WIS

DECEMBER 2022

PROJECT ID: 1053-07-76

WITH: N/A

COUNTY: MARATHON

ORDER OF SHEETS

TOTAL SHEETS = 174

28

N

DESIGN DESIGNATION

A.A.D.T.	2023	=	11,400
A.A.D.T.	2043	=	13,100
D.H.V.		=	1,575
D.D.		=	60,140
T.		=	16.7%
DESIGN SPEED		=	65 MPH
ESALS		=	5,260,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE			
SLOPE INTERCEPT		CULVERT (Profile View)	
REFERENCE LINE	300'EB'	UTILITIES	
EXISTING CULVERT		ELECTRIC	E
PROPOSED CULVERT (Box or Pipe)		FIBER OPTIC	FO
		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WAUSAU - WITTENBERG

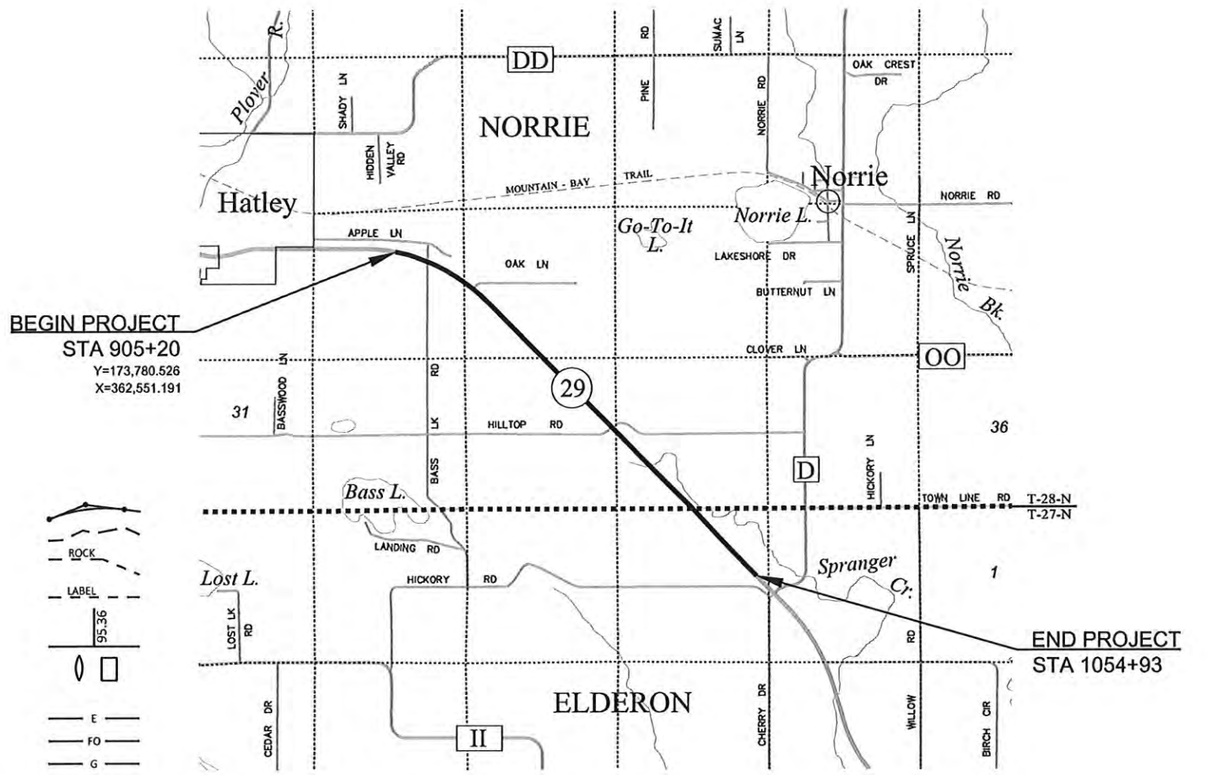
BASS LAKE ROAD TO CTH D, WB

STH 29

MARATHON COUNTY

STATE PROJECT NUMBER
1053-07-76

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1053-07-76	WISC 2023111	1



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 2.836 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MARATHON 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).

emcs.inc

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

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

7-19-22 Date

Stephanie G. Christensen (Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	KOREY BOEHM
Regional Examiner	ZACH GRULING
Regional Supervisor	KAI KILEN

APPROVED FOR THE DEPARTMENT

DATE: 7-21-22 (Signature)

E

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.

AS-BUILTS USED FOR PLAN DEVELOPMENT

PROJECT NO: 1059-16-72, CONSTRUCTION YEAR: 1995
PROJECT NO: 1059-16-73, CONSTRUCTION YEAR: 1997
PROJECT NO: 1053-10-61, CONSTRUCTION YEAR: 2008

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAILS
EROSION CONTROL
PERMANENT SIGNING
TRAFFIC CONTROL
SOIL BORING REPORTS

UTILITIES

COMMUNICATIONS

ASTREA
ANDY HEIGL
105 KENT STREET
IRON MOUNTAIN, MI 49801
PHONE: (905) 221-7536
ANDY.HEIGL@ASTREACONNECT.COM

CENTURYLINK
JASON BUSSE
3235 INTERTECH DR
SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 224-6713
MOBILE: (715) 415-3214

WITTENBERG CABLE TV INC
SCOTT SICKLER
104 WEST WALKER ST
PO BOX 309
WITTENBERG, WI 54499
PHONE: (715) 253-3229
MOBILE: (715) 881-0302
SCOTT@CIRRINITY.NET

WITTENBERG TELEPHONE COMPANY
SCOTT SICKLER
104 WEST WALKER ST
PO BOX 309
WITTENBERG, WI 54499
PHONE: (715) 253-3229
MOBILE: (715) 881-0302
SCOTT@CIRRINITY.NET

GAS/PETROLEUM

ANR PIPELINE COMPANY
TODD BRISTER
W3925 PIPELINE LN
EDEN, WI 53019
PHONE: (920) 477-2235
TODD_BRISTER@TRANSCANADA.COM

ELECTRIC - DISTRIBUTION

WISCONSIN PUBLIC SERVICE CORPORATION
JESSE PATTEN WPS DESIGNER ELECTRIC
1700 SHERMAN ST
PO BOX 1166
WAUSAU, WI 54402-1166
PHONE: (715) 848-7405
MOBILE: (715) 573-0349
JESSE.PATTEN@WISCONSINPUBLICSERVICE.COM

RUNOFF COEFFICIENT TABLE

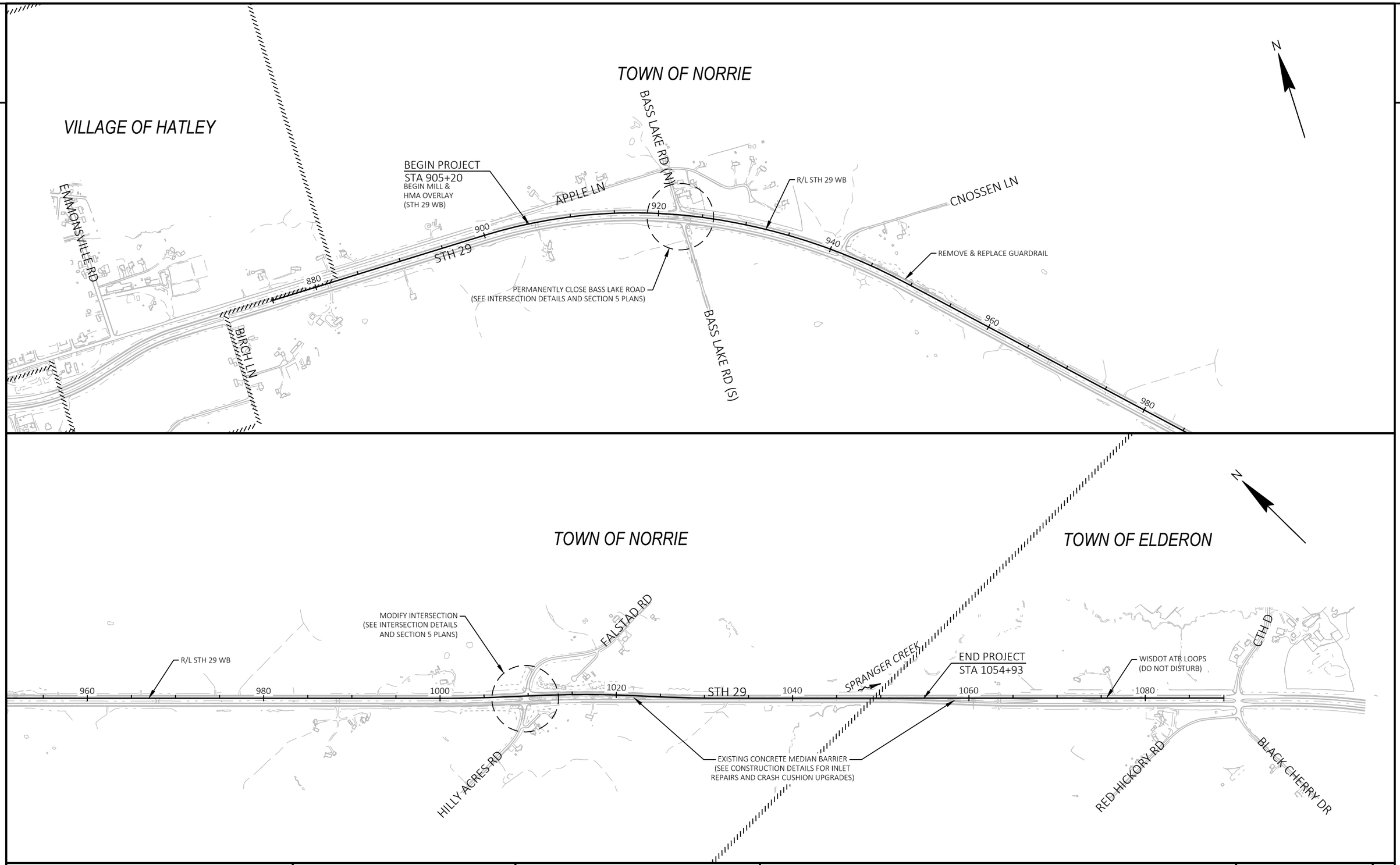
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .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 = 122.1 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.4 ACRES

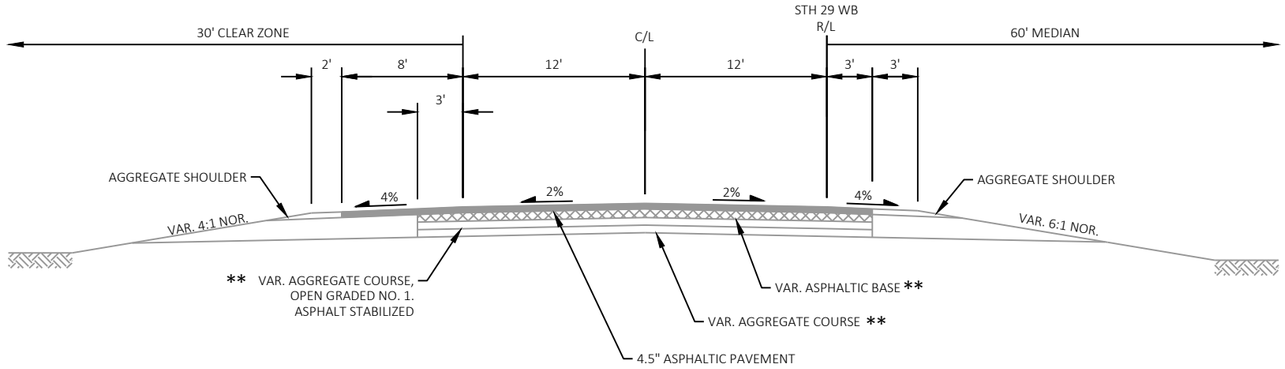
DNR LIAISON

CASEY JONES
DNR OSHKOSH SERVICE CENTER
625 E COUNTY ROAD Y STE 700
OSHKOSH, WI 54901
PHONE: (715) 213-6571
CASEY.JONES@WISCONSIN.GOV

2

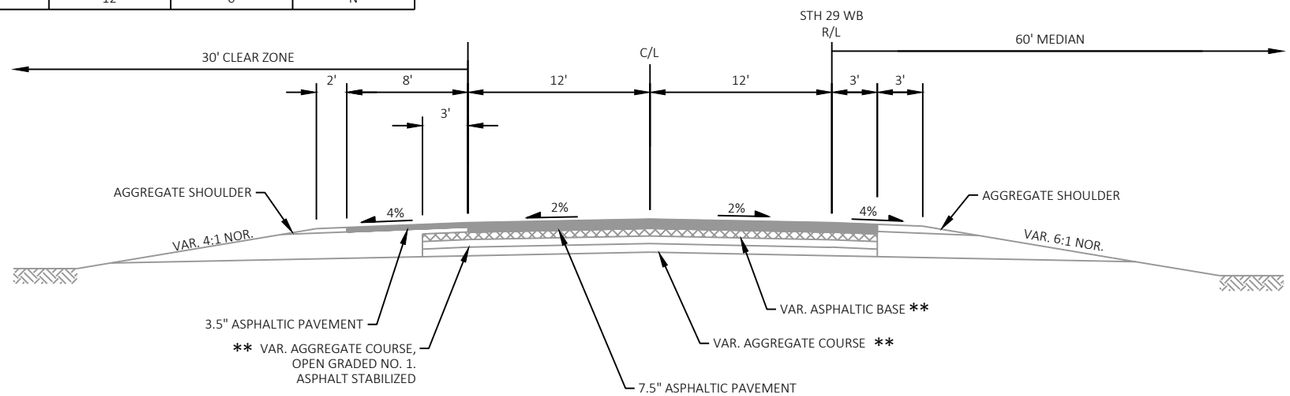


PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET 3	E



TYPICAL EXISTING SECTION
STH 29 WESTBOUND
STA 905+20 - STA 957+50

EXISTING LAYER THICKNESS TABLE **						
STA	STA	ASPHALTIC PAVEMENT (IN)	ASPHALTIC BASE (IN)	BASE AGGREGATE (IN)	AGGREGATE COURSE, OPEN GRADED NO. 1 ASPHALT STABILIZED (IN)	UNDERDRAIN PRESENT (Y/N)
905+20	907+50	4.5	12	0	0	N
907+50	913+50	4.5	0	8	0	N
913+50	924+50	4.5	12	0	0	N
924+50	931+00	4.5	8	4	0	N
931+00	937+50	4.5	4	0	4	Y
937+50	944+50	4.5	4	8	0	N
944+50	950+50	4.5	0	8	4	Y
950+50	957+50	4.5	0	12	4	Y
957+50	964+50	7.5	0	4	4	Y
964+50	974+50	7.5	12	0	4	Y
974+50	981+50	7.5	8	0	4	Y
981+50	992+50	7.5	8	0	0	N
992+50	998+50	7.5	4	4	0	N
998+50	1007+75	7.5	0	12	0	N



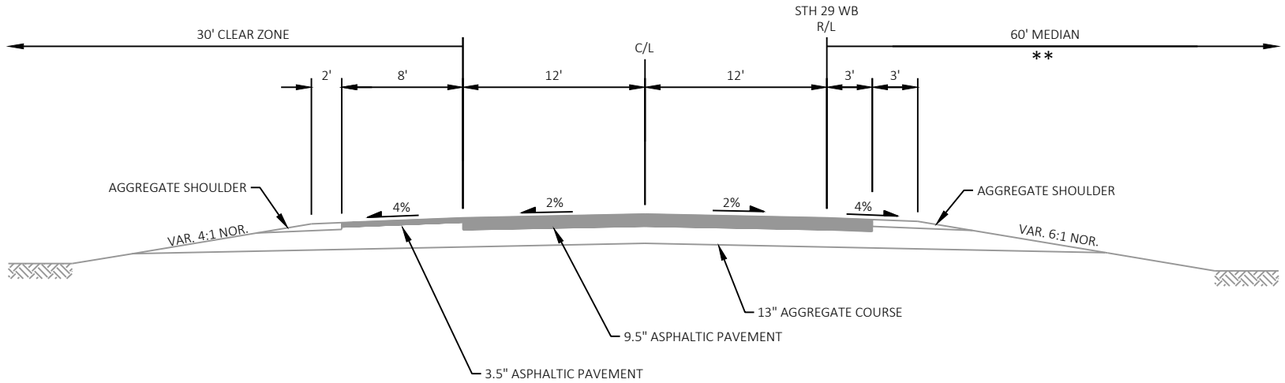
TYPICAL EXISTING SECTION
STH 29 WESTBOUND
STA 957+50 - STA 1007+75

NOTES

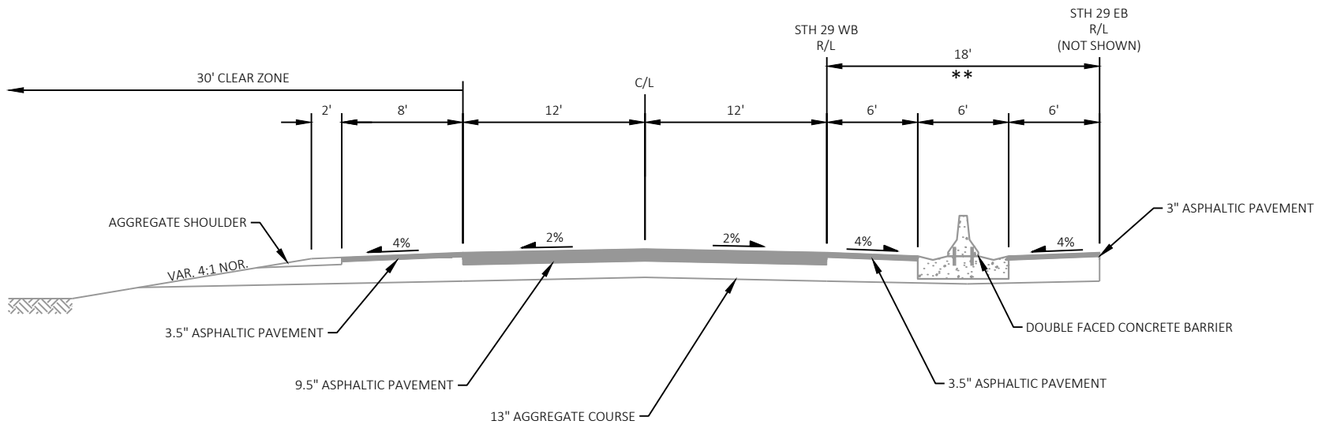
CROSS SLOPE VARIES DUE TO SUPERELEVATION, VALUES SHOWN ARE TYPICAL

** SEE EXISTING LAYER THICKNESS TABLE

WEST OF STA 905+20, EXISTING MAINLINE PAVEMENT IS CONCRETE.



TYPICAL EXISTING SECTION
STH 29 WESTBOUND
STA 1007+75 - STA 1023+50



TYPICAL EXISTING SECTION
STH 29 WESTBOUND
STA 1023+50 - STA 1054+93

NOTES

CROSS SLOPE VARIES DUE TO SUPERELEVATION, VALUES SHOWN TYP

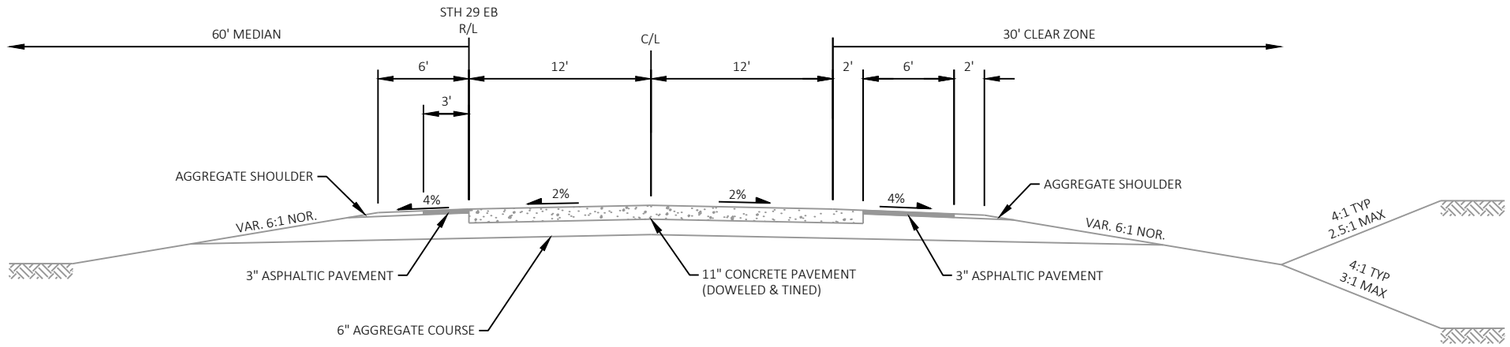
** STA 1016+50 - STA 1030+79 VARIES 60'TO 18'

MEDIAN CABLE BARRIER IS PRESENT ALONG STH 29 FROM STA 1010+42 - STA 1023+15 (WB) AND STA 1057+95 - STA 1063+11 (EB)

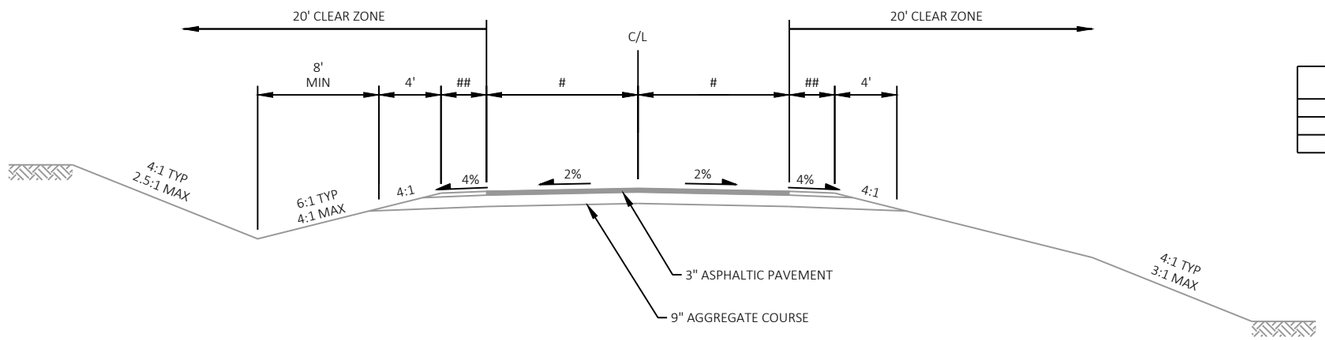
EAST OF STA 1054+93, EXISTING MAINLINE PAVEMENT IS CONCRETE.

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 5	E

2



TYPICAL EXISTING SECTION
STH 29 EASTBOUND
* STA 920+81 - STA 924+50
* STA 1004+56 - STA 1011+24



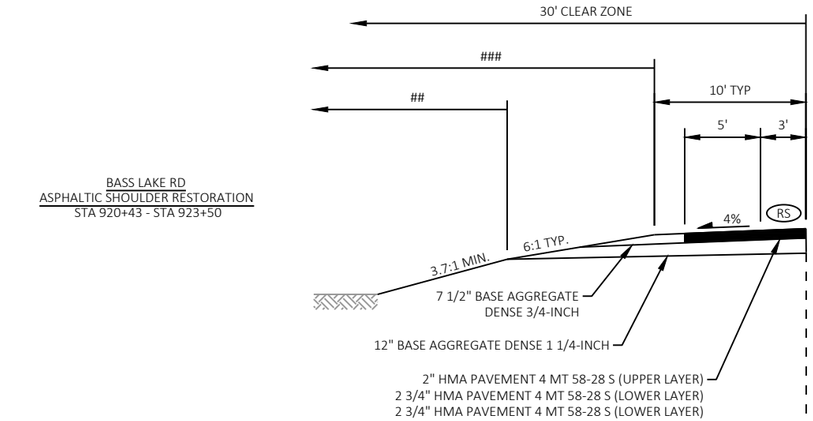
	BASS LAKE ROAD	CNOSSEN LANE	FALSTAD ROAD	HILLY ACRES ROAD
#	10.5'	10'	11'	11'
##	3'	3'	2'	2'

TYPICAL EXISTING SECTION
SIDE ROADS

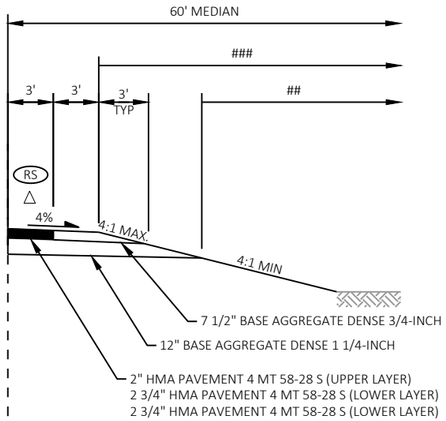
NOTE

* STATIONING SHOWN FROM WB R/L.

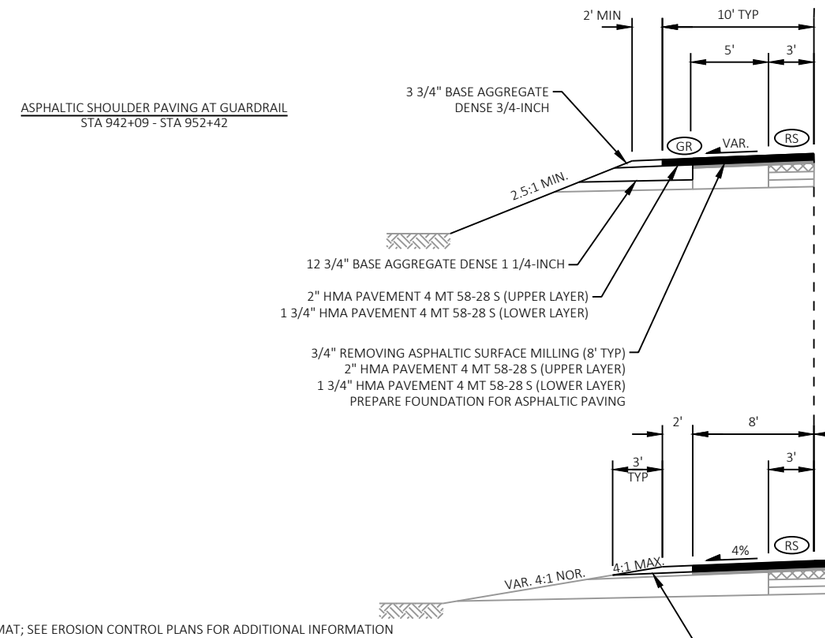
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 6	E



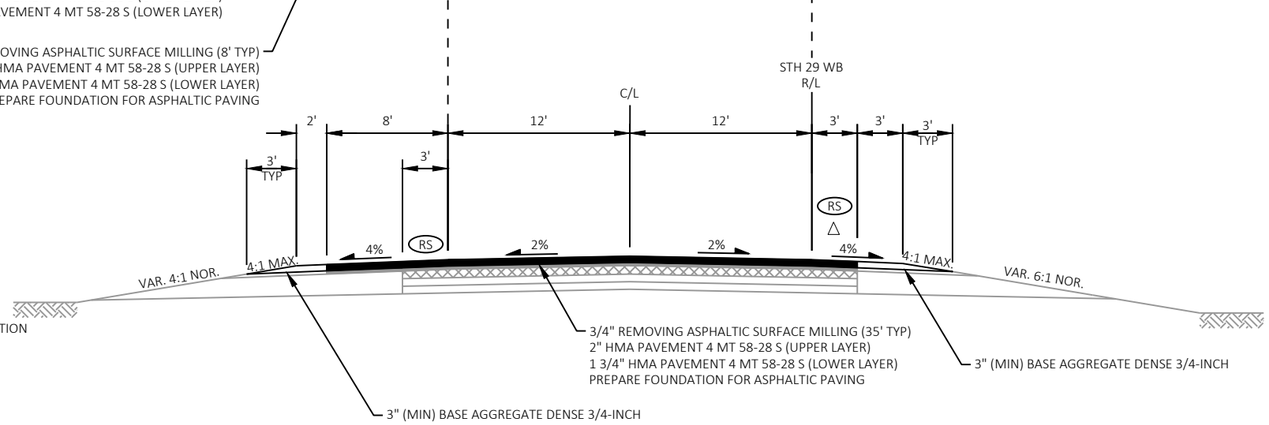
BASS LAKE RD
ASPHALTIC SHOULDER RESTORATION
STA 920+43 - STA 923+50



BASS LAKE RD
ASPHALTIC SHOULDER RESTORATION
STA 921+14 - STA 924+50



ASPHALTIC SHOULDER PAVING AT GUARDRAIL
STA 942+09 - STA 952+42



TYPICAL FINISHED SECTION
STH 29 WESTBOUND
STA 905+20 - STA 957+50

NOTES

TOPSOIL AND EROSION MAT; SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION

SEEDING AND FERTILIZER

CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS

WEST OF STA 905+20, EXISTING MAINLINE PAVEMENT IS CONCRETE

FILL EXISTING DRIVING LANE SHOULDER RUMBLE STRIPS FROM STA 903+55, LT TO STA 905+20, LT. REPLACE PASSING LANE SHOULDER FROM STA 904+37, RT TO STA 905+20, RT. RESTORE THE SHOULDERS BY REMOVING ASPHALTIC SURFACE, PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS, AND PLACING 3" HMA PAVEMENT 4 MT 58-28 S

ALL STATIONS FOR STH 29 EB ASPHALTIC SHOULDER RESTORATION ARE NOTED FROM STH 29 WB THROUGH BASS LAKE ROAD

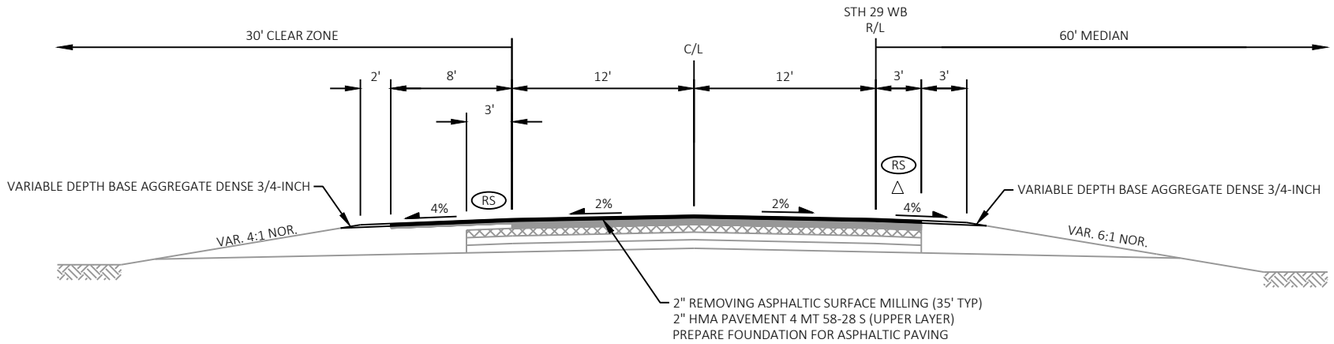
PREPARE FOUNDATION FOR ASPHALTIC PAVING INCLUDES PAVED SHOULDERS

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

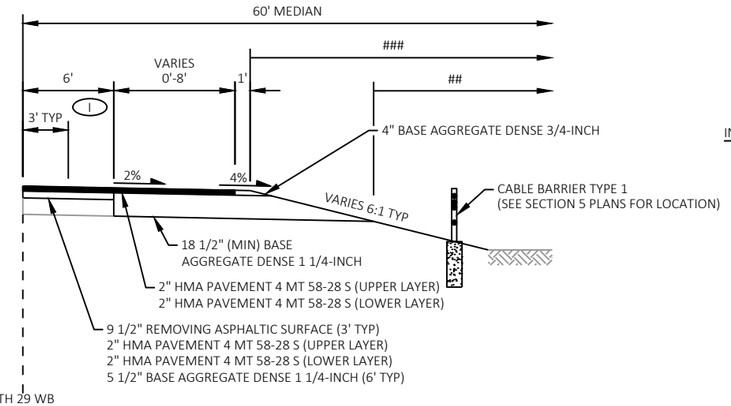
(RS) ASPHALTIC SHOULDER RUMBLE STRIP. SEE SDD "SHOULDER RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION

(GR) PROPOSED GUARDRAIL. SEE SECTION 5 PLAN SHEETS FOR LOCATION INFORMATION

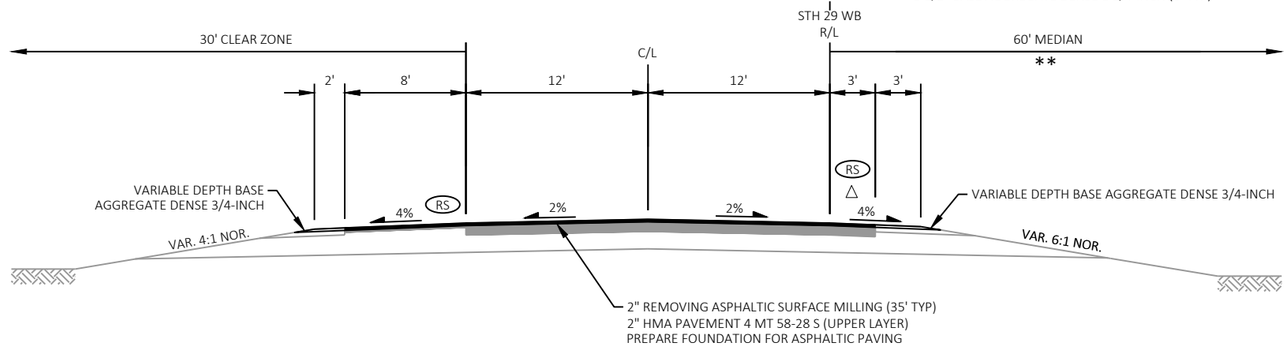
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 7	E



TYPICAL FINISHED SECTION
STH 29 WESTBOUND
STA 957+50 - STA 1007+75



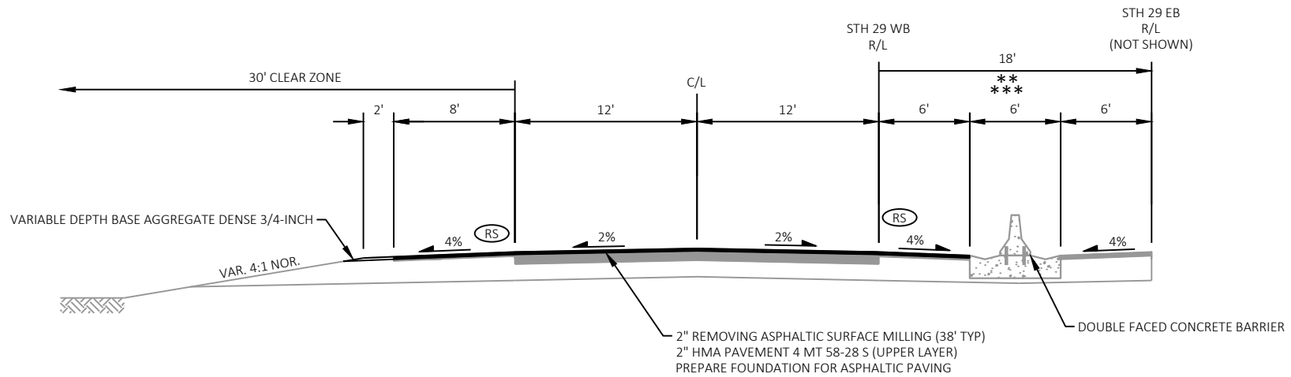
FALSTAD RD/HILLY ACRES RD
INTERSECTION LEFT TURN LANE
STA 1008+27 - STA 1014+95



TYPICAL FINISHED SECTION
STH 29 WESTBOUND
STA 1007+75 - STA 1023+50

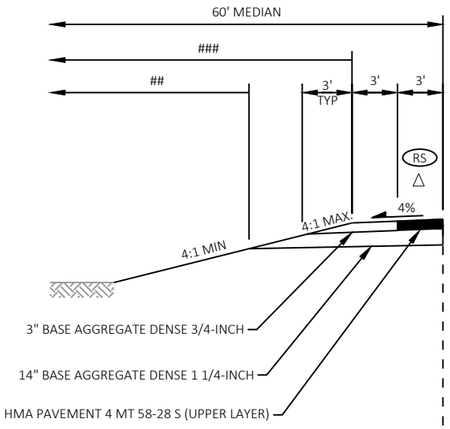
NOTES

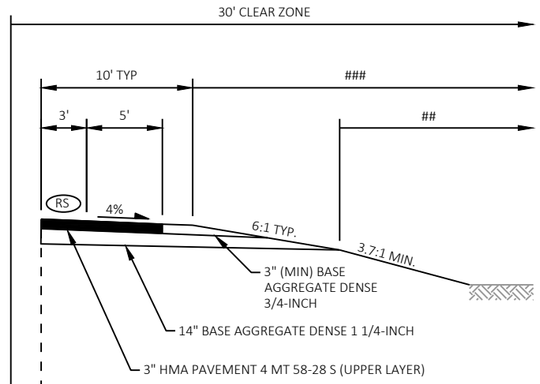
##	TOPSOIL AND EROSION MAT; SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION
###	SEEDING AND FERTILIZER
	CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS
**	STA 1016+50 - STA 1030+79 VARIES 60' TO 18'
△	PAVEMENT SAFETY EDGE REQUIRED FOR PAVED SHOULDERS 3' OR LESS, SEE SDD "SAFETY EDGE".
(I)	SEE INTERSECTION DETAIL AT FALSTAD RD/HILLY ACRES RD FOR ADDITIONAL PAVING INFORMATION WITHIN EXISTING MEDIAN CROSSOVER
(RS)	ASPHALTIC SHOULDER RUMBLE STRIP. SEE SDD "SHOULDER RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION



TYPICAL FINISHED SECTION
STH 29 WESTBOUND
STA 1023+50 - STA 1054+93

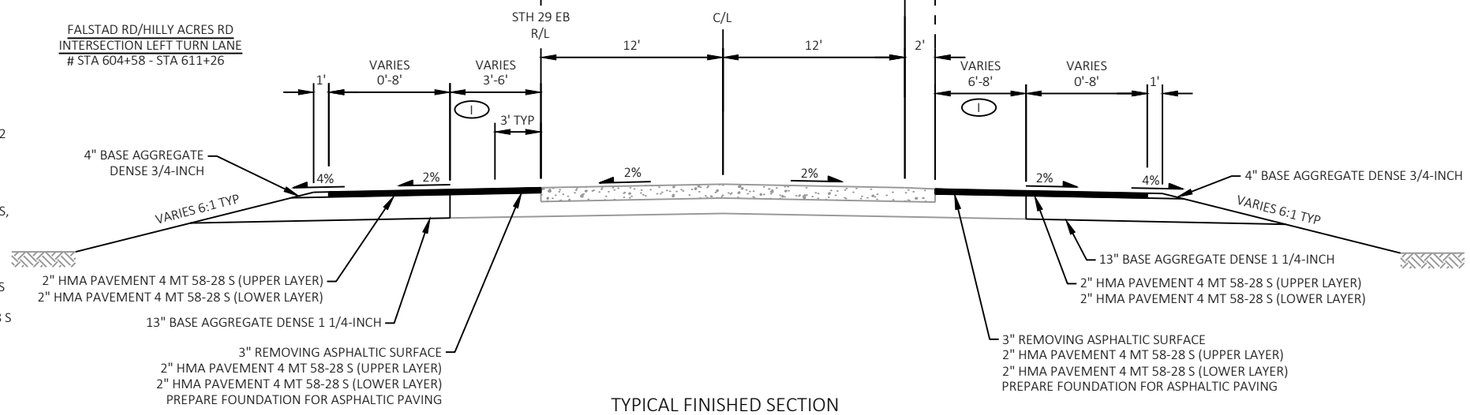
BASS LAKE RD
ASPHALTIC SHOULDER RESTORATION
* STA 920+81 - STA 924+50





BASS LAKE RD
ASPHALTIC SHOULDER RESTORATION
* STA 921+41 - STA 923+95

FALSTAD RD/HILLY ACRES RD
INTERSECTION LEFT TURN LANE
STA 604+58 - STA 611+26



FALSTAD RD/HILLY ACRES RD
INTERSECTION RIGHT TURN LANE
STA 604+59 - STA 611+17

TYPICAL FINISHED SECTION
STH 29 EASTBOUND
* STA 920+81 - STA 924+50
# STA 604+58 - STA 611+26

NOTES

TOPSOIL AND EROSION MAT; SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION

SEEDING AND FERTILIZER

CROSS SLOPE VARIES DUE TO SUPERELEVATION, SEE SECTION 5 PLANS

** STA 1016+50 - STA 1030+79 VARIES 60' TO 18'

*** MEDIAN CABLE BARRIER IS PRESENT ALONG STH 29 FROM STA 1010+42 - STA 1023+15 (WB) AND STA 1057+95 - STA 1063+11 (EB)

EAST OF STA 1054+93, EXISTING MAINLINE PAVEMENT IS CONCRETE

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

FILL EXISTING DRIVING LANE SHOULDER RUMBLE STRIPS FROM STA 1062+93, LT TO STA 1064+58, LT. REPLACE PASSING LANE SHOULDER FROM STA 1054+93, RT TO STA 1063+00, RT. RESTORE THE SHOULDERS BY REMOVING ASPHALTIC SURFACE, PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS, AND PLACING 3" HMA PAVEMENT 4 MT 58-28 S

(RS) ASPHALTIC SHOULDER RUMBLE STRIP. SEE SDD "SHOULDER RUMBLE STRIP, MILLING"FOR ADDITIONAL INFORMATION

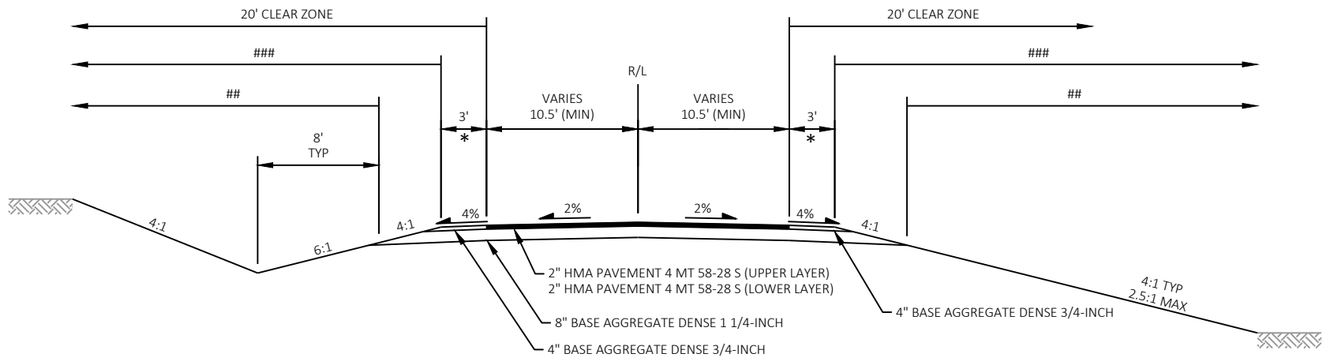
* STATIONING SHOWN ALONG WB R/L AT BASS LAKE RD

STATIONING SHOWN ALONG EB R/L AT FALSTAD RD/HILLY ACRES RD

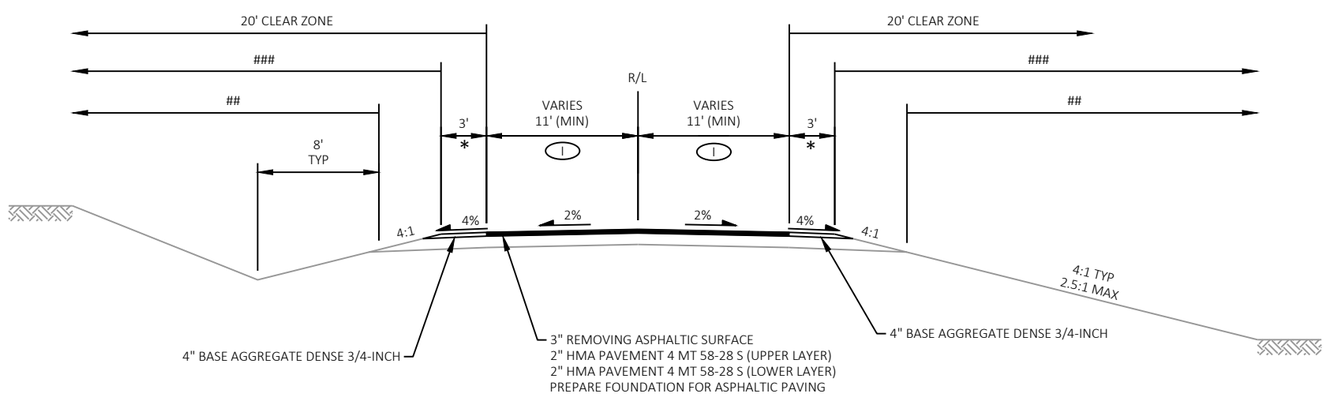
(1) SEE INTERSECTION DETAIL AT FALSTAD RD/HILLY ACRES RD FOR ADDITIONAL PAVING INFORMATION WITHIN EXISTING MEDIAN CROSSOVER

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 9	E

2



TYPICAL FINISHED SECTION
BASS LAKE RD
STA 6+95 - STA 8+90 (S)
STA 19+40 - STA 21+15 (N)



TYPICAL FINISHED SECTION
HILLY ACRES RD

NOTES

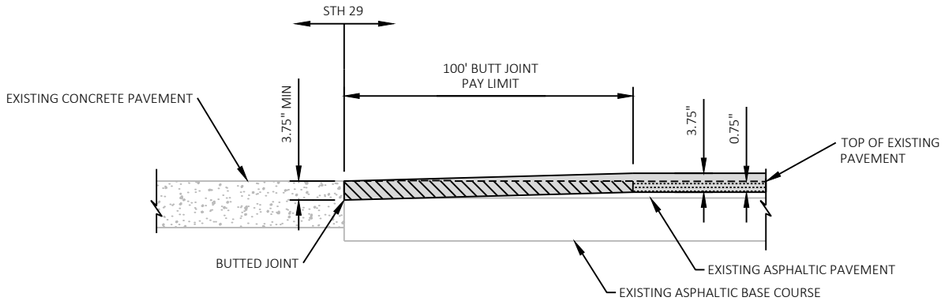
TOPSOIL AND EROSION MAT; SEE EROSION CONTROL PLANS FOR ADDITIONAL INFORMATION

SEEDING AND FERTILIZER

* SHOULDER WIDTH VARIES AT BEGIN AND END CONSTRUCTION LIMITS, MATCH EXISTING

(I) SEE INTERSECTION DETAIL AT FALSTAD RD/HILLY ACRES RD FOR ADDITIONAL PAVING INFORMATION WITH EXISTING MEDIAN CROSSOVER

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 10	E



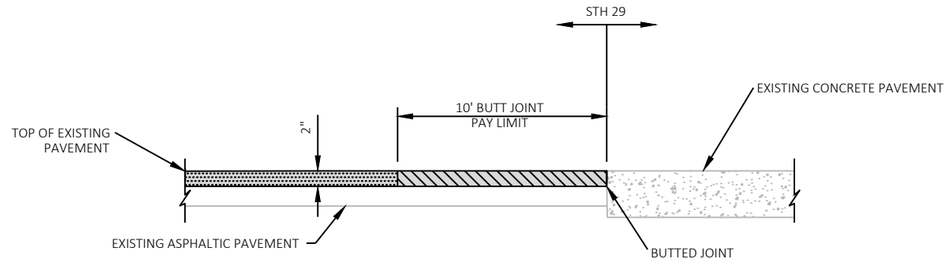
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

BEGIN PROJECT BUTT JOINT AND PROFILE TRANSITION DETAIL

STA 905+20



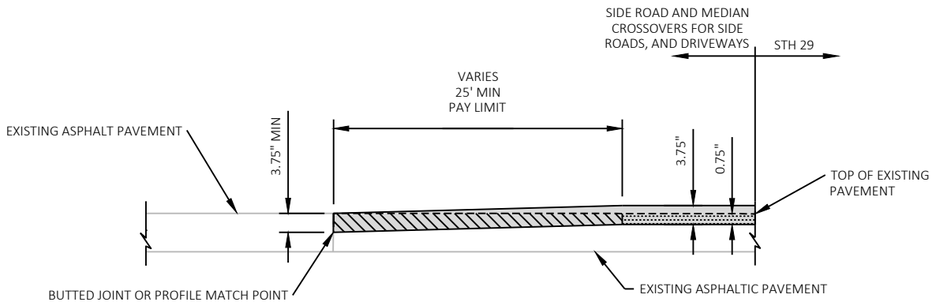
REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OVERLAY

END PROJECT BUTT JOINT DETAIL

STA 1054+93



REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

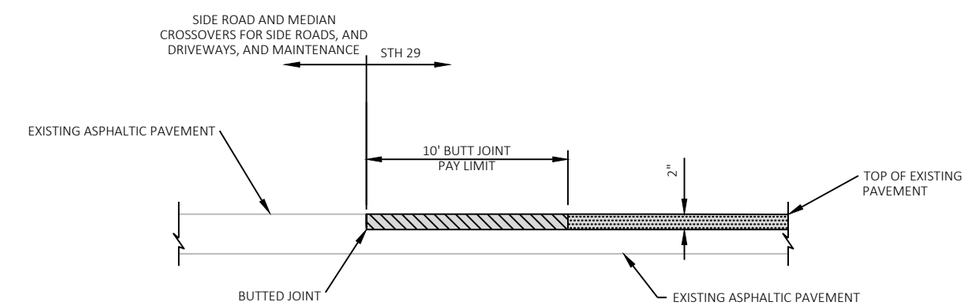
REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OR ASPHALTIC SURFACE OVERLAY

BUTT JOINT AND PROFILE TRANSITION DETAIL

CNOSSEN LN
MEDIAN CROSSOVERS (SEE SECTION 5 PLAN SHEETS FOR LOCATIONS)

NOTE
PROFILE TRANSITION BUTT JOINT IS APPLICABLE TO MEDIAN CROSSOVERS FOR DRIVEWAYS AND SIDE ROADS IN AREAS OF A SURFACE ELEVATION INCREASE.



REMOVING ASPHALTIC SURFACE BUTT JOINTS
DO NOT REMOVE MATERIAL UNDER THIS ITEM UNTIL 24 HOURS BEFORE PAVING

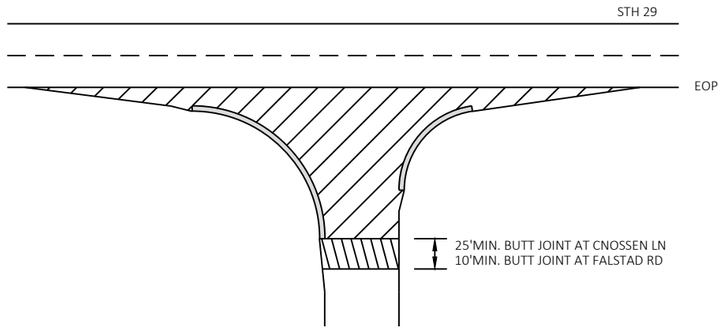
REMOVING ASPHALTIC SURFACE MILLING

PROPOSED HMA PAVEMENT OR ASPHALTIC SURFACE OVERLAY

BUTT JOINT DETAIL

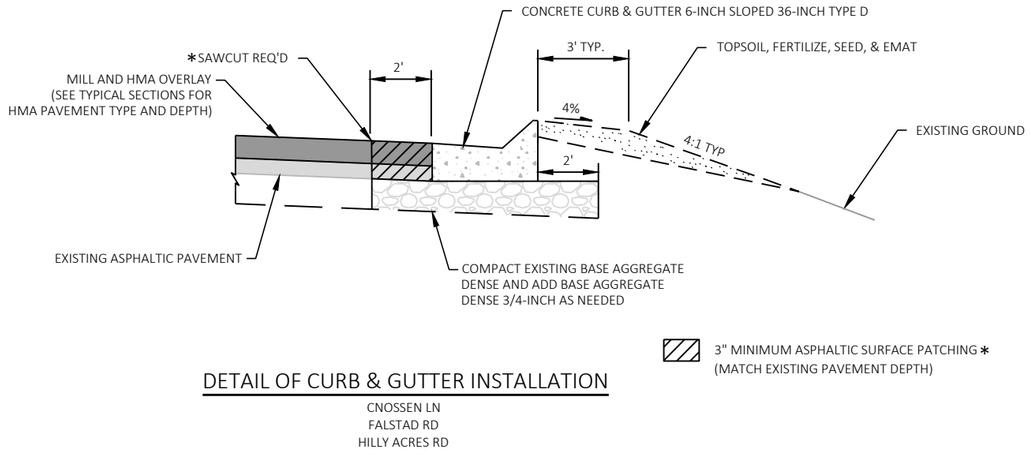
FALSTAD RD
MEDIAN CROSSOVERS (SEE SECTION 5 PLAN SHEETS FOR LOCATIONS)

NOTE
BUTT JOINT IS APPLICABLE TO MEDIAN CROSSOVERS FOR DRIVEWAYS, SIDE ROADS, AND MAINTENANCE CROSSOVERS IN AREAS WITH NO SURFACE ELEVATION INCREASE. EXCEPT AT THE FALSTAD RD/HILLY ACRES RD MEDIAN AND HILLY ACRES RD SIDE ROAD. SEE INTERSECTION DETAILS AND TYPICAL SECTIONS FOR REMOVING ASPHALITC SURFACE WORK IN THE FALSTAD RD/HILLY ACRES RD MEDIAN CROSSOVER.



SIDE ROADS WITH CURB AND GUTTER

CNOSSEN LN
FALSTAD RD



DETAIL OF CURB & GUTTER INSTALLATION

CNOSSEN LN
FALSTAD RD
HILLY ACRES RD

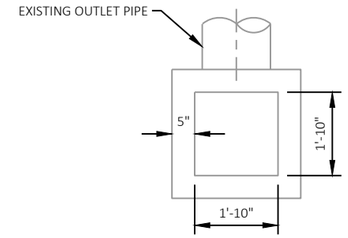
NOTES

COMPLETE CURB & GUTTER REPLACEMENTS AND ASPHALTIC SURFACE PATCHING TO MATCH THE EXISTING SURFACE PRIOR TO THE MILL AND OVERLAY OF STH 29.

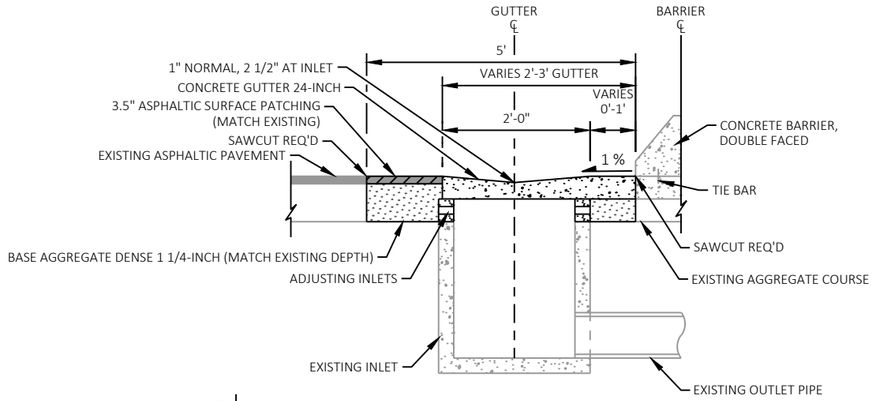
FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES".

SEE LAYOUT ON INTERSECTION DETAILS.

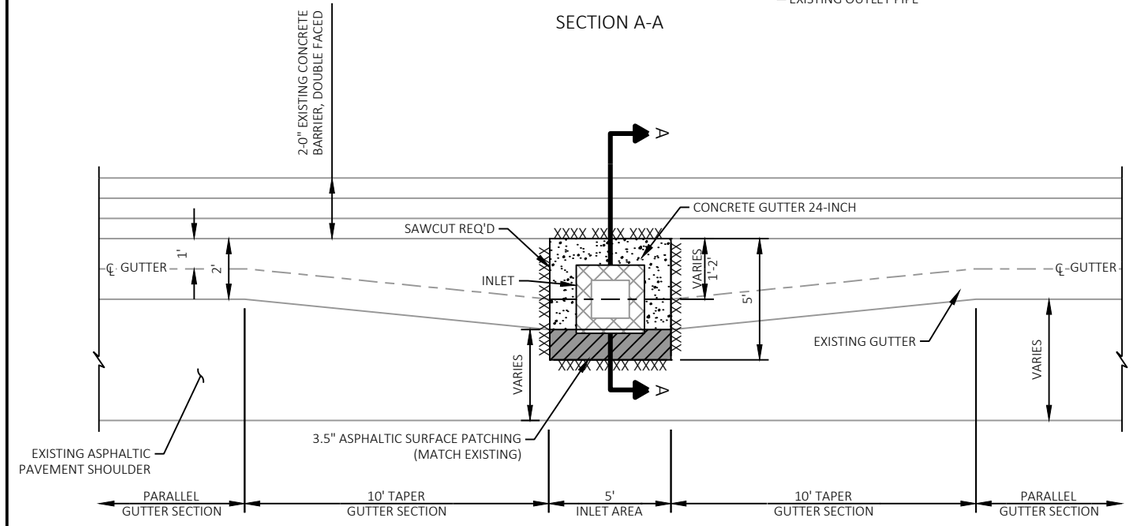
∗ SAWCUT AND ASPHALTIC SURFACE PATCHING NOT REQUIRED ON HILLY ACRES RD, SEE INTERSECTION DETAIL FOR ADDITIONAL INFORMATION.



EXISTING INLET DIMENSIONS



SECTION A-A



ADJUSTING INLET DETAIL

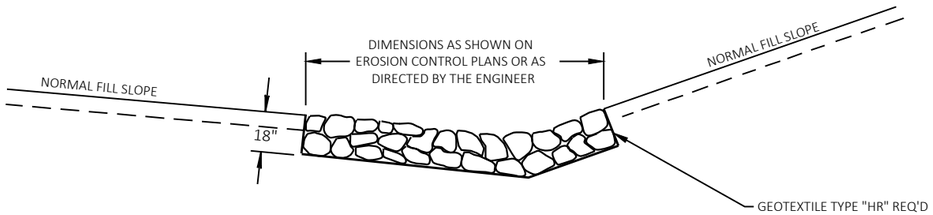
STA 1033+93, STA 1040+94, STA 1044+94, STA 1050+94

NOTES

COMPLETE INLET ADJUSTMENTS, GUTTER REPLACEMENTS, AND ASPHALTIC SURFACE PATCHING TO MATCH THE EXISTING SURFACE PRIOR TO THE MILL AND OVERLAY OF STH 29.

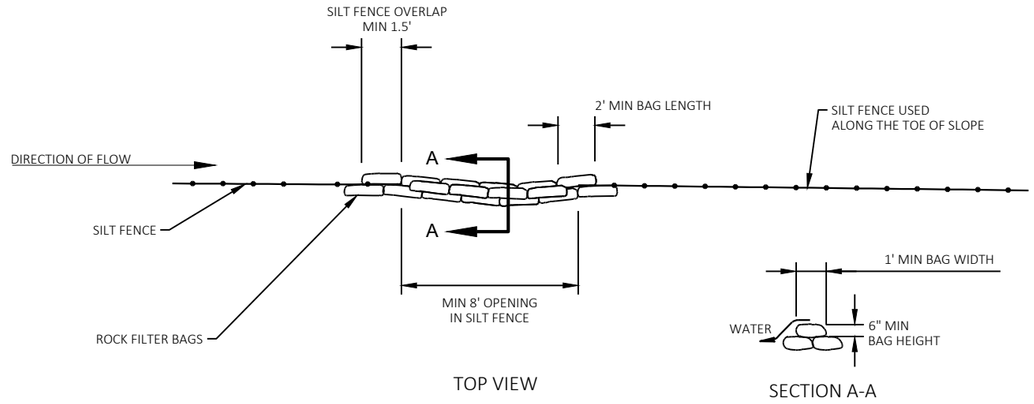
FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES".

PLACE INLET PROTECTION TYPE D.



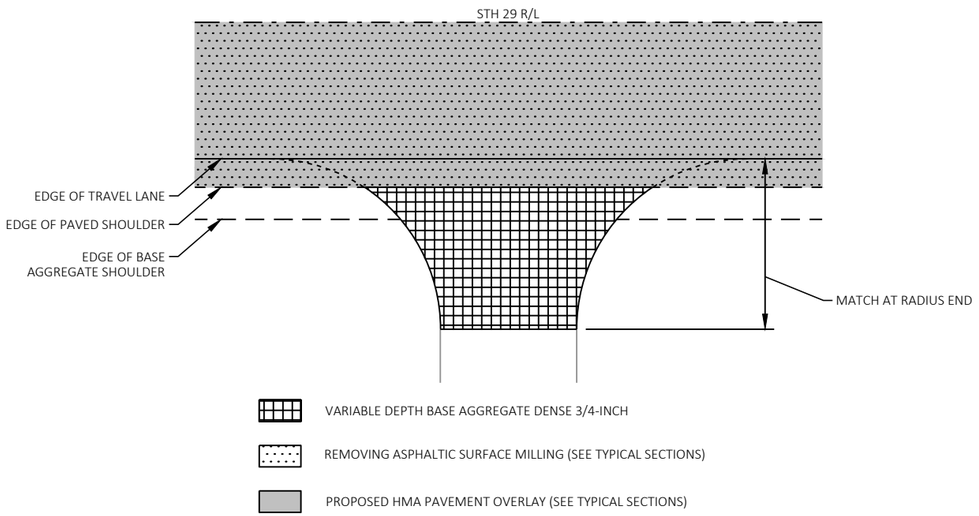
RIPRAP MEDIUM IN DITCHES

SEE EROSION CONTROL PLANS FOR LAYOUT



ROCK BAGS USED FOR SILT FENCE RELIEF

SEE EROSION CONTROL PLANS FOR LOCATIONS



UNPAVED DRIVEWAY DETAIL

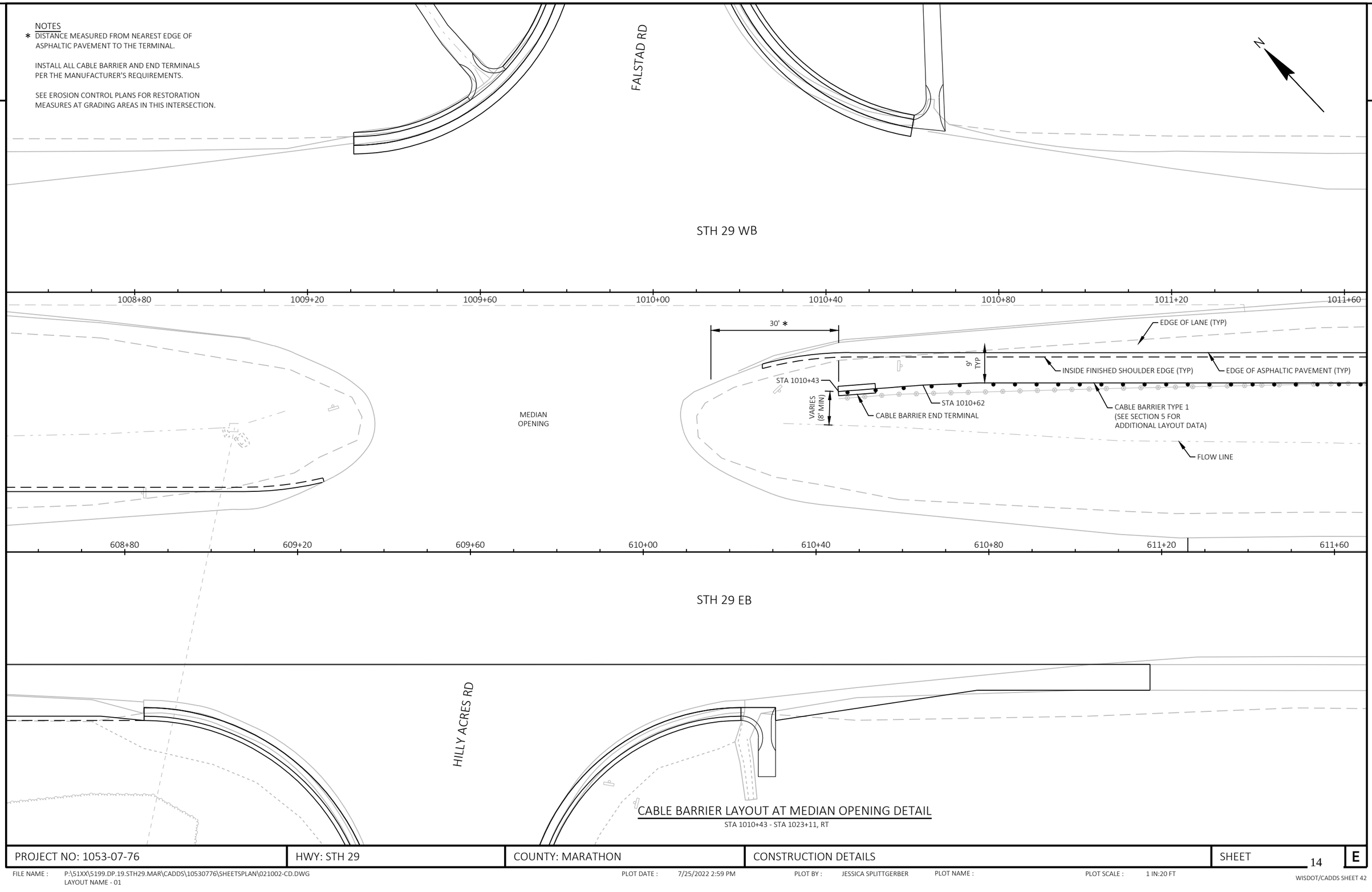
SEE SECTION 5 PLAN SHEETS FOR LOCATIONS

NOTES

* DISTANCE MEASURED FROM NEAREST EDGE OF ASPHALTIC PAVEMENT TO THE TERMINAL.

INSTALL ALL CABLE BARRIER AND END TERMINALS PER THE MANUFACTURER'S REQUIREMENTS.

SEE EROSION CONTROL PLANS FOR RESTORATION MEASURES AT GRADING AREAS IN THIS INTERSECTION.



CABLE BARRIER LAYOUT AT MEDIAN OPENING DETAIL

STA 1010+43 - STA 1023+11, RT

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 14	E

2

2

N

STH 29 WB

TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER TYPE B, EROSION MAT CLASS I TYPE B

1022+00 1022+40 1022+80 1023+20 1023+60 1024+00 1024+40 1024+80

STA 1022+80

STA 1023+11

+50
9'

CABLE BARRIER END TERMINAL

CABLE BARRIER TYPE 1
(SEE SECTION 5 FOR
ADDITIONAL LAYOUT DATA)

TEMPORARY DITCH CHECKS

EXISTING CONCRETE MEDIAN BARRIER
(TO REMAIN)

INLET PROTECTION TYPE A

REMOVE EXISTING CRASH CUSHION
(INCLUDES BASE REMOVAL)
INSTALL CRASH CUSHIONS PERMANENT
(BASE PER MANUFACTURER'S SPECIFICATIONS)

622+00 622+40 622+80 623+20 623+60 624+00 624+40 624+80

STH 29 EB

CABLE BARRIER LAYOUT AT MEDIAN OPENING AND CRASH CUSHION REPLACEMENT DETAIL

STA 1010+43 - STA 1023+11, RT
STA 1023+50, RT

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 15	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 02

PLOT DATE : 7/25/2022 2:59 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

N

SHOULDER REPLACEMENT
(SEE TYPICAL SECTIONS)

STH 29 WB

1056+40 1056+80 1057+20 1057+60 1058+00 1058+40 1058+80 1059+20

REMOVE EXISTING CRASH CUSHION
(INCLUDES BASE REMOVAL)
INSTALL CRASH CUSHIONS PERMANENT
(BASE PER MANUFACTURER'S SPECIFICATIONS)

TOPSOIL, SEEDING MIXTURE NO. 30, FERTILIZER
TYPE B, EROSION MAT CLASS I TYPE B

TEMPORARY DITCH CHECKS

+59
30'

EXISTING CONCRETE MEDIAN BARRIER
(TO REMAIN)

3" ASPHALTIC SURFACE PATCHING

SAWING ASPHALT

2" TYP

EXISTING CABLE BARRIER
(TO REMAIN)

STH 29 EB

CRASH CUSHION REPLACEMENT DETAIL

STA 1057+59, RT

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 16	E

2

LEGEND

. XXXXXXXX . SAWCUT

ASPHALTIC SHOULDER RESTORATION (SEE TYPICAL SECTIONS)

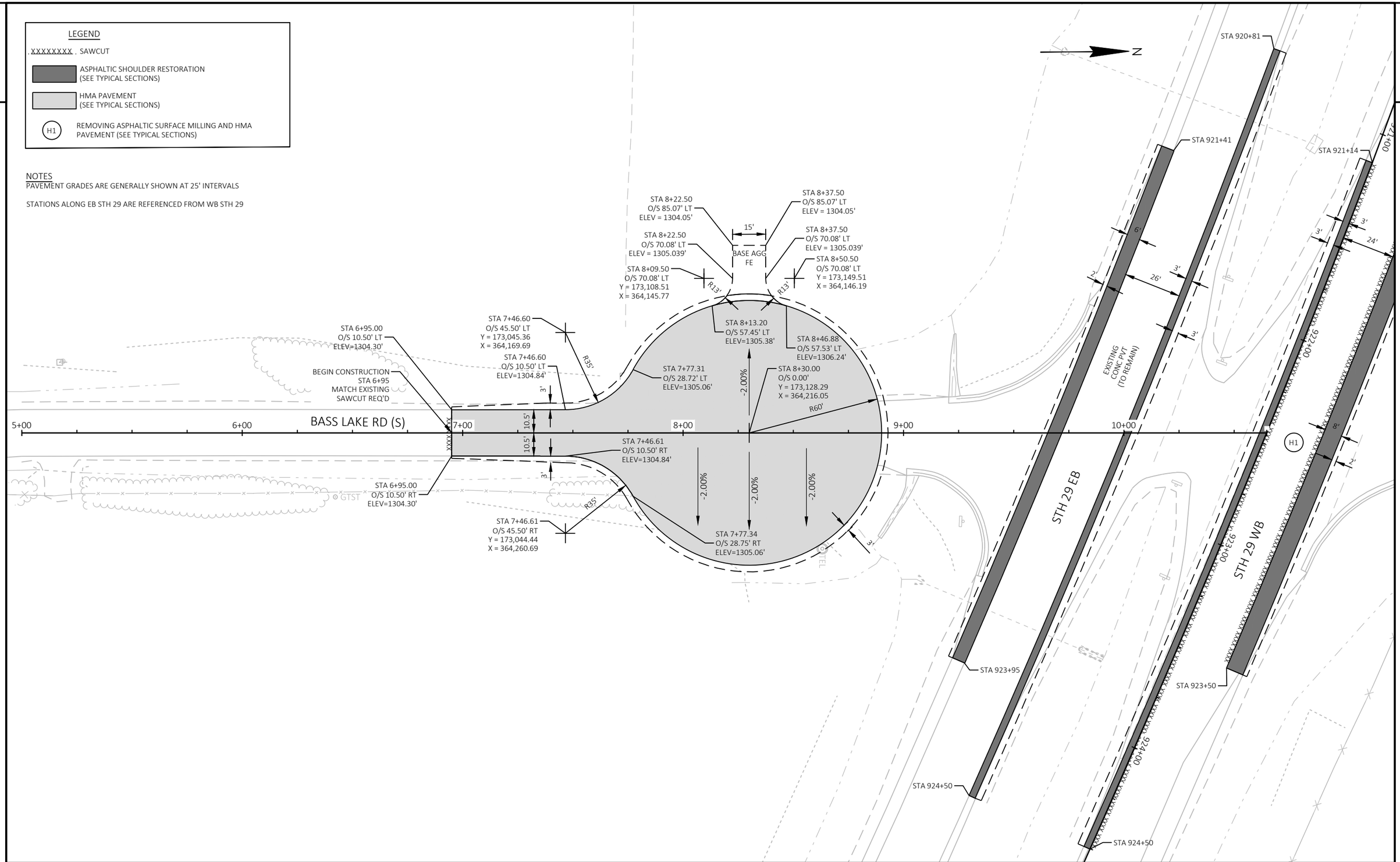
HMA PAVEMENT (SEE TYPICAL SECTIONS)

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS

STATIONS ALONG EB STH 29 ARE REFERENCED FROM WB STH 29



PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 17	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 2:59 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

XXXXXXXX SAWCUT

ASPHALTIC SHOULDER RESTORATION (SEE TYPICAL SECTIONS)

HMA PAVEMENT (SEE TYPICAL SECTIONS)

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

NOTES

PAVEMENT GRADES ARE GENERALLY SHOWN AT 25' INTERVALS

STATIONS ALONG EB STH 29 ARE REFERENCED FROM WB STH 29

N

APPLE LN

BASS LAKE RD (N)

STA 920+81

STA 920+43

920+00

921+00

STA 921+14

H1

STA 921+41

STH 29 EB

STH 29 WB

6'

3'

26'

2'

3'

3'

24'

3'

8'

2'

EXISTING CONC PVT (TO REMAIN)

922+00

923+00

10+00

19+00

20+00

21+00

22+00

R60'

R35'

-2.00%

STA 20+00.00
O/S 0.00'
Y = 173,556.34
X = 364,172.22

STA 20+43.29
O/S 41.55' LT
ELEV=1306.99'

STA 20+44.26
O/S 40.51' RT
ELEV=1307.00'

STA 21+13.82
O/S 45.50' LT
Y = 173,651.18
X = 364,177.80

STA 21+14.73
O/S 10.50' LT
ELEV=1307.01'

10.5'

END CONSTRUCTION
STA 21+15
MATCH EXISTING
SAWCUT REQ'D

STA 21+14.73
O/S 10.50' RT
ELEV=1307.01'

20' RT

3'

BASE AGG PE

49'

POST

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 18	E

2

LEGEND

. XXXXXXXX . SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

ASPHALTIC SURFACE (SEE CONSTRUCTION DETAILS)

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

F1 ASPHALTIC FLUMES

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

** END SECTION REQUIRED (SEE SDD FOR CURB & GUTTER)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

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

CNOSSEN LN

GUY

END CONSTRUCTION, 104' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

F1

F1

STA 940+79.81
O/S 74.00' LT
Y = 172,489.26
X = 365,838.28

STA 941+19.38
O/S 74.17' LT
ELEV = 1319.97'

R40'

STA 940+80.08
O/S 34.00' LT
ELEV = 1320.60'

STA 941+08.02
O/S 45.89' LT
ELEV = 1320.14'

C1

STA 941+50.10
O/S 92.52' LT
ELEV = 1319.66'

R60'

STA 942+09.03
O/S 98.00' LT
Y = 172,425.86
X = 365,955.23

STA 941+69.05
O/S 53.66' LT
ELEV = 1319.98'

C1

STA 942+09.18
O/S 38.00' LT
ELEV = 1320.54'

SEE SECTION 5 PLANS FOR GUARDRAIL DETAILS

H1

STH 29 WB

939+00 940+00 941+00 942+00 943+00 944+00

INTERSECTION CROSSOVER
2" REMOVING ASPHALTIC SURFACE MILLING
2"-3.75" ASPHALTIC SURFACE

END CONSTRUCTION, 62' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STH 29 EB

EXISTING
CONC PVT
(TO REMAIN)

2

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 19	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 2:59 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

LEGEND

XXXXXXXX . SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

HMA PAVEMENT (SEE TYPICAL SECTIONS)

REMOVING ASPHALTIC SURFACE (3" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

REMOVING ASPHALTIC SURFACE (9.5" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

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

F1 ASPHALTIC FLUMES

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

** END SECTION REQUIRED (SEE SDD FOR CURB & GUTTER)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

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

N

SIGN

GUY

STH 29 WB

1001+00 1002+00 1003+00 H1 1004+00 1005+00 1006+00 1007+00

BEGIN CONSTRUCTION
STA 604+58
MATCH EXISTING
SAWCUT REQ'D

3'

STA 604+70

STA 606+08

1'

14'

601+00 602+00 603+00 604+00 605+00 606+00 607+00

STH 29 EB

BEGIN CONSTRUCTION
STA 604+59
MATCH EXISTING
SAWCUT REQ'D

3'

26'

12'

2'

6'

STA 605+09

STA 605+84

1'

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 20	E

2

2

LEGEND

XXXXXXXX SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

HMA PAVEMENT (SEE TYPICAL SECTIONS)

REMOVING ASPHALTIC SURFACE (3" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

REMOVING ASPHALTIC SURFACE (9.5" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

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

F1 ASPHALTIC FLUMES

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

** END SECTION REQUIRED (SEE SDD FOR CURB & GUTTER)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

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

N

FALSTAD RD

END CONSTRUCTION, 110' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STA 1009+86.02
O/S 101.85' LT

STA 1009+79.92
O/S 76.54' LT
ELEV = 1296.85'

STA 1009+30.48
O/S 84.00' LT
Y = 167,659.27
X = 370,702.13

STA 1010+14.25
O/S 98.06' LT
ELEV = 1296.71'

STA 1010+68.94
O/S 92.29' LT
Y = 167,570.28
X = 370,808.54

R50'

R55'

F1

C1

STA 1009+30.68
O/S 34.00' LT
ELEV = 1297.36'

STA 1009+63.16
O/S 46.17' LT
ELEV = 1296.73'

STA 1010+25.18
O/S 58.99' LT
ELEV = 1296.15'

STA 1010+59.93
O/S 38.04' LT
ELEV = 1295.75'

H1 STH 29 WB

1007+00 1008+00 1009+00 1010+00 1011+00 1012+00 1013+00

BEGIN CONSTRUCTION
STA 1008+27
MATCH EXISTING
SAWCUT REQ'D

STA 609+26
(END CROSS SECTIONS)

1'

14'

STA 1010+25
(BEGIN CROSS SECTIONS)

CABLE BARRIER TYPE 1
(SEE CONSTRUCTION DETAILS
AND SECTION 5 PLANS)

END CONSTRUCTION
STA 611+26
MATCH EXISTING
SAWCUT REQ'D

607+00 608+00 609+00 610+00 611+00 612+00 613+00

26'

STH 29 EB

STA 608+84
(END CROSS SECTIONS)

STA 610+22.64
O/S 36.00' RT
ELEV = 1295.89'

EXISTING
CONC PVT
(TO REMAIN)

END CONSTRUCTION
STA 611+17
MATCH EXISTING
SAWCUT REQ'D

12'

1'

6'

STA 608+74

STA 608+84.49
O/S 36.00' RT
ELEV = 1297.93'

STA 609+24.05
O/S 52.79' RT
ELEV = 1296.40'

STA 610+77

STA 609+90.62
O/S 47.60' RT
ELEV = 1296.02'

R55'

R50'

STA 608+84.49
O/S 91.00' RT
Y = 167,521.38
X = 370,505.63

STA 609+39.46
O/S 92.91' RT
ELEV = 1295.51'

STA 609+73.45
O/S 77.01' RT
ELEV = 1296.23'

