EAU

PROJECT ID: 1520-02-72

WITH: N/A

COUNTY: CLARK

SEPTEMBER 2023

ORDER OF SHEETS

TOTAL SHEETS = 128

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

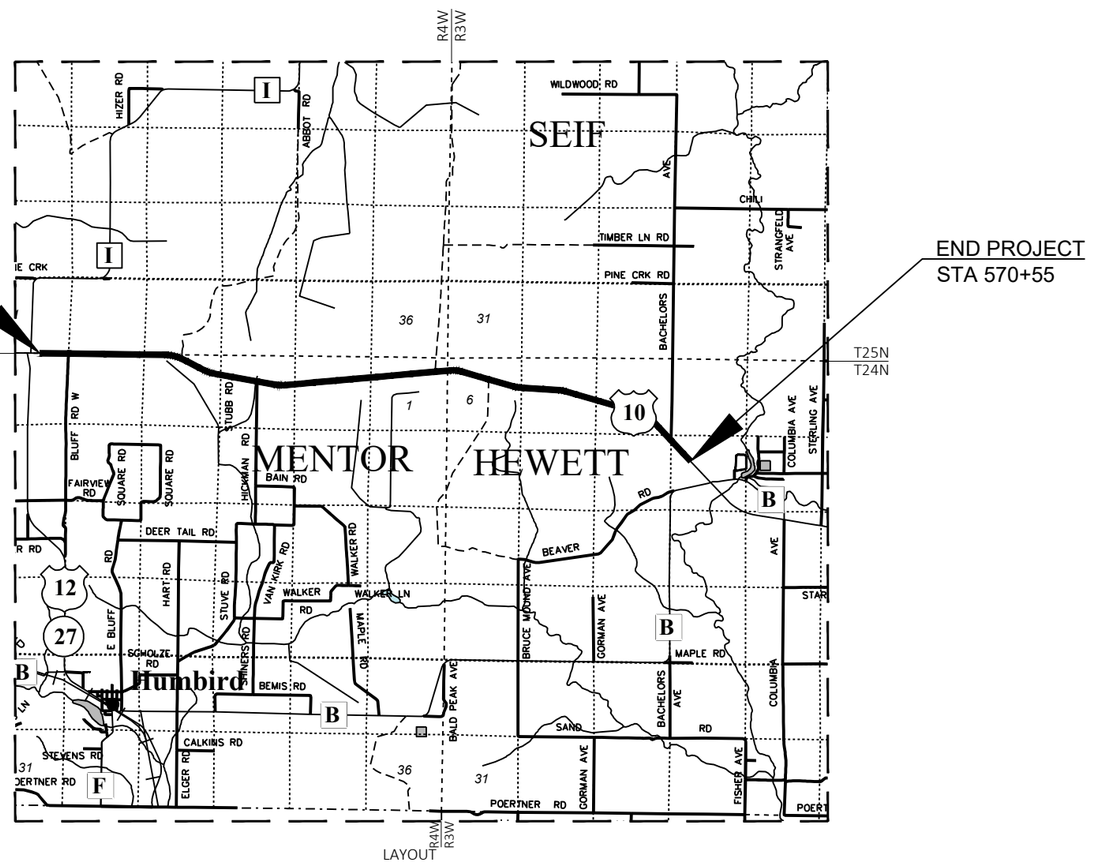
OSSEO - NEILLSVILLE

USH 12 EAST JCT TO BACHELORS AVENUE

USH 10
CLARK

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1520-02-72	WISC 2023624	1

STATE PROJECT NUMBER
1520-02-72



BEGIN PROJECT
STA 100+45
Y = 363269.051
X = 603005.297

END PROJECT
STA 570+55

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 8.903 MI

DESIGN DESIGNATION

A.A.D.T.	2016	=	1850
A.A.D.T.	2034	=	2150
D.H.V.		=	
D.D.		=	
T.		=	31.6%
DESIGN SPEED		=	55 MPH
ESALS		=	

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

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

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

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), CLARK COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

ORIGINAL PLANS PREPARED BY

GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS
Stevens Point • Fond du Lac
120 Wilshire Boulevard North • Stevens Point, WI 54481
(715) 341-4363 • fax (715) 341-1256

WISCONSIN
DEXTER D. KAETTERHENRY
E-43966
PLOVER
WI
PROFESSIONAL ENGINEER

7/29/2022 — DATE

DEXTER D. KAETTERHENRY, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	GREMMER AND ASSOCIATES, INC.
Designer	GREMMER AND ASSOCIATES, INC.
Project Manager	BRIAN HAEN, P.E.
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	REGIONAL SUPERVISOR

APPROVED FOR THE DEPARTMENT

DATE: 7/29/22 (Signature)

E

GENERAL NOTES

ALL DISTANCES AND STATIONING SHOWN ON THIS PLAN ARE GROUND VALUES.

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

THE CONTRACTORS SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK.

THE CONTRACTORS PAVING OPERATION SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, AND PASSING LANE.

HMA PAVEMENT WEIGHT CALCULATION BASED ON 112 LB/SY/IN.

APPLY TACK COAT TO EXISTING ASPHALT OR MILLED SURFACES AT A RATE OF 0.07 GAL/SY.

APPLY TACK COAT BETWEEN NEW HMA LAYERS AT A RATE OF 0.05 GAL/SY.

WHEN THE QUANTITY OF THE ITEM OF BASE AGGREGATE DENSE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE THICKNESS SHOWN ON THE PLAN IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

CURVE DATA IS BASED ON ARC DEFINITION.

PROTECT NAY FOUND MONUMENTS WITHIN CORRIDOR LIMITS. CONTACT CLARK COUNTY SURVEYOR PRIOR TO CONSTRUCTION.

TRAFFIC CONTROL NOTES

PLACE G20-57 SIGNS 7 DAYS PRIOR TO WORK BEGINNING AT BOTH ENDS OF PROJECT. REMOVE ONCE CONSTRUCTION BEGINS.

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

PLACE TEMPORARY PORTABLE RUMBLE STRIP ARRAY ACCORDING TO SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.

PLACE TRAFFIC CONTROL SIGN "ROAD WORK AHEAD" ON ALL SIDE ROADS APPROACHING STH 40/64 WITHIN THE WORK ZONE.

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

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE "WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (WMUTCD), A SUPPLEMENT TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

ORDER OF SECTION 2 SHEETS

DESIGN CONTACTS

DEPARTMENT OF NATURAL RESOURCES
ATTN: LEAH NICOL
1300 WEST CLAIREMONT AVENUE
EAU CLAIRE, WI 54701
OFFICE: 715.934.9014
EMAIL: leah.nicol@wisconsin.gov

GREMMER & ASSOCIATES, INC.
ATTN: DEXTER KAETTERHENRY
120 WILSHIRE BOULEVARD NORTH
STEVENS POINT, WI 54481
OFFICE: 715.341.4363
EMAIL: d.kaetterhenry@gremmerassociates.com

WISCONSIN DEPARTMENT OF TRANSPORTATION
ATTN: BRIAN HAEN
944 VANDERPERREN WAY
GREEN BAY, WI 54304
OFFICE: 920.366.4788
EMAIL: brian.haen@dot.wi.gov

UTILITIES

BRIGHTSPEED
ATTN: BRIAN HUHN
425 ELLINGSON AVENUE
HAWKINS, WI 54530
PHONE: (608) 615-7647
CELL: (715) 563-8294
EMAIL: brian.huhn@lumen.com

SPECTRUM
ATTN: JESSE GRUNY
503 IVES STREET, #316
MARSHFIELD, WI 54449
PHONE: (715) 651-5605
EMAIL: jesse.gruny@charter.com

CLARK ELECTRIC COOPERATIVE
ATTN: JOSH BURNS
1209 WEST DAL-BERG STREET
GREENWOOD, WI 54437
PHONE: (715) 456-3364
CELL: (715) 267-7954
EMAIL: jburns@cecoop.com

TRI-COUNTY COMMUNICATIONS COOPERATIVE INC
ATTN: BUCK WEBB
PO BOX 578
STRUM, WI 54770
PHONE: (715) 695-2691
EMAIL: bwebb@tccpro.net

WINDSTREAM KDL LLC
ATTN: LORI KETTER
314 NORTH DANZ AVENUE
GREEN BAY, WI 54302
PHONE: (920) 410-6902
EMAIL: lori.ketter@windstream.com

XCEL ENERGY - ELECTRICITY
ATTN: PAMELA DENZINE
500 NORTH 5TH STREET
ABBOTSFORD, WI 54405
PHONE: (715) 737-7174
CELL: (715) 218-6637
EMAIL: pamela.denzine@xcelenergy.com

XCEL ENERGY - TRANSMISSION
ATTN: MITCHELL DIENGER
414 NICOLLET MALL, 5TH FLOOR
MINNEAPOLIS, MN 55401
PHONE: (612) 321-3109
EMAIL: mitchell.a.dienger@xcelenergy.com

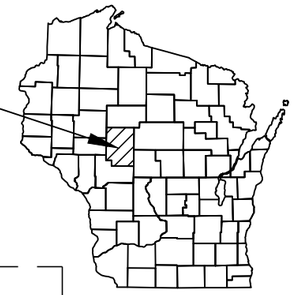
RUNOFF COEFFICIENT TABLE

	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 = 38.85 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.59 ACRES

2

PROJECT LOCATION
CLARK COUNTY
NW REGION - EAU CLAIRE OFFICE



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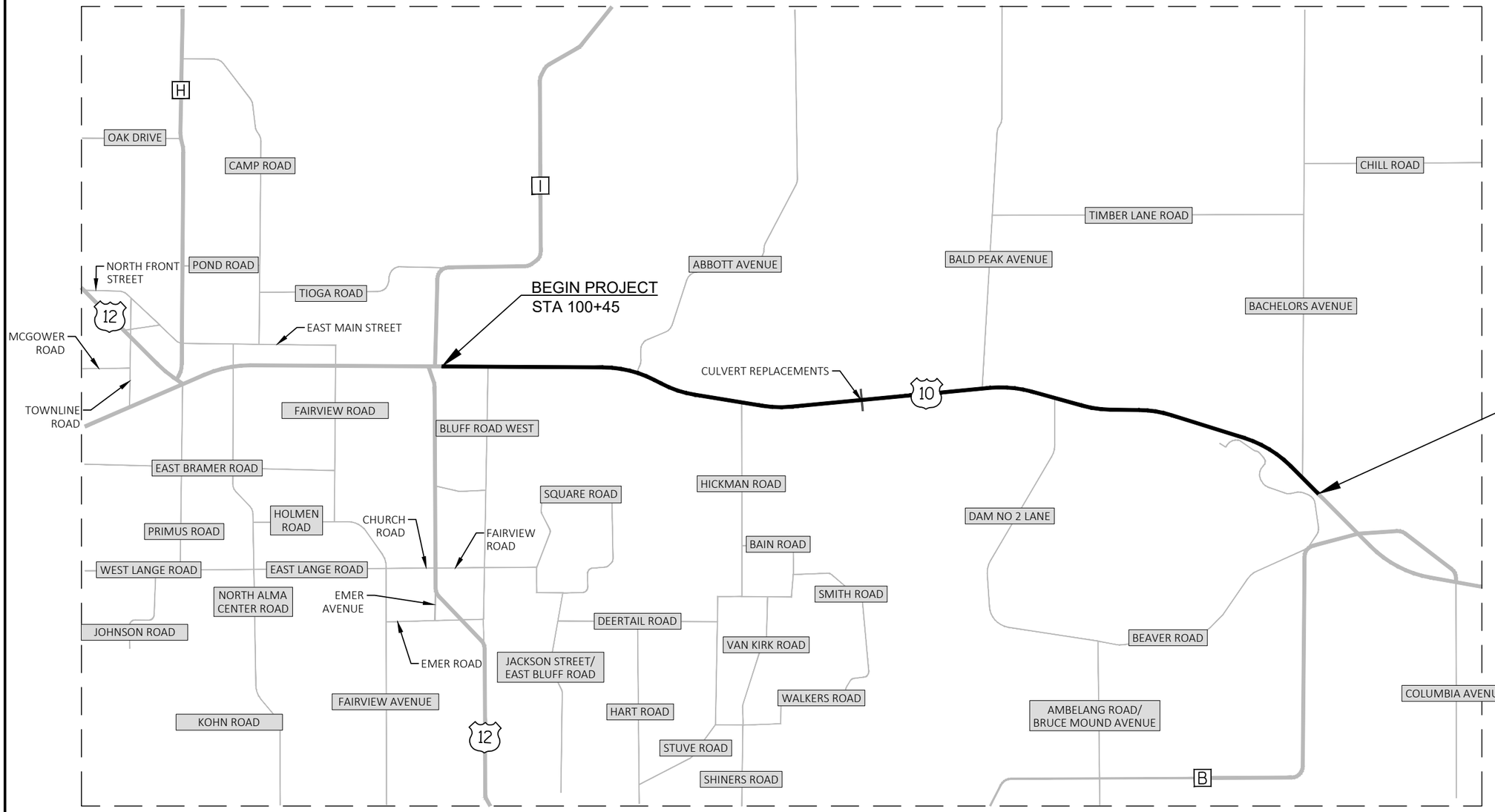
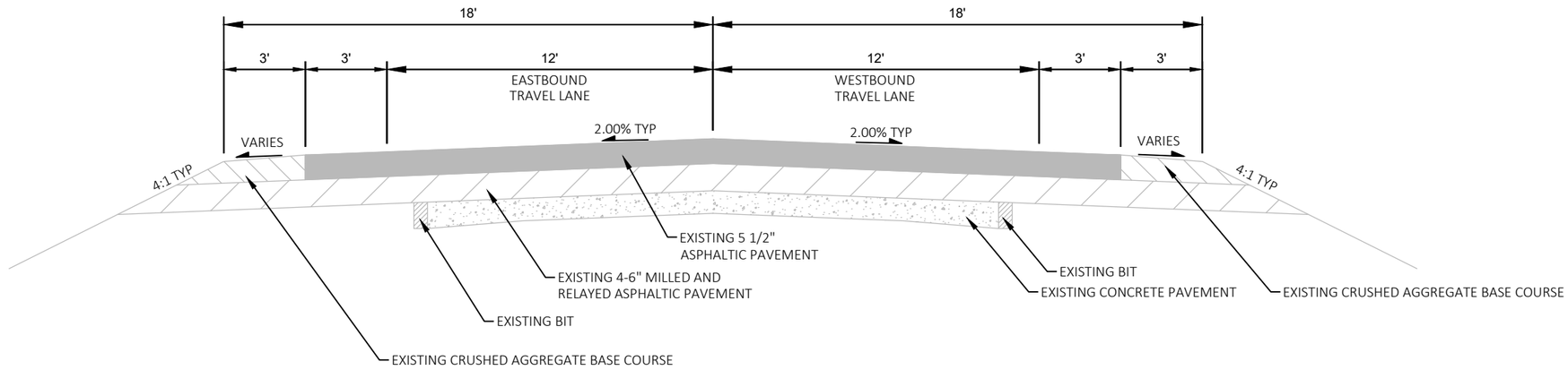


PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\020201_PO\020201_PO.DWG
LAYOUT NAME - 01
PLOT DATE : 6/1/2022 9:27 AM
PLOT BY : JARED HALBUR
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

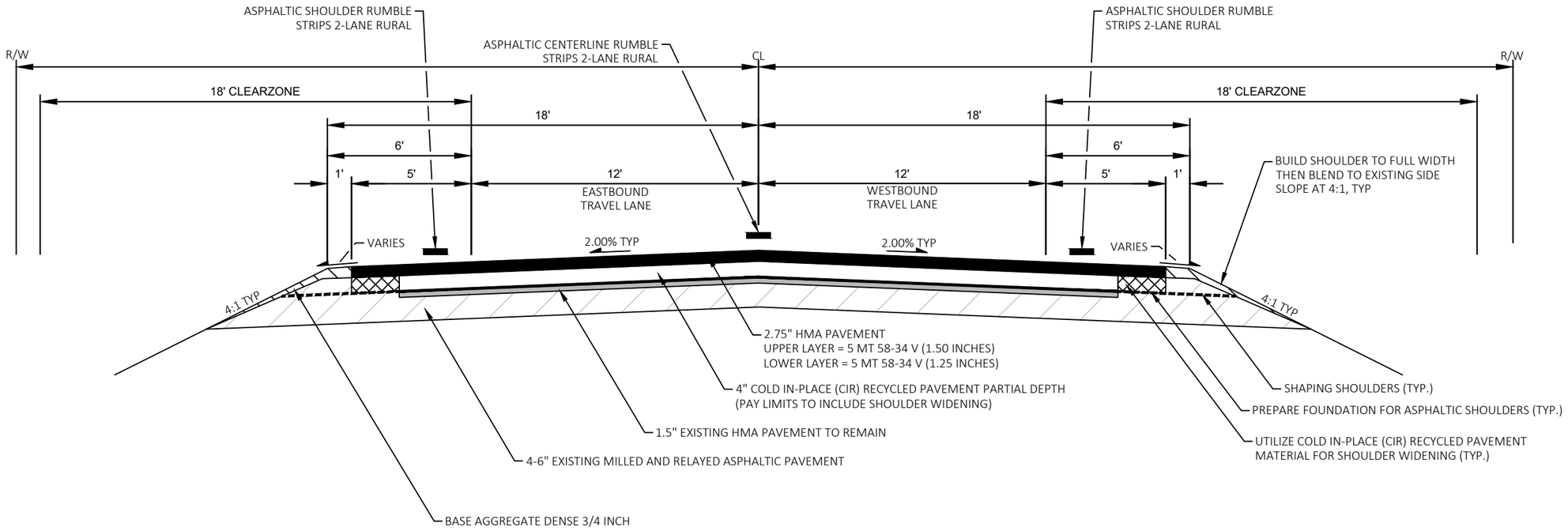


TYPICAL EXISTING SECTION
STA 100+45 - STA 570+55

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	TYPICAL SECTION: EXISTING	SHEET 4	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\020301_TS\020301_TS.DWG
LAYOUT NAME - 020301-ts 1in-10ft
PLOT DATE : 6/1/2022 9:30 AM
PLOT BY : JARED HALBUR
PLOT NAME :
PLOT SCALE : 1 IN:5 FT

2



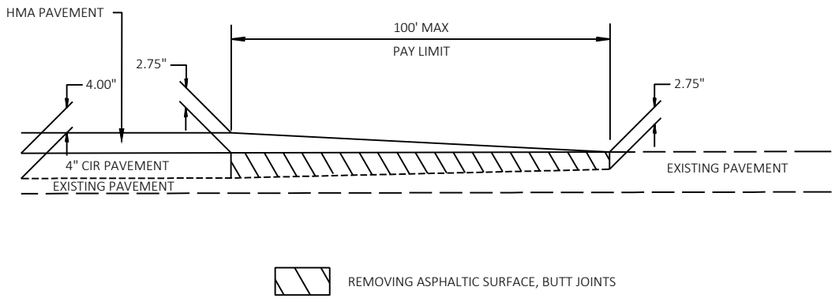
TYPICAL FINISHED SECTION
STA 100+45 - STA 570+55

TYPICAL SECTION NOTES:

PREPARE FOUNDATION FOR ASPHALTIC PAVING

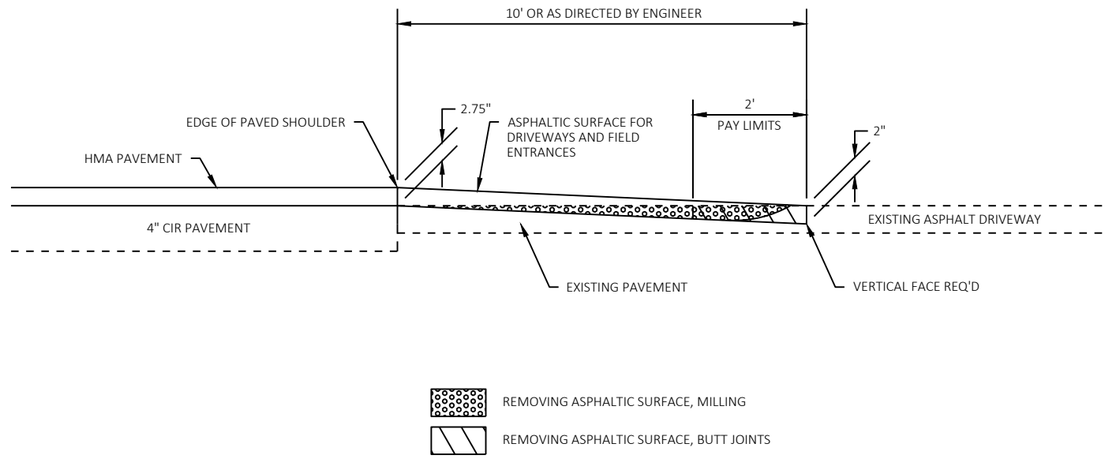
** CROSS-SLOPE IS SUPERELEVATED FROM STATION RANGES BELOW:
(SEE CONSTRUCTION DETAILS FOR MORE DATA)
STA 191+96.01 TO STA 204+74.04
STA 220+95.75 TO STA 228+98.90
STA 271+95.87 TO STA 279+02.64
STA 395+37.06 TO STA 401+73.60
STA 439+22.89 TO STA 444+90.67
STA 471+21.50 TO STA 476+83.92
STA 528+32.06 TO STA 543+08.19

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	TYPICAL SECTION: FINISHED	SHEET 5	E



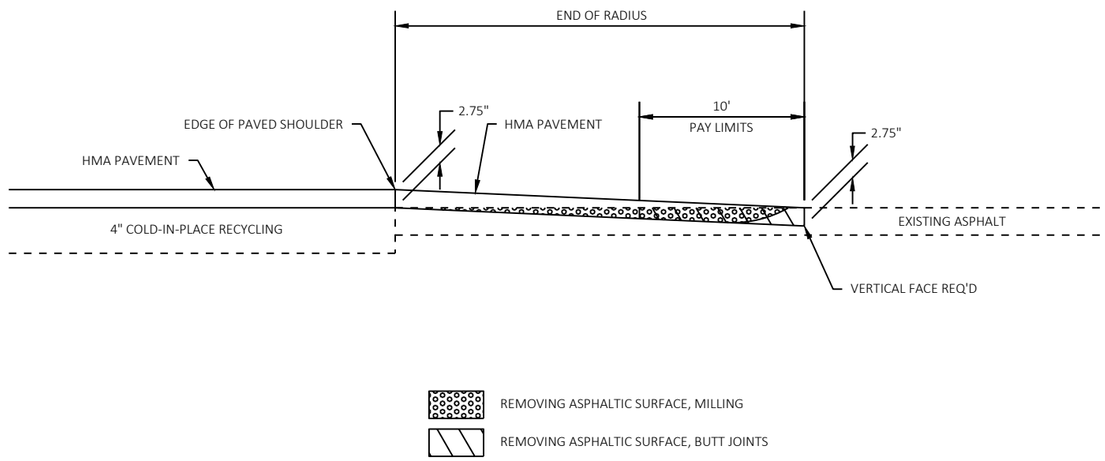
REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

MAINLINE (BEGIN/END OF PROJECT)



REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

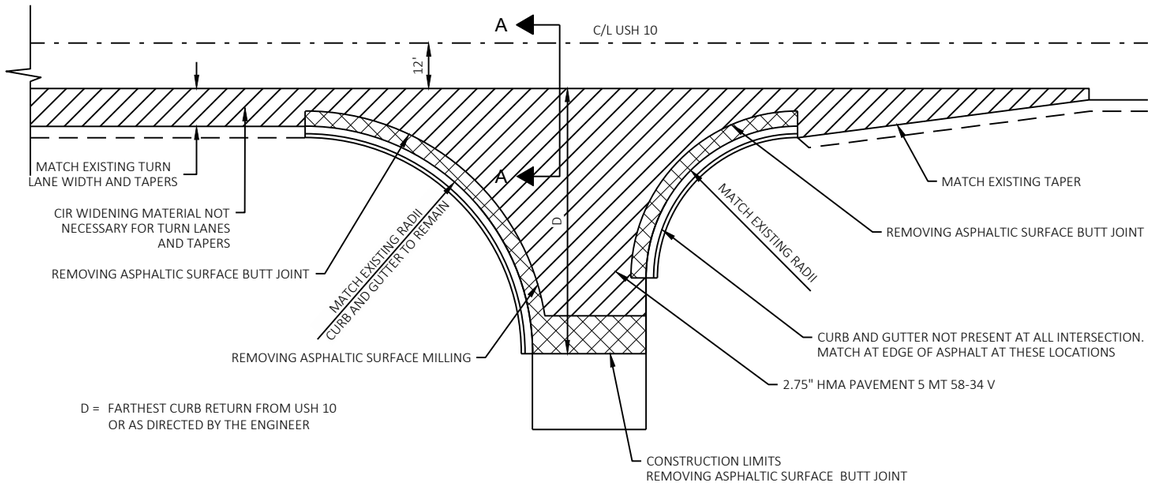
DRIVEWAYS



REMOVING ASPHALTIC SURFACE BUTT JOINTS DETAIL

SIDEROADS

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 6	E

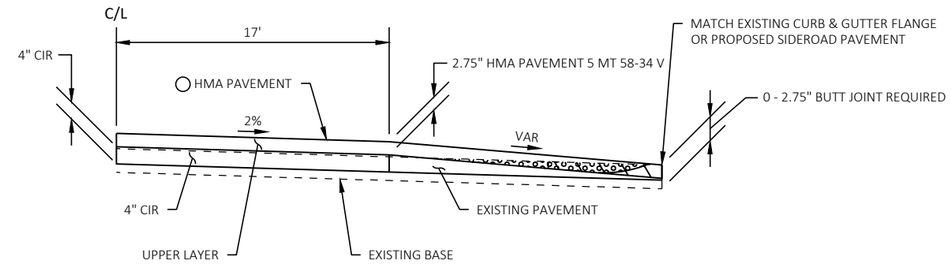


PLAN VIEW

TYPICAL SIDE ROAD DETAIL

REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS

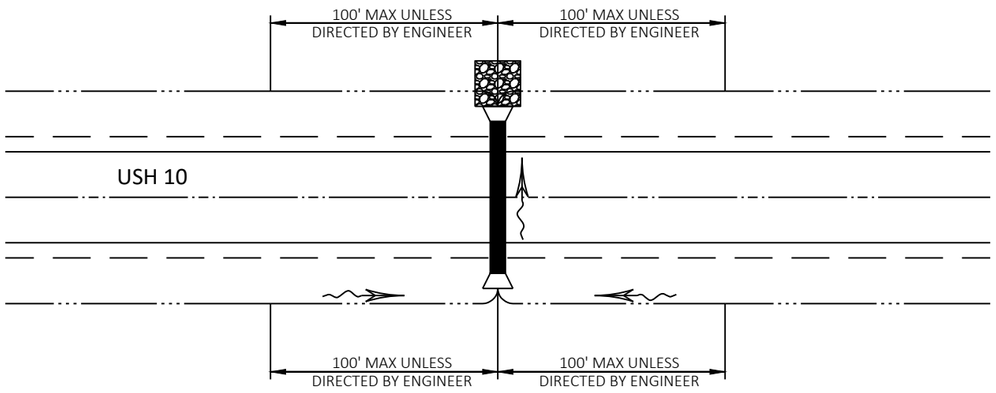


REMOVING ASPHALTIC SURFACE, MILLING

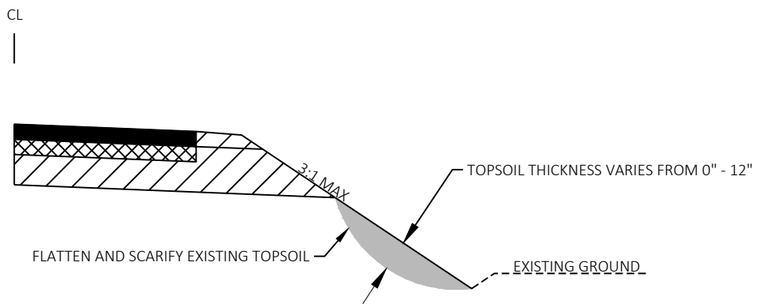
REMOVING ASPHALTIC SURFACE, BUTT JOINTS

SEE TYPICAL SECTIONS FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

SECTION A-A



GRADING SHAPING AND FINISHING DITCH DETAIL

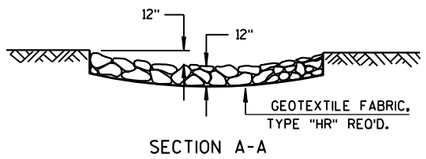


SIDE SLOPE IMPROVEMENT DETAIL

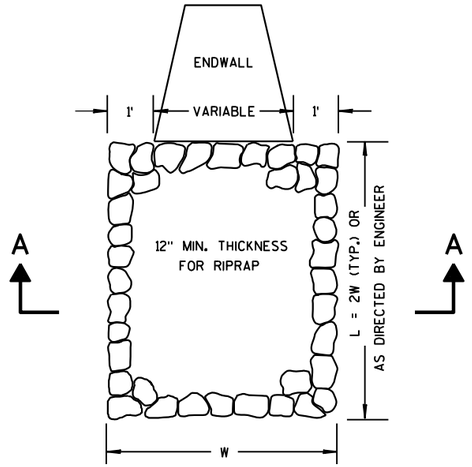
NOTES:
SIDE SLOPE IMPROVEMENT LOCATIONS AT 2:1 OR WORSE REPAIRS. RESTORE FINAL SLOPE WITH SEED, TEMP SEED, FERTILIZER, SEED WATER, AND EROSION MAT.

ENGINEER IN FIELD TO DETERMINE IF IMPROVEMENT LOCATIONS NECESSARY

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 7	E



SECTION A-A

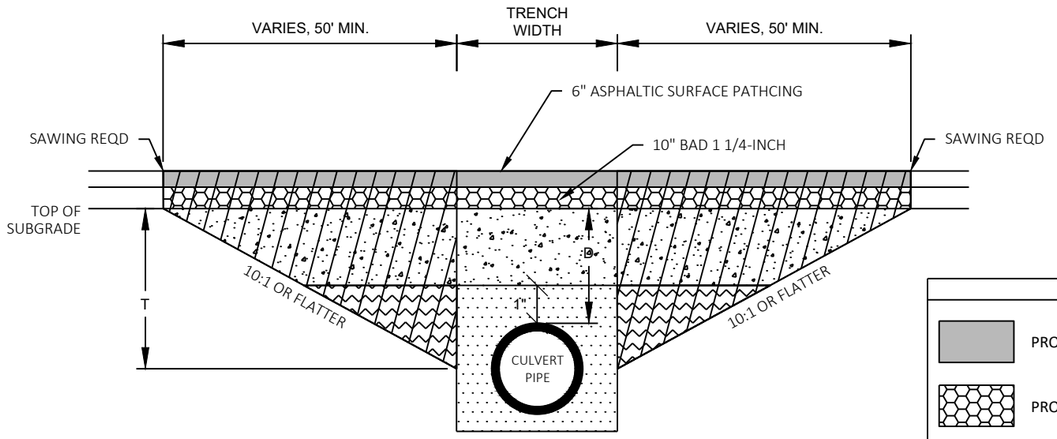


RIPRAP TREATMENT AT CULVERTS

SUPERELEVATION DATA

ROADWAY	CURVE NO.	PC	PT	R (FT)	TRANSITION IN REGION					TRANSITION OUT REGION					MAX e	DESIGN SPEED (MPH)
					END NORMAL CROWN	LEVEL CROWN	REVERSE CROWN	LOW SHOULDER MATCH	BEGIN FULL SUPER	END FULL SUPER	LOW SHOULDER MATCH	REVERSE CROWN	LEVEL CROWN	BEGIN NORMAL CROWN		
USH 10	1	191+65.68	205+04.37	2864.93	190+51.48	191+05.01	191+58.54	-	191+96.01	204+74.04	-	205+11.51	205+65.04	206+18.57	3.40%	60
USH 10	2	220+65.42	229+29.23	2864.93	219+51.22	220+04.75	220+58.28	-	220+95.75	228+98.90	-	229+36.37	229+89.90	230+43.43	3.40%	60
USH 10	3	271+65.54	279+32.97	2864.93	270+51.34	271+04.87	271+58.39	-	271+95.87	279+02.64	-	279+40.11	279+93.64	280+47.17	3.40%	60
USH 10	4	395+01.39	402+09.27	1910.08	393+76.56	394+30.06	394+83.56	-	395+37.06	401+73.60	-	402+27.10	402+80.60	403+34.10	4.00%	60
USH 10	5	438+92.56	445+21.00	2864.93	437+78.36	438+31.89	438+85.42	-	439+22.89	444+90.67	-	445+28.14	445+81.67	446+35.20	3.40%	60
USH 10	6	470+91.17	477+14.26	2864.93	469+76.97	470+30.50	470+84.03	-	471+21.50	476+83.92	-	477+21.40	477+74.92	478+28.45	3.40%	60
USH 10	7	528+01.73	543+38.52	2864.93	526+87.53	527+41.06	527+94.59	-	528+32.06	543+08.19	-	543+45.66	543+99.19	544+52.72	3.40%	60

* FOR INFORMATIONAL PURPOSES ONLY



TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

DEPTH D < 6 FT

KEY

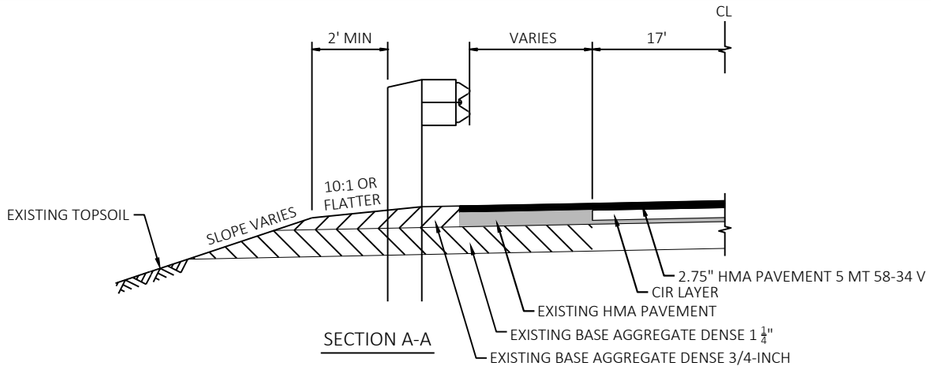
- PROPOSED SURFACE
- PROPOSED BASE
- TRENCH BACKFILL
- TRENCH OR FOUNDATION BACKFILL
- FOUNDATION BACKFILL
- TRANSITION CUT

NOTES

TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE CIR OPERATIONS.
PLACE ASPHALTIC SURFACE PATCHING AFTER CULVERT PIPE INSTALLATION AND BEFORE CIR OPERATIONS.

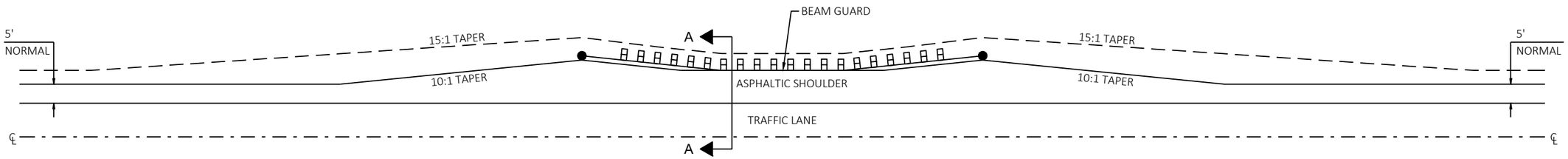
CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
USH 10	320+38	4.37	24	
USH 10	320+46	4.35	24	



SECTION A-A

NOTE:
SEE STANDARD DETAIL DRAWINGS
FOR ADDITIONAL INFORMATION



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

2

N

ADJUST SHOULDER TRANSITION
TO AVOID FILLING IN STREAM

C-10-011 TO REMAIN

CONNECT TO EXISTING
STEEL RAILING TYPE W AT
FIRST RIGID POST (BRIDGE
GUARDRAIL TO REMAIN)

POST #1
+90.06
23.5' LT

5'

POST #5
+15.06
22.2' LT

POST #9
+40.06
20.9' LT

TRANS
+65.06
20.5' LT

MGS GUARDRAIL THRIE BEAM TRANSITION

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

START
+05.06
20.3' LT

START
+28.16
20.0' LT

MGS GUARDRAIL THRIE BEAM TRANSITION

TRANS
+68.16
20.4' LT

POST #9
+93.16
20.7' LT

POST #5
+18.16
22.1' LT

5'

POST #1
+43.16
23.5' LT

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

257

258

259

USH 10

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL 3

START
+04.85
19.5' RT

START
+27.75
19.5' RT

TRANS
+67.75
19.6' RT

MGS GUARDRAIL 3

MGS SHORT RADIUS

POST #1
+89.85
21.9' RT

5'

POST #5
+14.85
20.8' RT

POST #9
+39.85
19.7' RT

TRANS
+64.85
19.7' RT

MGS GUARDRAIL THRIE BEAM TRANSITION

MGS GUARDRAIL THRIE BEAM TRANSITION

TRANS
+93.82
19.6' RT

CONNECT TO EXISTING
STEEL RAILING TYPE W AT
FIRST RIGID POST (BRIDGE
GUARDRAIL TO REMAIN)

30'

30'

TRANS
+22.08
39.6' RT

MGS GUARDRAIL 3

RADIUS
+93.78
49.6' RT

GRADE AREA TO
FLATTEN/RECOVERABLE SLOPES

TRANS
+30.38
63.2' RT

HICKMAN ROAD

END
+38.78
115.7' RT

MGS GUARDRAIL TERMINAL EAT

5'

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 10	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\021001_CD\021002_CD.DWG
LAYOUT NAME - 01

PLOT DATE : 9/19/2022 9:26 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 44

2

2

N

POST #1
+54.22
21' LT

5'

POST #5
+79.22
20' LT

POST #9
+04.22
19' LT

MGS GUARDRAIL TERMINAL EAT

POST #9
+04.22
19' LT

POST #5
+29.22
20' LT

5'

POST #1
+54.22
21' LT

MGS GUARDRAIL TERMINAL EAT

375

376

377

378

USH 10

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL EAT

POST #1
+54.58
21' RT

5'

POST #5
+79.58
20' RT

POST #9
+04.58
19' RT

POST #1
+04.58
19' RT

POST #5
+29.58
20' RT

5'

POST #1
+54.58
21' RT

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 11	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\021001_CD\021002_CD.DWG
LAYOUT NAME - 02

PLOT DATE : 1/5/2022 10:21 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 44

2

2

N

POST #1
+99.33
21' LT

5'

POST #5
+24.33
20' LT

POST #9
+49.33
19' LT

PT: 477+14.26

POST #9
+73.90
19' LT

POST #5
+98.90
20' LT

5'

POST #1
+23.90
21' LT

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL EAT

476

477

478

USH 10

MGS GUARDRAIL 3

MGS GUARDRAIL TERMINAL EAT

MGS GUARDRAIL TERMINAL EAT

POST #1
+99.00
21' RT

5'

POST #5
+24.00
20' RT

POST #9
+49.00
19' RT

POST #1
+74.44
19' RT

POST #5
+99.44
20' RT

5'

POST #1
+24.44
21' RT

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CONSTRUCTION DETAILS	SHEET 12	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\021001_CD\021002_CD.DWG
LAYOUT NAME - 03

PLOT DATE : 1/5/2022 10:21 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 44

N

NO FERTILIZER REQUIRED ON WETLAND PERMITTED RESTORATION AREAS.

TEMPORARY WETLAND IMPACTS: .07 ACRES

TEMPORARY WETLAND IMPACTS: .07 ACRES

5

5

255

260

USH 10

TEMPORARY WETLAND IMPACTS: .06 ACRES

TEMPORARY WETLAND IMPACTS: .04 ACRES

HICKMAN ROAD

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 13	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 146

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT

N

5

5

TEMPORARY WETLAND IMPACTS: .02 ACRES

320

USH 10

TEMPORARY WETLAND IMPACTS: .02 ACRES

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 14	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 147

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT

N

NO FERTILIZER REQUIRED ON WETLAND
PERMITTED RESTORATION AREAS.

TEMPORARY WETLAND IMPACTS: .11 ACRES

5

5

375

380

USH 10

TEMPORARY WETLAND IMPACTS: .11 ACRES

EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 15	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 148

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT

N

TEMPORARY WETLAND IMPACTS: <.01 ACRES

5

5

410

4

USH 10

OH OH OH OH OH OH OH OH OH OH

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

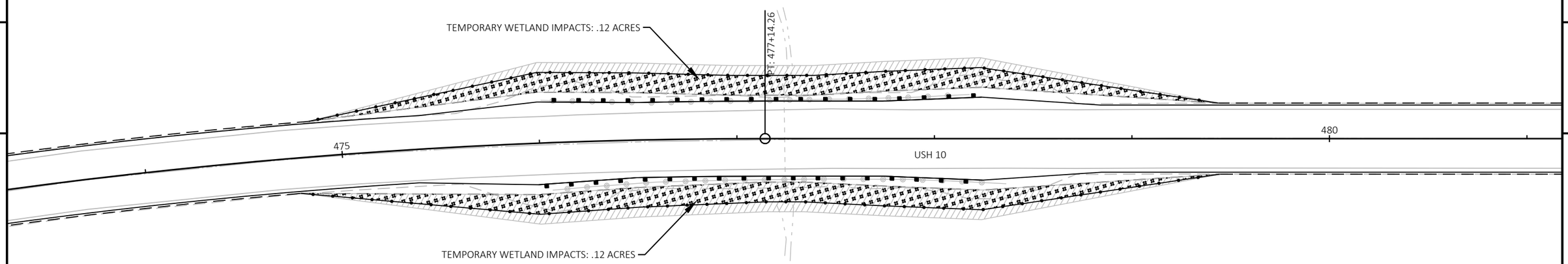
EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 16	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 149

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT



5

5

NO FERTILIZER REQUIRED ON WETLAND PERMITTED RESTORATION AREAS.

EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 17	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 150

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT

N

PT: 543+38.52

540

545

OH

OH

OH

OH

OH

OH

OH

EROSION CONTROL NOTES

FINISHING ITEMS FOR TOPSOIL, SEED, TEMP SEED, SEED WATER, FERTILIZER, AND EROSION MAT ARE SHOWN ON TYPICAL SECTIONS AND MISCELLANEOUS QUANTITIES.

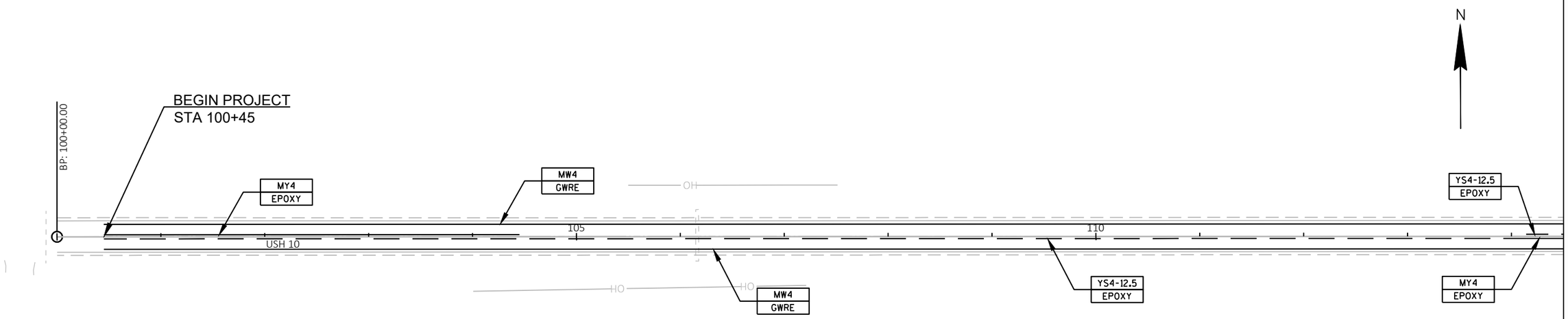
LEGEND

- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- RIP RAP
- SLOPE INTERCEPT
- CULVERT PIPE CHECK
- EXISTING SURFACE WATER FLOW

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	EROSION CONTROL: USH 10	SHEET 18	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\022001_EC\022001_EC.DWG
LAYOUT NAME - 151

PLOT DATE : 6/5/2023 8:40 AM PLOT BY : DEXTER KAETTERHENRY PLOT NAME : PLOT SCALE : 1 IN:50 FT



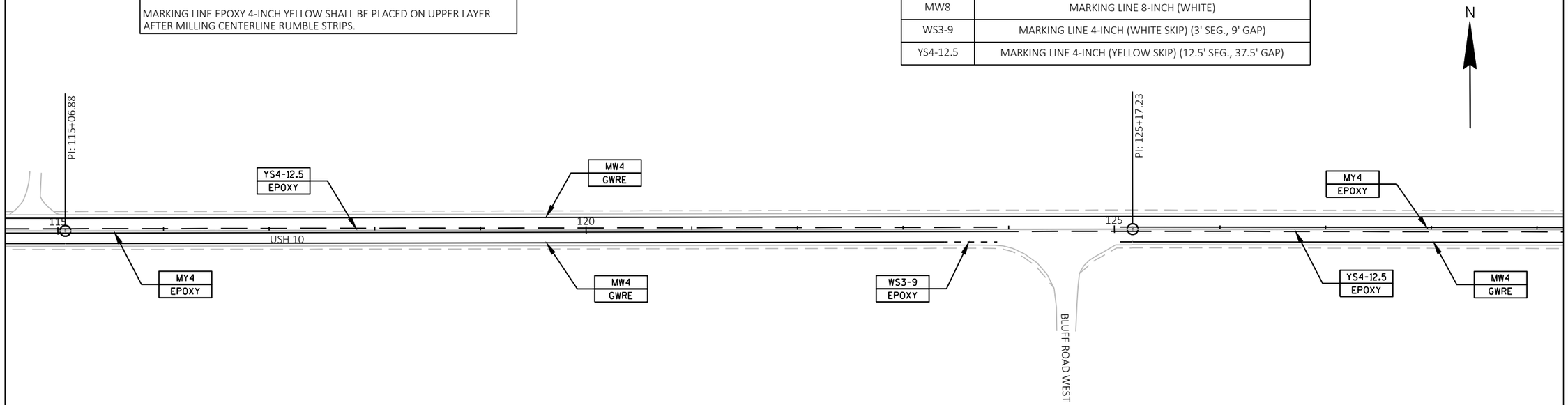
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

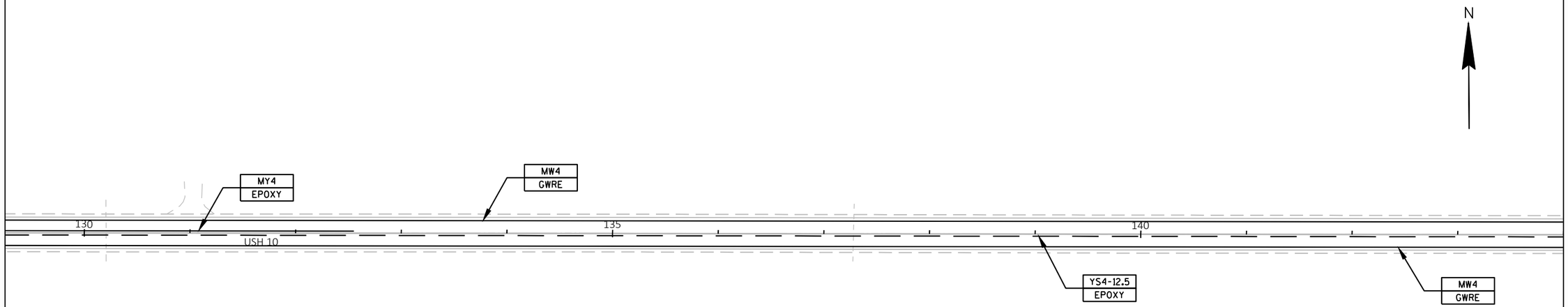
TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 19	E



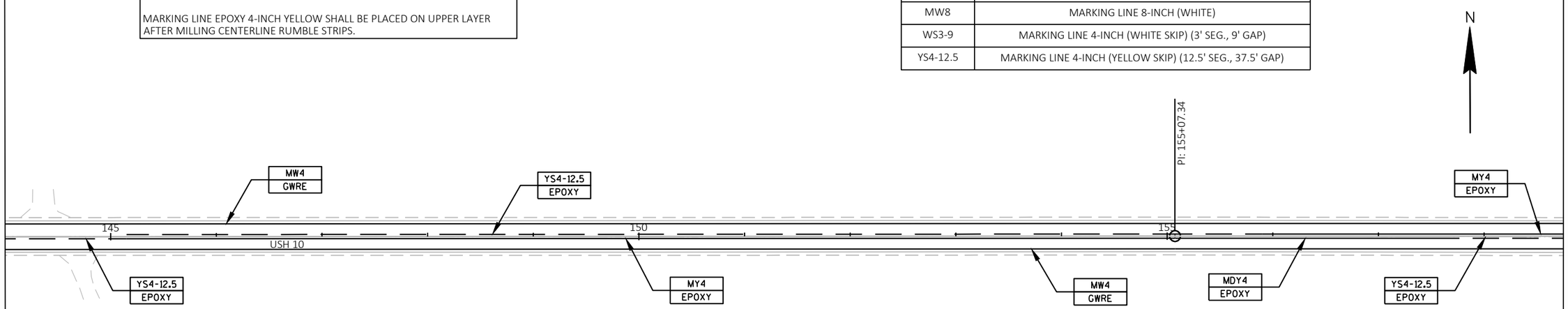
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

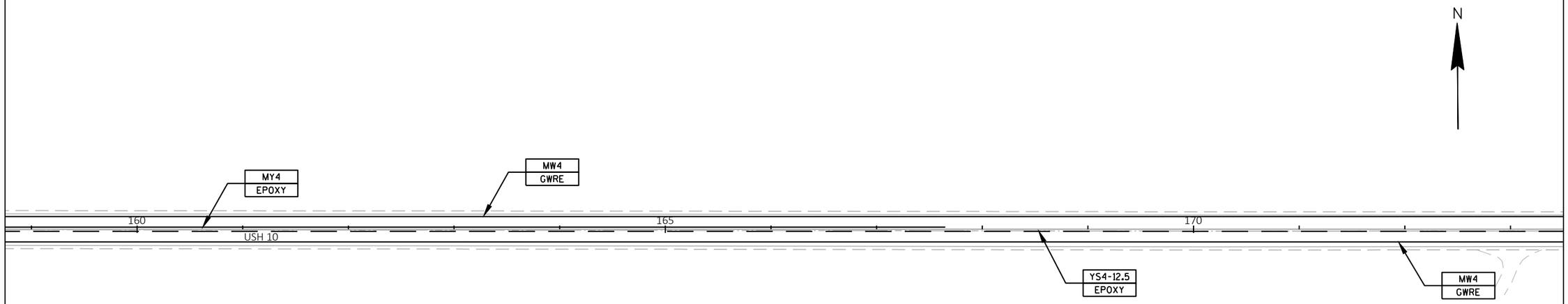
TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 20	E



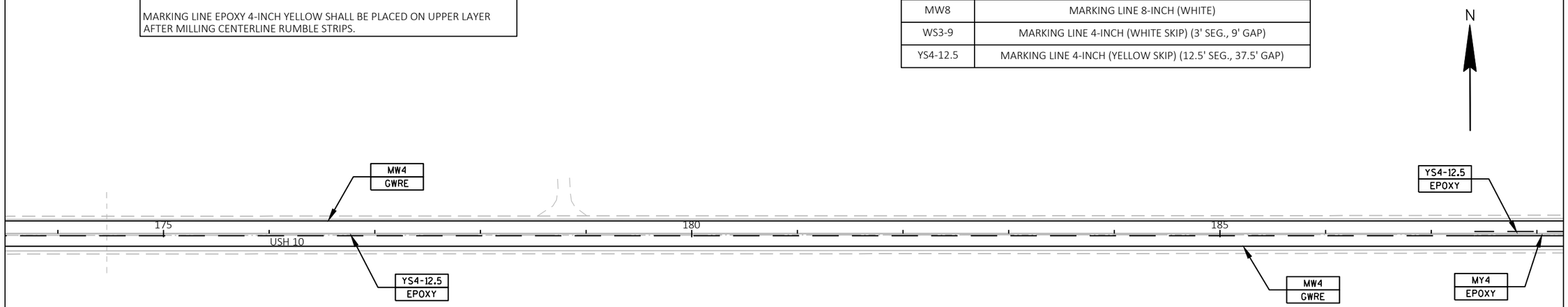
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

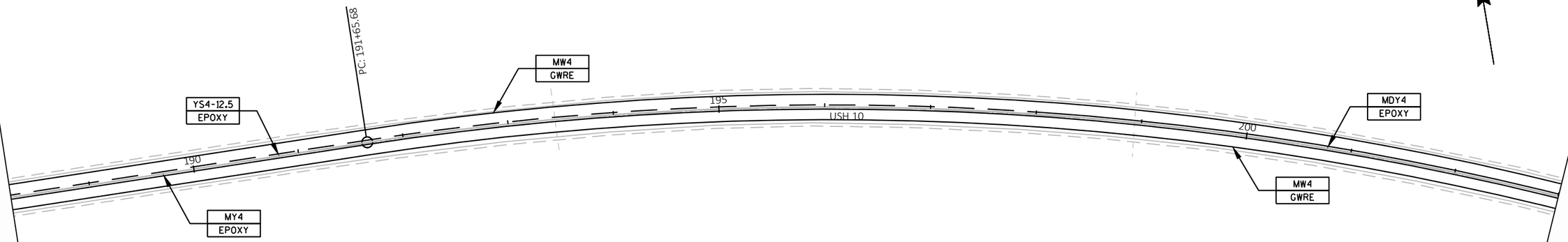
DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)





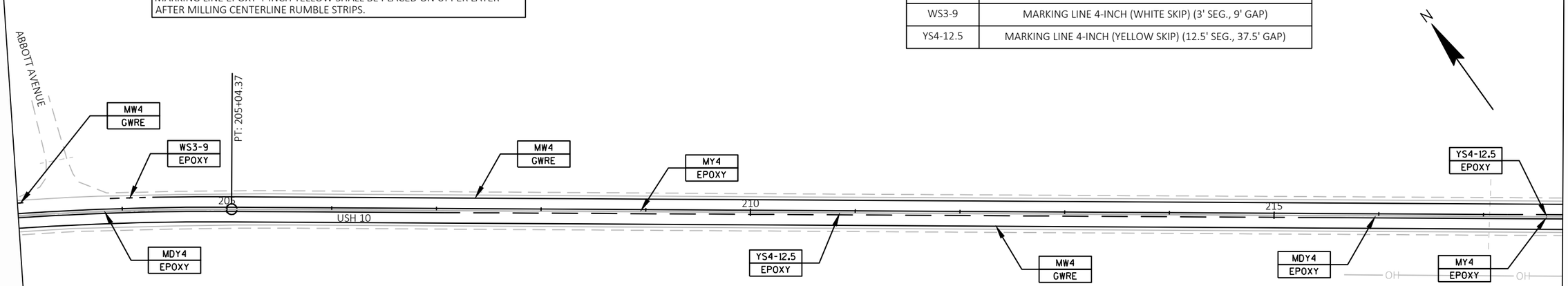
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

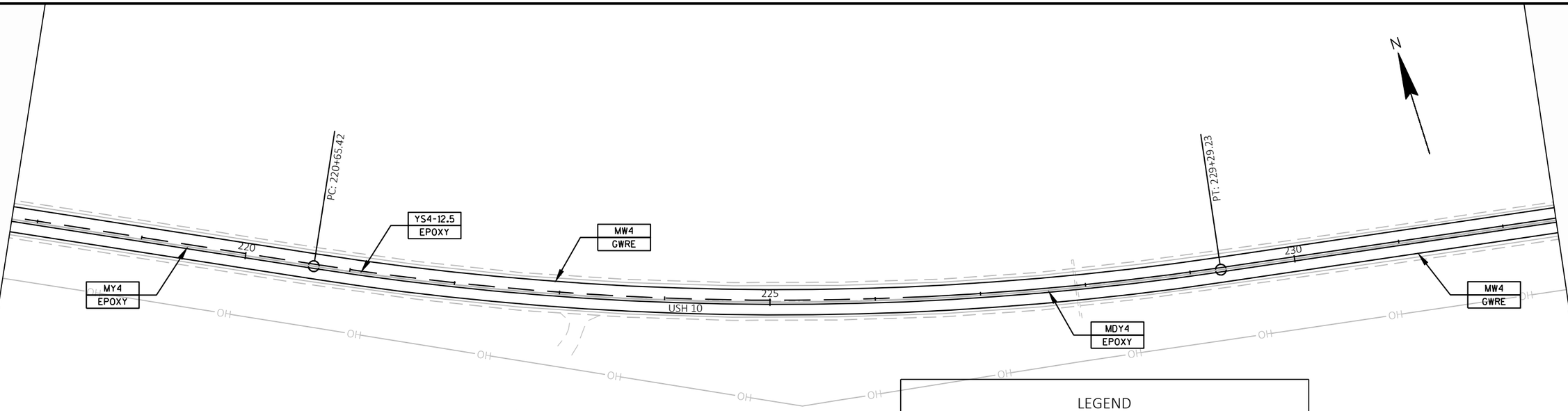
LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 22	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\024501_PM\024501_PM.DWG
LAYOUT NAME - 04
PLOT DATE : 6/1/2022 9:38 AM
PLOT BY : JARED HALBUR
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

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TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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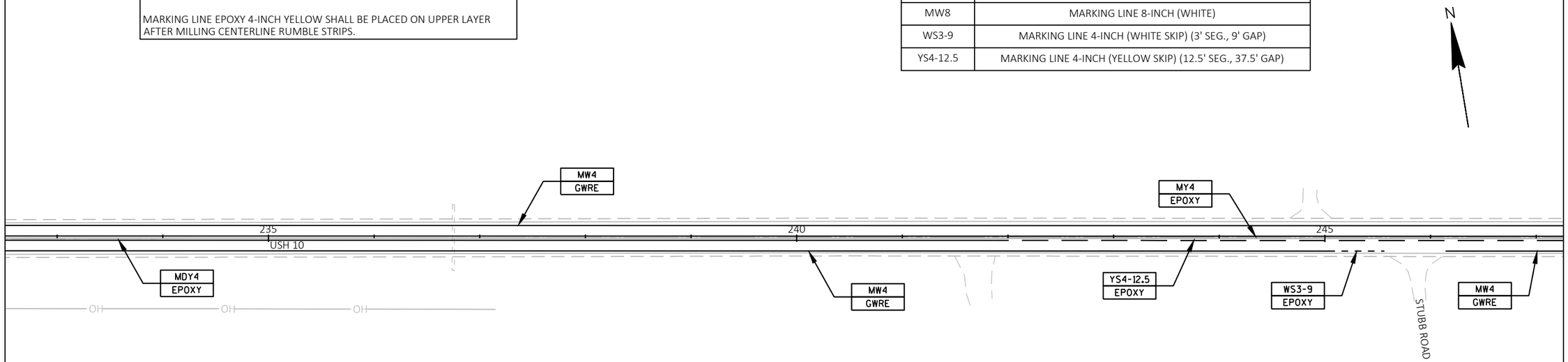
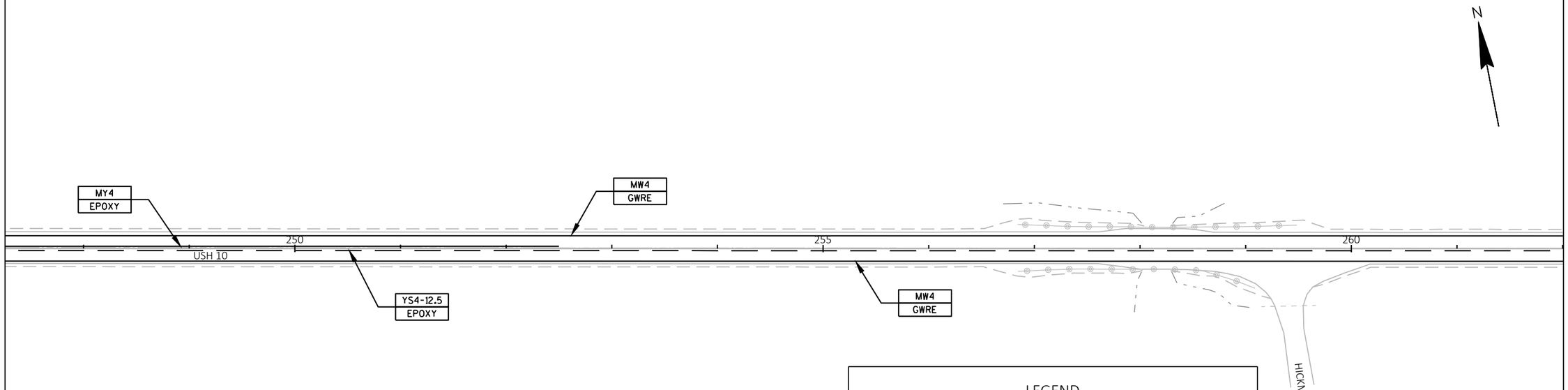
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 23	E

