RHI

MAY 2024

PROJECT ID: 1058-23-72

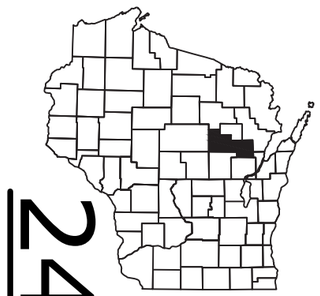
WITH: N/A

COUNTY: SHAWANO

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
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 = 264



24

N

			STH 29	CTH MMM	CLARK DR
A.A.D.T.	2024	=	8,800	2,500	360
A.A.D.T.	2044	=	10,100	2,900	390
D.H.V.		=	--	--	--
D.D.		=	58/42	--	--
T.		=	26.6	--	--
DESIGN SPEED		=	70 MPH	50 MPH	50 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'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

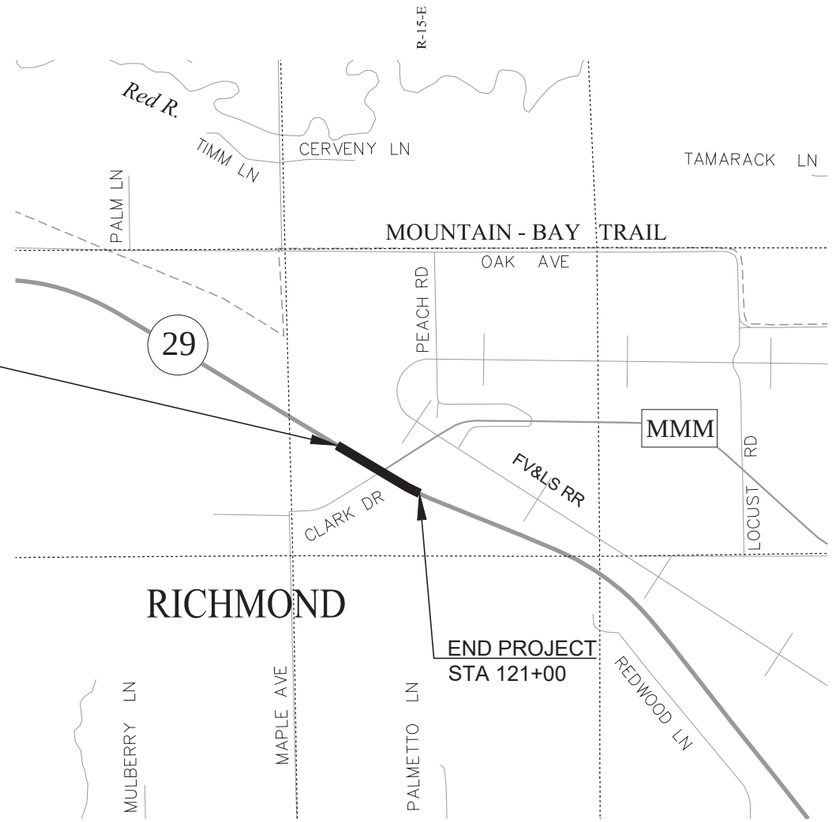
WITTENBERG - SHAWANO

CTH MMM / CLARK DRIVE INTERSECTION

STH 29

SHAWANO COUNTY

STATE PROJECT NUMBER
1058-23-72



BEGIN PROJECT
STA 101+00
Y=273,918.315
X=844,915.610

END PROJECT
STA 121+00

LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.379 MI

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

ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1058-23-72	WISC 2024332	1

emcs

500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099

WISCONSIN
STEPHANIE G. CHRISTENSEN
E-35808
WAUSAU, WI
PROFESSIONAL ENGINEER

11-29-2023 [Date] [Signature]

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	ANDREW CASPER
Regional Examiner	FRED SCHUNKE
Regional Supervisor	KAI KILEN

APPROVED FOR THE DEPARTMENT

DATE: 11/30/2023 Andrew Casper (Signature)

E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\010101-TI.DWG PLOT DATE : 10/9/2023 7:48 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

GENERAL NOTES

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

EB = EASTBOUND

WB = WESTBOUND

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 1059-45-73, CONSTRUCTION YEAR: 1997
PROJECT NO: 1059-15-77, CONSTRUCTION YEAR: 1999

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PAVING DETAILS
CURB RAMP DETAILS
EROSION CONTROL
STORM SEWER
PIPE UNDERDRAIN
PERMANENT SIGNING
LIGHTING PLAN
MARKING
TRAFFIC CONTROL

UTILITIES

COMMUNICATIONS

FRONTIER COMMUNICATIONS OF WI LLC
JERRY MOORE
2222 W WISCONSIN STREET
PORTAGE, WI 53901
PHONE: 608-742-9507
EMAIL: JERALD.R.MOORE@FTR.COM

ELECTRIC - DISTRIBUTION

ALLIANT ENERGY
SETH SCHOUNARD
708 NE 7TH STREET
MARION, WI 54950
PHONE: 715-754-4331
MOBILE: 715-903-0113
EMAIL: SETHSCHOUNARD@ALLIANTENERGY.COM

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 47.0 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 11.5 ACRES

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

OTHER CONTACTS

DNR LIAISON

JIM DOPERALSKI
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVE.
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSINGOV

LEGEND

LIMITS OF CONCRETE PAVEMENT REPAIR

NOTE
SEE TRAFFIC CONTROL PLANS FOR SHOULDER PAVING OUTSIDE OF THE PROPOSED INTERSECTION LIMITS.

TOWN OF RICHMOND

BEGIN SHOULDER PAVING
STA 94+70
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

BEGIN SHOULDER PAVING
STA 94+67
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

BEGIN SHOULDER PAVING
STA 499+59
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

BEGIN PROJECT
STA 101+00

BEGIN CONSTRUCTION
STA 8+40

END CONSTRUCTION
STA 39+30

END PROJECT
STA 121+00

END SHOULDER PAVING
STA 122+31
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

END SHOULDER PAVING
STA 527+33
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

END SHOULDER PAVING
STA 527+30
(SEE TRAFFIC CONTROL TYPICAL SECTIONS)

STH 29 WB

STH 29 EB

CTH MMM/BUS 29

CLARK DR

FV&LS RR

EX R/W

N

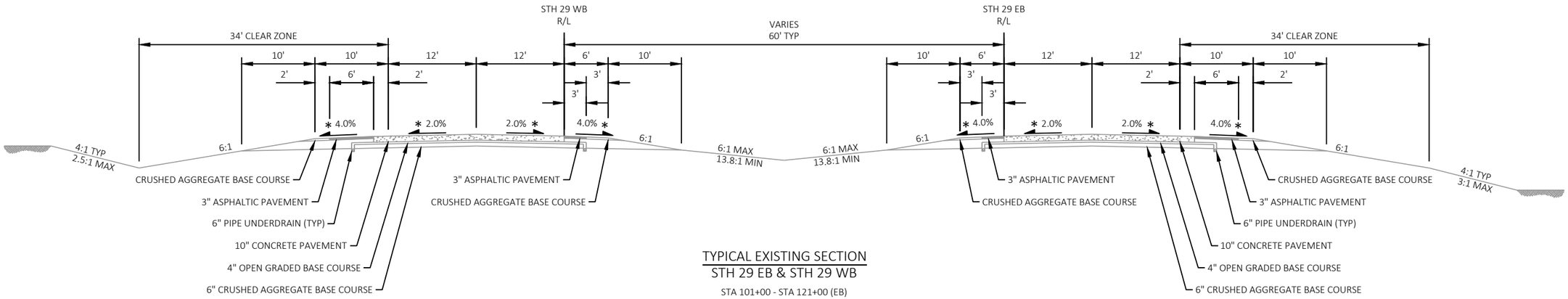
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01

PLOT DATE : 11/21/2023 11:02 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:200 FT

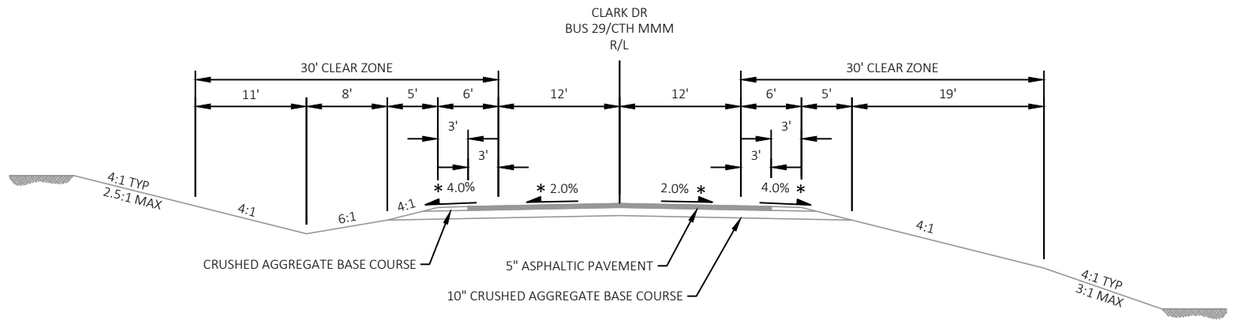
WISDOT/CADDS SHEET 44

2



TYPICAL EXISTING SECTION
STH 29 EB & STH 29 WB

STA 101+00 - STA 121+00 (EB)
STA 501+00 - STA 521+00 (WB)



TYPICAL EXISTING SECTION
CLARK DR

STA 8+40 - STA 19+73 **

TYPICAL EXISTING SECTION
CTH MMM/BUS 29

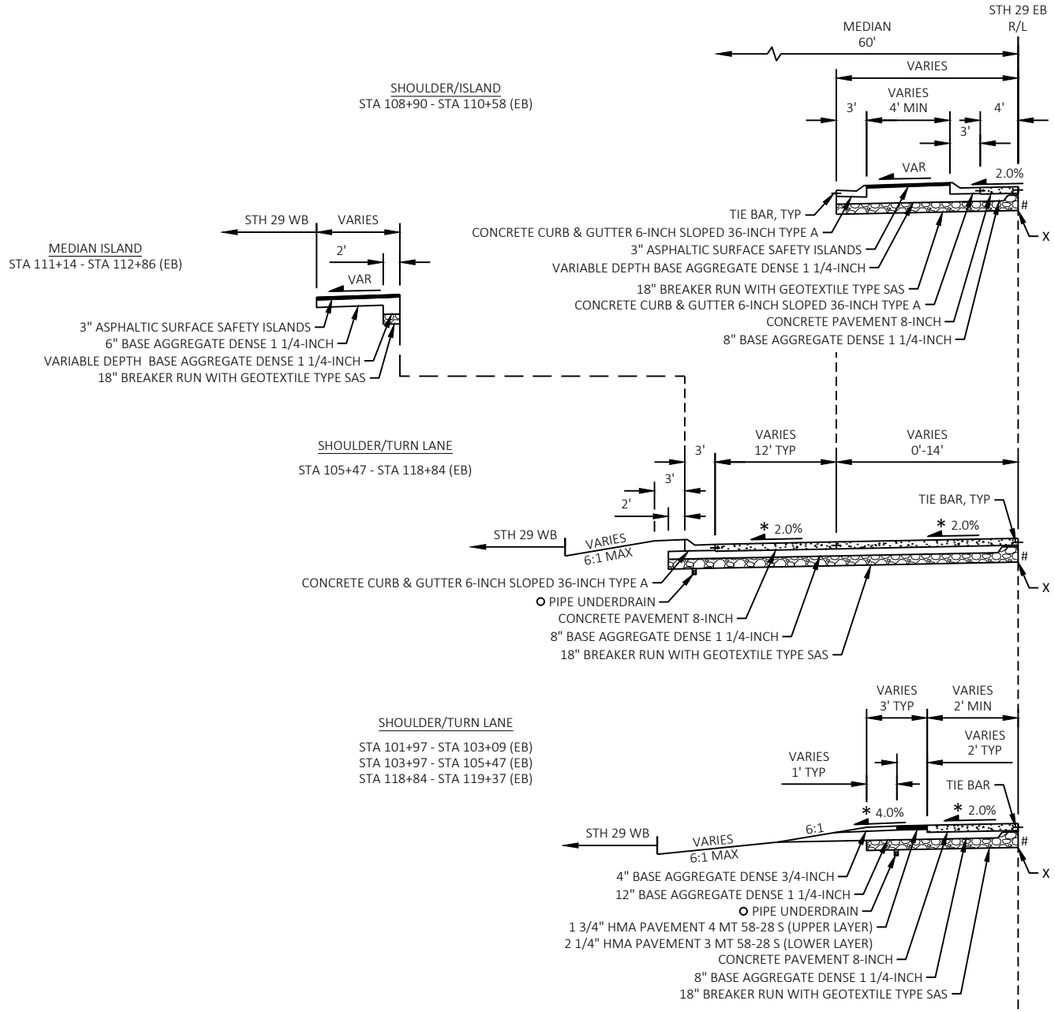
STA 30+26 - STA 39+30

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

** 6' SHOULDER IS ALL CRUSHED AGGREGATE BASE COURSE ON CLARK DR

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TYPICAL SECTIONS	SHEET 4	E



TYPICAL FINISHED SECTION
STH 29 EB

STA 101+00 - STA 121+00 (EB)

BREAKER RUN DETAIL
PROPOSED CONCRETE PAVEMENT

BREAKER RUN DETAIL
PROPOSED HMA PAVEMENT

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

X POINT REFERENCED ON CROSS SECTIONS.

O SEE PIPE UNDERDRAIN SHEETS FOR PIPE SIZE AND LAYOUT INFORMATION. SEE EDGEDRAIN AND BASE AGGREGATE OPEN GRADED DETAIL FOR ADDITIONAL INFORMATION

△ PAVEMENT SAFETY EDGE REQUIRED FOR PAVED SHOULDERS 3' OR LESS, SEE SDD "SAFETY EDGE"

(SR) ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY. SEE SDD "SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY" FOR ADDITIONAL INFORMATION. PLACE RIGHT SHOULDER RUMBLE STRIPS ON ASPHALTIC SHOULDER, 6" FROM EDGE OF CONCRETE PAVEMENT.

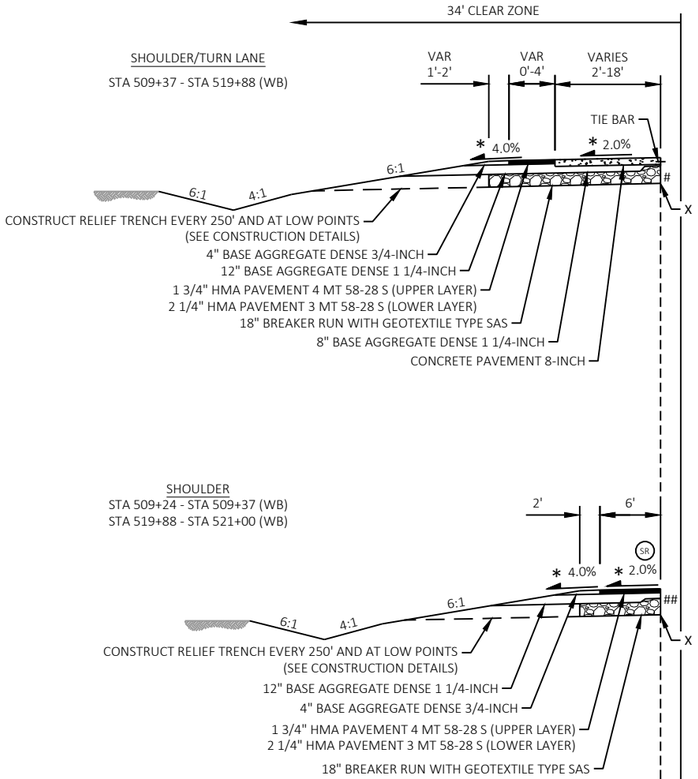
** SEE PAVING DETAILS FOR CONCRETE REPAIR AND REPLACEMENT AREAS AND UNPAVED MEDIAN AREAS.

SEE EROSION CONTROL SHEETS FOR TOPSOIL AND FINISHING INFORMATION.

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR ADDITIONAL SHOULDER WORK BEYOND THESE LIMITS.

SEE PAVING DETAILS FOR ADDITIONAL PAVEMENT WIDTH, INTERSECTION, AND TAPER LAYOUT INFORMATION.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TYPICAL SECTIONS	SHEET 5	E



TYPICAL FINISHED SECTION
STH 29 WB

STA 501+00 - STA 521+00 (WB)

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

X POINT REFERENCED ON CROSS SECTIONS.

O SEE PIPE UNDERDRAIN SHEETS FOR PIPE SIZE AND LAYOUT INFORMATION. SEE EDGEDRAIN AND BASE AGGREGATE OPEN GRADED DETAIL FOR ADDITIONAL INFORMATION

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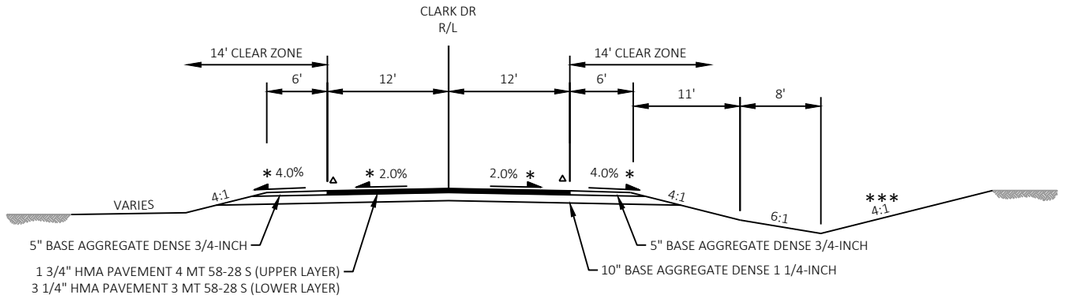
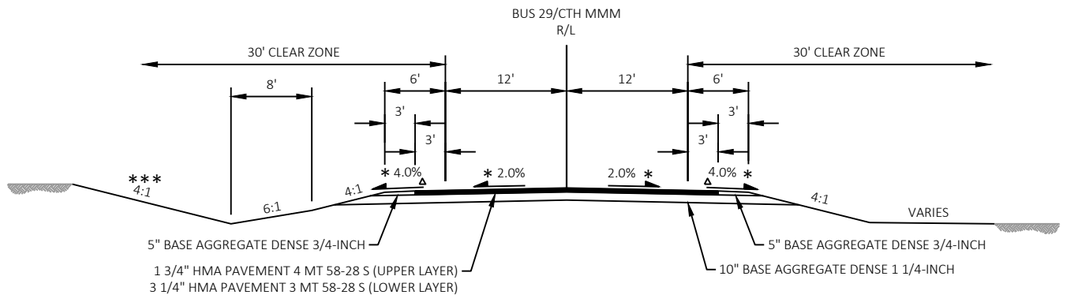
#/## SEE PREVIOUS PAGE FOR BREAKER RUN DETAIL

2



TYPICAL FINISHED SECTION
CLARK DR

STA 8+40 - STA 19+73 Ⓒ



TYPICAL FINISHED SECTION
CTH MMM/BUS 29

STA 30+26 - STA 39+30 Ⓒ

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION. SEE SECTION 5 PLANS FOR SUPERELEVATION INFORMATION.

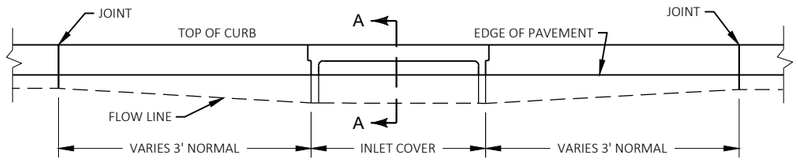
△ PAVEMENT SAFETY EDGE REQUIRED FOR PAVED SHOULDERS 3' OR LESS, SEE SDD "SAFETY EDGE"

*** DITCH BACKSLOPE VARIES, SEE CROSS SECTION AT STA 15+00 AND STA 32+00 FOR ADDITIONAL INFORMATION.

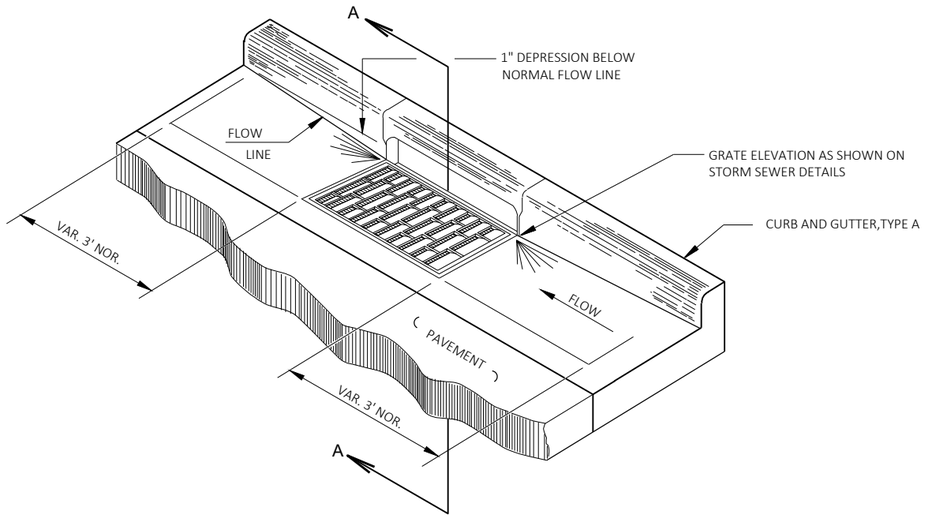
Ⓒ FROM STA 18+66 - STA 19+73 AND STA 30+26 - STA 31+10, THE PAVEMENT STRUCTURE IS AS FOLLOWS TO MATCH MAINLINE TURN LANES:
CONCRETE PAVEMENT 8-INCH
8" BASE AGGREGATE DENSE 1 1/4-INCH
18" BREAKER RUN WITH GEOTEXTILE TYPE SAS

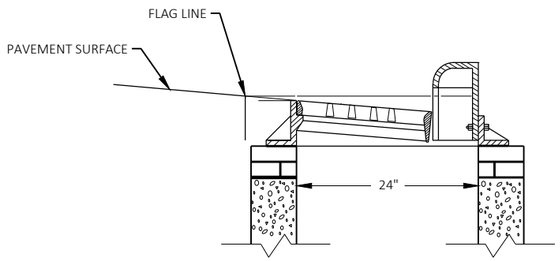
SEE PAVING DETAILS FOR ADDITIONAL INFORMATION.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TYPICAL SECTIONS	SHEET 7	E



ELEVATION

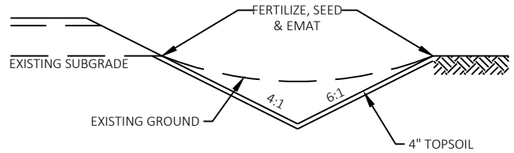




SECTION A-A

DETAIL OF CURB AND GUTTER AT INLETS

REPLACED SDD "CONCRETE CURB AND GUTTER" FOR "DETAIL OF CURB AND GUTTER AT INLETS"

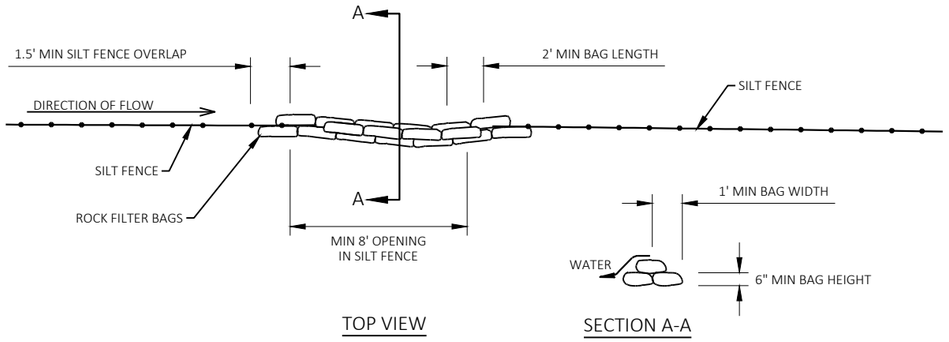


DITCH CLEANING DETAIL

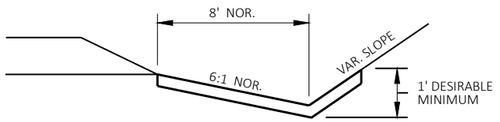
STA 120+90 - STA 121+49, RT
STA 506+75 - STA 509+42, LT

NOTE

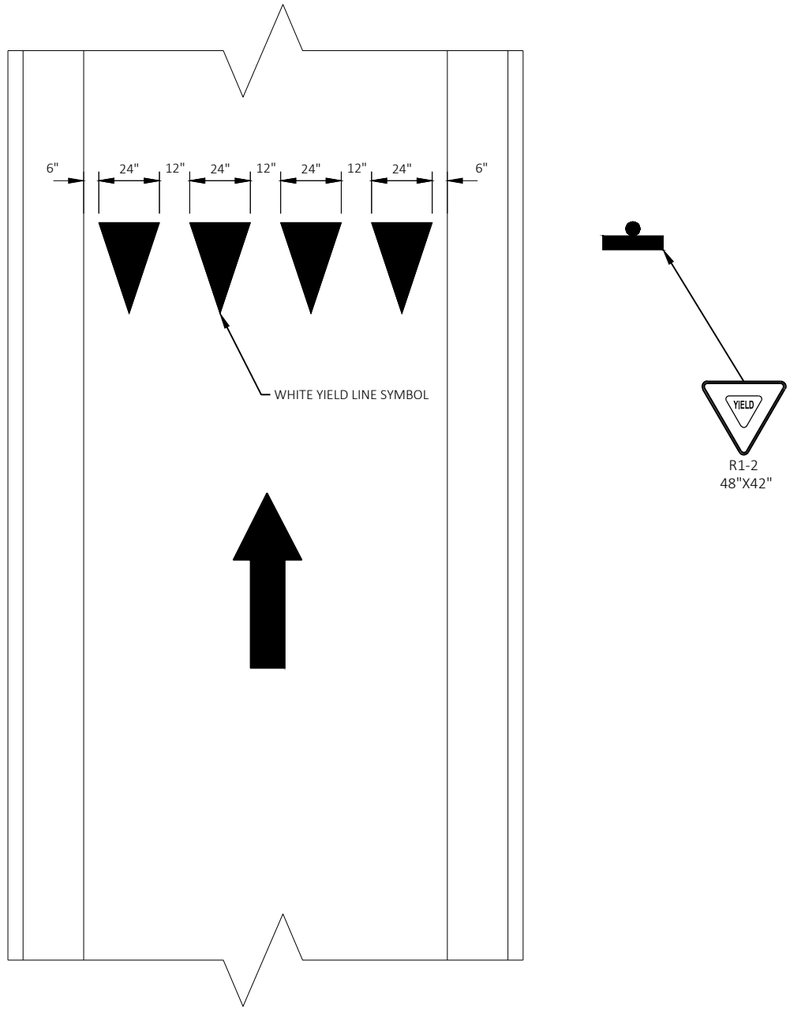
SEE SECTION 5 SHEETS FOR ADDITIONAL DRAINAGE WORK
THAT MAY BE OCCURRING NEAR DITCH CLEANING AREAS



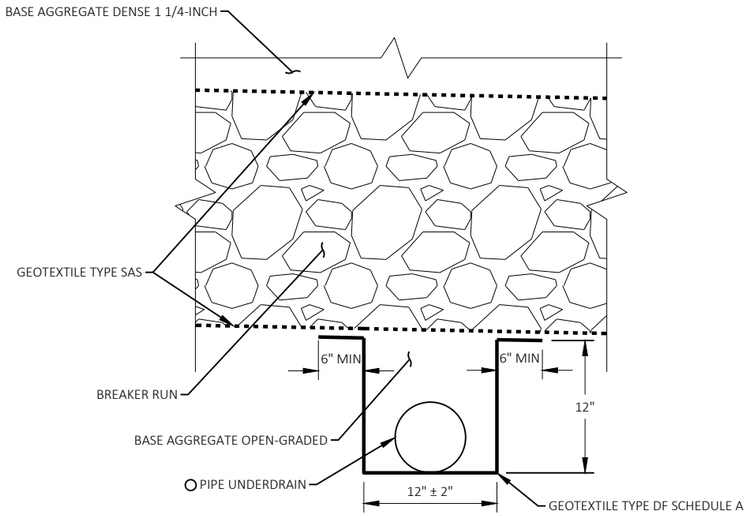
ROCK BAGS USED FOR SILT FENCE RELIEF



EROSION MAT DETAIL FOR DITCHES



MARKING YIELD LINE EPOXY 36-INCH



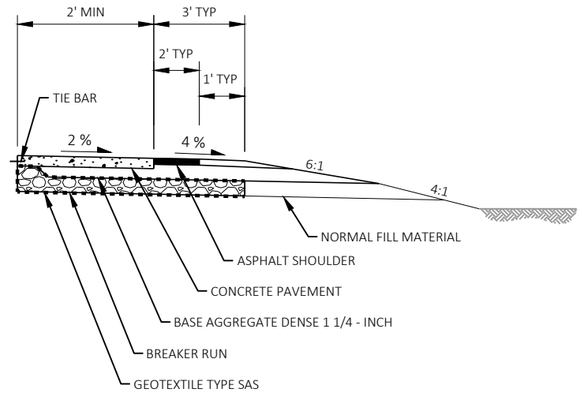
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

SEE PIPE UNDERDRAIN SHEETS FOR LOCATIONS.

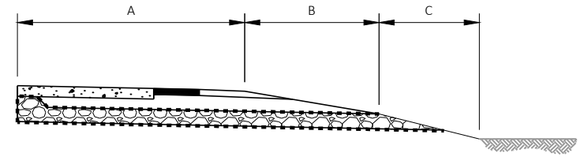
NOTES:

- SEE PIPE UNDERDRAIN SHEETS FOR PIPE SIZE INFORMATION.

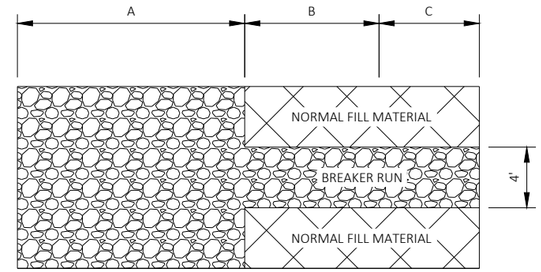
SEE SDD "EDGEDRAIN AND BASE AGGREGATE OPEN GRADED" FOR ADDITIONAL INFORMATION.



TYPICAL HALF SECTION WITHOUT RELIEF TRENCH



TYPICAL HALF SECTION WITH RELIEF TRENCH



RELIEF TRENCH PLAN VIEW

STA 102+00, RT	STA 513+50, LT
STA 104+50, RT	STA 516+00, LT
STA 107+00, RT	STA 518+50, LT
STA 109+50, RT	STA 520+75, LT&RT
STA 112+50, RT	STA 18+75, LT&RT (CLARK DR)
STA 120+50, LT	STA 31+00, LT&RT (CTH MMM)

NOTE:

SEE TYPICAL SECTIONS FOR MATERIAL DEPTHS.

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

LEGEND

- XXXXXXX SAWCUT
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
- C2 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
- F1 CONCRETE SURFACE DRAINS
- N1 CONCRETE MEDIAN SLOPED NOSE
- P1 CONCRETE PAVEMENT 8-INCH
- S1 CONCRETE SIDEWALK 5-INCH
- Y1 ASPHALTIC SURFACE SAFETY ISLANDS
- Y2 UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
- R1 CONCRETE PAVEMENT REPAIR
- R2 CONCRETE PAVEMENT REPLACEMENT
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- MANHOLE (SEE STORM SEWER SHEETS)
- INLET (SEE STORM SEWER SHEETS)

STH 29 WB

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

END CONSTRUCTION STA 501+00 SAWCUT REQ'D MATCH EXISTING

501+00 502+00 503+00

STA 502+64.31 O/S 0.23' RT

STA 502+64.31 O/S 2.00' RT

STA 502+27.19 O/S 3.00' RT

STA 502+27.19 O/S 8.00' RT

STA 502+82.95 O/S 12.00' RT

STA 502+50.81 O/S 29.79' RT

STA 502+36.41 O/S 43.73' RT

STA 102+38.28 O/S 9.74' LT

STA 102+40.89 O/S 14.01' LT

STA 102+47.95 O/S 6.38' LT

STA 102+84.48 O/S 2.00' LT

STA 102+92.93 O/S 3.00' LT

STA 103+09.48 O/S 2.00' LT

STA 103+09.48 O/S 0.18' LT

STA 101+29.89 O/S 2.89' LT

BEGIN PROJECT STA 101+00 SAWCUT REQ'D MATCH EXISTING

STA 101+96.61 O/S 0.15' LT

STA 102+40.61 O/S 8.00' LT

101+00 102+00 103+00

STA 102+82.95 O/S 2.00' RT

STA 103+37.63

STA 103+45.63

STH 29 EB

STA 101+79.38 O/S 25.52' RT

STA 101+85.28 O/S 28.00' RT

STA 102+25.76 O/S 45.00' RT

STA 102+75.76 O/S 45.00' RT

STA 101+79.38 O/S 28.00' RT

STA 101+89.64 O/S 32.00' RT

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 11	E

2

LEGEND

. XXXXXXX . SAWCUT

- C1 — CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
- C2 — CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
- F1 — CONCRETE SURFACE DRAINS
- N1 — CONCRETE MEDIAN SLOPED NOSE
- P1 — CONCRETE PAVEMENT 8-INCH
- S1 — CONCRETE SIDEWALK 5-INCH
- Y1 — ASPHALTIC SURFACE SAFETY ISLANDS
- Y2 — UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
- R1 — CONCRETE PAVEMENT REPAIR
- R2 — CONCRETE PAVEMENT REPLACEMENT
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- MANHOLE (SEE STORM SEWER SHEETS)
- INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

N

2

STH 29 WB

504+00 505+00 506+00

P1 2.0% STA 505+47.36 O/S 12.00' RT ELEV. 853.47 853.15 852.91

2' 1' STA 505+37.36 O/S 14.00' RT C1

Y2 C1

STA 103+97.48 O/S 0.19' LT STA 103+97.48 O/S 2.00' LT STA 104+09.90 O/S 3.00' LT STA 104+22.48 O/S 2.00' LT STA 105+37.39 O/S 13.20' LT

3' 3' 1' 2' 853.23 852.93 P1

STA 105+47.48 O/S 12.00' LT ELEV. 853.54 2.0%

104+00 105+00 106+00

STH 29 EB

STA 105+90.97 STA 105+96.97 XXXXX R1

STA 103+97.19 O/S 28.00' RT STA 104+15.06 O/S 25.50' RT STA 105+25.91 O/S 25.52' RT STA 105+50.91 O/S 28.00' RT

P1 6' 2' P1 1'

STA 104+15.06 O/S 28.00' RT

STA 103+83.04 O/S 32.00' RT STA 106+00.91 O/S 32.00' RT

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 12	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02

PLOT DATE : 11/28/2023 8:45 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT

LEGEND

. XXXXXXX . SAWCUT

C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

C2 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G

F1 CONCRETE SURFACE DRAINS

N1 CONCRETE MEDIAN SLOPED NOSE

P1 CONCRETE PAVEMENT 8-INCH

S1 CONCRETE SIDEWALK 5-INCH

Y1 ASPHALTIC SURFACE SAFETY ISLANDS

Y2 UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)

R1 CONCRETE PAVEMENT REPAIR

R2 CONCRETE PAVEMENT REPLACEMENT

HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)

SURFACE WATER FLOW

CURB RAMP DETECTABLE WARNING FIELD

MANHOLE (SEE STORM SEWER SHEETS)

INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

N

STH 29 WB

507+00 508+00 509+00

852.91 852.61 852.40 852.24 851.97 851.68 851.51

STA 509+23.61 O/S 25.64' LT

STA 509+36.94 O/S 25.71' LT

STA 509+36.94 O/S 28.00' LT

STA 109+17.44 O/S 45.00' LT

STA 109+17.44 O/S 29.80' LT

852.61 852.33 852.06 851.80 851.48 851.20

STA 108+90.48 O/S 13.72' LT ELEV. 851.78

851.72 851.44

STA 108+90.48 O/S 4.00' LT ELEV. 851.98

851.92 851.68

2.0%

12'

STH 29 EB

107+00 108+00 109+00

STA 107+56.13

STA 107+62.13

STA 107+32.26

STA 107+50.17

STA 108+97.49

STA 109+07.49

STA 106+79.25

STA 106+89.25

STA 108+84.76

STA 109+20.59

STA 106+75.91 O/S 38.00' RT

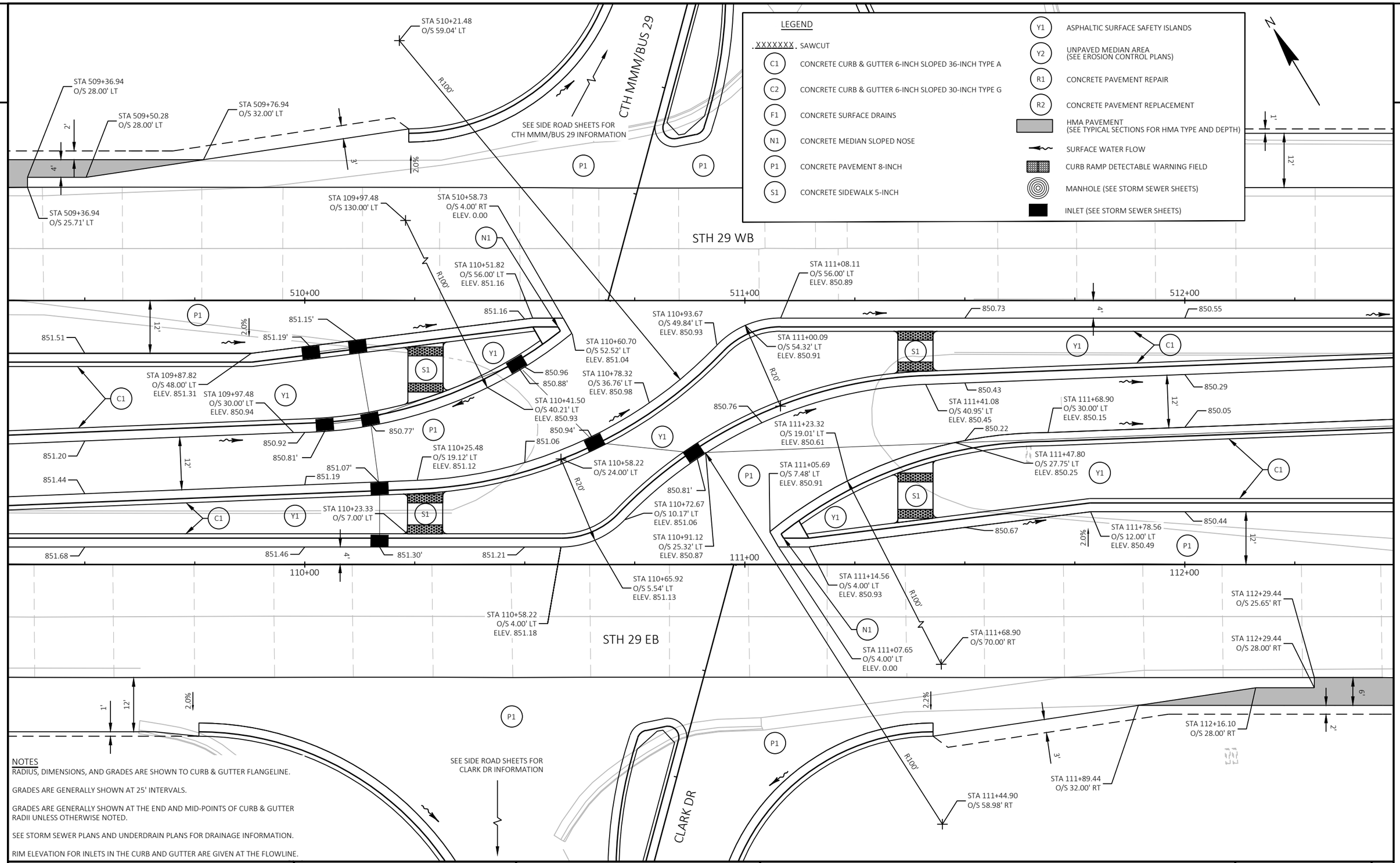
1'

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 13	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 03

PLOT DATE : 11/28/2023 8:45 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT

2



NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

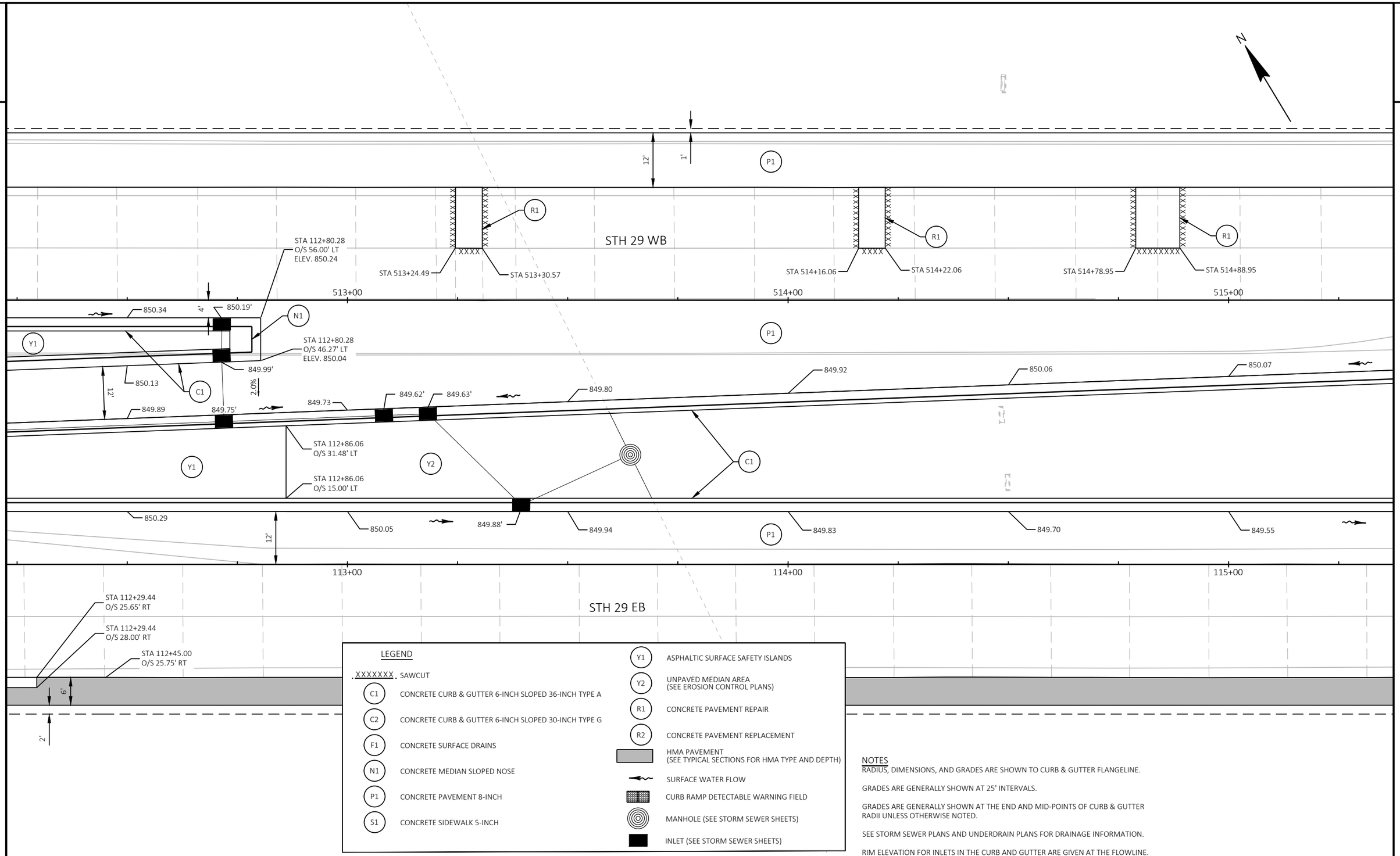
GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 14	E

2



LEGEND

XXXXXXX	SAWCUT
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
C2	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
F1	CONCRETE SURFACE DRAINS
N1	CONCRETE MEDIAN SLOPED NOSE
P1	CONCRETE PAVEMENT 8-INCH
S1	CONCRETE SIDEWALK 5-INCH
Y1	ASPHALTIC SURFACE SAFETY ISLANDS
Y2	UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
R1	CONCRETE PAVEMENT REPAIR
R2	CONCRETE PAVEMENT REPLACEMENT
	HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
	SURFACE WATER FLOW
	CURB RAMP DETECTABLE WARNING FIELD
	MANHOLE (SEE STORM SEWER SHEETS)
	INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 15	E

2

STA 516+21.66
O/S 38.00' LT

STA 516+96.66
O/S 32.00' LT

STA 517+46.65
O/S 28.01' LT

STA 517+81.65
O/S 32.00' LT

STA 518+00.22
O/S 25.65' LT

STA 517+68.16
O/S 28.00' LT

STA 516+55.03

STA 516+61.30

STH 29 WB

STA 117+72.92
O/S 60.03' LT

STA 115+52.51
O/S 44.66' LT
ELEV. 850.12

STA 116+20.14
O/S 48.00' LT
ELEV. 850.04

STA 116+26.32
O/S 48.49' LT
ELEV. 850.00

STA 116+32.49
O/S 48.97' LT
ELEV. 849.96

STA 117+47.47
O/S 58.00' LT

STA 117+72.92
O/S 58.00' LT

STA 117+60.28
O/S 57.00' LT

STA 115+52.42
O/S 12.00' LT
ELEV. 849.31

STA 115+70.27
O/S 12.00' LT
ELEV. 849.25

STH 29 EB

LEGEND

XXXXXXX SAWCUT

C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A

C2 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G

F1 CONCRETE SURFACE DRAINS

N1 CONCRETE MEDIAN SLOPED NOSE

P1 CONCRETE PAVEMENT 8-INCH

S1 CONCRETE SIDEWALK 5-INCH

Y1 ASPHALTIC SURFACE SAFETY ISLANDS

Y2 UNPAVED MEDIAN AREA
(SEE EROSION CONTROL PLANS)

R1 CONCRETE PAVEMENT REPAIR

R2 CONCRETE PAVEMENT REPLACEMENT

HMA PAVEMENT
(SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)

SURFACE WATER FLOW

CURB RAMP DETECTABLE WARNING FIELD

MANHOLE (SEE STORM SEWER SHEETS)

INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

GRADES ARE GENERALLY SHOWN AT THE END AND MID-POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

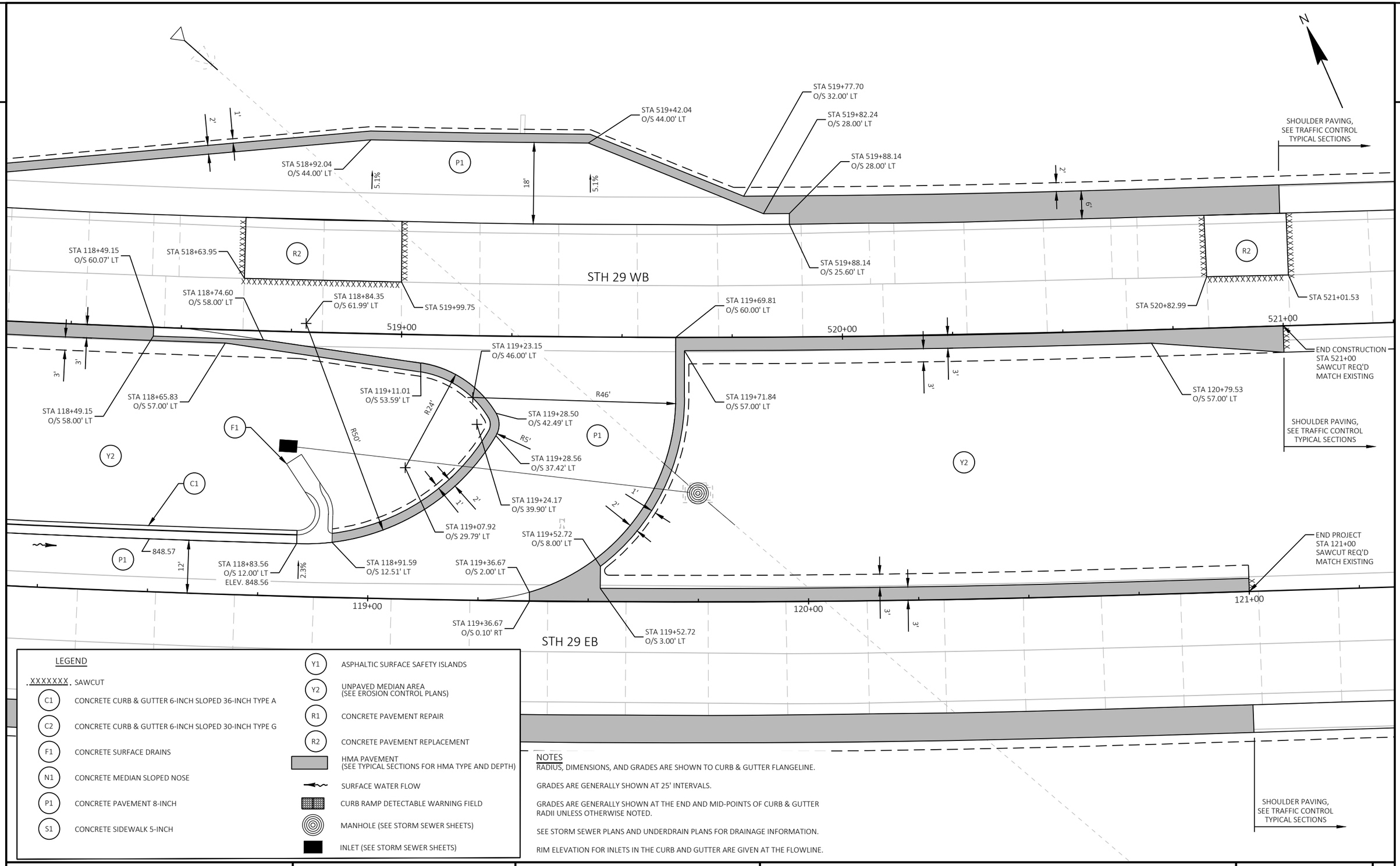
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 16	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 06

PLOT DATE : 11/28/2023 8:45 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2



LEGEND

XXXXXXX	SAWCUT
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
C2	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
F1	CONCRETE SURFACE DRAINS
N1	CONCRETE MEDIAN SLOPED NOSE
P1	CONCRETE PAVEMENT 8-INCH
S1	CONCRETE SIDEWALK 5-INCH
Y1	ASPHALTIC SURFACE SAFETY ISLANDS
Y2	UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
R1	CONCRETE PAVEMENT REPAIR
R2	CONCRETE PAVEMENT REPLACEMENT
	HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
	SURFACE WATER FLOW
	CURB RAMP DETECTABLE WARNING FIELD
	MANHOLE (SEE STORM SEWER SHEETS)
	INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

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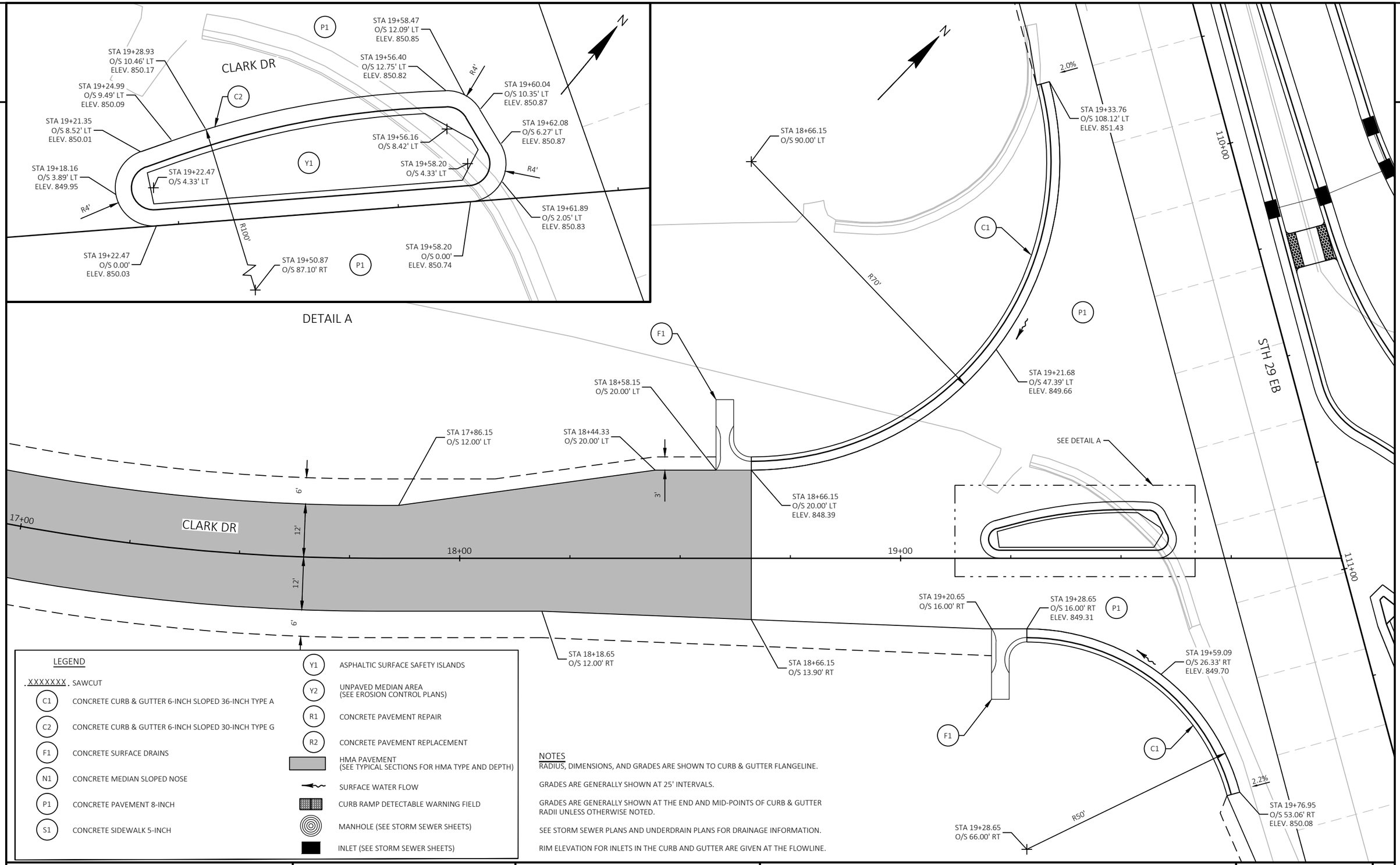
SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 17	E

2

DETAIL A



LEGEND

XXXXXXX SAWCUT	
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
C2	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
F1	CONCRETE SURFACE DRAINS
N1	CONCRETE MEDIAN SLOPED NOSE
P1	CONCRETE PAVEMENT 8-INCH
S1	CONCRETE SIDEWALK 5-INCH
Y1	ASPHALTIC SURFACE SAFETY ISLANDS
Y2	UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
R1	CONCRETE PAVEMENT REPAIR
R2	CONCRETE PAVEMENT REPLACEMENT
	HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
	SURFACE WATER FLOW
	CURB RAMP DETECTABLE WARNING FIELD
	MANHOLE (SEE STORM SEWER SHEETS)
	INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

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SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 18	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 08
PLOT DATE : 11/28/2023 8:45 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42

LEGEND

XXXXXXX	SAWCUT
C1	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
C2	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
F1	CONCRETE SURFACE DRAINS
N1	CONCRETE MEDIAN SLOPED NOSE
P1	CONCRETE PAVEMENT 8-INCH
S1	CONCRETE SIDEWALK 5-INCH
Y1	ASPHALTIC SURFACE SAFETY ISLANDS
Y2	UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
R1	CONCRETE PAVEMENT REPAIR
R2	CONCRETE PAVEMENT REPLACEMENT
	HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
	SURFACE WATER FLOW
	CURB RAMP DETECTABLE WARNING FIELD
	MANHOLE (SEE STORM SEWER SHEETS)
	INLET (SEE STORM SEWER SHEETS)

NOTES

RADIUS, DIMENSIONS, AND GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE.

GRADES ARE GENERALLY SHOWN AT 25' INTERVALS.

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SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.

510+00

STA 30+23.05
O/S 53.06' LT
ELEV. 850.70

2.0%

C1

STA 30+71.35
O/S 66.00' LT

R50'

F1

STA 30+40.91
O/S 26.33' LT
ELEV. 850.04

STA 30+79.35
O/S 16.00' LT
ELEV. 849.68

STA 31+06.35
O/S 15.00' LT

STA 31+09.67
O/S 15.00' LT

STA 32+18.61
O/S 15.00' LT

3'

15'

15'

P1

STA 30+71.35
O/S 16.00' LT
ELEV. 849.37

STA 30+81.35
O/S 16.00' LT

CTH MMM/BUS 29

31+00

32+00

STH 29 WB

511+00

SEE DETAIL B

STA 31+09.67
O/S 27.00' RT
ELEV. 848.42

STA 31+17.67
O/S 27.00' RT
ELEV. 848.81

STA 32+18.61
O/S 15.00' RT

STA 32+09.67
O/S 15.00' RT

3'

STA 31+29.67
O/S 27.00' RT

P1

STA 30+70.00
O/S 46.56' RT
ELEV. 849.20

C1

F1

R50'

STA 30+61.37
O/S 89.94' RT
ELEV. 0.00

2.0%

STA 31+09.67
O/S 77.00' RT

0.67

DETAIL B

STA 30+49.13
O/S 87.10' LT

P1

STA 30+38.12
O/S 2.05' RT
ELEV. 850.87

STA 30+41.80
O/S 0.00'
ELEV. 850.80

R100'

CTH MMM/BUS 29

STA 30+77.53
O/S 0.00'
ELEV. 850.08

31+00

R4'

STA 30+37.92
O/S 6.27' RT
ELEV. 850.86

STA 30+41.80
O/S 4.33' RT

STA 30+43.84
O/S 8.42' RT

STA 30+77.53
O/S 4.33' RT

Y1

STA 30+81.83
O/S 3.77' RT
ELEV. 849.92

R4'

STA 30+39.96
O/S 10.35' RT
ELEV. 850.82

STA 30+41.77
O/S 12.23' RT
ELEV. 850.78

R4'

STA 30+43.60
O/S 12.75' RT
ELEV. 850.74

STA 30+54.64
O/S 12.75' RT
ELEV. 850.46

C2

STA 30+78.65
O/S 8.52' RT
ELEV. 849.91

STA 30+75.01
O/S 9.49' RT
ELEV. 849.98

P1

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PAVING DETAILS	SHEET 19	E

MEDIAN-NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-01	110+23.47	52.46' LT	851.22	273486.95	845733.82
1-02	110+31.47	53.46' LT	851.21	273483.68	845741.20
1-03	110+22.34	49.33' LT	851.64	273484.85	845731.24
1-04	110+23.46	49.44' LT	851.15	273484.37	845732.26
1-05	110+31.46	50.45' LT	851.14	273481.11	845739.64
1-06	110+32.34	50.58' LT	851.62	273480.77	845740.45
1-07	110+23.46	47.44' LT	851.09	273482.66	845731.23
1-08	110+31.46	49.42' LT	851.12	273480.23	845739.10
1-09	110+31.46	47.42' LT	851.07	273478.52	845738.07
1-10	110+23.44	41.24' LT	850.90	273477.36	845728.01
1-11	110+31.44	41.21' LT	850.88	273473.21	845734.85
1-12	110+22.68	36.41' LT	851.28	273473.61	845724.87
1-13	110+23.43	39.24' LT	850.84	273475.65	845726.97
1-14	110+23.42	36.61' LT	850.80	273473.40	845725.61
1-15	110+31.43	39.21' LT	850.82	273471.50	845733.81
1-16	110+32.80	39.74' LT	851.32	273471.24	845735.25
1-17	110+23.41	33.42' LT	850.86	273470.67	845723.95
1-18	110+31.42	35.93' LT	850.89	273468.70	845732.11

MEDIAN-SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-19	110+23.36	19.04' LT	851.13	273458.37	845716.49
1-20	110+31.37	19.53' LT	851.11	273454.67	845723.60
1-21	110+22.31	15.99' LT	851.55	273456.31	845714.02
1-22	110+23.35	16.03' LT	851.06	273455.81	845714.94
1-23	110+25.60	16.12' LT	851.06	273454.73	845716.91
1-24	110+31.36	16.52' LT	851.04	273452.09	845722.04
1-25	110+32.25	16.61' LT	851.53	273451.71	845722.85
1-26	110+23.35	14.03' LT	851.14	273454.10	845713.90
1-27	110+31.35	16.03' LT	851.05	273451.68	845721.79
1-28	110+31.35	14.03' LT	851.12	273449.97	845720.76
1-29	110+22.33	7.00' LT	851.77	273448.60	845709.40
1-30	110+23.33	9.00' LT	851.21	273449.79	845711.29
1-31	110+23.33	7.00' LT	851.28	273448.08	845710.25
1-32	110+31.33	9.00' LT	851.17	273445.66	845718.15
1-33	110+31.33	7.00' LT	851.25	273443.95	845717.11
1-34	110+32.33	7.00' LT	851.72	273443.44	845717.97
1-35	110+23.32	4.00' LT	851.35	273445.52	845708.70
1-36	110+31.32	4.00' LT	851.31	273441.39	845715.55

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.

SEE SDD "CURB RAMPS TYPE 5, 6, 7A, 7B & 8" FOR ADDITIONAL INFORMATION.

THE CROSS SLOPE OF THE GUTTER SHALL BE 4%.

THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%.

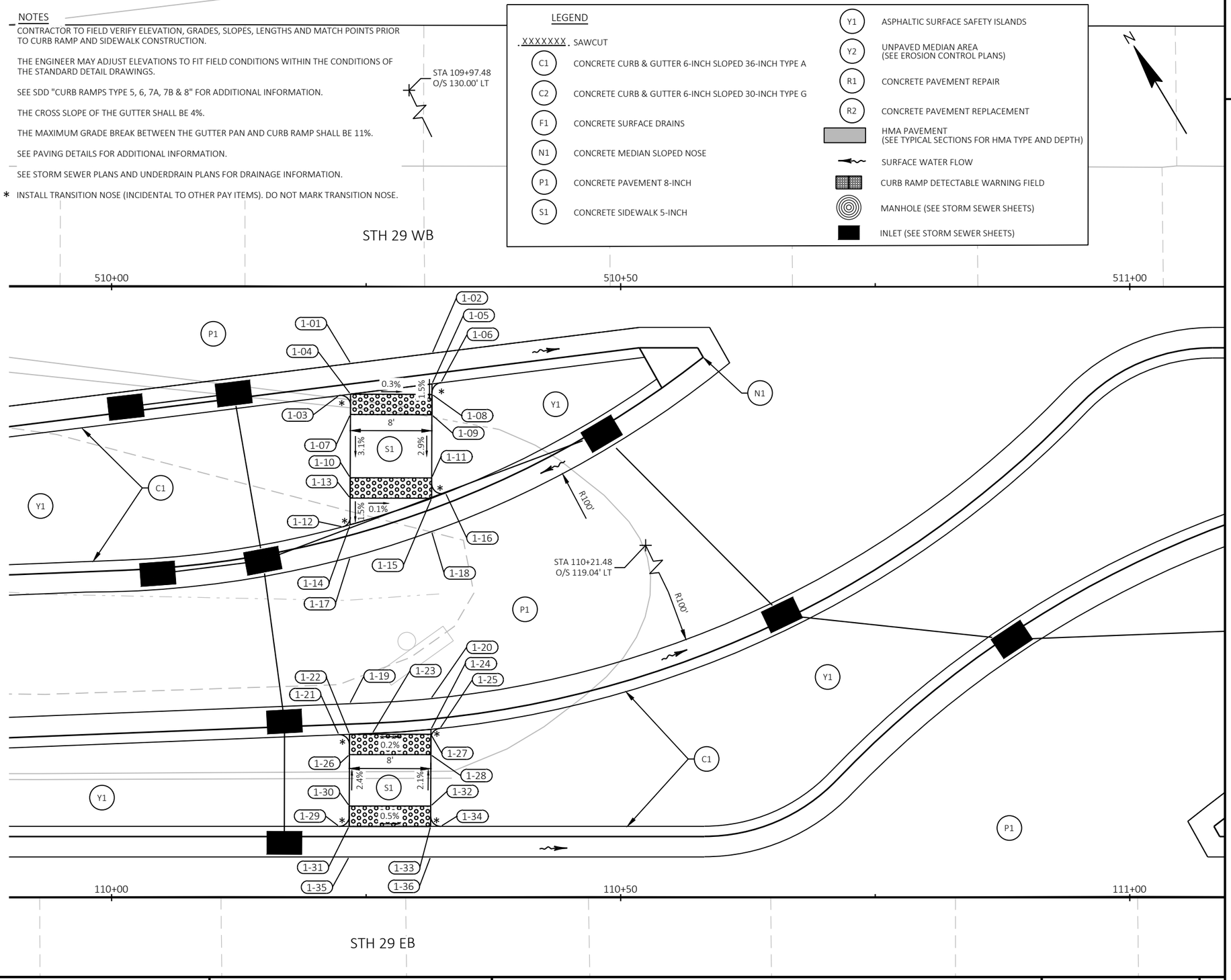
SEE PAVING DETAILS FOR ADDITIONAL INFORMATION.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

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

LEGEND

- XXXXXXX SAWCUT
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
- C2 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
- F1 CONCRETE SURFACE DRAINS
- N1 CONCRETE MEDIAN SLOPED NOSE
- P1 CONCRETE PAVEMENT 8-INCH
- S1 CONCRETE SIDEWALK 5-INCH
- Y1 ASPHALTIC SURFACE SAFETY ISLANDS
- Y2 UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
- R1 CONCRETE PAVEMENT REPAIR
- R2 CONCRETE PAVEMENT REPLACEMENT
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- MANHOLE (SEE STORM SEWER SHEETS)
- INLET (SEE STORM SEWER SHEETS)



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CURB RAMP DETAILS	SHEET 20	E

MEDIAN-NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-01	111+34.77	56.00' LT	850.79	273432.58	845831.01
2-02	111+42.77	56.00' LT	850.75	273428.45	845837.86
2-03	111+33.77	53.00' LT	851.21	273430.52	845828.60
2-04	111+34.77	51.00' LT	850.58	273428.29	845828.43
2-05	111+34.77	52.99' LT	850.72	273430.00	845829.46
2-06	111+42.77	53.00' LT	850.68	273425.88	845836.31
2-07	111+42.77	51.00' LT	850.54	273424.17	845835.28
2-08	111+43.77	53.00' LT	851.17	273425.37	845837.17
2-09	111+33.88	43.43' LT	850.92	273422.27	845823.76
2-10	111+34.77	46.01' LT	850.51	273424.02	845825.86
2-11	111+34.77	44.01' LT	850.44	273422.31	845824.82
2-12	111+42.77	44.01' LT	850.39	273418.18	845831.68
2-13	111+42.77	46.01' LT	850.47	273419.89	845832.71
2-14	111+43.81	44.05' LT	850.87	273417.68	845832.59
2-15	111+34.77	40.50' LT	850.50	273419.30	845823.01
2-16	111+42.77	41.01' LT	850.45	273415.61	845830.13

MEDIAN-SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-17	111+34.77	24.00' LT	850.44	273405.16	845814.50
2-18	111+42.77	26.53' LT	850.32	273403.20	845822.66
2-19	111+33.41	20.27' LT	850.89	273402.67	845811.41
2-20	111+34.77	20.80' LT	850.38	273402.42	845812.85
2-21	111+34.77	18.80' LT	850.44	273400.71	845811.82
2-22	111+42.77	18.80' LT	850.44	273396.58	845818.67
2-23	111+42.77	20.80' LT	850.44	273398.29	845819.70
2-24	111+42.77	23.41' LT	850.26	273400.53	845821.05
2-25	111+43.51	23.62' LT	850.73	273400.33	845821.79
2-26	111+34.77	12.54' LT	850.69	273395.34	845808.59
2-27	111+33.90	9.42' LT	851.20	273393.13	845806.23
2-28	111+34.77	10.54' LT	850.69	273393.63	845807.56
2-29	111+34.77	9.53' LT	850.70	273392.77	845807.04
2-30	111+42.77	12.54' LT	850.69	273391.22	845815.44
2-31	111+42.77	10.54' LT	850.65	273389.50	845814.41
2-32	111+43.90	10.68' LT	851.13	273389.04	845815.45
2-33	111+34.77	6.53' LT	850.77	273390.19	845805.49
2-34	111+42.77	7.53' LT	850.71	273386.92	845812.86

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONDITIONS WITHIN THE CONDITIONS OF THE STANDARD DETAIL DRAWINGS.

SEE SDD "CURB RAMPS TYPE 5, 6, 7A, 7B & 8" FOR ADDITIONAL INFORMATION.

THE CROSS SLOPE OF THE GUTTER SHALL BE 4%.

THE MAXIMUM GRADE BREAK BETWEEN THE GUTTER PAN AND CURB RAMP SHALL BE 11%.

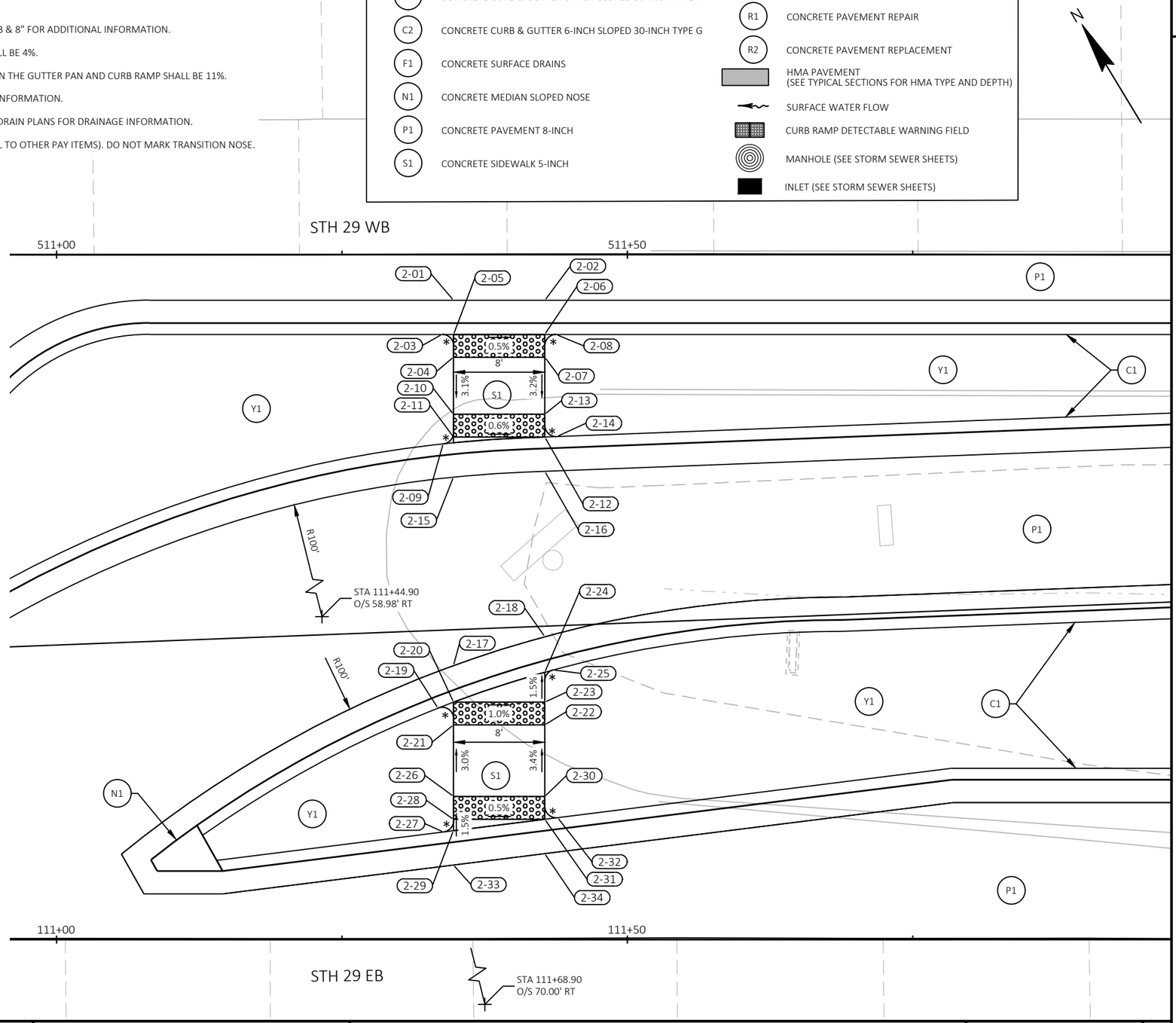
SEE PAVING DETAILS FOR ADDITIONAL INFORMATION.

SEE STORM SEWER PLANS AND UNDERDRAIN PLANS FOR DRAINAGE INFORMATION.

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

LEGEND

- XXXXXXX SAWCUT
- C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
- C2 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G
- F1 CONCRETE SURFACE DRAINS
- N1 CONCRETE MEDIAN SLOPED NOSE
- P1 CONCRETE PAVEMENT 8-INCH
- S1 CONCRETE SIDEWALK 5-INCH
- Y1 ASPHALTIC SURFACE SAFETY ISLANDS
- Y2 UNPAVED MEDIAN AREA (SEE EROSION CONTROL PLANS)
- R1 CONCRETE PAVEMENT REPAIR
- R2 CONCRETE PAVEMENT REPLACEMENT
- HMA PAVEMENT (SEE TYPICAL SECTIONS FOR HMA TYPE AND DEPTH)
- SURFACE WATER FLOW
- CURB RAMP DETECTABLE WARNING FIELD
- MANHOLE (SEE STORM SEWER SHEETS)
- INLET (SEE STORM SEWER SHEETS)



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CURB RAMP DETAILS	SHEET 21	E

2

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WETLAND.

N

STH 29 WB

500+00 501+00 502+00 503+00 504+00 505+00

TYPE A

100+00 101+00 102+00 103+00 104+00 105+00

STH 29 EB

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL	SHEET 22	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 11/17/2023 11:29 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WETLAND.

N

CTH MMM/BUS 29

31+00

SS

SS

STH 29 WB

506+00 507+00 508+00 509+00 510+00 511+00

TYPE A

TYPE A

SS

106+00 107+00 108+00 STH 29 EB 109+00 110+00 111+00

F

F

CLARK DR

19+00

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL	SHEET 23	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 11/17/2023 11:29 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

N

STH 29 WB

512+00 513+00 514+00 515+00 516+00 517+00

TYPE A

112+00 113+00 114+00 115+00 116+00 117+00

STH 29 EB

SS

SS

F

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WETLAND.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL	SHEET 24	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 11/17/2023 11:29 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

517+00 518+00 519+00 520+00 521+00 522+00 523+00

STH 29 WB

TYPE A

TYPE A

117+00 118+00 119+00 120+00 121+00 122+00 123+00

STH 29 EB

POST SIGN

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WETLAND.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL	SHEET 25	E

2

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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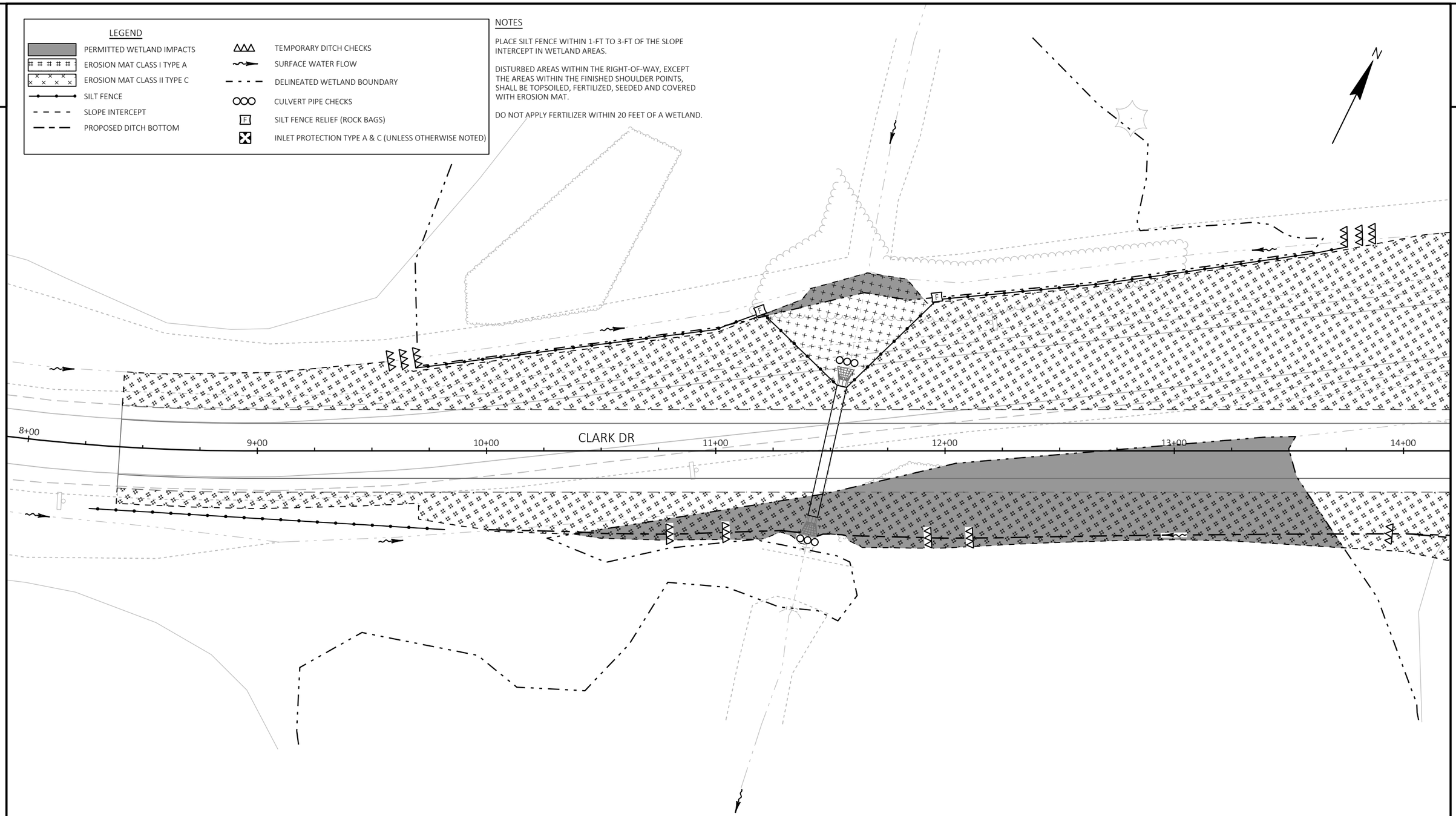

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL - CLARK DR	SHEET 26	E

2

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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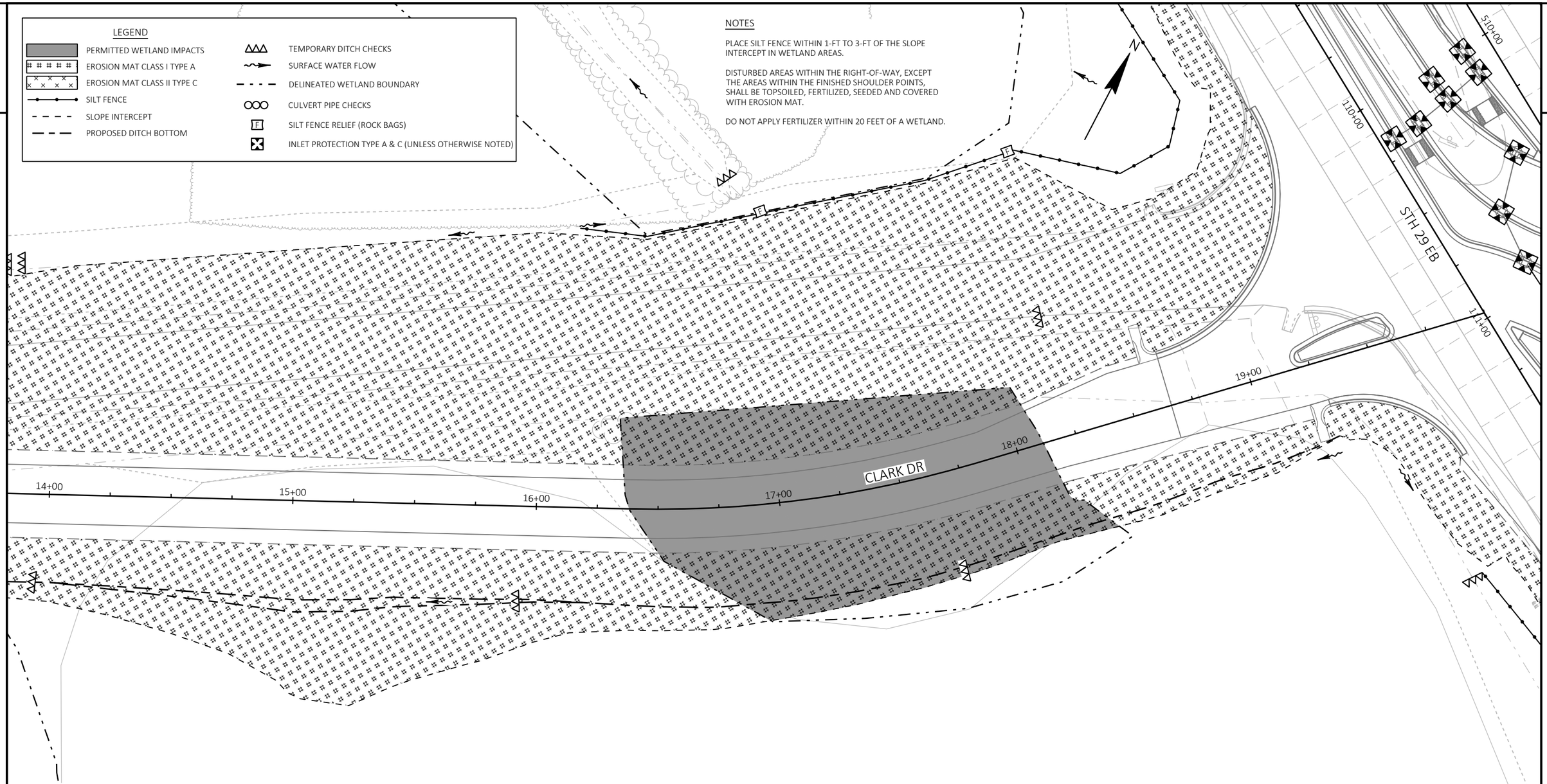

2

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL - CLARK DR	SHEET 27	E

2

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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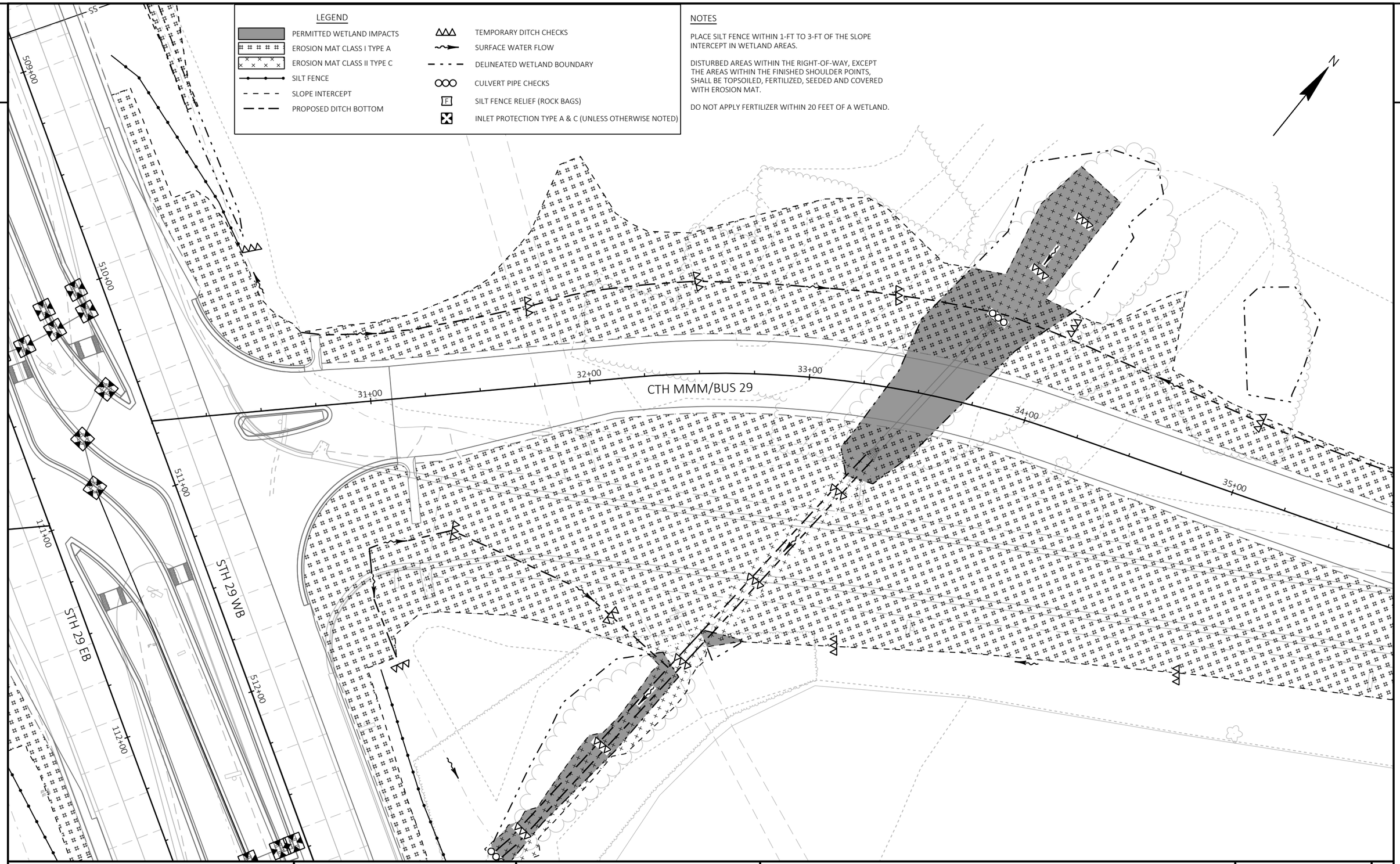
DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A WETLAND.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL - CTH MMM/BUS 29	SHEET 28	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 11/17/2023 11:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- PERMITTED WETLAND IMPACTS
- EROSION MAT CLASS I TYPE A
- EROSION MAT CLASS II TYPE C
- SILT FENCE
- SLOPE INTERCEPT
- PROPOSED DITCH BOTTOM
- TEMPORARY DITCH CHECKS
- SURFACE WATER FLOW
- DELINEATED WETLAND BOUNDARY
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE A & C (UNLESS OTHERWISE NOTED)

NOTES

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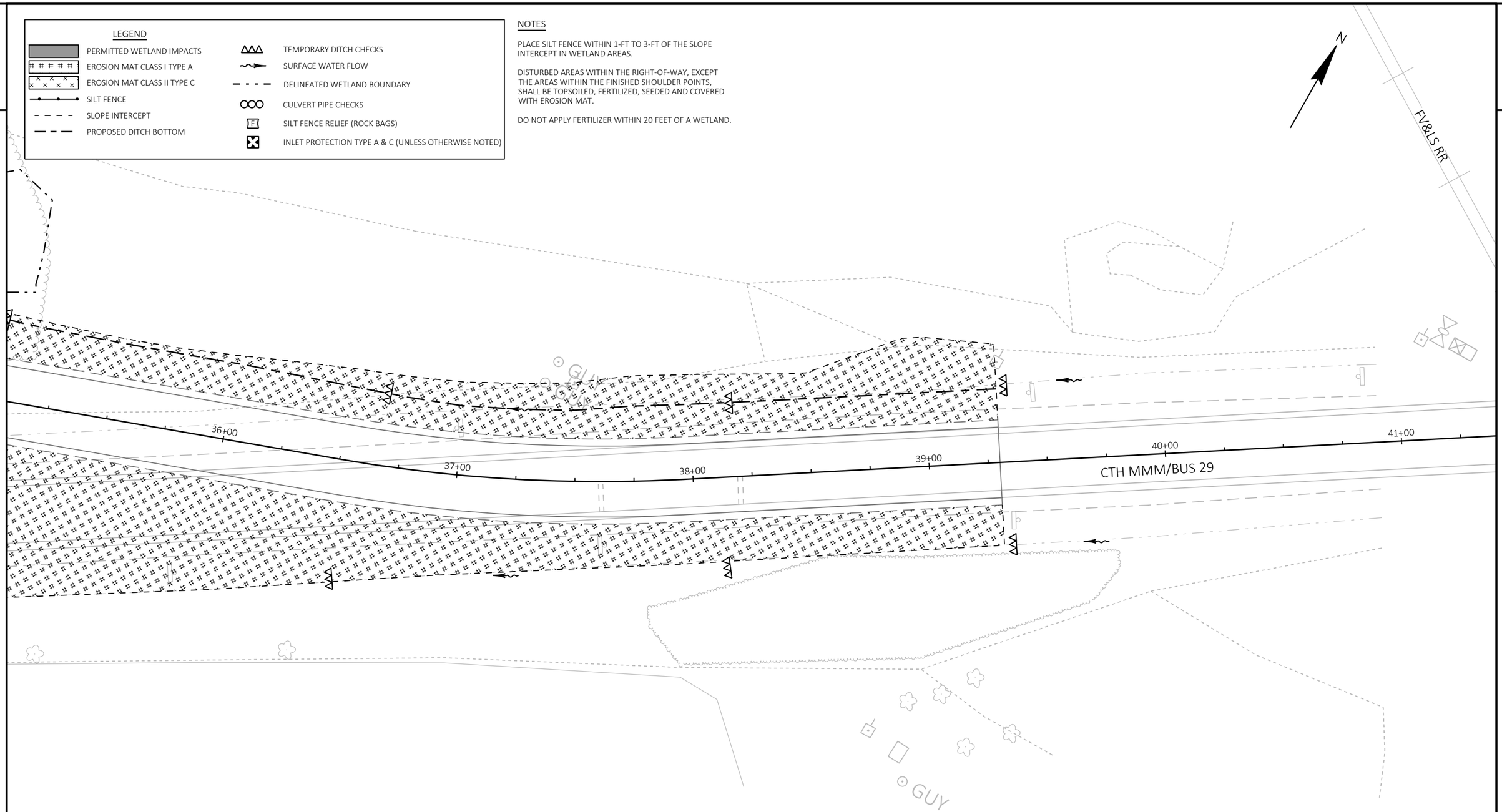


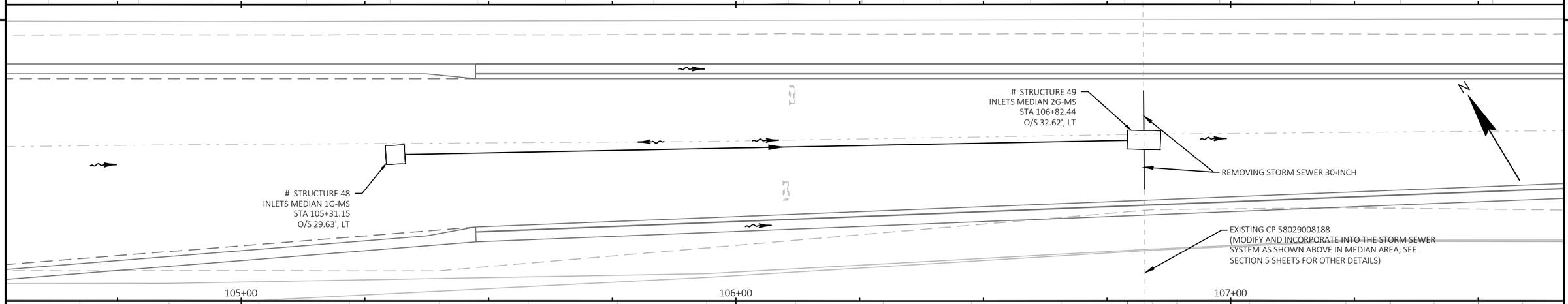
2

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	EROSION CONTROL - CTH MMM/BUS 29	SHEET 29	E

2

STH 29 WB

505+00 506+00 507+00

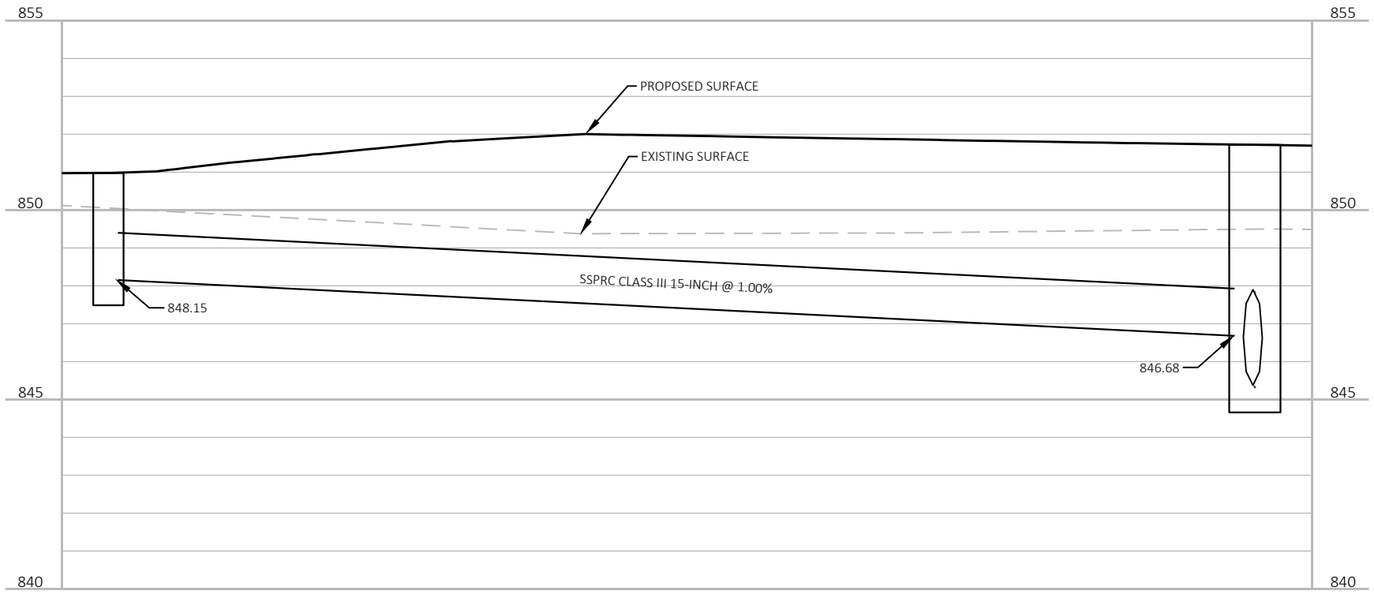


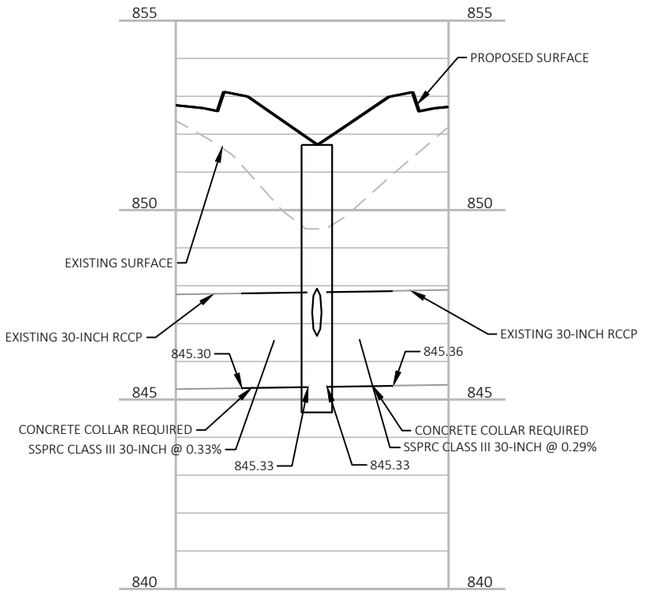
105+00 106+00 107+00

STH 29 EB

LEGEND
- STORM SEWER PIPE
- SURFACE WATER FLOW
- * REMOVING INLETS
- # SEE PIPE UNDERDRAIN PLANS FOR CONNECTION LOCATIONS

NOTE
RIM ELEVATIONS FOR FIELD INLETS ARE GIVEN TO THE CENTER OF GRATE ON LOW SIDE (IF SLOPING GRATE). RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOW LINE.





PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	STORM SEWER	SHEET 30	E

2

EXISTING CP 58029008189
(MODIFY AND INCORPORATE INTO THE STORM SEWER SYSTEM AS SHOWN ABOVE IN MEDIAN AREA; SEE SECTION 5 SHEETS FOR OTHER DETAILS)

STH 29 WB

509+00 510+00 511+00

REMOVING APRON ENDWALLS

STRUCTURE 41
INLETS MEDIAN 1G-MS
STA 108+83.13
O/S 36.13', LT

STRUCTURE 39
INLETS 2.5x3-F
STA 110+01.38
O/S 48.17', LT

STRUCTURE 11
INLETS 2.5x3-F
STA 110+12.00
O/S 49.51', LT

STRUCTURE 37
INLETS 2.5x3-F
STA 110+04.53
O/S 31.81', LT

STRUCTURE 2 #
INLETS 2.5x3-F
STA 110+14.84
O/S 33.08', LT

STRUCTURE 4
INLETS 4-F
STA 110+65.83
O/S 27.76', LT

STRUCTURE 56 #
INLETS 4-F
STA 110+48.13
O/S 45.57', LT

STRUCTURE 28
INLETS 2.5x3-F
STA 110+16.98
O/S 17.29', LT

STRUCTURE 5
INLETS 4-F
STA 110+88.42
O/S 25.36', LT

N

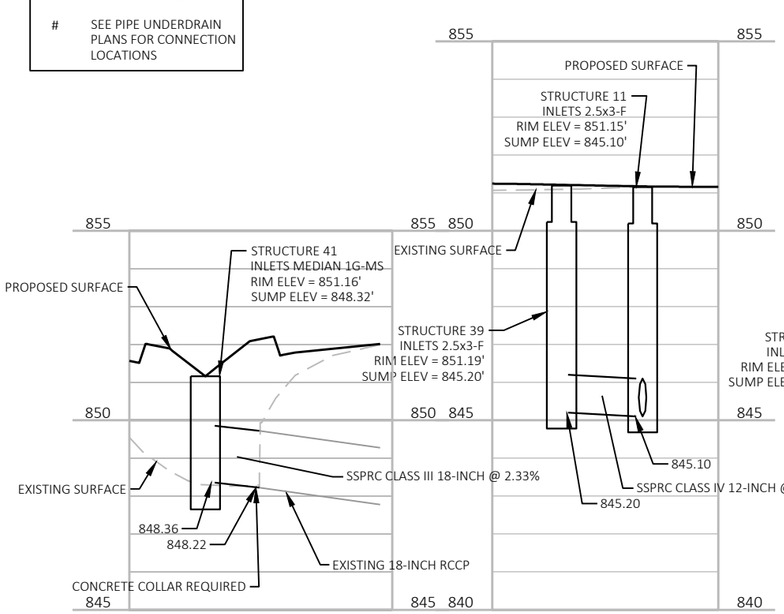
109+00 110+00 111+00

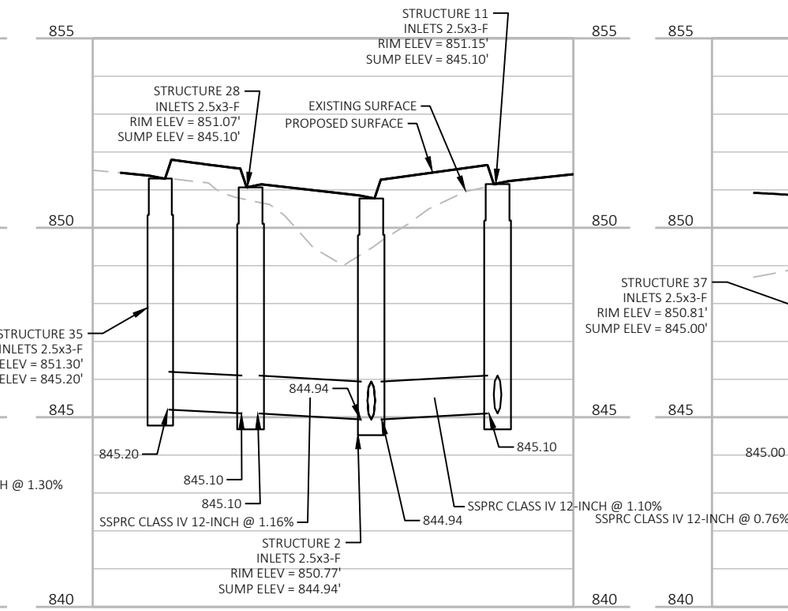
STH 29 EB

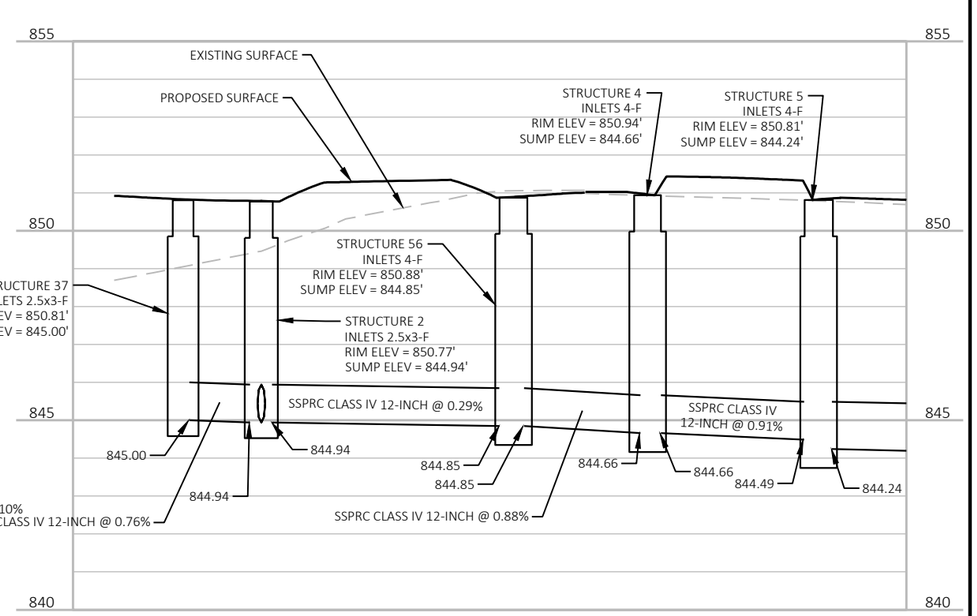
STRUCTURE 35
INLETS 2.5x3-F
STA 110+16.97
O/S 5.38', LT

LEGEND
- STORM SEWER PIPE
- SURFACE WATER FLOW
- * REMOVING INLETS
- # SEE PIPE UNDERDRAIN PLANS FOR CONNECTION LOCATIONS

NOTE
RIM ELEVATIONS FOR FIELD INLETS ARE GIVEN TO THE CENTER OF GRATE ON LOW SIDE (IF SLOPING GRATE). RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOW LINE.







PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	STORM SEWER	SHEET 31	E

2

STH 29 WB

511+00 512+00 513+00

STRUCTURE 43
INLETS 2.5x3-F
STA 112+71.45
O/S 54.49', LT

STRUCTURE 44
INLETS 2.5x3-F
STA 112+71.40
O/S 47.42', LT

STRUCTURE 29 #
INLETS 4-F
STA 113+18.25
O/S 34.19', LT

STRUCTURE 45
INLETS 2.5x3-F
STA 112+71.95
O/S 32.44', LT

STRUCTURE 46
INLETS 2.5x3-F
STA 113+08.28
O/S 33.80', LT

STRUCTURE 8 #
INLETS 4-F
STA 113+39.43
O/S 13.50', LT

REMOVING STORM
SEWER 30-INCH

STRUCTURE 5
INLETS 4-F
STA 110+88.42
O/S 25.36', LT

STRUCTURE 7
MANHOLES 5-C
STA 113+64.20
O/S 24.87', LT

N

111+00 112+00 113+00

LEGEND

- STORM SEWER PIPE
- SURFACE WATER FLOW
- * REMOVING INLETS
- # SEE PIPE UNDERDRAIN PLANS FOR CONNECTION LOCATIONS

NOTE

RIM ELEVATIONS FOR FIELD INLETS ARE GIVEN TO THE CENTER OF GRATE ON LOW SIDE (IF SLOPING GRATE). RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOW LINE.

STRUCTURE 44
INLETS 2.5x3-F
RIM ELEV = 849.99'
SUMP ELEV = 843.55'

EXISTING SURFACE
PROPOSED SURFACE

850
850

STRUCTURE 43
INLETS 2.5x3-F
RIM ELEV = 850.19'
SUMP ELEV = 843.60'

845
845

842
842

843.60
843.55
843.55
843.42

SSP CLASS III-A 12-INCH @ 1.09%
SSP CLASS III-A 12-INCH @ 1.03%

EXISTING SURFACE
PROPOSED SURFACE

850
850

STRUCTURE 7
MANHOLES 5-C
RIM ELEV = 849.44'
SUMP ELEV = 841.56'

EXISTING 30-INCH RCCP

845
845

EXISTING 30-INCH RCCP

SSPRC
CLASS III
30-INCH
@
-0.44%

SSPRC
CLASS III
30-INCH
@ 0.44%

841.52

CONCRETE COLLAR REQUIRED

CONCRETE COLLAR REQUIRED

841.56
841.56
841.59

840
840

STH 29 EB

EXISTING CP 58029080224
(MODIFY AND INCORPORATE INTO THE STORM SEWER SYSTEM AS SHOWN ABOVE IN MEDIAN AREA; SEE SECTION 5 SHEETS FOR OTHER DETAILS)

855
855

PROPOSED SURFACE

850
850

STRUCTURE 5
INLETS 4-F
RIM ELEV = 850.81'
SUMP ELEV = 844.24'

EXISTING SURFACE

845
845

SSPRC CLASS III 15-INCH @ 0.45%

844.49
844.24

STRUCTURE 45
INLETS 2.5x3-F
RIM ELEV = 849.75'
SUMP ELEV = 843.42'

SSP CLASS III-A 15-INCH @ 0.99%

843.42
843.42

STRUCTURE 46
INLETS 2.5x3-F
RIM ELEV = 849.62'
SUMP ELEV = 843.09'

STRUCTURE 29
INLETS 4-F
RIM ELEV = 849.63'
SUMP ELEV = 842.77'

STRUCTURE 8
INLETS 4-F
RIM ELEV = 849.88'
SUMP ELEV = 842.63'

843.09
843.09

SSP CLASS III-A 15-INCH @ 1.08%

842.77
843.02

842.63
842.63

SSP CLASS III-A 18-INCH @ 0.41%

842.54

SSP CLASS III-A 18-INCH @ 0.55%

840
840

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	STORM SEWER	SHEET 32	E

2

STH 29 WB

EXISTING CP 58029008191
(MODIFY AND INCORPORATE INTO THE STORM SEWER SYSTEM AS SHOWN ABOVE IN MEDIAN AREA; SEE SECTION 5 SHEETS FOR OTHER DETAILS)

518+00 519+00 520+00

STRUCTURE 22
INLETS MEDIAN 1G-MS
STA 118+81.01
O/S 34.07', LT

REMOVING STORM SEWER 30-INCH

N

EXISTING CP 58029008190
(MODIFY AND INCORPORATE INTO THE STORM SEWER SYSTEM AS SHOWN ABOVE IN MEDIAN AREA; SEE SECTION 5 SHEETS FOR OTHER DETAILS)

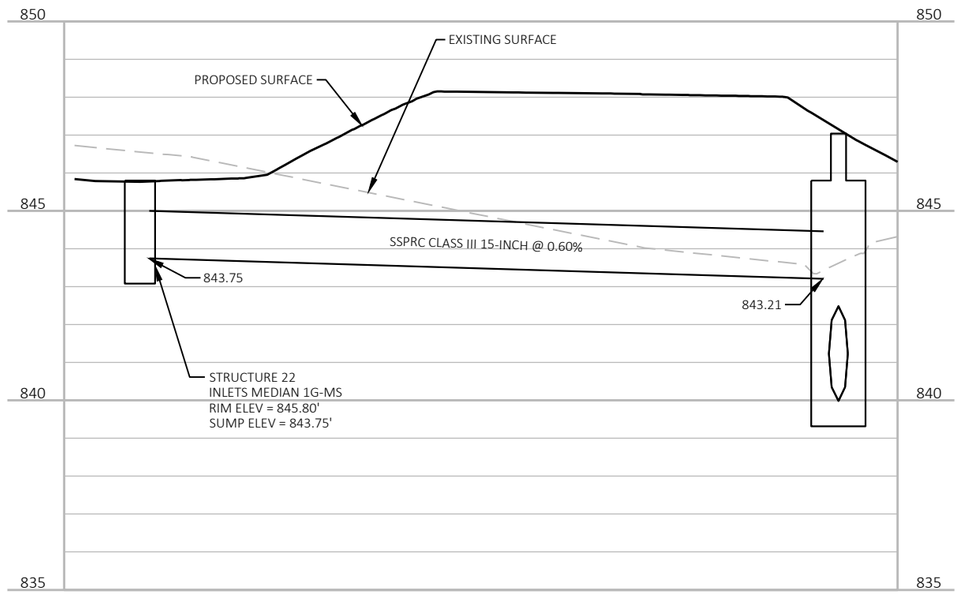
118+00 119+00 120+00

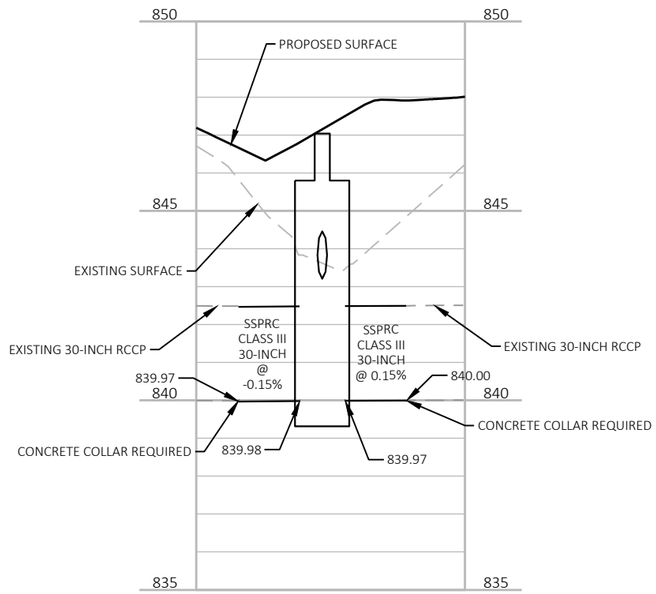
STRUCTURE 23
MANHOLES 6-J
STA 119+74.91
O/S 24.60', LT

STH 29 EB

LEGEND
- STORM SEWER PIPE
- SURFACE WATER FLOW
- * REMOVING INLETS
- # SEE PIPE UNDERDRAIN PLANS FOR CONNECTION LOCATIONS

NOTE
RIM ELEVATIONS FOR FIELD INLETS ARE GIVEN TO THE CENTER OF GRATE ON LOW SIDE (IF SLOPING GRATE). RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOW LINE.





PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	STORM SEWER	SHEET 33	E

2

2

STH 29 WB

500+00 501+00 502+00 503+00 504+00 505+00 506+00

CONNECT UNDERDRAIN

PIPE UNDERDRAIN UNPERFORATED 6-INCH

UNDERDRAIN OUTFALL
STA 101+02

PIPE UNDERDRAIN UNPERFORATED 6-INCH

CONNECT UNDERDRAIN

PIPE UNDERDRAIN UNPERFORATED 6-INCH

48

PIPE UNDERDRAIN UNPERFORATED 6-INCH

100+00 101+00 102+00 103+00 104+00 105+00 106+00

STH 29 EB

CONNECT UNDERDRAIN

PIPE UNDERDRAIN UNPERFORATED 6-INCH

UNDERDRAIN OUTFALL
STA 101+02

POST

LEGEND

- EXISTING UNDERDRAIN
- PIPE UNDERDRAIN 6-INCH (UNLESS NOTED OTHERWISE)
- PIPE UNDERDRAIN 8-INCH (UNLESS NOTED OTHERWISE)
- REMOVING UNDERDRAIN
- APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH
- (XXX) STORM SEWER STRUCTURE NUMBER

NOTES

SEE STORM SEWER SHEETS FOR STRUCTURES INFORMATION

SEE SDD "EDGEDRAIN OUTLET AND OUTFALL MARKERS" FOR ADDITIONAL INFORMATION

SEE SECTION 5 PLAN SHEETS FOR UNDERDRAIN CLEANING LOCATIONS

PIPE UNDERDRAIN UNPERFORATED 6-INCH

UNDERDRAIN OUTFALL
STA 109+26

CONNECT UNDERDRAIN

CTHMMM/
BUS 29

N

11

39

506+00 507+00 508+00 509+00 510+00 511+00

STH 29 WB

PIPE UNDERDRAIN UNPERFORATED 6-INCH

49

PIPE UNDERDRAIN
UNPERFORATED 6-INCH

41

2

37

56

106+00 107+00 108+00 109+00 110+00 111+00

STH 29 EB

CLARK DR

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PIPE UNDERDRAIN	SHEET 34	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022601-PU.DWG
LAYOUT NAME - 01

PLOT DATE : 10/9/2023 10:03 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

STH 29 WB

512+00 513+00 514+00 515+00 516+00 517+00

PIPE UNDERDRAIN 8-INCH

29

45 46 8

PIPE UNDERDRAIN 8-INCH

112+00 113+00 114+00 115+00 116+00 117+00

STH 29 EB

CONNECT UNDERDRAIN

PIPE UNDERDRAIN UNPERFORATED 6-INCH

UNDERDRAIN OUTFALL
STA 112+43

LEGEND

- EXISTING UNDERDRAIN
- PIPE UNDERDRAIN 6-INCH (UNLESS NOTED OTHERWISE)
- PIPE UNDERDRAIN 8-INCH (UNLESS NOTED OTHERWISE)
- REMOVING UNDERDRAIN
- APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH
- (XXX) STORM SEWER STRUCTURE NUMBER

NOTES

SEE STORM SEWER SHEETS FOR STRUCTURES INFORMATION

SEE SDD "EDGEDRAIN OUTLET AND OUTFALL MARKERS" FOR ADDITIONAL INFORMATION

SEE SECTION 5 PLAN SHEETS FOR UNDERDRAIN CLEANING LOCATIONS

CAP EXISTING UNDERDRAIN

518+00 519+00 520+00 521+00 522+00 523+00

STH 29 WB

22

PIPE UNDERDRAIN UNPERFORATED 8-INCH

CAP EXISTING UNDERDRAIN

CAP EXISTING UNDERDRAIN

118+00 119+00 120+00 121+00 122+00 123+00

STH 29 EB

POST SIGN

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PIPE UNDERDRAIN	SHEET 35	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\022601-PU.DWG
LAYOUT NAME - 02

PLOT DATE : 10/9/2023 10:03 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - REMOVE AND REPLACE
- X — SIGN - NEW
- X — SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION

N

1-7 ONE WAY R6-1L 54"X18"

1-8 YIELD R1-2 48"X42"

1-11 ONE WAY R6-1L 54"X18"

1-12 YIELD R1-2 48"X42"

1-14 EAST 29 J2-1 36"X84"

500+00 501+00 502+00 STH 29 WB 503+00 504+00 505+00

1-3 R3-18 36"X36"

1-6 DO NOT ENTER R5-1 36"X36"

1-13 DO NOT ENTER R5-1 36"X36"

100+00 101+00 102+00 STH 29 EB 103+00 104+00 105+00

WRONG WAY R5-1A 42"X30" 1-1

BUSINESS 29 COUNTY MMM 1-2

Shawano D1-1 90"X21" 1-4

DO NOT ENTER R5-1 36"X36" 1-5

ONE WAY R6-2L 36"X48" 1-9

CLARK DR
USE FAR RIGHT LANE
EAST 29
D1-81 114"X54" 1-10

BUSINESS 29 COUNTY MMM J3-2 72"X84" 1-15

Clark Dr D1-1 84"X21" 1-16

POST

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING	SHEET 36	E

2

2

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- (X) SIGN - REMOVE AND REPLACE
- [X] SIGN - NEW
- X SIGN - REMOVE

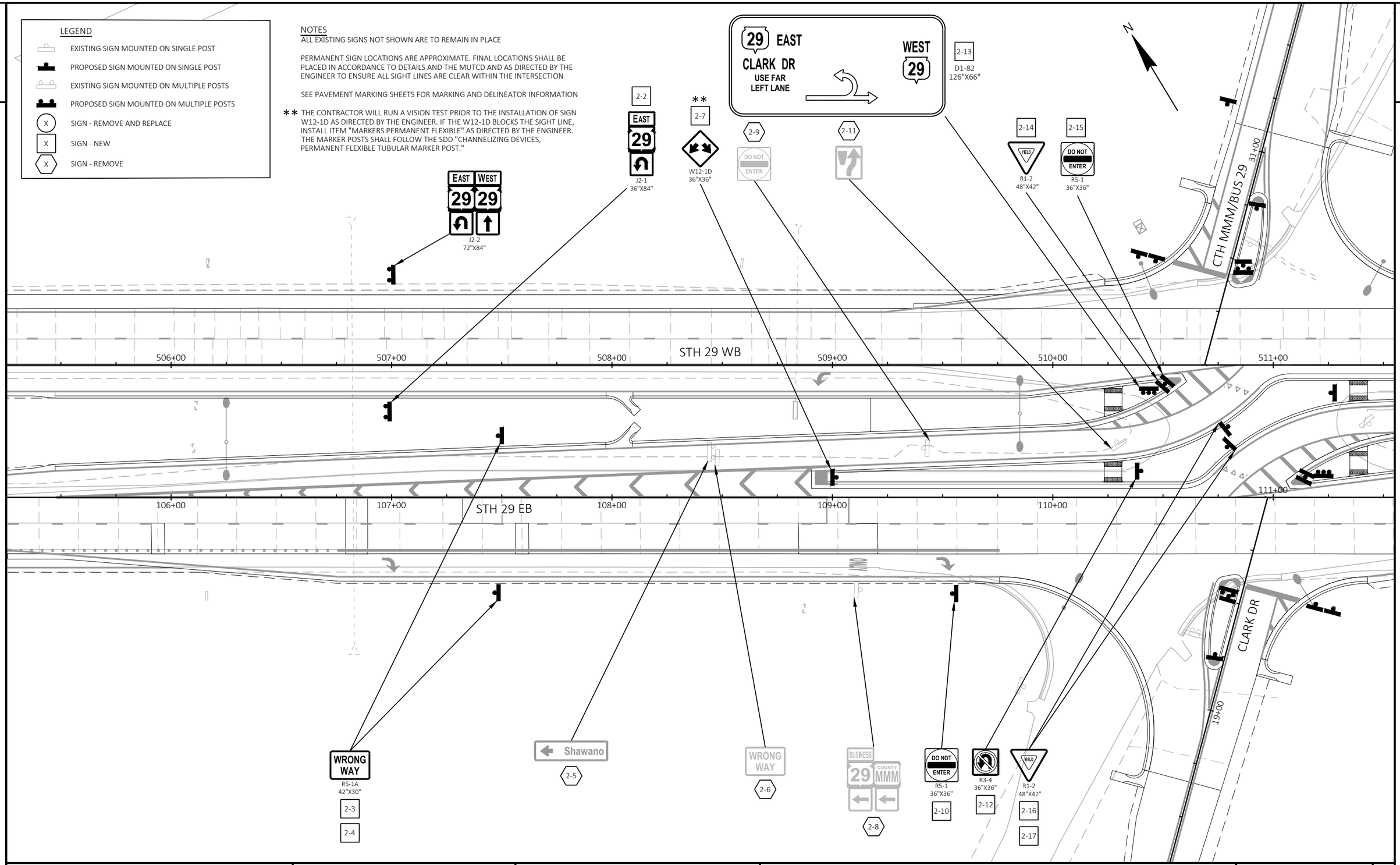
NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION

** THE CONTRACTOR WILL RUN A VISION TEST PRIOR TO THE INSTALLATION OF SIGN W12-1D AS DIRECTED BY THE ENGINEER. IF THE W12-1D BLOCKS THE SIGHT LINE, INSTALL ITEM "MARKERS PERMANENT FLEXIBLE" AS DIRECTED BY THE ENGINEER. THE MARKER POSTS SHALL FOLLOW THE SDD "CHANNELIZING DEVICES, PERMANENT FLEXIBLE TUBULAR MARKER POST."



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING	SHEET 37	E

2

CTH MMM/BUS 29

31+00

3-4
R3-4
36"X36"

3-5

3-6
R5-1
36"X36"

3-7
BUSINESS 29 COUNTY MMM
J3-2
72"X84"

3-8
DO NOT ENTER

3-9 **
W12-1D
36"X36"

3-11
WRONG WAY

3-14
WRONG WAY
R5-1A
36"X24"

3-15
WRONG WAY
R5-1A
36"X24"

3-16
Shawano
D1-1
90"X21"

3-17
Clark Dr

STH 29 WB

511+00 512+00 513+00 514+00 515+00 516+00 517+00

111+00 112+00 113+00 114+00 115+00 116+00 117+00

STH 29 EB

DO NOT ENTER
R5-1
36"X36"
3-1

YIELD
R1-2
48"X42"
3-2

WEST BUS 29 29 MMM
USE FAR LEFT LANE
EAST 29
D1-82
144"X66"
3-3

EAST 29
3-10

EAST WEST BUSINESS 29 29 29 COUNTY MMM
J2-4
144"X84"
3-12

WEST BUSINESS 29 29 COUNTY MMM
J2-3
108"X84"
3-13

NOTES
ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

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SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION

** THE CONTRACTOR WILL RUN A VISION TEST PRIOR TO THE INSTALLATION OF SIGN W12-1D AS DIRECTED BY THE ENGINEER. IF THE W12-1D BLOCKS THE SIGHT LINE, INSTALL ITEM "MARKERS PERMANENT FLEXIBLE" AS DIRECTED BY THE ENGINEER. THE MARKER POSTS SHALL FOLLOW THE SDD "CHANNELIZING DEVICES, PERMANENT FLEXIBLE TUBULAR MARKER POST."

LEGEND
- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - REMOVE AND REPLACE
- X — SIGN - NEW
- X — SIGN - REMOVE

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING	SHEET 38	E

2

2

4-7

BUS
29 MMM
USE FAR RIGHT LANE
29 WEST

D1-81
108"X72"

4-2

BUSINESS 29 COUNTY MMM

J2-2
72"X84"

4-1

Clark Dr

D1-1
84"X21"

4-8

ONE WAY

R6-2L
36"X48"

4-12

DO NOT ENTER

R5-1
36"X36"

4-13

JCT BUSINESS 29 JCT COUNTY MMM

J1-2
72"X75"

4-16

WRONG WAY

R5-1A
42"X30"

TO REMAIN

MILE 2 2 2

POST

POST

N

517+00 518+00 519+00 520+00 521+00 522+00 523+00

STH 29 WB

4-4

DO NOT ENTER

R5-1
36"X36"

4-9

DO NOT ENTER

R5-1
36"X36"

4-14

R3-18
36"X36"

117+00 118+00 119+00 120+00 121+00 122+00 123+00

STH 29 EB

POST SIGN

4-3

WEST BUSINESS 29 29 COUNTY MMM

J2-3
108"X84"

ONE WAY

R6-1L
54"X18"

4-5

YIELD

R1-2
48"X42"

4-6

ONE WAY

R6-1L
54"X18"

4-10

YIELD

R1-2
48"X42"

4-11

EAST 29

J4-1
36"X54"

4-15

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- (X) SIGN - REMOVE AND REPLACE
- [X] SIGN - NEW
- <X> SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING	SHEET 39	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 04

PLOT DATE : 2/28/2024 12:53 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

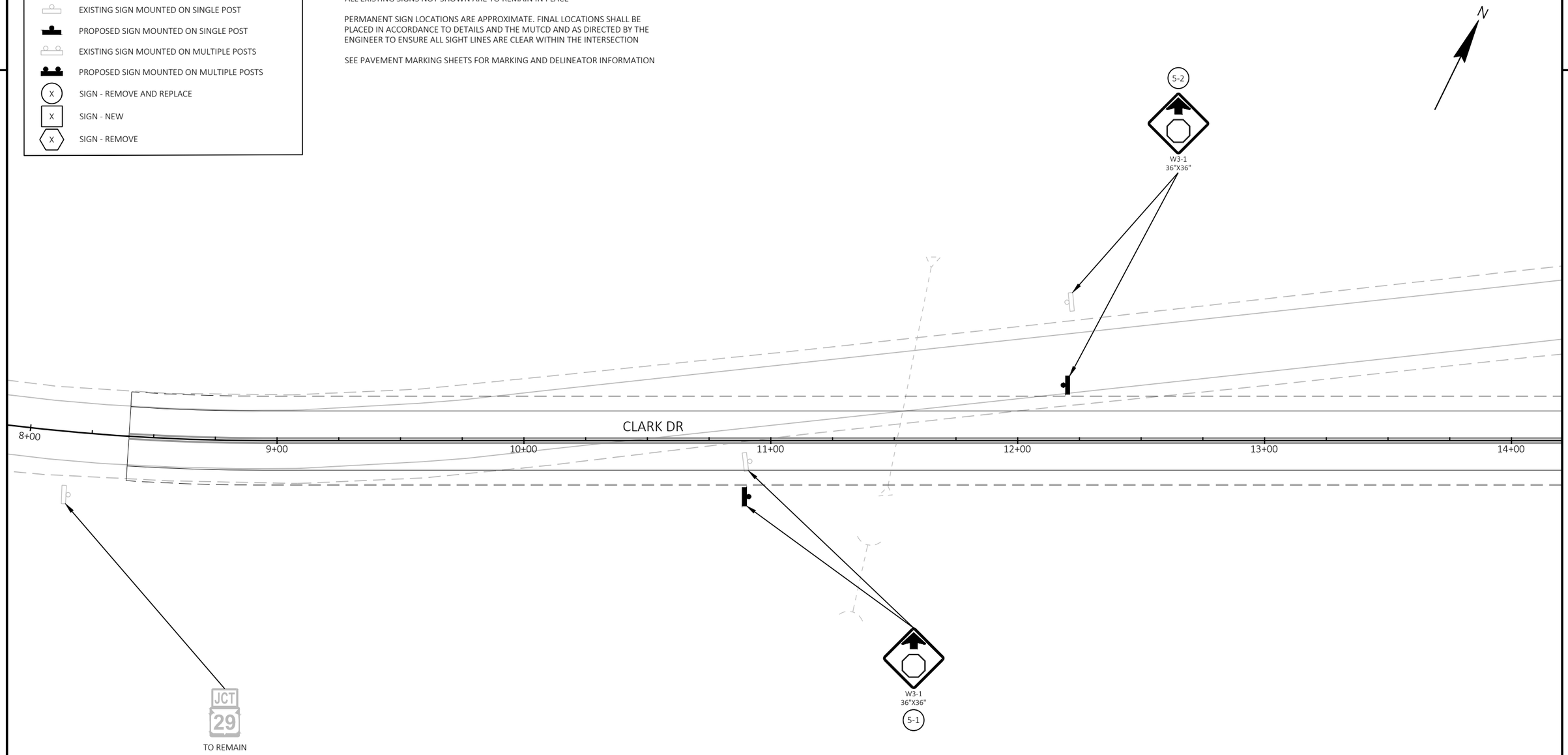
- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - REMOVE AND REPLACE
- X — SIGN - NEW
- X — SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION



2

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING - CLARK DR	SHEET 40	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 05

PLOT DATE : 2/28/2024 12:53 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

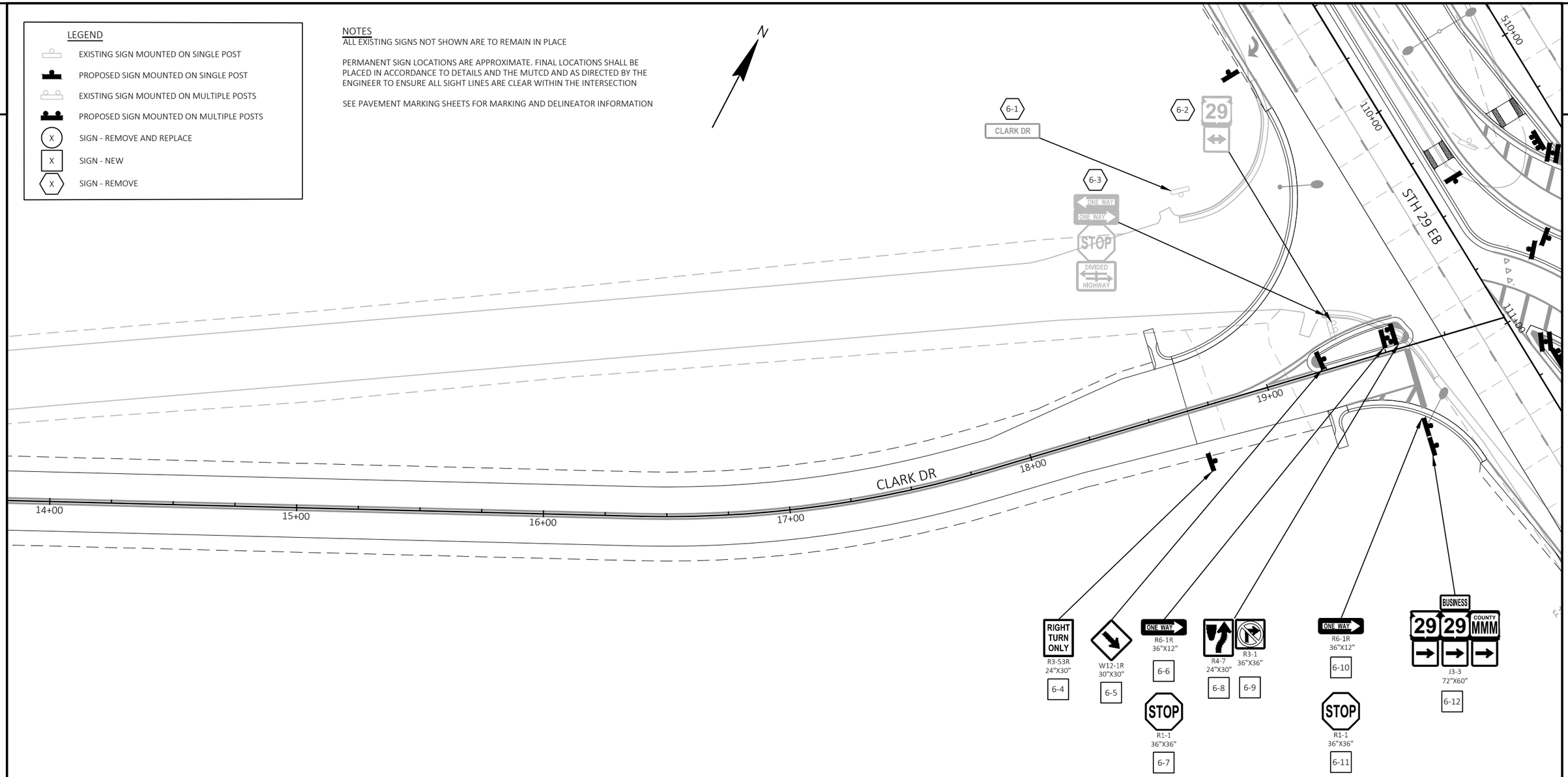
- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- X — SIGN - REMOVE AND REPLACE
- X — SIGN - NEW
- X — SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING - CLARK DR	SHEET 41	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 06

PLOT DATE : 2/28/2024 12:53 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- (X) SIGN - REMOVE AND REPLACE
- [X] SIGN - NEW
- ⬡X⬡ SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION

N

509+00
510+00
511+00
111+00
112+00
31+00
32+00
33+00
34+00
35+00
CTH MMM/BUS 29
STH 29 EB
STH 29 WB
HWY

7-1 R6-1R 36"X12"
7-2 R1-1 36"X36"
7-3 J3-1 36"X66"
7-4 R4-7 24"X30"
7-5 R3-1 24"X24"
7-6 R6-1R 36"X12"
7-7 R1-1 36"X36"
7-8 W12-1R 30"X30"
7-9 R3-53R 24"X30"
7-10 J2-1 36"X66"
7-11
7-12
7-13
7-14 W1-4R 36"X36"
7-15 J4-2 72"X72"
7-16
7-17
7-18 R2-1 24"X30"

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING - CTH MMM/BUS 29	SHEET 42	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 07
PLOT DATE : 2/28/2024 12:53 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

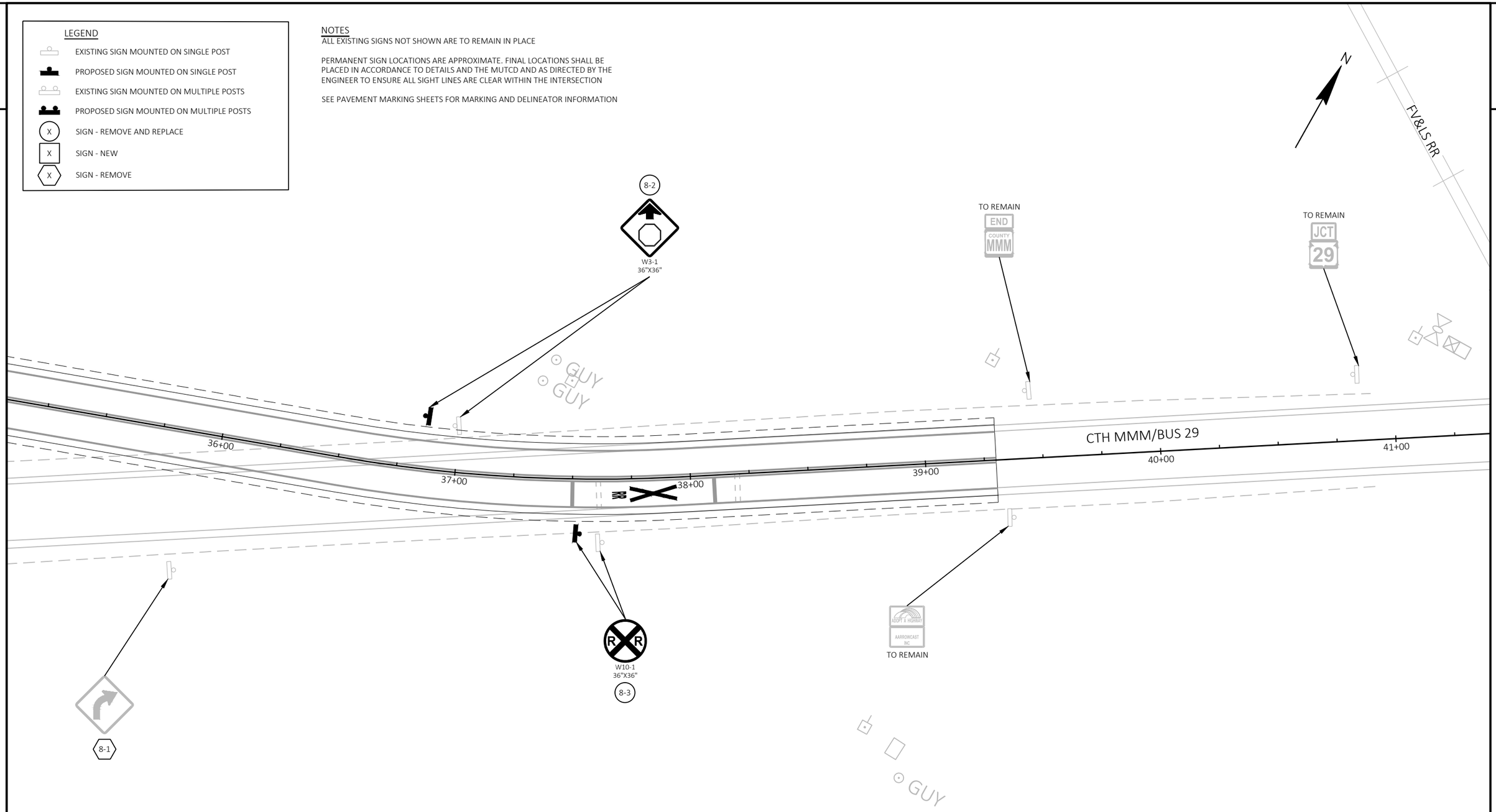
- EXISTING SIGN MOUNTED ON SINGLE POST
- PROPOSED SIGN MOUNTED ON SINGLE POST
- EXISTING SIGN MOUNTED ON MULTIPLE POSTS
- PROPOSED SIGN MOUNTED ON MULTIPLE POSTS
- (X) SIGN - REMOVE AND REPLACE
- [X] SIGN - NEW
- <X> SIGN - REMOVE

NOTES

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE

PERMANENT SIGN LOCATIONS ARE APPROXIMATE. FINAL LOCATIONS SHALL BE PLACED IN ACCORDANCE TO DETAILS AND THE MUTCD AND AS DIRECTED BY THE ENGINEER TO ENSURE ALL SIGHT LINES ARE CLEAR WITHIN THE INTERSECTION

SEE PAVEMENT MARKING SHEETS FOR MARKING AND DELINEATOR INFORMATION



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PERMANENT SIGNING - CTH MMM/BUS 29	SHEET 43	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 08

PLOT DATE : 2/28/2024 12:53 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- LIGHTING CONTROL CABINET 120/240V 30-INCH WITH METER BREAKER PEDISTAL
- PULL BOX - NON-CONDUCTIVE 24"X42"
- CONDUIT- 2" RIGID, NONMETALLIC, SCHEDULE 40 (UNLESS OTHERWISE NOTED)
- LIGHT POLE, SINGLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)
- LIGHT POLE, DOUBLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)

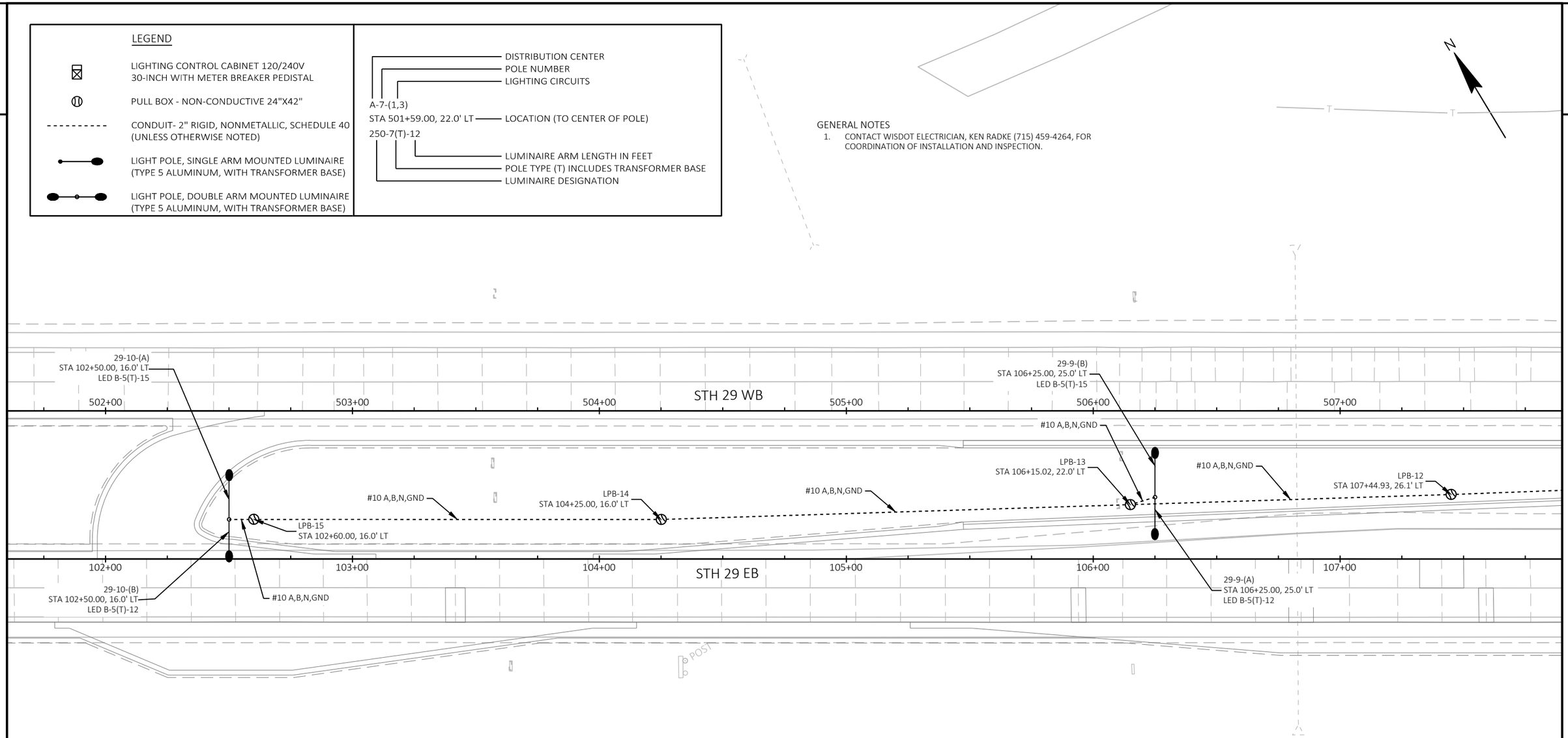
A-7-(1,3)
- A-7- : DISTRIBUTION CENTER
- (1,3) : LIGHTING CIRCUITS

STA 501+59.00, 22.0' LT — LOCATION (TO CENTER OF POLE)

250-7(T)-12
- 250 : LUMINAIRE ARM LENGTH IN FEET
- (T) : POLE TYPE (T) INCLUDES TRANSFORMER BASE
- 12 : LUMINAIRE DESIGNATION

GENERAL NOTES

1. CONTACT WISDOT ELECTRICIAN, KEN RADKE (715) 459-4264, FOR COORDINATION OF INSTALLATION AND INSPECTION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	LIGHTING PLAN: STH 29/CTH MMM (L58-2001)	TOWN OF RICHMOND SHEET 44 E

2

LEGEND

- LIGHTING CONTROL CABINET 120/240V 30-INCH WITH METER BREAKER PEDISTAL
- PULL BOX - NON-CONDUCTIVE 24"X42"
- CONDUIT- 2" RIGID, NONMETALLIC, SCHEDULE 40 (UNLESS OTHERWISE NOTED)
- LIGHT POLE, SINGLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)
- LIGHT POLE, DOUBLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)

A-7-(1,3) — DISTRIBUTION CENTER, POLE NUMBER, LIGHTING CIRCUITS

STA 501+59.00, 22.0' LT — LOCATION (TO CENTER OF POLE)

250-7(T)-12 — LUMINAIRE ARM LENGTH IN FEET, POLE TYPE (T) INCLUDES TRANSFORMER BASE, LUMINAIRE DESIGNATION

GENERAL NOTES
1. CONTACT WISDOT ELECTRICIAN, KEN RADKE (715) 459-4264, FOR COORDINATION OF INSTALLATION AND INSPECTION.