STA 610+22.64
O/S 86.00' RT
Y = 167,430.21
X = 370,609.55

STA 609+71.72
O/S 86.72' RT

HILLY ACRES RD

END CONSTRUCTION, 104' RT
MATCH EXISTING
SAWCUT REQ'D

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 21	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\021101-ID.DWG
LAYOUT NAME - 05

PLOT DATE : 7/25/2022 2:59 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

XXXXXXXX . SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

HMA PAVEMENT (SEE TYPICAL SECTIONS)

REMOVING ASPHALTIC SURFACE (3" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

REMOVING ASPHALTIC SURFACE (9.5" TYP) (LOCATION NOT INCLUDED IN EARTHWORK)

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

F1 ASPHALTIC FLUMES

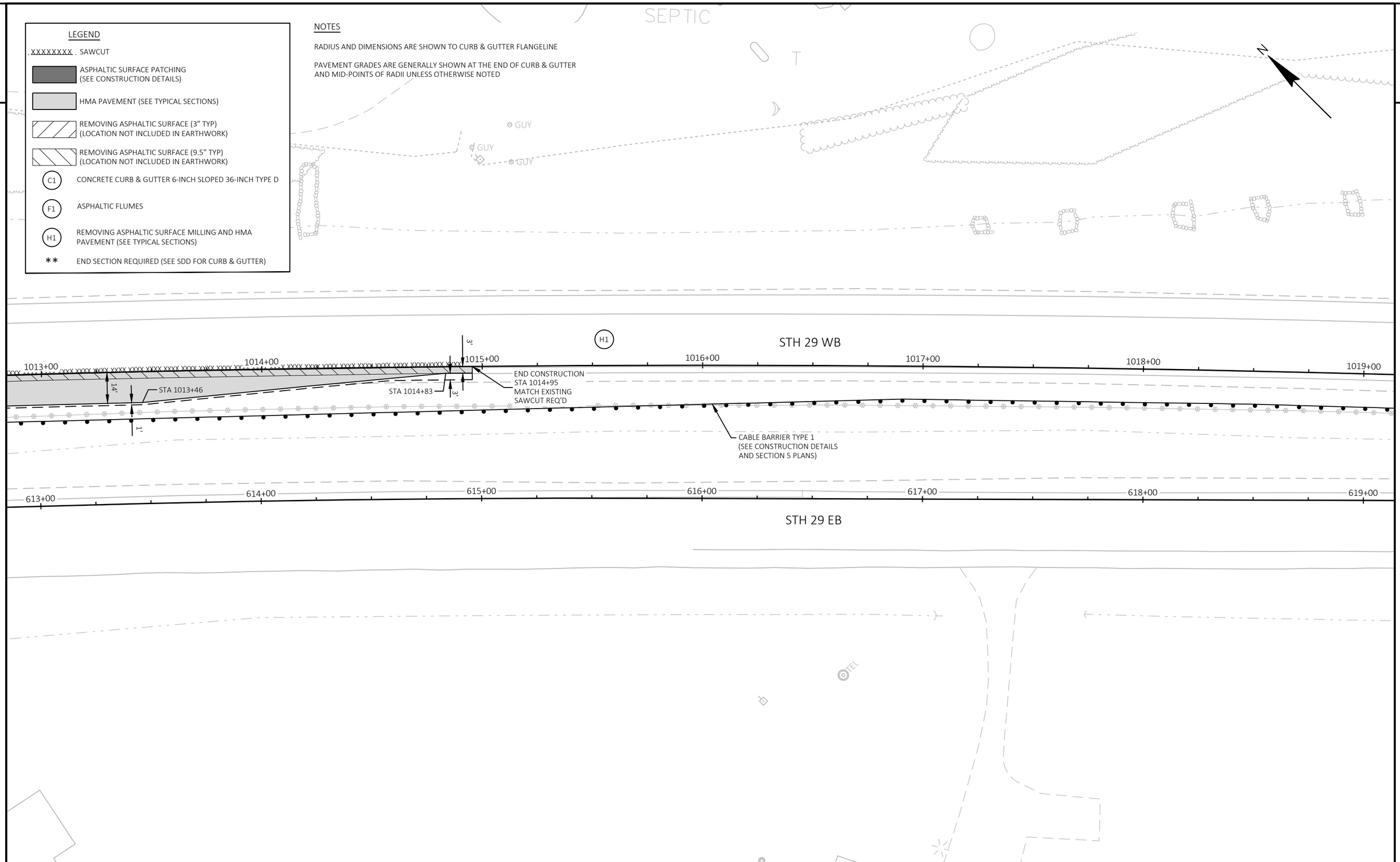
H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

** END SECTION REQUIRED (SEE SDD FOR CURB & GUTTER)

NOTES

RADIUS AND DIMENSIONS ARE SHOWN TO CURB & GUTTER FLANGELINE

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

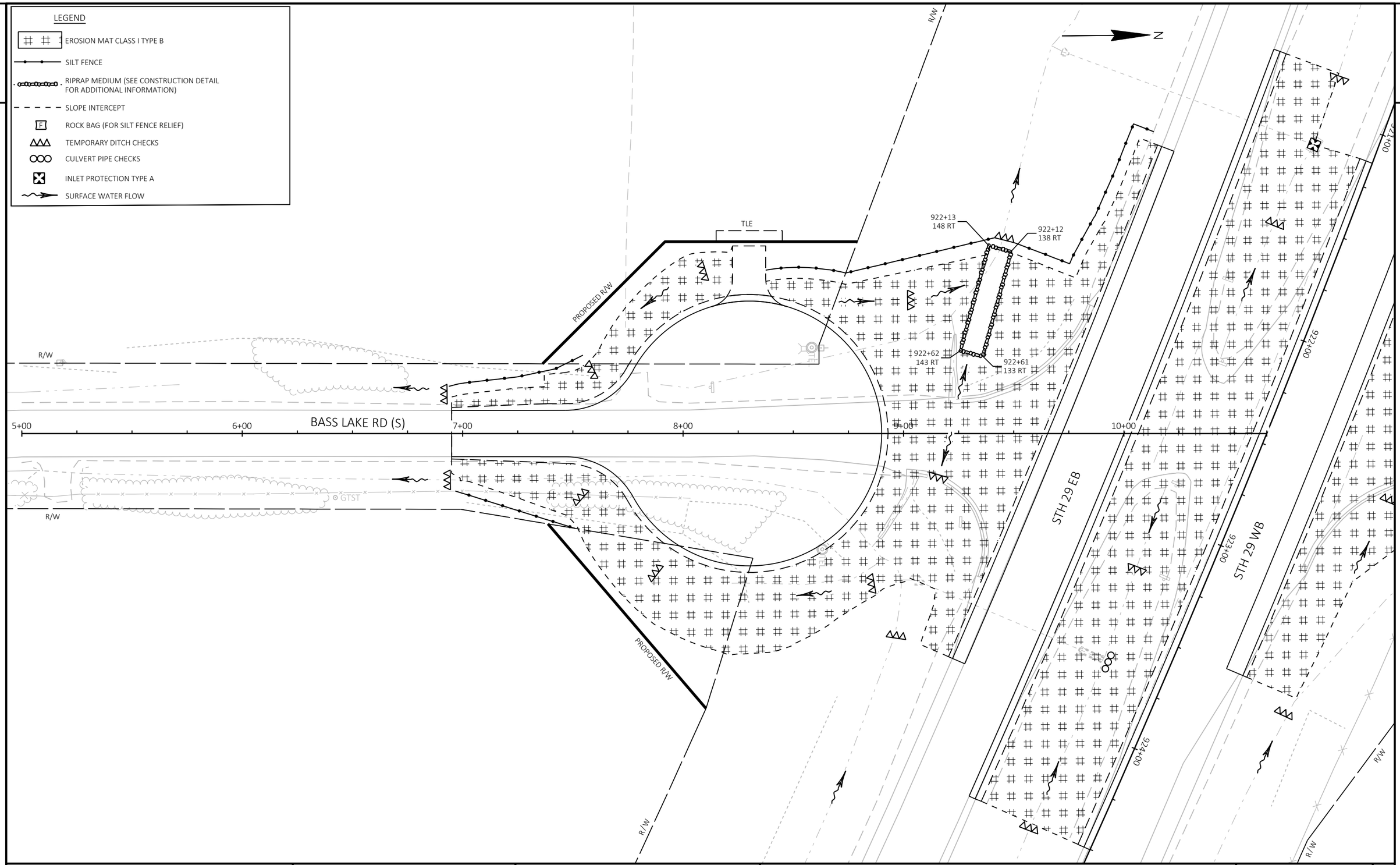


PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAILS	SHEET 22	E

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

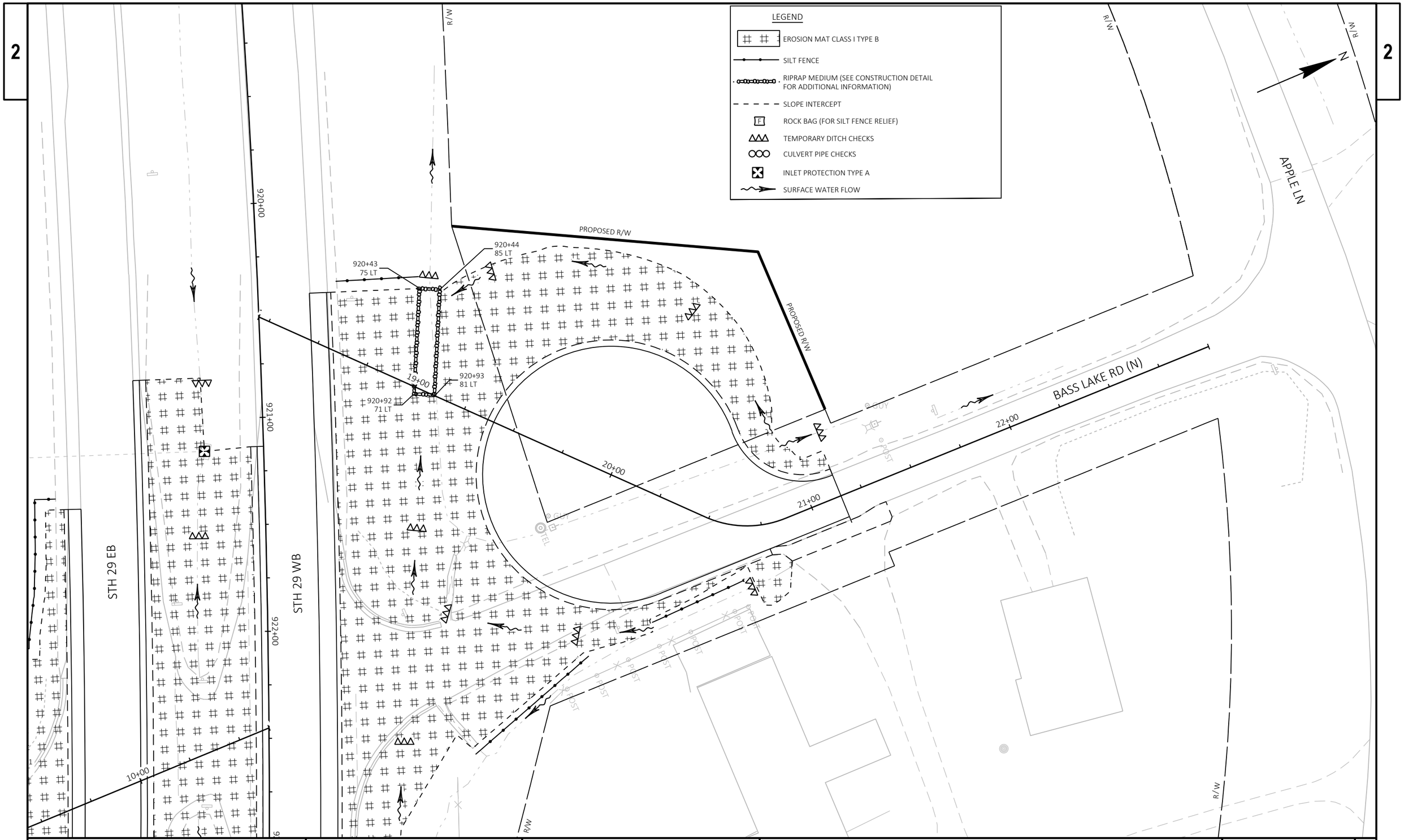


PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 23	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



2

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 24	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

N

R/W

R/W

CNOSSEN LN

STH 29 WB

941+00

942+00

943+00

944+00

945+00

946+00

STH 29 EB

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 25	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

R/W

R/W

947+00

948+00

949+00

950+00

951+00

952+00

STH 29 WB

STH 29 EB

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 26	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

SIGN

R/W

GUY

R/W

STH 29 WB

1001+00 1002+00 1003+00 1004+00 1005+00 1006+00 1007+00

601+00 602+00 603+00 604+00 605+00 606+00 607+00

STH 29 EB

R/W

R/W

2

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 27	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 05

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- F ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

R/W

R/W

FALSTAD RD

GUY

N

STH 29 WB

1007+00 1008+00 1009+00 1010+00 1011+00 1012+00 1013+00

607+00 608+00 609+00 610+00 611+00 612+00 613+00

STH 29 EB

R/W

R/W

HILLY ACRES RD

R/W

R/W

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 28	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 06

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- F ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

SEPTIC

R/W

GUY

GUY

GUY

R/W

STH 29 WB

1013+00 1014+00 1015+00 1016+00 1017+00 1018+00 1019+00

EXISTING SLOPES MEET 6:1 OR FLATTER AND NO GRADING IS REQUIRED IN THIS AREA OF CABLE BARRIER REPLACEMENT, RESTORE MINOR IMPACTS WITH TOPSOIL, SEED, FERTILIZER, AND MULCH OR EROSION MAT ITEMS INCLUDED IN THE CONTRACT

613+00 614+00 615+00 616+00 617+00 618+00 619+00

STH 29 EB

TEL

R/W

R/W

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 29	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

- EROSION MAT CLASS I TYPE B
- SILT FENCE
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL FOR ADDITIONAL INFORMATION)
- SLOPE INTERCEPT
- ROCK BAG (FOR SILT FENCE RELIEF)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- INLET PROTECTION TYPE A
- SURFACE WATER FLOW

R/W

R/W

EROSION CONTROL AT CRASH CUSHIONS AND INLET REPAIRS SHOWN ON CONSTRUCTION DETAILS

STH 29 WB

1016+00 1017+00 1018+00 1019+00 1020+00 1021+00 1022+00

616+00 617+00 618+00 619+00 620+00 621+00 622+00

STH 29 EB

TEL

R/W

R/W

2

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL	SHEET 30	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 7/25/2022 3:07 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

	EXISTING SIGN MOUNTED ON SINGLE POST	GWRE	GROOVED WET REFLECTIVE EPOXY
	MOVE EXISTING SIGN MOUNTED ON SINGLE POST *	GCPT	GROOVED CONTRAST PERMANENT TAPE
	PROPOSED SIGN MOUNTED ON NEW SINGLE POST	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
X	SIGN - MOVE	MYE4	MARKING EDGE LINE 4-INCH (YELLOW)
X	SIGN - NEW	MWC4	MARKING LANE LINE 4-INCH (12 1/2' LINE, 37 1/2' GAP)
X	SIGN - REMOVE	MWC8	MARKING CHANNELIZING 8-INCH
	EXISTING PAVEMENT MARKING		

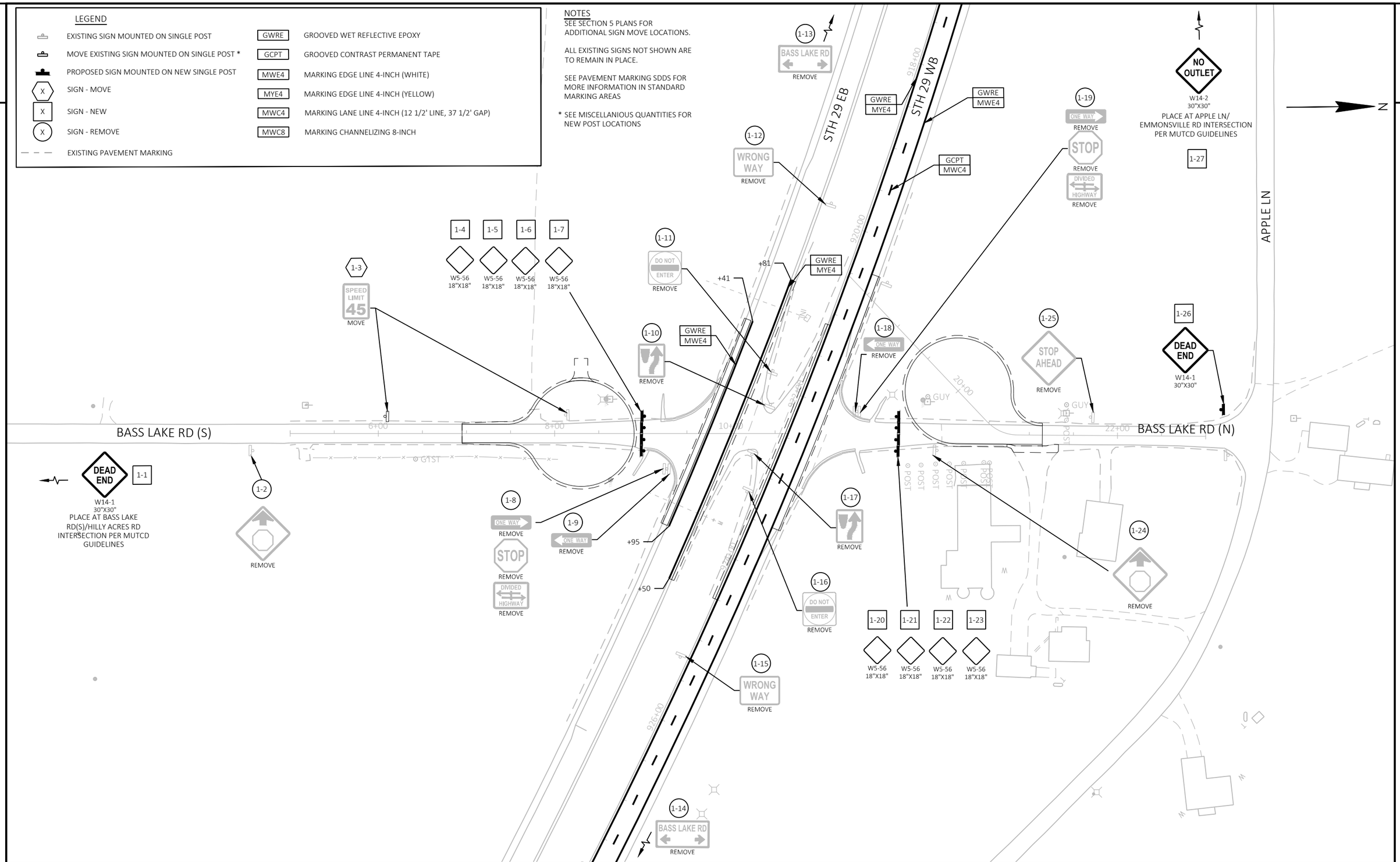
NOTES

SEE SECTION 5 PLANS FOR ADDITIONAL SIGN MOVE LOCATIONS.

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS

* SEE MISCELLANIOUS QUANTITIES FOR NEW POST LOCATIONS



2

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PERMANENT SIGNING AND MARKING	SHEET 31	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 01

PLOT DATE : 10/20/2022 8:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

	EXISTING SIGN MOUNTED ON SINGLE POST	GWRE	GROOVED WET REFLECTIVE EPOXY
	MOVE EXISTING SIGN MOUNTED ON SINGLE POST *	GCPT	GROOVED CONTRAST PERMANENT TAPE
	PROPOSED SIGN MOUNTED ON NEW SINGLE POST	MWE4	MARKING EDGE LINE 4-INCH (WHITE)
X	SIGN - MOVE	MYE4	MARKING EDGE LINE 4-INCH (YELLOW)
X	SIGN - NEW	MWC4	MARKING LANE LINE 4-INCH (12 1/2' LINE, 37 1/2' GAP)
X	SIGN - REMOVE	MWC8	MARKING CHANNELIZING 8-INCH
	EXISTING PAVEMENT MARKING		

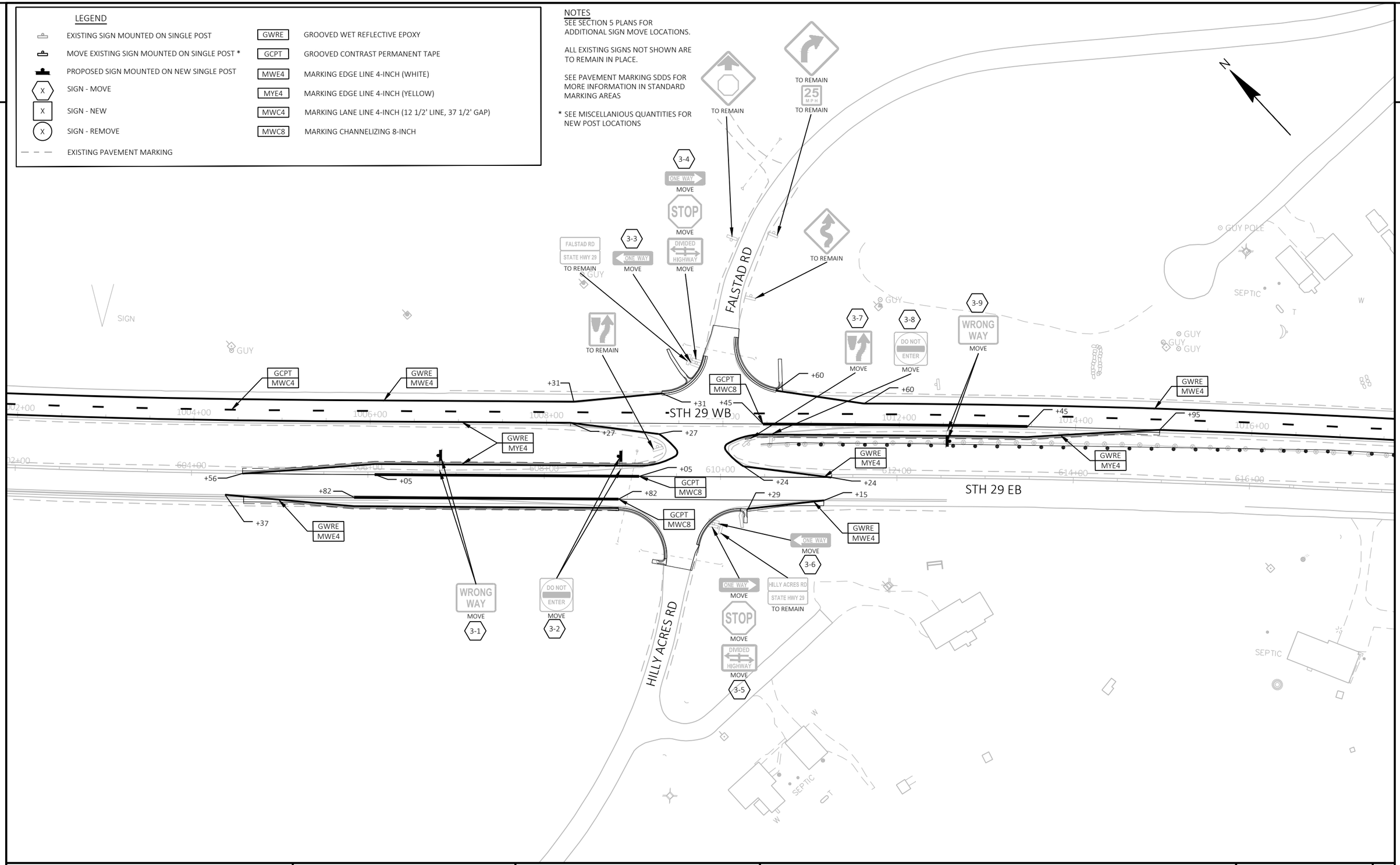
NOTES

SEE SECTION 5 PLANS FOR ADDITIONAL SIGN MOVE LOCATIONS.

ALL EXISTING SIGNS NOT SHOWN ARE TO REMAIN IN PLACE.

SEE PAVEMENT MARKING SDDS FOR MORE INFORMATION IN STANDARD MARKING AREAS

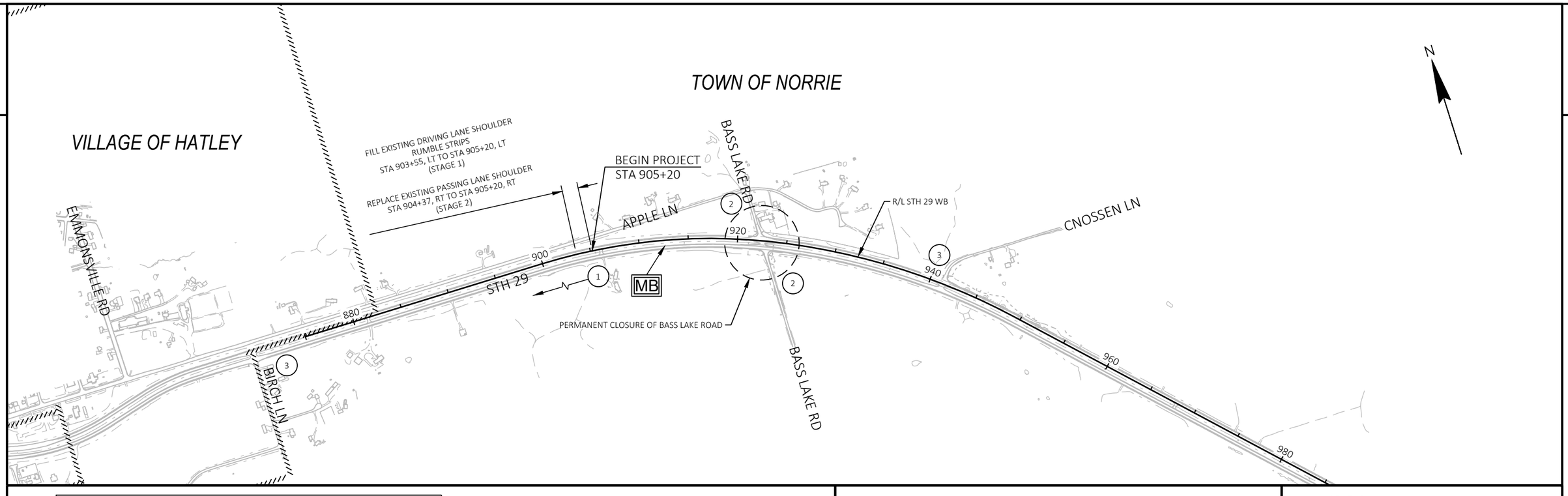
* SEE MISCELLANIOUS QUANTITIES FOR NEW POST LOCATIONS



PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PERMANENT SIGNING AND MARKING	SHEET 32	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/20/2022 8:55 AM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT



TRAFFIC CONTROL SIGNS PCMS MESSAGES				
	PRIOR TO CONSTRUCTION		DURING STAGE 2	
PCMS SIGN LOCATION	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
STH 29 EB 0.2 MILES WEST OF BASS LAKE RD	HWY 29 ROADWORK BEGINS	XXX DAY XXX XX	--	--
STH 29 EB 0.2 MILES WEST OF HILLY ACRES RD	HWY 29 ROADWORK BEGINS	XXX DAY XXX XX	--	--
STH 29 WB 0.2 MILES WEST OF CTH D	HWY 29 ROADWORK BEGINS	XXX DAY XXX XX	HWY 29 ROADWORK	STRADDLE RUMBLE STRIPS

PCMS WITH CELLULAR COMMUNICATION GENERAL NOTES

ADJUST TRAFFIC CONTROL PCMS MESSAGES AS NEEDED BASED ON CONSTRUCTION SCHEDULE. CONFIRM MESSAGES WITH THE ENGINEER BEFORE IMPLEMENTING

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. ADJUST THE MESSAGE DATE ACCORDINGLY

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. FOR STH 29 SHOULDER CLOSURES SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.PH."
5. DELINEATE PRIVATE ACCESS WITH TRAFFIC CONTROL DRUMS, WHERE REQUIRED

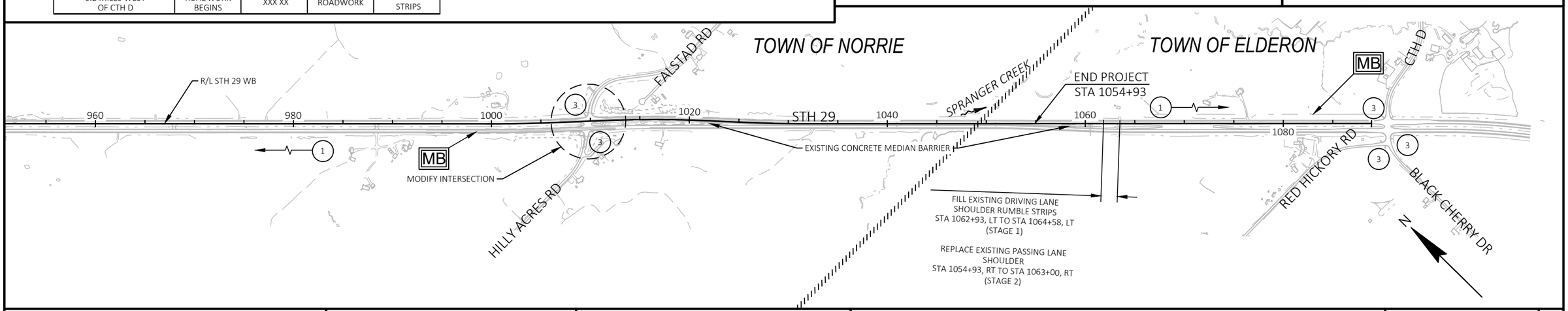
LEGEND

MB — TRAFFIC CONTROL SIGN PCMS WITH CELLULAR COMMUNICATIONS

1 — SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" TO REDUCE THE REGULATORY SPEED LIMIT TO 55 MPH

2 — SEE DETAIL C IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" AND DETAIL D IN SDD "BARRICADES AND SIGN FOR VARIOUS CLOSURES"

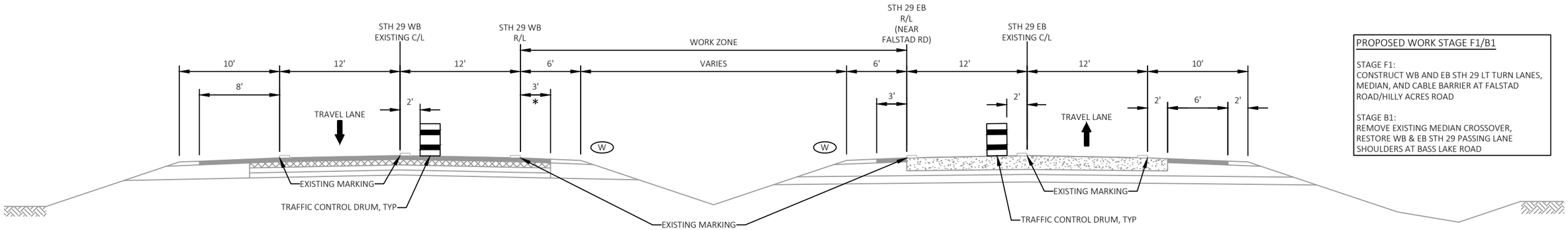
3 — SEE TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC"



PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL - OVERVIEW	SHEET 33	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\025000-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 7/25/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 44

2



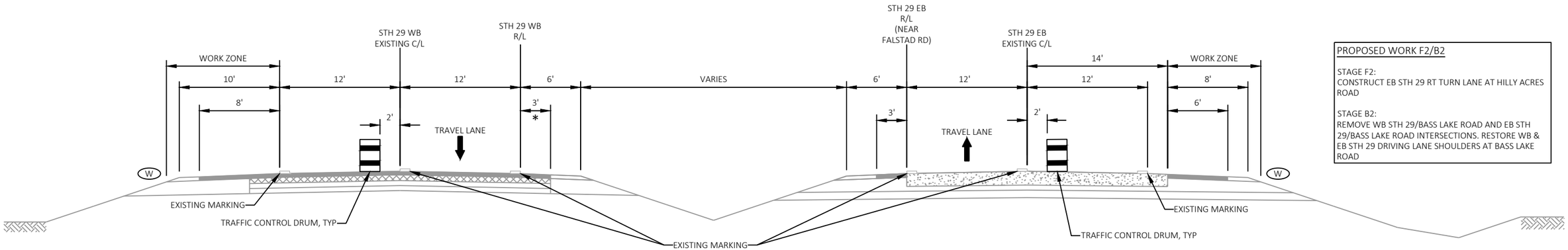
PROPOSED WORK STAGE F1/B1

STAGE F1:
CONSTRUCT WB AND EB STH 29 LT TURN LANES, MEDIAN, AND CABLE BARRIER AT FALSTAD ROAD/HILLY ACRES ROAD

STAGE B1:
REMOVE EXISTING MEDIAN CROSSOVER, RESTORE WB & EB STH 29 PASSING LANE SHOULDERS AT BASS LAKE ROAD

STAGE F1/B1 TYPICAL SECTION
STH 29

STAGE F1: FALSTAD ROAD/HILLY ACRES ROAD INTERSECTION
STAGE B1: BASS LAKE ROAD INTERSECTION



PROPOSED WORK F2/B2

STAGE F2:
CONSTRUCT EB STH 29 RT TURN LANE AT HILLY ACRES ROAD

STAGE B2:
REMOVE WB STH 29/BASS LAKE ROAD AND EB STH 29/BASS LAKE ROAD INTERSECTIONS. RESTORE WB & EB STH 29 DRIVING LANE SHOULDERS AT BASS LAKE ROAD

STAGE F2/B2 TYPICAL SECTION
STH 29

STAGE F2: FALSTAD ROAD/HILLY ACRES ROAD INTERSECTION
STAGE B2: BASS LAKE ROAD INTERSECTION

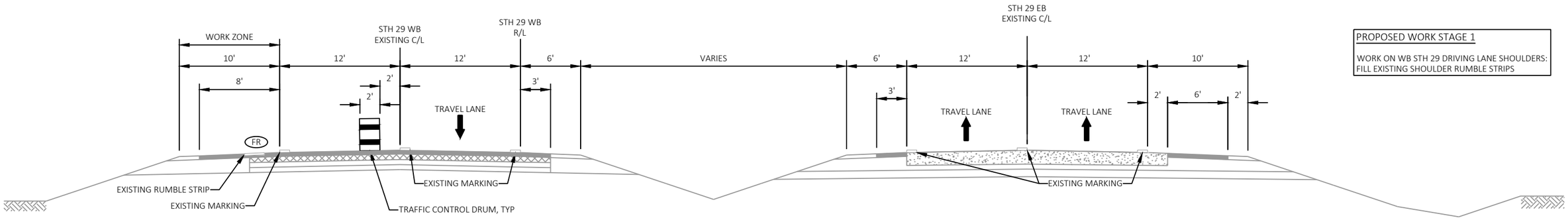
NOTES

* PAVED SHOULDER IS 6' IN SECTION WITH CONCRETE BARRIER

PAVEMENT STRUCTURE VARIES ALONG WB STH 29 (SEE TYPICAL SECTIONS)

(W) SEE TYPICAL SECTIONS AND INTERSECTION DETAILS FOR PROPOSED WORK

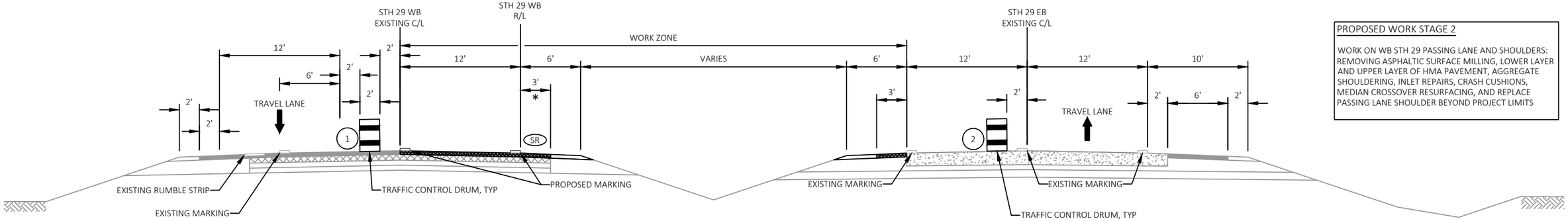
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 34	E



PROPOSED WORK STAGE 1

WORK ON WB STH 29 DRIVING LANE SHOULDERS: FILL EXISTING SHOULDER RUMBLE STRIPS

STAGE 1 TYPICAL SECTION
STH 29



PROPOSED WORK STAGE 2

WORK ON WB STH 29 PASSING LANE AND SHOULDERS: REMOVING ASPHALTIC SURFACE MILLING, LOWER LAYER AND UPPER LAYER OF HMA PAVEMENT, AGGREGATE SHOULDERING, INLET REPAIRS, CRASH CUSHIONS, MEDIAN CROSSOVER RESURFACING, AND REPLACE PASSING LANE SHOULDER BEYOND PROJECT LIMITS

STAGE 2 TYPICAL SECTION
STH 29

(1) DRUM LOCATION SHOWN FOR ENTIRE PROJECT LENGTH DURING WORKING HOURS. SHIFT DRUMS 2' (MIN) PAST THE LANE LINE DURING NON-WORKING HOURS, UNLESS A VERTICAL DROP IS PRESENT

(2) CLOSE EASTBOUND PASSING LANE WHEN WORK IS OCCURRING AT MEDIAN CROSSOVERS (DWYS, MAINTENANCE, INTERSECTIONS)

NOTES

* PAVED SHOULDER IS 6' IN SECTION WITH CONCRETE BARRIER

PAVEMENT STRUCTURE VARIES ALONG WB STH 29 (SEE TYPICAL SECTIONS)

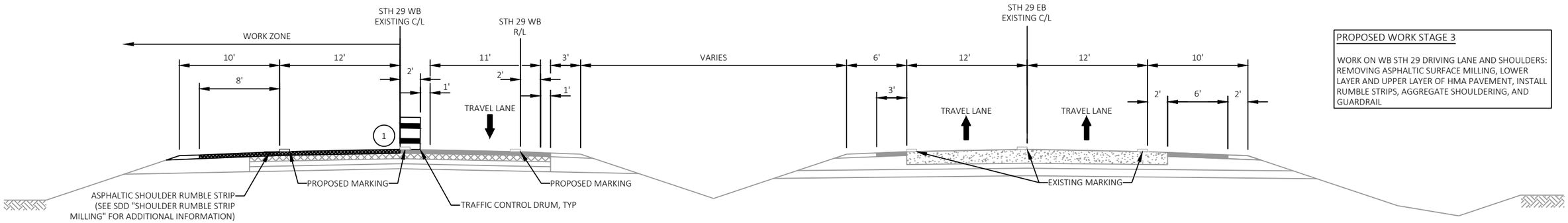
(FR) FILL EXISTING DRIVING LANE SHOULDER RUMBLE STRIPS FROM STA 903+55, LT TO STA 905+20, LT AND FROM STA 1062+93, LT TO STA 1064+58, LT. SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL INFORMATION.

(SR) REPLACE EXISTING PASSING LANE SHOULDER FROM STA 904+37, RT TO STA 905+20, RT AND FROM STA 1054+93, RT TO STA 1063+00, RT. SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL INFORMATION.

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET 35	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\025001-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 7/25/2022 3:08 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

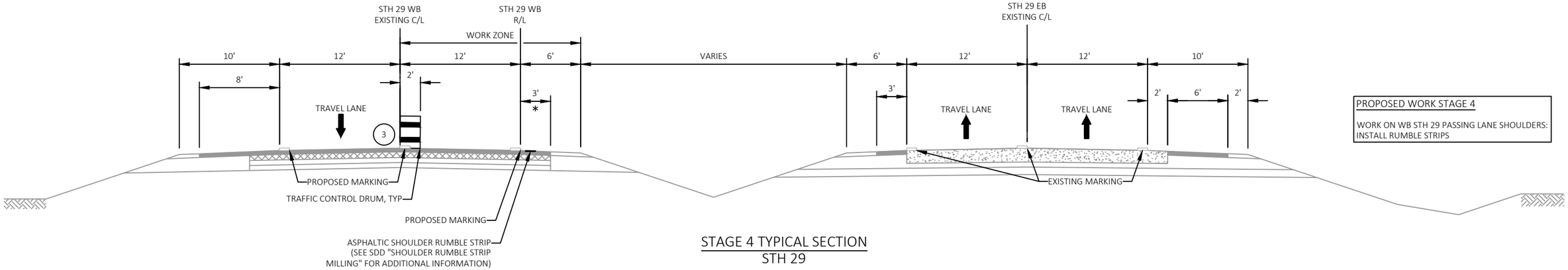


PROPOSED WORK STAGE 3

WORK ON WB STH 29 DRIVING LANE AND SHOULDERS: REMOVING ASPHALTIC SURFACE MILLING, LOWER LAYER AND UPPER LAYER OF HMA PAVEMENT, INSTALL RUMBLE STRIPS, AGGREGATE SHOULDERING, AND GUARDRAIL

STAGE 3 TYPICAL SECTION
STH 29

(1) DRUM LOCATION SHOWN FOR ENTIRE PROJECT LENGTH DURING WORKING HOURS. SHIFT DRUMS 2' (MIN) PAST THE LANE LINE DURING NON-WORKING HOURS, UNLESS A VERTICAL DROP IS PRESENT



PROPOSED WORK STAGE 4

WORK ON WB STH 29 PASSING LANE SHOULDERS: INSTALL RUMBLE STRIPS

STAGE 4 TYPICAL SECTION
STH 29

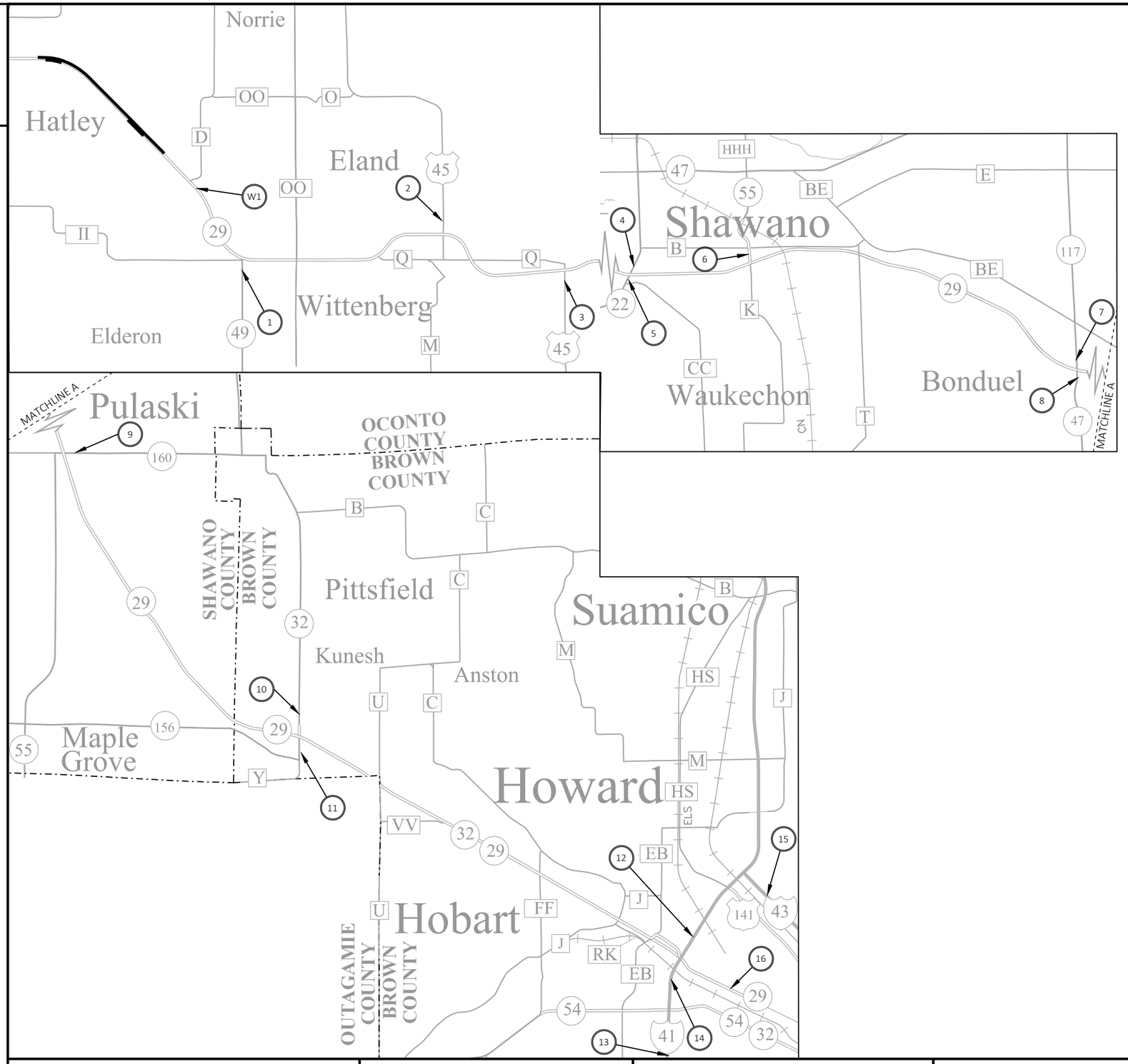
(3) DRUM LOCATION SHOWN FOR AREAS IMMEDIATELY ADJACENT TO CONSTRUCTION ACTIVITIES, SHIFT DRUMS 2' (MIN) PAST THE LANE LINE IN AREAS WITH NO CONSTRUCTION ACTIVITIES

NOTES

* PAVED SHOULDER IS 6' IN SECTION WITH CONCRETE BARRIER

PAVEMENT STRUCTURE VARIES ALONG WB STH 29 (SEE TYPICAL SECTIONS)

SEE SDD "TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER" FOR ADDITIONAL TRAFFIC CONTROL DEVICES AND TEMPORARY MARKING DURING STAGE 3



N

LEGEND

WORK ZONE

ADVANCED WARNING FOR WIDTH RESTRICTIONS

POST THE WIDTH RESTRICTION ADVANCED WARNING SIGNS AT THE LOCATIONS PROVIDED DURING STAGE 3.

* INCLUDE THE WO57-52 SIGN AT LOCATIONS THAT HAVE ACCESS POINTS BETWEEN THE SIGN LOCATION AND WIDTH RESTRICTION AREA.

** PLACE SIGN M3-4 WHEN ASSEMBLY IS MOUNTED ON ALL ROADWAYS OTHER THAN STH 29.

SEE SDD "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION STAGING" FOR ADDITIONAL INFORMATION

NOTE
DO NOT PLACE ANY SIGNS WITHIN 50-FEET OF ANY RAILROAD RIGHT-OF-WAY (NOT ANTICIPATED)

**
WEST
M3-4
36"X18"

29
M1-6
36"X36"

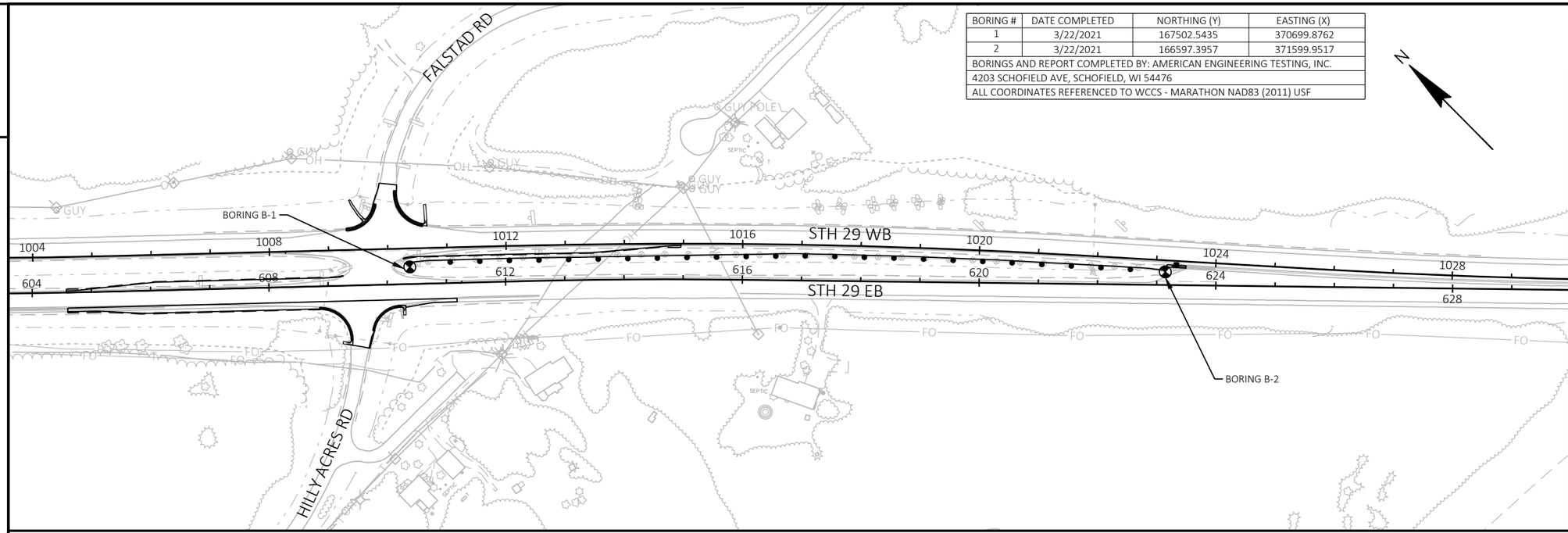
MAX. 11 WIDTH
W12-52
48"X48"

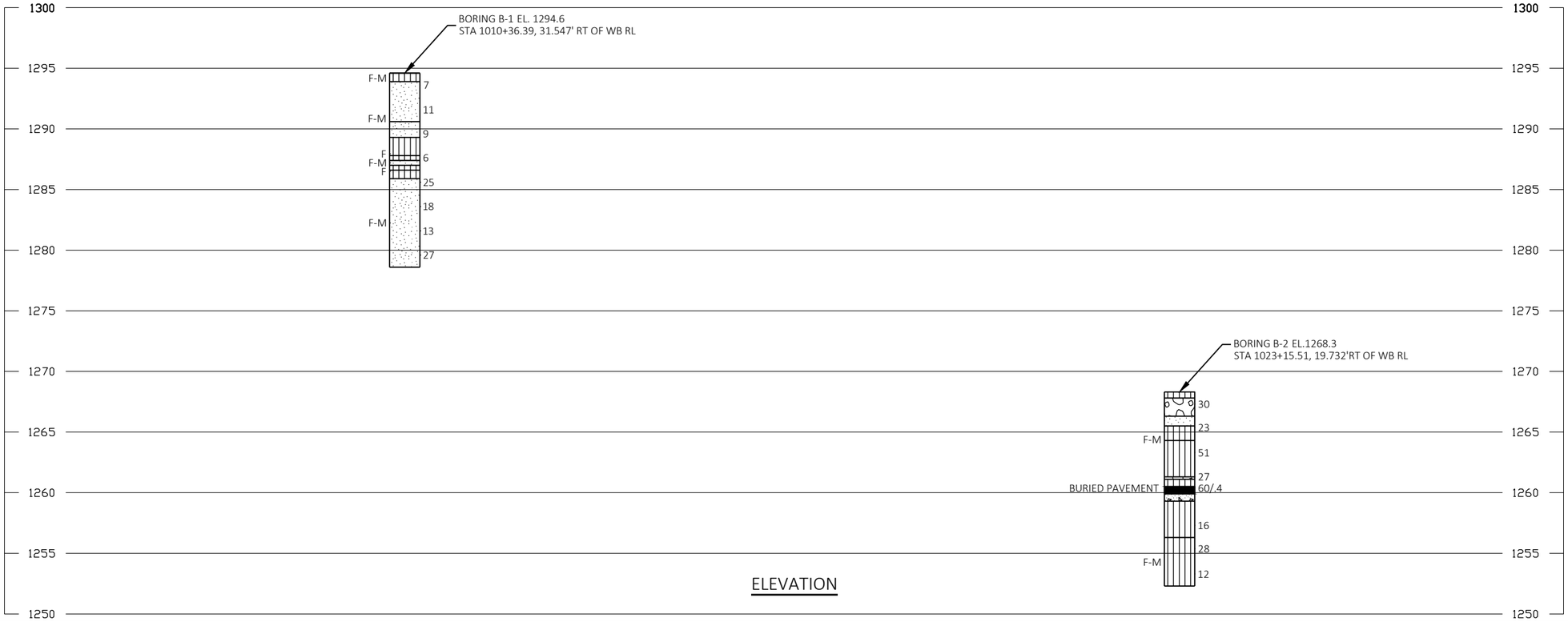
*
XX MILES AHEAD
WO57-52
48"X36"

WIDE LOADS EXCEEDING 11 FT
R12-70B
114"X42"
W1 STH 29 WB

1. STH 49 NB - 2 ¼ MILES
2. USH 45 SB - 6 MILES
3. USH 45 NB - 8 ½ MILES
4. STH 22 SB - 35 ½ MILES
5. STH 22 NB - 35 ½ MILE
6. STH 55 SB - 37 ¾ MILES
7. STH 117 SB - 44 ½ MILES
8. STH 47 NB - 44 ½ MILES
9. STH 160 WB - 52 ½ MILES
10. STH 32 SB - 59 ¾ MILES
11. STH 156 EB - 59 ¾ MILES
12. IH 41 SB - 68 MILES
13. IH 41 NB - 69 MILES
14. IH 41 NB - 68 MILES
15. IH 43 NB - 70 MILES
16. STH 29 WB - 68 MILES

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	3/22/2021	167502.5435	370699.8762
2	3/22/2021	166597.3957	371599.9517
BORINGS AND REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
4203 SCHOFIELD AVE, SCHOFIELD, WI 54476			
ALL COORDINATES REFERENCED TO WCCS - MARATHON NAD83 (2011) USF			





ELEVATION

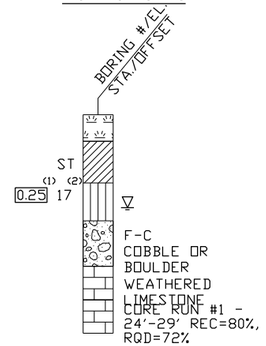
STATE PROJECT NUMBER

1053-07-76

MATERIAL SYMBOLS

ASPHALT, TOPSOIL, PEAT, CONCRETE, FILL, GRAVEL, SAND, CLAY, SILT, BOULDERS OR COBBLES, LIMESTONE, BEDROCK (UNKNOWN), SHALE, SANDSTONE, IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

1053-07-76

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	204.0110	Removing Asphaltic Surface	SY	2,870.000	2,870.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,230.000	1,230.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	62,010.000	62,010.000
0012	204.0140	Removing Gutter	LF	30.000	30.000
0014	204.0150	Removing Curb & Gutter	LF	740.000	740.000
0016	204.0165	Removing Guardrail	LF	1,020.000	1,020.000
0018	204.0170	Removing Fence	LF	90.000	90.000
0020	204.0180	Removing Delineators and Markers	EACH	22.000	22.000
0022	204.9060.S	Removing (item description) 01. Crash Cushion	EACH	2.000	2.000
0024	204.9060.S	Removing (item description) 02. Removing Cable Barrier Terminal	EACH	2.000	2.000
0026	204.9090.S	Removing (item description) 01. Removing Cable Barrier	LF	1,270.000	1,270.000
0028	205.0100	Excavation Common	CY	4,790.000	4,790.000
0030	208.0100	Borrow	CY	3,670.000	3,670.000
0032	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1053-07-76	EACH	1.000	1.000
0034	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	17.000	17.000
0036	213.0100	Finishing Roadway (project) 01. 1053-07-76	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,925.000	1,925.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,910.000	5,910.000
0042	455.0605	Tack Coat	GAL	6,240.000	6,240.000
0044	460.2000	Incentive Density HMA Pavement	DOL	6,740.000	6,740.000
0046	460.6224	HMA Pavement 4 MT 58-28 S	TON	10,530.000	10,530.000
0048	465.0105	Asphaltic Surface	TON	270.000	270.000
0050	465.0110	Asphaltic Surface Patching	TON	65.000	65.000
0052	465.0315	Asphaltic Flumes	SY	95.000	95.000
0054	465.0400	Asphaltic Shoulder Rumble Strips	LF	29,190.000	29,190.000
0056	601.0205	Concrete Gutter 24-Inch	LF	28.000	28.000
0058	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	435.000	435.000
0060	606.0200	Riprap Medium	CY	55.000	55.000
0062	611.8115	Adjusting Inlet Covers	EACH	4.000	4.000
0064	613.1100.S	Cable Barrier Type 1	LF	1,270.000	1,270.000
0066	613.1200.S	Cable Barrier End Terminal Type 1	EACH	2.000	2.000
0068	614.0800	Crash Cushions Permanent	EACH	2.000	2.000
0070	614.2300	MGS Guardrail 3	LF	138.000	138.000
0072	614.2330	MGS Guardrail 3 K	LF	825.000	825.000
0074	614.2610	MGS Guardrail Terminal EAT	EACH	1.000	1.000
0076	614.2620	MGS Guardrail Terminal Type 2	EACH	1.000	1.000
0078	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1053-07-76	EACH	1.000	1.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	624.0100	Water	MGAL	100.000	100.000
0084	625.0100	Topsoil	SY	18,570.000	18,570.000
0086	628.1504	Silt Fence	LF	3,140.000	3,140.000
0088	628.1520	Silt Fence Maintenance	LF	3,140.000	3,140.000
0090	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0094	628.2004	Erosion Mat Class I Type B	SY	18,570.000	18,570.000
0096	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0098	628.7020	Inlet Protection Type D	EACH	5.000	5.000

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Line	Item	Item Description	Unit	Total	Qty
0100	628.7504	Temporary Ditch Checks	LF	714.000	714.000
0102	628.7555	Culvert Pipe Checks	EACH	15.000	15.000
0104	628.7570	Rock Bags	EACH	110.000	110.000
0106	629.0210	Fertilizer Type B	CWT	12.500	12.500
0108	630.0130	Seeding Mixture No. 30	LB	340.000	340.000
0110	630.0500	Seed Water	MGAL	415.000	415.000
0112	633.0100	Delineator Posts Steel	EACH	22.000	22.000
0114	633.0500	Delineator Reflectors	EACH	30.000	30.000
0116	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	8.000	8.000
0118	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	7.000	7.000
0120	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	7.000	7.000
0122	637.2220	Signs Type II Reflective SH	SF	18.000	18.000
0124	637.2230	Signs Type II Reflective F	SF	18.750	18.750
0126	638.2102	Moving Signs Type II	EACH	12.000	12.000
0128	638.2602	Removing Signs Type II	EACH	13.000	13.000
0130	638.3000	Removing Small Sign Supports	EACH	28.000	28.000
0132	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0134	642.5001	Field Office Type B	EACH	1.000	1.000
0136	643.0300	Traffic Control Drums	DAY	16,948.000	16,948.000
0138	643.0420	Traffic Control Barricades Type III	DAY	1,216.000	1,216.000
0140	643.0705	Traffic Control Warning Lights Type A	DAY	2,432.000	2,432.000
0142	643.0715	Traffic Control Warning Lights Type C	DAY	2,074.000	2,074.000
0144	643.0800	Traffic Control Arrow Boards	DAY	302.000	302.000
0146	643.0900	Traffic Control Signs	DAY	5,255.000	5,255.000
0148	643.1051	Traffic Control Signs PCMS with Cellular Communications	DAY	66.000	66.000
0150	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	4,800.000	4,800.000
0152	643.5000	Traffic Control	EACH	1.000	1.000
0154	645.0120	Geotextile Type HR	SY	150.000	150.000
0156	646.1020	Marking Line Epoxy 4-Inch	LF	730.000	730.000
0158	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	31,700.000	31,700.000
0160	646.1555	Marking Line Grooved Contrast Permanent Tape 4-Inch	LF	3,750.000	3,750.000
0162	646.3555	Marking Line Grooved Contrast Permanent Tape 8-Inch	LF	900.000	900.000
0164	646.9000	Marking Removal Line 4-Inch	LF	900.000	900.000
0166	650.4500	Construction Staking Subgrade	LF	3,095.000	3,095.000
0168	650.5000	Construction Staking Base	LF	3,095.000	3,095.000
0170	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	155.000	155.000
0172	650.8000	Construction Staking Resurfacing Reference	LF	14,975.000	14,975.000
0174	650.9911	Construction Staking Supplemental Control (project) 01. 1053-07-76	EACH	1.000	1.000
0176	650.9920	Construction Staking Slope Stakes	LF	3,095.000	3,095.000
0178	690.0150	Sawing Asphalt	LF	2,140.000	2,140.000
0180	690.0250	Sawing Concrete	LF	56.000	56.000
0182	740.0440	Incentive IRI Ride	DOL	11,400.000	11,400.000
0184	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	1,200.000	1,200.000
0186	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0188	SPV.0090	Special 01. Fill Existing Rumble Strips	LF	330.000	330.000

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CLEARING AND GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA	COMMENTS
0010	946+65	-	948+75	LT	3	3	GUARDRAIL
CATEGORY 0010 TOTALS					3	3	
0020	7+35	-	8+50	RT	2	2	BASS LAKE RD SOUTH
	608+10	-	608+85	RT	1	1	HILLY ACRES RD
CATEGORY 0020 TOTALS					3	3	
TOTALS					6	6	

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0140 REMOVING GUTTER LF	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF	204.0180 REMOVING DELINEATORS AND MARKERS EACH	204.9060.S.01 REMOVING CRASH CUSHION EACH	204.9060.S.02 REMOVING CABLE BARRIER TERMINAL EACH	204.9090.S.01 REMOVING CABLE BARRIER LF	COMMENTS
0010	903+55	-	905+20	LT	150	--	--	--	--	--	--	--	--	--	--	
	904+37	-	905+20	RT	30	--	--	--	--	--	--	--	--	--	--	
	905+20	-	957+20	LT&RT	--	390	19,970	--	--	1,020	--	--	--	--	--	
	905+80	-	906+35	RT	--	100	210	--	--	--	--	--	--	--	--	DRIVEWAY CROSSOVER
	940+10	-	942+98	RT	--	470	860	--	--	--	--	--	--	--	--	INTERESECTION CROSSOVER
	940+18	-	943+07	LT	70	90	660	--	147	--	--	6	--	--	--	CNOSSEN LN INTERSECTION
	957+20	-	1007+75	LT&RT	--	--	19,670	--	--	--	--	--	--	--	--	
	967+62	-	968+30	RT	--	50	210	--	--	--	--	--	--	--	--	MAINTENANCE CROSSOVER
	988+10	-	988+73	RT	--	50	210	--	--	--	--	--	--	--	--	DRIVEWAY CROSSOVER
	1007+75	-	1023+50	LT&RT	--	--	6,040	--	--	--	--	2	1	2	1,270	
	1009+30	-	1010+60	LT	50	30	430	--	151	--	--	--	--	--	--	FALSTAD RD INTERSECTION
	1023+50	-	1054+93	LT&RT	10	50	13,750	30	--	--	--	--	--	--	--	
	1057+59			RT	--	--	--	--	--	--	--	--	1	--	--	
	1054+93	-	1063+00	RT	270	--	--	--	--	--	--	--	--	--	--	
	1062+93	-	1064+58	LT	150	--	--	--	--	--	--	--	--	--	--	
CATEGORY 0010 TOTALS					730	1,230	62,010	30	298	1,020	--	8	2	2	1,270	
0020	920+43	-	923+50	LT	--	--	--	--	141	--	--	2	--	--	--	STH 29 WB/BASS LAKE RD NORTH
	920+81	-	924+50	RT	--	--	--	--	--	--	--	2	--	--	--	STH 29 EB/BASS LAKE RD SOUTH
	921+14	-	924+50	RT	--	--	--	--	--	--	--	2	--	--	--	STH 29 WB/BASS LAKE RD NORTH
	921+41	-	923+95	RT	--	--	--	--	144	--	--	2	--	--	--	STH 29 EB/BASS LAKE RD SOUTH
	1008+27	-	1014+95	RT	630	--	--	--	--	--	--	2	--	--	--	FALSTAD RD/HILLY ACRES RD LEFT TURN LANE
	604+58	-	611+26	LT	610	--	--	--	--	--	--	2	--	--	--	FALSTAD RD/HILLY ACRES RD LEFT TURN LANE
	604+59	-	611+17	RT	900	--	--	--	157	--	--	2	--	--	--	FALSTAD RD/HILLY ACRES RD RIGHT TURN LANE
	6+95	-	8+90	RT	--	--	--	--	--	--	90	--	--	--	--	BASS LAKE RD SOUTH
CATEGORY 0020 TOTALS					2,140	--	--	--	442	--	90	14	--	--	--	
TOTALS					2,870	1,230	62,010	30	740	1,020	90	22	2	2	1,270	

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 EXCAVATION COMMON (NOTE 1)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (NOTE 2)	AVAILABLE MATERIAL (NOTE 3)	UNEXPANDED FILL	EXPANDED FILL (NOTE 4)	MASS ORDINATE +/- (NOTE 5)	208.0100 BORROW
			CY	CY	CY	CY	FACTOR CY 1.25	CY	CY
CATEGORY 0010									
1	STA 942+09 - STA 952+74	STH 29 WB AT GUARDRAIL	266	0	266	1,331	1,664	-1,398	1,398
SUBTOTALS			266	0	266	1,331	1,664	-1,398	1,398
CAT 0010 TOTALS			266	0	266	1,331	1,664	-1,398	1,398
CATEGORY 0020									
2	STA 920+43 - STA 924+50	STH 29 AT BASS LAKE ROAD	1,758	260	1,498	114	143	1,356	0
2	STA 6+95 - STA 9+00	BASS LAKE ROAD CUL-DE-SAC (S)	991	52	939	314	393	547	0
2	STA 19+00 - STA 21+15	BASS LAKE ROAD CUL-DE-SAC (N)	1,020	53	967	2,258	2,823	-1,855	1,855
SUBTOTALS			3,769	365	3,404	2,686	3,358	47	1,855
3	STA 604+58 - STA 609+26	STH 29 EB AT HILLY ACRES ROAD TURN LANES	410	2	0	180	225	-225	225
3	STA 1010+25 - STA 1014+95	STH 29 WB AT HILLY ACRES ROAD TURN LANE	345	10	0	153	191	-191	191
SUBTOTALS			755	12	0	333	416	-416	416
CAT 0020 TOTALS			4,524	377	3,404	3,019	3,774	-369	2,272
PROJECT TOTALS			4,790	377	3,670	4,350	5,438	-1,767	3,669

NOTES:
1) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
2) SALVAGED/UNUSABLE PAVEMENT MATERIAL = (AREA OF PROJECT PAVEMENT) * (TYPICAL DEPTH)
3) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
4) EXPANDED FILL FACTOR = (UNEXPANDED FILL) * (FILL FACTOR)
5) MASS ORDINATE = AVAILABLE MATERIAL - (EXPANDED FILL); POSITIVE INDICATES AN EXCESS OF MATERIAL

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
0010	903+55	-	905+20	LT	11	--
	905+20	-	957+50	LT	301	--
	905+20	-	957+50	RT	478	--
	940+18	-	943+07	LT	20	--
	942+30	-	952+42	LT	59	490
	957+50	-	1007+75	LT	154	--
	957+50	-	1007+75	RT	229	--
	1007+75	-	1023+50	LT	44	--
	1007+75	-	1023+50	RT	52	--
	1009+30	-	1010+60	LT	20	--
	1023+50	-	1054+93	LT	96	--
	1062+93	-	1064+58	LT	9	--
	DRIVEWAYS				47	--
	1033+93			RT	--	2
	1040+94			RT	--	2
	1044+94			RT	--	2
	1050+94			RT	--	2
CATEGORY 0010 TOTALS					1,520	498
0020	920+43	-	923+50	LT	60	182
	920+81	-	924+50	RT	32	362
	921+14	-	924+50	RT	74	200
	921+41	-	923+95	RT	14	330
	1008+27	-	1014+95	RT	43	1,192
	604+58	-	611+26	LT	35	765
	604+59	-	611+17	RT	34	753
	604+59	-	611+17	RT	18	--
	604+59	-	611+17	RT	2	--
	6+95	-	8+90	LT&RT	50	821
	19+40	-	21+15	LT&RT	44	807
CATEGORY 0020 TOTALS					405	5,412
TOTALS					1,925	5,910

ASPHALTIC ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0315 ASPHALTIC FLUMES SY	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF	SPV.0090.01 FILL EXISTING RUMBLE STRIPS LF	COMMENTS
0010	903+55	-	905+20	LT	3	10	25	--	--	--	165	165	
	904+37	-	905+20	RT	2	2	5	--	--	--	83	--	
	905+20	-	957+50	LT&RT	--	2,398	4,200	--	--	--	9,730	--	
	905+80	-	906+35	RT	--	15	--	44	--	--	--	--	DRIVEWAY CROSSOVER
	940+10	-	942+98	RT	--	60	--	179	--	--	--	--	INTERESECTION CROSSOVER
	940+18	-	943+07	LT	--	79	138	--	7	38	--	--	CNOSSEN LN INTERSECTION
	942+30	-	952+42	LT	--	31	55	--	--	--	--	--	
	957+50	-	1007+75	LT&RT	--	1,377	2,203	--	--	--	9,909	--	
	967+62	-	968+30	RT	--	15	--	24	--	--	--	--	MAINTENANCE CROSSOVER
	988+10	-	988+73	RT	--	14	--	23	--	--	--	--	DRIVEWAY CROSSOVER
	1007+75	-	1023+50	LT&RT	--	423	676	--	--	--	2,046	--	
	1009+30	-	1010+60	LT	--	30	49	--	6	37	--	--	FALSTAD RD INTERSECTION
	1023+50	-	1054+93	LT&RT	--	962	1,540	--	1	--	6,285	--	
	1057+59			RT	--	--	--	--	1	--	--	--	
	1054+93	-	1063+00	RT	9	19	46	--	--	--	807	--	
	1062+93	-	1064+58	LT	3	10	25	--	--	--	165	165	
	UNDISTRIBUTED				--	--	--	--	50	--	--	--	
CATEGORY 0010 TOTALS					17	5,445	8,960	270	65	75	29,190	330	
0020	920+43	-	923+50	LT	--	33	115	--	--	--	--	--	STH 29 WB/BASS LAKE RD NORTH
	920+81	-	924+50	RT	--	8	20	--	--	--	--	--	STH 29 EB/BASS LAKE RD SOUTH
	921+14	-	924+50	RT	--	14	48	--	--	--	--	--	STH 29 WB/BASS LAKE RD NORTH
	921+41	-	923+95	RT	--	12	28	--	--	--	--	--	STH 29 EB/BASS LAKE RD SOUTH
	1008+27	-	1014+95	RT	--	125	231	--	--	--	--	--	FALSTAD RD/HILLY ACRES RD LEFT TURN LANE
	604+58	-	611+26	LT	--	122	230	--	--	--	--	--	FALSTAD RD/HILLY ACRES RD LEFT TURN LANE
	604+59	-	611+17	RT	--	132	247	--	--	17	--	--	FALSTAD RD/HILLY ACRES RD RIGHT TURN LANE
	6+95	-	8+90	LT&RT	--	174	326	--	--	--	--	--	BASS LAKE RD SOUTH
	19+40	-	21+15	LT&RT	--	175	326	--	--	--	--	--	BASS LAKE RD NORTH
CATEGORY 0020 TOTALS					--	795	1,570	--	--	20	--	--	
TOTALS					17	6,240	10,530	270	65	95	29,190	330	

NOTE:
UNDISTRIBUTED ASPHALTIC SURFACE PATCHING QUANTITY USED FOR ANY REPAIRS REQUIRED AFTER MILLING IS COMPLETE.