2



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

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TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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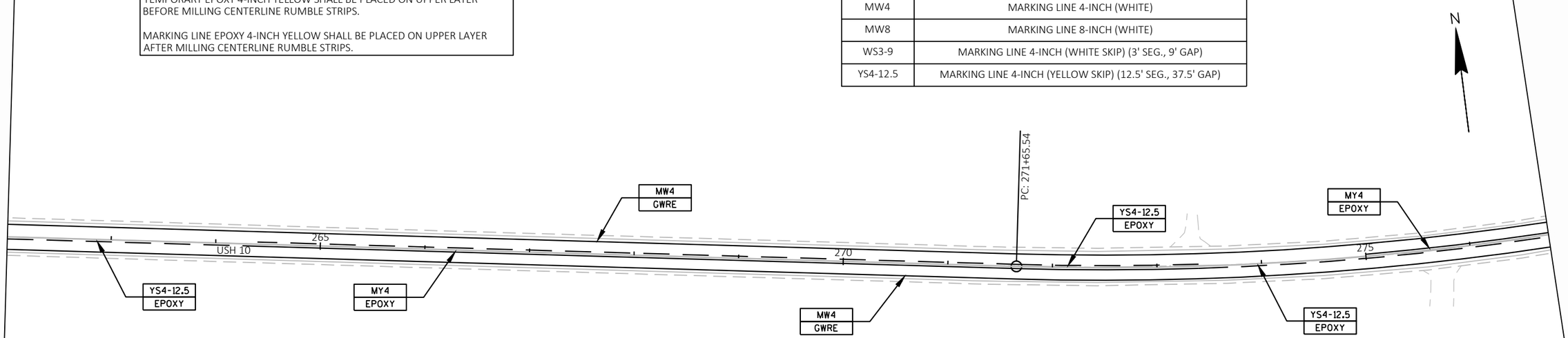
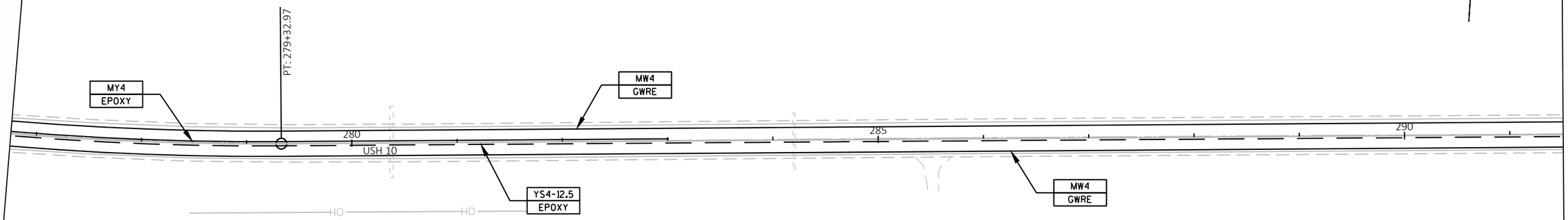
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 24	E

2



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

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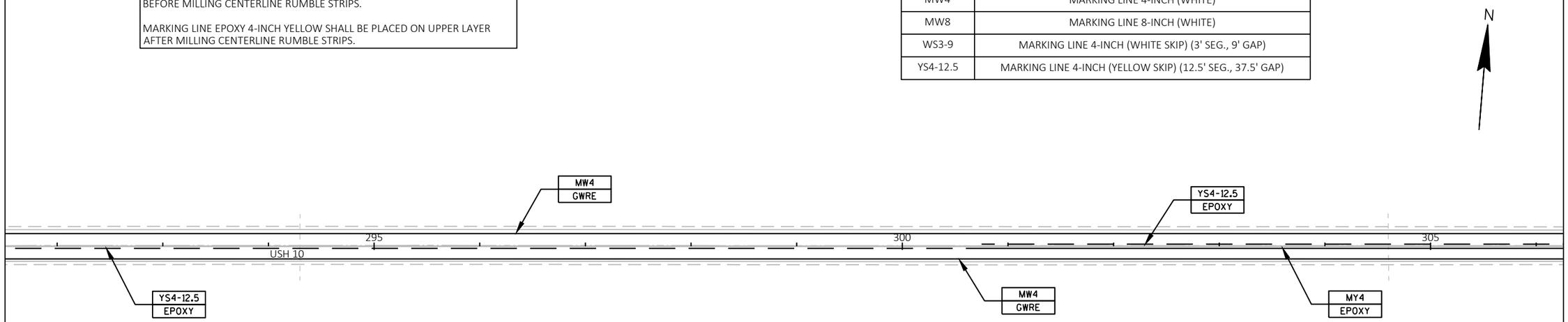
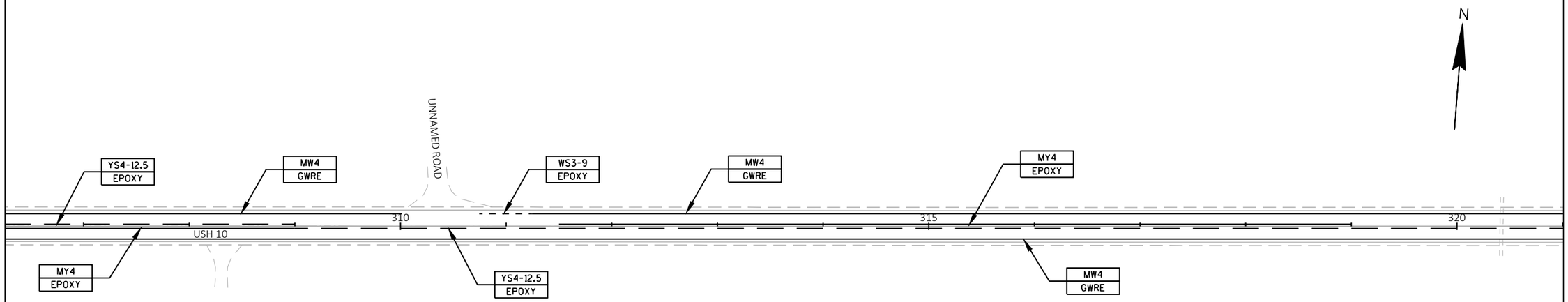
MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 25	E



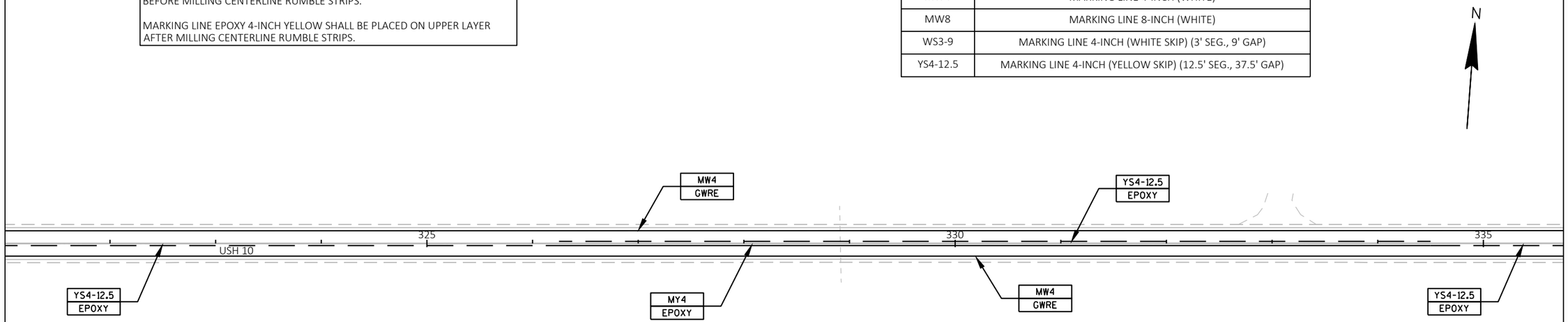
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

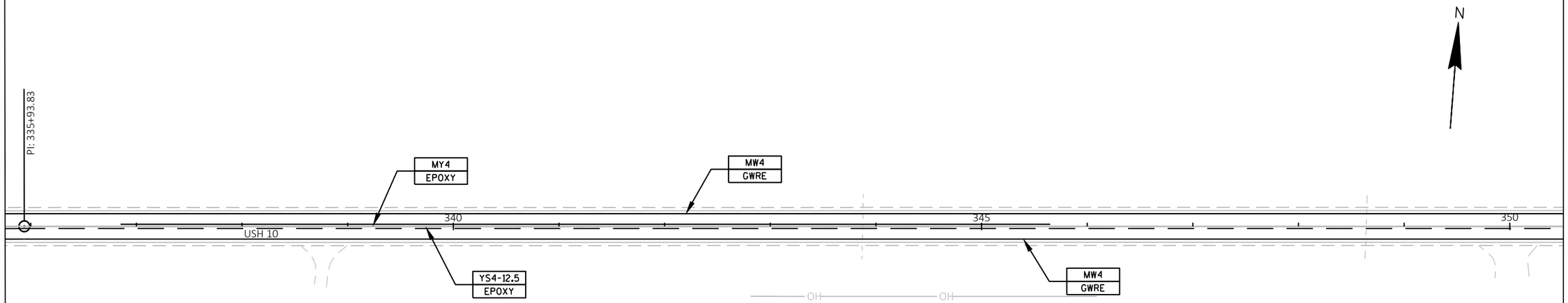
TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 26	E



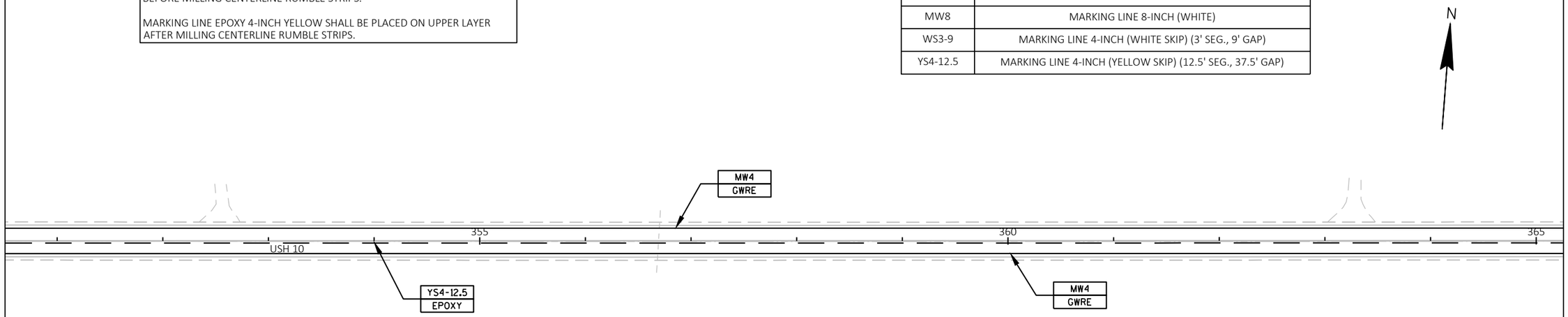
NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

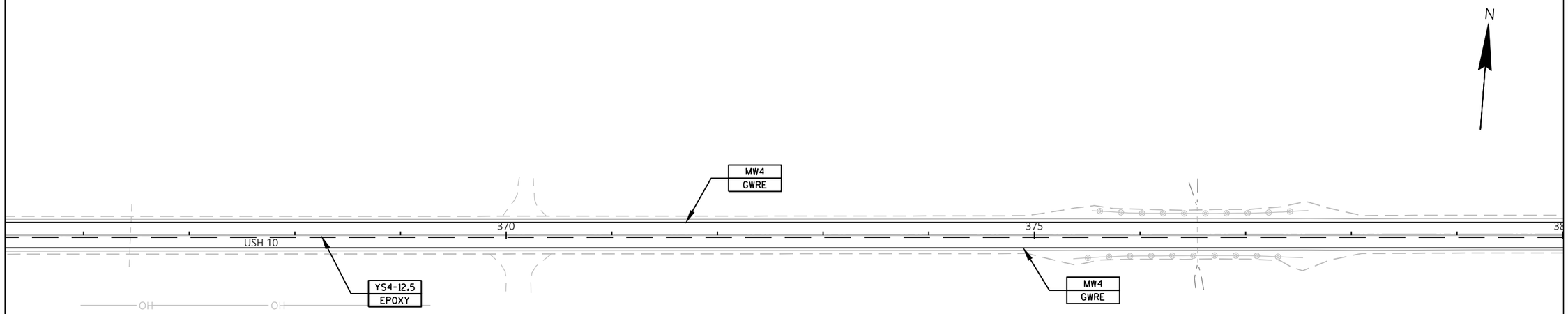
TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 27	E



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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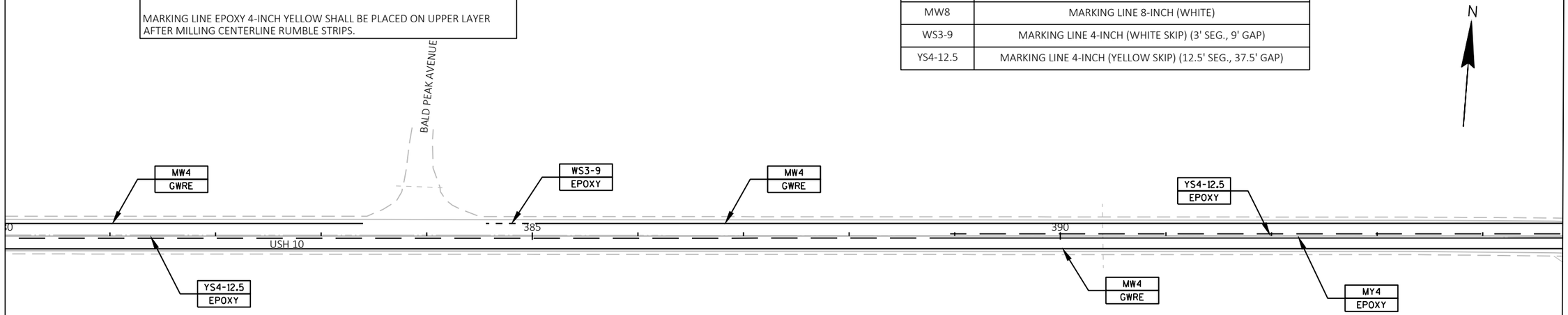
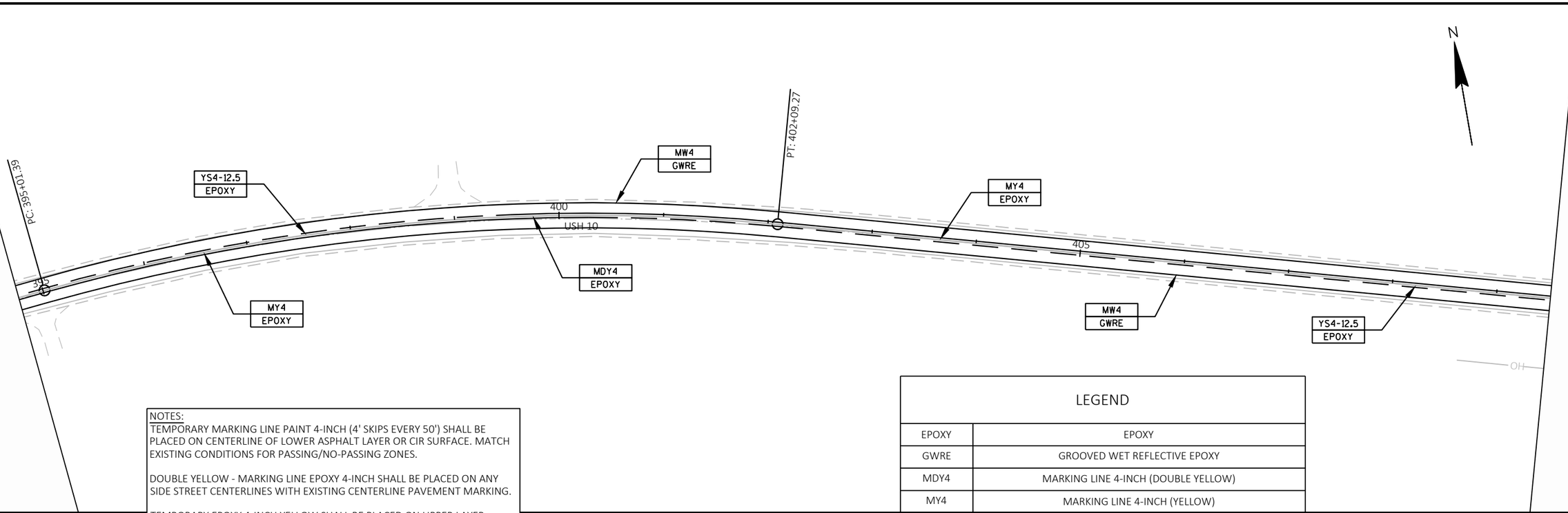
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 28	E



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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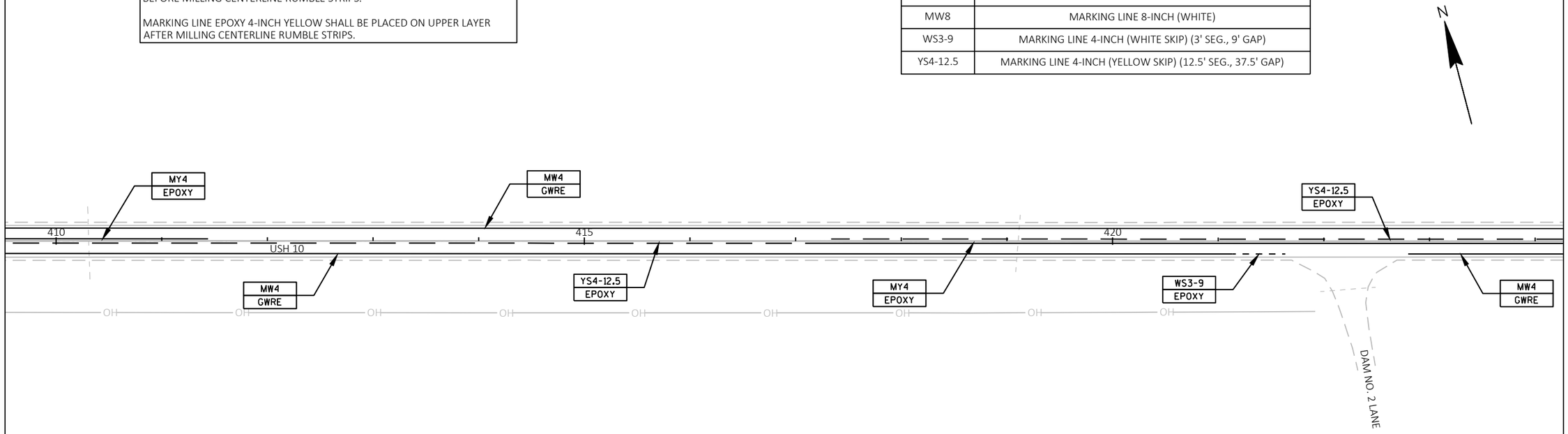
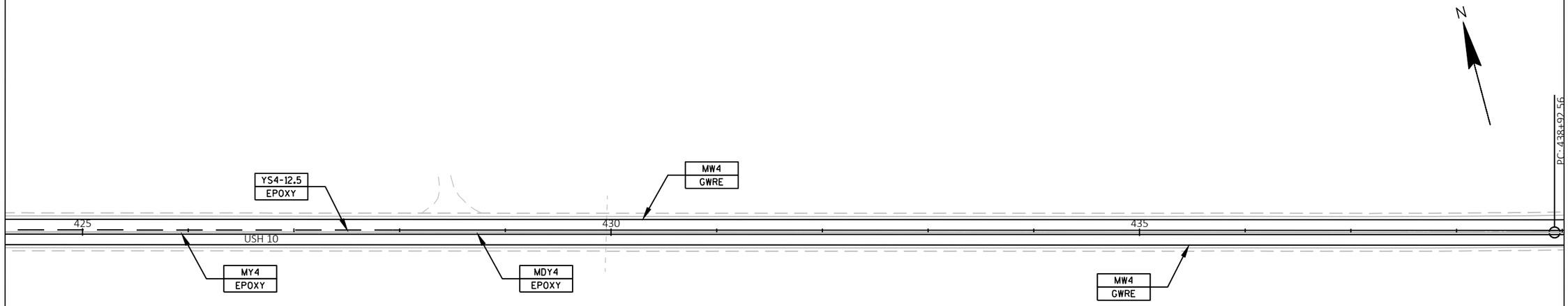
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 29	E



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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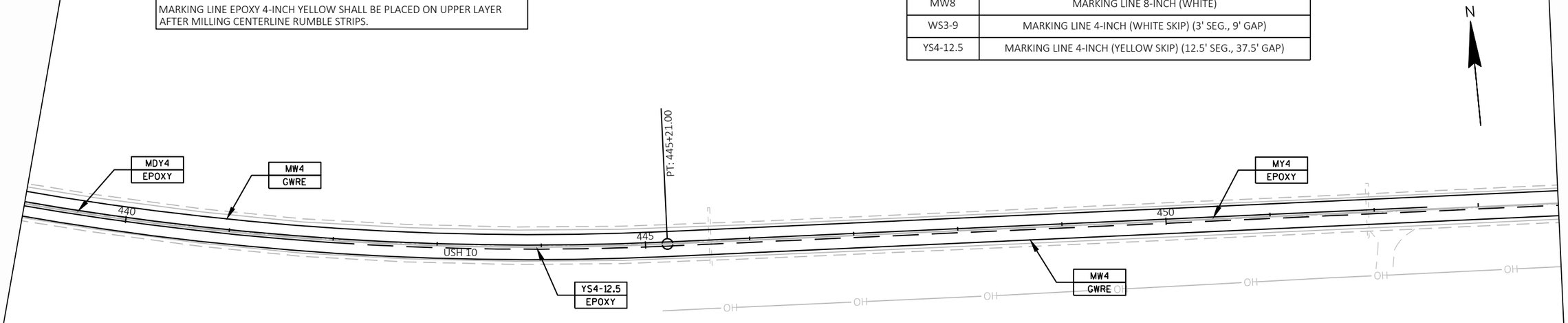
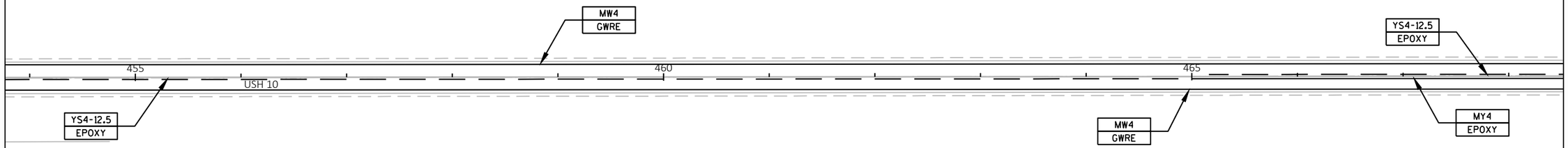
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 30	E

2



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

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TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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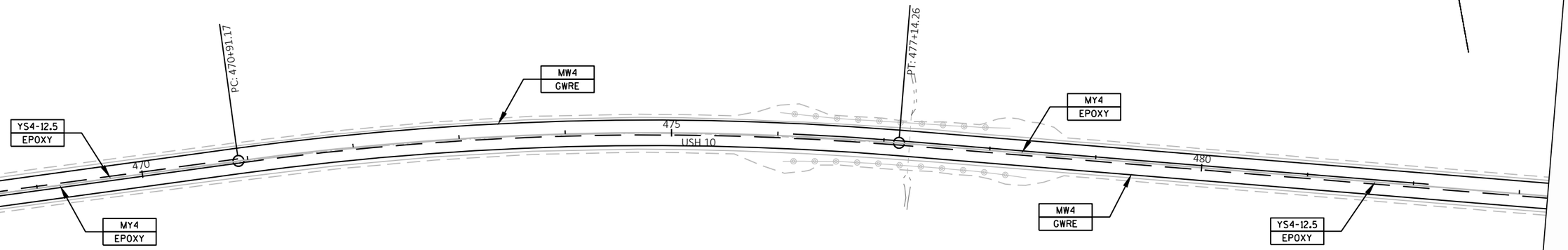
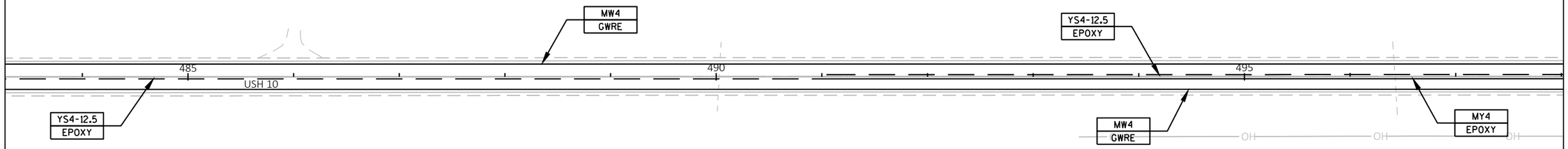
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 31	E



NOTES:
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MARKING LINE EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER AFTER MILLING CENTERLINE RUMBLE STRIPS.

LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
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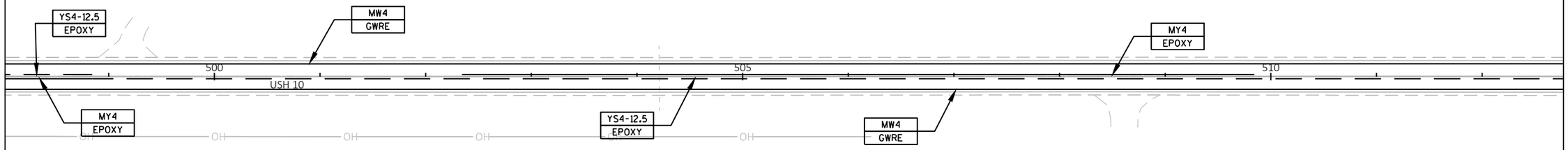
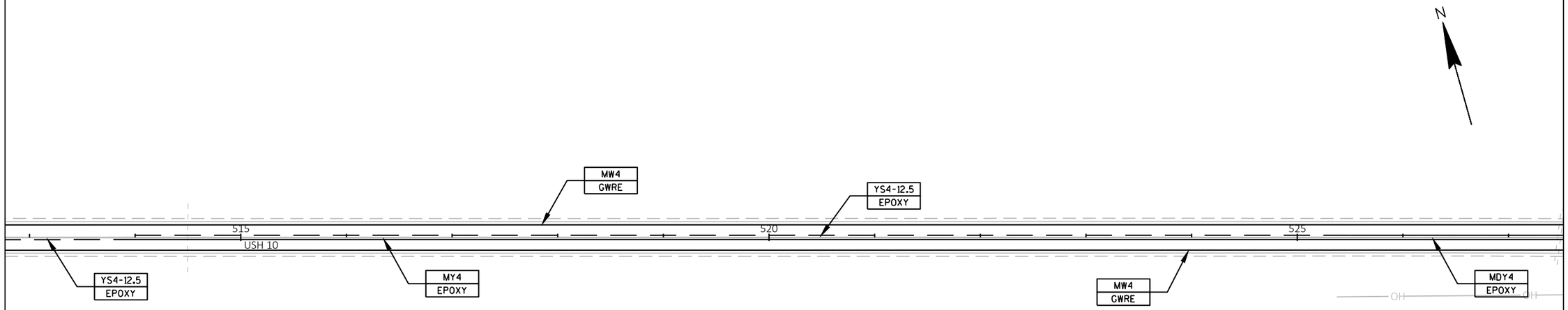


PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 32	E



NOTES:
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LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
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MY4	MARKING LINE 4-INCH (YELLOW)
MW4	MARKING LINE 4-INCH (WHITE)
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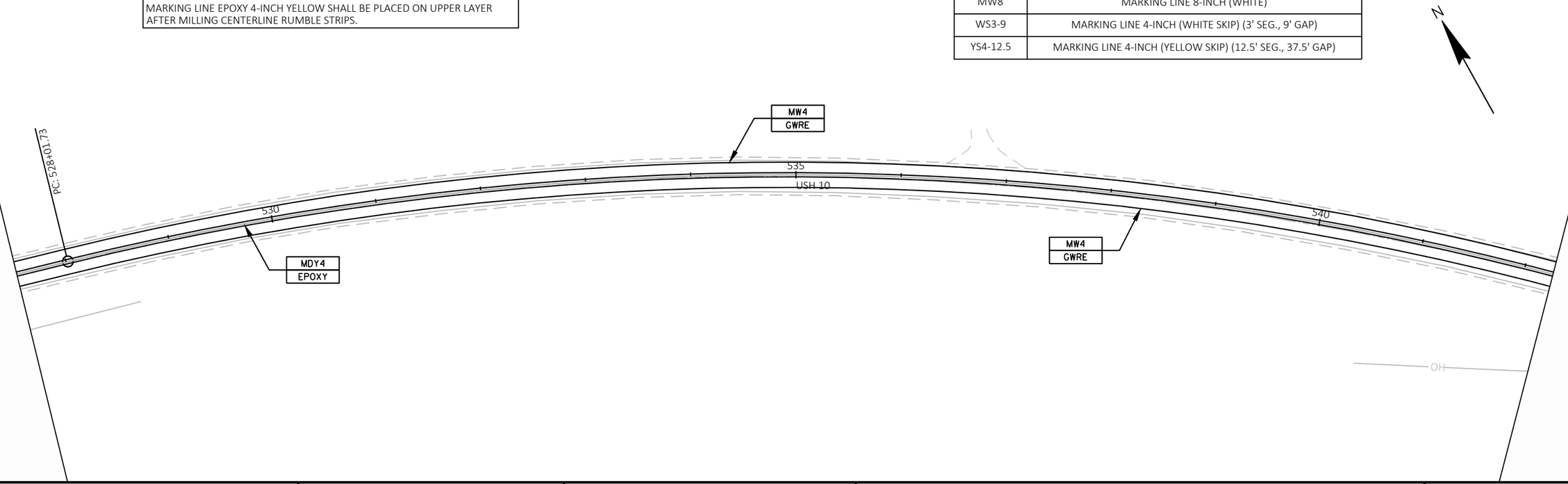
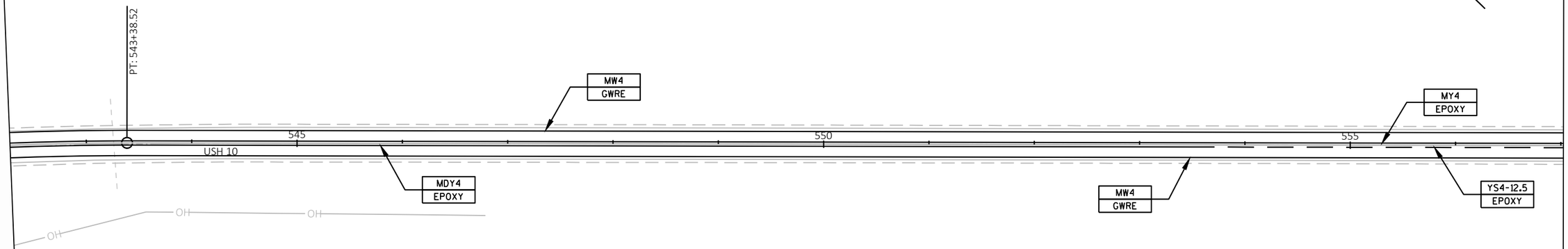
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 33	E



NOTES:
TEMPORARY MARKING LINE PAINT 4-INCH (4' SKIPS EVERY 50') SHALL BE PLACED ON CENTERLINE OF LOWER ASPHALT LAYER OR CIR SURFACE. MATCH EXISTING CONDITIONS FOR PASSING/NO-PASSING ZONES.

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TEMPORARY EPOXY 4-INCH YELLOW SHALL BE PLACED ON UPPER LAYER BEFORE MILLING CENTERLINE RUMBLE STRIPS.

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LEGEND	
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MDY4	MARKING LINE 4-INCH (DOUBLE YELLOW)
MY4	MARKING LINE 4-INCH (YELLOW)
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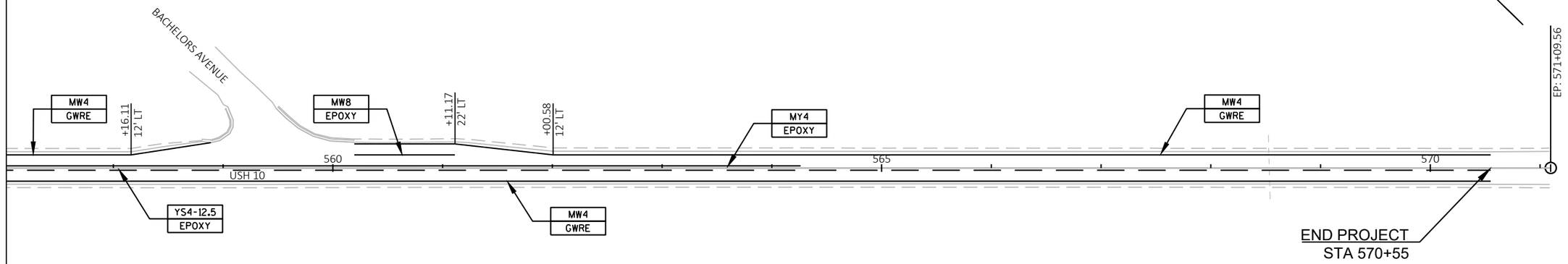
MW8	MARKING LINE 8-INCH (WHITE)
WS3-9	MARKING LINE 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5	MARKING LINE 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PAVEMENT MARKING: USH 10	SHEET 34	E

1520-02-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0004	204.0110	Removing Asphaltic Surface	SY	380.000	380.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,205.000	1,205.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	80.000	80.000
0010	204.9060.S	Removing (item description) 01. Apron Endwalls	EACH	1.000	1.000
0012	205.0100	Excavation Common	CY	870.000	870.000
0014	208.0100	Borrow	CY	2,250.000	2,250.000
0016	208.1500.S	Temporary Lane Shift During Culvert Work	EACH	2.000	2.000
0018	209.2500	Backfill Granular Grade 2	TON	800.000	800.000
0020	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1520-02-72	EACH	1.000	1.000
0022	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	942.000	942.000
0024	211.0700.S	Prepare Foundation for CIR Base Layer (project) 01. 1520-02-72	EACH	1.000	1.000
0026	211.0800.S	Base Repair for CIR Layer	CY	1,500.000	1,500.000
0028	213.0100	Finishing Roadway (project) 01. 1520-02-72	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	4,805.000	4,805.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	280.000	280.000
0034	305.0500	Shaping Shoulders	STA	940.000	940.000
0036	327.1000.S	CIR Asphaltic Base Layer	SY	156,700.000	156,700.000
0038	455.0605	Tack Coat	GAL	10,773.000	10,773.000
0040	455.0770.S	Asphalt Stabilizing Agent	TON	750.000	750.000
0042	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0044	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0046	460.2000	Incentive Density HMA Pavement	DOL	99.000	99.000
0048	460.2005	Incentive Density PWL HMA Pavement	DOL	10,710.000	10,710.000
0050	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	23,510.000	23,510.000
0052	460.2010	Incentive Air Voids HMA Pavement	DOL	28,080.000	28,080.000
0054	460.6645	HMA Pavement 5 MT 58-34 V	TON	28,075.000	28,075.000
0056	465.0105	Asphaltic Surface	TON	300.000	300.000
0058	465.0110	Asphaltic Surface Patching	TON	170.000	170.000
0060	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	7.000	7.000
0062	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	89,920.000	89,920.000
0064	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	43,850.000	43,850.000
0066	520.3336	Culvert Pipe Class III-A 36-Inch	LF	16.000	16.000
0068	520.3424	Culvert Pipe Class III-A Non-metal 24-Inch	LF	150.000	150.000
0070	520.8700	Cleaning Culvert Pipes	EACH	5.000	5.000
0072	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	4.000	4.000
0074	521.1036	Apron Endwalls for Culvert Pipe Steel 36-Inch	EACH	1.000	1.000
0076	524.0636	Apron Endwalls for Culvert Pipe Salvaged 36-Inch	EACH	2.000	2.000
0078	606.0200	Riprap Medium	CY	15.000	15.000
0080	614.0920	Salvaged Rail	LF	1,312.000	1,312.000
0082	614.2300	MGS Guardrail 3	LF	579.000	579.000
0084	614.2350	MGS Guardrail Short Radius	LF	30.000	30.000
0086	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0088	614.2610	MGS Guardrail Terminal EAT	EACH	12.000	12.000
0090	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1520-02-72	EACH	1.000	1.000
0092	619.1000	Mobilization	EACH	1.000	1.000
0094	624.0100	Water	MGAL	75.000	75.000
0096	625.0100	Topsoil	SY	2,760.000	2,760.000
0098	628.1504	Silt Fence	LF	3,110.000	3,110.000

1520-02-72

Line	Item	Item Description	Unit	Total	Qty
0100	628.1520	Silt Fence Maintenance	LF	1,555.000	1,555.000
0102	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0104	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0106	628.2008	Erosion Mat Urban Class I Type B	SY	2,760.000	2,760.000
0108	628.7555	Culvert Pipe Checks	EACH	32.000	32.000
0110	629.0210	Fertilizer Type B	CWT	1.700	1.700
0112	630.0120	Seeding Mixture No. 20	LB	74.000	74.000
0114	630.0200	Seeding Temporary	LB	37.000	37.000
0116	630.0500	Seed Water	MGAL	69.000	69.000
0118	633.5200	Markers Culvert End	EACH	8.000	8.000
0120	642.5001	Field Office Type B	EACH	1.000	1.000
0122	643.0300	Traffic Control Drums	DAY	6,600.000	6,600.000
0124	643.0900	Traffic Control Signs	DAY	1,550.000	1,550.000
0126	643.3105	Temporary Marking Line Paint 4-Inch	LF	7,600.000	7,600.000
0128	643.3120	Temporary Marking Line Epoxy 4-Inch	LF	46,500.000	46,500.000
0130	643.5000	Traffic Control	EACH	1.000	1.000
0132	645.0120	Geotextile Type HR	SY	30.000	30.000
0134	646.1020	Marking Line Epoxy 4-Inch	LF	46,500.000	46,500.000
0136	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	93,350.000	93,350.000
0138	646.3020	Marking Line Epoxy 8-Inch	LF	100.000	100.000
0140	646.5420	Marking Aerial Enforcement Bar Epoxy	EACH	20.000	20.000
0142	648.0100	Locating No-Passing Zones	MI	8.900	8.900
0144	650.4500	Construction Staking Subgrade	LF	114.000	114.000
0146	650.5000	Construction Staking Base	LF	114.000	114.000
0148	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0150	650.8000	Construction Staking Resurfacing Reference	LF	47,010.000	47,010.000
0152	650.9911	Construction Staking Supplemental Control (project) 01. 1520-02-72	EACH	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes	LF	2,000.000	2,000.000
0156	690.0150	Sawing Asphalt	LF	160.000	160.000
0158	740.0440	Incentive IRI Ride	DOL	35,610.000	35,610.000
0160	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	800.000	800.000
0162	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0164	SPV.0090	Special 01. Grading Shaping and Finishing Ditch	LF	800.000	800.000

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	COMMENTS
CATEGORY CODE 0010			
320+38		1	56 LF CMCP (0.064")
320+46		1	56 LF CMCP (0.064")
TOTALS		**2**	

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION	LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	COMMENTS
CATEGORY CODE 0020			
258+05 - 258+28	CL	80	OVER TOP OF C-10-110
TOTAL		**80**	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION - STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	COMMENTS
CATEGORY CODE 0010			
100+45 - 101+15	CL	265	BEGIN PROJECT
124+55	RT	5	BUFF ROAD WEST
257+35 - 258+05	CL	315	C-10-011
258+28 - 258+98	CL	315	C-10-011
259+47	RT	5	HICKMAN ROAD
558+89 - 560+19	LT	35	BACHELORS AVENUE
569+85 - 570+55	CL	265	END PROJECT
TOTAL		**1,205**	

REMOVING ASPHALTIC SURFACE

STATION - STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	COMMENTS
CATEGORY CODE 0010			
320+42	LT & RT	380	Required for Culvert Pipe Transistion
TOTAL		**380**	

ASPHALTIC RUMBLE STRIPS

STATION - STATION	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL LF	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL LF
CATEGORY CODE 0010		
100+45 -570+55		43,850
CATEGORY CODE 0030		
100+45 -570+55	89,920	
TOTALS	**89,920**	**43,850**

TEMPORARY LANE SHIFT DURING CULVERT WORK

STATION	LOCATION	208.1500.S Temporary Lane Shift During Culvert Work EACH	COMMENTS
CATEGORY CODE 0010			
320+42	EB	1	
320+42	WB	1	
TOTALS		**2**	

EXCAVATION COMMON

STATION	LOCATION	205.0100 EXCAVATION COMMON CY	208.0100 BORROW CY	COMMENTS
CATEGORY CODE 0010				
255+00 - 265+00	LT/RT	150	900	C-10-011 GUARDRAIL
319+80 - 321+00	LT/RT	520	--	TWIN 24" CULVERT PIPE
374+00 - 379+00	LT/RT	100	850	GUARDRAIL
475+00 - 479+50	LT/RT	100	500	GUARDRAIL
TOTALS		**870**	**2,250**	

BACKFILL GRANULAR GRADE 2

STATION - STATION	LOCATION	209.2500 BACKFILL GRANULAR GRADE 2 TON	COMMENTS
CATEGORY CODE 0010			
320+42	LT & RT	800	SEE CONSTRUCTION DETAIL
TOTAL		**800**	

COLD-IN-PLACE RECYCLING (CIR)

STATION - STATION	LOCATION	211.0700.S Prepare CIR Foundation for Base Layer (1520-02-72) EACH	211.0800.S Base Repair of CIR Layer CY	327.1000.S Cold-In-place Recycling (CIR) Base Layer SY	455.0770.S Asphalt Stabilizing Agent TON	COMMENTS
CATEGORY CODE 0010						
100+45 - 570+55	MAINLINE	1	1,500	156,700	750	
TOTAL		**1**	**1,500**	**156,700**	**750**	

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	COMMENTS
CATEGORY CODE 0030			
100+45 - 570+55	LT	471	2' SHOULDER WIDENING
100+45 - 570+55	RT	471	2' SHOULDER WIDENING
TOTALS		**942**	

MISC. SHEET 1

3

BASE AGGREGATE DENSE

STATION - STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	COMMENTS
CATEGORY CODE 0010				
100+45 - 570+55, LT & RT	4,805	--	--	INCLUDES BLENDING EXISTING SLOPE
320+42, LT & RT	--	280	--	CULVERT PATCHING
100+45 - 570+55, LT & RT	--	--	940	
	4,805	**280**	**940**	

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6645 HMA PAVEMENT 5 MT 58-34V TON	465.0105 ASPHALTIC SURFACE TON	465.0110 ASPHALTIC SURFACE PATCHING TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	COMMENTS
CATEGORY CODE 0010							
100+45 - 570+55	MAINLINE	--	--	--	--	--	MAINLINE
100+45 - 570+55	MAINLINE	9,504	24,600				INCLUDES MAIINLINE & 3' PORTION OF SHOULDER
100+45 - 570+55	SIDEROADS	--	155	--	--	--	SIDEROADS
114+76	LT	--	--	--	--	7	DRIVEWAYS
319+81 - 320+95	MAINLINE	--	--	--	150	--	CULVERT PATCH
100+45 - 570+55	MAINLINE	--	--	300	--	--	FILLING POTHOLES, TRAFFIC POP OUTS, TEMPORARY RAMPING
CATEGORY 0010 SUBTOTAL		**9,504**	**24,755**	**300**	**150**	**7**	
CATEGORY CODE 0020							
258+05 - 258+28	LT & RT	15	20	--	20	--	PLACEMENT ON BOX CULVERT TO MATCH OVERLAY OF CONCRETE TO CIR PROFILE PRIOR TO HMA
CATEGORY 0020 SUBTOTAL		**15**	**20**	**0**	**20**	**0**	
CATEGORY CODE 0030							
100+45 - 570+55	LT & RT	1,254	3,300	--	--	--	OUTSIDE 2' SHOULDER ONLY
CATEGORY 0030 SUBTOTAL		**1,254**	**3,300**	**0**	**0**	**0**	
	TOTAL	**10,773**	**28,075**	**300**	**170**	**7**	

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12' Driving Lane	100+45 - 570+55	Upper Layer	5 MT 58-34V	5 MT 58-34 V	10,706	1.5"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
12' Driving Lane	100+45 - 570+55	Lower Layer	4 Inch CIR	5 MT 58-34 V	8,922	1.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
5' Shoulder / Side Roads / Guardrail	100+45 - 570+55	Upper Layer	5 MT 58-34V	5 MT 58-34 V	4,607	1.5"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department, not eligible for incentive
5' Shoulder / Side Roads / Guardrail	100+45 - 570+55	Lower Layer	Existing HMA Surface, 4" CIR	5 MT 58-34 V	3,840	1.25"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department, not eligible for incentive
Various	100+45 - 570+55	Repairs, Culvert Patch	Base Aggregate Dense	Asphaltic Surface	470	6"	QMP As Per SS 465	Acceptance By Ordinary Compaction

MISC. SHEET 2

CULVERT PIPE ITEMS

STATION	LOCATION	204.9060.S REMOVE CULVERT ENDWALLS EACH	520.3336 CULVERT PIPE CLASS III-A 36-INCH LF	520.3424 CULVERT PIPE CLASS III-A NON-METAL 24-INCH EACH	520.8700 CLEANING CULVERT PIPES EACH	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH EACH	521.1036 APRON ENDWALLS FOR CULVERT PIPE STEEL 36-INCH EACH	524.0636 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 36-INCH EACH	633.5200 MARKERS CULVERT END EACH	COMMENTS
CATEGORY CODE 0010										
236+76	LT/RT	--	--	--	1	--	--	--	--	
280+39	LT/RT	--	--	--	1	--	--	--	--	
284+21	LT/RT	--	--	--	1	--	--	--	--	
320+38	LT/RT	--	--	76	--	2	--	--	2	CULVERT REPLACEMENT
320+46	LT/RT	--	--	74	--	2	--	--	2	CULVERT REPLACEMENT
329+91	LT/RT	--	--	--	1	--	--	--	--	
410+31	LT	1	--	--	--	--	1	--	2	ENDWALL REPLACEMENT
451+95	LT/RT	--	--	--	1	--	--	--	--	
543+26	LT/RT	--	16	--	--	--	--	2	2	EXTEND CULVERT 8' LT & 8' RT
	TOTALS	**1**	**16**	**150**	**5**	**4**	**1**	**2**	**8**	

* CONCRETE PIPE MUST BE TIED ACROSS THE ENTIRE LENGTH

SALVAGED RAIL

STATION - STATION	LOCATION	614.0920 SALVAGED RAIL LF	COMMENTS
CATEGORY CODE 0010			
265+84 - 259+49	LT/RT	442	
375+37 - 377+59	LT/RT	423	
476+01 - 478+36	LT/RT	447	
	TOTAL	**1,312**	

BEAMGUARD ITEMS

STATION - STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2350 MGS GUARDRAIL SHORT RADIUS LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	COMMENTS
CATEGORY CODE 0010						
256+90 - 258+05	LT/RT	50	--	80	2	WEST OF C-10-011
258+28 - 259+43	LT/RT	79	30	80	2	EAST OF C-10-011
375+54 - 377+54	LT/RT	200	--	--	4	
475+99 - 478+24	LT/RT	250	--	--	4	
	TOTAL	**579**	**30**	**160**	**12**	

WATER

LOCATION	624.0100 WATER MGAL	COMMENTS
CATEGORY CODE 0010		
PROJECT	75	
TOTALS	**75**	

RIPRAP AND GEOTEXTILE FABRIC ITEMS

STATION	LOCATION	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	COMMENTS
CATEGORY CODE 0010				
320+42	LT	15	30	TWIN CULVERT REPLACEMENT
	TOTALS	**15**	**30**	

LANDSCAPING ITEMS

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LBS	630.0200 SEEDING TEMPORARY LBS	630.0500 SEED WATER MGAL	COMMENTS
CATEGORY CODE 0010							
255+32 - 261+03	LT/RT	775	0.48	20.9	10.4	19.3	GUARDRAIL REPLACEMENT
319+87 - 320+97	LT/RT	200	0.13	5.4	2.6	4.9	TWIN CULVERT REPALCEMENT
374+34 - 378+75	LT/RT	750	0.47	20.2	10.1	18.7	GUARDRAIL REPLACEMENT
410+31	LT	15	0.01	0.3	0.3	0.3	ENDWALL REPLACEMENT
474+77 - 479+45	LT/RT	800	0.50	21.6	10.8	20.1	GUARDRAIL REPLACEMENT
543+26	LT	95	0.06	2.5	1.3	2.3	EXTEND CULVERT
UNDISTRIBUTED	LT/RT	125	0.07	3.4	1.7	3.2	SIDE SLOPE IMPROVEMENTS
	TOTALS	**2,760**	**1.7**	**74**	**37**	**69**	

MISC. SHEET 3

EROSION ITEMS

STATION - STATION	LOCATION	628.1504 SILF FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7555 CULVERT PIPE CHECKS SY	COMMENTS
CATEGORY CODE 0010								
255+32 - 261+03	LT/RT	930	465	--	--	770	--	GUARDRAIL REPLACEMENT
319+87 - 320+97	LT/RT	240	120	--	--	200	16	TWIN CULVERT REPALCEMENT
374+34 - 378+75	LT/RT	940	470	--	--	750	--	GUARDRAIL REPLACEMENT
410+31	LT	--	--	--	--	15	8	ENDWALL REPLACEMENT
474+77 - 479+45	LT/RT	1,000	500	--	--	800	--	GUARDRAIL REPLACEMENT
543+26	LT	--	--	--	--	100	8	EXTEND CULVERT
Project		--	--	2	2	125	--	
TOTALS		**3,110**	**1,555**	**2**	**2**	**2,760**	**32**	**--**

PAVEMENT MARKING

LOCATION	OFFSET	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.5420 MARKING AERIAL ENFORCEMENT BAR EPOXY EACH	648.0100 LOCATING NO PASSING ZONES MI	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH LF
CATEGORY CODE 0010								
PROJECT	CL	46,500	93,350	100	20	8.900	7,600	46,500
TOTALS		**46,500**	**93,350**	**100**	**20**	**8.900**	**7,600**	**46,500**

TRAFFIC CONTROL ITEMS

LOCATION	643.0300 DRUMS DAYS	643.0900 SIGNS DAYS
CATEGORY CODE 0010		
USH 10 MAINLINE	--	1,400
SHOULDER WIDENING PROTECTION POST CIR	4,700	
GUARDRAIL	700	50
LANE SHIFT AT CULVERT	200	--
UNDISTRIBUTED	1,000	100
TOTALS	**6,600**	**1,550**

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6000 PIPE CULVERTS EACH	650.8000 RESURFACING REFERENCE LF	650.9911 SUPPLEMENTAL CONTROL EACH	650.9920 SLOPE STAKES LF
CATEGORY CODE 0010							
PROJECT 1520-02-72		114	114	2	47,010	1	2,000
TOTALS		**114**	**114**	**2**	**47,010**	**1**	**2,000**

SAWING ITEMS

LOCATION	690.0150 SAWING ASPHALT LF	COMMENTS
CATEGORY CODE 0010		
320+00	30	CULVERT PIPE TRANSITION
321+00	30	CULVERT PIPE TRANSITION
UNDISTRIBUTED	100	MISCELLANOUS REPAIRS
TOTALS	**160**	

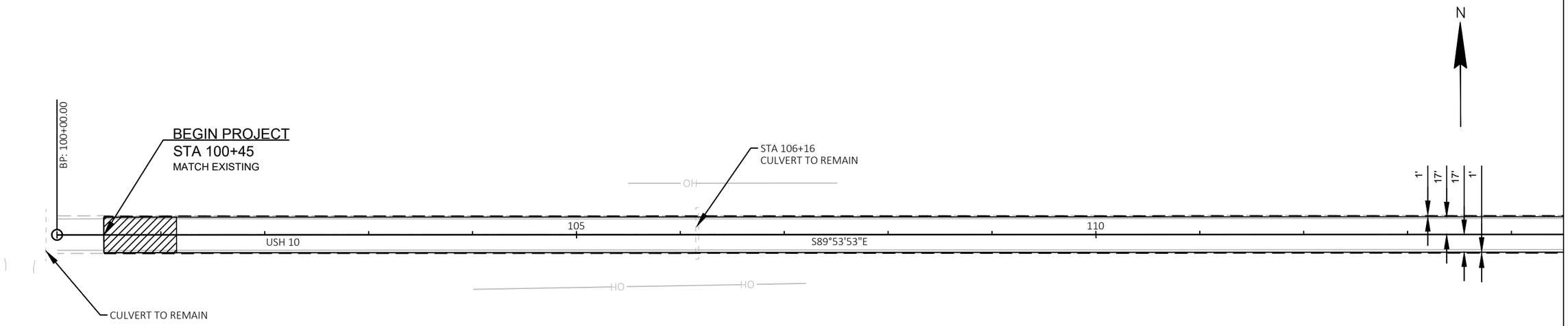
GRADING SHAPING AND FINISHING DITCH

STATION	LOCATION	SPV.0090.01 GRADING SHAPING AND FINISHING DITCH LF	COMMENTS
CATEGORY CODE 0010			
320+42	LT/RT	400	CULVERT REPLACEMENT
543+26	LT/RT	400	EXTEND CULVERT
TOTALS		**800**	

STATION	BORROW (CY)	SALVAGED TOPSOIL (SY)	FERTILIZER TYPE B (CWT)	TEMPORARY SEEDING (LB)	SEEDING MIX #30 (LB)	EROSION MAT URBAN CLASS I TYPE B (SY)	SEED WATER (MGAL)
320+42, LT	--	94	0.06	3	2	94	2
320+42, RT	--	94	0.06	3	2	94	2
543+26, LT	--	44	0.03	1	1	44	1
543+26, RT	--	44	0.03	1	1	44	1
TOTALS	0	278	0.2	8	6	278	6

*FOR INFORMATIONAL PURPOSES ONLY, QUANTITIES INCIDENTAL TO GRADING SHAPING AND FINISHING DITCH ITEM

MISC. SHEET 4



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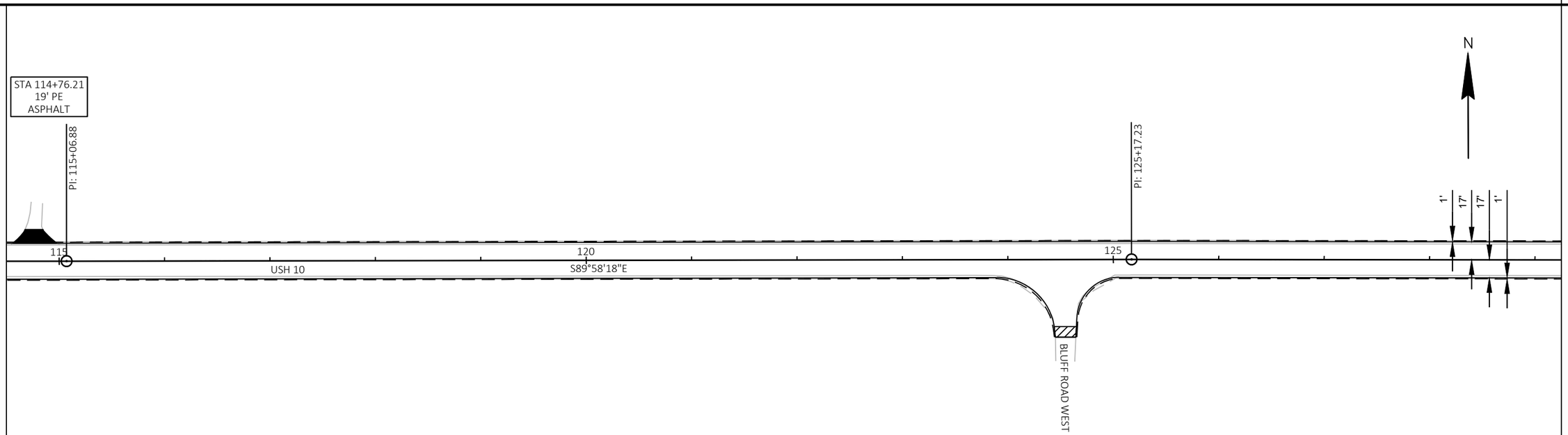
LEGEND

- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT

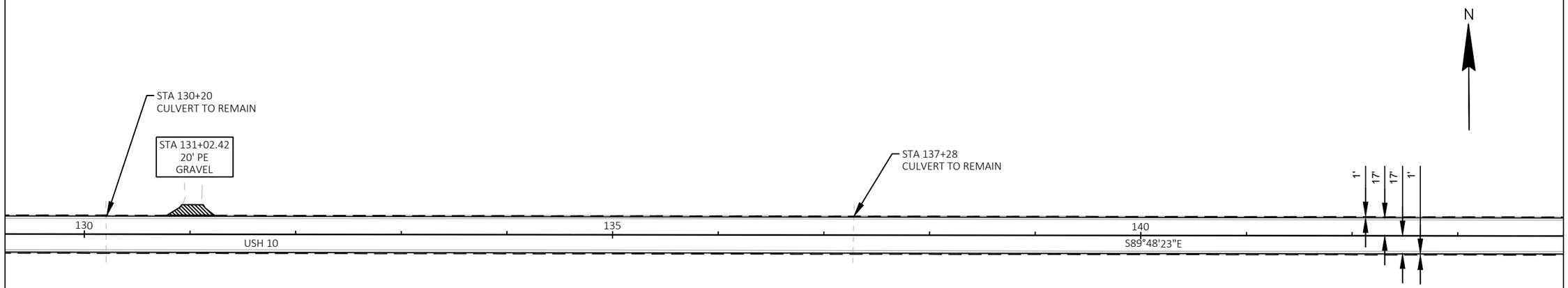


PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 41	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 01

PLOT DATE : 6/1/2022 9:43 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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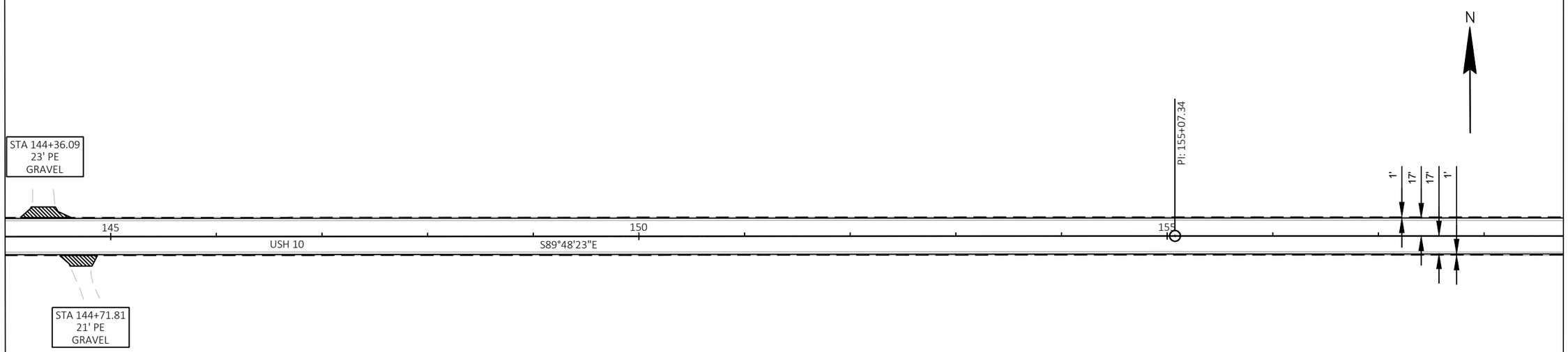
LEGEND

ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES

BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES

ASPHALTIC SURFACE BUTT JOINT



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LAYOUT NAME - 02

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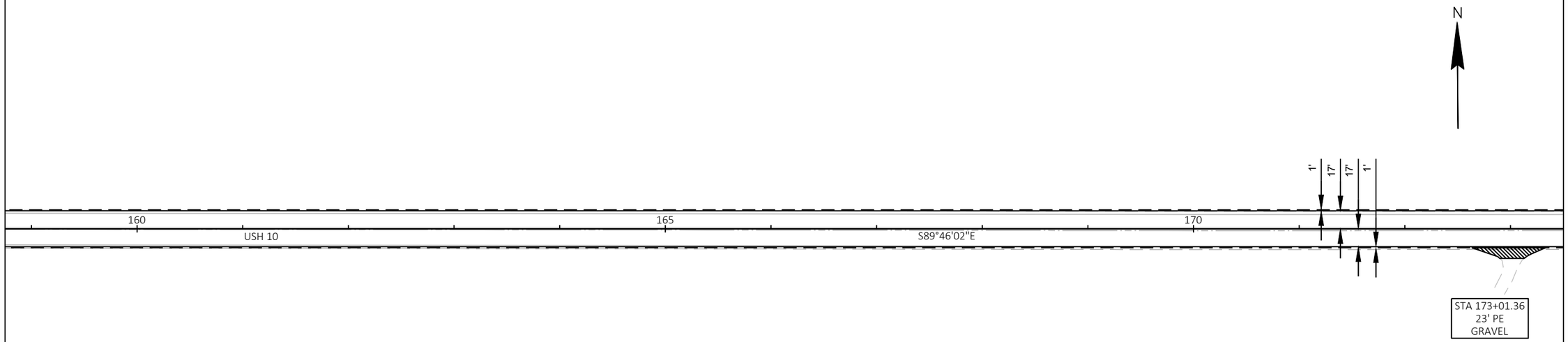

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LEGEND

- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT

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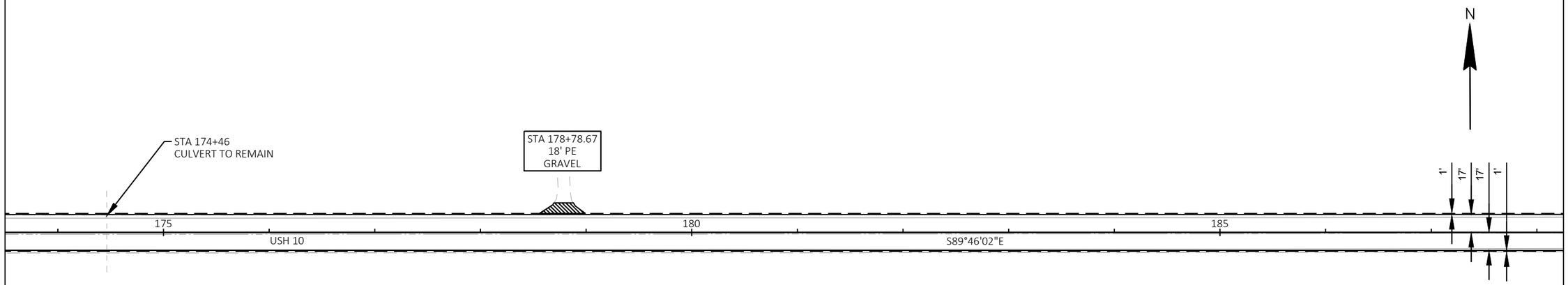

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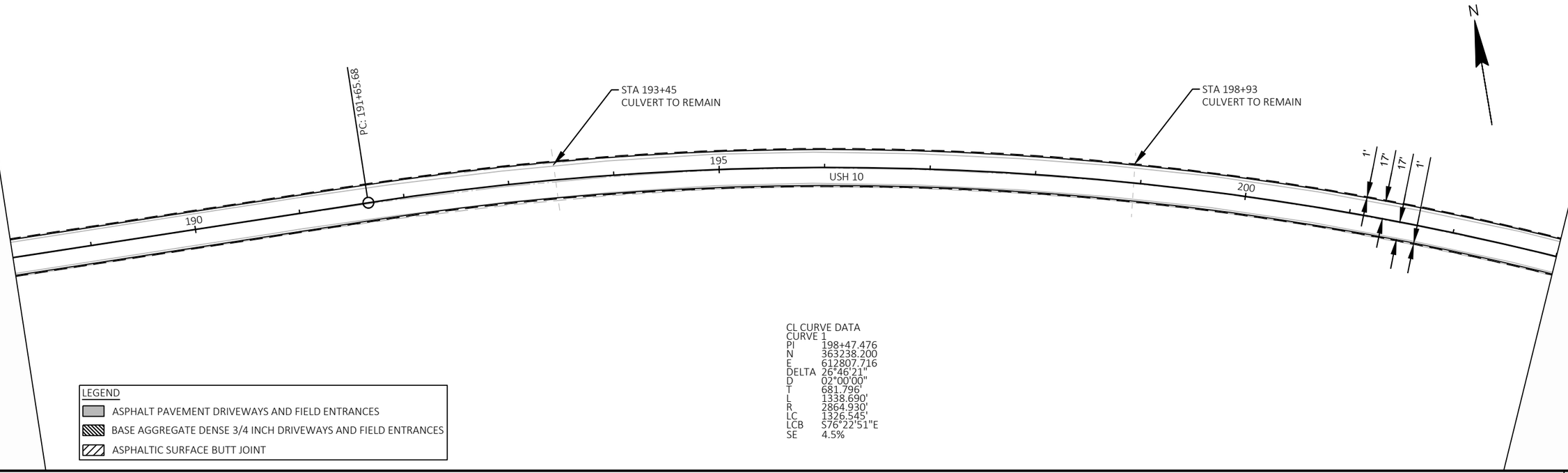
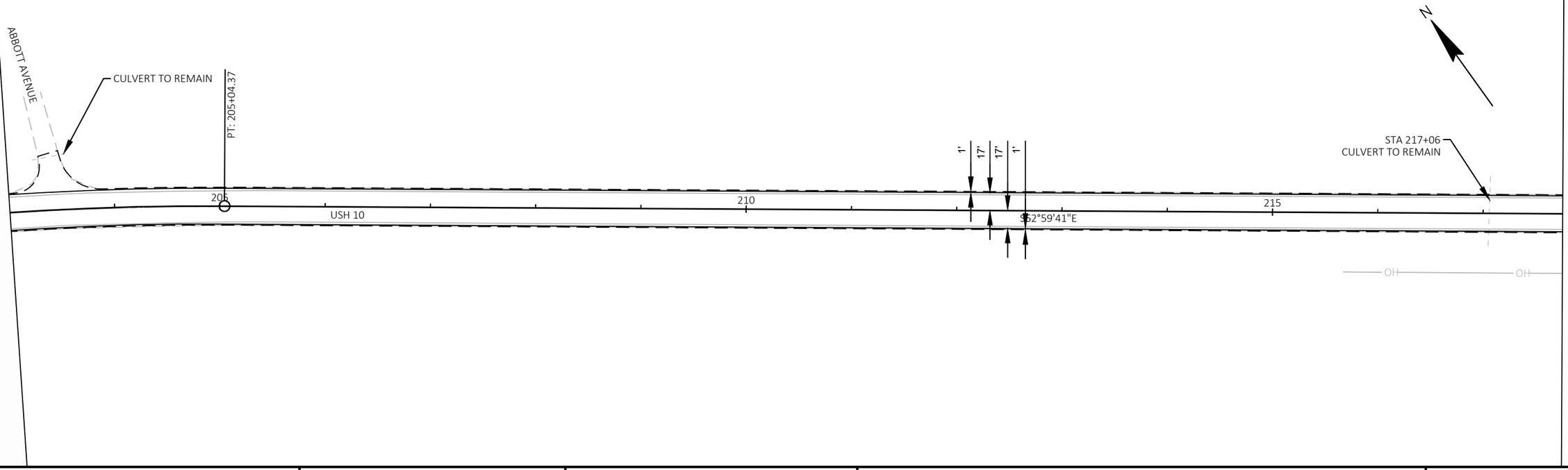


CL CURVE DATA
CURVE 1

PI	198+47.476
N	363238.200
E	612807.716
DELTA	26°46'21"
D	02°00'00"
T	681.796'
L	1338.690'
R	2864.930'
LC	1326.545'
LCB	S76°22'51"E
SE	4.5%

LEGEND

- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT



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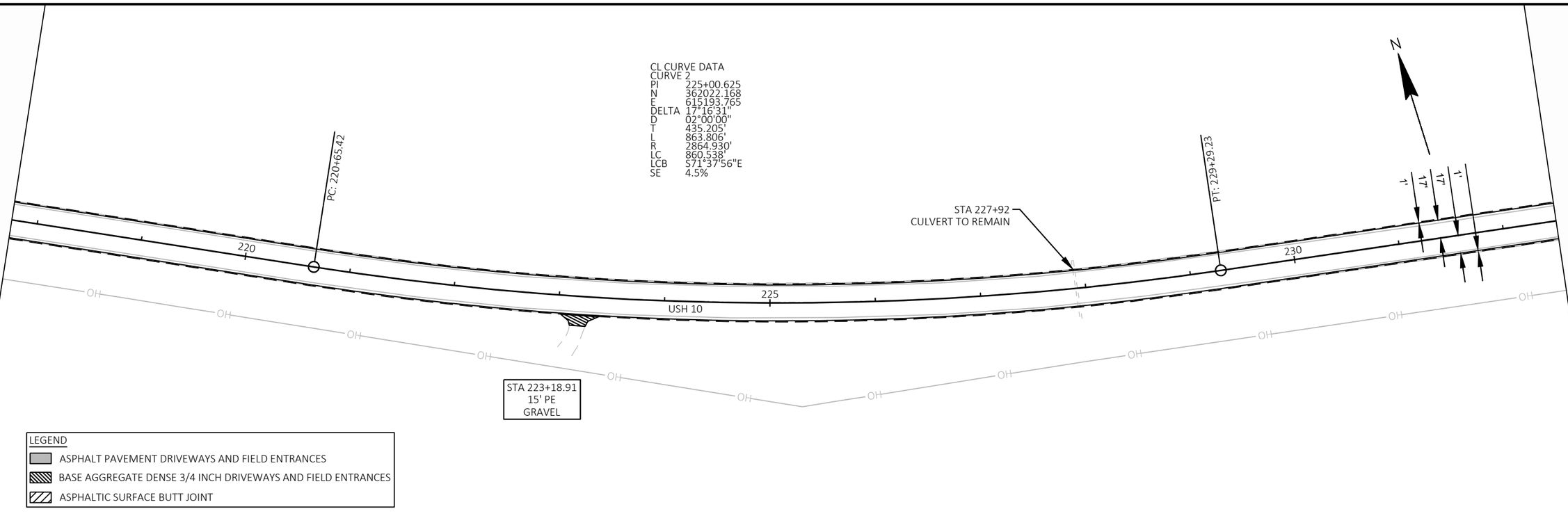

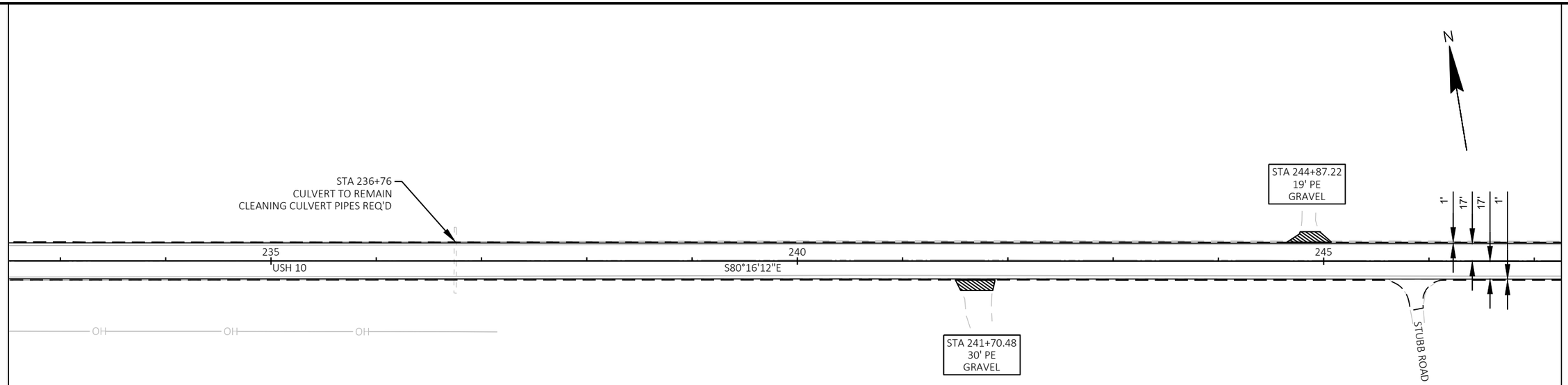

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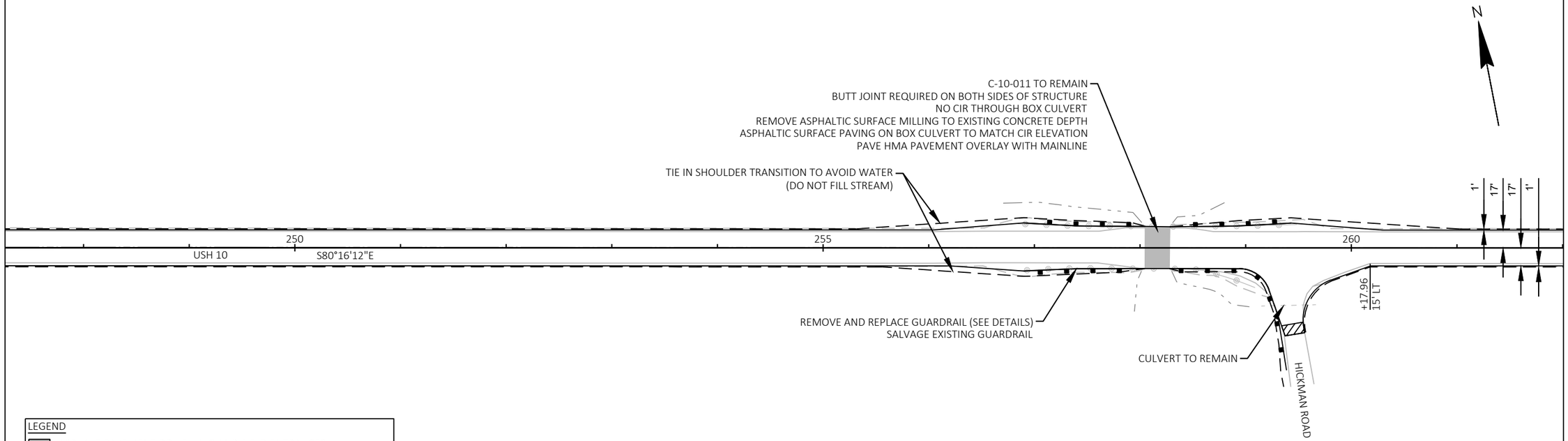
LAYOUT NAME - 05

PLOT DATE : 6/1/2022 9:43 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT



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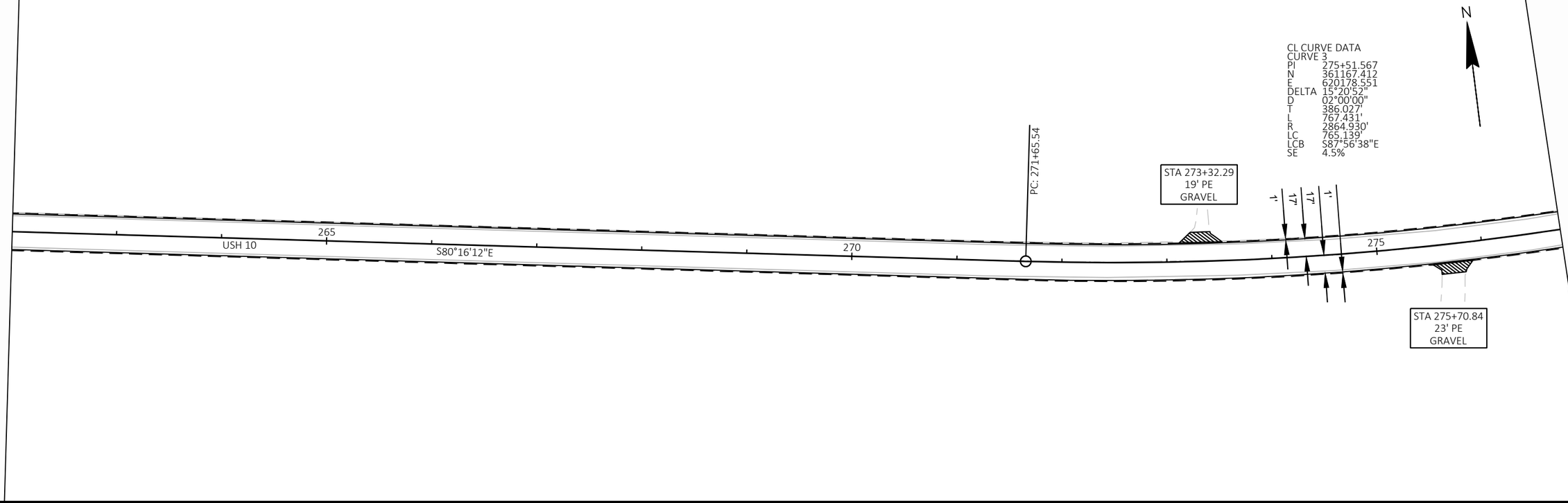

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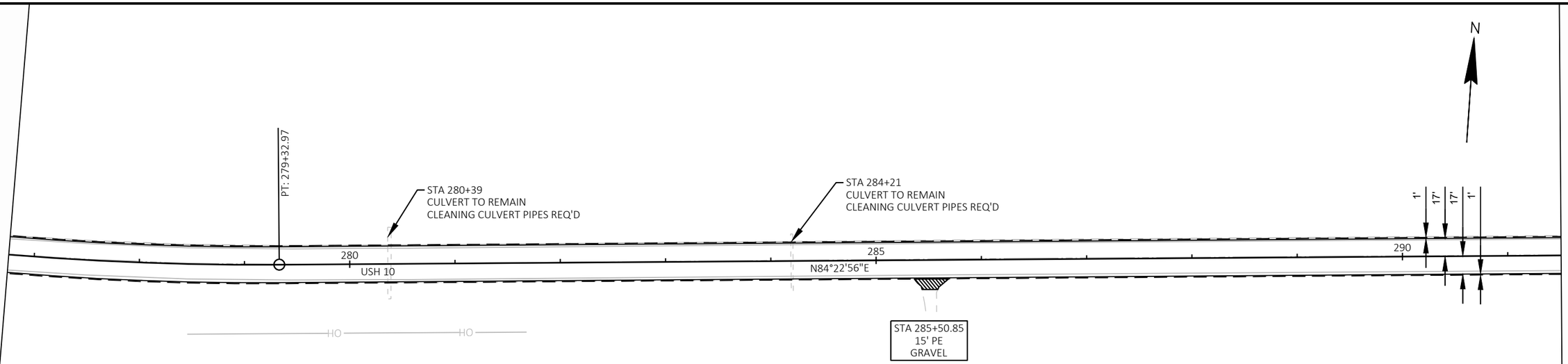
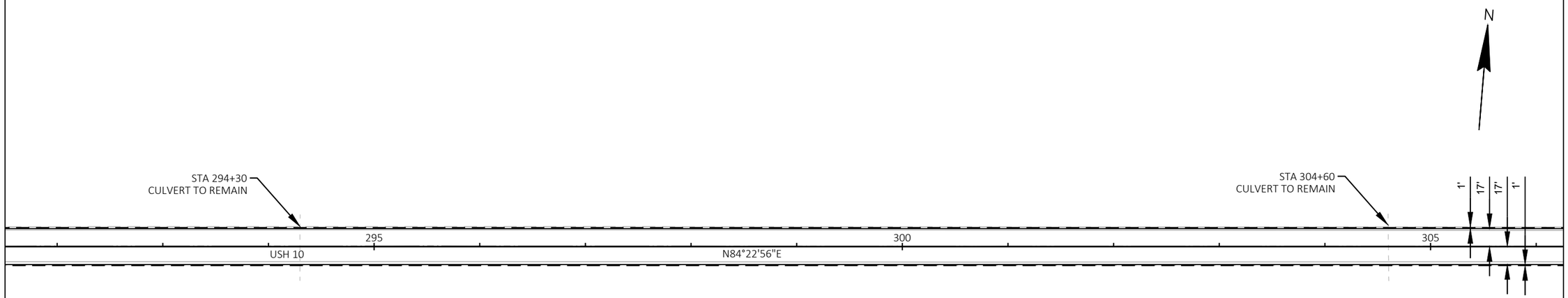


LEGEND

- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT



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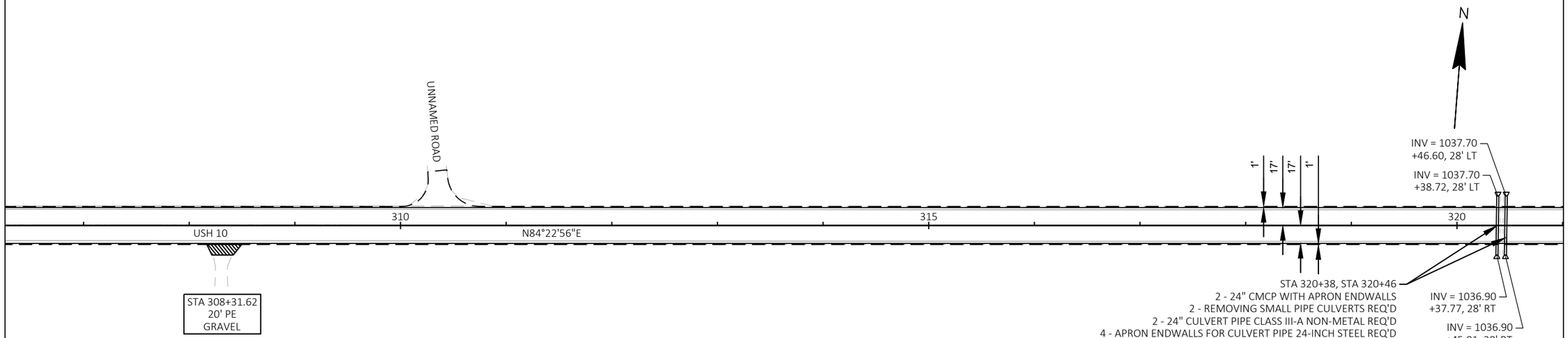

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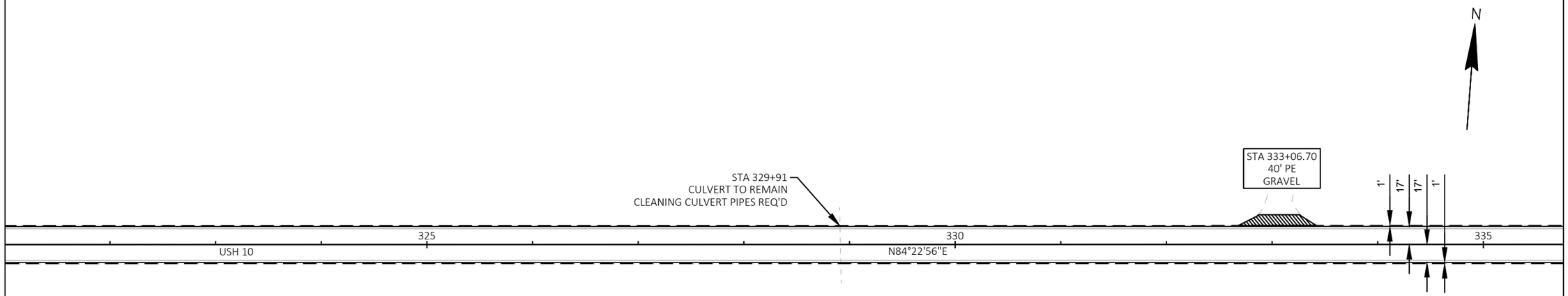
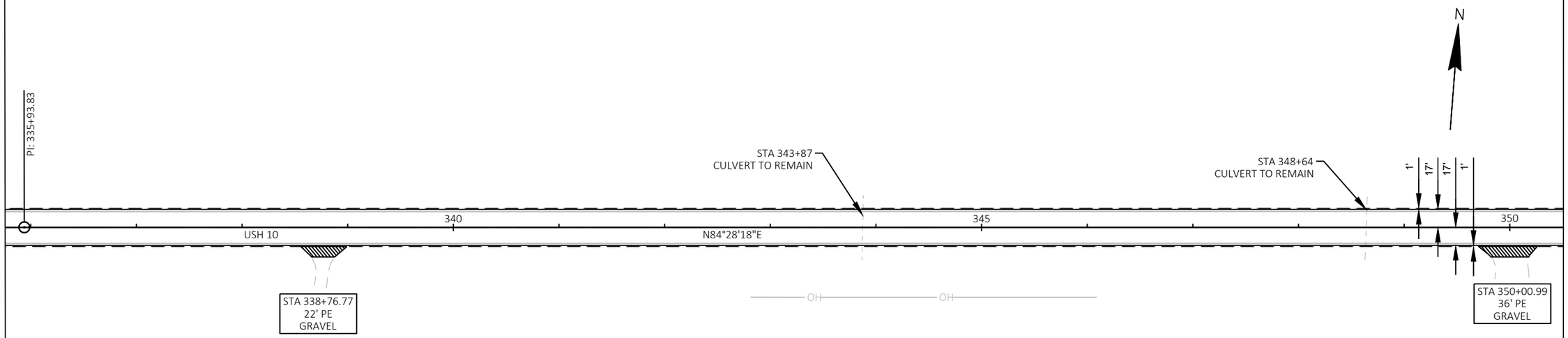
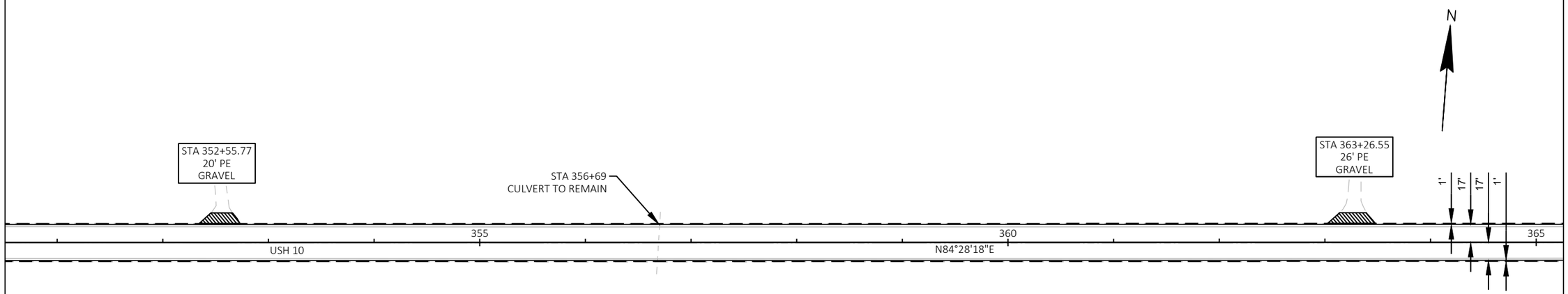


PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 48	E



LEGEND

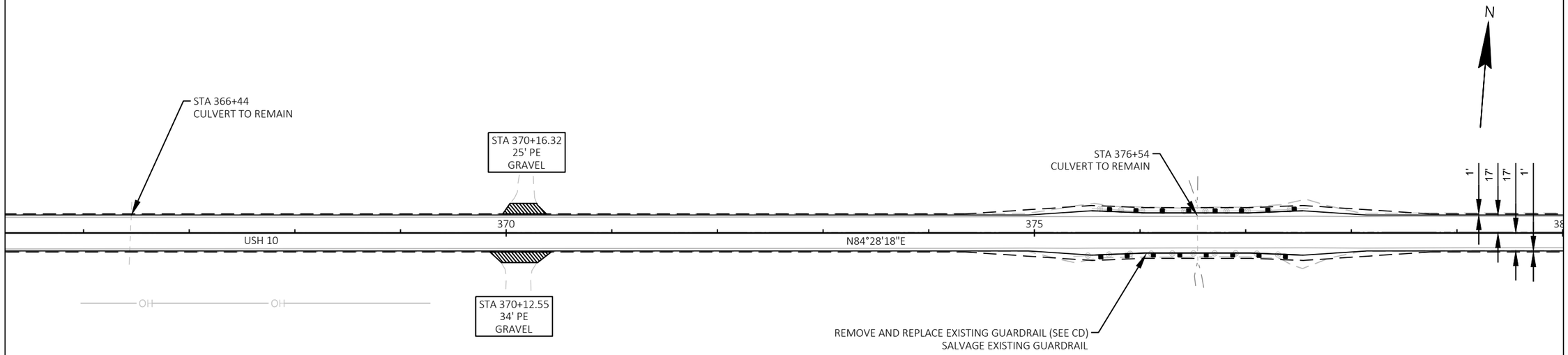
- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 49	E

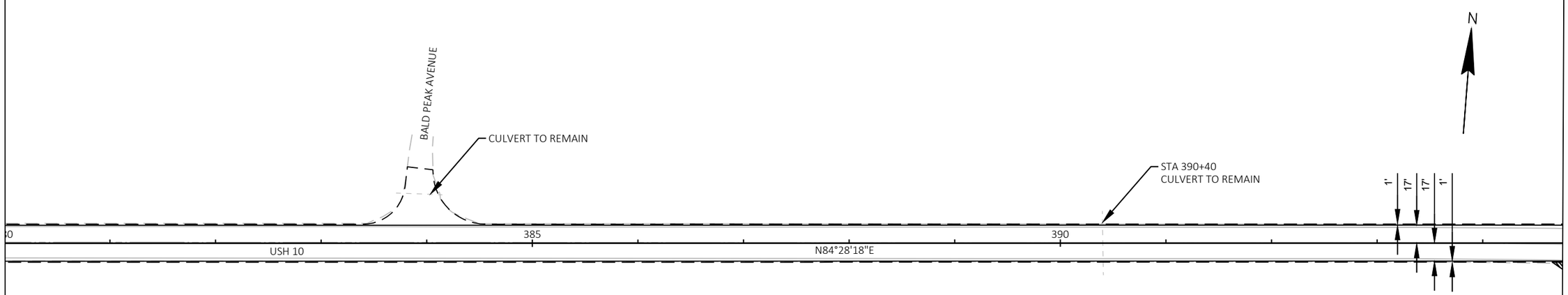
FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 09

PLOT DATE : 6/1/2022 9:44 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT



LEGEND

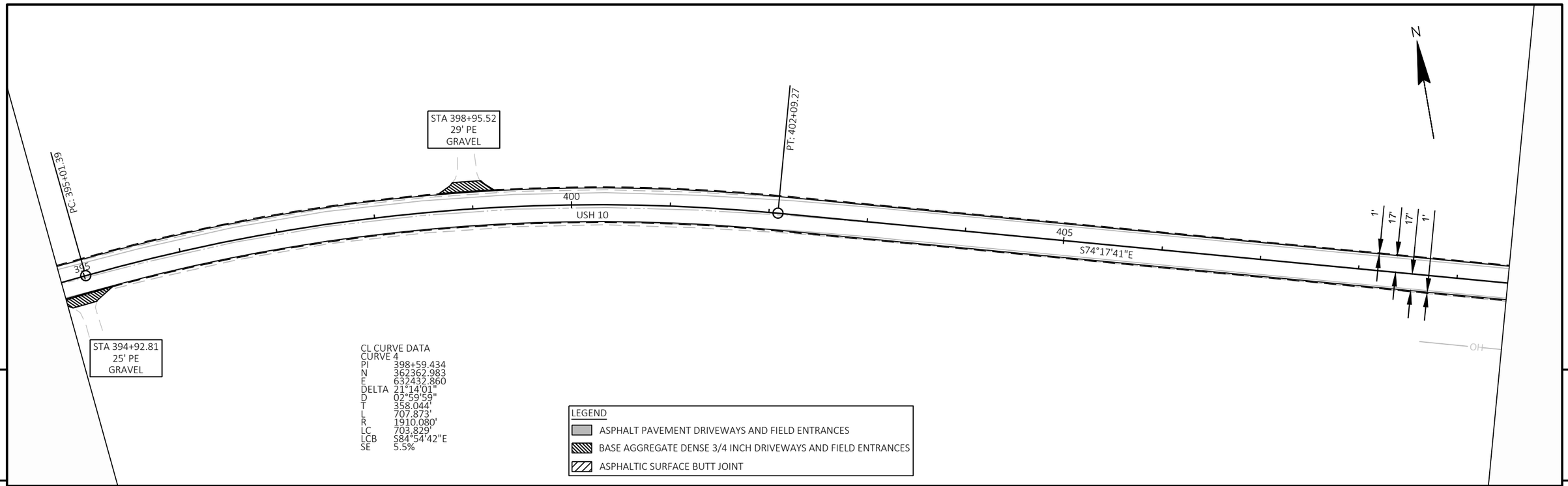
- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT

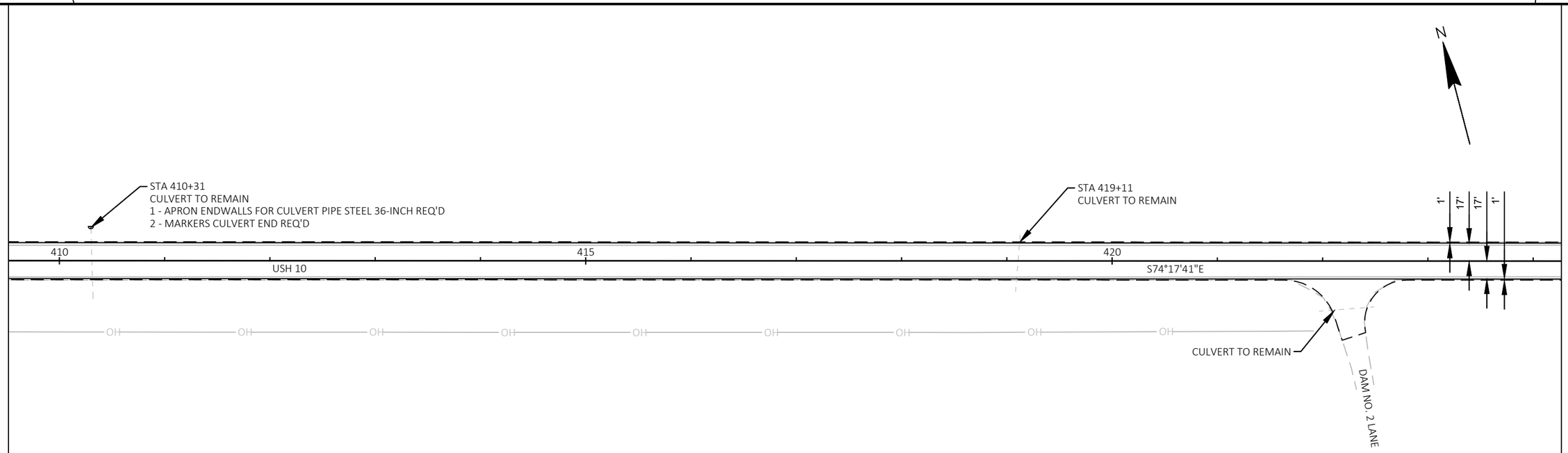


PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 50	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 10

PLOT DATE : 6/1/2022 9:44 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT

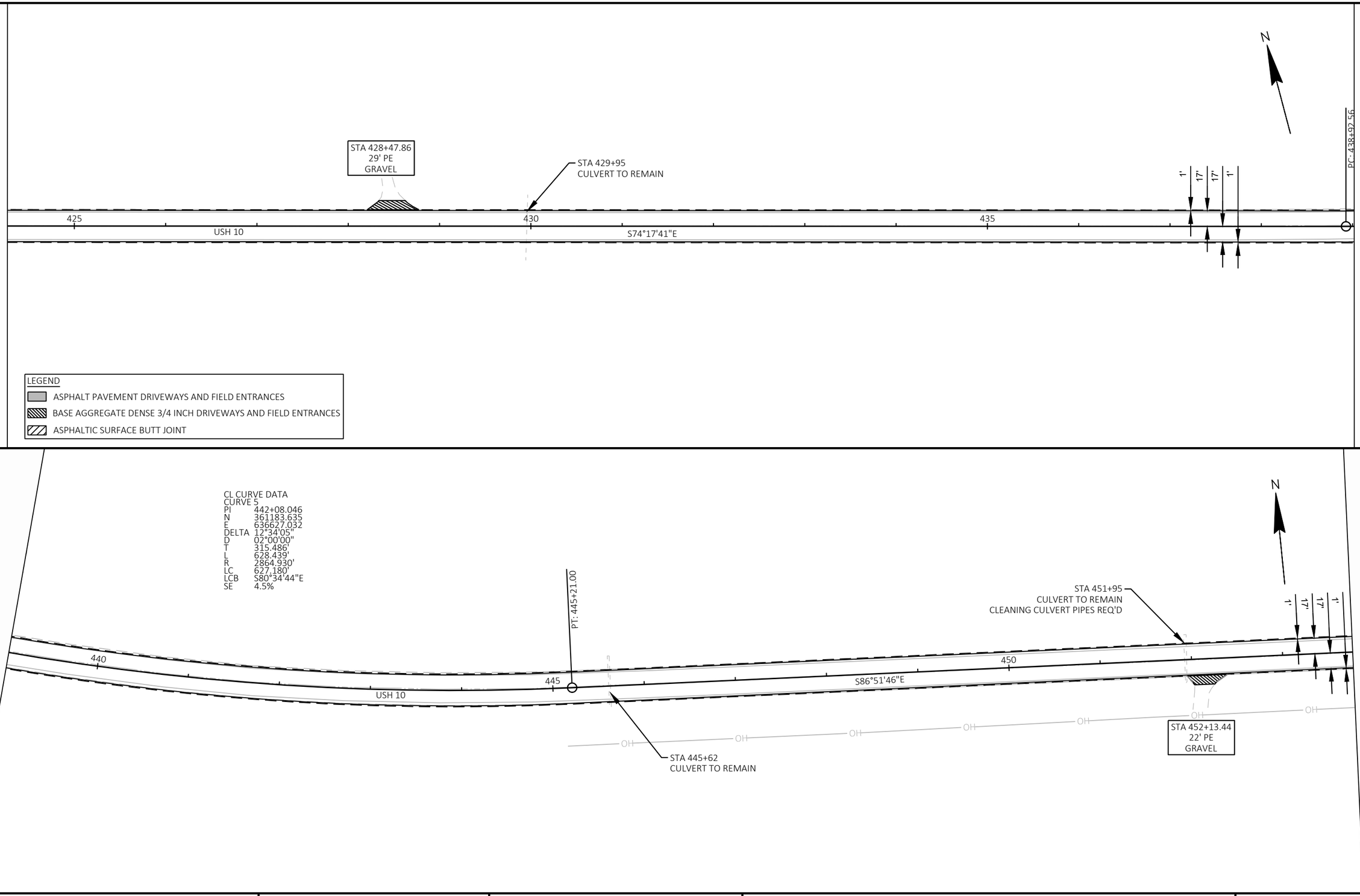




PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 51	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 11

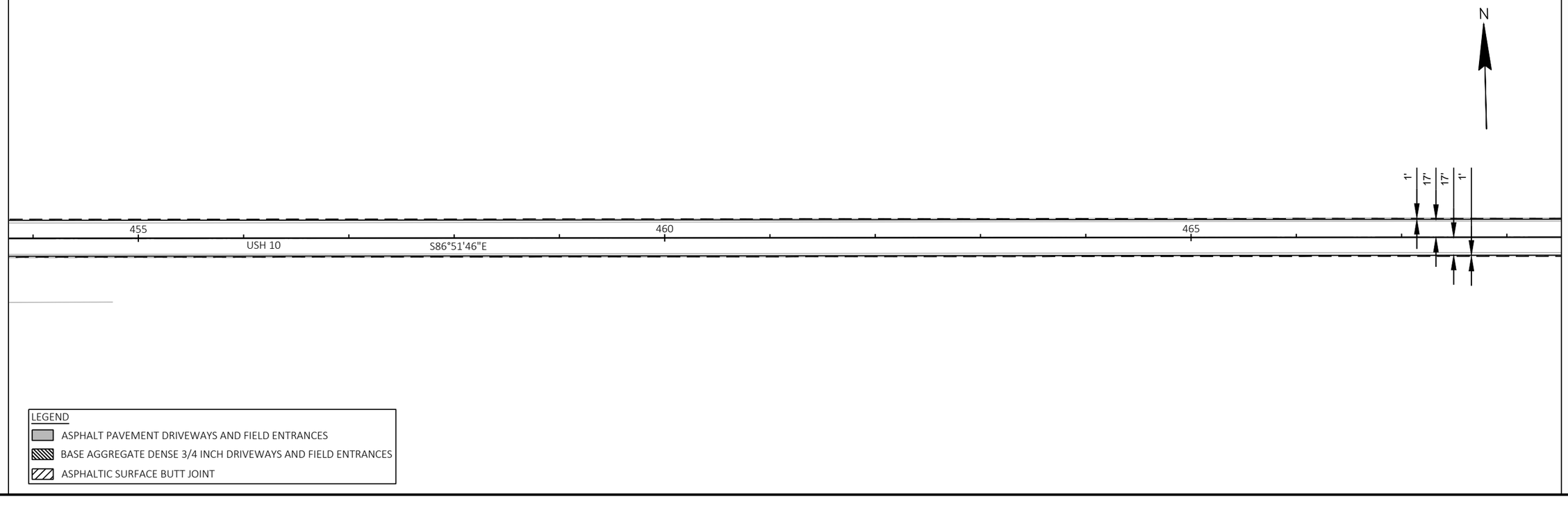
PLOT DATE : 6/1/2022 9:44 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 52	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 12

PLOT DATE : 6/1/2022 9:44 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT



5

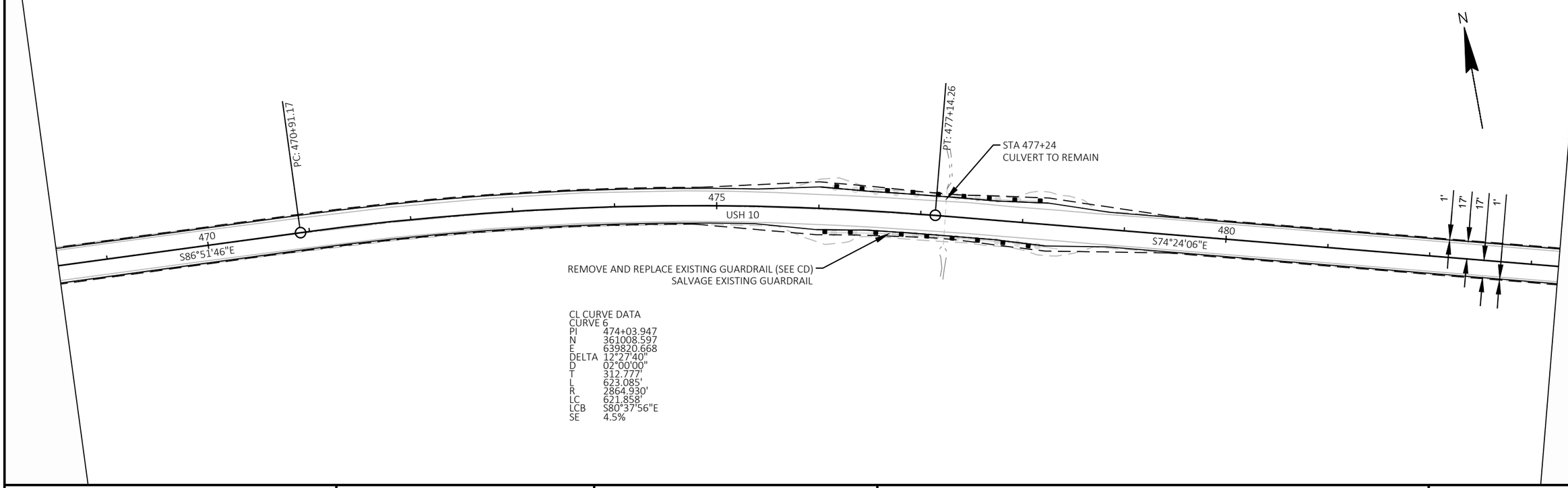
5

LEGEND

ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES

BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES

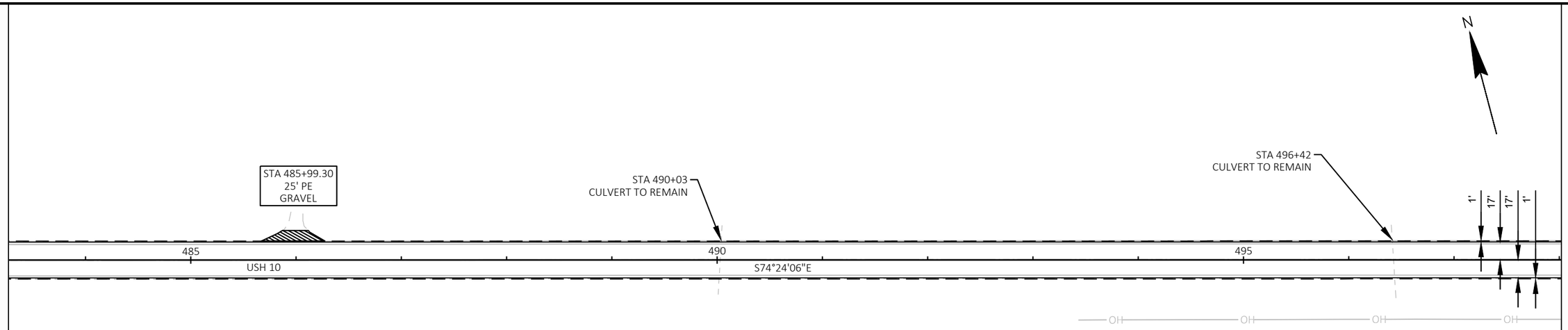
ASPHALTIC SURFACE BUTT JOINT



CL CURVE DATA
CURVE 6

PI	474+03.947
N	361008.597
E	639820.668
DELTA	12°27'40"
D	02°00'00"
T	312.777'
L	623.085'
R	2864.930'
LC	621.858'
LCB	S80°37'56"E
SE	4.5%

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 53	E



5

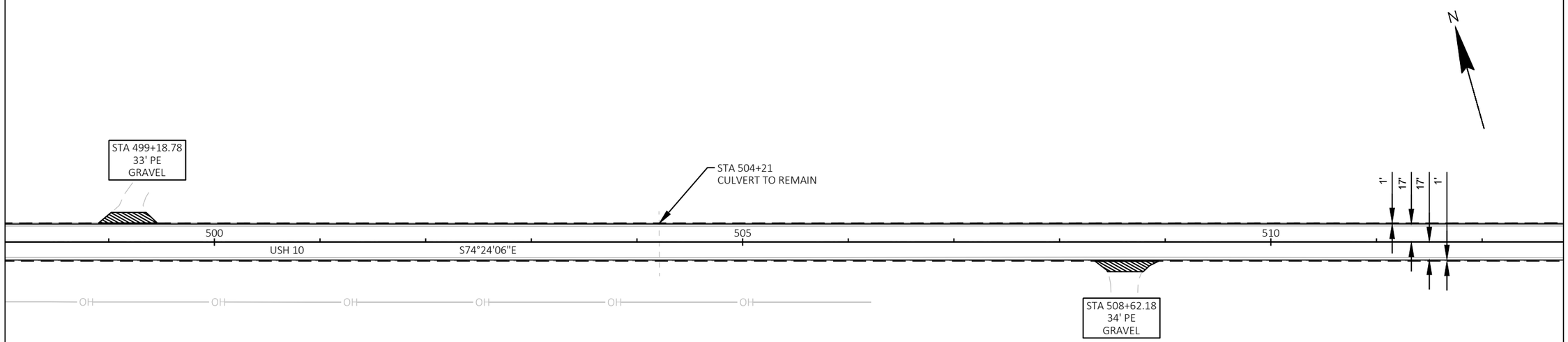
5

LEGEND

ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES

BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES

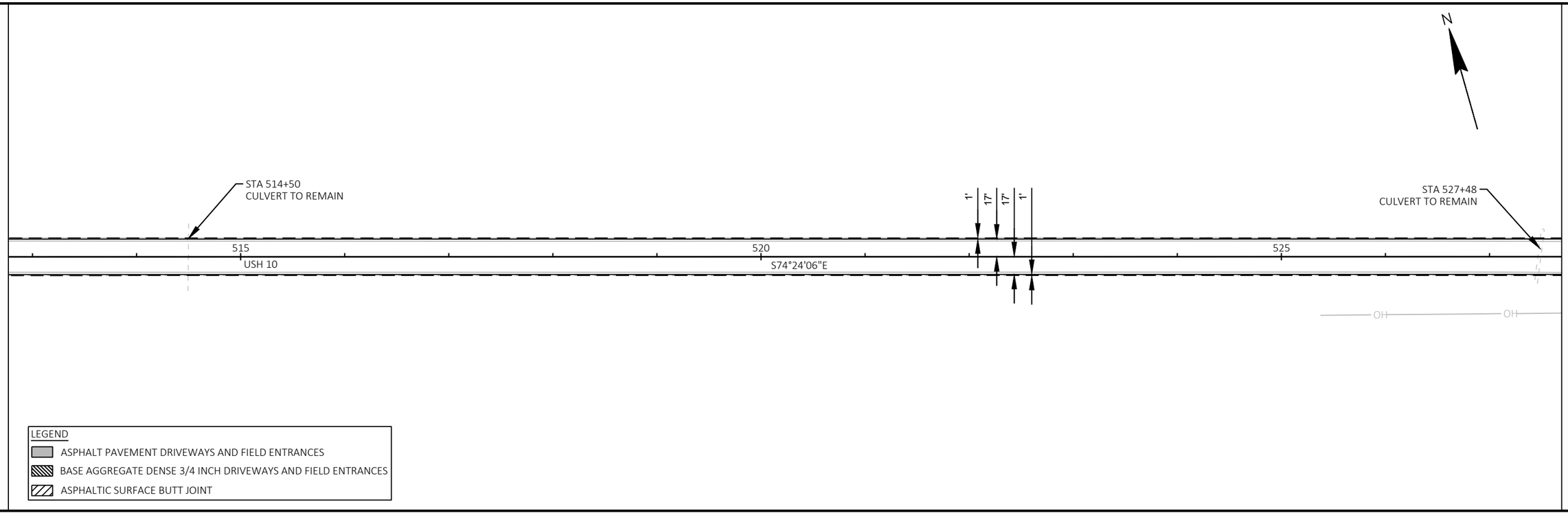
ASPHALTIC SURFACE BUTT JOINT



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 54	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 14

PLOT DATE : 6/1/2022 9:44 AM PLOT BY : JARED HALBUR PLOT NAME : PLOT SCALE : 1 IN:100 FT

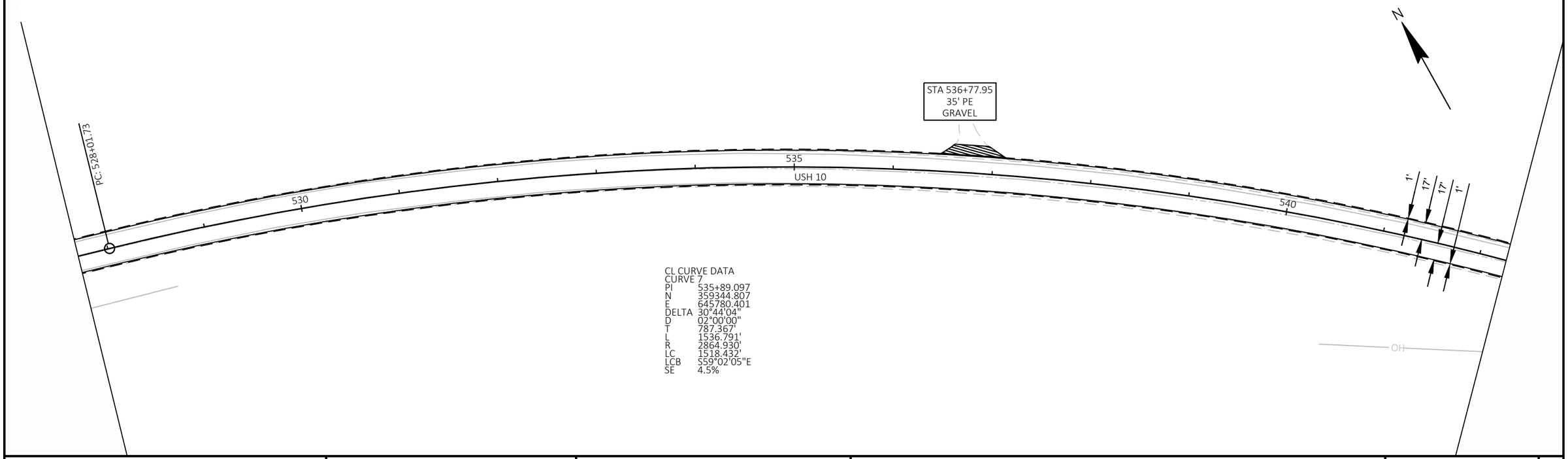


5

LEGEND

- ASPHALT PAVEMENT DRIVEWAYS AND FIELD ENTRANCES
- BASE AGGREGATE DENSE 3/4 INCH DRIVEWAYS AND FIELD ENTRANCES
- ASPHALTIC SURFACE BUTT JOINT

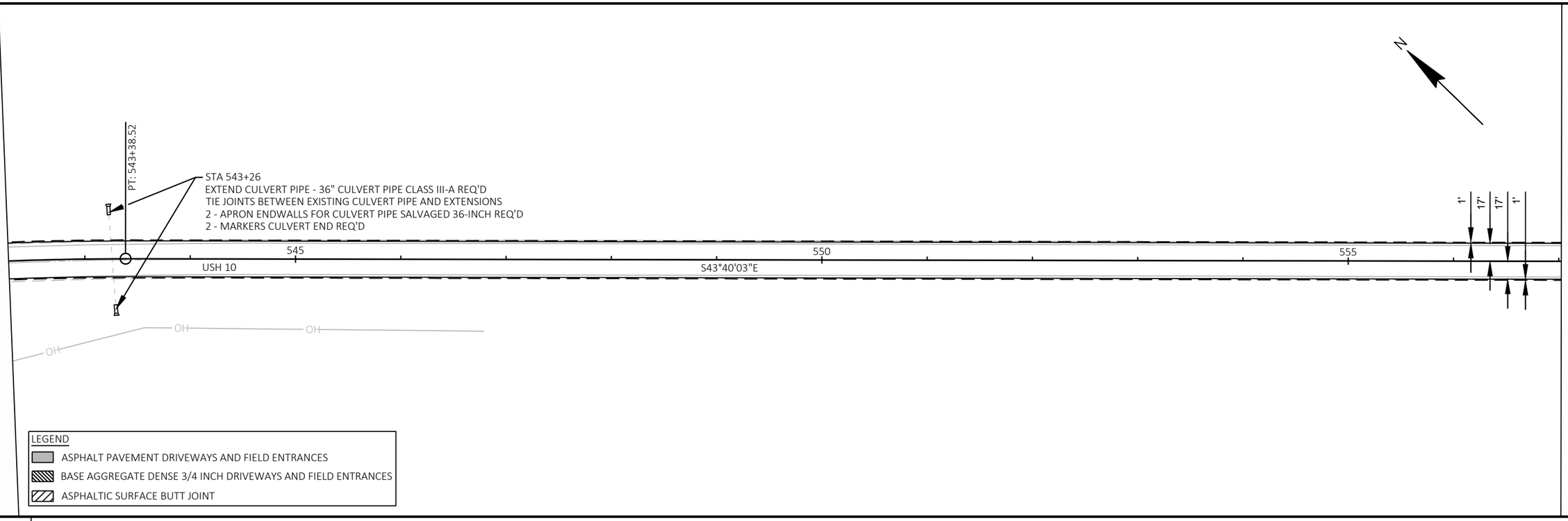
5

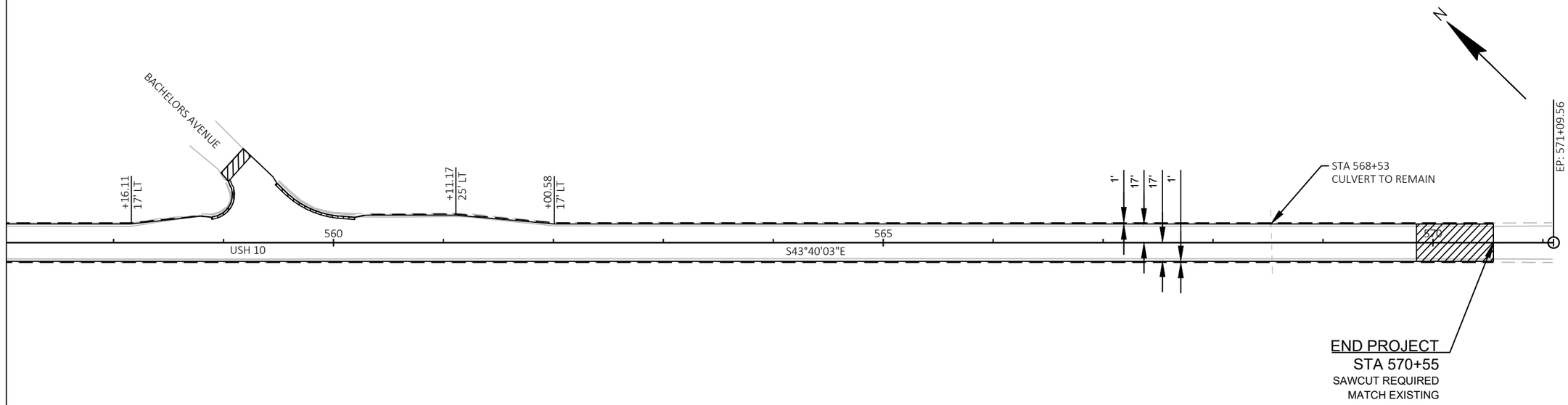


CL CURVE DATA
CURVE 7

PI	535+89.097
N	359344.807
E	645780.401
DELTA	30°44'04"
D	02°00'00"
T	787.367'
L	1536.791'
R	2864.930'
LC	1518.432'
LCB	S59°02'05"E
SE	4.5%

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 55	E





PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	PLAN: USH 10	SHEET 56	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\SHEETSPLAN\050501_PP\050501_PP.DWG
LAYOUT NAME - 16
PLOT DATE : 6/1/2022 9:44 AM
PLOT BY : JARED HALBUR
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

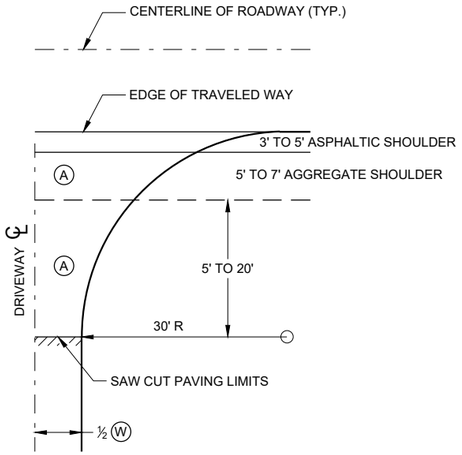
Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
09A01-14A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-14B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02B	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
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)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-22C	PAVEMENT MARKING (TURN LANES)
15C08-22D	PAVEMENT MARKING (TURN LANES)
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C19-08A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D06-05	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D48-01	TRAFFIC CONTROL, LANE SHIFT IN FLAGGING OPERATION

6

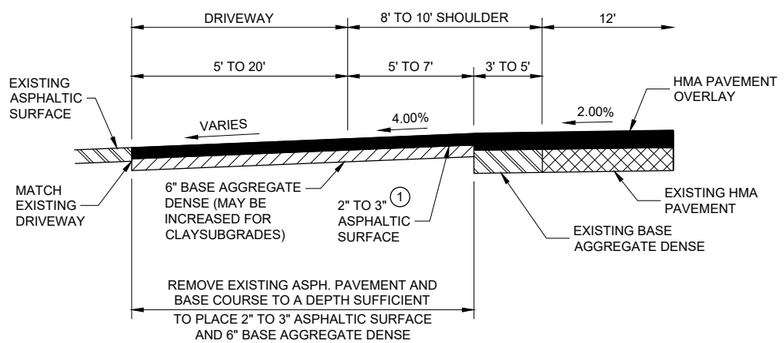
GENERAL NOTES

(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PLAN VIEW

HALF SECTION



PROFILE VIEW

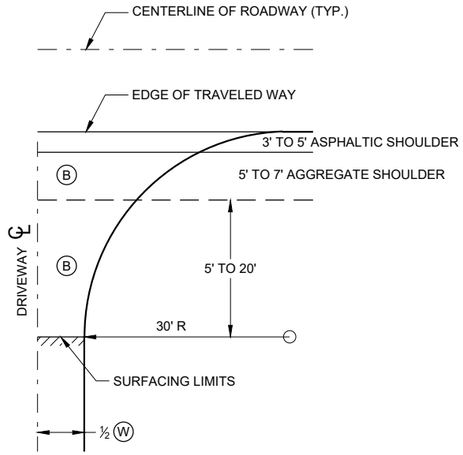
RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS

(A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)

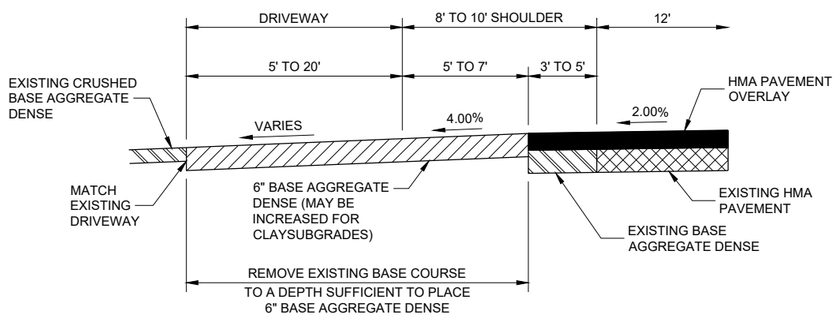
(B) : PAID FOR AS BASE AGGREGATE DENSE 1 ¼" (TON)

(W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW

HALF SECTION



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE

RESURFACING PROJECTS

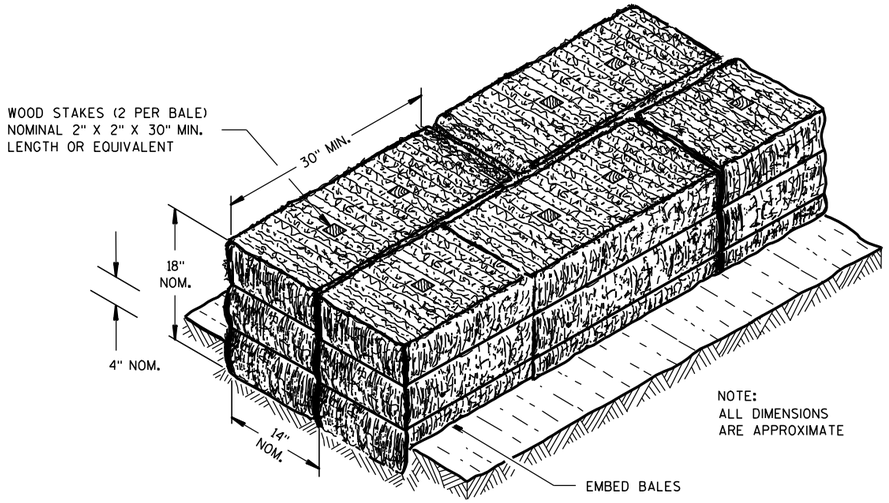
DRIVEWAYS WITHOUT CURB AND GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