N

CTH MMM/BUS 29

31+00

CONTROL CABINET L-58-2001-ST
STA 110+40.00, 122.0' LT

1 - 3" CONDUIT
#10 A,B,N,GND

29-1-(A)
STA 110+40.00, 106.0' LT
LED B-5(T)-12

1 - 3" CONDUIT SPECIAL
#10 A,B,N,GND

LPB-1
STA 110+30.00, 110.0' LT

29-8-(A)
STA 109+85.00, 38.0' LT
LED B-5(T)-12

#10 A,B,N,GND

29-2-(B)
STA 111+50.00, 107.0' LT
LED B-5(T)-12

#10 A,B,N,GND

LPB-2
STA 111+60.00, 110.0' LT

29-3-(A)
STA 111+80.00, 20.0' LT
LED B-5(T)-12

LPB-3
STA 111+90.00, 20.0' LT

1 - 3" CONDUIT
#10 A,B,N,GND

1 - 3" CONDUIT SPECIAL
#10 A,B,N,GND

STH 29 WB

508+00 509+00 510+00 511+00 512+00 513+00

#10 A,B,N,GND

#10A,B,N,GND

#10 A,B,N,GND

LPB-11
STA 108+75.00, 31.0' LT

LPB-10
STA 109+75.00, 35.0' LT

#10 A,B,N,GND

LPB-4
STA 113+50.00, 30.0' LT

#10 A,B,N,GND

#10 A,B,N,GND

#10 A,B,N,GND

111+00

STH 29 EB

108+00 109+00 110+00 112+00 113+00

1 - 3" CONDUIT SPECIAL
#10 A,B,N,GND

29-8-(B)
STA 109+85.00, 38.0' LT
LED B-5(T)-12

1 - 3" CONDUIT SPECIAL
#10 A,B,N,GND

1 - 3" CONDUIT

LPB-8
STA 111+31.17, 56.2' RT

29-3-(B)
STA 111+80.00, 20.0' LT
LED B-5(T)-12

LPB-9
STA 109+95.00, 50.0' RT

#10 A,B,N,GND

#10 A,B,N,GND

29-7-(A)
STA 110+05.00, 50.0' RT
LED B-5(T)-12

29-6-(B)
STA 111+18.72, 49.9' RT
LED B-5(T)-12

CLARK DR

19+00

L-58-2001-ST	
A	BLACK
B	RED
N	WHITE
GND	GREEN
A	30 A
B	30 A
120/240 VAC	
ISOLATED NEUTRAL	

DISTRIBUTION CENTER	MAIN BREAKER	BRANCH CIRCUIT	COMPUTED AMPS	BRANCH CIRCUIT BREAKER	VOLTAGE DROP %	WIRE SIZE
L-58-2001-ST	100 AMP	A	2.8	30 AMP	0.9	#10 Cu
		B	2.8	30 AMP	1.3	#10 Cu

2

TOWN OF RICHMOND

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	LIGHTING PLAN: STH 29/CTH MMM (L58-2001)	SHEET 45	E

2

LEGEND

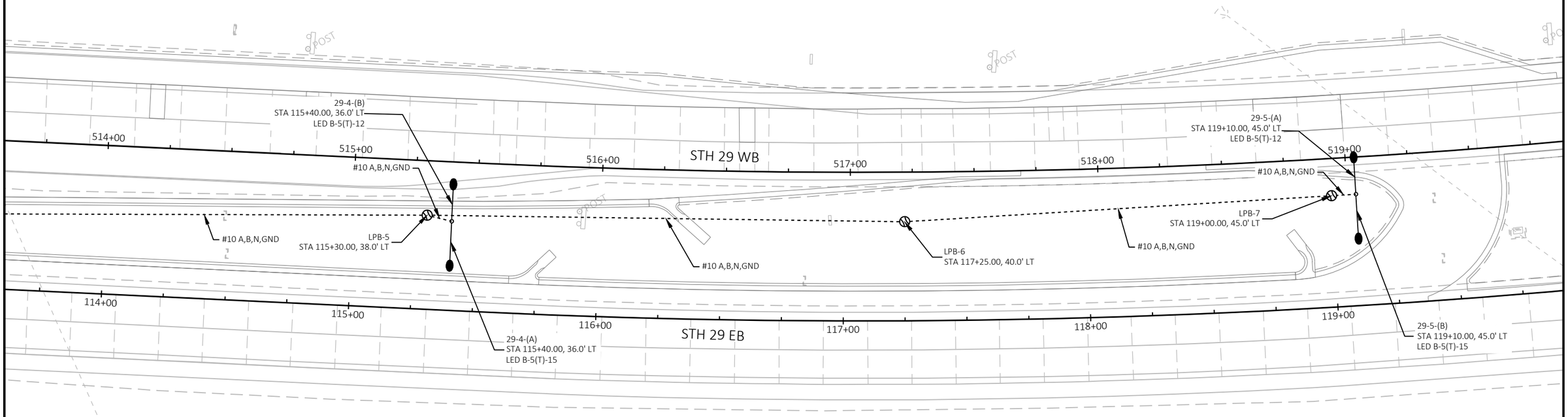
- LIGHTING CONTROL CABINET 120/240V 30-INCH WITH METER BREAKER PEDISTAL
- PULL BOX - NON-CONDUCTIVE 24"X42"
- CONDUIT- 2" RIGID, NONMETALLIC, SCHEDULE 40 (UNLESS OTHERWISE NOTED)
- LIGHT POLE, SINGLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)
- LIGHT POLE, DOUBLE ARM MOUNTED LUMINAIRE (TYPE 5 ALUMINUM, WITH TRANSFORMER BASE)

A-7-(1,3)
STA 501+59.00, 22.0' LT
250-7(T)-12

- A: DISTRIBUTION CENTER
- 7: POLE NUMBER
- (1,3): LIGHTING CIRCUITS
- STA 501+59.00, 22.0' LT: LOCATION (TO CENTER OF POLE)
- 12: LUMINAIRE ARM LENGTH IN FEET
- (T): POLE TYPE (T) INCLUDES TRANSFORMER BASE
- 250-7(T)-12: LUMINAIRE DESIGNATION

GENERAL NOTES
1. CONTACT WISDOT ELECTRICIAN, KEN RADKE (715) 459-4264, FOR COORDINATION OF INSTALLATION AND INSPECTION.

N



TOWN OF RICHMOND

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	LIGHTING PLAN: STH 29/CTH MMM (L58-2001)	SHEET 46	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\023601-LP.DWG PLOT DATE : 10/10/2023 9:26 AM PLOT BY : DREW NELSON PLOT NAME :

WISDOT/CADDS SHEET 42

2

LEGEND

EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
GWRE	GROOVED WET REF EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY	MIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYL36	MARKING YIELD LINE (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)	MCY	MARKING CURB (YELLOW)
MY6	MARKING LINE 6-INCH (YELLOW)	MWC24	MARKING CHEVRON 24-INCH (WHITE)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)	WORD	MARKING WORDS (WHITE)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)	ARROW	MARKING ARROWS (WHITE)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)	MSL18	MARKING STOP LINE 18-INCH (WHITE)
		MRC	MARKING RAILROAD CROSSING (WHITE)

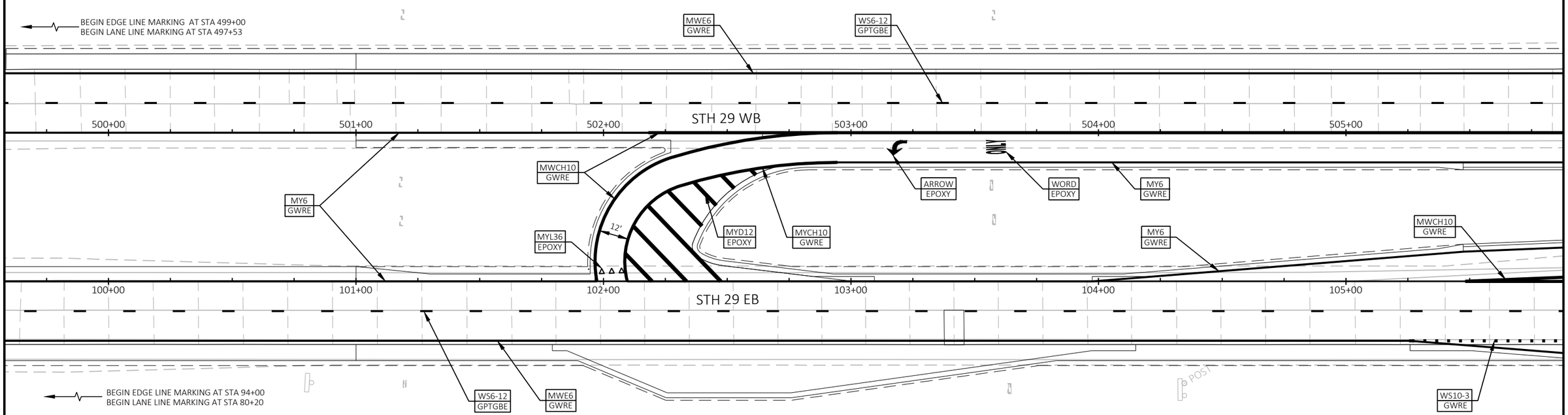
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING	SHEET 47	E

2

LEGEND

EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
GWRE	GROOVED WET REF EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY	MIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYL36	MARKING YIELD LINE (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)	MCY	MARKING CURB (YELLOW)
MY6	MARKING LINE 6-INCH (YELLOW)	MWC24	MARKING CHEVRON 24-INCH (WHITE)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)	WORD	MARKING WORDS (WHITE)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)	ARROW	MARKING ARROWS (WHITE)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)	MSL18	MARKING STOP LINE 18-INCH (WHITE)
		MRC	MARKING RAILROAD CROSSING (WHITE)

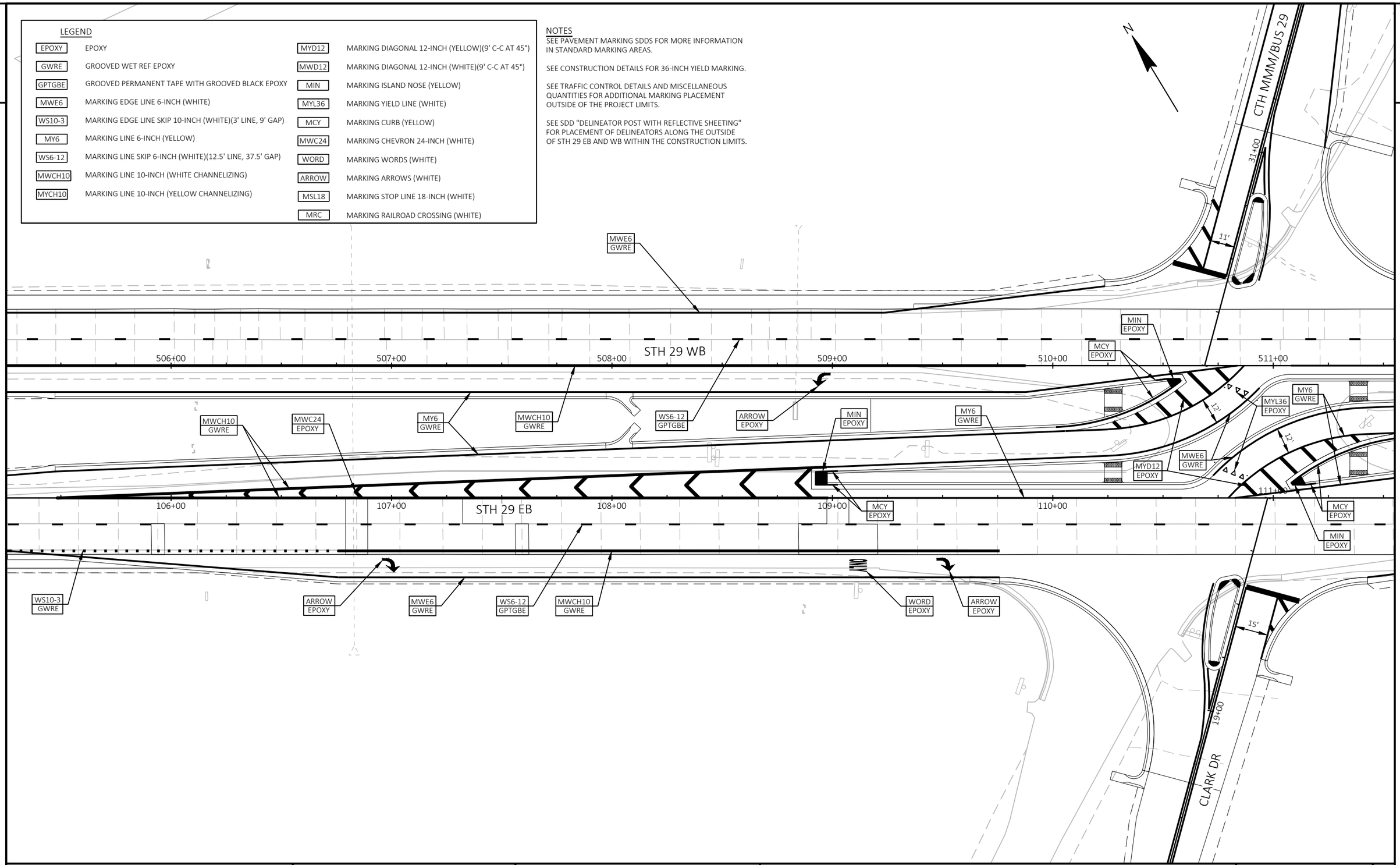
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

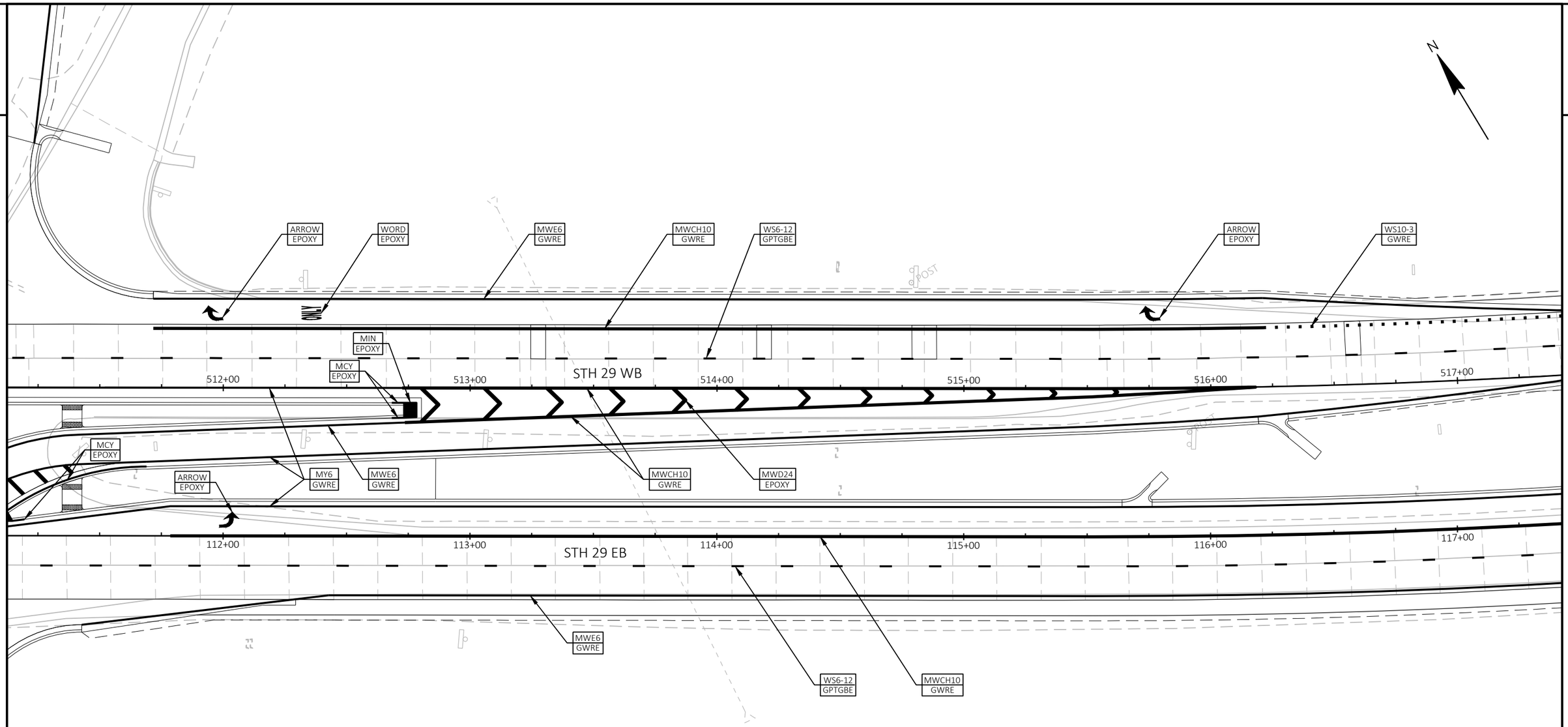
SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING	SHEET 48	E

2

2



LEGEND

EPOXY	EPOXY
GWRE	GROOVED WET REF EPOXY
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY
MWE6	MARKING EDGE LINE 6-INCH (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)
MY6	MARKING LINE 6-INCH (YELLOW)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)
MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
MIN	MARKING ISLAND NOSE (YELLOW)
MYL36	MARKING YIELD LINE (WHITE)
MCY	MARKING CURB (YELLOW)
MWC24	MARKING CHEVRON 24-INCH (WHITE)
WORD	MARKING WORDS (WHITE)
ARROW	MARKING ARROWS (WHITE)
MSL18	MARKING STOP LINE 18-INCH (WHITE)
MRC	MARKING RAILROAD CROSSING (WHITE)

NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

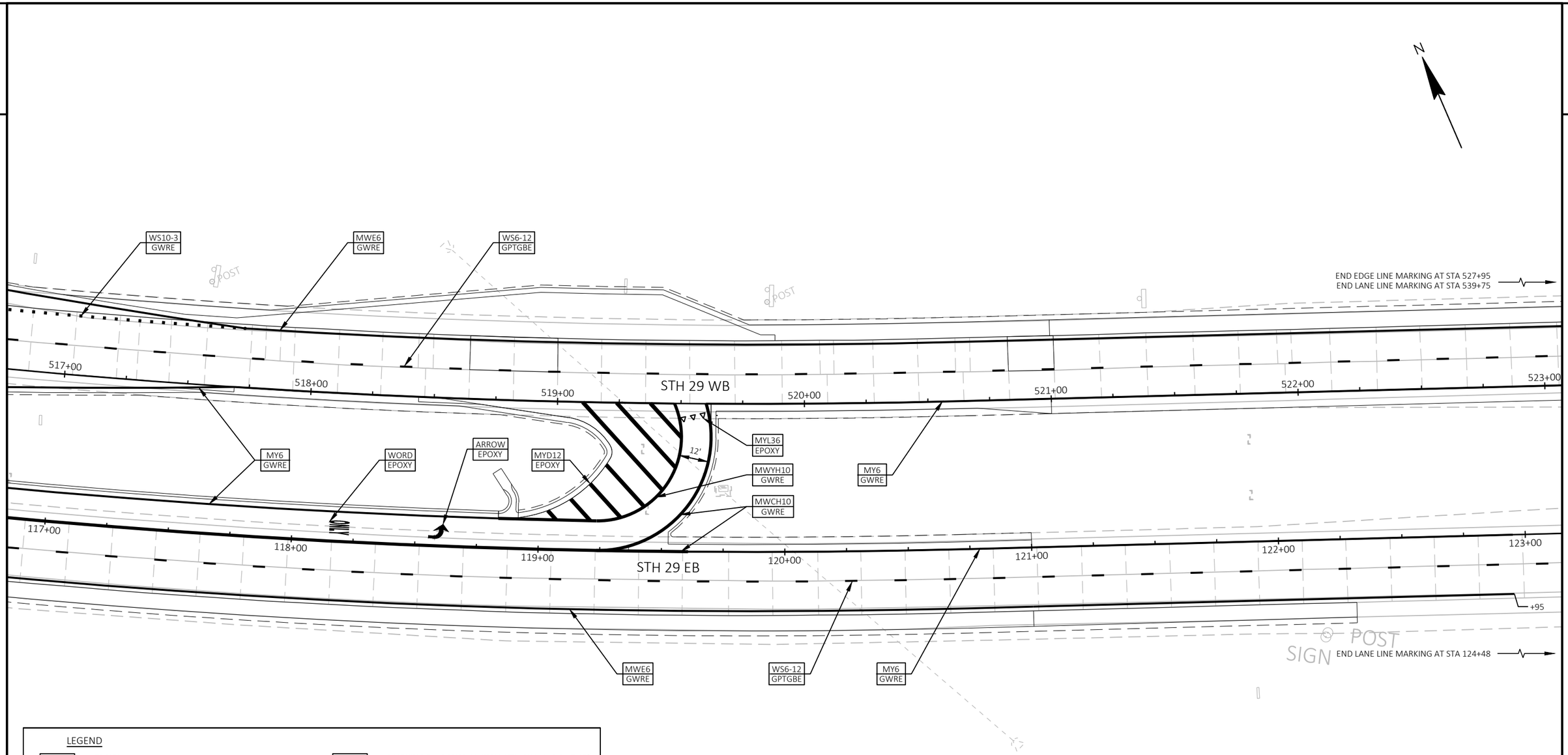
SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING	SHEET 49	E

2



LEGEND

EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
GWRE	GROOVED WET REF EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY	MIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYL36	MARKING YIELD LINE (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)	MCY	MARKING CURB (YELLOW)
MY6	MARKING LINE 6-INCH (YELLOW)	MWC24	MARKING CHEVRON 24-INCH (WHITE)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)	WORD	MARKING WORDS (WHITE)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)	ARROW	MARKING ARROWS (WHITE)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)	MSL18	MARKING STOP LINE 18-INCH (WHITE)
		MRC	MARKING RAILROAD CROSSING (WHITE)

NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING	SHEET 50	E

2

LEGEND

EPOXY	EPOXY
GWRE	GROOVED WET REF EPOXY
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY
MWE6	MARKING EDGE LINE 6-INCH (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)
MY6	MARKING LINE 6-INCH (YELLOW)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)
MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
MIN	MARKING ISLAND NOSE (YELLOW)
MYL36	MARKING YIELD LINE (WHITE)
MCY	MARKING CURB (YELLOW)
MWC24	MARKING CHEVRON 24-INCH (WHITE)
WORD	MARKING WORDS (WHITE)
ARROW	MARKING ARROWS (WHITE)
MSL18	MARKING STOP LINE 18-INCH (WHITE)
MRC	MARKING RAILROAD CROSSING (WHITE)

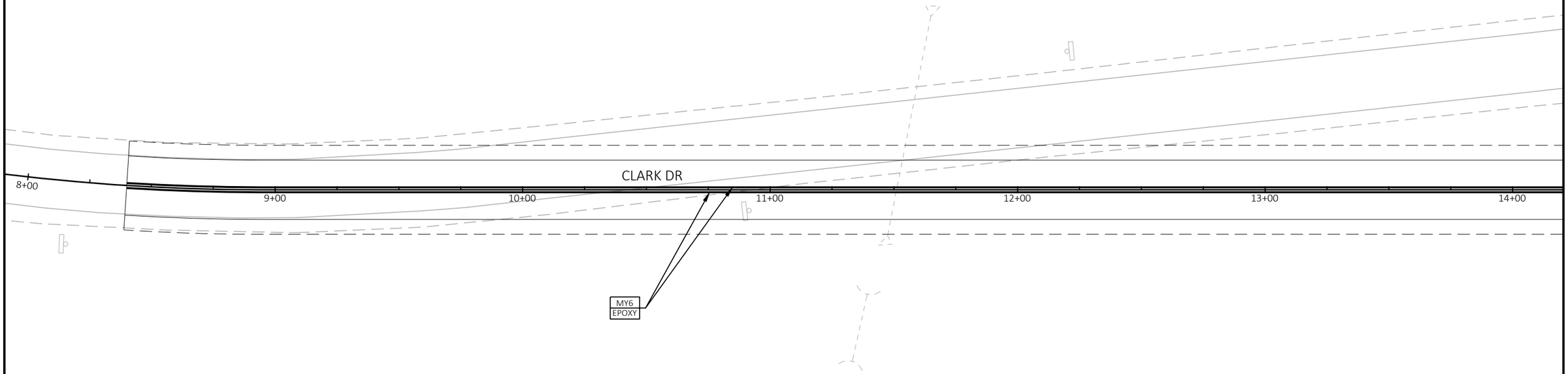
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



2

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING - CLARK DR	SHEET 51	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 05

PLOT DATE : 2/28/2024 1:09 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
GWRE	GROOVED WET REF EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY	MIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYL36	MARKING YIELD LINE (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)	MCY	MARKING CURB (YELLOW)
MY6	MARKING LINE 6-INCH (YELLOW)	MWC24	MARKING CHEVRON 24-INCH (WHITE)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)	WORD	MARKING WORDS (WHITE)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)	ARROW	MARKING ARROWS (WHITE)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)	MSL18	MARKING STOP LINE 18-INCH (WHITE)
		MRC	MARKING RAILROAD CROSSING (WHITE)

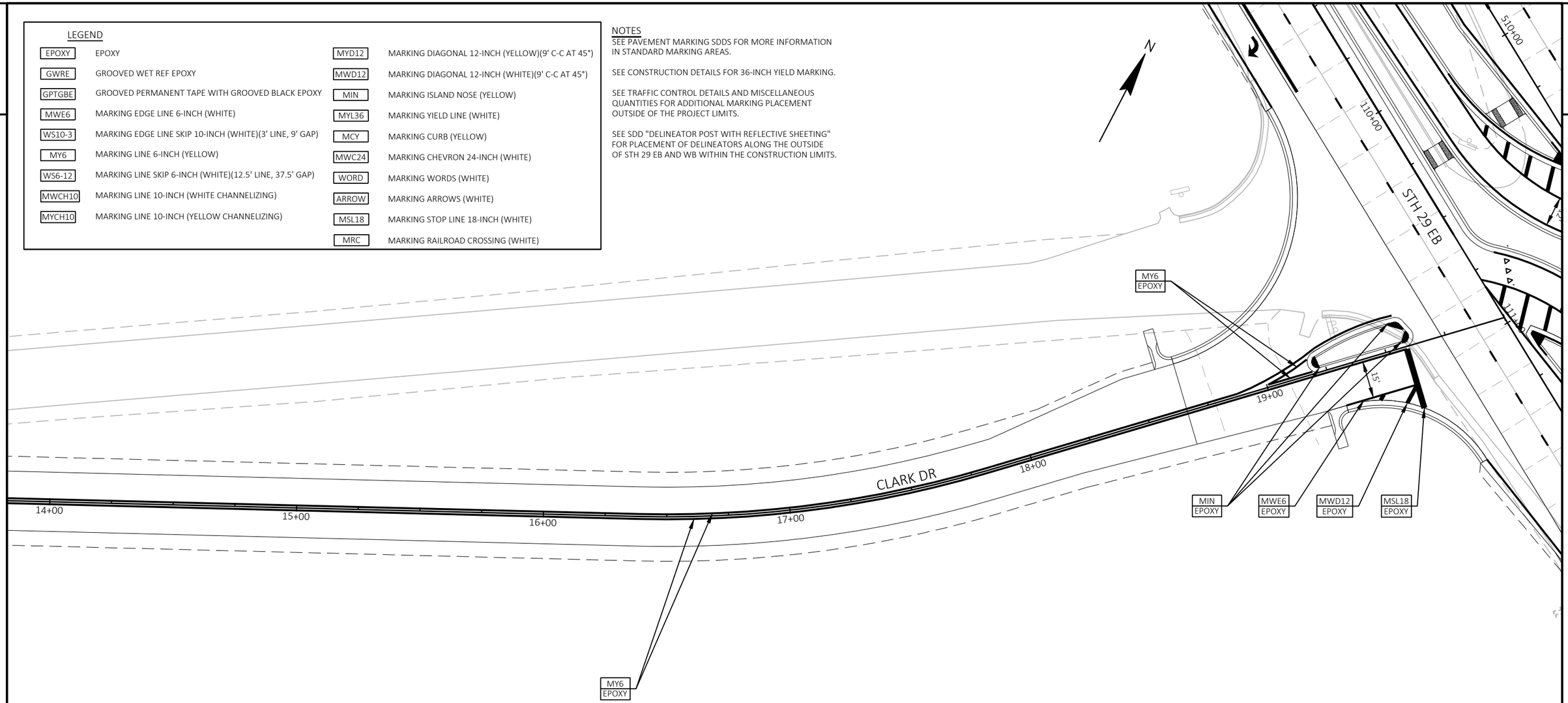
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



2

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING - CLARK DR	SHEET 52	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 06

PLOT DATE : 2/28/2024 1:09 PM PLOT BY : NICK MENNINGA PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

EPOXY	EPOXY
GWRE	GROOVED WET REF EPOXY
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY
MWE6	MARKING EDGE LINE 6-INCH (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)
MY6	MARKING LINE 6-INCH (YELLOW)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)
MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
MIN	MARKING ISLAND NOSE (YELLOW)
MYL36	MARKING YIELD LINE (WHITE)
MCY	MARKING CURB (YELLOW)
MWC24	MARKING CHEVRON 24-INCH (WHITE)
WORD	MARKING WORDS (WHITE)
ARROW	MARKING ARROWS (WHITE)
MSL18	MARKING STOP LINE 18-INCH (WHITE)
MRC	MARKING RAILROAD CROSSING (WHITE)

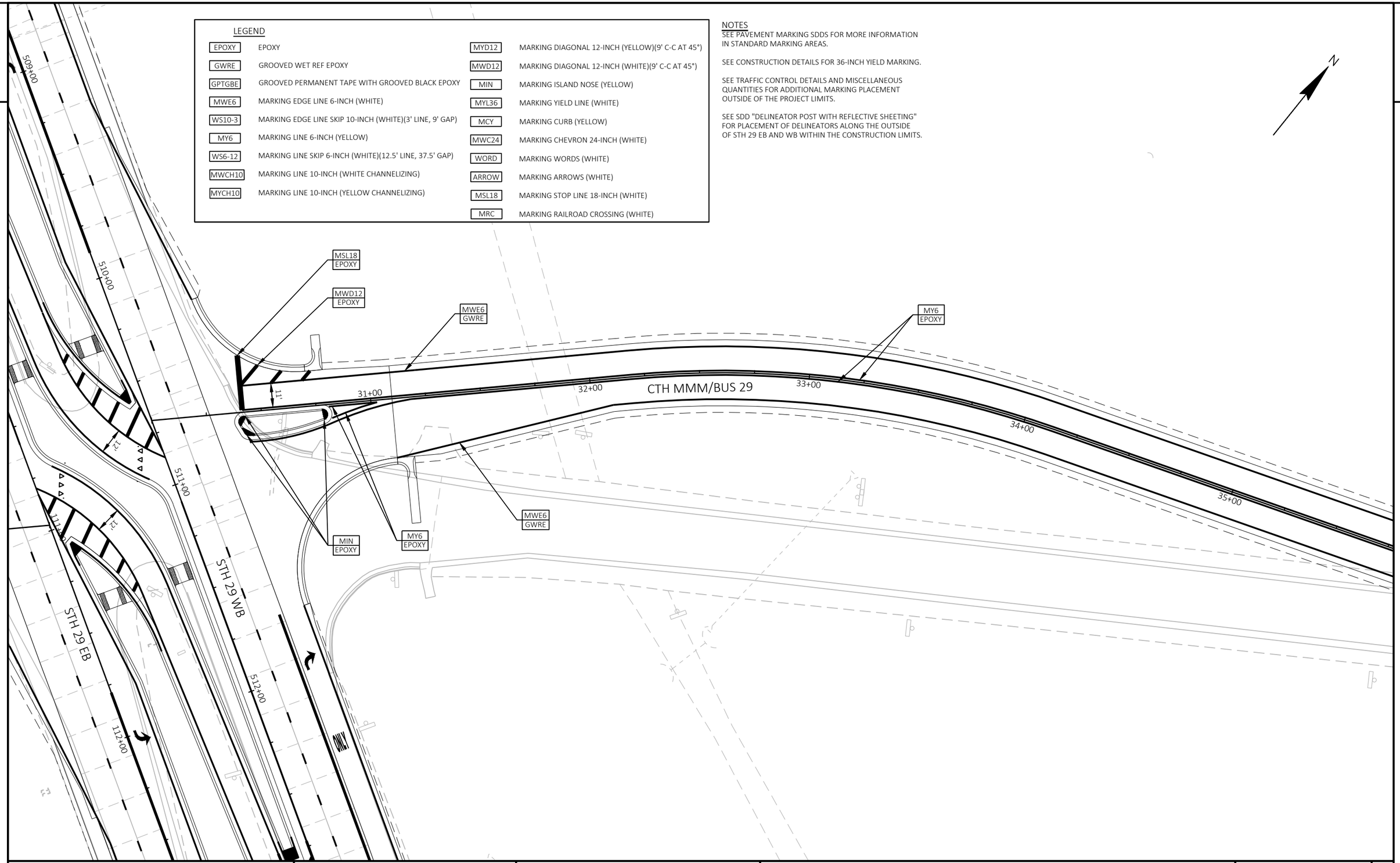
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	MARKING - CTH MMM/BUS 29	SHEET 53	E

2

LEGEND

EPOXY	EPOXY
GWRE	GROOVED WET REF EPOXY
GPTGBE	GROOVED PERMANENT TAPE WITH GROOVED BLACK EPOXY
MWE6	MARKING EDGE LINE 6-INCH (WHITE)
WS10-3	MARKING EDGE LINE SKIP 10-INCH (WHITE)(3' LINE, 9' GAP)
MY6	MARKING LINE 6-INCH (YELLOW)
WS6-12	MARKING LINE SKIP 6-INCH (WHITE)(12.5' LINE, 37.5' GAP)
MWCH10	MARKING LINE 10-INCH (WHITE CHANNELIZING)
MYCH10	MARKING LINE 10-INCH (YELLOW CHANNELIZING)
MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(9' C-C AT 45°)
MWD12	MARKING DIAGONAL 12-INCH (WHITE)(9' C-C AT 45°)
MIN	MARKING ISLAND NOSE (YELLOW)
MYL36	MARKING YIELD LINE (WHITE)
MCY	MARKING CURB (YELLOW)
MWC24	MARKING CHEVRON 24-INCH (WHITE)
WORD	MARKING WORDS (WHITE)
ARROW	MARKING ARROWS (WHITE)
MSL18	MARKING STOP LINE 18-INCH (WHITE)
MRC	MARKING RAILROAD CROSSING (WHITE)

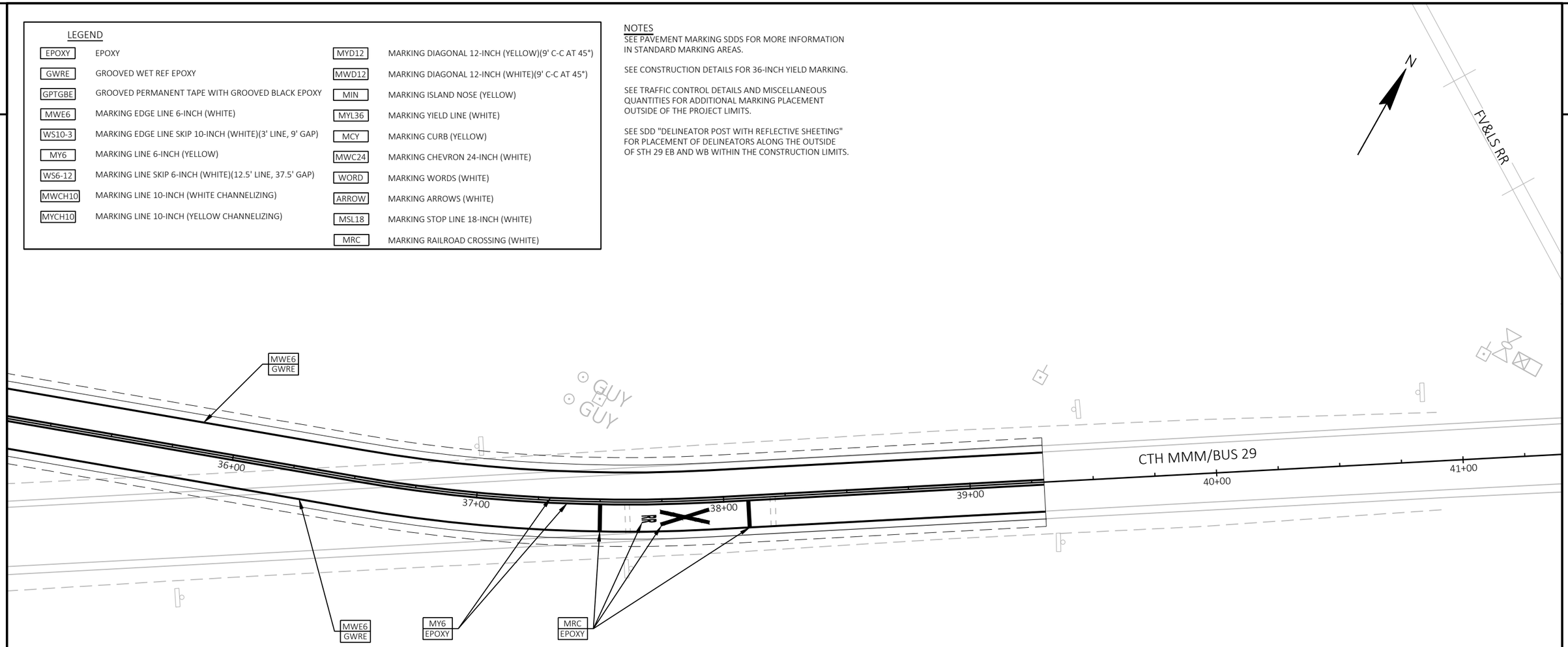
NOTES

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS.

SEE CONSTRUCTION DETAILS FOR 36-INCH YIELD MARKING.

SEE TRAFFIC CONTROL DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL MARKING PLACEMENT OUTSIDE OF THE PROJECT LIMITS.

SEE SDD "DELINEATOR POST WITH REFLECTIVE SHEETING" FOR PLACEMENT OF DELINEATORS ALONG THE OUTSIDE OF STH 29 EB AND WB WITHIN THE CONSTRUCTION LIMITS.



	TRAFFIC CONTROL SIGNS PCMS MESSAGES					
	PRIOR TO CONSTRUCTION		PRIOR TO TRAFFIC PATTERN CHANGE		PRIOR TO SIDE ROAD CLOSURES	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
STH 29 EB 0.3 MILES EAST OF HICKORY RD	HWY 29 WORK STARTS	XXX DAY XXX XX	VARIES	XXX DAY XXX XX	--	--
STH 29 WB 0.1 MILES EAST OF CTH M OVERPASS	HWY 29 WORK STARTS	XXX DAY XXX XX	VARIES	XXX DAY XXX XX	--	--
STH 29 EB 0.3 MILES WEST OF CLARK DRIVE	--	--	--	--	BUS 29 / CLARK DR CLOSURES	STARTING XXX DAY XXX XX
STH 29 WB 0.3 MILES EAST OF CTH MMM/BUS 29	--	--	--	--	BUS 29 / CLARK DR CLOSURES	STARTING XXX DAY XXX XX

N

HWY MMM/BUS 29
ROAD CLOSED
BEGINS XXX-XX
G20-57C (MOD)
72"X36"

CLARK DR
ROAD CLOSED
BEGINS XXX-XX
G20-57C (MOD)
72"X36"

STH 29 WB
STH 29 EB
CTH MMM/BUS 29
FV&LS RR
CLARK DR

MB

LEGEND

MB TRAFFIC CONTROL SIGN PCMS

(1) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" ORTHE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET. SEE TRAFFIC CONTROL STAGING DETAILS FOR ADDITIONAL INFORMATION.

(2) PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" WHEN CLARK DR AND CTH MMM ARE OPEN TO TRAFFIC.

(3A) PLACE TRAFFIC CONTROL SIGNS PER DETAIL C AND DETAIL D ON SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DURING CLARK DR CLOSURE.

(3B) PLACE TRAFFIC CONTROL SIGNS PER DETAIL B ON SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DURING CTH MMM CLOSURE. SEE DETOUR SHEETS FOR ADDITIONAL SIGNS.

** SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

TRAFFIC CONTROL GENERAL NOTES

1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS) PER SDDS.
4. REDUCE THE REGULATORY SPEED LIMIT TO 55 MPH WHEN STH 29 TRAFFIC IS REDUCED TO A SINGLE LANE IN THAT DIRECTION AND WORKERS ARE PRESENT.
5. SEE TRAFFIC CONTROL STAGING DETAILS AND DETOUR FOR ADDITIONAL DEVICES AND INFORMATION.
6. DO NOT PLACE ANY SIGNING OR TRAFFIC CONTROL DEVICES WITHIN 25' OF THE RAILROAD.

PCMS GENERAL NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE.

CONSIDER GEOMETRICS WHEN LOCATING MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE BOARD FOR A MINIMUM OF 1,000 FEET IN FRONT OF THE MESSAGE BOARD. PLACE MESSAGE BOARDS AS FAR AWAY FROM LIVE TRAFFIC LANES AS POSSIBLE WITHOUT HAMPERING VISIBILITY.

PLACE TRAFFIC CONTROL SIGNS PCMS AND DISPLAY THE MESSAGE 7 DAYS PRIOR TO THE EXPECTED START OF THE PROPOSED WORK OR SIDE ROAD CLOSURE. ADJUST THE MESSAGE DATE ACCORDINGLY.

ADDITIONAL PCMS WILL BE IMPLEMENTED DURING PERIODS OF SPEED REDUCTION AND WILL BE INCIDENTAL TO THE DIGITAL SPEED REDUCTION SYSTEM ITEM. SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET FOR ADDITIONAL INFORMATION.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - OVERVIEW	SHEET 55	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025100-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 11/28/2023 8:18 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:200 FT

2

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

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

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

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

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

(1) EXISTING POST MOUNTED SPEED LIMIT SIGNS SHOULD BE COVERED OR REMOVED.

(2) PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE.

(3) PLACE A DIGITAL SPEED LIMIT TRAILER 700' FEET UPSTREAM OF EACH ACTIVE WORK AREA WHERE WORKERS ARE PRESENT.

(4) A DIGITAL SPEED LIMIT TRAILER SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP.

(5) IF WORK AREA STARTS LESS THAN 1,000 FEET FROM END OF LANE CLOSURE TAPER, OMIT DIGITAL SPEED LIMIT TRAILER AT THAT LOCATION.

(6) PLACE A DIGITAL SPEED LIMIT TRAILER A MINIMUM OF EVERY ONE MILE. MODIFY PLACEMENT AS DIRECTED BY ENGINEER WHEN DIGITAL SPEED LIMIT TRAILER IS LOCATED IN CLOSE PROXIMITY TO AN ACCELERATION LANE OF AN ENTRANCE RAMP.

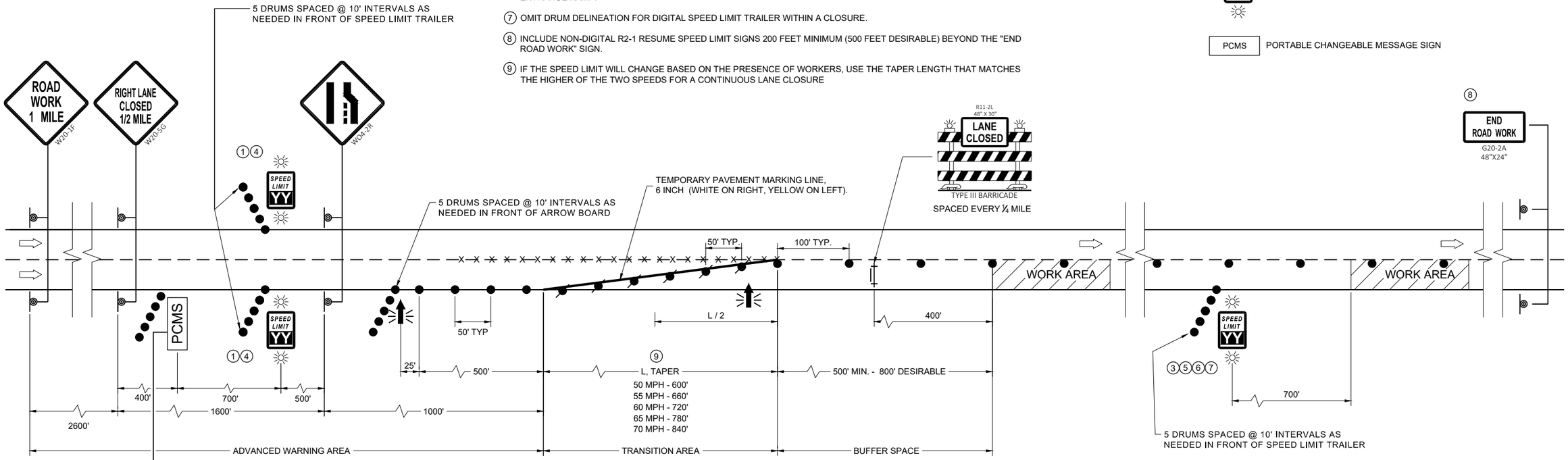
(7) OMIT DRUM DELINEATION FOR DIGITAL SPEED LIMIT TRAILER WITHIN A CLOSURE.

(8) INCLUDE NON-DIGITAL R2-1 RESUME SPEED LIMIT SIGNS 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END ROAD WORK" SIGN.

(9) IF THE SPEED LIMIT WILL CHANGE BASED ON THE PRESENCE OF WORKERS, USE THE TAPER LENGTH THAT MATCHES THE HIGHER OF THE TWO SPEEDS FOR A CONTINUOUS LANE CLOSURE

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- SPEED LIMIT YY — DIGITAL SPEED LIMIT TRAILER
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



(2) PCMS MESSAGING

POSTED SPEED REDUCTION	
FRAME 1	**FRAME 2**
REDUCED SPEED AHEAD	XX MPH

NO SPEED REDUCTION

(FLASHING CAUTION MODE)

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION	SHEET 56	E

2

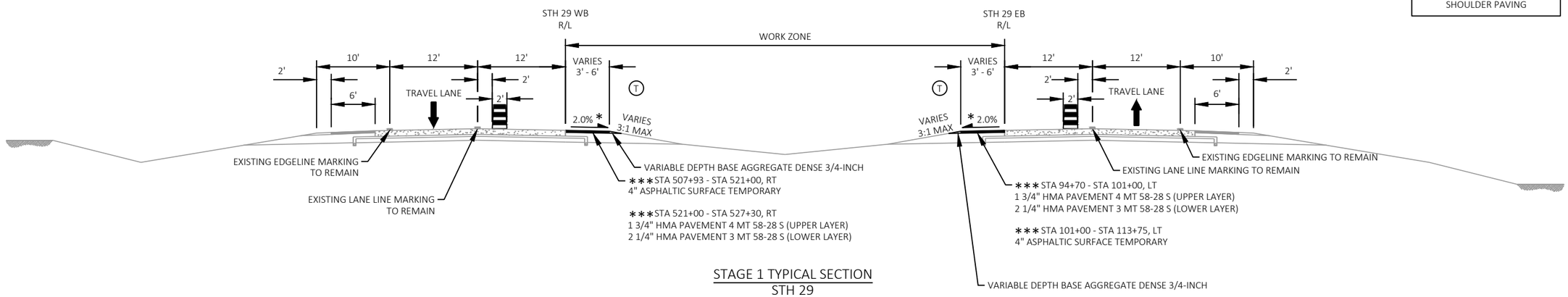
LEGEND

TRAFFIC CONTROL DRUM

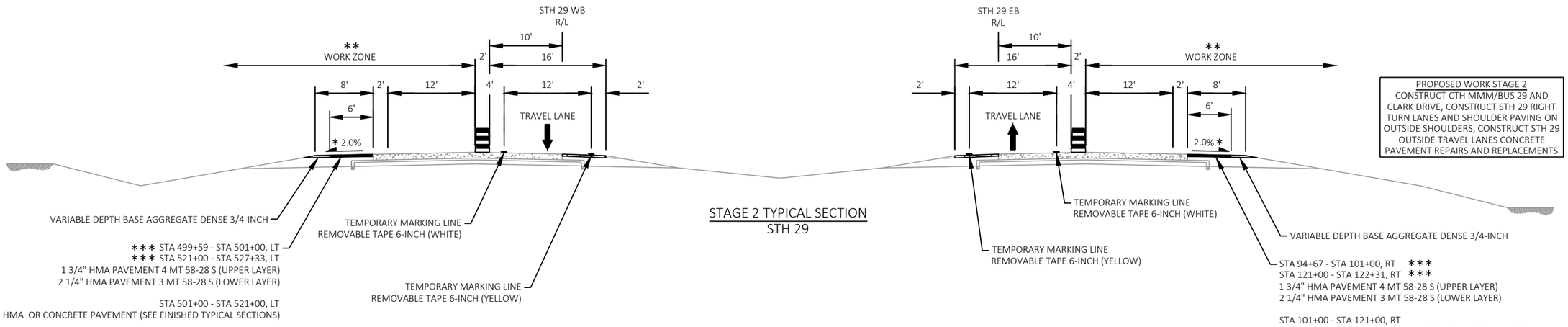
PAVEMENT PLACED IN THE PREVIOUS STAGE

TRAFFIC CONTROL FLOW ARROW

PROPOSED WORK STAGE 1
CONSTRUCT STH 29 MEDIAN SHOULDER PAVING



STAGE 1 TYPICAL SECTION
STH 29



STAGE 2 TYPICAL SECTION
STH 29

PROPOSED WORK STAGE 2
CONSTRUCT CTH MMM/BUS 29 AND CLARK DRIVE, CONSTRUCT STH 29 RIGHT TURN LANES AND SHOULDER PAVING ON OUTSIDE SHOULDERS, CONSTRUCT STH 29 OUTSIDE TRAVEL LANES CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS

NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION

** SEE TRAFFIC CONTROL - STAGE 2 SHEETS FOR TRAFFIC CONTROL INTERSECTION PLAN SHEETS AND LAYOUT INFORMATION

*** REMOVE EXISTING PAVED SHOULDER AND NECESSARY AGGREGATE (+/- 1") UNDER THE EXCAVATION COMMON ITEM PRIOR TO PLACEMENT OF ASPHALTIC SURFACE AND HMA PAVEMENT ITEMS.

(T) REMOVE EXISTING ASPHALTIC SURFACE FULL WIDTH IN EXISTING LEFT TURN LANES

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 57	E

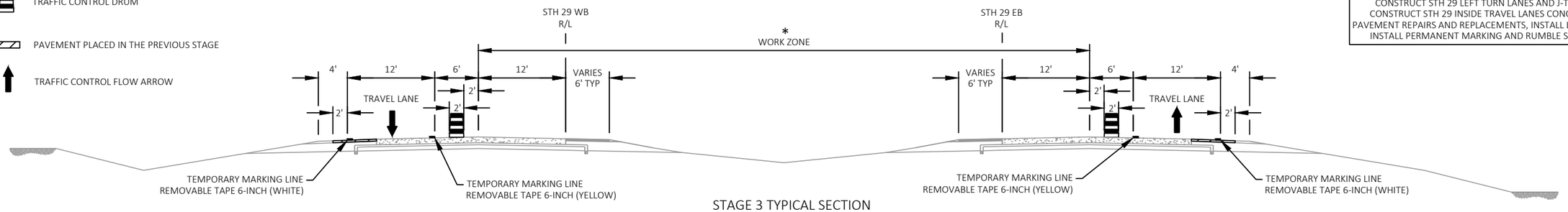
LEGEND

TRAFFIC CONTROL DRUM

PAVEMENT PLACED IN THE PREVIOUS STAGE

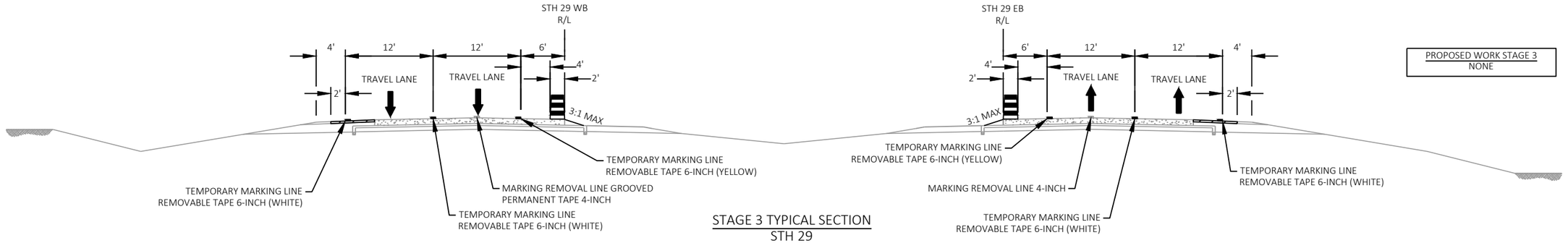
TRAFFIC CONTROL FLOW ARROW

PROPOSED WORK STAGE 3
CONSTRUCT STH 29 LEFT TURN LANES AND J-TURN, CONSTRUCT STH 29 INSIDE TRAVEL LANES CONCRETE PAVEMENT REPAIRS AND REPLACEMENTS, INSTALL LIGHTING, INSTALL PERMANENT MARKING AND RUMBLE STRIPS



STAGE 3 TYPICAL SECTION
STH 29
DURING NORMAL WORKING CONDITIONS

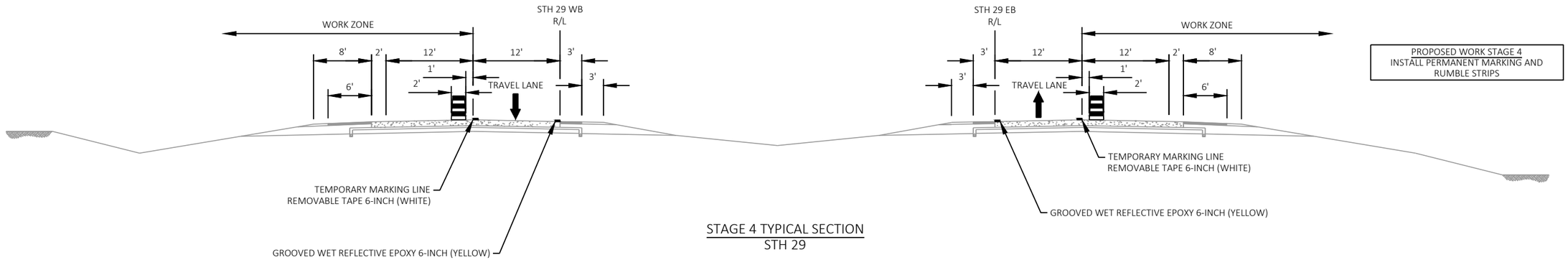
PROPOSED WORK STAGE 3
NONE



STAGE 3 TYPICAL SECTION
STH 29

** ROADWAY CONDITION DURING HOLIDAY AND SPECIAL EVENT WORK RESTRICTIONS

PROPOSED WORK STAGE 4
INSTALL PERMANENT MARKING AND RUMBLE STRIPS



STAGE 4 TYPICAL SECTION
STH 29

NOTES

* SEE TRAFFIC CONTROL - STAGE 3 DETAILS FOR TRAFFIC CONTROL INTERSECTION PLAN SHEETS AND LAYOUT INFORMATION

** SEE SDD "TRAFFIC CONTROL MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD" FOR ADDITIONAL SIGNS, DEVICES, AND INFORMATION.

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 58	E

LEGEND

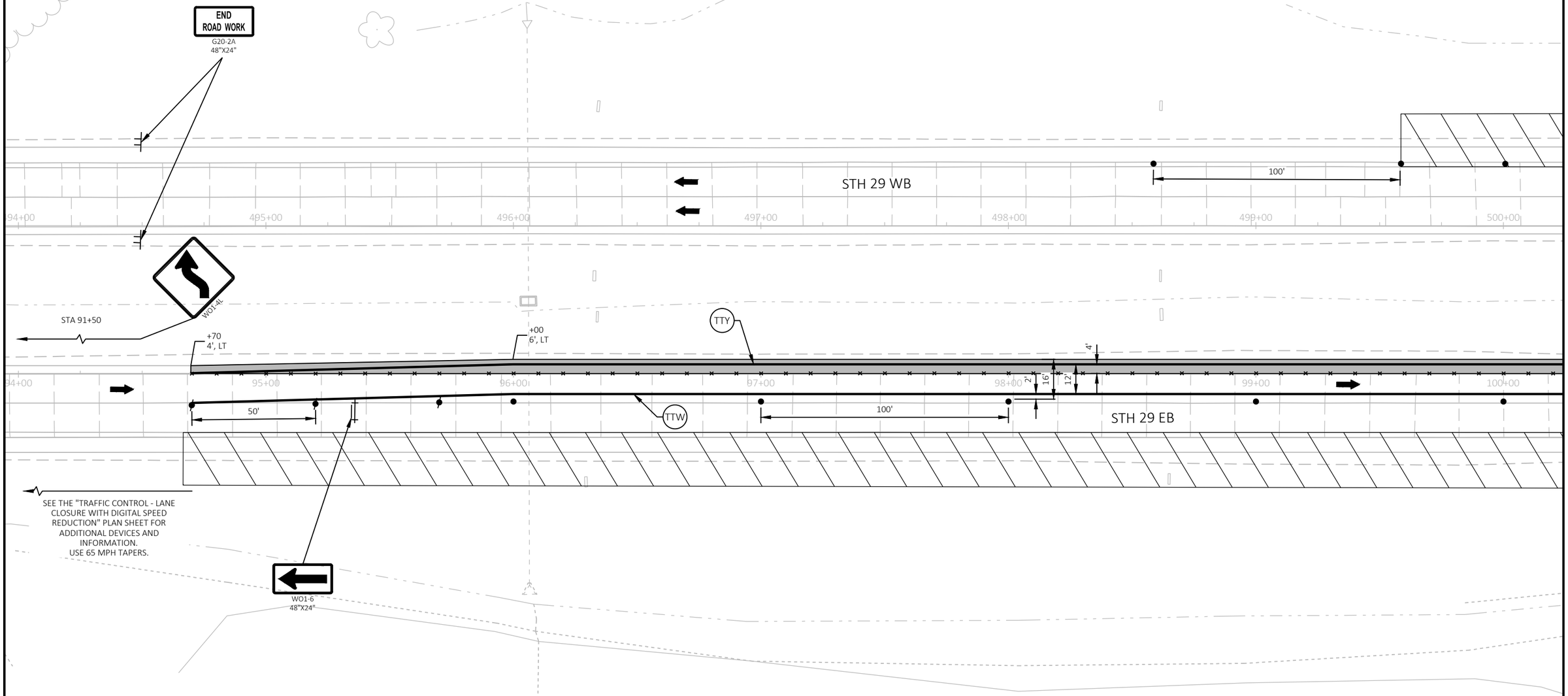
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 59	E

2

LEGEND

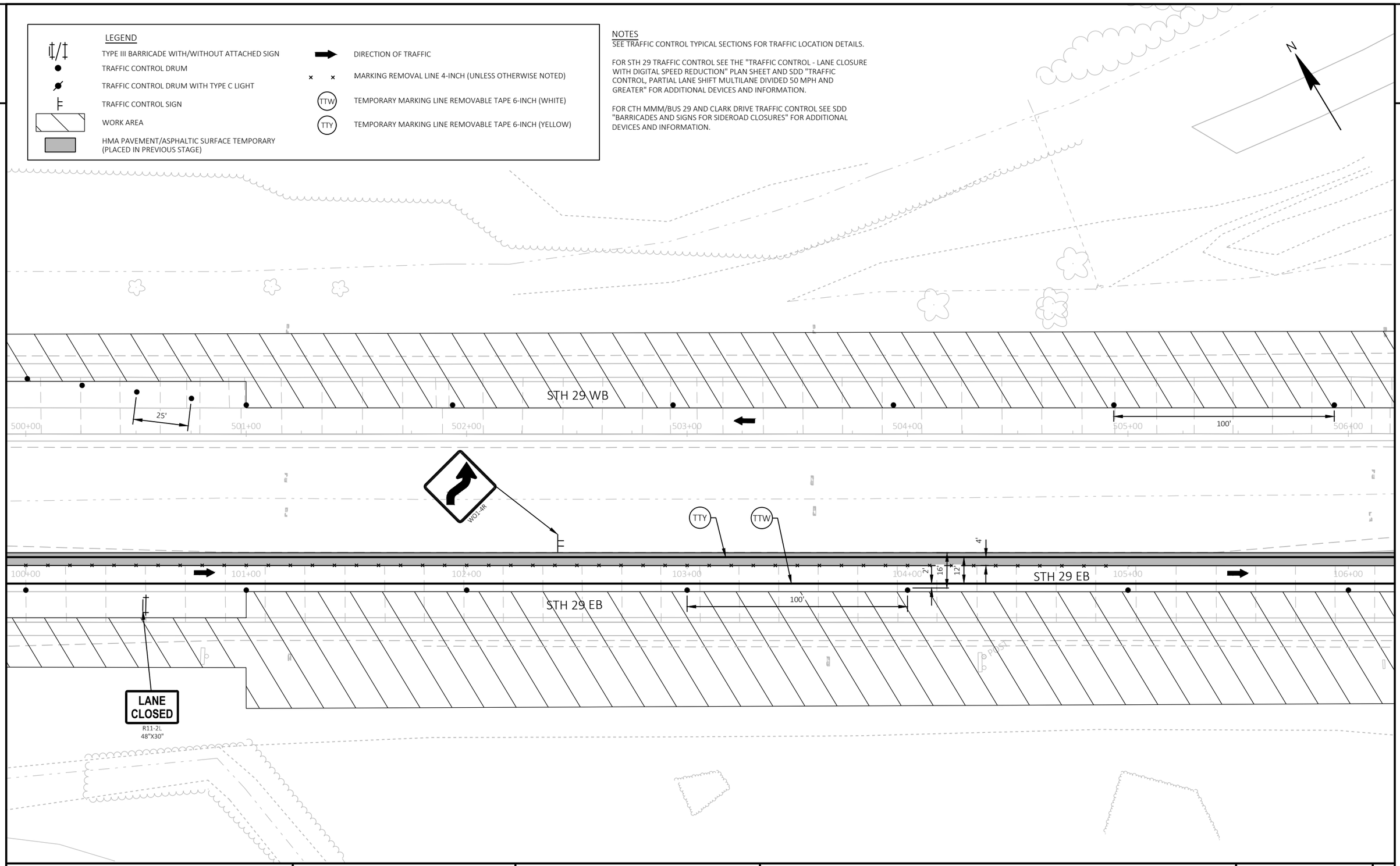
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 60	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 11/17/2023 12:40 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

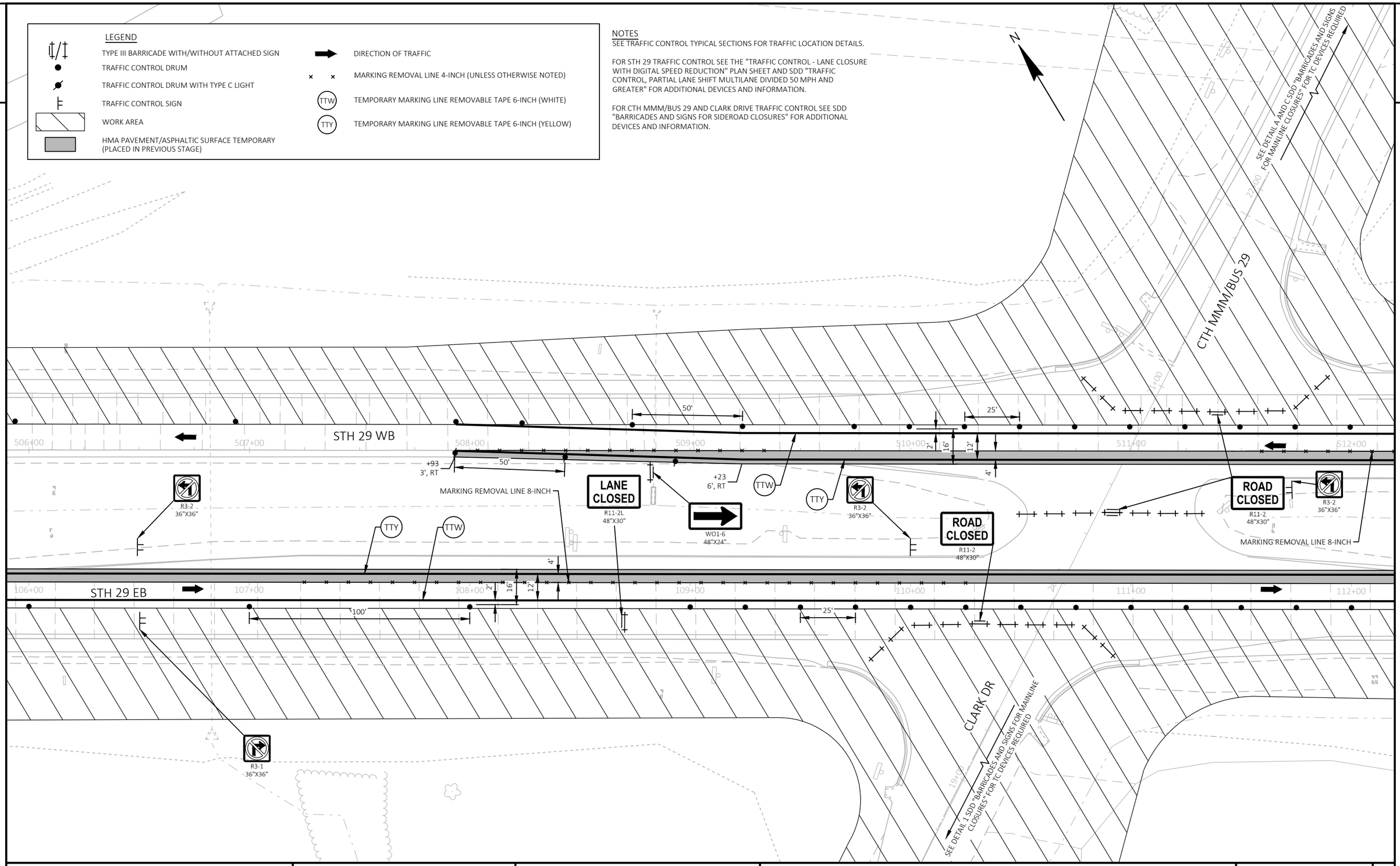
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 61	E

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.

N

LANE CLOSED
R11-2L
48"X30"

R3-1
36"X36"

STH 29 WB

25'

100'

2'

16'

12'

4'

MARKING REMOVAL LINE 8-INCH

TTW

TTY

WO1-6
48"X24"

+45
6', LT

+75
3', LT

50'

12'

R3-2
36"X36"

STH 29 EB

100'

50'

512+00 513+00 514+00 515+00 516+00 517+00 518+00

112+00 113+00 114+00 115+00 116+00 117+00 118+00

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 62	E

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

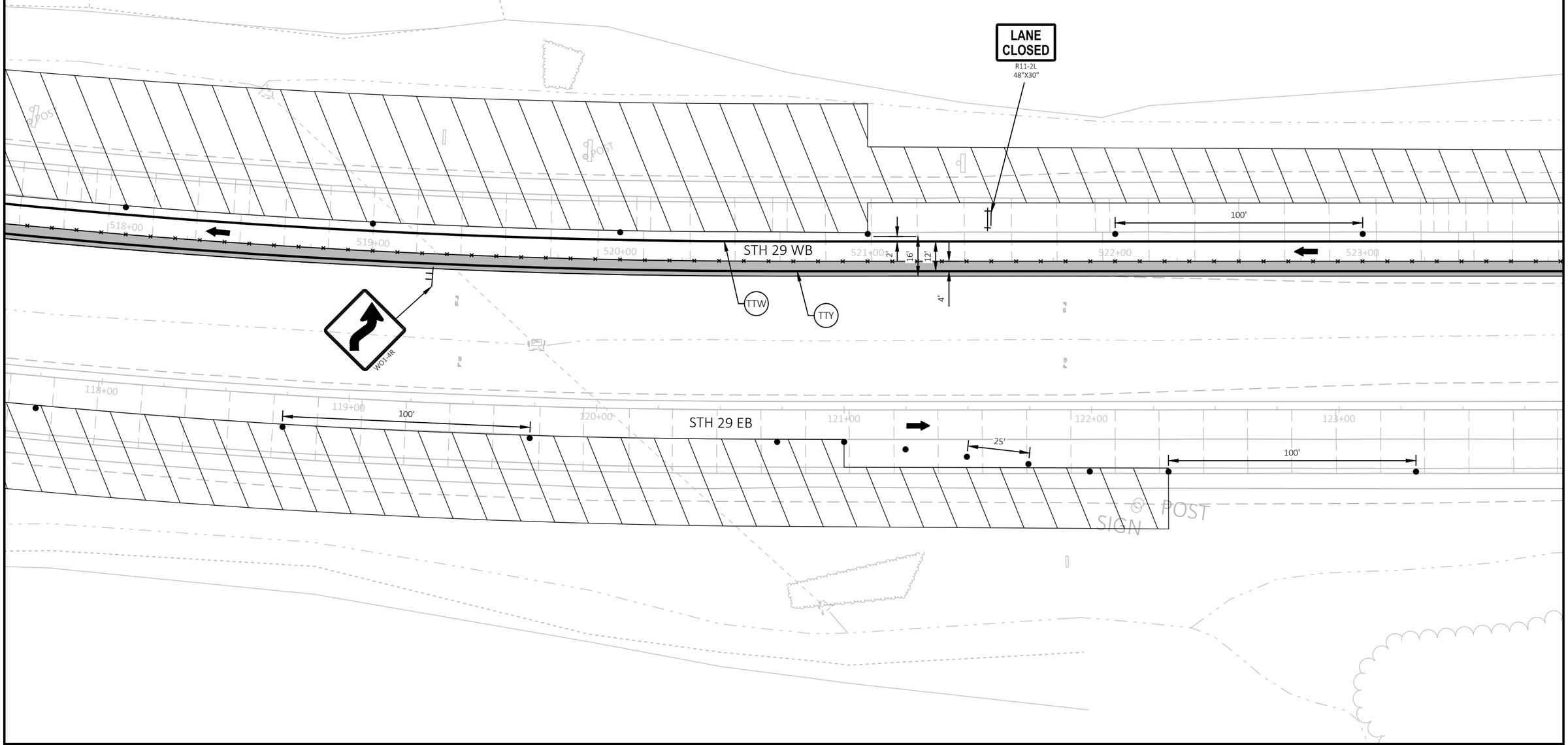
NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.

N



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 63	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 05

PLOT DATE : 11/17/2023 12:41 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

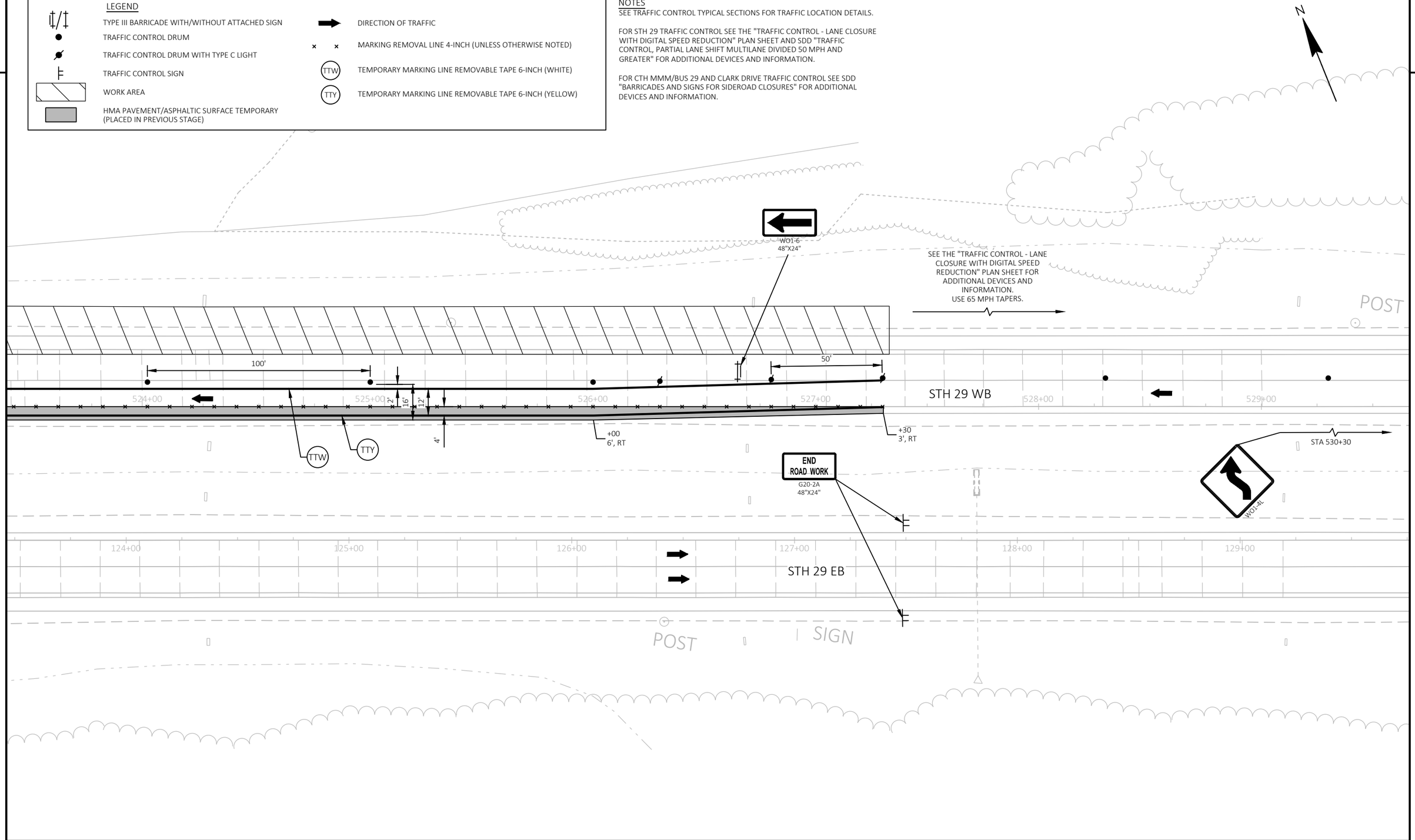
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT/ASPHALTIC SURFACE TEMPORARY (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS OTHERWISE NOTED)
- TTW TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 2	SHEET 64	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025102-TC.DWG
LAYOUT NAME - 06

PLOT DATE : 11/17/2023 12:41 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

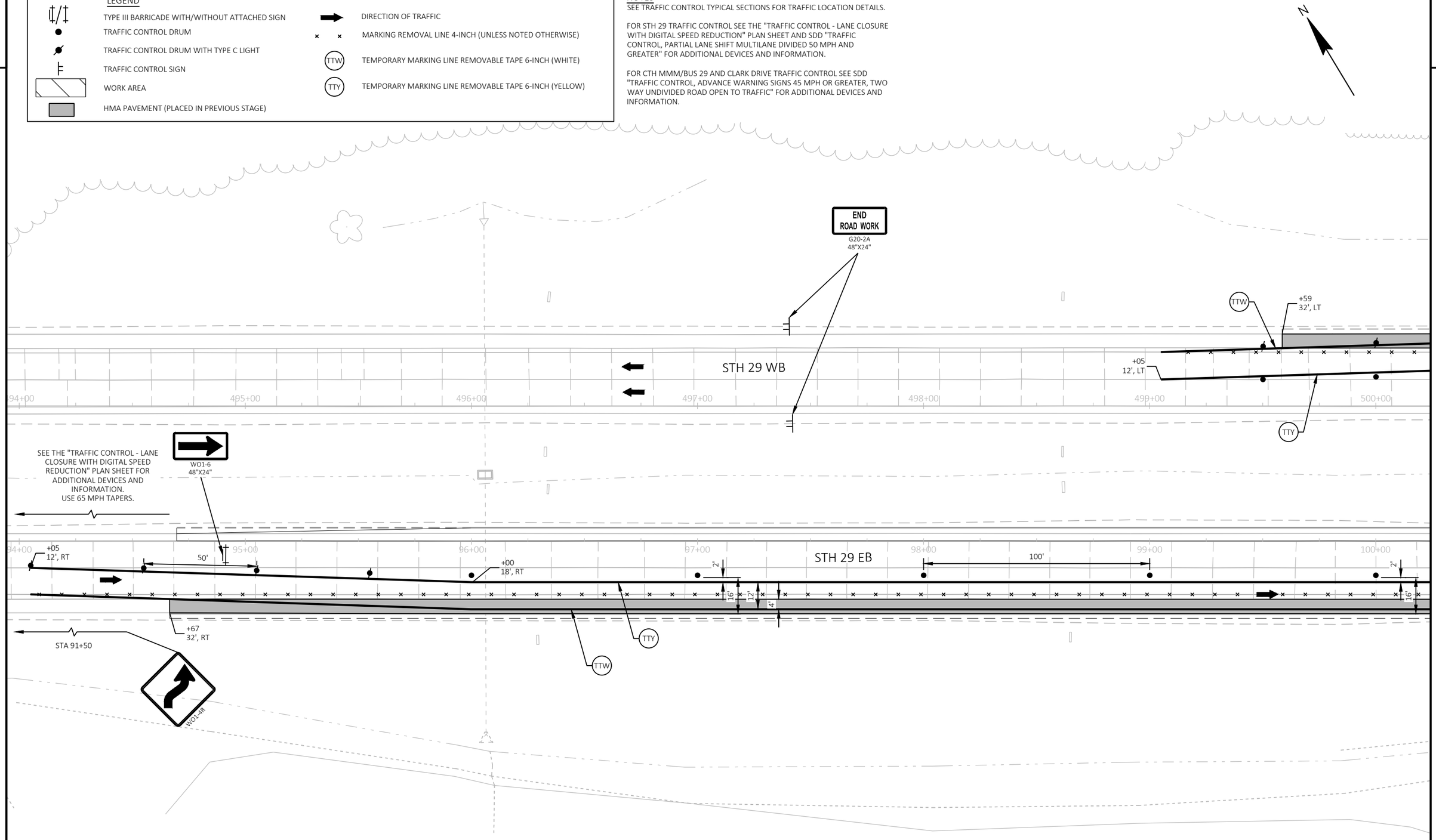
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 65	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 01

PLOT DATE : 11/22/2023 7:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

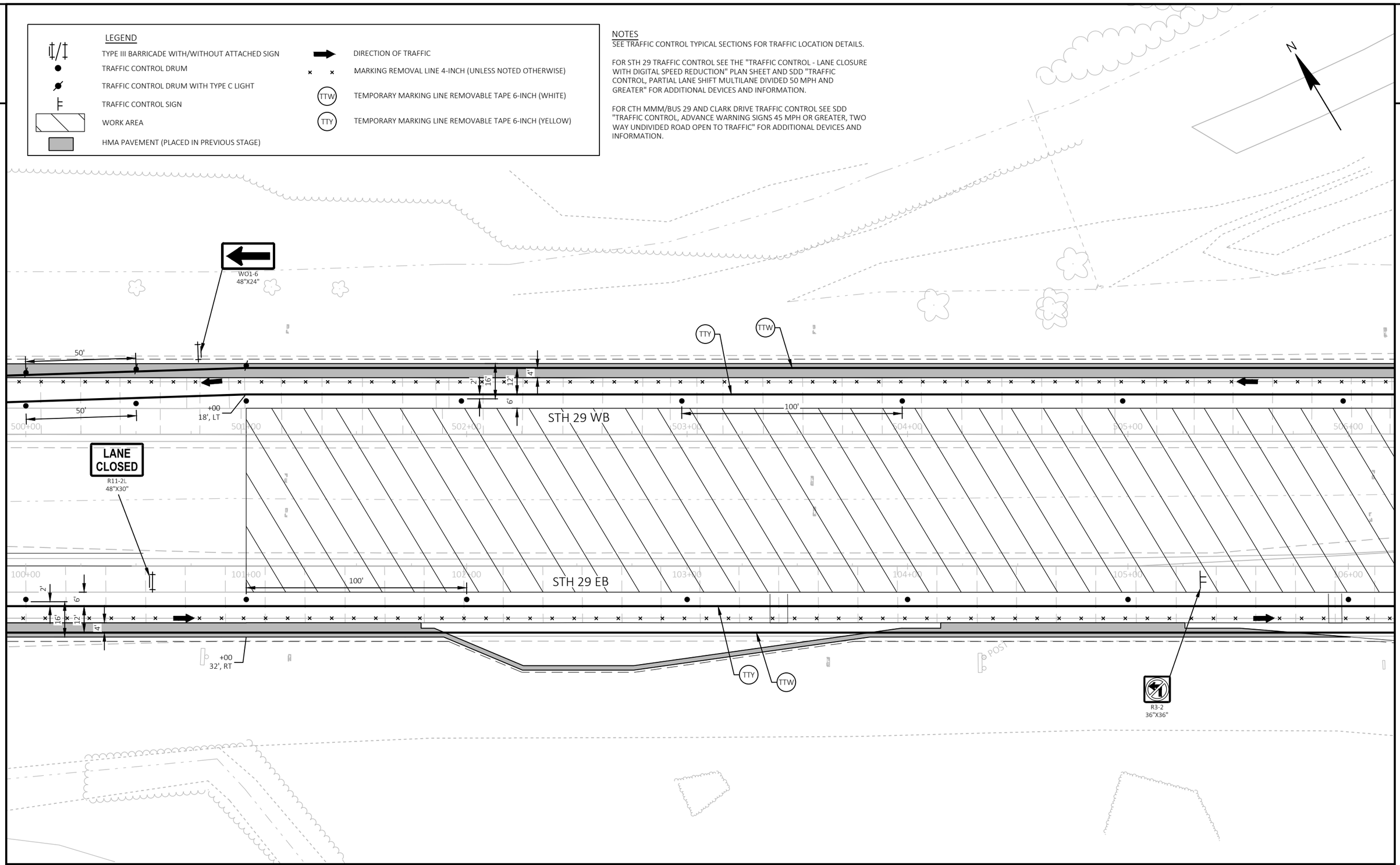
- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 66	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 02

PLOT DATE : 11/22/2023 7:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.

N

CTH MMM/BUS 29

SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR TRAFFIC CONTROL SIGNS

NO ACCESS TO HWY 29 EAST
FMS
72" X 24"

WO1-4R

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

+24
32', LT

STH 29 WB

STH 29 EB

100'

25'

2'
16'
12'
4'
6'

15'

7'

R3-2
36"X36"

WO1-6
48"X24"

LANE CLOSED
R11-2L
48"X30"

ROAD CLOSED
R11-2
48"X30"

CLARK DR

NO ACCESS TO HWY 29 WEST
FMS
72" X 24"

SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR TRAFFIC CONTROL SIGNS

WO1-4R

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 67	E

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.

N

MARKING REMOVAL LINE 8-INCH

TTW

TTY

R3-2
36"X36"

POST

12'

100'

STH 29 WB

512+00 513+00 514+00 515+00 516+00 517+00 518+00

112+00 113+00 114+00 115+00 116+00 117+00 118+00

100'

2'

6'

16'

12'

4'

STH 29 EB

+45
32', RT

TTY

TTW

W01-4R

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 68	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 04

PLOT DATE : 11/22/2023 7:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

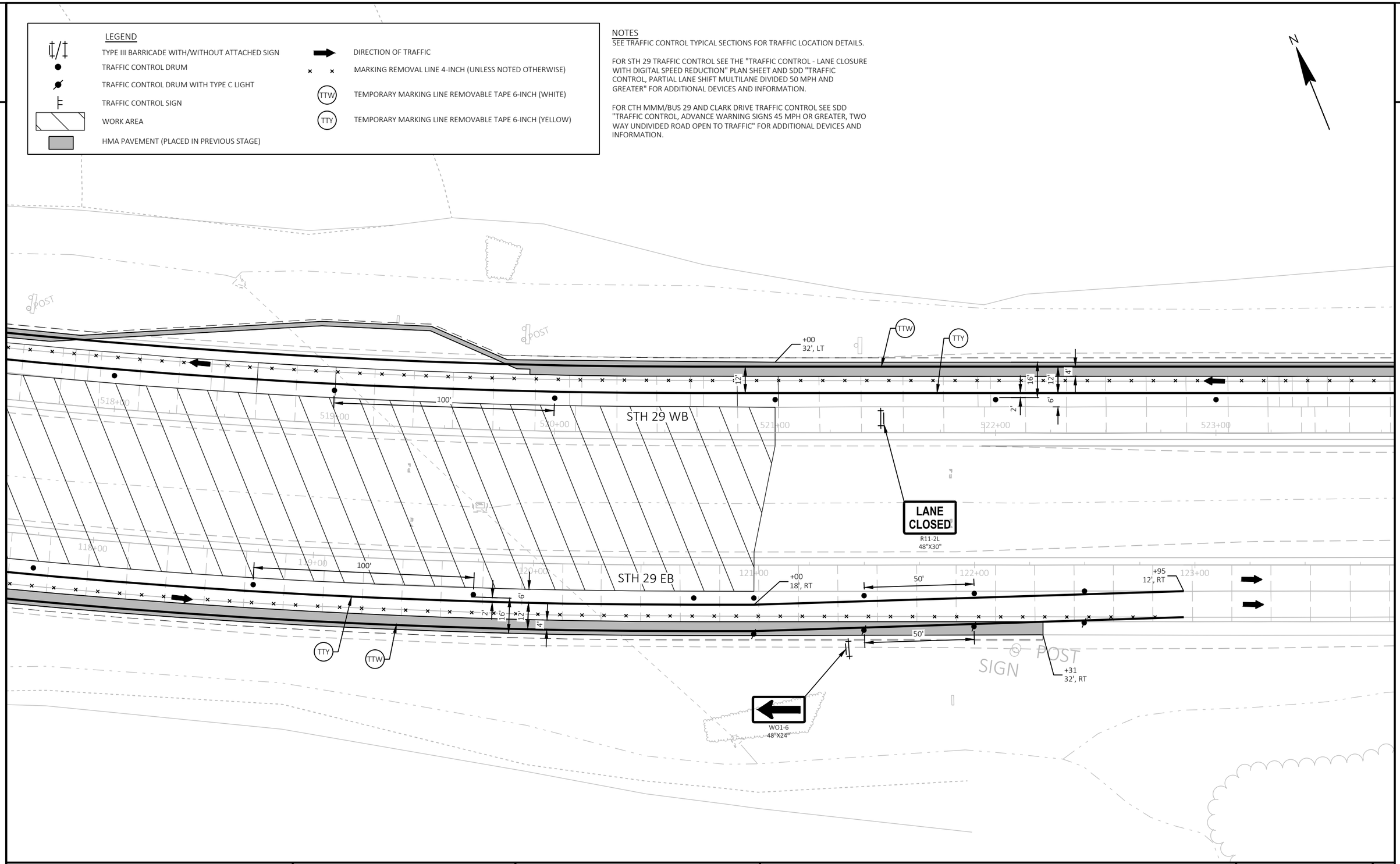
NOTES

SEE TRAFFIC CONTROL TYPICAL SECTIONS FOR TRAFFIC LOCATION DETAILS.

FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.

N



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 69	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 05

PLOT DATE : 11/22/2023 7:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- TRAFFIC CONTROL SIGN
- WORK AREA
- HMA PAVEMENT (PLACED IN PREVIOUS STAGE)
- DIRECTION OF TRAFFIC
- MARKING REMOVAL LINE 4-INCH (UNLESS NOTED OTHERWISE)
- TTW — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- TTY — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (YELLOW)

NOTES

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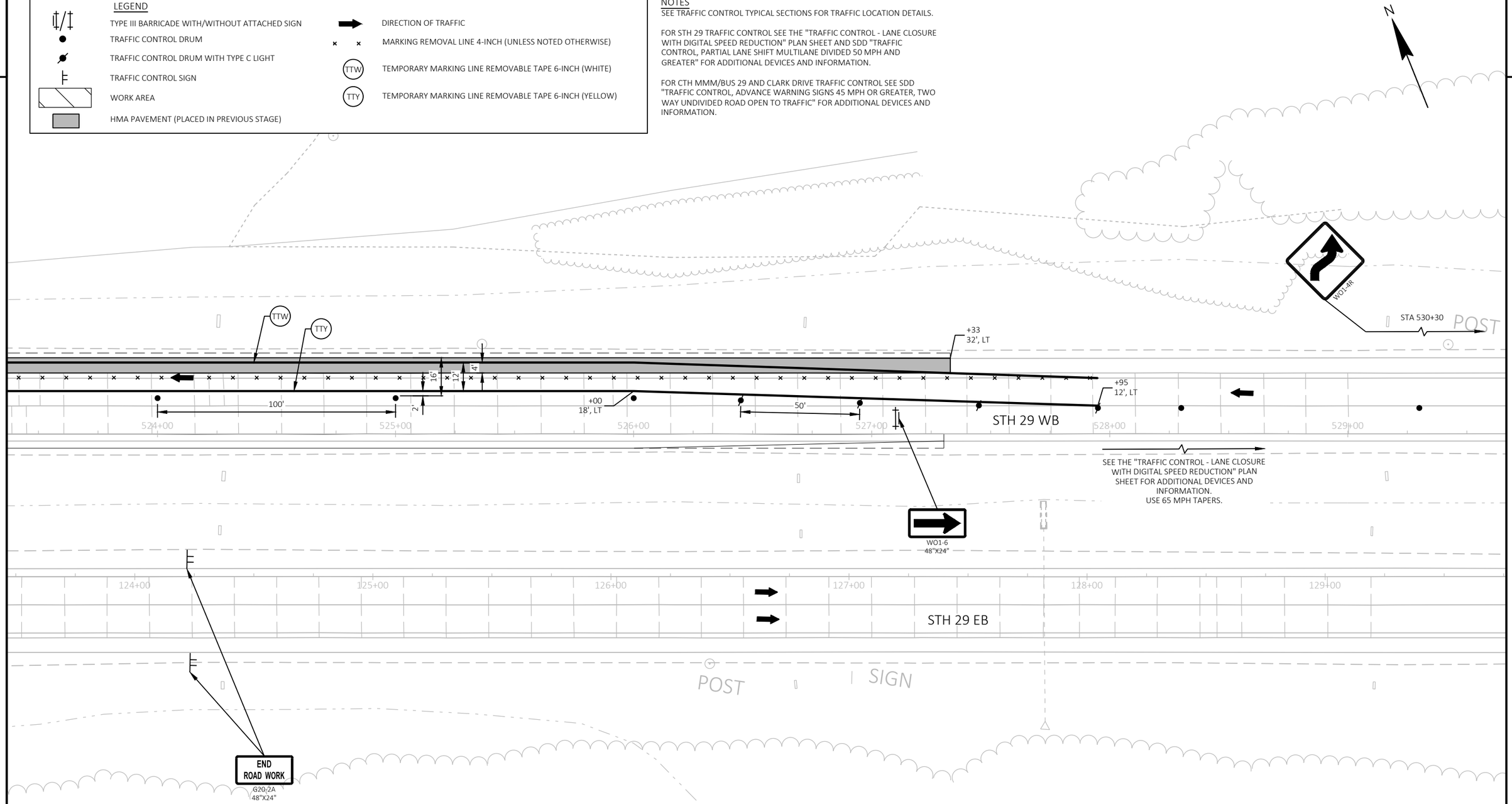
FOR STH 29 TRAFFIC CONTROL SEE THE "TRAFFIC CONTROL - LANE CLOSURE WITH DIGITAL SPEED REDUCTION" PLAN SHEET AND SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL DEVICES AND INFORMATION.

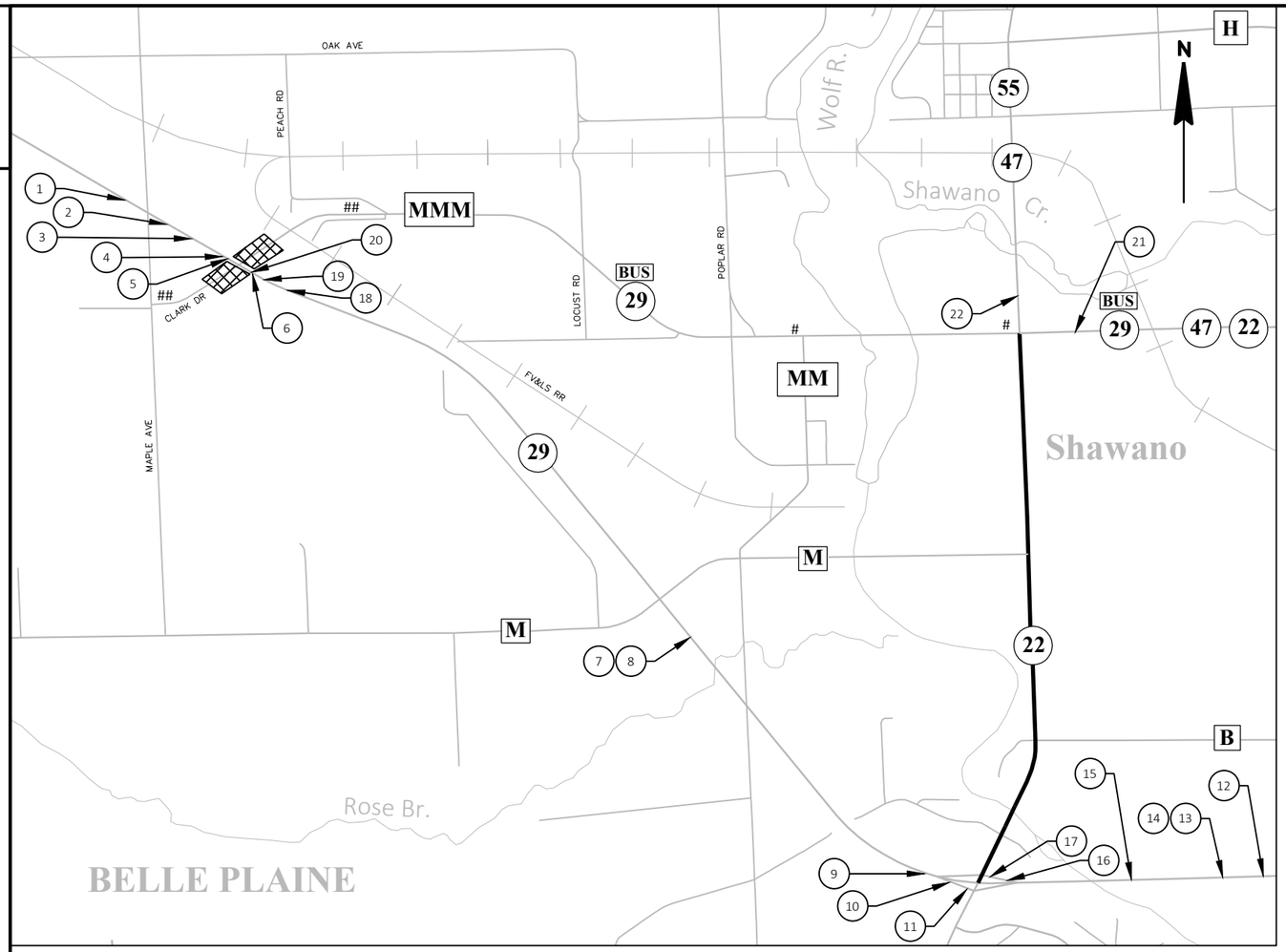
FOR CTH MMM/BUS 29 AND CLARK DRIVE TRAFFIC CONTROL SEE SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR ADDITIONAL DEVICES AND INFORMATION.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - STAGE 3	SHEET 70	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\025103-TC.DWG
LAYOUT NAME - 06

PLOT DATE : 11/22/2023 7:30 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT



LEGEND

- DETOUR ROUTE
- ROADWAY CLOSURE WORK ZONE

NOTES

REDIRECTION ROUTE PROVIDED FOR CTH MMM/BUS 29 CLOSURE

* PAID AS TRAFFIC CONTROL COVERING SIGNS TYPE II

\# PLACE BARRICADES TYPE III WITH ATTACHED R11-3 SIGNS PER DETAIL C OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SEE DETAIL C AND DETAIL D OF SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SEE SDD "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR SPACING AND PLACEMENT OF SIGNS AND OTHER DEVICES

DO NOT PLACE ANY ITEMS INCLUDING TRAFFIC CONTROL SIGNING WITHIN 50' OF RAILROAD RIGHT OF WAY.

IN AREAS WITH LIMITED AVAILABILITY FOR TEMPORARY SIGN PLACEMENT, SIGN BANDING MAY BE REQUIRED.

1

HWY MMM-BUS 29
CLOSED FOLLOW
HWY 29 TO
SHAWANO

FMS
144" X 72"

2

TO MO4-5 36"X18"
TO MO4-5 36"X18"
ICT
BUSINESS ICT
29 COUNTY MMM
COVER
MO6-1 30"X30"
MO6-1 30"X30"

3

TO MO4-5 36"X18"
TO MO4-5 36"X18"
BUSINESS
29 COUNTY MMM
COVER
MO6-1 30"X30"
MO6-1 30"X30"

4

Shawno
COVER

(SIGN SIZE PER
A4-12 SIGN PLATE)

5

TO MO4-5 36"X18"
TO MO4-5 36"X18"
BUSINESS
29 COUNTY MMM
COVER
MO6-1 30"X30"
MO6-1 30"X30"

6

TO MO4-5 36"X18"
EAST
29
BUSINESS M4-3 36"X18"
TO MO4-5 36"X18"
29
COUNTY MMM
M1-6 36"X36"
M1-5A 36"X36"

7 13

TO MO4-5 36"X18"
TO MO4-5 36"X18"
BUSINESS
M4-3 36"X18"
29 COUNTY MMM
M1-6 36"X36"
M1-5A 36"X36"
MO5-2R 30"X30"
MO5-2R 30"X30"

EXIT 225
22
Shawano
Clintonville
1 MILE

8 14
(PLACE ON
MEDIAN SIDE)

TO MO4-5 36"X18"
TO MO4-5 36"X18"
BUSINESS
M4-3 36"X18"
29 COUNTY MMM
M1-6 36"X36"
M1-5A 36"X36"
MO5-2R 30"X30"
MO5-2R 30"X30"

9 15

TO MO4-5 36"X18"
TO MO4-5 36"X18"
BUSINESS
M4-3 36"X18"
29 COUNTY MMM
M1-6 36"X36"
M1-5A 36"X36"
MO6-2 30"X30"
MO6-2 30"X30"

EXIT 225
22
Shawano
Clintonville

10

TO MO4-5 24"X12"
TO MO4-5 24"X12"
BUSINESS
NORTH SOUTH
22 22 29 COUNTY MMM
M4-3 24"X12"
M1-6 24"X24"
M1-5A 24"X24"
MO5-1L 21"X21"
MO5-1L 21"X21"

11

TO MO4-5 24"X12"
TO MO4-5 24"X12"
BUSINESS
NORTH SOUTH
22 H 22 29 COUNTY MMM
M4-3 24"X12"
M1-6 24"X24"
M1-5A 24"X24"
MO6-1 21"X21"
MO6-1 21"X21"

12

HWY MMM-BUS 29
CLOSED AHEAD
USE EXIT 225

FMS
144" X 54"

16

TO MO4-5 24"X12"
TO MO4-5 24"X12"
BUSINESS
M4-3 24"X12"
29 COUNTY MMM
M1-6 24"X24"
M1-5A 24"X24"
MO5-1R 21"X21"
MO5-1R 21"X21"

17

TO MO4-5 24"X12"
BUSINESS
SOUTH NORTH
22 22 29 COUNTY MMM
M4-3 24"X12"
TO MO4-5 24"X12"
M1-6 24"X24"
M1-5A 24"X24"
MO6-1 21"X21"
MO6-1 21"X21"

18

BUSINESS
29 COUNTY MMM
* COVER

19

Shawno
* COVER

20

BUSINESS
29 COUNTY MMM
* COVER

21 22

HWY MMM-BUS 29
CLOSED AT
HWY 29

FMS
84" X 36"

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TRAFFIC CONTROL - REDIRECTION SIGNING	SHEET 71	E

Estimate Of Quantities

1058-23-72

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	10.000	10.000
0004	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0006	204.0150	Removing Curb & Gutter	LF	260.000	260.000
0008	204.0170	Removing Fence	LF	150.000	150.000
0010	204.0180	Removing Delineators and Markers	EACH	18.000	18.000
0012	204.0220	Removing Inlets	EACH	1.000	1.000
0014	204.0245	Removing Storm Sewer (size) 01. 30-Inch	LF	63.000	63.000
0016	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	2.000	2.000
0018	204.9090.S	Removing (item description) 01. Underdrain	LF	6,690.000	6,690.000
0020	205.0100	Excavation Common	CY	28,459.000	28,459.000
0022	213.0100	Finishing Roadway (project) 01. 1058-23-72	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	905.000	905.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	11,810.000	11,810.000
0028	310.0110	Base Aggregate Open-Graded	TON	200.000	200.000
0030	311.0110	Breaker Run	TON	11,160.000	11,160.000
0032	415.0080	Concrete Pavement 8-Inch	SY	8,495.000	8,495.000
0034	415.6000.S	Rout and Seal	LF	5,400.000	5,400.000
0036	416.0610	Drilled Tie Bars	EACH	1,835.000	1,835.000
0038	416.0620	Drilled Dowel Bars	EACH	335.000	335.000
0040	416.1710	Concrete Pavement Repair	SY	130.000	130.000
0042	416.1720	Concrete Pavement Replacement	SY	180.000	180.000
0044	450.4000	HMA Cold Weather Paving	TON	115.000	115.000
0046	455.0605	Tack Coat	GAL	480.000	480.000
0048	460.2000	Incentive Density HMA Pavement	DOL	1,580.000	1,580.000
0050	460.6223	HMA Pavement 3 MT 58-28 S	TON	1,520.000	1,520.000
0052	460.6224	HMA Pavement 4 MT 58-28 S	TON	972.000	972.000
0054	465.0125	Asphaltic Surface Temporary	TON	380.000	380.000
0056	465.0305	Asphaltic Surface Safety Islands	TON	140.000	140.000
0058	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	5,180.000	5,180.000
0060	520.8000	Concrete Collars for Pipe	EACH	8.000	8.000
0062	520.8700	Cleaning Culvert Pipes	EACH	4.000	4.000
0064	521.1530	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 30-Inch 6 to 1	EACH	1.000	1.000
0066	521.1618	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 10 to 1	EACH	2.000	2.000
0068	522.0130	Culvert Pipe Reinforced Concrete Class III 30-Inch	LF	10.000	10.000
0070	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	96.000	96.000
0072	522.0430	Culvert Pipe Reinforced Concrete Class IV 30-Inch	LF	72.000	72.000
0074	522.0442	Culvert Pipe Reinforced Concrete Class IV 42-Inch	LF	58.000	58.000
0076	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0078	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	2.000	2.000
0080	601.0413	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type G	LF	156.000	156.000
0082	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	3,405.000	3,405.000
0084	602.0410	Concrete Sidewalk 5-Inch	SF	352.000	352.000
0086	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	128.000	128.000
0088	602.3010	Concrete Surface Drains	CY	11.000	11.000
0090	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	429.000	429.000
0092	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	7.000	7.000
0094	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	64.000	64.000
0096	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	150.000	150.000
0098	608.3012	Storm Sewer Pipe Class III-A 12-Inch	LF	22.000	22.000
0100	608.3015	Storm Sewer Pipe Class III-A 15-Inch	LF	46.000	46.000

1058-23-72

Line	Item	Item Description	Unit	Total	Qty
0102	608.3018	Storm Sewer Pipe Class III-A 18-Inch	LF	57.000	57.000
0104	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0106	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0108	611.0615	Inlet Covers Type F	EACH	15.000	15.000
0110	611.0642	Inlet Covers Type MS	EACH	5.000	5.000
0112	611.2005	Manholes 5-FT Diameter	EACH	1.000	1.000
0114	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0116	611.3004	Inlets 4-FT Diameter	EACH	5.000	5.000
0118	611.3253	Inlets 2.5x3-FT	EACH	10.000	10.000
0120	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000
0122	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0124	612.0106	Pipe Underdrain 6-Inch	LF	2,350.000	2,350.000
0126	612.0108	Pipe Underdrain 8-Inch	LF	1,095.000	1,095.000
0128	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	165.000	165.000
0130	612.0208	Pipe Underdrain Unperforated 8-Inch	LF	40.000	40.000
0132	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	5.000	5.000
0134	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1058-23-72	EACH	1.000	1.000
0136	619.1000	Mobilization	EACH	1.000	1.000
0138	620.0300	Concrete Median Sloped Nose	SF	322.000	322.000
0140	624.0100	Water	MGAL	230.000	230.000
0142	625.0100	Topsoil	SY	39,525.000	39,525.000
0144	628.1504	Silt Fence	LF	2,930.000	2,930.000
0146	628.1520	Silt Fence Maintenance	LF	2,930.000	2,930.000
0148	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0150	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0152	628.2002	Erosion Mat Class I Type A	SY	38,515.000	38,515.000
0154	628.2027	Erosion Mat Class II Type C	SY	1,015.000	1,015.000
0156	628.7005	Inlet Protection Type A	EACH	27.000	27.000
0158	628.7015	Inlet Protection Type C	EACH	19.000	19.000
0160	628.7504	Temporary Ditch Checks	LF	830.000	830.000
0162	628.7555	Culvert Pipe Checks	EACH	45.000	45.000
0164	628.7560	Tracking Pads	EACH	3.000	3.000
0166	628.7570	Rock Bags	EACH	160.000	160.000
0168	629.0210	Fertilizer Type B	CWT	24.000	24.000
0170	630.0130	Seeding Mixture No. 30	LB	700.000	700.000
0172	630.0160	Seeding Mixture No. 60	LB	14.000	14.000
0174	630.0500	Seed Water	MGAL	900.000	900.000
0176	633.0100	Delineator Posts Steel	EACH	12.000	12.000
0178	633.0500	Delineator Reflectors	EACH	12.000	12.000
0180	633.5200	Markers Culvert End	EACH	12.000	12.000
0182	633.5350	Markers Permanent Flexible	EACH	4.000	4.000
0184	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	2.000	2.000
0186	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	6.000	6.000
0188	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	40.000	40.000
0190	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	10.000	10.000
0192	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	15.000	15.000
0194	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	22.000	22.000
0196	637.2210	Signs Type II Reflective H	SF	1,080.970	1,080.970
0198	637.2230	Signs Type II Reflective F	SF	73.570	73.570
0200	638.2602	Removing Signs Type II	EACH	32.000	32.000

Estimate Of Quantities

1058-23-72

Line	Item	Item Description	Unit	Total	Qty
0202	638.3000	Removing Small Sign Supports	EACH	32.000	32.000
0204	642.5001	Field Office Type B	EACH	1.000	1.000
0206	643.0300	Traffic Control Drums	DAY	21,030.000	21,030.000
0208	643.0420	Traffic Control Barricades Type III	DAY	3,283.000	3,283.000
0210	643.0705	Traffic Control Warning Lights Type A	DAY	6,566.000	6,566.000
0212	643.0715	Traffic Control Warning Lights Type C	DAY	4,088.000	4,088.000
0214	643.0800	Traffic Control Arrow Boards	DAY	428.000	428.000
0216	643.0900	Traffic Control Signs	DAY	10,756.000	10,756.000
0218	643.0920	Traffic Control Covering Signs Type II	EACH	7.000	7.000
0220	643.1000	Traffic Control Signs Fixed Message	SF	207.000	207.000
0222	643.1050	Traffic Control Signs PCMS	DAY	98.000	98.000
0224	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	44,600.000	44,600.000
0226	643.5000	Traffic Control	EACH	1.000	1.000
0228	645.0111	Geotextile Type DF Schedule A	SY	1,530.000	1,530.000
0230	645.0140	Geotextile Type SAS	SY	16,615.000	16,615.000
0232	646.2020	Marking Line Epoxy 6-Inch	LF	2,305.000	2,305.000
0234	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	2,170.000	2,170.000
0236	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	15,380.000	15,380.000
0238	646.2050	Marking Line Grooved Permanent Tape 6-Inch	LF	2,170.000	2,170.000
0240	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	4,215.000	4,215.000
0242	646.5020	Marking Arrow Epoxy	EACH	8.000	8.000
0244	646.5120	Marking Word Epoxy	EACH	4.000	4.000
0246	646.5320	Marking Railroad Crossing Epoxy	EACH	1.000	1.000
0248	646.6120	Marking Stop Line Epoxy 18-Inch	LF	50.000	50.000
0250	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	16,190.000	16,190.000
0252	646.6470	Cold Weather Marking Epoxy 10-Inch	LF	4,215.000	4,215.000
0254	646.7120	Marking Diagonal Epoxy 12-Inch	LF	440.000	440.000
0256	646.7220	Marking Chevron Epoxy 24-Inch	LF	280.000	280.000
0258	646.8120	Marking Curb Epoxy	LF	175.000	175.000
0260	646.8220	Marking Island Nose Epoxy	EACH	10.000	10.000
0262	646.9000	Marking Removal Line 4-Inch	LF	8,337.000	8,337.000
0264	646.9050	Marking Removal Line Grooved Permanent Tape 4-Inch	LF	1,037.000	1,037.000
0266	646.9100	Marking Removal Line 8-Inch	LF	1,015.000	1,015.000
0268	650.4000	Construction Staking Storm Sewer	EACH	21.000	21.000
0270	650.4500	Construction Staking Subgrade	LF	6,037.000	6,037.000
0272	650.5000	Construction Staking Base	LF	2,364.000	2,364.000
0274	650.6000	Construction Staking Pipe Culverts	EACH	4.000	4.000
0276	650.7000	Construction Staking Concrete Pavement	LF	3,673.000	3,673.000
0278	650.8501	Construction Staking Electrical Installations (project) 01. 1058-23-72	EACH	1.000	1.000
0280	650.9000	Construction Staking Curb Ramps	EACH	8.000	8.000
0282	650.9500	Construction Staking Sidewalk (project) 01. 1058-23-72	EACH	1.000	1.000
0284	650.9911	Construction Staking Supplemental Control (project) 01. 1058-23-72	EACH	1.000	1.000
0286	650.9920	Construction Staking Slope Stakes	LF	6,037.000	6,037.000
0288	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,538.000	1,538.000
0290	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	281.000	281.000
0292	652.0615	Conduit Special 3-Inch	LF	373.000	373.000
0294	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	15.000	15.000
0296	654.0105	Concrete Bases Type 5	EACH	10.000	10.000
0298	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0300	655.0610	Electrical Wire Lighting 12 AWG	LF	2,616.000	2,616.000

1058-23-72

Line	Item	Item Description	Unit	Total	Qty
0302	655.0615	Electrical Wire Lighting 10 AWG	LF	9,412.000	9,412.000
0304	656.0201	Electrical Service Meter Breaker Pedestal (location) 01. STH 29 & BUS 29/CTH MMM	EACH	1.000	1.000
0306	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	10.000	10.000
0308	657.0322	Poles Type 5-Aluminum	EACH	10.000	10.000
0310	657.0710	Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	EACH	12.000	12.000
0312	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	4.000	4.000
0314	659.1120	Luminaires Utility LED B	EACH	16.000	16.000
0316	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
0318	690.0150	Sawing Asphalt	LF	102.000	102.000
0320	690.0250	Sawing Concrete	LF	625.000	625.000
0322	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	2,550.000	2,550.000
0324	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0326	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,260.000	1,260.000
0328	SPV.0045	Special 01. Digital Speed Reduction System	DAY	206.000	206.000
0330	SPV.0060	Special 01. Connect Underdrain	EACH	5.000	5.000
0332	SPV.0060	Special 02. Locate and Clean Existing Underdrain	EACH	7.000	7.000
0334	SPV.0060	Special 03. Cap Existing Underdrain	EACH	3.000	3.000
0336	SPV.0060	Special 04. Marking Yield Line Epoxy 36-Inch	EACH	16.000	16.000
0338	SPV.0060	Special 07. Joint Ties for Concrete Pipe	EACH	1.000	1.000
0340	SPV.0090	Special 01. Ditch Cleaning	LF	326.000	326.000

3

GRUBBING

STAGE	STATION	TO	STATION	OFFSET	201.0205 GRUBBING STA	COMMENTS
2						
	11+00	-	13+00	LT & RT	4	CLARK DR
	16+00	-	17+00	LT	1	CLARK DR
	32+00	-	34+00	RT	2	CTH MMM/BUS 29
	32+00	-	35+00	LT	3	CTH MMM/BUS 29
PROJECT TOTAL					10	

REMOVAL ITEMS

STAGE	STATION	TO	STATION	OFFSET	204.0150 REMOVING CURB & GUTTER LF	204.0170 REMOVING FENCE LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH	COMMENTS
2								
	101+00	-	112+45	LT & RT	--	--	13	STH 29 EB
	509+24	-	521+00	LT	--	--	5	STH 29 WB
	18+85	-	19+66	LT & RT	130	--	--	CLARK DR
	30+36	-	31+15	LT & RT	130	--	--	CTH MMM/BUS 29
	33+00	-	33+60	LT & RT	--	150	--	CTH MMM/BUS 29
PROJECT TOTALS					260	150	18	

NOTE:

PORTIONS OF EXISTING MAINLINE CROSS DRAIN REMOVALS BEING INCORPORATED INTO THE STORM SEWER SYSTEMS ARE PAID UNDER THE REMOVING STORM SEWER (SIZE) ITEMS

REMOVING SMALL PIPE CULVERTS

STAGE	STATION	OFFSET	203.0100 REMOVING SMALL PIPE CULVERTS EACH	PIPE SIZE AND TYPE	COMMENT
2					
	11+51	LT & RT	1	42" CPCM	CLARK DR
	32+40	LT & RT	1	18" CPCM	CTH MMM/BUS 29
	32+94	RT	1	30" CPCM	CTH MMM/BUS 29
PROJECT TOTAL			3		

REMOVING DRAINAGE ITEMS

STAGE	STATION	TO	STATION	OFFSET	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER 30-INCH LF	204.9060.S.01 REMOVING APRON ENDWALLS EACH	204.9090.S.01 REMOVING UNDERDRAIN LF	COMMENTS
2									
	101+00	-	112+45	RT	--	--	--	1,229	STH 29 EB
	509+24	-	521+00	LT	--	--	--	1,235	STH 29 WB
	518+55			LT	--	--	1	--	STH 29 WB, 30" CPRC
SUBTOTALS					--	--	1	2,464	
3									
	101+00	-	121+00	LT	--	--	--	2,113	STH 29 MEDIAN
	106+83			LT	--	20	--	--	STH 29 MEDIAN
	108+83			LT	--	--	1	--	STH 29 MEDIAN
	113+60	-	113+69	LT	--	21	--	--	STH 29 MEDIAN
	119+67	-	119+83	LT	1	22	--	--	STH 29 MEDIAN
	501+00	-	521+00	RT	--	--	--	2,113	STH 29 WB
	508+83			RT	--	--	--	--	STH 29 WB
SUBTOTALS					1	63	1	4,226	
PROJECT TOTALS					1	63	2	6,690	

3

EARTHWORK SUMMARY

DIVISION	STATION	TO	STATION	STAGE	LOCATION	205.0100 EXCAVATION COMMON (NOTE 1) (CY)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOTE 2) (CY)	AVAILABLE MATERIAL (NOTE 3) (CY)	UNEXPANDED FILL	EXPANDED FILL (NOTE 4) FACTOR 1.25	MASS ORDINATE +/- (NOTE 5)	COMMENTS
1												
	94+70	-	113+75	1	STH 29 EB MEDIAN	180	126	55	--	--	55	SHOULDER PAVING
	507+93	-	527+30	1	STH 29 WB MEDIAN	182	126	56	--	--	56	SHOULDER PAVING
SUBTOTALS						362	251	111	--	--	111	
2												
	8+40	-	19+73	2	CLARK DR	8,535	451	8,084	1,825	2,282	5,802	
	94+67	-	101+00	2	STH 29 EB OUTSIDE	47	18	29	--	--	29	SHOULDER PAVING
	101+00	-	109+76	2	STH 29 EB OUTSIDE	1,057	24	1,033	561	704	329	
	111+43	-	112+45	2	STH 29 EB OUTSIDE	116	3	113	6	8	105	
	112+45	-	122+31	2	STH 29 EB OUTSIDE	73	27	46	--	--	46	SHOULDER PAVING
SUBTOTALS						9,828	523	9,305	2,392	2,994	6,311	
3												
	30+26	-	39+30	2	CTH MMM/BUS 29	9,607	446	9,161	745	931	8,230	
	49+23	-	50+01	2	CTH MMM/BUS 29 CROSSING DITCH	1	--	1	28	35	-34	
	52+00	-	53+35	2	CTH MMM/BUS 29 CROSSING DITCH	21	--	21	8	10	11	
	109+24	-	110+24	2	STH 29 WB OUTSIDE	118	2	116	13	16	100	
	111+72	-	121+10	2	STH 29 WB OUTSIDE	1,736	29	1,707	320	403	1,304	
	499+59	-	509+24	2	STH 29 WB OUTSIDE	71	27	45	--	--	45	SHOULDER PAVING
	521+00	-	527+33	2	STH 29 WB OUTSIDE	47	18	29	--	--	29	SHOULDER PAVING
SUBTOTALS						11,601	521	11,080	1,114	1,395	9,685	
4												
	101+00	-	121+10	3	STH 29 EB & WB MEDIAN	6,668	129	6,539	1,739	2,181	4,358	
SUBTOTALS						6,668	129	6,539	1,739	2,181	4,358	
PROJECT TOTALS						28,459	1,425	27,035	5,245	6,570	20,465	

NOTES:
1) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL IS THE EXISTING CONCRETE AND ASPHALT PAVEMENT COLUMN, NOT AVAILABLE FOR FILL (MATERIAL TO BE WASTED).
3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL (0 IF NEGATIVE)
4) EXPANDED FILL = (UNEXPANDED FILL) * (FILL FACTOR)
5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATEDS AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\030201-MQ.DWG
LAYOUT NAME - 02
PLOT DATE : 11/27/2023 1:04 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

BASE AGGREGATE ITEMS

STAGE	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	COMMENTS
2								
	101+00	-	109+76	RT	48	608	1,085	STH 29 EB
	111+43	-	112+45	RT	11	64	110	STH 29 EB
	509+24	-	510+24	LT	10	84	100	STH 29 WB
	511+72	-	521+00	LT	48	845	1,183	STH 29 WB
	8+40	-	19+73	LT & RT	467	3,128	872	CLARK DR
	30+26	-	39+30	LT & RT	208	2,516	680	CTH MMM/BUS 29
SUBTOTALS					792	7,245	4,030	
3								
	101+00	-	121+00	LT	113	4,565	7,130	STH 29 MEDIAN
SUBTOTALS					113	4,565	7,130	
PROJECT TOTALS					905	11,810	11,160	

ASPHALTIC ITEMS

STAGE	STATION	TO	STATION	OFFSET	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY LF	COMMENTS
1											
	94+70	-	101+00	LT	--	20	50	38	--	--	STH 29 EB
	101+00	-	113+75	LT	--	--	--	--	185	--	STH 29 EB
	507+93	-	521+00	RT	--	--	--	--	195	--	STH 29 WB
	521+00	-	527+30	RT	--	20	50	39	--	--	STH 29 WB
SUBTOTALS					--	40	100	77	380	--	
2											
	94+67	-	122+31	RT	--	70	175	136	--	--	STH 29 EB
	499+59	-	527+33	LT	--	65	165	128	--	--	STH 29 WB
	8+40	-	18+66	LT & RT	--	139	507	288	--	--	CLARK DR
	31+10	-	39+30	LT & RT	--	141	513	288	--	--	CTH MMM/BUS 29
SUBTOTALS					--	415	1,360	840	--	--	
3											
	94+70	-	121+00	LT	115	25	60	55	--	1,765	STH 29 MEDIAN
SUBTOTALS					115	25	60	55	--	1,765	
4											
	94+67	-	122+31	RT	--	--	--	--	--	1,705	STH 29 EB
	499+59	-	527+33	LT	--	--	--	--	--	1,710	STH 29 WB
SUBTOTALS					--	--	--	--	--	3,415	
PROJECT TOTALS					115	480	1,520	972	380	5,180	

CONCRETE PAVEMENT ITEMS

STAGE	STATION	TO	STATION	OFFSET	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.6000.S ROUT AND SEAL LF	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	602.3010 CONCRETE SURFACE DRAINS CY	COMMENTS
1										
	94+70	-	101+97	LT	--	727	--	--	--	STH 29 EB
SUBTOTALS					--	727	--	--	--	
2										
	94+97	-	122+31	RT	--	1,719	--	--	--	STH 29 EB
	101+00	-	121+00	RT	--	--	47	55	--	STH 29 EB DRIVING LANE
	101+79	-	104+15	RT	313	--	--	--	--	STH 29 EB
	105+26	-	112+29	RT	593	--	--	--	--	STH 29 EB
	499+59	-	527+33	LT	--	1,723	--	--	--	STH 29 WB
	501+00	-	521+00	LT	--	--	44	83	--	STH 29 WB DRIVING LANE
	509+37	-	519+88	LT	1,088	--	--	--	--	STH 29 WB
	18+66	-	19+73	LT & RT	758	--	--	--	2	CLARK DR
	30+26	-	31+10	LT & RT	592	--	--	--	3	CTH MMM/BUS 29
SUBTOTALS					3,344	3,441	91	138	5	
3										
	101+00	-	121+00	RT	--	--	26	25	--	STH 29 EB PASSING LANE
	101+97	-	117+73	LT	5,151	1,232	--	--	6	STH 29 MEDIAN
SUBTOTALS					5,151	1,232	26	25	6	
	UNDISTRIBUTED				--	--	13	17	--	CONCRETE REPAIRS
PROJECT TOTALS					8,495	5,400	130	180	11	

DRILLED BAR ITEMS

STAGE	STATION	TO	STATION	OFFSET	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	COMMENTS
2							
	101+00	-	121+00	RT	19	112	STH 29 EB DRIVING LANE
	101+79	-	104+15	RT	79	--	STH 29 EB
	105+26	-	112+29	RT	235	--	STH 29 EB
	501+00	-	521+00	LT	34	133	STH 29 WB DRIVING LANE
	509+37	-	519+88	LT	351	--	STH 29 WB
SUBTOTALS					718	245	
3							
	101+00	-	121+00	RT	16	57	STH 29 EB PASSING LANE
	101+97	-	117+73	LT	1,093	--	STH 29 MEDIAN
SUBTOTALS					1,109	57	
	UNDISTRIBUTED				8	33	CONCRETE REPAIRS
PROJECT TOTALS					1,835	335	

3

CONCRETE CURB & GUTTER ITEMS

STAGE	STATION	TO	STATION	OFFSET	601.0413 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE G LF	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	COMMENTS
2							
	18+66	-	19+73	LT & RT	78	187	CLARK DR
	30+26	-	31+10	LT & RT	78	151	CTH MMM/BUS 29
SUBTOTALS					156	338	
3							
	105+47	-	118+84	LT	--	3,067	STH 29 MEDIAN
SUBTOTALS					--	3,067	
PROJECT TOTALS					156	3,405	

JOINT TIES FOR CONCRETE PIPE

STAGE	STATION	OFFSET	SPV.0060.07 ** JOINT TIES FOR CONCRETE PIPE EACH	JOINT TIES EACH	COMMENTS
2					
	106+83	RT	1	10	STH 29 EB
PROJECT TOTAL			1		

NOTE:
** JOINT TIES ARE NOT A PAY ITEM AND ARE LISTED FOR INFORMATION ONLY

ISLAND & MEDIAN ITEMS

STAGE	STATION	TO	STATION	OFFSET	465.0305 ASPHALTIC SURFACE SAFETY ISLANDS TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	COMMENTS
2									
	19+18	-	19+63	LT	5	--	--	48	CLARK DR
	30+36	-	30+82	RT	5	--	--	48	CTH MMM/BUS 29
SUBTOTALS					10	--	--	96	
3									
	108+90	-	112+86	LT	130	352	128	226	STH 29 MEDIAN
SUBTOTALS					130	352	128	226	
PROJECT TOTALS					140	352	128	322	

CULVERT ITEMS

STAGE	STATION	TO	STATION	OFFSET	INLET ELEVATION	OUTLET ELEVATION	520.8000* CONCRETE COLLARS FOR PIPE EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1530 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 30-INCH 6 TO 1 EACH	521.1618 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 10 TO 1 EACH	522.0130 CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.0418 CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	522.0430 CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	522.0442 CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH LF	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1042 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH EACH	633.5200 MARKERS CULVERT END EACH	SPV.0090.01 DITCH CLEANING LF	COMMENTS
2																			
	120+90	-	121+49	RT	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	59	STH 29 EB
	506+75	-	509+42	LT	N/A	N/A	--	--	--	--	--	--	--	--	--	--	--	267	STH 29 WB
	518+72			LT	840.23	840.21	1	1	1	--	10	--	--	--	--	--	1	--	STH 29 WB
	11+49			LT & RT	839.99	839.46	--	--	--	--	--	--	--	58	--	2	2	--	CLARK DR
	33+54			LT & RT	842.89	842.66	--	--	--	--	--	--	72	--	2	--	2	--	CTH MMM/BUS 29
SUBTOTALS							1	1	1	--	10	--	72	58	2	2	5	326	
3																			
	101+75	-	102+72	LT	851.94	851.63	--	--	--	2	--	96	--	--	--	--	--	--	STH 29 MEDIAN
SUBTOTALS							--	--	--	2	--	96	--	--	--	--	--	--	
UNDISTRIBUTED							--	3	--	--	--	--	--	--	--	--	7	--	
PROJECT TOTALS							1	4	1	2	10	96	72	58	2	2	12	326	

NOTES:
STATION/OFFSETS SHOWN ARE TO THE CENTER OF INLET STRUCTURES OR END OF PIPE AT APRON ENDWALLS (NOT INCLUDING LENGTH OF ENDWALL).
SEE SECTION 5 PLAN SHEETS FOR LOCATION INFORMATION FOR UNDISTRIBUTED MARKERS CULVERT END QUANTITY

PIPE UNDERDRAIN ITEMS

STAGE	STATION	TO	STATION	OFFSET	310.0110 BASE AGGREGATE OPEN-GRADED TON	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0108 PIPE UNDERDRAIN 8-INCH LF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH LF	645.0111 GEOTEXTILE TYPE DF SCHEDULE A SY	645.0140 GEOTEXTILE TYPE SAS SY	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	SPV.0060.01 CONNECT UNDERDRAIN EACH	SPV.0060.02 LOCATE AND CLEAN EXISTING UNDERDRAIN EACH	SPV.0060.03 CAP EXISTING UNDERDRAIN EACH	COMMENTS
2																
	101+00	-	121+00	RT	--	--	--	32	--	--	3,060	2	2	1	--	STH 29 EB
	501+00	-	521+00	LT	--	--	--	18	--	--	2,965	1	1	4	1	STH 29 WB
SUBTOTALS					--	--	--	50	--	--	6,025	3	3	5	1	
3																
	101+00	-	121+00	LT	100	1,187	539	55	20	766	5,295	1	1	1	1	STH 29 MEDIAN
	501+00	-	521+00	RT	100	1,163	556	60	20	764	5,295	1	1	1	1	STH 29 MEDIAN
SUBTOTALS					200	2,350	1,095	115	40	1,530	10,590	2	2	2	2	
PROJECT TOTALS					200	2,350	1,095	165	40	1,530	16,615	5	5	7	3	

STORM SEWER STRUCTURE ITEMS

STAGE	FROM STRUCTURE	STATION (NOTE 1)	OFFSET (NOTE 1)	STRUCTURE AND PIPE INFORMATION: RIM ELEVATION (NOTE 2)	INVERT ELEVATION	T.O.S. ELEVATION (NOTES 3 & 4)	DEPTH (NOTE 5)	611.0530 MANHOLE COVERS TYPE J EACH	611.0612 INLET COVERS TYPE C EACH	611.0615 INLET COVERS TYPE F EACH	611.0642 INLET COVERS TYPE MS EACH	611.2005 MANHOLES 5-FT EACH	611.2006 MANHOLES 6-FT EACH	611.3004 4-FT EACH	611.3253 INLETS 2.5 X 3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH
3																	
	48	105+31	29.63' LT	850.98	848.15	850.81	2.66	--	--	--	1	--	--	--	--	1	--
	49	106+82	32.62' LT	851.72	845.33	851.72	6.39	--	--	--	2	--	--	--	--	--	1
	41	108+83	36.13' LT	851.16	848.36	851.16	2.80	--	--	--	1	--	--	--	--	1	--
	39	110+01	48.17' LT	851.19	845.20	850.30	5.10	--	--	1	--	--	--	--	1	--	--
	11	110+12	49.51' LT	851.15	845.10	850.26	5.16	--	--	1	--	--	--	--	1	--	--
	37	110+05	31.81' LT	850.81	845.00	849.92	4.92	--	--	1	--	--	--	--	1	--	--
	35	110+17	5.38' LT	851.30	845.20	850.41	5.21	--	--	1	--	--	--	--	1	--	--
	28	110+17	17.29' LT	851.07	845.10	850.18	5.08	--	--	1	--	--	--	--	1	--	--
	2	110+15	33.08' LT	850.77	844.94	849.88	4.94	--	--	1	--	--	--	--	1	--	--
	56	110+48	45.57' LT	850.88	844.85	849.99	5.14	--	--	1	--	--	--	1	--	--	--
	4	110+66	27.76' LT	850.94	844.66	850.05	5.39	--	--	1	--	--	--	1	--	--	--
	5	110+88	25.36' LT	850.81	844.24	849.92	5.68	--	--	1	--	--	--	1	--	--	--
	43	112+72	54.49' LT	850.19	843.60	849.30	5.70	--	--	1	--	--	--	--	1	--	--
	44	112+71	47.42' LT	849.99	843.55	849.10	5.55	--	--	1	--	--	--	--	1	--	--
	45	112+73	32.44' LT	849.75	843.42	848.86	5.44	--	--	1	--	--	--	--	1	--	--
	46	113+08	33.80' LT	849.62	843.09	848.73	5.64	--	--	1	--	--	--	--	1	--	--
	29	113+18	34.19' LT	849.63	842.77	848.74	5.97	--	--	1	--	--	--	1	--	--	--
	8	113+39	13.50' LT	849.88	842.77	848.99	6.22	--	--	1	--	--	--	1	--	--	--
	7	113+64	24.87' LT	849.44	841.56	848.20	6.64	--	1	--	--	1	--	--	--	--	--
	22	118+81	34.07' LT	845.80	843.75	845.80	2.05	--	--	--	1	--	--	--	--	1	--
	23	119+75	24.60' LT	847.04	839.98	845.80	5.82	1	--	--	--	--	1	--	--	--	--
PROJECT TOTALS								1	1	15	5	1	1	5	10	3	1

NOTES:
1) STATION OFFSETS SHOWN ARE TO CENTER OF STRUCTURE
2) RIM ELEVATIONS FOR FIELD INLETS ARE GIVEN TO THE CENTER OF GRATE ON LOW SIDE (IF SLOPING GRATE). RIM ELEVATION FOR INLETS IN THE CURB AND GUTTER ARE GIVEN AT THE FLOWLINE.
3) TYPICAL T.O.S. ELEVATION = RIM ELEVATION - CASTING HEIGHT - 6-INCH ADJUSTMENTS. T.O.S. ELEVATION FOR MEDIAN 1 GRATE AND MEDIAN 2 GRATE = RIM ELEVATION.
4) CASTING HEIGHT FOR COVER TYPE J AND TYPE C IS 8.88-INCH. CASTING HEIGHT FOR COVER TYPE F IS 4.69-INCH.
5) DEPTH = T.O.S. ELEVATION - INVERT ELEVATION + SUMP DEPTH. SUMP DEPTH IS ZERO FOR ALL STRUCTURES.

EROSION CONTROL MOBILIZATION ITEMS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	--	3
SETUP 1	1	--
STAGE 1	1	--
STAGE 2	1	--
STAGE 3	1	--
STAGE 4	1	--
FINAL RESTORATION	1	--
PROJECT TOTAL	6	3

STORM SEWER PIPE ITEMS

STAGE	FROM STRUCTURE	TO STRUCTURE	520.8000* CONCRETE COLLARS FOR PIPE EACH	608.0315 SSPRC CLASS III 15-INCH LF	608.0318 SSPRC CLASS III 18-INCH LF	608.0330 SSPRC CLASS III 30-INCH LF	608.0412 SSPRC CLASS IV 12-INCH LF	608.3012 SSP CLASS III-A 12-INCH LF	608.3015 SSP CLASS III-A 15-INCH LF	608.3018 SSP CLASS III-A 18-INCH LF
3										
	48	49	--	151	--	--	--	--	--	--
	EX AEW	49	1	--	--	10	--	--	--	--
	49	EX AEW	1	--	--	10	--	--	--	--
	41	EX AEW	1	--	7	--	--	--	--	--
	39	11	--	--	--	--	11	--	--	--
	11	2	--	--	--	--	17	--	--	--
	37	2	--	--	--	--	10	--	--	--
	35	28	--	--	--	--	12	--	--	--
	28	2	--	--	--	--	16	--	--	--
	2	56	--	--	--	--	36	--	--	--
	56	4	--	--	--	--	25	--	--	--
	4	5	--	--	--	--	23	--	--	--
	5	45	--	184	--	--	--	--	--	--
	43	44	--	--	--	--	--	7	--	--
	44	45	--	--	--	--	--	15	--	--
	45	46	--	--	--	--	--	--	36	--
	46	29	--	--	--	--	--	--	10	--
	29	8	--	--	--	--	--	--	--	30
	8	7	--	--	--	--	--	--	--	27
	EX AEW	7	1	--	--	11	--	--	--	--
	7	EX AEW	1	--	--	11	--	--	--	--
	22	23	--	94	--	--	--	--	--	--
	EX AEW	23	1	--	--	11	--	--	--	--
	23	EX AEW	1	--	--	11	--	--	--	--
PROJECT TOTALS			7	429	7	64	150	22	46	57

NOTE:
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

RESTORATION ITEMS

STAGE	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0160 SEEDING MIXTURE NO. 60 LB	630.0500 SEED WATER MGAL	COMMENTS
2										
	101+00	-	112+45	RT	3,355	2	61	--	76	STH 29 EB
	120+90	-	121+49	RT	36	--	1	--	1	STH 29 EB
	506+75	-	521+00	LT	3,134	1	57	--	72	STH 29 WB
	8+40	-	19+73	LT & RT	10,520	7	186	3	239	CLARK DR
	30+26	-	39+30	LT & RT	9,120	5	154	8	205	CTH MMM/BUS 29
SUBTOTALS					26,165	15	459	11	593	
3										
	101+00	-	121+00	LT	5,455	3	100	--	125	STH 29 MEDIAN
SUBTOTALS					5,455	4	100	--	125	
UNDISTRIBUTED					7,905	5	141	3	182	
PROJECT TOTALS					39,525	24	700	14	900	

3

EROSION CONTROL ITEMS

STAGE	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH	COMMENTS
2															
	101+00	-	112+45	RT	1,050	1,050	3,355	--	--	--	13	--	--	60	STH 29 EB
	120+90	-	121+49	RT	--	--	36	--	--	--	13	--	--	--	STH 29 EB
	506+75	-	521+00	LT	525	525	3,131	--	--	--	117	12	--	15	STH 29 WB
	8+40	-	19+73	LT & RT	770	770	10,298	225	--	--	169	12	--	60	CLARK DR
	30+26	-	39+30	LT & RT	--	--	8,535	585	--	--	260	6	--	--	CTH MMM/BUS 29
SUBTOTALS					2,345	2,345	25,355	810	--	--	572	30	--	135	
3															
	101+00	-	121+00	LT	--	--	5,455	--	21	15	91	6	--	--	STH 29 MEDIAN
SUBTOTALS					--	--	5,455	--	21	15	91	6	--	--	
	UNDISTRIBUTED				585	585	7,705	205	6	4	167	9	3	25	
PROJECT TOTALS					2,930	2,930	38,515	1,015	27	19	830	45	3	160	

REMOVING SIGN ITEMS

SIGN NUMBER	638.2602* REMOVING SIGNS TYPE II EACH	638.3000* REMOVING SMALL SIGN SUPPORTS EACH
1-2	1	1
2-5	1	1
2-6	1	1
2-8	1	1
2-9	1	1
2-11	1	1
3-5	1	1
3-8	1	1
3-10	1	1
3-11	1	1
3-17	1	1
6-1	1	1
6-2	1	1
6-3	1	1
7-11	1	1
7-12	1	1
7-13	1	1
7-16	1	1
7-17	1	1
8-1	1	1
PROJECT TOTALS	20	20

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE	LOCATION	NUMBER REQUIRED	SIGN SIZE W X H FT X FT	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
1	STH 29 EB	1	12 X 6	72.00	HWY MMM-BUS 29 / CLOSED FOLLOW / HWY 29 TO / SHAWANO
SUBTOTAL				72.00	
2	CLARK DR	1	6 X 3	18.00	CLARK DR / ROAD CLOSED / BEGINS XXX-XX
2	CTH MMM/BUS 29	1	6 X 3	18.00	HWY MMM/BUS 29 / ROAD CLOSED / BEGINS XXX-XX
2	STH 29 WB	1	12 X 4.5	54.00	HWY MMM-BUS 29 / CLOSED AHEAD / USE EXIT 225
2	STH 22 AND CTHMMM/BUS 29	2	7 X 3	21.00	HWY MMM-BUS 29 / CLOSED AT / HWY 29
SUBTOTAL				111.00	
3	CTH MMM/BUS 29	1	6 X 2	12.00	NO ACCESS TO / HWY 29 EAST
3	CLARK DR	1	6 X 2	12.00	NO ACCESS TO / HWY 29 WEST
SUBTOTAL				24.00	
PROJECT TOTAL				207.00	

DIGITAL SPEED REDUCTION SYSTEM

STAGE	LOCATION	STAGE DURATION DAY	SPV.0045.01 DIGITAL SPEED REDUCTION SYSTEM NO.	SPV.0045.01 DIGITAL SPEED REDUCTION SYSTEM DAY	** TRAFFIC CONTROL SIGNS PCMS NO.	** TRAFFIC CONTROL SIGNS PCMS DAY	** DIGITAL SPEED LIMIT TRAILER NO.	** DIGITAL SPEED LIMIT TRAILER DAY	COMMENTS
1									
	STA 94+70 - STA 113+75	5	1	5	1	5	2	10	STH 29 EB
	STA 507+93 - STA 527+30	5	1	5	1	5	2	10	STH 29 WB
SUBTOTALS				10		10		20	
2									
	STA 94+05 - STA 122+95	41	1	41	1	41	2	82	STH 29 EB
	STA 499+05 - STA 527+95	41	1	41	1	41	2	82	STH 29 WB
SUBTOTALS				82		82		164	
3									
	STA 94+05 - STA 122+95	52	1	52	1	52	2	104	STH 29 EB
	STA 499+05 - STA 527+95	52	1	52	1	52	2	104	STH 29 WB
SUBTOTALS				104		104		208	
4									
	STA 101+00 - STA 121+00	5	1	5	1	5	2	10	STH 29 EB
	STA 501+00 - STA 521+00	5	1	5	1	5	2	10	STH 29 WB
SUBTOTALS				10		10		20	
PROJECT TOTALS				206		206		412	

NOTE:
**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO DIGITAL SPEED REDUCTION SYSTEM.

TYPE II SIGNS AND SUPPORTS ITEMS

SIGN NUMBER	SIGN CODE	SIGN DIMENSION W X H IN		IN	DESCRIPTION	634.0612 POSTS WOOD 4X6-INCH X 12-FT EACH	634.0614 POSTS WOOD 4X6-INCH X 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH X 16-FT EACH	634.0618 POSTS WOOD 4X6-INCH X 18-FT EACH	634.0620 POSTS WOOD 4X6-INCH X 20-FT EACH	634.0622 POSTS WOOD 4X6-INCH X 22-FT EACH	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602* REMOVING SIGNS TYPE II EACH	638.3000* REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS SIGN NO.
1-1	R5-1A	42	X	30	WRONG WAY	--	--	1	--	--	--	8.75	--	--	--	
1-3	R3-18	36	X	36	MOVEMENT PROHIBITATION	--	--	1	--	--	--	9.00	--	--	--	
1-4	D1-1	90	X	21	DESTINATION	--	--	2	--	--	--	13.13	--	--	--	
1-5	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
1-6	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
1-7	R6-1L	54	X	18	ONE WAY	--	1	--	--	--	--	6.75	--	--	--	1-8
1-8	R1-2	48	X	42	YIELD	--	--	--	--	--	--	7.00	--	--	--	1-7
1-9	R6-2L	36	X	48	ONE WAY	--	--	--	1	--	--	12.00	--	--	--	
1-10	D1-81	114	X	54	--	--	--	--	--	3	--	42.75	--	--	--	
1-11	R6-1L	54	X	18	ONE WAY	--	1	--	--	--	--	6.75	--	--	--	1-12
1-12	R1-2	48	X	42	YIELD	--	--	--	--	--	--	7.00	--	--	--	1-11
1-13	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
1-14	J2-1	36	X	84	--	--	--	--	--	--	2	21.00	--	--	--	
1-15	J3-2	72	X	84	--	--	--	--	--	--	2	42.00	--	--	--	
1-16	D1-1	84	X	21	DESTINATION	--	--	2	--	--	--	12.25	--	1.00	1.00	
2-1	J2-2	72	X	84	--	--	--	--	--	--	2	42.00	--	--	--	
2-2	J2-1	36	X	84	--	--	--	--	--	--	2	21.00	--	--	--	
2-3	R5-1A	42	X	30	WRONG WAY	--	--	1	--	--	--	8.75	--	--	--	
2-4	R5-1A	42	X	30	WRONG WAY	--	--	1	--	--	--	8.75	--	--	--	
2-7	W12-1D	36	X	36	DOUBLE ARROW	1	--	--	--	--	--	--	9.00	--	--	
2-10	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
2-12	R3-4	36	X	36	MOVEMENT PROHIBITATION	--	--	1	--	--	--	9.00	--	--	--	
2-13	D1-82	126	X	66	--	--	--	--	--	3	--	57.75	--	--	--	
2-14	R1-2	48	X	42	YIELD	--	--	--	1	--	--	7.00	--	--	--	2-15
2-15	R5-1	36	X	36	DO NOT ENTER	--	--	--	--	--	--	9.00	--	--	--	2-14
2-16	R1-2	48	X	42	YIELD	--	--	--	1	--	--	7.00	--	--	--	
2-17	R1-2	48	X	42	YIELD	--	--	--	1	--	--	7.00	--	--	--	
3-1	R5-1	36	X	36	DO NOT ENTER	--	--	--	--	--	--	9.00	--	--	--	3-2
3-2	R1-2	48	X	42	YIELD	--	--	--	1	--	--	7.00	--	--	--	3-1
3-3	D1-82	144	X	66	--	--	--	--	--	3	--	7.00	--	--	--	
3-4	R3-4	36	X	36	MOVEMENT PROHIBITATION	--	--	1	--	--	--	9.00	--	--	--	
3-6	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
3-7	J3-2	72	X	84	--	--	--	--	--	--	2	42.00	--	1.00	1.00	
3-9	W12-1D	36	X	36	DOUBLE ARROW	1	--	--	--	--	--	--	9.00	--	--	
3-12	J3-4	144	X	84	--	--	--	--	--	--	3	84.00	--	--	--	
3-13	J2-3	108	X	84	--	--	--	--	--	--	3	63.00	--	--	--	
3-14	R5-1A	36	X	24	WRONG WAY	--	--	1	--	--	--	6.00	--	--	--	
3-15	R5-1A	36	X	24	WRONG WAY	--	--	1	--	--	--	6.00	--	--	--	
3-16	D1-1	90	X	21	DESTINATION	--	--	1	--	--	--	13.13	--	1.00	1.00	
4-1	D1-1	84	X	21	DESTINATION	--	--	2	--	--	--	12.25	--	--	--	
4-2	J2-2	72	X	84	--	--	--	--	--	--	2	42.00	--	2.00	2.00	
4-3	J2-3	108	X	84	--	--	--	--	--	--	3	63.00	--	--	--	
4-4	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
4-5	R6-1L	54	X	18	ONE WAY	--	--	--	--	--	--	6.75	--	--	--	4-6
4-6	R1-2	48	X	42	YIELD	--	--	1	--	--	--	7.00	--	--	--	4-5
4-7	D1-81	108	X	72	--	--	--	--	--	3	--	7.00	--	--	--	
4-8	R6-2L	36	X	48	ONE WAY	--	--	--	1	--	--	12.00	--	--	--	
4-9	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
4-10	R6-1L	54	X	18	ONE WAY	--	--	--	--	--	--	6.75	--	--	--	4-11
4-11	R1-2	48	X	42	YIELD	--	--	--	1	--	--	7.00	--	--	--	4-10
4-12	R5-1	36	X	36	DO NOT ENTER	--	--	1	--	--	--	9.00	--	--	--	
4-13	J1-2	72	X	75	--	--	--	--	--	1	1	37.50	--	2.00	2.00	
4-14	R3-18	36	X	36	MOVEMENT PROHIBITATION	--	--	1	--	--	--	9.00	--	--	--	
4-15	J4-1	36	X	54	--	--	--	--	1	--	--	13.50	--	--	--	
4-16	R5-1A	42	X	30	WRONG WAY	--	--	1	--	--	--	8.75	--	--	--	
5-1	W3-1	36	X	36	STOP AHEAD	--	--	1	--	--	--	--	9.00	1.00	1.00	
5-2	W3-1	36	X	36	STOP AHEAD	--	--	1	--	--	--	--	9.00	1.00	1.00	
6-4	R3-53R	24	X	30	RIGHT TURN ONLY	--	1	--	--	--	--	5.00	--	--	--	
6-5	W12-1R	30	X	30	ARROW	--	1	--	--	--	--	--	6.25	--	--	
6-6	R6-1R	36	X	12	ONE WAY	--	--	--	--	--	--	3.00	--	--	--	6-7
6-7	R1-1	36	X	36	STOP	--	--	1	--	--	--	5.18	--	--	--	6-6
6-8	R4-7	24	X	30	KEEP RIGHT	--	--	1	--	--	--	5.00	--	--	--	
6-9	R3-1	24	X	24	MOVEMENT PROHIBITATION	--	--	1	--	--	--	4.00	--	--	--	
6-10	R6-1R	36	X	12	ONE WAY	--	--	--	--	--	--	3.00	--	--	--	6-11
6-11	R1-1	36	X	36	STOP	--	--	1	--	--	--	5.18	--	--	--	6-10
6-12	J3-3	72	X	60	--	--	--	--	--	1	--	30.00	--	--	--	
7-1	R6-1R	36	X	12	ONE WAY	--	--	--	--	--	--	3.00	--	--	--	7-2
7-2	R1-1	36	X	36	STOP	--	--	1	--	--	--	5.18	--	--	--	7-1
7-3	J3-1	36	X	66	--	--	--	--	1	--	--	16.50	--	--	--	
7-4	R4-7	24	X	30	KEEP RIGHT	--	--	1	--	--	--	5.00	--	--	--	
7-5	R3-1	24	X	24	MOVEMENT PROHIBITATION	--	--	1	--	--	--	4.00	--	--	--	
7-6	R6-1R	36	X	12	ONE WAY	--	--	--	--	--	--	3.00	--	--	--	7-6
7-7	R1-1	36	X	36	STOP	--	--	1	--	--	--	5.18	--	--	--	7-7
7-8	W12-1R	30	X	30	ARROW	--	--	1	--	--	--	--	6.25	--	--	
7-9	R3-53R	24	X	30	RIGHT TURN ONLY	--	1	--	--	--	--	5.00	--	--	--	
7-10	J2-1	36	X	66	--	--	--	--	1	--	--	16.50	--	--	--	
7-14	W1-4R	36	X	36	REVERSE CURVE	--	--	1	--	--	--	--	9.00	--	--	
7-15	J4-2	72	X	72	--	--	--	--	--	1	--	36.00	--	1.00	1.00	
7-18	R2-1	24	X	30	SPEED LIMIT	--	1	--	--	--	--	5.00	--	--	--	
8-2	W3-1	36	X	36	STOP AHEAD	--	--	1	--	--	--	--	9.00	1.00	1.00	
8-3	W10-1	36	X	36	GRADE CROSSING ADVANCE WARNING	--	--	1	--	--	--	--	7.07	1.00	1.00	
PROJECT TOTALS						2.00	6.00	40.00	10.00	15.00	22.00	1,080.97	73.57	12.00	12.00	

NOTE:
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL ITEMS

STAGE	LOCATION	STAGE DURATION DAYS	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	COMMENTS
1																		
	PRIOR TO CONSTRUCTION	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	PRIOR TO SIDE ROAD CLOSURES	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	ADVANCED WARNING	5	--	--	--	--	--	--	--	--	--	--	2	10	--	--	--	
	STA 94+70 - STA 113+75	5	70	350	5	25	10	50	13	65	2	10	15	75	1	--	--	STH 29 EB
	STA 507+93 - STA 527+30	5	70	350	5	25	10	50	13	65	2	10	15	75	1	--	--	STH 29 WB
	CTH MMM/BUS 29 CLOSURE	5	--	--	--	--	--	--	--	--	--	--	44	220	--	--	--	CTH MMM/BUS 29
SUBTOTALS				840		50		100		130		20		380	2		28	
2																		
	PRIOR TO TRAFFIC PATTERN CHANGE	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	PRIOR TO SIDE ROAD CLOSURES	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	STA 94+05 - STA 122+95	41	100	4,100	22	902	44	1,804	18	738	2	82	17	697	--	--	--	STH 29 EB
	STA 499+05 - STA 527+95	41	100	4,100	15	615	30	1,230	18	738	2	82	17	697	--	--	--	STH 29 WB
	CLARK DR CLOSURE	41	--	--	5	205	10	410	--	--	--	--	8	328	--	--	--	CLARK DR
	CTH MMM/BUS 29 CLOSURE	41	--	--	5	205	10	410	--	--	--	--	94	3,854	3	--	--	CTH MMM/BUS 29
SUBTOTALS				8,340		1,927		3,854		1,476		164		5,576	3		28	
3																		NORMAL WORK PERIODS
	PRIOR TO TRAFFIC PATTERN CHANGE	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	ADVANCED WARNING	56	--	--	--	--	--	--	--	--	--	--	2	112	--	--	--	
	STA 94+05 - STA 122+95	52	105	5,460	12	624	24	1,248	21	1,176	2	112	19	988	--	--	--	STH 29 EB
	STA 499+05 - STA 527+95	52	100	5,200	12	624	24	1,248	21	1,176	2	112	19	988	--	--	--	STH 29 WB
	CTH MMM/BUS 29 CLOSURE	52	--	--	--	--	--	--	--	--	--	--	44	2,288	--	--	--	CTH MMM/BUS 29
SUBTOTALS				10,730		1,248		2,496		2,352		224		4,376	--		14	
3																		DURING HOLIDAY AND SPECIAL EVENT WORK RESTRICTIONS
	PRIOR TO TRAFFIC PATTERN CHANGE	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	STA 92+03 - STA 122+95	4	35	140	1	4	2	8	--	--	--	--	11	44	--	--	--	STH 29 EB
	STA 497+53 - STA 529+98	4	35	140	1	4	2	8	--	--	--	--	11	44	--	--	--	STH 29 WB
	CTH MMM/BUS 29 CLOSURE	4	--	--	--	--	--	--	--	--	--	--	44	176	--	--	--	CTH MMM/BUS 29
SUBTOTALS				350		8		16		--		--		264	--		14	
4																		
	PRIOR TO TRAFFIC PATTERN CHANGE	7	10	70	--	--	--	--	--	--	--	--	--	--	--	2	14	
	ADVANCED WARNING	5	--	--	--	--	--	--	--	--	--	--	2	10	--	--	--	
	STA 101+00 - STA 121+00	5	70	350	5	25	10	50	13	65	2	10	15	75	1	--	--	STH 29 EB
	STA 501+00 - STA 521+00	5	70	350	5	25	10	50	13	65	2	10	15	75	1	--	--	STH 29 WB
SUBTOTALS				770		50		100		130		20		160	2		14	
PROJECT TOTALS				21,030		3,283		6,566		4,088		428		10,756	7		98	

NOTE
ALL TRAFFIC CONTROL SIGNS ARE COVERED FOR ONE CYCLE

MISCELLANEOUS PAVEMENT MARKING ITEMS

STAGE	STATION	TO STATION	OFFSET	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.5320 MARKING RAILROAD CROSSING EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH LF	646.7220 MARKING CHEVRON EPOXY 24-INCH LF	646.8120 MARKING CURB EPOXY LF	646.8220 MARKING ISLAND NOSE EPOXY EACH	SPV.0060.04 MARKING YIELD LINE EPOXY 36-INCH EACH	COMMENTS
2													
	8+40	- 19+73	LT & RT	--	--	--	25	15	--	--	3	--	CLARK DR
	30+26	- 39+30	LT & RT	--	--	1	25	25	--	--	3	--	CTH MMM/BUS 29
SUBTOTALS				--	--	1	50	40	--	--	6	--	
3													
	101+00	- 121+00	LT	4	2	--	--	400	280	175	4	16	STH 29 EB
SUBTOTALS				4	2	--	--	400	280	175	4	16	
4													
	101+00	- 121+00	RT	2	1	--	--	--	--	--	--	--	STH 29 EB
	501+00	- 521+00	LT	2	1	--	--	--	--	--	--	--	STH 29 WB
SUBTOTALS				4	2	--	--	--	--	--	--	--	
PROJECT TOTALS				8	4	1	50	440	280	175	10	16	

3

TEMPORARY PAVEMENT MARKING ITEMS

STAGE	STATION TO	STATION	OFFSET	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH SOLID YELLOW LF	643.3180 TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH SOLID WHITE LF	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9050 MARKING REMOVAL LINE GROOVED PERMANENT TAPE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	COMMENTS
1									
	WEST OF PROJECT LIMIT		RT	--	--	222	--	--	STH 29 EB, SEE NOTE 1
	EAST OF PROJECT LIMIT		LT	--	--	--	222	--	STH 29 WB, SEE NOTE 1
SUBTOTALS				--	--	222	222	--	
2									
	94+70	113+75	RT	1,910	1,910	1,125	--	313	STH 29 EB
	507+93	527+30	LT	1,940	1,940	1,275	--	357	STH 29 WB
SUBTOTALS				3,850	3,850	2,400	--	670	
3									NORMAL WORK PERIODS
	94+05	122+95	RT	5,780	2,780	2,685	--	--	STH 29 EB
	499+05	527+95	LT	5,780	2,780	2,215	--	345	STH 29 WB
SUBTOTALS				11,560	5,560	4,900	--	345	
3									DURING HOLIDAY AND SPECIAL EVENT WORK RESTRICTIONS
	92+03	124+48	RT	3,250	3,750	815	--	--	STH 29 EB
	497+53	529+98	LT	3,250	3,750	--	815	--	STH 29 WB
SUBTOTALS				6,500	7,500	815	815	--	
4									
	94+05	122+95	RT	2,890	--	--	--	--	STH 29 EB
	499+05	527+95	LT	2,890	--	--	--	--	STH 29 WB
SUBTOTALS				5,780	--	--	--	--	
PROJECT TOTALS				27,690	16,910	8,337	1,037	1,015	
				44,600					

NOTE:
LANE LINE MARKING REMOVED BEYOND PROJECT LIMITS DUE TO LANE CLOSURES.

DELINEATOR AND REFLECTOR ITEMS

STAGE	STATION TO	STATION	OFFSET	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS WHITE EACH	633.5350 MARKERS PERMANENT FLEXIBLE YELLOW EACH	COMMENTS
4							
	101+00	121+00	RT	6	6	--	STH 29 EB
	109+00		LT	--	--	2	STH 29 EB
	501+00	521+00	LT	6	6	--	STH 29 WB
	512+70		RT	--	--	2	STH 29 WB
SUBTOTALS				12	12	4	
PROJECT TOTALS				12	12	4	

3

LONG LINE PAVEMENT MARKING ITEMS

STAGE	STATION TO	STATION	OFFSET	646.2020 MARKING LINE EPOXY 6-INCH SOLID YELLOW LF	646.2020 MARKING LINE EPOXY 6-INCH SOLID WHITE LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH 12.5' LINE 37.5' SKIP BLACK LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH SOLID YELLOW LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH SOLID WHITE LF	646.2050 MARKING LINE GROOVED PERMANENT TAPE 6-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH 3' LINE 9' SKIP WHITE LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH SOLID YELLOW LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH SOLID WHITE LF	646.6466 COLD WEATHER MARKING EPOXY 6-INCH LF	646.6470 COLD WEATHER MARKING EPOXY 10-INCH LF	COMMENTS
2															
	8+40	19+73	LT & RT	2,275	30	--	--	--	--	--	--	--	--	--	CLARK DR
	30+26	39+30	LT & RT	--	--	--	1,820	1,710	--	--	--	--	--	--	CTH MMM/BUS 29
SUBTOTALS				2,275	30	--	1,820	1,710	--	--	--	--	--	--	
3															
	94+00	127+95	LT	--	--	--	5,965	415	--	--	225	3,160	6,380	3,385	STH 29 EB
	80+20	124+48	RT	--	--	1,110	--	--	1,110	--	--	--	2,220	--	STH 29 EB
	497+53	539+75	LT	--	--	1,060	--	--	1,060	--	--	--	2,120	--	STH 29 WB
SUBTOTALS				--	--	2,170	5,965	415	2,170	--	225	3,160	10,720	3,385	
4															
	94+00	122+95	RT	--	--	--	--	2,730	--	40	--	300	2,730	340	STH 29 EB
	499+00	527+95	LT	--	--	--	--	2,740	--	40	--	450	2,740	490	STH 29 WB
SUBTOTALS				--	--	--	--	5,470	--	80	--	750	5,470	830	
PROJECT TOTALS				2,275	30	2,170	7,785	7,595	2,170	80	225	3,910	16,190	4,215	
				2,305			15,380			4,215					

NOTE:
LANE LINE MARKING BEYOND PROJECT LIMITS DUE TO LANE CLOSURES. EDGE LINE MARKING BEYOND PROJECT LIMITS DUE TO PARTIAL LANE SHIFTS.

3

WATER

LOCATION	624.0100 WATER MGAL
PROJECT-BASE COMPACTION	118
PROJECT-COMMON EXCAVATION	112
PROJECT TOTAL	230

NOTE:
COMMON EXCAVATION WATER TO BE USED FOR DUST CONTROL

SAWING ITEMS

STAGE	STATION		TO STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
1							
	94+70	-	113+75	LT	6	--	STH 29 EB
	507+93	-	527+30	RT	6	--	STH 29 WB
SUBTOTALS					12	--	
2							
	94+67	-	122+31	RT	12	--	STH 29 EB
	101+00	-	121+00	RT	--	206	STH 29 EB DRIVING LANE
	499+59	-	527+33	LT	12	--	STH 29 WB
	501+00	-	521+00	LT	--	251	STH 29 WB DRIVING LANE
	8+40			LT & RT	24	--	CLARK DR
	39+30			LT & RT	30	--	CTH MMM/BUS 29
SUBTOTALS					78	457	
3							
	101+00	-	121+00	LT	6	--	STH 29 EB
	101+00	-	121+00	LT	--	110	STH 29 EB PASSING LANE
	501+00	-	521+00	RT	6	--	STH 29 WB
SUBTOTALS					12	110	
	UNDISTRIBUTED				--	58	CONCRETE REPAIRS
PROJECT TOTALS					102	625	

STAKING ITEMS

STATION	TO	STATION	OFFSET	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8501.01 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS 1058-23-72 EACH	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	650.9500.01 CONSTRUCTION STAKING SIDEWALK 1058-23-72 EACH	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1058-23-72 EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	COMMENTS
101+00	-	121+00	LT & RT	21	2,000	242	1	1,758	--	8	--	--	2,000	STH 29 EB
501+00	-	521+00	LT & RT	--	2,000	276	1	1,724	--	--	--	--	2,000	STH 29 WB
8+40	-	19+73	LT & RT	--	1,133	1,026	1	107	--	--	--	--	1,133	CLARK DR
30+26	-	39+30	LT & RT	--	904	820	1	84	--	--	--	--	904	CTH MMM/BUS 29
PROJECT				--	--	--	--	--	1	--	1	1	--	
PROJECT TOTALS				21	6,037	2,364	4	3,673	1	8	1	1	6,037	

CONDUIT ITEMS

FROM	TO	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF
L-58-2001-ST	LPB1	-	15	-
LPB1	P1	11	-	-
LPB1	LPB2	-	130	-
LPB2	P2	11	-	-
LPB2	LPB3	-	-	95
LPB3	P3	11	-	-
LPB3	LPB4	161	-	-
LPB4	LPB5	181	-	-
LPB5	P4	11	-	-
LPB5	LPB6	193	-	-
LPB6	LPB7	173	-	-
LPB7	P5	10	-	-
LPB3	LPB8	-	-	97
LPB8	P6	14	-	-
LPB8	LPB9	-	136	-
LPB9	P7	11	-	-
LPB9	LPB10	-	-	88
LPB10	P8	11	-	-
LPB10	LPB11	101	-	-
LPB11	LPB12	131	-	-
LPB12	LPB13	131	-	-
LPB13	P9	11	-	-
LPB13	LPB14	191	-	-
LPB14	LPB15	165	-	-
LPB15	P10	10	-	-
LPB1	LPB10	-	-	93
PROJECT TOTALS		1,538	281	373

PULL BOXES ITEM

PULL BOX NO.	LOCATION***	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
PB1	110+30.00, 110.0' LT	1
PB2	111+60.00, 110.0' LT	1
PB3	111+90.00, 20.0' LT	1
PB4	113+50.00, 30.0' LT	1
PB5	115+30.00, 38.0' LT	1
PB6	117+25.00, 40.0' LT	1
PB7	119+00.00, 45.0' LT	1
PB8	111+31.17, 56.2' RT	1
PB9	109+95.00, 50.0' RT	1
PB10	109+75.00, 35.0' LT	1
PB11	108+75.00, 31.0' LT	1
PB12	107+44.93, 26.1' LT	1
PB13	106+15.02, 22.0' LT	1
PB14	104+25.00, 16.0' LT	1
PB15	102+60.00, 16.0' LT	1
PROJECT TOTAL		15

NOTE:
*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
ALL LOCATIONS ARE OFF STH 29 EB ALIGNMENT

ELECTRICAL WIRE LIGHTING

FROM	TO	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG LF
L-58-2001-ST	LPB1	152
LPB1	P1	64
LPB1	LPB2	584
LPB2	P2	64
LPB2	LPB3	444
LPB3	P3	64
LPB3	LPB4	708
LPB4	LPB5	788
LPB5	P4	64
LPB5	LPB6	836
LPB6	LPB7	756
LPB7	P5	60
LPB3	LPB8	452
LPB8	P6	76
LPB8	LPB9	-
LPB9	P7	64
LPB9	LPB10	416
LPB10	P8	64
LPB10	LPB11	468
LPB11	LPB12	588
LPB12	LPB13	588
LPB13	P9	64
LPB13	LPB14	828
LPB14	LPB15	724
LPB15	P10	60
LPB1	LPB10	436
PROJECT TOTAL		9,412

ELECTRICAL SERVICE METER BREAKER PEDESTAL

LOCATION	656.0201.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL STH 29 & BUS 29/CTH MMM EACH
STH 29 & BUS 29/CTH MMM	1
PROJECT TOTAL	1

CONCRETE BASES ITEMS

POLE I.D. OR LOCATION	LOCATION***	654.0105 CONCRETE BASES TYPE 5 EACH	654.0230 CONCRETE CONTROL CABINET BASES TYPE L30 EACH	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH
L-58-2001-ST	110+40.00, 122.0' LT	-	1	1	-
P1	110+40.00, 106.0' LT	1	-	-	1
P2	111+50.00, 107.0' LT	1	-	-	1
P3	111+80.00, 20.0' LT	1	-	-	1
P4	115+40.00, 36.0' LT	1	-	-	1
P5	119+10.00, 45.0' LT	1	-	-	1
P6	111+18.72, 49.9' RT	1	-	-	1
P7	110+05.00, 50.0' RT	1	-	-	1
P8	109+85.00, 38.0' LT	1	-	-	1
P9	106+25.00, 25.0' LT	1	-	-	1
P10	102+50.00, 16.0' LT	1	-	-	1
PROJECT TOTALS		10	1	1	10

NOTE:
*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD. ALL LOCATIONS ARE OFF STH 29 EB ALIGNMENT.

POLES ITEMS

POLE I.D. OR LOCATION	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT EACH	659.1120 LUMINAIRES UTILITY LED B EACH	657.0322 POLES TYPE 5-ALUMINUM EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF
P1	-	1	1	1	141
P2	-	1	1	1	141
P3	-	2	2	1	282
P4	1	1	2	1	372
P5	1	1	2	1	372
P6	-	1	1	1	141
P7	-	1	1	1	141
P8	-	2	2	1	282
P9	1	1	2	1	372
P10	1	1	2	1	372
PROJECT TOTALS	4	12	16	10	2,616

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- EARTHWORK MATCHLINE
- X GRUBBING
- (L) LOCATE AND CLEAN EXISTING UNDERDRAIN OUTFALLS

NOTES

SEE PAVING DETAILS FOR ADDITIONAL INTERSECTION LAYOUT INFORMATION.

SEE STORM SEWER & UNDERDRAIN PLANS FOR ADDITIONAL DRAINAGE REMOVALS AND REPLACEMENTS.

SHAWANO HIGH SCHOOL LAND

BRADLEY R KRUEGER

R/W

N

STA 506+75 - STA 509+42, LT
DITCH CLEANING REQ'D
SEE CONSTRUCTION DETAILS

CTH MMM/BUS 29

34

32

FRONTIER (COMMUNICATIONS)

EXISTING CULVERT 58029008189
STA 108+83, LT
CPRC 18-INCH TO REMAIN
CLEANING CULVERT PIPES REQ'D
MARKERS CULVERT END REQ'D
SEE STORM SEWER PLANS FOR MODIFICATIONS IN THE MEDIAN

EX R/W

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

REMOVING CURB AND GUTTER

REMOVING CURB AND GUTTER

5

498 500 502 504 STH 29 WB 506 508 510 512 S58°57'02"E

5

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

98 100 102 104 STH 29 EB 106 108 110 112 S58°57'02"E

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

REMOVING CURB AND GUTTER

REMOVING CURB AND GUTTER

STA 101+75 - STA 102+72, LT
CULVERT PIPE REINFORCED CONCRETE CLASS IV 18-INCH REQ'D
2-AEW FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 10 TO 1 REQ'D

EXISTING CULVERT 58029008188
STA 106+83, LT&RT
CPRC 30-INCH TO REMAIN
CLEANING CULVERT PIPES REQ'D
MARKERS CULVERT END REQ'D
JOINT TIES FOR CONCRETE PIPE REQ'D, RT
SEE STORM SEWER PLANS FOR MODIFICATIONS IN THE MEDIAN

EX R/W

CP #508
Y = 273,953.15
X = 844,742.82
ELEV = 851.55
CP FENO SET

BEGIN PROJECT
STA 101+00
Y=273,918.315
X=844,915.610
MATCH EXISTING

CLARK DR

18

16

BRADLEY R DRUEGER

BRADLEY R DRUEGER

EX R/W

EX R/W

BRADLEY R DRUEGER

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PLAN	SHEET 87	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01

PLOT DATE : 11/28/2023 8:41 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- EARTHWORK MATCHLINE
- X GRUBBING
- (L) LOCATE AND CLEAN EXISTING UNDERDRAIN OUTFALLS

NOTES

SEE PAVING DETAILS FOR ADDITIONAL INTERSECTION LAYOUT INFORMATION.

SEE STORM SEWER & UNDERDRAIN PLANS FOR ADDITIONAL DRAINAGE REMOVALS AND REPLACEMENTS.

CURVE NO.2
PI STA = 518+08.59
Y = 273088.47
X = 846410.34
PC STA = 515+52.42
Y=273220.59
X=846190.87
PT STA = 520+63.68
Y=272992.70
X=846647.94
DELTA = 9°05'50"
D = 1°46'46"
T = 256.17'
L = 511.26'
R = 3220.00'
EXISTING SE = 5.1%
PROPOSED SE = 5.1%
SE TRANSITION (T) = 320'
RO (RUNOFF) = 230'

EXISTING CULVERT 58029008190
STA 518+57, LT&RT
CPRC 30-INCH TO REMAIN
49° SKEW RHF
1-REMOVING APRON ENDWALLS REQ'D
CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH EXTENSION REQ'D
1-AEW FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 30-INCH 6 TO 1 REQ'D
1-CONCRETE COLLARS REQ'D
CLEANING CULVERT PIPES REQ'D
MARKERS CULVERT END REQ'D
SEE STORM SEWER PLANS FOR MODIFICATIONS IN THE MEDIAN
INVERT UPSTREAM: 840.23'

CP #505
Y = 272,968.50
X = 846,873.20
ELEV = 843.97
CP FENO SET

EX R/W

PC: 515+52.42

PT: 520+63.68

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

S58°57'02"E

S68°02'52"E

CURVE 2

CURVE 1

STH 29 WB

STH 29 EB

514 516 518 520 522 524 526

114 116 118 120 122 124 126

POST

SIGN

PC: 115+52.42

PT: 120+73.21

END PROJECT
STA 121+00
MATCH EXISTING

SHOULDER PAVING, SEE TRAFFIC CONTROL TYPICAL SECTIONS

EXISTING CULVERT 58029080224
STA 113+76, LT&RT
EXISTING 30" CPRC TO REMAIN
25° SKEW RHF
SEE STORM SEWER PLANS FOR MODIFICATIONS IN THE MEDIAN
MARKERS CULVERT END REQ'D

CURVE NO.1
PI STA = 118+13.36
Y = 273034.60
X = 846383.48
PC STA = 115+52.42
Y=273169.19
X=846159.93
PT STA = 120+73.21
Y=272937.05
X=846625.51
DELTA = 9°05'50"
D = 1°44'49"
T = 260.94'
L = 520.79'
R = 3280.00'
EXISTING SE = 5.1%
PROPOSED SE = 5.1%
SE TRANSITION (T) = 320'
RO (RUNOFF) = 230'

STA 120+90 - STA 121+49, RT
DITCH CLEANING REQ'D
SEE CONSTRUCTION DETAILS

EXISTING CULVERT 58029008191
STA 120+04, LT&RT
CPRC 30-INCH TO REMAIN
49° SKEW RHF
CLEANING CULVERT PIPES REQ'D
MARKERS CULVERT END REQ'D
SEE STORM SEWER PLANS FOR MODIFICATIONS IN THE MEDIAN

BRADLEY R DRUEGER

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	PLAN	SHEET 88	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 11/28/2023 8:41 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

DELINEATED WETLAND BOUNDARY

SLOPE INTERCEPT

X GRUBBING

NOTE
SEE PAVING DETAILS FOR ADDITIONAL INTERSECTION LAYOUT INFORMATION NOT SHOWN ON THESE SHEETS.

BRADLEY R DRUEGER

CURVE NO.1
PI STA = 7+11.67
Y = 272760.72
X = 844658.17
PC STA = 5+22.98
Y=272757.34
X=844469.51
PT STA = 8+94.33
Y=272843.62
X=844827.68
DELTA = 25°01'55"
D = 6°44'26"
T = 188.69'
L = 371.36'
R = 850.00'
EXISTING SE = 6.0%
PROPOSED SE = 6.0%
SE TRANSITION (T) = 192'
RO (RUNOFF) = 144'

STA 11+51, LT&RT
EXISTING 42" CPCM
1-REMOVING SMALL CULVERT PIPES REQ'D

STA 11+49, LT&RT
CULVERT PIPE REINFORCED CONCRETE CLASS IV 42-INCH REQ'D
2-AEW FOR CULVERT PIPE REINFORCED CONCRETE 42-INCH REQ'D
12° SKEW LHF
MARKERS FOR CULVERT END REQ'D

BRADLEY R DRUEGER

EX R/W

N

STH 29 EB

STH 29 WB

N46°02'58"E

BP: 304+00.00

EP: 204+00.00

510

512

514

CLARK DR

CURVE 1

CURVE 2

N63°56'23"E

6 8 10 12 14 16 18

12'

PT: 8+94.33

PC: 16+39.01

PT: 17+81.39

CURVE NO.2
PI STA = 17+10.79
Y = 273202.30
X = 845561.12
PC STA = 16+39.01
Y=273170.76
X=845496.65
PT STA = 17+81.39
Y=273252.11
X=845612.80
DELTA = 17°53'25"
D = 12°33'54"
T = 71.78'
L = 142.38'
R = 456.00'
PROPOSED SE = 5.0%
SE TRANSITION (T) = 127'
RO (RUNOFF) = 91'

FE

STA 11+37, RT
EXISTING 42" CPCM
TO REMAIN

BEGIN CONSTRUCTION
STA 8+40
MATCH EXISTING

CP #507
Y = 272,794.22
X = 844,834.45
ELEV = 847.88
CP FENO SET

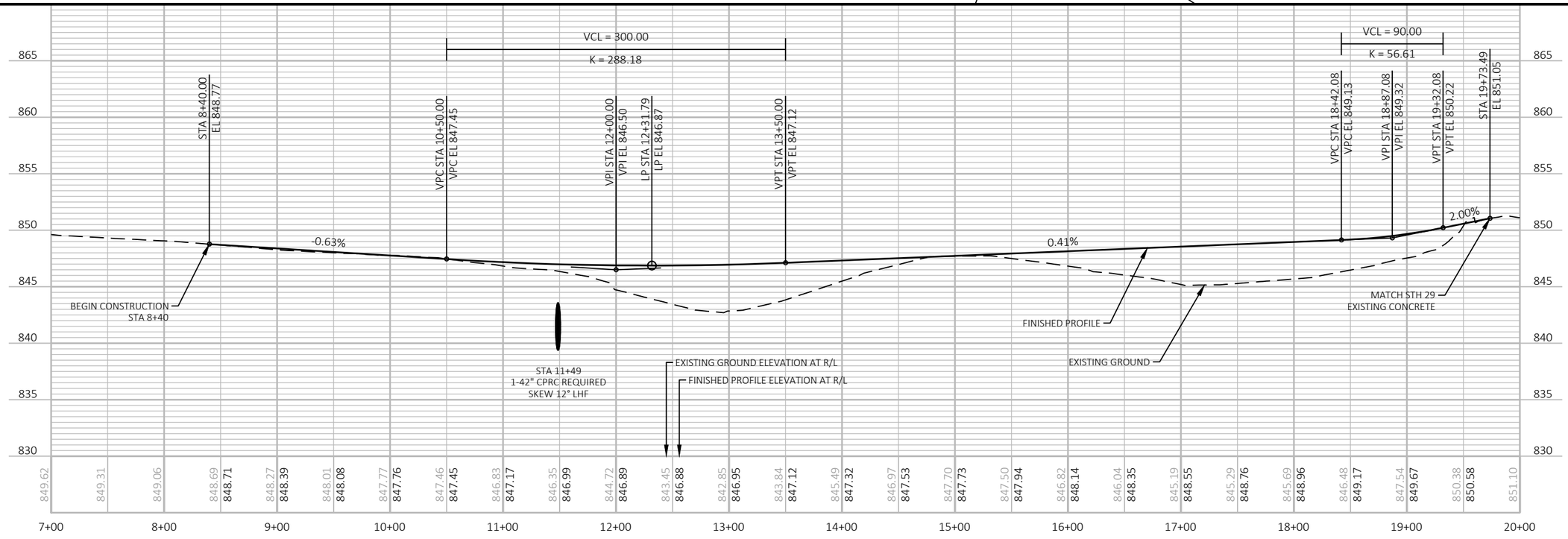
BRADLEY R DRUEGER

BRADLEY R DRUEGER

EX R/W

5

5



PROJECT NO: 1058-23-72	HWY: STH 29	SHAWANO	PLAN AND PROFILE: CLARK DR	SHEET 89	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 01

PLOT DATE : 10/10/2023 1:21 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

STA 33+54, LT&RT
CULVERT PIPE REINFORCED CONCRETE CLASS IV 30-INCH REQ'D
2-AEW FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH REQ'D
31° SKEW LHF
MARKERS FOR CULVERT END REQ'D

STA 32+94, RT
EXISTING 30" CPCM
1-REMOVING SMALL CULVERT PIPES REQ'D

LEGEND
- DELINEATED WETLAND BOUNDARY
- SLOPE INTERCEPT
- X GRUBBING

NOTE
SEE PAVING DETAILS FOR ADDITIONAL INTERSECTION LAYOUT INFORMATION NOT SHOWN ON THESE SHEETS.

REMOVING FENCE

FRONTIER (COMMUNICATIONS)

ALLIANT ENERGY (ELECTRIC)

SHAWNO HIGH SCHOOL

EX R/W

BRADLEY R DRUEGER

N

STH 29 EB

STH 29 WB

STO

ST2

N46°02'58"E

CURVE 3

CURVE 4

N70°34'11"E

N57°41'55"E

CTH MMM/BUS 29

32

34

36

38

40

42

15'

PC: 36+50.61

PT: 37+95.05

EP: 43+00.00

PC: 32+18.61

PT: 34+13.75

BP: 30+00.00

EP: 20+00.00

CURVE NO.3
PI STA = 33+17.70
Y = 273690.48
X = 846005.35
PC STA = 32+18.61
Y=273621.70
X=845934.01
PT STA = 34+13.75
Y=273723.44
X=846098.80
DELTA = 24°31'12"
D = 12°33'54"
T = 99.09'
L = 195.15'
R = 456.00'
PROPOSED SE = 5.0%
SE TRANSITION (T) = 127'
RO (RUNOFF) = 91'

STA 32+40, RT
EXISTING 18" CPCM
1-REMOVING SMALL CULVERT PIPES REQ'D

CURVE NO.4
PI STA = 37+23.14
Y = 273826.36
X = 846390.56
PC STA = 36+50.61
Y=273802.23
X=846322.17
PT STA = 37+95.05
Y=273865.12
X=846451.87
DELTA = 12°52'15"
D = 8°54'39"
T = 72.53'
L = 144.44'
R = 643.00'
EXISTING SE = 6.0%
PROPOSED SE = 6.0%
SE TRANSITION (T) = 192'
RO (RUNOFF) = 144'

END CONSTRUCTION
STA 39+30
MATCH EXISTING

CP #506
Y = 273,981.72
X = 846,711.74
ELEV = 847.44
CP FENO SET

FV&LS RR

EX R/W

BRADLEY R DRUEGER

5

5

VCL = 90.00
K = 60.00

VCL = 200.00
K = 218.30

STA 30+26.47
EL 851.11

VPC STA 30+89.31
VPC EL 849.85

VPI STA 31+34.31
VPI EL 848.95

VPT STA 31+79.31
VPT EL 848.72

VPC STA 34+50.00
VPC EL 847.37

VPI STA 35+50.00
VPI EL 846.87

VPT STA 36+50.00
VPT EL 847.29

STA 39+30.00
EL 848.45

END CONSTRUCTION
STA 39+30

-2.00%

-0.50%

0.42%

MATCH STH 29
EXISTING CONCRETE

STA 33+54
1-30" CPRC REQUIRED
SKEW 31° LHF

EXISTING GROUND ELEVATION AT R/L

FINISHED PROFILE ELEVATION AT R/L

LP STA 35+59.15
LP EL 847.10

FINISHED PROFILE

EXISTING GROUND

865 860 855 850 845 840 835 830

851.15 850.53 850.64 847.12 849.65 848.20 848.94 848.65 848.62 853.02 848.37 847.90 848.12 842.95 847.87 850.69 847.62 846.28 847.37 846.03 847.18 845.38 847.10 845.66 847.14 847.31 847.29 847.52 847.50 847.79 847.70 848.09 847.91 848.28 848.12 848.38 848.33 848.50 848.61 848.67

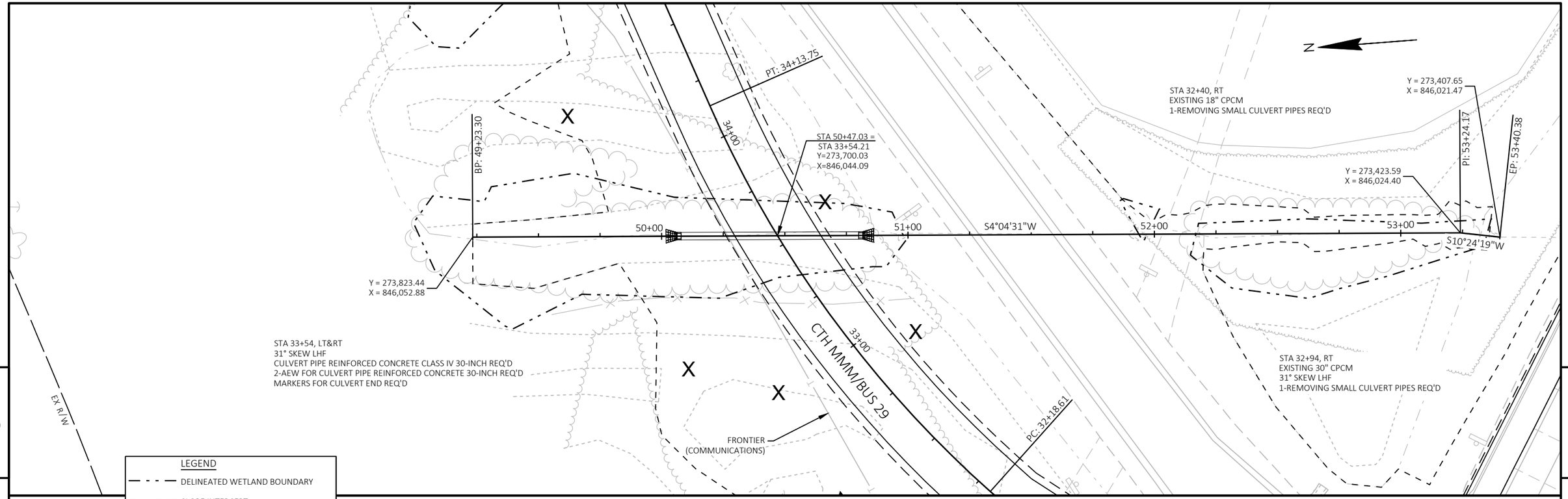
30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00

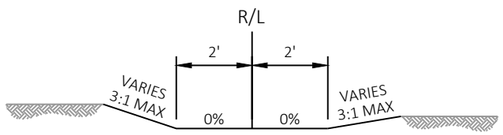
PROJECT NO: 1058-23-72	HWY: STH 29	SHAWANO	PLAN AND PROFILE: CTH MMM/BUS 29	SHEET 90	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\050201-PP.DWG
LAYOUT NAME - 02

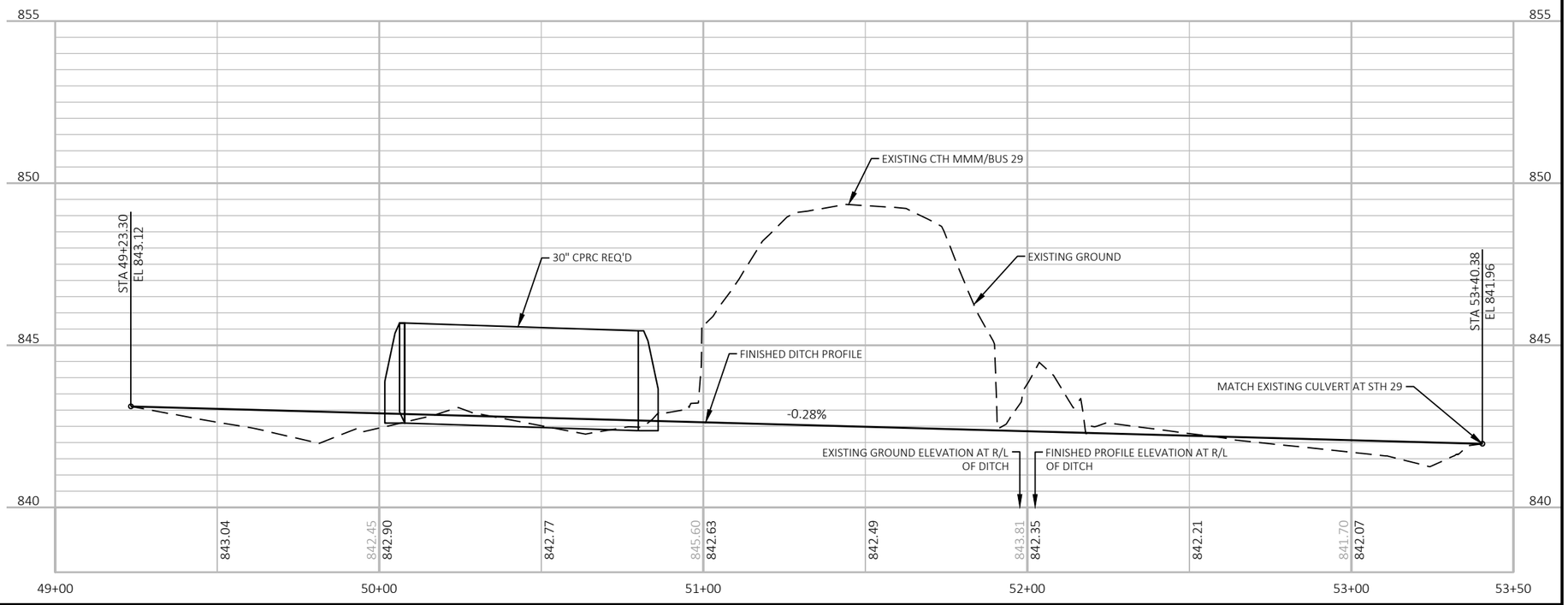
PLOT DATE : 1/22/2024 8:35 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44





TYPICAL FINISHED SECTION



PROJECT NO: 1058-23-72	HWY: STH 29	SHAWANO	PLAN AND PROFILE: CTH MMM/BUS 29 CROSSING DITCH	SHEET 91	E

Standard Detail Drawing List

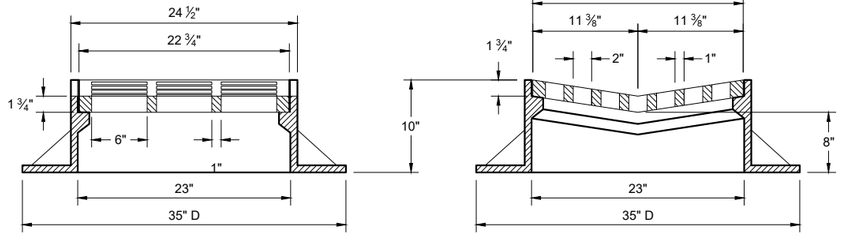
08A05-20B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-20D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21C	CURB RAMPS TYPES 4A AND 4A1
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D15-05A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-05B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-05C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-14B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-10	CONDUIT
09B04-12	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E02-05	FREEWAY LIGHTING UNIT POLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A18-05A	LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-07C	DELINEATOR BRACKET WITH REFLECTIVE SHEETING
15A04-07D	CHANNELIZING DEVICES, PERMANENT FLEXIBLE TUBULAR MARKER POST
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

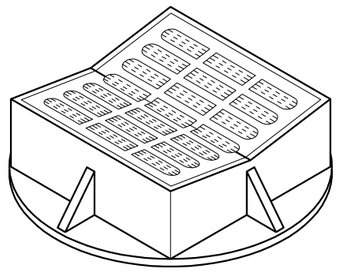
6

Standard Detail Drawing List

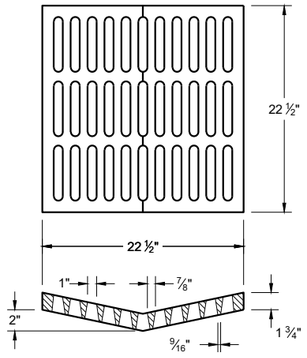
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-08A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-08B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-08C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-08C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D40-05D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D41-04A	TRAFFIC CONTROL, MULTIPLE LANE SHIFT, MULTILANE DIVIDED ROAD

6





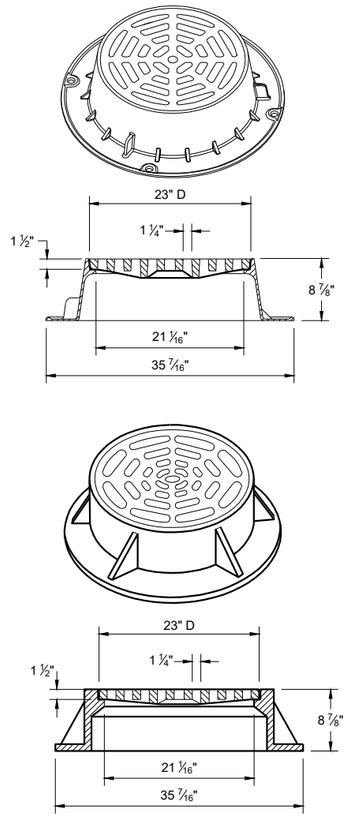
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

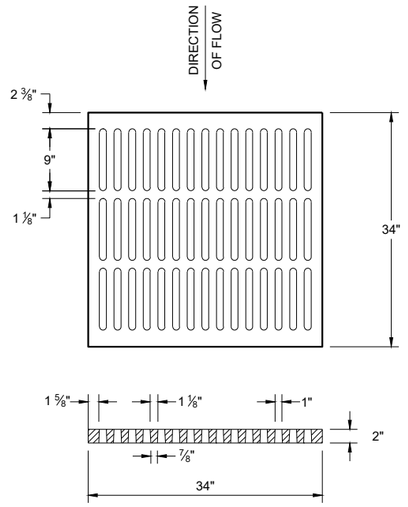
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

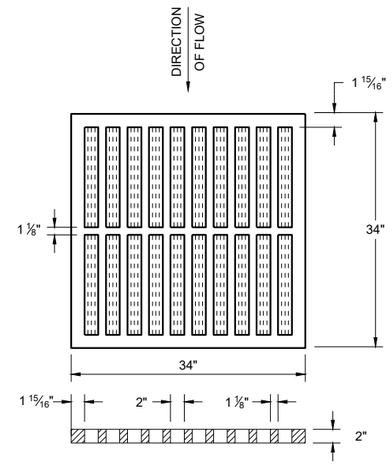
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

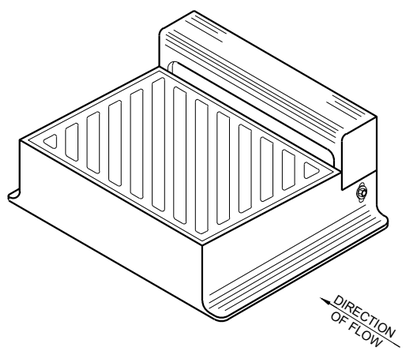
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



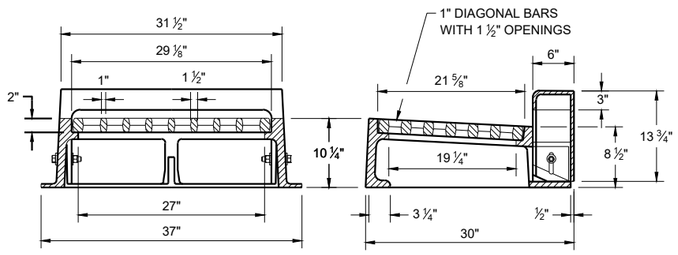
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6

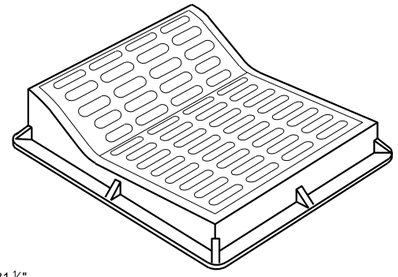
SDD 08A05-20b

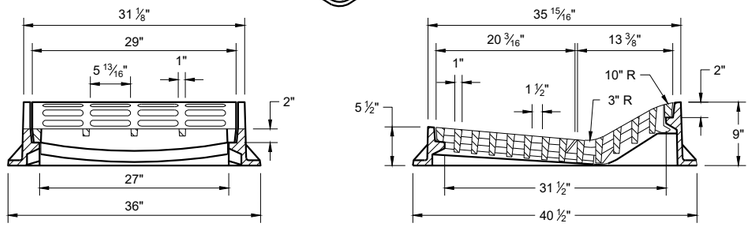
SDD 08A05-20b

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.

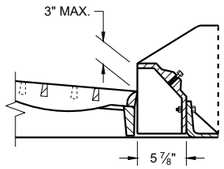
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

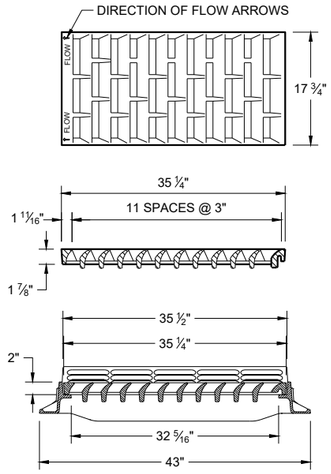


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

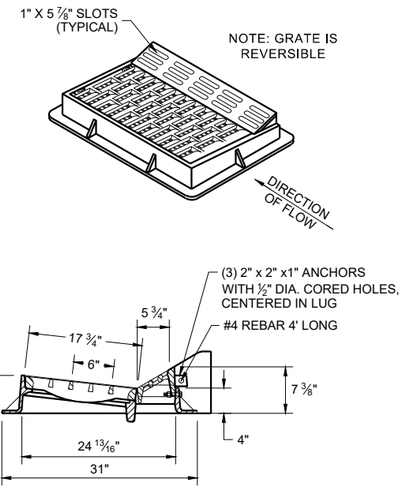
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



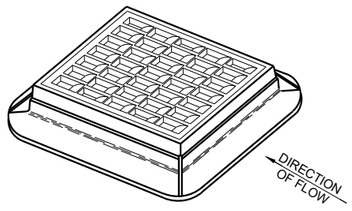
TYPE "HM"

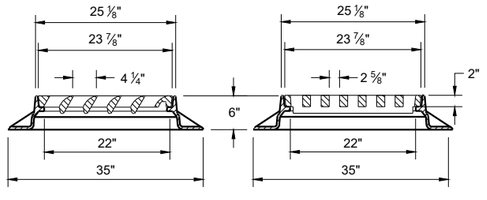
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



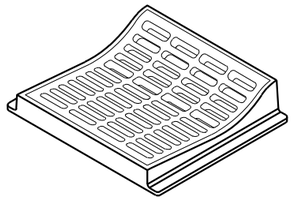
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

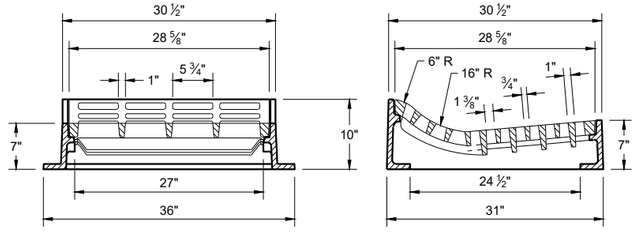
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





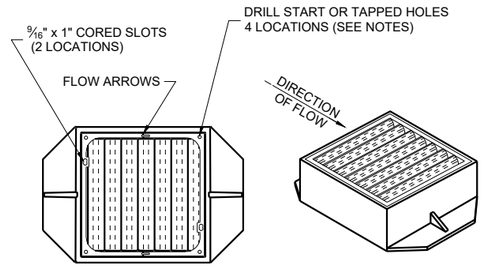
TYPE "S"

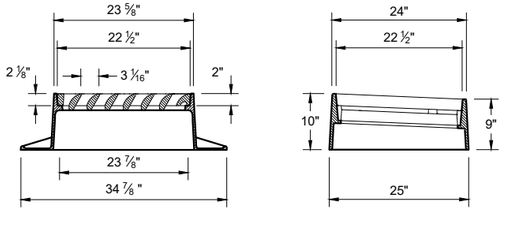




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

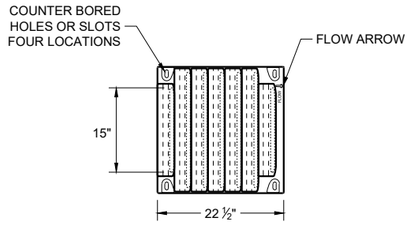




TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

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DEPARTMENT OF TRANSPORTATION

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/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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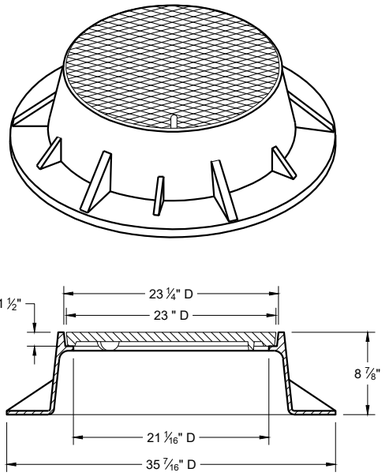
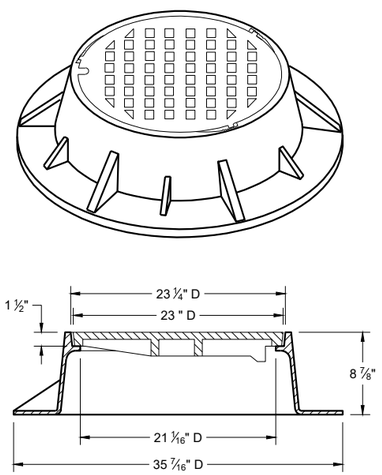
GENERAL NOTES

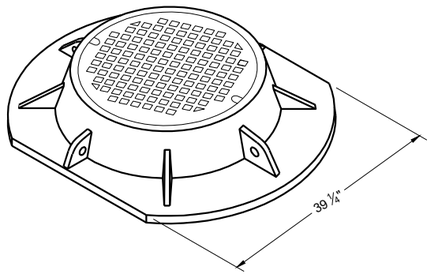
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

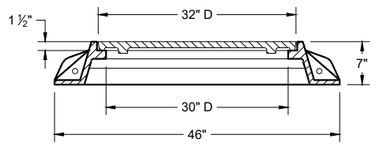
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

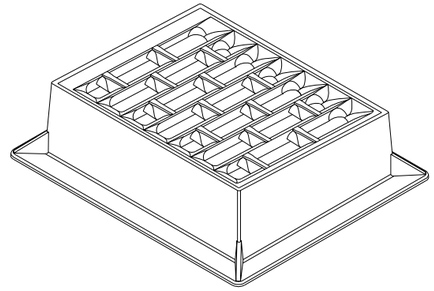


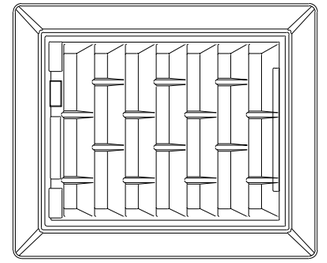


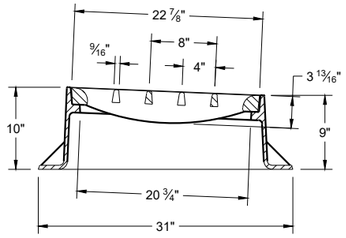


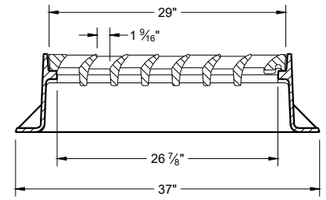


TYPE "K"

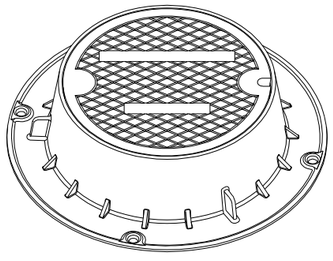


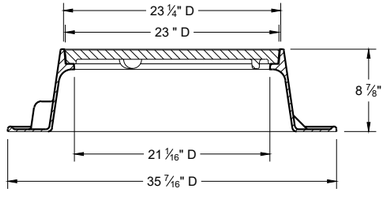






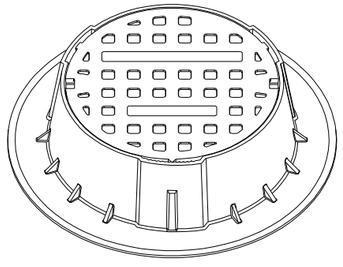
INLET COVER TYPE "BW"

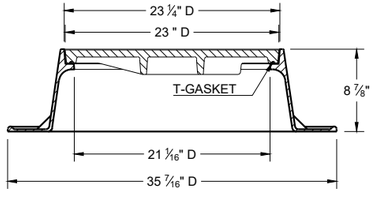




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

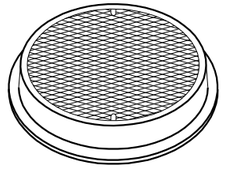


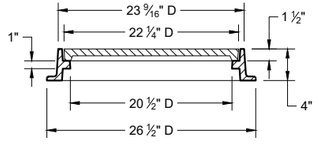


TYPE "J" SPECIAL

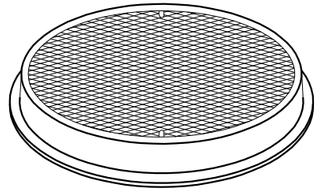
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

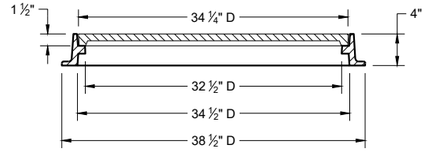
NOTE: EITHER CASTING IS ACCEPTABLE





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

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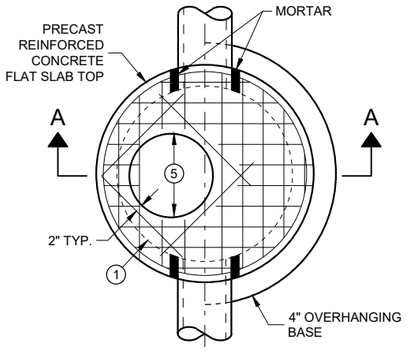
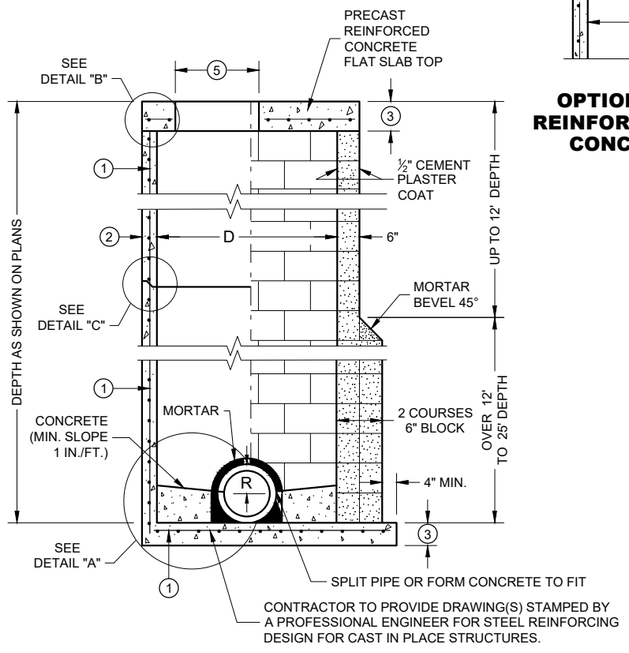


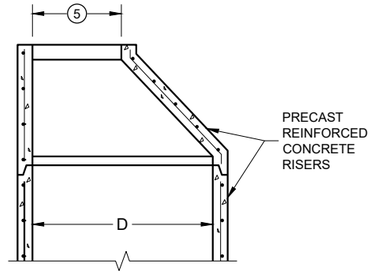
PLAN VIEW
CIRCULAR OPENING



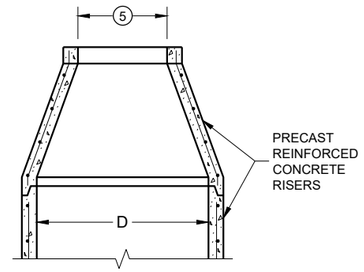
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

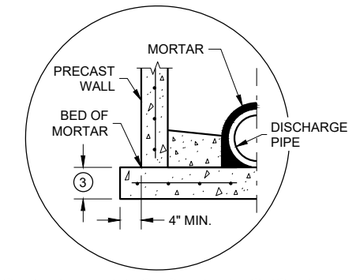
MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

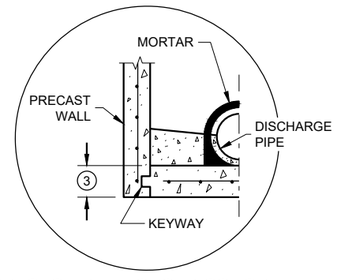
PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES.
SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

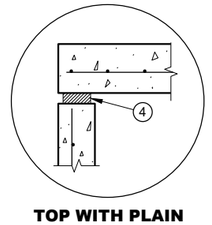


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

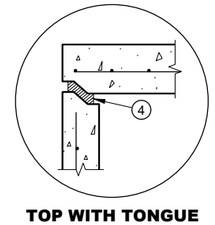


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

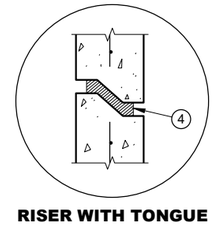
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. 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 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

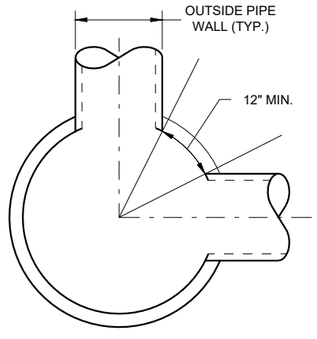
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP.).

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

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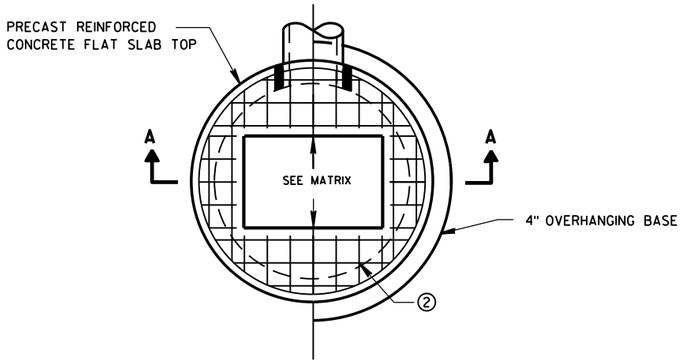
DEPARTMENT OF TRANSPORTATION

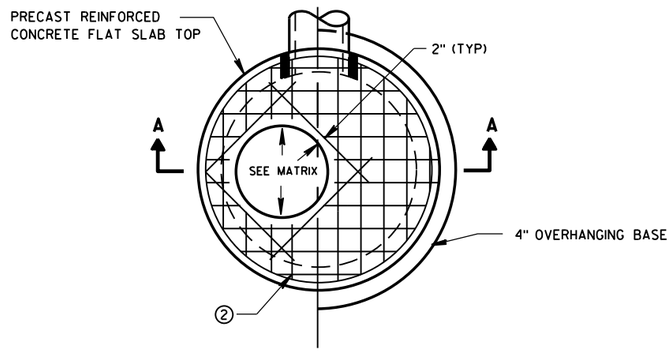
APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
97
FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

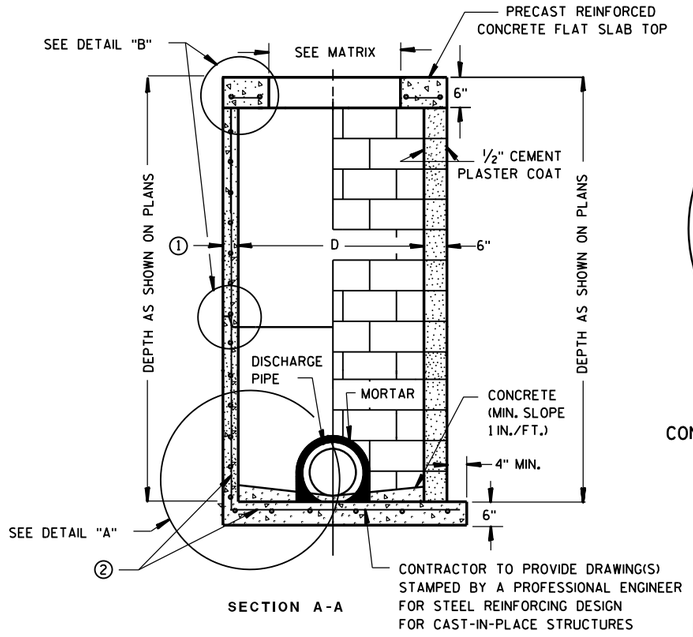
6
SDD 08B09 - 03



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

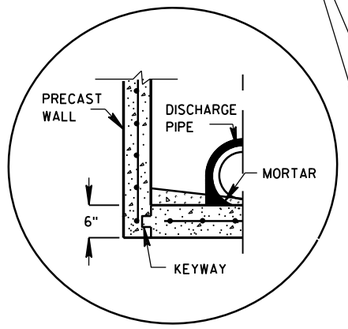


SECTION A-A

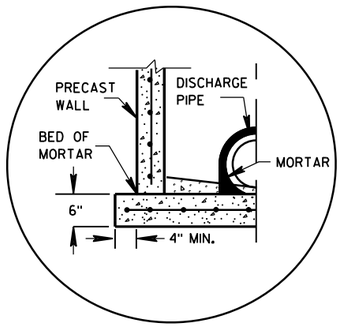
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

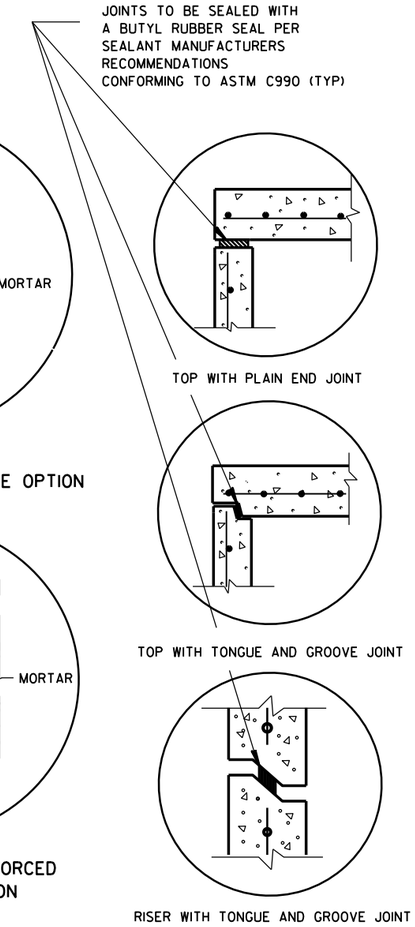


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

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 FOUNDATION 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.

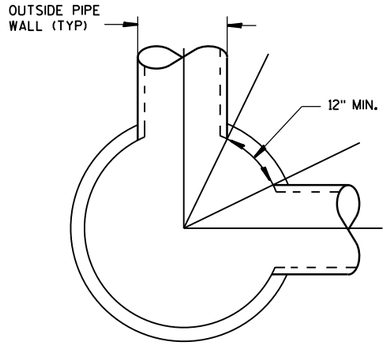
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

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

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S.D.D. 8 C 6-2

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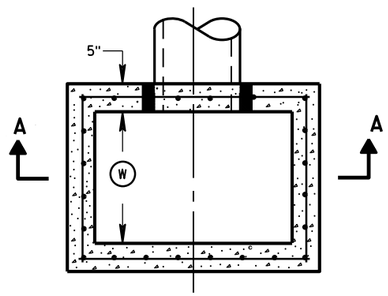
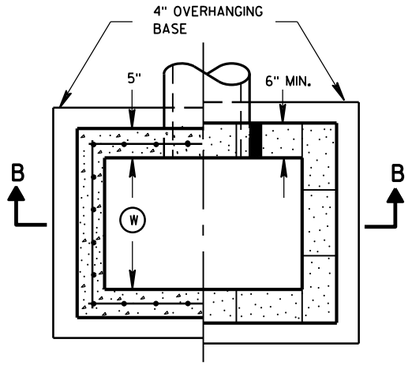
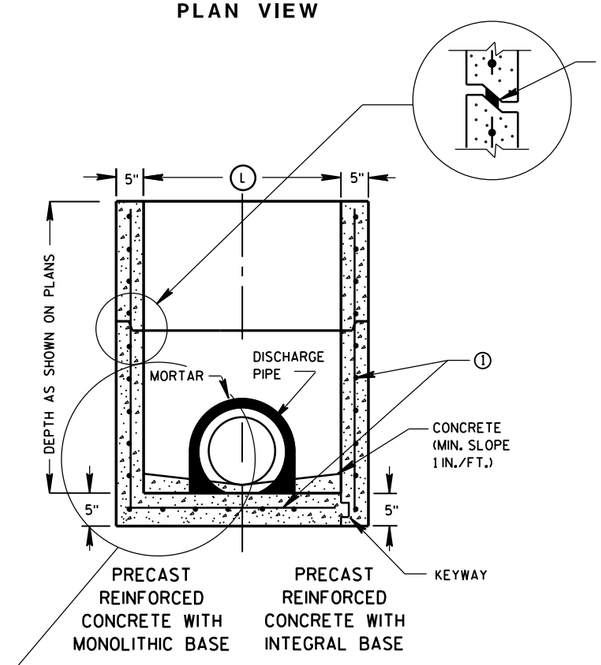


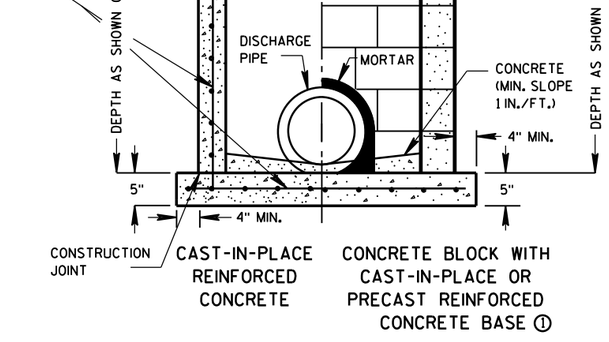
PLAN VIEW



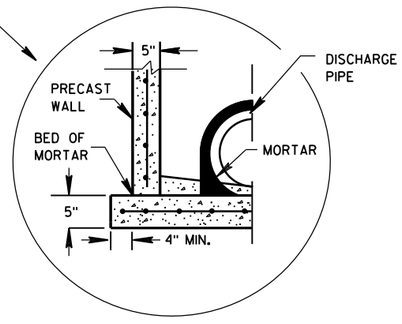
PLAN VIEW



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.

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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 FOUNDATION 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.

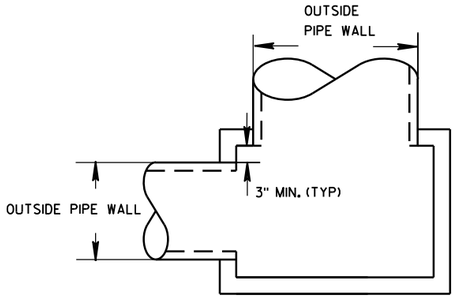
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

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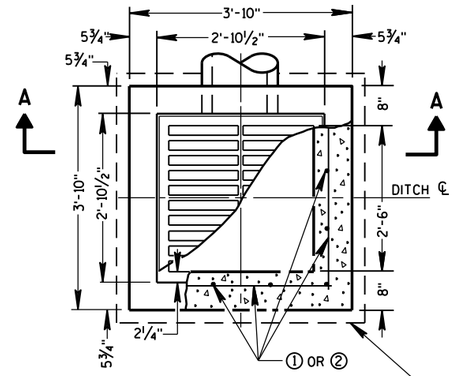
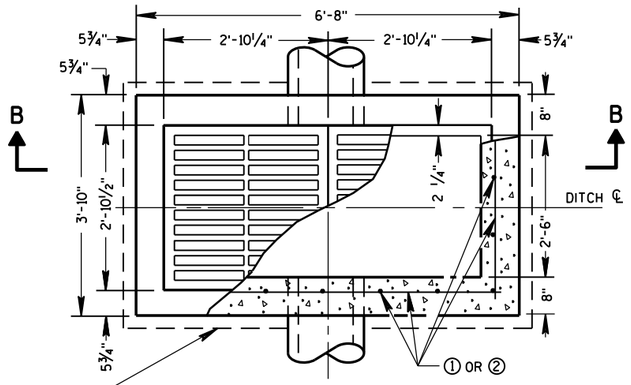
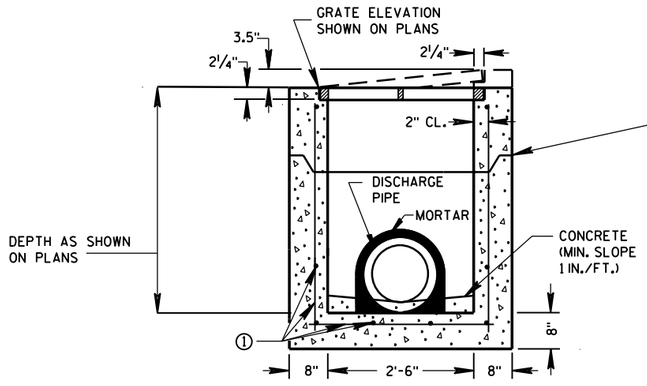


PLAN VIEW

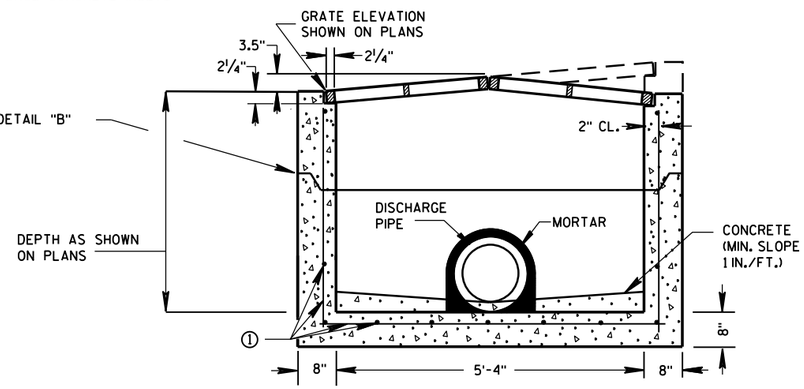


PLAN VIEW

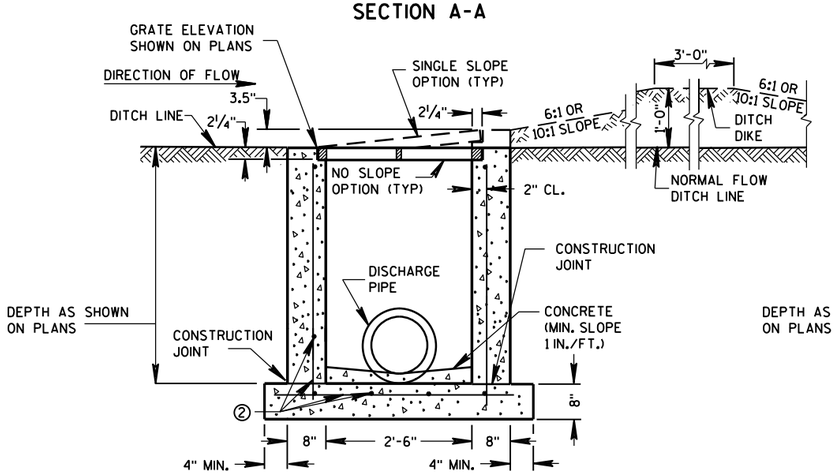
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



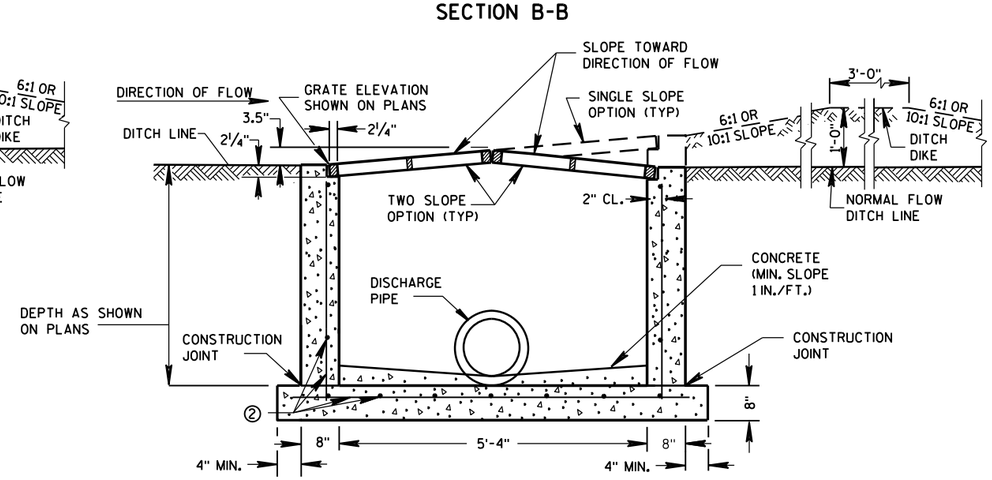
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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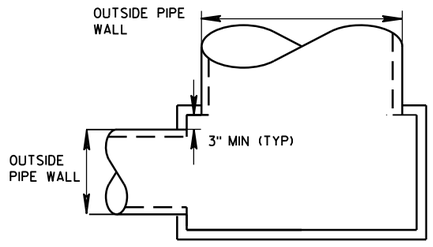
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST 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.

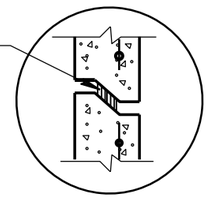
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
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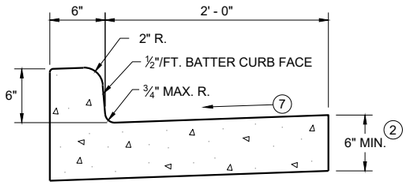
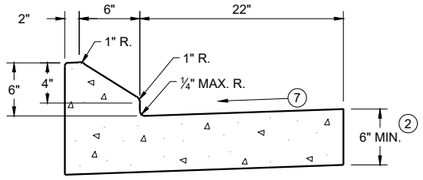
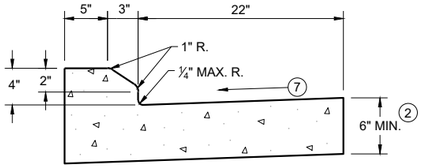


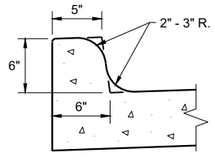
TYPES A (1) & D



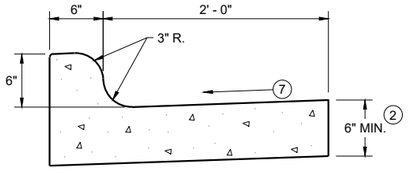
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

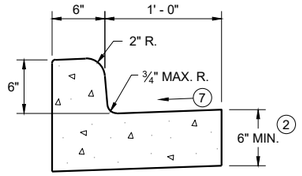


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



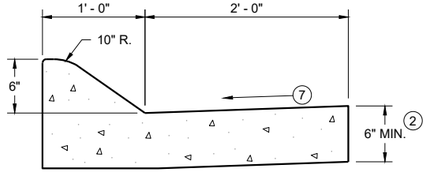
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

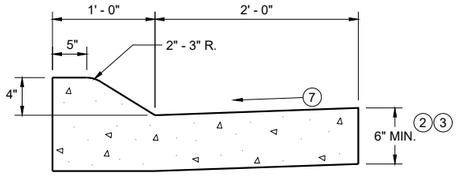


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

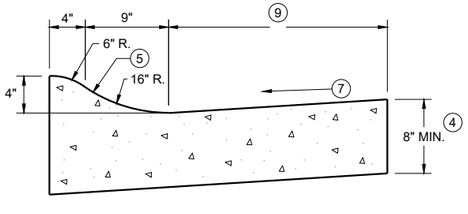


6" SLOPED CURB TYPES A (1) & D



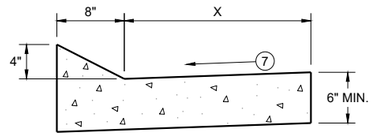
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

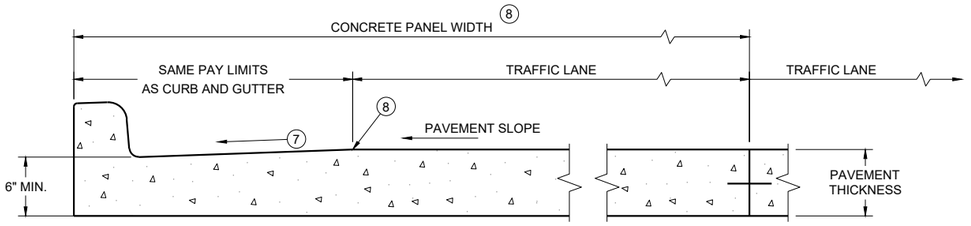


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

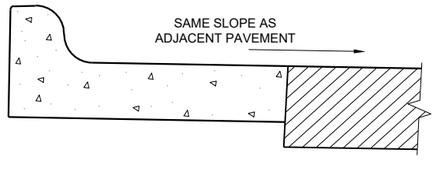
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

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

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

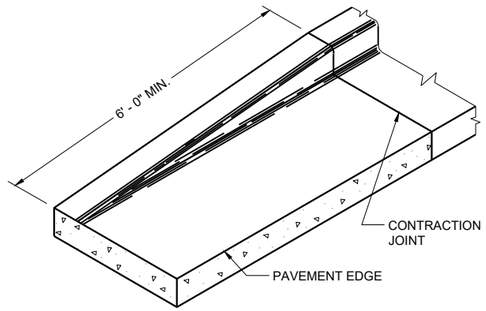
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

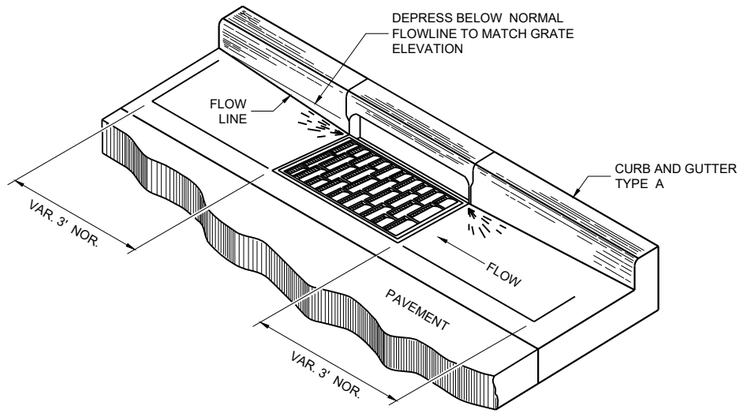
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

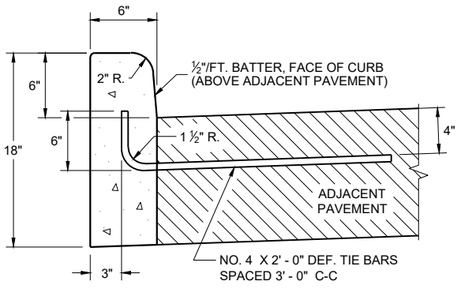
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

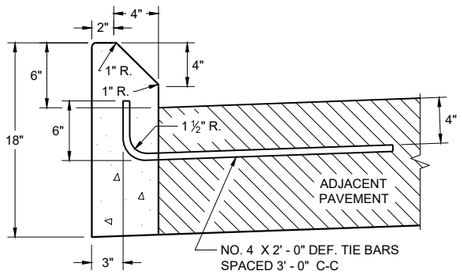
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

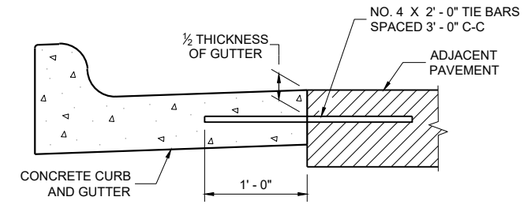


TYPES A (1) & D

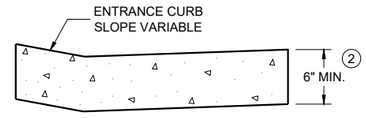


TYPES G (1) & J

CONCRETE CURB

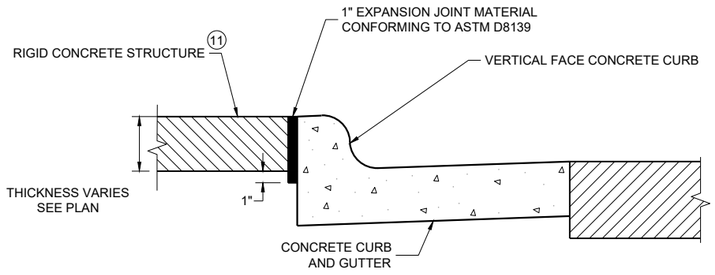


TYPICAL TIE BAR LOCATION (1)

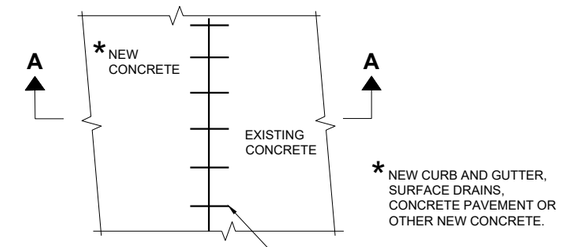


DRIVEWAY ENTRANCE CURB (10)

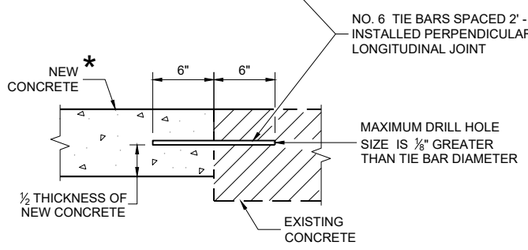
(WHEN DIRECTED BY THE ENGINEER)



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

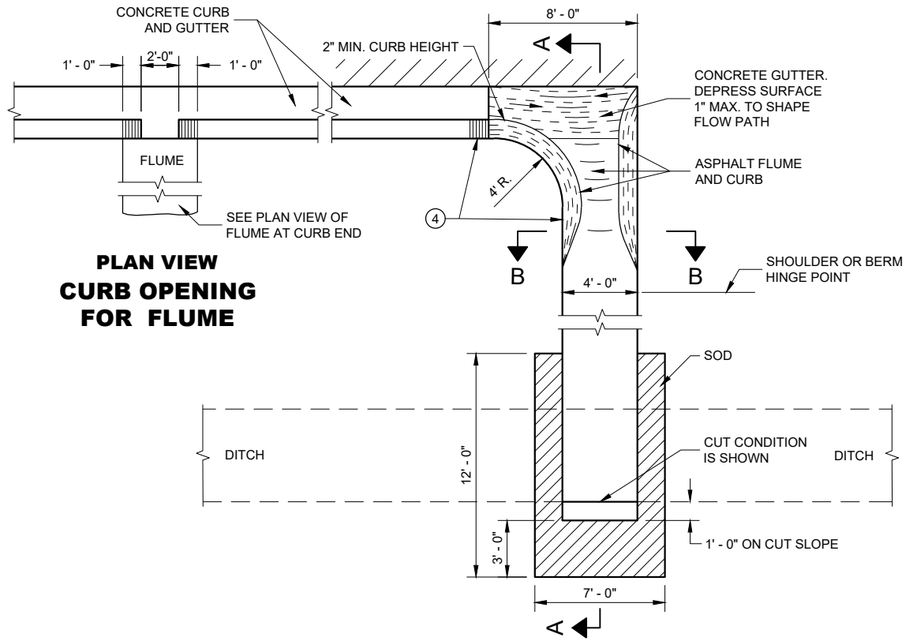
APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

6
SDD 08D01-23b

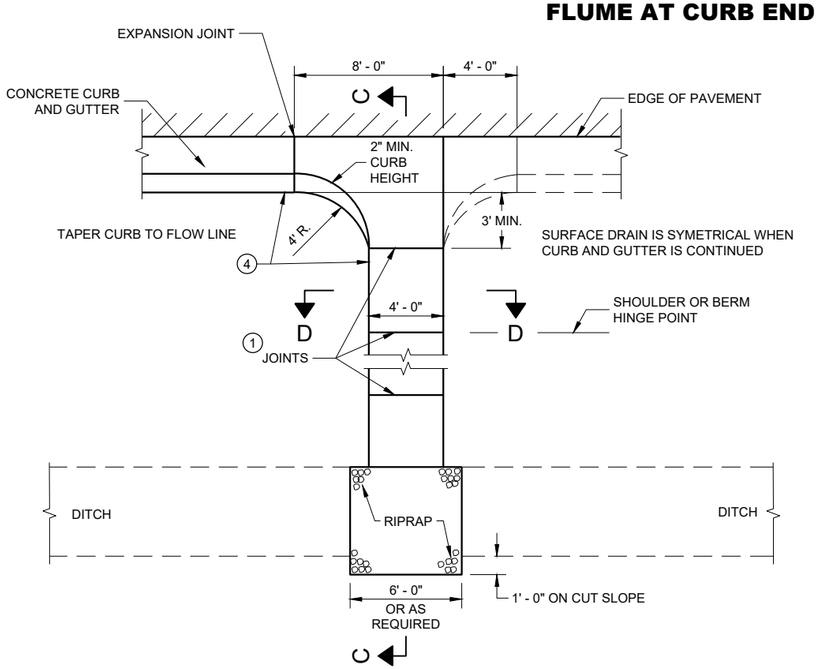
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



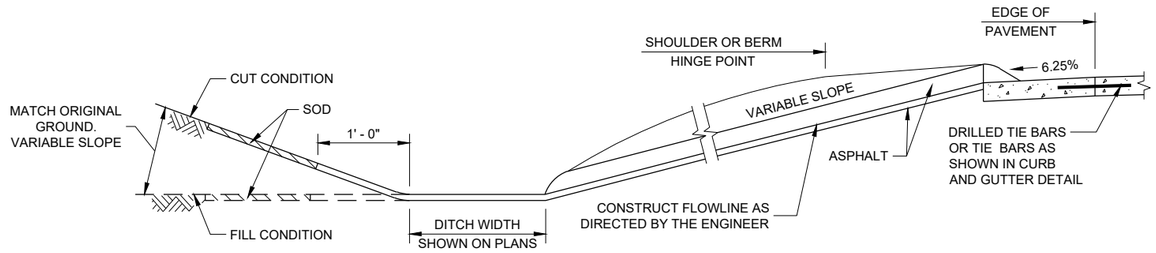
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

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

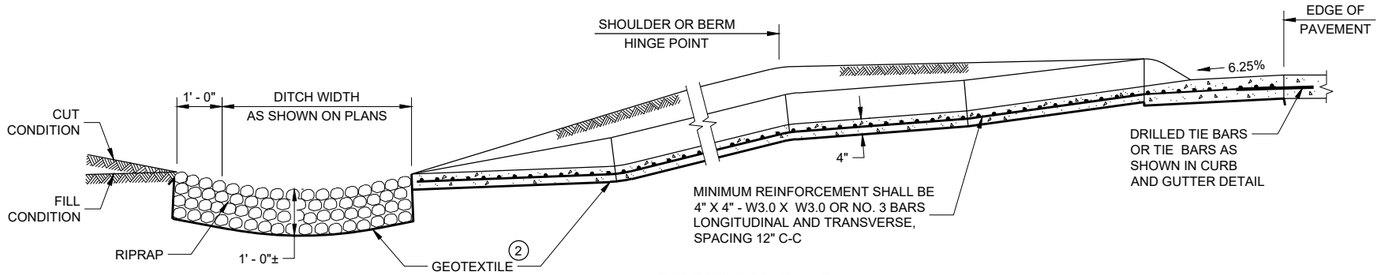
4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.

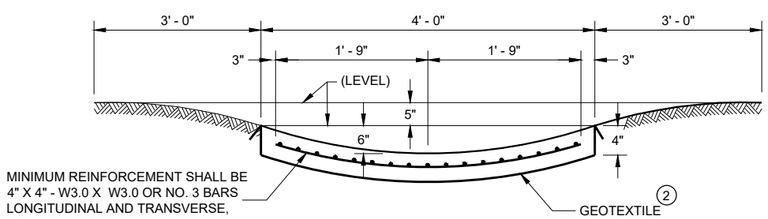


SECTION A - A

SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

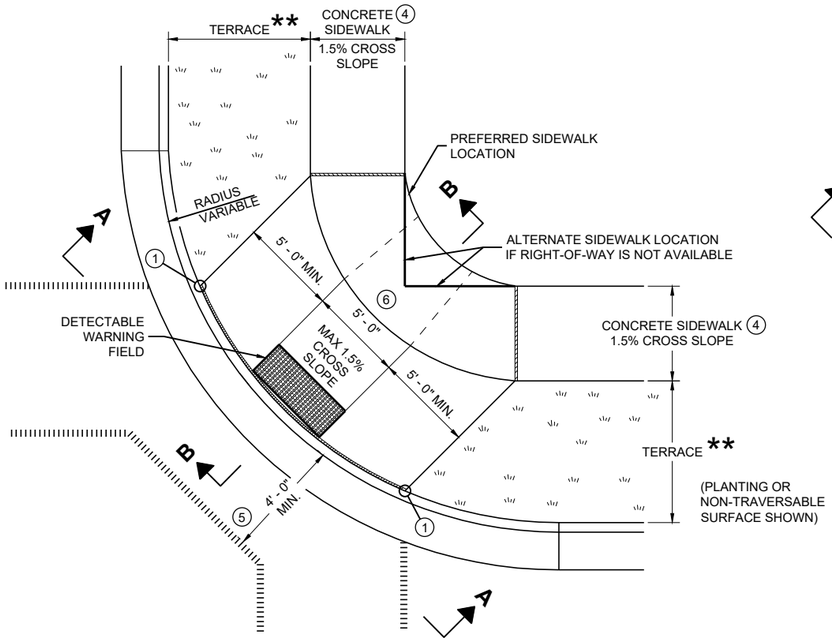
APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

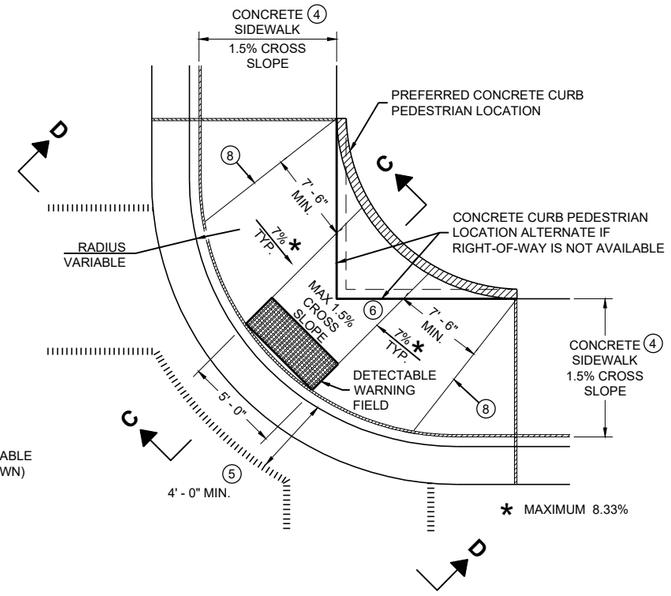
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

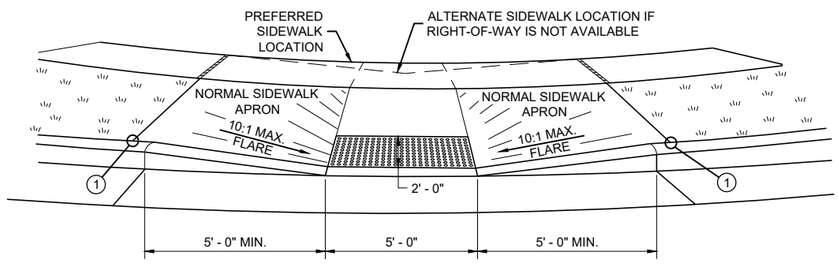
(CENTER OF CORNER RADIUS)



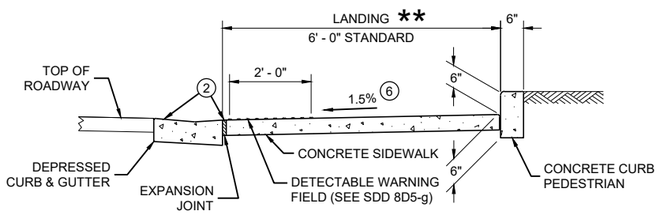
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

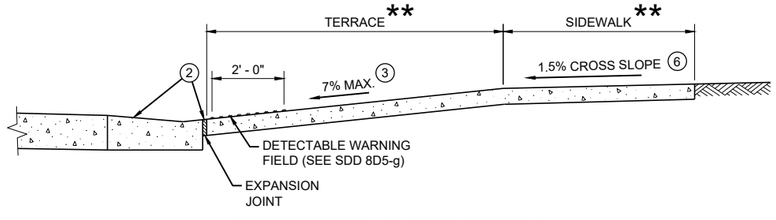


VIEW A - A FOR TYPE 1

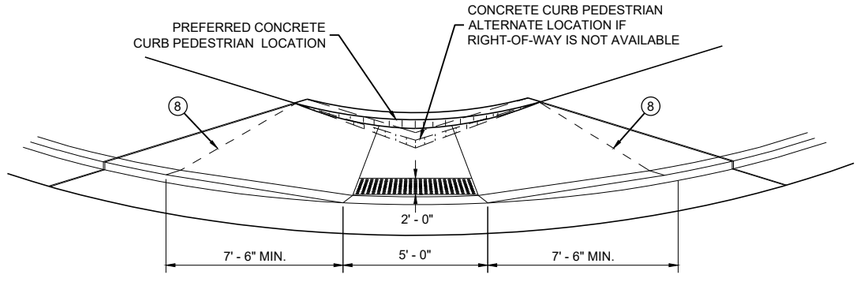


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

DETECTABLE WARNING FILED 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 LINEAR 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 ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 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. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

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

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

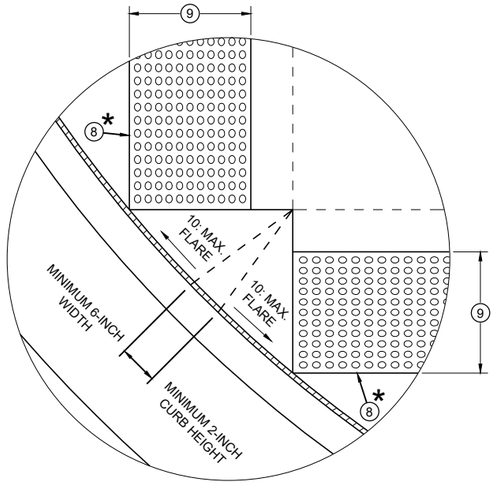
LEGEND

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

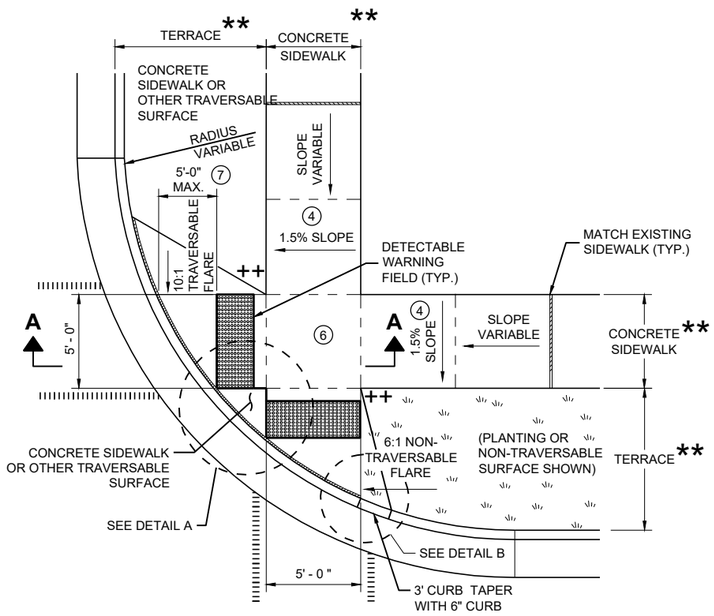
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

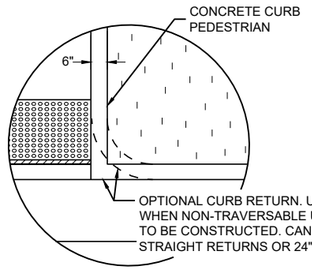
6
SDD 08D05-21a



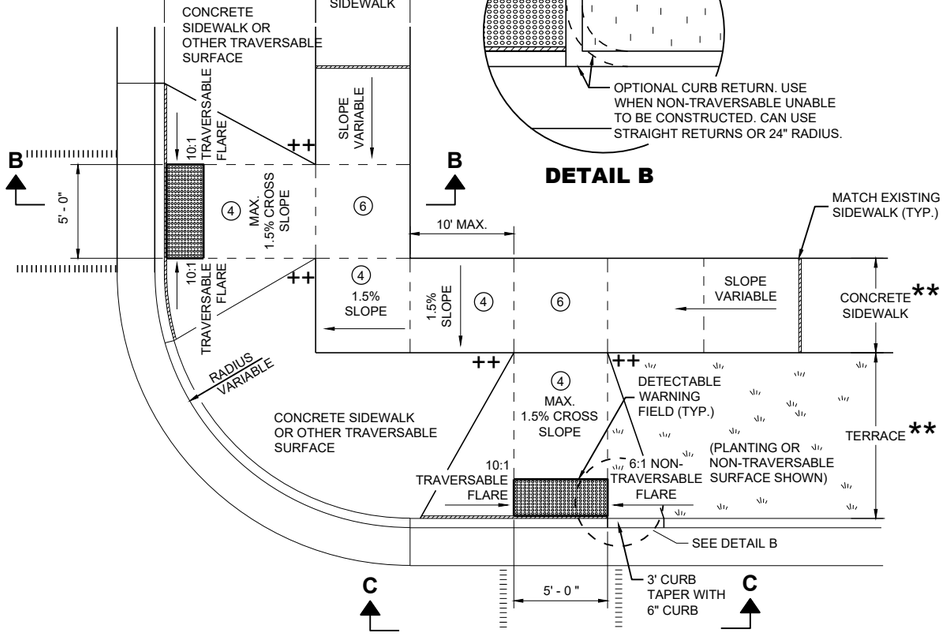
DETAIL A



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



DETAIL B



PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)

GENERAL NOTES

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

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.

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

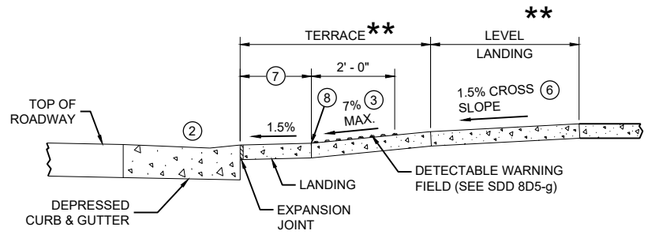
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

(9) WHEN 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.

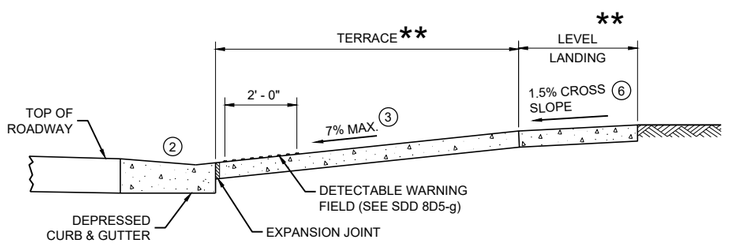


SECTION A - A FOR TYPE 2

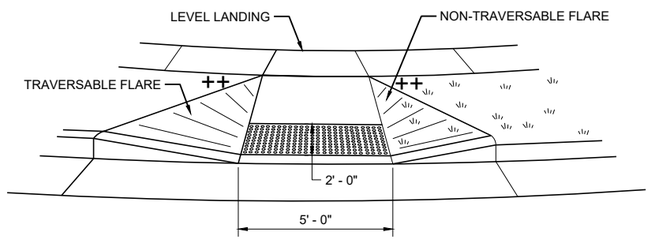
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



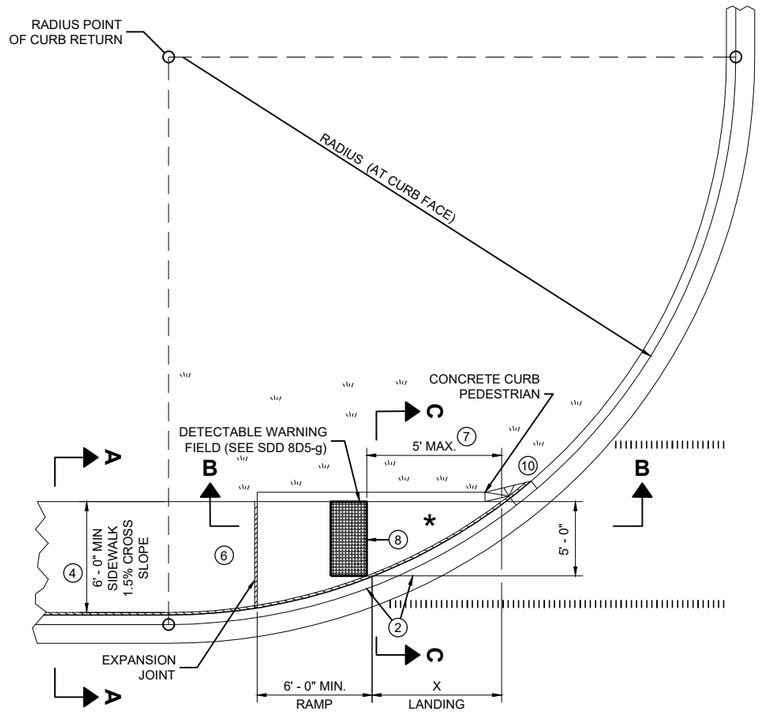
VIEW C - C FOR TYPE 3

LEGEND

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

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

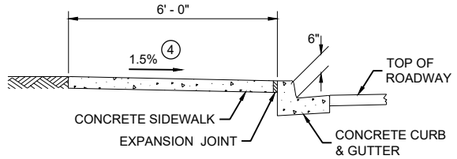


PLAN VIEW

CURB RAMP TYPE 4A

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

GENERAL NOTES

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

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.

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

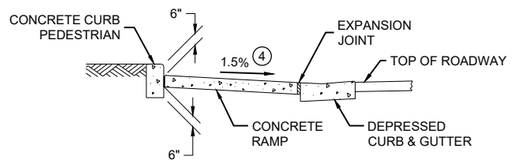
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

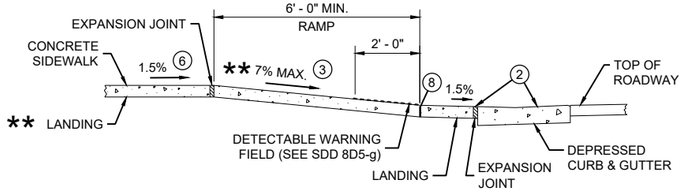
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

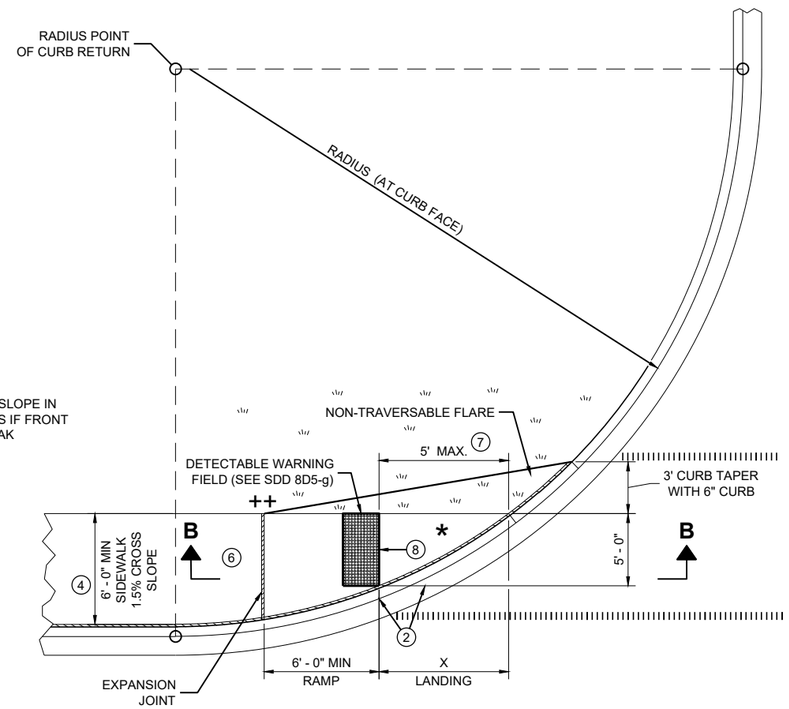


SECTION C - C FOR TYPE 4A



SECTION B - B FOR TYPE 4A AND TYPE 4A1

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

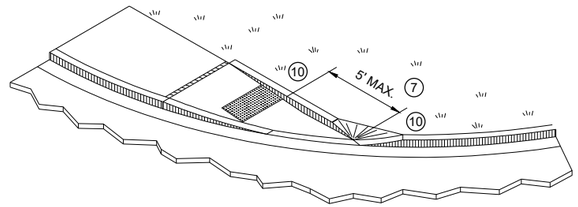


* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

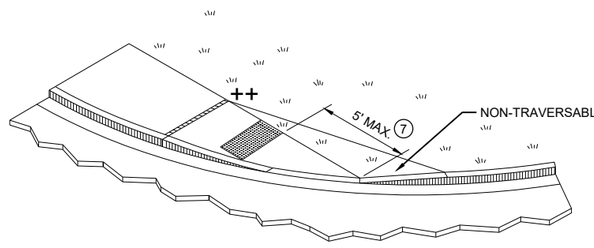
PLAN VIEW

CURB RAMP TYPE 4A1

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



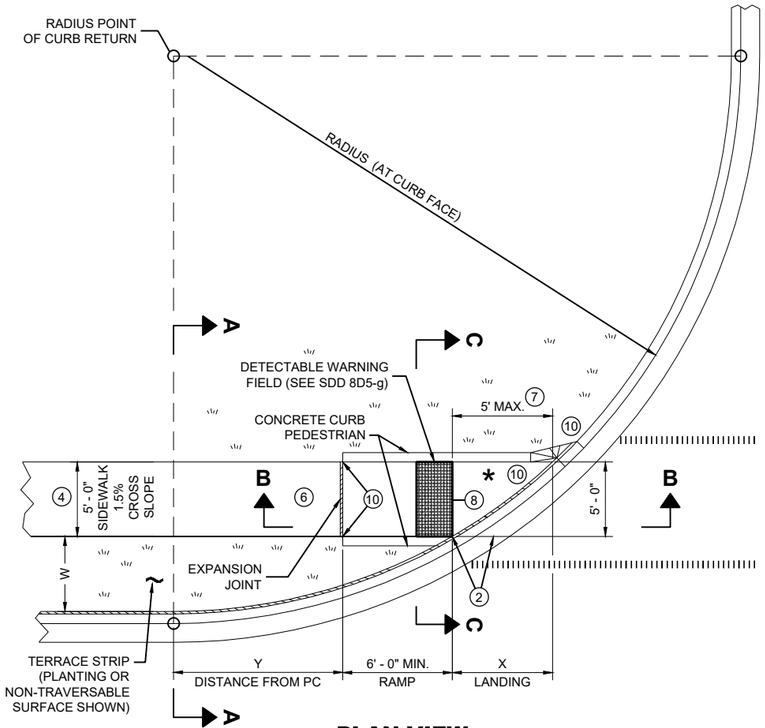
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



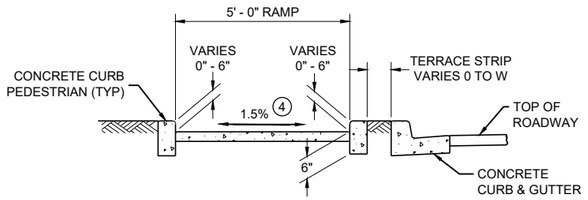
PLAN VIEW
CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 1/4"	0' - 5"	2' - 1"	1' - 4 1/2"	1' - 5"	2' - 1"	0' - 10"	2' - 7 1/2"	0' - 3 1/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	3' - 1 1/4"	4' - 6"	2' - 6 3/4"	5' - 4 1/2"	2' - 1"	6' - 1"	1' - 8"	6' - 8 1/2"	1' - 3 1/4"	7' - 2 1/2"	0' - 10 3/4"	7' - 7 1/4"
20 FEET			4' - 11 1/2"	5' - 1 3/4"	4' - 3 1/4"	6' - 5 1/2"	3' - 8 3/4"	7' - 7"	3' - 3"	8' - 6 1/2"	2' - 10"	9' - 4 1/2"	2' - 5 1/2"	10' - 1 1/4"	2' - 1 1/4"	10' - 9"
30 FEET									4' - 10 3/4"	12' - 5 3/4"	4' - 5 1/2"	13' - 7 3/4"	4' - 0 3/4"	14' - 8 1/2"	3' - 8 1/2"	15' - 8 1/4"
40 FEET															4' - 10 3/4"	19' - 8 1/4"

INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

LEGEND

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



SECTION C - C FOR TYPE 4B

GENERAL NOTES

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

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.

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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

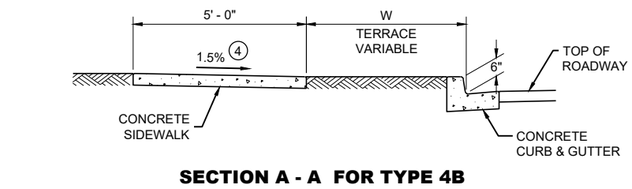
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

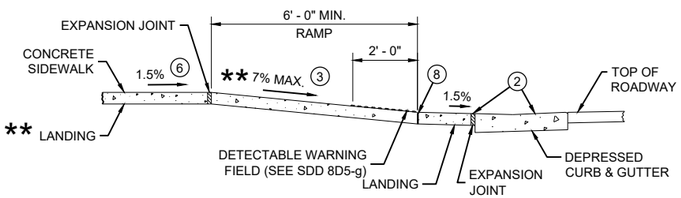
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

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

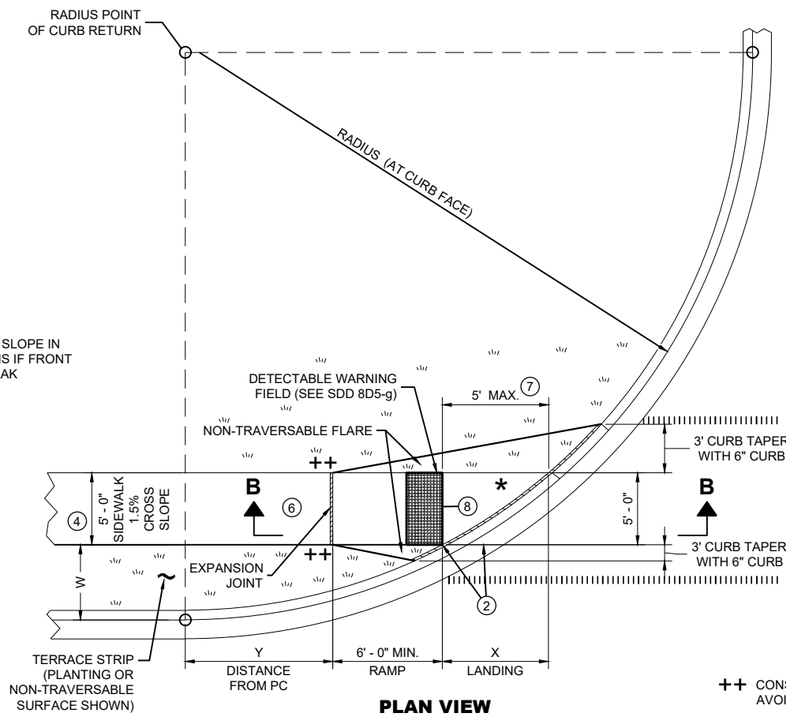


SECTION A - A FOR TYPE 4B



SECTION B - B FOR TYPE 4B AND TYPE 4B1

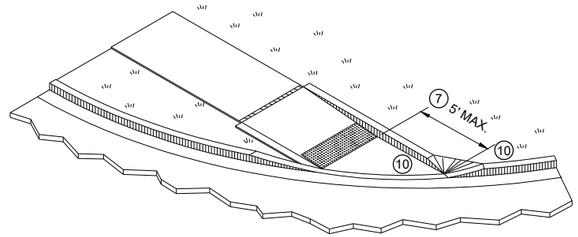
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



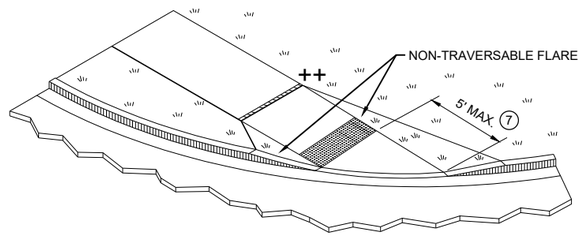
PLAN VIEW
CURB RAMP TYPE 4B1

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



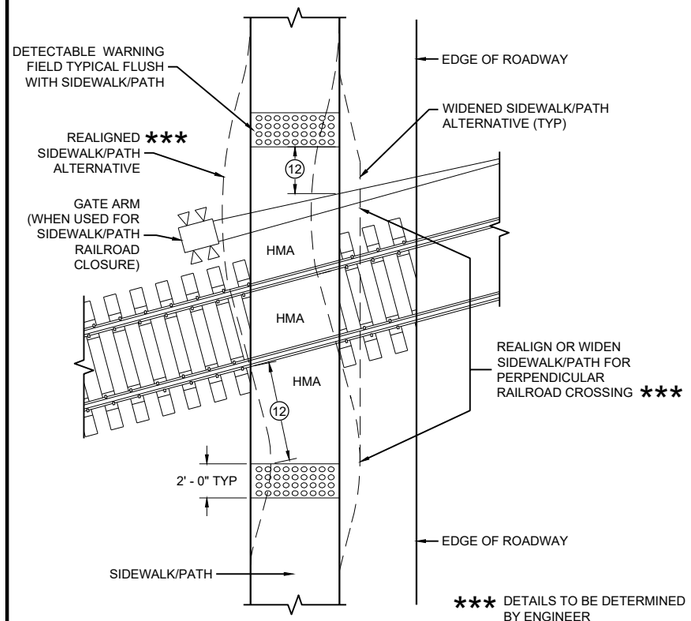
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

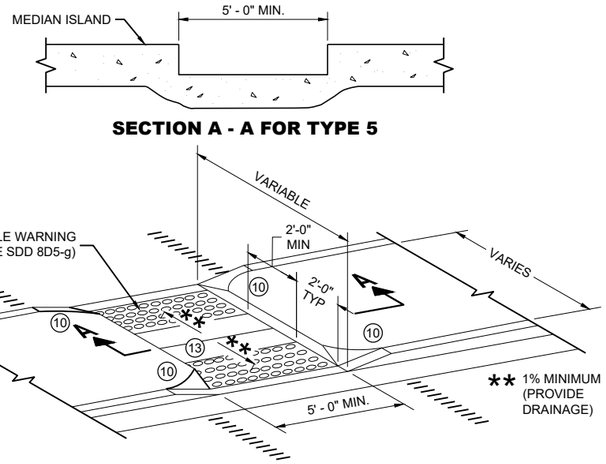
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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.

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 ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

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

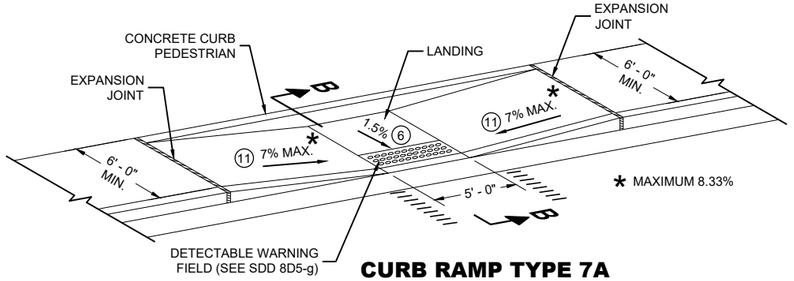
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

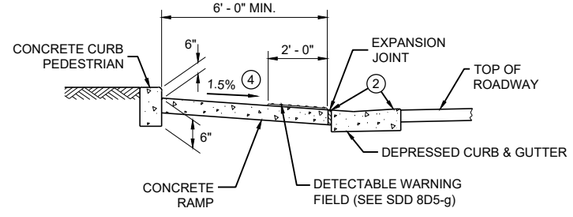
LEGEND

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

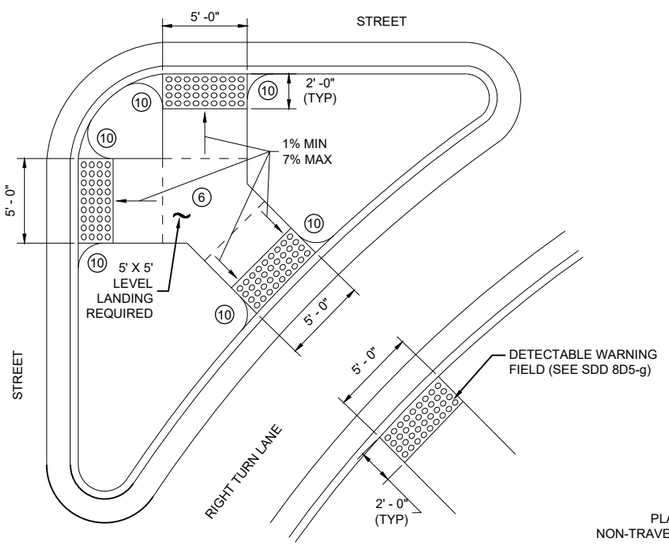


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



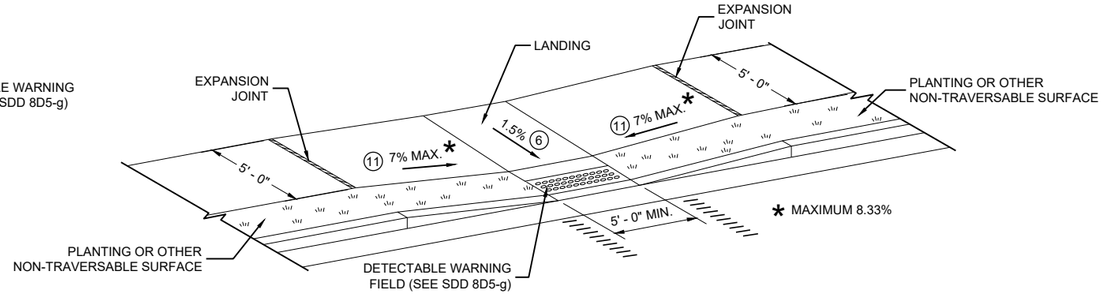
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

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



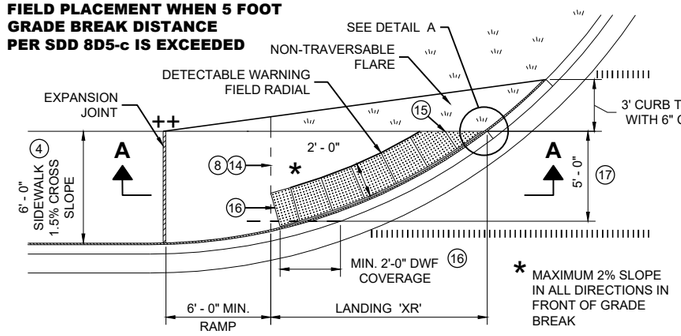
CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

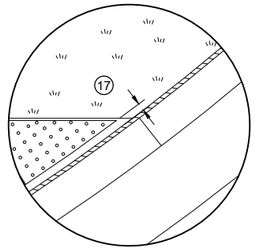
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED

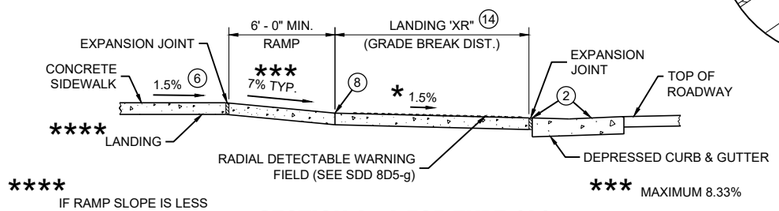


PLAN VIEW

CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL A

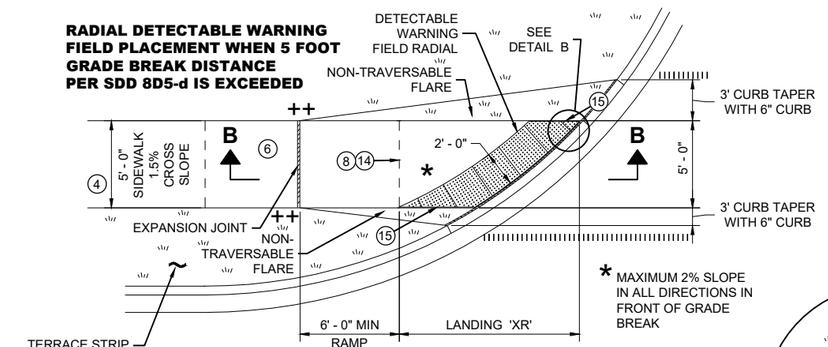


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

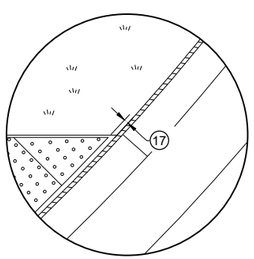
SECTION A - A FOR TYPE 4A1

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED

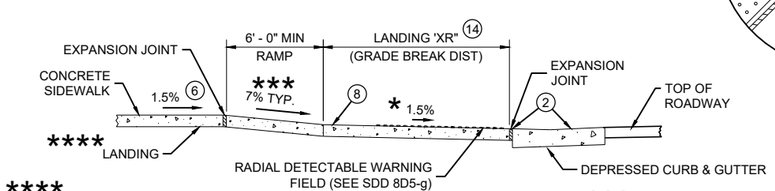


PLAN VIEW

CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B



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

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

LEGEND

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

GENERAL NOTES

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

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.

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

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

(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 MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 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 BY 5 FEET.

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

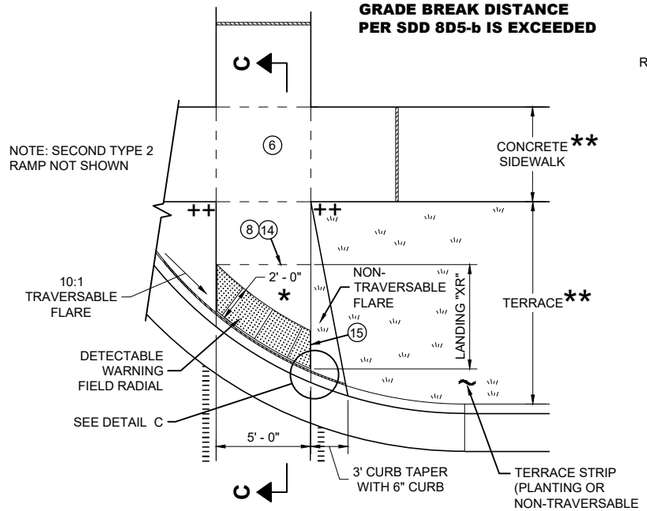
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

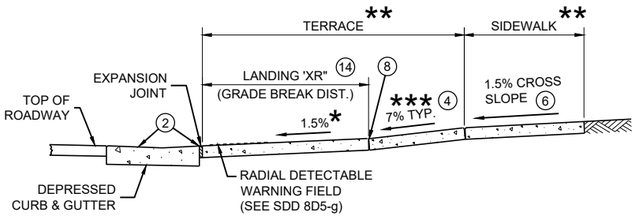
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-b IS EXCEEDED

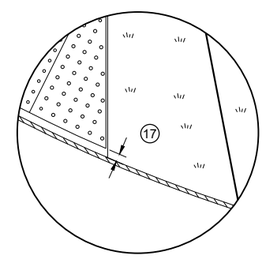


PLAN VIEW

CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

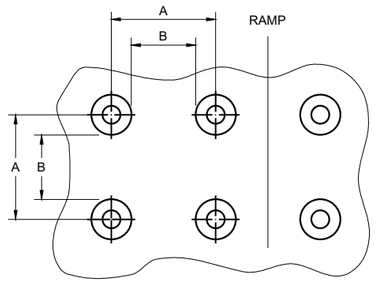
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

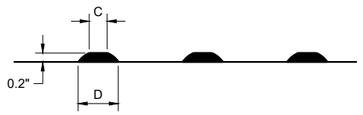
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

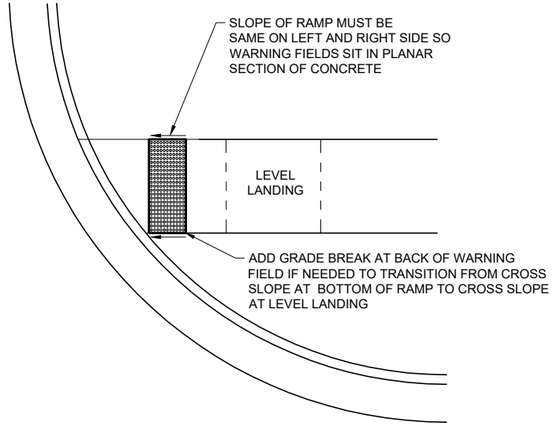
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

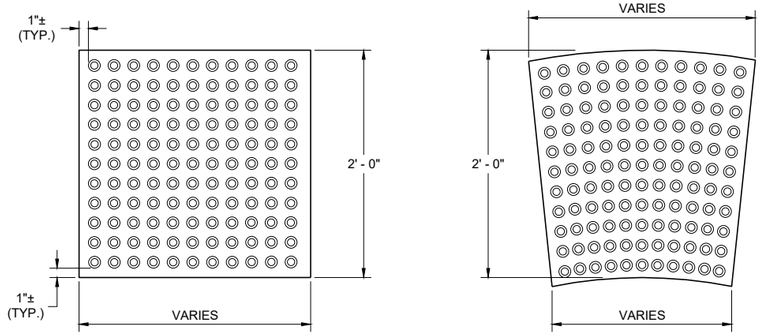
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

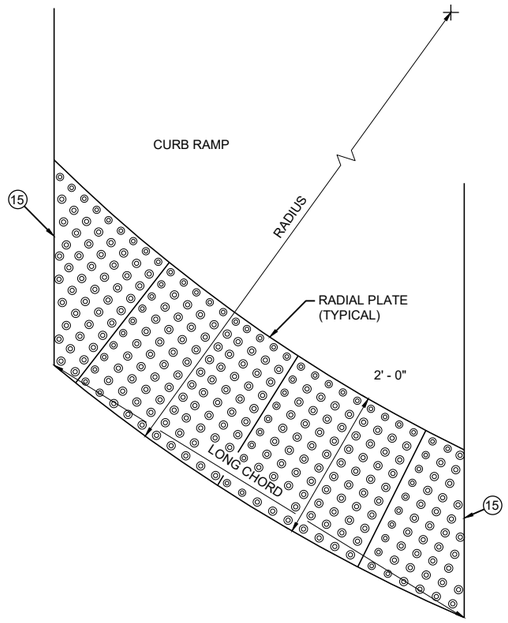
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



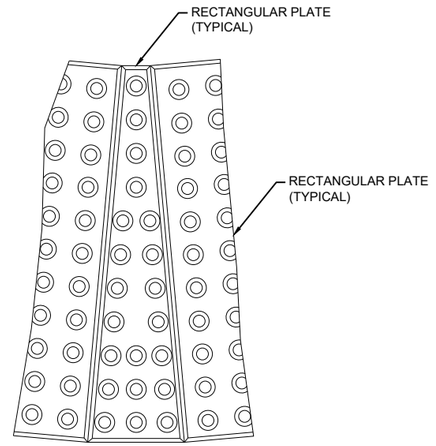
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

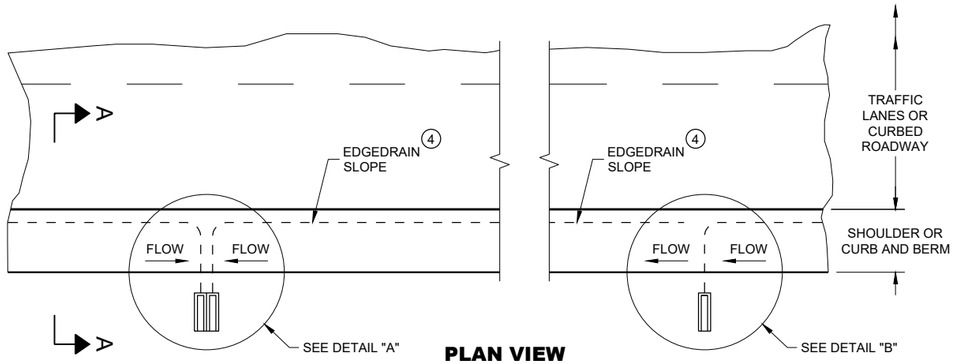
CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

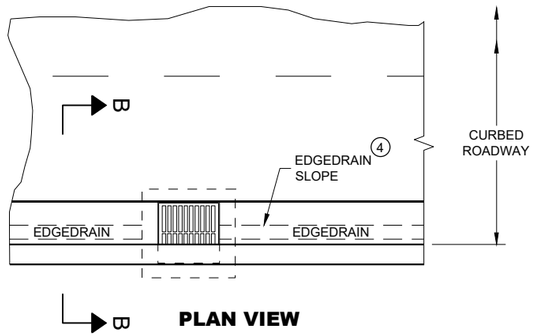
FHWA

6
SDD 08D05-21g



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS
(EDGEDRAIN CONNECTS TO ROADSIDE) (2)



PLAN VIEW

ROADWAY WITH CURBS
(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

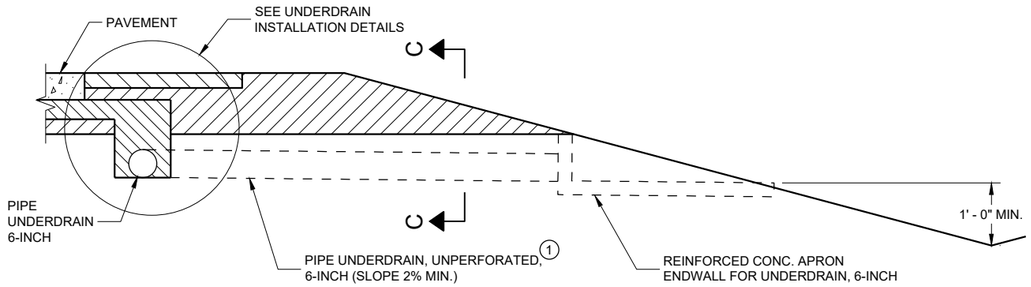
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

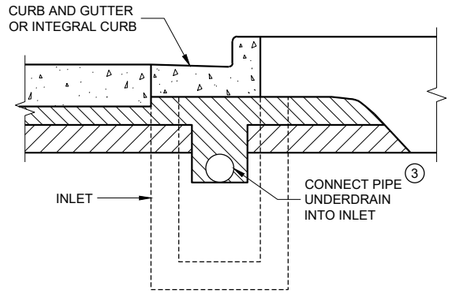
(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



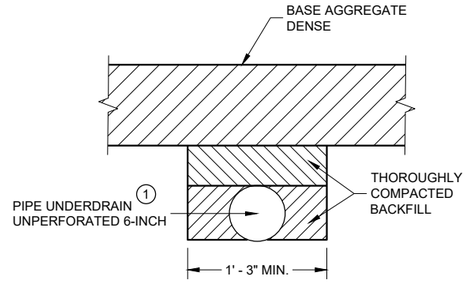
SECTION A - A

RURAL CROSS SECTION



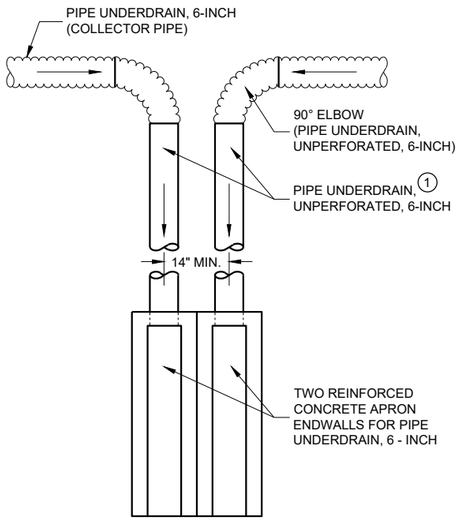
SECTION B - B

URBAN CROSS SECTION

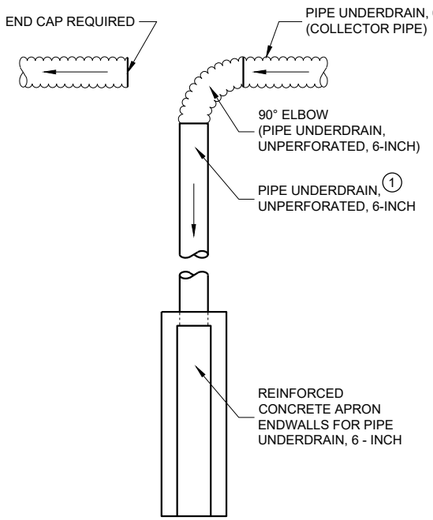


SECTION C - C

TRENCH FOR OUTFALL PIPE

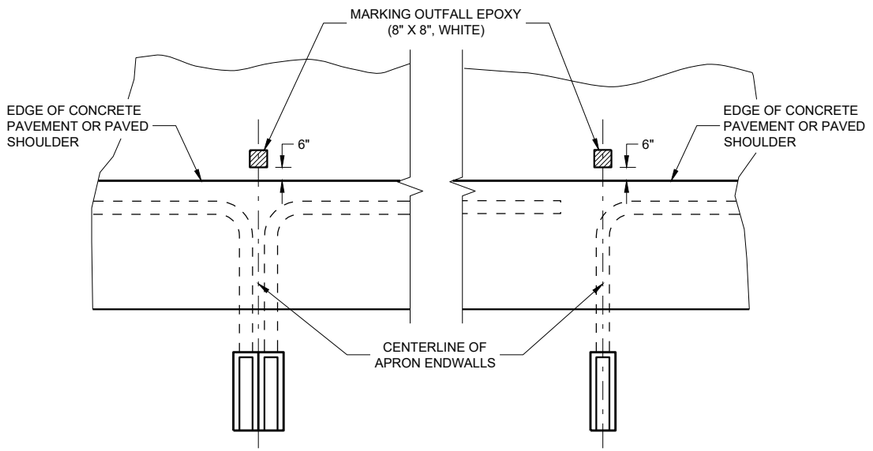


DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS



DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

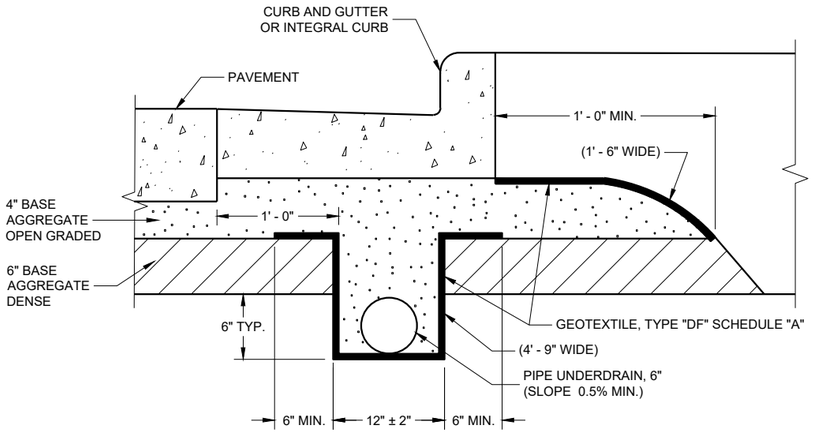
TYPICAL DRAIN OUT DETAILS



LOW POINT LOCATIONS — INTERMEDIATE LOCATIONS

PAVEMENT MARKINGS FOR OUTFALL MARKERS

EDGEDRAIN OUTLET AND OUTFALL MARKERS



EDGEDRAIN IN URBAN ROADWAY

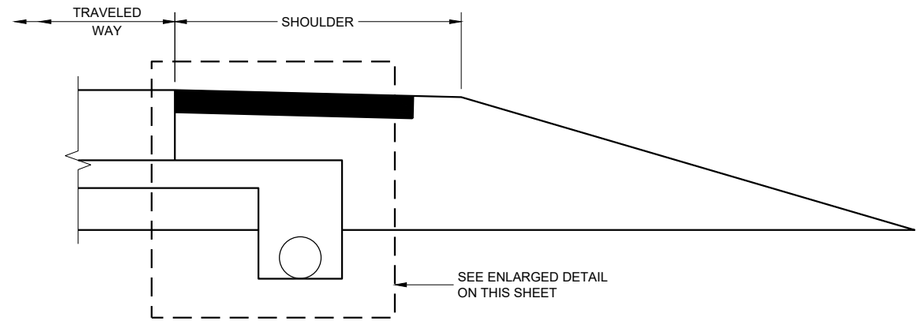
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

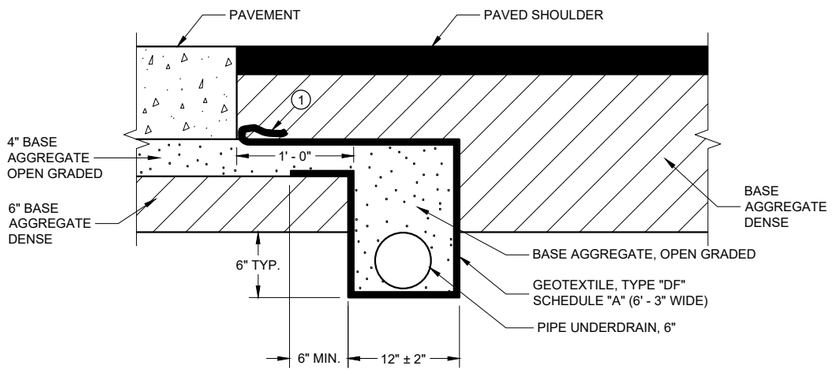
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

(1) FOLD OVER EXCESS GEOTEXTILE AT THIS LOCATION.

(2) TOTAL GEOTEXTILE WIDTH IS 6'-3" FOR PAYMENT.

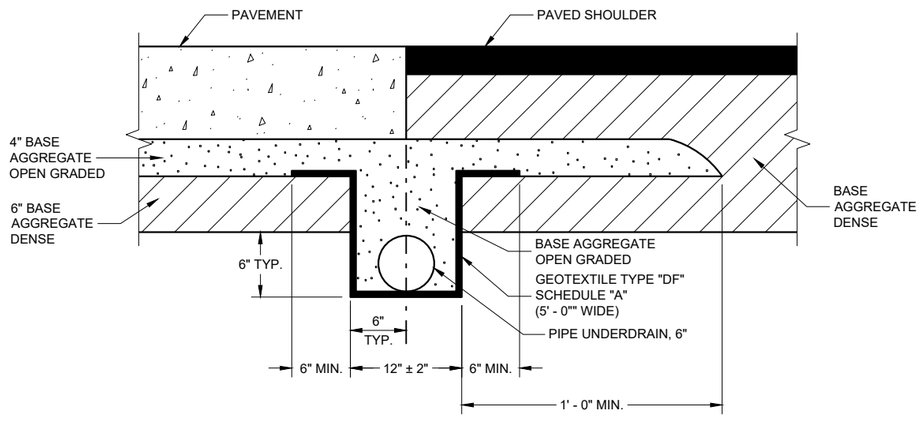


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

EGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

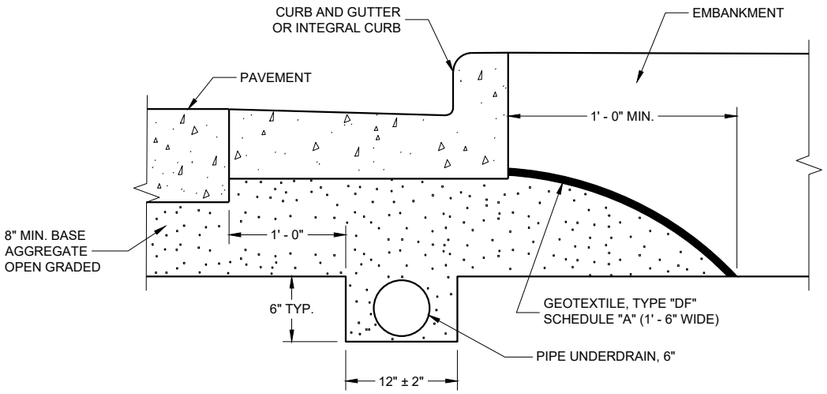
6

SDD 08D15 - 05b

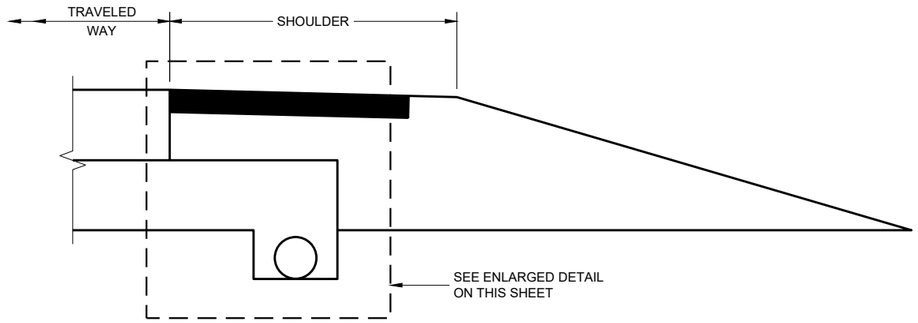
GENERAL NOTES

THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

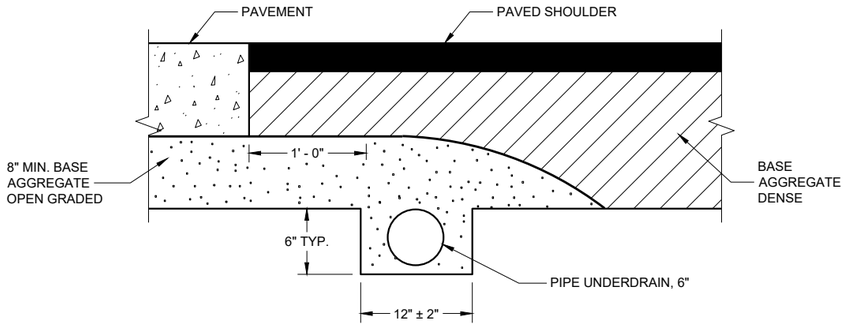
PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.



EDGEDRAIN IN URBAN ROADWAY

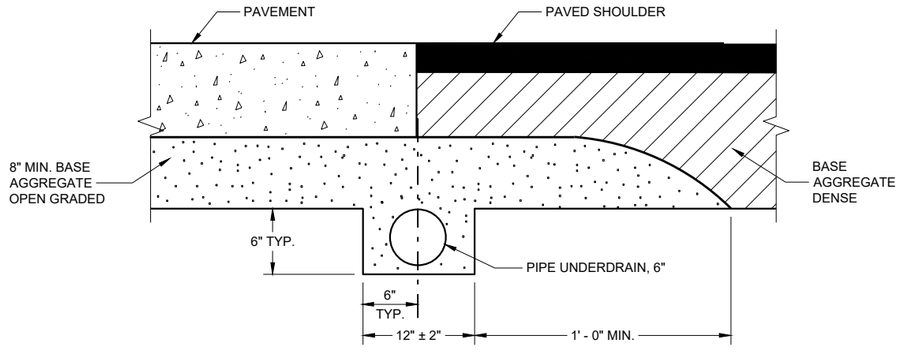


RURAL CROSS SECTION



POST PAVING INSTALLATION

(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

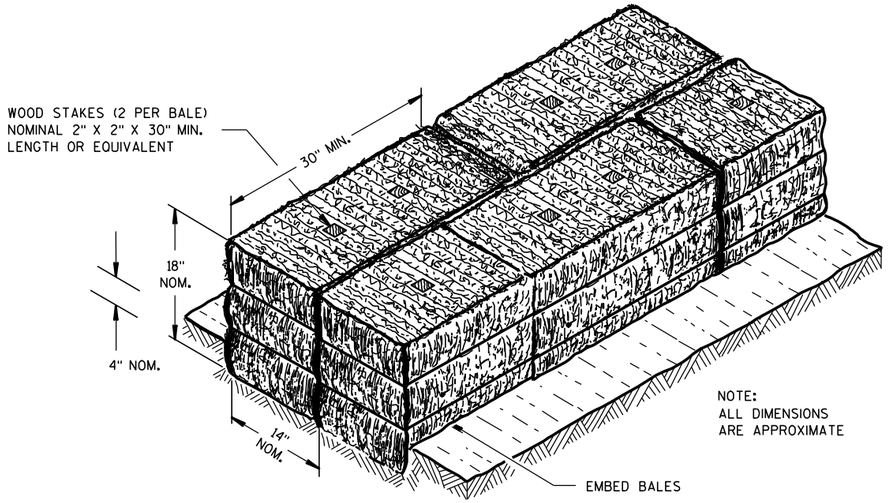
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

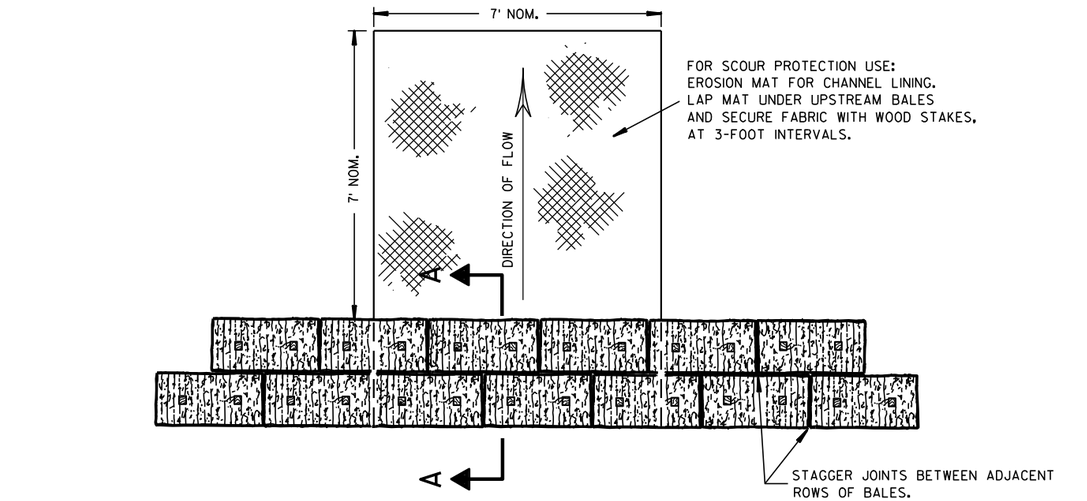
APPROVED
September 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS
FHWA

6

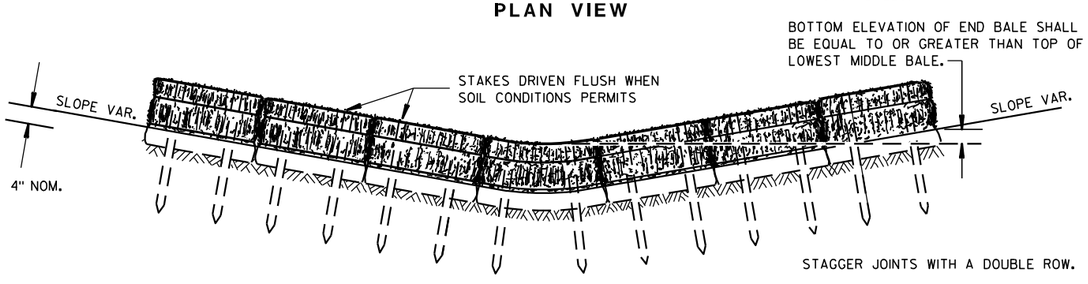
SDD 08D15 - 05c



SECTION A-A



PLAN VIEW



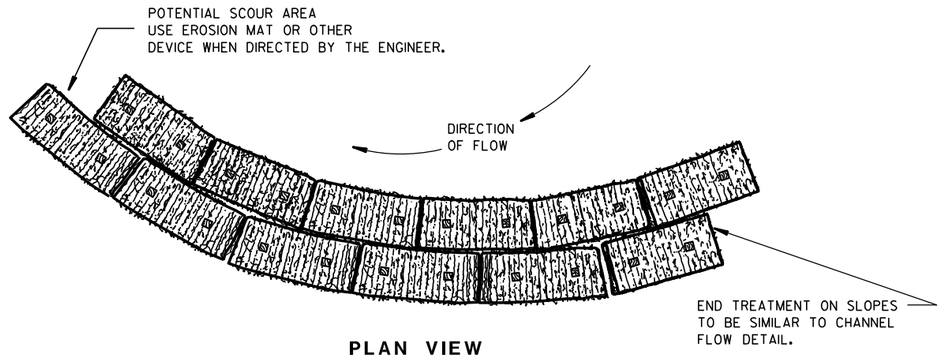
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

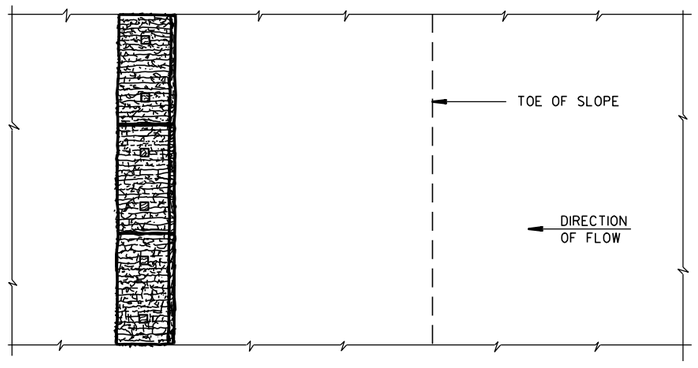
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

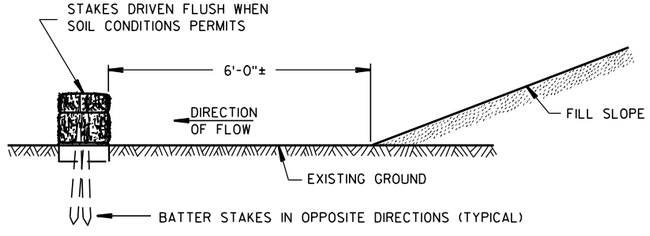


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

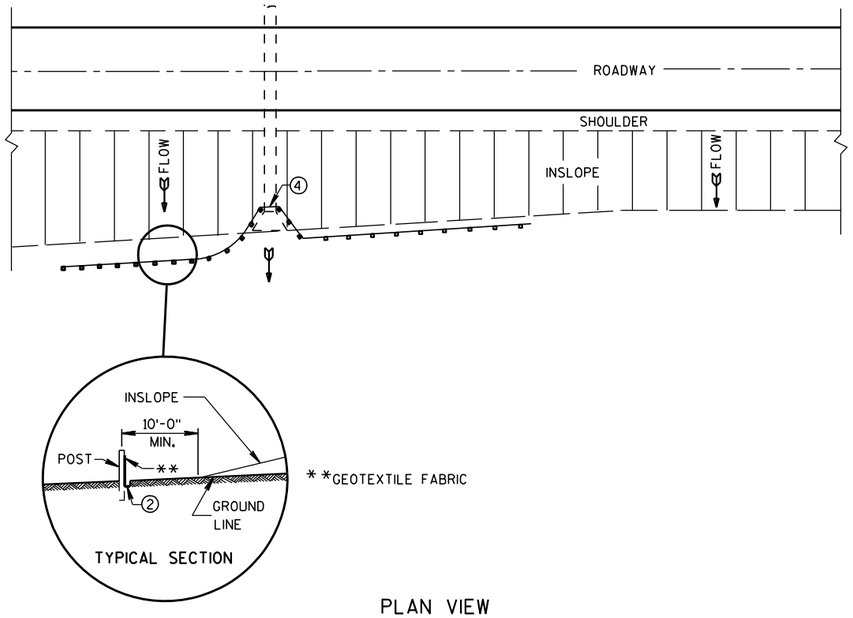
EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

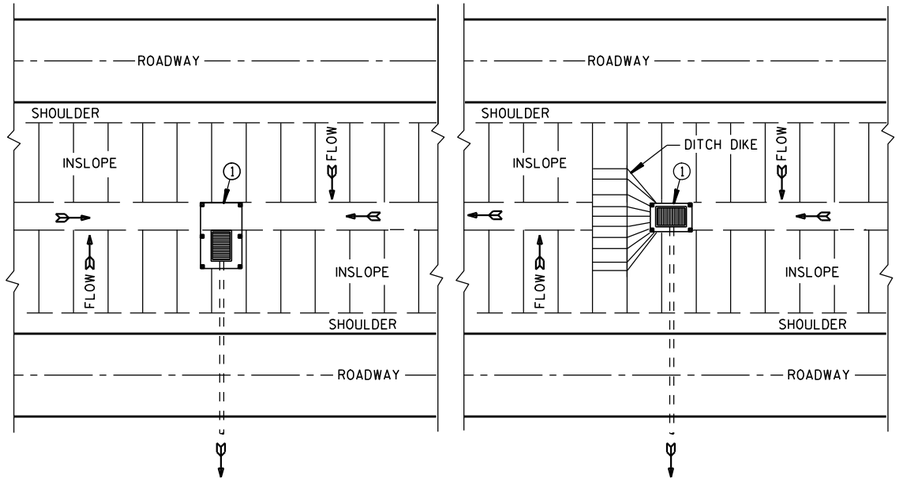
APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



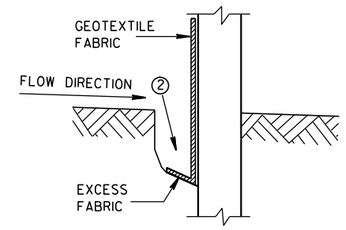
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

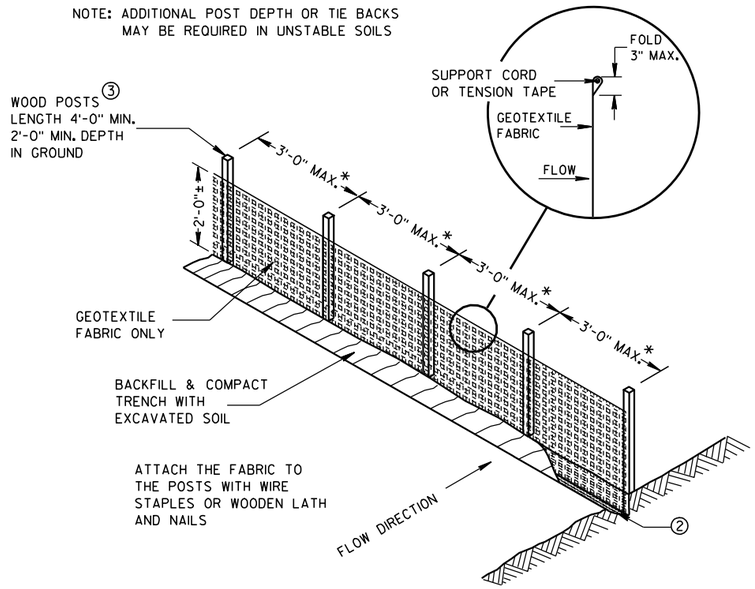
GENERAL NOTES

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

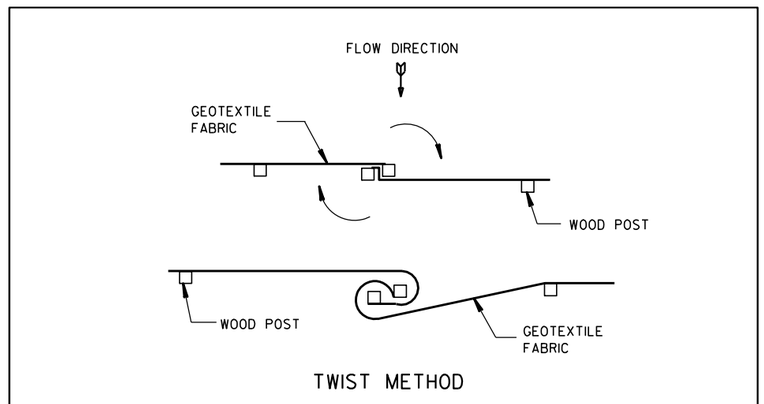
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



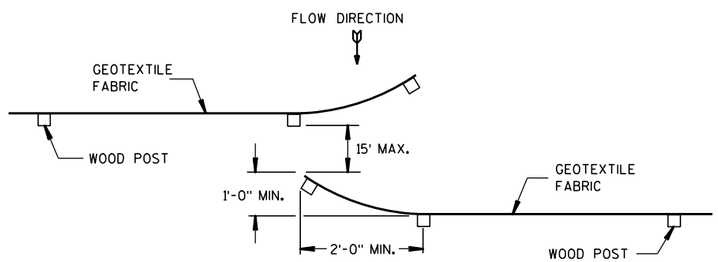
TRENCH DETAIL



SILT FENCE

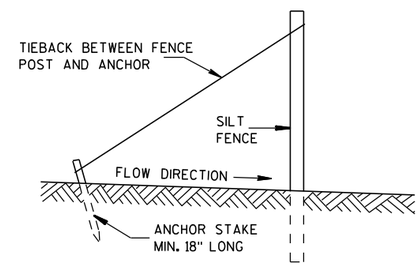


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

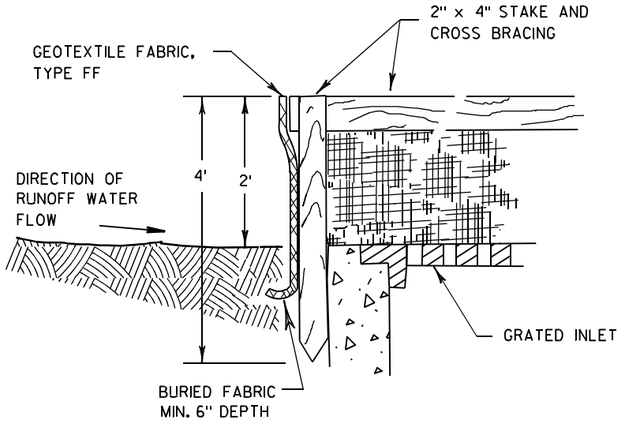
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

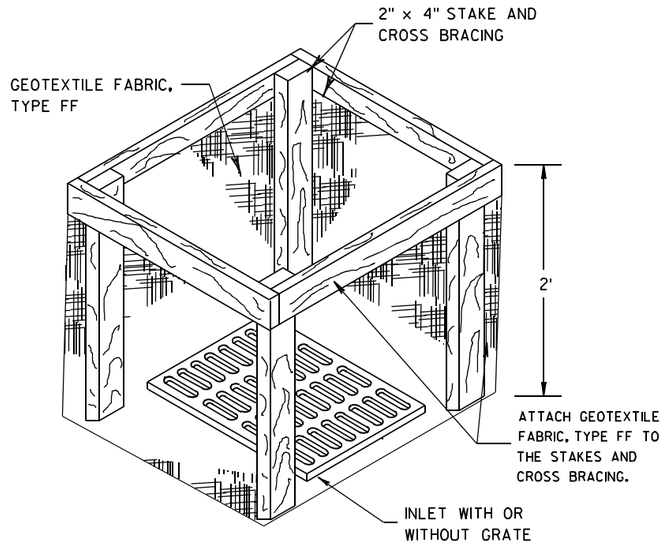
6

S.D.D. 8 E 9-6

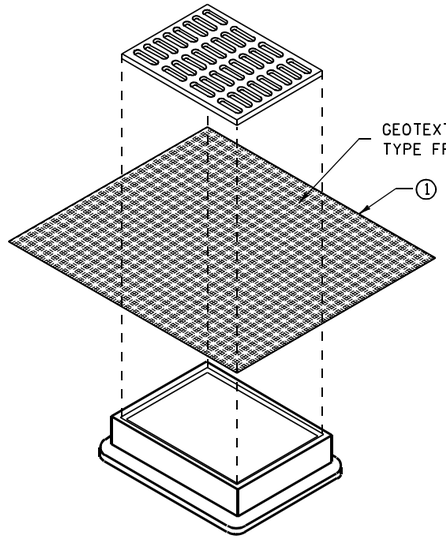
6

S.D.D. 8 E 9-6



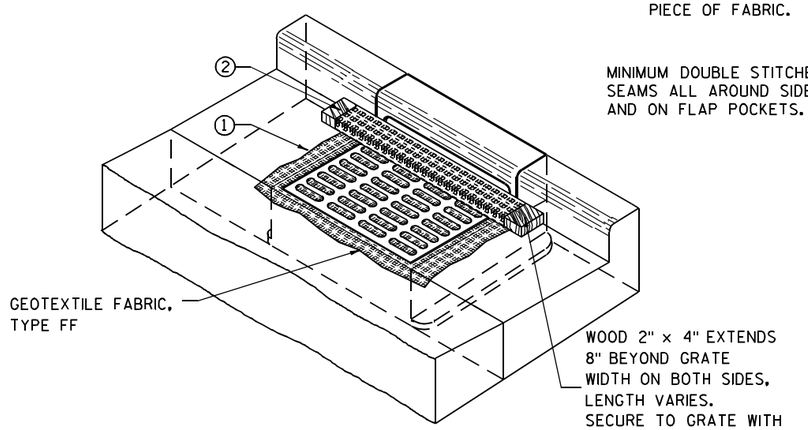


INLET PROTECTION, TYPE A

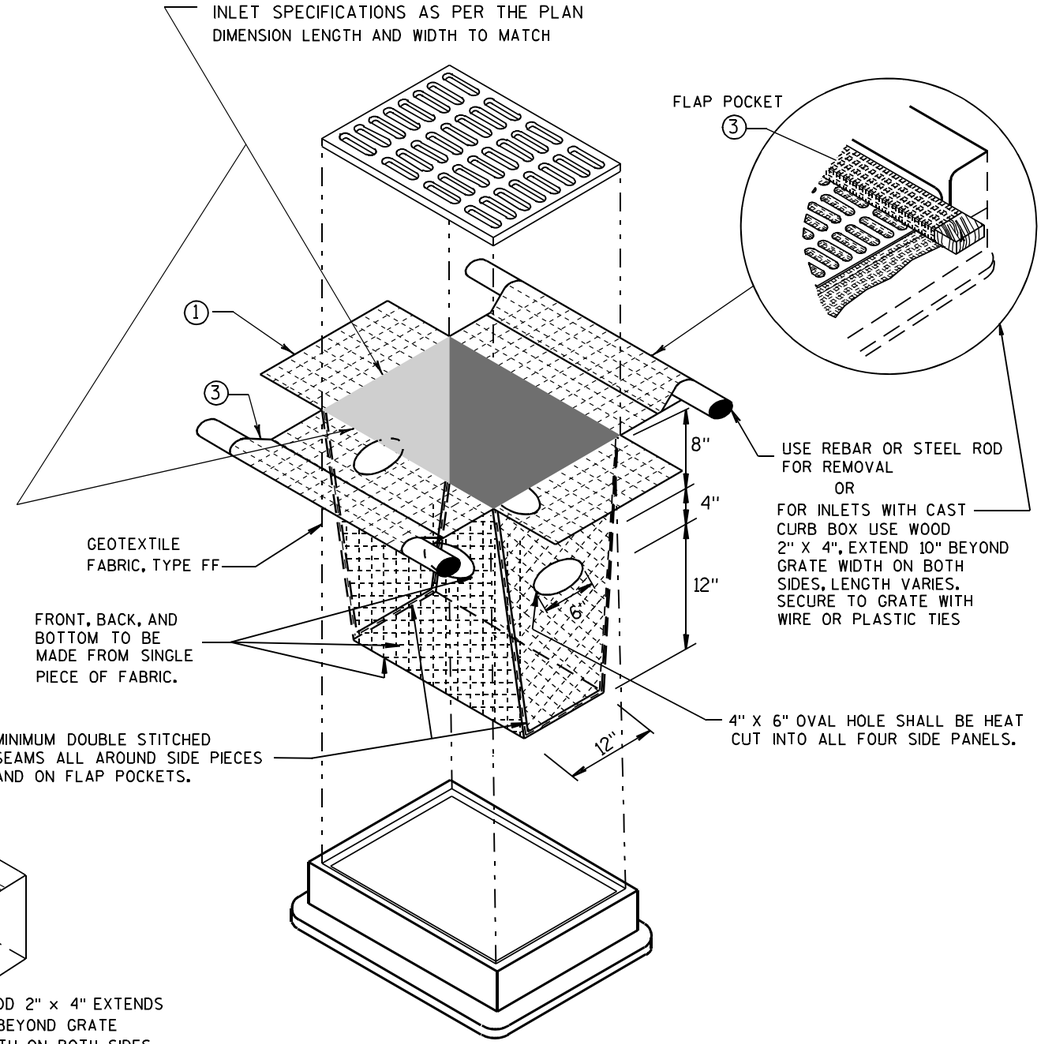


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

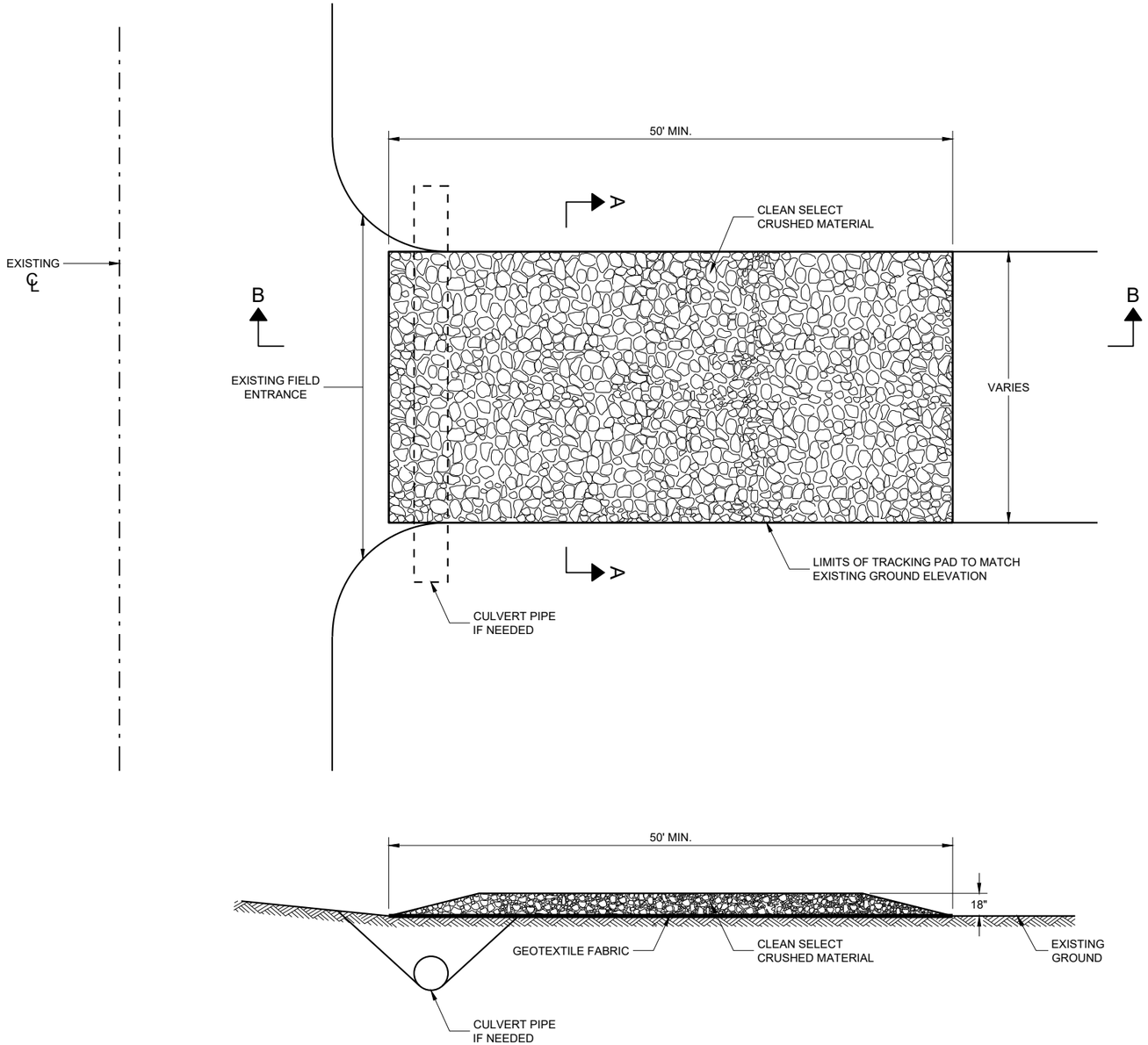
APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 8 E 10-2



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.

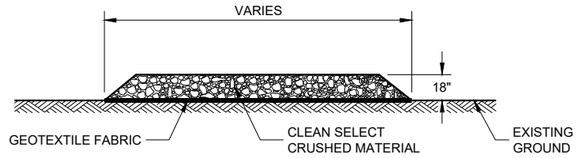
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

6

SDD 08E14 - 01

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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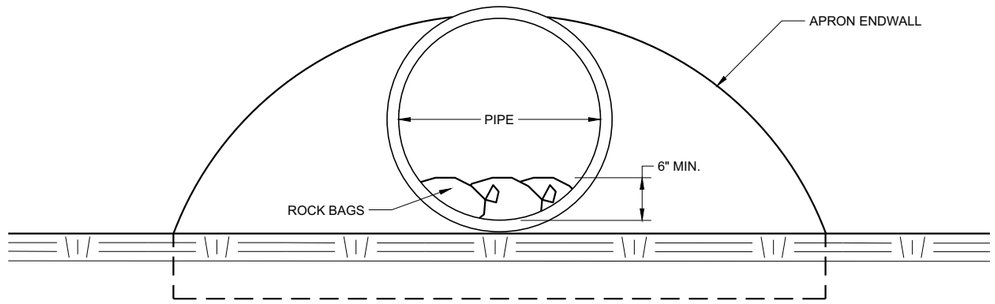
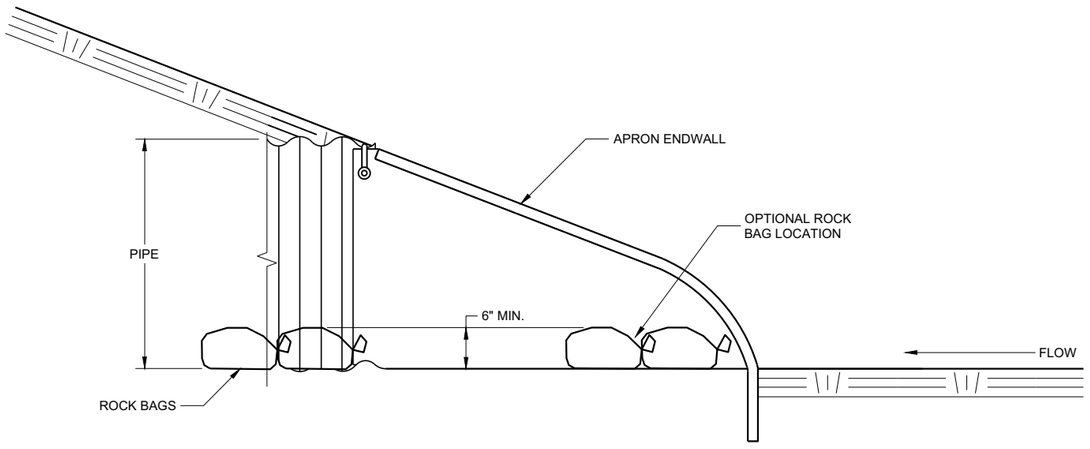
SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Daniel Schave
EROSION CONTROL ENGI

FHWA

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

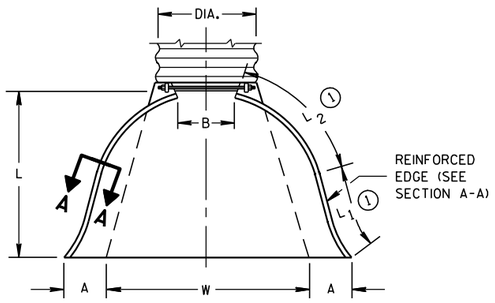
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

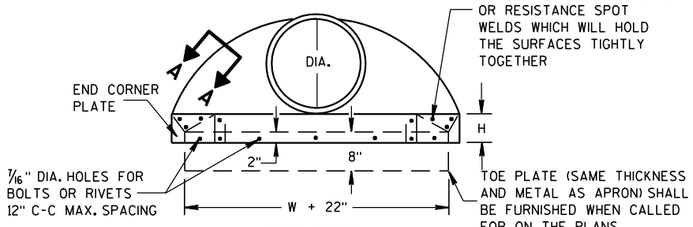
REINFORCED CONCRETE APRON ENDWALLS

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

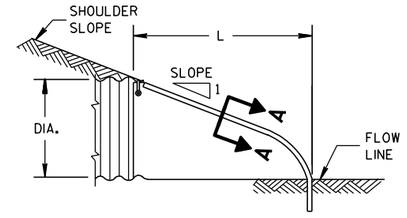
*MINIMUM
**MAXIMUM



PLAN VIEW

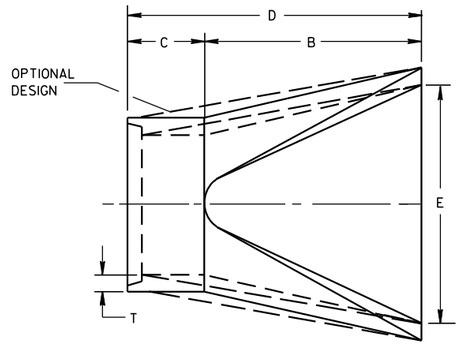


END VIEW

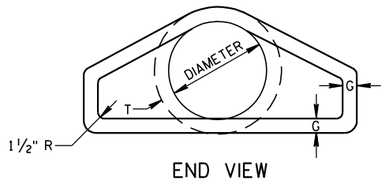


SIDE ELEVATION

METAL ENDWALLS



PLAN



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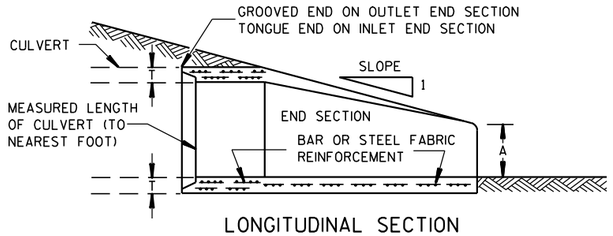
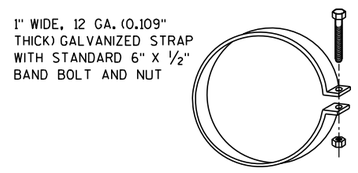


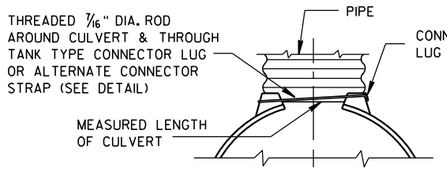
LONGITUDINAL SECTION

CONCRETE ENDWALLS

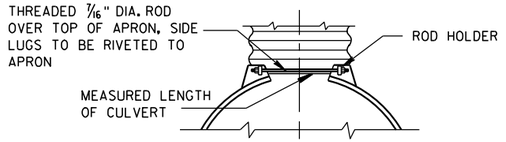


ALTERNATE FOR TYPE 1 CONNECTION

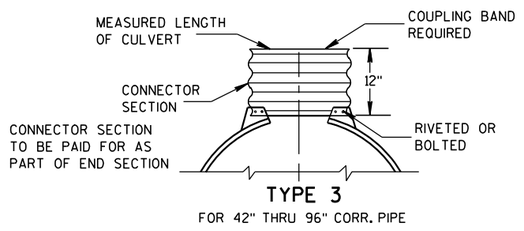
END SECTION CONNECTOR STRAP



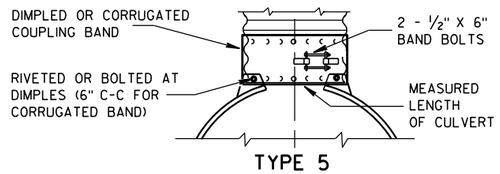
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

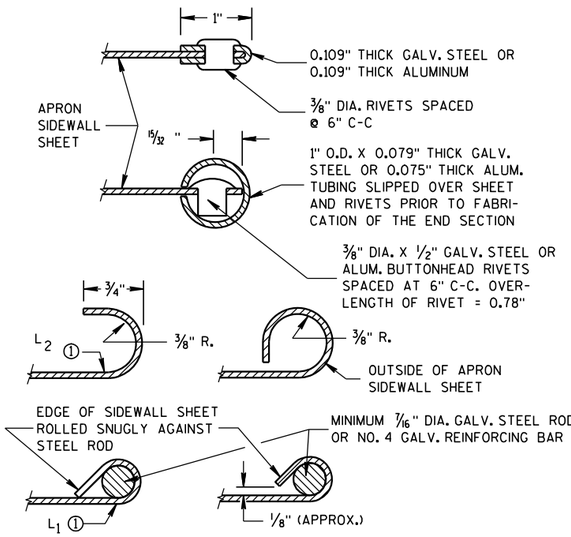
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

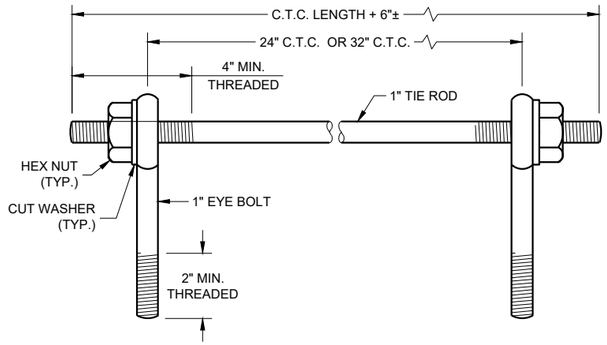
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

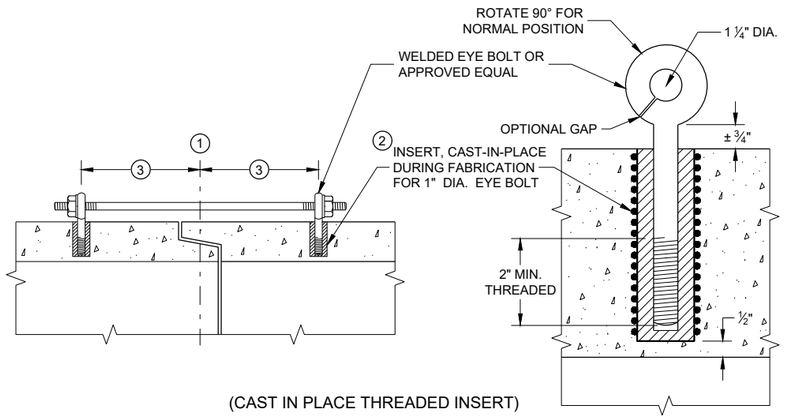
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



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) CENTER LINE 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.

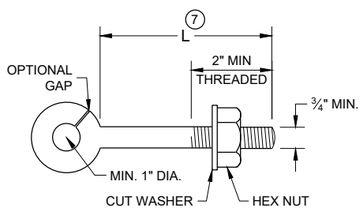
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

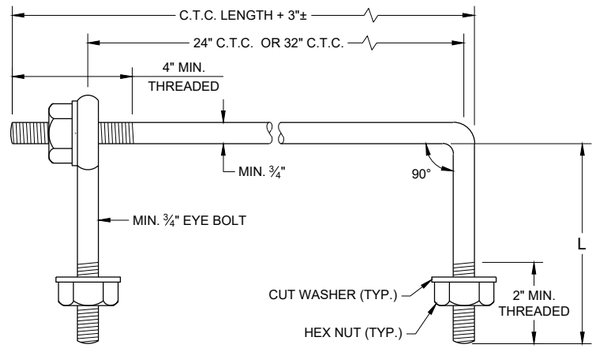
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

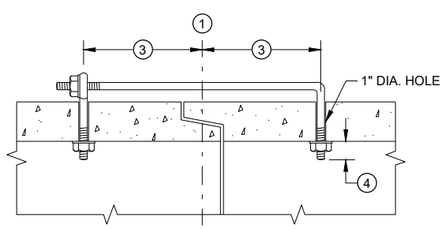


EYE BOLT (7)

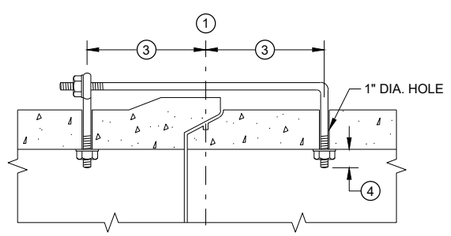
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

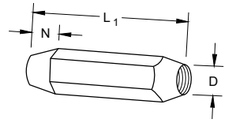
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

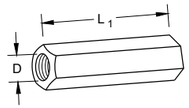
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



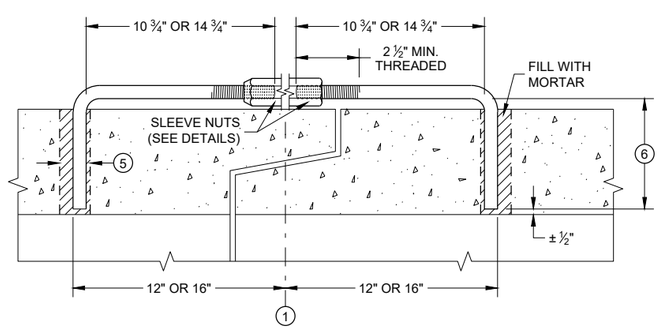
TAPERED



PLAIN

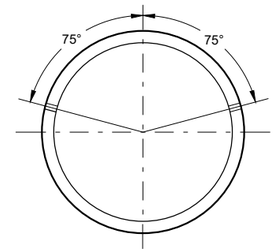
RIGHT AND LEFT THREADS

SLEEVE NUTS



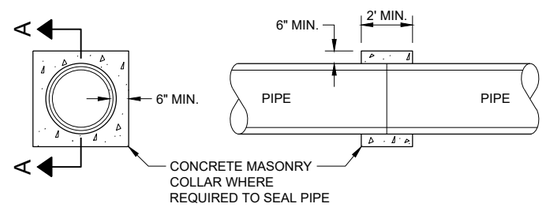
LONGITUDINAL SECTION

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
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

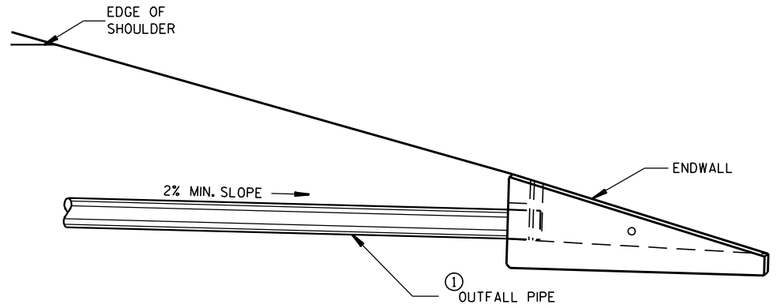
FHWA

6

SDD 08F04 - 08

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION 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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

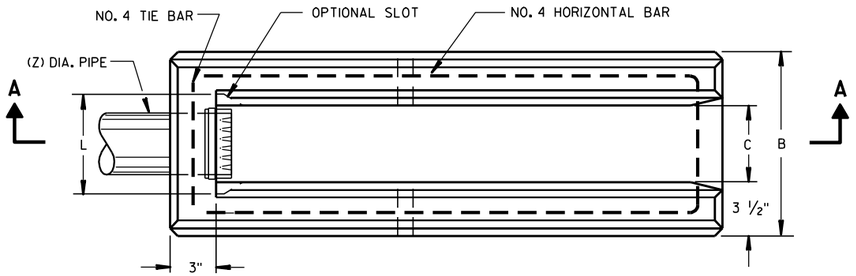
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

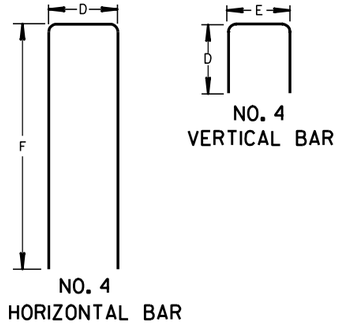
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

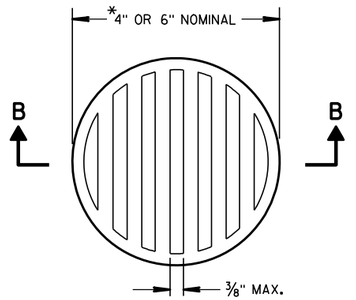
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

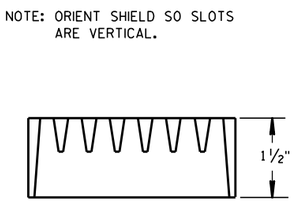


PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS

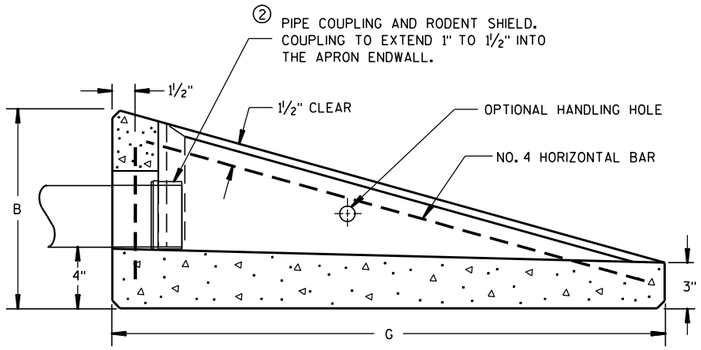




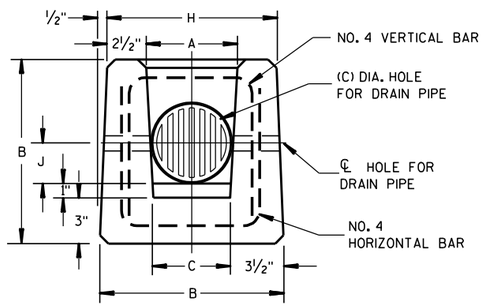
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

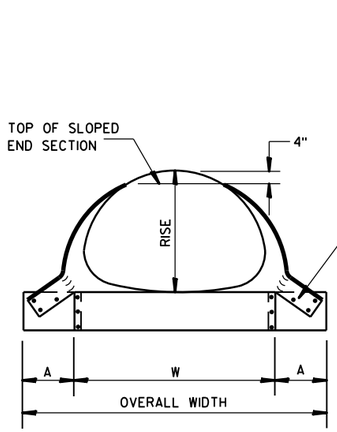
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

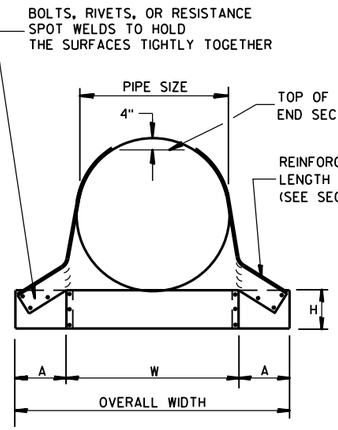
S.D.D. 8 F 6-4

6

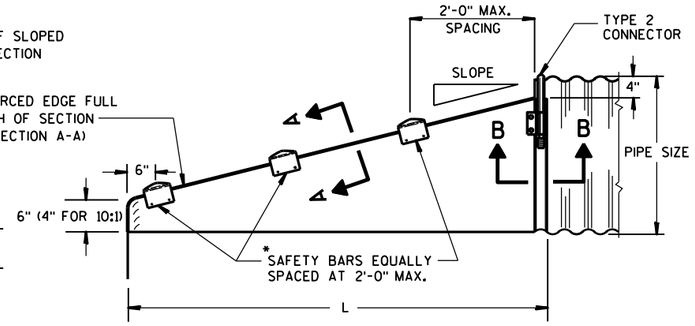
S.D.D. 8 F 6-4



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

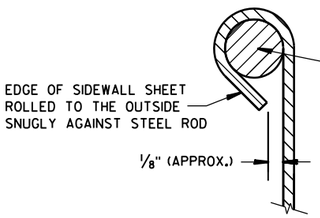
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

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



SECTION A-A

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

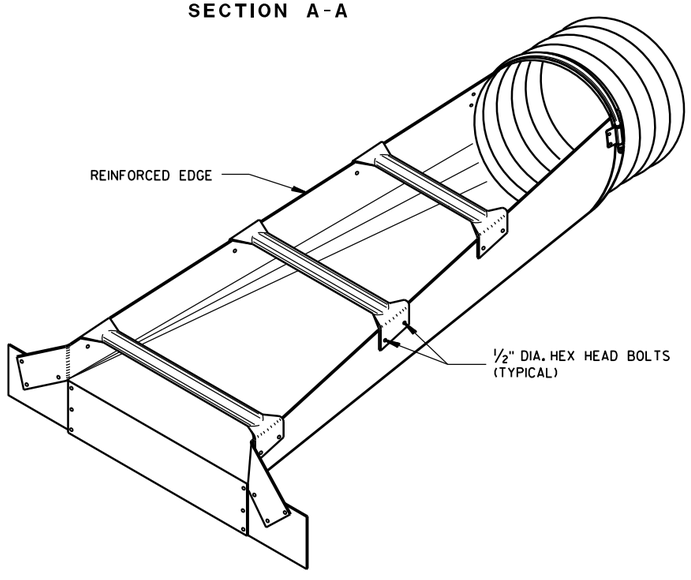
3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

DETAIL OF SAFETY BAR

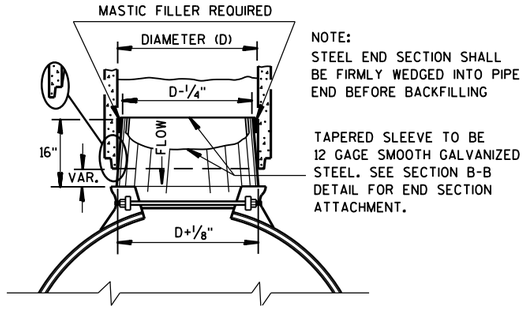
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

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

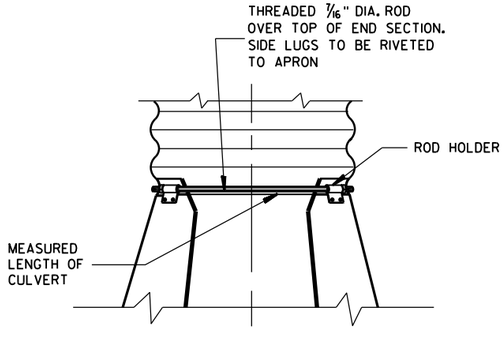
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



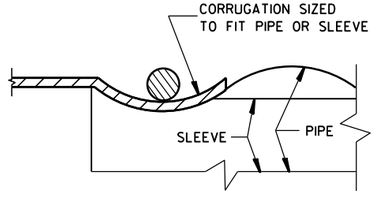
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 8 F 7-5

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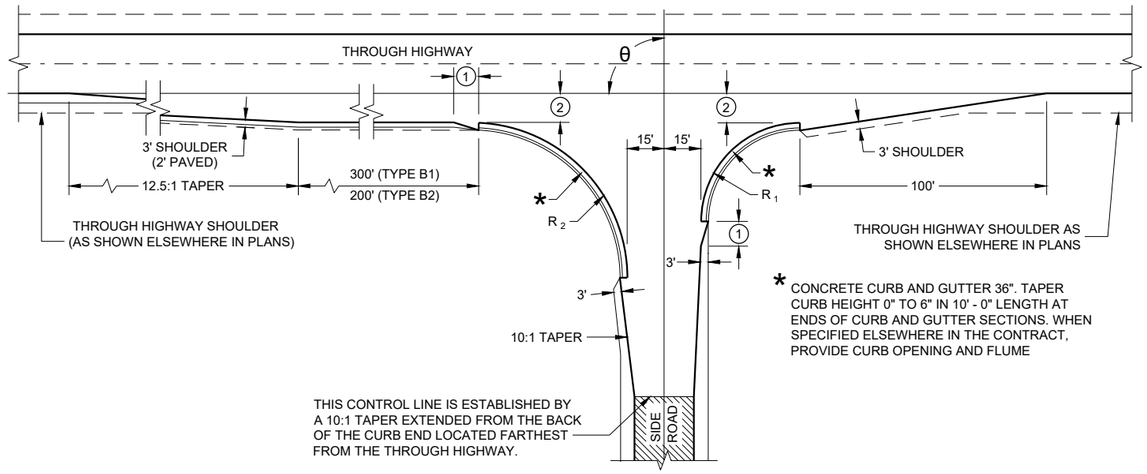
S.D.D. 8 F 7-5



* CONCRETE CURB AND GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10' - 0" LENGTH AT ENDS OF CURB AND GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME

TYPE "B1" AND "B2"

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

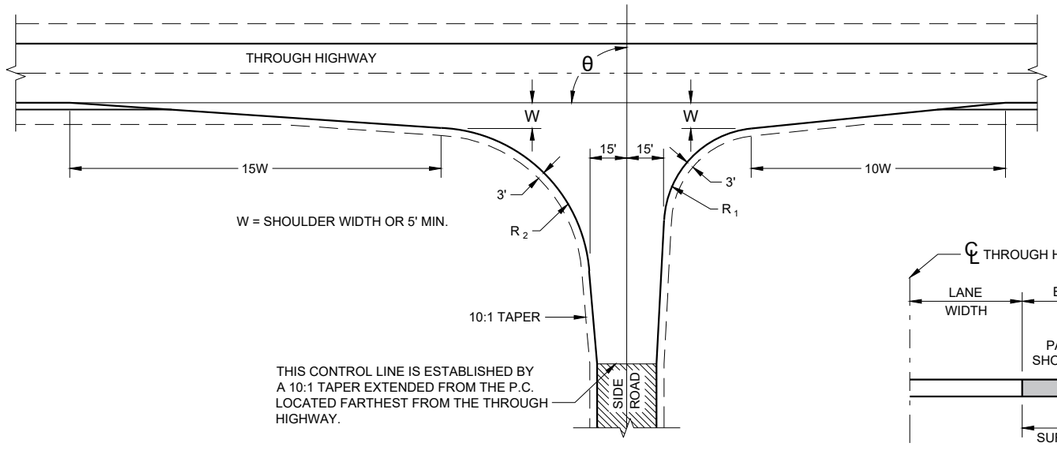
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

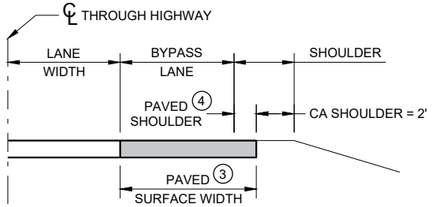
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

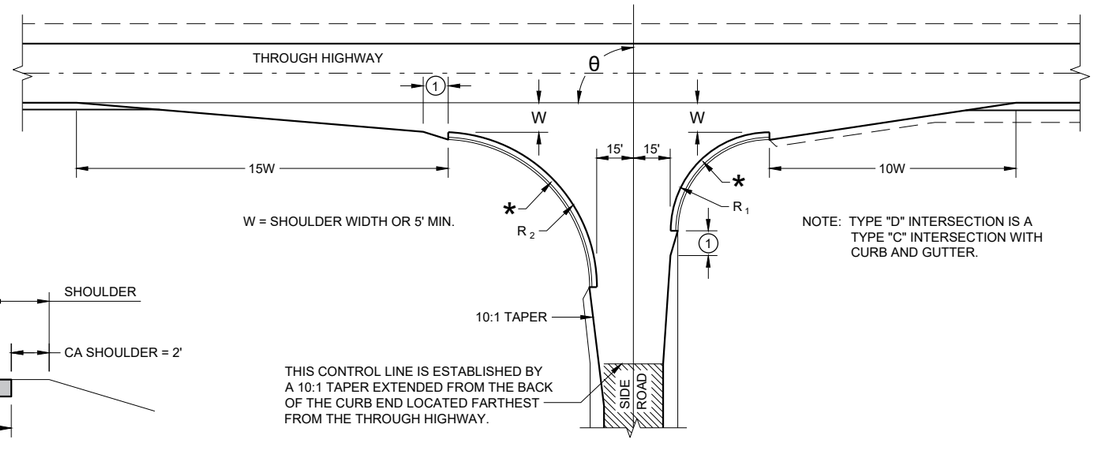
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

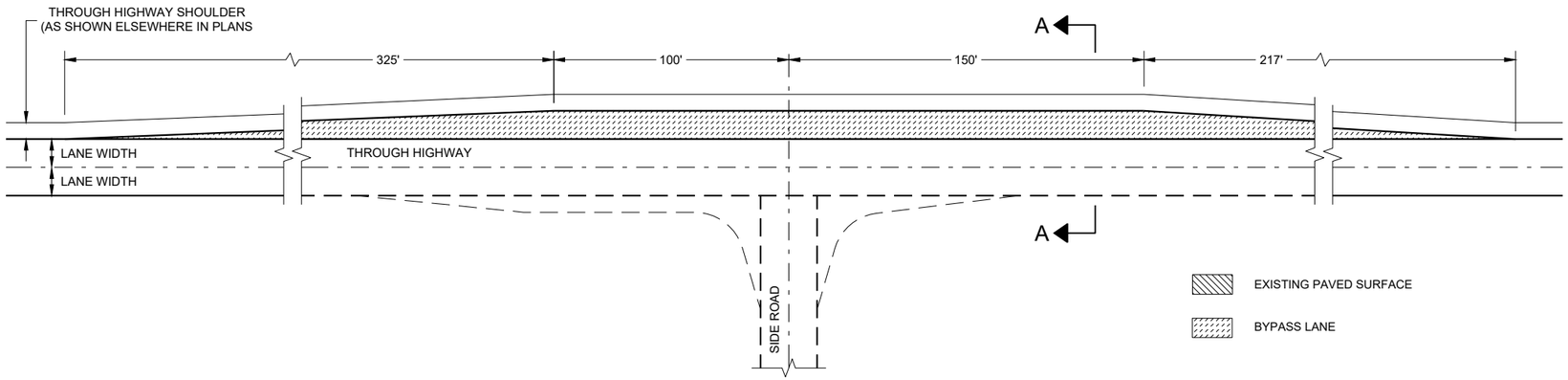


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"

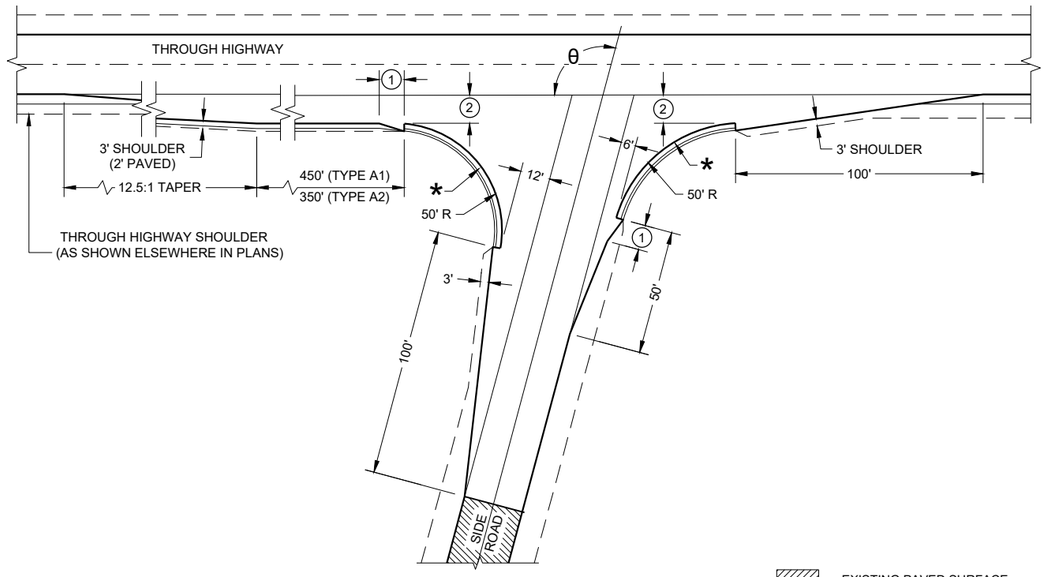


TEE INTERSECTION BYPASS LANE DETAIL

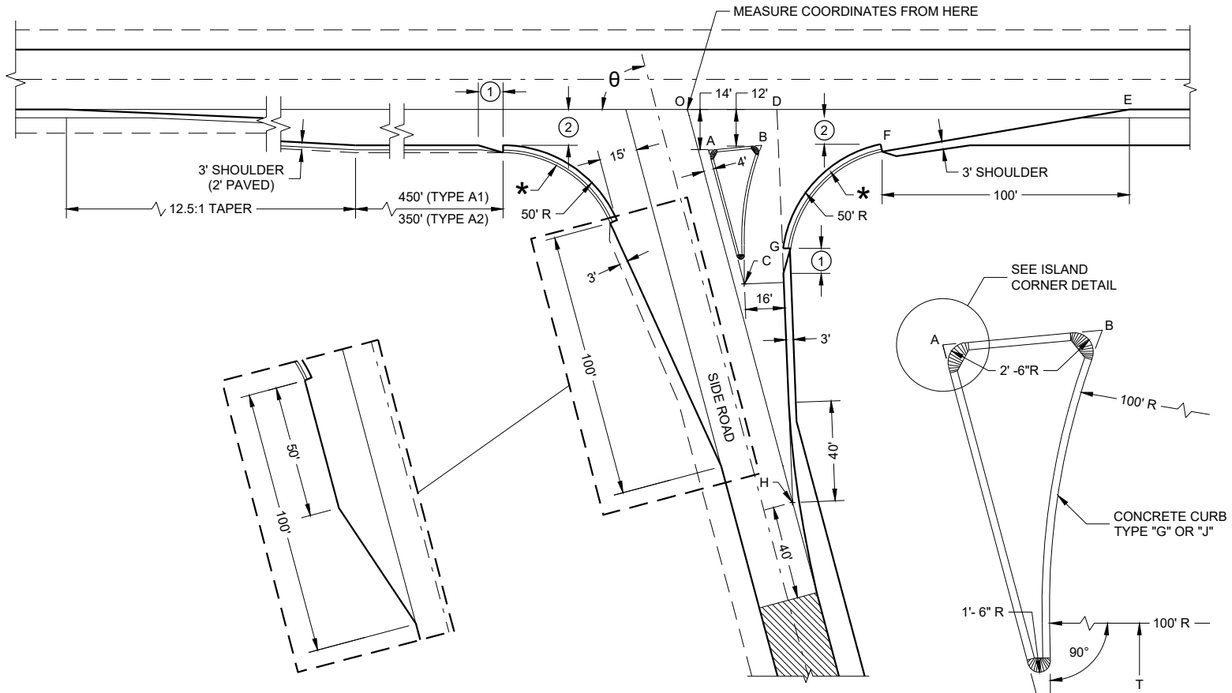
AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

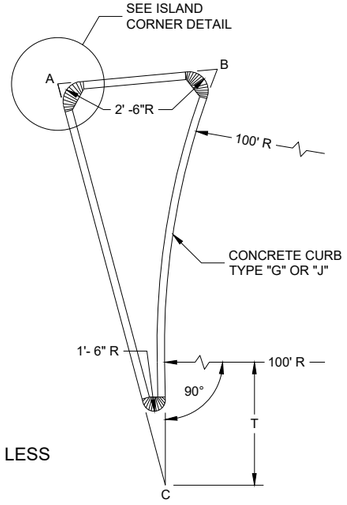
6
SDD 09A01 - 14a



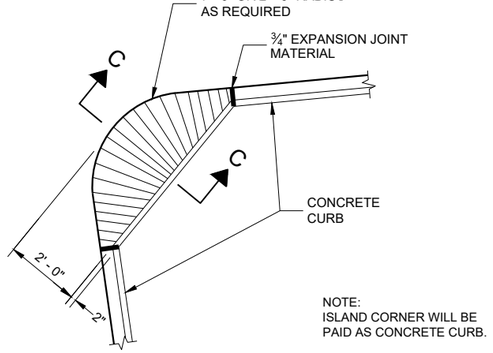
θ = MORE THAN 80°



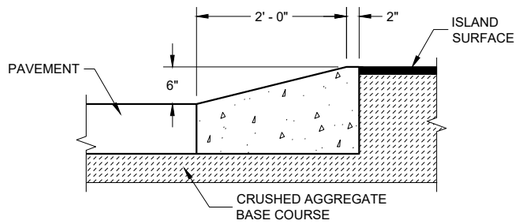
SIDE ROAD WIDENING AND TAPER REQUIRED WHERE
THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS



θ = ACUTE ANGLES 80° OR LESS



PLAN VIEW



SECTION C - C

ISLAND CORNER DETAIL

(TO BE CONSTUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT 'O') X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE 'A1" AND "A2" SIDE ROAD INTERSECTION DETAILS

AT GRADE SIDE ROAD INTERSECTIONS
TYPES "A1" AND "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 09A01 - 14b

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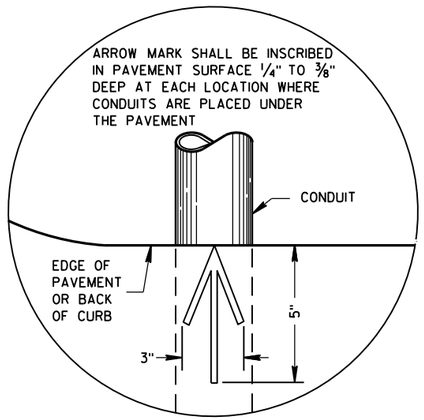
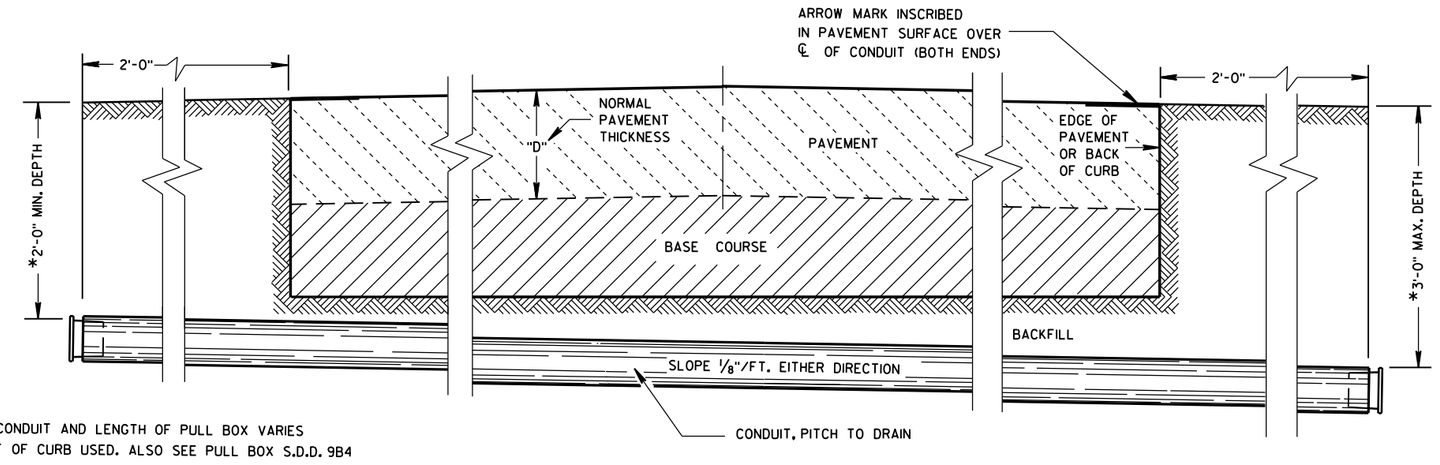
SDD 09A01 - 14b



PLAN VIEW

ARROW MARK



*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

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.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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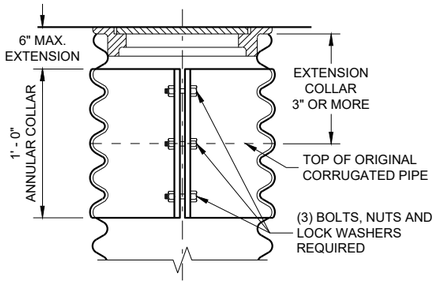
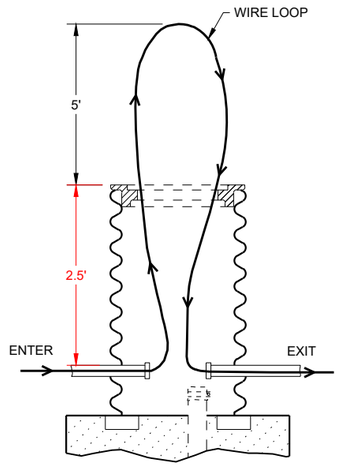
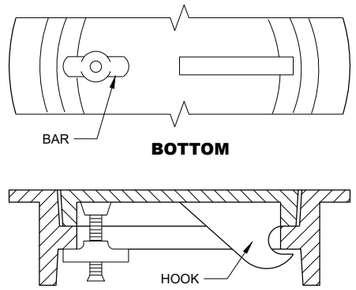
S.D.D. 9 B 2-10



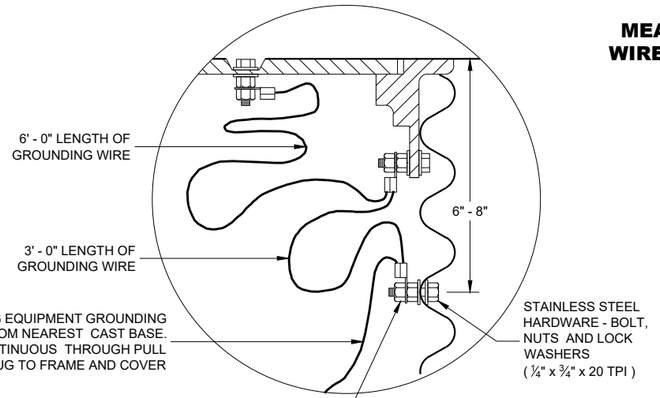
CORRUGATED PIPE EXTENDER



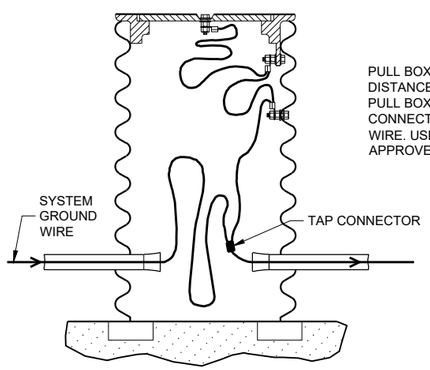
MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



ALTERNATE COVER (LOCKING)
TIGHTENING BAR TYPE

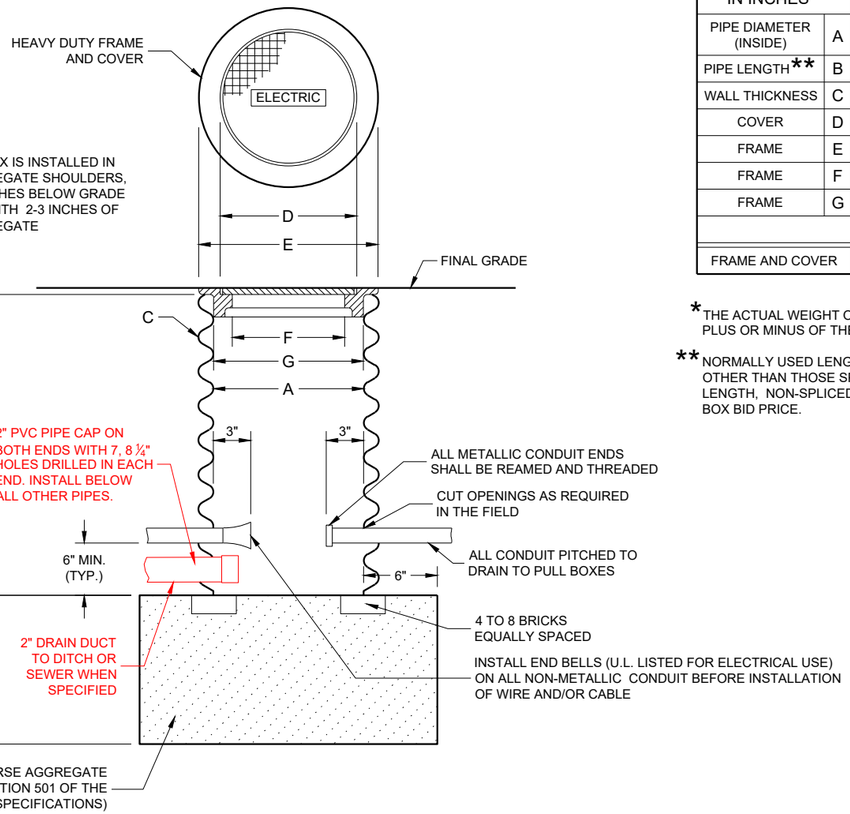


EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX 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

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 ¼".

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.

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 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
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.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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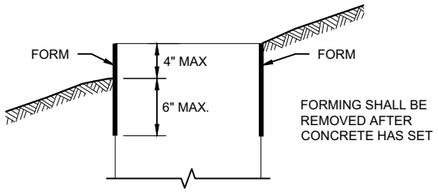
SDD 09B04-12

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL 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 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 A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X 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 NON-METALLIC 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.

WHEN REQUIRED TO CONNECT NON-METALLIC 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 2, TYPE 5 AND TYPE 6 BASES.

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

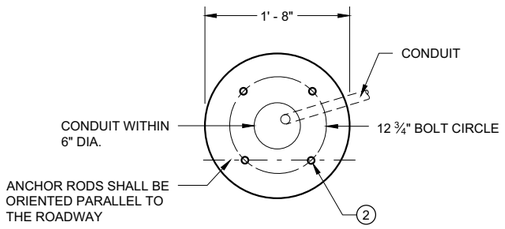
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

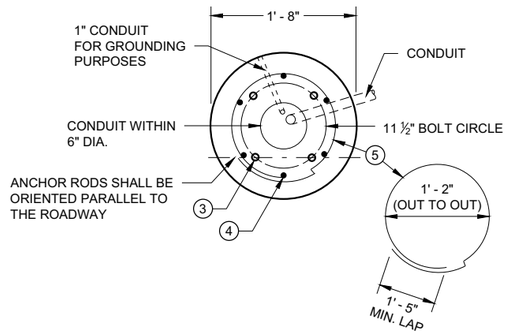
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

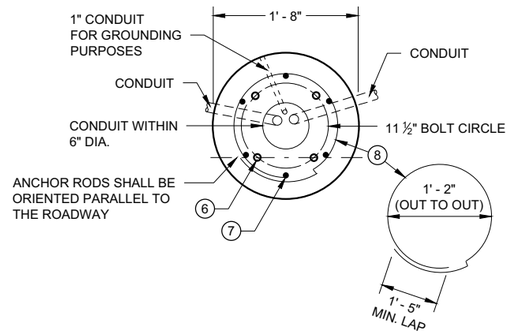
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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 OF 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 STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

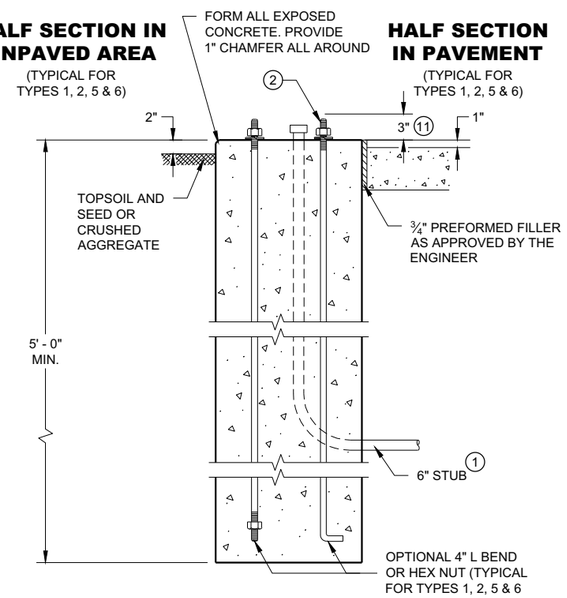
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

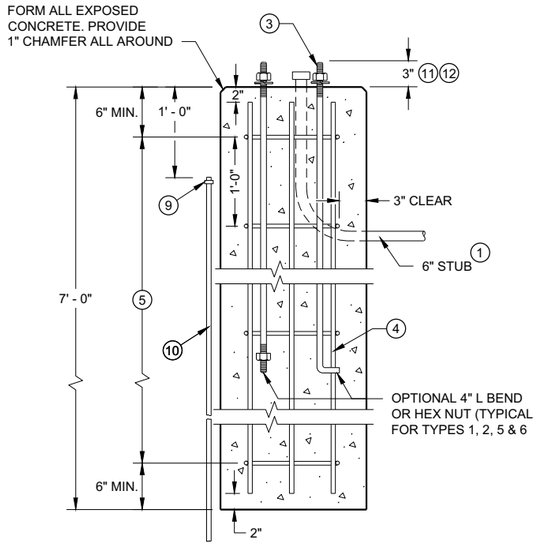
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

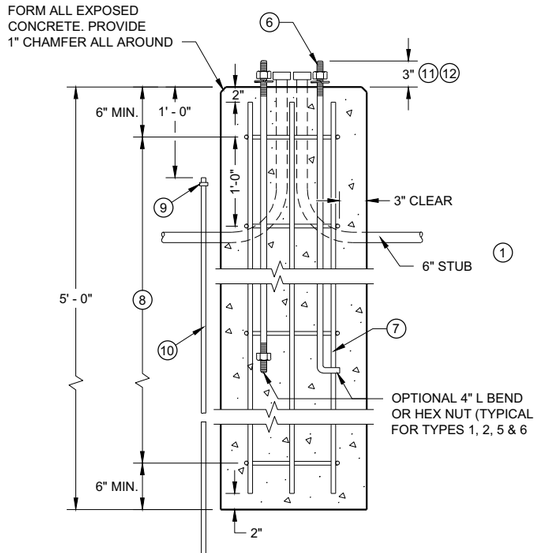
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

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 531.2.2 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.

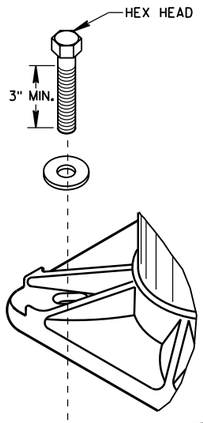
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

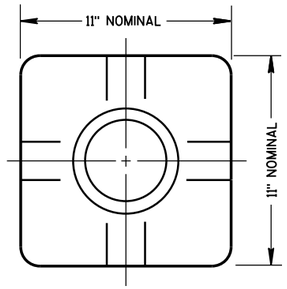
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

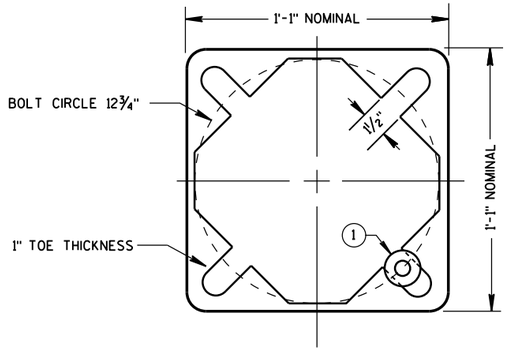
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

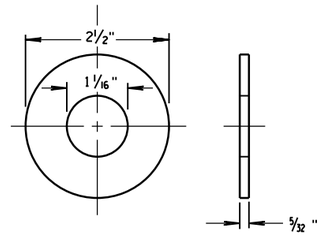




TOP VIEW
(PEDESTAL BASE)

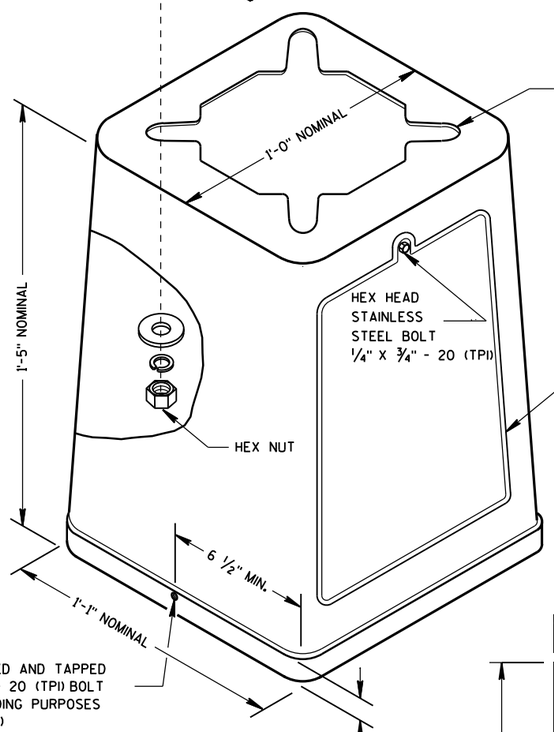


BOTTOM VIEW
(PEDESTAL BASE)

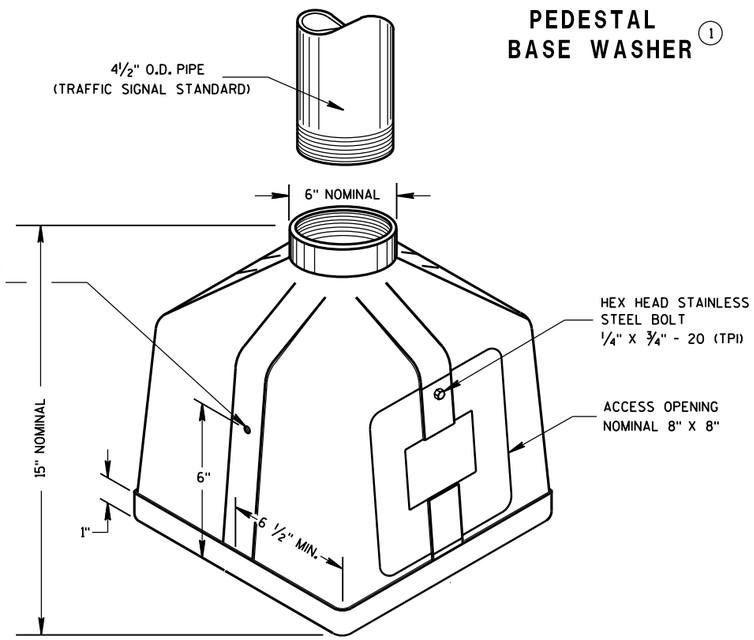


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

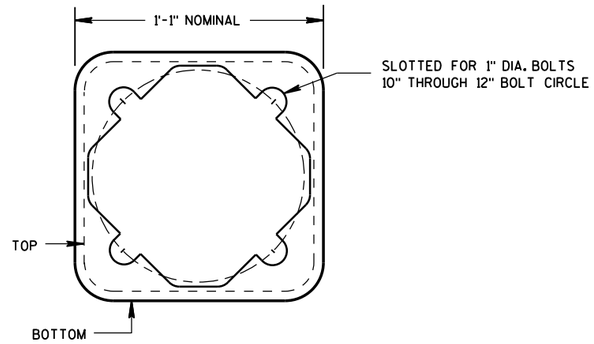


ISOMETRIC VIEW

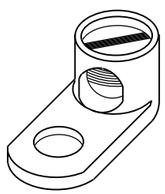


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

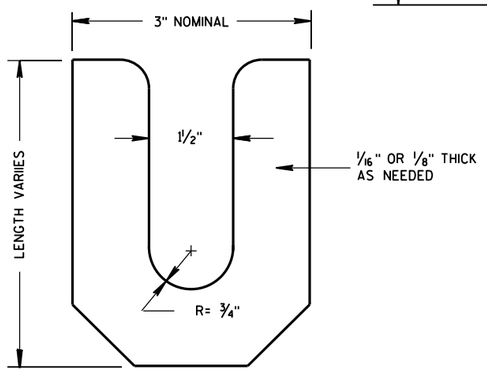


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

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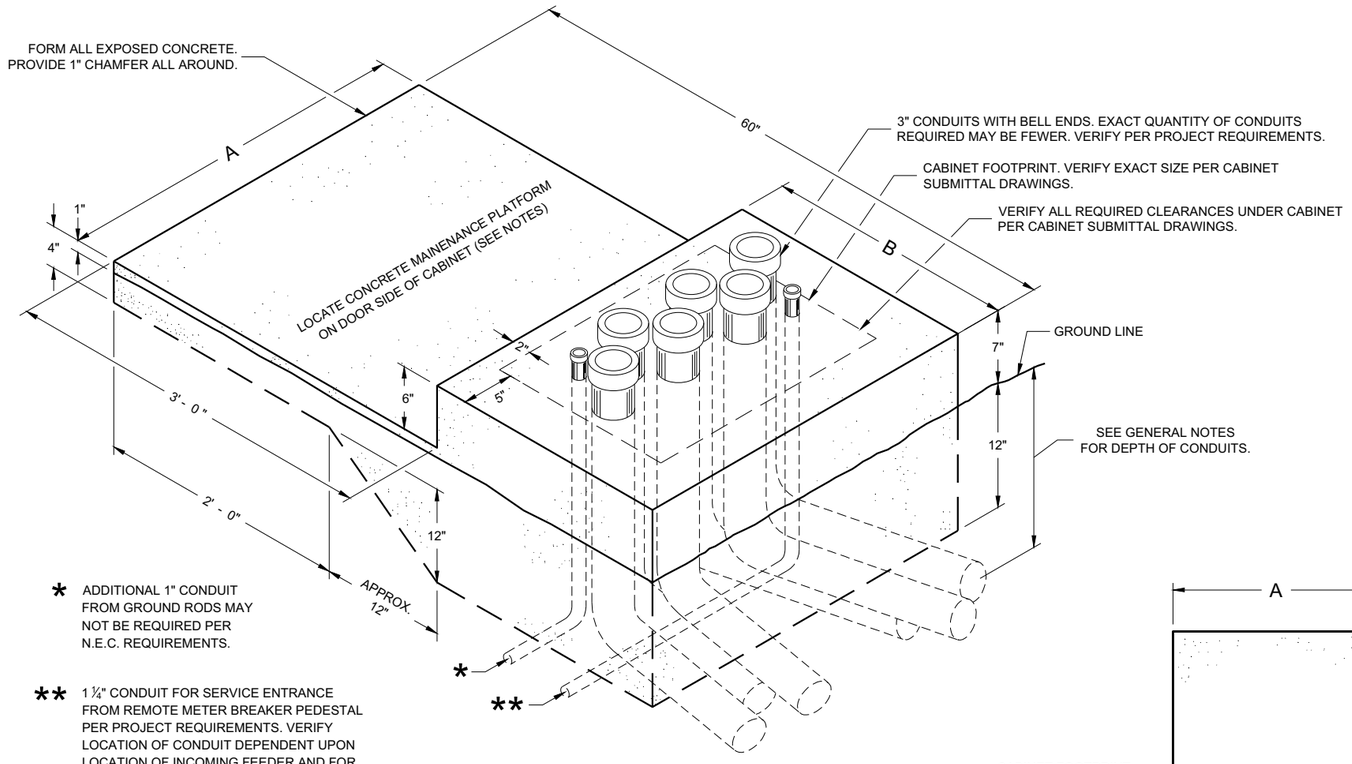


* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

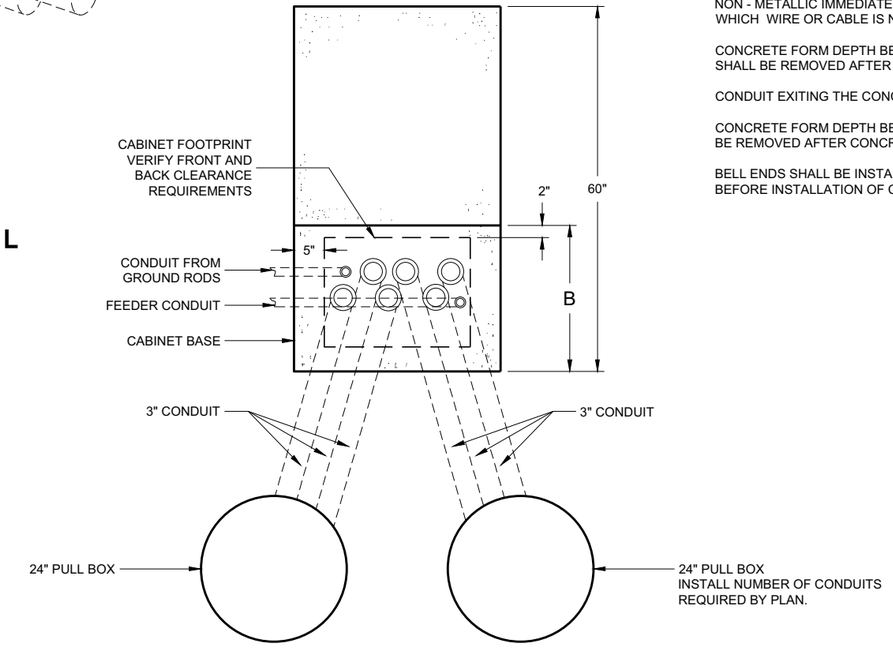
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

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 NON - METALLIC 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.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES 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 NON - METALLIC 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 NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH 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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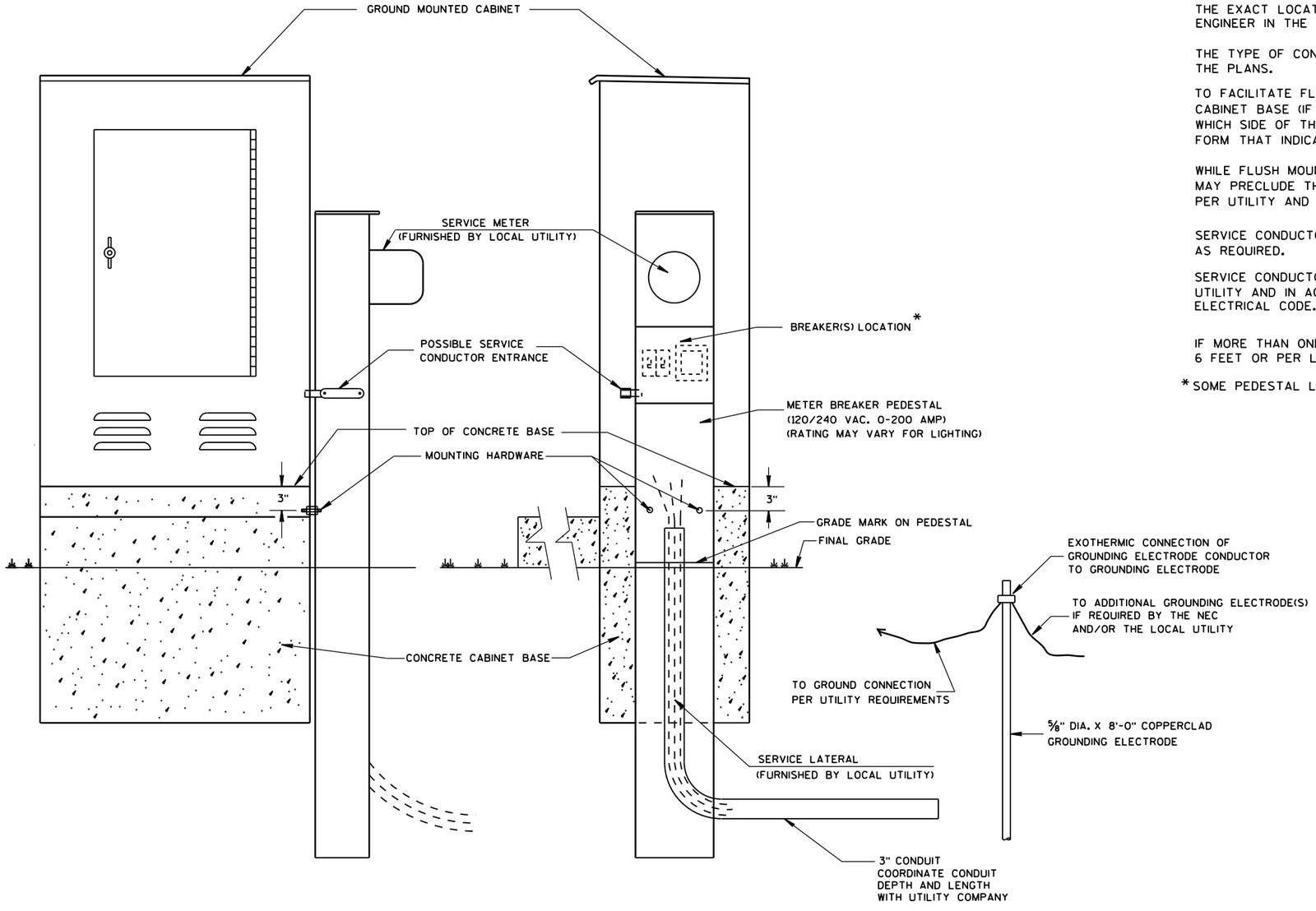

TYPICAL CABINET SERVICE INSTALLATION

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)

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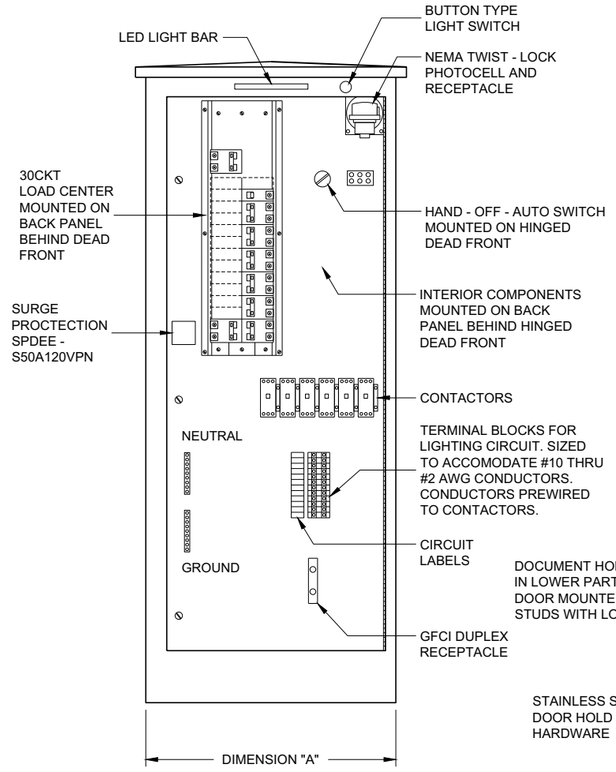
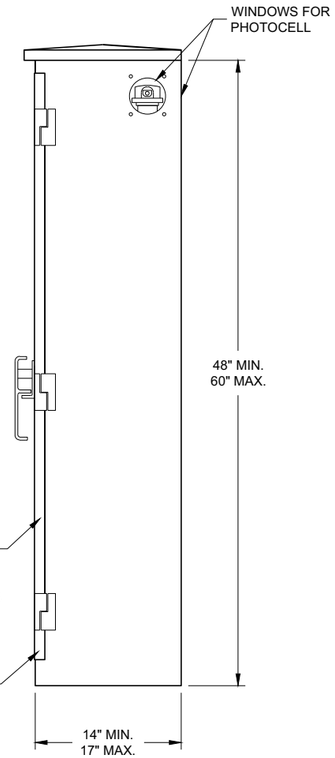
FRONT INTERIOR ELEVATION



SIDE VIEW



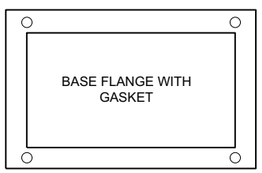
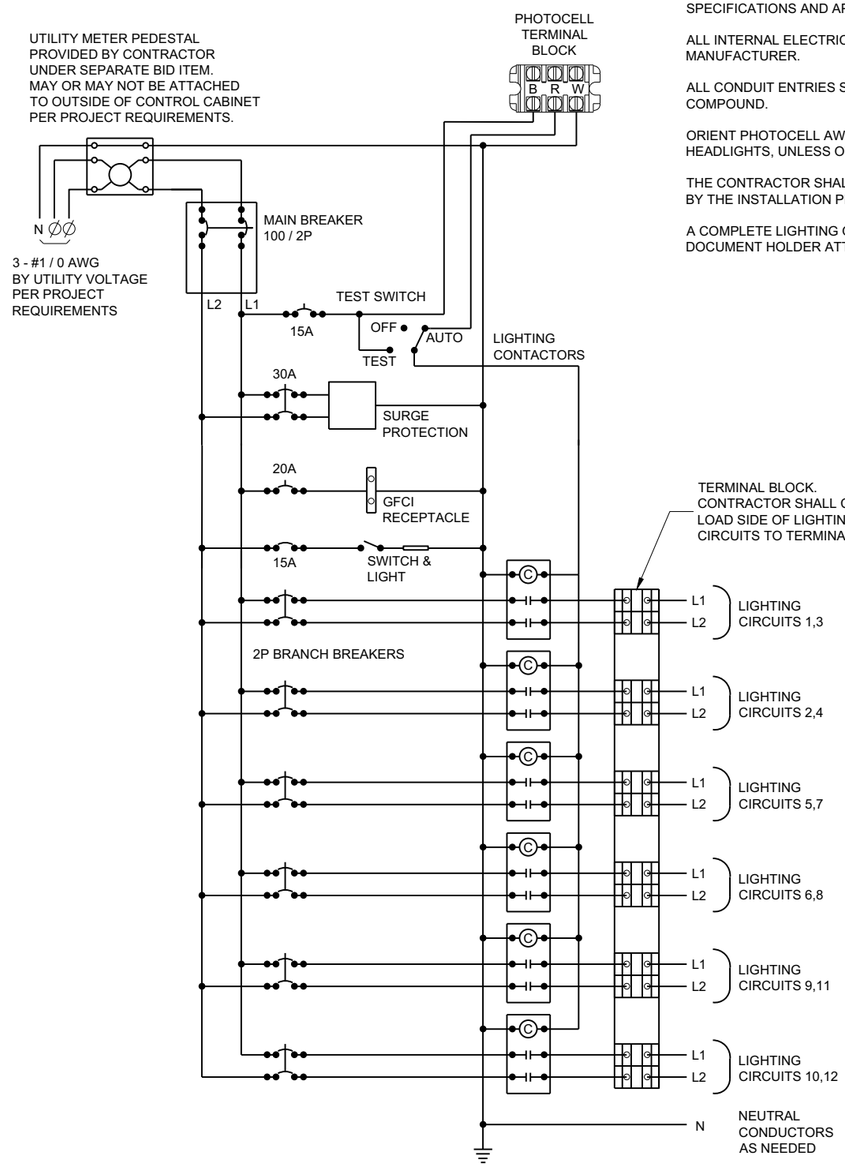


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

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 CABINENT MANUFACTURER.

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

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

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

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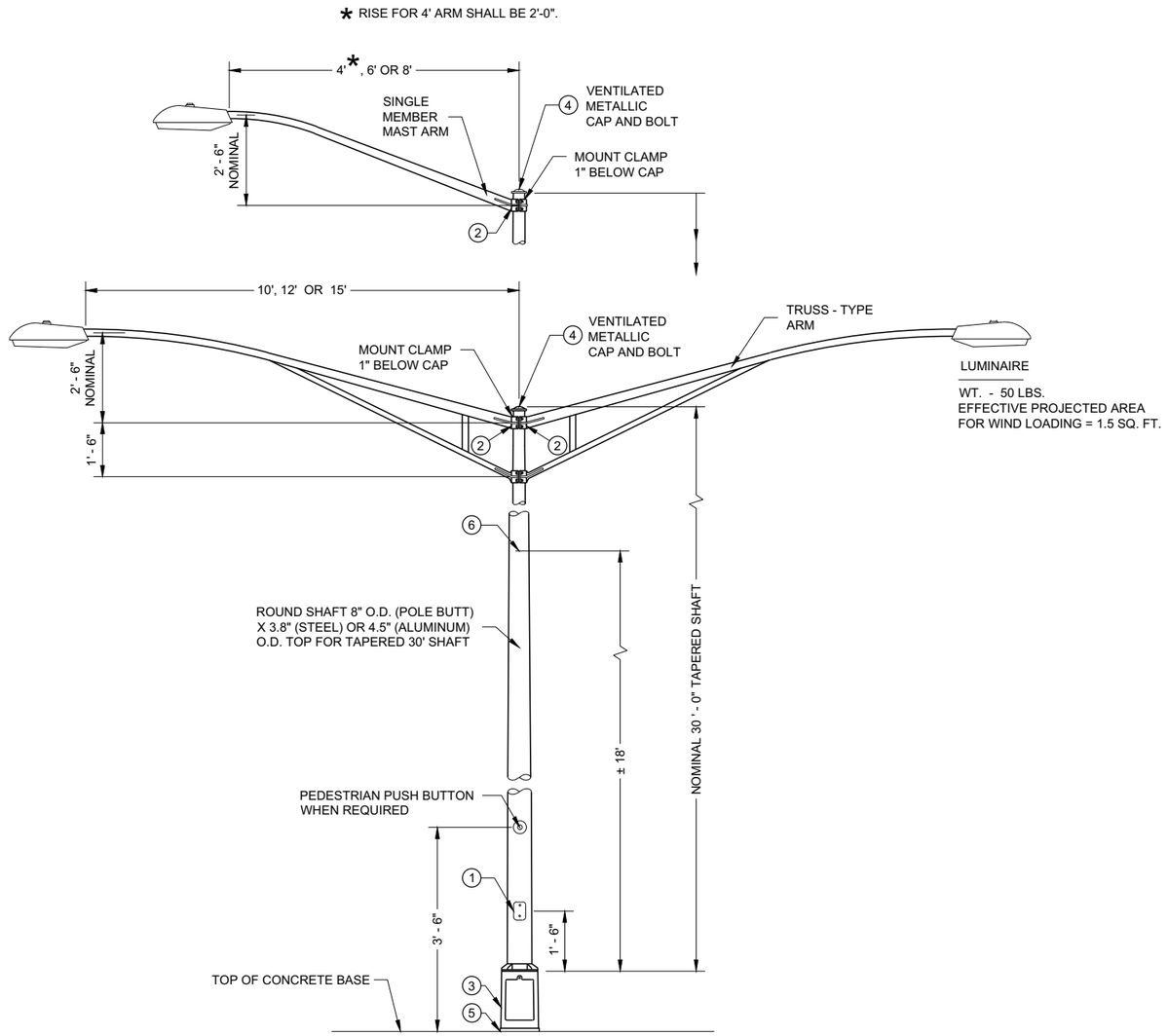


TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

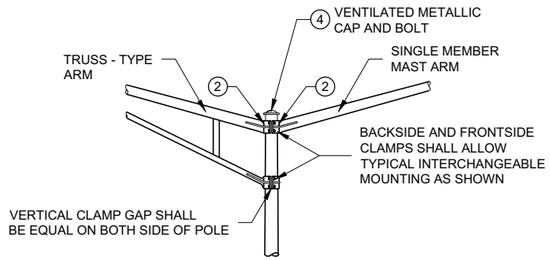
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

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

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

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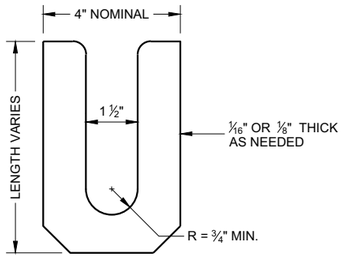
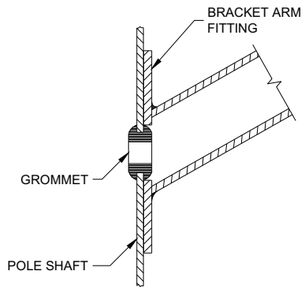
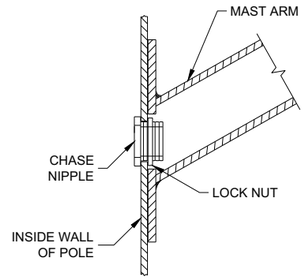


LEVELING SHIM (1)
SHALL BE ALUMINUM



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.

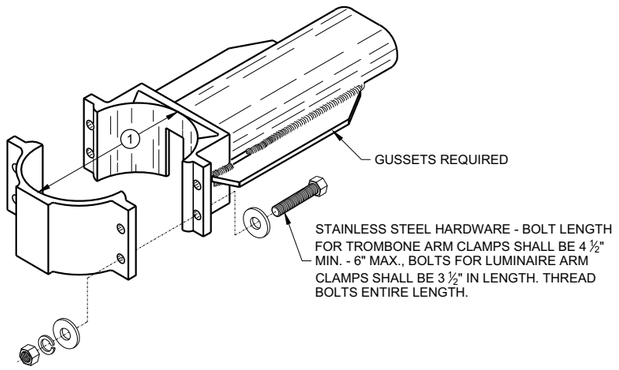
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

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

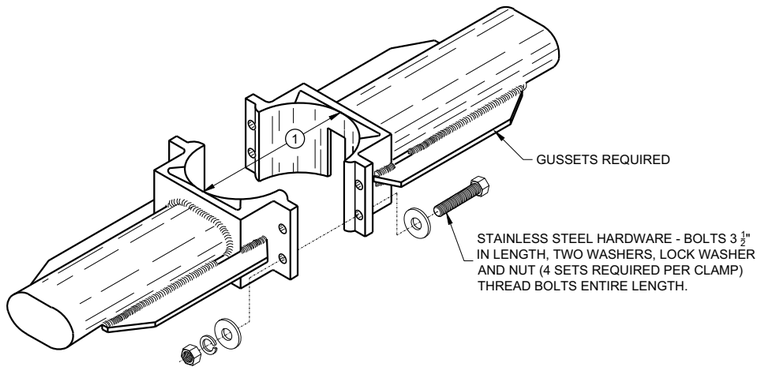
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) 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.

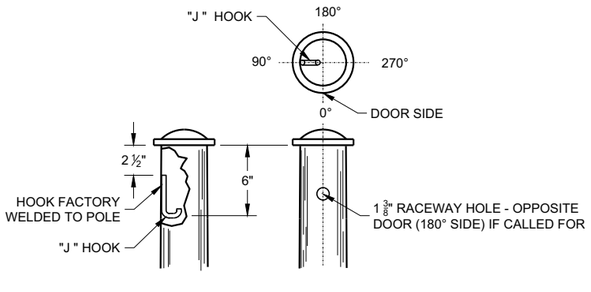
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



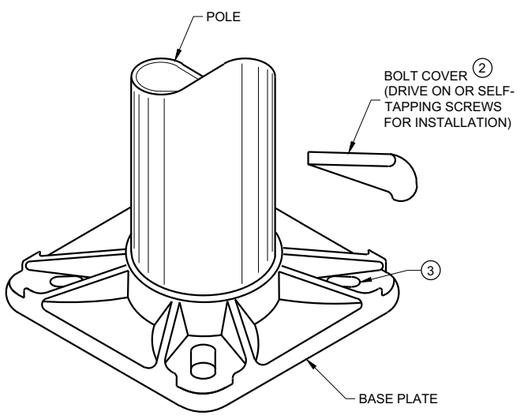
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



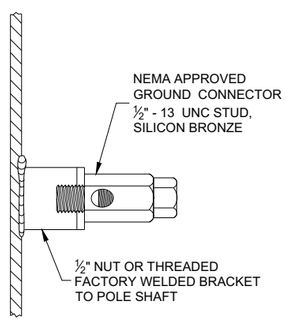
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

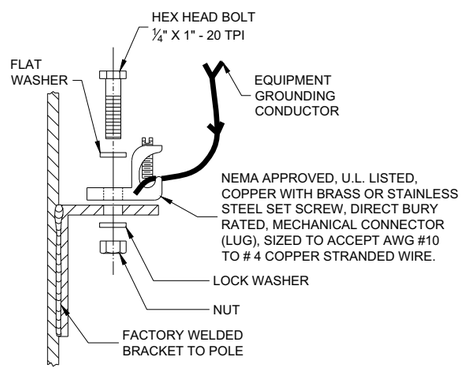


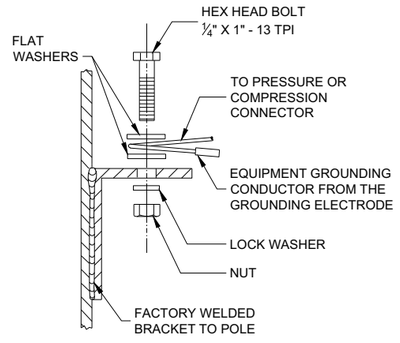
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
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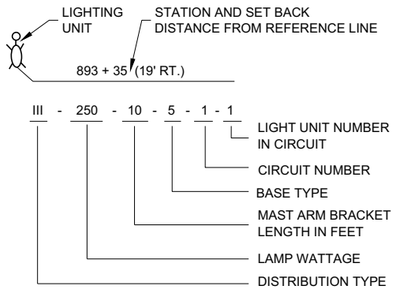
GENERAL NOTES

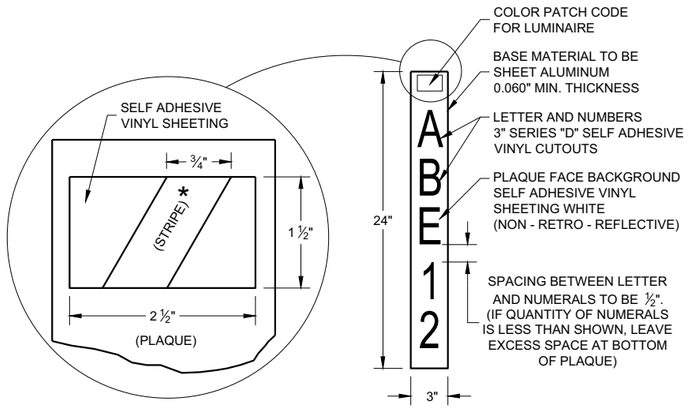
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 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.



LIGHTING UNIT CODE
(TYPICAL)

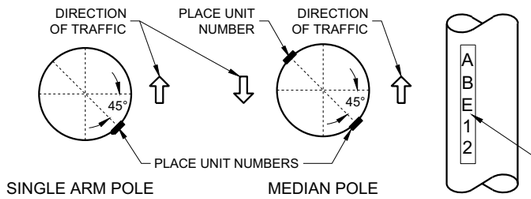


COLOR PATCH CODE FOR LUMINAIRES

(HIGH PRESSURE SODIUM)
1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE W / WHITE STRIPE *
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN

(MERCURY VAPOR)
400 WATT - NO PATCH
250 WATT - YELLOW

IDENTIFICATION PLAQUE



NOTES

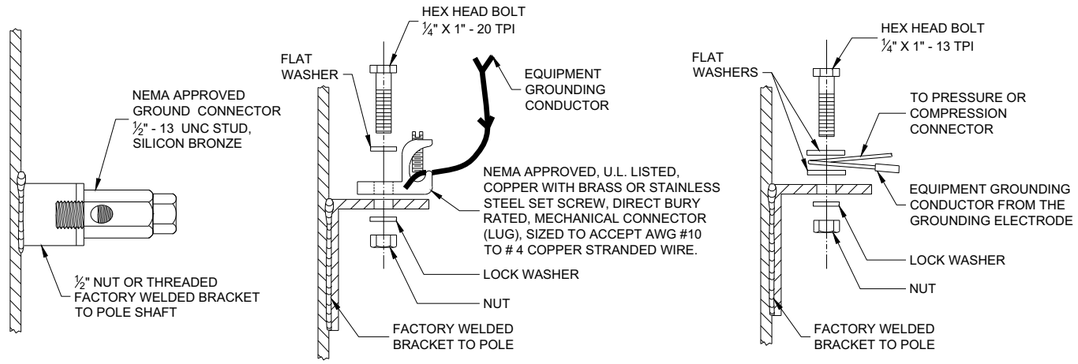
1) PLACE BOTTOM OF UNIT NUMBER PLAQUE 5'-0" ABOVE ELEVATION OF ADJACENT CURB OR SHOULDER.

2) UNIT NUMBER: ONE REQUIRED FOR SINGLE ARM POLES. TWO REQUIRED FOR MEDIAN MOUNT POLES.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE WITH 3 ALUMINUM POP RIVETS (ALUMINUM POLES) OR STAINLESS STEEL POP RIVETS (STEEL POLES).

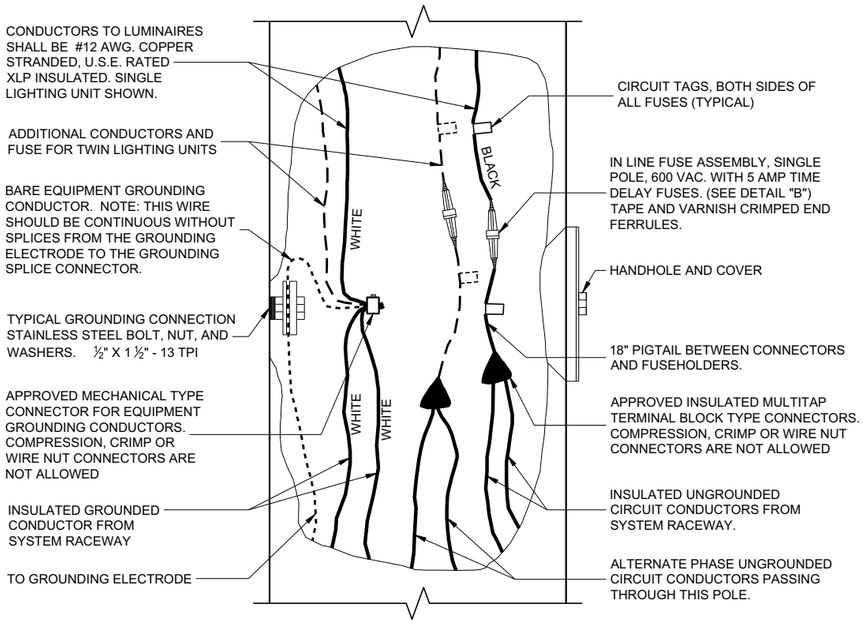
LIGHTING UNIT IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENT
(TYPICAL, ALL LIGHTING UNITS)

FURNISH PLAQUE WHEN CALLED FOR BY SPECIAL PROVISIONS

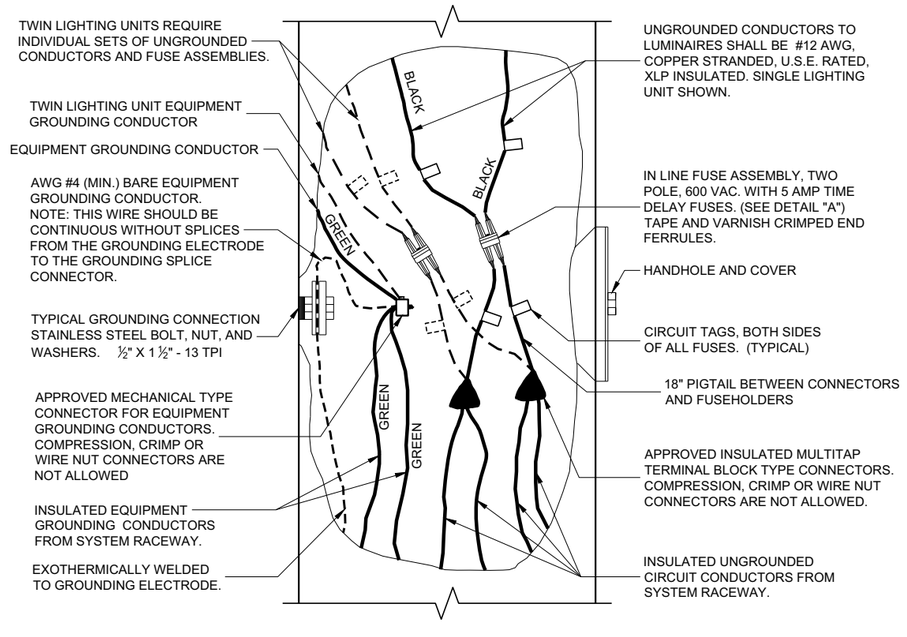


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

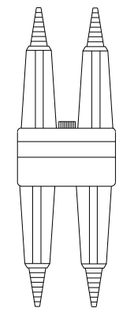
OLD EXISTING FREEWAY WIRING (SOME AREAS)



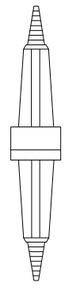
2 WIRE - 120, 240, OR 480 VAC TO GROUND



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR



DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT

FREEWAY LIGHTING UNIT POLE WIRING

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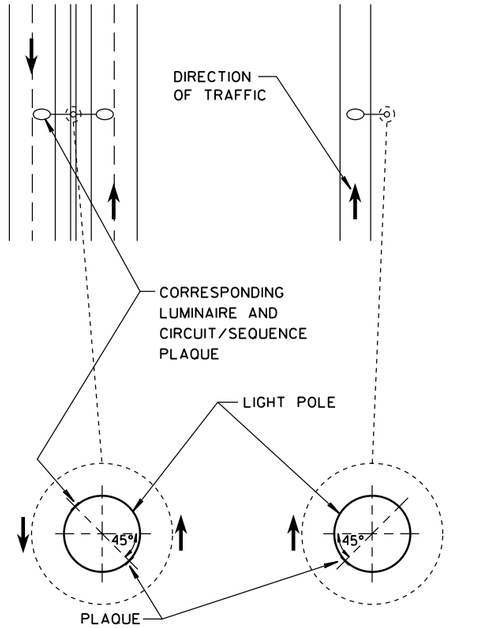


MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

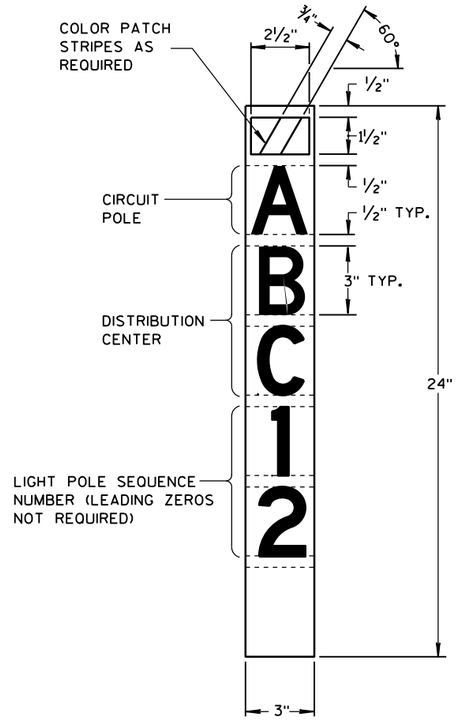
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

6

S.D.D. 10 A 2-3

6

S.D.D. 10 A 2-3

IDENTIFICATION PLAQUES LIGHT POLES

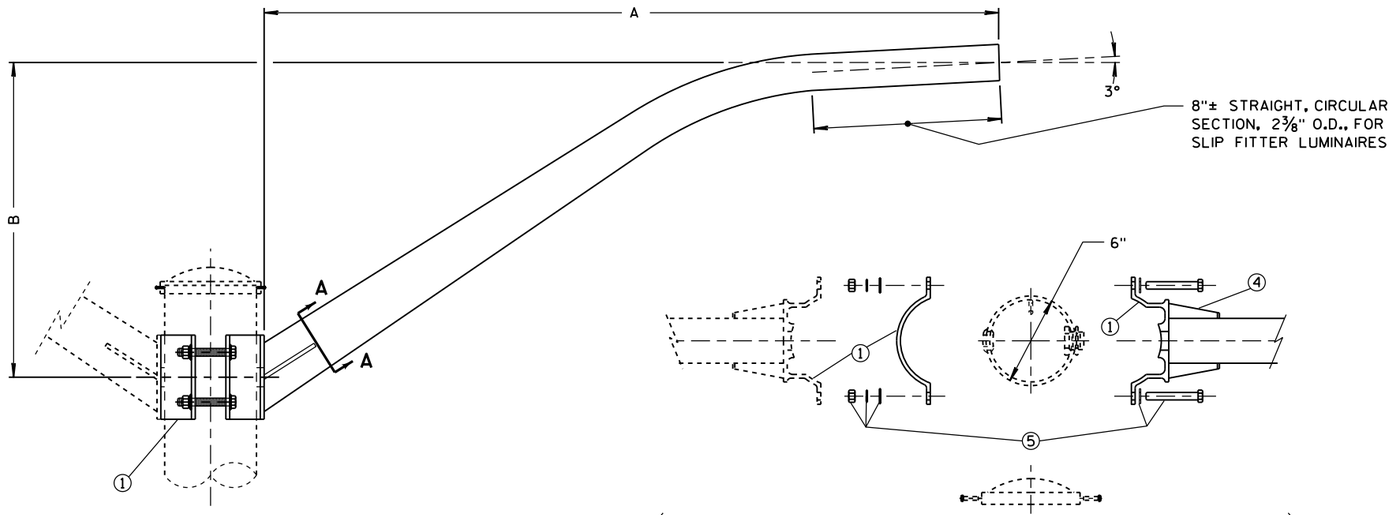
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Feb. 2015 DATE

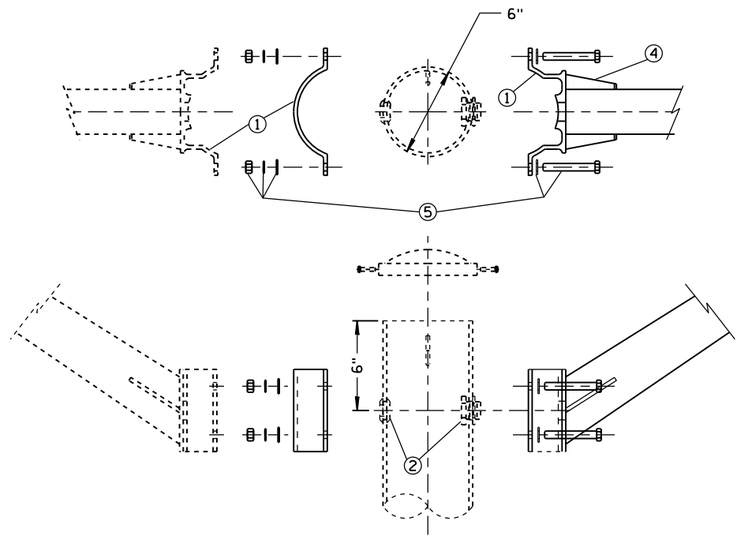
/S/ Ahmet Demirbilek STATE ELECTRICAL

FHWA



LUMINAIRE ARMS, SINGLE MEMBER, 6-INCH CLAMP - FOR POLES, TYPE 7, A OR E

VARIOUS LENGTHS (SEE TABLE)



CLAMP ASSEMBLY

SINGLE MEMBER CLAMP SHOWN

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
SINGLE MEMBER	4.0	2.0
SINGLE MEMBER	8.0	3.0
SINGLE MEMBER	10.0	3.0
SINGLE MEMBER	15.0	3.0

GENERAL NOTES

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

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM.

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1 3/8" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1 1/2" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY.

③ STIFFENER

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - 1/2"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, SINGLE MEMBER 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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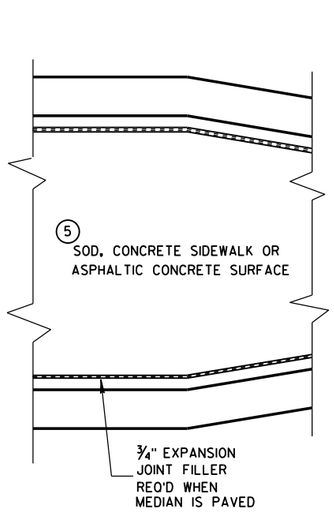
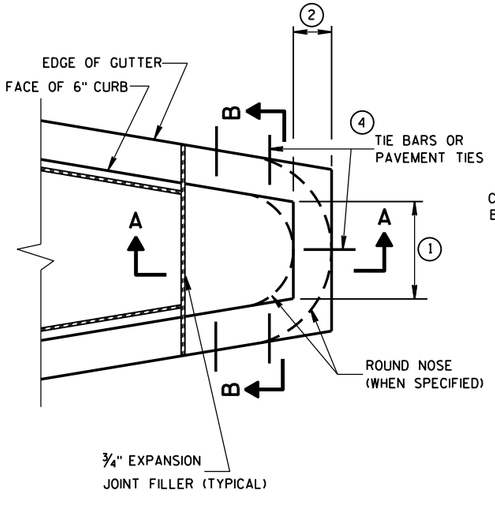
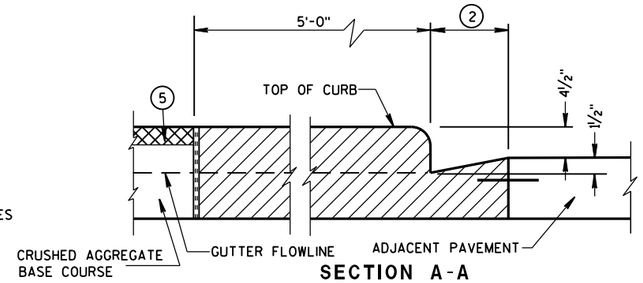
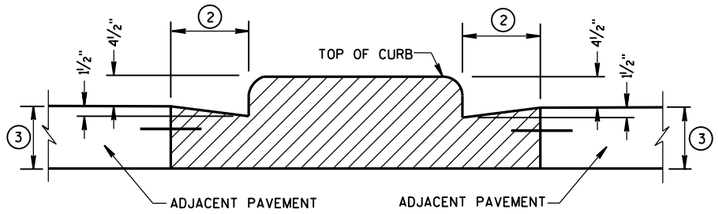
S.D.D. 10 A 18-5a







SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

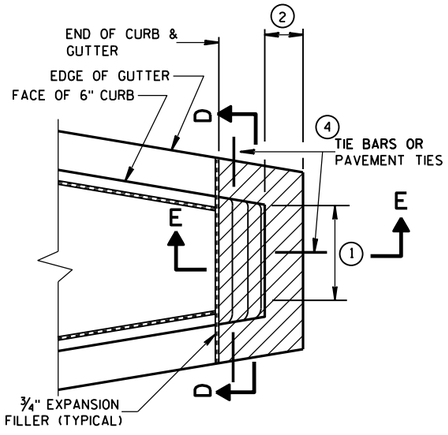
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

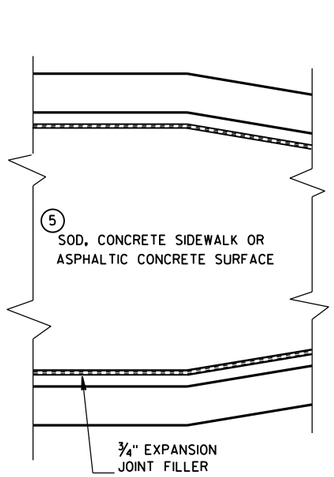
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

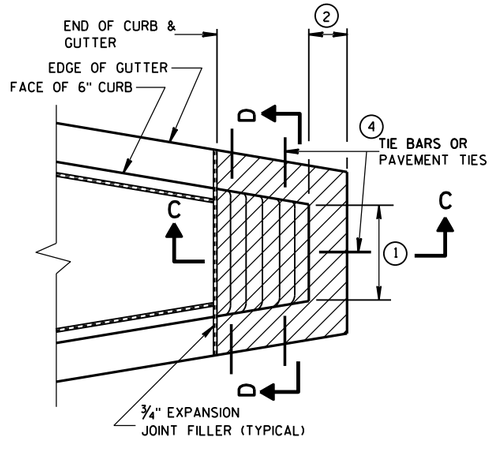
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

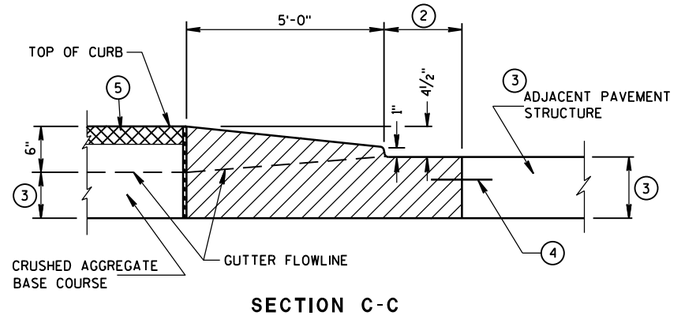
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



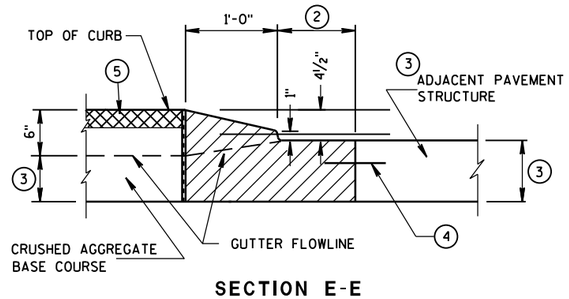




CONCRETE MEDIAN SLOPED NOSE TYPE 1

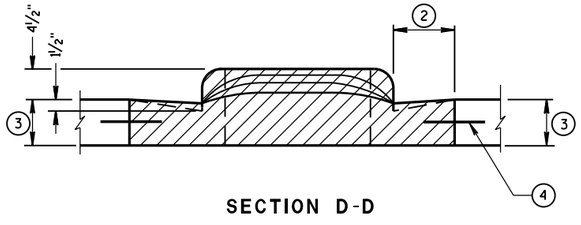


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

6

S.D.D. 11 B 2-2

6

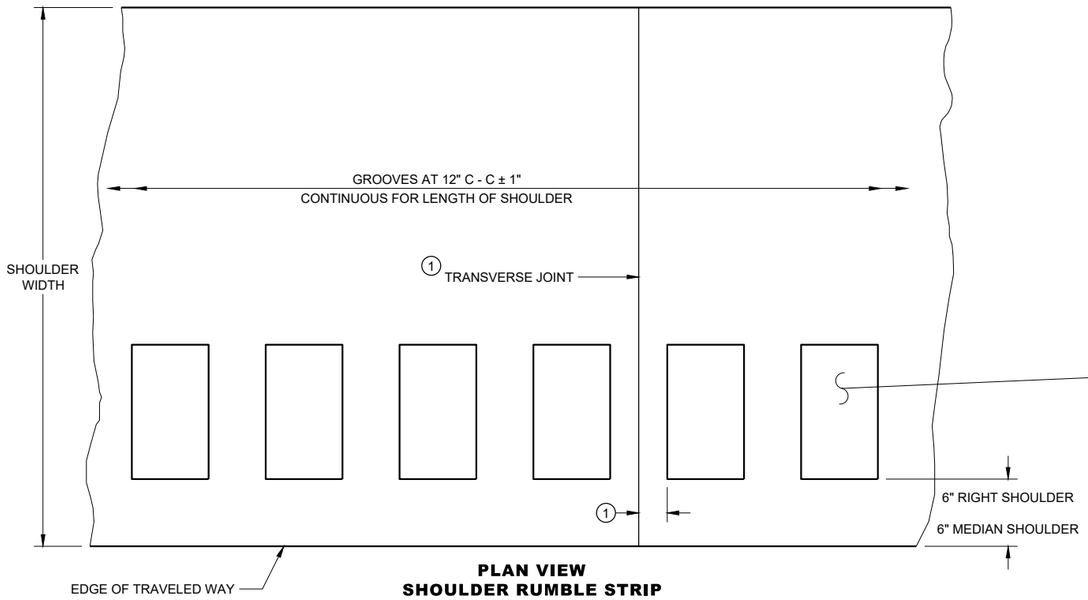
S.D.D. 11 B 2-2

GENERAL NOTES

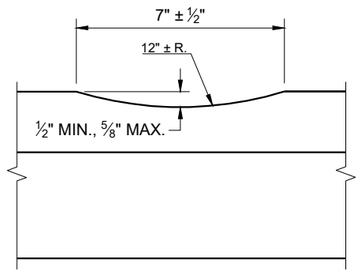
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

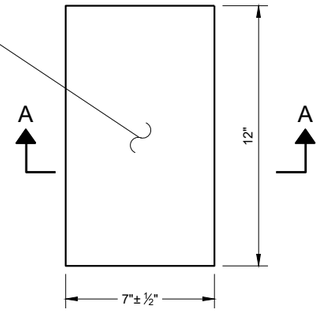
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



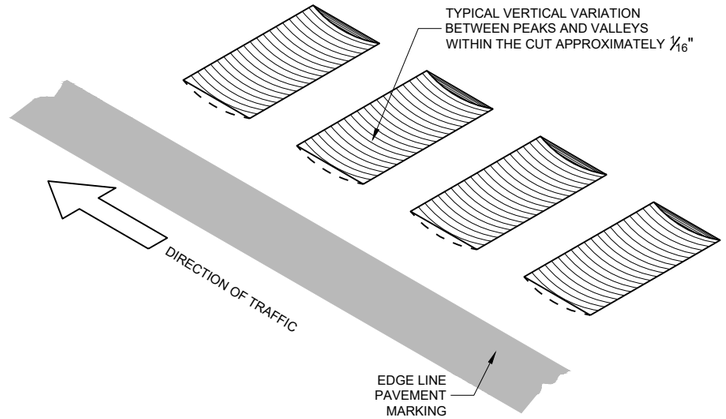
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

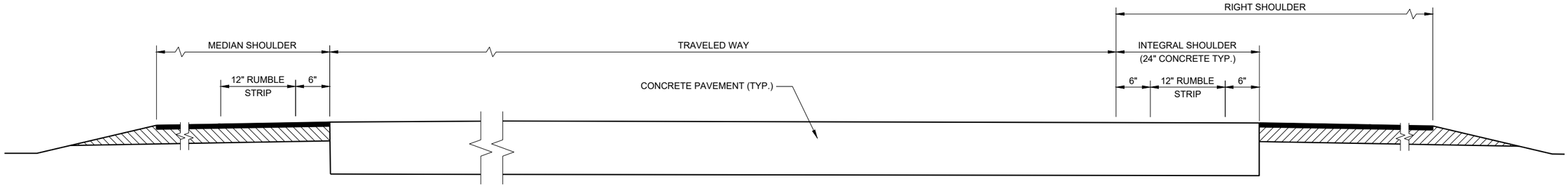


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

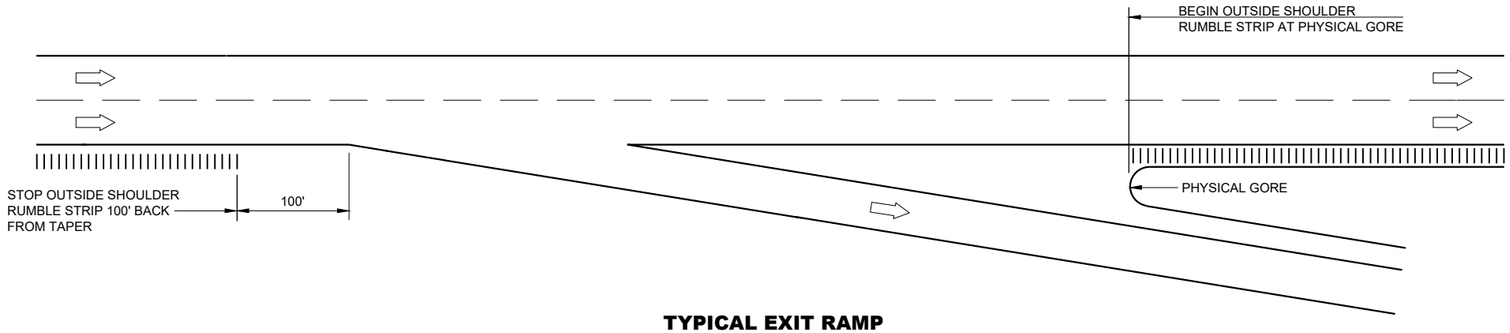
PLACEMENT DETAIL FOR RUMBLE STRIP



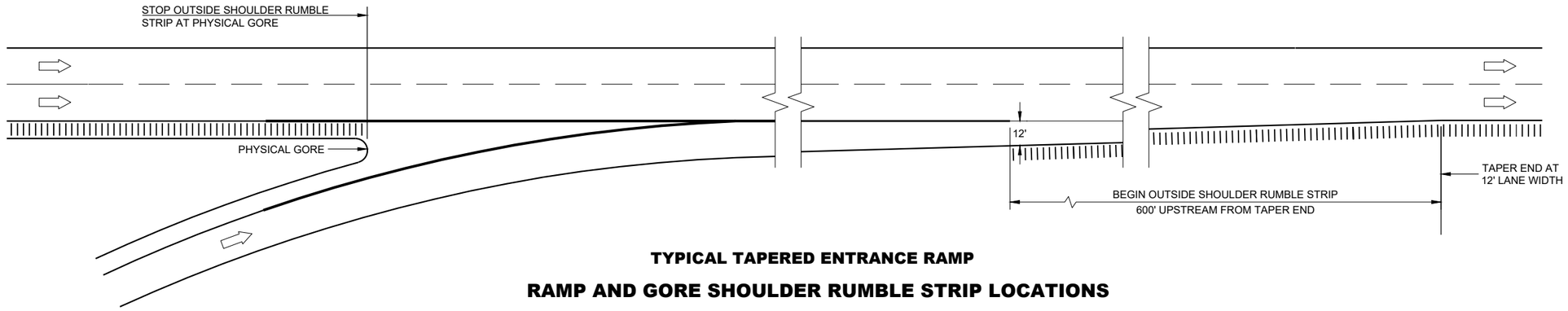
SECTION VIEW

TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

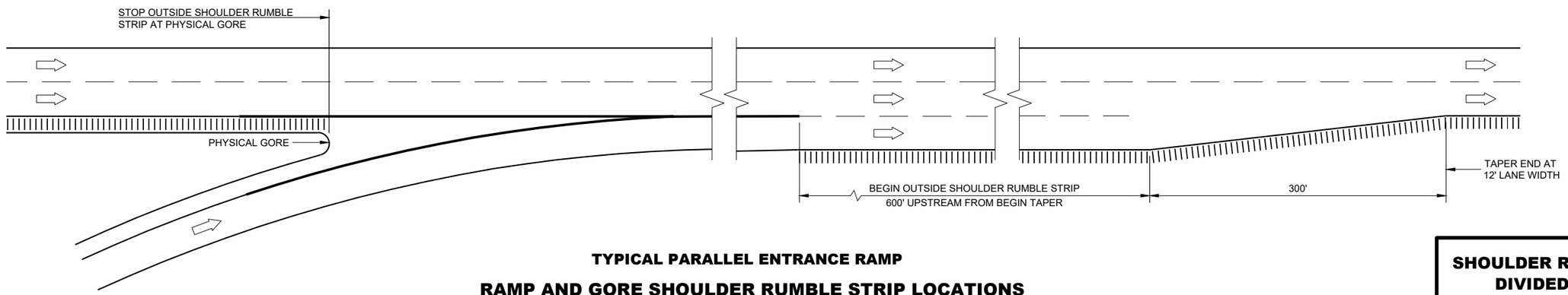


TYPICAL EXIT RAMP



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

GENERAL NOTES

NO RUMBLE STRIP ON EXIT, DIRECTIONAL OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

LEGEND

DIRECTION OF TRAFFIC

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY DESIGN STANDARDS UNIT SUPERVISOR
FHWA

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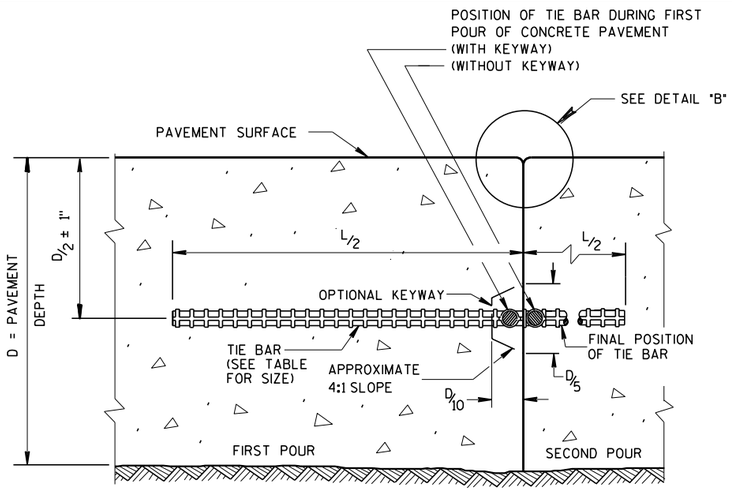
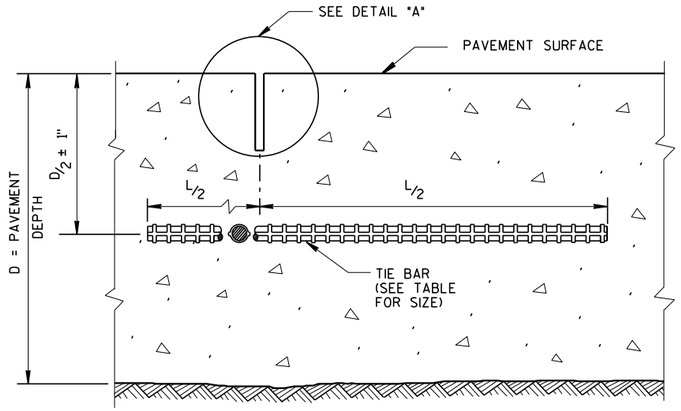
SDD 13A05-06b

SDD 13A05-06b



CONSTRUCTION JOINT



SAWED JOINT

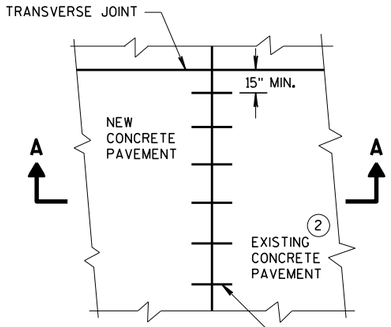
GENERAL NOTES

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

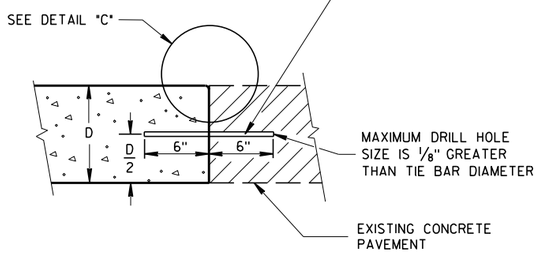
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

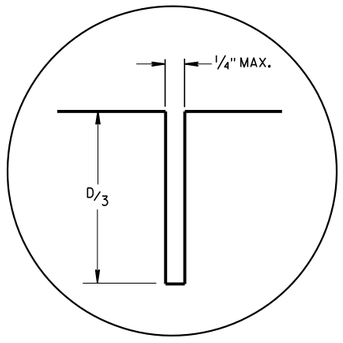


PLAN VIEW

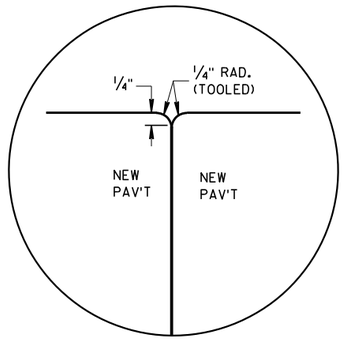


SECTION A-A

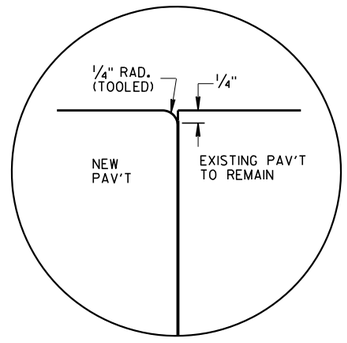
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



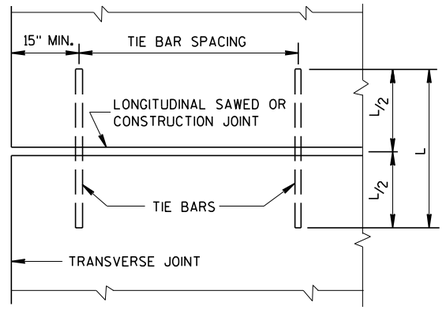
DETAIL "C"

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
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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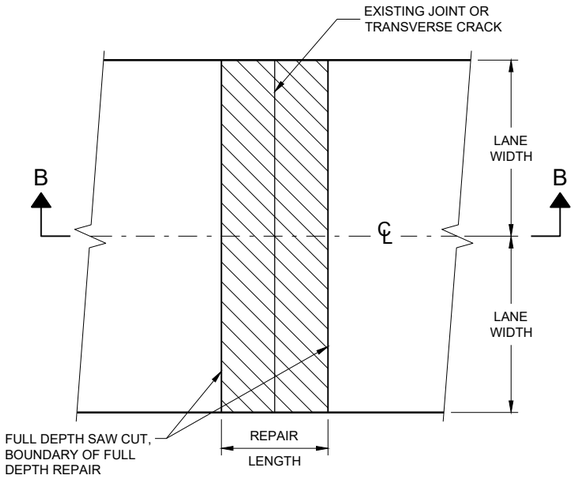
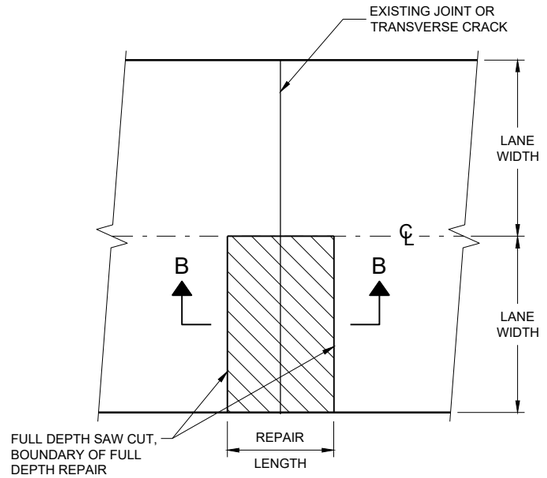
S.D.D. 13 C 1-19



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

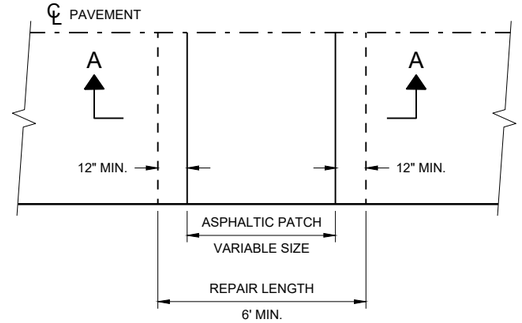
GENERAL NOTES

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

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

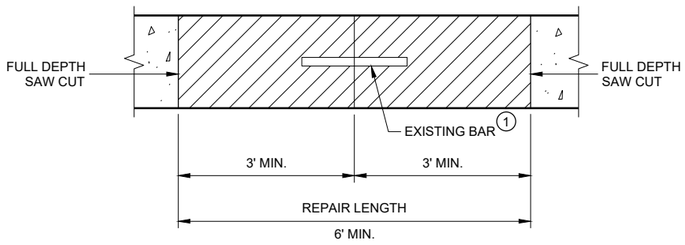
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.



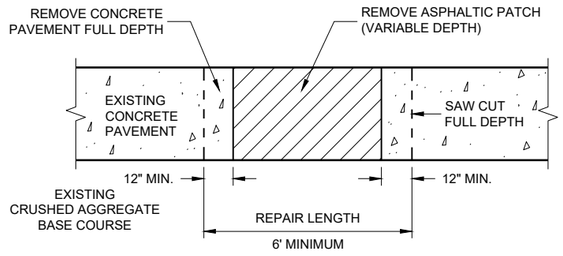
PLAN VIEW

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B

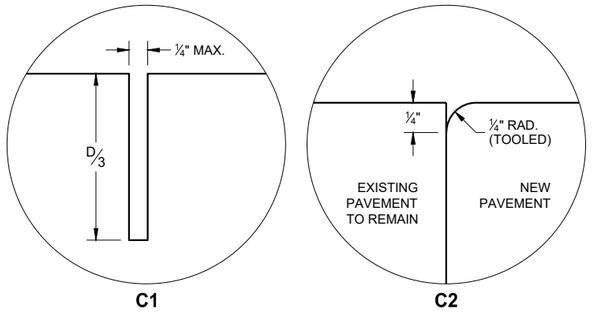
CONCRETE REMOVAL



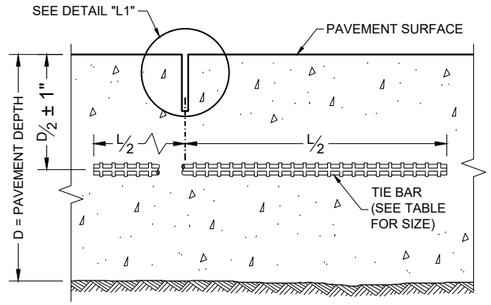
SECTION A - A

HMA PATCH REMOVAL

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

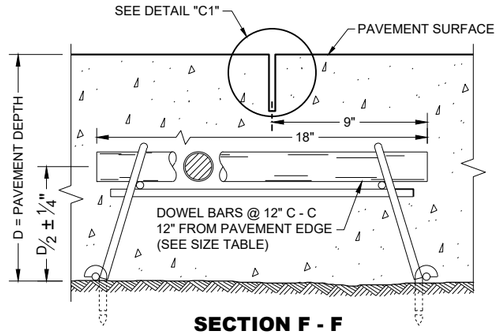


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

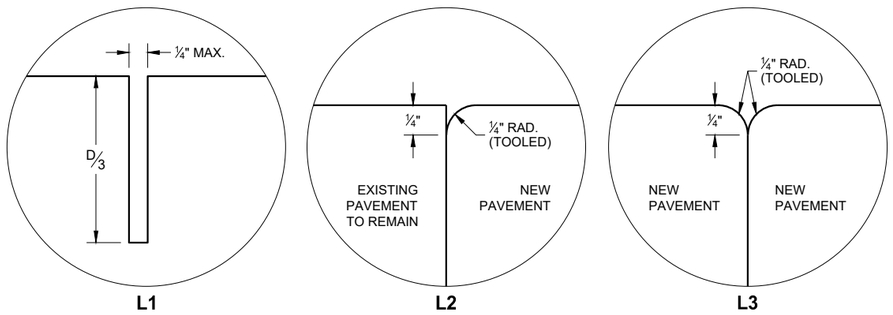
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

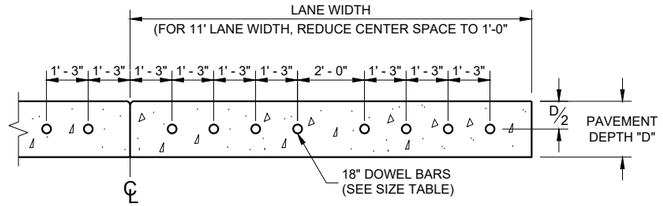
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

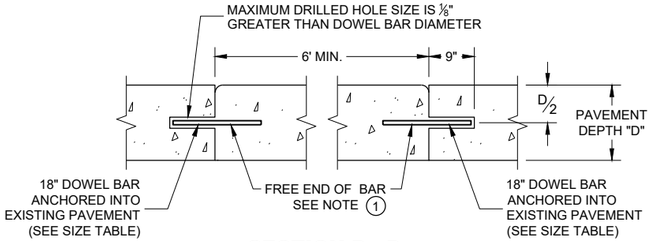


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

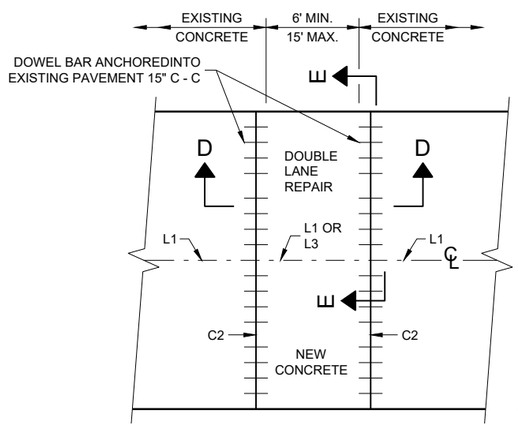
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

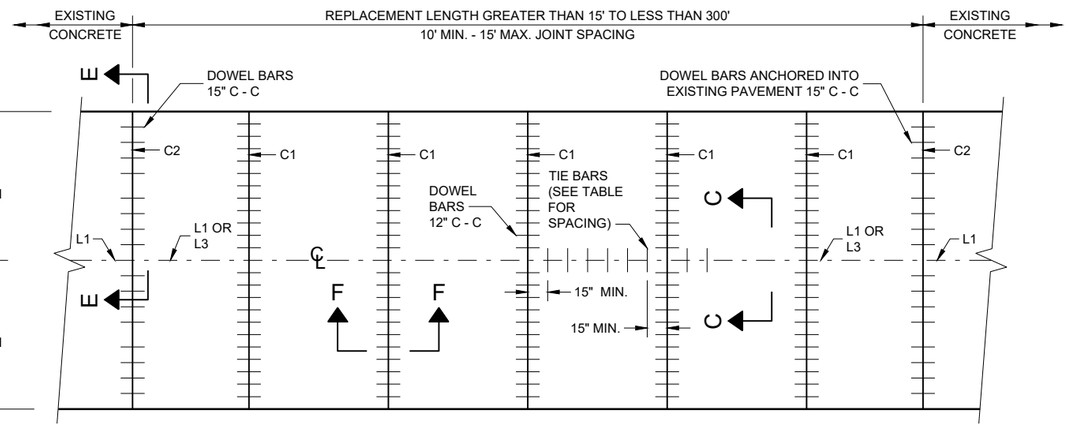
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	NONE	12'
7", 7 ½"	1"	1"	14'
8" & ABOVE	1 ¼"	1 ¼"	15'



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
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SDD 13C09 - 17b

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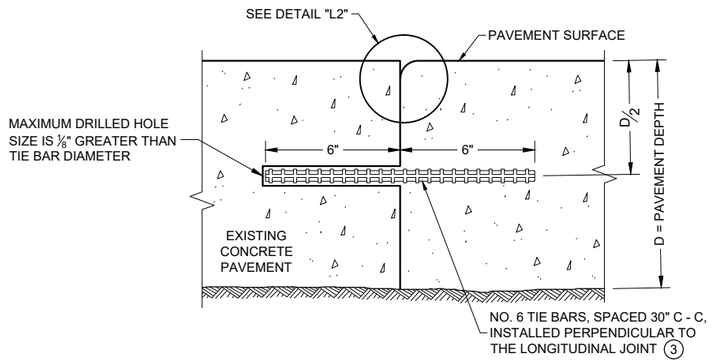
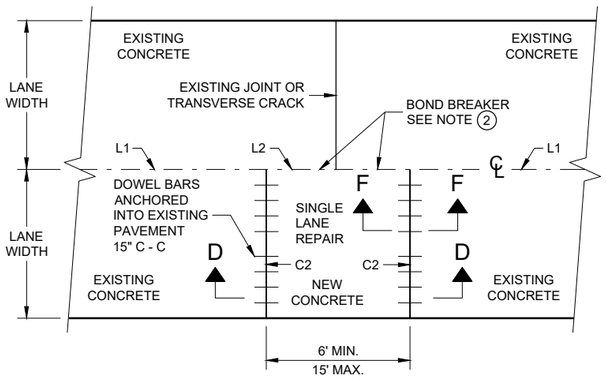


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

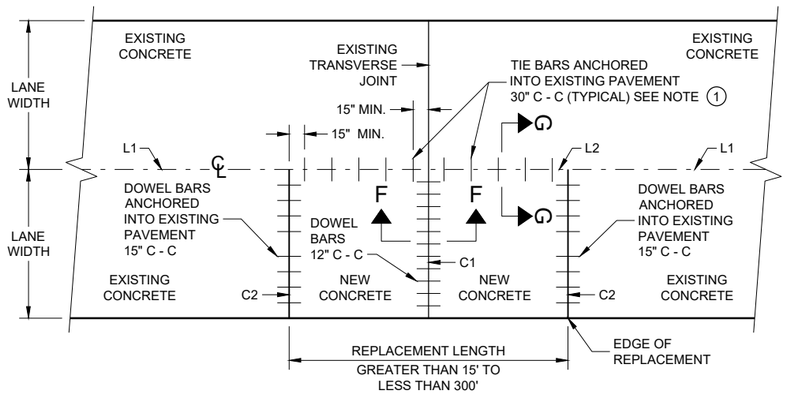
GENERAL NOTES

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 REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD 13C09 - 17c

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

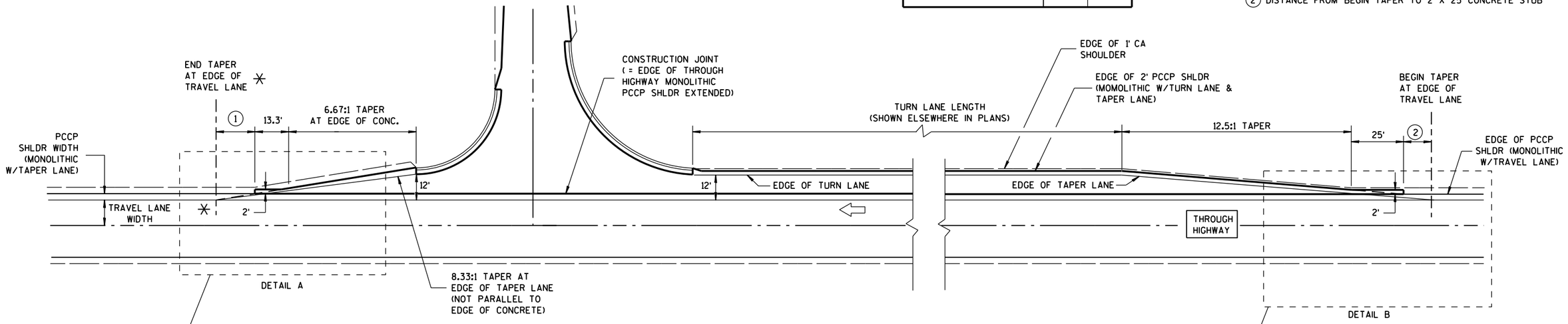
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

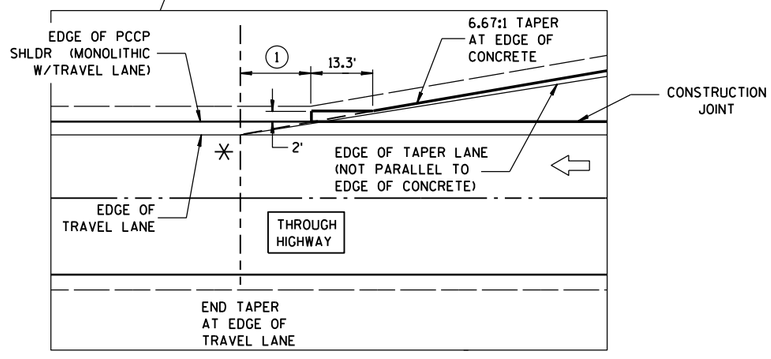
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

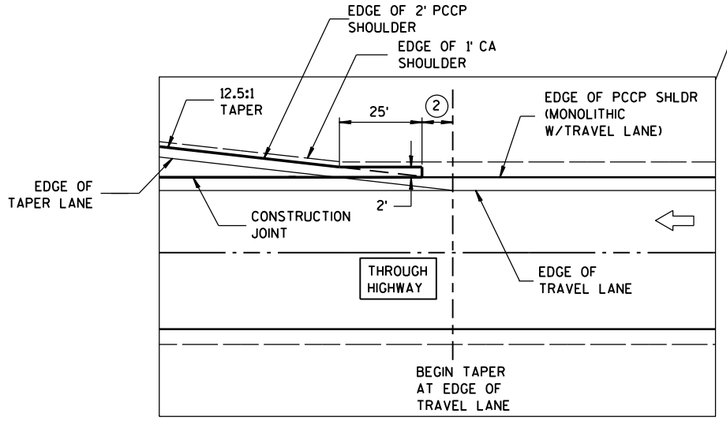
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET)	
	(1)	(2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 13 C 16-2a

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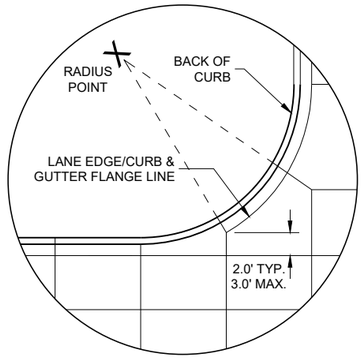
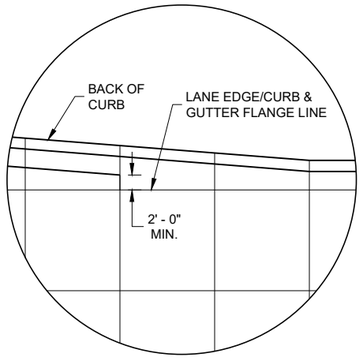
S.D.D. 13 C 16-2a



DETAIL "A"



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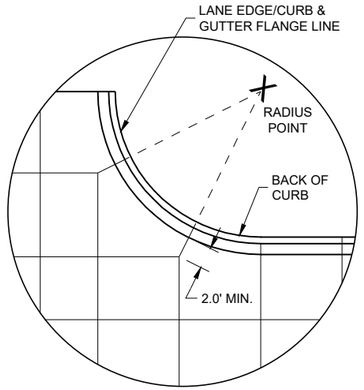
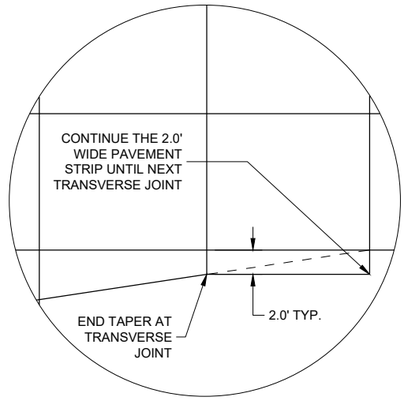


DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

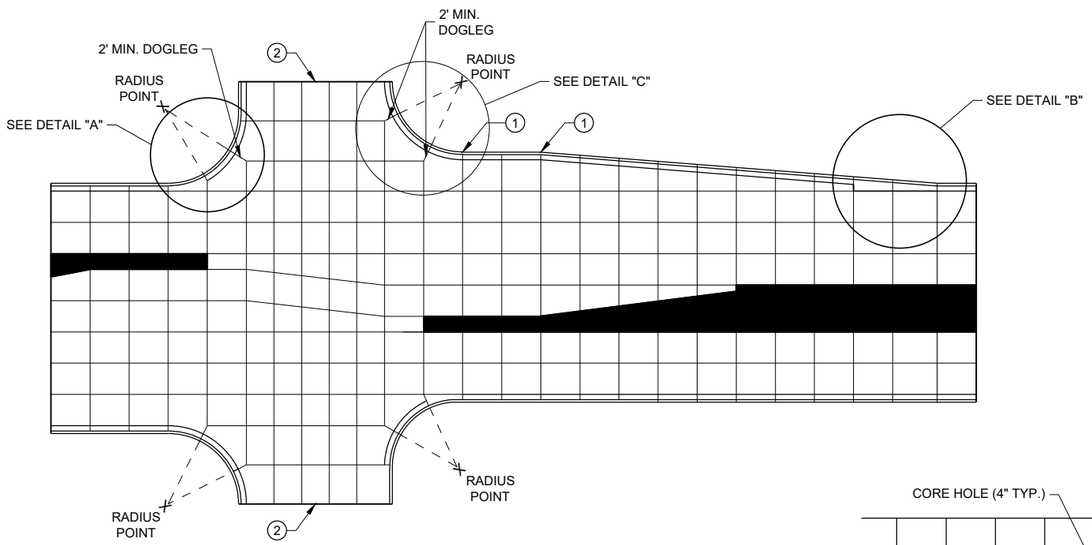
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

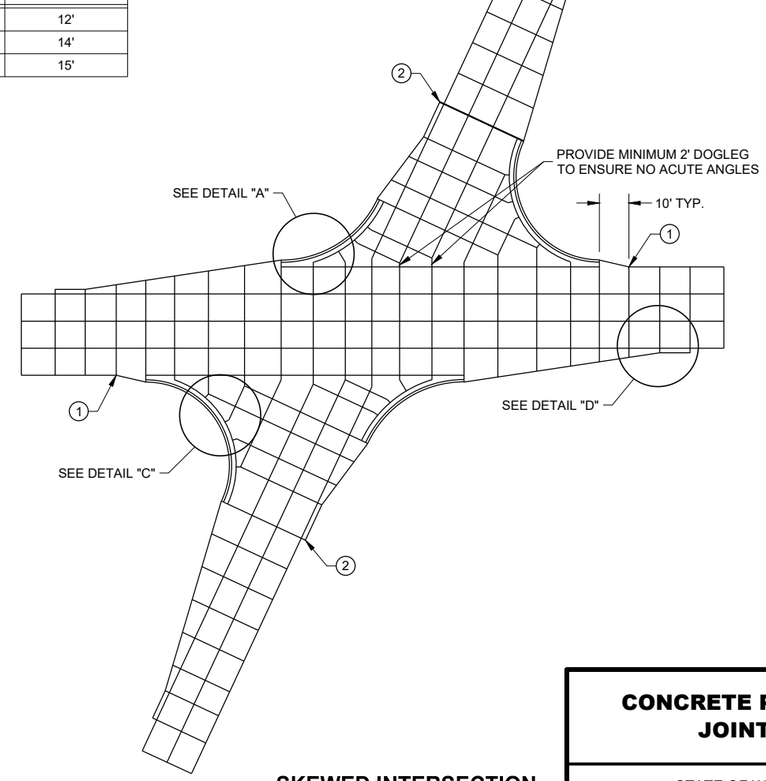
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



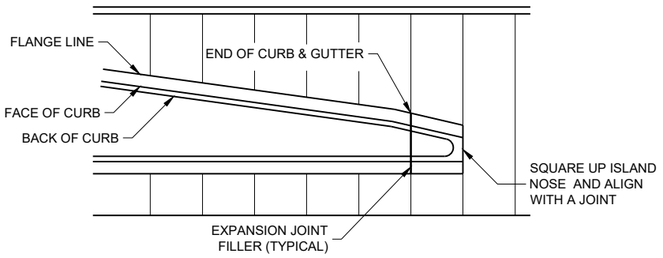
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

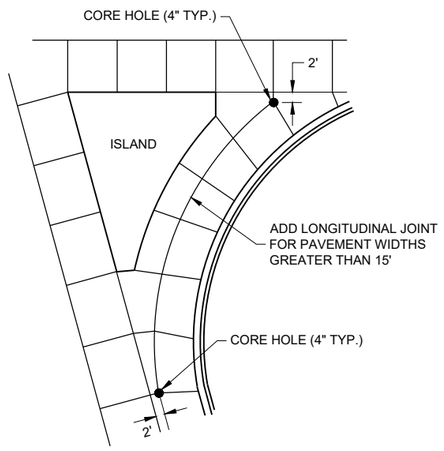
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 08a

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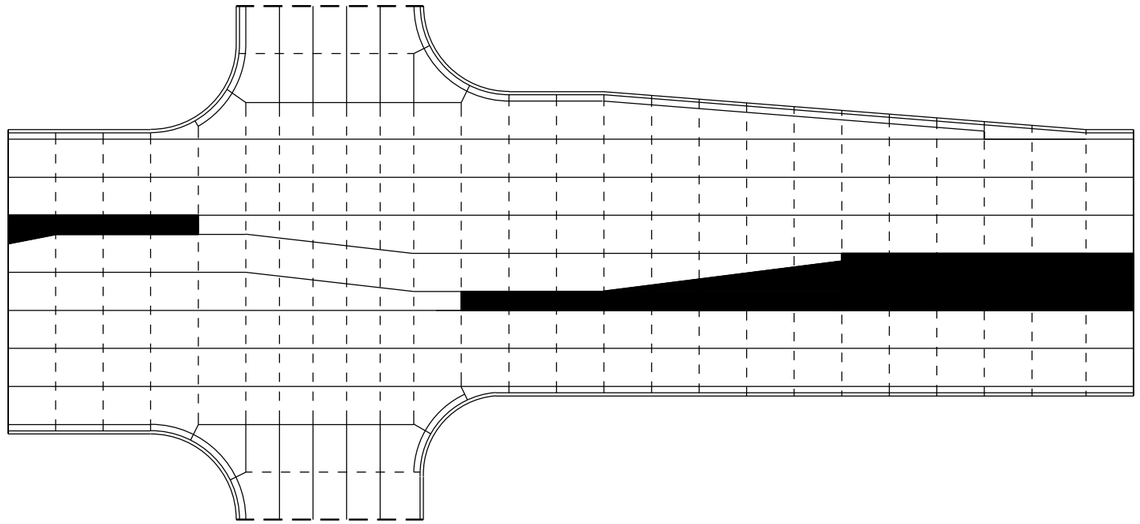
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

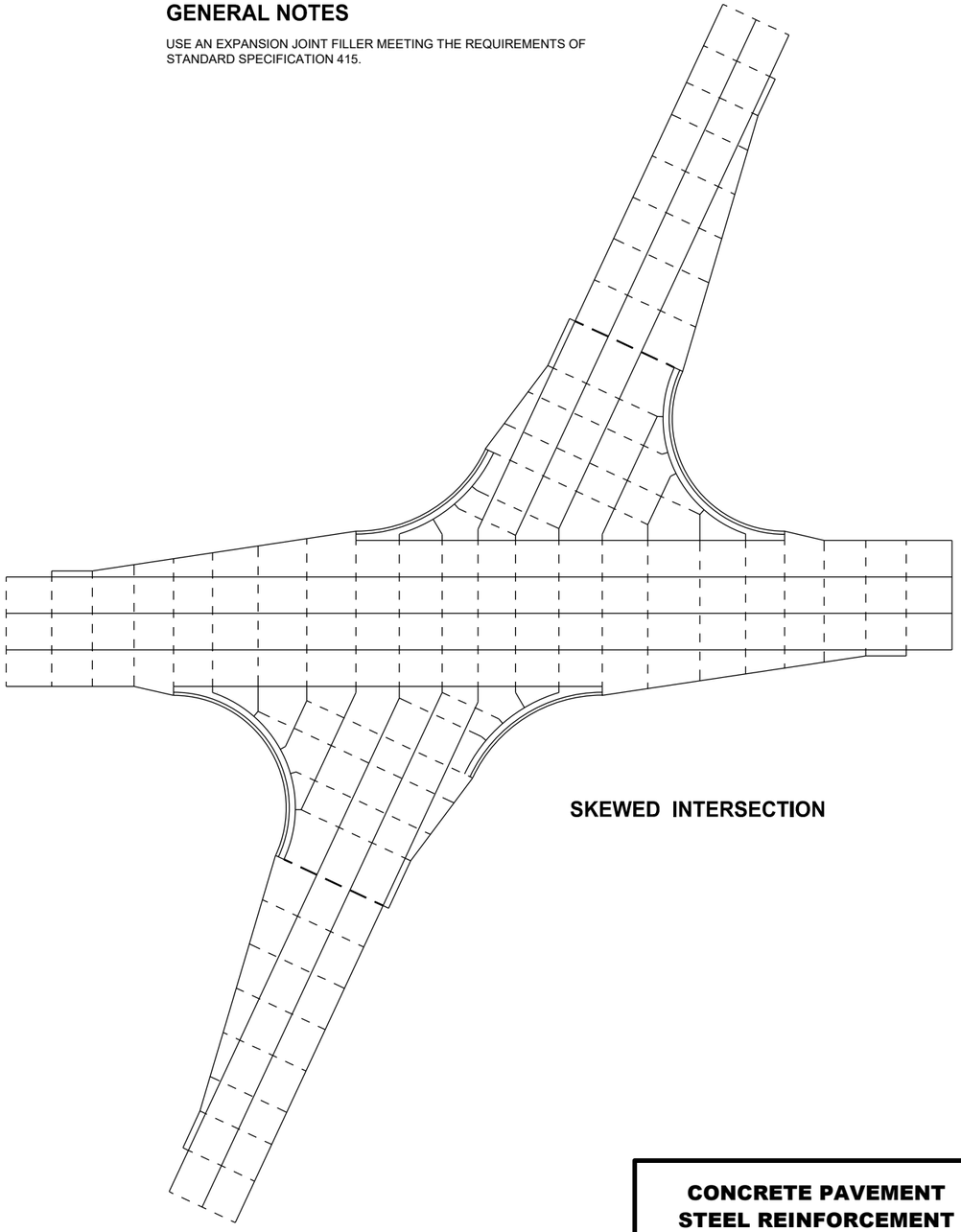
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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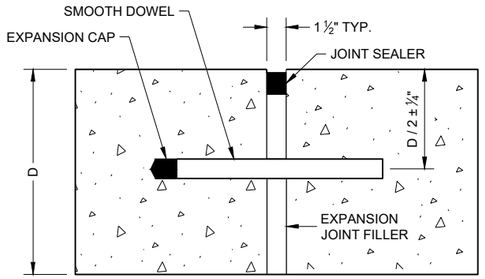
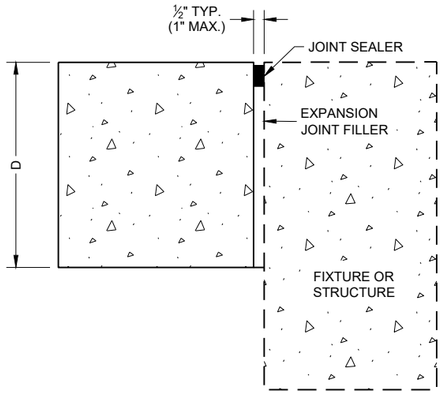
SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

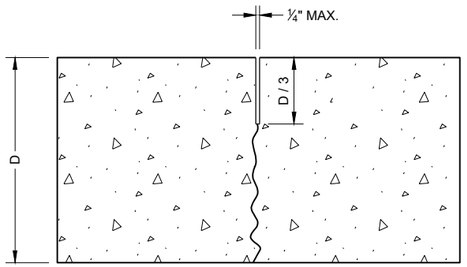
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

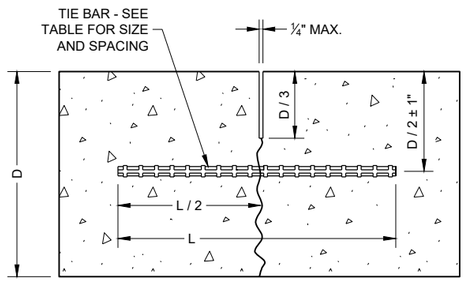
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

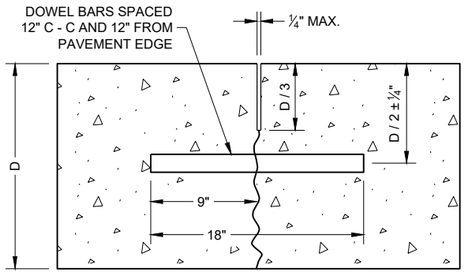
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM 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 ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

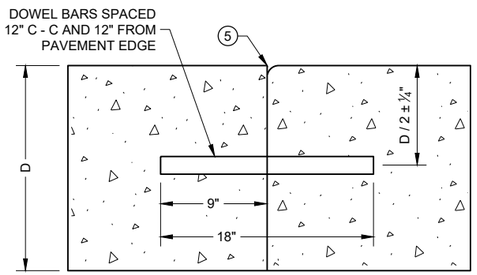


TIED LONGITUDINAL

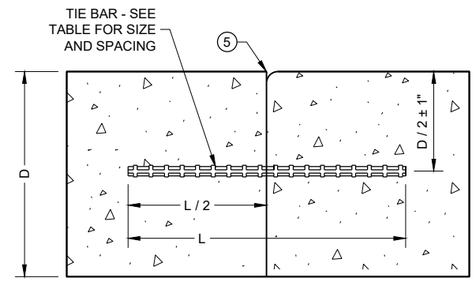


DOWELED TRANSVERSE

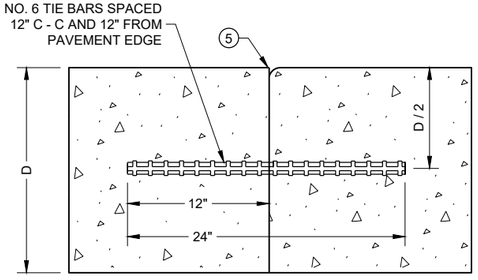
CONTRACTION JOINTS (2)



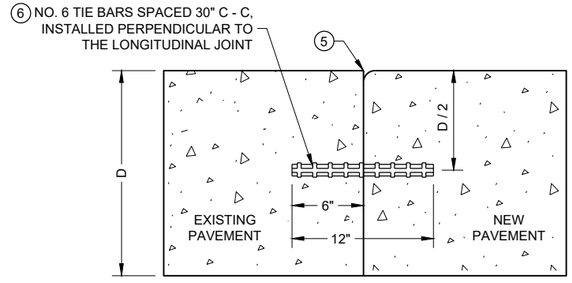
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



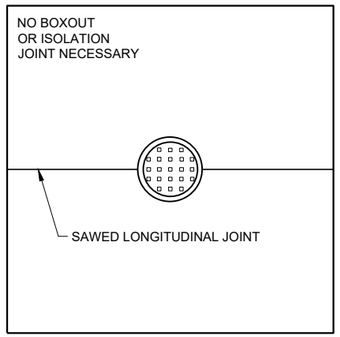
TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



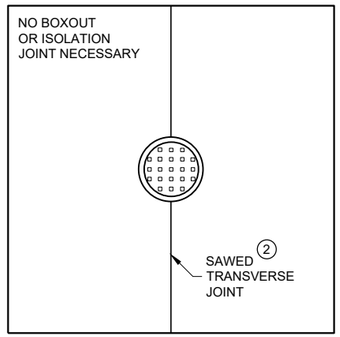
TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

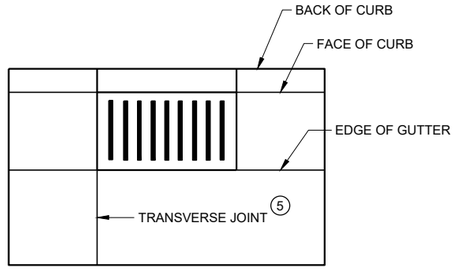
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



INLET WITH TRANSVERSE JOINT

GENERAL NOTES

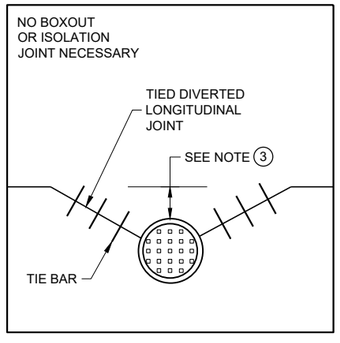
(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

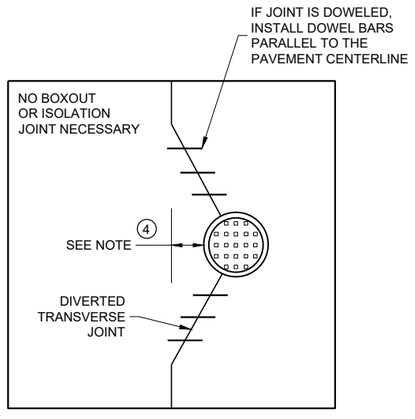
(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.

(4) IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 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 REINFORCEMENT REBAR AROUND THE MANHOLE.

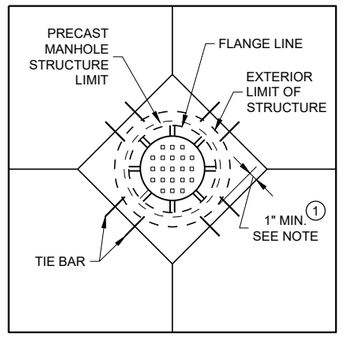
(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

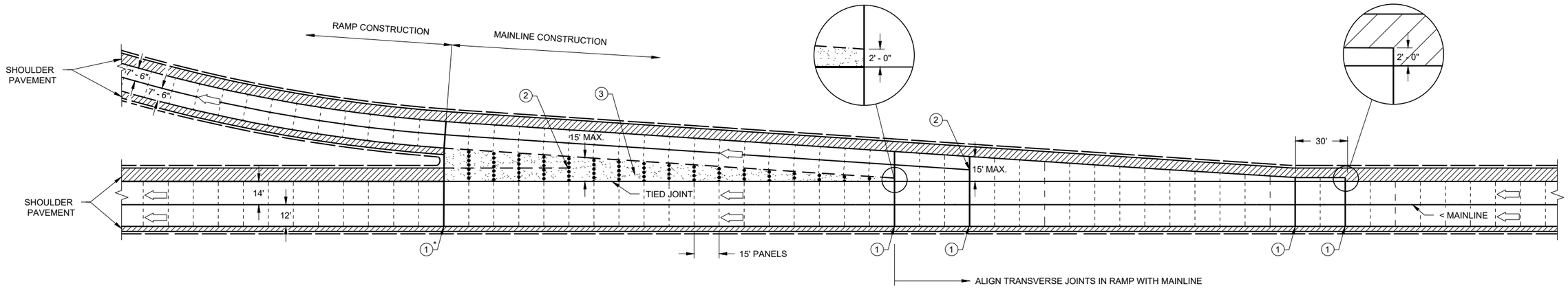
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

FHWA

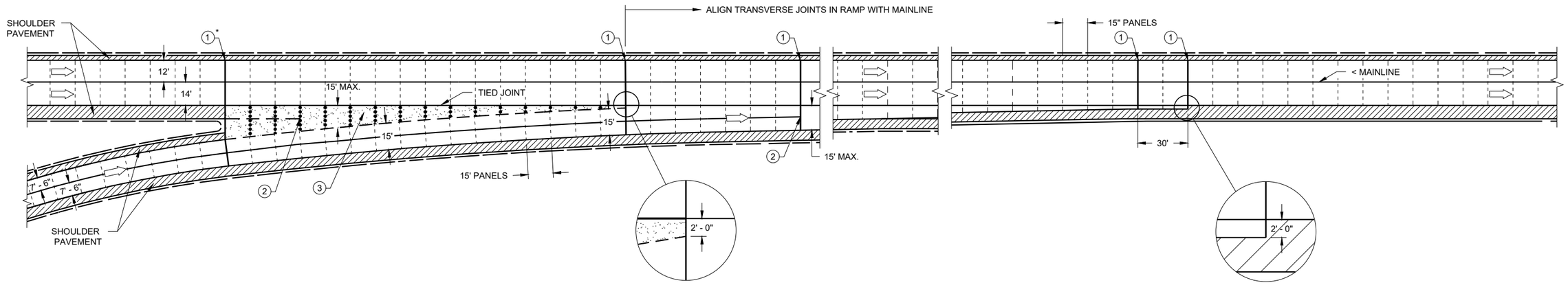
6

SDD13C18 - 08d

SDD13C18 - 08d



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES. ((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

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SDD13C18 - 08g

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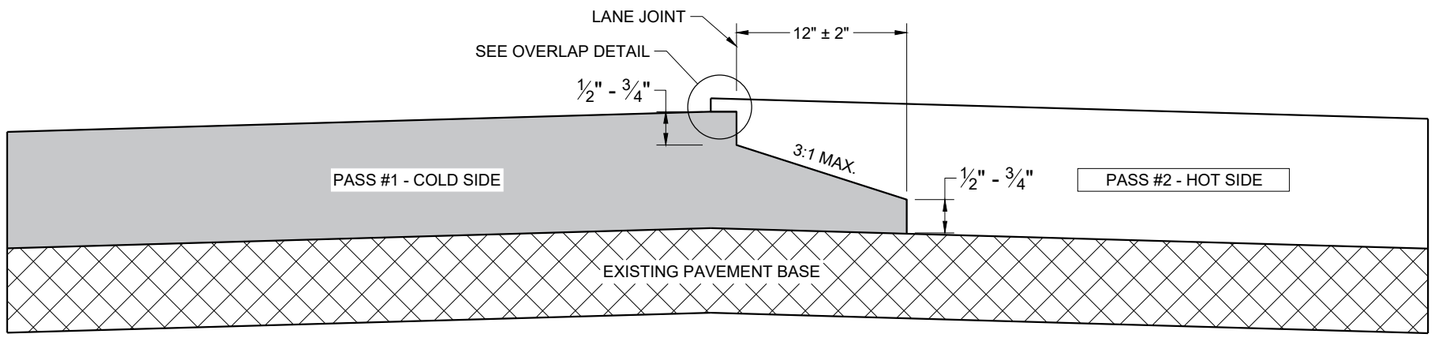
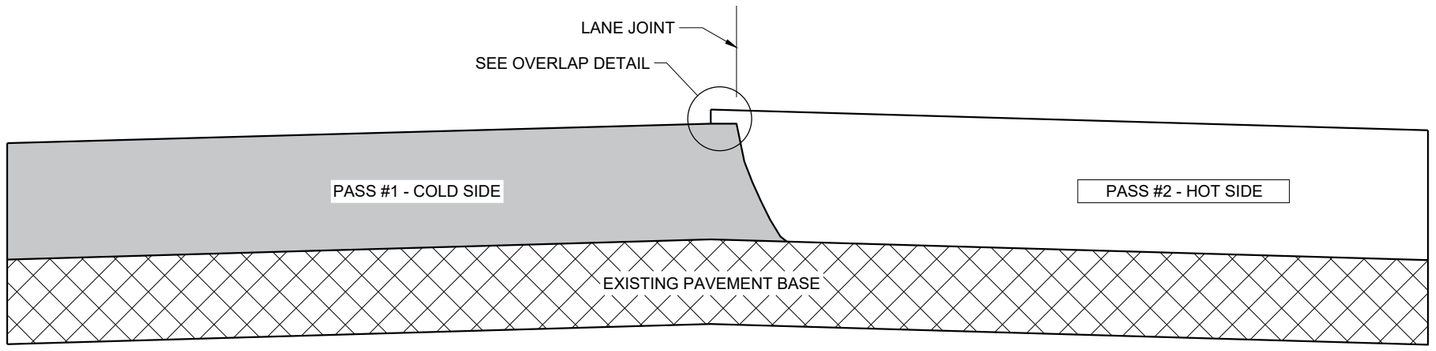
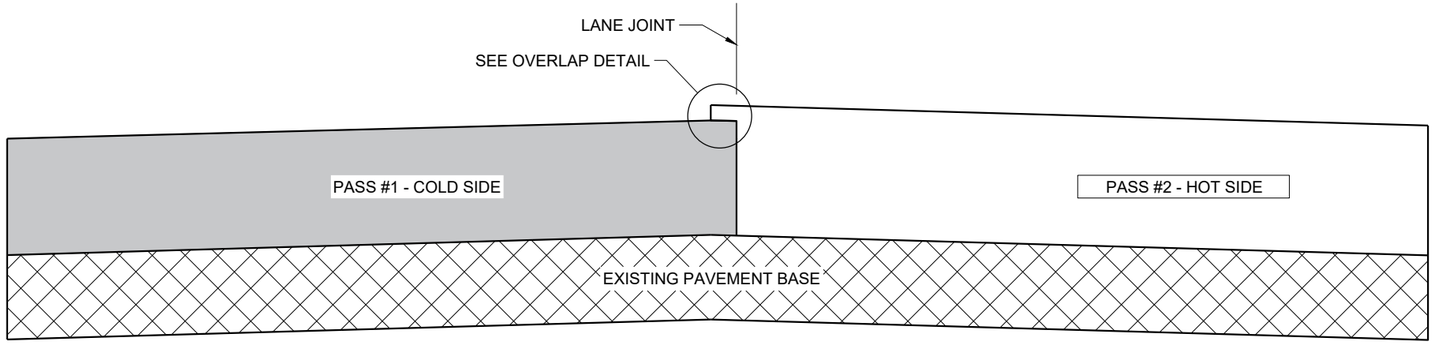
SDD13C18 - 08g



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

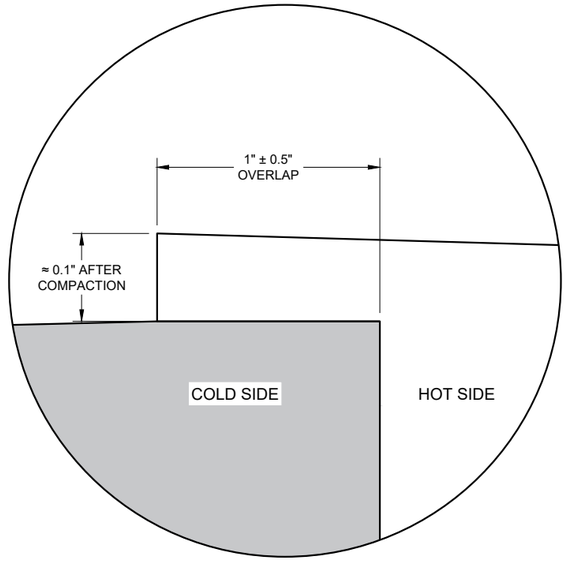
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

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SDD 13C19 - 03

SDD 13C19 - 03

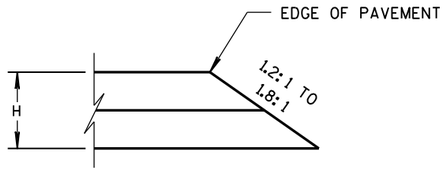
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

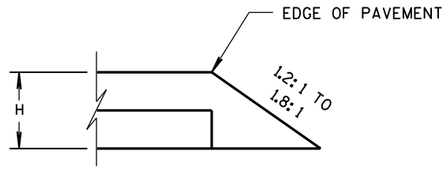
/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



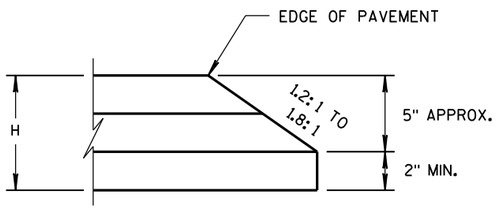
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



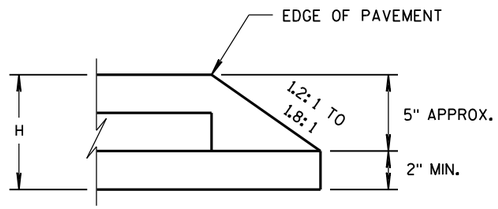
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

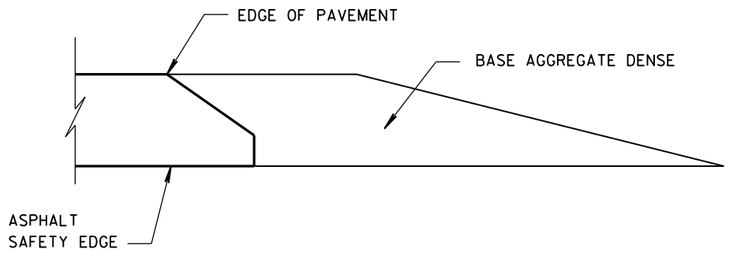
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

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S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE SM

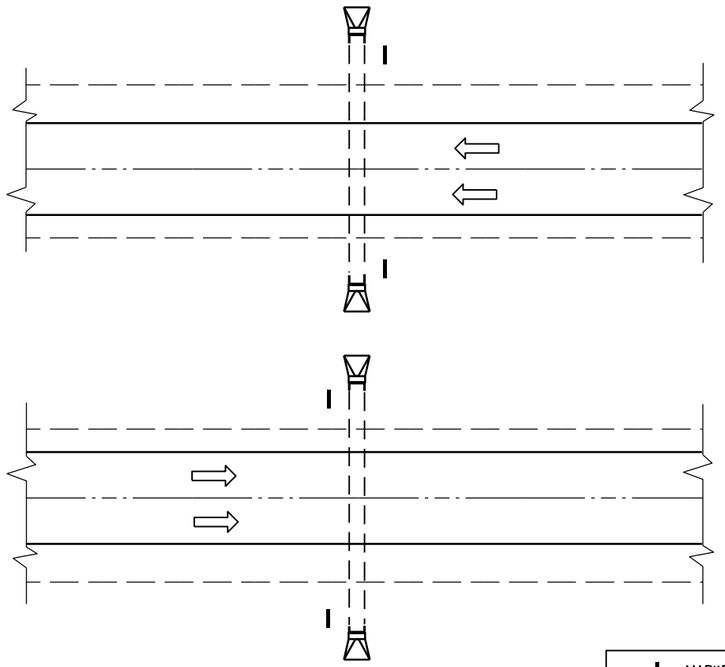
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/2012
DATE

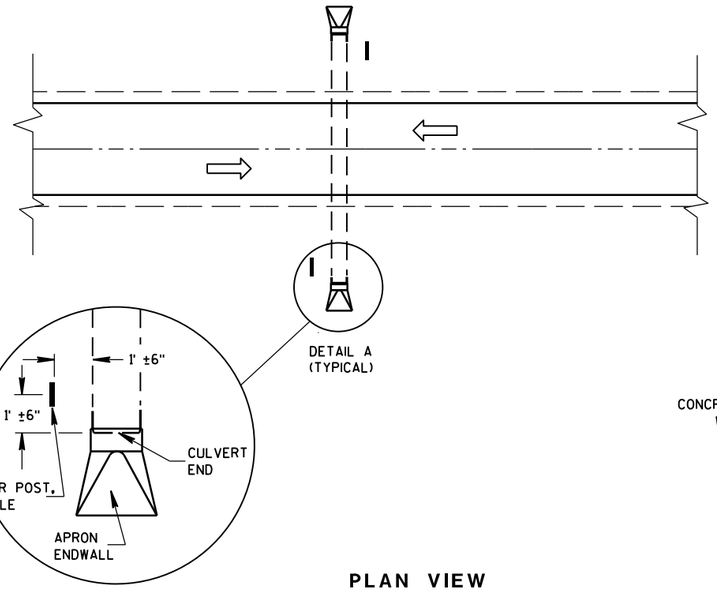
/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

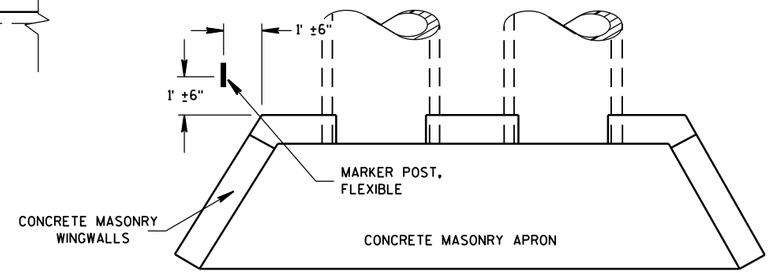
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

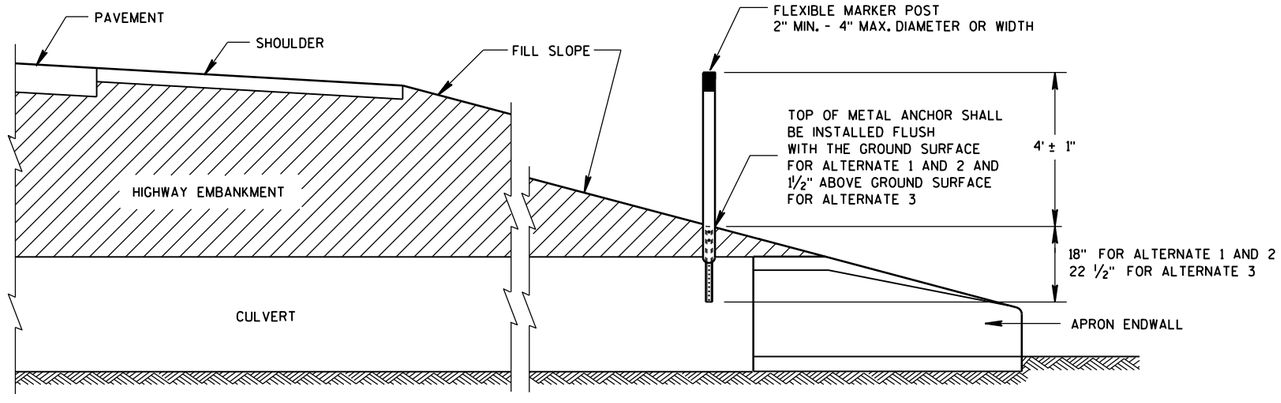
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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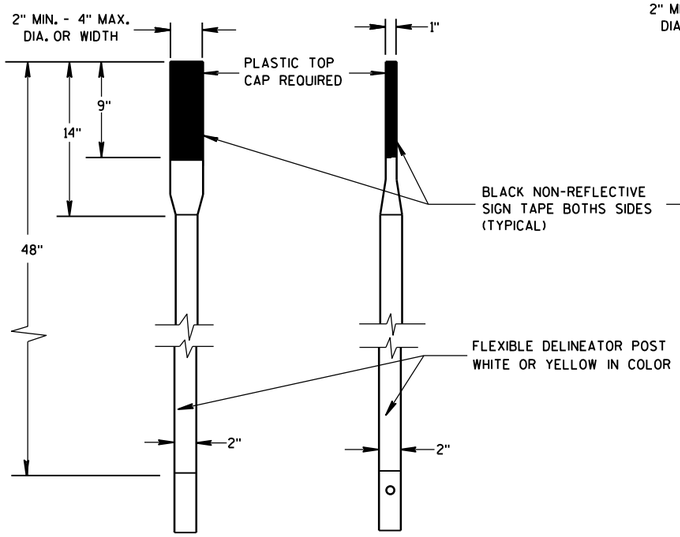
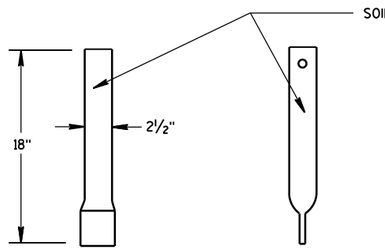
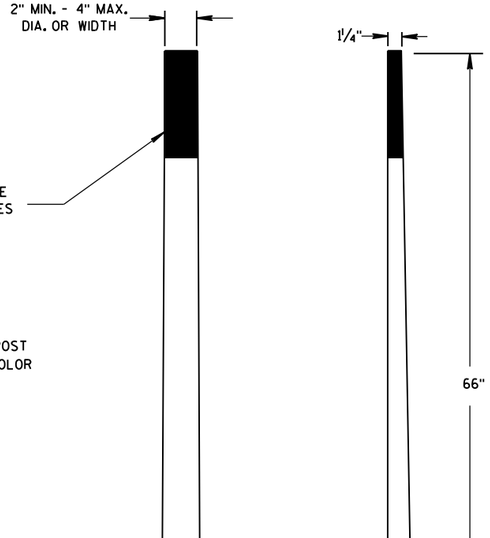
S.D.D. 15 A 3-2a





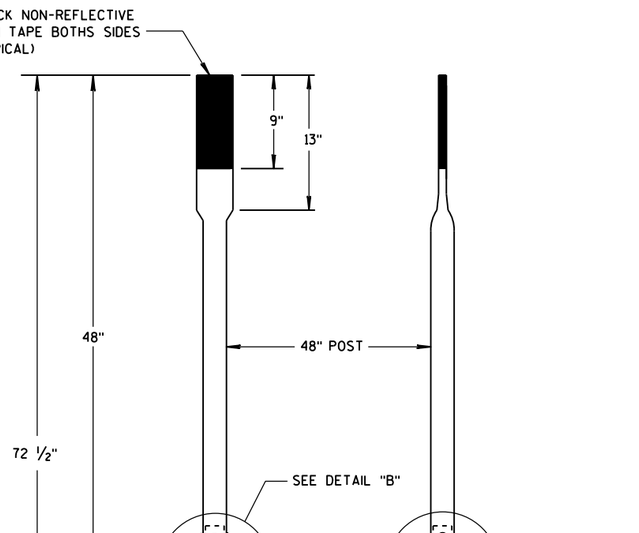
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

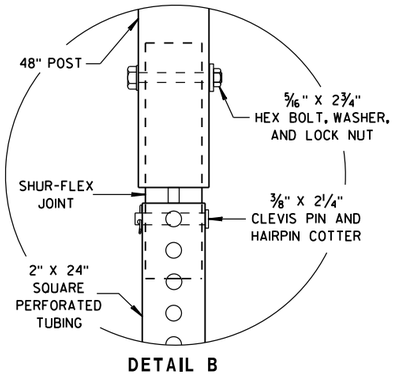
ALTERNATE 2



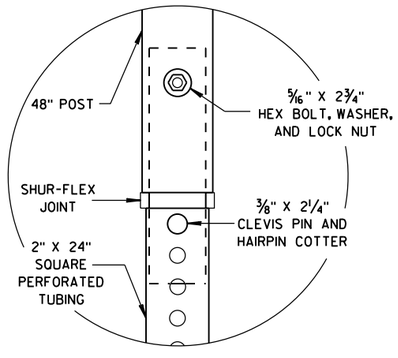
FRONT VIEW SIDE VIEW

ALTERNATE 3

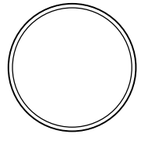
FLEXIBLE MARKER POSTS



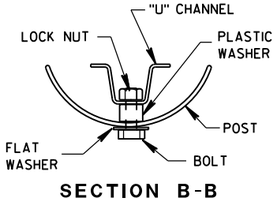
DETAIL B



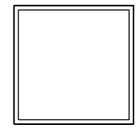
DETAIL C



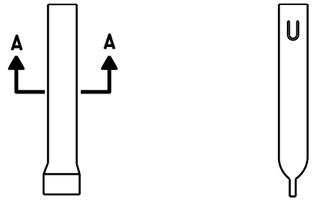
SECTION A-A



SECTION B-B

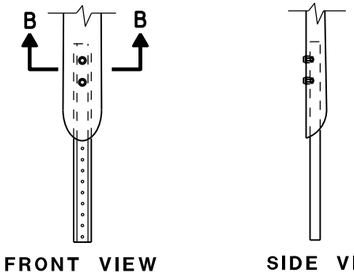


SECTION C-C



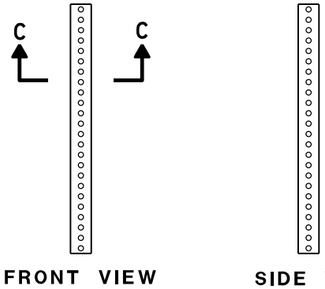
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

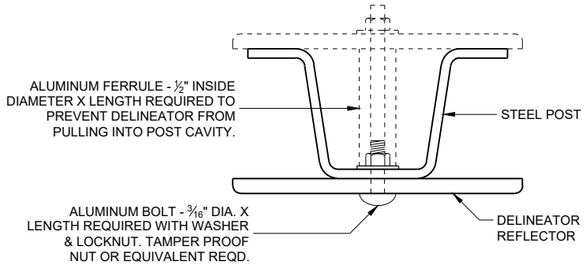
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

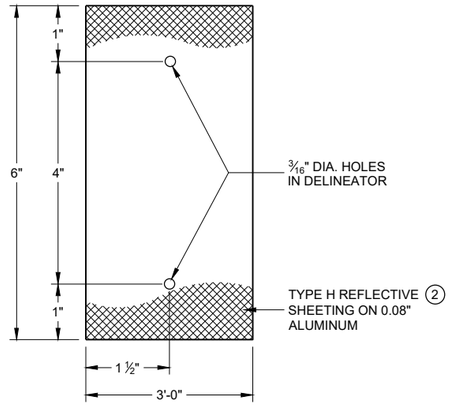
S.D.D. 15 A 3-2b

6

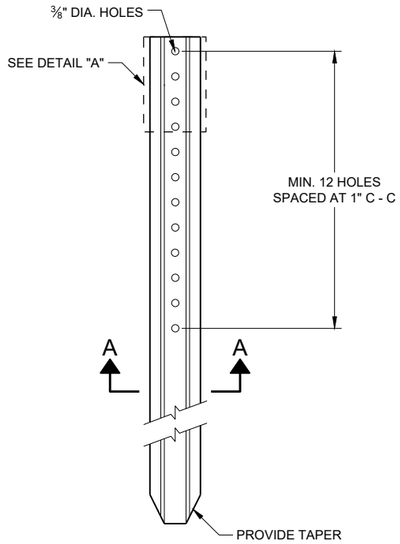
S.D.D. 15 A 3-2b



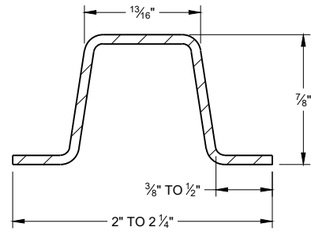
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



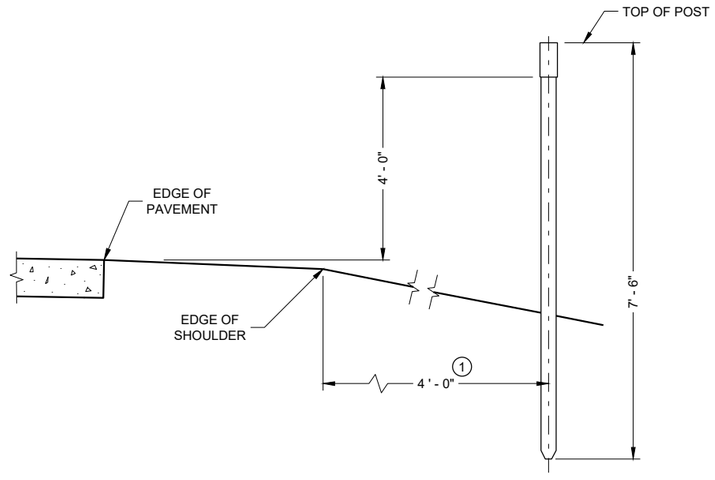
SECTION A - A

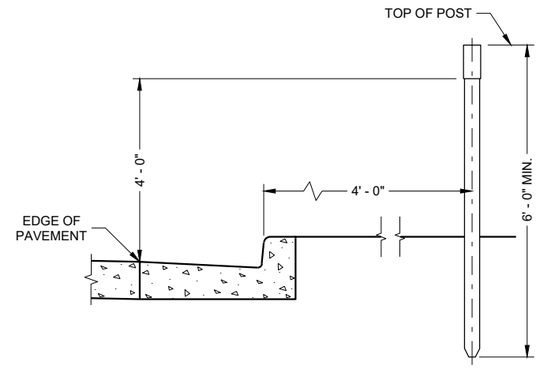
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

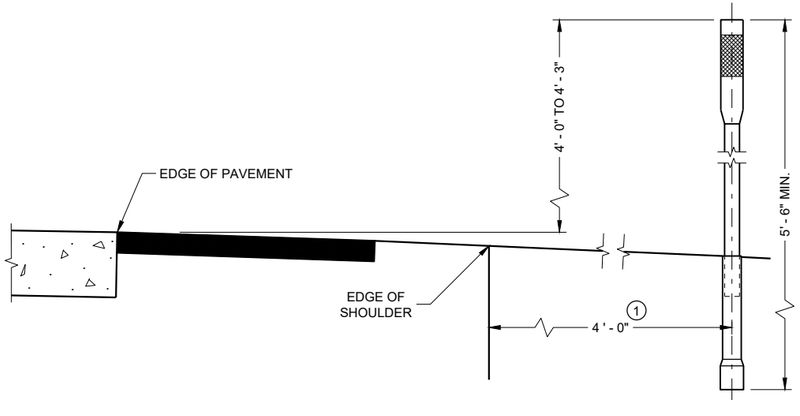
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

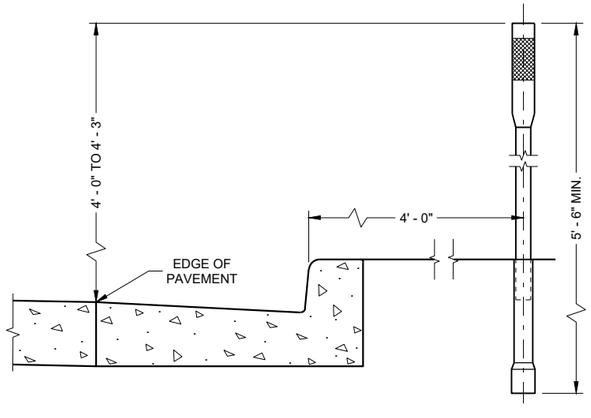
* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER





TYPICAL INSTALLATIONS OF DELINEATOR POSTS





TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS

GENERAL NOTES

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

1. DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
2. FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

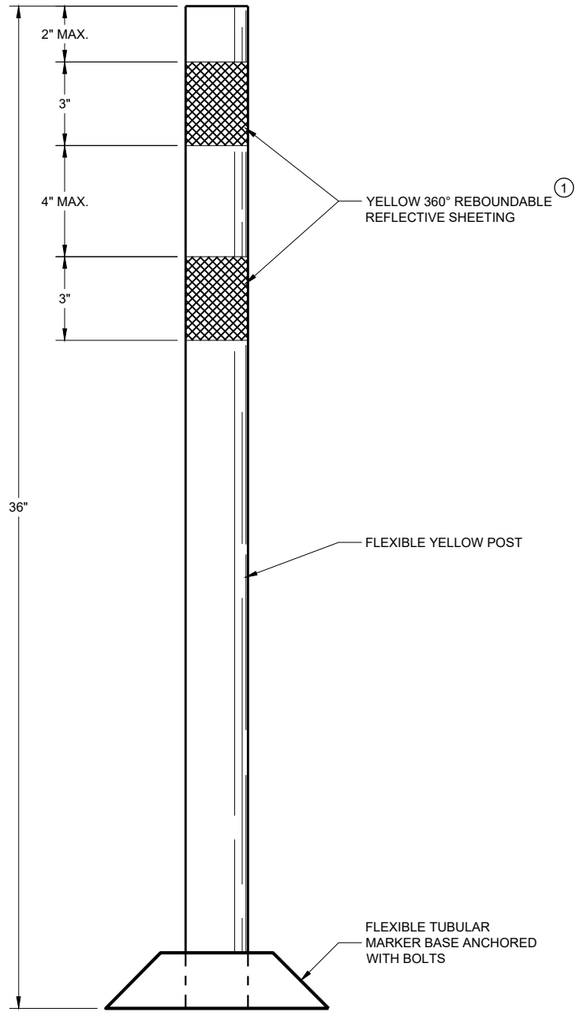
APPROVED
November 2021
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15A04 - 07c



PERMANENT FLEXIBLE TUBULAR MARKER POST

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

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SDD 15A04 - 07d

SDD 15A04 - 07d

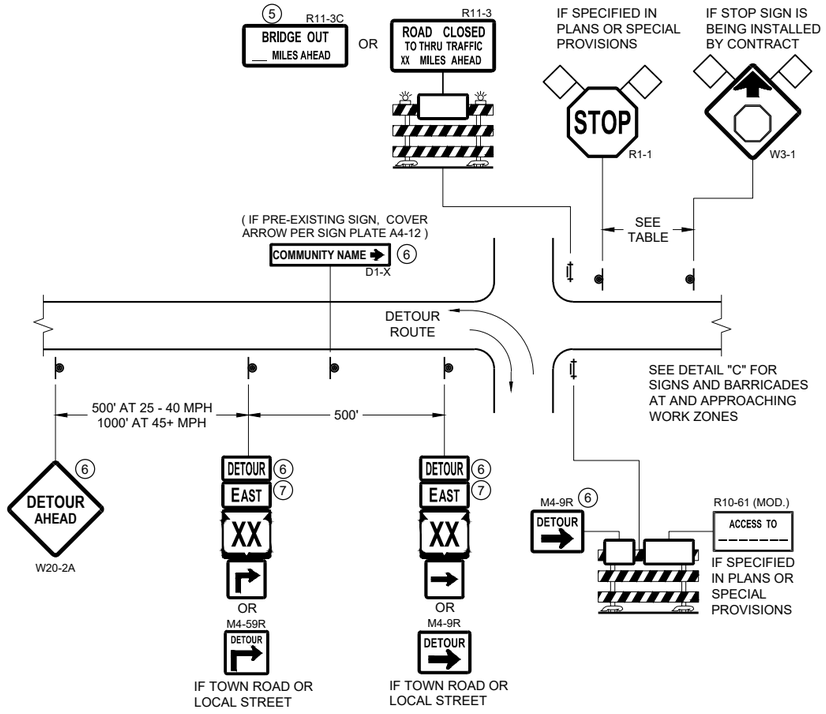
CHANNELIZING DEVICES
PERMANENT FLEXIBLE
TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021
DATE

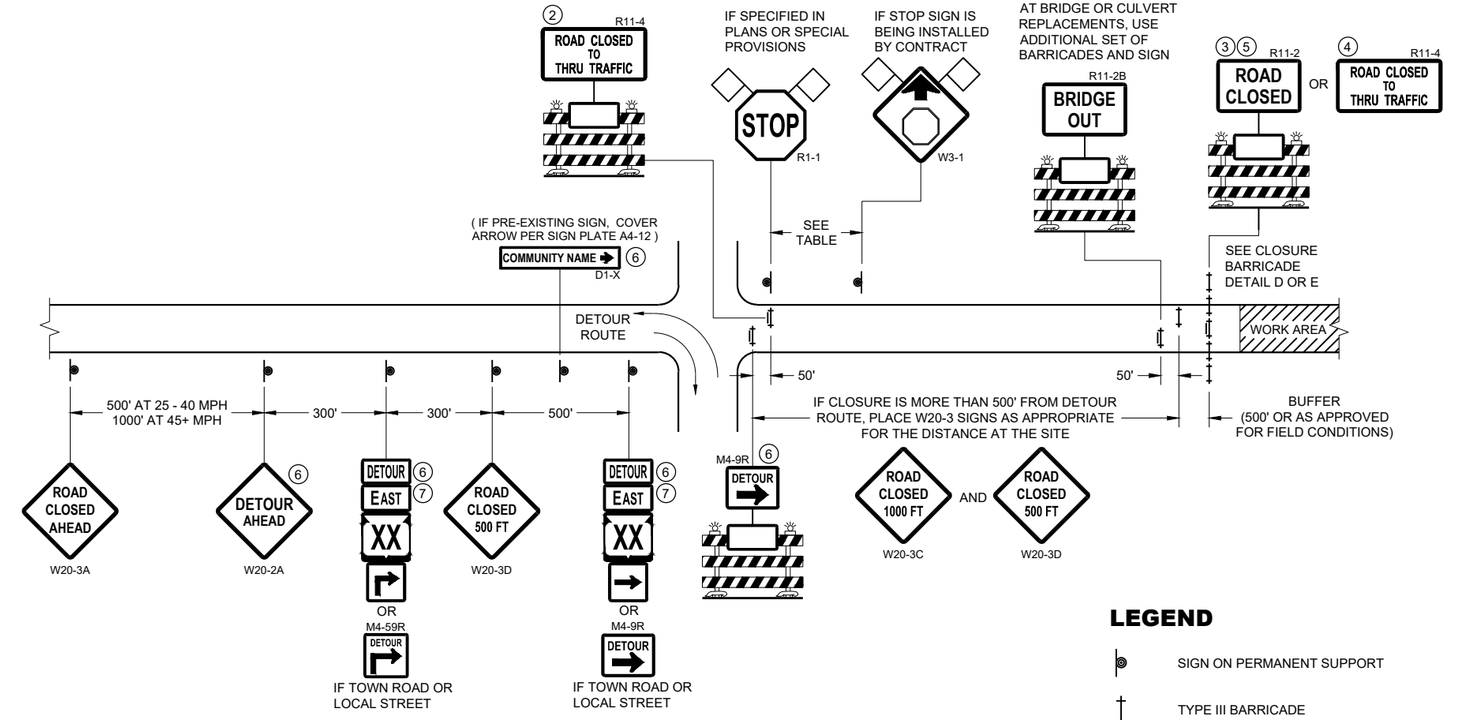
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA



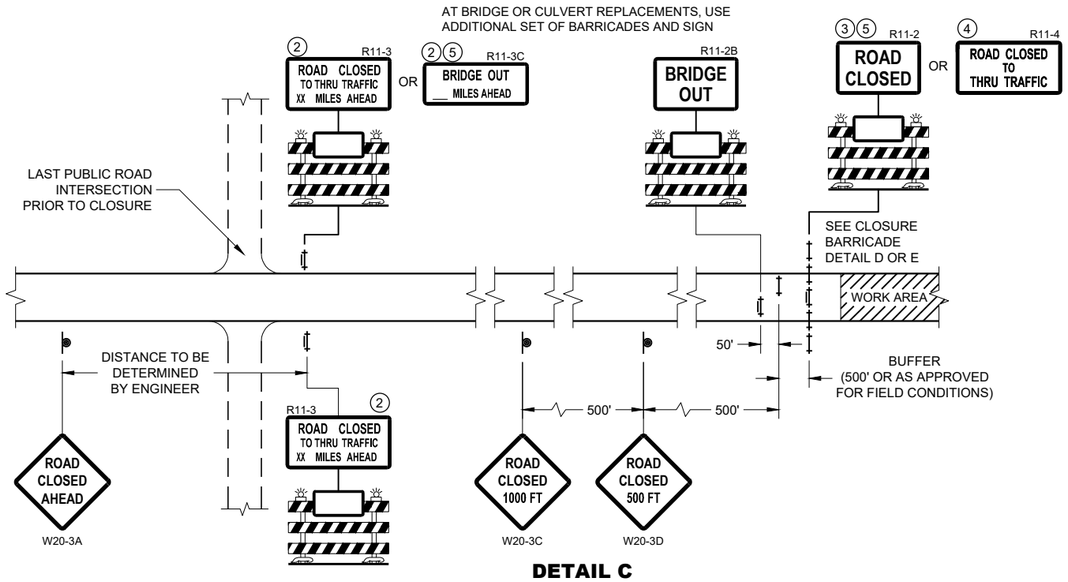
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

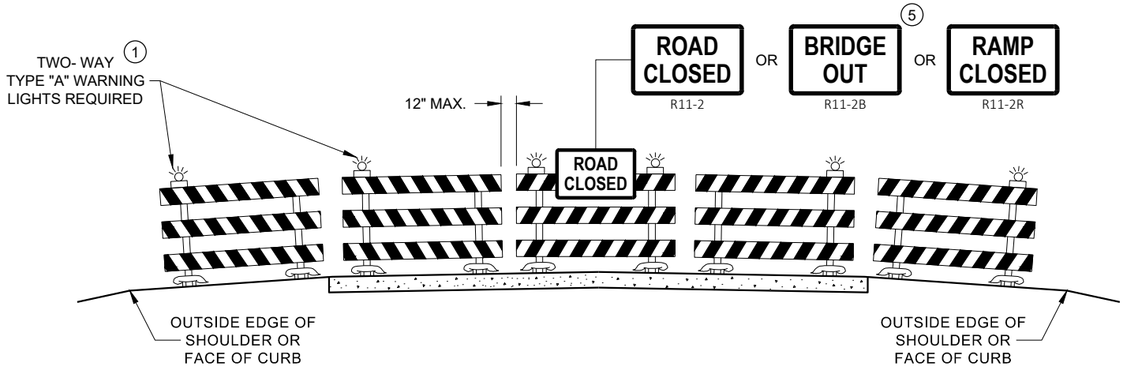
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

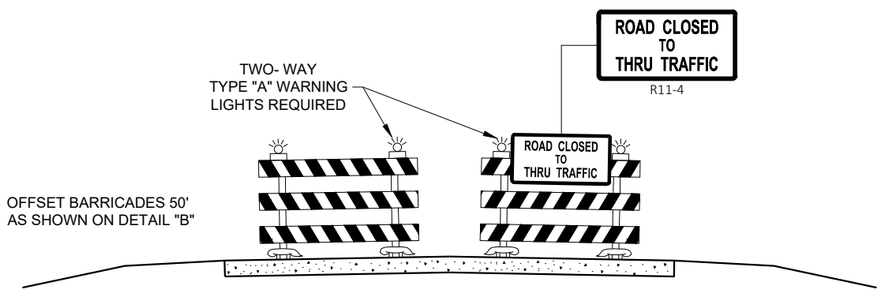
FHWA

6

SDD 15C02 - 09a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- XX — M1 - 6
- COUNTY / X — M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

GENERAL NOTES

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

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

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

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

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

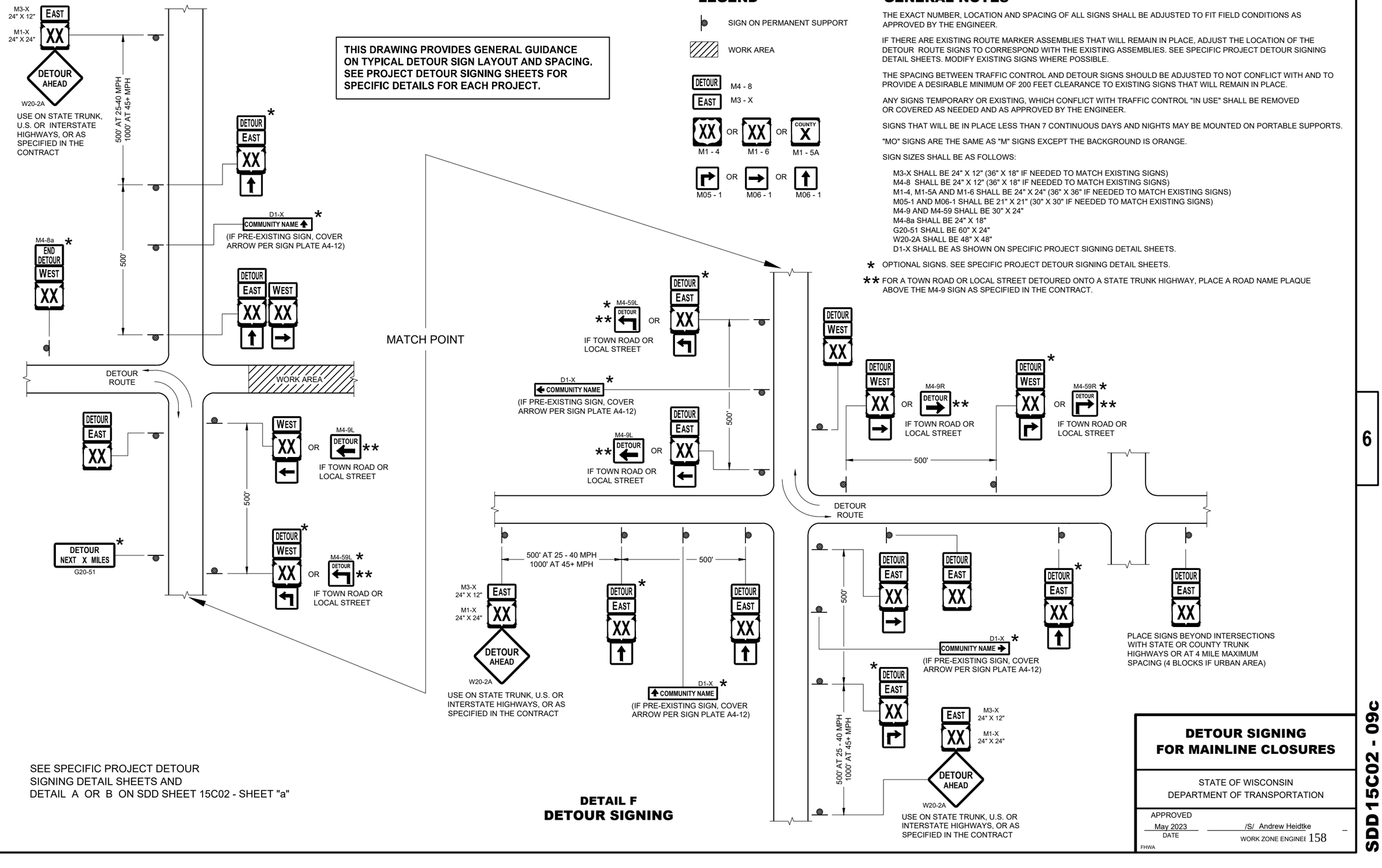
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

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

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

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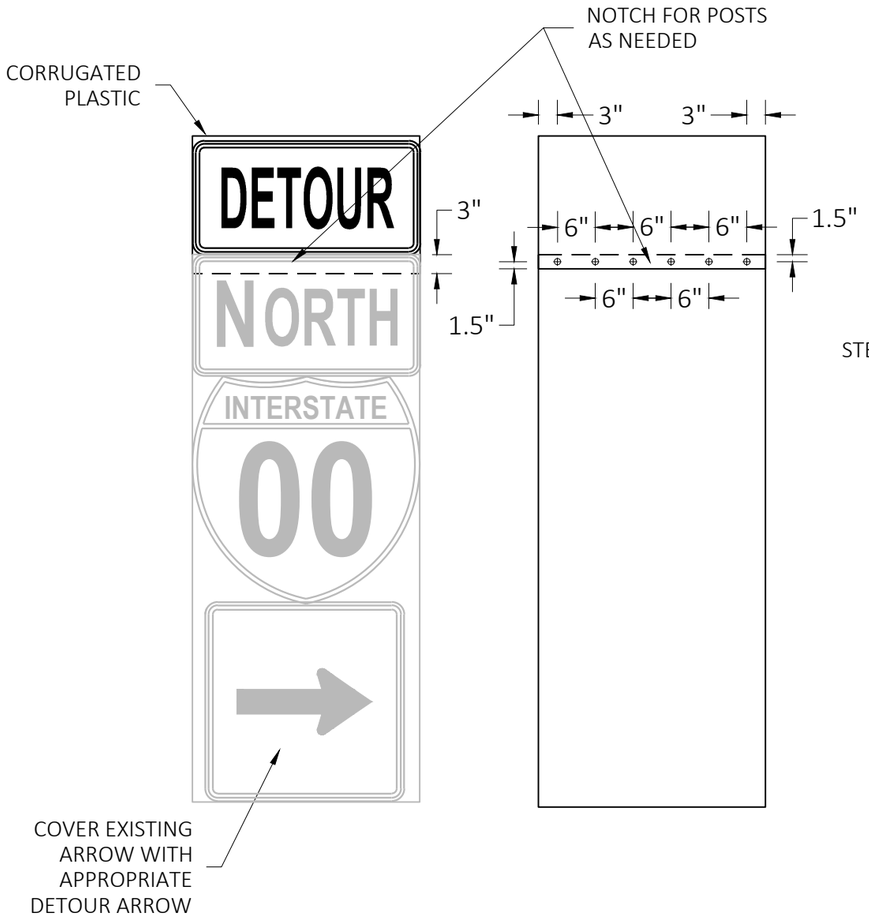
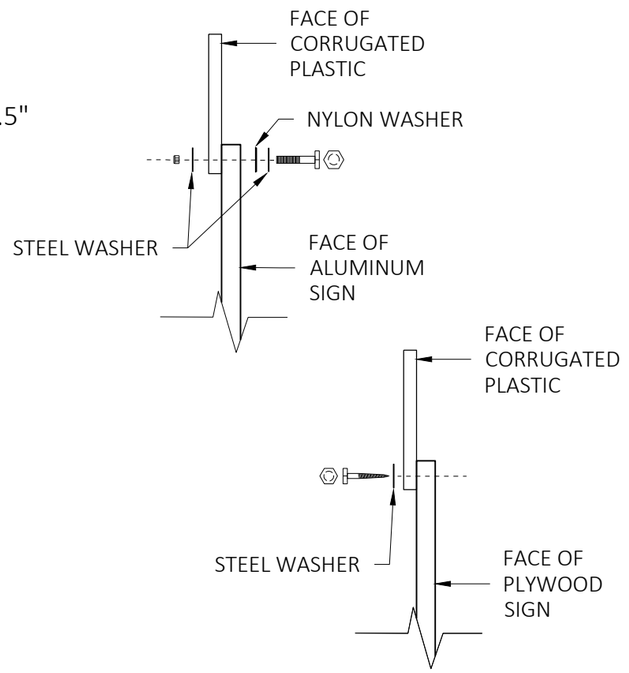
SDD 15C02 - 09c

FRONT SIDE

BACK SIDE

SIDE VIEW





GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:
LAG SCREWS - 5/16" x 1"
ALUMINUM SIGNS:
MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS
WASHERS:
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

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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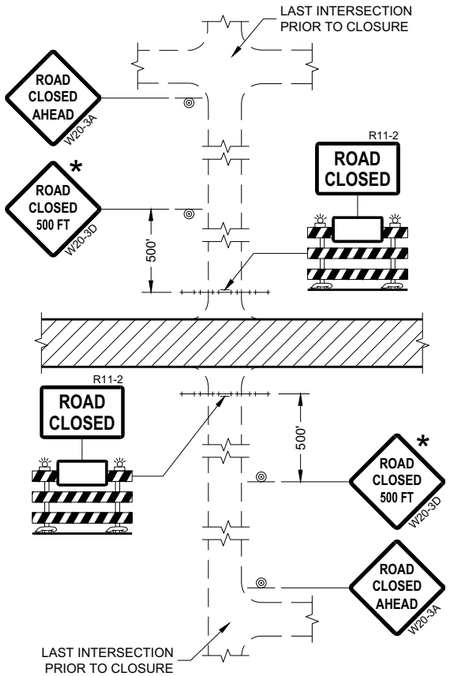
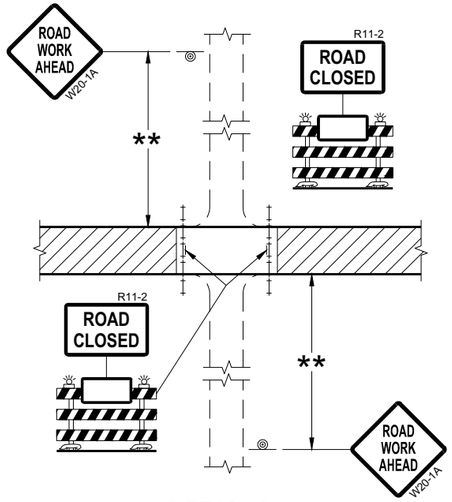
SDD 15C02-09h



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

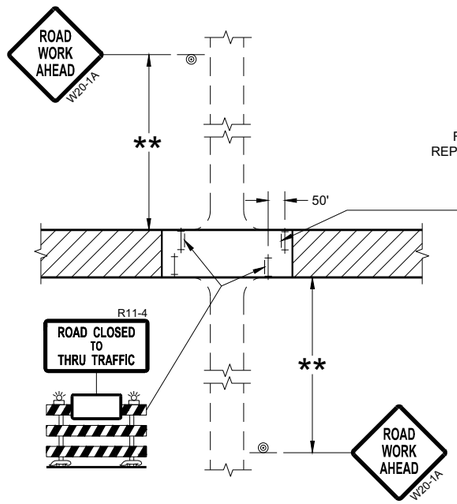
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

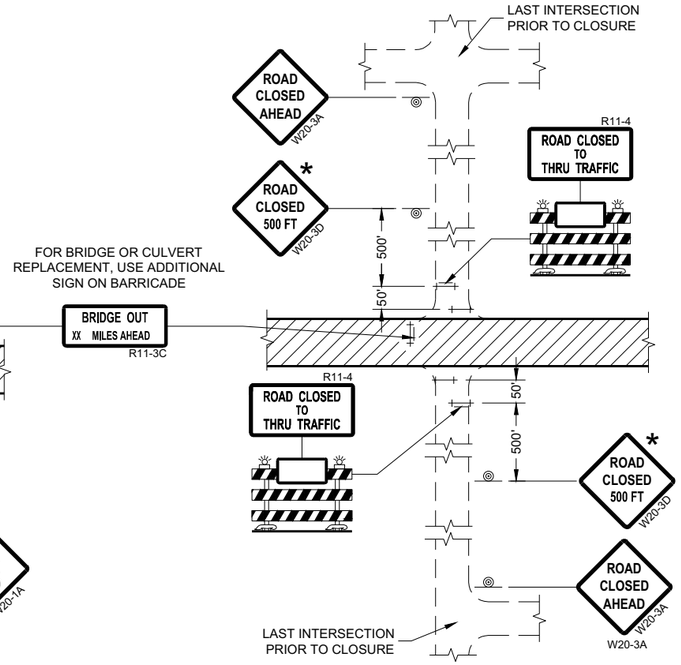
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

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

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





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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15C03 - 05

SDD 15C03 - 05

GENERAL NOTES

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

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

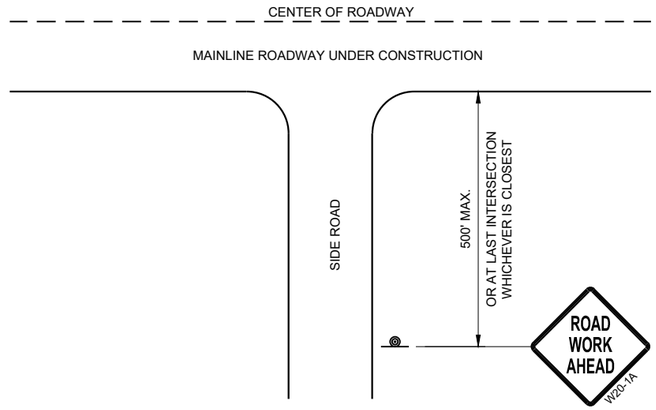
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

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

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



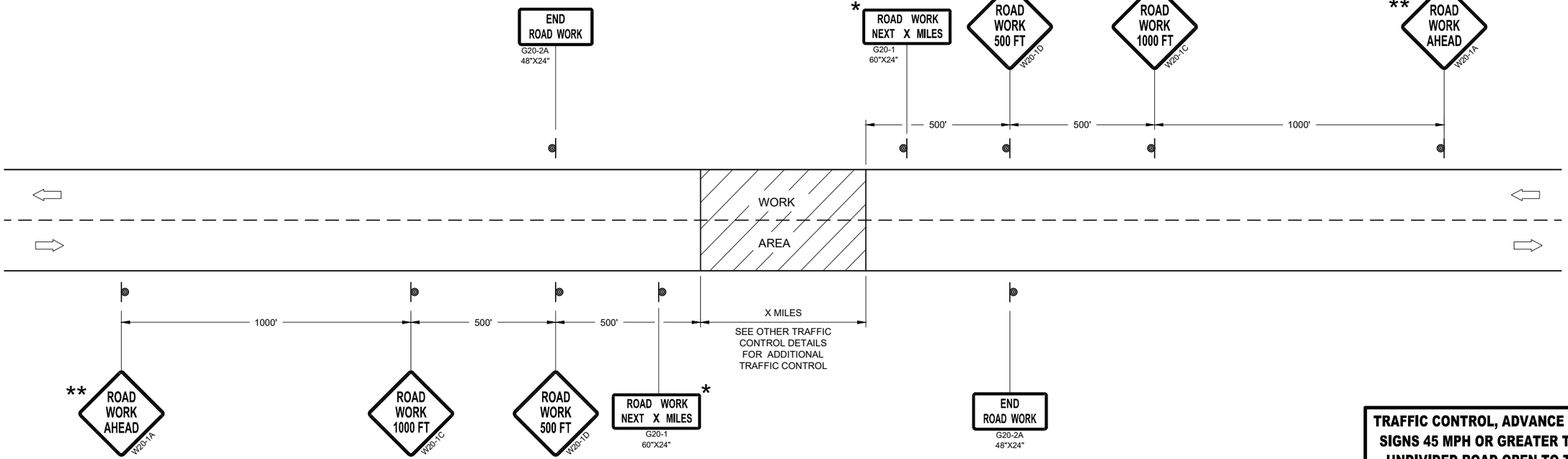
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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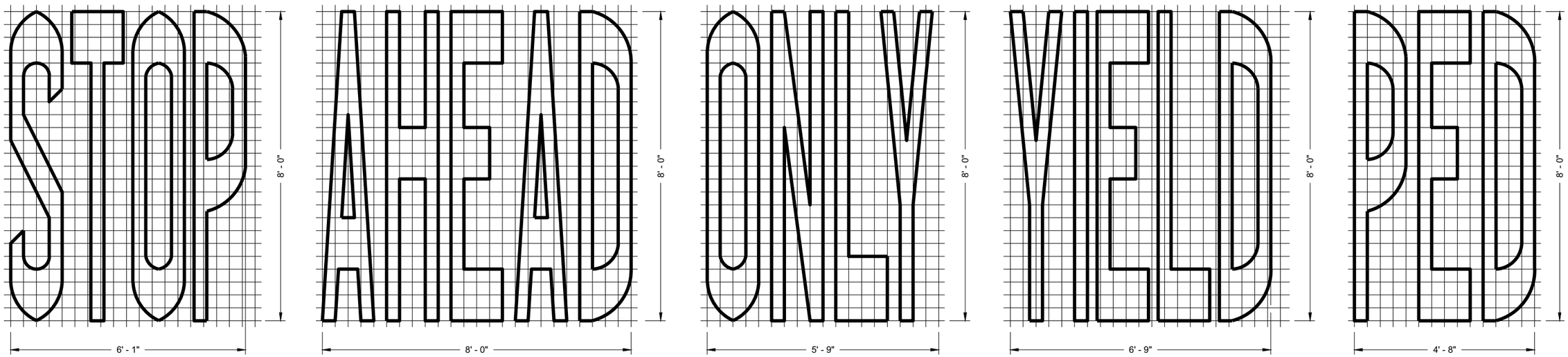
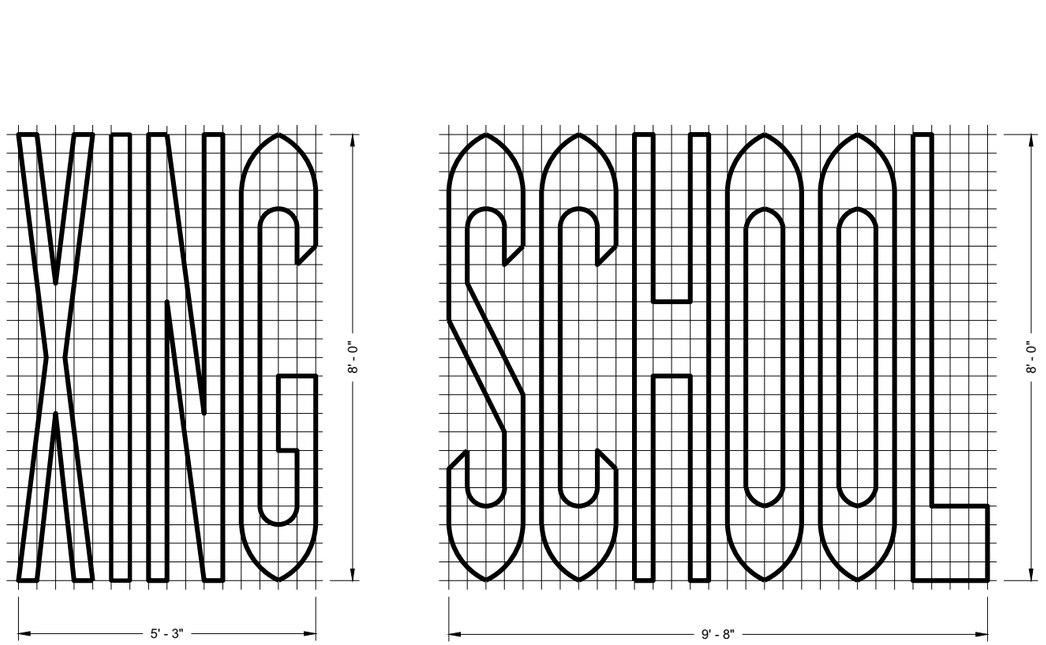
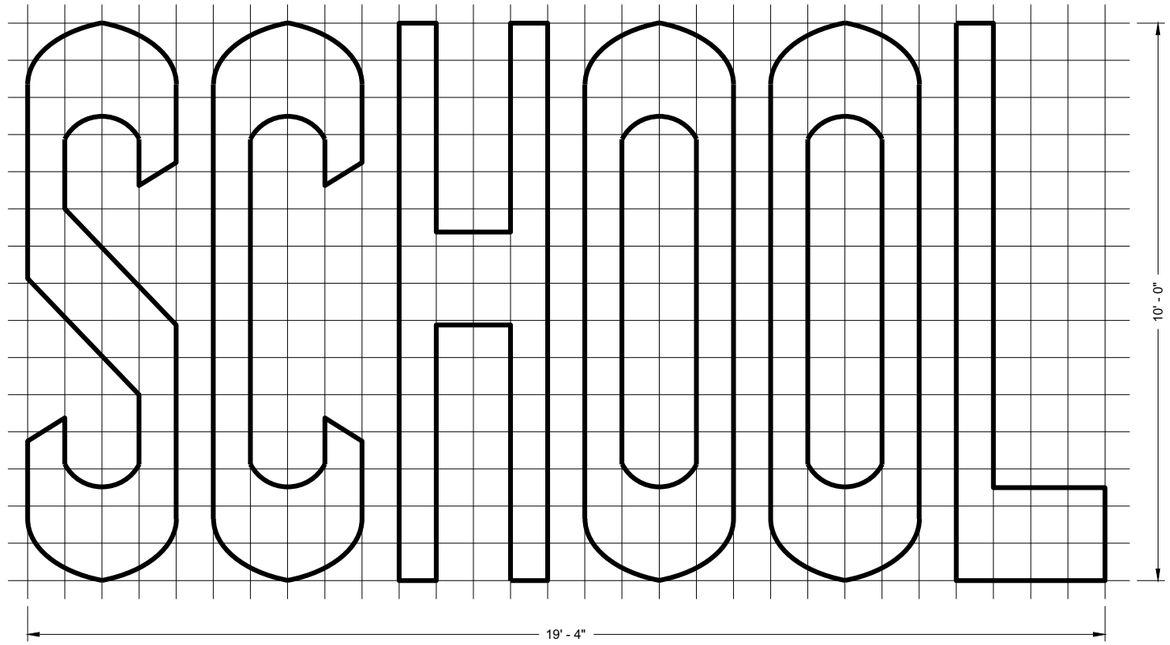
SDD 15C04 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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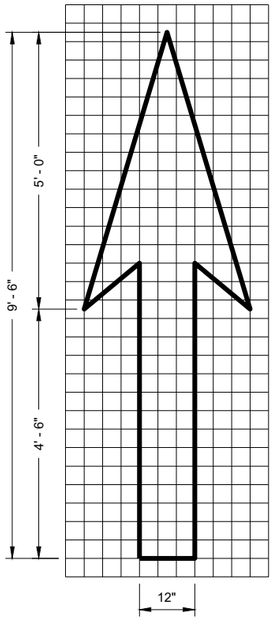
SDD 15C07 - 15b

6

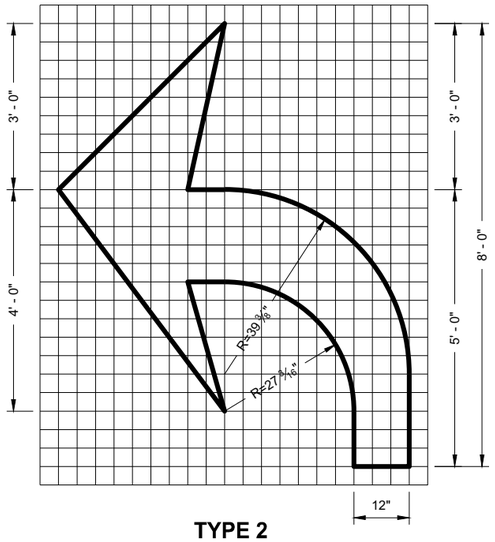
SDD 15C07 - 15b

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 1



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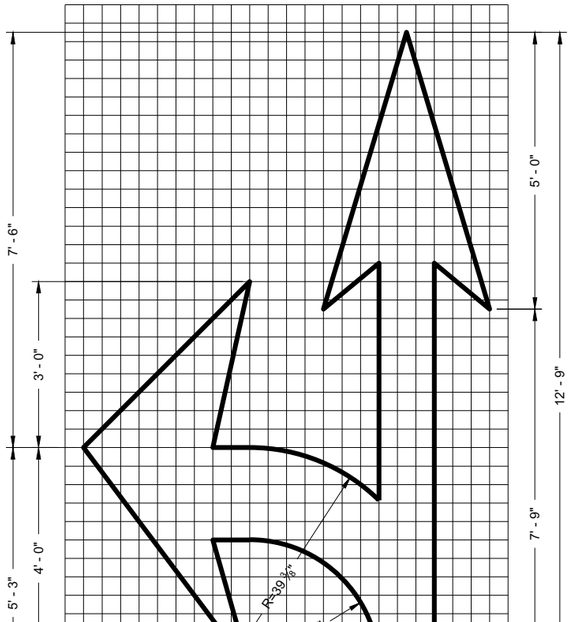

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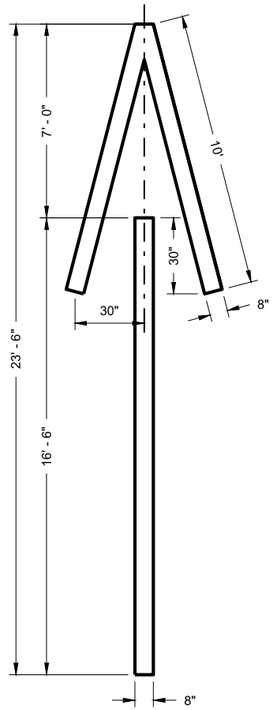

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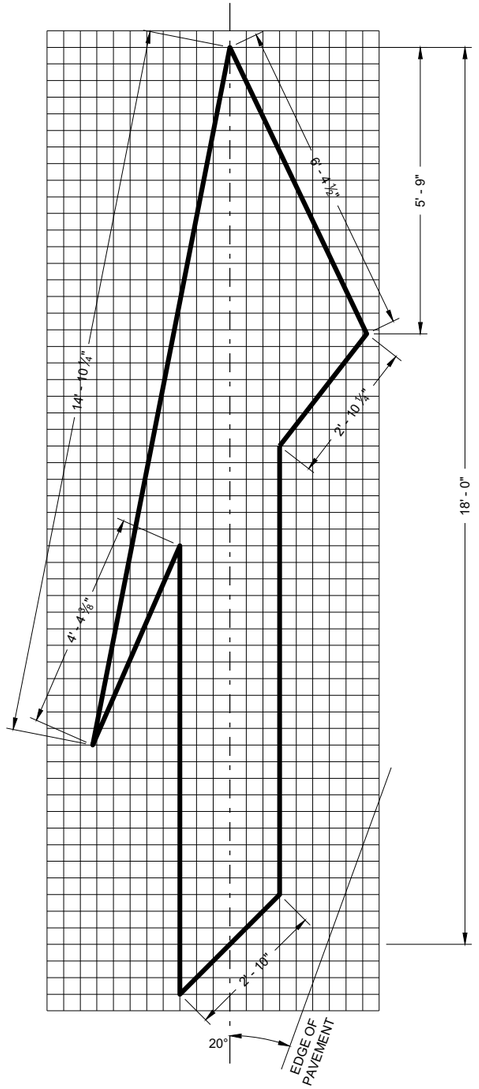
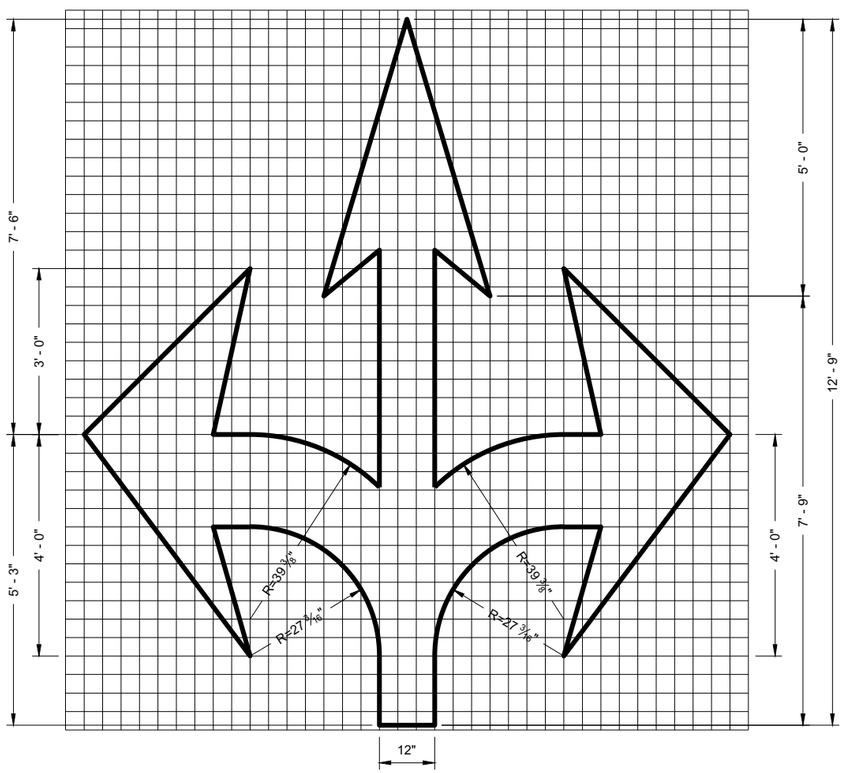
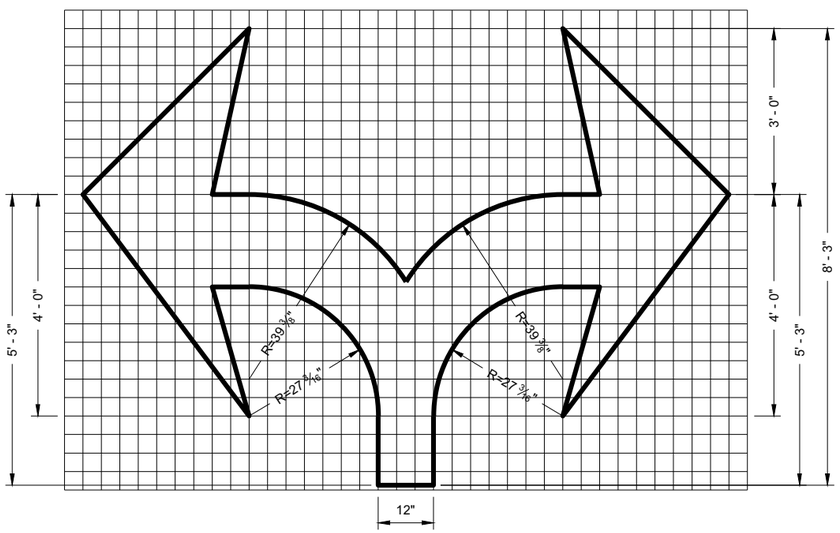


TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C07 - 15c

6

SDD 15C07 - 15c

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

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

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

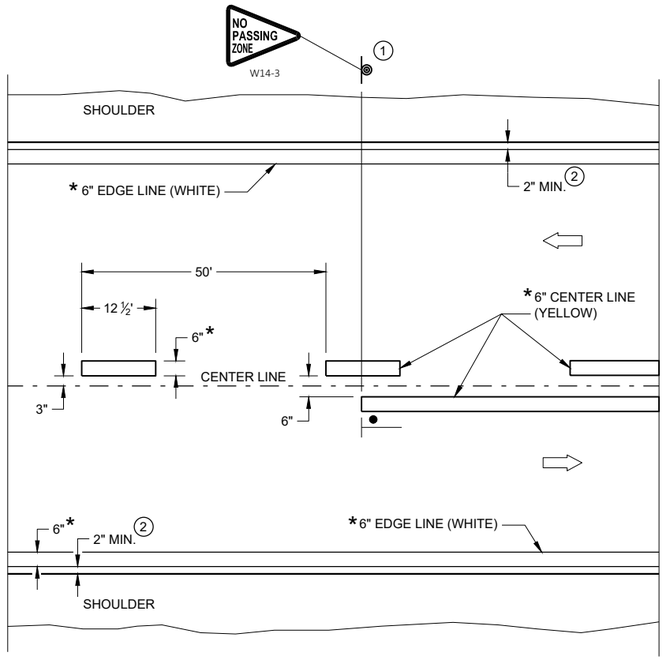
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

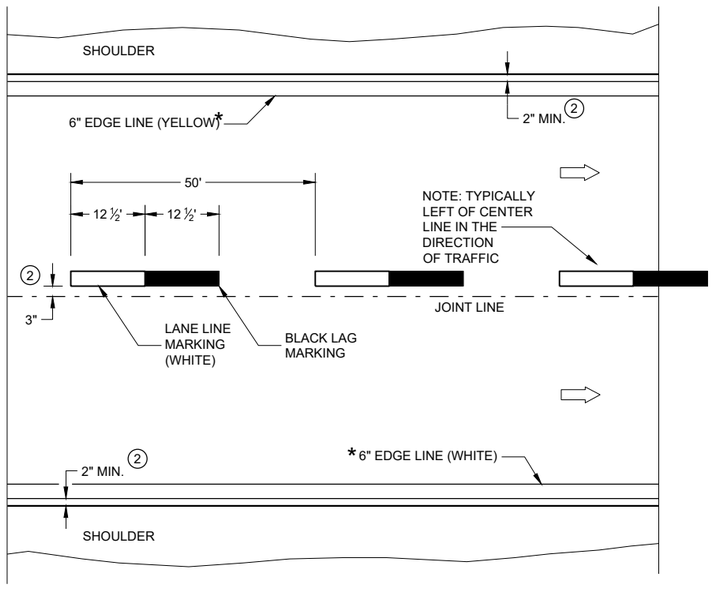
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER
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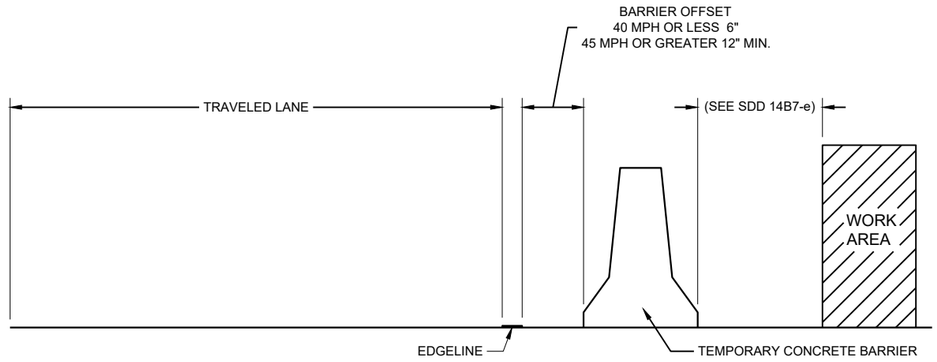
SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

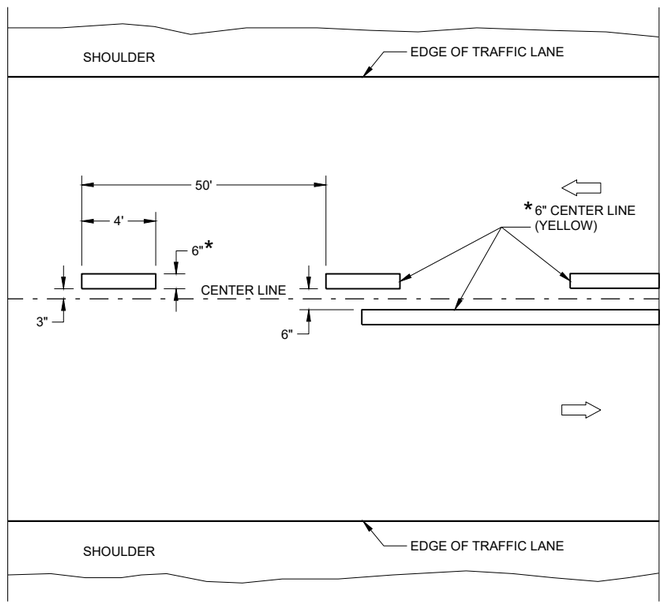
GENERAL NOTES

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

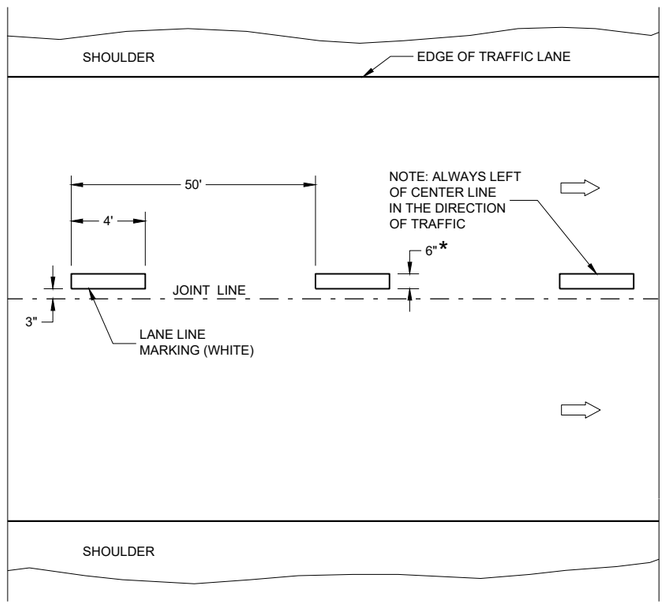
LEGEND

⇨ DIRECTION OF TRAFFIC

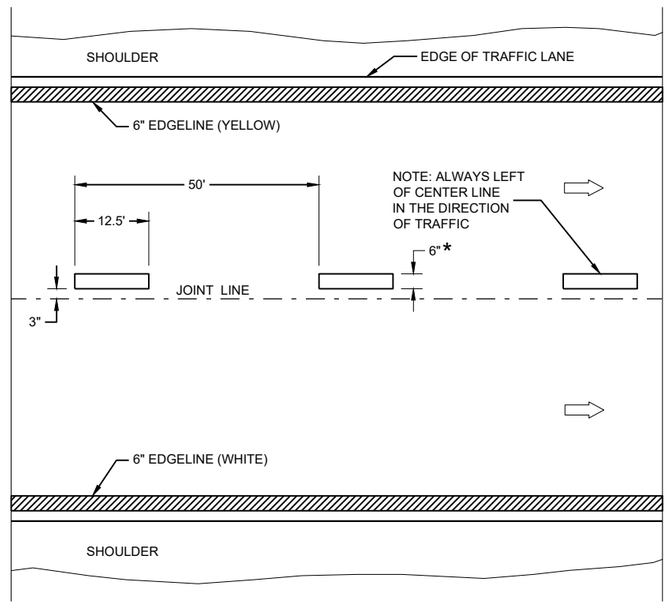
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

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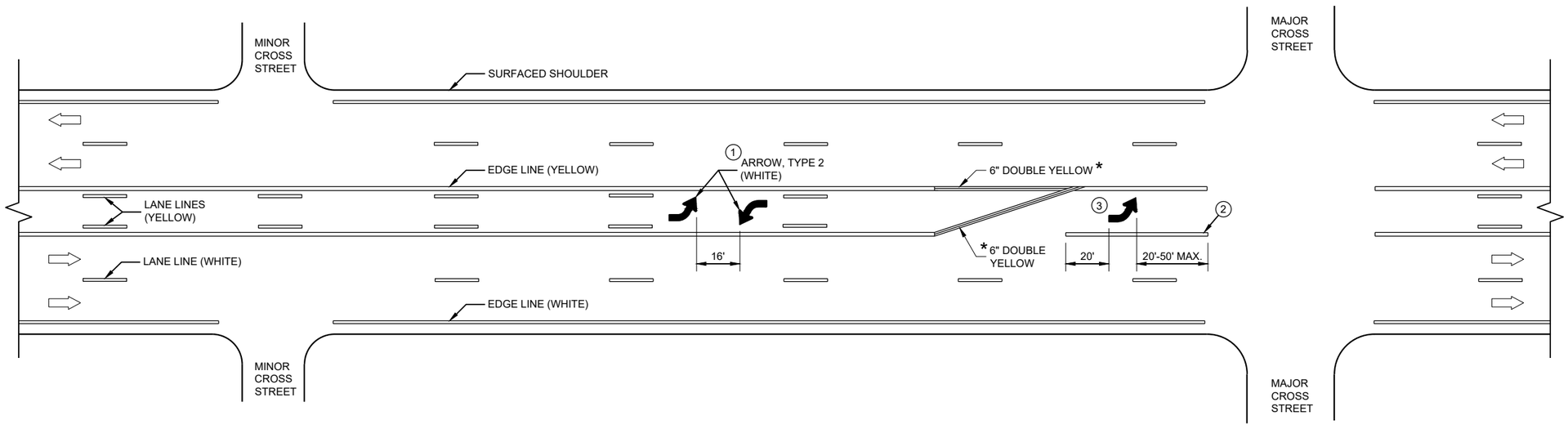
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

6

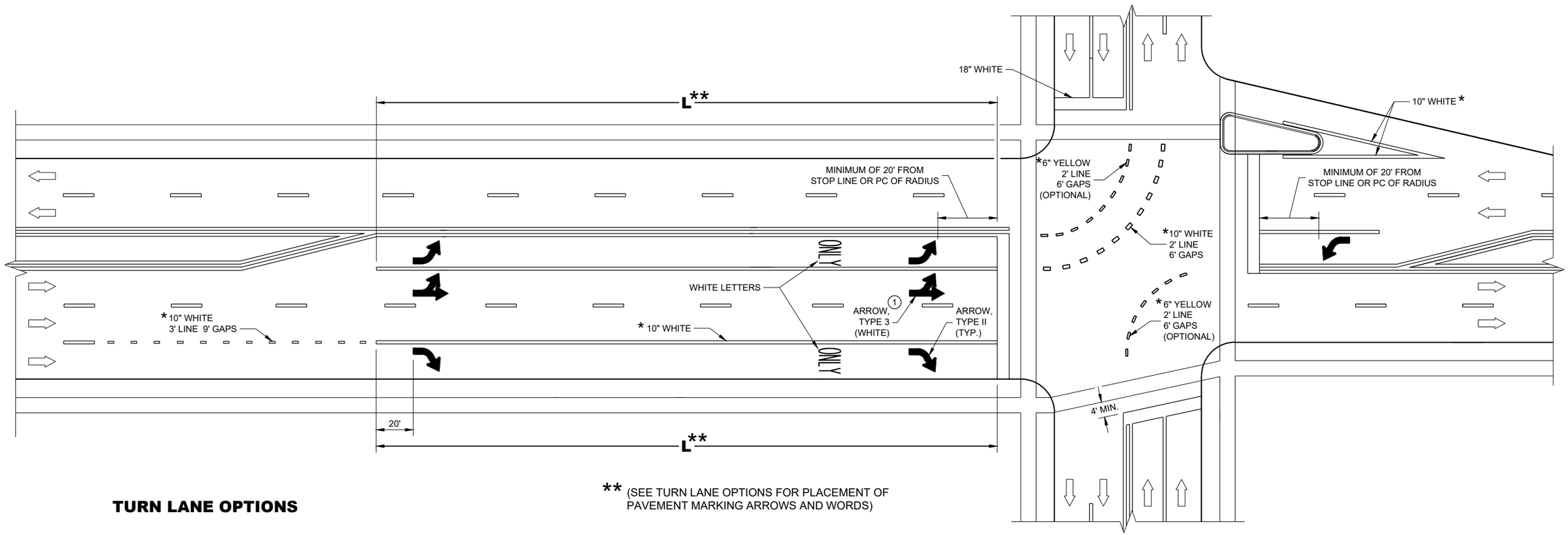
SDD 15C08-23c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 166

6

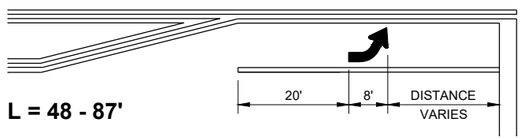
SDD 15C08-23c



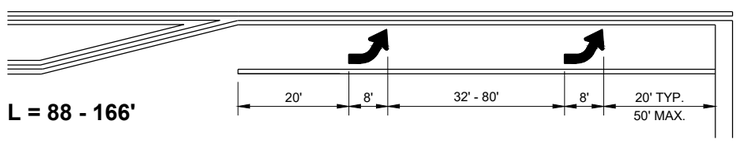
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

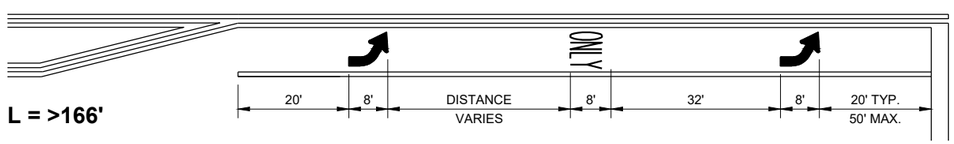
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

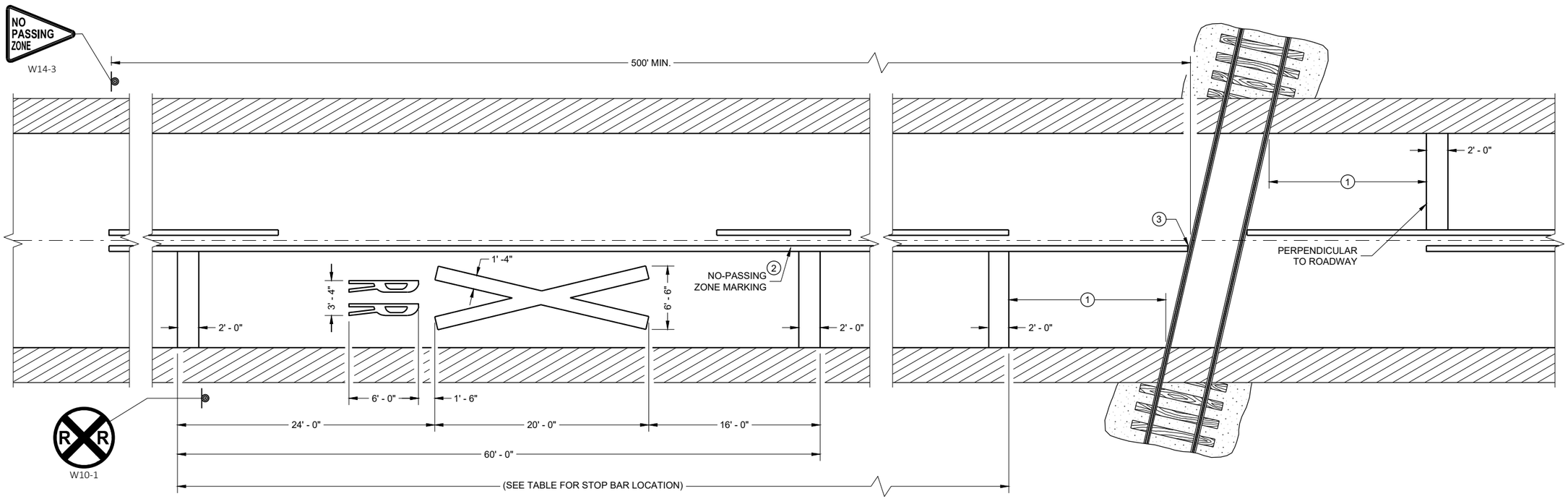
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

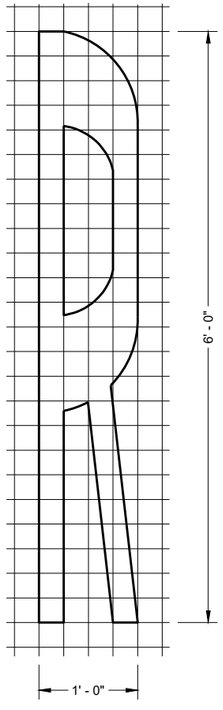
6

SDD 15C08-23d

SDD 15C08-23d



PAVEMENT MARKING



LEGEND

SIGN ON PERMANENT SUPPORT

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

(1) PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.

(2) 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.

(3) FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.

SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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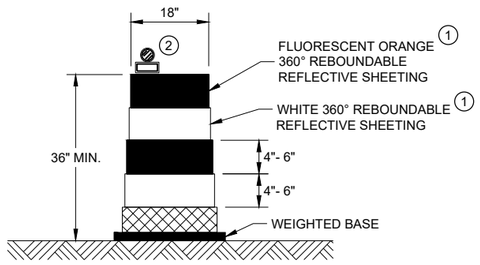
SDD 15C09-13a

SDD 15C09-13a

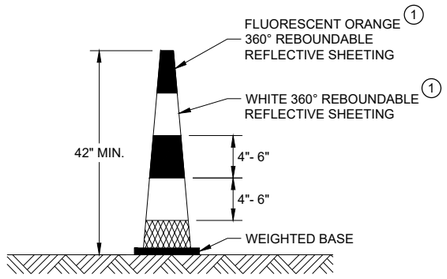
GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



DRUM

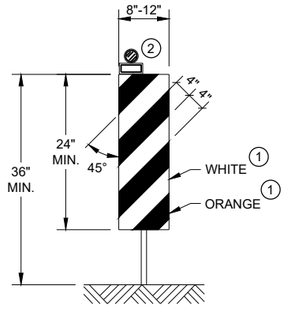
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

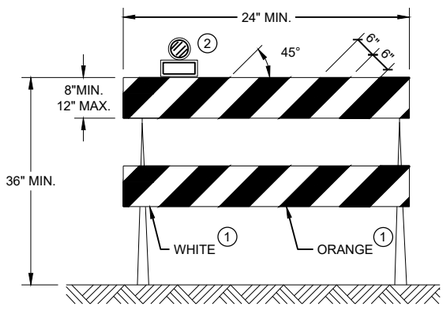
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



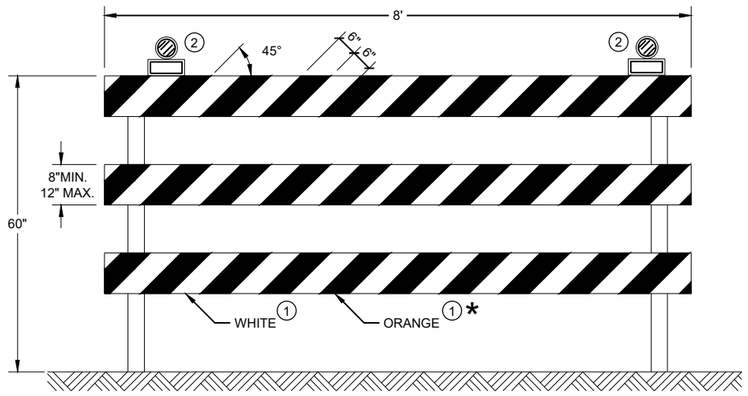
VERTICAL PANEL

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



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C11 - 10b

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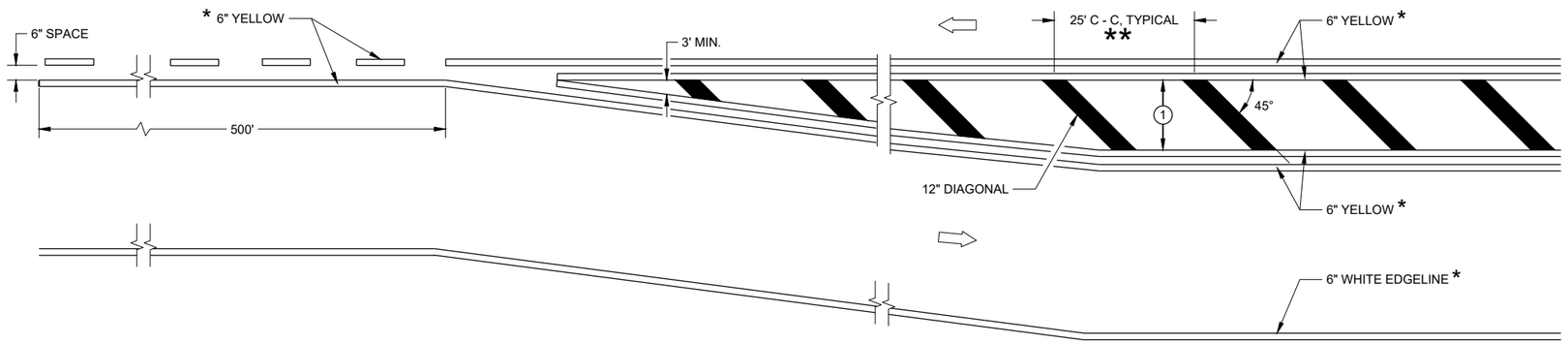
SDD 15C11 - 10b



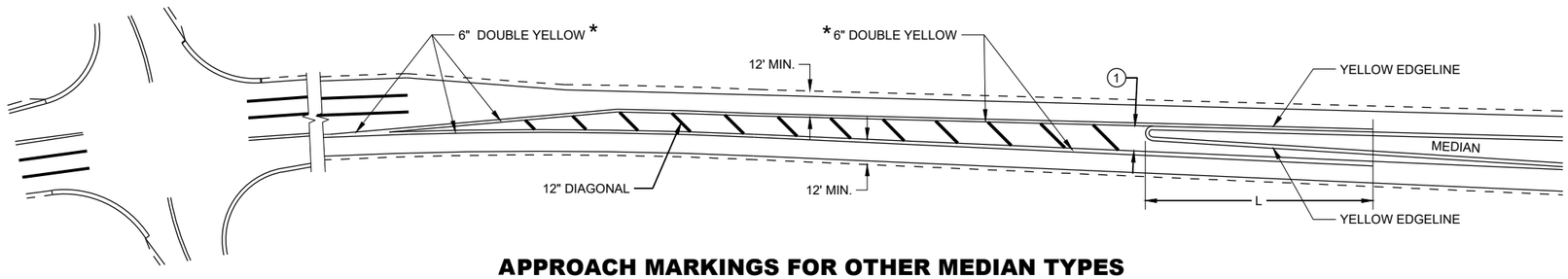
MEDIAN ISLAND DETAIL

GENERAL NOTES

(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

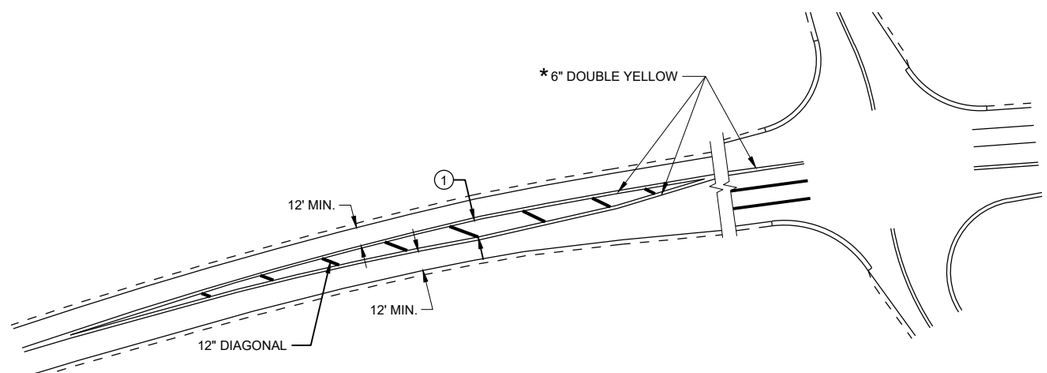
⇨ DIRECTION OF TRAVEL

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES

SPEED LIMIT	L
<35 MPH	5'
35> MPH	50'



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

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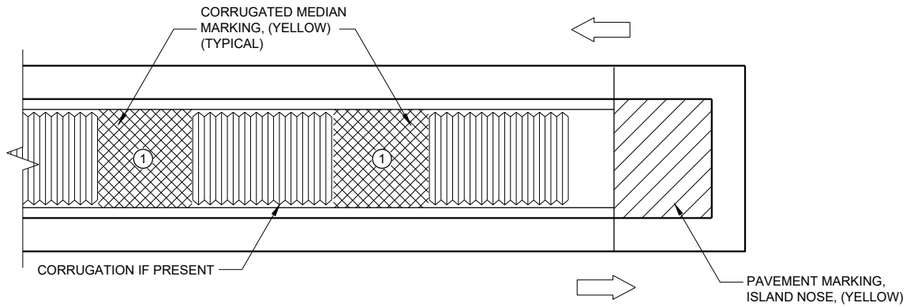
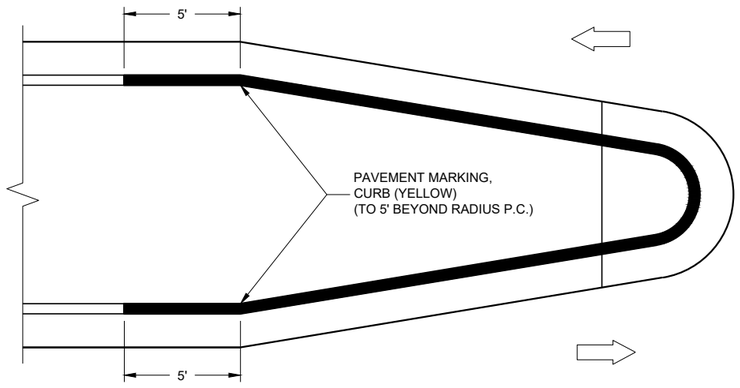
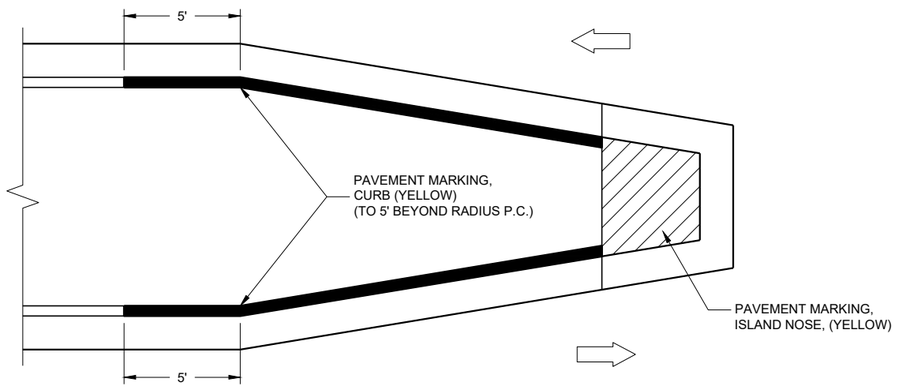


MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

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 ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

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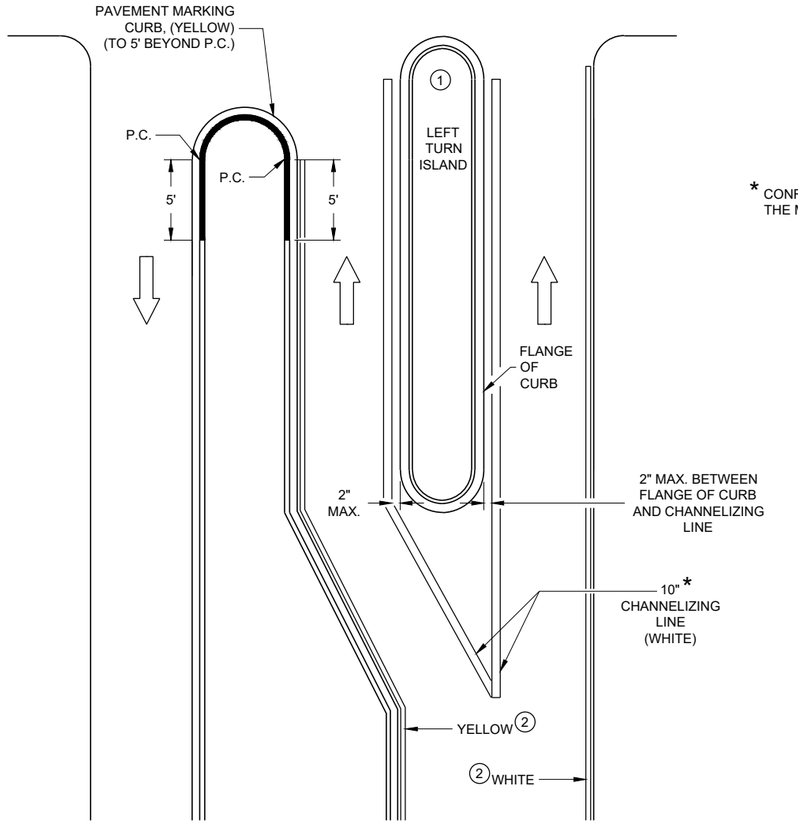
SDD 15C18-08b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEFT TURN & MEDIAN ISLAND

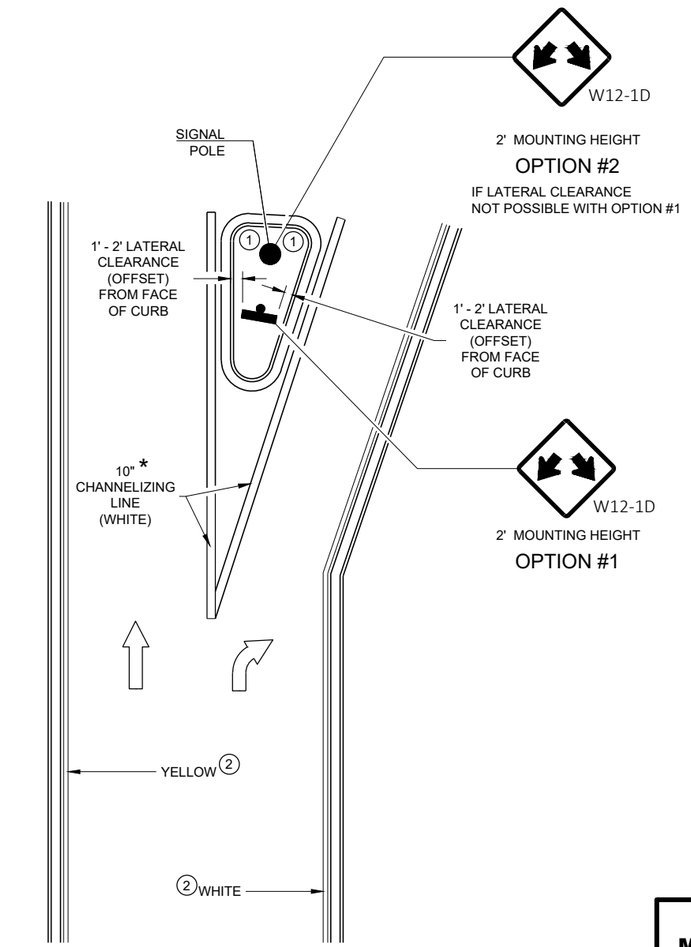
GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

1. MARK CURB NOSES YELLOW.
2. MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER

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SDD 15C18-08c

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SDD 15C18-08c

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

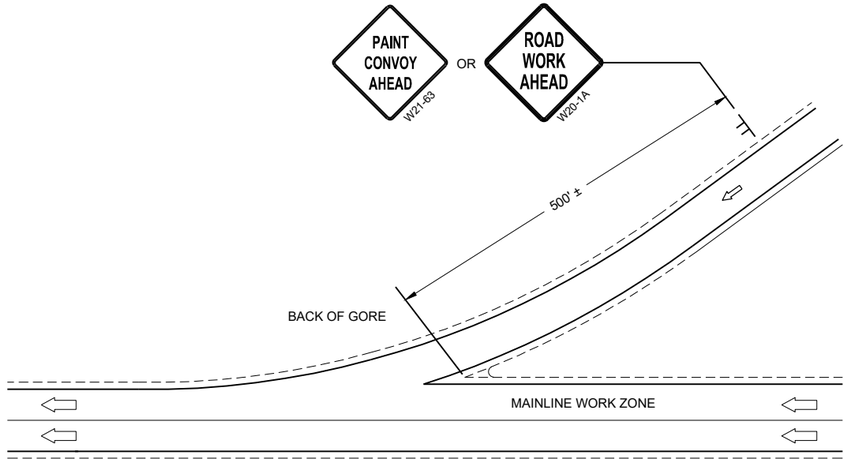
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

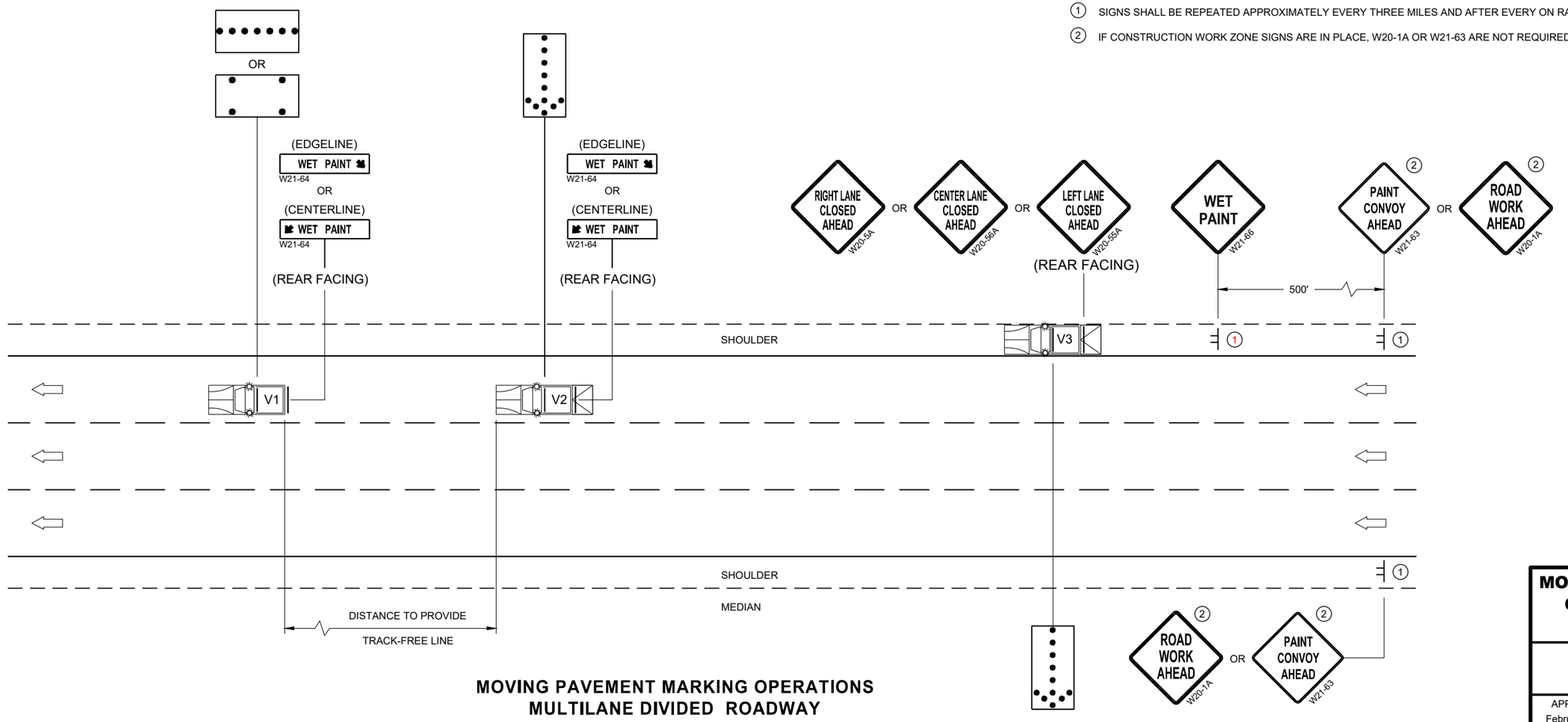
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Andrew [illegible]
WORK ZONE EN

FHWA

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SDD 15C19-08c

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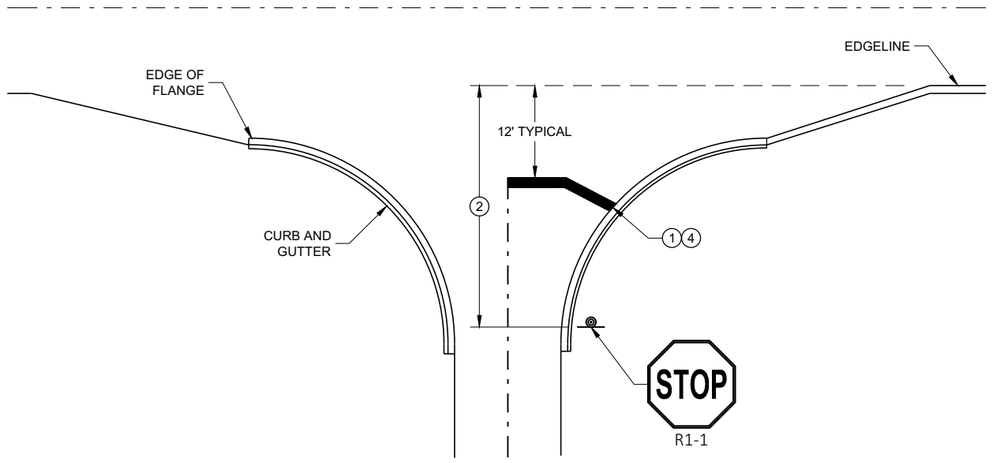
SDD 15C19-08c

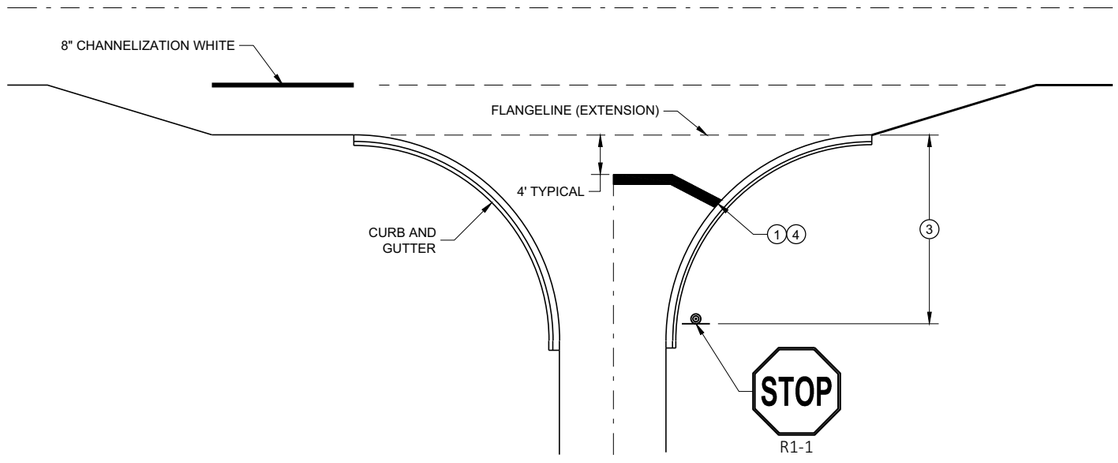
GENERAL NOTES

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

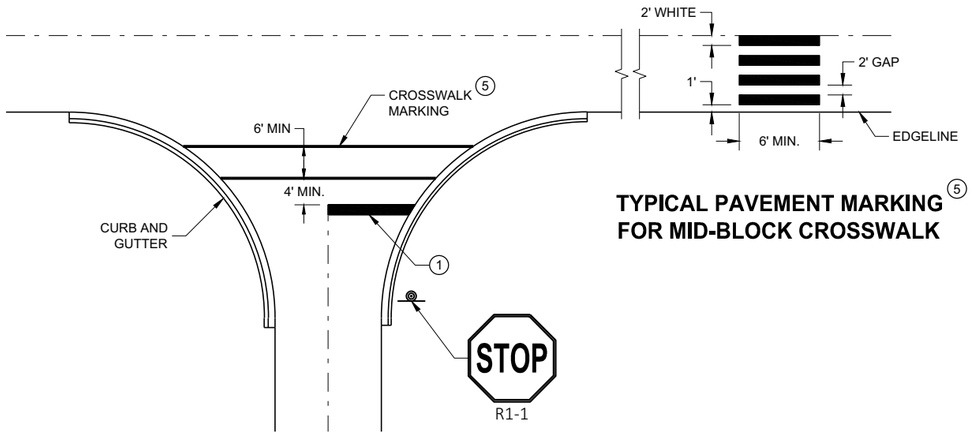
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

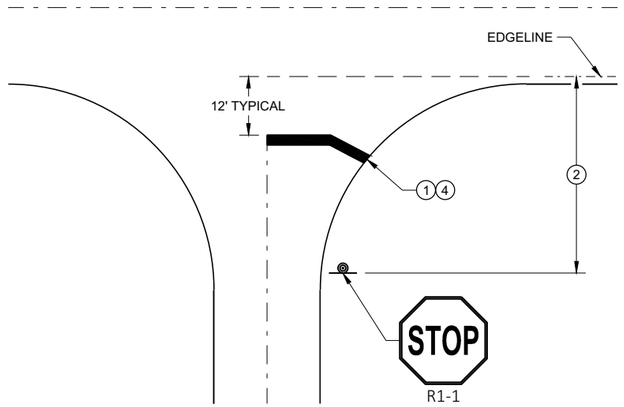


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

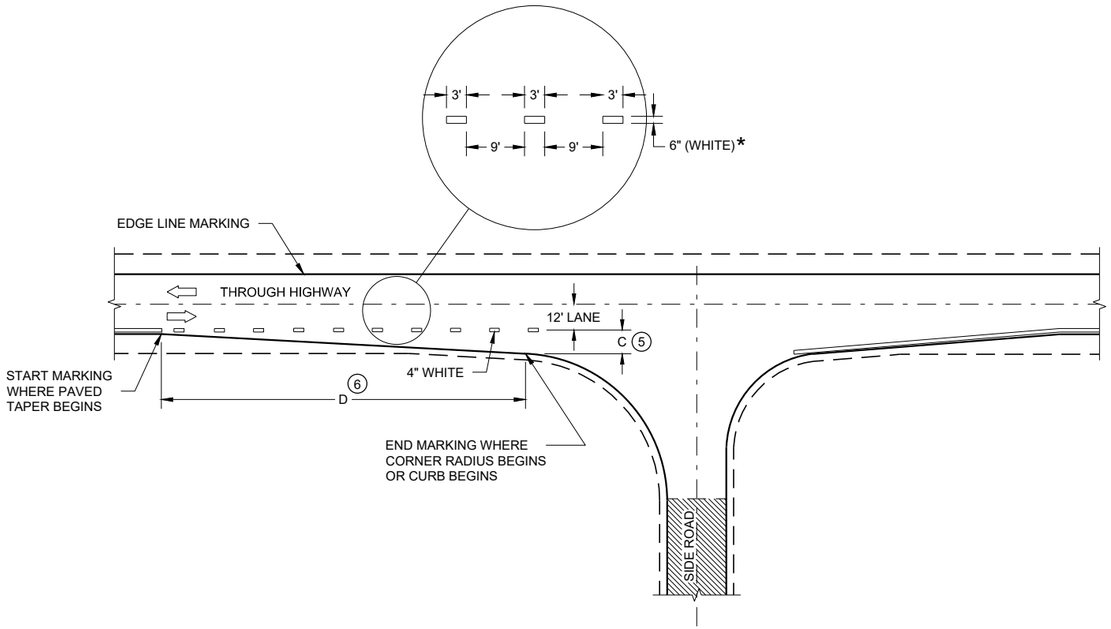
STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

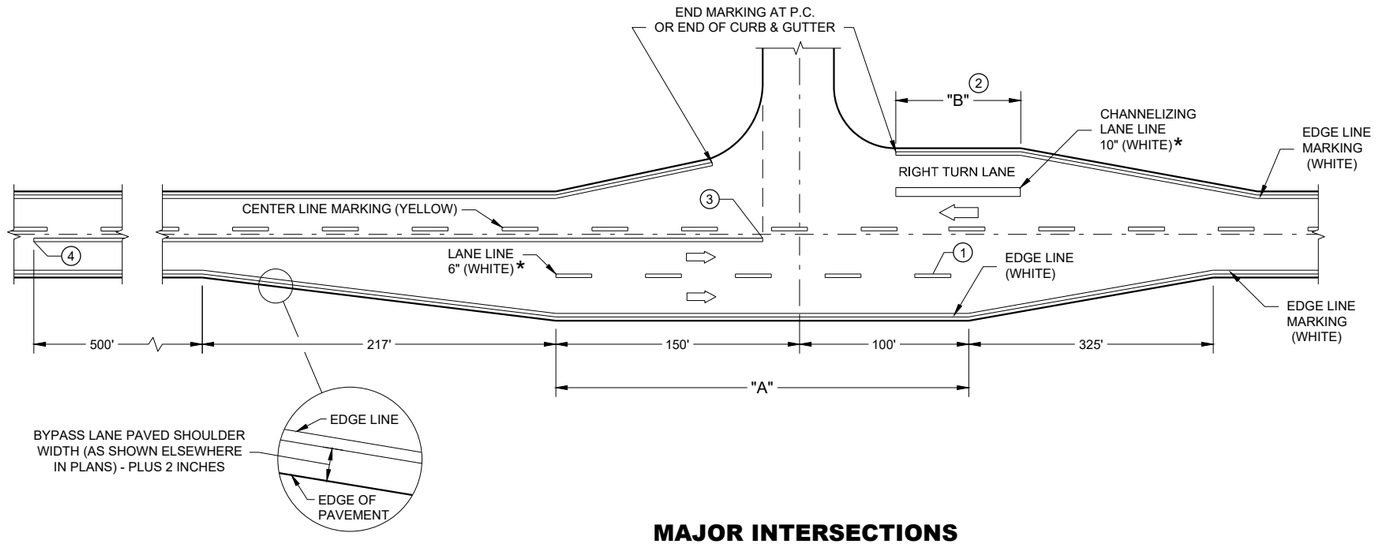
APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6
SDD 15C33 - 04



MINOR INTERSECTION



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

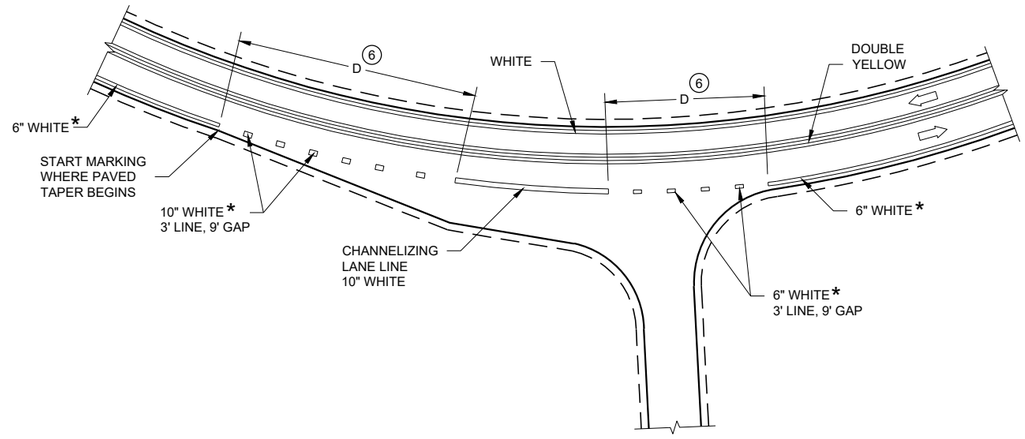
GENERAL NOTES

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

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

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

SDD 15C35-06a

PAVEMENT MARKING (INTERSECTIONS)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

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

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

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

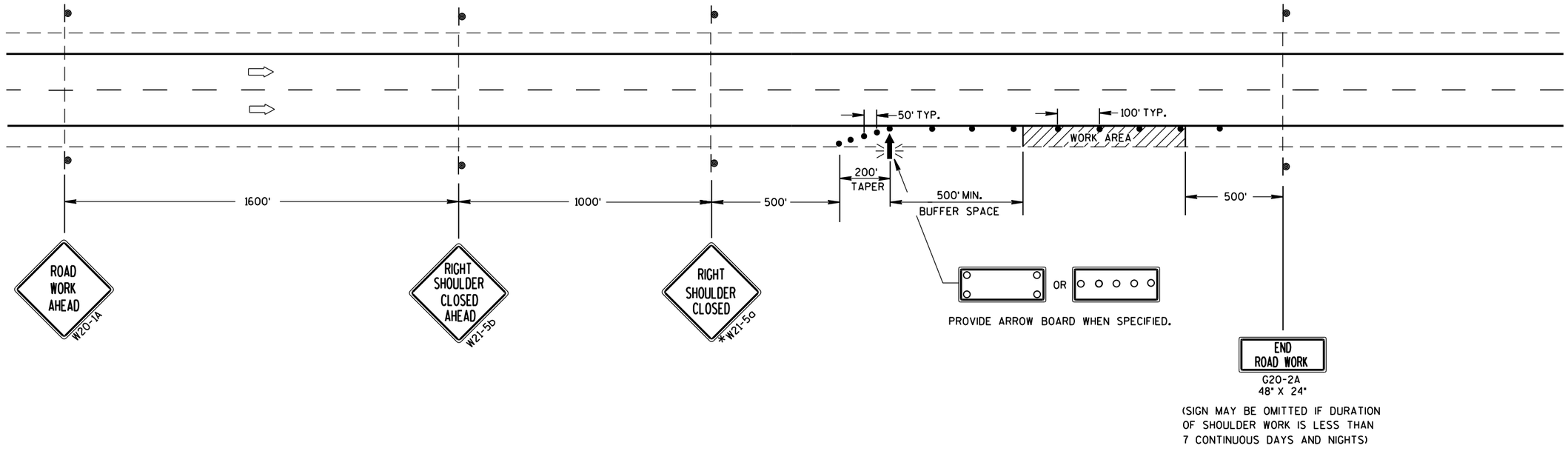
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3

LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

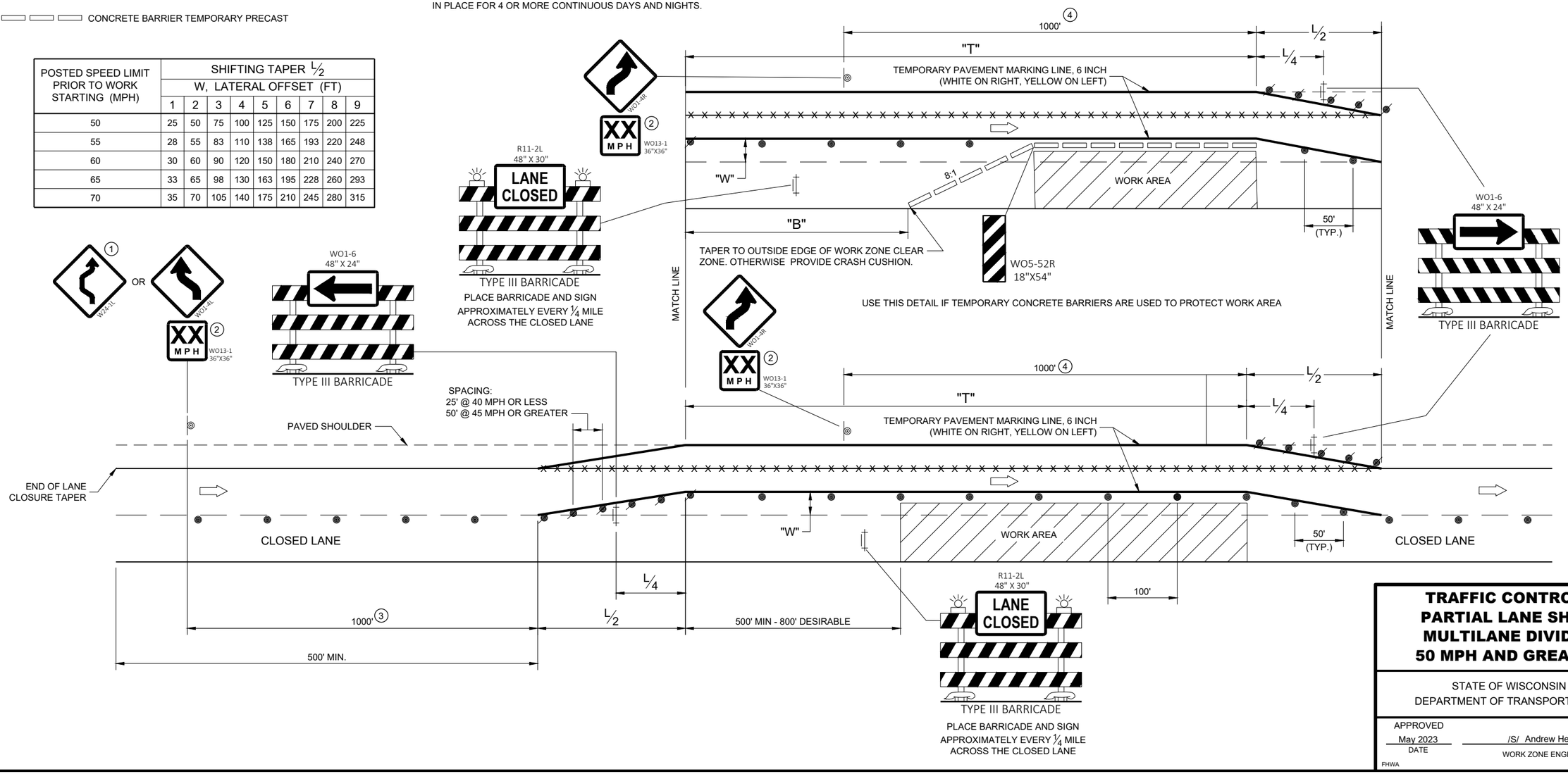
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

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

1. USE ONLY WHEN T<600', OMIT WO1-4R.
2. IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.
3. IF THE BEGINNING OF LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.
4. IF THE BEGINNING OF THE SECOND LANE SHIFT TAPER IS 1200 FEET OR LESS FROM END OF THE FIRST LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE FIRST LANE CLOSURE TAPER.



TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D40-05d
SDD 15D40-05d

LEGEND

TYPE III BARRICADE WITH ATTACHED SIGN

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

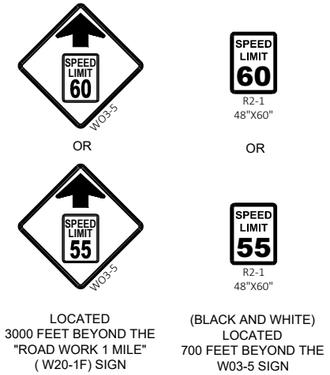
DIRECTION OF TRAFFIC

CONCRETE BARRIER TEMPORARY PRECAST

TYPE "A" WARNING LIGHT (FLASHING)

WORK AREA

FULL SHIFT							
L, TAPER LENGTH (FT)							
POSTED SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120



IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 3 MILES.

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

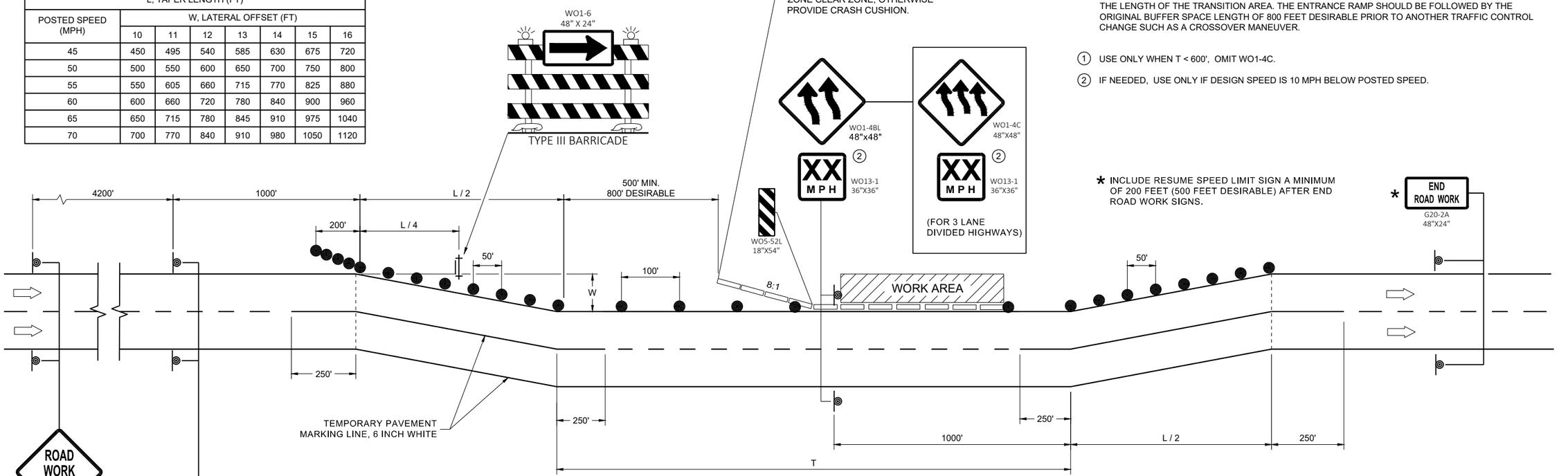
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

(1) USE ONLY WHEN T < 600', OMIT WO1-4C.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.



PARTIAL SHIFT									
POSTED SPEED PRIOR TO WORK STARTING (MPH)	SHIFTING TAPER L/2								
	W, LATERAL OFFSET (FT)								
	1	2	3	4	5	6	7	8	9
45	23	45	68	90	113	135	158	180	203
50	25	50	75	100	125	150	175	200	225
55	28	55	83	110	138	165	193	220	248
60	30	60	90	120	150	180	210	240	270
65	33	65	98	130	163	195	228	260	293
70	35	70	105	140	175	210	245	280	315

TRAFFIC CONTROL MULTIPLE LANE SHIFT MULTILANE DIVIDED ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

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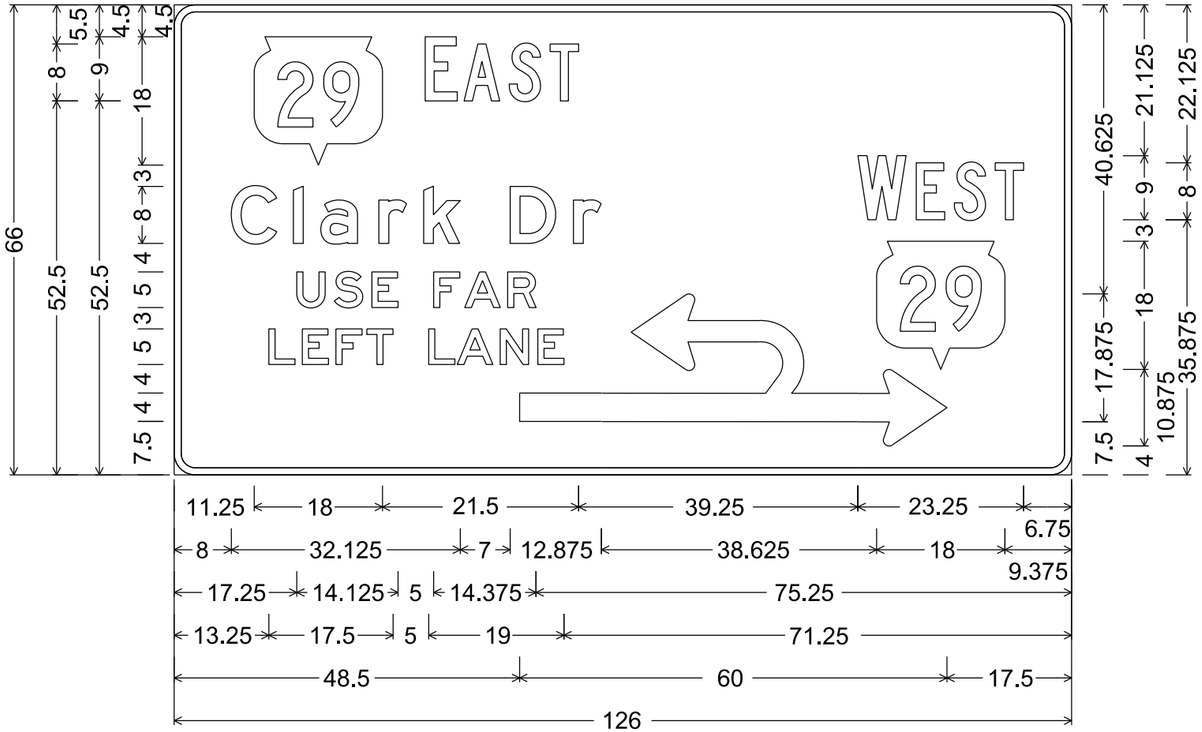
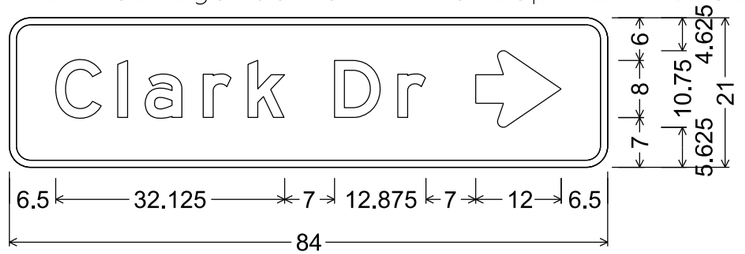
SDD 15D41-04a



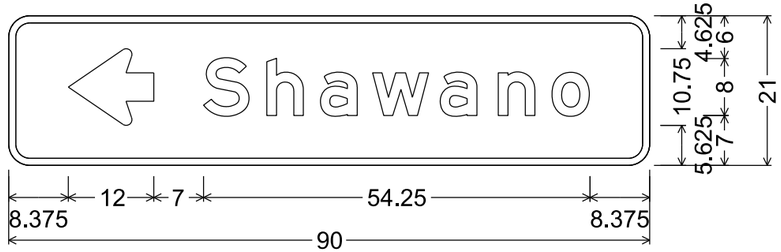
D1-82; 3.000" Radius, 1.000" Border,
"EAST", C; "WEST", C

NOTES

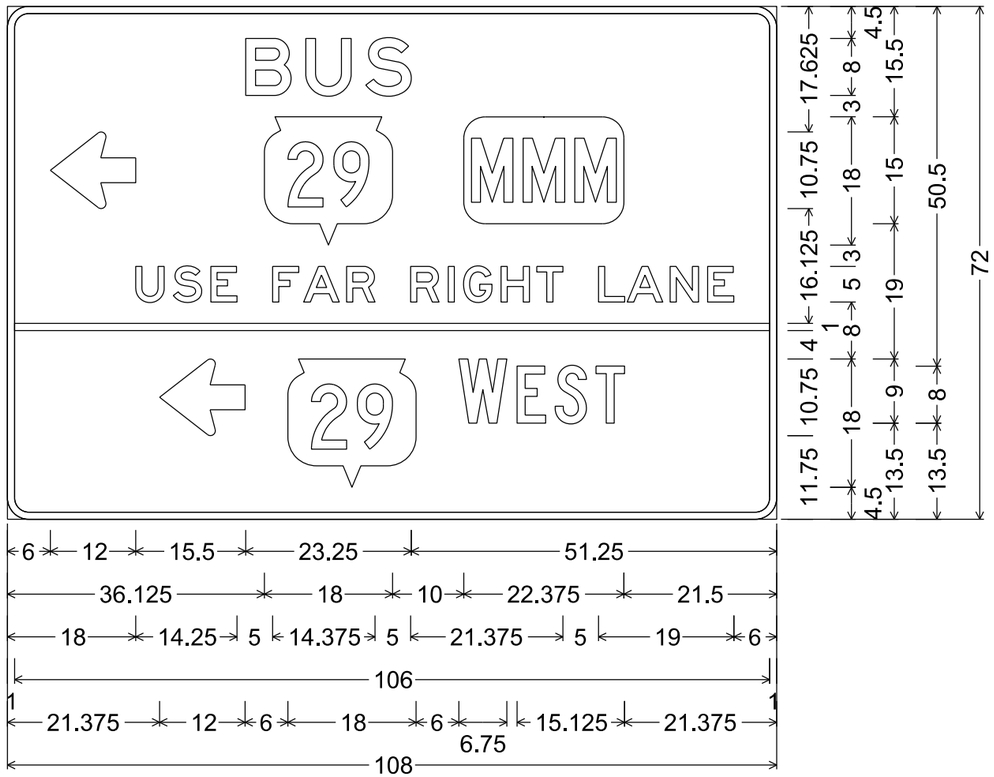
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



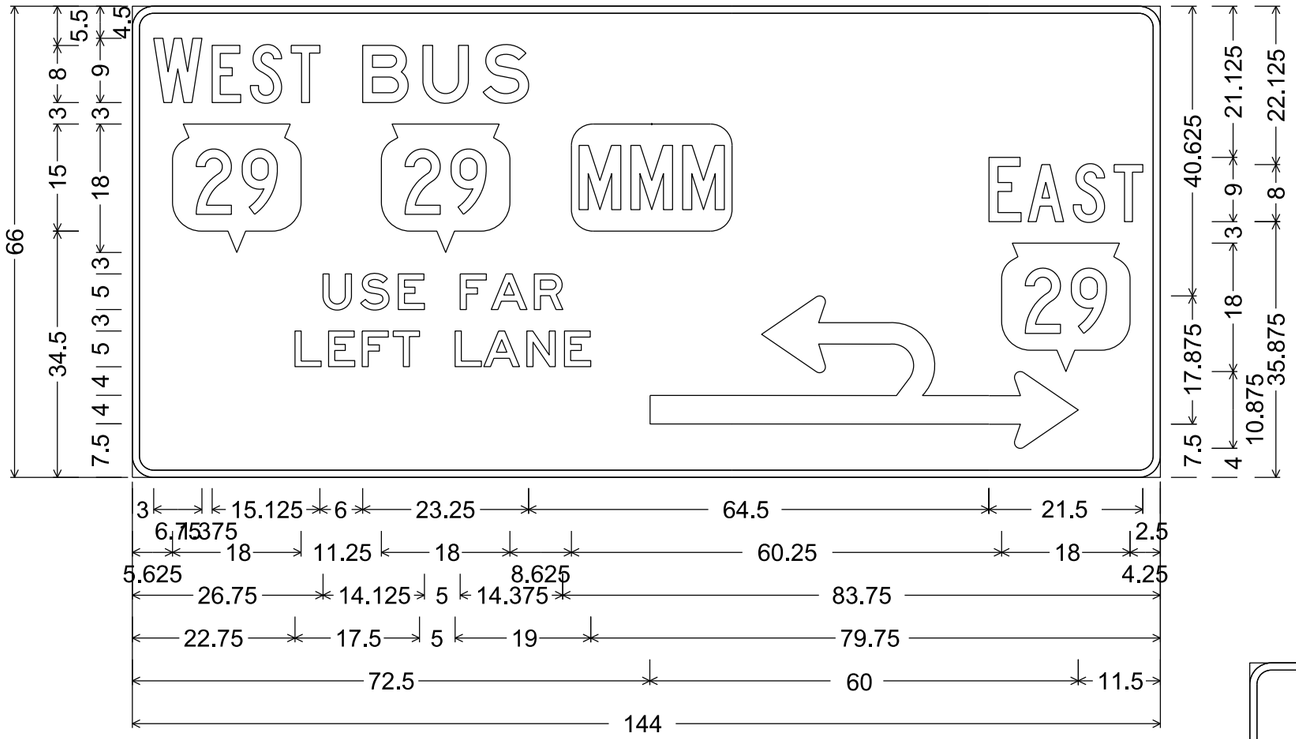
D1-1; 3.000" Radius, 1.000" Border



D1-1; 3.000" Radius, 1.000" Border



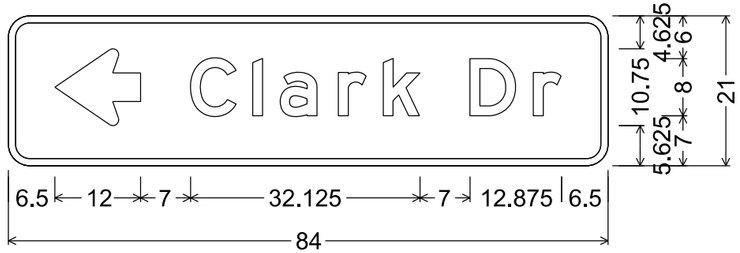
D1-81; 3.000" Radius, 1.000" Border



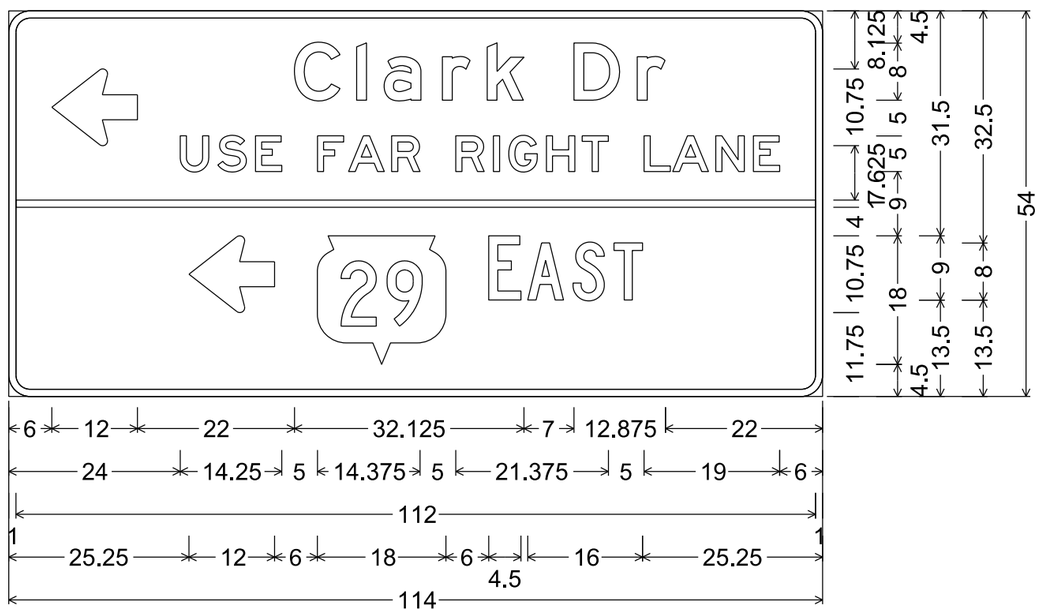
D1-82; 3.000" Radius, 1.000" Border,
"WEST", C; "BUS", E; "EAST", C

NOTES

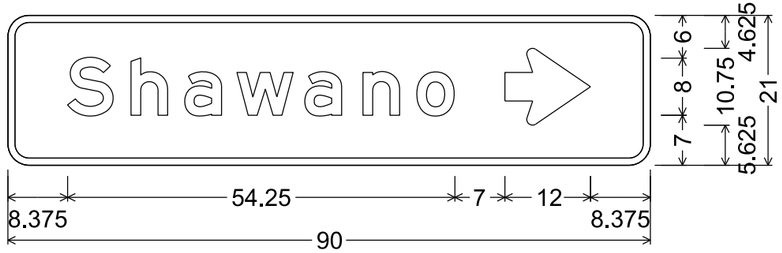
1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E except as noted



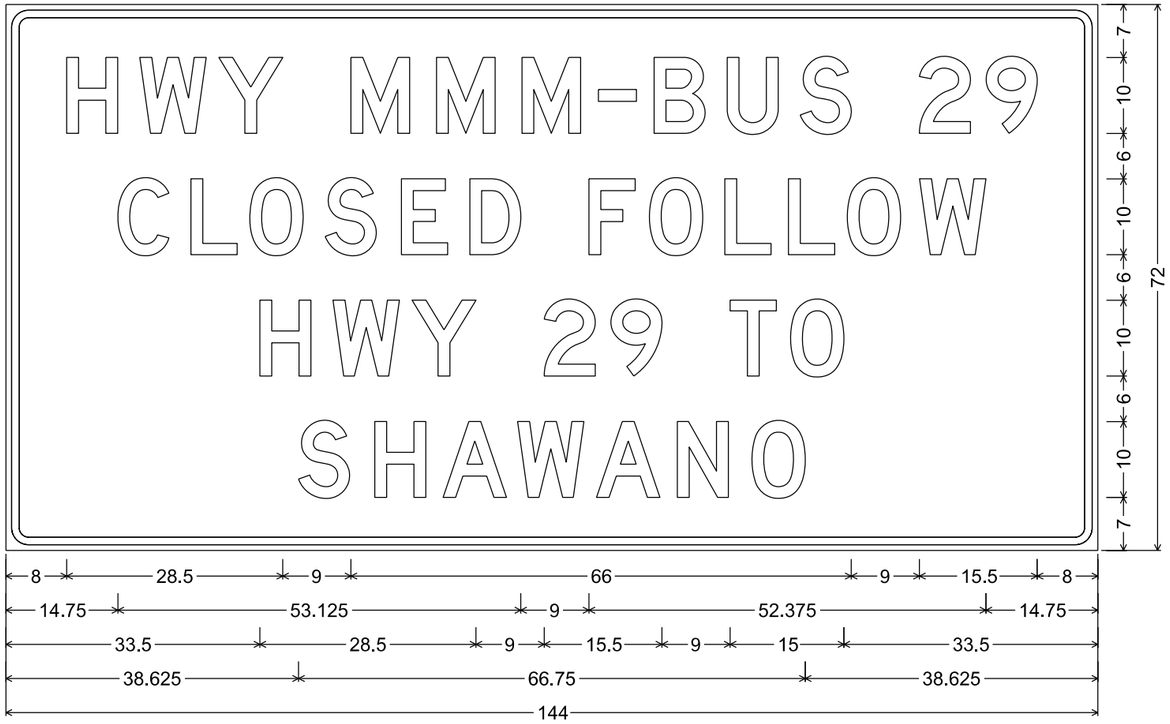
D1-1; 3.000" Radius, 1.000" Border



D1-81; 3.000" Radius, 1.000" Border

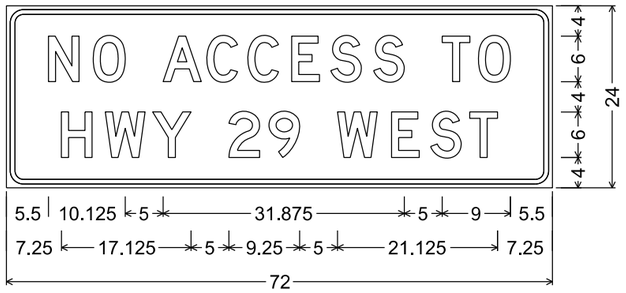


D1-1; 3.000" Radius, 1.000" Border



3.000" Radius, 1.000" Border, 0.750" Indent

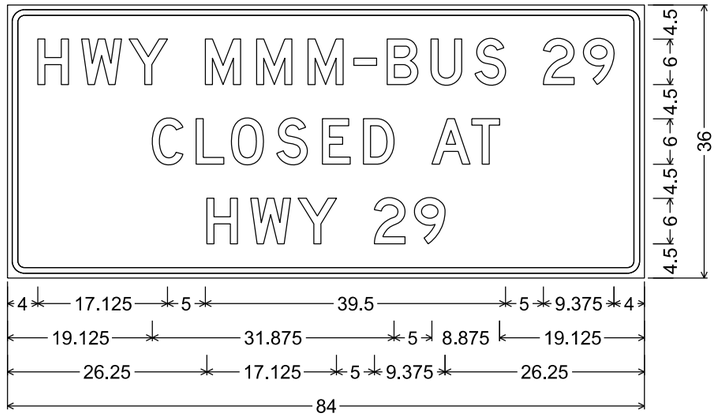
2.250" Radius, 0.625" Border, 0.500" Indent



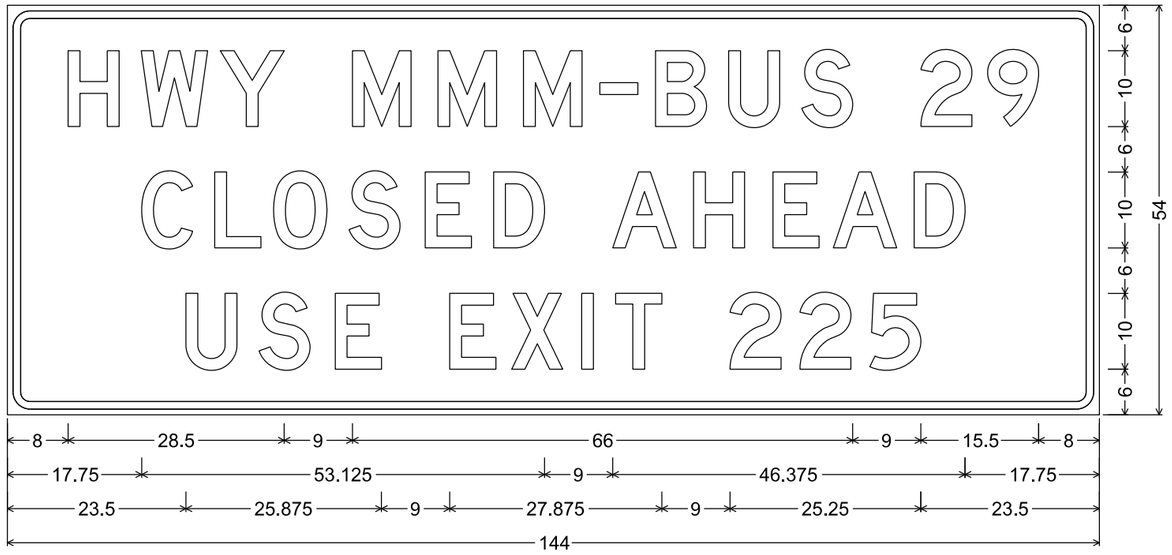
2.250" Radius, 0.625" Border, 0.500" Indent

NOTES

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



2.250" Radius, 0.750" Border, 0.625" Indent

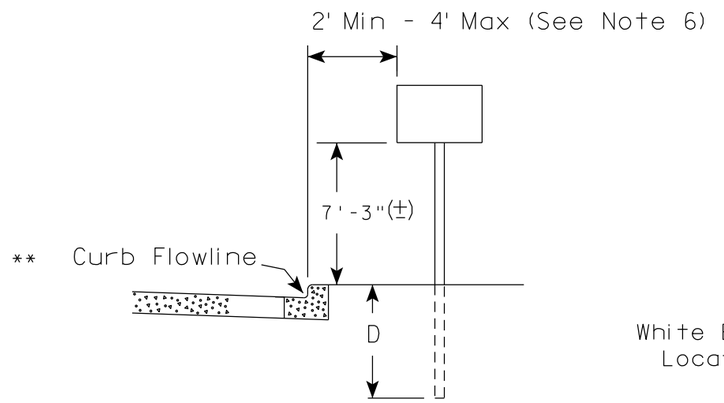


3.000" Radius, 1.000" Border, 0.750" Indent

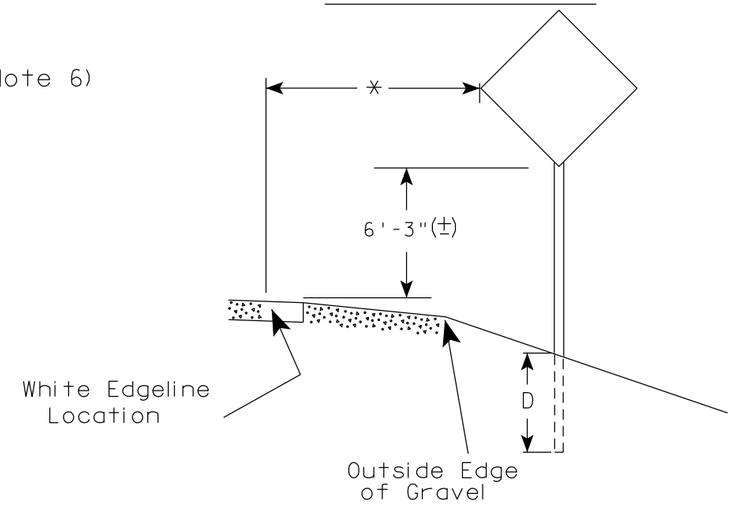
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	TEMPORARY SIGNING	SHEET NO: 181	E

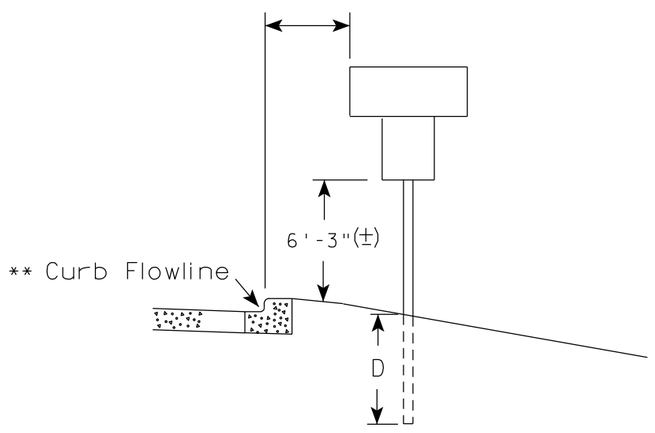
FILE NAME : C:\CAEfiles\Projects\tr_d3_3582a923FMS.dgn PLOT DATE : 13-SEPT 2023 3:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

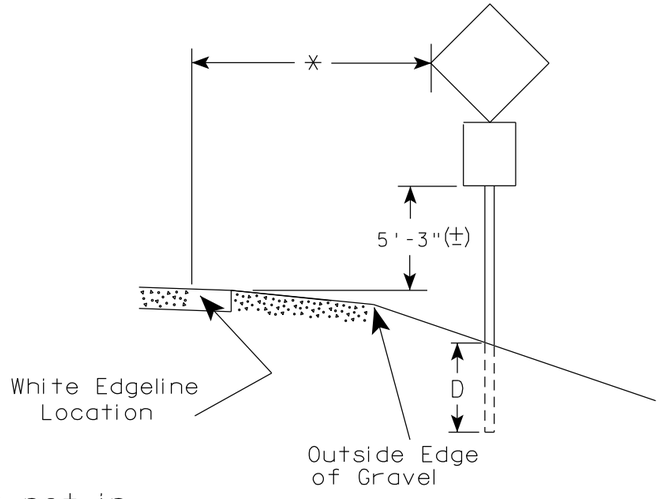
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

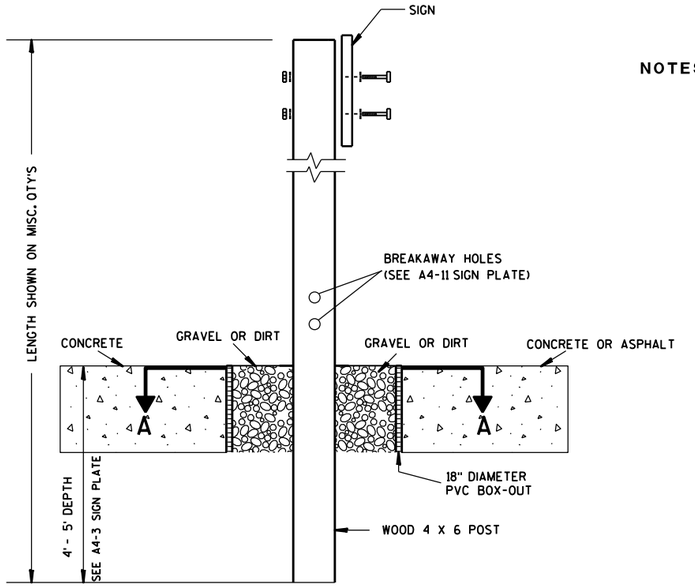
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

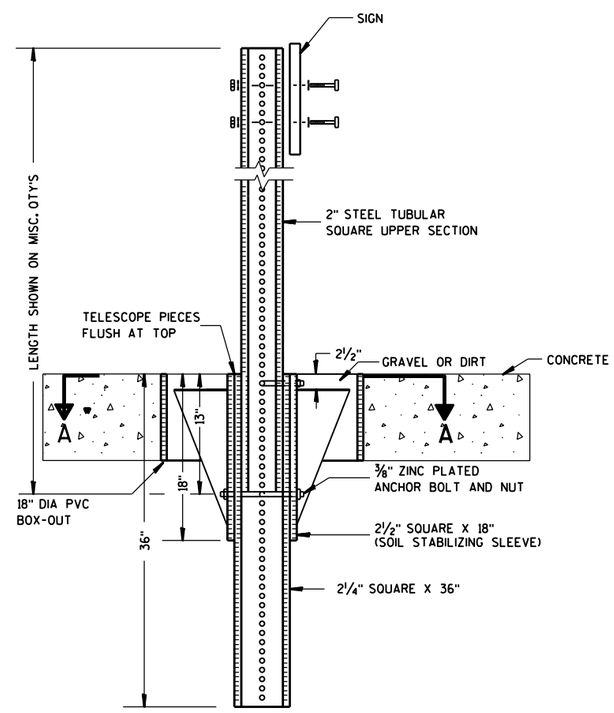
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 182	E



ELEVATION VIEW

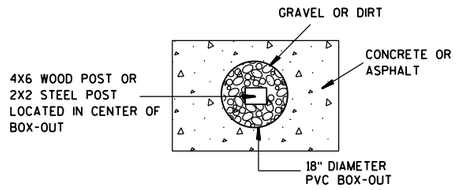
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

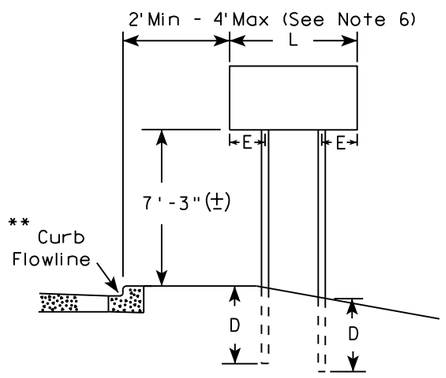
APPROVED Matthew R Rauch
for State Traffic Engineer

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

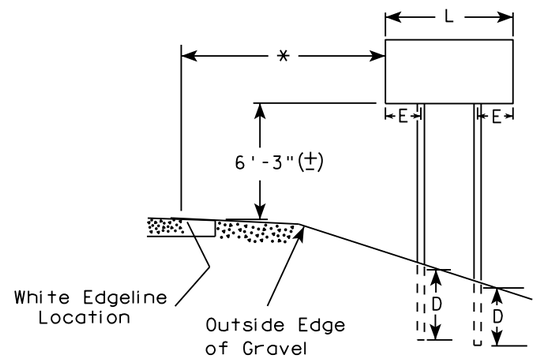
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

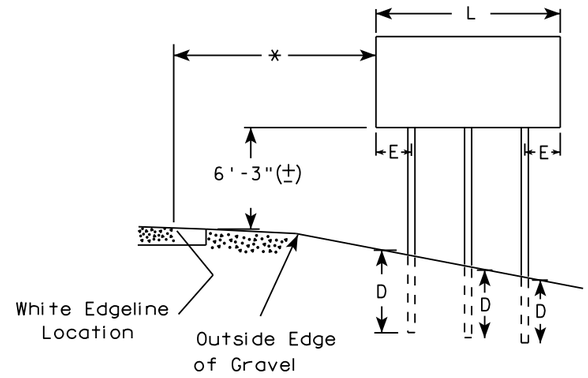
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

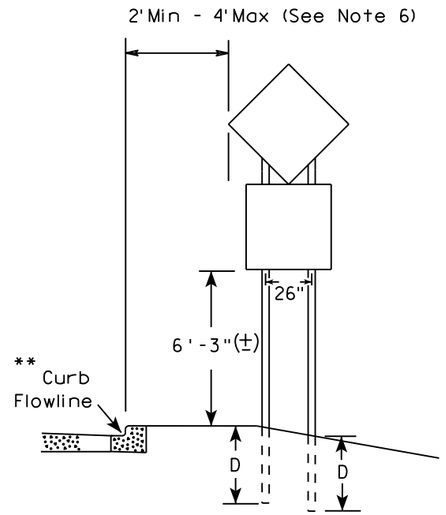
URBAN AREA



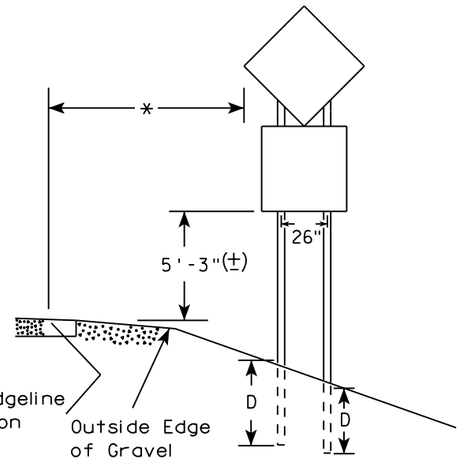
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

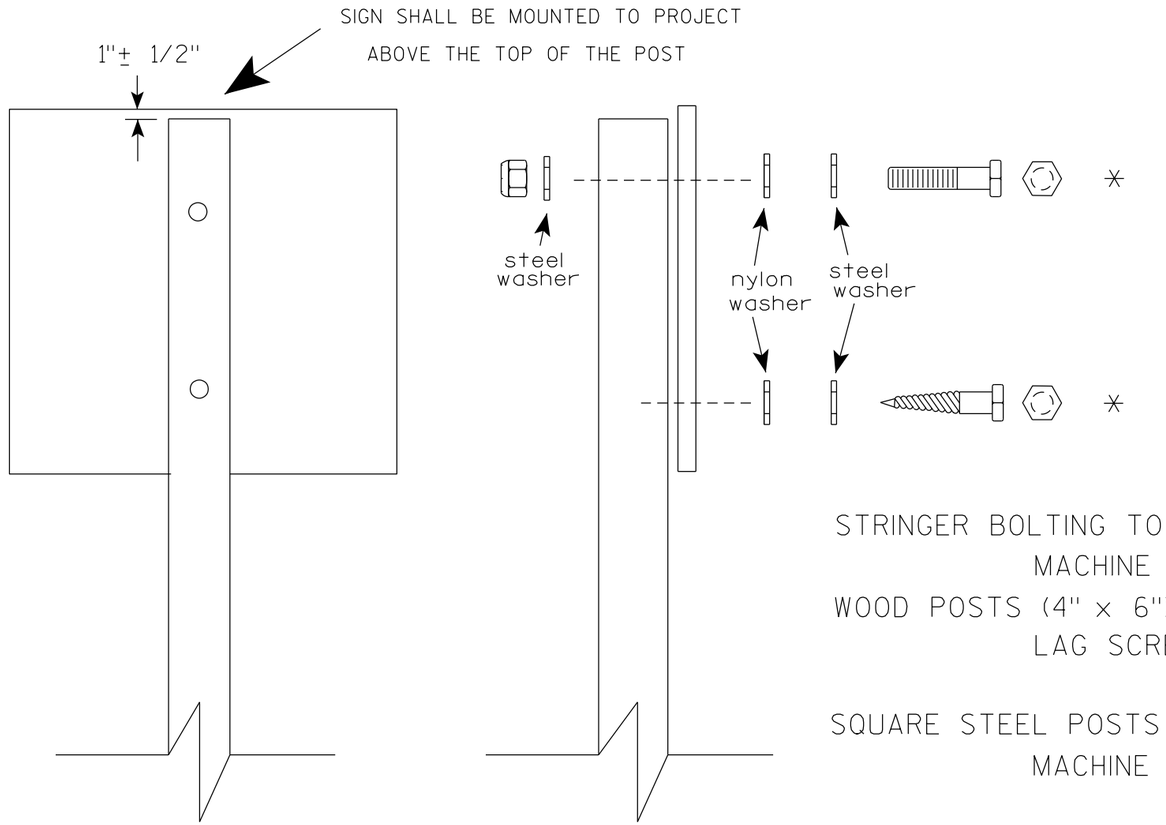
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 184	E



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

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

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

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

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

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

WOOD POSTS (4" x 6")

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 185 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 01-APRIL-2020 PLOT BY : dotc4c

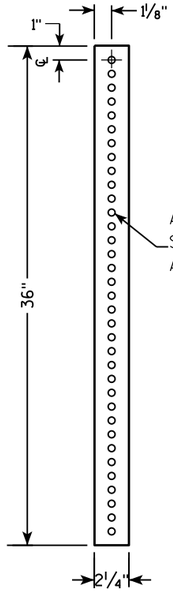
WISDOT/CADDS SHEET 42

7

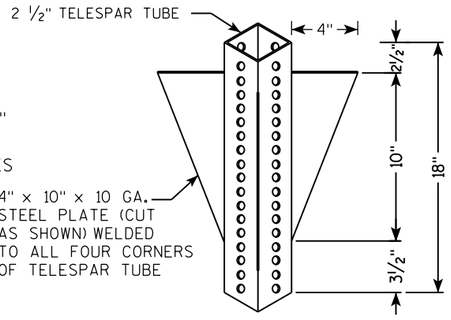
7

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

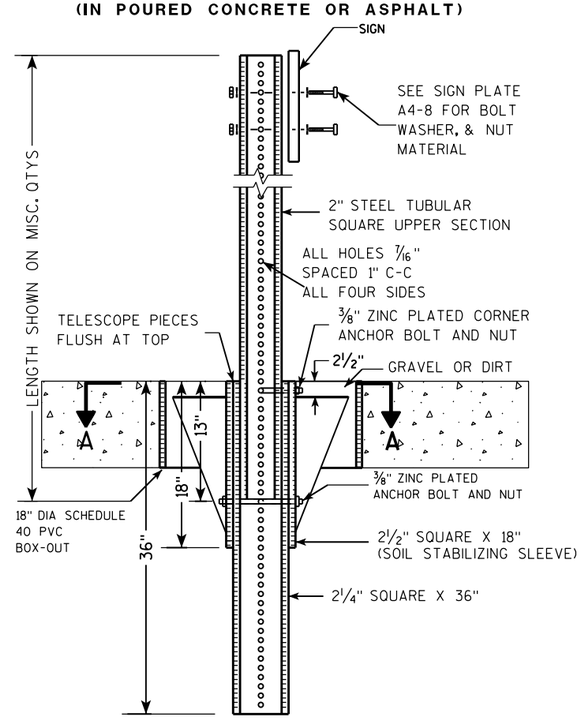
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



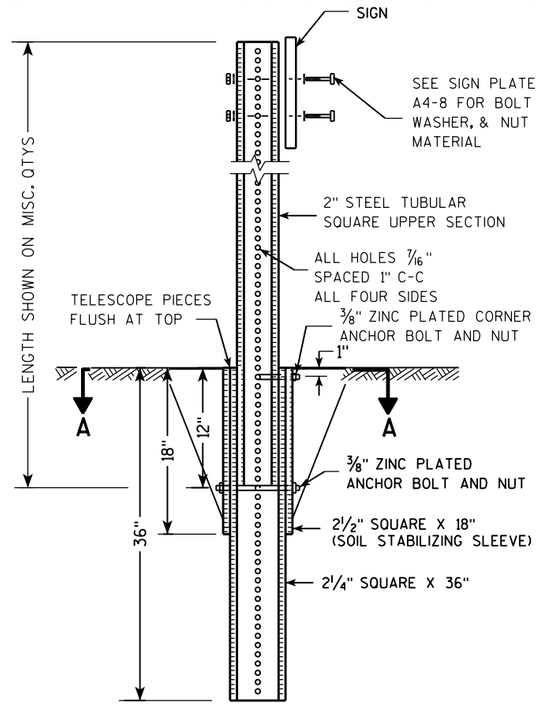
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

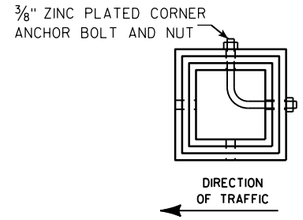


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

TUBULAR STEEL
SIGN POST
A4-9

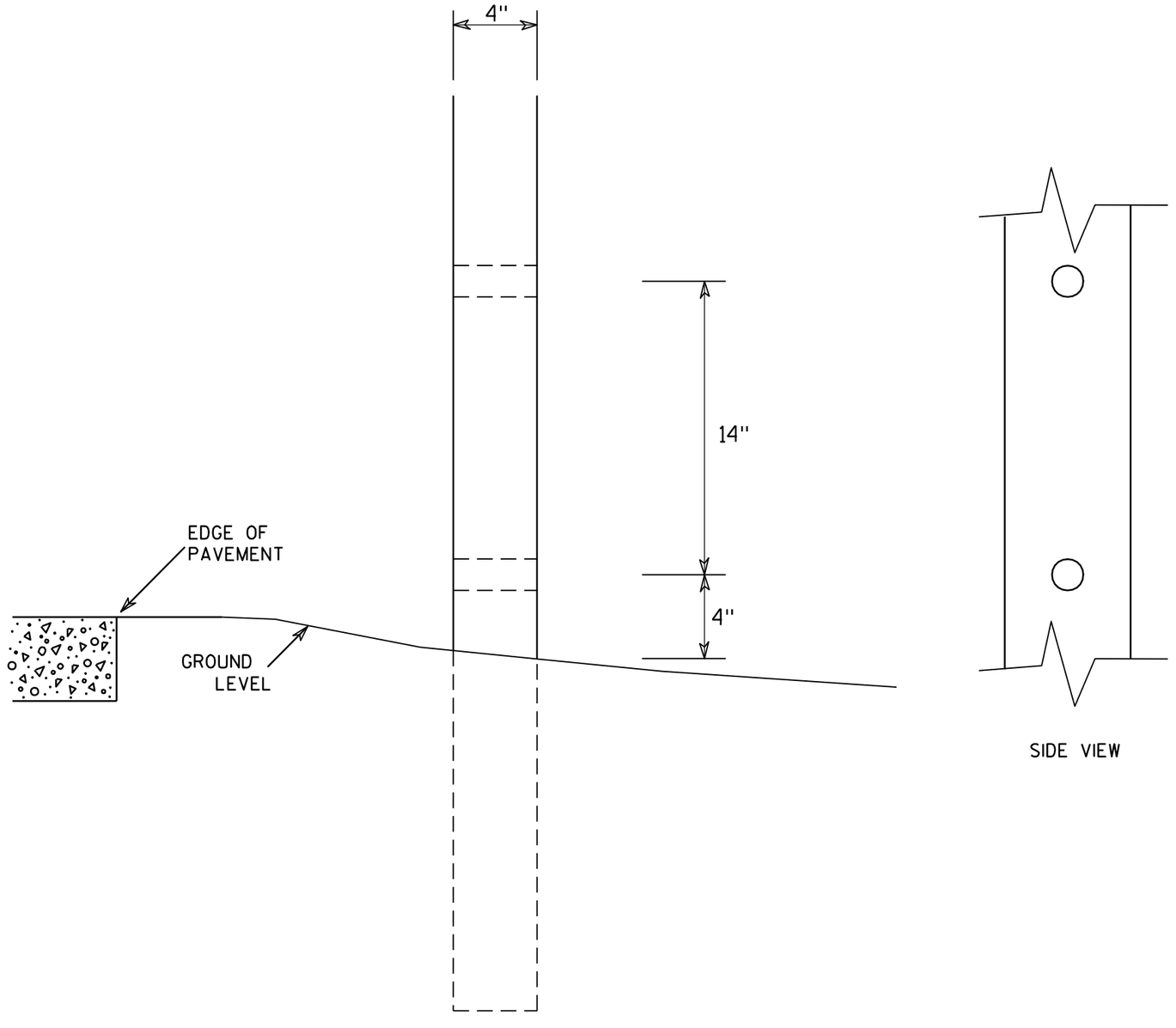
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

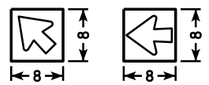
WISCONSIN DEPT OF TRANSPORTATION

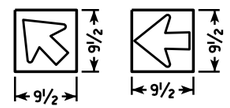
APPROVED Chester J Spang
for State Traffic Engineer

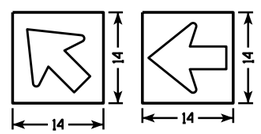
DATE 3/27/97 PLATE NO. A4-11.2

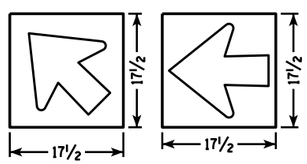
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 187	E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES







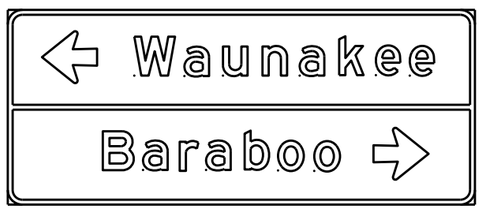


GENERAL NOTES

1. Materials shall conform to Standard Specification Section 637.
   Base - Sheet Aluminum 0.040" Thickness
   Sheeting - Orange Type F Reflective
   Arrow - Black Non-Reflective
2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws. There shall be a minmum of 2 fasteners used per arrow sign.
3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
4. Arrows are per standard plate A1-2
5. Use separate arrow sign for each destination
6. Tilt arrow is always at 45 degrees
7. Arrow is centered on arrow sign

Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3¾" Series C	8	9 ½	14 ½	8
4½" Series D & E	9 ½	10	15	9 ½
6" Series D & E	14	16	20 ½	14
8" Series E	17 ½	20 ½	25	17 ½

BEFORE



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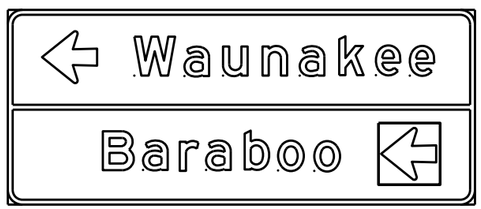
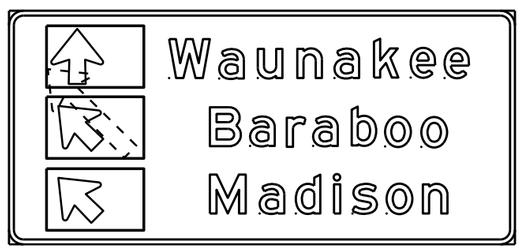




DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/08/14

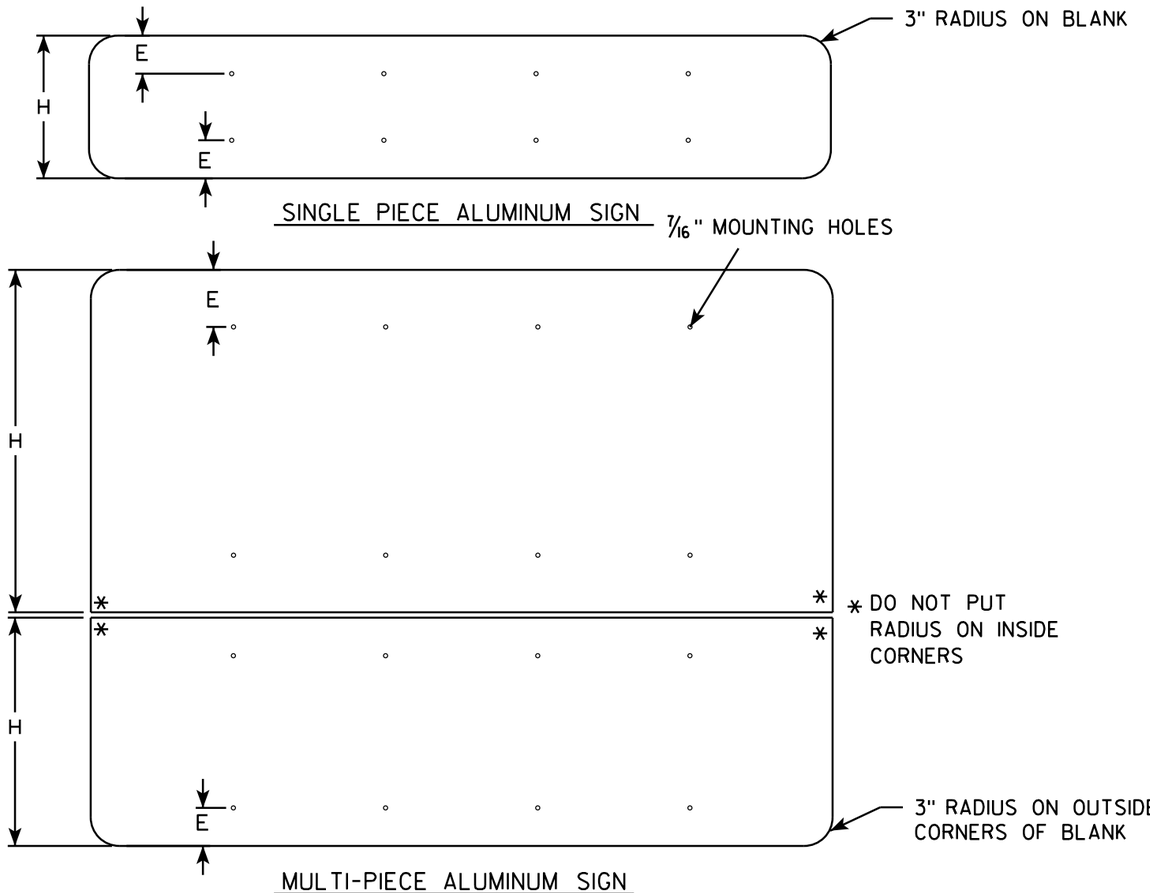
A4-12.2

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A412.DGN PLOT DATE : 08-OCT-2014 11:50 PLOT BY : mscsja

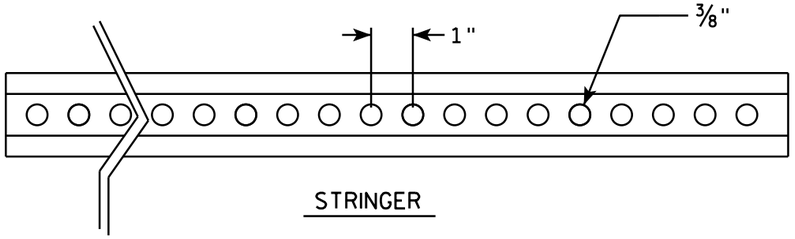
WISDOT/CADDS SHEET 42



GENERAL NOTES

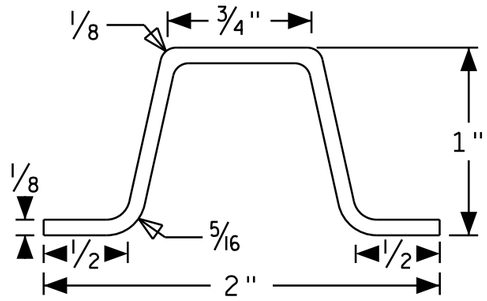
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
114"	108"	3	15"	12" 27" 42" 57" 72" 87" 102"
120"	108"	3	16"	12" 28" 44" 60" 76" 92" 108"
126"	108"	3	17"	12" 29" 46" 63" 80" 97" 114"
132"	126"	3	18"	12" 30" 48" 66" 84" 102" 120"
138"	126"	3	19"	12" 31" 50" 69" 88" 107" 126"
144"	126"	3	20"	12" 32" 52" 72" 92" 112" 132"

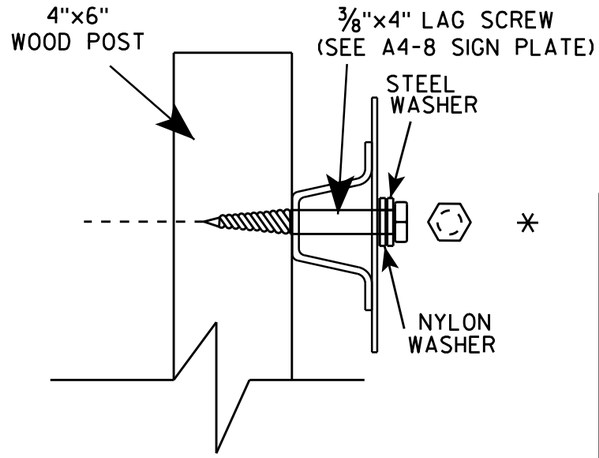


STRINGER

CROSS SECTION VIEW OF CHANNEL



POST MOUNTING



SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

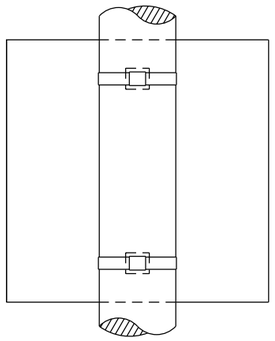
DATE 4/26/16 PLATE NO A4-18.1

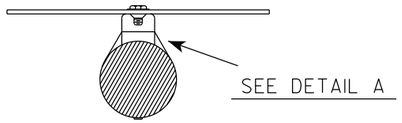
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

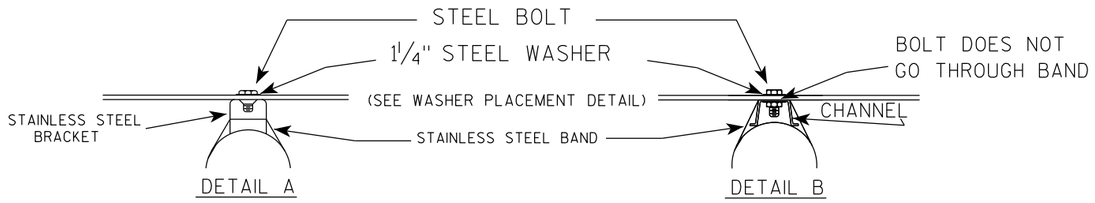
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

BANDING

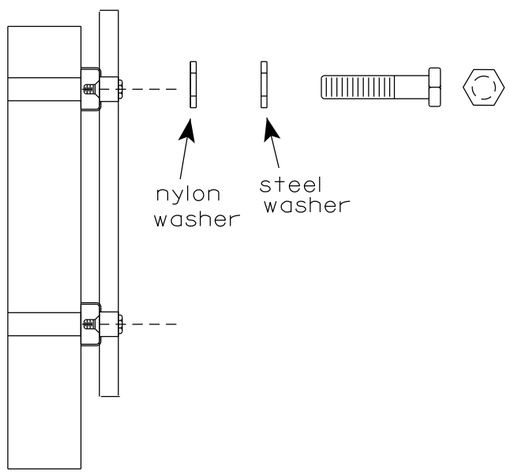
SINGLE SIGN







WASHER PLACEMENT

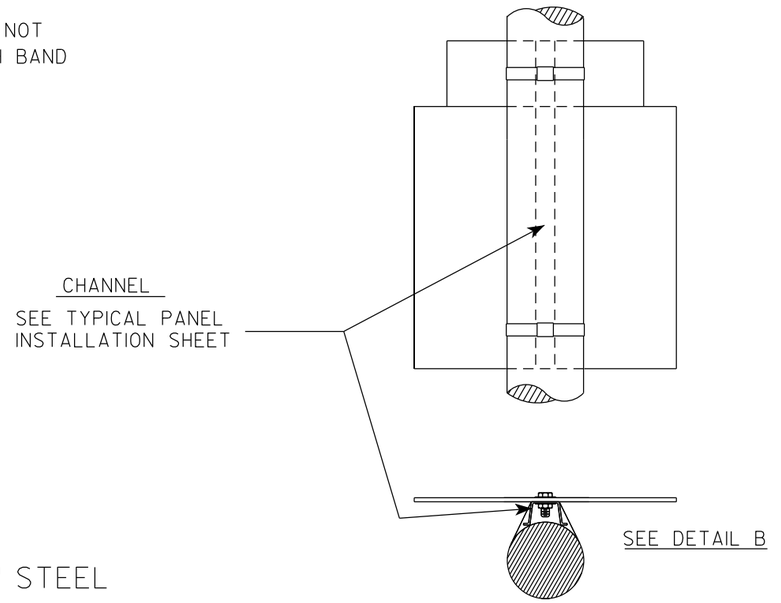


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

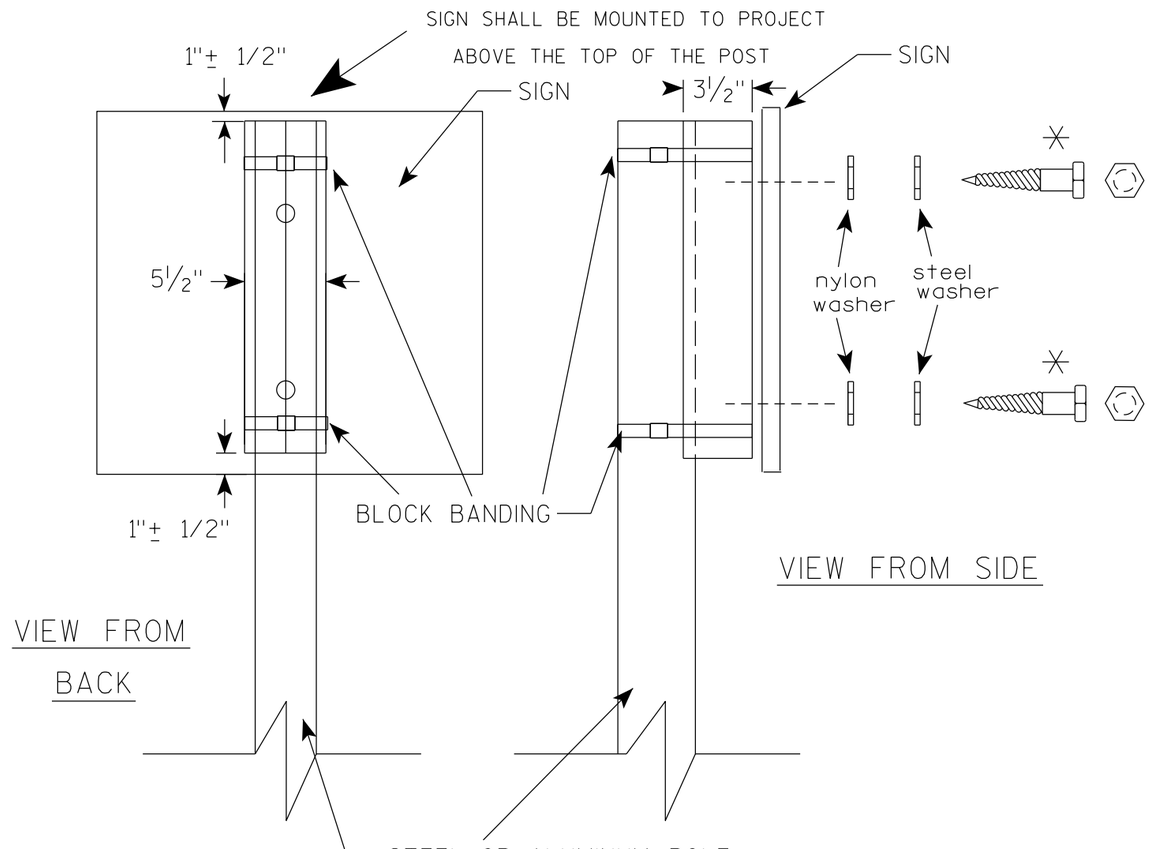
DATE 6/10/19 PLATE NO. A5-9.4

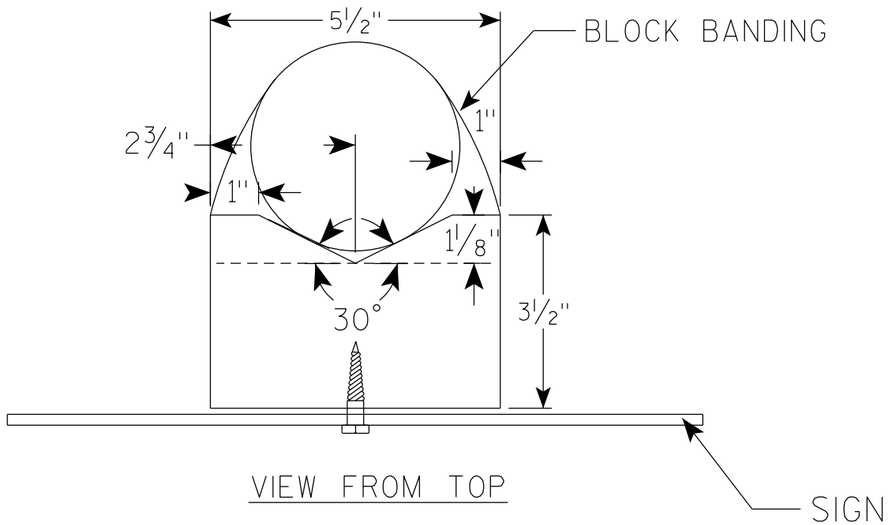
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 190	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





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
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 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)

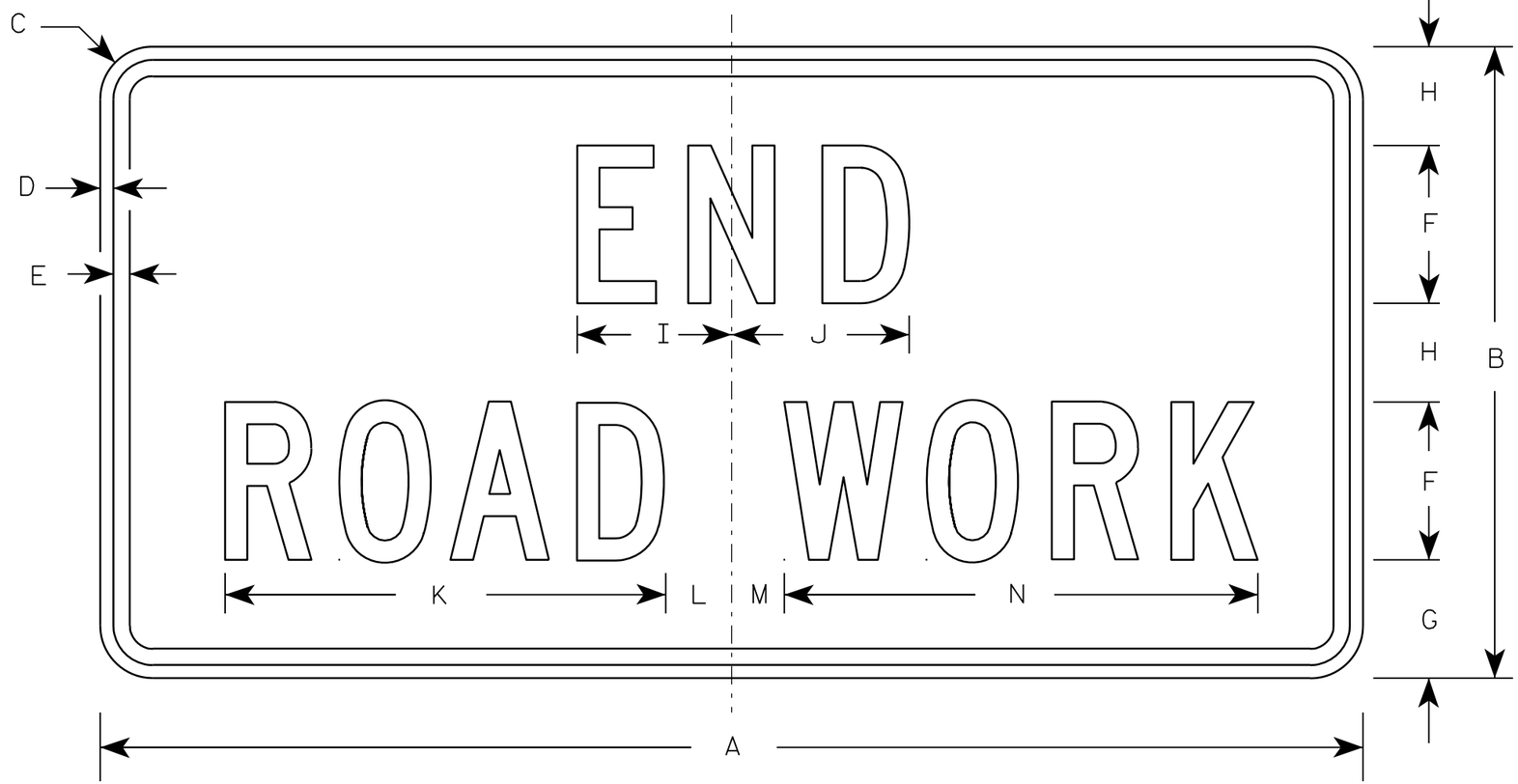
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 191 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

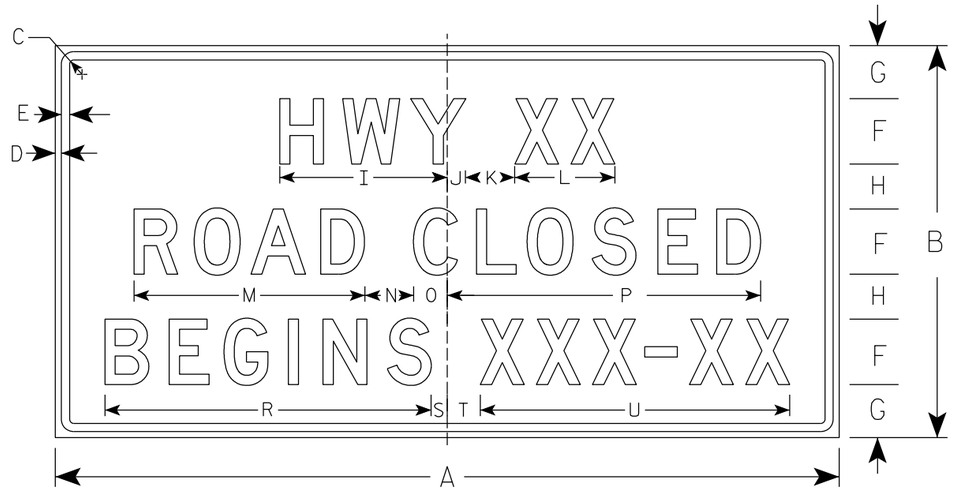
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

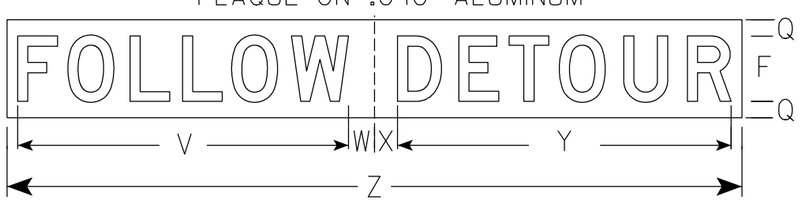
DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 192	E



G20-57C

PLAQUE ON .040" ALUMINUM



USE ONLY ONCE WHEN ROAD IS CLOSED

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and 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																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/8	5	2 7/8	29	2	30	1 3/4	3 1/4	28 3/8	40 1/2	2	2	29 3/4	66	18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	6	4 1/8	38 3/8	2	39 7/8	2	4	37 7/8	29 3/4	3 1/8	2 7/8	40 7/8	90	32.0
5																											

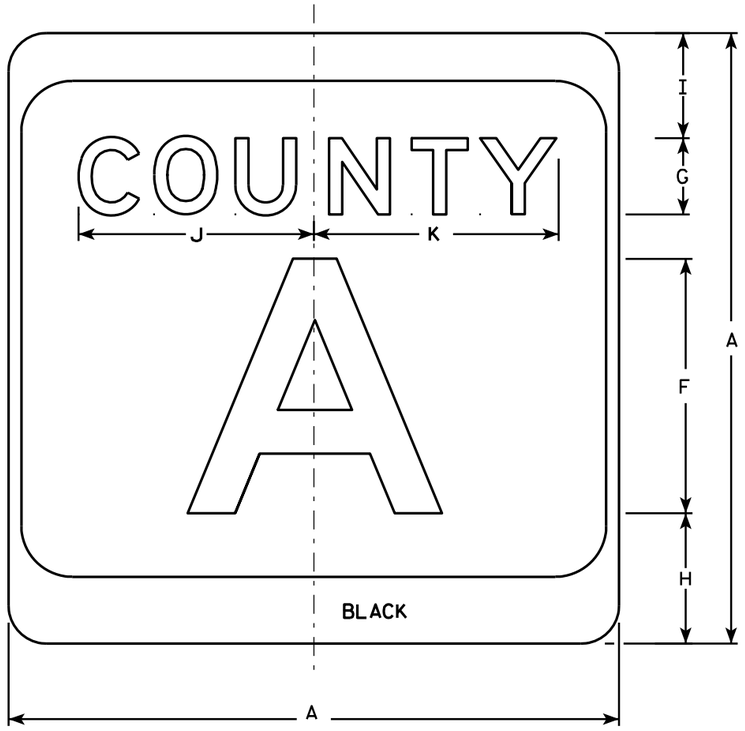
STANDARD SIGN
G20-57C

WISCONSIN DEPT OF TRANSPORTATION

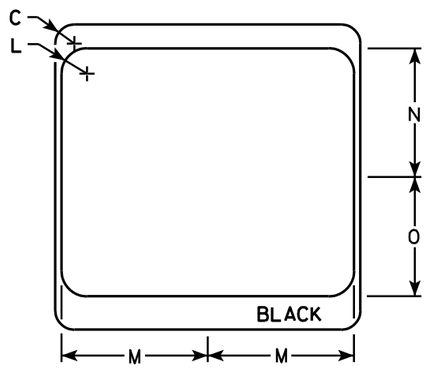
APPROVED Matthew R Rauch
for State Traffic Engineer

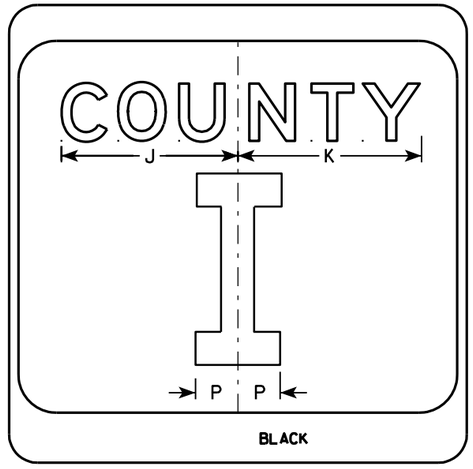
DATE 9/25/19 PLATE NO. G20-57C.1

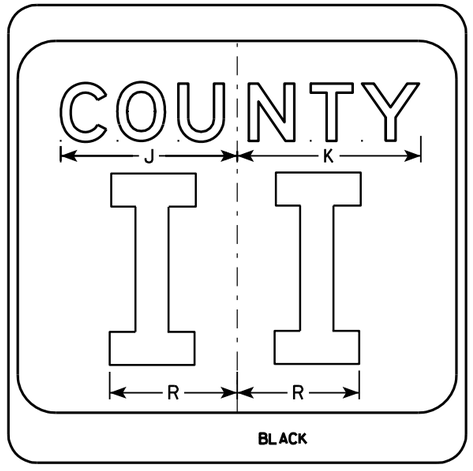
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 193 E



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

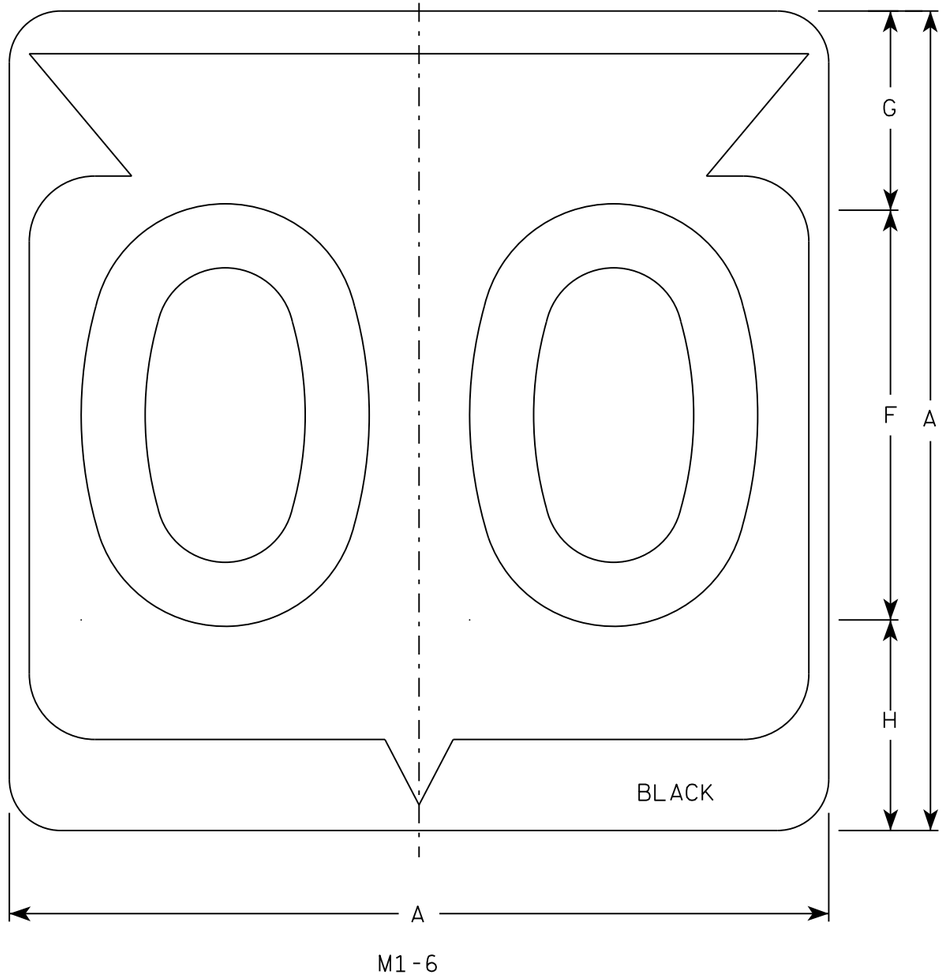
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

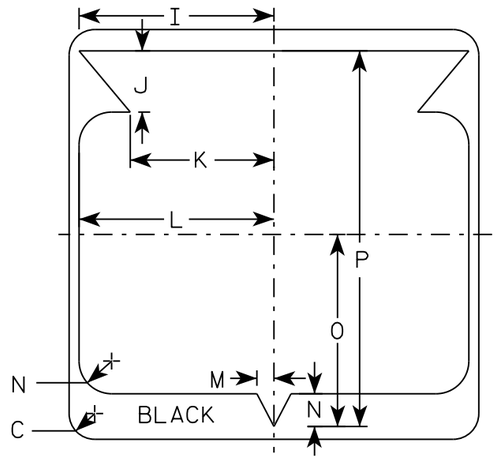
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 194 | E



M1-6

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		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
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
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
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

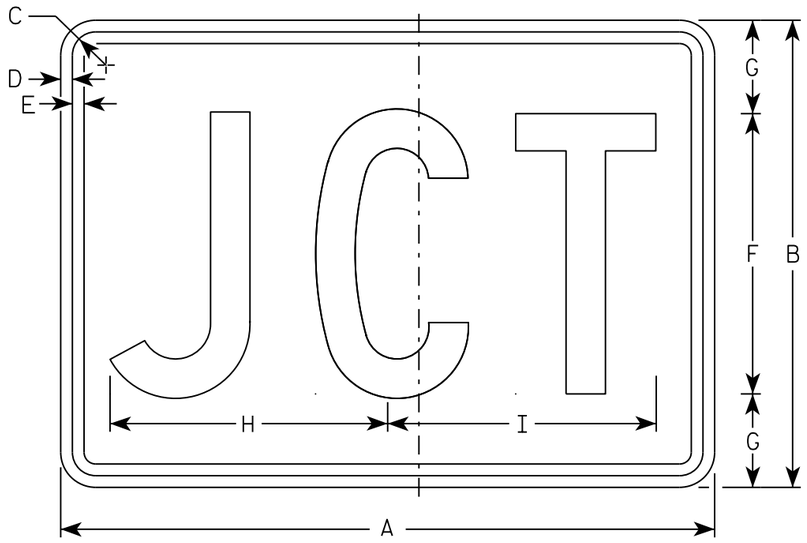
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

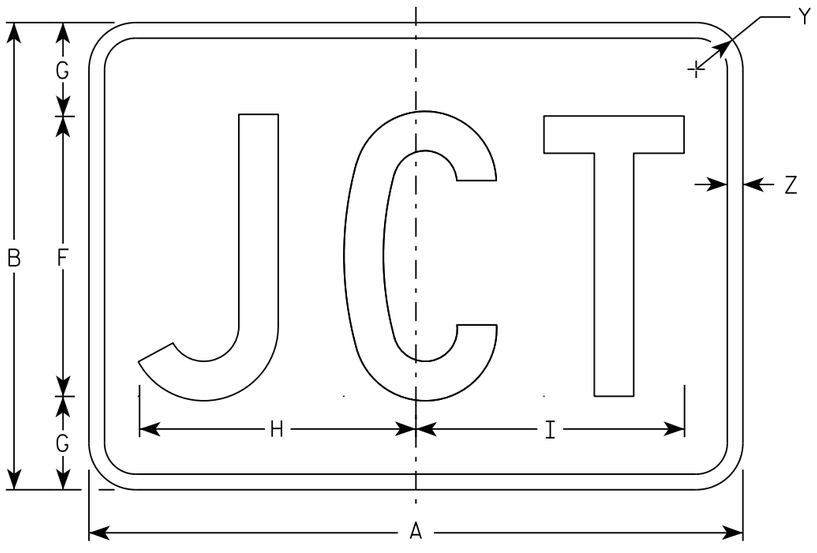
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 195 E



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

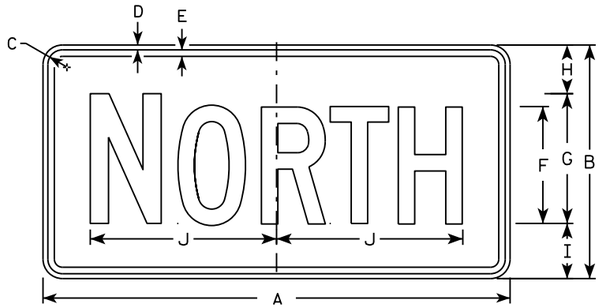
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

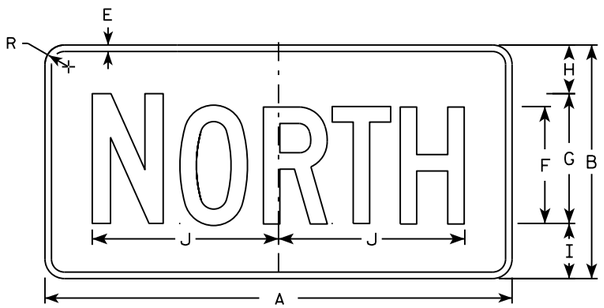
DATE 10/15/15 PLATE 196 12-1.12

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



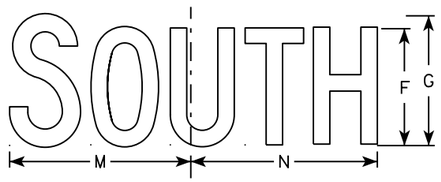
M3-1
MM3-1
MP3-1



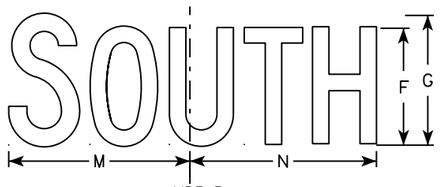
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

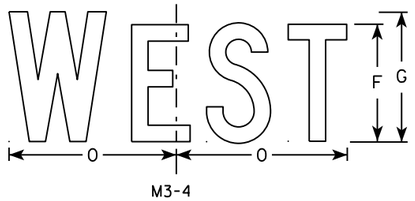
MB3-2
MK3-2
MN3-2



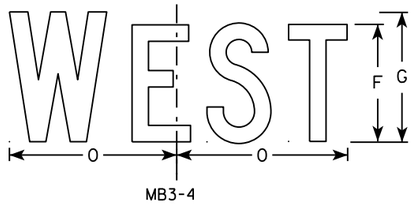
M3-3
MM3-3
MP3-3



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

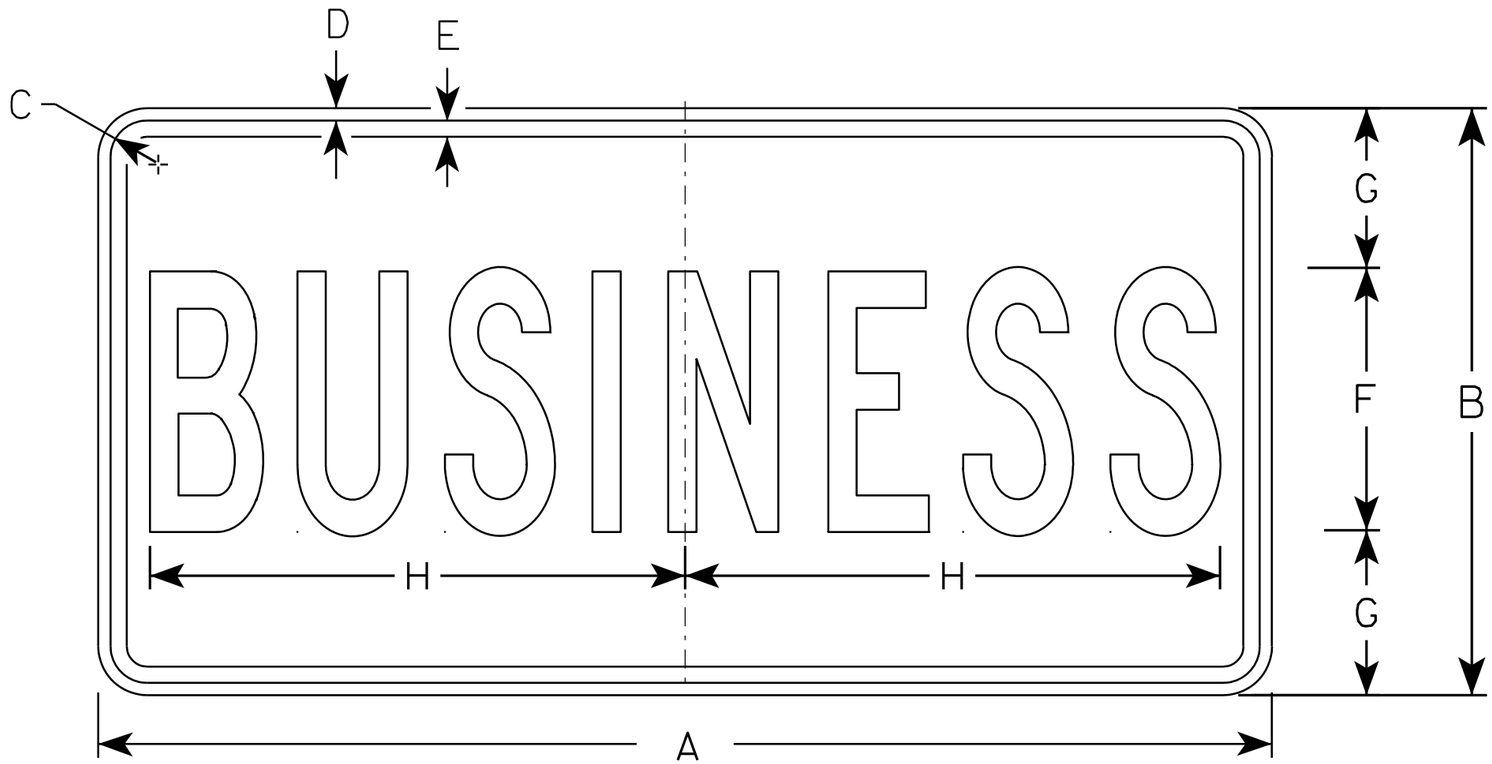
WISCONSIN DEPT OF TRANSPORTATION

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



M4-3

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White - See Note 5
   Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	5	3 1/2	9 5/8																			2.0
3	36	18	1 1/8	3/8	1/2	8	5	16 3/8																			4.5
4																											
5																											

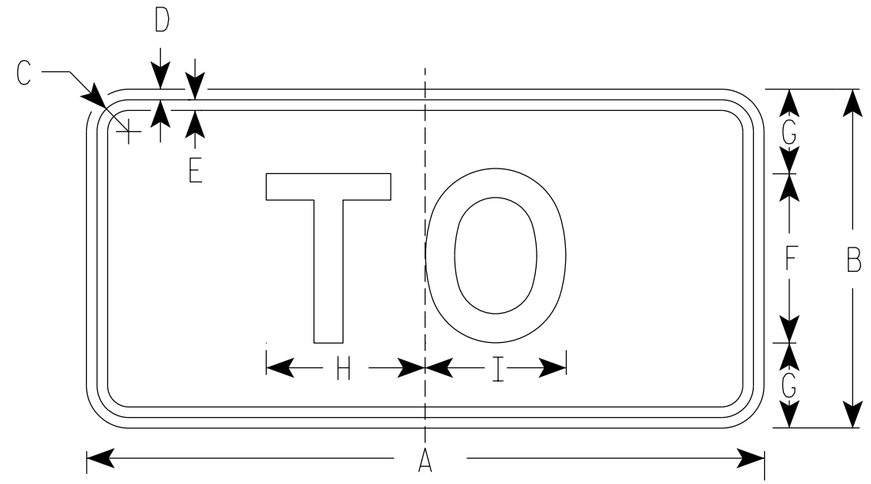
STANDARD SIGN
M4-3

WISCONSIN DEPT OF TRANSPORTATION

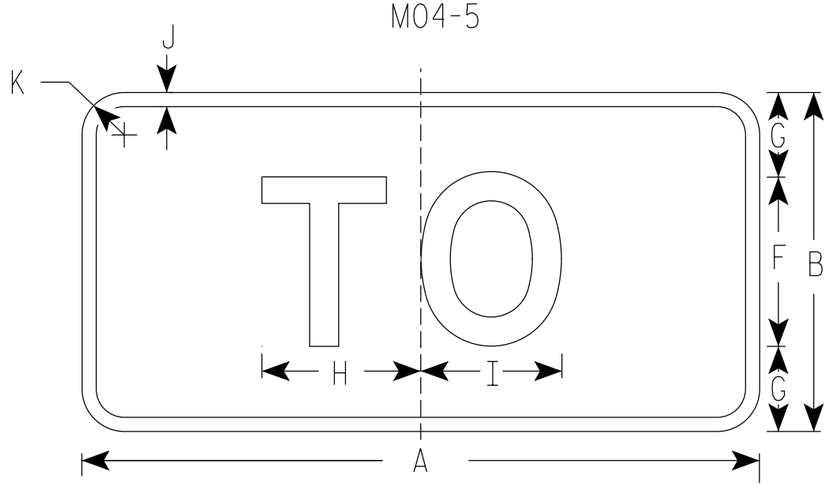
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-3.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 198 | E



M4-5
MM4-5
MP4-5
MO4-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
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

   MO4-5 Background - Orange Type F Reflective
   Message - Black

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

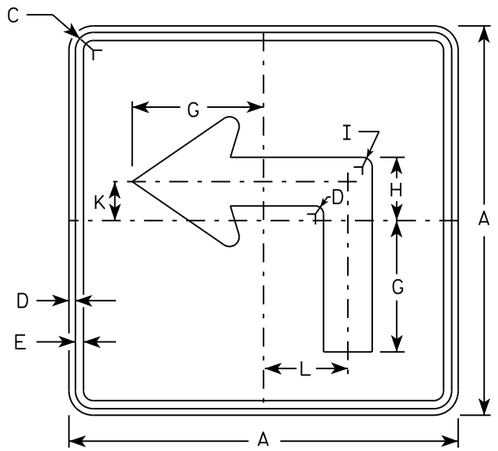
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

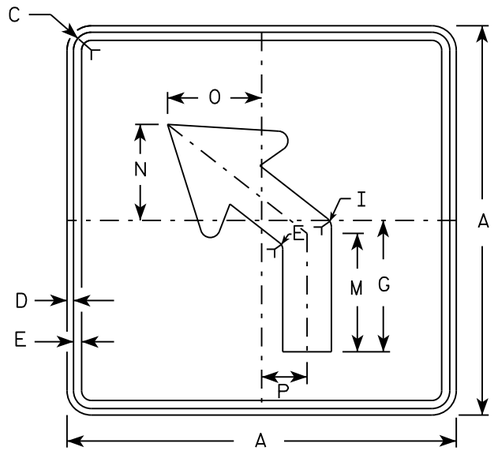
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/7/19 PLATE NO. M4-5.9

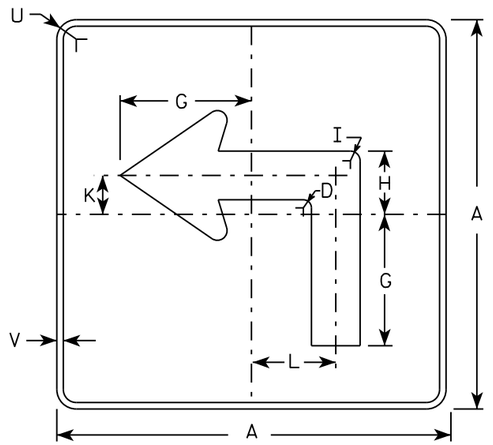
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 199 | E



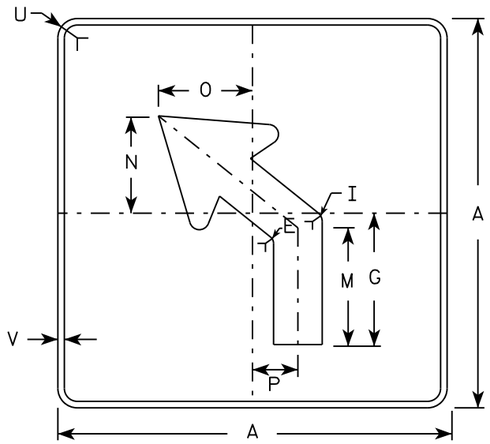
M5-1L
MM5-1L
MO5-1L
MP5-1L



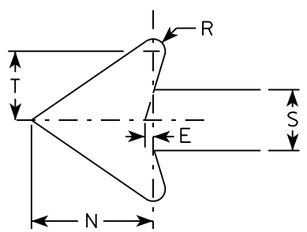
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

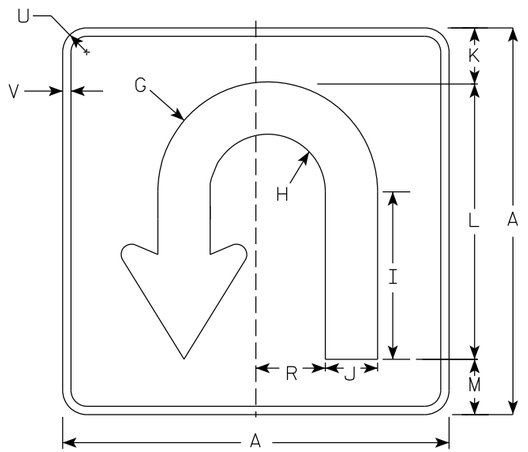
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

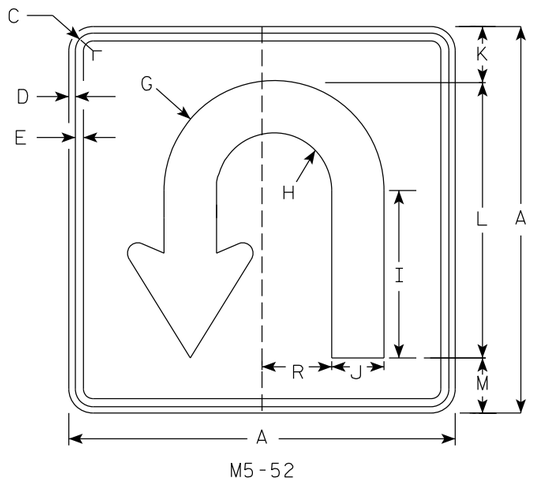
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M5-52



M5-52

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See note 4
3. M5-52 Background - White
   Message - Black

   MB5-52 Background - Blue
   Message - White

   MK5-52 Background - Green
   Message - White

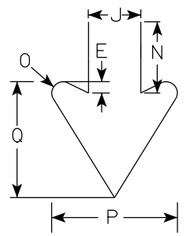
   MM5-52 Background - White
   Message - Green

   MN5-52 Background - Brown
   Message - White

   M05-52 Background - Orange - Type F Reflective
   Message - Black

   MP5-52 Background - White
   Message - Blue

   MR5-52 Background - Brown
   Message - Yellow



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4			1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4			2 1/2	5/8					6.25
4																											
5																											

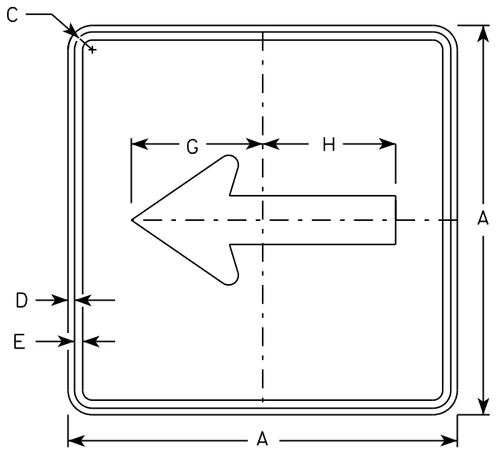
STANDARD SIGN
M5-52
SERIES

WISCONSIN DEPT OF TRANSPORTATION

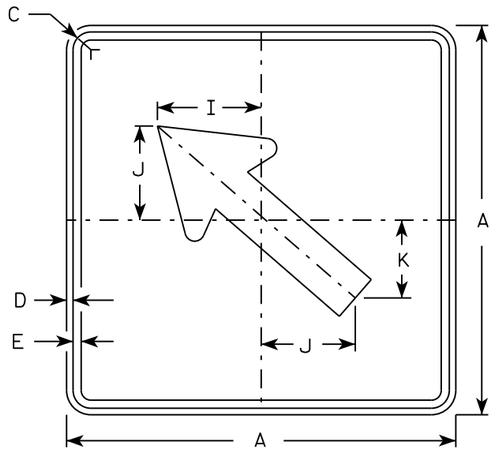
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. M5-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 201	E



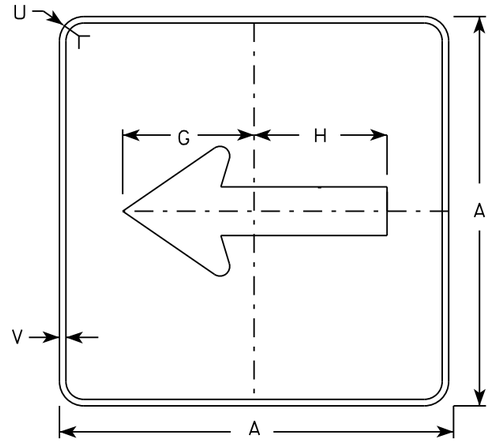
M6-1
MM6-1
MO6-1
MP6-1



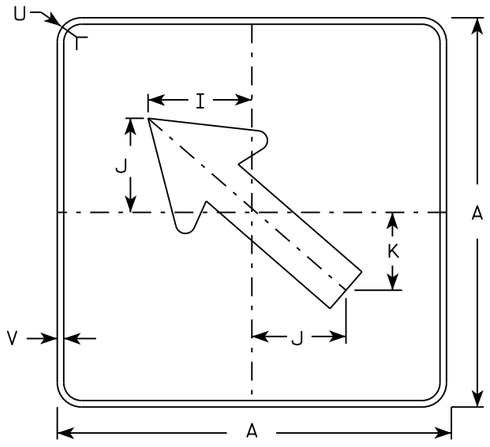
M6-2
MM6-2
MO6-2
MP6-2

NOTES

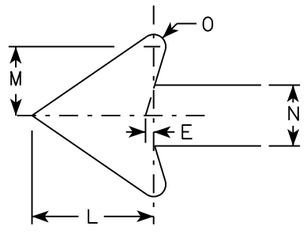
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1
MK6-1
MN6-1
MR6-1



MB6-2
MK6-2
MN6-2
MR6-2



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

STANDARD SIGN M6-1 & M6-2 SERIES

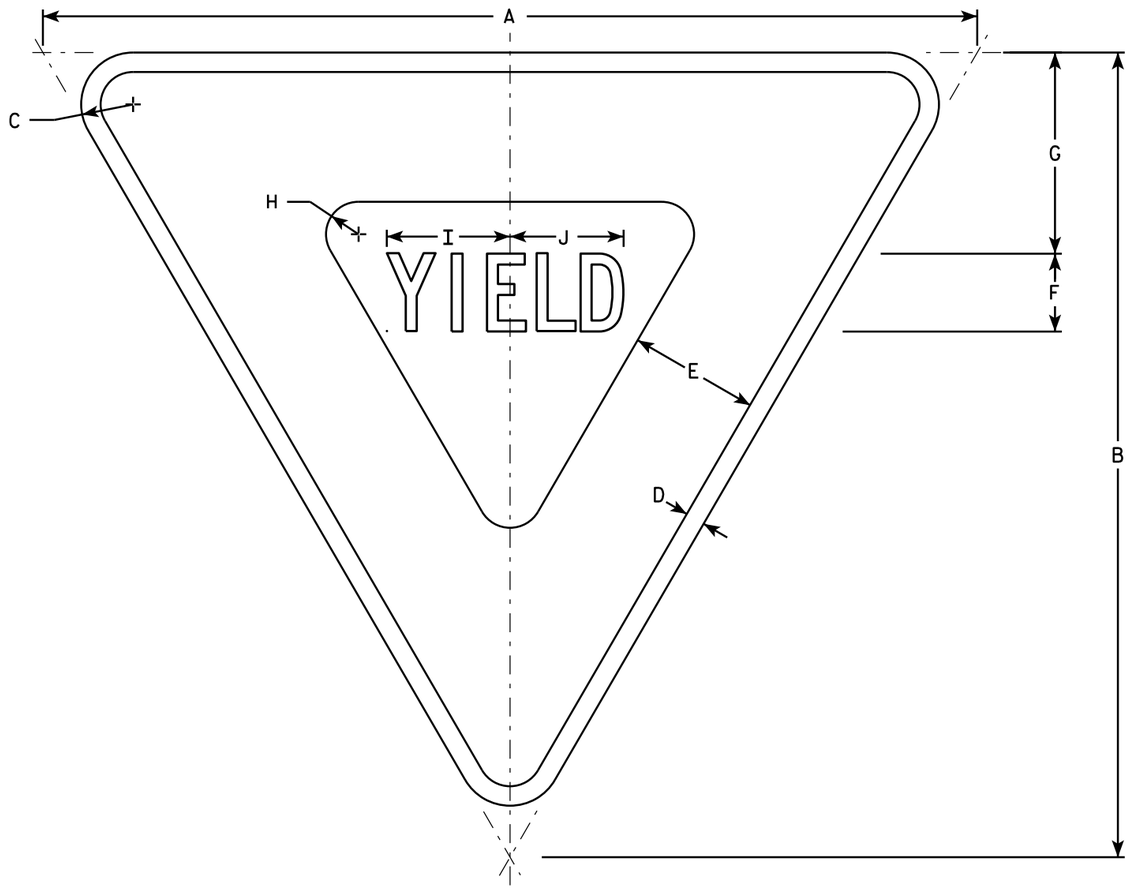
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 202 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-2

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

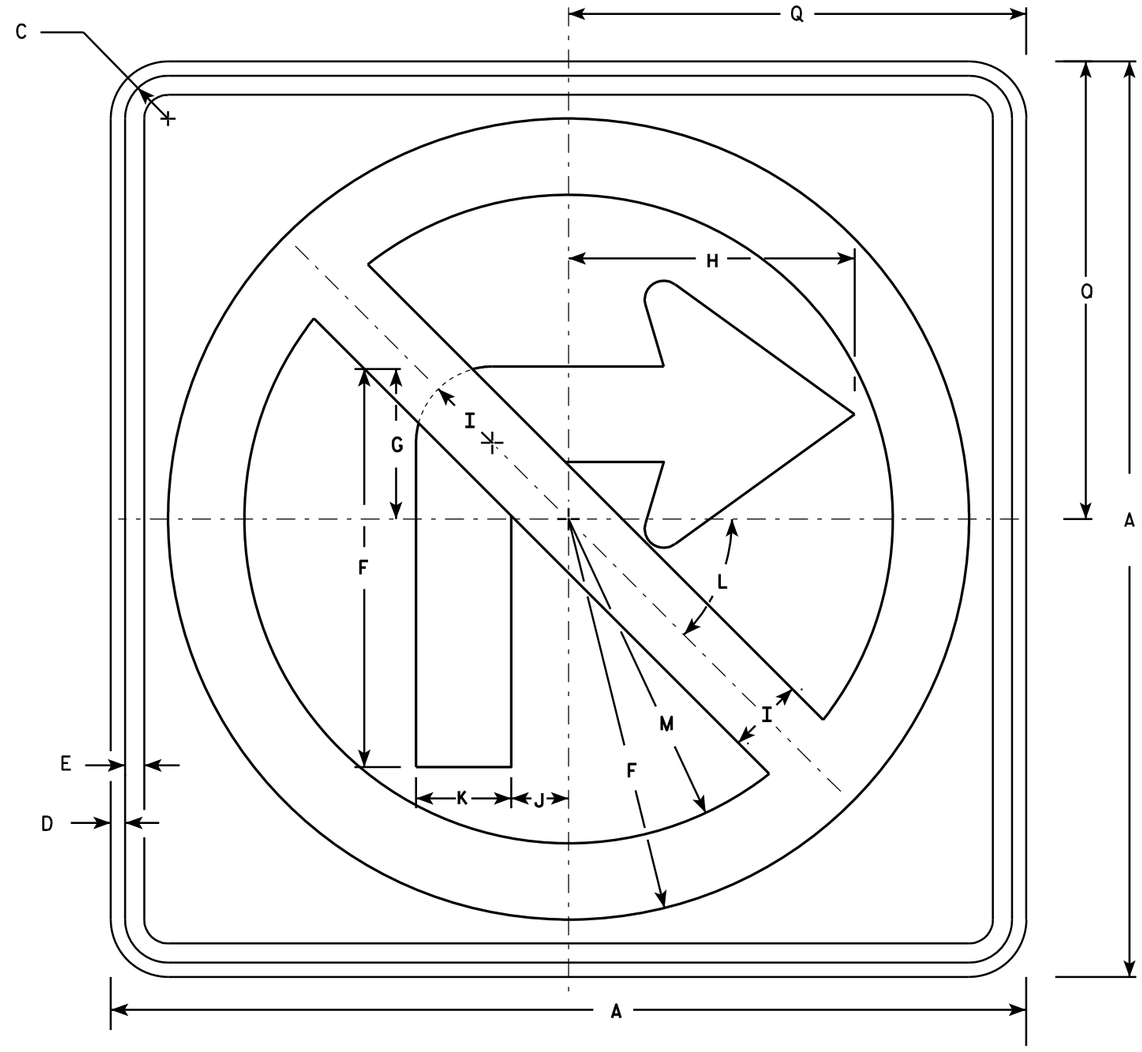
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

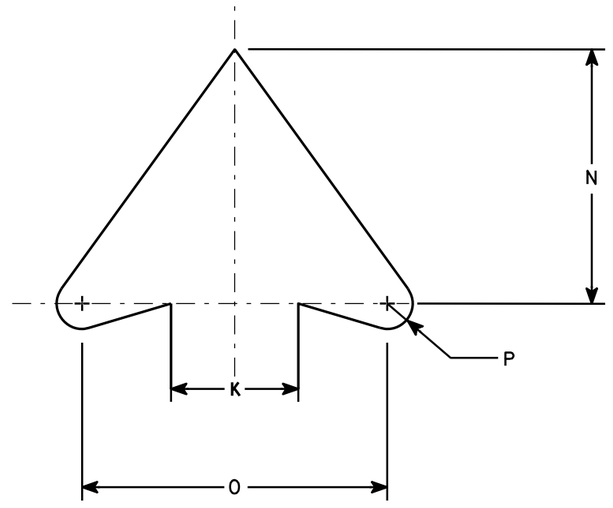
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

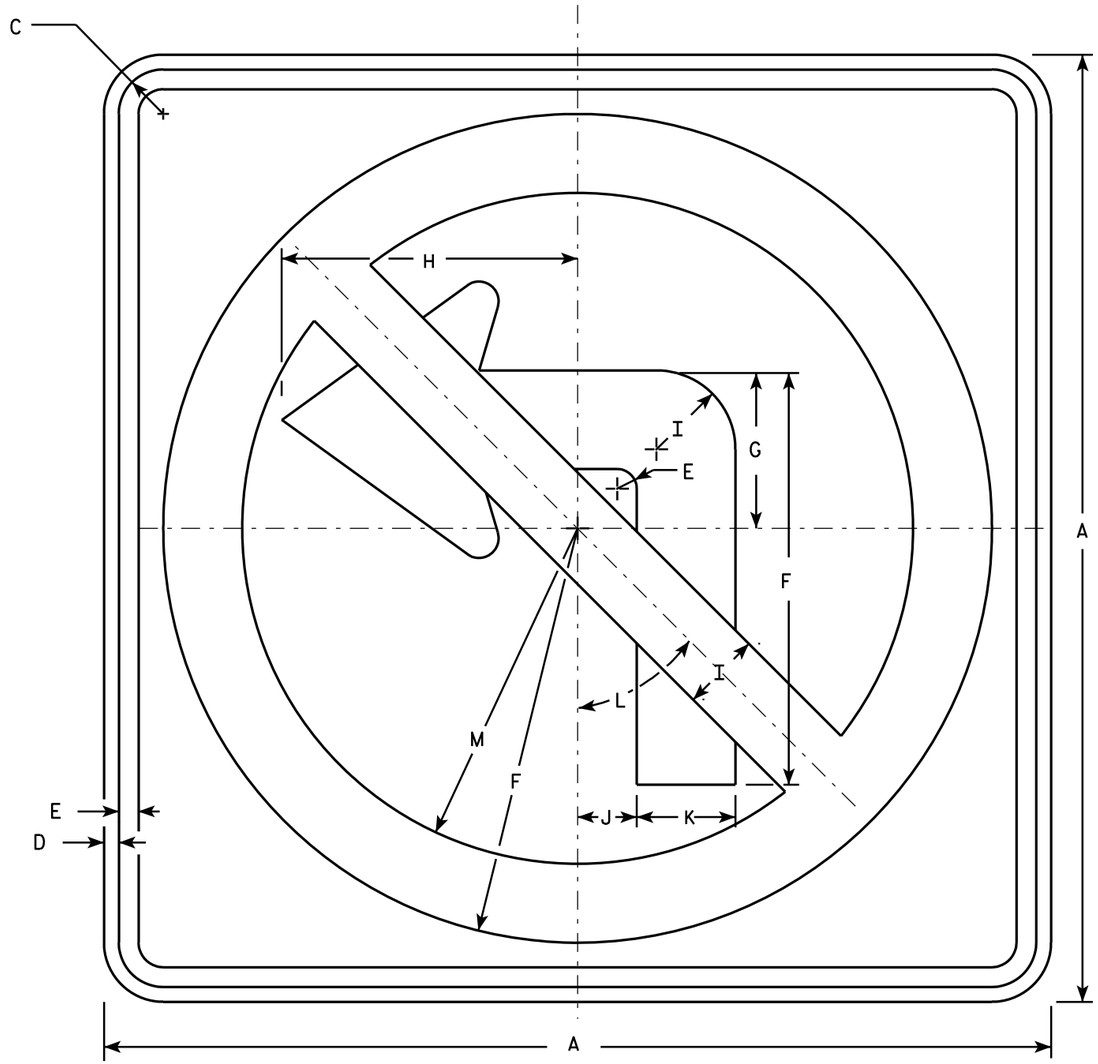
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

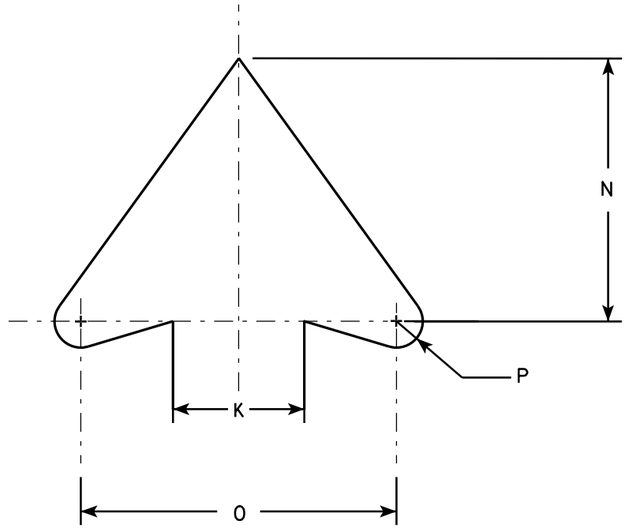
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 204	E



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

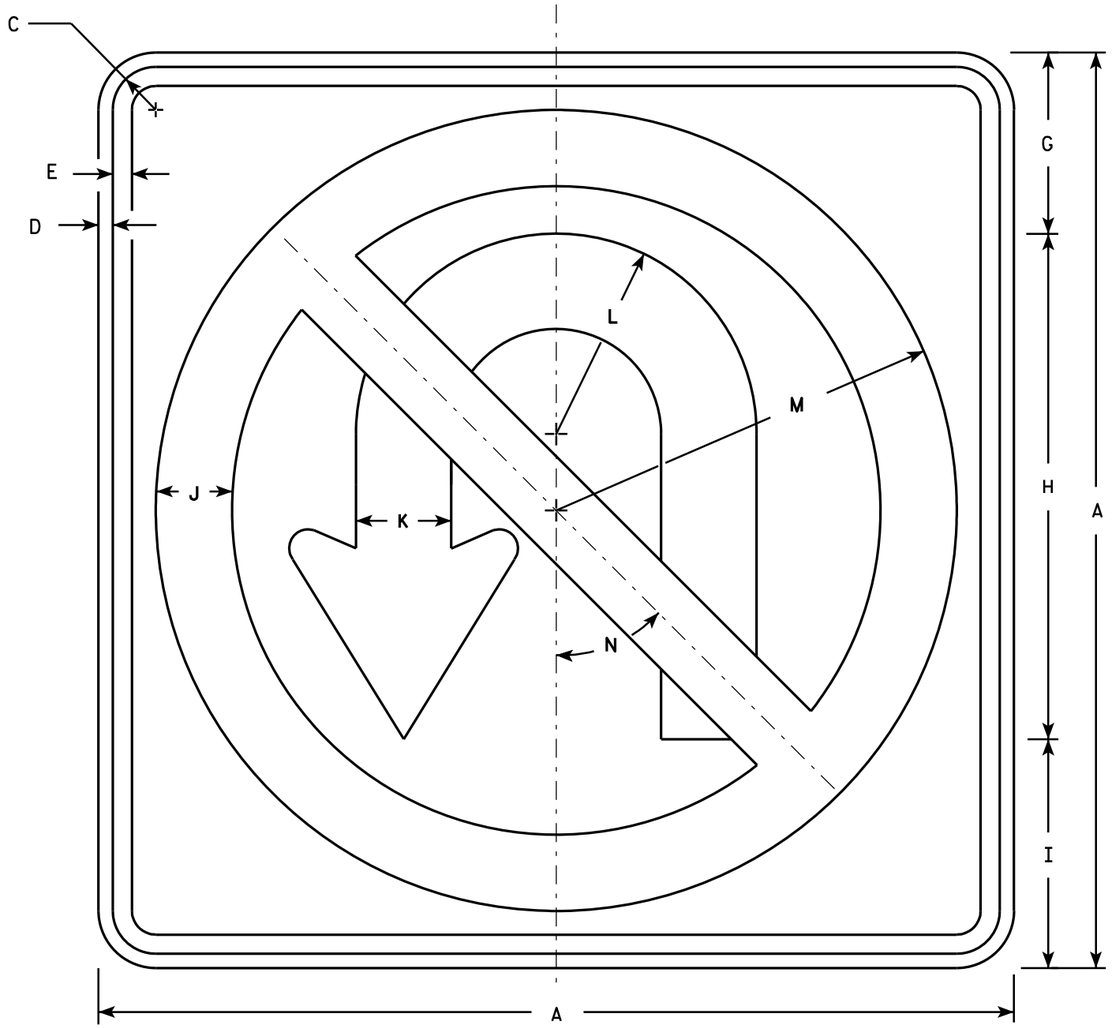
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

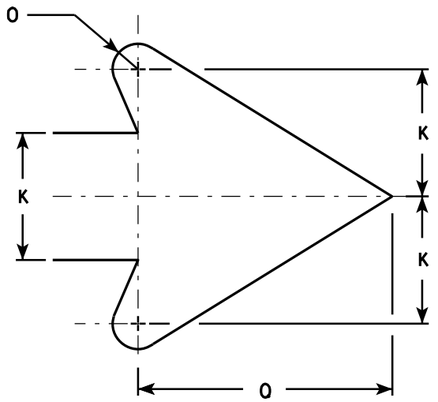
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 205	E



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

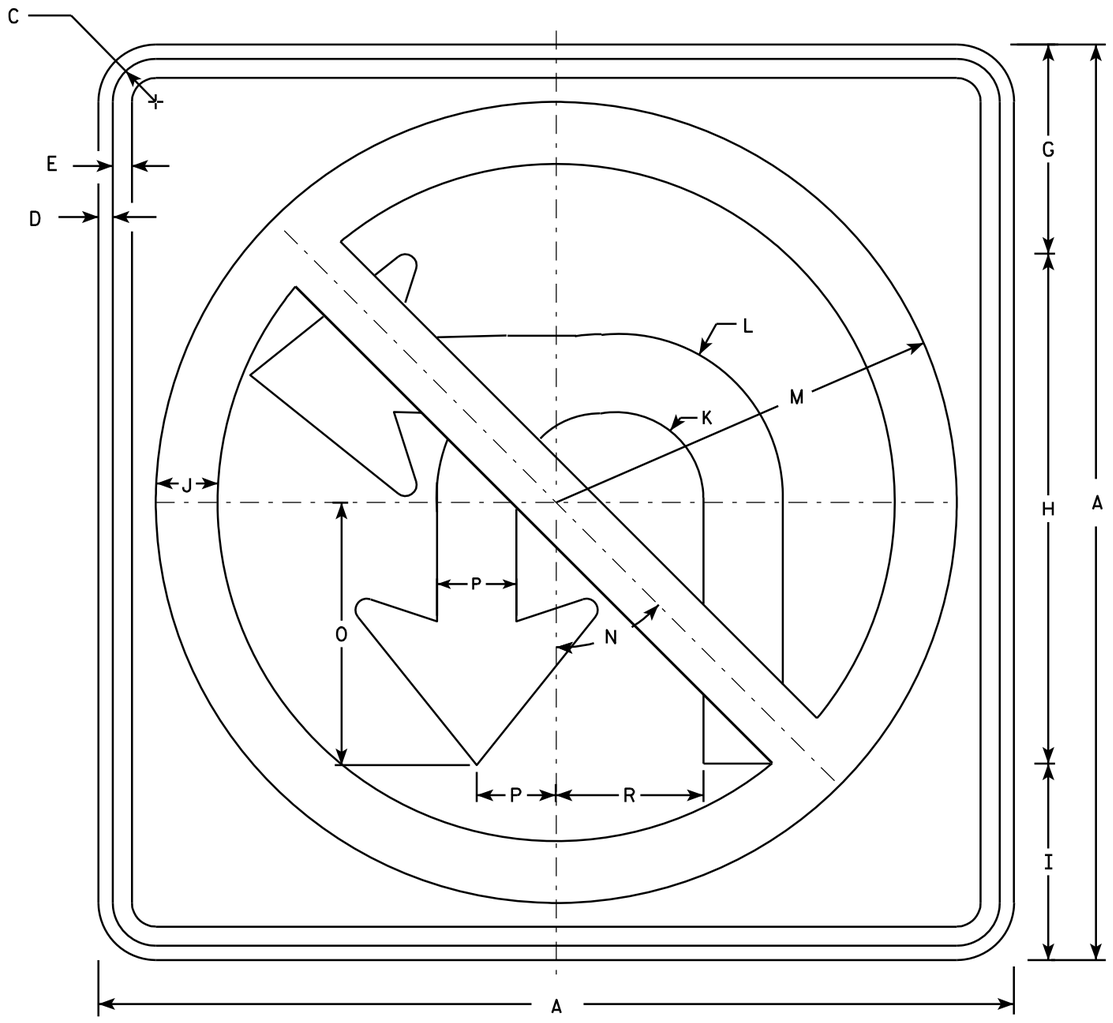
STANDARD SIGN
R3-4

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: 206	E



R3-18

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.

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		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

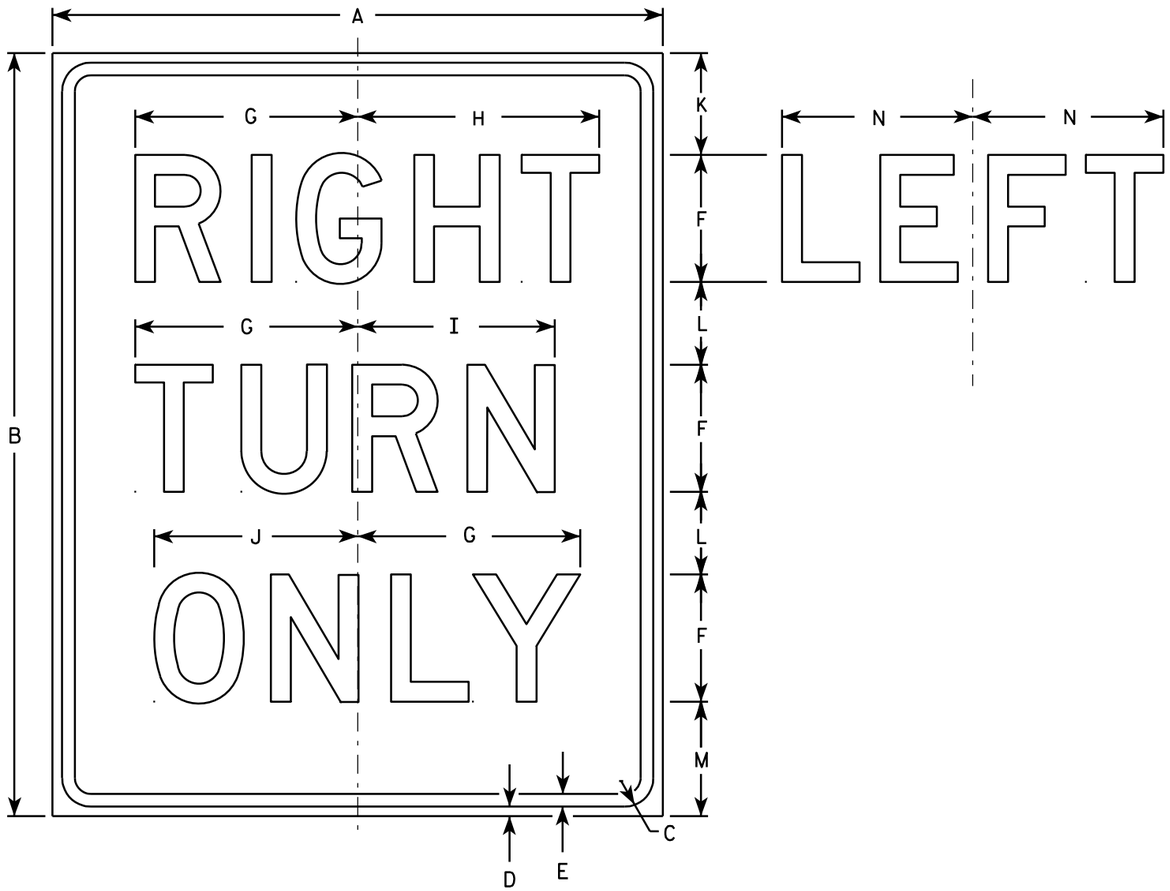
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 207	E



R3-53R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

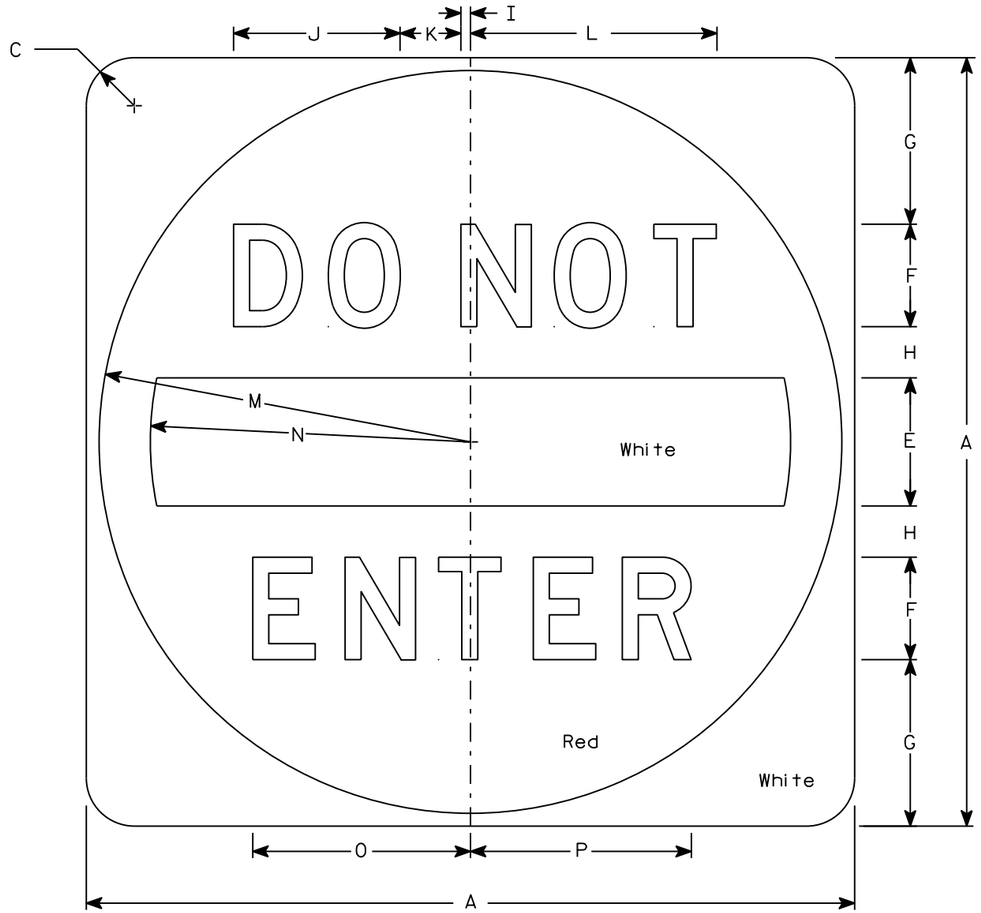
STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 208	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message 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	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											6.25
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

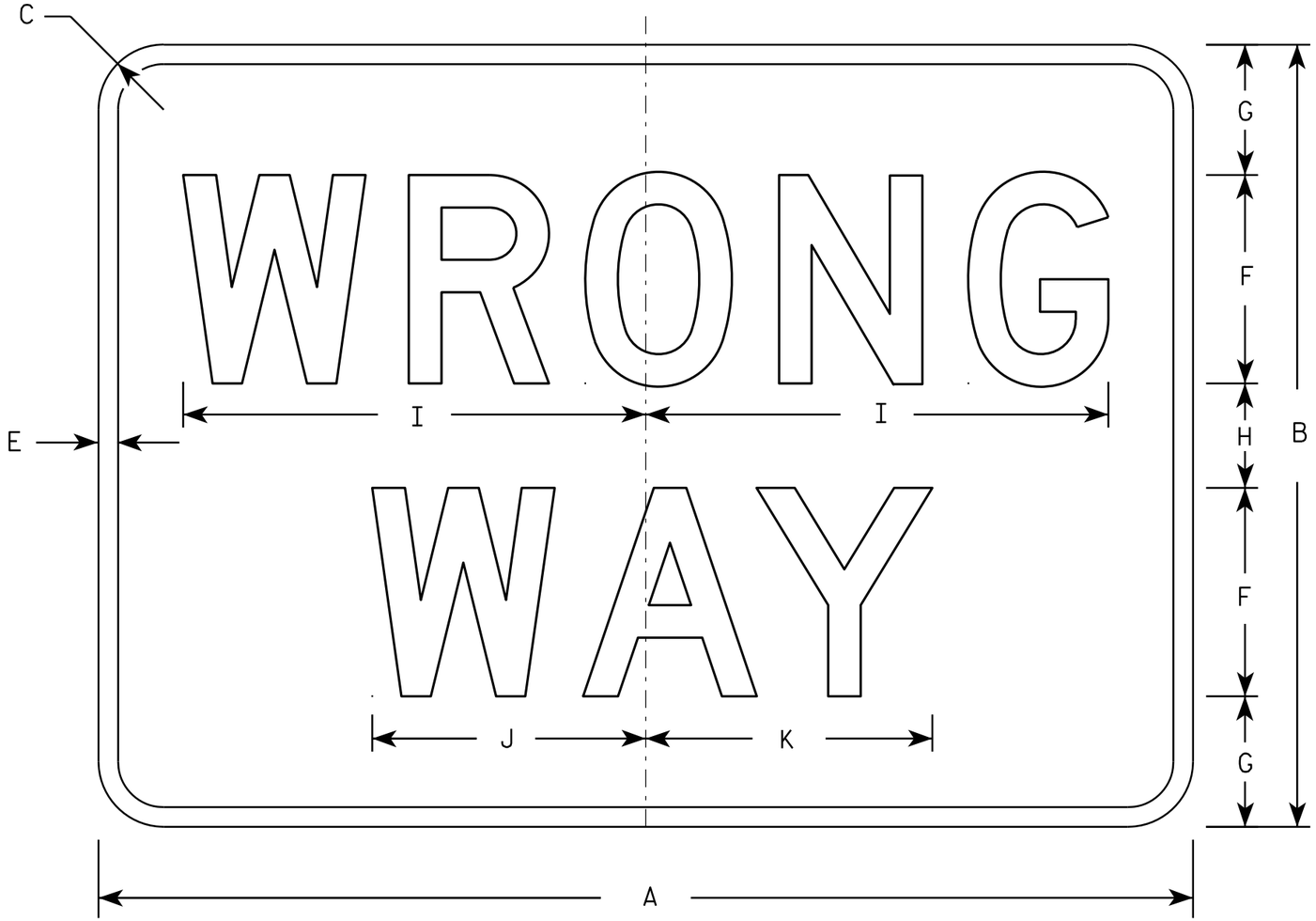
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 209 | 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

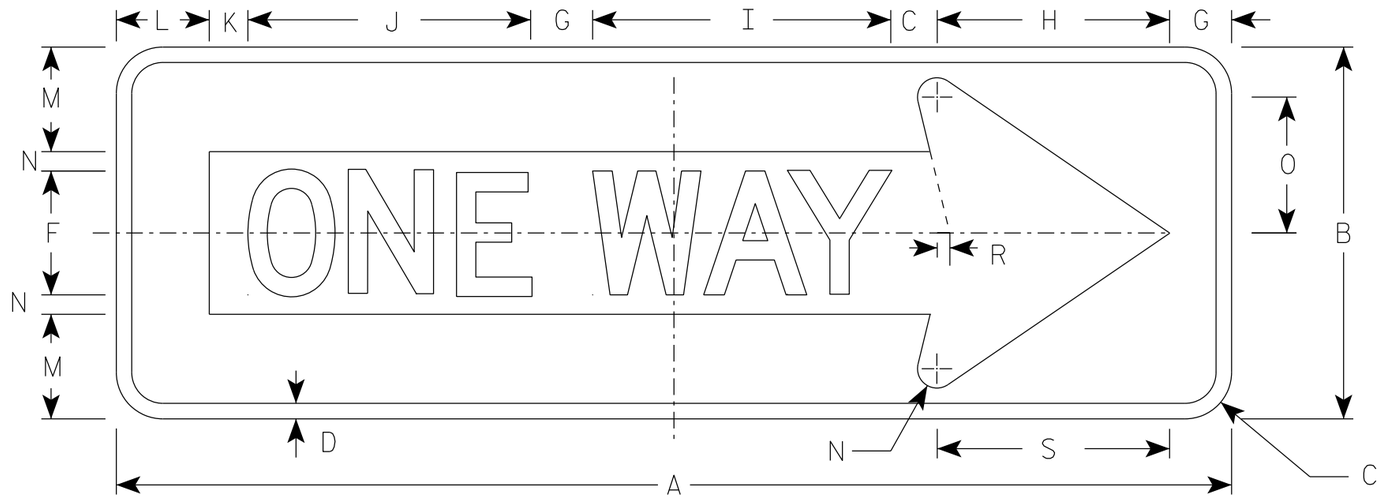
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

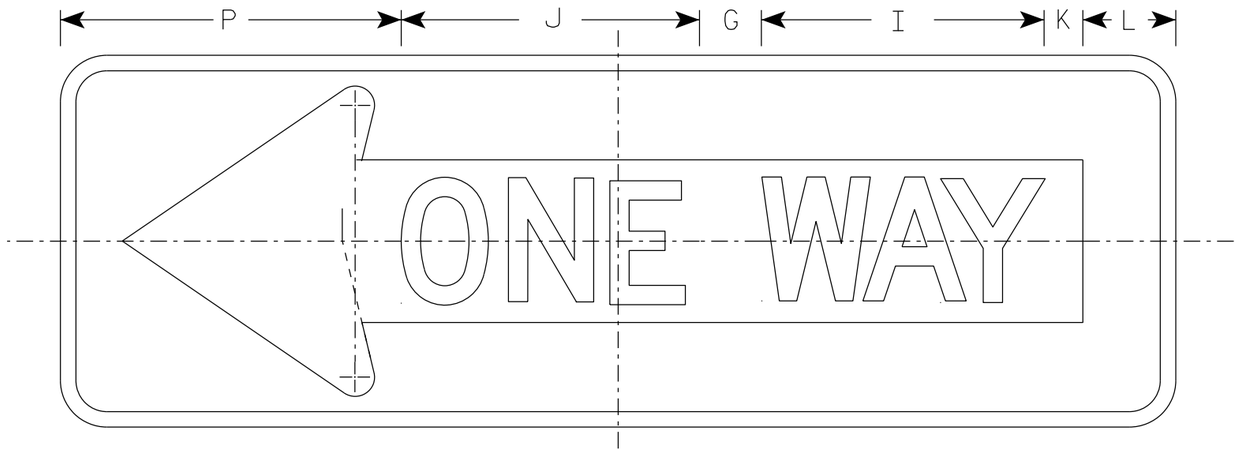
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 210 | E



R6-1R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - BLACK
   Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1L

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	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

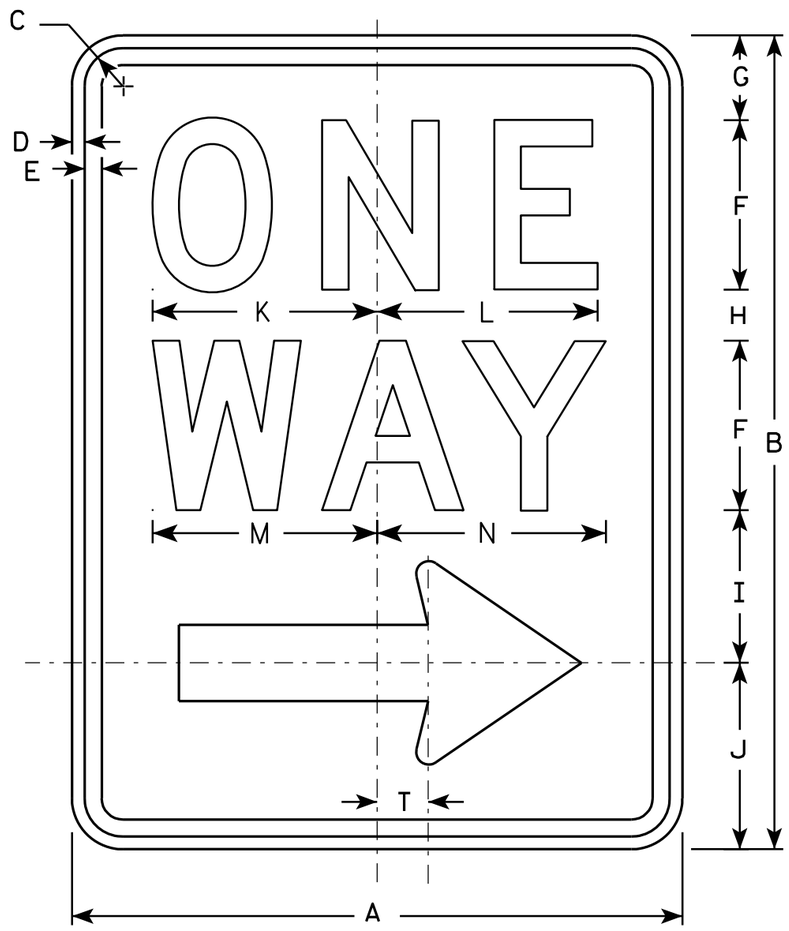
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

PROJECT NO:

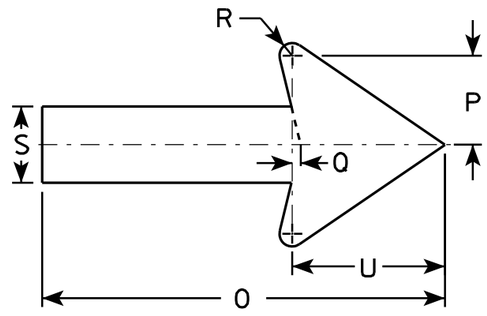
SHEET NO: 211 E



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																										

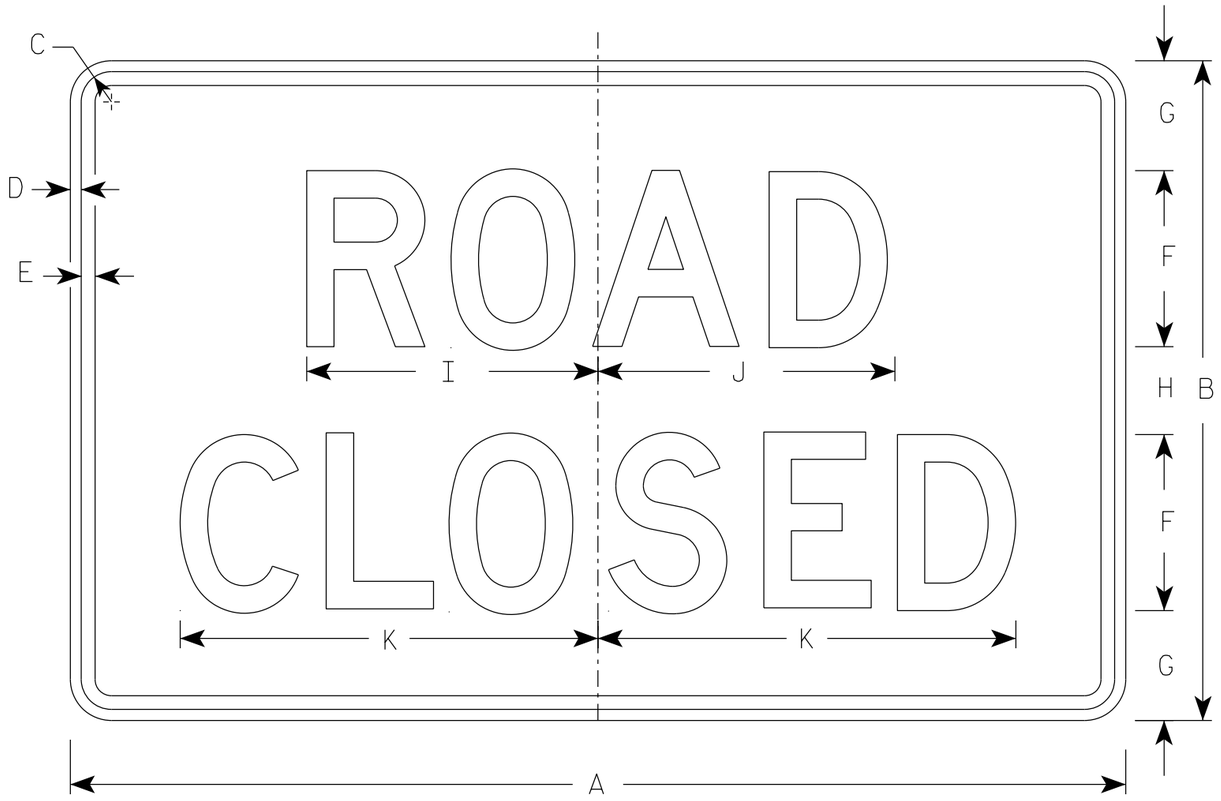
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

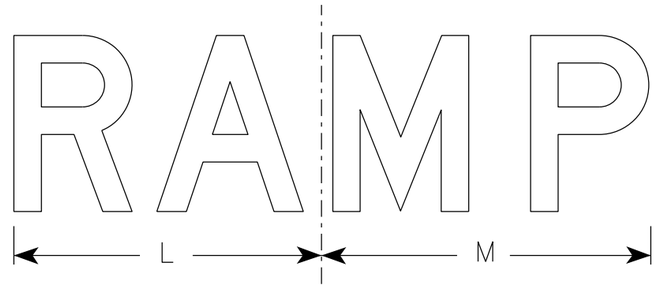
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 212	E



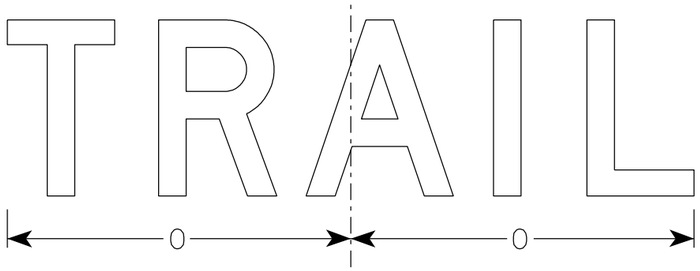
R11-2

NOTES

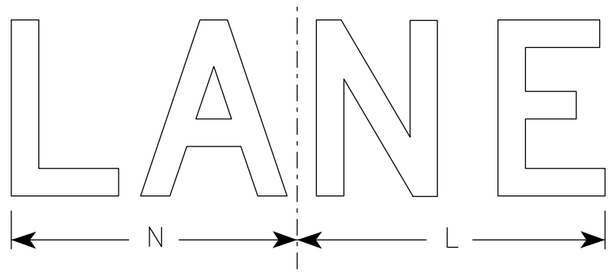
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



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

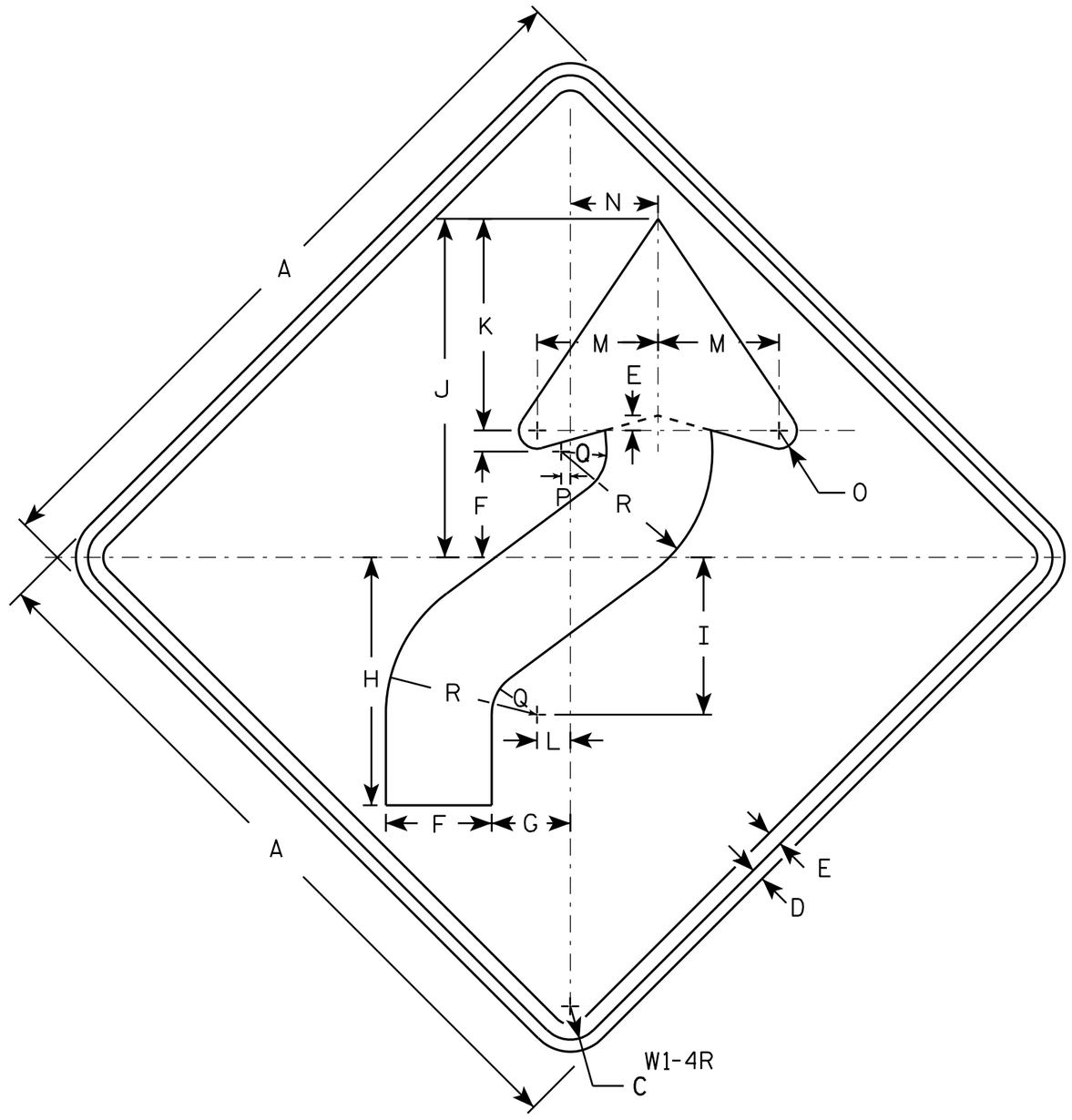
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 213 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. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

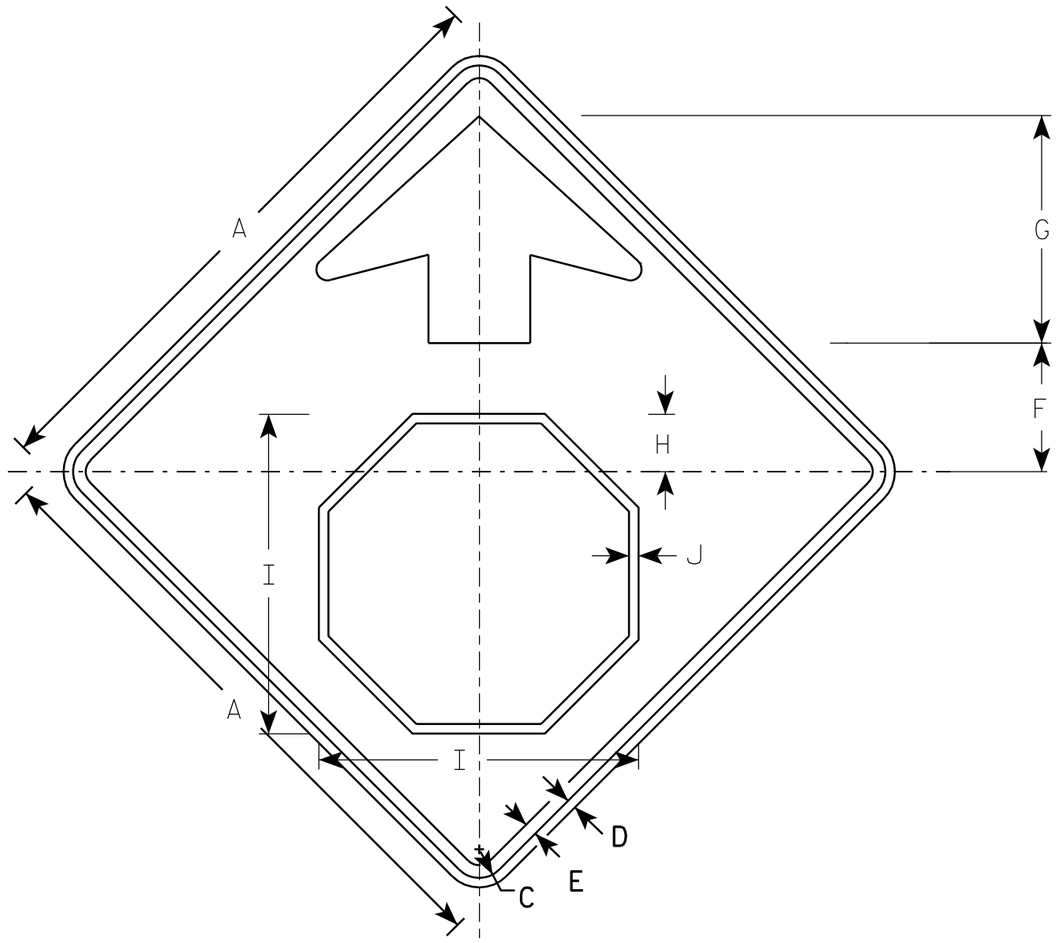
STANDARD SIGN
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

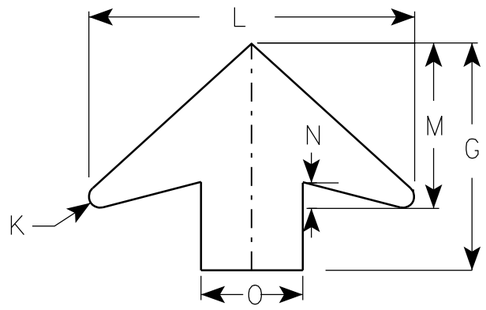
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 214 | E



W3-1

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
   Stop 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	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

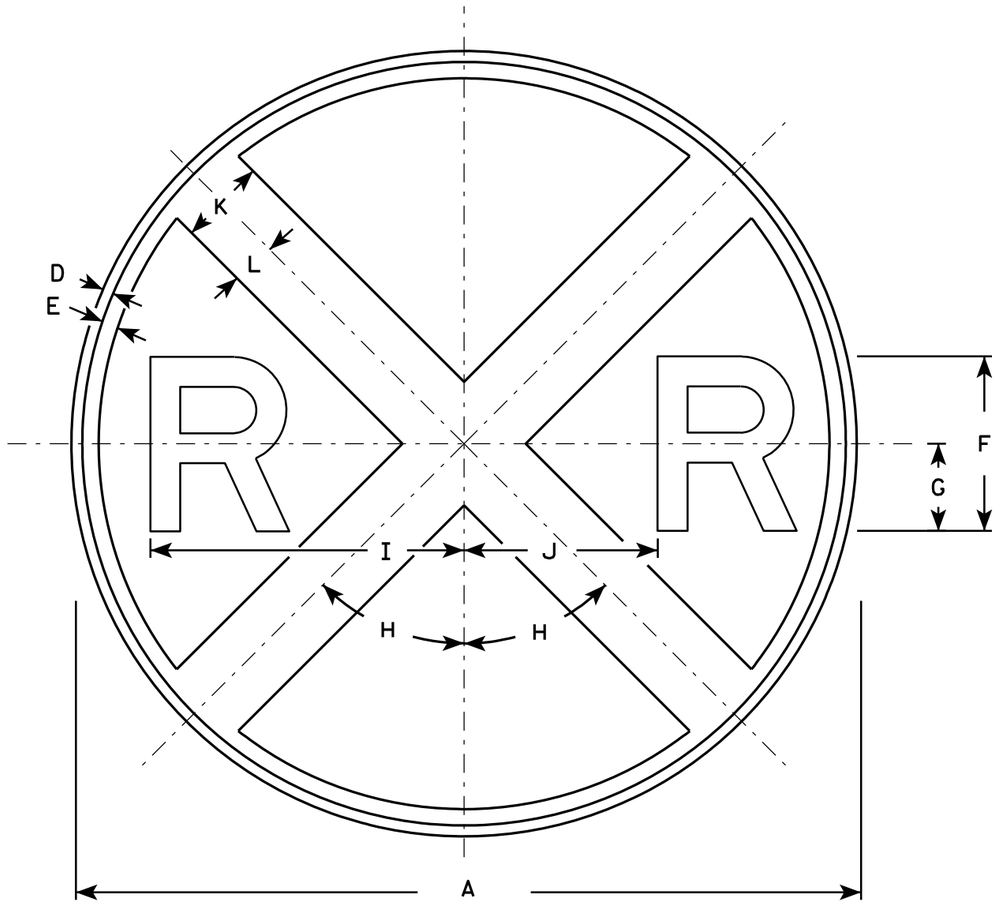
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 215 E



W10-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

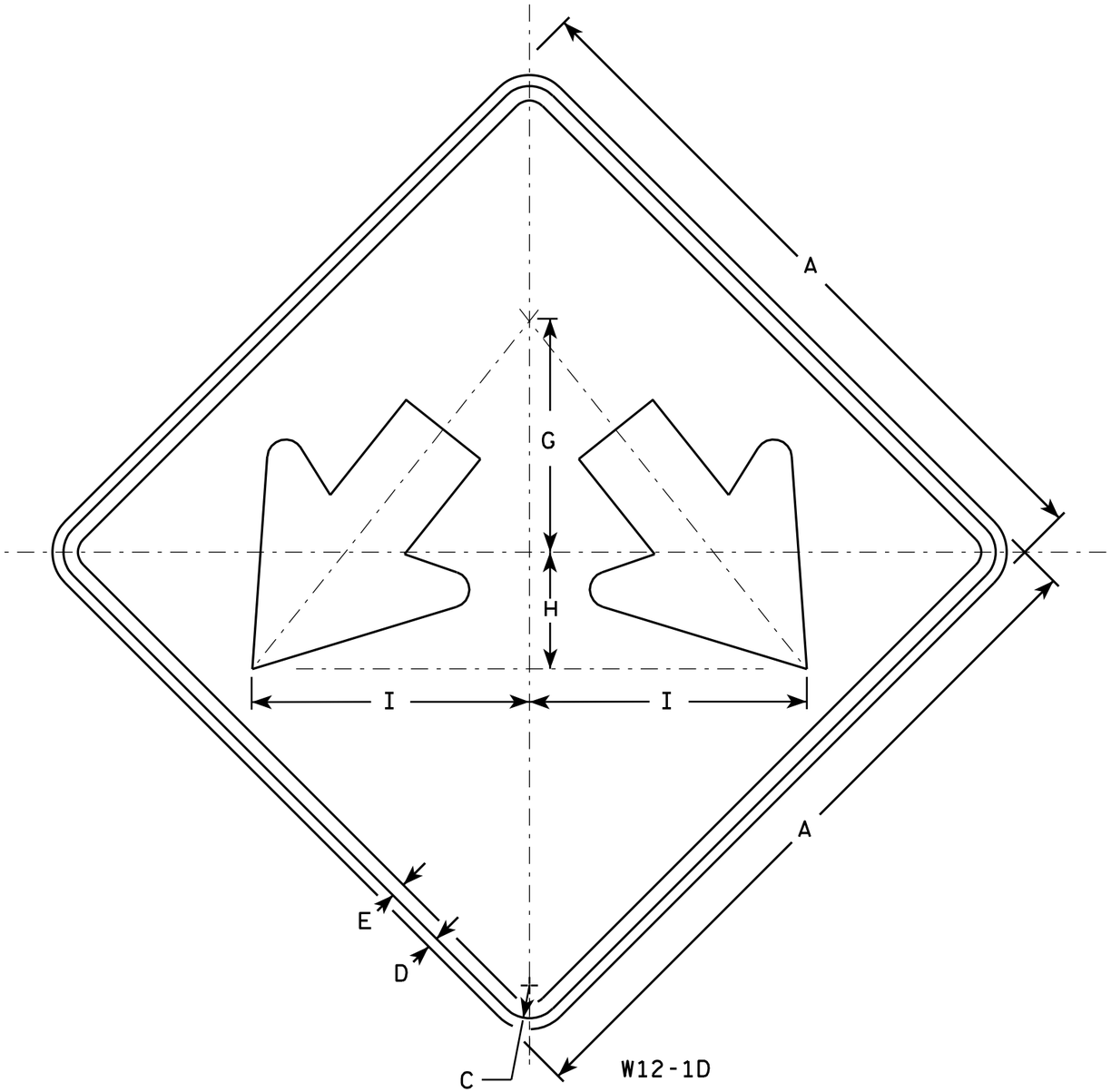
STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

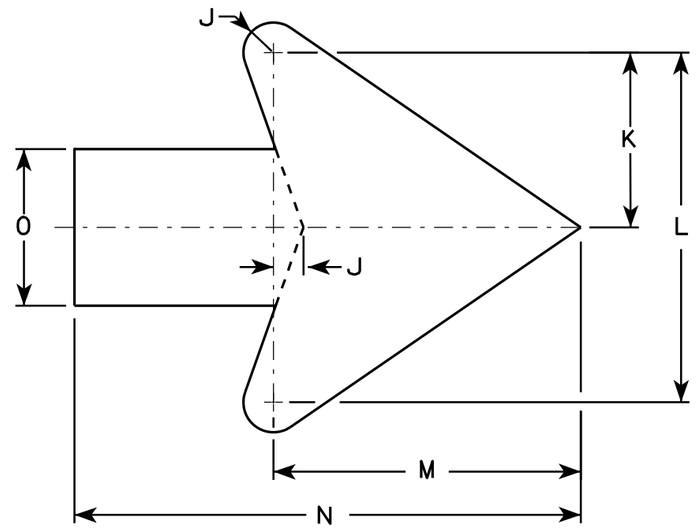
DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 216 | E



NOTES

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



Arrow Detail

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

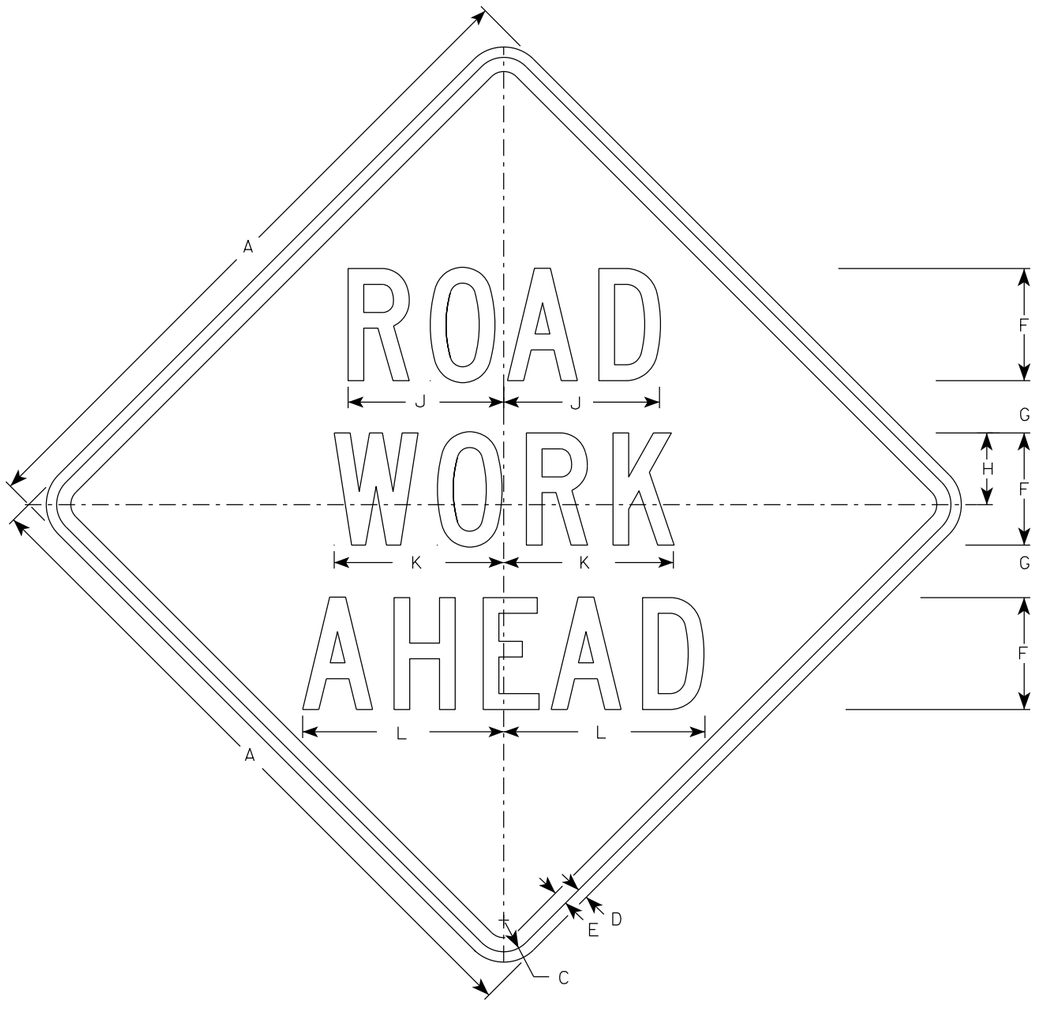
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

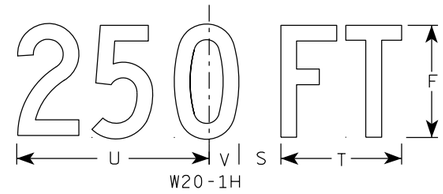
APPROVED Matthew R Rauch
for State Traffic Engineer

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

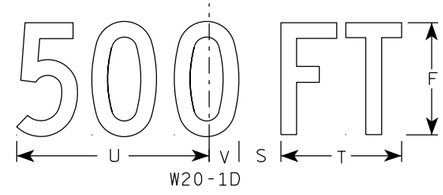
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 217	E



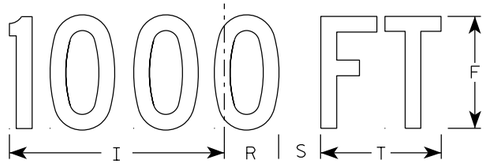
W20-1A



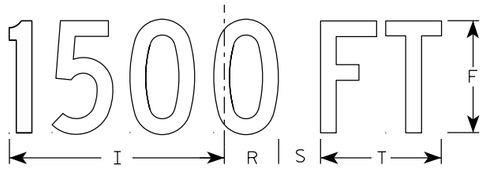
W20-1H



W20-1D



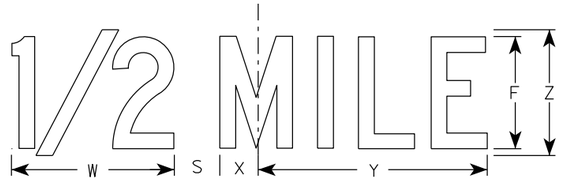
W20-1C



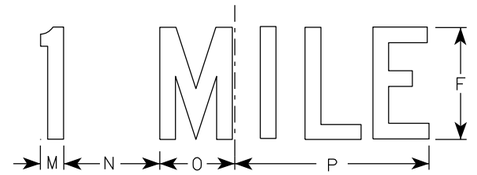
W20-1B

NOTES

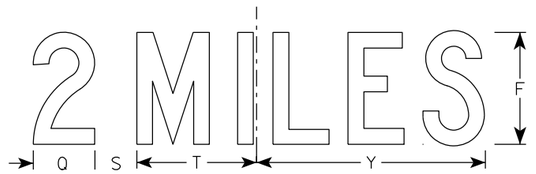
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	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	3 1/4	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, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11

PROJECT NO:

SHEET NO: E

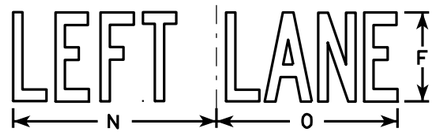
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

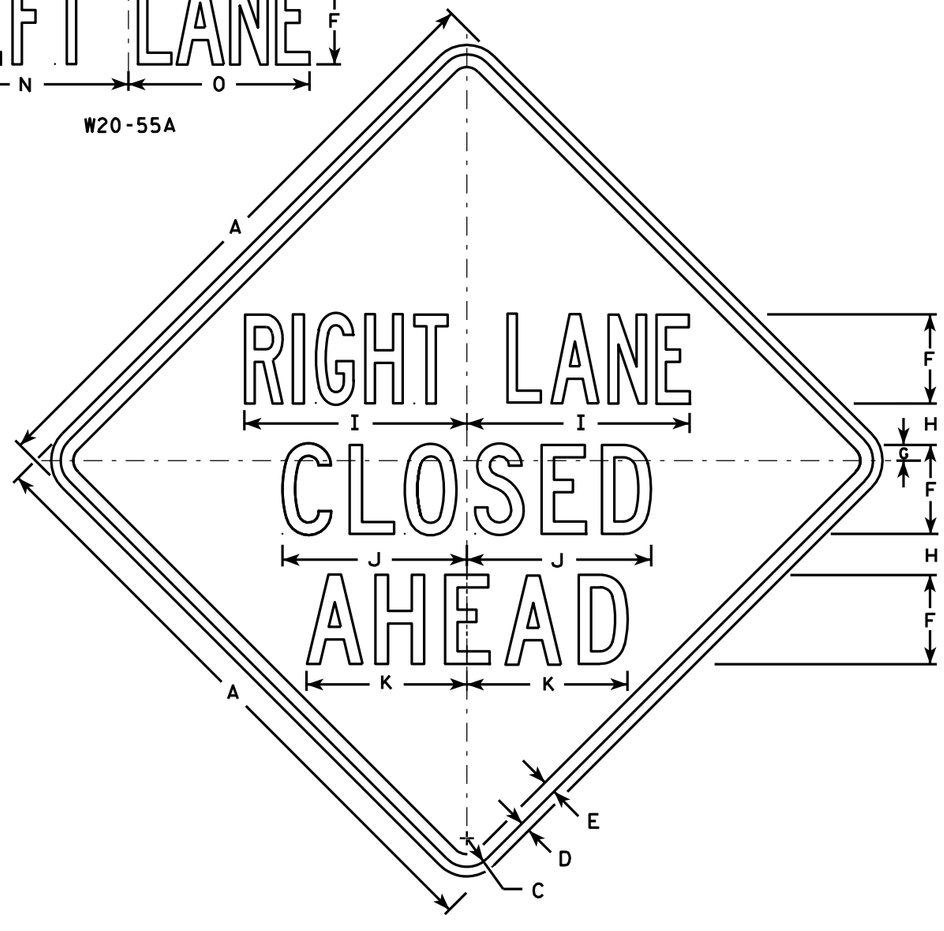
7

7

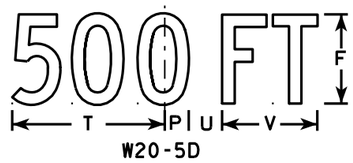
W20-56A



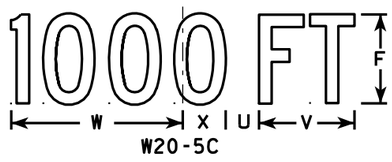
W20-55A



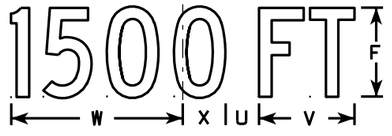
W20-5A



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

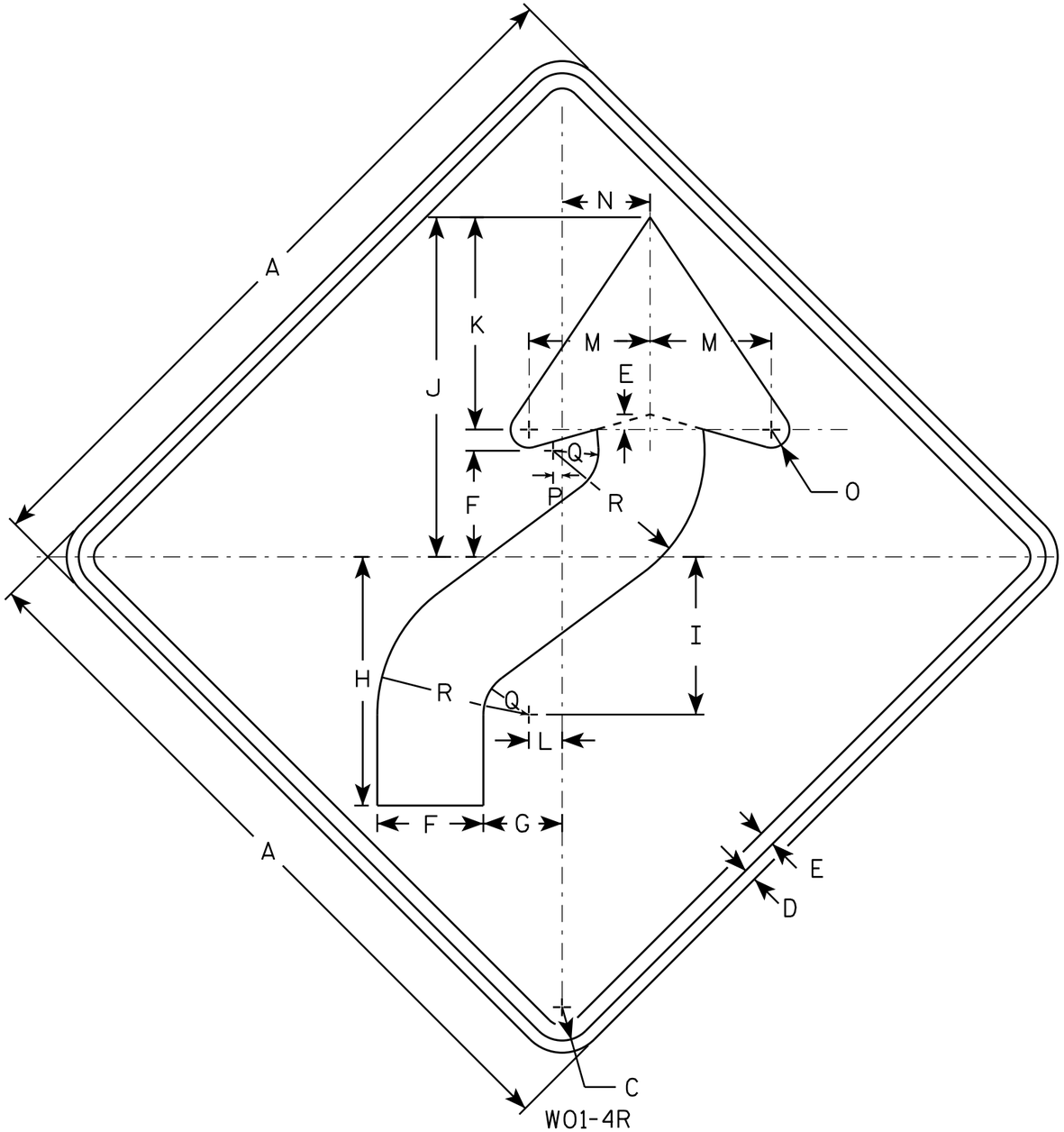
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 219 | E

7

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



W01-4R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN
W01-4

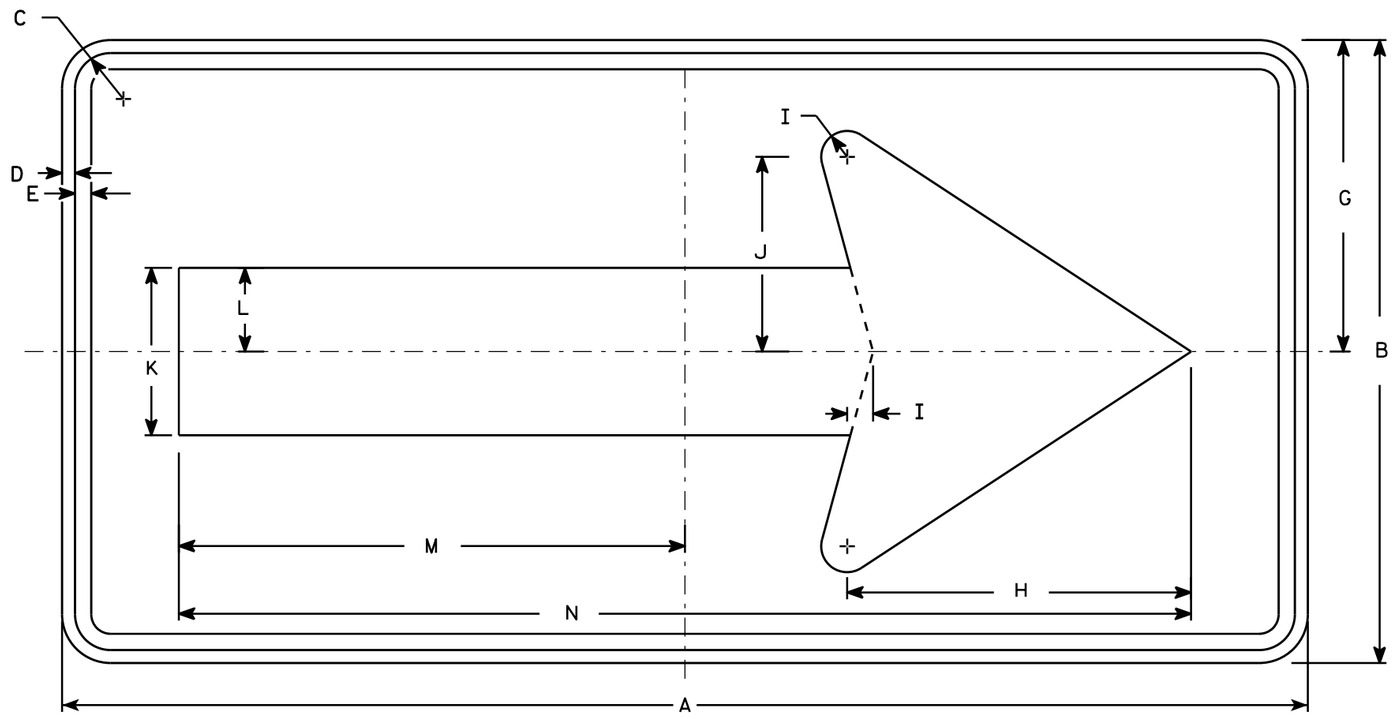
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000 WISDOT/CADDS SHEET 42



W01-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

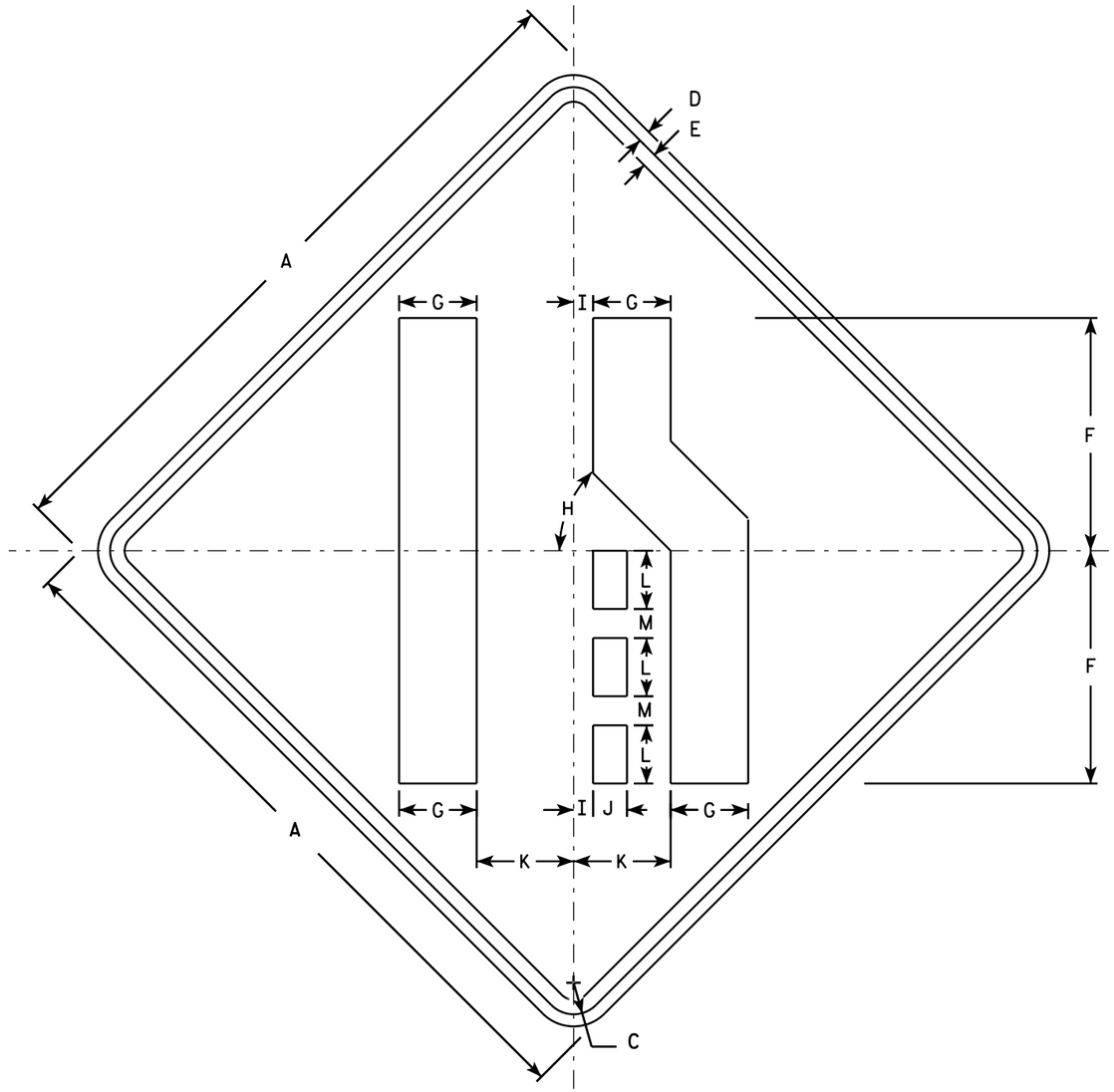
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO 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 222 W04-2.1

PROJECT NO: | SHEET NO: E

DIVISION 2 - CLARK DR - STA 8+40 TO STA 19+73

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
8+40	0	59.76	10.00	0.00	0	0	0	0	0	0	0
9+00	60	54.01	10.00	0.00	126	22	0	126	22	0	104
10+00	100	69.07	10.00	3.84	228	37	7	354	59	9	286
11+00	100	100.76	10.00	42.88	315	37	87	669	96	118	455
11+41	41	191.33	10.00	77.49	222	15	91	891	111	232	548
11+49	8	259.68	10.00	86.15	67	3	24	958	114	262	582
11+57	8	249.52	10.00	79.14	75	3	24	1033	117	292	624
12+00	43	135.13	10.00	71.82	306	16	120	1339	133	442	764
13+00	100	165.45	10.00	83.91	557	37	288	1896	170	802	924
14+00	100	247.02	10.00	28.90	764	37	209	2660	207	1063	1390
15+00	100	403.71	10.00	4.40	1205	37	62	3865	244	1141	2480
16+00	100	320.08	10.00	4.78	1340	37	17	5205	281	1162	3762
17+00	100	238.60	10.00	116.16	1035	37	224	6240	318	1442	4480
17+86	86	268.56	10.00	123.32	808	32	381	7048	350	1918	4780
18+00	14	273.58	10.00	115.27	141	5	62	7189	355	1996	4838
18+19	19	257.89	10.00	98.39	187	7	75	7376	362	2090	4924
18+44	25	207.99	10.00	66.05	216	9	76	7592	371	2185	5036
18+66	22	175.36	10.00	6.25	156	8	29	7748	379	2221	5148
19+00	34	137.18	10.00	6.20	197	13	8	7945	392	2231	5322
19+29	29	226.11	18.00	21.15	195	15	15	8140	407	2250	5483
19+50	21	300.94	36.00	22.30	205	21	17	8345	428	2271	5646
19+73	23	146.16	18.00	0.00	190	23	9	8535	451	2282	5802
					8535	451	1825				

DIVISION 2 - STH 29 EB OUTSIDE - STA 101+00 TO STA 109+76

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
101+00	0	25.57	0.75	0.87	0	0	0	0	0	0	0
101+75	75	24.82	0.75	16.03	70	2	23	70	2	29	39
101+85	10	24.92	0.75	15.52	9	0	6	79	2	37	40
101+95	10	26.93	0.75	24.70	10	0	7	89	2	46	41
102+00	5	30.45	0.75	37.20	5	0	6	94	2	54	38
102+26	26	43.01	0.75	79.89	35	1	56	129	3	124	2
102+38	12	43.39	0.75	76.89	19	0	35	148	3	168	-23
102+71	33	44.36	0.75	69.16	54	1	89	202	4	279	-81
103+00	29	40.93	0.75	57.58	46	1	68	248	5	364	-121
103+97	97	25.20	0.75	25.95	119	3	150	367	8	552	-193
104+00	3	25.22	0.75	25.06	3	0	3	370	8	556	-194
104+22	22	25.49	0.75	17.06	21	1	17	391	9	577	-195
105+00	78	26.27	0.75	2.16	75	2	28	466	11	612	-157
105+48	48	25.53	0.75	1.77	46	1	3	512	12	616	-116
105+51	3	25.59	0.75	1.59	3	0	0	515	12	616	-113
106+00	49	26.23	0.75	0.50	47	1	2	562	13	619	-70
106+76	76	34.70	0.75	8.99	86	2	13	648	15	635	-2
106+82	6	34.73	0.75	8.83	8	0	2	656	15	638	3
107+00	18	34.86	0.75	13.05	23	1	7	679	16	647	16
108+00	100	35.19	0.75	4.83	130	3	33	809	19	688	102
108+91	91	35.49	0.75	1.42	119	3	11	928	22	702	204
109+00	9	35.35	0.75	1.91	12	0	1	940	22	703	215
109+24	24	35.93	0.75	0.32	32	1	1	972	23	704	245
109+76	52	52.37	0.75	0.00	85	1	0	1057	24	704	329
					1057	24	561				

DIVISION 2 - STH 29 EB OUTSIDE - STA 111+43 TO STA 112+45

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
111+43	0	39.14	0.75	8.43	0	0	0	0	0	0	0
111+72	29	33.47	0.75	2.16	39	1	6	39	1	8	30
111+79	7	32.10	0.75	1.14	8	0	0	47	1	8	38
112+00	21	27.52	0.75	0.00	23	1	0	70	2	8	60
112+45	45	27.16	0.75	0.00	46	1	0	116	3	8	105
					116	3	6				

NOTES:

1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET. EBS SHOWN ON CROSS SECTIONS IS IN CUT.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL (BORROW)

DIVISION 3 - CTH MMM/BUS 29 - STA 30+26 TO STA 39+30

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
30+26	0	147.54	18.75	0.00	0	0	0	0	0	0	0
30+50	24	309.80	29.17	38.40	203	21	17	203	21	21	161
30+71	21	174.92	25.00	20.39	189	21	23	392	42	50	300
31+00	29	221.08	12.50	0.00	213	20	11	605	62	64	479
31+10	10	228.17	12.50	0.00	83	5	0	688	67	64	557
32+00	90	419.55	12.50	1.08	1080	42	2	1768	109	67	1592
32+10	10	516.66	12.50	0.62	173	5	0	1941	114	67	1760
32+50	40	722.62	12.50	0.29	918	19	1	2859	133	68	2658
33+00	50	1301.63	12.50	0.00	1874	23	0	4733	156	68	4509
33+50	50	381.51	12.50	152.00	1558	23	141	6291	179	244	5868
33+54	4	506.25	12.50	287.44	66	2	33	6357	181	285	5891
33+85	31	284.37	12.50	81.86	454	14	212	6811	195	550	6066
34+50	65	318.21	12.50	8.61	725	30	109	7536	225	686	6625
35+00	50	201.87	12.50	30.88	482	23	37	8018	248	732	7038
36+00	100	118.87	12.50	18.17	594	46	91	8612	294	846	7472
37+00	100	66.73	12.50	0.76	344	46	35	8956	340	890	7726
38+00	100	77.82	12.50	8.58	268	46	17	9224	386	911	7927
39+00	100	81.67	12.50	0.19	295	46	16	9519	432	931	8156
39+30	30	77.55	12.50	0.00	88	14	0	9607	446	931	8230
					9607	446	745				

DIVISION 3 - STH 29 WB OUTSIDE - STA 111+72 TO STA 121+10

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
111+72	0	0.00	0.75	0.00	0	0	0	0	0	0	0
111+79	7	133.41	0.75	0.00	17	0	0	17	0	0	17
112+00	21	60.72	0.75	0.00	75	1	0	92	1	0	91
112+45	45	46.64	0.75	0.00	89	1	0	181	2	0	179
112+80	35	43.33	0.75	0.00	58	1	0	239	3	0	236
113+00	20	42.90	0.75	0.00	32	1	0	271	4	0	267
114+00	100	41.80	0.75	0.84	157	3	2	428	7	3	418
115+00	100	40.89	0.75	6.90	153	3	14	581	10	21	550
116+00	100	43.65	0.75	6.78	157	3	25	738	13	52	673
116+20	20	44.48	0.75	4.71	33	1	4	771	14	57	700
116+23	3	44.81	0.75	4.40	5	0	1	776	14	58	704
117+00	77	34.23	0.75	2.58	113	2	10	889	16	71	802
117+47	47	33.47	0.75	2.79	59	1	5	948	17	77	854
117+72	25	31.37	0.75	4.47	30	1	3	978	18	81	879
118+00	28	33.01	0.75	9.04	33	1	7	1011	19	90	902
118+66	66	80.73	0.75	20.67	139	2	36	1150	21	135	994
118+81	15	70.96	0.75	24.77	42	0	13	1192	21	151	1020
119+00	19	60.96	0.75	29.23	46	1	19	1238	22	175	1041
119+27	27	53.51	0.75	29.35	57	1	29	1295	23	211	1061
119+50	23	53.08	0.75	29.05	45	1	25	1340	24	242	1074
119+72	22	40.31	0.75	14.16	38	1	18	1378	25	265	1088
119+90	18	33.43	0.75	5.33	25	1	6	1403	26	273	1104
120+00	10	33.00	0.75	5.57	12	0	2	1415	26	276	1113
120+04	4	137.46	0.75	47.88	13	0	4	1428	26	281	1121
121+00	96	29.41	0.75	5.29	297	3	95	1725	29	400	1296
121+10	10	29.21	0.75	5.27	11	0	2	1736	29	403	1304
					1736	29	320				

DIVISION 3 - STH 29 WB OUTSIDE - STA 109+24 TO STA 110+24

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
109+24	0	28.18	0.75	0.00	0	0	0	0	0	0	0
109+76	52	30.20	0.75	0.00	56	1	0	56	1	0	55
109+88	12	32.41	0.75	4.26	14	0	1	70	1	1	68
110+00	12	34.52	0.75	9.21	15	0	3	85	1	5	79
110+24	24	39.26	0.75	11.37	33	1	9	118	2	16	100
					118	2	13				

DIVISION 3 - CTH MMM/BUS 29 CROSSING DITCH - STA 49+23 TO STA 50+01

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
49+23	0	1.07	0.00	5.01	0	0	0	0	0	0	0
49+50	27	0.00	0.00	17.51	1	0	11	1	0	14	-13
49+75	25	0.00	0.00	8.61	0	0	12	1	0	29	-28
50+01	26	0.00	0.00	1.40	0	0	5	1	0	35	-34
					1	0	28				

DIVISION 3 - CTH MMM/BUS 29 CROSSING DITCH - STA 52+00 TO STA 53+35

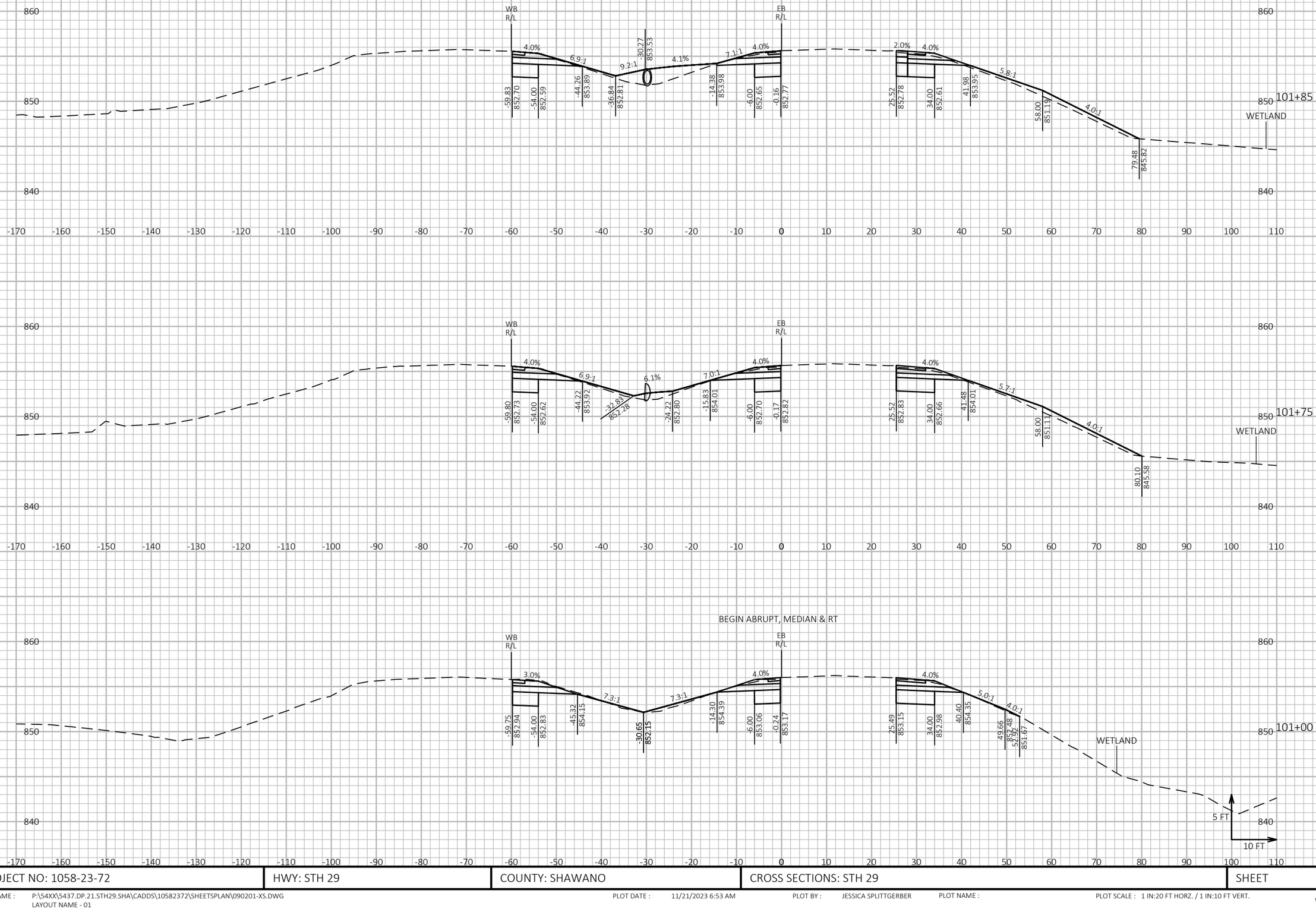
STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
52+00	0	31.24	0.00	0.00	0	0	0	0	0	0	0
52+25	25	4.71	0.00	0.00	17	0	0	17	0	0	17
52+50	25	2.27	0.00	0.01	3	0	0	20	0	0	20
52+75	25	0.00	0.00	2.28	1	0	1	21	0	1	20
53+00	25	0.00	0.00	2.37	0	0	2	21	0	4	17
53+25	25	0.00	0.00	5.96	0	0	4	21	0	9	12
53+35	10	1.94	0.00	0.69	0	0	1	21	0	10	11
					21	0	8				

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET. EBS SHOWN ON CROSS SECTIONS IS IN CUT.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL (BORROW)

DIVISION 4 - STH 29 EB & WB MEDIAN - STA 101+00 TO STA 121+10

STATION	DISTANCE	AREA (SF) CUT (NOTE 1)	AREA (SF) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	AREA (SF) FILL (NOTE 2)	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT (NOTE 1)	INCREMENTAL VOLUME (CY) (UNADJUSTED) SALVAGED/ UNUSABLE PAVEMENT MATERIAL	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL (NOTE 2)	CUMULATIVE VOLUME (CY) CUT (NOTE 1) 1.00	CUMULATIVE VOLUME (CY) SALVAGED/ UNUSABLE PAVEMENT MATERIAL 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL (NOTE 3) 1.25	MASS ORDINATE (NOTE 4)
101+00	0	39.95	1.50	4.16	0	0	0	0	0	0	0
101+75	75	44.80	1.50	6.16	118	4	14	118	4	18	96
101+85	10	40.20	1.50	10.09	16	1	3	134	5	22	107
101+95	10	53.24	1.50	18.25	17	1	5	151	6	28	117
102+00	5	62.47	1.50	6.78	11	0	2	162	6	31	125
102+26	26	74.11	1.50	2.57	66	1	5	228	7	37	184
102+38	12	83.06	1.50	2.99	35	1	1	263	8	38	217
102+71	33	67.50	1.50	5.00	92	2	5	355	10	44	301
103+00	29	56.02	1.50	19.08	66	2	13	421	12	60	349
103+97	97	55.04	1.50	22.89	199	5	75	620	17	154	449
104+00	3	54.97	1.50	22.78	6	0	3	626	17	158	451
104+22	22	54.91	1.50	21.69	45	1	18	671	18	181	472
105+00	78	63.92	1.50	23.40	172	4	65	843	22	262	559
105+48	48	76.77	1.50	44.10	125	3	60	968	25	337	606
105+51	3	76.98	1.50	48.91	9	0	5	977	25	343	609
106+00	49	81.59	1.50	59.73	144	3	99	1121	28	467	626
106+76	76	93.42	1.50	46.37	246	4	149	1367	32	653	682
106+82	6	94.52	1.50	45.36	21	0	10	1388	32	666	690
107+00	18	95.92	1.50	43.73	63	1	30	1451	33	704	714
108+00	100	101.38	1.50	37.04	365	6	150	1816	39	892	885
108+91	91	102.93	1.50	32.53	344	5	117	2160	44	1038	1078
109+00	9	103.89	1.50	31.85	34	1	11	2194	45	1052	1097
109+24	24	105.58	1.50	21.30	93	1	24	2287	46	1082	1159
109+76	52	110.97	1.50	11.23	209	3	31	2496	49	1121	1326
109+88	12	112.69	1.50	8.86	50	1	4	2546	50	1126	1370
110+00	12	113.43	1.50	6.57	50	1	3	2596	51	1130	1415
110+24	24	119.83	1.50	0.68	104	1	3	2700	52	1134	1514
110+52	28	170.75	5.00	0.00	151	3	0	2851	55	1134	1662
110+75	23	166.73	5.00	0.00	144	4	0	2995	59	1134	1802
111+00	25	158.84	5.00	0.00	151	5	0	3146	64	1134	1948
111+15	15	163.77	5.00	0.00	90	3	0	3236	67	1134	2035
111+43	28	138.55	5.00	0.00	157	5	0	3393	72	1134	2187
111+72	29	120.69	1.50	3.56	139	3	2	3532	75	1137	2320
111+79	7	121.16	1.50	4.39	31	0	1	3563	75	1138	2350
112+00	21	116.60	1.50	7.05	92	1	4	3655	76	1143	2436
112+45	45	110.66	1.50	12.27	189	3	16	3844	79	1163	2602
112+80	35	107.76	1.50	16.70	142	2	19	3986	81	1187	2718
113+00	20	109.61	1.50	24.39	81	1	15	4067	82	1206	2779
114+00	100	101.64	1.50	30.09	391	6	101	4458	88	1332	3038
115+00	100	93.89	1.50	33.80	362	6	118	4820	94	1480	3246
116+00	100	81.60	1.50	39.06	325	6	135	5145	100	1649	3396
116+20	20	81.56	1.50	36.90	60	1	28	5205	101	1684	3420
116+23	3	81.55	1.50	33.46	9	0	4	5214	101	1689	3424
117+00	77	72.93	1.50	23.88	220	4	82	5434	105	1792	3537
117+47	47	77.77	1.50	24.81	131	3	42	5565	108	1845	3612
117+72	25	81.24	1.50	24.86	74	1	23	5639	109	1874	3656
118+00	28	81.31	1.50	25.79	84	2	26	5723	111	1907	3705
118+66	66	82.76	1.50	28.05	201	4	66	5924	115	1990	3819
118+81	15	82.19	1.50	24.56	46	1	15	5970	116	2009	3845
119+00	19	87.61	1.50	12.37	60	1	13	6030	117	2025	3888
119+27	27	99.56	1.50	6.68	94	2	10	6124	119	2038	3967
119+50	23	97.61	1.50	10.47	84	1	7	6208	120	2047	4041
119+72	22	32.02	1.50	40.33	53	1	21	6261	121	2073	4067
119+90	18	59.99	1.50	16.01	31	1	19	6292	122	2097	4073
120+00	10	65.72	1.50	10.47	23	1	5	6315	123	2103	4089
120+04	4	133.03	1.50	32.81	15	0	3	6330	123	2107	4100
121+00	96	49.26	1.50	0.54	324	5	59	6654	128	2181	4345
121+10	10	27.40	1.50	0.06	14	1	0	6668	129	2181	4358
					6668	129	1739				

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET. EBS SHOWN ON CROSS SECTIONS IS IN CUT.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); PLUS INDICATES AN EXCESS OF MATERIAL (BORROW)



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9

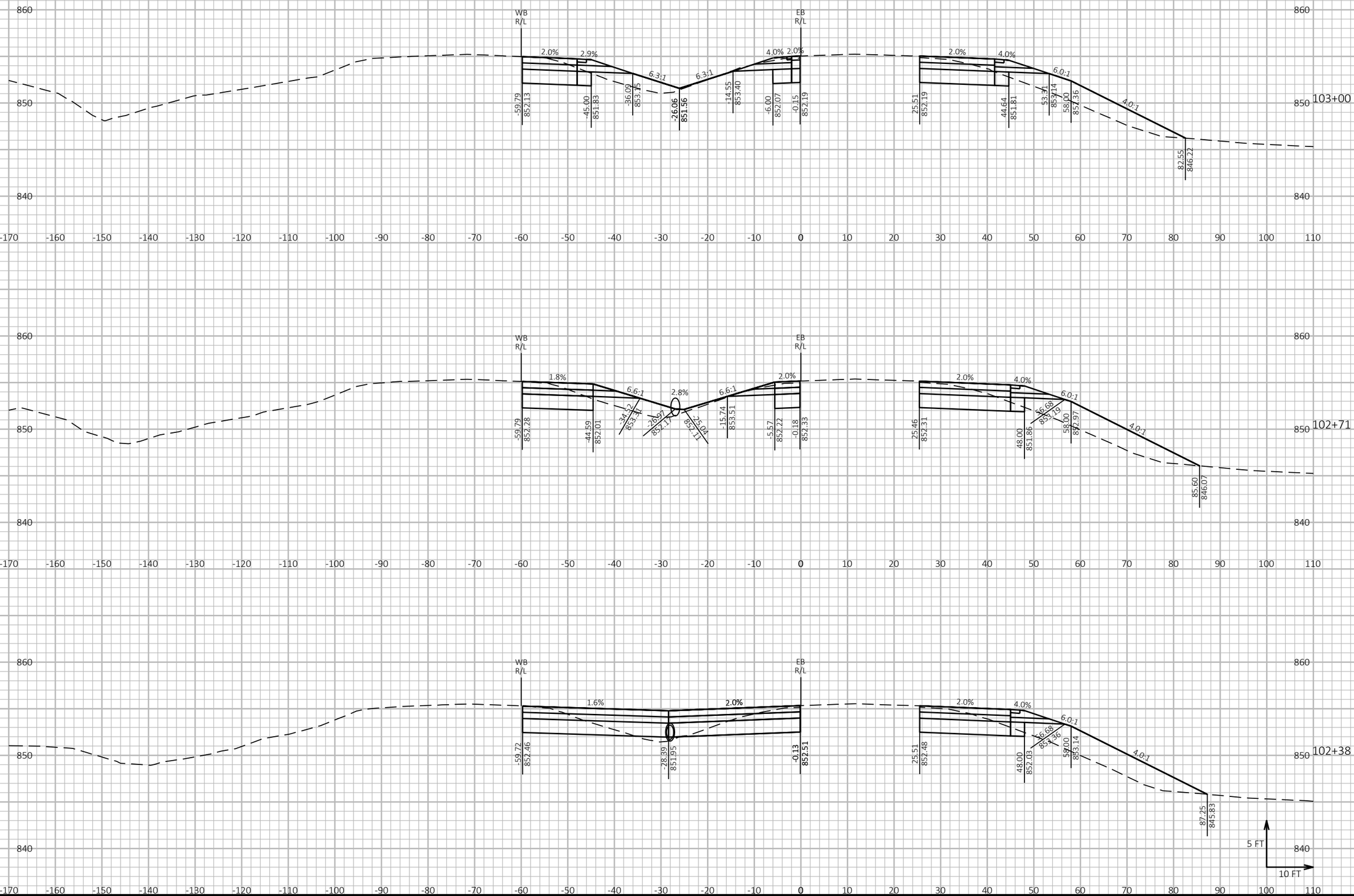
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 226	E

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 227	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 02

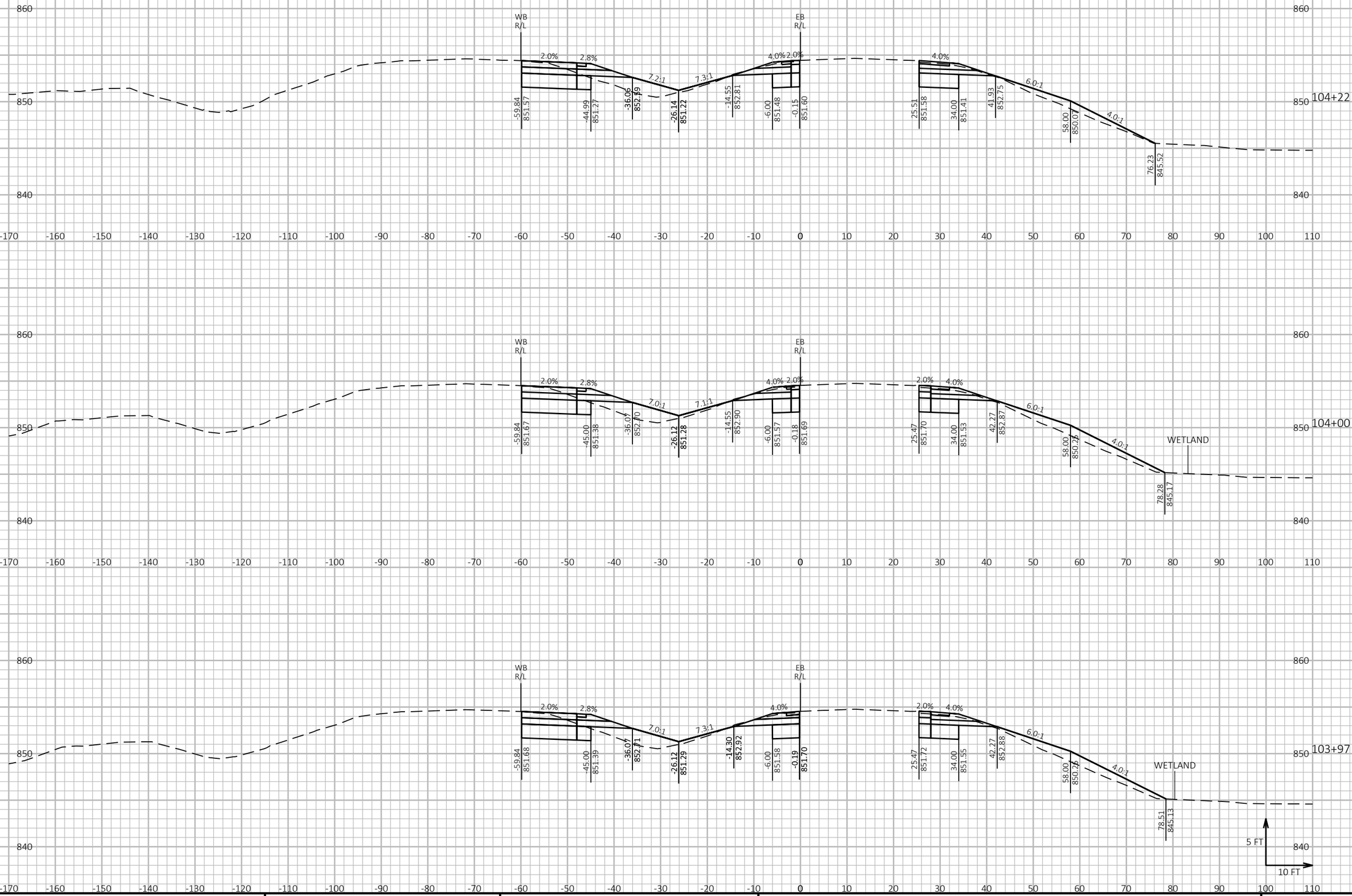
PLOT DATE : 11/21/2023 6:53 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9 9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 228	E



9

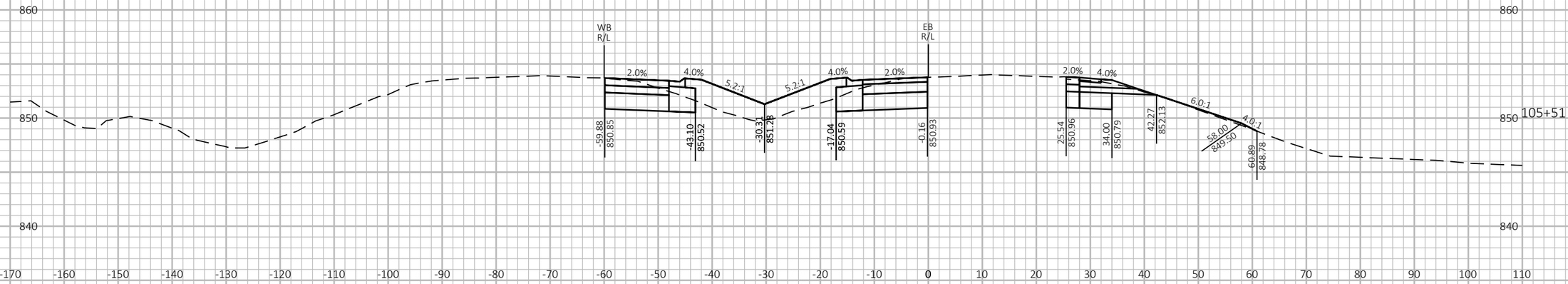
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 229	E

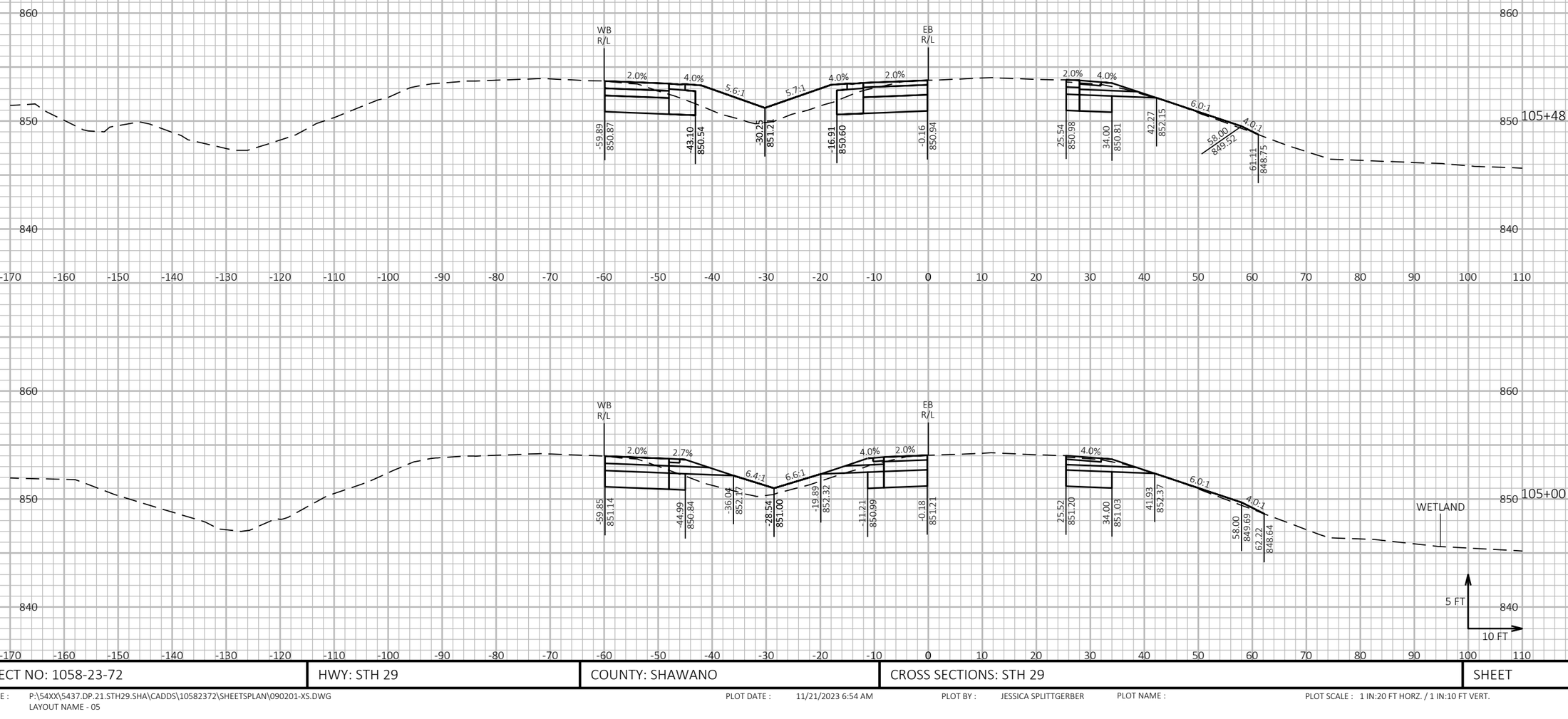
9

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 11/21/2023 6:54 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



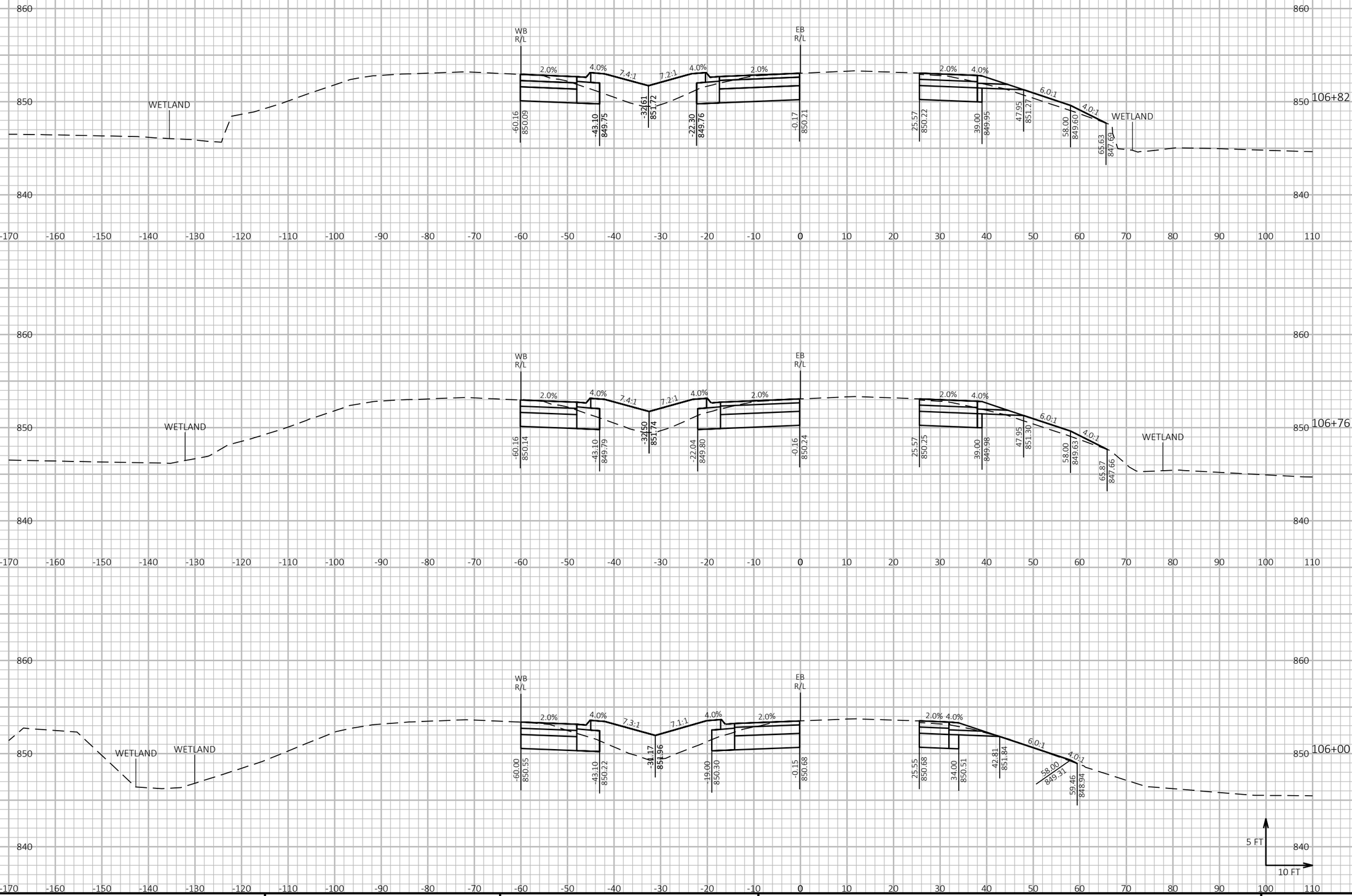


PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 230	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 11/21/2023 6:54 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

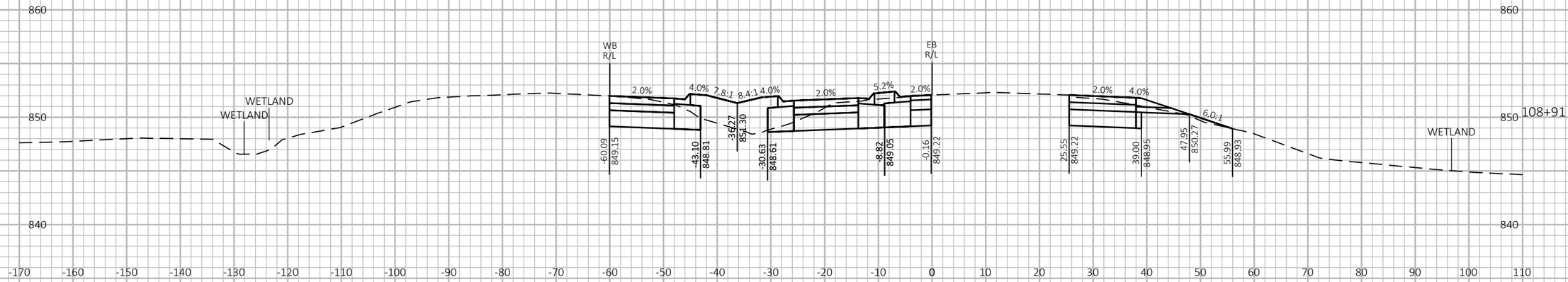


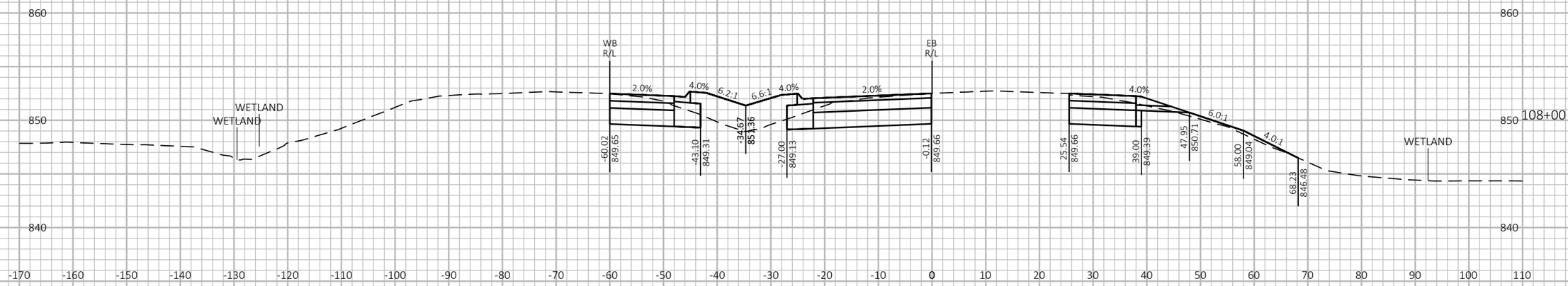
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 231	E

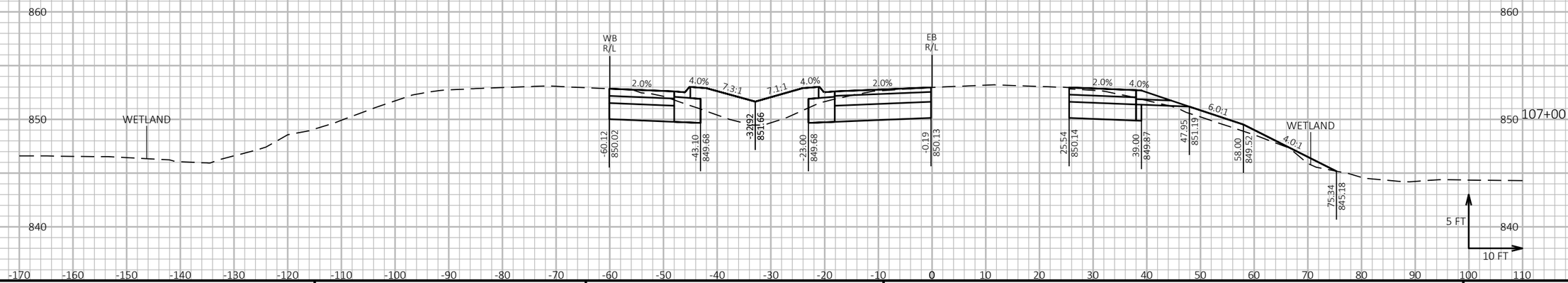
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 11/21/2023 6:54 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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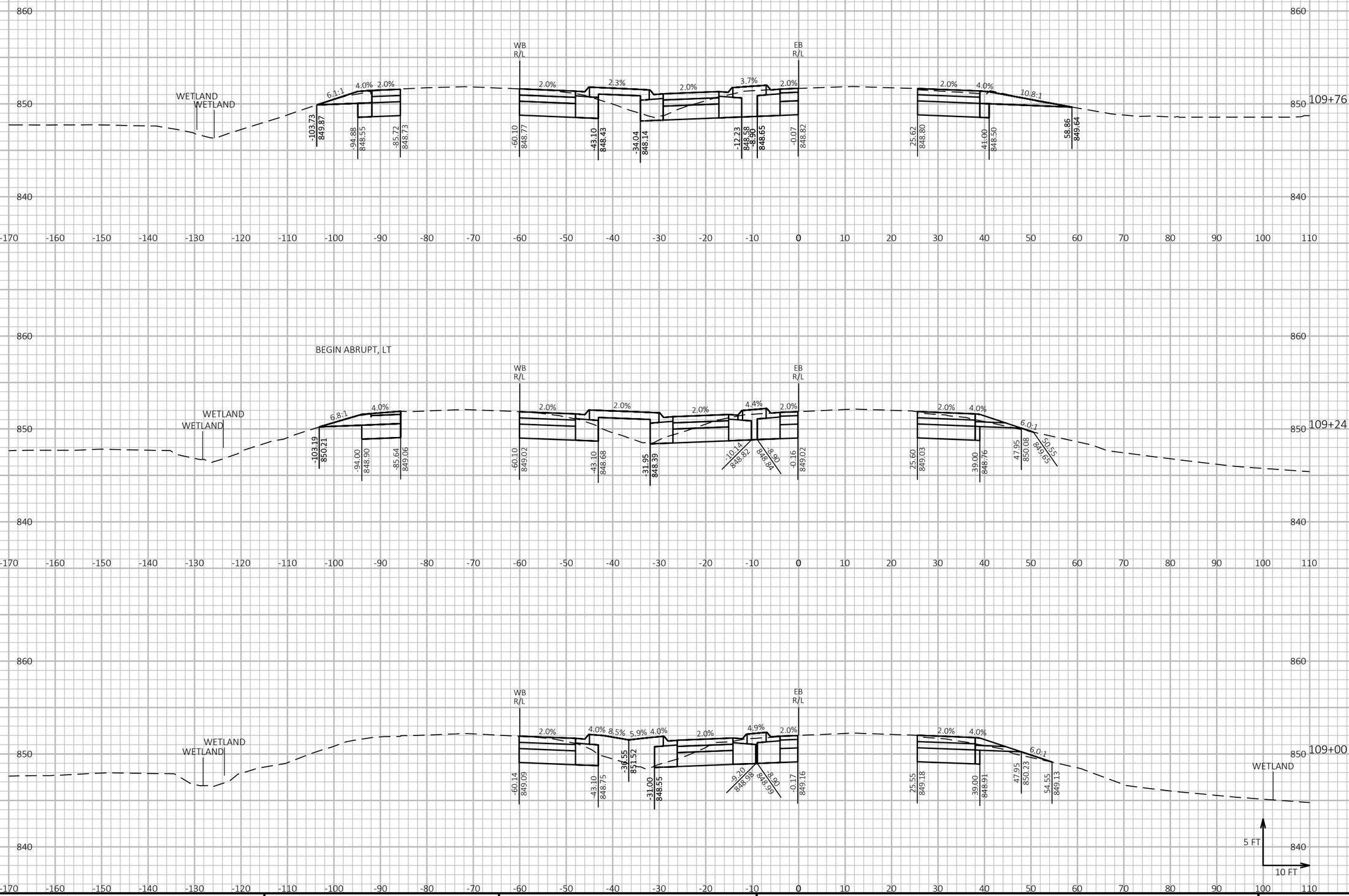
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 232	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 11/21/2023 6:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

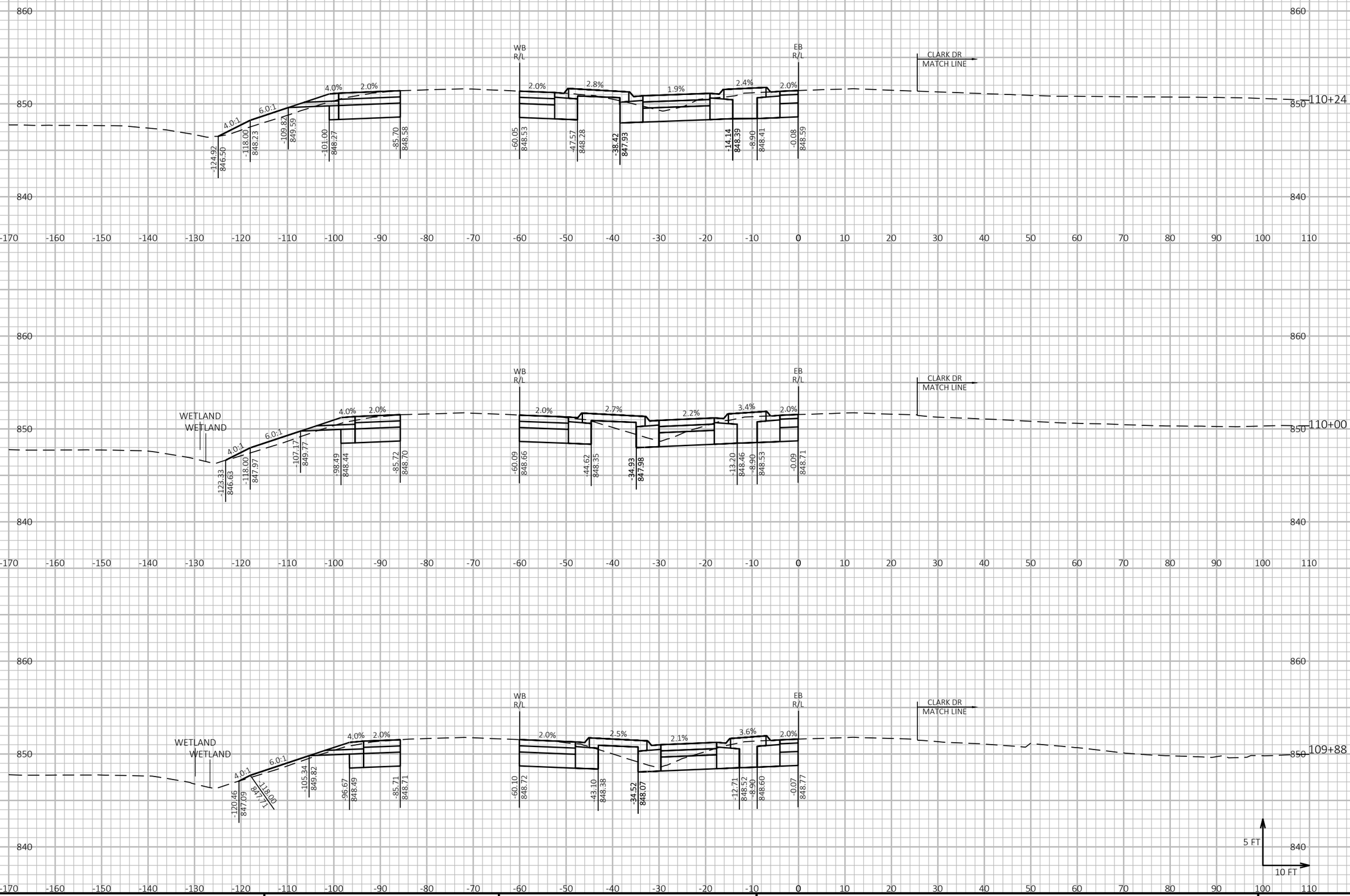


PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 233	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 11/21/2023 6:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

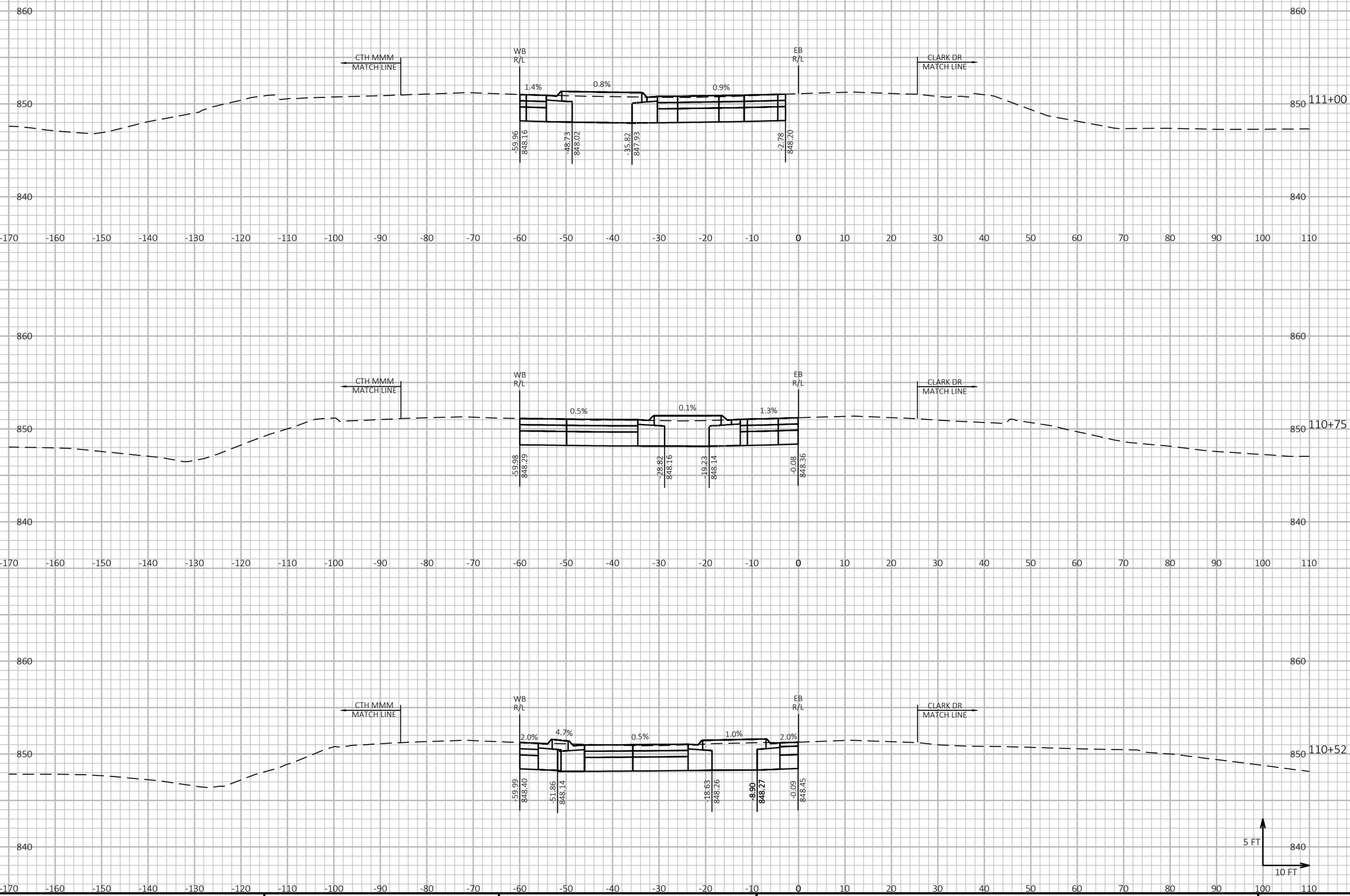


9 9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 234	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 11/21/2023 6:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

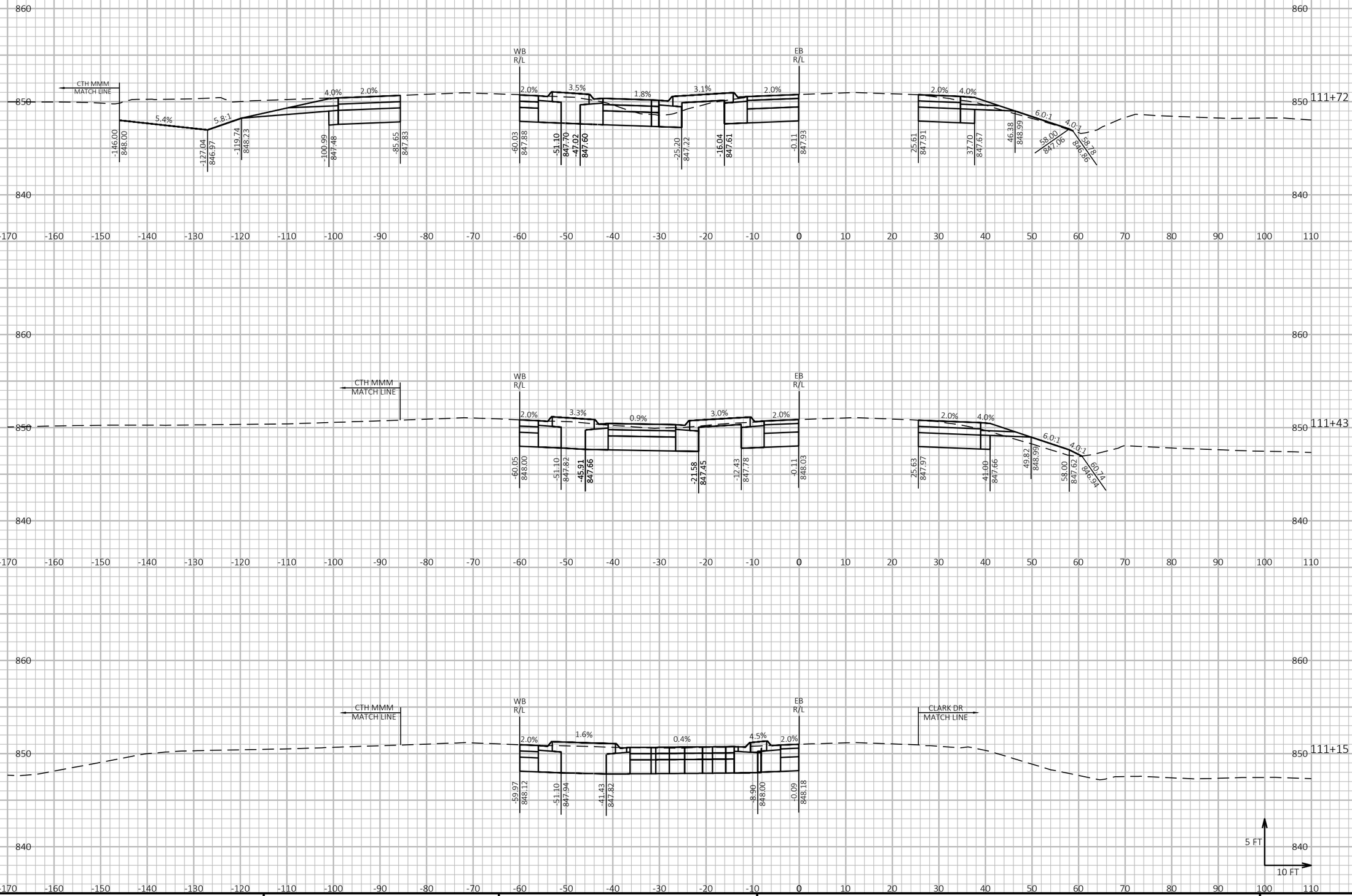


9 9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 235	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 10

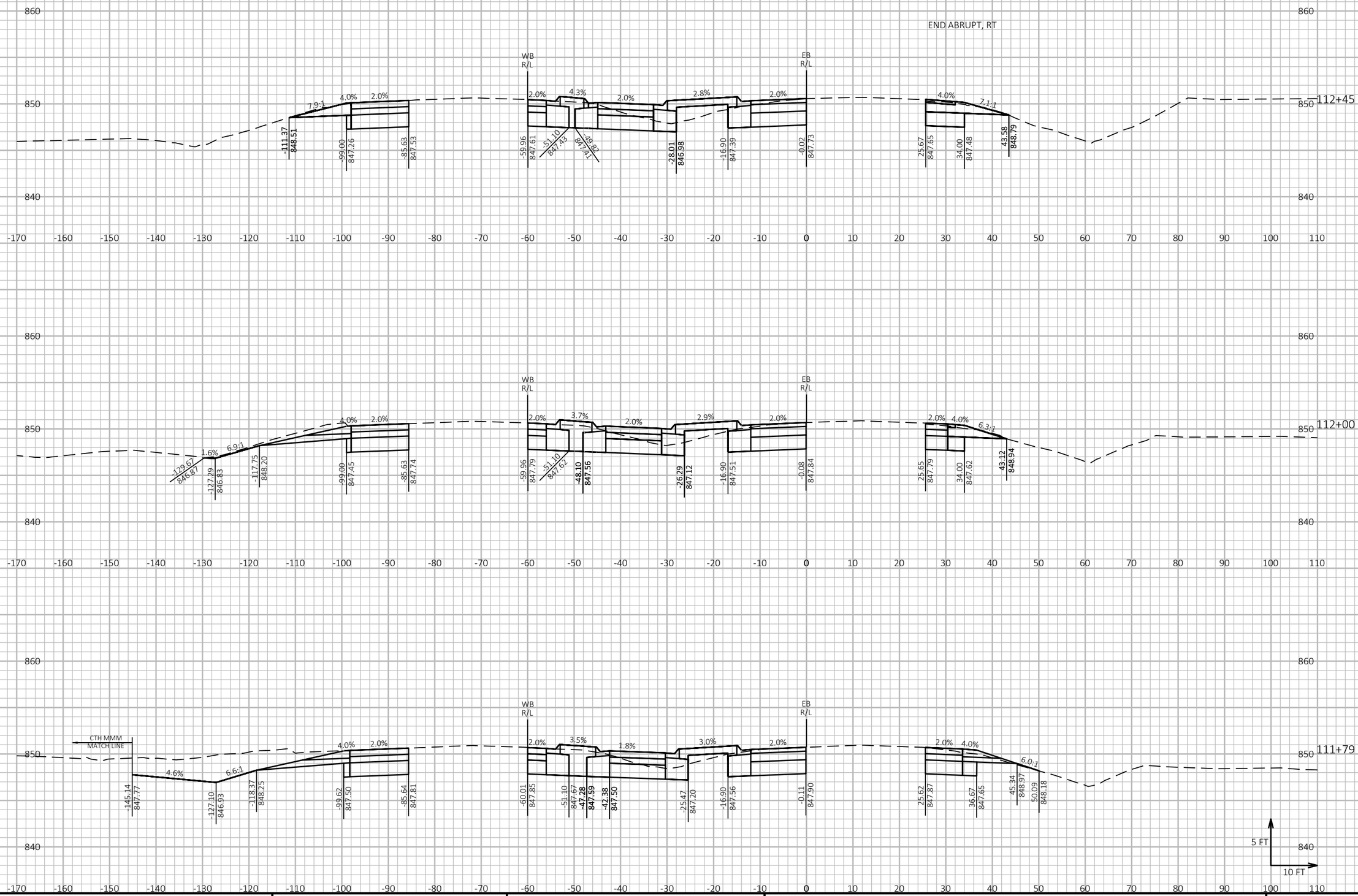
PLOT DATE : 11/21/2023 6:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 236	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 11

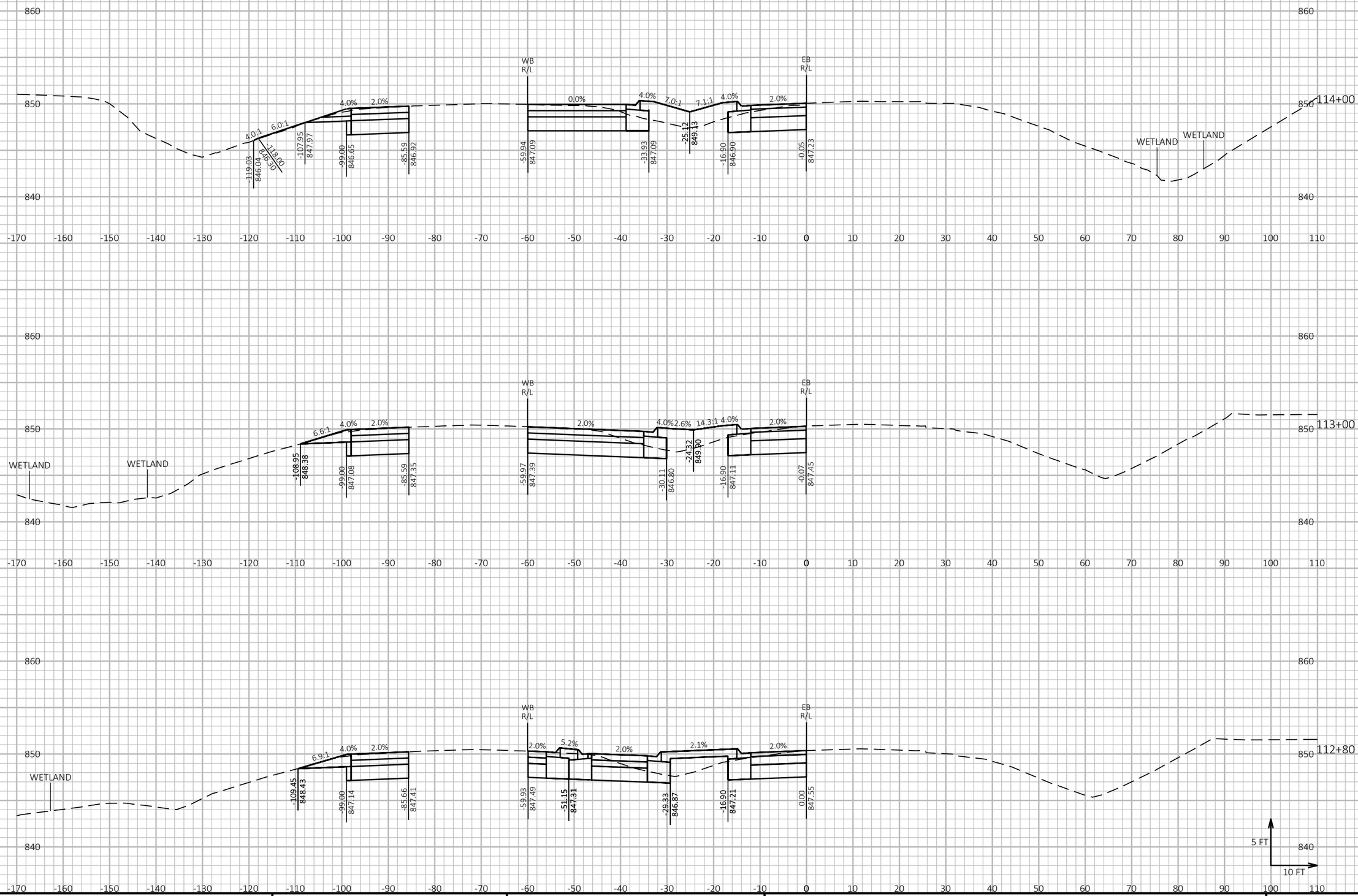
PLOT DATE : 11/21/2023 6:56 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 237 E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 11/21/2023 6:56 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

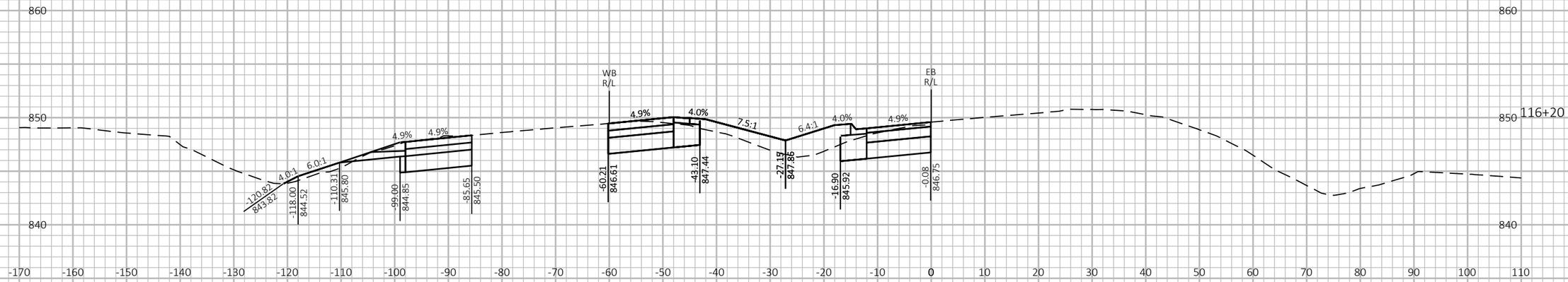


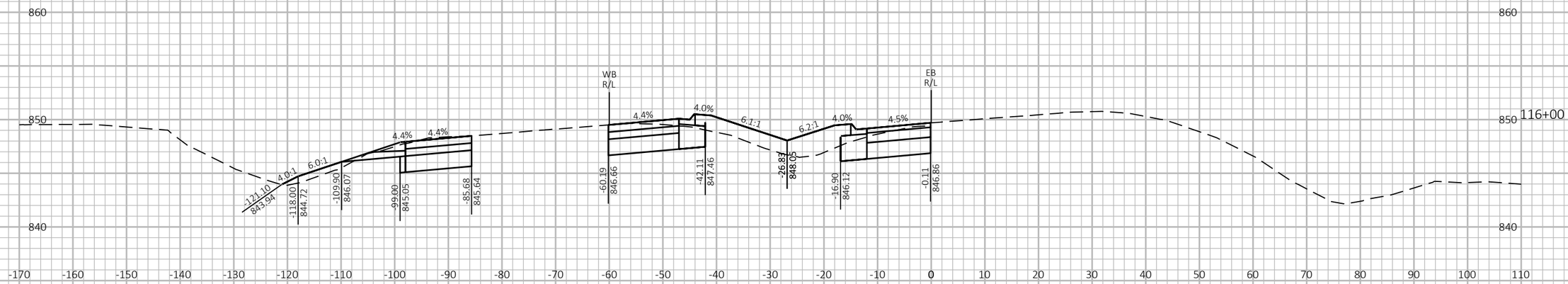
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 238	E

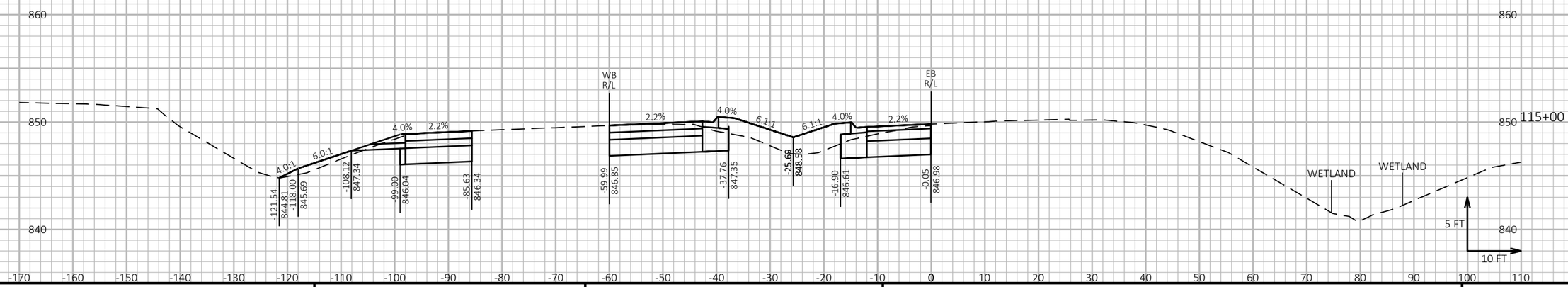
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 11/21/2023 6:56 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





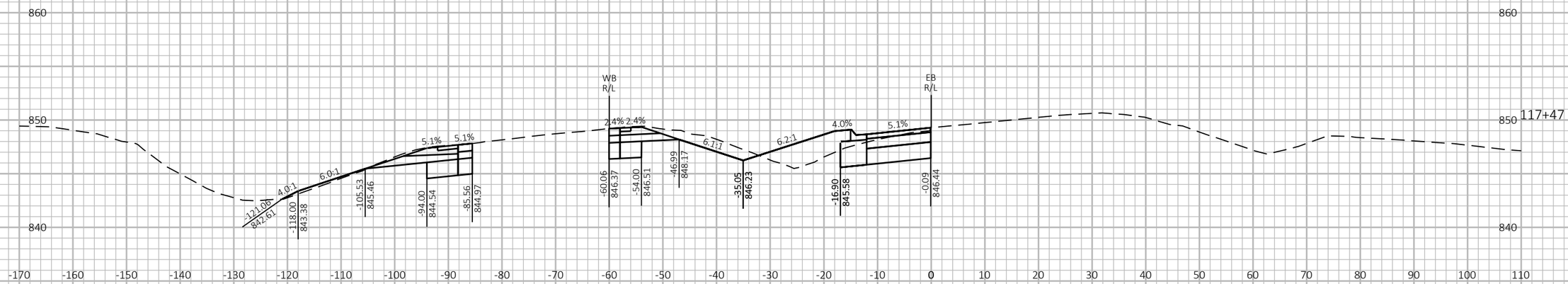


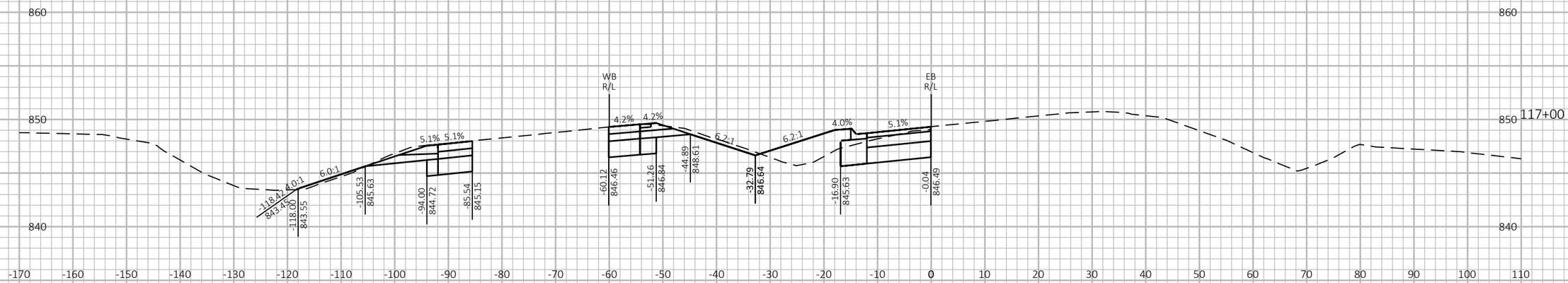
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 239	E

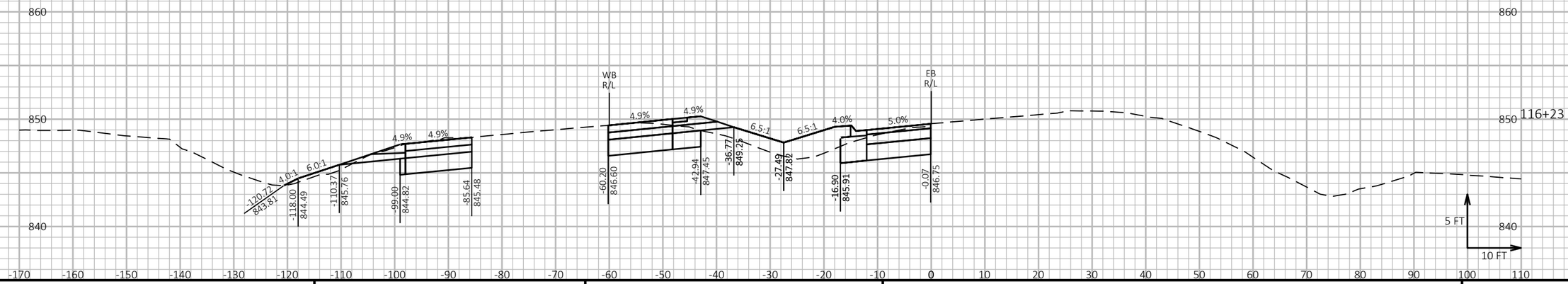
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 11/21/2023 6:56 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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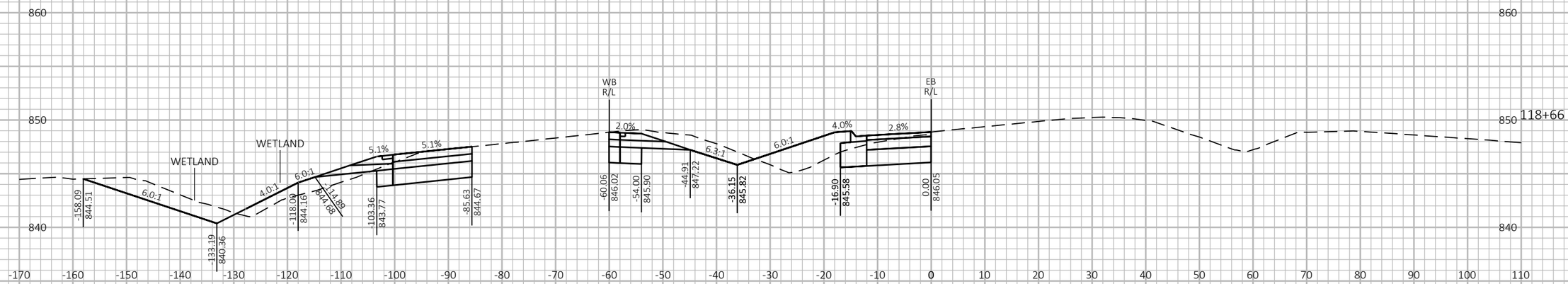
9

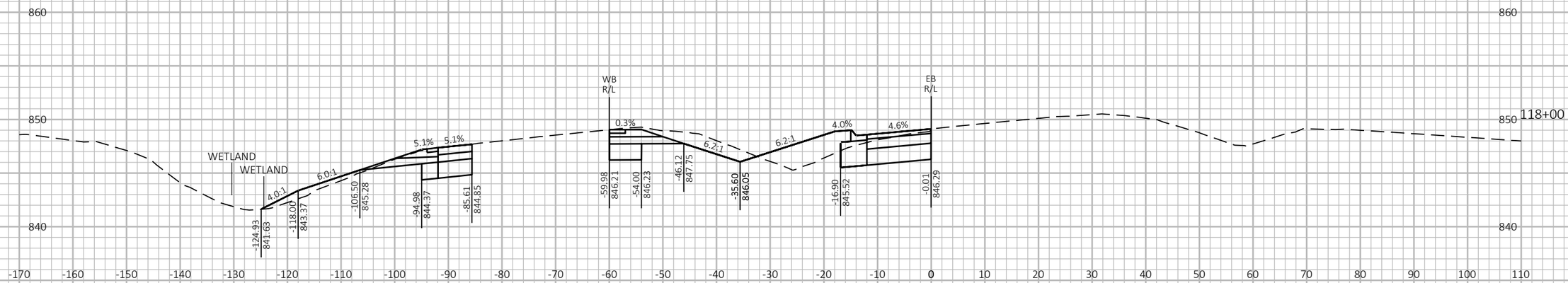
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 240	E

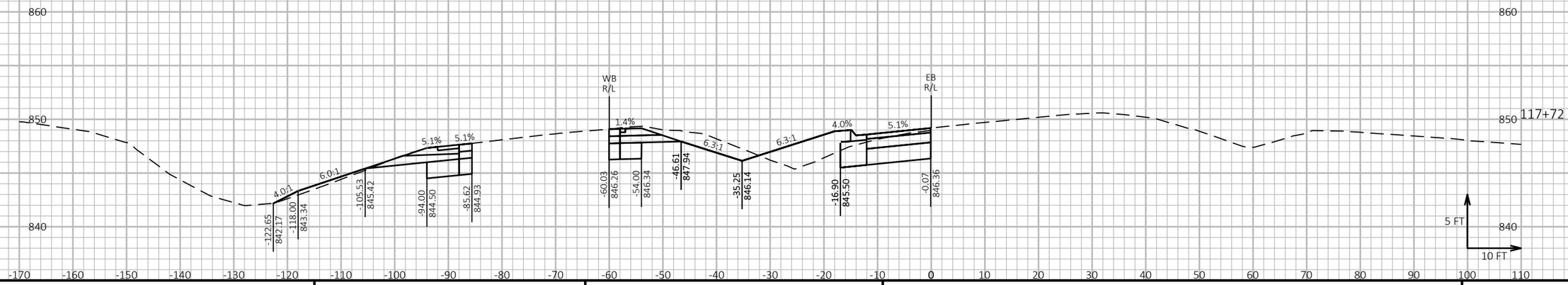
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 11/21/2023 6:57 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

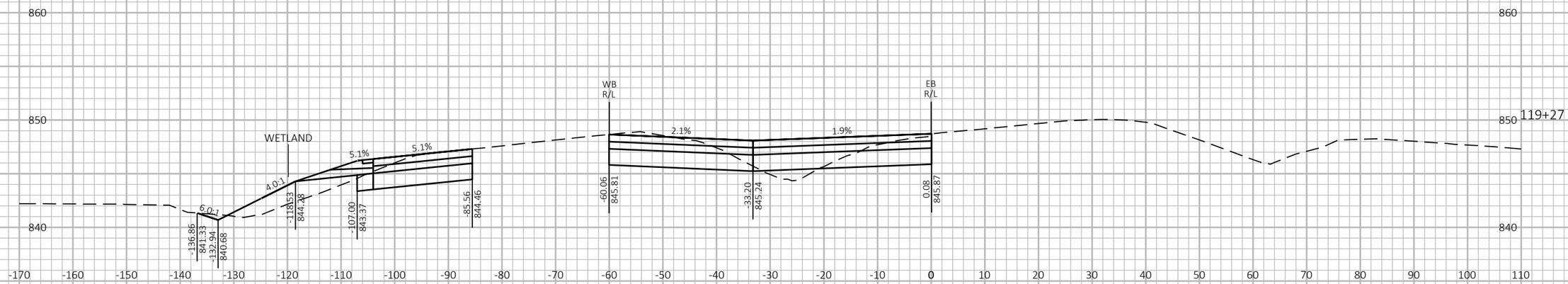
9

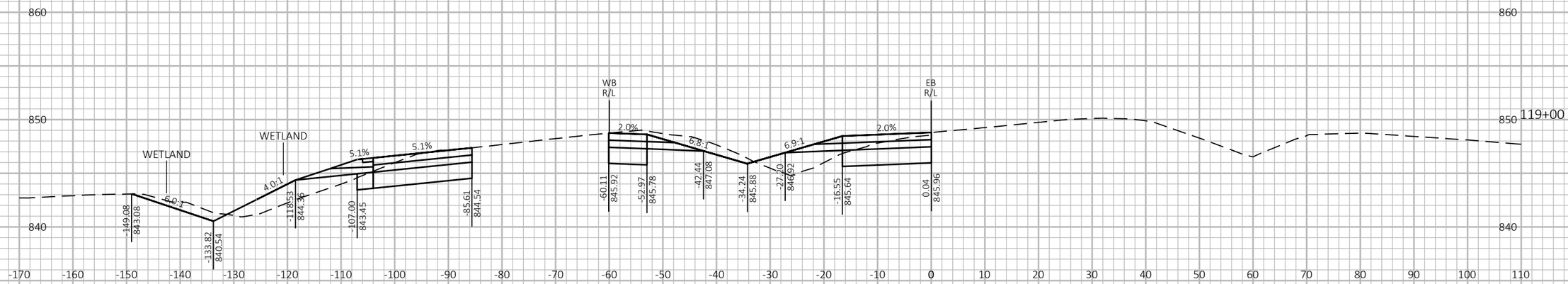
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 241	E

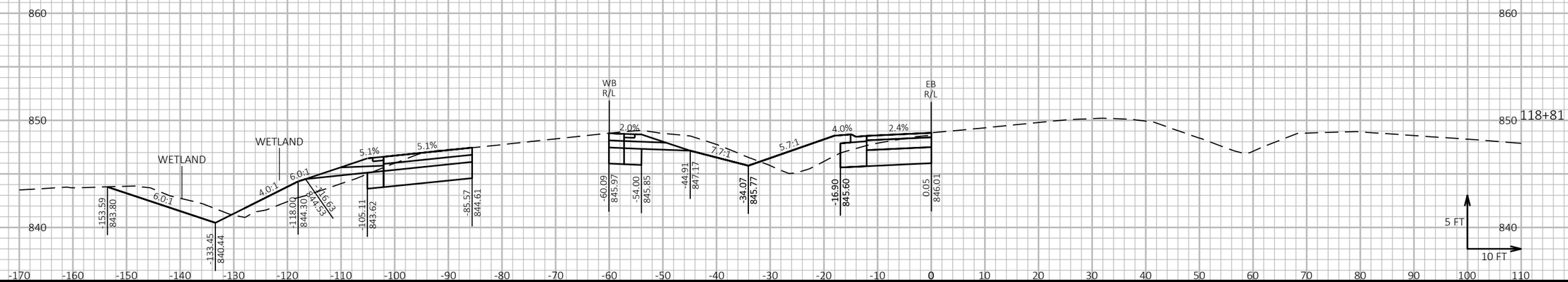
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 16

PLOT DATE : 11/21/2023 6:57 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

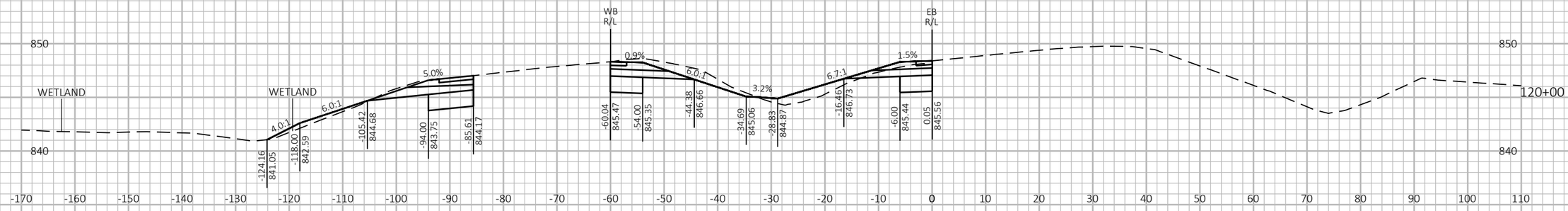
9

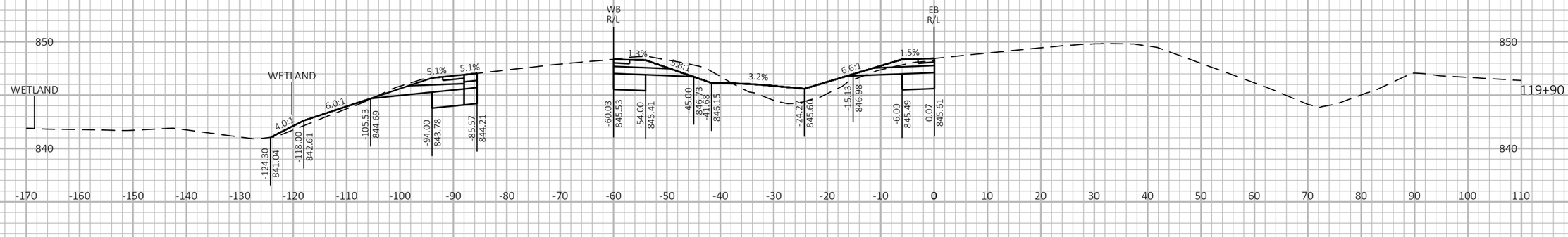
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 242	E

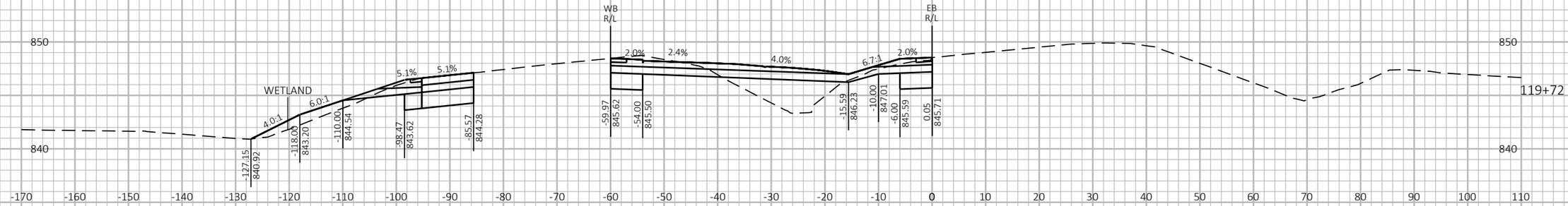
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 17

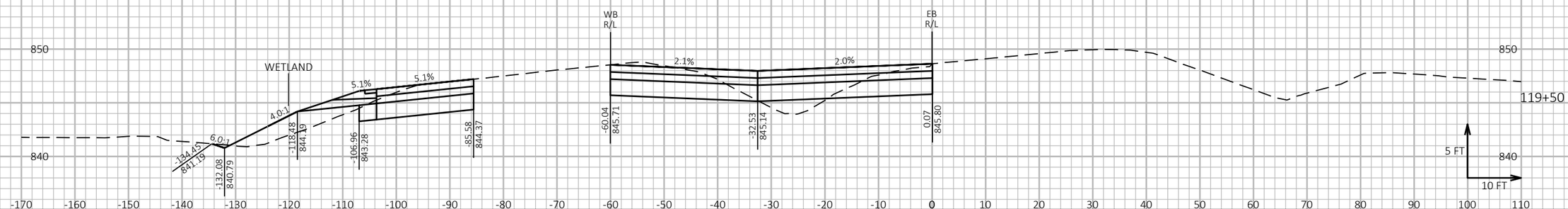
PLOT DATE : 11/21/2023 6:57 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49









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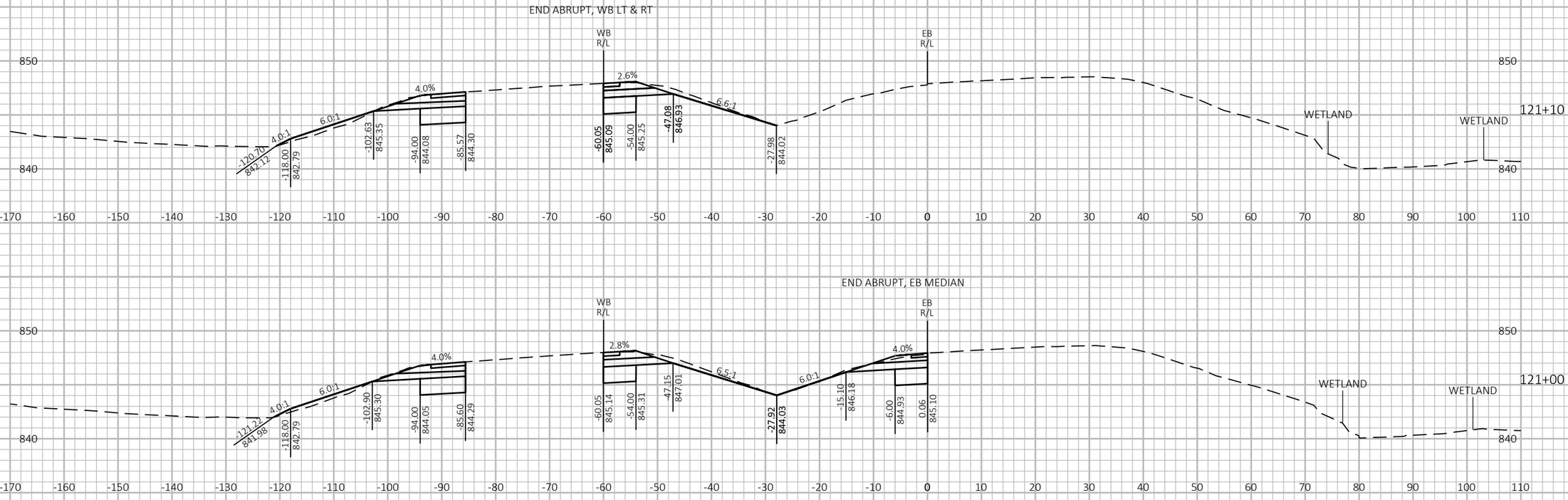
9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 243	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 11/21/2023 6:57 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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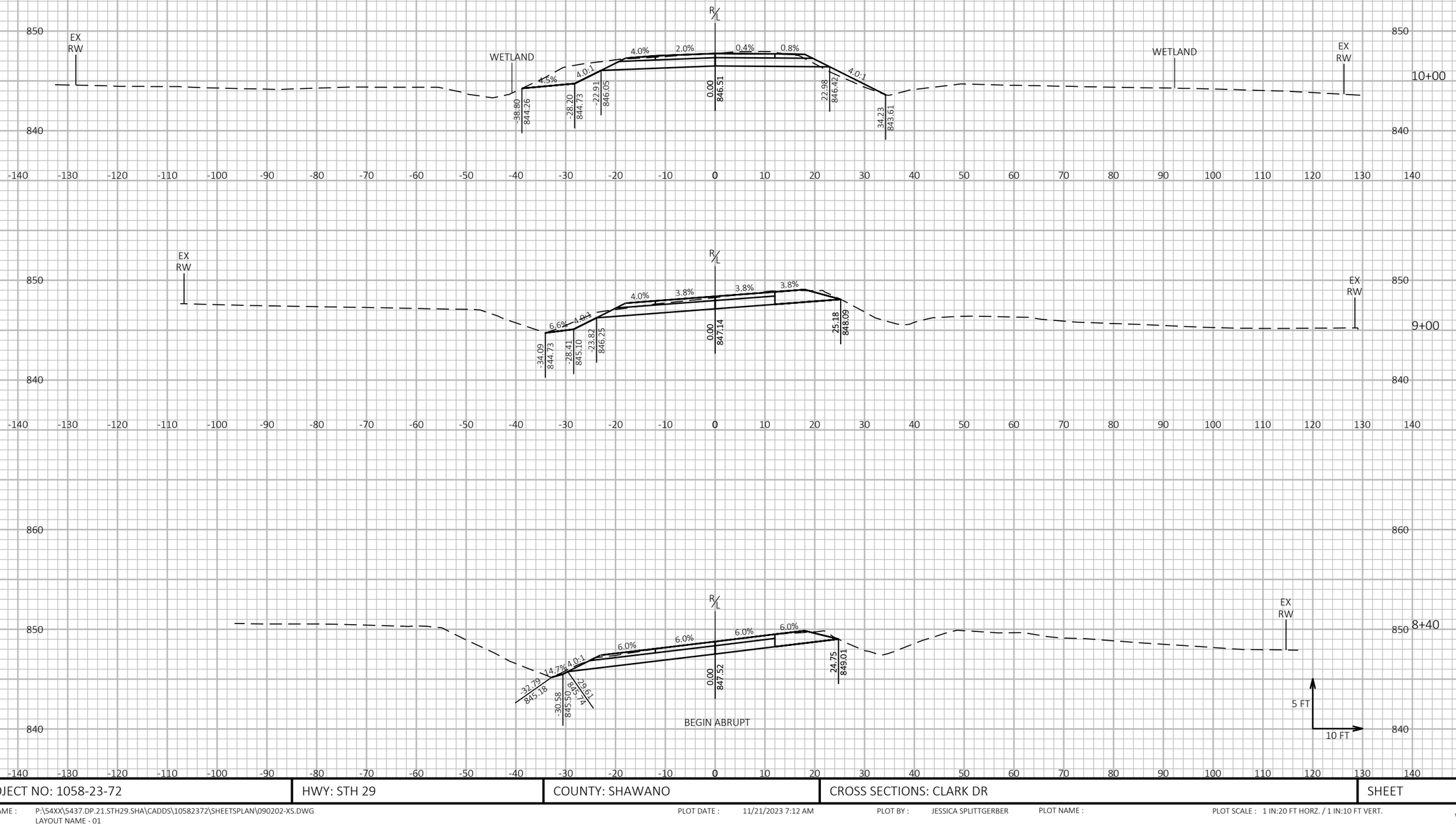
9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: STH 29	SHEET 244	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 11/21/2023 6:58 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

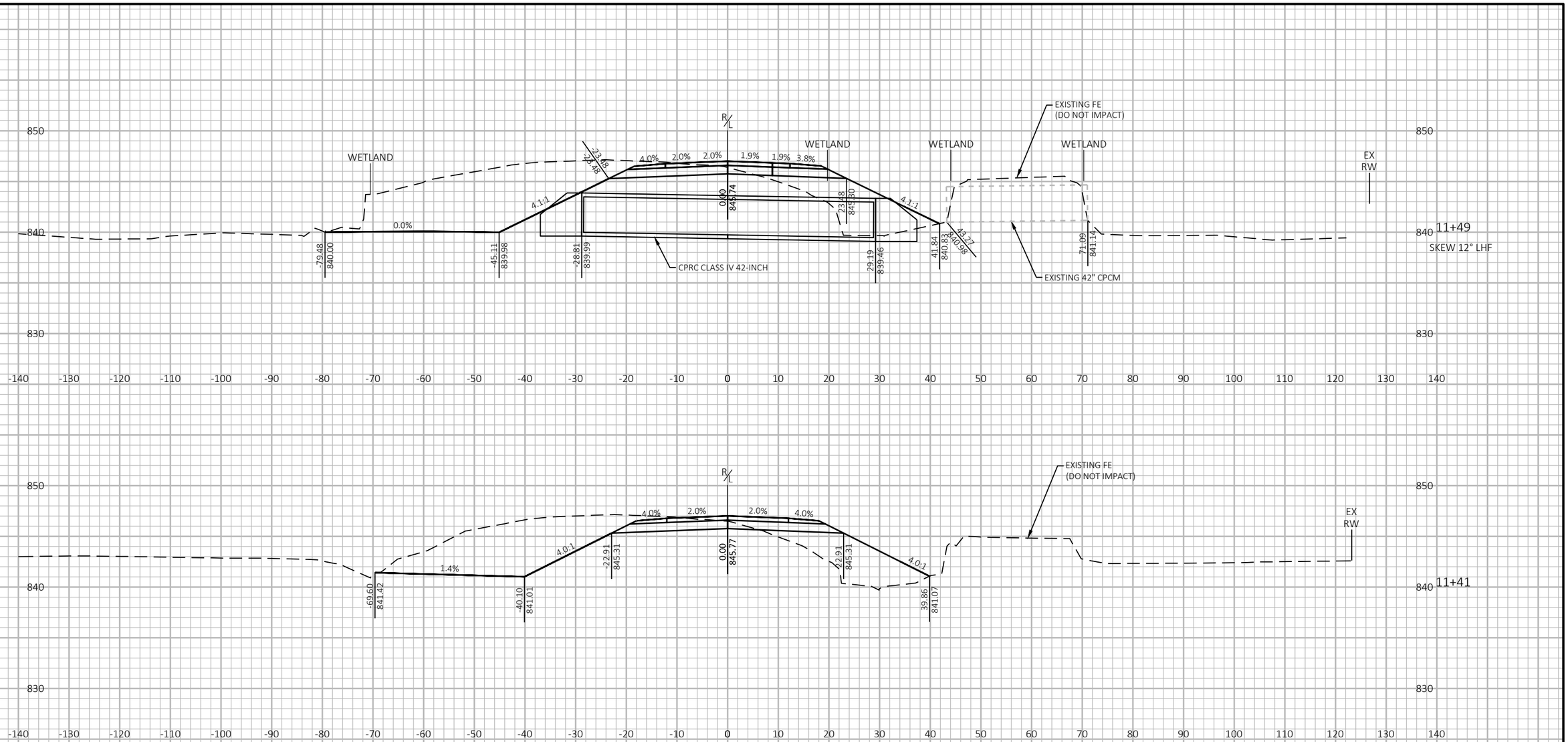
9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 245	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 11/21/2023 7:12 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 246	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 11/21/2023 7:13 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

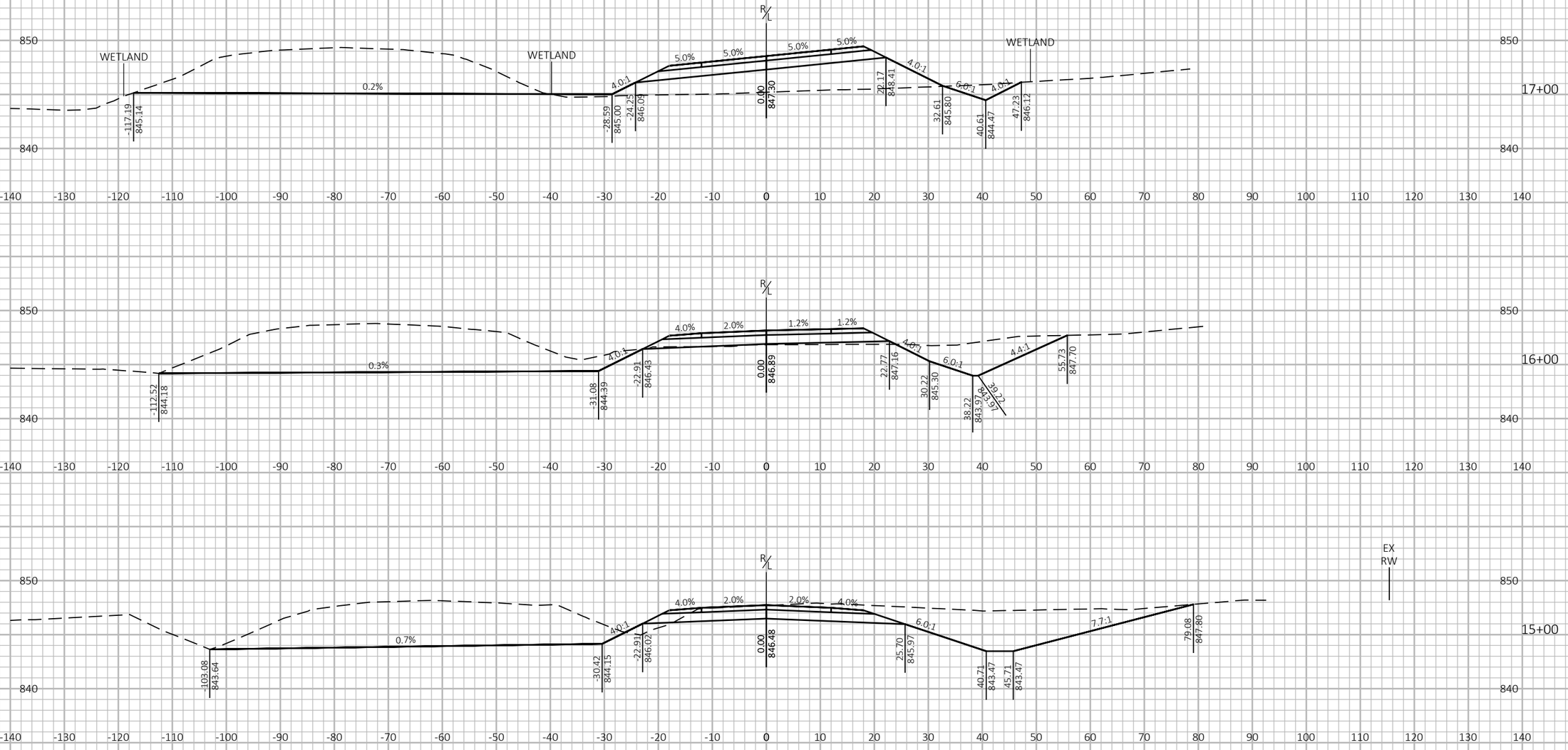
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 247	E

9

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 11/21/2023 7:13 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

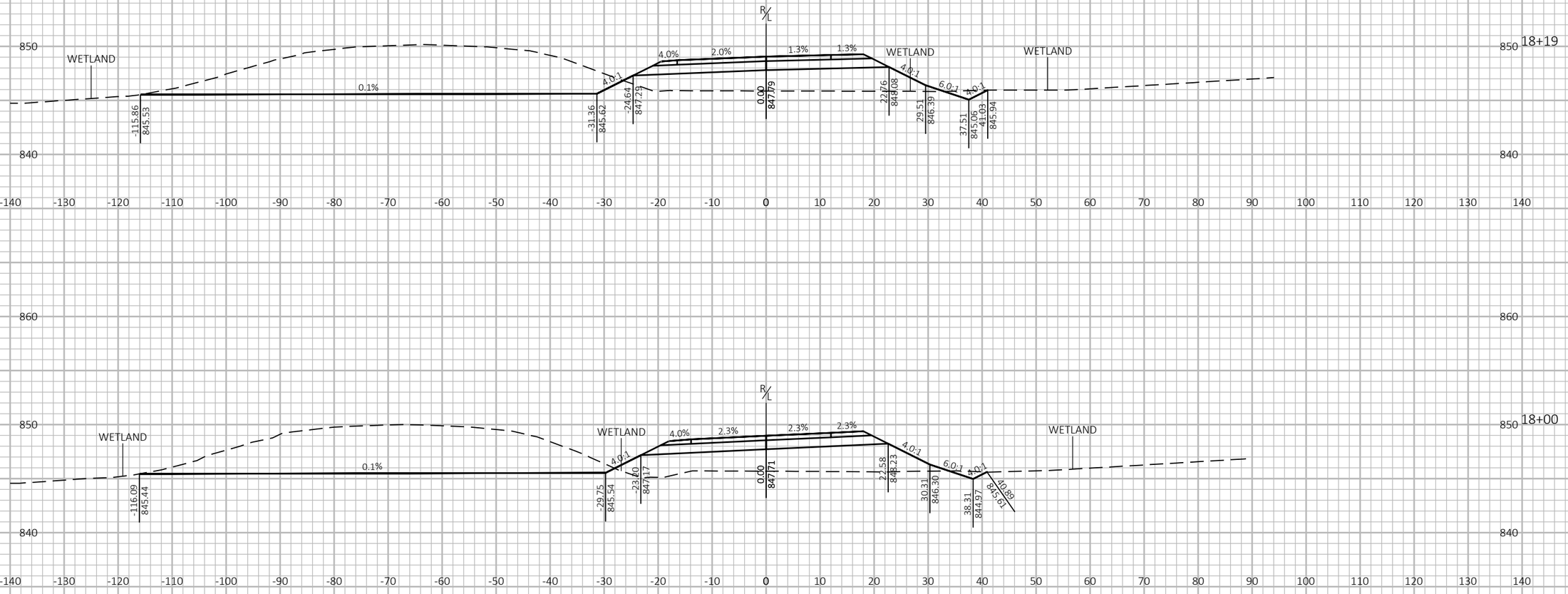
9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 248	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 11/21/2023 7:13 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

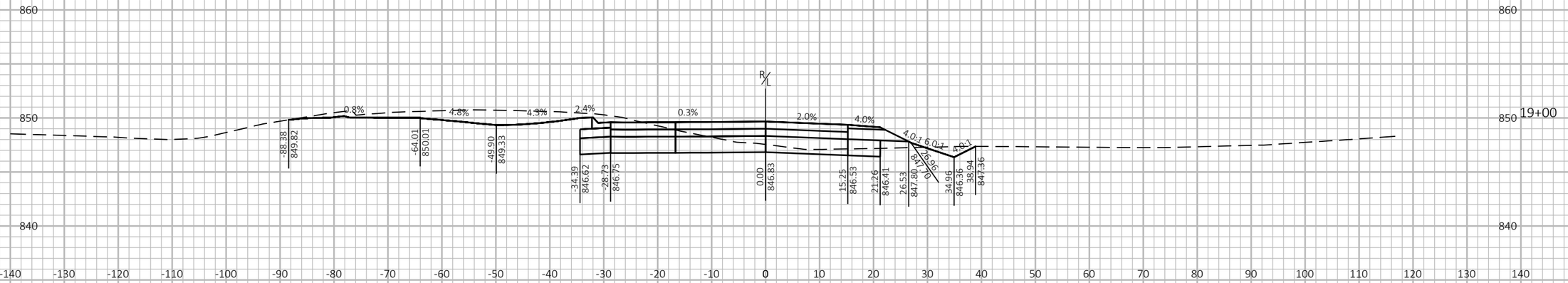
WISDOT/CADDS SHEET 49

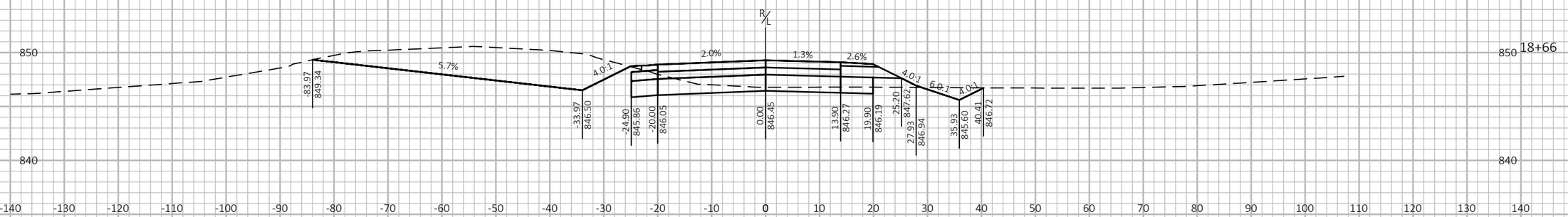


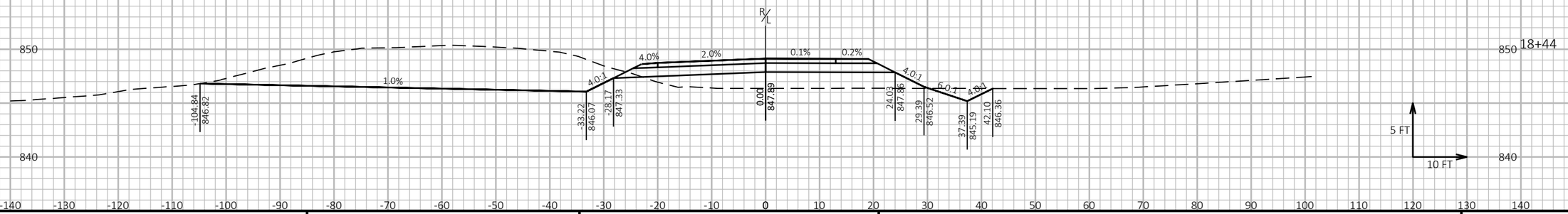
9 9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 249	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 05
PLOT DATE : 11/21/2023 7:13 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49







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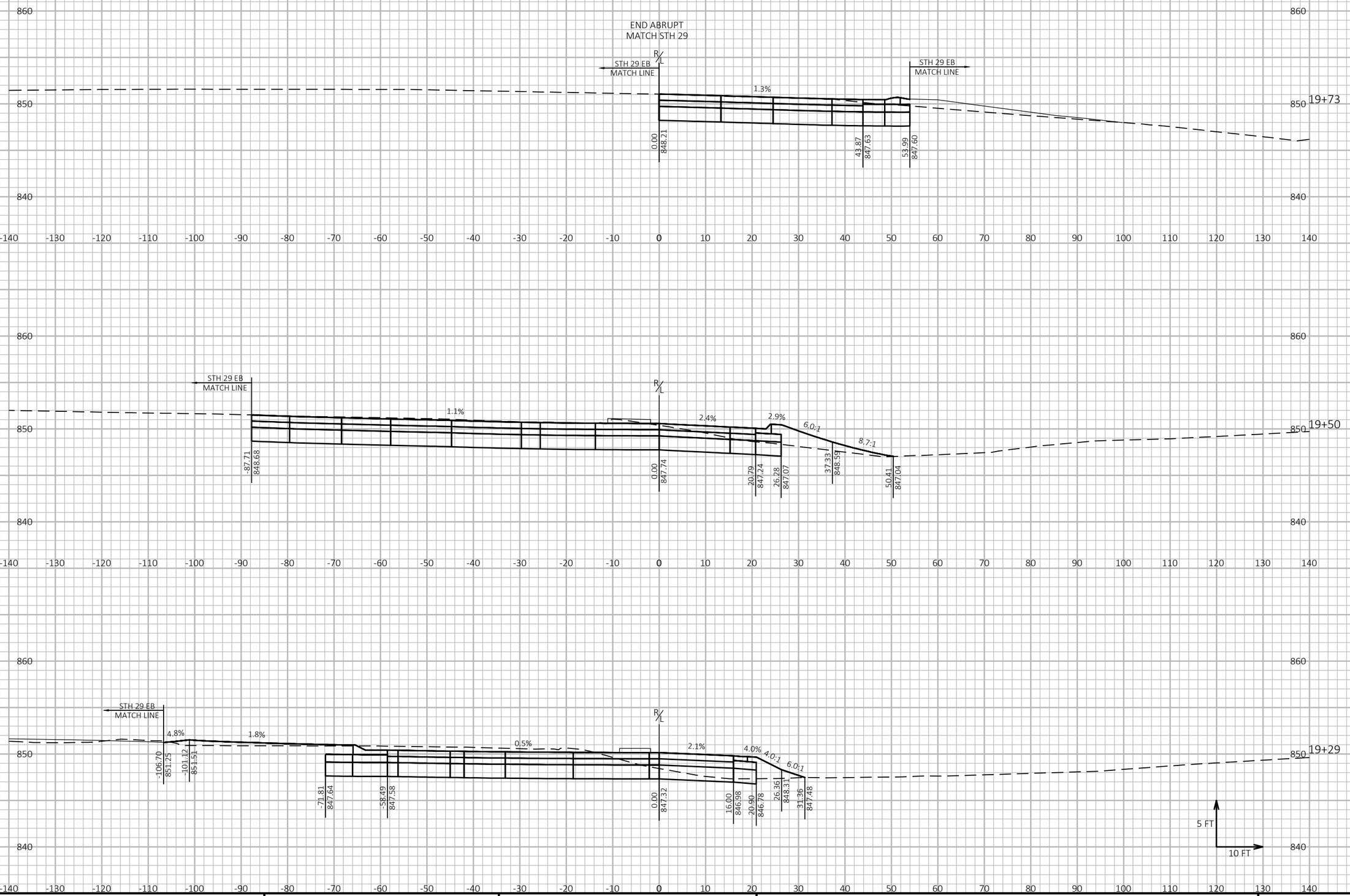
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 250	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 11/21/2023 7:14 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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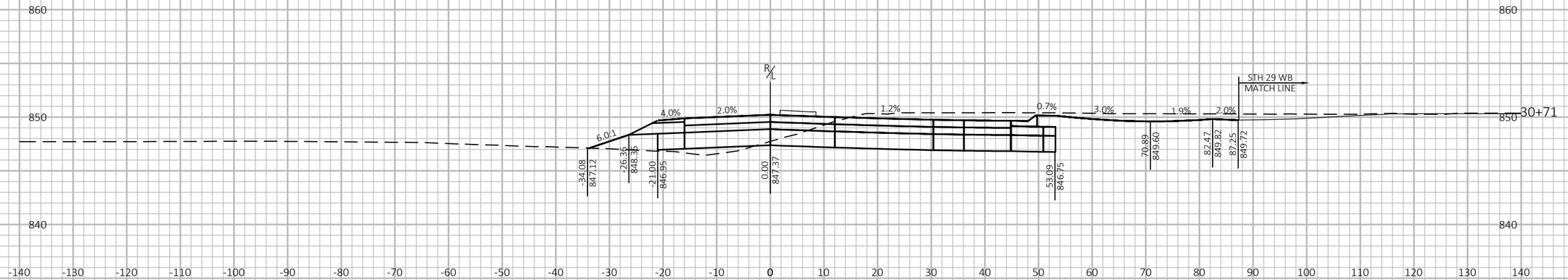
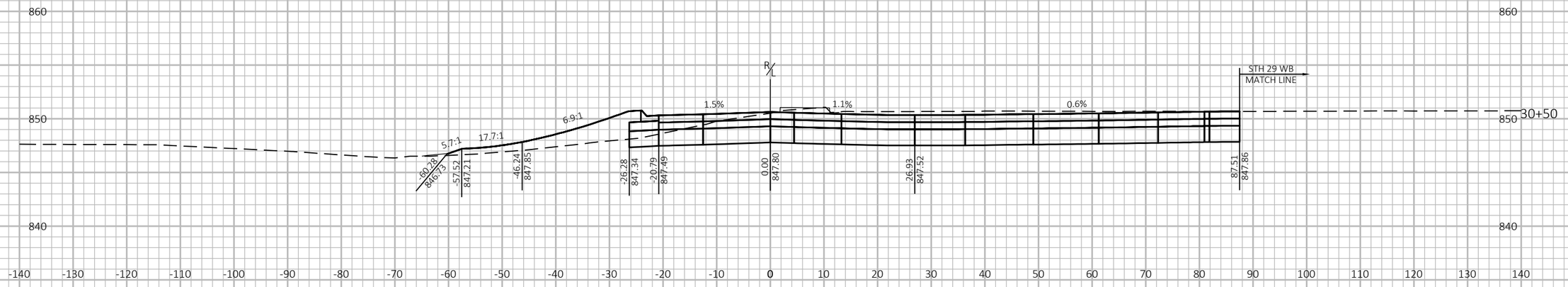
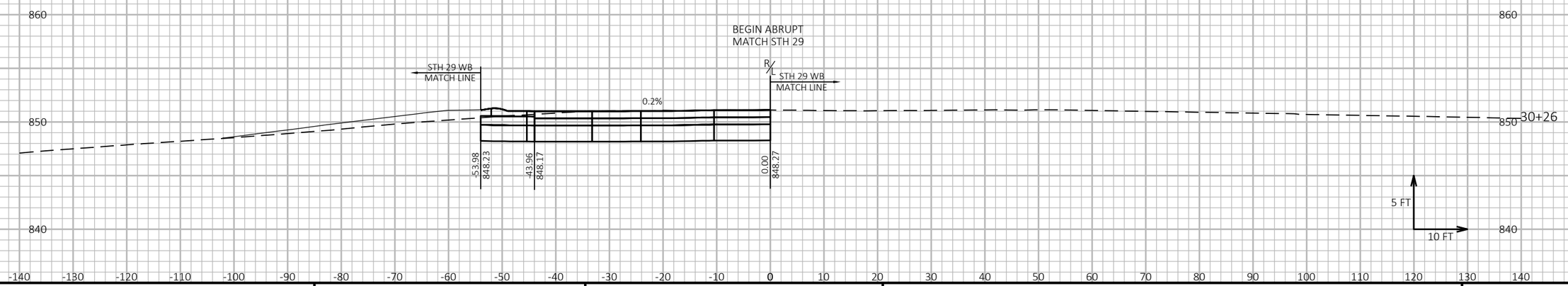
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CLARK DR	SHEET 251	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 11/21/2023 7:14 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.







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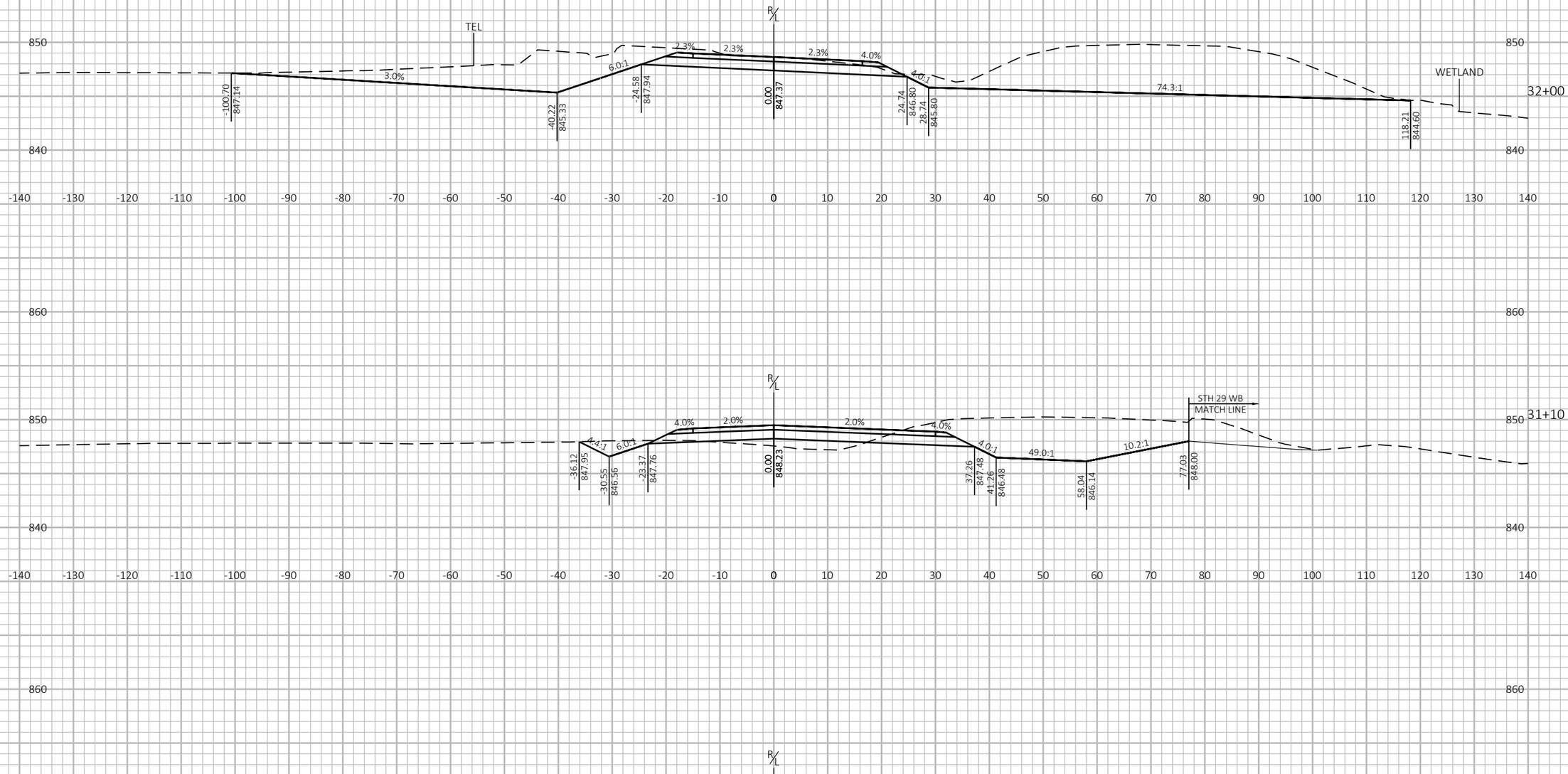
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 252	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 01

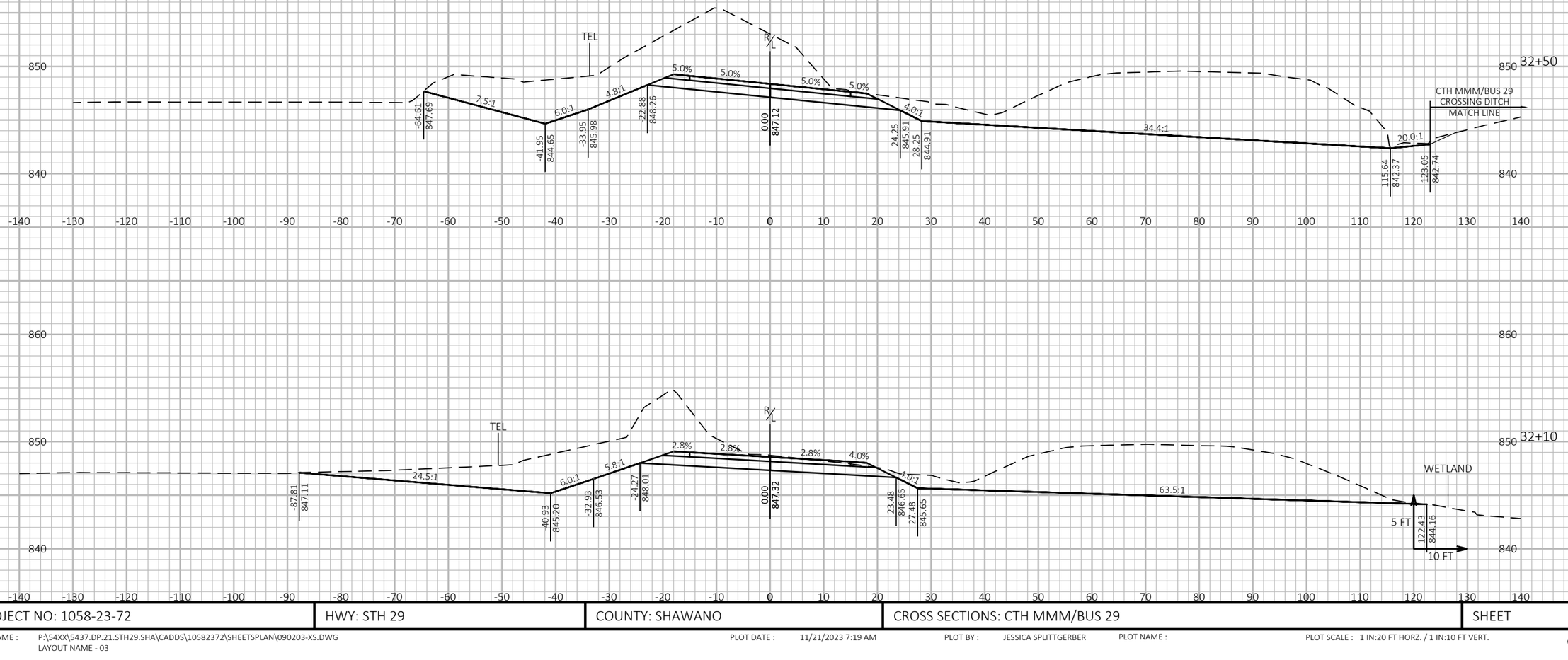
PLOT DATE : 11/21/2023 7:18 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 253	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 02
PLOT DATE : 11/21/2023 7:19 AM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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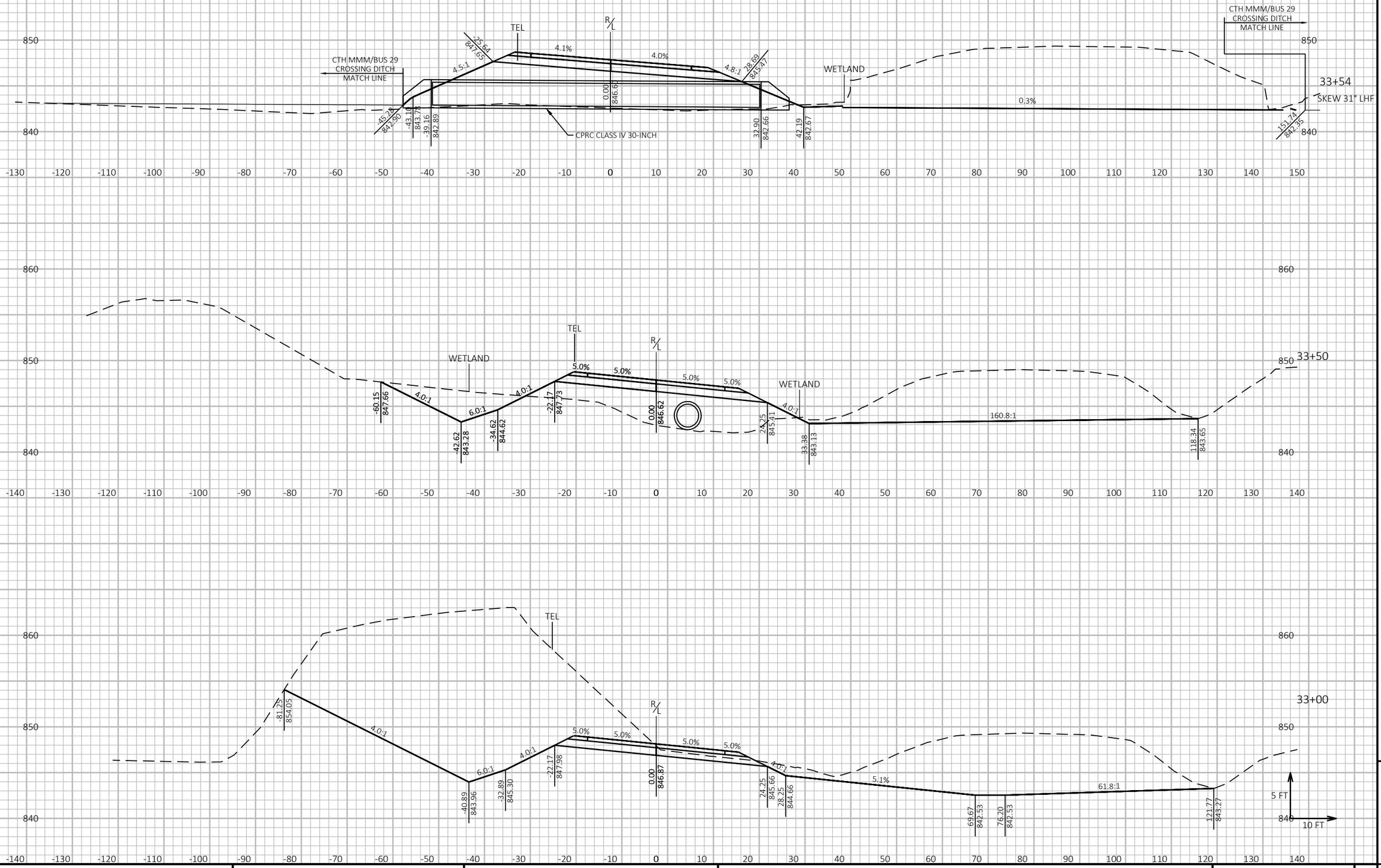
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 254	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 11/21/2023 7:19 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

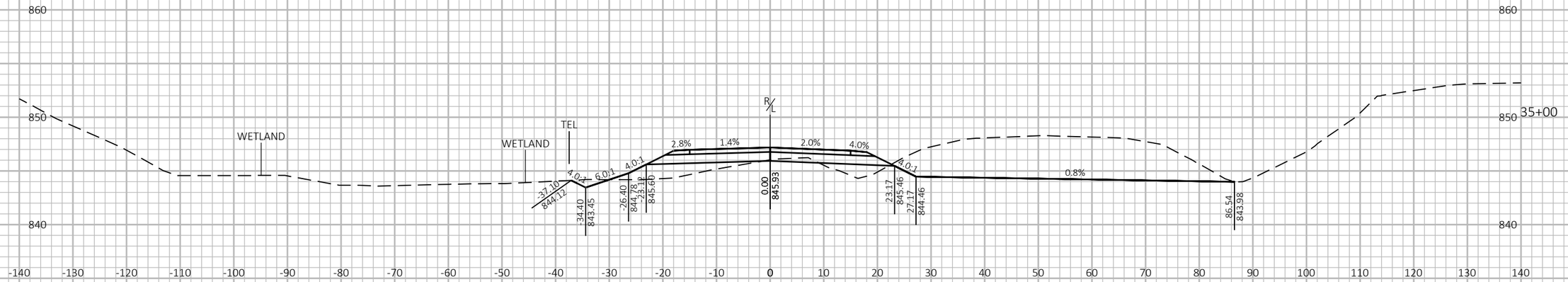


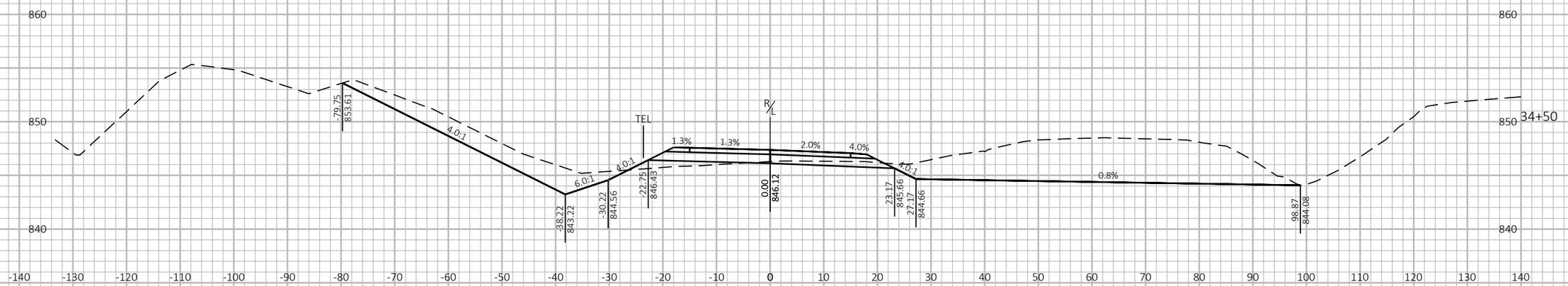
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 255 E

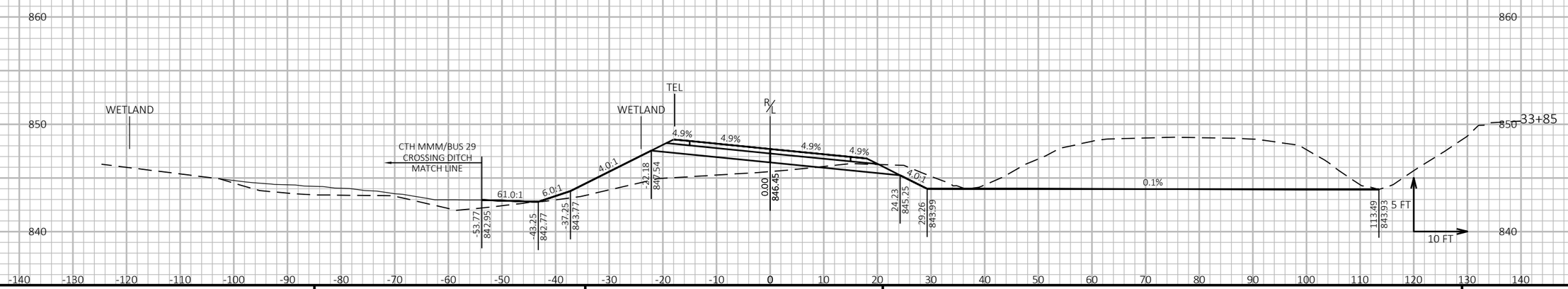
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 11/21/2023 7:19 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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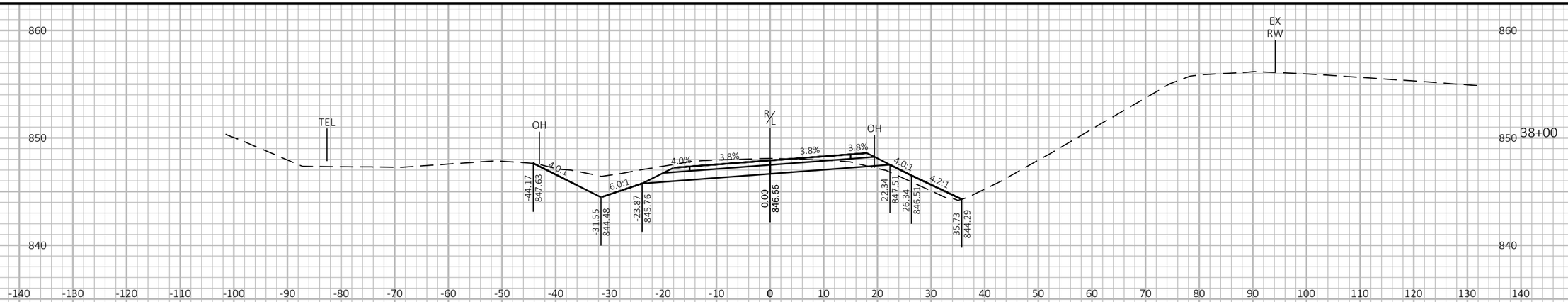
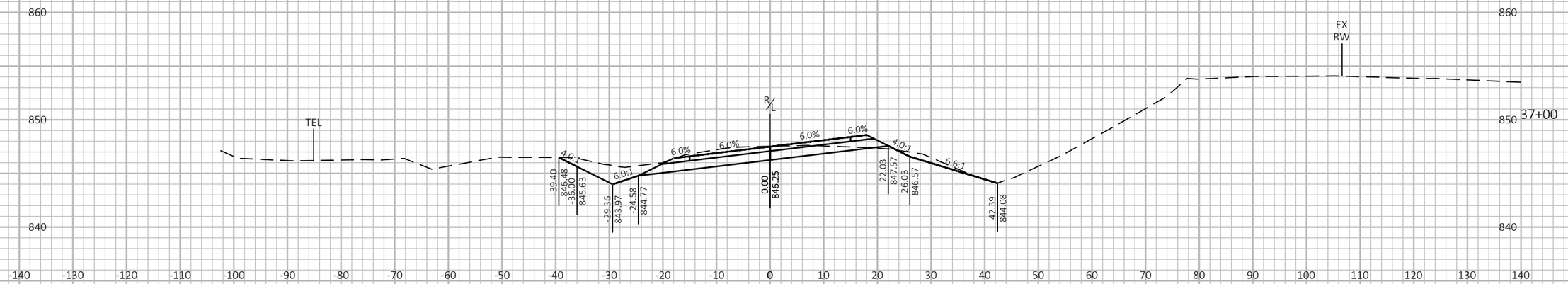
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 256	E

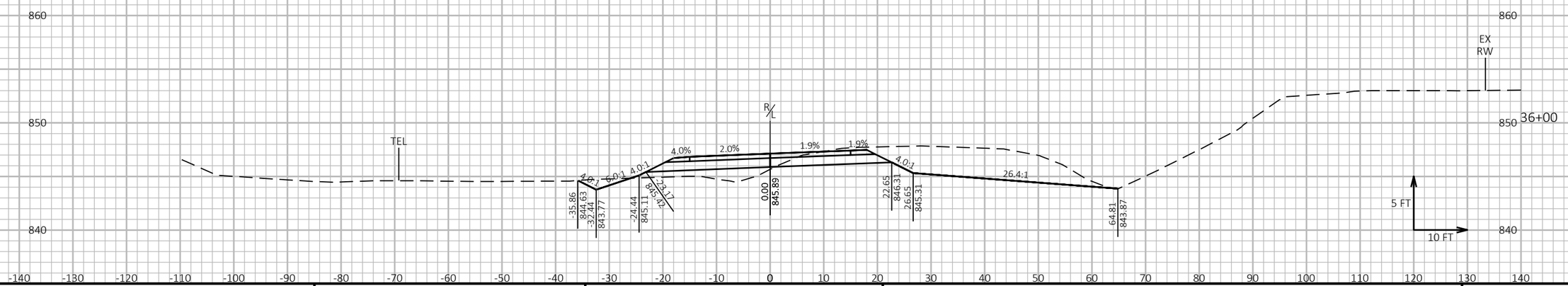
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 11/21/2023 7:19 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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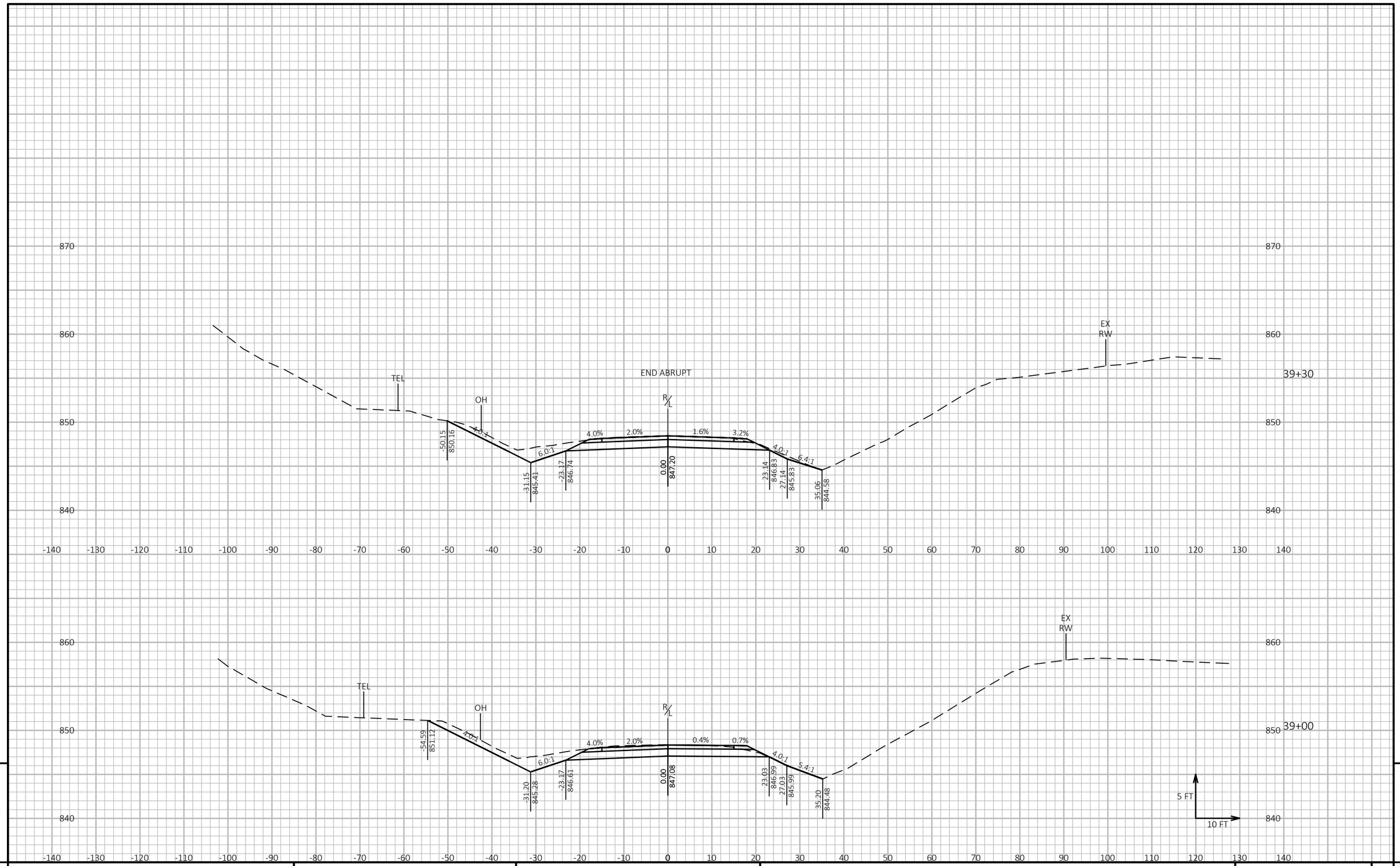
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 257	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 11/21/2023 7:20 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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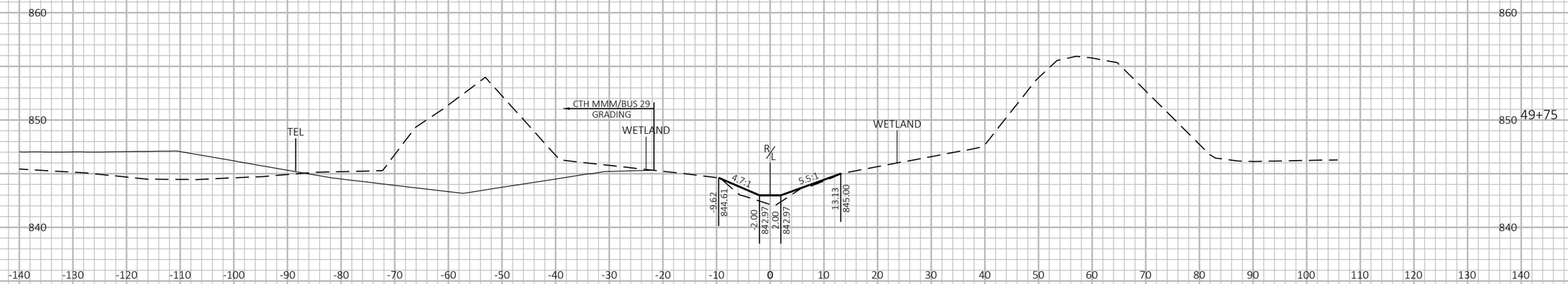
9

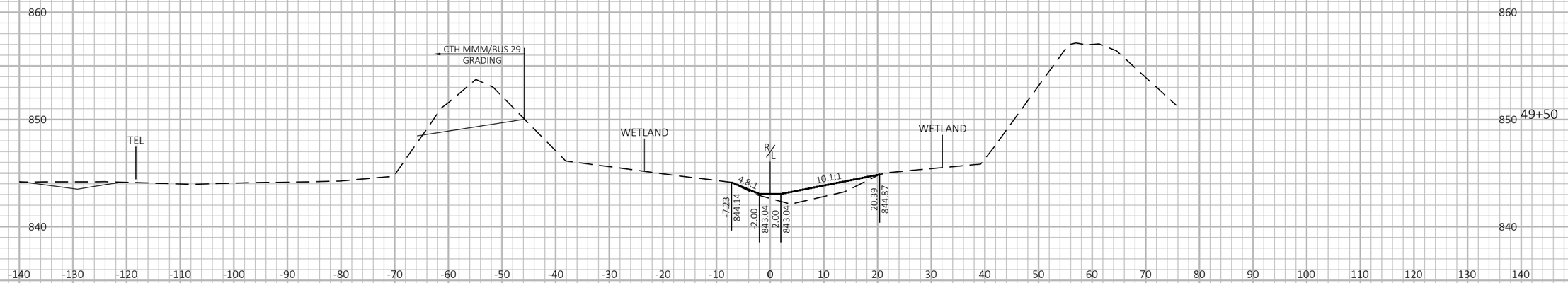
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29	SHEET 258	E

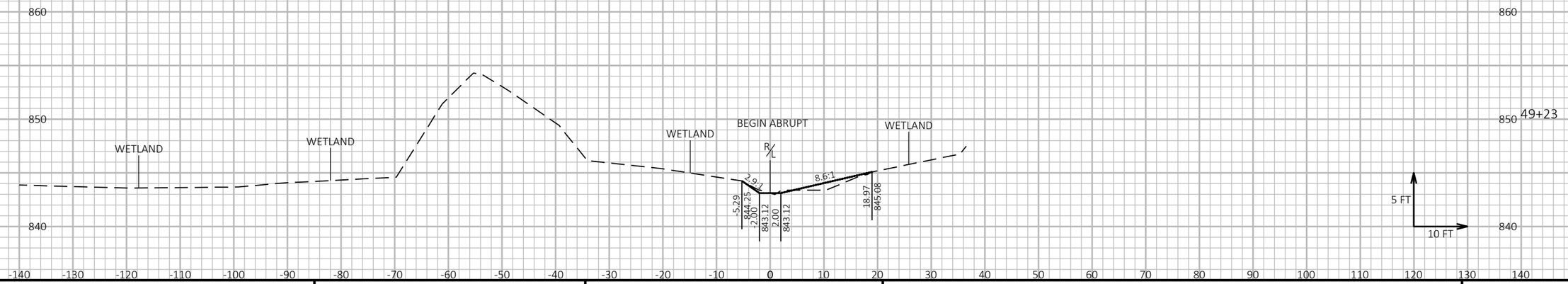
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 11/21/2023 7:20 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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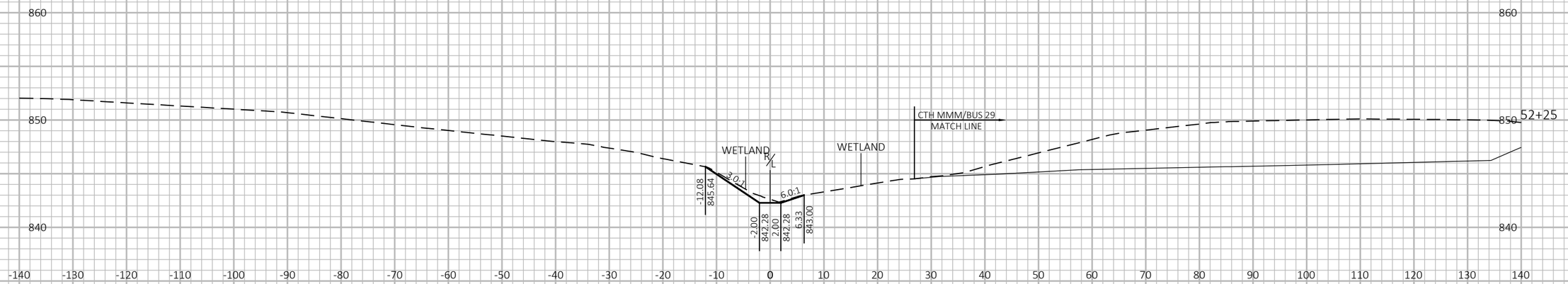
9

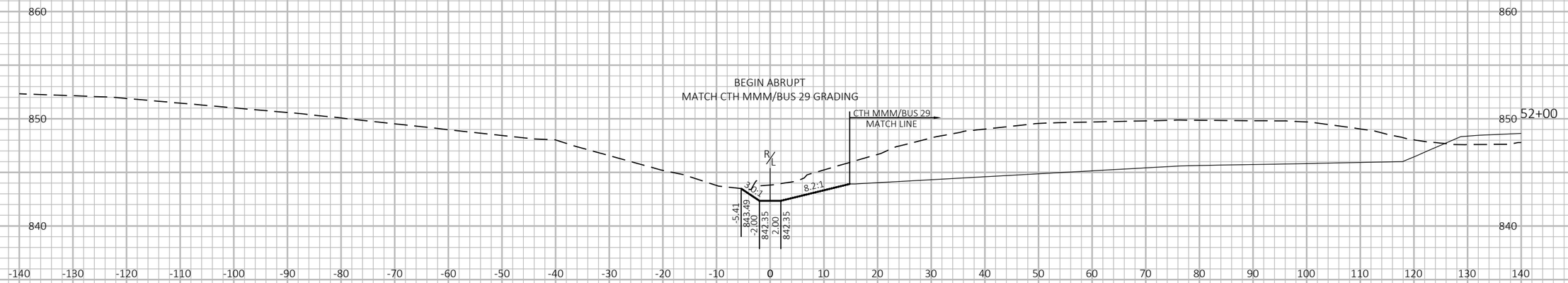
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29 CROSSING DITCH	SHEET 259	E

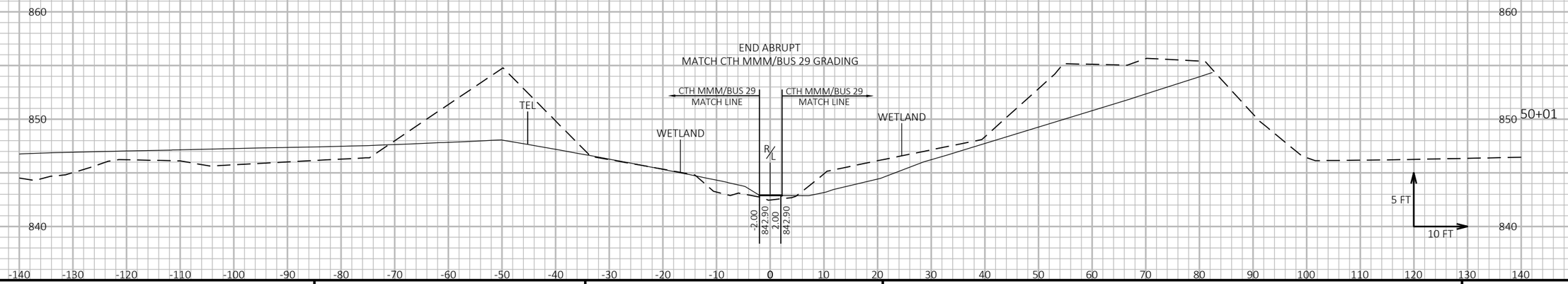
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 11/21/2023 7:23 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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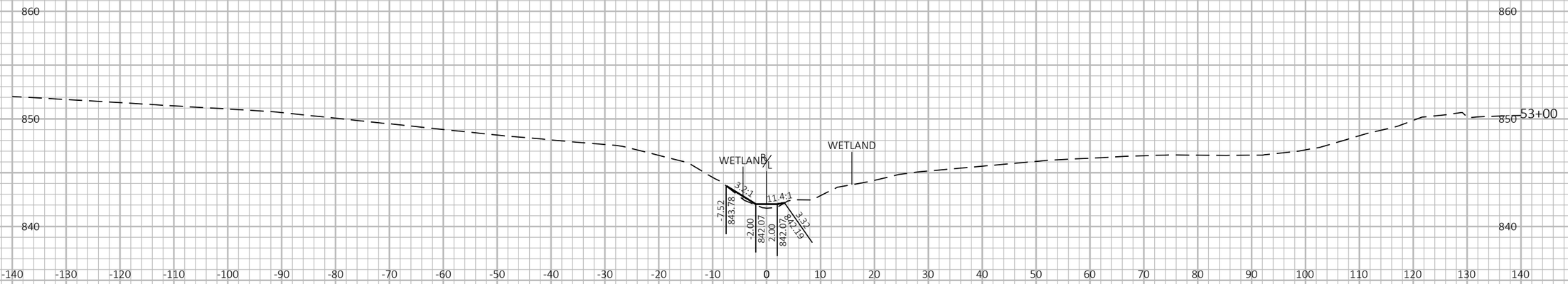
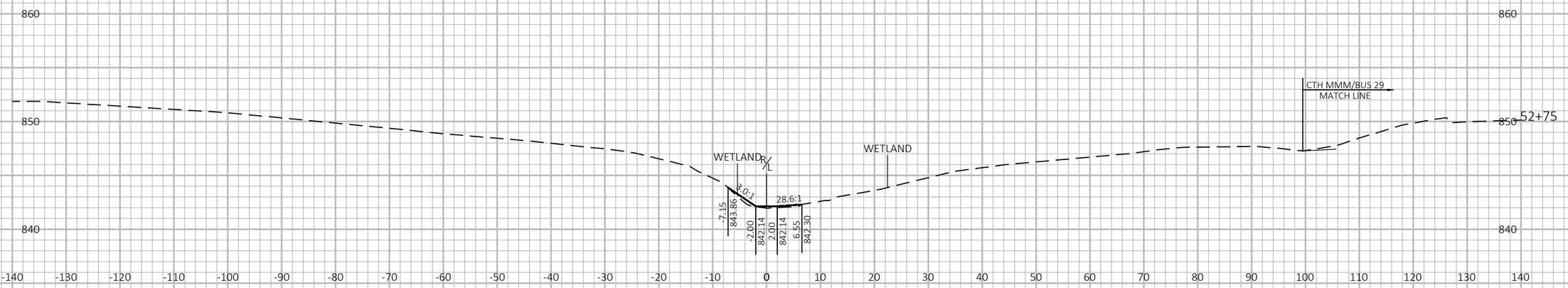
PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29 CROSSING DITCH	SHEET 260	E

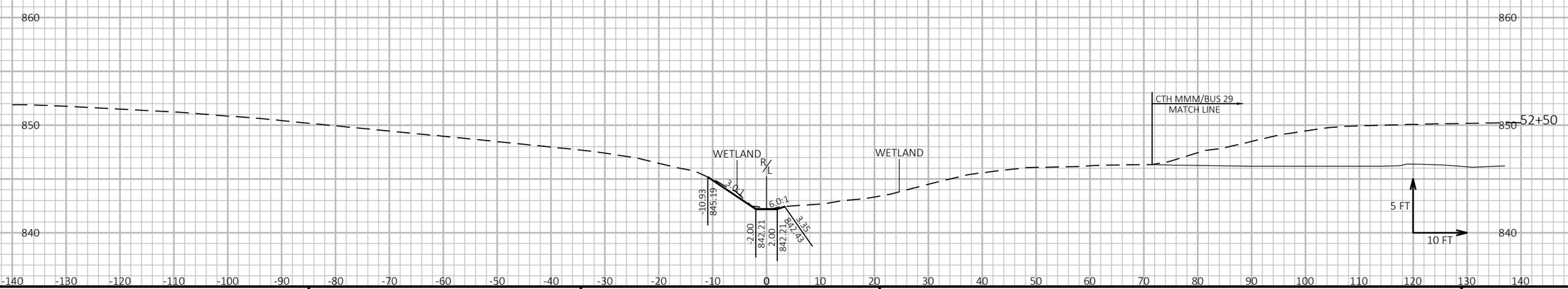
FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 11/21/2023 7:24 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







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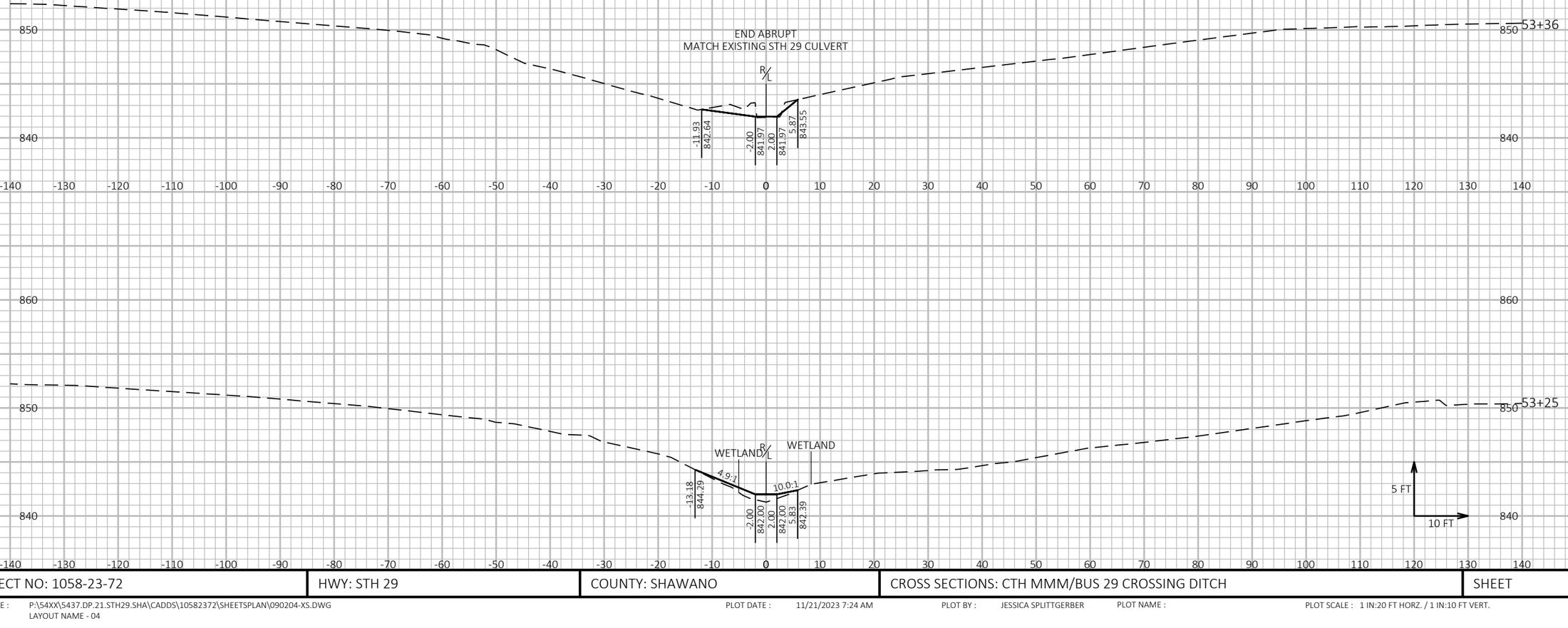
9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29 CROSSING DITCH	SHEET 261	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 11/21/2023 7:24 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

END ABRUPT
MATCH EXISTING STH 29 CULVERT



9 9

PROJECT NO: 1058-23-72	HWY: STH 29	COUNTY: SHAWANO	CROSS SECTIONS: CTH MMM/BUS 29 CROSSING DITCH	SHEET 262	E

FILE NAME : P:\54XX\5437.DP.21.STH29.SHA\CADDS\10582372\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 11/21/2023 7:24 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov