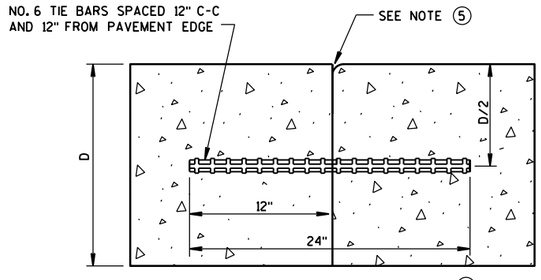
SEE NOTE (2)



DOWELED TRANSVERSE (3)

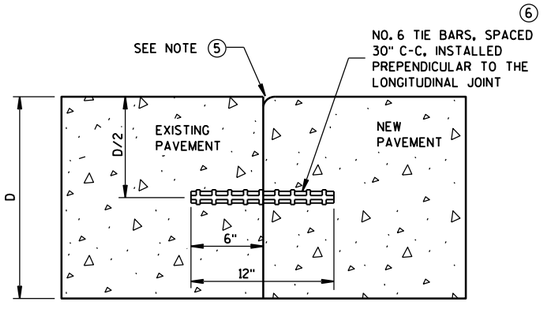


TIED LONGITUDINAL



TIED TRANSVERSE (3)

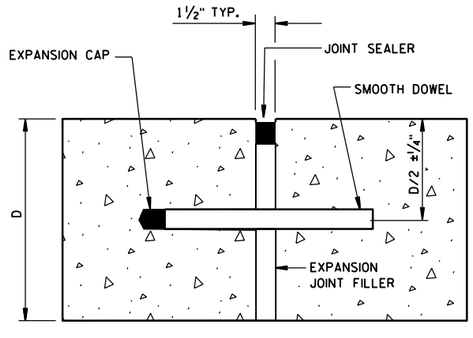
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

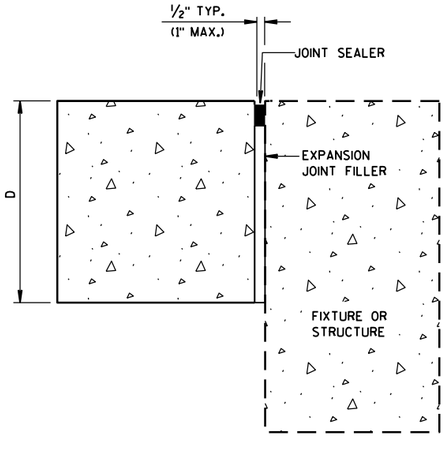
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

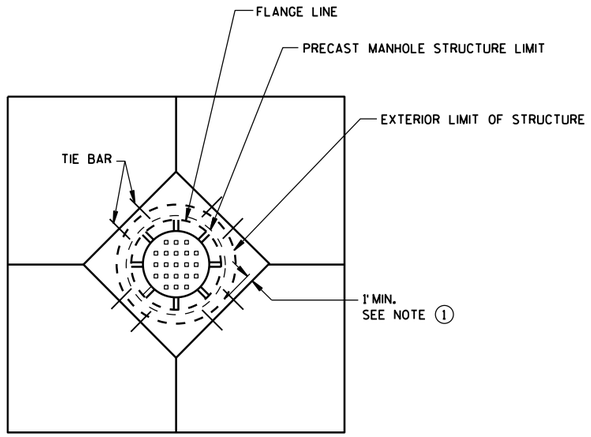
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

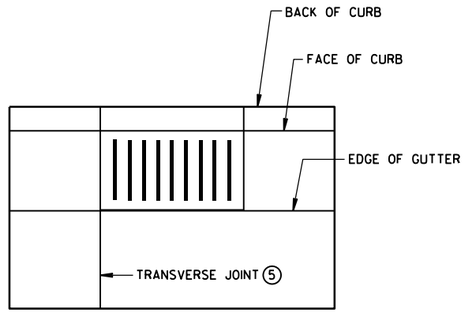
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

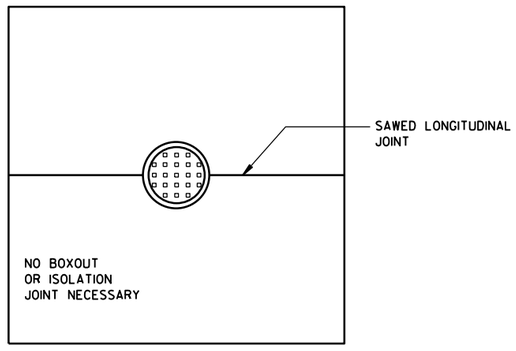
S.D.D. 13 C 18-3c



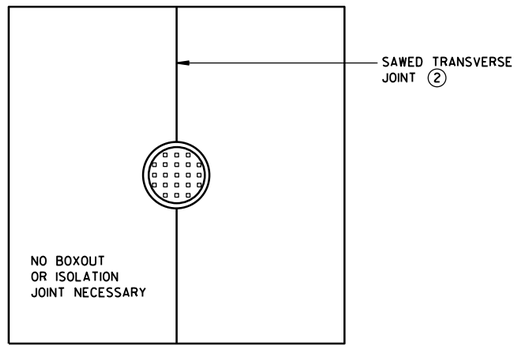
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



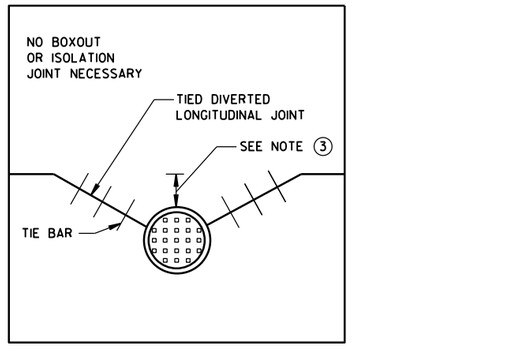
INLET WITH TRANSVERSE JOINT



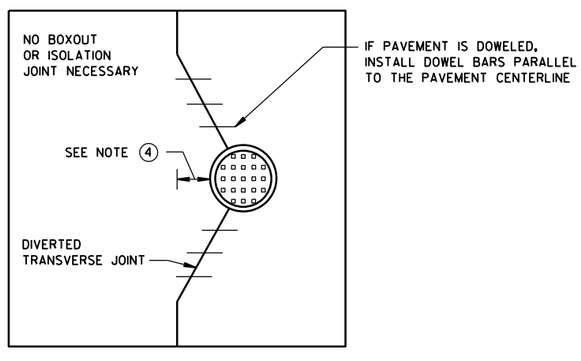
MANHOLE WITH LONGITUDINAL JOINT



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

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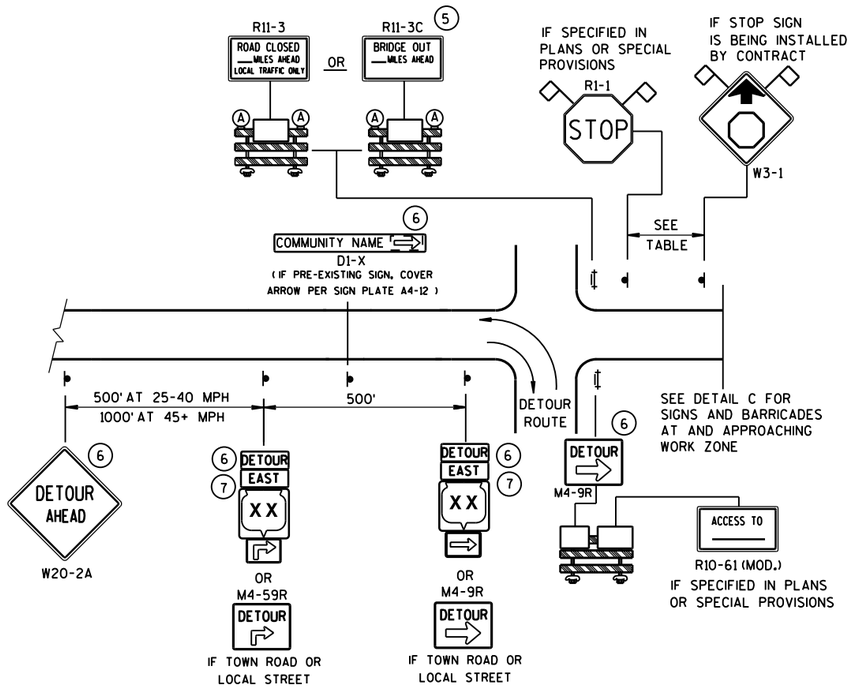
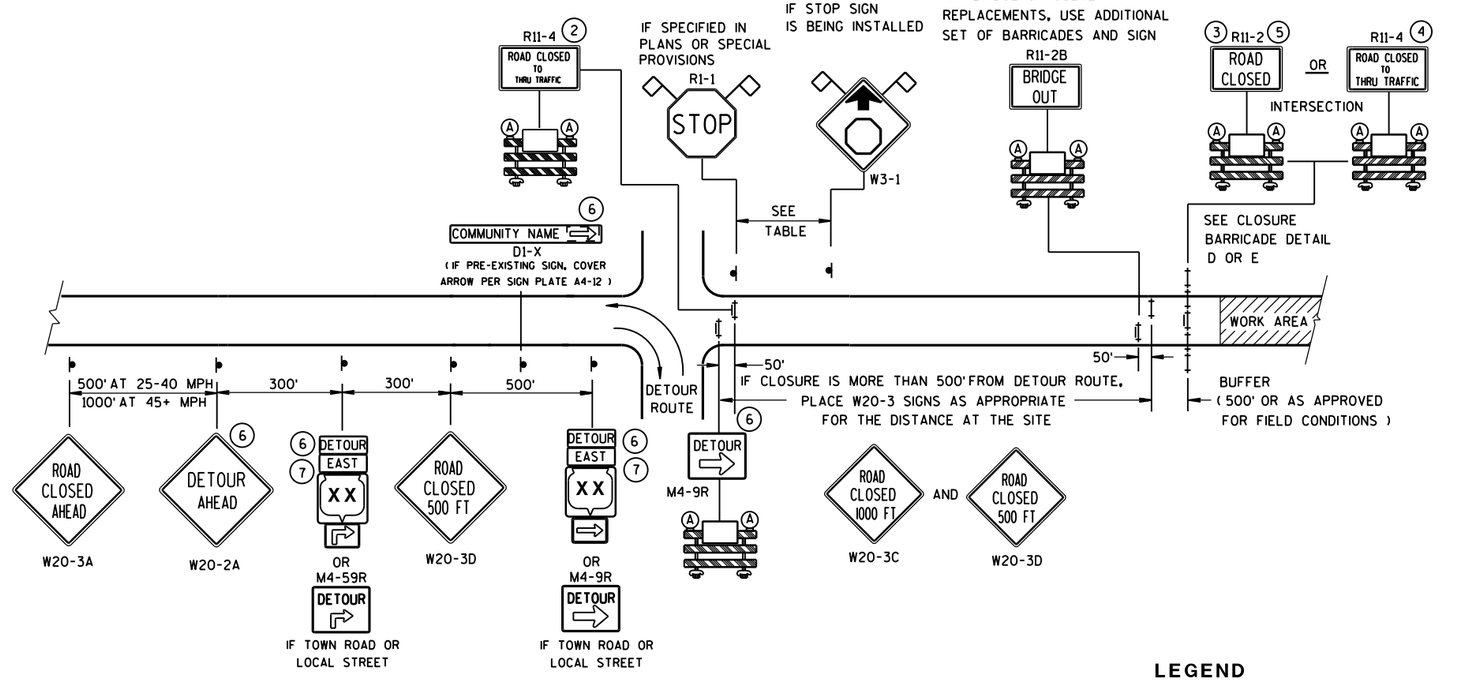
S.D.D. 13 C 18-3d



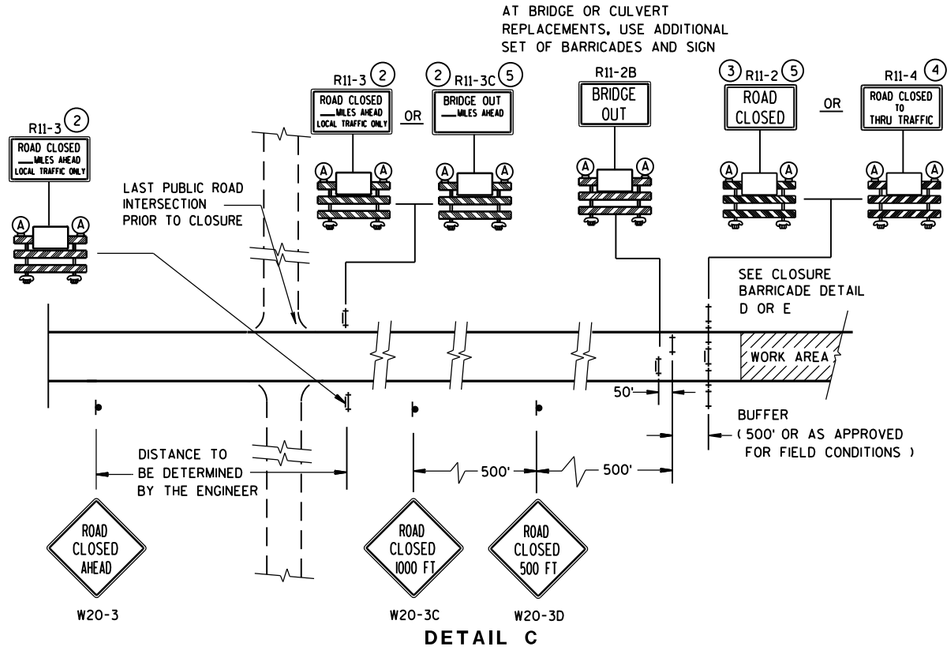
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

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S.D.D. 15 C 2-6a

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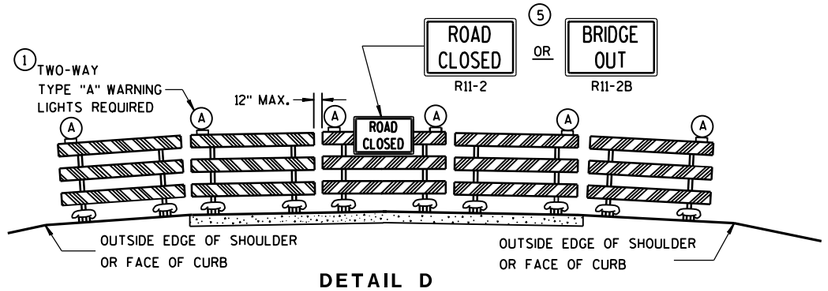
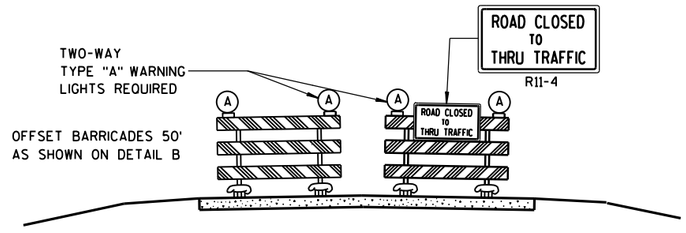
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

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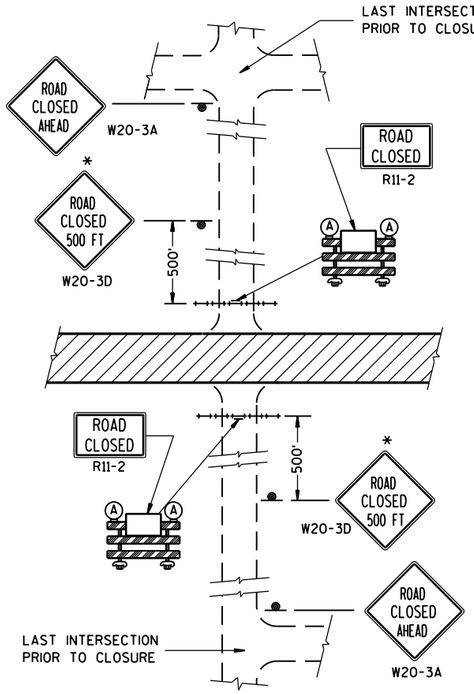
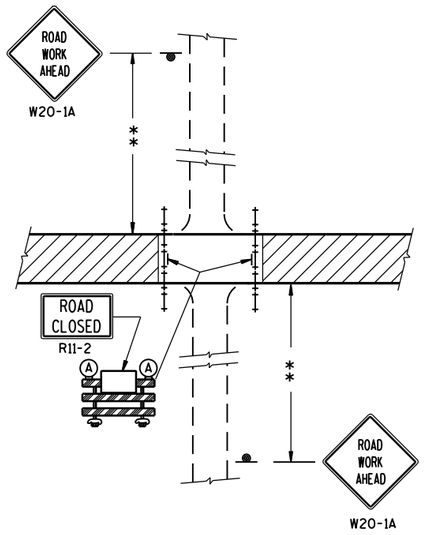
S.D.D. 15 C 2-6b



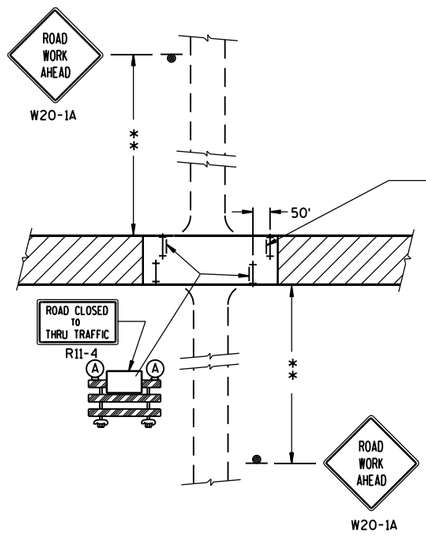
DETAIL 1

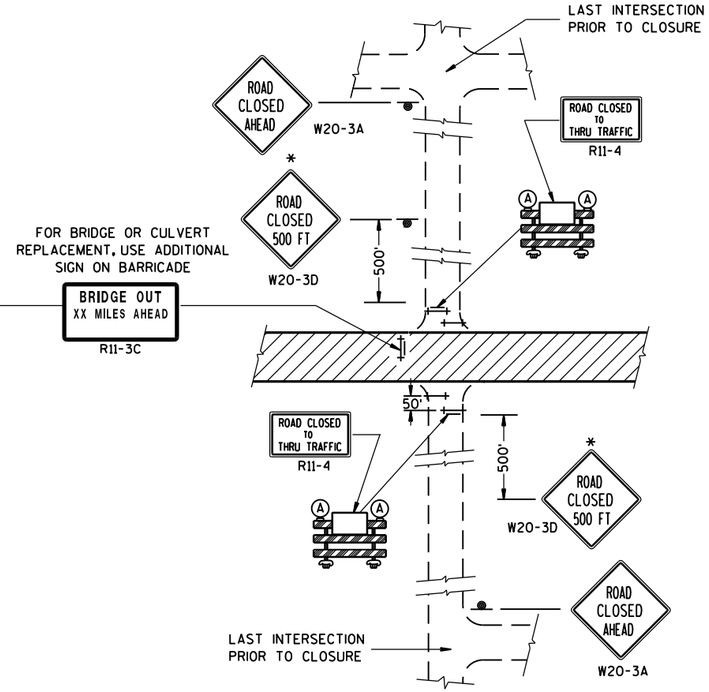
(NO ACCESS TO PROJECT)



DETAIL 2

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





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

6

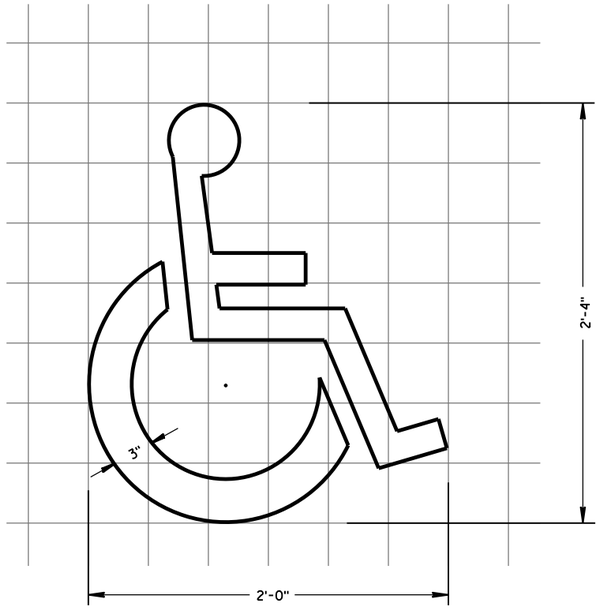
S.D.D. 15 C 3-3

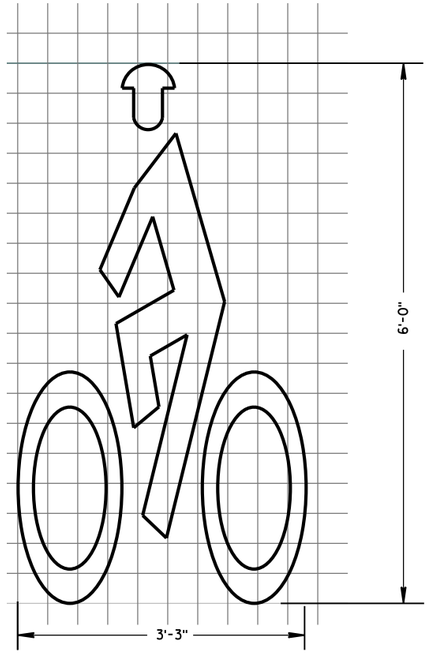
6

S.D.D. 15 C 3-3

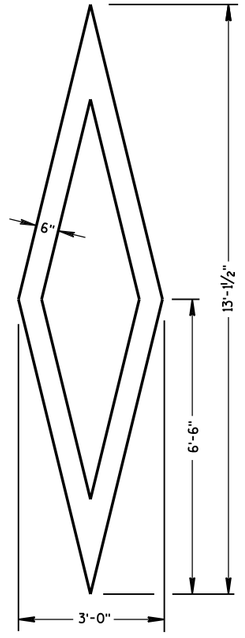
GENERAL NOTES

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.





BIKE CROSSING SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

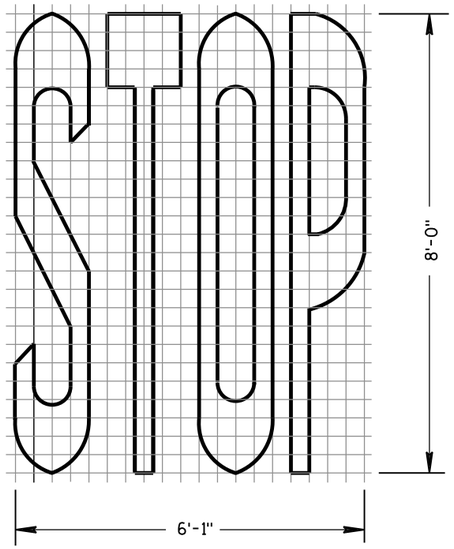
APPROVED
4/18/16 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARK EER
FHWA

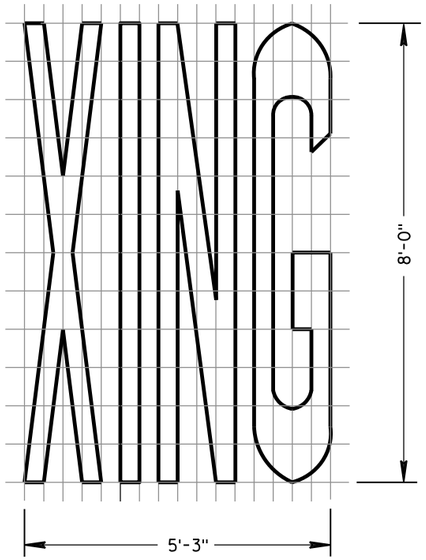
6

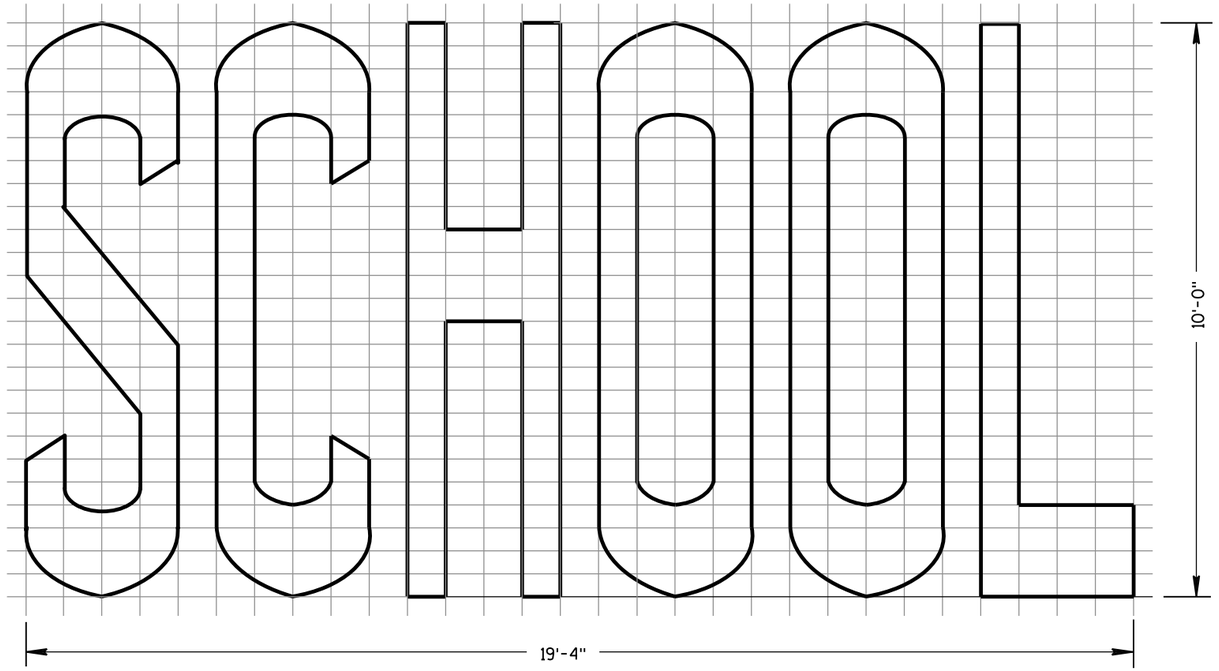
S.D.D. 15 C 7-13a

GENERAL NOTES

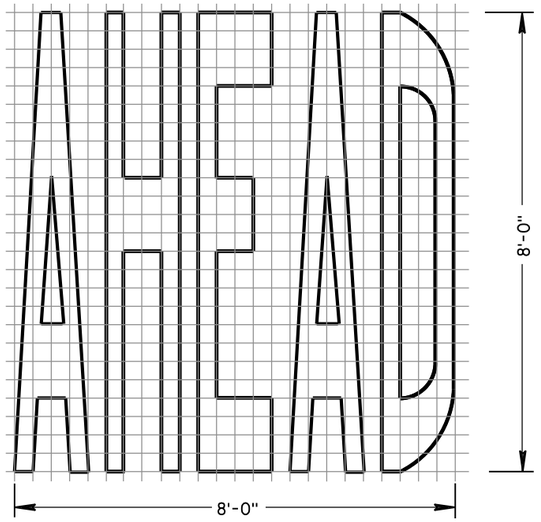
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

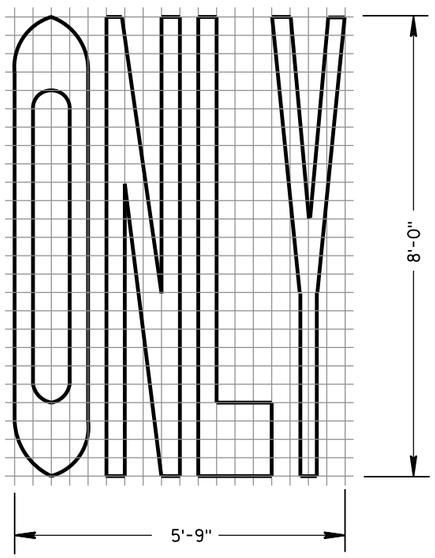


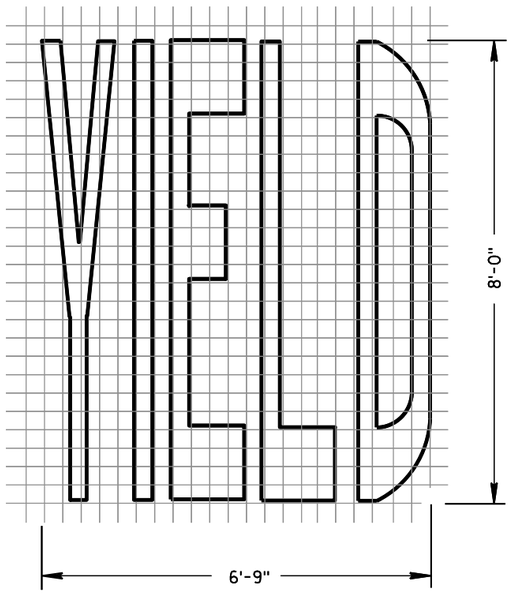


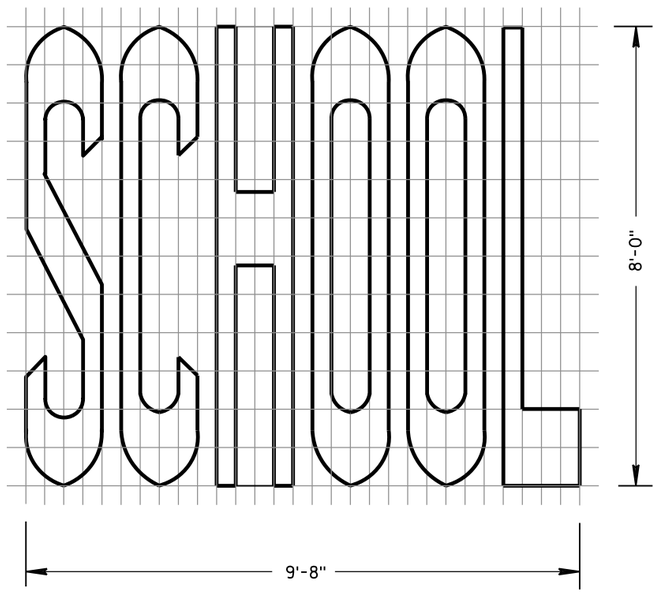


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

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S.D.D. 15 C 7-13b

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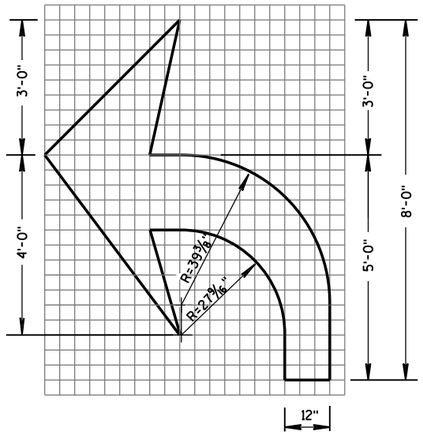
S.D.D. 15 C 7-13b

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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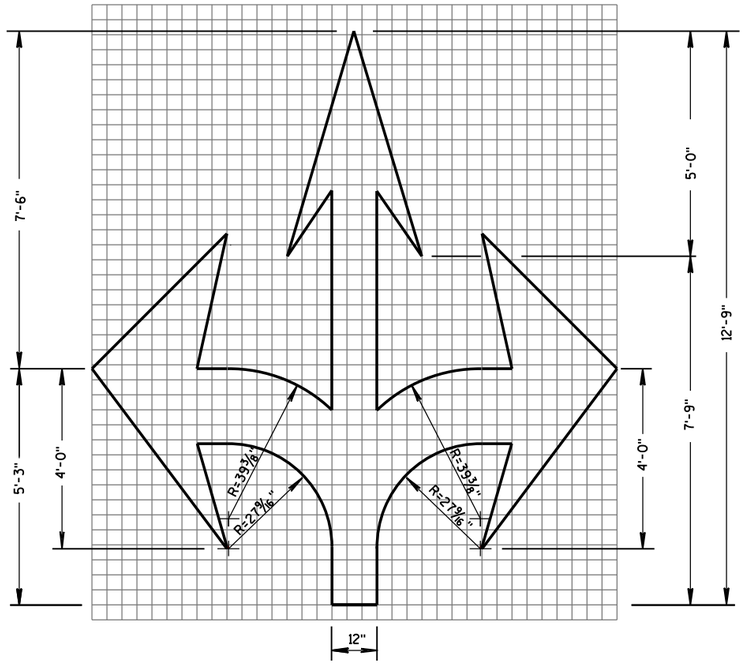
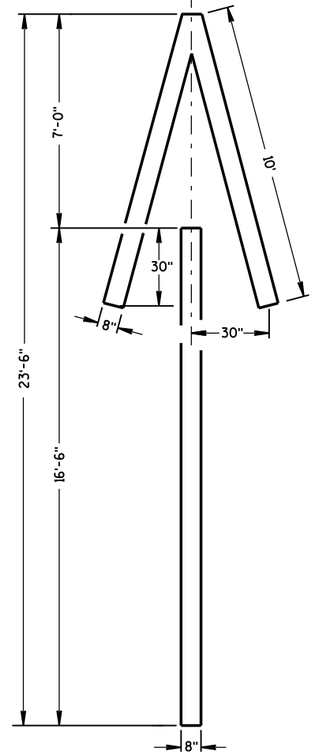


TYPE 6



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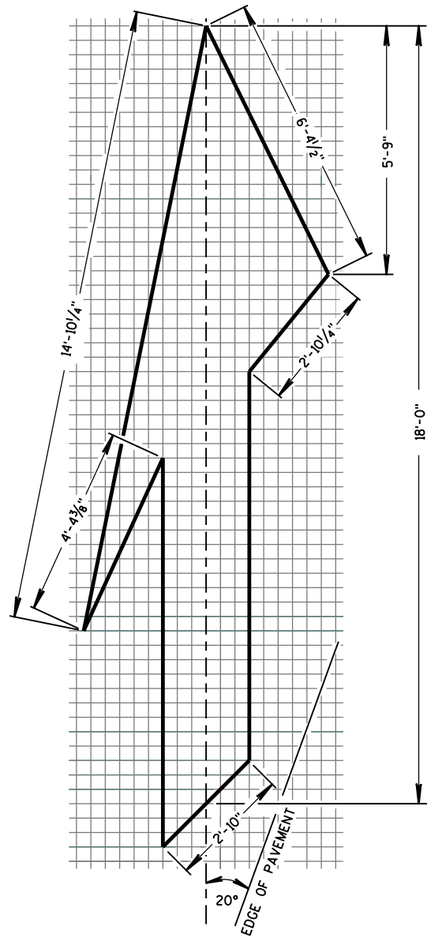
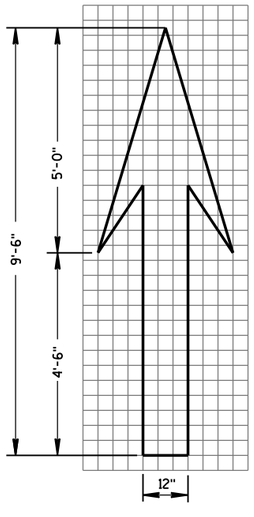
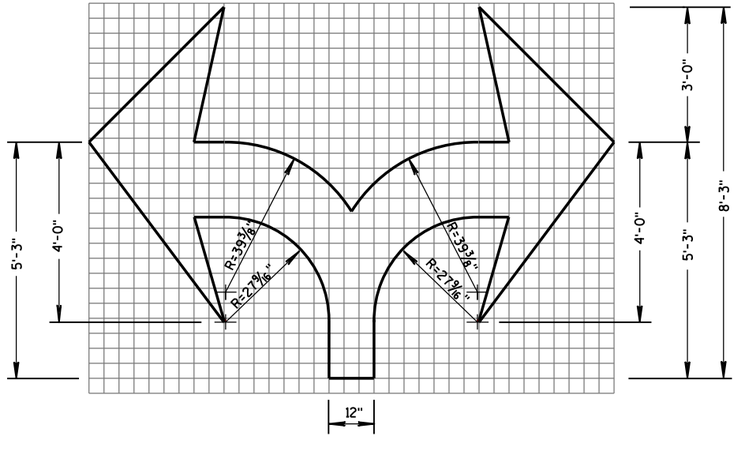


TYPE 5 LANE DROP ARROW



TYPE 1



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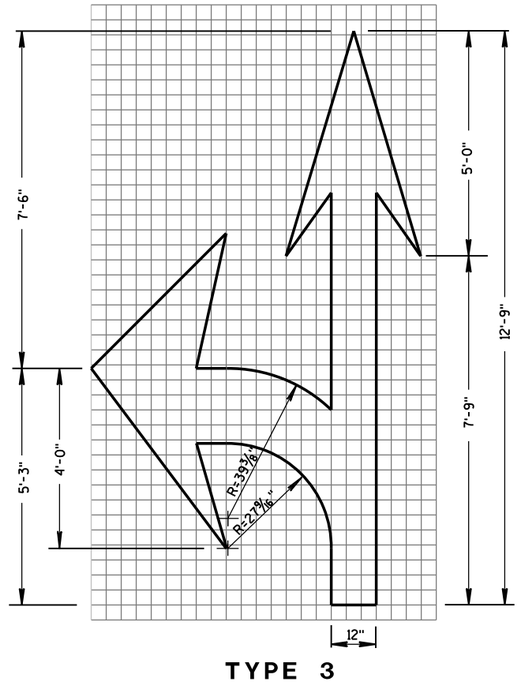

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR 198 NEER
FHWA

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S.D.D. 15 C 7-13c

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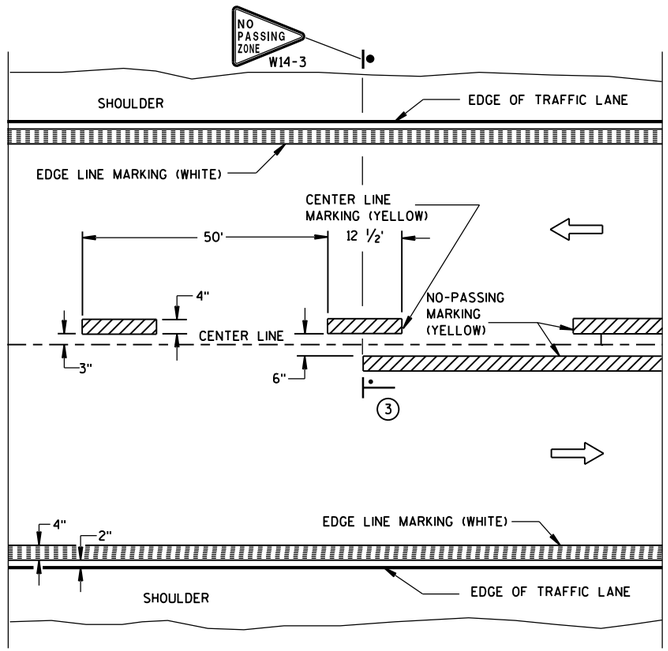
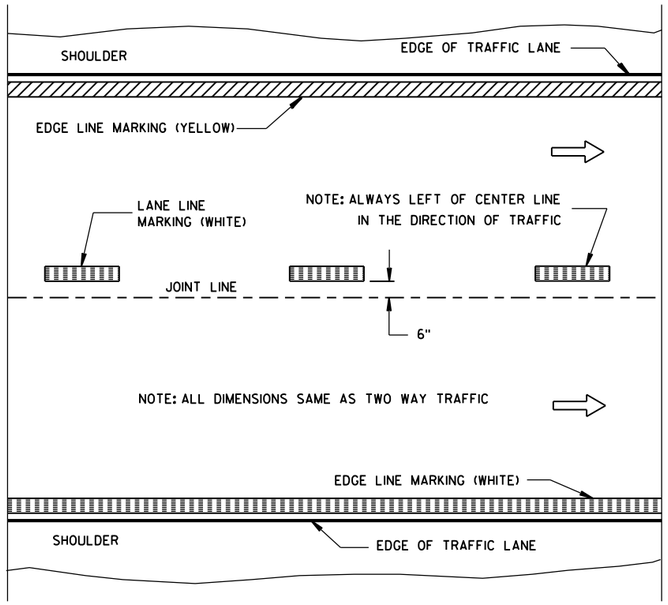
S.D.D. 15 C 7-13c

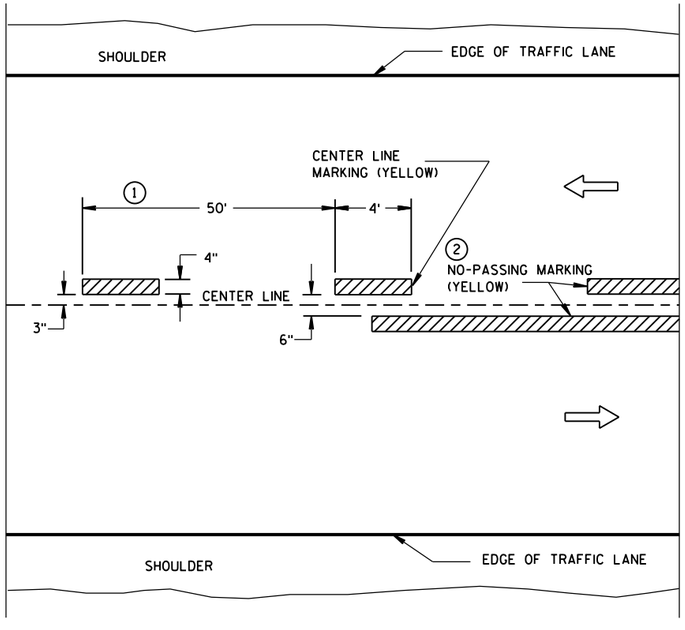


TWO WAY TRAFFIC

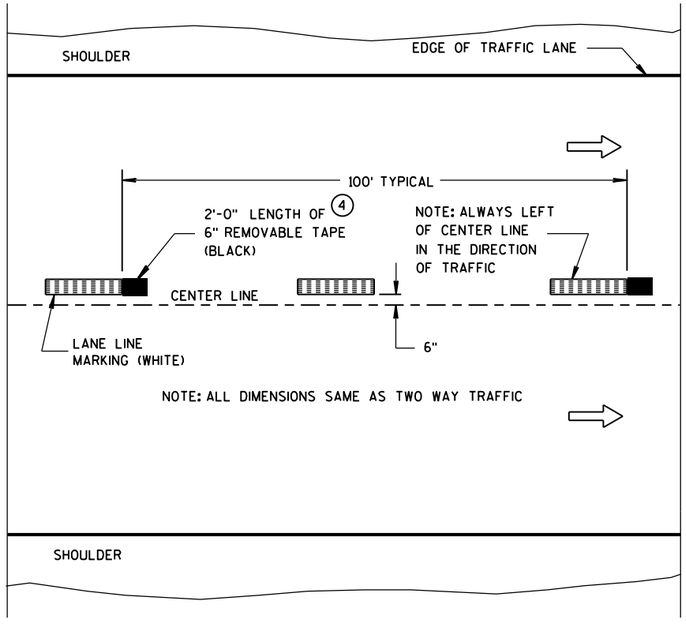


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

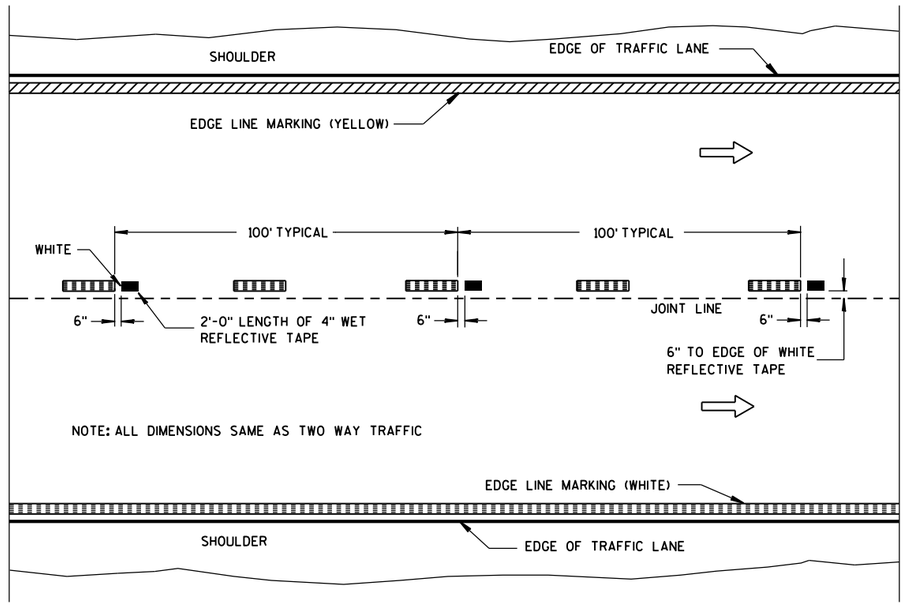
GENERAL NOTES

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

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

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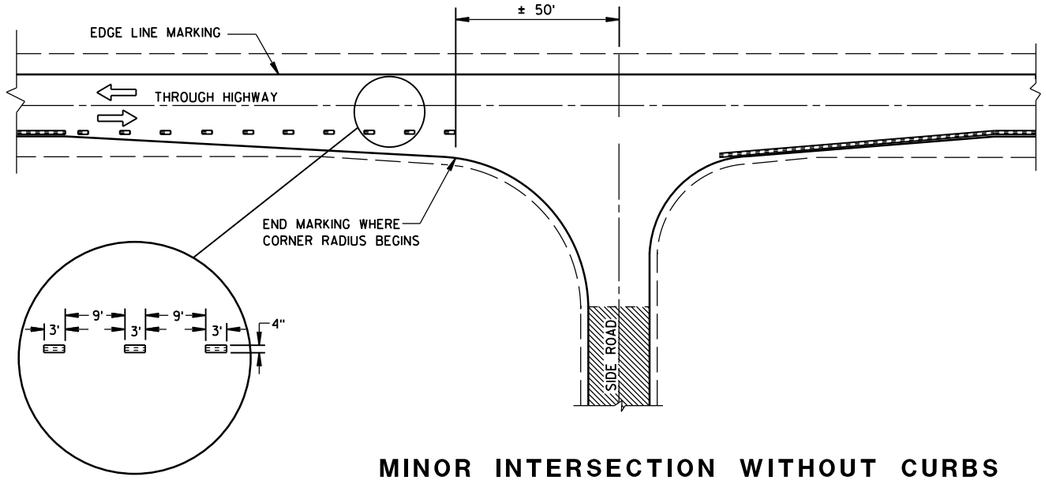
S.D.D. 15 C 8-16a



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.

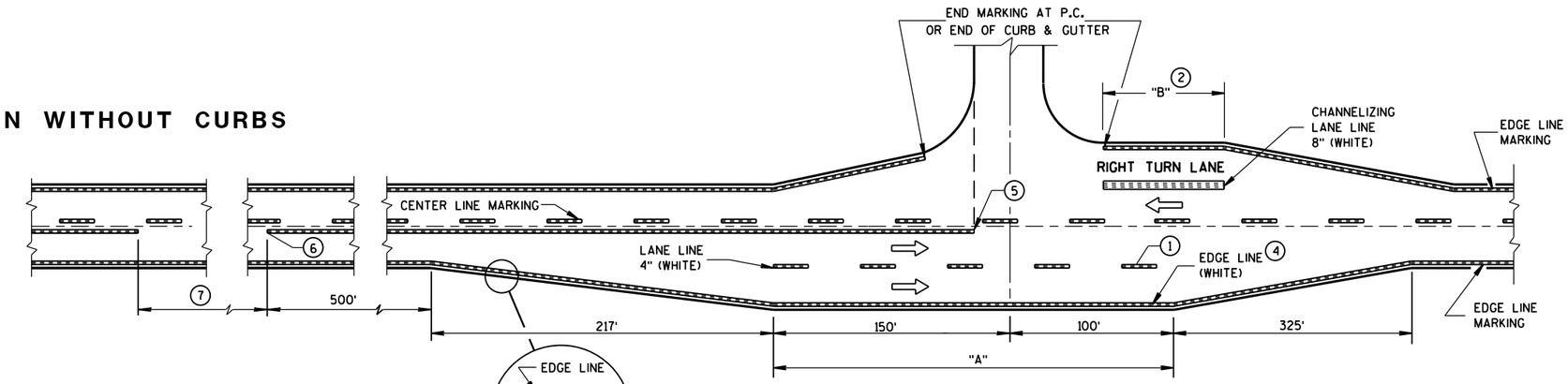
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

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

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

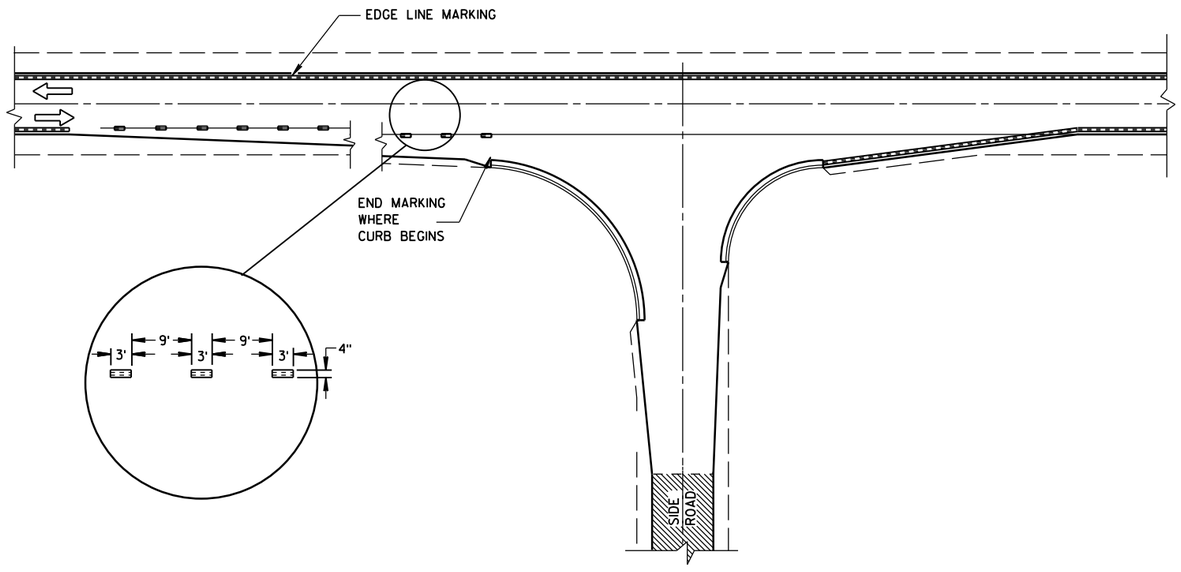
(7)

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



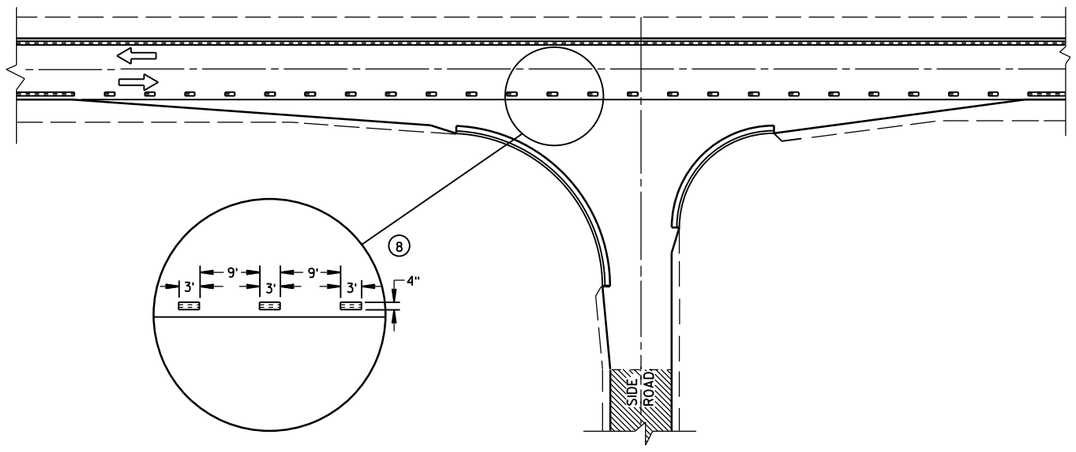
MAJOR INTERSECTIONS

(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 200

6

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

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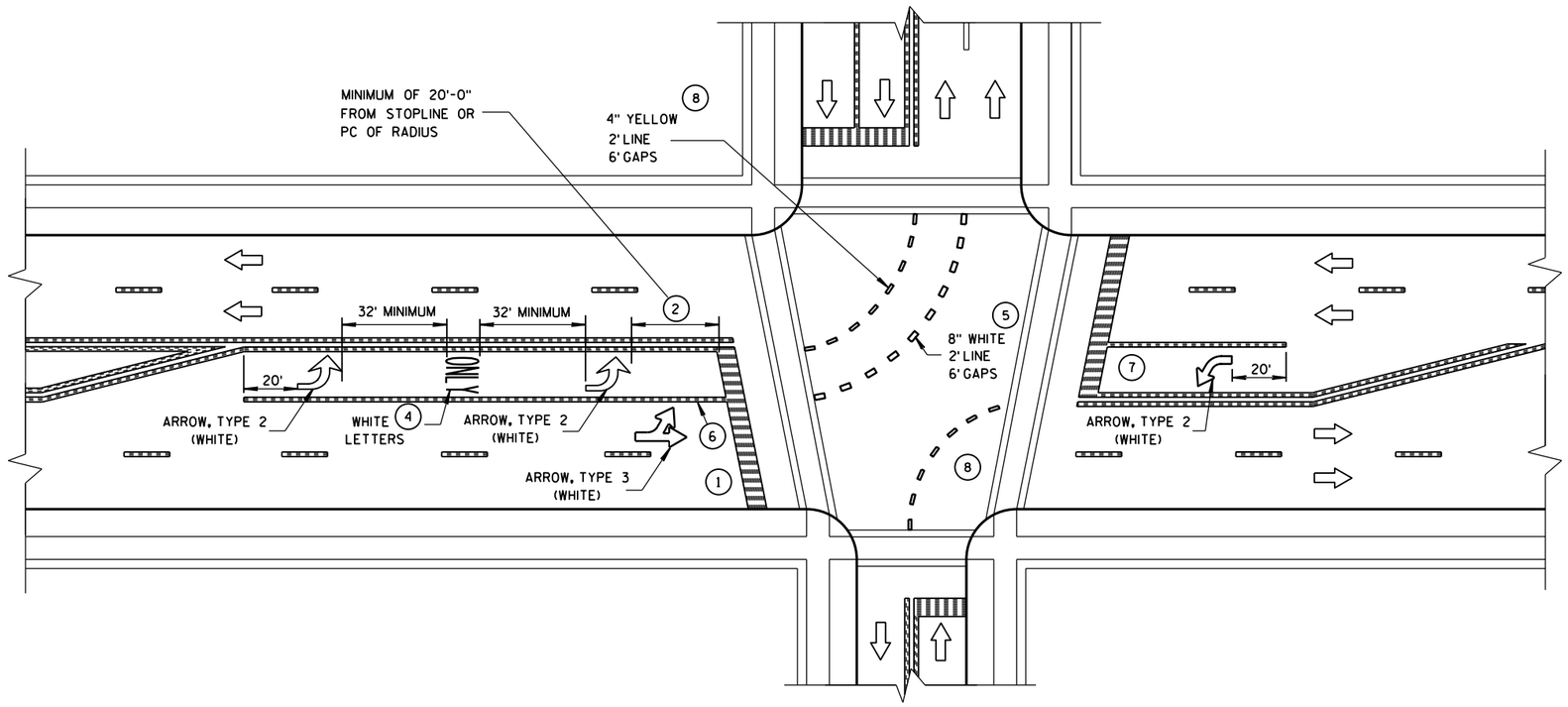
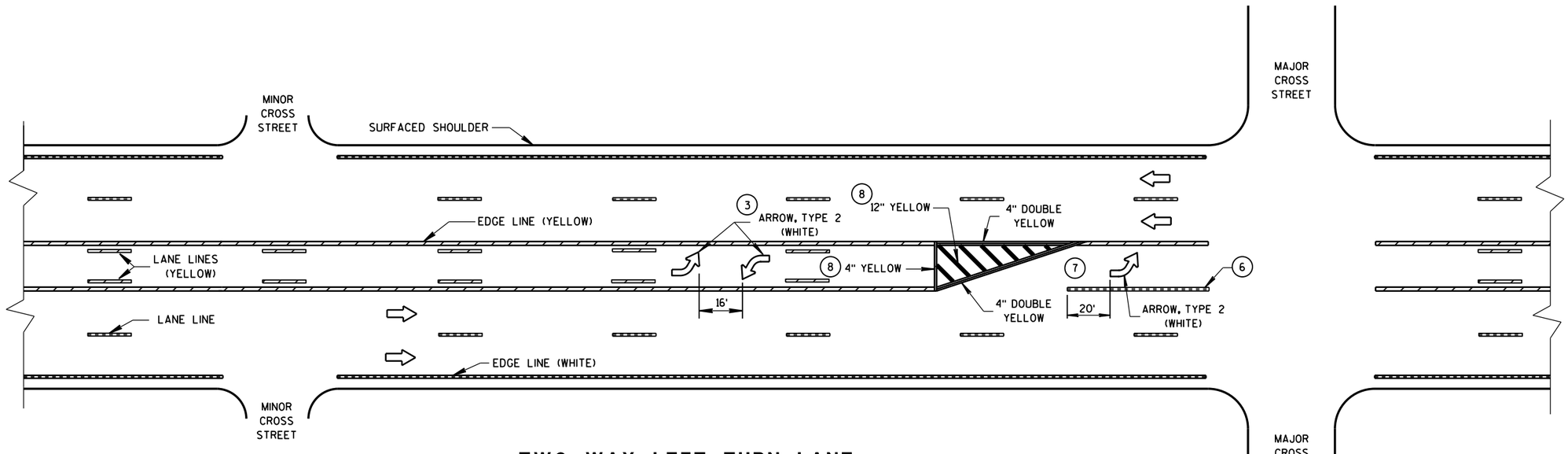
S.D.D. 15 C 8-16b



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



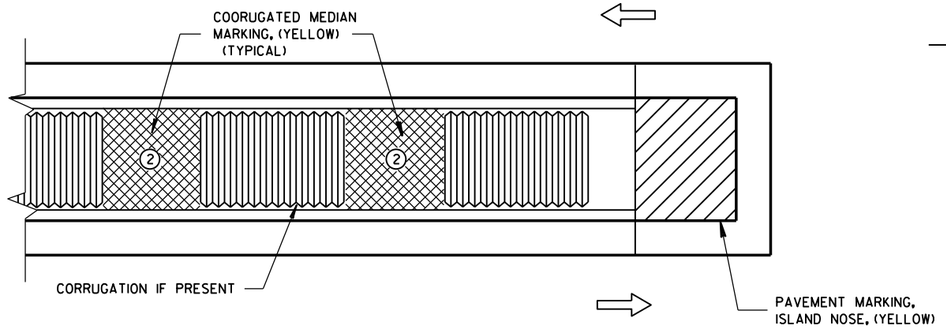
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

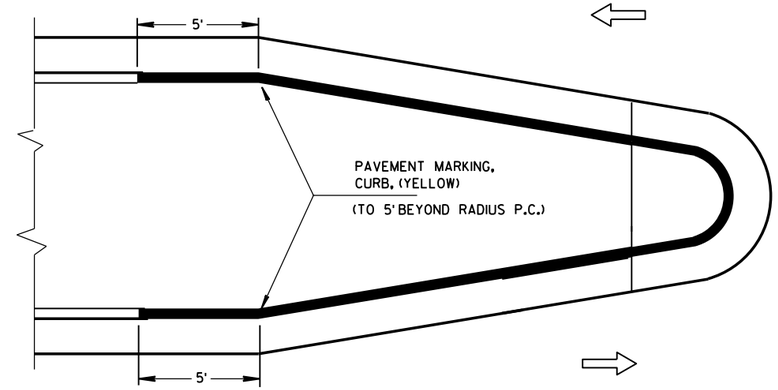
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

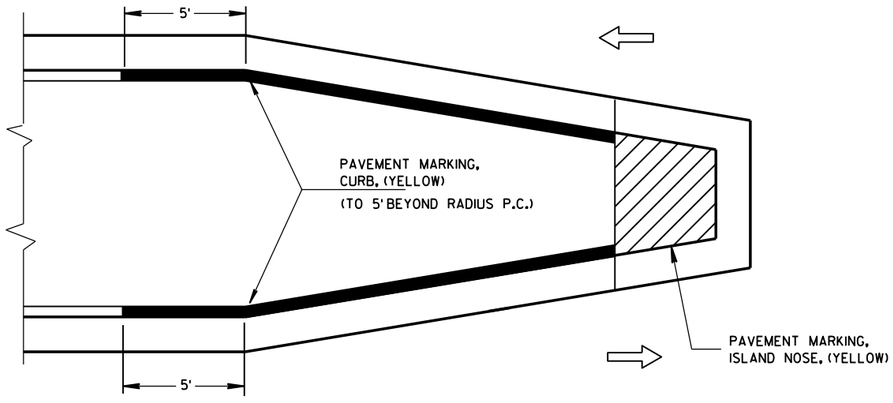
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

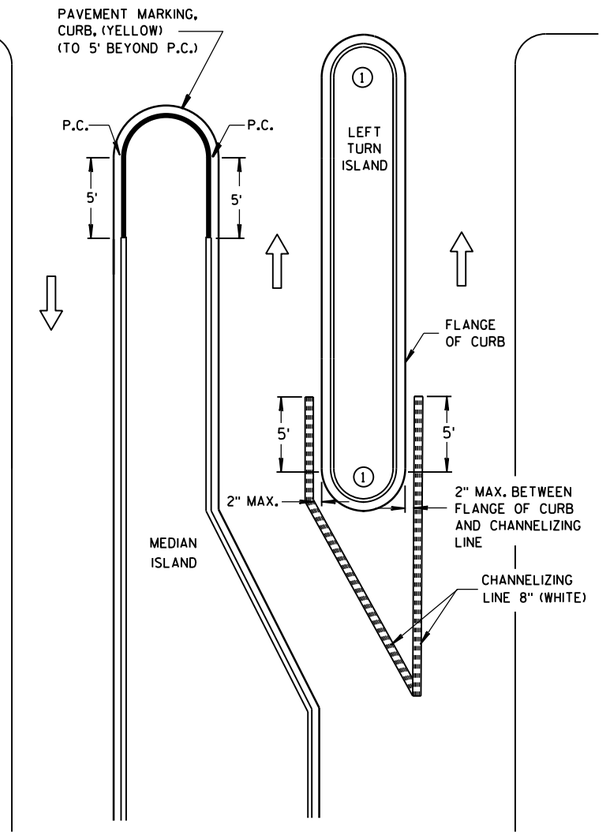


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

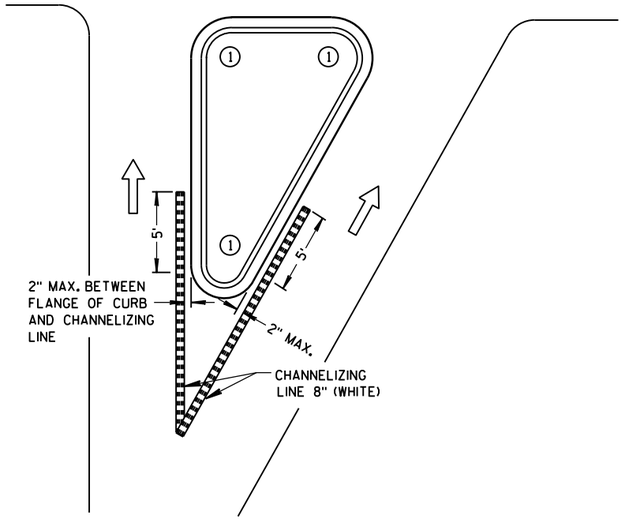


LEFT TURN & MEDIAN ISLAND

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

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

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

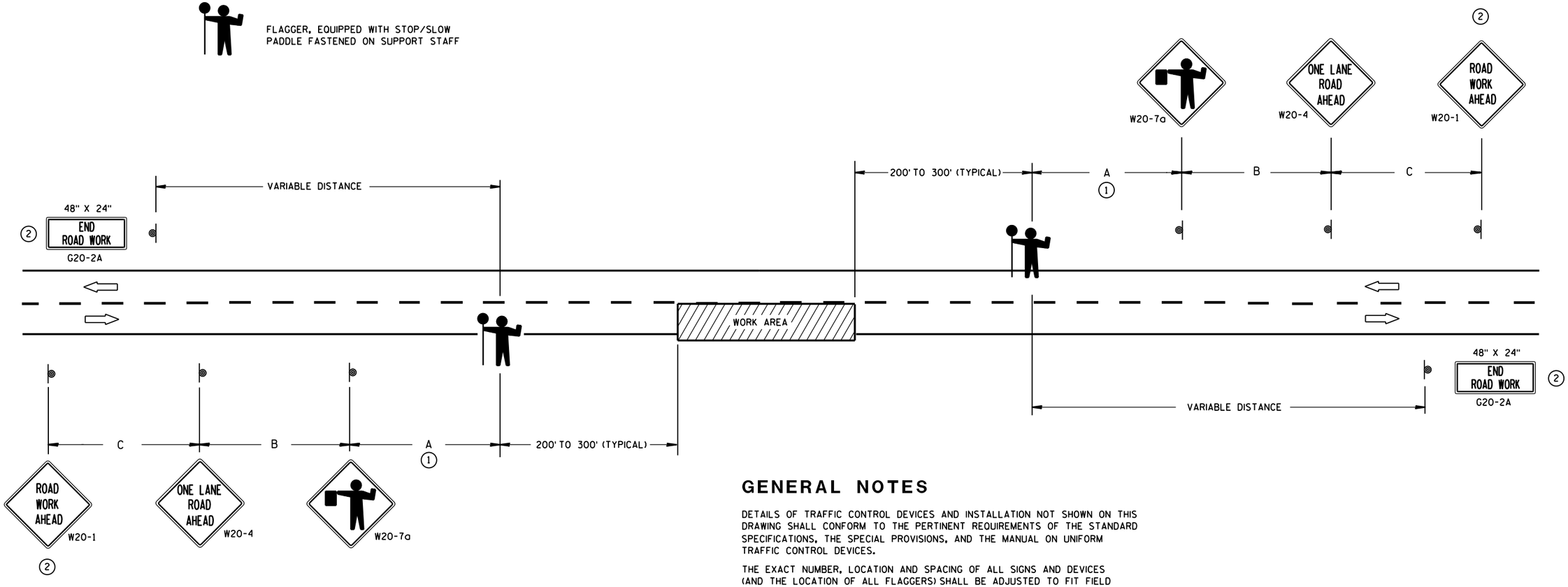
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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
FHWA

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S.D.D. 15 C 12-4

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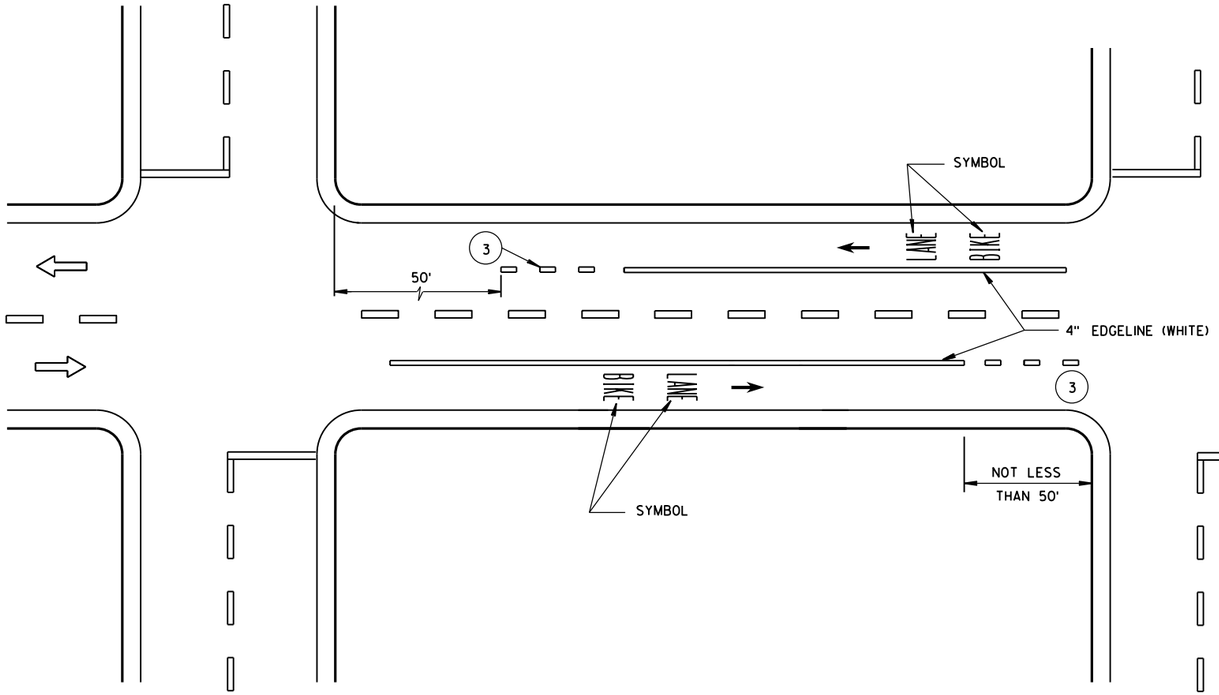
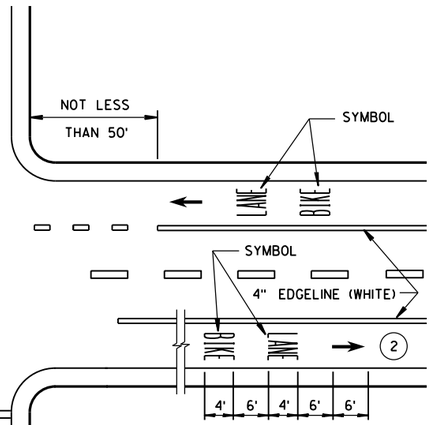
S.D.D. 15 C 12-4



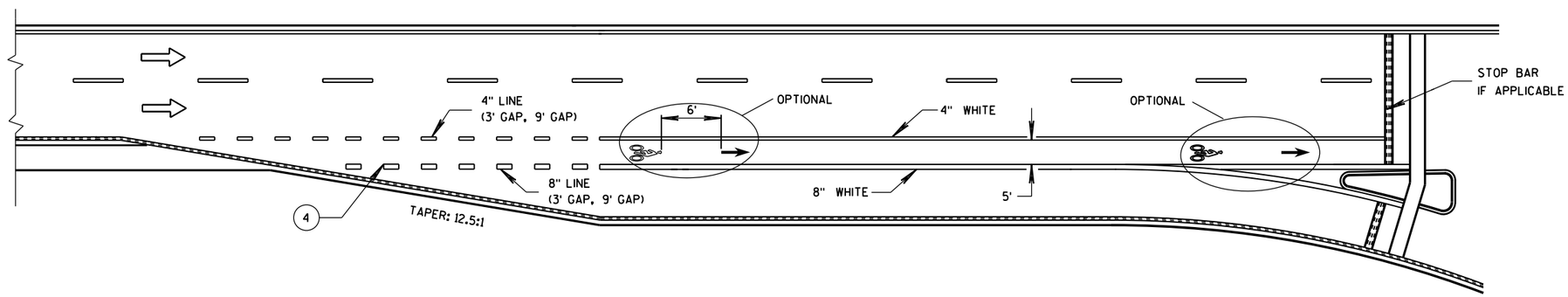


GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3'LINE, 9'GAP) SHOULD BE USED 50 FEET TO 200 FEET 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. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.

DIRECTION OF TRAVEL

DESIGNATED BICYCLE LANE
NO PARKING



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-2016 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR NEER
FHWA

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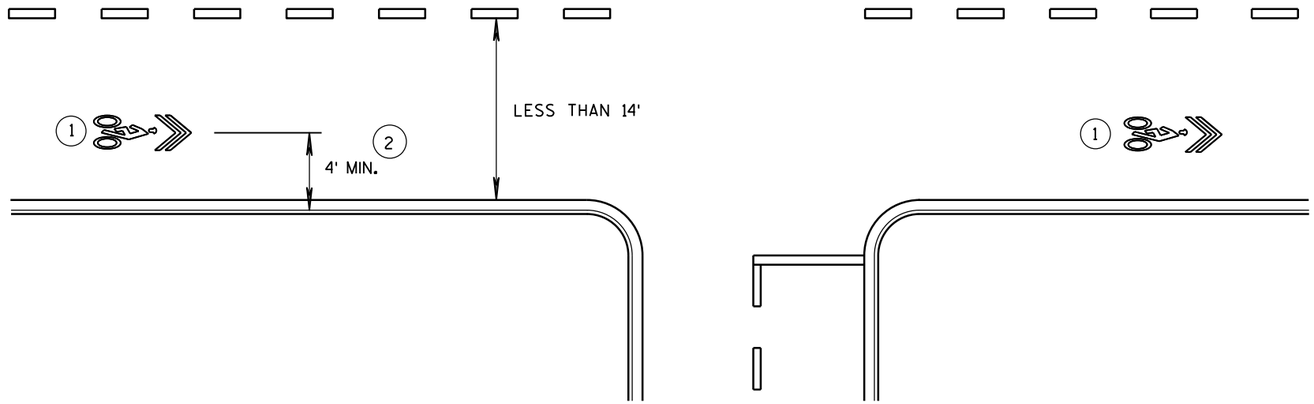
S.D.D. 15 C 29-4a

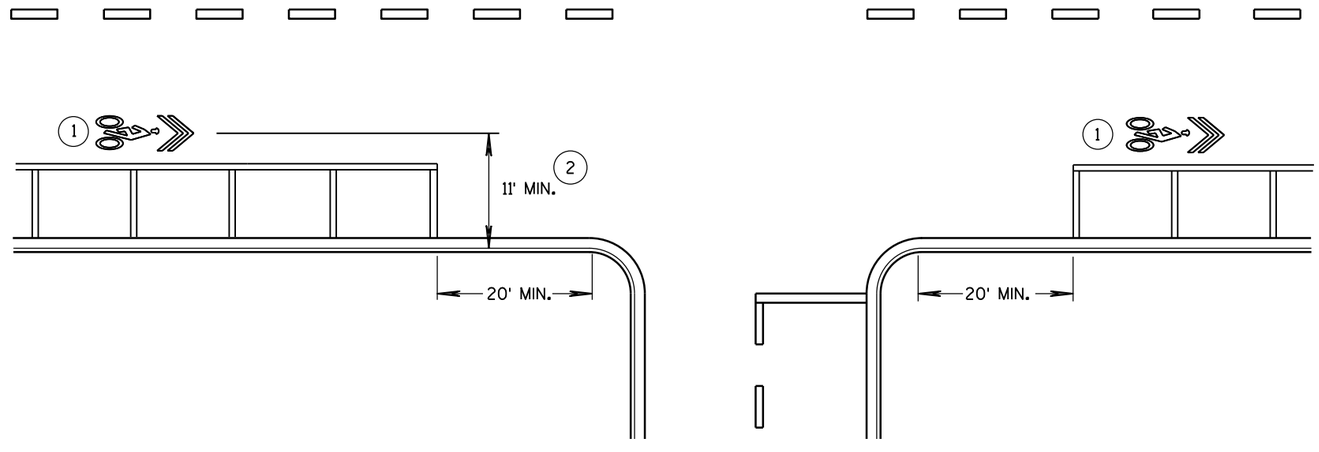
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) 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
4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

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S.D.D. 15 C 29-4b

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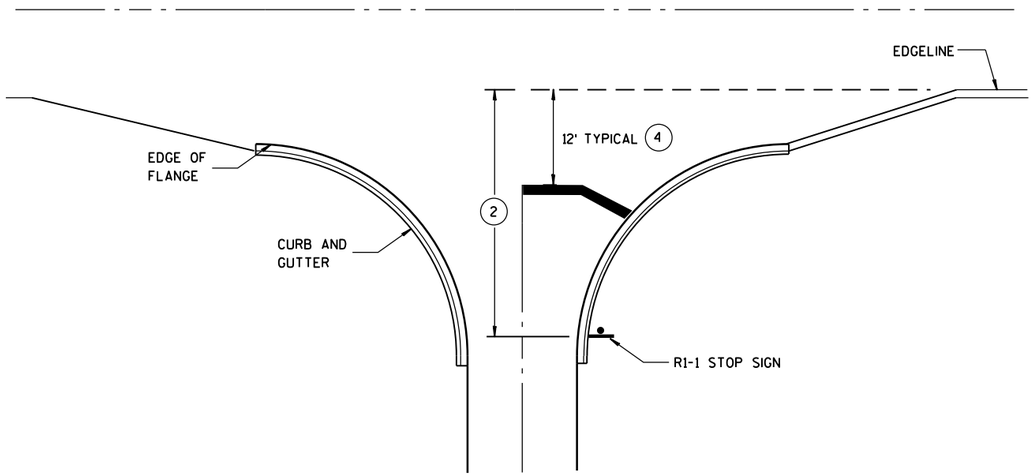
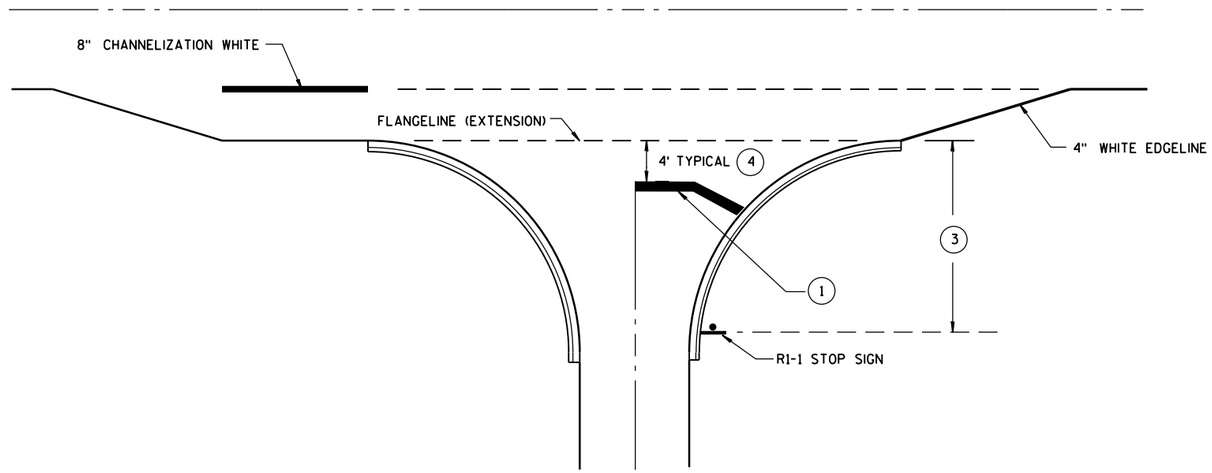
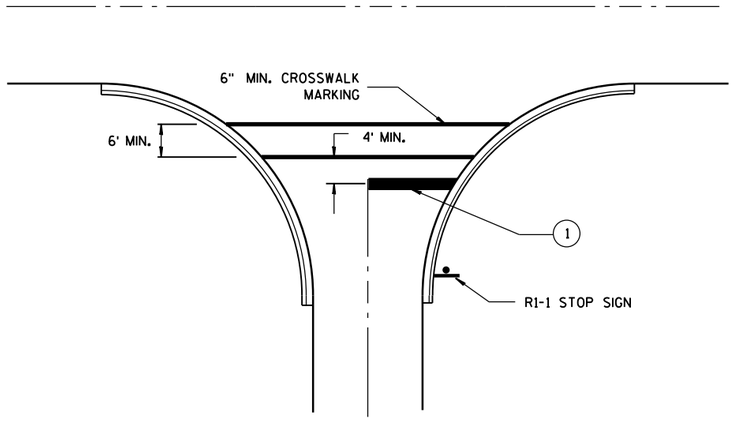
S.D.D. 15 C 29-4b



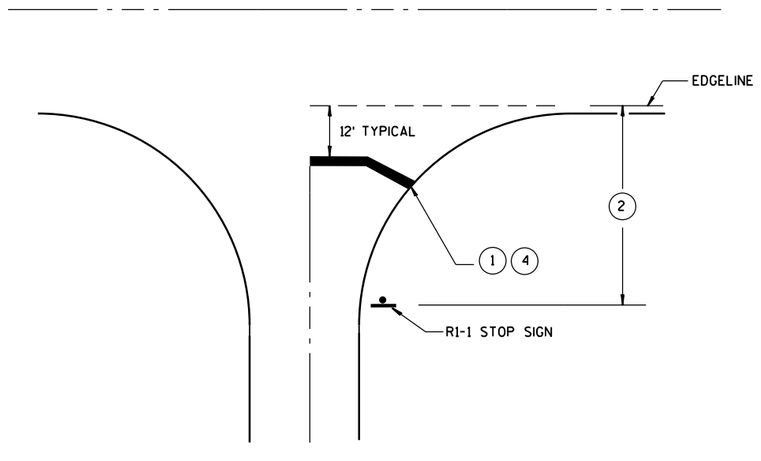
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR 206 NEER

FHWA

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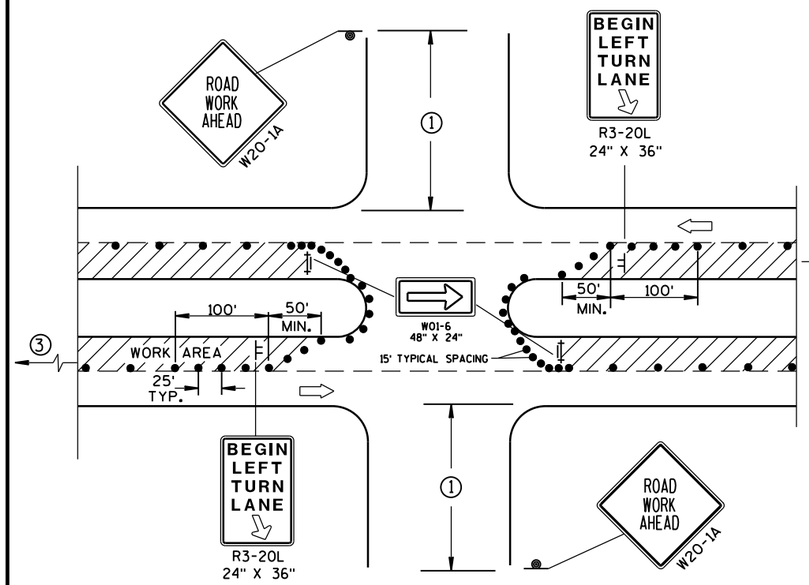
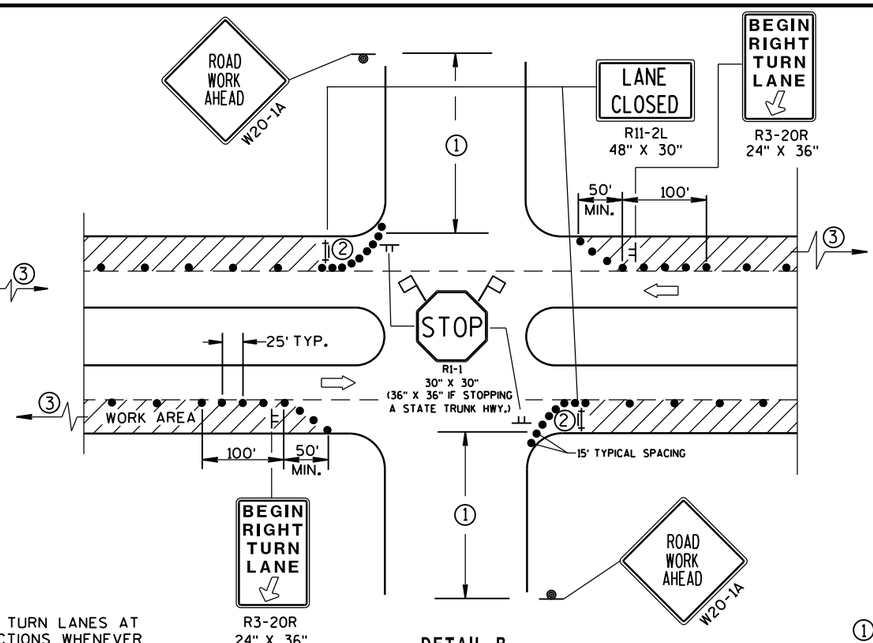
S.D.D. 15 C 33-2



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.

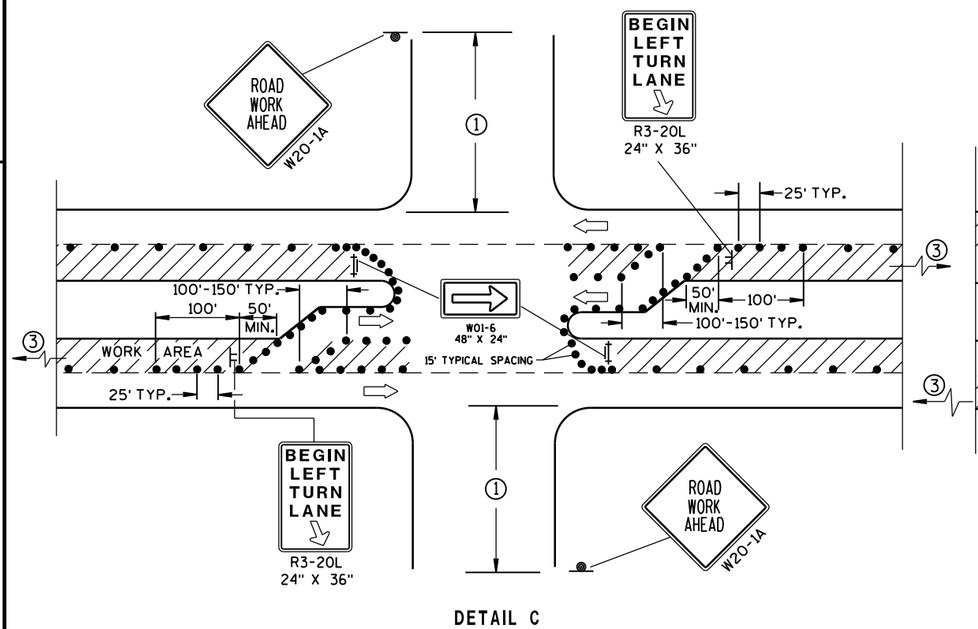
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

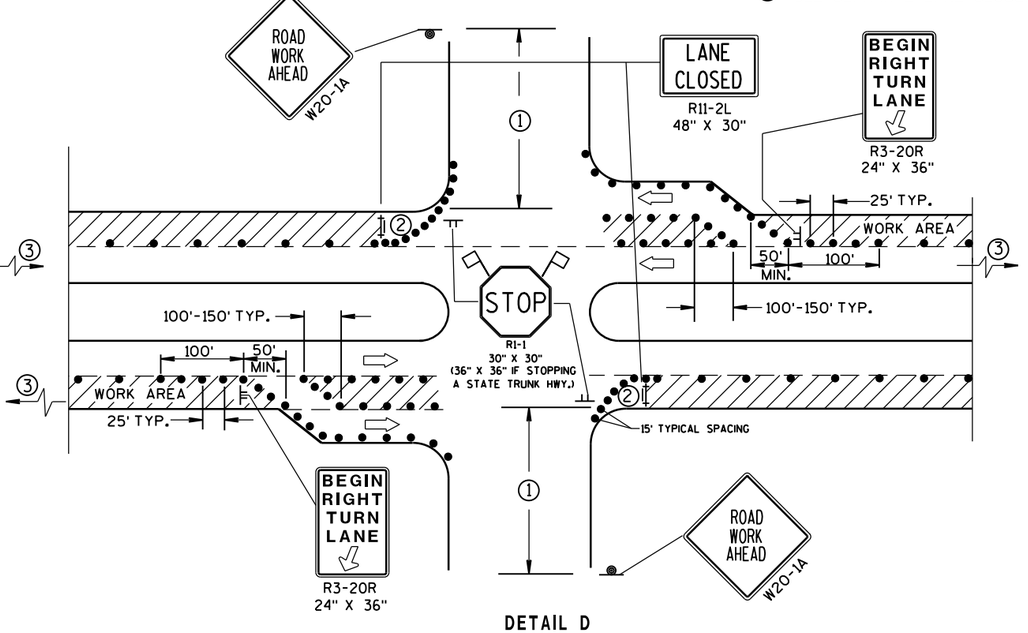
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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
June 2016 — DATE
/S/ Peter Anakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 21-4

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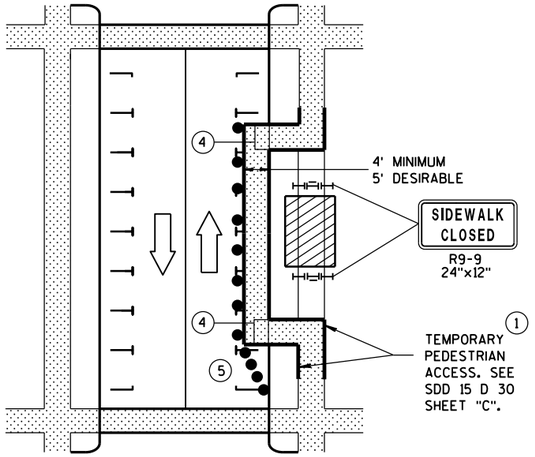
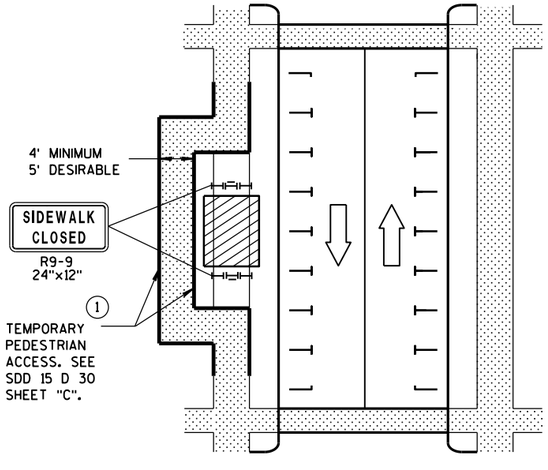
S.D.D. 15 D 21-4

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

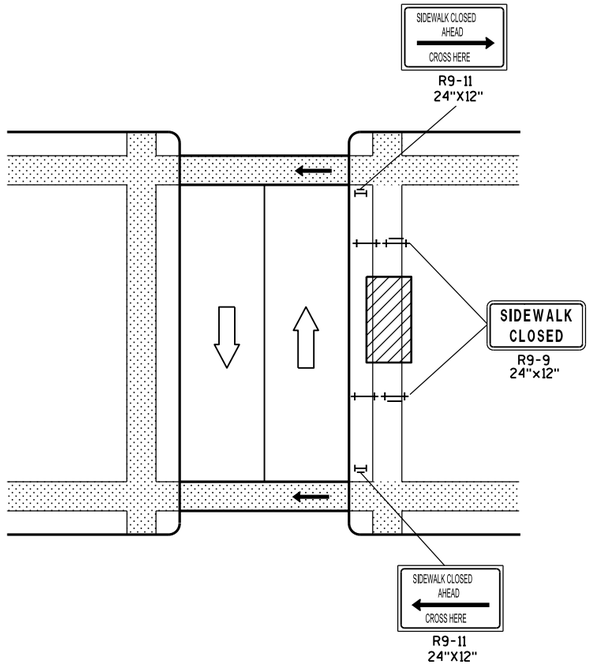


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

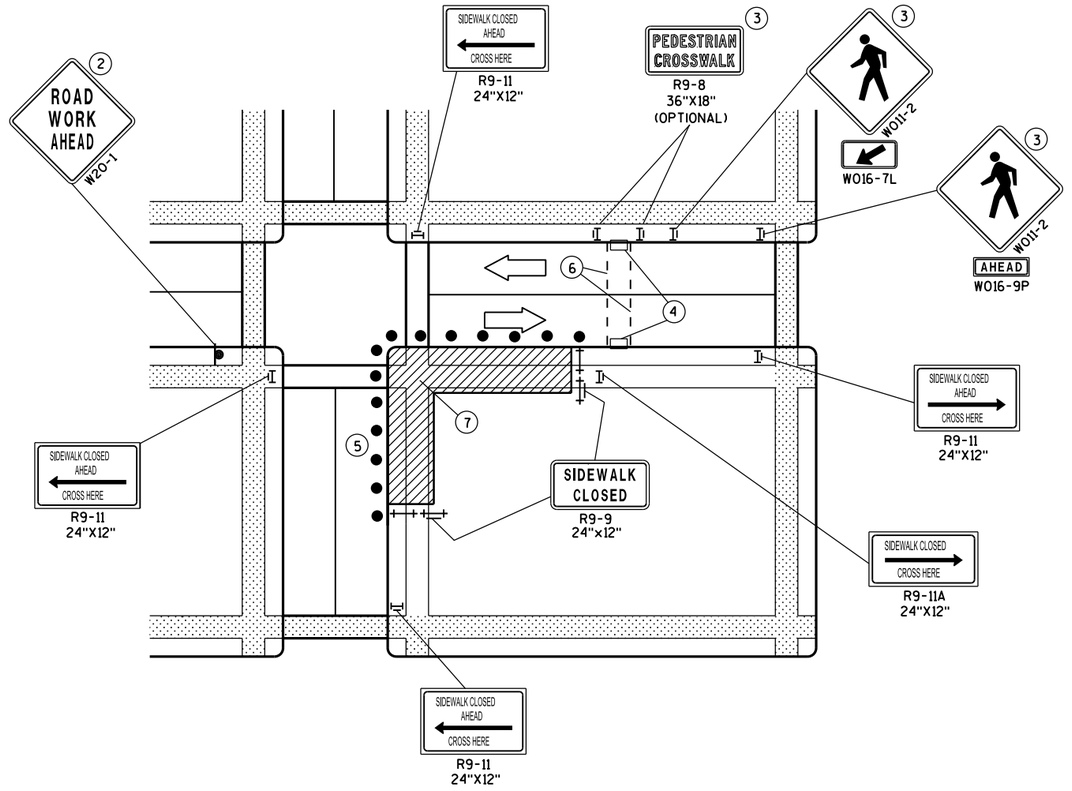
NOTE: LAYOUT SAME AS ABOVE.



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

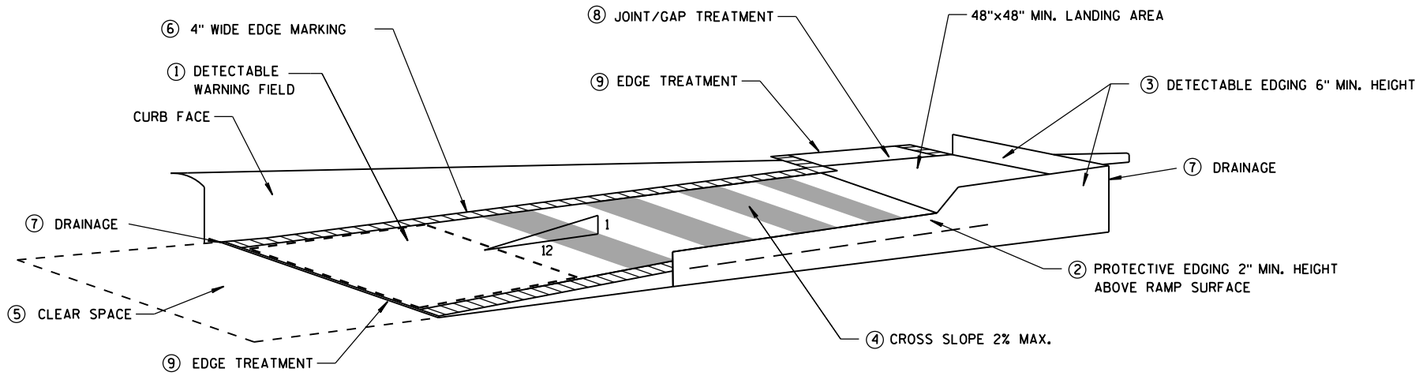
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-3a



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.

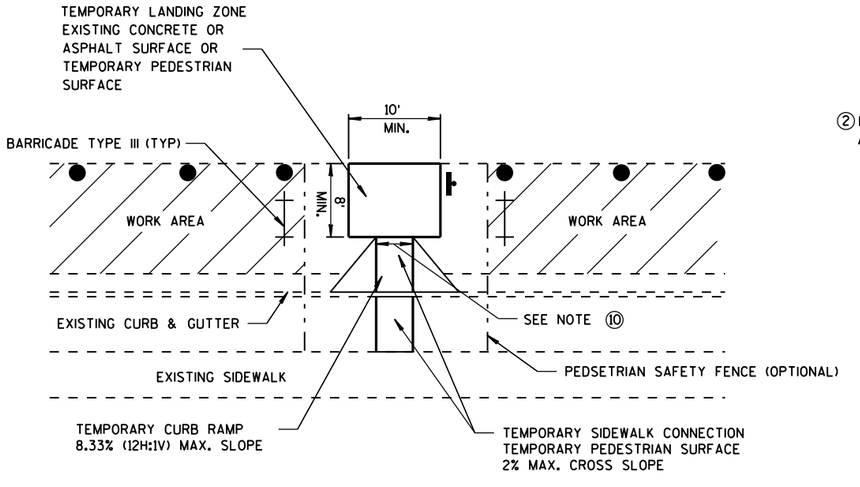
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

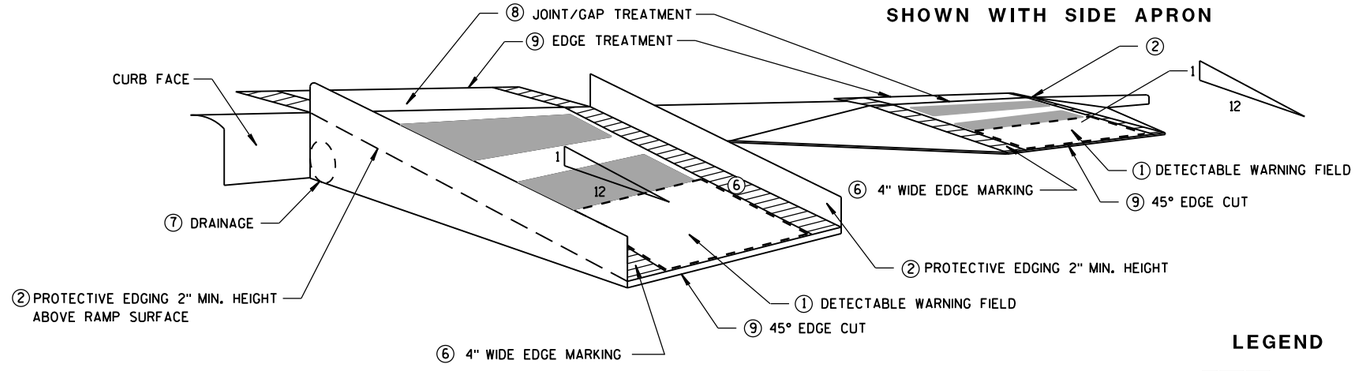
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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

June 2016 — DATE

/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

6

S.D.D. 15 D 30-3b

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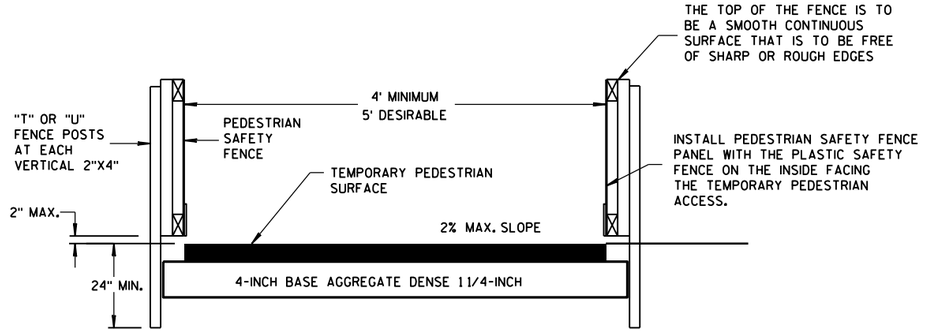
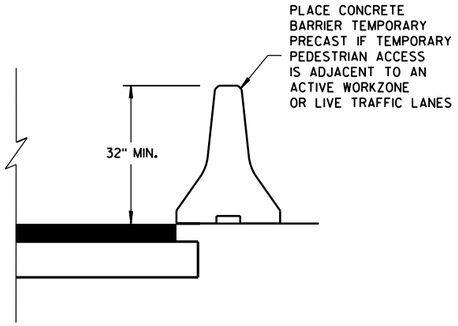
S.D.D. 15 D 30-3b

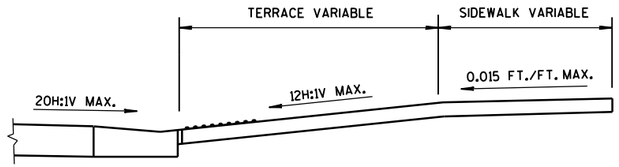




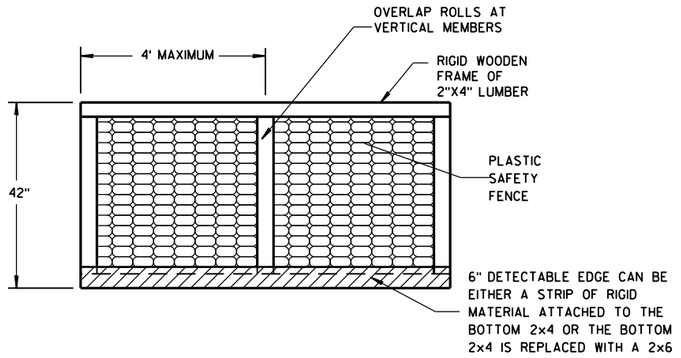
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

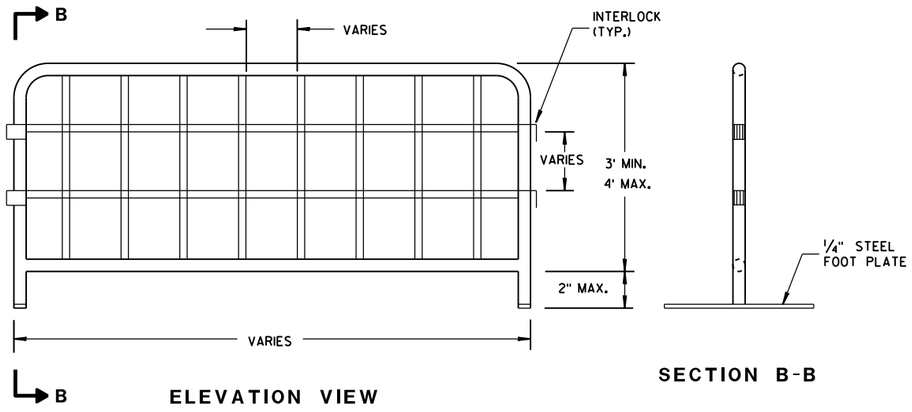
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



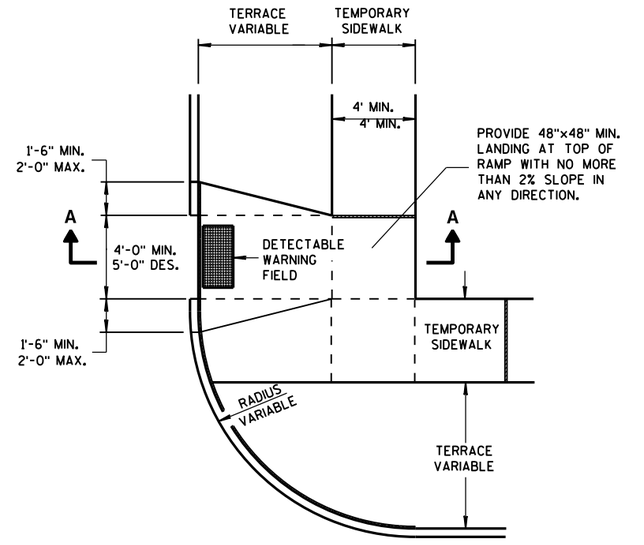
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

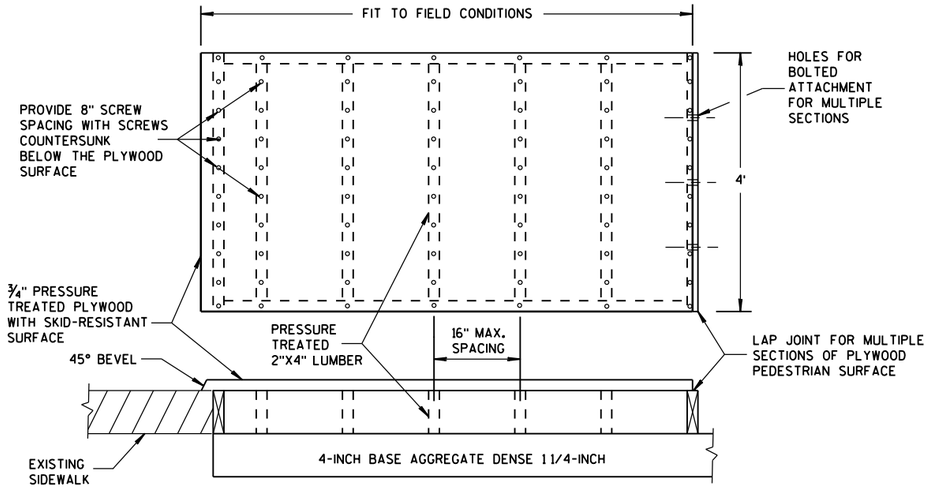
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



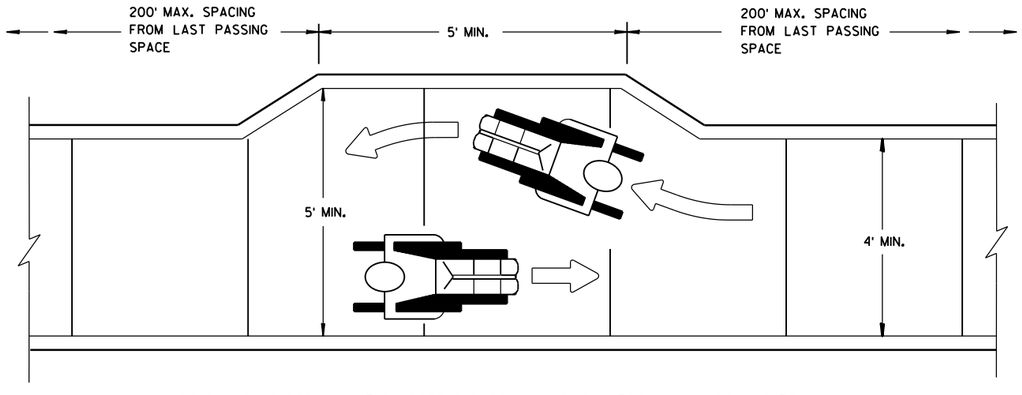
PLAN VIEW

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
June 2016
DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZON SAFETY ENGIN IC
FHWA

6

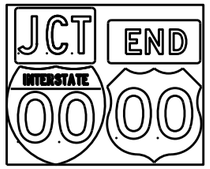
S.D.D. 15 D 30-3c

6

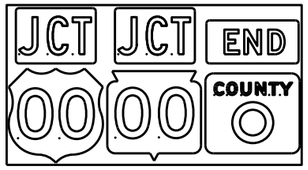
S.D.D. 15 D 30-3c

TYPICAL ASSEMBLIES

J1-1

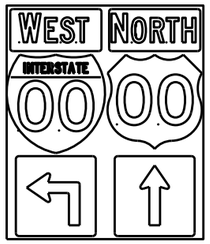


J1-2

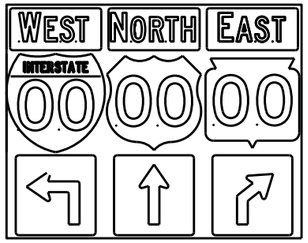


J1-3

J2-1



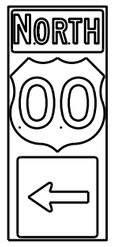
J2-2



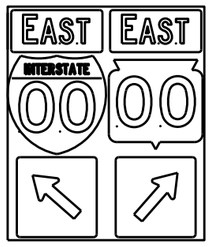
J2-3

JV

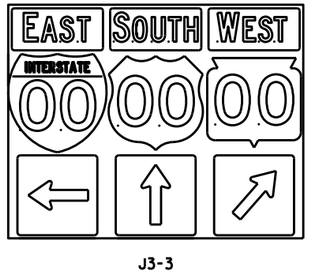
(Typical Vertical J-Assembly
See Note 10 and 11)



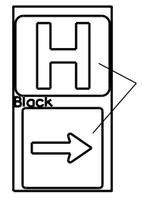
J3-1



J3-2

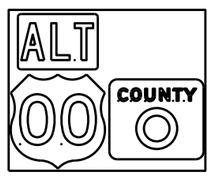


J3-3

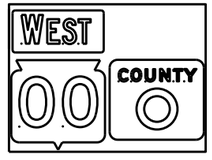


JH-1

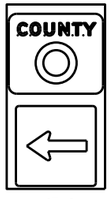
J4-1



J4-2



J4-2



J13-1

J12-1

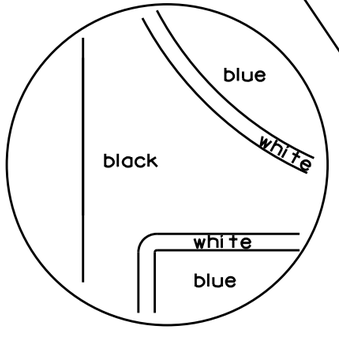
J32-1

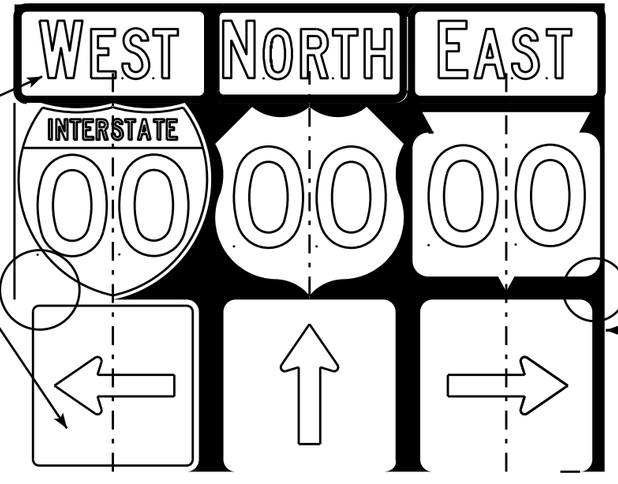
J33-1

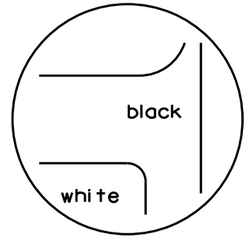
J23-1

J22-1

blue background
with interstate







black background

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

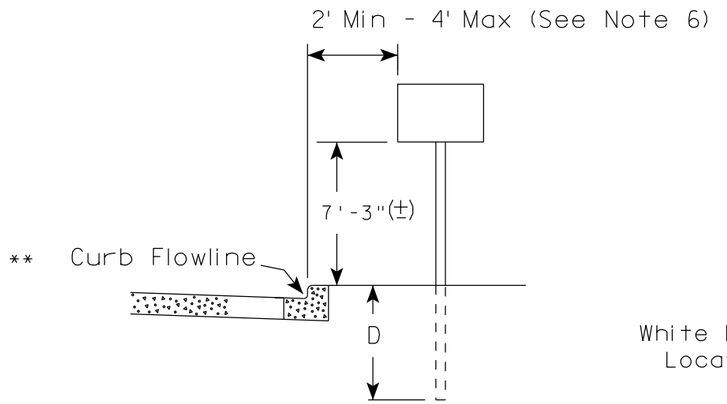
PROJECT NO:

SHEET NO: E

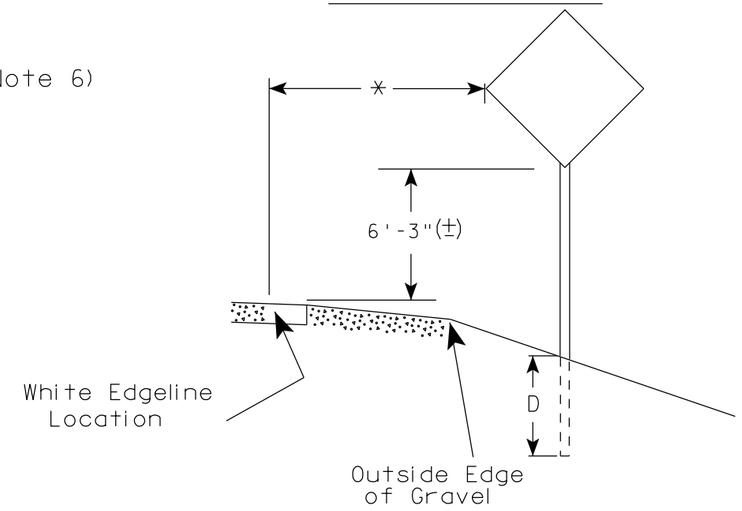
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

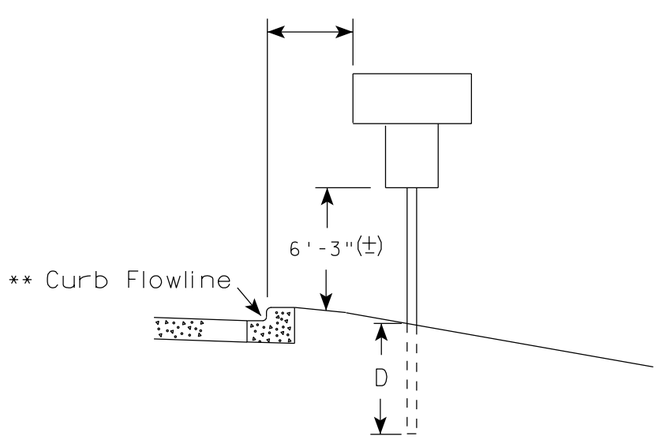
WISDOT/CADDS SHEET 42

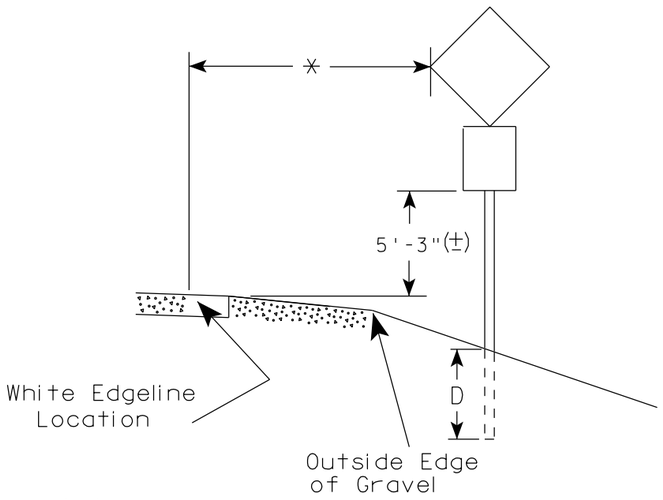
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

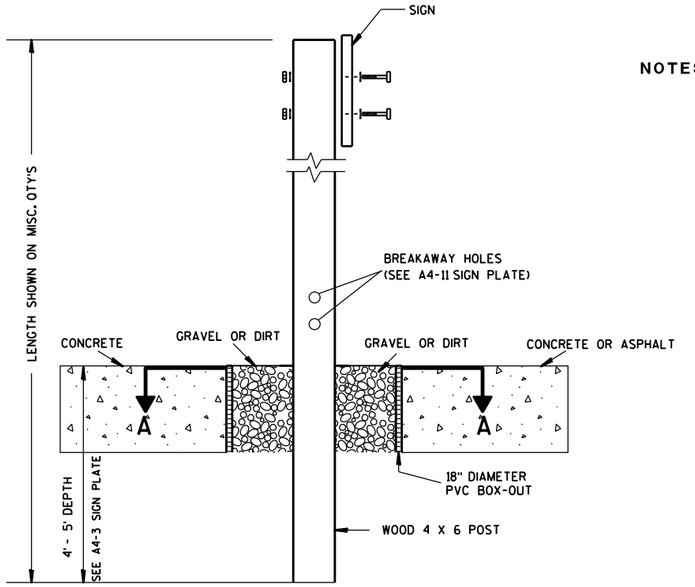
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

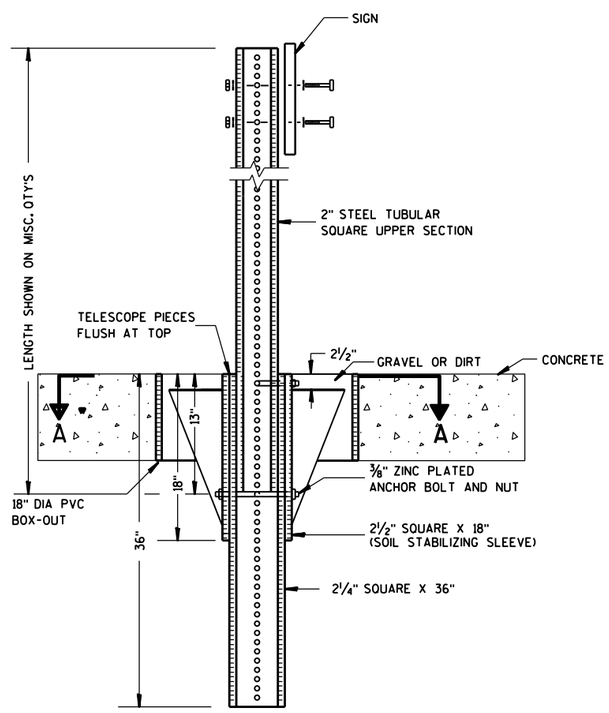
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

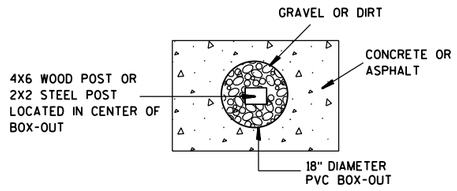
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

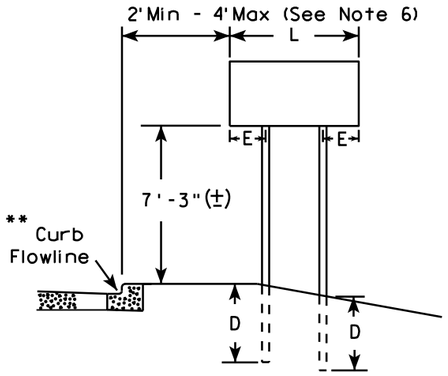
APPROVED Matthew R Rauch
for State Traffic Engineer

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

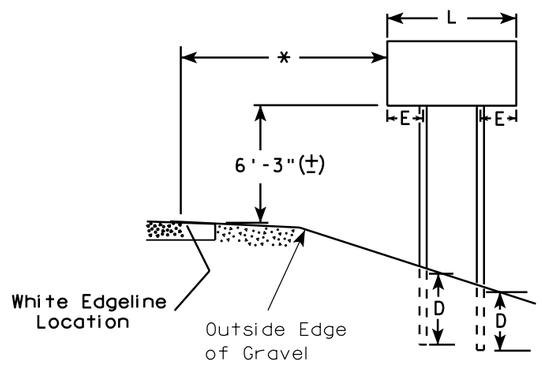
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

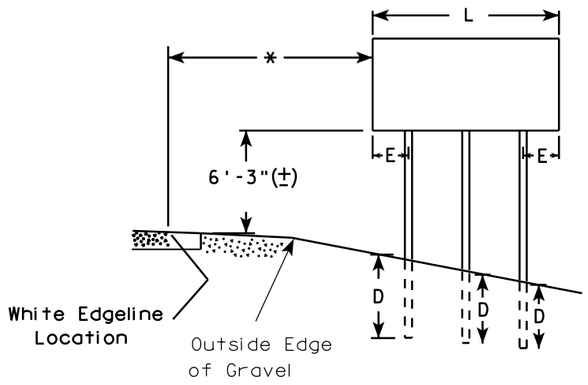
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

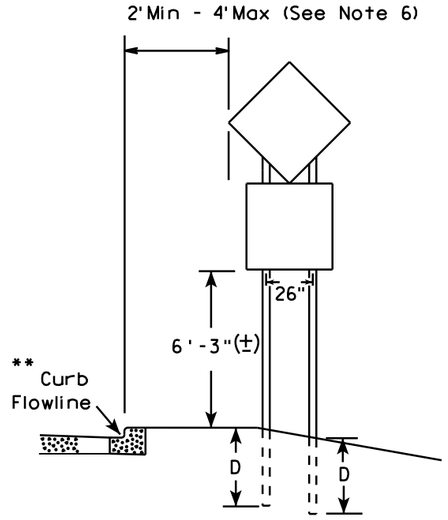
URBAN AREA



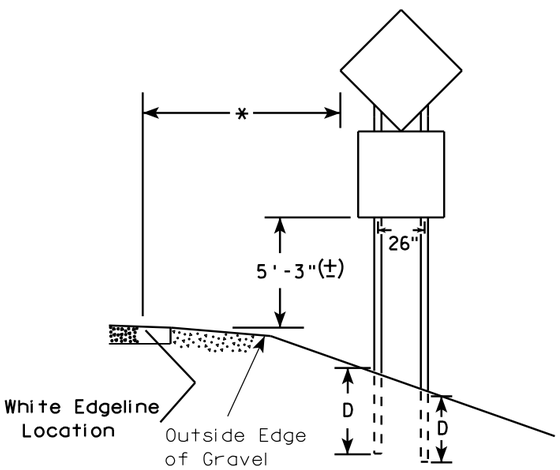
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

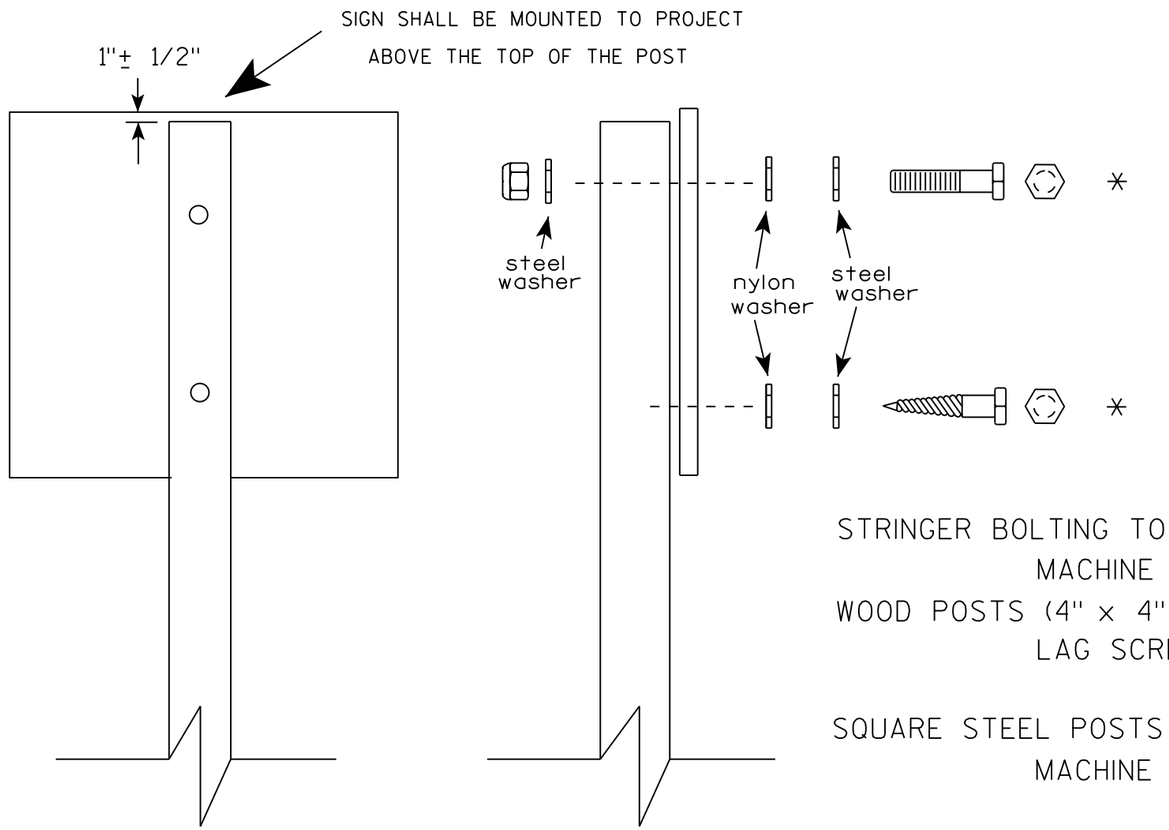
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 214 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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

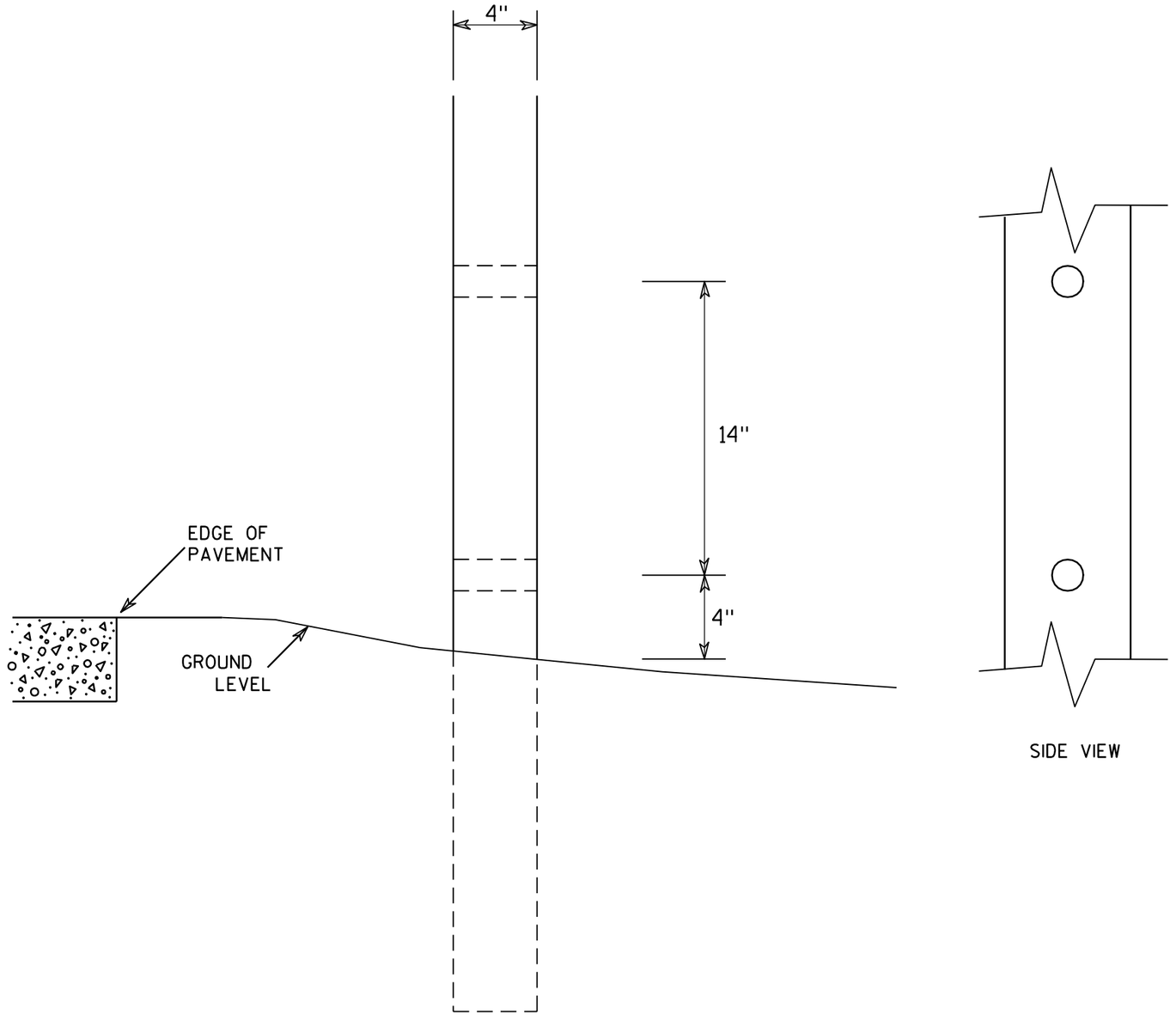
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



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

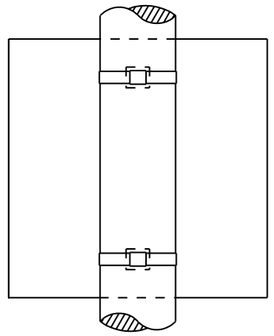
APPROVED Chester J Spang for State Traffic Engineer

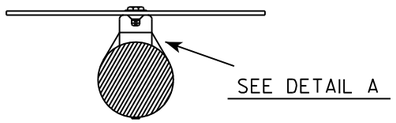
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 216	E

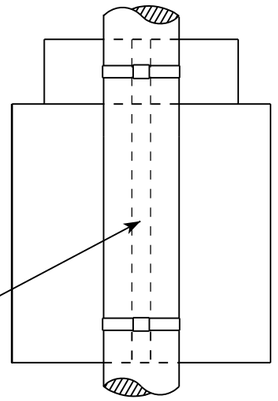
BANDING

SINGLE SIGN

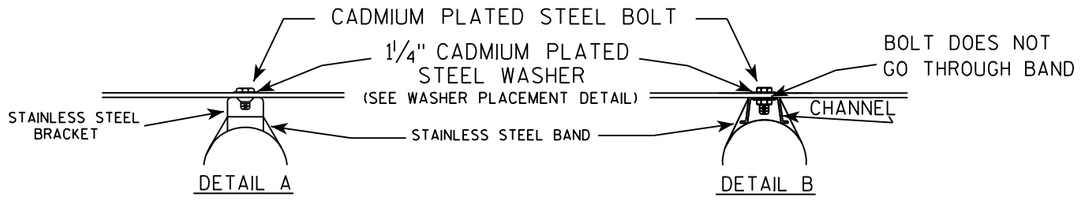




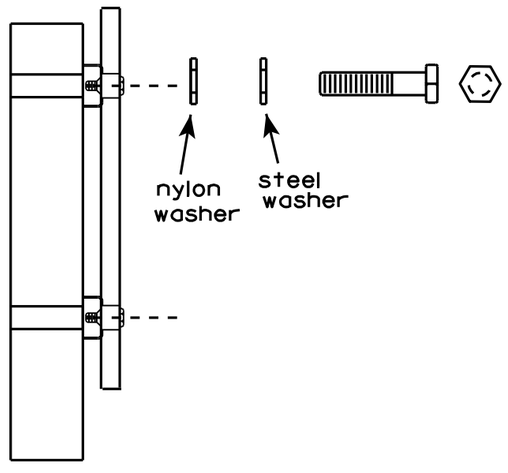
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL INSTALLATION SHEET



WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

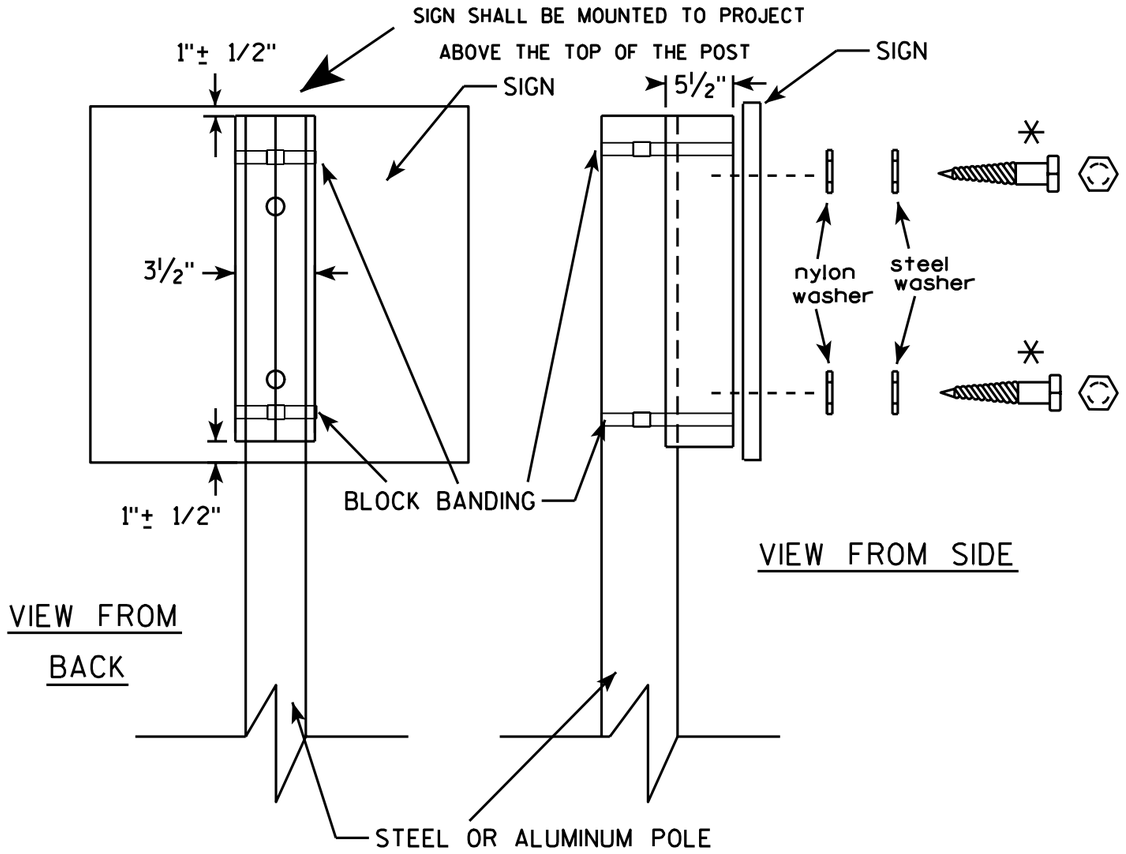
STANDARD SIGN
SIGN BANDING DETAILS

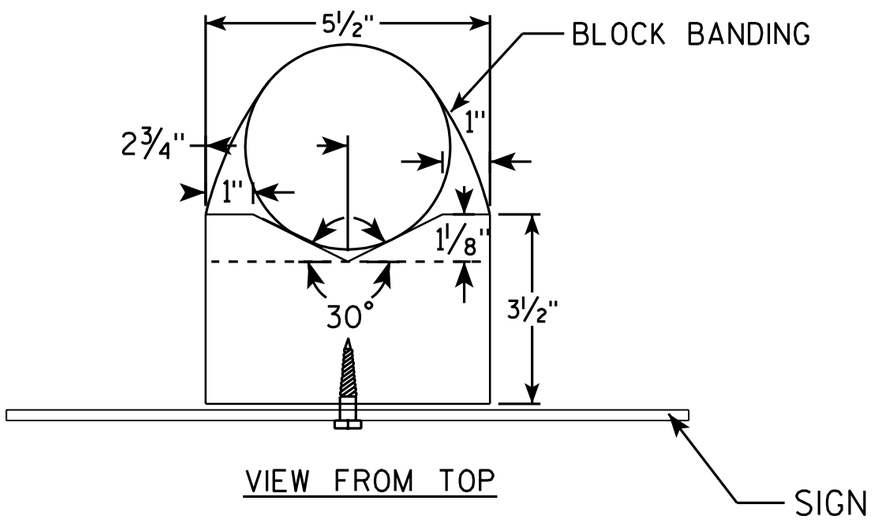
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	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)

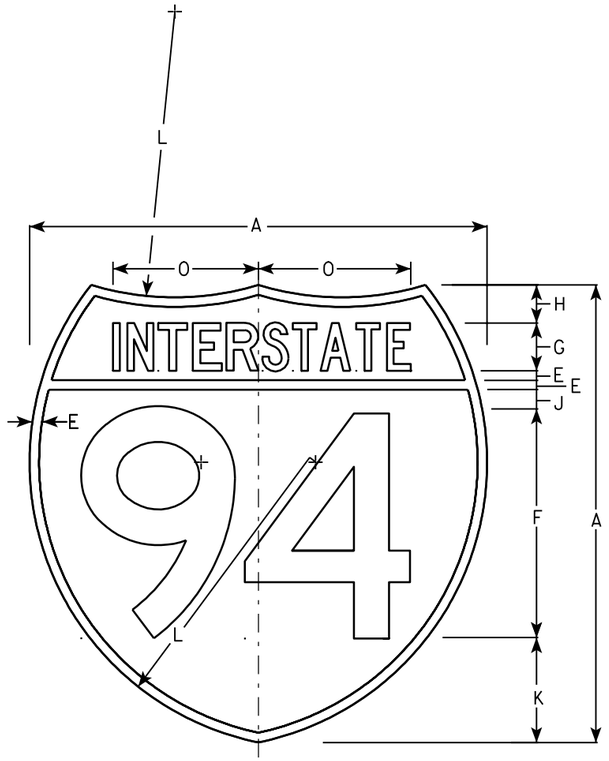
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

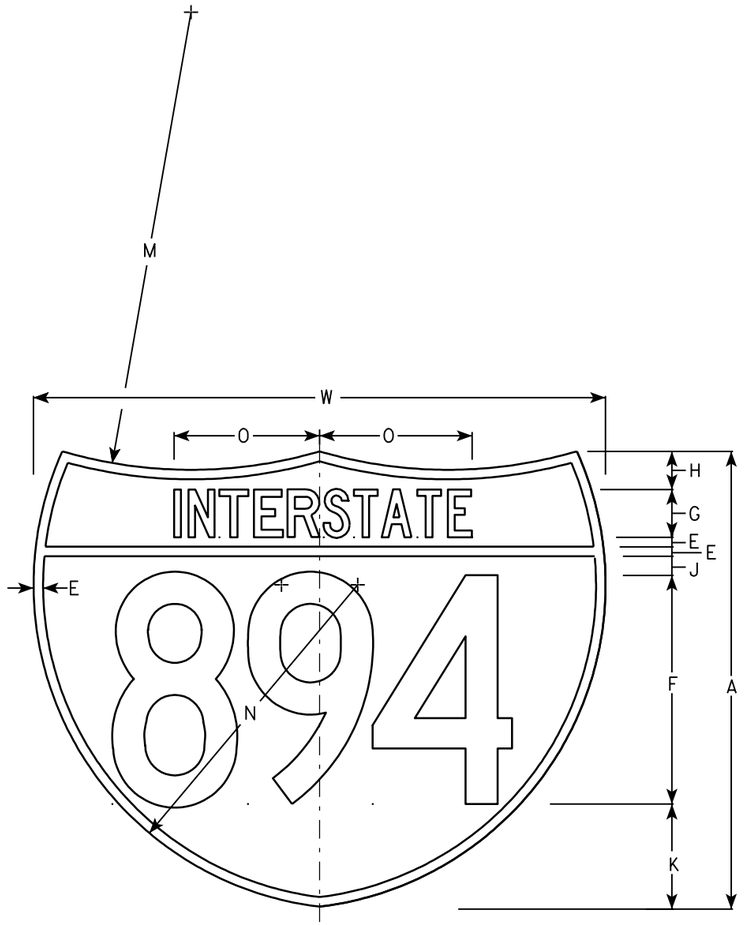
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 218 E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

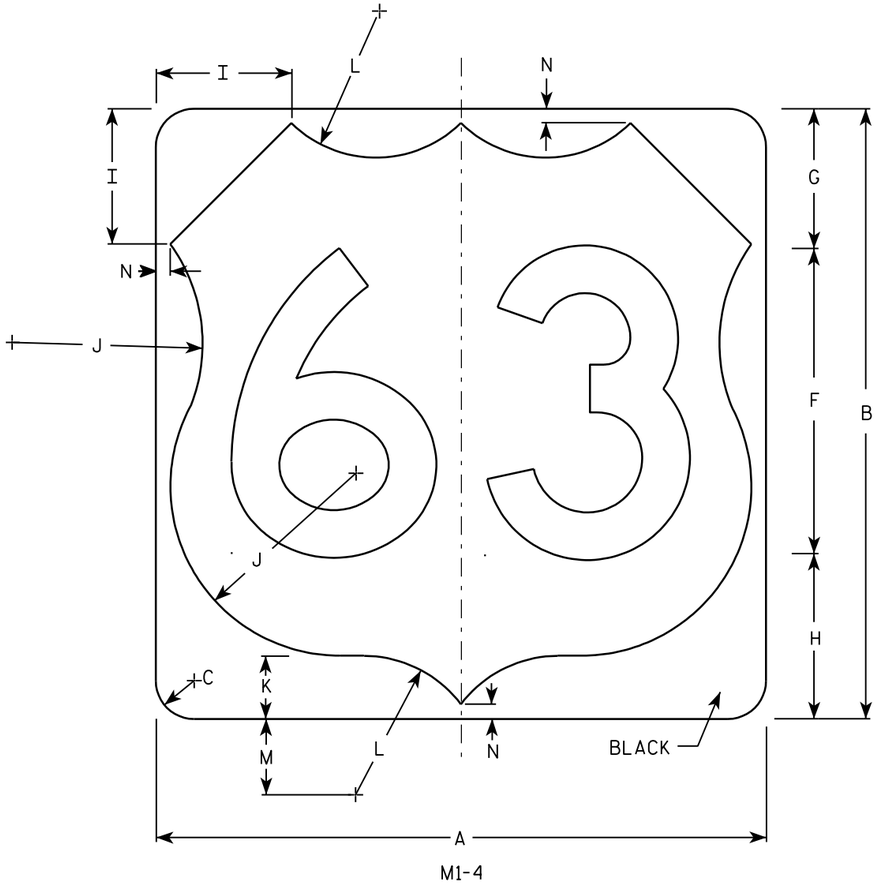
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

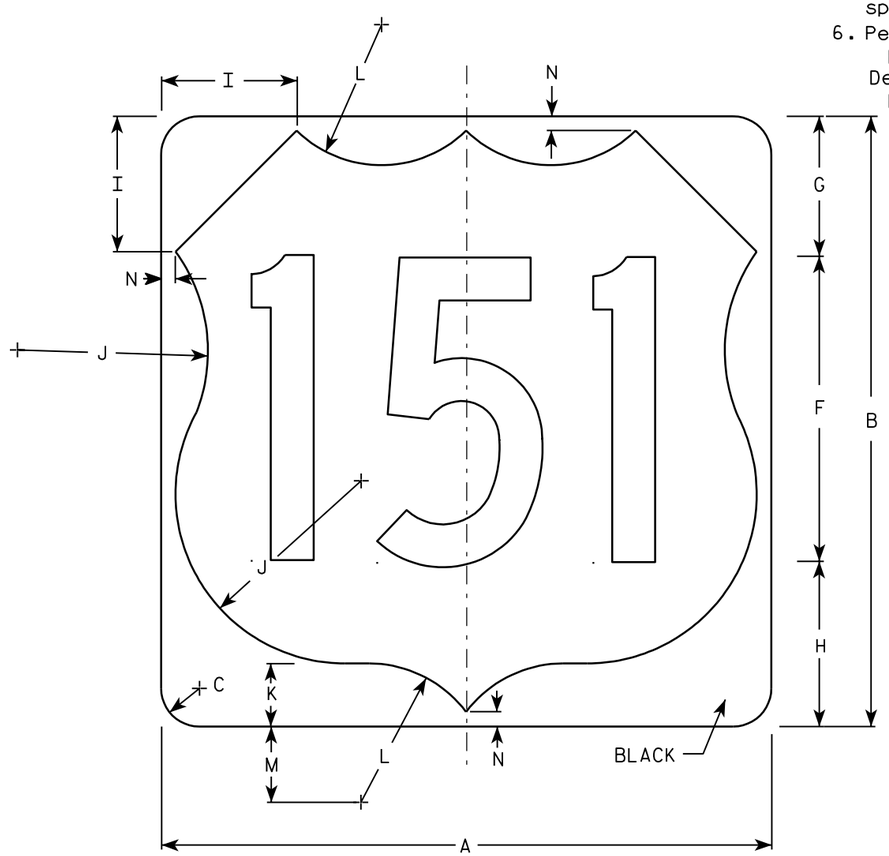
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 219	E

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 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: 220 | E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Graphics - White
   Circle Tour Message is Green
3. Message Series - Special
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.	Area m2
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

STANDARD SIGN
M1-93

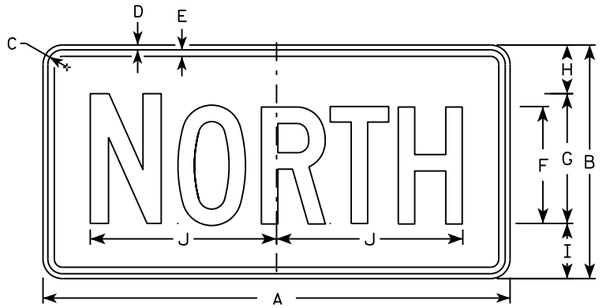
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

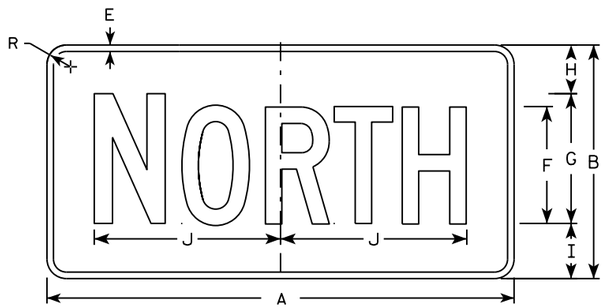
DATE 11/5/15 PLATE NO. M1-93.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M193.DGN PLOT DATE : 01-DEC-2015 18:00 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



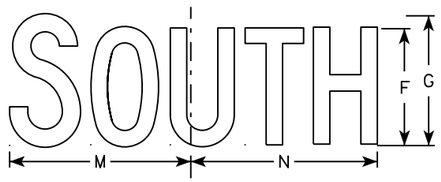
M3-1
MM3-1
MP3-1



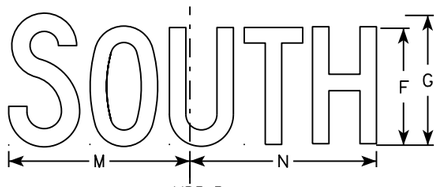
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

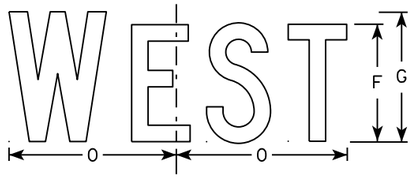
MB3-2
MK3-2
MN3-2



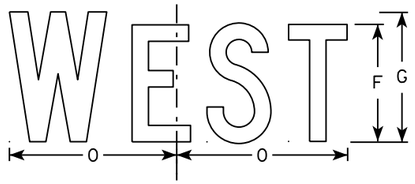
M3-3
MM3-3
MP3-3



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

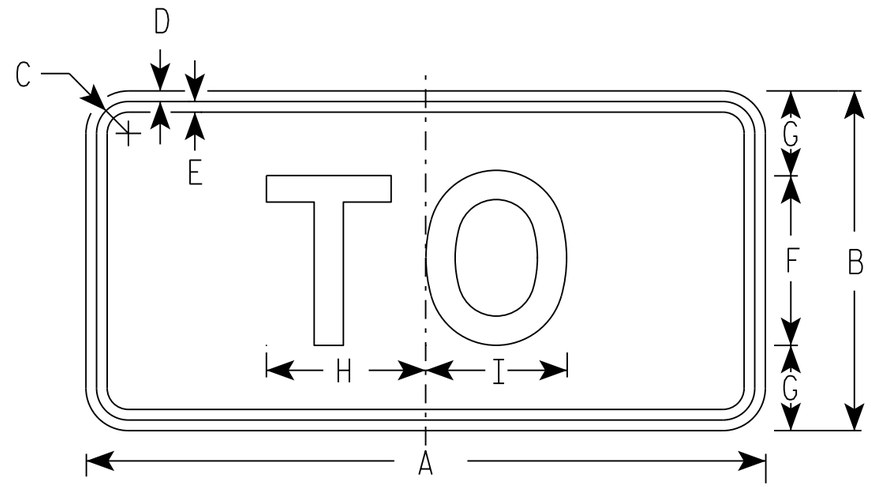
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

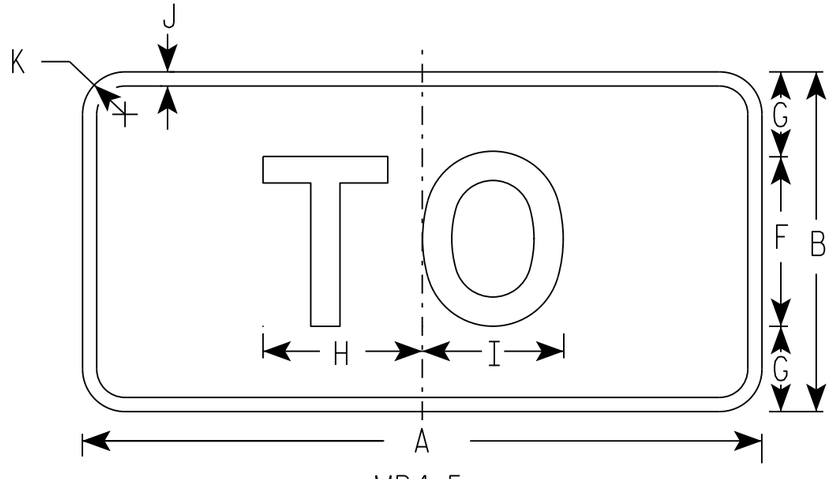
DATE 10/15/15 PLATE NO M3-1.14

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



M4-5
MM4-5
MP4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

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	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

STANDARD SIGN
M4-5

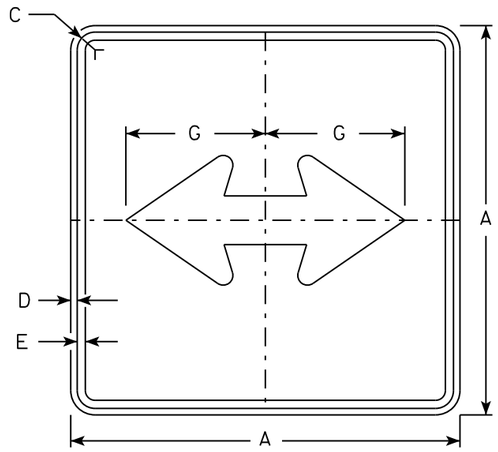
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

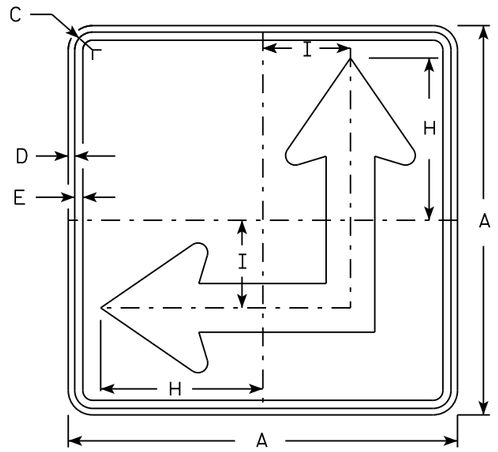
DATE 10/15/15 PLATE 223 M4-5.8

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M45.DGN PLOT DATE : 01-DEC-2015 17:55 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000



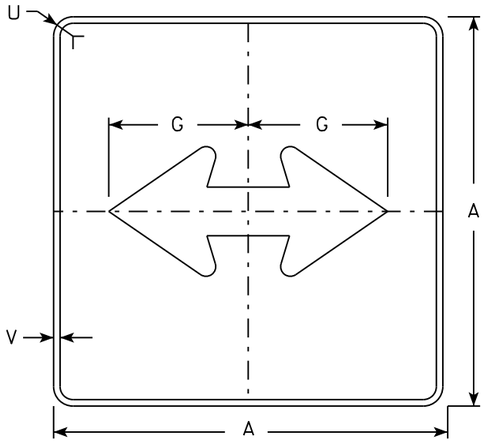
M6-4
MM6-4
MO6-4
MP6-4



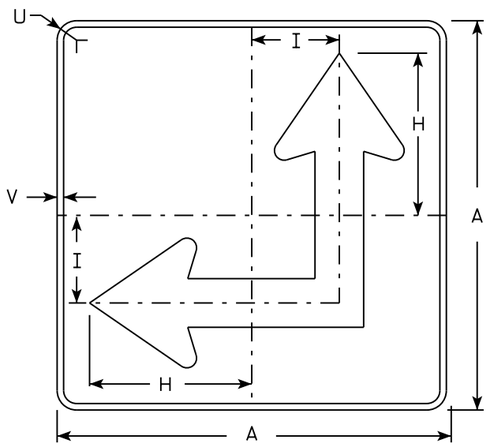
M6-6
MM6-6
MO6-6
MP6-6

NOTES

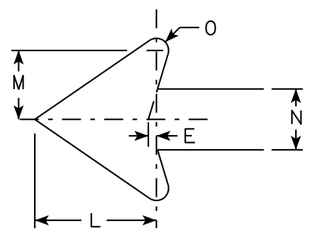
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

STANDARD SIGN
M6-4 & M6-6
SERIES

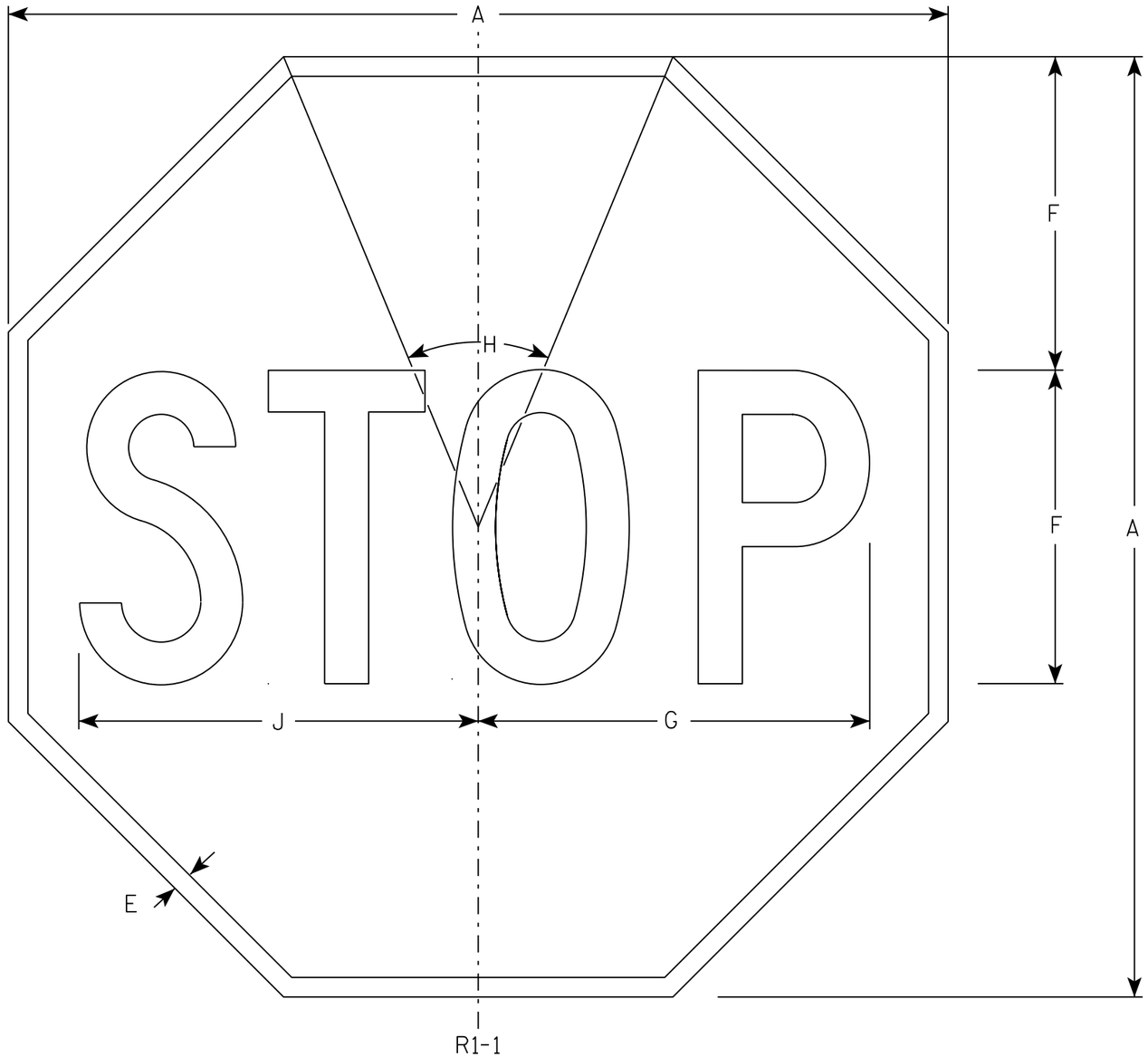
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 224 M6-4.10

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M64.DGN PLOT DATE : 01-DEC-2015 17:58 PLOT BY : $$ platuser $$ 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

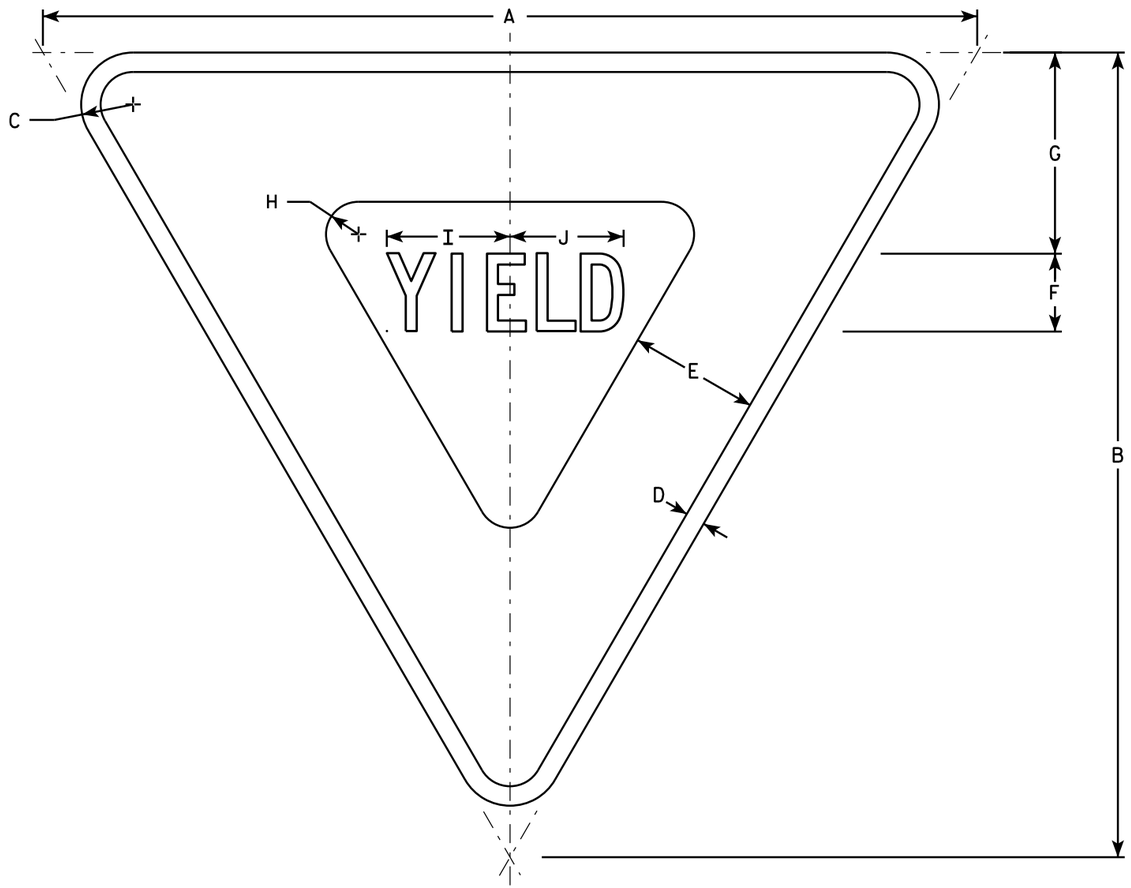
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 225 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

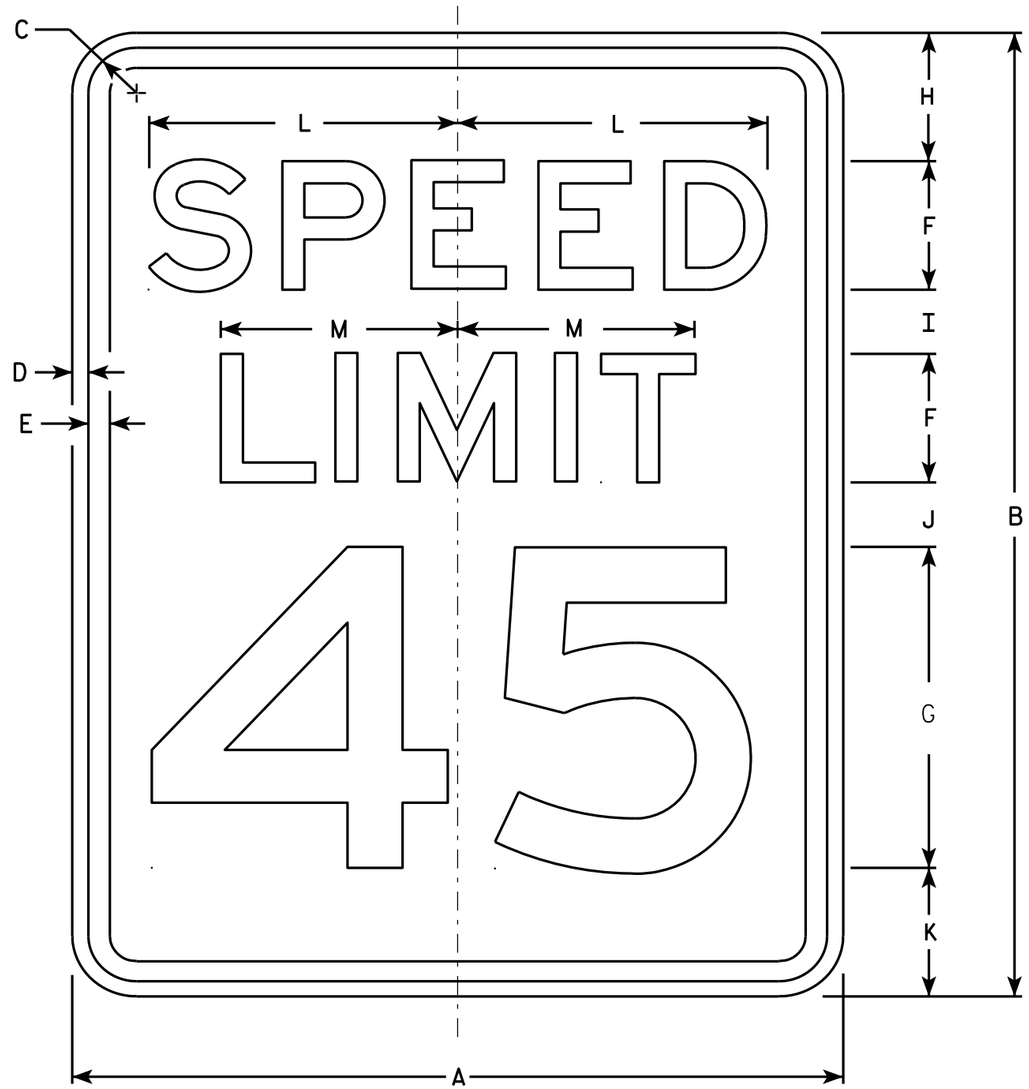
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

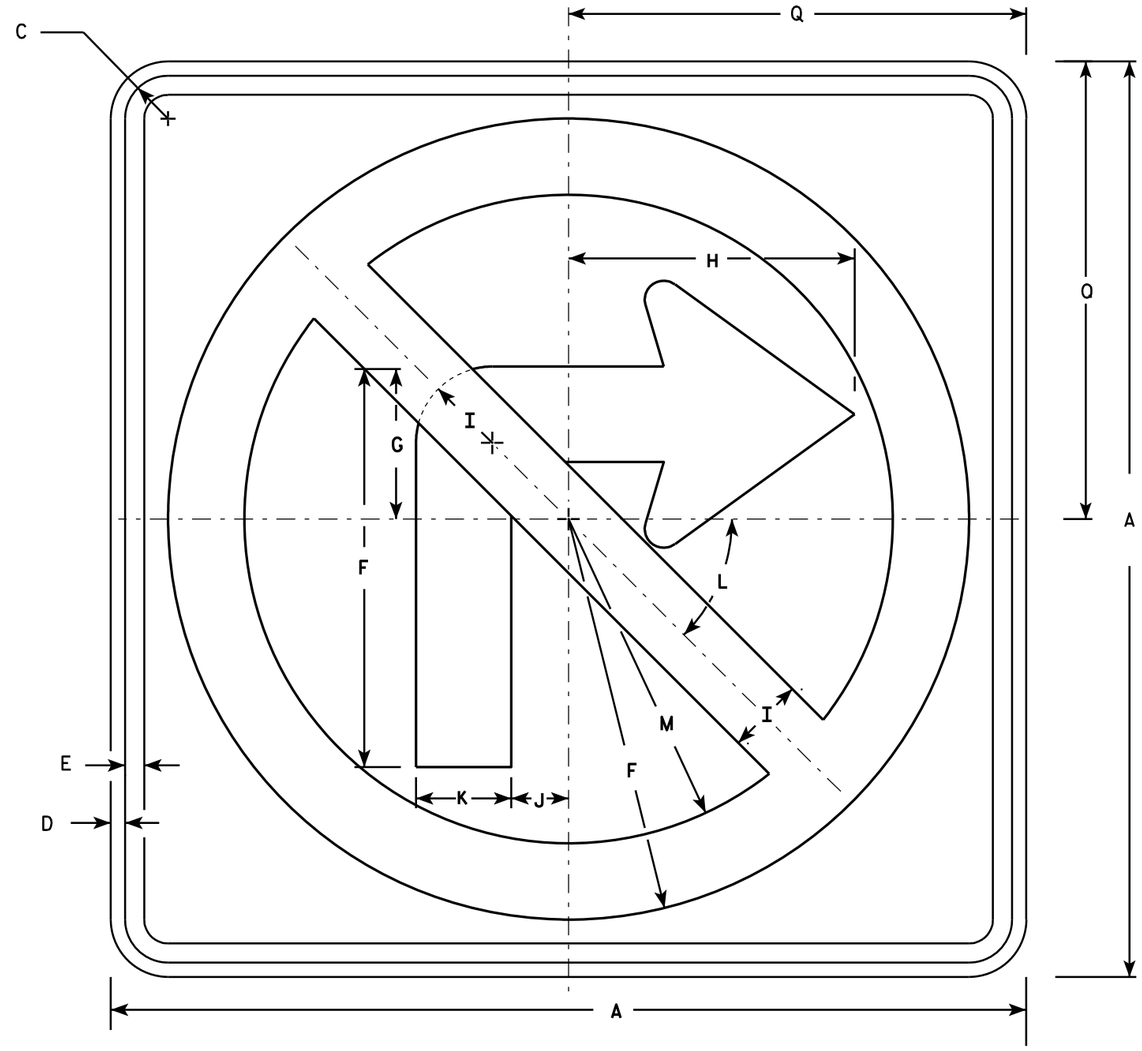
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

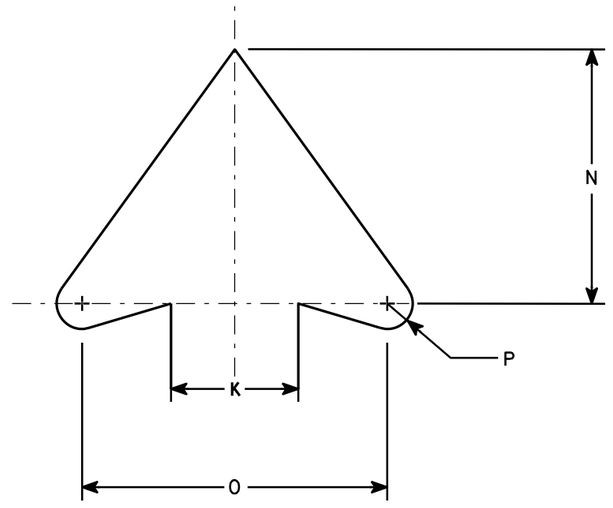
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 227 | E



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

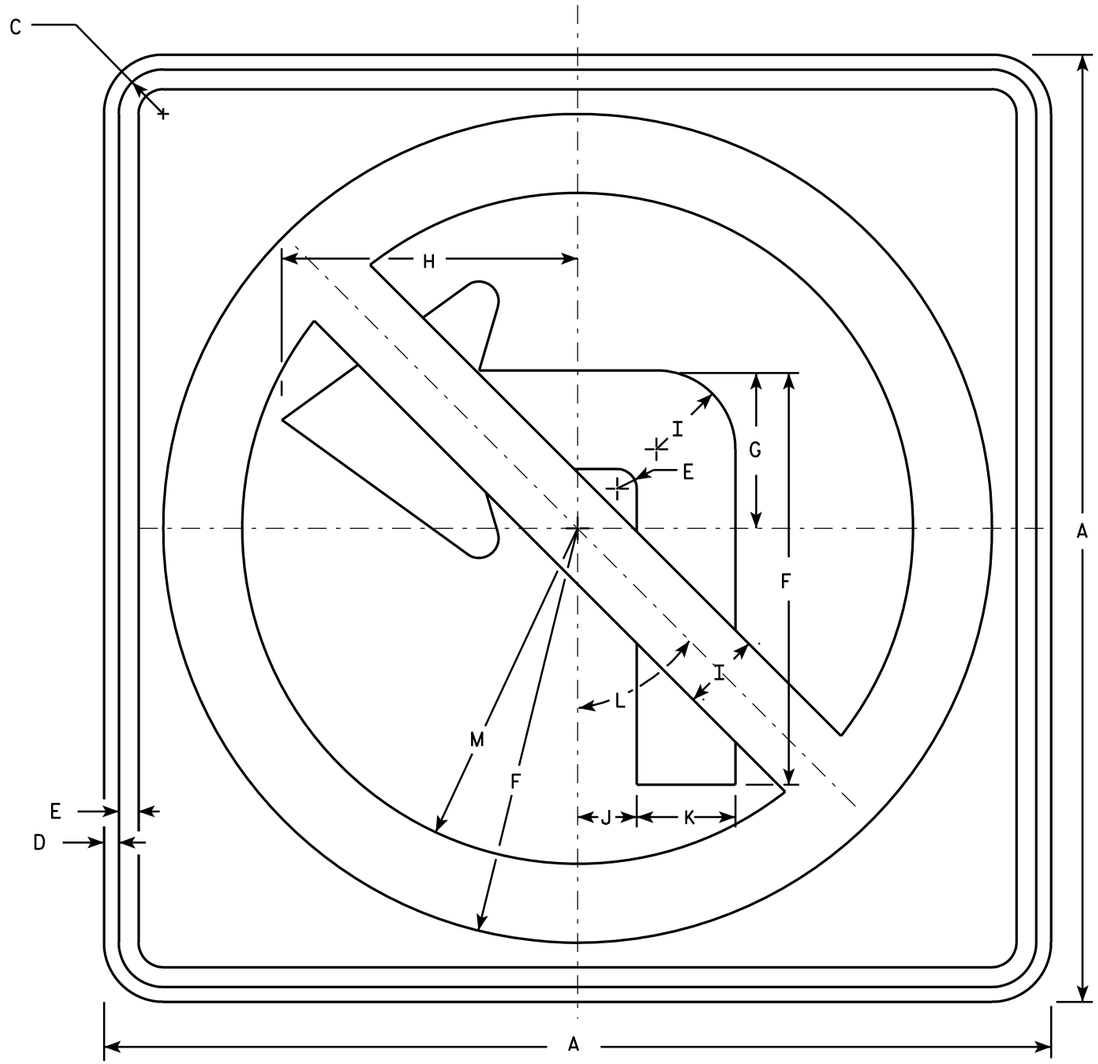
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

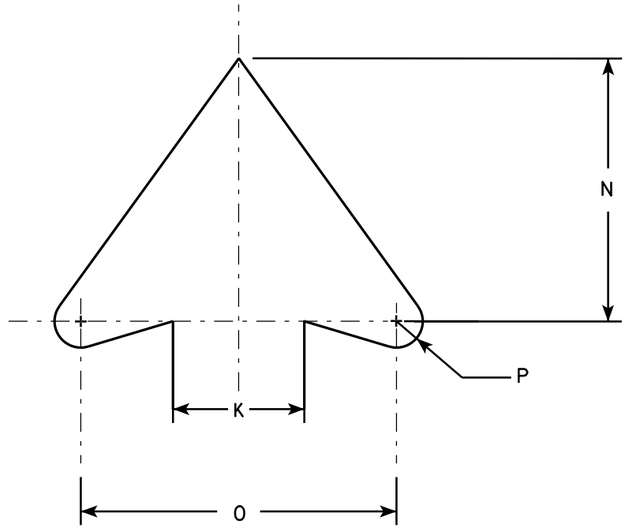
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 228	E



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

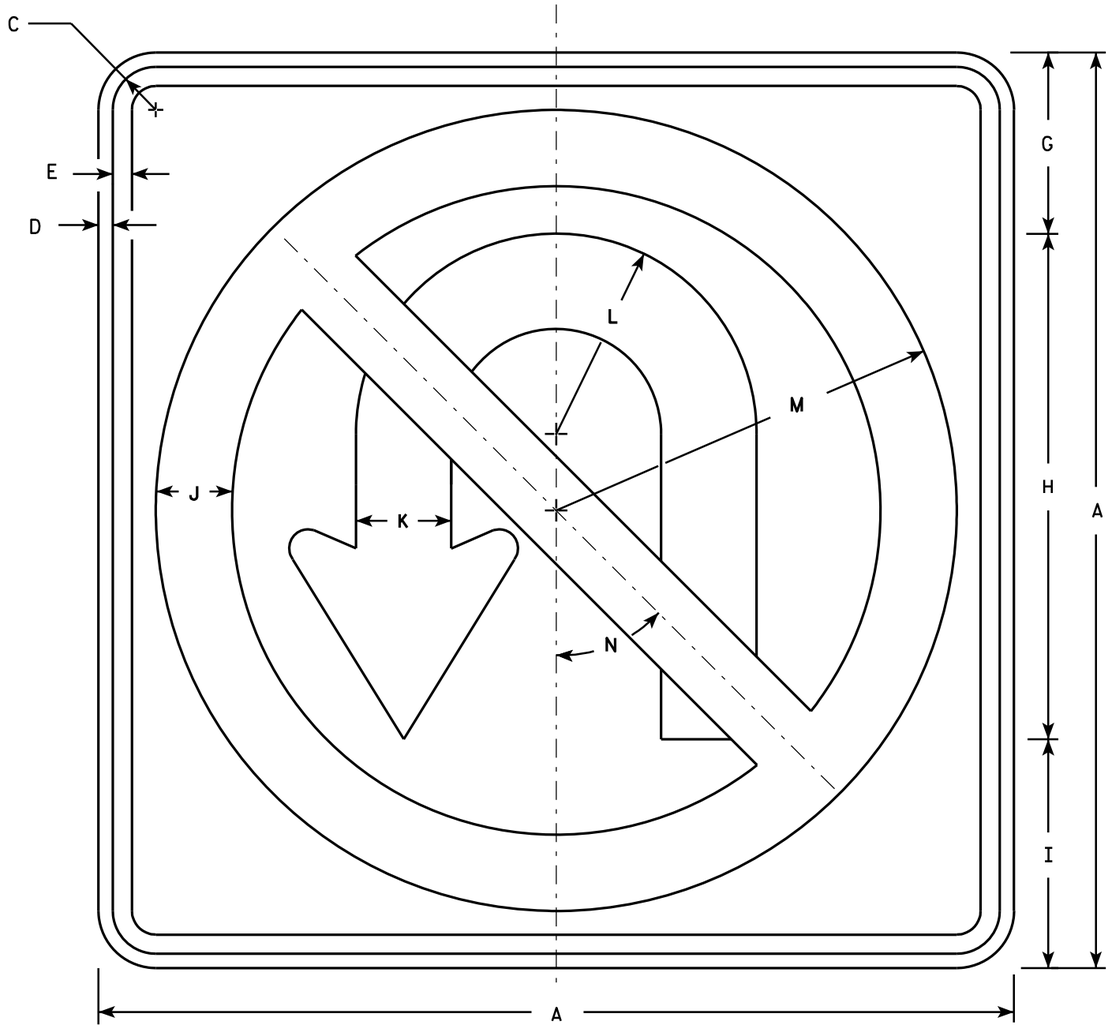
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

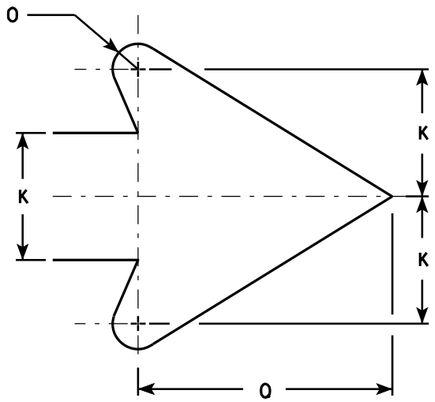
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 229	E



R3-4

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 - 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																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

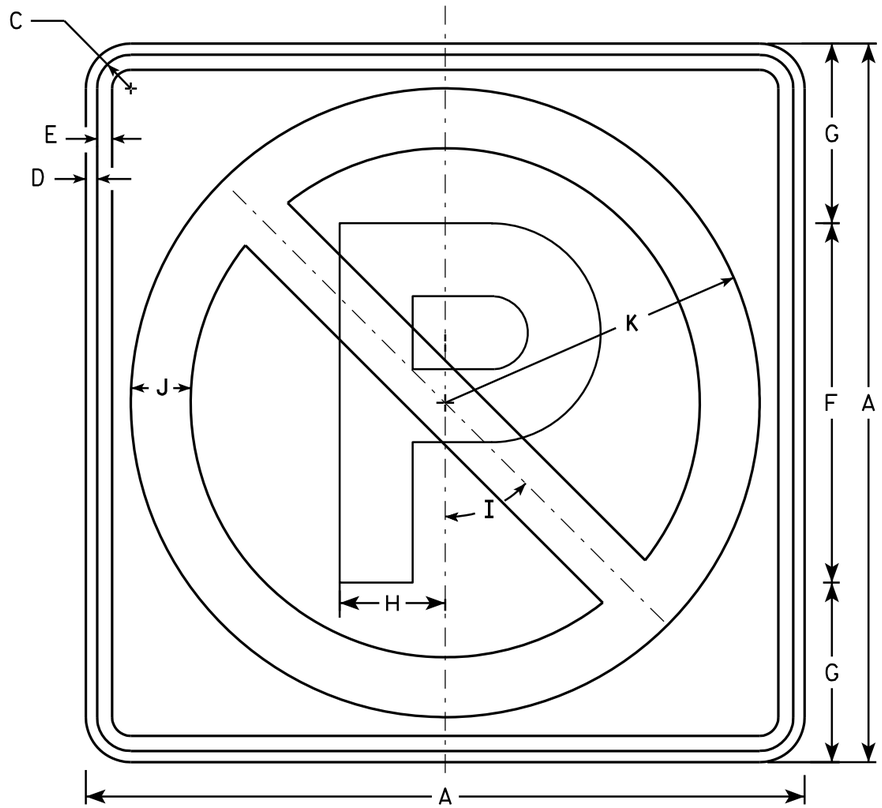
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 230	E



R3-8A

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 & Letter P are non reflective black, the circle with diagonal bar is reflective 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																											
2S	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
2M	24		1 1/8	3/8	1/2	12	6	3 1/2	45°	2	10 1/2																4.0
3																											
4																											
5																											

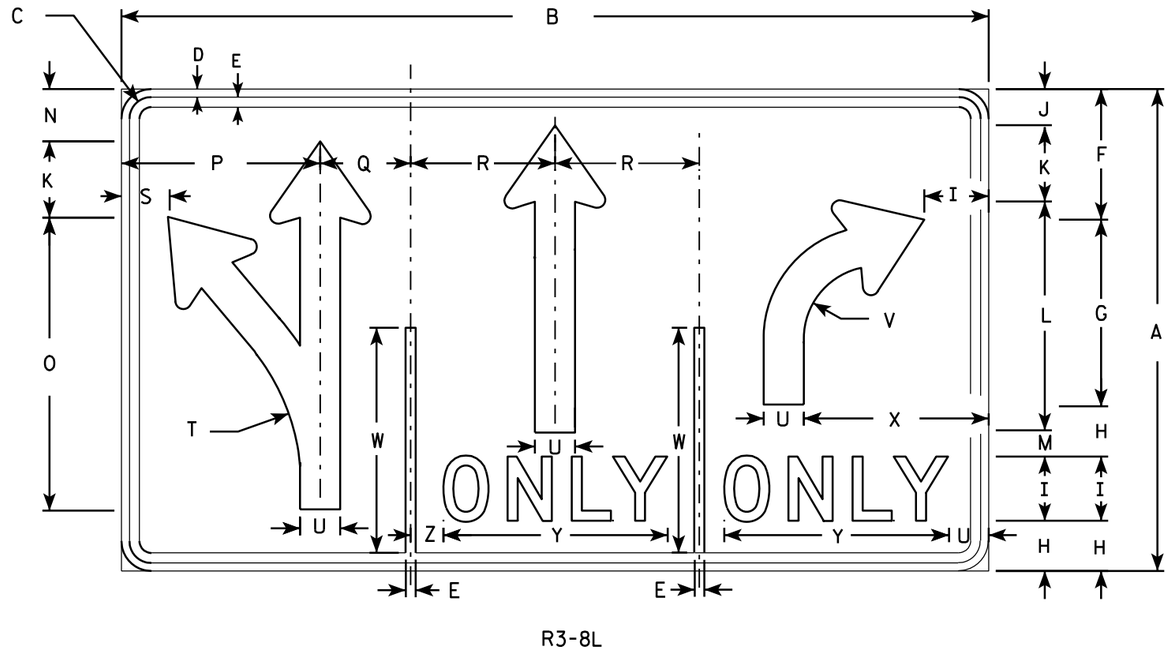
STANDARD SIGN
R3-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/01/12 PLATE NO. R3-8A.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 231 | E

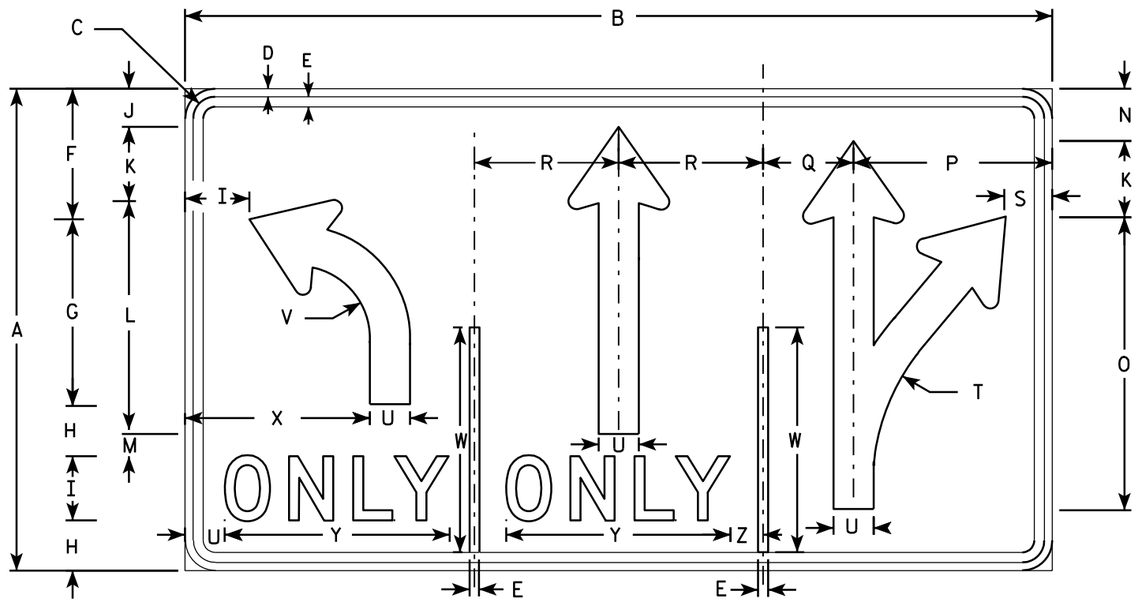


R3-8L

SEE R3-8 FOR 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.



R3-8M

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	54	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	3 1/4	18 1/4	12 3/8	5 5/8	9	3	13 1/4	2 1/2	4 1/2	14	11 1/2	14	2	11.25
2M	30	54	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	3 1/4	18 1/4	12 3/8	5 5/8	9	3	13 1/4	2 1/2	4 1/2	14	11 1/2	14	2	11.25
3																											
4	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7	29 1/8	2 7/8	5 1/4	29 1/8	18 5/8	8 3/4	14	4 3/8	21 7/8	3 3/4	7 1/4	22 3/8	17 1/4	20 5/8	3 1/4	28.0
5	48	84	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	3 1/2	7	29 1/8	2 7/8	5 1/4	29 1/8	18 5/8	8 3/4	14	4 3/8	21 7/8	3 3/4	7 1/4	22 3/8	17 1/4	20 5/8	3 1/4	28.0

STANDARD SIGN
R3-8L & R3-8M

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/21/2011 PLATE NO. R3-8L.2

PROJECT NO:

SHEET NO: 232 E

7

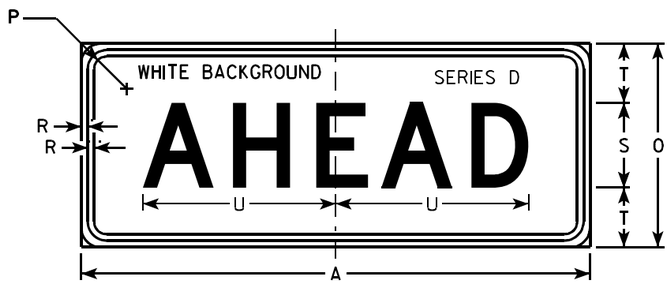
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R38L.DGN PLOT DATE : 21-MAR-2011 14:39 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

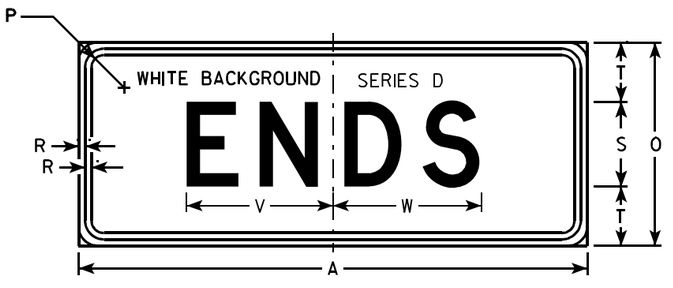
R3-17

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
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.



R3-17ap



R3-17bp

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	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

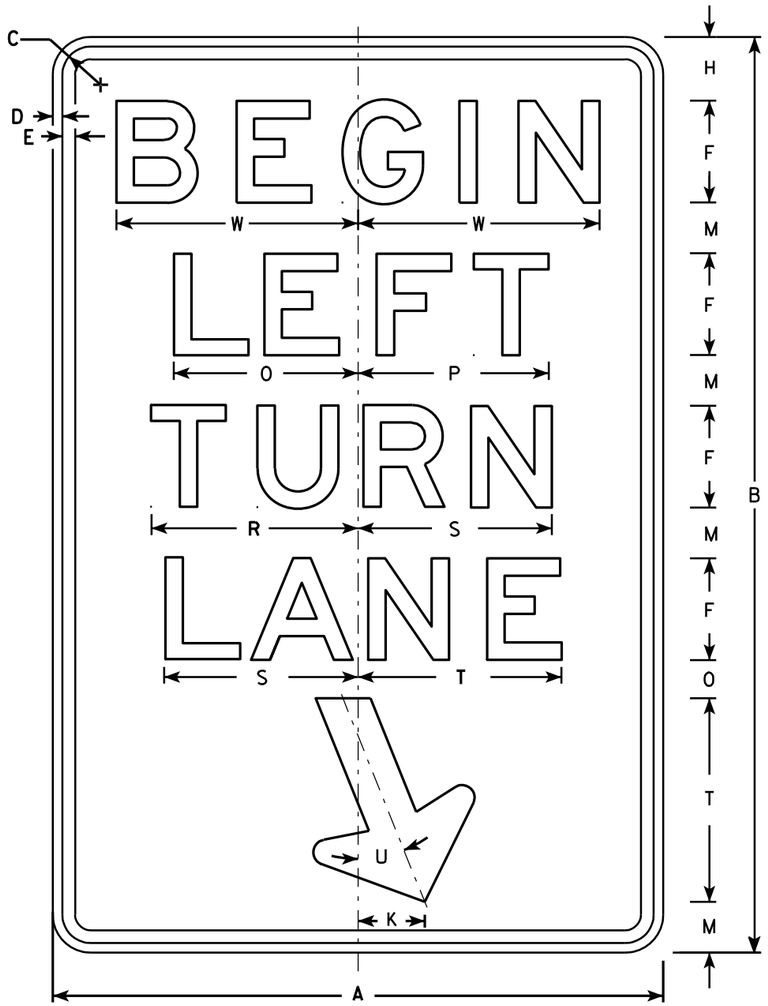
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO:

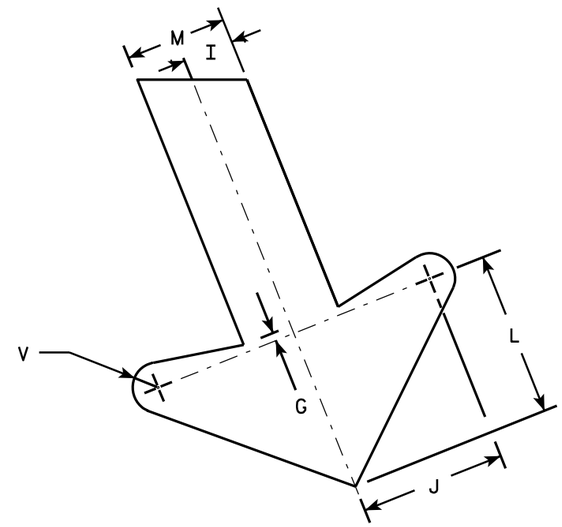
SHEET NO: 233 E



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																											

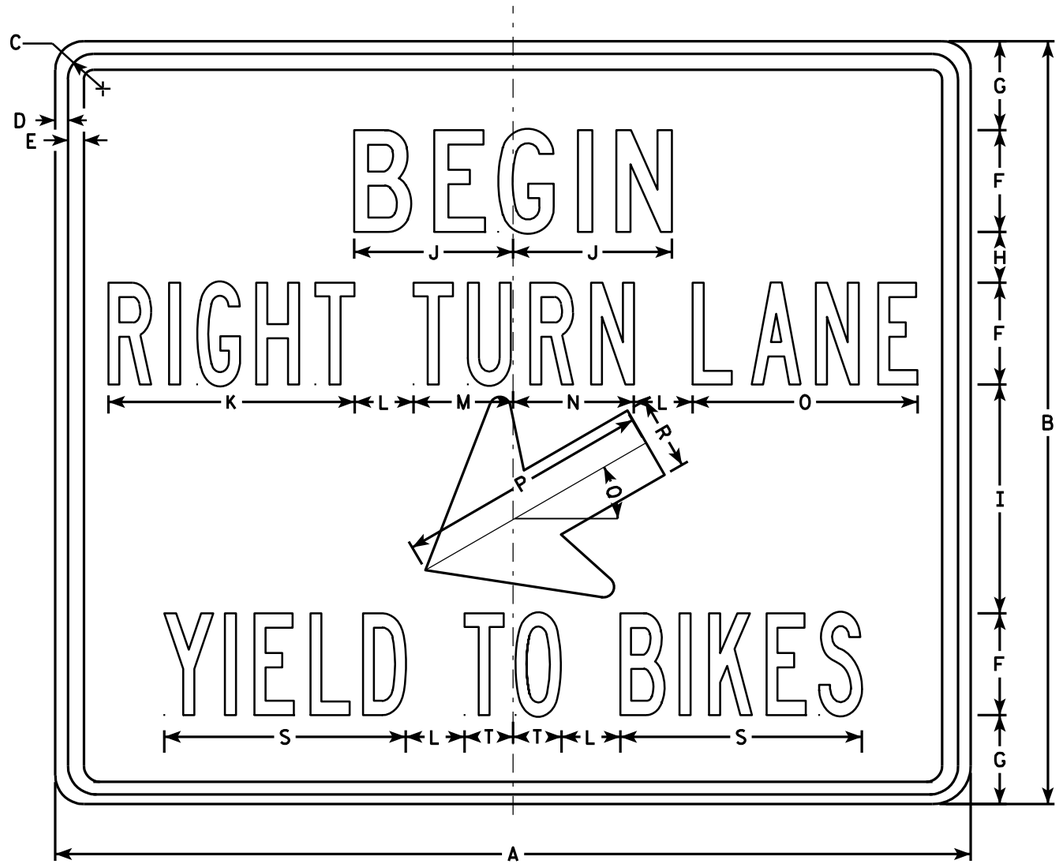
STANDARD SIGN
R3-20L

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: 234 | 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																											

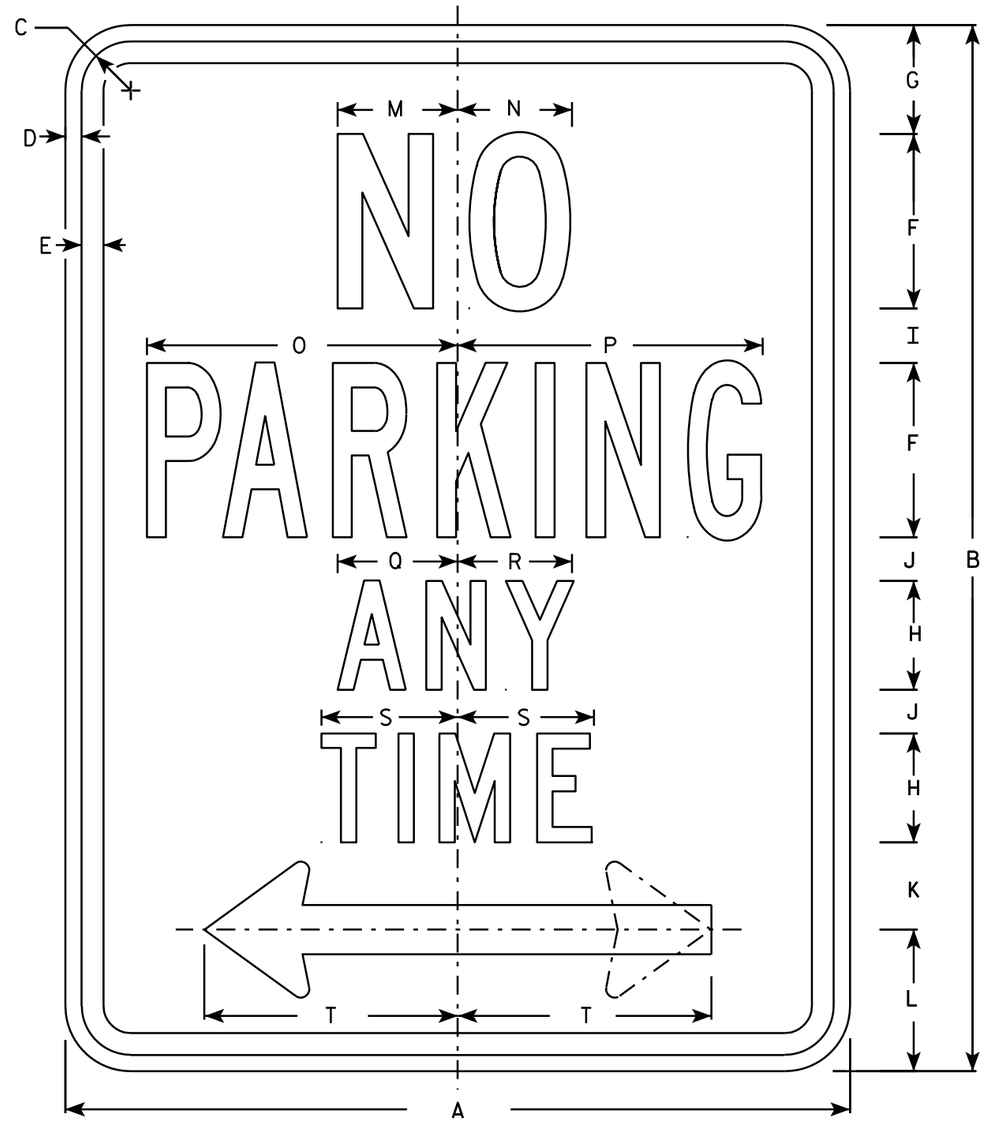
STANDARD SIGN
R4-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-4.2

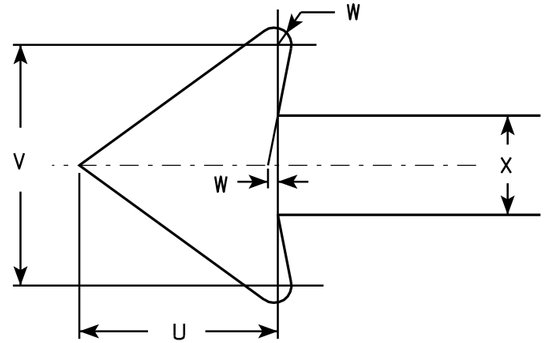
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 235 | E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

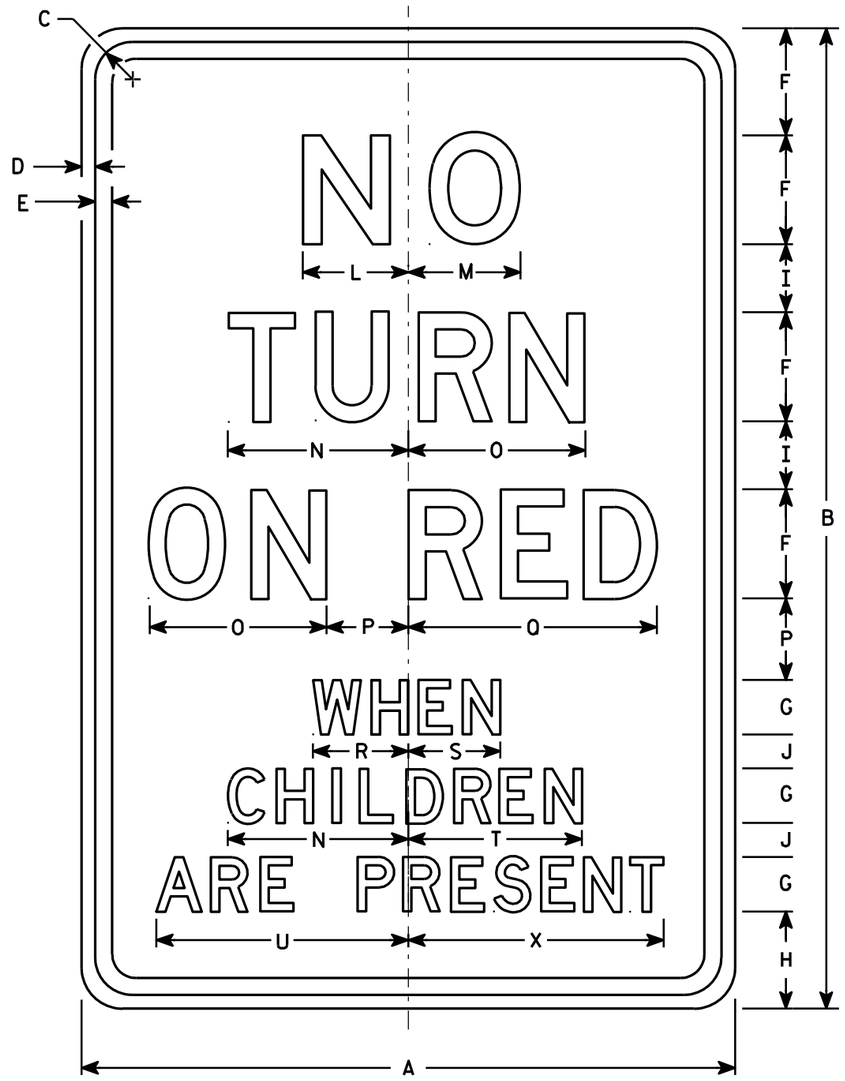
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 236 | E



R10-11S

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 thru 6 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																											
2S	24	36	1 1/8	3/8	1/2	4	2	3 1/2	2 1/2	1 1/4	4 1/2	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	3 1/2	3 3/8	6 3/8	9 1/4			9 3/8			6.0
2M	24	36	1 1/8	3/8	1/2	4	2	3 1/2	2 1/2	1 1/4	4 1/2	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	3 1/2	3 3/8	6 3/8	9 1/4			9 3/8			6.0
3																											
4																											
5																											

STANDARD SIGN
R10-11S

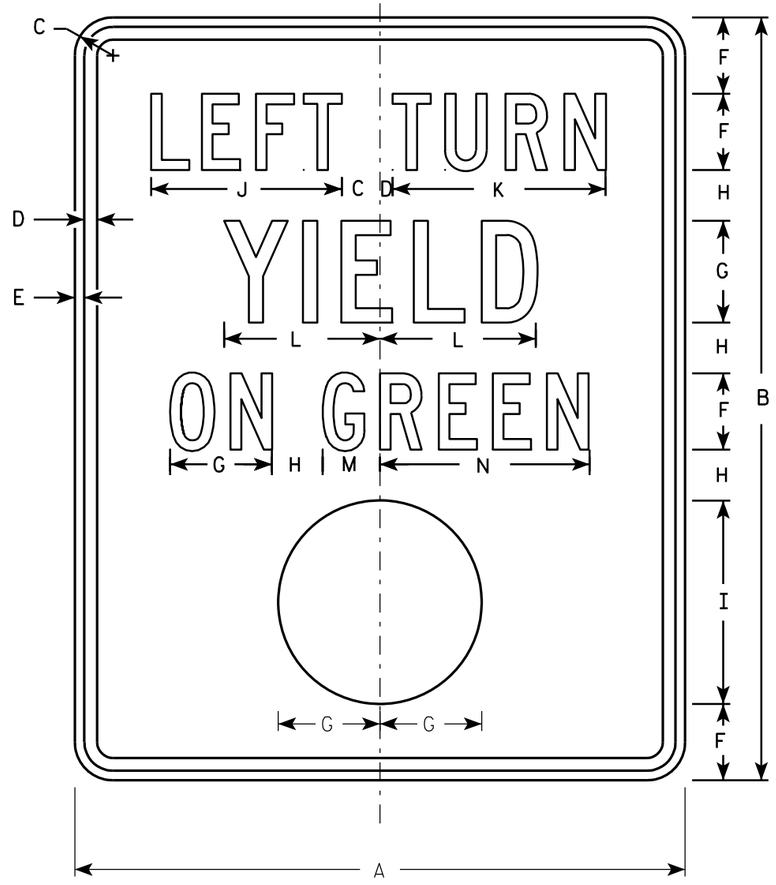
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-11S.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237 | E



R10-12

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 (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 circle shall be green Type H reflective sheeting.

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	30	1 ½	½	⅜	3	4	2	8	7 ½	8 ⅜	6 ⅛	2 ¼	8 ¼													5.0
2M	24	30	1 ½	½	⅜	3	4	2	8	7 ½	8 ⅜	6 ⅛	2 ¼	8 ¼													5.0
3																											
4																											
5																											

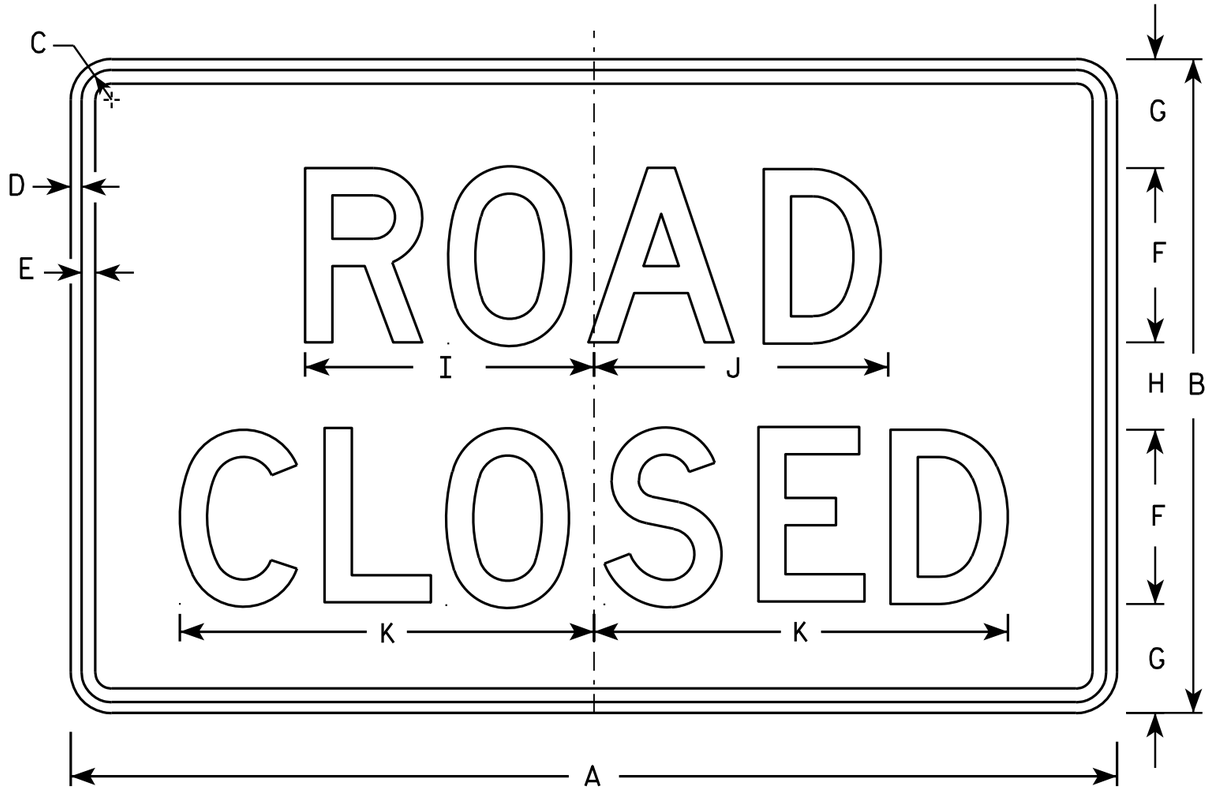
STANDARD SIGN
R10-12

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-12.4

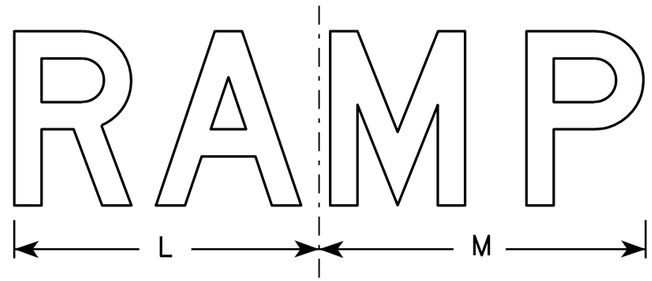
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E



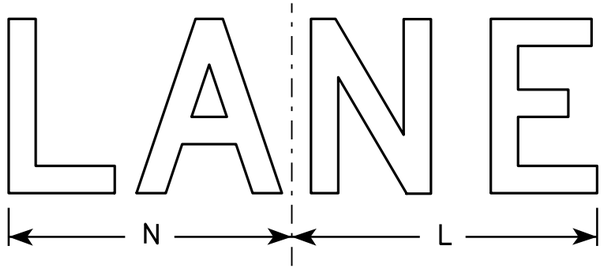
R11-2

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

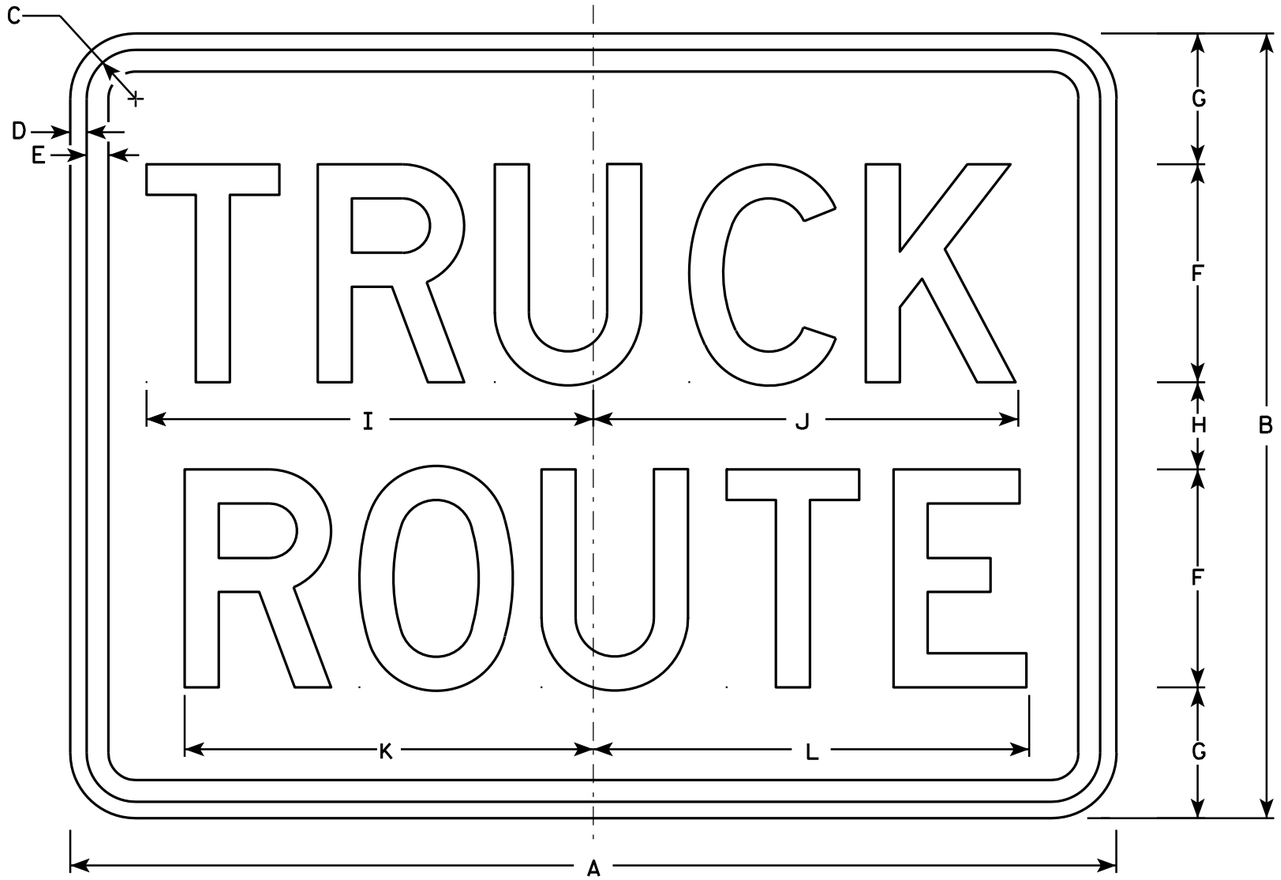
STANDARD SIGN
R11-2

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: 239 | E



R14-1

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
2	24	18	1 1/8	3/8	1/2	5	3	2	10 1/4	9 3/4	9 3/8	10															3.0
3	30	24	1 1/8	3/8	1/2	6	4	4	12 1/4	11 3/4	11 1/4	12															5.0
4																											
5																											

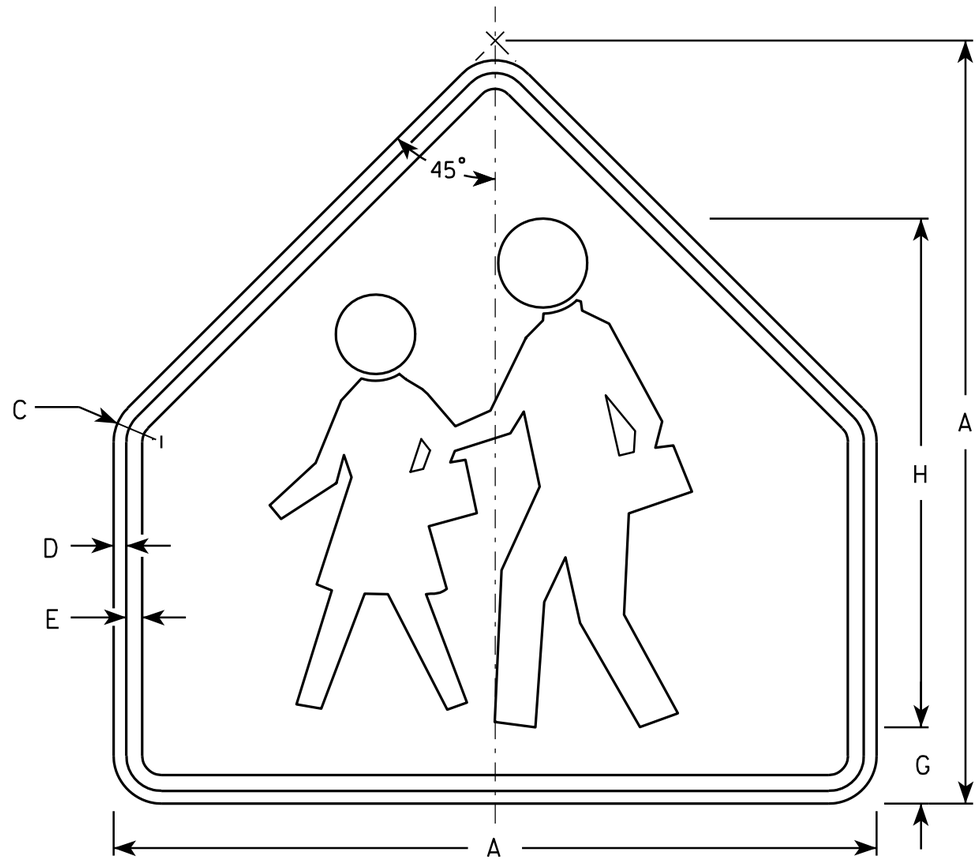
STANDARD SIGN
R14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R14-1.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 240	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																											

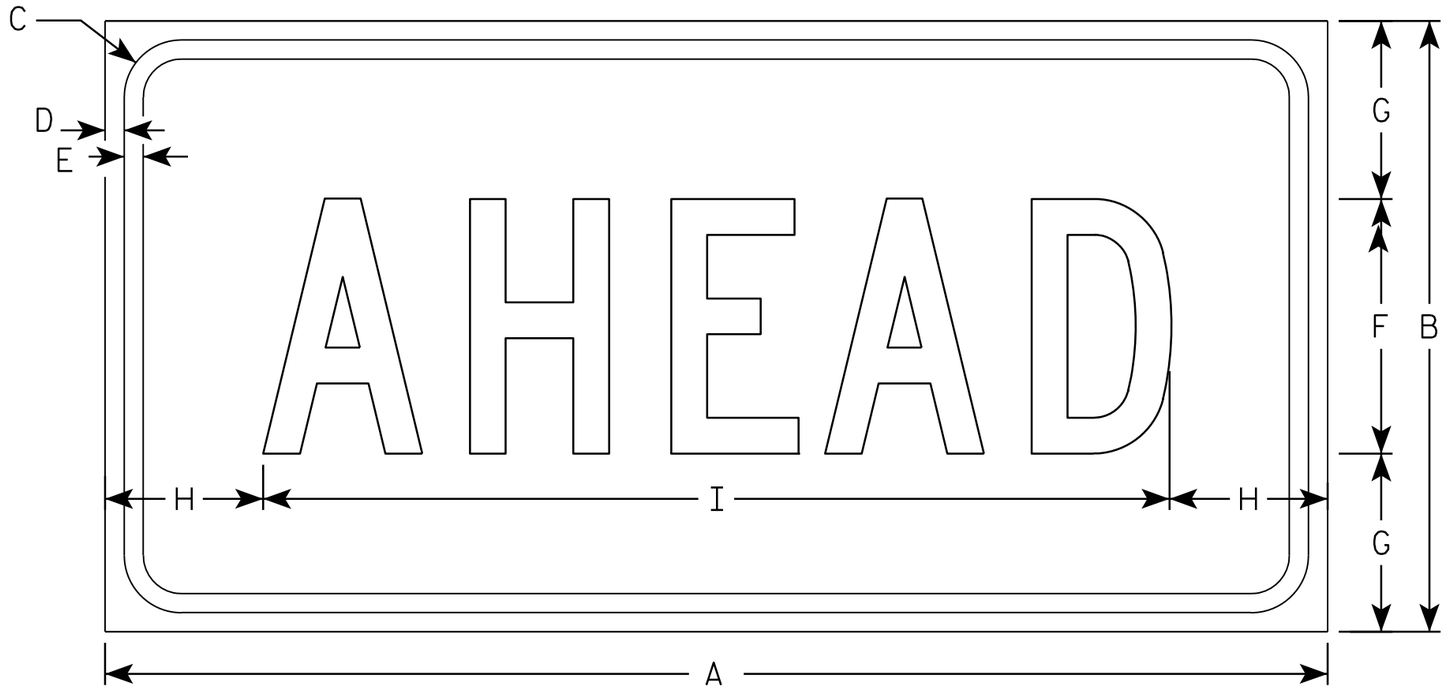
STANDARD SIGN
S1-1

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: 241	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

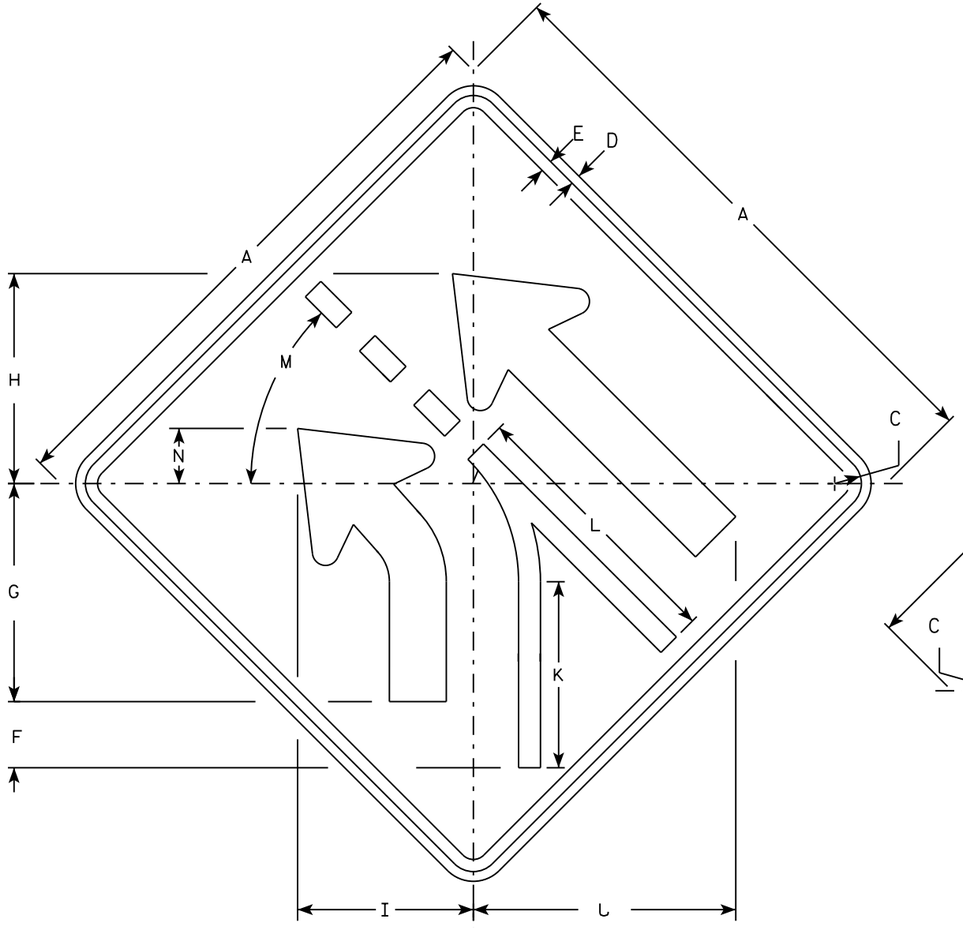
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

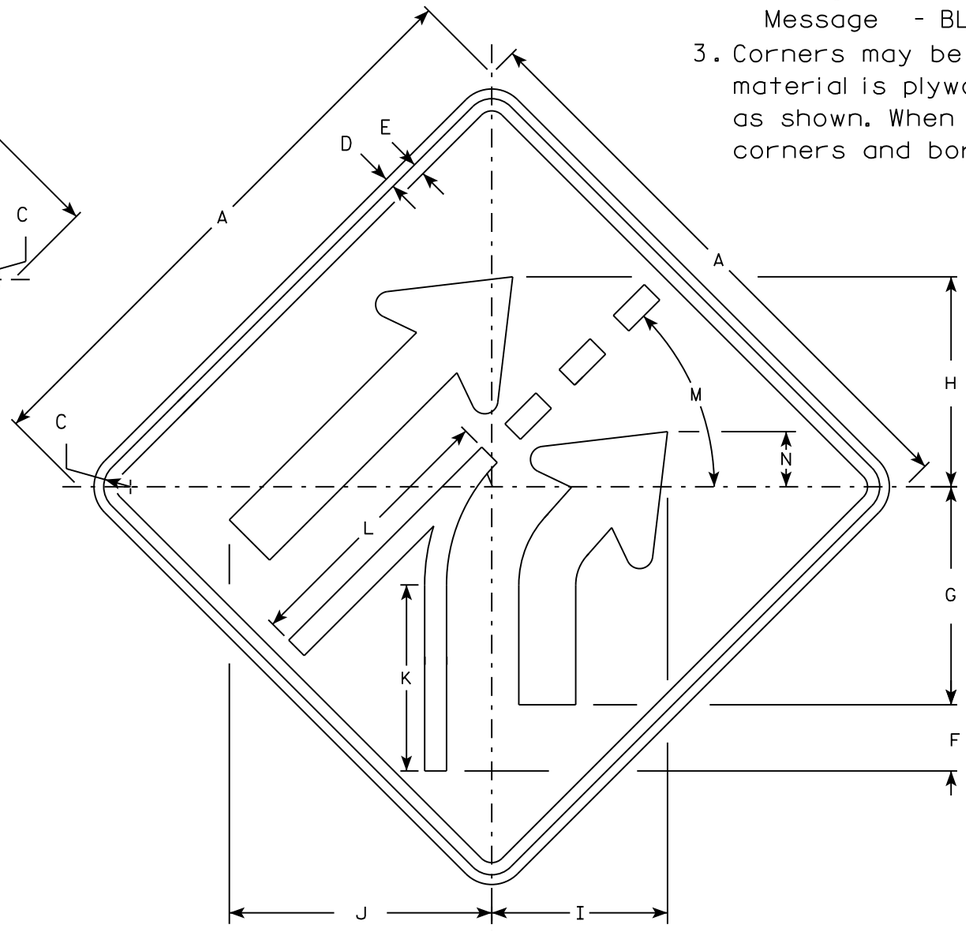
DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 242 | 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



W4-6L



W4-6R

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.

* Scale and Rotate W4-3 and make modifications.

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 3/8	11 1/4	10 3/4	9	13 1/2	9 1/2	14	45°	2 7/8													6.25
2S	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
2M	36		1 5/8	5/8	3/4	4	13 1/2	13	10 7/8	16 1/4	11 1/2	16 7/8	45°	3 3/8													9.0
3																											
4	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0
5	48		2 1/4	3/4	1	5 3/8	18	17 1/4	14 1/2	21 5/8	15 1/4	22 1/2	45°	4 1/2													16.0

STANDARD SIGN
W4-6

WISCONSIN DEPT OF TRANSPORTATION

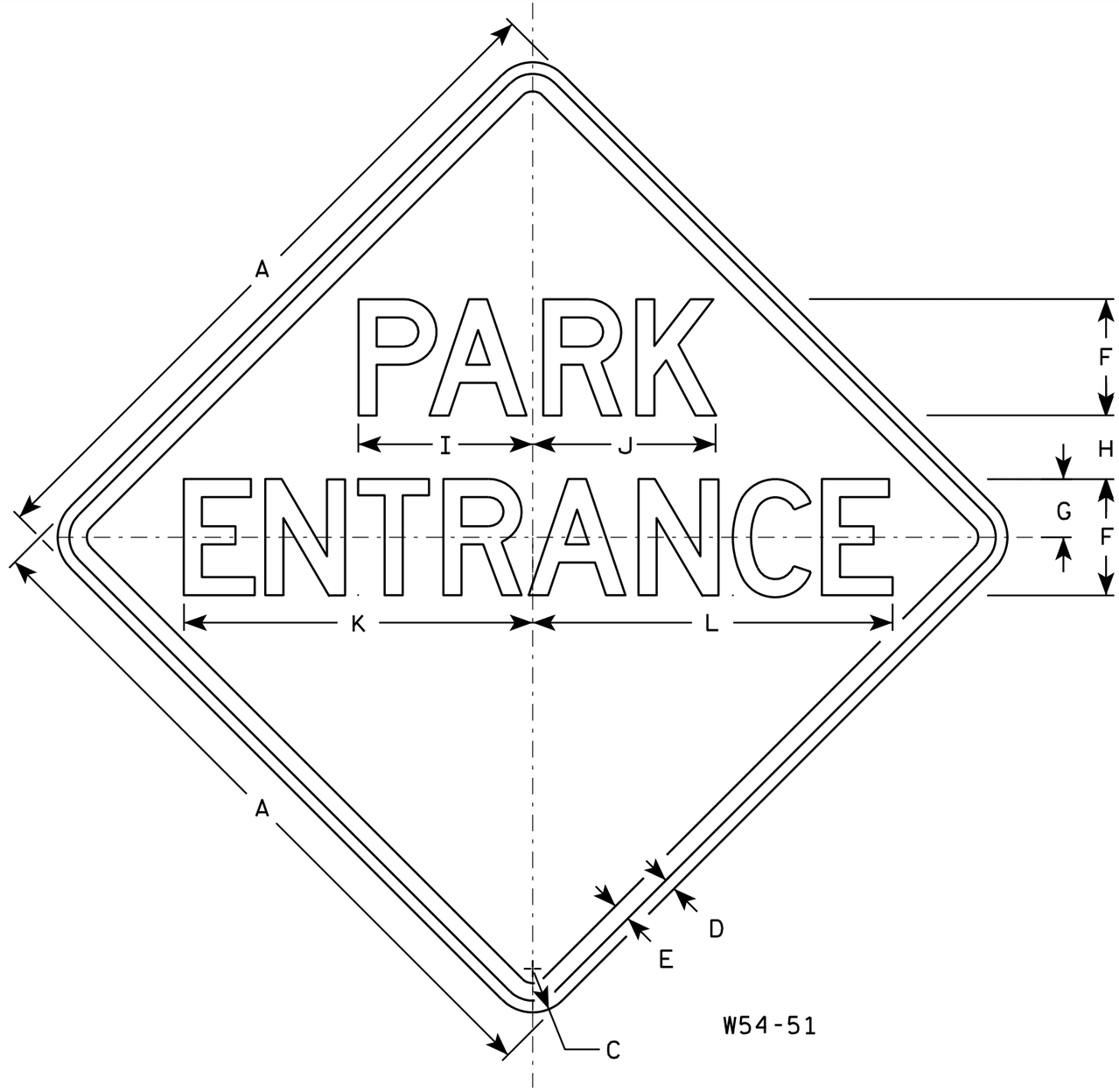
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/9/16 PLATE W4-6.4

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W46.DGN PLOT DATE : 09-FEB-2016 10:16 PLOT BY : $$ platuser $$



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 3/8	1/2	5/8	5	2 1/2	2 3/4	7 1/2	7 7/8	15 1/4	15 1/2															6.25
2M	36		1 5/8	5/8	3/4	6	3	3 1/4	9	9 3/8	18 3/8	18 5/8															9.00
3	36		1 5/8	5/8	3/4	6	3	3 1/4	9	9 3/8	18 3/8	18 5/8															9.00
4																											
5																											

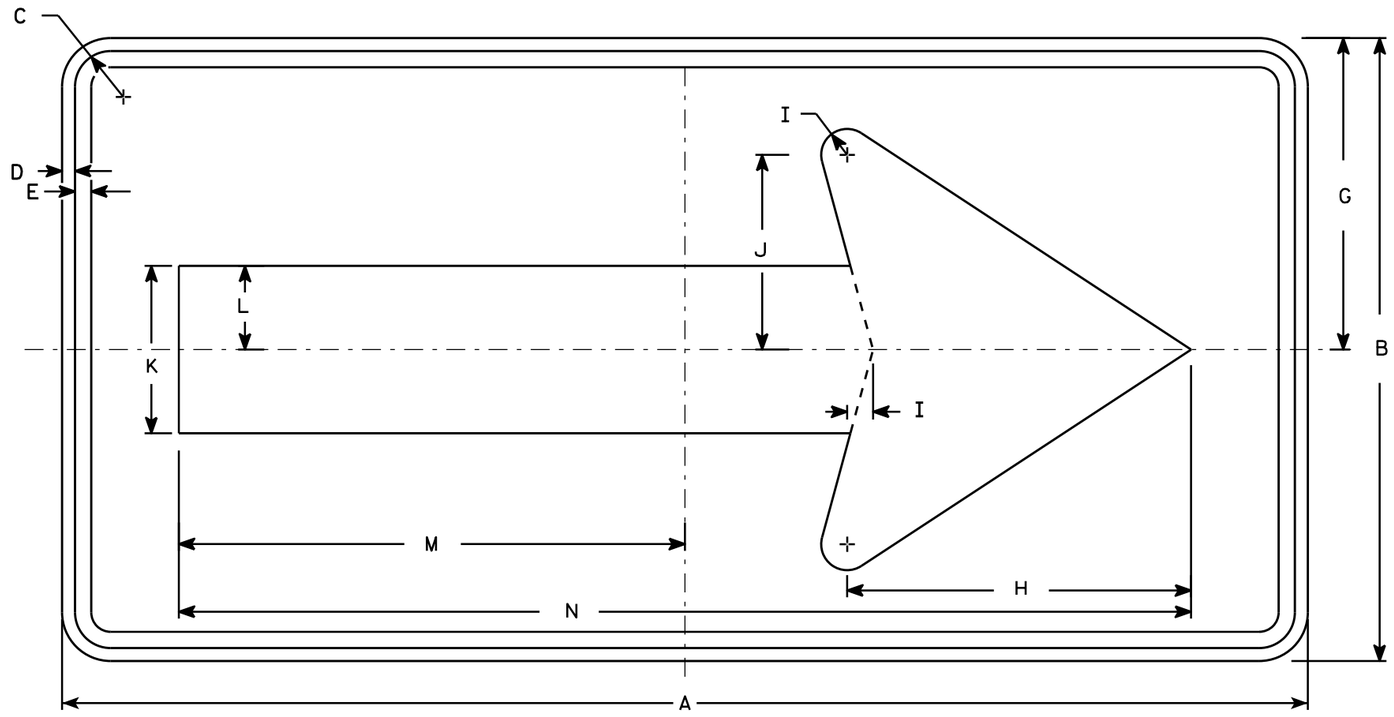
STANDARD SIGN
W54-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W54-51.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 244	E



WO1-6

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
WO1-6

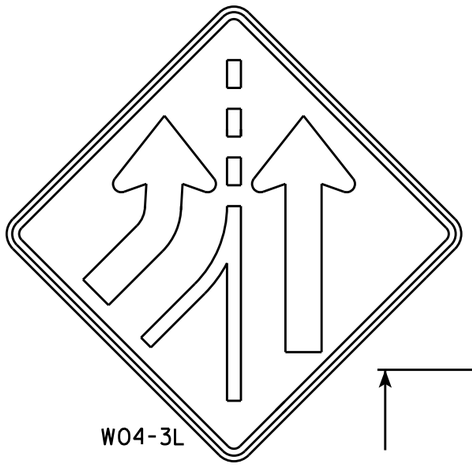
WISCONSIN DEPT OF TRANSPORTATION

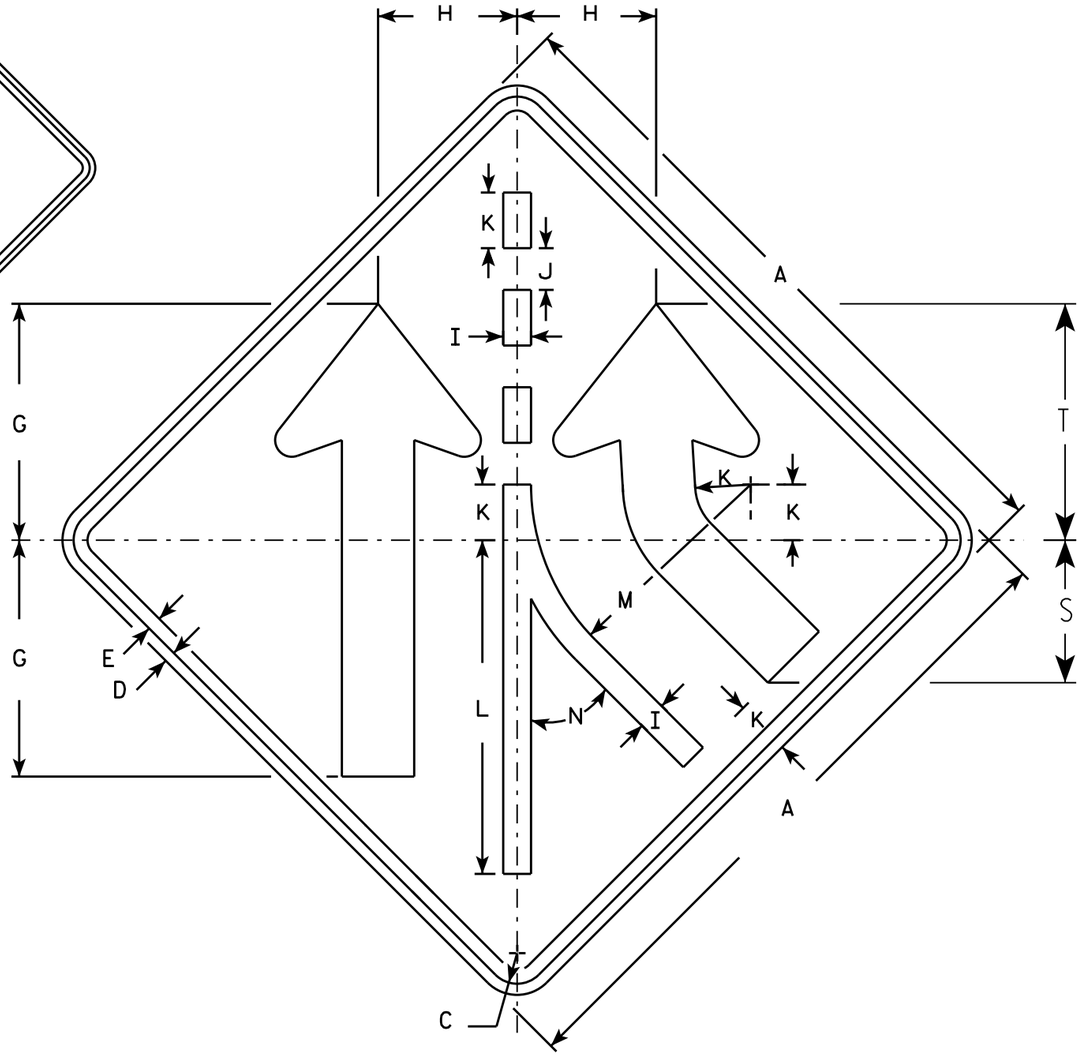
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE WO1-6.1

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

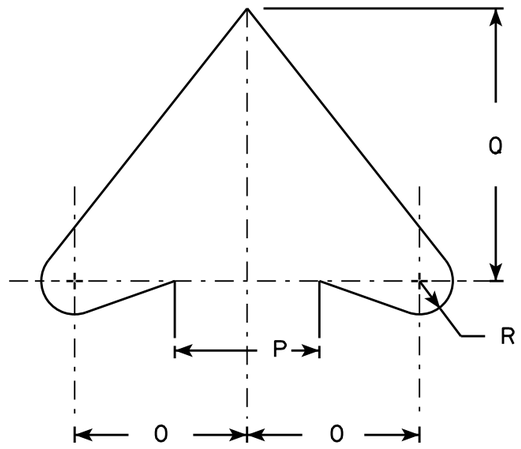
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\WO16.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42





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. W04-3 L is the same as W04-3 R except the arrow is reversed along the vertical centerline.



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	36		1 5/8	5/8	3/4		12 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2S	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
2M	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
3	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN
W0433

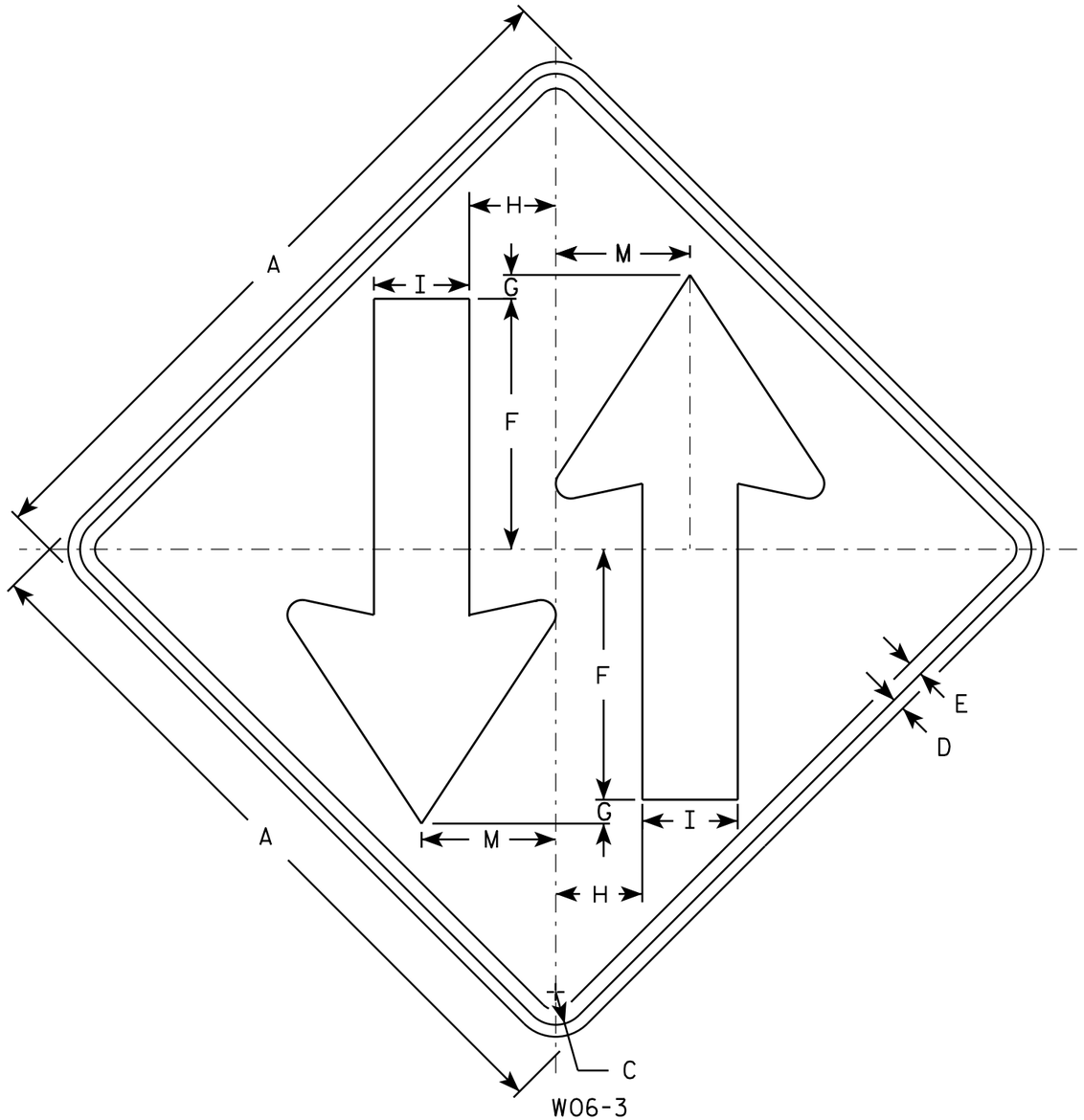
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W04-3.1

PROJECT NO: | SHEET NO: E

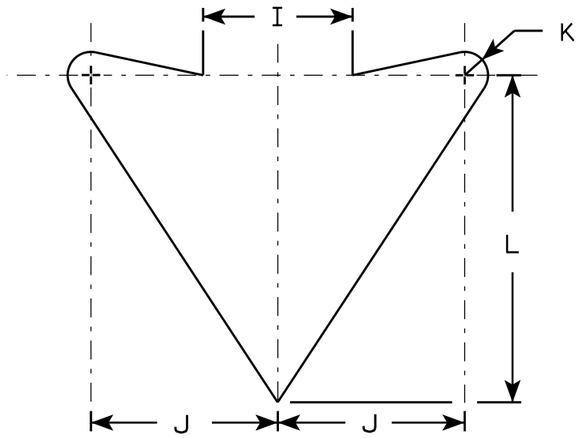
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W043.DGN PLOT DATE : 20-NOV-2013 11:49 PLOT BY : mscsja 6.810449:1.000000
WISDOT/CADDS SHEET 42



W06-3

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. 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	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
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
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
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 247 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
4+48.50	0.00	135.05	0.00	0.00	0.00	0.00
4+50.00	0.00	136.52	0.00	7.54	0.00	7.54
4+75.00	0.66	169.61	0.30	141.72	0.30	149.27
5+00.00	0.06	144.46	0.33	145.40	0.63	294.67
5+50.00	0.94	164.09	0.92	285.69	1.56	580.36
6+00.00	0.00	249.58	0.87	383.03	2.42	963.39
6+50.00	0.00	274.63	0.00	485.57	2.42	1448.96
6+75.00	1.64	279.87	0.76	256.71	3.18	1705.67
7+00.00	0.12	281.79	0.81	260.03	3.99	1965.70
7+25.00	0.00	277.70	0.06	259.02	4.05	2224.72
7+50.00	0.00	281.65	0.00	258.96	4.05	2483.67
8+00.00	0.00	231.96	0.00	469.57	4.05	2953.25
8+50.00	0.00	198.71	0.00	398.77	4.05	3352.01
9+00.00	0.00	180.04	0.00	350.69	4.05	3702.70
9+50.00	0.18	193.34	0.17	345.72	4.22	4048.43
10+00.00	0.00	220.17	0.17	382.88	4.39	4431.31
10+50.00	0.23	192.76	0.21	382.34	4.59	4813.65
11+00.00	0.01	189.85	0.22	354.27	4.82	5167.92
11+50.00	0.03	184.39	0.04	346.52	4.85	5514.44
12+00.00	0.18	211.03	0.19	365.95	5.04	5880.40

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
28+00.00	0.00	0.00	0.00	0.00	79.39	16848.62

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
12+50.00	0.15	198.34	0.30	379.05	5.34	6259.44
12+80.00	0.04	183.58	0.11	212.18	5.45	6471.62
13+00.00	0.09	185.89	0.05	136.84	5.50	6608.47
13+50.00	4.31	176.00	4.31	334.93	9.81	6943.39
13+75.00	3.34	174.42	3.55	162.23	13.35	7105.63
14+00.00	1.33	169.85	2.16	159.38	15.52	7265.01
14+30.00	0.43	169.93	0.98	188.76	16.50	7453.77
14+50.00	0.85	169.08	0.48	125.56	16.97	7579.33
15+00.00	3.45	165.04	3.98	309.37	20.96	7888.71
15+50.00	1.38	167.17	4.47	307.60	25.43	8196.31
15+65.00	0.35	167.19	0.48	92.88	25.91	8289.18
16+00.00	0.46	164.93	0.53	215.26	26.43	8504.45
16+25.00	0.37	167.50	0.39	153.90	26.82	8658.35
16+50.00	1.63	169.67	0.93	156.10	27.75	8814.44
17+00.00	0.37	174.58	1.85	318.75	29.60	9133.19
17+25.00	0.22	171.06	0.27	160.02	29.88	9293.21
17+50.00	3.29	171.56	1.63	158.62	31.50	9451.83
18+00.00	1.79	176.91	4.70	322.66	36.20	9774.48
18+25.00	0.29	180.89	0.96	165.65	37.16	9940.14
18+50.00	0.61	181.33	0.42	167.70	37.58	10107.83

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
19+00.00	0.34	184.32	0.88	338.56	38.45	10446.39
19+50.00	1.01	180.69	1.25	337.97	39.70	10784.36
20+00.00	0.09	188.26	1.01	341.62	40.72	11125.98
20+50.00	0.02	188.02	0.10	348.41	40.82	11474.39
21+00.00	0.43	185.98	0.42	346.30	41.24	11820.69
21+25.00	0.06	182.34	0.23	170.52	41.47	11991.21
21+50.00	0.10	160.64	0.07	158.79	41.54	12150.00
22+00.00	4.46	165.44	4.22	301.93	45.76	12451.92
22+50.00	0.00	177.69	4.13	317.71	49.89	12769.64
23+00.00	2.44	221.81	2.26	369.91	52.15	13139.55
23+50.00	2.85	236.40	4.90	424.27	57.04	13563.82
24+00.00	0.00	249.25	2.64	449.68	59.68	14013.50
24+50.00	0.00	251.82	0.00	463.95	59.68	14477.45
25+00.00	0.49	246.30	0.45	461.22	60.13	14938.67
25+50.00	0.00	210.47	0.45	422.94	60.59	15361.61
26+00.00	1.70	205.44	1.57	385.11	62.16	15746.72
26+50.00	3.06	210.88	4.41	385.48	66.57	16132.20
27+00.00	5.06	203.69	7.51	383.86	74.08	16516.06
27+41.48	1.54	190.18	5.07	302.55	79.15	16818.62
27+50.00	0.00	0.00	0.24	30.01	79.39	16848.62

MAIN AVE

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+91.00	0.14	56.32	0.00	0.00	0.00	0.00
9+00.00	0.34	108.60	0.08	27.49	0.08	27.49
9+50.00	0.00	114.19	0.32	206.29	0.40	233.78

NORTH AVE (WEST)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
7+94.52	0.01	88.28	0.00	0.00	0.00	0.00
8+00.00	0.19	127.34	0.02	21.88	0.02	21.88
8+50.00	0.87	226.23	0.99	327.39	1.01	349.27
9+00.00	0.00	195.18	0.81	390.20	1.82	739.46
9+40.00	0.00	148.38	0.00	254.49	1.82	993.95

NORTH AVE (EAST)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+35.00	0.00	130.06	0.00	0.00	0.00	0.00
10+50.00	0.00	173.12	0.00	84.22	0.00	84.22
11+00.00	2.65	222.07	2.45	365.92	2.45	450.13
11+50.00	1.09	293.37	3.46	477.26	5.92	927.40
12+00.00	0.66	201.49	1.62	458.21	7.54	1385.60
12+50.00	0.11	206.33	0.72	377.61	8.26	1763.21

25TH ST (WEST)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
8+70.80	0.65	71.70	0.00	0.00	0.00	0.00
9+00.00	0.35	140.21	0.52	114.10	0.52	114.10
9+50.00	0.00	128.67	0.35	250.17	0.87	364.28
9+70.00	0.00	116.18	0.00	92.49	0.87	456.77

25TH ST (EAST)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+25.00	0.00	100.38	0.00	0.00	0.00	0.00
10+50.00	0.00	175.71	0.00	127.82	0.00	127.82
10+80.00	1.25	68.68	0.69	135.77	0.69	263.60

26TH ST

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+30.00	0.00	157.20	0.00	0.00	0.00	0.00
10+50.00	0.44	143.33	0.16	111.31	0.16	111.31
11+00.00	0.09	112.65	0.62	236.21	0.79	347.52
11+22.00	0.00	56.79	0.03	69.02	0.82	416.55

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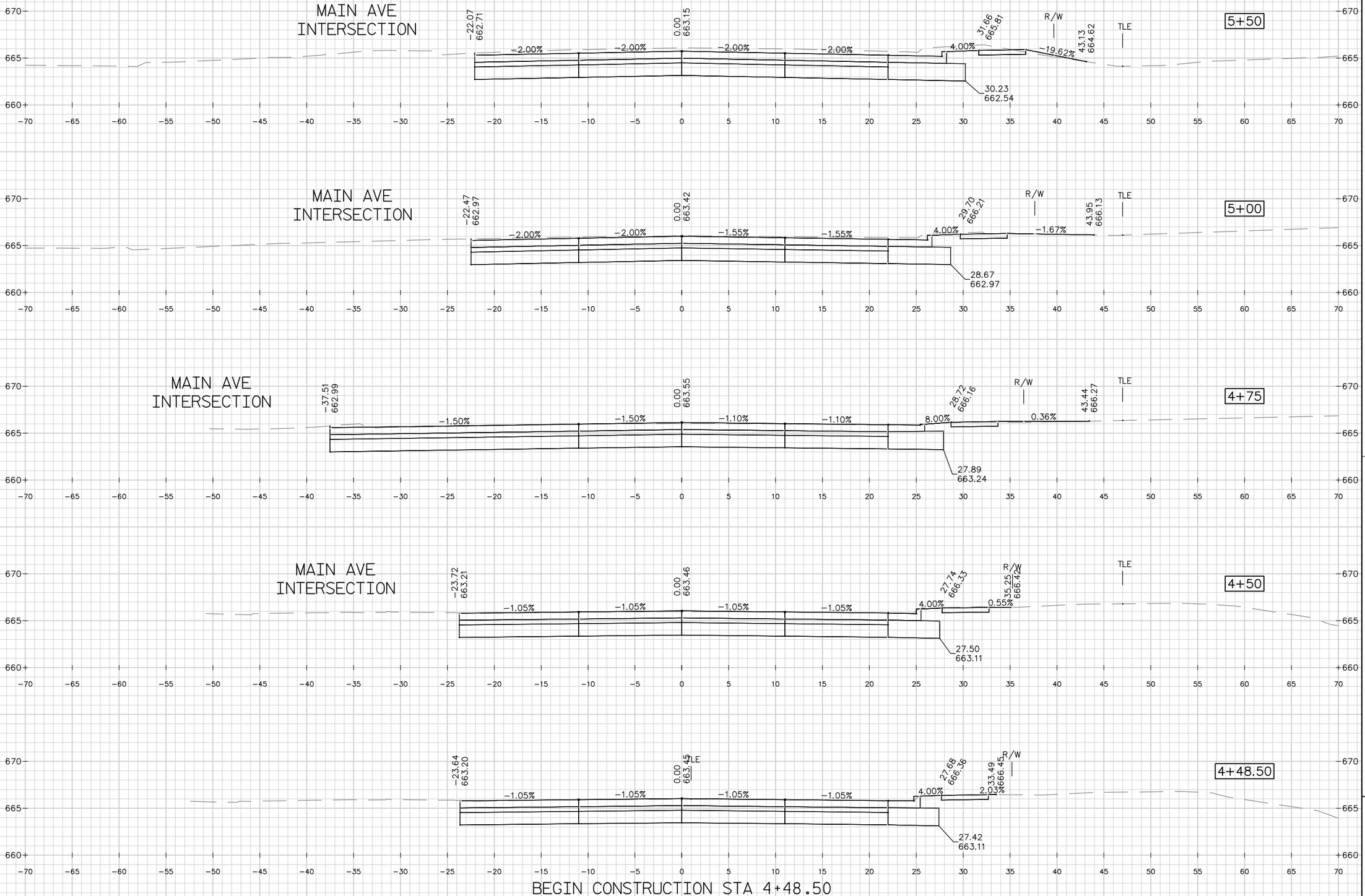

BEGIN CONSTRUCTION STA 4+48.50

PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 250	E

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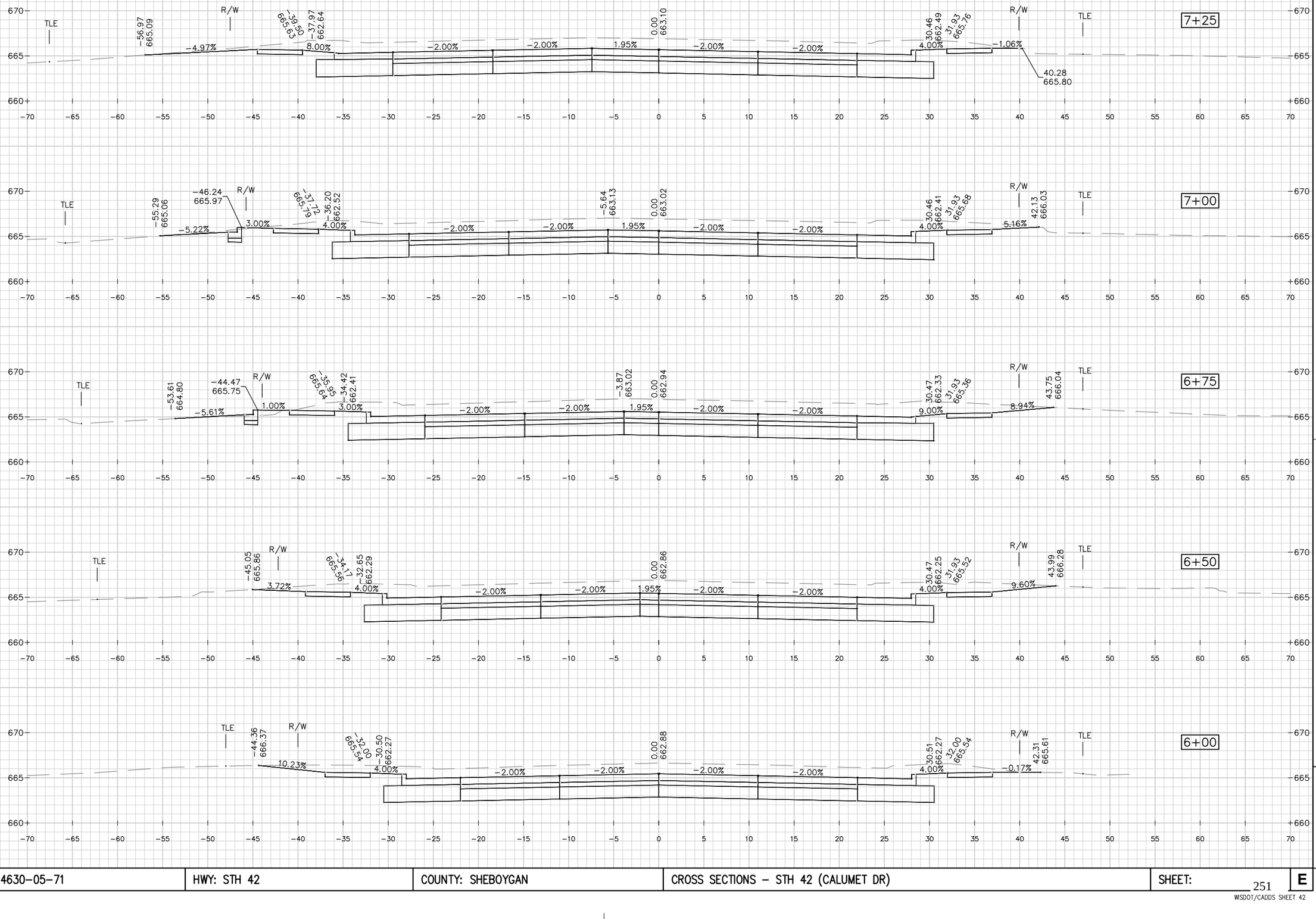

PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 251 E

WSDOT/CADDS SHEET 42

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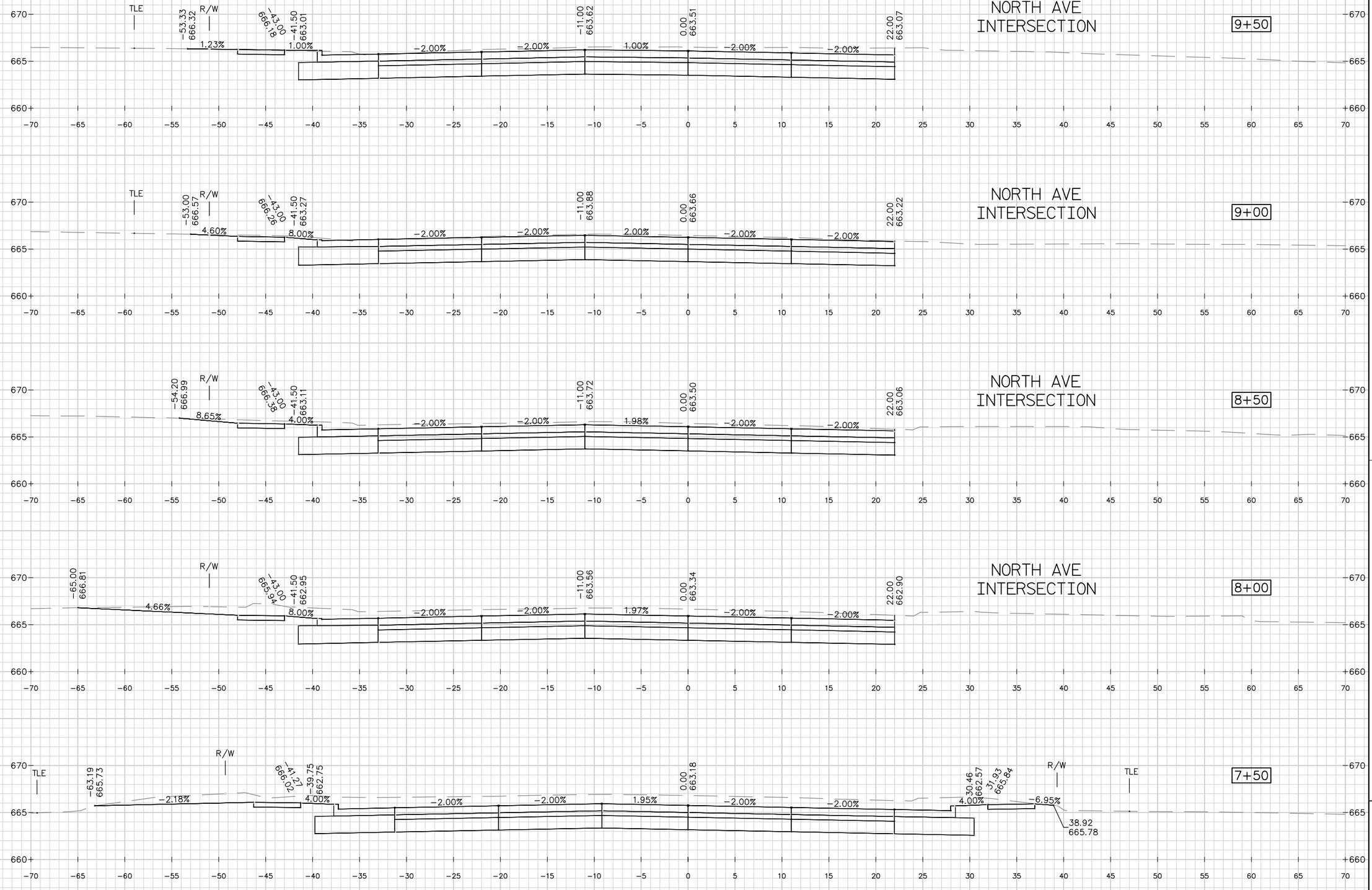
NORTH AVE
INTERSECTION
9+50
TLE
R/W
-53.33
666.32
-43.00
666.18
-41.50
663.01
-11.00
663.62
0.00
663.51
22.00
663.07
1.23%
1.00%
-2.00%
-2.00%
1.00%
-2.00%
-2.00%
NORTH AVE
INTERSECTION
9+00
TLE
R/W
-53.00
666.37
-43.00
666.26
-41.50
663.27
-11.00
663.88
0.00
663.66
22.00
663.22
4.60%
8.00%
-2.00%
-2.00%
2.00%
-2.00%
-2.00%
NORTH AVE
INTERSECTION
8+50
R/W
-54.20
666.99
-43.00
666.58
-41.50
663.11
-11.00
663.72
0.00
663.50
22.00
663.06
8.65%
4.00%
-2.00%
-2.00%
1.98%
-2.00%
-2.00%
NORTH AVE
INTERSECTION
8+00
R/W
-65.00
666.81
-43.00
665.94
-41.50
662.95
-11.00
663.56
0.00
663.34
22.00
662.90
4.66%
8.00%
-2.00%
-2.00%
1.97%
-2.00%
-2.00%
7+50
TLE
R/W
-63.19
665.73
-41.27
666.07
-39.75
662.75
0.00
663.18
30.46
662.57
31.93
665.84
38.92
665.78
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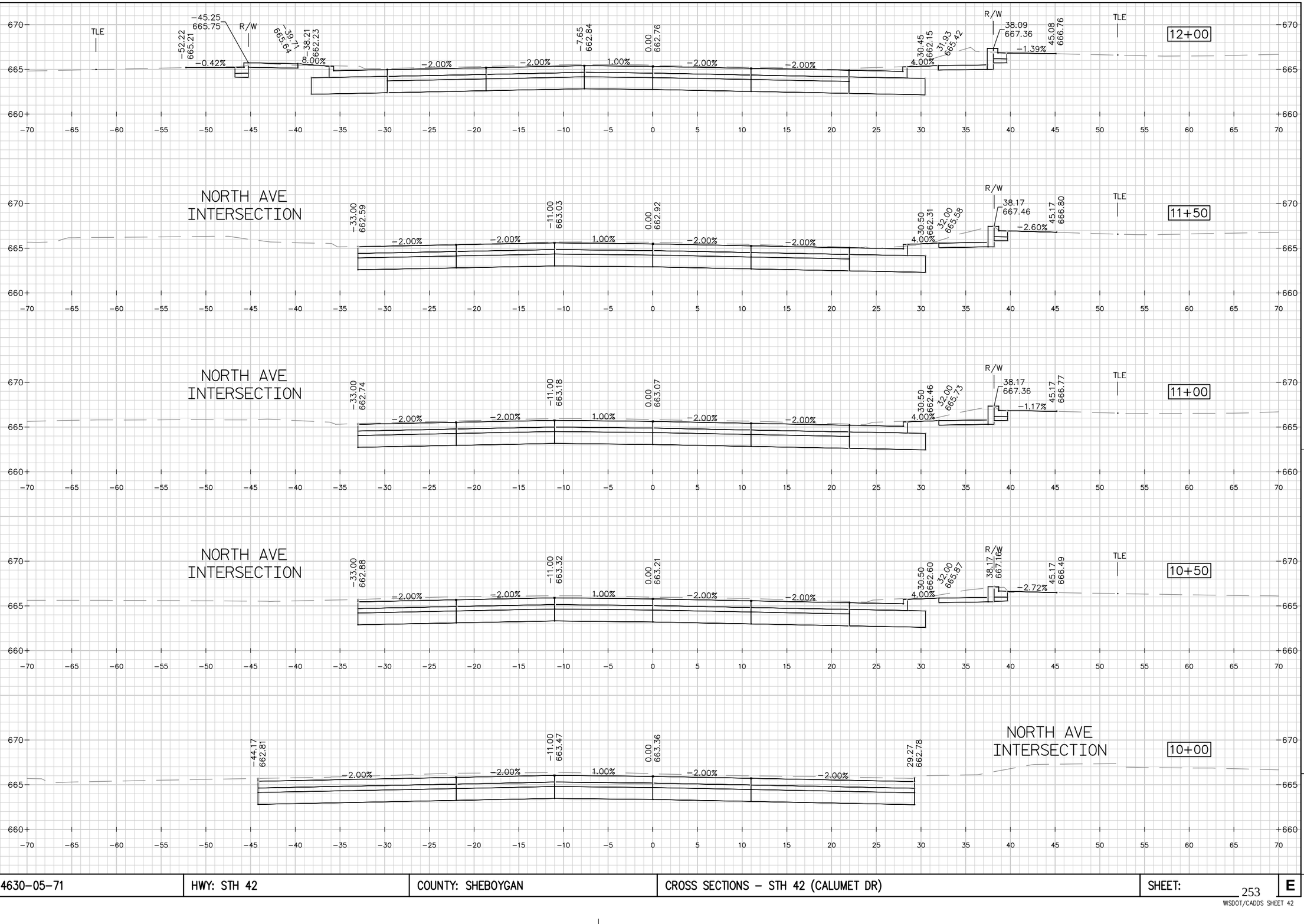
4.00%
-6.95%



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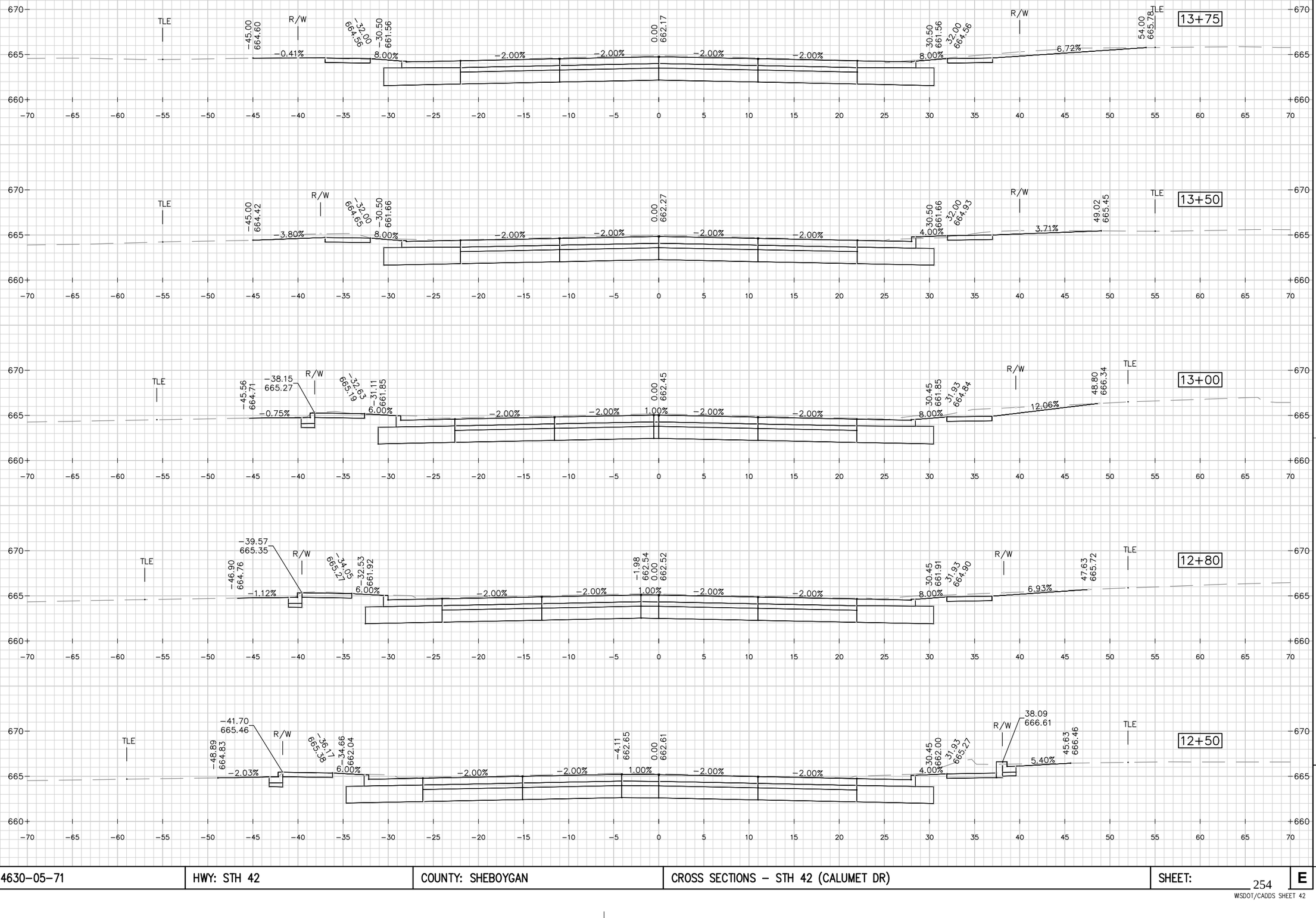
PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS – STH 42 (CALUMET DR)	SHEET: 253	E

WSDOT/CADDS SHEET 42



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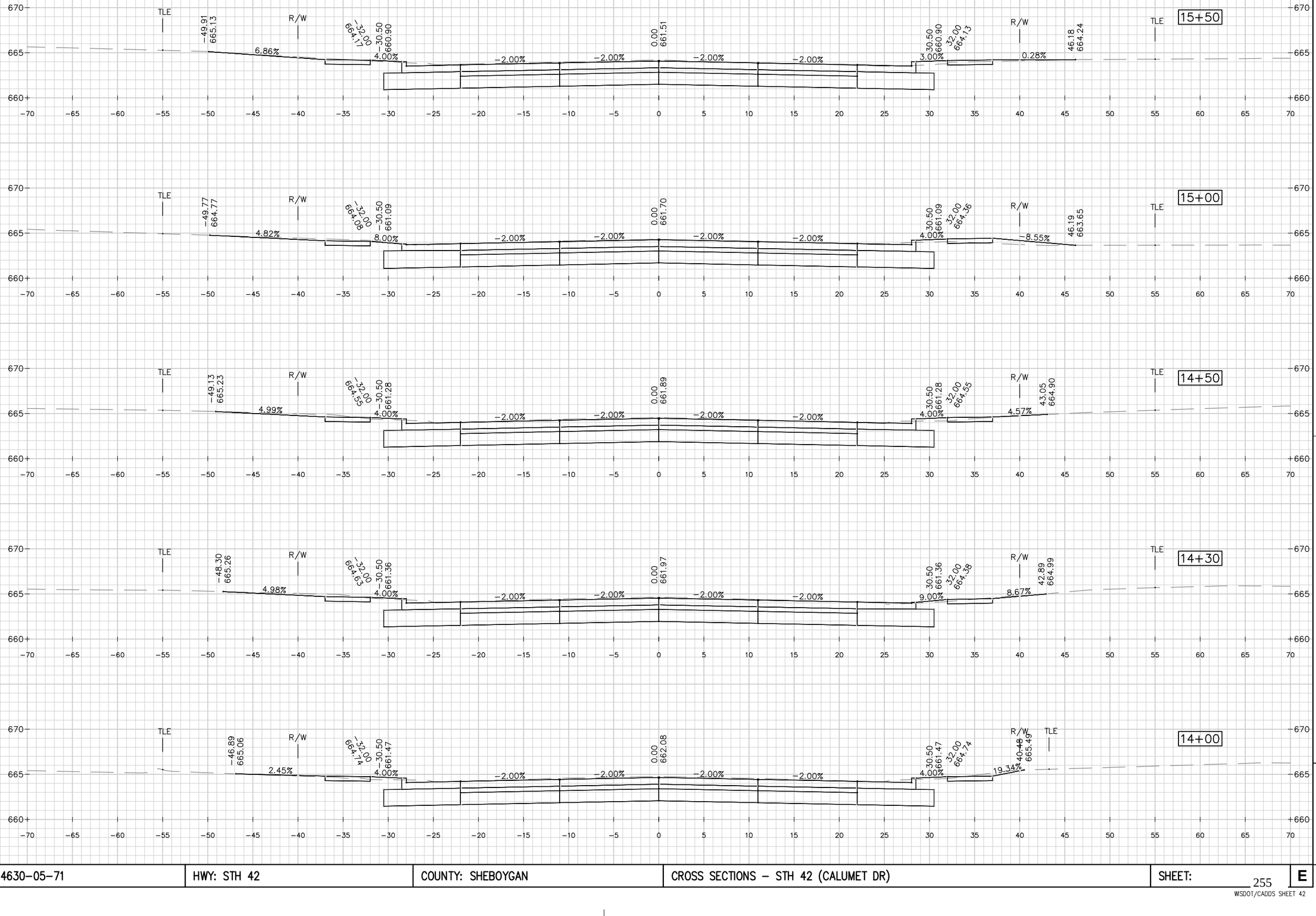
PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 254	E



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 255	E

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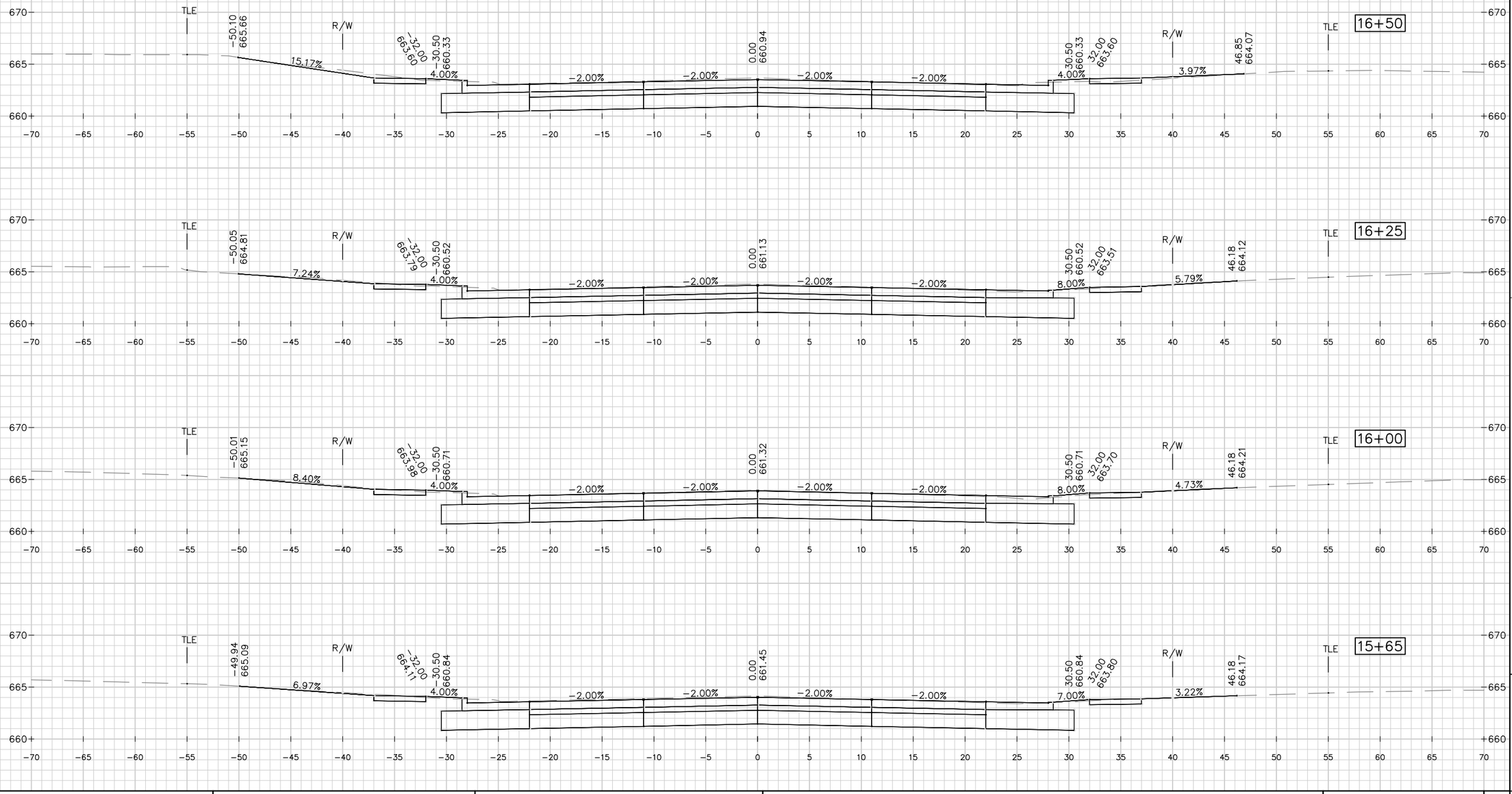

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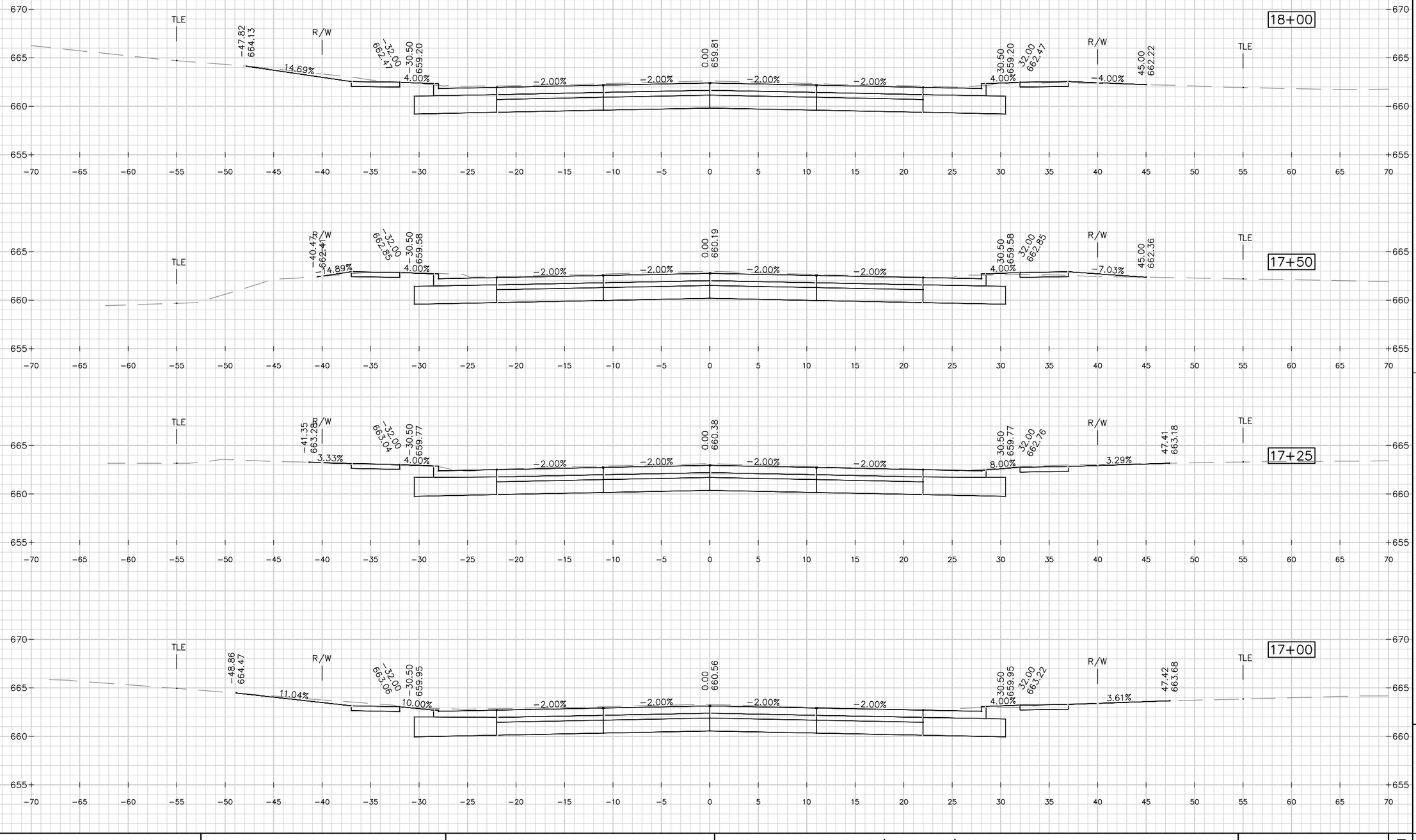
PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS – STH 42 (CALUMET DR)	SHEET: 256	E



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS – STH 42 (CALUMET DR)	SHEET: 257	E

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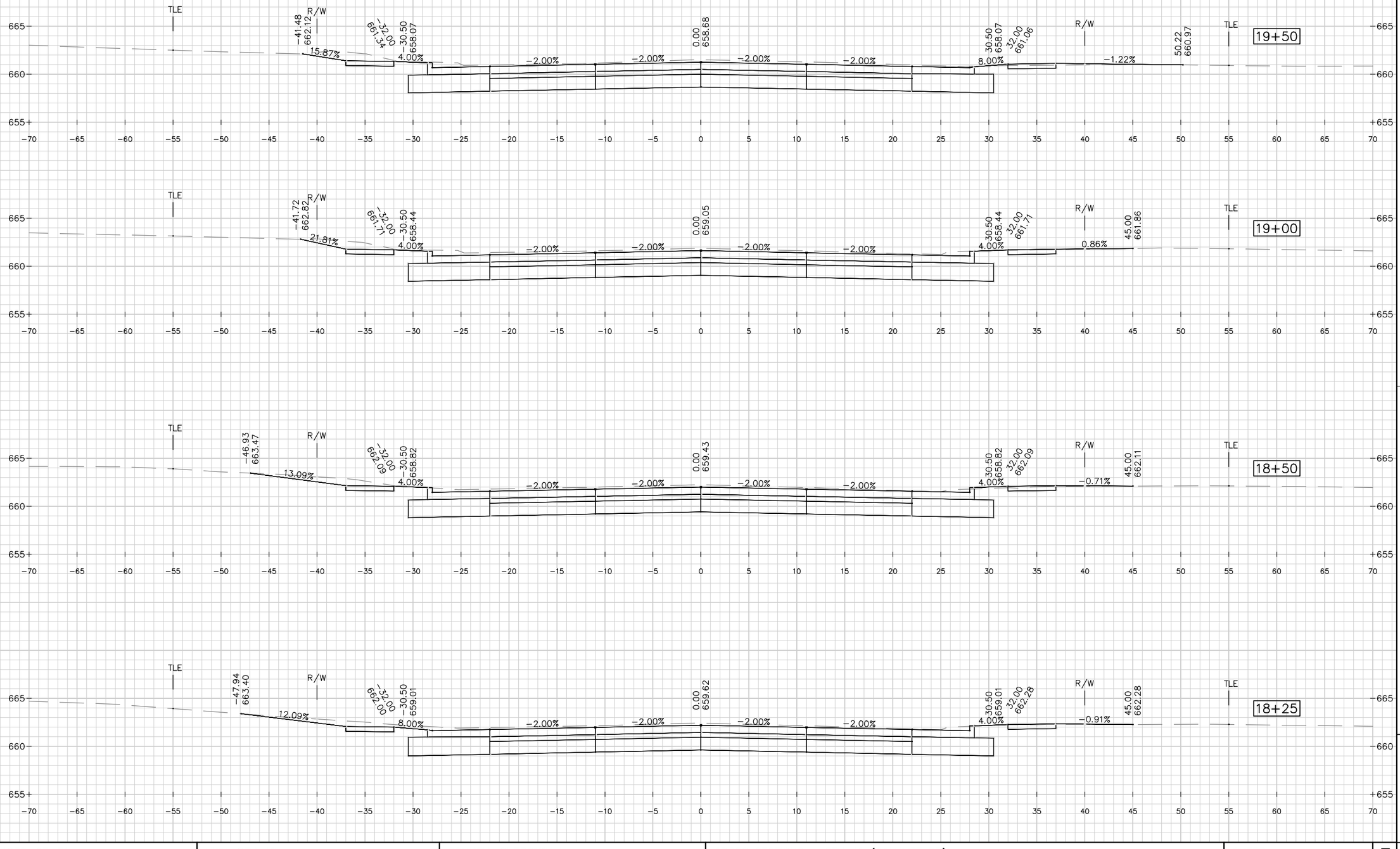
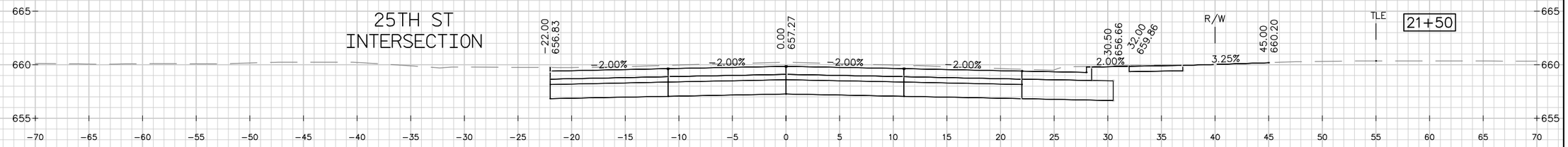
WSDOT/CADDS SHEET 42

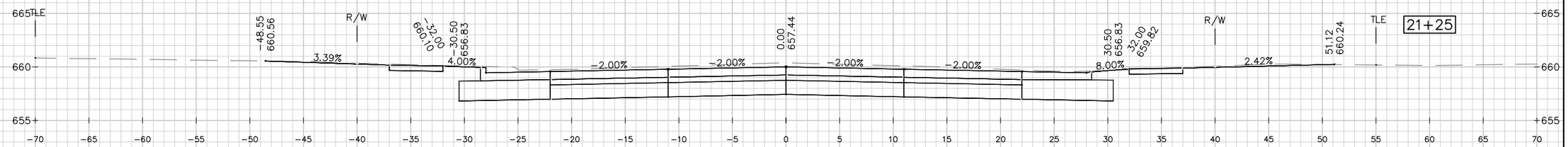


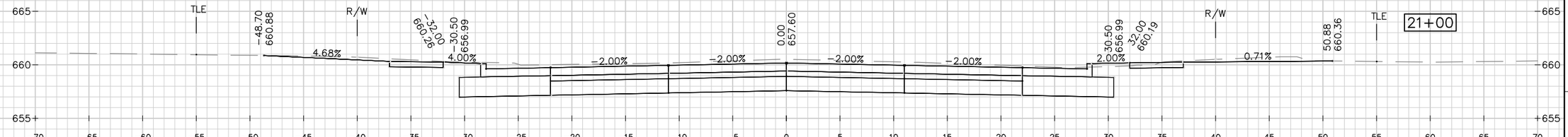
PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 258	E

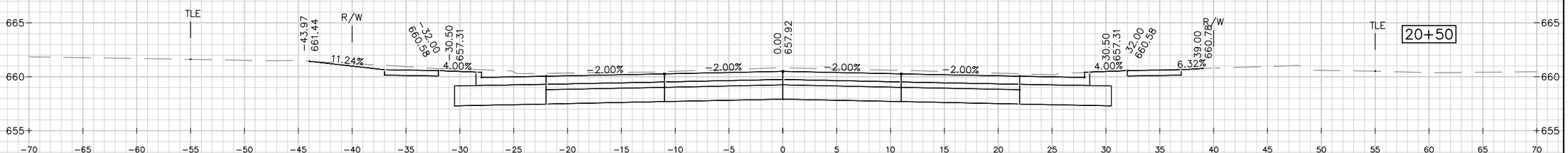
W:\PROJECTS\WD059\02\07\100109-Cross Sections\STH 42 3D.dwg, X09, 8/2/2016 1:03:10 PM, CClemens, 1:2

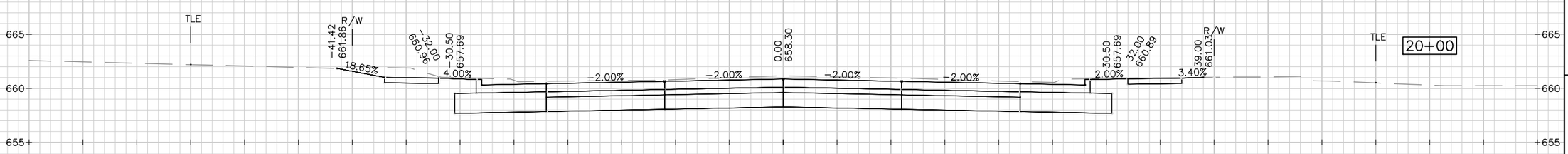
25TH ST INTERSECTION











PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 259 E

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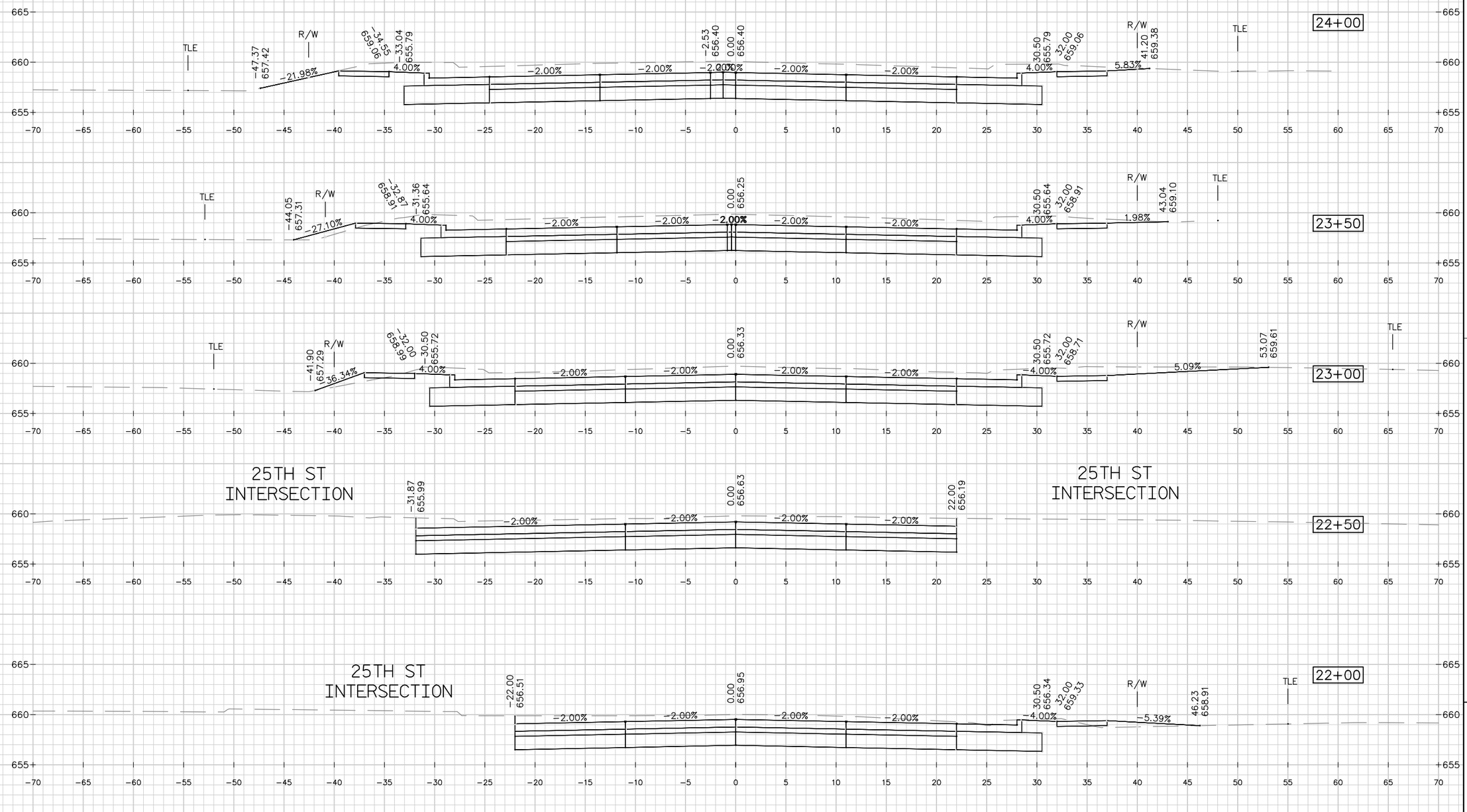
WISDOT/CADDS SHEET 42



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 260	E

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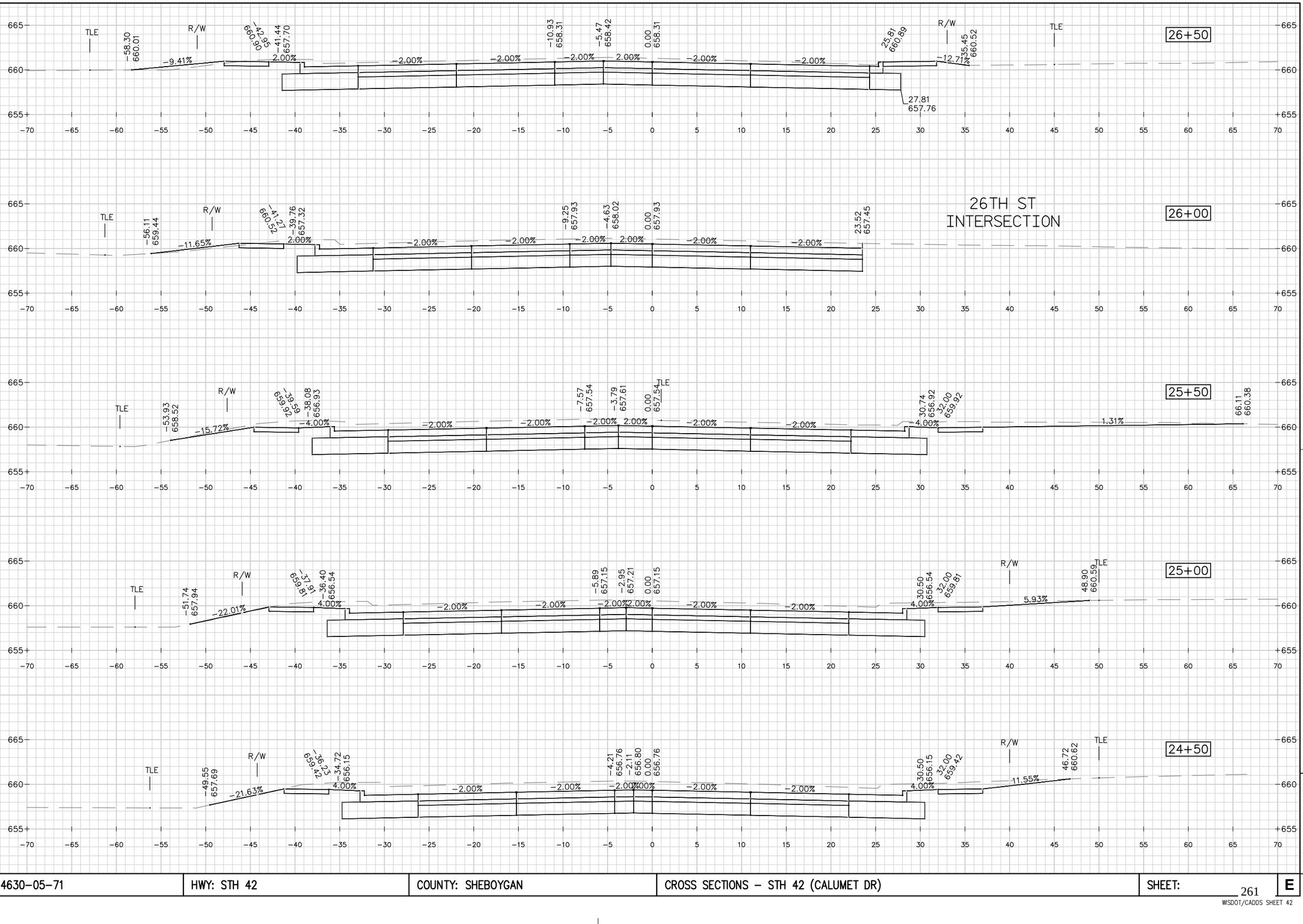
WSDOT/CADDS SHEET 42



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 261	E

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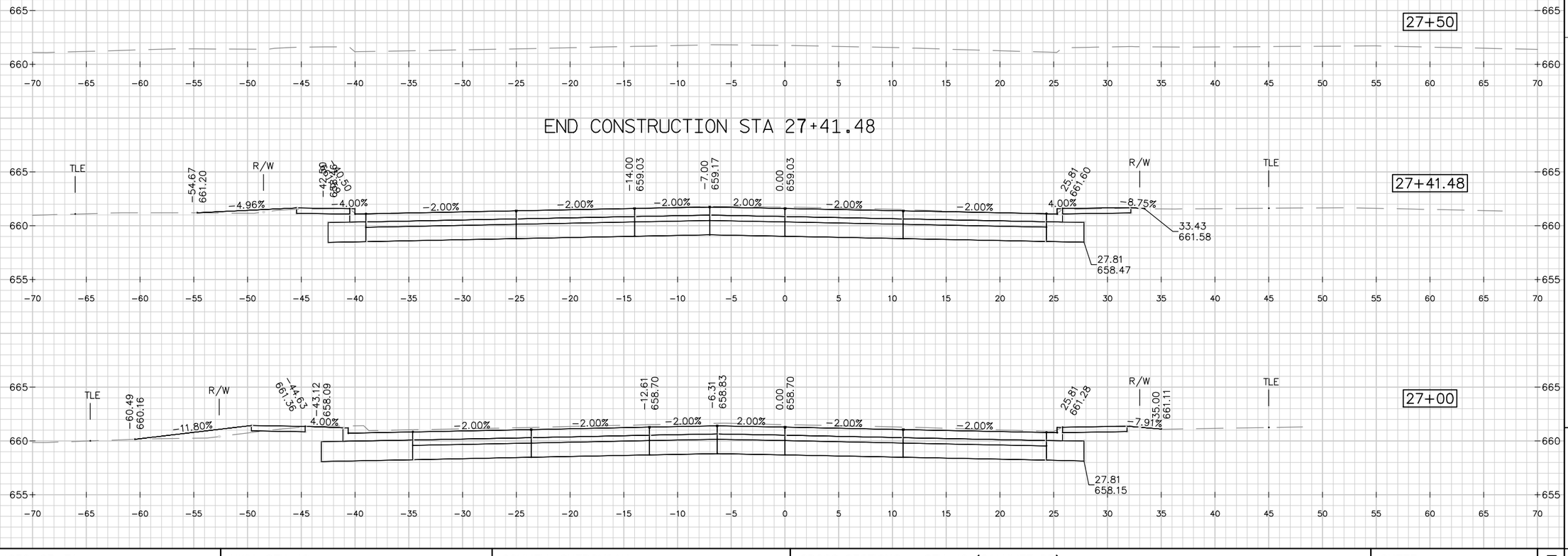

PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - STH 42 (CALUMET DR)	SHEET: 262	E

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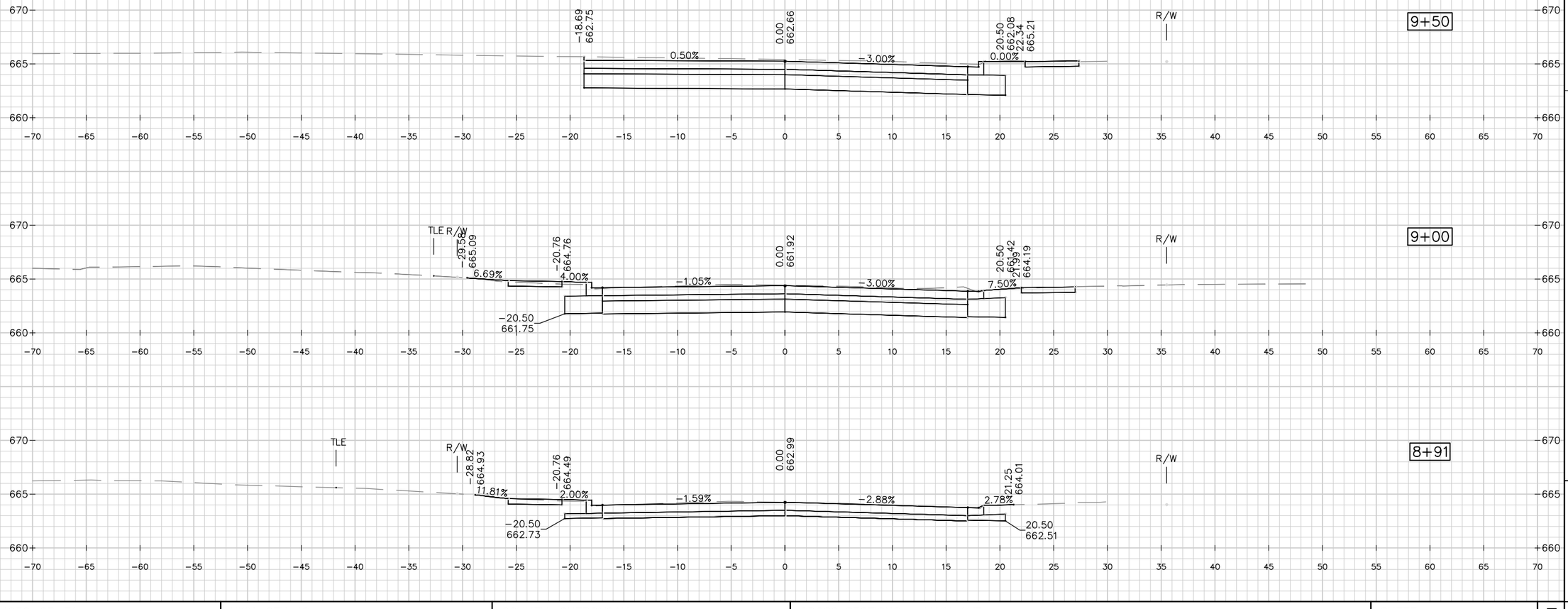
WSDOT/CADDS SHEET 42



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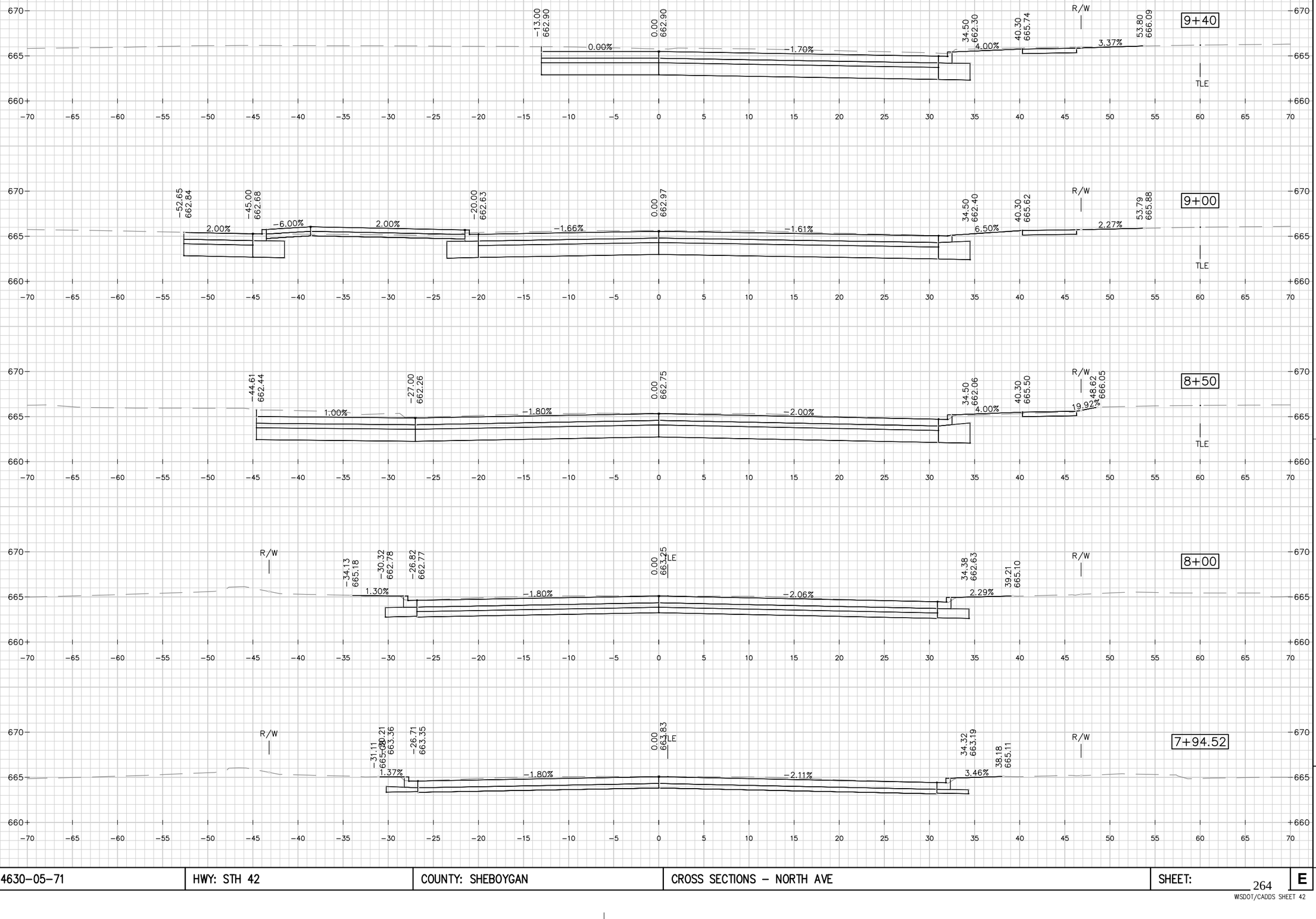
PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - MAIN AVE	SHEET: 263	E

WISDOT/CADDS SHEET 42



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - NORTH AVE	SHEET: 264	E

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PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - NORTH AVE	SHEET: E

WSDOT/CADDS SHEET 42

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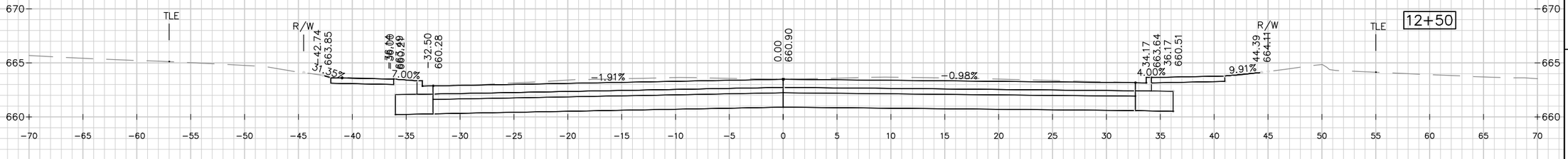

PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - NORTH AVE	SHEET: 266	E

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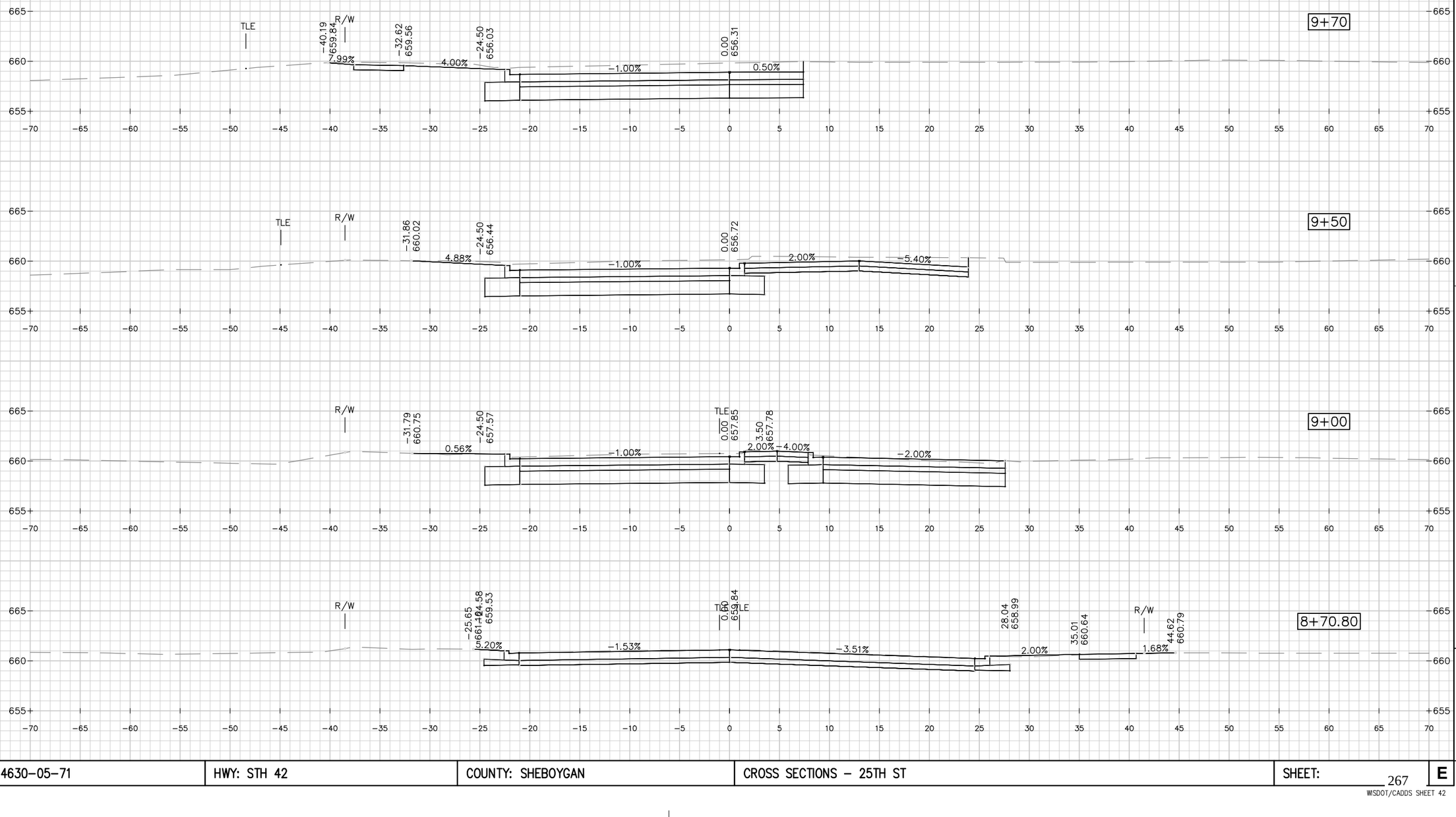

PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - 25TH ST	SHEET: 267	E

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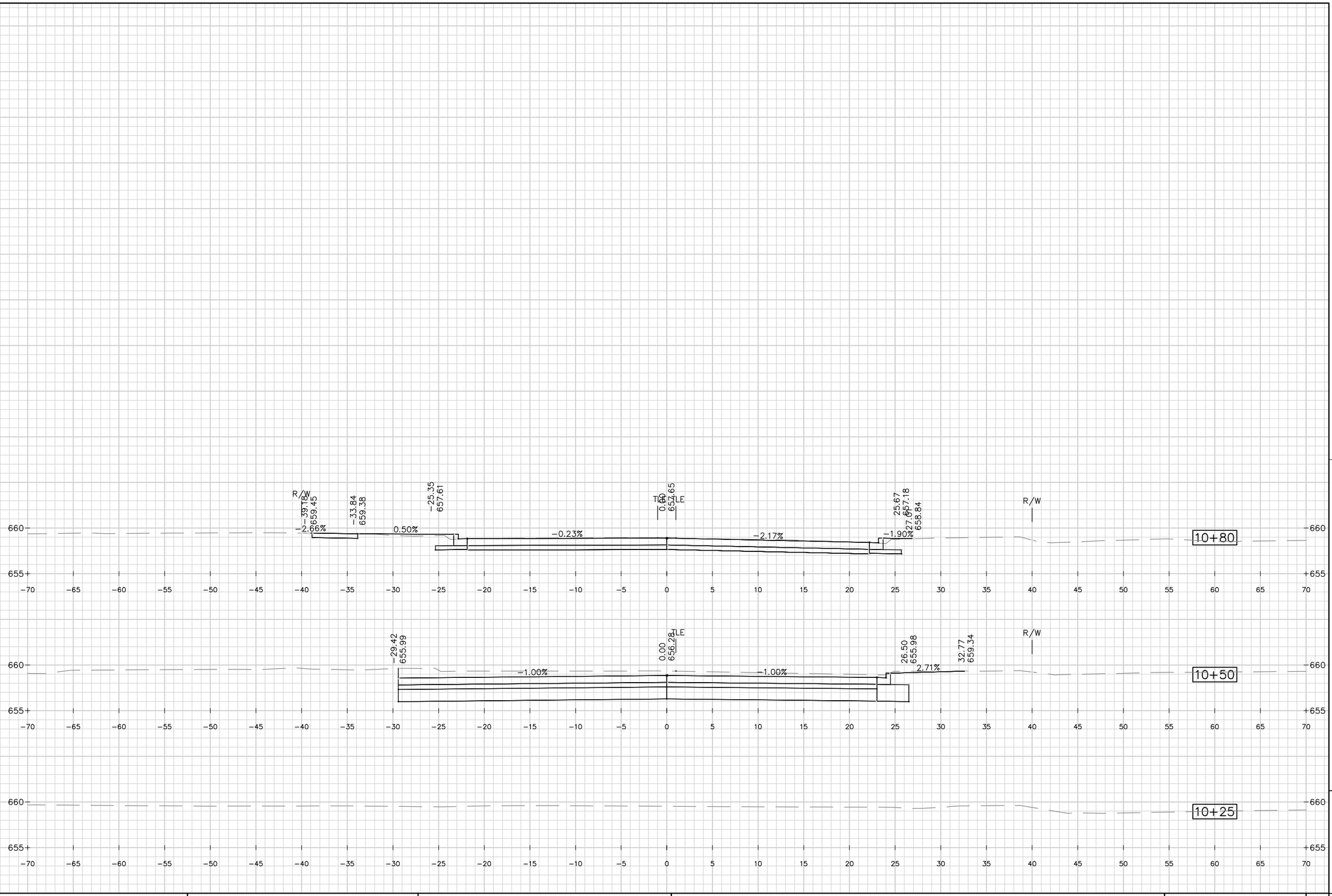
9

9

WISDOT/CADDS SHEET 42



PROJECT NUMBER: 4630-05-71	HWY: STH 42	COUNTY: SHEBOYGAN	CROSS SECTIONS - 25TH ST	SHEET: 268	E

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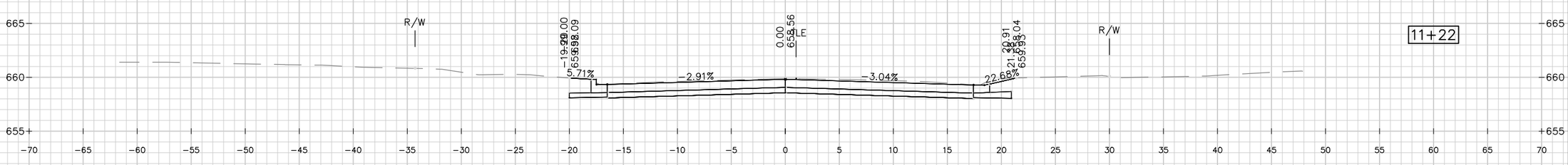
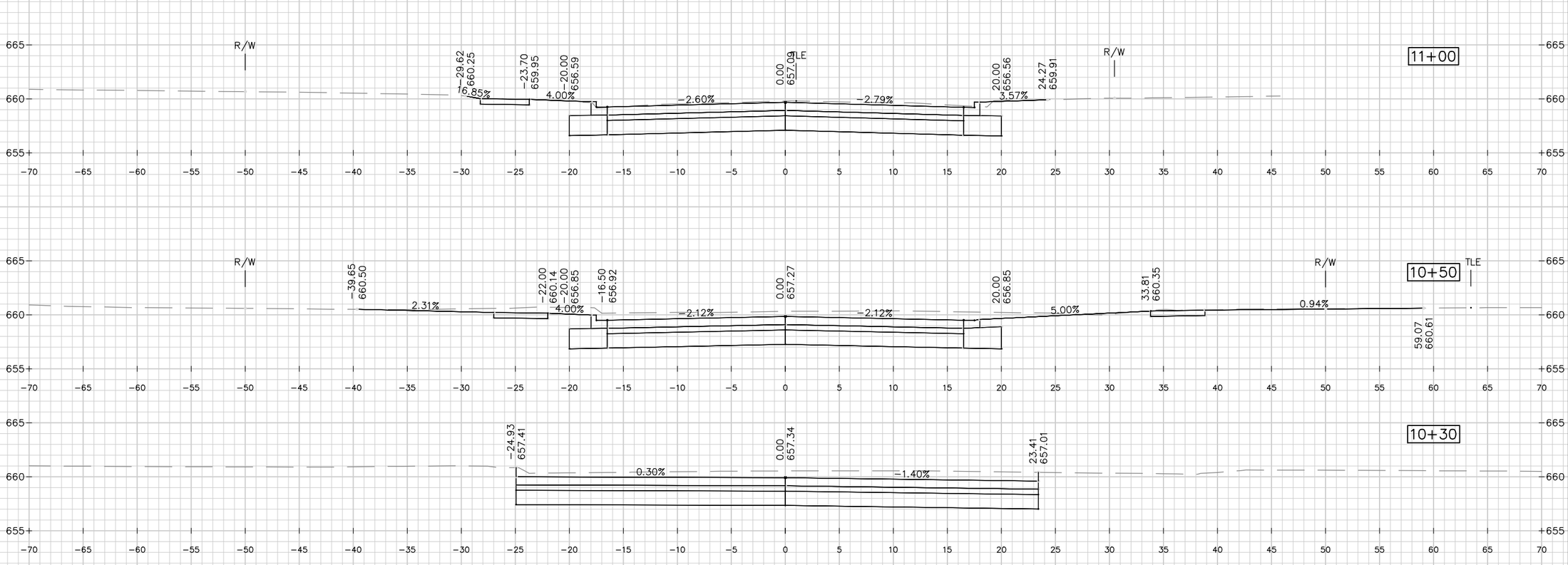
WSDOT/CADDS SHEET 42


11+22
R/W
R/W
TLE
-19.00
659.09
0.00
658.56
20.91
659.04
5.71%
-2.91%
-3.04%
22.68%
665
660
655
-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


11+00
R/W
R/W
TLE
-29.62
660.25
-23.70
659.95
-20.00
656.59
0.00
657.09
20.00
656.56
24.27
659.91
16.85%
4.00%
-2.60%
-2.79%
3.57%
10+50
R/W
R/W
TLE
-39.65
660.50
-22.00
660.14
-20.00
656.85
-16.50
656.92
0.00
657.27
20.00
656.85
33.81
660.35
59.07
660.61
2.31%
4.00%
-2.12%
-2.12%
5.00%
0.94%
10+30
-24.93
657.41
0.00
657.34
23.41
657.01
0.30%
-1.40%
665
660
655
-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

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
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GRE

DEC 2016

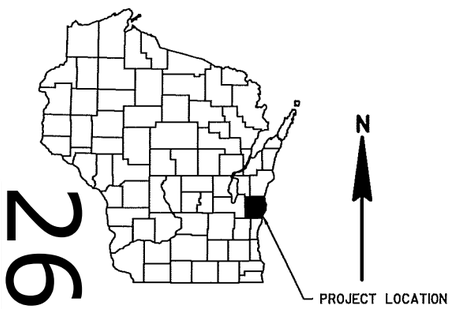
PROJECT ID: 4630-30-60

COUNTY: SHEBOYGAN

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 = 108



26

DESIGN DESIGNATION

A.A.D.T.	2014	= 14500
A.A.D.T.		=
D.H.V.		=
D.D.		=
T.		= 7.62%
DESIGN SPEED		= 40 MPH
ESALS		=

CONVENTIONAL SYMBOLS

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

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

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

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHEBOYGAN - HOWARD GROVE

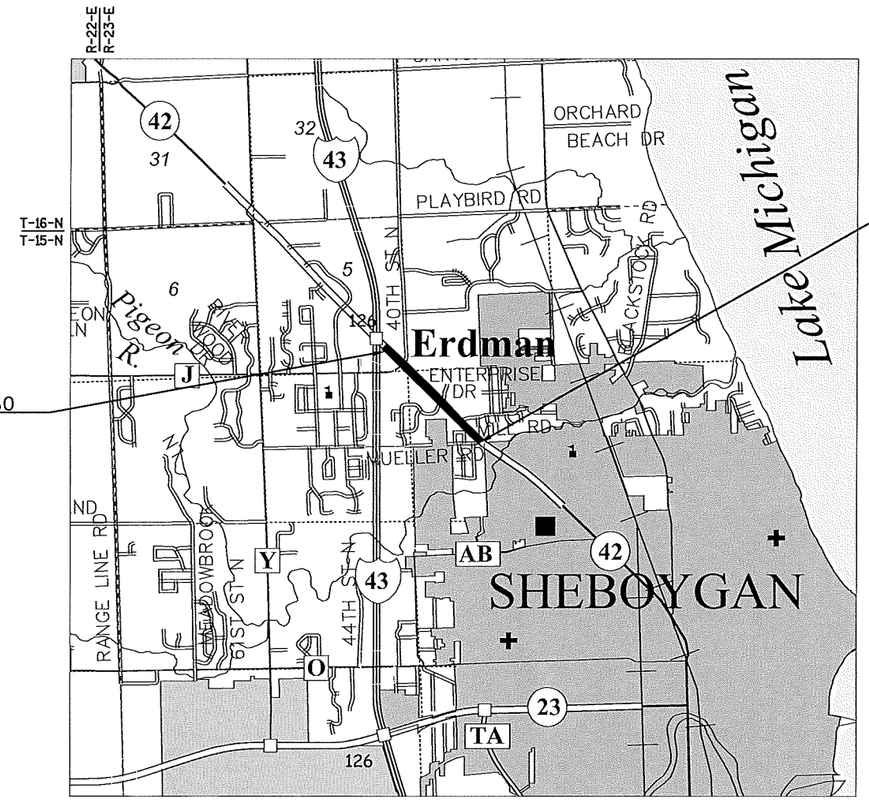
MUELLER RD - IH-43

STH 42

SHEBOYGAN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4630-30-60		

STATE PROJECT NUMBER
4630-30-60



BEGIN PROJECT 4630-30-60
STA 108+65.00
Y=188255.978
X=209115.076

END PROJECT 4630-30-60
STA 153+50.00

TOTAL NET LENGTH OF CENTERLINE = 0.851 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES,SHEBOYGAN COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SURVEYOR
Designer	MARK JANKE
Project Manager	KYLE TREML
Regional Examiner	JODI MARSH
Regional Supervisor	ROBERT WAGNER

APPROVED FOR THE DEPARTMENT
DATE: 7/20/16 (Signature)

E

GENERAL NOTES

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

ANY MESH MATERIAL THAT IS FOUND IN EXISTING PAVEMENT WILL BE INCIDENTAL TO THE REMOVAL OF THE PAVEMENT ITEM IN THAT SECTION. EXISTING PAVEMENT DEPTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
STORM SEWER
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT PLAN

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WilliamBlashka@townofsheboygan.org

Bill Blashka
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Sheboygan, WI 53081
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WilliamBlashka@townofsheboygan.org

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Lori Butry
Wisconsin Public Service Corporation - Gas/Petroleum
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Green Bay, WI 54307-9001
(920)433-1703
LAButry@integrysgroup.com

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

DNR LIAISION

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DEPARTMENT OF NATURAL RESOURCES
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SHEBOYGAN COUNTY COMMISSIONER

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HIGHWAY COMMISSIONER
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NE REGION SURVEY COORDINATOR

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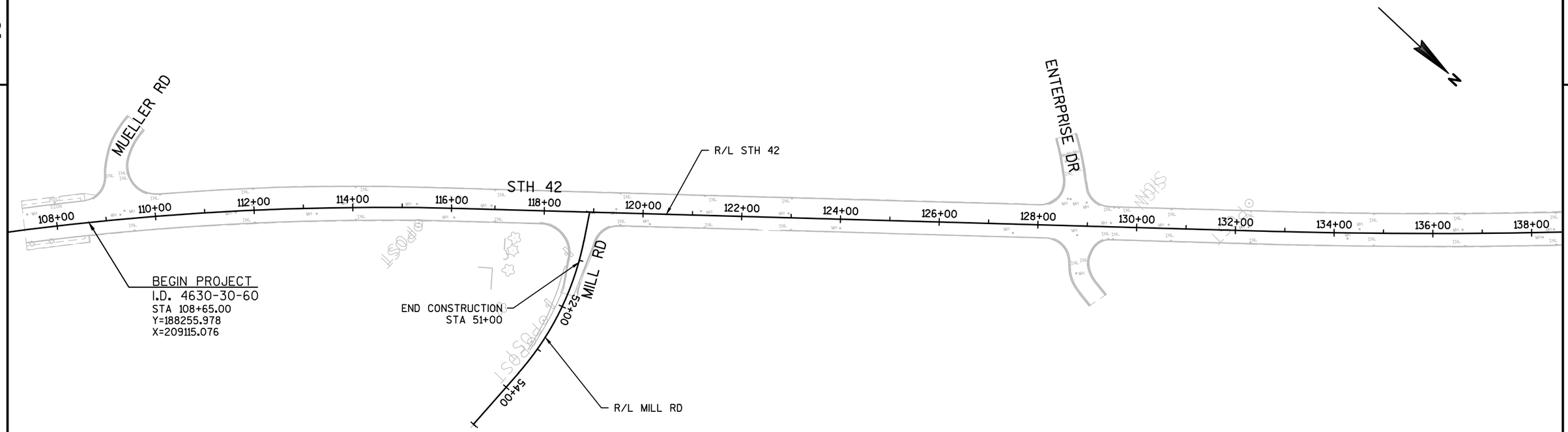
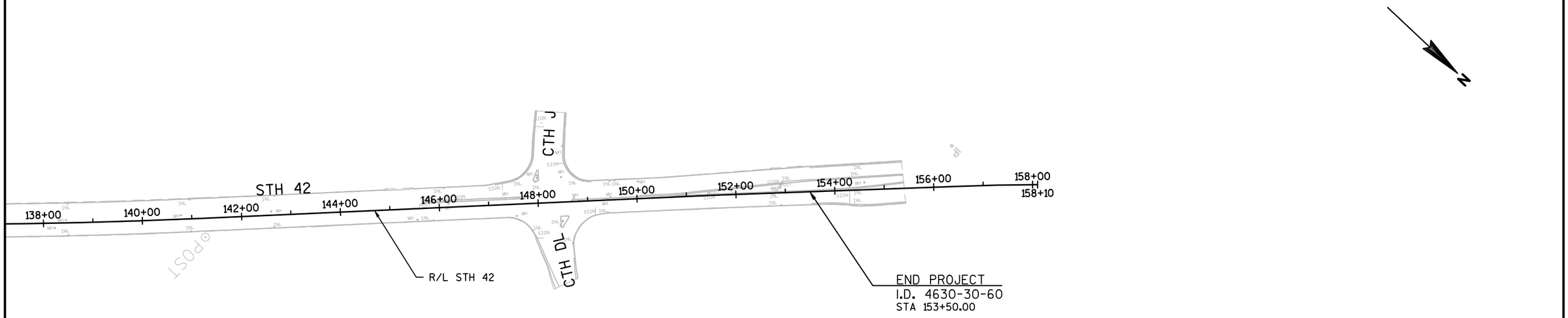
cormac.mcinnis@dot.wi.gov

2



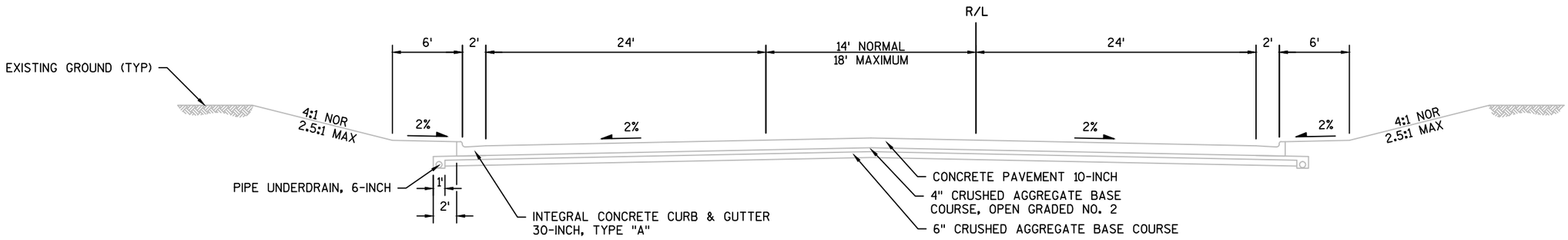


PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\46303030\CIVIL 3D 2014\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-PO

PLOT DATE : 5/2/2016 2:42 PM PLOT BY : MALUEG, RYAN P PLOT NAME : PLOT SCALE : 1 IN:200 FT

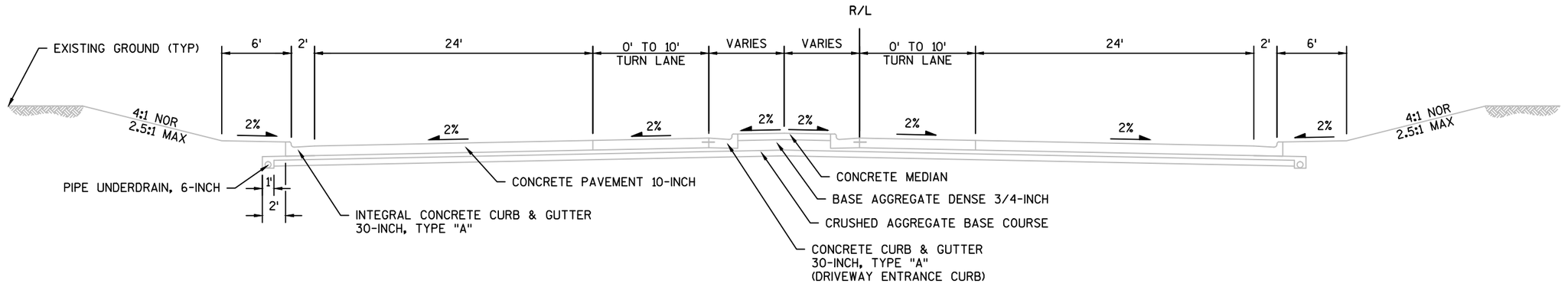
2



EXISTING TYPICAL SECTION STH 42

STA 108+65.00 TO STA 145+66.87

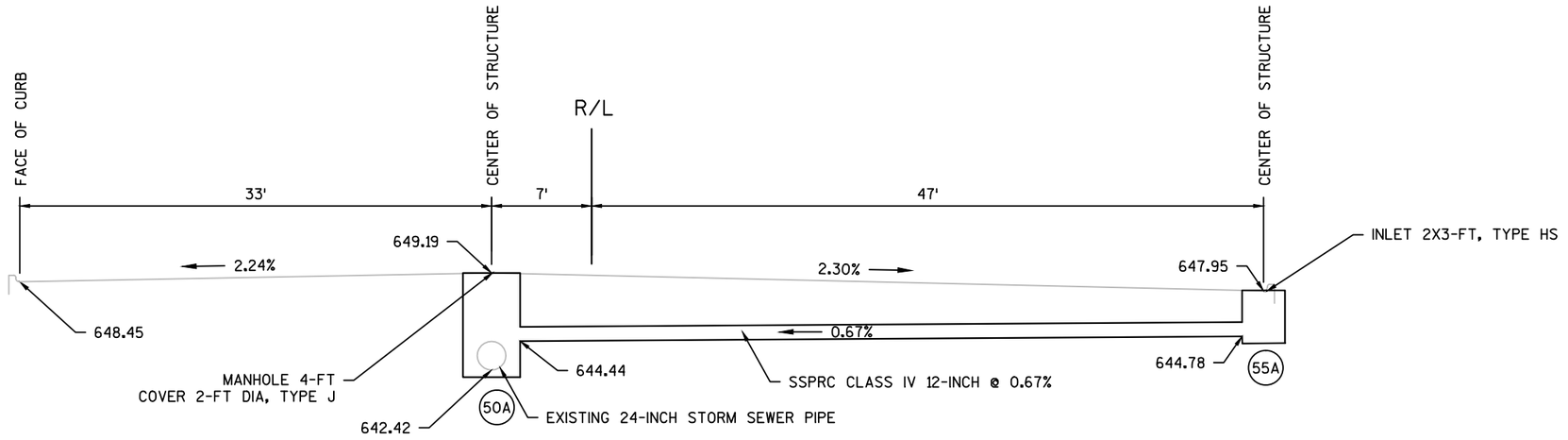
(FOR PROPOSED CONCRETE PAVEMENT OR CONCRETE PAVEMENT REPAIR LOCATIONS SEE MISCELLANEOUS QUANTITIES OR PLAN SHEETS)



EXISTING TYPICAL SECTION STH 42

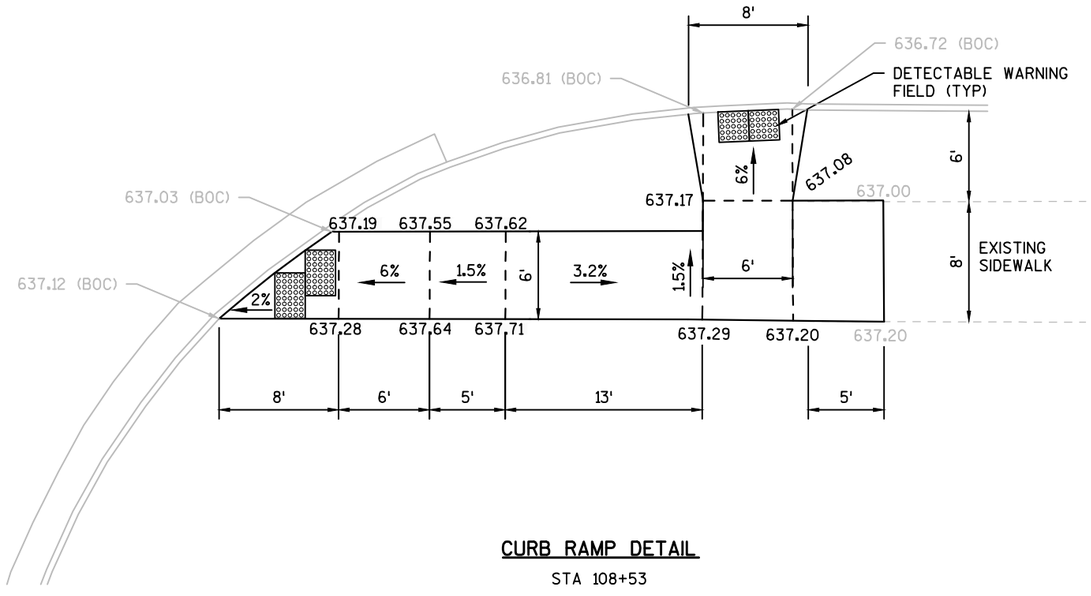
STA 145+66.87 TO STA 152+00.00
STA 152+00.00 TO 153+50.00 GRASS MEDIAN

(FOR PROPOSED CONCRETE PAVEMENT OR CONCRETE PAVEMENT REPAIR LOCATIONS SEE MISCELLANEOUS QUANTITIES OR PLAN SHEETS)



STORM SEWER DETAIL

STA 118+39



CURB RAMP DETAIL

STA 108+53

NOTE

WISCONSIN DOT NE REGION ELECTRICAL UNIT SHALL APPROVE FINAL LOCATIONS FOR ALL LOOP DETECTORS AND CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION; MAKE WIRING TERMINATIONS IN THE SIGNAL CABINET. CONTACT THEM 3 DAYS IN ADVANCE AT (920) 492-5710.

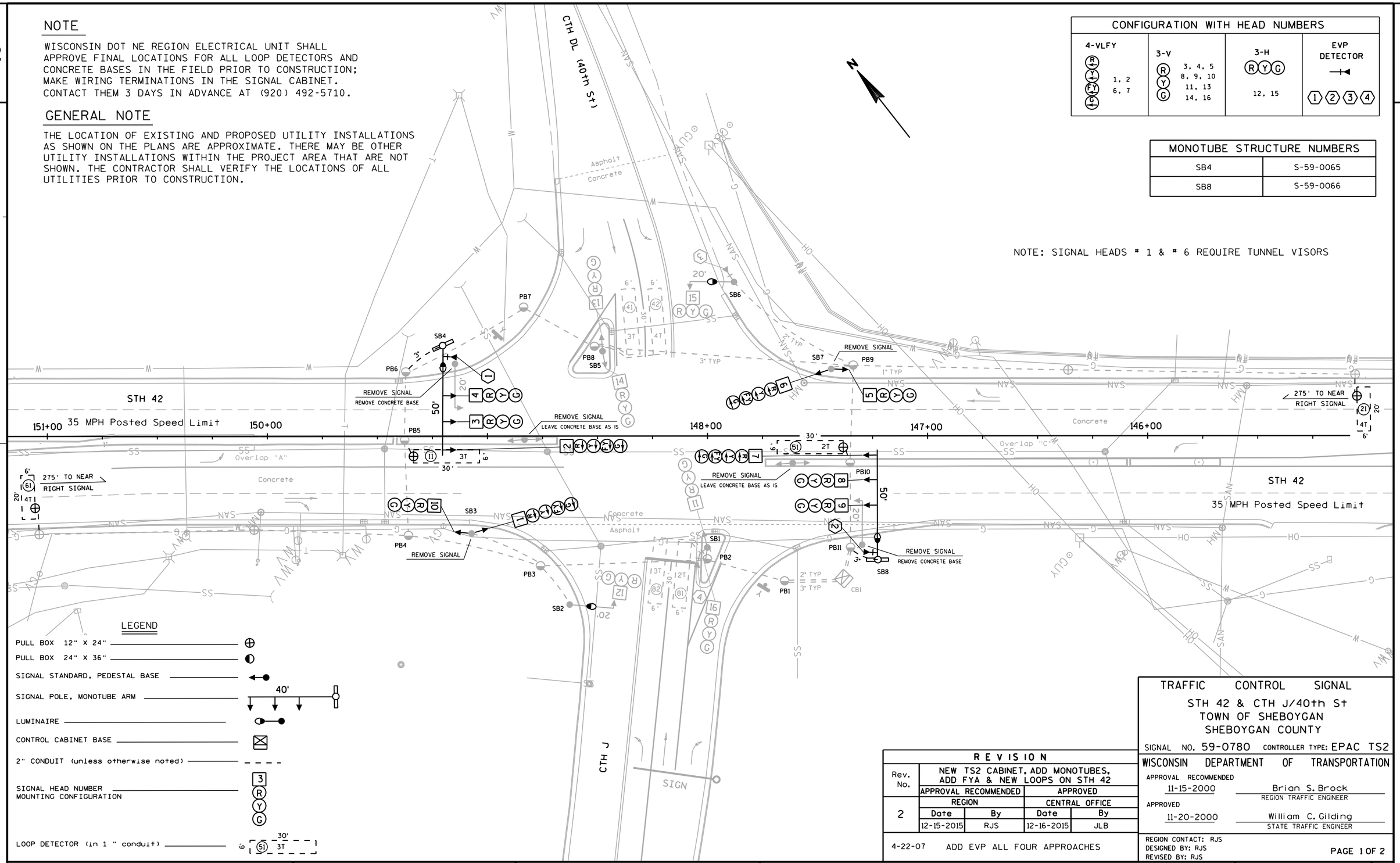
GENERAL NOTE

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

CONFIGURATION WITH HEAD NUMBERS			
4-VLFY	3-V	3-H	EVP DETECTOR
1, 2 6, 7	3, 4, 5 8, 9, 10 11, 13 14, 16	12, 15	

MONOTUBE STRUCTURE NUMBERS	
SB4	S-59-0065
SB8	S-59-0066

NOTE: SIGNAL HEADS # 1 & # 6 REQUIRE TUNNEL VISORS



LEGEND

- PULL BOX 12" X 24"
- PULL BOX 24" X 36"
- SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL POLE, MONOTUBE ARM — 40'
- LUMINAIRE
- CONTROL CABINET BASE
- 2" CONDUIT (unless otherwise noted)
- SIGNAL HEAD NUMBER / MOUNTING CONFIGURATION — 3 (R Y G)
- LOOP DETECTOR (in 1 " conduit) — 30' × 6' (51) 3T

REVISION				
Rev. No.	NEW TS2 CABINET, ADD MONOTUBES, ADD FYA & NEW LOOPS ON STH 42			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
	Date	By	Date	By
2	12-15-2015	RJS	12-16-2015	JLB
4-22-07	ADD EVP ALL FOUR APPROACHES			

TRAFFIC CONTROL SIGNAL

STH 42 & CTH J/40th St
TOWN OF SHEBOYGAN
SHEBOYGAN COUNTY

SIGNAL NO. 59-0780 CONTROLLER TYPE: EPAC TS2

WISCONSIN DEPARTMENT OF TRANSPORTATION

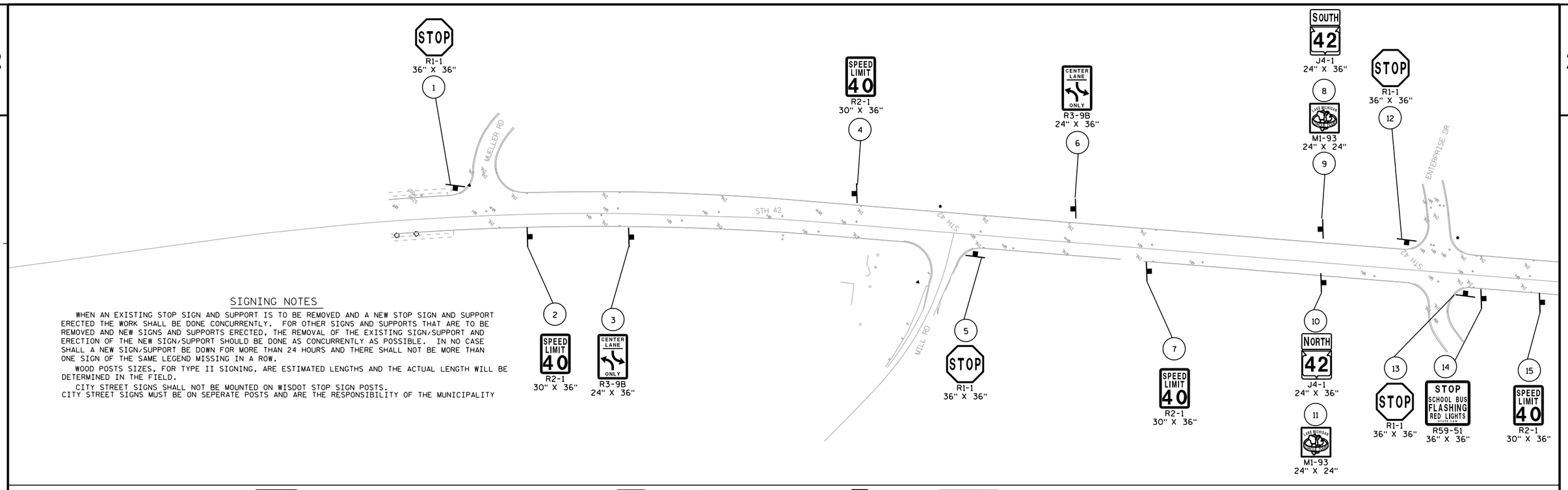
APPROVAL RECOMMENDED 11-15-2000 — Brian S. Brock, REGION TRAFFIC ENGINEER

APPROVED 11-20-2000 — William C. Gilding, STATE TRAFFIC ENGINEER

REGION CONTACT: RJS
DESIGNED BY: RJS
REVISED BY: RJS

PAGE 1 OF 2

PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	CONSTRUCTION DETAIL - TRAFFIC SIGNAL REVISION	SHEET 6 E

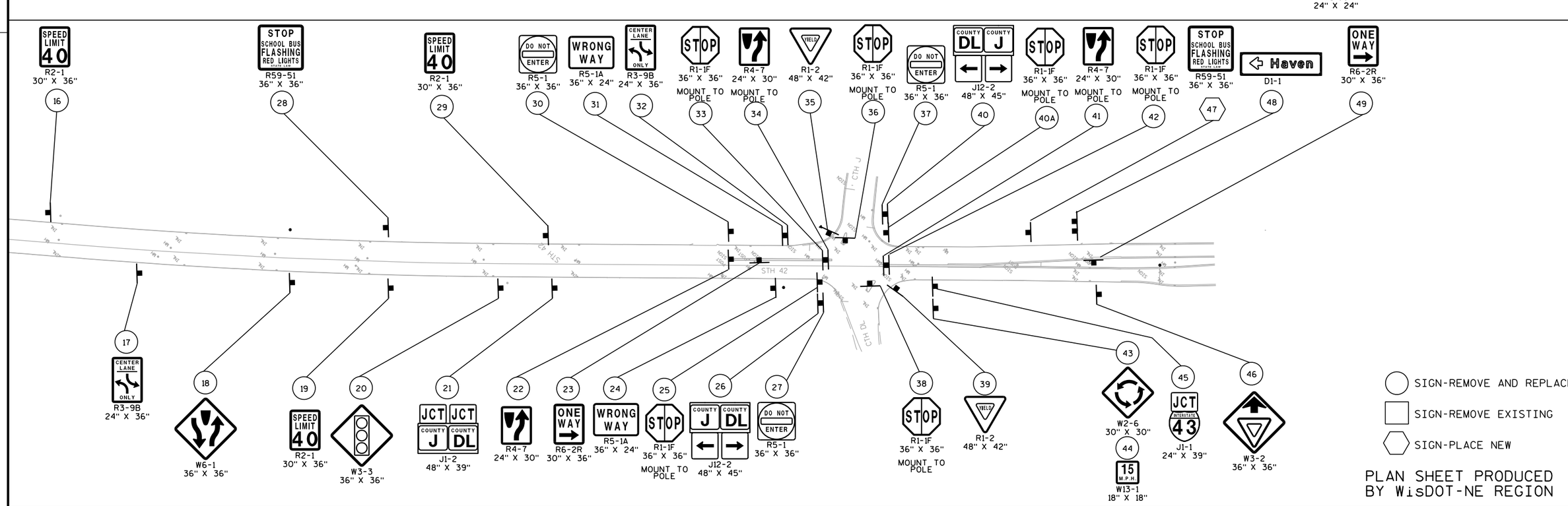


SIGNING NOTES

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

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

CITY STREET SIGNS SHALL NOT BE MOUNTED ON WISDOT STOP SIGN POSTS. CITY STREET SIGNS MUST BE ON SEPERATE POSTS AND ARE THE RESPONSIBILITY OF THE MUNICIPALITY



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PERMANANT SIGNING	SHEET 7 E

4630-30-60

Line	Item	Item Description	Unit	Total	Qty
0050	204.0100	Removing Pavement	SY	190.000	190.000
0070	204.0150	Removing Curb & Gutter	LF	977.000	977.000
0080	204.0155	Removing Concrete Sidewalk	SY	9.000	9.000
0090	204.0195	Removing Concrete Bases	EACH	2.000	2.000
0150	213.0100	Finishing Roadway (project) 03. 4630-30-60	EACH	1.000	1.000
0170	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	51.000	51.000
0220	415.0100	Concrete Pavement 10-Inch	SY	190.000	190.000
0260	416.0610	Drilled Tie Bars	EACH	802.000	802.000
0270	416.0620	Drilled Dowel Bars	EACH	3,672.000	3,672.000
0280	416.1710	Concrete Pavement Repair	SY	2,226.000	2,226.000
0290	416.1720	Concrete Pavement Replacement	SY	748.000	748.000
0310	455.0605	Tack Coat	GAL	2.000	2.000
0320	465.0105	Asphaltic Surface	TON	6.000	6.000
0360	601.0342	Concrete Curb & Gutter Integral 18-Inch	LF	945.000	945.000
0390	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	30.000	30.000
0410	602.0405	Concrete Sidewalk 4-Inch	SF	243.000	243.000
0420	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	38.000	38.000
0480	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	54.000	54.000
0490	611.0420	Reconstructing Manholes	EACH	4.000	4.000
0500	611.0430	Reconstructing Inlets	EACH	39.000	39.000
0510	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0530	611.0639	Inlet Covers Type H-S	EACH	1.000	1.000
0550	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000
0590	611.3230	Inlets 2x3-FT	EACH	1.000	1.000
0640	619.1000	Mobilization	EACH	0.120	0.120
0670	625.0100	Topsoil	SY	114.000	114.000
0710	628.2008	Erosion Mat Urban Class I Type B	SY	114.000	114.000
0740	628.7015	Inlet Protection Type C	EACH	41.000	41.000
0780	629.0210	Fertilizer Type B	CWT	0.070	0.070
0790	630.0140	Seeding Mixture No. 40	LB	3.000	3.000
0810	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	5.000	5.000
0820	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	36.000	36.000
0860	637.2210	Signs Type II Reflective H	SF	291.470	291.470
0870	637.2215	Signs Type II Reflective H Folding	SF	44.760	44.760
0880	637.2230	Signs Type II Reflective F	SF	35.500	35.500
0900	638.2602	Removing Signs Type II	EACH	34.000	34.000
0910	638.3000	Removing Small Sign Supports	EACH	34.000	34.000
0940	643.0100	Traffic Control (project) 03. 4630-30-60	EACH	1.000	1.000
0950	643.0300	Traffic Control Drums	DAY	3,950.000	3,950.000

4630-30-60

Line	Item	Item Description	Unit	Total	Qty
0970	643.0420	Traffic Control Barricades Type III	DAY	300.000	300.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	800.000	800.000
0990	643.0715	Traffic Control Warning Lights Type C	DAY	600.000	600.000
1000	643.0800	Traffic Control Arrow Boards	DAY	200.000	200.000
1010	643.0900	Traffic Control Signs	DAY	1,300.000	1,300.000
1020	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
1070	646.0106	Pavement Marking Epoxy 4-Inch	LF	9,582.000	9,582.000
1080	646.0126	Pavement Marking Epoxy 8-Inch	LF	610.000	610.000
1120	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	26.000	26.000
1160	647.0356	Pavement Marking Words Epoxy	EACH	4.000	4.000
1210	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	350.000	350.000
1290	650.4000	Construction Staking Storm Sewer	EACH	2.000	2.000
1340	650.8500	Construction Staking Electrical Installations (project) 03. 4630-30-60	LS	1.000	1.000
1360	650.9910	Construction Staking Supplemental Control (project) 03. 4630-30-60	LS	1.000	1.000
1390	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	40.000	40.000
1400	652.0800	Conduit Loop Detector	LF	300.000	300.000
1410	653.0105	Pull Boxes Steel 12x24-Inch	EACH	4.000	4.000
1470	654.0113	Concrete Bases Type 13	EACH	2.000	2.000
1500	655.0230	Cable Traffic Signal 5-14 AWG	LF	740.000	740.000
1510	655.0240	Cable Traffic Signal 7-14 AWG	LF	200.000	200.000
1520	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,250.000	1,250.000
1550	655.0305	Cable Type UF 2-12 AWG Grounded	LF	880.000	880.000
1560	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	2,060.000	2,060.000
1570	655.0610	Electrical Wire Lighting 12 AWG	LF	300.000	300.000
1610	655.0700	Loop Detector Lead In Cable	LF	1,870.000	1,870.000
1620	655.0800	Loop Detector Wire	LF	910.000	910.000
1630	655.0900	Traffic Signal EVP Detector Cable	LF	890.000	890.000
1670	657.0100	Pedestal Bases	EACH	2.000	2.000
1680	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
1700	657.1360	Install Poles Type 13	EACH	2.000	2.000
1710	657.1550	Install Monotube Arms 50-FT	EACH	2.000	2.000
1720	657.1812	Install Luminaire Arms Steel 12-FT	EACH	2.000	2.000
1730	658.0110	Traffic Signal Face 3-12 Inch Vertical	EACH	6.000	6.000
1740	658.0115	Traffic Signal Face 4-12 Inch Vertical	EACH	4.000	4.000
1760	658.0215	Backplates Signal Face 3 Section 12-Inch	EACH	6.000	6.000
1770	658.0220	Backplates Signal Face 4 Section 12-Inch	EACH	4.000	4.000
1810	658.0600	Led Modules 12-Inch Red Ball	EACH	6.000	6.000
1820	658.0605	Led Modules 12-Inch Yellow Ball	EACH	6.000	6.000

4630-30-60

Line	Item	Item Description	Unit	Total	Qty
1830	658.0610	Led Modules 12-Inch Green Ball	EACH	6.000	6.000
1840	658.0615	Led Modules 12-Inch Red Arrow	EACH	4.000	4.000
1850	658.0620	Led Modules 12-Inch Yellow Arrow	EACH	8.000	8.000
1860	658.0625	Led Modules 12-Inch Green Arrow	EACH	4.000	4.000
1890	658.5069	Signal Mounting Hardware (location) 03. STH 42 & CTH J/CTH DL	LS	1.000	1.000
1900	659.1120	Luminaires Utility LED B	EACH	4.000	4.000
1930	690.0150	Sawing Asphalt	LF	64.000	64.000
1940	690.0250	Sawing Concrete	LF	11,789.000	11,789.000
2270	SPV.0105	Special 13. Remove Traffic Signals STH 42 & CTH J / DL	LS	1.000	1.000

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CONCRETE PAVEMENT

STATION	LOCATION	204.0100 REMOVING PAVEMENT* SY	204.0120 REMOVING CURB & GUTTER* LF	305.0120 BASE AGG. DENSE 1 1/4-INCH* TON	415.0100 CONCRETE PAVEMENT 10-INCH* SY	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0409 CONCRETE C&G 30-INCH TYPE A LF	690.0250 SAWING CONCRETE * LF	REMARKS
108+65	STH 42 SB		20					20		SIDEWALK RAMPS
118+39	STH 42 NB	49	12	27	49	8	32	10	122	STORM SEWER @ MILL RD.
145+95	STH 42 NB	20			20	6	32		60	ADV. DETECTOR LOOP
147+35	STH 42 NB	28			28	20	8		80	ADV. LOOP, LT TURN LANE
149+50	STH 42 SB	28			28	20	8		80	ADV. LOOP, LT TURN LANE
151+05	STH 42 SB	20			20	6	32		60	ADV. DETECTOR LOOP
	TOTAL	**145**	**32**	**27**	**145**	**60**	**112**	**30**	**402**	

* Items included elsewhere in the plan.

CONCRETE SIDEWALK

STATION	LOCATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY	305.0120 BASE AGG. DENSE 1 1/4-INCH* TON	602.0405 CONCRETE SIDEWALK 4-INCH SF	602.0515 CURB RAMP DETECT. WARN. FIELD NATURAL PATINA SF
108+60	STH 42 SB	40' LT	6	2	50	12
108+60	STH 42 NB	28' RT	3	1	25	8
108+65	STH 42 SB	45' LT		4	168	18
		TOTAL	**9**	**7**	**243**	**38**

CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
108+97	NB	INSIDE	9 x 12			16		12		54
108+97	NB	OUTSIDE	9 x 12	9		16	9	12		45
108+97	SB	TWLT	9 x 18		4	20		18		66
109+32	NB	INSIDE	7 x 12			16		9		38
109+32	NB	OUTSIDE	7 x 12	7		16	7	9		31
109+32	SB	TWLT	7 x 18			20		14		50
109+32	SB	INSIDE	9 x 12			16		12		54
109+32	SB	OUTSIDE	9 x 12		3	16		12		30
109+96	NB	INSIDE	8 x 12			16		11		52
109+96	NB	OUTSIDE	8 x 12	8		16	8	11		44

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CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
109+96	SB	TWLT	8 x 18			20		16		64
109+96	SB	INSIDE	21 x 12		14	16			28	90
110+63	SB	INSIDE	10 x 12		4	16		13		56
110+63	SB	OUTSIDE	10 x 12	10		16	10	13		46
110+65	NB	INSIDE	8 x 12		4	16		11		52
110+65	NB	OUTSIDE	8 x 12	8		16	8	11		44
111+26	NB	INSIDE	8 x 12		4	16		11		52
111+26	NB	OUTSIDE	8 x 12	8		16	8	11		52
111+58	NB	INSIDE	8 x 12		8	16		11		52
111+73	NB	INSIDE	8 x 12		4	16		11		52
111+73	NB	OUTSIDE	8 x 12	8		16	8	11		44
111+84	NB	INSIDE	8 x 12		4	16		11		52
111+84	NB	OUTSIDE	8 x 12	8		16	8	11		44
112+57	NB	INSIDE	8 x 12		4	16		11		52
112+57	NB	OUTSIDE	8 x 12	8		16	8	11		44
112+75	NB	INSIDE	8 x 12		4	16		11		52
112+75	NB	OUTSIDE	8 x 12	8		16	8	11		44
112+78	SB	INSIDE	13 x 12		5	16		17		62
112+78	SB	OUTSIDE	13 x 12	13		16	13	17		49
113+43	NB	INSIDE	60 x 12		48	16			80	240
113+89	SB	INSIDE	8 x 12		4	16		11		52
113+89	SB	OUTSIDE	6 x 12	6		16	6	8		30
114+90	NB	INSIDE	11 x 12		6	16		15		58
114+95	NB	OUTSIDE	6 x 12	6	2	16	6	8		30
114+95	SB	INSIDE	7 x 12		3	16		9		38
114+95	SB	OUTSIDE	7 x 12	7		16	7	9		31
115+54	NB	OUTSIDE	51 x 12	68	18	16	68		68	159
115+93	NB	INSIDE	6 x 12			16		8		36
115+93	SB	INSIDE	8 x 12			16		11		52
117+32	SB	INSIDE	7 x 12		3	16		9		38
117+32	SB	OUTSIDE	7 x 12	7		16	7	9		31
117+58	NB	INSIDE	9 x 12		3	16		12		42
117+58	NB	OUTSIDE	9 x 12	9		16	9	12		45
117+58	SB	INSIDE	8 x 12		3	16		11		52
117+58	SB	OUTSIDE	8 x 12	8		16	8	11		44

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CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
117+99	SB	INSIDE	6 x 12		3	16		8		36
117+99	SB	OUTSIDE	6 x 12	6		16	6	8		30
118+56	NB	INSIDE	8 x 12		3	16		11		52
118+56	NB	OUTSIDE	8 x 12		3	16		11		52
118+56	SB	INSIDE	6 x 12		3	16		8		36
118+56	SB	OUTSIDE	6 x 12	6		16	6	8		30
118+96	SB	INSIDE	8 x 12		3	16		11		52
118+96	SB	OUTSIDE	8 x 12	8		16	8	11		44
119+42	SB	TWLT	8 x 14		6	20		12		56
119+61	NB	INSIDE	9 x 12		4	16		12		54
119+61	NB	OUTSIDE	9 x 12	9		16	9	12		45
120+86	SB	TWLT	11 x 14		5	20		17		62
120+86	SB	INSIDE	11 x 12			16		15		58
120+86	SB	OUTSIDE	11 x 12	11		16	11	15		47
121+62	NB	OUTSIDE	6 x 12	6	3	16	6	8		30
121+78	NB	INSIDE	8 x 12		8	16		11		52
121+78	SB	INSIDE	8 x 12		4	16		11		52
121+78	SB	OUTSIDE	8 x 12	8		16	8	11		44
122+33	SB	INSIDE	9 x 12		8	16		12		54
122+81	SB	INSIDE	6 x 12		3	16		8		36
122+81	SB	OUTSIDE	6 x 12	6		16	6	8		30
122+88	SB	TWLT	10 x 14		10	20		16		60
123+85	SB	INSIDE	6 x 12		3	16		8		36
123+85	SB	OUTSIDE	10 x 12	10	1	16	10	13		46
124+35	SB	INSIDE	9 x 12		4	16		12		54
124+35	SB	OUTSIDE	9 x 12	9		16	9	12		45
124+97	NB	INSIDE	9 x 12		8	16		12		54
124+97	SB	OUTSIDE	9 x 12	9		16	9	12		45
124+97	SB	INSIDE	9 x 12		4	16		12		54
125+53	SB	INSIDE	10 x 12		5	16		13		56
125+53	SB	OUTSIDE	10 x 12	10		16	10	13		46
125+67	NB	INSIDE	8 x 12		8	16		11		52
125+97	SB	INSIDE	9 x 12		4	16		12		54
125+97	SB	OUTSIDE	9 x 12	9		16	9	12		54
126+73	NB	INSIDE	6 x 12		6	16		8		36

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CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
126+73	SB	INSIDE	8 x 12		4	16		11		44
126+73	SB	OUTSIDE	8 x 12	8		16	8	11		52
127+12	SB	OUTSIDE	6 x 12	6	3	16	6	8		36
127+34	SB	OUTSIDE	6 x 12	6	3	16	6	8		36
127+88	NB	INSIDE	7 x 12		6	16		9		43
127+88	SB	INSIDE	6 x 12		3	16		8		36
127+88	SB	OUTSIDE	6 x 12	6		16	6	8		30
128+59	NB	OUTSIDE	36 x 12		27	16			48	180
128+65	NB	INSIDE	7 x 12		3	16		9		50
128+69	SB	OUTSIDE	70 x 12		45	16			93	272
128+73	SB	INSIDE	9 x 12		4	16		12		54
129+26	NB	INSIDE	6 x 12		3	16		8		30
129+26	NB	OUTSIDE	12 x 12	12	3	16	12	16		60
129+26	SB	INSIDE	6 x 12		3	16		8		30
130+56	NB	INSIDE	9 x 12			16		12		42
130+56	NB	OUTSIDE	9 x 12	9		16	9	12		33
130+56	SB	INSIDE	9 x 12			16		12		54
130+56	SB	OUTSIDE	9 x 12	9		16	9	12		45
130+56	SB	TWLT	9 x 14		1	20		14		46
131+50	SB	INSIDE	9 x 12		4	16		12		45
131+50	SB	OUTSIDE	9 x 12	9		16	9	12		54
131+72	SB	OUTSIDE	26 x 12	26	15	16	26		35	86
131+95	NB	OUTSIDE	6 x 12	6	3	16	6	8		30
132+20	NB	INSIDE	9 x 12			16		12		42
132+20	NB	OUTSIDE	9 x 12	9		16	9	12		33
132+20	SB	INSIDE	9 x 12		1	16		12		54
132+20	SB	OUTSIDE	9 x 12	9		16	9	12		33
132+20	SB	TWLT	9 x 14		1	20		14		60
132+35	NB	OUTSIDE	48 x 12	48	19	16	48		64	132
133+04	NB	INSIDE	23 x 12		20	16			31	106
133+08	SB	INSIDE	6 x 12		3	16		8		36
133+08	SB	OUTSIDE	6 x 12	6		16	6	8		30
133+28	SB	INSIDE	9 x 12		4	16		12		54
133+28	SB	OUTSIDE	9 x 12	9		16	9	12		45
133+50	NB	OUTSIDE	34 x 12		14	16			45	106

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CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
133+50	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
133+67	SB	OUTSIDE	10 x 12	10	5	16	10	13		46
133+95	NB	INSIDE	26 x 12		16	16			35	112
134+09	NB	OUTSIDE	12 x 12	12		16	12	16		48
134+09	SB	INSIDE	8 x 12		4	16		11		52
134+09	SB	OUTSIDE	8 x 12	8		16	8	11		44
134+32	NB	OUTSIDE	80 x 12		20	16			107	236
134+40	NB	INSIDE	31 x 12		12	16			41	134
135+28	SB	INSIDE	7 x 12		3	16		9		38
135+28	SB	OUTSIDE	7 x 12	7		16	7	9		31
135+30	NB	OUTSIDE	6 x 12	6	3	16	6	8		30
135+56	NB	OUTSIDE	19 x 12		5	16			25	67
135+69	NB	INSIDE	6 x 12		1	16		8		36
135+69	SB	OUTSIDE	6 x 12	6		16	6	8		30
135+69	SB	INSIDE	6 x 12			16		8		36
135+69	SB	TWLT	6 x 14			20		9		40
136+27	NB	OUTSIDE	7 x 12	7	3	16	7	9		31
136+46	SB	INSIDE	8 x 12		3	16		11		52
136+46	SB	OUTSIDE	8 x 12	8		16	8	11		44
136+49	NB	INSIDE	8 x 12		3	16		11		52
136+49	NB	OUTSIDE	8 x 12	8		16	8	11		44
136+69	NB	INSIDE	6 x 12		3	16		8		36
136+69	NB	OUTSIDE	6 x 12	6		16	6	8		30
137+08	SB	INSIDE	8 x 12		3	16		11		52
137+08	SB	OUTSIDE	8 x 12	8		16	8	11		44
137+52	SB	INSIDE	7 x 12		3	16		9		38
137+52	SB	OUTSIDE	7 x 12	7		16	7	9		31
138+45	NB	OUTSIDE	19 x 12		7	16			25	67
138+53	NB	INSIDE	7 x 12		3	16		9		38
138+81	NB	INSIDE	7 x 12		3	16		9		38
138+81	NB	OUTSIDE	7 x 12	7		16	7	9		31
139+84	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
139+94	SB	INSIDE	6 x 12		6	16		8		36
140+04	SB	OUTSIDE	11 x 12	11	4	16	11	15		47
140+79	SB	TWLT	9 x 14		3	20		14		46

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CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
140+79	SB	INSIDE	9 x 12			16		12		54
140+79	SB	OUTSIDE	9 x 12	9		16	9	12		45
141+67	NB	INSIDE	9 x 12			16		12		54
141+67	NB	OUTSIDE	9 x 12	9		16	9	12		33
141+67	SB	INSIDE	9 x 12			16		12		54
141+67	SB	OUTSIDE	9 x 12	9		16	9	12		45
141+67	SB	TWLT	9 x 14			20		14		60
141+87	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
142+10	NB	INSIDE	6 x 12		3	16		8		36
142+10	NB	OUTSIDE	6 x 12	6		16	6	8		30
142+10	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
142+49	NB	INSIDE	9 x 12			16		12		42
142+49	NB	OUTSIDE	9 x 12	9		16	9	12		33
142+49	SB	INSIDE	9 x 12			16		12		42
142+49	SB	OUTSIDE	9 x 12	9		16	9	12		45
142+49	SB	TWLT	9 x 14			20		14		60
143+20	NB	INSIDE	7 x 12		3	16		9		38
143+20	NB	OUTSIDE	6 x 12	6		16	6	8		30
143+55	SB	INSIDE	6 x 12			16		8		36
143+55	SB	OUTSIDE	6 x 12	6		16	6	8		30
143+55	SB	TWLT	6 x 14		3	20		9		40
144+27	NB	INSIDE	6 x 12		3	16		8		36
144+27	NB	OUTSIDE	10 x 12	10	1	16	10	13		46
144+61	NB	INSIDE	8 x 12		3	16		11		40
144+61	SB	INSIDE	8 x 12			16		11		52
144+61	SB	OUTSIDE	8 x 12	8		16	8	11		32
144+61	SB	TWLT	8 x 14			20		12		58
144+97	NB	INSIDE	14 x 12		6	16		19		64
144+97	NB	OUTSIDE	14 x 12	14		16	14	19		50
145+16	SB	INSIDE	8 x 12		3	16		11		52
145+16	SB	OUTSIDE	8 x 12	8		16	8	11		32
145+75	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
146+00	SB	OUTSIDE	17 x 12		7	16			23	65
146+26	NB	INSIDE	14 x 12		6	16		19		64
146+26	NB	OUTSIDE	14 x 12	14		16	14	19		50

continued on next sheet

CONCRETE PAVEMENT REPAIR & REPLACEMENT

STATION	LOCATION	LANE	AREA	204.0120 REMOVING CURB & GUTTER* LF	416.0610 DRILLED TIE BARS* EACH	416.0710 DRILLED DOWEL BARS* EACH	601.0342 CONCRETE C&G INTEGRAL 18-INCH* LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE * LF
146+40	NB	TURN LANE	6 x 10		6	16		7		32
146+60	SB	INSIDE	6 x 12		6	16		8		36
146+60	NB	OUTSIDE	6 x 12	6	3	16	6	8		30
147+00	NB	INSIDE	9 x 12		1	16		12		54
147+00	NB	OUTSIDE	9 x 12	9		16	9	12		33
147+00	NB	TURN LANE	9 x 10		3	16		10		38
147+31	NB	OUTSIDE	15 x 12	15	3	16	15	20		63
147+40	NB	INSIDE	6 x 12		3	16		8		36
147+82	NB	OUTSIDE	6 x 12	6	6	16	6	8		30
147+82	SB	INSIDE	6 x 12		6	16		8		36
147+82	NB	TURN LANE	6 x 10		6	16		7		32
148+00	NB	INSIDE	7 x 12		3	16		9		38
148+00	NB	OUTSIDE	7 x 12	7	3	16	7	9		31
148+48	NB	INSIDE	8 x 12		4	16		11		52
148+48	NB	OUTSIDE	8 x 12	8	4	16	8	11		44
148+70	SB	TURN LANE	6 x 10		6	16		7		32
148+87	SB	TURN LANE	6 x 10		5	16		7		32
148+87	SB	INSIDE	14 x 12		7	16		19		64
149+09	NB	INSIDE	8 x 12			16		11		40
149+09	NB	OUTSIDE	8 x 12	8	3	16	8	11		44
149+35	SB	OUTSIDE	9 x 12	9	4	16	9	12		45
150+03	NB	INSIDE	7 x 12		6	16		9		38
150+03	NB	OUTSIDE	7 x 12	7		16	7	9		31
150+03	SB	TURN LANE	6 x 10		6	16		7		32
150+16	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
151+42	NB	INSIDE	12 x 12		3	16		16		60
151+42	NB	OUTSIDE	12 x 12	12	1	16	12	16		48
151+60	SB	TURN LANE	6 x 10		6	16		7		32
151+77	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
152+09	SB	OUTSIDE	6 x 12	6	3	16	6	8		30
152+19	NB	INSIDE	7 x 12		3	16		9		38
152+19	NB	OUTSIDE	7 x 12	7		16	7	9		31
152+56	SB	OUTSIDE	10 x 12	10		16	10	13		46
152+56	SB	INSIDE	14 x 12		7	16		19		64
			Total	**871**	**742**	**3560**	**871**	**2226**	**748**	**10895**

3

ASPHALT PAVEMENT

STATION	LOCATION	OFFSET	305.0120 BASE AGG. DENSE 1 1/4-INCH* TON	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	690.0150 SAWING ASPHALT LF	REMARKS
108+85	STH 42 SB	50' LT	1	0.5	1	27	SIDEWALK CONSTRUCTION
118+39	STH 42 NB	30' RT	16	1.5	5	37	INLET CONSTRUCTION
		TOTAL	**17**	**2**	**6**	**64**	

STORM SEWER

STRUCTURE	STATION	LOCATION	OFFSET	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	611.0530 MANHOLE COVERS TYPE J EACH	611.0639 INLET COVERS TYPE H-S EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH
50A	118+39	STH 42 NB	7.22' LT	54	1		1		1
55A	118+39	STH 42 NB	47.51' RT			1		1	1
			TOTAL	**54**	**1**	**1**	**1**	**1**	**2**

TRAFFIC CONTROL SUMMARY

STATION TO STATION	LOCATION	APPROXIMATE SERVICE DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAYS	643.042 BARRICADES TYPE III NO. IN SERVICE	643.042 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAYS	643.1050 SIGNS PCMS** NO. IN SERVICE	643.1050 SIGNS PCMS** DAYS
108+00 - 108+50	STH 42 NB	7													1	7
158+00 158+50	STH 42 SB	7													1	7
104+00 - 153+50	STH 42 NB	13	158	2054	12	156	32	416	24	312	8	104	36	468		0
108+00 - 158+00	STH 42 SB	12	158	1896	12	144	32	384	24	288	8	96	36	432		0
MUELLER RD		25											3	75		0
MILL RD		25											3	75		0
ENTERPRISE DR		25											5	125		0
CTH J / CTH DL		25											5	125		0
		TOTAL		**3950**		**300**		**800**		**600**		**200**		**1300**		**14**

** In place 7 days before constuction begins

STORM SEWER STUCTURE RECONSTRUCTION

STATION	LOCATION	STRUCTURE	204.0100 REMOVING PAVEMENT* SY	204.0150 REMOVING CURB & GUTTER* LF	415.0100 CONCRETE PAVEMENT 10-INCH SY	601.0342 CONCRETE CURB & GUTTER INTEGRAL 18-INCH LF	611.0420 RECONST. MANHOLES EACH	611.0430 RECONST. INLETS EACH	628.7015 INLET PROTECTION TYPE C EACH	690.0250 SAWING CONCRETE* LF	REMARKS
109+55	STH 42 NB	42	1	2	1	2		1	1	13	
110+13	STH 42 SB	43	1	2	1	2		1	1	13	
112+00	STH 42 SB	45	1	2	1	2		1	1	13	
112+00	STH 24 NB	46	1	2	1	2		1	1	13	
114+06	STH 42 SB	48	1	2	1	2		1	1	13	
114+06	STH 42 NB	49	1	2	1	2		1	1	13	
117+00	STH 42 SB	51	1	2	1	2		1	1	13	
117+00	STH 42 NB	52	1	2	1	2		1	1	13	
119+54	STH 42 SB	54	1	2	1	2		1	1	13	
119+54	STH 42 NB	55	1	2	1	2		1	1	13	
118+39	STH 42 NB	55A	1	2	1	2			1		
121+25	STH 42 SB	57	1	2	1	2		1	1	13	
121+25	STH 42 NB	58	1	2	1	2		1	1	13	
122+95	STH 42 MEDIAN	59			0		1				IN CONC. REPAIR AREA
123+00	STH 42 SB	60	1	2	1	2		1	1	13	
123+00	STH 42 NB	61	1	2	1	2		1	1	13	
129+53	STH 42 SB	63	1	2	1	2		1	1	13	
129+63	STH 42 SB	64	1	2	1	2		1	1	13	
129+53	STH 42 NB	65	1	2	1	2		1	1	13	
129+43	STH 42 NB	66	1	2	1	2		1	1	13	
130+70	STH 42 SB	68	1	2	1	2		1	1	13	
130+70	STH 42 NB	69	1	2	1	2		1	1	13	
132+26	STH 42 MEDIAN	70			0		1				IN CONC. REPAIR AREA
132+31	STH 42 SB	71	1	2	1	2		1	1	13	
132+31	STH 42 NB	72	1	2	1	2		1	1	13	
134+52	STH 42 MEDIAN	73			0		1			24	
134+81	STH 42 SB	74	1	2	1	2		1	1	13	
134+81	STH 42 NB	75			0			1	1		IN CONC. REPAIR AREA
136+65	STH 42 SB	77	1	2	1	2		1	1	13	
136+65	STH 42 NB	78	1	2	1	2		1	1	13	
138+50	STH 42 SB	80	1	2	1	2		1	1	13	
138+50	STH 42 NB	81			0			1	1		IN CONC. REPAIR AREA
140+97	STH 42 SB	83	1	2	1	2		1	1	13	
140+97	STH 42 NB	84	1	2	1	2		1	1	13	
142+60	STH 42 MEDIAN	85			0		1				IN CONC. REPAIR AREA
142+65	STH 42 SB	86	1	2	1	2		1	1	13	
142+65	STH 42 NB	87	1	2	1	2		1	1	13	
146+12	STH 42 SB	92			0			1	1		IN CONC. REPAIR AREA
145+86	STH 42 NB	93	1	2	1	2		1	1	13	
149+66	STH 42 SB	95	1	2	1	2		1	1	13	
149+56	STH 42 SB	96	1	2	1	2		1	1	13	
149+40	STH 42 NB	97	1	2	1	2		1	1	13	
152+94	STH 42 SB	99	1	2	1	2		1	1	13	AT MEDIAN
152+90	STH 42 NB	100	1	2	1	2		1	1	13	AT MEDIAN
152+90	STH 42 NB	101			0		1				
		TOTAL	**37**	**74**	**37**	**74**	**4**	**39**	**41**	**492**	

3

FINISHING FOR PAVEMENT REPAIR AND INLET RECONSTRUCTION

	LOCATION	625.0100 TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTLIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB
INLET RECONSTUCTION	STH 42	20	20	0.01	1
CONCRETE REPAIR	STH 42	94	94	0.06	2
	TOTAL	**114**	**114**	**0.07**	**3**

PAVEMENT MARKING

		646.0106 EPOXY 4-INCH				646.0126	647.0166	647.0356	647.0726
		LANE LINES WHITE	C/L NO PASS YELLOW	DOUBLE YELLOW	SPECIAL WHITE	EPOXY 8-INCH	EPOXY ARROWS TYPE 2	EPOXY WORDS	DIAGONAL EPOXY 12-INCH
STATION TO STATION	LOCATION	LF	LF	LF	LF	LF	EACH	EACH	LF
110+10 - 117+93	STH 42 SB	196	783				4		
110+10 - 117+93	STH 42 NB	196	783				4		
119+52 - 120+52	STH 42 SB	25		200		100	2	1 (ONLY)	
119+52 - 120+52	STH 42 NB	25							
120+52 - 122+17	STH 42 SB	48	165		66				100
120+52 - 122+17	STH 42 NB	48	165						
122+17 - 125+00	STH 42 SB	71	283				2		
122+17 - 125+00	STH 42 NB	71	283				2		
125+00 - 126+70	STH 42 SB	43	170						
125+00 - 126+70	STH 42 NB	43	170		68				100
126+70 - 128+05	STH 42 SB	34							
126+70 - 128+05	STH 42 NB	34		270		135	2	1 (ONLY)	
129+50 - 143+45	STH 42 SB	349	1395				2		
129+50 - 143+45	STH 42 NB	349	1395				2		
143+45 - 145+75	STH 42 SB	58	230				1		
143+45 - 145+75	STH 42 NB	58	230		92		1		150
145+75 - 147+75	STH 42 SB	50							
145+75 - 147+75	STH 42 NB	50		400		200	2	1 (ONLY)	
148+54 - 150+29	STH 42 SB	44				175	2	1 (ONLY)	
148+54 - 150+29	STH 42 NB	44		350					
150+29 - 151+87	STH 42 SB	40	158		63				
150+29 - 151+87	STH 42 NB	40	158						
151+87 - 153+50	STH 42 SB	41							
151+87 - 153+50	STH 42 NB	41							
SUBTOTAL		1994	6368	1220	289				
TOTAL			**9582**			**610**	**26**	**4**	**350**

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2215 FOLDING SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	MUELLER RD	R1-1	36" X 36"	7.46	---	---	---	1	1	1	
2	STH 42, NORTH OF MUELLER RD	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
3	"	R3-9B	24" X 36"	6.00	---	---	---	1	1	1	
4	STH 42 SOUTH OF MILL RD	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
5	MILL RD	R1-1	36" X 36"	7.46	---	---	---	1	1	1	
6	STH 42 NORTH OF MILL RD	R3-9B	24" X 36"	6.00	---	---	---	1	1	1	
7	"	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
8	"	J4-1	24" X 36"	6.00	---	---	---	1	1	1	SOUTH 42
9	"	M1-93	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW SIGN 8, INCLUDED IN SIGN 8 REMOVAL
10	"	J4-1	24" X 36"	6.00	---	---	---	1	1	1	NORTH 42
11	"	M1-93	24" X 24"	4.00	---	---	---	---	---	---	MOUNT BELOW SIGN 10, INCLUDED IN SIGN 10 REMOVAL
12	ENTERPRISE DR	R1-1	36" X 36"	7.46	---	---	---	1	1	1	
13	"	R1-1	36" X 36"	7.46	---	---	---	1	1	1	
14	STH 42 NORTH OF ENTERPRISE DR	R59-51	36" X 36"	9.00	---	---	---	1	1	1	
15	"	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
16	"	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
17	"	R3-9B	24" X 36"	6.00	---	---	---	1	1	1	
18	STH 42 SOUTH OF CTH J	W6-1	36" X 36"	---	---	9.00	---	1	1	1	
19	"	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
20	"	W3-3	36" X 36"	---	---	9.00	---	1	1	1	
21	"	J1-2	48" X 39"	13.00	---	---	---	1	1	1	JCT J, JCT DL
22	"	R4-7	24" X 30"	5.00	---	---	1	---	1	1	
23	"	R6-2R	30" X 36"	7.50	---	---	---	1	1	1	
24	"	R5-1A	36" X 24"	6.00	---	---	1	---	1	1	
25	"	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL POLE
26	"	J12-2	48" X 45"	15.00	---	---	---	1	1	1	CTH J LEFT, CTH DL RIGHT
27	"	R5-1	36" X 36"	9.00	---	---	---	---	---	---	MOUNT OT BACK OF SIGN 26, INCLUDED IN SIGN 26 REMOVAL
28	"	R59-51	36" X 36"	9.00	---	---	---	1	1	1	
29	"	R2-1	30" X 36"	7.50	---	---	---	1	1	1	40 MPH
30	"	R5-1	36" X 36"	9.00	---	---	1	---	1	1	
31	"	R5-1A	24" X 24"	4.00	---	---	---	1	1	1	
32	"	R3-9B	24" X 36"	6.00	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 31, INCLUDED IN SIGN 31 REMOVAL
33	"	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	MOUNT TO SIGNAL POLE
34	"	R4-7	24" X 30"	5.00	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 33, MOUNT TO SIGNAL POLE, INCLUDED IN SIGN 33 REMOVAL
35	CTH J	R1-2	48" X 24"	8.00	---	---	---	1	1	1	
36	"	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	MOUNT TO SIGNAL POLE
37	STH 42 NORTH OF CTH J	R5-1	36" X 36"	9.00	---	---	---	---	---	---	MOUNT TO BACK OF SIGN 40, INCLUDED IN SIGN 40 REMOVAL
38	CTH DL	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	MOUNT TO SIGNAL POLE
39	"	R1-2	48" X 24"	8.00	---	---	---	1	1	1	
40	STH 42 NORTH OF CTH J	J12-2	48" X 45"	15.00	---	---	---	1	1	1	CTH J RIGHT, CTH DL LEFT
40A	"	R1-1F	36" X 36"	---	7.46	---	---	1	---	---	MOUNT TO SIGNAL POLE
41	"	R4-7	24" X 30"	5.00	---	---	---	1	---	---	MOUNT TO SIGNAL POLE
42	"	R1-1F	36" X 36"	---	7.46	---	---	---	---	---	MOUNT TO SIGNAL POLE, MOUNT TO BACK OF SIGN 41, INCLUDED IN SIGN 41 REMOVAL
43	"	W2-6	30" X 30"	---	---	6.25	---	1	1	1	
44	"	W13-1	18" X 18"	---	---	2.25	---	---	---	---	15 MPH, MOUNT BELOW SIGN 43, INCLUDED IN SIGN 43 REMOVAL
45	"	J1-1	24" X 39"	6.50	---	---	---	1	1	1	JCT 43
46	"	W3-2	36" X 36"	---	---	9.00	---	---	---	---	
47	"	R59-51	36" X 36"	9.00	---	---	---	1	---	---	
48	"	D1-1	54" X 15"	5.63	---	---	2	---	1	1	HAVEN LEFT, REMOVE R59-51
49	"	R6-2R	30" X 36"	7.50	---	---	---	1	1	1	
	PROJECT TOTALS			**291.47**	**44.76**	**35.50**	**5**	**36**	**34**	**34**	

LIGHTING SUMMARY

LOCATION	657.1812 Install Luminaire Arms Steel 12-FT EACH	659.1120 Luminaires Utility LED-B EACH
STH 42 & CTH J/CTH DL (S59-0780)	2	4

PULL BOXES STEEL

LOCATION	653.0105 12x24-Inch EACH
STH 42 & CTH J/CTH DL (S59-0780)	4

CONCRETE BASES

LOCATION	204.0100 REMOVING PAVEMENT* SY	204.0195 REMOVING CONCRETE BASES EACH	415.0100 CONCRETE PAVEMENT 10-INCH* SY	654.0113 CONCRETE BASES TYPE 13 EACH
STH 42 & CTH J/CTH DL (S59-0780)	8	2	8	2

* Items included elsewhere in the plan.

SIGNAL LIGHTING CABLE

LOCATION STH 42 & CTH J/CTH DL (S59-0780) FROM	TO	655.0305 Type UF 2-12 AWG Grounded LF
CB1	SB2	220
CB1	SB4	390
CB1	SB6	220
CB1	SB8	50
	TOTAL	**880**

TRAFFIC SIGNAL EVP DETECTOR

LOCATION STH 42 & CTH J/CTH DL (S59-0780) FROM	TO	655.0900 Cable LF
CB1	EVP # 1	420
CB1	EVP # 2	80
CB1	EVP # 3	250
CB1	EVP # 4	140
	Total	**890**

ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG

LOCATION STH 42 & CTH J/CTH DL (S59-0780) FROM	TO	655.0515 (Equipment Grounding Conductor) (Green) LF
CB1	PB1	60
CB1	SB1	120
SB1	PB2	40
SB1	SB2	150
SB2	PB3	50
SB2	PB4	110
SB2	SB3	90
SB3	SB4	260
SB4	PB5	90
SB4	PB6	50
SB4	SB5	180
SB5	PB7	90
SB5	PB8	40
SB5	SB6	240
SB6	SB7	110
SB7	PB9	40
SB7	SB8	160
SB8	PB10	90
SB8	PB11	40
SB8	CB1	50
	TOTAL	**2,060**

ELECTRICAL WIRE LIGHTING 12 AWG

LOCATION STH 42 & CTH J/CTH DL (S59-0780) 120 Volt System FROM	TO	655.0610 LF
SB4	Luminaire	150
SB8	Luminaire	150
	TOTAL	**300**

CONDUIT RIGID NONMETALLIC SCHEDULE 40

Location STH 42 & CTH J/CTH DL (S59-0780) FROM	TO	652.0235 3-Inch LF
PB6	SB4	20
PB11	SB8	20
	TOTALS	**40**

TRAFFIC SIGNALS

LOCATION	657.0100 Pedestal Bases EACH	657.0425 Traffic Signal Standard Aluminum 15-FT EACH	657.1360 Install Poles Type 13 EACH	657.1550 Install Monotube Arms 50-FT EACH	658.0110 Traffic Signal Face 3-12 Inch Vertical EACH	658.0115 Traffic Signal Face 4-12 Inch Vertical 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	658.5069 Signal Mounting Hardware (STH 42 & CTH J/DL) LS	SPV.0105.13 Remove Traffic Signal (STH 42 & CTH J/DL) LS
STH 42 & CTH J/CTH DL (S59-0780)	2	2	2	2	6	4	6	6	6	4	8	4	1	1

TRAFFIC SIGNAL CABLE

STH 42 & CTH J/CTH DL (S59-0780) From CB1 to	655.0230 5-14 AWG LF	655.0240 7-14 AWG LF	655.0260 12-14 AWG LF	HEAD NO.	655.0230 Base to Head 5-14 AWG LF	655.0240 Base to Head 7-14 AWG LF	658.0215 Backplates Signal Face 3 Section 12-Inch EACH	658.0220 Backplates Signal Face 4 Section 12-Inch EACH
SB1			120	11 16				
SB2	220			12				
SB3			240	1 10	 20	20	 1	1
SB4			390	2 3 4	 70 60	80	 1 1	1
SB5			290	13 14				
SB6	220			15				
SB7			160	5 6	20	 20	1	 1
SB8			50	7 8 9	 70 60	80	 1 1	1
Sub Total	440	0	1,250		300	200	6	4
TOTALS	**740**	**200**	**1,250**				**6**	**4**

LOOP DETECTORS

LOCATION	LOOP NO.	652.0800 Conduit LF	655.0700 Lead In Cable LF	655.0800 Wire LF
STH 42 & CTH J/CTH DL (S59-0780)	11	85	280	250
	21	65	390	240
	41		240	
	42		240	
	51	85	70	180
	61	65	470	240
	81		90	
	82		90	
	TOTAL	300	1,870	910

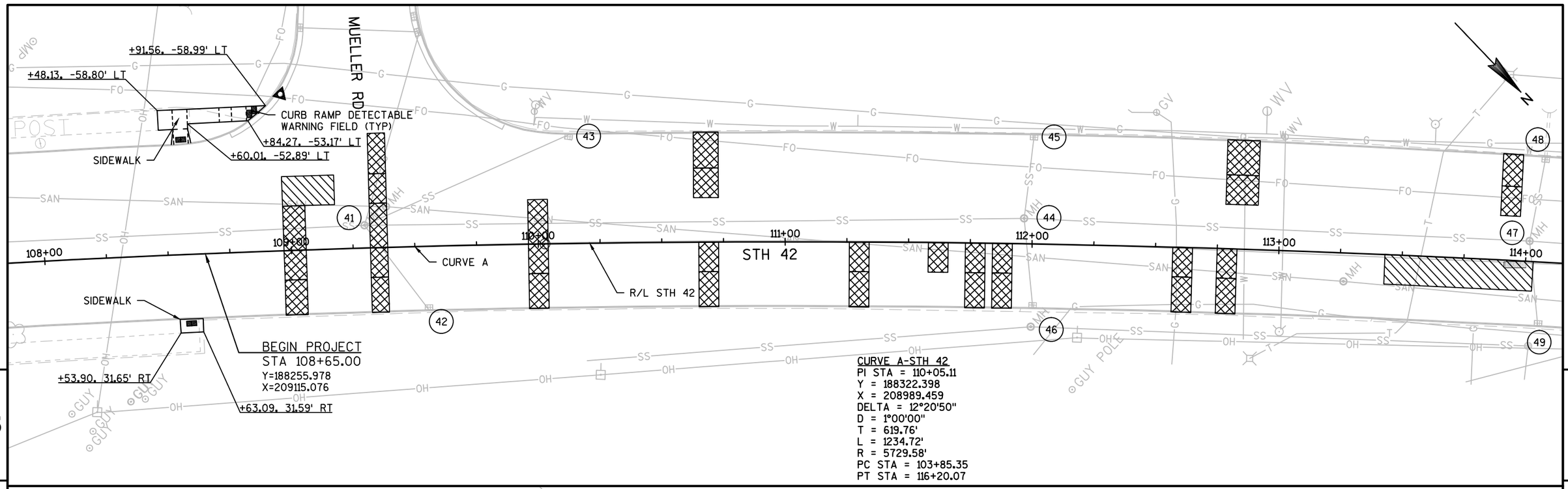
SIGNAL INDICATION		CONDUCTOR COLOR
Red	=	Red
Yellow	=	Orange
Green	=	Green
Red Arrow	=	Red w/Black Tracer
Yellow Arrow	=	Black w/White Tracer
Yellow Flashing Arrow	=	White w/Black Tracer
Green Arrow	=	Blue w/Black Tracer

PEDS

Walk	=	Green
Don't Walk	=	Red
Button	=	Black & Orange

NOTE: Lead-in Cable shall be pulled in separately from other cables/wires and enter the Control Cabinet in a separate conduit if provided.

NOTE: If there is a back to back 3 section with ball indications, then use solid colored conductors for NB & EB, and tracer conductors for SB & WB.

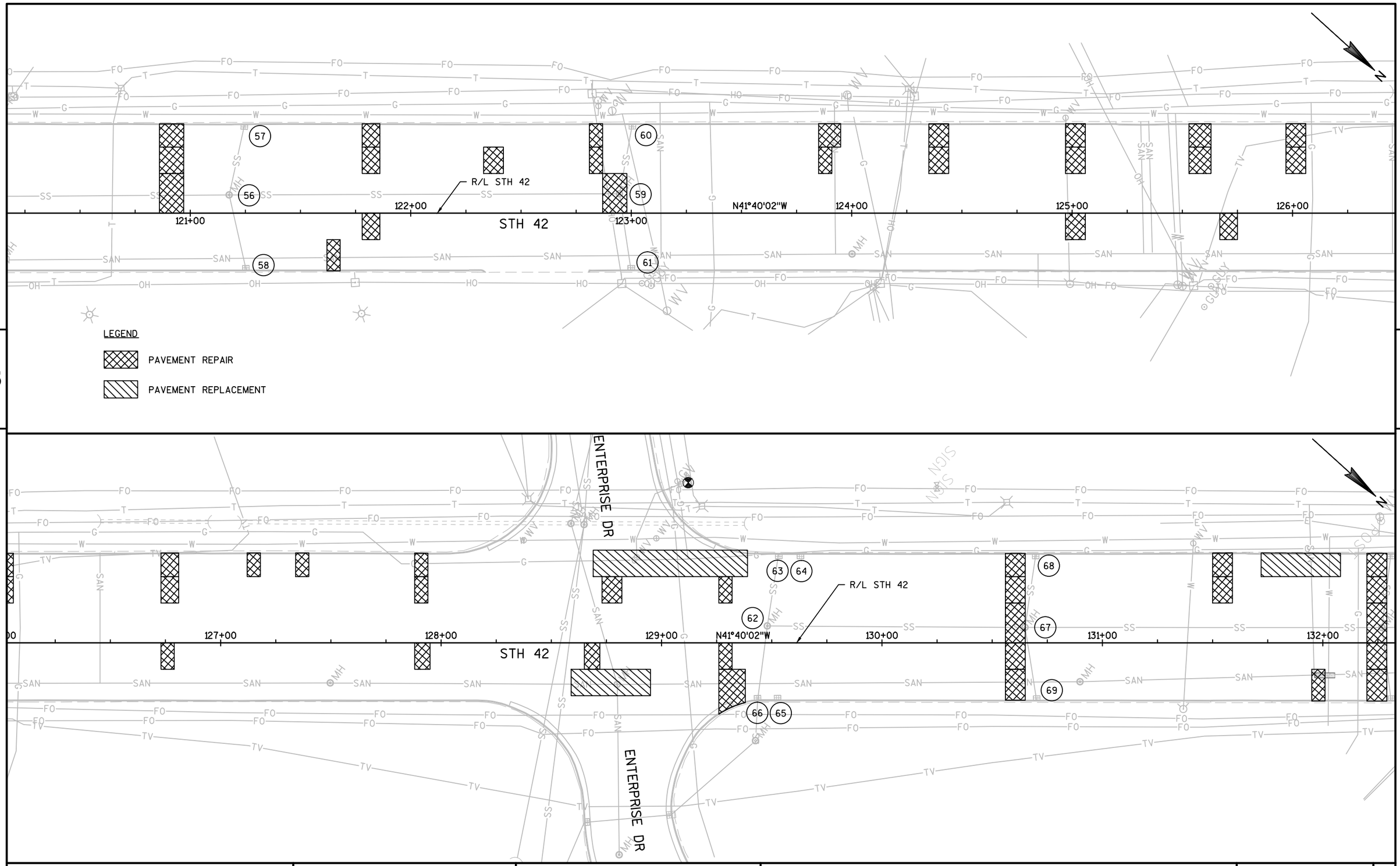


PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PLAN SHEET: STH 42	SHEET 24 E

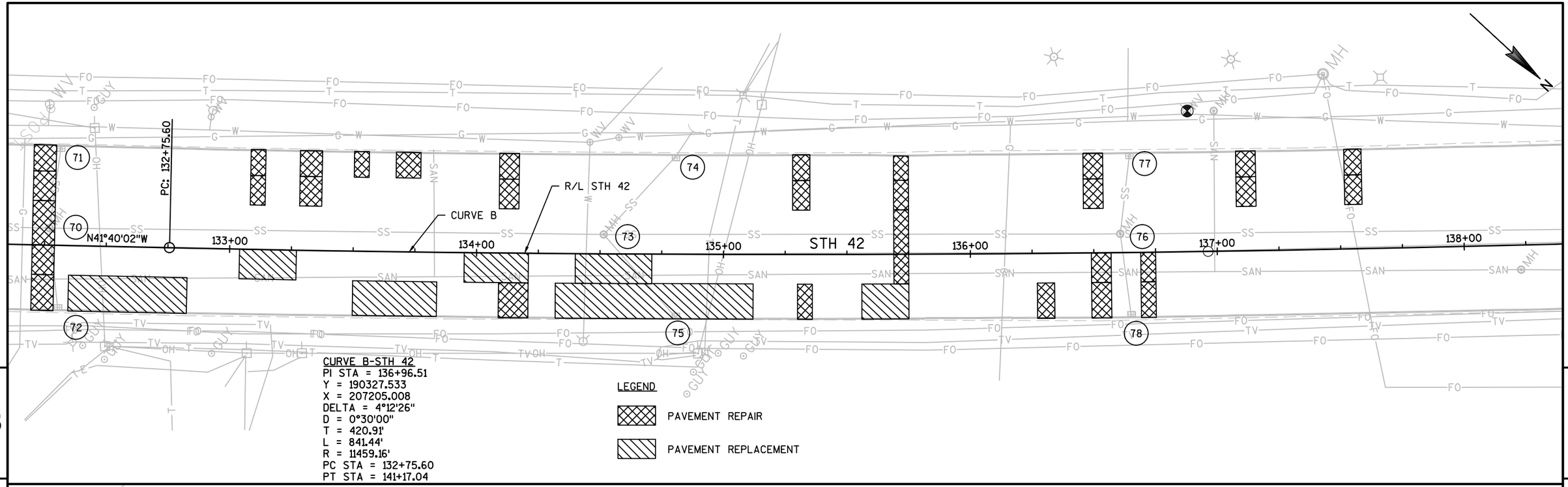
FILE NAME : N:\PDS\C3D\46303030\CIVIL 3D 2014\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050201-pn

PLOT DATE : 6/2/2016 12:34 PM PLOT BY : MALUEG, RYAN P PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44



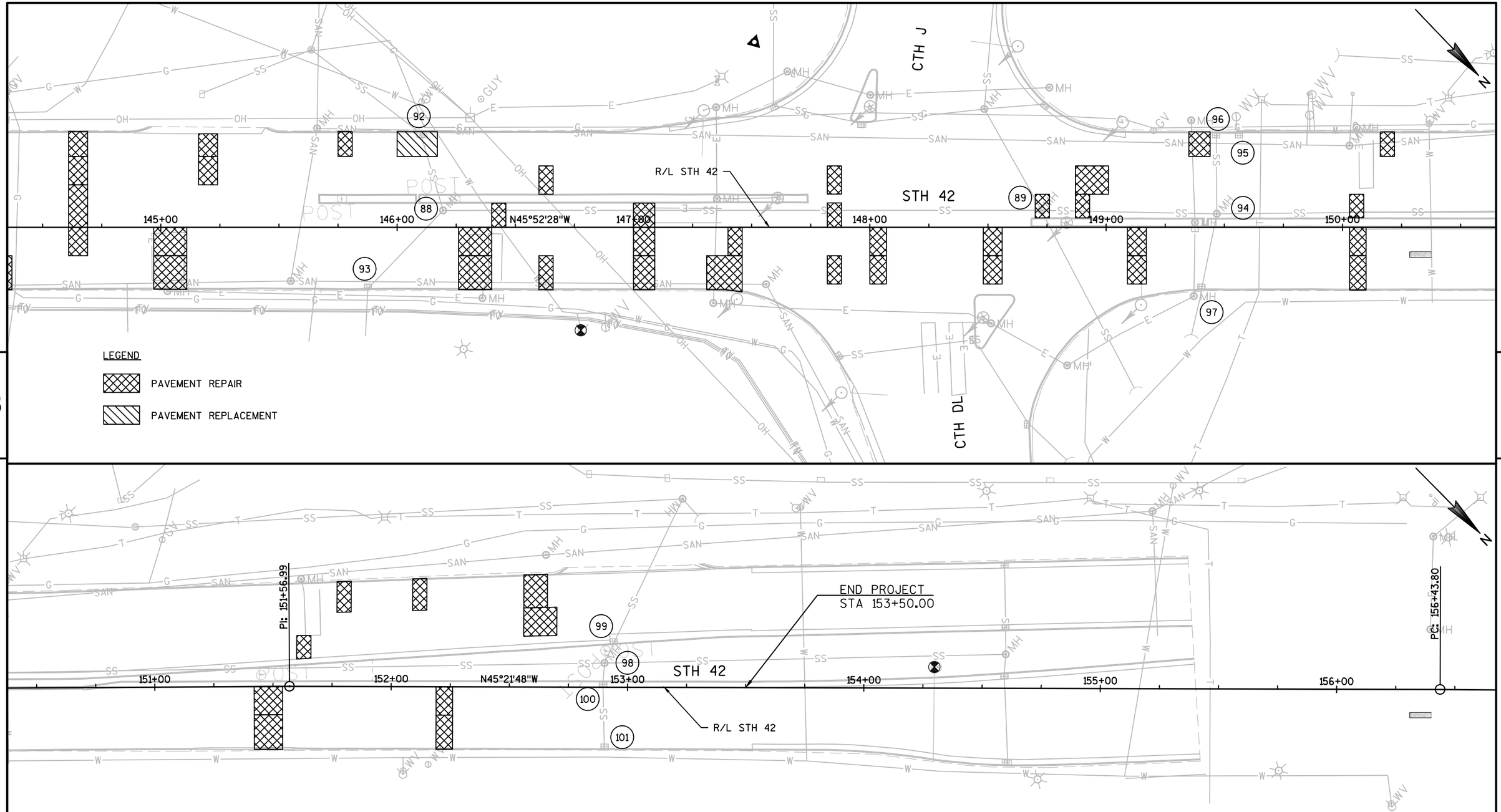
PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PLAN SHEET: STH 42	SHEET 25	E



PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PLAN SHEET: STH 42	SHEET	E

FILE NAME : N:\PDS\C3D\46303030\CIVIL 3D 2014\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050203-pn

PLOT DATE : 4/27/2016 11:39 AM PLOT BY : MALUEG, RYAN P PLOT NAME : PLOT SCALE : **********



PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PLAN SHEET: STH 42	SHEET 27	E

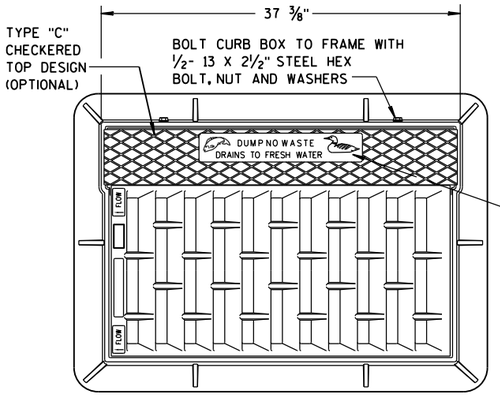
FILE NAME : N:\PDS\C3D\46303030\CIVIL 3D 2014\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 050204-pn

PLOT DATE : 5/2/2016 2:43 PM PLOT BY : MALUEG, RYAN P PLOT NAME : PLOT SCALE : **********

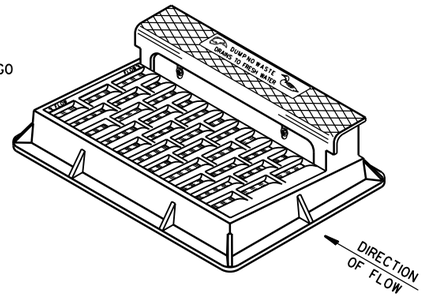
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

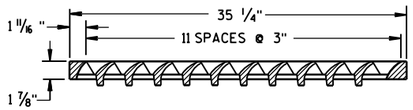
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-18	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-17A	CURB RAMPS TYPES 1 AND 1-A
08D05-17B	CURB RAMPS TYPES 2 AND 3
08D05-17C	CURB RAMPS TYPES 4A AND 4A1
08D05-17D	CURB RAMPS TYPE 4B AND 4B1
08D05-17E	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
09C03-04	TRANSFORMER/PEDESTAL BASES
09C12-08A	CONCRETE BASE TYPE 13
09C12-08B	CONCRETE BASE TYPE 13
09C13-02	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E08-08D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-08E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-04	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
13C01-18	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-13A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-13C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
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
15C07-13B	PAVEMENT MARKING WORDS
15C07-13C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C18-03	MEDIAN ISLAND MARKING
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-04	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

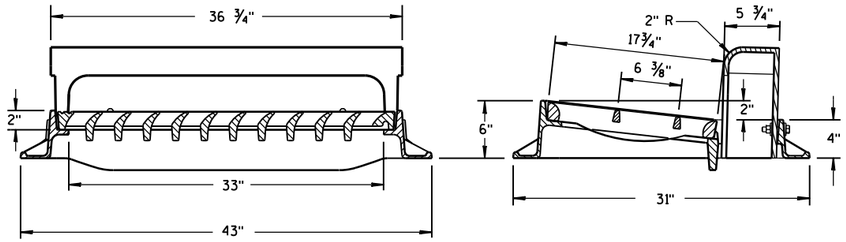


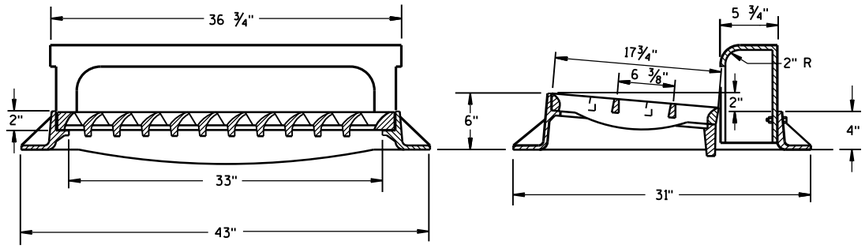
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

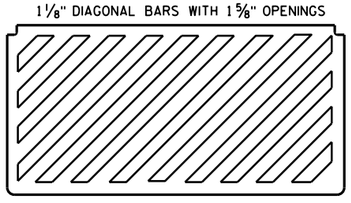






TYPE "H"

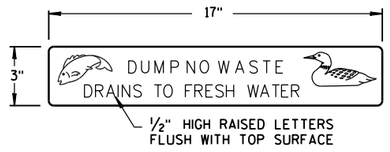
NOTE: EITHER CASTING IS ACCEPTABLE



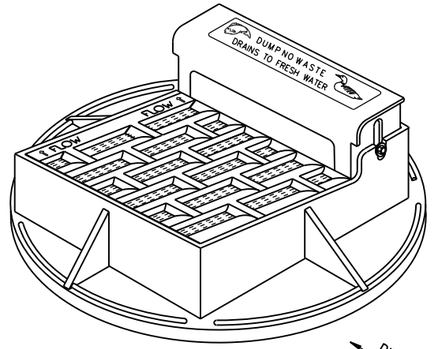
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

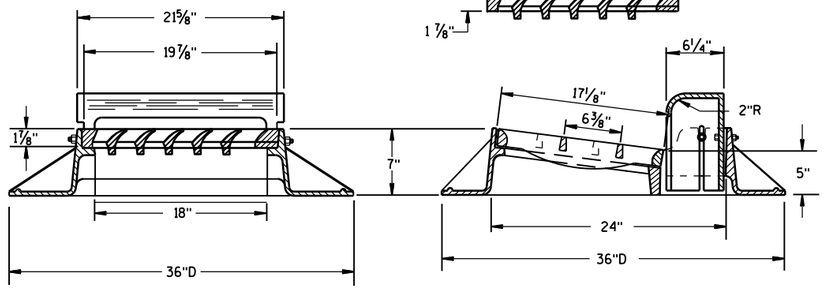


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



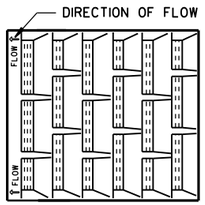
TYPE "A"

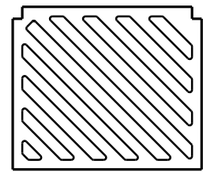
GENERAL NOTES

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.

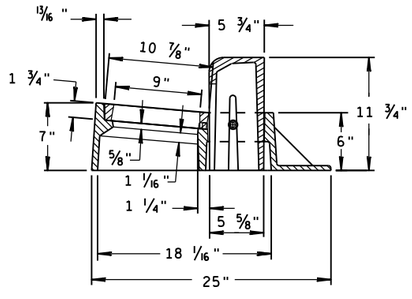


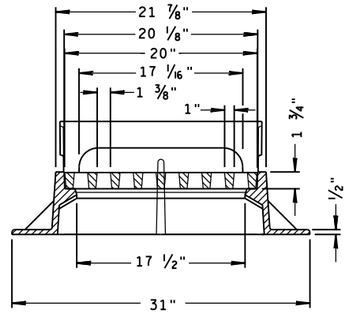


SPECIAL GRATE FOR TYPE "A" COVER

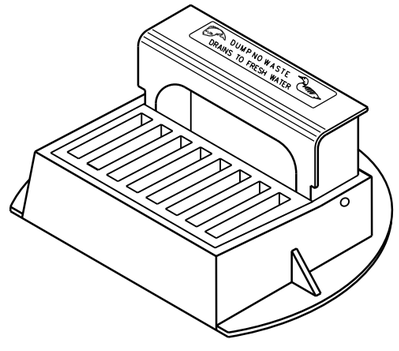
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



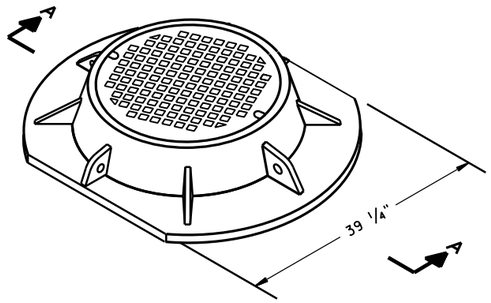
INLET COVERS
TYPE A, H, A-S, H-S & Z

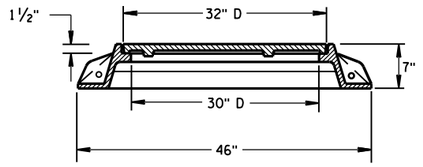
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

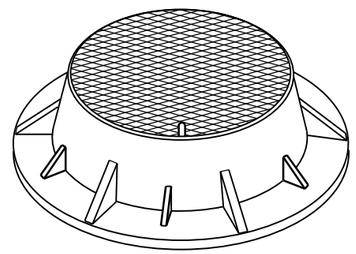
6

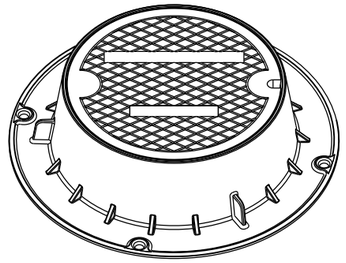
S.D.D. 8 A 5-19a

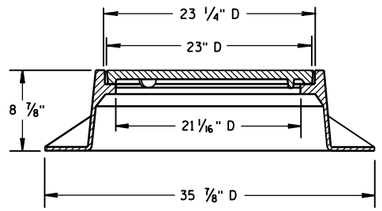


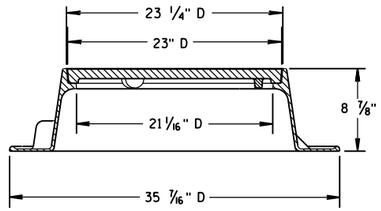


SECTION A-A
TYPE "K"









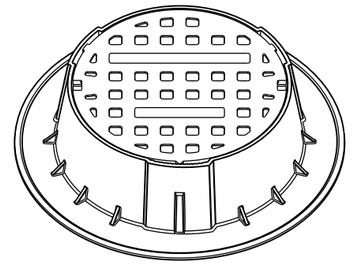
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

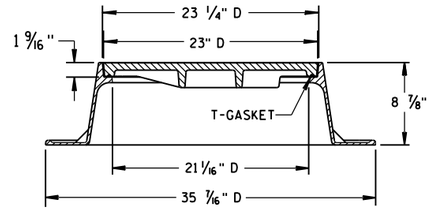
GENERAL NOTES

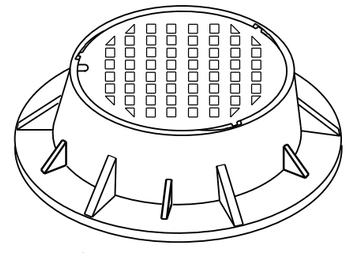
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

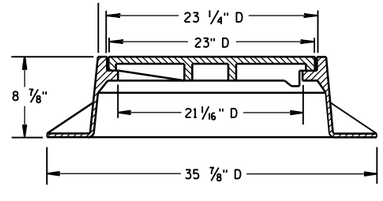
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

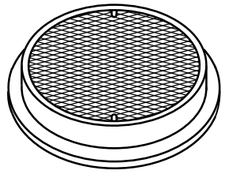


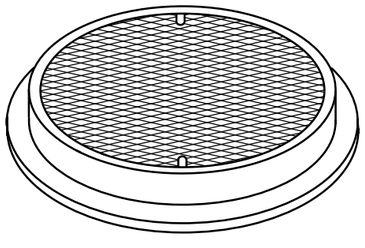


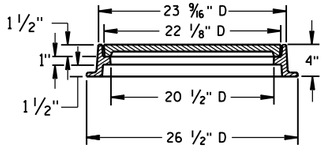




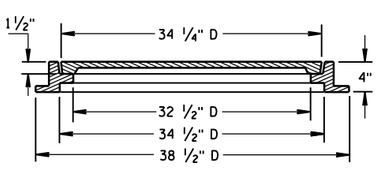
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



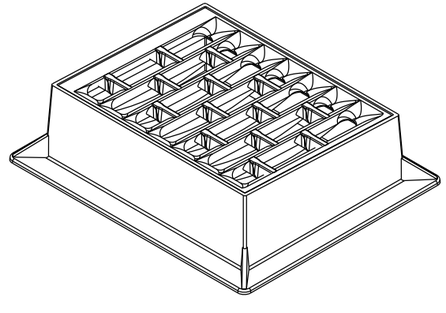


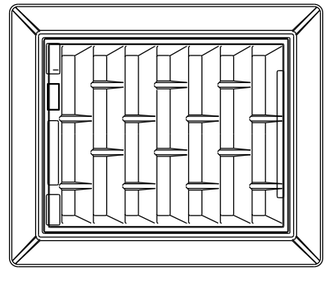


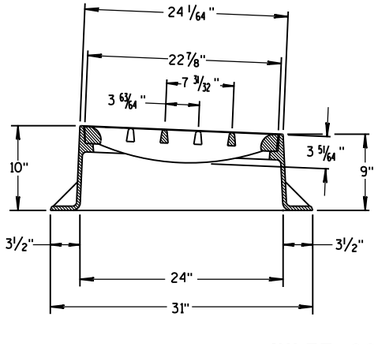
TYPE "L"

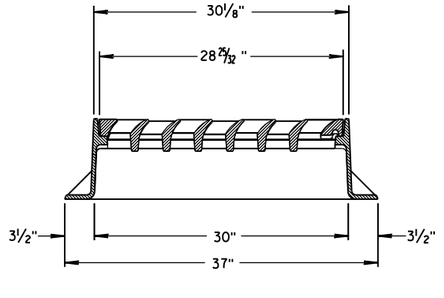


TYPE "M"









INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

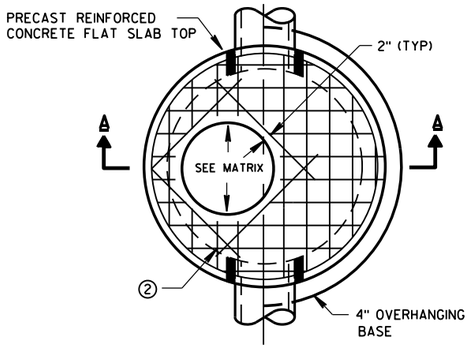
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

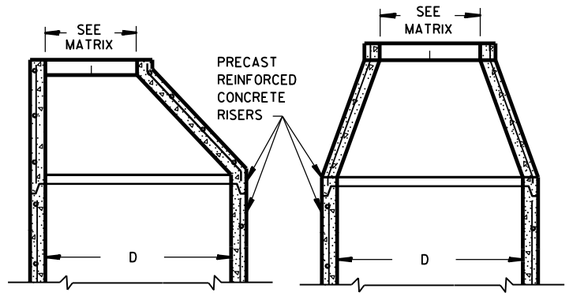
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

S.D.D. 8 A 5-19d

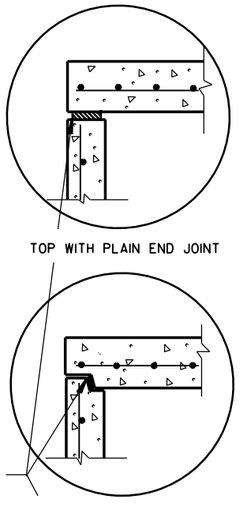


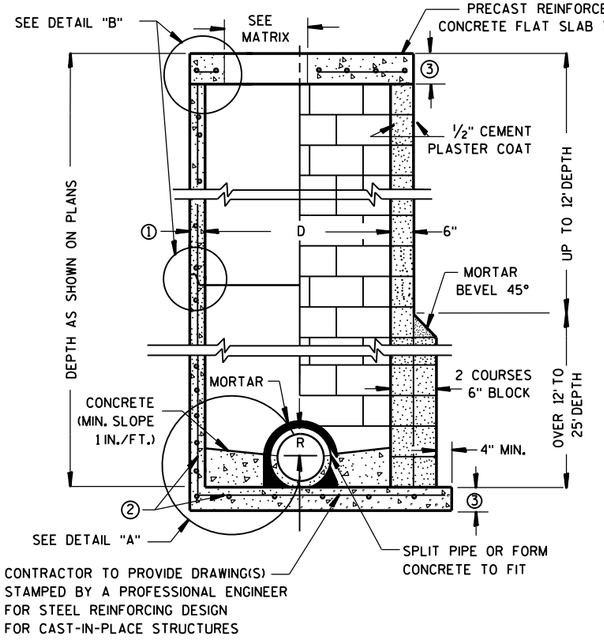
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

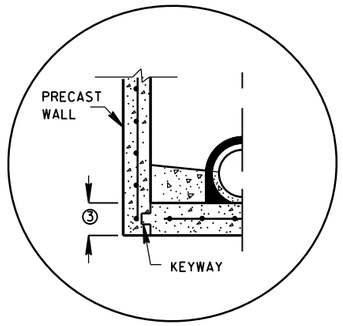
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



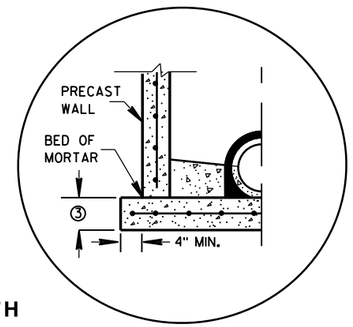


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

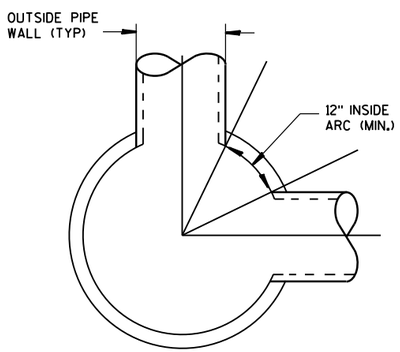


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

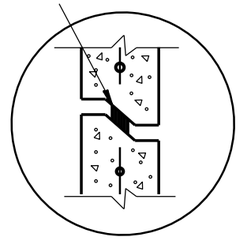


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



DETAIL "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 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

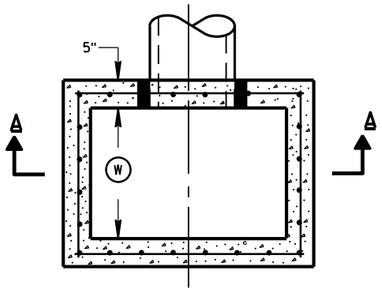
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

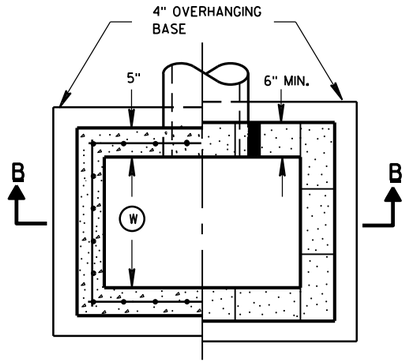
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

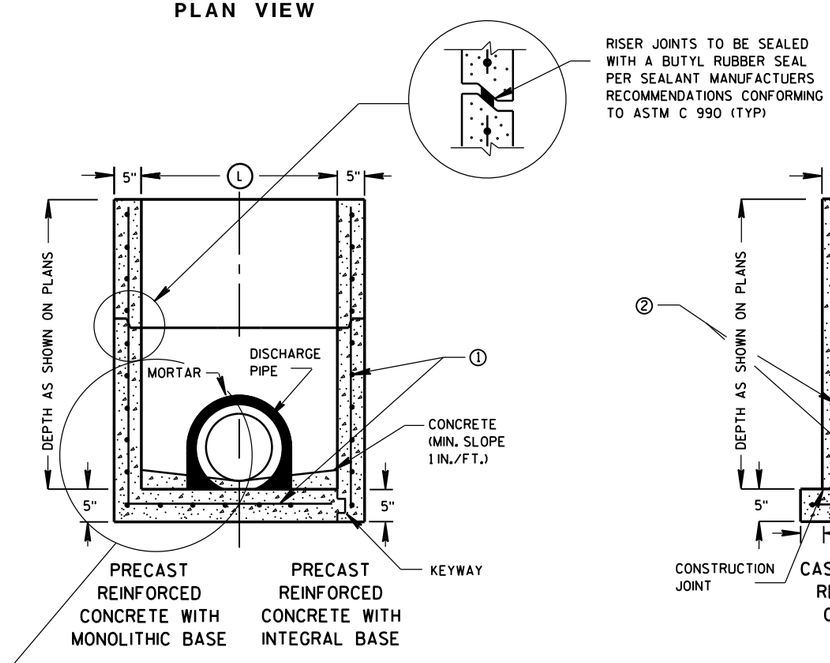
6
S.D.D. 8 B 9-1



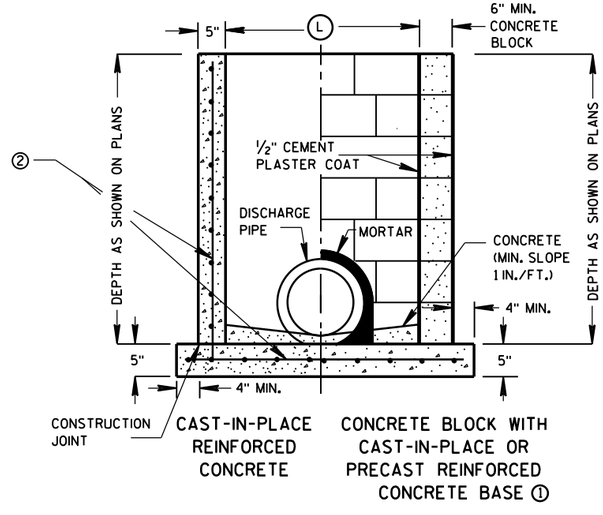
PLAN VIEW



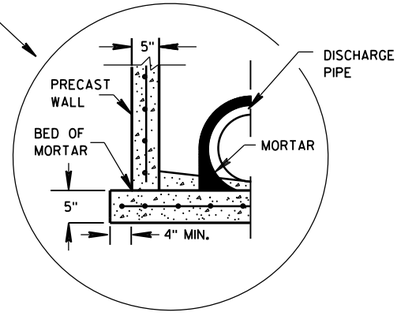
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 INLET 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 INLET 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 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

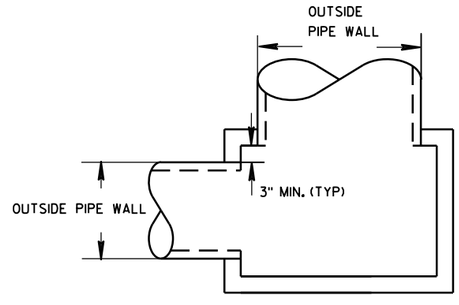
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

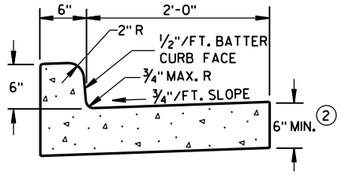
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

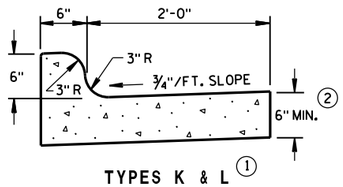
APPROVED
6/5/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DE
ENGINEER

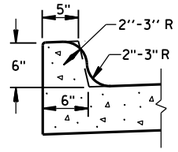
6
S.D.D. 8 C 7-1



TYPES A & D ①

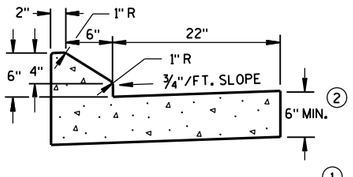


TYPES K & L ①

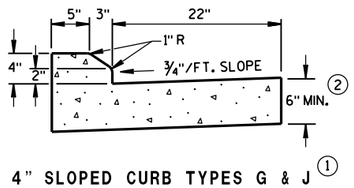


OPTIONAL CURB SHAPE FOR TYPES K & L ①

CONCRETE CURB & GUTTER 30"

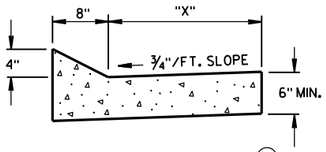


6" SLOPED CURB TYPES G & J ①



4" SLOPED CURB TYPES G & J ①

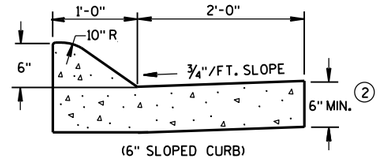
CONCRETE CURB & GUTTER 30"



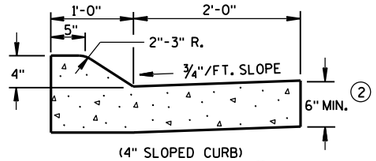
TYPES TBT & TBTT ①

CONCRETE CURB & GUTTER

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

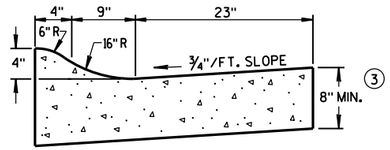


(6" SLOPED CURB)



(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.

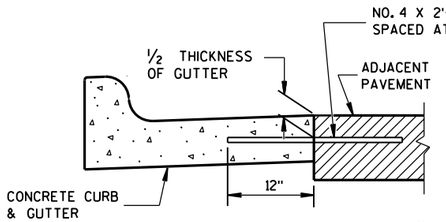
① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

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.

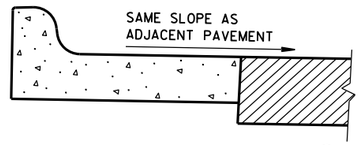
③ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

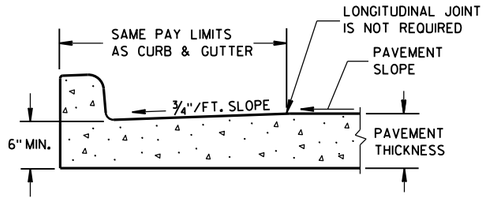
⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



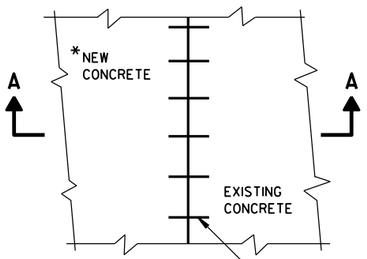
TYPICAL TIE BAR LOCATION ①



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

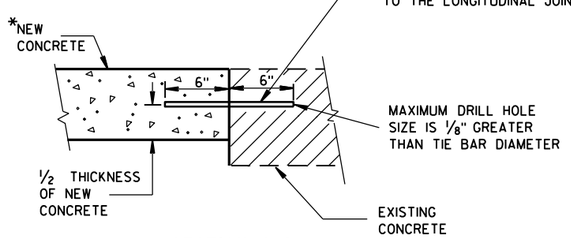


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



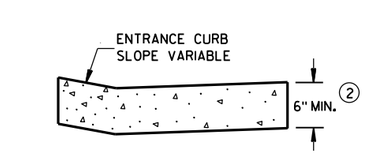
PLAN VIEW

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

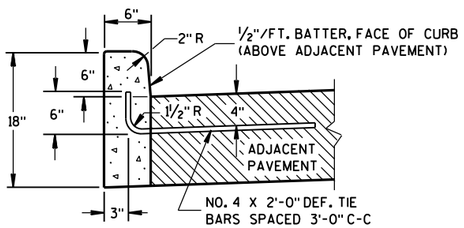


SECTION A-A

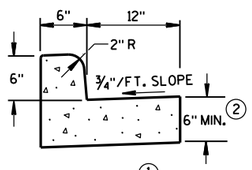
TIE BARS DRILLED
INTO EXISTING PAVEMENT



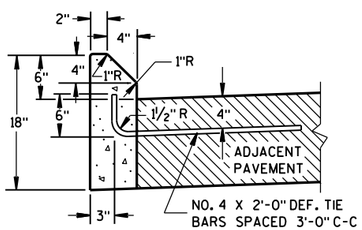
DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)



① TYPES A & D

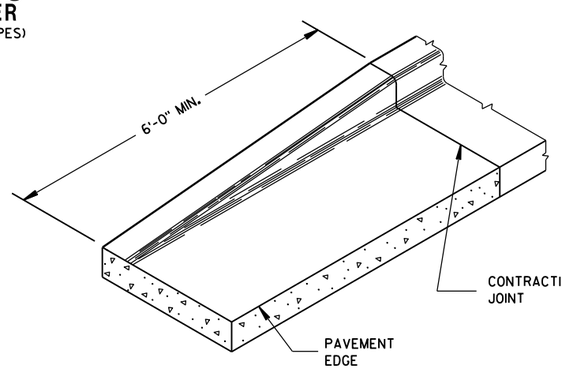


① TYPES A & D
CONCRETE CURB & GUTTER 18"



① TYPES G & J

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 ENGINEER
FHWA

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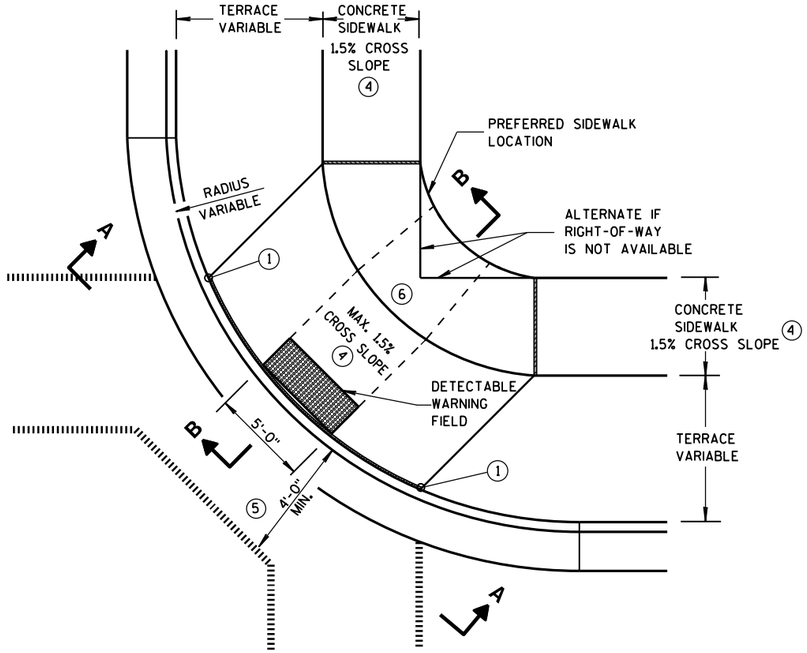
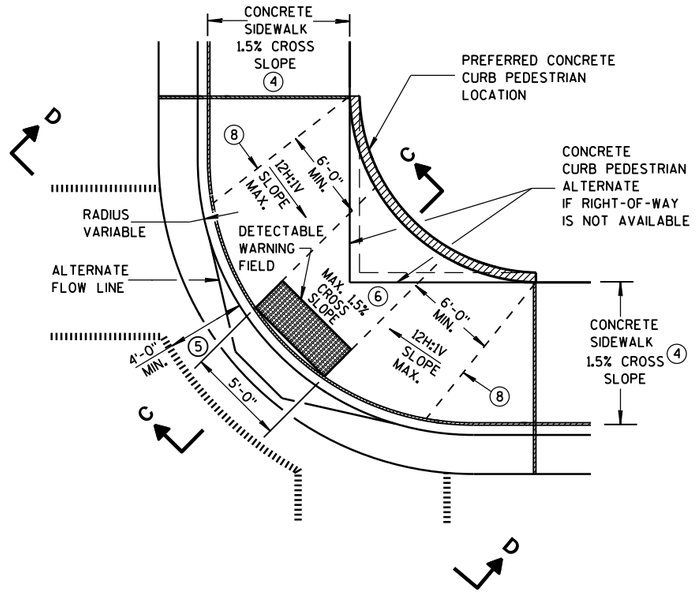
S.D.D. 8 D 1-18



PLAN VIEW

TYPE 1 RAMP

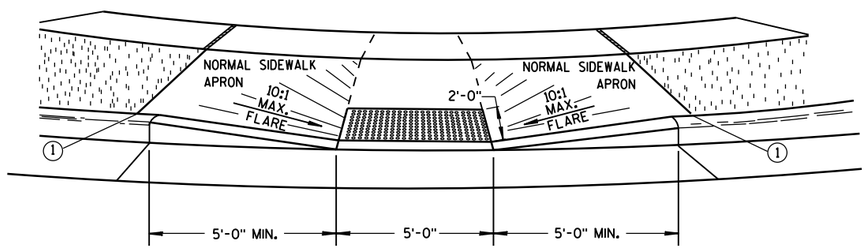
(CENTER OF CORNER RADIUS)



PLAN VIEW

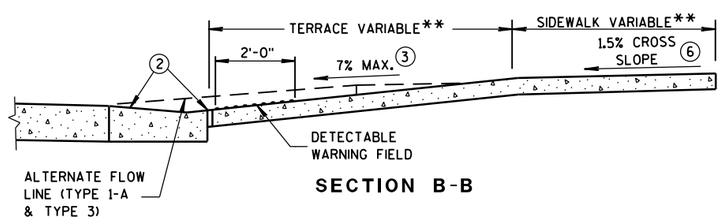
TYPE 1-A RAMP

(NO TERRACE)

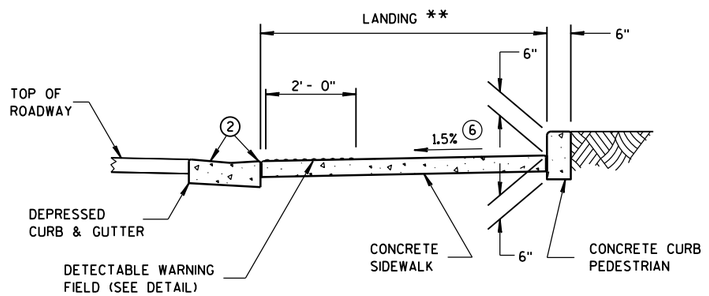


VIEW A-A

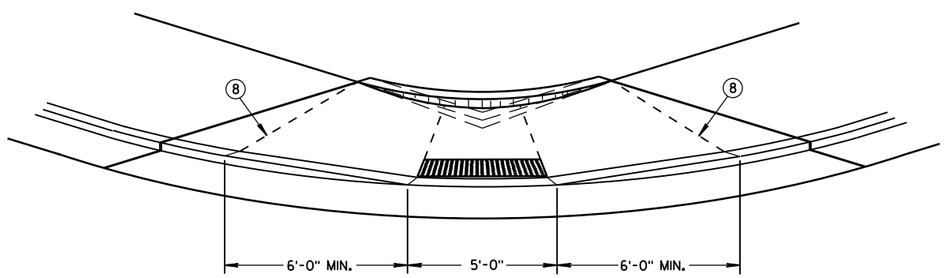
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B



SECTION C-C



VIEW D-D

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. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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.

LEGEND

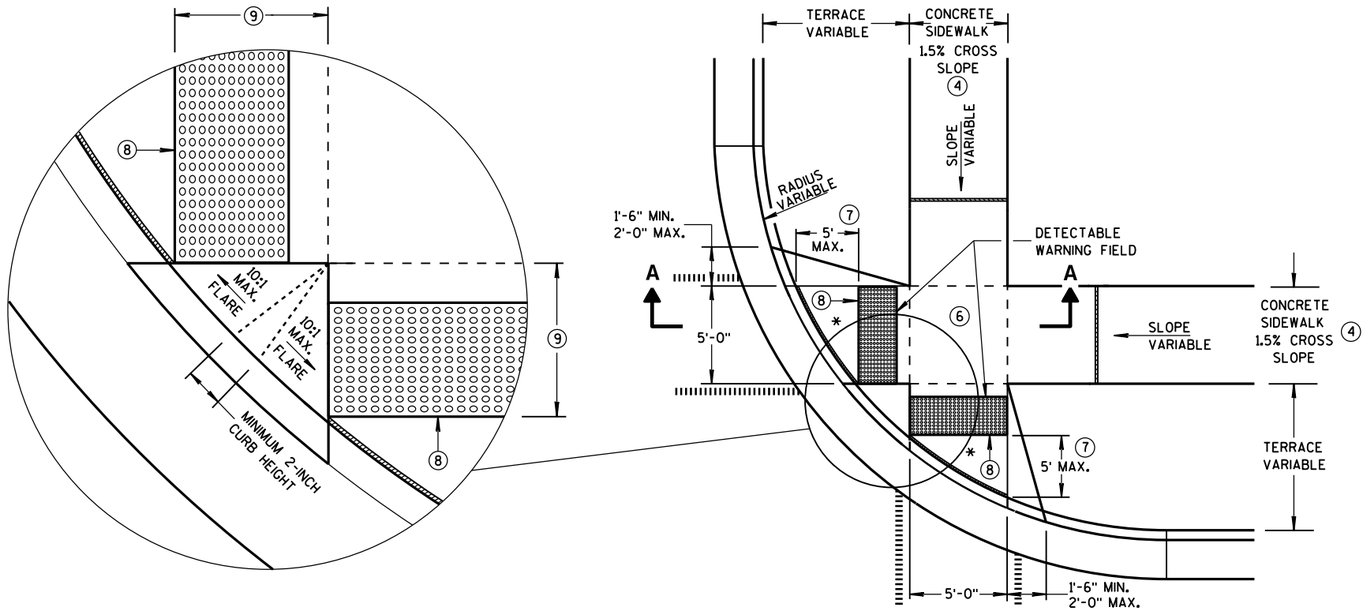
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-17a

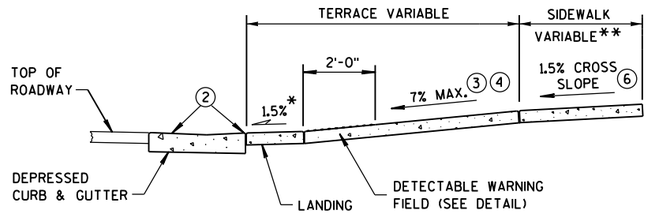


PLAN VIEW

TYPE 2 RAMP

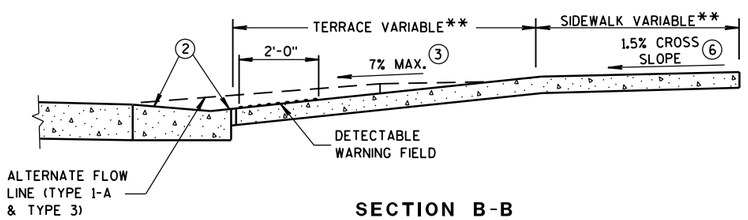
(ON LINE WITH SIDEWALK)

* 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

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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).

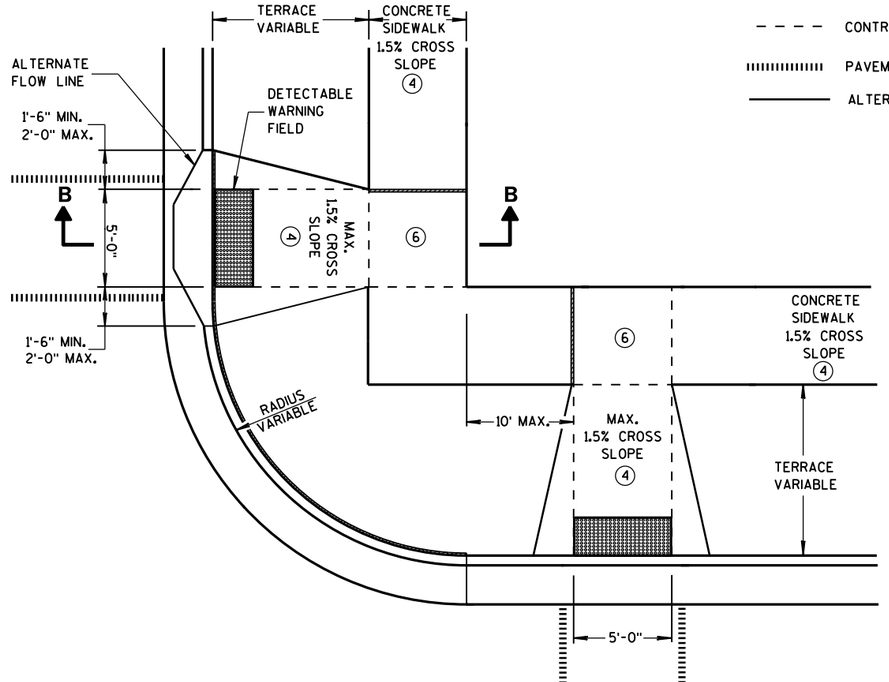
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(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. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

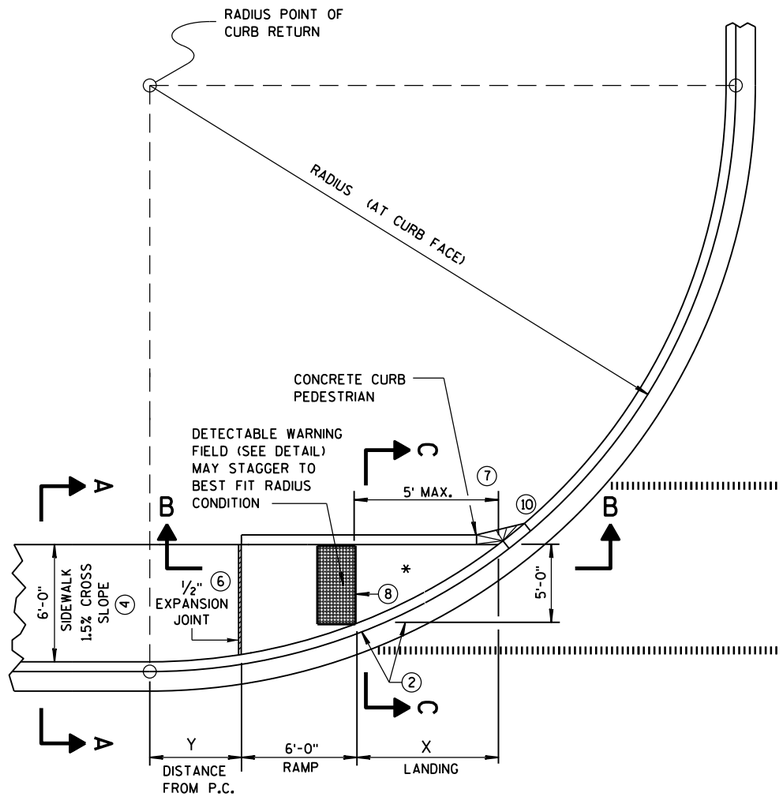
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

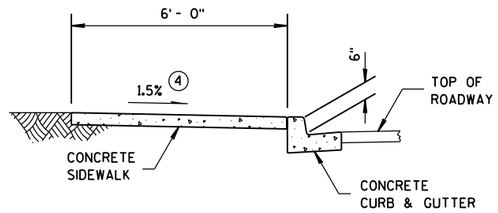
S.D.D. 8 D 5-17b



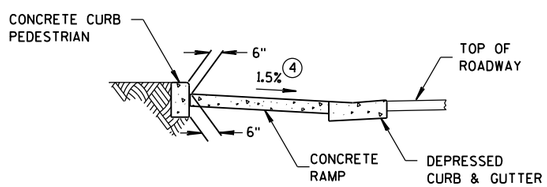
CURB RAMP TYPE 4A
PLAN VIEW

RADIUS (AT CURB FACE)	X	Y
20 FEET	7'-11"	0'-2"
30 FEET	10'-2¾"	1'-7½"
40 FEET	12'-1¼"	2'-10"
50 FEET	13'-8¾"	3'-10¾"
60 FEET	15'-2"	4'-10¼"

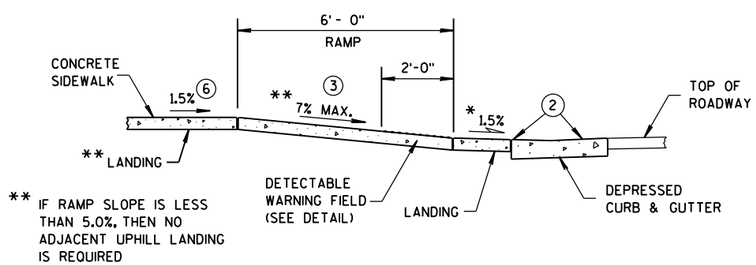
INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

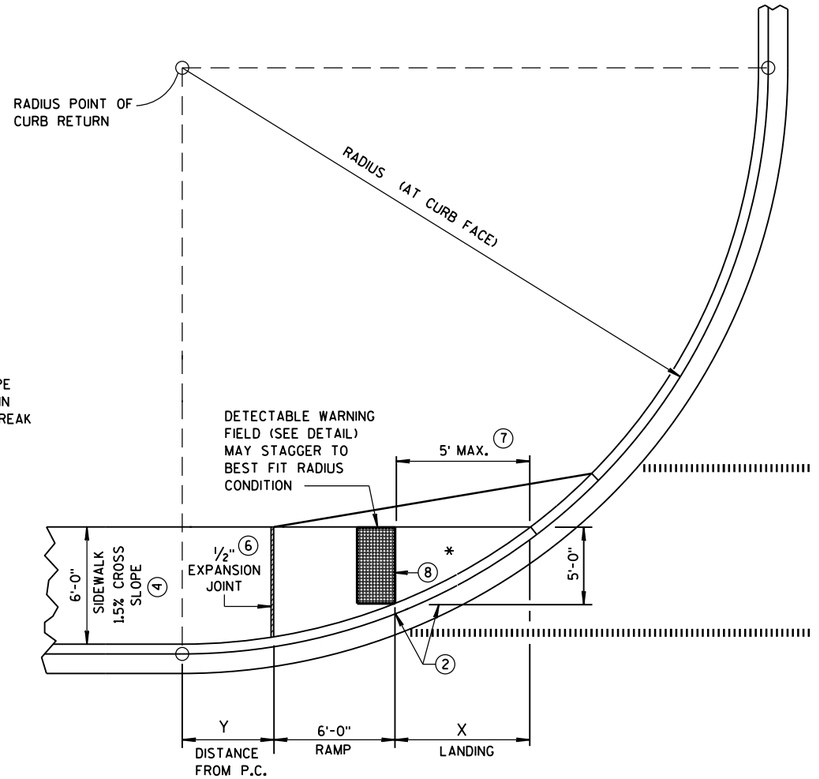


SECTION C-C FOR TYPE 4A



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

SECTION B-B FOR TYPE 4A



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

CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

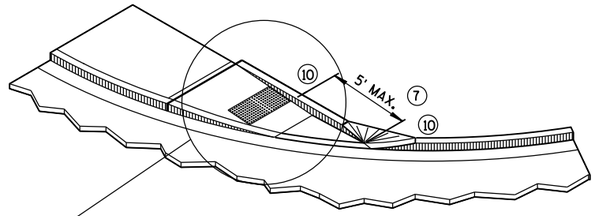
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

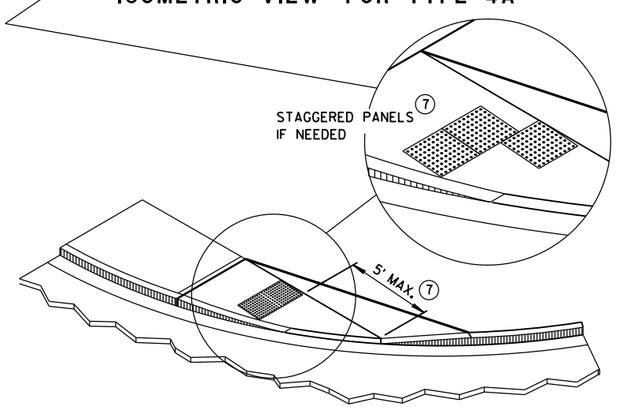
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

(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

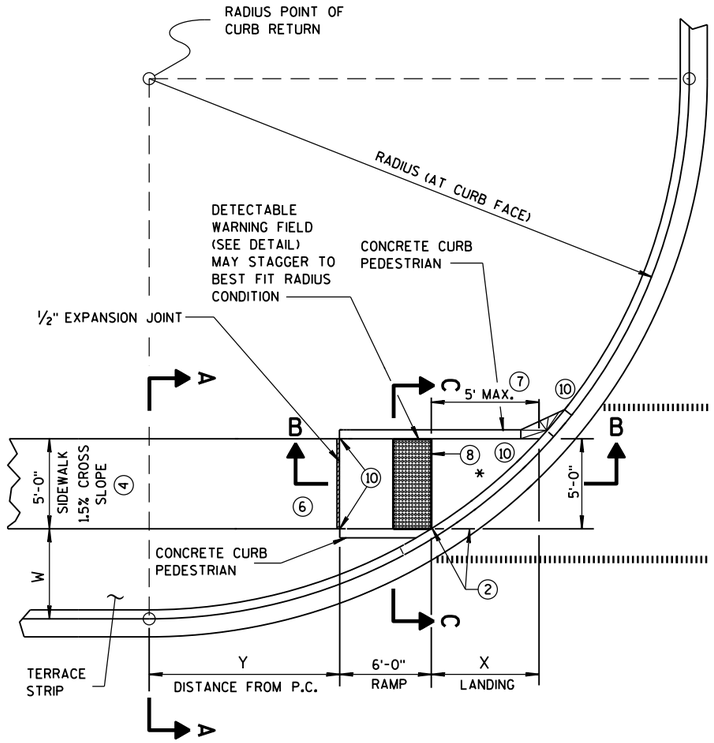
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

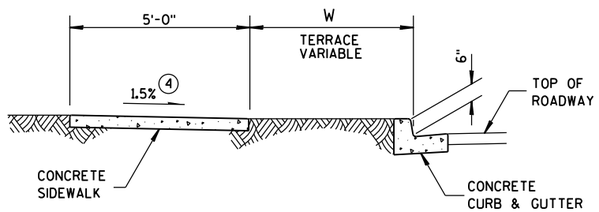
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

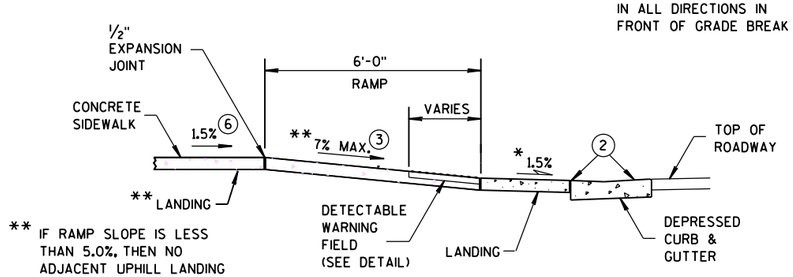
S.D.D. 8 D 5-17c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



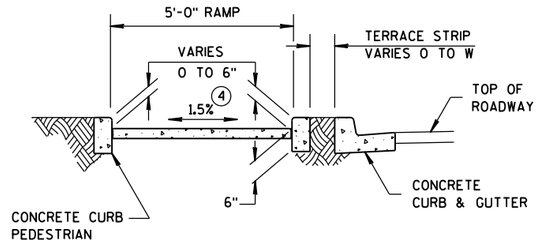
SECTION B-B FOR TYPE 4B

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'-9¾"	3'-6½"	4'-11½"	5'-1¾"	4'-3¼"	6'-5½"	3'-8¾"	7'-6¾"	3'-3"	8'-6¼"
30 FEET	7'-9¼"	5'-10½"	6'-9½"	7'-11¼"	6'-0¼"	9'-8"	5'-5"	11'-1¾"	4'-10¾"	12'-5¾"
40 FEET	9'-4"	7'-10"	8'-2¾"	10'-3"	7'-4¾"	12'-3¾"	6'-8½"	14'-1¼"	6'-1¾"	15'-8½"
50 FEET	10'-8"	9'-6½"	9'-5½"	12'-3¼"	8'-6½"	14'-7½"	7'-9¾"	16'-8¼"	7'-2½"	18'-6¼"
60 FEET	11'-10¼"	11'-0¾"	10'-6½"	14'-1¼"	9'-6½"	16'-8½"	8'-9¼"	18'-11¾"	8'-1½"	21'-0½"

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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

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

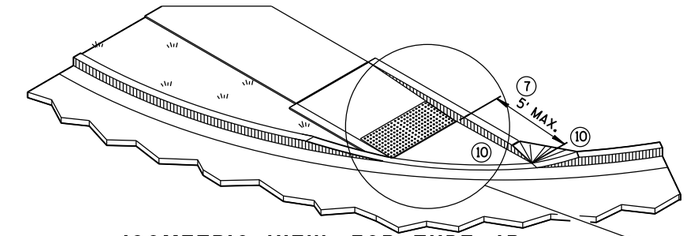
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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).

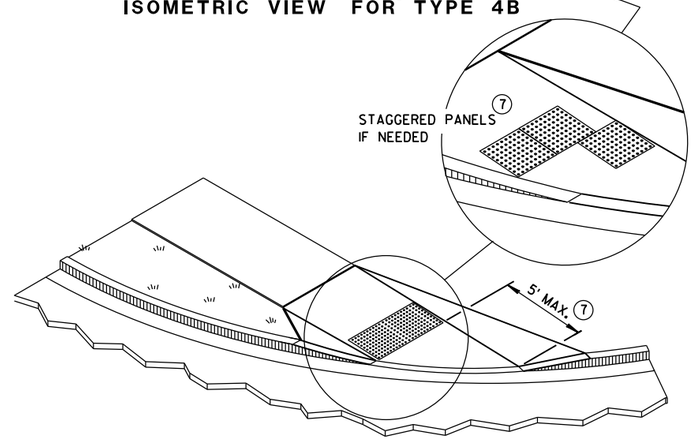
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, STAGGER ADDITIONAL DETECTABLE WARNING PANEL FORWARD TO REDUCE THIS DISTANCE. PROVIDE MINIMUM 12-INCH ROW OVERLAP TO AVOID SIDESTEP OF DOME DETECTION. ALIGN DOMES BETWEEN OVERLAPPING ROWS AND IN DIRECTION OF PEDESTRIAN TRAVEL.

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

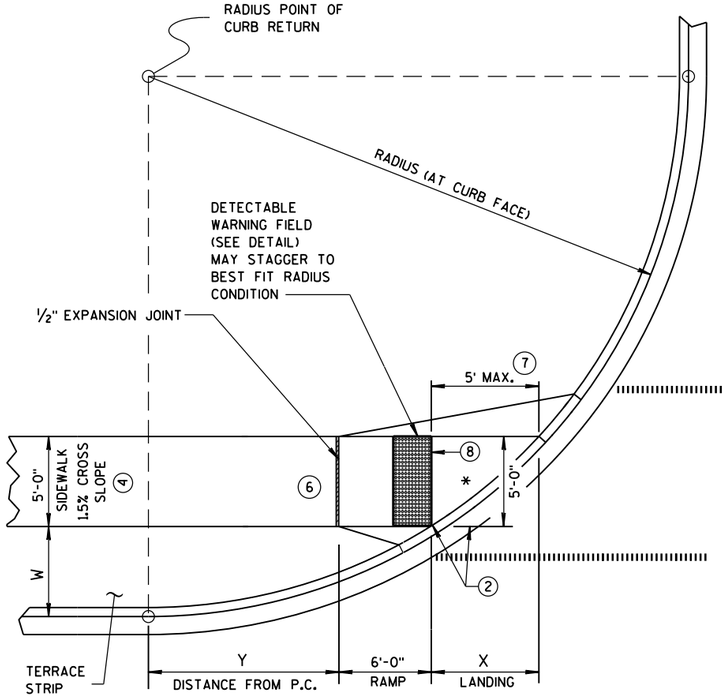
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



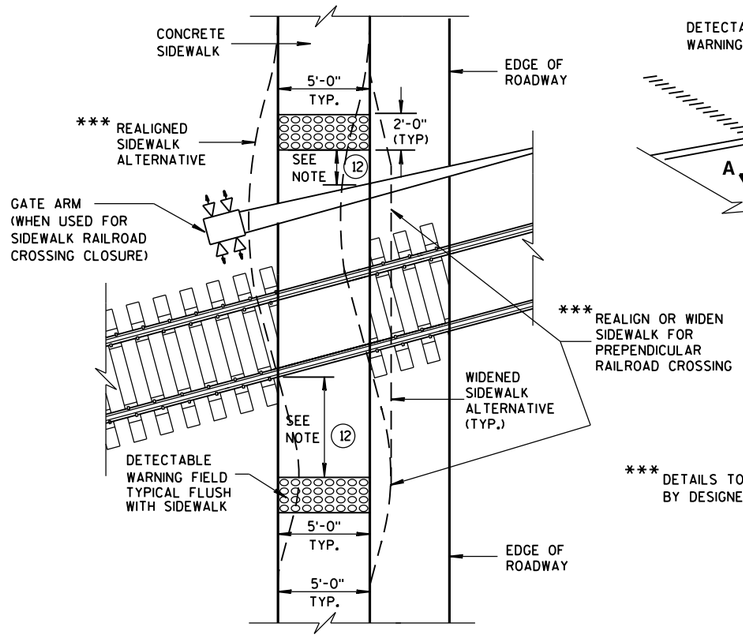
CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

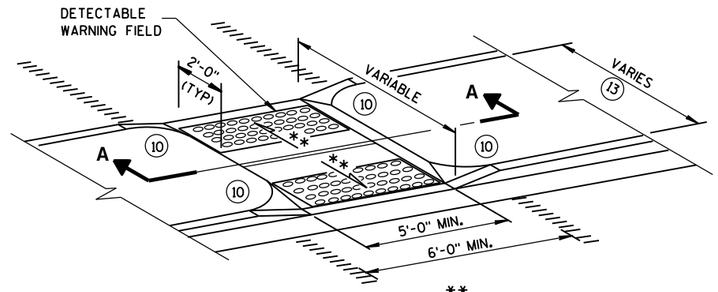
6

S.D.D. 8 D 5-17d



*** DETAILS TO BE DETERMINED BY DESIGNER

TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



** 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 LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL NOT EXCEED 7%.

(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.

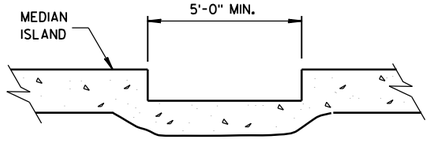
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

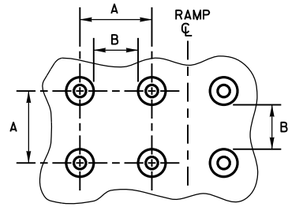
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



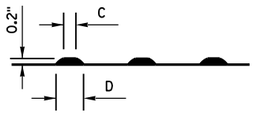
SECTION A-A

	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.

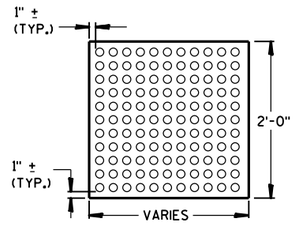


PLAN VIEW

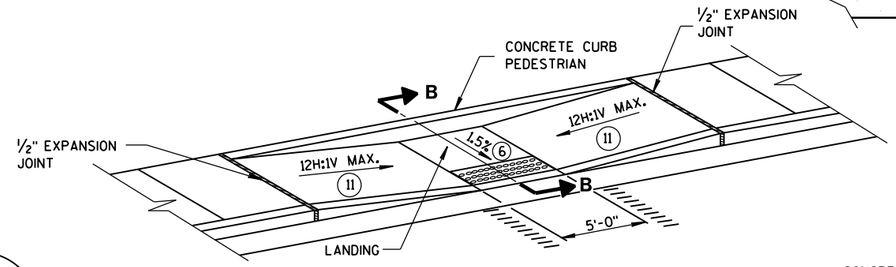


ELEVATION VIEW

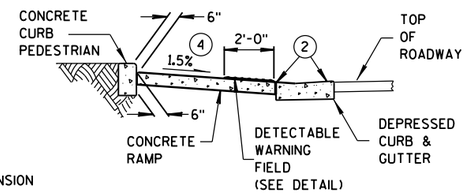
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING FIELD (TYPICAL)

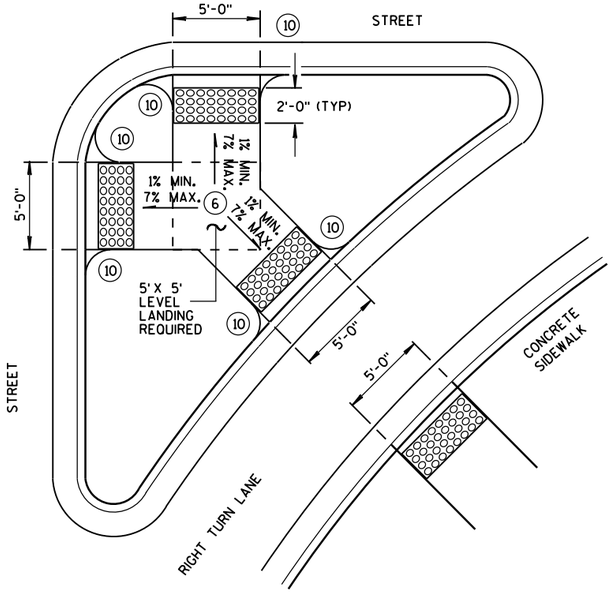


MID-BLOCK CROSSING
TYPE 7A

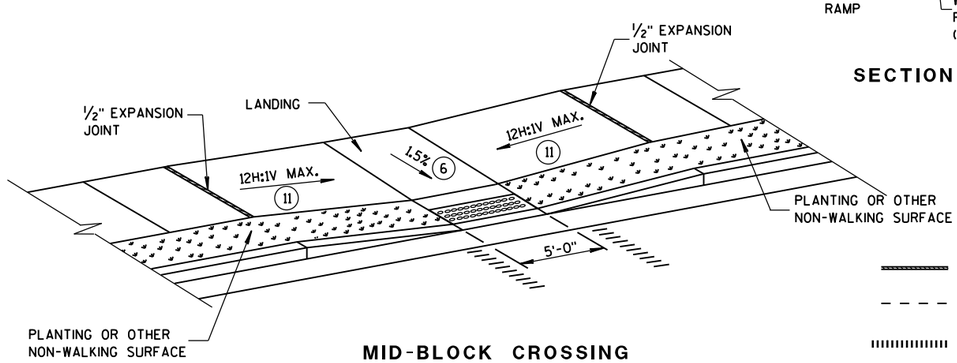


SECTION B-B

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)

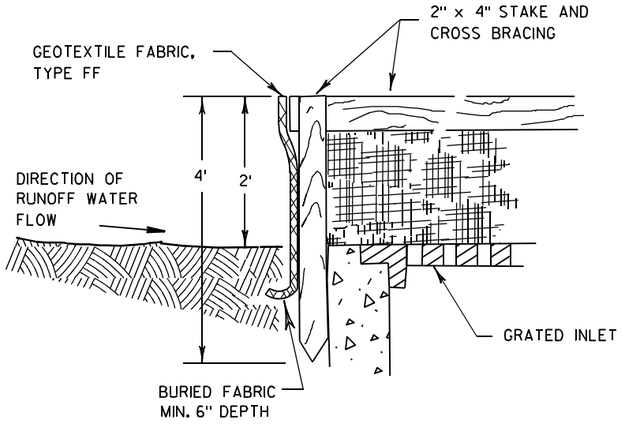
CURB RAMPS TYPES 5, 6, 7A, 7B & 8

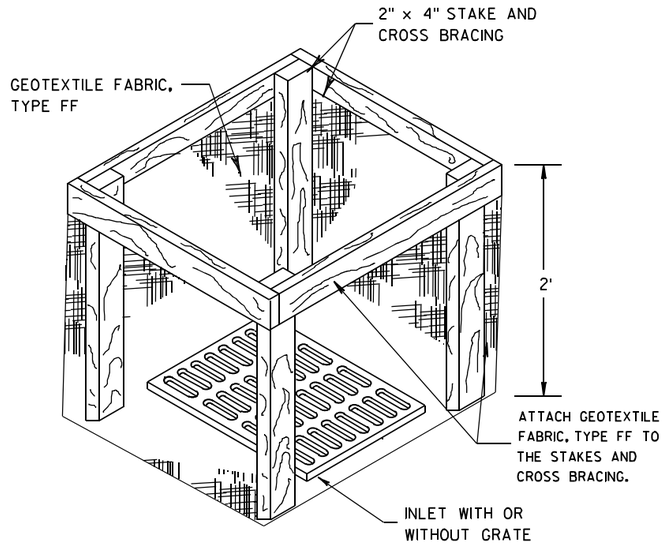
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

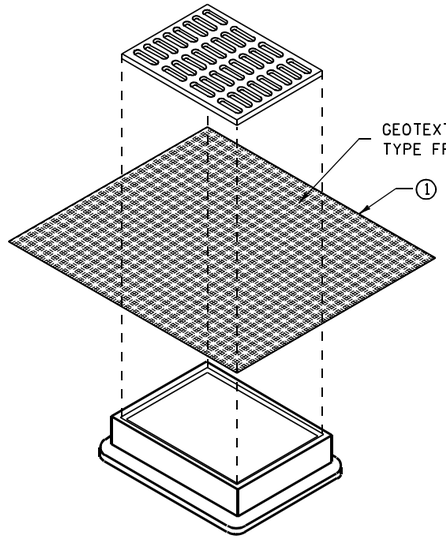
6

S.D.D. 8 D 5-17e



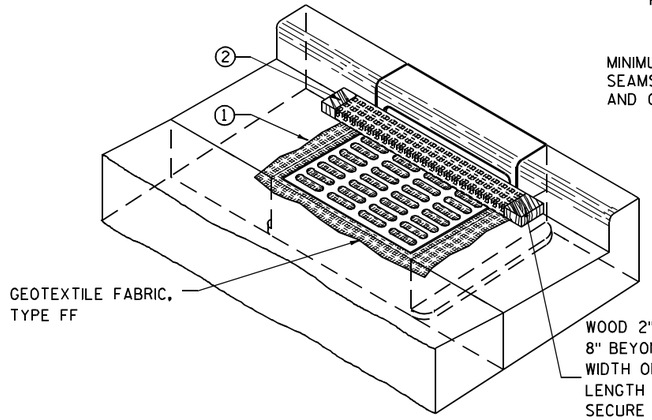


INLET PROTECTION, TYPE A

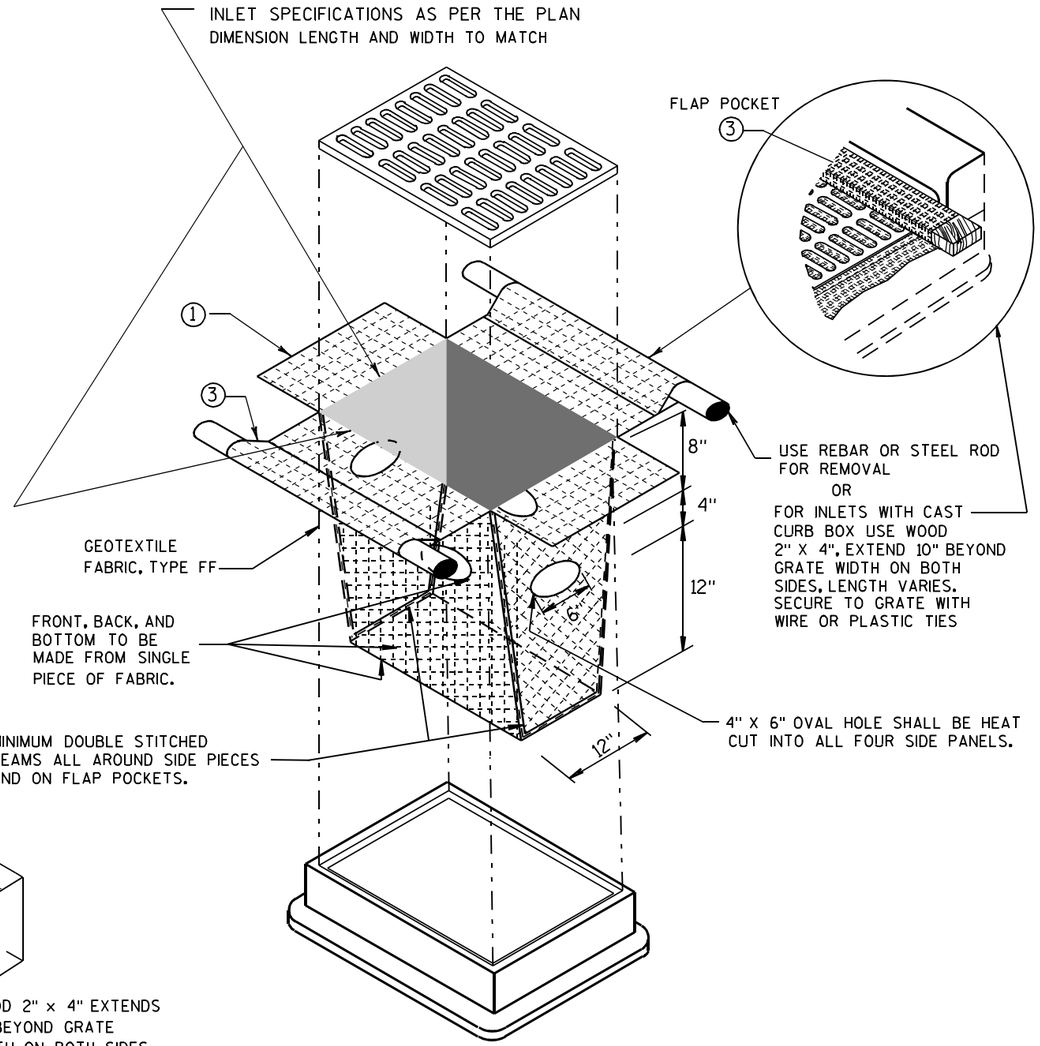


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

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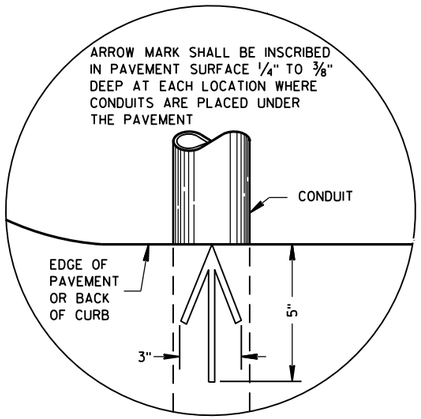
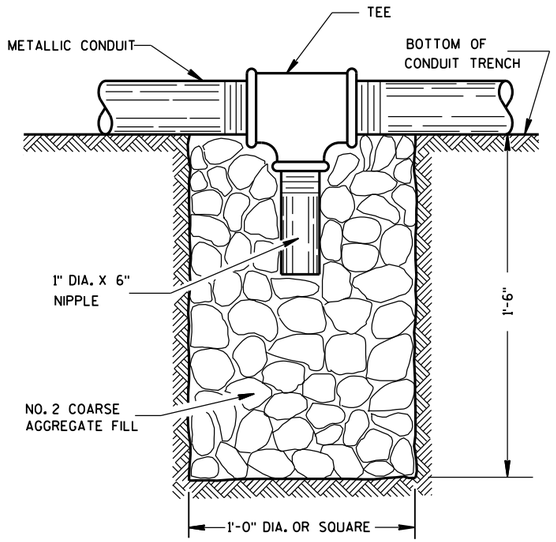
S.D.D. 8 E 10-2



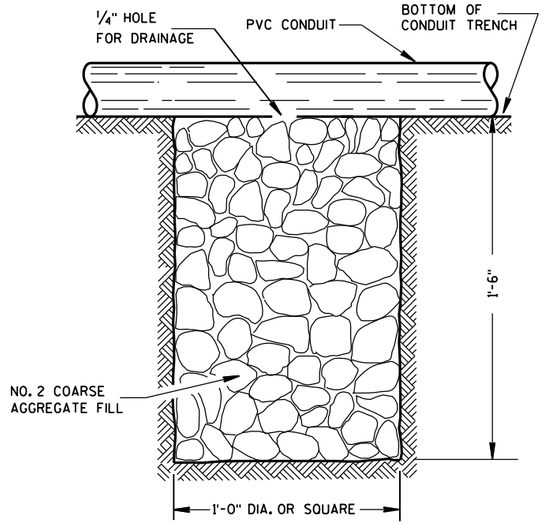
PLAN VIEW

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.

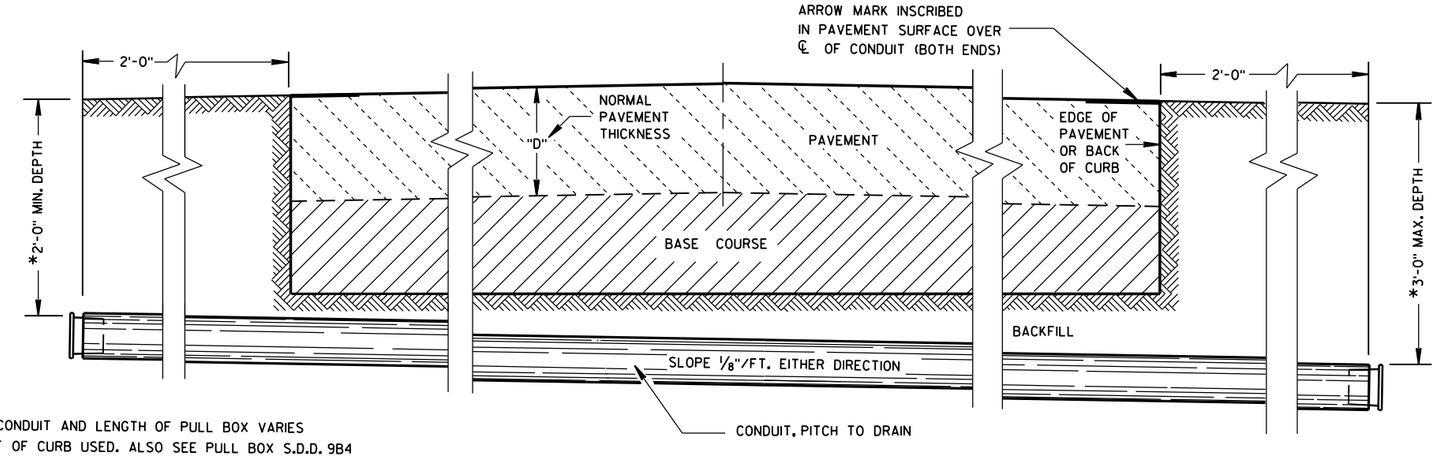
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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

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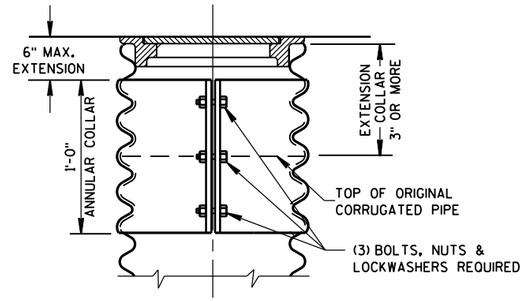
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

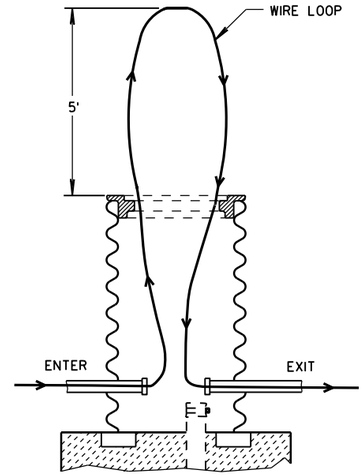
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

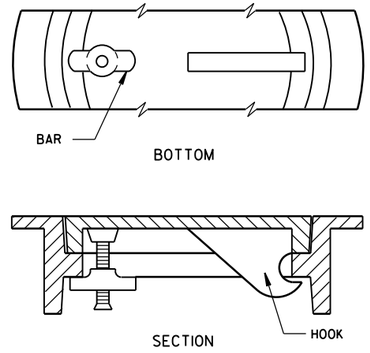
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

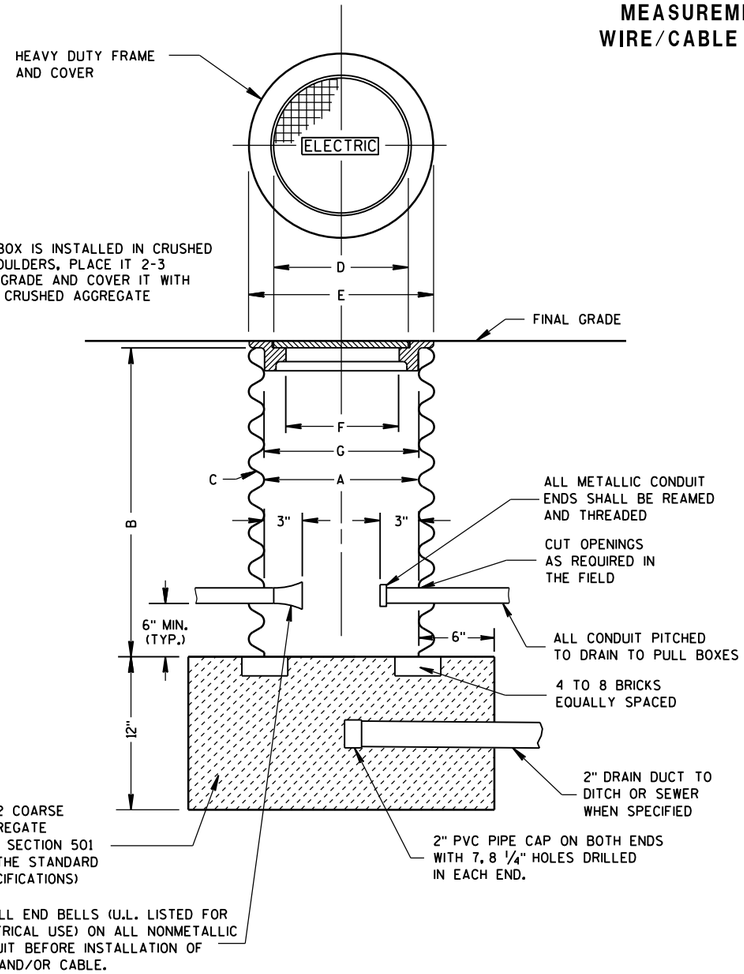


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



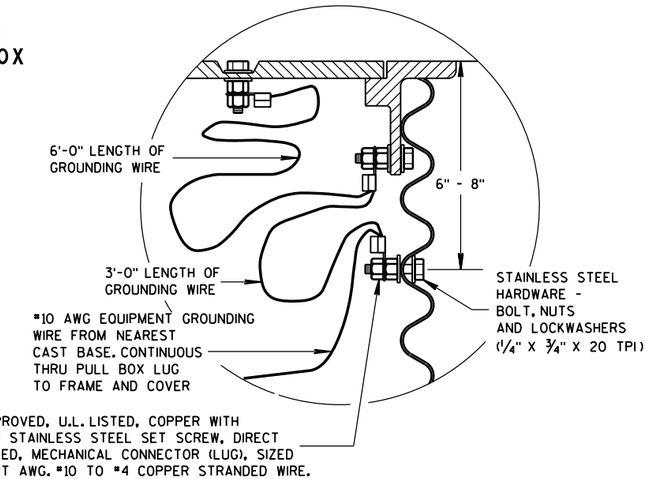
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

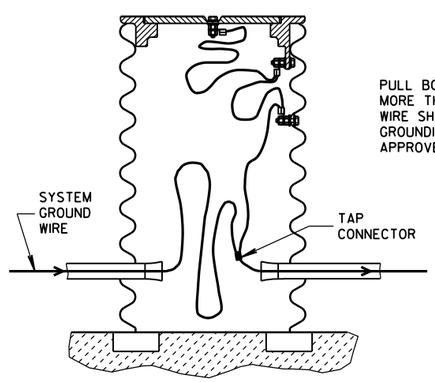


WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

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

6

S.D.D. 9 B 4-11

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.

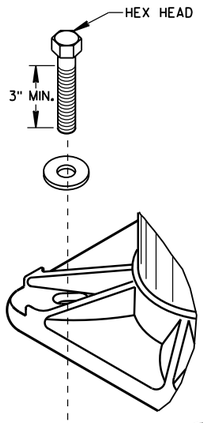
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

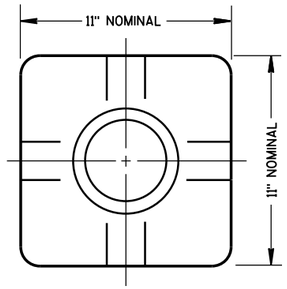
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

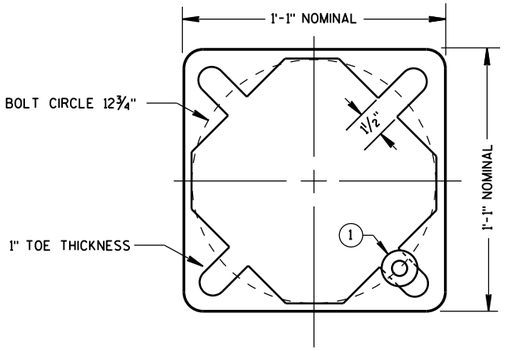
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

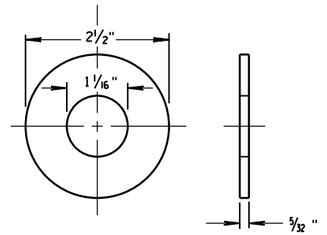




TOP VIEW
(PEDESTAL BASE)

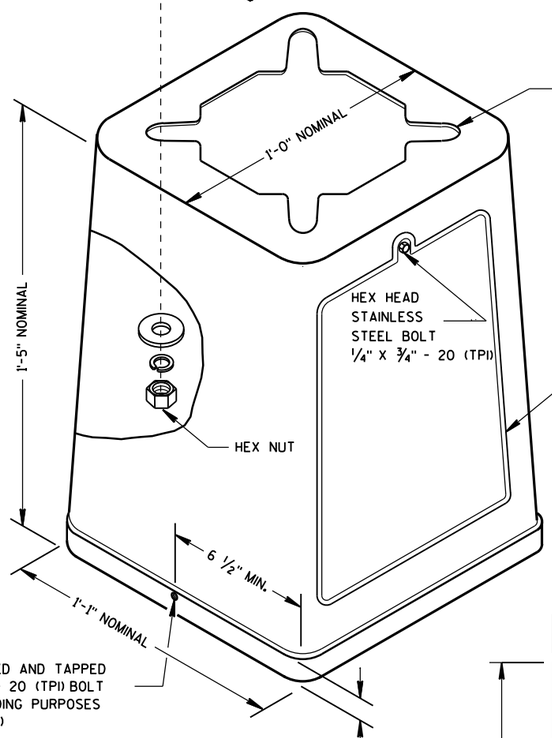


BOTTOM VIEW
(PEDESTAL BASE)

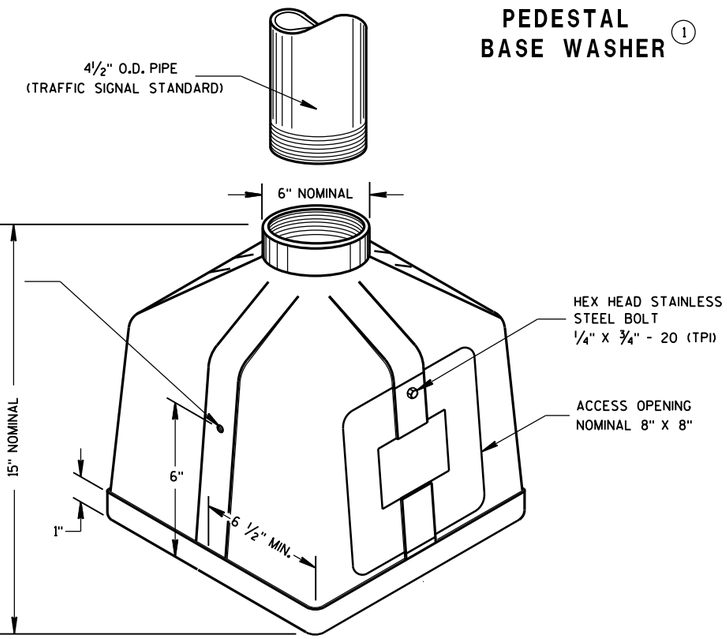


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

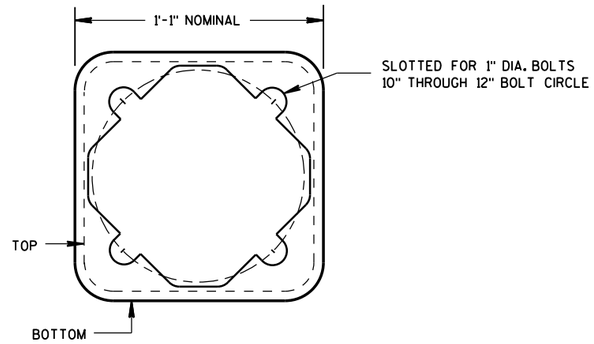


ISOMETRIC VIEW

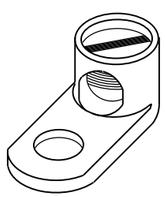


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

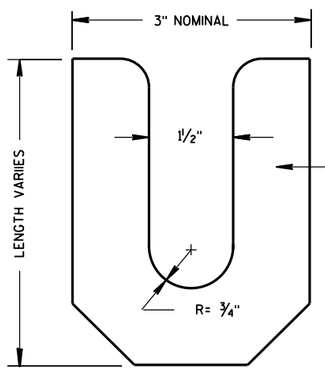


TYPICAL MECHANICAL CONNECTOR LUG

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

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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S.D.D. 9 C 3-4

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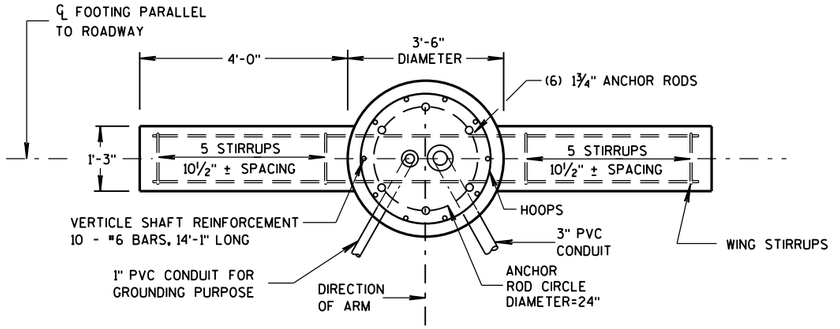
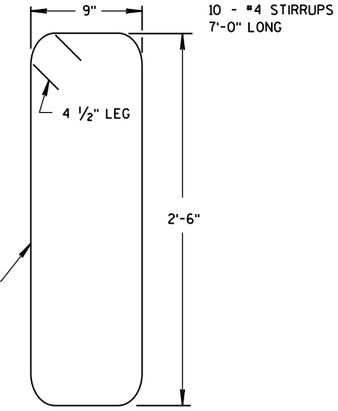
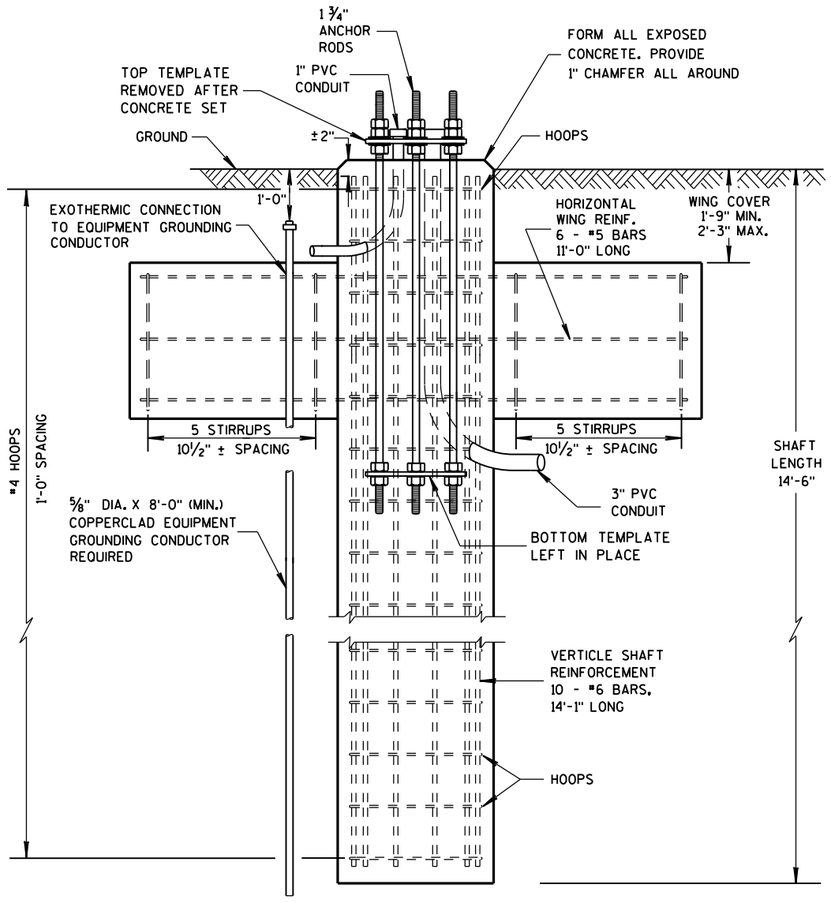


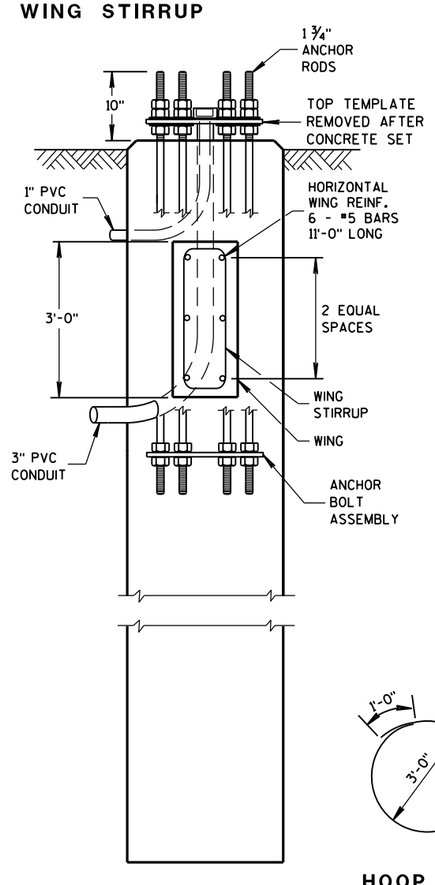
PLAN VIEW



WING STIRRUP

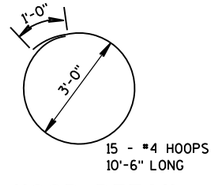


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



15 - #4 HOOPS 10'-6" LONG

HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE 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.

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

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE 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.

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

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL 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, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

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

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 641.2.2.3 OF THE STANDARD SPECIFICATIONS	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-2 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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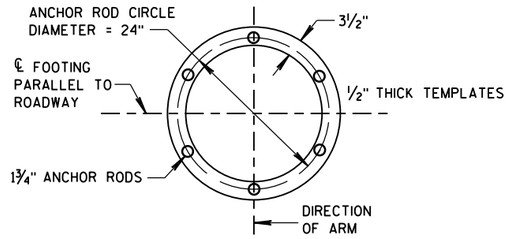
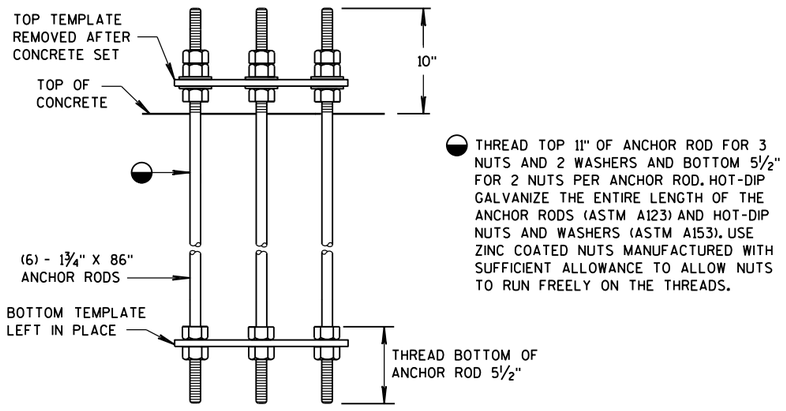
S.D.D. 9 C 12-8a

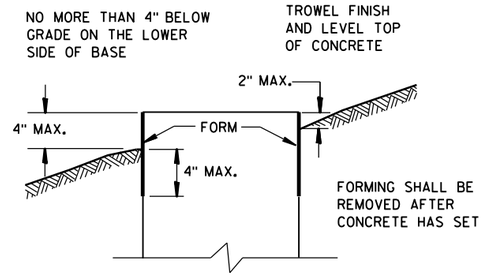


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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S.D.D. 9 C 12-8b

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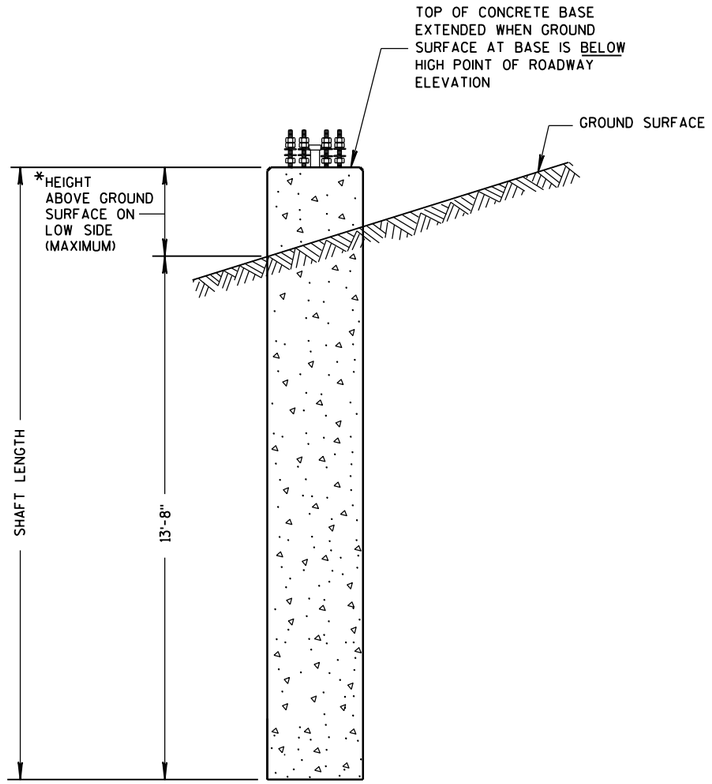
S.D.D. 9 C 12-8b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

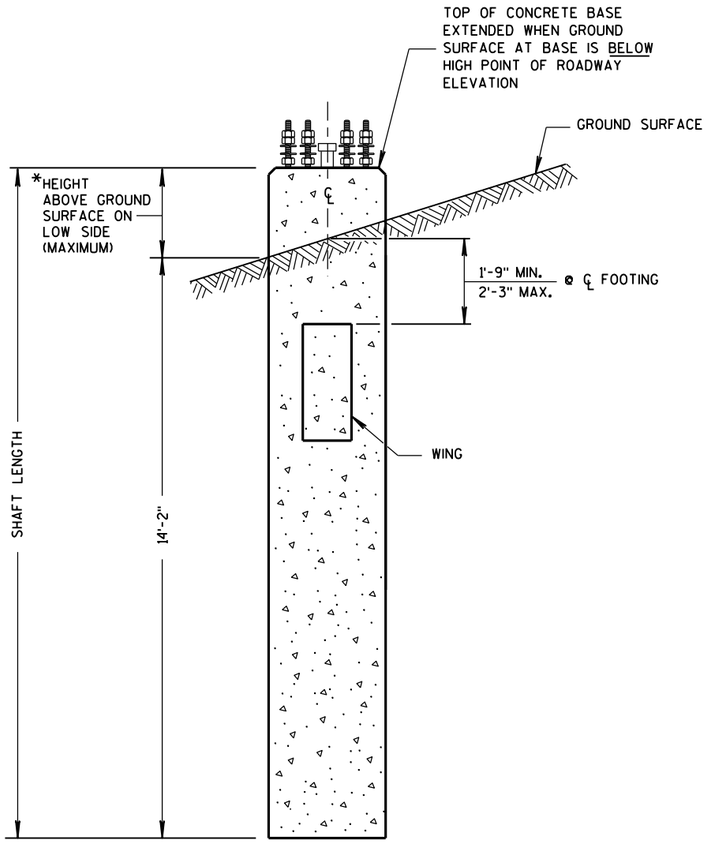
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-26-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL
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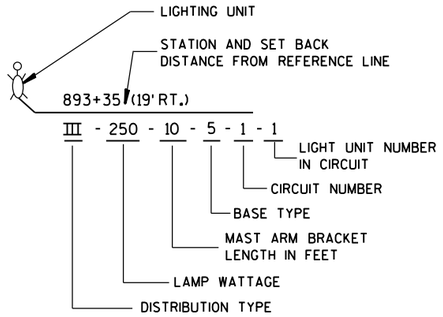
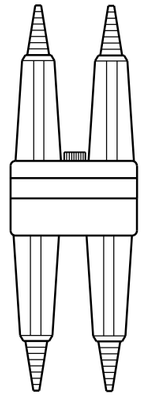
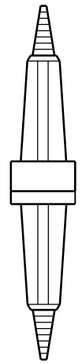


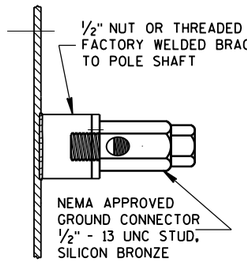
LIGHTING UNIT CODE
(TYPICAL)

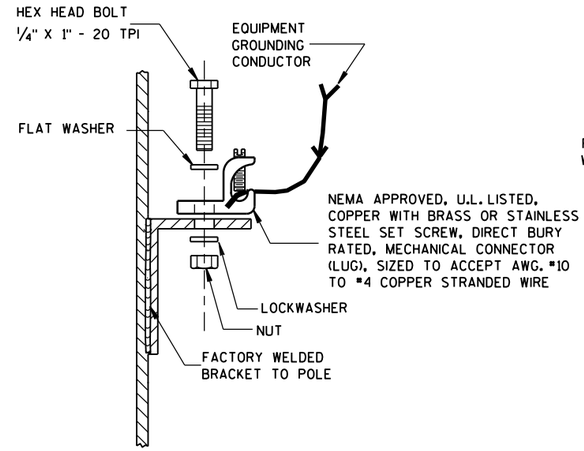


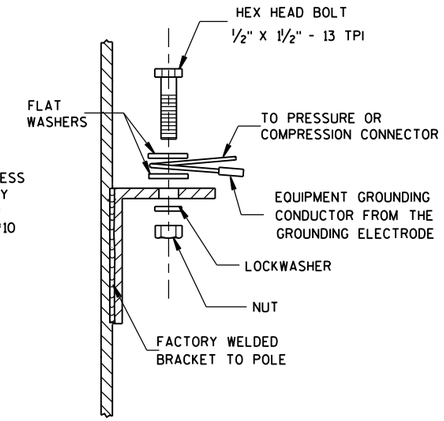
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



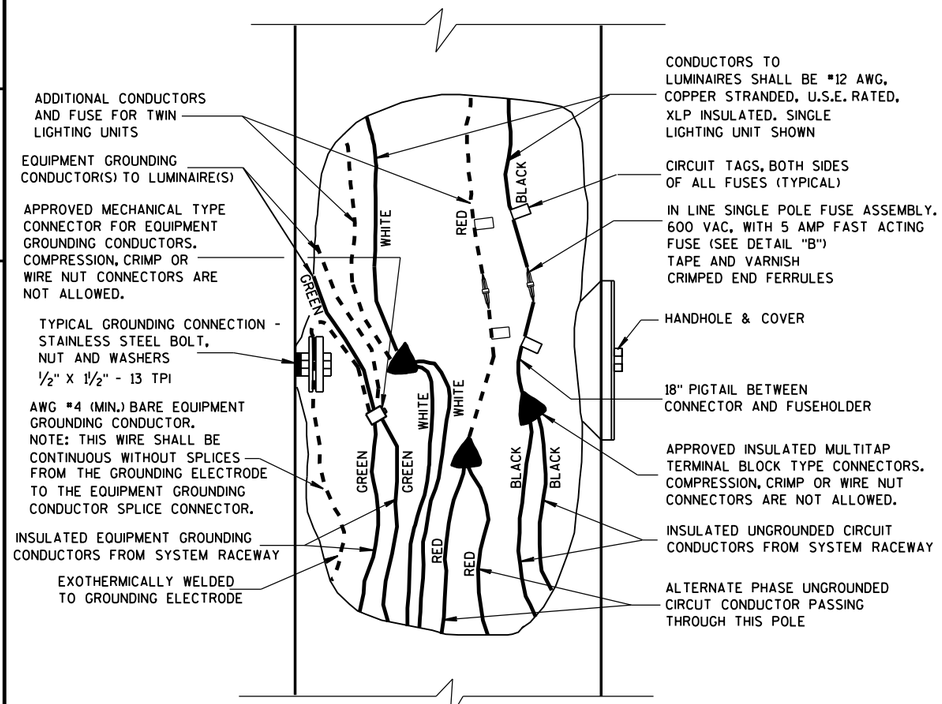
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



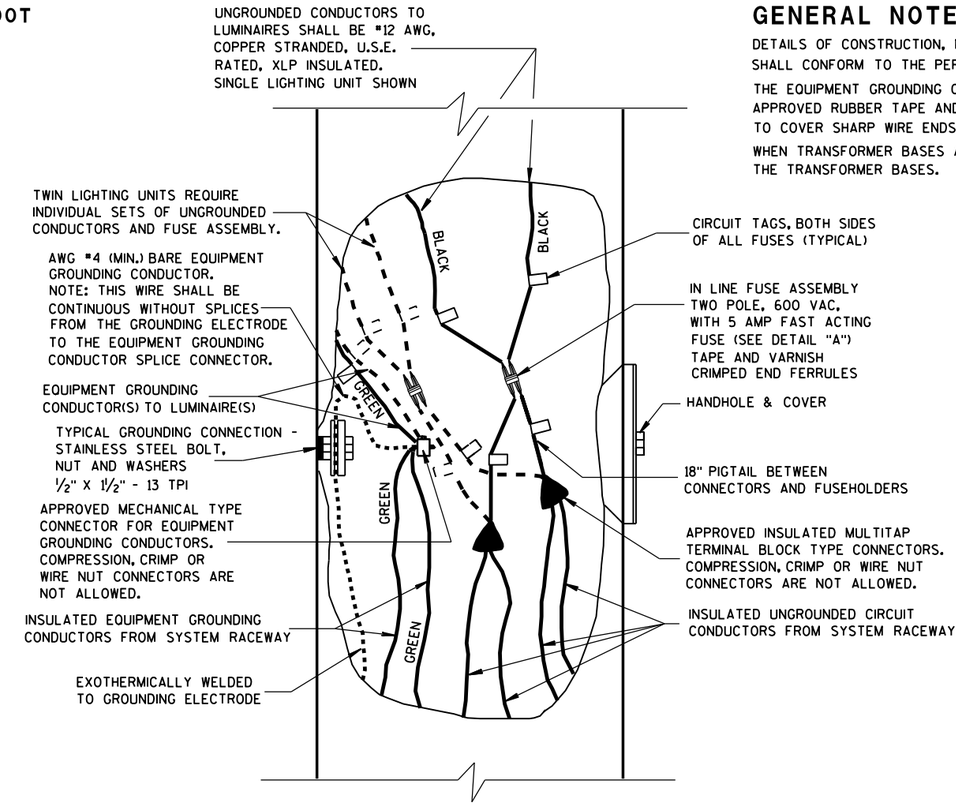




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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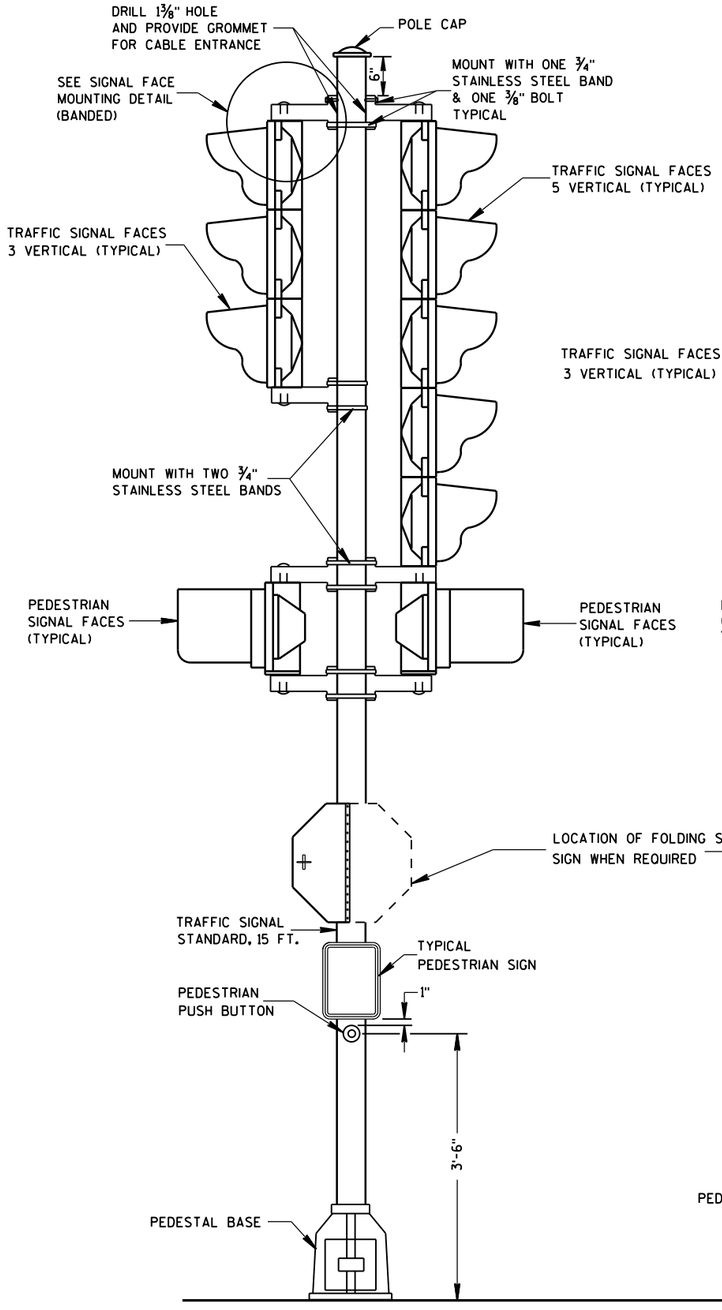
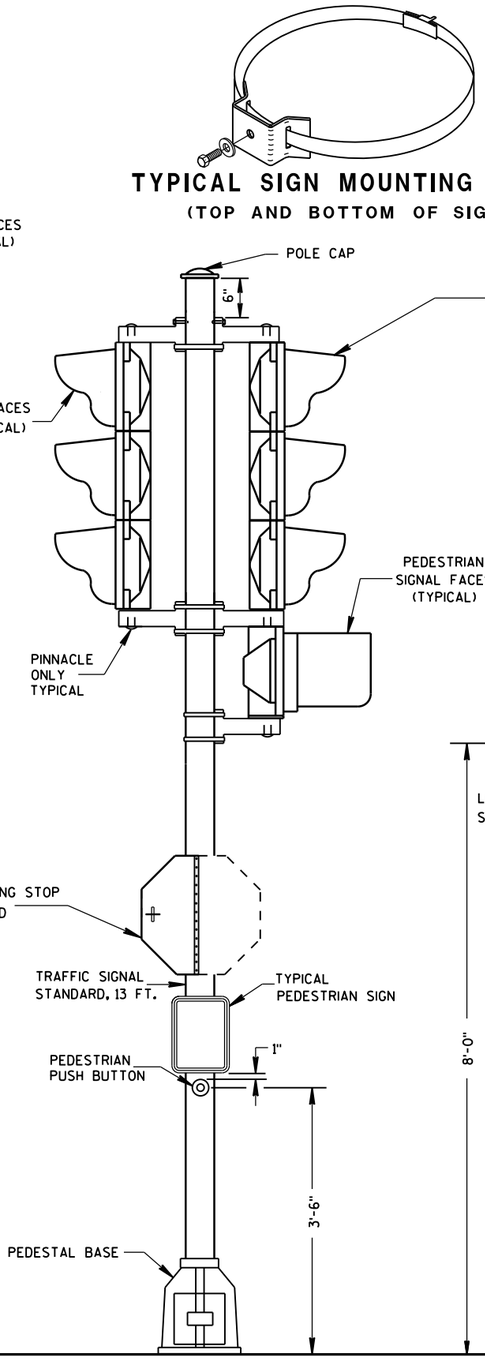
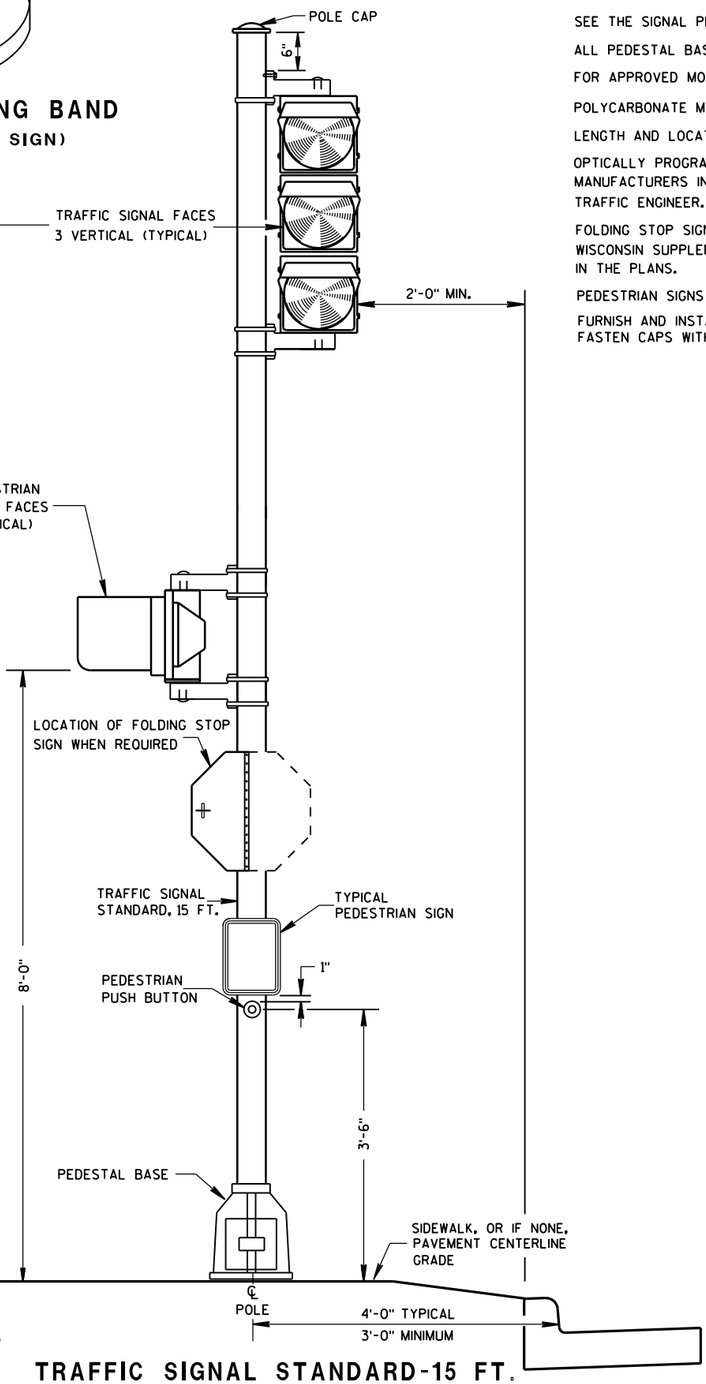


TRAFFIC SIGNAL STANDARD-15 FT.



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.

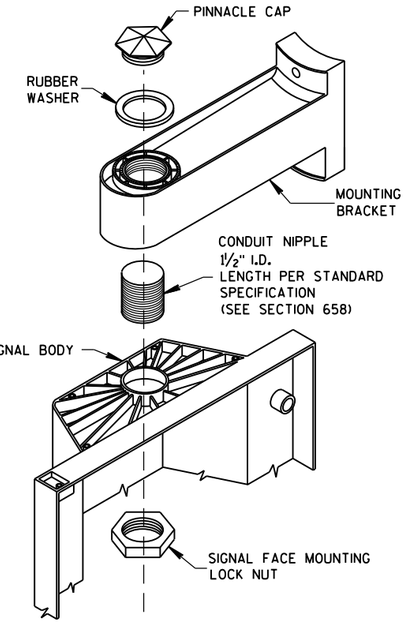
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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
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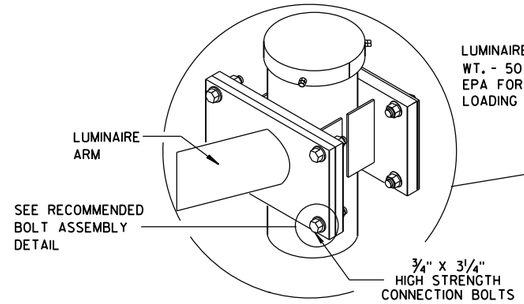
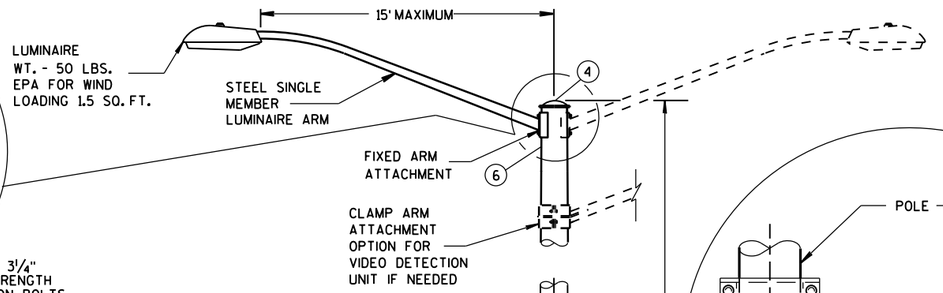
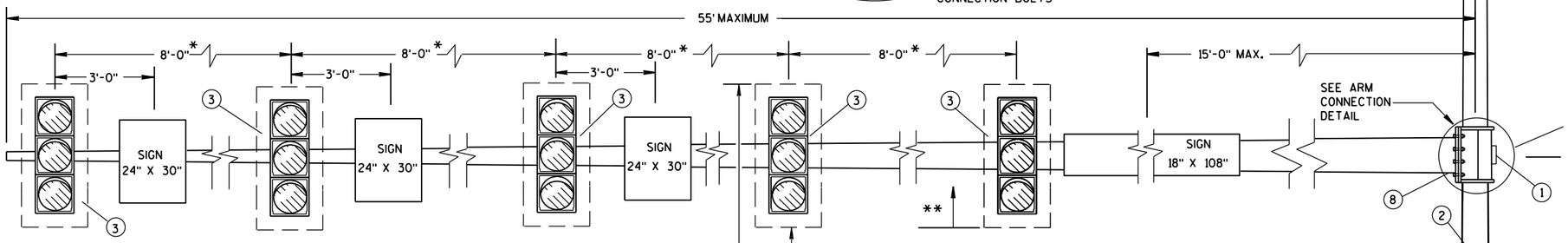
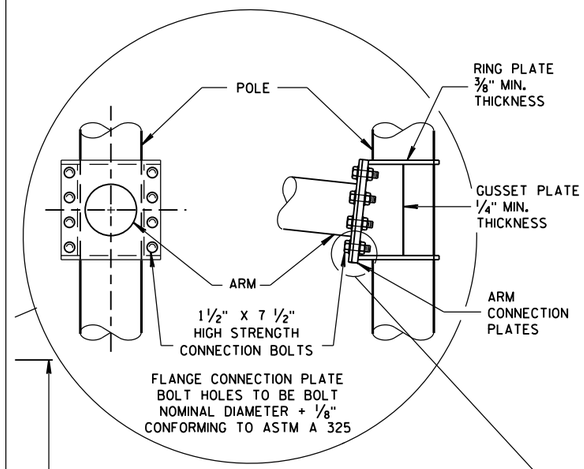




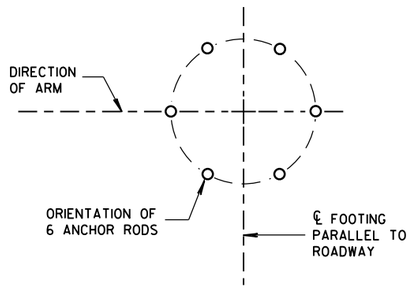




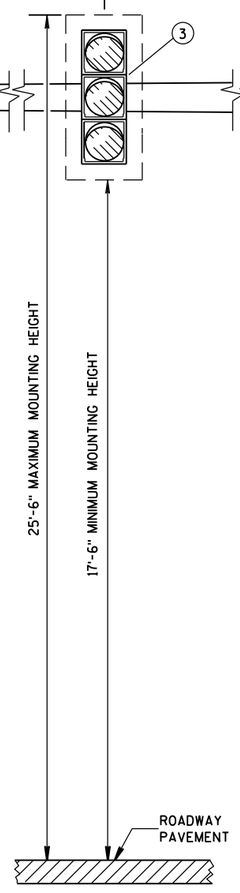
8 BOLT ARM CONNECTION DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

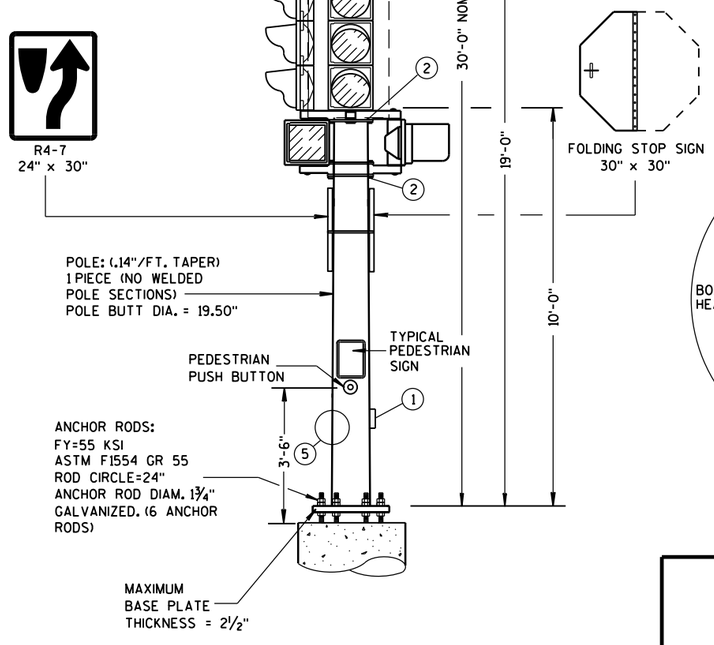
** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

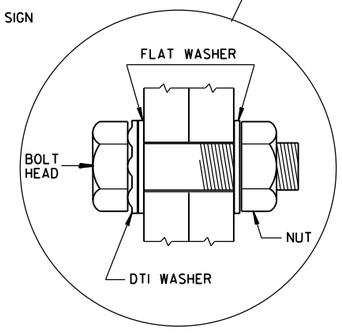


ANCHOR ROD LOCATION



(MAXIMUM LOAD)





RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL

FHWA

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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.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO 2013 6TH EDITION AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

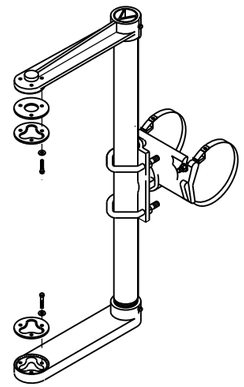
(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

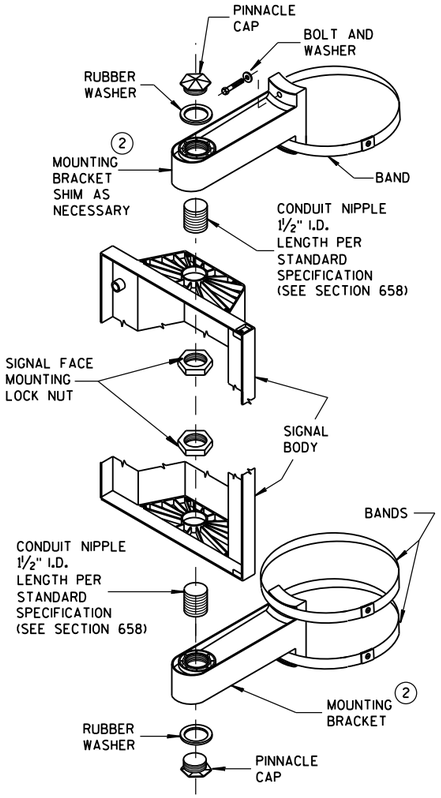
MOUNTING HEIGHT SHALL BE 6'-0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

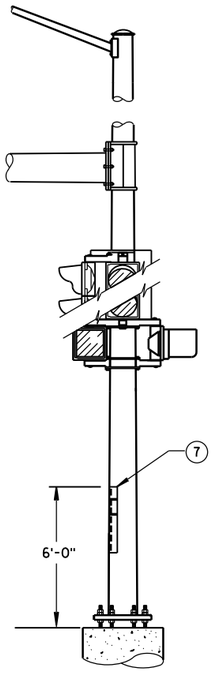


SIGNAL FACE MOUNTING BRACKET
DETAIL FOR MONOTUBE ARM

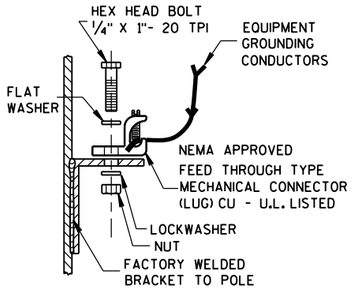
(MOUNT PER MANUFACTURER'S RECOMMENDATION)



SIGNAL FACE
VERTICAL MOUNTING DETAIL

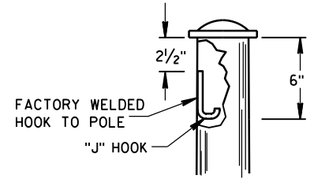


STRUCTURAL IDENTIFICATION
PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL
BE STAINLESS STEEL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2016 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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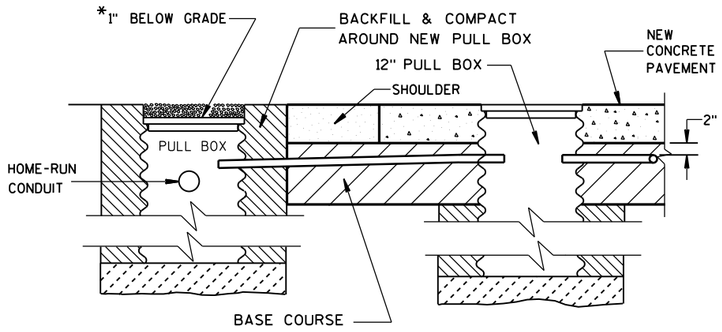


SECTION A-A

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

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.

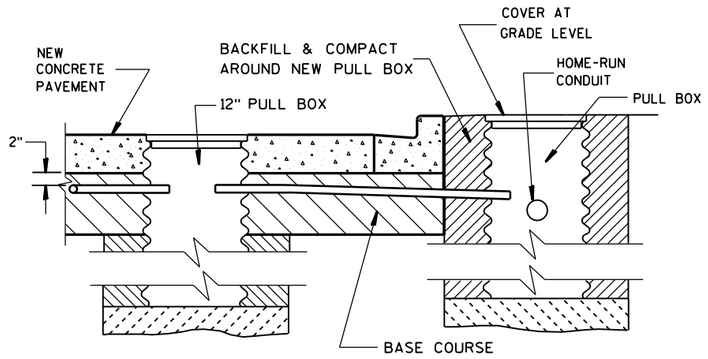
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

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, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

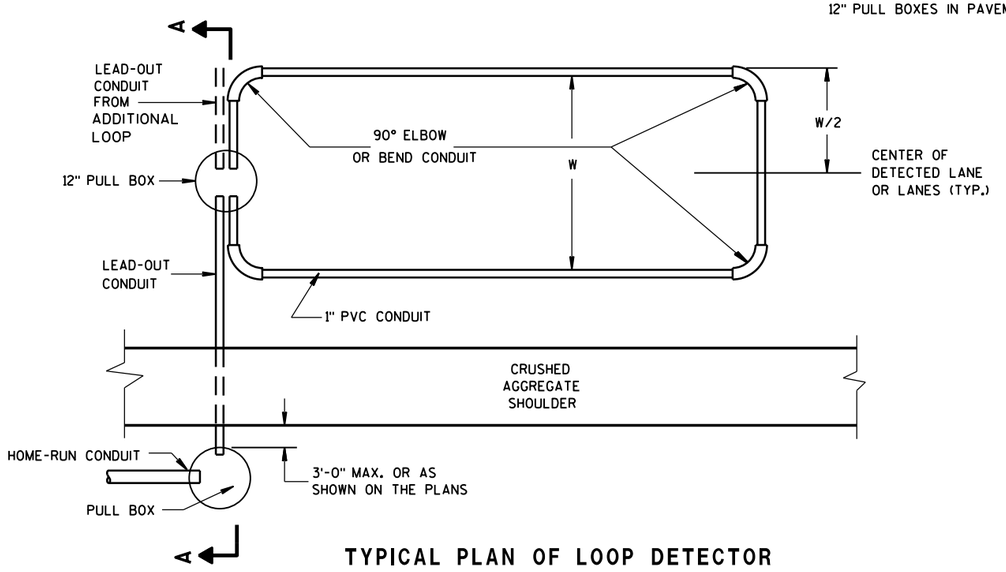
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



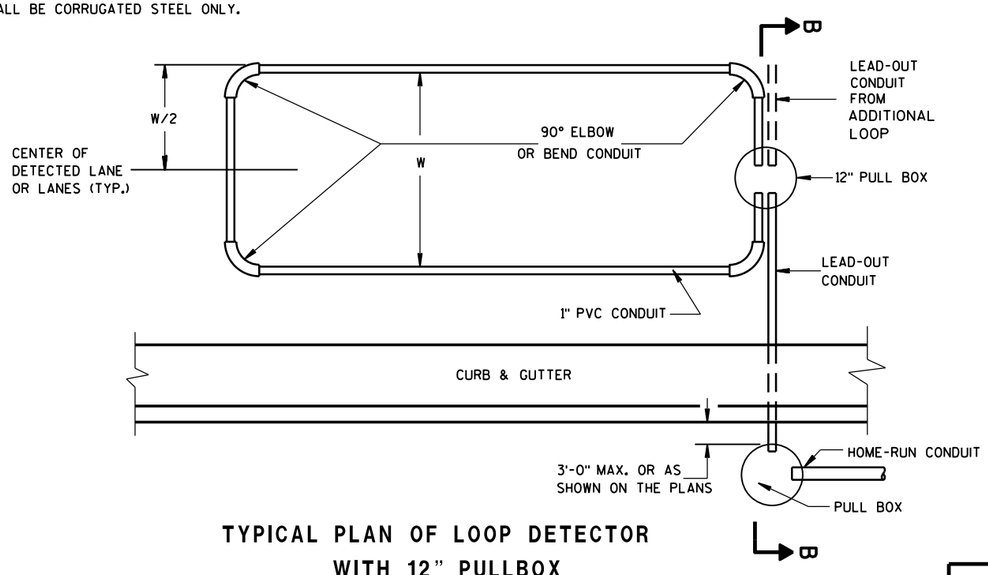
SECTION B-B

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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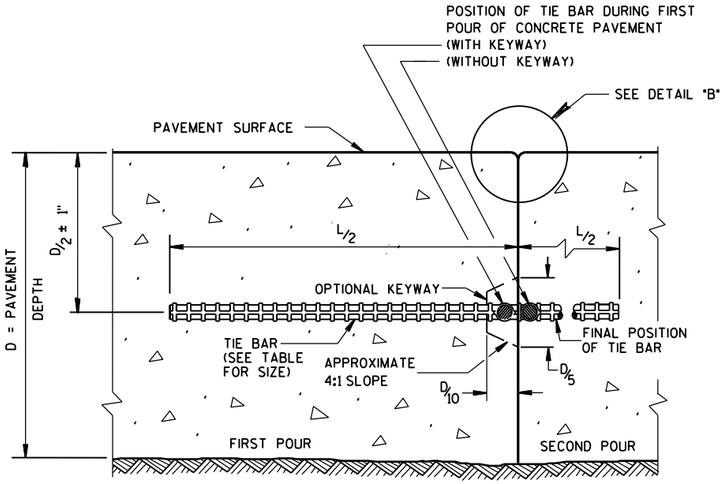
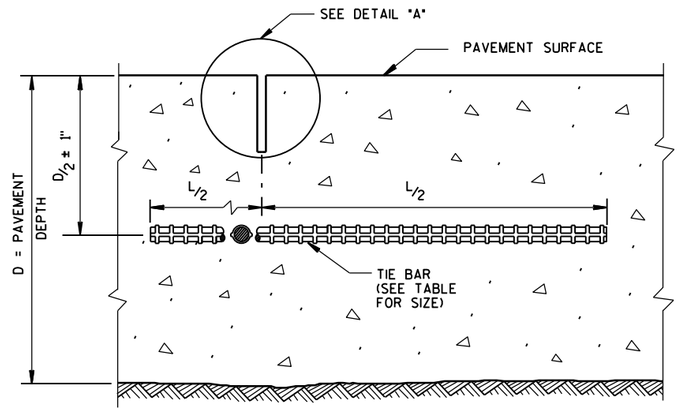


CONSTRUCTION JOINT



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"

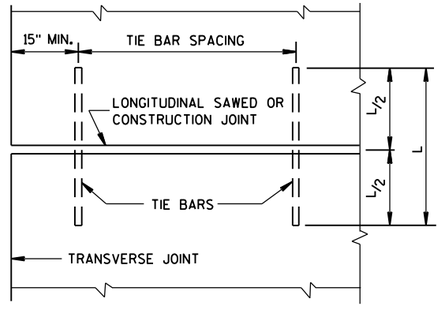
DETAIL "C"

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

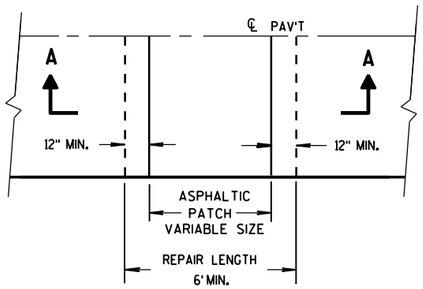
GENERAL NOTES

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

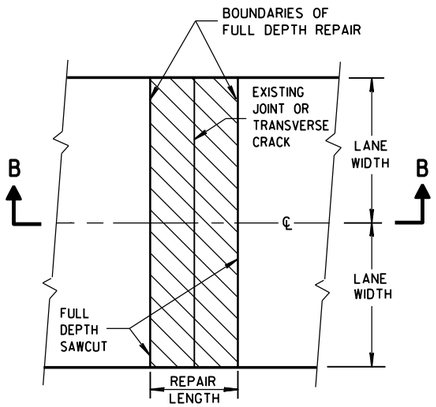
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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

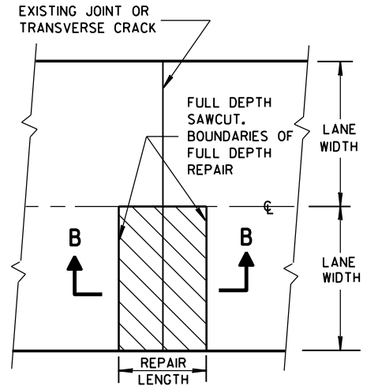
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

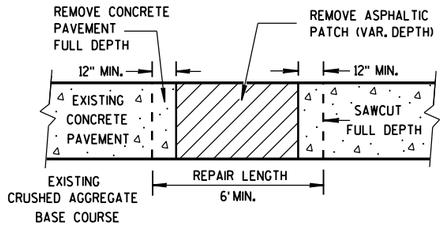


PLAN VIEW
(DOUBLE LANE REPAIR)



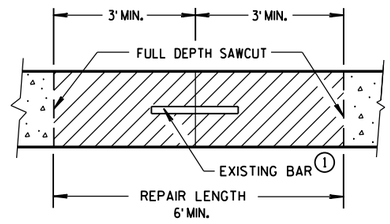
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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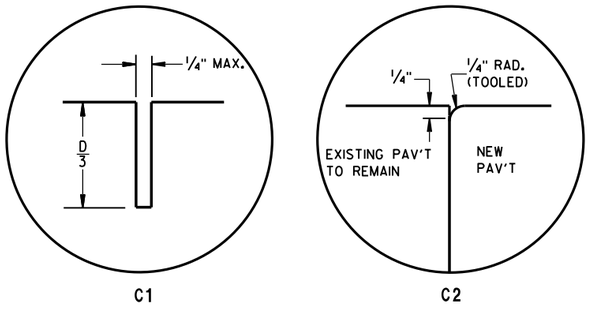


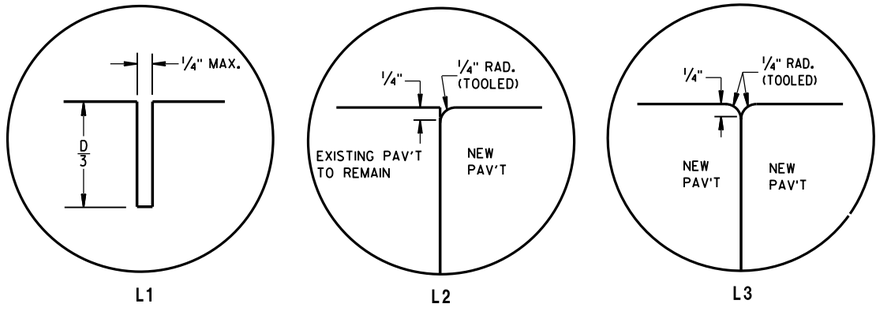
TRANSVERSE JOINTS

TIE BAR TABLE

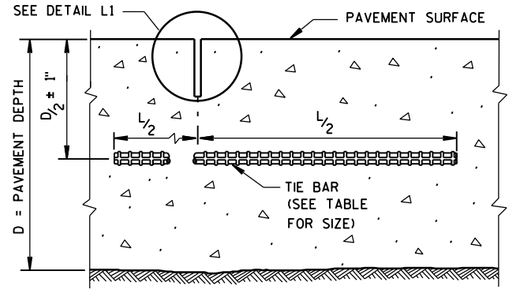
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24"**

* 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.



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

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

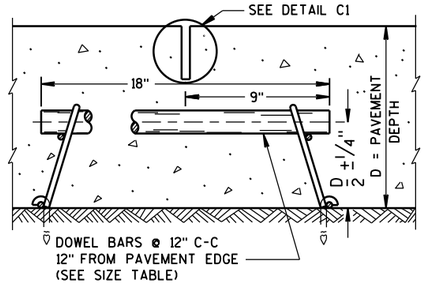
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

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

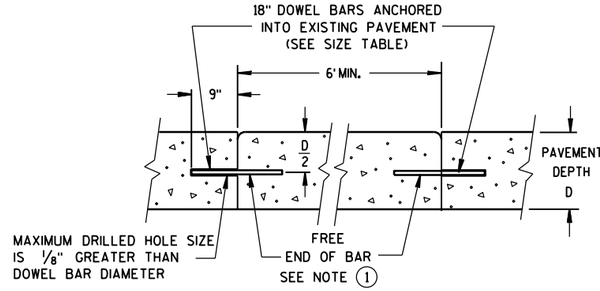
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

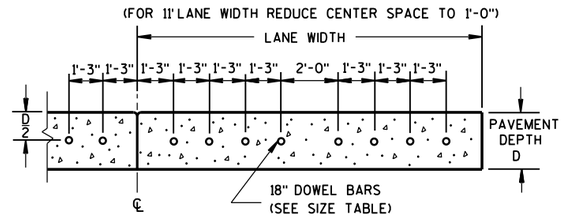


SECTION F-F

CONTRACTION JOINT



SECTION D-D

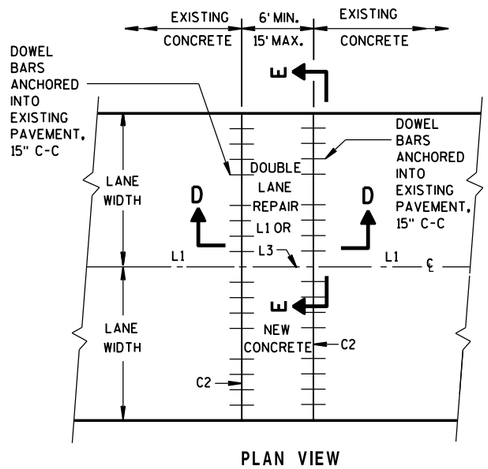


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

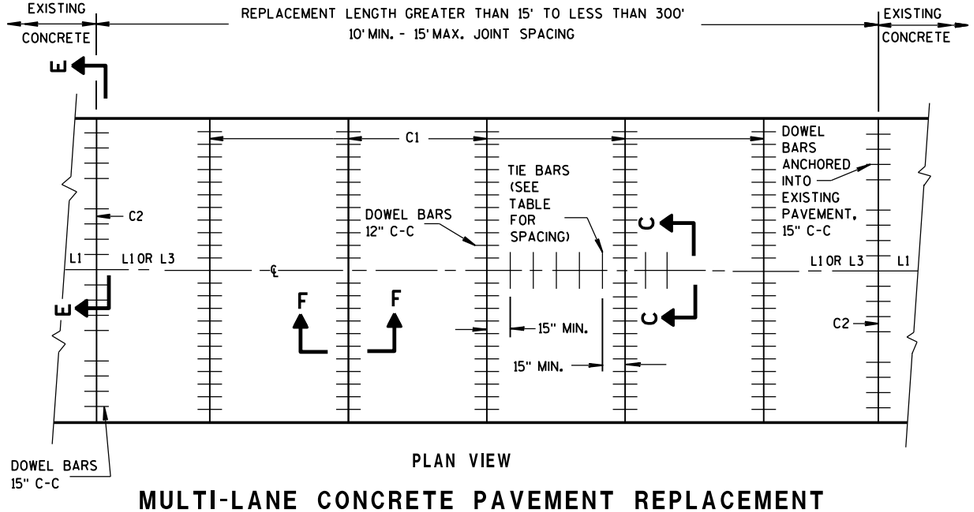
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 53

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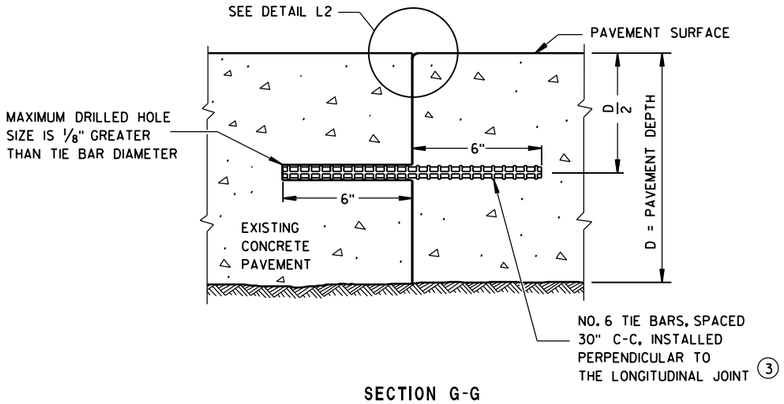


SECTION G-G

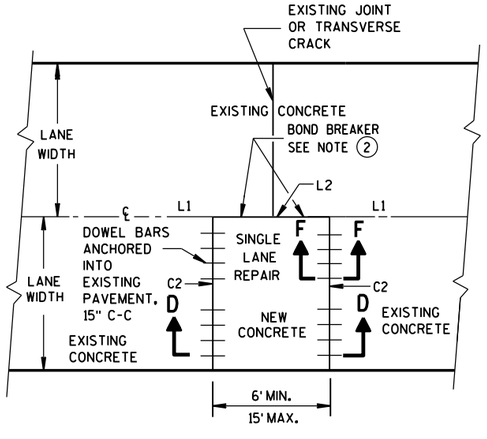
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

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

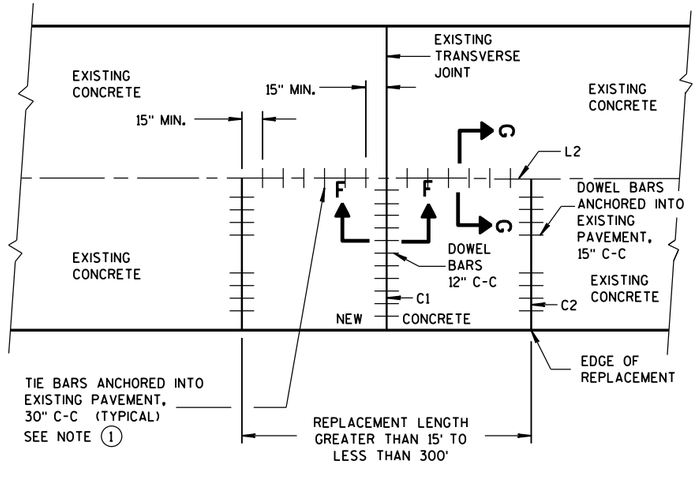
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

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



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

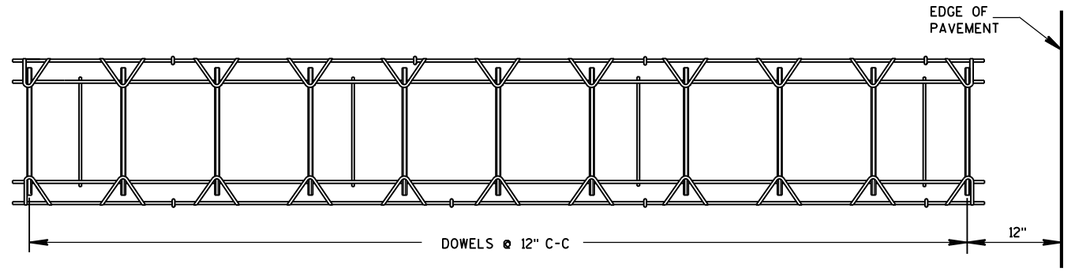
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

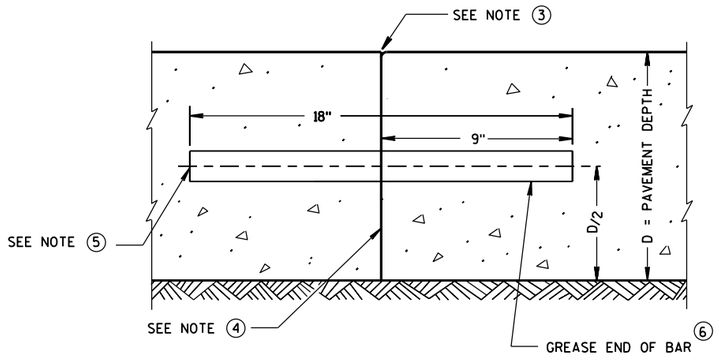
S.D.D. 13 C 9-13c



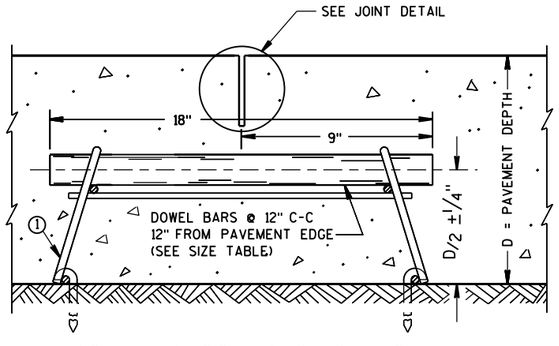
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



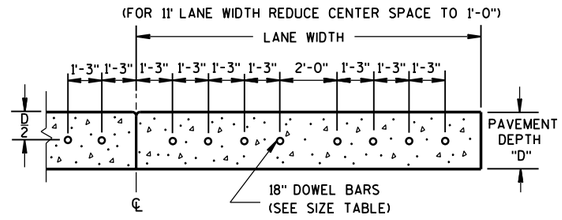
TRANSVERSE CONSTRUCTION JOINT



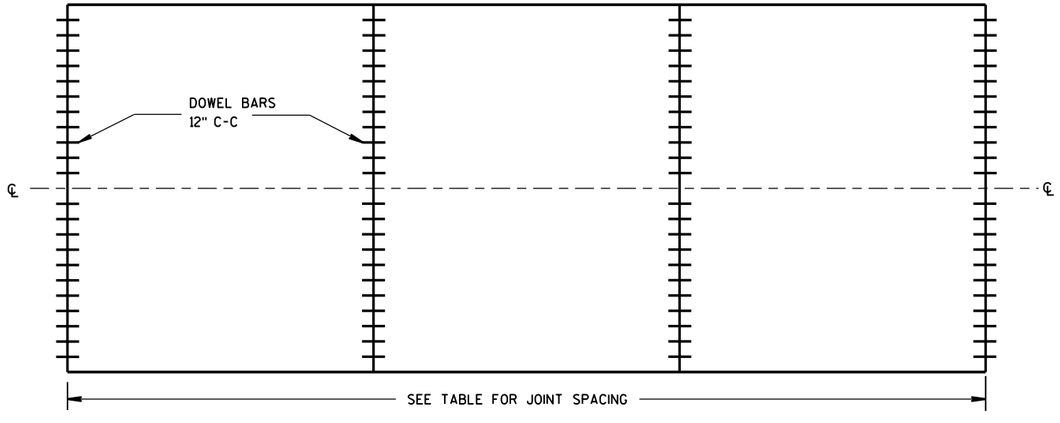
DOWELED CONTRACTION JOINT

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.

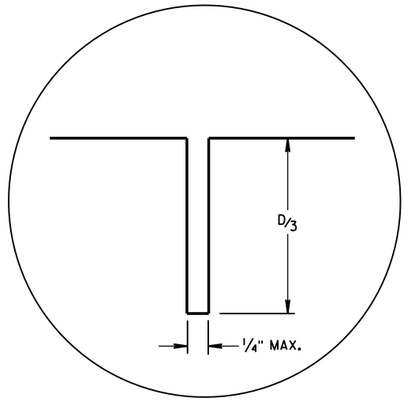
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

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 ...NEER

FHWA

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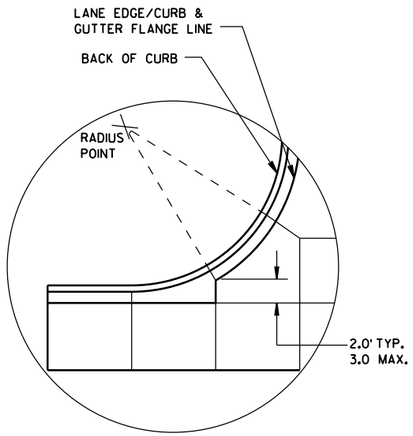
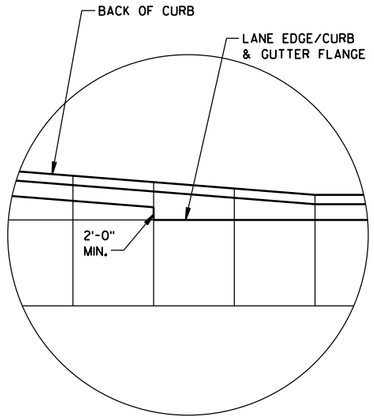
S.D.D. 13 C 13-8



DETAIL "A"



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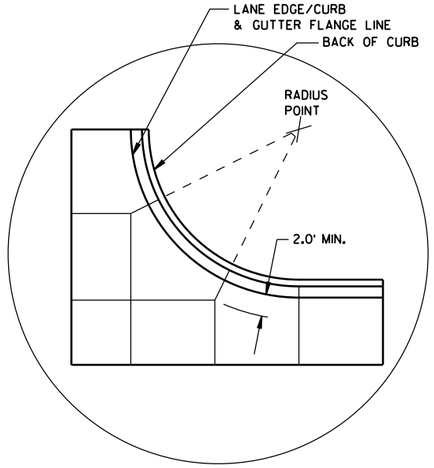

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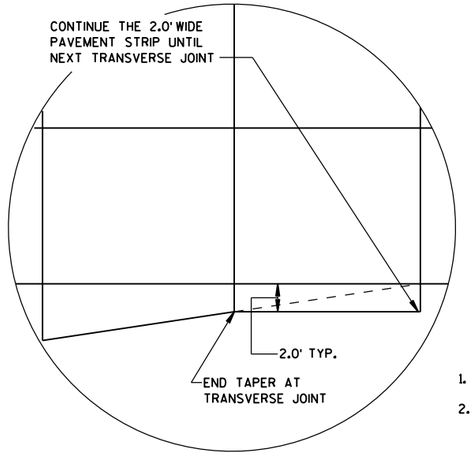


DETAIL "D"

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.

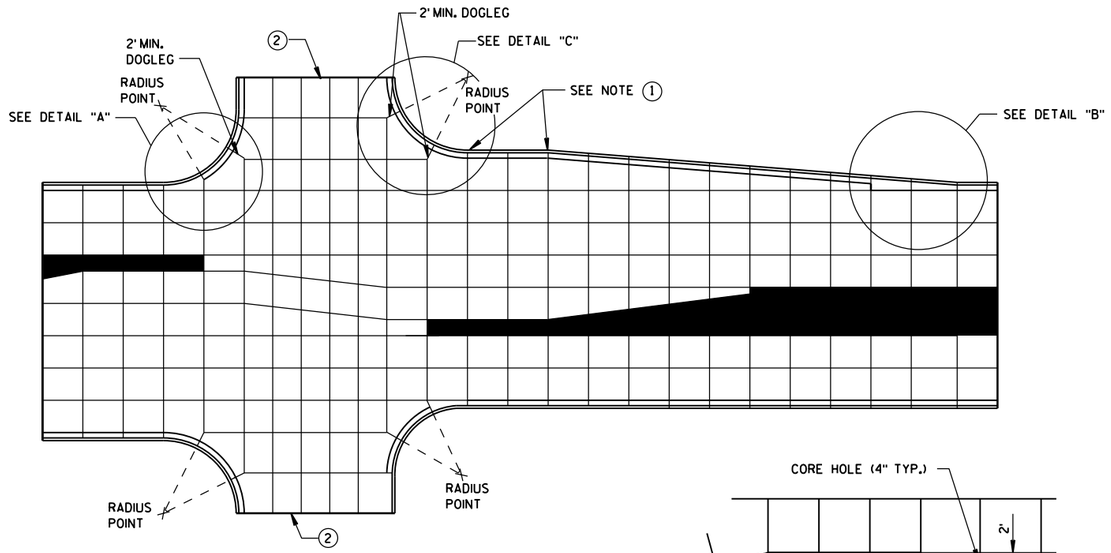
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

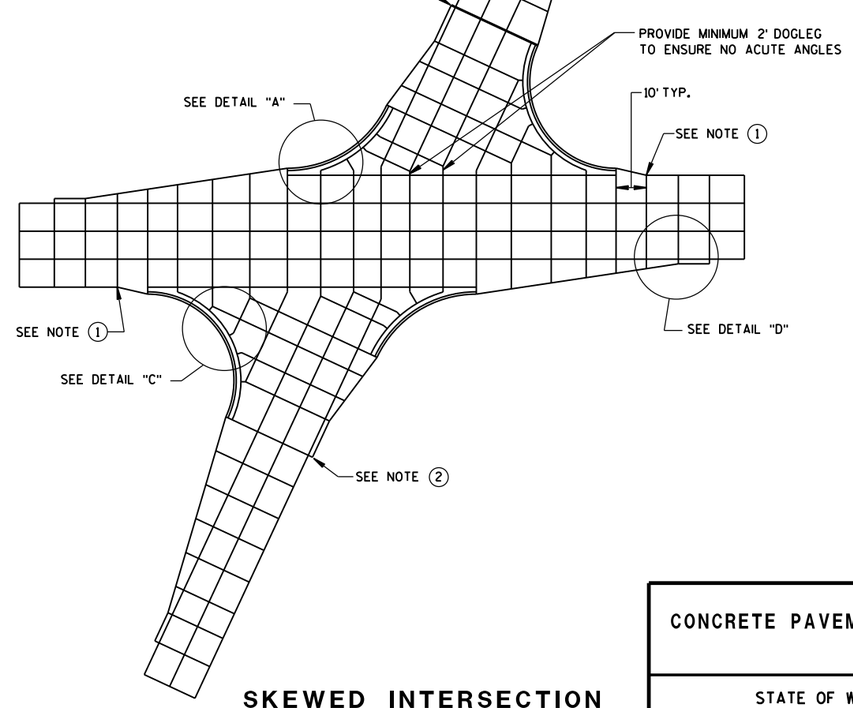
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



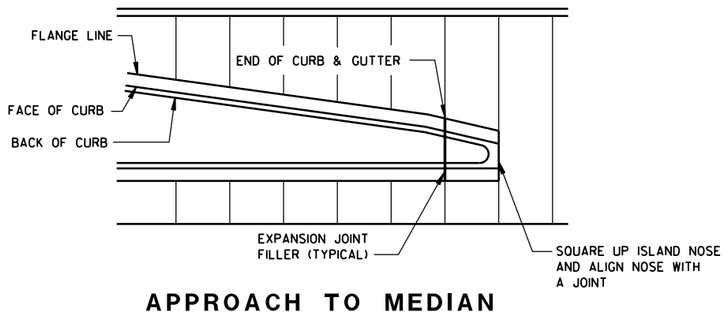
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

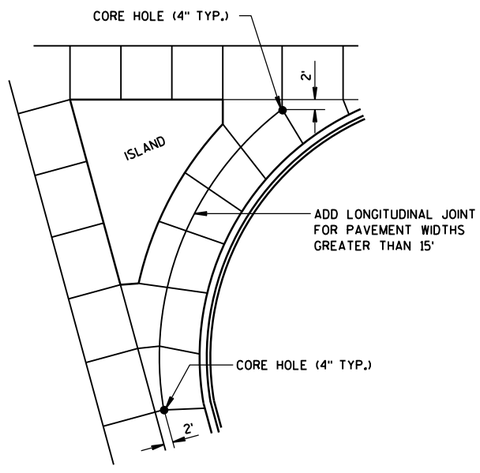
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

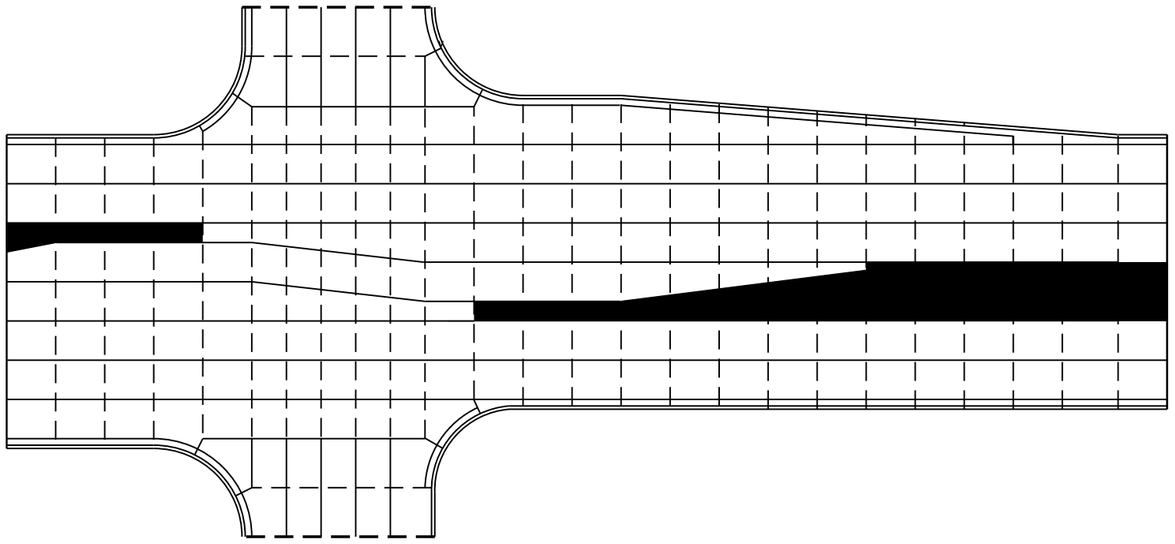
6
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

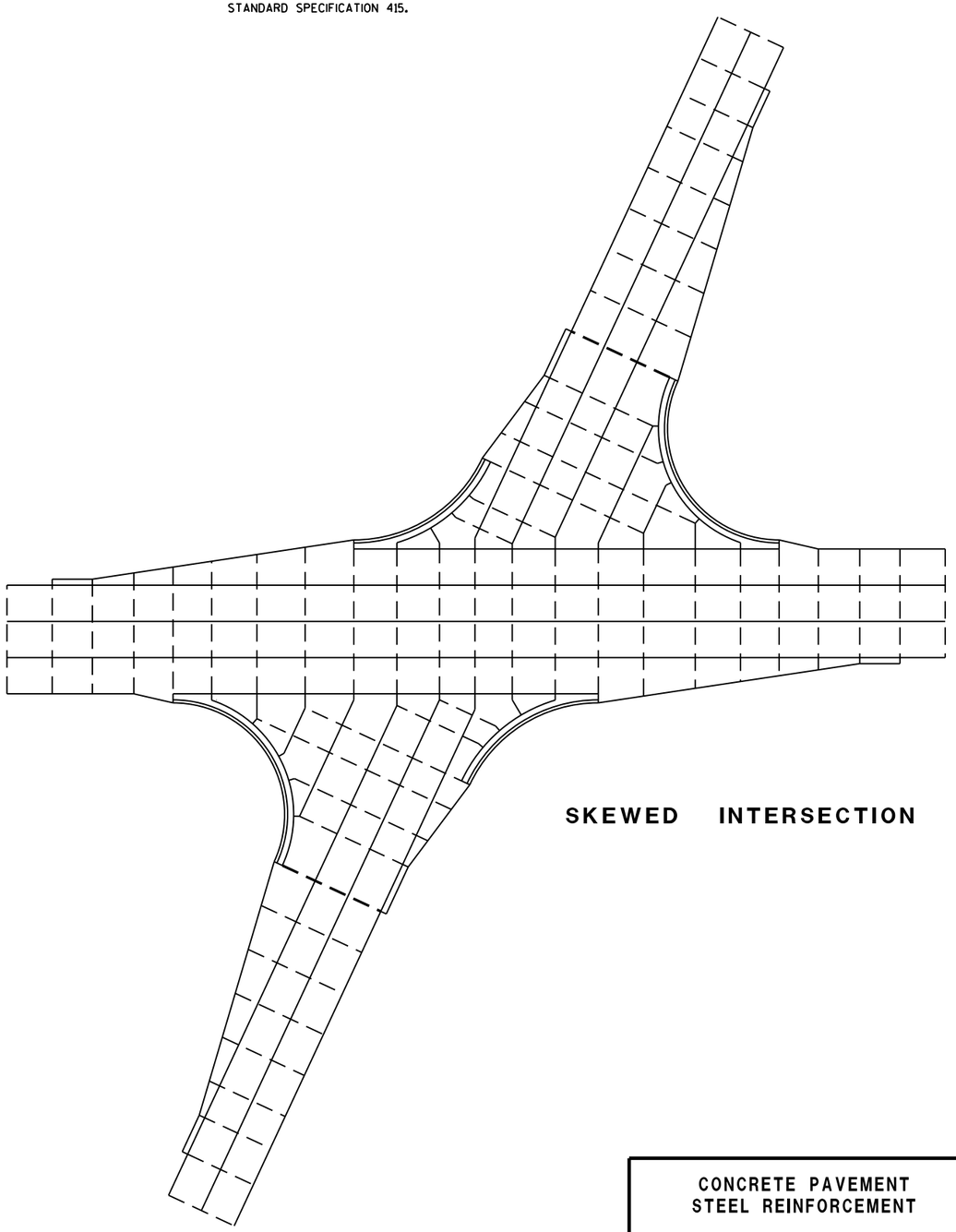
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

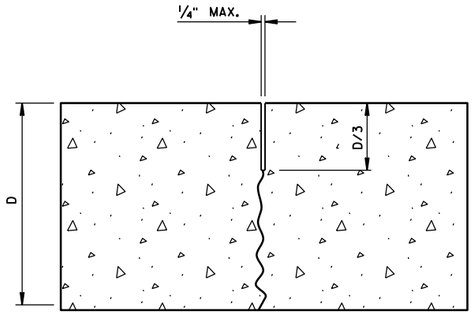
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

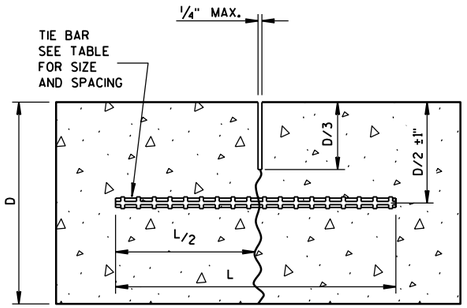
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

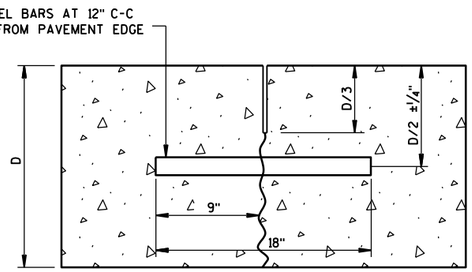
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* 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

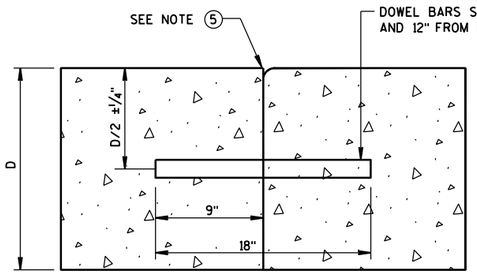
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 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.



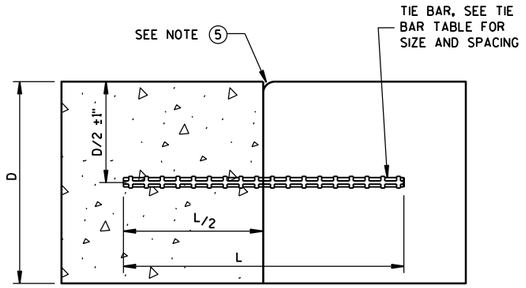
DOWELED-TRANSVERSE

CONTRACTION JOINTS

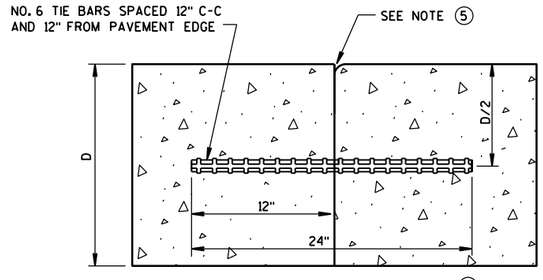
SEE NOTE (2)



DOWELED TRANSVERSE (3)

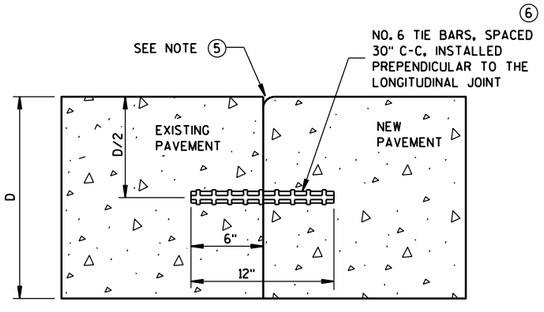


TIED LONGITUDINAL



TIED TRANSVERSE (3)

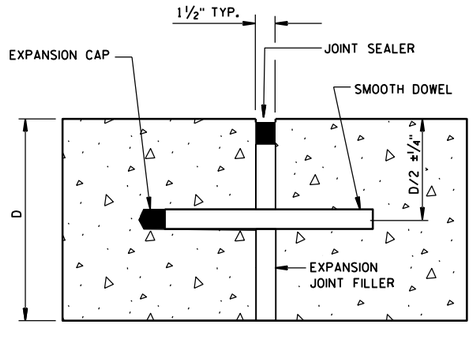
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

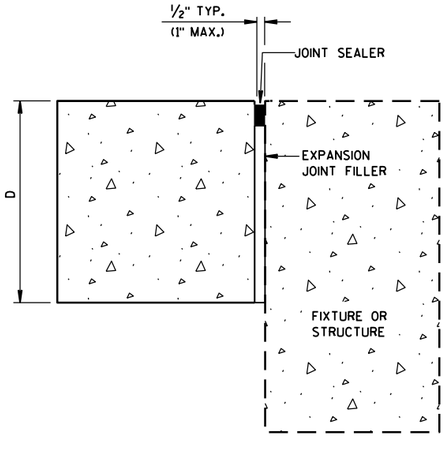
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

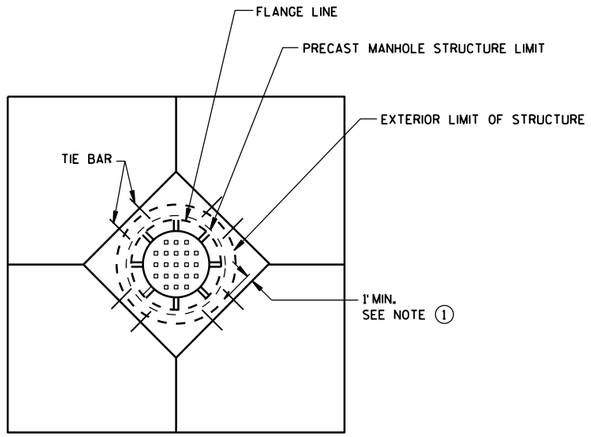
EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

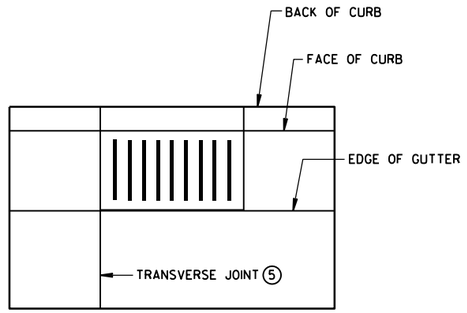
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

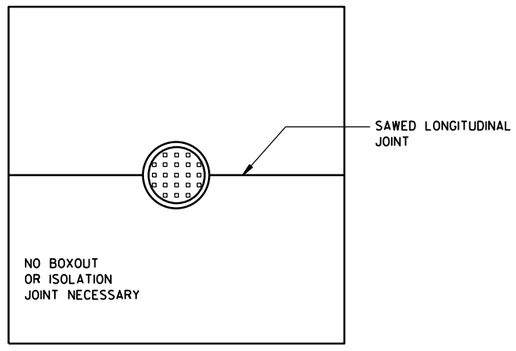
S.D.D. 13 C 18-3c



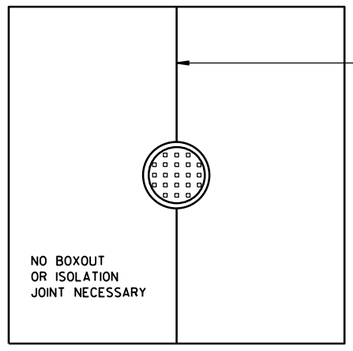
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



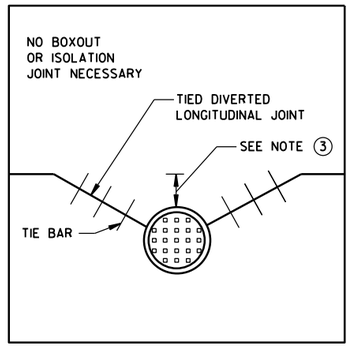
INLET WITH TRANSVERSE JOINT



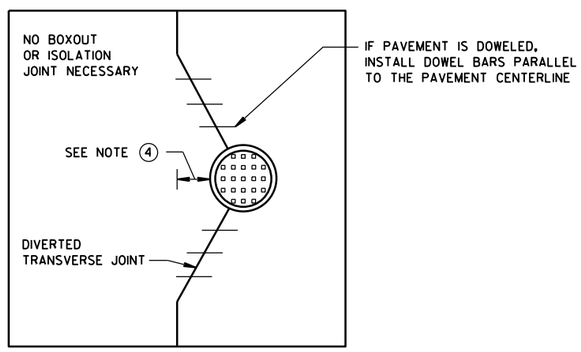
MANHOLE WITH LONGITUDINAL JOINT



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

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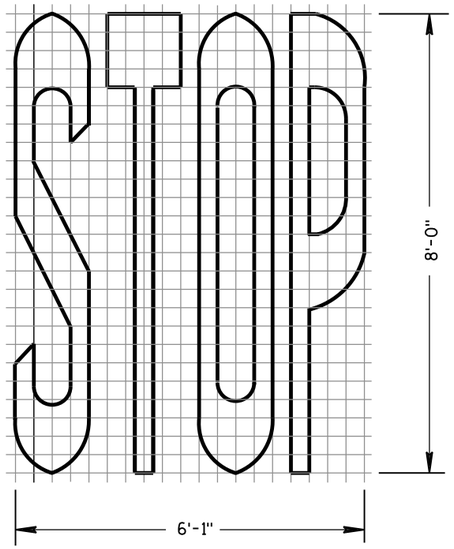
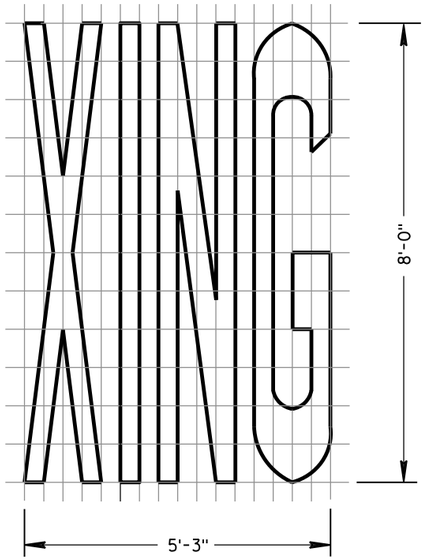
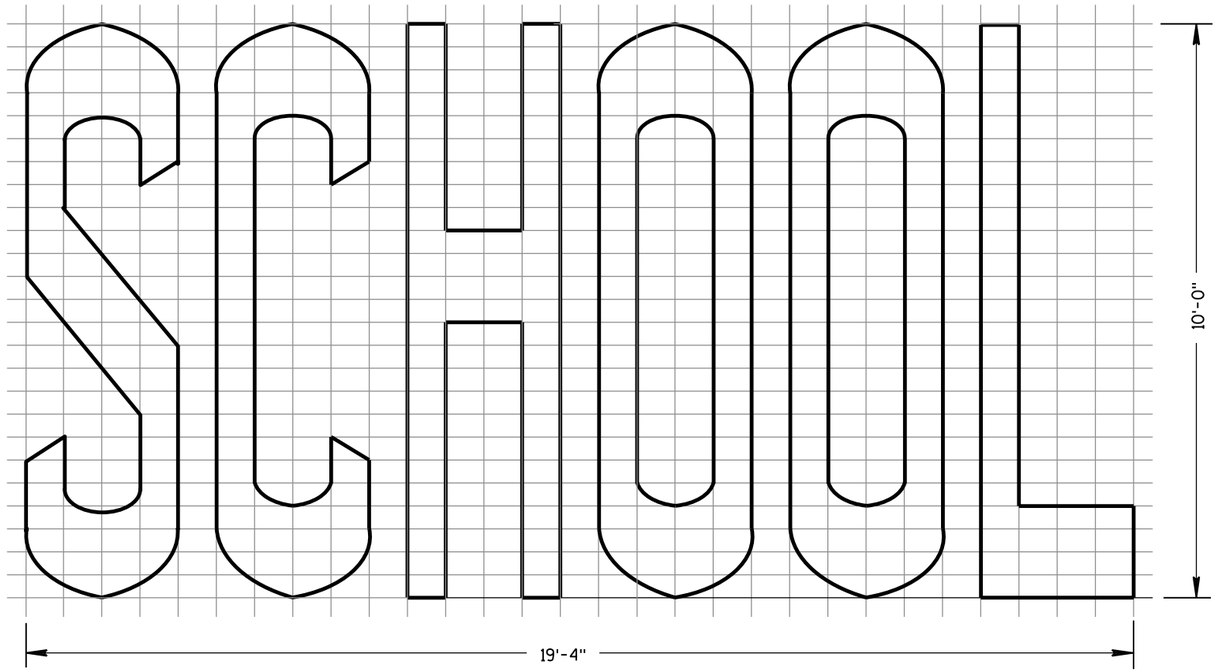
S.D.D. 13 C 18-3d

GENERAL NOTES

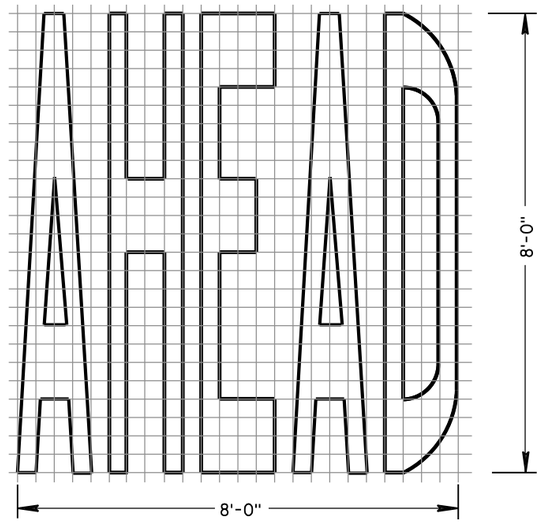
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

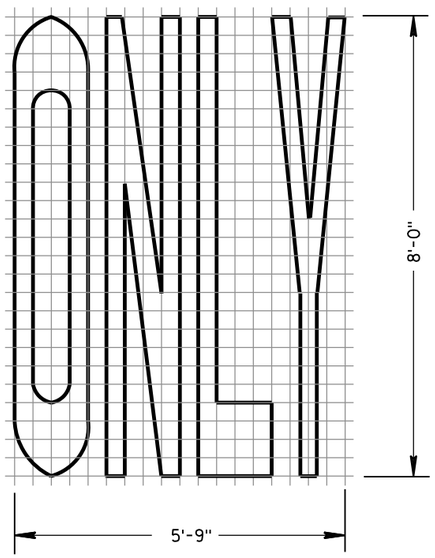


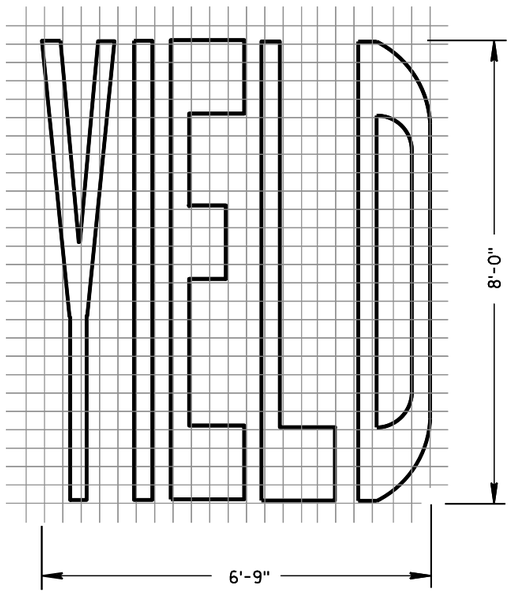


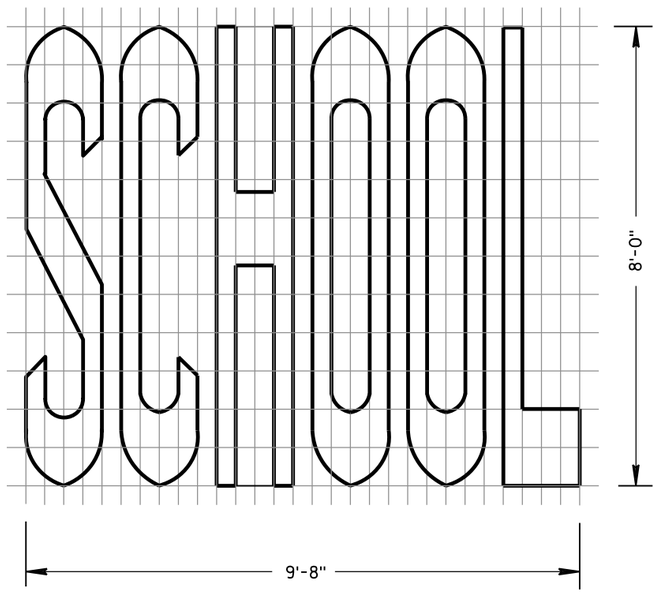


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-18-16	/S/ Matthew R. Rauch	
DATE	STATE SIGNING AND MARK	EER

FHWA

6

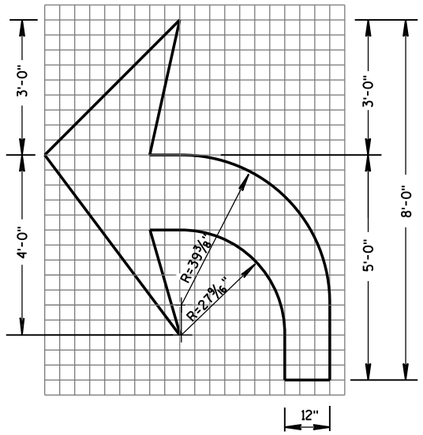
S.D.D. 15 C 7-13b

6

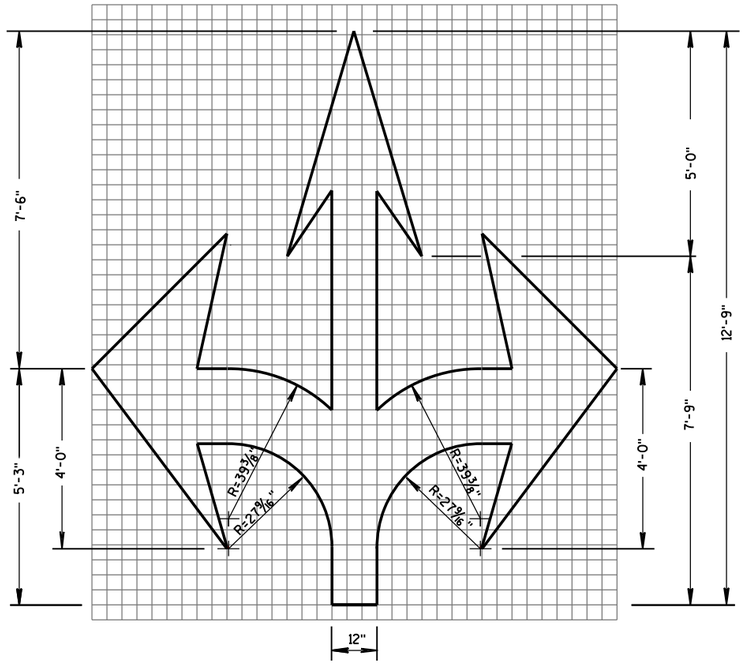
S.D.D. 15 C 7-13b

GENERAL NOTES

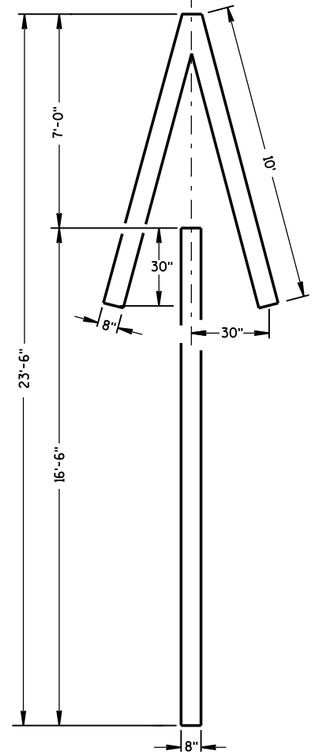
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



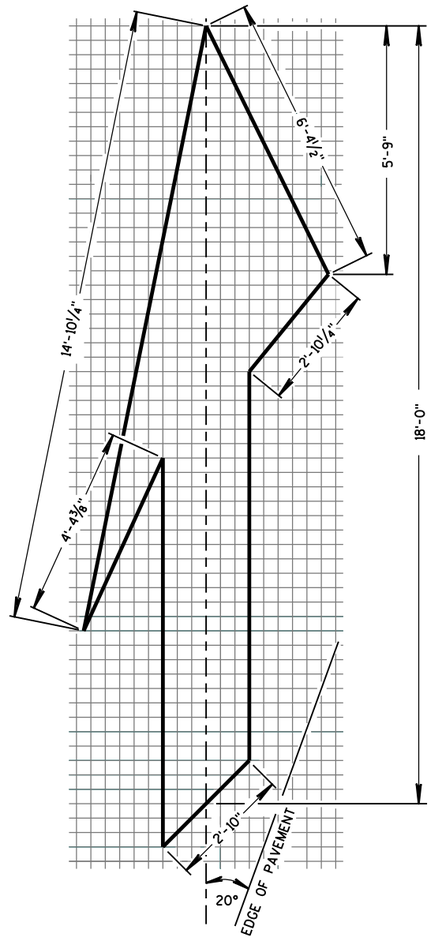
TYPE 2



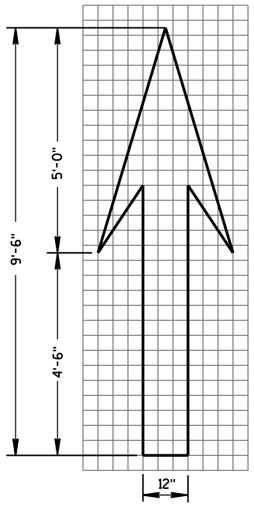
TYPE 6



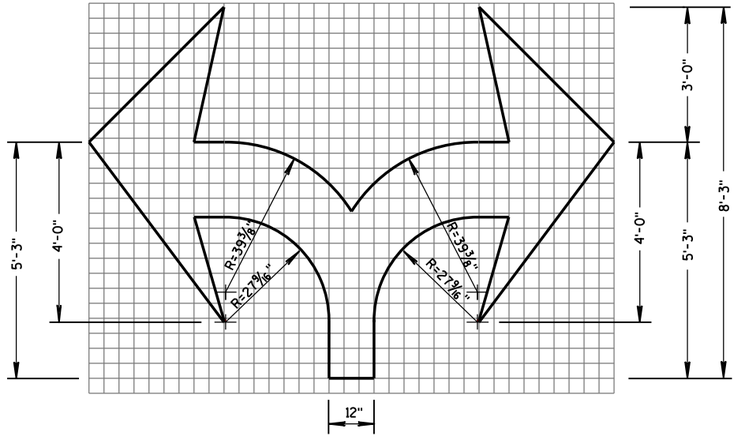
TYPE 4



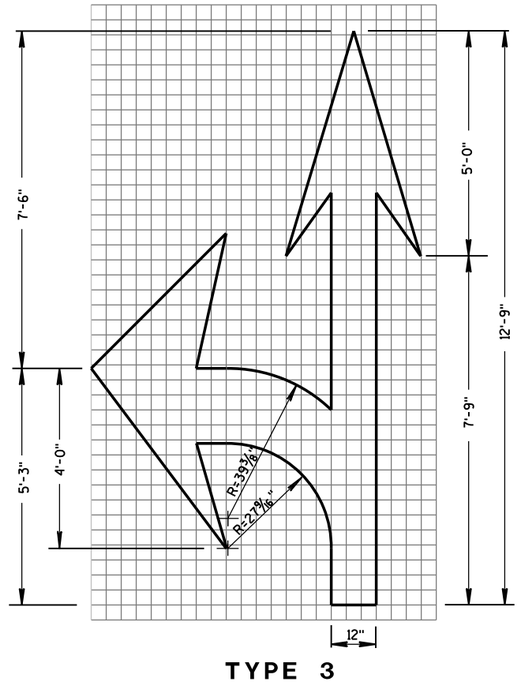
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-16 DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible]NEER
FHWA

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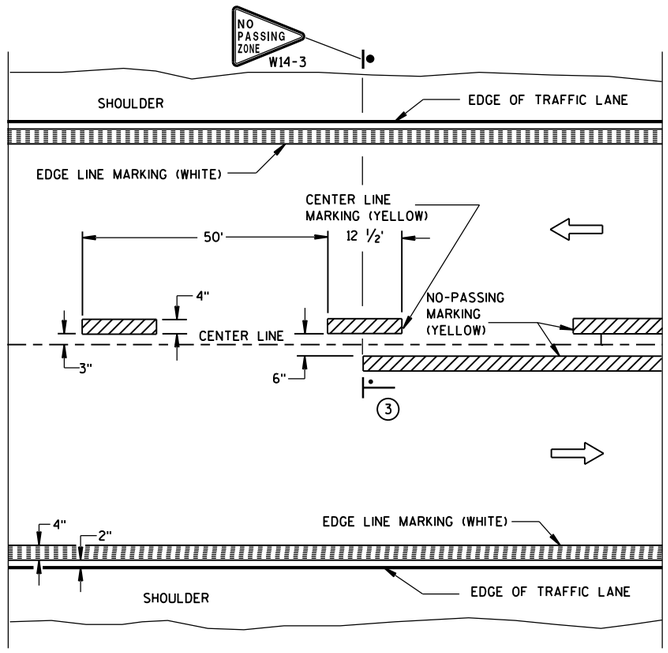
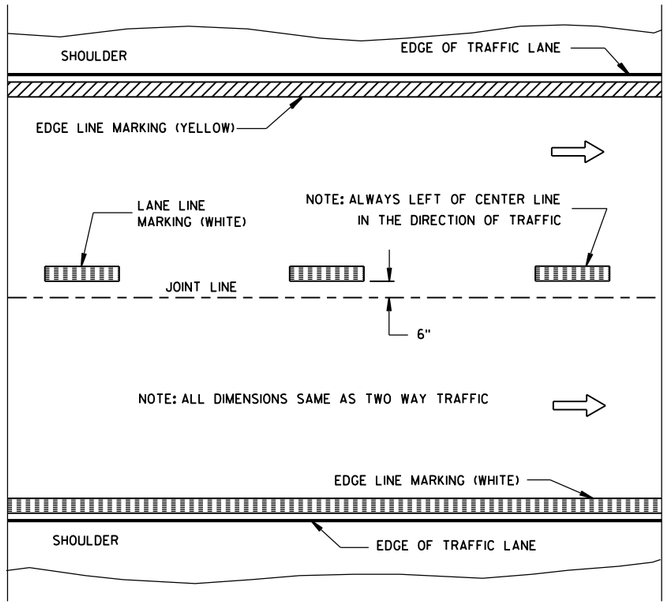
S.D.D. 15 C 7-13c

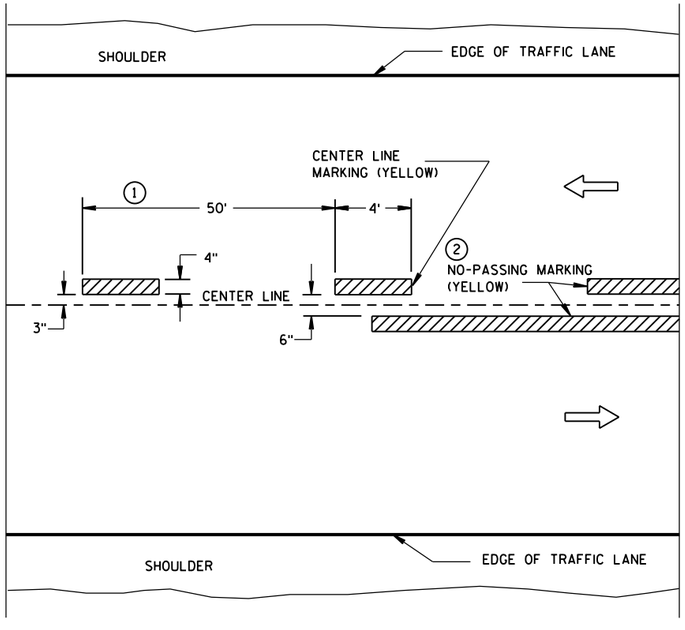


TWO WAY TRAFFIC

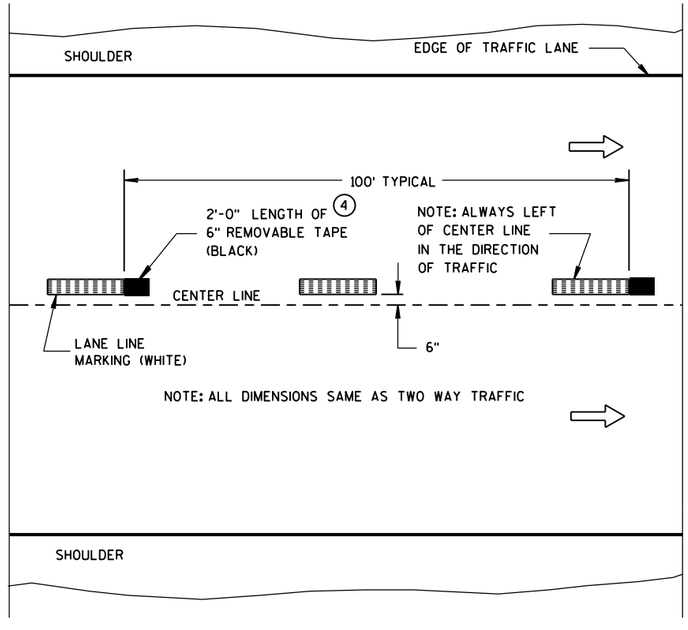


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

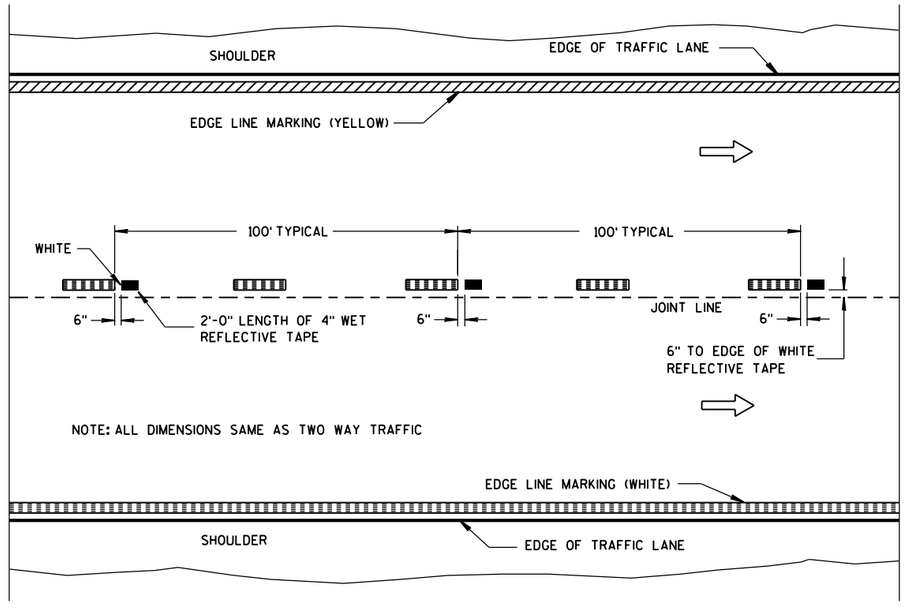
GENERAL NOTES

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

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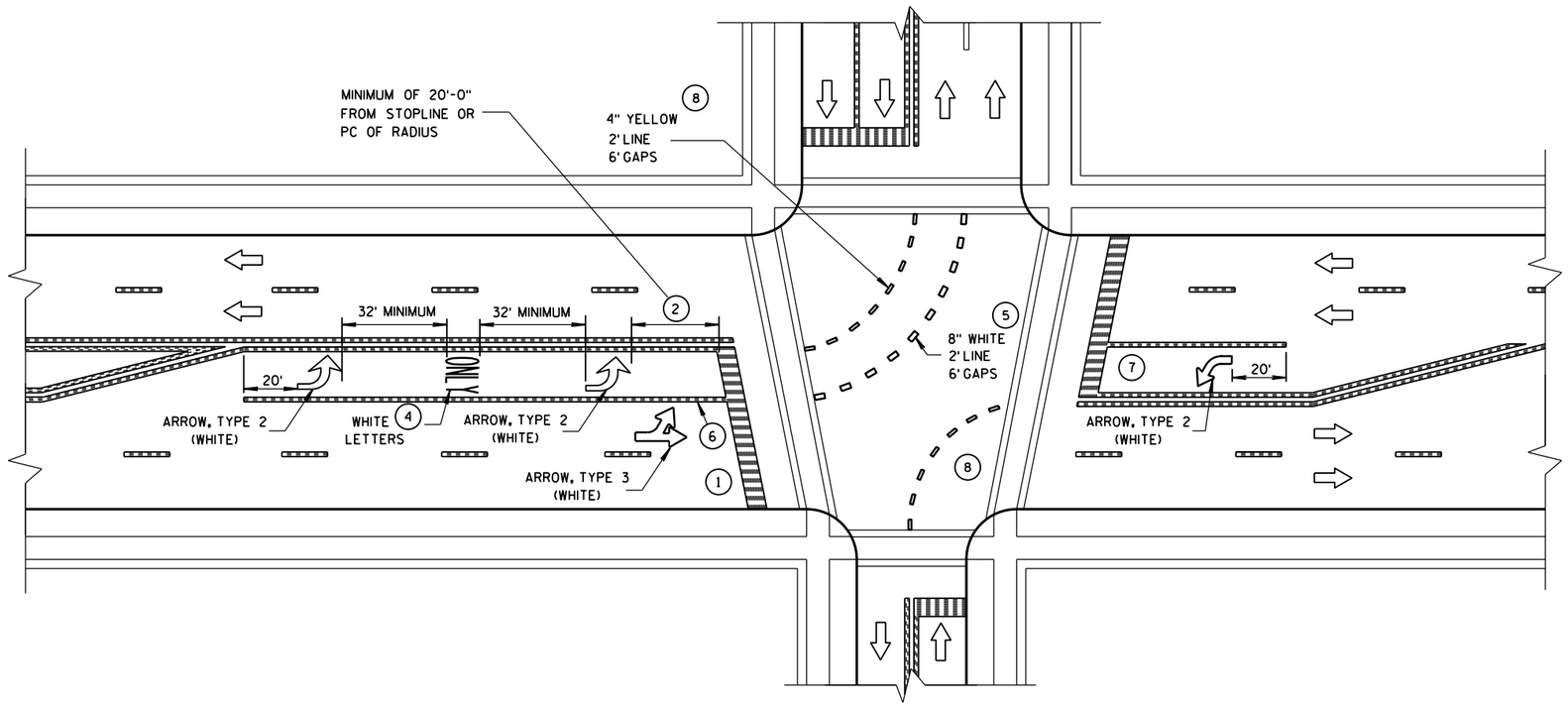
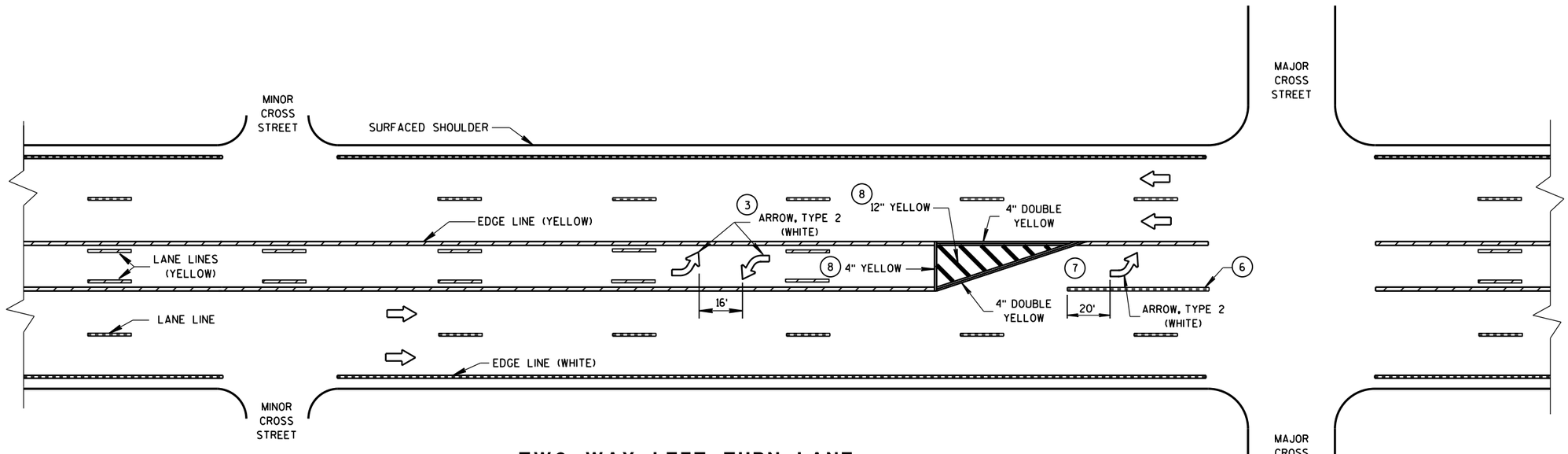
S.D.D. 15 C 8-16a



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

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

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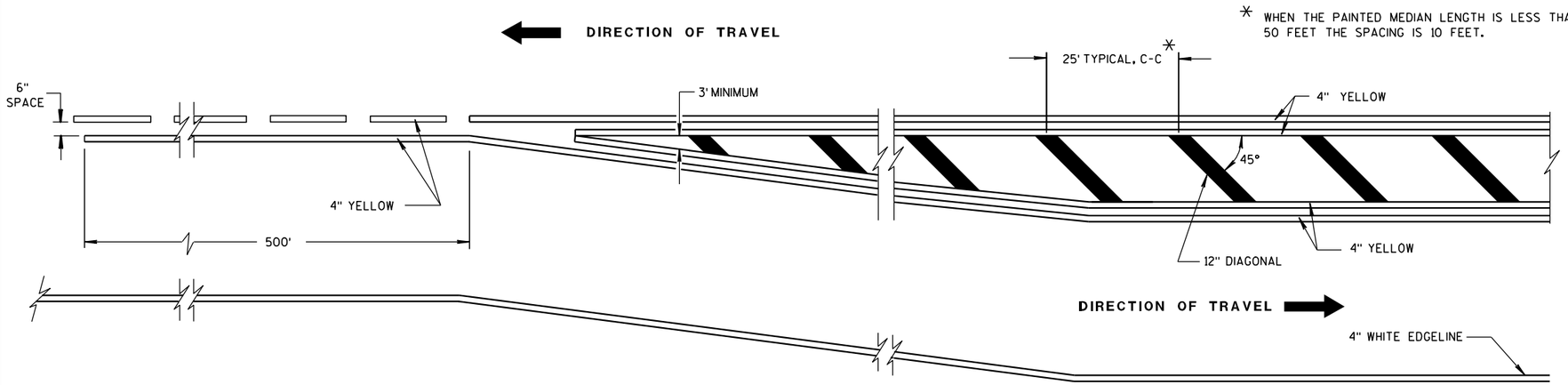
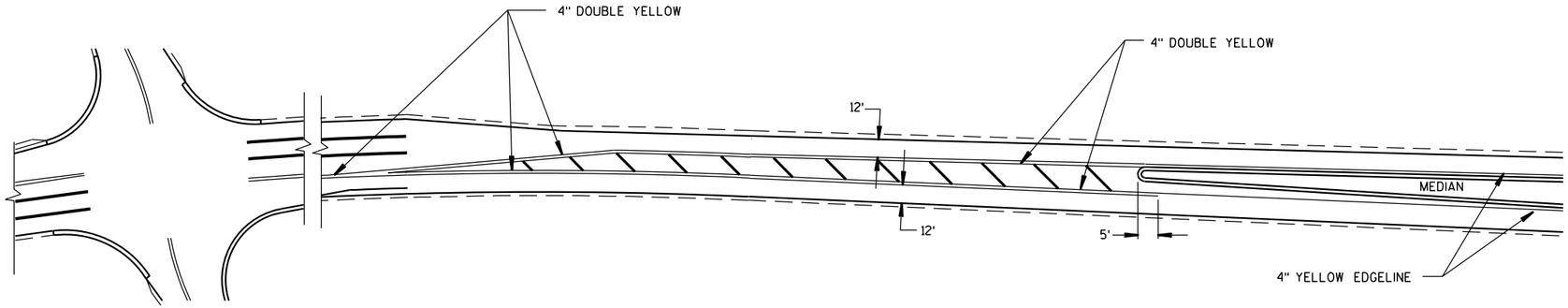
S.D.D. 15 C 8-16e



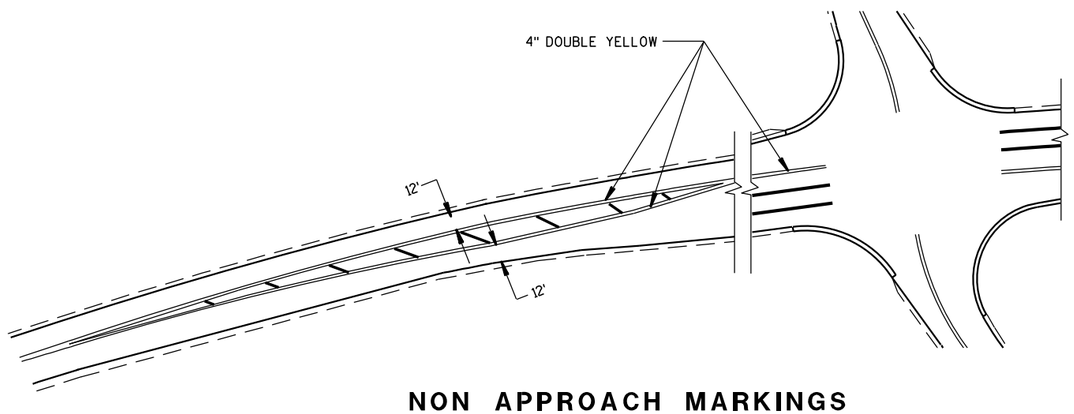
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

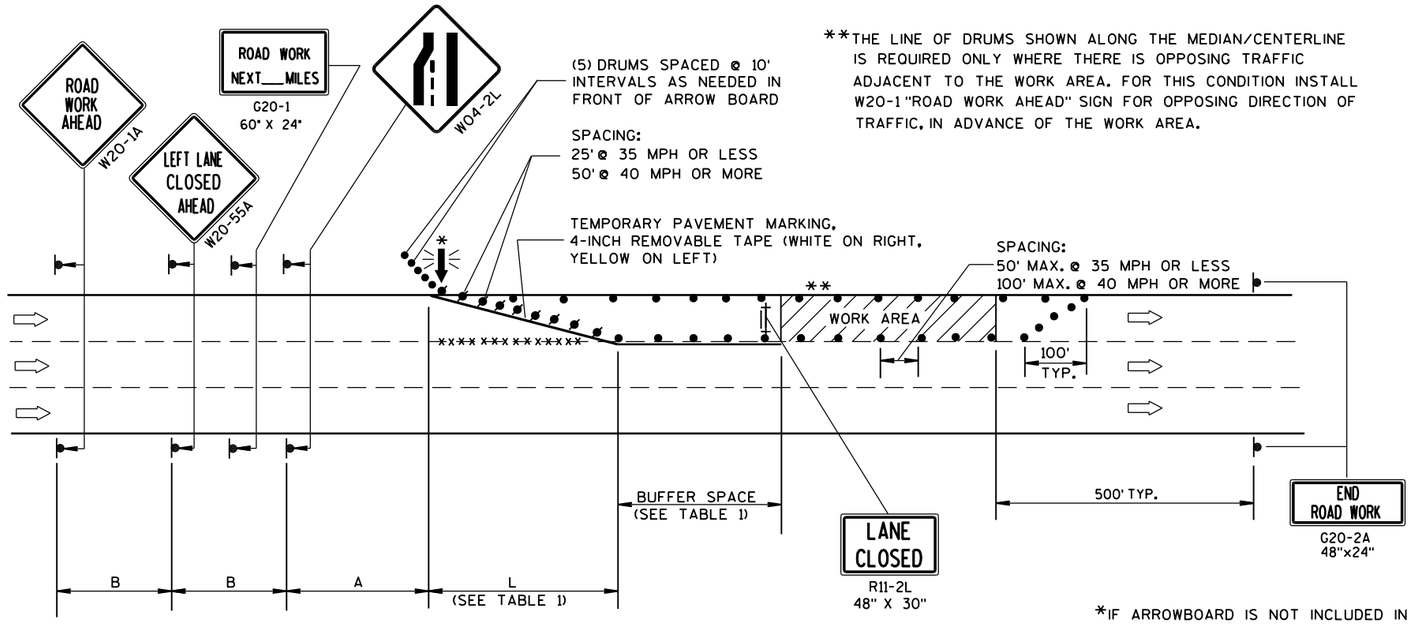


APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER	IGN
FHWA		



**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"

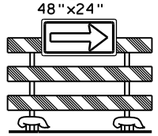


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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.

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

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
June 2016 — DATE
FHWA

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER — IC

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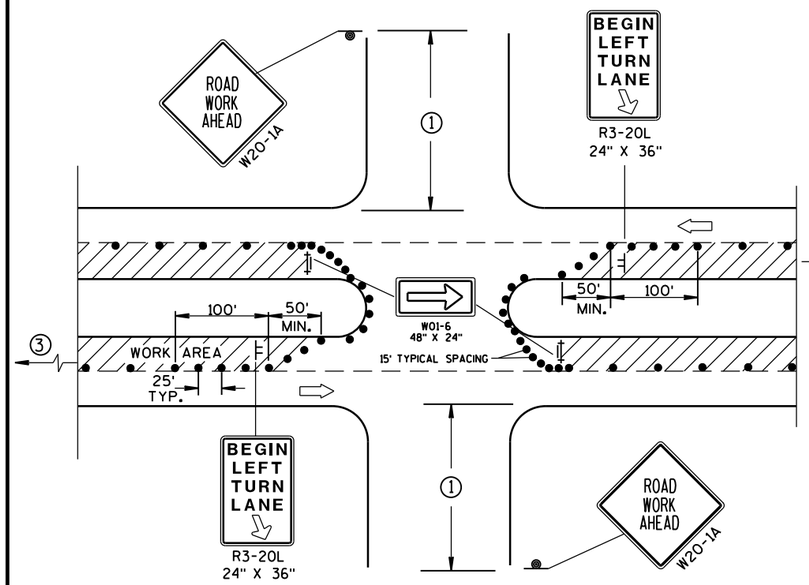
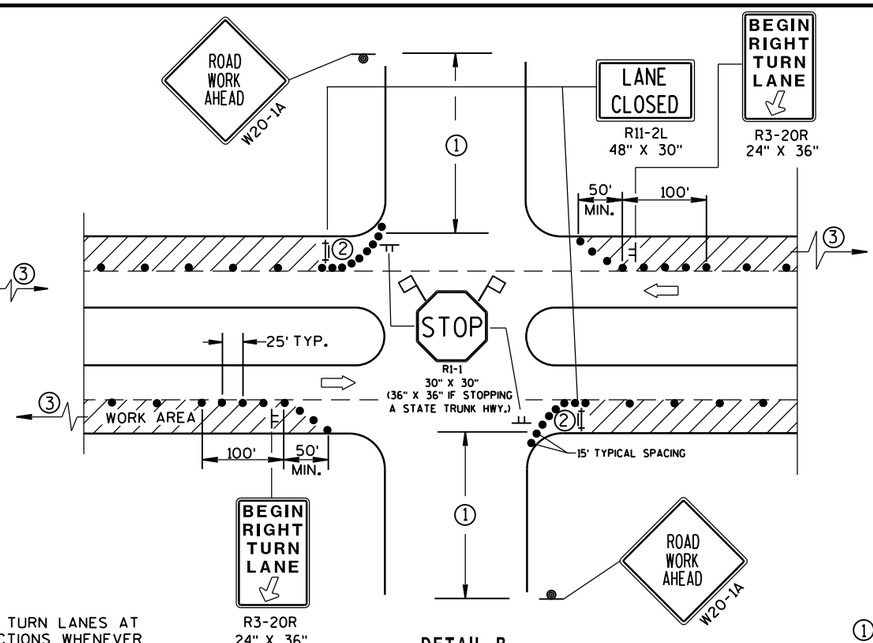


DETAIL A

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.

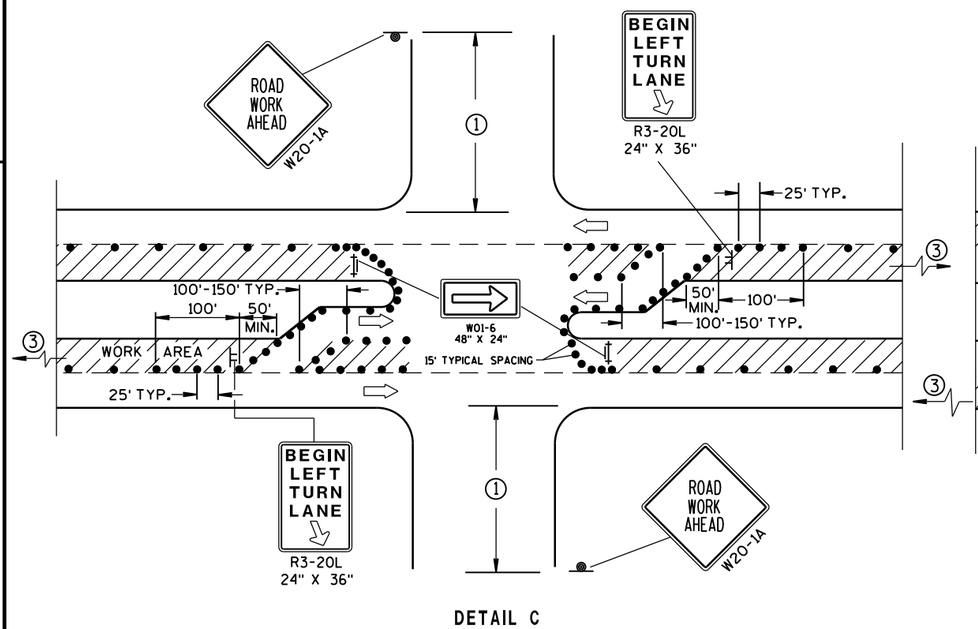
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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.

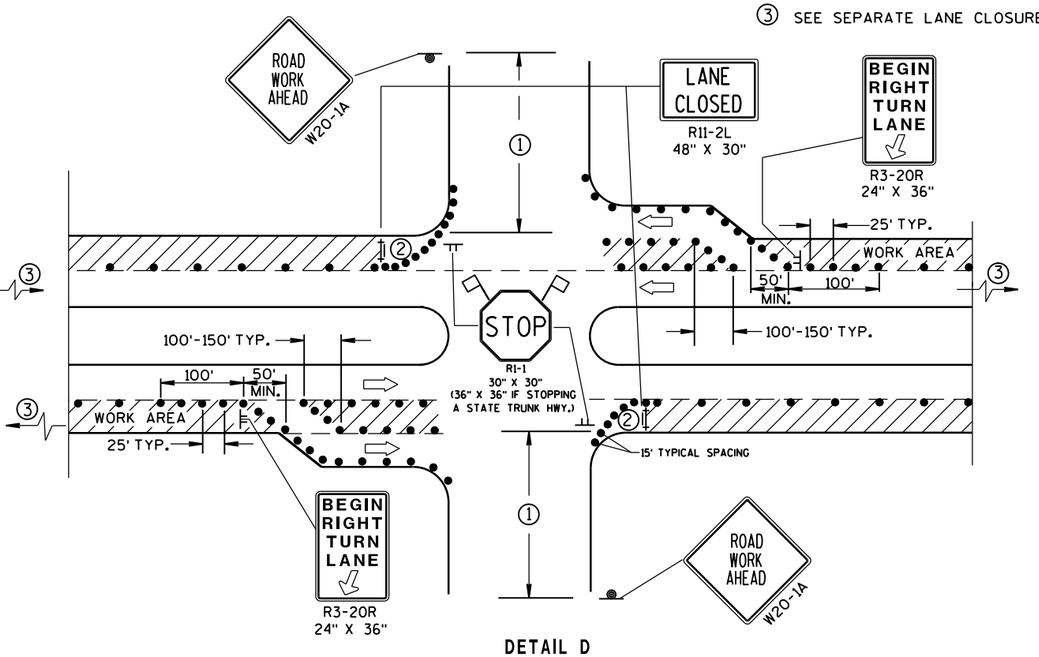
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

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

June 2016
DATE

/S/ Peter Anakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

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S.D.D. 15 D 21-4

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S.D.D. 15 D 21-4

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E

2.250" Radius, 0.750" Border

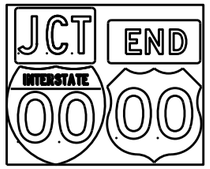
7

7

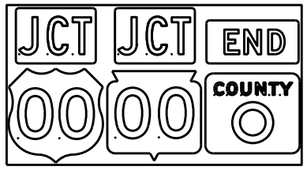
PROJECT NO: 4630-30-60	HWY: STH 42	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET NO: 67	E

TYPICAL ASSEMBLIES

J1-1

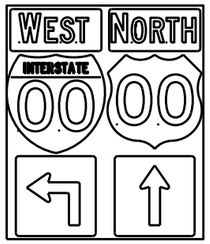


J1-2

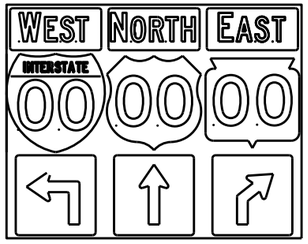


J1-3

J2-1



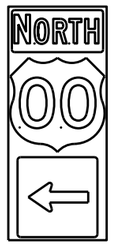
J2-2



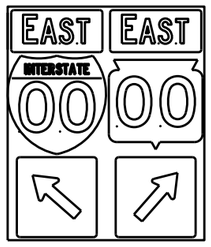
J2-3

JV

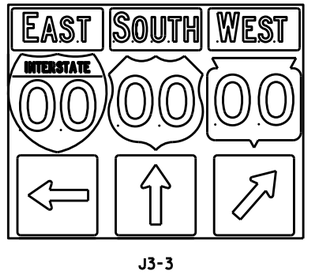
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



J3-2



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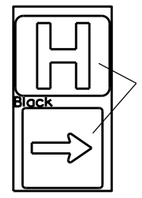
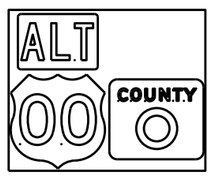
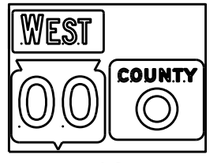


JH-1

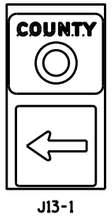
J4-1



J4-2



J4-2



J13-1

J12-1

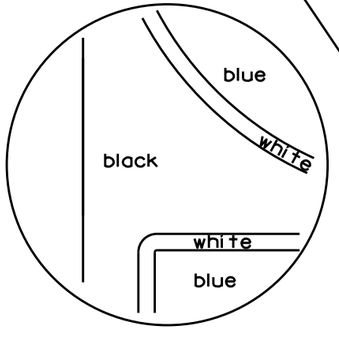
J32-1

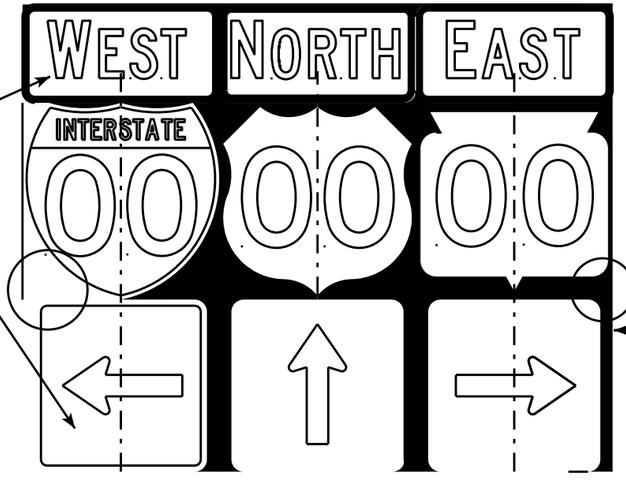
J33-1

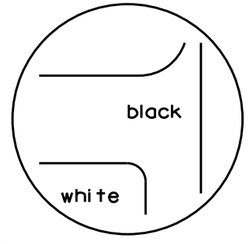
J23-1

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

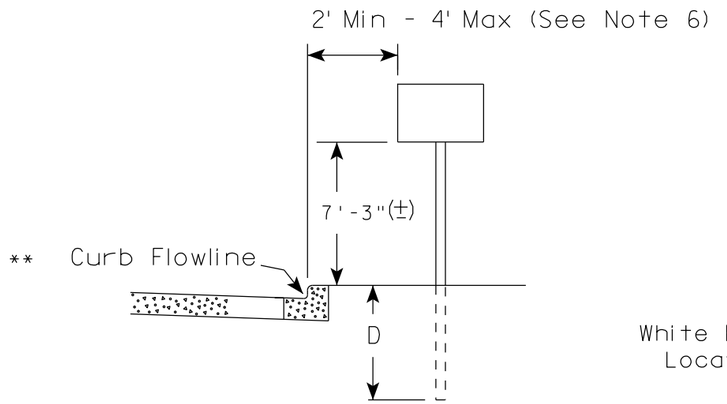
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

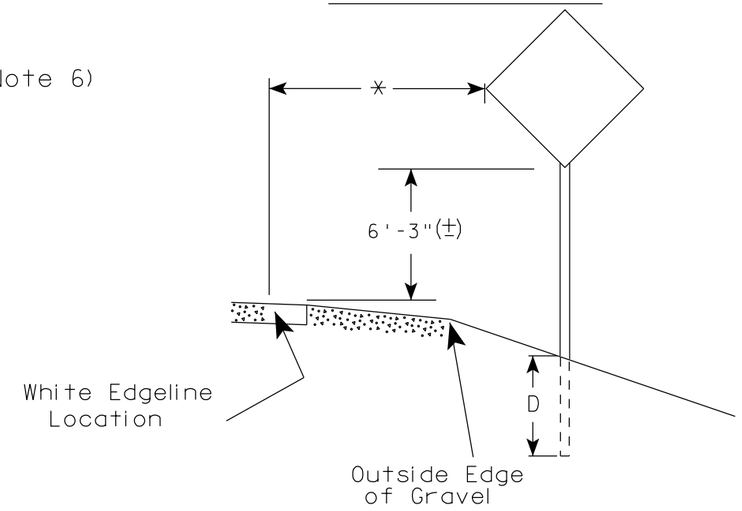
DATE 2/06/14 PL... A2-1S.8

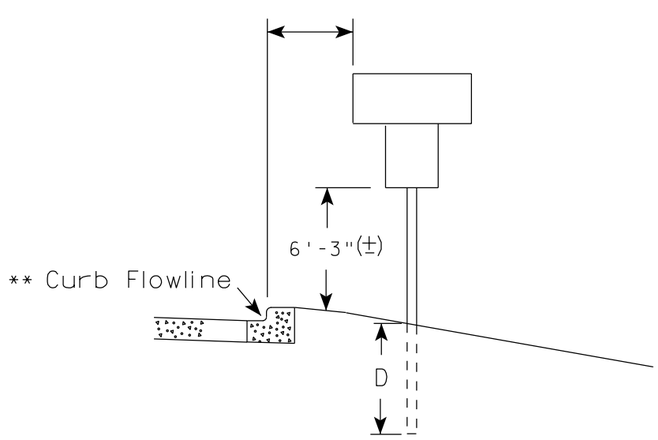
PROJECT NO: | SHEET NO: E

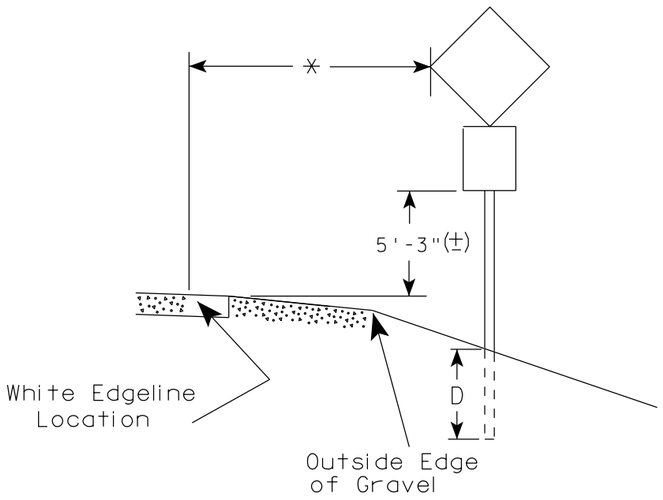
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

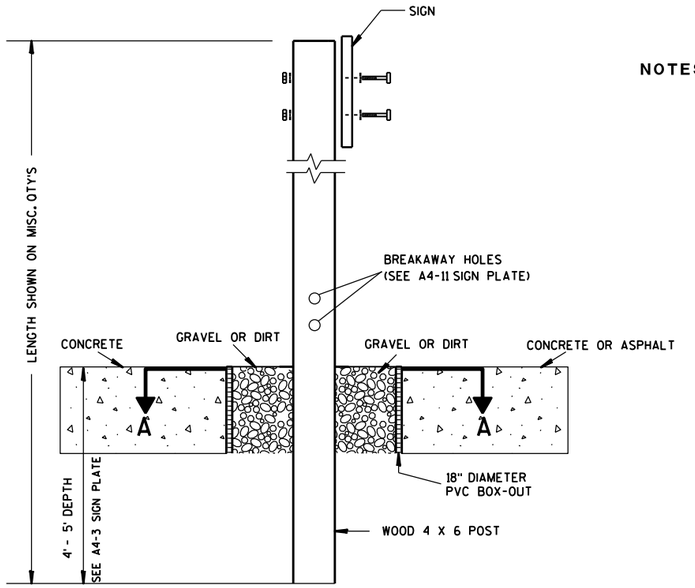
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

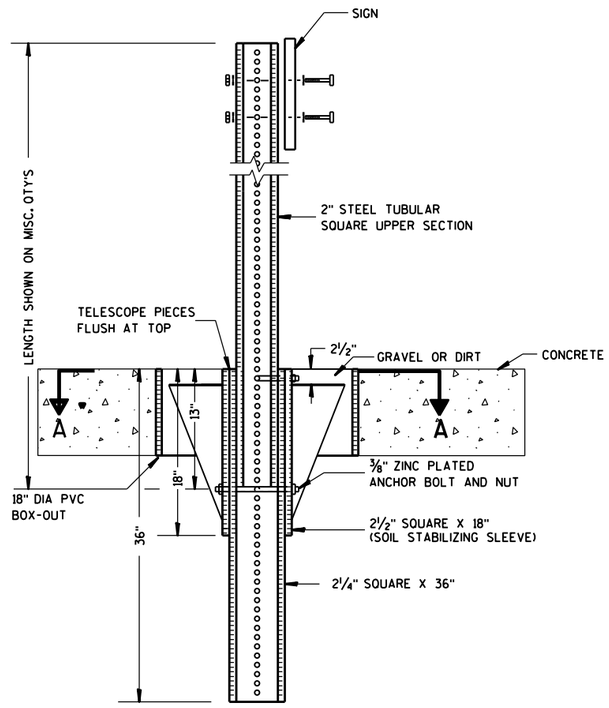
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

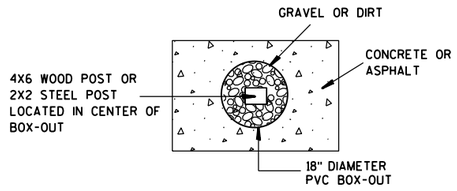
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

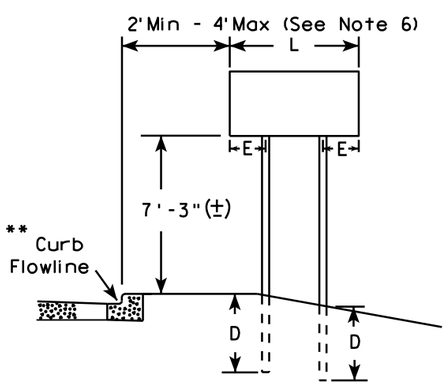
APPROVED Matthew R Rauch
for State Traffic Engineer

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

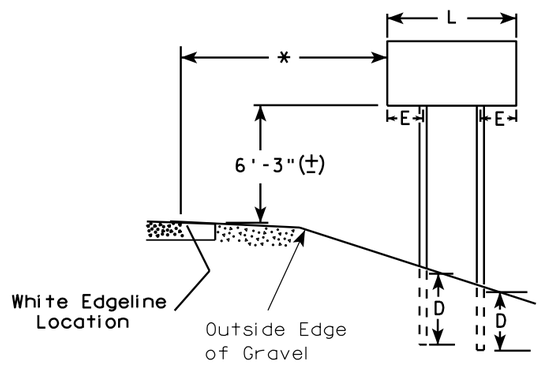
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

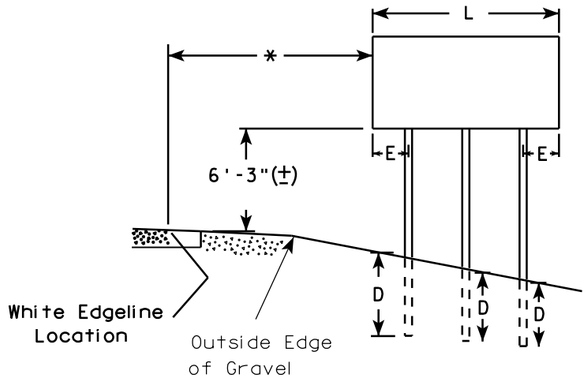
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

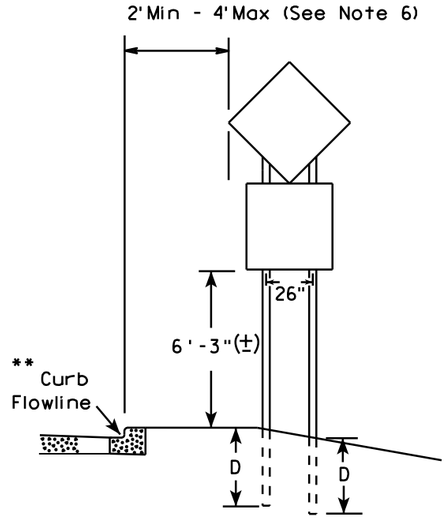
URBAN AREA



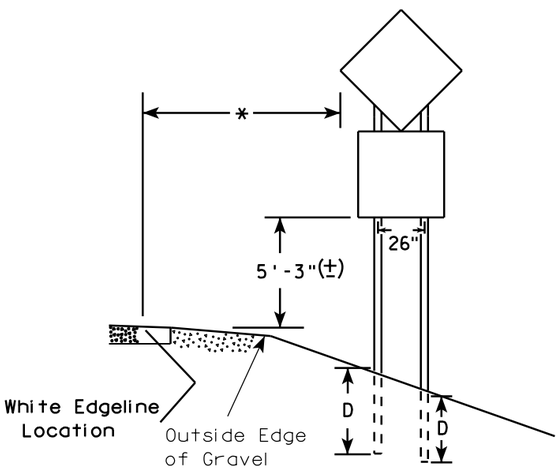
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

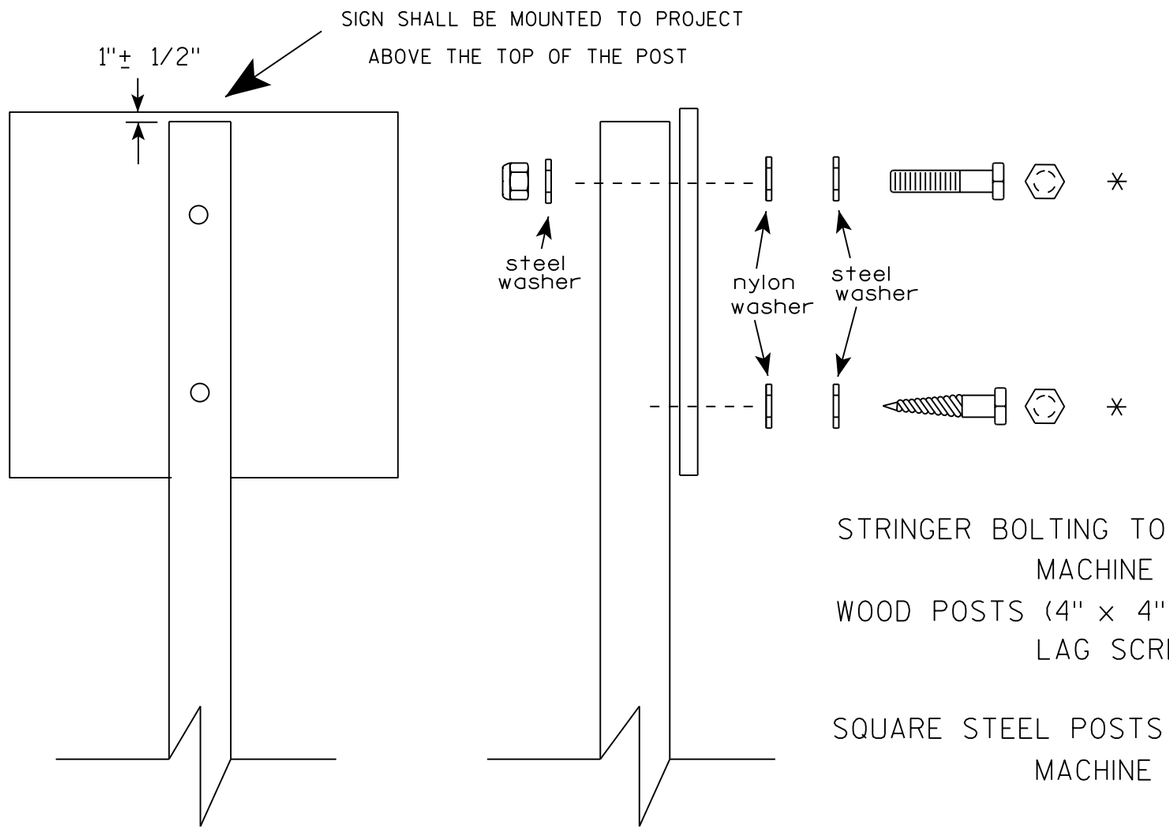
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

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.

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

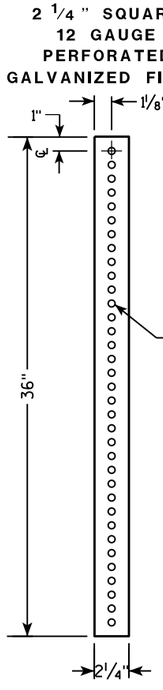
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

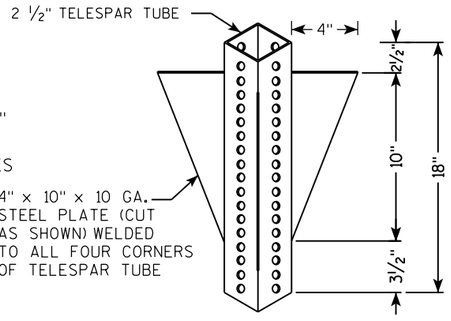
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

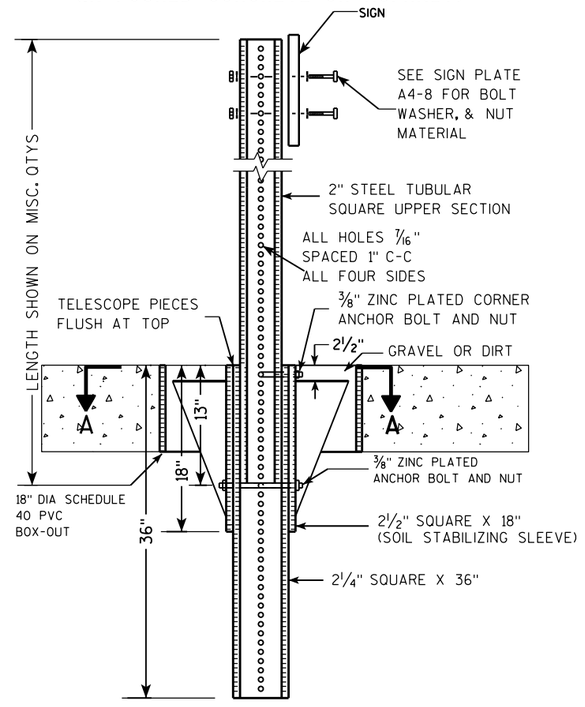
2 ¼ " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



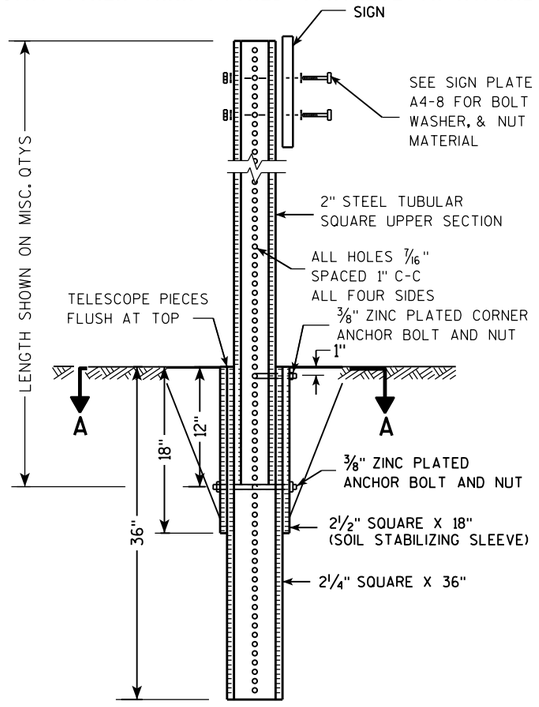
2 ½ " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

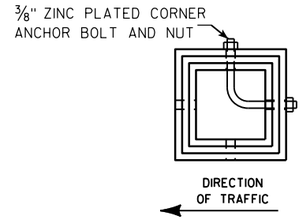


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

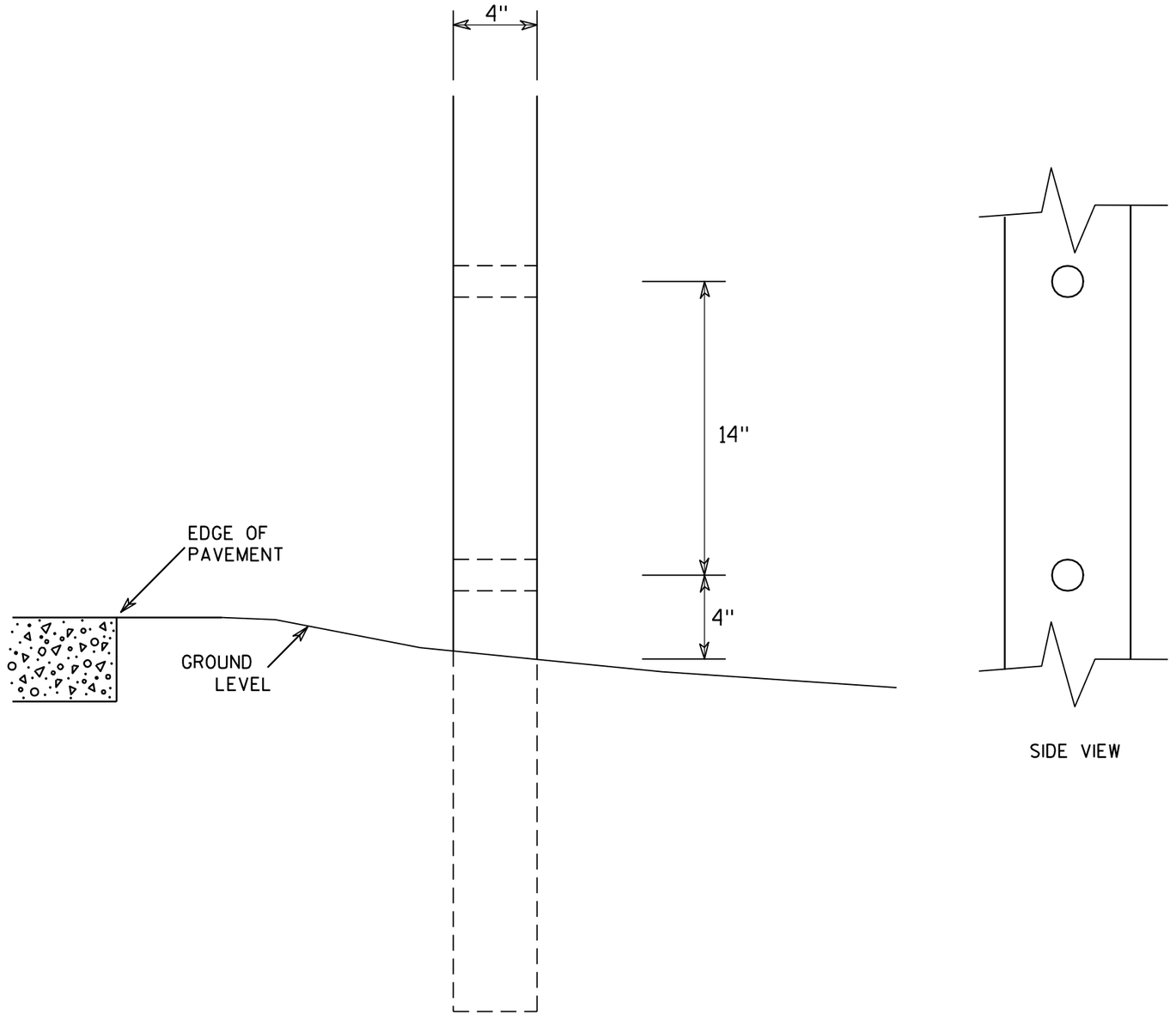
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 73 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

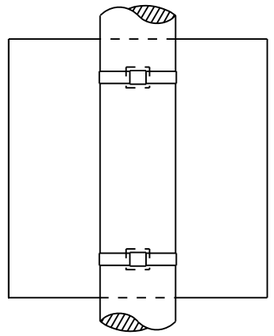
APPROVED Chester J Spang for State Traffic Engineer

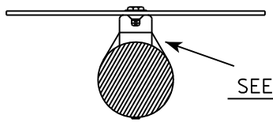
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 74	E

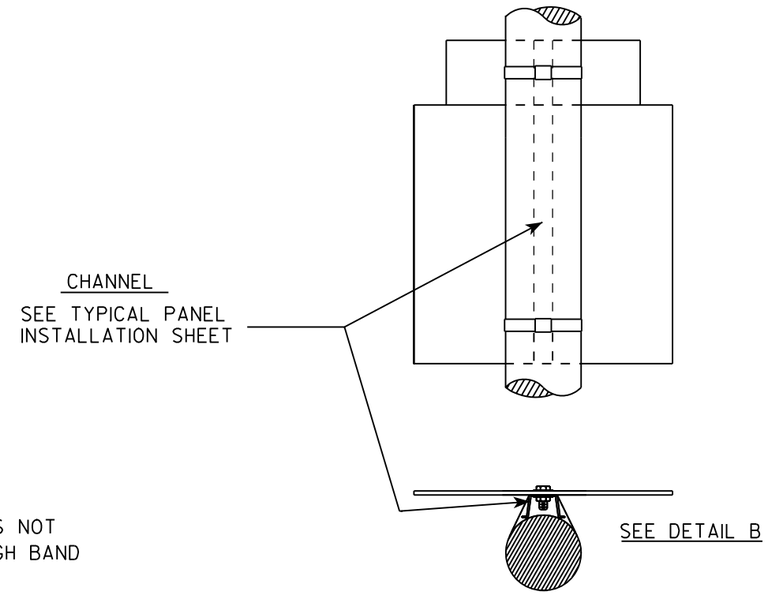
BANDING

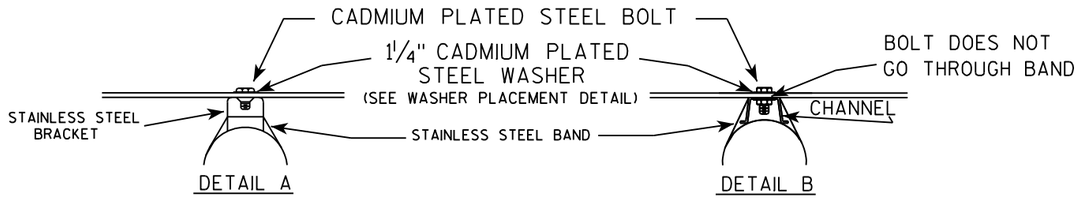
SINGLE SIGN



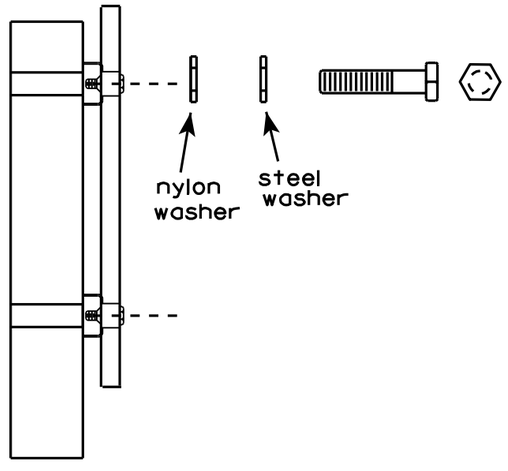


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

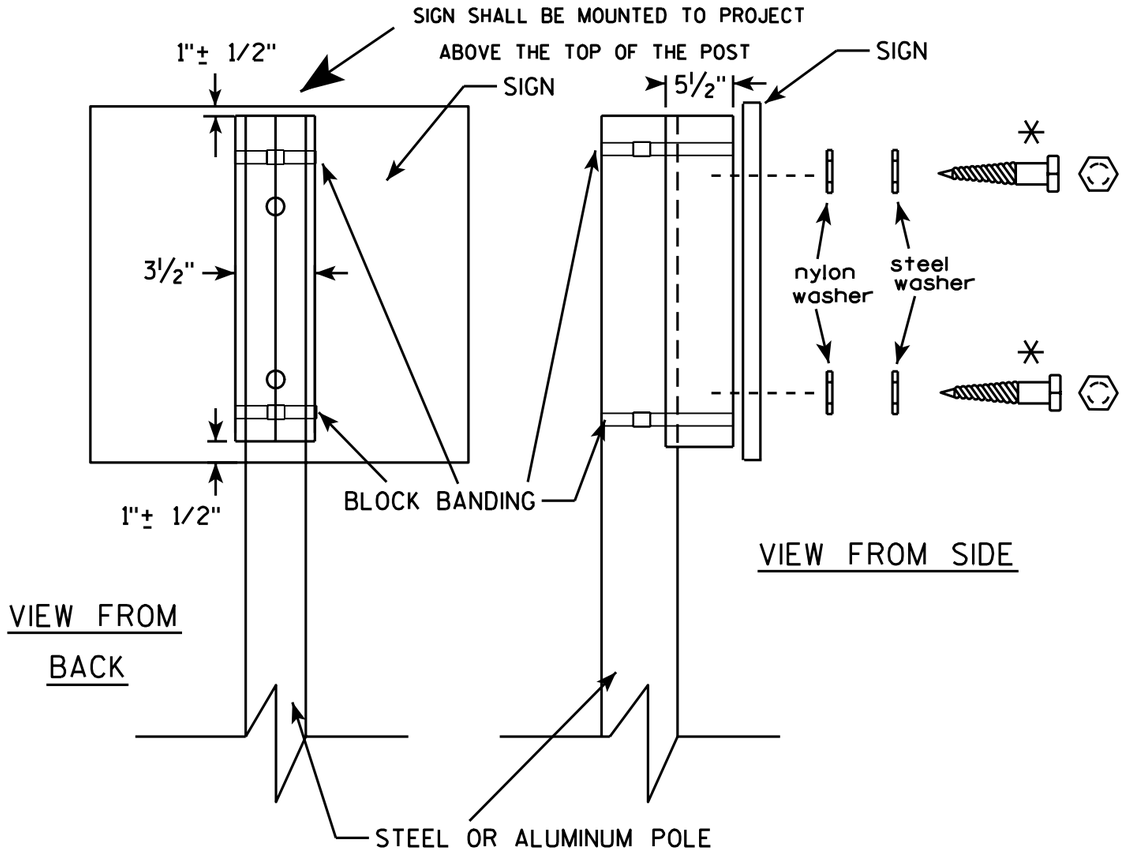
STANDARD SIGN
SIGN BANDING DETAILS

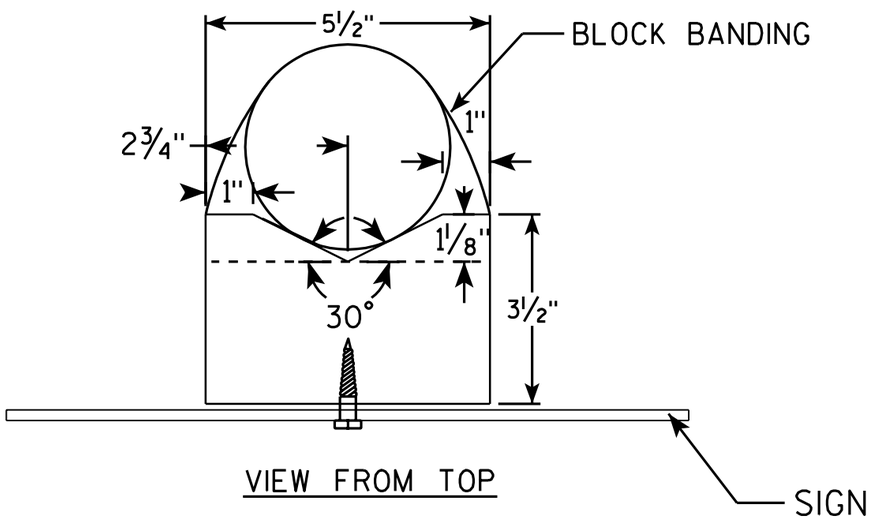
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 75	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

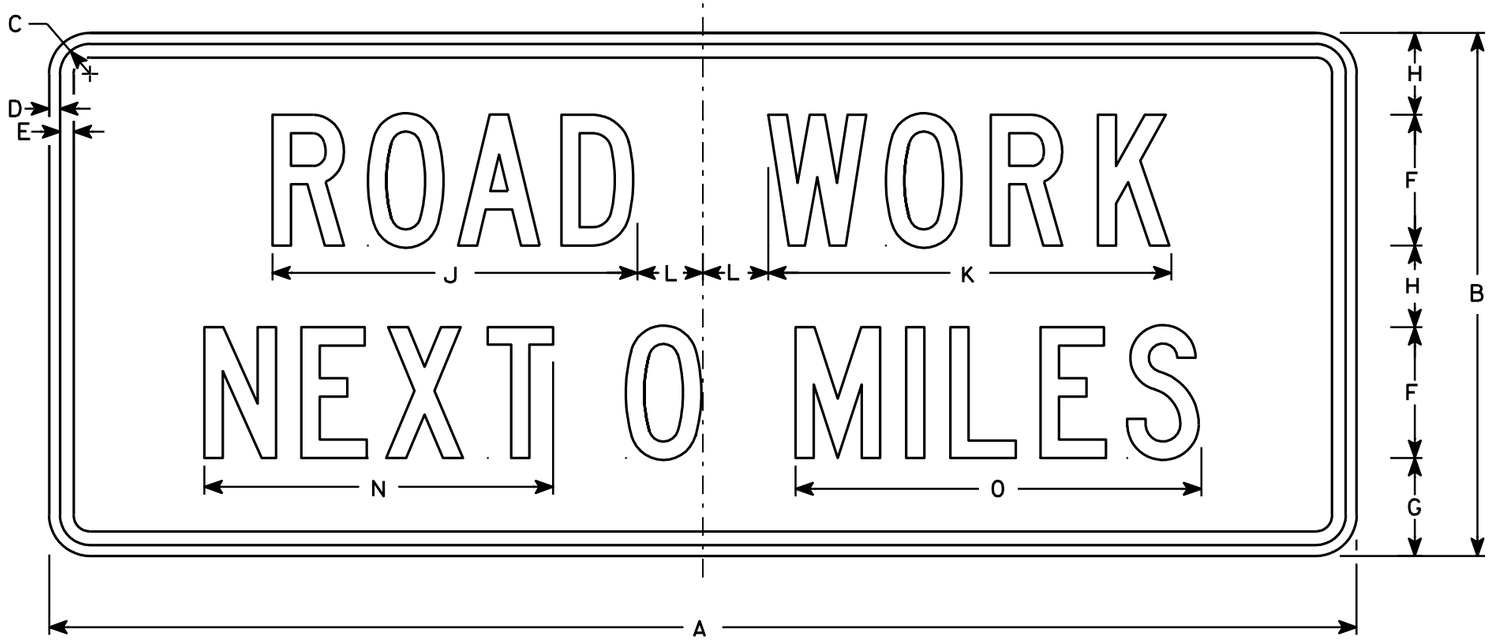
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 76 E

FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42



G20-1

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 600 mm
3	
4	1500 mm X 600 mm
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	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
3																												
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4		16 3/4	18 1/2	3		16	18 5/8												10	.90
5																												

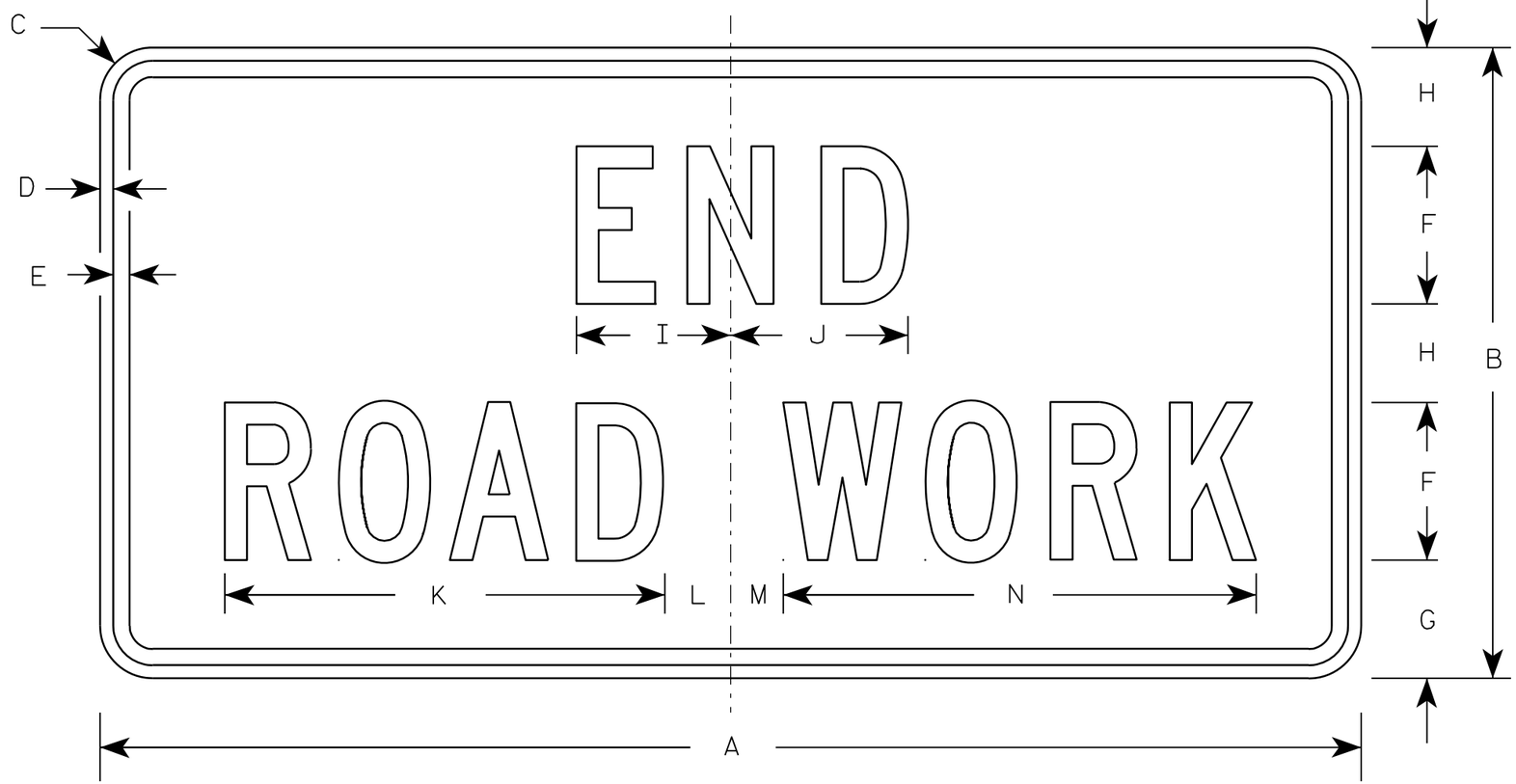
STANDARD SIGN
G20-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spray for State Traffic Engineer

DATE 4/8/97 PLATE NO. G20-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 77	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

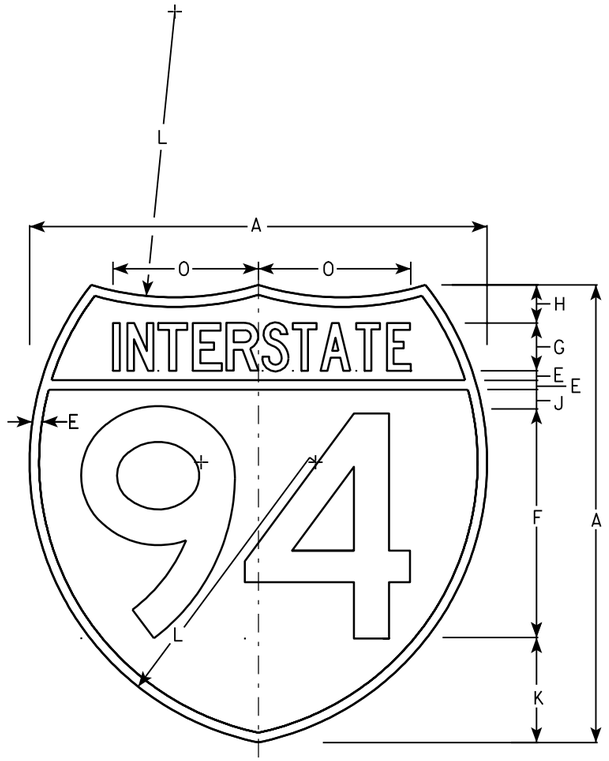
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

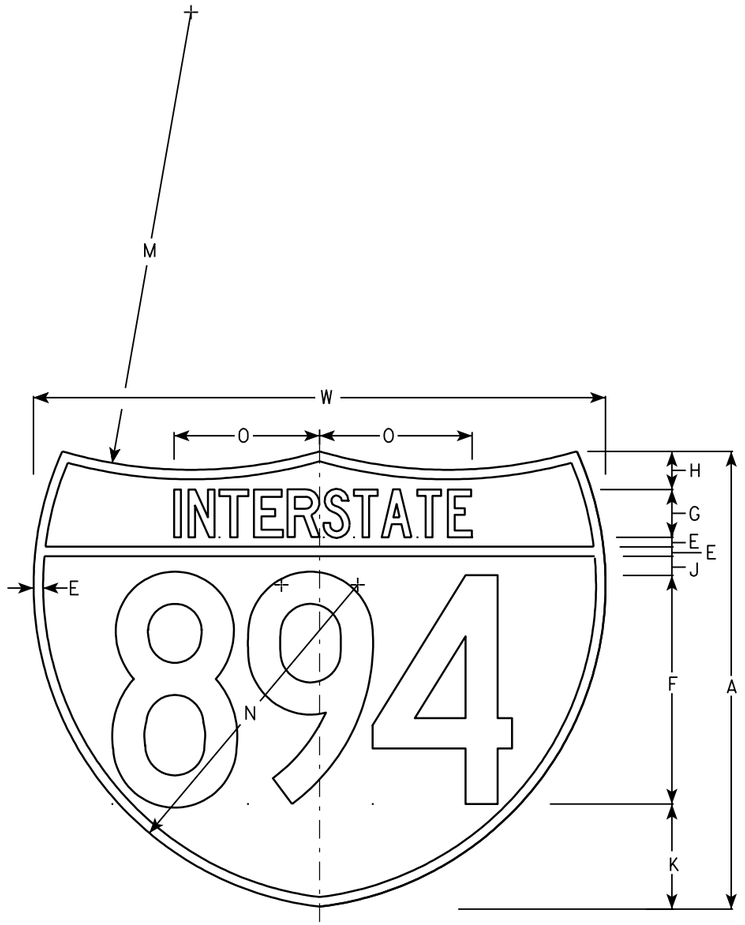
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 78	E



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

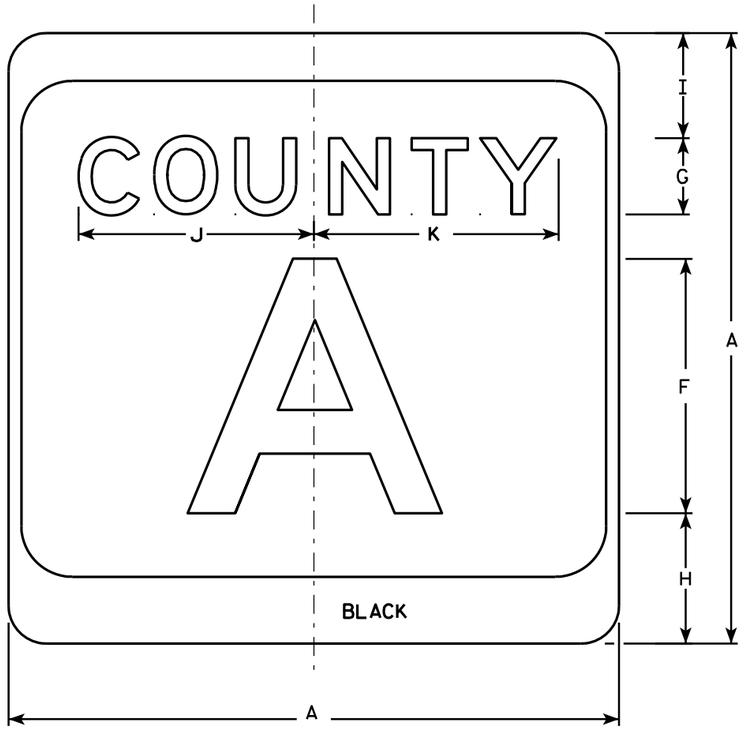
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

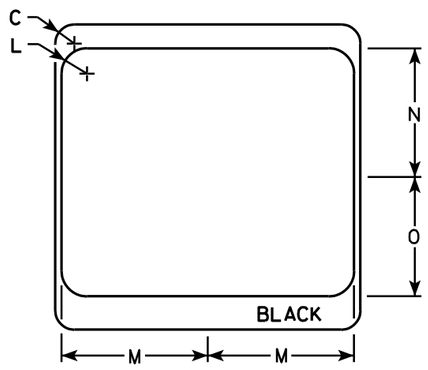
APPROVED Matthew R Rauch
for State Traffic Engineer

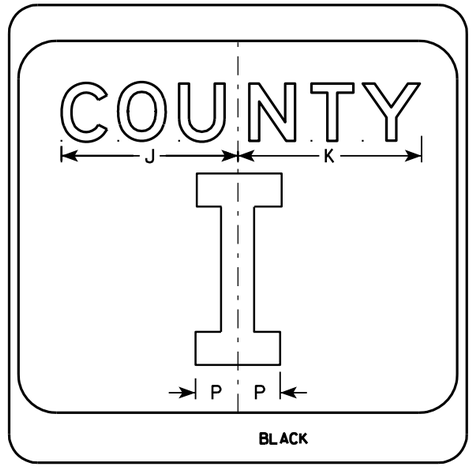
DATE 08/23/05 PLATE NO. M1-1.8

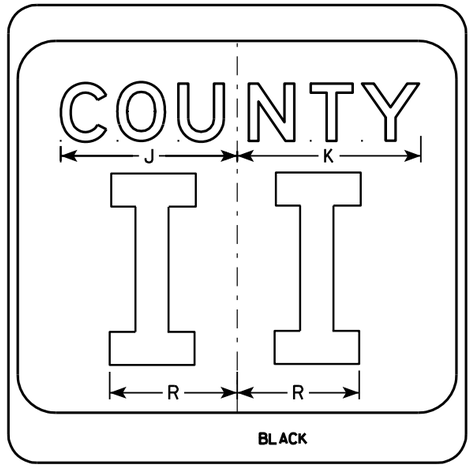
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 79	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   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. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or 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		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

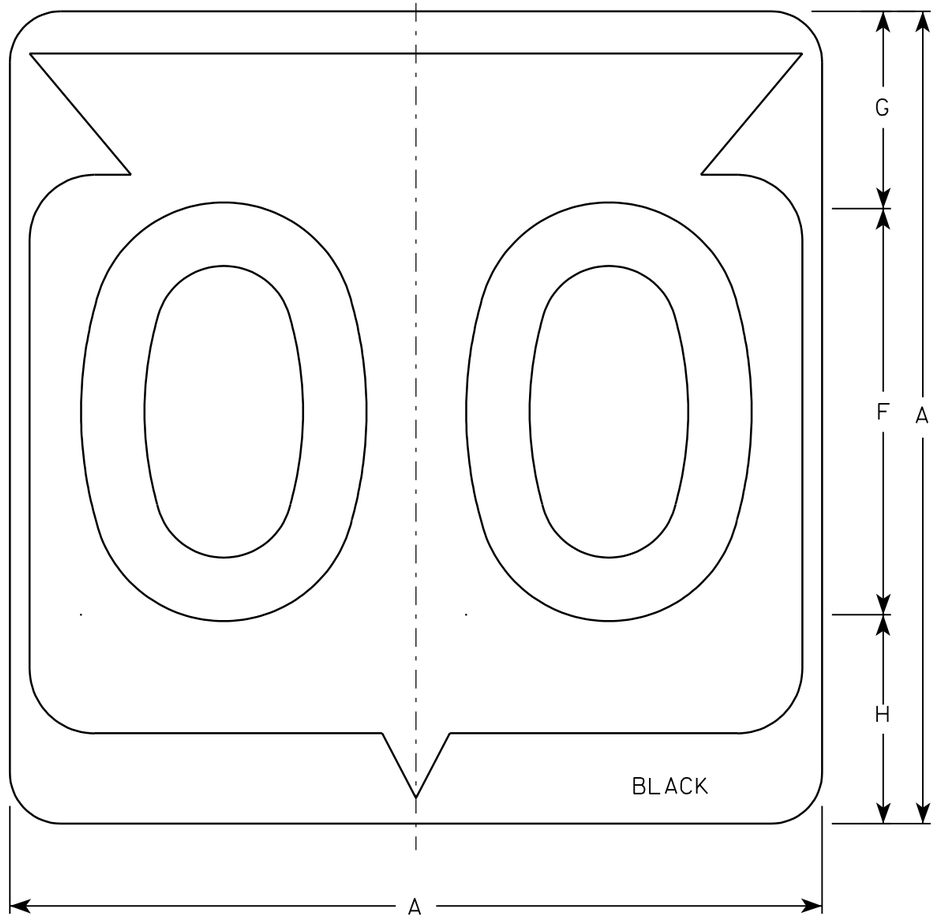
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

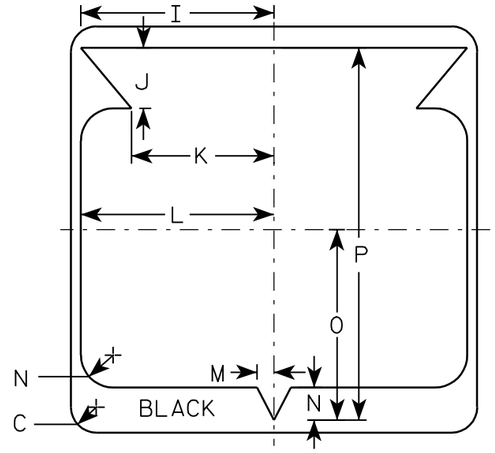
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 80	E



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: 81	E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Graphics - White
   Circle Tour Message is Green
3. Message Series - Special
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.	Area m2
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

STANDARD SIGN
M1-93

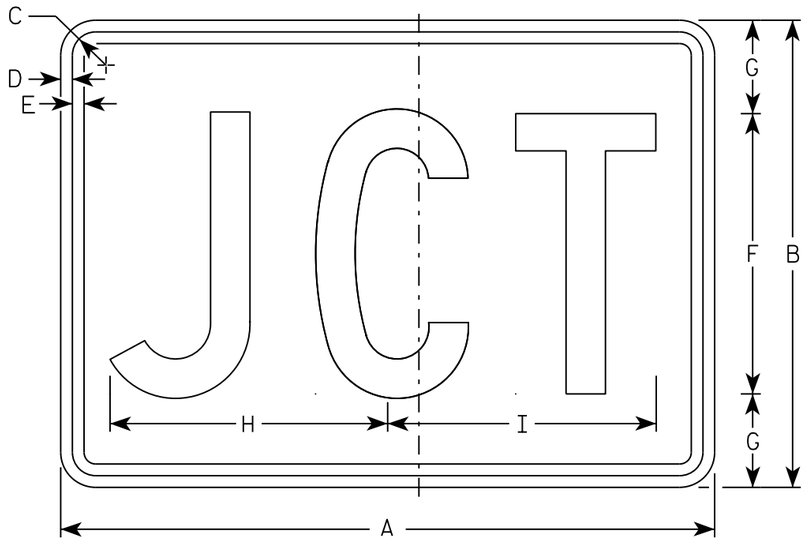
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

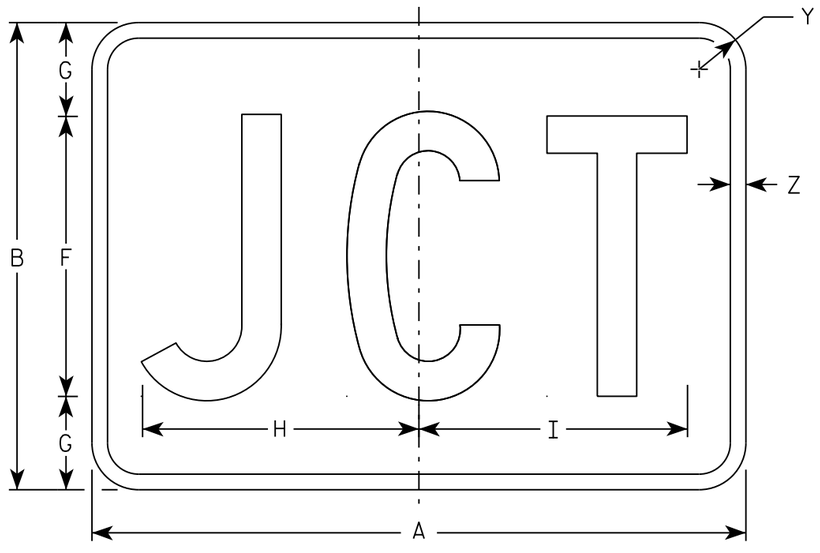
DATE 11/5/15 PLATE NO. M1-93.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M193.DGN PLOT DATE : 01-DEC-2015 18:00 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

1. Sign is 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. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MP2-1 Background - White
   Message - Blue
   MR2-1 Background - Brown
   Message - 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																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

STANDARD SIGN
M2-1

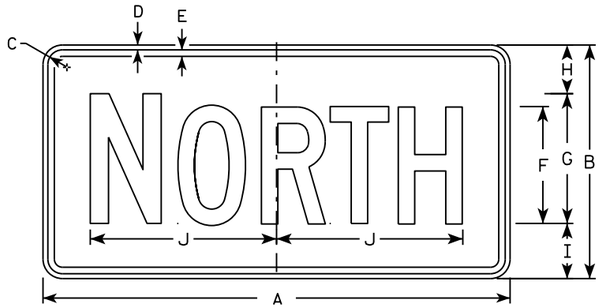
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

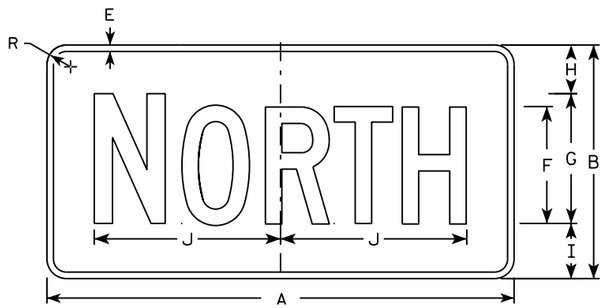
DATE 10/15/15 PLATE 83 12-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M21.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.864603:1.000000



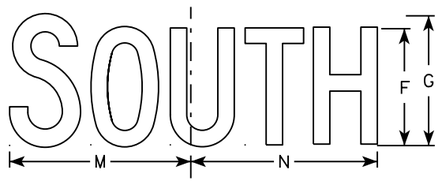
M3-1
MM3-1
MP3-1



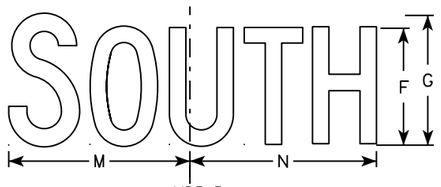
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

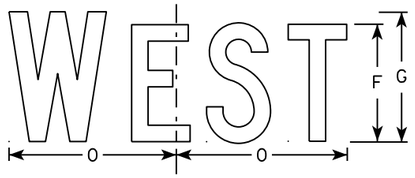
MB3-2
MK3-2
MN3-2



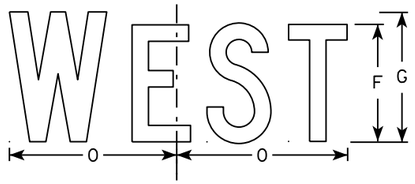
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

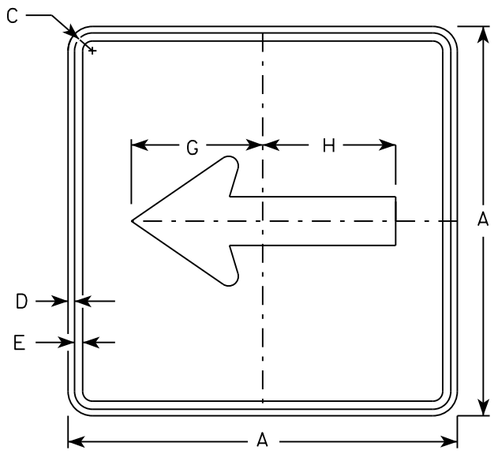
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

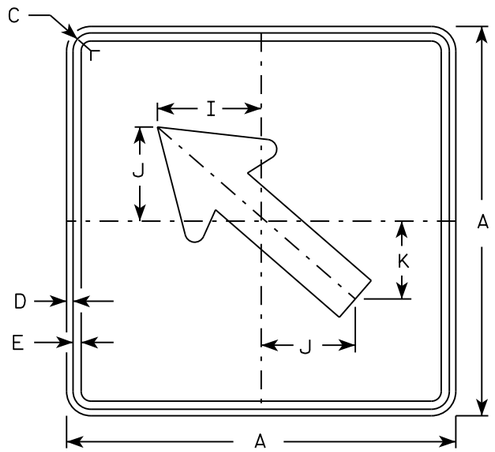
DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



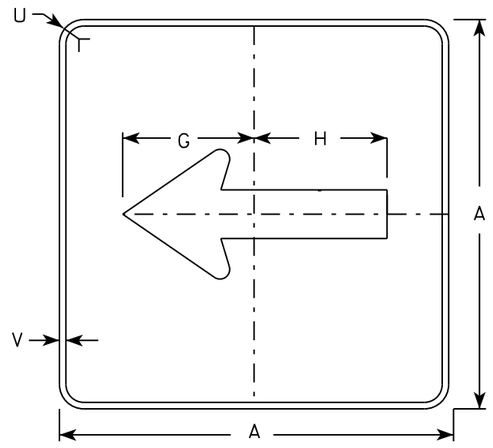
M6-1
MM6-1
MO6-1
MP6-1



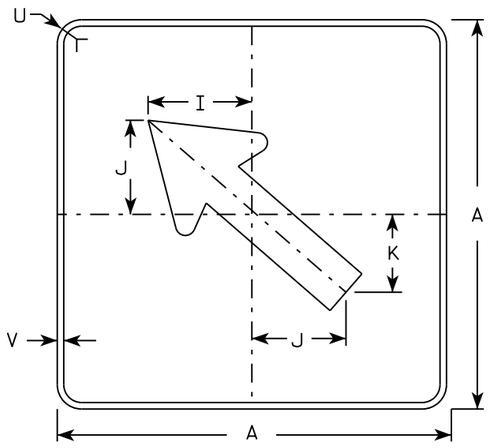
M6-2
MM6-2
MO6-2
MP6-2

NOTES

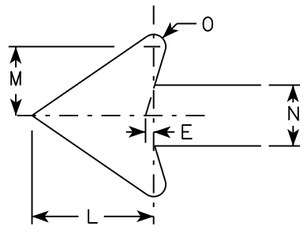
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

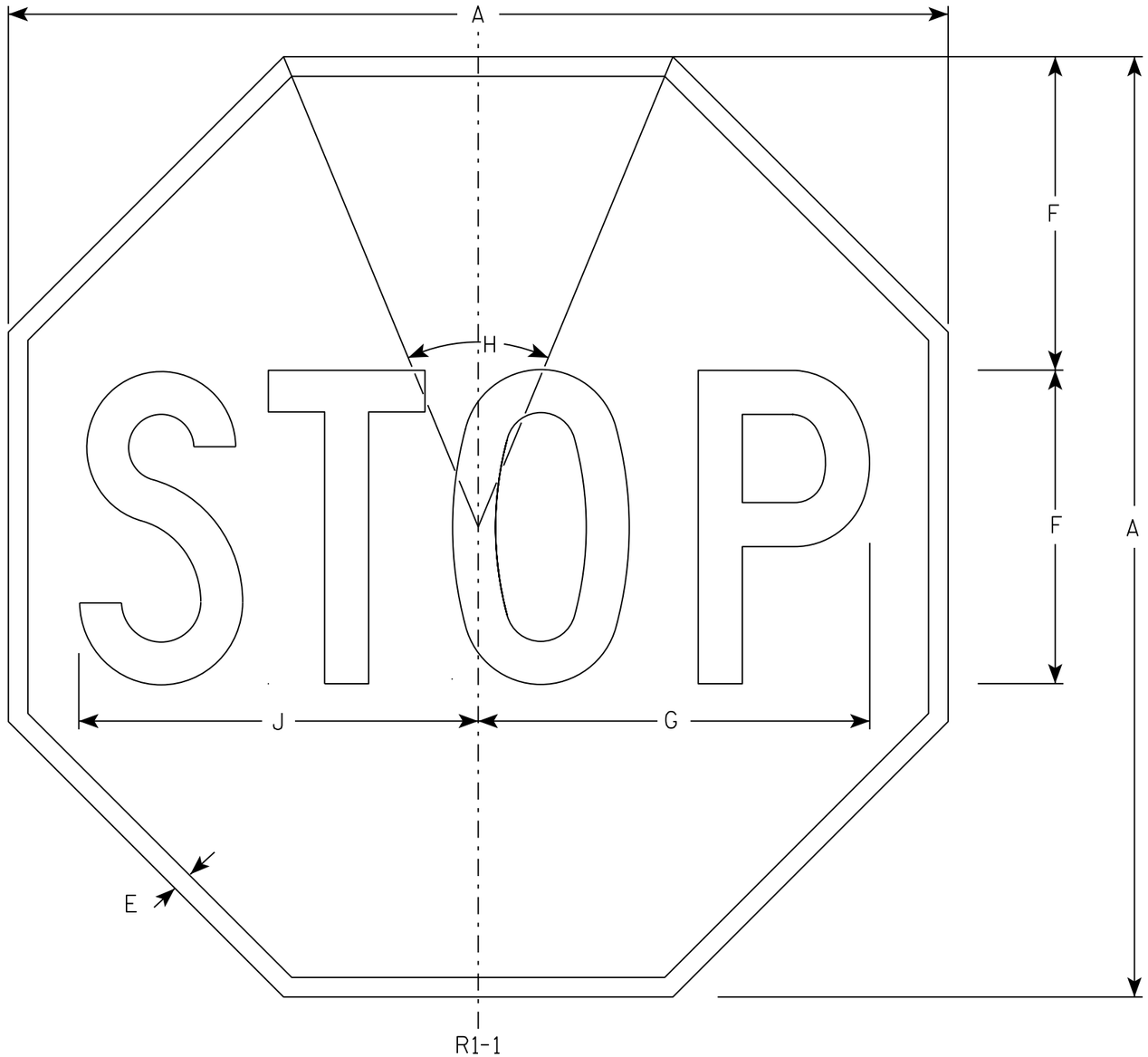
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 85 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

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

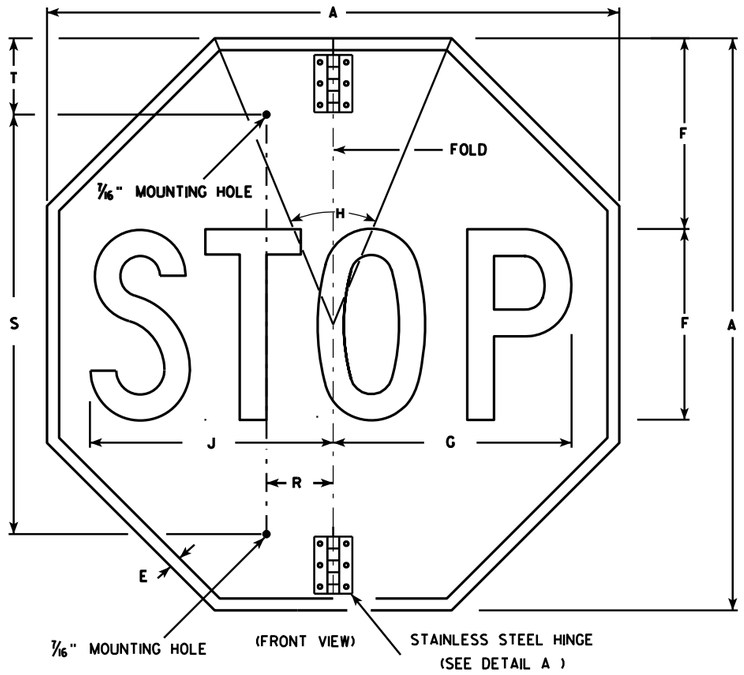
WISCONSIN DEPT OF TRANSPORTATION

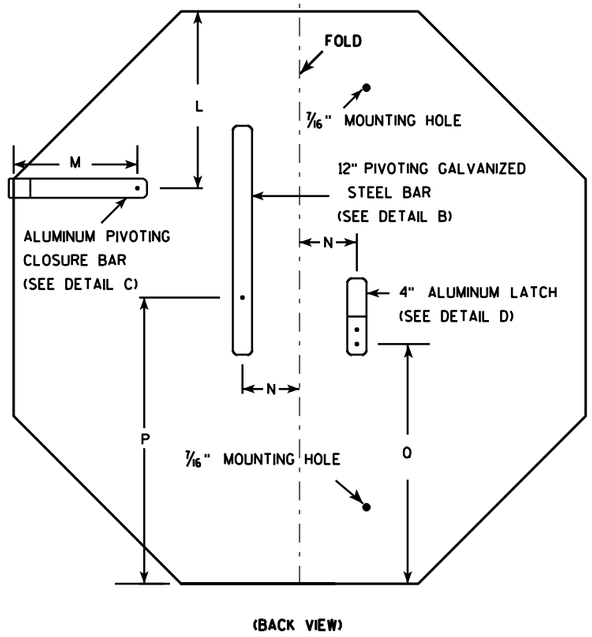
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE 86 R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: E

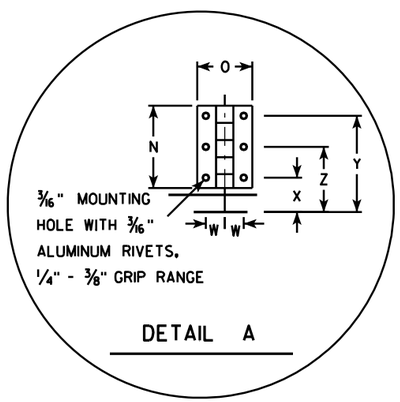
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 4.378143:1.000000



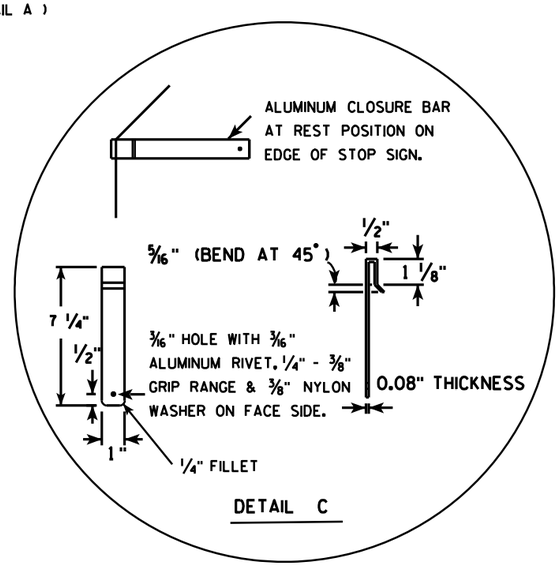


NOTES

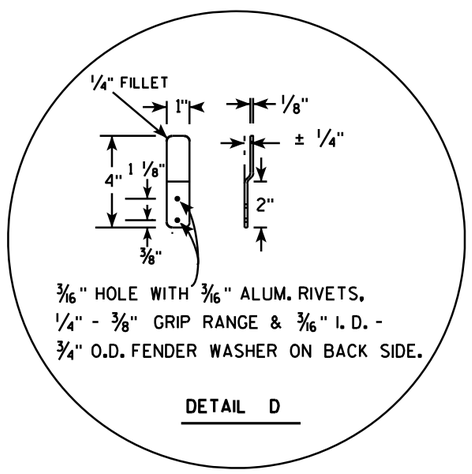
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS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



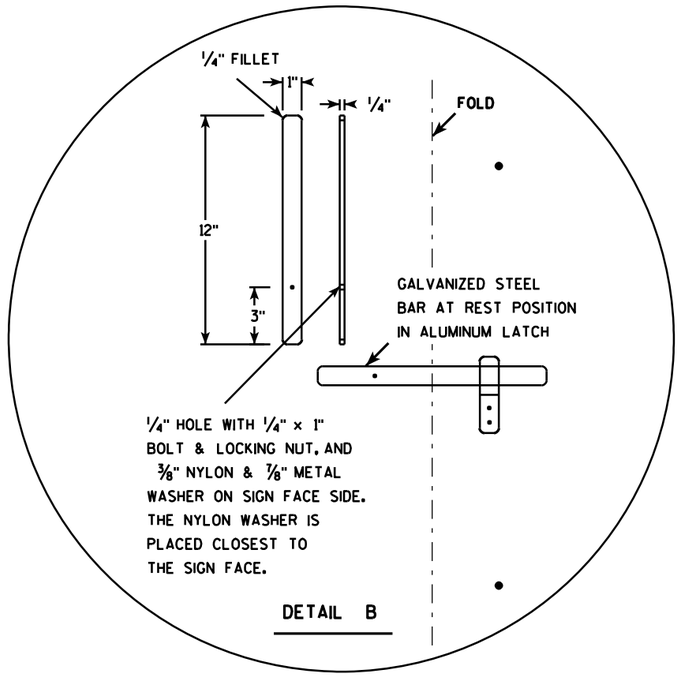
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

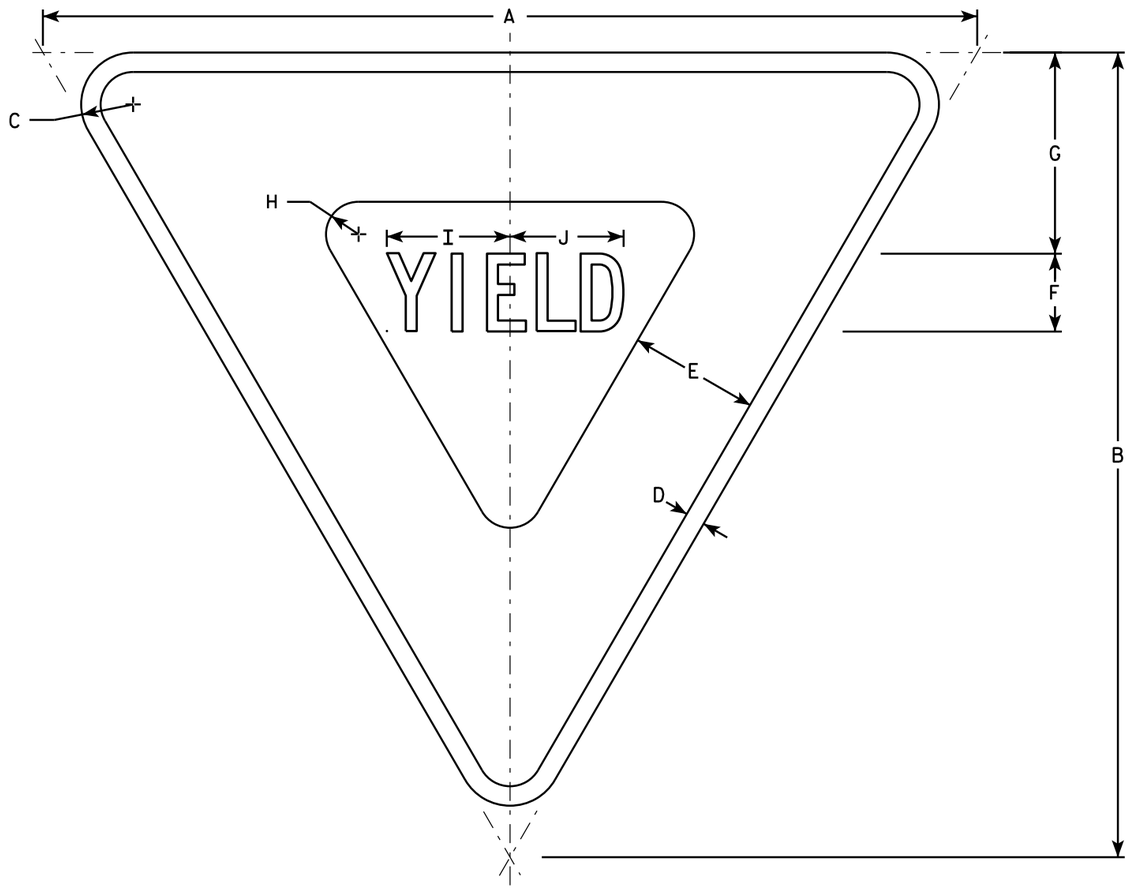
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 87	E



R1-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

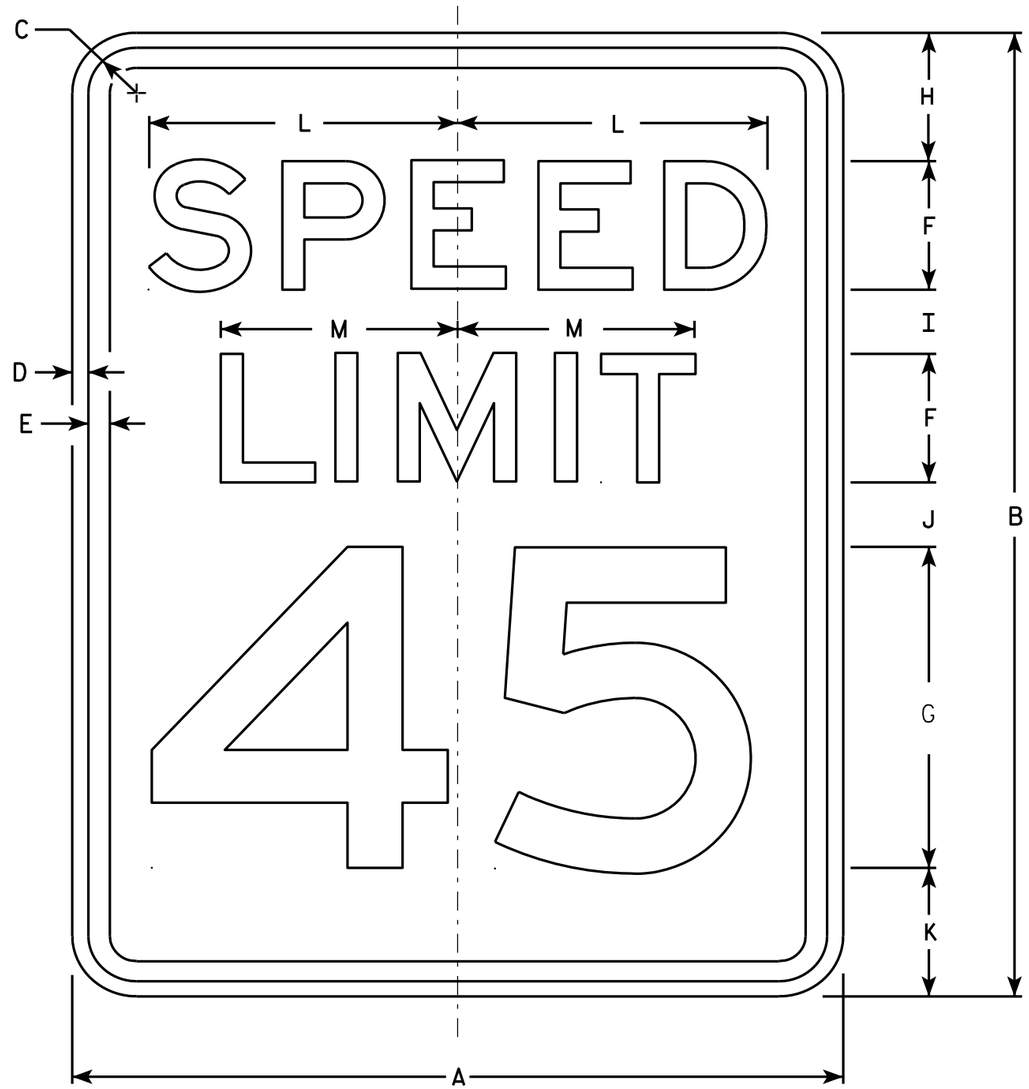
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

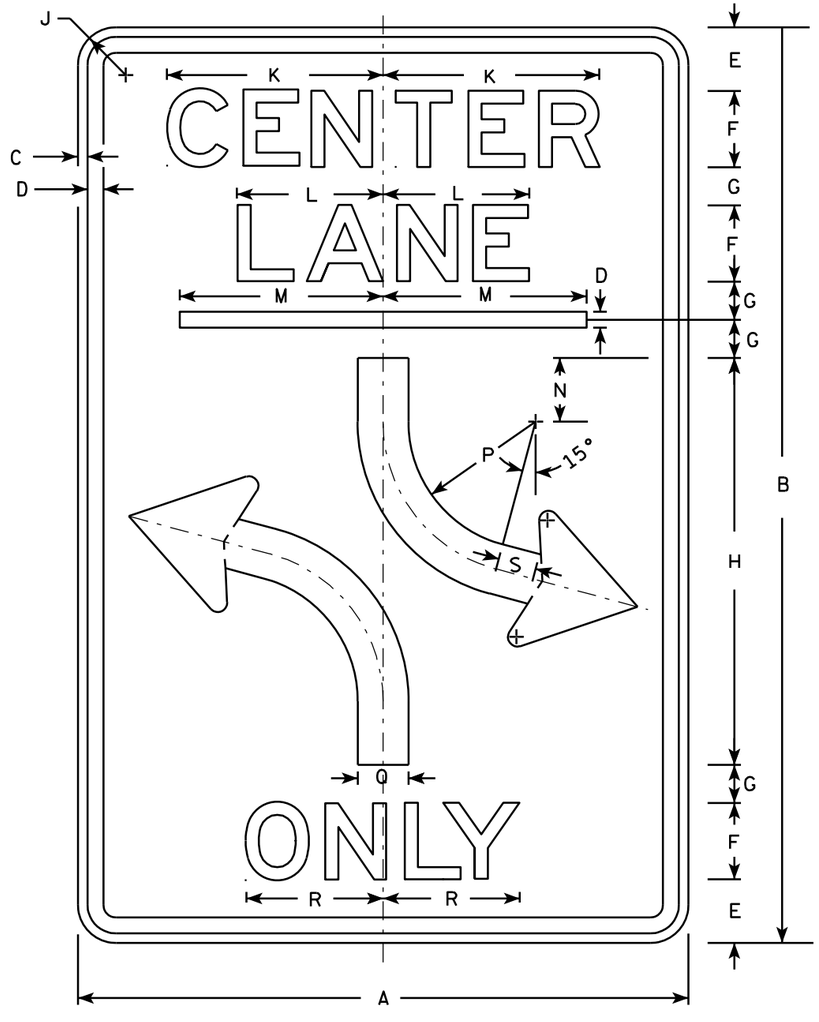
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

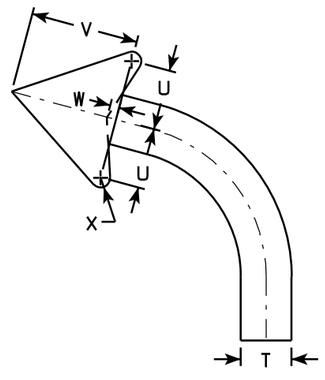
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 89 | E



R3-9B

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	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
2M	24	36	3/8	1/2	2 1/2	3	1 1/2	16		1 1/2	8 1/2	5 3/4	8	2 1/2		6	2	5 1/8	1 1/2		2 3/8	4 3/8	3/8				6.0
3	36	48	5/8	7/8	3 1/2	5	1 1/2	20		2 1/4	14 1/8	9 1/2	12	3		4	3	9 7/8	2		3 1/2	6 1/8	1/2				12.0
4																											
5																											

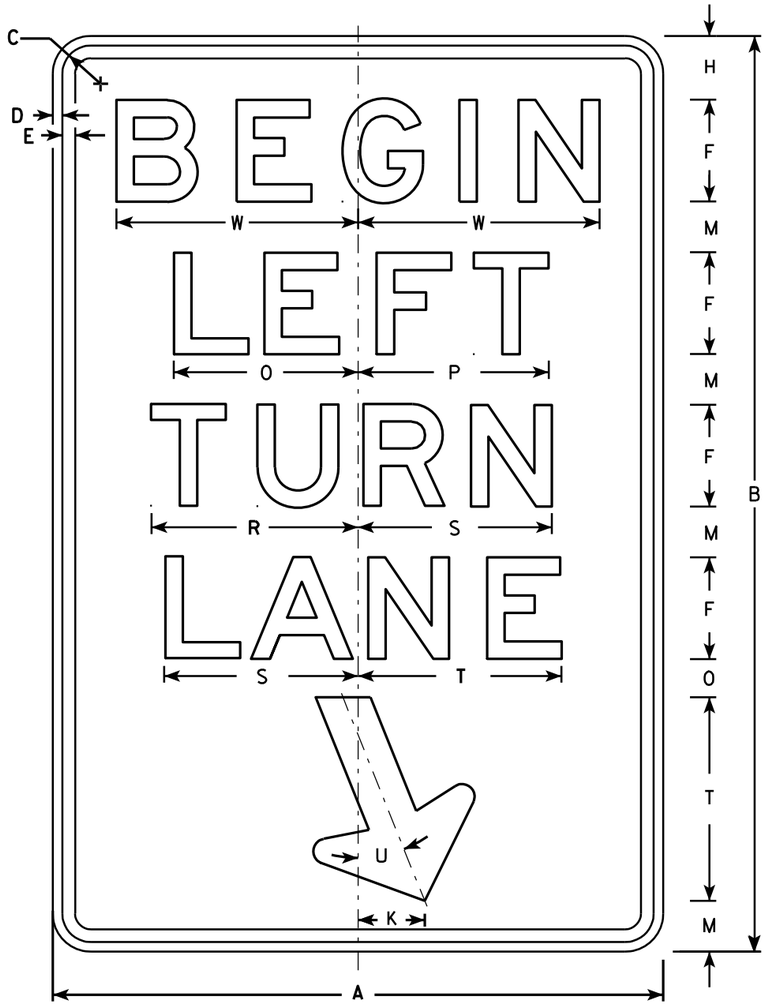
STANDARD SIGN
R3-9B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-9B.5

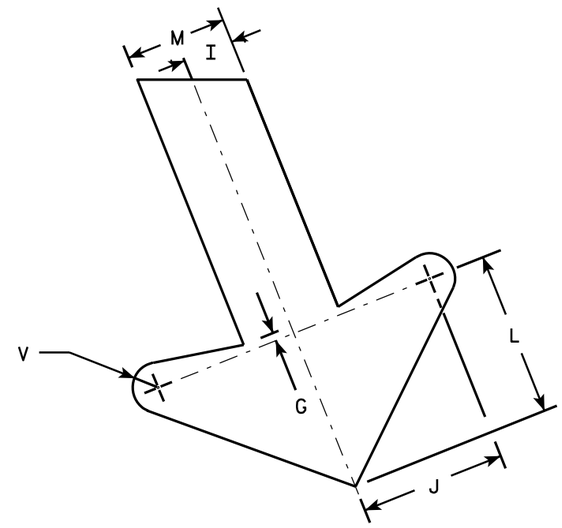
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 90 | E



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																											

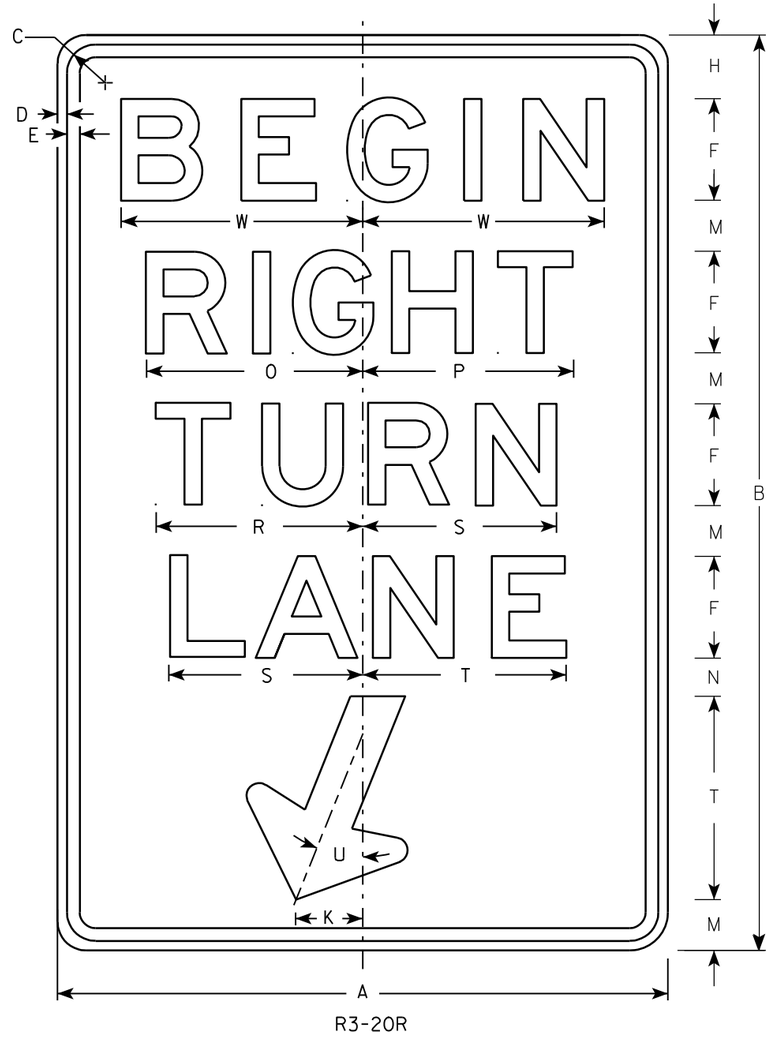
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

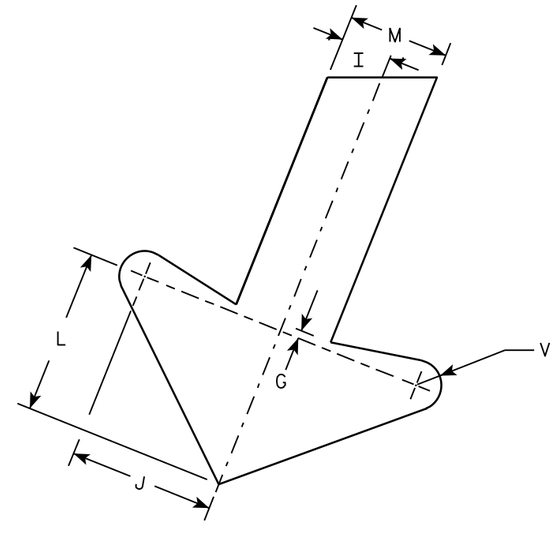
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 91 | E



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																											

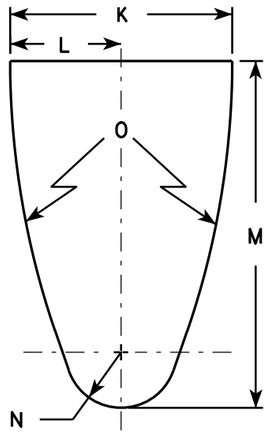
STANDARD SIGN
R3-20R

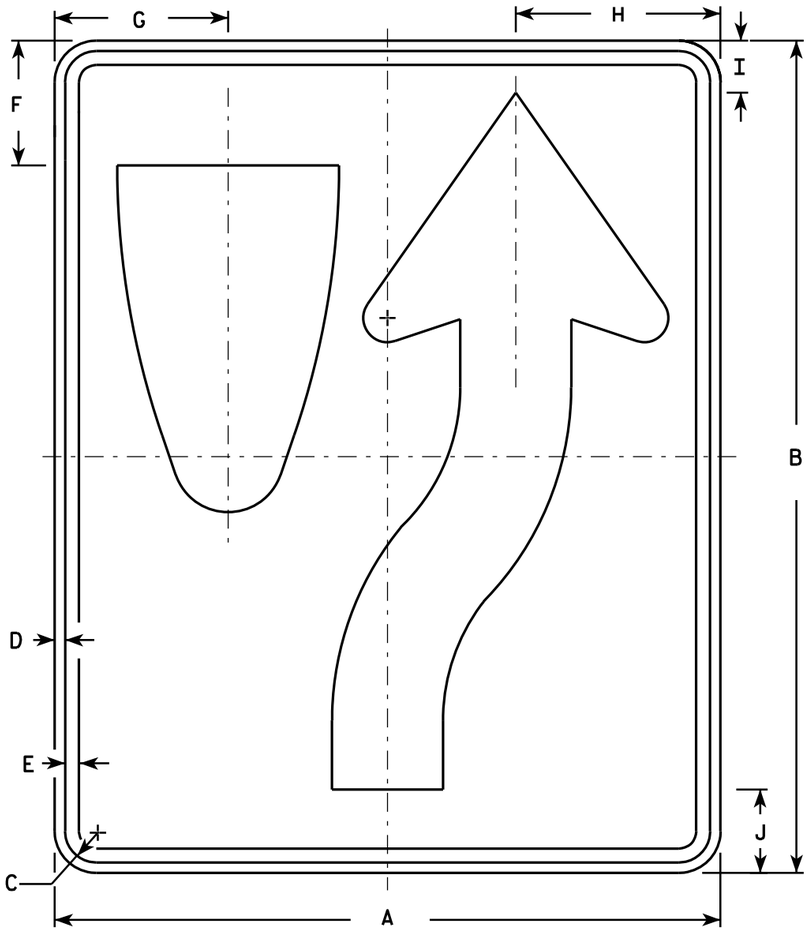
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 92 | E

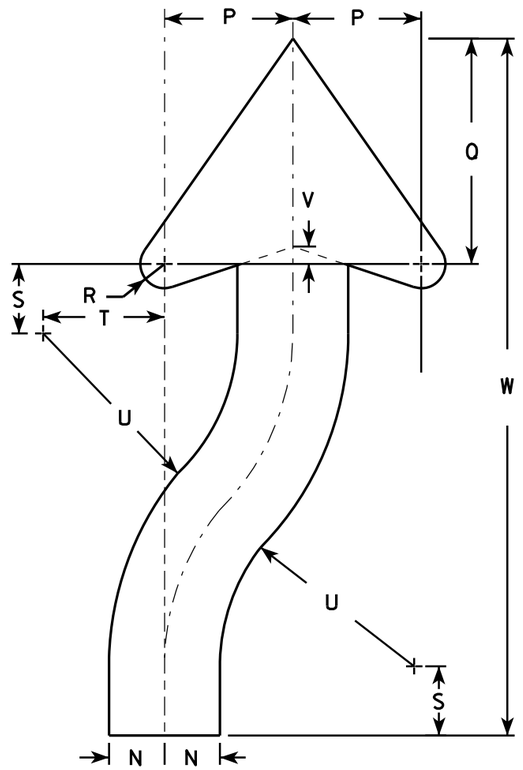




R4-7

NOTES

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



ARROW DETAIL

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

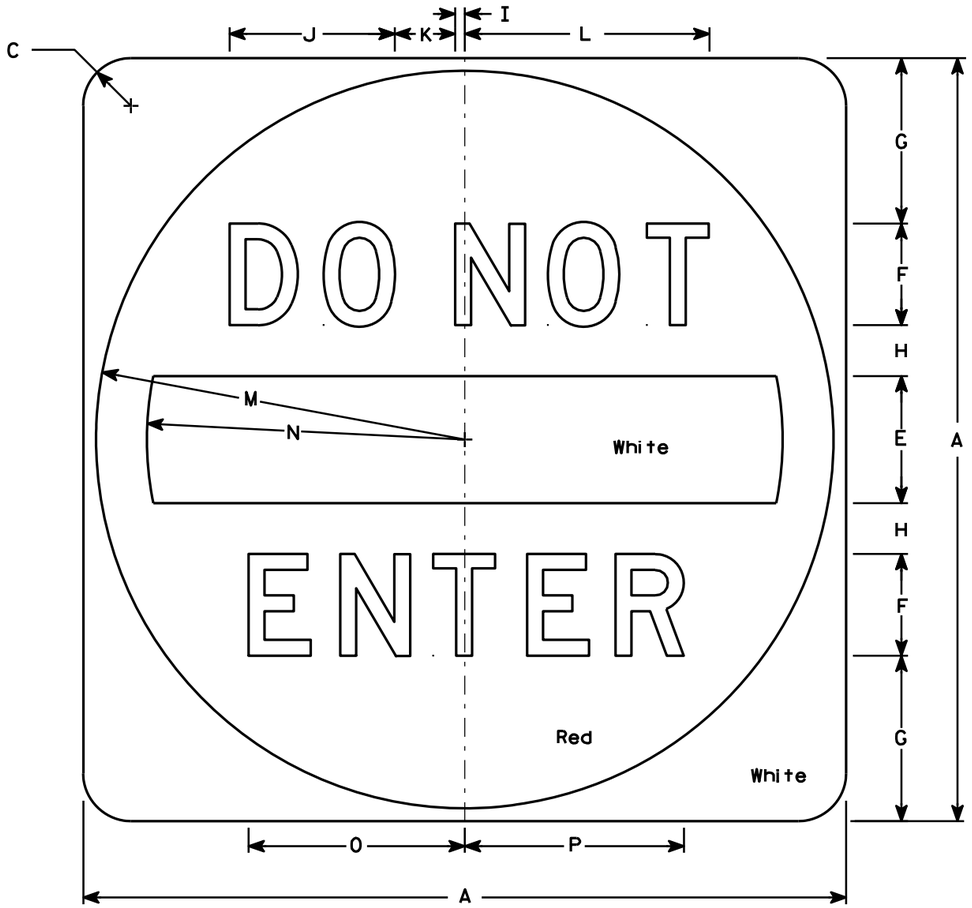
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 93	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

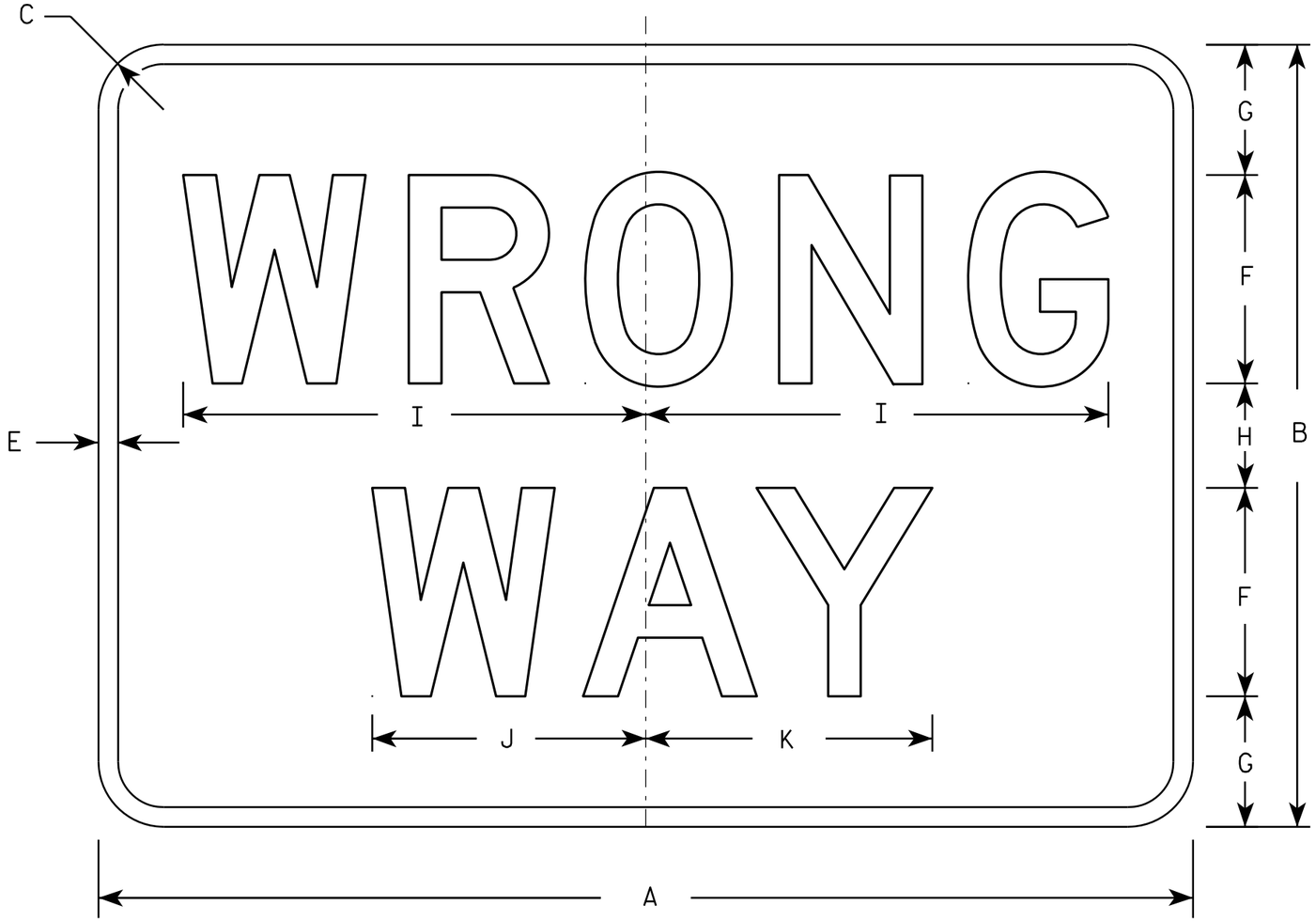
STANDARD SIGN
R5-1

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: 94 | E



R5-1A

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

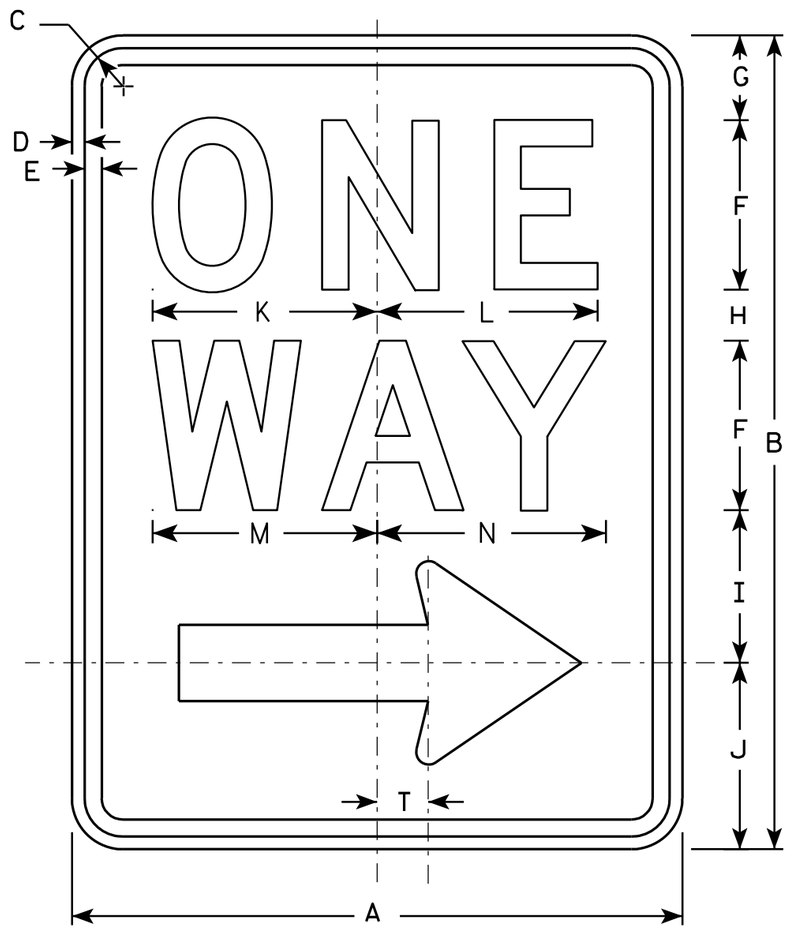
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

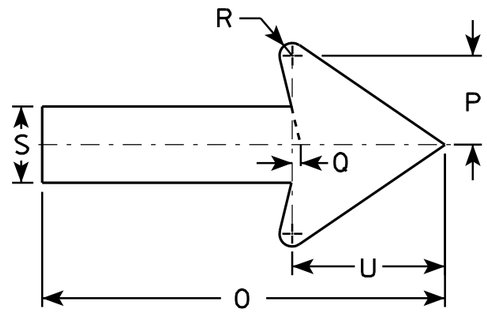
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 95	E



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																										

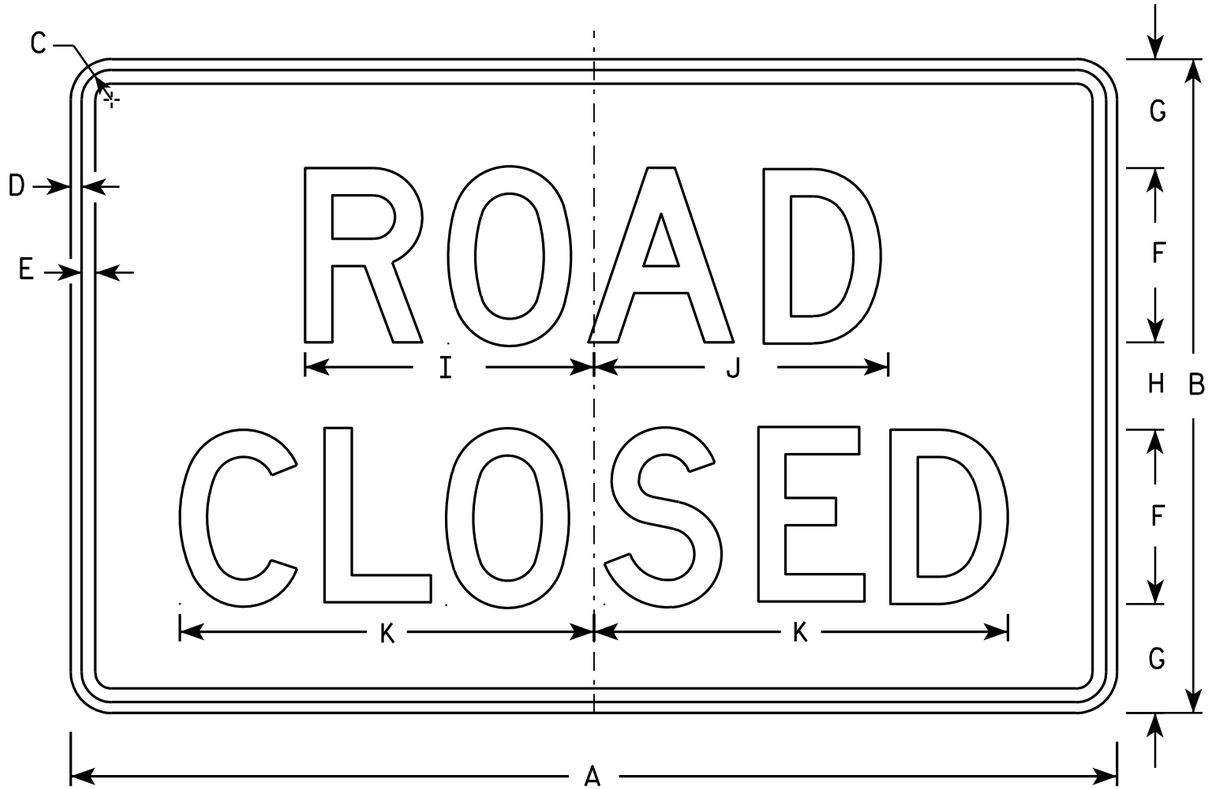
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

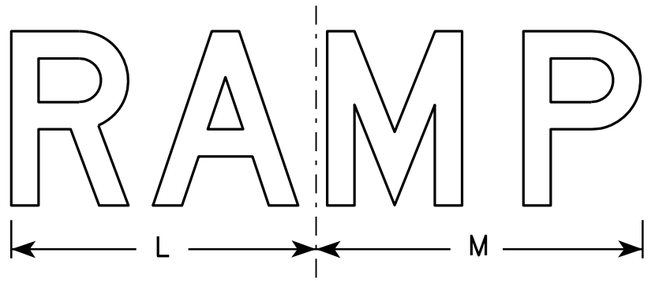
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 96	E



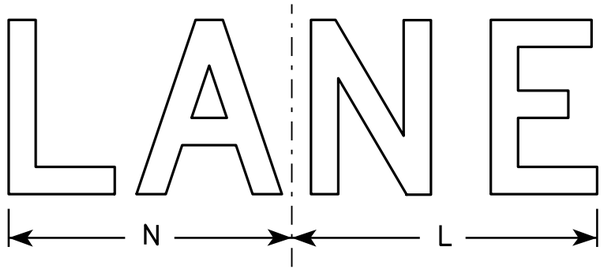
R11-2

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

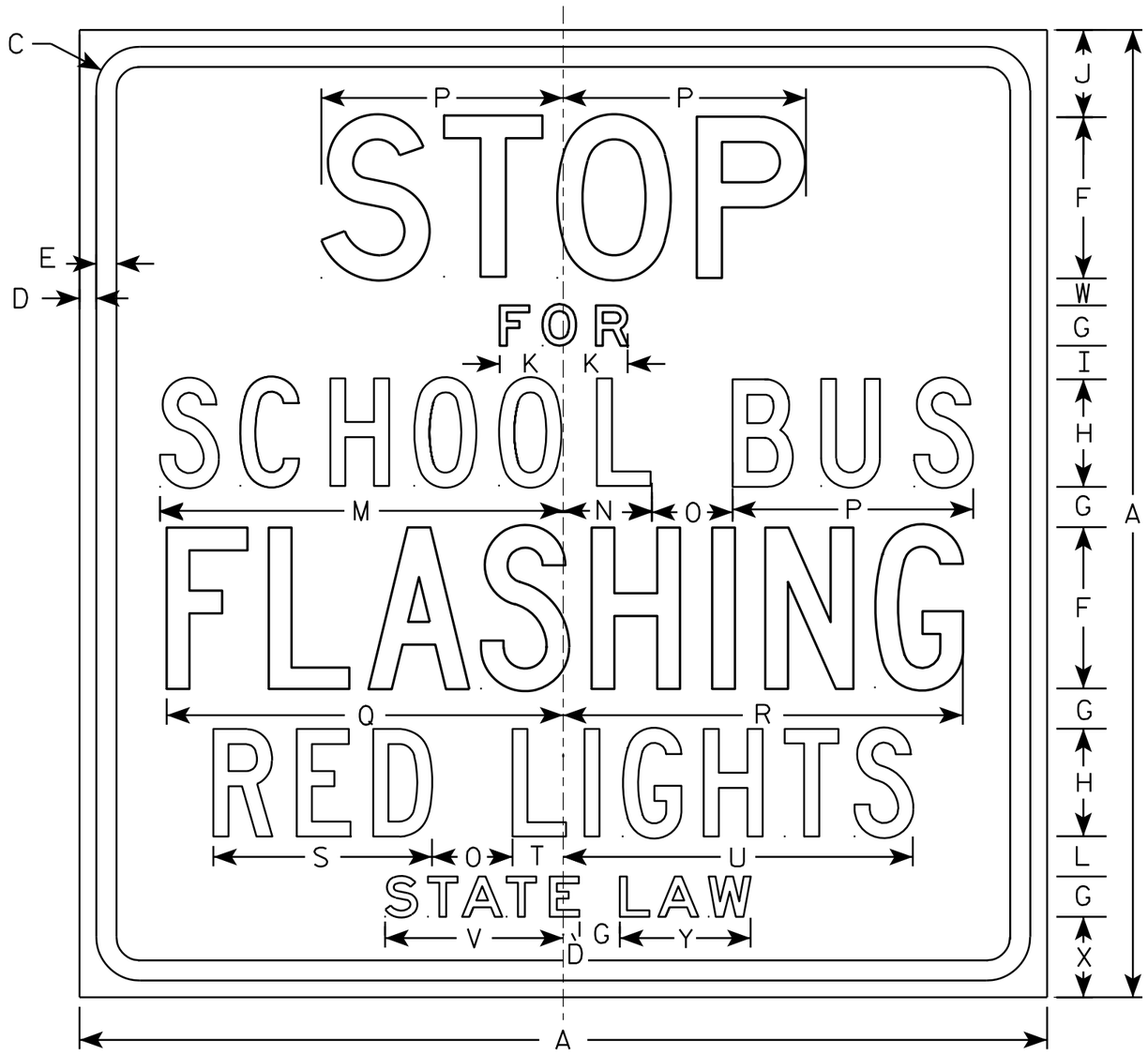
STANDARD SIGN
R11-2

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: 97	E



R59-51

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 D
   Lines 2 & 6 are Series E
   Line 3, 4 & 5 are Series C

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

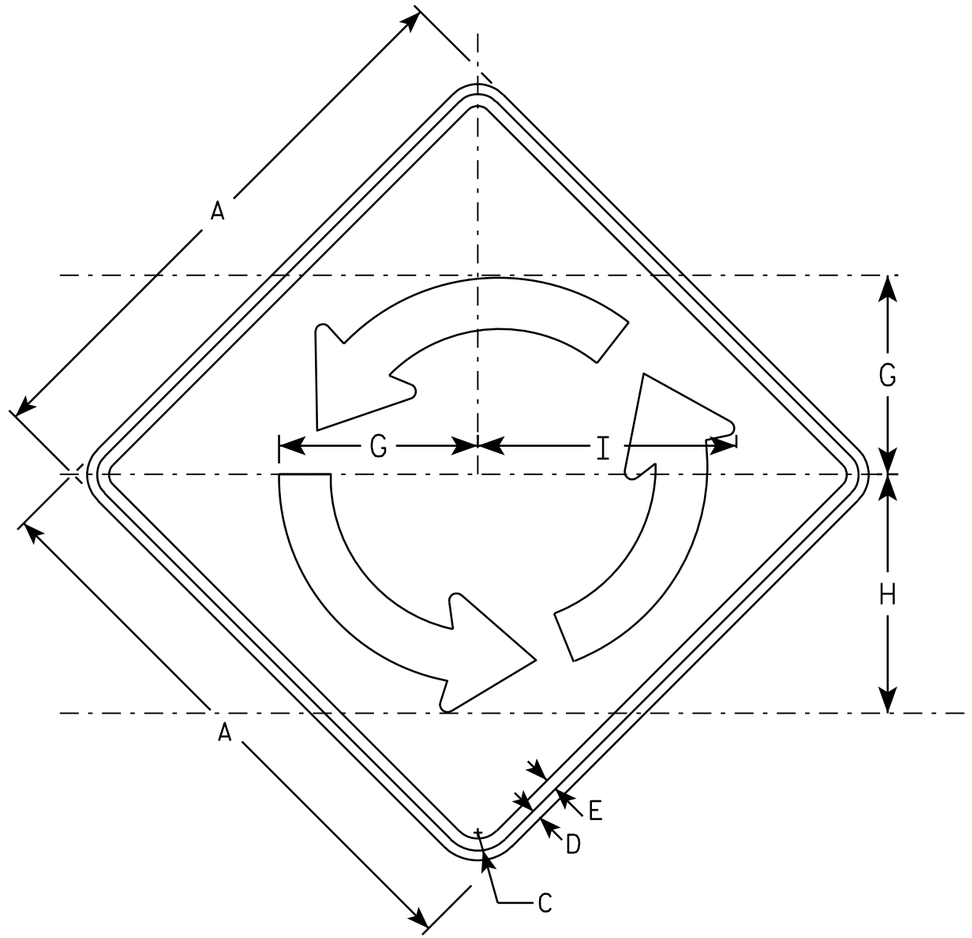
STANDARD SIGN
R59-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/30/11 PLATE NO. R59-51.10

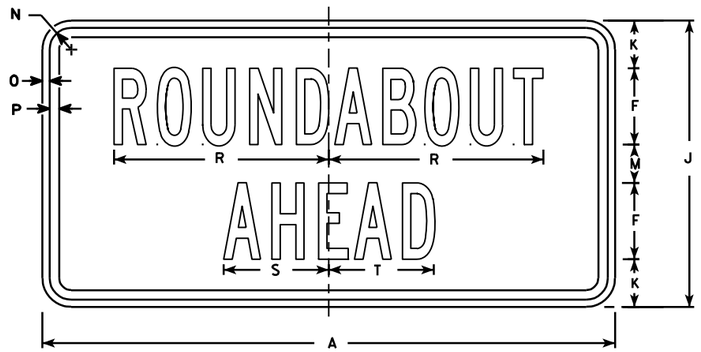
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 98 | E



W2-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. 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.



W2-6P

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	W2-6 Area sq. ft.	W2-6P Area sq. ft.
1																										
2S	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
2M	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
3	36		1 5/8	5/8	3/4	5	12 1/2	15	16 1/4	18	2 5/8		2 3/4	1 1/8	3/8	1/2		14	7	6 3/4					9.00	4.50
4	48		2 1/4	3/4	1	6	16 5/8	20	16 1/4	24	4 3/8		3 5/8	1 3/8	1/2	5/8		17	8 1/4	8 1/4					16.0	8.0
5																										

STANDARD SIGN
W2-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/29/12 PLATE NO. W2-6.5

PROJECT NO:

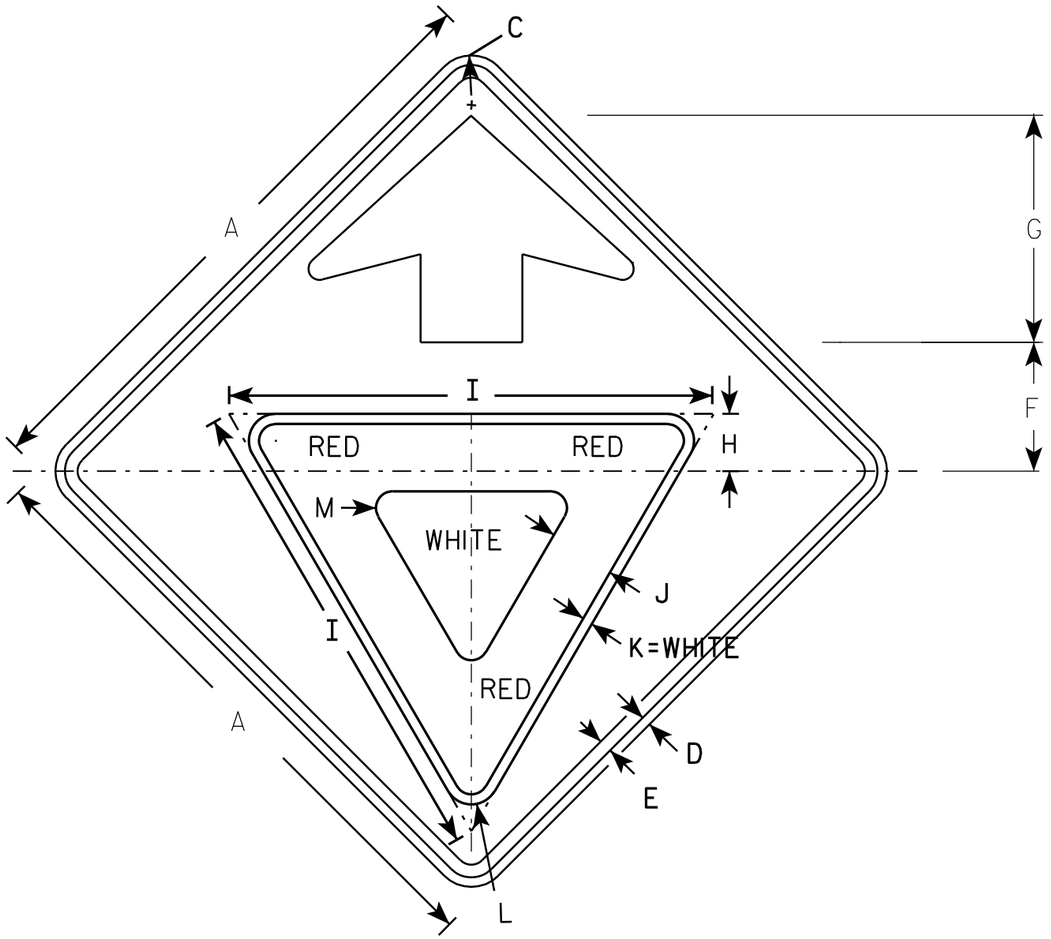
SHEET NO: 99 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W26.DGN PLOT DATE : 29-JUN-2012 10:15 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

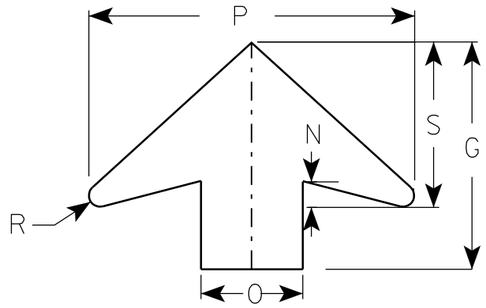
7



W3-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	3	25	3 3/8	1/2	1 3/8	7/8	1 1/4	5	16		1/2	8								6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W3-2

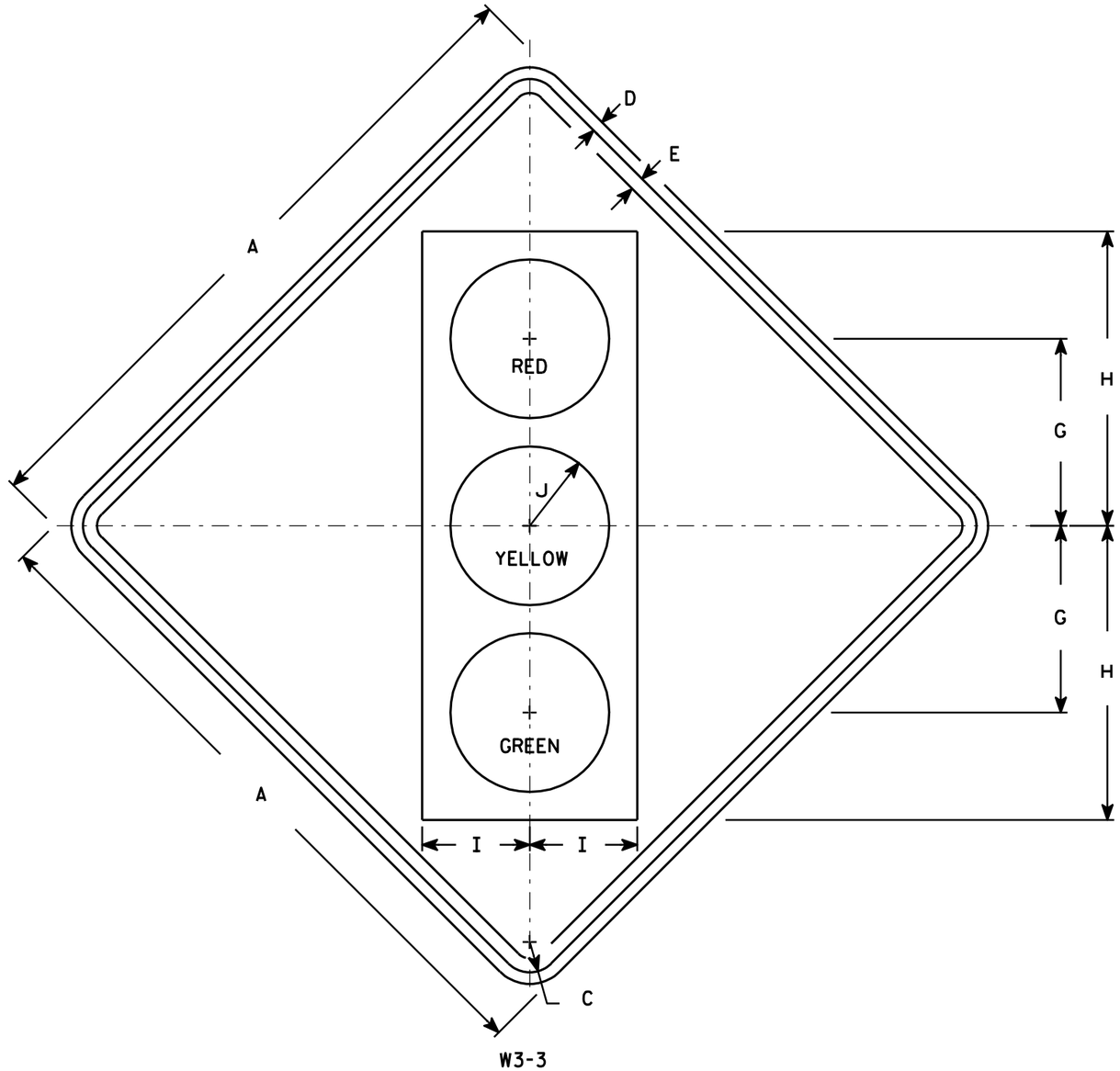
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-2..9

PROJECT NO:

SHEET NO: 100 E



NOTES

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

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

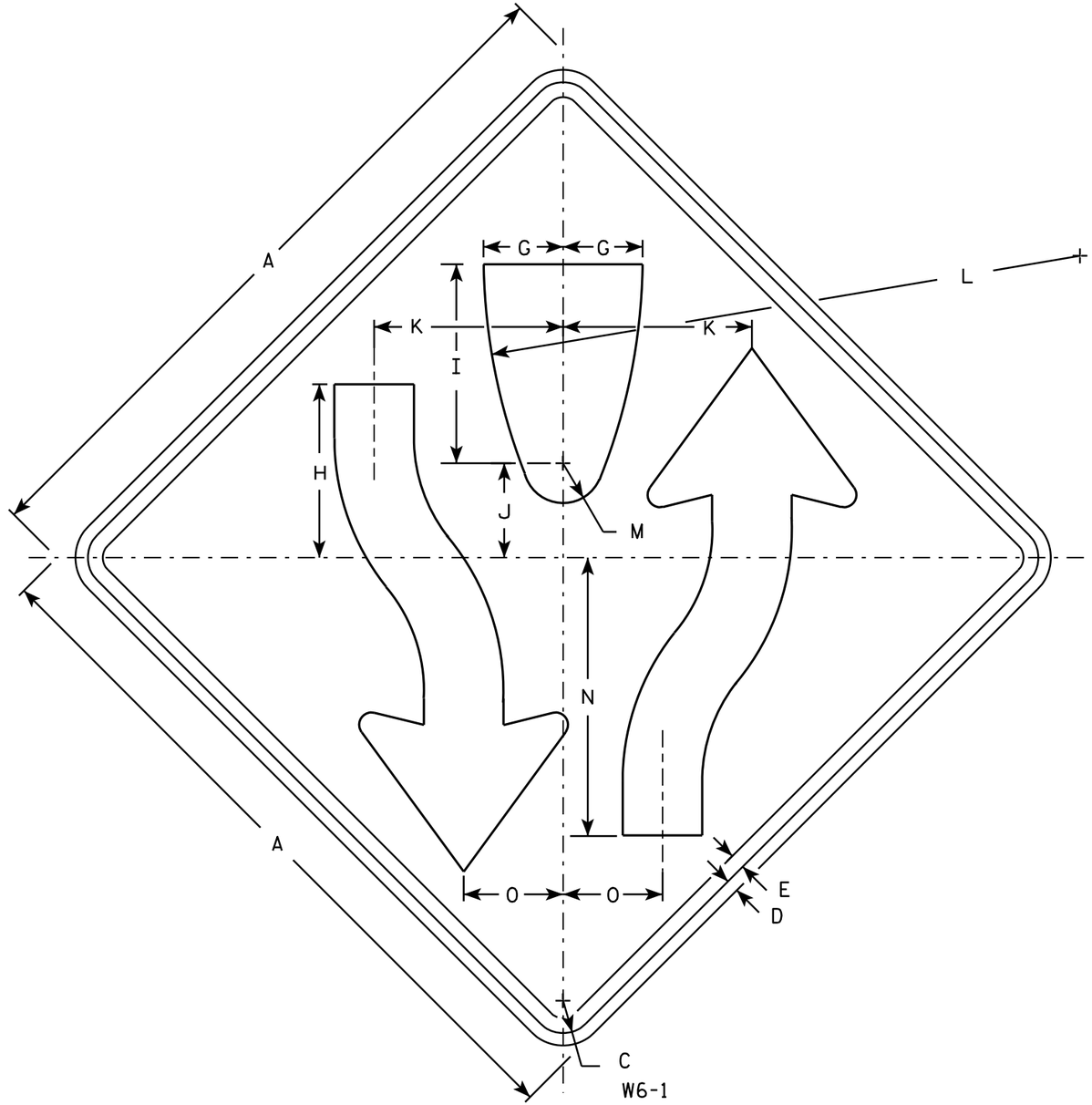
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

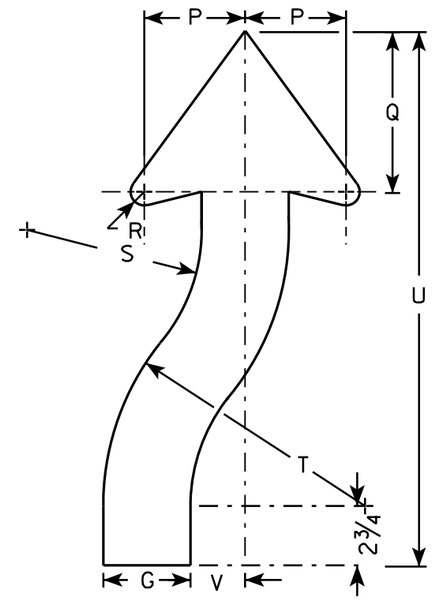
DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 101 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

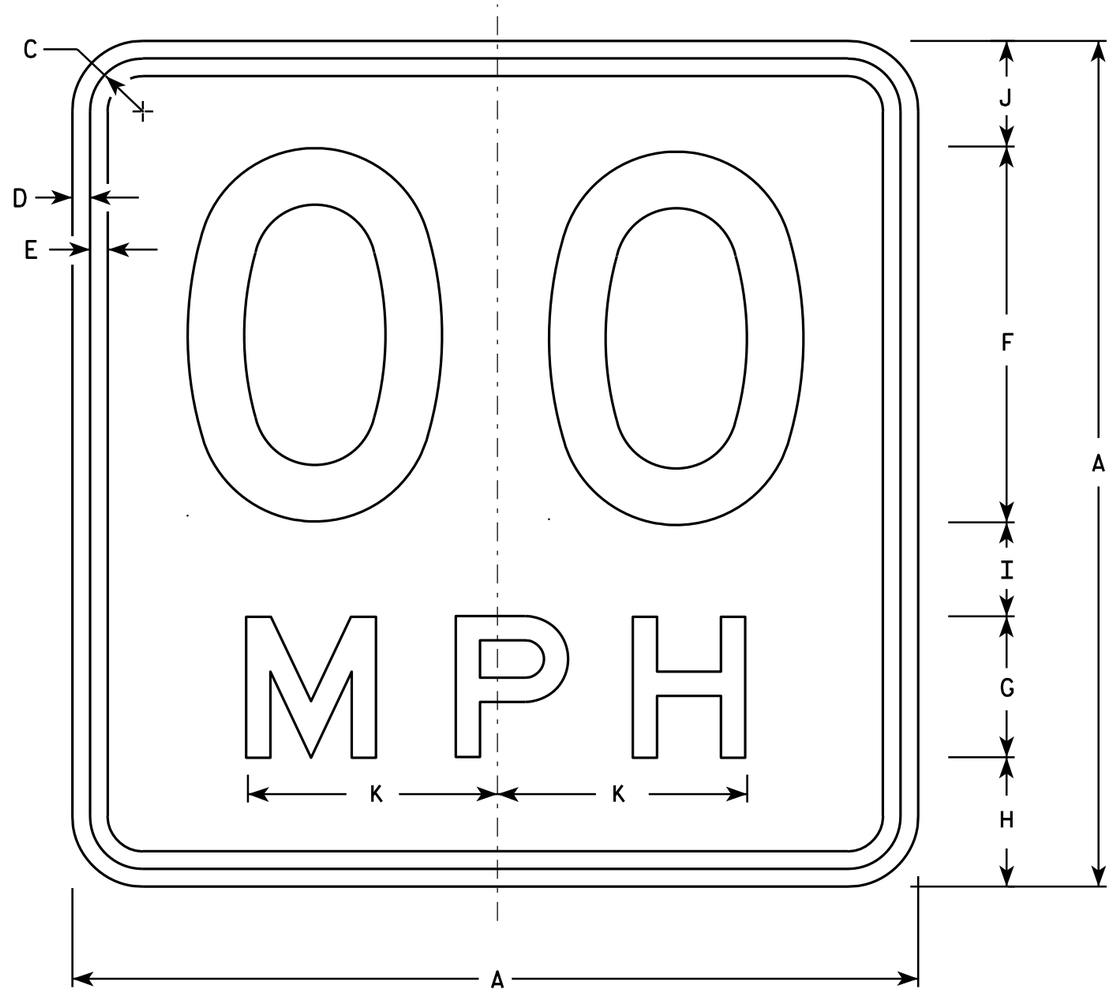
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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 - 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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is 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	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

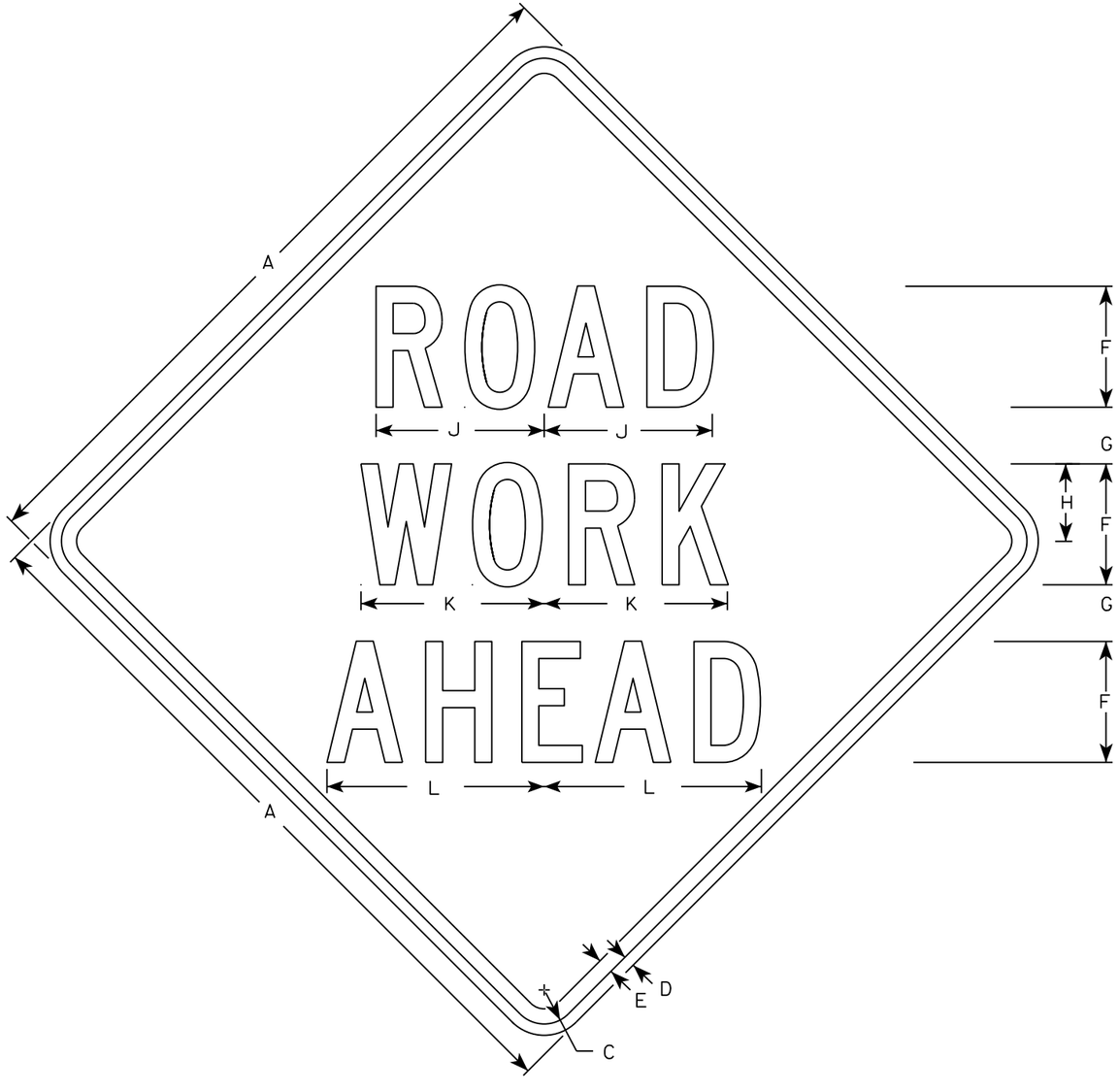
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

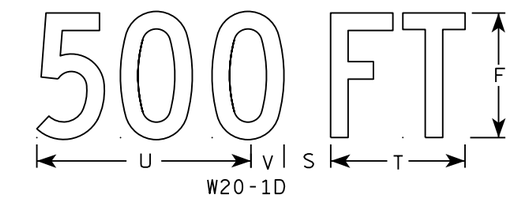
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

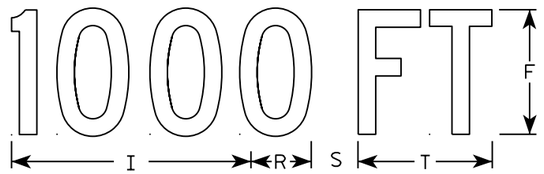
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 103 | E



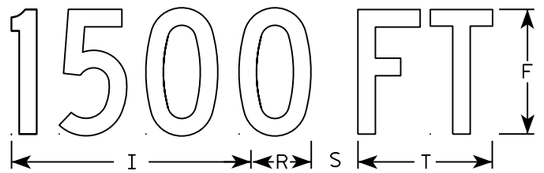
W20-1A



W20-1D

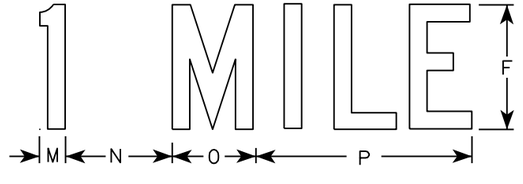


W20-1C

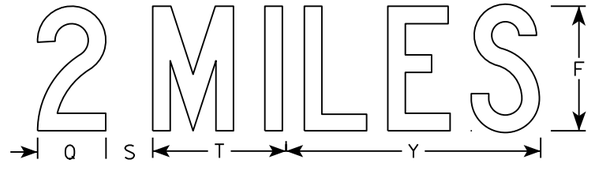


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

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

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

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

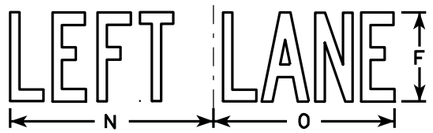
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

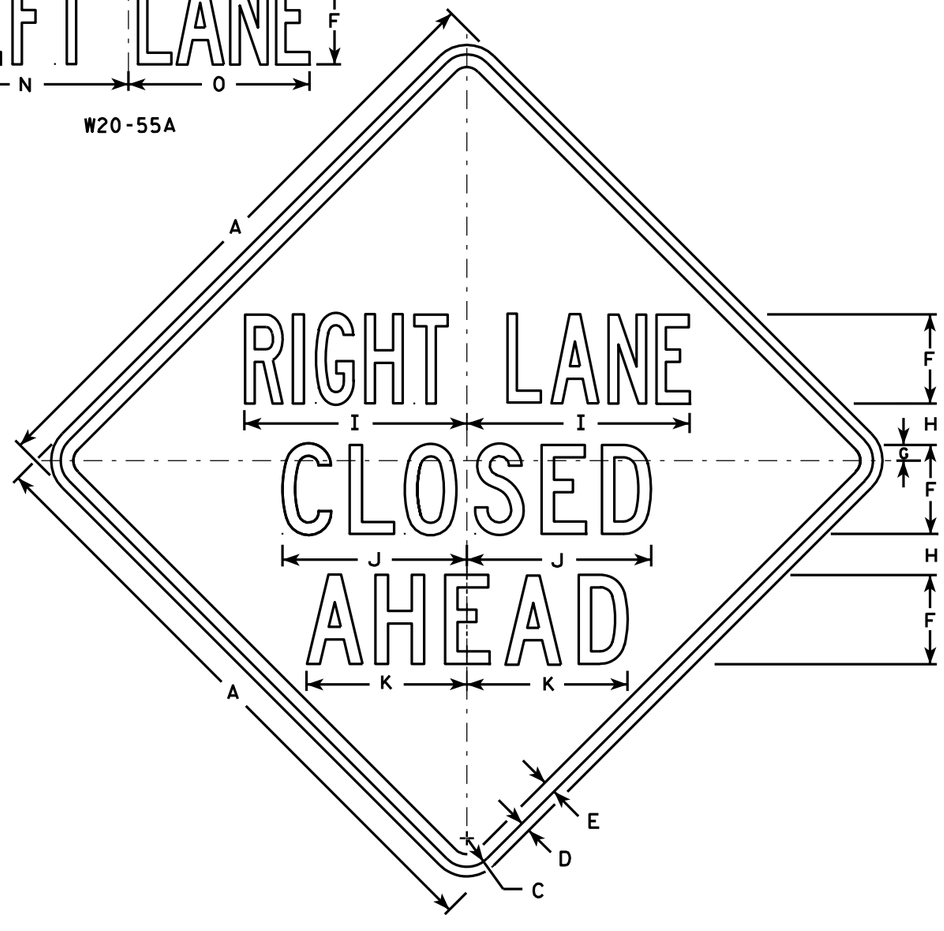
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$

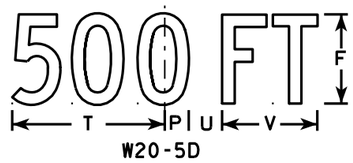
W20-56A



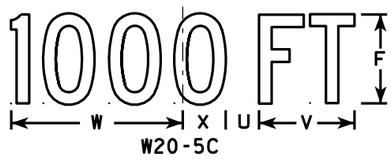
W20-55A



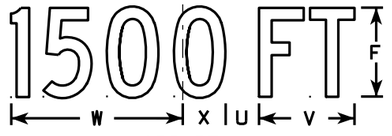
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

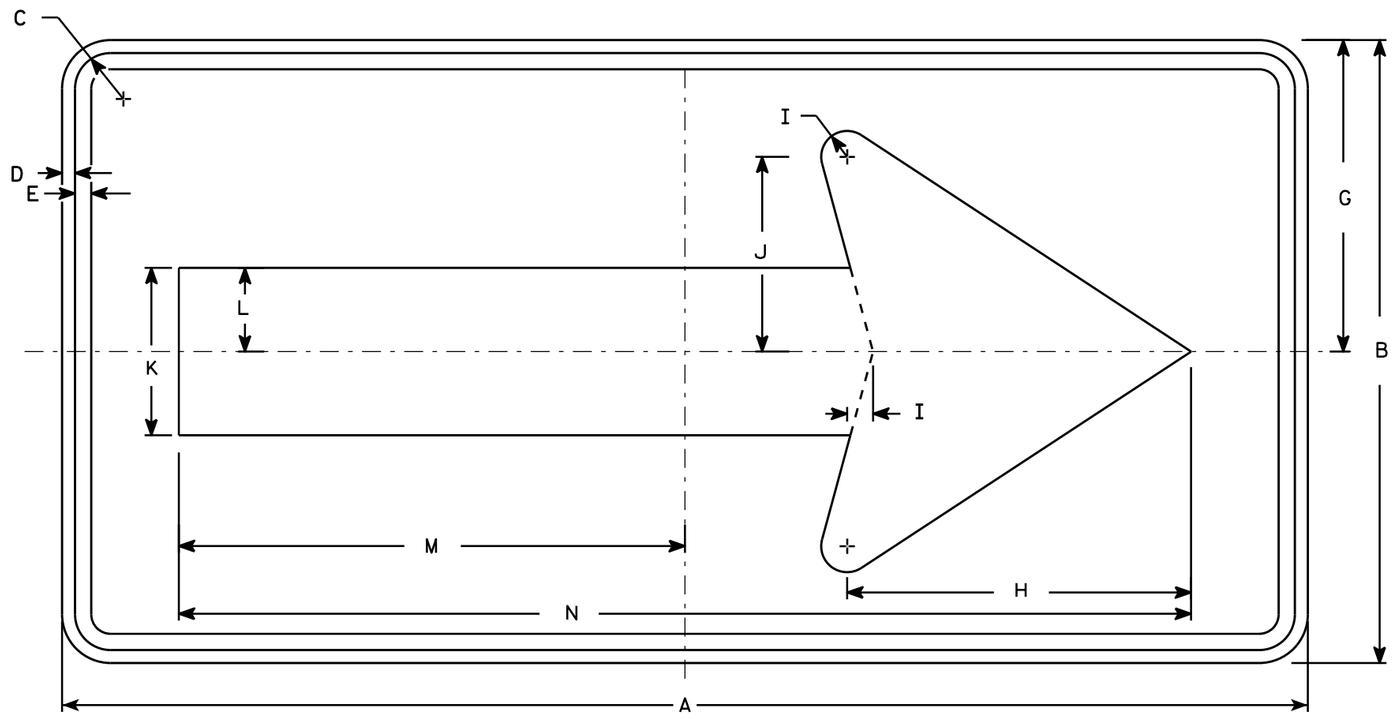
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 105 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
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

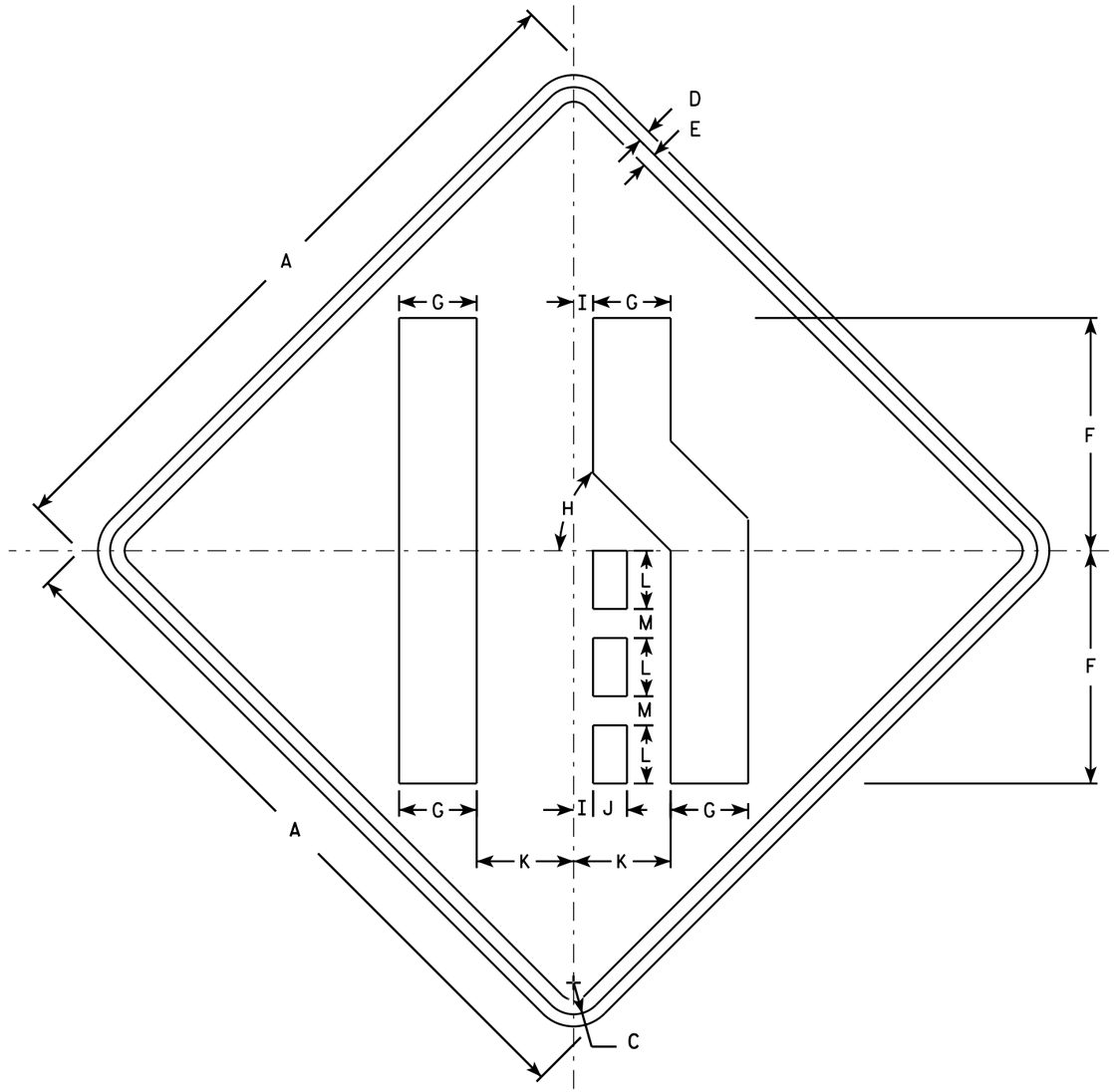
WISCONSIN DEPT OF TRANSPORTATION

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 107 W04-2.1

PROJECT NO: | SHEET NO: E

Wisconsin Department of Transportation

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