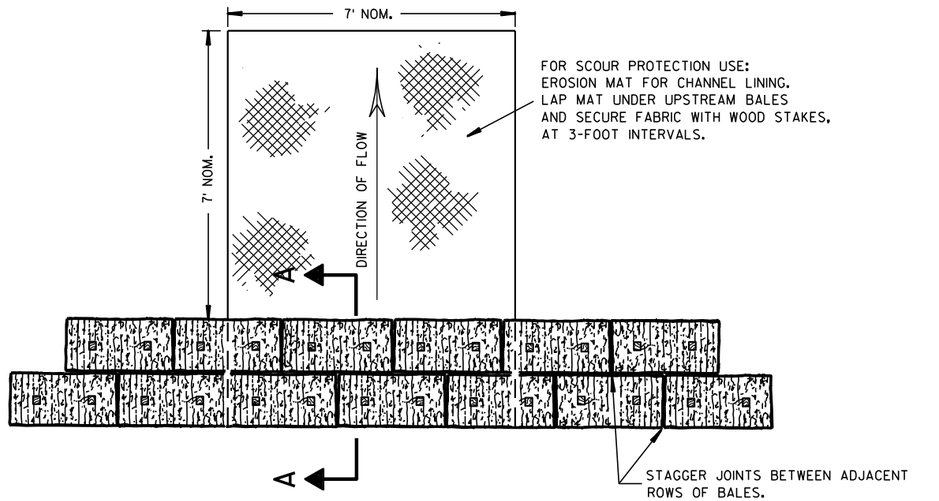
APPROVED
December 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

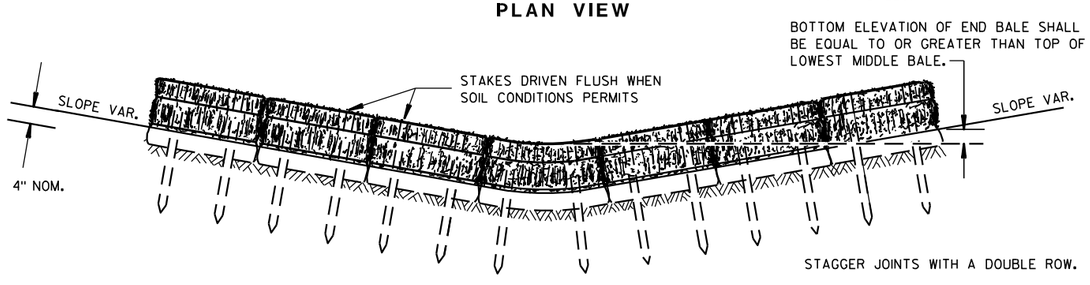
SDD 08D22 - 01



SECTION A-A



PLAN VIEW



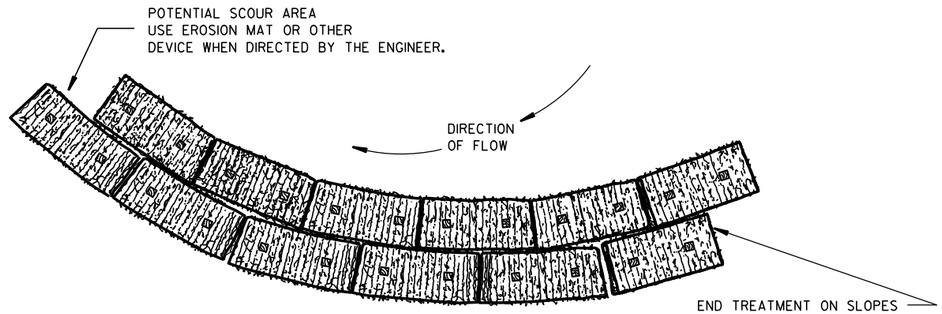
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

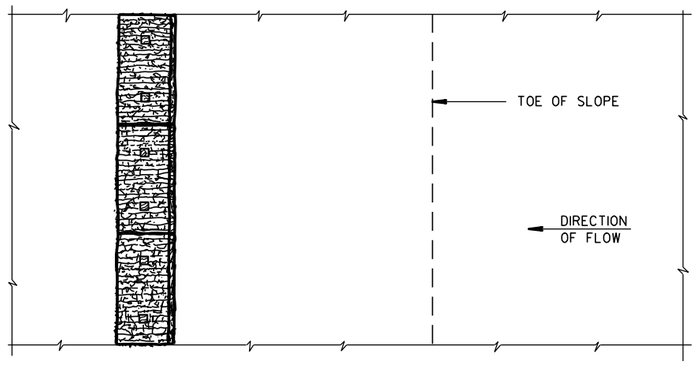
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

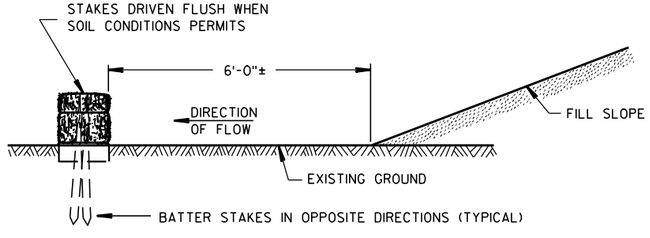


PLAN VIEW

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

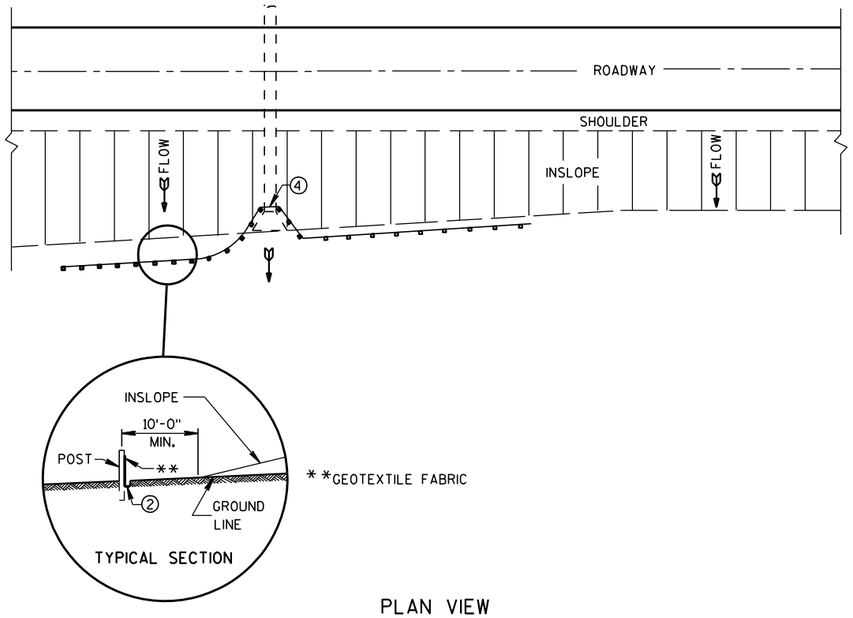
APPROVED

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

FHWA

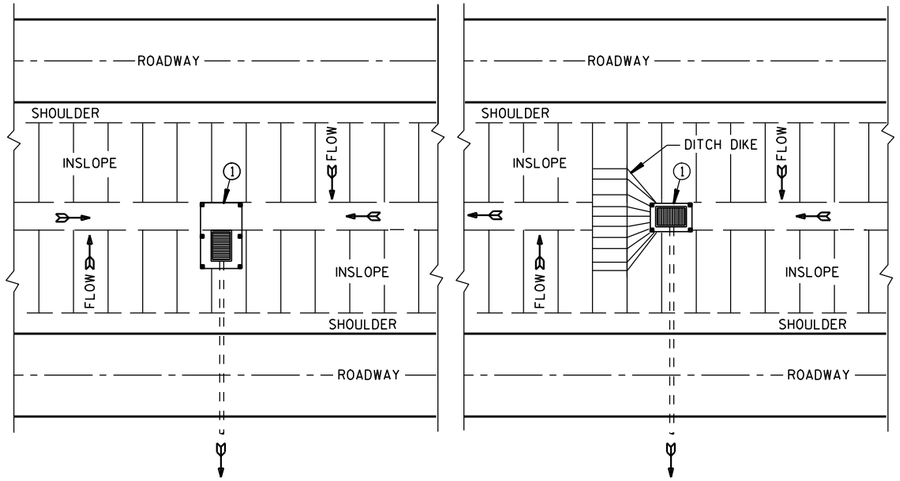
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



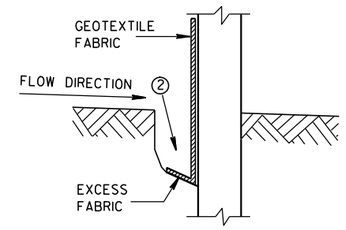
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

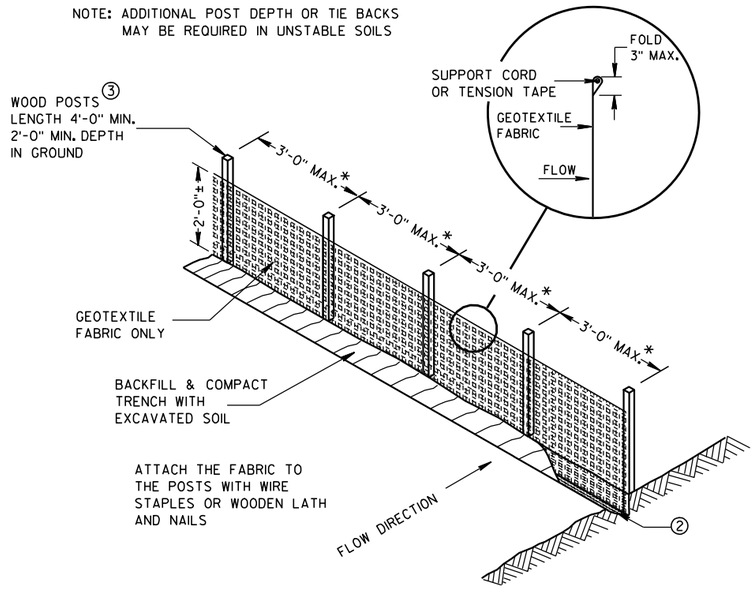
GENERAL NOTES

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

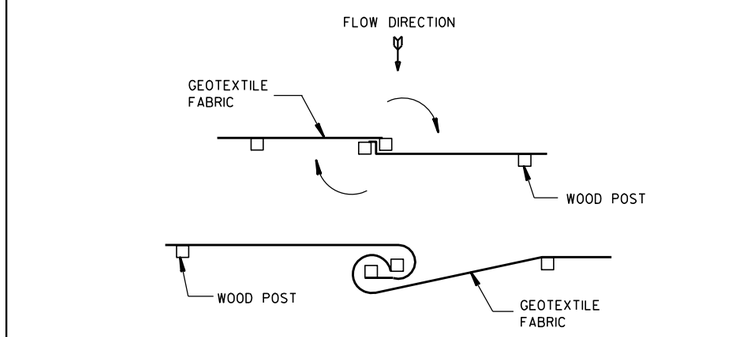
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



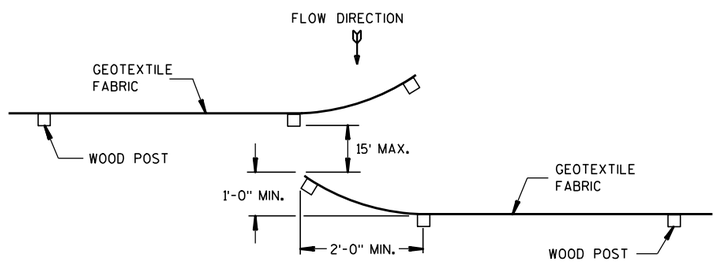
TRENCH DETAIL



SILT FENCE

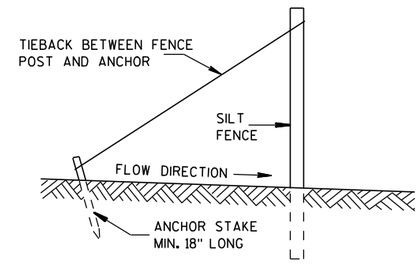


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

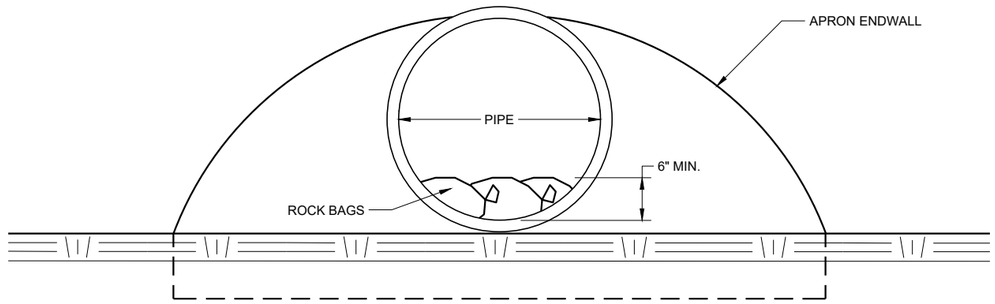
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

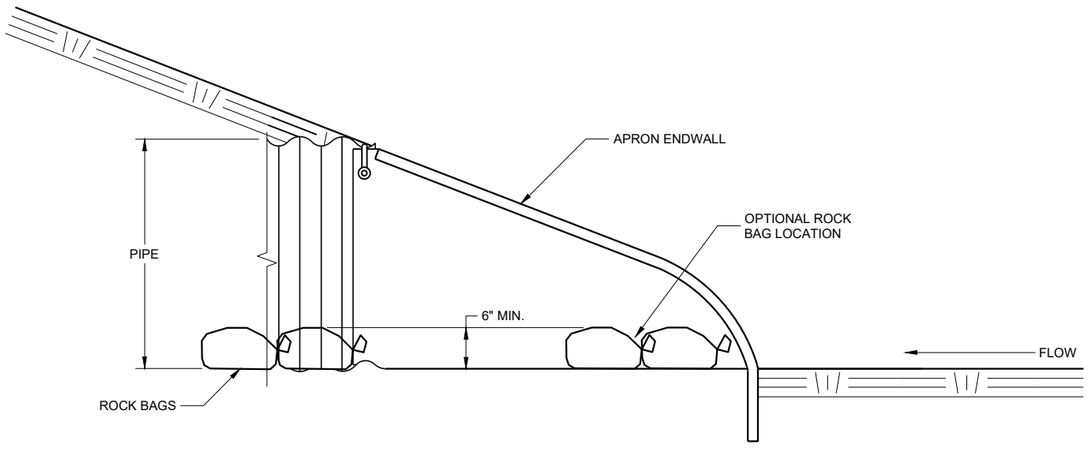
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 9-6



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	

6

SDD 08E15 - 01

METAL APRON ENDWALLS

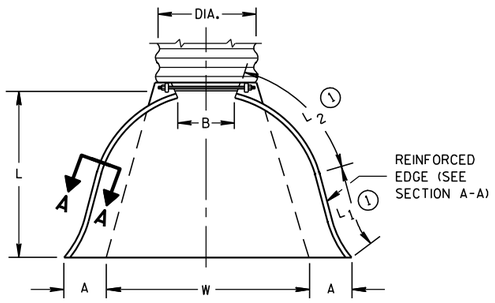
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

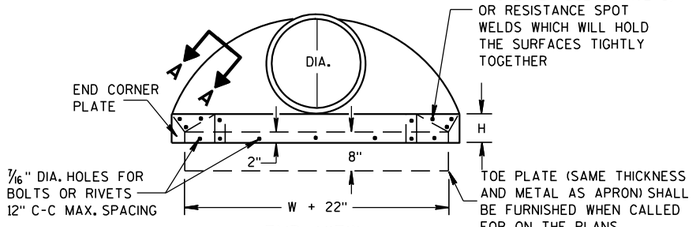
REINFORCED CONCRETE APRON ENDWALLS

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

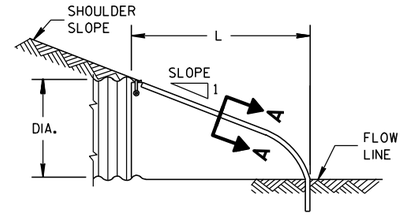
*MINIMUM
**MAXIMUM



PLAN VIEW

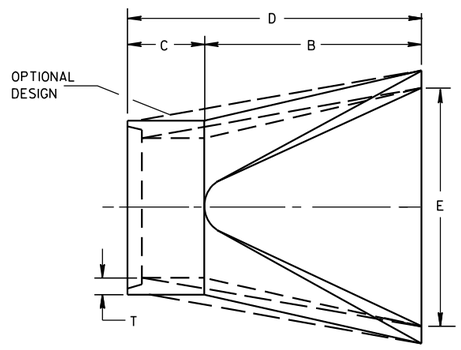


END VIEW

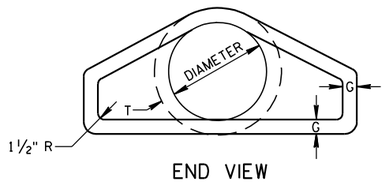


SIDE ELEVATION

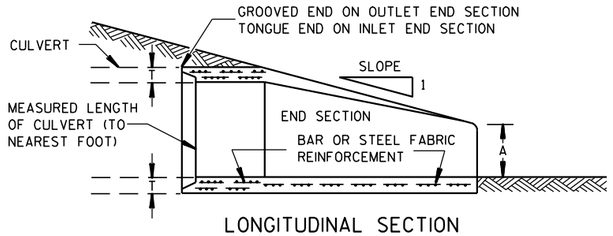
METAL ENDWALLS



PLAN

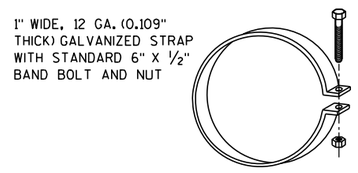


END VIEW



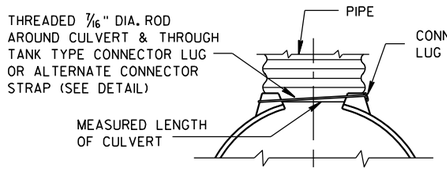
LONGITUDINAL SECTION

CONCRETE ENDWALLS

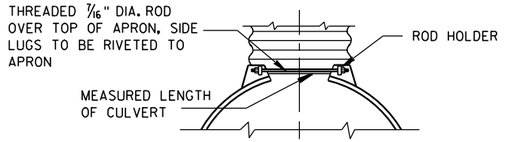


ALTERNATE FOR TYPE 1 CONNECTION

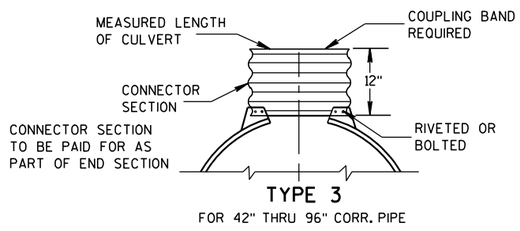
END SECTION CONNECTOR STRAP



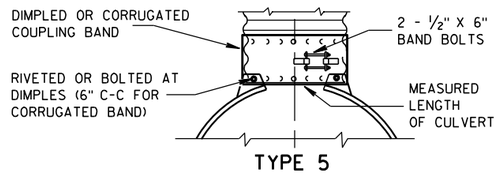
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

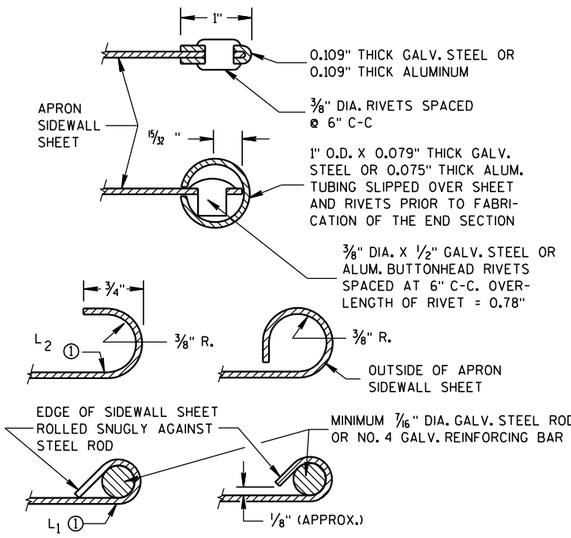
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

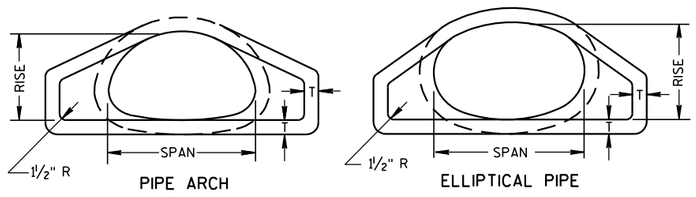
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

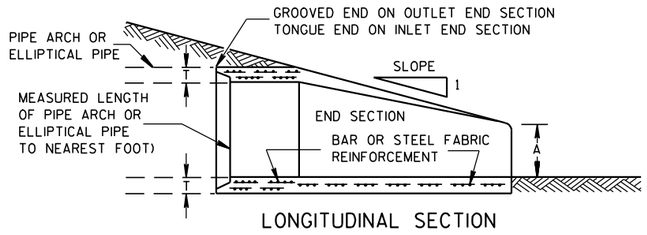
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

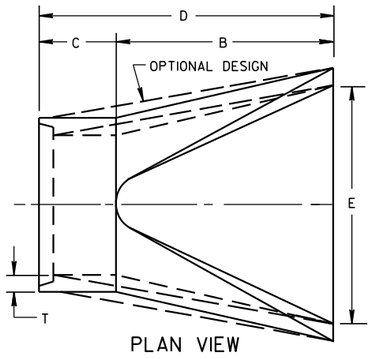
S.D.D. 8 F 1-11



END VIEW

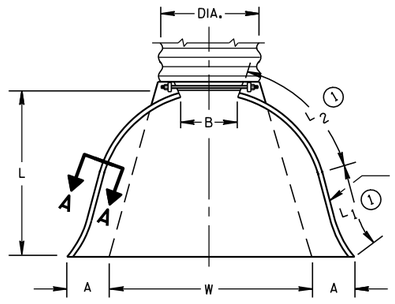


LONGITUDINAL SECTION

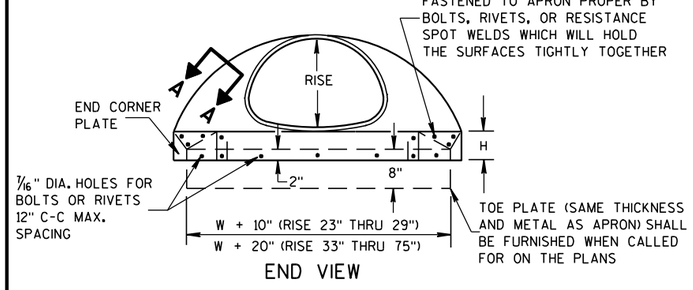


PLAN VIEW

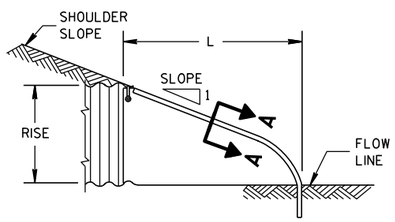
CONCRETE ENDWALLS



PLAN VIEW

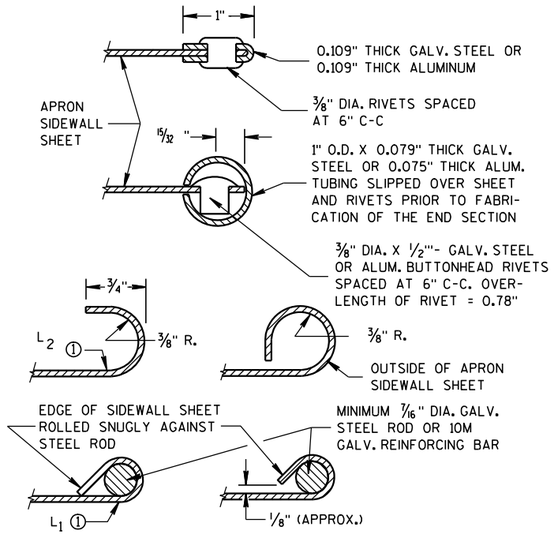


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

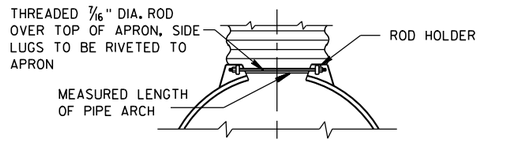
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

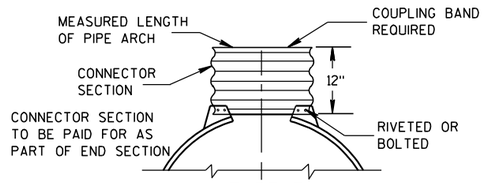
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



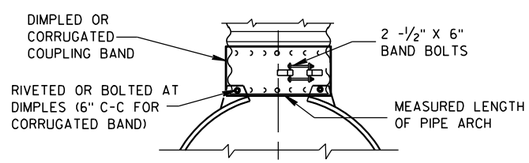
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

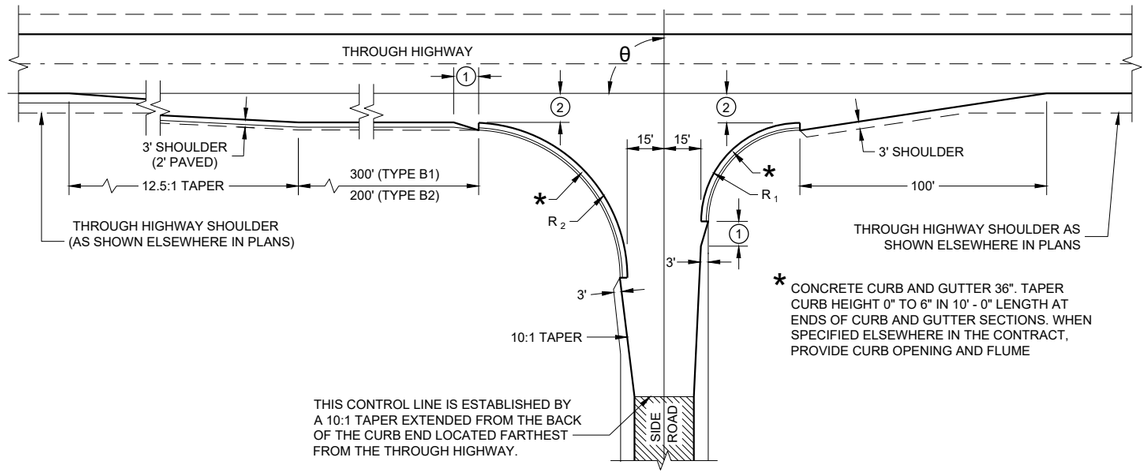
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



* CONCRETE CURB AND GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10' - 0" LENGTH AT ENDS OF CURB AND GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME

TYPE "B1" AND "B2"

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65 - 70	35	70
71 - 80	40	70
81 - 90	40	60
91 - 100	50	55
101 - 110	60	45

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

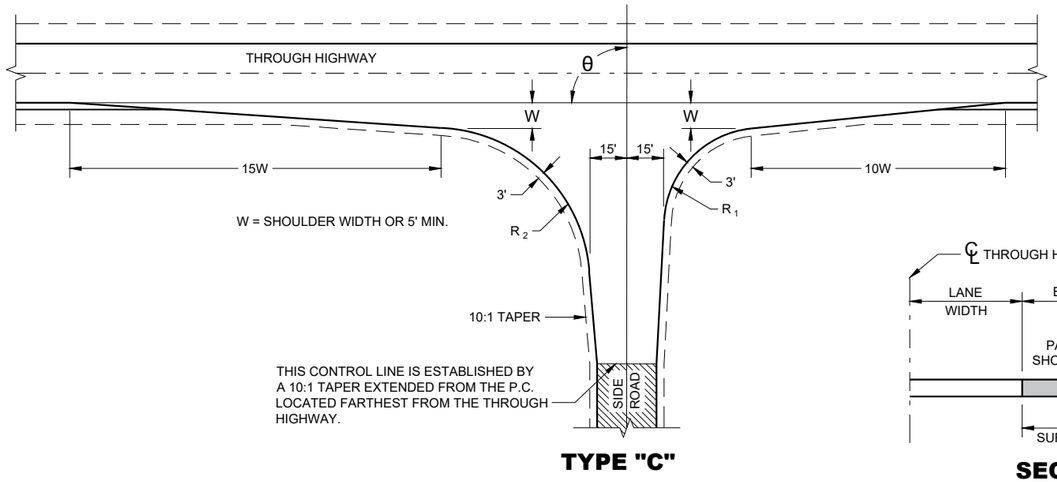
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

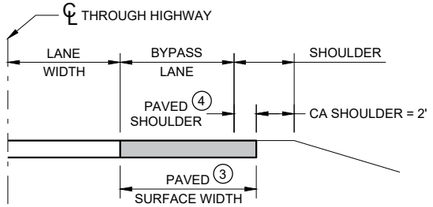
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
- ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH
- PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH

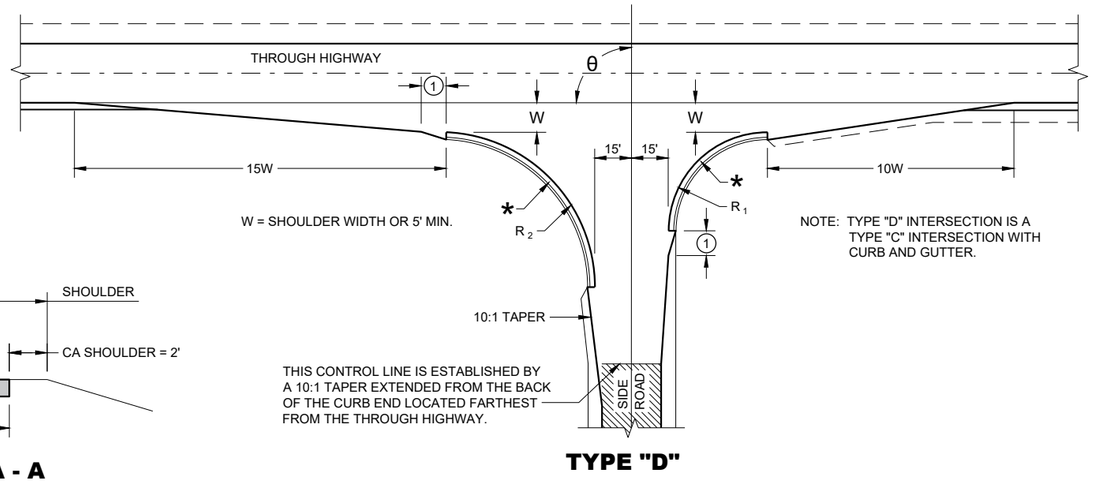
(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



TYPE "C"

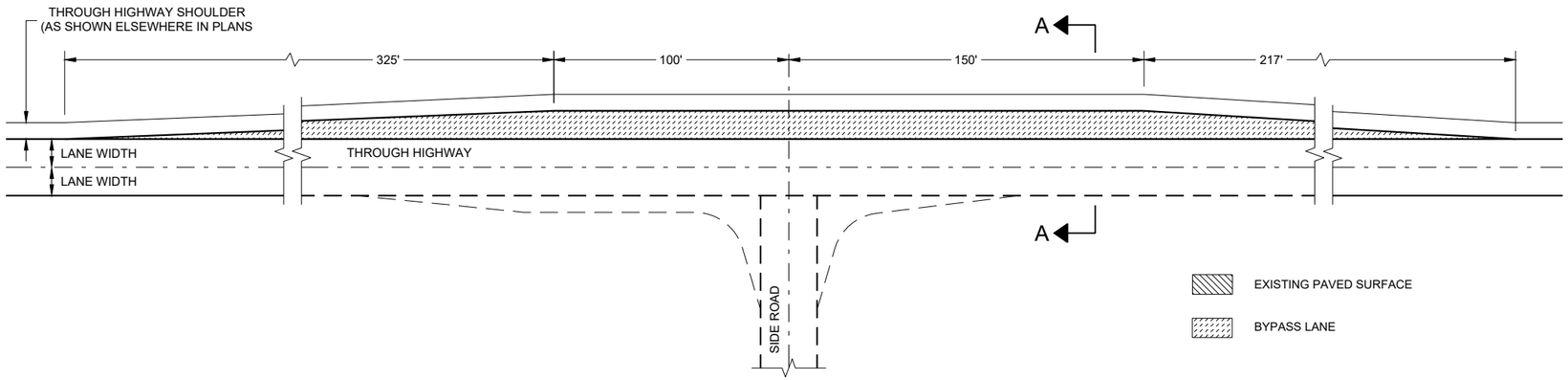


SECTION A - A
(SHOWING BYPASS LANE AND SHOULDER)



NOTE: TYPE "D" INTERSECTION IS A TYPE "C" INTERSECTION WITH CURB AND GUTTER.

TYPE "D"



TEE INTERSECTION BYPASS LANE DETAIL

AT GRADE SIDE ROAD INTERSECTION TYPES "B1", "B2", "C", "D" AND TEE INTERSECTION BYPASS LANE

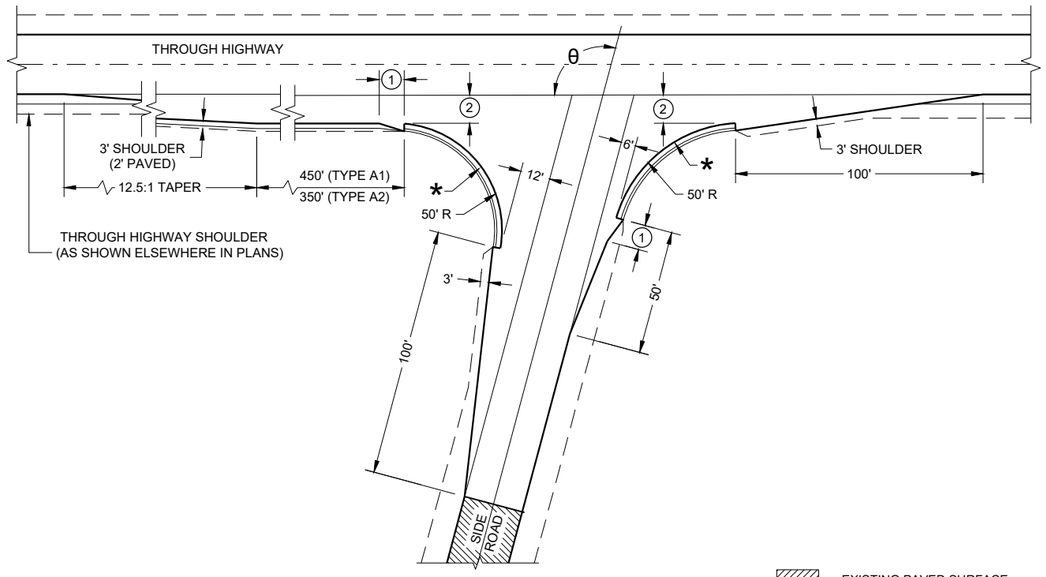
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

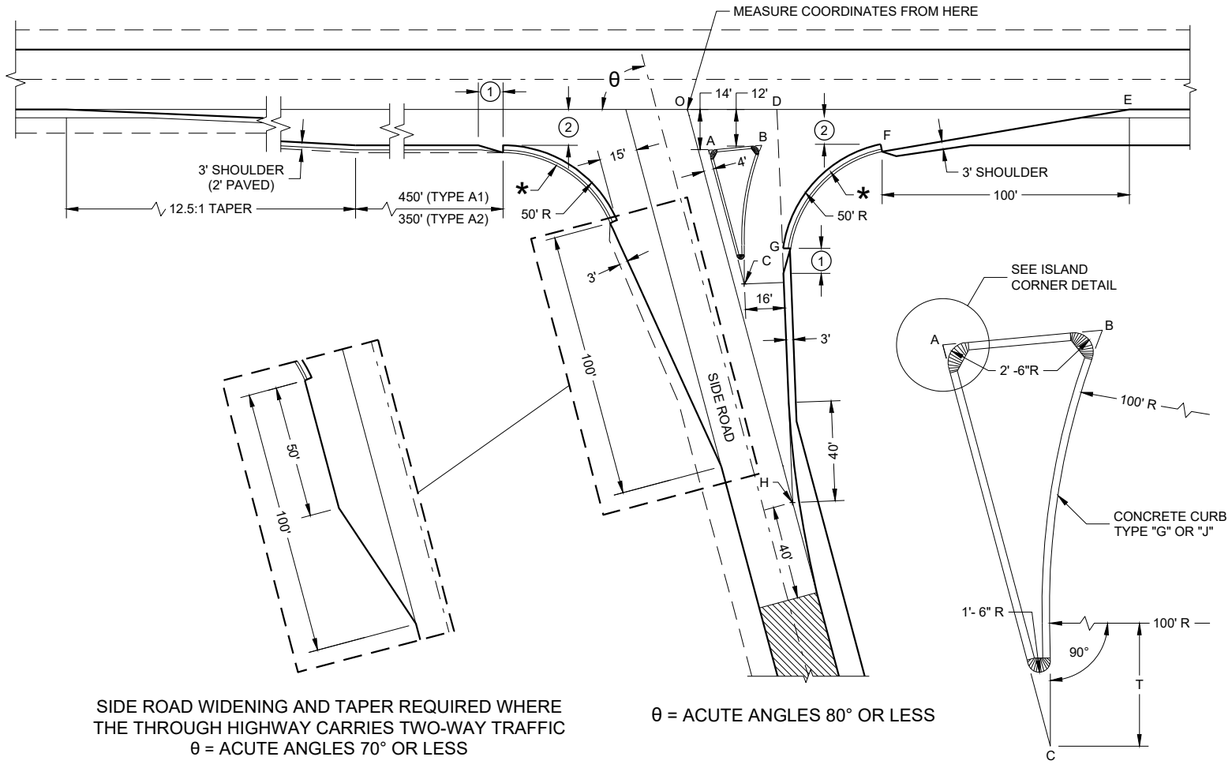
SDD 09A01 - 14a

6

SDD 09A01 - 14a

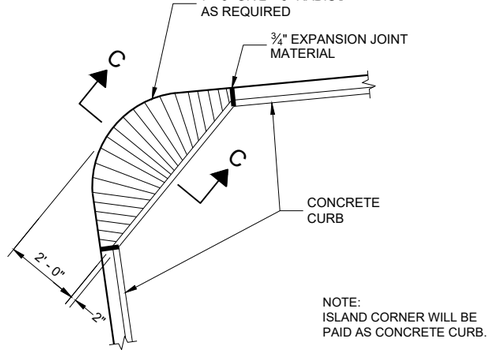


θ = MORE THAN 80°

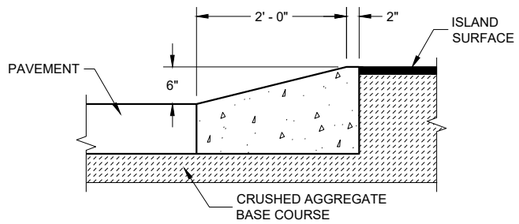


SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
θ = ACUTE ANGLES 70° OR LESS

θ = ACUTE ANGLES 80° OR LESS



PLAN VIEW



SECTION C - C

ISLAND CORNER DETAIL

(TO BE CONSTUCTED AT ALL ISLAND CORNERS)

TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES

(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT 'O') X / Y								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7 / -14.0	44.9 / -12.0	46.4 / -72.4	41.9 / 0.0	205.0 / 0.0	104.6 / -12.0	64.0 / -75.5	85.0 / -147.1	32.3	67.4	4.9	85.9	169.9
65	10.9 / -14.0	39.0 / -12.0	37.8 / -71.6	39.4 / 0.0	196.1 / 0.0	95.7 / -12.0	54.1 / -71.5	70.5 / -151.3	28.2	63.6	8.5	80.9	166.9
70	9.4 / -14.0	33.9 / -12.0	29.8 / -70.1	37.4 / 0.0	188.3 / 0.0	87.8 / -12.0	45.6 / -67.5	56.1 / -154.2	24.6	59.7	11.5	76.1	164.1
75	7.9 / -14.0	29.3 / -12.0	22.3 / -67.9	35.7 / 0.0	181.2 / 0.0	80.7 / -12.0	38.2 / -63.4	41.8 / -155.9	21.5	55.8	13.8	71.4	161.4
80	6.5 / -14.0	25.4 / -12.0	15.6 / -65.2	34.4 / 0.0	174.8 / 0.0	74.4 / -12.0	31.8 / -59.3	27.6 / -156.5	18.9	52.0	15.6	66.9	158.9

TYPE 'A1" AND "A2" SIDE ROAD INTERSECTION DETAILS

AT GRADE SIDE ROAD INTERSECTIONS
TYPES "A1" AND "A2"

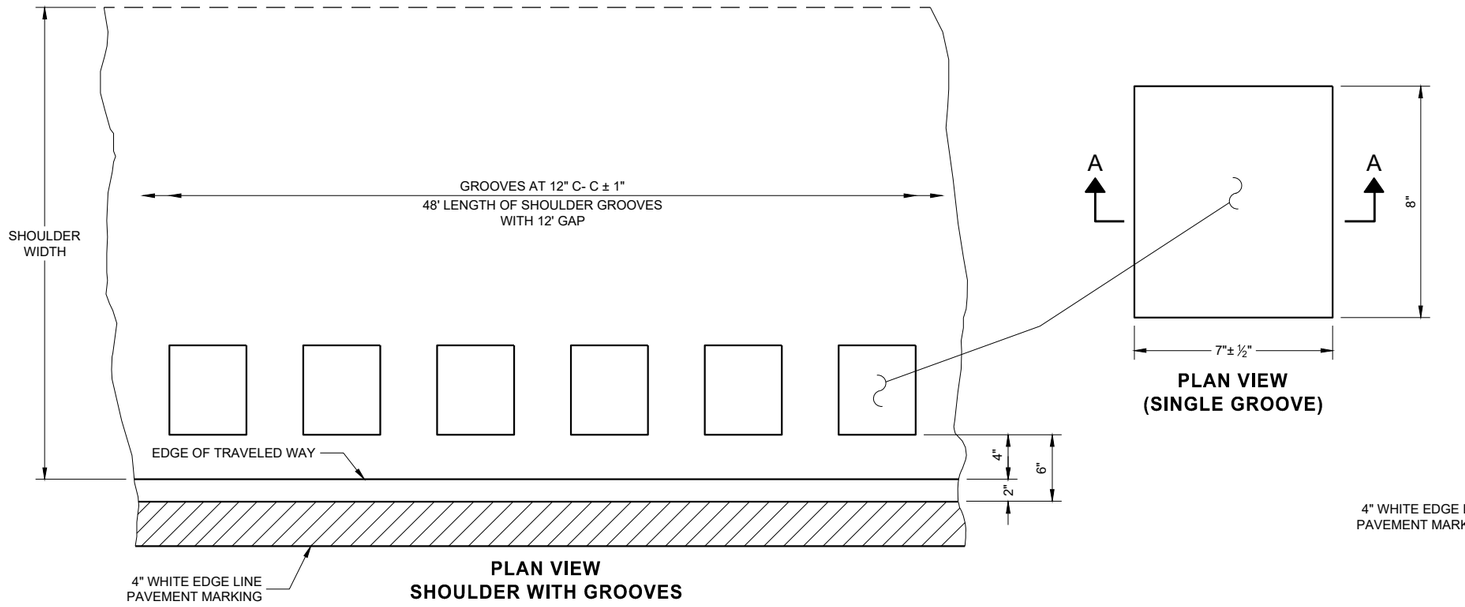
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 — DATE
/S/ John Jenkins — ROADWAY STANDARDS DEVE ENGINEER
FHWA

SDD 09A01 - 14b

6

SDD 09A01 - 14b



PLAN VIEW
SHOULDER WITH GROOVES

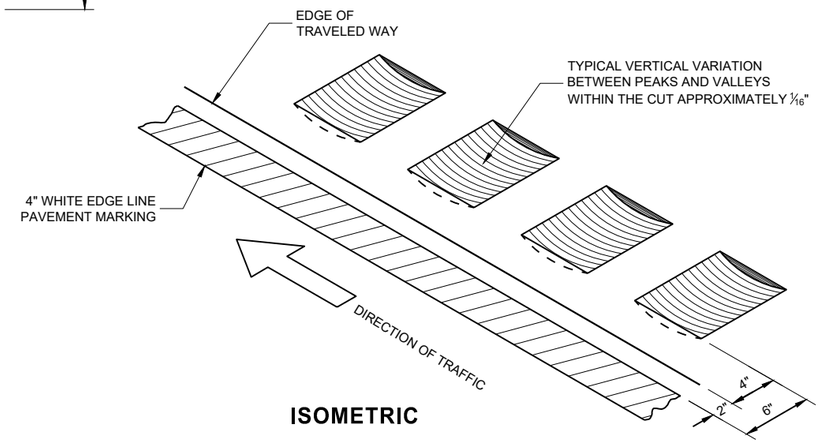
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

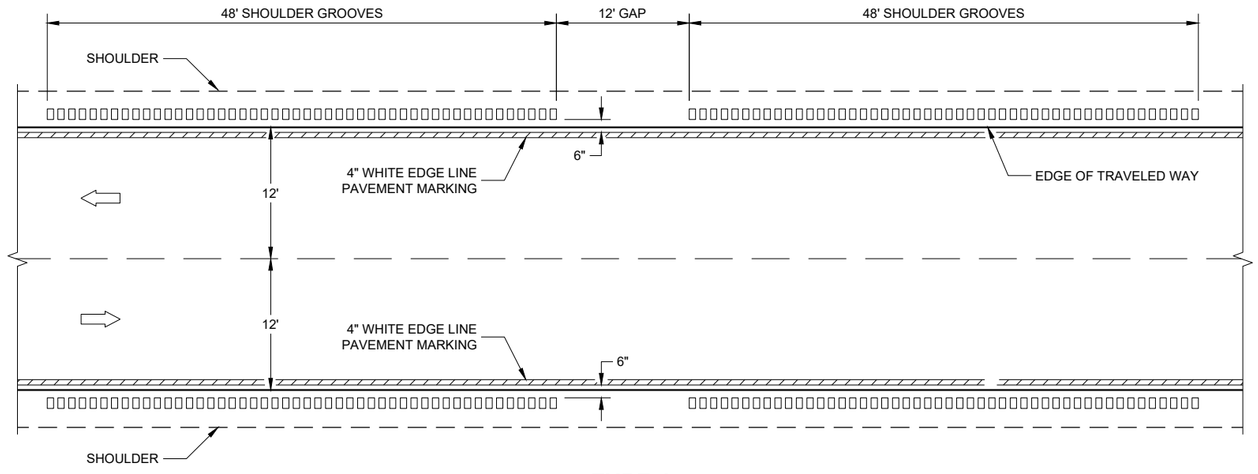
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

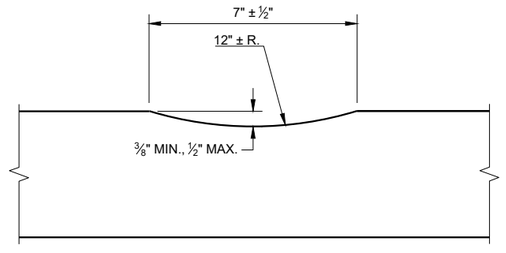


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



TYPE 1
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 13A10 - 02a

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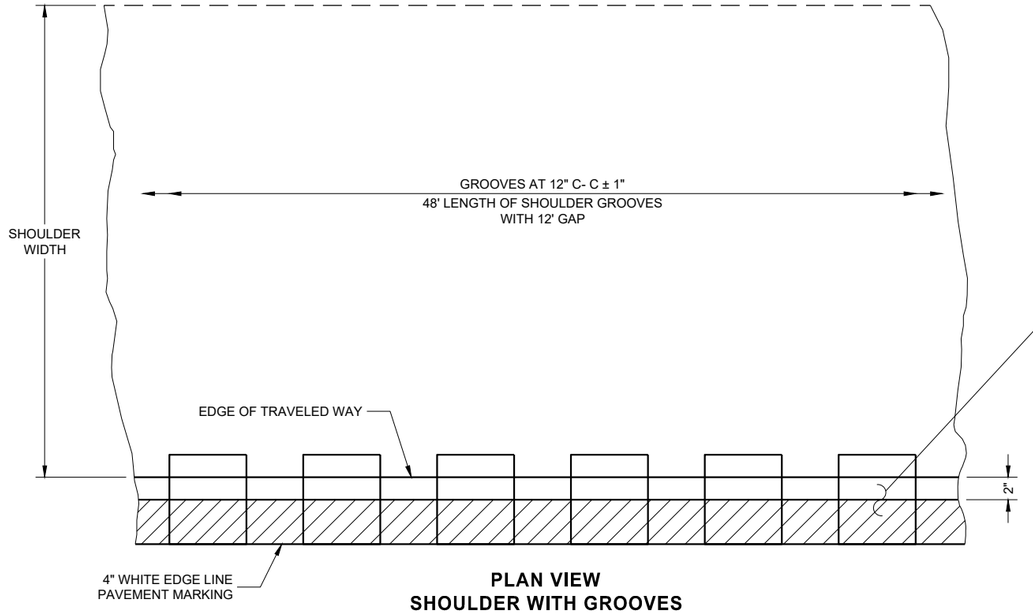
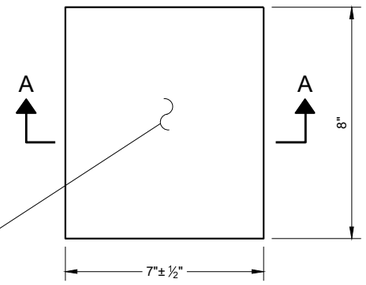
SDD 13A10 - 02a



PLAN VIEW
SHOULDER WITH GROOVES



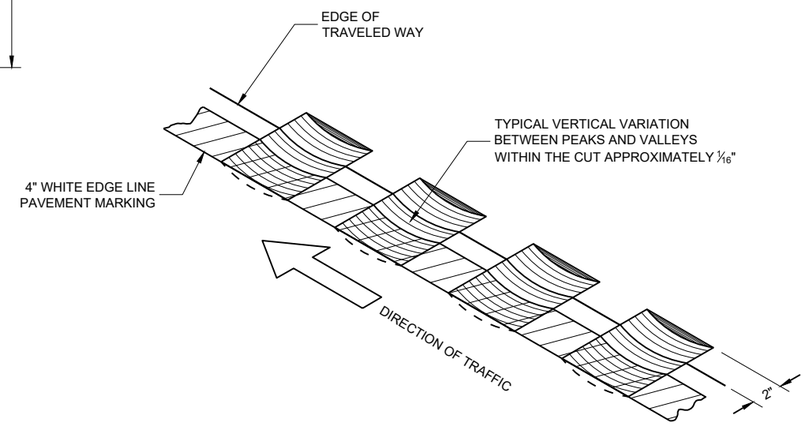
PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

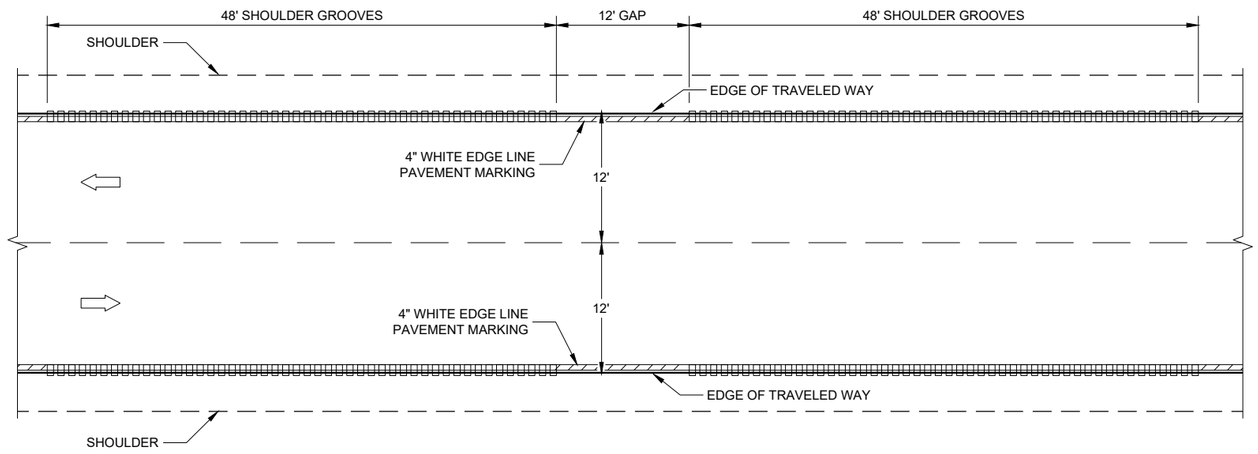
DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

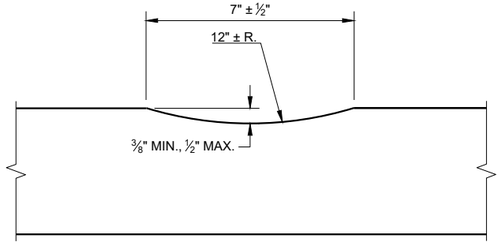


ISOMETRIC

PLACEMENT DETAIL FOR TYPE 2 MILLED RUMBLE STRIP



TYPE 2
2 - LANE SHOULDER RUMBLE STRIP



SECTION A - A

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

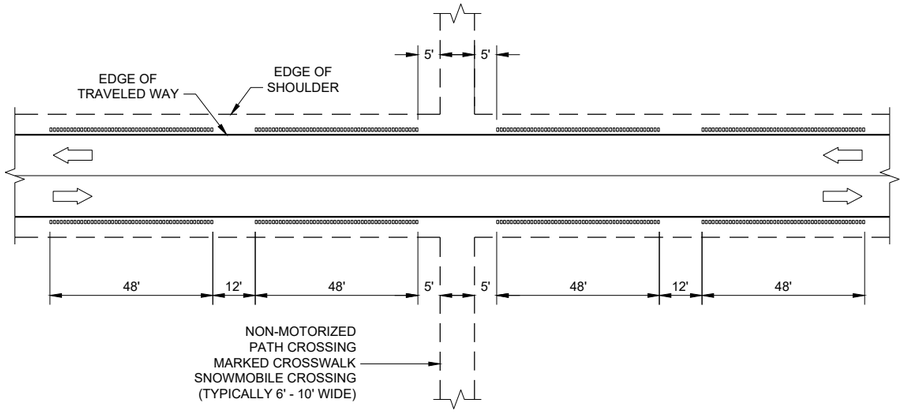
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

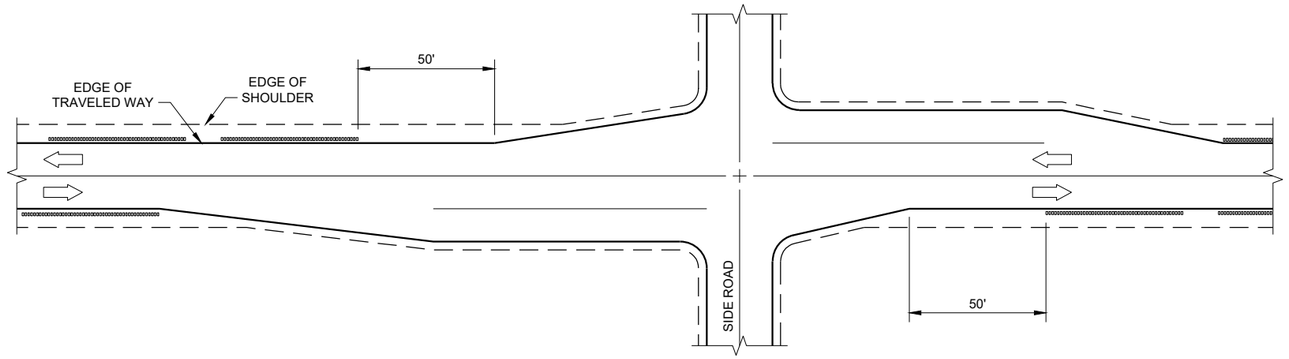
6

SDD 13A10 - 02b

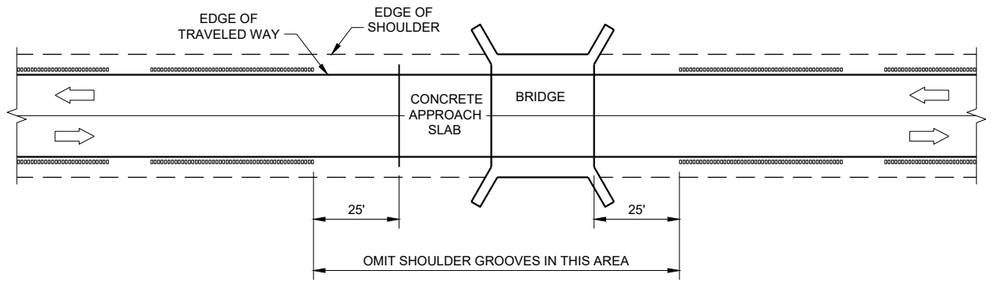
SDD 13A10 - 02b



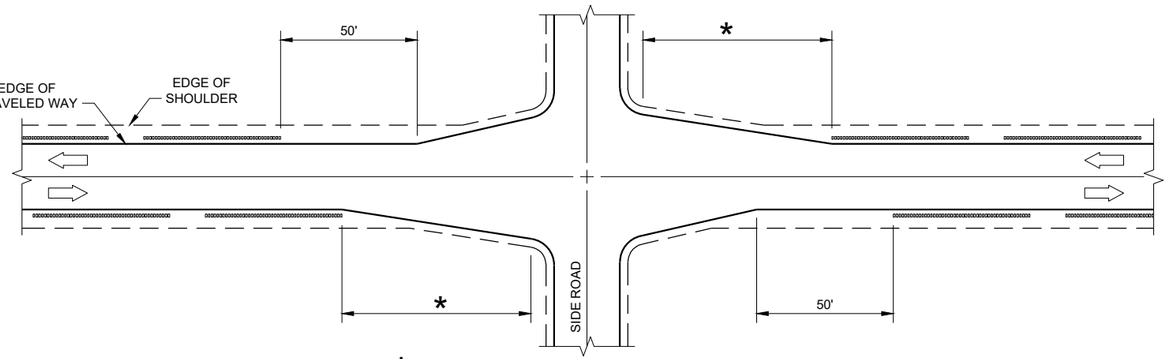
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



SHOULDER GROOVES AT RIGHT TURN LANE

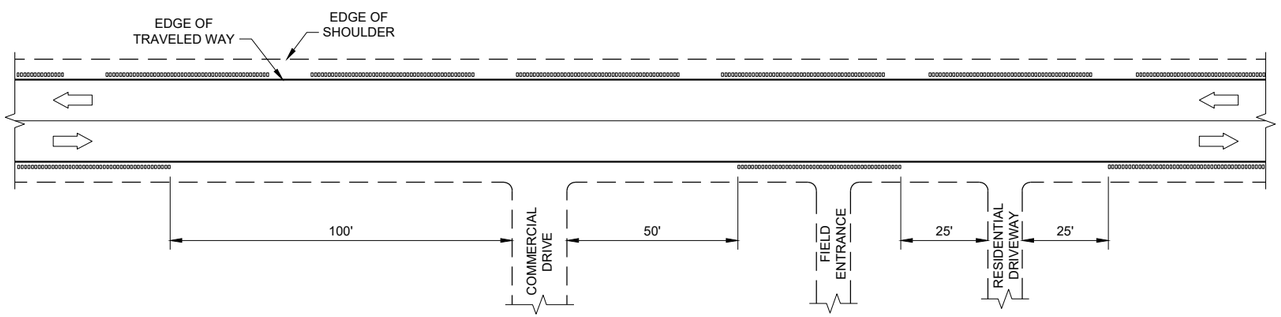


SHOULDER GROOVES AT BRIDGES



* GREATER OF 100' OR APPROACH TAPER LENGTH

SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



SHOULDER GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

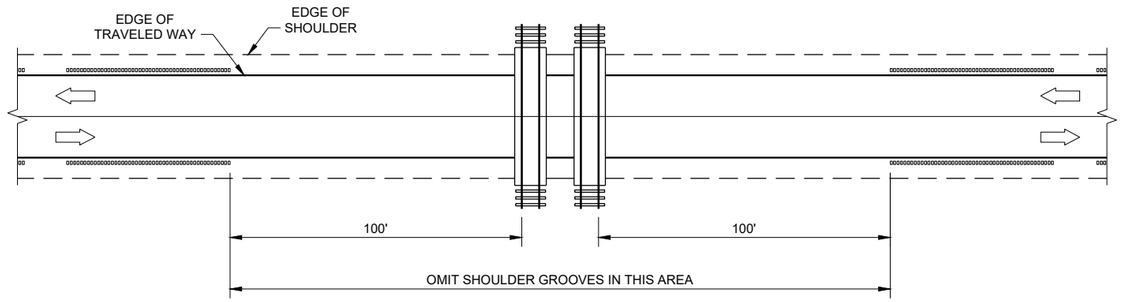
(1) SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

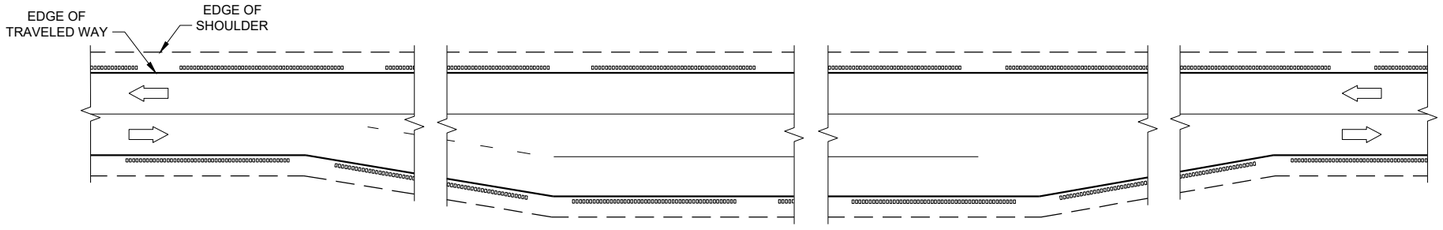
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

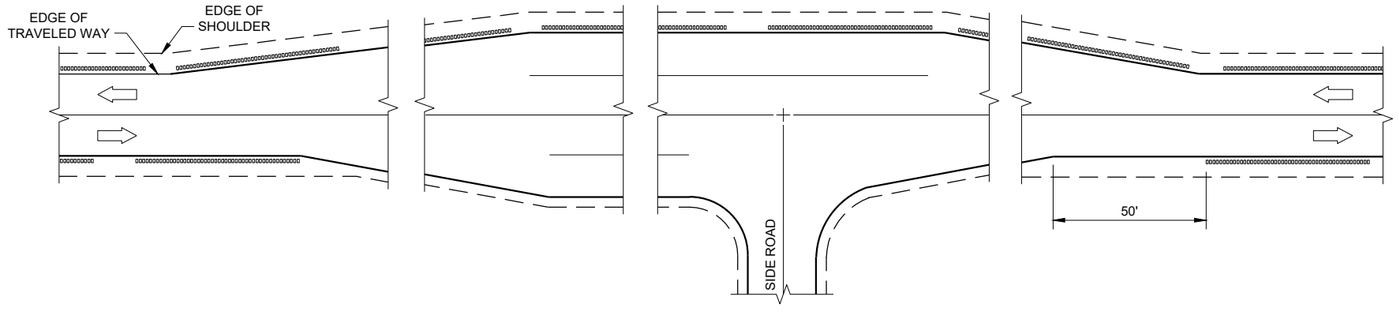
SDD 13A10 - 02c



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



SHOULDER GROOVES AT BYPASS LANES

6

6

SDD 13A10 - 02d

SDD13A10 - 02d

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

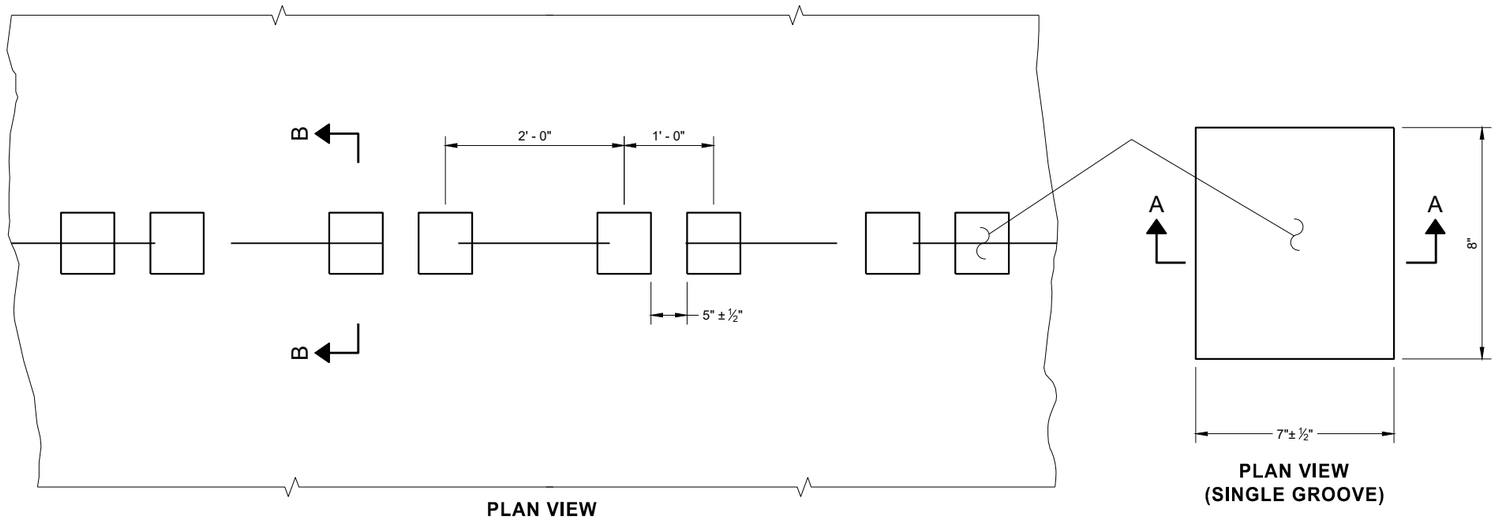
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

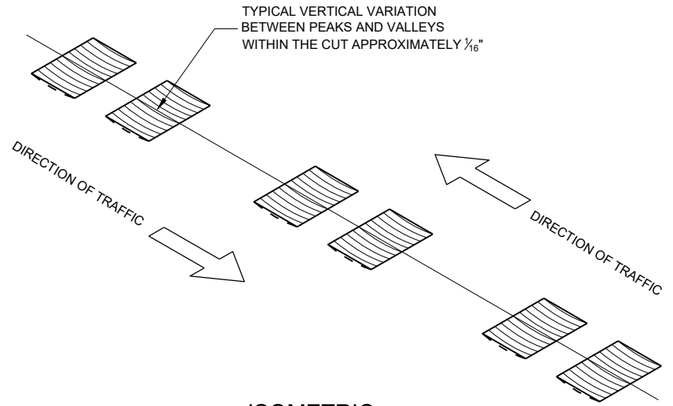
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

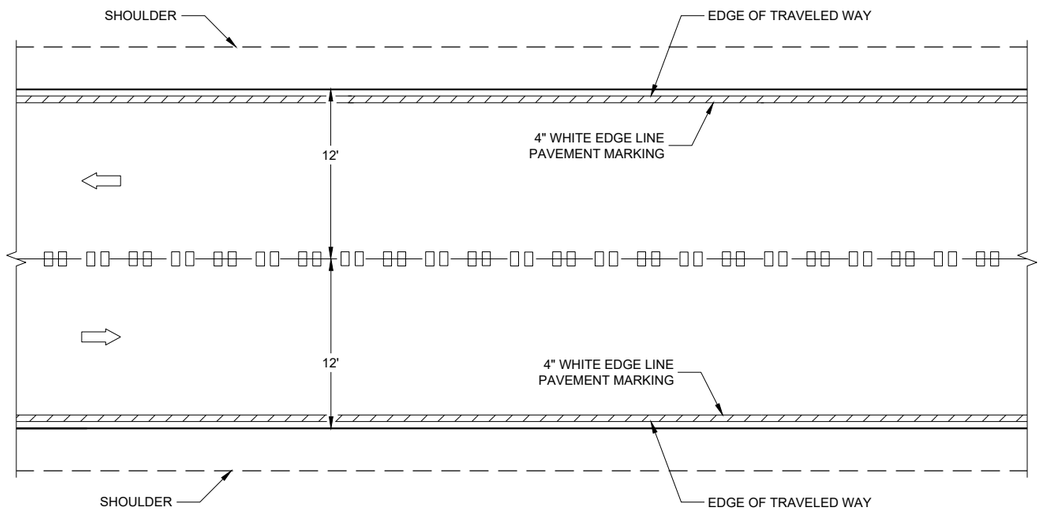
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

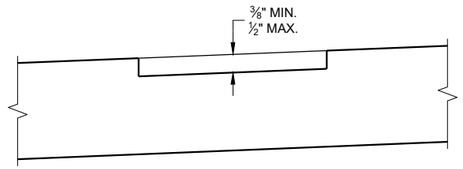
(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



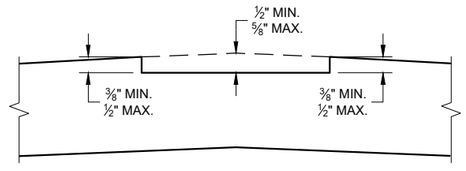
ISOMETRIC



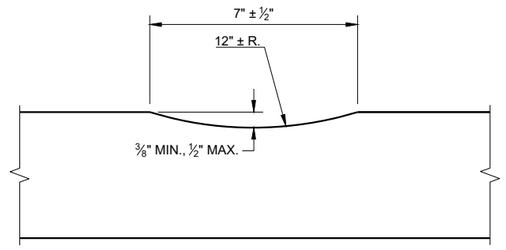
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



SECTION B - B
CROWNED ROADWAY



SECTION A - A

2-LANE RURAL
CENTER LINE RUMBLE STRIP, MILLING

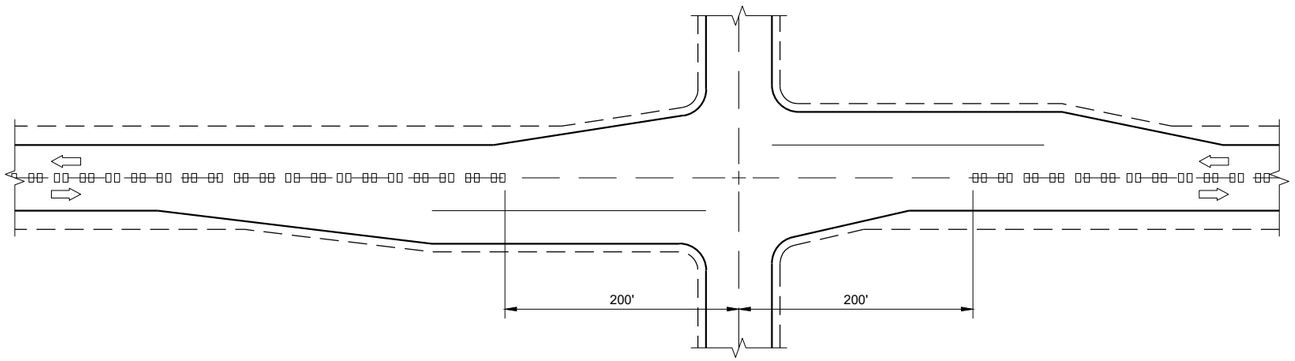
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

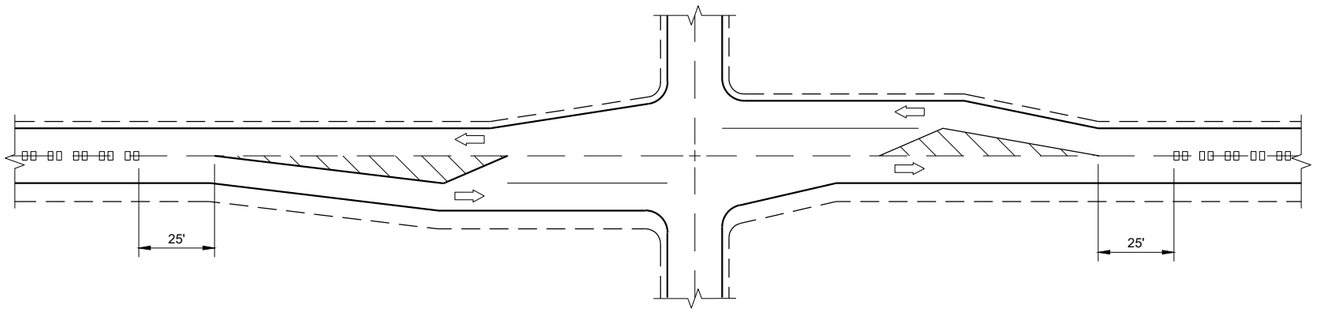
SDD 13A11 - 03a

6

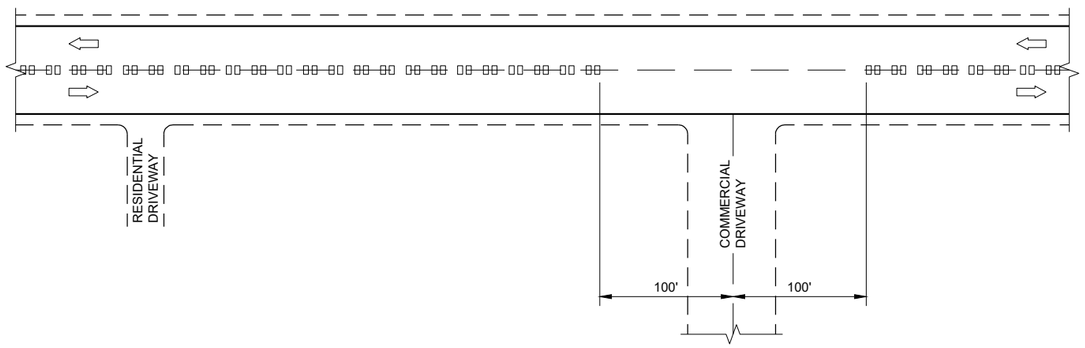
SDD 13A11 - 03a



CENTERLINE GROOVES AT INTERSECTIONS



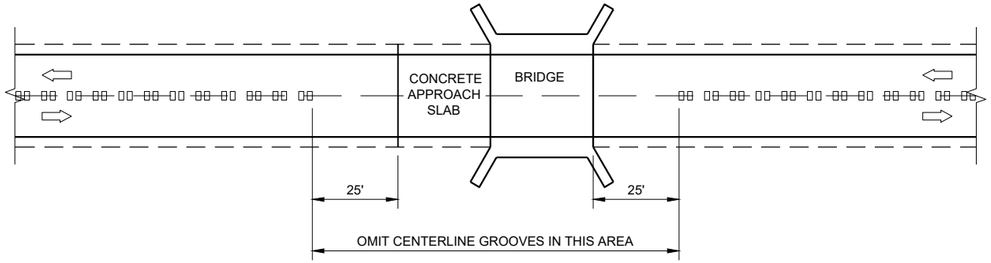
CENTERLINE GROOVES AT INTERSECTIONS (WITH LEFT TURN LANES)



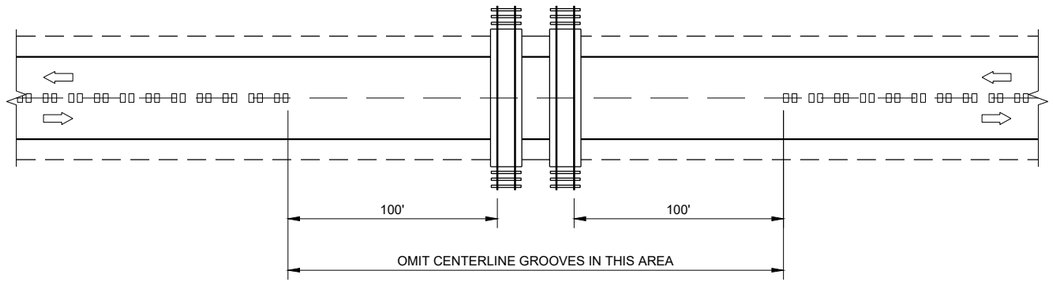
CENTERLINE GROOVES AT DRIVEWAYS (1)

GENERAL NOTES

(1) CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 13A11 - 03b

(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.

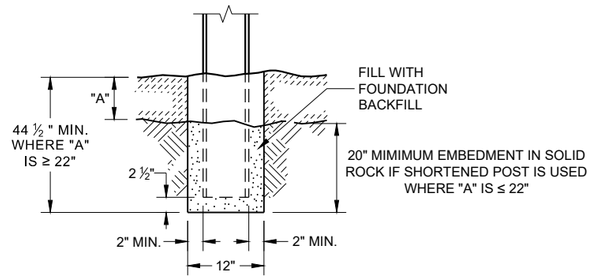
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

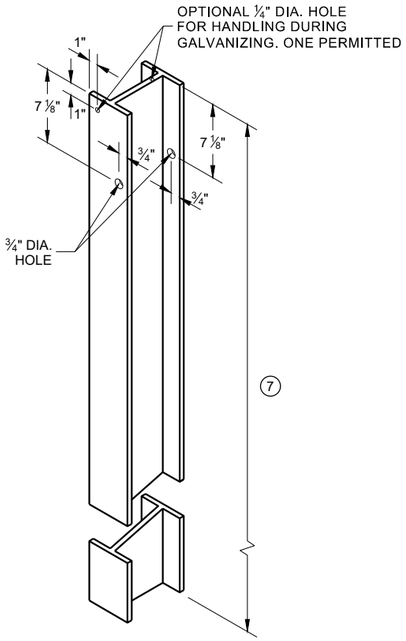
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

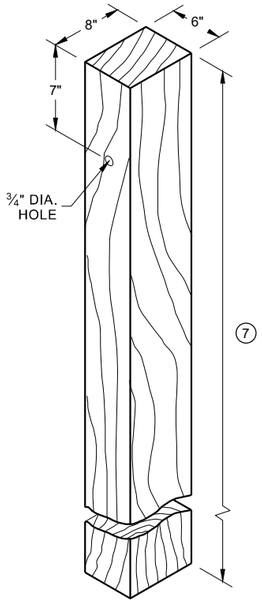
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



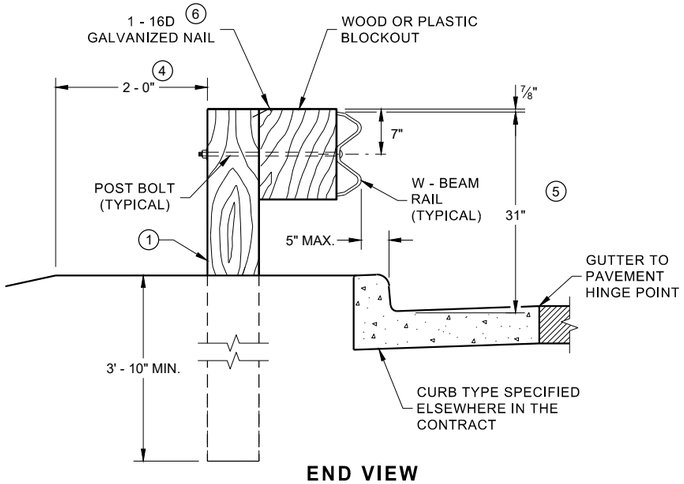
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



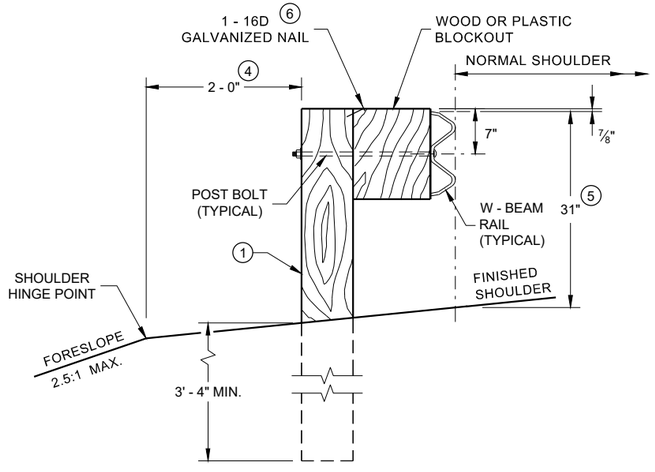
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



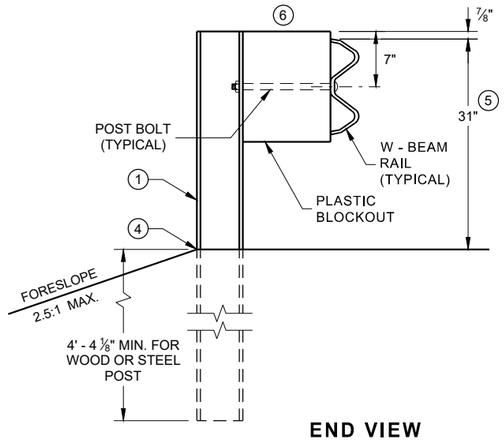
WOOD POST (6" X 8") NOMINAL (1)



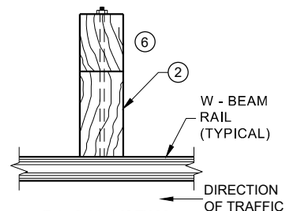
END VIEW
LOCATED ALONG A CURBED ROADWAY



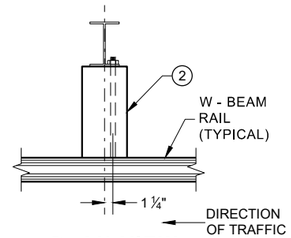
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



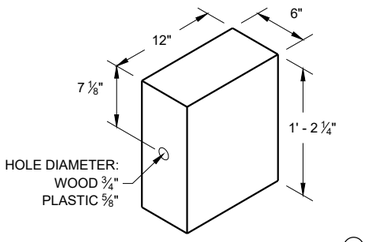
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



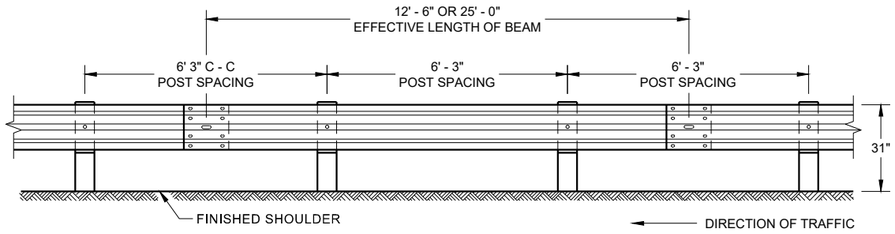
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

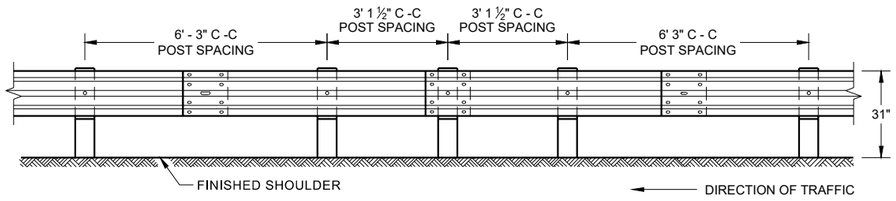
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

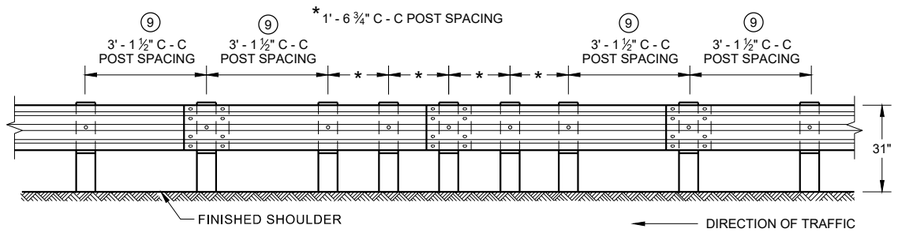
SDD 14B42 - 07a



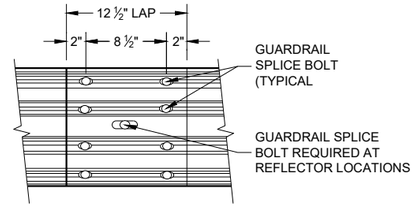
FRONT VIEW
POST SPACING STANDARD INSTALLATION



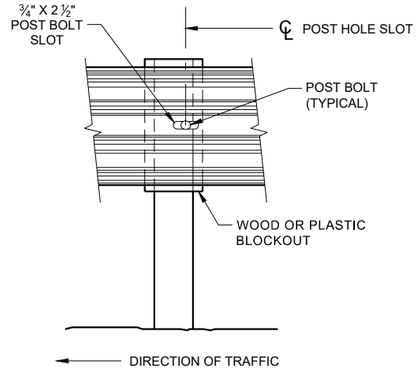
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



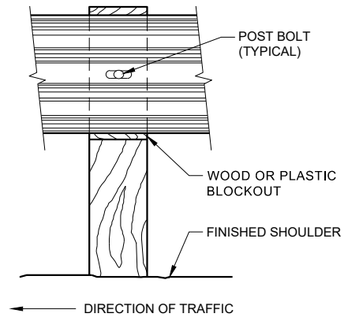
FRONT VIEW
QUARTER POST SPACING (QS)



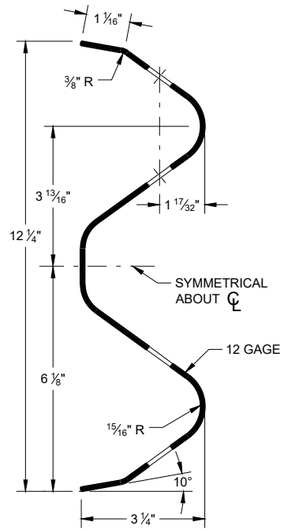
FRONT VIEW
MID-SPAN BEAM SPLICE



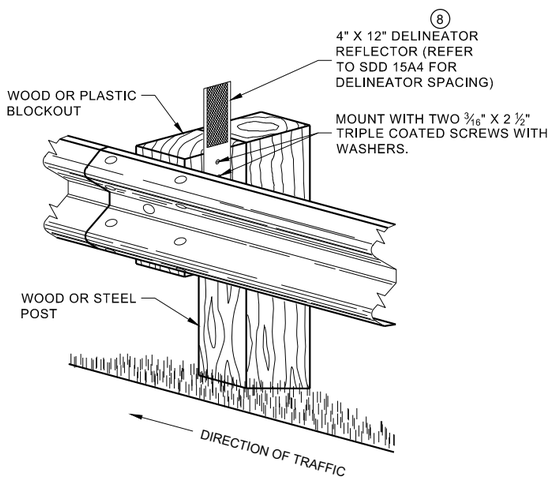
FRONT VIEW AT STEEL POST



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.

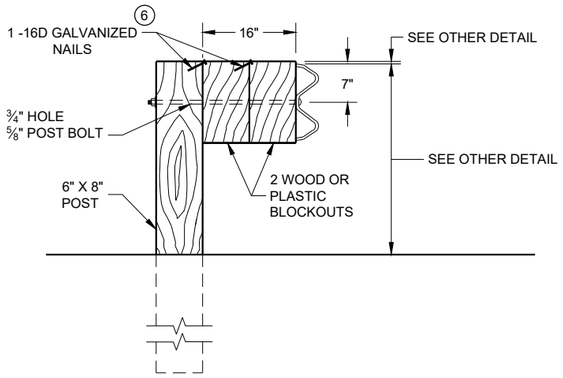
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

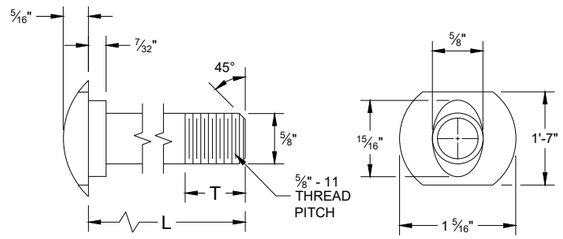


DETAIL FOR 16" BLOCKOUT DEPTH

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.

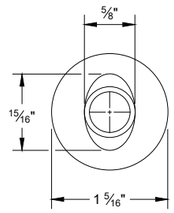
NOTE:

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.

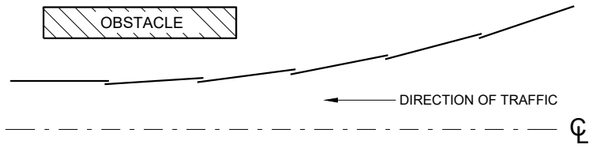


POST BOLT TABLE

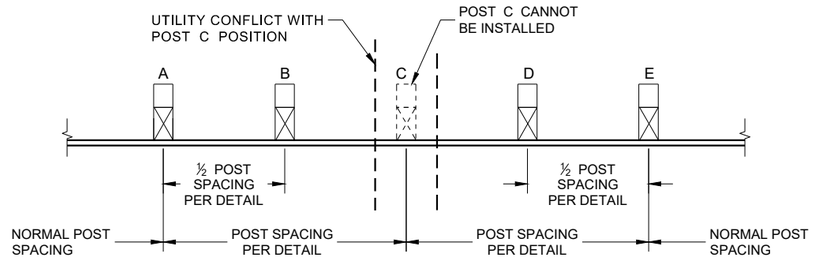
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



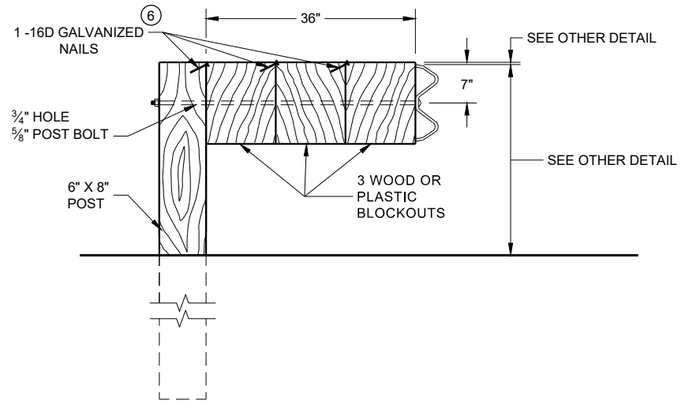
ALTERNATE BOLT HEAD



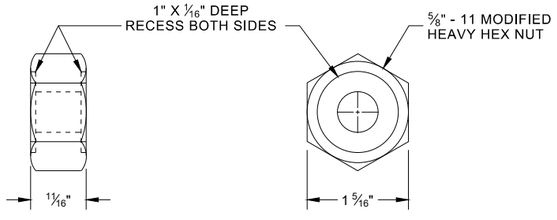
PLAN VIEW
BEAM LAPPING DETAIL



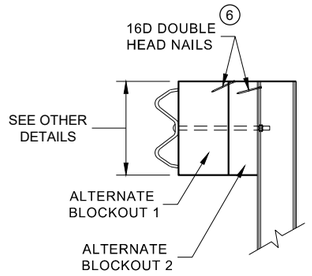
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



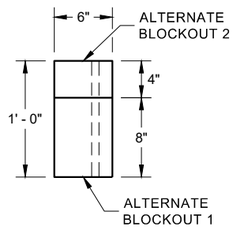
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

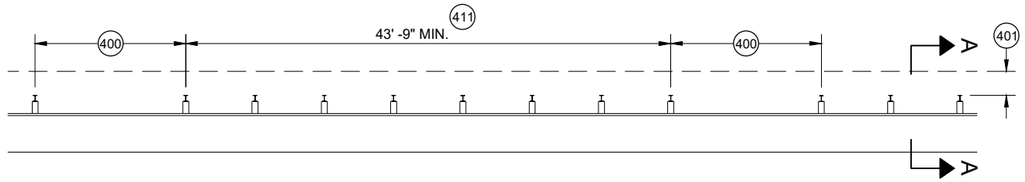
ALTERNATE WOOD BLOCKOUT DETAIL

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.

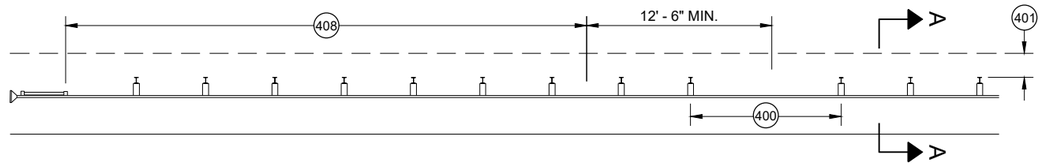
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

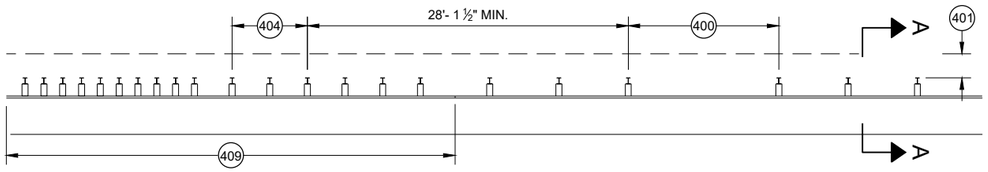
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



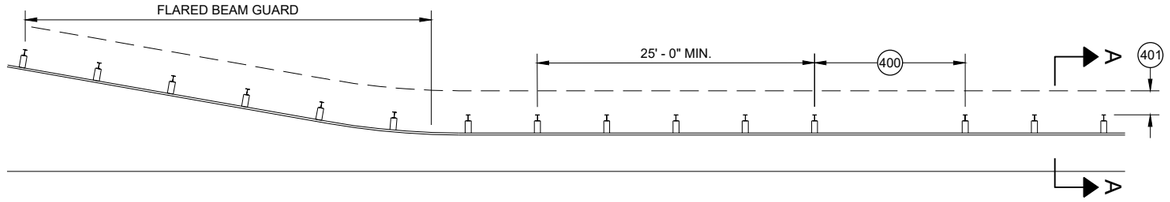
MISSING POST IN MGS GUARDRAIL



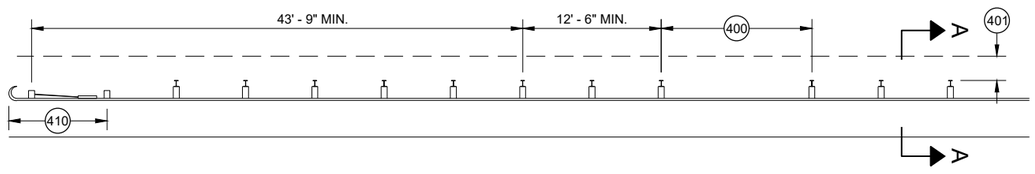
MISSING POST IN MGS GUARDRAIL NEAR EAT



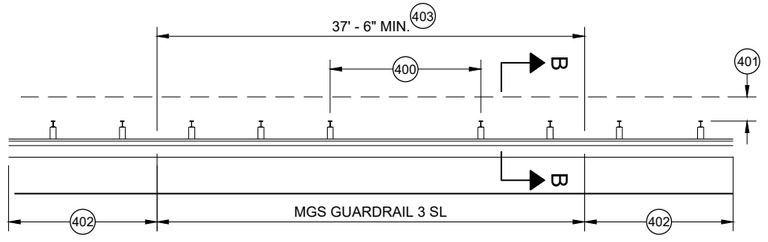
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

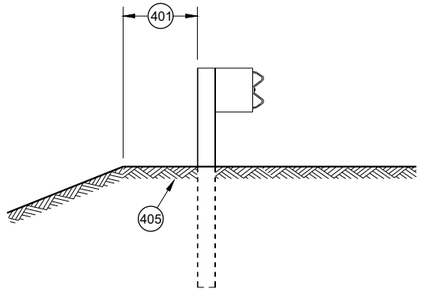


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

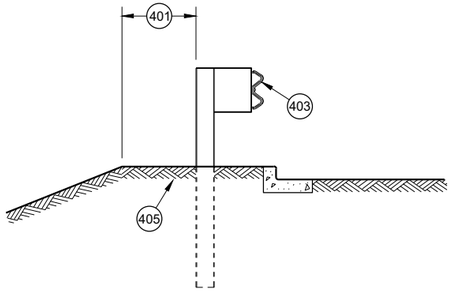


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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.

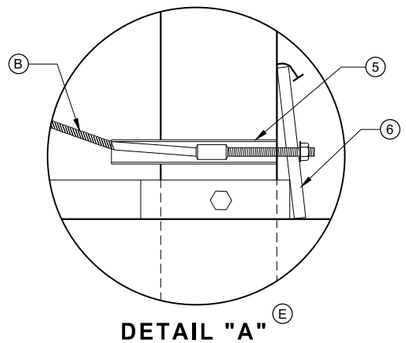
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

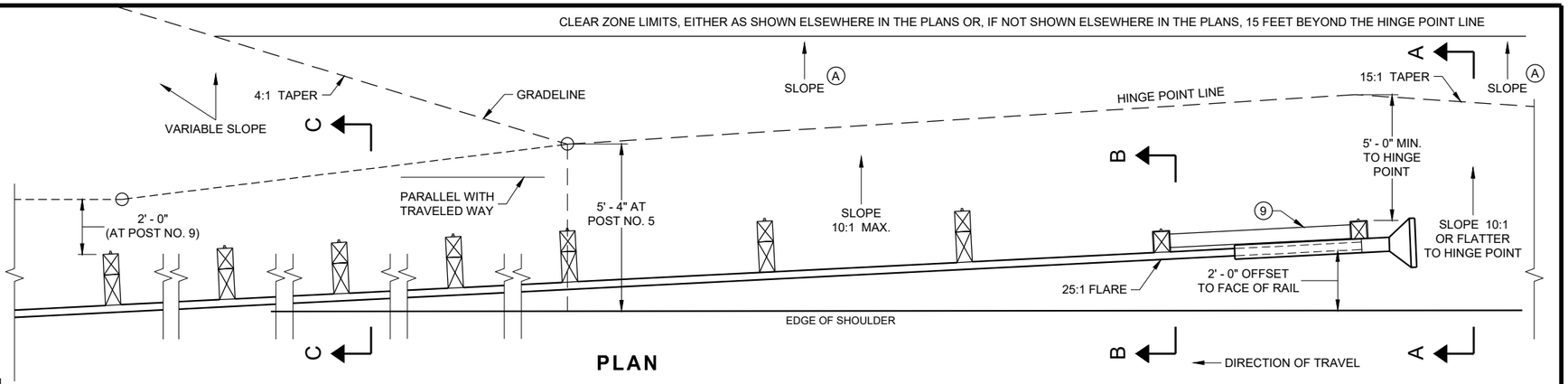
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

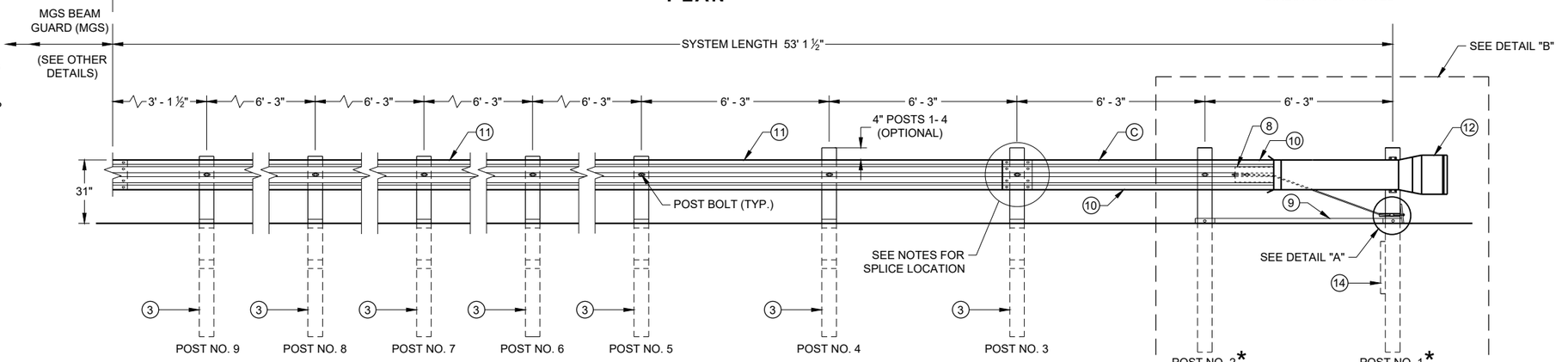
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



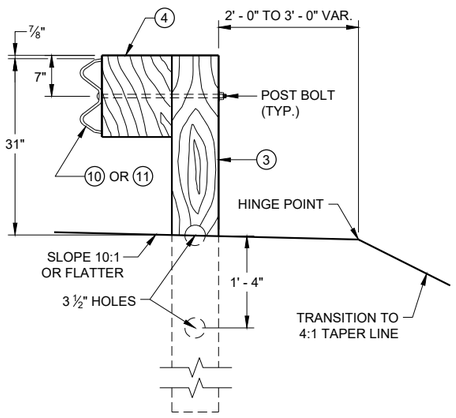
DETAIL "A" (E)



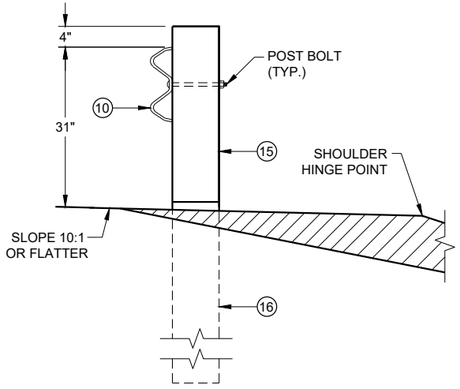
PLAN



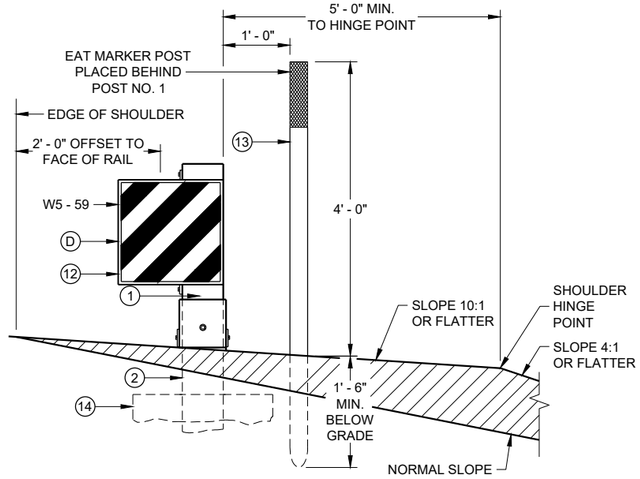
ELEVATION



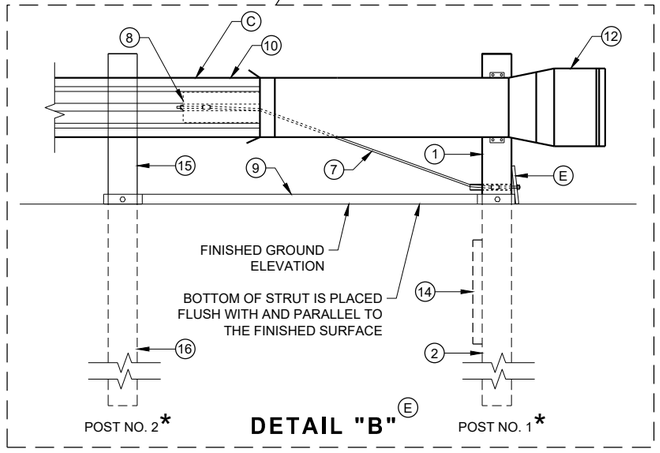
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



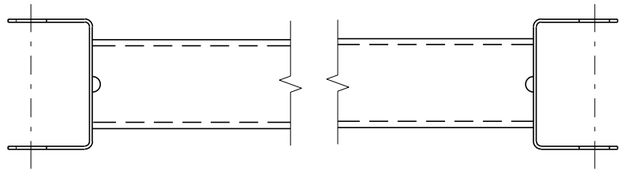
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

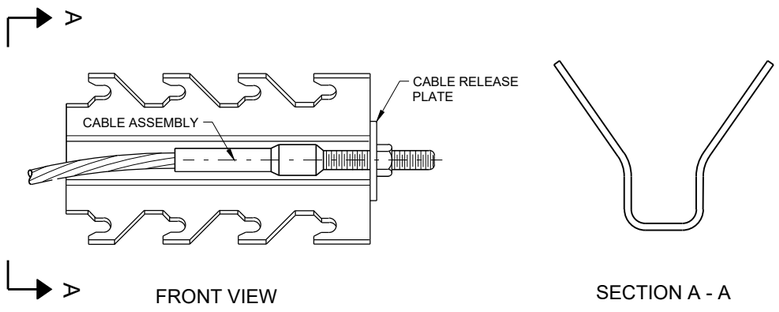
SDD 14B44 - 04a



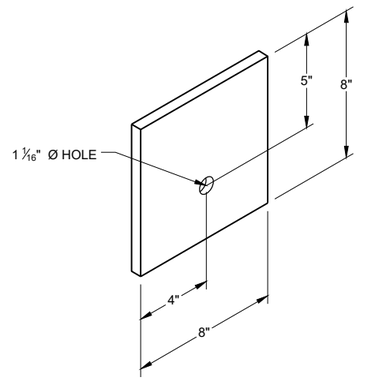
GENERIC GROUND STRUT ⑨ Ⓔ

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 ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

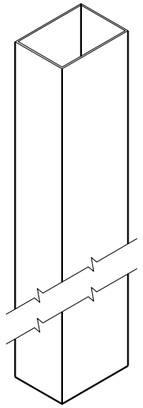
6

SDD 14B44 - 04b

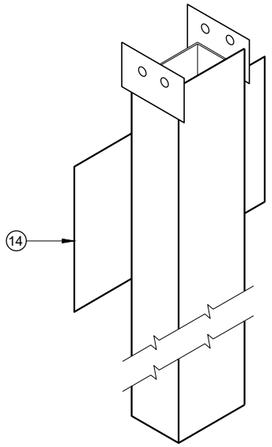
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

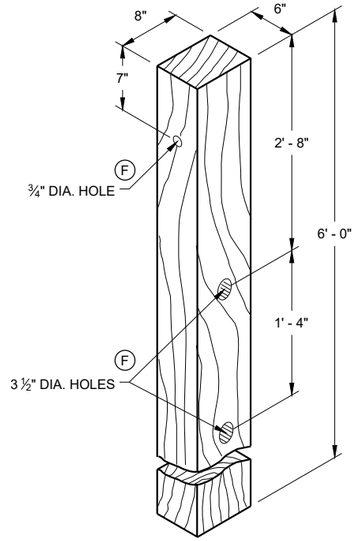
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



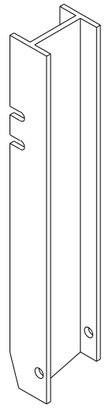
UPPER POST NO. 1 (1) (E)



LOWER POST NO. 1 (2) (E)



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



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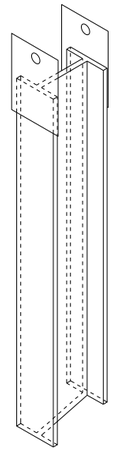
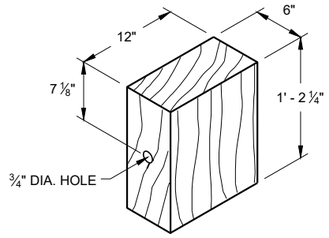
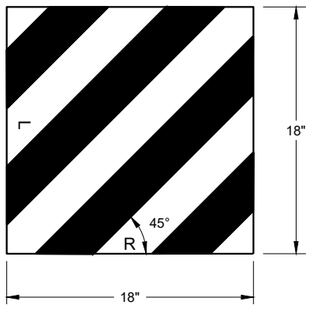


LOWER POST NO. 2 (16) (E)

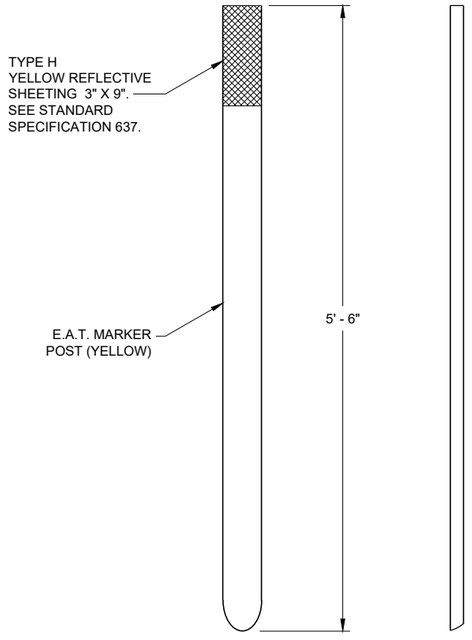


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



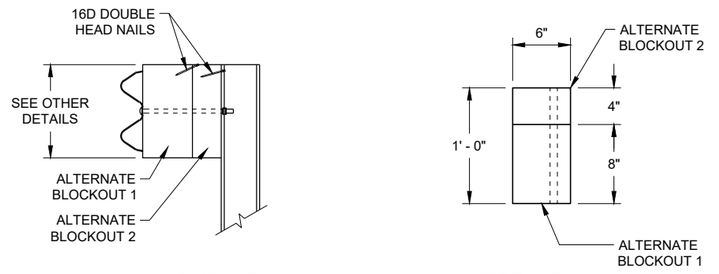
W5 - 59

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)

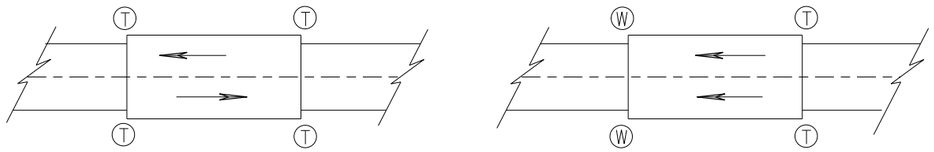
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

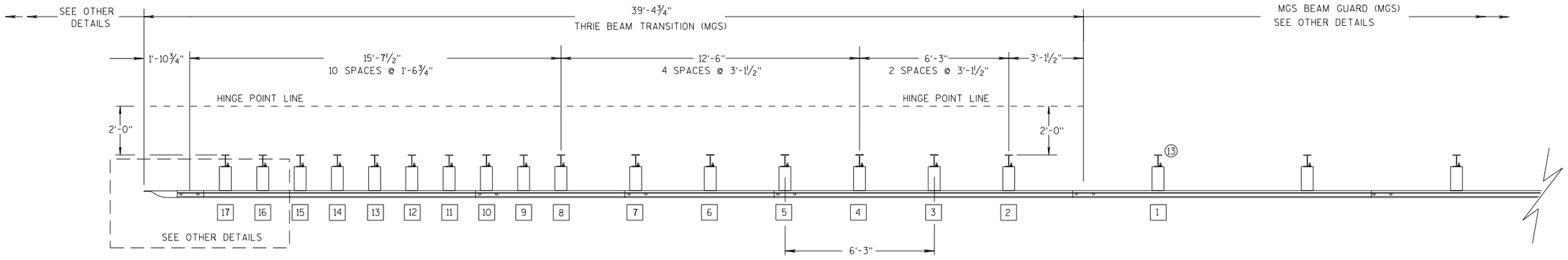
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

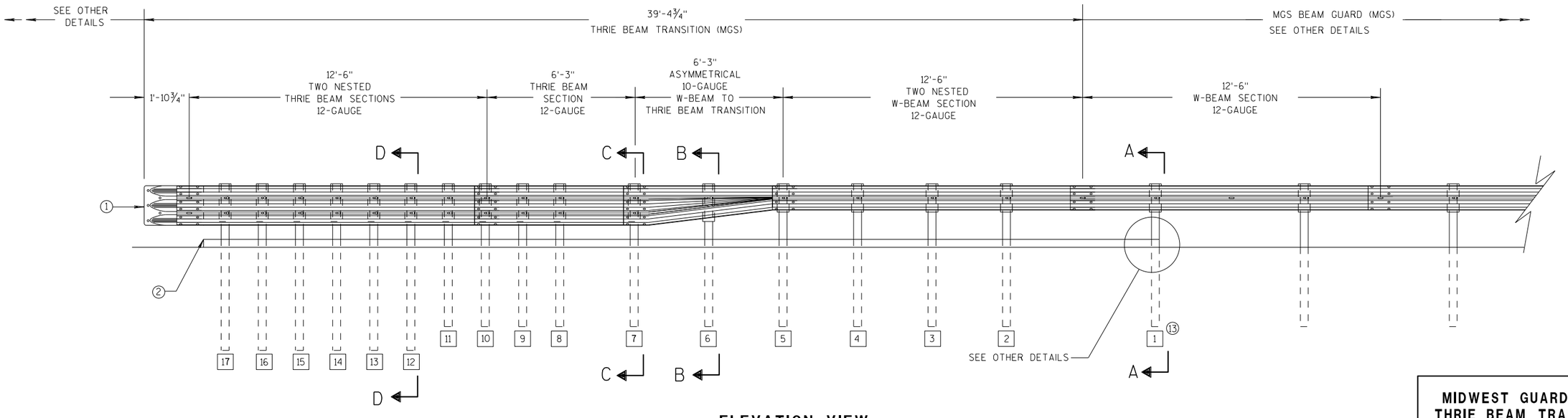
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5a

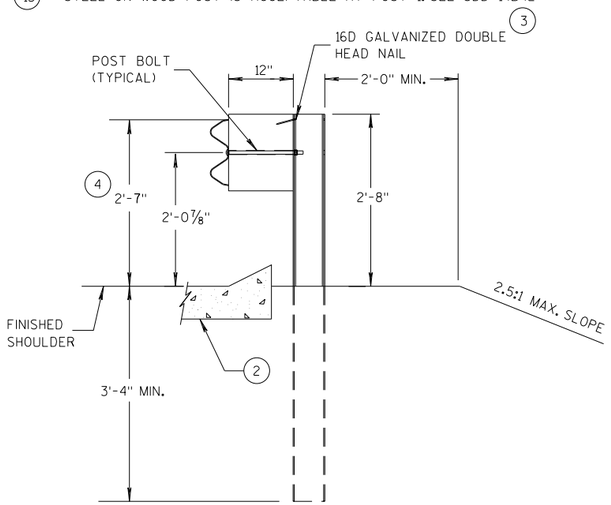
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

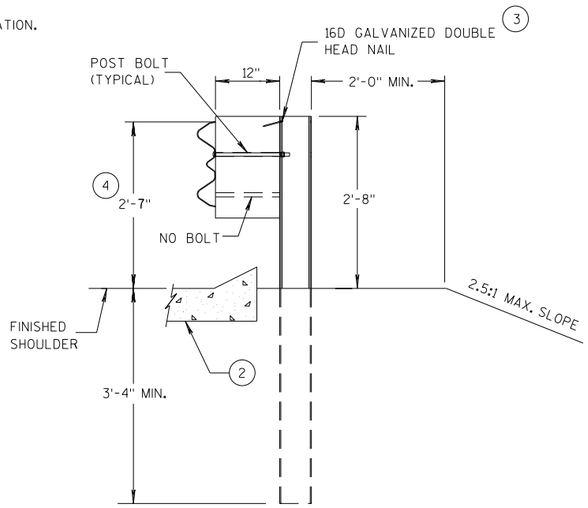
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



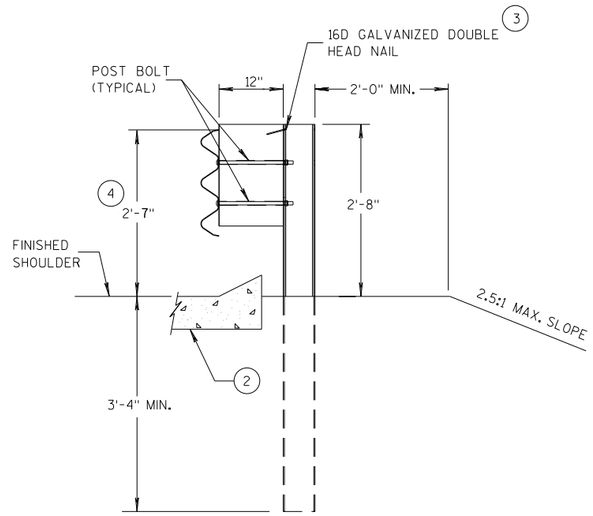
SECTION A-A (13)

POSTS 1-5



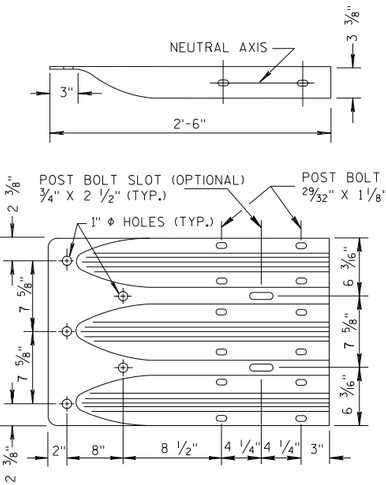
SECTION B-B

POST 6

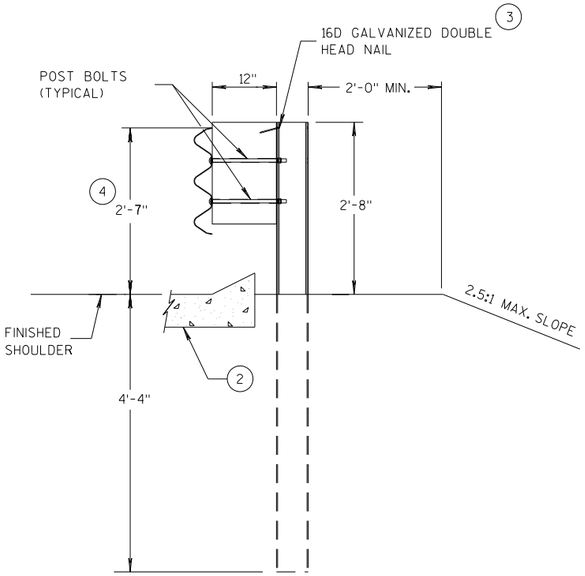


SECTION C-C

POSTS 7-11

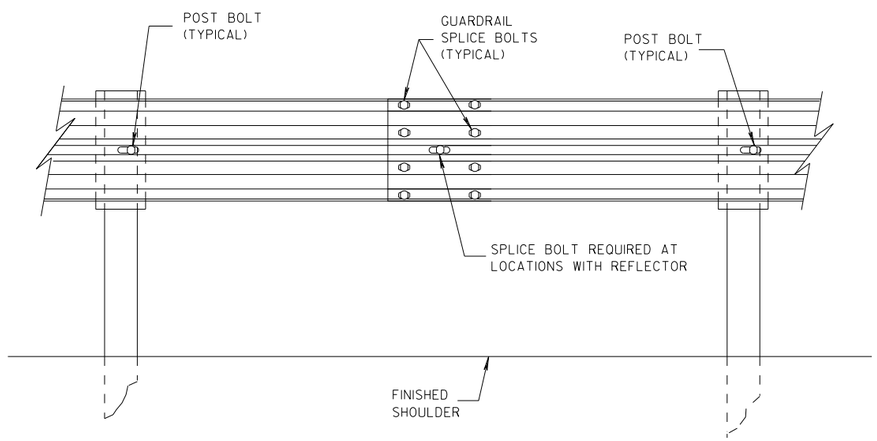


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

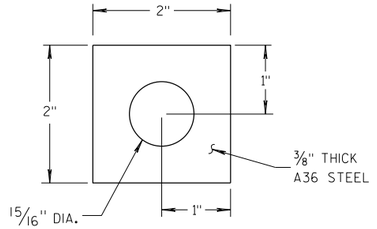
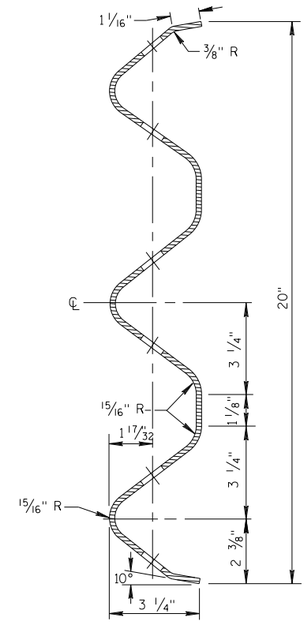


PLATE WASHER DETAIL



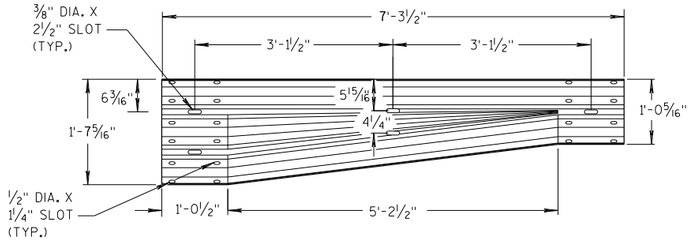
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

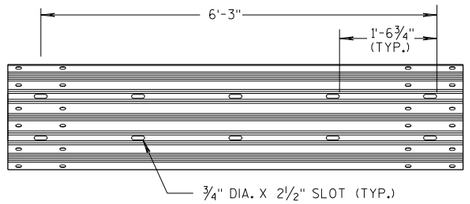
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

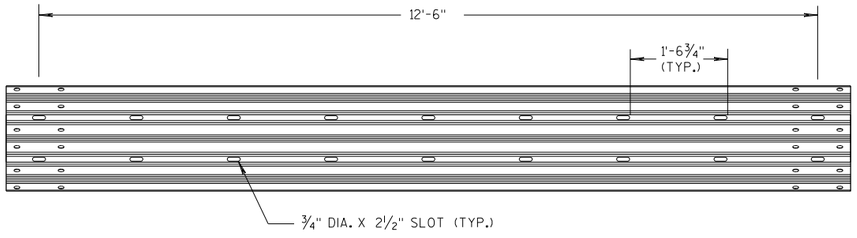
S.D.D. 14 B 45-5b



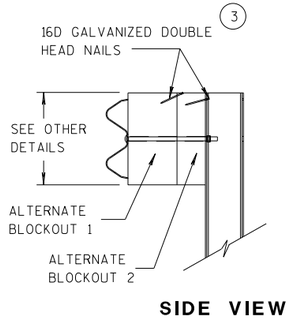
W-BEAM TO THRIE BEAM TRANSITION SECTION



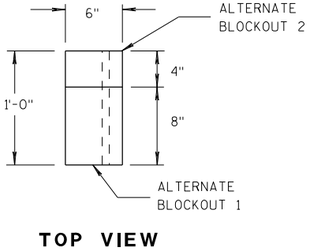
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

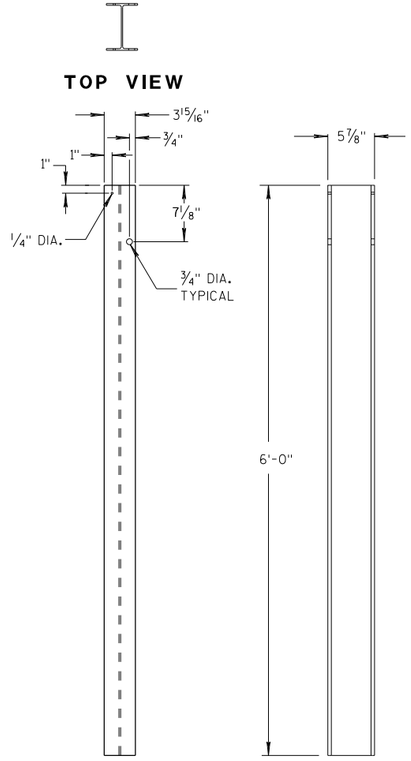


SIDE VIEW



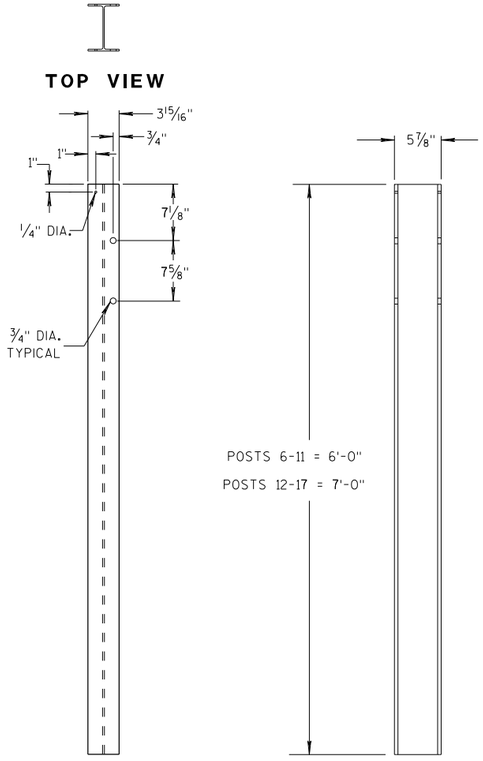
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