CONCRETE CURB & GUTTER

CATEGORY	STATION	TO	STATION	OFFSET	601.0205 CONCRETE GUTTER 24-INCH LF	601.0557 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D LF
0010	940+18	-	943+07	LT	--	146
	1009+30	-	1010+60	LT	--	137
	1033+93			RT	7	--
	1040+94			RT	7	--
	1044+94			RT	7	--
	1050+94			RT	7	--
CATEGORY 0010 TOTALS					28	283
0020	604+59	-	611+17	RT	--	152
CATEGORY 0020 TOTALS					--	152
TOTALS					28	435

ADJUSTING INLET COVERS

CATEGORY	STATION	OFFSET	611.8115 ADJUSTING INLET COVERS EACH
0010	1033+93	RT	1
	1040+94	RT	1
	1044+94	RT	1
	1050+94	RT	1
CATEGORY 0010 TOTALS			4

RIPRAP ITEMS

CATEGORY	STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0020	9+40	LT	27	75
	19+00	LT	28	75
CATEGORY 0020 TOTALS			55	150

EROSION CONTROL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH
0010	940+18	-	952+42	LT	1,320	1,320	2,760	30	--	85
	1009+30	-	1010+60	LT	180	180	80	30	4	--
	1022+00	-	1023+50	RT	--	--	--	15	--	--
	1023+50			RT	--	--	20	15	--	--
	1057+59			RT	--	--	10	15	--	--
	UNDISTRIBUTED				375	375	720	28	1	25
CATEGORY 0010 TOTALS					1,875	1,875	3,590	133	5	110
0020	6+95	-	8+90	LT&RT	330	330	2,360	165	--	--
	19+40	-	21+15	LT&RT	160	160	3,070	--	--	--
	920+81	-	924+50	RT	--	--	1,880	60	4	--
	604+58	-	611+26	LT	200	200	790	30	--	--
	604+59	-	611+17	RT	320	320	1,180	75	4	--
	1008+27	-	1021+93	RT	--	--	2,700	135	--	--
	UNDISTRIBUTED				255	255	3,000	116	2	--
CATEGORY 0020 TOTALS					1,265	1,265	14,980	581	10	--
TOTALS					3,140	3,140	18,570	715	15	110

EROSION CONTROL MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	COMMENTS
0010	PROJECT	6	3	
TOTALS		6	3	

INLET PROTECTION

CATEGORY	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7020 INLET PROTECTION TYPE D EACH
0010	1021+93	RT	1	--
	1033+93	RT	--	1
	1040+94	RT	--	1
	1044+94	RT	--	1
	1050+94	RT	--	1
	UNDISTRIBUTED		1	1
CATEGORY 0010 TOTALS			2	5
0020	921+15	RT	1	--
	609+05	LT	1	--
	UNDISTRIBUTED		1	--
CATEGORY 0020 TOTALS			3	--
TOTALS			5	5

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
0010	940+18	-	952+42	LT	2,760	1.8	50	62
	1009+30	-	1010+60	LT	80	0.1	1	2
	1023+50			RT	20	0.1	1	1
	1057+59			RT	10	0.1	1	1
	UNDISTRIBUTED				720	0.5	17	14
CATEGORY 0010 TOTALS					3,590	2.6	70	80
0020	6+95	-	8+90	LT&RT	2,360	1.5	43	53
	19+40	-	21+15	LT&RT	3,070	2.0	55	69
	920+81	-	924+50	RT	1,880	1.2	34	42
	604+58	-	611+26	LT	790	0.5	14	18
	604+59	-	611+17	RT	1,180	0.8	21	27
	1008+27	-	1021+93	RT	2,700	1.7	49	61
	UNDISTRIBUTED				3,000	2.2	54	65
CATEGORY 0020 TOTALS					14,980	9.9	270	335
TOTALS					18,570	12.5	340	415

3

REMOVING AND MOVING SIGNS

CATEGORY	SIGN NUMBER	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH
0010	2-1	DEAD END	1	--	1	--
	2-2	ROAD TEST 550122	1	--	1	1
	2-3	SHAP 550120	1	--	1	1
	2-4	CNOSSEN LN (RT ARROW)	1	--	2	--
	3-3 / 3-4	ONE WAY (LT ARROW) / ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY	1	--	1	--
	3-5 / 3-6	ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY / ONE WAY (LT ARROW)	1	--	1	--
CATEGORY 0010 TOTALS			6	--	7	2
0020	1-2	(STOP SIGN AHEAD WITH ARROW)	--	1	1	--
	1-3	SPEED LIMIT 45	1	--	1	--
	1-8 / 1-9	ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY / ONE WAY (LT ARROW)	--	1	1	--
	1-10	KEEP LEFT/RIGHT SYMBOL	--	1	1	--
	1-11	DO NOT ENTER	--	1	1	--
	1-12	WRONG WAY	--	1	1	--
	1-13	BASS LAKE ROAD (LT/RT ARROW)	--	1	2	--
	1-14	BASS LAKE ROAD (LT/RT ARROW)	--	1	2	--
	1-15	WRONG WAY	--	1	1	--
	1-16	DO NOT ENTER	--	1	1	--
	1-17	KEEP LEFT/RIGHT SYMBOL	--	1	1	--
	1-18 / 1-19	ONE WAY (LT ARROW) / ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY	--	1	1	--
	1-24	(STOP SIGN AHEAD WITH ARROW)	--	1	1	--
	1-25	STOP AHEAD	--	1	1	--
	3-1	WRONG WAY	1	--	1	--
	3-2	DO NOT ENTER	1	--	1	--
	3-7	KEEP LEFT/RIGHT SYMBOL	1	--	1	--
	3-8	DO NOT ENTER	1	--	1	--
	3-9	WRONG WAY	1	--	1	--
CATEGORY 0020 TOTALS			6	13	21	--
TOTALS			12	13	28	2

TRAFFIC CONTROL ITEMS

CATEGORY	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	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS NO.	643.1051 TRAFFIC CONTROL SIGNS PCMS WITH CELLULAR COMMUNICATIONS DAY
0010	--	PRIOR TO CONSTRUCTION	7	--	--	--	--	--	--	--	--	--	--	--	--	3	21
	F1	EB/WB PASSING LANE CLOSURES	14	89	1,246	2	28	4	56	27	378	4	56	20	280	--	--
	F2	EB DRIVING LANE CLOSURE	6	45	270	1	6	2	12	14	84	2	12	10	60	--	--
STAGE F1/F2 SUBTOTALS					1,516		34		68		462		68		340		21
	1	WB PASSING LANE CLOSURES	1	77	77	2	2	4	4	27	27	4	4	20	20	--	--
	B1	EB/WB PASSING LANE CLOSURES	12	89	1,068	2	24	4	48	27	324	4	48	20	240	--	--
	B2	EB/WB DRIVING LANE CLOSURE	13	89	1,157	2	26	4	52	27	351	4	52	20	260	--	--
	B1/B2	BASS LAKE RD NORTH/SOUTH	25	--	--	14	350	28	700	--	--	--	--	12	300	--	--
STAGE 1/B1/B2 SUBTOTALS					2,302		402		804		702		104		820		--
	2	WB PASSING LANE CLOSURE	20	202	4,040	12	240	24	480	14	280	2	40	38	760	1	20
	2	EB PASSING LANE CLOSURE	10	202	2,020	12	120	24	240	14	140	2	20	38	380	--	--
STAGE 2 SUBTOTALS					6,060		360		720		420		60		1,140		20
	3	WB DRIVING LANE CLOSURE	25	202	5,050	12	300	24	600	14	350	2	50	38	950	1	25
	3	ADV. WARNING WIDTH RESTRICTIONS	25	--	--	--	--	--	--	--	--	--	--	65	1,625	--	--
STAGE 3 SUBTOTALS					5,050		300		600		350		50		2,575		25
	4	WB PASSING LANE CLOSURE	10	202	2,020	12	120	24	240	14	140	2	20	38	380	--	--
STAGE 4 SUBTOTALS					2,020		120		240		140		20		380		--
CATEGORY 0010 TOTALS					16,948		1,216		2,432		2,074		302		5,255		66

3

TYPE II SIGNS AND SUPPORTS

CATEGORY	SIGN NUMBER	SIGN CODE	SIGN DIMENSION W X H IN		IN	SIGN MESSAGE	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	637.2220 SIGNS TYPE II REFLECTIVE SH SF	637.2230 SIGNS TYPE II REFLECTIVE F SF
0010	2-1	W14-1	30	X	30	DEAD END	--	--	1	--	--
	2-4	D1-61	60	X	15	CNOSSEN LN (RT ARROW)	--	1	1	--	--
	3-3 / 3-4	--	--	X	--	ONE WAY (LT ARROW) / ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY	--	--	1	--	--
	3-5 / 3-6	--	--	X	--	ONE WAY (RT ARROW) / STOP / DIVIDED HIGHWAY / ONE WAY (LT ARROW)	--	--	1	--	--
CATEGORY 0010 TOTALS							--	1	4	--	--
0020	1-1	W14-1	30	X	30	DEAD END	--	--	1	--	6.25
	1-3	R2-1	24	X	30	SPEED LIMIT 45	--	1	--	--	--
	1-4	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-5	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-6	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-7	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-20	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-21	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-22	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-23	W5-56	18	X	18	END OF ROAD MARKER (RED)	1	--	--	2.25	--
	1-26	W14-1	30	X	30	DEAD END	--	--	1	--	6.25
	1-27	W14-2	30	X	30	NO OUTLET	--	--	1	--	6.25
	3-1	R5-1A	36	X	24	WRONG WAY	--	1	--	--	--
	3-2	R5-1	30	X	30	DO NOT ENTER	--	1	--	--	--
	3-7	R4-7	24	X	30	KEEP LEFT/RIGHT SYMBOL	--	1	--	--	--
	3-8	R5-1	30	X	30	DO NOT ENTER	--	1	--	--	--
	3-9	R5-1A	36	X	24	WRONG WAY	--	1	--	--	--
CATEGORY 0020 TOTALS							8	6	3	18.00	18.75
TOTALS							8	7	7	18.00	18.75

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	LOCATION	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH SOLID YELLOW LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH SOLID WHITE LF	646.9000 MARKING REMOVAL LINE 4-INCH LF
0010	F1	EB/WB PASSING LANE CLOSURES	--	800	200
	F2	EB DRIVING LANE CLOSURE	--	800	200
STAGE F1/F2 SUBTOTALS			--	1,600	400
	1	WB PASSING LANE CLOSURES	800	--	--
	B1	EB/WB PASSING LANE CLOSURES	800	--	--
	B2	EB/WB DRIVING LANE CLOSURE	800	--	--
STAGE 1/B1/B2 SUBTOTALS			2,400	--	--
	2	WB PASSING LANE CLOSURE	--	--	330
	2	EB PASSING LANE CLOSURE	--	--	--
STAGE 2 SUBTOTALS			--	--	330
	3	WB DRIVING LANE CLOSURE	--	--	170
STAGE 3 SUBTOTALS			--	--	170
	4	WB PASSING LANE CLOSURE	--	800	--
STAGE 4 SUBTOTALS			--	800	--
CATEGORY 0010 TOTALS			2,400	2,400	900
				4,800	

DELINEATOR REFLECTOR ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS WHITE EACH	633.0500 DELINEATOR REFLECTORS YELLOW EACH
0010	940+18	-	952+42	LT	6	6	--
	1015+00	-	1023+00	RT	2	--	2
CATEGORY 0010 TOTALS					8	6	2
						8	
0020	920+43	-	923+50	LT	2	2	--
	921+14	-	924+50	RT	2	--	2
	920+81	-	924+50	RT	2	--	2
	921+41	-	923+50	RT	2	2	--
	1008+27	-	1014+95	RT	2	--	2
	604+58	-	611+26	LT	2	--	2
	604+59	-	611+17	RT	2	2	--
CATEGORY 0020 TOTALS					14	14	8
						22	
TOTALS					22	20	10
						30	

LONG LINE PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	646.1020 MARKING LINE EPOXY 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH SOLID WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID YELLOW LF	646.1555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 4-INCH 12.5' LINE 37.5' SKIP WHITE LF	646.3555 MARKING LINE GROOVED CONTRAST PERMANENT TAPE 8-INCH SOLID WHITE LF
0010	903+55	-	905+20	LT	--	165	--	--	--	--
	905+20	-	940+00	LT&RT	--	--	3,575	3,758	875	--
	940+00	-	957+50	LT&RT	--	--	1,545	1,720	438	--
	957+50	-	1010+00	LT&RT	--	--	5,180	5,077	1,312	--
	1010+00	-	1054+93	LT&RT	--	--	4,435	4,000	1,125	--
	1062+93	-	1064+58	LT	--	165	--	--	--	--
	WB TRAFFIC CONTROL			CL	200	--	--	--	--	--
	EB TRAFFIC CONTROL			CL	200	--	--	--	--	--
CATEGORY 0010 TOTALS					400	330	14,735	14,555	3,750	--
					730		29,290			
0020	920+81	-	924+50	RT	--	--	--	365	--	--
	921+41	-	923+95	RT	--	--	250	--	--	--
	604+58	-	611+26	LT	--	--	--	630	--	300
	604+59	-	611+17	RT	--	--	535	--	--	300
	1008+27	-	1014+95	RT	--	--	--	630	--	300
CATEGORY 0020 TOTALS					--	--	785	1,625	--	900
					--		2,410			
TOTALS					400	330	15,520	16,180	3,750	900
					730		31,700			

CRASH CUSHION ITEMS

CATEGORY	STATION	OFFSET	614.0800 CRASH CUSHIONS PERMANENT EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	1023+50	RT	1	2.5	OM-3L	TL-3	BIDIRECTIONAL	R/L	CONCRETE BARRIER
	1057+59	RT	1	2.5	OM-3L	TL-3	BIDIRECTIONAL	R/L	CONCRETE BARRIER
CATEGORY 0010 TOTALS			2						

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	614.2300 MGS GUARDRAIL 3 LF	614.2330 MGS GUARDRAIL 3 K LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH	613.1100.S CABLE BARRIER TYPE 1 LF	613.1200.S CABLE BARRIER END TERMINAL TYPE 1 EACH
0010	942+30	-	952+42	LT	138	825	1	1	--	--
	1010+43	-	1023+11	RT	--	--	--	--	1,270	2
CATEGORY 0010 TOTALS					138	825	1	1	1,270	2

WATER

CATEGORY	LOCATION	624.0100 MGAL
0010	PROJECT	25
CATEGORY 0010 TOTAL		25
0020	PROJECT	75
CATEGORY 0020 TOTAL		75
TOTAL		100

STAKING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9911.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1053-07-76) EACH	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
0010	905+20	-	1054+93	LT&RT	--	--	--	14,975	--	--
	942+30	-	952+42	LT	1,015	1,015	--	--	--	1,015
	PROJECT				--	--	--	--	1	--
CATEGORY 0010 TOTALS					1,015	1,015	--	14,975	1	1,015
0020	6+95	-	8+90	LT&RT	195	195	--	--	--	195
	19+40	-	21+15	LT&RT	175	175	--	--	--	175
	604+59	-	611+26	LT&RT	670	670	155	--	--	670
	1008+27	-	1014+95	RT	670	670	--	--	--	670
	920+81	-	924+50	RT	370	370	--	--	--	370
CATEGORY 0020 TOTALS					2,080	2,080	155	--	--	2,080
TOTALS					3,095	3,095	155	14,975	1	3,095

SAWING

CATEGORY	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
0010	903+55			LT	8	--
	904+37			RT	3	--
	940+18	-	943+07	LT	165	--
	1009+30	-	1010+60	LT	169	--
	1033+93			RT	10	14
	1040+94			RT	10	14
	1044+94			RT	10	14
	1050+94			RT	10	14
	1054+93	-	1063+00	RT	314	--
	1057+59			RT	35	--
	1062+93	-	1064+58	LT	16	--
CATEGORY 0010 TOTALS					750	56
0020	6+95			LT&RT	23	--
	21+15			LT&RT	27	--
	920+43	-	923+50	LT	325	--
	921+14	-	924+50	RT	340	--
	1008+27	-	1014+95	RT	675	--
CATEGORY 0020 TOTALS					1,390	--
TOTALS					2,140	56

STATE OF WISCONSIN - MARATHON COUNTY
RECORDED
06-22-2021 at 8:37 AM
DEAN J. STRATZ, REGISTER OF DEEDS
DOC#: **1838786**
Pages: 1

*This document has been electronically recorded and returned to: WisDOT - NC Region - Rhinelander / WI Rapids P

TRANSPORTATION PROJECT PLAT NO: 1053-07-26-4.01

THAT PART OF PARCEL 1 OF CSM 15063 LOCATED IN PART OF THE SE1/4 OF THE NE1/4 OF AND PART OF THE SW1/4 OF THE NE1/4 SECTION 29, TOWNSHIP 28 NORTH, RANGE 10 EAST ALL LOCATED IN THE TOWN OF NORRIE, MARATHON COUNTY, WISCONSIN

RELOCATION ORDER - STH 29 WAUSAU - WITTENBERG (BASS LAKE ROAD TO CTH D, WB), MARATHON COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MARATHON COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

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

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

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

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

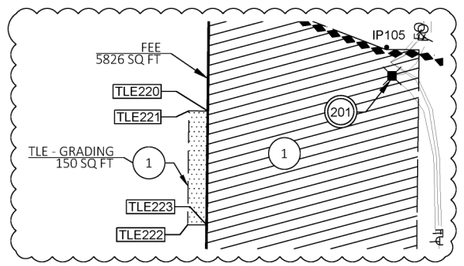
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

EXISTING ACCESS CONTROL ALONG STH 29 HAS BEEN ESTABLISHED FROM R/W PLAT 1059-16-23.

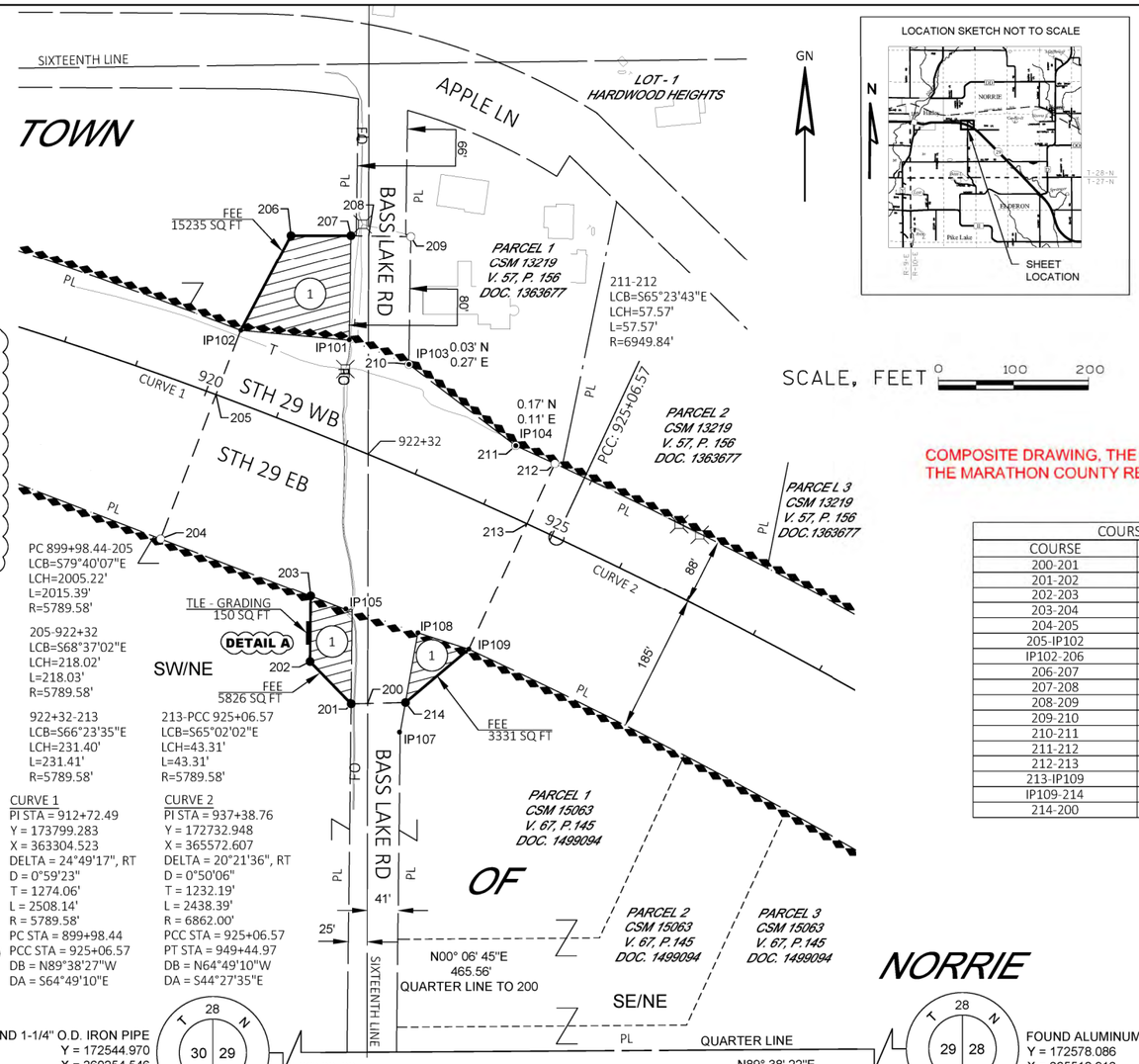
EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR STH 29: R/W PLAT 1059-16-23, CSM 13219, CSM 15063, PLAT OF HARDWOOD HEIGHTS AND EXISTING CENTERLINE.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE FOR BASS LAKED RD: R/W PLAT 1059-16-23, CSM 13219, CSM 15063, PLAT OF HARDWOOD HEIGHTS AND EXISTING CENTERLINE.



DETAIL A

STATION & OFFSET TABLE		
POINT NO.	STATION	OFFSET
200	923+65.47	306.32'
201	923+44.31	315.66'
202	922+67.85	285.66'
203	922+33.62	204.75'
204	920+11.09	206.03'
205	920+13.82	0.00'
206	920+33.07	-234.18'
207	921+04.75	-262.66'
208	921+25.87	-270.86'
209	921+76.21	-290.84'
210	922+36.11	-131.44'
211	924+06.70	-88.52'
212	924+63.40	-88.38'
213	924+63.27	0.00'
214	924+13.57	284.69'
IP102	920+14.98	-91.80'
IP109	924+62.96	185.16'



GN

SCALE, FEET 0 100 200

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1053-07-26-4.01
AMENDMENT NO:___

COMPOSITE DRAWING, THE ORIGINAL IS ON FILE AT THE MARATHON COUNTY REGISTER OF DEEDS OFFICE

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	S88° 40' 07"W	22.10'
201-202	N44° 19' 09"W	78.44'
202-203	N00° 35' 22"E	87.30'
203-204	N68° 57' 49"W	214.62'
204-205	N21° 02' 10"E	206.05'
205-IP102	N21° 02' 10"E	91.81'
IP102-206	N27° 50' 53"E	143.59'
206-207	N90° 00' 00"E	80.00'
207-208	S89° 04' 23"E	23.56'
208-209	S89° 04' 23"E	56.44'
209-210	S00° 55' 37"W	171.06'
210-211	S52° 46' 55"E	179.05'
211-212	SEE CURVE DATA	
212-213	S24° 50' 31"W	88.38'
213-IP109	S24° 50' 31"W	185.16'
IP109-214	S49° 57' 50"W	110.24'
214-200	S88° 40' 07"W	50.51'

(201) WITTENBERG TELEPHONE COMPANY (COMMUNICATION)
VOL 8 PG 210 DOC 577368 - PAR 1
VOL 157 PG 643 DOC 647159 - PAR 1
VOL 732 PG 374 DOC 1068155 - PAR 1

(202) ANR PIPELINE COMPANY (GAS)
VOL 59 PG 553 DOC 600801 - PAR 1

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

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

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25 UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

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

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
201	WITTENBERG TELEPHONE COMPANY (COMMUNICATION)	RELEASE OF RIGHTS
202	ANR PIPELINE COMPANY (GAS)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	OWNERS	INTERESTS REQUIRED	R/W SQ FT REQUIRED NEW	EXISTING	TOTAL	TLE SQ FT
1	HARVEY FRAAZA, GAIL FRAAZA	FEE/TLE	24392	---	24392	150

TLE STATION & OFFSET TABLE			
POINT NO.	STATION	OFFSET	
TLE220	922+46.87	236.38'	
TLE221	922+42.04	238.25'	
TLE222	922+53.81	266.06'	
TLE223	922+58.66	264.18'	

EXISTING MONUMENTS			
POINT	Y (NORTHING)	X (EASTING)	DESCRIPTION
IP101	173520.602	364180.984	0.625" IRON ROD
IP102	173533.334	364036.160	0.625" IRON ROD
IP103	173487.932	364260.728	1.25" IRON ROD
IP104	173379.491	364403.154	1.25" IRON ROD
IP105	173160.949	364176.361	0.625" IRON ROD
IP107	172997.257	364247.961	0.625" IRON ROD
IP108	173129.300	364272.494	0.625" IRON ROD
IP109	173107.466	364340.460	0.625" IRON ROD

emcs.inc

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

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

SIGNATURE: Kevin C. Boyer DATE: 06/14/2021
PRINT NAME: KEVIN C. BOYER
REGISTRATION NUMBER: S-2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

SIGNATURE: Brent L Stella DATE: 6-22-21
PRINT NAME: BRENT L. STELLA

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\TPP\040101-RP.DWG
APPRAISAL PLAT DATE : 06/14/2021
PLOT DATE : 6/14/2021 10:16 AM PLOT BY : DREW NELSON PLOT NAME : PLOT SCALE : 1 IN:200 FT

1053-07-26-4.01

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

CURVE NO. 1
PI STA = 912+72.49
Y = 173799.28
X = 363304.52
PC STA = 899+98.44
Y=173807.27
X=362030.49
PT STA = 925+06.57
Y=173257.21
X=364457.51
DELTA = 24°49'17"
D = 0°59'23"
T = 1274.06'
L = 2508.14'
R = 5789.58'
EXISTING SE= 3.30%
PROPOSED SE= 3.30%
SE TRANSITION (T)= 239'
RO (RUNOFF)= 149'

N

AUDRAY A BRINKMAN
JAYNE A HETZEL

NATALIE M BRESKE
JEAN M WEAVER

WAYNE A PATTERSON SR
JUDY A PATTERSON

DIANNE M JOHNSON
ROBERT E JOHNSON SR

JAYNE A HETZEL

R/W

APPLE LN

PC: 899+98.44

BEGIN SHOULDER REPLACEMENT
STA 903+55
MATCH EXISTING
SAWCUT REQ'D

END SHOULDER REPLACEMENT
STA 905+20
MATCH EXISTING
SAWCUT REQ'D

BEGIN PROJECT
STA 905+20
Y=173,780.526
X=362,551.191
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

894 896 898 S89° 38' 27"E 900 CONC PVT 902 904 906 CURVE 1 908

STH 29 WB

BEGIN SHOULDER REPLACEMENT
STA 904+37
MATCH EXISTING
SAWCUT REQ'D

STH 29 EB

END SHOULDER REPLACEMENT
STA 905+20
MATCH EXISTING
SAWCUT REQ'D

END CONSTRUCTION, 56' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

DRIVEWAY CROSSOVER
2" REMOVING ASPHALTIC SURFACE MILLING
2"-3.75" ASPHALTIC SURFACE

WAYNE J POZORSKI

JAMES D KLEMAN
LENORE A KLEMAN

5 5

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 46	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 3:08 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

CURVE NO. 1
PI STA = 912+72.49
Y = 173799.28
X = 363304.52
PC STA = 899+98.44
Y=173807.27
X=362030.49
PT STA = 925+06.57
Y=173257.21
X=364457.51
DELTA = 24°49'17"
D = 0°59'23"
T = 1274.06'
L = 2508.14'
R = 5789.58'
EXISTING SE= 3.30%
PROPOSED SE= 3.30%
SE TRANSITION (T)= 239'
RO (RUNOFF)= 149'

CP/BM #500
Y = 173,671.02
X = 363,533.27
ELEV = 1313.13
NGS HATLEY GPS
(DO NOT DISTURB)

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

CENTURYLINK
(COMMUNICATION)

ASTREA
(COMMUNICATION)

ANR PIPELINE COMPANY
(GAS/PETROLEUM)

WISCONSIN PUBLIC SERVICE CORPORATION
(ELECTRIC)

END CONSTRUCTION
STA 21+15
MATCH EXISTING
SAWCUT REQ'D

BEGIN CONSTRUCTION
STA 6+95
MATCH EXISTING
SAWCUT REQ'D

CLOSE BASS LAKE RD (SEE SIDE ROAD PLAN AND PROFILE, SEE INTERSECTION DETAILS)

CROSS SECTION MATCHLINE

BP: 18+19.79

EP: 10+64.80

APPLE LN

BASS LAKE RD (N)

BASS LAKE RD(S)

STH 29 WB

STH 29 EB

910 912 914 916 918 CURVE 1 920 922 924

NATALIE M BRESKE
JEAN M WEAVER

KYLE CORNWELL
RACHEL CORNWELL

GAIL FRAAZA
HARVEY FRAAZA

GEORGE R BLAREK

BASE AGG PE

BASE AGG FE

PROPOSED R/W

R/W

CAUTION

N

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 47	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02

PLOT DATE : 7/25/2022 3:09 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

CURVE NO. 1
PI STA = 912+72.49
Y = 173799.28
X = 363304.52
PC STA = 899+98.44
Y=173807.27
X=362030.49
PT STA = 925+06.57
Y=173257.21
X=364457.51
DELTA = 24°49'17"
D = 0°59'23"
T = 1274.06'
L = 2508.14'
R = 5789.58'
EXISTING SE= 3.30%
PROPOSED SE= 3.30%
SE TRANSITION (T)= 239'
RO (RUNOFF)= 149'

CURVE NO. 2
PI STA = 937+38.76
Y = 172732.95
X = 365572.61
PC STA = 925+06.57
Y=173257.21
X=364457.51
PT STA = 949+44.97
Y=171853.48
X=366435.64
DELTA = 20°21'36"
D = 0°50'06"
T = 1232.19'
L = 2438.39'
R = 6862.00'
EXISTING SE= 2.90%
PROPOSED SE= 2.90%
SE TRANSITION (T)= 221'
RO (RUNOFF)= 131'

APPLE LN

R/W

GERALD WANTA III
TIFFANY WANTA

DONALD TESMER
EUGENIA TESMER

DANIEL L CNOSSEN
DIANE CNOSSEN

JACOB J STRASSBURGER
TANEAL M STRASSBURGER

CP/BM #510
Y = 172,971.34
X = 365,156.00
ELEV = 1322.97
BRASS CAP IN CONCRETE (NGS NOVAK)
(DO NOT DISTURB)

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

PCC: 925+06.57

5

STH 29 WB

926 928 930 932 CURVE 2 934 936 938

CURVE 1

CAUTION

STH 29 EB

ANR PIPELINE
COMPANY
(GAS/PETROLEUM)

ASTREA
(COMMUNICATION)

CENTURYLINK
(COMMUNICATION)

WISCONSIN PUBLIC SERVICE CORPORATION
(ELECTRIC)

T 28 N
R 29 28 E
10

(DO NOT DISTURB)

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

PROPOSED R/W

HARVEY FRAAZA
GAIL FRAAZA

WILLIAM MACRIS
CRYSTAL MACRIS

BASS LAKE RD(S)

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 48	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\1053076\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 3:09 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

CNOSSEN LN

R/W

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

WISCONSIN PUBLIC SERVICE
CORPORATION
(ELECTRIC)

END CONSTRUCTION, 104' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

2-1
DEAD END
MOVE

REMOVING AND REPLACING CURB & GUTTER
(SEE CONSTRUCTION DETAILS AND INTERSECTION
DETAILS FOR ADDITIONAL INFORMATION)

2-2
ROAD TEST 550122
MOVE

NURSERY

CURVE NO. 2
PI STA = 937+38.76
Y = 172732.95
X = 365572.61
PC STA = 925+06.57
Y=173257.21
X=364457.51
PT STA = 949+44.97
Y=171853.48
X=366435.64
DELTA = 20°21'36"
D = 0°50'06"
T = 1232.19'
L = 2438.39'
R = 6862.00'
EXISTING SE= 2.90%
PROPOSED SE= 2.90%
SE TRANSITION (T)= 221'
RO (RUNOFF)= 131'

CELESTE D THATCHER
MARK A THATCHER

STA 942+30 - STA 952+42, LT
REMOVING GUARDRAIL

STA 942+30 - STA 952+42, LT
MGS GUARDRAIL
MGS GUARDRAIL 3 K (STA 943+63 - STA 951+88, LT)
MGS GUARDRAIL TERMINAL EAT
MGS GUARDRAIL TERMINAL EAT TYPE 2

STATION & OFFSET TABLE (GUARDRAIL)			
POINT	STATION	OFFSET	REMARKS
A	942+09.17	41.00' LT	PAVED SHLDR TAPER
B	942+29.70	40.95' LT	BEGIN TYPE 2 TERMINAL
C	943+67.95	34.00' LT	BEGIN TAPER
D	951+91.53	34.00' LT	POST #9
E	952+41.54	36.00' LT	POST #1
F	952+73.79	32.77' LT	PAVED SHLDR TAPER

ANDREW P KING
CRAIG D KING

2-3
SHRP
MOVE

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

2-4
Cnossen Ln
MOVE

PT: 949+44.97

5

5

940 942 944 CURVE 2 946 948 950 952 954

STH 29 WB

S44° 27' 35"E

INTERSECTION CROSSOVER
2" REMOVING ASPHALTIC SURFACE MILLING
2"-3.75" ASPHALTIC SURFACE

END CONSTRUCTION, 62' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

STH 29 EB

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

FO

WILLIAM MACRIS
CRYSTAL MACRIS

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 49	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:10 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

ANDREW P KING
CRAIG D KING

MICHAEL C KURSZEWSKI
CAROL A KURSZEWSKI

CENTRAL STATE STORAGE LLC

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

CP/BM #509
Y = 170,678.67
X = 367,684.74
ELEV = 1299.09
FENO 1000 W/ALUMINUM CAP SET

R/W

R/W

STA 957+50
MAINLINE PROFILE TRANSITION
(SEE CONSTRUCTION DETAILS)

BASE AGG
FE

BASE AGG
FE

5

5

956 958 960 962 STH 29 WB 964 966 968 970

INL

STH 29 EB

MAINTENANCE CROSSOVER
2" REMOVING ASPHALTIC SURFACE MILLING
2" ASPHALTIC SURFACE

END CONSTRUCTION, 57' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

FO FO FO FO FO

R/W

R/W

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

ANTHONY D MAY

ANTHONY D MAY

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 50	E

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

PHYLLIS A KASPRAK
KAY M MILLER

KAY MILLER
DOUGLAS KASPRAK

CENTRAL STATE STORAGE LLC

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

R/W

R/W

5

5

BASE AGG
FE

BASE AGG
FE

970 972 974 976 STH 29 WB 978 980 982 984

INL

INL

582 S44° 27' 35"E 584

STH 29 EB

Y = 169559.465
X = 368602.514

BP: 581+00.00

R/W

R/W

T 28 N
R 28 E
33
10

(DO NOT DISTURB)

ANTHONY D MAY

GARY L BESSETTE

BERNARD F ANDRASCHKO
GAIL A ANDRASCHKO

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 51	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06

PLOT DATE : 7/25/2022 3:10 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

KAY MILLER
DOUGLAS KASPRAK

ELAINE S BRYLOW

JACINTA F KASPRAK

WITTENBERG TELEPHONE COMPANY
(COMMUNICATION)

R/W

SIGN

SIGN

SEPTIC

R/W

5

5

BASE AGG
FE

STH 29 WB

986 988 990 992 994 996 998 1000

DRIVEWAY CROSSOVER
2" REMOVING ASPHALTIC SURFACE MILLING
2" ASPHALTIC SURFACE

586 588 590 592 594 596 598 600

STH 29 EB

END CONSTRUCTION, 57' RT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

CENTURYLINK
(COMMUNICATION)

R/W

GUY

R/W

WISCONSIN PUBLIC SERVICE CORPORATION
(ELECTRIC)

WITTENBERG CABLE TV INC
(COMMUNICATION)

BERNARD F ANDRASCHKO
GAIL A ANDRASCHKO

NATHANIAL R BAUER
JAIME E NEIR

NATHANIAL R BAUER
JAIME E NEIR

ERIC C LITZA

ERIC C LITZA

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 52	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 3:11 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

CURVE NO. 3
PI STA = 1003+17.90
Y = 168018.58
X = 370198.88
PC STA = 1000+98.32
Y=168175.31
X=370045.08
PT STA = 1005+37.43
Y=167867.90
X=370358.59
DELTA = 2°12'26"
D = 0°30'09"
T = 219.58'
L = 439.11'
R = 11399.16'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

CURVE NO. 4
PI STA = 1016+84.32
Y = 167080.85
X = 371192.82
PC STA = 1012+03.97
Y=167410.49
X=370843.42
PT STA = 1021+64.12
Y=166723.27
X=371513.56
DELTA = 4°46'33"
D = 0°29'51"
T = 480.35'
L = 960.15'
R = 11519.16'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

CURVE NO. 6
PI STA = 603+19.06
Y = 167975.63
X = 370156.76
PC STA = 600+99.48
Y=168132.35
X=370002.96
PT STA = 605+38.58
Y=167824.94
X=370316.47
DELTA = 2°12'26"
D = 0°30'09"
T = 219.58'
L = 439.11'
R = 11399.16'
EXISTING SE= NC
PROPOSED SE= NC

CURVE NO. 7
PI STA = 614+16.07
Y = 167222.78
X = 370954.73
PC STA = 612+51.93
Y=167335.41
X=370835.34
PT STA = 615+80.16
Y=167105.70
X=371069.77
DELTA = 2°10'09"
D = 0°39'39"
T = 164.13'
L = 328.23'
R = 8670.00'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

ELAINE S BRYLOW
JACINTA F KASPRAK
ERIC C LITZA
MATTHEW L KLINE
KRISTINE A WENDORSKI
RHONDA L SCHULTZ
PAUL LAWRENCE

FALSTAD RD
HILLY ACRES RD
STH 29 WB
STH 29 EB
BASE AGG FE
R/W
N
SEPTIC
GUY
SIGN
OH
FO
T
W

MILL & OVERLAY THRU PE TO EDGE OF PAVED SHOULDER
ASPH PE
PC: 1000+98.32
WITTENBERG CABLE TV INC (COMMUNICATION)
WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)
PT: 1005+37.43
CONSTRUCT TURN LANES (SEE INTERSECTION DETAILS FOR ADDITIONAL INFORMATION)
REMOVING AND REPLACING CURB & GUTTER (SEE CONSTRUCTION DETAILS AND INTERSECTION DETAILS FOR ADDITIONAL INFORMATION)
END CONSTRUCTION, 110' LT
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)
STA 1010+43 - STA 1023+11, RT
CABLE BARRIER TYPE I
CABLE BARRIER END TREATMENT TYPE I
PC: 1012+03.97
WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)
WITTENBERG CABLE TV INC (COMMUNICATION)
S44° 27' 35"E
1002
CURVE 3
1004
1006
S46° 40' 00"E
1008
1010
1012
CURVE 4
1014
STA 1010+43 O/S 23' RT
STA 1010+75 O/S 21' RT
STA 1012+04 O/S 21' RT
S44° 27' 35"E
602
CURVE 6
604
606
608
610
612
614
CURVE 7
S46° 40' 00"E
PC: 600+99.48
PT: 605+38.58
PC: 612+51.93
PT: 615+80.16
WITTENBERG CABLE TV INC (COMMUNICATION)
CENTURYLINK (COMMUNICATION)
ASTREA (COMMUNICATION)
END CONSTRUCTION, 104' RT
MATCH EXISTING
SAWCUT REQ'D
WITTENBERG CABLE TV INC (COMMUNICATION)
WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)
28
T
N
33
34
R
E
10
(DO NOT DISTURB)

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 53	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 08
PLOT DATE : 7/25/2022 3:11 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

CURVE NO. 4
PI STA = 1016+84.32
Y = 167080.85
X = 371192.82
PC STA = 1012+03.97
Y=167410.49
X=370843.42
PT STA = 1021+64.12
Y=166723.27
X=371513.56
DELTA = 4°46'33"
D = 0°29'51"
T = 480.35'
L = 960.15'
R = 11519.16'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

CURVE NO. 5
PI STA = 1028+33.29
Y = 166225.12
X = 371960.38
PC STA = 1025+74.12
Y=166418.06
X=371787.32
PT STA = 1030+92.38
Y=166040.21
X=372141.98
DELTA = 2°35'29"
D = 0°30'00"
T = 259.18'
L = 518.27'
R = 11459.16'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

CURVE NO. 7
PI STA = 614+16.07
Y = 167222.78
X = 370954.73
PC STA = 612+51.93
Y=167335.41
X=370835.34
PT STA = 615+80.16
Y=167105.70
X=371069.77
DELTA = 2°10'09"
D = 0°39'39"
T = 164.13'
L = 328.23'
R = 8670.00'
EXISTING SE= RC
PROPOSED SE= RC
SE TRANSITION (T)= 180'
RO (RUNOFF)= 90'

CP/BM #508
Y = 167,055.01
X = 371,326.16
ELEV = 1282.48
BRASS CAP IN CONCRETE (NGS 5H13)
(DO NOT DISTURB)

REMOVE & REPLACE CRASH CUSHION
(SEE CONSTRUCTION DETAILS)

STA 1016+91
O/S 15' RT

STA 1021+64
O/S 15' RT

STA 1022+80
O/S 15' RT

STA 1023+11
O/S 17' RT

WISCONSIN PUBLIC SERVICE CORPORATION
(ELECTRIC)

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

PT: 615+80.16
PT: 1021+64.12
PC: 1025+74.12
PT: 1030+92.38

CURVE 4
CURVE 5
CURVE 7

S41° 53' 28"E
S44° 29' 51"E

STH 29 WB
STH 29 EB

NEAL E FALSTAD
DANIEL L FALSTAD
NEAL E FALSTAD
BARBARA FALSTAD
SHAUN C WHITED
RHONDA L SCHULTZ
WILLIAM F PARKER
SANDRA J PARKER

GUY POLE
SEPTIC
SEPTIC
W
T
FO
R/W

5 5

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 54	E

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

DANIEL L FALSTAD

ROGER M BRESKE
KAREN R BRESKE

NEAL E FALSTAD
BARBARA FALSTAD

R/W

R/W

5

PT: 1030+92.38

BASE AGG
FE

5

S44° 28' 56"E

1032 1034 1036 1038 STH 29 WB 1040 1042 1044 1046

632 S44° 29' 51"E

Y = 165807.649
X = 372345.258

STH 29 EB

ADJUSTING INLET REQ'D
(SEE CONSTRUCTION DETAILS)

EP: 634+00.00

ADJUSTING INLET REQ'D
(SEE CONSTRUCTION DETAILS)

ADJUSTING INLET REQ'D
(SEE CONSTRUCTION DETAILS)

INL

FO

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

SPRANGER CREEK

R/W

R/W

DAN L FALSTAD

WILLIAM F PARKER
SANDRA J PARKER

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 55	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\1053076\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 10

PLOT DATE : 7/25/2022 3:12 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

BARBARA A FEEHRER

SPRANGER CREEK

BARBARA A FEEHRER

R/W

SPRANGER CREEK

R/W

5

5

END PROJECT
STA 1054+93
BUTT JOINT REQ'D
(SEE CONSTRUCTION DETAILS)

1048 1050 S44° 28' 56"E 1052 STH 29 WB 1054 1056 CONC PVT 1058 1060

STH 29 EB

INL

ADJUSTING INLET REQ'D
(SEE CONSTRUCTION DETAILS)

BEGIN SHOULDER REPLACEMENT
STA 1054+93
MATCH EXISTING
SAWCUT REQ'D

REMOVE & REPLACE CRASH CUSHION
(SEE CONSTRUCTION DETAILS)

EXISTING CABLE BARRIER
(TO REMAIN)

INL

FO FO FO FO FO FO FO FO FO FO FO FO FO

ASTREA
(COMMUNICATION)
CENTURYLINK
(COMMUNICATION)

R/W

R/W

T 28 N R 10 E
34
3
T 27 N R 10 E

(DO NOT DISTURB)

SALLY A MAURUS
EDGAR A MAURUS

LEE M GILMEISTER
STACY A GILMEISTER

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 56	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 11

PLOT DATE : 7/25/2022 3:12 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND

- SLOPE INTERCEPT
- X — CLEARING AND GRUBBING
- MOVE EXISTING SIGN MOUNTED ON SINGLE POST
- X — SIGN - MOVE

N

FOUND

FOUND

CP/BM #507
Y = 163,782.42
X = 374,449.72
ELEV = 1264.41
FENO 1000 1000 W/ALUMINUM CAP SET

JODI L TESCH

R/W

R/W

BEGIN SHOULDER REPLACEMENT
STA 1062+93
MATCH EXISTING
SAWCUT REQ'D

BASE AGG
FE

END SHOULDER REPLACEMENT
STA 1064+58
MATCH EXISTING
SAWCUT REQ'D

5

5

1060 1062 1064 1066 1068 S44° 28' 56"E 1070 1072 1074

INL

END SHOULDER REPLACEMENT
STA 1063+00
MATCH EXISTING
SAWCUT REQ'D

FO FO FO FO FO FO

R/W

R/W

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 57	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 12

PLOT DATE : 7/25/2022 3:13 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:100 FT

LEGEND
SLOPE INTERCEPT
X CLEARING AND GRUBBING

TLE
R/W
BASE AGG FE
PROPOSED R/W
WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)
WITTENBERG TELEPHONE COMPANY (ELECTRIC)
CENTURYLINK (COMMUNICATION)
ASTREA (COMMUNICATION)
CROSS SECTION MATCHLINE
(SEE INTERSECTION DETAIL FOR CUL-DE-SAC LAYOUT)
BP: 5+00.00
EP: 10+64.80
STA 10+64.80 = STA 922+45.12
Y=173,363.072
X=364,218.466
922+00
923+00
CAUTION
5+00
N0° 35' 22"E
6+00
7+00
8+00
9+00
10+00
BASS LAKE RD
Y = 172798.321
X = 364212.655
BEGIN CONSTRUCTION STA 6+95
MATCH EXISTING
SAWCUT REQ'D
END OF PAVEMENT STA 8+90
REMOVING FENCE
REMOVING CURB & GUTTER
ANR PIPELINE CO. (GAS)
STH 29 EB
STH 29 WB

VCL = 90.00
K = 46.96
STA 6+95.00 EL 1304.51
STA 8+90.00 EL 1308.50
FINISHED PROFILE
END OF PAVEMENT STA 8+90
2.57%
0.65%
BEGIN CONSTRUCTION STA 6+95
EXISTING GROUND
VPC STA 7+03.02 VPC EL 1304.57
VPI STA 7+48.02 VPI EL 1304.86
VPT STA 7+93.02 VPT EL 1306.01
EXISTING GROUND ELEVATION AT R/L
FINISHED PROFILE ELEVATION AT R/L

	5+00	5+50	6+00	6+50	7+00	7+50	8+00	8+50	9+00	9+50	10+00	10+50
EXISTING GROUND ELEVATION AT R/L	1304.08	1304.21	1304.35	1304.54	1304.55	1304.87	1305.11	1305.20	1306.19	1306.29	1307.47	1307.45	1308.95	1310.49	1310.36
FINISHED PROFILE ELEVATION AT R/L															

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: BASS LAKE RD S	SHEET 58	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050202-PP.DWG
LAYOUT NAME - 01
PLOT DATE : 7/25/2022 3:14 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND
SLOPE INTERCEPT
X CLEARING AND GRUBBING

STA 18+19.79 = STA 920+53.13
Y=173,433.879
X=364,040.020

BP: 18+19.79

N47° 11' 27"E

19+00

20+00

21+00

22+00

BEGIN OF PAVEMENT STA 19+40

CROSS SECTION MATCHLINE

(SEE INTERSECTION DETAIL FOR CUL-DE-SAC LAYOUT)

CURVE NO. 1
PI STA = 20+68.53
Y = 173602.91
X = 364222.50
PC STA = 20+48.29
Y=173589.15
X=364207.65
PT STA = 20+86.55
Y=173623.15
X=364222.84
DELTA = 46°13'41"
D = 120°48'48"
T = 20.24'
L = 38.26'
R = 47.43'

CURVE 1

N0° 57' 46"E

END CONSTRUCTION STA 21+15 MATCH EXISTING SAWCUT REQ'D

PC: 20+48.29

PT: 20+86.55

REMOVING CURB & GUTTER

PROPOSED R/W

R/W

WITTENBERG TELEPHONE COMPANY (COMMUNICATION)

WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)

BASE AGG PE

BASS LAKE RD

APPLE LN

STH 29 EB

STH 29 WB

921+00

922+00

Y = 173836.567
X = 364226.423

EP: 23+00.00

N

5

5

1320
1316
1312
1308
1304
1300
1296
1292

VCL = 115.00
K = 41.22

STA 19+40.00
EL 1310.43

STA 20+86.55
EL 1307.45

STA 21+15.00
EL 1307.22

FINISHED PROFILE

-3.51%

-0.72%

-0.79%

BEGIN OF PAVEMENT STA 19+40

EXISTING GROUND

END CONSTRUCTION STA 21+15

VPC STA 19+51.70
VPC EL 1310.02

VPI STA 20+09.20
VPI EL 1308.00

VPT STA 20+66.70
VPT EL 1307.59

EXISTING GROUND ELEVATION AT R/L

FINISHED PROFILE ELEVATION AT R/L

1311.46 1302.48 1302.75 1310.08 1303.24 1308.61 1307.64 1307.74 1307.34 1307.34 1306.94 1306.57 1306.22 1306.14

18+00 18+50 19+00 19+50 20+00 20+50 21+00 21+50 22+00 22+50 23+00

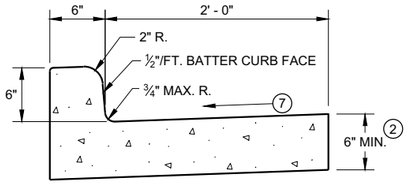
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: BASS LAKE RD N	SHEET 59	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\050202-PP.DWG
LAYOUT NAME - 02
PLOT DATE : 7/25/2022 3:14 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

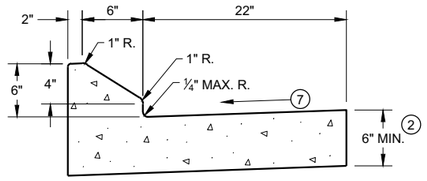
Standard Detail Drawing List

08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-06	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B47-03A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B52-03A	CABLE BARRIER TYPE 1 LAYOUT
14B52-03B	CABLE BARRIER TYPE 1 LAYOUT
14B52-03C	CABLE BARRIER TYPE 1 LAYOUT
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C08-21B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-07C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C26-04	END-OF-ROADWAY SIGNING
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D12-10B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D40-04B	TRAFFIC CONTROL, FULL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D40-04D	TRAFFIC CONTROL, PARTIAL LANE SHIFT MULTILANE DIVIDED 50 MPH AND GREATER
15D43-02	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS

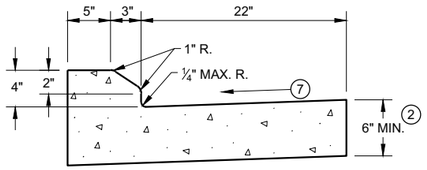
6



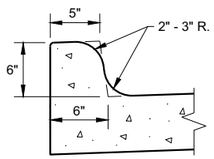
TYPES A (1) & D



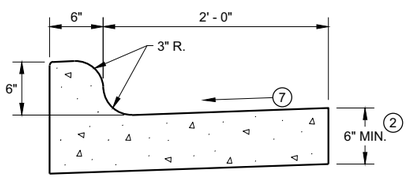
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

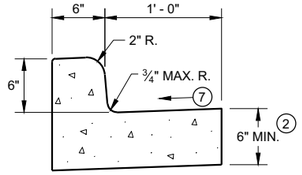


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



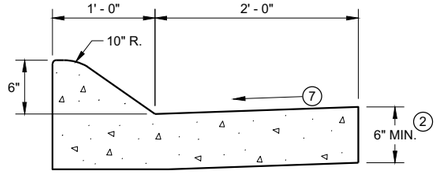
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

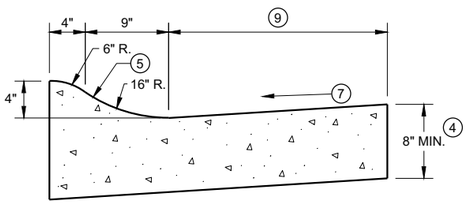
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

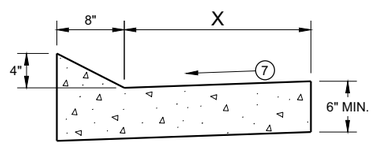
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

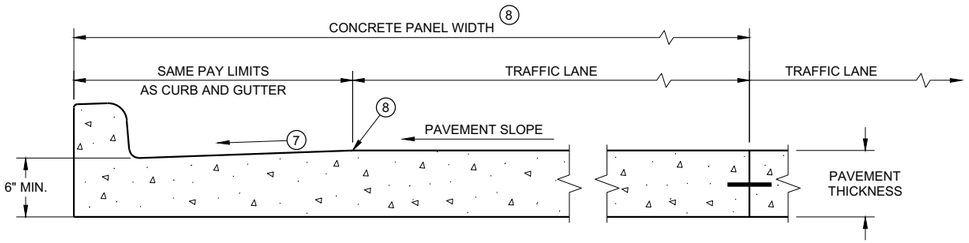


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

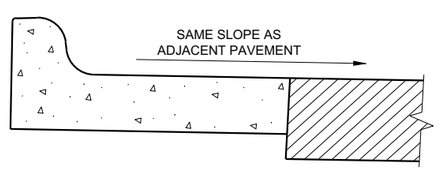
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

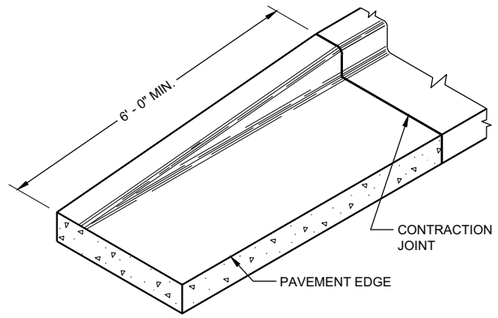
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

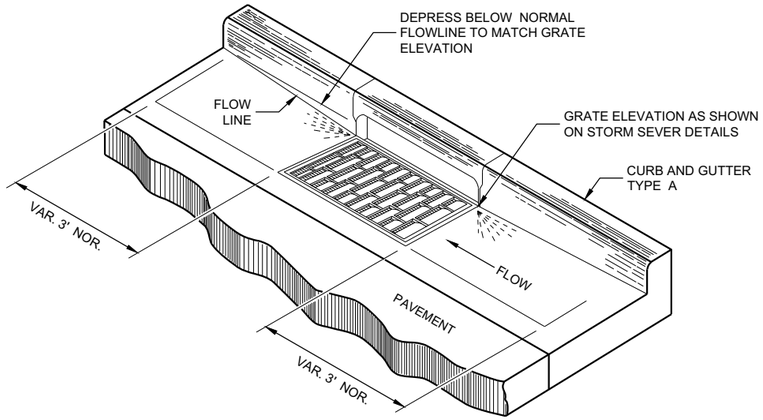
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

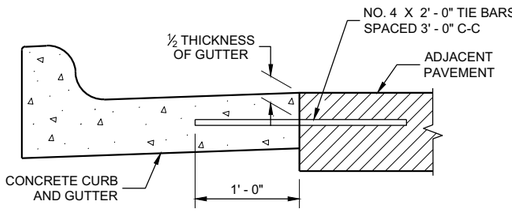
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

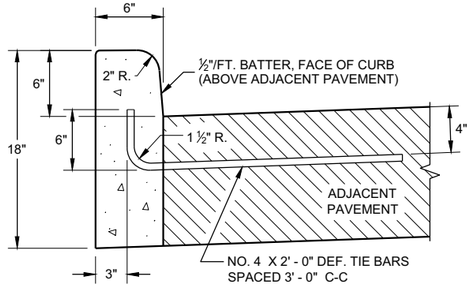
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

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

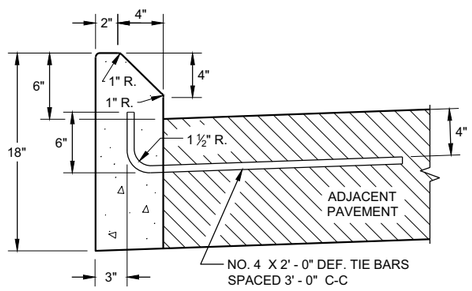
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

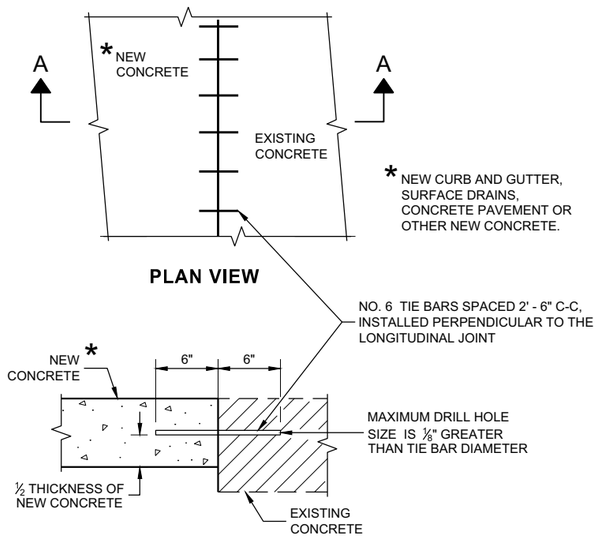


TYPES A (1) & D



TYPES G (1) & J

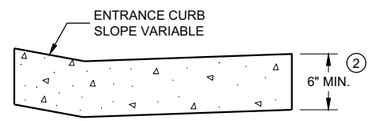
CONCRETE CURB



PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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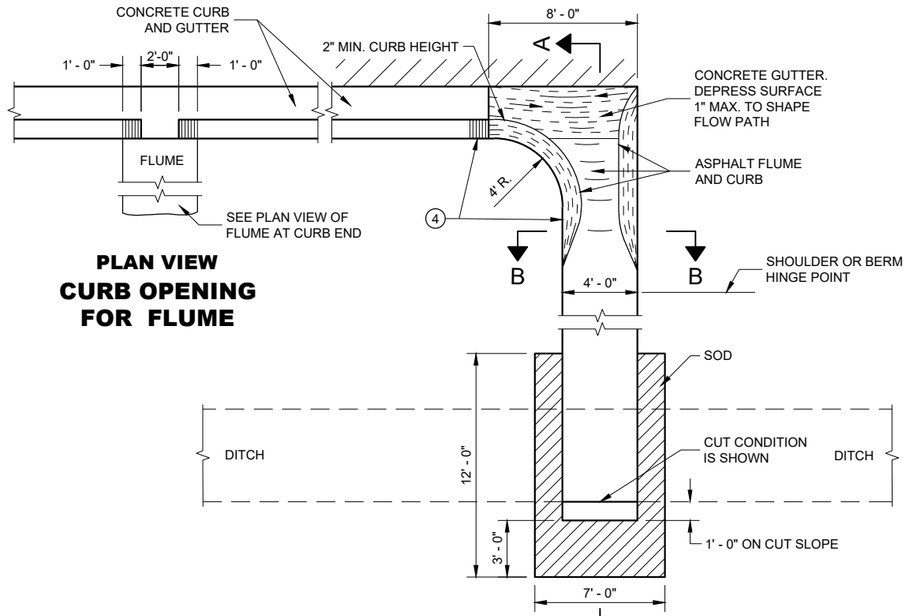
SDD08D01 - 22b

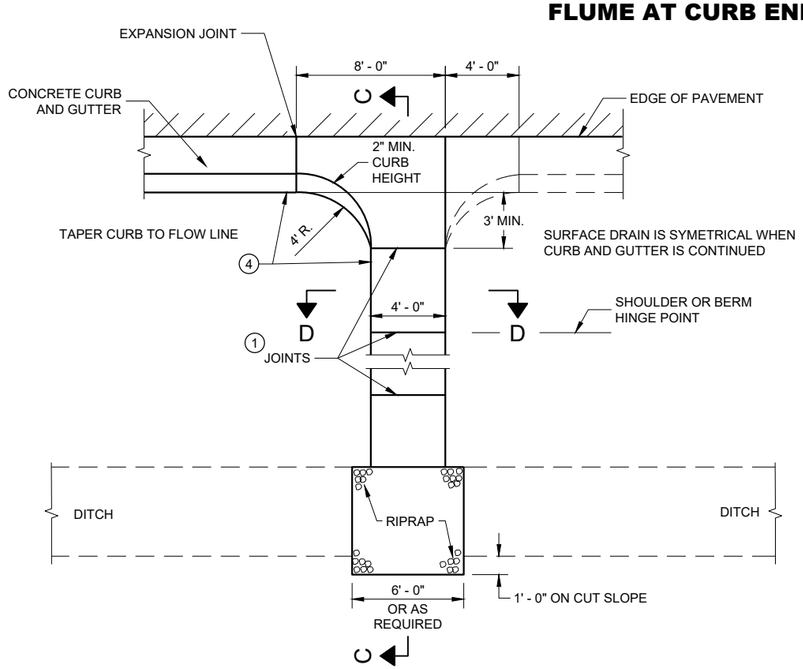
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



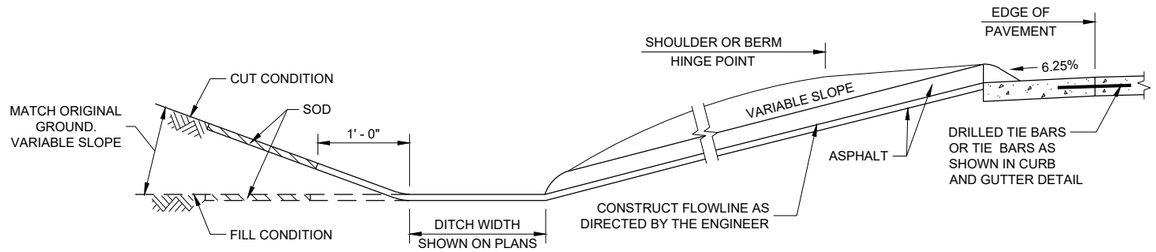
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

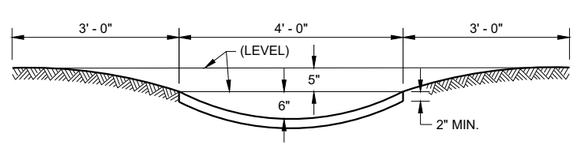
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

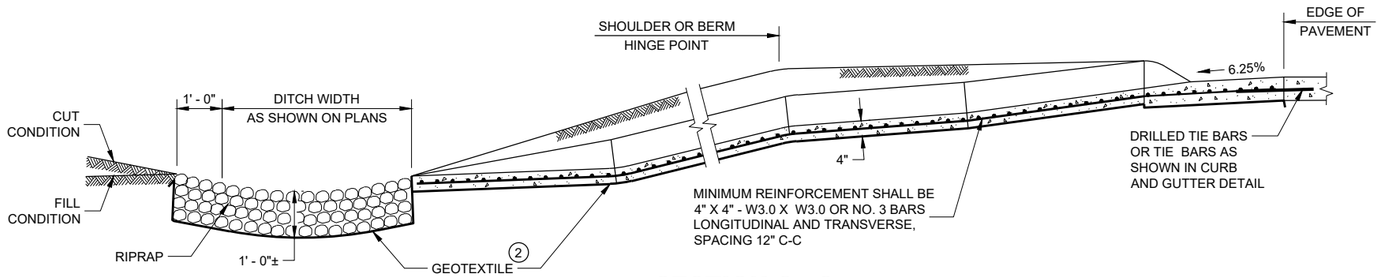
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



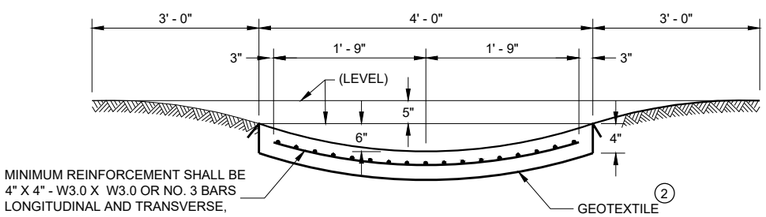
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

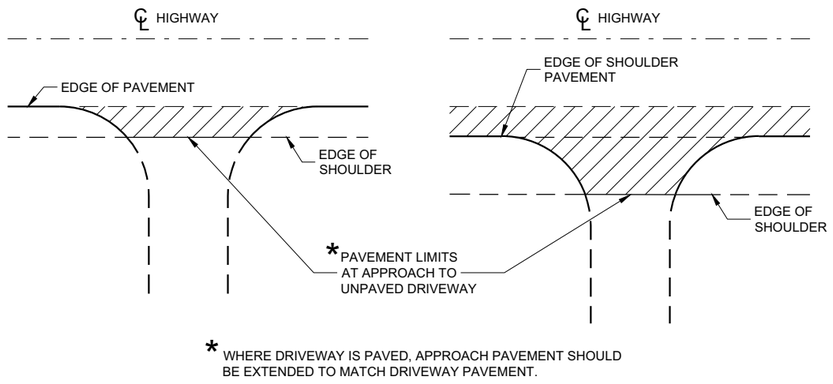
APPROVED
November 2021
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08D04 - 06

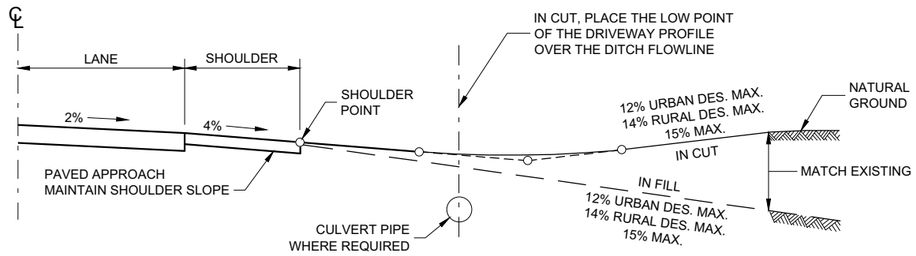
SDD 08D04 - 06



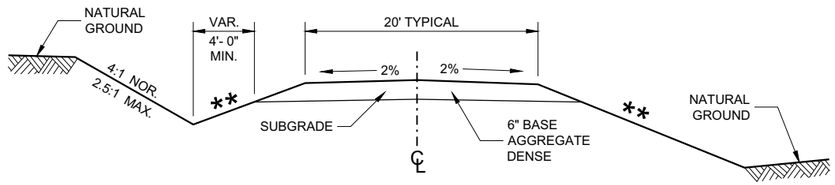
PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)



TYPICAL DRIVEWAY PROFILES

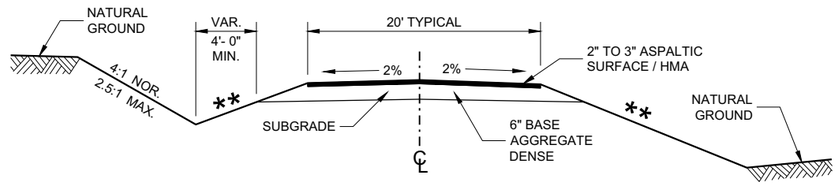


IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE AGGREGATE SURFACE

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



IN CUT **IN FILL**

TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE ASPHALTIC SURFACE

6

SDD 08D21 - 01

DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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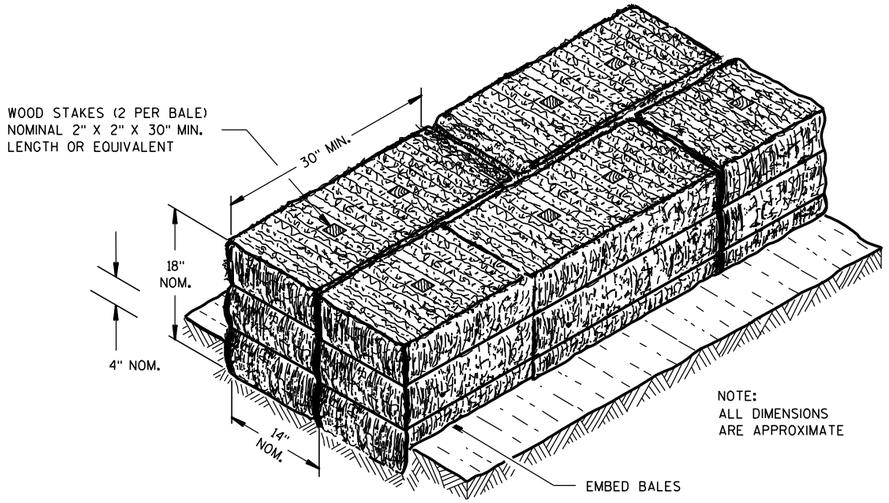
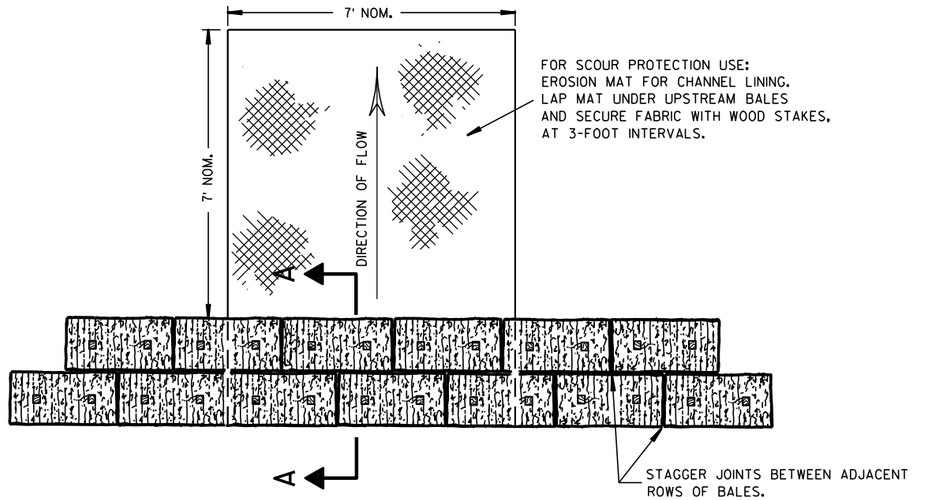
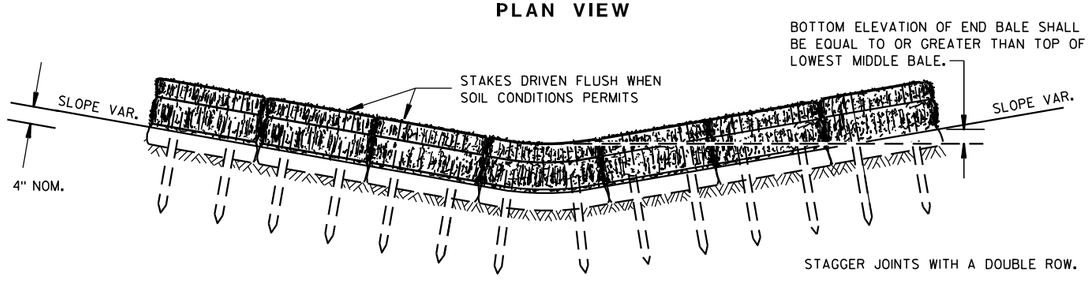
SDD 08D21 - 01



SECTION A-A



PLAN VIEW



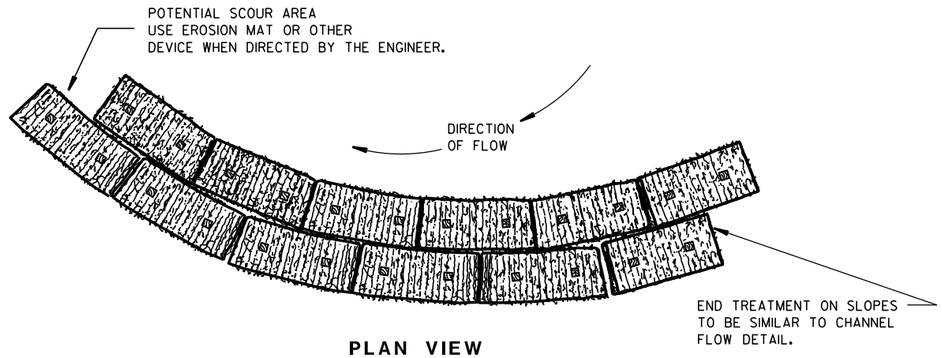
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

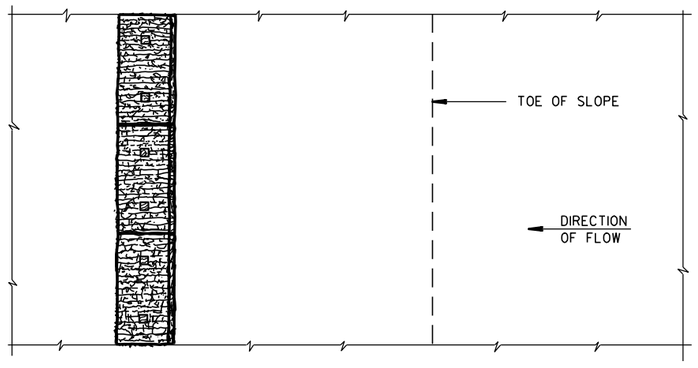
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

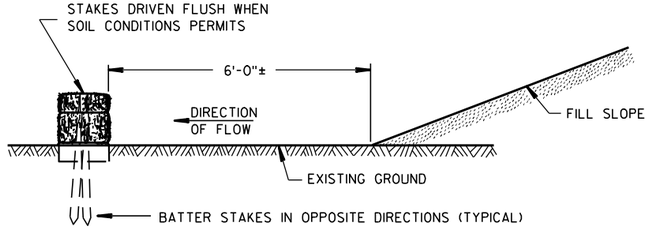


PLAN VIEW

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

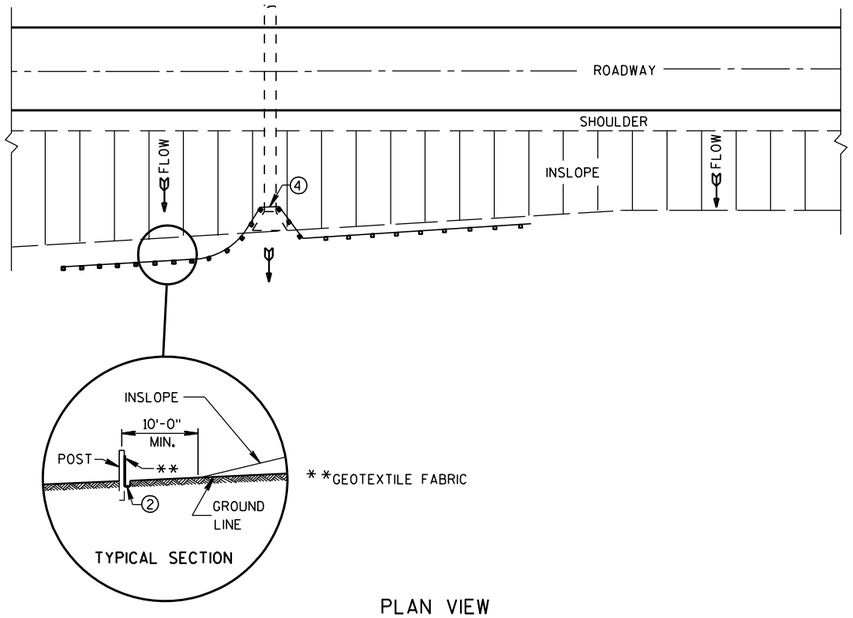
FHWA

6

S.D.D. 8 E 8-3

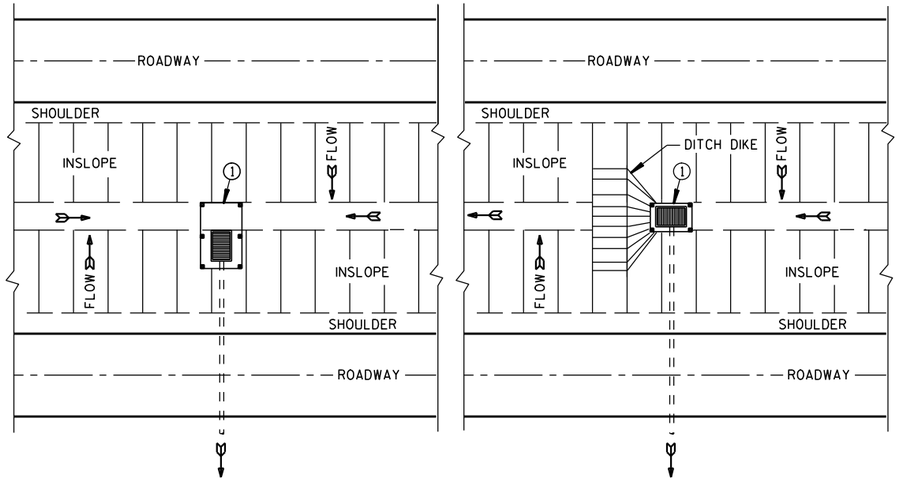
6

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.

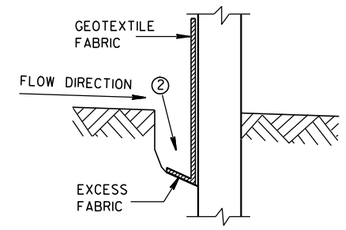
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

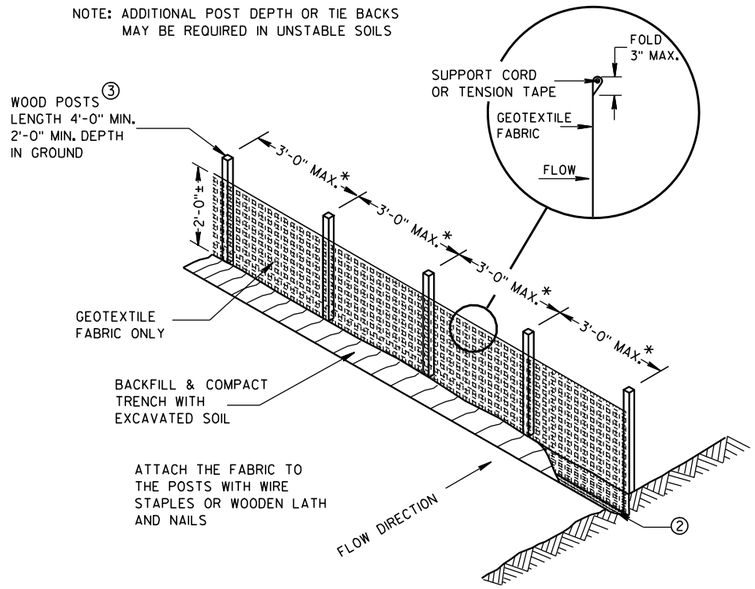
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

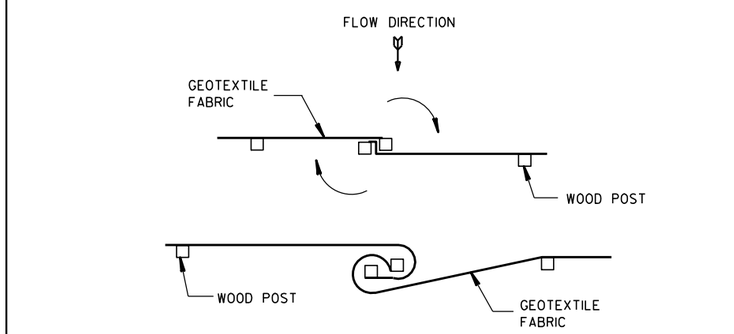
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



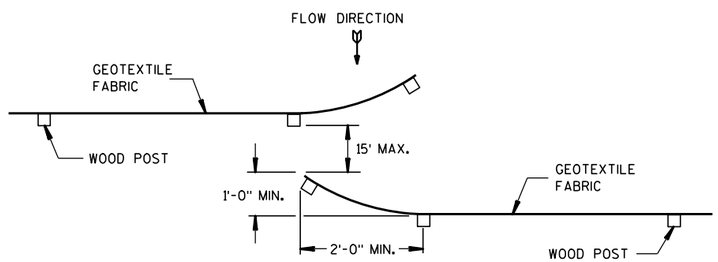
TRENCH DETAIL



SILT FENCE

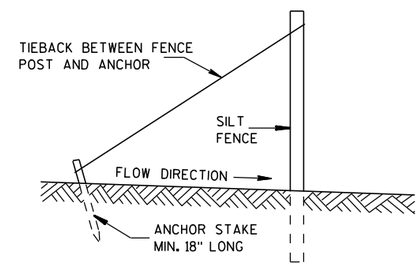


TWIST METHOD



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

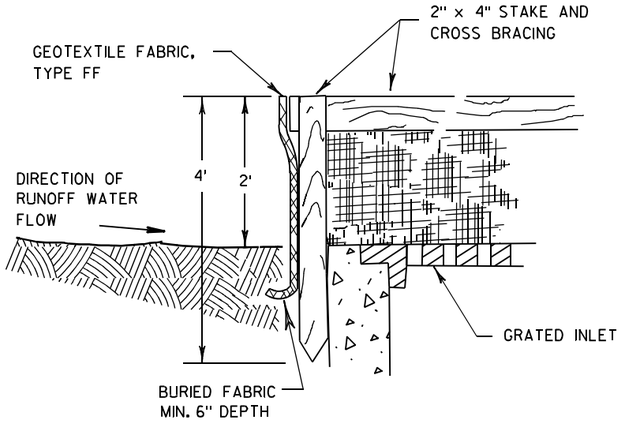
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

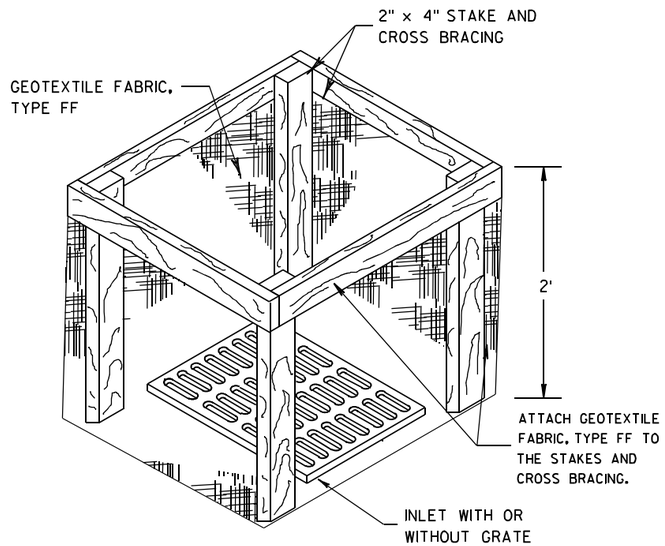
6

S.D.D. 8 E 9-6

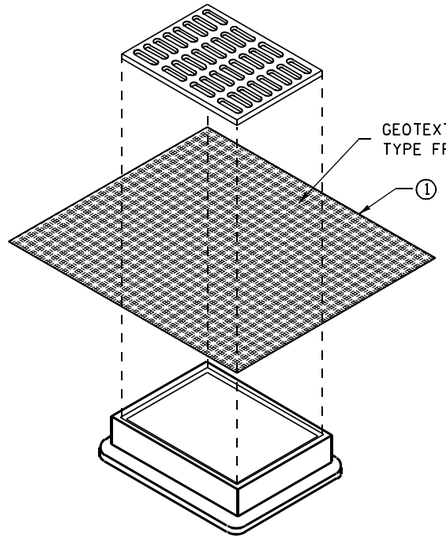
6

S.D.D. 8 E 9-6



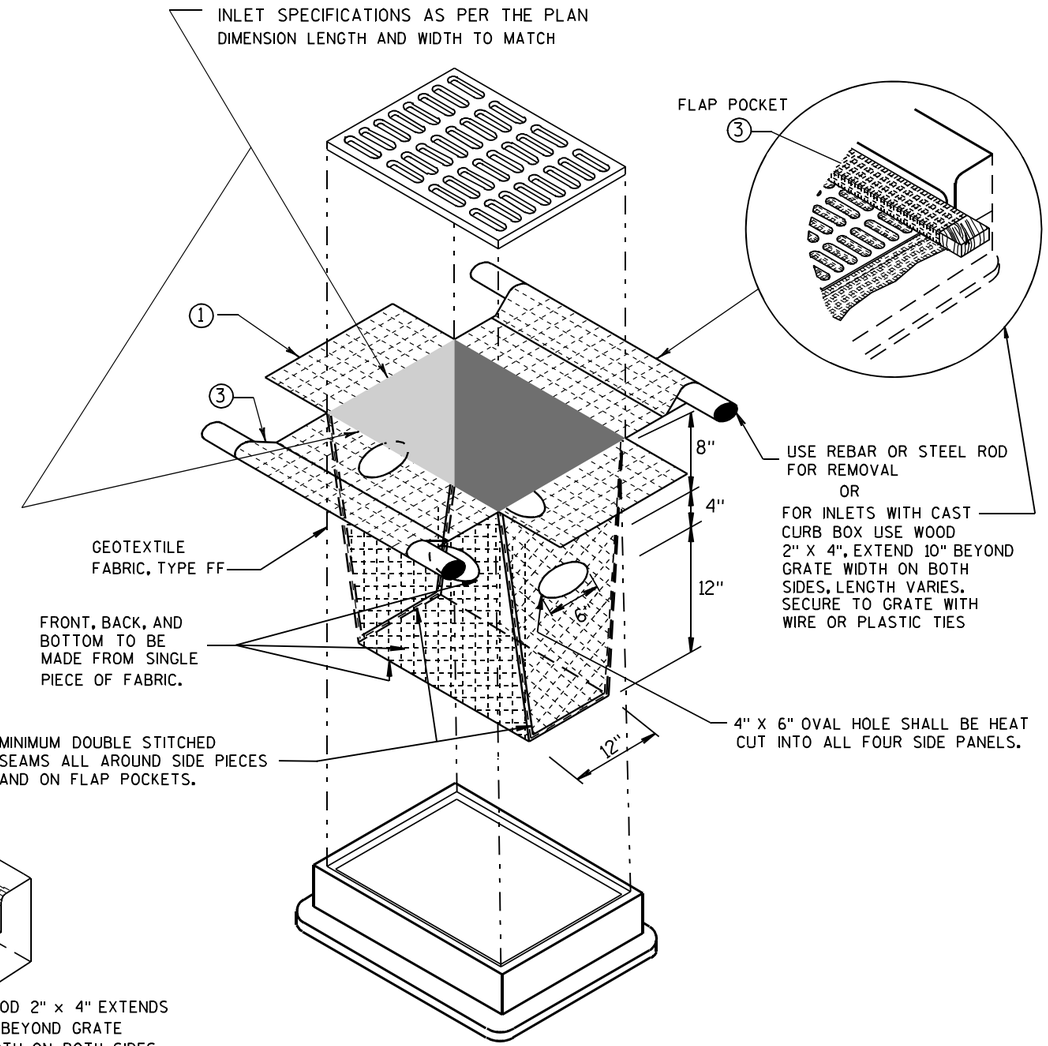


INLET PROTECTION, TYPE A



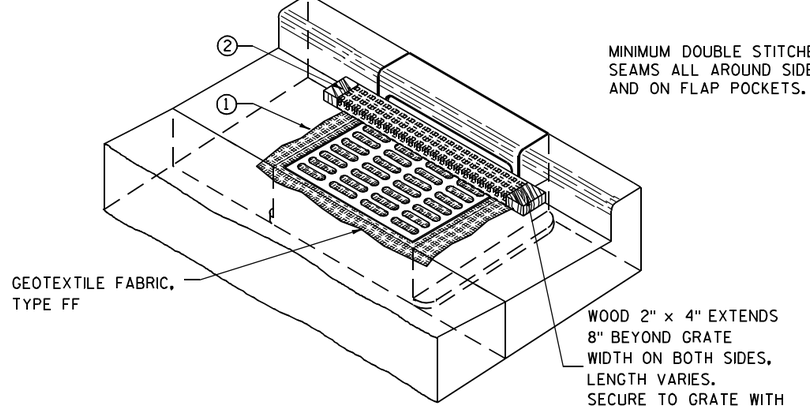
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.

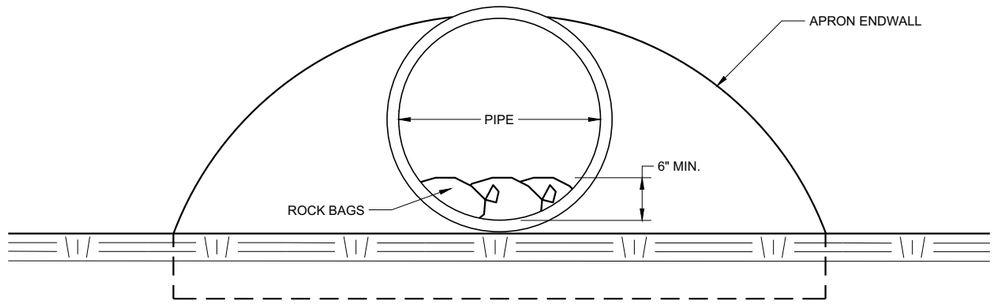
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

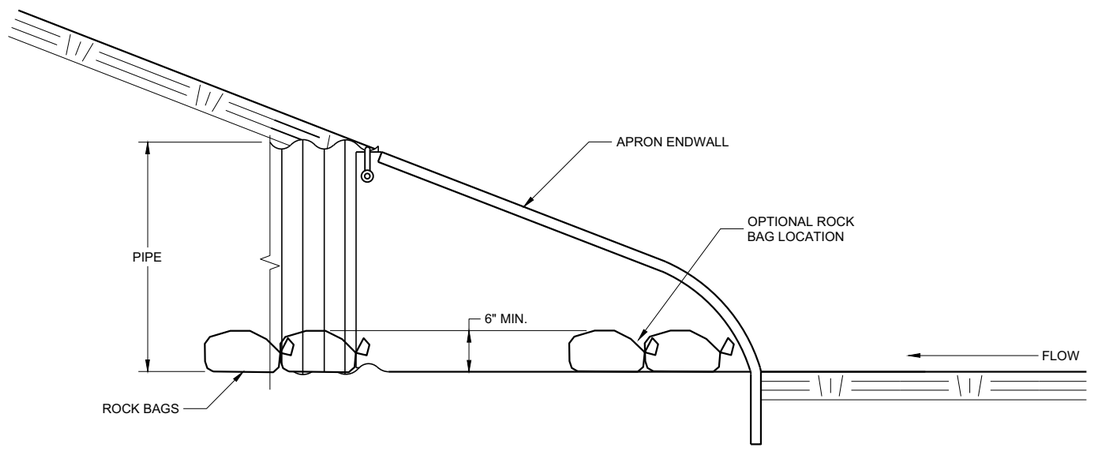
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



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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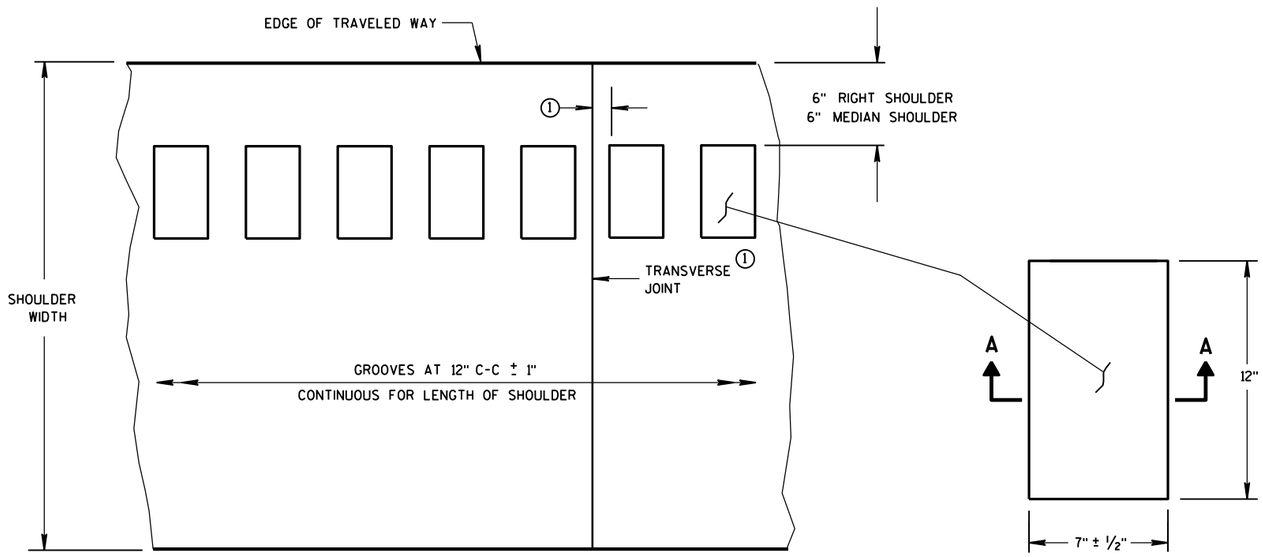
SDD 08E15 - 01



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

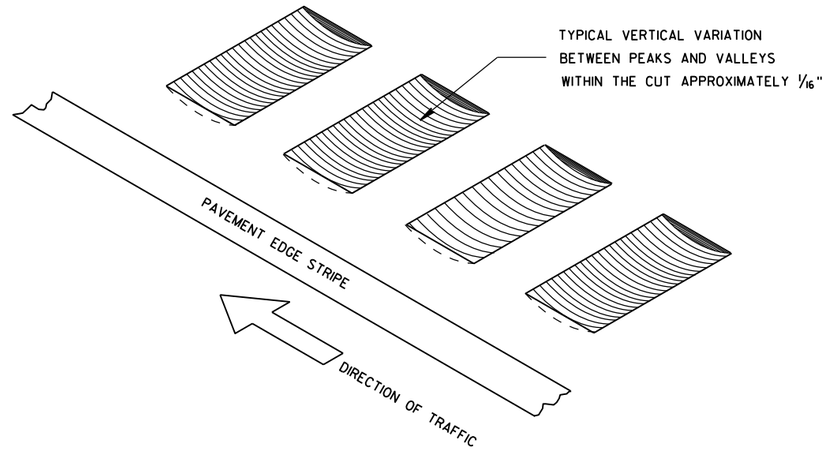
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

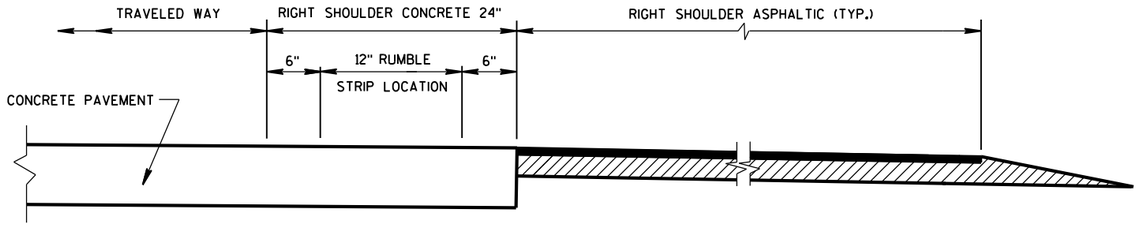
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

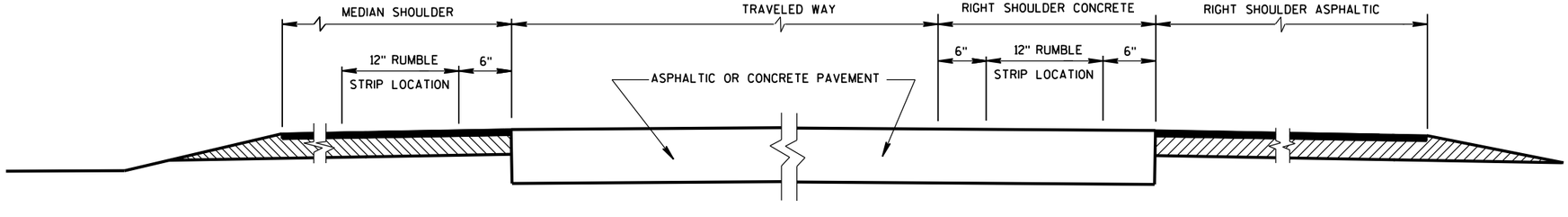
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



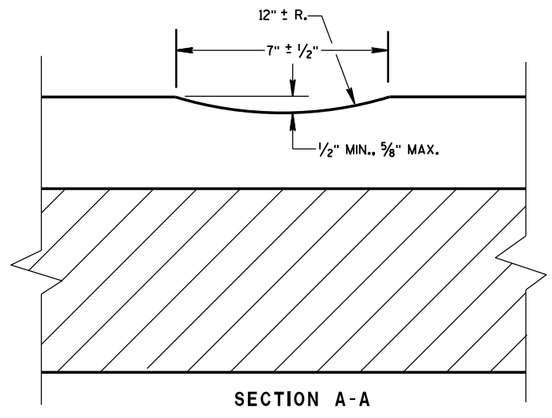
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 A 5-5a

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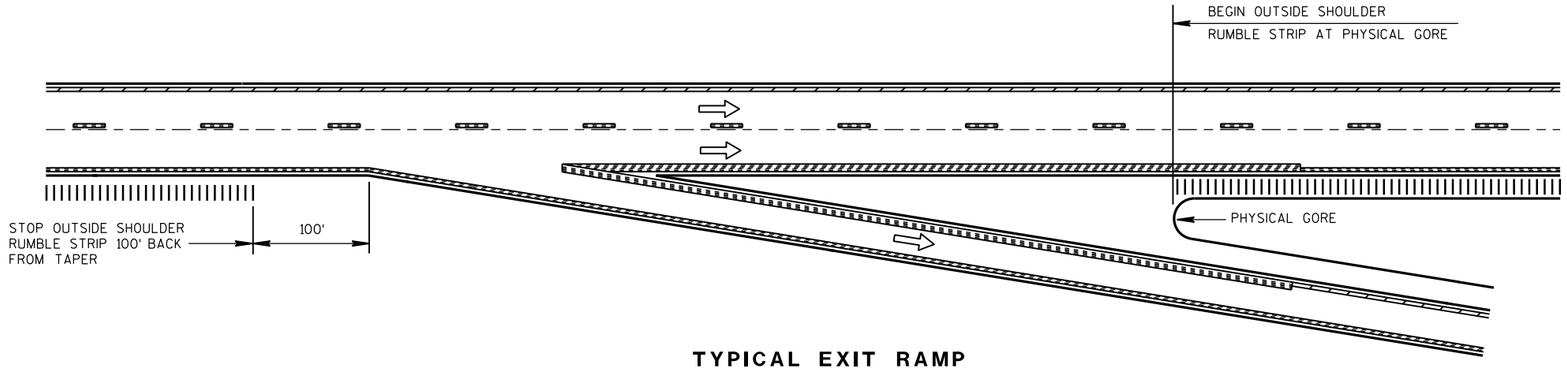
S.D.D. 13 A 5-5a



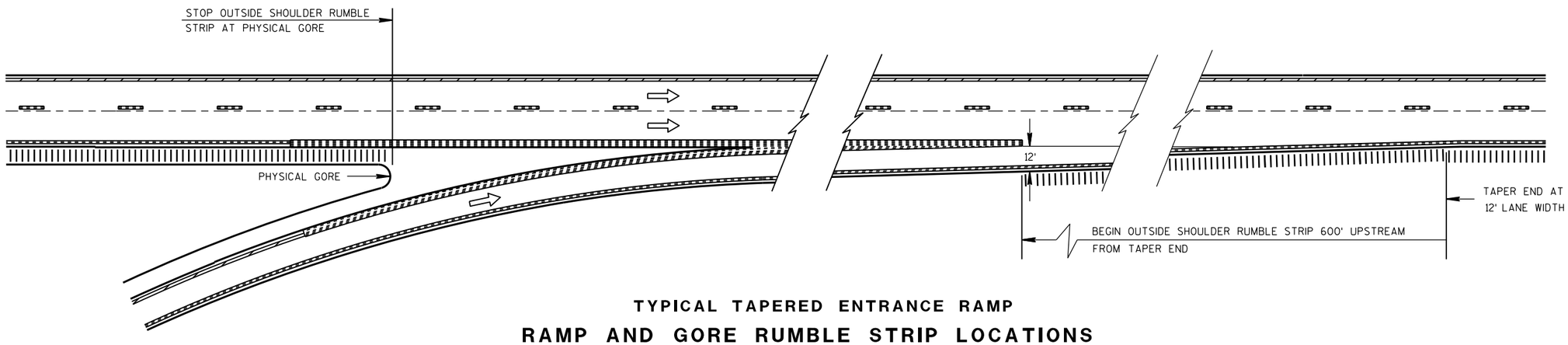
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

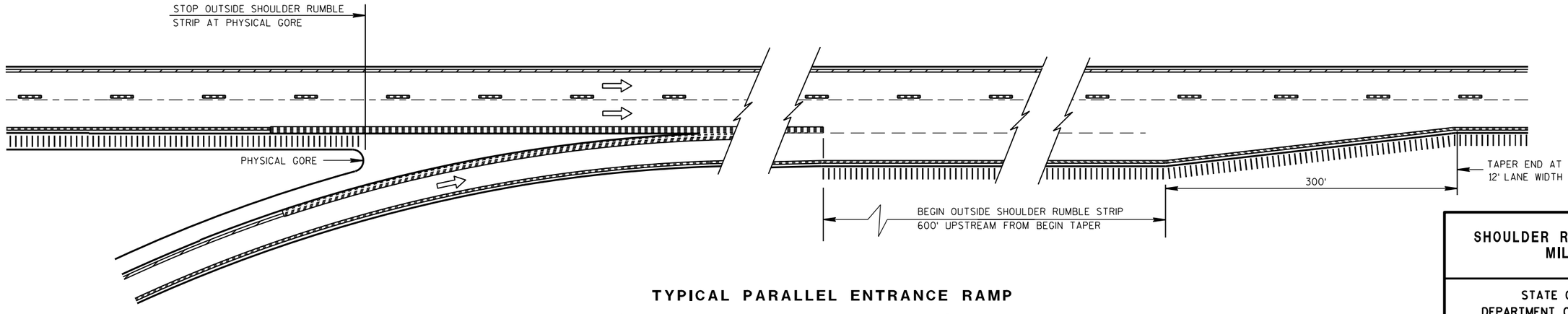
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 13 A 5-5b

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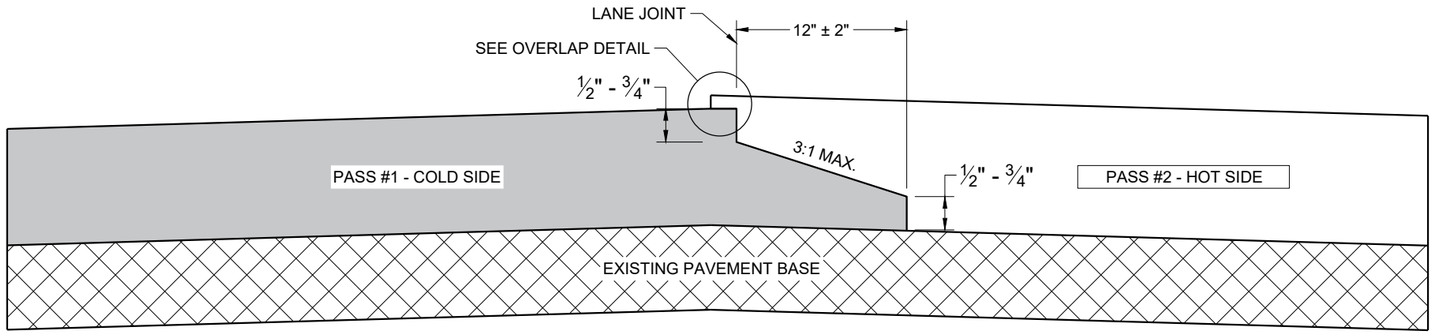
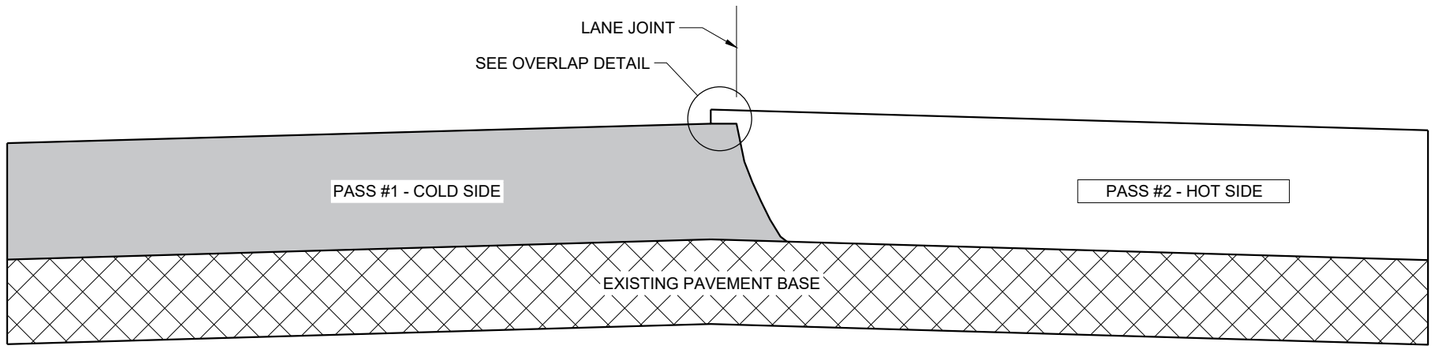
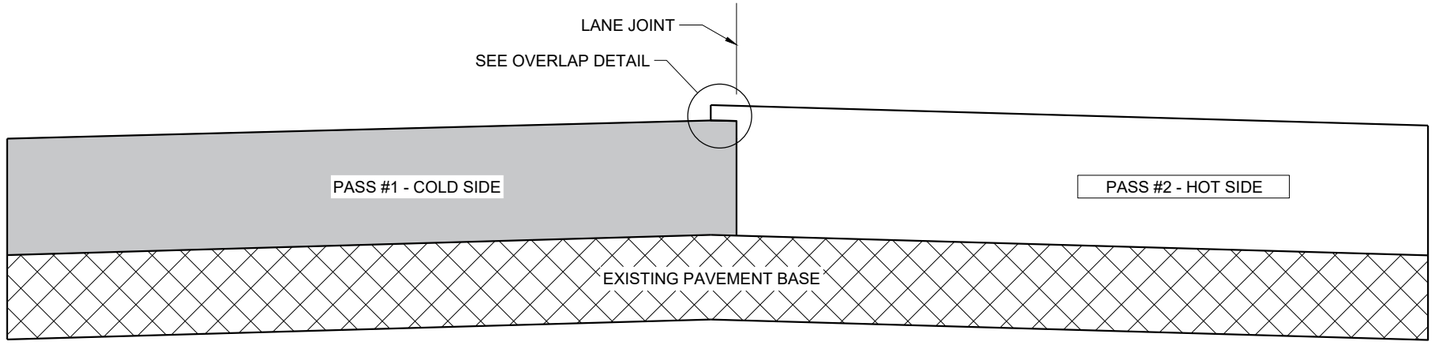
S.D.D. 13 A 5-5b



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

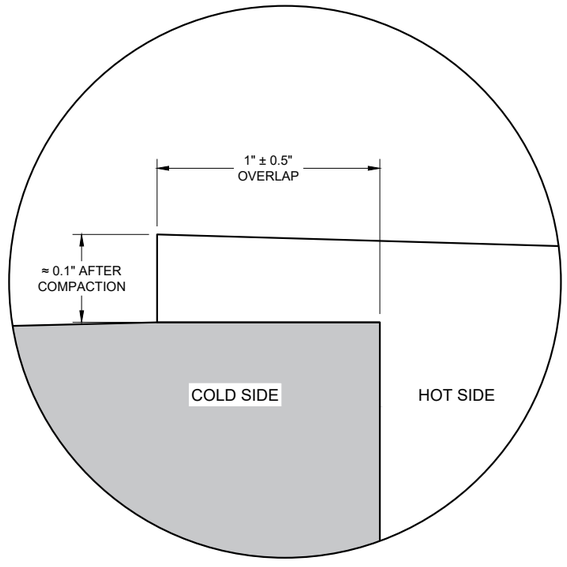
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA

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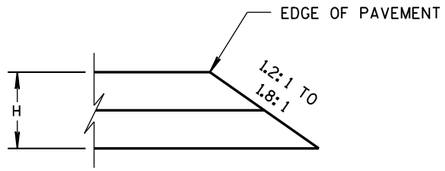
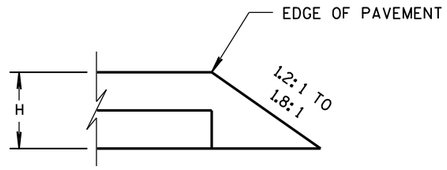
SDD 13C19 - 03



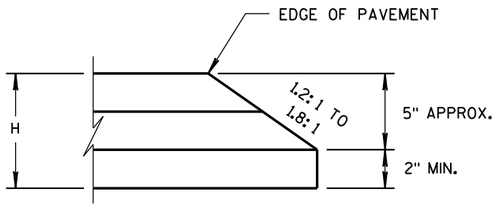
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



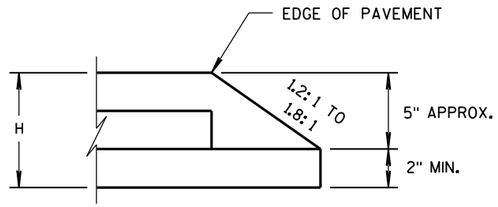
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

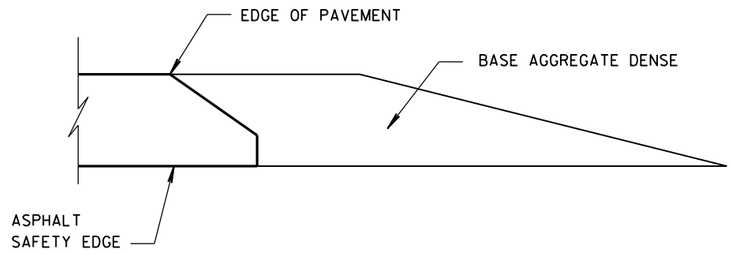
FOR H GREATER THAN 5"



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

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

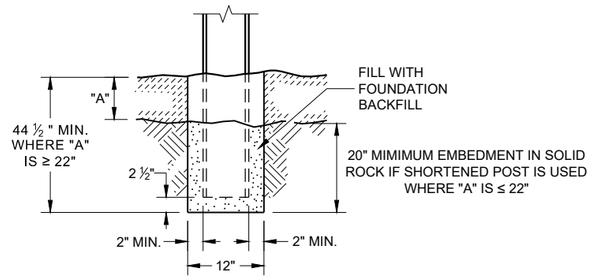
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

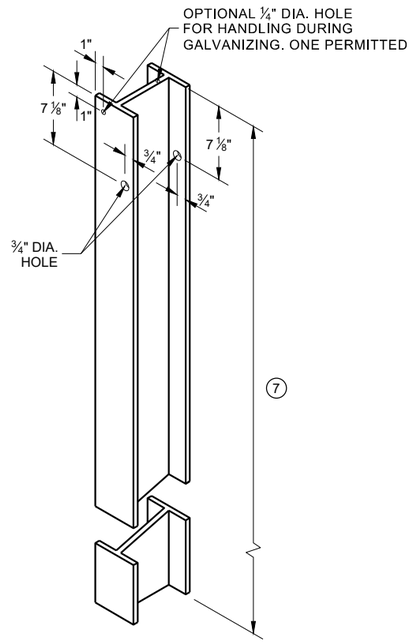
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

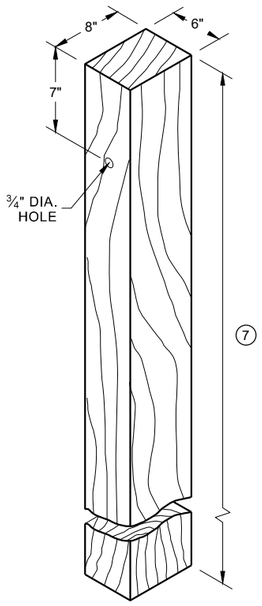
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



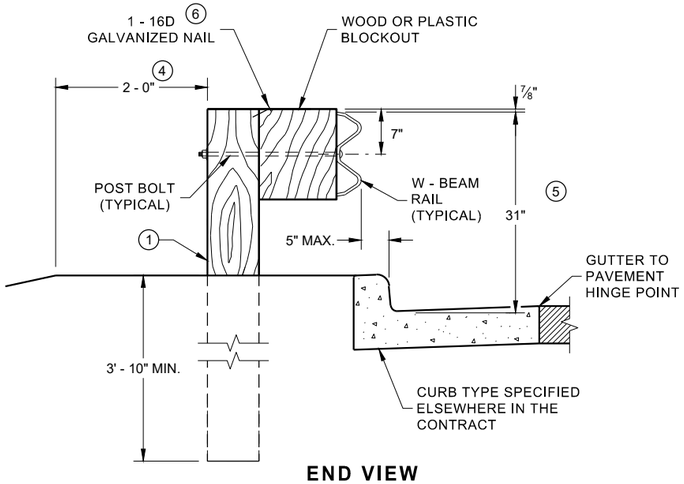
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



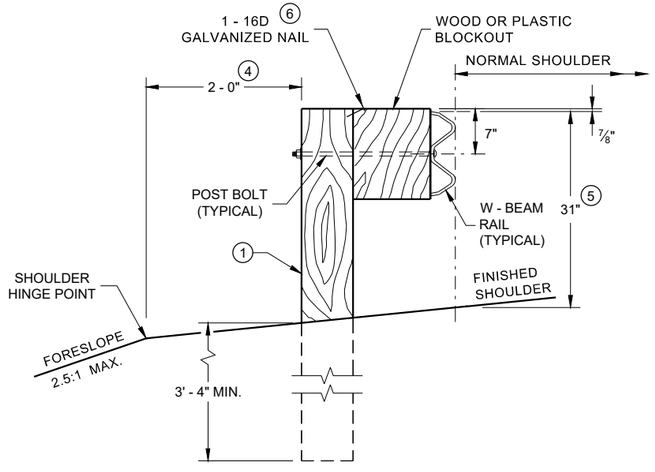
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



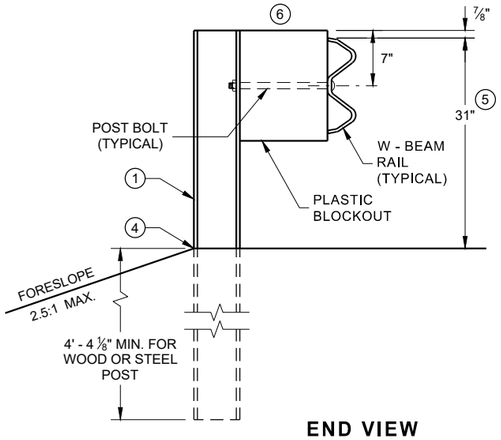
WOOD POST (6" X 8") NOMINAL (1)



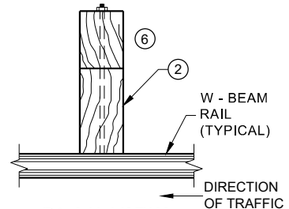
END VIEW
LOCATED ALONG A CURBED ROADWAY



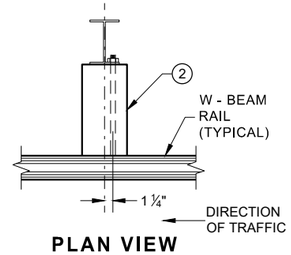
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



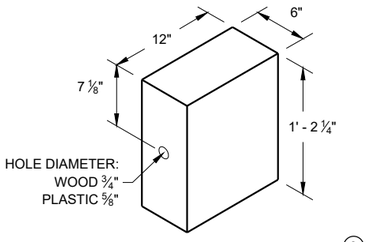
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

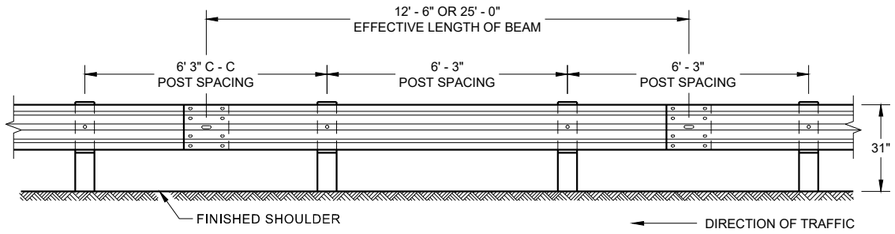


WOOD OR PLASTIC BLOCKOUT (2)

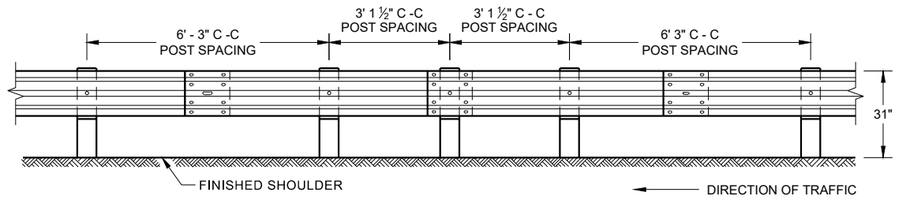
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

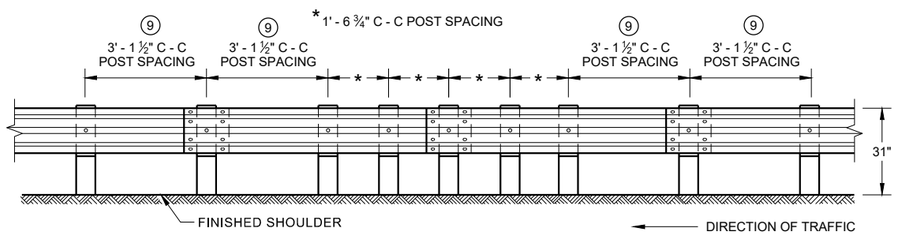
6
SDD 14B42 - 07a



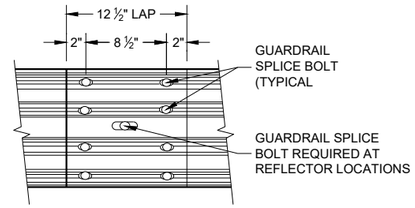
FRONT VIEW
POST SPACING STANDARD INSTALLATION



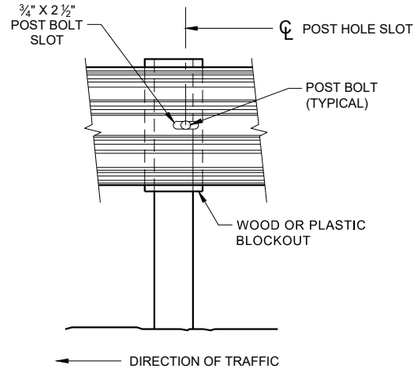
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



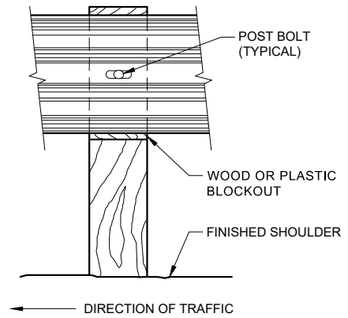
FRONT VIEW
QUARTER POST SPACING (QS)



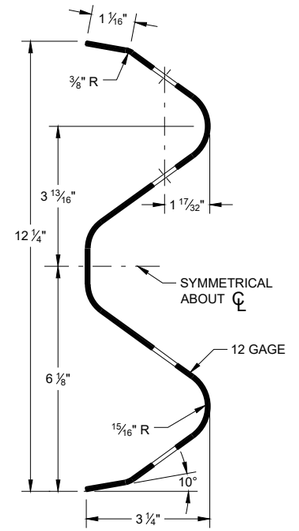
FRONT VIEW
MID-SPAN BEAM SPLICE



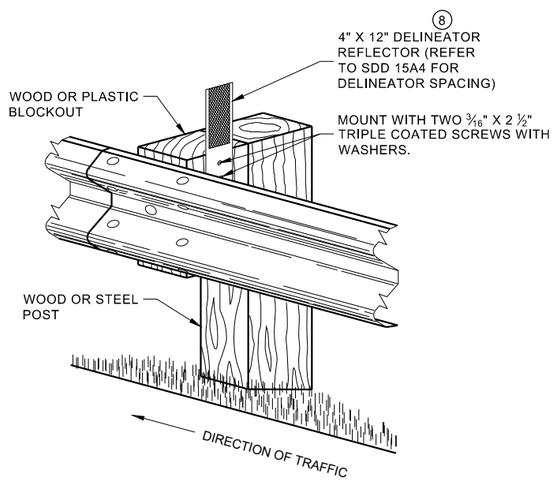
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

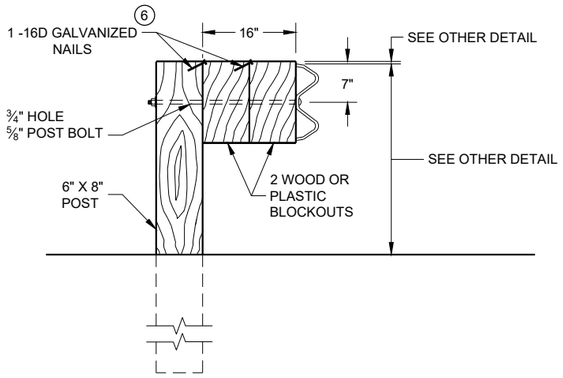
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b
SDD 14B42 - 07b

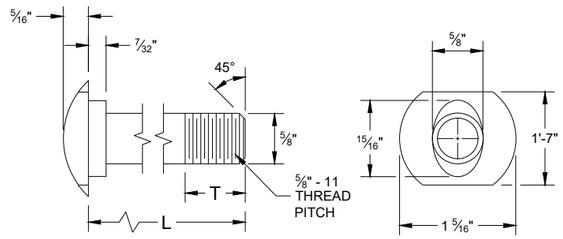


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

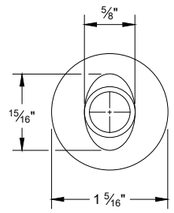
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

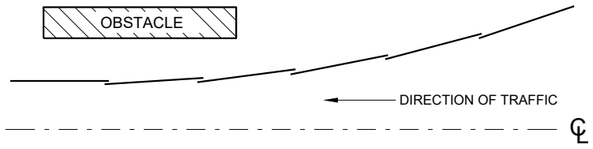


POST BOLT TABLE

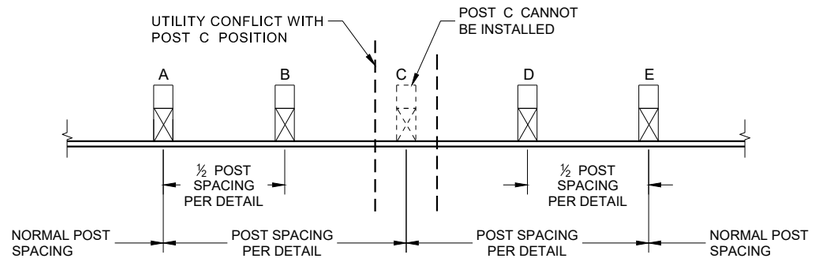
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



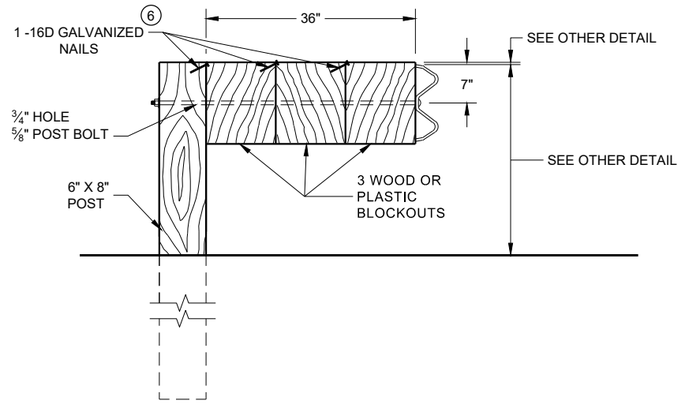
ALTERNATE BOLT HEAD



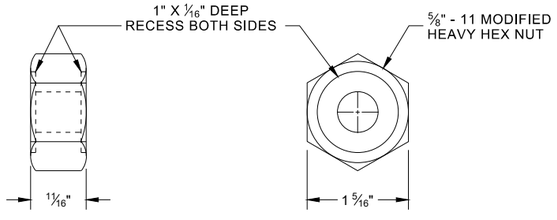
PLAN VIEW
BEAM LAPPING DETAIL



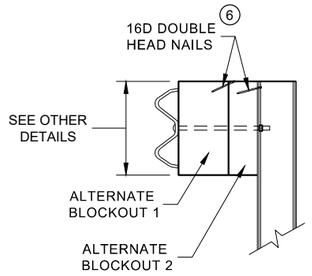
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



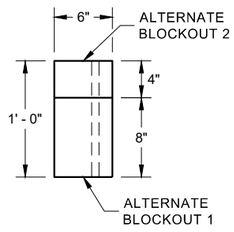
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

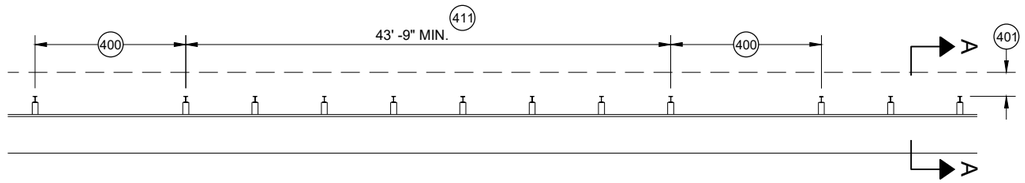
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

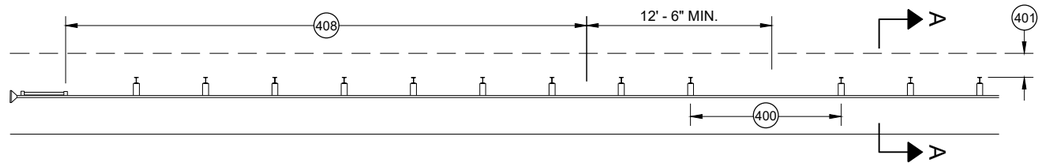
SDD 14B42 - 07c

6

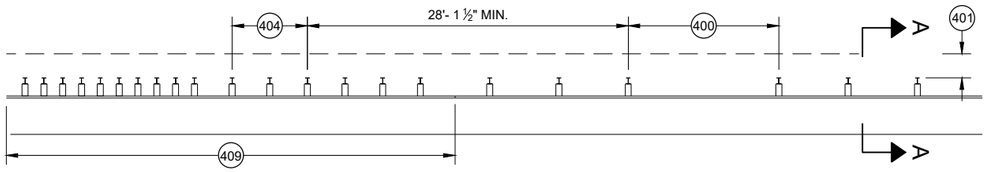
SDD 14B42 - 07c



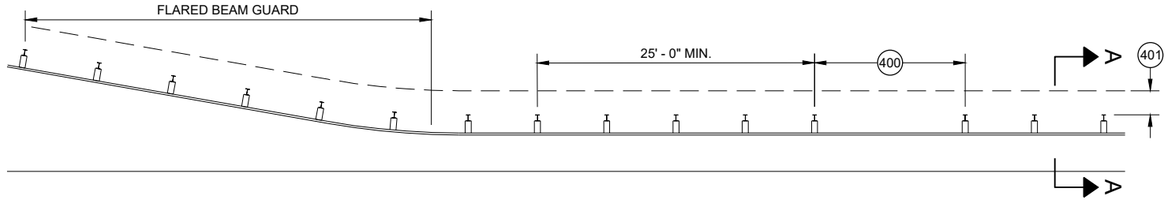
MISSING POST IN MGS GUARDRAIL



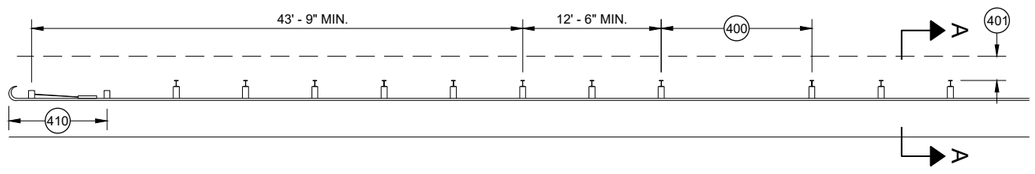
MISSING POST IN MGS GUARDRAIL NEAR EAT



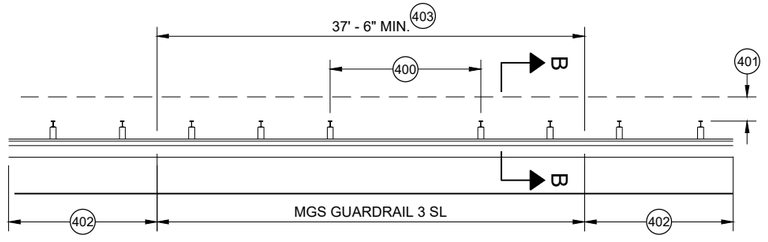
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

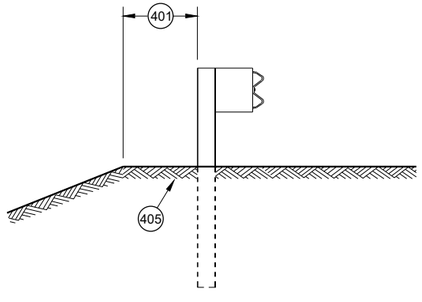


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

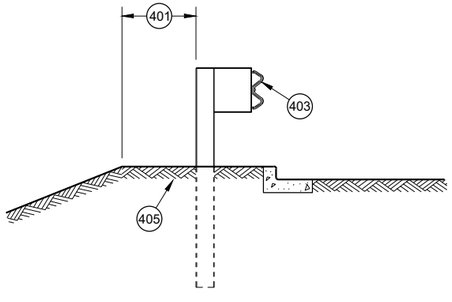


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

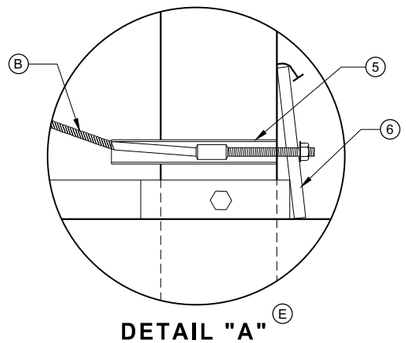
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

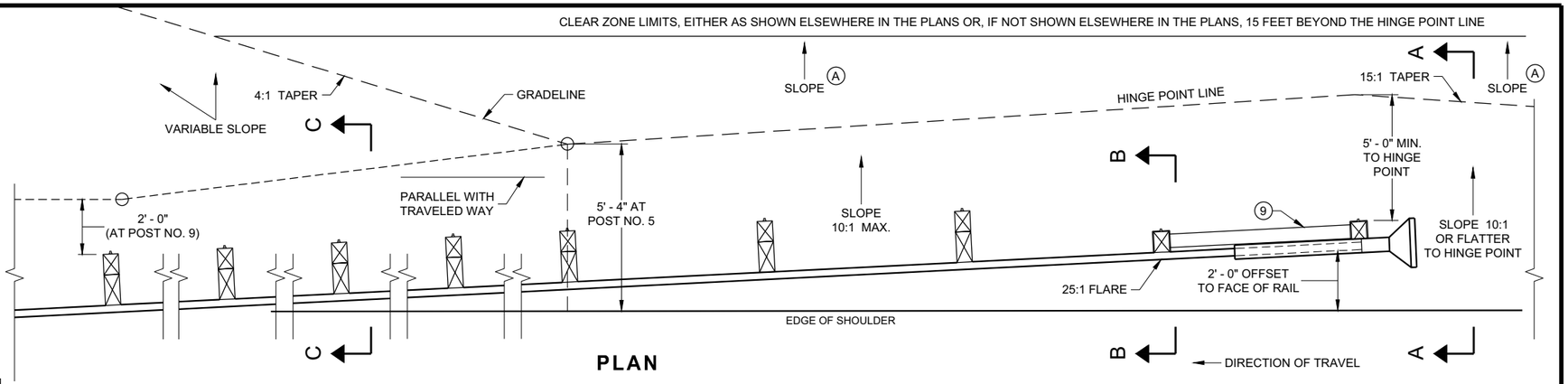
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

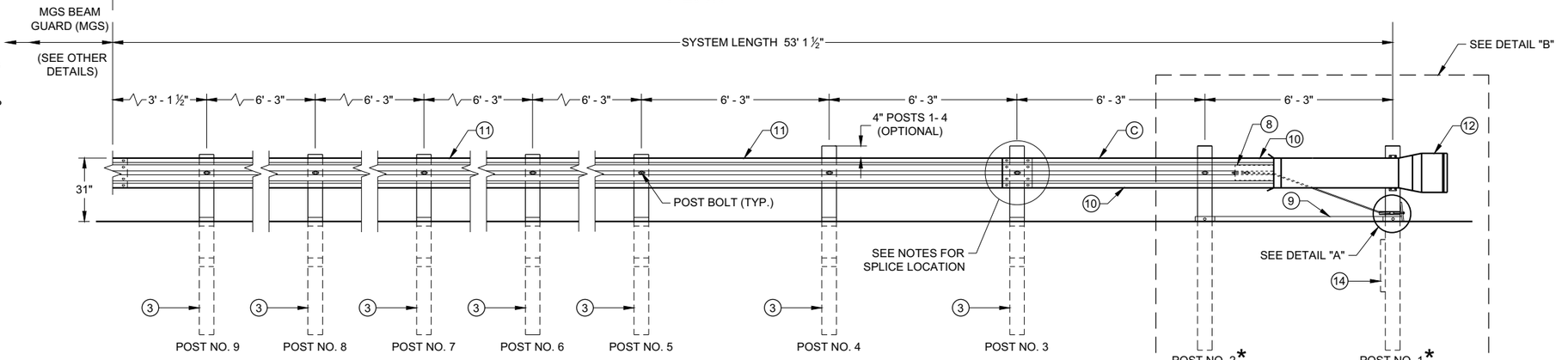
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

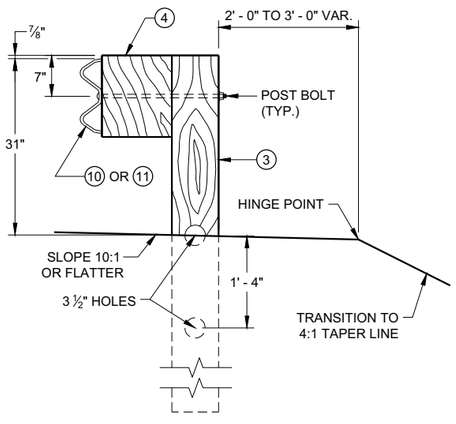
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



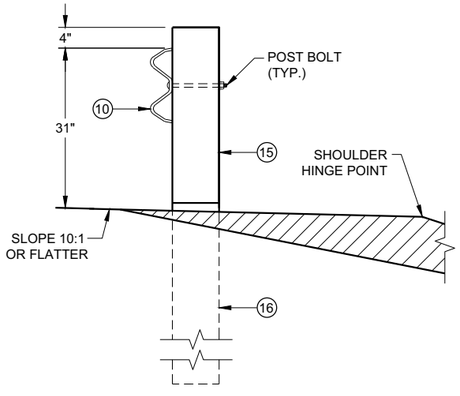
DETAIL "A" (E)



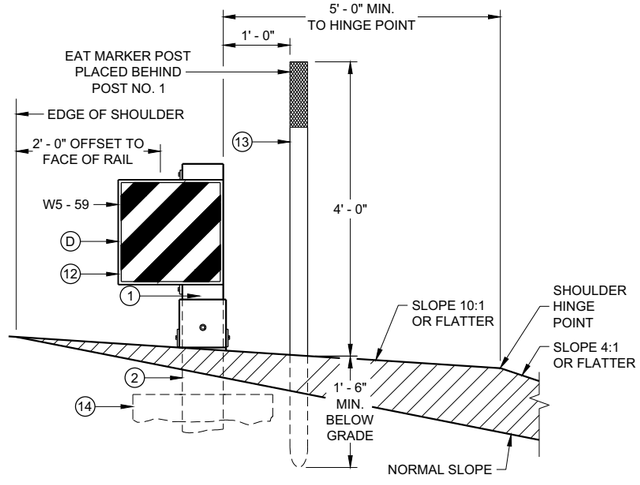




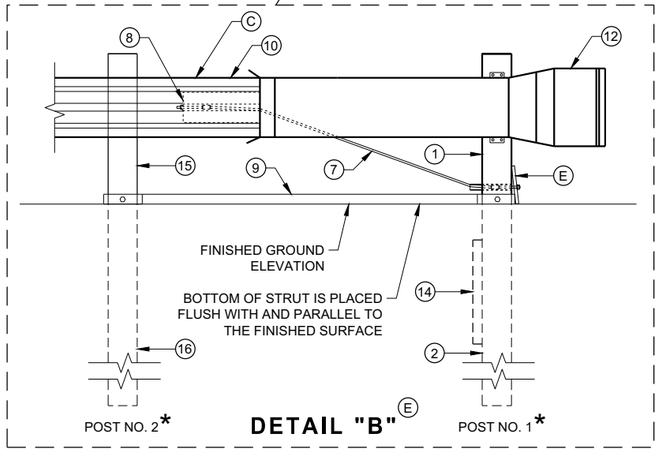
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

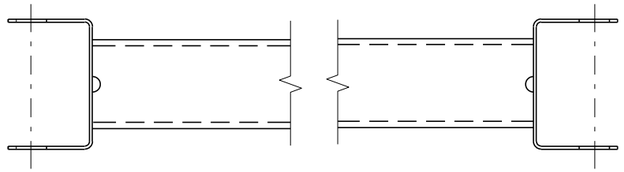


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

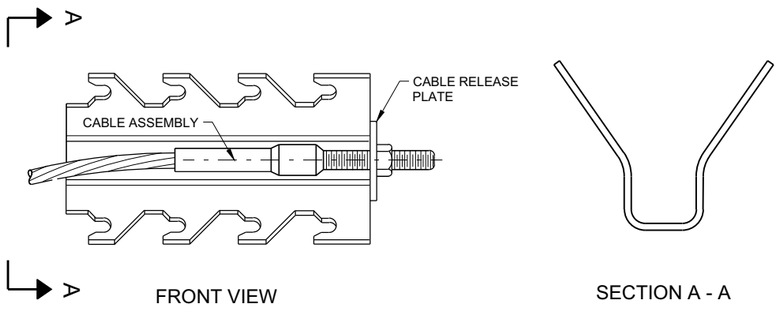
SDD 14B44 - 04a



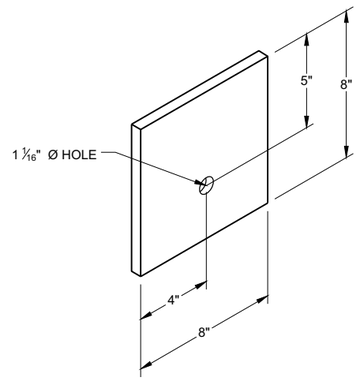
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
(1)	UPPER POST NO. 1 6" X 6" TUBE
(2)	LOWER POST NO. 1
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	IMPACT HEAD
(13)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
(14)	SOIL PLATE
(15)	UPPER POST NO. 2
(16)	LOWER POST NO. 2



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

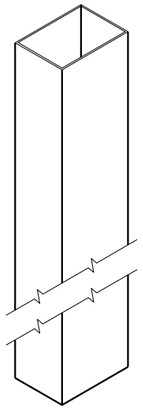
6

SDD 14B44 - 04b

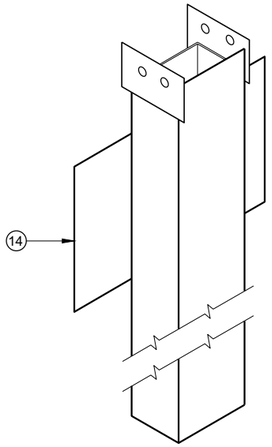
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

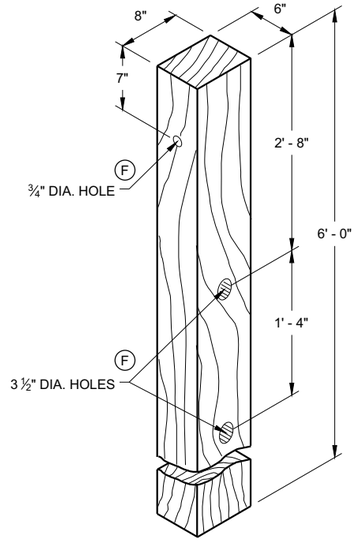
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



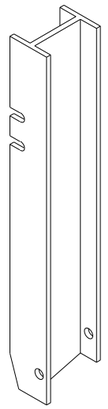
UPPER POST NO. 1 (1) (E)



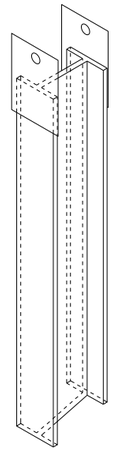
LOWER POST NO. 1 (2) (E)



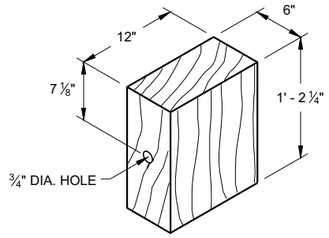
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



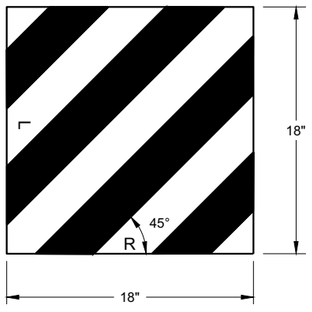
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

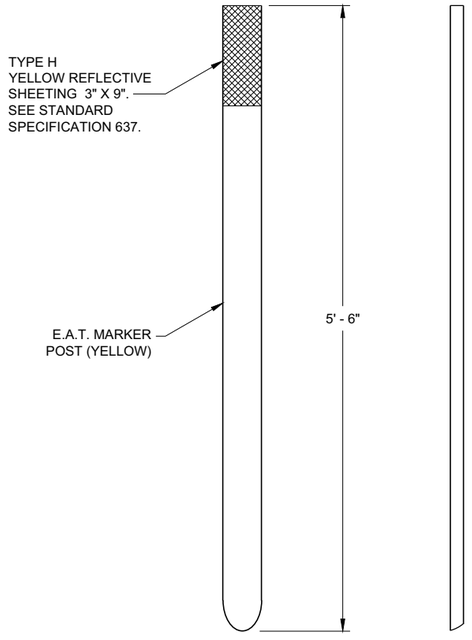


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



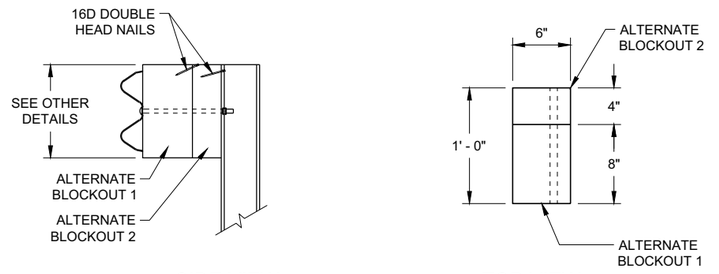
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

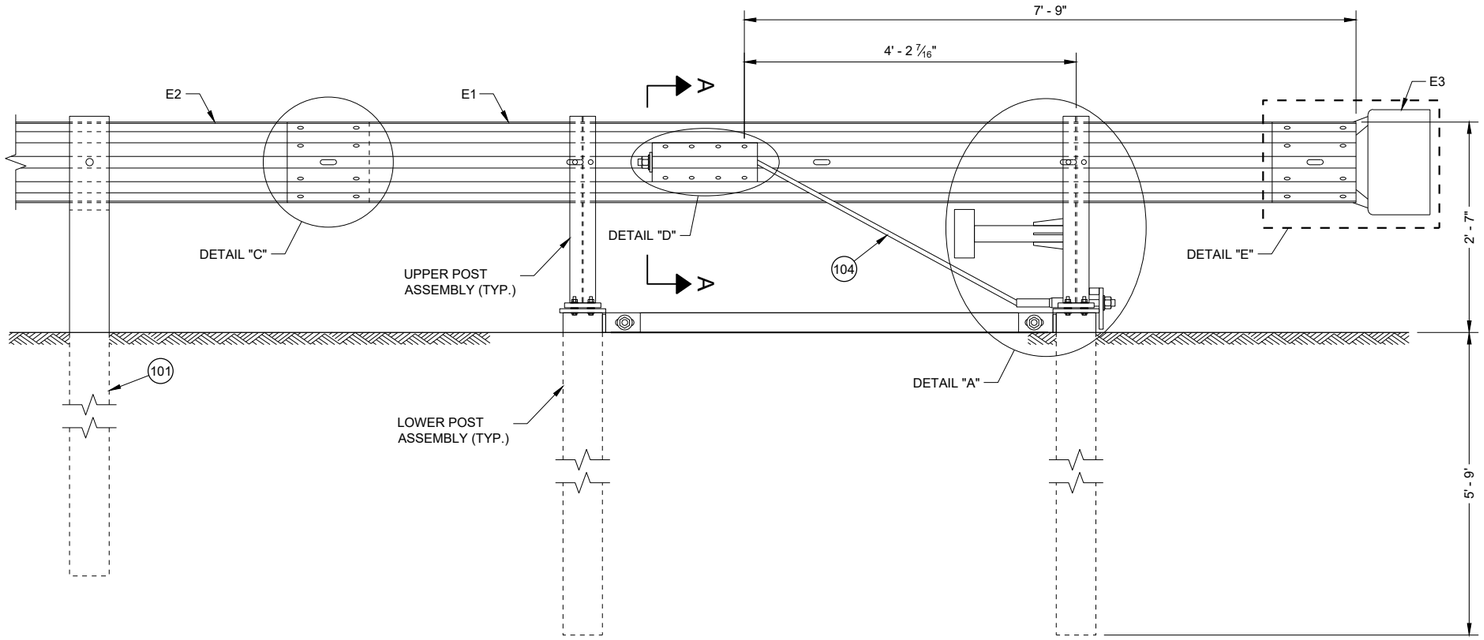
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

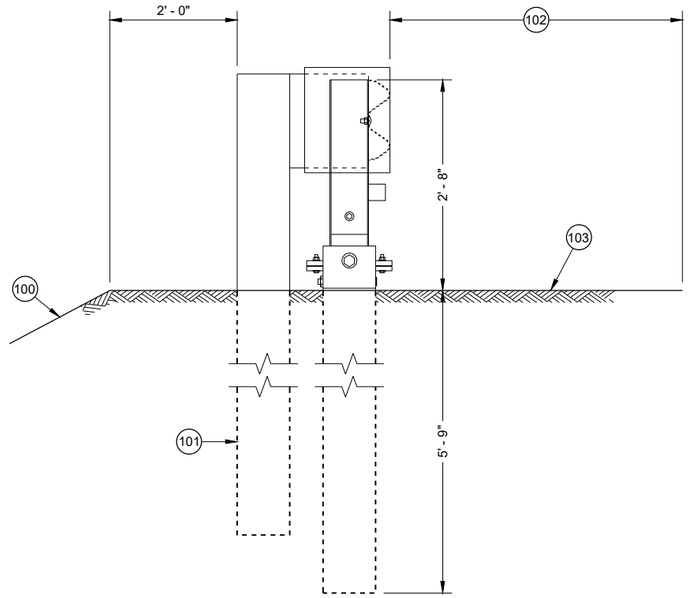
FHWA

6

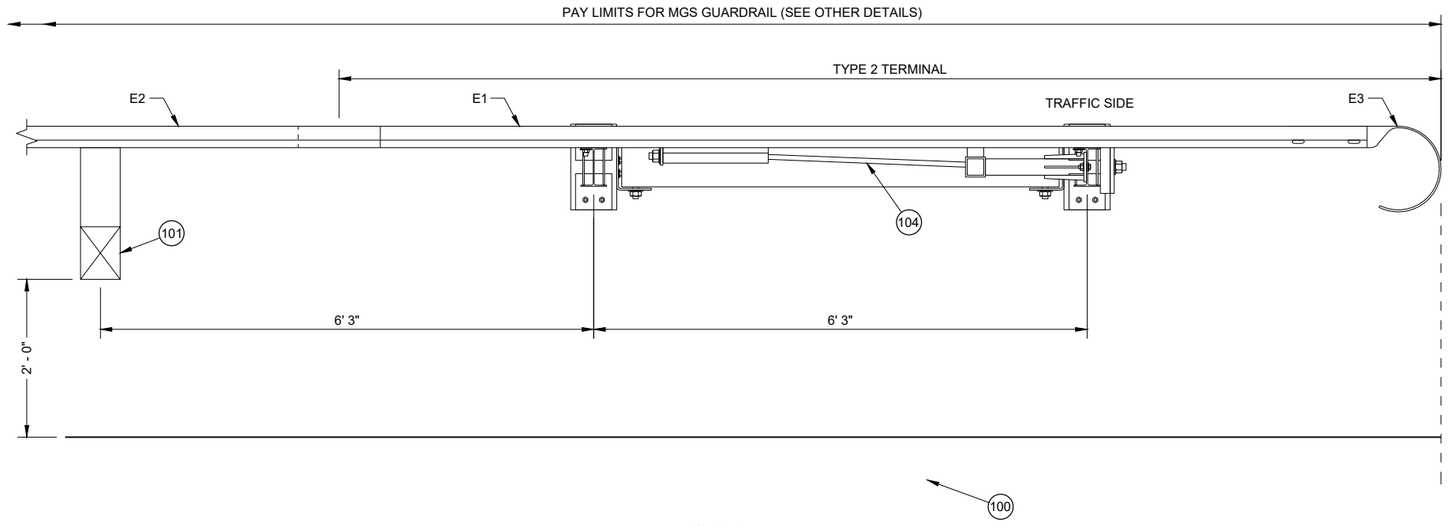
SDD 14B44 - 04c



BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

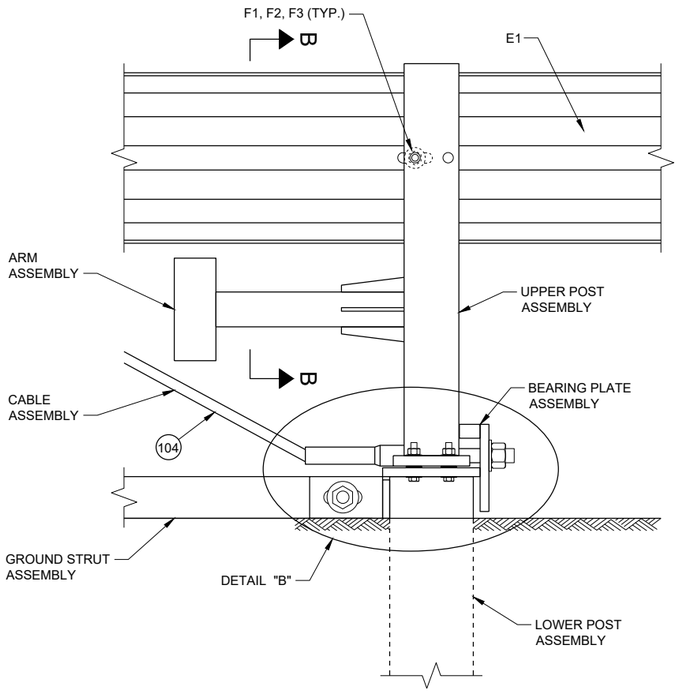
(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

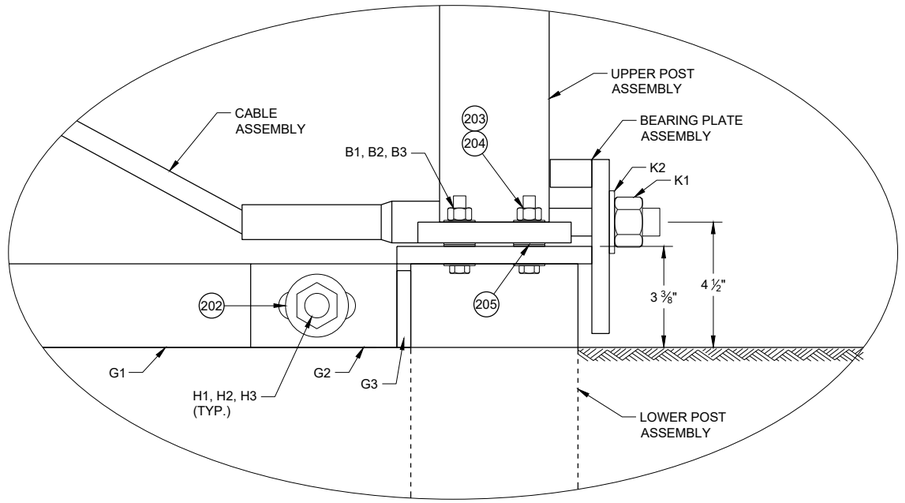
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

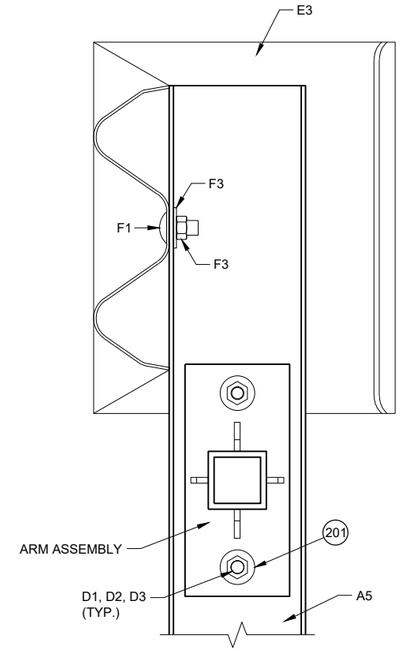
SDD 14B47 - 03a



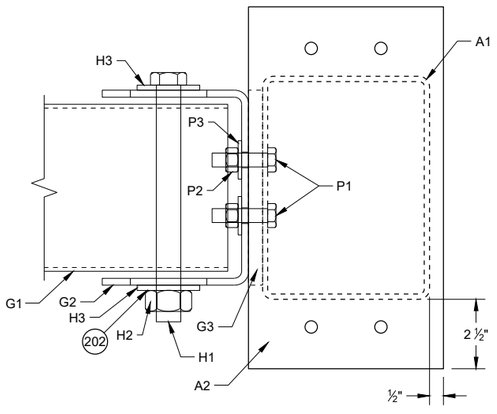
DETAIL "A"



DETAIL "B"

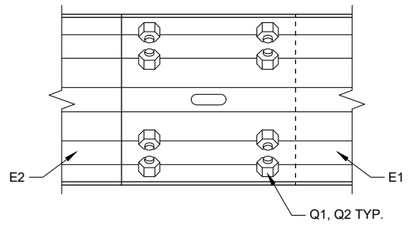


SECTION B - B

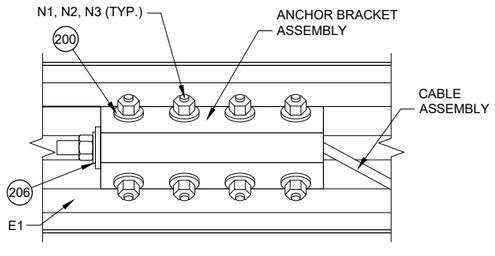


TOP VIEW

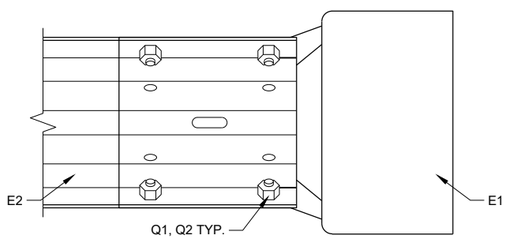
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

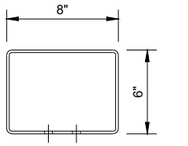
206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

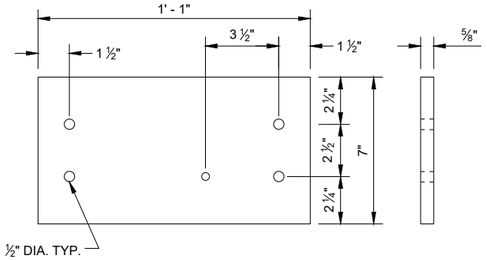
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

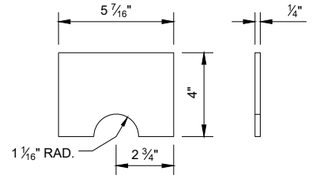
SDD 14B47 - 03b



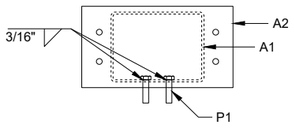
TOP VIEW



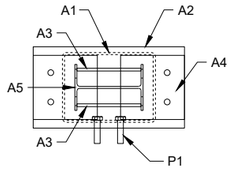
LOWER PLATE (A2)

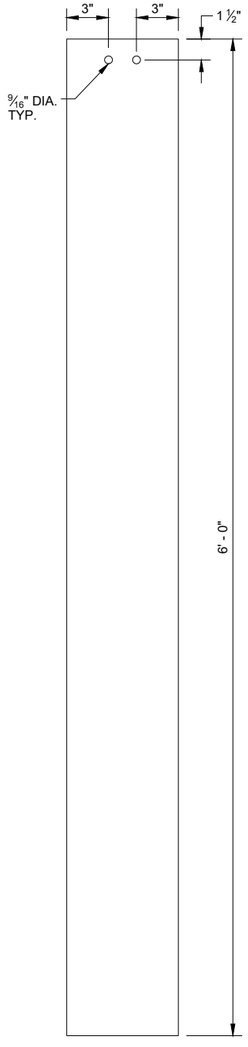


POST GUSSET (A3)



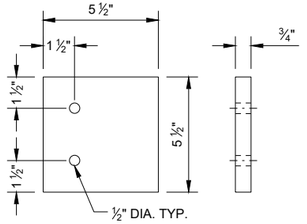
PLAN VIEW



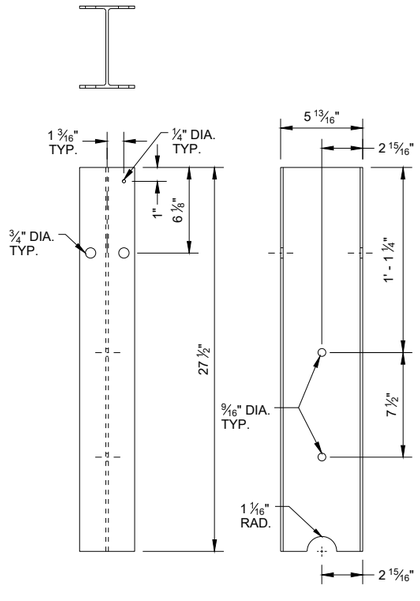


SIDE VIEW

FOUNDATION TUBE (A1)

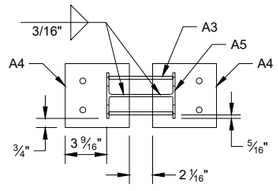


UPPER PLATE (A4)

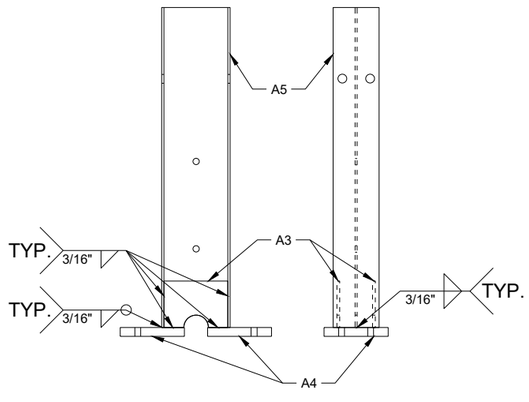


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

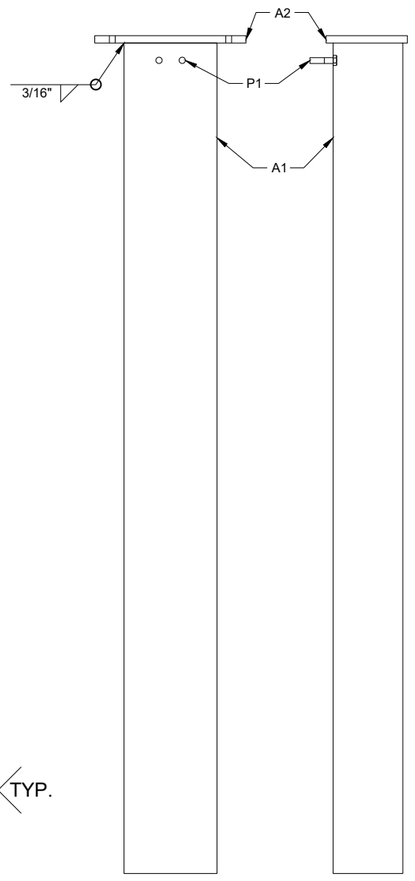


PLAN VIEW



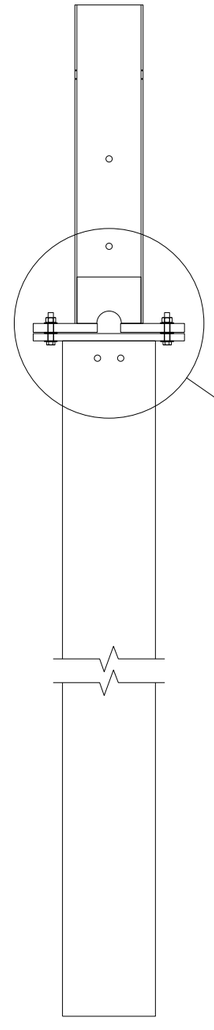
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

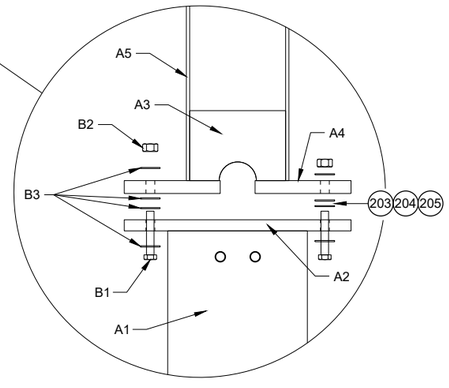


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY



ASSEMBLED POST



POST CONNECTION DETAIL

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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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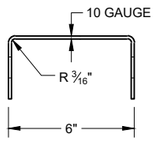
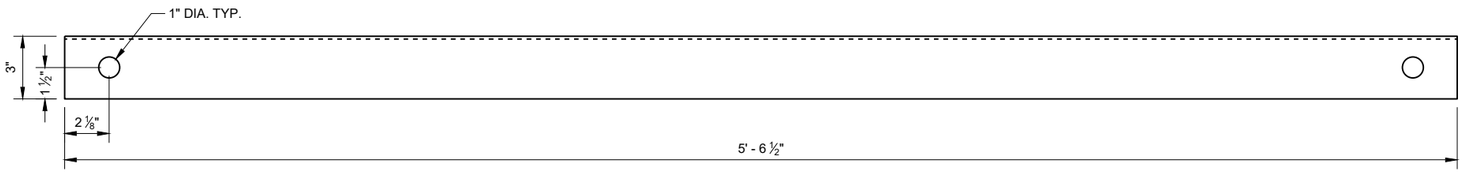
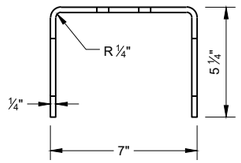


SIDE VIEW

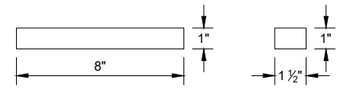


FRONT VIEW

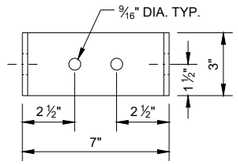
GROUND STRUT CHANNEL (G1)



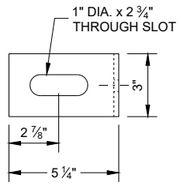
TOP VIEW



BEARING PLATE FLANGE (L2)

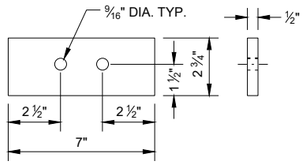


FRONT VIEW

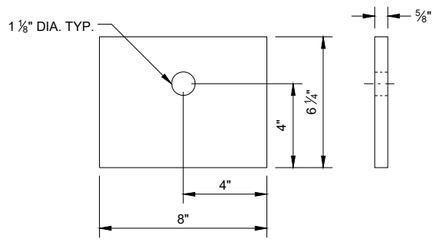


SIDE VIEW

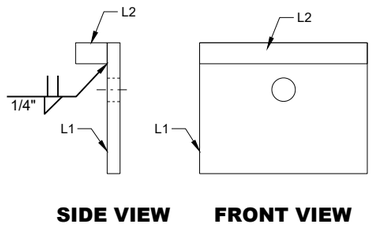
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)



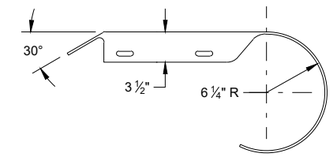
BEARING PLATE (L1)



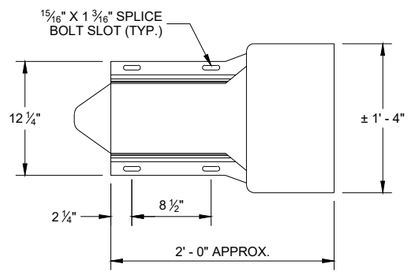
SIDE VIEW

FRONT VIEW

BEARING PLATE ASSEMBLY

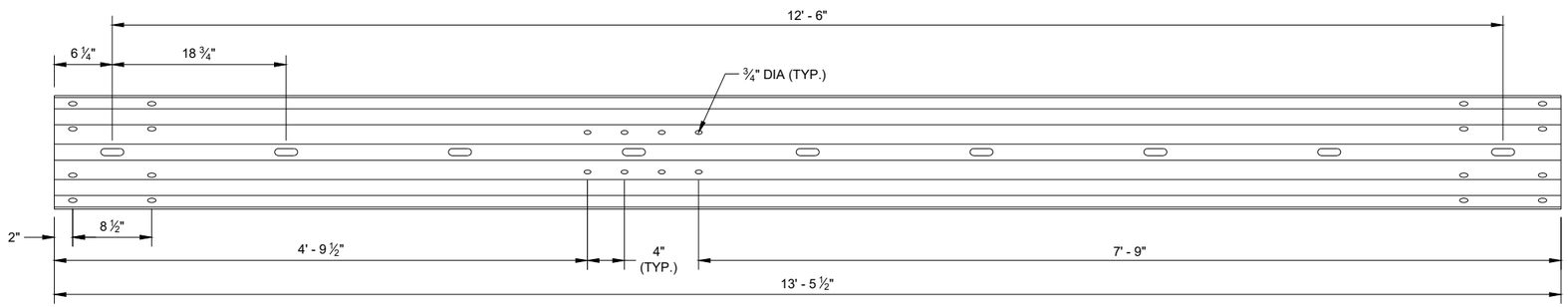


PLAN VIEW

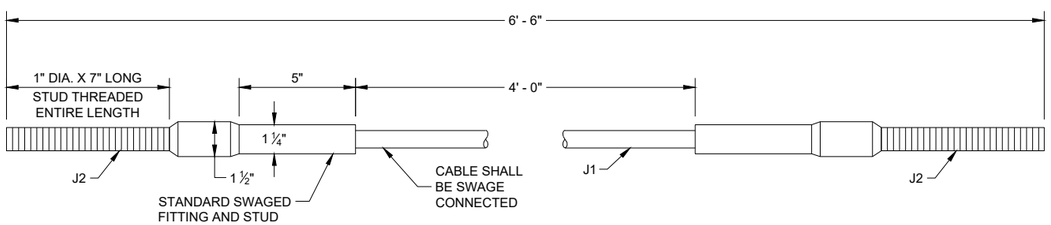


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



CABLE ASSEMBLY

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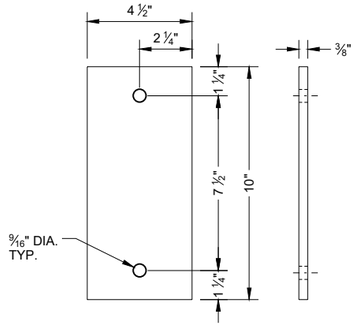
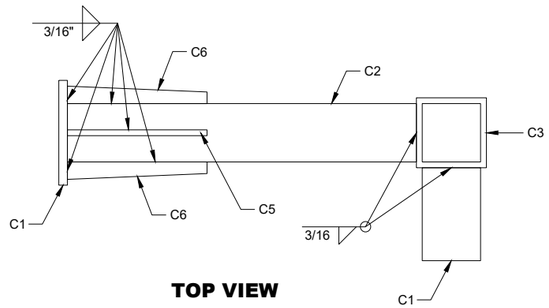
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

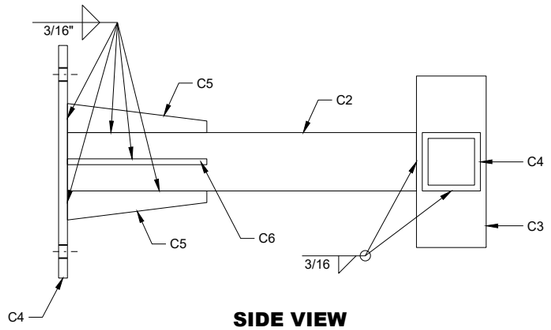
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



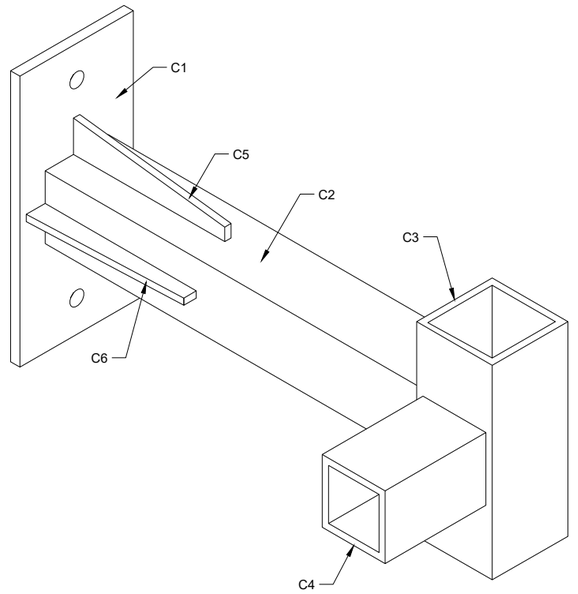
ARM PLATE (C1)



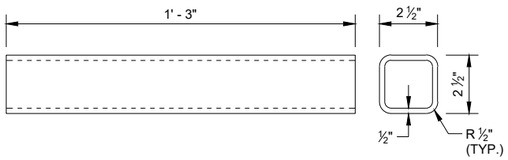
TOP VIEW
ARM ASSEMBLY



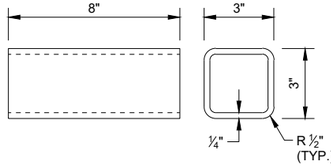
SIDE VIEW
ARM ASSEMBLY



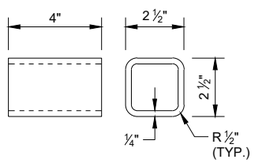
ISOMETRIC VIEW
ARM ASSEMBLY



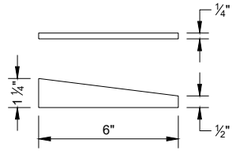
ARM TUBE 1 (C2)



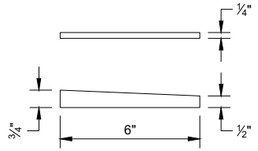
ARM TUBE 2 (C3)



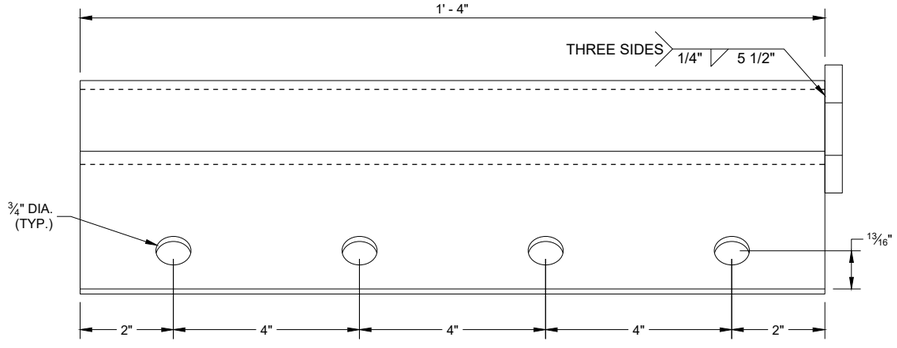
ARM TUBE 3 (C4)

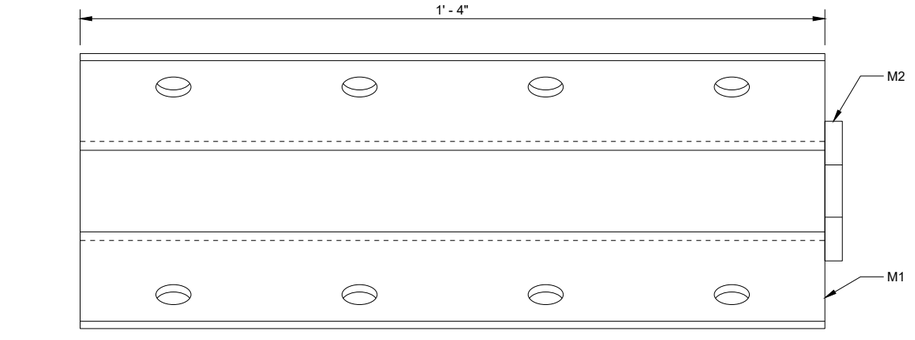


ARM GUSSET PLATE 1 (C5)

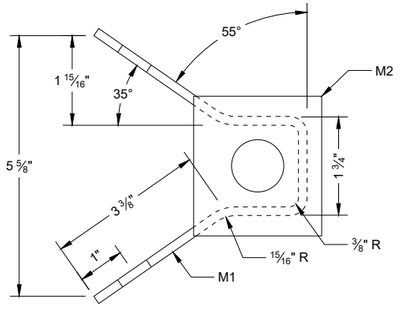


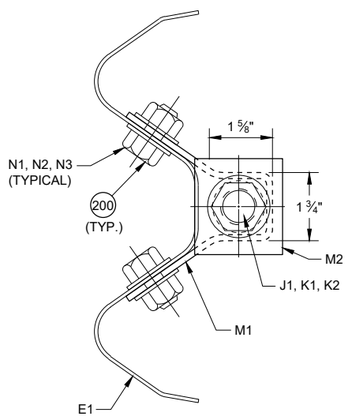
ARM GUSSET PLATE 2 (C6)

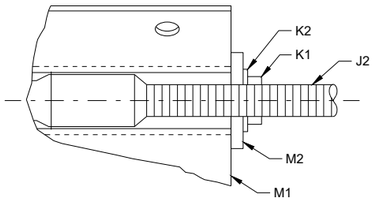




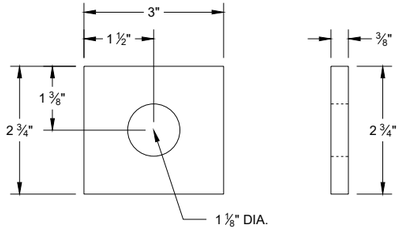
ANCHOR BRACKET (M1, M2)







SECTION A - A



ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
P2	FOUNDATION TUBE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDENED WASHER ONLY)	1/2" DIA.
P3	FOUNDATION TUBE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

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SDD 14B47 - 03g

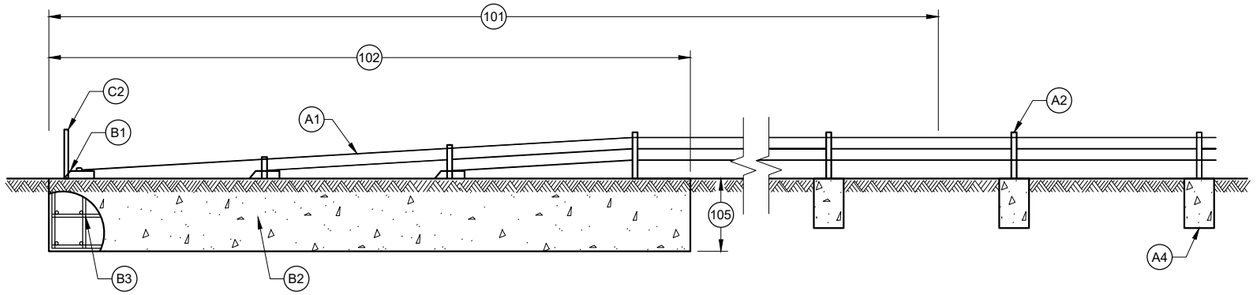
SDD 14B47 - 03g

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

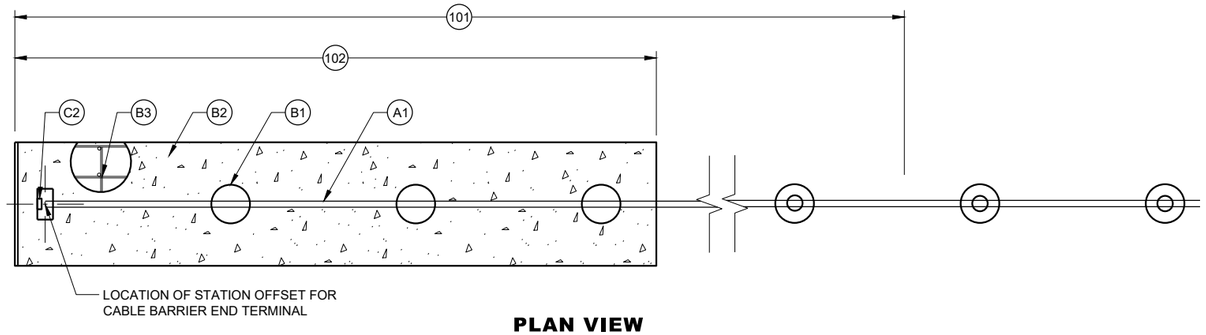
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

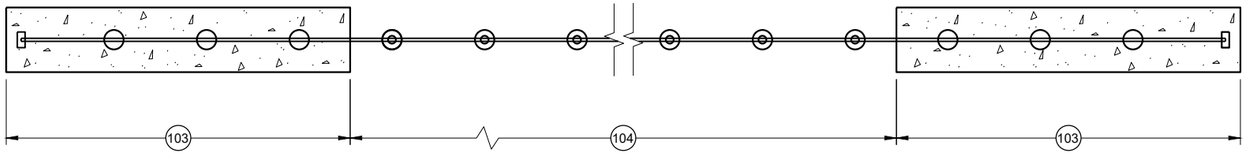


PROFILE VIEW

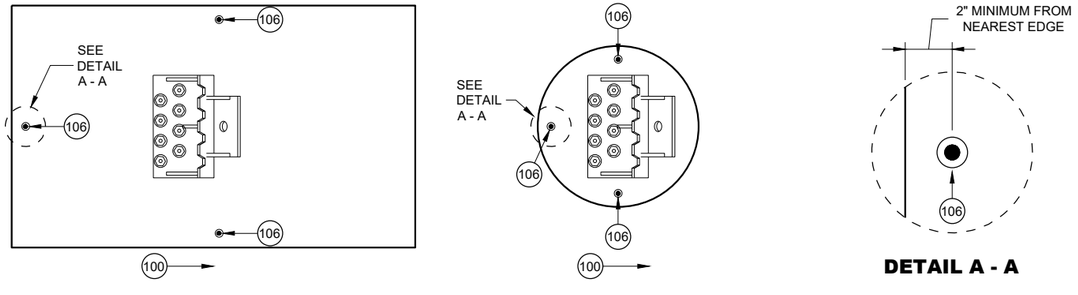


PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW



DETAIL A - A

ANCHOR MONITOR POINTS FOR CABLE BARRIER END TERMINAL ANCHORS

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POSTS PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICATED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

CONSTRUCT SHAFTS VERTICALLY. VERTICAL TOLERANCE OF SHAFT IS $\frac{1}{8}$" PER FOOT OF DEPTH. SHAFTS ARE TO MINIMIZE DISTURBANCE TO ADJACENT SOILS.

SECURE STEEL REINFORCEMENT AND STEEL SLEEVE PRIOR TO PLACEMENT OF CONCRETE. MAINTAIN CLEAR DISTANCE BETWEEN SOIL AND REINFORCEMENT CAGE.

PLACE CONCRETE IN ONE CONTINUOUS POUR FOR EACH FOOTING. USE VIBRATION TO CONSOLIDATE CONCRETE.

PROVIDE CASING AS NECESSARY TO PREVENT INTRUSION OF UNCONSOLIDATED MATERIALS OR WATER. USE CASINGS WHEN THERE IS 3 OR MORE INCHES OF WATER IN EXCAVATION.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN USING A CASING AND CONSTRUCTION SEQUENCE. PROJECT ENGINEER WILL REVIEW AND APPROVED CASING DESIGN AND CONSTRUCTION SEQUENCE. CASING IS TO HAVE INTIMATE CONTACT WITH SHAFT SIDEWALL. CASING IT TO WITHSTAND INSERTION STRESS, REMOVAL STRESS, CONCRETE PRESSURE AND SOIL PRESSURE. REMOVE CASING DURING CONCRETE PLACEMENT OR IMMEDIATELY AFTER CONCRETE PLACEMENT. NO TEMPORARY CASING MAY REMAIN IN-PLACE.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN AND CONSTRUCTION SEQUENCE WHEN OVER EXCAVATION IS REQUIRED NEAR A FOOTING. PROJECT ENGINEER WILL REVIEW AND APPROVED DESIGN AND CONSTRUCTION SEQUENCE.

FINISH TOP OF FOOTINGS TO THE DIMENSIONS INDICATED IN PLAN. REMOVE EXCESS CONCRETE.

DESIGN POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A NCHRP 350 TL-3 SMALL CAR.

USE MARINE GRADE ANTI-SEIZE LUBRICANT FOR THREADING FITTINGS THAT IS ACCEPTABLE FOR USE ON GALVANIZED STEEL.

(100) DIRECTION THAT THE CABLE PULLS THE END ANCHOR FOOTING

(101) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(102) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(103) CABLE BARRIER END TERMINAL

(104) CABLE BARRIER AND LINE POSTS

(105) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

(106) ANCHOR MONITOR POINTS ARE GALVANIZED SURVEY NAIL, OR MASONRY NAIL, PLACED INTO CONCRETE FOOTING BEFORE HARDENING. IF THERE ARE MULTIPLE ANCHOR POINTS WITHIN A PAY LIMIT FOR A CABLE BARRIER END TERMINAL, EACH ANCHOR POINT NEEDS THREE ANCHOR MONITOR POINTS.

CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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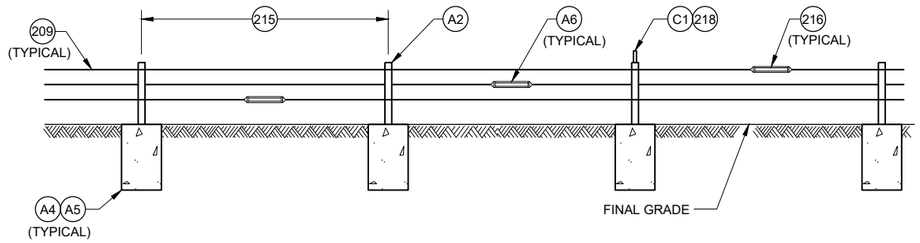
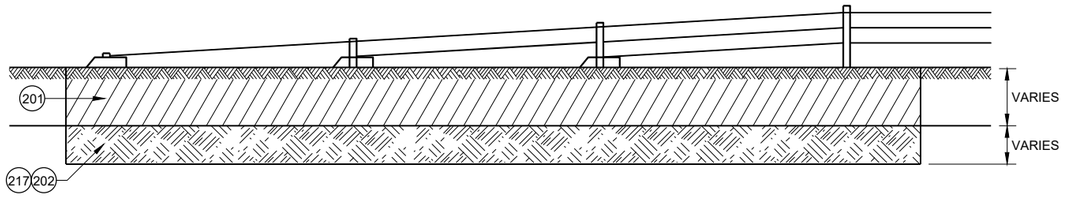
SDD 14B52 - 03a
SDD14B52 - 03a



PROFILE VIEW
LINE POST INSTALLATION



CABLE BARRIER END TERMINAL
ROCK EXCAVATION DETAIL

GENERAL NOTES

201 SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

202 ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

203 SOIL TO BE EXCAVATED FOR LINE POST (VARIES)

204 ROCK TO BE EXCAVATED FOR LINE POST (VARIES)

205 EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

206 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

207 DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURERS' INFORMATION.

208 MINIMUM DEPTH OF LINE POST FOOTING IS 4' - 0" IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

209 NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURERS' INFORMATION.

210 LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURERS' INFORMATION.

211 LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

212 PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

213 GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

214 CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

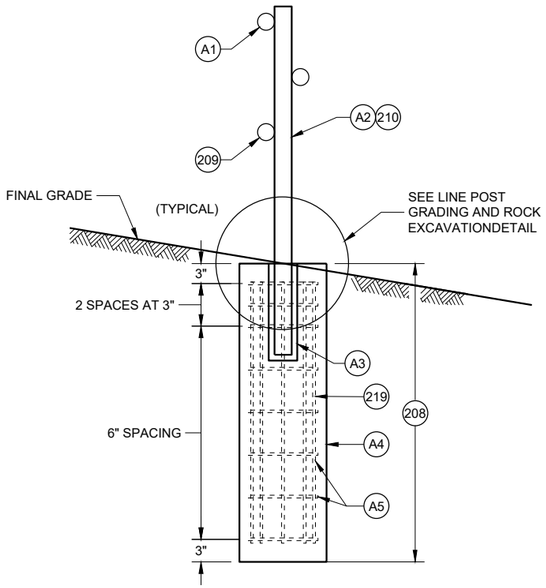
215 MAXIMUM POST SPACING IS 15 FEET.

216 STAGGER TURNBUCKLES (TYPICAL).

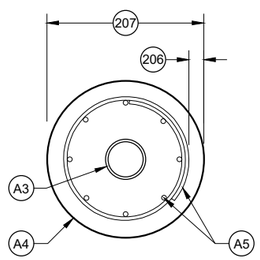
217 SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

218 LINE POST DELINEATOR SPACING IS 100 FEET.

219 MINIMUM LINE POST FOOTING REINFORCEMENT SHOWN. MANUFACTURER IS TO INDICATE REINFORCEMENT IS ADEQUATE FOR THEIR SYSTEM. IF REINFORCEMENT IS NOT ADEQUATE, PROVIDE FOOTING DESIGN WITH A ADEQUATE REINFORCEMENT.

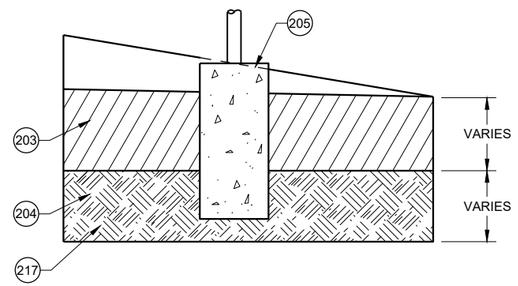


CROSS SECTION

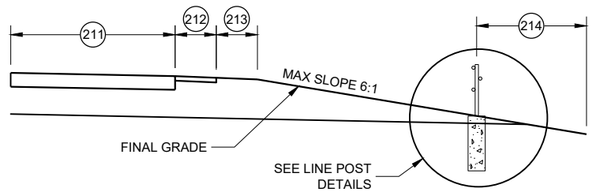


PROFILE VIEW
(LINE POSTS AND CABLES NOT SHOWN)

LINE POST DETAILS



LINE POST GRADING
AND ROCK EXCAVATION DETAIL



CABLE BARRIER OFFSET FROM DITCH LINE

CABLE BARRIER
TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B52 - 03b
SDD 14B52 - 03b

BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
A1	3 OR 4	¾" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	AASHTO M30 TYPE 1 CLASS A OR ASTM A741 TYPE 1 CLASS A WITH MINIMUM BREAKING STRENGTH = 39 KIPS (173.5 KN)
A2	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A3	1 PER LINE POST	GALVANIZED STEEL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A4	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
A5	MINIMUM REINFORCEMENT: 8 HORIZONTAL LOOP BARS 8 VERTICAL BARS	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
			ALL BARS ARE NO. 4 BARS
A6	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATION AND DETAILS.
			PROVIDE DOCUMENTATION THAT THE FITTINGS ARE STRONGER THAN THE CABLE BARRIER. DOCUMENTATION IS TO INCLUDE: MANUFACTURER NAME, TESTING RESULTS, AND DATE OF TESTING.
B1	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
B2	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
B3	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
C1	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST YELLOW.
C2	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN

6

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SDD 14B52 - 03c

SDD 14B52 - 03c

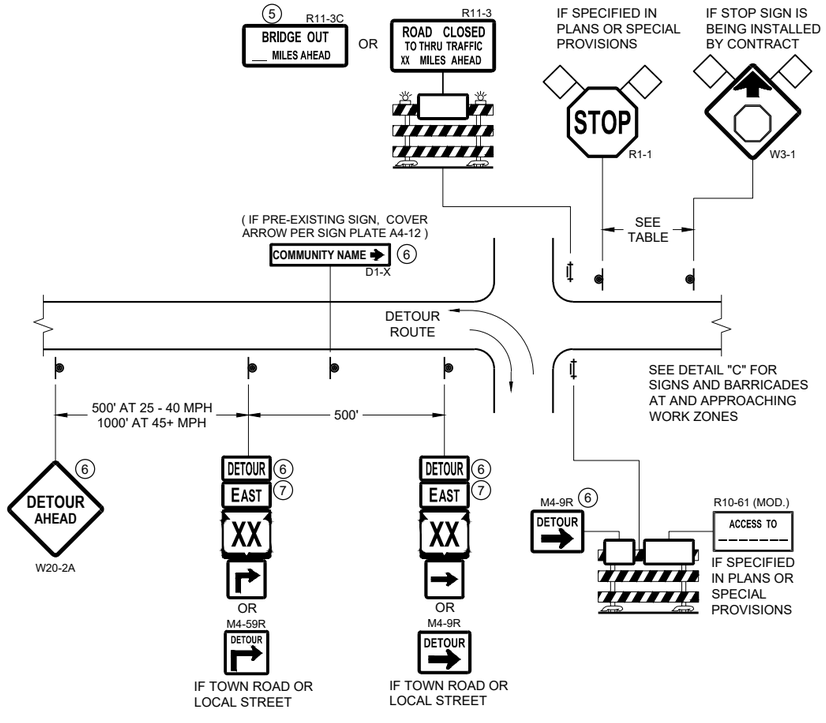
CABLE BARRIER TYPE 1 LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

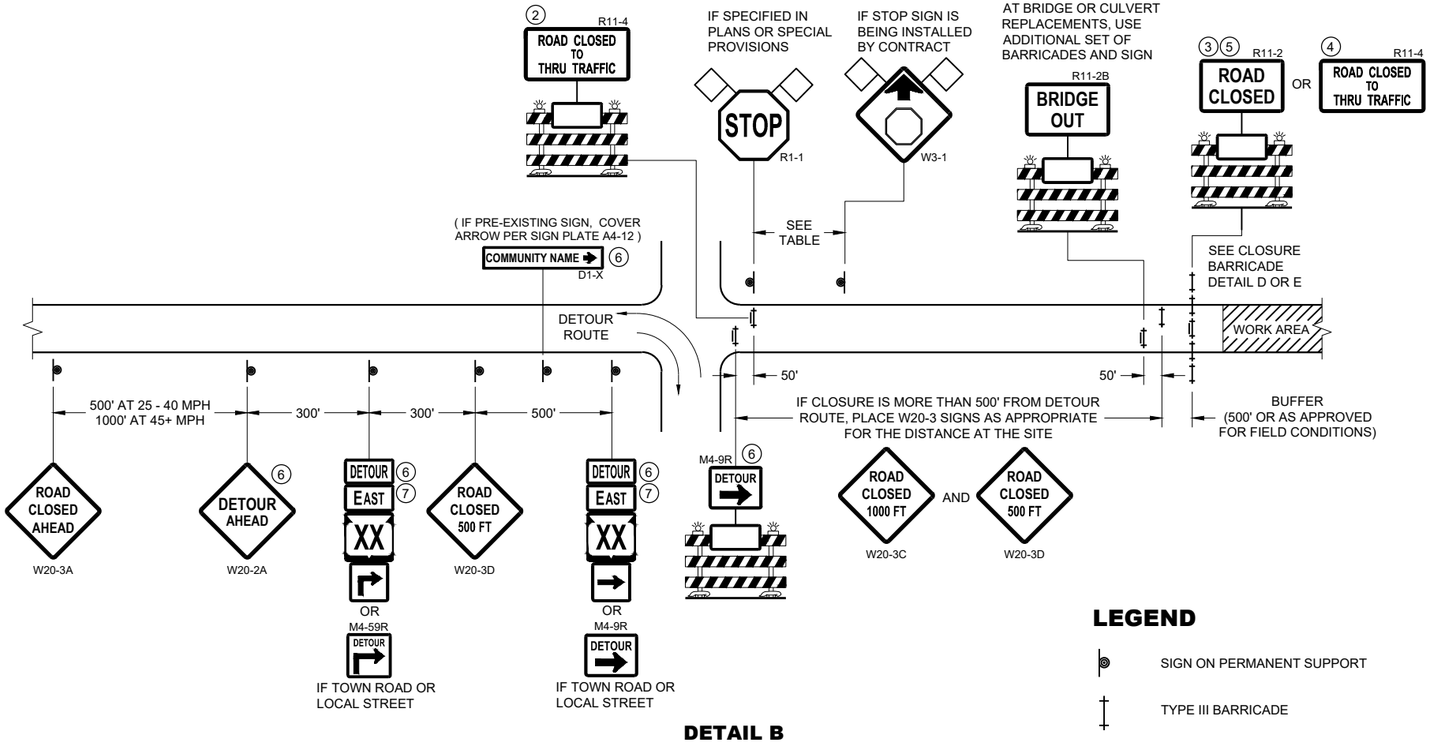
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



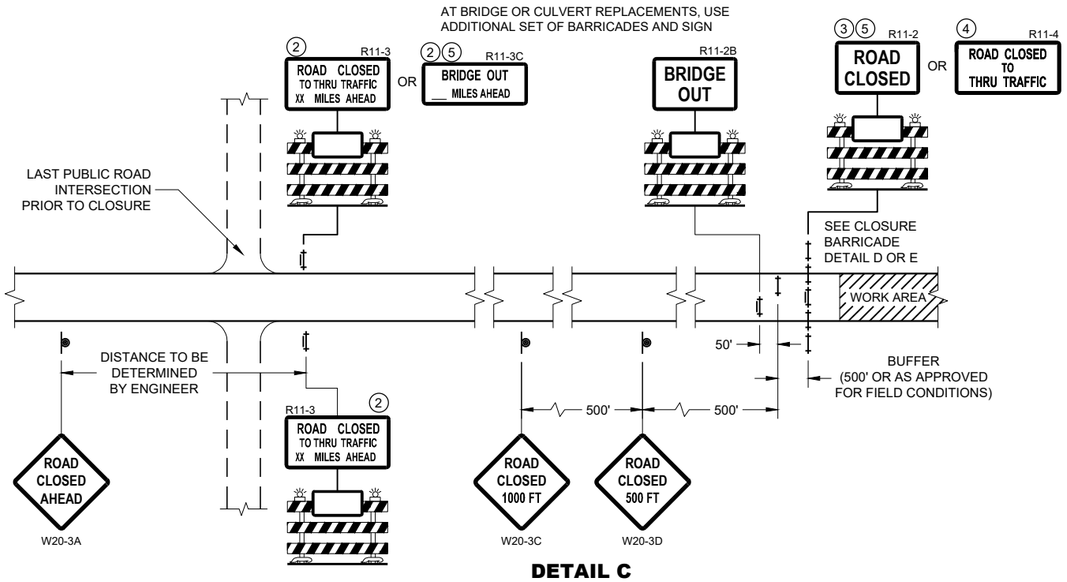
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

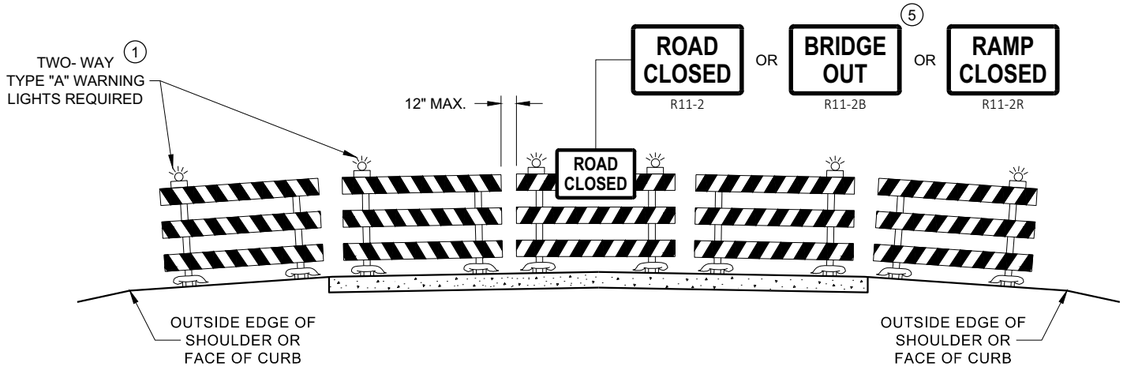
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

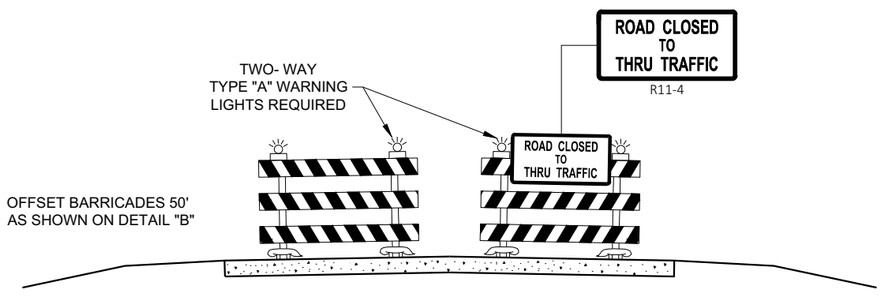
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C02 - 08b

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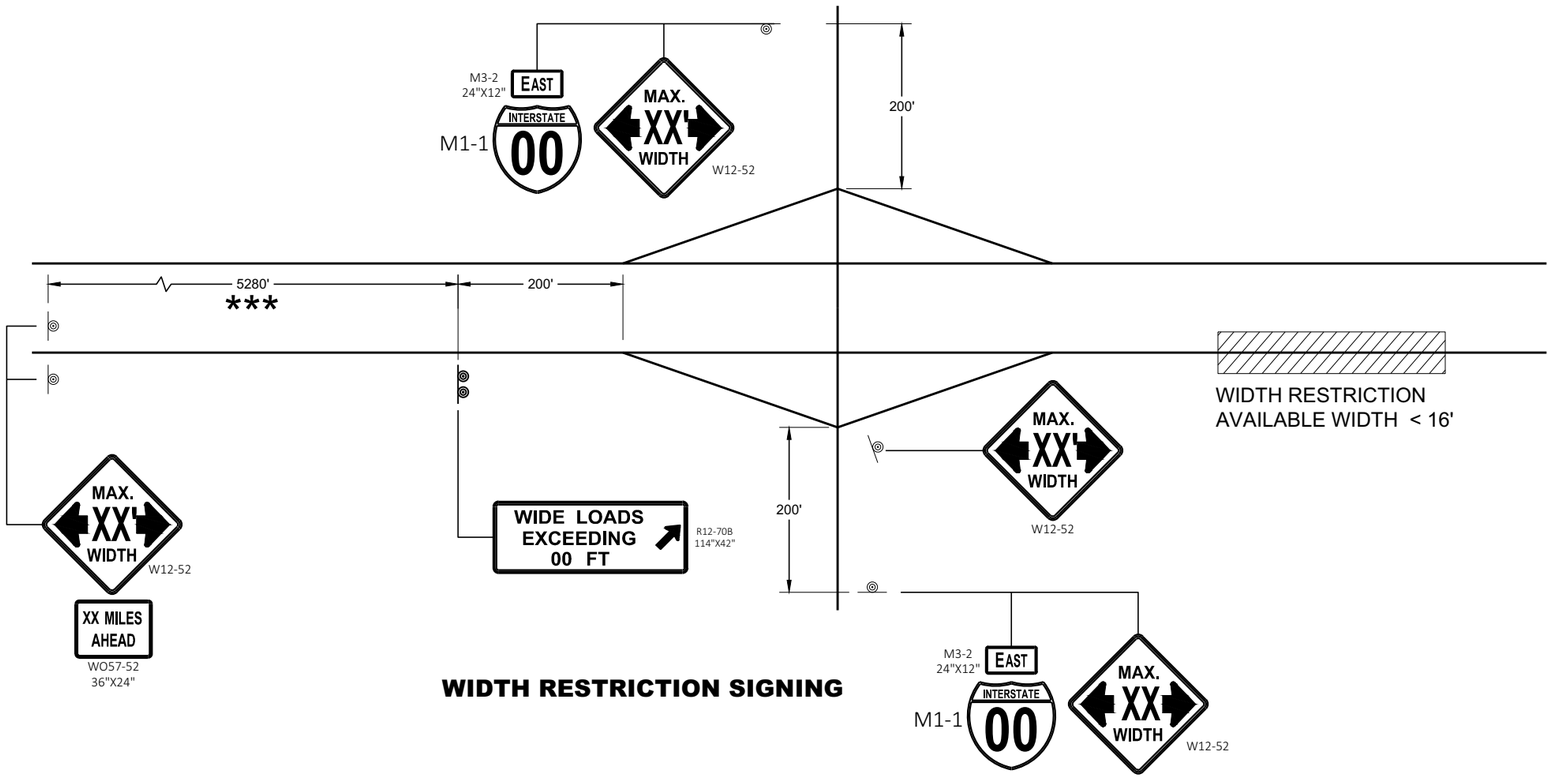
SDD 15C02 - 08b



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 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.

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

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

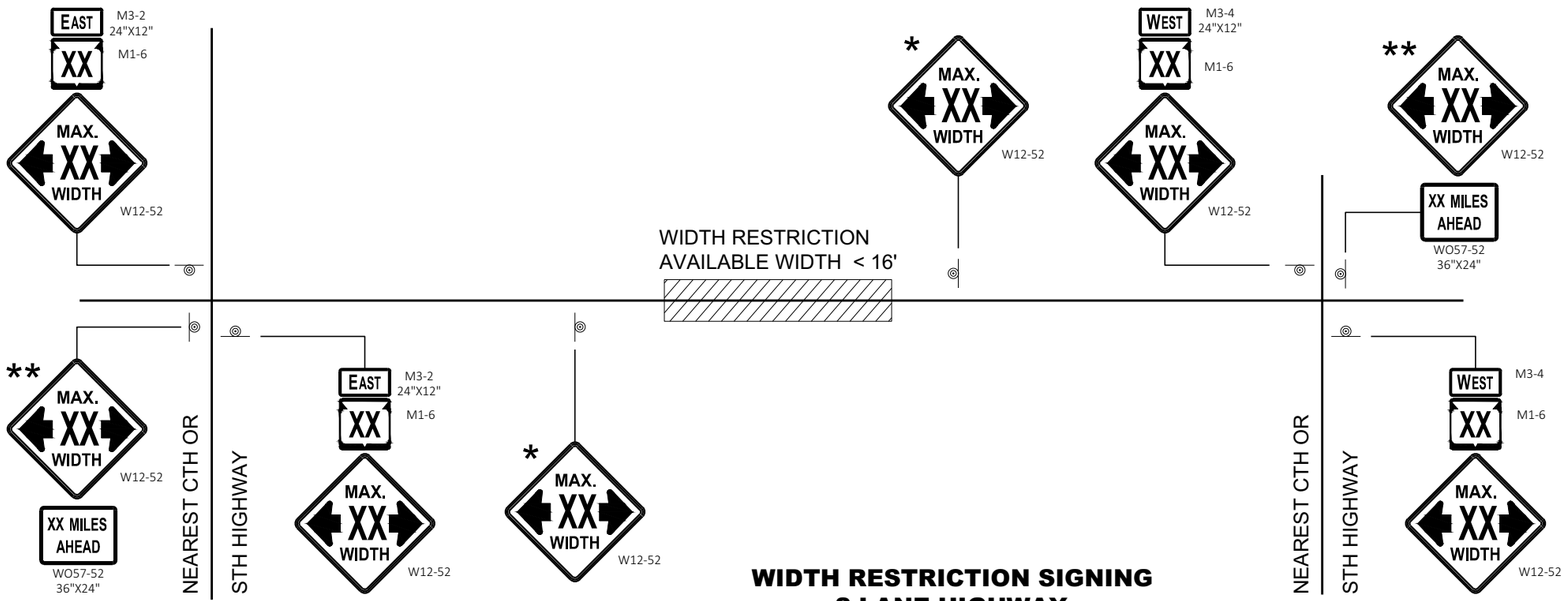
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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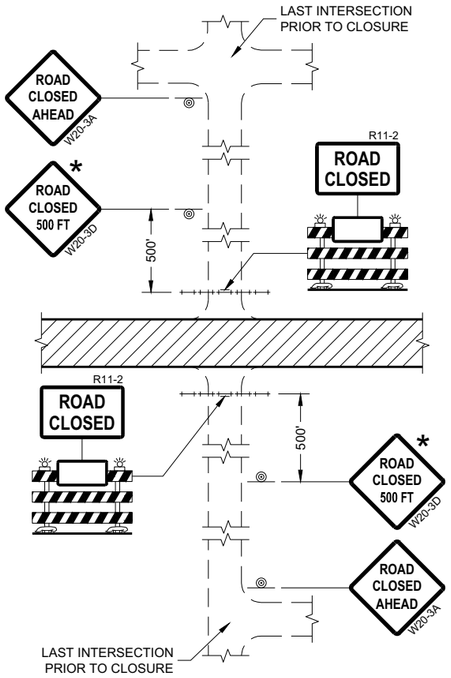
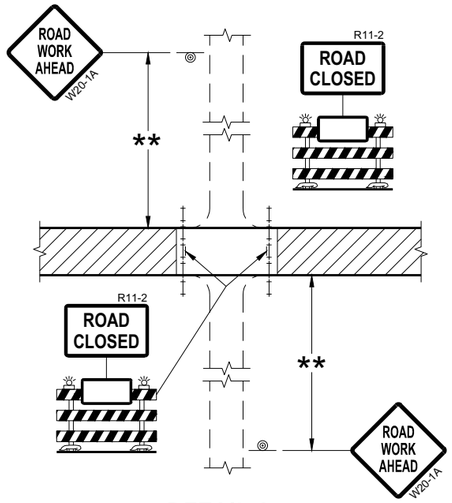


DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

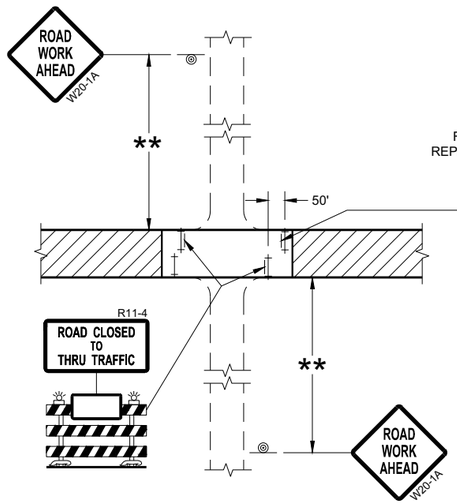
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

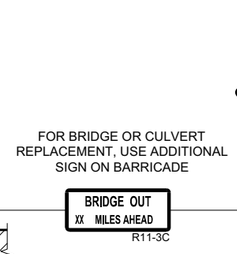
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

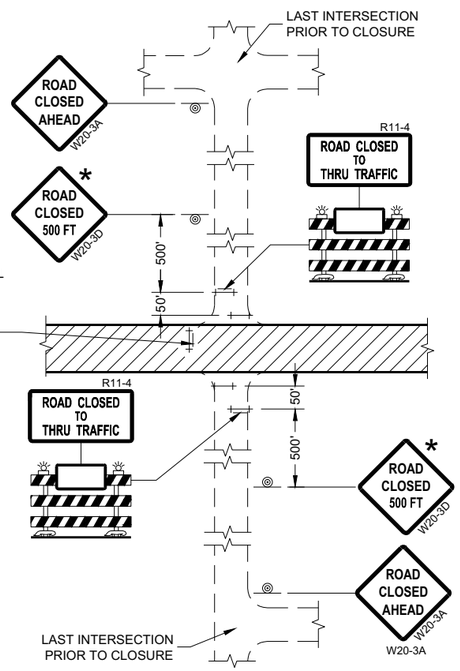
* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

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





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



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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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.

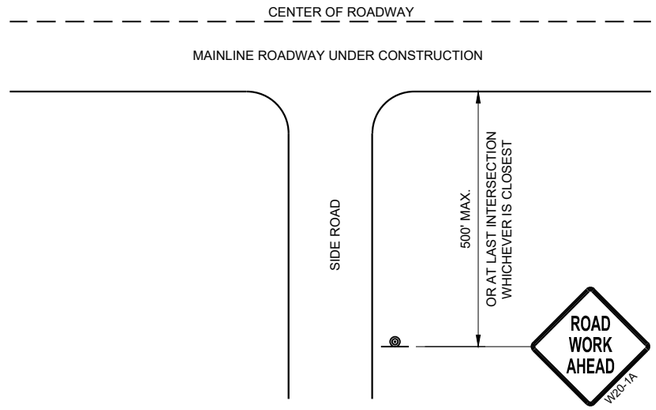
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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.



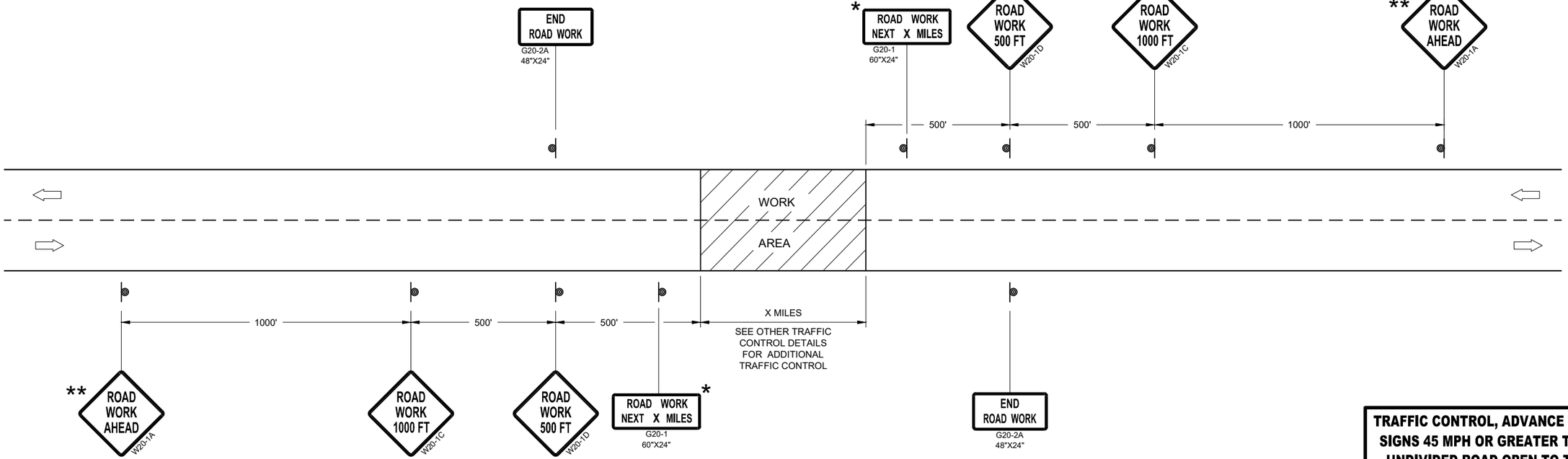
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

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

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

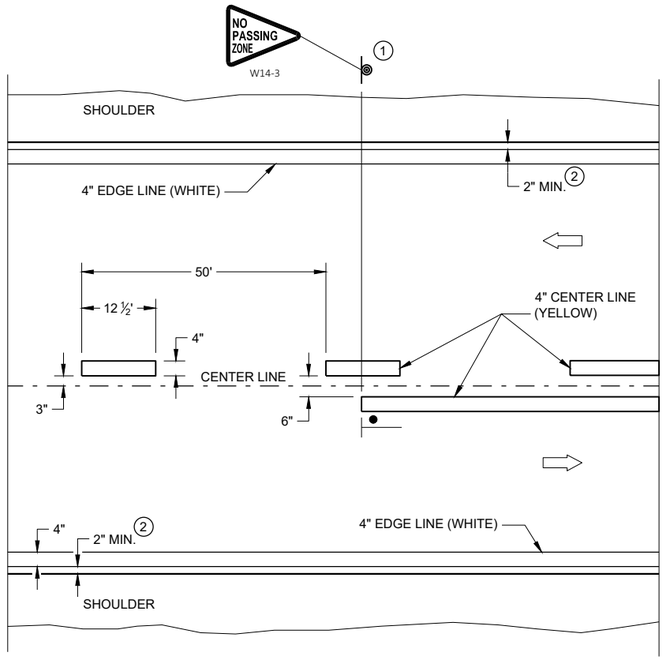
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

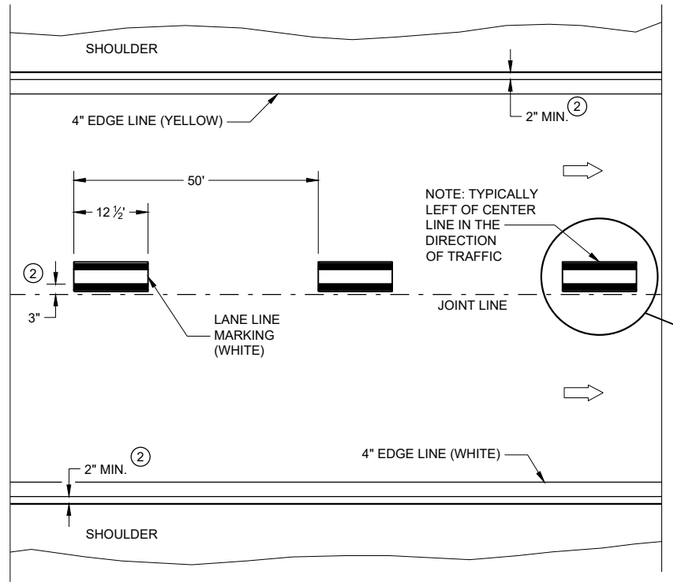
"T" MARKING

SIGN ON PERMANENT SUPPORT

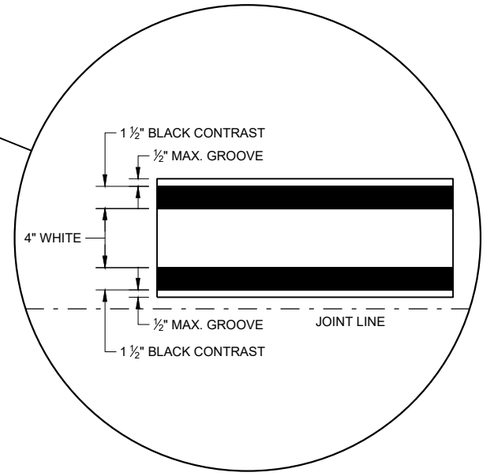
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

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SDD 15C08 - 21a

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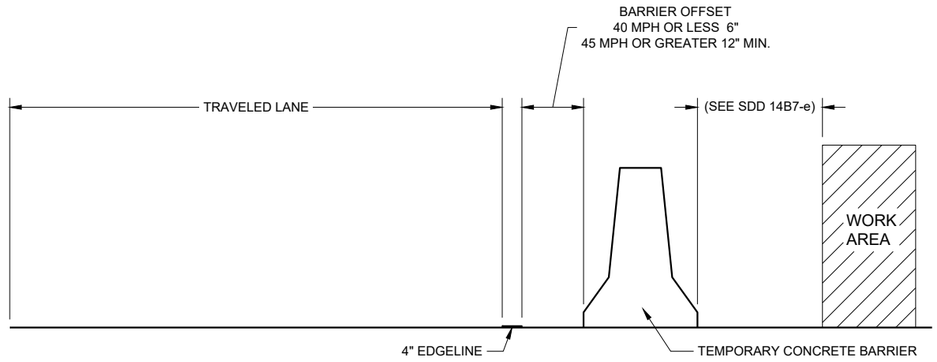
SDD 15C08 - 21a



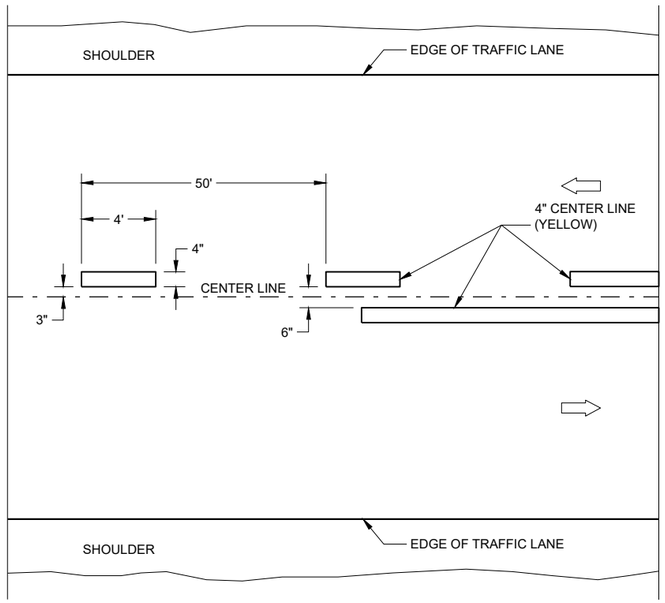
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

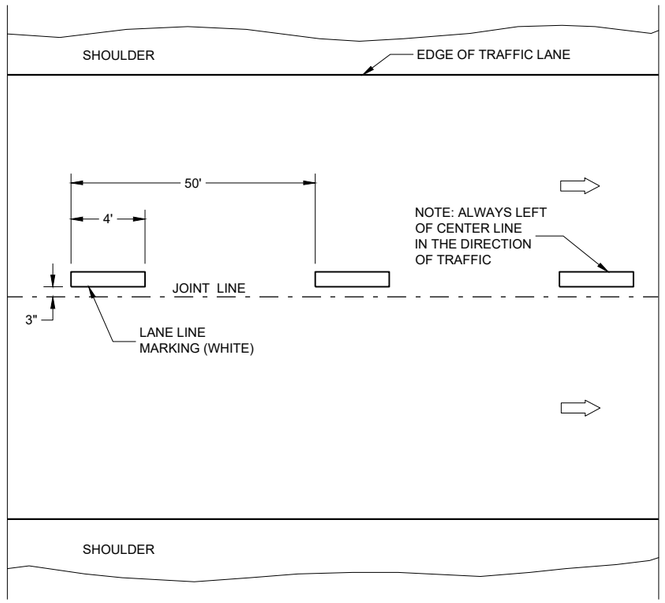
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

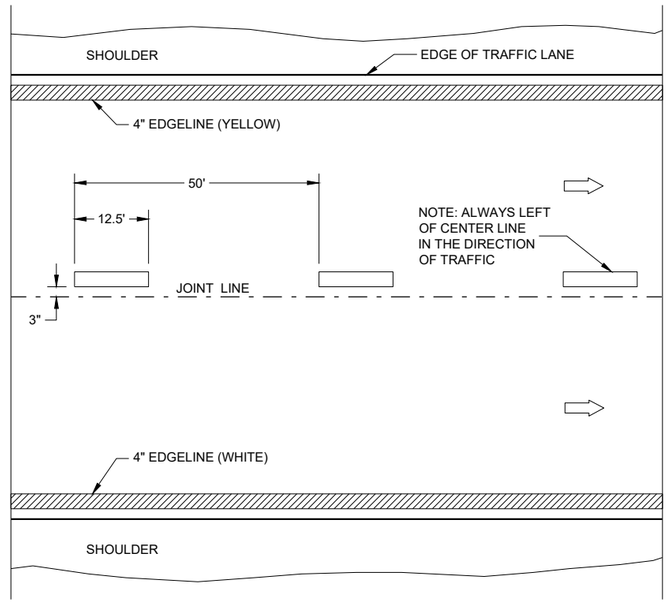
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

6

SDD 15C08 - 21b

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 — DATE

/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

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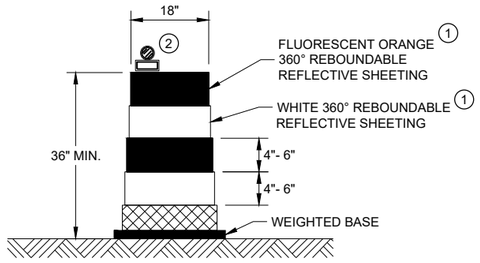
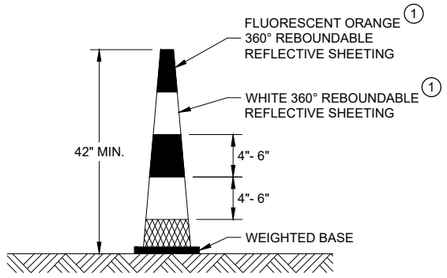
SDD 15C08 - 21b

GENERAL NOTES

1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

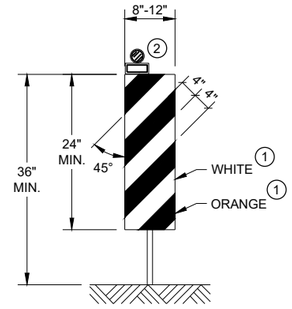


DRUM



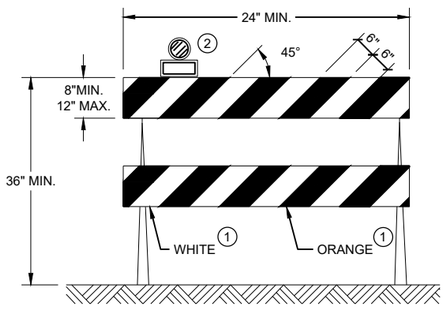
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



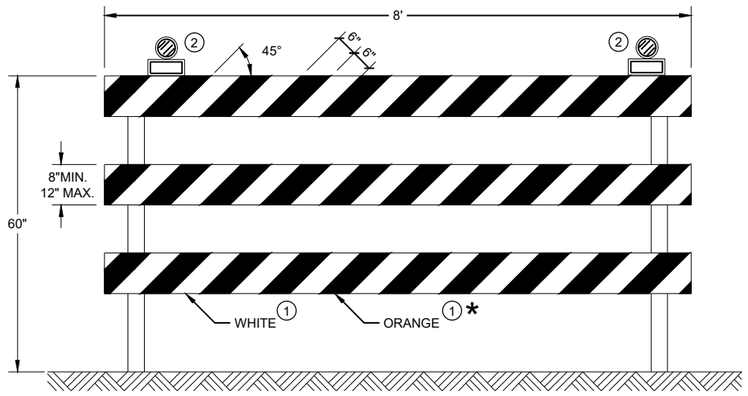
VERTICAL PANEL

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



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES
MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD
TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP
TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C11 - 09b

SDD15C11 - 09b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

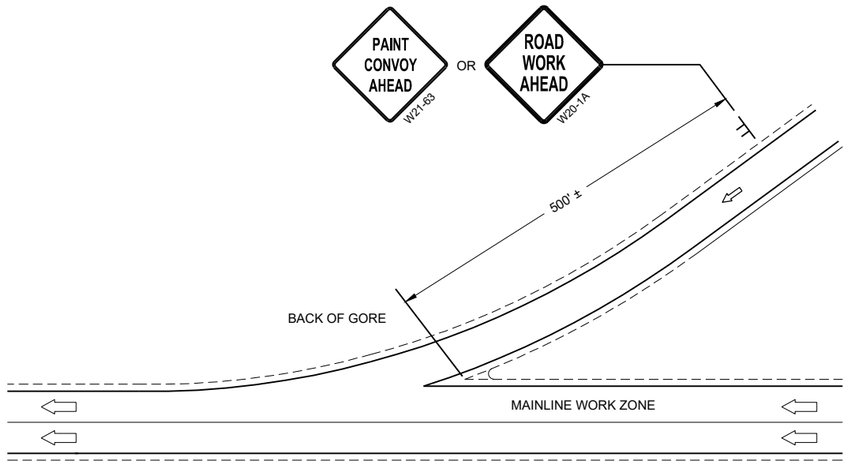
TRUCK MOUNTED ATTENUATOR (TMA)

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.

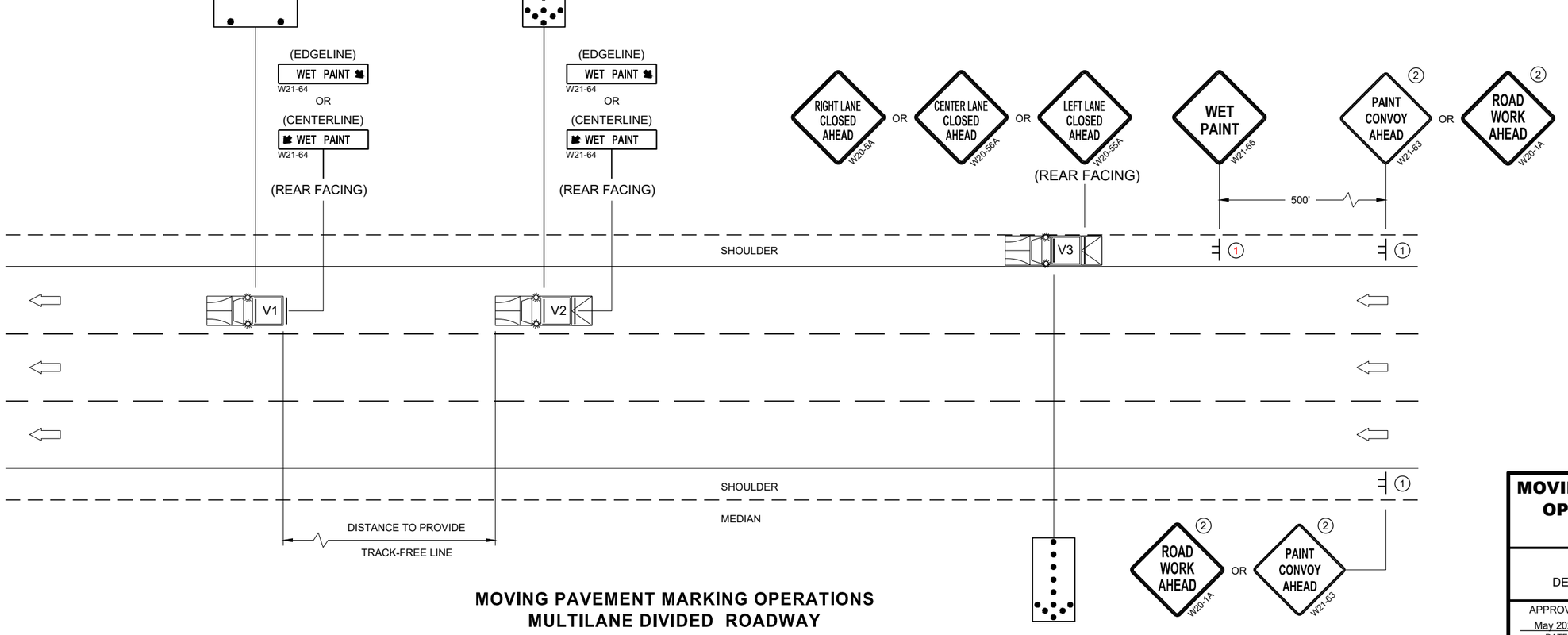
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD15C19 - 07c

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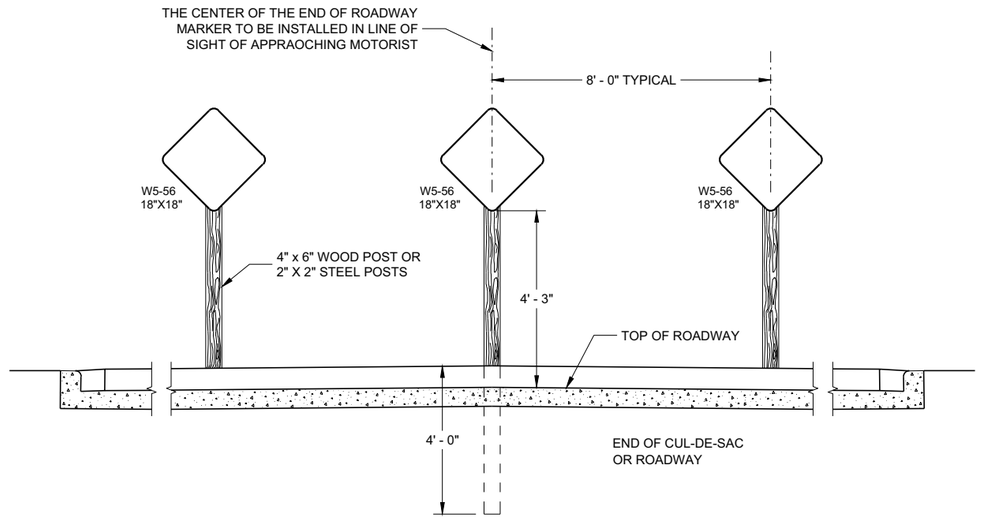
SDD15C19 - 07c

GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL SIGN INSTALLATION

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SDD 15C26 - 04

SDD 15C26 - 04

END-OF-ROADWAY SIGNING

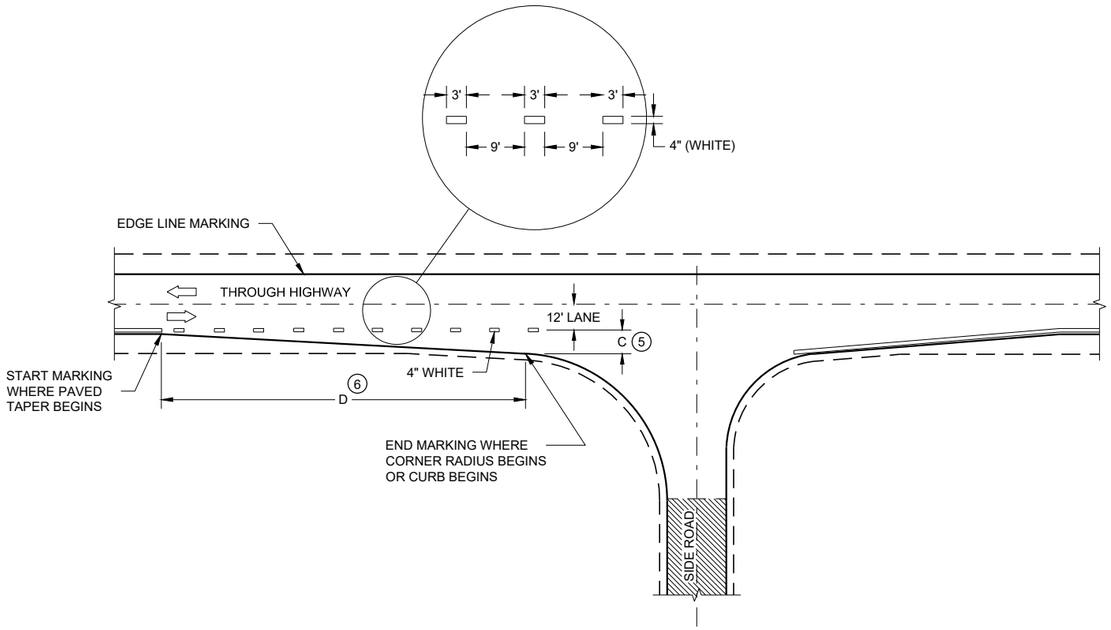
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA



MINOR INTERSECTION

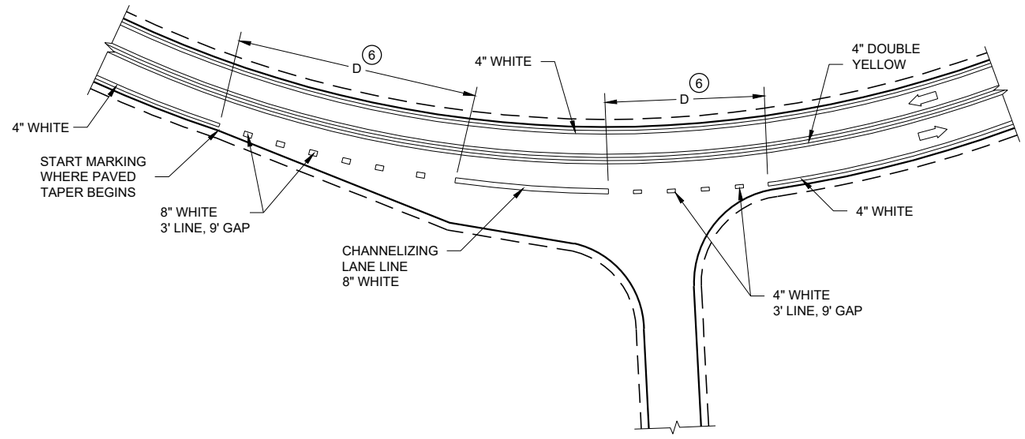
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

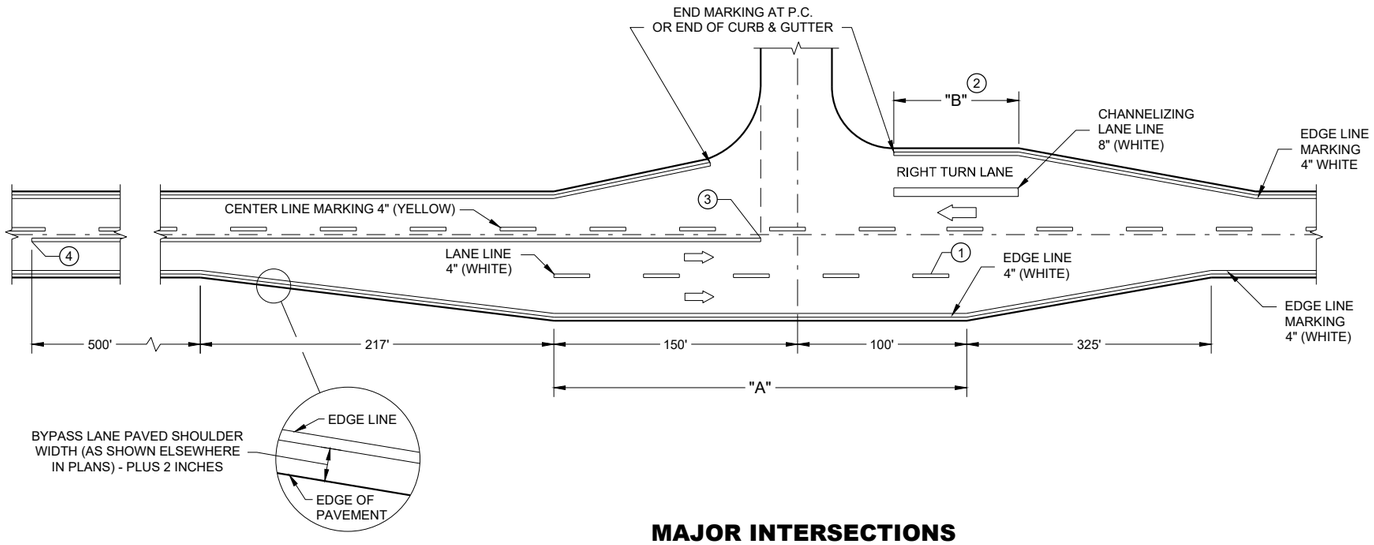
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

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.

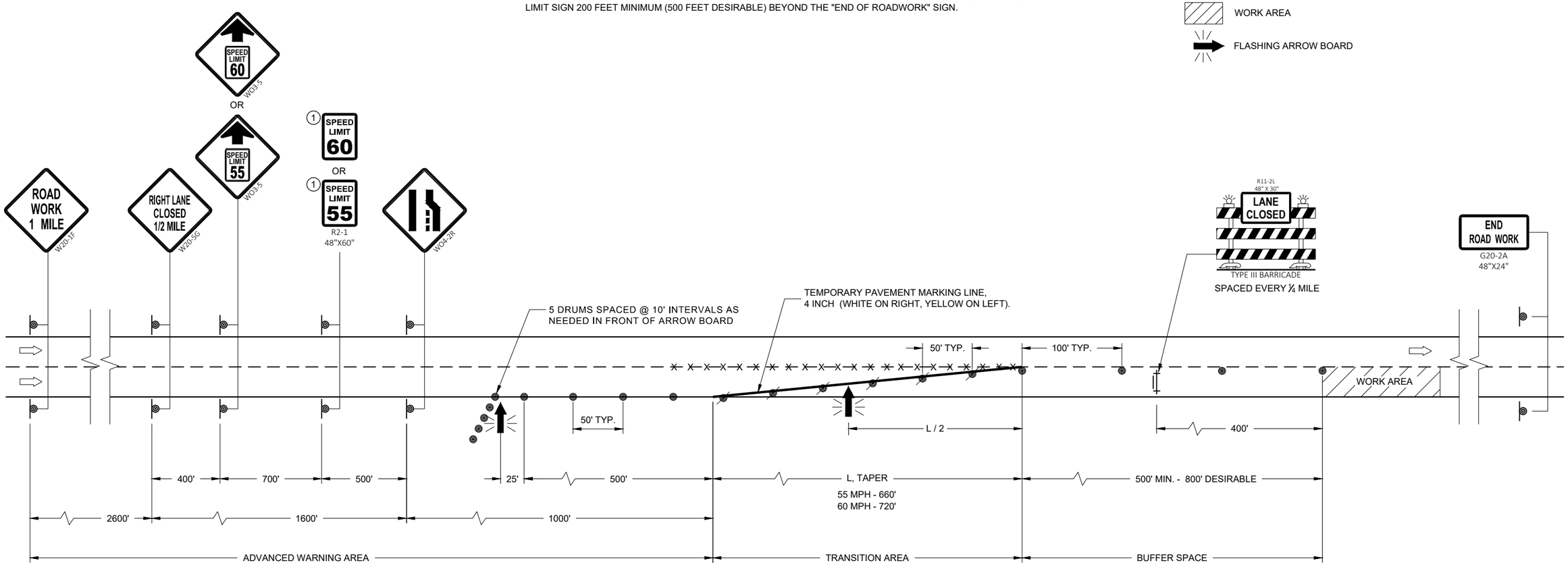
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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) 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 A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 10b

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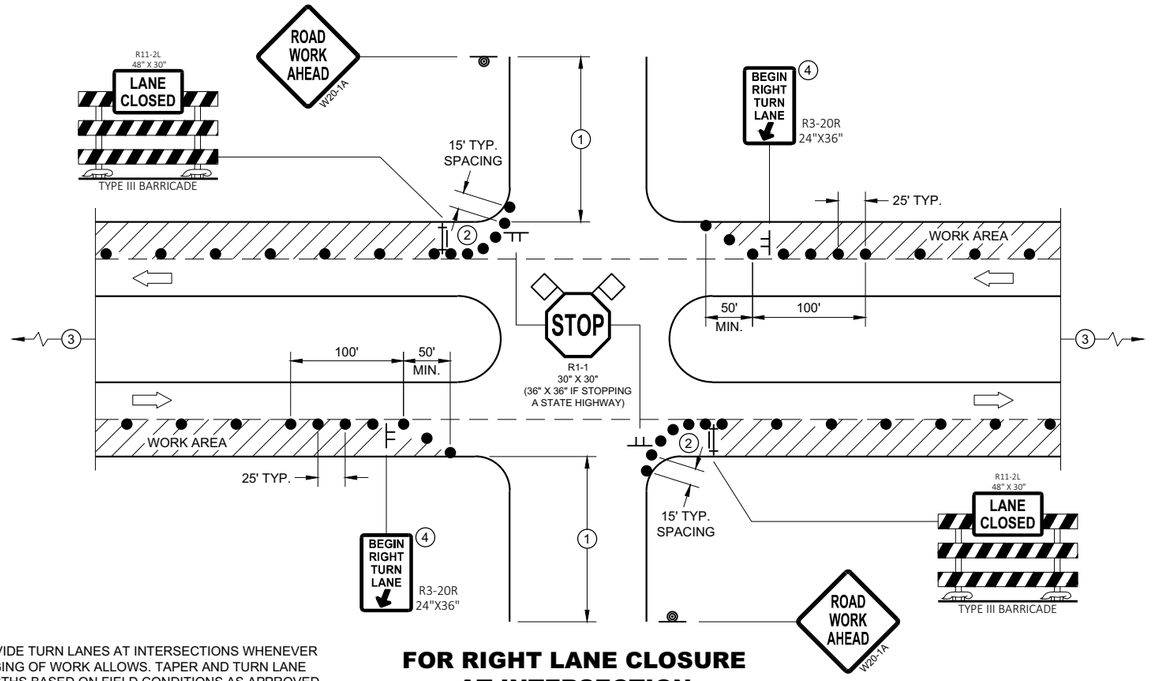
SDD 15D12 - 10b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

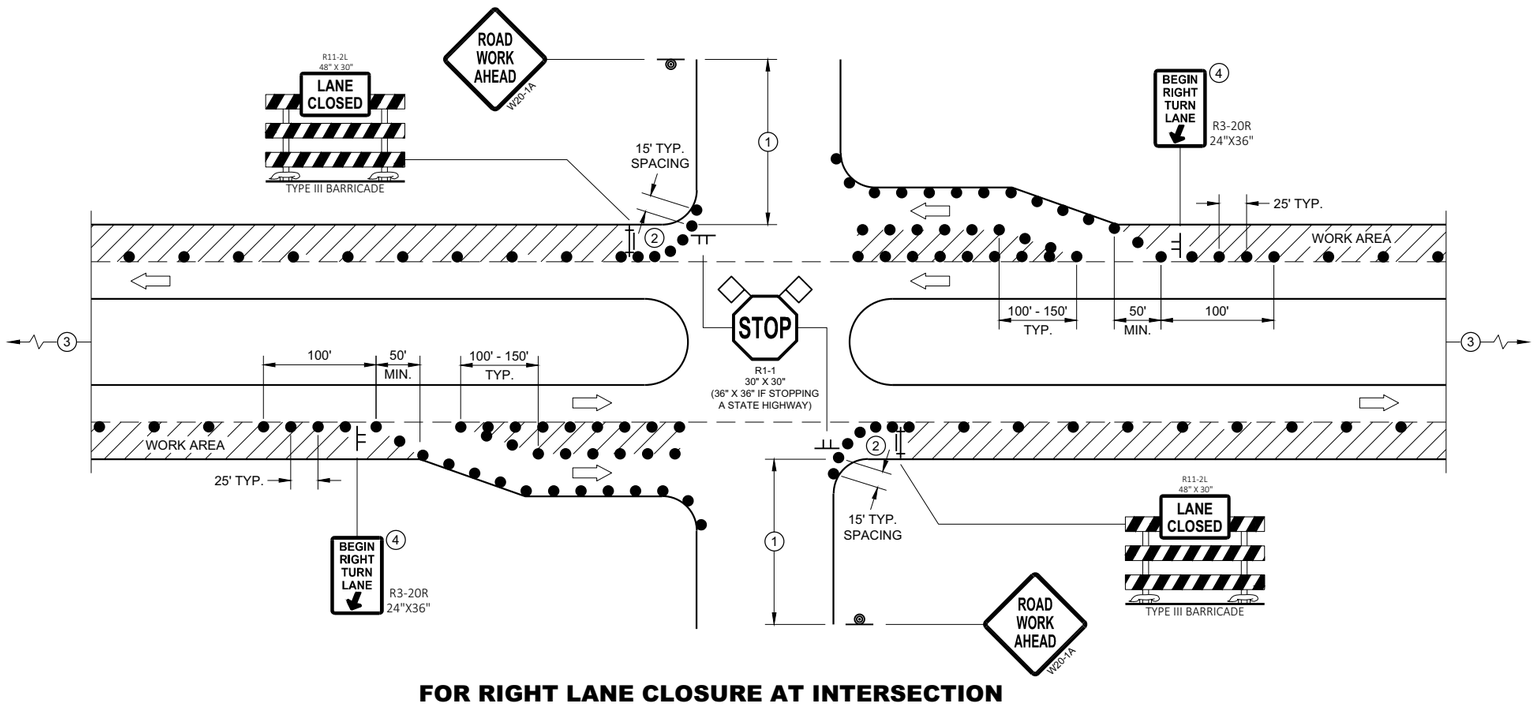
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15D21 - 07a

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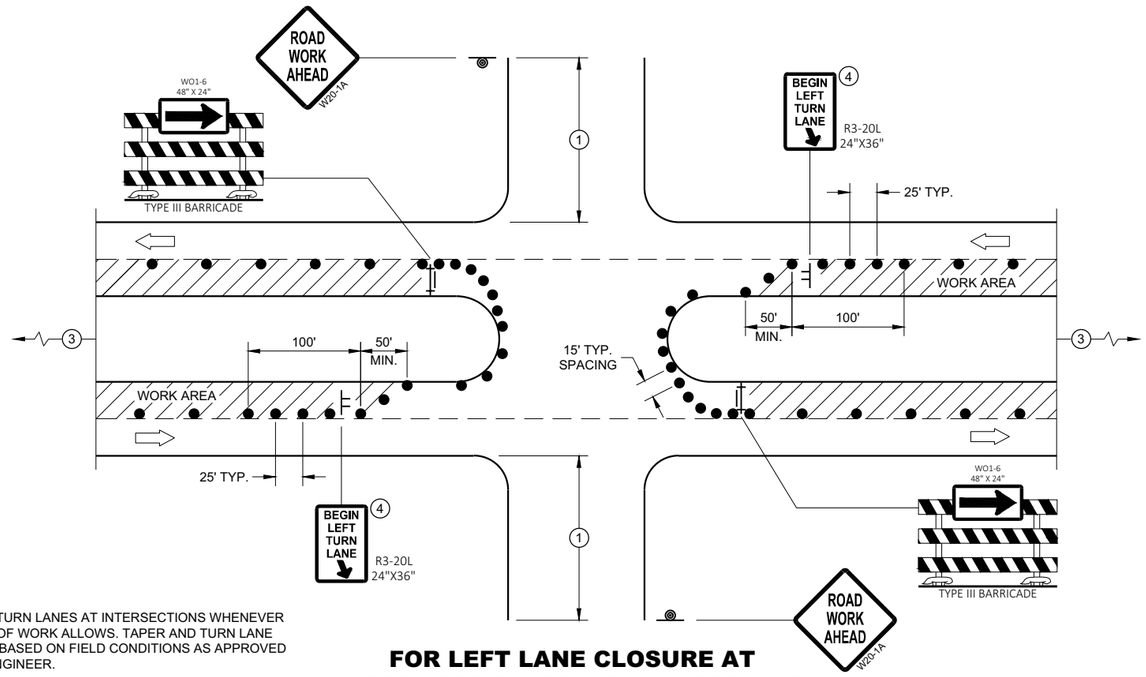
SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

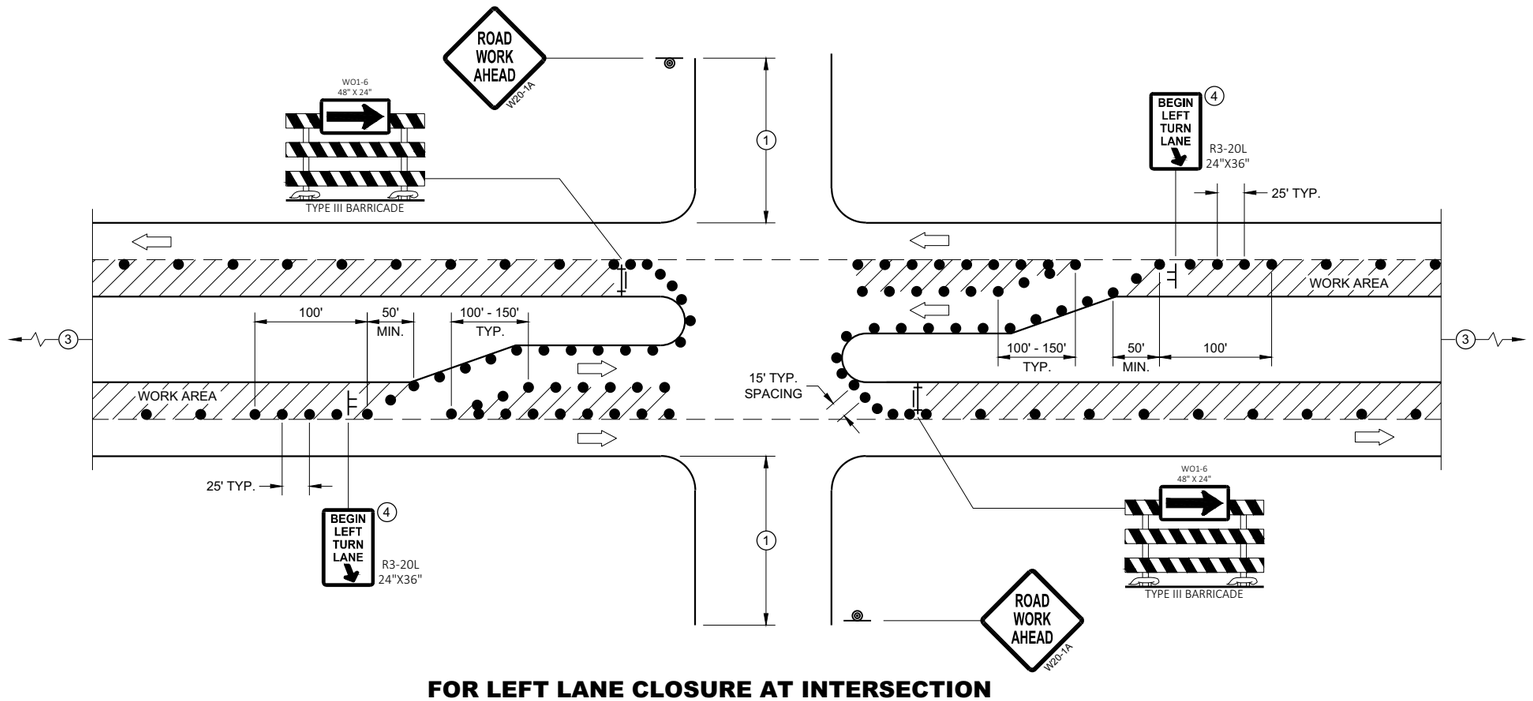
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

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.

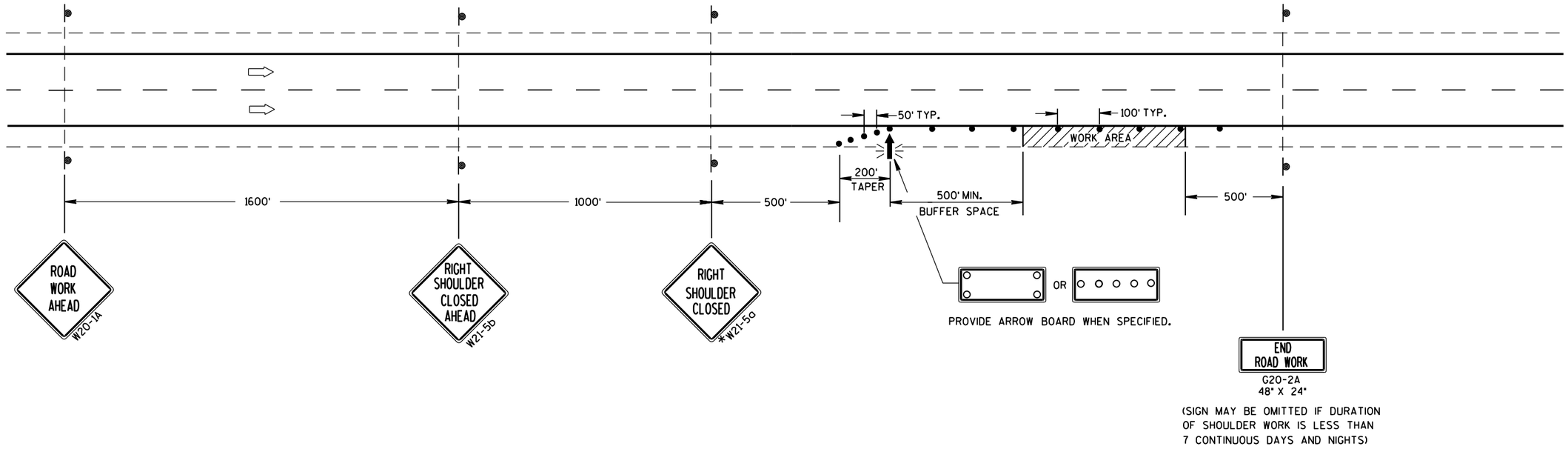
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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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)				
	10	11	12	13	14
50	250	275	300	325	350
55	275	303	330	358	385
60	300	330	360	390	420
65	325	358	390	423	455
70	350	385	420	455	490

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. 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.

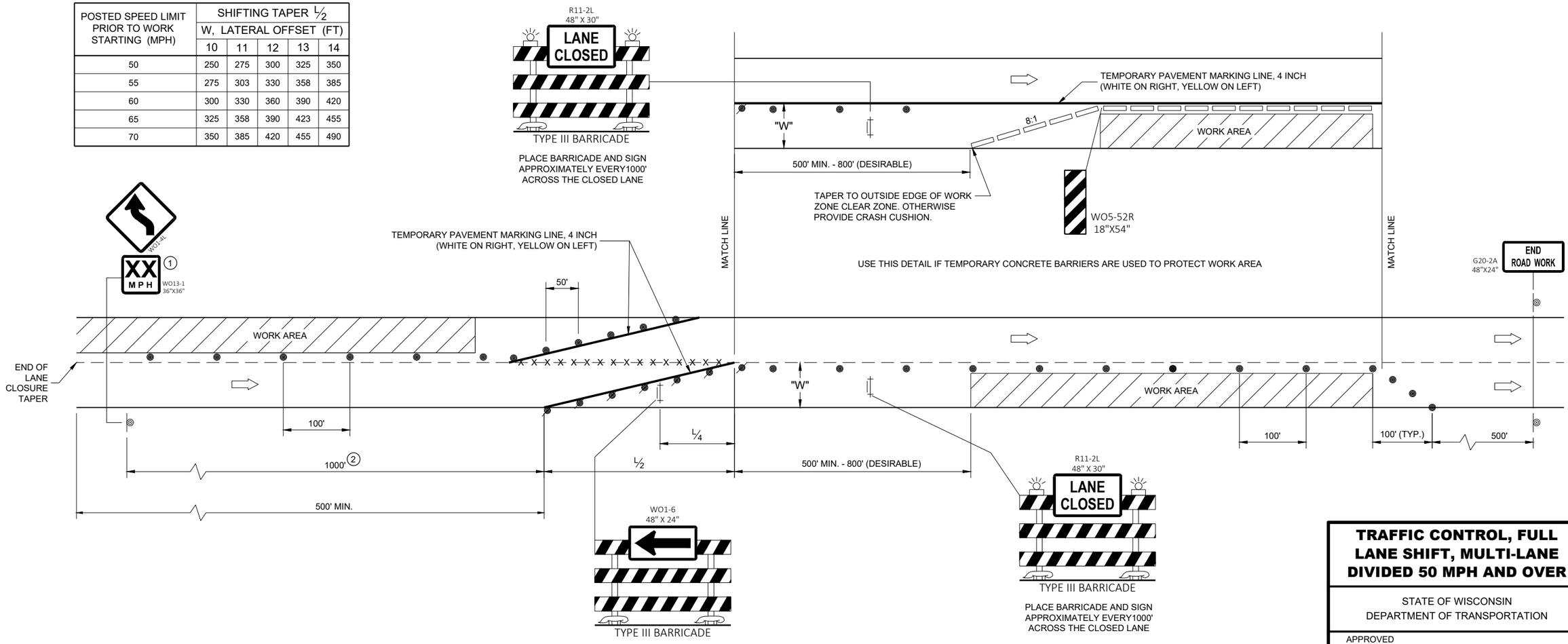
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 ½ 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 IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) IF BEGINNING OF LANE SHIFT IS 1200' OF LESS FROM THE END OF THE LANE CLOSURE TAPER, PLACE THE WO1-4L SIGN 200 FEET AFTER THE END OF THE LANE CLOSURE TAPER.



TRAFFIC CONTROL, FULL LANE SHIFT, MULTI-LANE DIVIDED 50 MPH AND OVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D40 - 04b

SDD 15D40 - 04b

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.

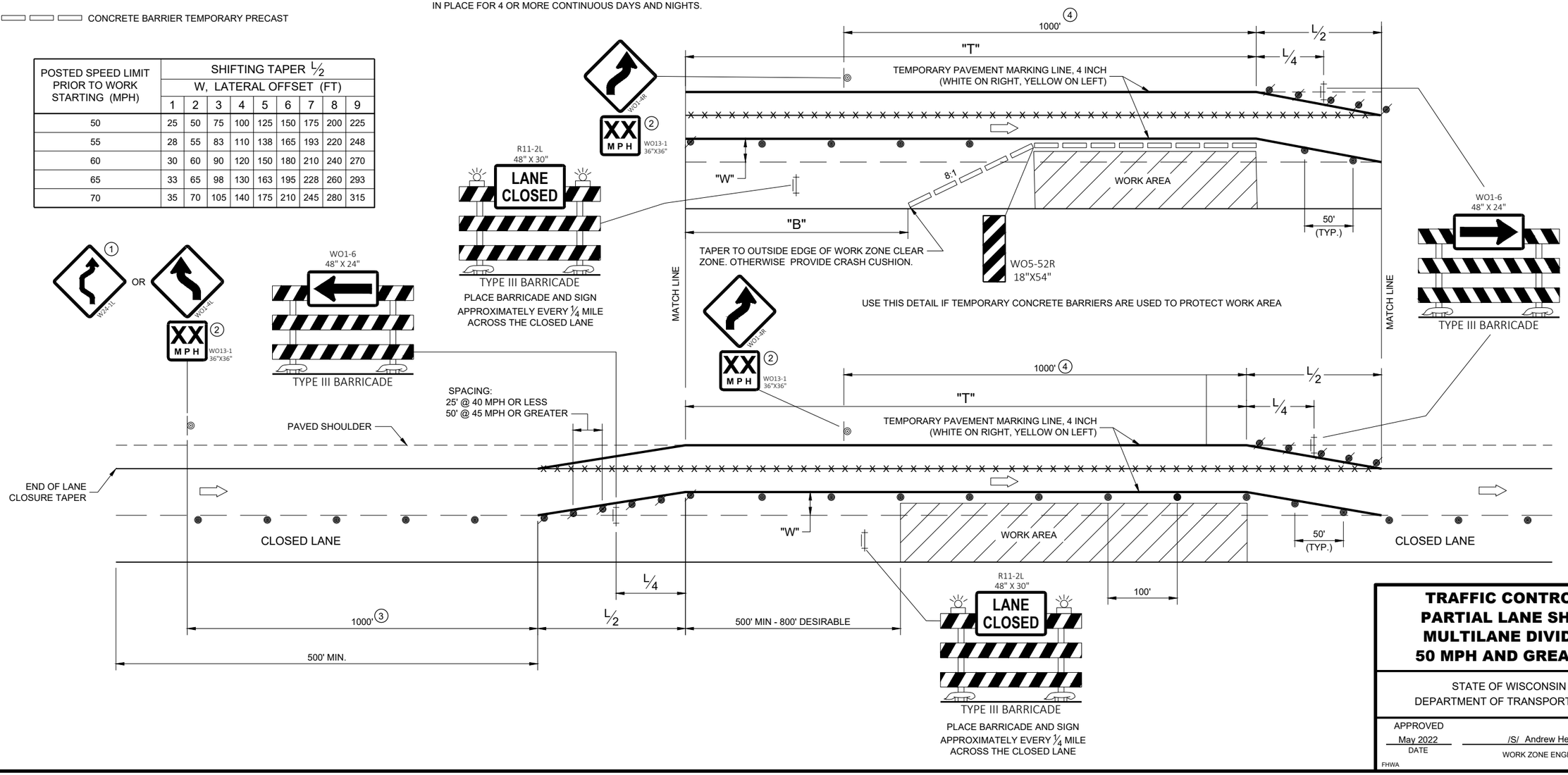
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP 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 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

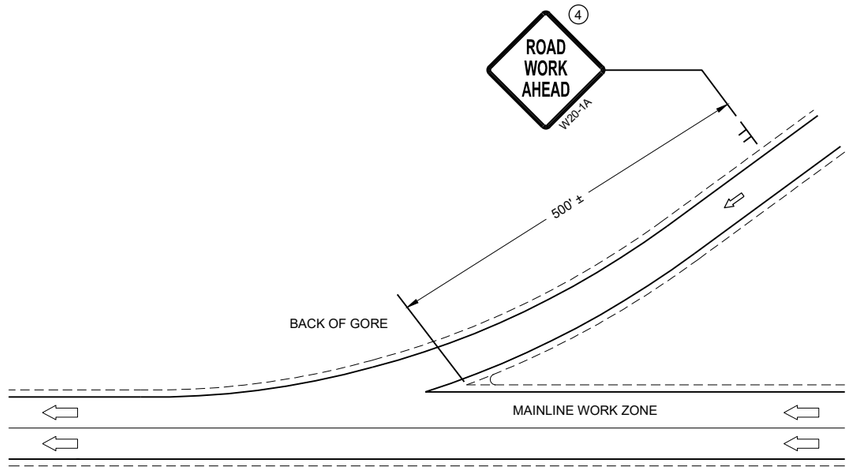
FHWA

SDD 15D40 - 04d

SDD 15D40 - 04d

LEGEND

- V1 SHADOW VEHICLE 1
- V2 SHADOW VEHICLE 2
- V3 ADVANCE WARNING TRUCK
- ● TRAFFIC CONTROL DRUM
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA



GENERAL NOTES

SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.

MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

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.

WHEN WORK ACTIVITY BLOCKS THE RIGHT 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 DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

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

(1) DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE 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.

(2) DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.

(3) WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.

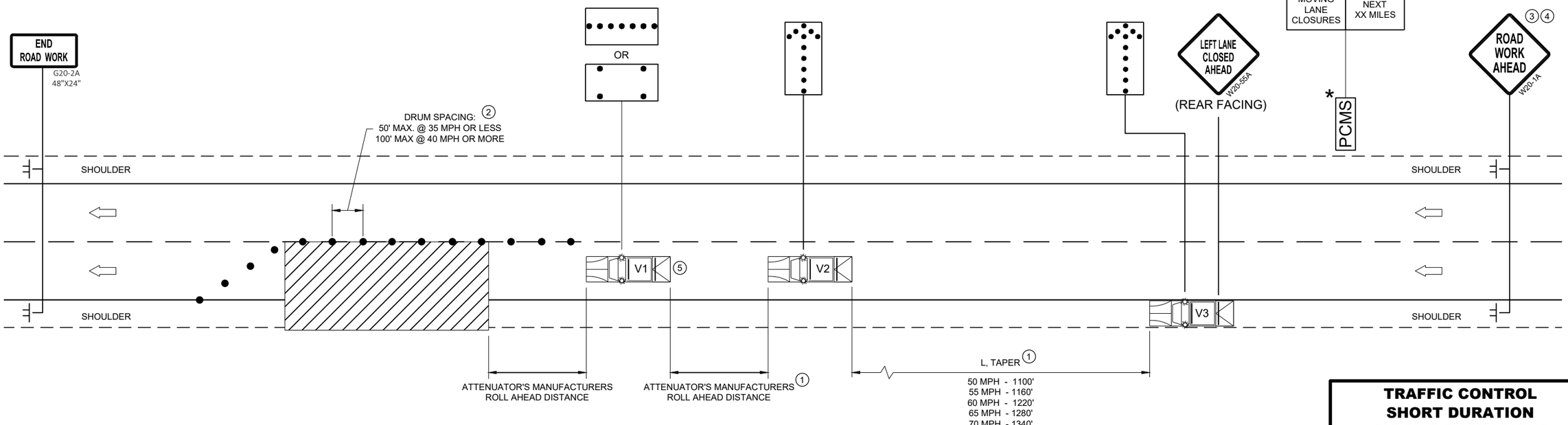
(4) SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(5) SHADOW VEHICLE 1 (V1) IS OPTIONAL

* PCMS OPTIONAL

PCMS MESSAGING

FRAME 1	FRAME 2
MOVING LANE CLOSURES	NEXT XX MILES



TRAFFIC CONTROL SHORT DURATION MOBILE OPERATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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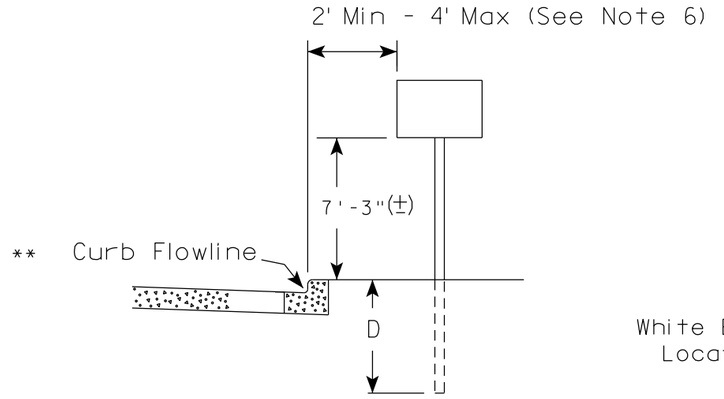
SDD 15D43 - 02

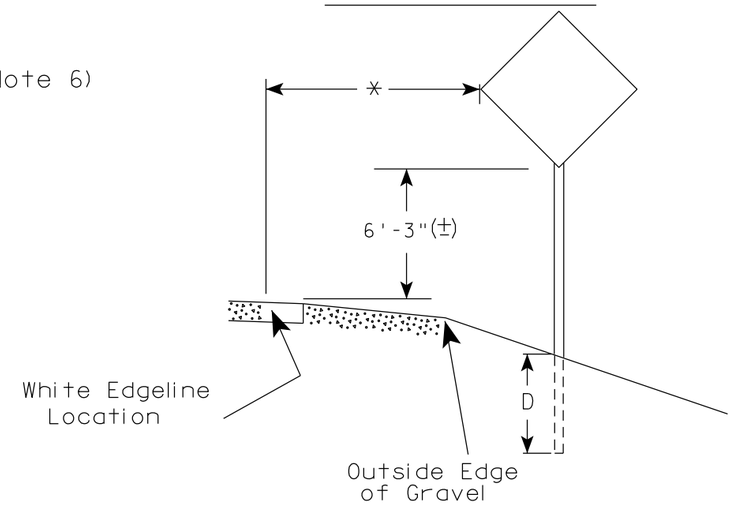
6

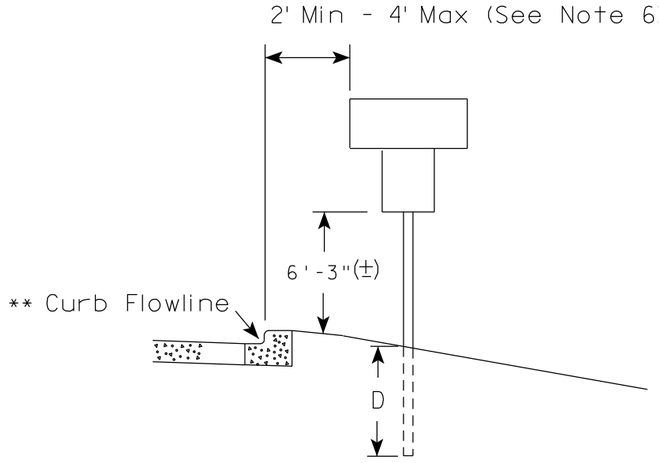
SDD 15D43 - 02

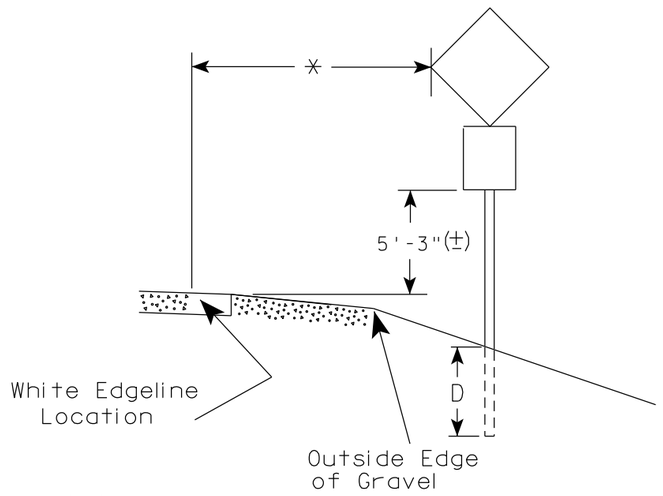
URBAN AREA



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.

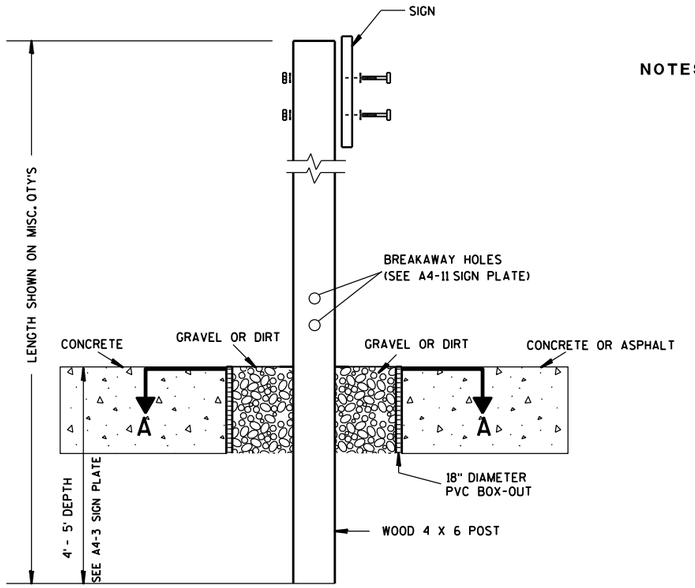
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

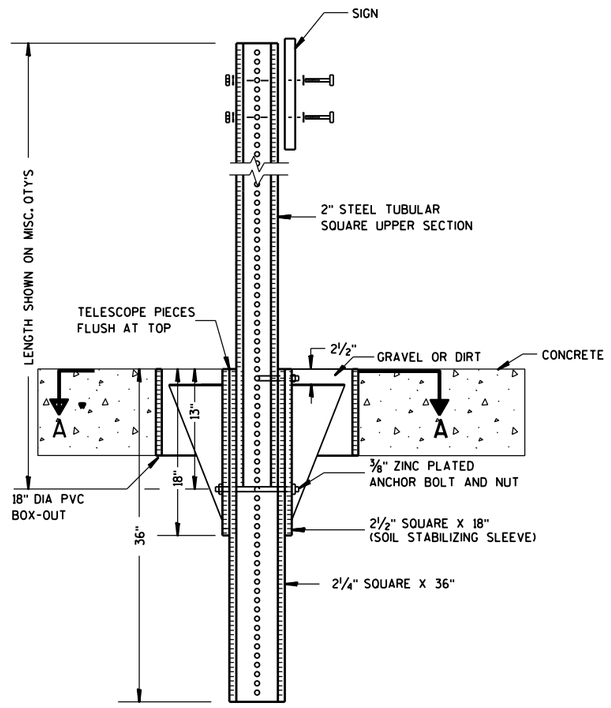
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	E



ELEVATION VIEW

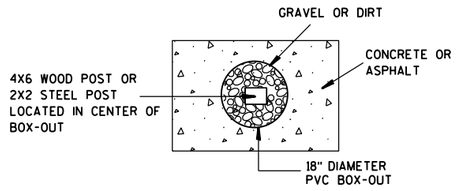
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

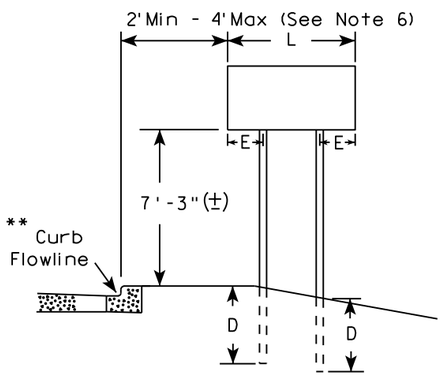
APPROVED Matthew R Rauch
for State Traffic Engineer

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

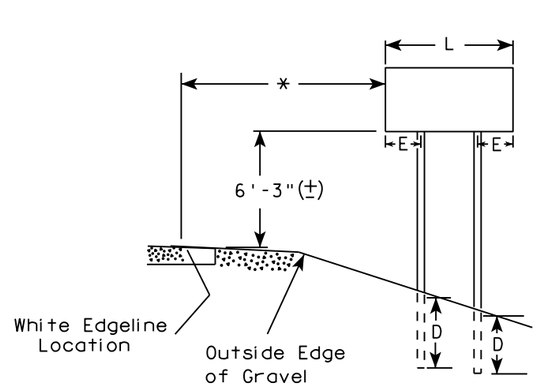
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

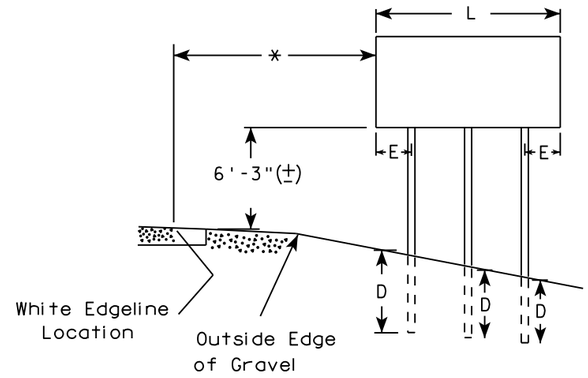
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

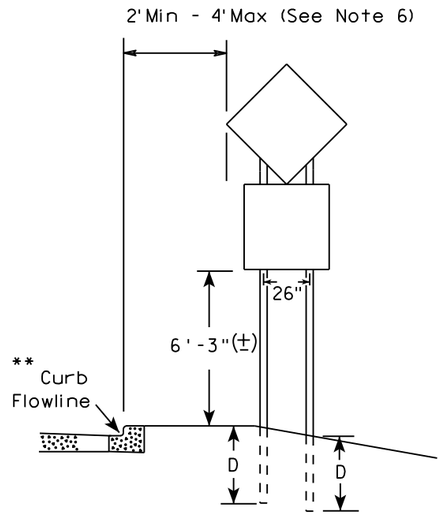
URBAN AREA



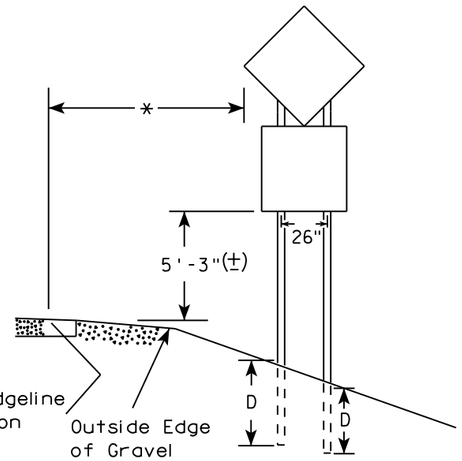
RURAL AREA (See Note 3)







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

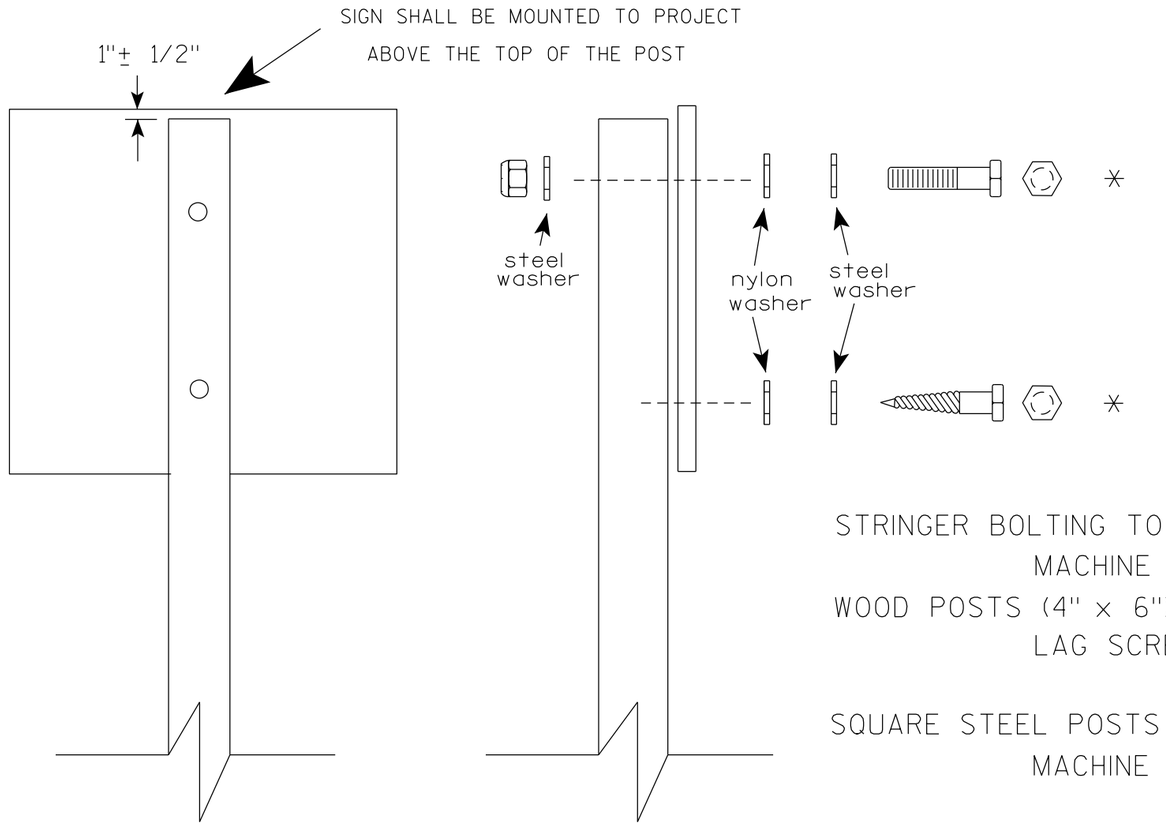
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 21-AUG-2017 15:54 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 108.188297:1.000000 WISDOT/CADDS SHEET 42



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

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

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

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

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

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

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

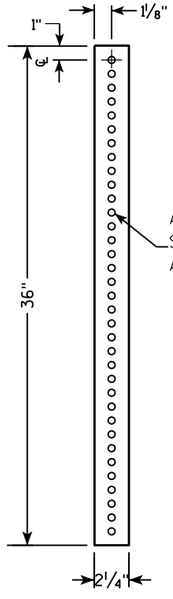
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

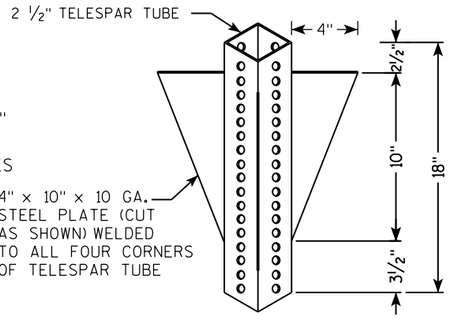
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

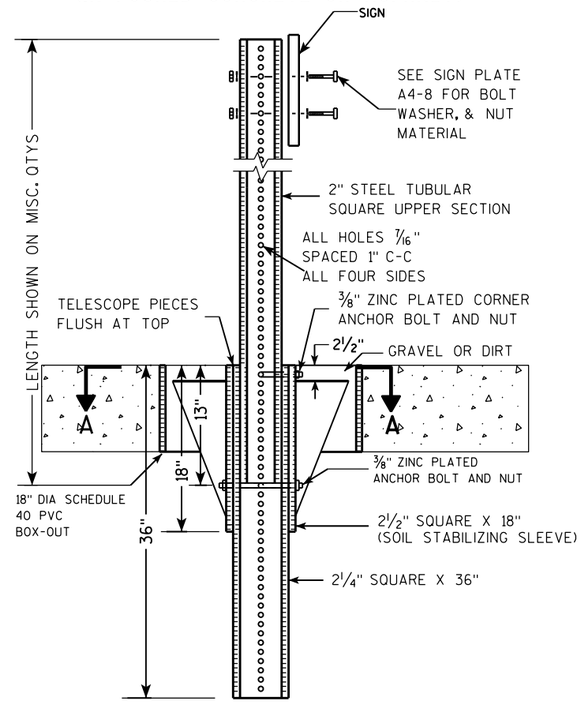
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



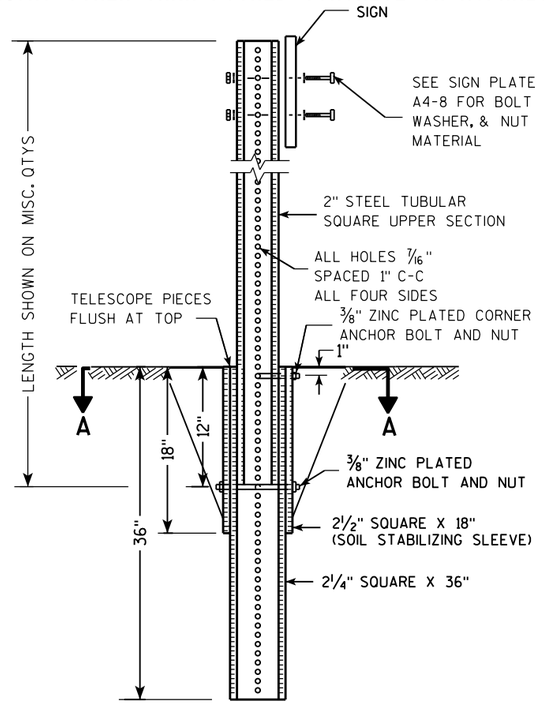
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

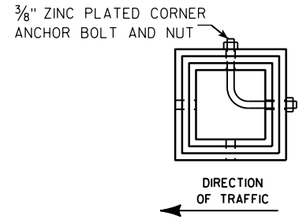


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





SECTION A-A

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

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

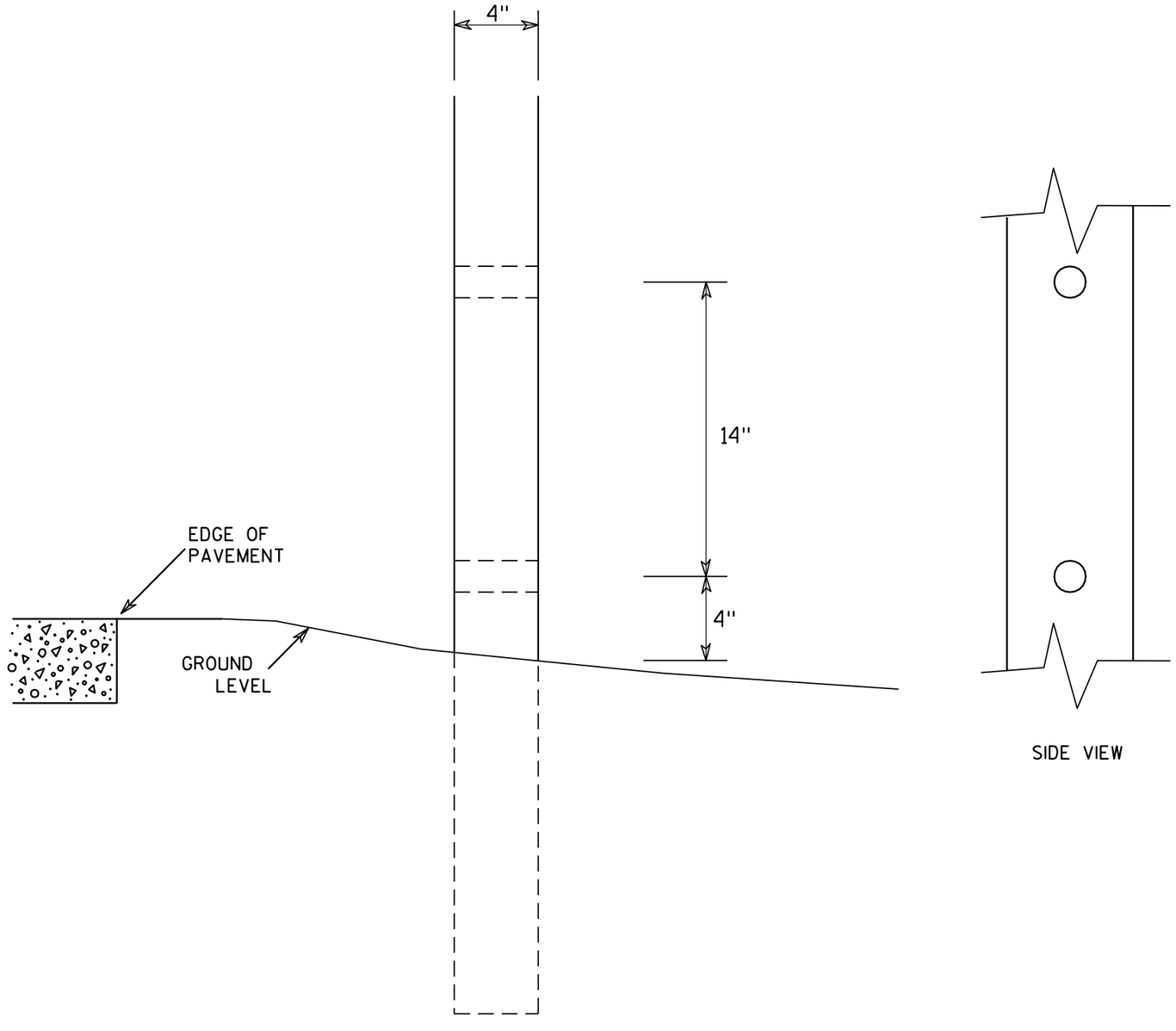
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 112 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

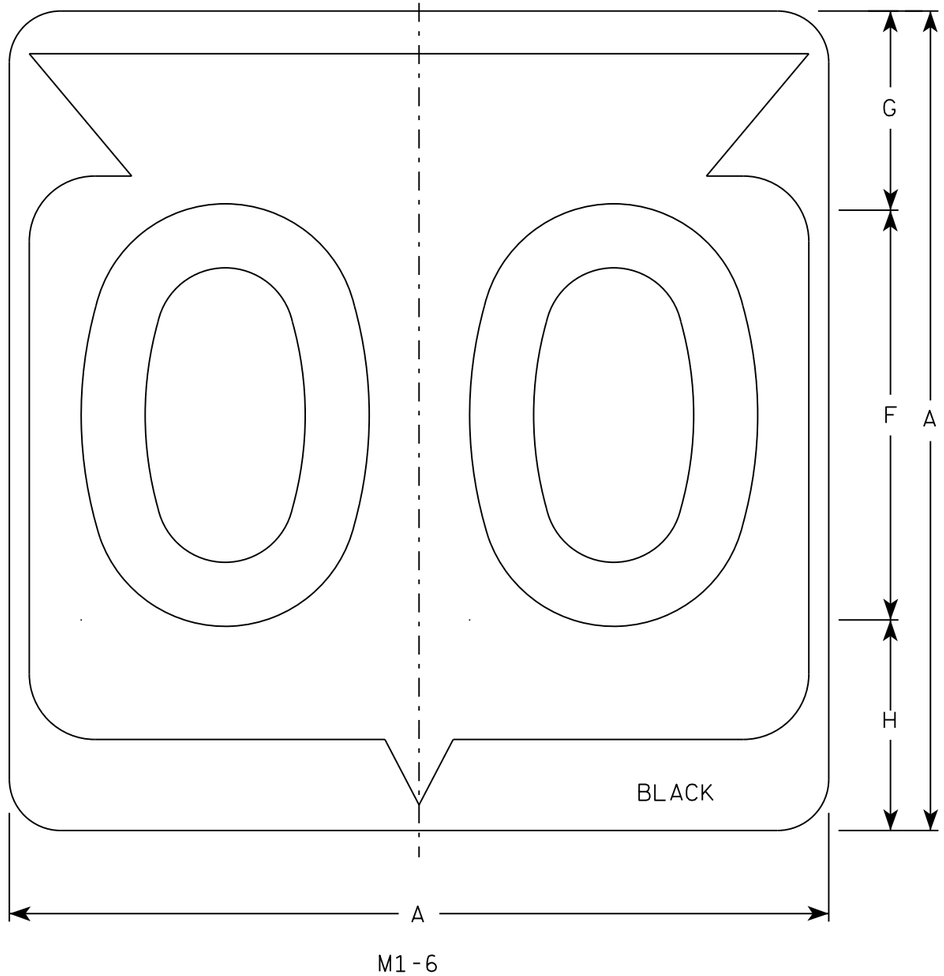
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang
for State Traffic Engineer

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

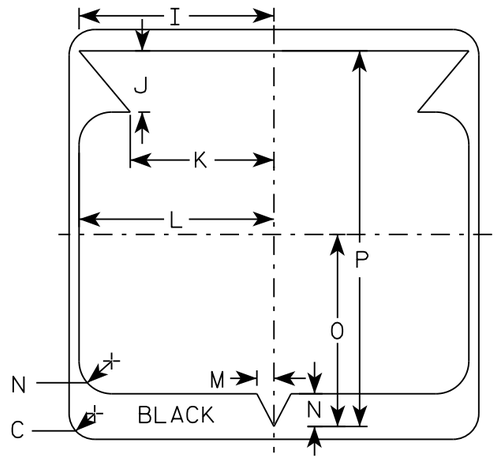
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 113	E



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

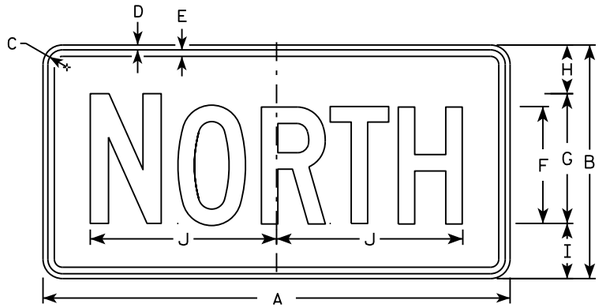
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

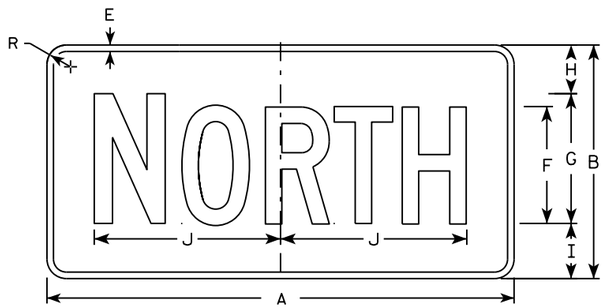
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 114	E



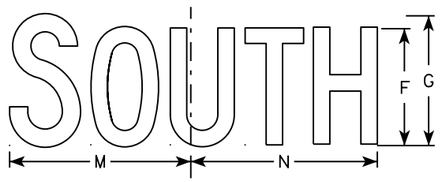
M3-1
MM3-1
MP3-1



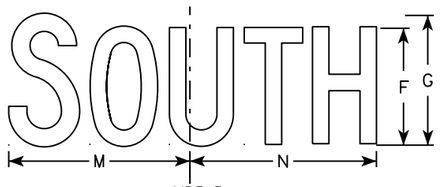
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

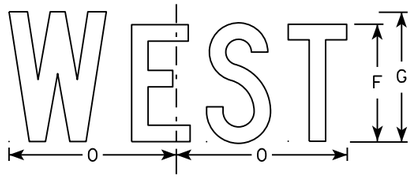
MB3-2
MK3-2
MN3-2



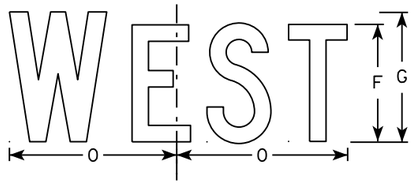
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

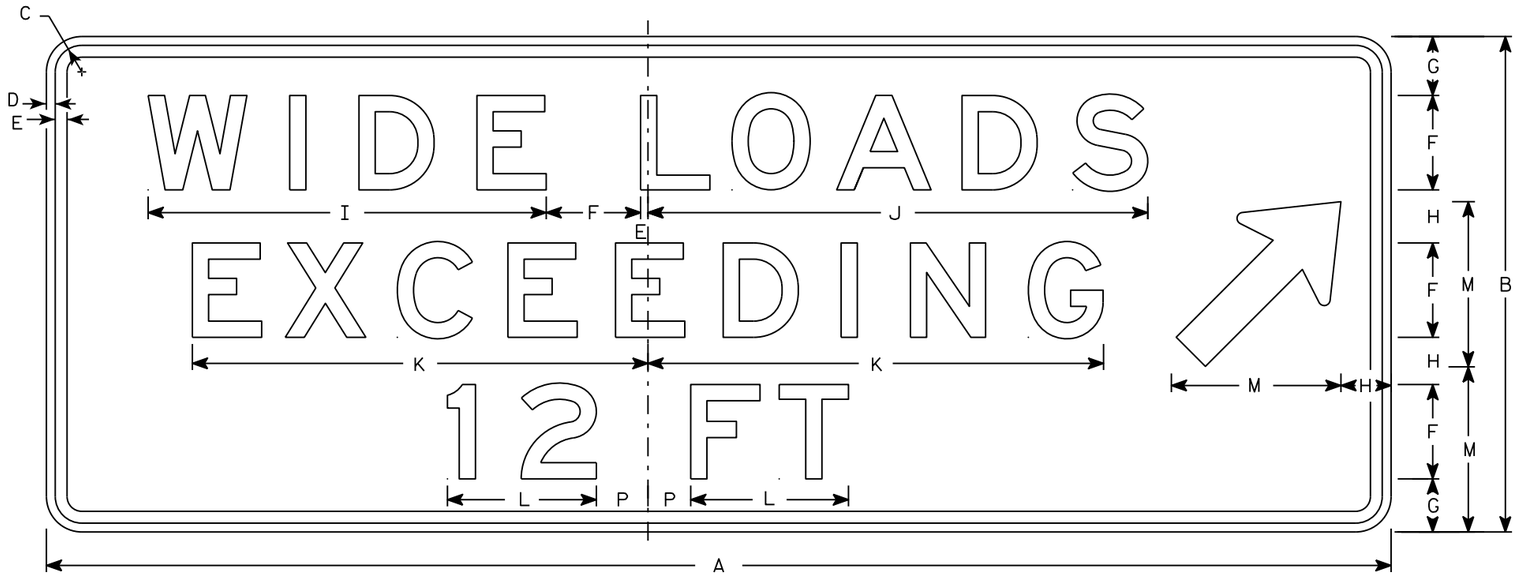
DATE 10/15/15 PLATE NO M3-1.14

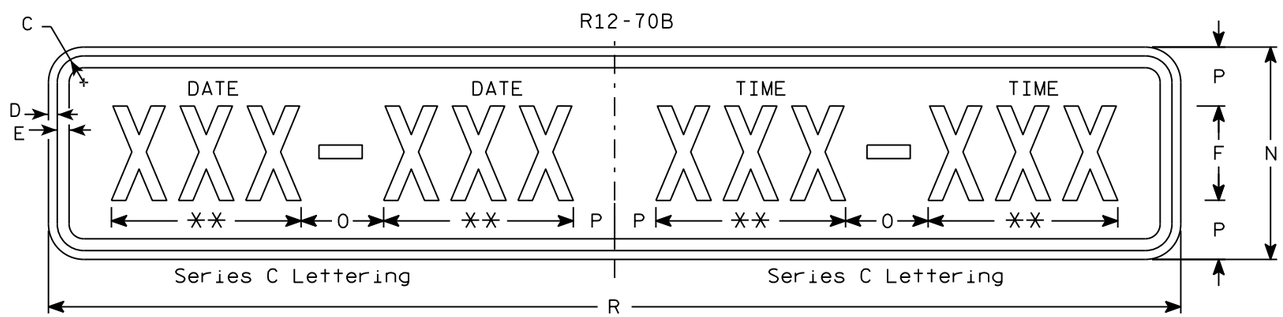
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E except as noted
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.

** Substitute appropriate message, optically center message





R12-70C

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	R12-70 Area sq. ft.	R12-70C Area sq. ft.
1																												
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5
3																												
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0

TYPICAL SIGN
R12-70B

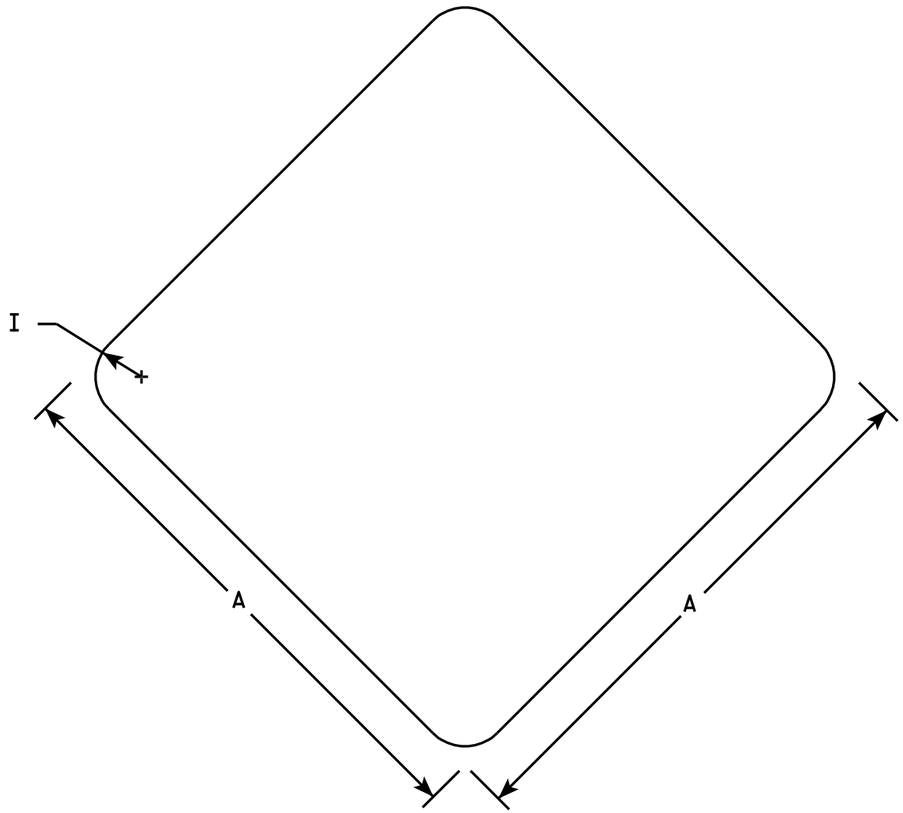
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/15 PLATE NO R12-70B.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000



W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

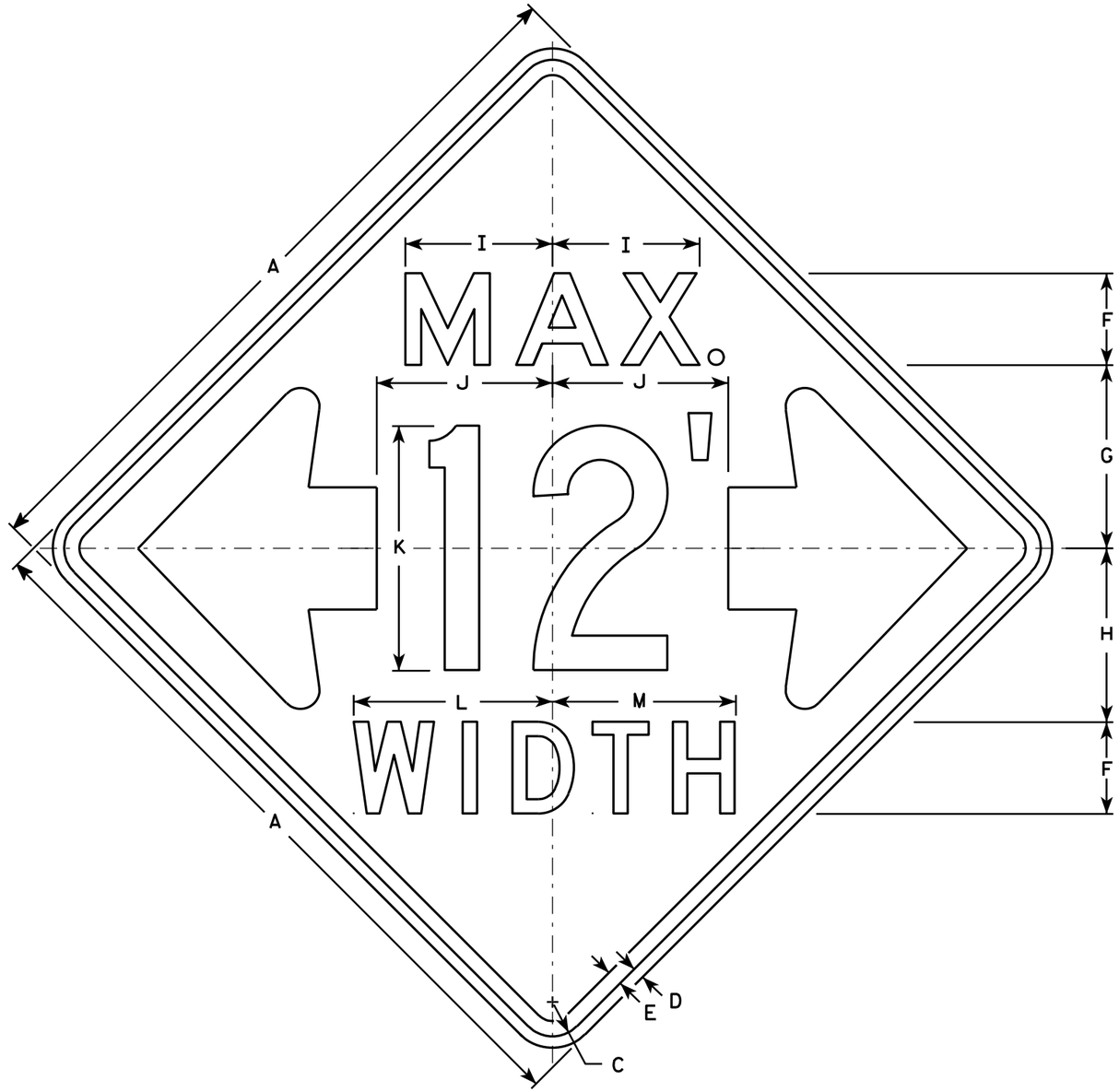
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

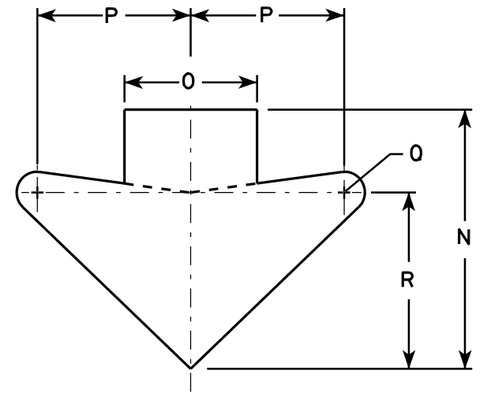
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 117	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

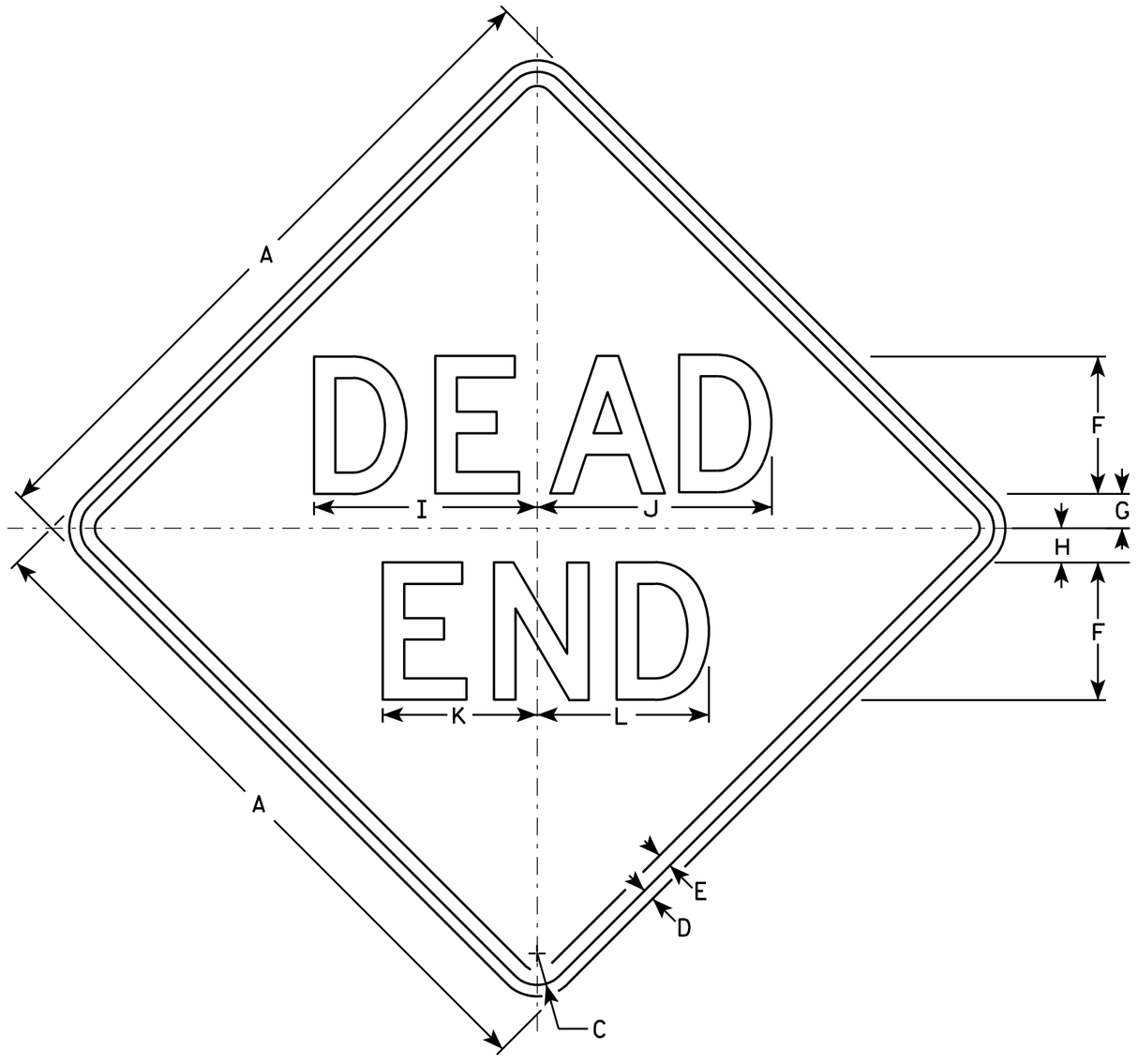
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 118 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



W14-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

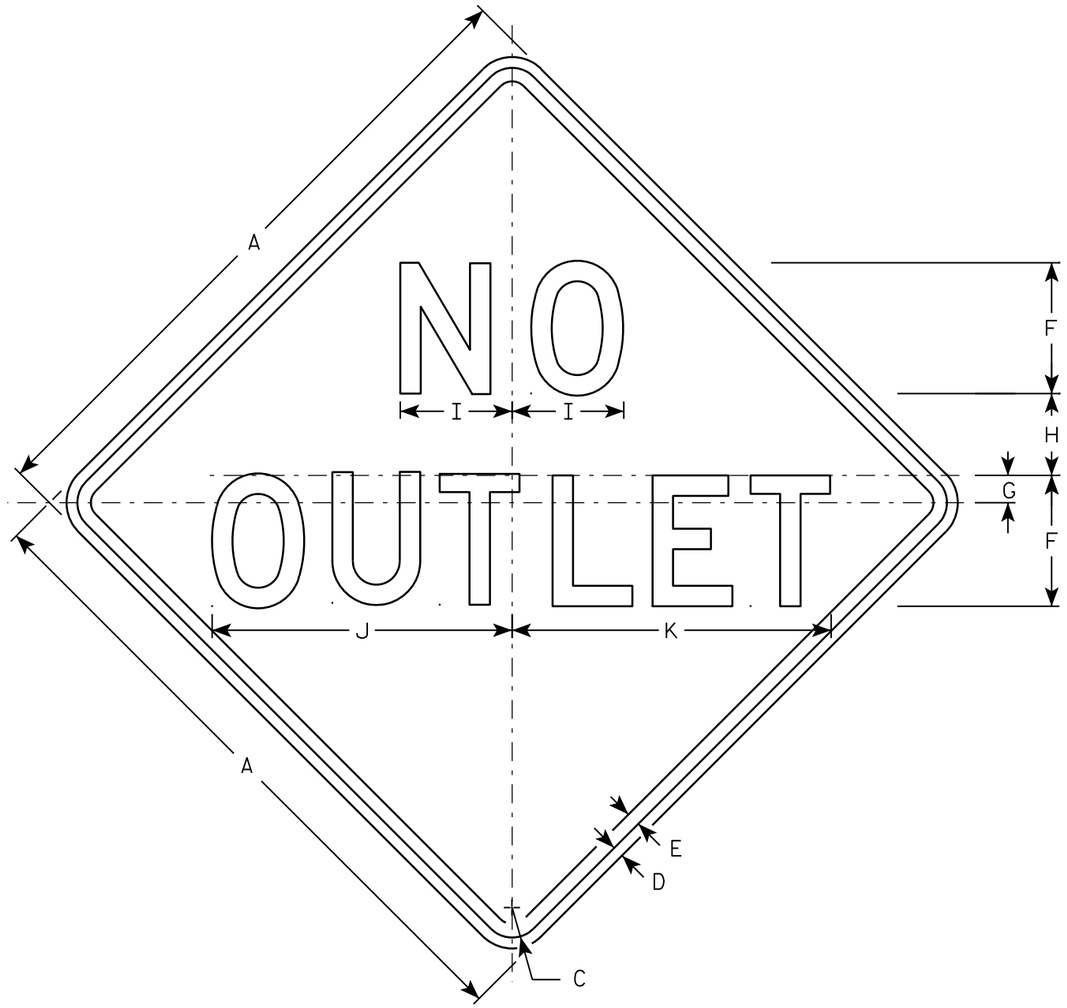
STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E



W14-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

STANDARD SIGN
W14-2

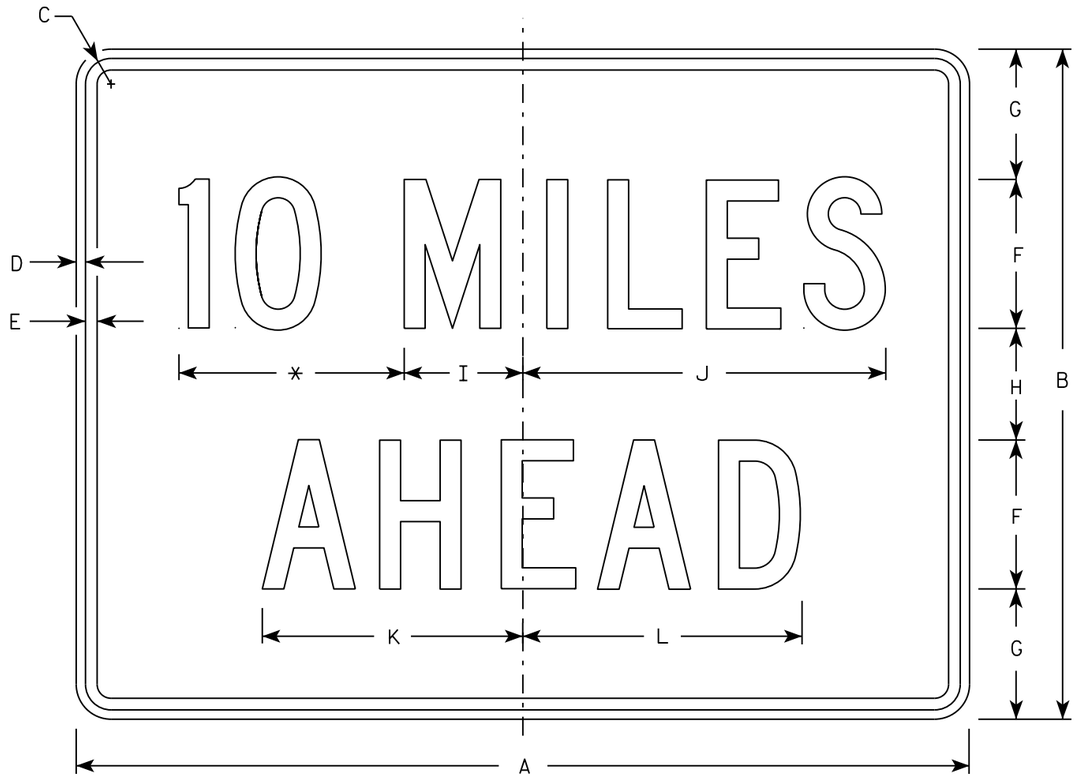
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

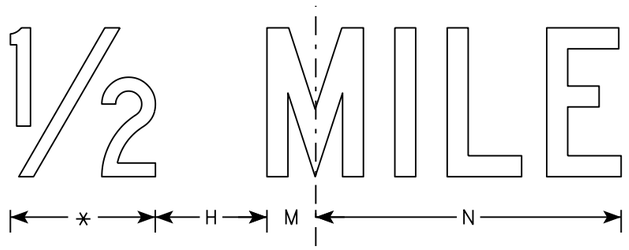
DATE 3/13/13 PLATE NO. W14-2.3

PROJECT NO:

SHEET NO: 120 E



W057-52



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.
5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.

* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 121	E

STH 29 - WB - AT GUARDRAIL - STA 942+09 TO STA 952+74, LT - DIVISION 1

STATION	DISTANCE	AREA (SF) CUT NOTE 1	AREA (SF) FILL NOTE 2	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL NOTE 2	CUMULATIVE VOLUME (CY) CUT NOTE 1 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
942+09	0	6	0	0	0	0	0	0
942+30	21	11	94	7	37	7	46	-39
942+55	25	6	122	8	100	15	171	-156
942+80	25	7	148	6	125	21	328	-307
943+00	20	7	150	5	110	26	465	-439
944+00	100	7	0	26	278	52	813	-761
945+00	100	7	0	26	0	78	813	-735
946+00	100	5	1	22	2	100	815	-715
947+00	100	4	90	17	169	117	1026	-909
948+00	100	5	76	17	307	134	1410	-1276
949+00	100	5	17	19	172	153	1625	-1472
950+00	100	5	0	19	31	172	1664	-1492
951+00	100	7	0	22	0	194	1664	-1470
951+92	92	11	0	31	0	225	1664	-1439
952+00	8	11	0	3	0	228	1664	-1436
952+17	17	13	0	8	0	236	1664	-1428
952+42	25	15	0	13	0	249	1664	-1415
952+74	32	13	0	17	0	266	1664	-1398
			TOTALS	266	1331			

STH 29 - AT BASS LAKE ROAD - STA 920+43 TO STA 924+50 - DIVISION 2

STATION	DISTANCE	AREA (SF) CUT NOTE 1	AREA (SF) FILL NOTE 2	INCREMENTAL VOLUME (CY) (UNADJUSTED) CUT NOTE 1	INCREMENTAL VOLUME (CY) (UNADJUSTED) FILL NOTE 2	CUMULATIVE VOLUME (CY) CUT NOTE 1 1.00	CUMULATIVE VOLUME (CY) EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
920+43	0	17	6	0	0	0	0	0
920+50	7	17	5	4	1	4	1	3
920+81	31	28	46	26	29	30	38	-8
921+00	19	29	37	20	29	50	74	-24
921+14	14	50	30	20	17	70	95	-25
921+41	27	72	10	61	20	131	120	11
921+50	9	94	1	28	2	159	123	37
922+00	50	200	0	272	1	431	124	307
922+50	50	233	5	401	5	832	130	702
923+00	50	177	0	380	5	1212	136	1076
923+50	50	142	1	295	1	1507	138	1370
923+95	45	66	1	173	2	1680	140	1540
924+00	5	43	1	10	0	1690	140	1550
924+50	50	30	1	68	2	1758	143	1616
			TOTALS	1758	114			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
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); POSITIVE. INDICATES AN EXCESS OF MATERIAL

BASS LAKE ROAD (S) - STA 6+95 TO STA 9+00 - DIVISION 2								
		AREA (SF)		INCREMENTAL VOLUME (CY) (UNADJUSTED)		CUMULATIVE VOLUME (CY)		
STATION	DISTANCE	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1 1.00	EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
6+95	0	24	0	0	0	0	0	0
7+00	5	24	2	4	0	4	0	4
7+38	38	36	5	42	5	46	6	40
7+50	12	47	3	18	2	64	9	55
8+00	50	279	11	302	13	366	25	341
8+31	31	210	60	281	41	647	76	571
8+50	19	133	105	121	58	768	149	619
9+00	50	108	106	223	195	991	393	598
			TOTALS	991	314			

BASS LAKE ROAD (N) - STA 19+00 TO STA 21+15 - DIVISION 2								
		AREA (SF)		INCREMENTAL VOLUME (CY) (UNADJUSTED)		CUMULATIVE VOLUME (CY)		
STATION	DISTANCE	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1 1.00	EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
19+00	0	3	58	0	0	0	0	0
19+40	40	121	723	92	579	92	724	-632
19+50	10	274	743	73	271	165	1063	-898
20+00	50	201	335	440	998	605	2310	-1705
20+50	50	83	54	263	360	868	2760	-1892
21+00	50	56	0	129	50	997	2823	-1826
21+08	8	36	0	14	0	1011	2823	-1812
21+15	7	35	0	9	0	1020	2823	-1803
			TOTALS	1020	2258			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
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); POSITIVE. INDICATES AN EXCESS OF MATERIAL

STH 29 - EB - AT HILLY ACRES ROAD TURN LANES - STA 604+58 TO STA 609+26 - DIVISION 3								
		AREA (SF)		INCREMENTAL VOLUME (CY) (UNADJUSTED)		CUMULATIVE VOLUME (CY)		
STATION	DISTANCE	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1 1.00	EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
604+58	0	10	0	0	0	0	0	0
604+59	1	25	0	1	0	1	0	1
604+70	11	25	0	10	0	11	0	11
605+00	30	24	0	27	0	38	0	38
605+09	9	23	1	8	0	46	0	46
605+50	41	23	6	35	5	81	6	75
605+84	34	22	10	28	10	109	19	90
606+00	16	22	12	13	7	122	28	95
606+08	8	22	14	7	4	129	33	97
606+50	42	23	17	35	24	164	63	102
607+00	50	21	20	41	34	205	105	100
607+50	50	23	19	41	36	246	150	96
608+00	50	23	17	43	33	289	191	98
608+50	50	27	8	46	23	335	220	115
608+75	25	35	0	29	4	364	225	139
608+84	9	41	0	13	0	377	225	152
609+00	16	18	0	17	0	394	225	169
609+05	5	19	0	3	0	397	225	172
609+26	21	15	0	13	0	410	225	185
			TOTALS	410	180			

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
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); POSITIVE. INDICATES AN EXCESS OF MATERIAL

STH 29 - WB - AT HILLY ACRES ROAD TURN LANE - STA 1010+25 TO STA 1021+93 - DIVISION 3								
		AREA (SF)		INCREMENTAL VOLUME (CY) (UNADJUSTED)		CUMULATIVE VOLUME (CY)		
STATION	DISTANCE	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1	FILL NOTE 2	CUT NOTE 1 1.00	EXPANDED FILL NOTE 3 1.25	MASS ORDINATE NOTE 4
1010+25	0	22	0	0	0	0	0	0
1010+43	18	32	0	18	0	18	0	18
1010+50	7	29	0	8	0	26	0	26
1010+74	24	23	2	23	1	49	1	48
1011+00	26	20	2	21	2	70	4	66
1011+50	50	23	2	40	4	110	9	101
1011+79	29	25	1	26	2	136	11	125
1012+00	21	25	0	19	0	155	11	144
1012+50	50	19	2	41	2	196	14	182
1013+00	50	16	9	32	10	228	26	202
1013+24	24	15	11	14	9	242	38	205
1013+46	22	15	11	12	9	254	49	205
1013+50	4	15	14	2	2	256	51	205
1014+00	50	15	8	28	20	284	76	208
1014+44	44	15	6	24	11	308	90	218
1014+50	6	15	4	3	1	311	91	220
1014+95	45	15	4	25	7	336	100	236
1015+00	5	0	4	1	1	337	101	236
1015+50	50	1	3	1	6	338	109	229
1016+00	50	1	1	2	4	340	114	226
1016+50	50	0	0	1	1	341	115	226
1017+00	50	0	0	0	0	341	115	226
1017+50	50	0	0	0	0	341	115	226
1018+00	50	0	3	0	3	341	119	222
1018+50	50	1	2	1	5	342	125	217
1019+00	50	1	3	2	5	344	131	213
1019+50	50	0	3	1	6	345	139	206
1020+00	50	0	5	0	7	345	148	198
1020+50	50	0	6	0	10	345	160	185
1021+00	50	0	5	0	10	345	173	173
1021+50	50	0	5	0	9	345	184	161
1021+64	14	0	5	0	3	345	188	158
1021+93	29	0	1	0	3	345	191	154
			TOTALS	345	153			

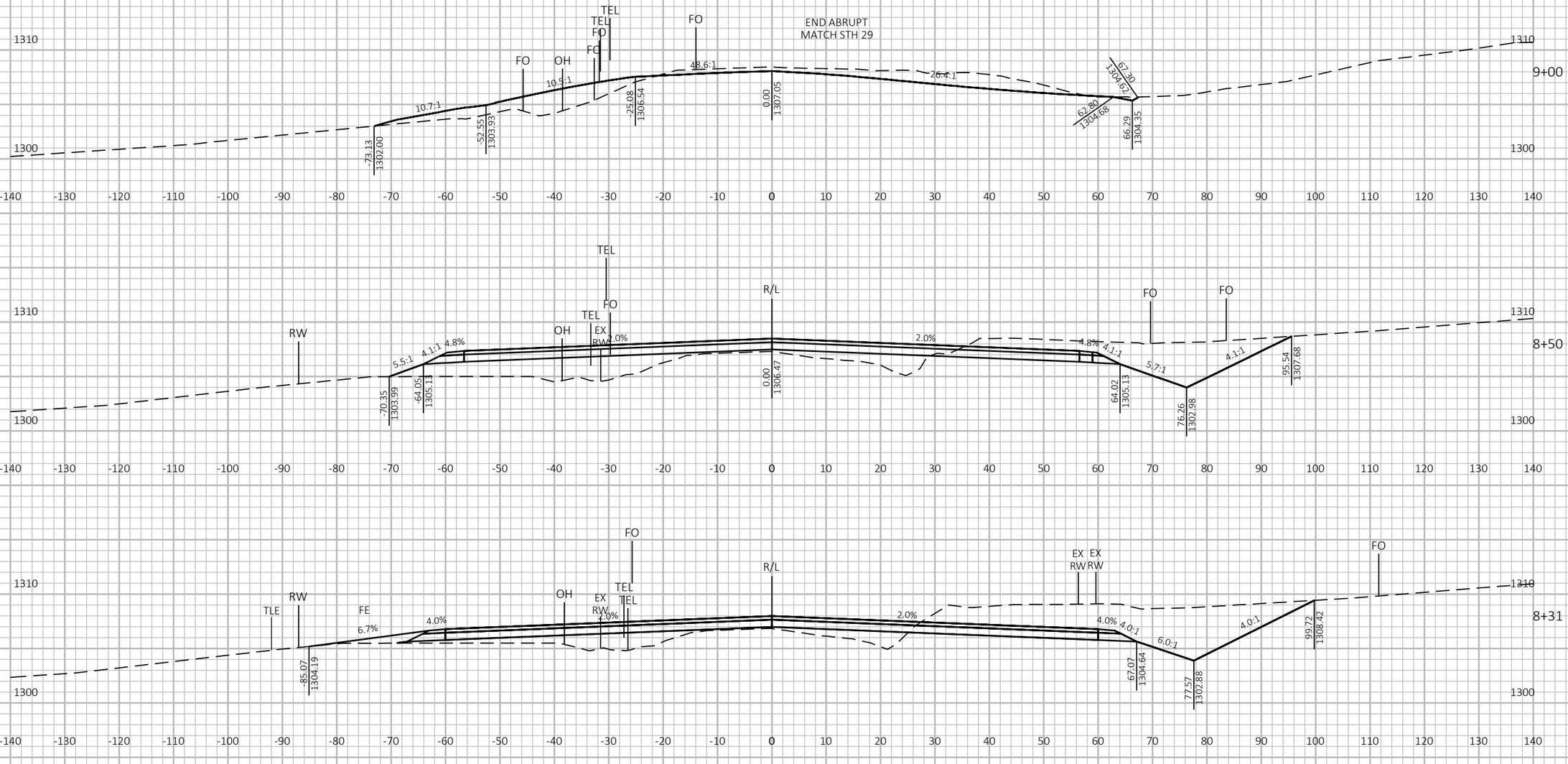
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
2 - FILL	DOES NOT INCLUDE SALVAGED/UNUSABLE PAVEMENT AREA/VOLUME. SALVAGED/UNUSABLE PAVEMENT MATERIAL IS CALCULATED ON THE SECTION 3 SUMMARY SHEET.
3 - EXPANDED MATERIAL	(UNEXPANDED MATERIAL)*(EXPANSION FACTOR)
4 - MASS ORDINATE	CUT - (EXPANDED FILL); POSITIVE. INDICATES AN EXCESS OF MATERIAL

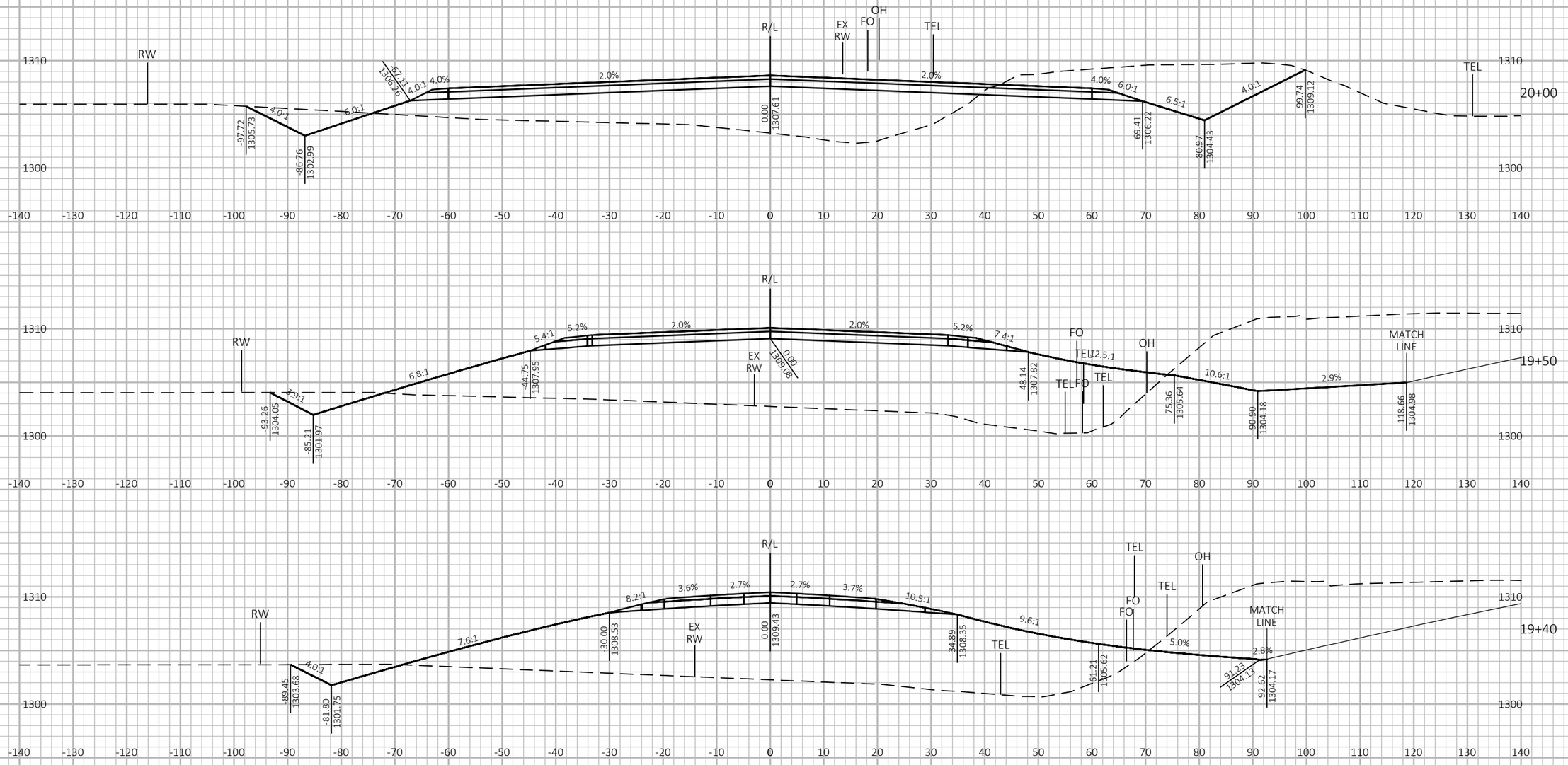
NOTE
ON THE CUL-DE-SACS FOR BASS LAKE ROAD, DITCH SECTIONS WILL BE CONSTRUCTED PERPENDICULAR TO EDGE OF PAVEMENT CROSS SECTIONS ARE NOT SHOWN PERPENDICULAR TO EDGE OF PAVEMENT AT ALL LOCATIONS

9

PROJECT NO:1053-07-76	HWY:STH 29	COUNTY: MARATHON	CROSS SECTIONS: BASS LAKE ROAD CUL-DE-SAC (S)	SHEET 126	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01
PLOT DATE : 7/25/2022 3:31 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.


END ABRUPT
MATCH STH 29
9+00
8+50
8+31
8+00
TEL
FO
OH
RW
R/L
EX
TLE
FE
1310
1300
-140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140



9

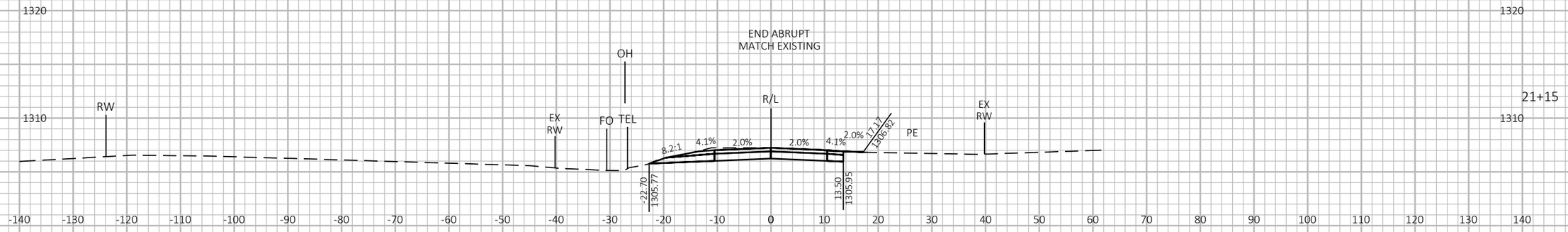
9

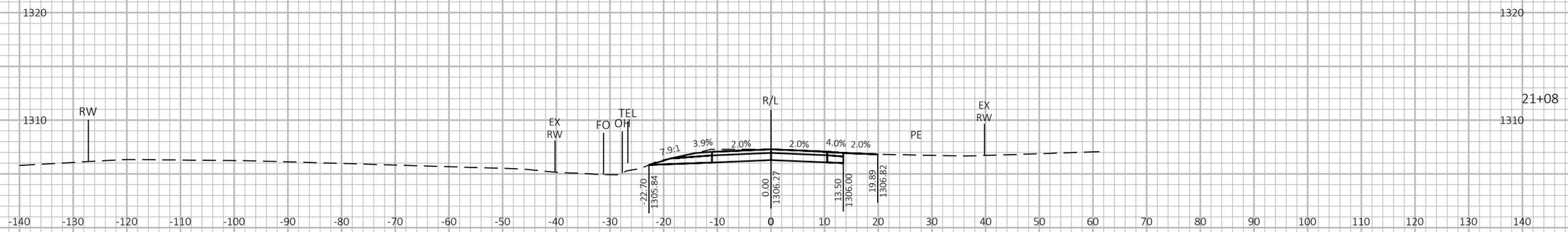
PROJECT NO:1053-07-76	HWY:STH 29	COUNTY: MARATHON	CROSS SECTIONS: BASS LAKE ROAD CUL-DE-SAC (N)	SHEET 128	E

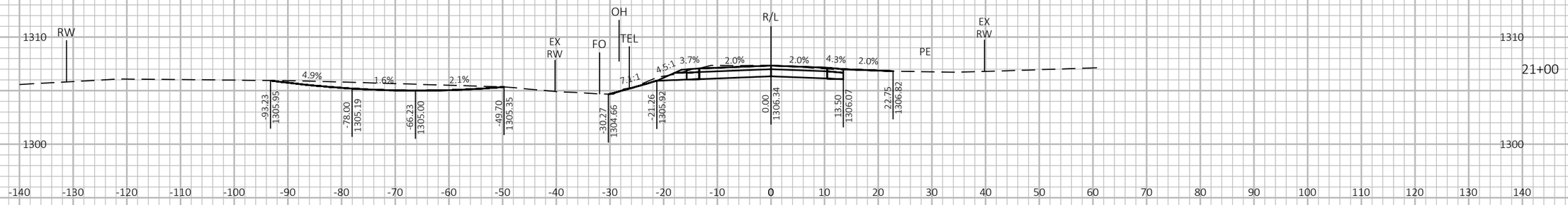
FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 03

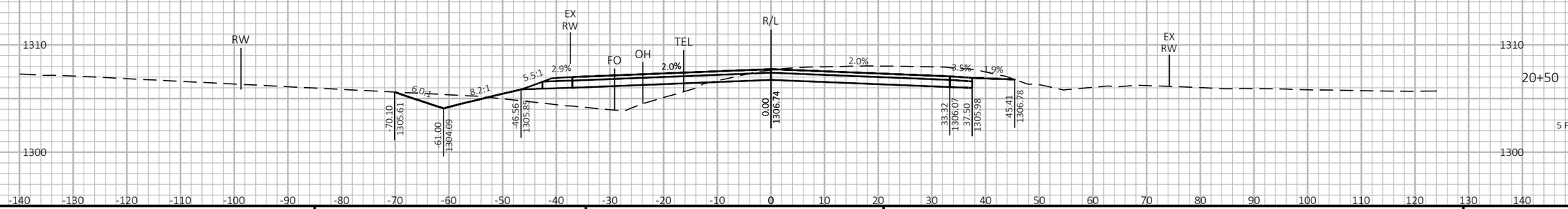
PLOT DATE : 7/25/2022 3:31 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49









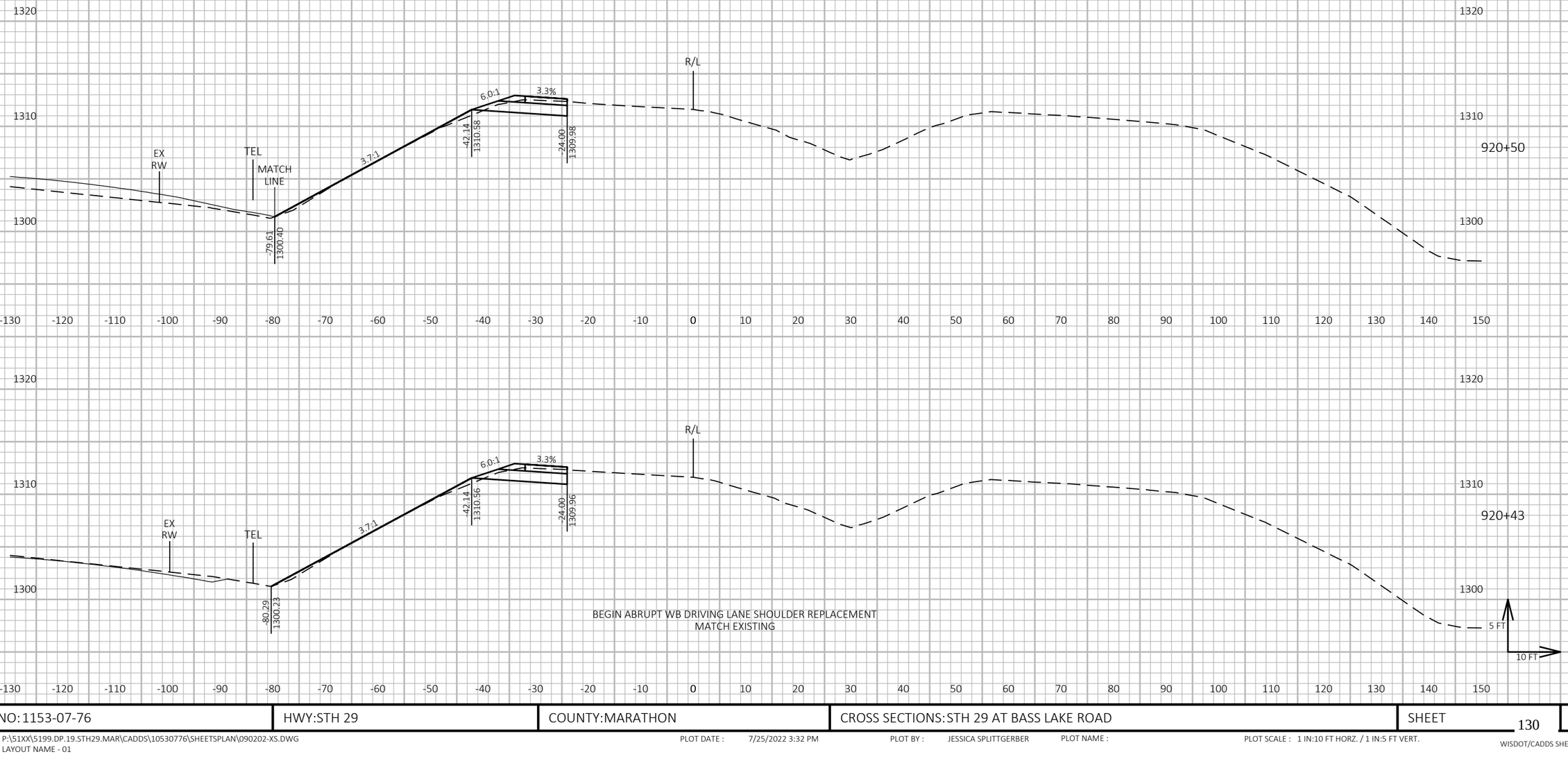
9 9

PROJECT NO:1053-07-76	HWY:STH 29	COUNTY: MARATHON	CROSS SECTIONS: BASS LAKE ROAD CUL-DE-SAC (N)	SHEET 129	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:32 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



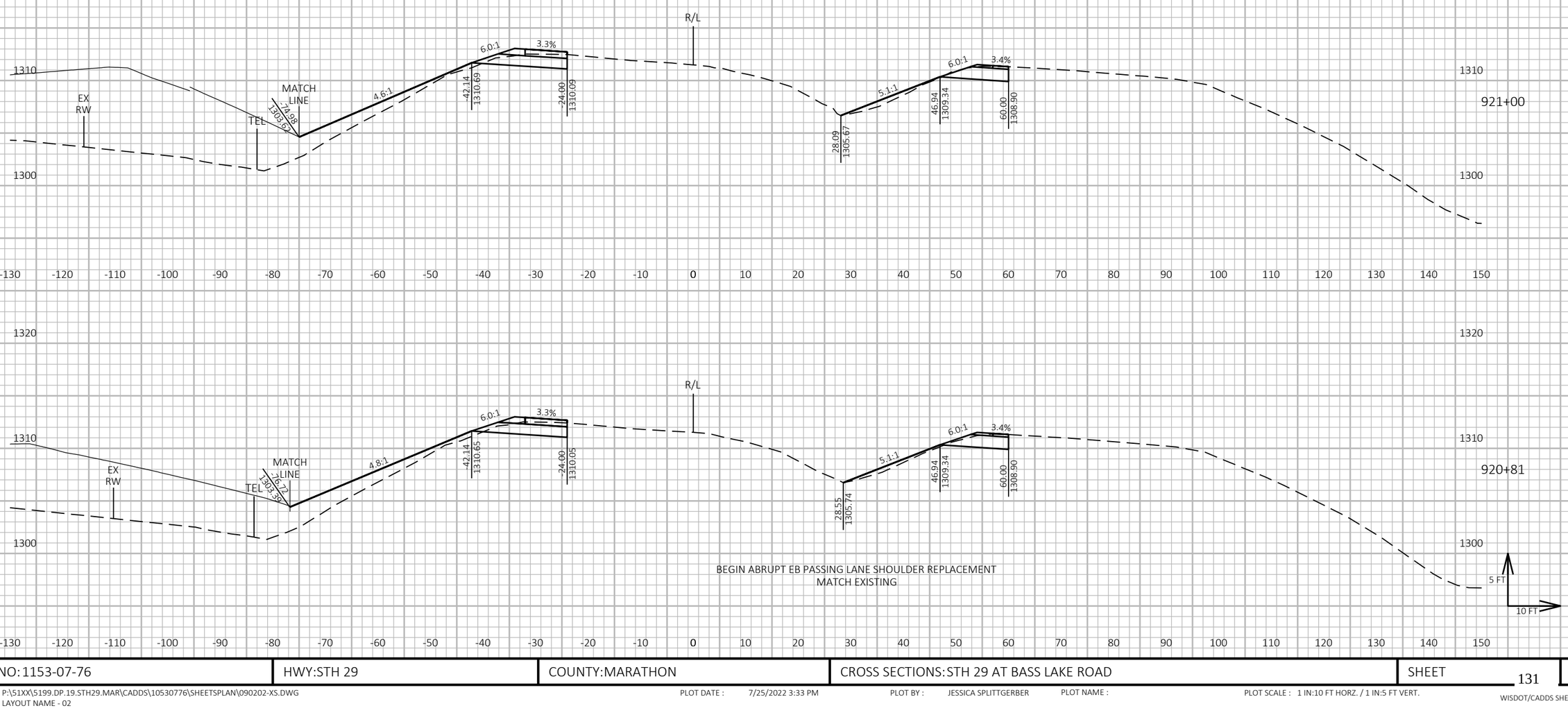
9 9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 130	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 3:32 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

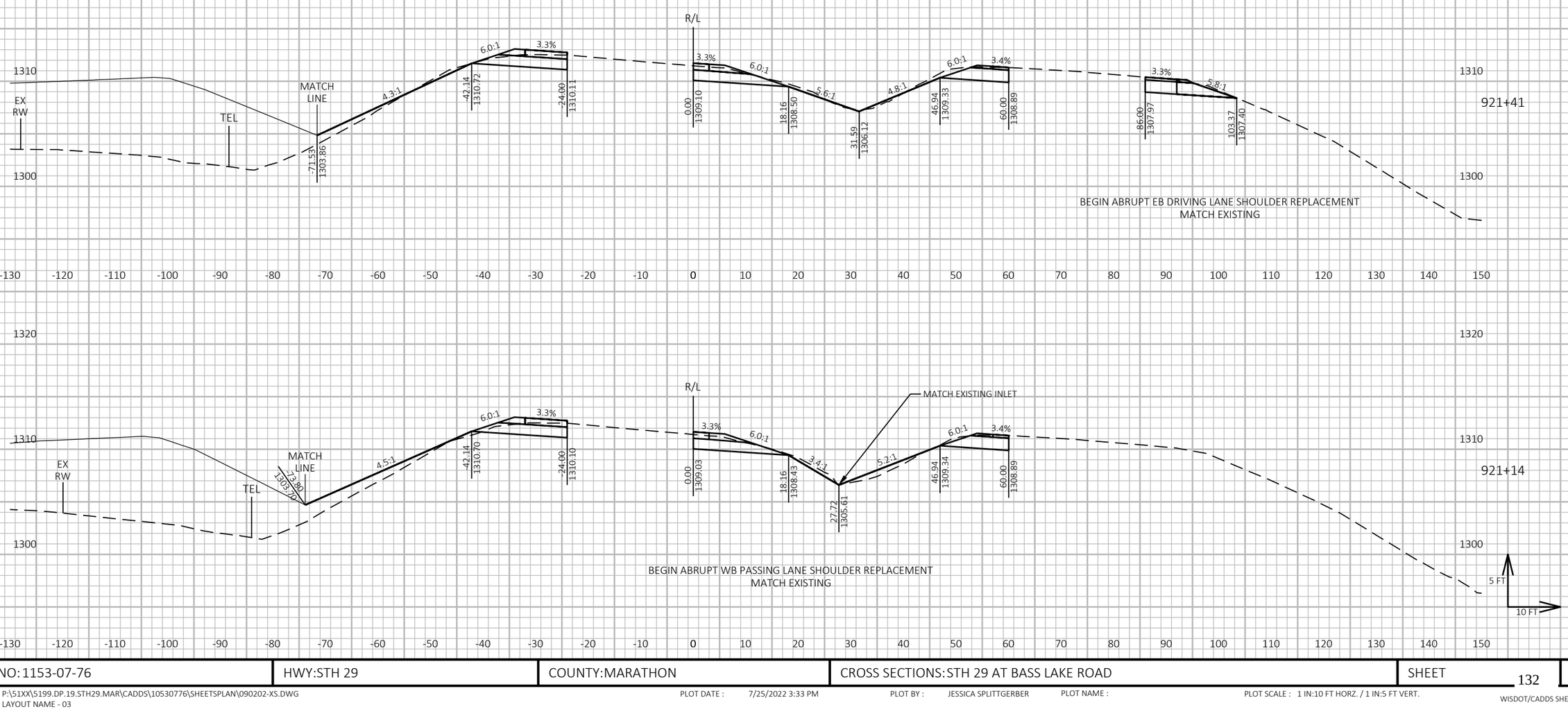
WISDOT/CADDS SHEET 49



9 9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 131	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 02
PLOT DATE : 7/25/2022 3:33 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.
WISDOT/CADDS SHEET 49



9

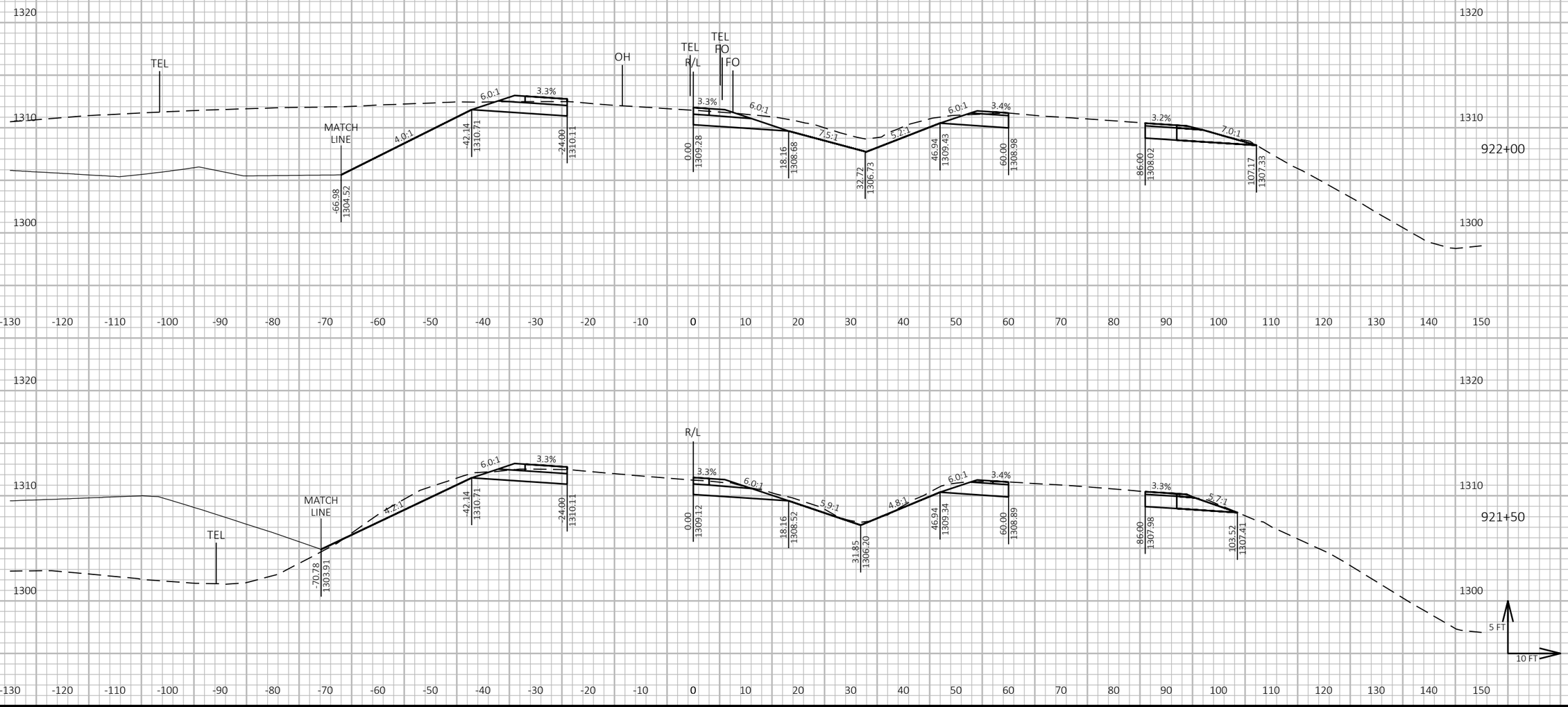
9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 132	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 3:33 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



9

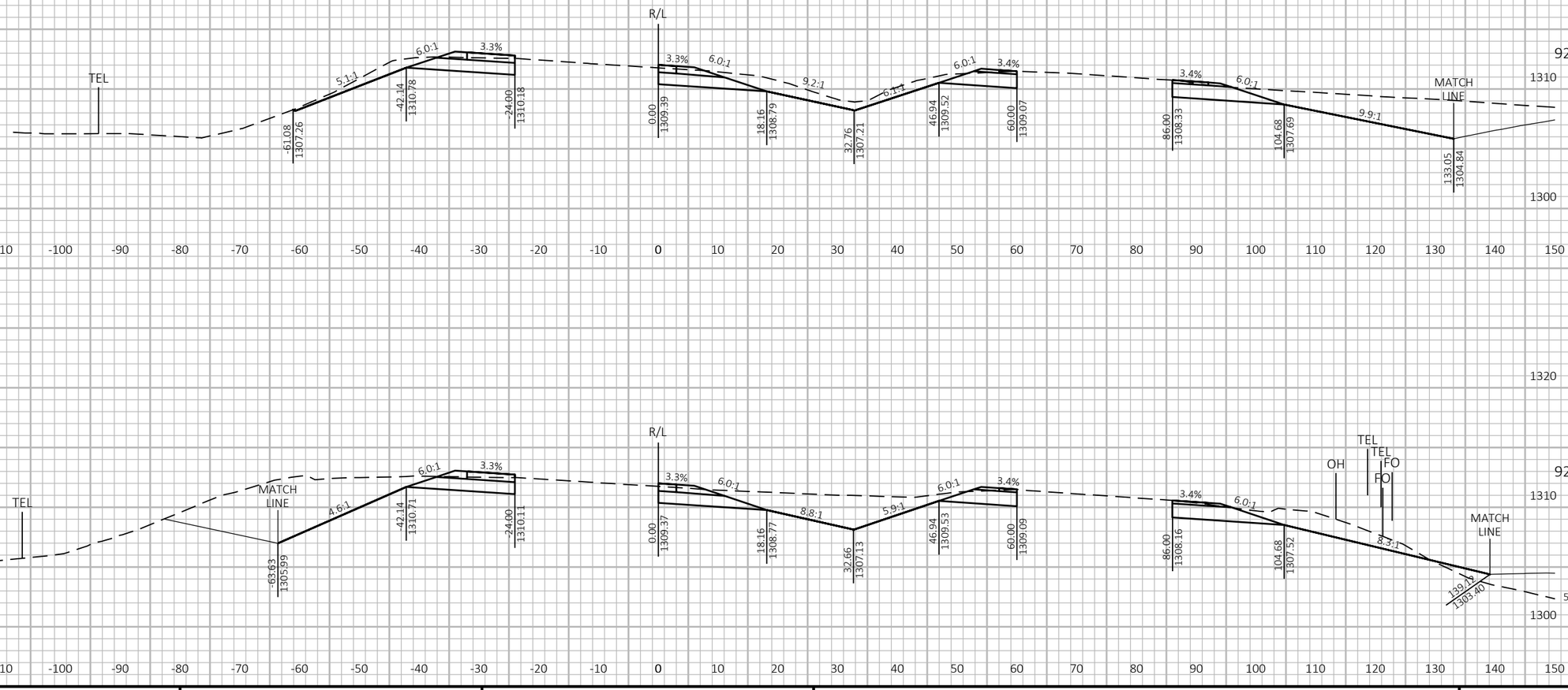
9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 133	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:34 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

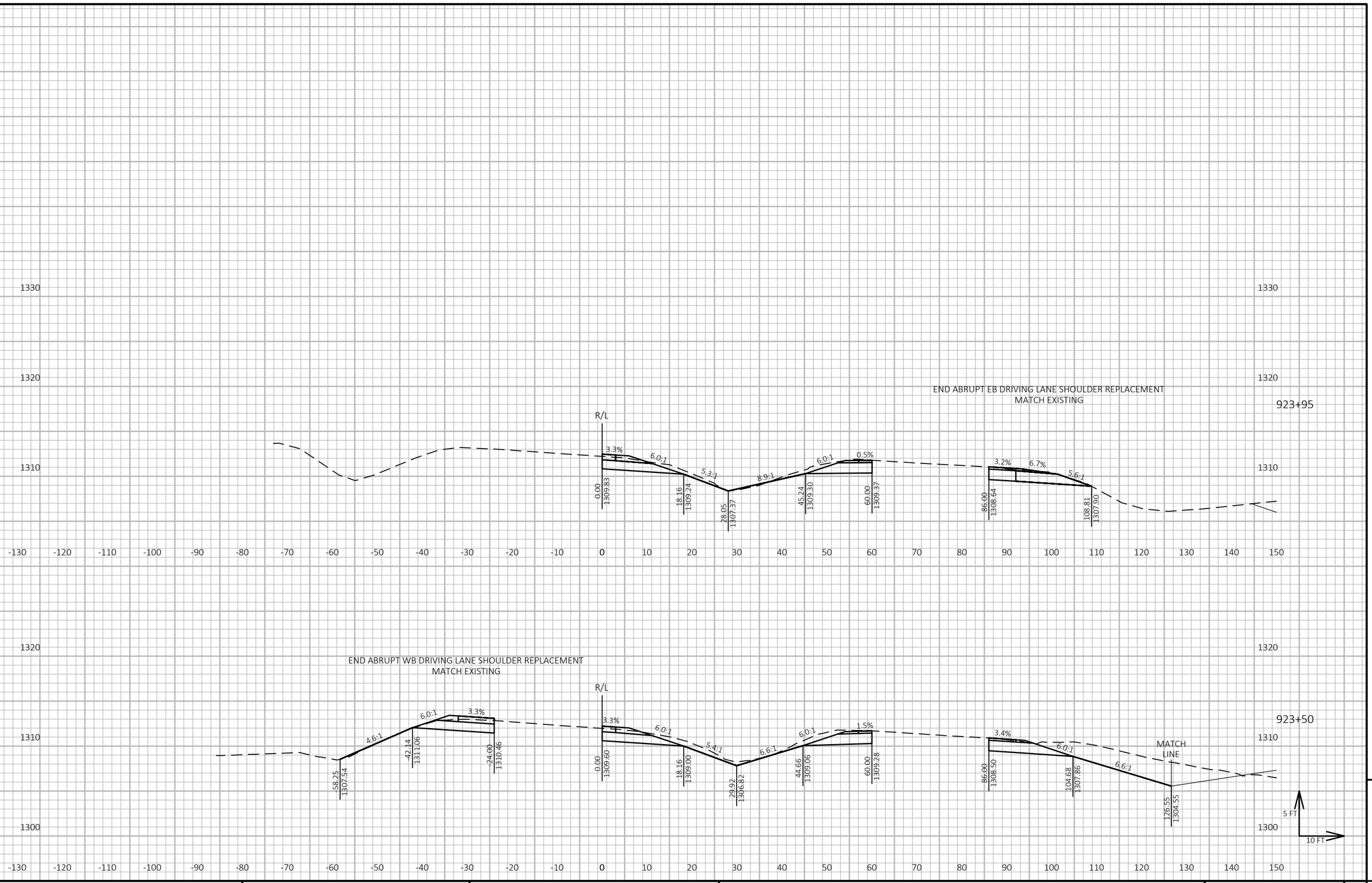


9

9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 134	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 05
PLOT DATE : 7/25/2022 3:34 PM
PLOT BY : JESSICA SPLITTGERBER
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.
WISDOT/CADDS SHEET 49



9

9

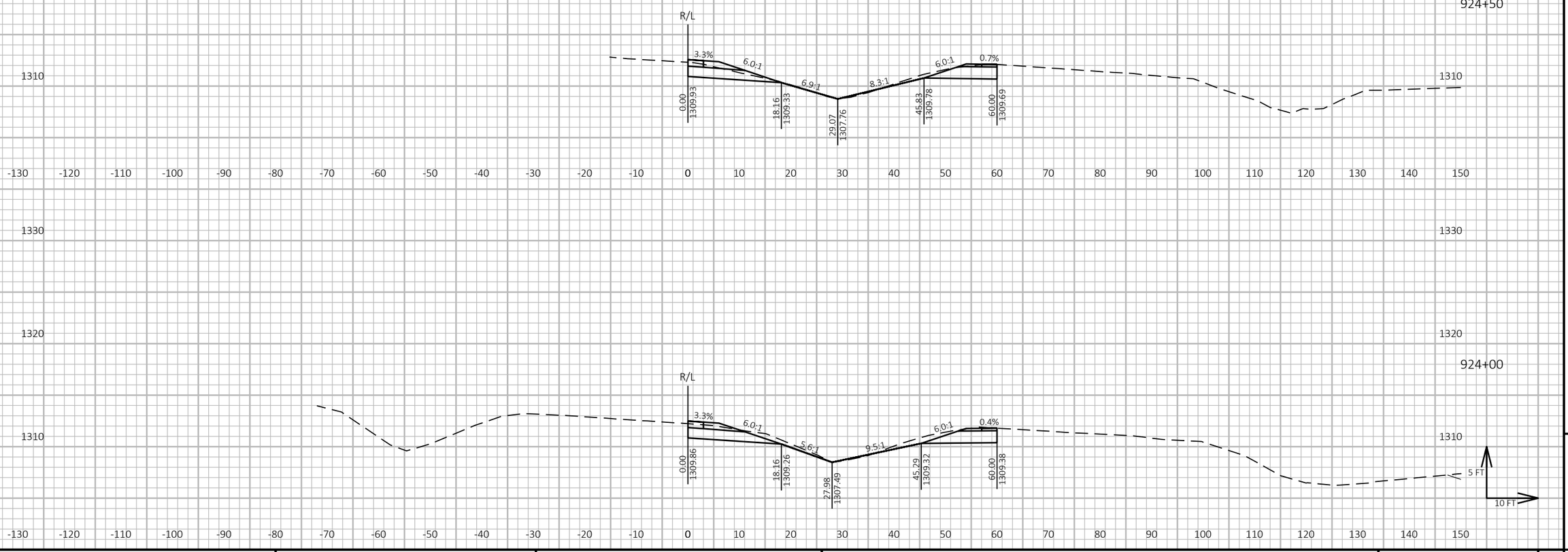
PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 135	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 7/25/2022 3:34 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49

END ABRUPT WB AND EB PASSING LANE SHOULDER REPLACEMENT
MATCH EXISTING



9

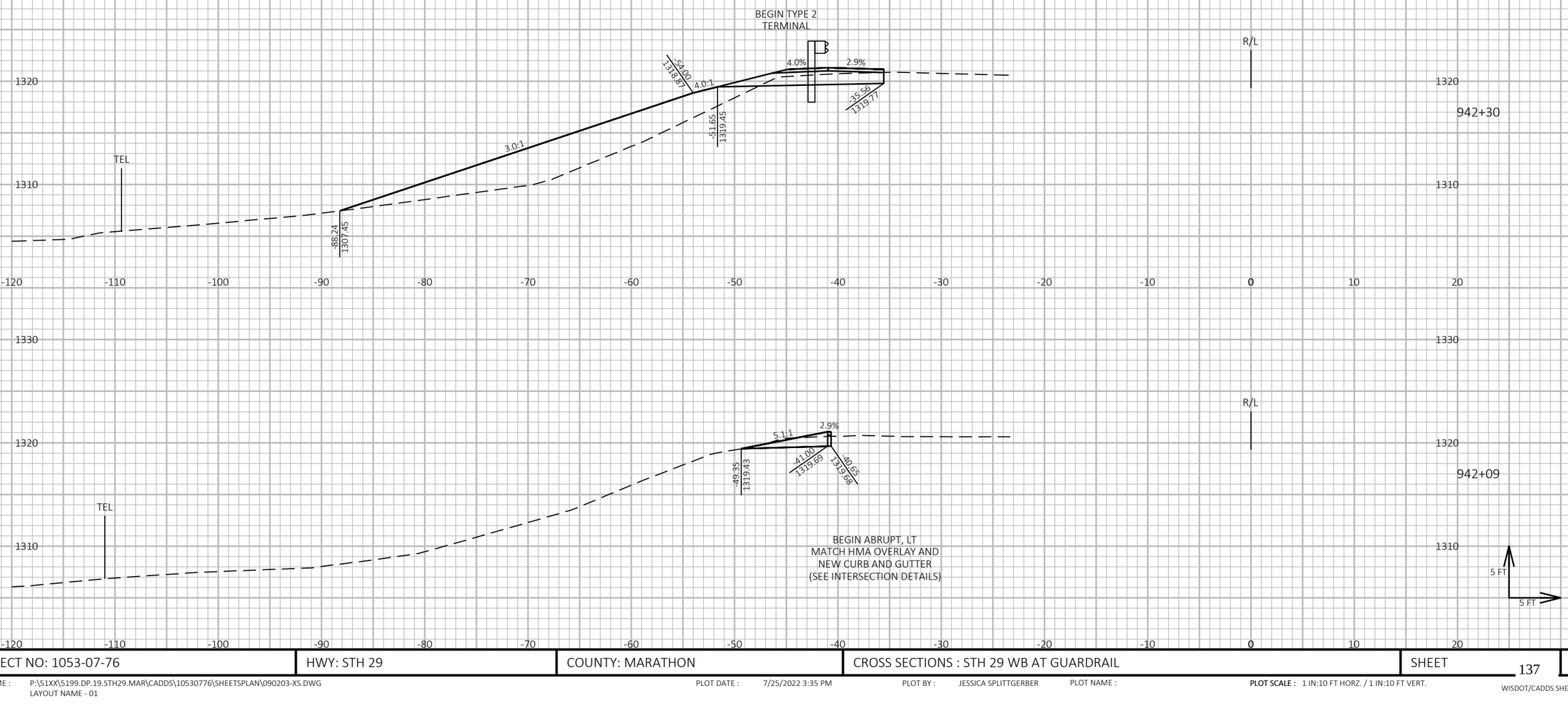
9

PROJECT NO:1153-07-76	HWY:STH 29	COUNTY:MARATHON	CROSS SECTIONS:STH 29 AT BASS LAKE ROAD	SHEET 136	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090202-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:5 FT VERT.

WISDOT/CADDS SHEET 49



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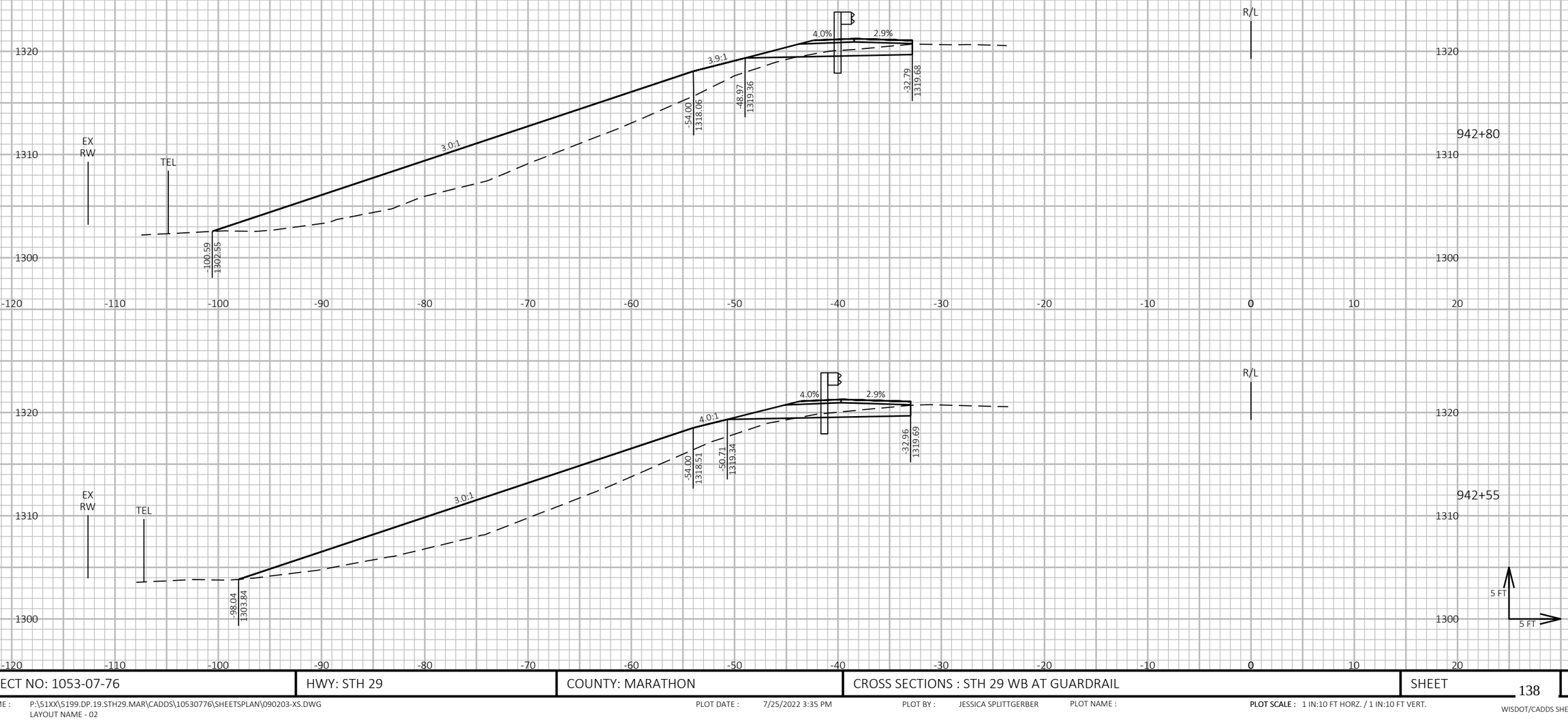
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 137	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 138	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 02

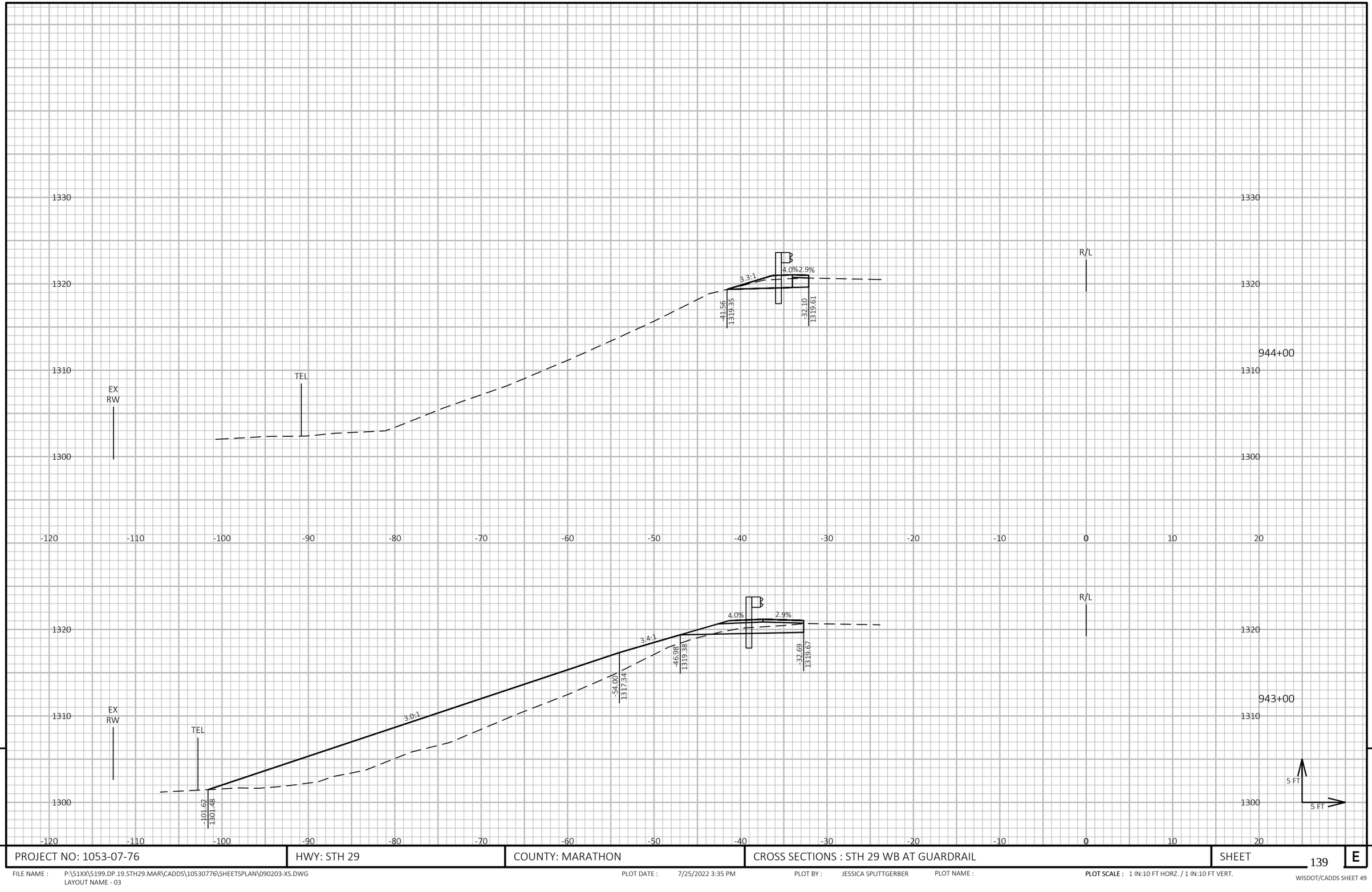
PLOT DATE : 7/25/2022 3:35 PM

PLOT BY : JESSICA SPLITTGERBER

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

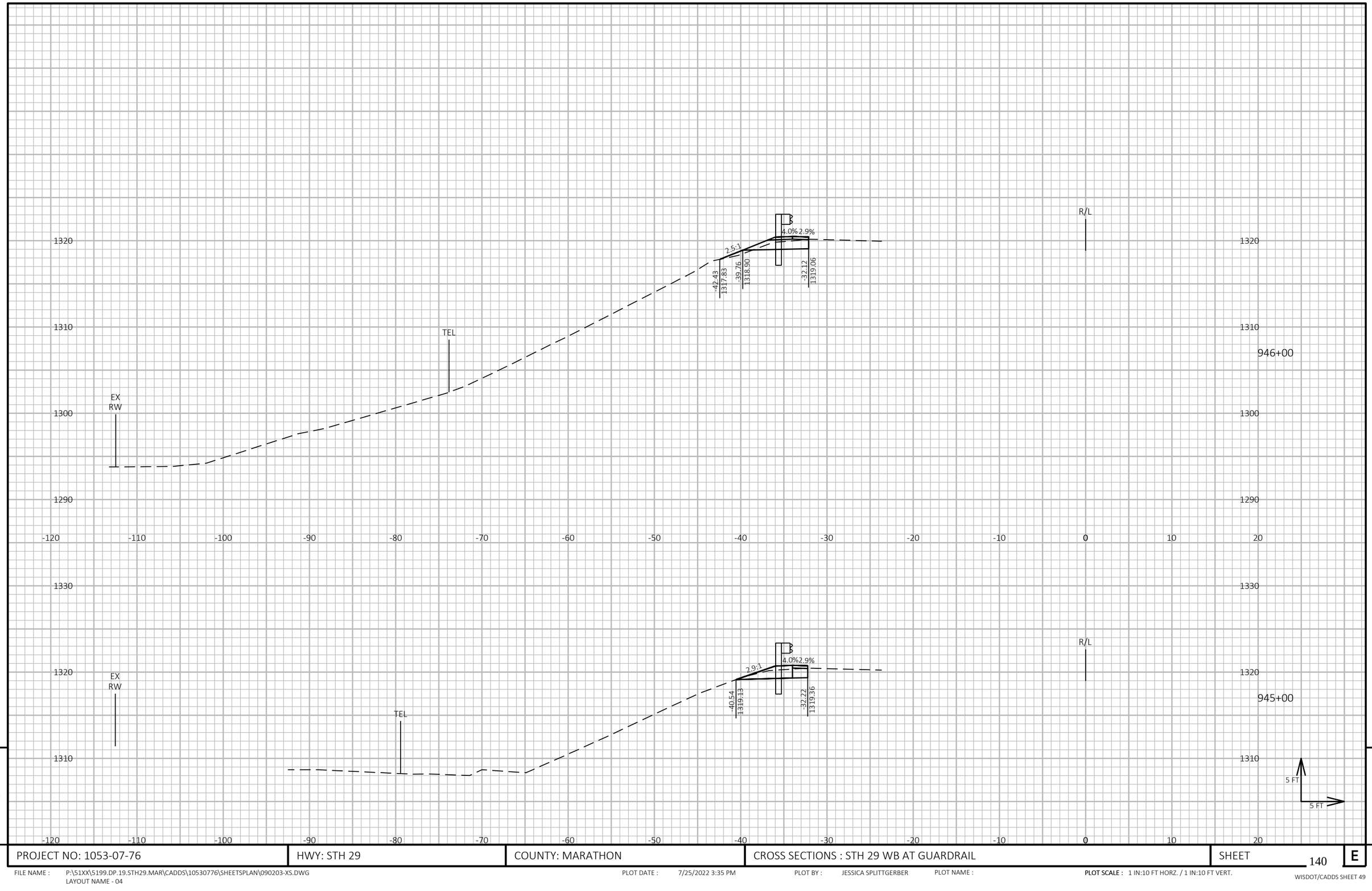
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 139	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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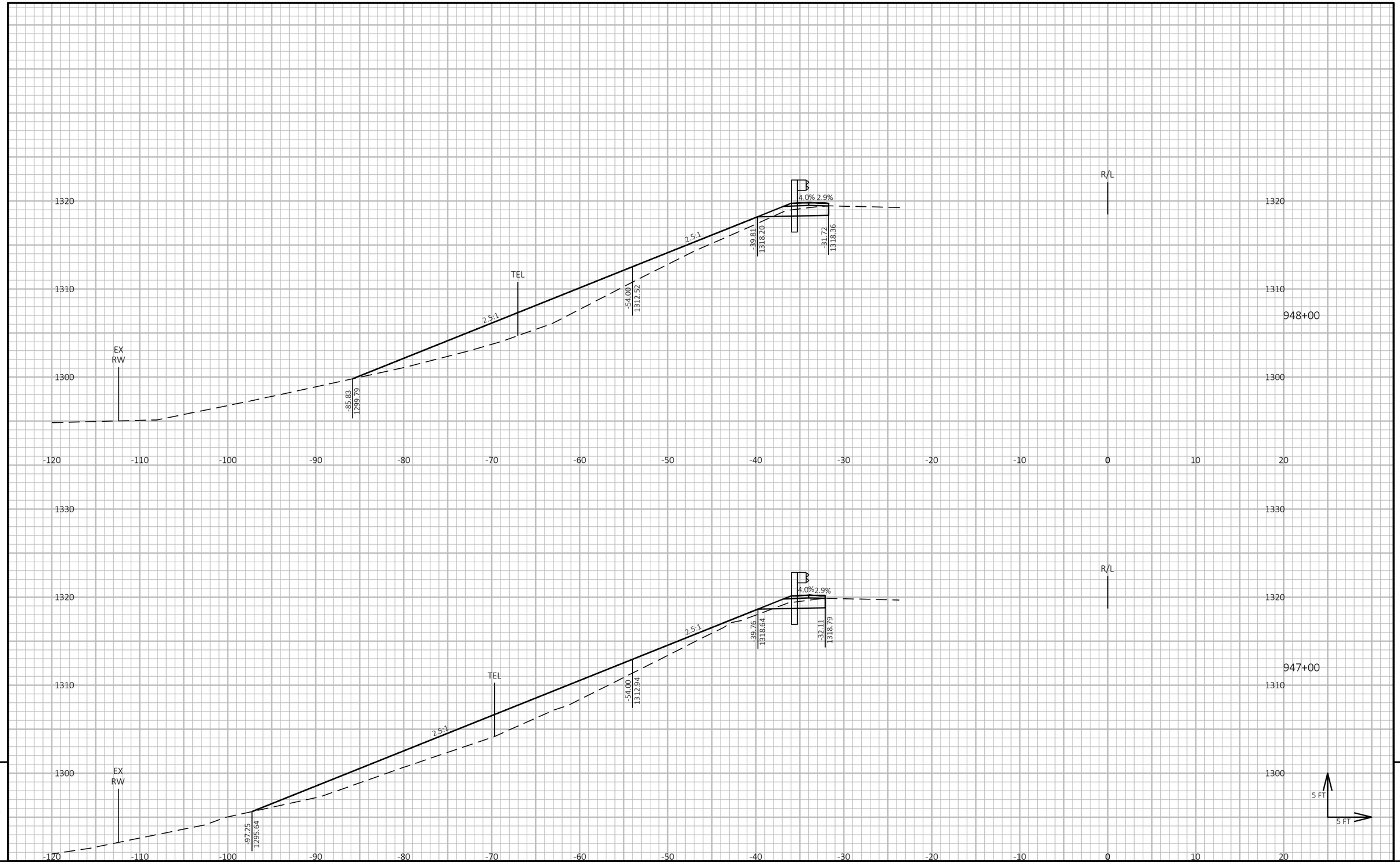
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 140	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

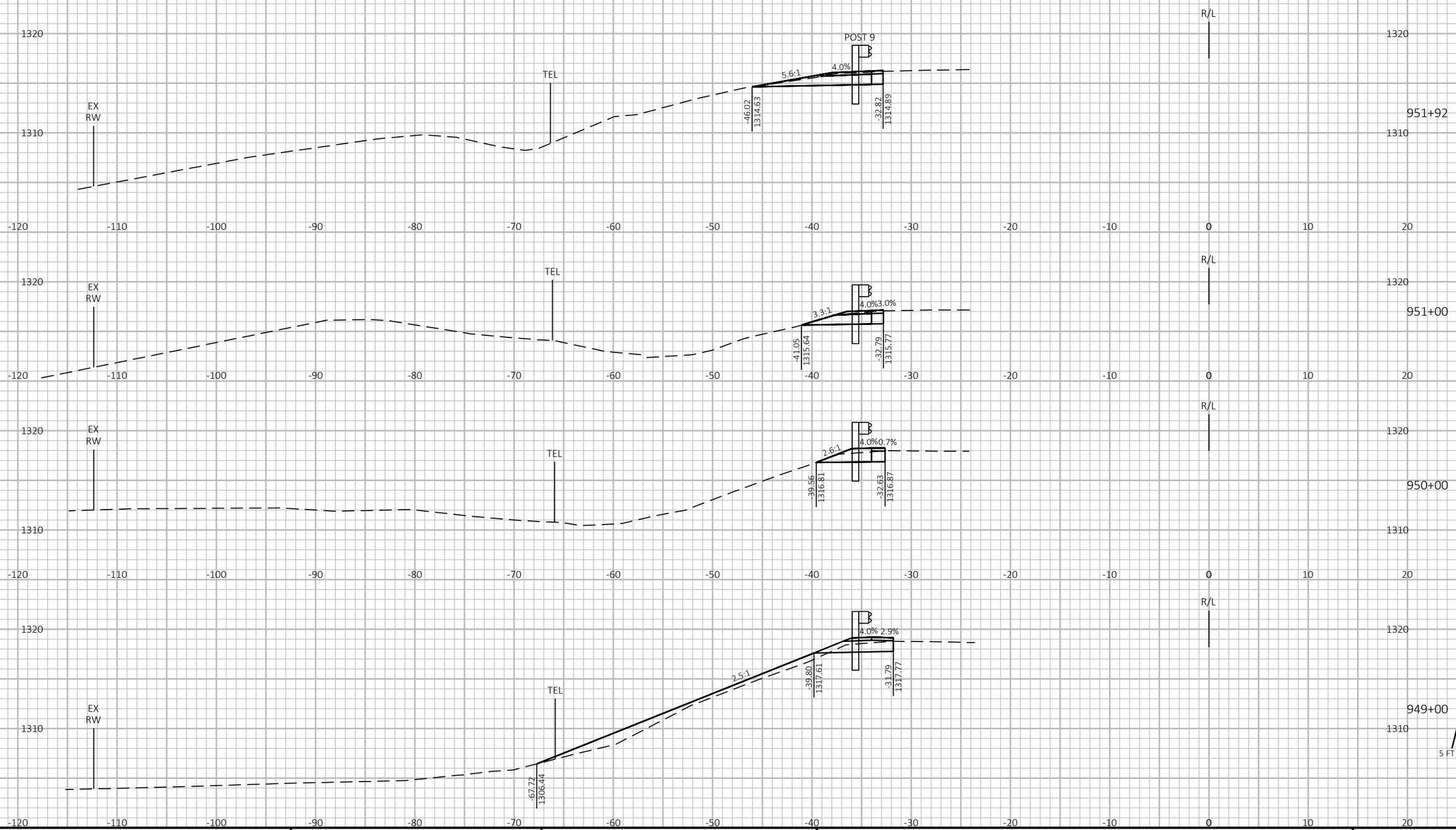


PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 141	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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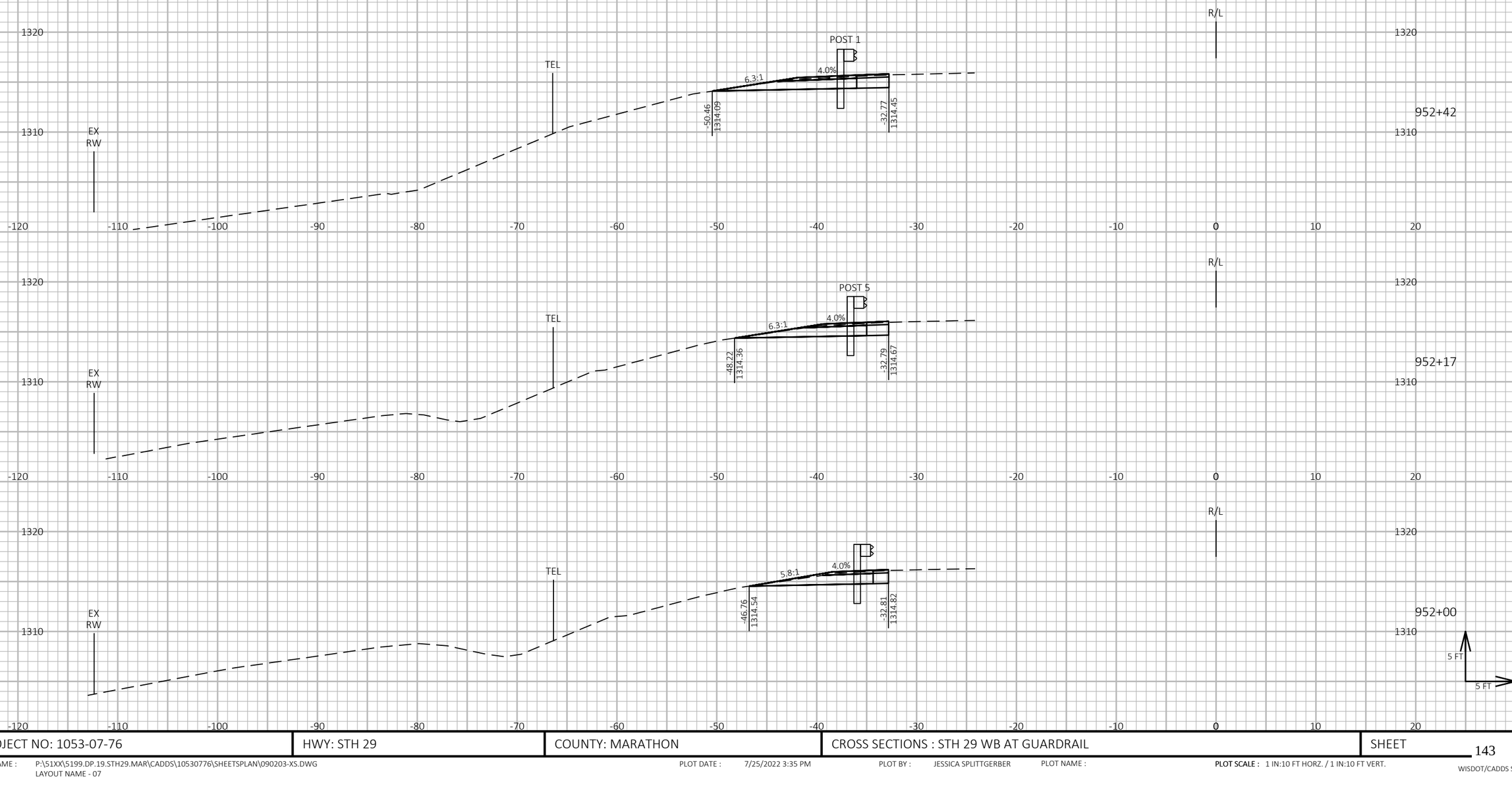
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 142	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 143	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

END ABRUPT, LT
MATCH HMA OVERLAY

R/L

TEL

EX
RW

6.4:1

4.0%

48.78
313.87

32.75
1314.19

952+74

1320
1310
1300

-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20

5 FT
5 FT

9

9

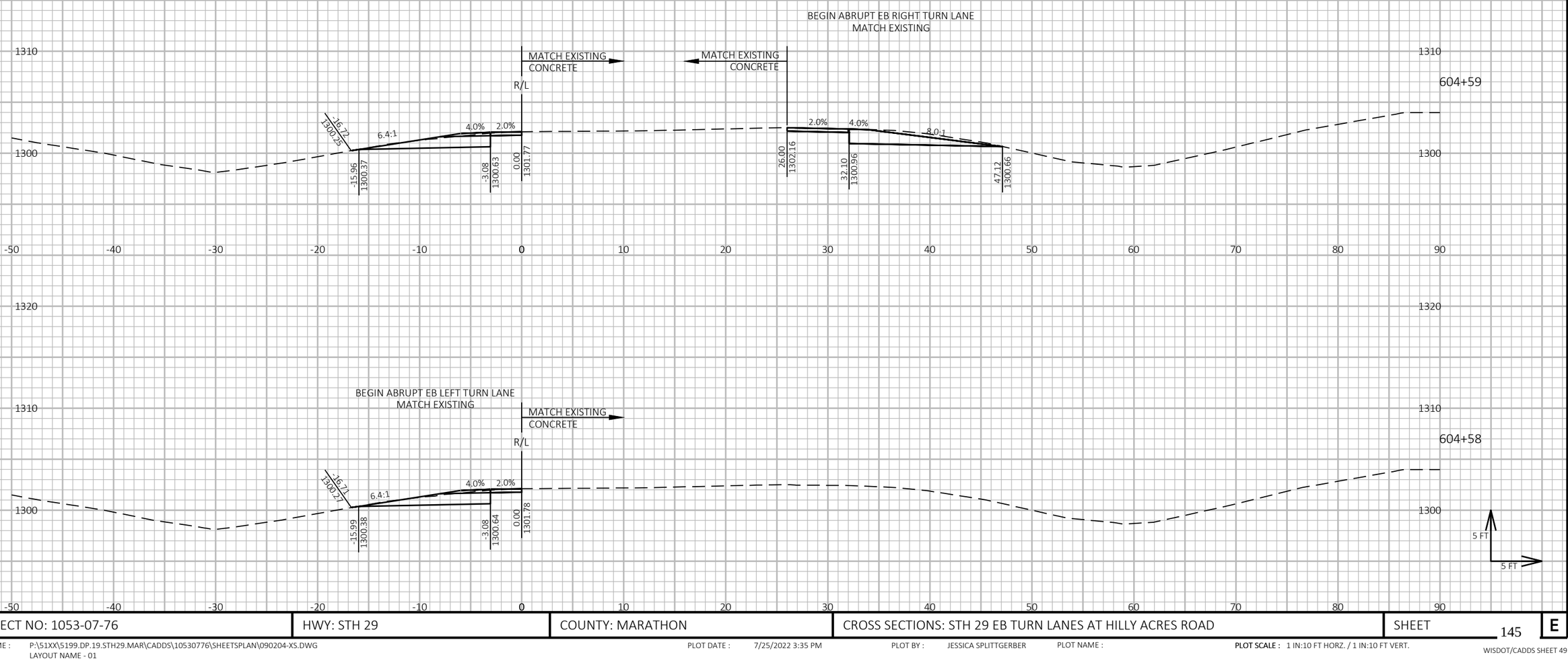
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS : STH 29 WB AT GUARDRAIL	SHEET 144	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090203-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

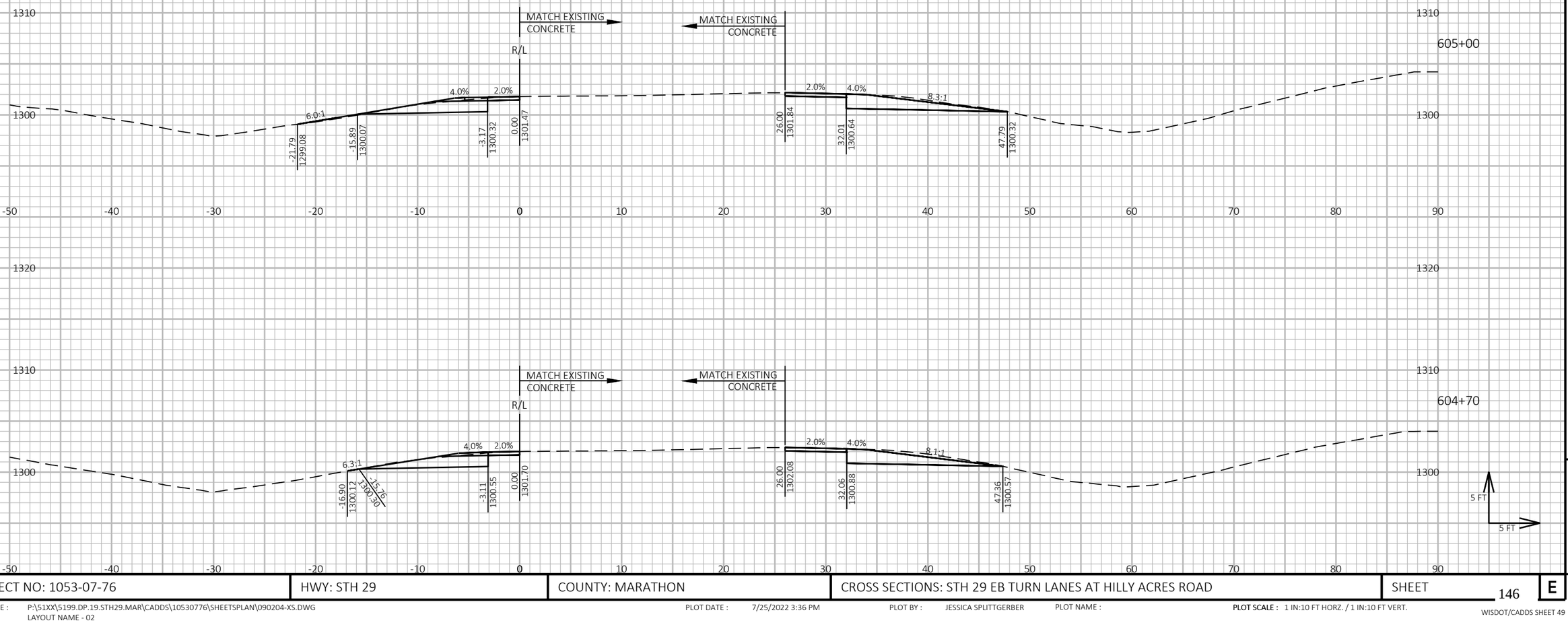
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 145	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 01

PLOT DATE : 7/25/2022 3:35 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 146	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 02

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

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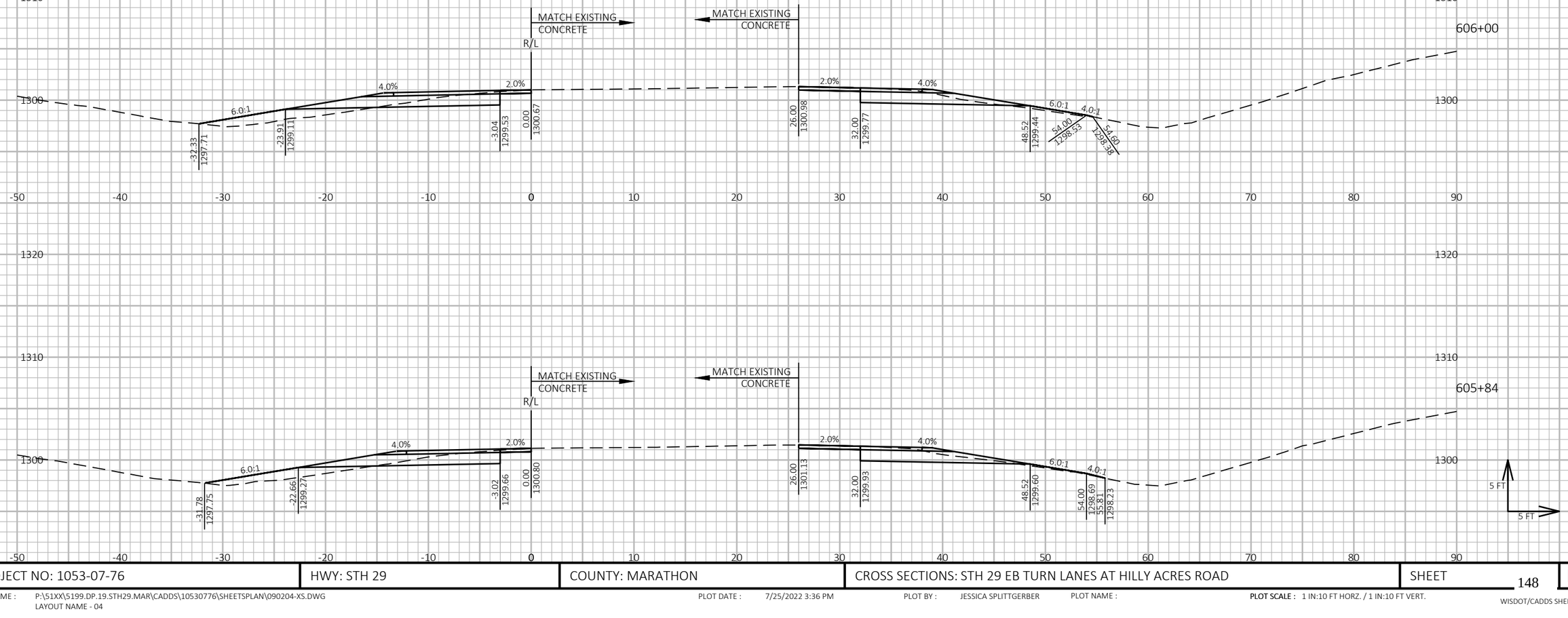
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 147	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 03

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 148	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 04

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

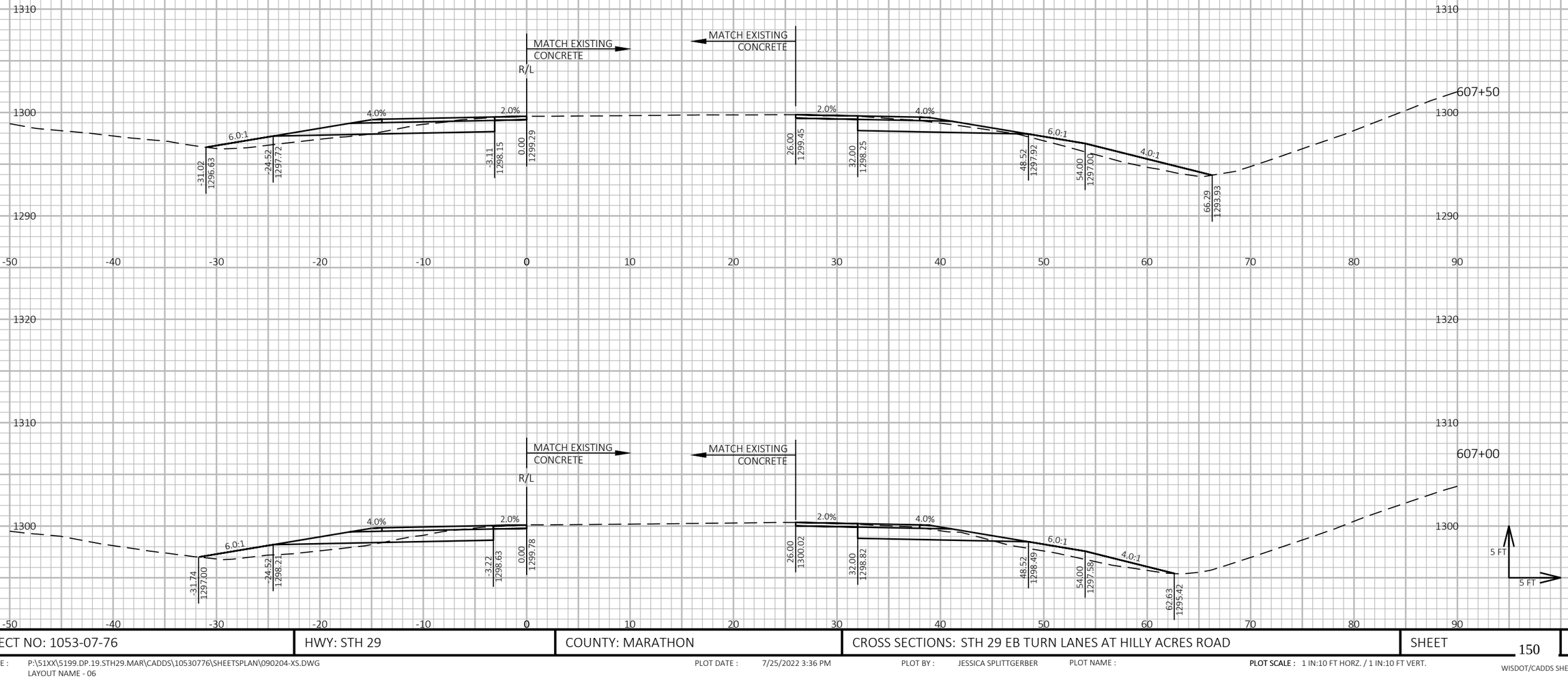
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 149	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 05

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

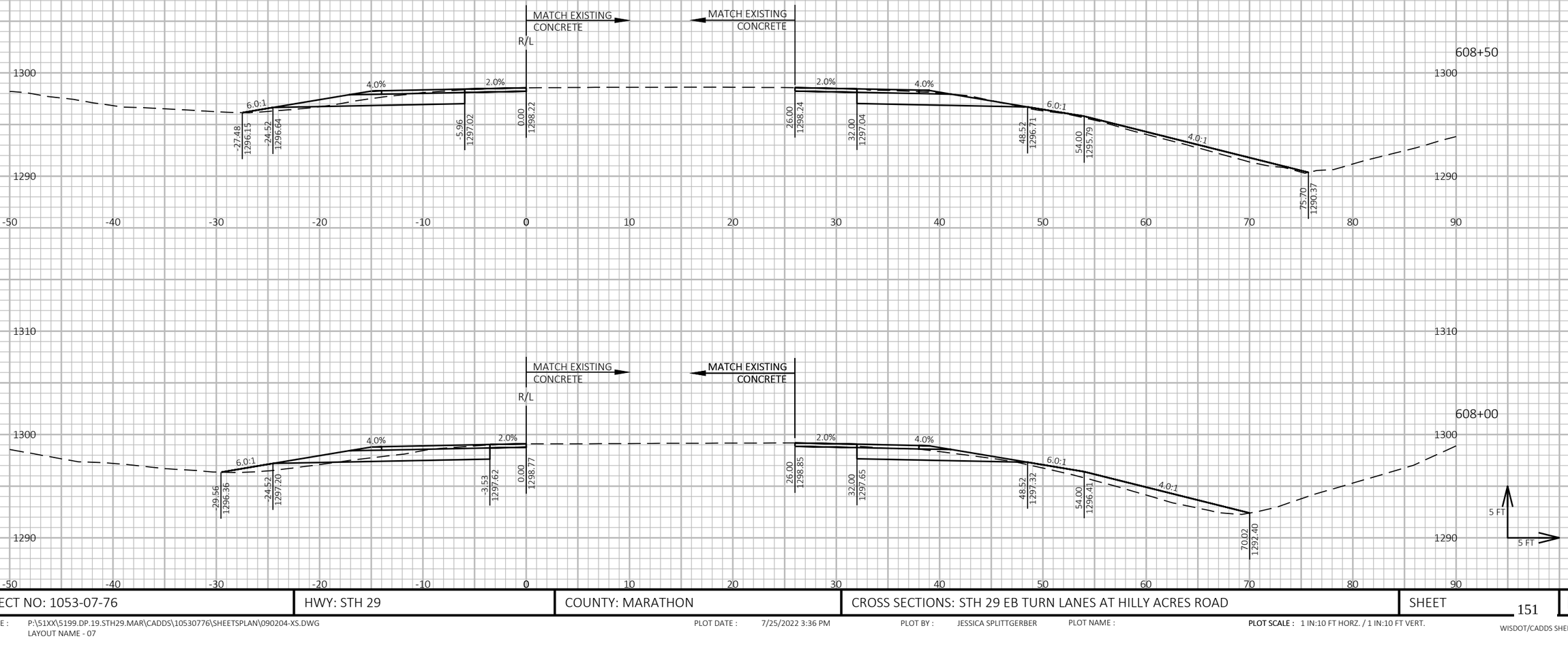
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 150	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 06

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

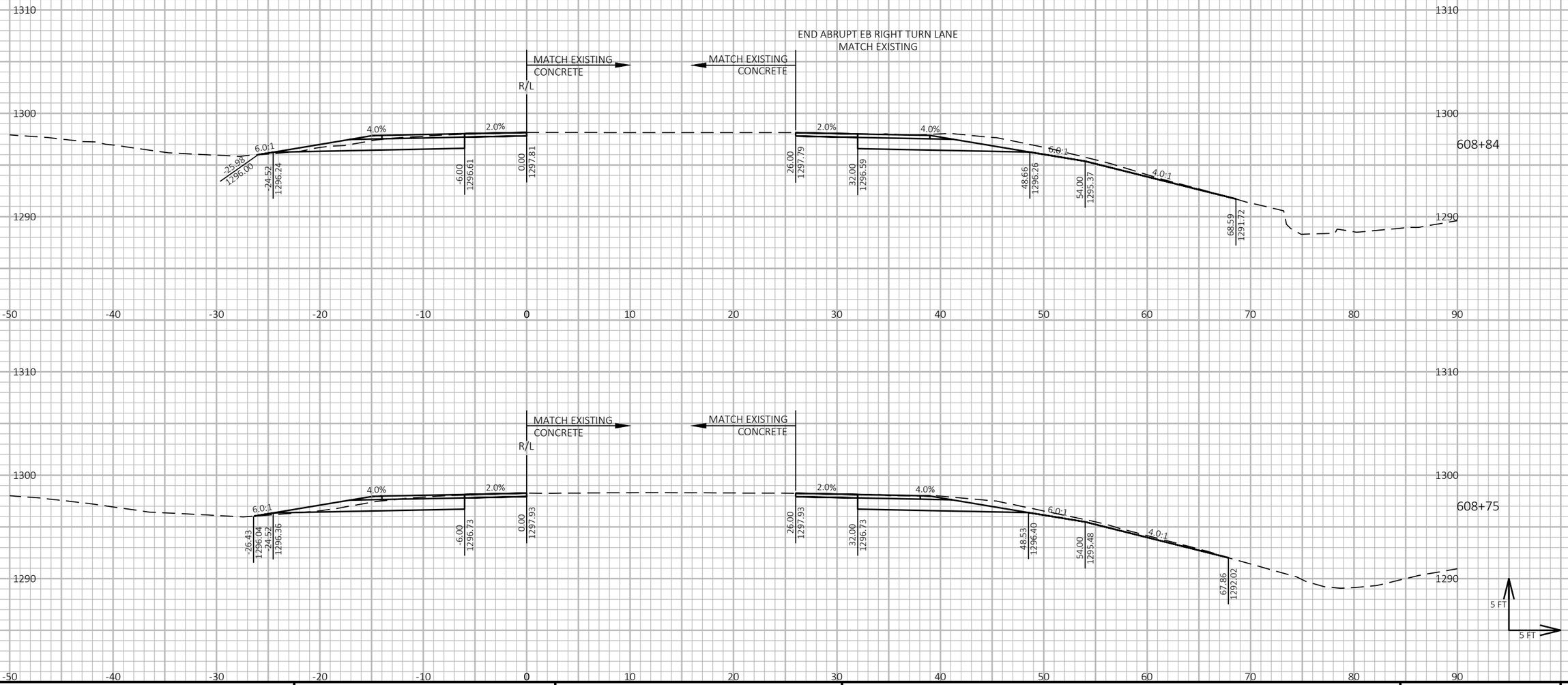
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 151	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 07

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



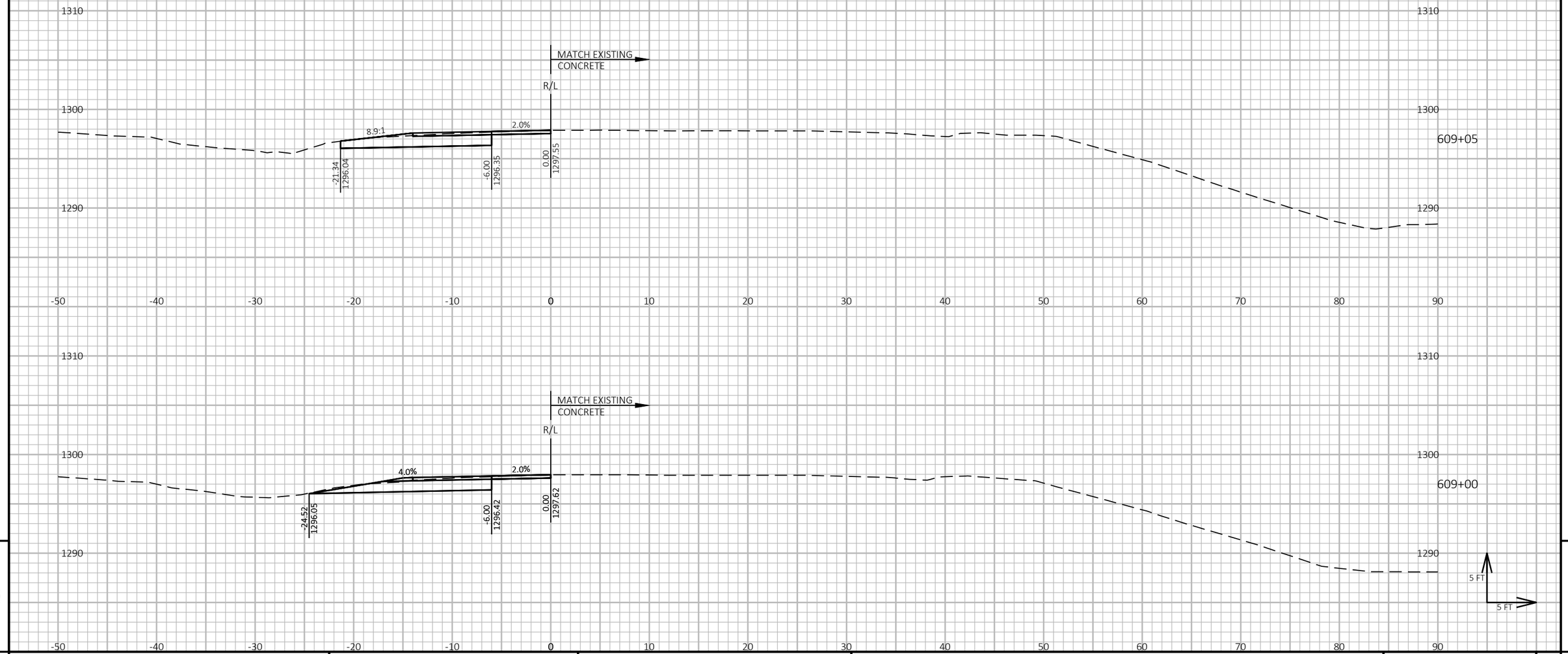
9

9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 152	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 08

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

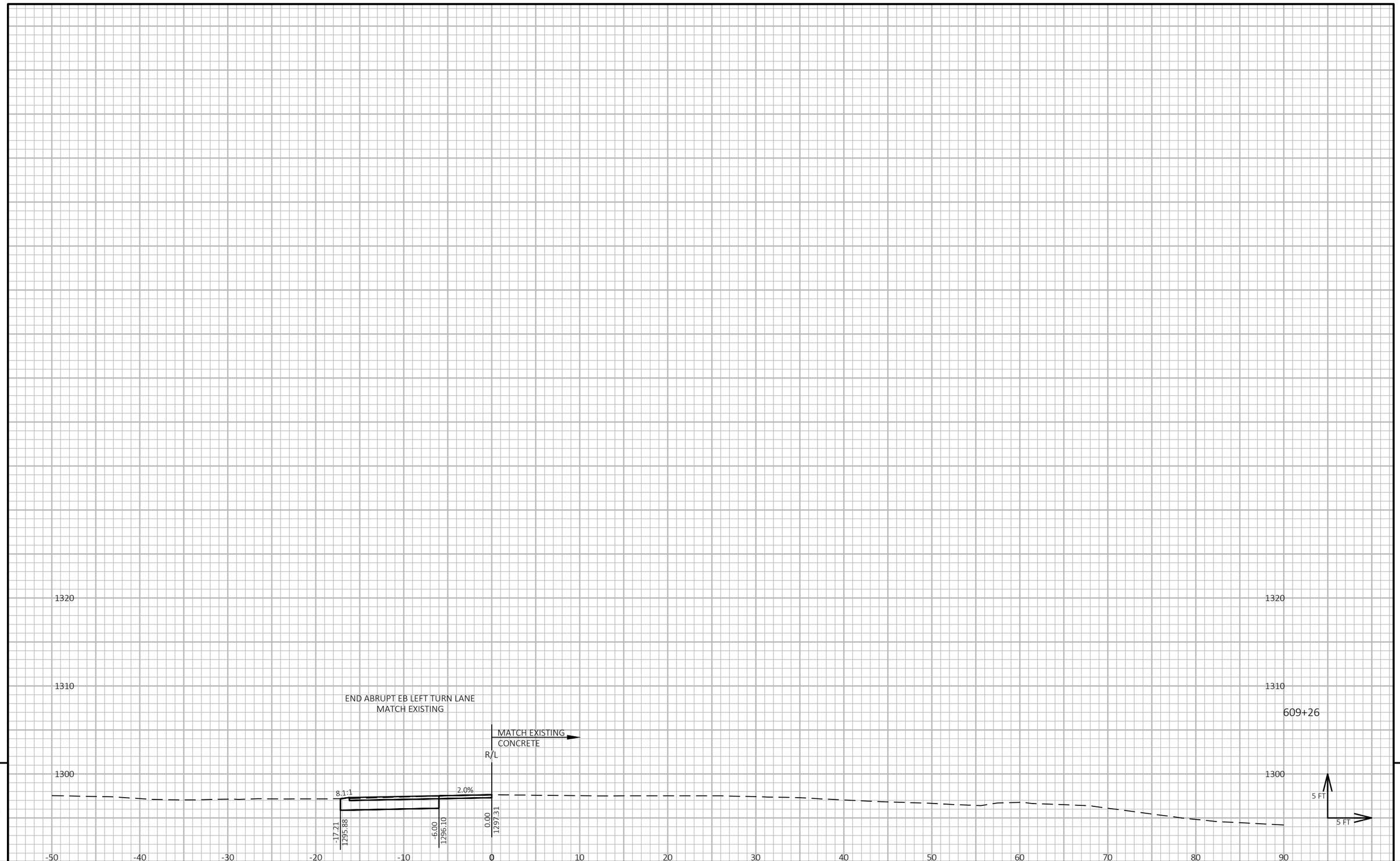
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 153	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 09

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

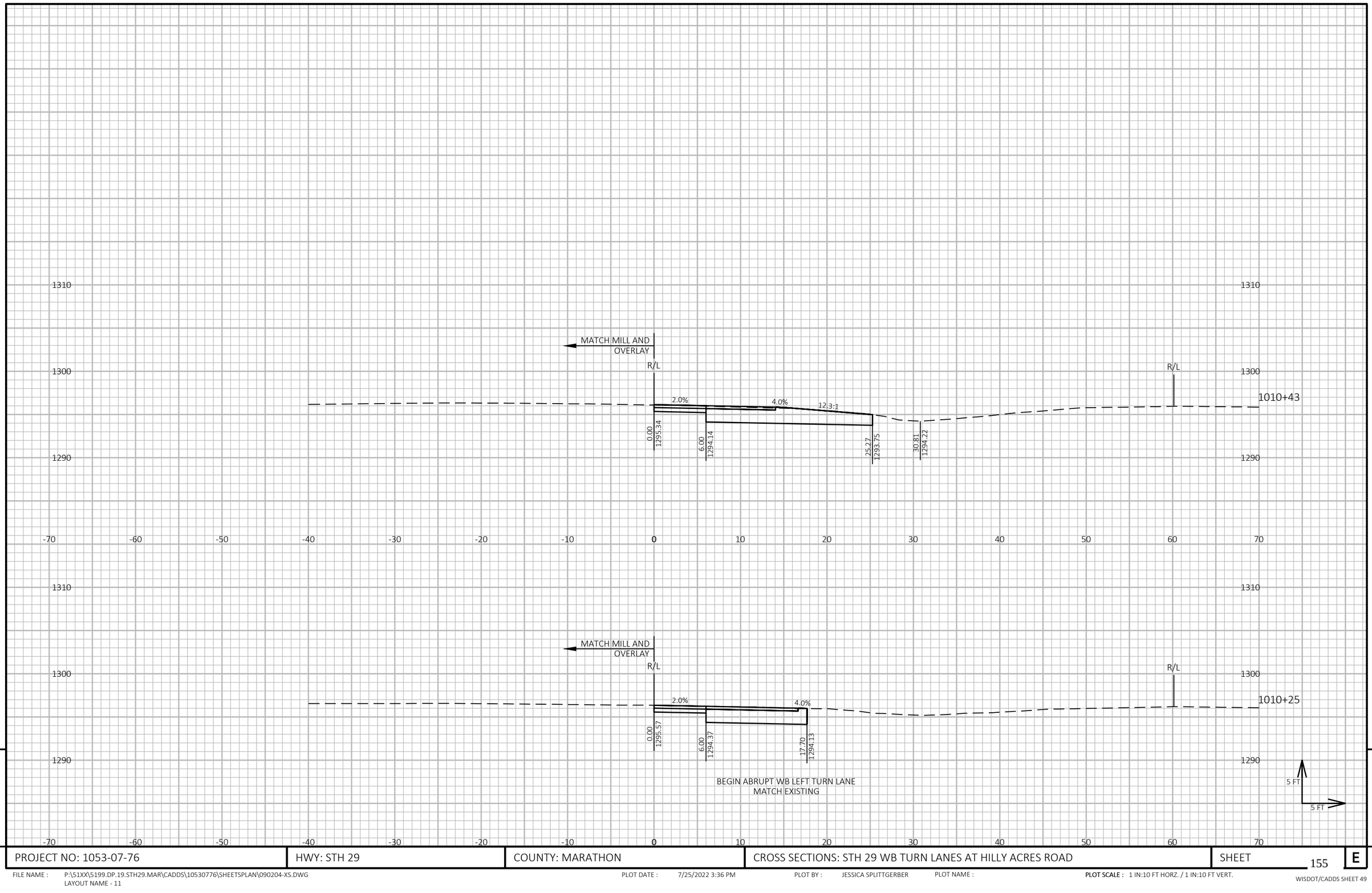


9 9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 EB TURN LANES AT HILLY ACRES ROAD	SHEET 154	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 10

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



9

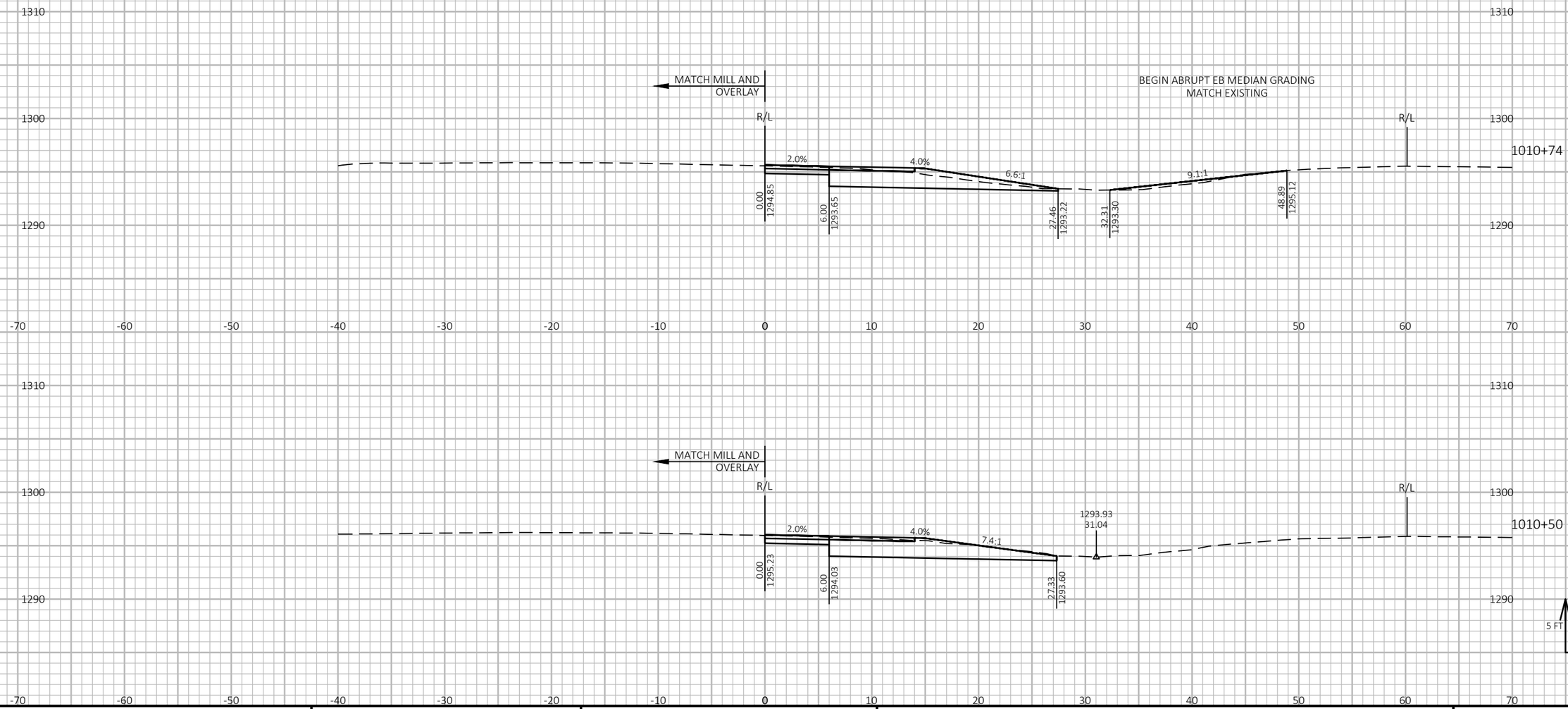
9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 155	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 11

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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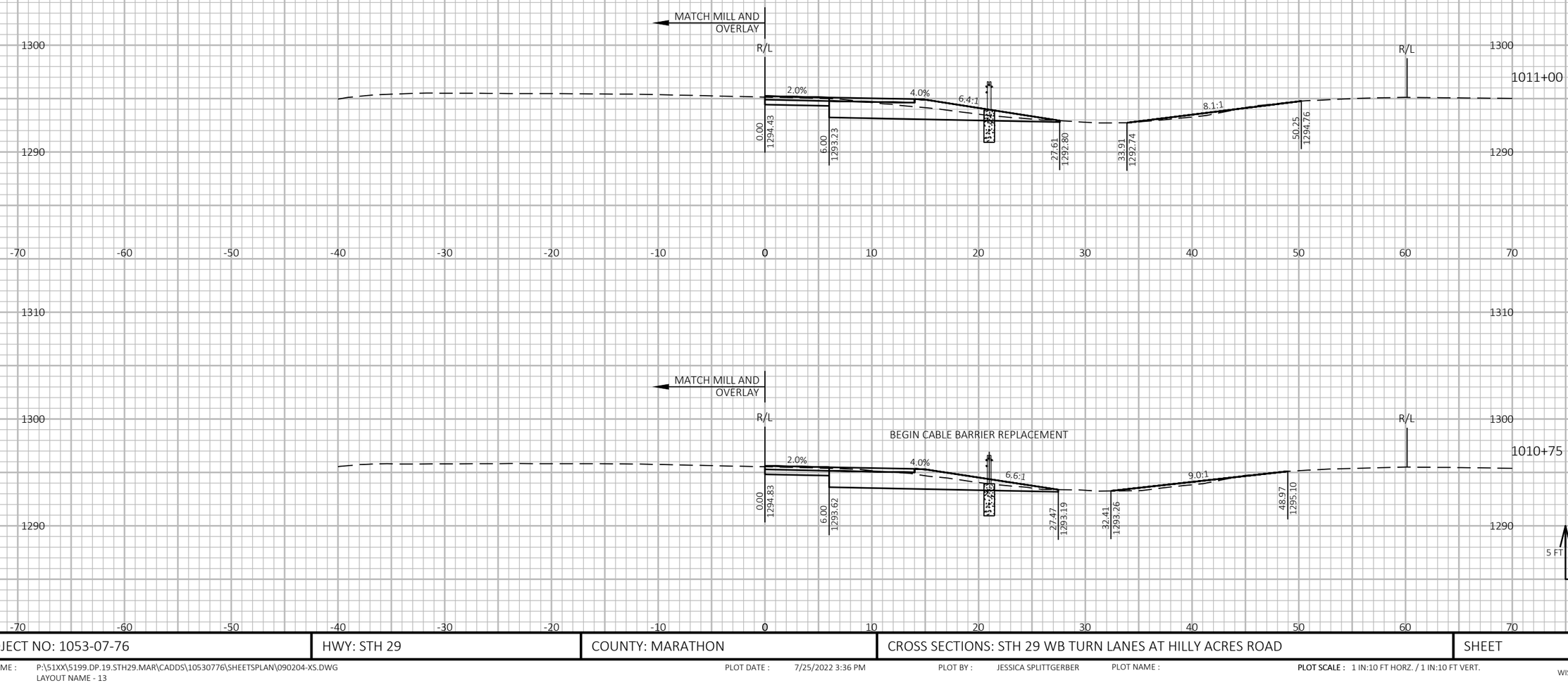
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 156	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 12

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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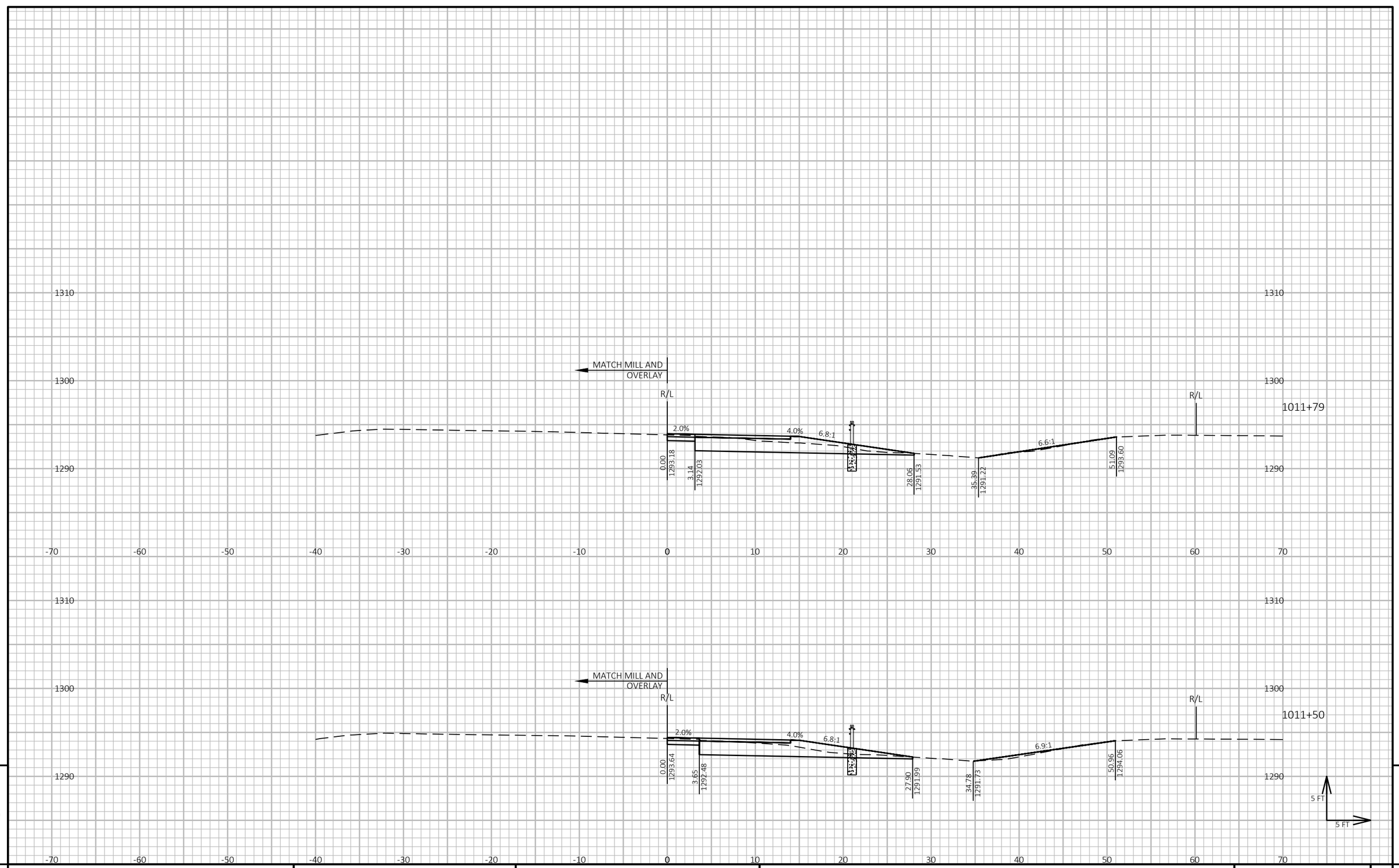
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 157	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 13

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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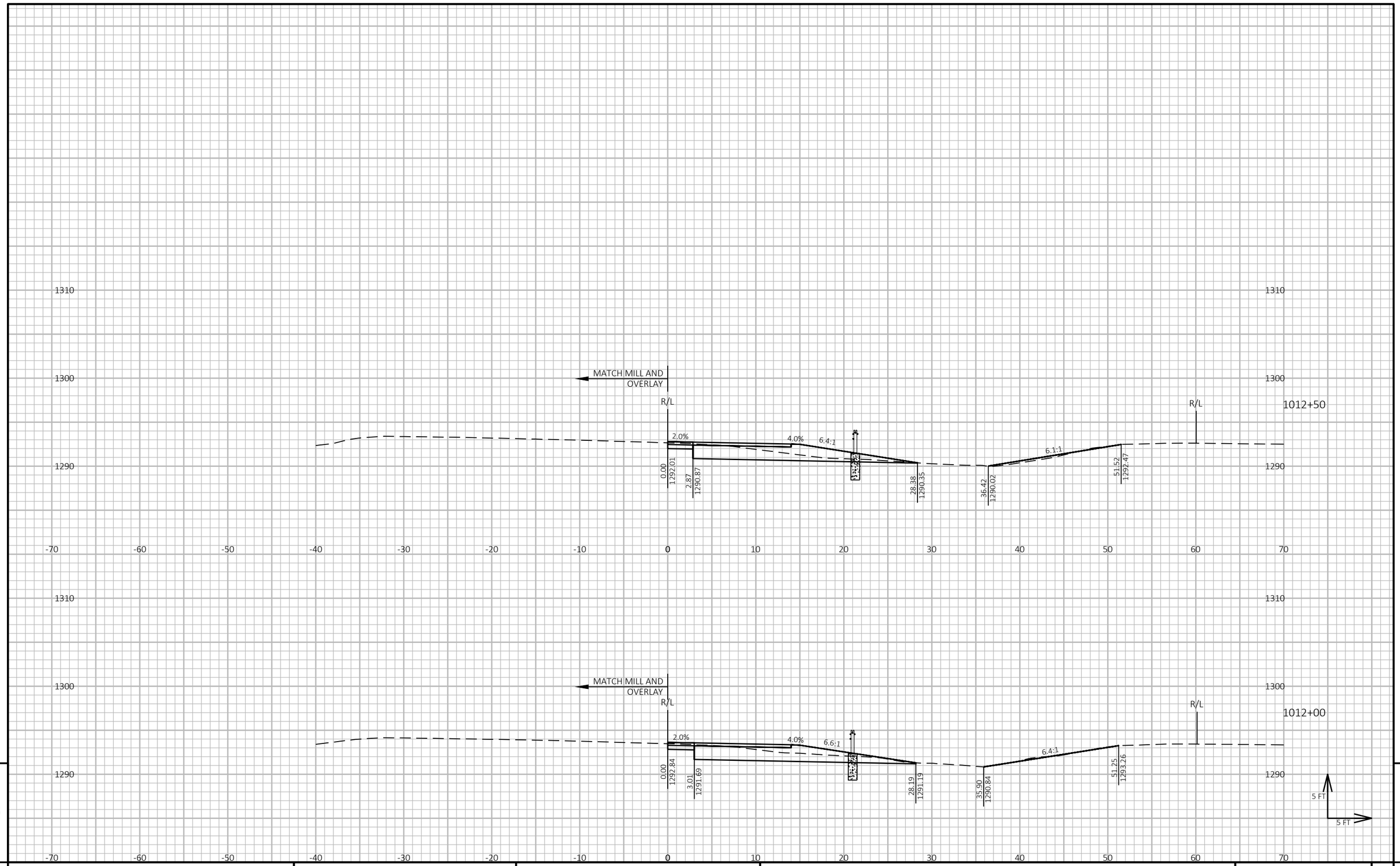
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 158	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 14

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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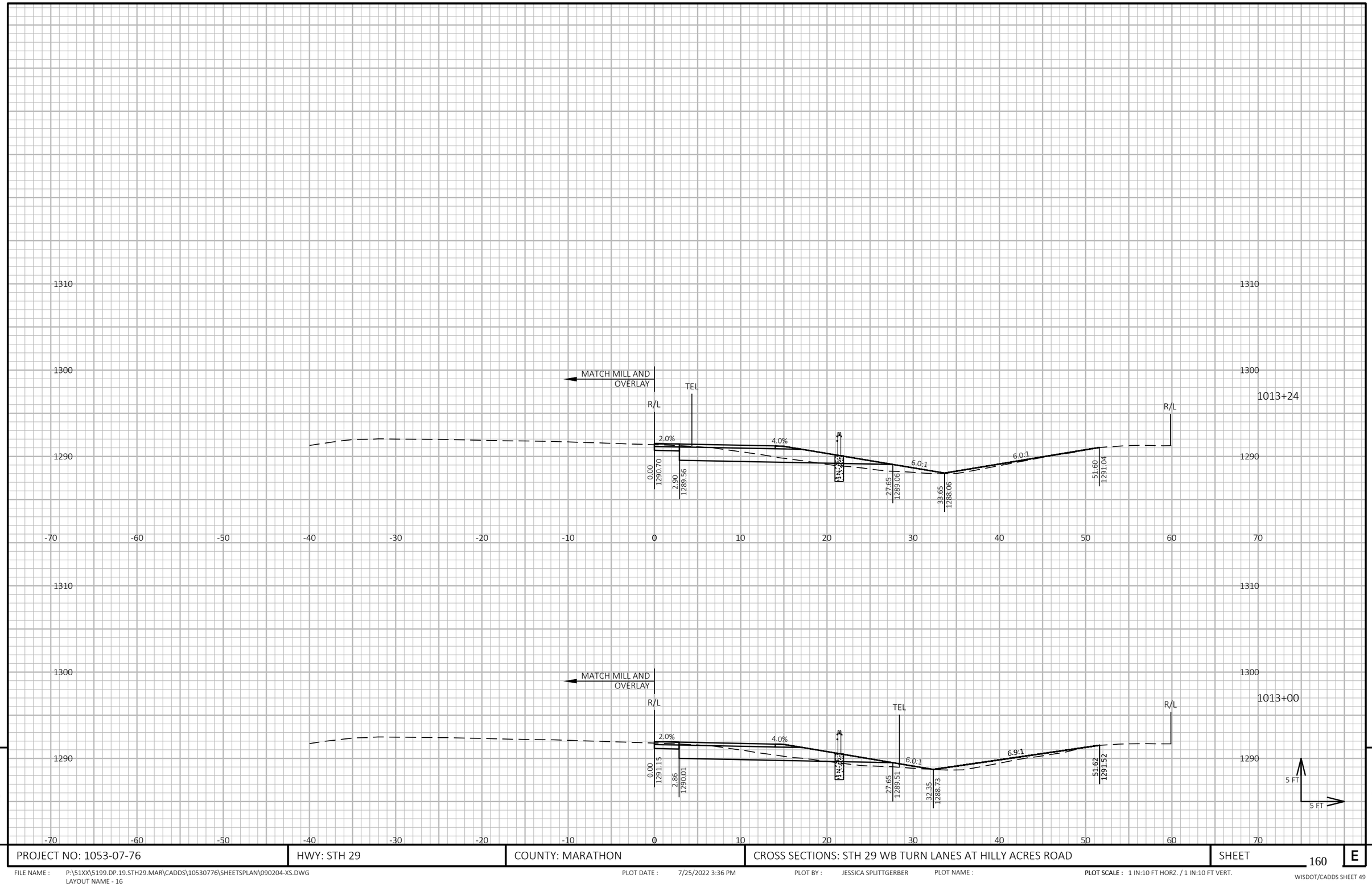
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 159	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 15

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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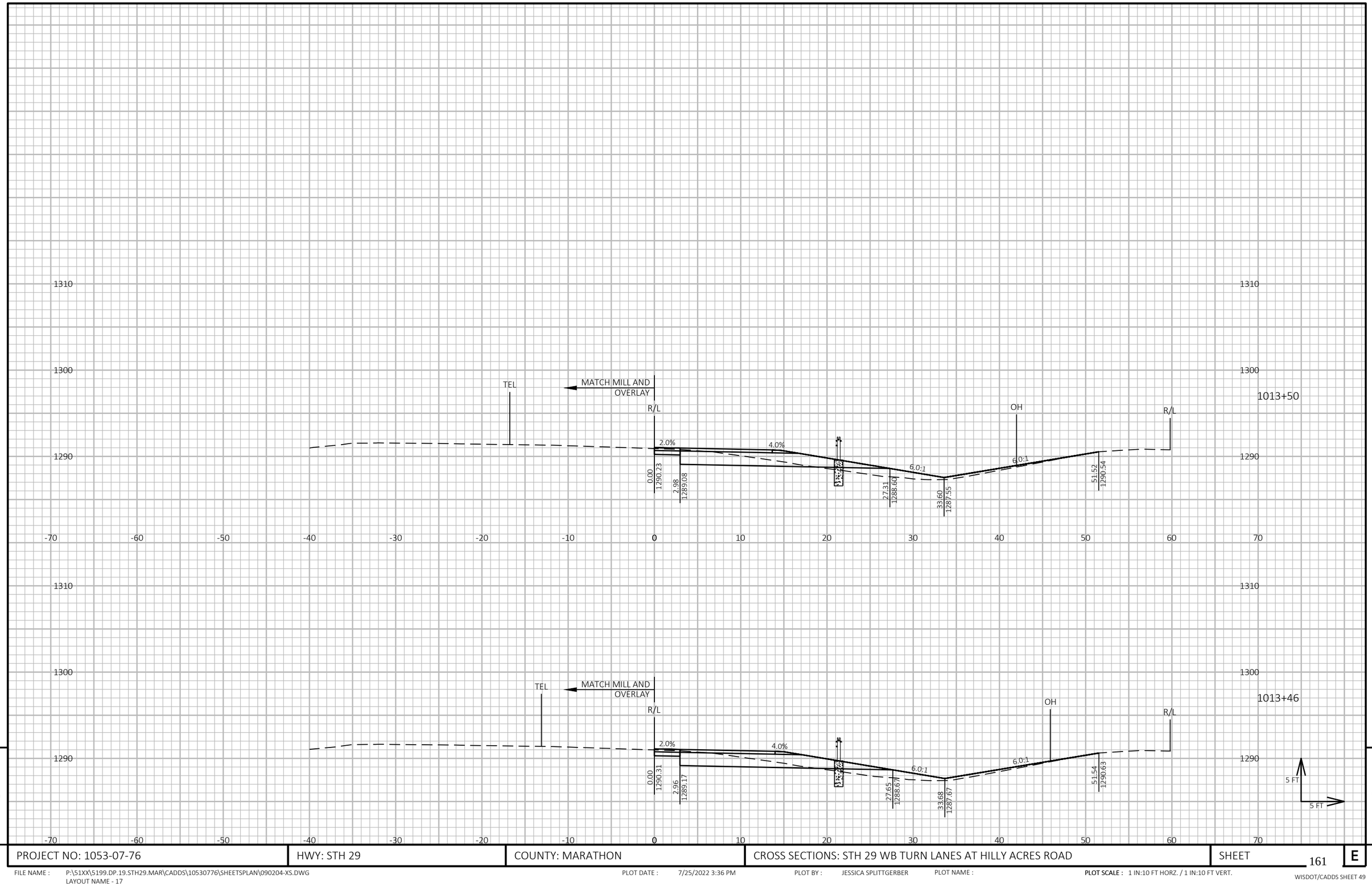
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 160	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 16

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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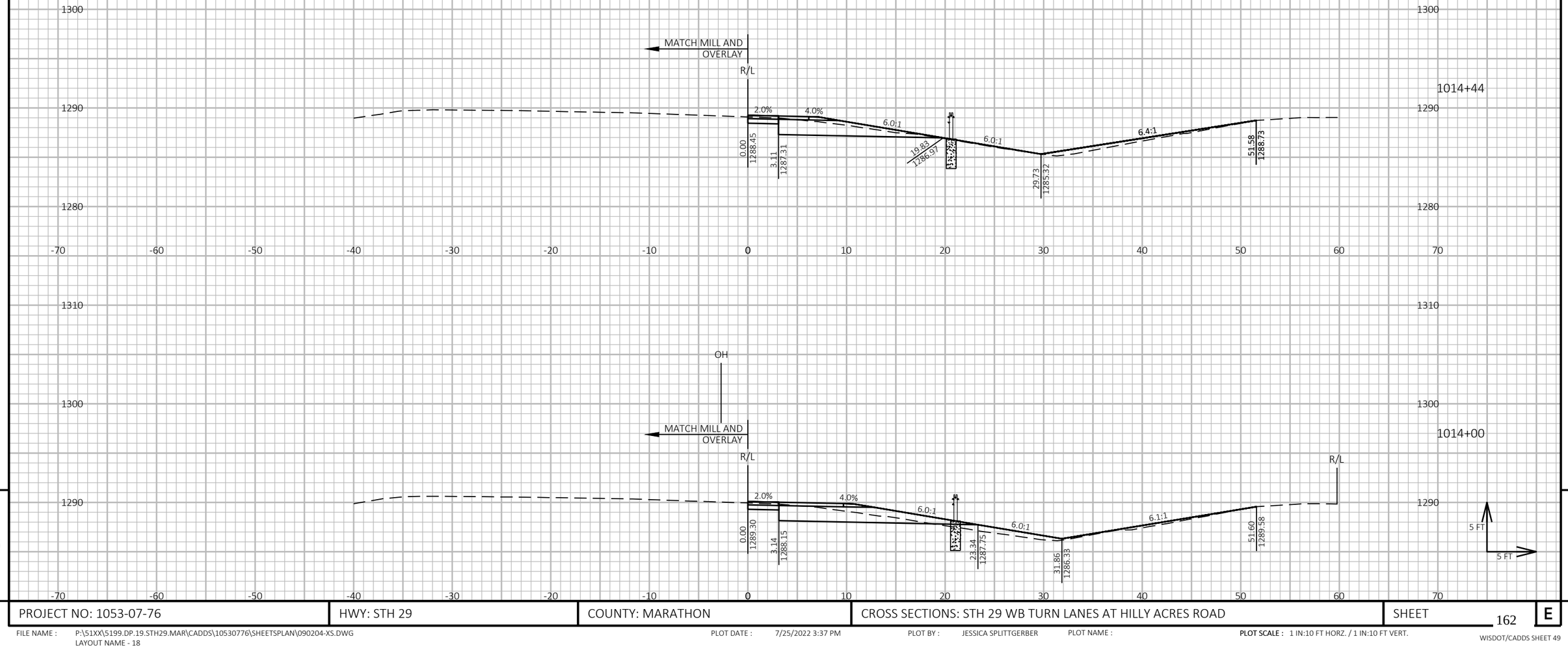
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 161	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 17

PLOT DATE : 7/25/2022 3:36 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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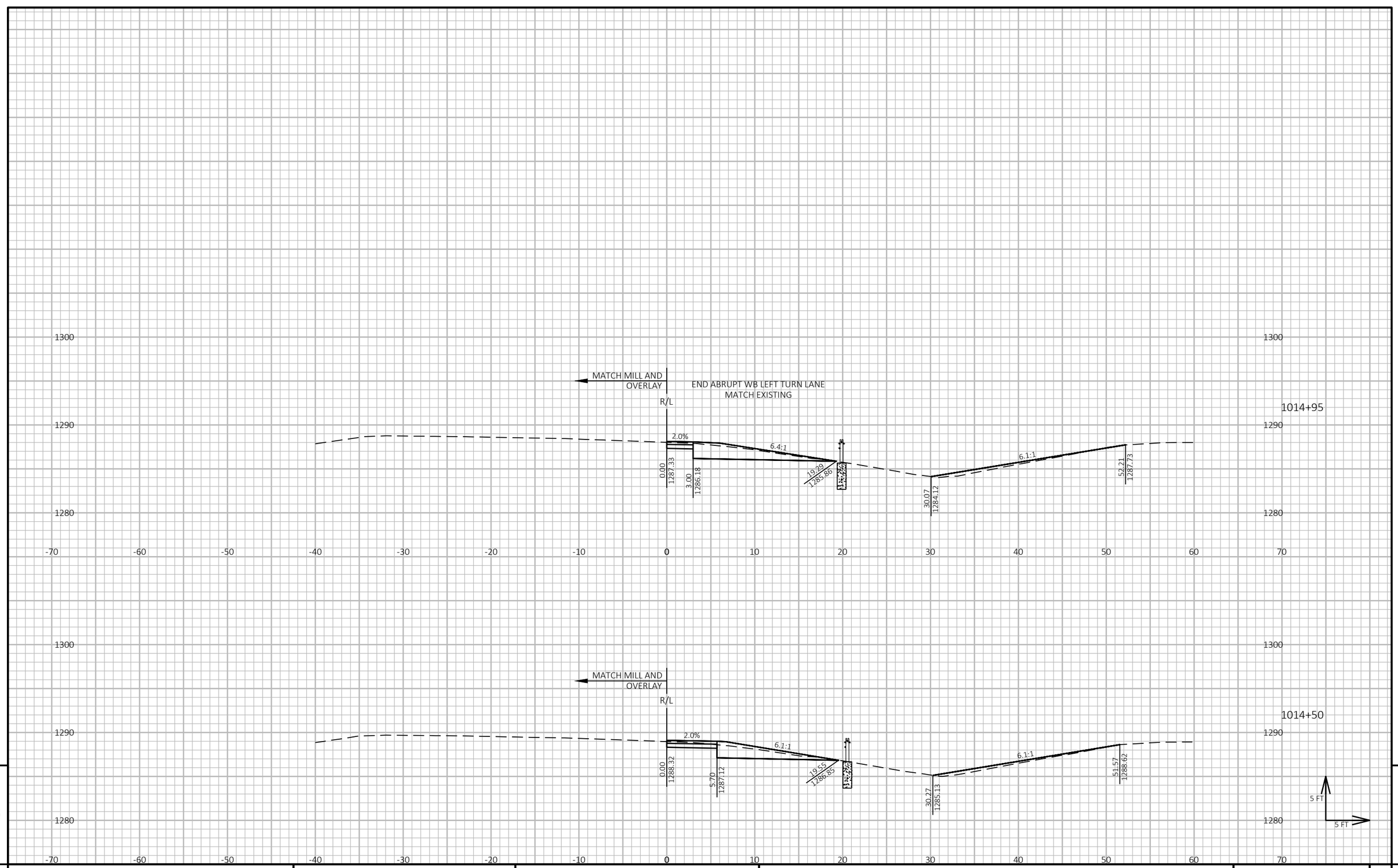
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 162	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 18

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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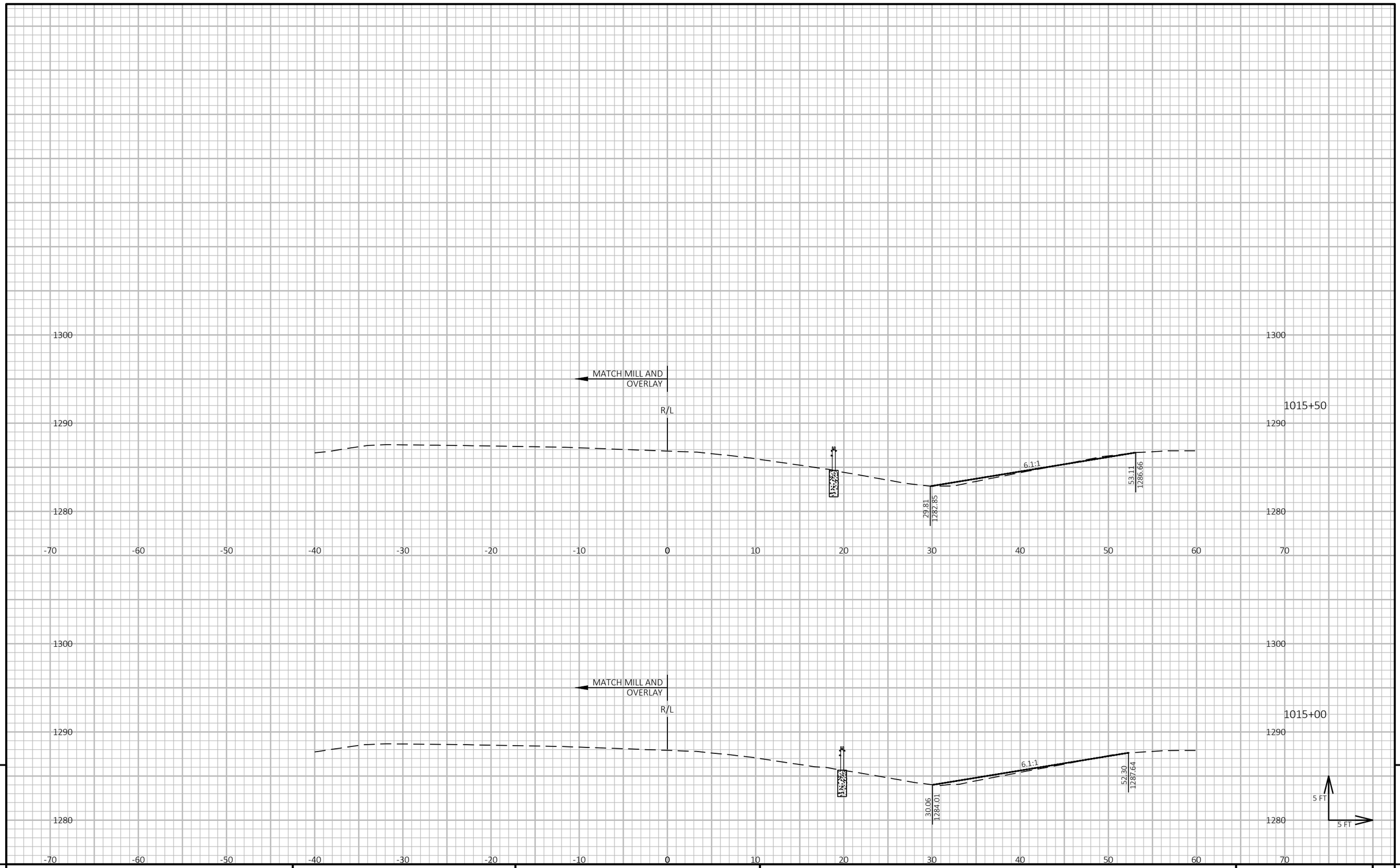
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 163	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 19

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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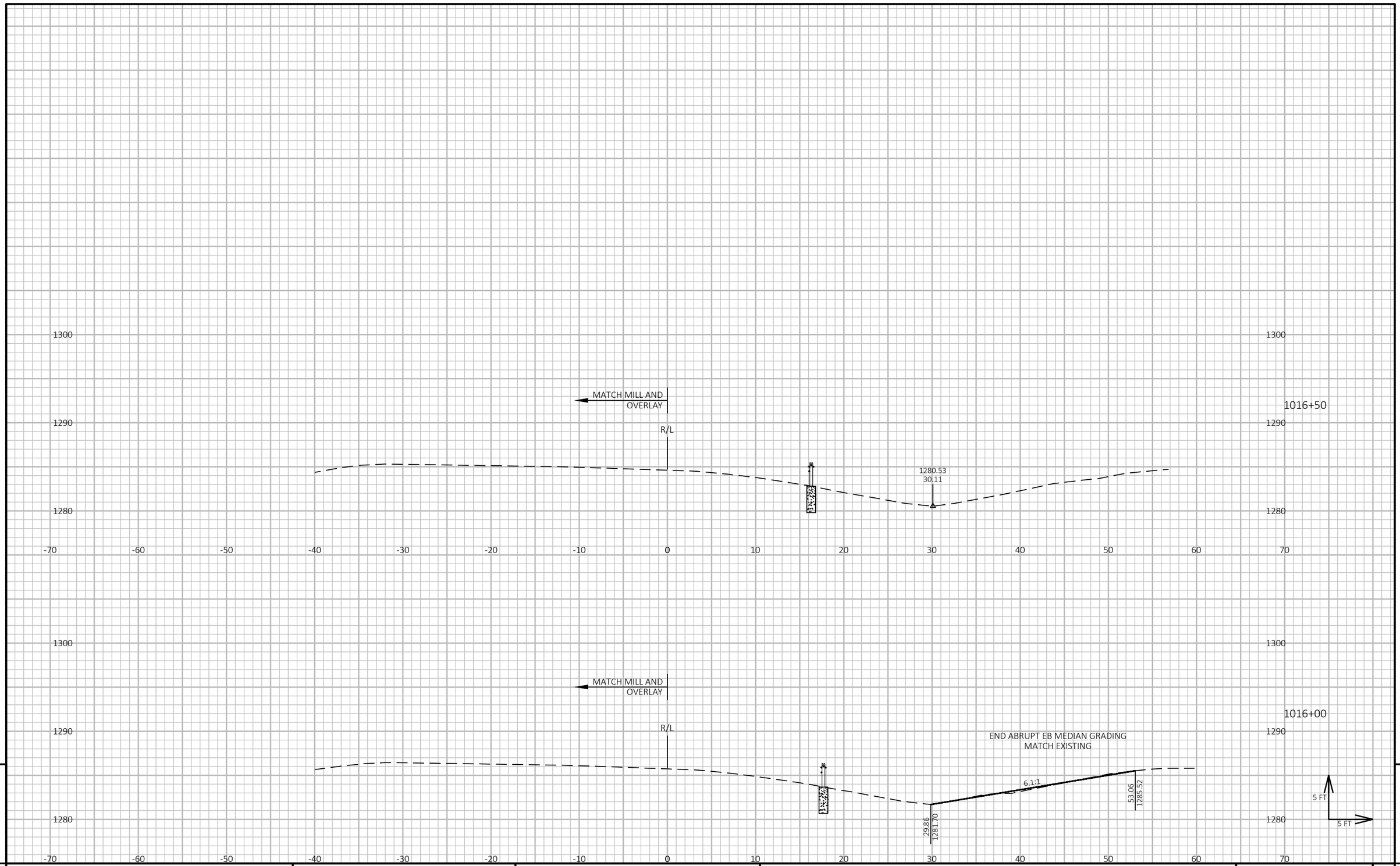
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 164	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 20

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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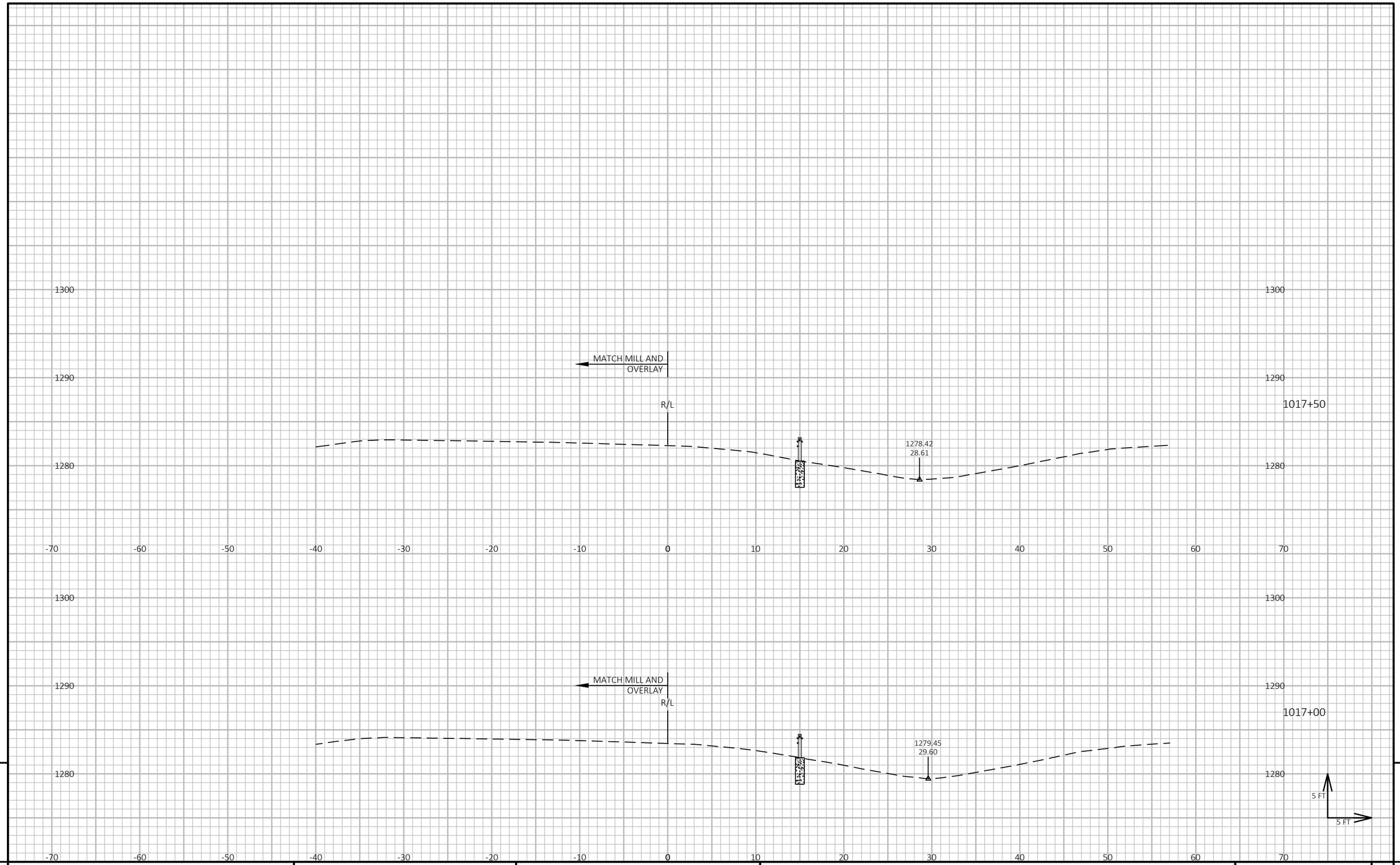
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 165	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 21

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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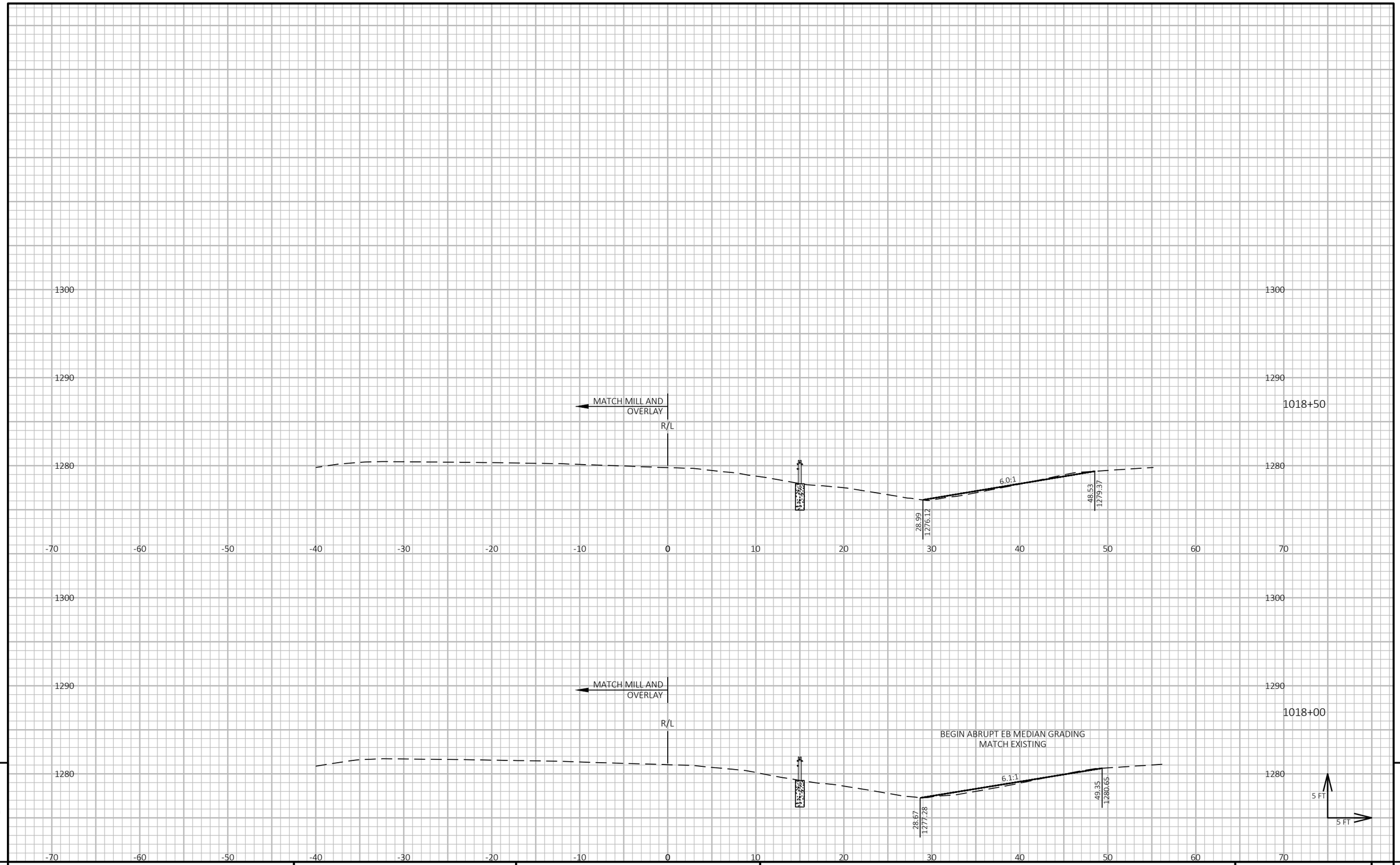
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 166	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 22

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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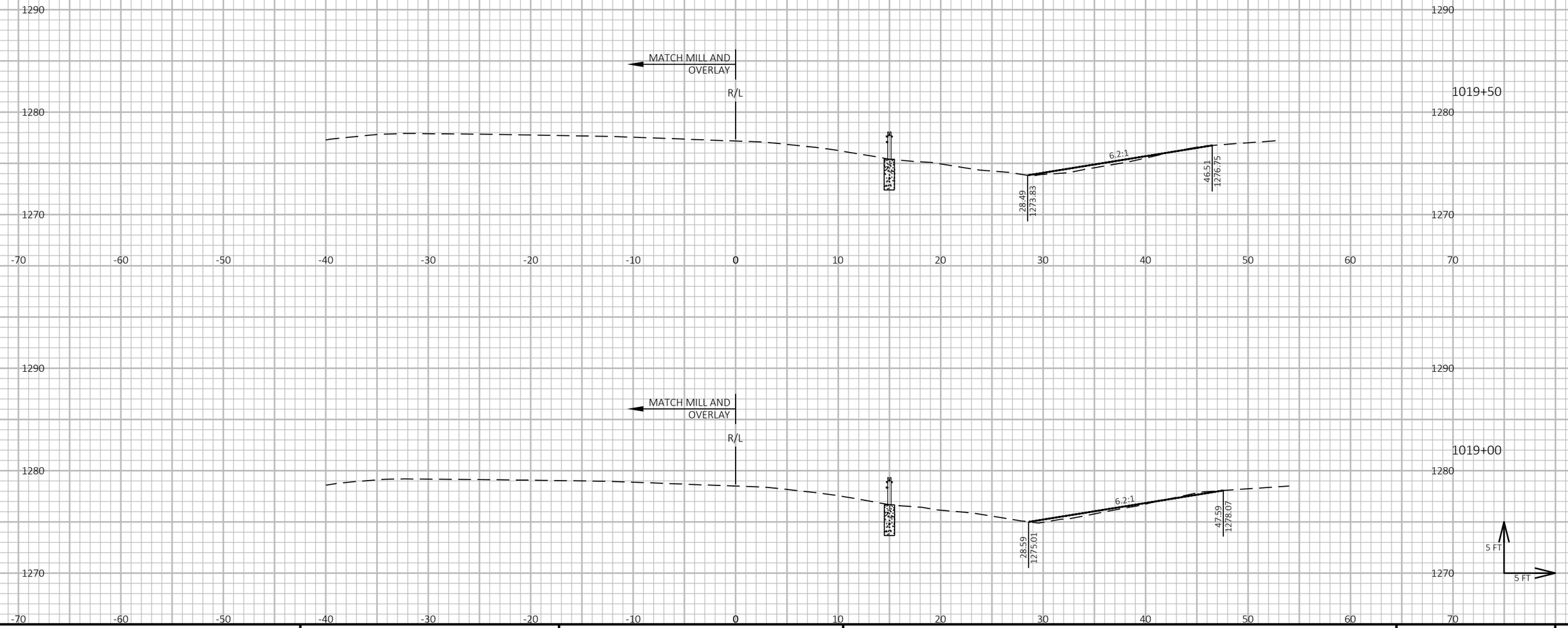
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 167	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 23

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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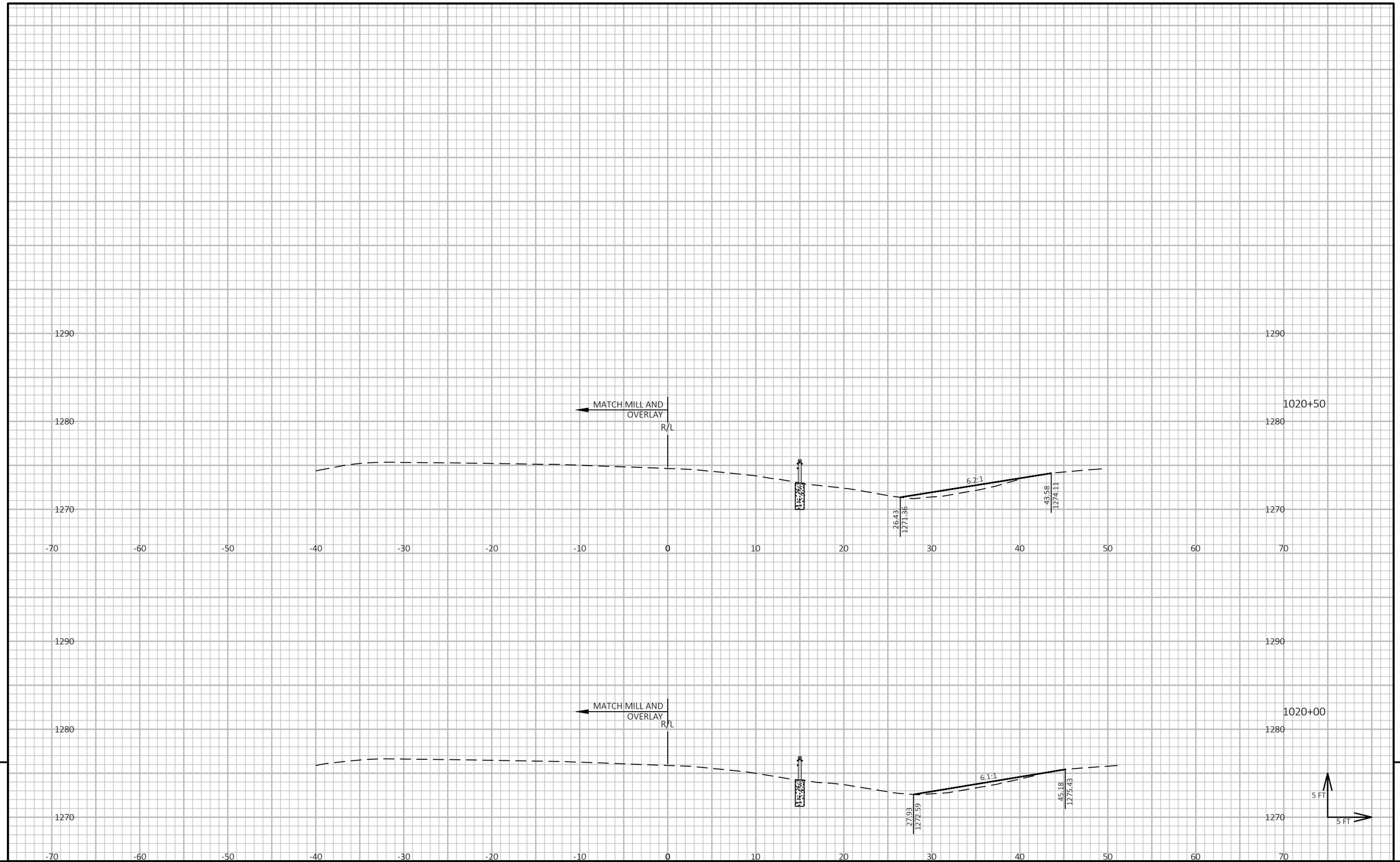
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 168	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 24

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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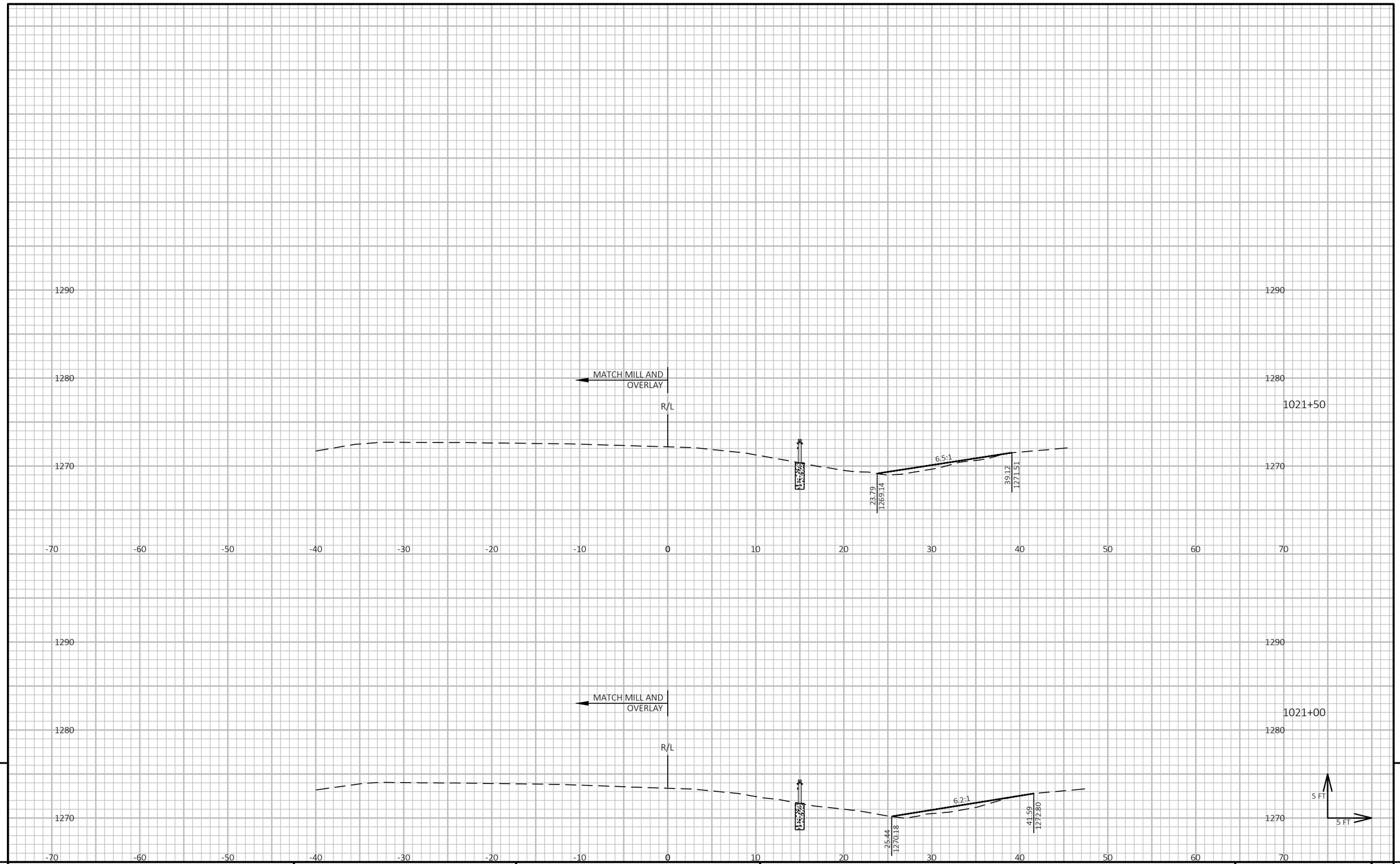
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 169	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 25

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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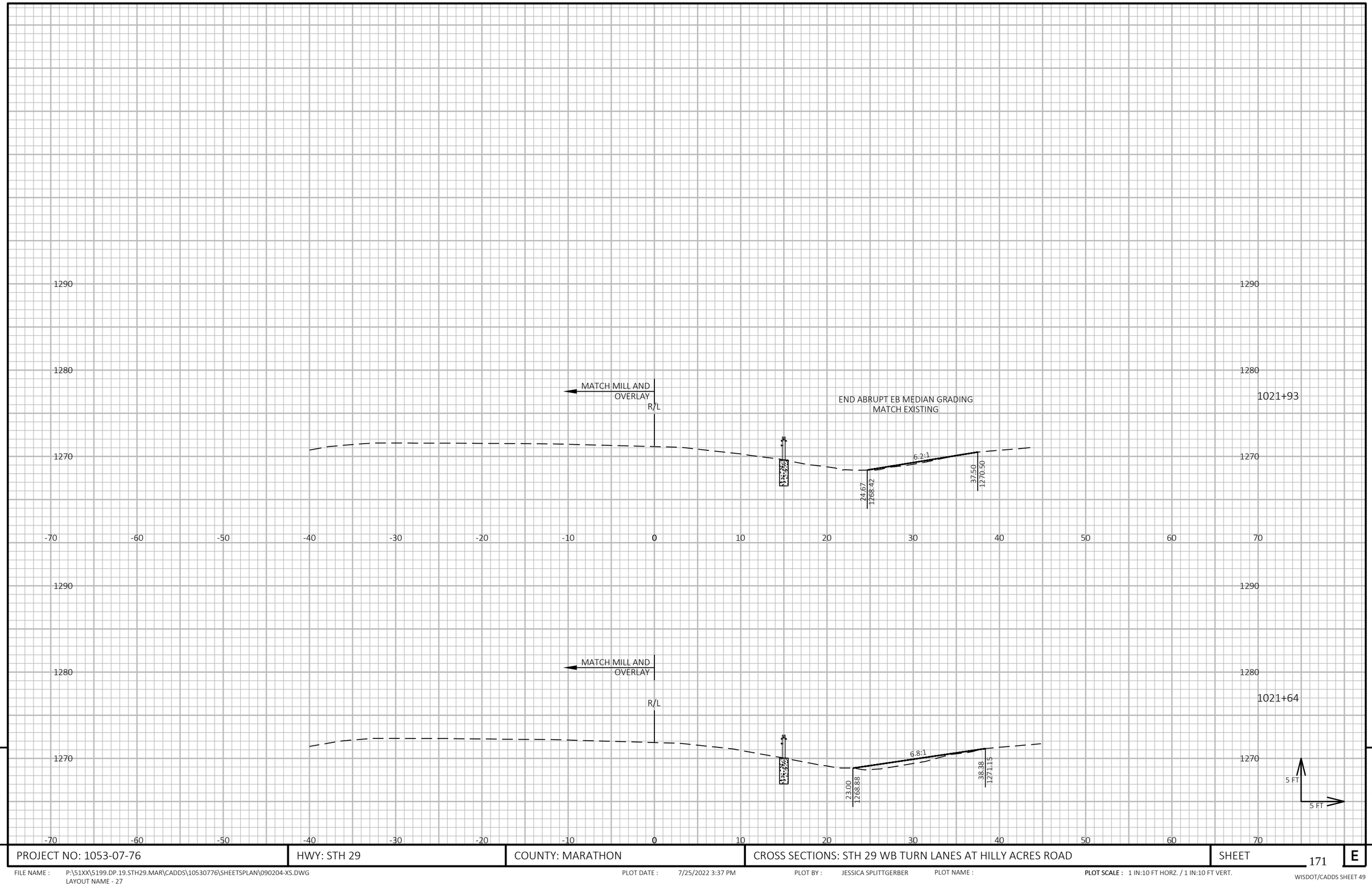
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 170	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 26

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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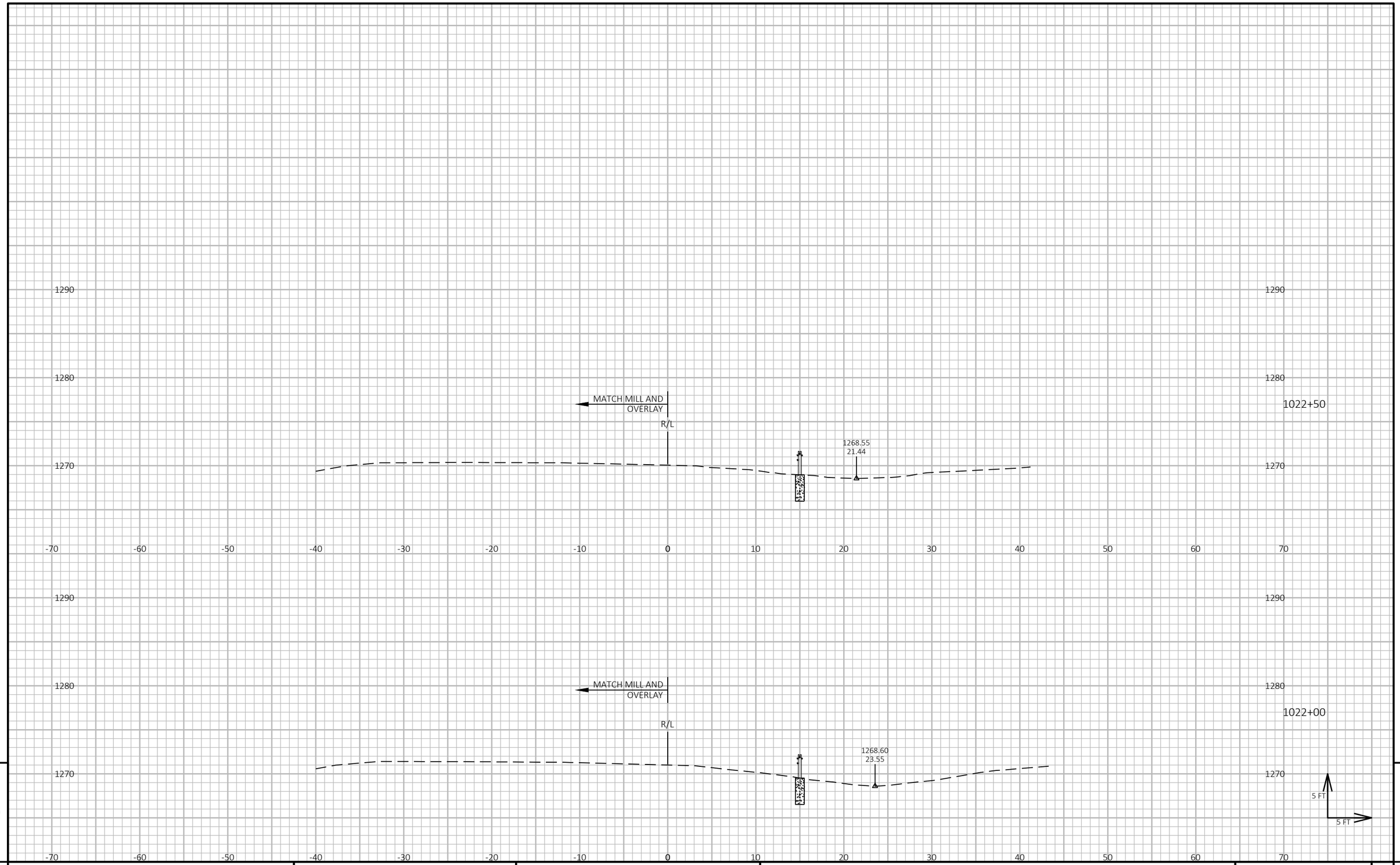
PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 171	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 27

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 172	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 28

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

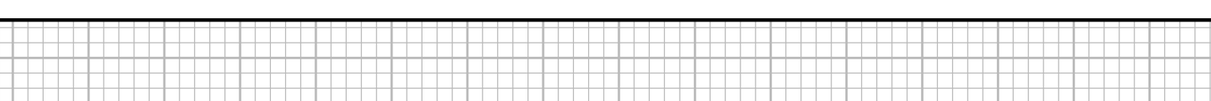
1023+11

MATCH MILL AND OVERLAY

R/L

END CABLE BARRIER REPLACEMENT

1268.37
13.34

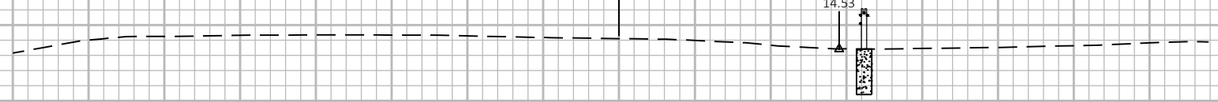


1023+00

MATCH MILL AND OVERLAY

R/L

1268.43
14.53



1290
1280
1270

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

5 FT
5 FT

9

9

PROJECT NO: 1053-07-76	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 29 WB TURN LANES AT HILLY ACRES ROAD	SHEET 173	E

FILE NAME : P:\51XX\5199.DP.19.STH29.MAR\CADDS\10530776\SHEETSPLAN\090204-XS.DWG
LAYOUT NAME - 29

PLOT DATE : 7/25/2022 3:37 PM PLOT BY : JESSICA SPLITTGERBER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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