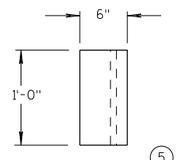
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

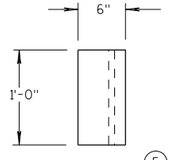


FRONT VIEW SIDE VIEW

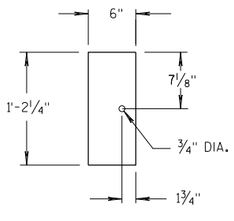
STEEL POSTS 6-17



TOP VIEW (5)

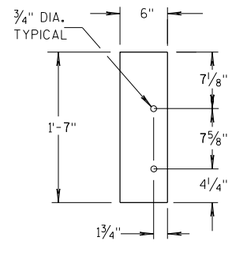


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS 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.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

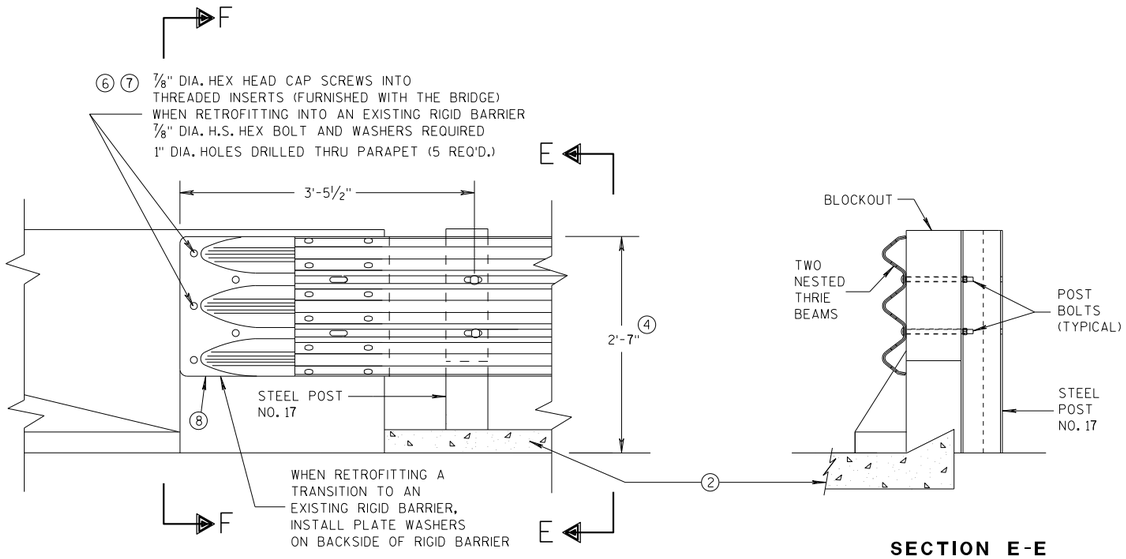
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

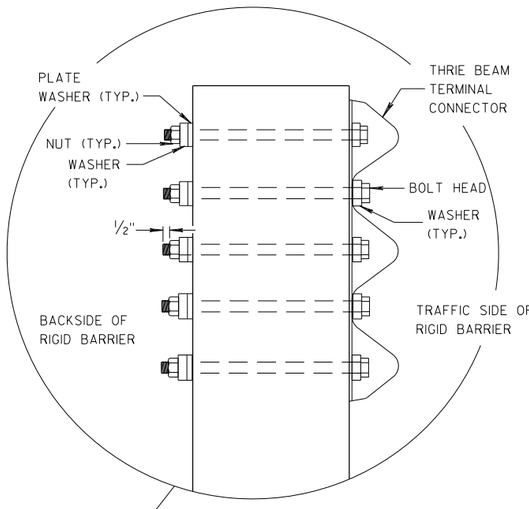
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

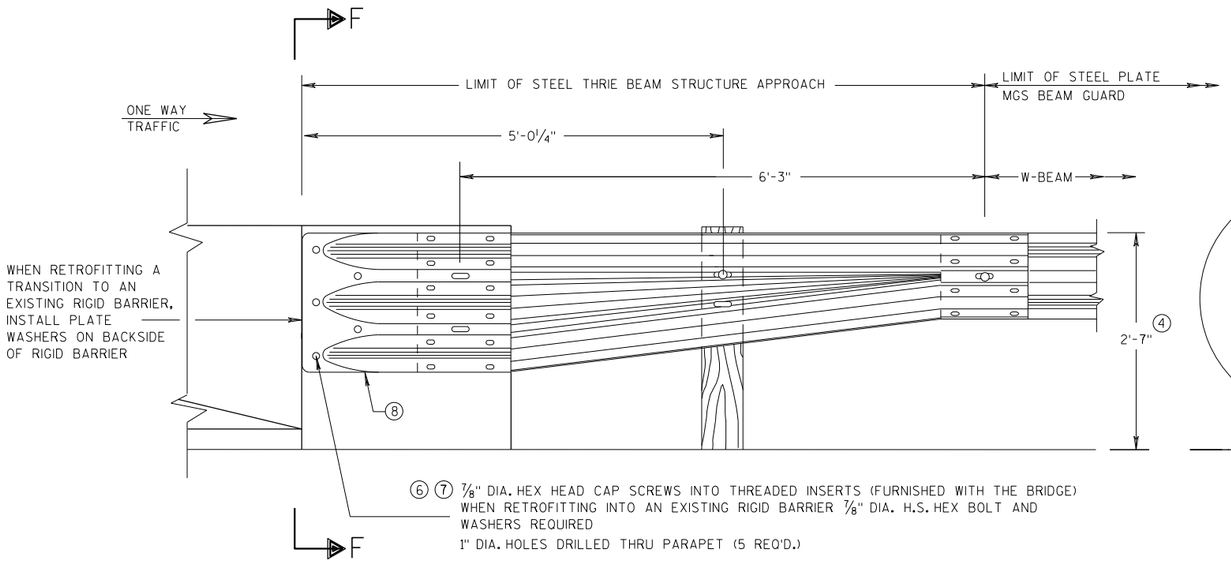
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

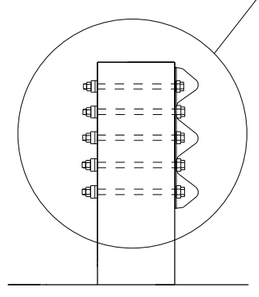
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

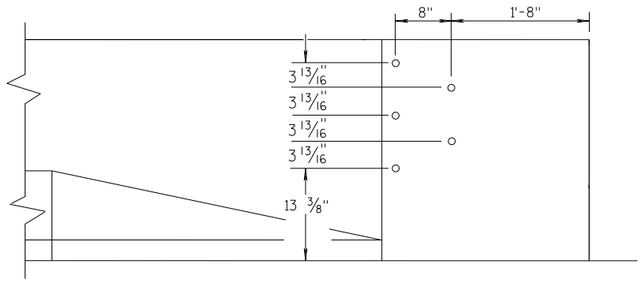




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVI
NT
FHWA

6

S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

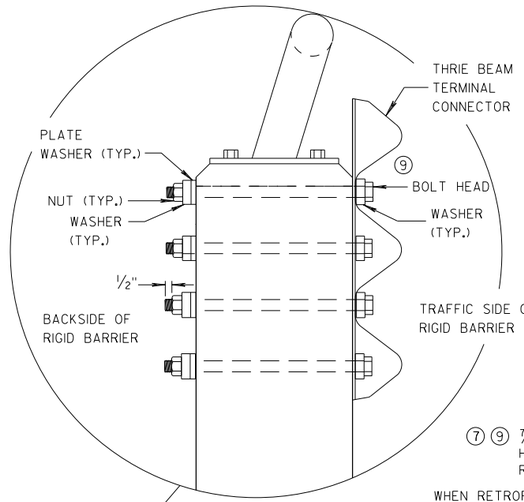
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

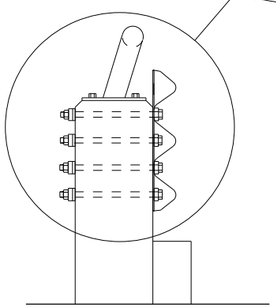
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

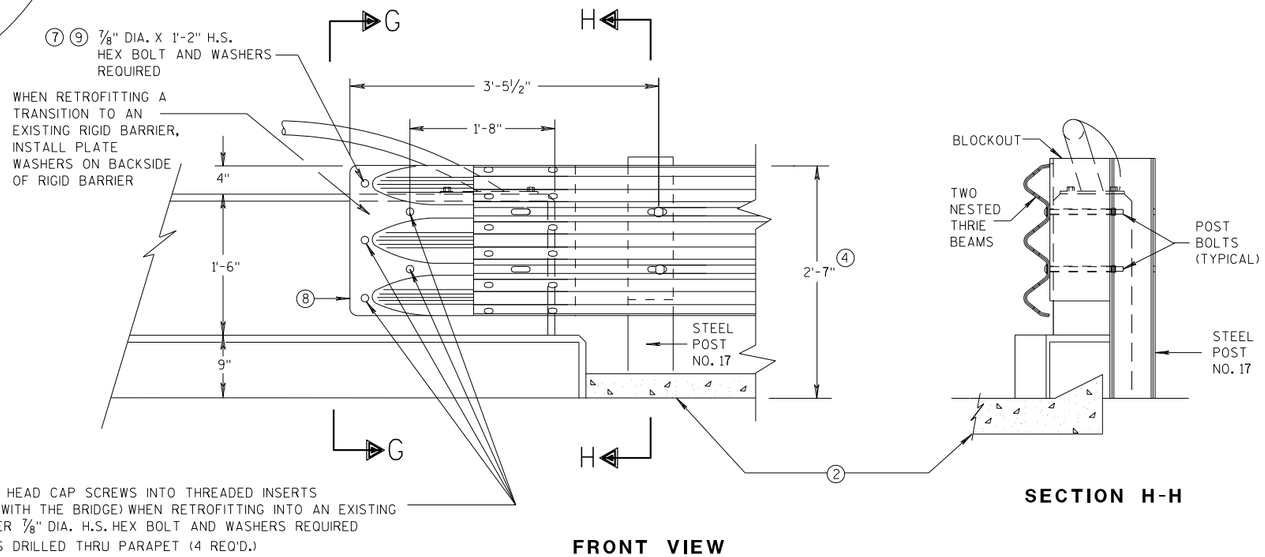
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





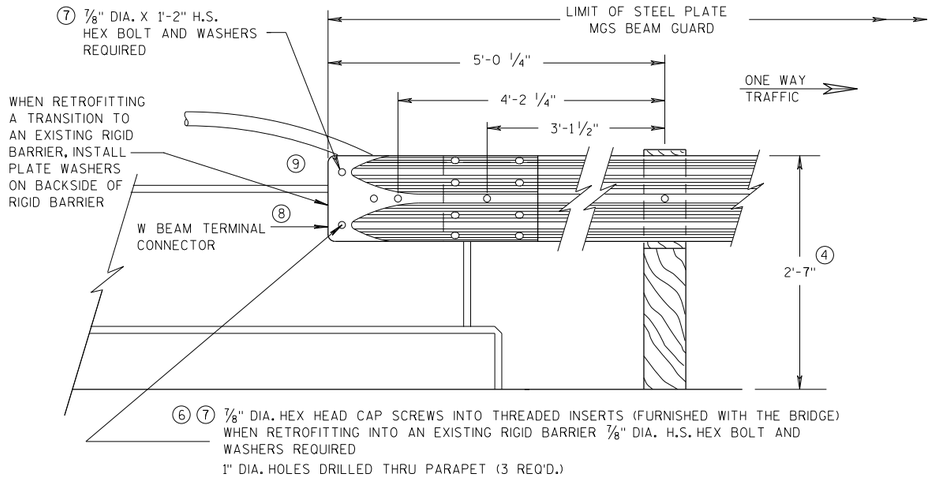
SECTION G-G



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D UNIT SUPERVIS — NT
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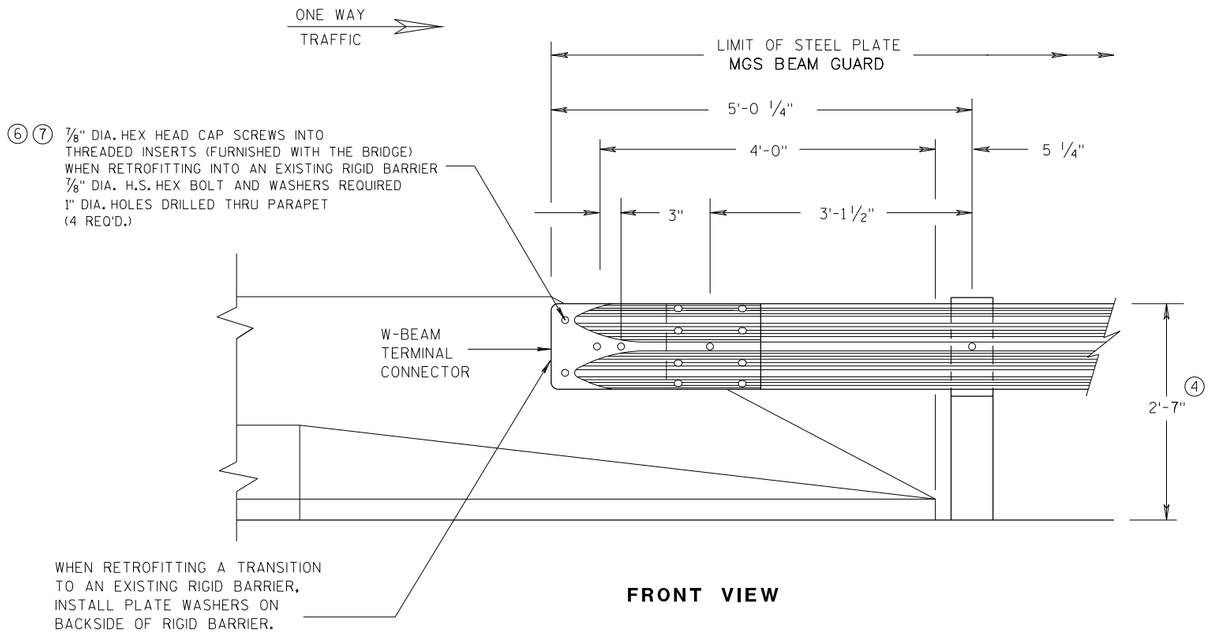


FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

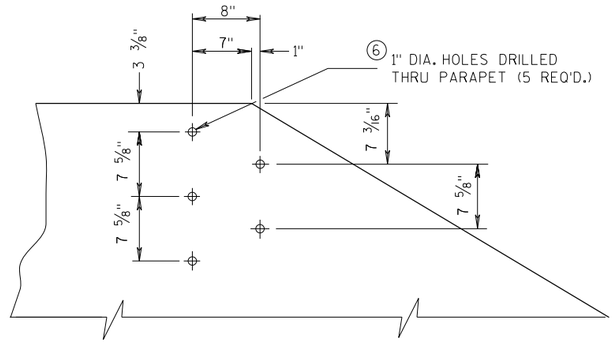
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

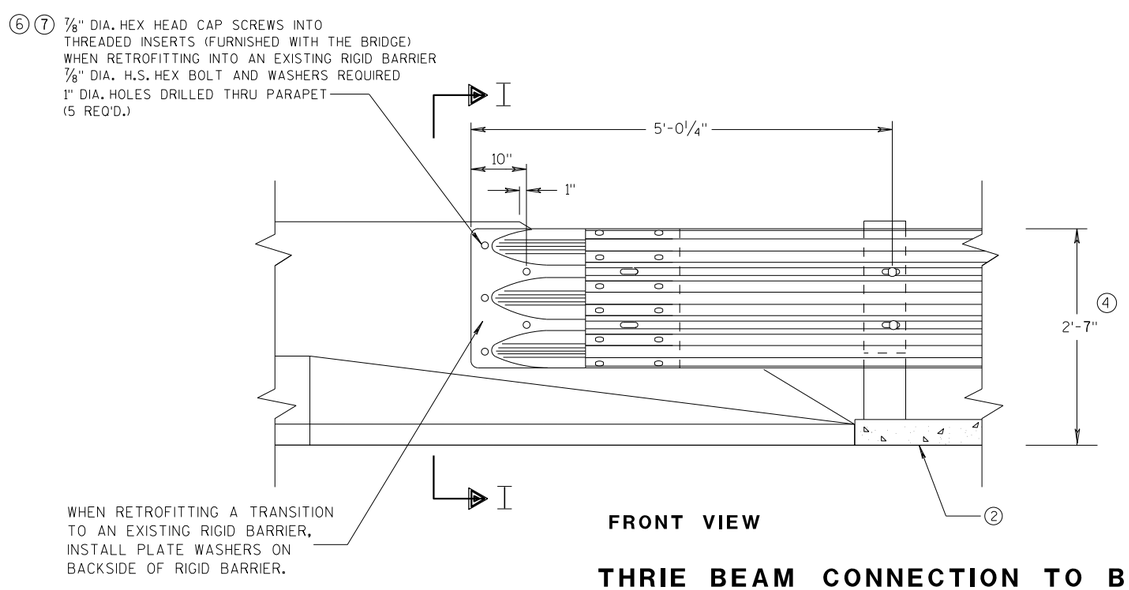
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

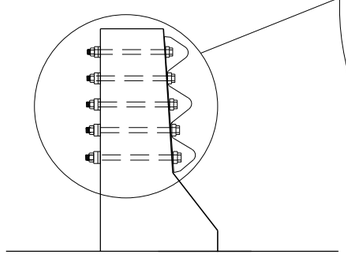
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



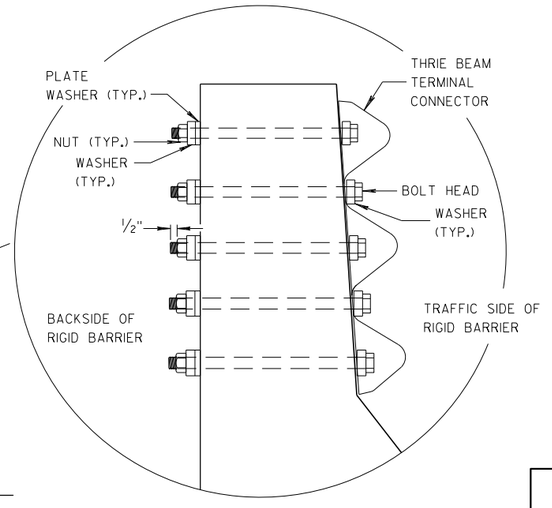
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS [illegible] UNIT SUPERVI[illegible]ENT
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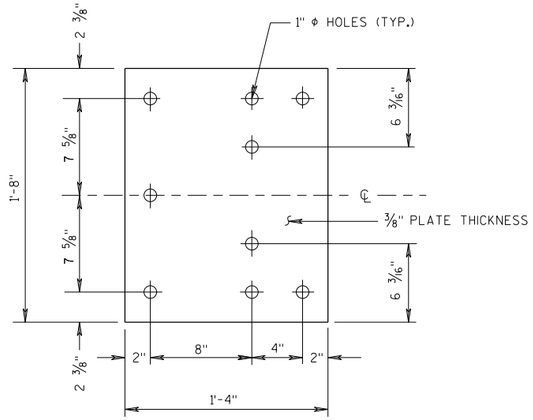
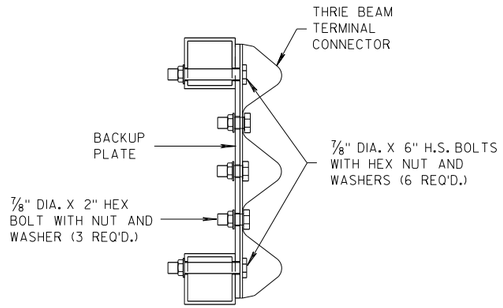
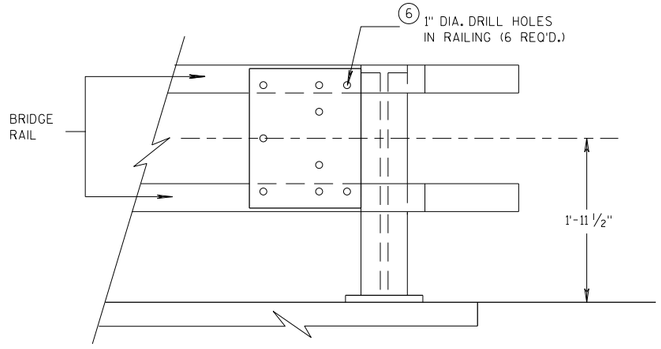


BACK-UP PLATE DETAIL



SECTION J-J

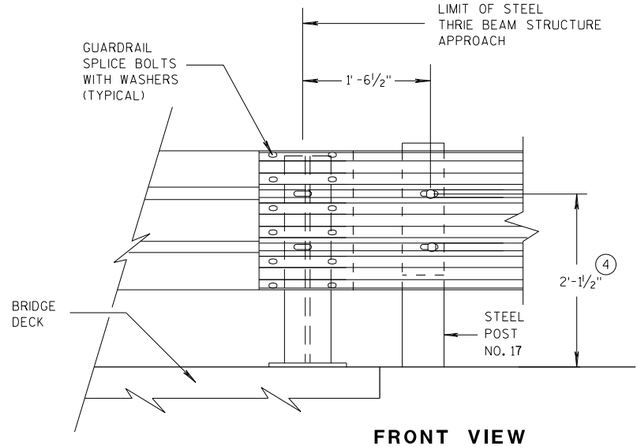


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

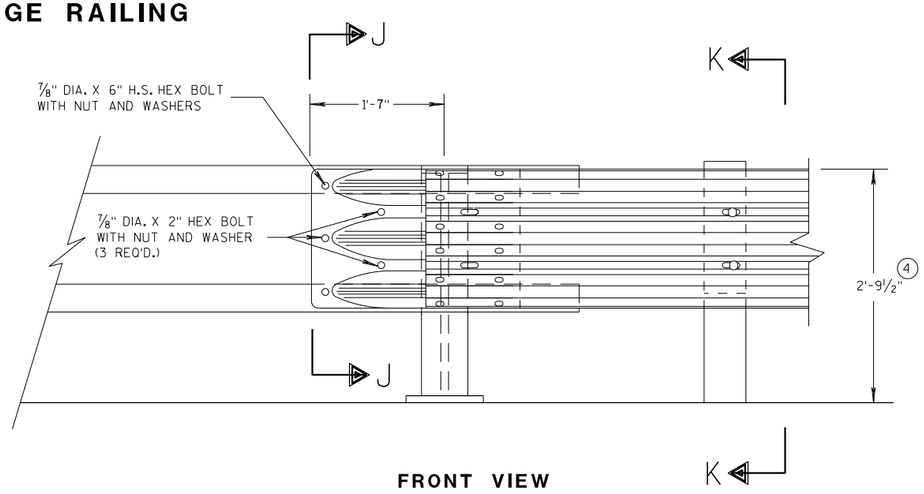
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

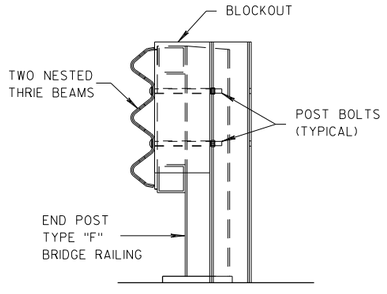


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
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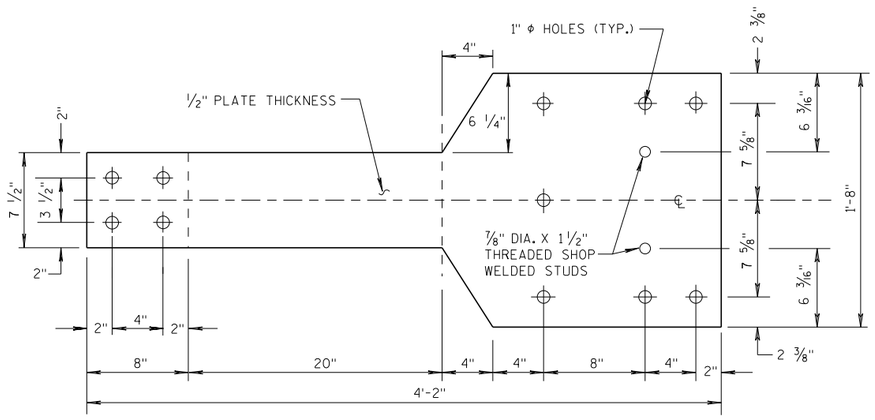
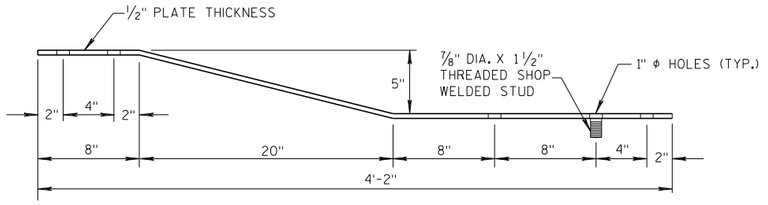
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

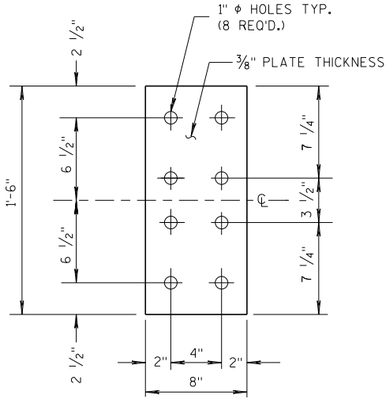


FRONT VIEW



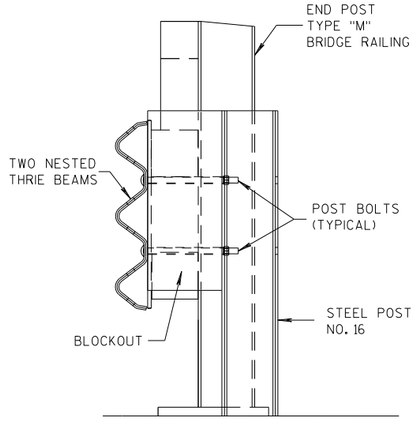
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

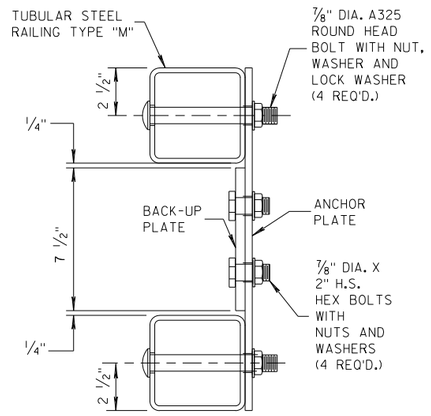


FRONT VIEW

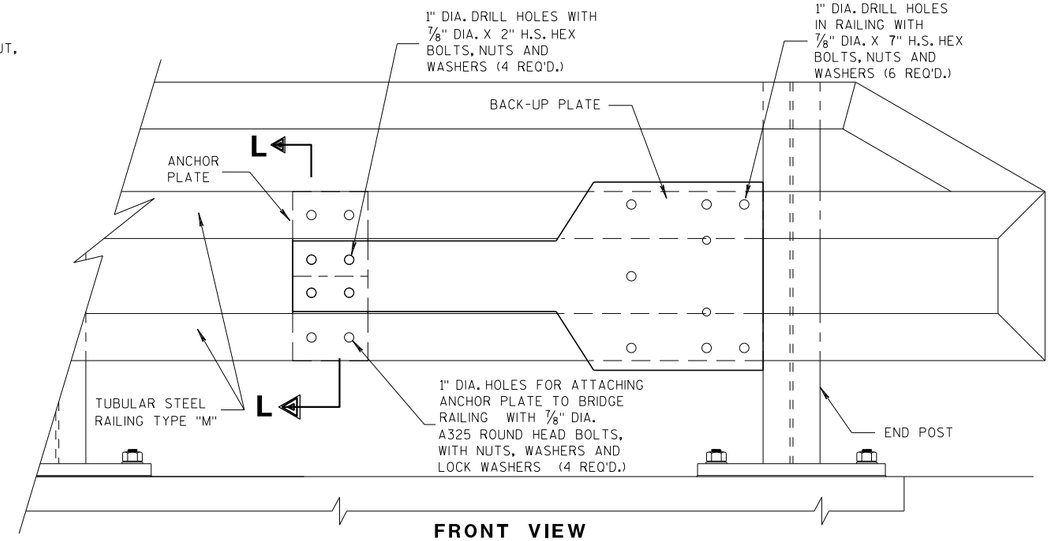
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

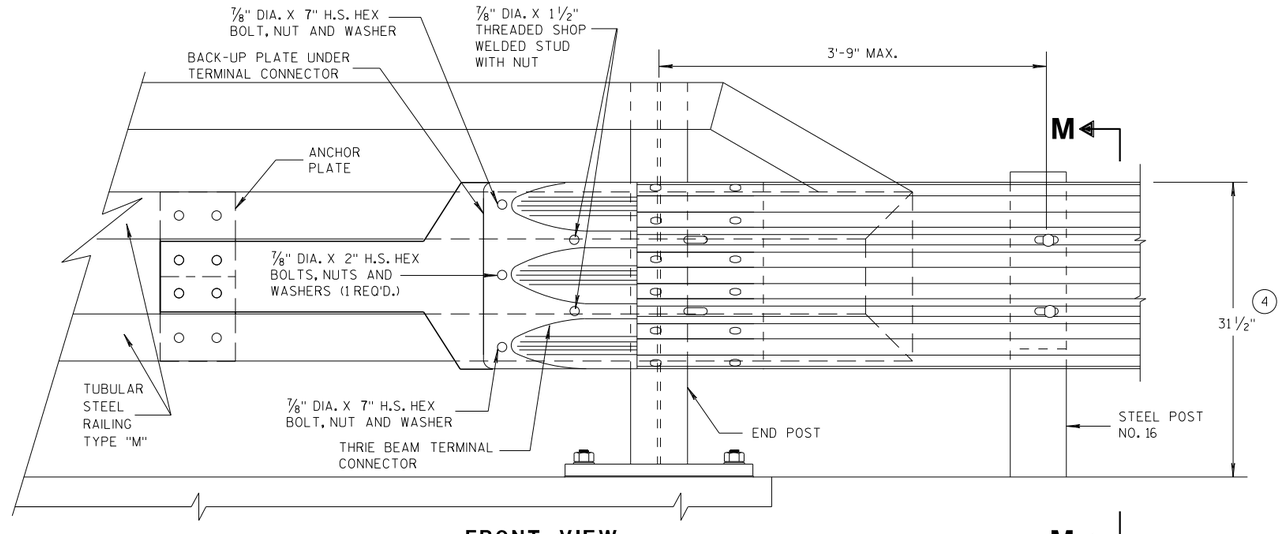


SECTION L-L

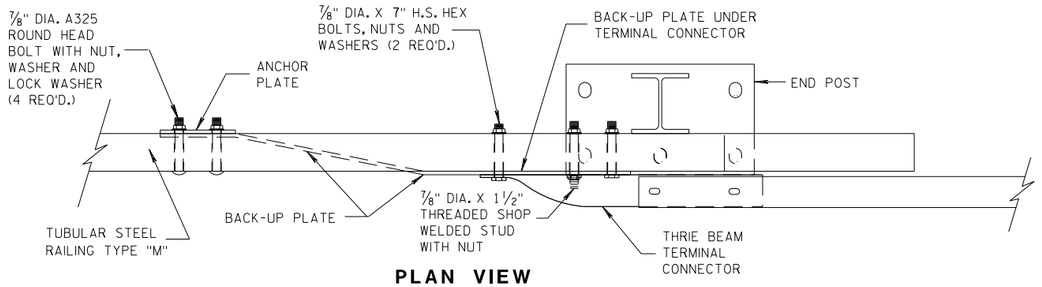


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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07/2018 — DATE
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GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

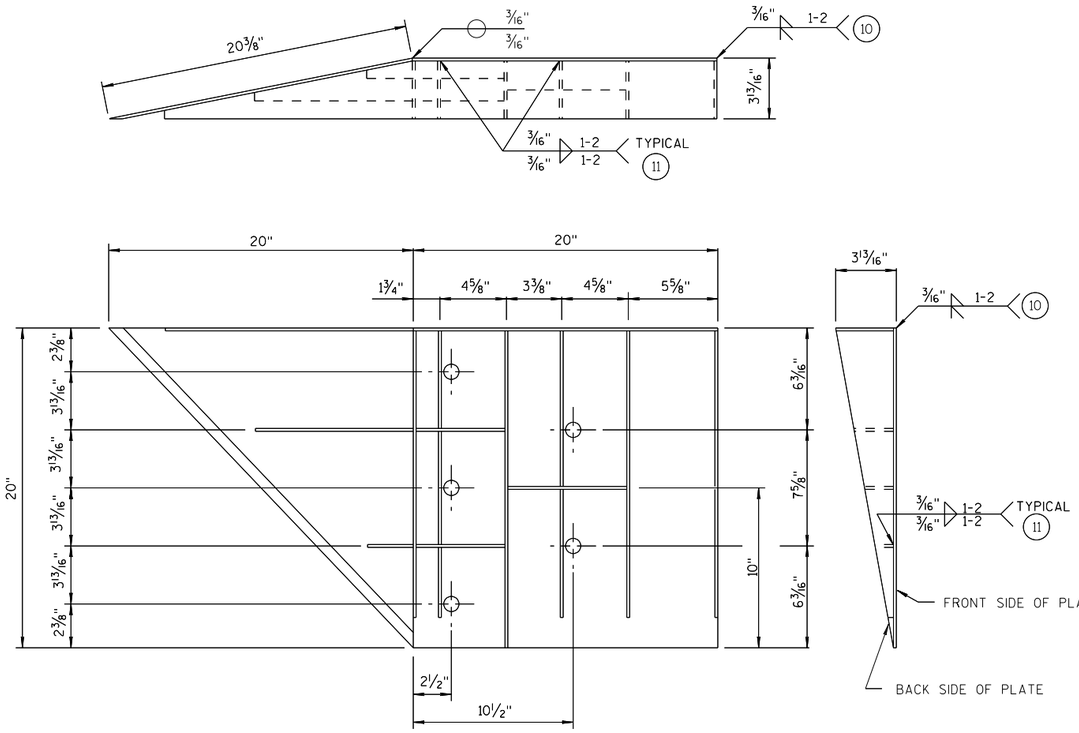
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

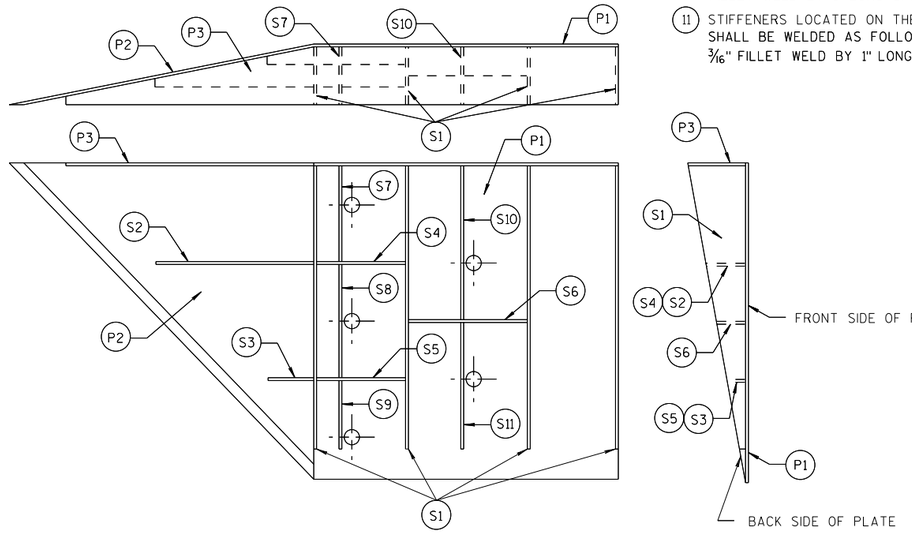


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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UNIT SUPERVISOR

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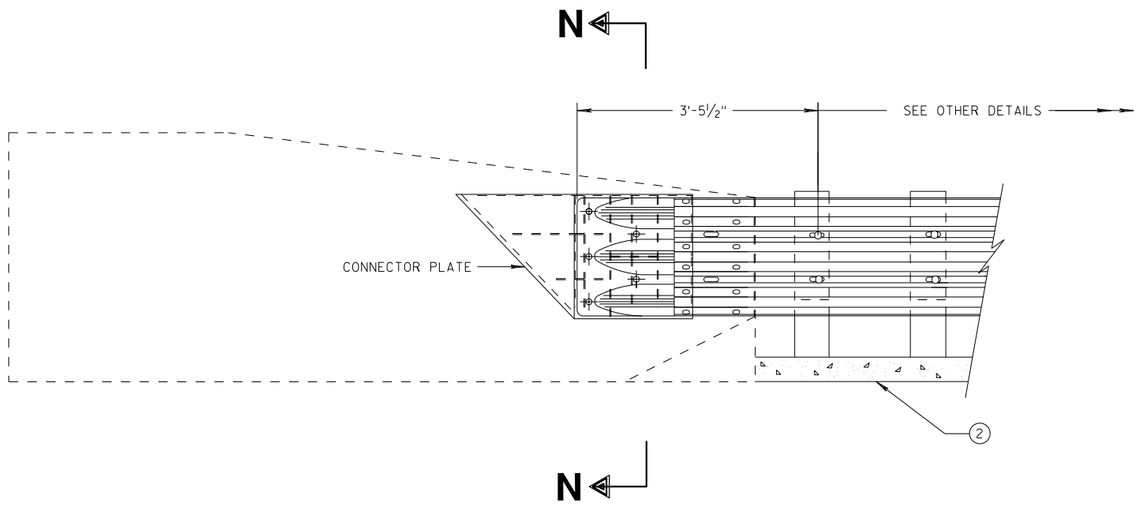
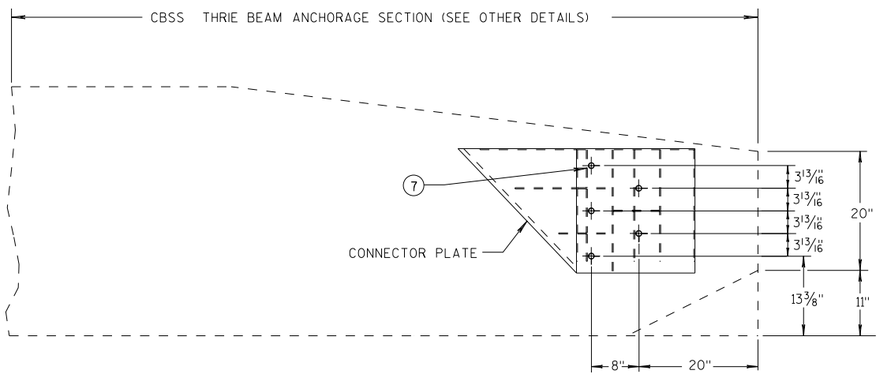


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



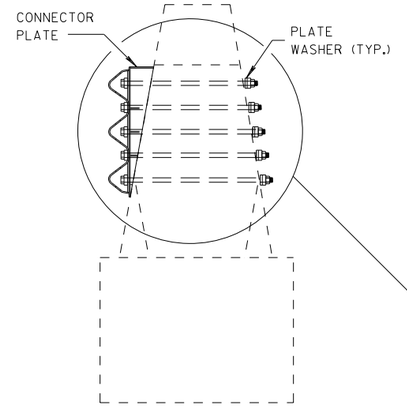
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

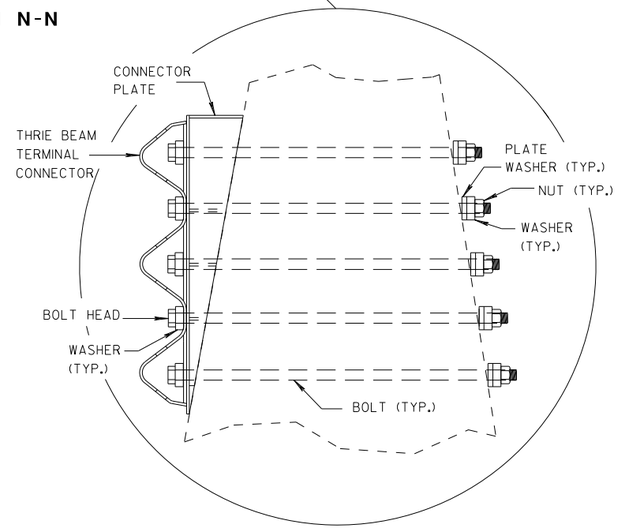
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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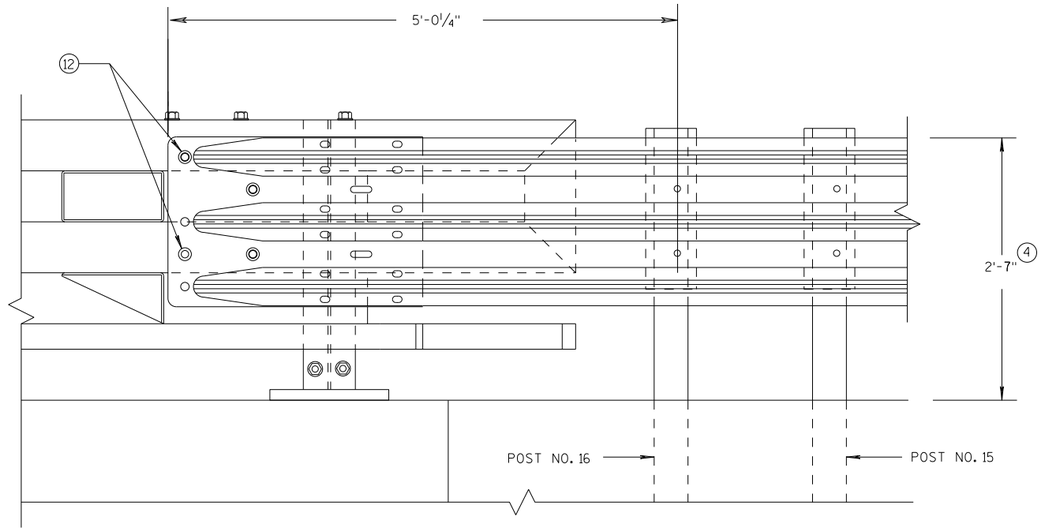
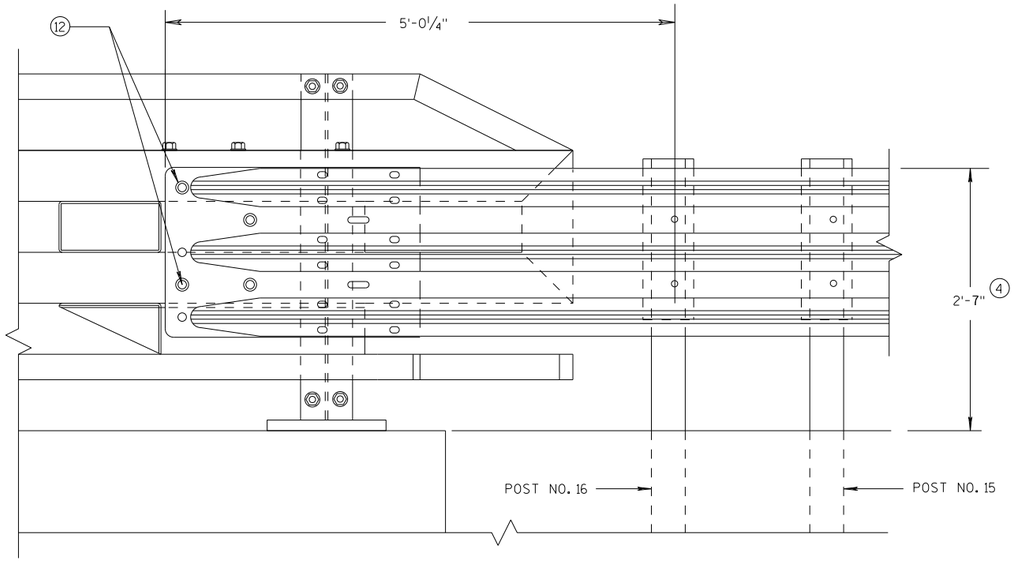


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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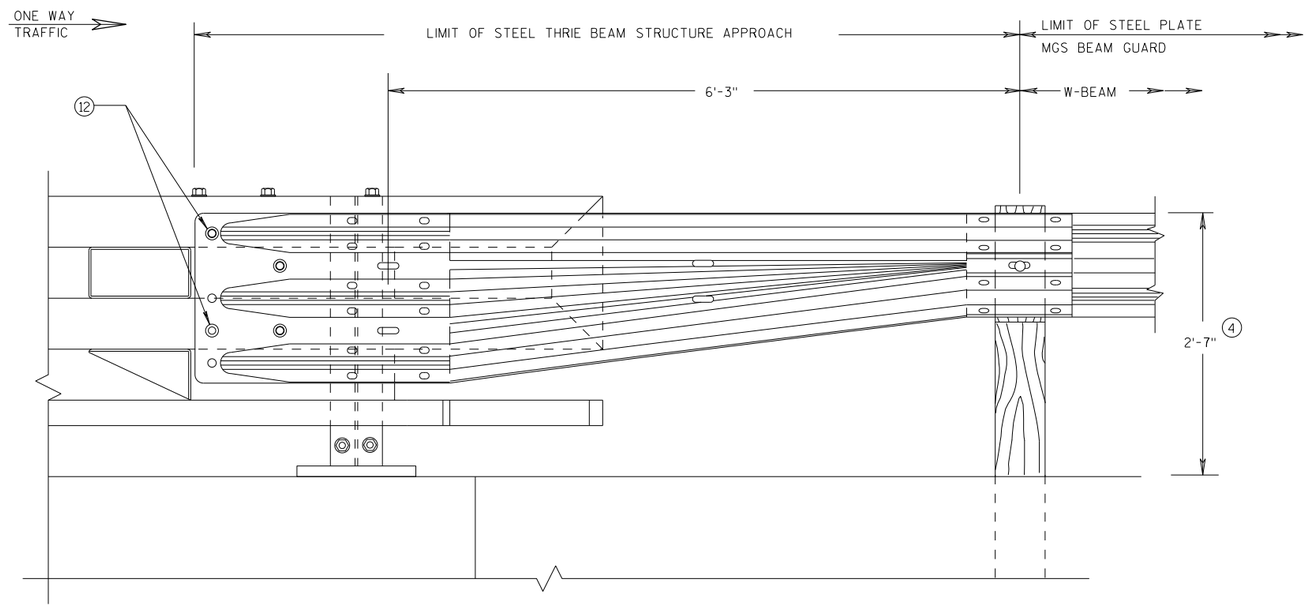


FRONT VIEW

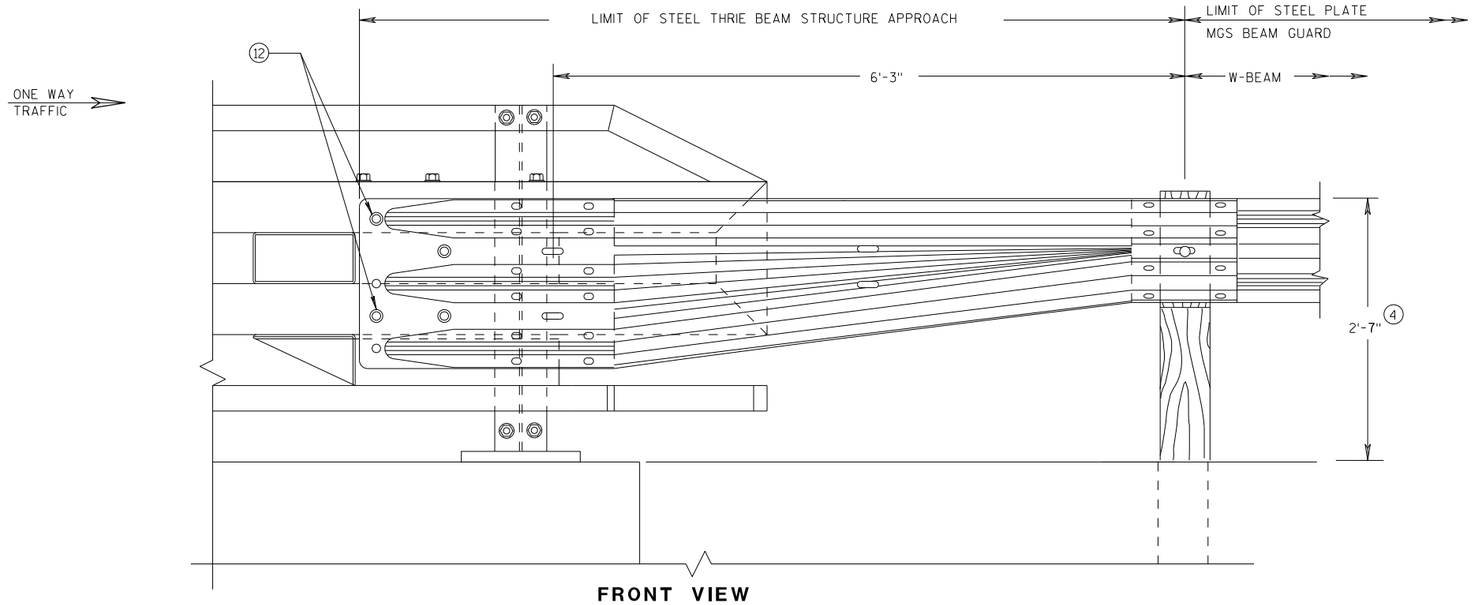
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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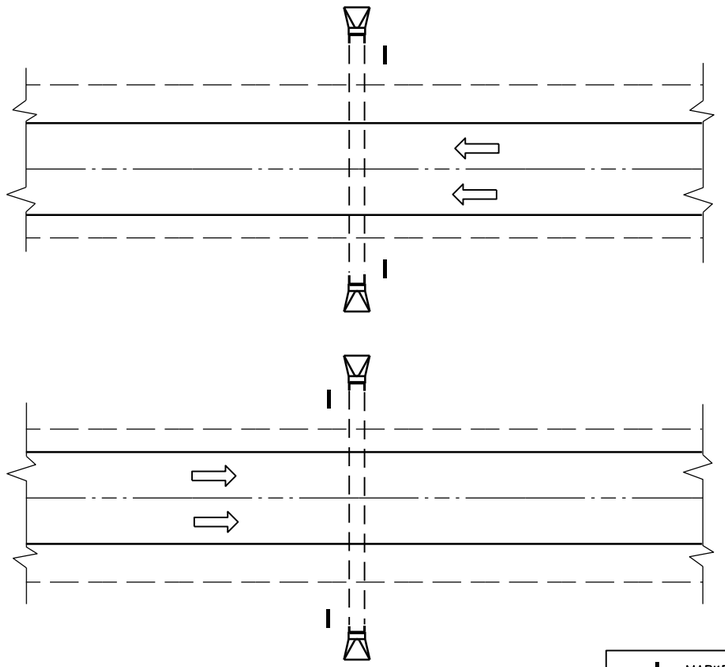
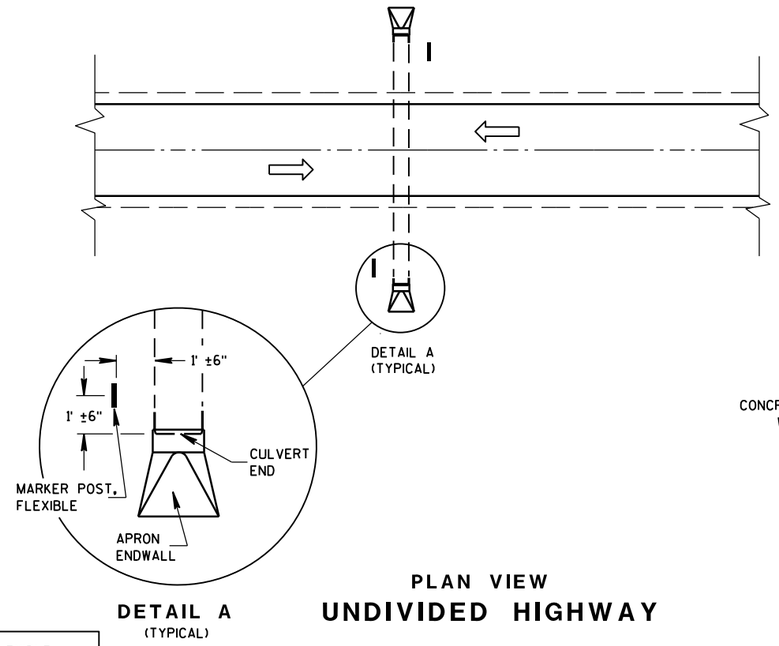


PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

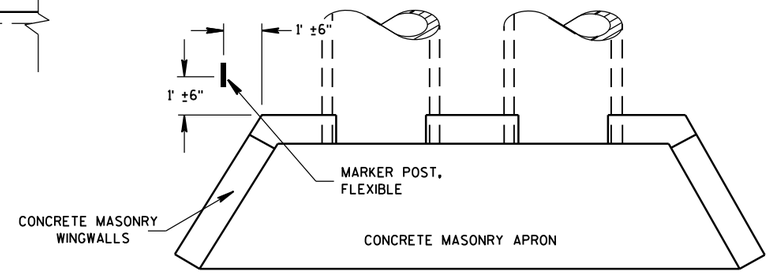
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

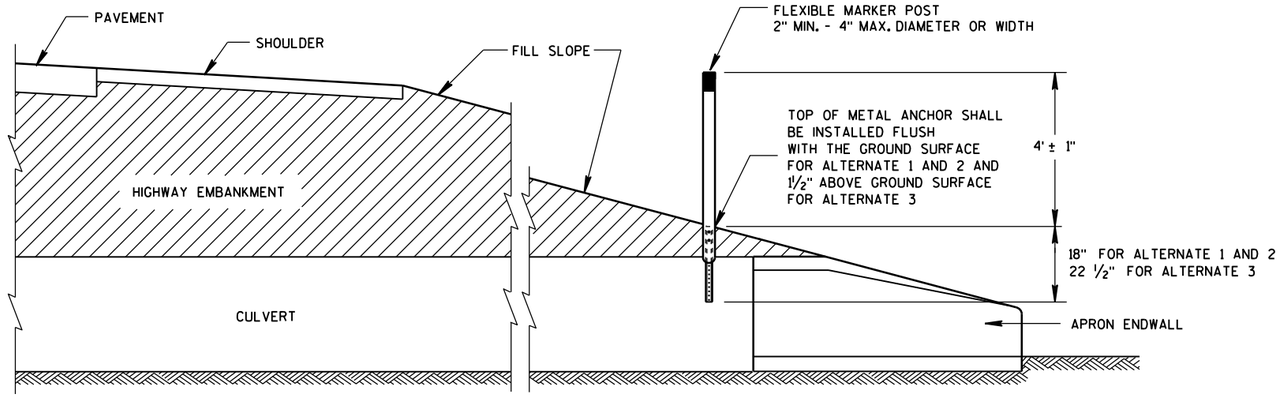
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 15 A 3-2a

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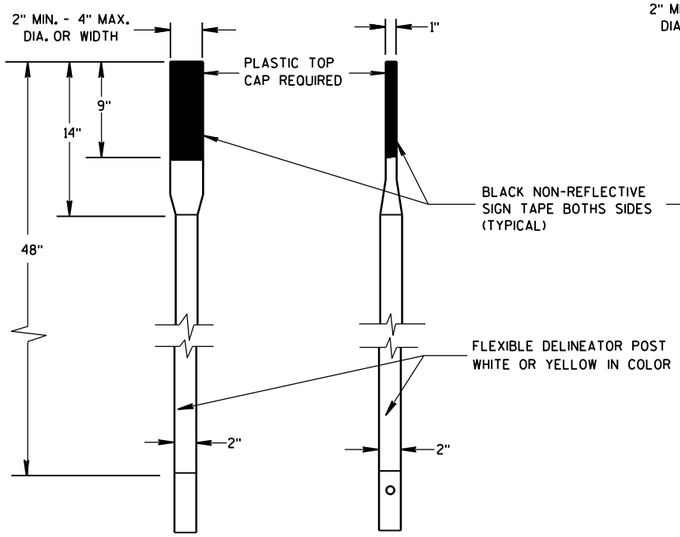
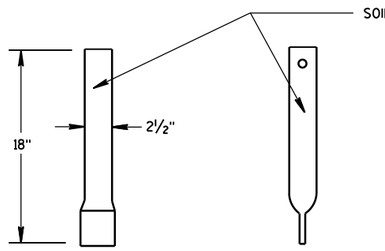
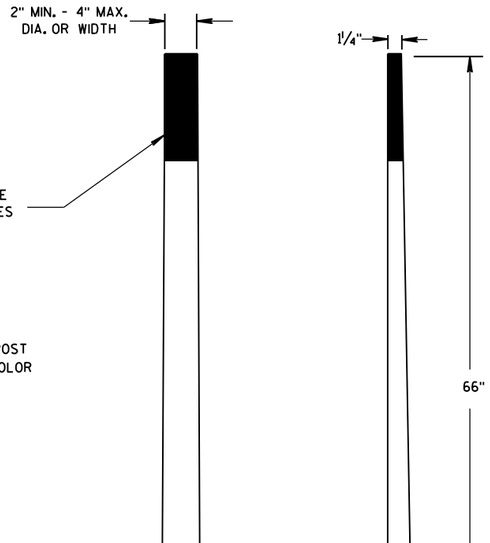
S.D.D. 15 A 3-2a





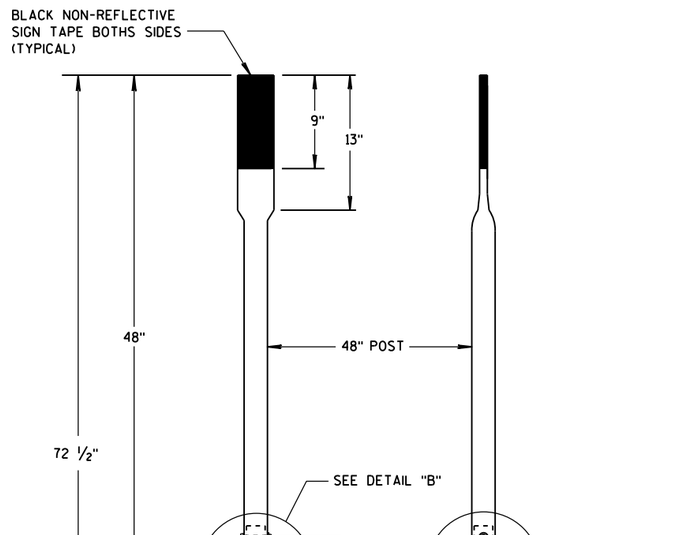
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

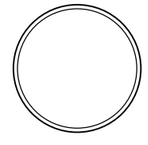
ALTERNATE 2



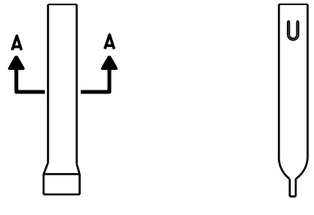
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

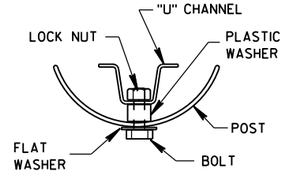


SECTION A-A

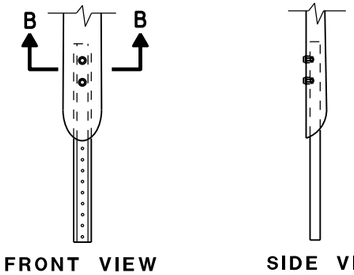


FRONT VIEW SIDE VIEW

ALTERNATE 1

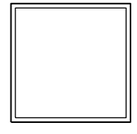


SECTION B-B

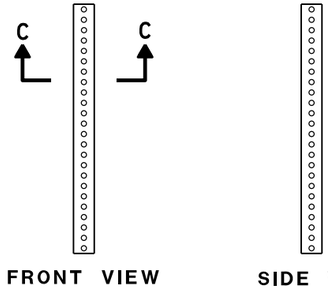


FRONT VIEW SIDE VIEW

ALTERNATE 2



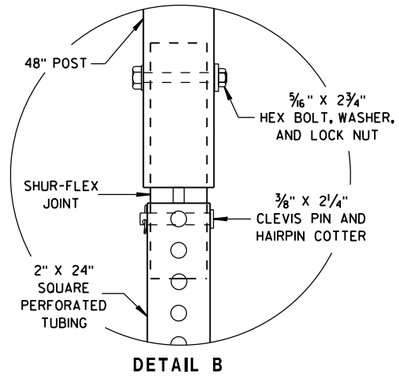
SECTION C-C



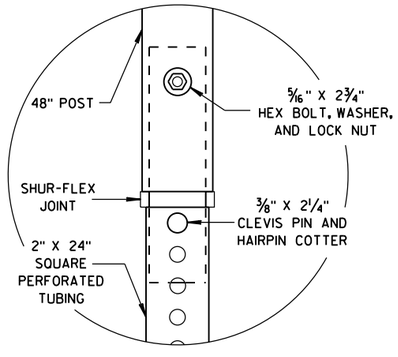
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b

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

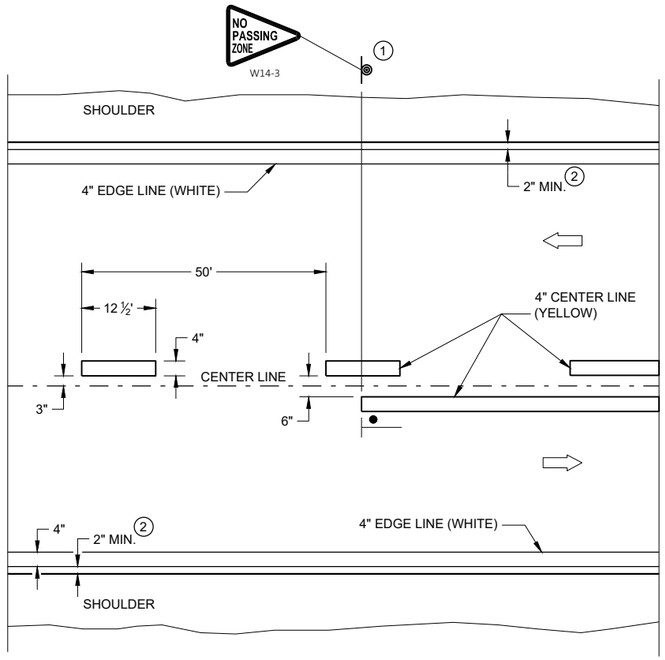
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

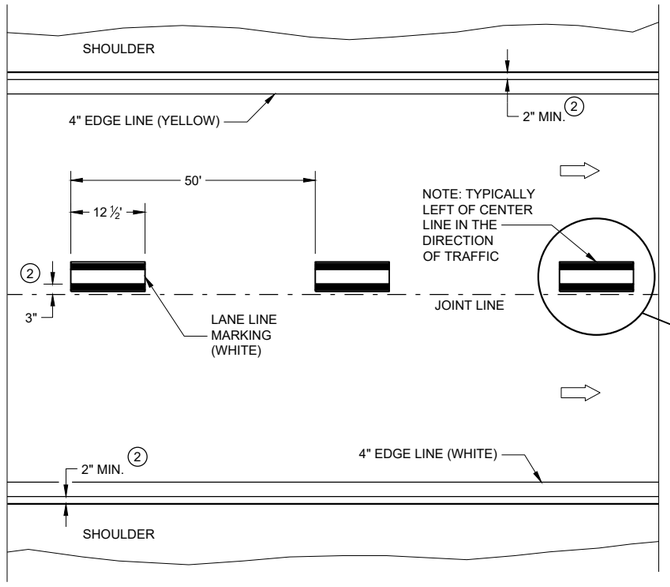
"T" MARKING

SIGN ON PERMANENT SUPPORT

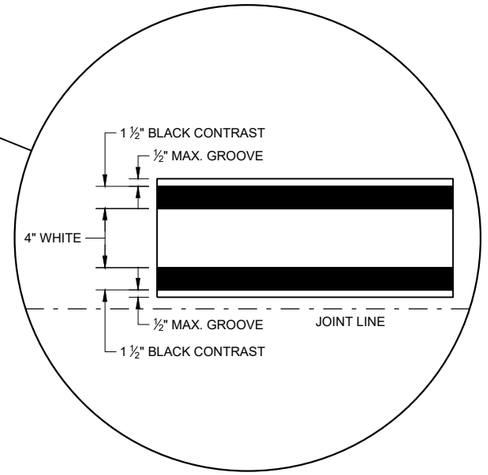
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

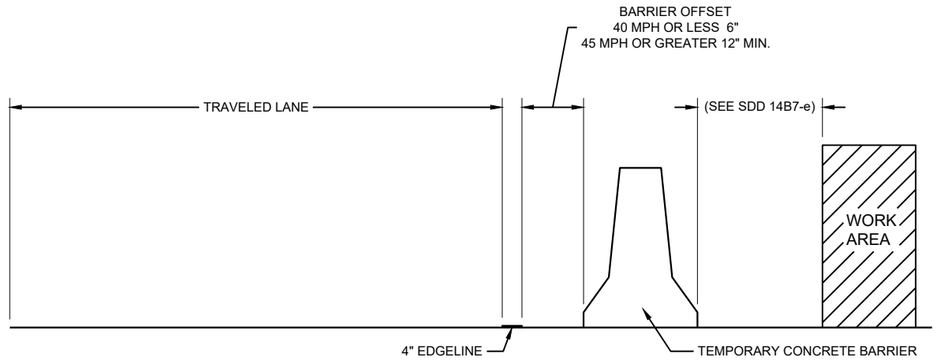
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C08 - 22a

SDD 15C08 - 22a



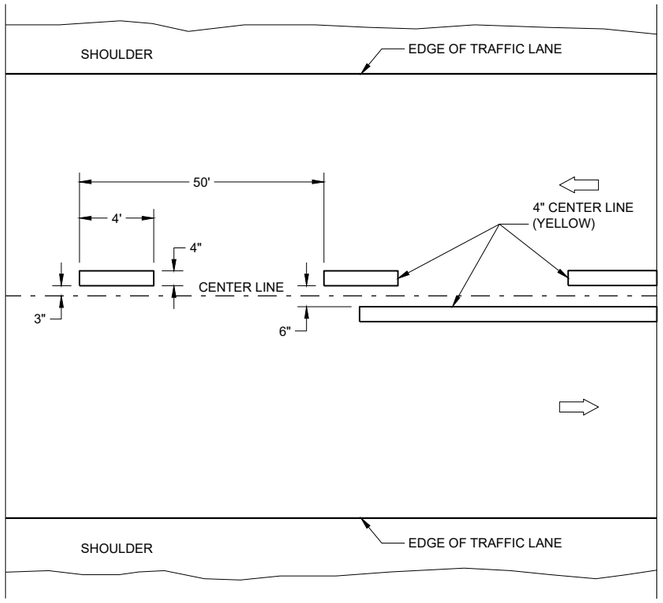
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

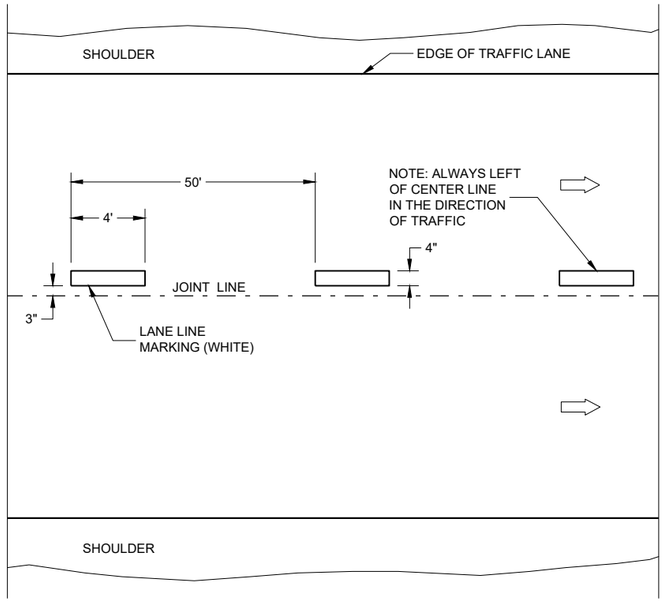
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

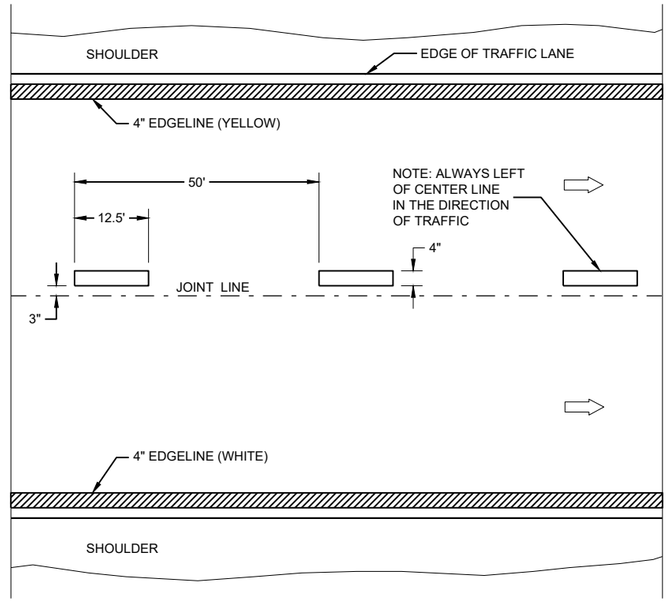
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C08 - 22b

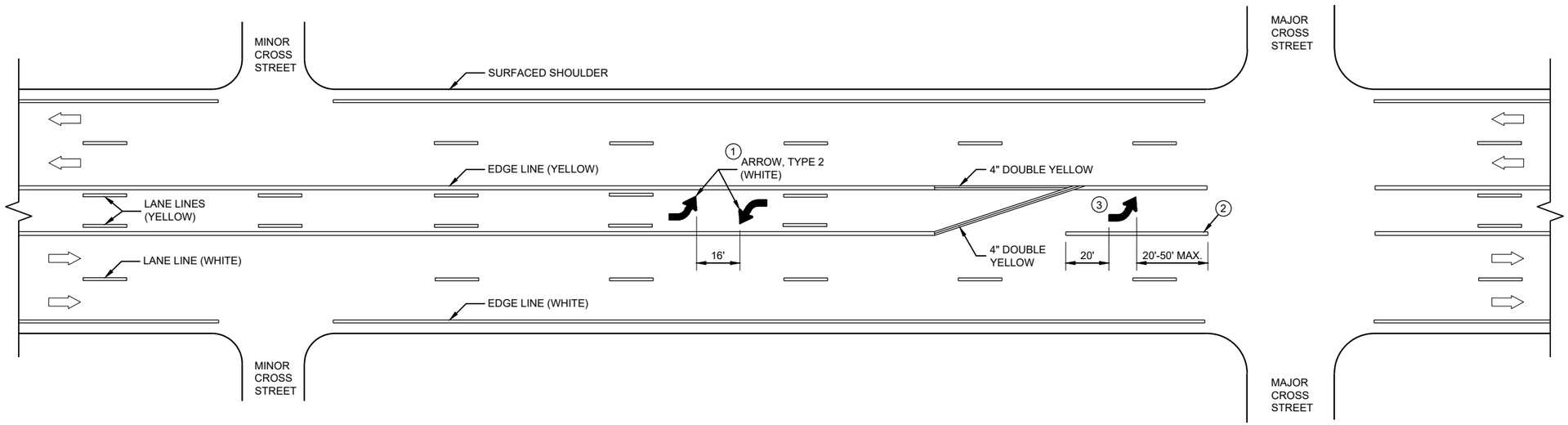
6

SDD 15C08 - 22b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

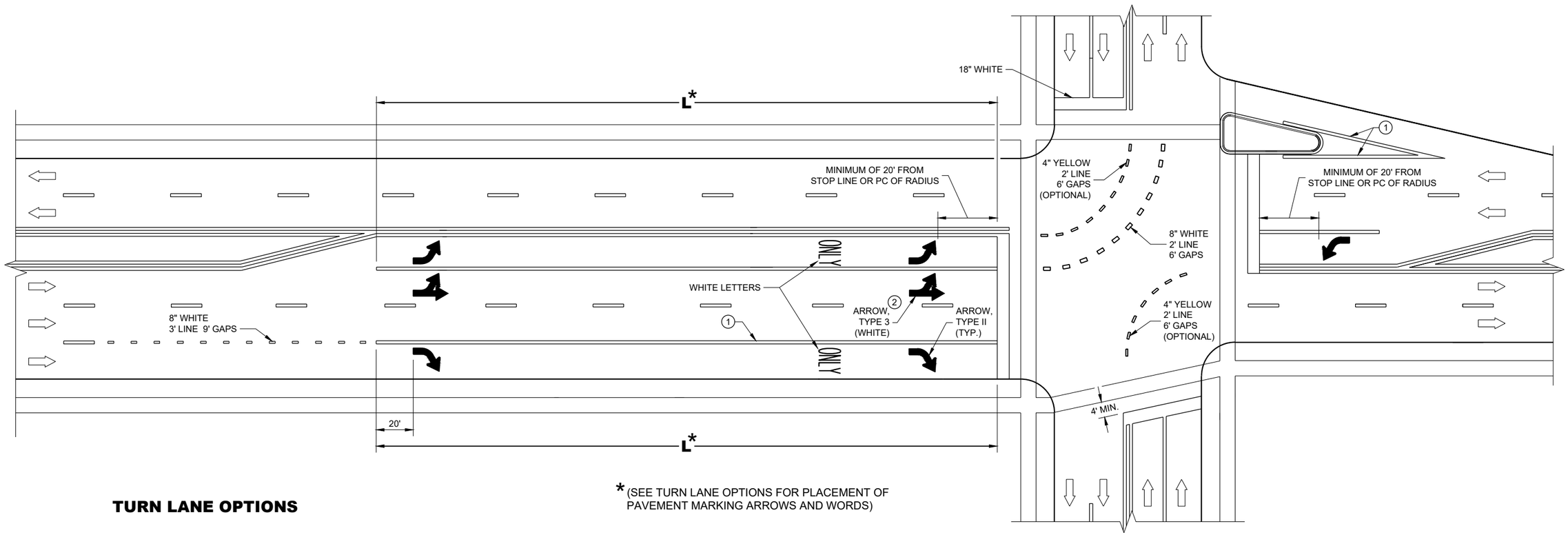
SDD 15C08 - 22c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

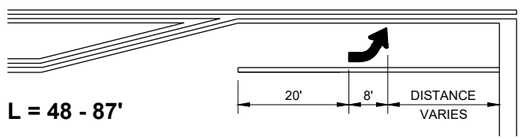
SDD 15C08 - 22c



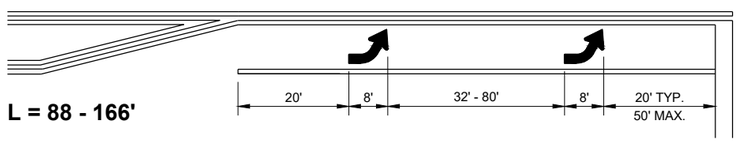
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

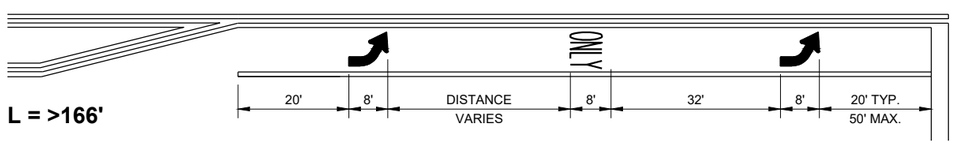
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

1. 8" WHITE
2. QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

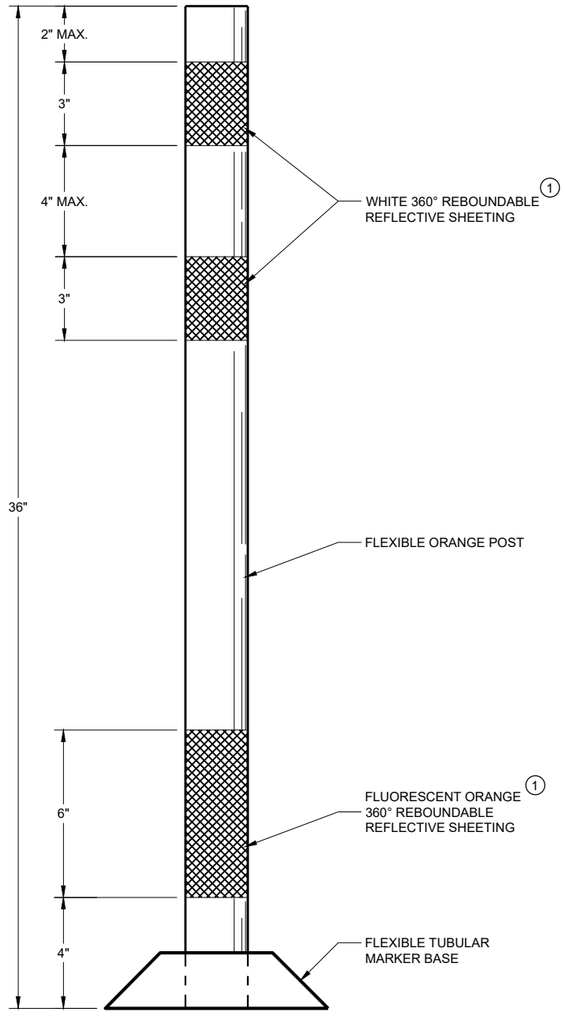
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 22d



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

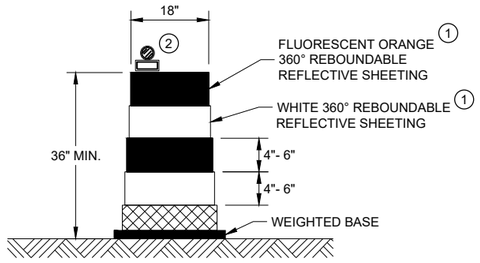
FHWA

6

SDD 15C11 - 10a

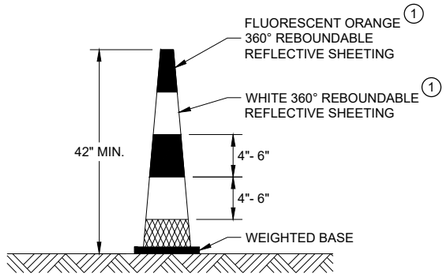
GENERAL NOTES

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



DRUM

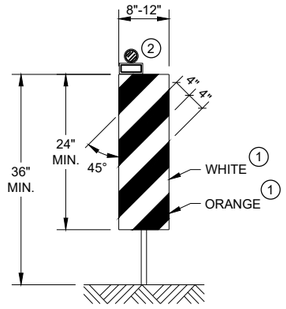
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

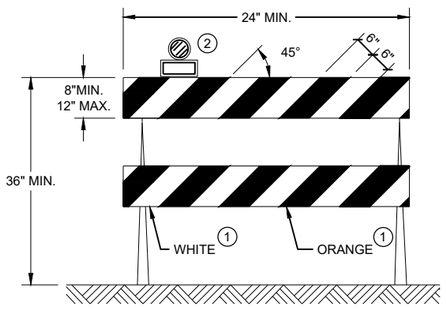
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



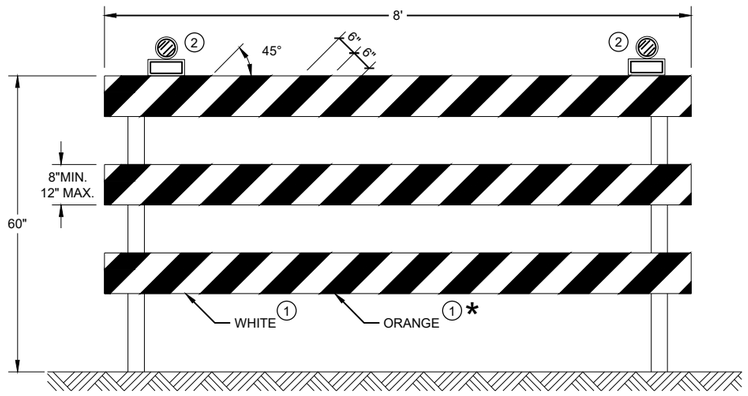
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C11 - 10b

6

SDD 15C11 - 10b

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

TEMPORARY PORTABLE RUMBLE STRIP ARRAY

DIRECTION OF TRAFFIC

WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

(1) FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

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

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

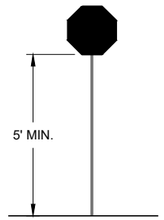
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



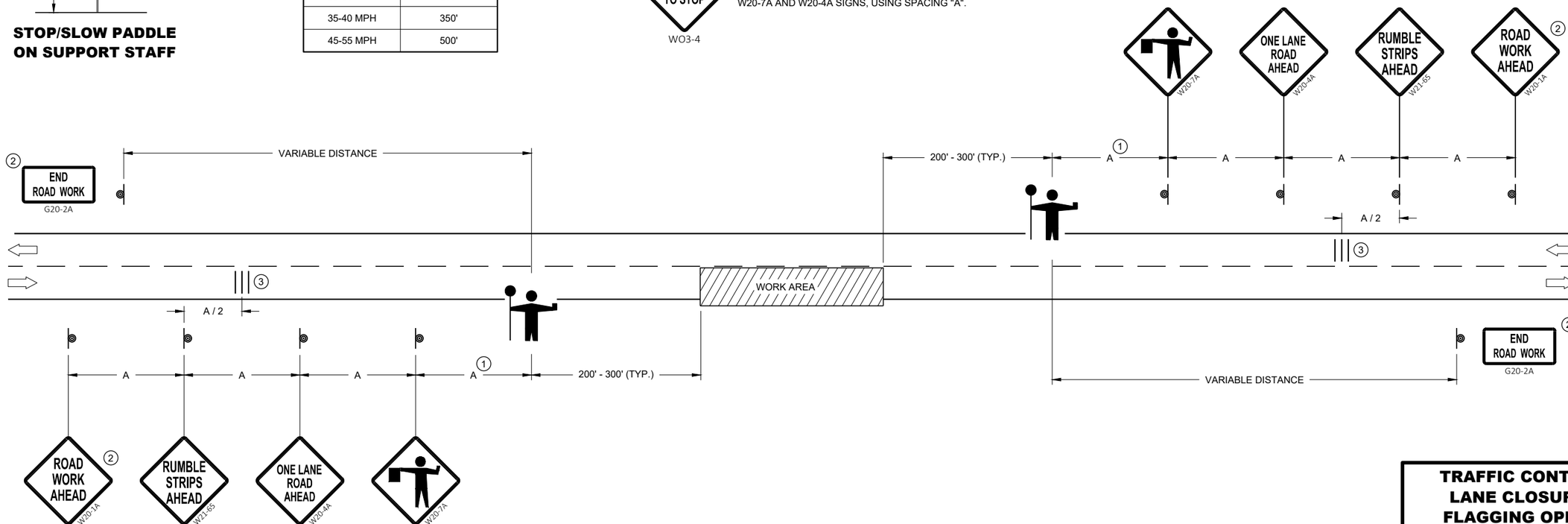
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

WO3-4

USE OF WO3-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C12 - 09a

SDD 15C12 - 09a

GENERAL NOTES

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL CONE 42-INCH
- TRAFFIC CONTROL DRUM
- TEMPORARY PORTABLE RUMBLE STRIP ARRAY
- DIRECTION OF TRAFFIC
- WORK AREA
- AFAD — AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

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

(2) IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

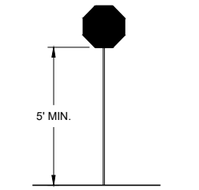
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

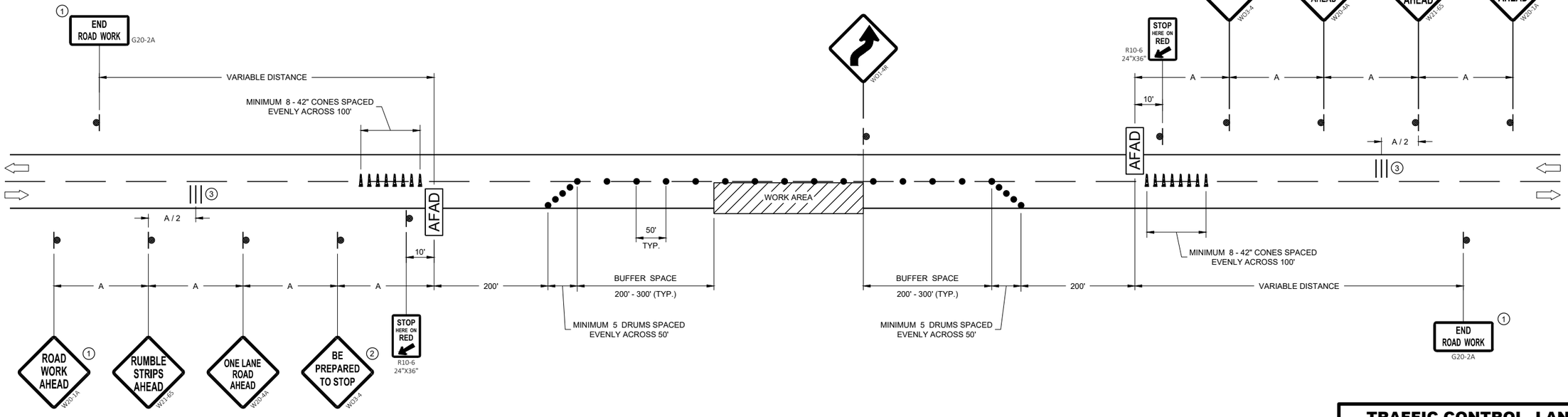
(3) EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSELY AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER.



STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C12 - 09b

6
SDD 15C12 - 09b

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

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 OPERATING IN CAUTION MODE. 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.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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.

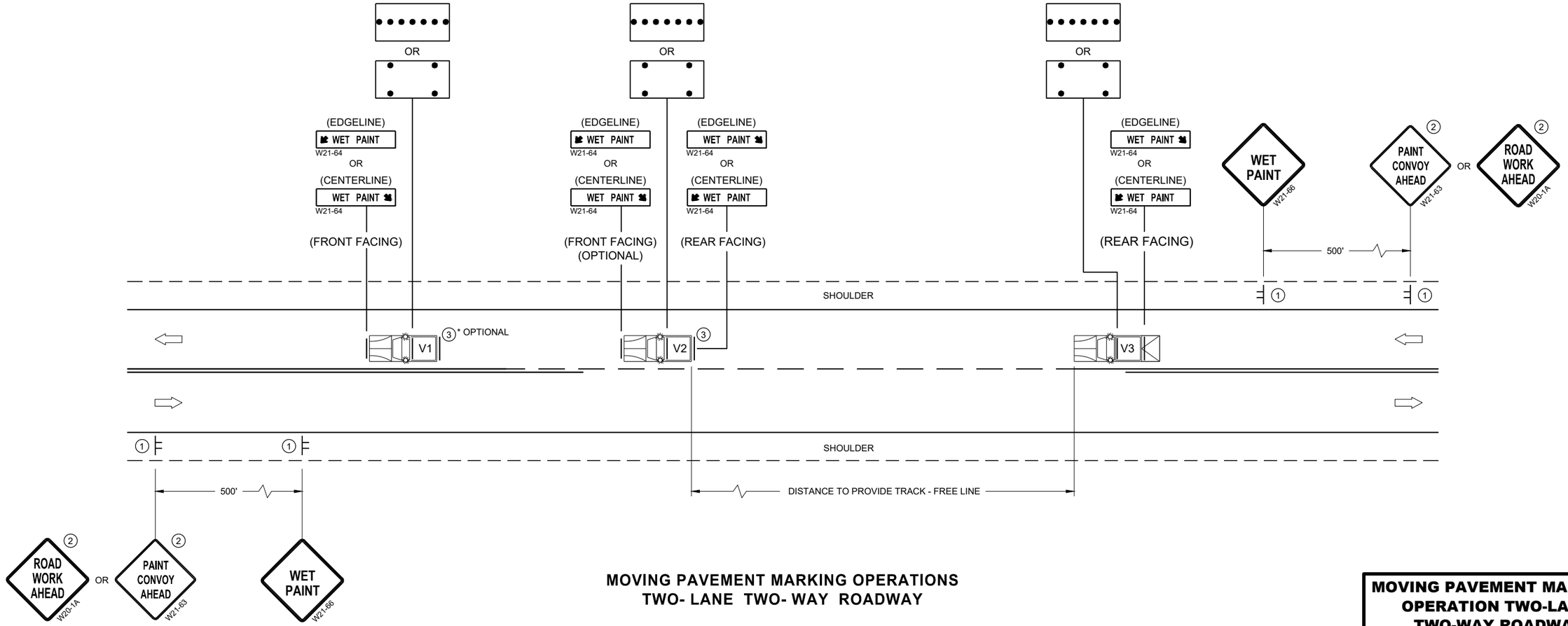
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

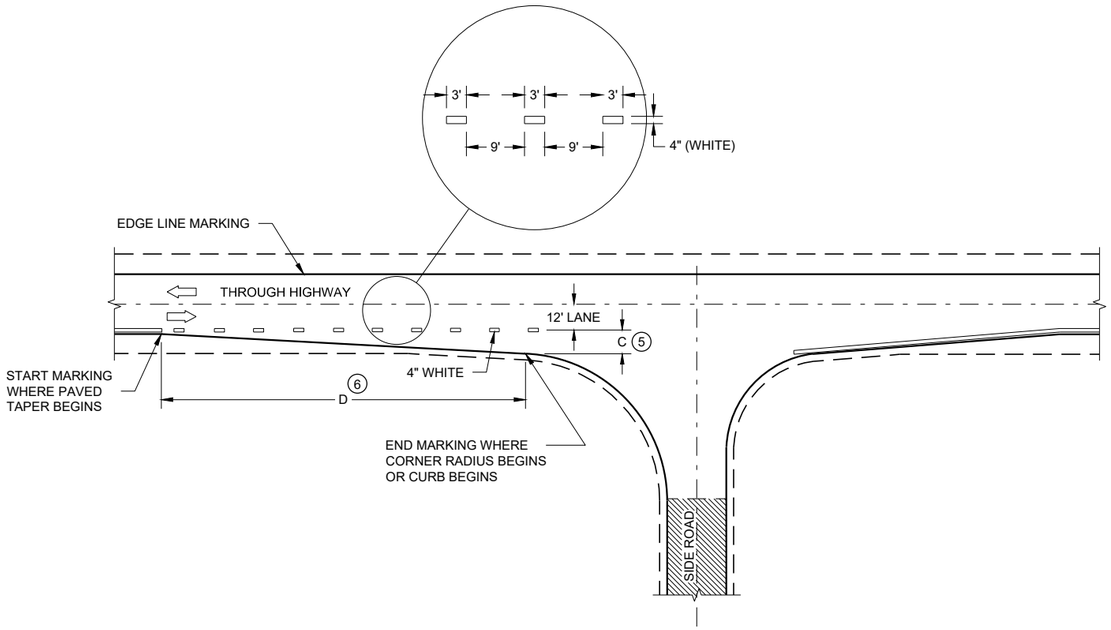
APPROVED
February 2023
DATE

/S/ Andrew I...
WORK ZONE EN

FHWA

SDD 15C19-08a

6



MINOR INTERSECTION

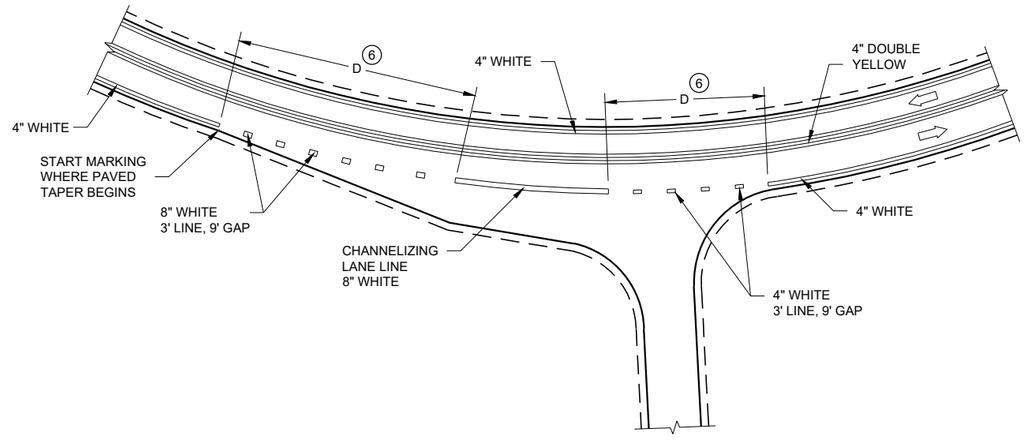
GENERAL NOTES

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

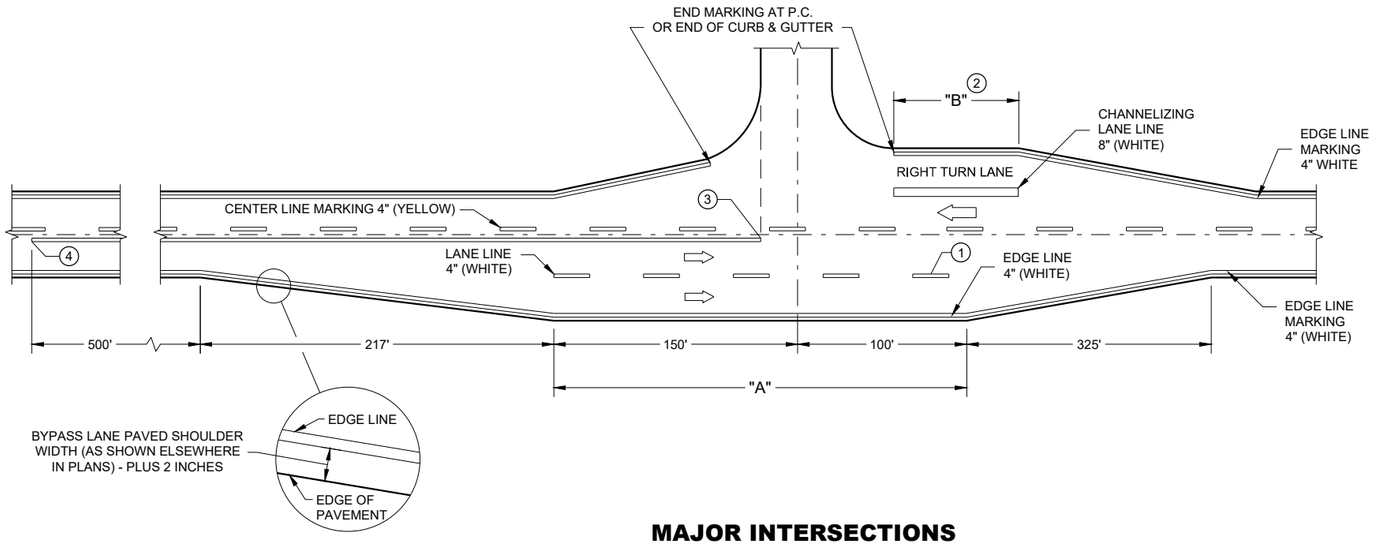
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET,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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

SDD 15C35 - 05a

LEGEND

SIGN ON PERMANENT SUPPORT

DELINEATOR, FLEXIBLE/TUBULAR MARKER

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

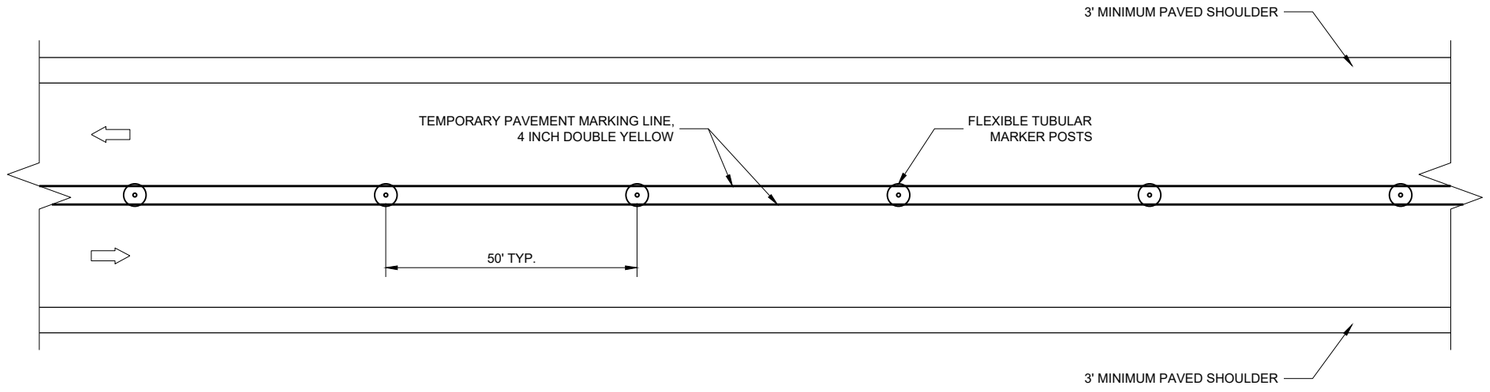
COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING LINE, 4 INCH DOUBLE YELLOW.

(1)

(2)

(1) THE WO6-3 AND WO57-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE WO6-3 AND THE WO57-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.

(2) CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

TRAFFIC CONTROL
TWO LANE TWO WAY
OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D06 - 05

6

SDD 15D06 - 05

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" 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 OR AS APPROVED BY THE ENGINEER.

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

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

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

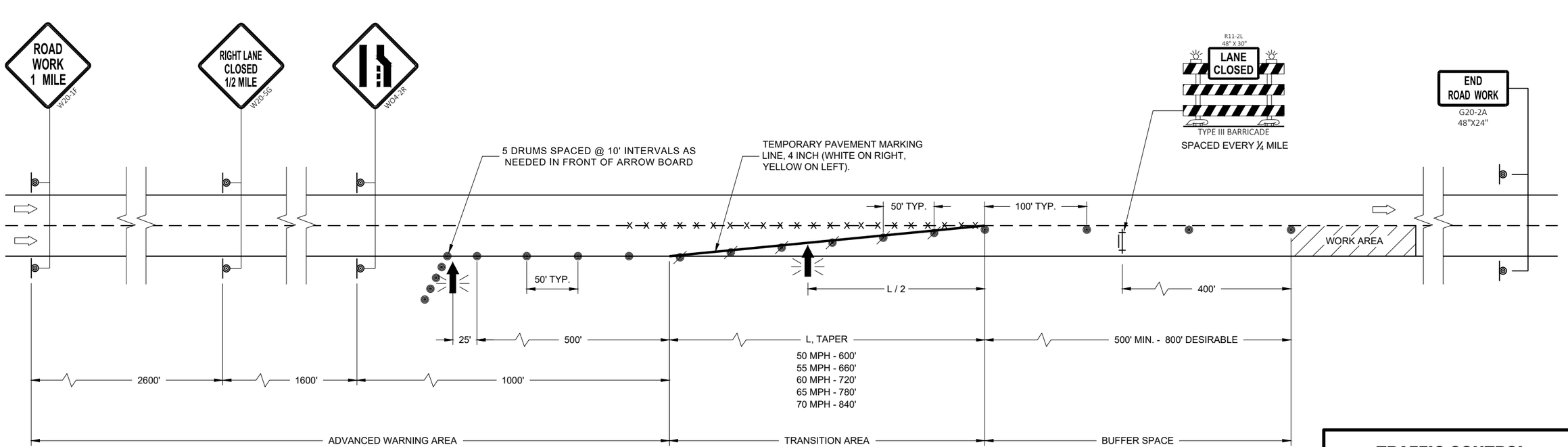
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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.

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D12 - 10a

SDD 15D12 - 10a

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

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

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

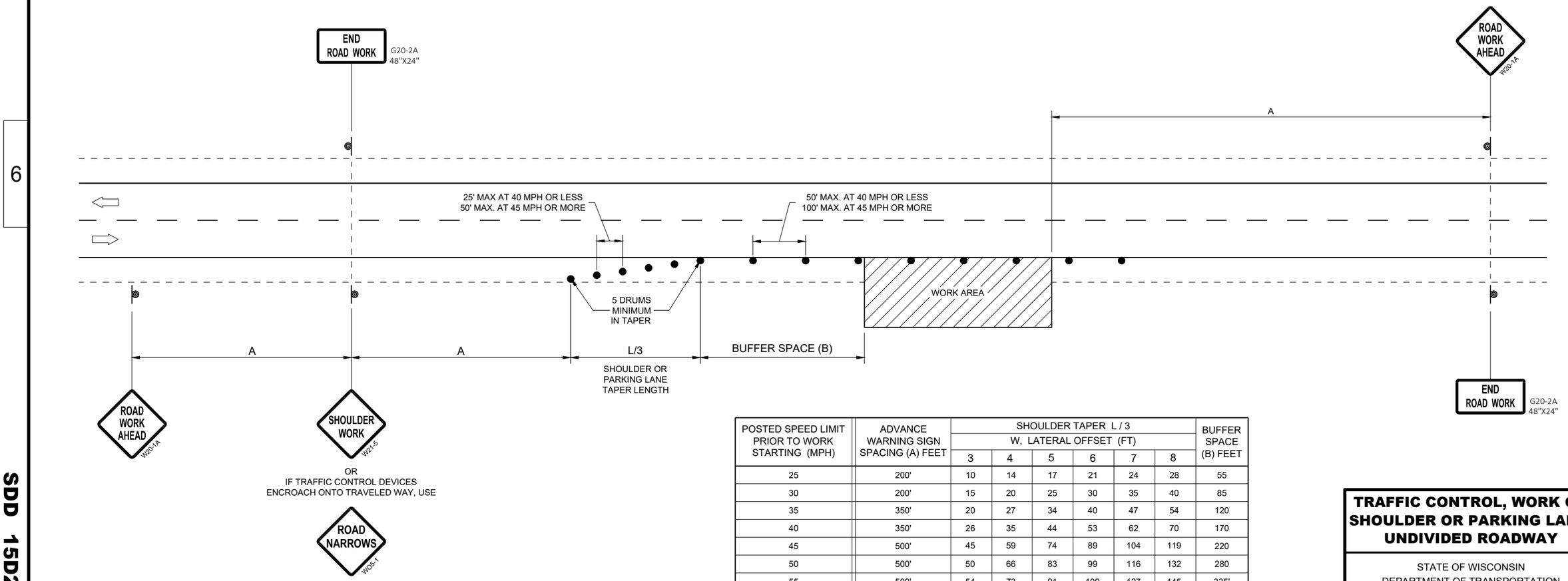
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

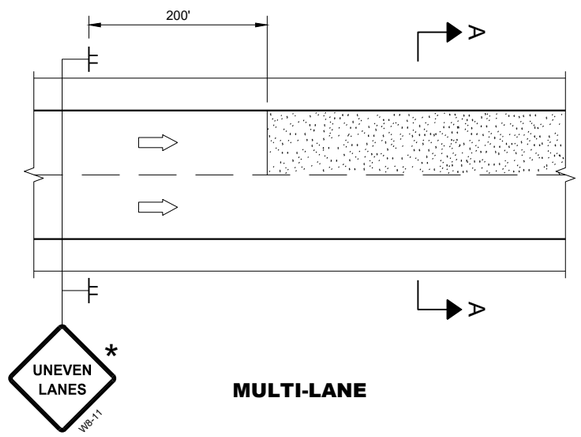
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

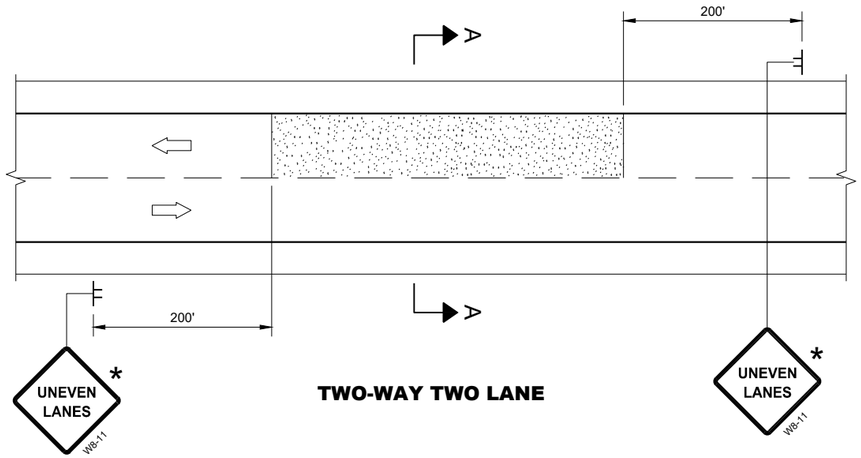
FHWA

SDD 15D28 - 04

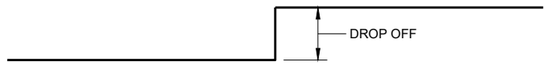
SDD 15D28 - 04



MULTI-LANE

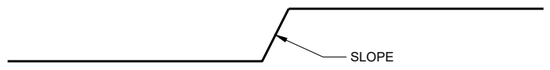


TWO-WAY TWO LANE

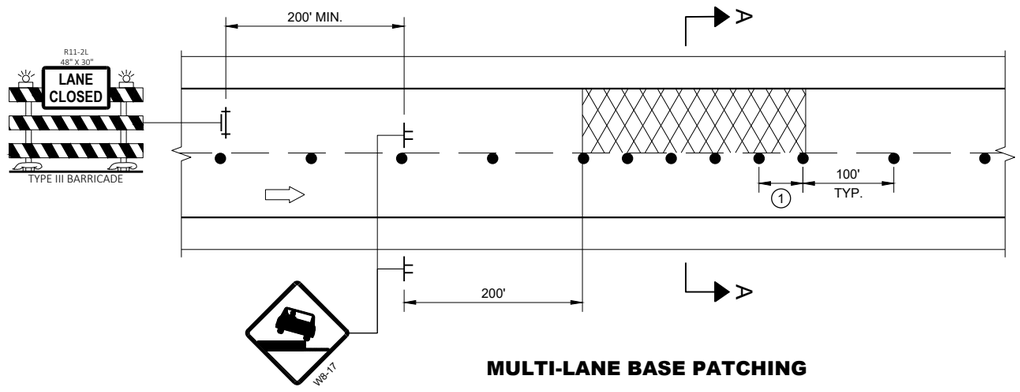


SECTION A - A

OR

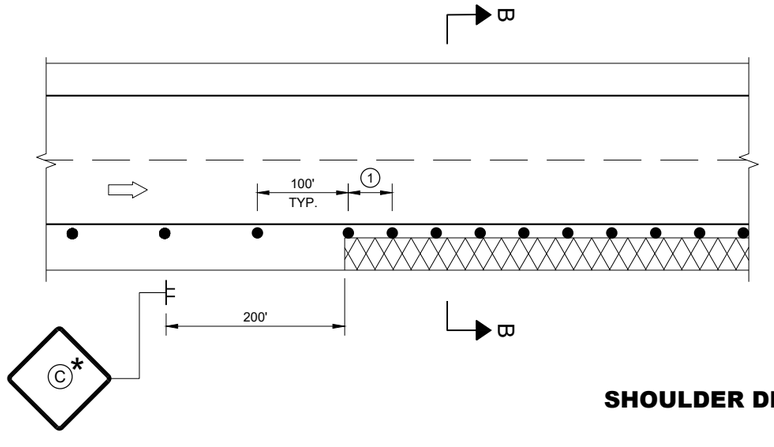


SECTION A - A

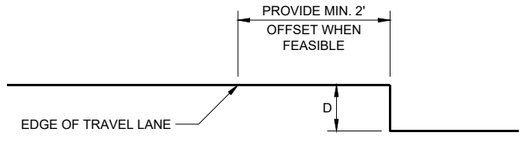


MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D39 - 02

SDD 15D39 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

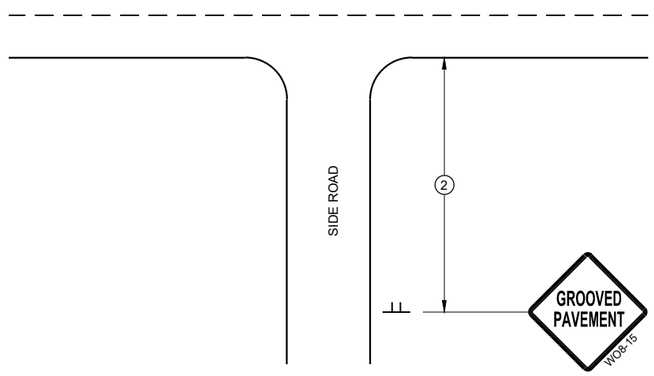
(1) PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

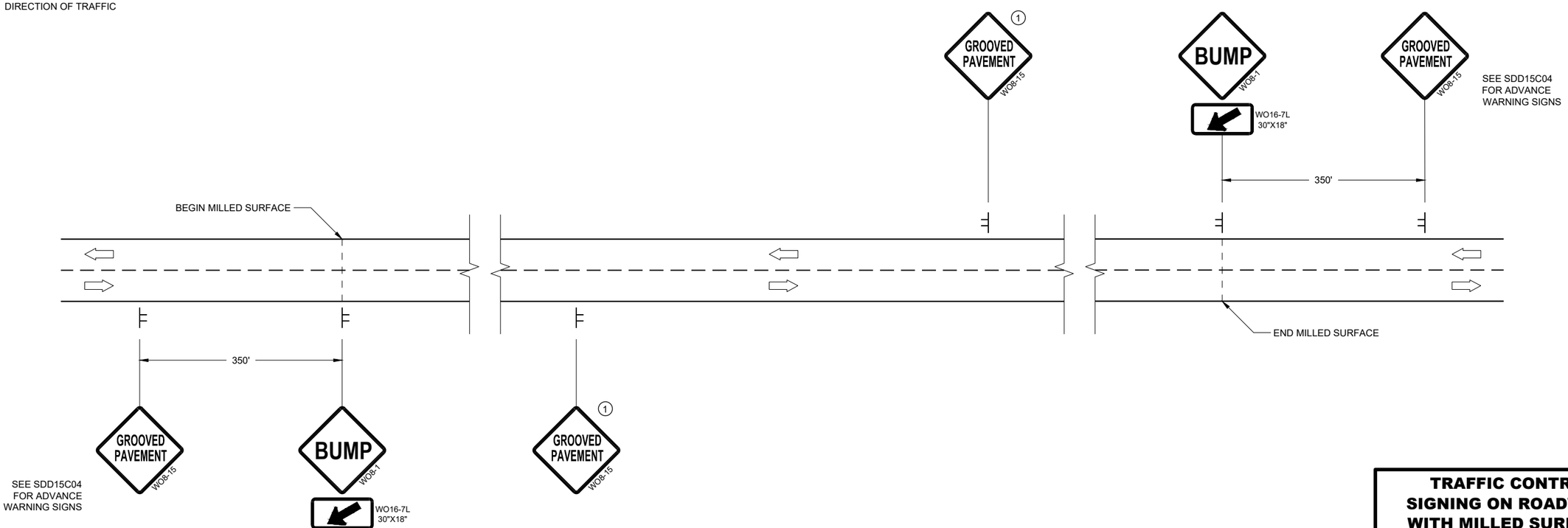
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15D44 - 02

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

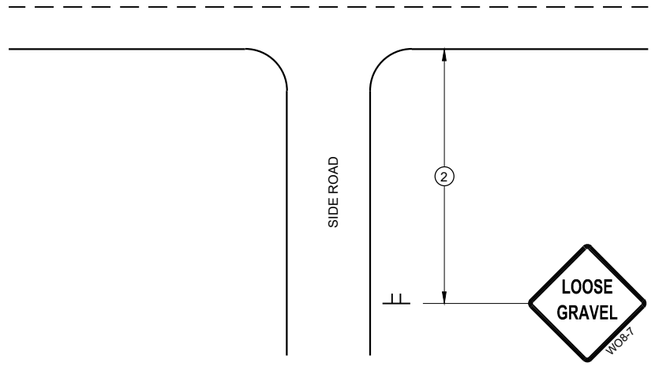
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

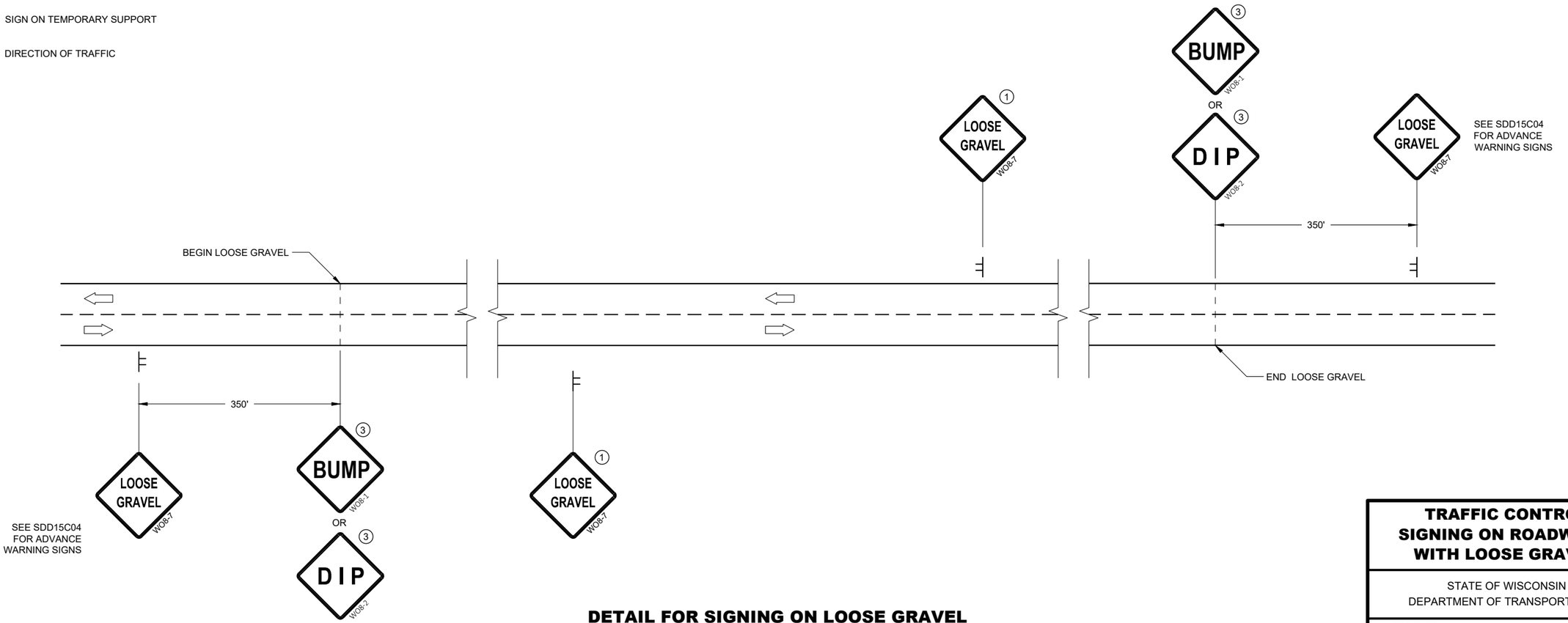
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D45 - 03

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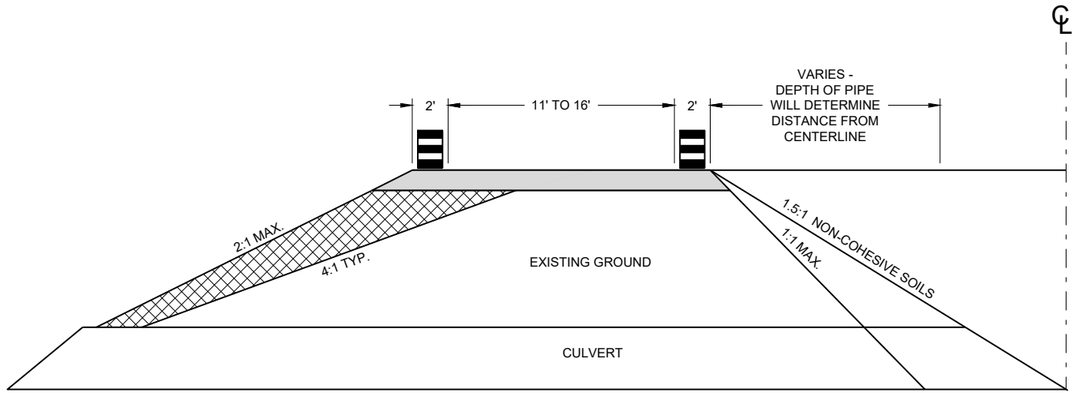
SDD 15D45 - 03



CROSS SECTION

GENERAL NOTES

USE 1:1 FOR COHESIVE CLAYS AND SILTS, LOAMS, SANDY CLAYS AND ANGULAR GRAVEL SOILS.
USE 1.5:1 FOR NON-COHESIVE SOILS.

THE TAPER SHOULD EXTEND ACROSS THE SHOULDER UNLESS DOING SO WOULD GREATLY CONFLICT WITH THE WORK OPERATION.

ALL LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL DEVICES REMOVED BEYOND THE SHOULDER WHEN WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

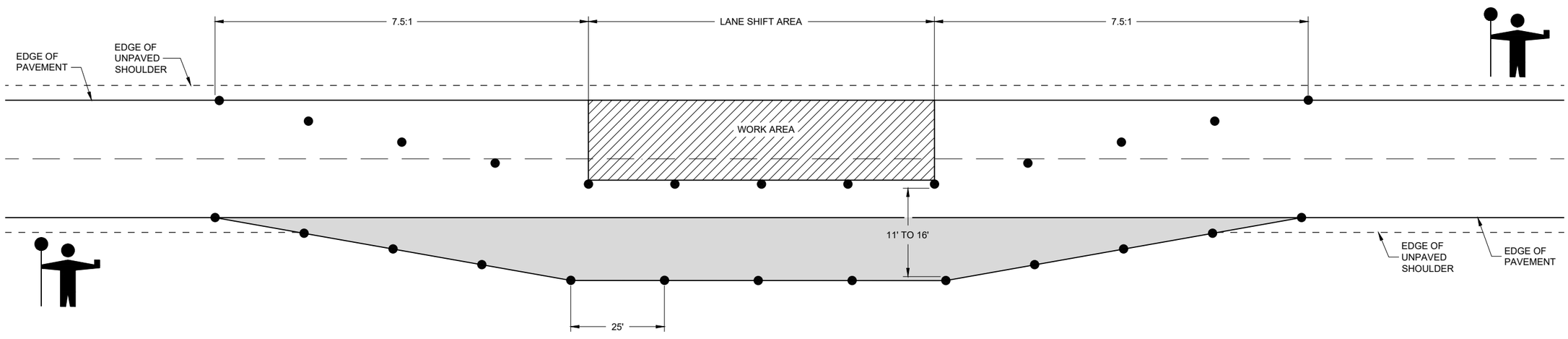
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

USE WITH SDD 15C12 "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATIONS"

USE WITH SDD 15D45 "SIGNING ON ROADWAYS WITH LOOSE GRAVEL"

LEGEND

- DRUM WITHOUT WARNING LIGHT
- 6" BASE AGGREGATE DENSE 1 ¼" -INCIDENTAL TO LANE SHIFT ITEM
- FILL - INCIDENTAL TO LANE SHIFT ITEM
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



LANE SHIFT IN FLAGGING OPERATION

TRAFFIC CONTROL, TEMPORARY LANE SHIFT DURING CULVERT WORK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D48 - 01

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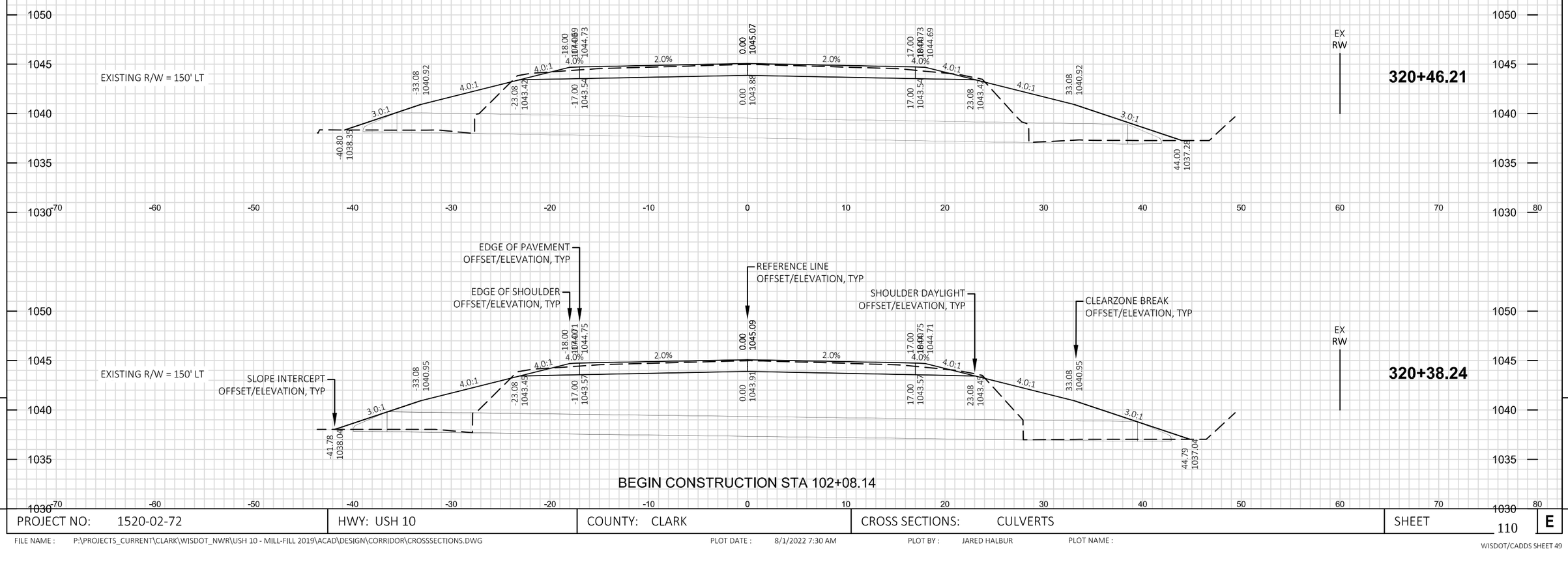
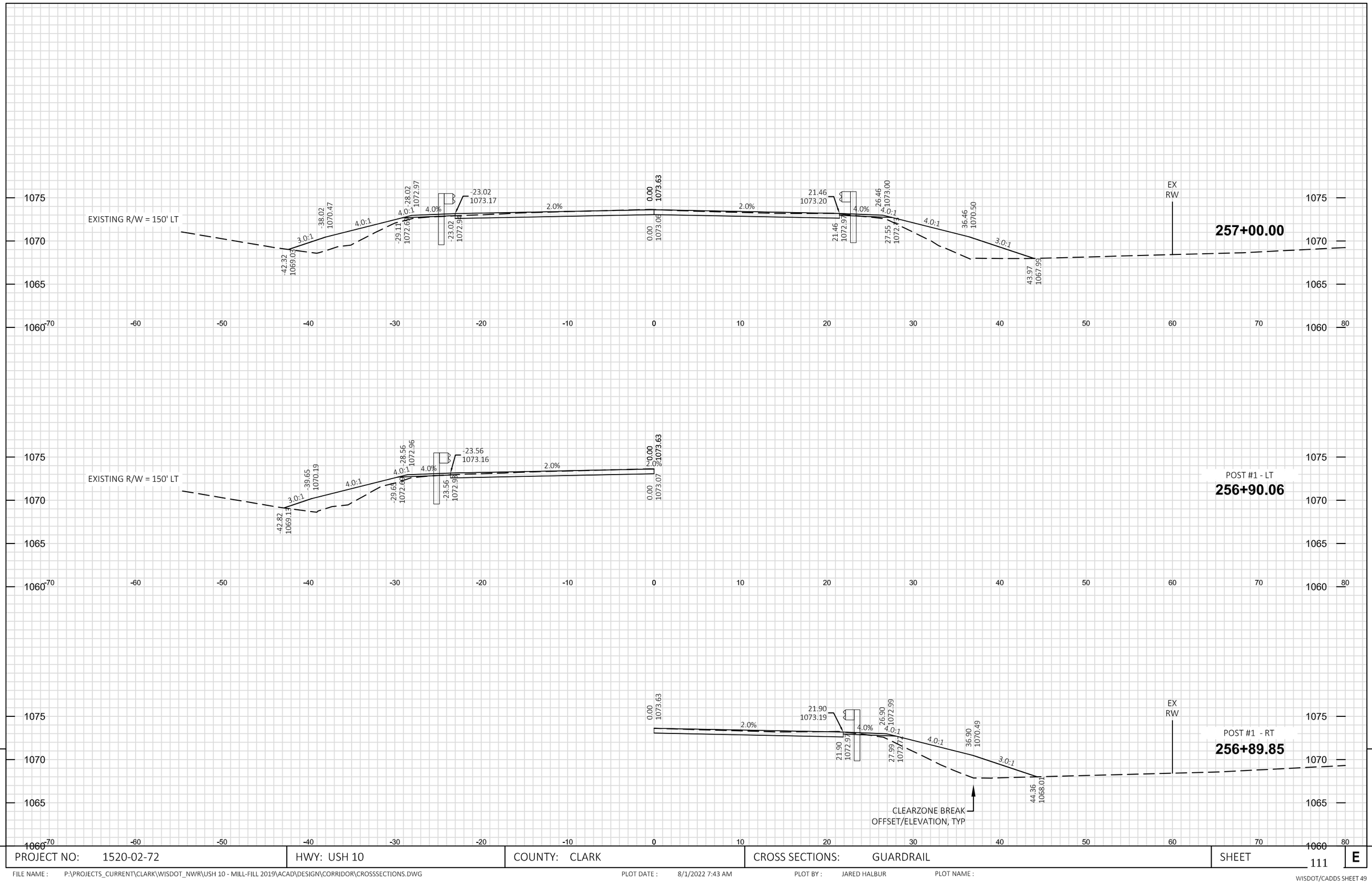
SDD 15D48 - 01



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: CULVERTS	SHEET 110 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:30 AM PLOT BY : JARED HALBUR PLOT NAME :



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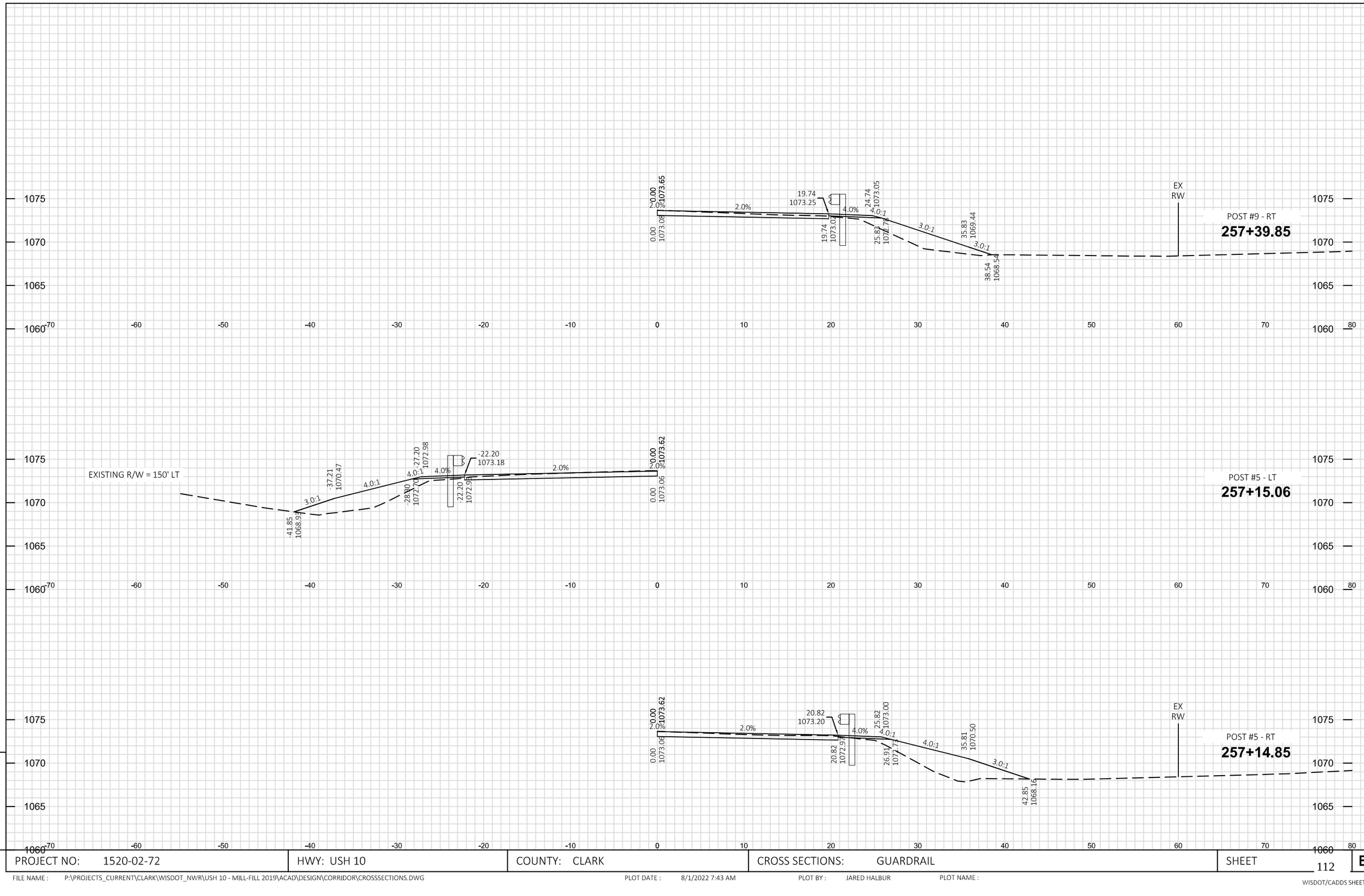
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 111 E



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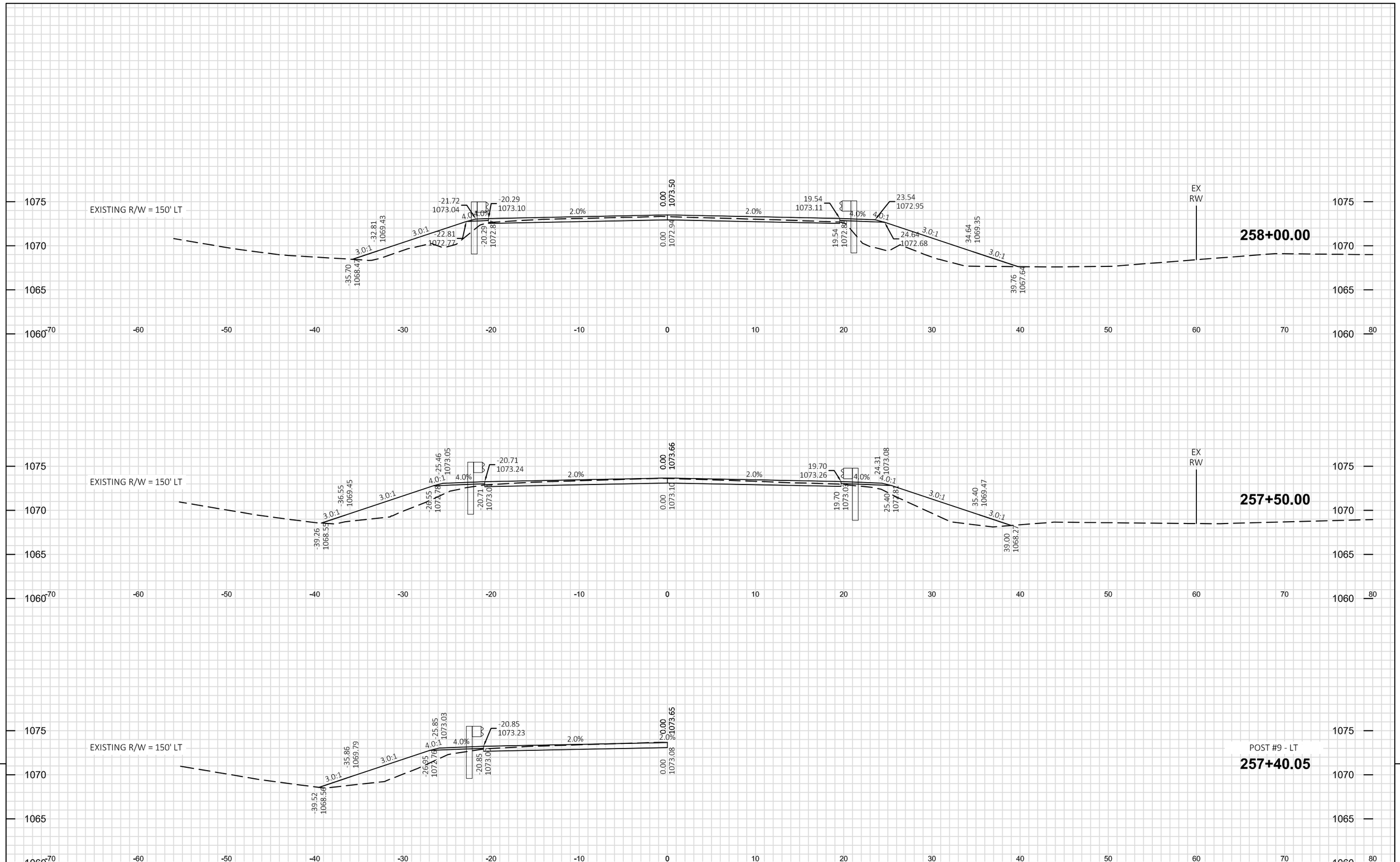
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 112 E



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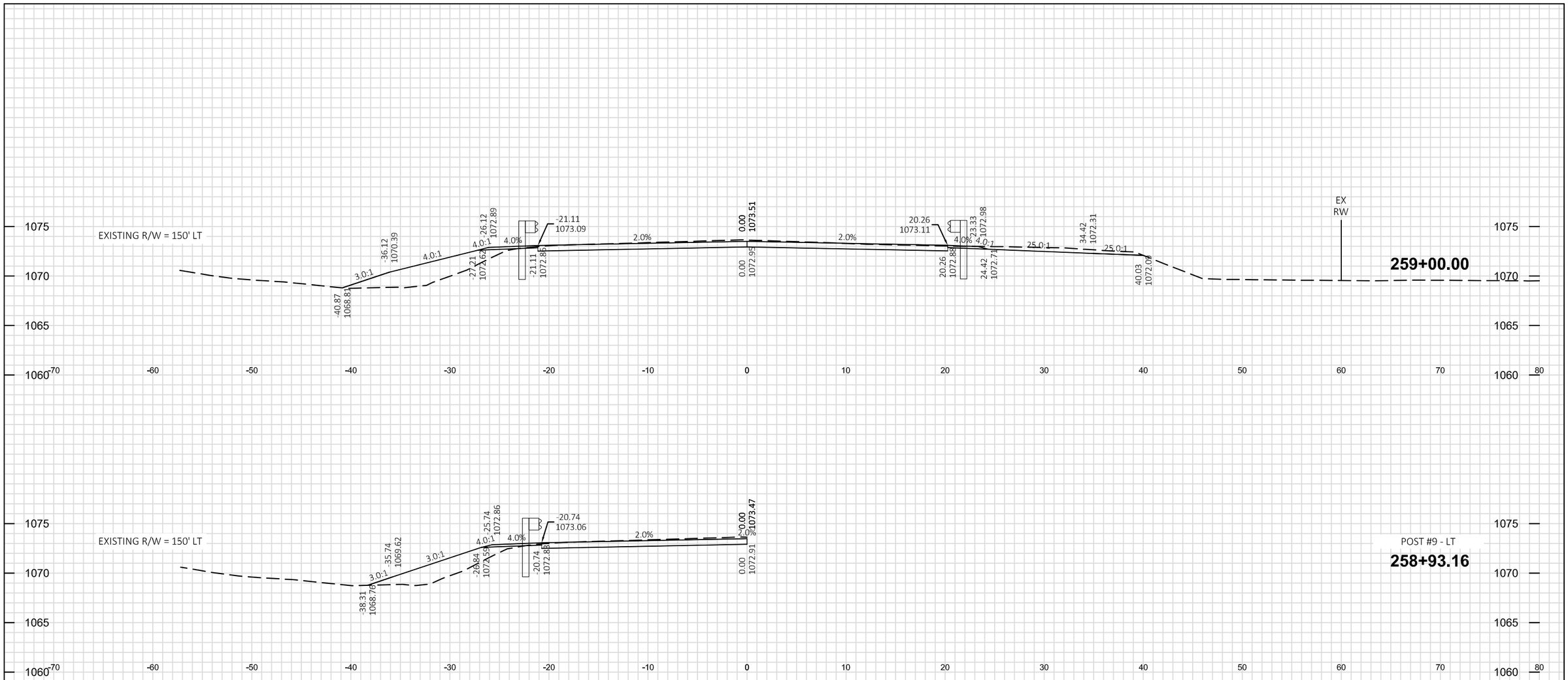
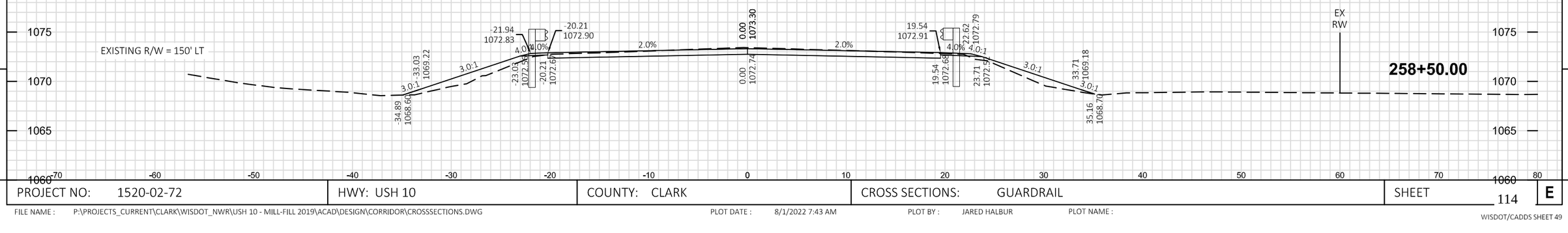
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 113 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :





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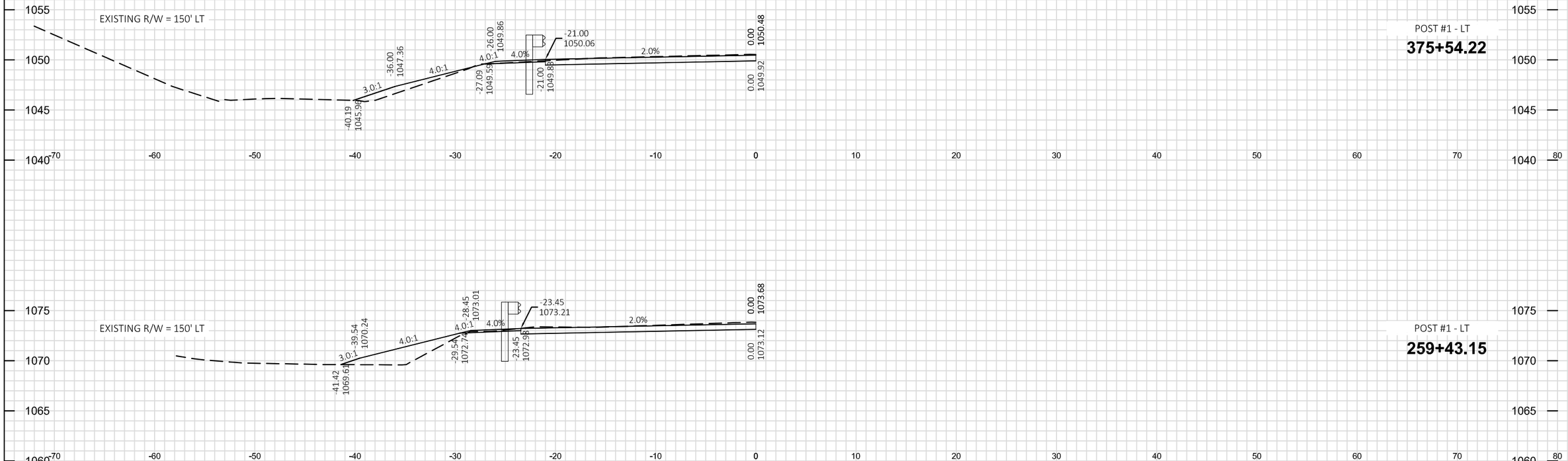
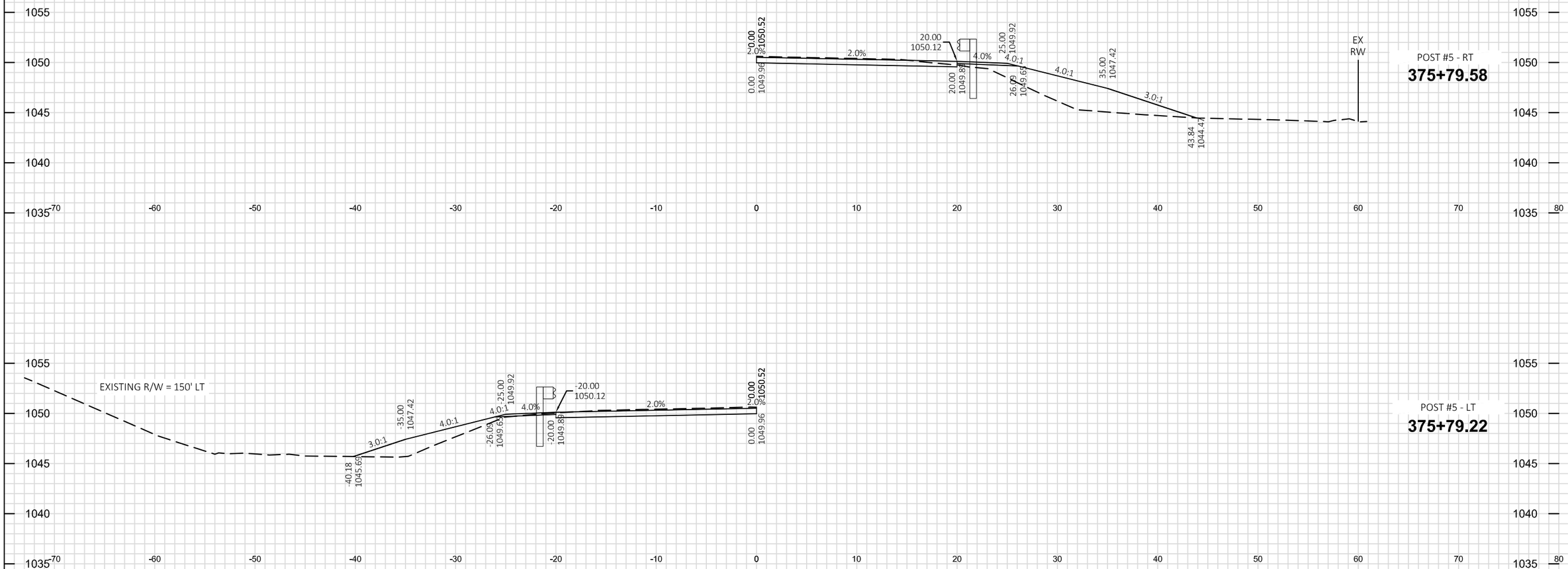
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 114	E

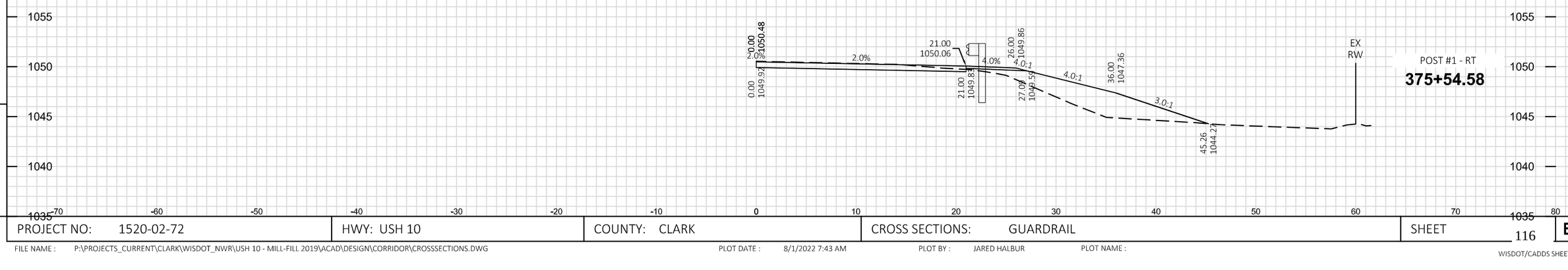
FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :



PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 115 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :





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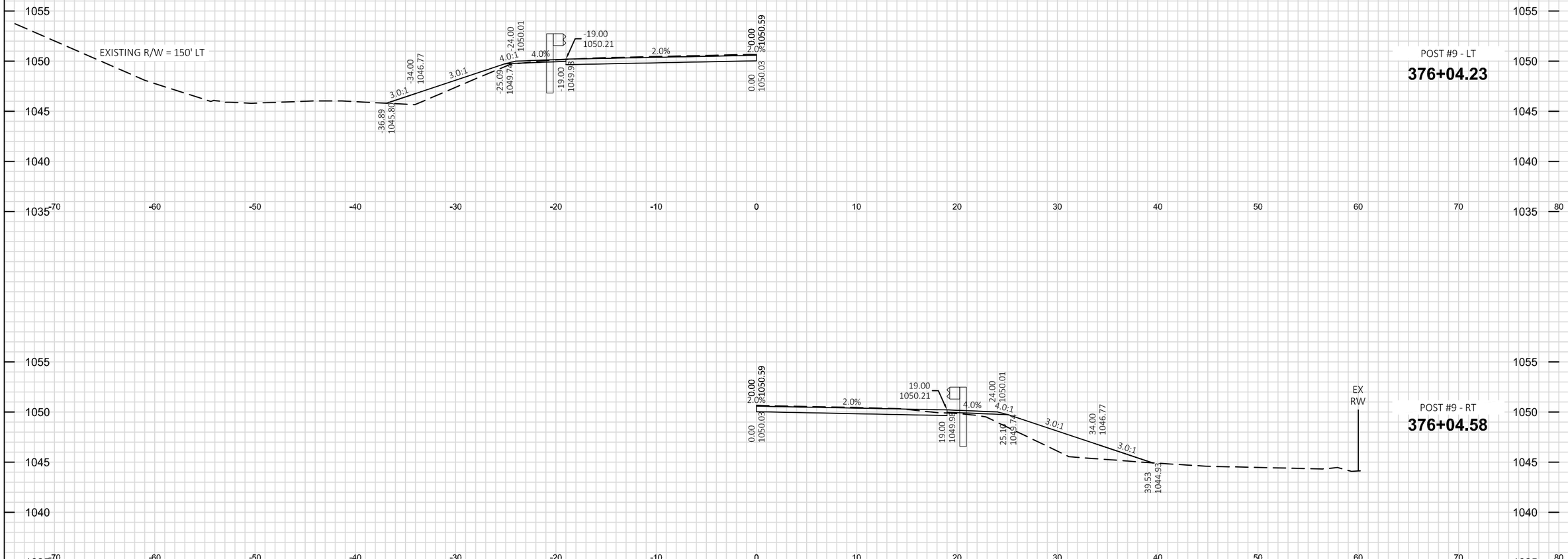
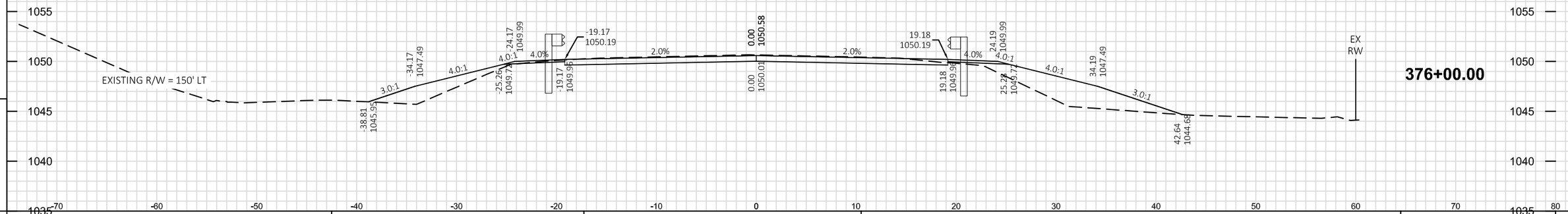
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 116 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :





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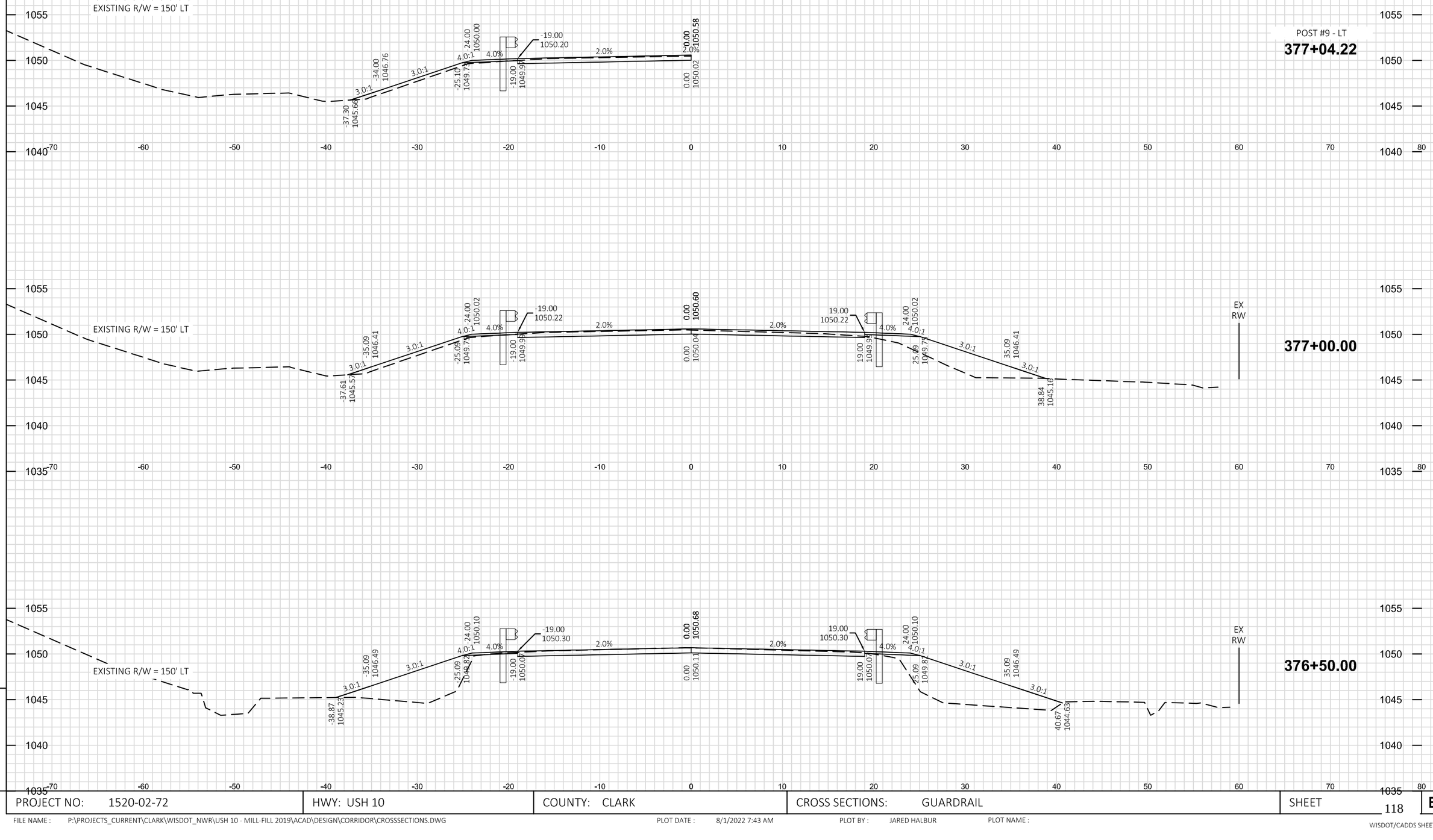
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 117	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :



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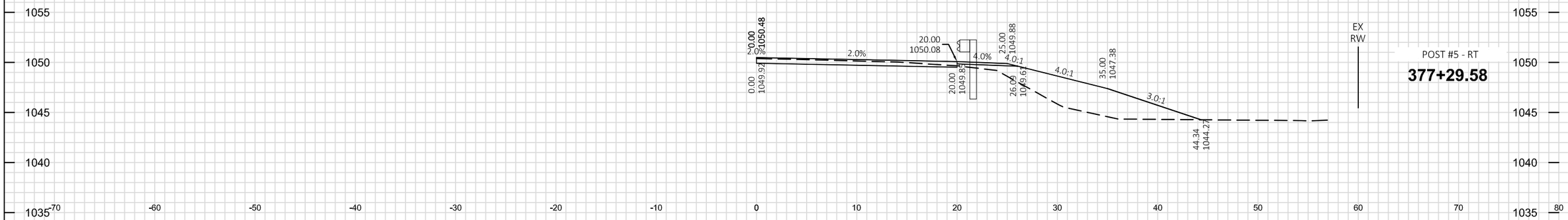
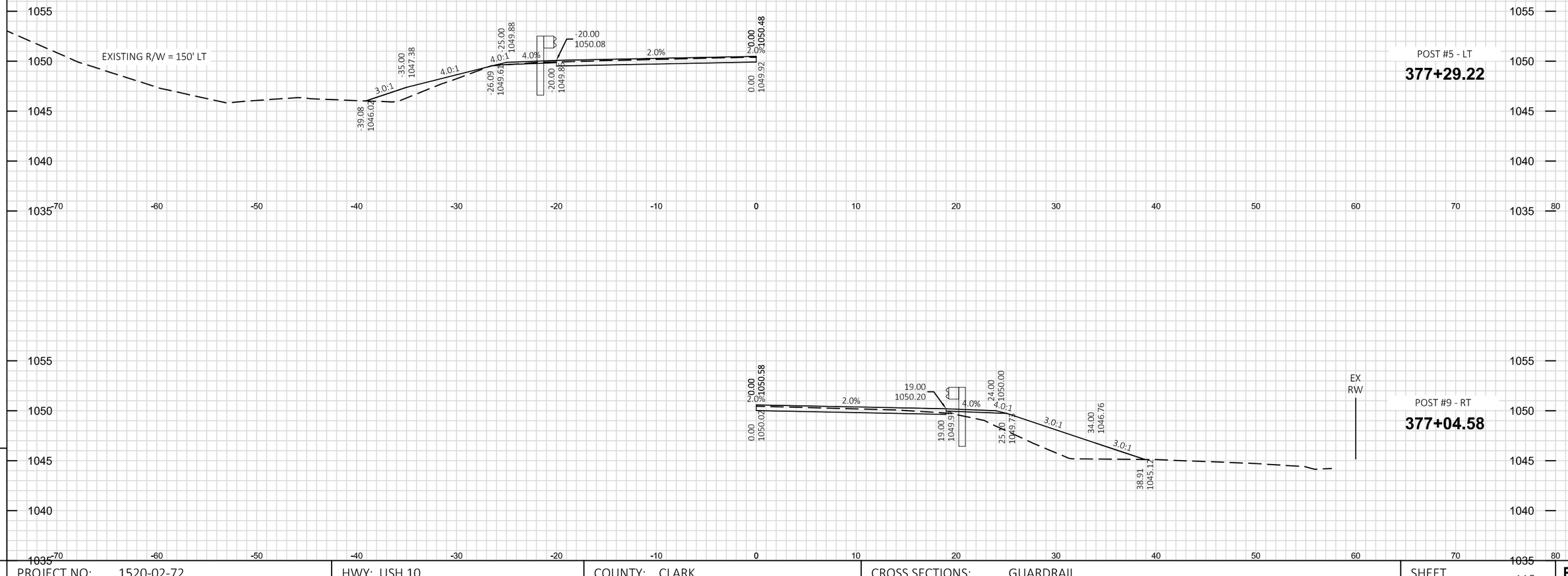
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 118 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :





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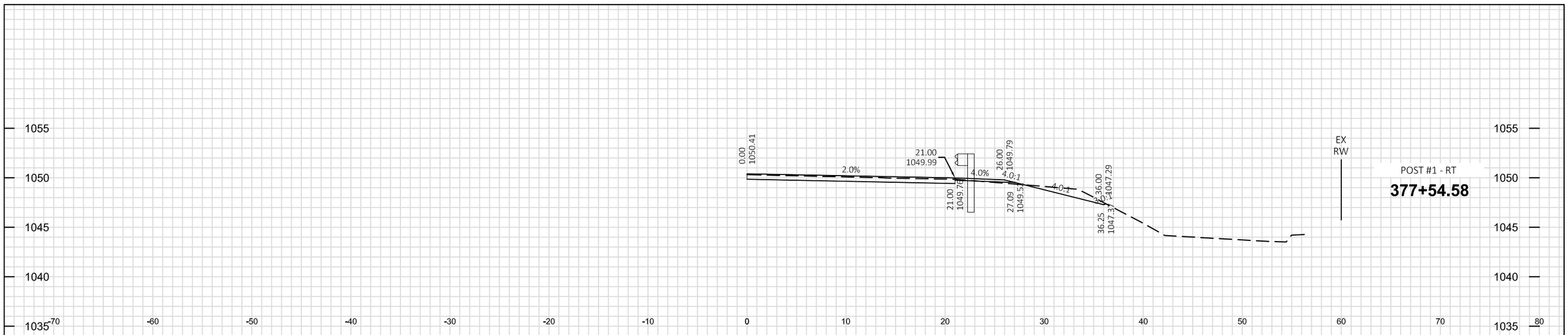
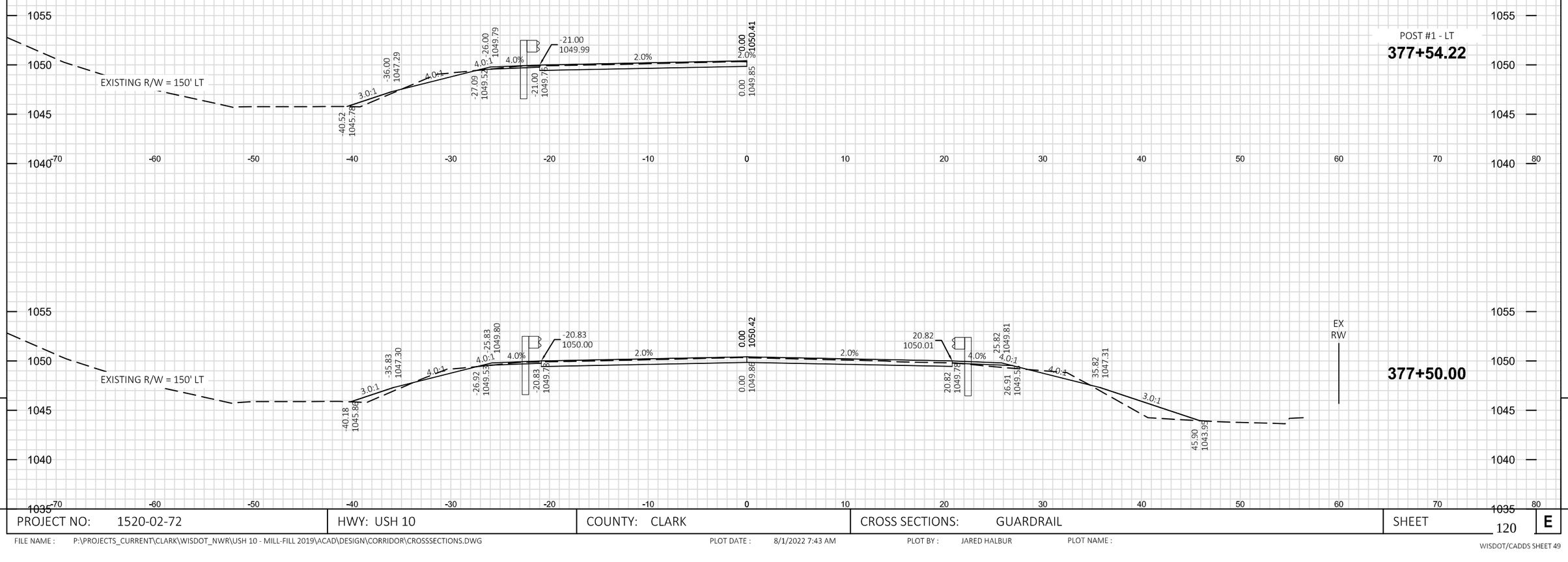
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 119	E

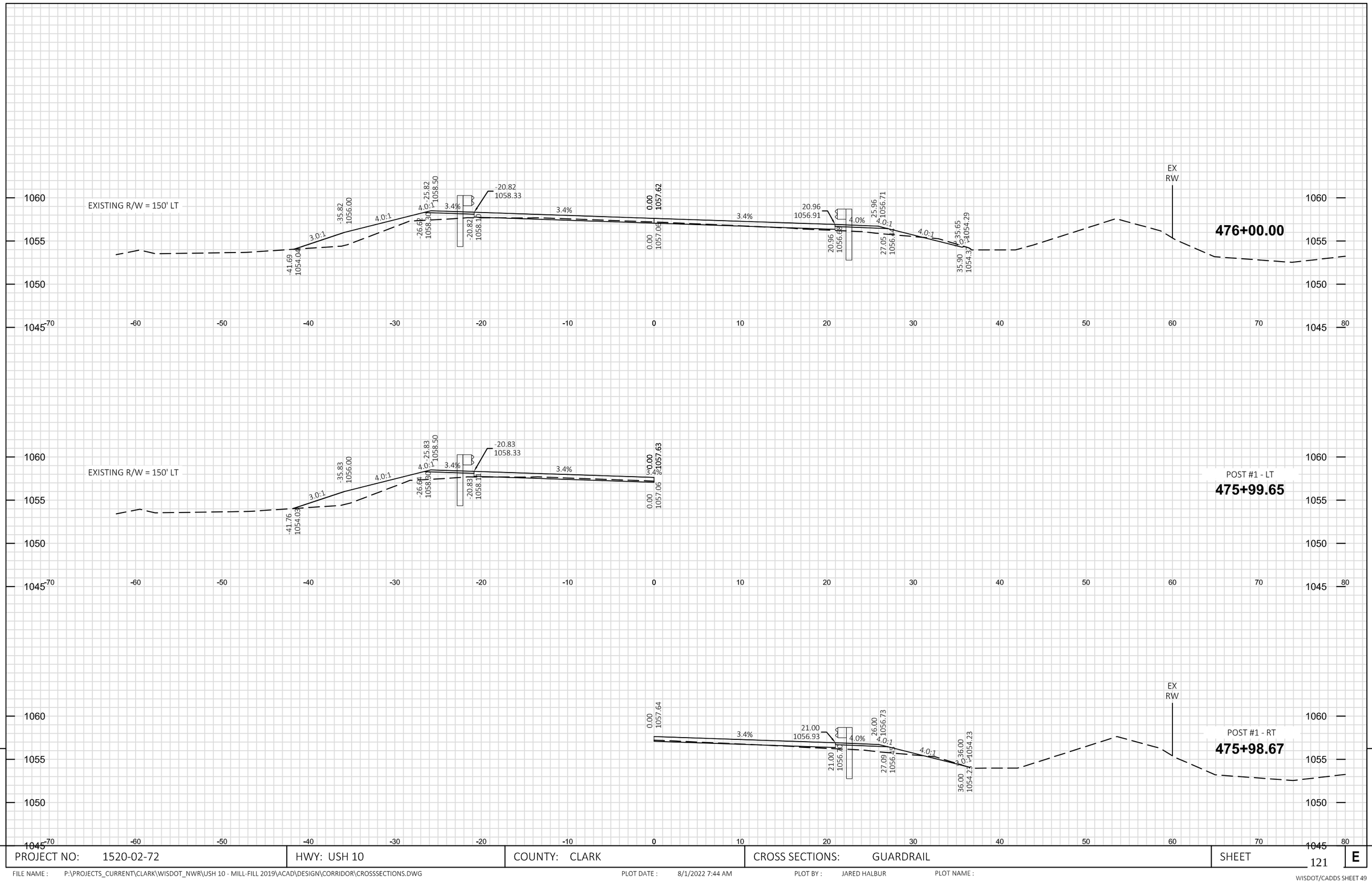
FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :





PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 120 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:43 AM PLOT BY : JARED HALBUR PLOT NAME :



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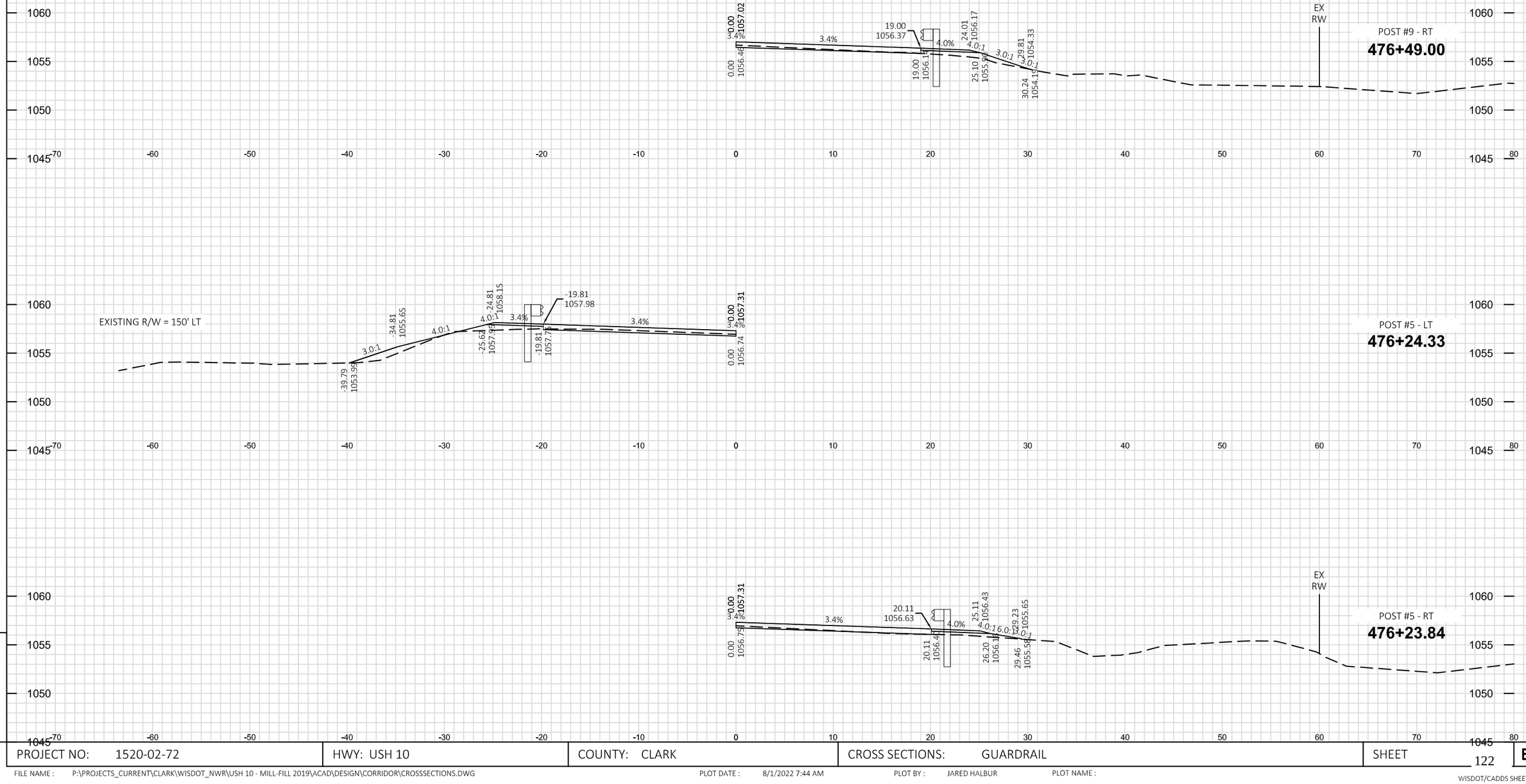
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 121	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :



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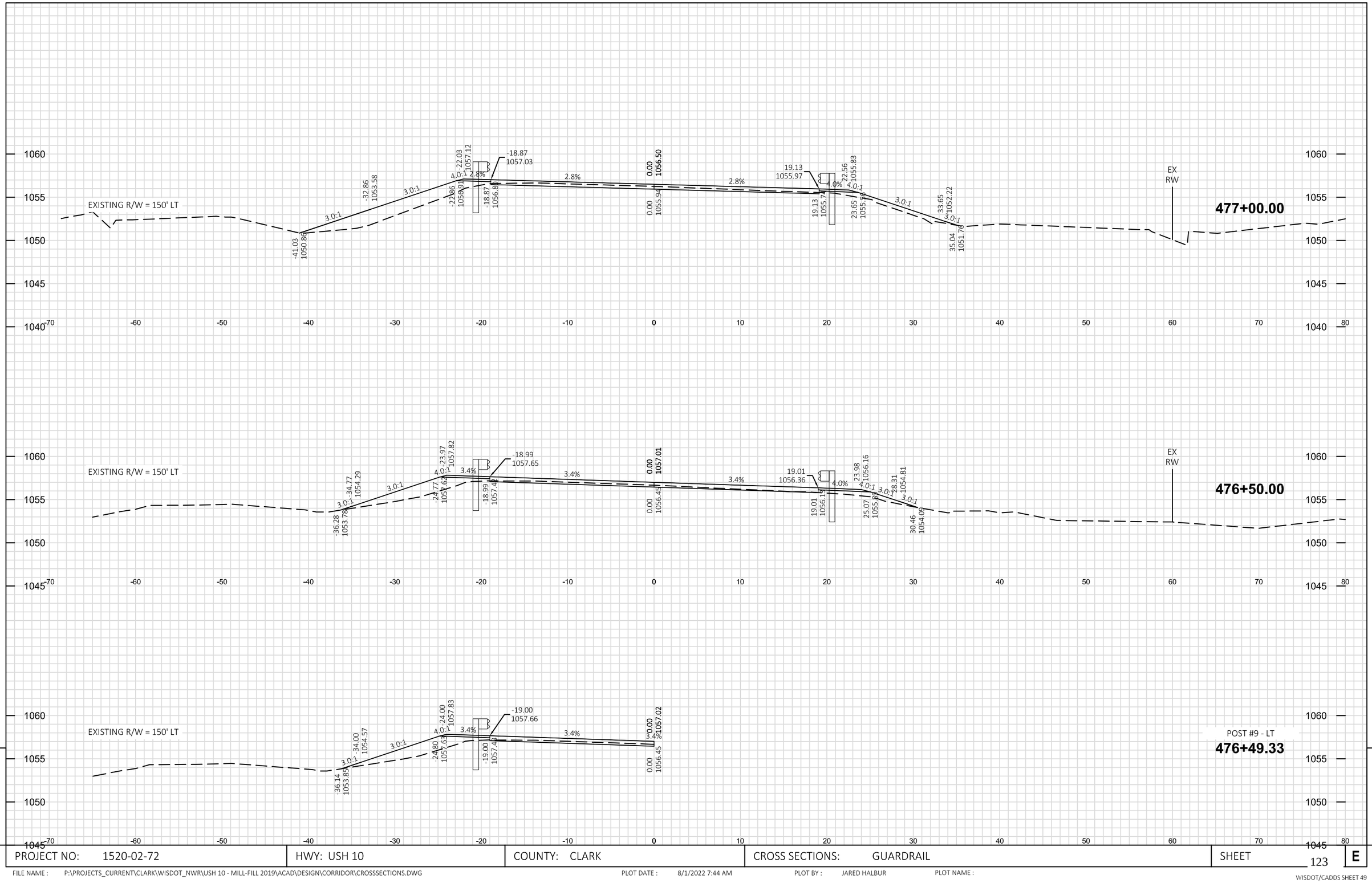
9

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 122 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :



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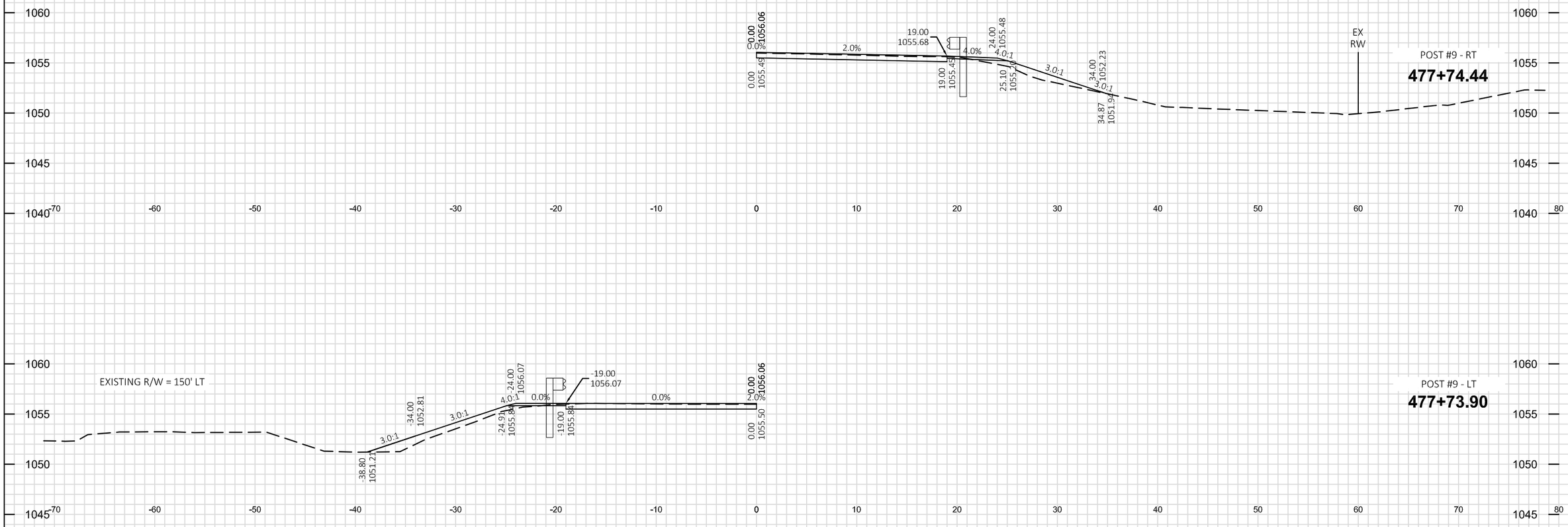
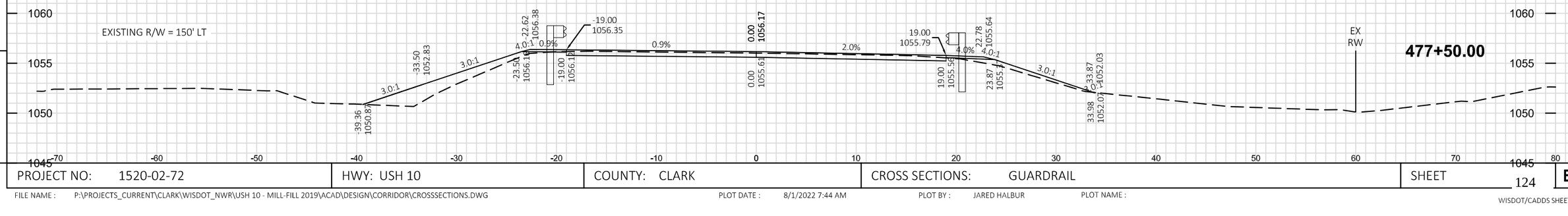
9

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 123 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :





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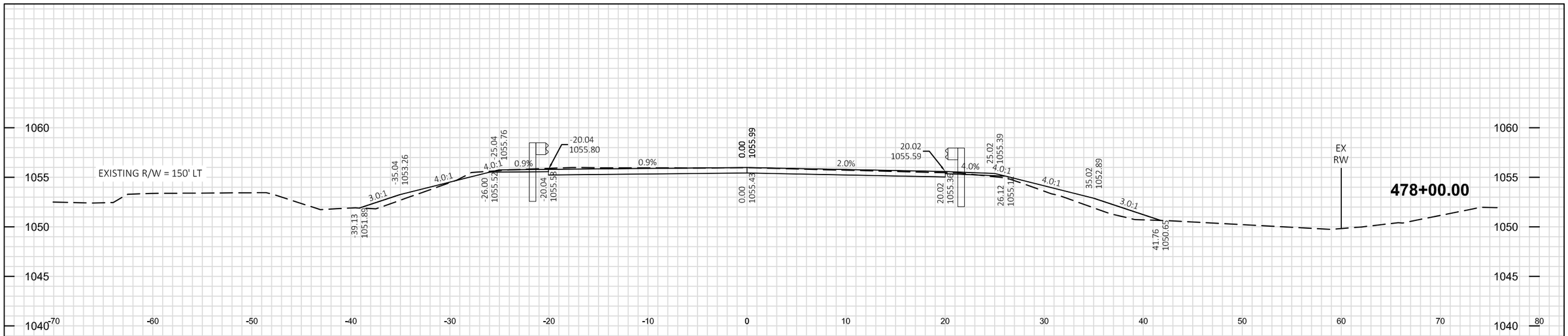
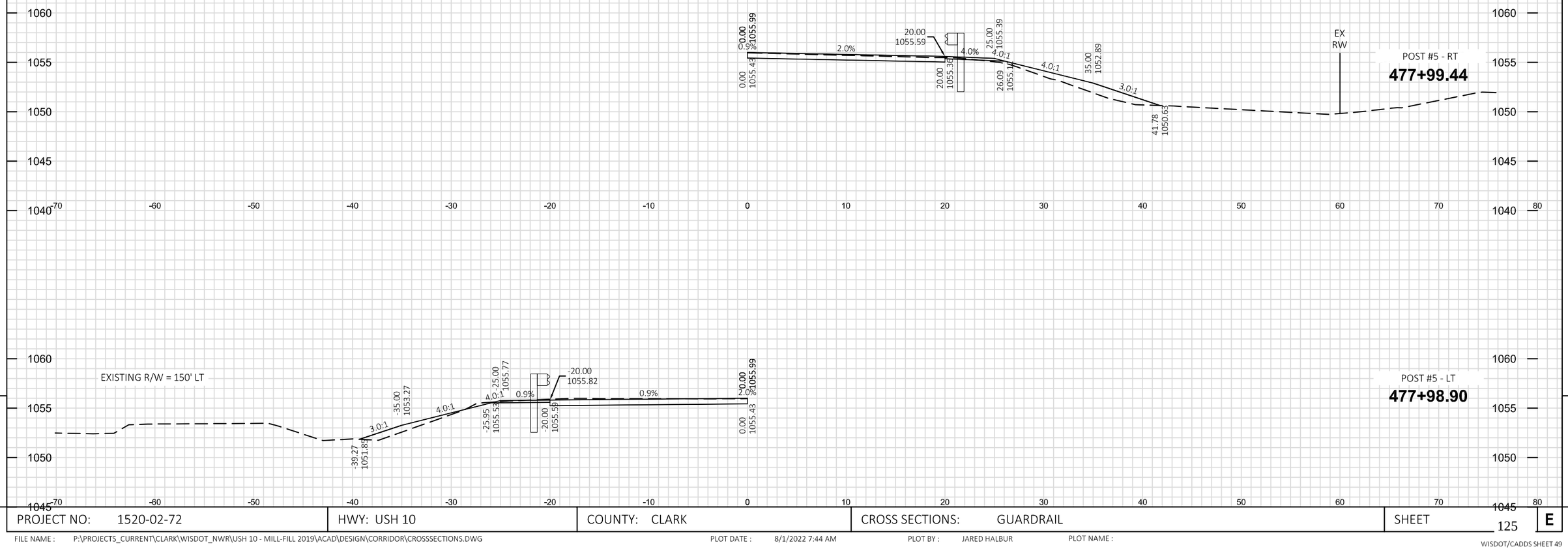
9

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 124 E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :





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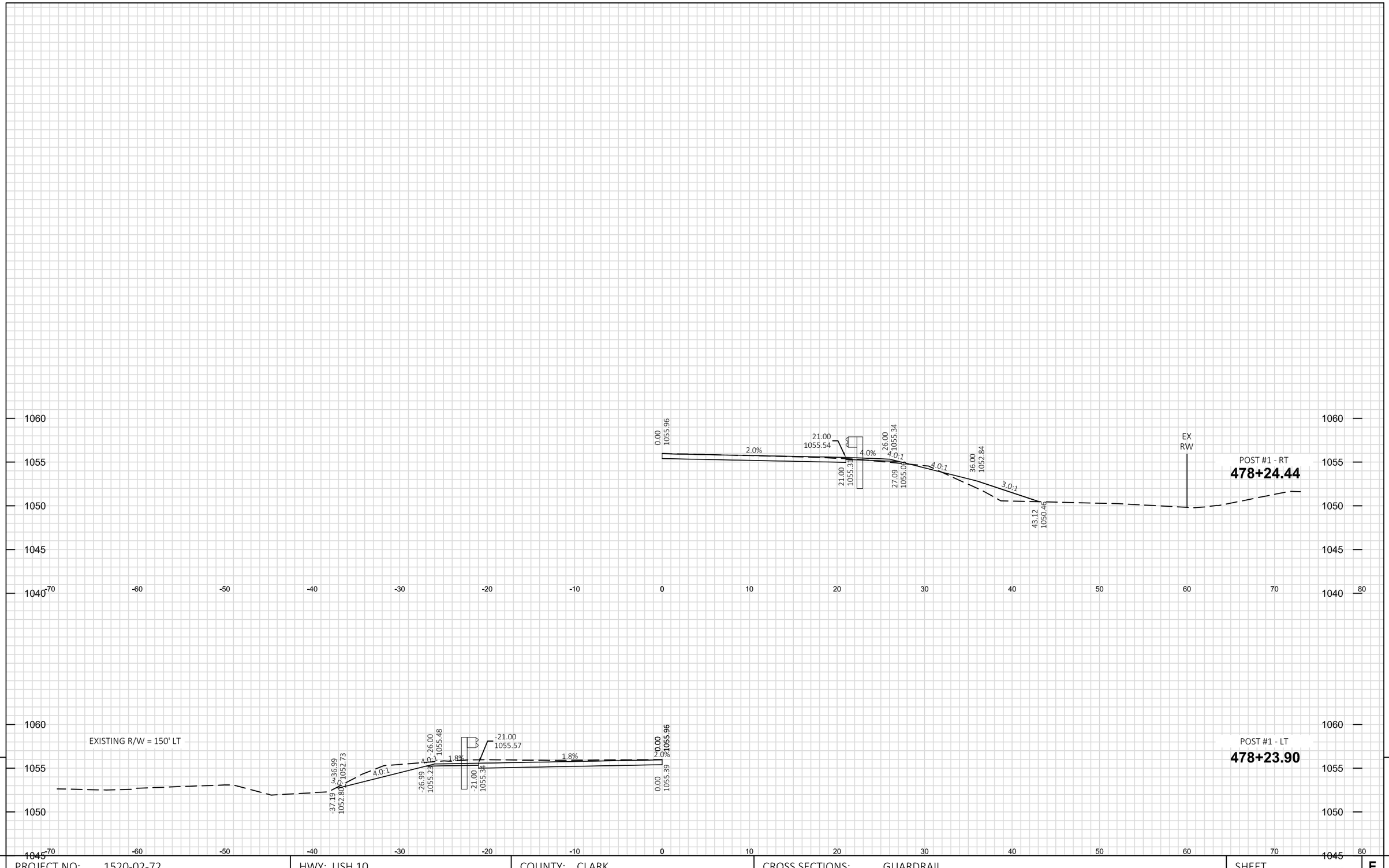
PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 125	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :



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9

PROJECT NO: 1520-02-72	HWY: USH 10	COUNTY: CLARK	CROSS SECTIONS: GUARDRAIL	SHEET 126	E

FILE NAME : P:\PROJECTS_CURRENT\CLARK\WISDOT_NWR\USH 10 - MILL-FILL 2019\ACAD\DESIGN\CORRIDOR\CROSSSECTIONS.DWG PLOT DATE : 8/1/2022 7:44 AM PLOT BY : JARED HALBUR PLOT NAME :

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov