MAD

PROJECT ID: 1706-02-64

WITH: N/A

COUNTY: LAFAYETTE

04

MARCH 2022

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
~~Section No.~~	~~4~~	~~Right of Way Plat~~
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
~~Section No.~~	~~7~~	~~Sign Plates~~
~~Section No.~~	~~8~~	~~Structure Plans~~
~~Section No.~~	~~8~~	~~Computer Earthwork Data~~
Section No.	9	Cross Sections

TOTAL SHEETS = 102

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHULLSBURG - MONROE

SHULLSBURG BRANCH BRDG TO WOLF CRK

STH 11

LAFAYETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1706-02-64	WISC 2022227	1

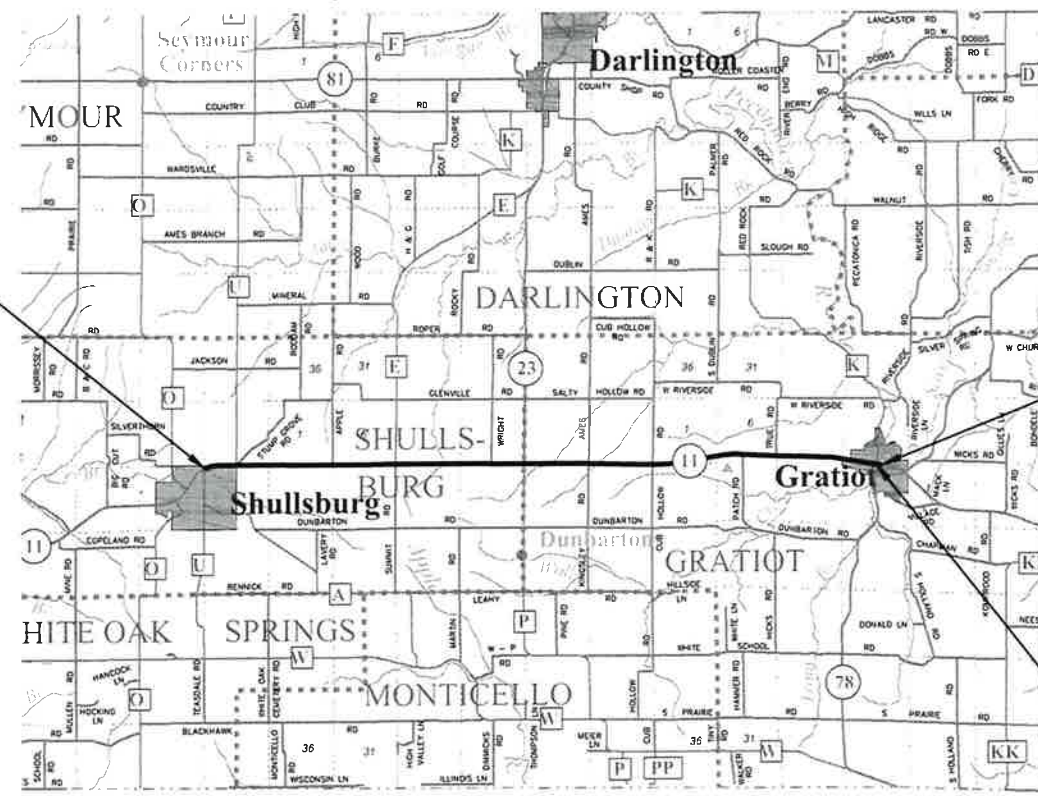
STATE PROJECT NUMBER
1706-02-64

N

DESIGN DESIGNATION

A.A.D.T.	2022	=	3500
A.A.D.T.	2042	=	3500
D.H.V.		=	406
D.D.		=	60/40
T.		=	18.2%
DESIGN SPEED		=	55 MPH
ESALS		=	1,700,000

BEGIN PROJECT
STA 105+00.00
X = 452604.012
Y = 129721.245



END PROJECT
STA 661+12.30

NET EXCEPTION TO CL LENGTH
STA 657+64.33 - STA 658+46.84

CONVENTIONAL SYMBOLS

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

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

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

LAYOUT

SCALE 0 3 MI

TOTAL NET LENGTH OF CENTERLINE = 10.517 MI.

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

ORIGINAL PLANS PREPARED BY

SRF

WISCONSIN
BRIAN M. GENSKOW
E-45795-6
MIDDLETON, WI
PROFESSIONAL ENGINEER

10/22/21

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING
Designer	SRF CONSULTING GROUP, INC.
Project Manager	CHRIS HAZARD
Regional Examiner	SW REGION
Regional Supervisor	KURT JOHNSON

APPROVED FOR THE DEPARTMENT

DATE: 11/1/2021 (Signature)

E

GENERAL NOTES

THE ALIGNMENT IN THIS PLAN IS BASED ON THE EXISTING AS BUILTS. THE ACTUAL ROADWAY CENTERLINE MAY DEVIATE FROM THE PLAN. NEW HMA PAVEMENT SHALL FOLLOW EXISTING ROADWAY CENTERLINE. ANY ADJUSTMENTS SHALL BE INCIDENTAL TO OTHER ITEMS IN THE CONTRACT.

FIELD VERIFY EXISTING SUPER ELEVATIONS BEFORE MILLING. EXISTING CURVE SUPER ELEVATION SHALL BE RESTORED IN KIND UNLESS SUPER ELEVATION ADJUSTMENT IS SPECIFICALLY NOTED IN THE PLANS OR AS DIRECTED BY THE ENGINEER. SUPER ELEVATION SHOWN IN THE PLAN IS FOR REFERENCE ONLY.

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

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING OR PARKING LANE.

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

ALL WASTE MATERIAL RESULTING FROM THE VARIOUS CONSTRUCTION OPERATIONS SHALL BE ENTIRELY REMOVED AND PROPERLY DISPOSED OF IMMEDIATELY OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND RESTORATION (INCLUDING, BUT NOT LIMITED TO, SEED, FERTILIZER, MULCH, AND EROSION MAT) OF ANY DISTURBED AREAS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AS DETERMINED BY THE ENGINEER.

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUES, THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF ALL LANDMARKS, BENCHMARKS, AND OTHER CONTROL POINTS IN ALL AREAS WHERE SUCH LANDMARKS, BENCHMARKS, OR OTHER CONTROL POINTS MAY EXIST.

THE CONTRACTOR SHALL PROTECT ALL SURVEY MARKERS. SURVEY MARKERS SHALL NOT BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

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 AREA NOT SHOWN.

EROSION CONTROL FEATURES SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH A TIME AS THE ENGINEER DETERMINES THE MEASURES NOT LONGER NECESSARY.

DO NOT STORE EQUIPMENT OR MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS, OR WATERWAYS.

DO NOT PLACE FERTILIZER WITHIN 20 FEET OF WETLANDS OR WET DRAINAGE CHANNEL.

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

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES AND 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

ENSURE THAT DH8228 GPS IS NOT DISTURBED, BUMPED OR MOVED DURING THE DURATION OF THE PROJECT. NOTIFY JACOB ROCKWEILER IMMEDIATELY IF DH8228 GPS IS DISTURBED, BUMPED OR MOVED DURING CONSTRUCTION OPERATIONS.

JACOB ROCKWEILER, P.E., WISCONSIN HEIGHT MODERNIZATION PROGRAM MANAGER WITH THE WISCONSIN DEPARTMENT OF TRANSPORTATION WHOSE NUMBER IS (608) 516-6362 AND EMAIL IS jacob.rockweiler@dot.wi.gov.

UTILITY CONTACTS

ALLIANT ENERGY - ELECTRICITY

BETSI BASS
1915 STATE ROAD 69 S
MONROE, WI 53566
OFFICE: (608) 328-5323
CELL: (608) 333-4343
betsibass@alliantenergy.com

ALLIANT ENERGY - GAS/PETROLEUM

BETSI BASS
1915 STATE ROAD 69 S
MONROE, WI 53566
OFFICE: (608) 328-5323
CELL: (608) 333-4343
betsibass@alliantenergy.com

CENTURYLINK - COMMUNICATION

DOUG MCGOWAN
135 N. BONSON STREET
PLATTEVILLE, WI 53818
(608) 482-5377
doug.mcgowan1@lumen.com

MID-AMERICA PIPELINE COMPANY - GAS/PETROLEUM

BRIAN MUELLER
(319) 341-4615
bmueller@eprod.com

NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM

LENNY KLAAS
5557 COUNTY HIGHWAY D
PLATTEVILLE, WI 53818
OFFICE: (402) 530-2806
CELL: (608) 778-8514
leonard.klaas@nngco.com

SCENIC RIVERS ENERGY COOPERATIVE - ELECTRICITY

SHANE CROWLEY
231 N SHERIDAN ST
LANCASTER, WI 53813
OFFICE: (608) 723-2121 EXT 553
CELL: (608) 988-6455
scrowley@srec.net

VILLAGE OF GRATIOT - SEWER

BRIAN SIGAFUS
10195 SCHOOL ST
GRATIOT, WI 53541
(608) 482-0228
gratiot53541@gmail.com

VILLAGE OF GRATIOT - WATER

BRIAN SIGAFUS
10195 SCHOOL ST
GRATIOT, WI 53541
(608) 482-0228
gratiot53541@gmail.com

WE ENERGIES - GAS/PETROLEUM

ADAM MARING
N3025 14TH AVE
MONROE, WI 53566
OFFICE: (608) 328-5679
CELL: (608) 426-1715
Adam.Maring@we-energies.com

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

**DENOTES UTILITIES THAT ARE NOT DIGGERS HOTLINE MEMBERS.

DNR CONTACT

SHELLEY NELSON
DNR SOUTH CENTRAL REGION HQ
3911 FISH HATCHERY RD
FITCHBURG, WI 53711
(608) 444-2835
shelley.nelson@wisconsin.gov

WISDOT CONTACT

CHRIS HAZARD
WISCONSIN DEPARTMENT OF TRANSPORTATION, SW REGION
2101 WRIGHT STREET
MADISON, WI 53704
(608) 245-2652
christopher.hazard@dot.wi.gov

DESIGN CONTACT

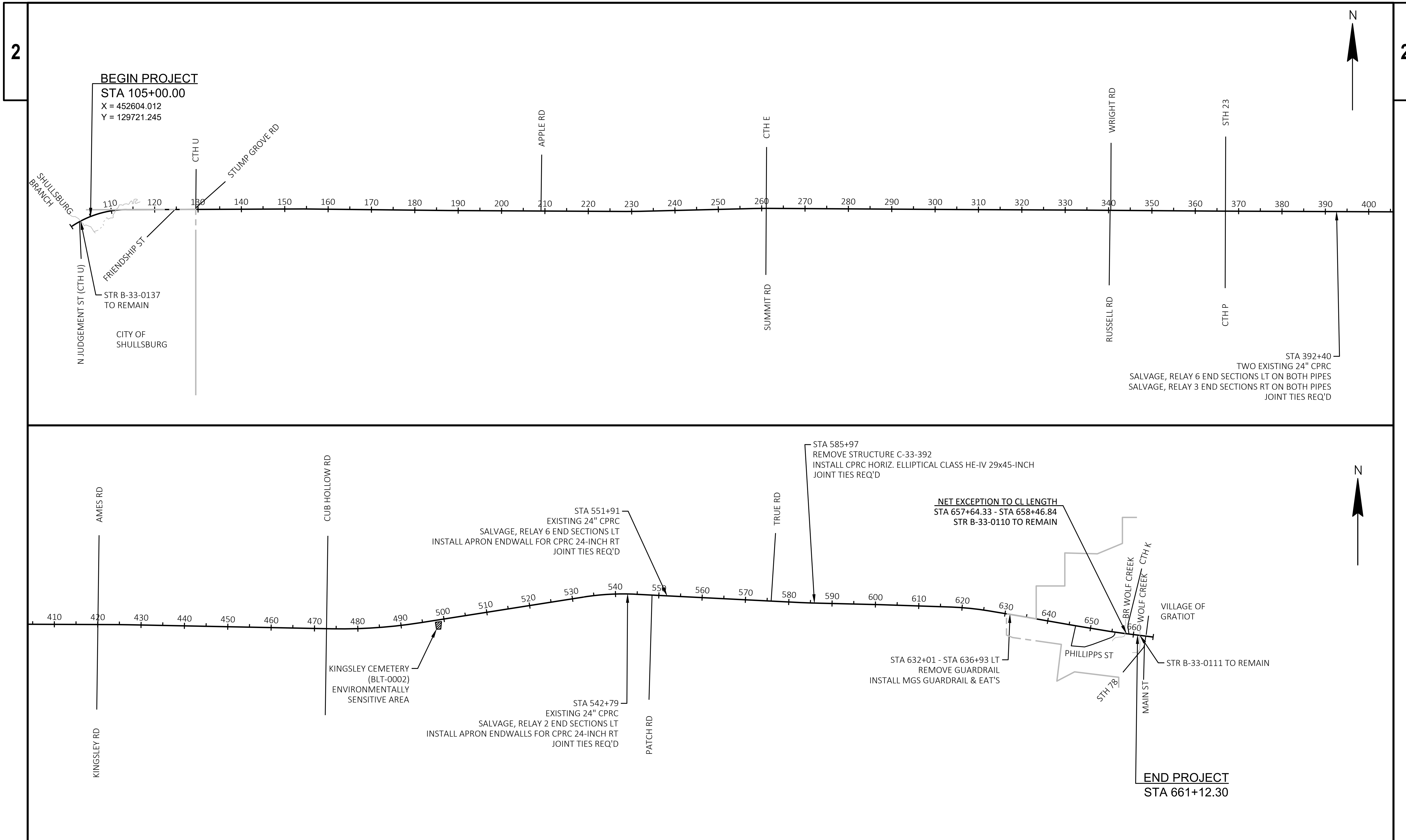
BRIAN GENSKOW
SRF CONSULTING GROUP
6720 FRANK LLOYD WRIGHT AVENUE, SUITE 100
MIDDLETON, WI 53562
(608) 298-5422
bgenskow@srfconsulting.com

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
EROSION CONTROL
PAVEMENT MARKING
ADVANCED WIDTH RESTRICTION SIGNING
TRAFFIC CONTROL - PCMS LAYOUT

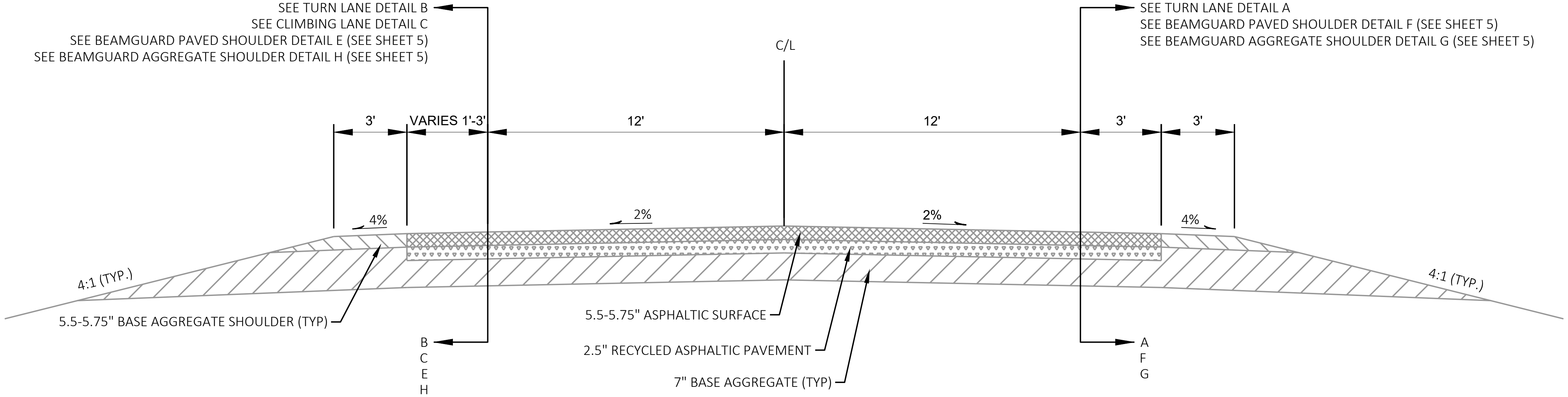
STANDARD ABBREVIATIONS

AP	Access Point	INV	Invert
AC	Acre	IP	Iron Pipe or Pin
AGG	Aggregate	LT	Left
AADT	Annual Average Daily Traffic	LF	Linear Foot
ASPH	Asphaltic	ML or M/L	Match Line
BL	Base Line	MH	Manhole
BM	Bench Mark	MP	Marker Post
CE	Commercial Entrance	MB	Message Board
CL	Center Line	NOM	Nominal
CONC	Concrete	NC	Normal Crown
CO	County	NB	Northbound
CABC	Crushed Aggregate Base Course	PAVT	Pavement
CTH	County Trunk Highway	PERM	Permanent
CY	Cubic Yard	PE	Private Entrance
CULV	Culvert	PCC	Portland Cement Concrete
CP	Culvert Pipe	PLE	Permanent Limited Easement
C&G	Curb & Gutter	PROJ	Project
DIA	Diameter	PL	Property Line
DHV	Design Hour Volume	RL	Reference Line
DD	Directional	RT	Right
DWY	Driveway	R/W	Right-of-Way
EB	Eastbound	RD	Road
ELEC	Electric (al)	RDWY	Roadway
EL or ELEV	Elevation	SHLDR	Shoulder
EW	Endwall	SB	Southbound
ESALS	Equivalent Single Axle Loads	STH	State Trunk Highways
EXC	Excavation	STA	Station
EBS	Excavation Below Subgrade	SE	Superelevation
FP	Fence Post	SI	Slope Intercept
FERT	Fertilizer	SS	Storm Sewer
F	Fill	TEL	Telephone
FG	Finished Grade	TEMP	Temporary
FL or F/L	Flow Line	TLE	Temporary Limited Easement
FO	Fiber Optic	TV	Television
FT	Foot	UG	Underground
CWT	Hundredweight	USH	United States Highway
HYD	Hydrant	VOL	Volume
IN DIA	Inch Diameter	W	Water
INL	Inlet	WB	Westbound

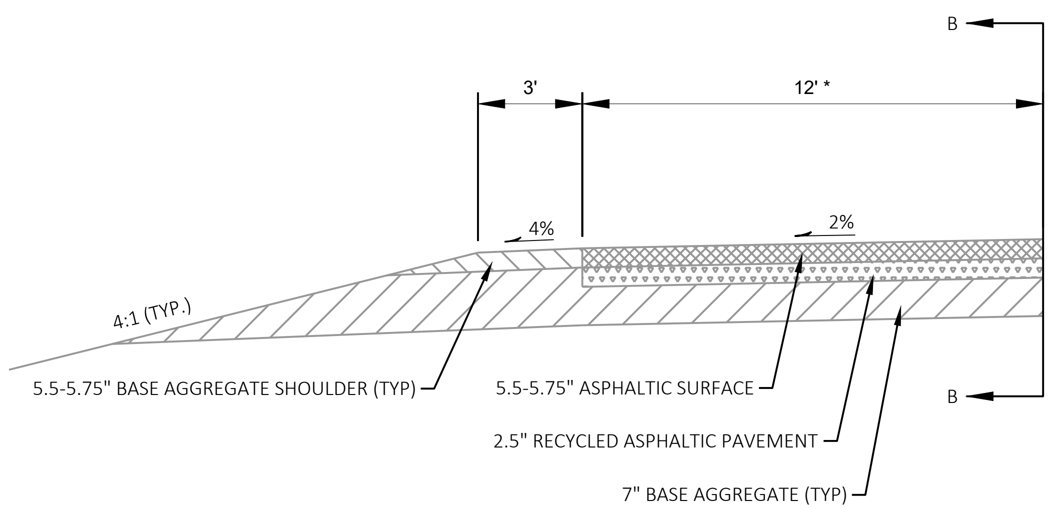


PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PROJECT OVERVIEW	SHEET 3	E

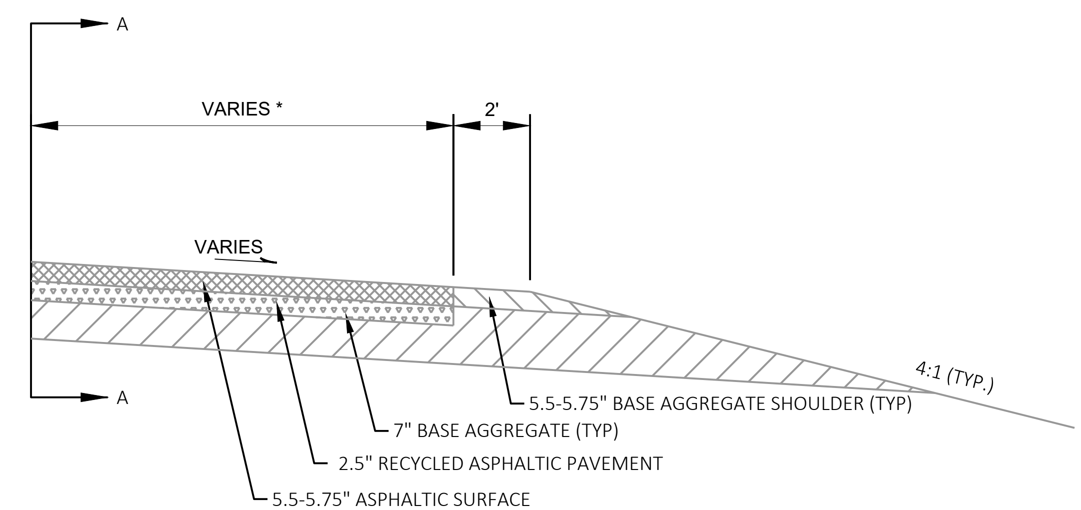
FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01-po
PLOT DATE : 10/22/2021 7:41 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 44



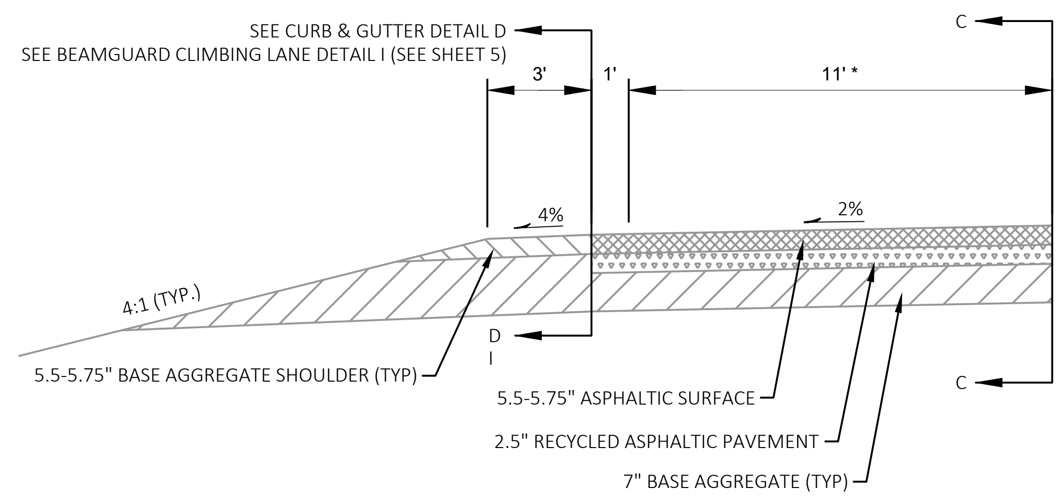
TYPICAL EXISTING SECTION
STA 105+00.00 - STA 657+64.33
STA 658+46.84 - STA 661+12.30



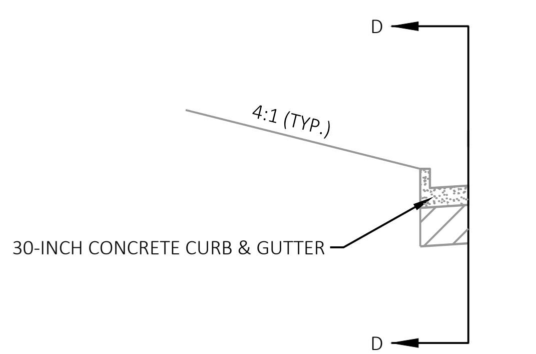
TURN LANE DETAIL B
STA 367+67.80 - STA 370+06.41
*12' - STA 367+67.80 - STA 368+98.72
*VARIES 0-12' - STA 368+98.72 - STA 370+06.41



TURN LANE DETAIL A
STA 363+62.93 - STA 366+29.39
*VARIES 0-14' - STA 363+62.93 - STA 365+34.66
*14' - STA 365+34.66 - STA 366+29.39
STA 642+43.88 - STA 645+61.76
*VARIES 0-13' - STA 642+43.88 - STA 644+18.82
*13' - STA 644+18.82 - STA 645+61.76

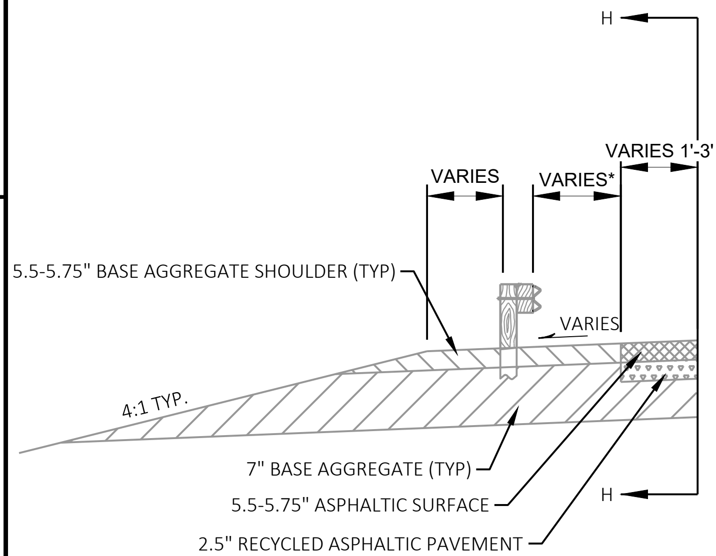


CLIMBING LANE DETAIL C
STA 573+41.55 - STA 654+72.24
*VARIES 0-11' - STA 573+41.55 - STA 575+65.76
*11' - STA 575+65.76 - STA 653+67.83
*VARIES 0-11' - STA 653+67.83 - STA 654+72.24

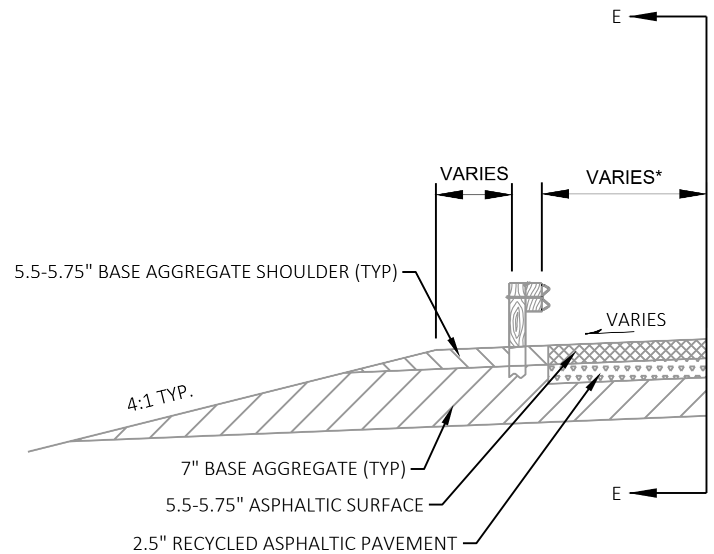


CURB & GUTTER DETAIL D
STA 611+22.39 - STA 616+05.20
STA 619+72.54 - STA 625+01.54
STA 638+42.75 - STA 645+00.44

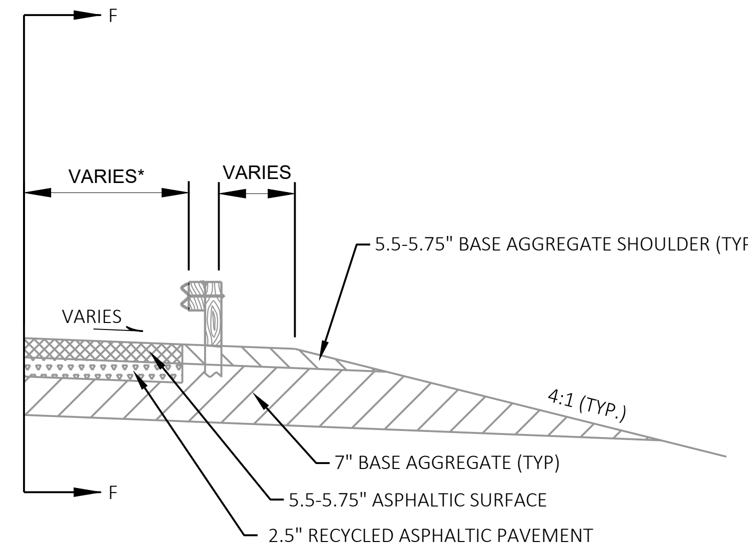
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 4	E



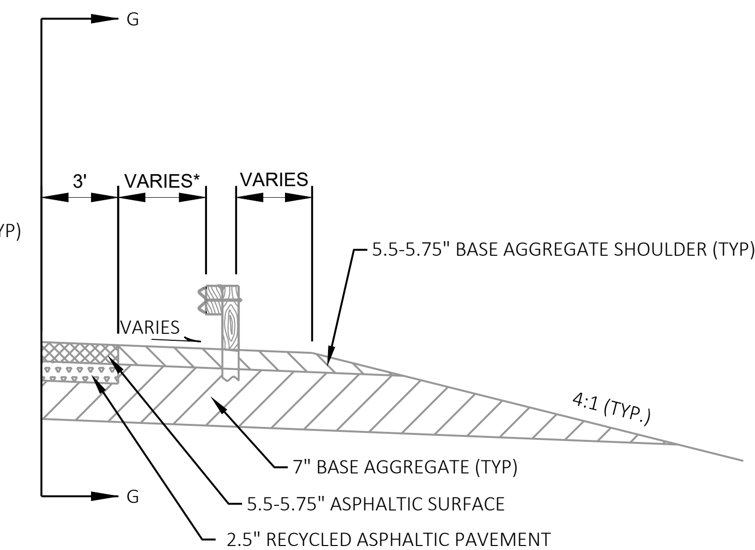
BEAMGUARD AGGREGATE SHOULDER DETAIL H
STA 382+49.08 - STA 384+16.13
*VARIES 5.5' - 8.0'
STA 425+86.92 - STA 427+08.79
*VARIES 4.4' - 7.4'
STA 478+42.70 - STA 481+60.58
*VARIES 3.1' - 5.3'



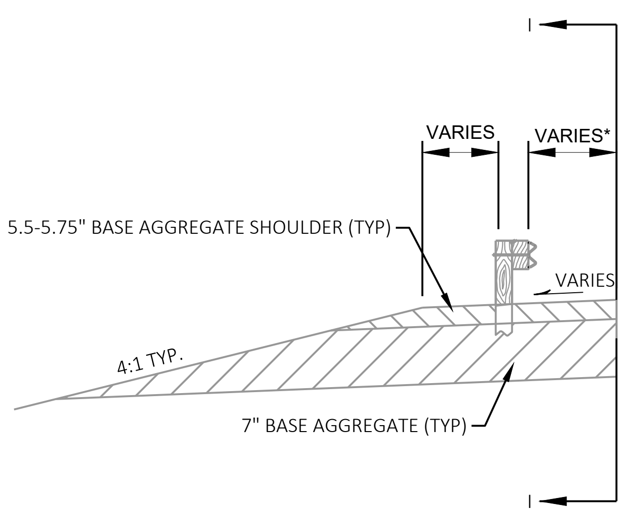
BEAMGUARD PAVED SHOULDER DETAIL E
STA 110+38.53 - STA 116+02.15
*VARIES 6.4' - 9.1'
STA 139+69.10 - STA 142+48.79
*VARIES 6' - 7.4'
STA 157+87.67 - STA 160+30.24
*VARIES 6' - 8.5'
STA 298+07.45 - STA 300+16.04
*VARIES 6' - 8.5'
STA 309+08.93 - STA 310+64.01
*VARIES 6' - 7.8'
STA 656+98.14 - STA 657+64.33
*VARIES 10.2' -11.1'
STA 660+43.65 - STA 661+12.30
*VARIES 10.1' - 12.8'



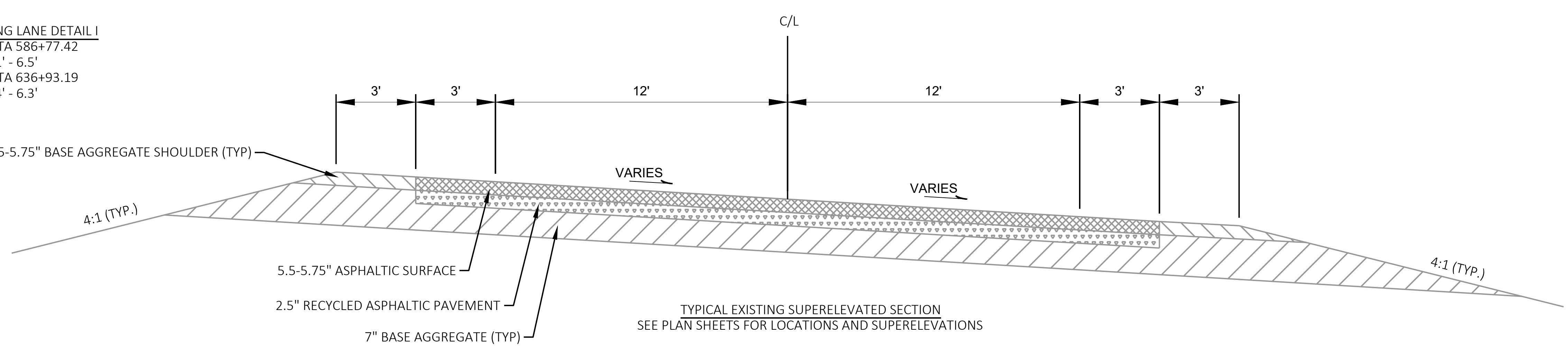
BEAMGUARD PAVED SHOULDER DETAIL F
STA 137+68.12 - STA 141+47.59
*VARIES 6' - 7.3'
STA 297+98.11 - STA 300+03.11
*VARIES 6' - 7'
STA 309+12.09 - STA 310+66.77
*VARIES 5.7' - 8'
STA 658+39.89 - STA 659+12.80
*VARIES 10.6' - 13.3'
STA 660+43.64 - STA 661+16.43
*VARIES 10.4' - 12.9'



BEAMGUARD AGGREGATE SHOULDER DETAIL G
STA 370+15.35 - STA 371+82.73
*VARIES 5.5' - 8.2'
STA 382+34.57 - STA 384+02.01
*VARIES 5' - 7.6'
STA 425+20.36 - STA 427+00.53
*VARIES 5.8' - 8'
STA 472+94.49 - STA 475+78.43
*VARIES 2.7' - 8.5'
STA 478+24.86 - STA 481+54.09
*VARIES 2.4' - 6.2'
STA 656+98.73 - STA 657+71.45
*VARIES 0' - 8.5'

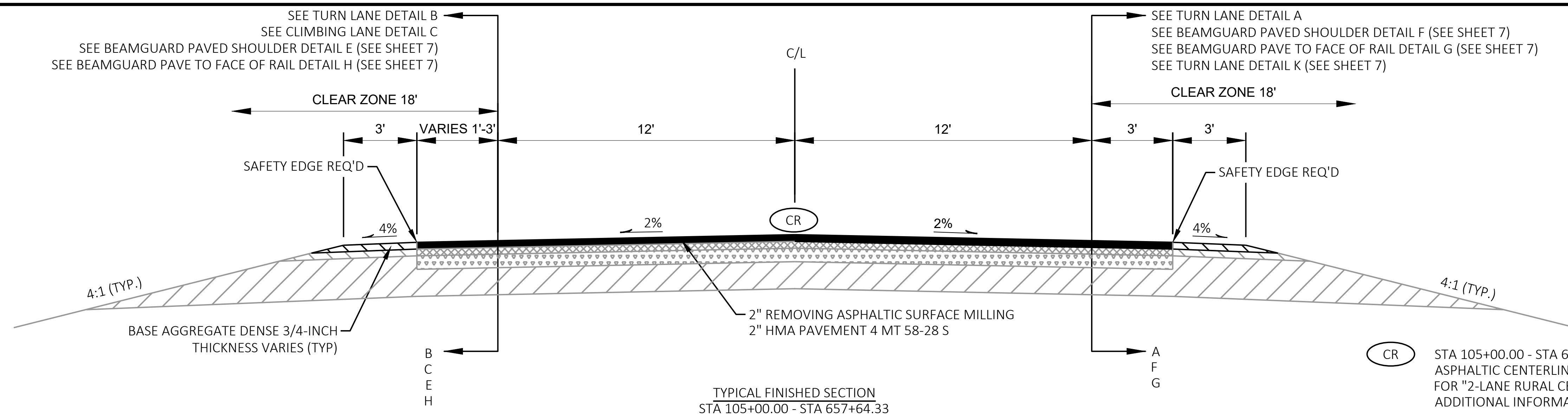


BEAMGUARD CLIMBING LANE DETAIL I
STA 585+23.05 - STA 586+77.42
*VARIES 3.1' - 6.5'
STA 632+01.52 - STA 636+93.19
*VARIES 3.4' - 6.3'



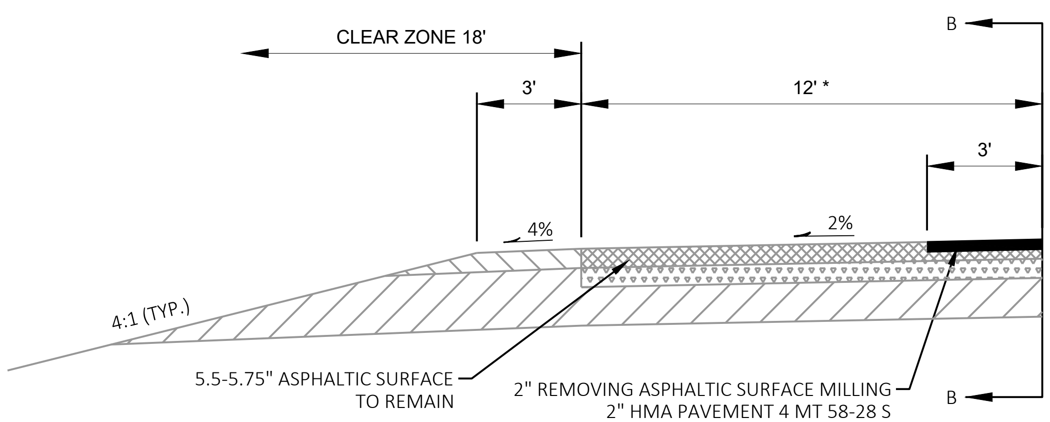
TYPICAL EXISTING SUPERELEVATED SECTION
SEE PLAN SHEETS FOR LOCATIONS AND SUPERELEVATIONS

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	TYPICAL SECTIONS	SHEET 5	E

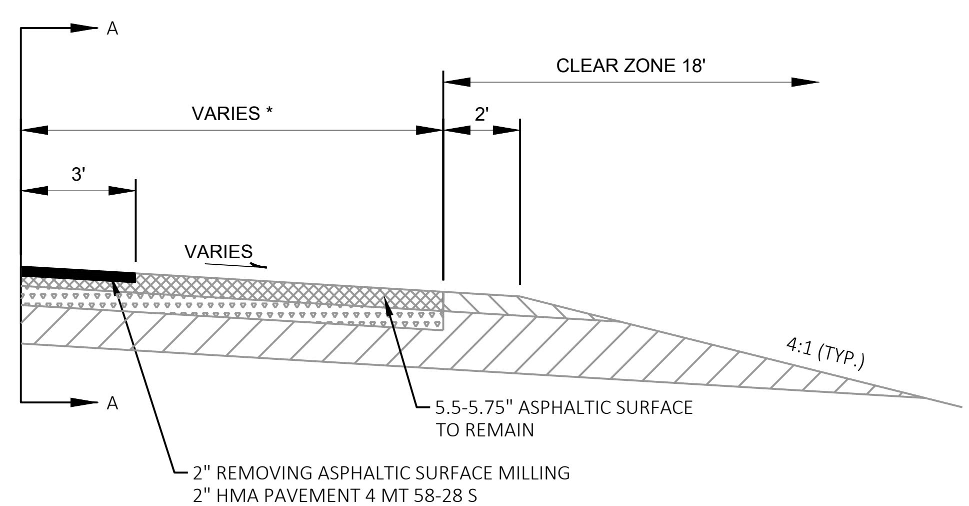


TYPICAL FINISHED SECTION
STA 105+00.00 - STA 657+64.33
STA 658+46.84 - STA 661+12.30

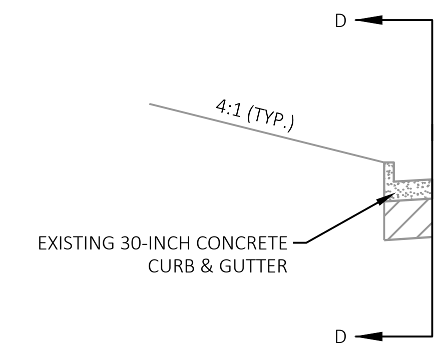
CR STA 105+00.00 - STA 657+64.33; STA 658+46.84 - STA 661+12.30: ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD FOR "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR ADDITIONAL INFORMATION.



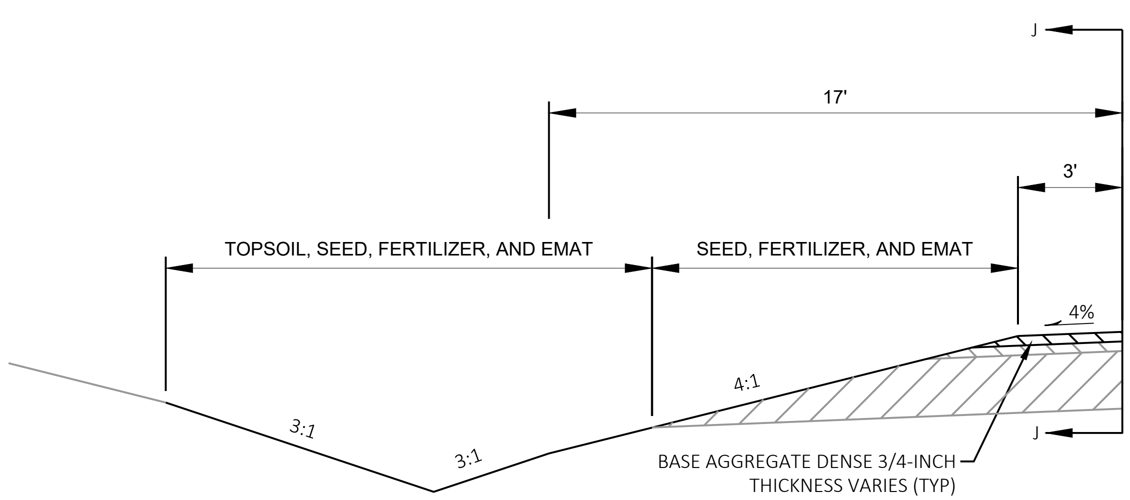
TURN LANE DETAIL B
STA 367+67.80 - STA 370+06.41
*12' - STA 367+67.80 - STA 368+98.72
*VARIES 0-12' - STA 368+98.72 - STA 370+06.41
AT STH 23 / CTH P INTERSECTION ONLY MILLING 15' WIDE.



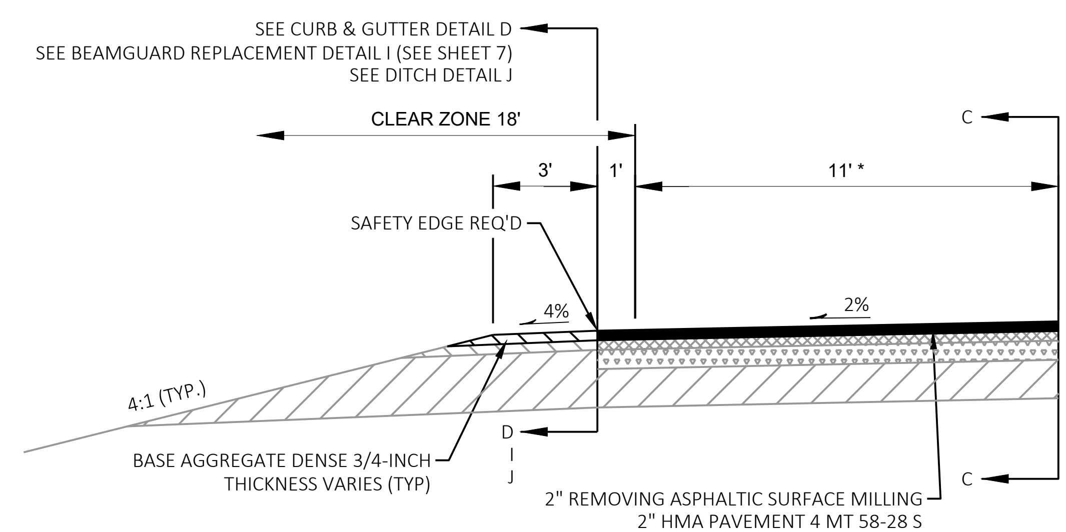
TURN LANE DETAIL A
STA 363+62.93 - STA 366+29.39
*VARIES 0-14' - STA 363+62.93 - STA 365+34.66
*14' - STA 365+34.66 - STA 366+29.39
AT STH 23 / CTH P INTERSECTION ONLY MILLING 15' WIDE



CURB & GUTTER DETAIL D
STA 611+22.39 - STA 616+05.20
STA 619+72.54 - STA 625+01.54
STA 638+42.75 - STA 645+00.44



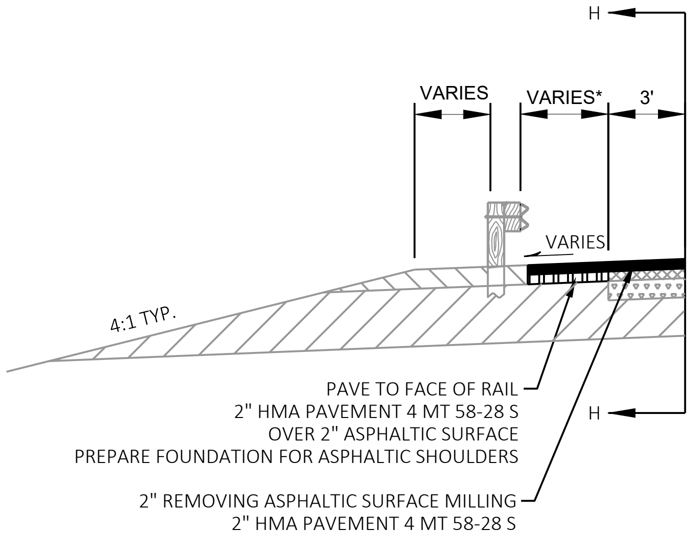
DITCH DETAIL J
STA 584+20.61 - STA 588+00.00

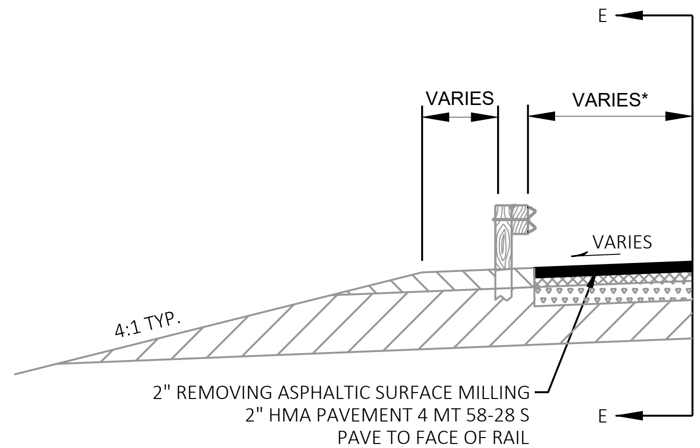


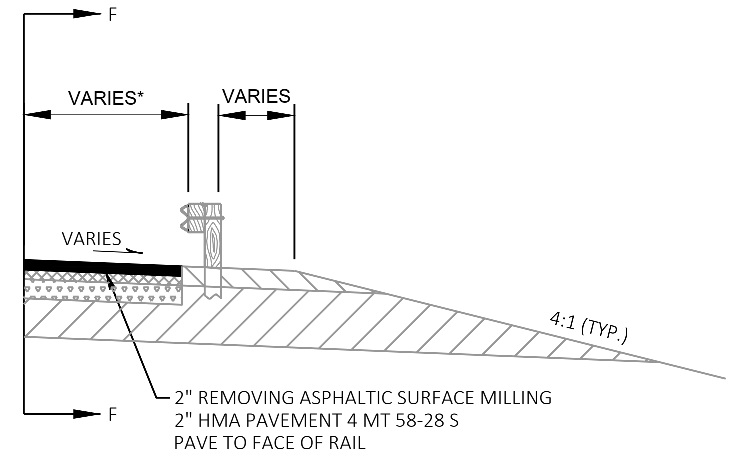
CLIMBING LANE DETAIL C
STA 573+41.55 - STA 654+72.24
*VARIES 0-11' - STA 573+41.55 - STA 575+65.76
*11' - STA 575+65.76 - STA 653+67.83
*VARIES 0-11' - STA 653+67.83 - STA 654+72.24

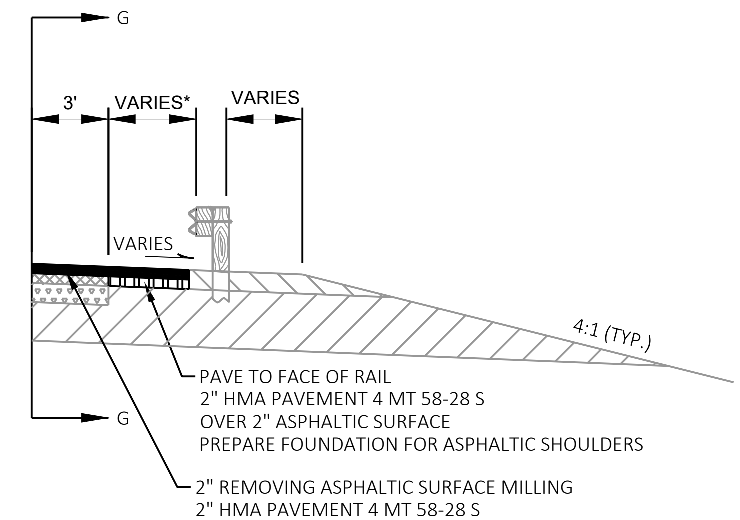
2

2







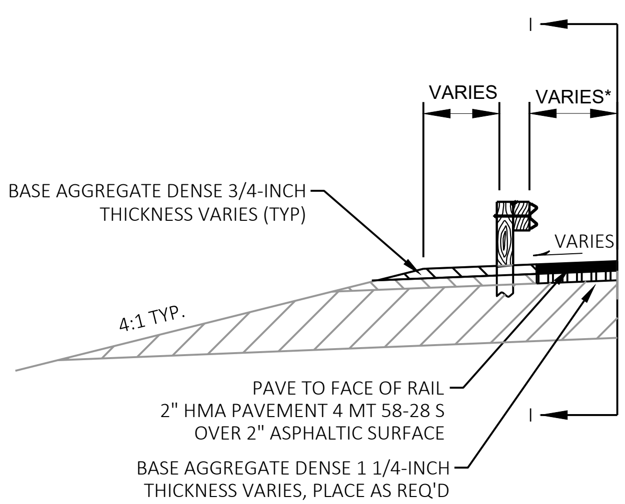


BEAMGUARD PAVE TO FACE OF RAIL DETAIL H
STA 382+49.08 - STA 384+16.13
*VARIES 5.5' - 8.0'
STA 425+86.92 - STA 427+08.79
*VARIES 4.4' - 7.4'
STA 478+42.70 - STA 481+60.58
*VARIES 3.1' - 5.3'

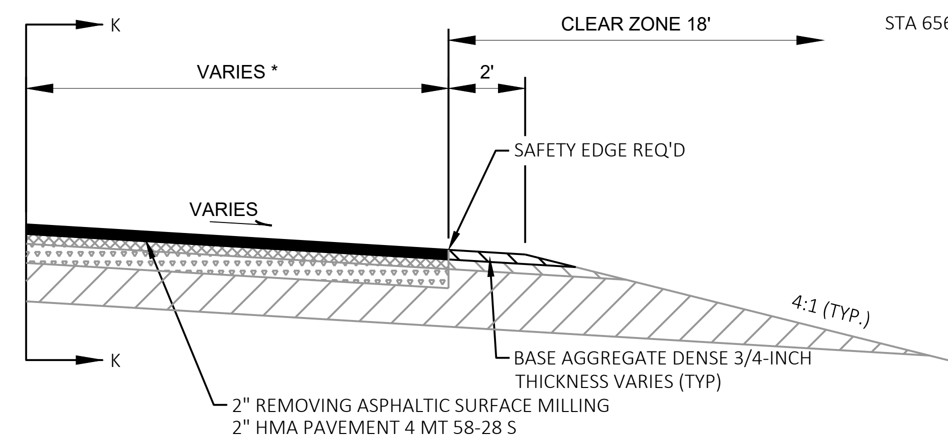
BEAMGUARD PAVED SHOULDER DETAIL E
STA 110+38.53 - STA 116+02.15
*VARIES 6.4' - 9.1'
STA 139+69.10 - STA 142+48.79
*VARIES 6' - 7.4'
STA 157+87.67 - STA 160+30.24
*VARIES 6' - 8.5'
STA 298+07.45 - STA 300+16.04
*VARIES 6' - 8.9'
STA 309+08.93 - STA 310+64.01
*VARIES 6' - 7.8'
STA 656+98.14 - STA 657+64.33
*VARIES 10.2' -11.1'
STA 660+43.65 - STA 661+12.30
*VARIES 10.1' - 12.8'

BEAMGUARD PAVED SHOULDER DETAIL F
STA 137+68.12 - STA 141+47.59
*VARIES 6' - 7.3'
STA 297+98.11 - STA 300+03.11
*VARIES 6' - 7'
STA 309+12.09 - STA 310+66.77
*VARIES 5.7' - 8'
STA 658+39.89 - STA 659+12.80
*VARIES 10.6' - 13.3'
STA 660+43.64 - STA 661+16.43
*VARIES 10.4' - 12.9'

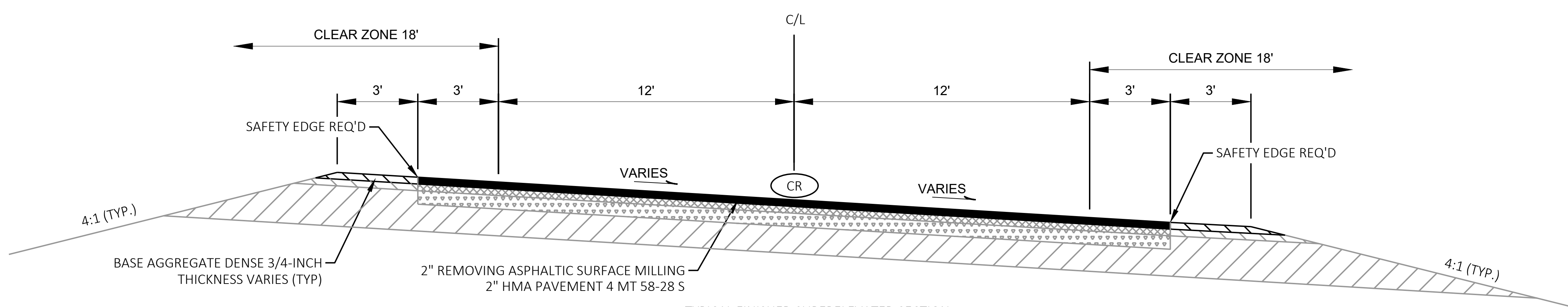
BEAMGUARD PAVE TO FACE OF RAIL DETAIL G
STA 370+15.35 - STA 371+82.73
*VARIES 5.5' - 8.2'
STA 382+34.57 - STA 384+02.01
*VARIES 5' - 7.6'
STA 425+20.36 - STA 427+00.53
*VARIES 5.8' - 8'
STA 472+94.49 - STA 475+78.43
*VARIES 2.7' - 8.5'
STA 478+24.86 - STA 481+54.09
*VARIES 2.4' - 6.2'
STA 656+98.73 - STA 657+71.45
*VARIES 0' - 8.5'



BEAMGUARD REPLACEMENT DETAIL I
STA 631+32.91 - STA 637+91.86
*VARIES 2'-4'



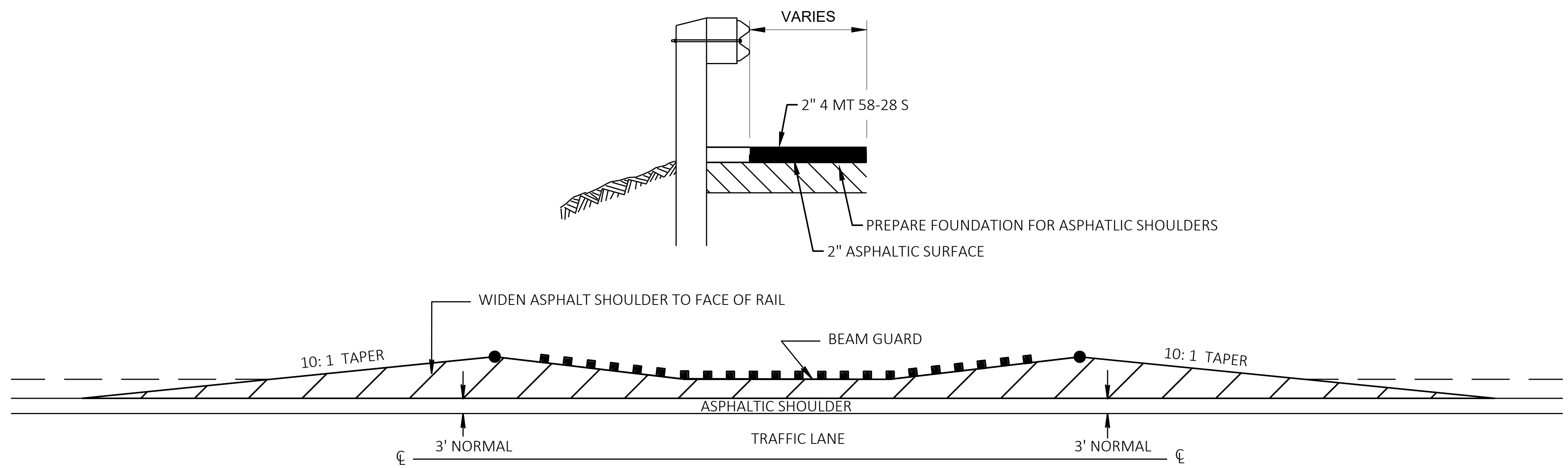
TURN LANE DETAIL K
STA 642+43.88 - STA 644+18.82
*VARIES 0-13' - STA 642+43.88 - STA 644+18.82
*13' - STA 644+18.82 - STA 645+61.76



CR STA 105+00.00 - STA 657+64.33; STA 658+46.84 - STA 661+12.30:
ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE SDD
FOR "2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING" FOR
ADDITIONAL INFORMATION.

TYPICAL FINISHED SUPERELEVATED SECTION
SEE PLAN SHEETS FOR LOCATIONS AND SUPERELEVATIONS

2



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

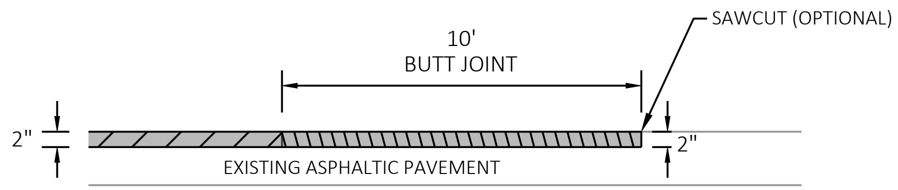
PAVE TO FACE OF RAIL

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 = 48.9 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.03 ACRES

2



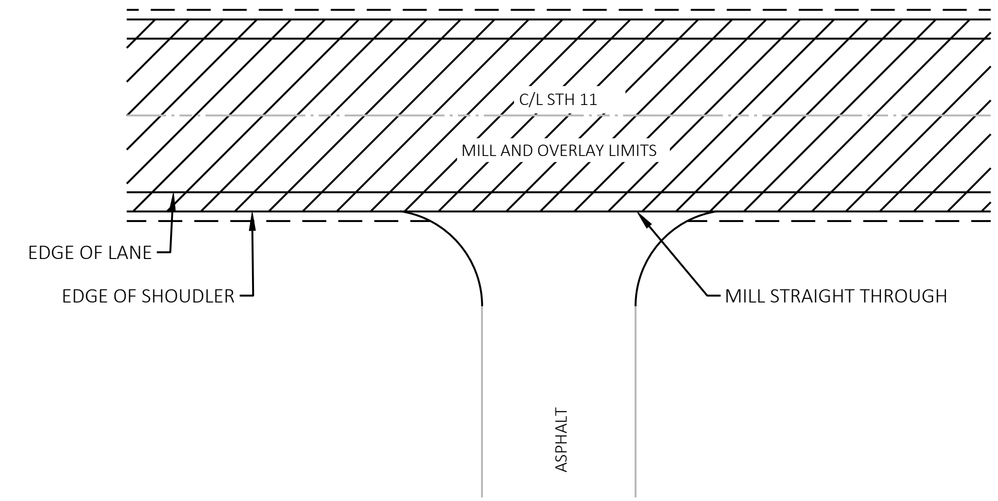
HMA PAVEMENT

REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE BUTT JOINTS

BUTT JOINT

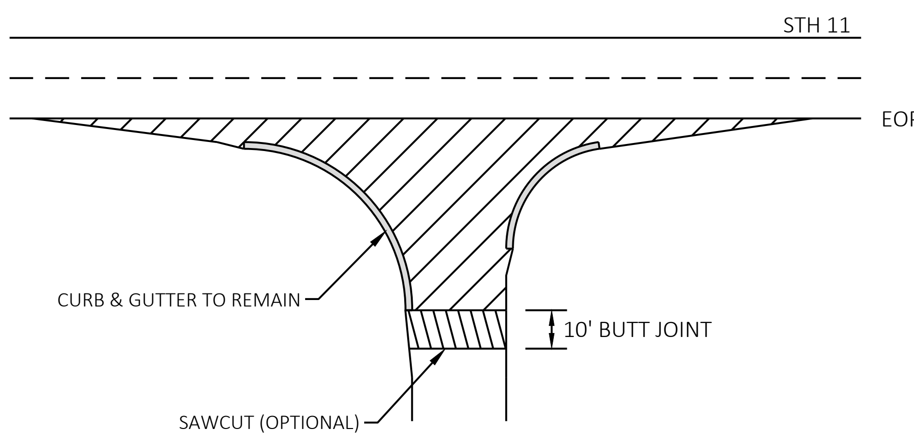
- MAINLINE AND SIDE ROADS
- STRUCTURES B-33-0110 & B-33-0111



DETAIL FOR MISCELLANEOUS MILLING LIMITS

APPLY DETAIL AT:

- PAVED DRIVEWAYS
- WAYSIDE
- STH 23 & CTH P INTERSECTION



REMOVING ASPHALTIC SURFACE MILLING AND OVERLAY LIMITS

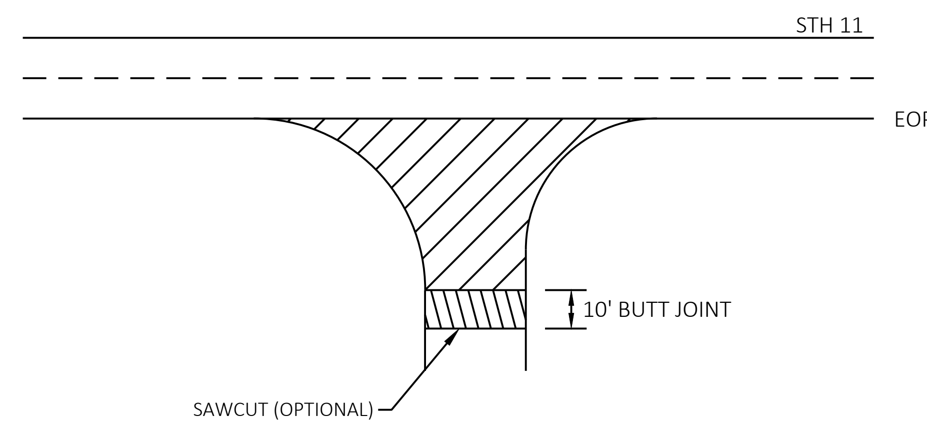
REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

NOTE: WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED

SIDE ROAD MILLING LIMITS

WITH CURB AND GUTTER

CTH E
PHILLIPPS ST (WEST)
CTH K (RIVERSIDE RD)



REMOVING ASPHALTIC SURFACE MILLING AND OVERLAY LIMITS

REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

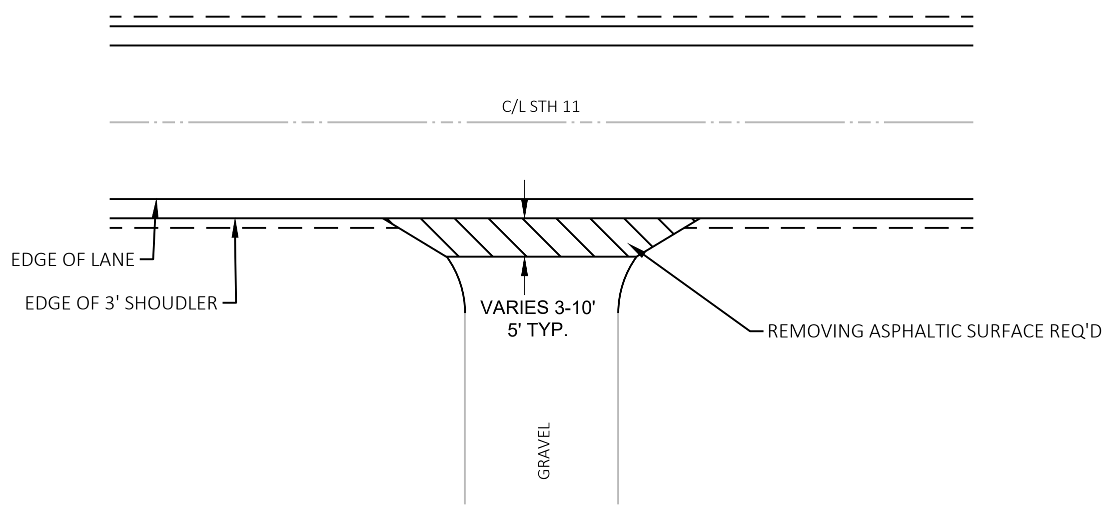
NOTE: WHEN MATCHING TO AN UNPAVED SURFACE BUTT JOINT IS NOT REQUIRED

SIDE ROAD MILLING LIMITS

WITHOUT CURB AND GUTTER

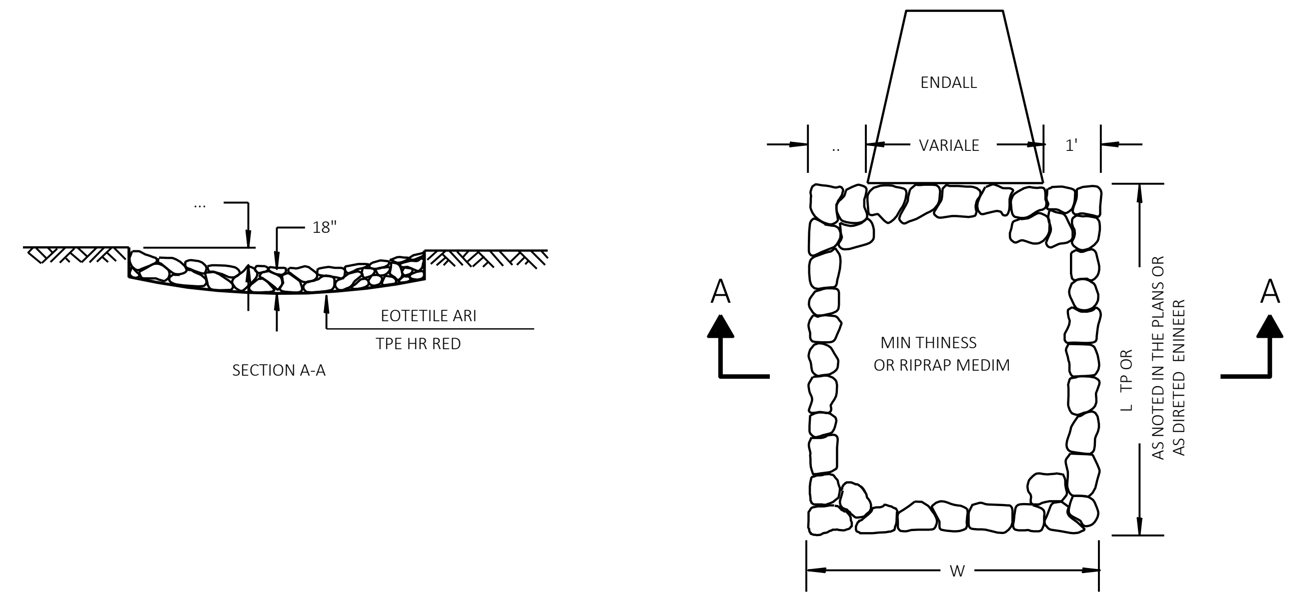
E FRIENDSHIP ST	KINGSLEY RD
CTH U / STUMP GROVE RD	CUB HOLLOW RD
SUMMIT RD	PATCH RD
WRIGHT RD	TRUE RD
RUSSELL RD	PHILLIPS ST (EAST)
AMES RD	

2



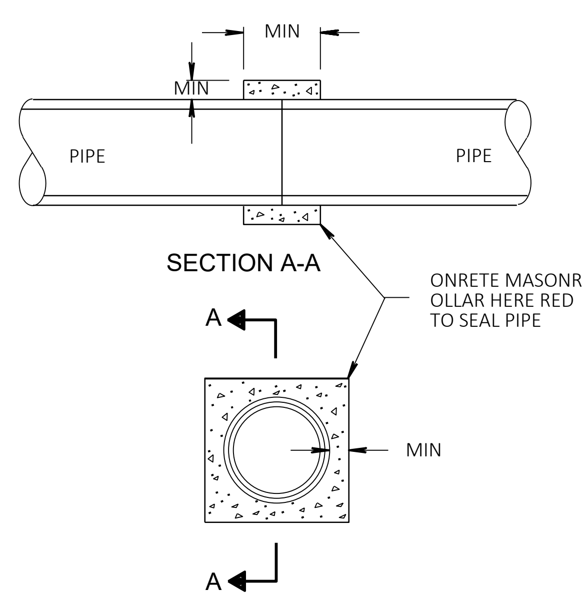
ASPHALT APRON REMOVAL DETAIL

REMOVE ALL APRON PAVEMENT. SEE PLAN SHEETS FOR DRIVEWAY LOCATIONS.



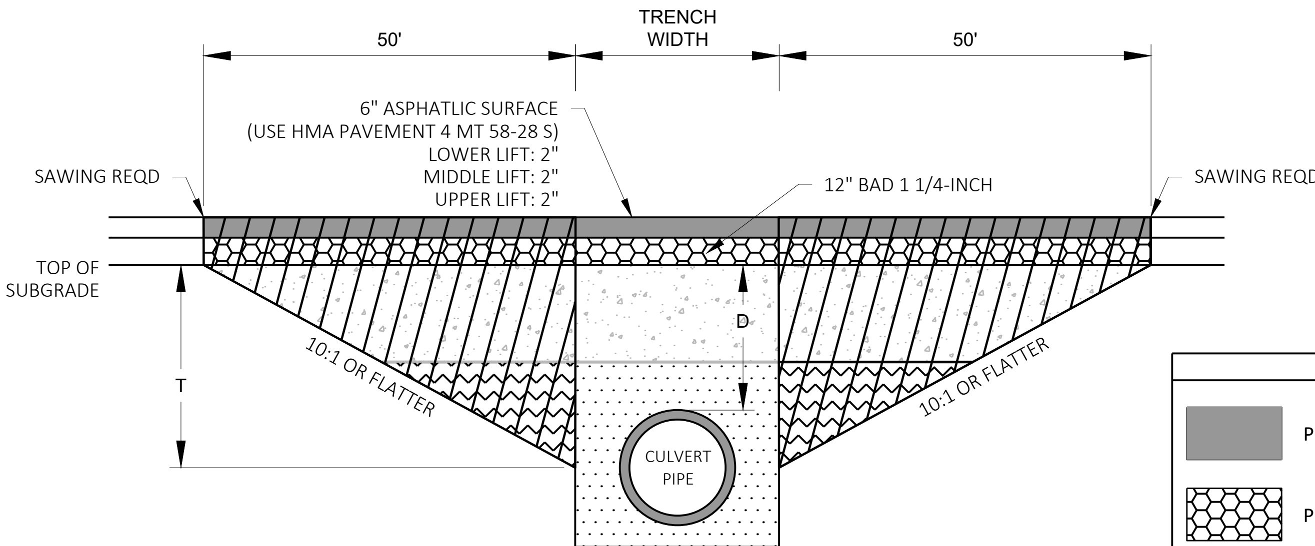
RIPRAP MEDIUM TREATMENT AT CULVERTS

SEE PLAN SHEETS OR ADDITIONAL DETAILS DIMENSIONS SHON IN EROSION ONTROL PLANS



CONCRETE COLLAR DETAIL

2

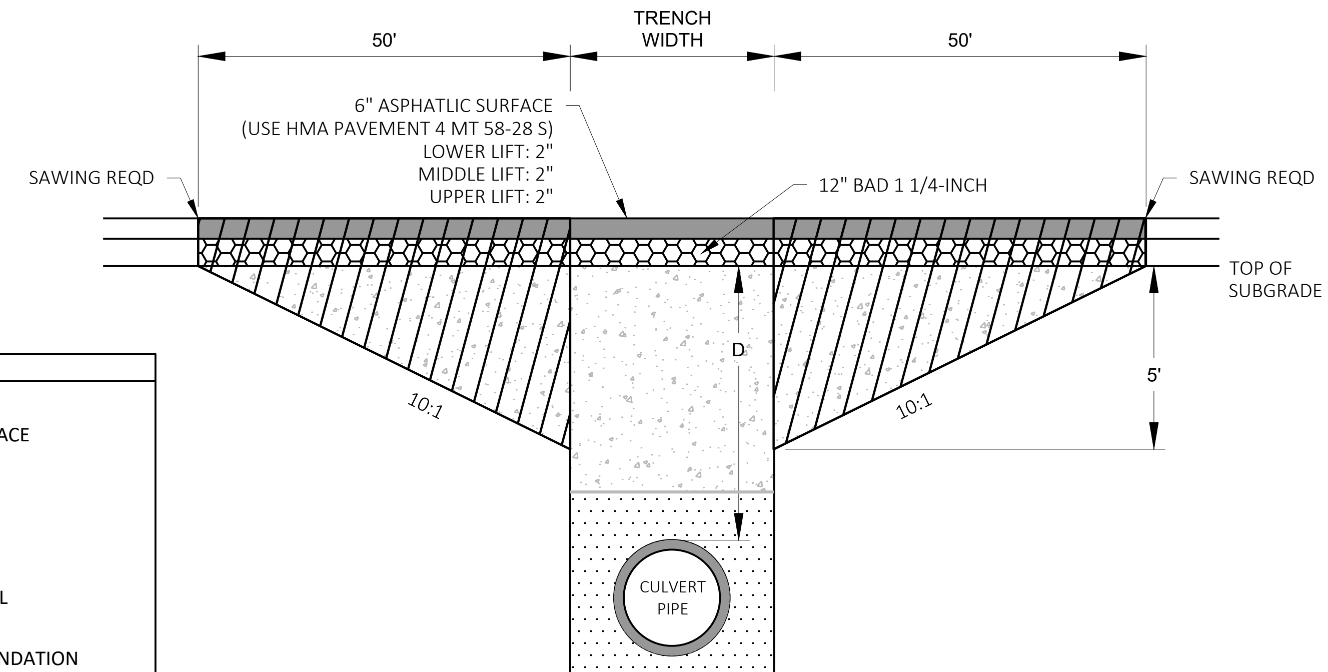


TRANSITION CUT DEPTH (T) = THE LESSER OF DEPTH TO CENTER OF PIPE OR 5 FT.
DO NOT EXTEND TRANSITION CUT BELOW HORIZONTAL CENTER OF PIPE.

DEPTH D < 6 FT

KEY

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



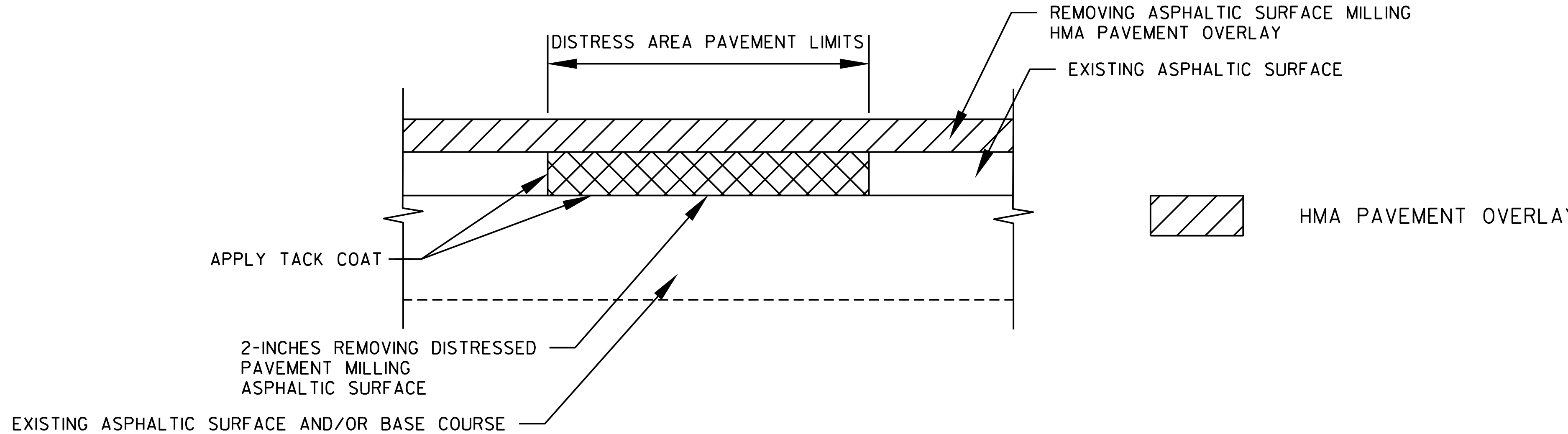
DEPTH D ≥ 6 FT

NOTES

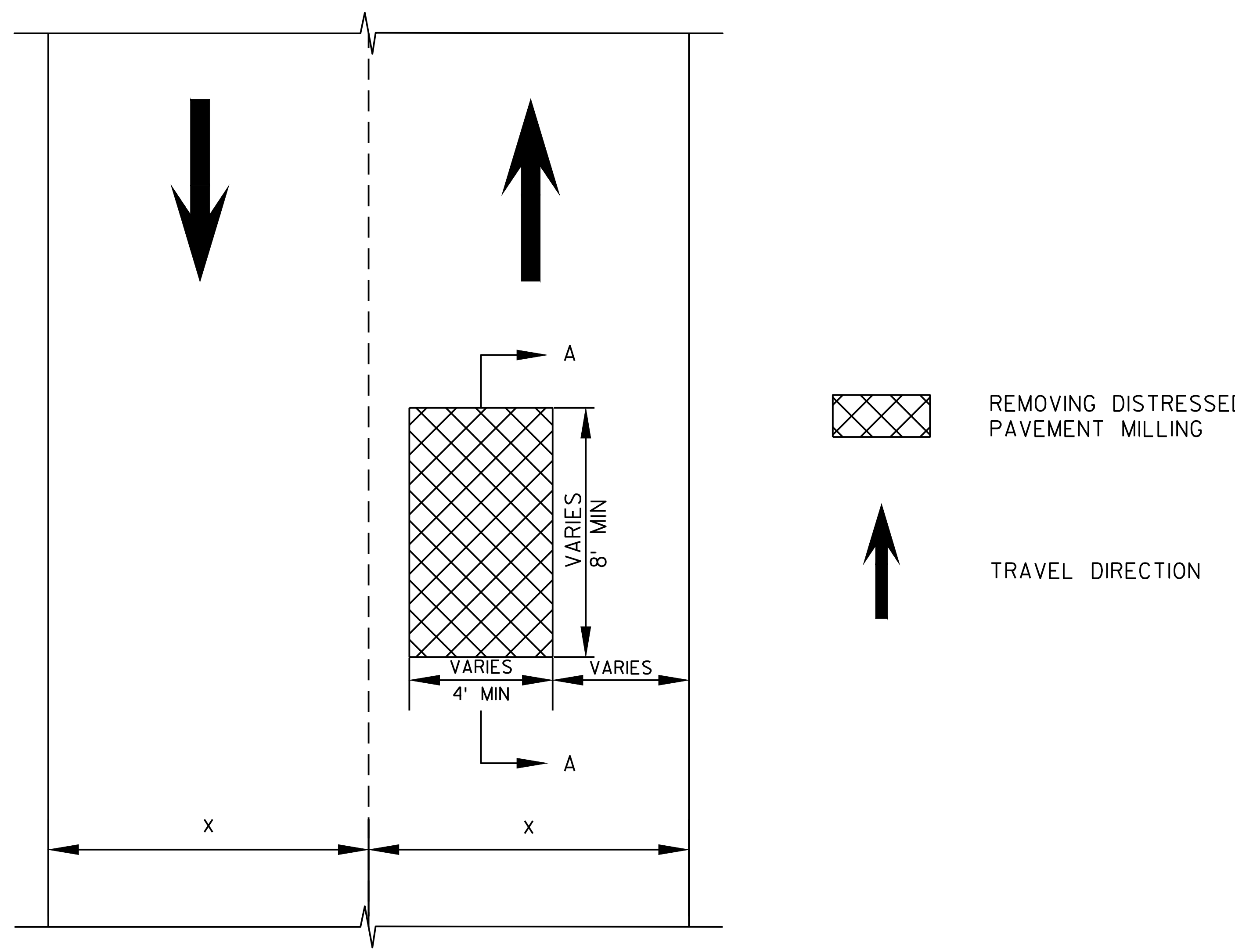
TRANSITION CUT IS PAID AS EXCAVATION COMMON.
TRANSITION CUT WIDTH IS FROM SUBGRADE SHOULDER POINT TO SUBGRADE SHOULDER POINT.
BACKFILL THE TRANSITION CUT AREAS WITH FOUNDATION AND TRENCH BACKFILL AS SPECIFIED IN STANDARD SPEC 520.
PERFORM CULVERT PIPE INSTALLATION BEFORE MAINLINE MILLING AND PAVING.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

CULVERT PIPE TRANSITION

ROUTE	STA (CL)	DEPTH D (FT)	PIPE DIA (IN)	REMARKS
STH 11	585+97	1.8	29"x45" ELLIPTICAL	CATTLE PASS (3.5'x5') REMOVAL



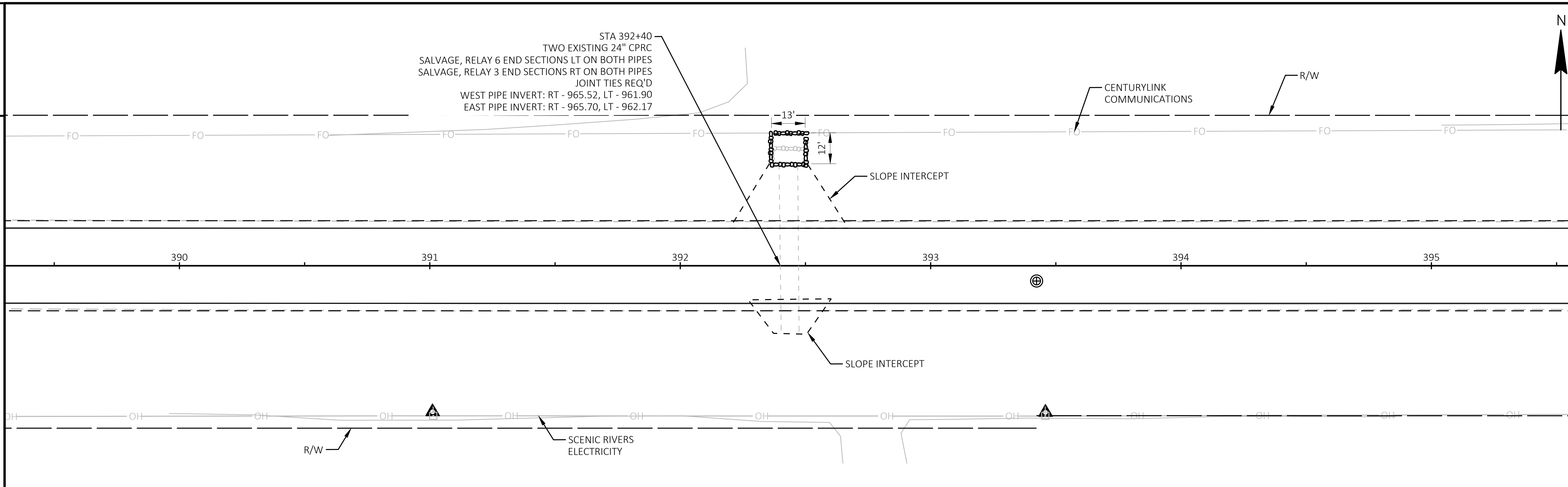
REMOVING DISTRESS PAVEMENT MILLING
SECTION A-A



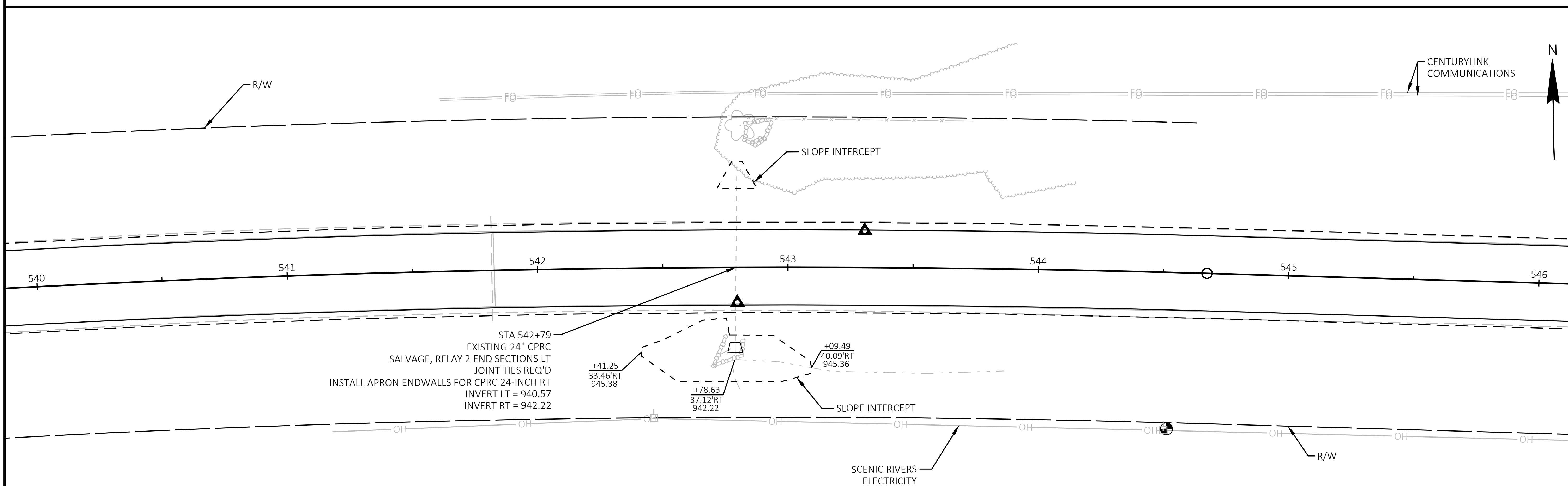
PLAN VIEW

EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD

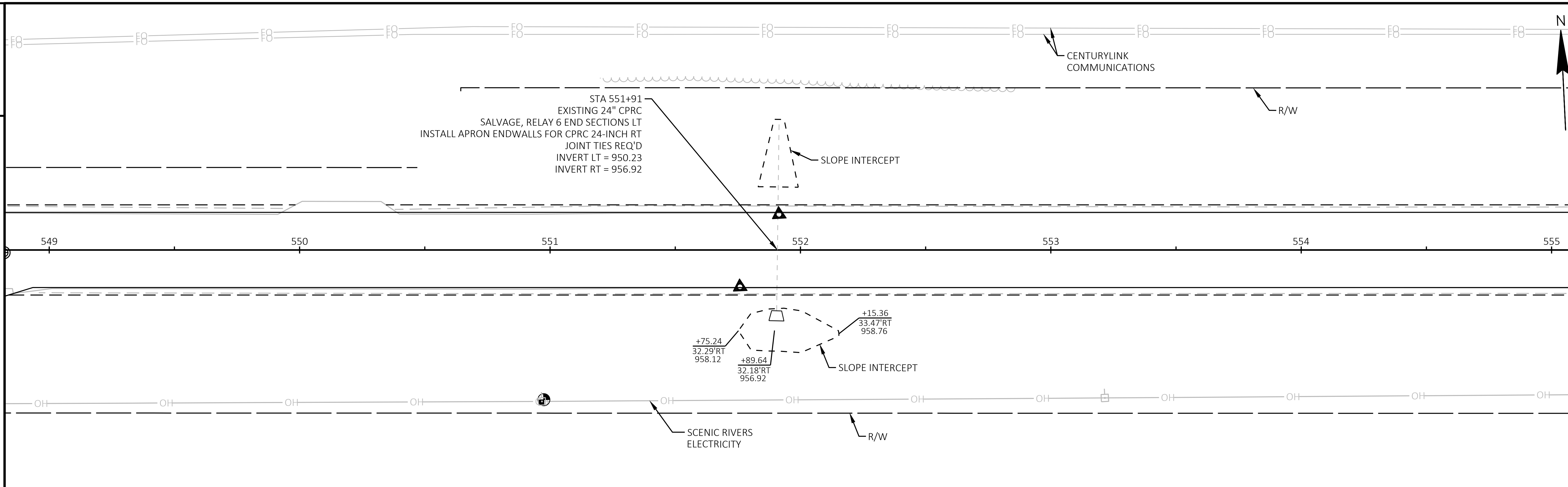
2

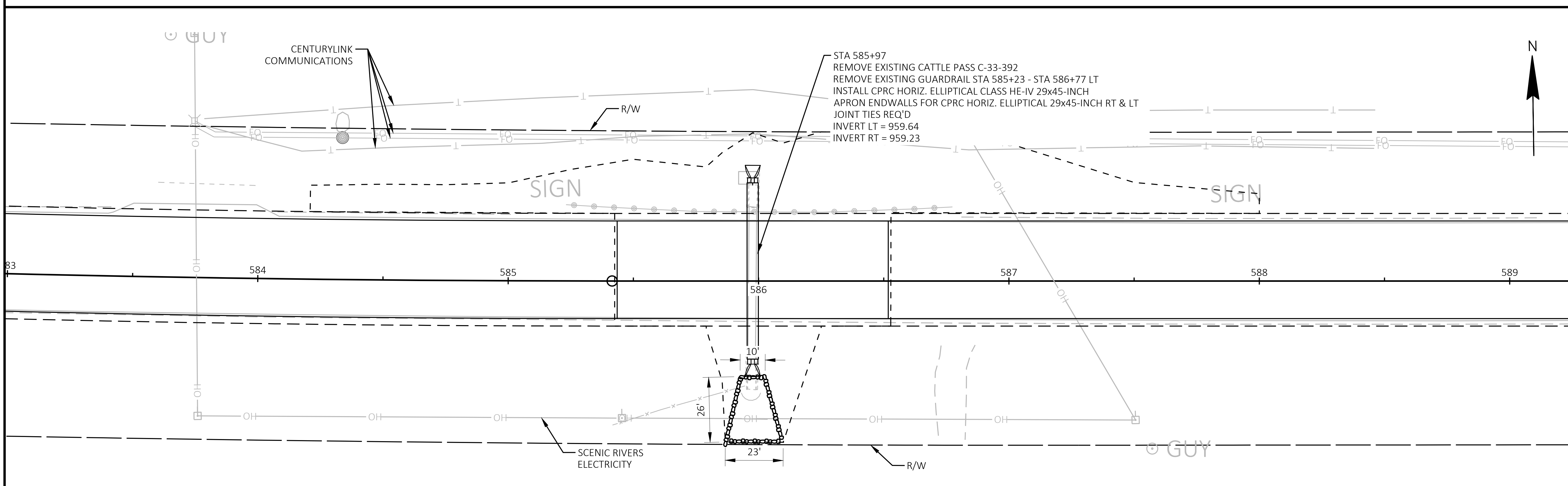


2



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	CULVERT DETAILS	SHEET 13	E

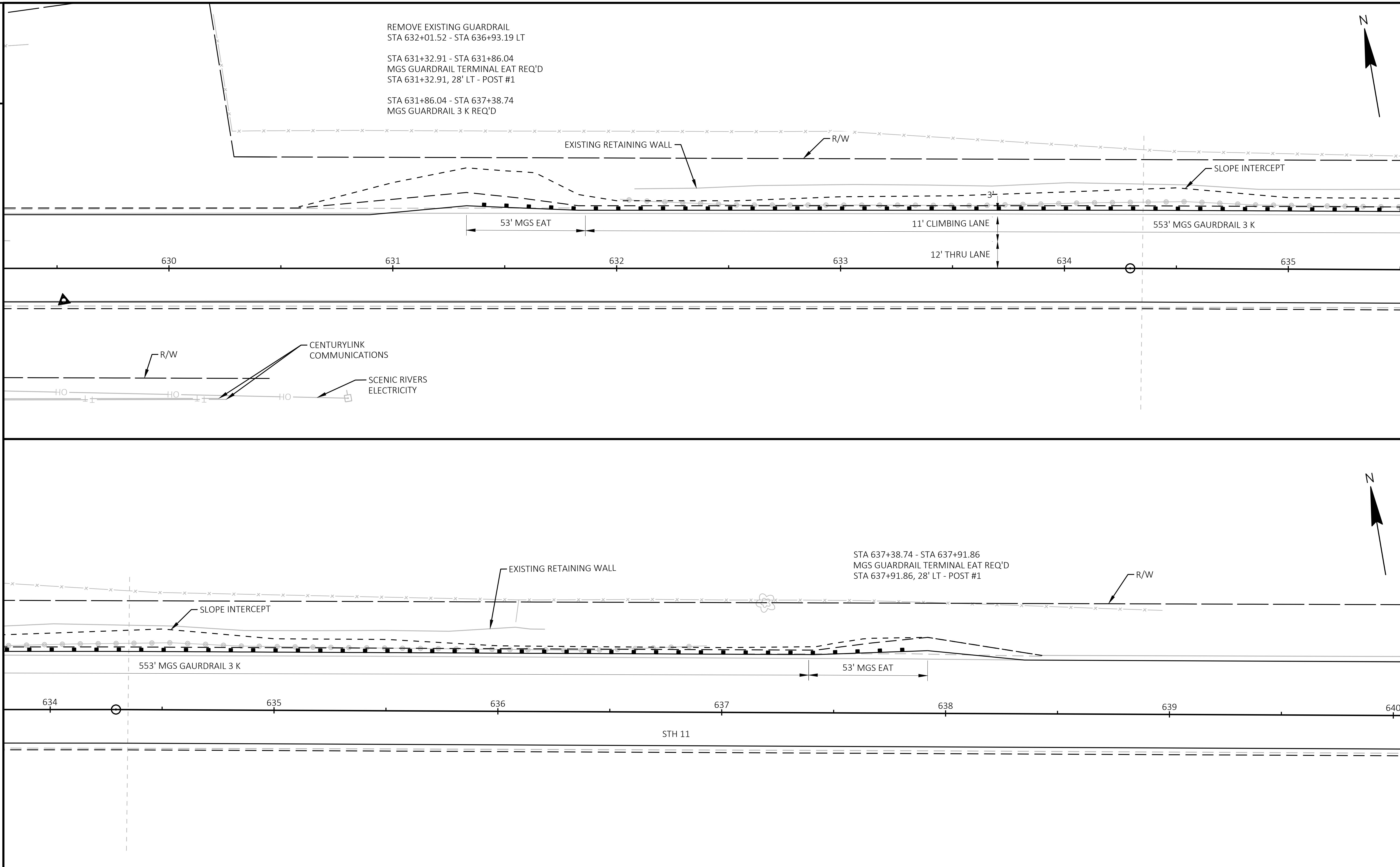




PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	CULVERT DETAILS	SHEET 14	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 12-pd
PLOT DATE : 10/22/2021 7:42 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

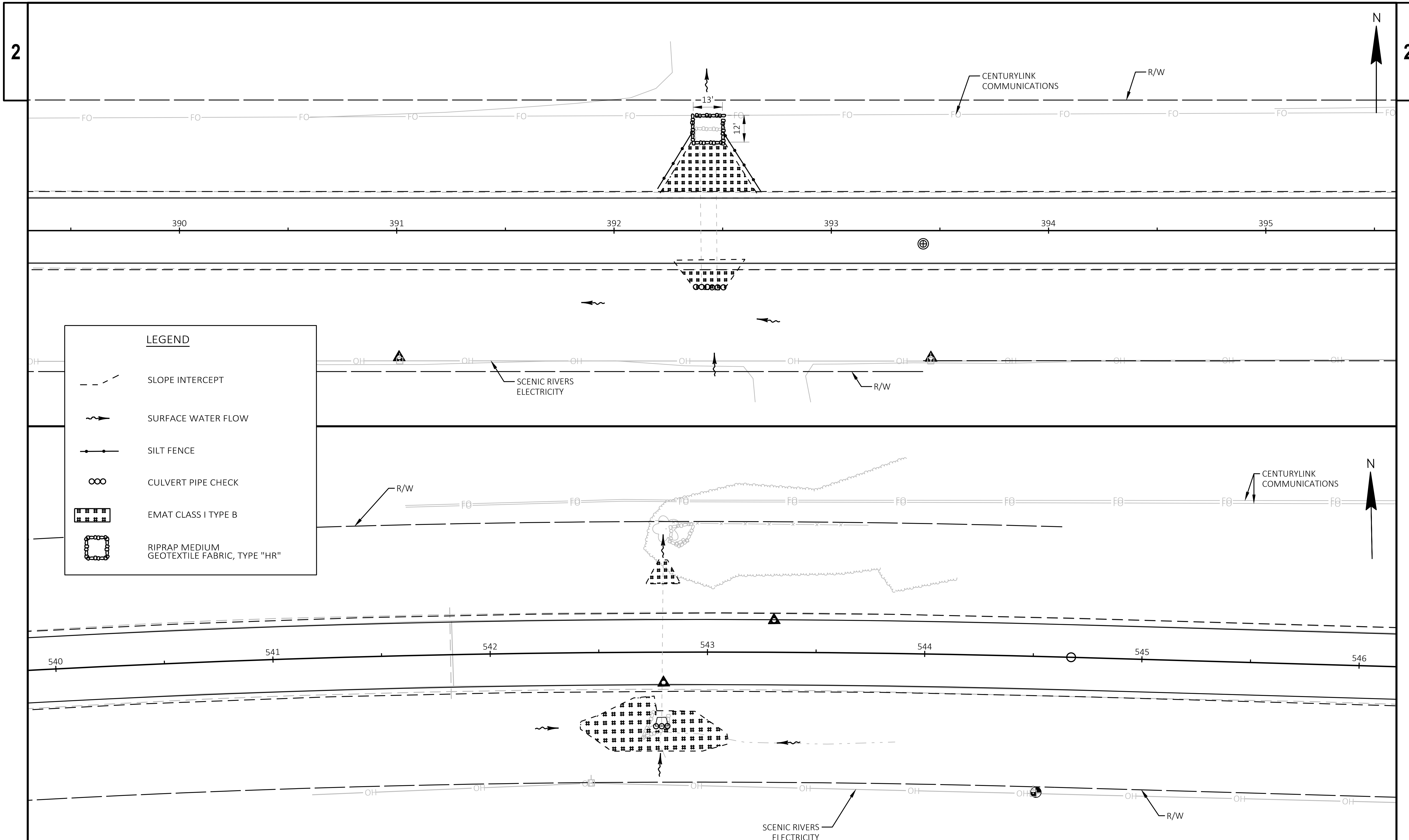
2



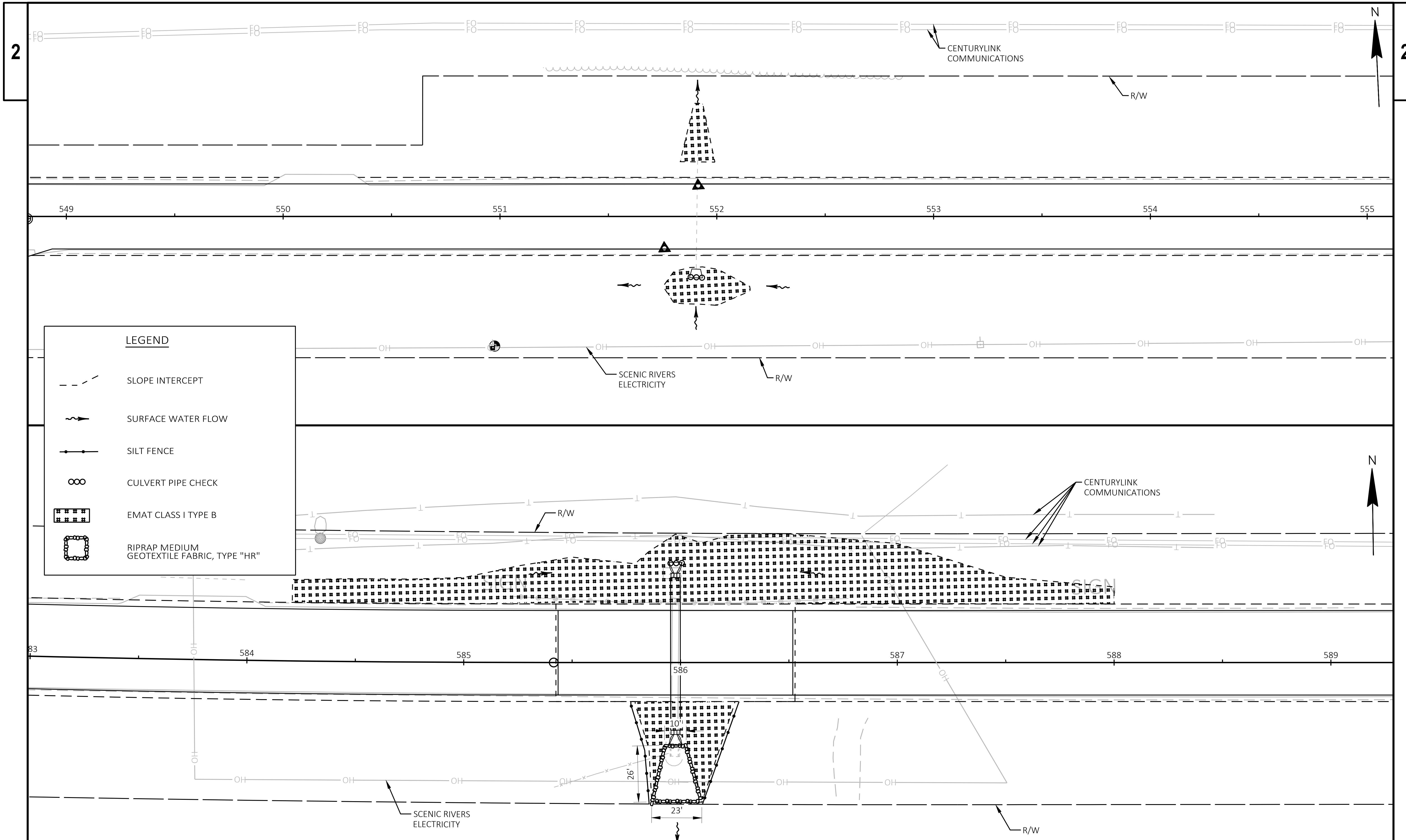
2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	GUARDRAIL DETAIL	SHEET 15	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 13-pd
PLOT DATE : 10/22/2021 7:42 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

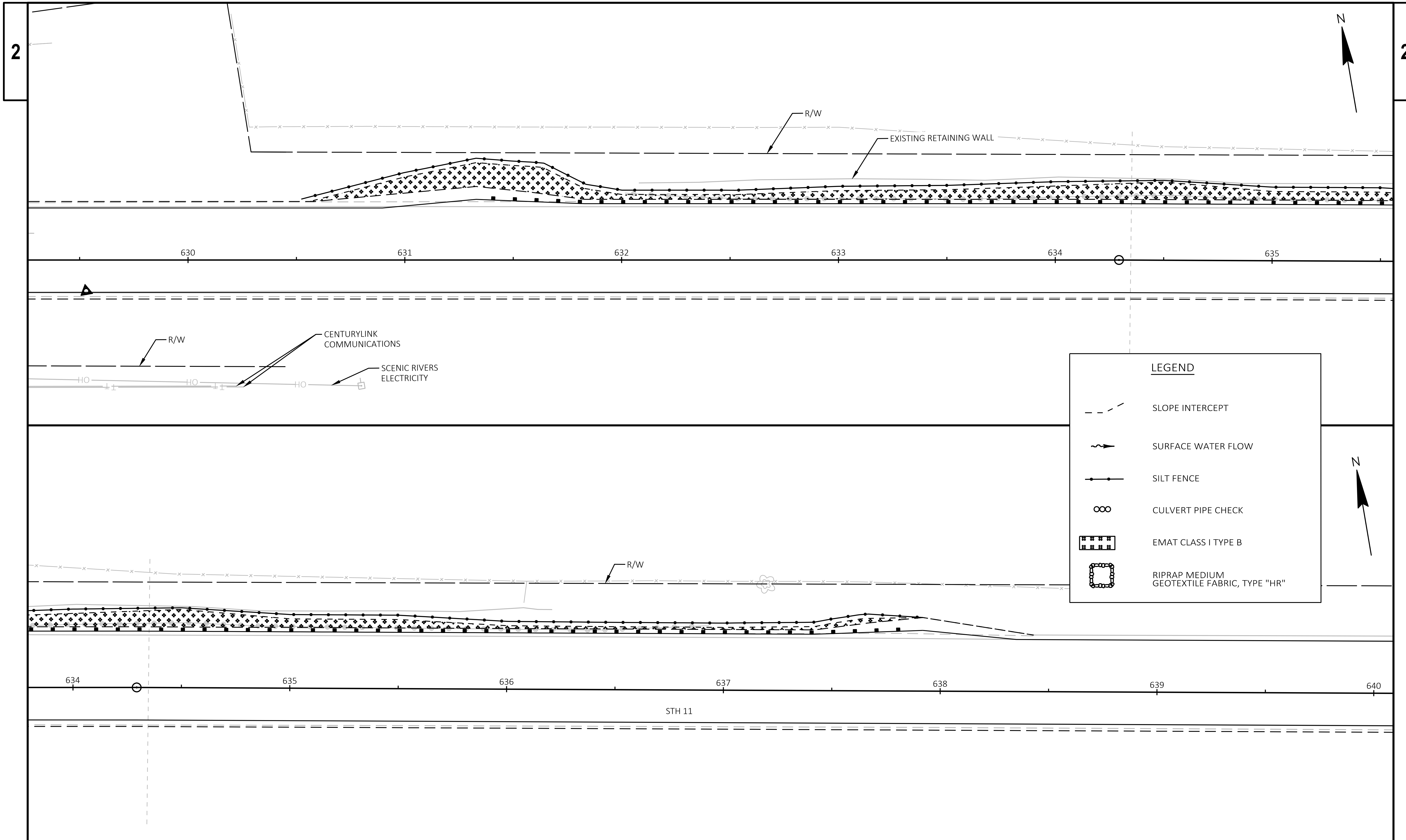


PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL	SHEET 16	E



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL	SHEET 17	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 02-ec
PLOT DATE : 10/22/2021 7:43 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	EROSION CONTROL	SHEET 18	E

2

GENERAL NOTE:
USE SAME DAY TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW DASHES AND SOLID LINES TO RE-ESTABLISH CENTERLINE ON NEW ASPHALTIC PAVEMENT. APPLY MARKING LINE EPOXY 4-INCH FOR CENTERLINE AFTER RUMBLE STRIPS INSTALLED.

SEE SDD LONGITUDINAL MARKING (MAINLINE), PAVEMENT MARKING (INTERSECTIONS), PAVEMENT MARKING (CLIMBING AND PASSING LANE), STOP LINE AND CROSSWALK PAVEMENT MARKING FOR ADDITIONAL DETAILS.

SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION.

EXACT LOCATIONS OF NO PASSING TO BE DETERMINED BY ITEM LOCATING NO PASSING ZONE. PAVEMENT MARKING SHEETS ARE FOR REFERENCE ONLY.

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

2

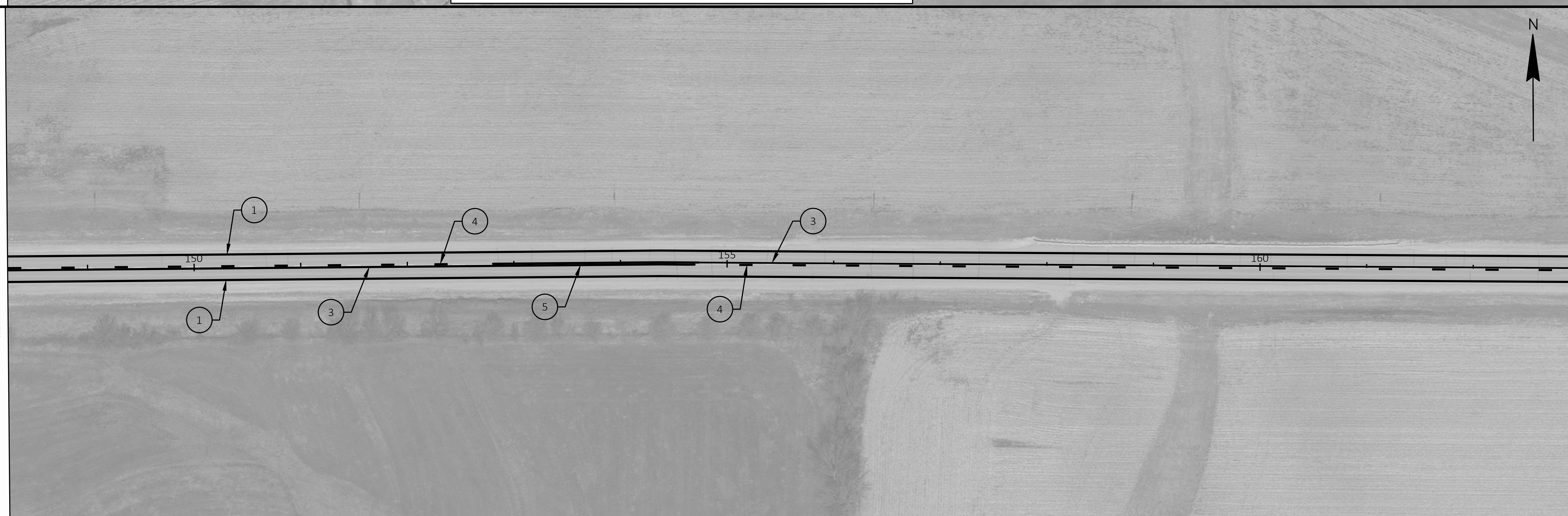
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 19	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-01
PLOT DATE : 10/22/2021 7:44 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)



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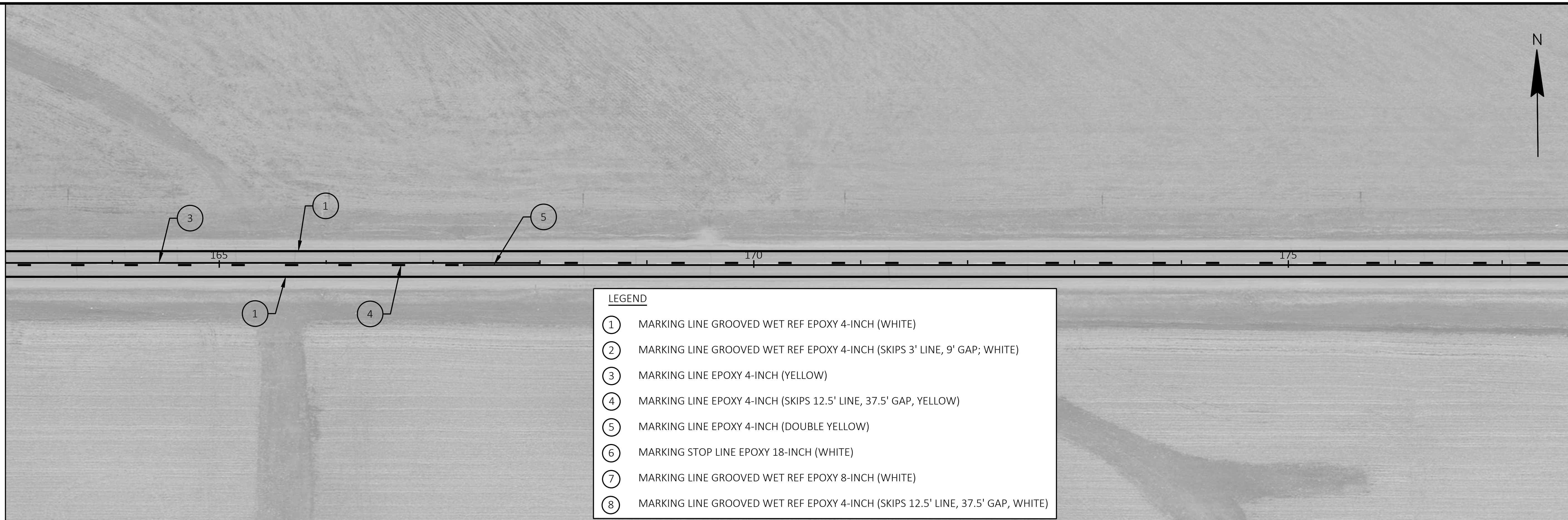
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 20	E

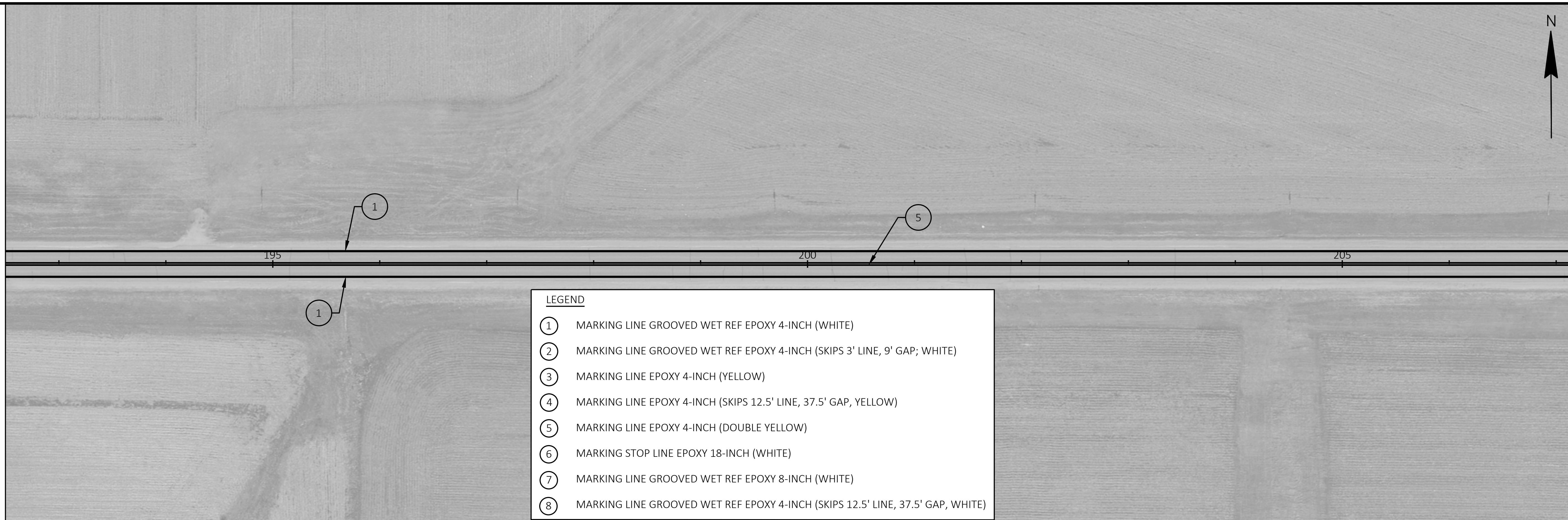
2



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 21	E

2

MATCH LINE STA 192+50.00



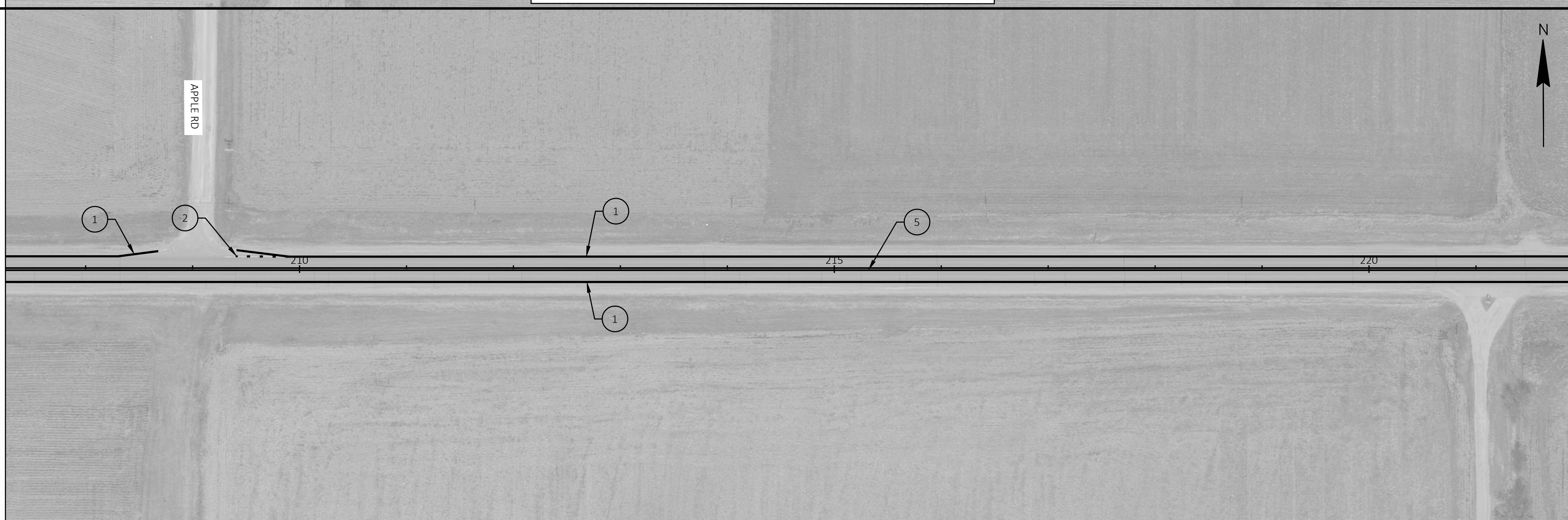
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

MATCH LINE STA 207+25.00

2

MATCH LINE STA 207+25.00



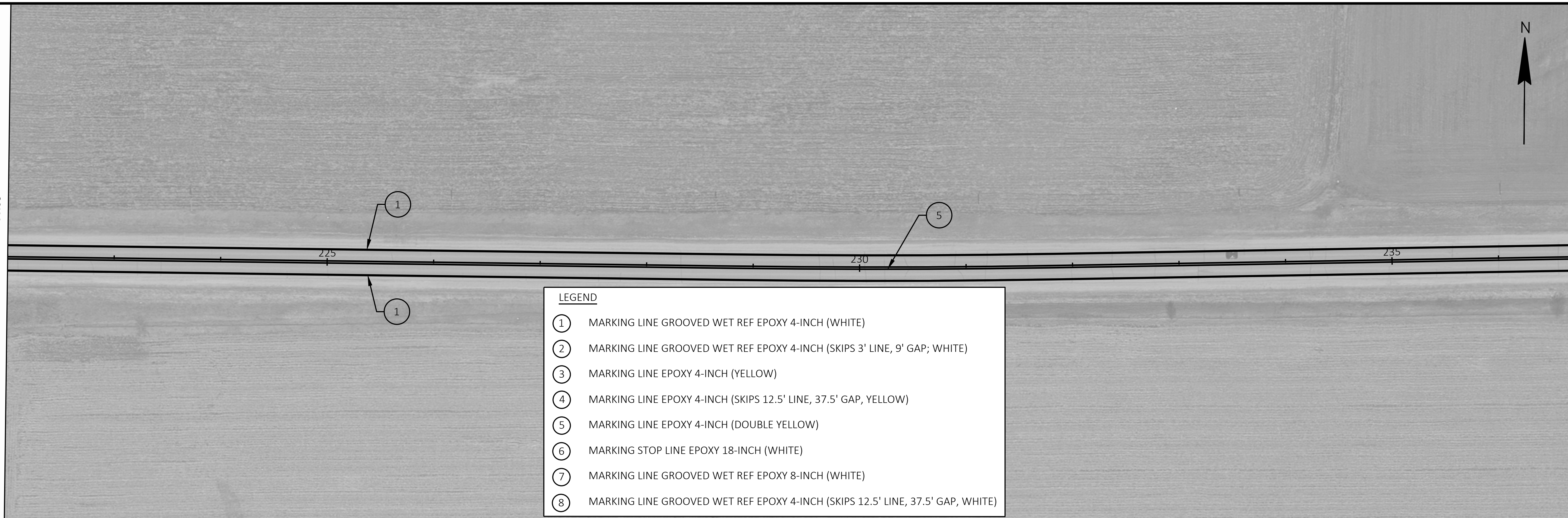
MATCH LINE STA 222+00.00

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 22	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-04
PLOT DATE : 10/22/2021 7:44 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

MATCH LINE STA 222+00.00



MATCH LINE STA 236+75.00

LEGEND

1	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2	MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3	MARKING LINE EPOXY 4-INCH (YELLOW)
4	MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6	MARKING STOP LINE EPOXY 18-INCH (WHITE)
7	MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8	MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

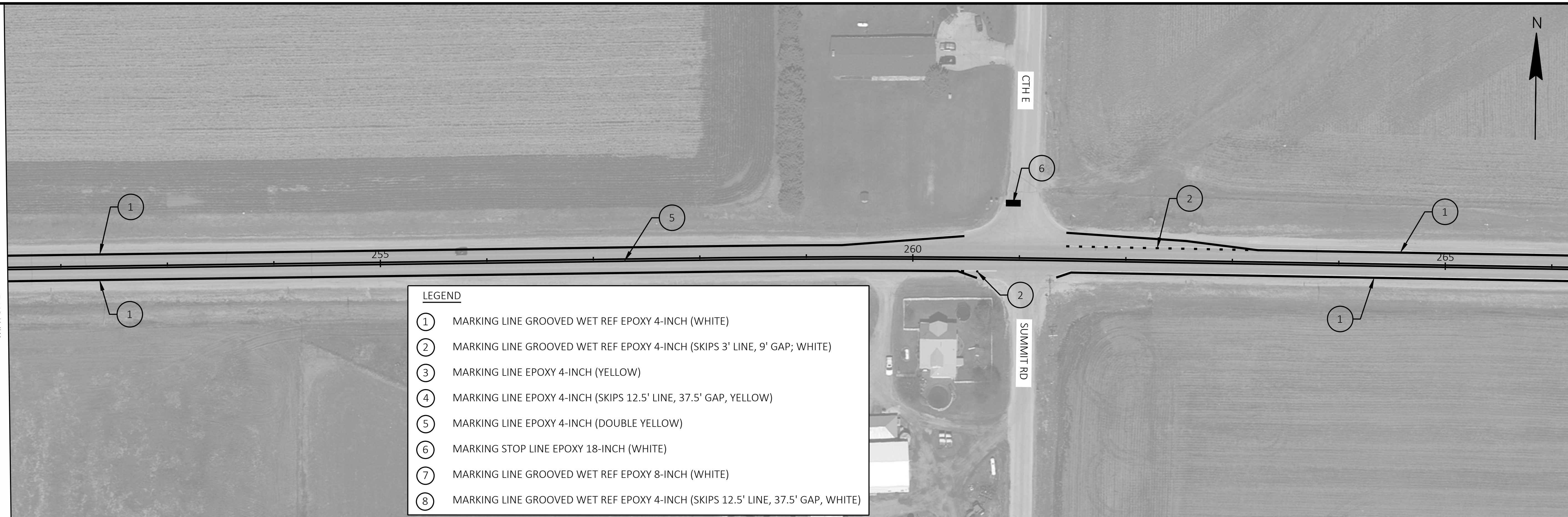
MATCH LINE STA 236+75.00

MATCH LINE STA 251+50.00

2

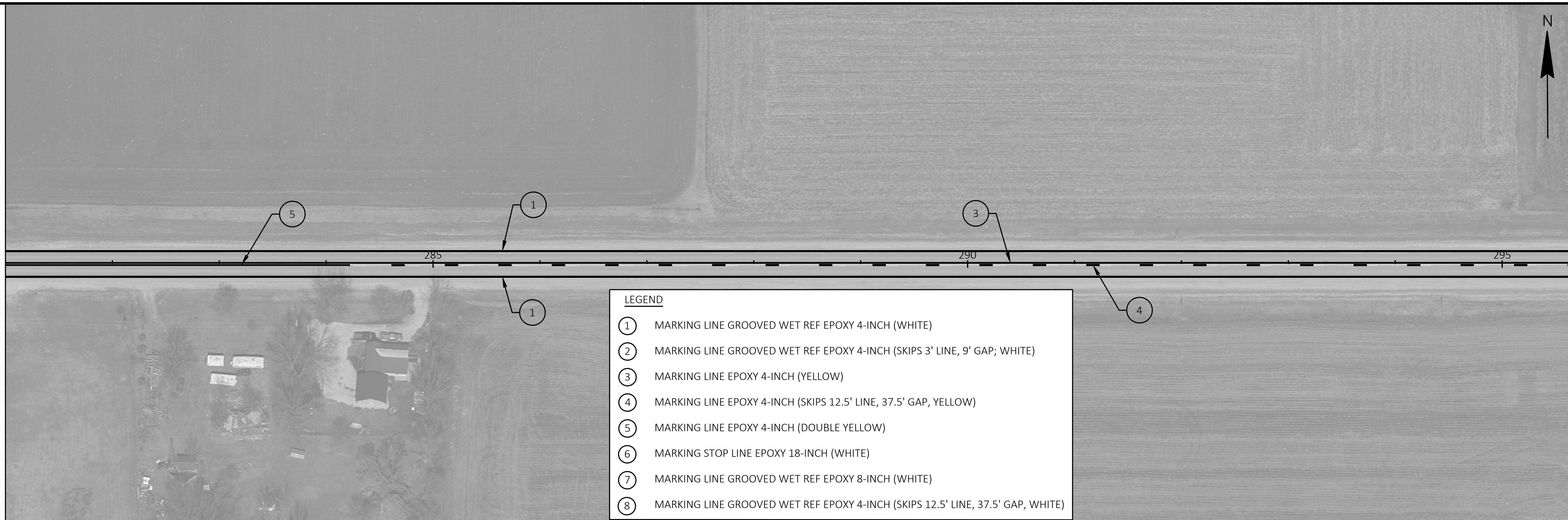
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 23	E

2



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 24	E

2



LEGEND

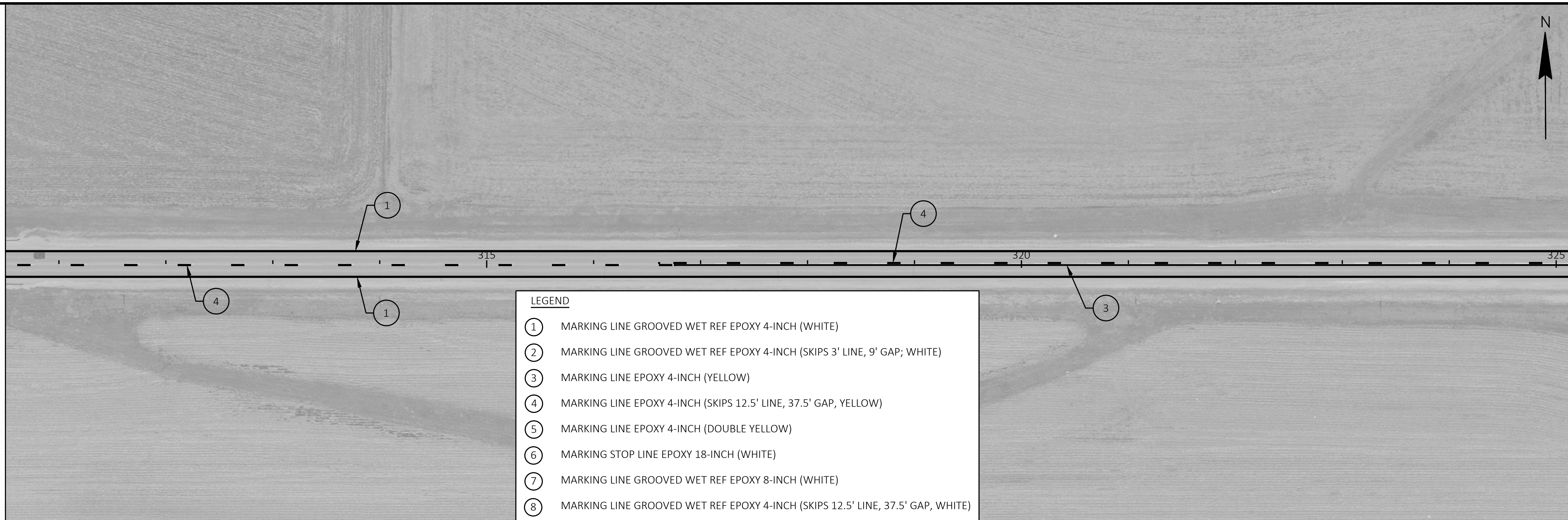
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 25	E

2

MATCH LINE STA 310+50.00

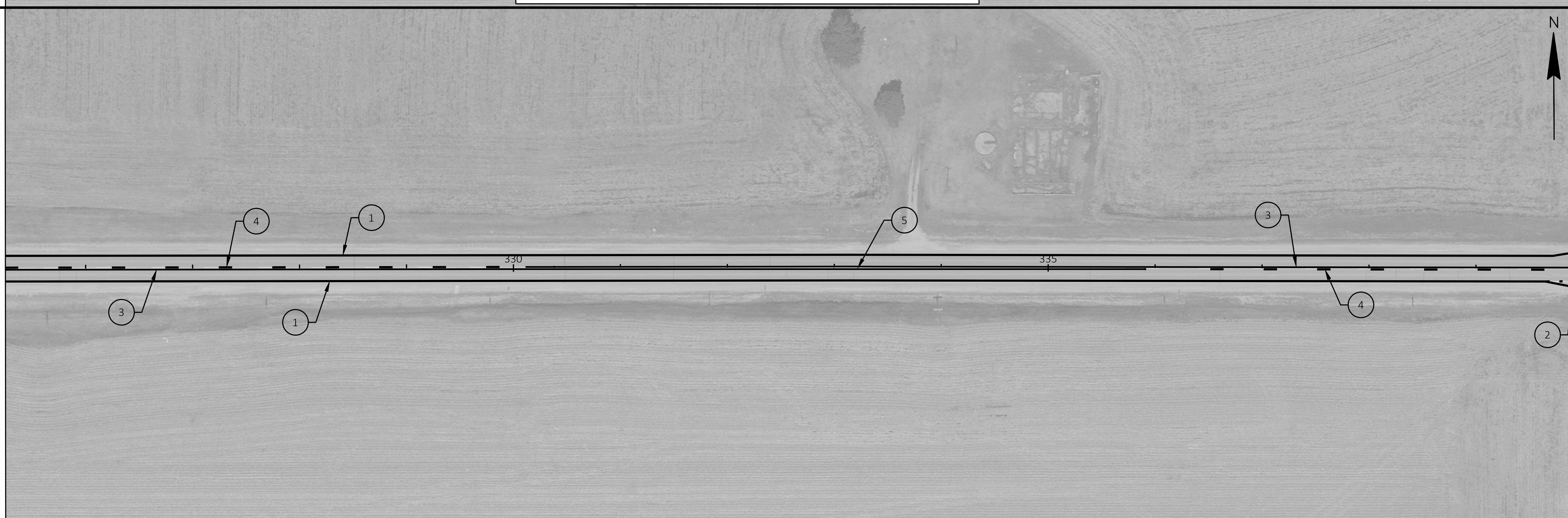


LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

MATCH LINE STA 325+25.00

MATCH LINE STA 325+25.00

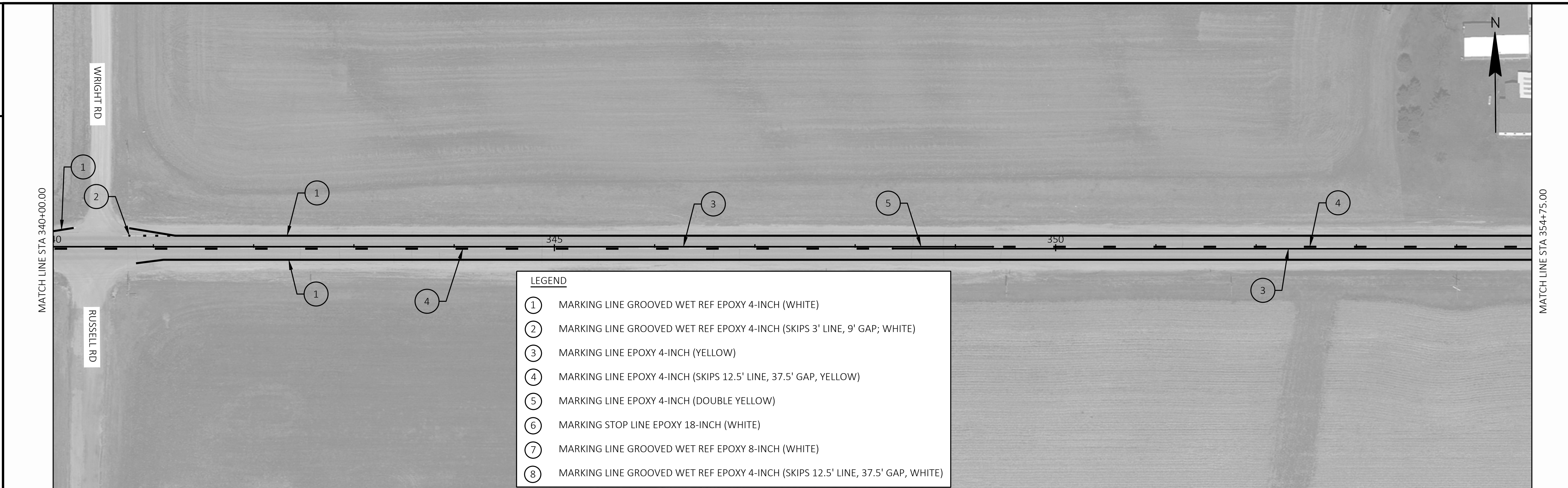


MATCH LINE STA 340+00.00

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 26	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-08
PLOT DATE : 10/22/2021 7:44 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

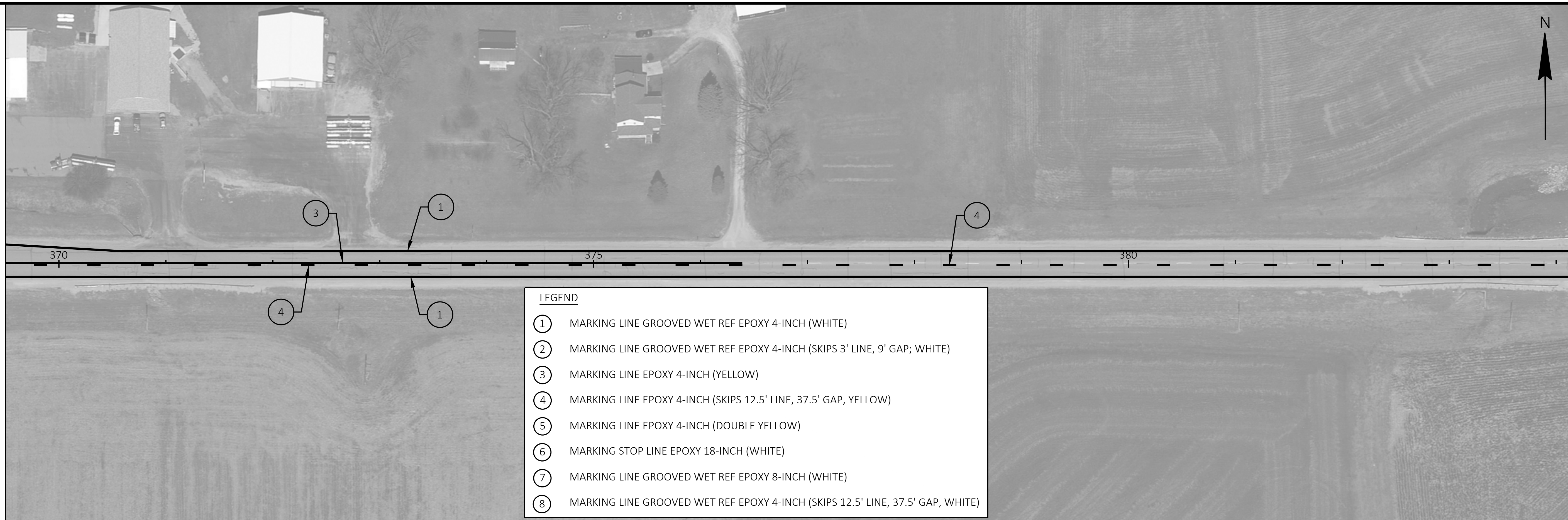
2



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 27	E



LEGEND

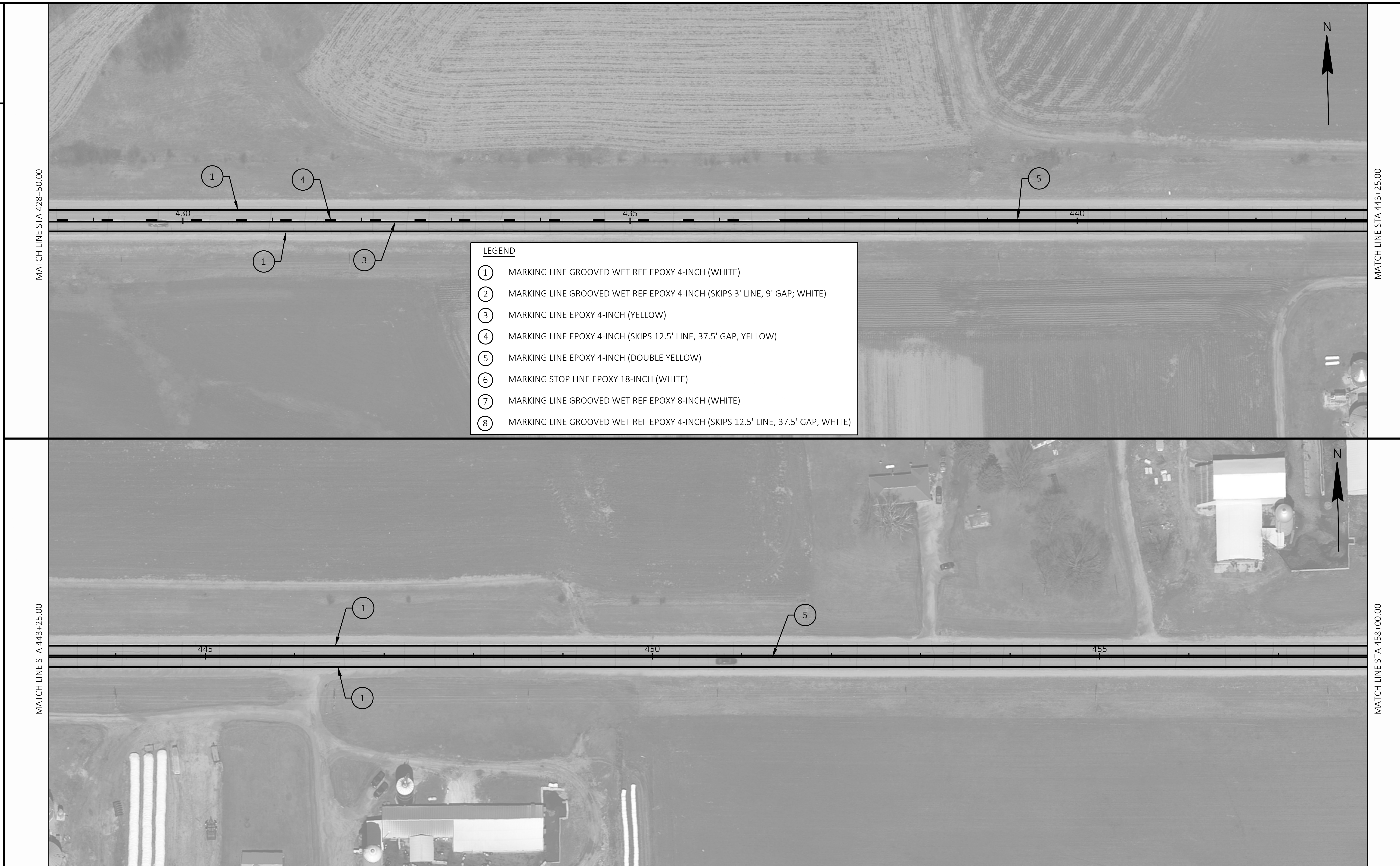
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 29	E

2



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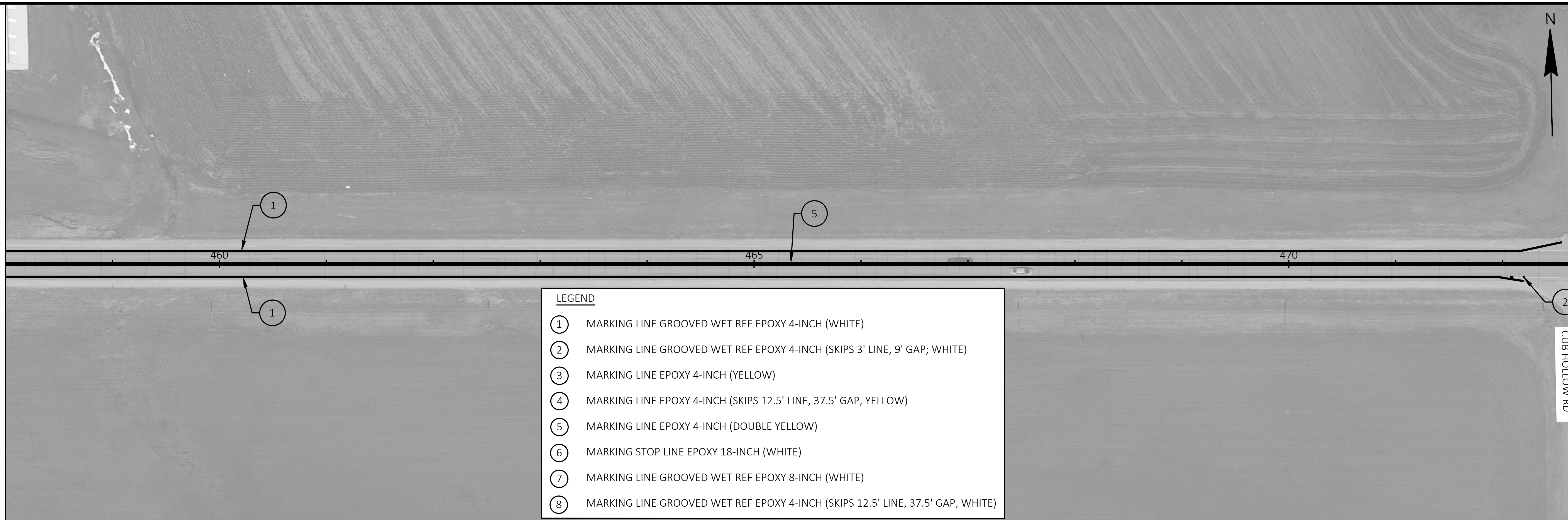
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 30	E

2



LEGEND

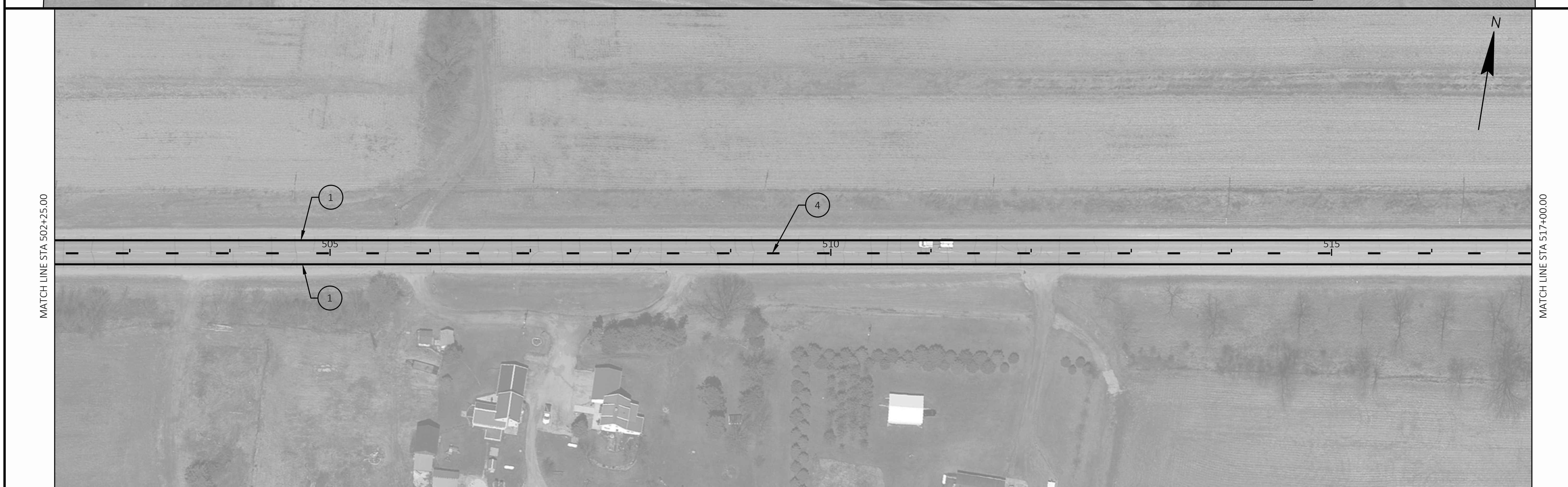
1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 31	E

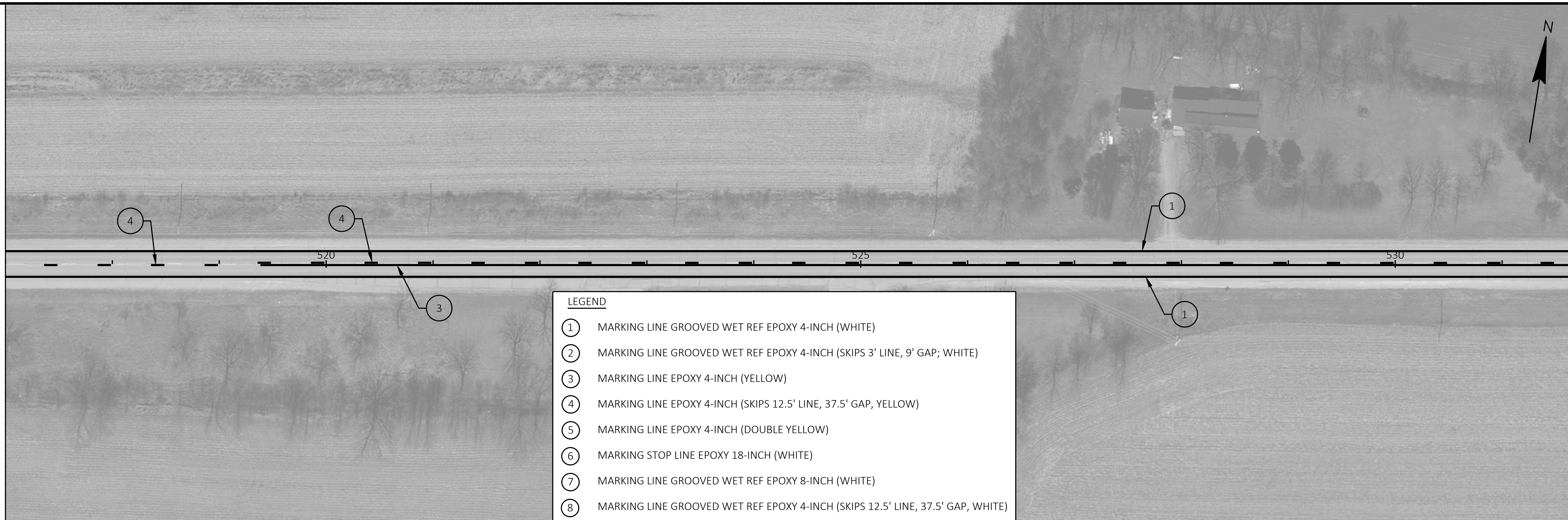
2

2



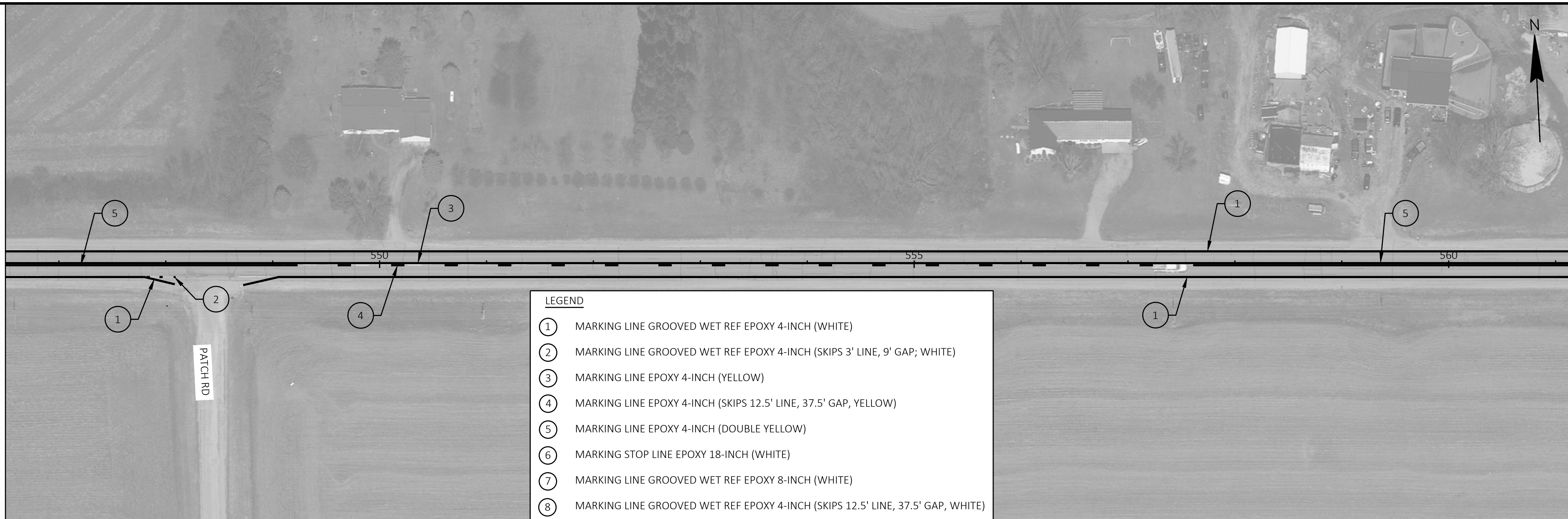
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 32	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-14
PLOT DATE : 10/22/2021 7:45 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)



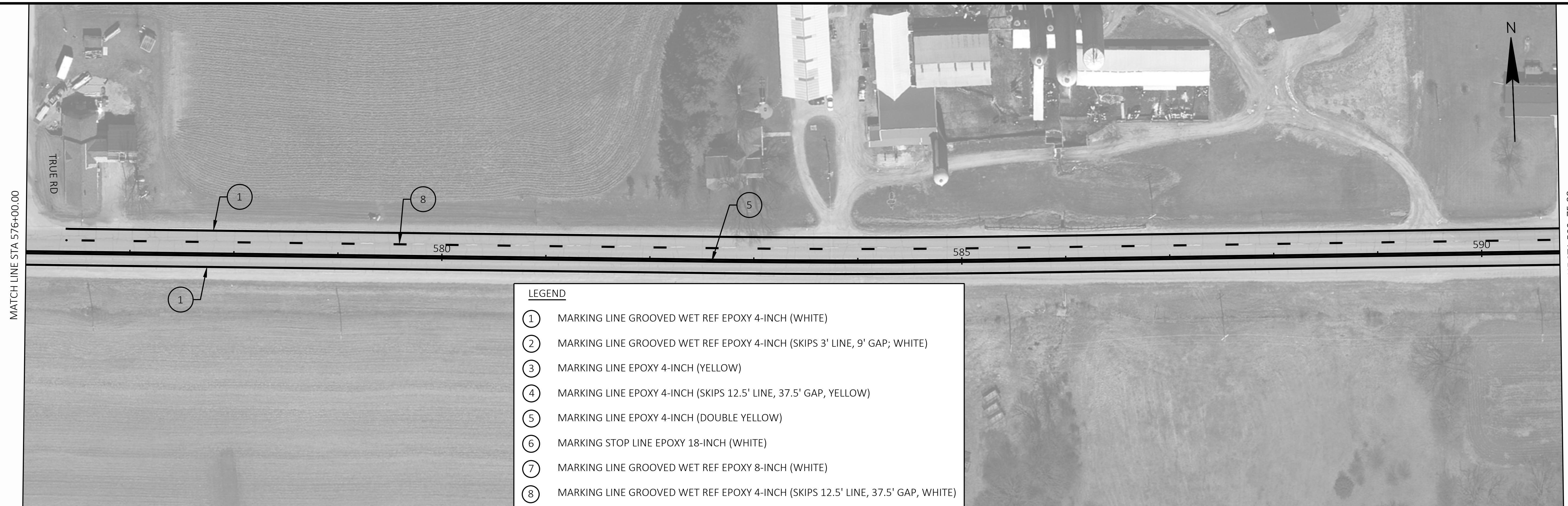
LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
5. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)

2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 34	E

2

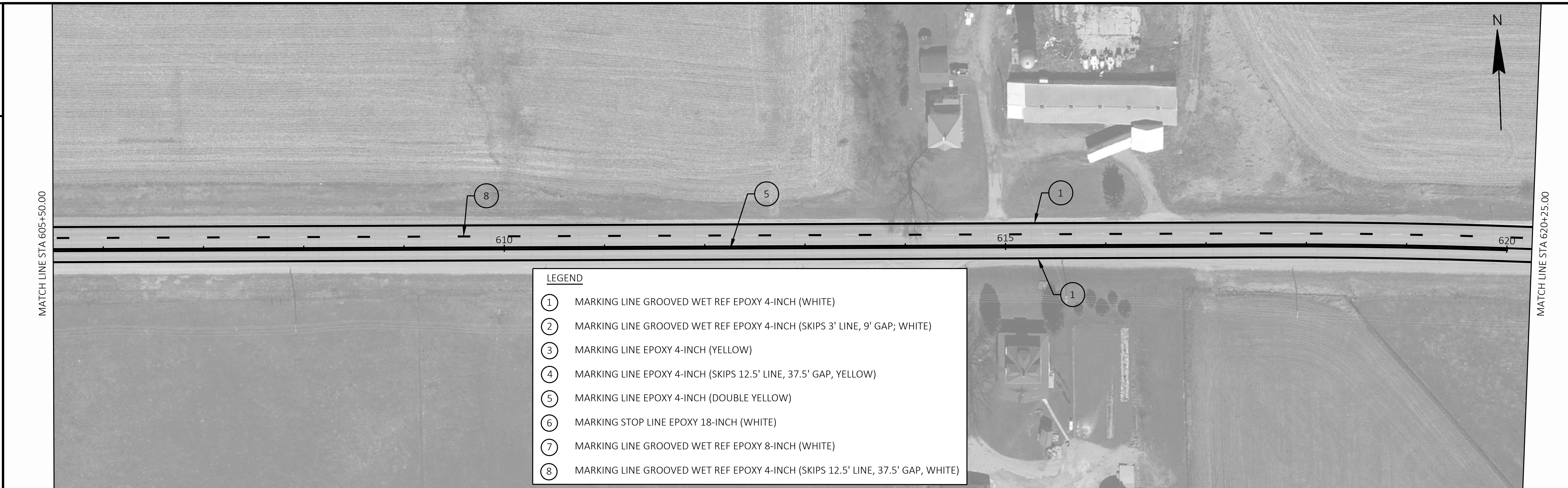


2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 35	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-17
PLOT DATE : 10/22/2021 7:45 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



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PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 36	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\024501-PM.DWG
LAYOUT NAME - 024501-pm-18
PLOT DATE : 10/22/2021 7:45 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

1. MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
2. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 3' LINE, 9' GAP; WHITE)
3. MARKING LINE EPOXY 4-INCH (YELLOW)
4. MARKING LINE EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, YELLOW)
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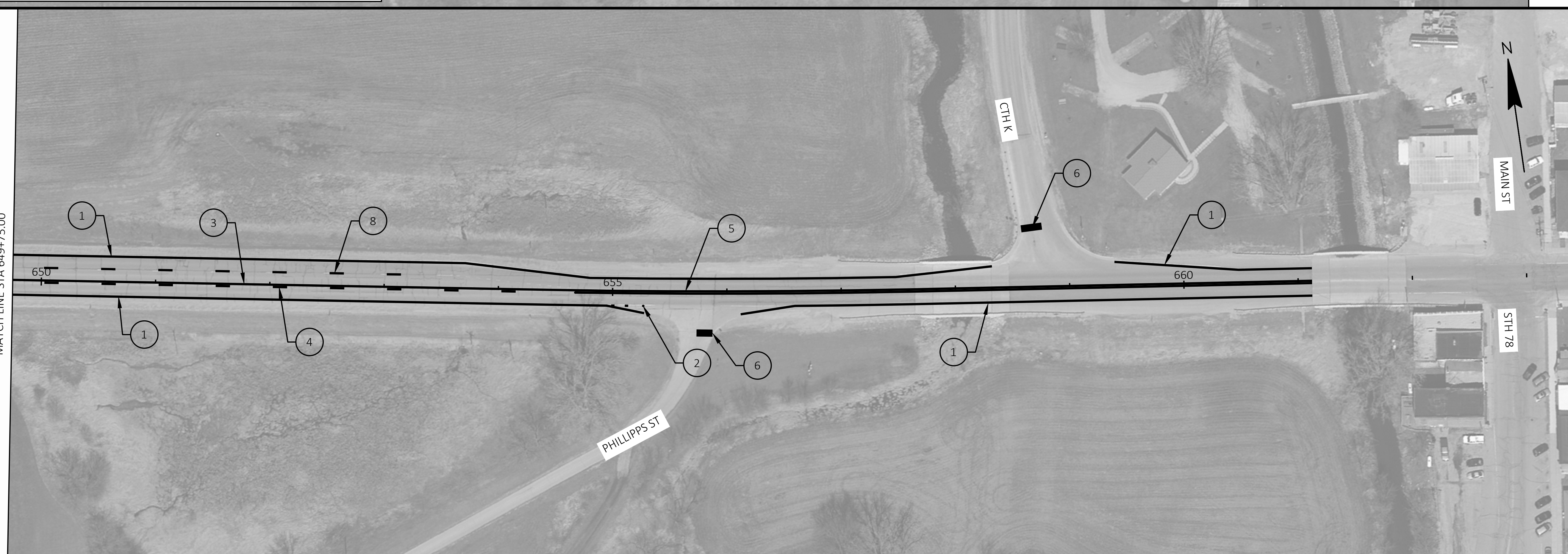
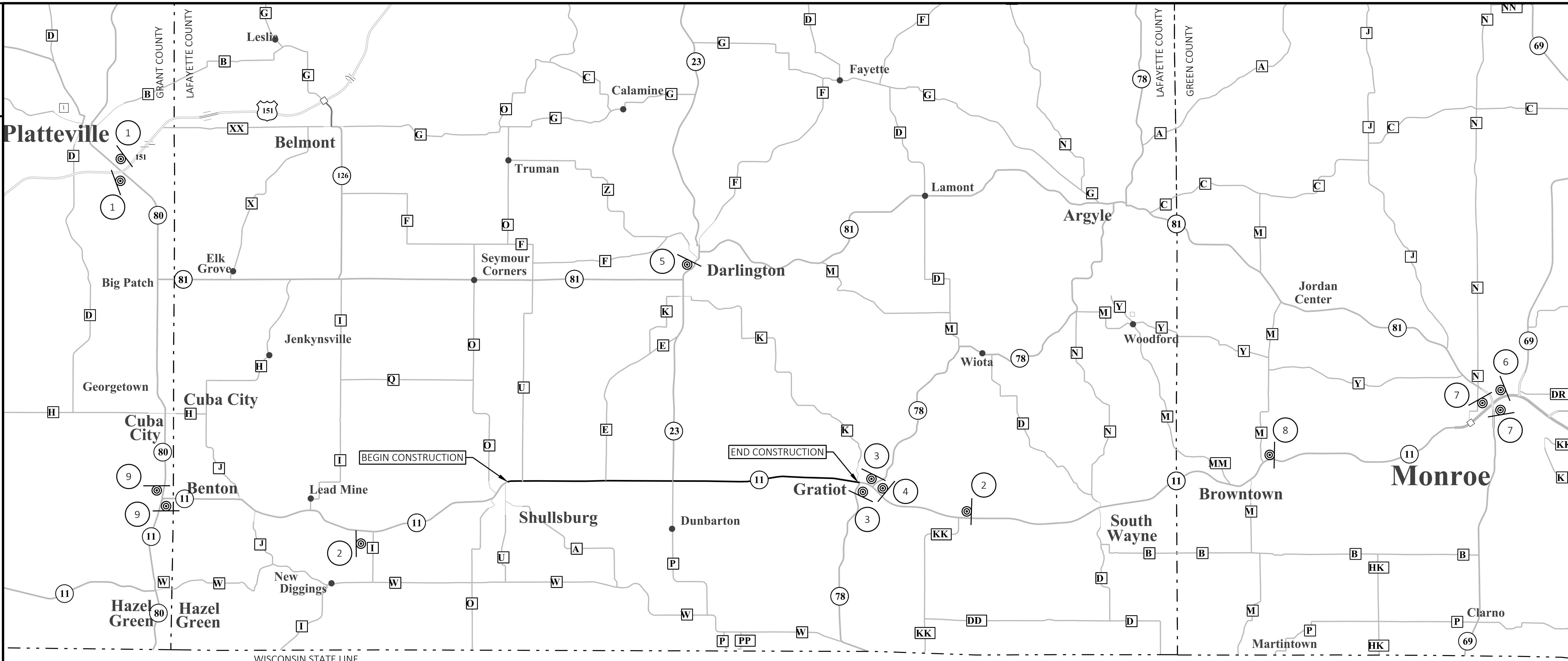
6. MARKING STOP LINE EPOXY 18-INCH (WHITE)
7. MARKING LINE GROOVED WET REF EPOXY 8-INCH (WHITE)
8. MARKING LINE GROOVED WET REF EPOXY 4-INCH (SKIPS 12.5' LINE, 37.5' GAP, WHITE)



2

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PAVEMENT MARKING	SHEET 37	E

2



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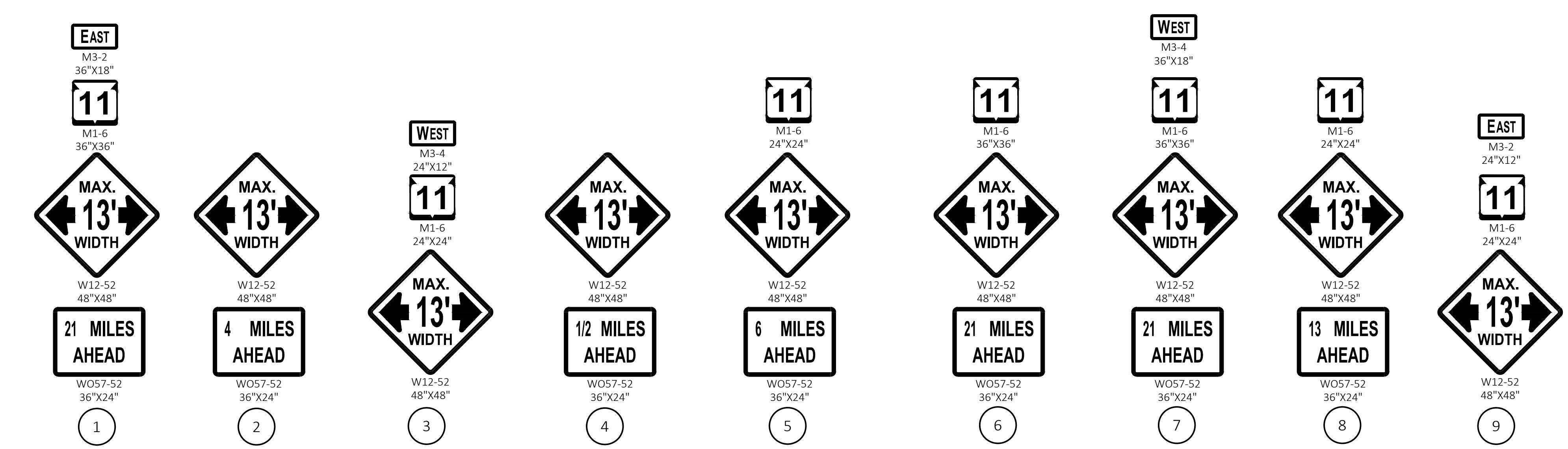


LEGEND

TRAFFIC CONTROL SIGNS ON PERMANENT SIGN SUPPORTS

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

SEE SDD ADVANCED WIDTH RESTRICTION SIGNING FOR ADDITIONAL DETIALS.

PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	ADVANCED WIDTH RESTRICTION SIGNING	SHEET 38	E

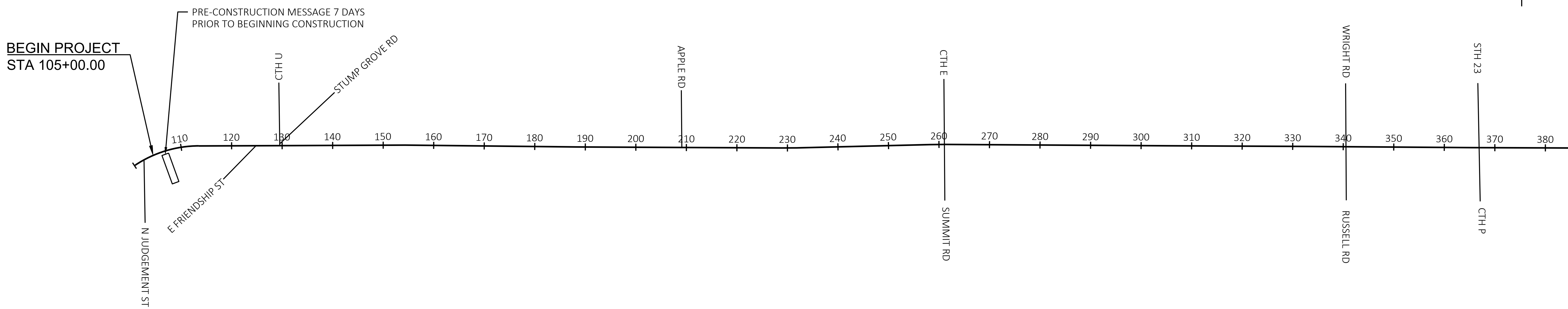
LEGEND

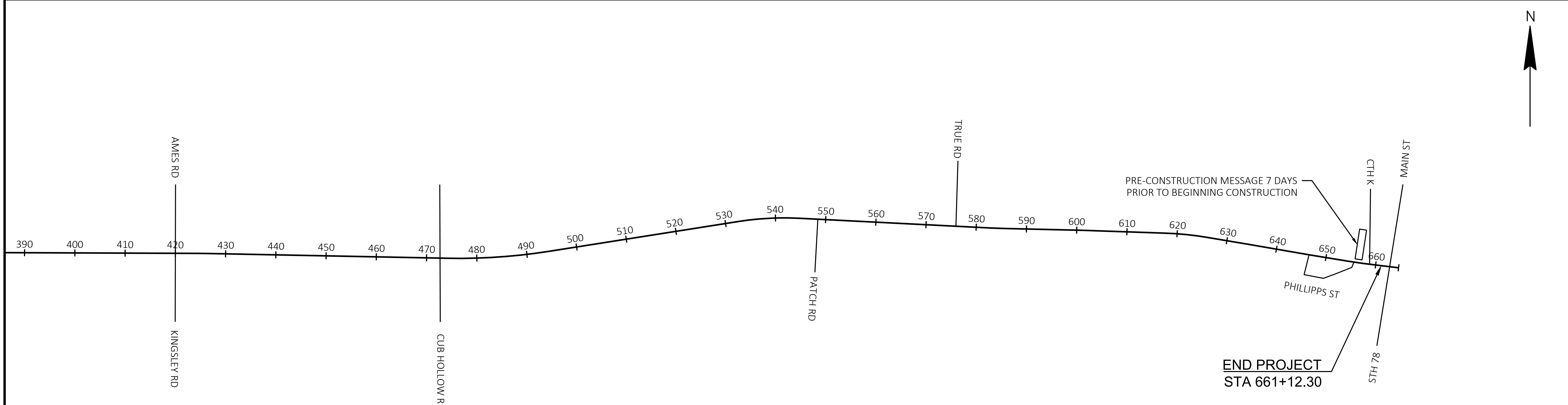
▯ PORTABLE CHANGEABLE MESSAGE SIGN

NOTE:
SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION FOR ADDITIONAL DETAILS.

PORTABLE CHANGEABLE MESSAGE SIGN MESSAGE:
1 WEEK PRIOR TO CONSTRUCTION:

PHASE 1	PHASE 2
ROAD WORK BEGINS	XXXDAY {DATE}





PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	TRAFFIC CONTROL - PCMS LAYOUT	SHEET 39	E

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	Qty
					1706-02-64
0002	203.0220	Removing Structure (structure) 01. C-33-392	EACH	1.000	1.000
0004	204.0110	Removing Asphaltic Surface	SY	1,237.000	1,237.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	660.000	660.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	200,701.000	200,701.000
0010	204.0165	Removing Guardrail	LF	647.000	647.000
0012	205.0100	Excavation Common	CY	530.000	530.000
0014	208.0100	Borrow	CY	110.000	110.000
0016	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1706-02-64	LS	1.000	1.000
0018	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	26.000	26.000
0020	213.0100	Finishing Roadway (project) 01. 1706-02-64	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	8,417.000	8,417.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	193.000	193.000
0026	455.0605	Tack Coat	GAL	13,355.000	13,355.000
0028	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0030	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0032	460.2005	Incentive Density PWL HMA Pavement	DOL	17,710.000	17,710.000
0034	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	31,930.000	31,930.000
0036	460.2010	Incentive Air Voids HMA Pavement	DOL	22,490.000	22,490.000
0038	460.6224	HMA Pavement 4 MT 58-28 S	TON	22,485.000	22,485.000
0040	465.0105	Asphaltic Surface	TON	337.000	337.000
0042	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	55,529.000	55,529.000
0044	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0046	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0048	522.2429	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	70.000	70.000
0050	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0052	524.0124	Culvert Pipe Salvaged 24-Inch	LF	68.000	68.000
0054	606.0200	Riprap Medium	CY	33.000	33.000
0056	614.0010	Barrier System Grading Shaping Finishing	EACH	1.000	1.000
0058	614.2330	MGS Guardrail 3 K	LF	553.000	553.000
0060	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1706-02-64	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	125.000	125.000
0068	625.0100	Topsoil	SY	286.000	286.000
0070	628.1504	Silt Fence	LF	910.000	910.000
0072	628.1520	Silt Fence Maintenance	LF	910.000	910.000
0074	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0076	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0078	628.2004	Erosion Mat Class I Type B	SY	764.000	764.000
0080	628.7555	Culvert Pipe Checks	EACH	36.000	36.000
0082	628.7570	Rock Bags	EACH	100.000	100.000
0084	629.0210	Fertilizer Type B	CWT	0.600	0.600
0086	630.0110	Seeding Mixture No. 10	LB	5.500	5.500
0088	630.0500	Seed Water	MGAL	8.000	8.000
0090	633.5200	Markers Culvert End	EACH	8.000	8.000
0092	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	12.000	12.000
0094	638.2102	Moving Signs Type II	EACH	12.000	12.000
0096	642.5001	Field Office Type B	EACH	1.000	1.000
0098	643.0300	Traffic Control Drums	DAY	318.000	318.000

Estimate Of Quantities

Line	Item	Item Description	Unit	Total	Qty
					1706-02-64
0100	643.0900	Traffic Control Signs	DAY	3,901.000	3,901.000
0102	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0104	643.5000	Traffic Control	EACH	1.000	1.000
0106	645.0120	Geotextile Type HR	SY	82.000	82.000
0108	646.1020	Marking Line Epoxy 4-Inch	LF	86,199.000	86,199.000
0110	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	111,604.000	111,604.000
0112	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	253.000	253.000
0114	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	86,199.000	86,199.000
0116	646.6120	Marking Stop Line Epoxy 18-Inch	LF	46.000	46.000
0118	648.0100	Locating No-Passing Zones	MI	10.530	10.530
0120	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0122	650.8000	Construction Staking Resurfacing Reference	LF	55,612.000	55,612.000
0124	650.9910	Construction Staking Supplemental Control (project) 01. 1706-02-64	LS	1.000	1.000
0126	650.9920	Construction Staking Slope Stakes	LF	490.000	490.000
0128	690.0150	Sawing Asphalt	LF	3,231.000	3,231.000
0130	740.0440	Incentive IRI Ride	DOL	45,305.000	45,305.000
0132	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000	2,000.000
0134	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,320.000	1,320.000
0136	SPV.0060	Special 01. Landmark Reference Monuments Special	EACH	13.000	13.000
0138	SPV.0090	Special 01. Regrading Ditch	LF	490.000	490.000
0140	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	375.000	375.000

3

REMOVING OLD STRUCTURE

STATION	203.0200 LS	REMARKS
585+97	1	CATTLE PASS
ITEM TOTAL	1	

REMOVING GUARDRAIL

STATION - STATION	LOCATION	204.0165 LF
585+23 - 586+77	LT	155
632+01 - 636+93	LT	492
	ITEM TOTAL	647

EARTHWORK

STATION	LOCATION	205.0100 COMMON EXCAVATION (CY)	UNUSABLE MATERIAL (CY)	208.0100 BORROW (CY)
585+97	CULVERT	530	275	110
	ITEM TOTAL	530		110

REMOVING ASPHALTIC SURFACE

STATION	LOCATION	204.0110 SY	REMARKS
118+49	LT	8	DRIVEWAY APRON
120+29	LT	11	DRIVEWAY APRON
129+24	RT	10	DRIVEWAY APRON
138+91	LT	11	DRIVEWAY APRON
155+72	LT	13	DRIVEWAY APRON
158+12	RT	13	DRIVEWAY APRON
182+59	RT	12	DRIVEWAY APRON
194+30	LT	11	DRIVEWAY APRON
201+65	RT	14	DRIVEWAY APRON
209+11	RT	9	DRIVEWAY APRON
221+10	RT	87	DRIVEWAY APRON
221+54	LT	10	DRIVEWAY APRON
242+50	LT	10	DRIVEWAY APRON
242+67	RT	21	DRIVEWAY APRON
246+03	RT	13	DRIVEWAY APRON
259+74	RT	32	DRIVEWAY APRON
280+86	LT	7	DRIVEWAY APRON
280+97	RT	57	DRIVEWAY APRON
282+36	RT	8	DRIVEWAY APRON
287+70	RT	11	DRIVEWAY APRON
300+98	RT	22	DRIVEWAY APRON
302+95	RT	11	DRIVEWAY APRON
326+86	RT	12	DRIVEWAY APRON
333+73	LT	36	DRIVEWAY APRON
355+19	LT	24	DRIVEWAY APRON
356+23	LT	24	DRIVEWAY APRON
376+36	LT	37	DRIVEWAY APRON
392+40	RT	6	
404+97	RT	27	DRIVEWAY APRON
406+73	RT	42	DRIVEWAY APRON
407+70	LT	39	DRIVEWAY APRON
446+14	RT	34	DRIVEWAY APRON
453+12	LT	20	DRIVEWAY APRON
455+51	LT	32	DRIVEWAY APRON
505+87	RT	25	DRIVEWAY APRON
508+51	RT	23	DRIVEWAY APRON
512+13	RT	28	DRIVEWAY APRON
527+91	LT	21	DRIVEWAY APRON
536+24	LT	27	DRIVEWAY APRON
550+16	LT	23	DRIVEWAY APRON
556+66	LT	18	DRIVEWAY APRON
559+39	LT	51	DRIVEWAY APRON
570+26	RT	22	DRIVEWAY APRON
576+83	LT	23	DRIVEWAY APRON
583+75	LT	28	DRIVEWAY APRON
585+97		106	
590+77	LT	29	DRIVEWAY APRON
616+53	LT	44	DRIVEWAY APRON
621+98	RT	35	DRIVEWAY APRON
	ITEM TOTAL	1237	

REMOVING ASPHALTIC SURFACE BUTT JOINTS

STATION	LOCATION	204.0115 SY
105+00	BEGIN PROJECT	33
124+05	E FRIENDSHIP ST	31
129+44	CTH U / STUMP GROVE RD	56
209+08	APPLE RD	21
261+07	CTH E	34
261+07	SUMMIT RD	22
340+34	RUSSELL RD	36
340+50	WRIGHT RD	20
420+00	KINGSLEY RD	25
420+03	AMES RD	23
472+80	CUB HOLLOW RD	51
548+43	PATCH RD	27
575+97	TRUE RD	25
646+46	PHILLIPPS ST	32
655+75	PHILLIPPS ST	36
658+81	CTH K	38
657+54 - 658+57	B-33-0110	101
661+12	END PROJECT	49
	ITEM TOTAL	660

REMOVING ASPHALTIC SURFACE MILLING

STATION - STATION	LOCATION	204.0120 SY	REMARKS
105+00 - 657+64	STH 11	194656	
658+47 - 661+12	STH 11	1388	
E Friendship St.		499	
CTH U		532	
Apple Rd		155	
CTH E		511	
Summit Rd		124	
Wright Rd		162	
Russell Rd		281	
Ames Rd		202	
Kingsley Rd		195	
N Cub Hollow Rd		172	
S Cub Hollow Rd		332	
Patch Rd		181	
True Rd		145	
Phillipps St		991	
CTH K		175	
ITEM TOTAL		200701	

3

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

PREPARE FOUNDATION ITEMS

STATION	LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALTIC PAVING LS	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA
PROJECT 1706-02-64		1	--
370+15 - 371+83	RT	--	2
382+35 - 384+02	RT	--	2
382+49 - 384+16	LT	--	2
425+20 - 427+00	RT	--	2
425+87 - 427+09	LT	--	1
472+94 - 475+78	RT	--	3
478+25 - 481+54	RT	--	3
478+43 - 481+61	LT	--	3
631+33 - 637-92	LT	--	7
656+99 - 657+71	RT	--	1
ITEM TOTAL		1	26

HMA PAVEMENT

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 4 MT 58-28 S TON
105+00 - 657+64	STH 11	12886	21737
658+47 - 661+12	STH 11	89	142
E Friendship St.		40	64
CTH U		42	66
Apple Rd		14	22
CTH E		44	70
Summit Rd		12	19
Wright Rd		14	23
Russell Rd		23	36
Ames Rd		17	27
Kingsley Rd		17	27
Cub Hollow Rd		44	70
Patch Rd		15	24
True Rd		21	34
Phillipps St		57	91
CTH K		20	33
	ITEM TOTALS	13355	22485

3

FINISHING ROADWAY

PROJECT	213.0100 EACH
1706-02-64	1
ITEM TOTAL	1

BASE AGGREGATE DENSE

STATION - STATION	LOCATION	305.0110 3/4-INCH TON	305.0120 1-1/4-INCH TON	REMARKS
105+00 - 661+12	RT/LT	8340	--	REFRESH SLDR
392+40	RT/LT	12	46	
585+85 - 586+10	RT/LT	12	98	CULVERT
630+58 - 638+43	LT	53	49	BEAMGUARD
	ITEM TOTALS	8417	193	

ASPHALTIC SURFACE ITEMS

STATION - STATION	LOCATION	465.0105 ASPHALTIC SURFACE TON	REMOVING DISTRESSED PAVEMENT MILLING SPV.0180.01 SY	REMARKS
370+15 - 371+83	RT	21	--	
382+35 - 384+02	RT	20	--	
382+49 - 384+16	LT	21	--	
392+40	RT	2	--	
425+20 - 427+00	RT	20	--	
425+87 - 427+09	LT	13	--	
472+94 - 475+78	RT	16	--	
478+25 - 481+54	RT	16	--	
478+43 - 481+61	LT	18	--	
494+75 - 496+88	LT	--	201	
548+17 - 548+84	RT	--	74	
585+44 - 586+52		158	--	CULVERT REPLACMENT
631+33 - 637+92	LT	16	--	
656+99 - 657+71	RT	6	--	
UNDISTRIBUTED		10	100	
ITEM TOTAL		337	375	

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

ASPHALTIC CENTER LINE RUMBLE STRIPS 2-LANE RURAL

STATION - STATION	465.0475 LF
105+00 - 657+64	55264
658+47 - 661+12	265
ITEM TOTAL	55529

HMA PAVEMENT INCENTIVE ITEMS

STATION	LOCATION	460.0105.S HMA PAVEMENT PWL TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PAVEMENT PWL TEST STRIP DENSITY EACH
105+00 - 661+12	PROJECT 1706-02-64	1	1
	ITEM TOTAL	1	1

3

HMA PWL MIXTURE ACCEPTANCE TABLE

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR: DENSITY ACCEPTANCE
12 FOOT DRIVING LANE	105+00 TO 661+12	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	16585	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
3 FOOT SHOULDER	105+00 TO 661+12	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	4176	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENCTIVE
11 FOOT CLIMBING LANE	573+42 TO 654+72	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	1075	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
TURN LANE	642+44 TO 644+19	UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	43	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
SIDE ROADS		UPPER LAYER	MILLED EXISTING HMA SURFACE	4 MT 58-28 S	606	2"	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY DEPARTMENT; NOT ELIGIBLE FOR INCENCTIVE
CULVERT PIPE	585+44 TO 586+52	CULVERT PATCH	BASE AGGREGATE	ASPHALTIC SURFACE	158	6"	PER STANDARD SPEC 465	ACCEPTANCE BY ORDINARY COMPACTION

CULVERT PIPES

STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.2429 CULVERT PIPE REINFORCED CONCRETE HORIZ. ELLIPTICAL CLASS HE-IV 29x45-INCH LF	522.2629 APRON ENDWALLS FOR CPRC HORIZ. ELLIPTICAL 29x45-INCH EACH	524.0124 CULVERT PIPE SALVAGED 24-INCH LF	633.5200 MARKERS CULVERT END EACH	REMARKS
392+40	LT	--	--	--	--	24	1	DUAL PIPES
392+40	RT	--	--	--	--	12	1	DUAL PIPES
542+79	LT	--	--	--	--	8	1	
542+79	RT	1	1	--	--	--	1	
551+91	LT	--	--	--	--	--	1	
551+91	RT	1	1	--	--	24	1	
585+97		--	--	70	2	--	2	
	ITEM TOTALS	2	2	70	2	68	8	

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

BARRIER SYSTEM GRADING SHAPING FINISHING

STATION - STATION	LOCATION	614.0010 EACH	* BORROW CY	* TOPSOIL SY	* FERTILIZER TYPE B CWT	* SEEDING MIXTURE NO. 10 LB	* CONSTRUCITON STAKING SLOPE STAKES LF
630+56 - 638+43	LT	1	100	335	0.2	4.5	790
	ITEM TOTALS	1					

* FOR INFORMATION PURPOSES ONLY

MOBILIZATIONS

LOCATION	619.1000 MOBILIZATION EACH	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
STH 11	1	4	3
ITEM TOTALS	1	4	3

3

3

MGS GUARDRAIL

STATION - STATION	LOCATION	614.2330 MGS GUARDRAIL 3 K LF	614.2610 TERMINAL EAT EACH
631+33 - 637+92	LT	553	2
	ITEM TOTALS	553	2

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2004 EROSION MAT CLASS 1 TYPE B SY	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
392+21 - 392+65	RT / LT	65	65	94	12	--	9	24
542+41 - 543+09	RT / LT	--	--	134	6	--	--	--
551+75 - 552+15	RT / LT	--	--	81	6	--	--	--
585+97	RT	100	100	120	12	--	24	58
630+56 - 638+43	LT	745	745	335	--	--	--	--
UNDISTRIBUTED		--	--	--	--	100	--	--
	ITEM TOTALS	910	910	764	36	100	33	82

WATER

STATION -STATION	LOCATION	624.0100 MGAL
105+00 - 660+43	RT/LT	125
ITEM TOTALS		125

TOPSOIL, FERTILIZER, AND SEEDING

STATION - STATION	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0110 SEEDING MIXTURE NO. 10 LB	630.0500 SEED WATER MGAL
392+21 - 392+65	RT / LT	94	0.1	1.3	2
542+41 - 543+09	LT	12	0.1	0.2	1
551+75 - 552+15	LT	30	0.1	0.4	1
584+20 - 588+00	RT	120	0.1	1.6	3
UNDISTRIBUTED		30	0.2	2	1
ITEM TOTALS		286	0.6	5.5	8

SIGNS

STATION - STATION	LOCATION	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	
585+18	LT	1	1	MOVE FOR DITCH GRADING
587+91	LT	1	1	MOVE FOR DITCH GRADING
UNDISTRIBUTED		10	10	NO PASSING ZONE SIGNS
	ITEM TOTAL	12	12	

FIELD OFFICE TYPE B

STATION - STATION	642.5001 EACH
STH 11	1
ITEM TOTAL	1

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL

STATION - STATION	643.0300 DRUMS DAYS	643.0900 SIGNS DAYS	643.1050 SIGNS PCMS DAYS	643.5000 TRAFFIC CONTROL EACH	REMARKS
PROJECT 1706-02-64	288	3601	14	1	
UNDISTRIBUTED	30	300	--	--	
ITEM TOTALS	318	3901	14	1	

PAVEMENT MARKING

STATION - STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH * SKIPS YELLOW LF	646.1020 MARKING LINE EPOXY 4-INCH * NO PASSING YELLOW LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SKIPS WHITE LF	646.1040 MARKING LINE GROOVED WET REF EPOXY 4-INCH SOLID WHITE LF	646.3040 MARKING LINE GROOVED WET REF EPOXY 8-INCH SOLID WHITE LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH SKIPS YELLOW LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH NO PASSING YELLOW LF	646.6120 MARKING STOP LINE EPOXY 18-INCH SOLID WHITE LF	REMARKS
105+00 - 661+12	CL	6704	79495	--	--	--	6704	79495	--	
105+00 - 661+12	RT/LT	--	--	1996	109608	253	--	--	46	
	ITEM TOTALS	6,704	79,495	1,996	109,608	253	6,704	79,495	46	
		TOTAL 86199		TOTAL 111604			TOTAL 86199			

* TO BE APPLIED AFTER RUMBLE STRIPS

LOCATING NO PASSING ZONES

STATION - STATION	LOCATION	648.0100 MI
105+00 - 661+12	STH 11	10.53
ITEM TOTALS		10.53

CONSTRUCTION STAKING

STATION - STATION	650.6000 PIPE CULVERTS EACH	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL (1706-02-64) LS	650.9920 SLOPE STAKES LF
PROJECT 1706-02-64	--	--	1	--
105+00 - 661+12	--	55612	--	--
542+41 - 543+09	--	--	--	70
551+75 - 552+15	--	--	--	40
584+20 - 588+00	1	--	--	380
ITEM TOTALS	1	55612	1	490

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED

3

SAWING

STATION	LOCATION	690.0150 ASPHALT LF
105+00		30
118+49	LT	32
120+29	LT	44
124+00	RT	28
129+24	RT	45
129+45	LT	31
129+88	LT	19
138+91	LT	48
155+72	LT	40
158+12	RT	43
182+59	RT	45
194+30	LT	46
201+65	RT	45
209+08	LT	19
209+11	RT	34
221+10	RT	94
221+54	LT	47
242+50	LT	47
242+67	RT	50
246+03	RT	48
259+74	RT	60
261+00	RT/LT	51
280+86	LT	33
280+97	RT	79
282+36	RT	42
287+70	RT	43
300+98	RT	50
302+95	RT	46
326+86	RT	45
333+73	LT	60
340+44	RT/LT	52
355+19	LT	52
356+23	LT	51
376+36	LT	60
392+40	RT	37
404+97	RT	59
406+73	RT	94
407+70	LT	69
420+00	RT/LT	44
446+14	RT	67
453+12	LT	44
455+51	LT	62
427+78	RT/LT	55
505+87	RT	54
508+51	RT	44
512+13	RT	57
527+91	LT	47
536+24	LT	56
548+44	RT	25
550+16	LT	49

SAWING CONT'D

STATION	LOCATION	690.0150 ASPHALT LF
556+66	LT	43
559+39	LT	74
570+26	RT	45
575+94	LT	22
576+83	LT	43
583+75	LT	68
585+97		78
590+77	LT	61
616+53	LT	56
621+98	RT	89
646+50	RT	28
655+73	RT	32
657+64		44
658+47		47
658+75	LT	34
661+12		45
	ITEM TOTAL	3231

REGRADING DITCH

STATION	LOCATION	SPV.0090.01 REGRADING DITCH LF	* EXCAVATION COMMON CY	* TOPSOIL SY	* FERTILIZER TYPE B CWT	* SEEDING MIXTURE NO. 10 LB
542+41 - 543+09	RT	70	22	122	0.1	1.6
551+75 - 552+15	RT	40	8	51	0.1	0.7
584+20 - 588+00	LT	380	115	814	0.5	11.0
	ITEM TOTALS	490				

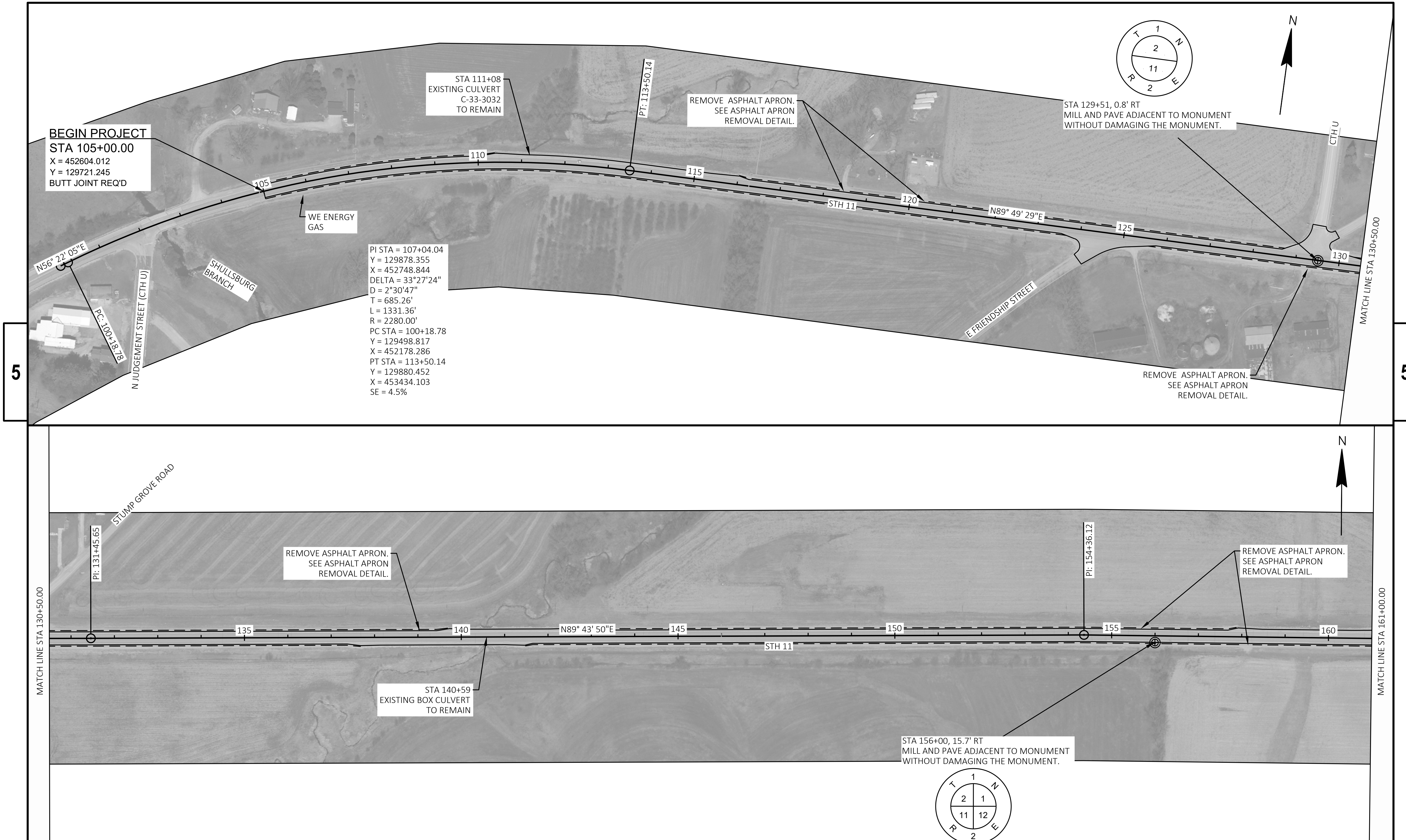
* FOR INFORMATION PURPOSES ONLY

MONUMENTS

STATION	OFFSET	TYPE	TOWN / RANGE	CORNER	SPV.0060.01 LANDMARK REFERENCE MONUMENTS SPECIAL EACH
		PROJECT 1706-02-64			
129+51	0.8' RT	QUARTER CORNER	T1N R2E	2-11	1
156+00	15.7' RT	SECTION CORNER	T1N R2E	2-1-11-12	--
243+55	26.2' RT	QUARTER CORNER	T1N R3E	6-7	--
261+00	16.3' RT	SECTION CORNER	T1N R3E	6-5-8-7	1
287+51	12.3' RT	QUARTER CORNER	T1N R3E	5-8	1
314+03	9.4' RT	SECTION CORNER	T1N R3E	5-4-9-8	1
340+48	9.0' RT	QUARTER CORNER	T1N R3E	4-9	1
366+93	4.0' RT	SECTION CORNER	T1N R3E	4-3-9-10	1
393+42	6.2' RT	QUARTER CORNER	T1N R3E	3-10	1
419+91	8.5' RT	SECTION CORNER	T1N R3E	3-2-10-11	1
446+33	1.7' RT	QUARTER CORNER	T1N R3E	2-11	1
472+76	18.6' LT	SECTION CORNER	T1N R3E	2-1-12-11	1
548+82	1.1' RT	QUARTER CORNER	T1N R4E	6-7	1
575+99	0.2' RT	SECTION CORNER	T1N R4E	6-5-7-8	1
603+03	4.4' LT	QUARTER CORNER	T1N R4E	5-8	1
			ITEM TOTALS		13

3

NOTE: TABLE QUANTITIES ARE CATEGORY 0010 UNLESS OTHERWISE NOTED



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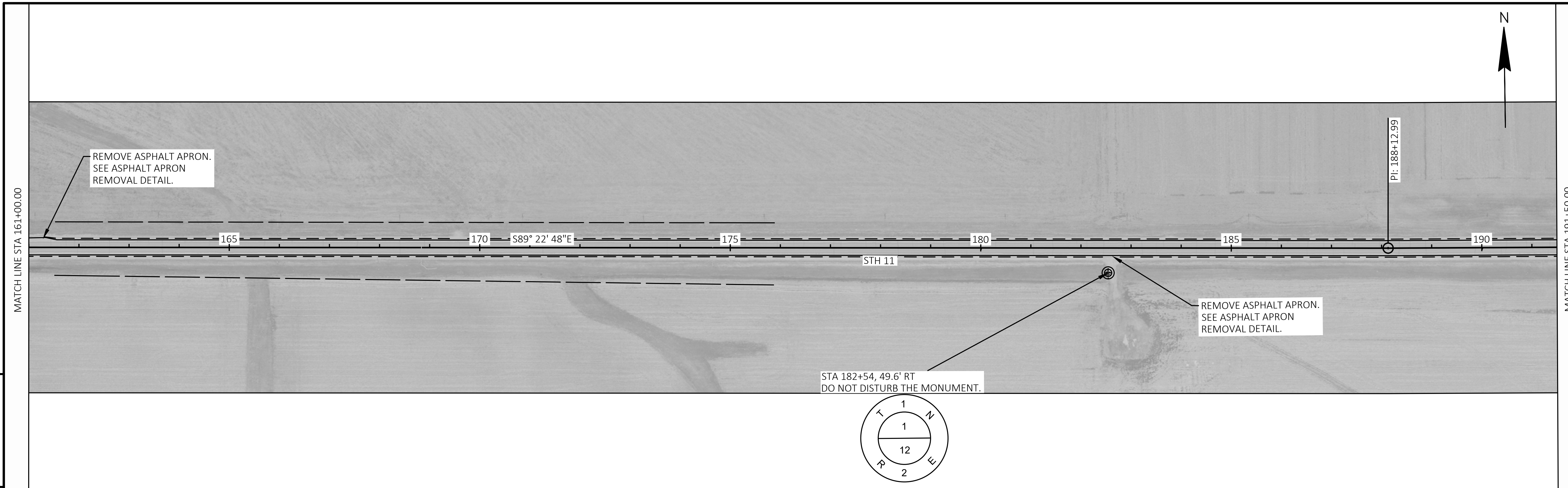
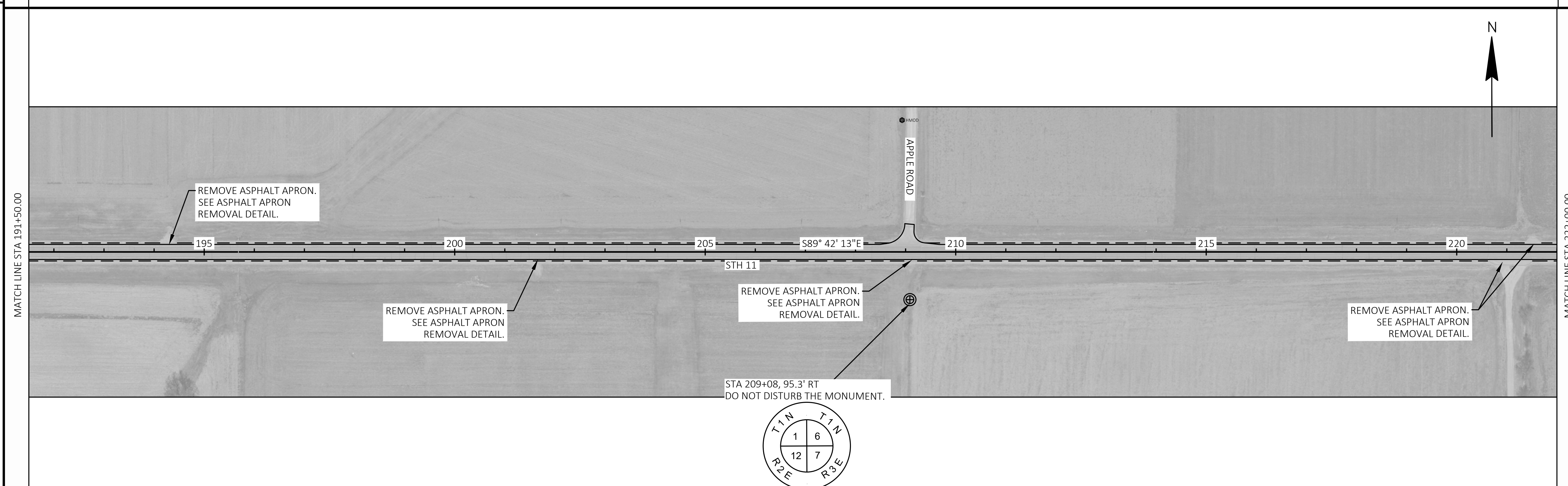
LAYOUT NAME - 01-pn
PLOT DATE : 10/22/2021 7:47 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44





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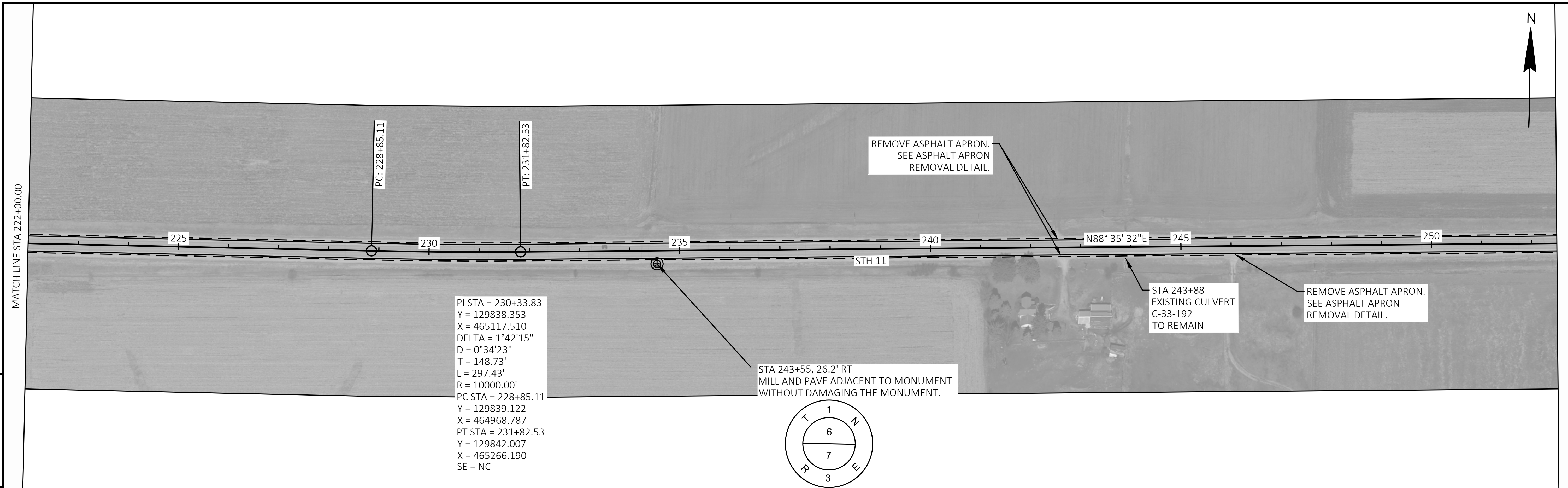

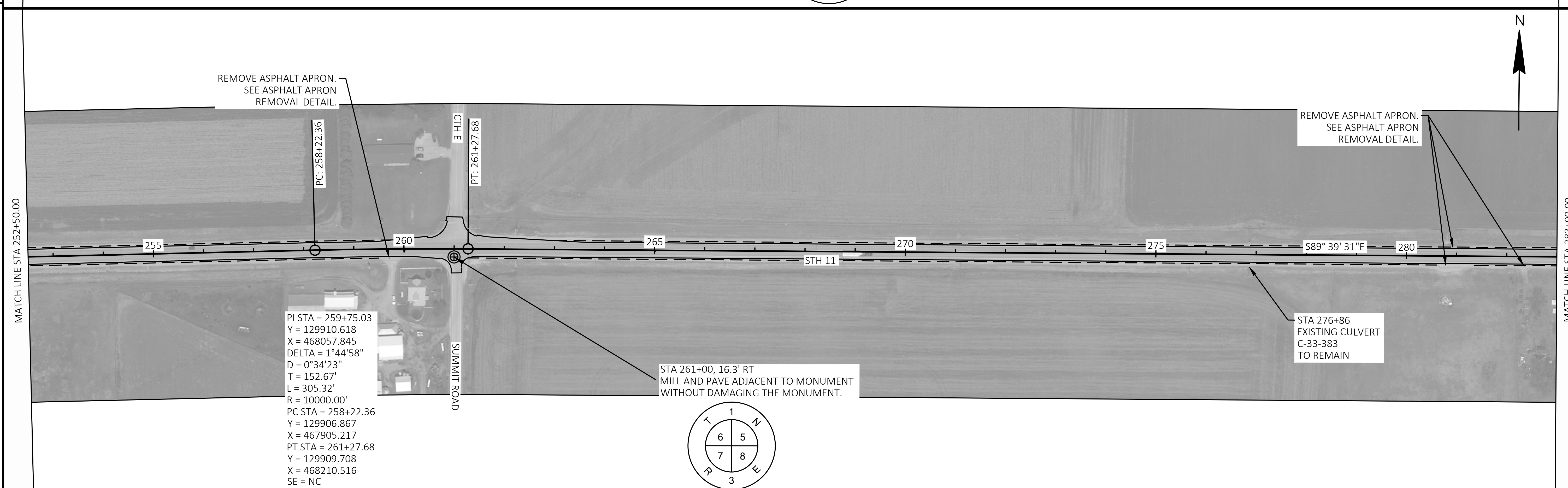

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LAYOUT NAME - 03-pn
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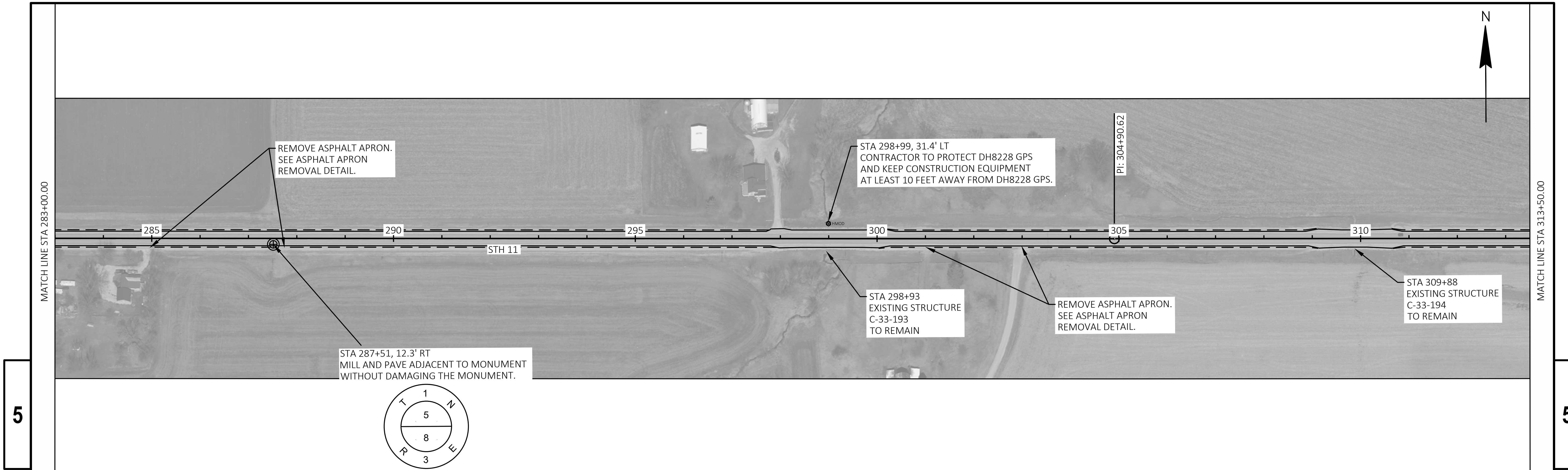
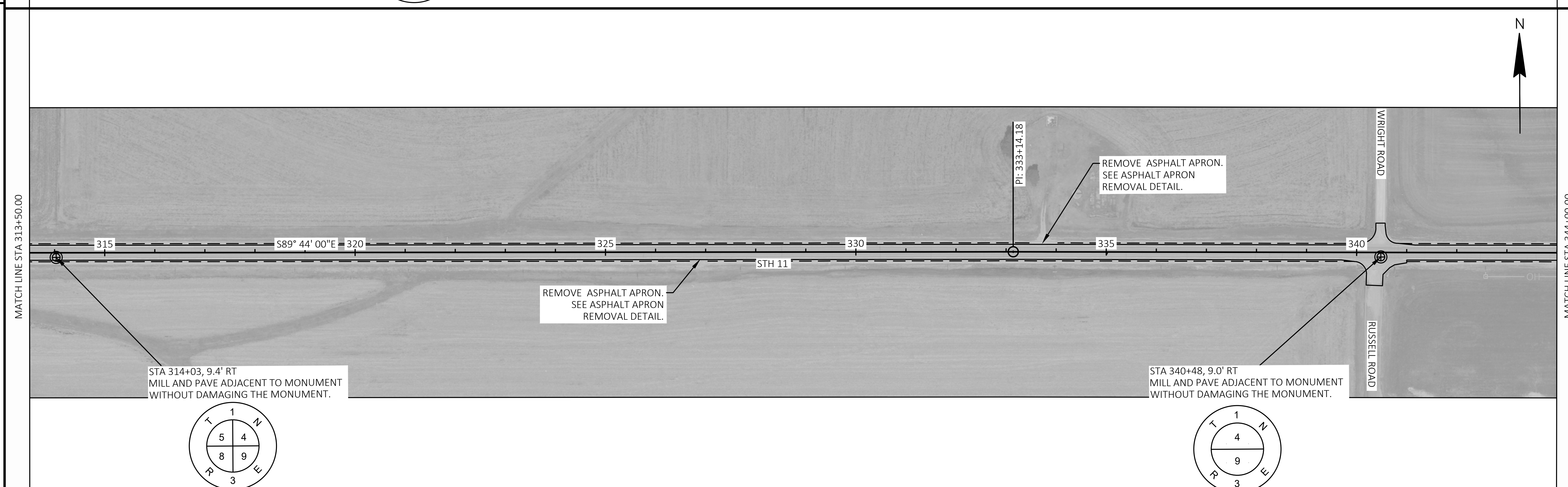
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44





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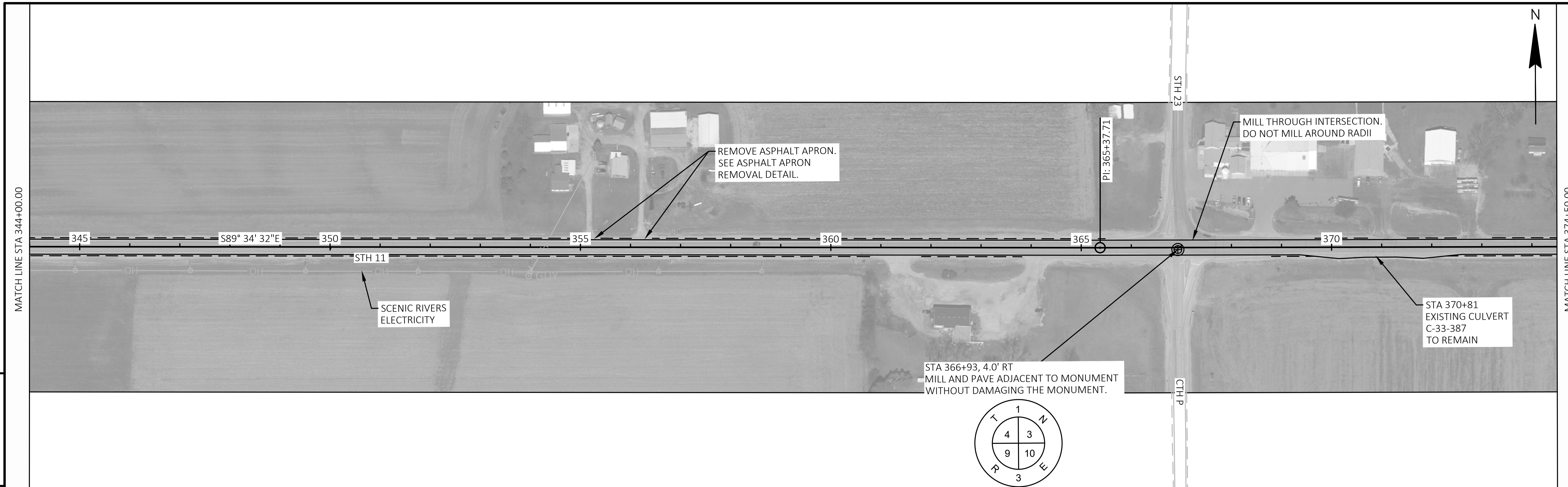
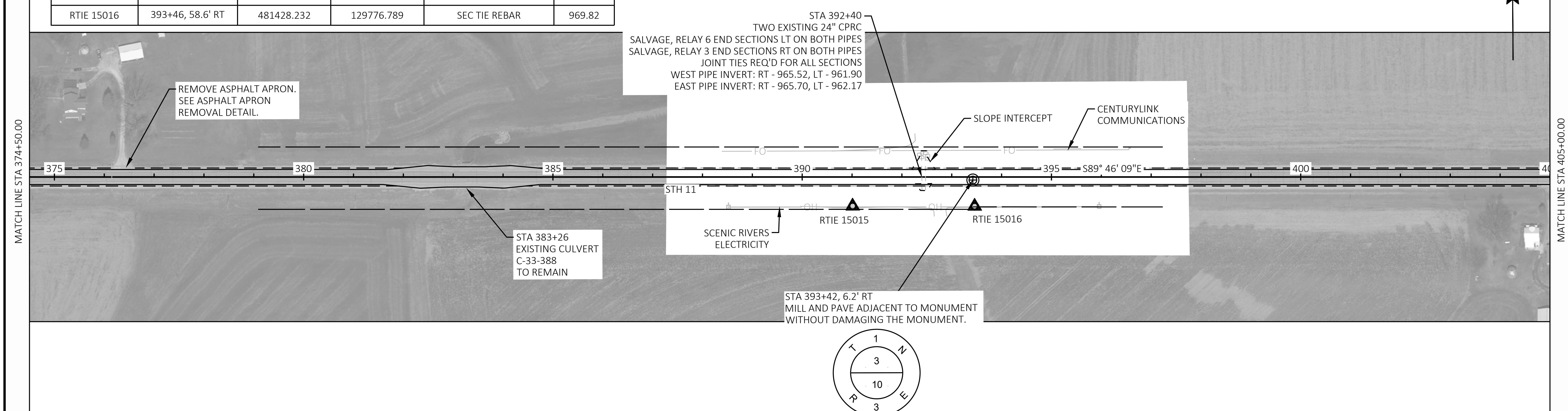


BENCHMARK & CONTROL POINT TABLE					
POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
RTIE 15015	391+01, 58.3' RT	481183.461	129778.013	SEC TIE REBAR	971.20
RTIE 15016	393+46, 58.6' RT	481428.232	129776.789	SEC TIE REBAR	969.82



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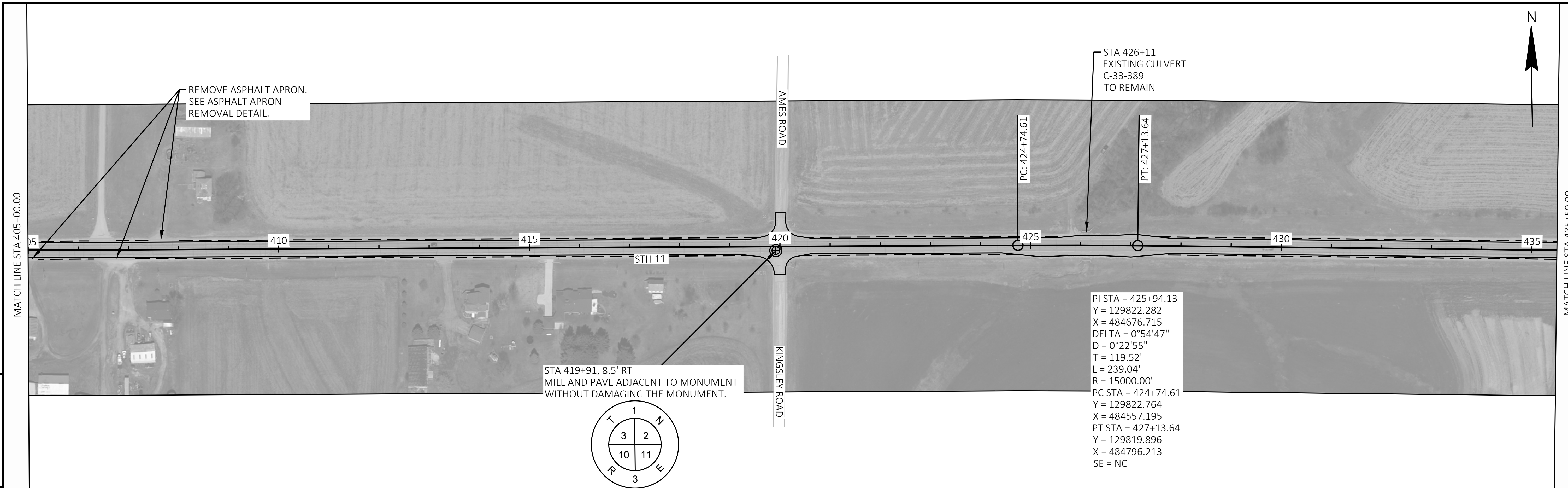
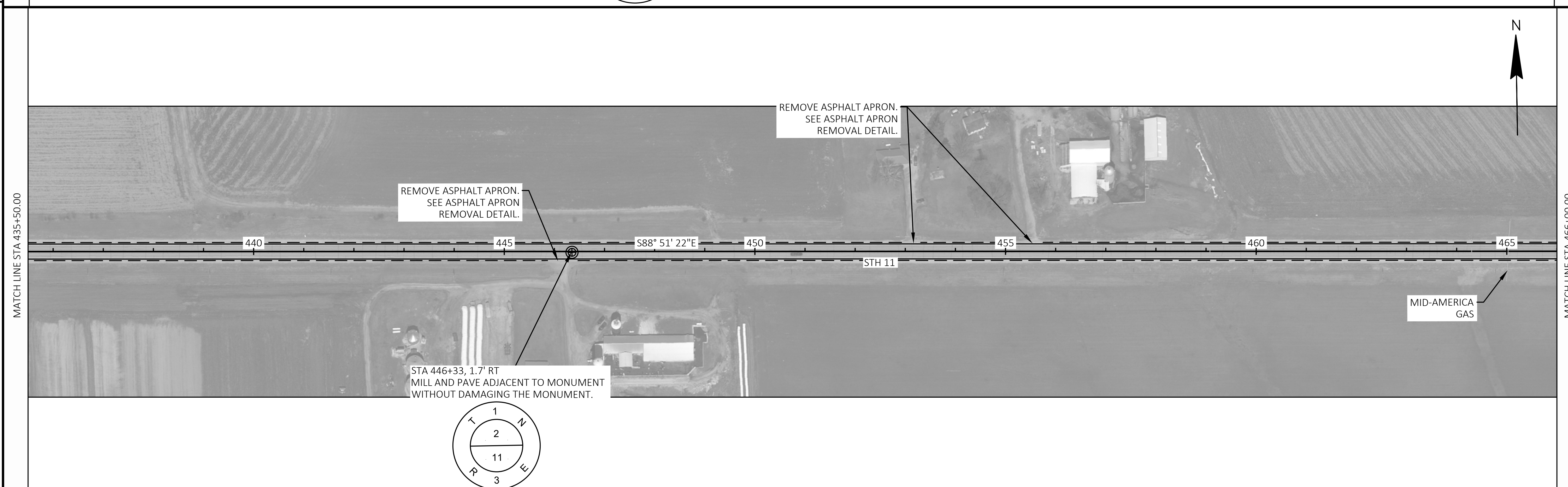
LAYOUT NAME - 05-pn
PLOT DATE : 10/22/2021 7:47 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44





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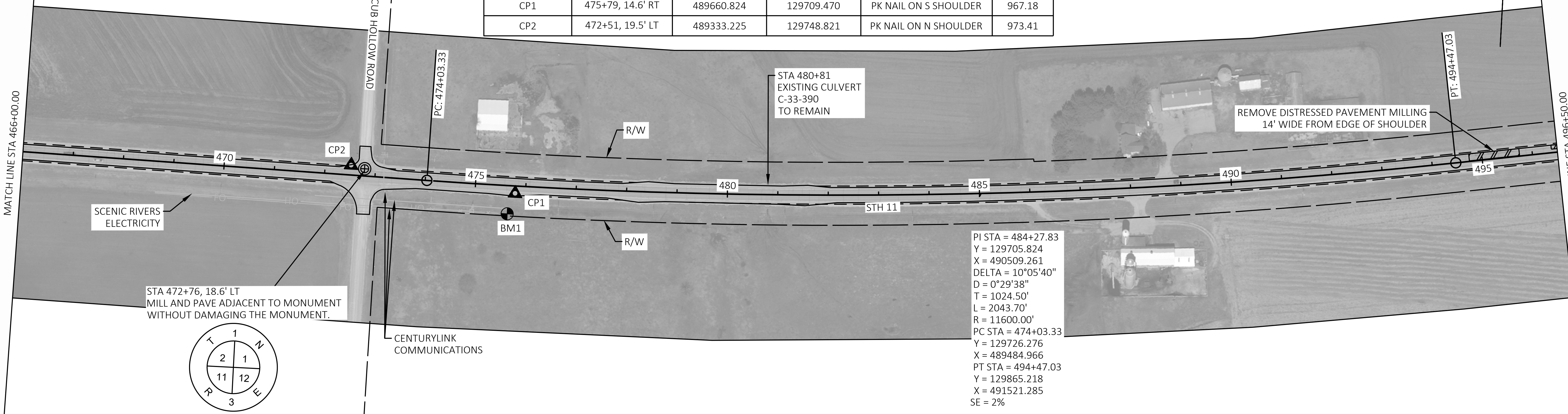
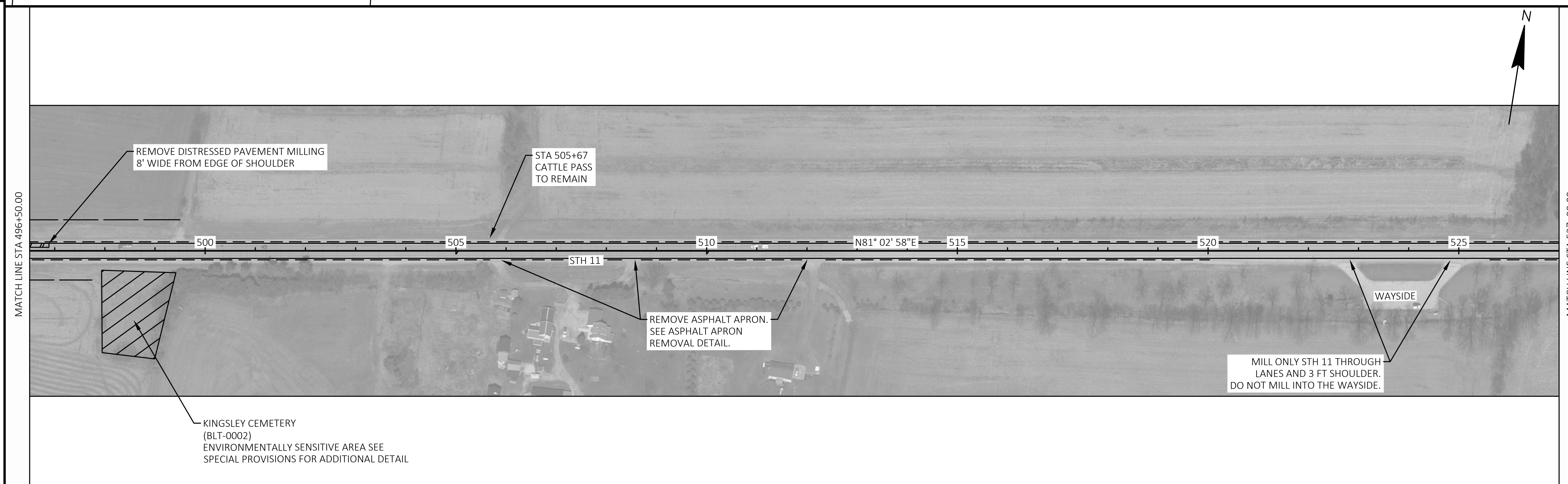
LAYOUT NAME - 06-pn
PLOT DATE : 10/22/2021 7:47 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

BENCHMARK & CONTROL POINT TABLE					
POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM1	475+66, 56.0' RT	489647.272	129668.164	PK NAIL IN FENCE POST	966.62
CP1	475+79, 14.6' RT	489660.824	129709.470	PK NAIL ON S SHOULDER	967.18
CP2	472+51, 19.5' LT	489333.225	129748.821	PK NAIL ON N SHOULDER	973.41

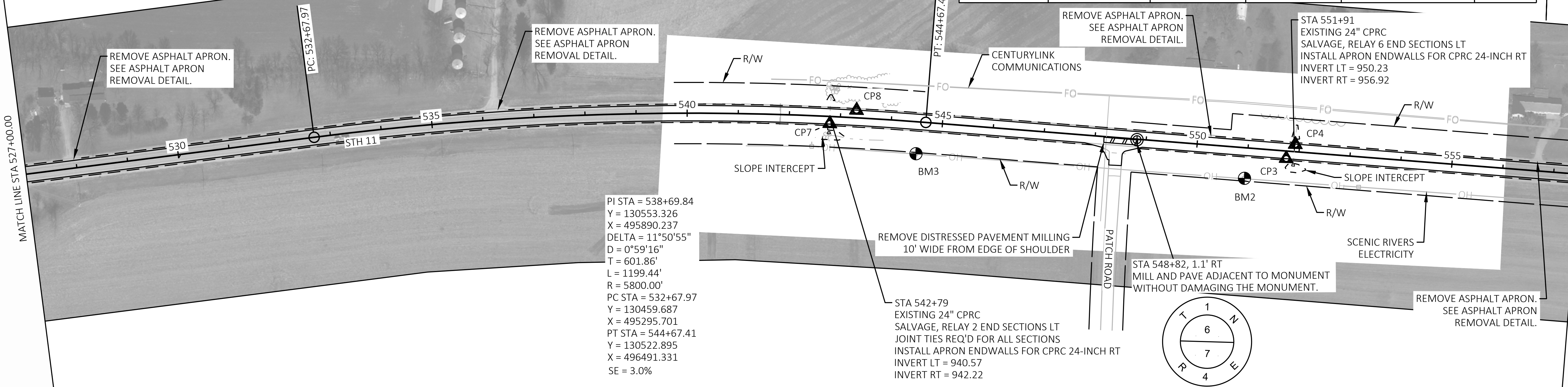




PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PLAN SHEET	SHEET 54	E

BENCHMARK & CONTROL POINT TABLE					
POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM3	544+53, 62.5' RT	496473.767	130461.139	PK NAIL IN PPOL	953.23
CP7	542+80, 14.1' RT	496303.550	130515.278	PK NAIL IN S SHOULDER	948.56
CP8	543+31, 14.7' LT	496355.032	130542.923	PK NAIL IN N SHOULDER	949.03

BENCHMARK & CONTROL POINT TABLE					
POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM2	550+98, 59.8' RT	497117.602	130431.270	PK NAIL IN PPOL	963.65
CP3	551+76, 14.7' RT	497198.120	130472.358	PK NAIL IN SHOULDER	960.23
CP4	51+87, 14.7' LT	497215.135	130500.474	PK NAIL IN SHOULDER	960.39



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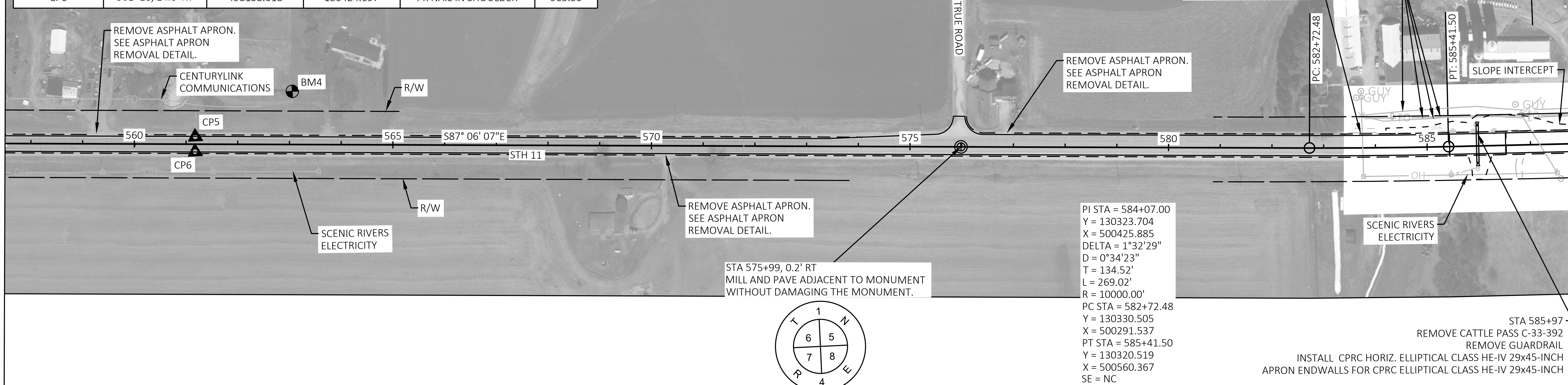
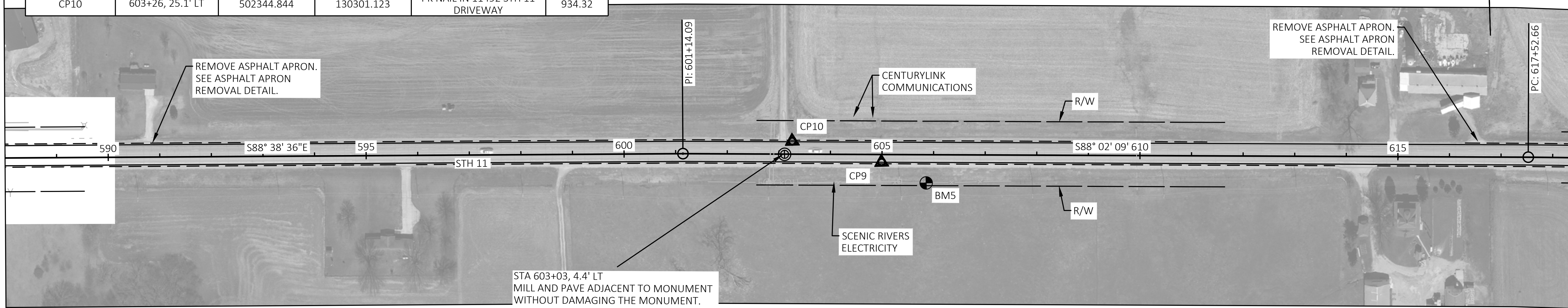
BENCHMARK & CONTROL POINT TABLE					
POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM4	563+05, 102.5' LT	498331.745	130532.354	NAIL IN FENCE POST	961.67
CP5	561+18, 14.2' LT	498140.254	130453.647	PK NAIL IN SHOULDER	965.26
CP6	561+18, 14.8' RT	498138.618	130424.697	PK NAIL IN SHOULDER	965.30



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PLAN SHEET	SHEET 55	E

BENCHMARK & CONTROL POINT TABLE

POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM5	605+86, 57.8' RT	502602.083	130212.361	NAIL IN FENCE POST	925.90
CP9	604+99, 15.0' RT	502516.733	130255.137	PK NAIL IN S SHOULDER	930.70
CP10	603+26, 25.1' LT	502344.844	130301.123	PK NAIL IN 11492 STH 11 DRIVEWAY	934.32

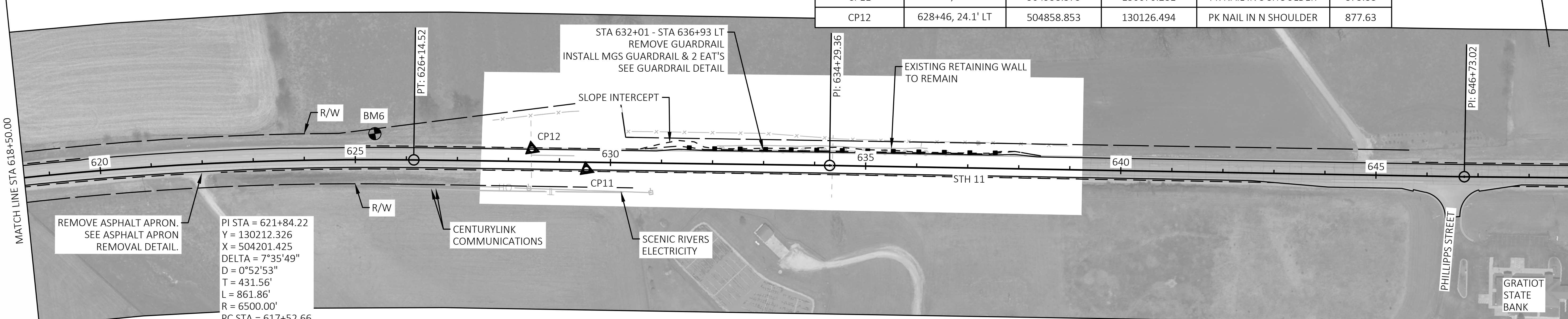


5

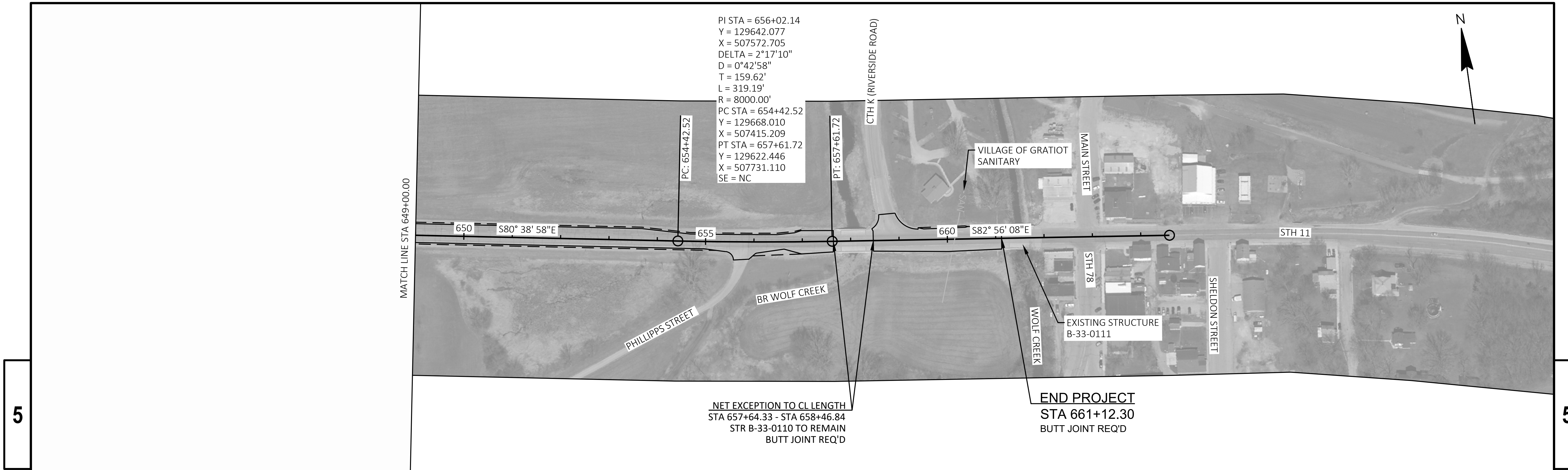
5

BENCHMARK & CONTROL POINT TABLE

POINT NUMBER	STA	X-COORD	Y-COORD	DESCRIPTION	ELEV
BM6	625+38, 51.0' LT	504559.516	130203.222	NAIL IN FENCE POST	891.68
CP11	629+53, 14.4' RT	504958.375	130070.281	PK NAIL IN S SHOULDER	873.88
CP12	628+46, 24.1' LT	504858.853	130126.494	PK NAIL IN N SHOULDER	877.63



PI STA = 621+84.22
Y = 130212.326
X = 504201.425
DELTA = 7°35'49"
D = 0°52'53"
T = 431.56'
L = 861.86'
R = 6500.00'
PC STA = 617+52.66
Y = 130227.118
X = 503770.118
PT STA = 626+14.52
Y = 130140.642
X = 504626.991
SE = 3.0%



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	PLAN SHEET	SHEET 57	E

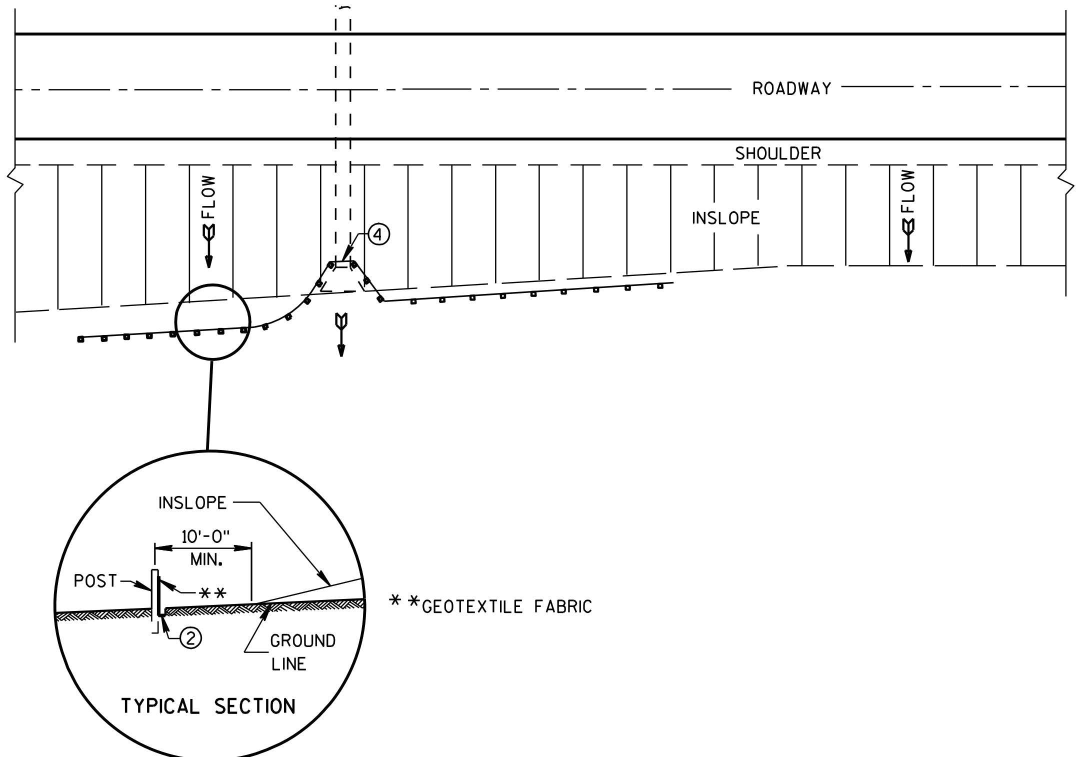
FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 10-pn
PLOT DATE : 10/22/2021 7:48 AM
PLOT BY : BRIAN GENSKOW
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

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
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

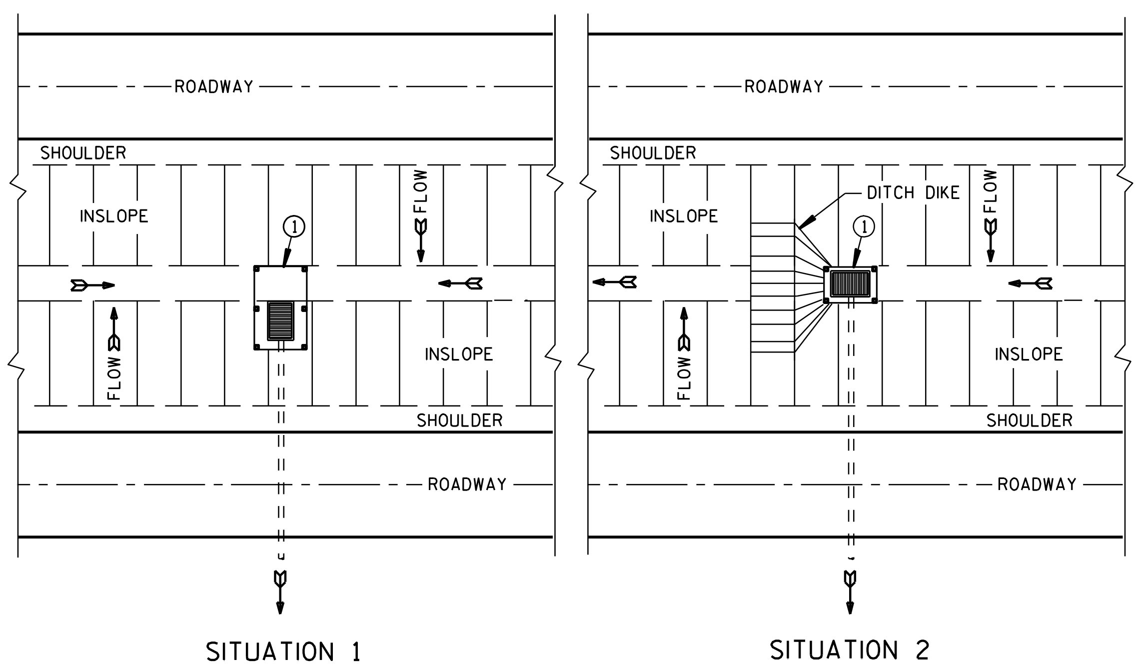
6

6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



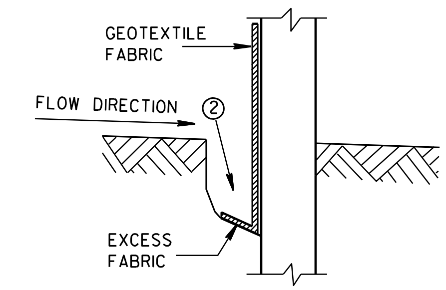
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

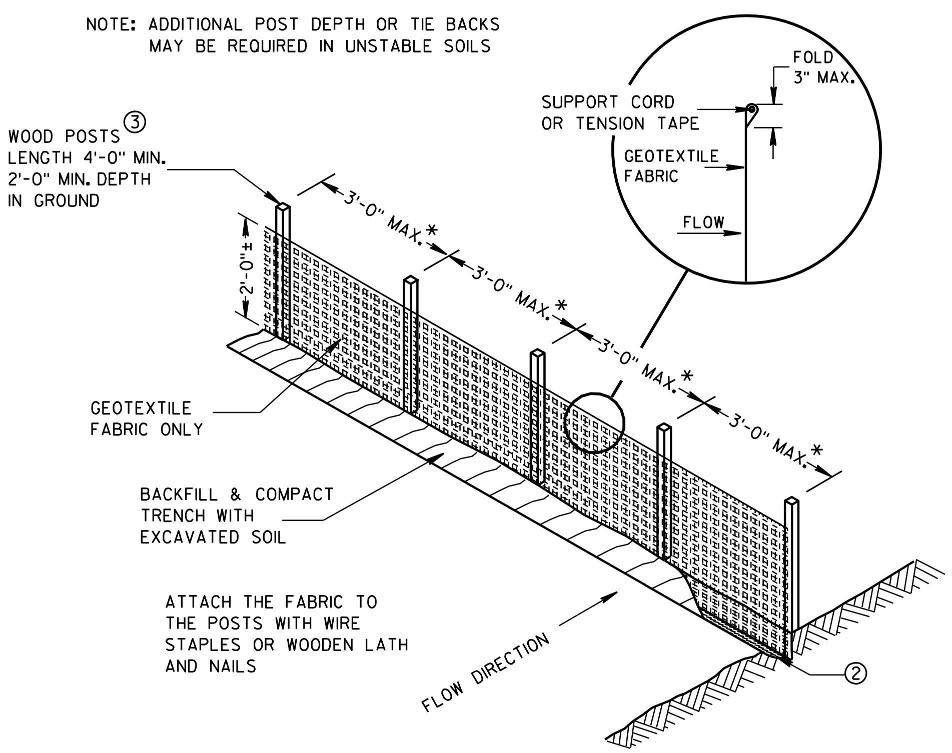
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.



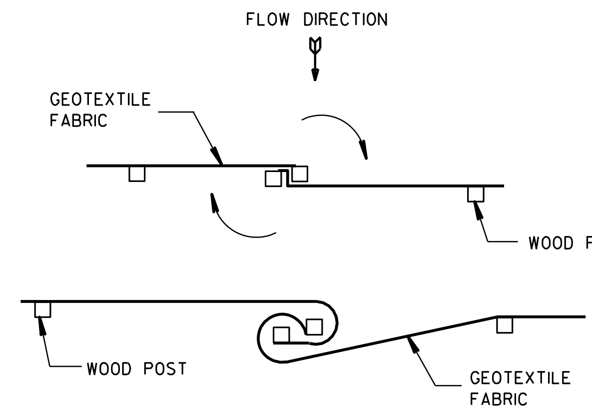
TRENCH DETAIL

6

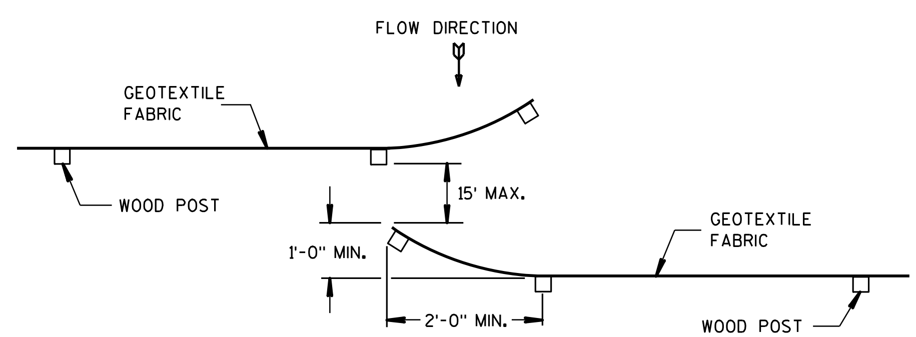


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

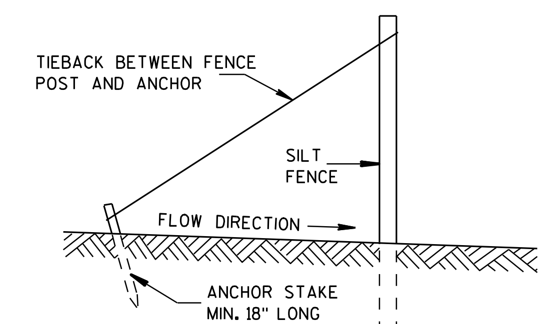


TWIST METHOD



HOOK METHOD

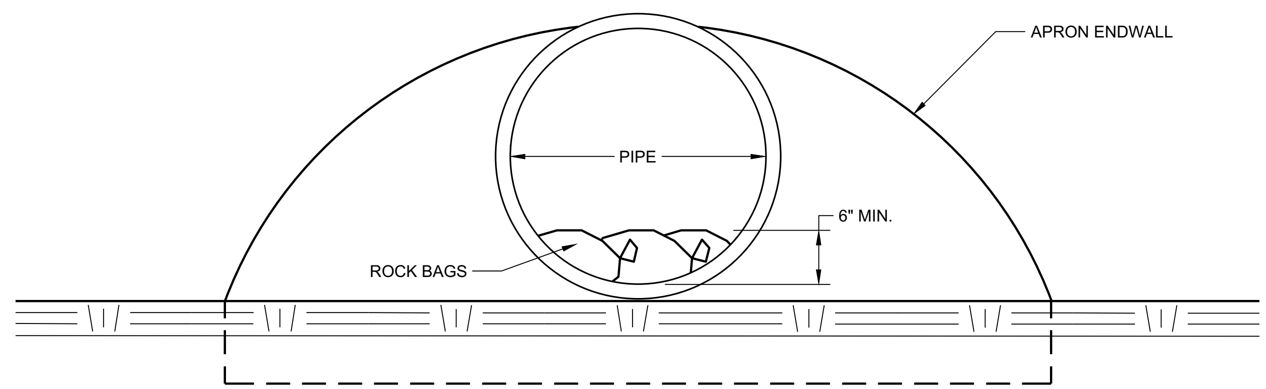
JOINING TWO LENGTHS OF SILT FENCE 5



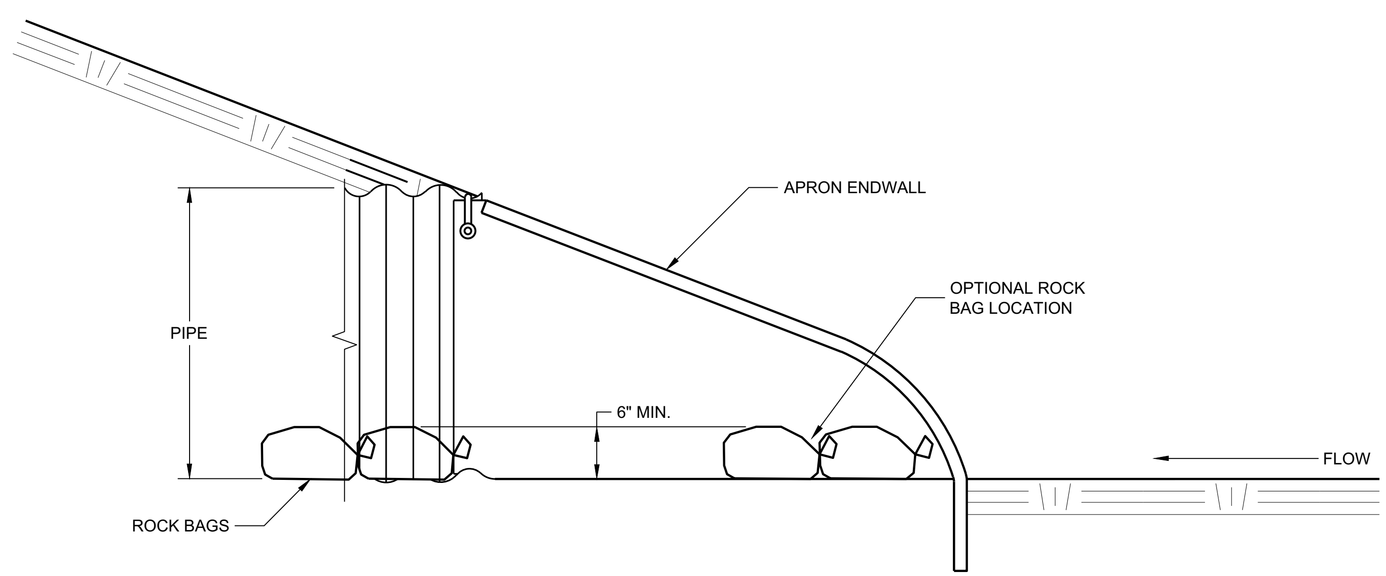
SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 4-29-05 /S/ Beth Cann--- DATE CHIEF ROADWAY DEVELOP 59 -INEER FHWA



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

PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17½	24	2½ to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21¾	30	2½ to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28¼	36	2½ to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29⅝	42	2½ to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37¼	48	2½ to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52¼	60	2½ to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59¾	72	2½ to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75⅝	84	2½ to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2¼ to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85½	102	2¼ 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	1½ to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1½ to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1½ to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1½ to 1	3 Pc.

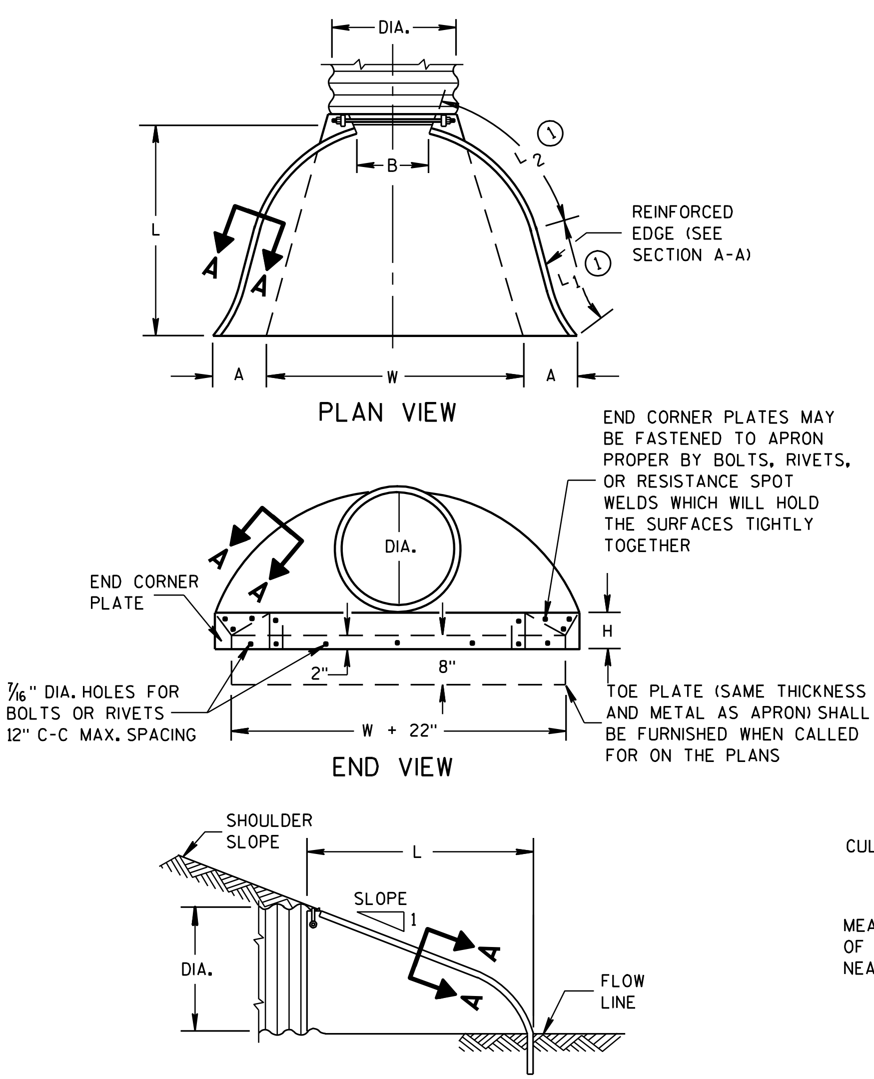
METAL APRON ENDWALLS

× EXCEPT CENTER PANEL
SEE GENERAL NOTES

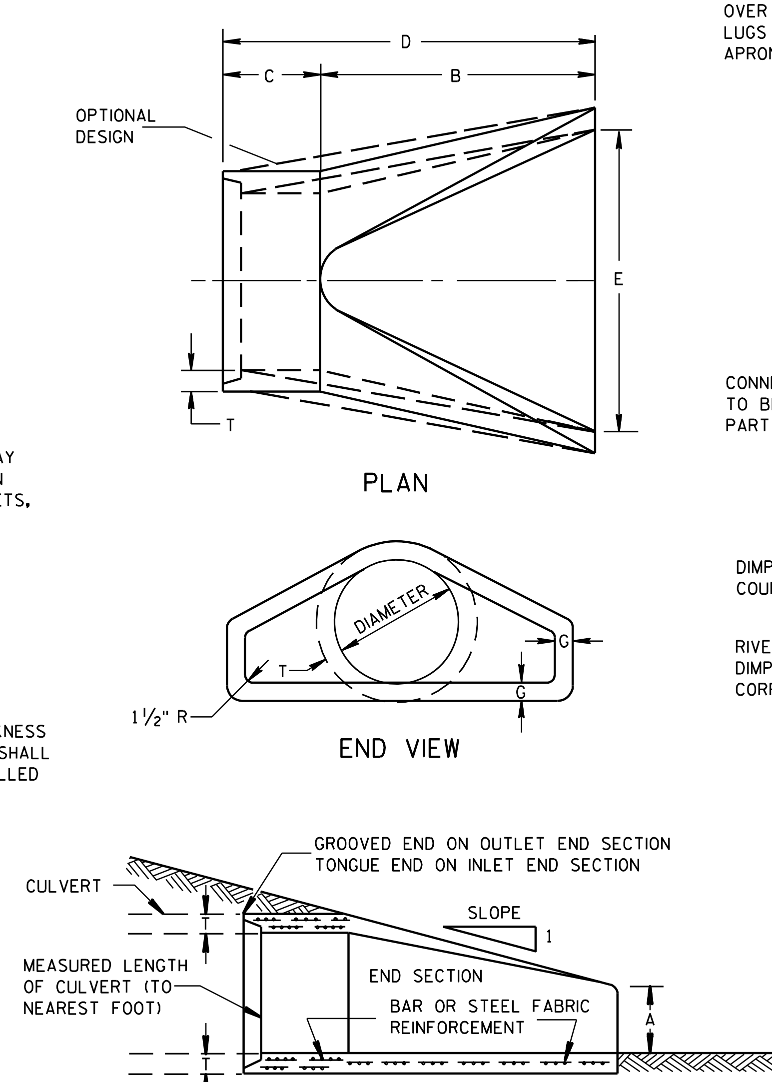
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48⅞	72⅞	24	2	3 to 1
15	2¼	6	27	46	73	30	2¼	3 to 1
18	2½	9	27	46	73	36	2½	3 to 1
21	2¾	9	36	37½	73½	42	2¾	3 to 1
24	3	9½	43½	30	73½	48	3	3 to 1
27	3¼	10½	49½	24	73½	54	3¼	3 to 1
30	3½	12	54	19¾	73½	60	3½	3 to 1
36	4	15	63	34¾	97¾	72	4	3 to 1
42	4½	21	63	35	98	78	4½	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5½	27	65	*33¼-35**	*98¼-100**	90	5½	2⅖ to 1
60	6	*30-35**	60	39	99	96	5	2 to 1
66	6½	*24-30**	*72-78**	*21-27**	99	102	5½	2 to 1
72	7	*24-36**	78	21	99	108	6	2 to 1
78	7½	*24-36**	78	21	99	114	6½	2 to 1
84	8	36	90½	21	111½	120	6½	1½ to 1
90	8½	41	87½	24	111½	132	6½	1½ to 1

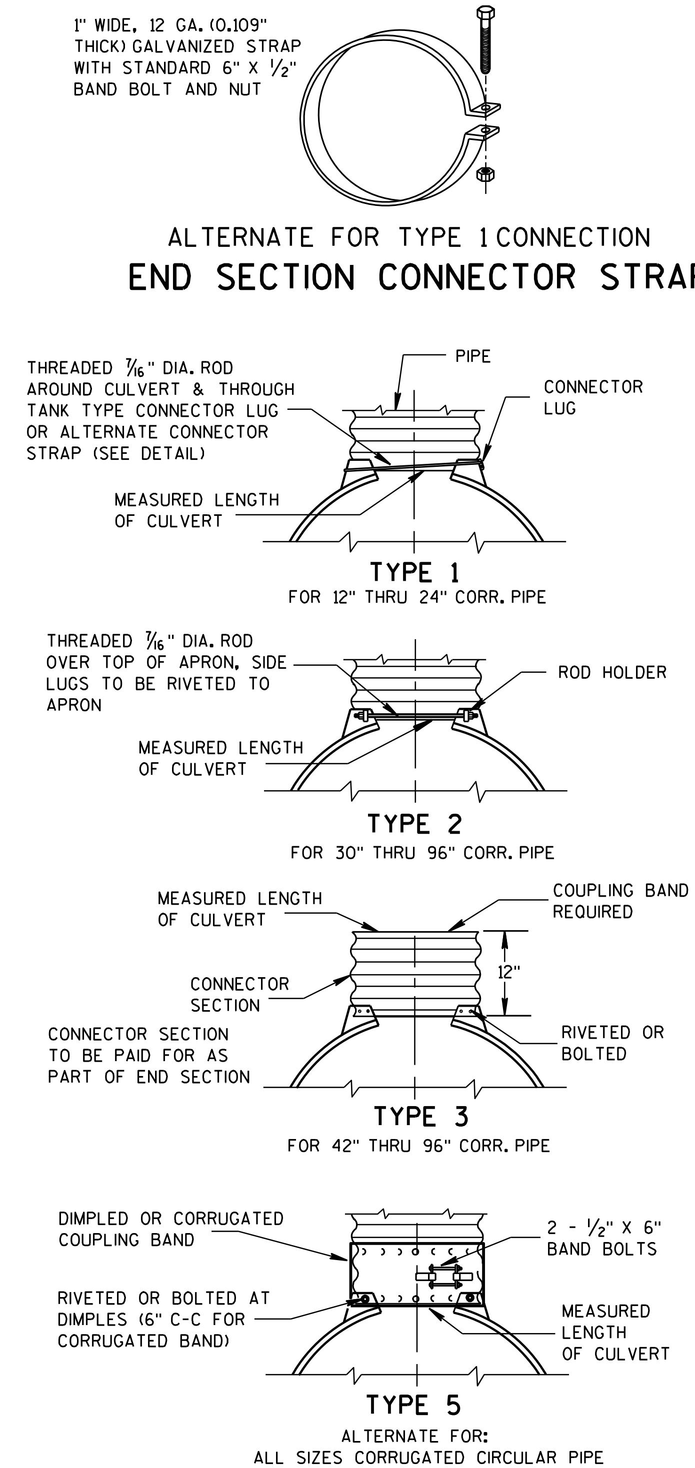
*MINIMUM
**MAXIMUM



METAL ENDWALLS



CONCRETE ENDWALLS



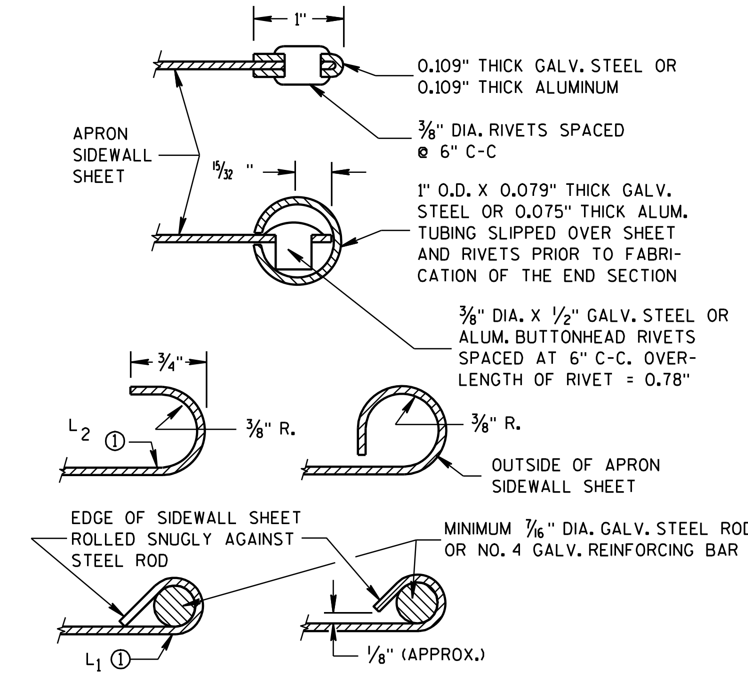
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

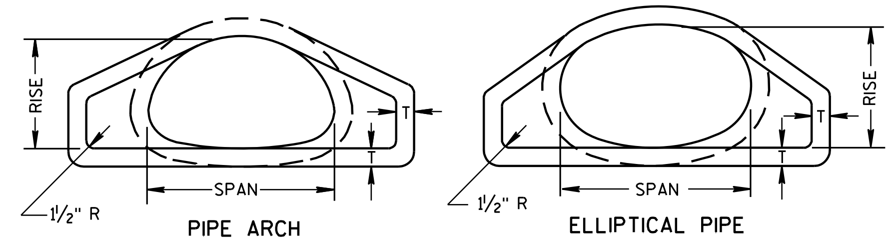
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

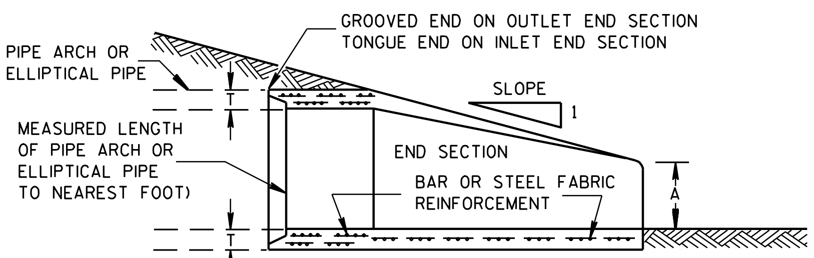
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

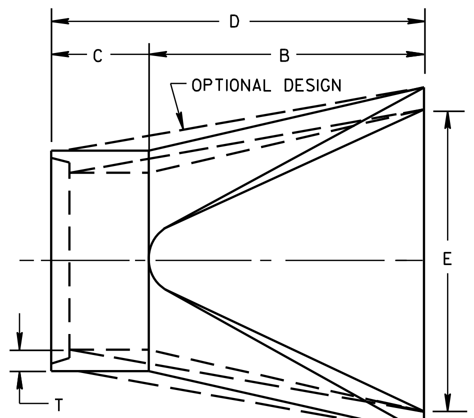


PIPE ARCH   ELLIPTICAL PIPE

END VIEW



LONGITUDINAL SECTION



PLAN VIEW

CONCRETE ENDWALLS

2- ⅔" X ½" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")		
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)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1½")	L1 ①	L2 ①	W (±2")		
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.

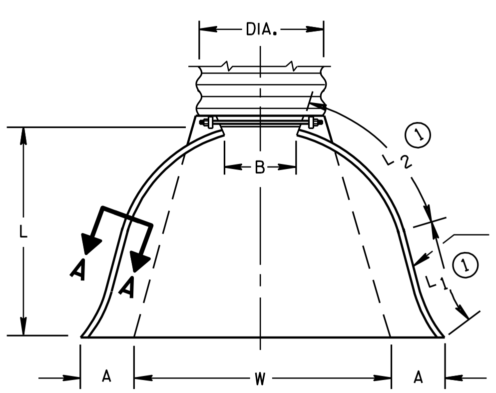
NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

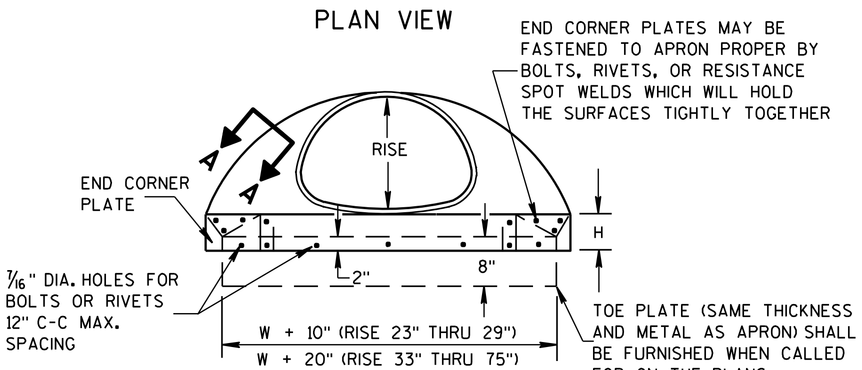
REINFORCED CONCRETE PIPE ARCH									
EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15¹³⁄₁₆	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 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)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
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

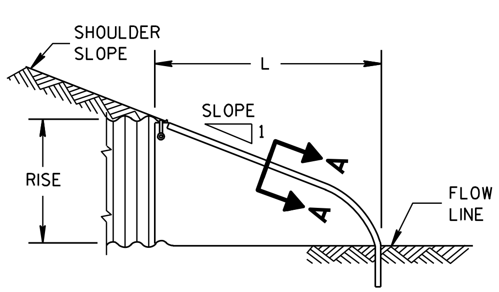
** NOMINAL SIZE



PLAN VIEW

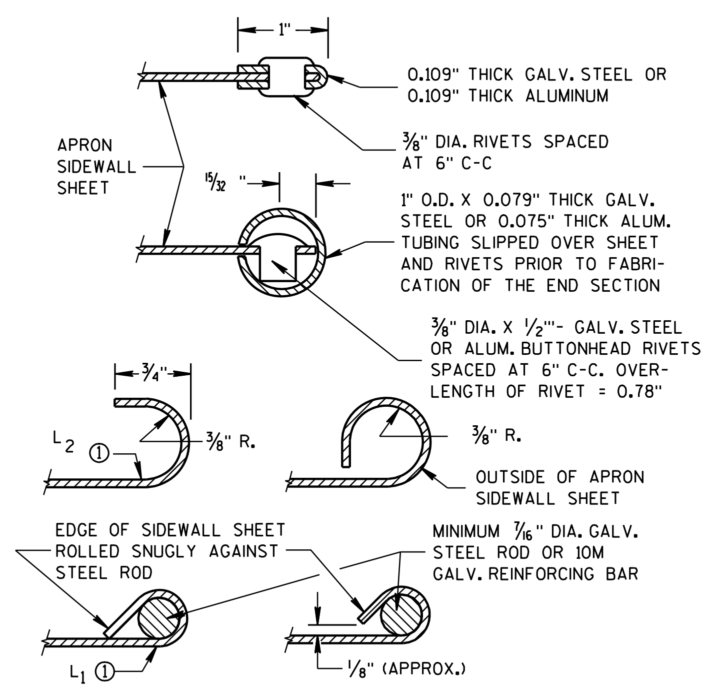


END VIEW

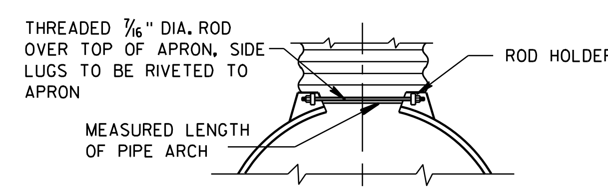


SIDE ELEVATION

METAL ENDWALLS

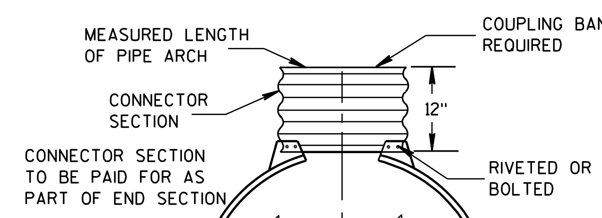


SECTION A-A



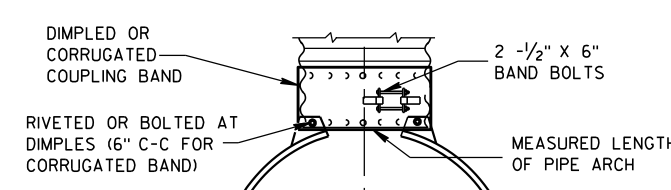
TYPE 2

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.

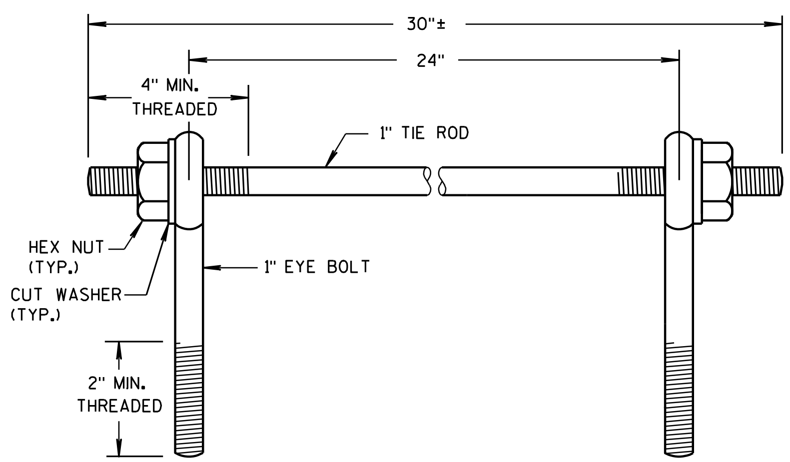
APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

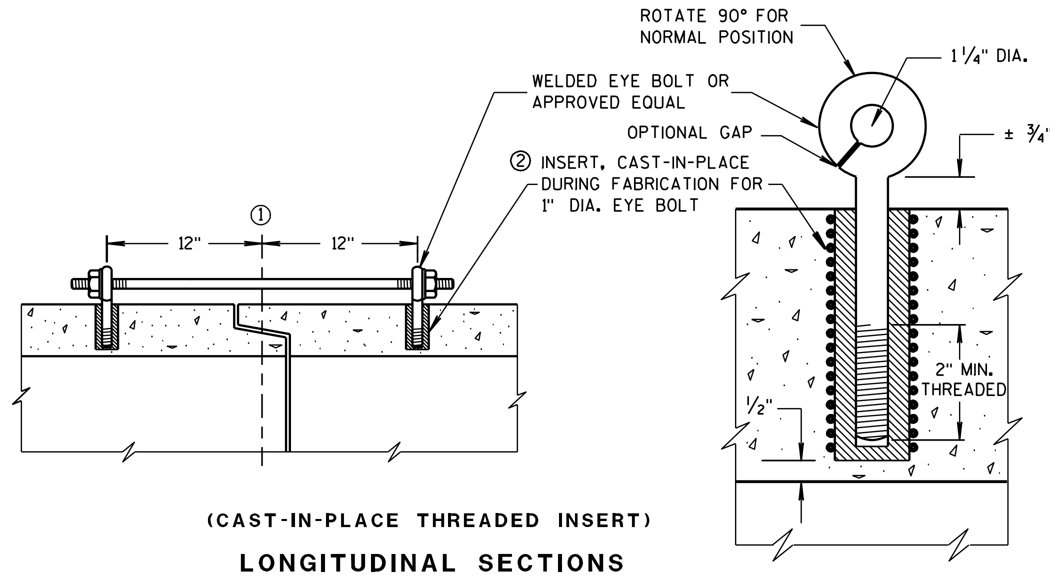
APPROVED
11/30/94 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

6



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

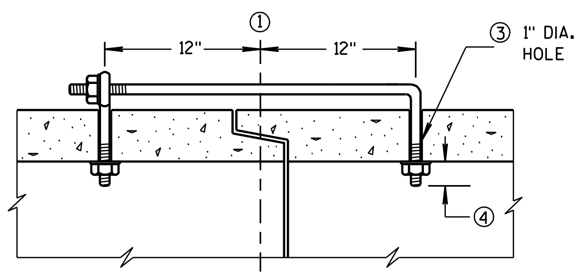
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

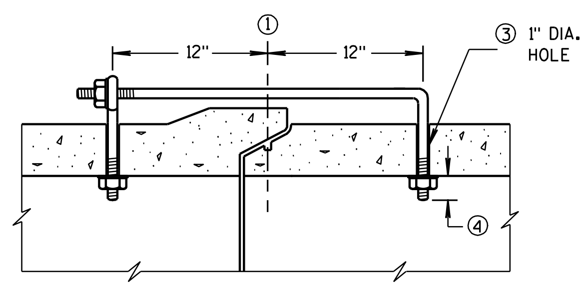
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

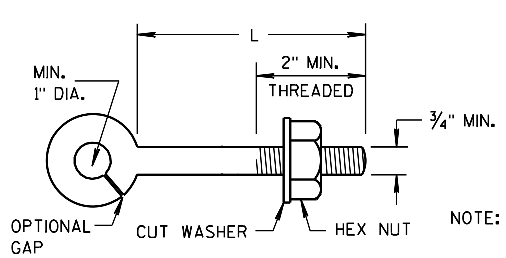


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

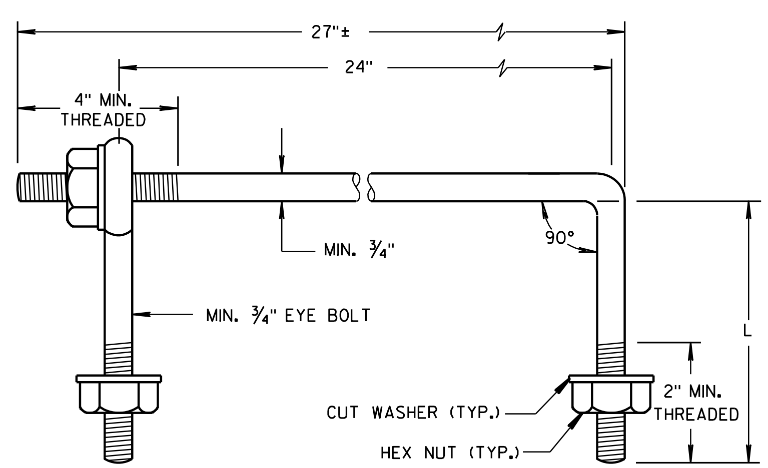
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

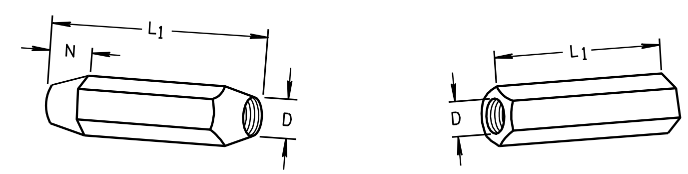
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

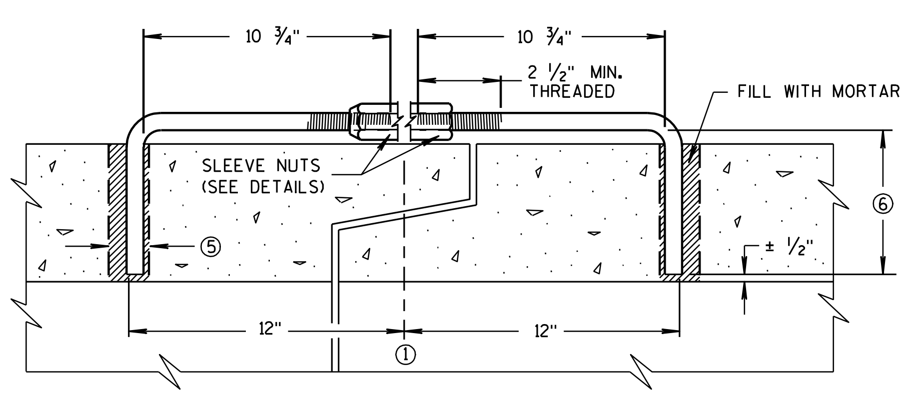


TAPERED

PLAIN

RIGHT AND LEFT THREADS

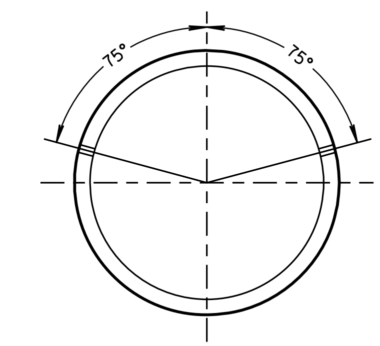
SLEEVE NUTS



LONGITUDINAL SECTION

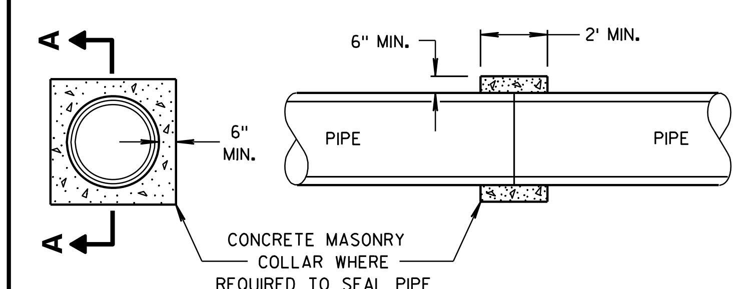
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

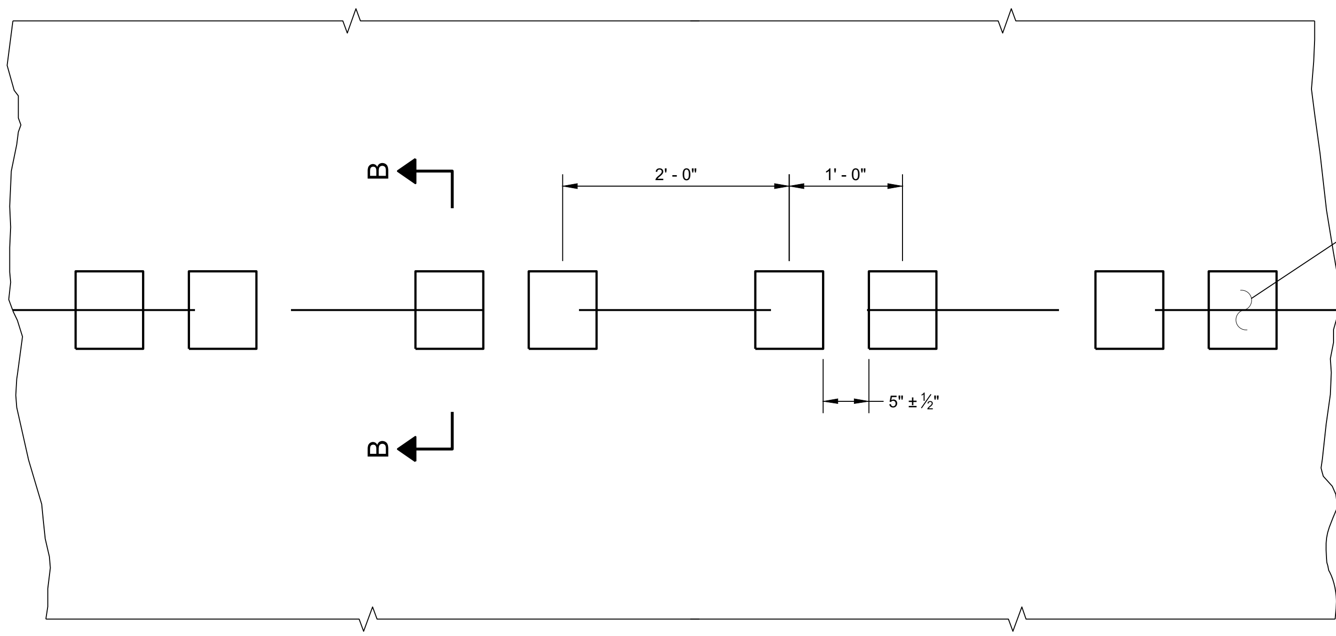
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

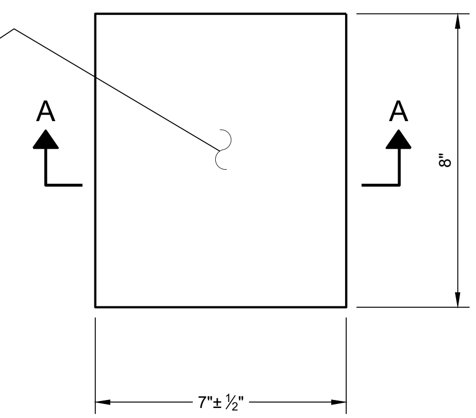
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

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.

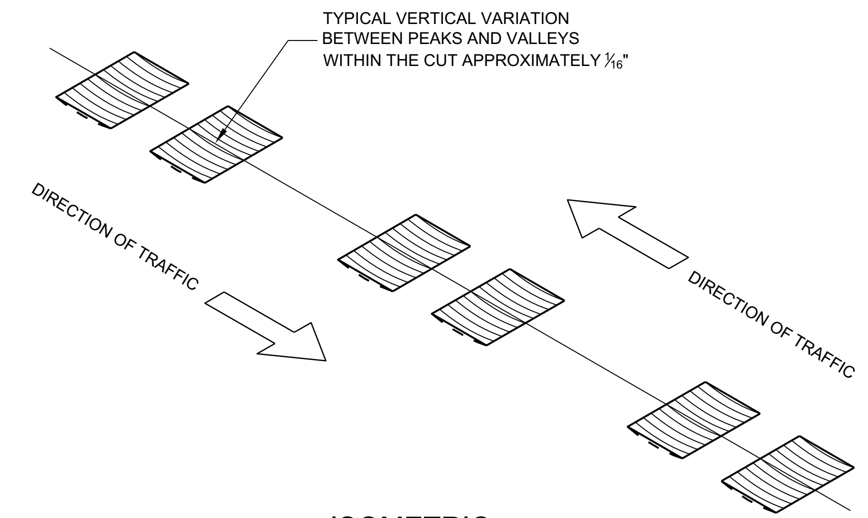


PLAN VIEW
SHOULDER WITH GROOVES

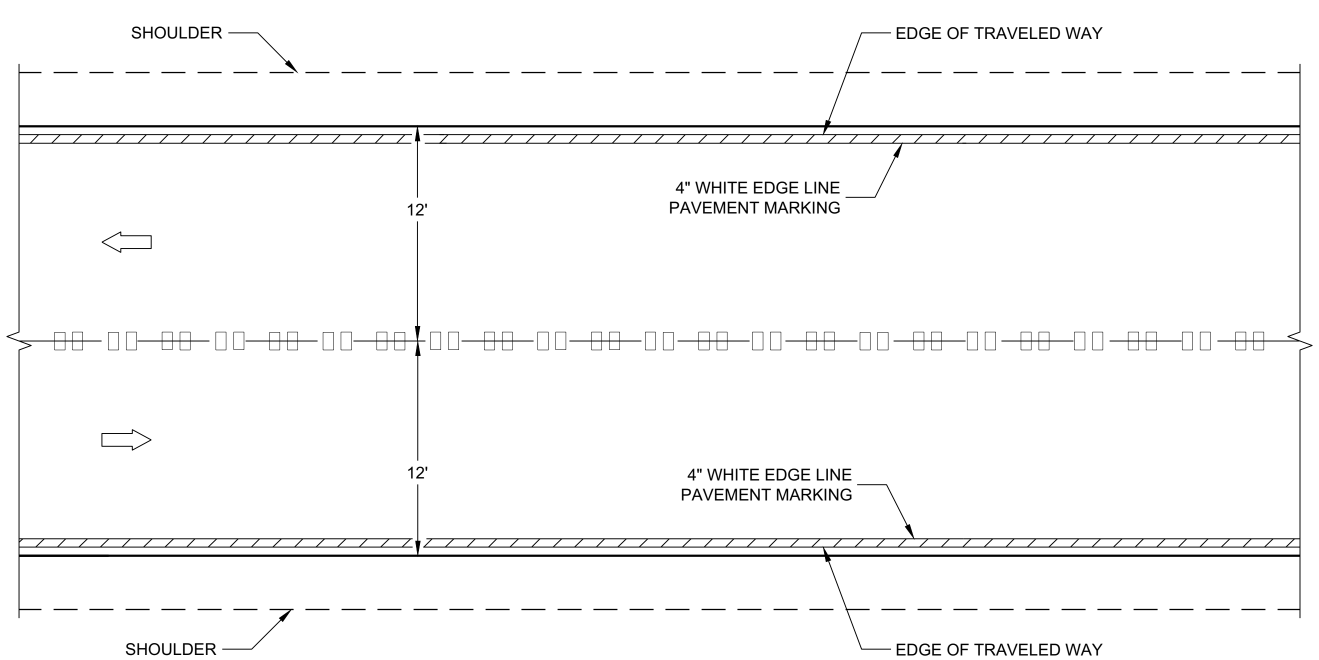


PLAN VIEW
(SINGLE GROOVE)

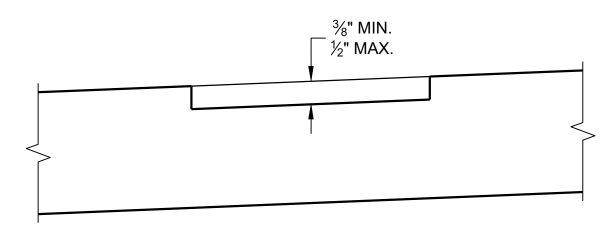
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



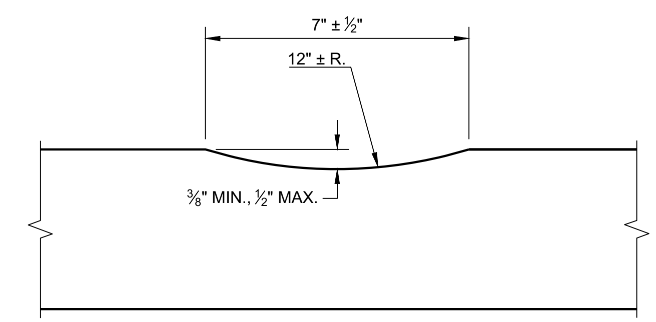
ISOMETRIC



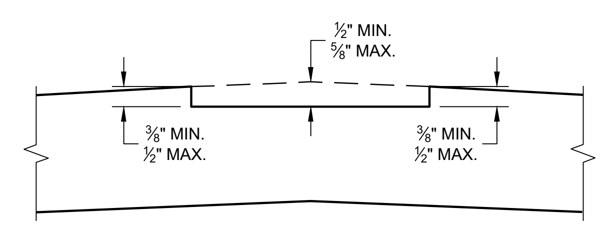
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



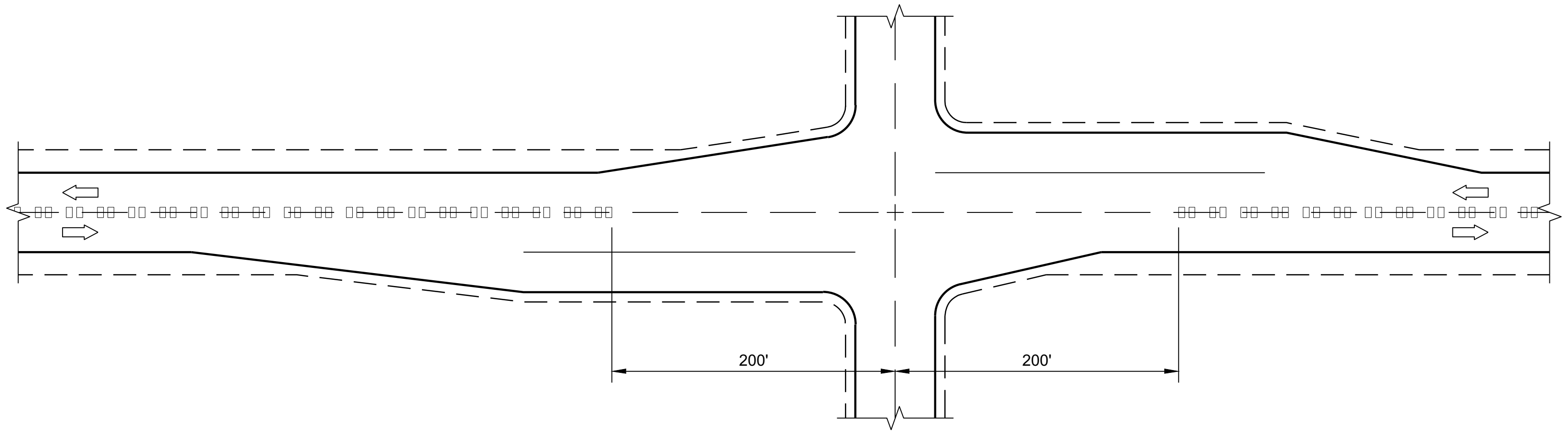
SECTION A - A



SECTION B - B
CROWNED ROADWAY

2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING

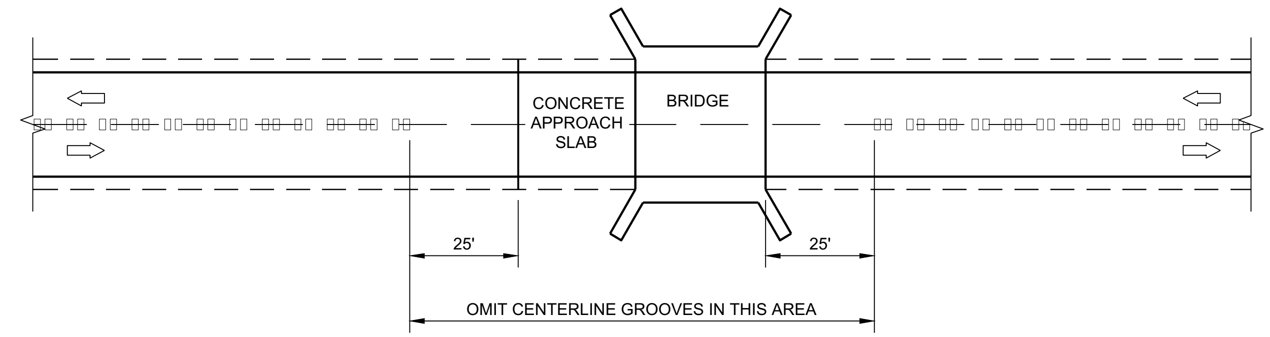
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



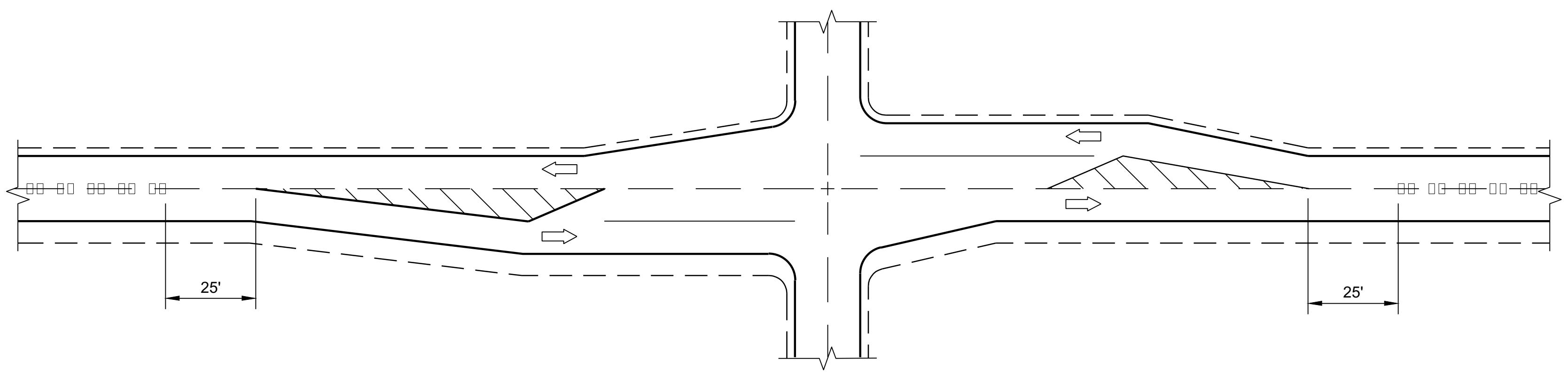
CENTERLINE GROOVES AT INTERSECTIONS

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 INTERSECTIONS
(WITH LEFT TURN LANES)

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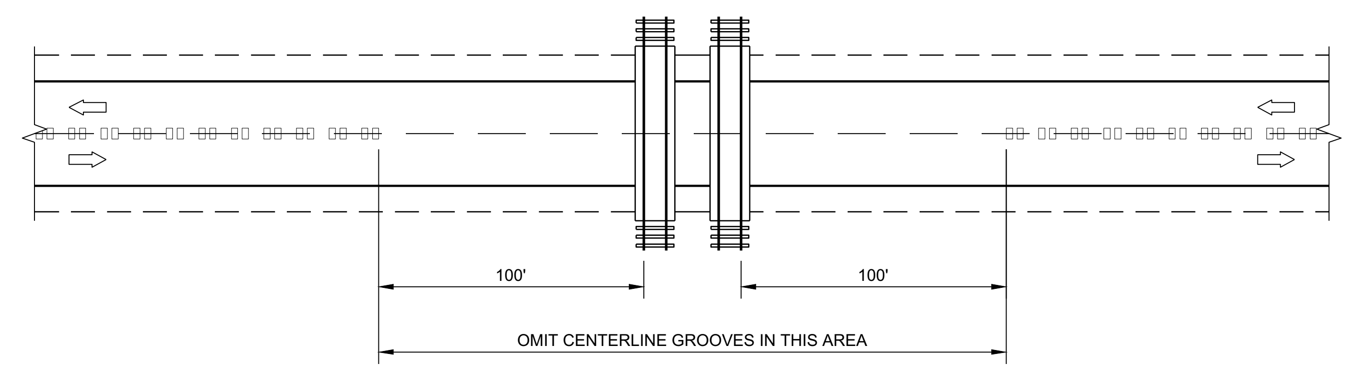
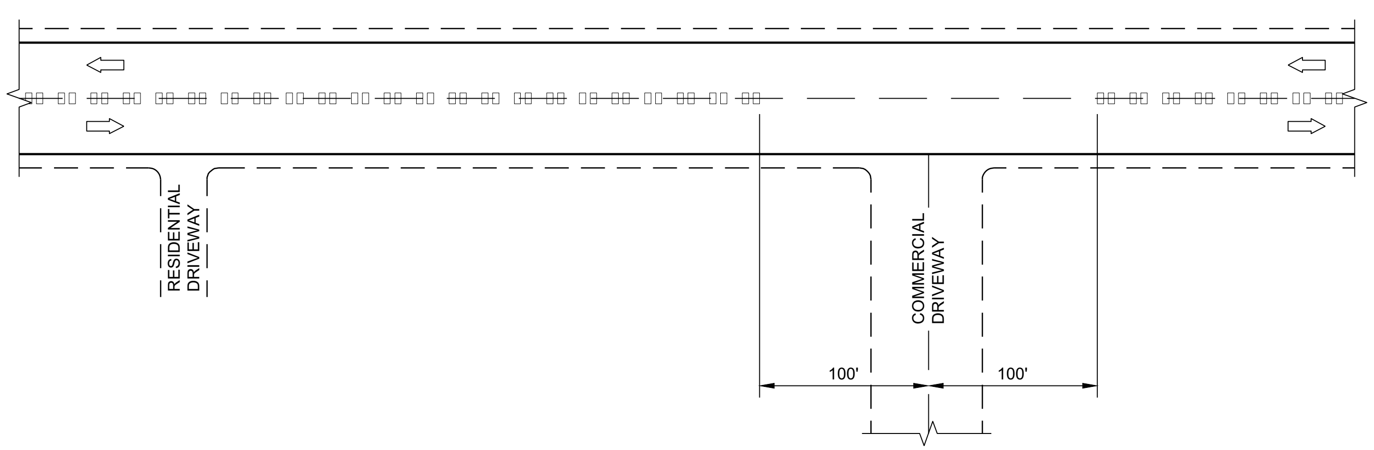
6



CENTERLINE GROOVES AT RAILROADS



CENTERLINE GROOVES AT DRIVEWAYS (1)

SDD 13A11 - 03b

2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING

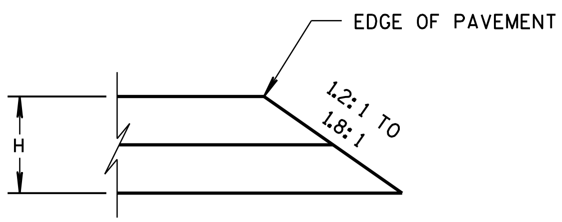
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018	/S/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER

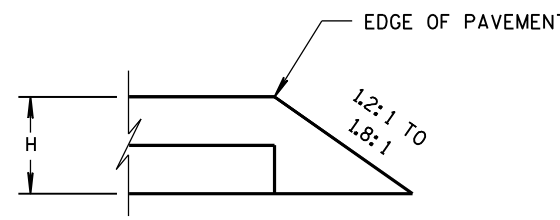
FHWA

SDD 13A11 - 03b



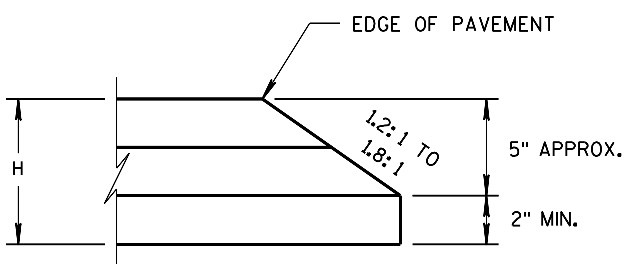
CONSTRUCTED WITH FINAL TWO LAYERS

FOR H 5" OR LESS



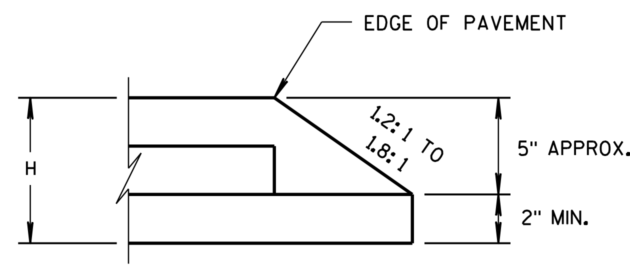
CONSTRUCTED WITH FINAL LAYER

FOR H 5" OR LESS



CONSTRUCTED WITH FINAL TWO LAYERS

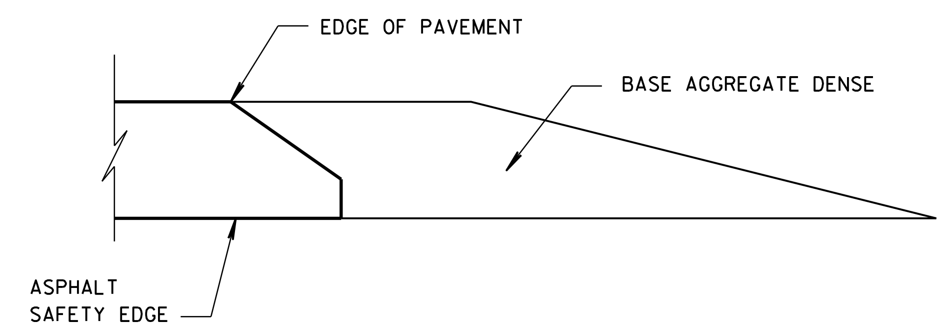
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER

FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

SAFETY EDGE SM

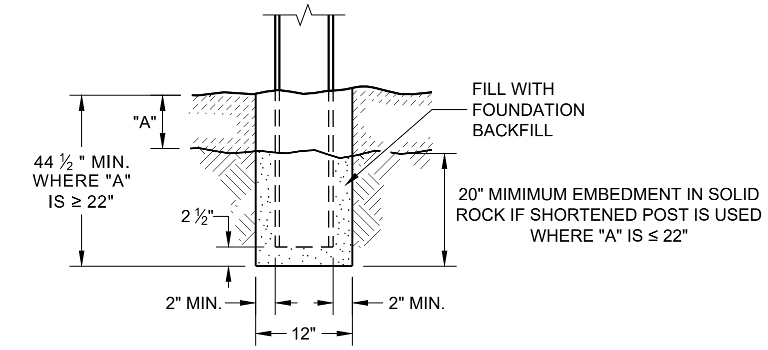
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS ENT
ENGINEER
FHWA

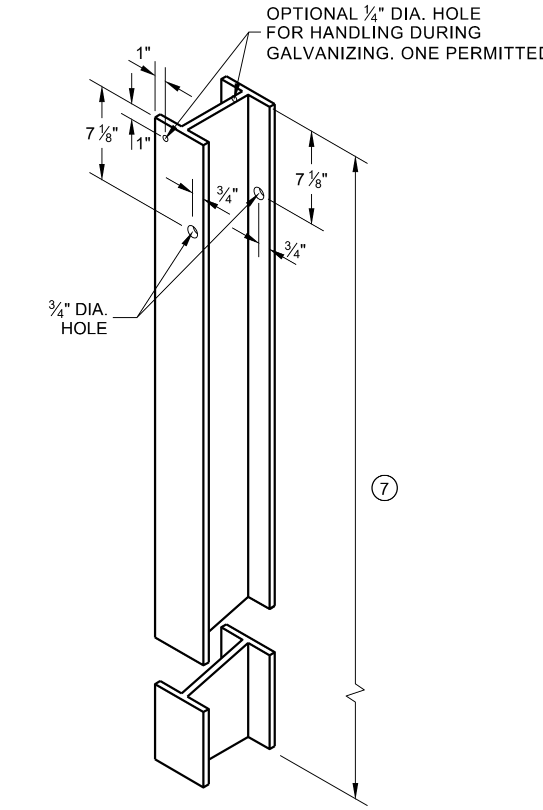
S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

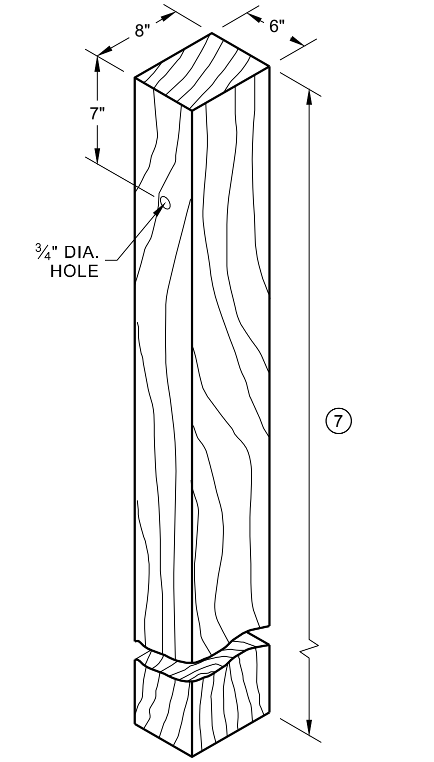
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS 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".



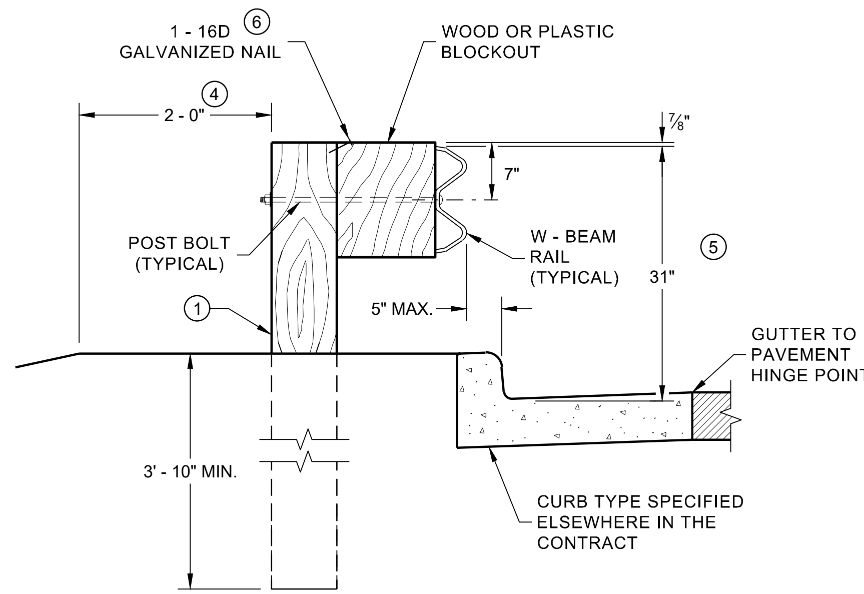
END VIEW
SETTING STEEL OR WOOD POST IN ROCK 3



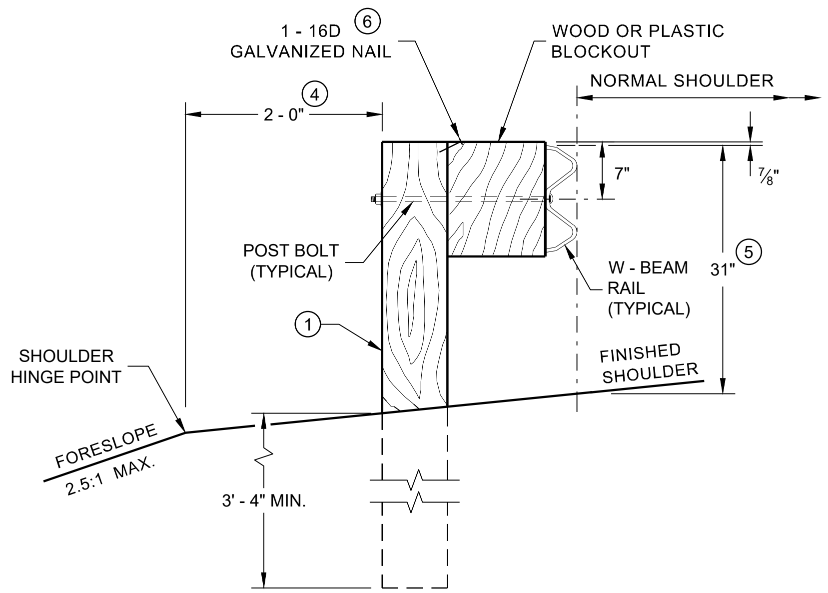
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) 1



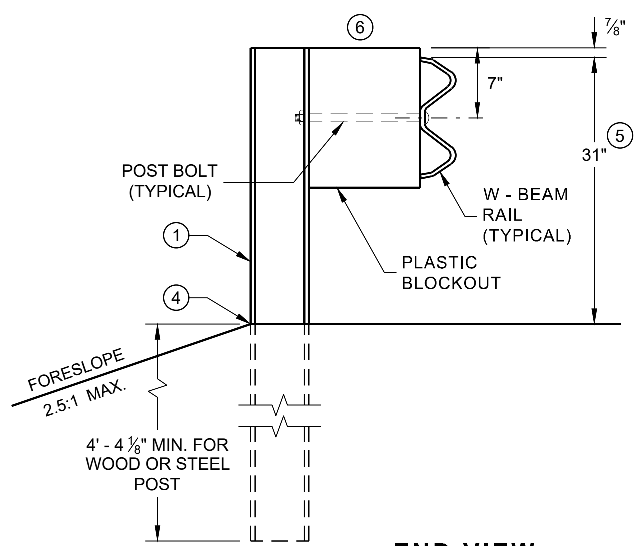
WOOD POST (6" X 8") NOMINAL 1



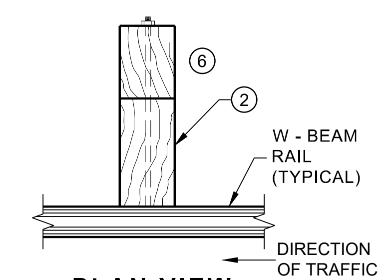
END VIEW
LOCATED ALONG A CURBED ROADWAY



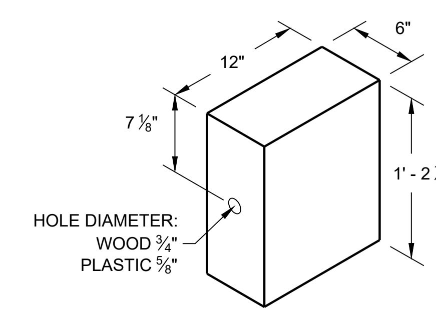
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



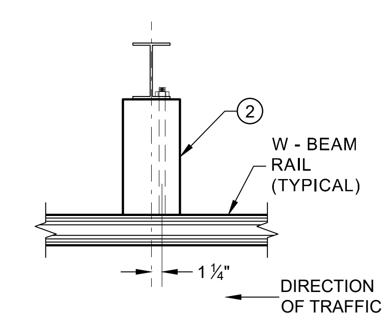
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT 2



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM

6

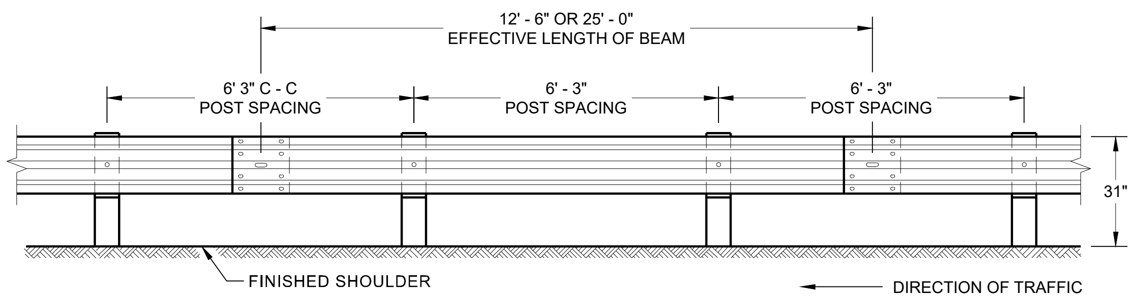
6

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

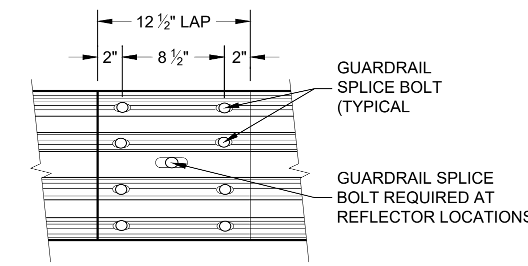
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

SDD 14B42 - 07a



FRONT VIEW
POST SPACING STANDARD INSTALLATION



FRONT VIEW
MID-SPAN BEAM SPLICE

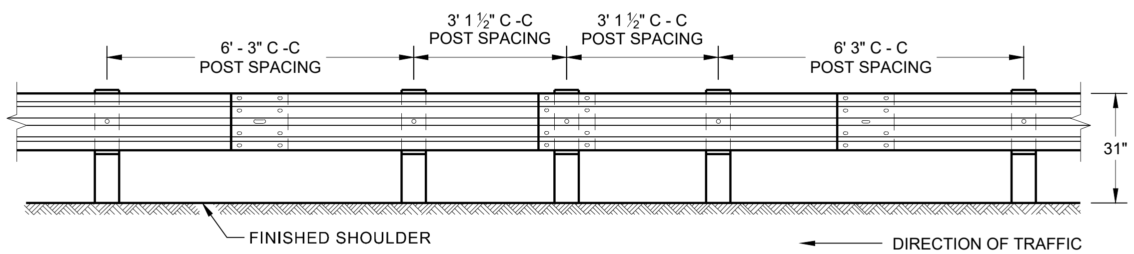
GENERAL NOTES

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

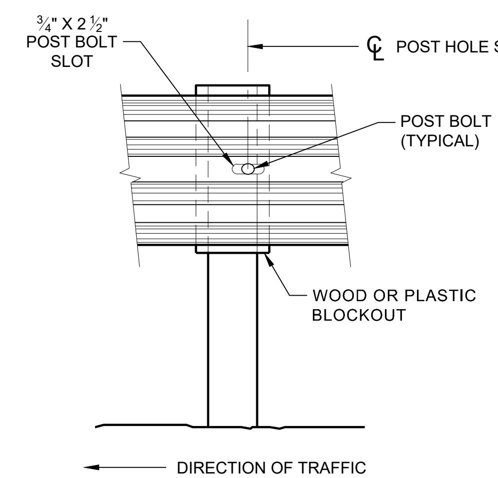
(9) 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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.

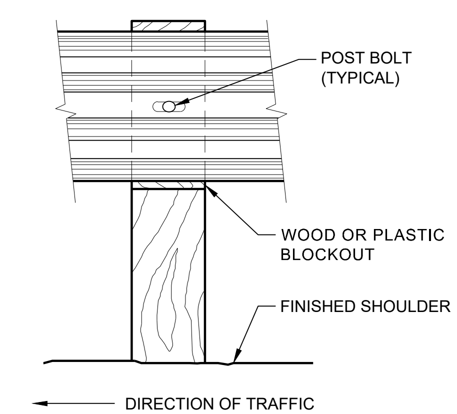
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



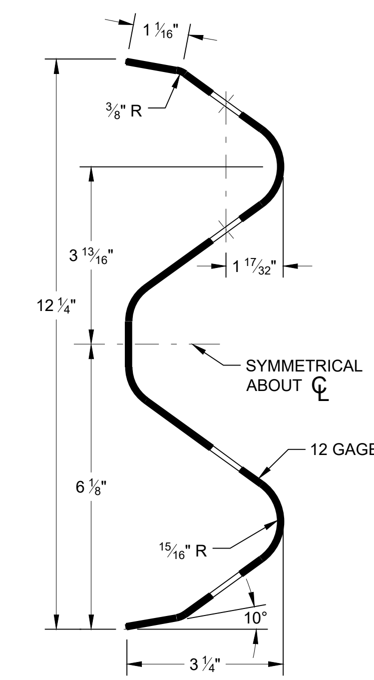
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



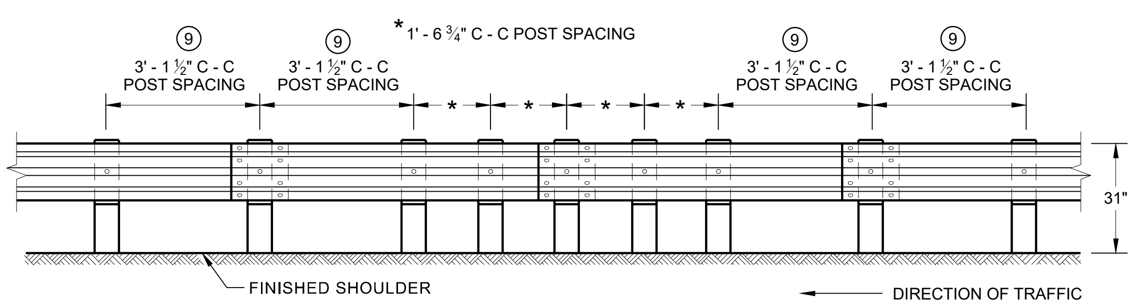
FRONT VIEW AT STEEL POST



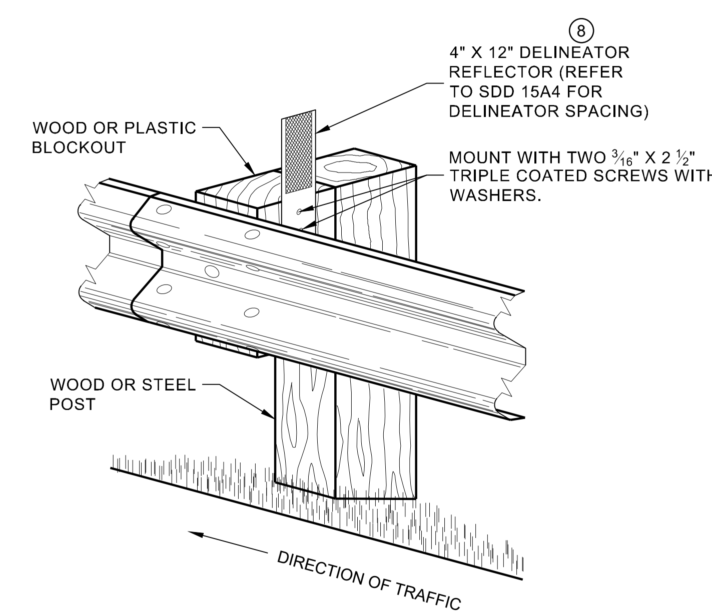
FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



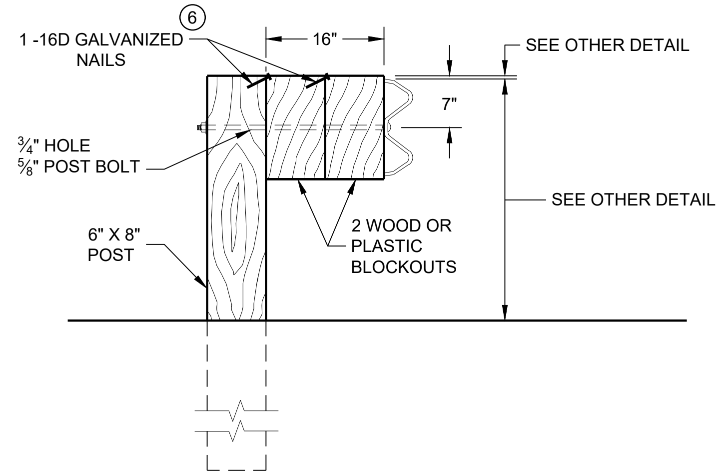
FRONT VIEW
QUARTER POST SPACING (QS)



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

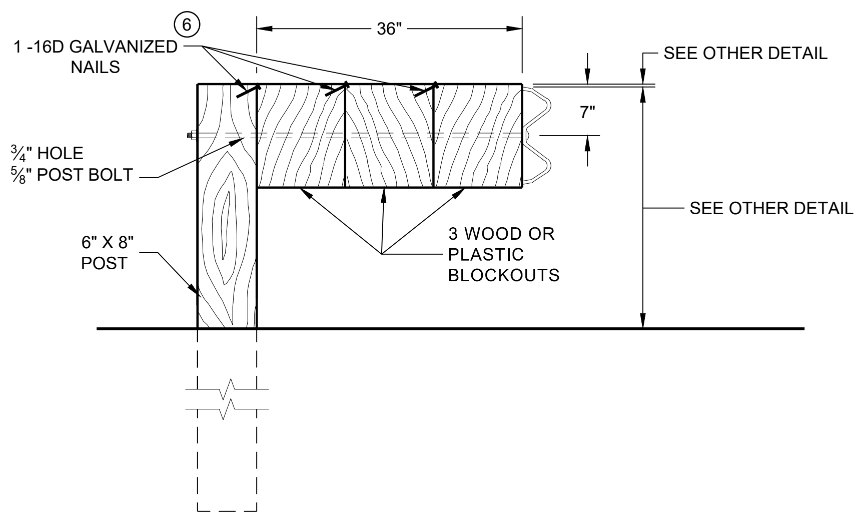
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI



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.



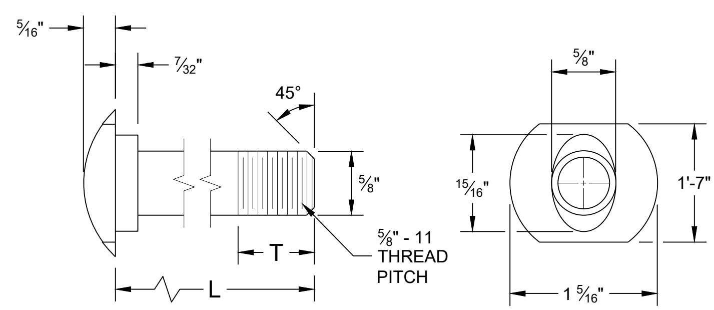
DETAIL FOR 36" BLOCKOUT DEPTH

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.

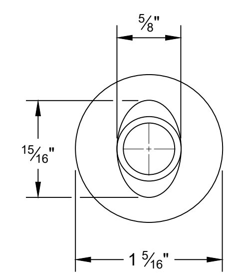
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

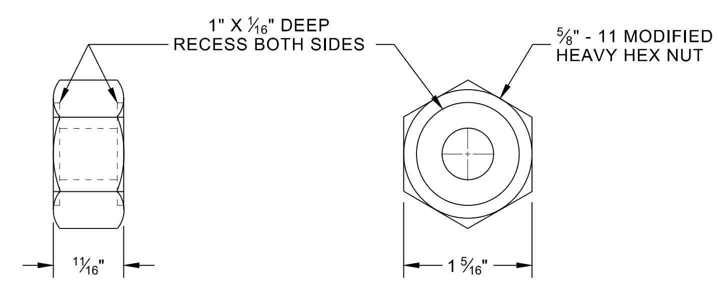


POST BOLT TABLE

L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"

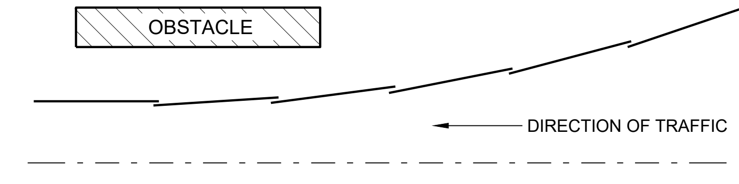


ALTERNATE BOLT HEAD

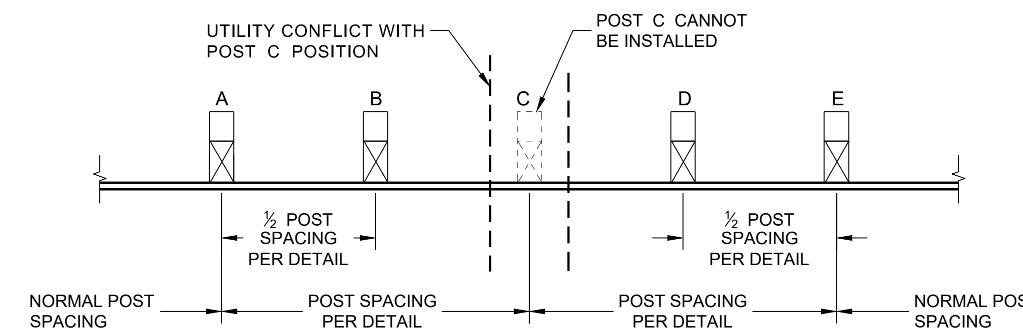


POST BOLT, SPLICE BOLT AND RECESS NUT

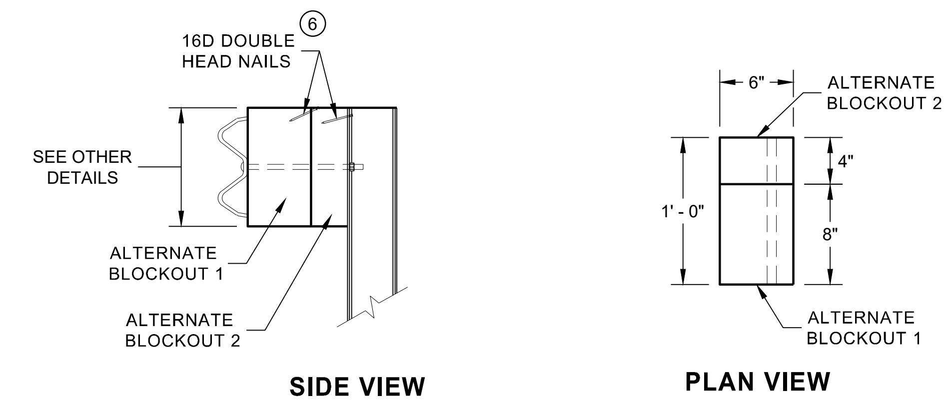
6 WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



PLAN VIEW
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



ALTERNATE WOOD BLOCKOUT DETAIL

6

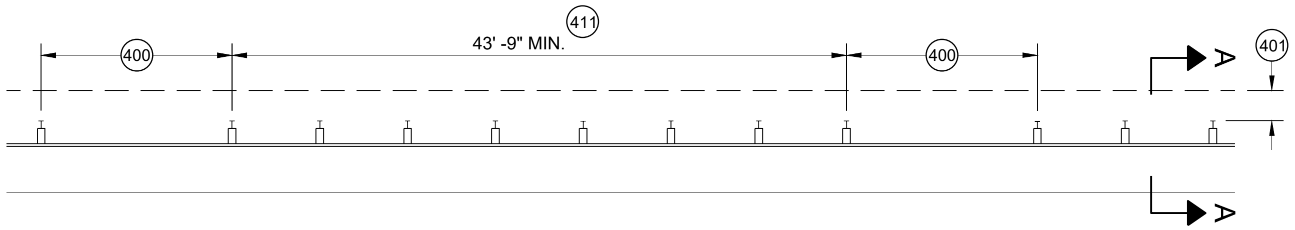
6

SDD 14B42 - 07c

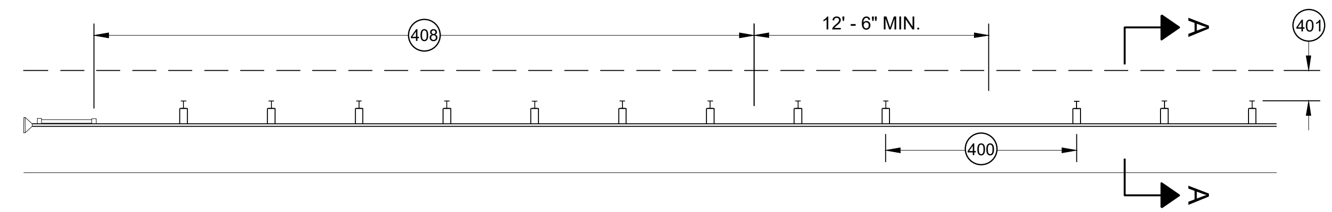
SDD 14B42 - 07c

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

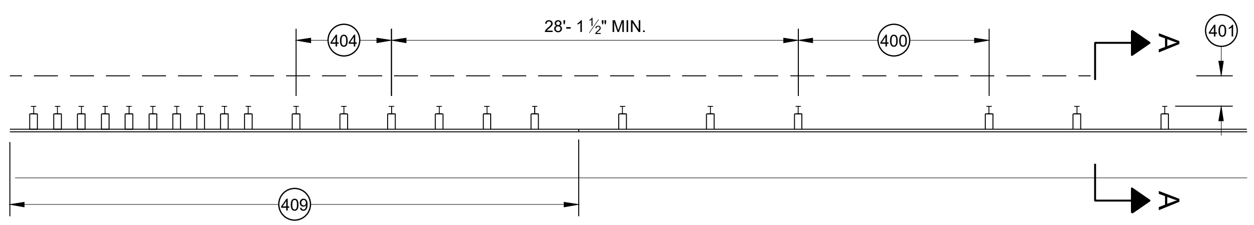
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



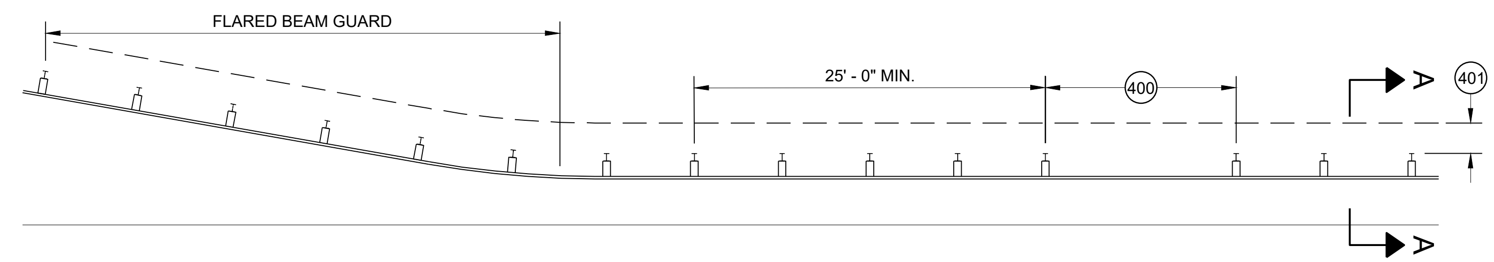
MISSING POST IN MGS GUARDRAIL



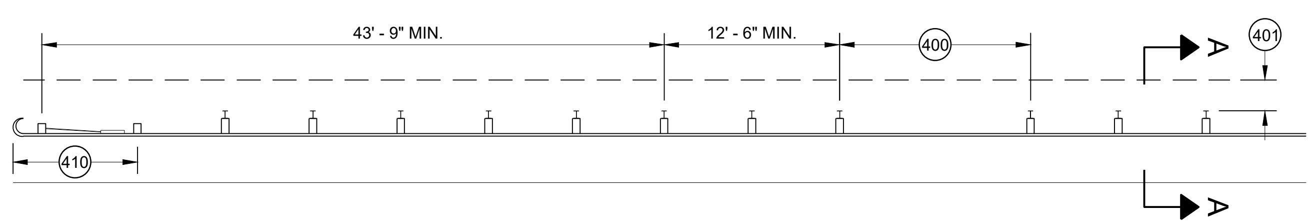
MISSING POST IN MGS GUARDRAIL NEAR EAT



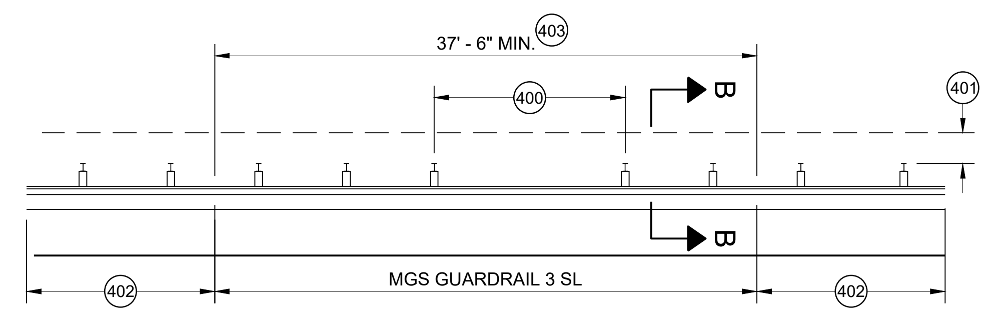
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

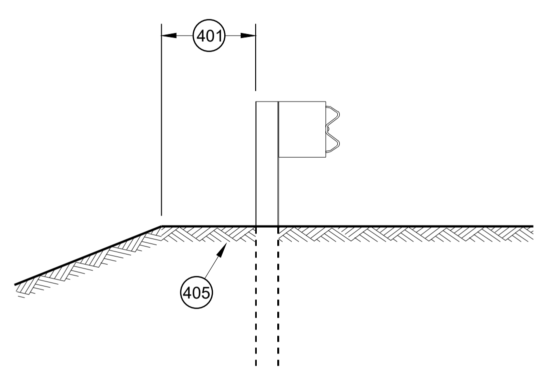


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

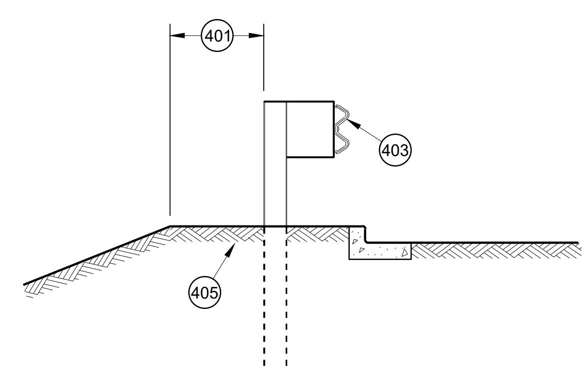


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

- (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 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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.

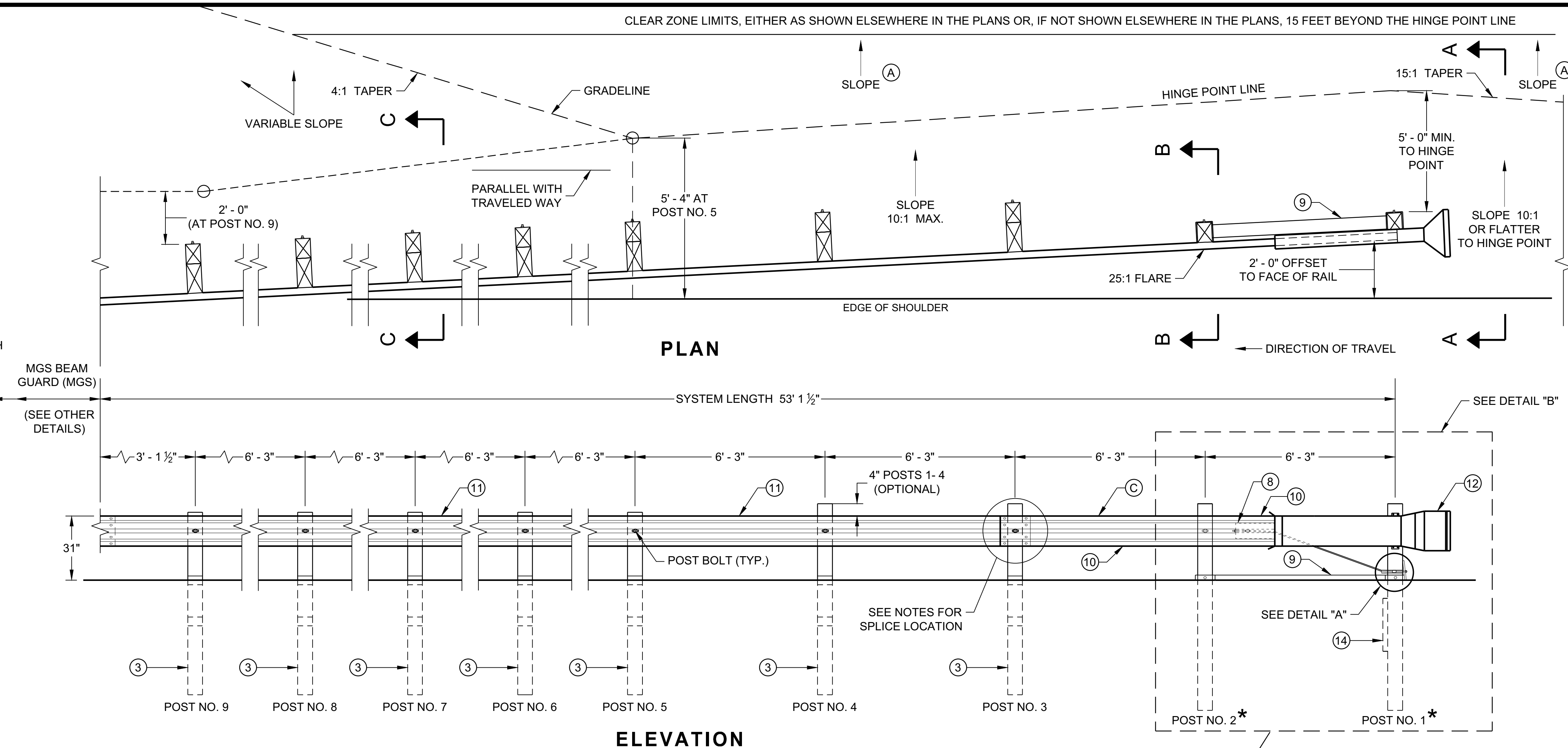
SEE SDD 14B42 FOR MORE INFORMATION.

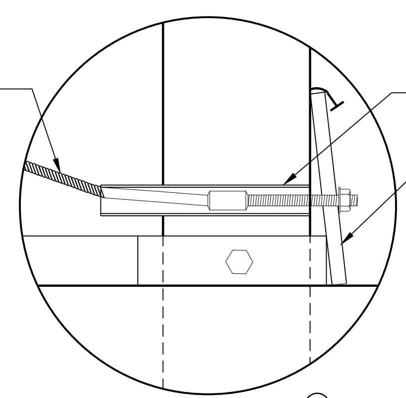
* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

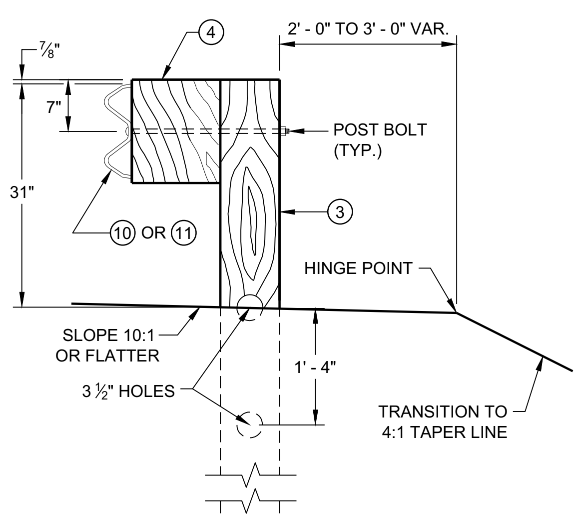
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

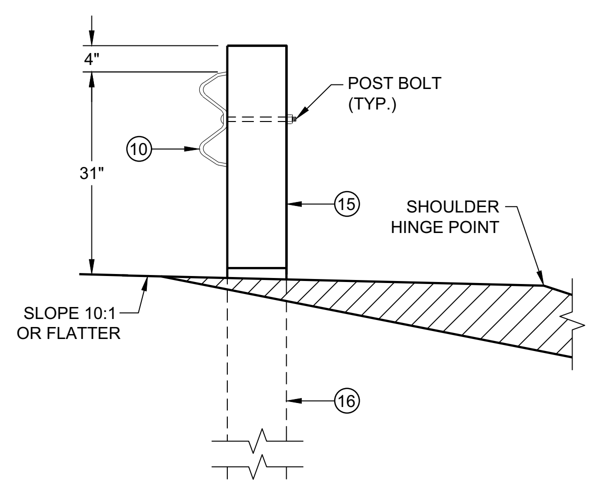
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



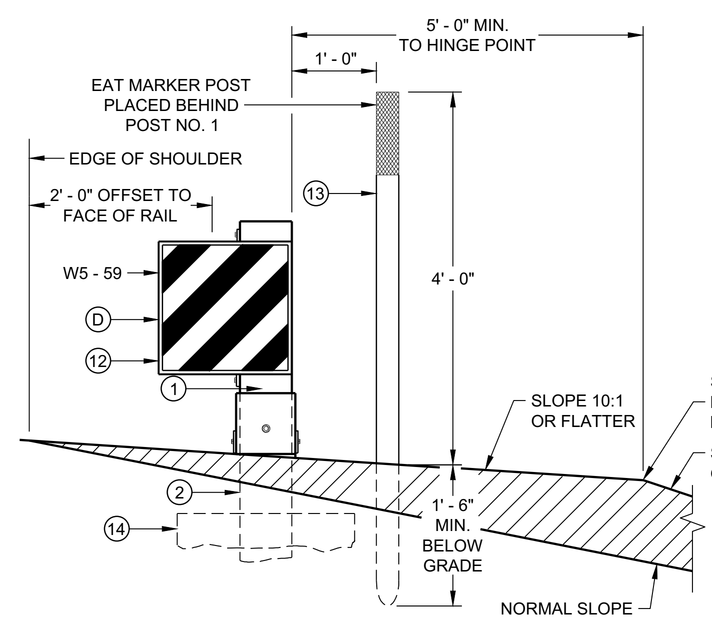




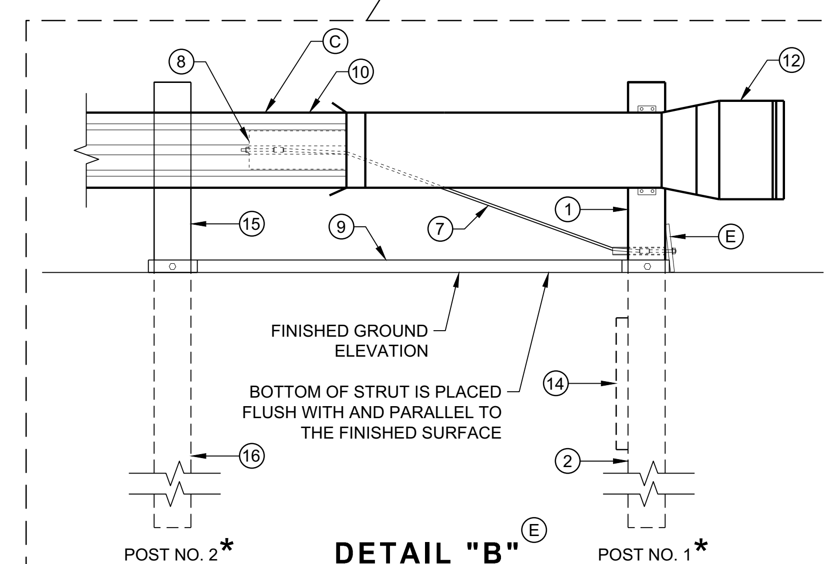
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

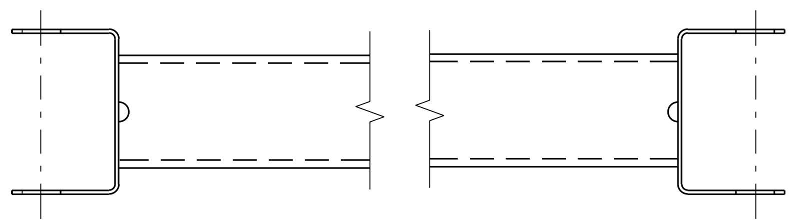
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

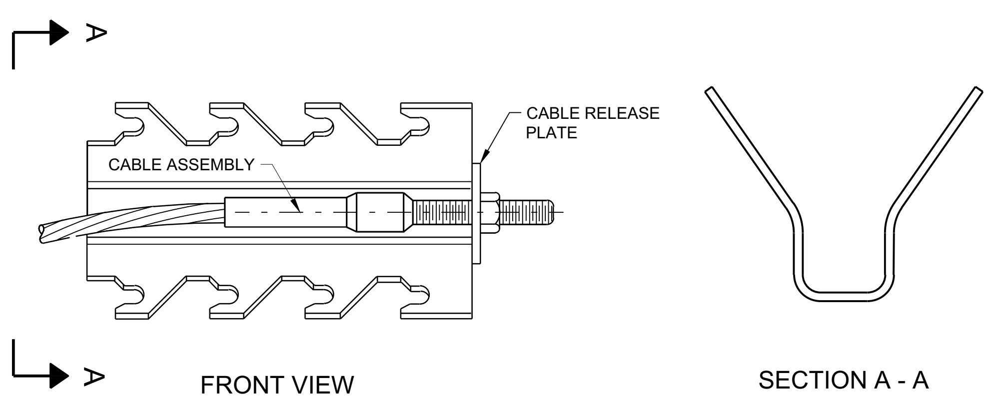
6

BILL OF MATERIALS

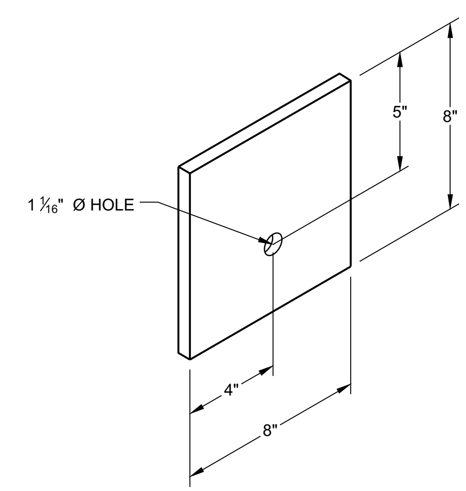
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO. 1 6" X 6" TUBE
2	LOWER POST NO. 1
3	WOOD CRT
4	WOOD BLOCKOUT
5	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL 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 GROUND STRUT 9 E



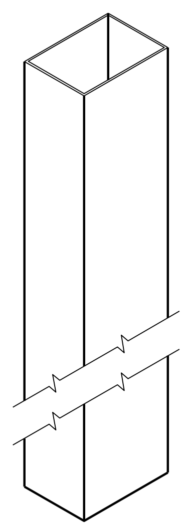
GENERIC ANCHOR CABLE BOX 9 E



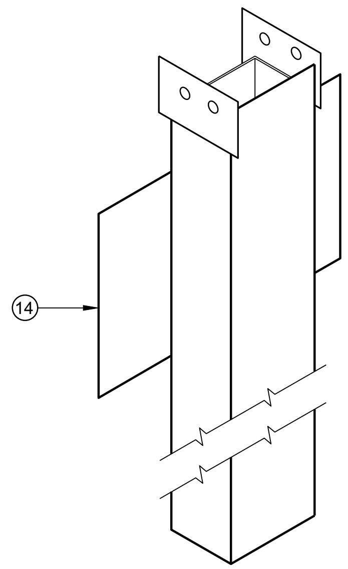
BEARING PLATE 6 E

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

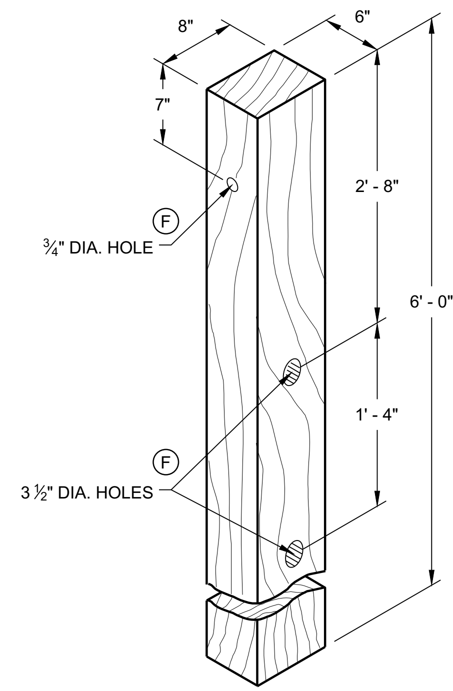
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



UPPER POST NO. 1 ① Ⓔ

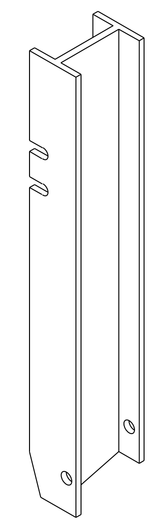


LOWER POST NO. 1 ② Ⓔ

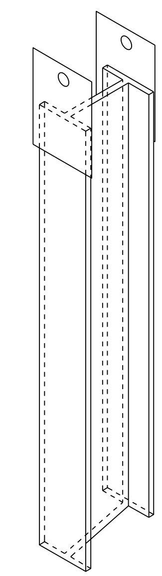


WOOD CRT POST ③ Ⓔ

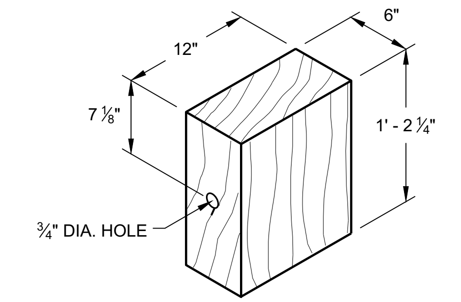
POSTS NUMBER 3-9



UPPER POST NO. 2 ⑮ Ⓔ

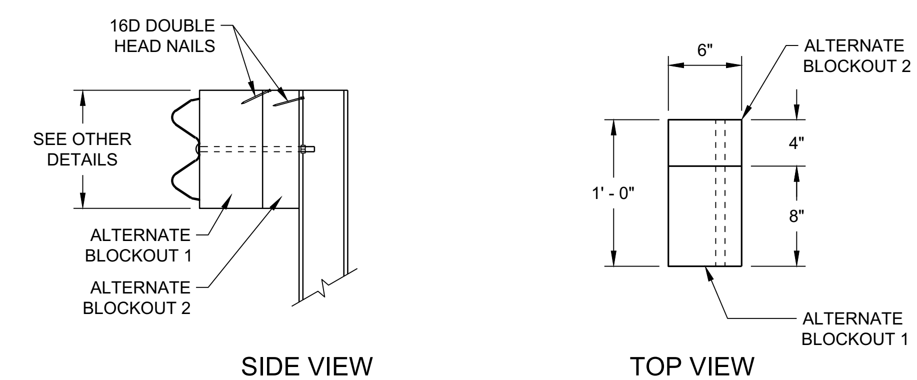


LOWER POST NO. 2 ⑯ Ⓔ

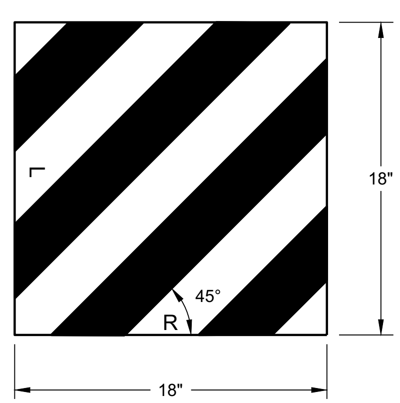


WOOD BLOCKOUT ④

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

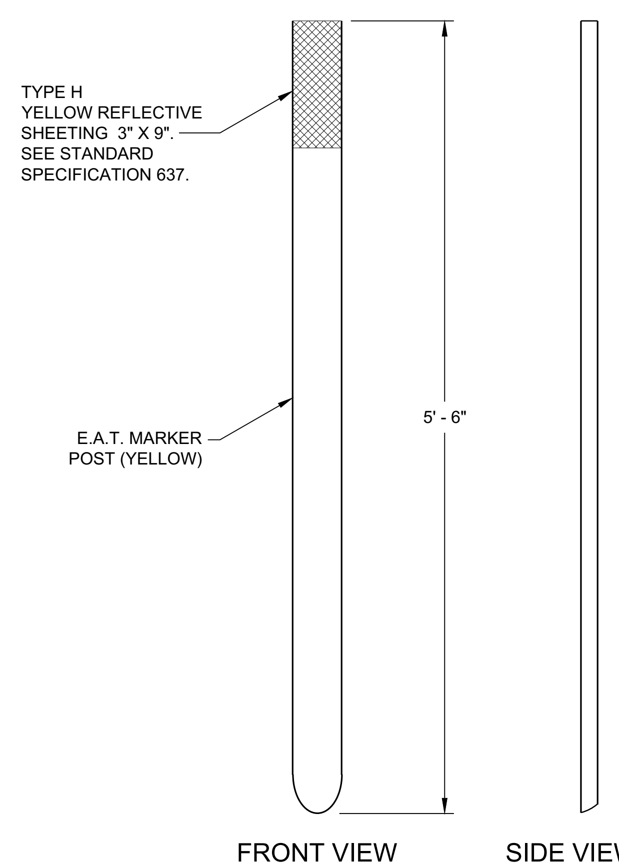


ALTERNATE WOOD BLOCKOUT DETAIL



W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ



E.A.T. MARKER POST ⑬

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

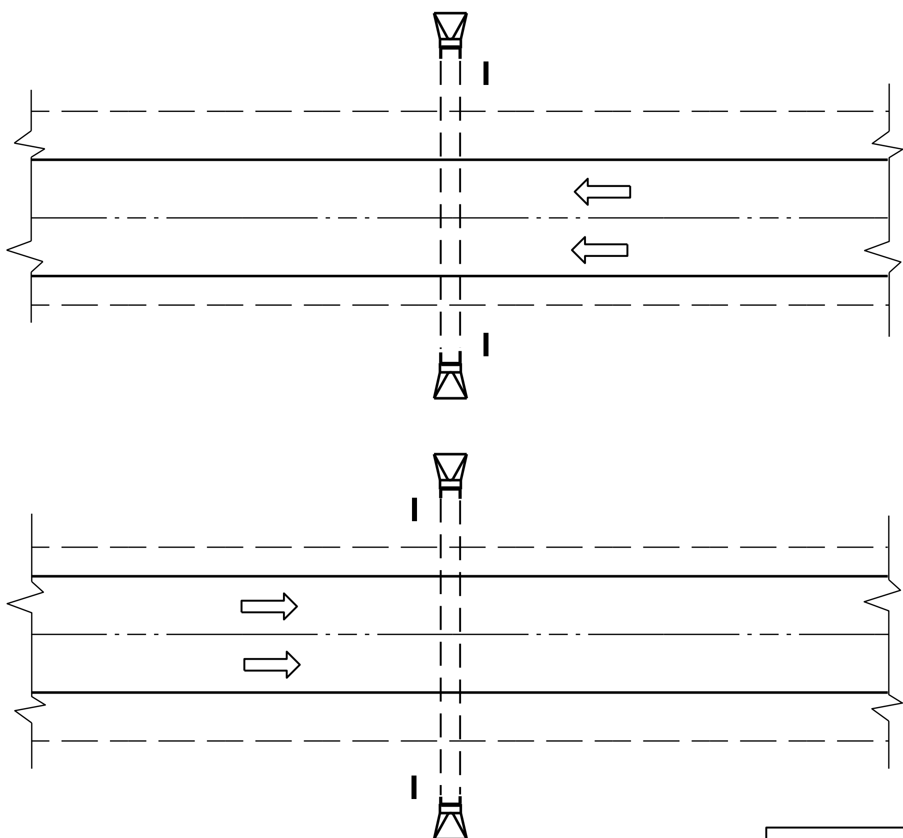
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

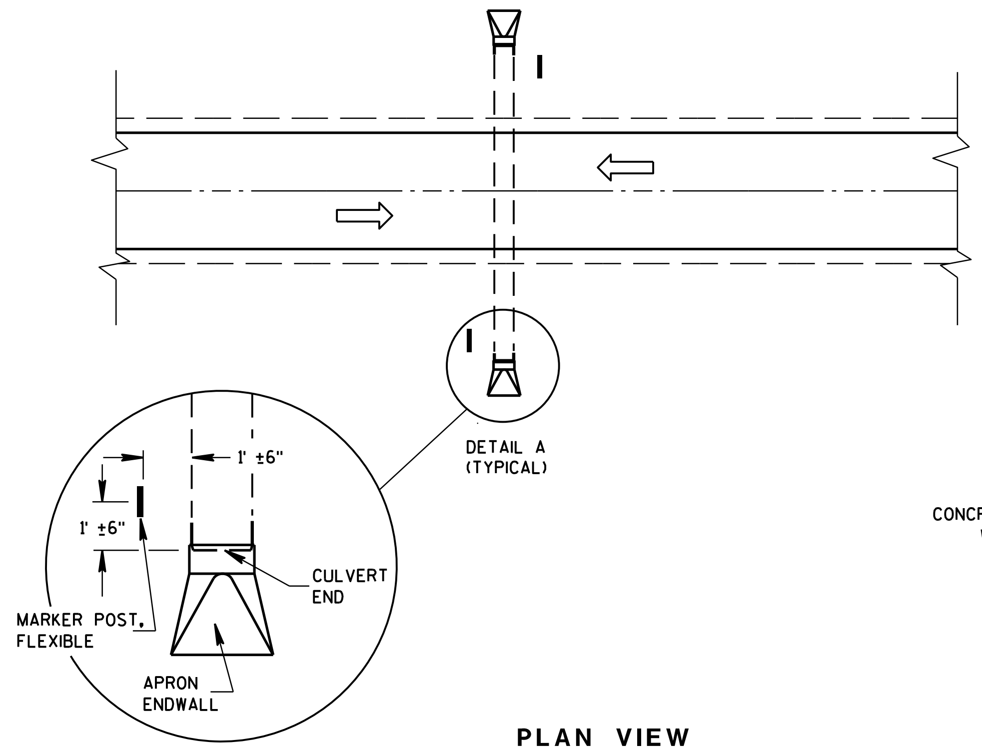
GENERAL NOTES

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

DIVIDED HIGHWAY

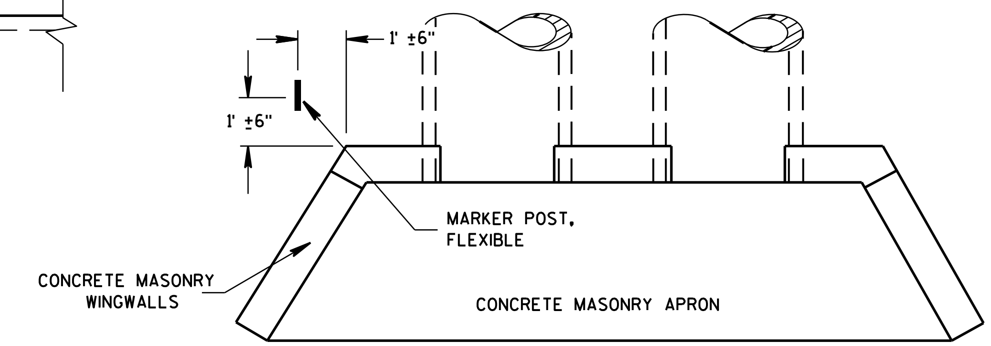


DETAIL A
(TYPICAL)

PLAN VIEW

UNDIVIDED HIGHWAY

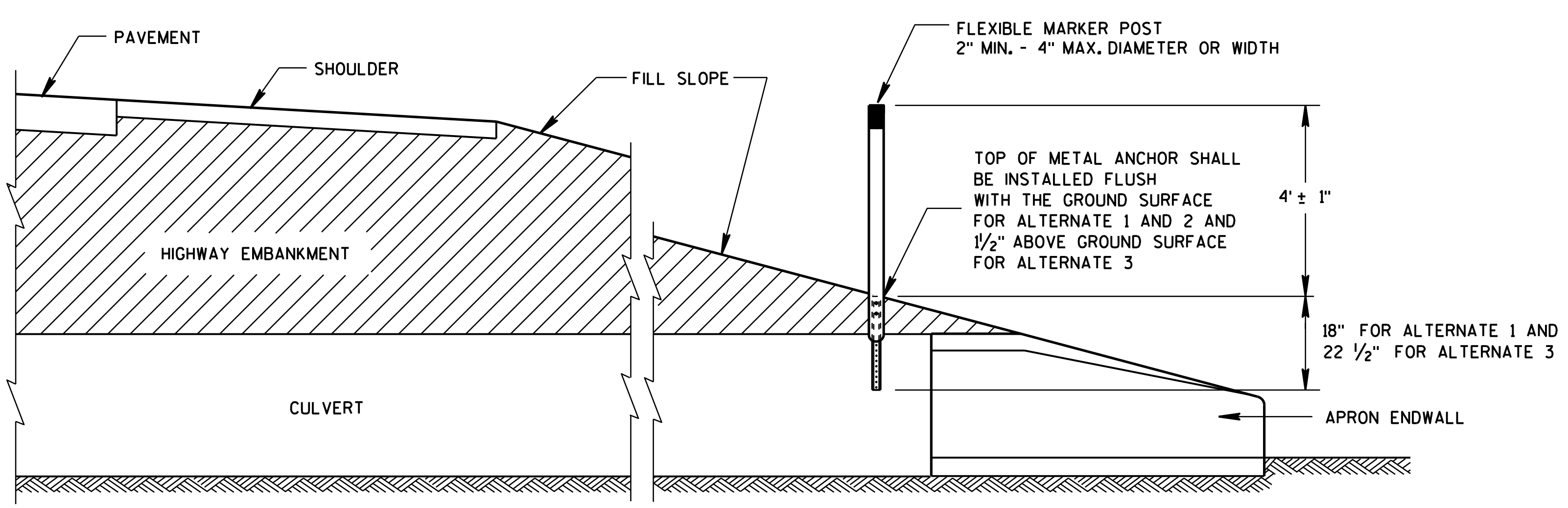
I	MARKER POST, FLEXIBLE
⇨	DIRECTION OF TRAFFIC FLOW



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



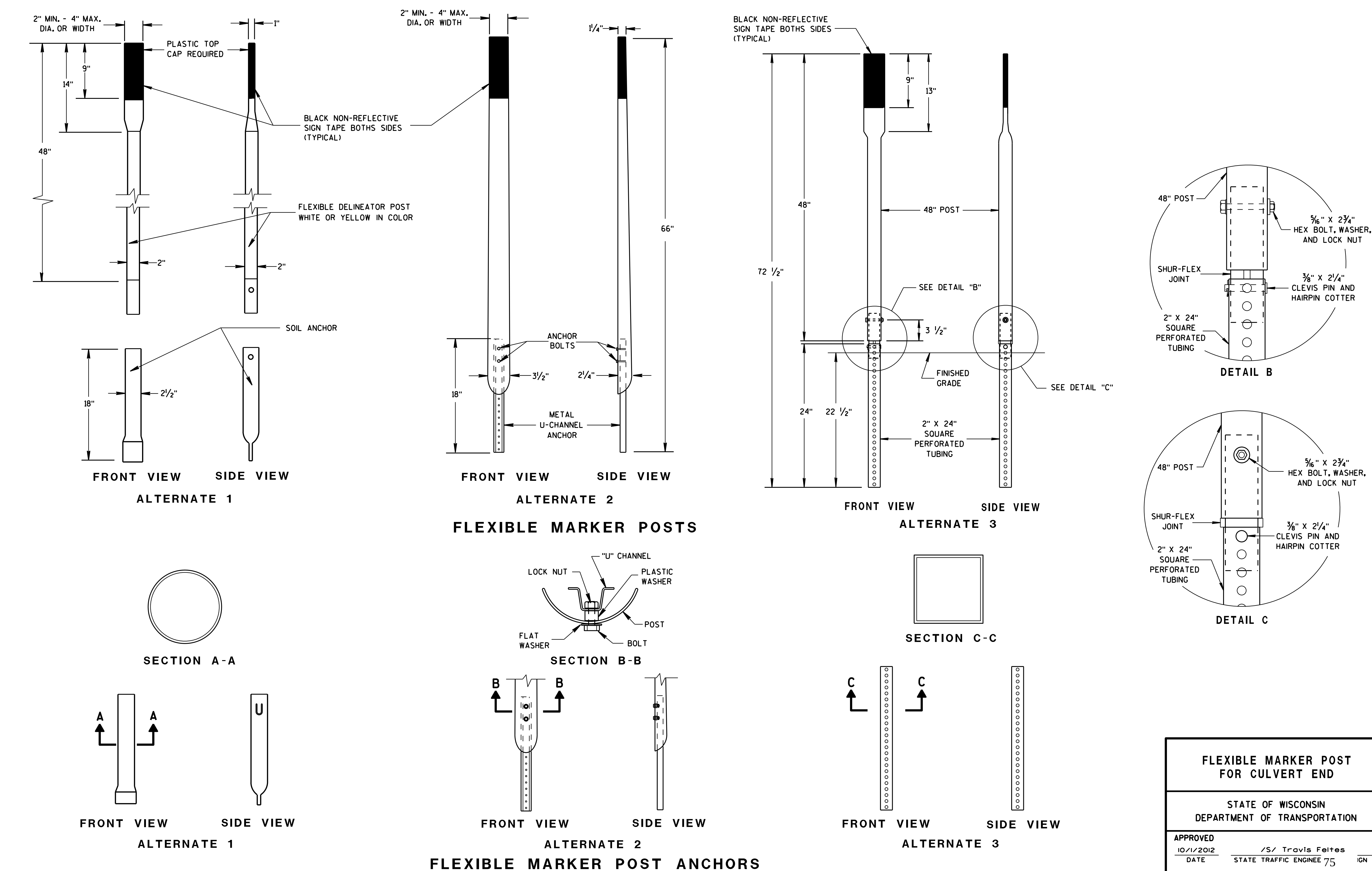
CROSS SECTION

FLEXIBLE MARKER POST

6

6

FLEXIBLE MARKER POST FOR CULVERT END
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



6

6

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

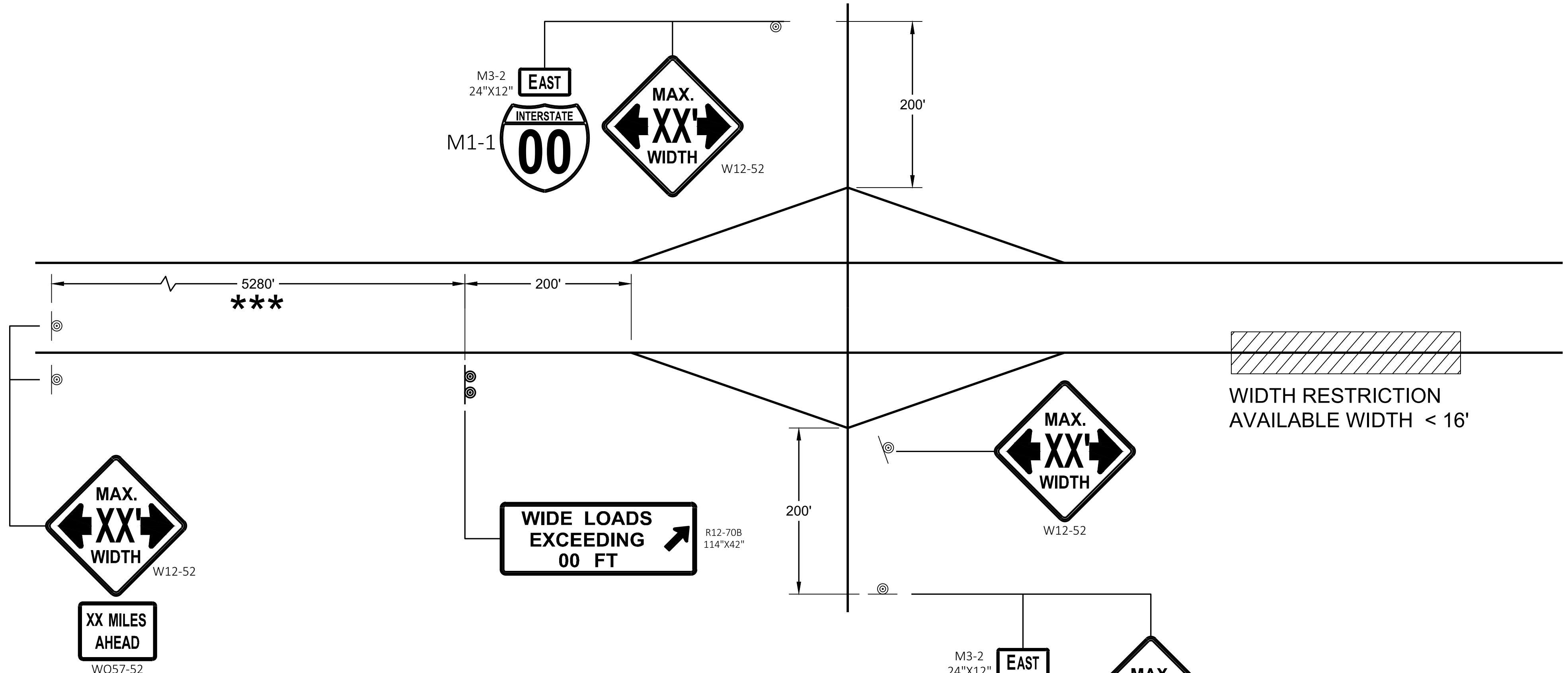
APPROVED

10/1/2012	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER	IGN

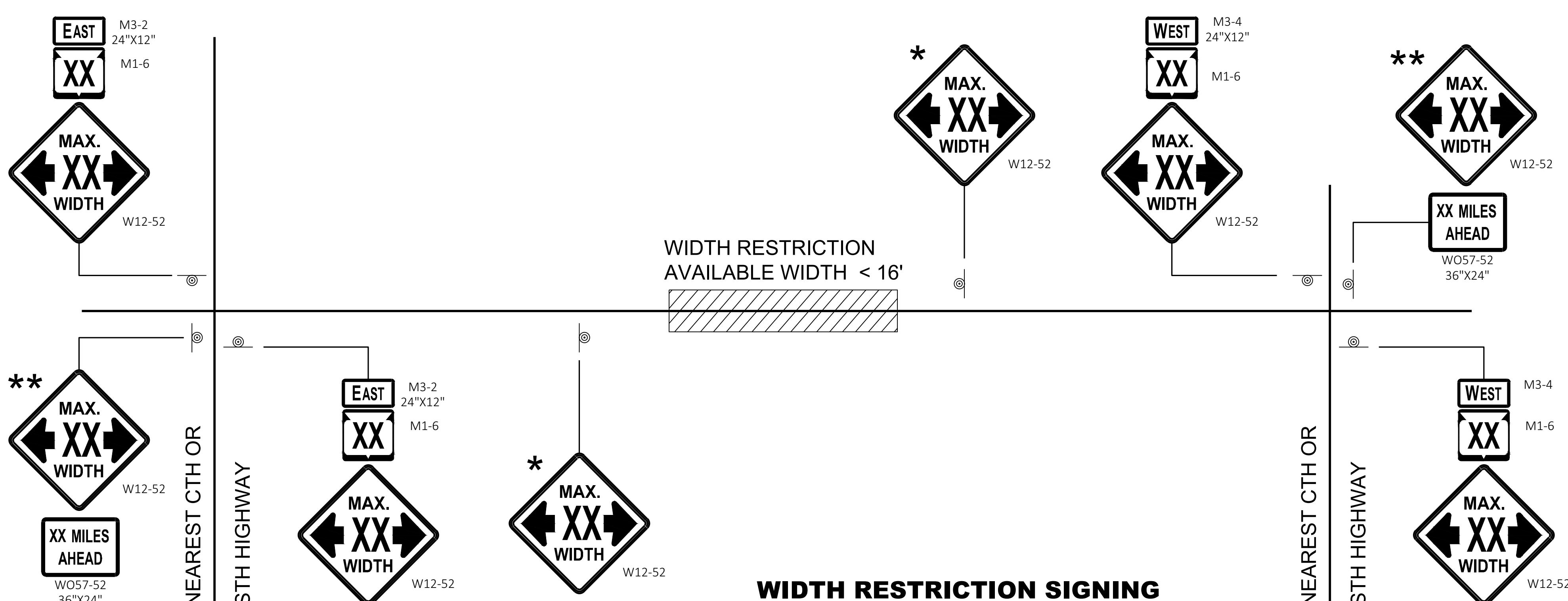
FHWA

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

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



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

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

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

** SIGN SHALL BE VISIBLE FROM ROADWAY.

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

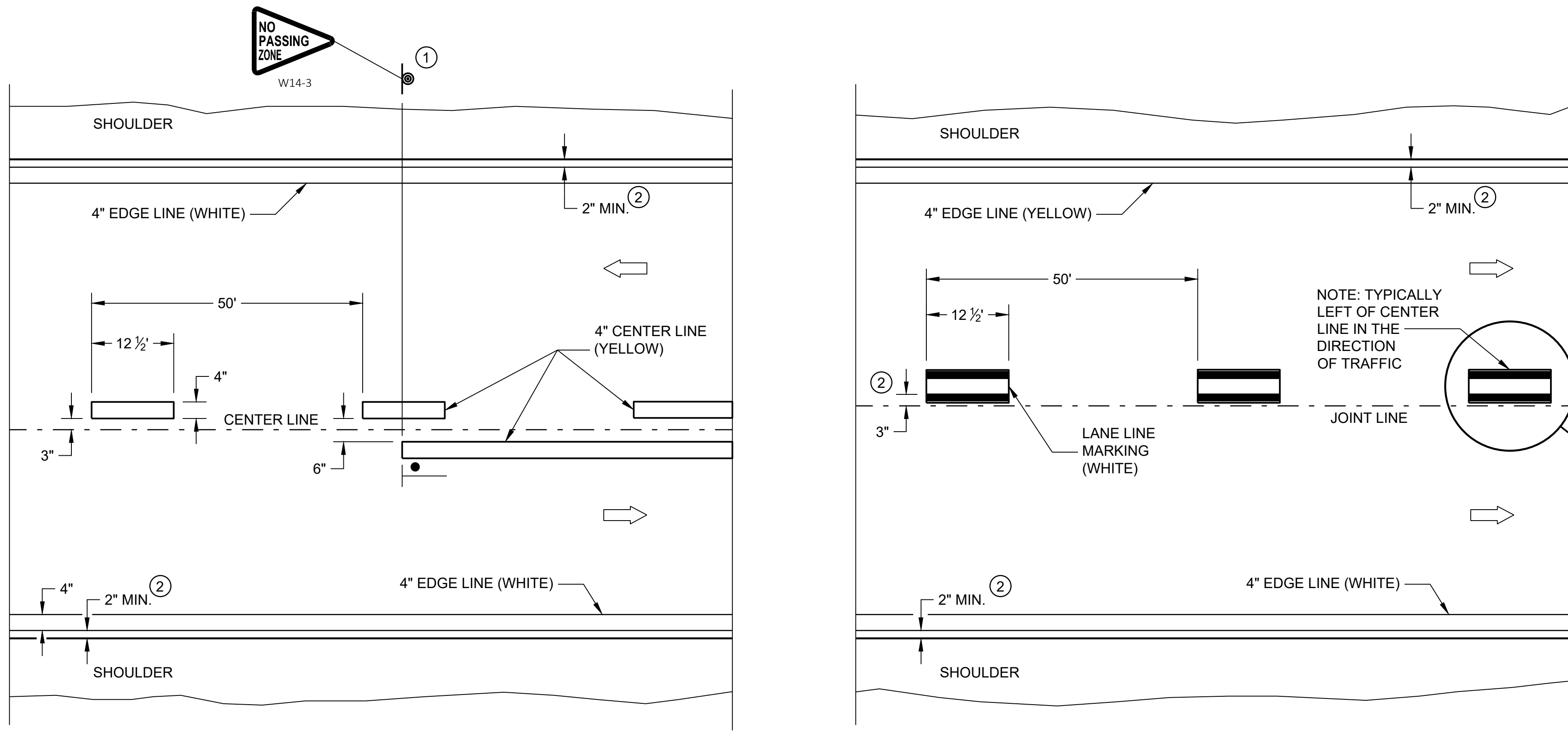
WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

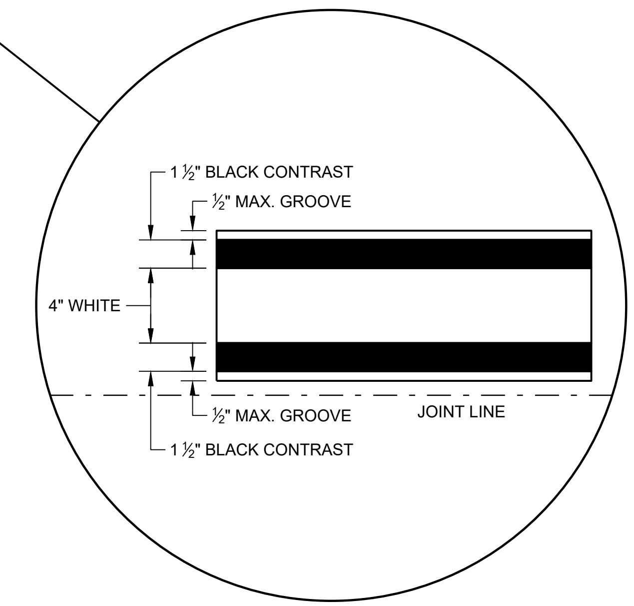
6
SDD 15C02 - 08f

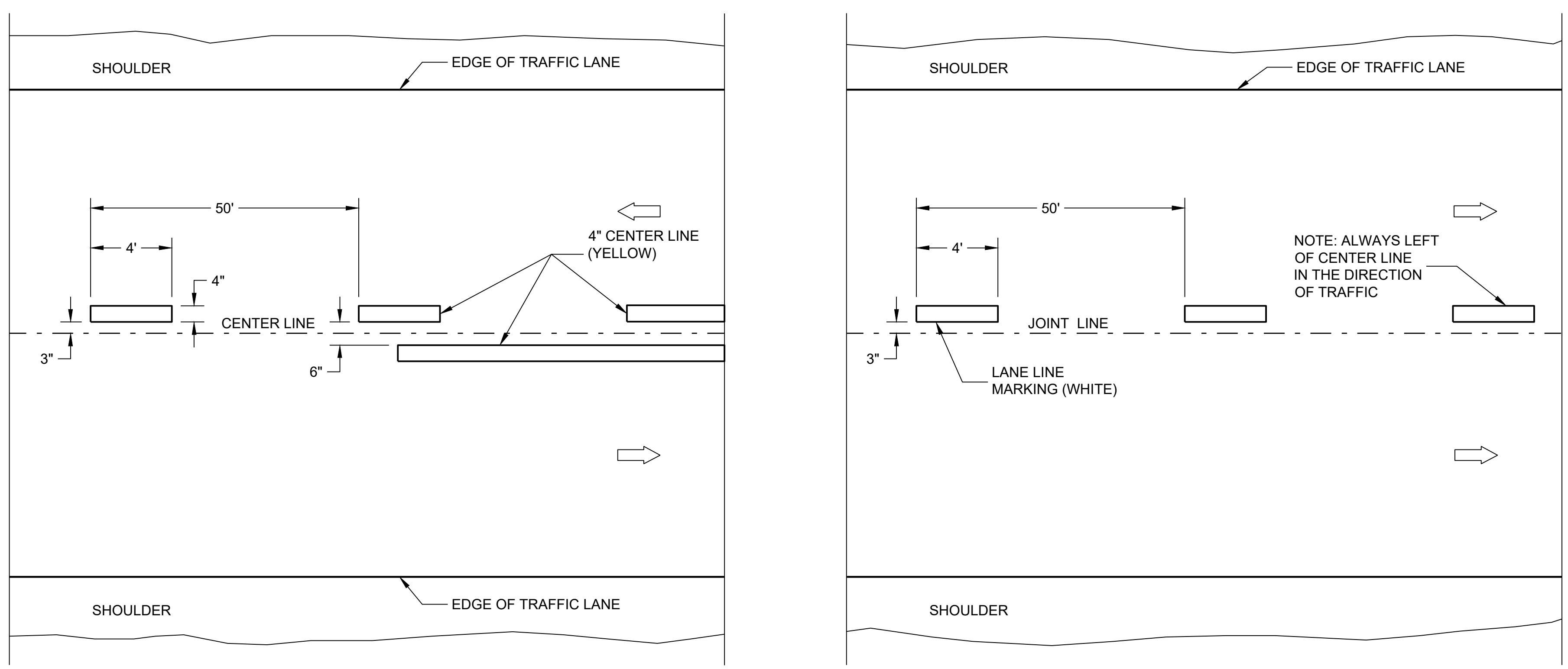


TWO WAY TRAFFIC

ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING





TWO WAY TRAFFIC

ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

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

6

6

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2020 — DATE

/S/ Matthew Rauch — STATEWIDE SIGNING AND M ENGINEER

FHWA

SDD 15C08 - 20a

SDD 15C08 - 20a

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.

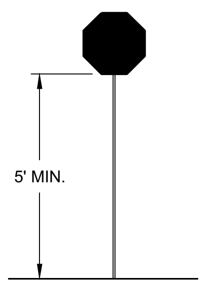
3. EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR 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.

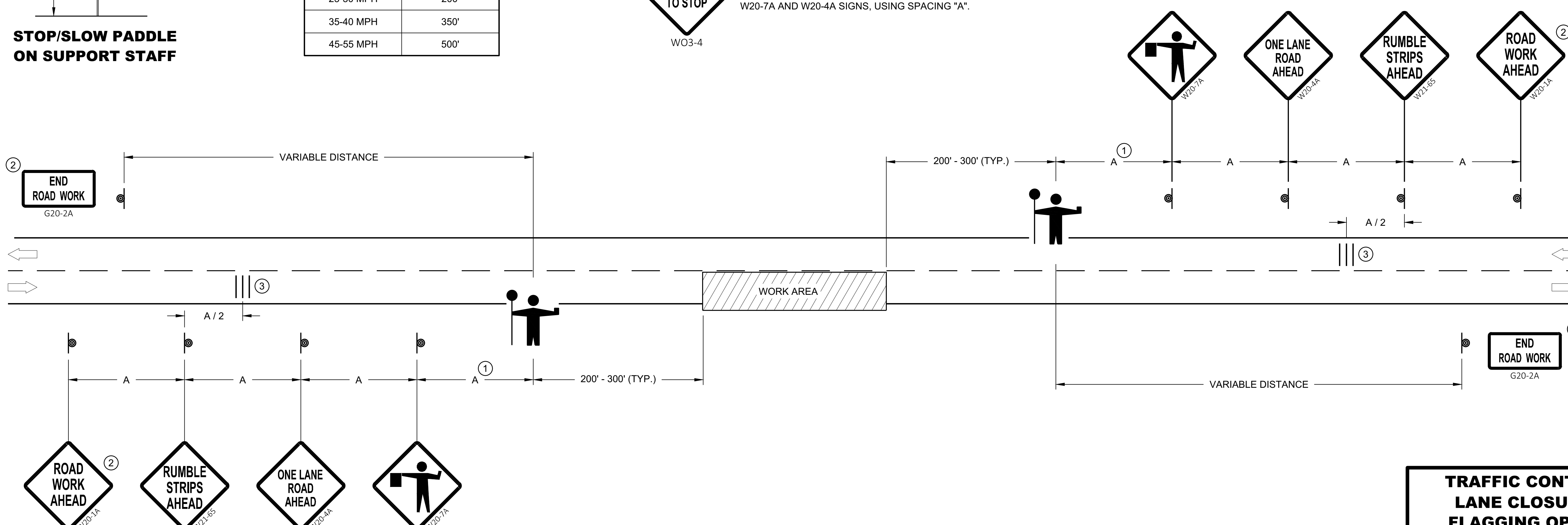


STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

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

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C12 - 07

SDD 15C12 - 07

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.

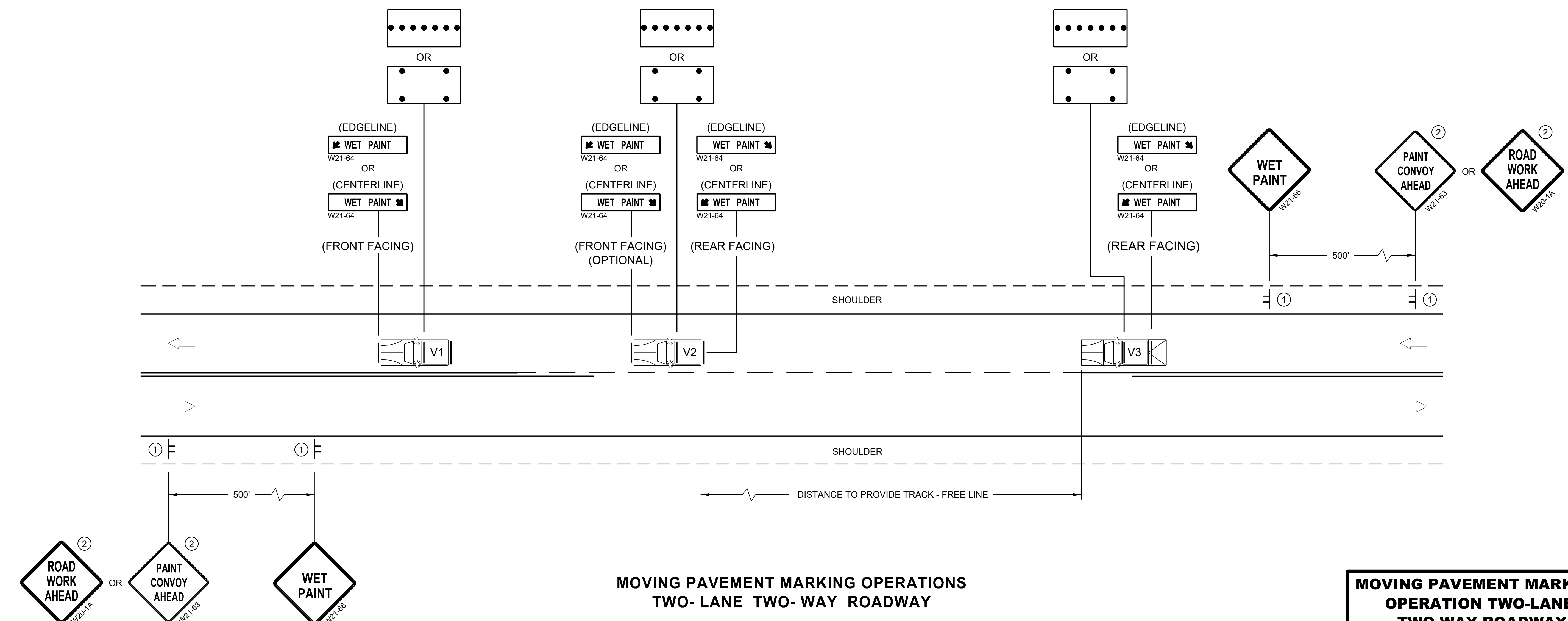
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

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.



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 November 2019 DATE /S/ Andrew Heidtke WORK ZONE ENGINEER FHWA

LEGEND

- V1 LEAD VEHICLE
- V2 MARKING VEHICLE
- V3 SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

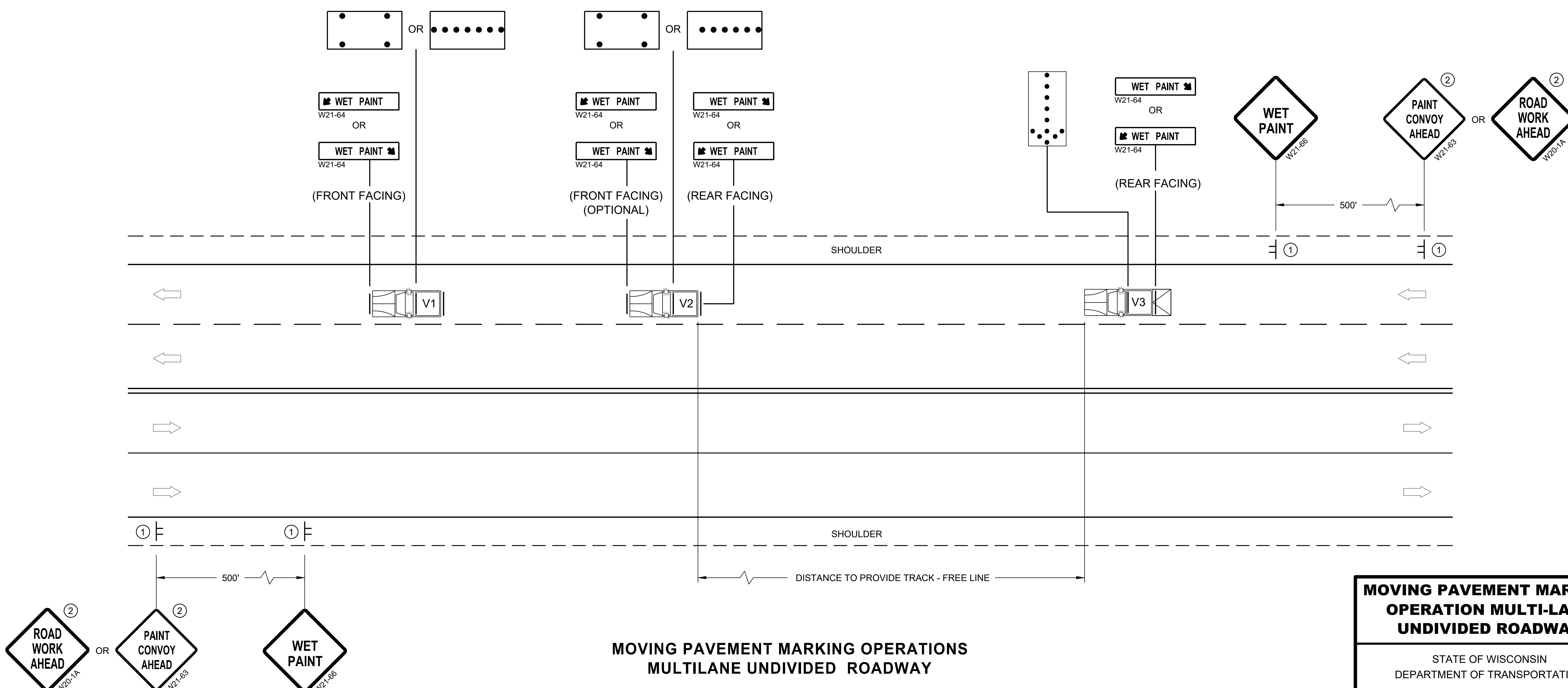
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

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 VEHICLES 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 HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

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.



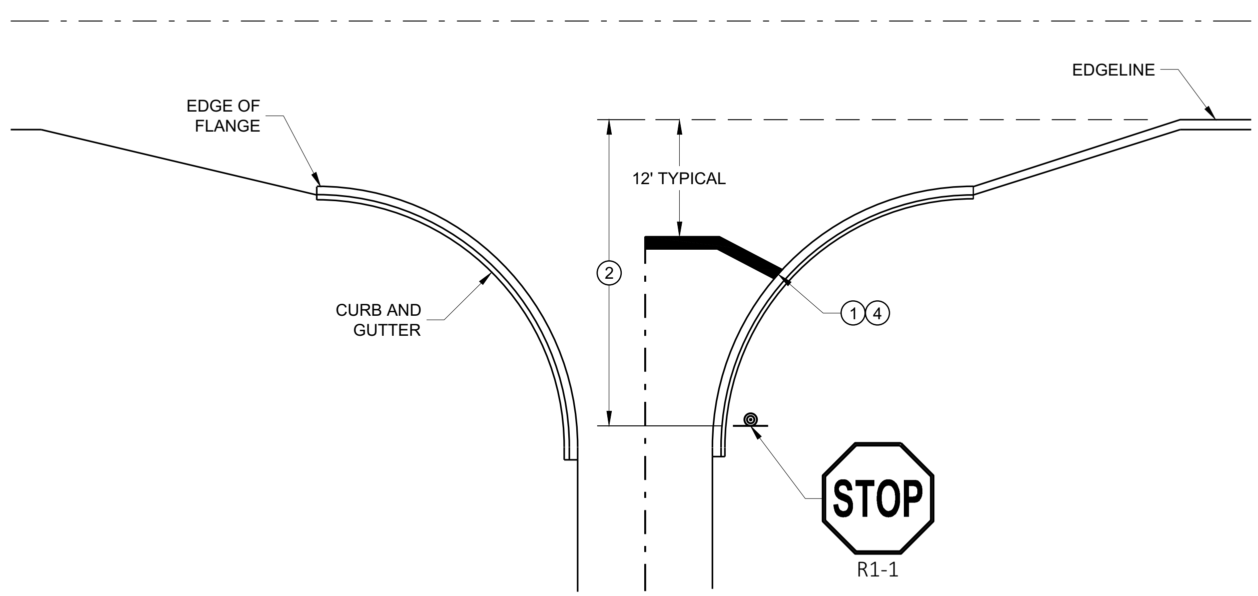
MOVING PAVEMENT MARKING OPERATIONS
MULTILANE UNDIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED November 2019 /S/ Andrew Heidtke DATE WORK ZONE ENGINEER FHWA

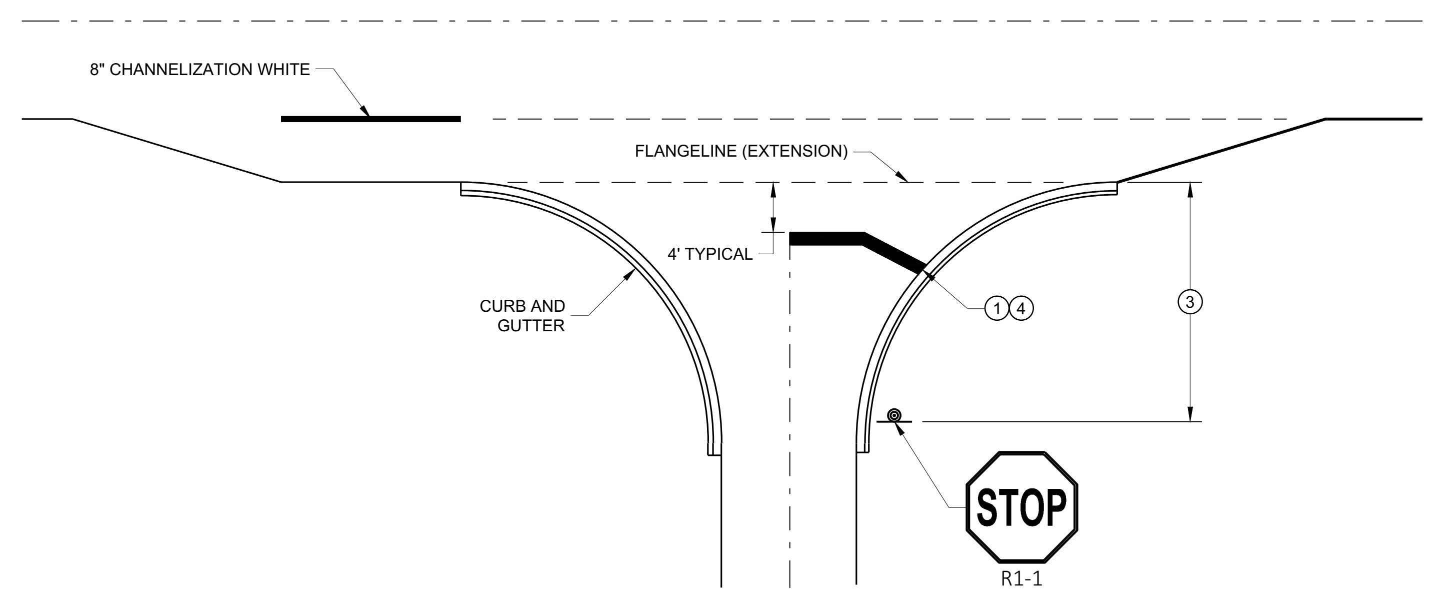
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

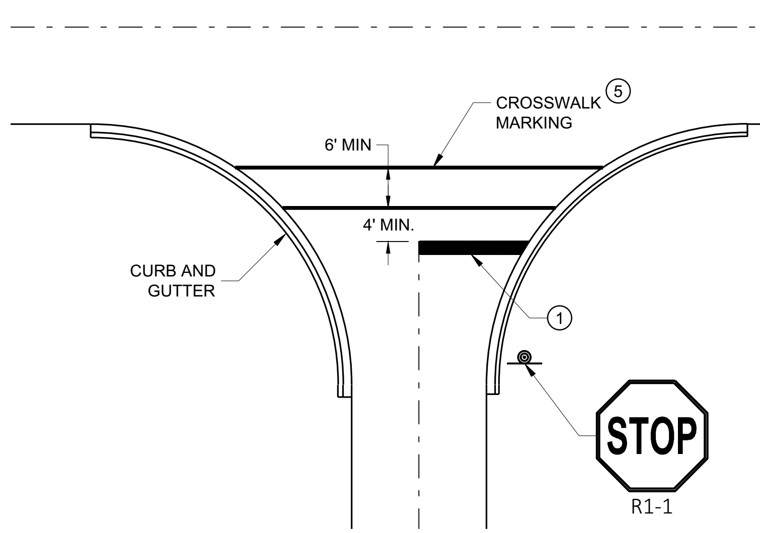
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



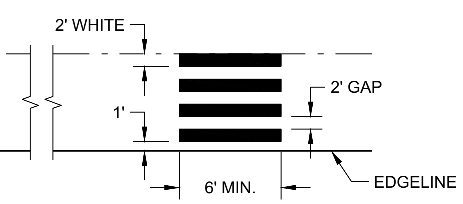
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



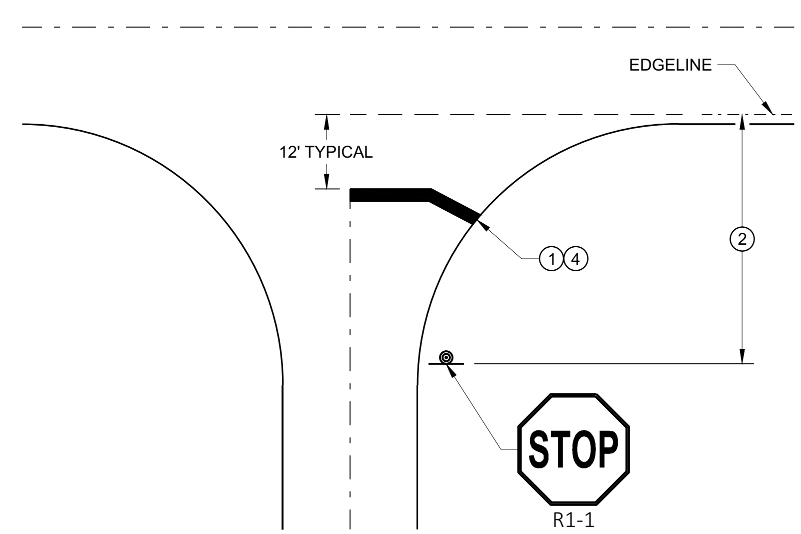
TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER
FHWA

6

SDD 15C33 - 04

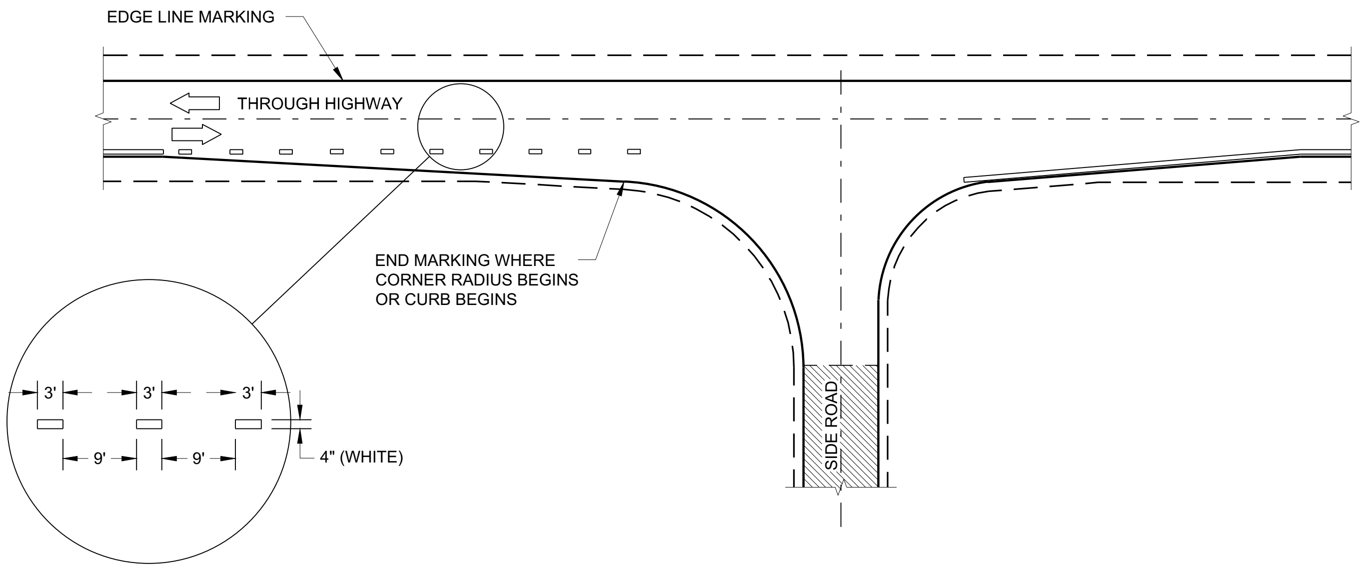
GENERAL NOTES

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

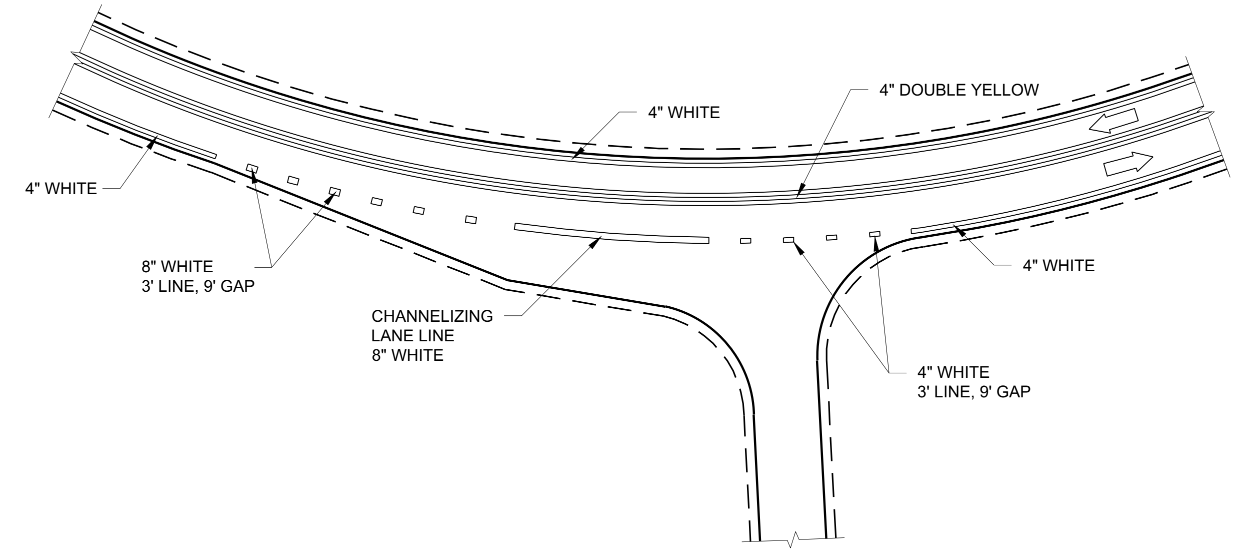
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

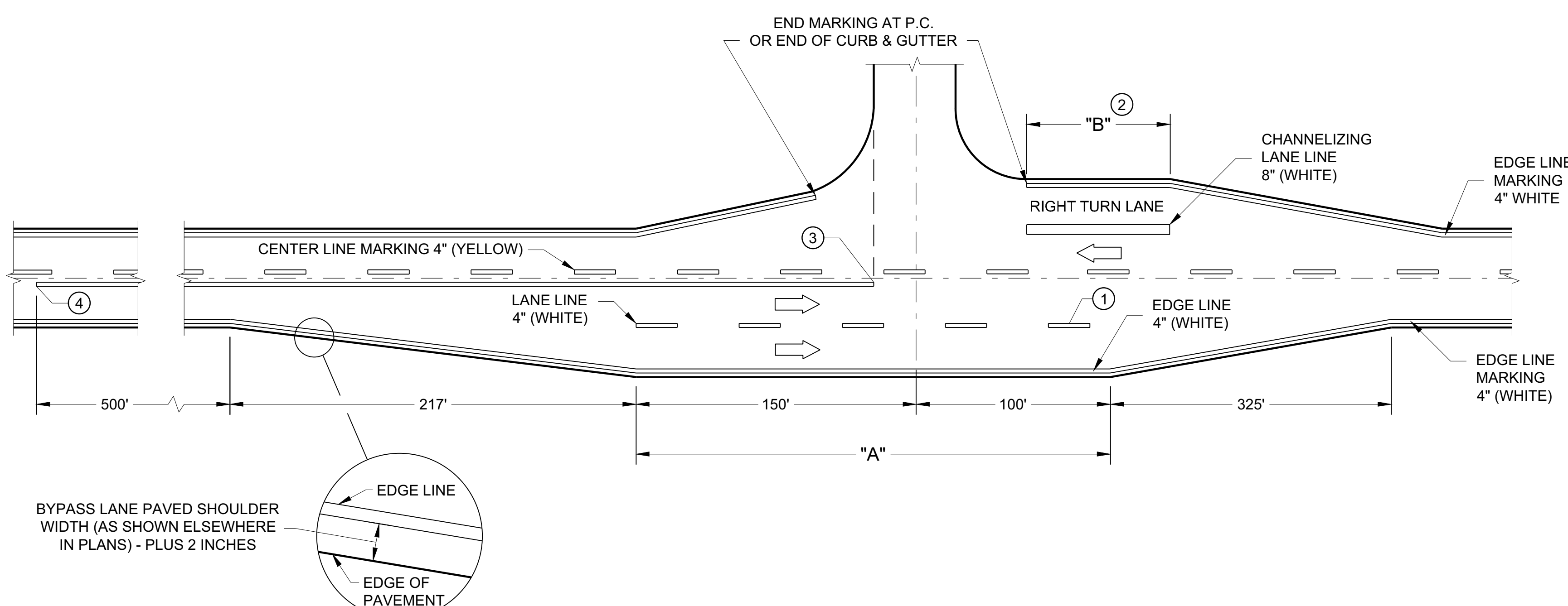
DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

6

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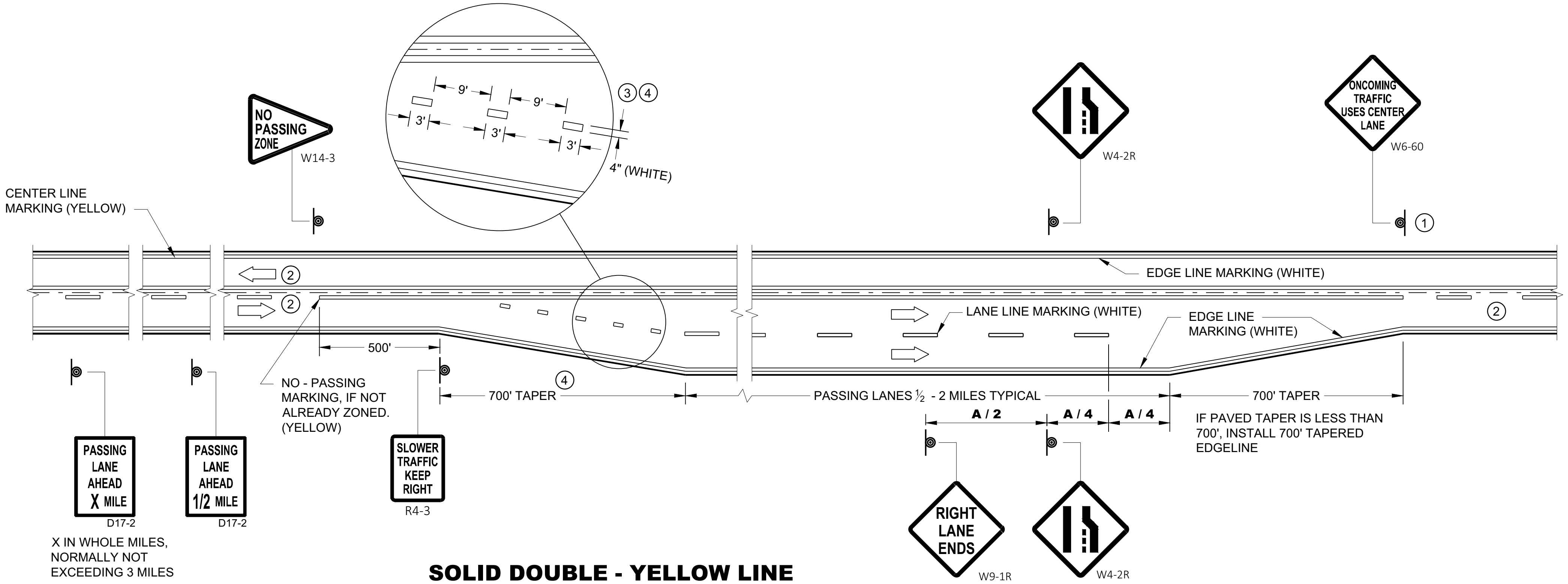
SDD 15C35 - 04a

SDD 15C35 - 04a

PAVEMENT MARKING (INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATI



SOLID DOUBLE - YELLOW LINE (THROUGHOUT ENTIRE PASSING / CLIMBING LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY 1 MILE UP UNTIL R4-53.

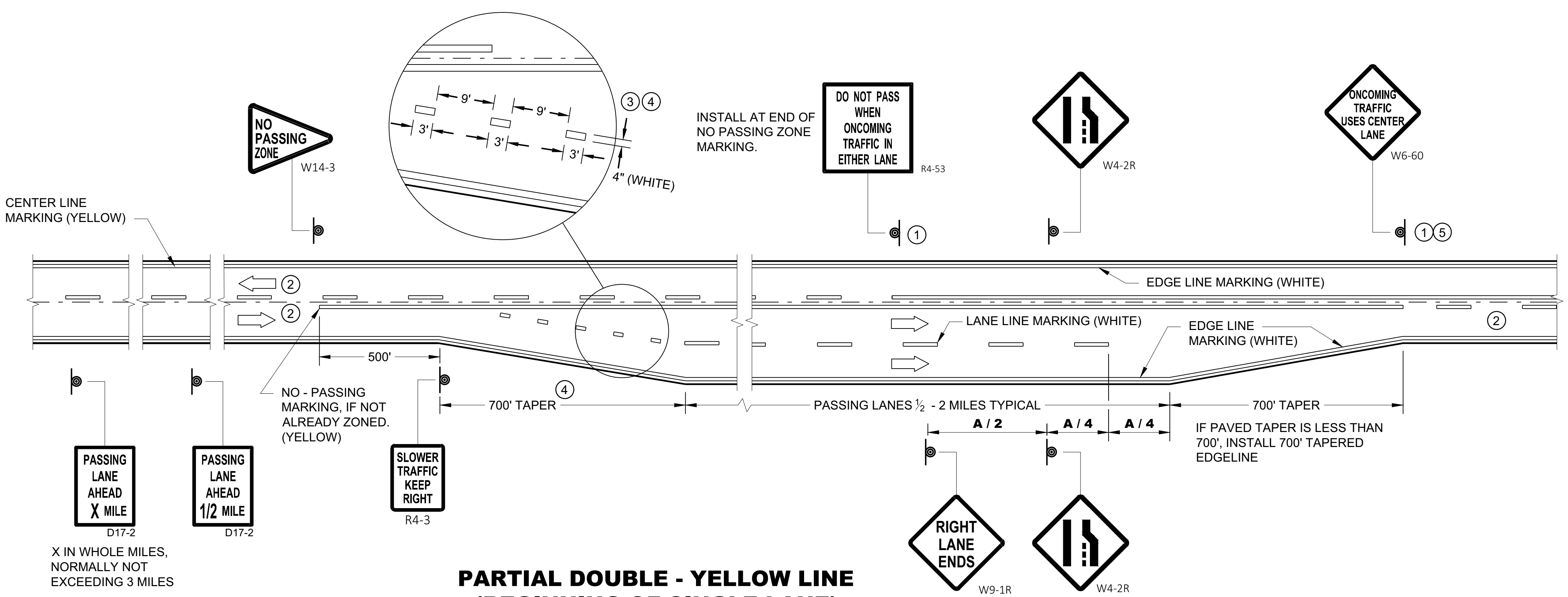
ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

6

6



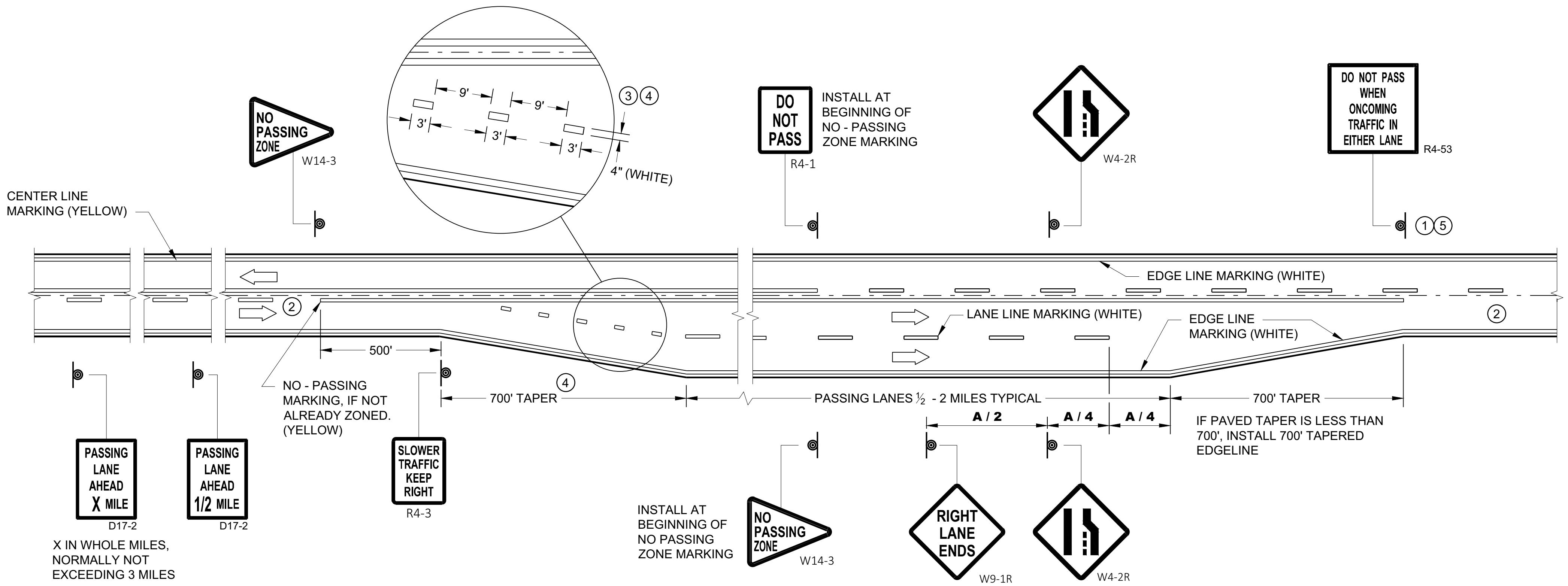
PARTIAL DOUBLE - YELLOW LINE (BEGINNING OF SINGLE LANE)

SDD 15C35 - 04b

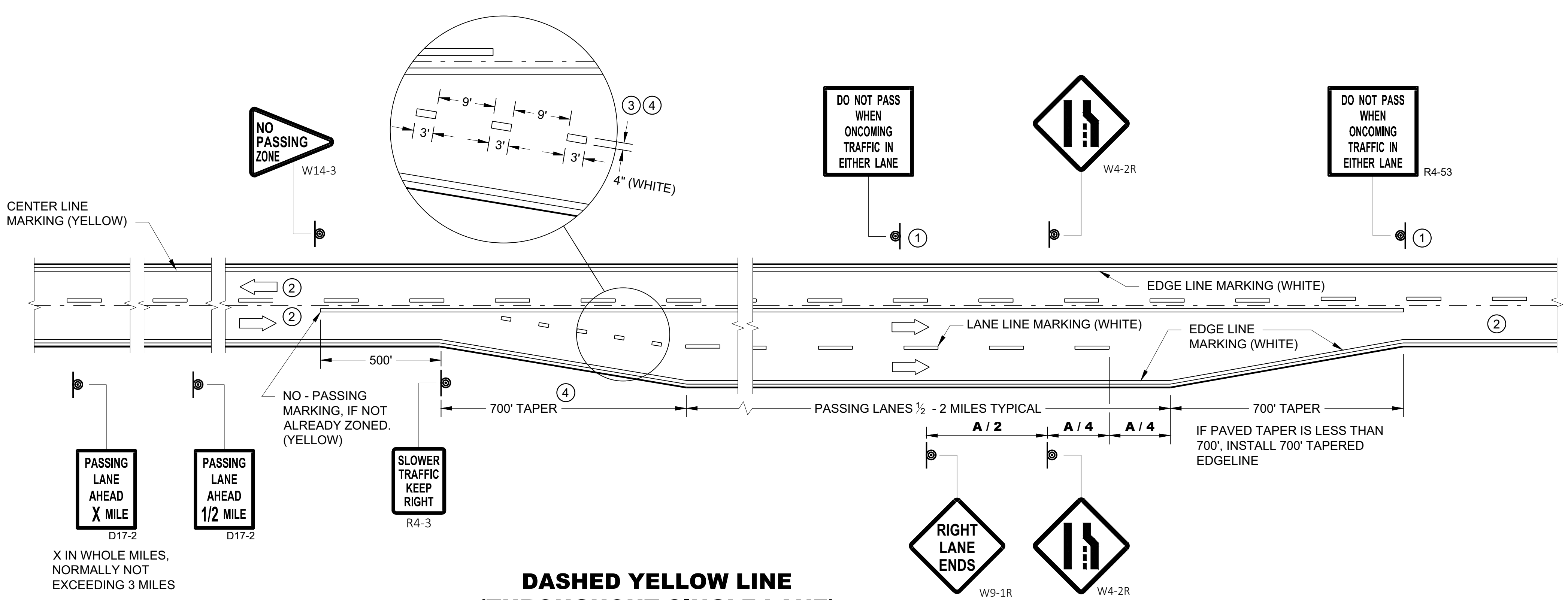
PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 15C35 - 04b



SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)



DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)

GENERAL NOTES

1. SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
2. THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
3. THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
4. WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
5. REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

6

6

PAVEMNET MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

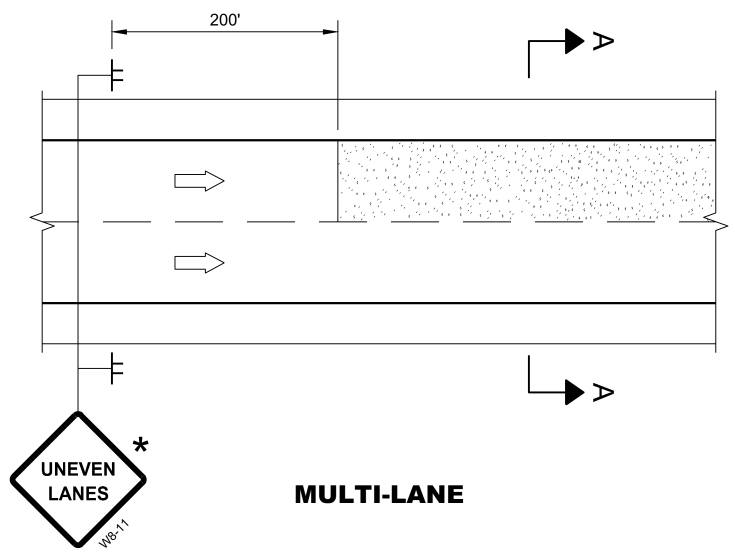
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

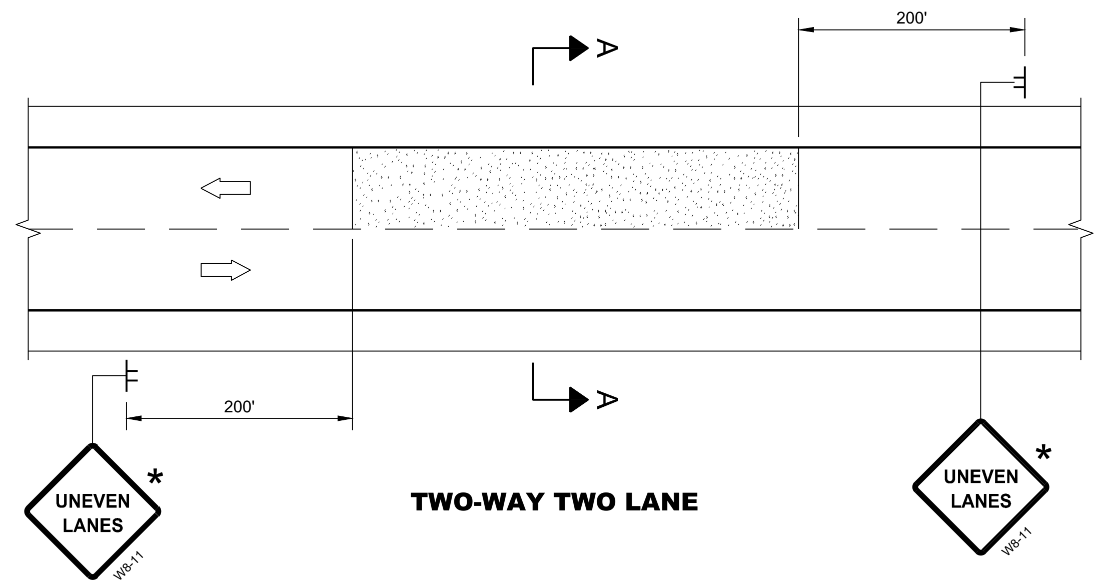
FHWA

SDD 15C35 - 04c

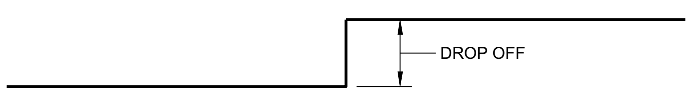
SDD 15C35 - 04c



MULTI-LANE

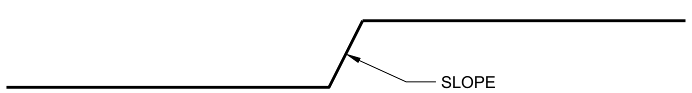


TWO-WAY TWO LANE

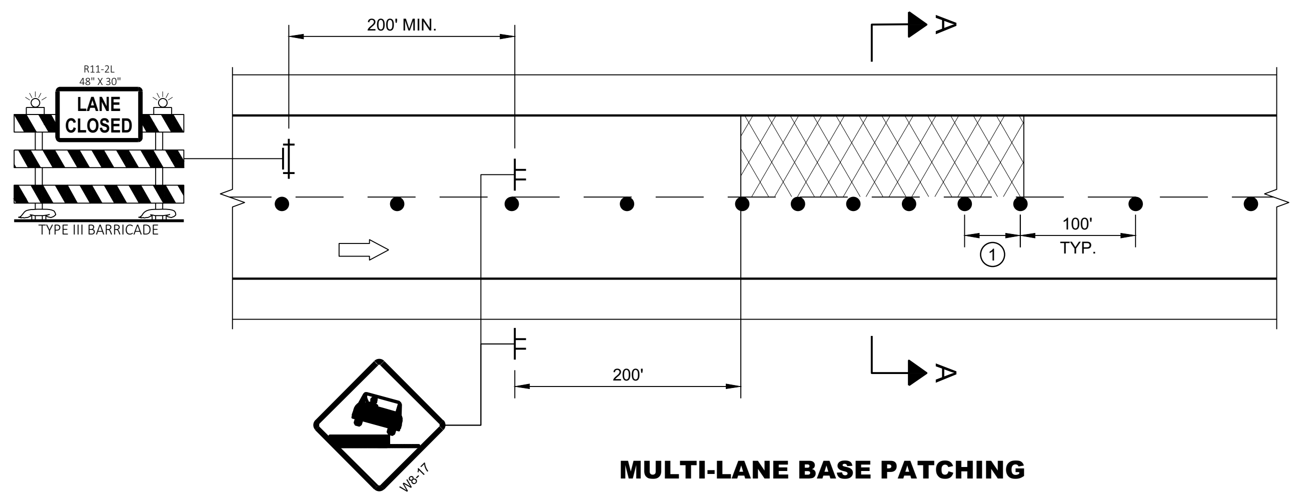


SECTION A - A

OR



SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

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

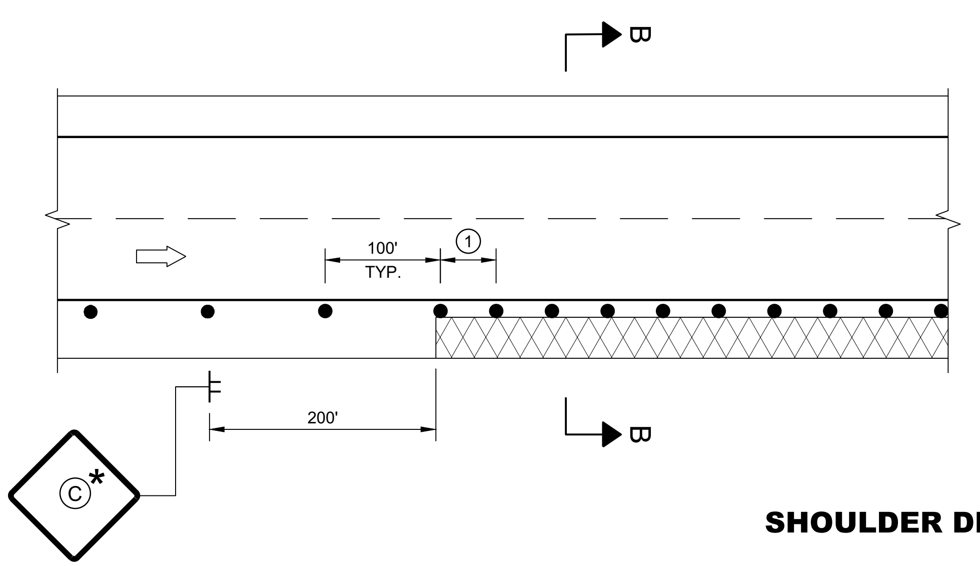
TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

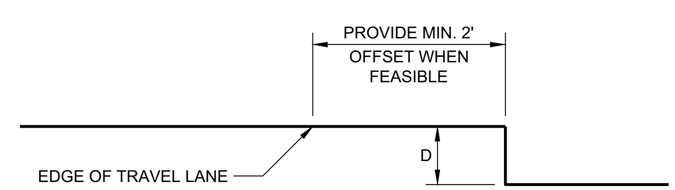
WORK AREA WITH DROP-OFF

MILLED SURFACE

6



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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
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.

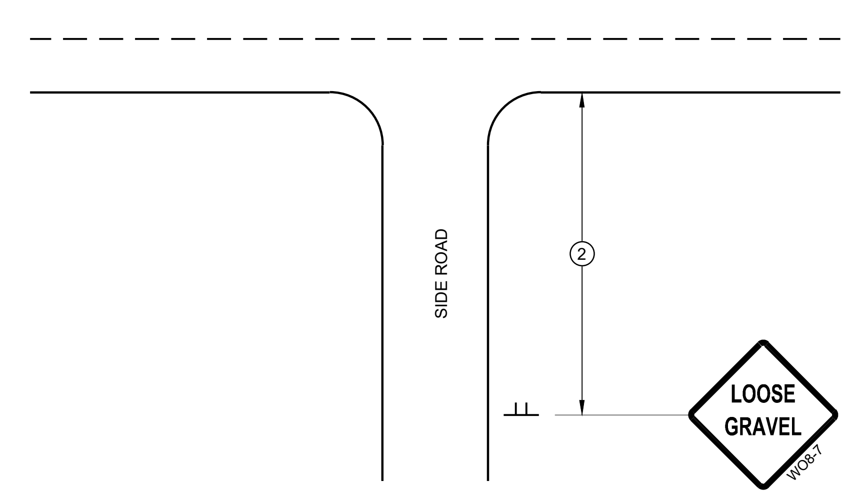
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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 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.

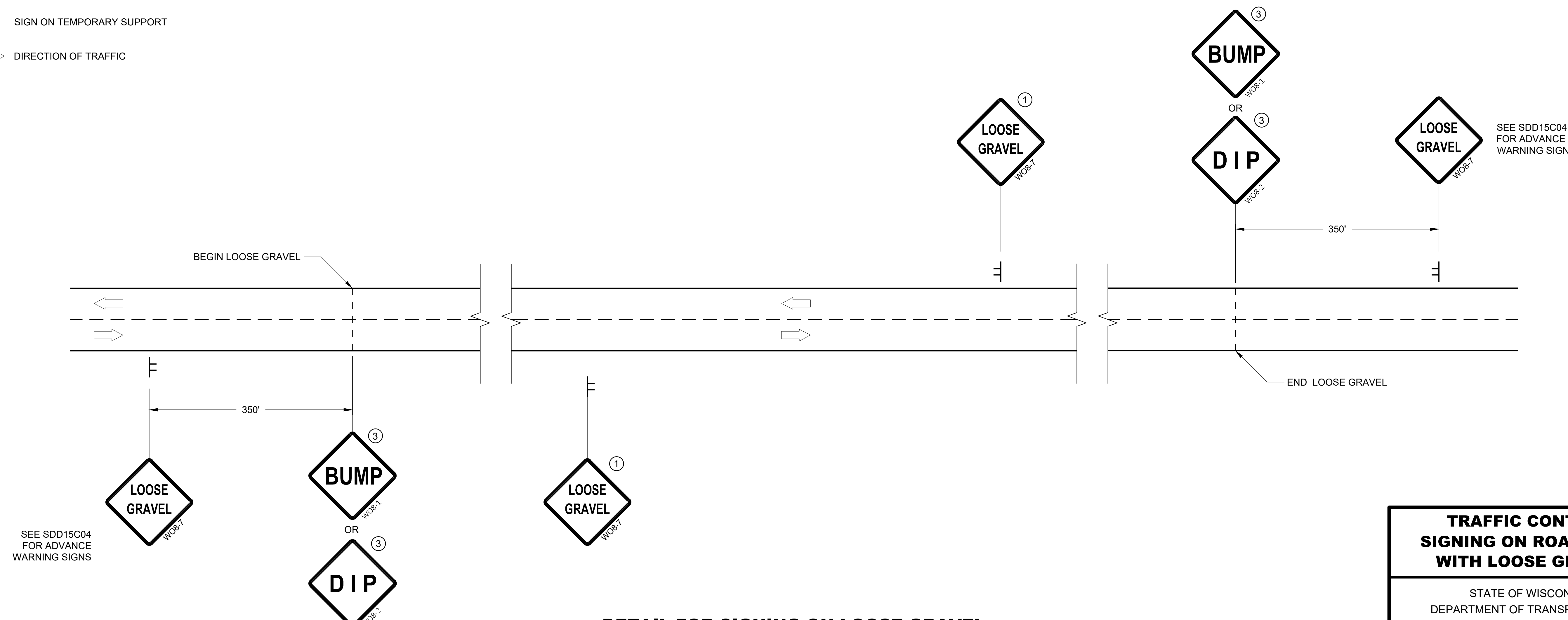


TYPICAL SIDE ROAD APPROACH SIGN DETAIL

LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



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 ENGINEER
FHWA

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SDD 15D45 - 03

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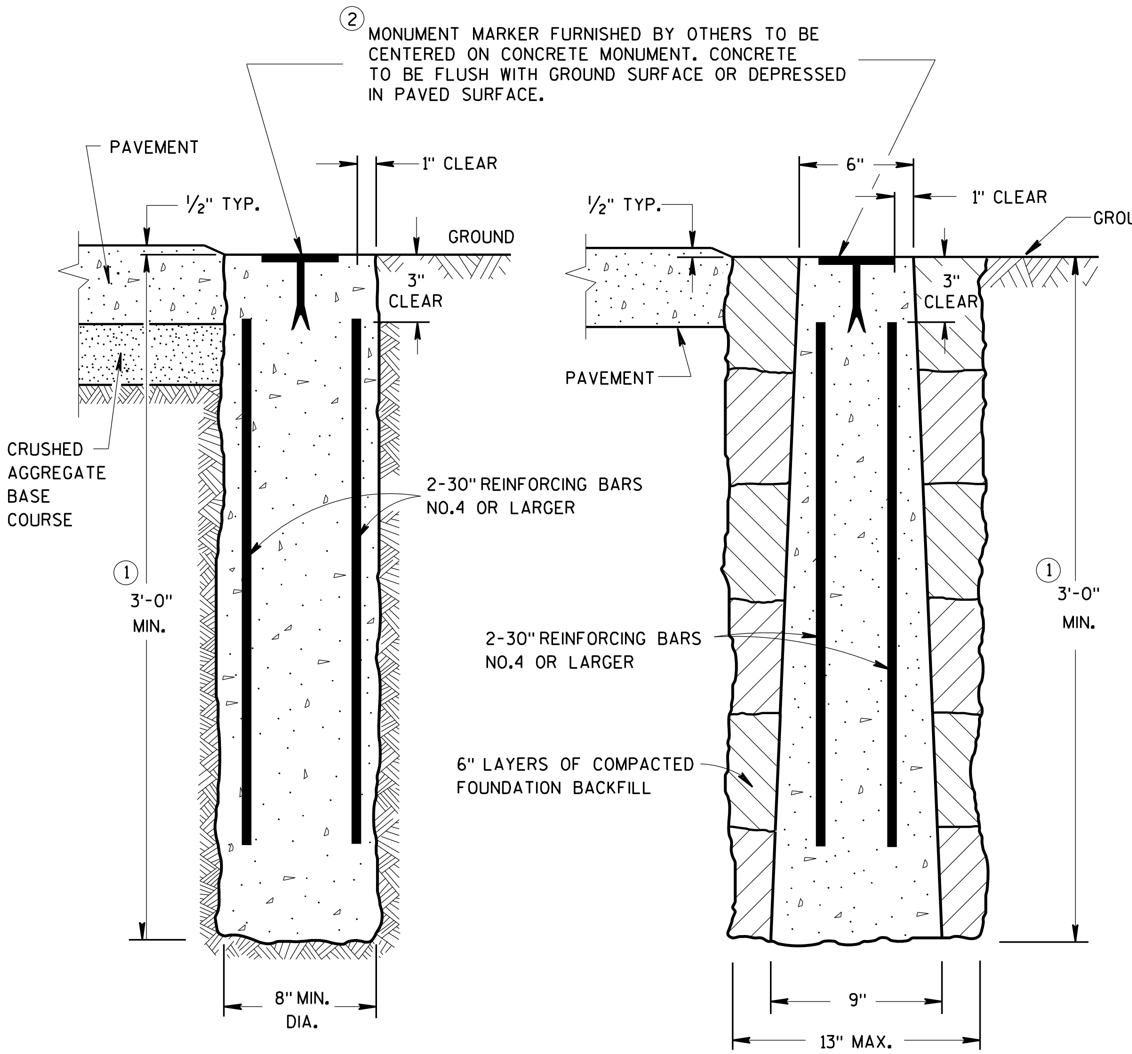
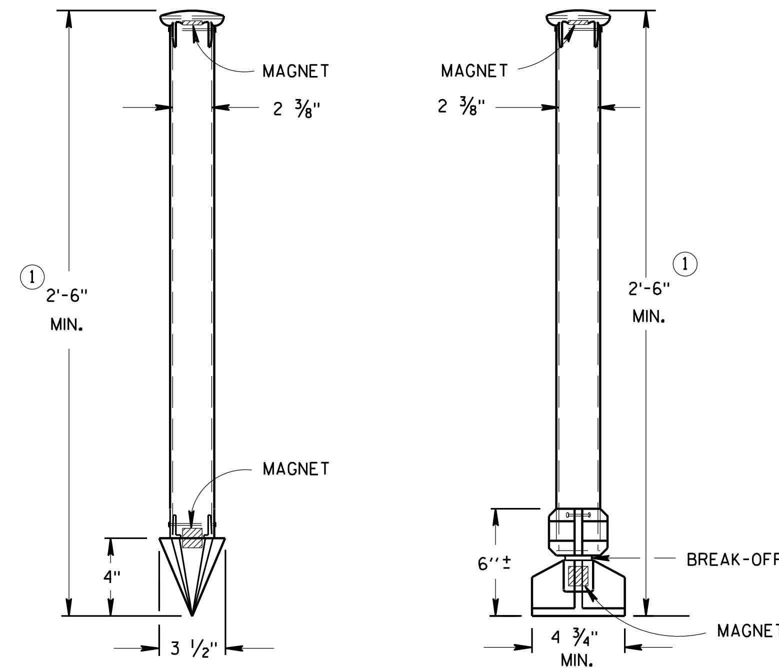


CAST-IN-PLACE

PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C

DRIVE-IN MONUMENT

TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

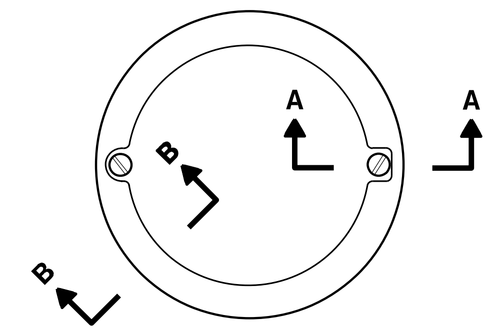
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

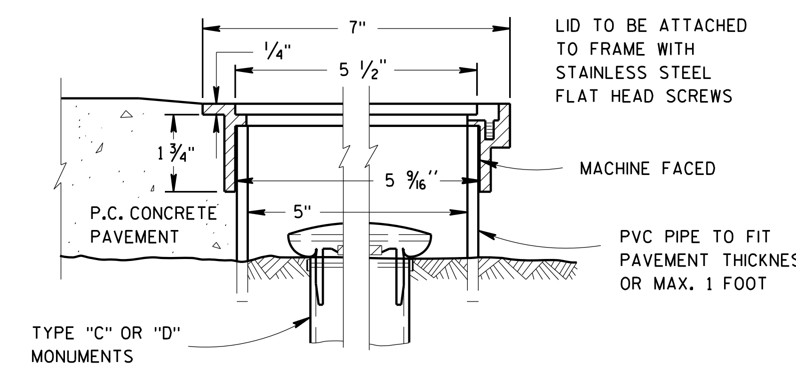
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



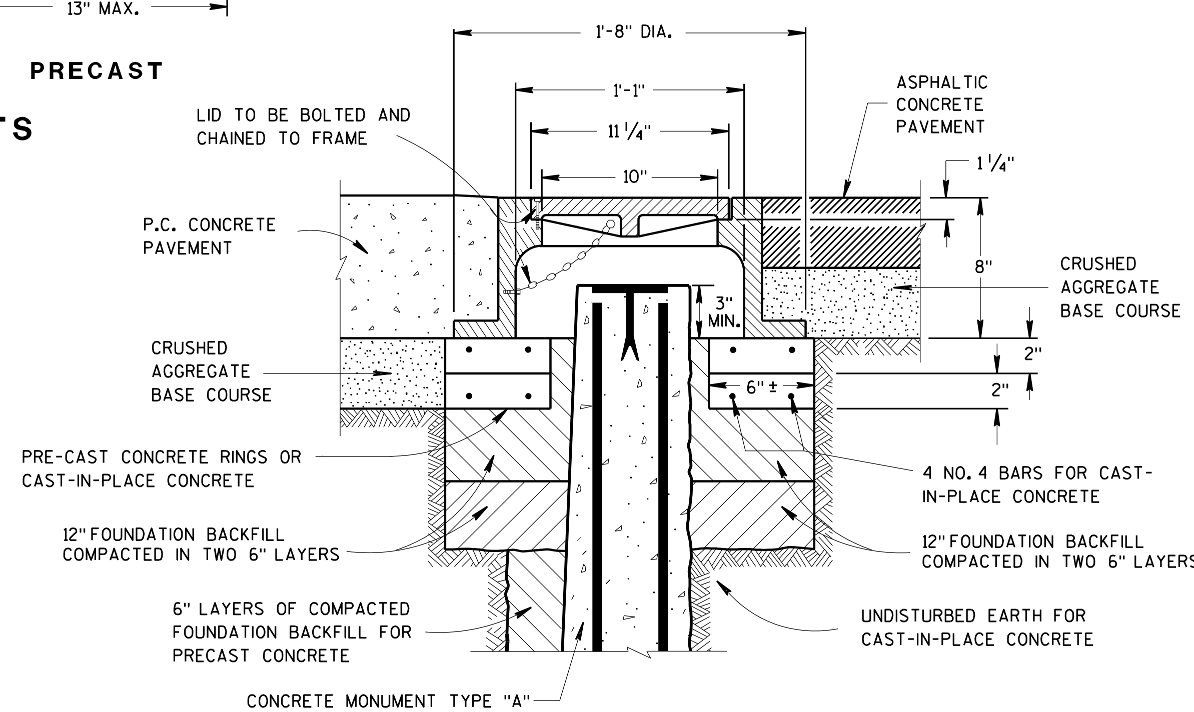
TOP VIEW



SECTION B-B   SECTION A-A

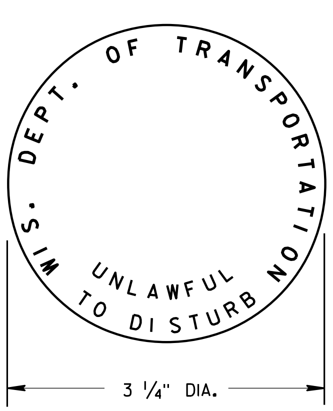
ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT 95 LBS)



② WIS DOT MONUMENT MARKER LOGO

FOR TYPES "A", "C", & "D"

LANDMARK REFERENCE MONUMENTS AND COVERS

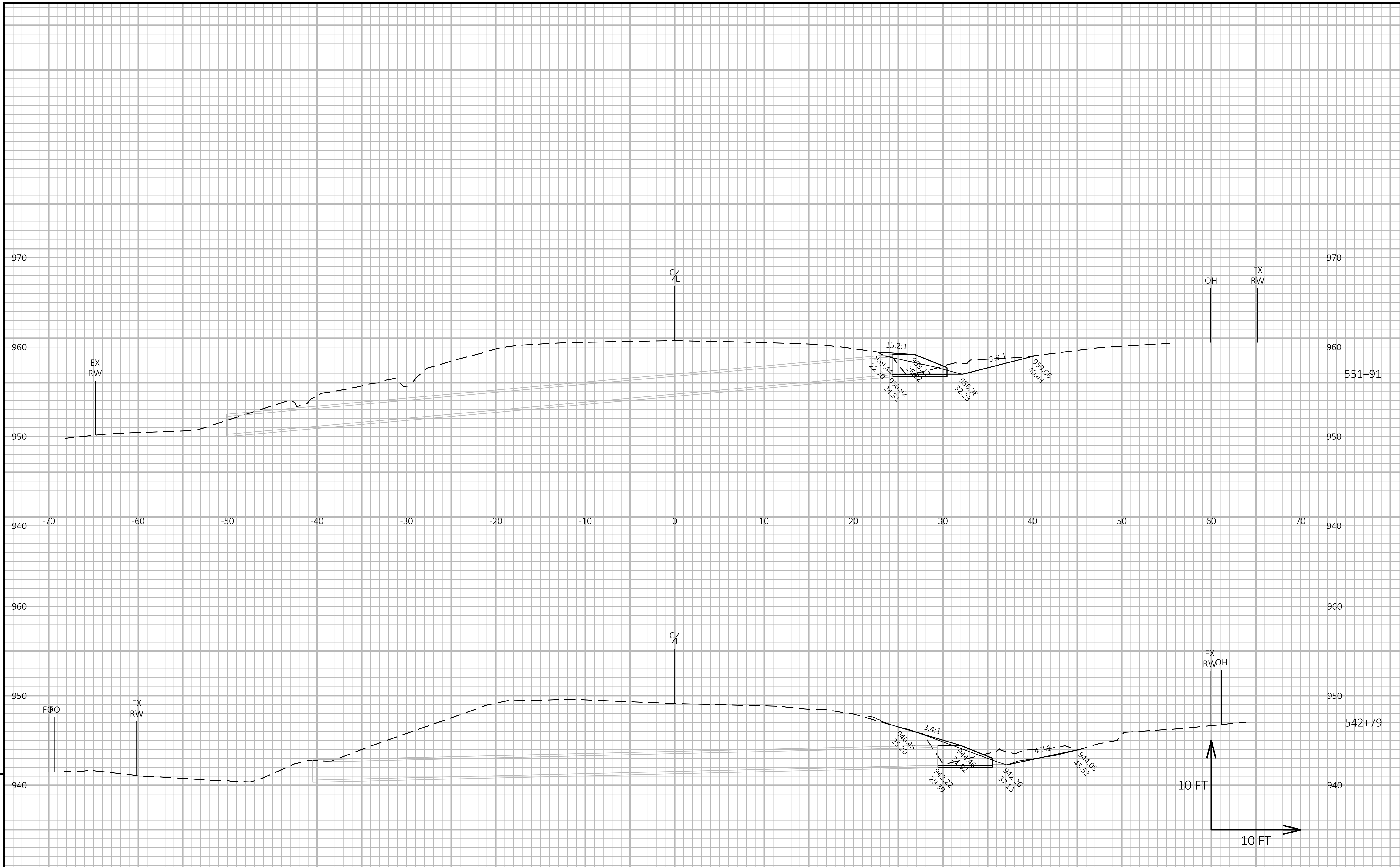
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	
March 2018	/S/ Raymond A. Kumapayi
DATE	CHIEF SURVEYING AND MAPPING ENGINEER
FHWA	

6

S.D.D. 16 A 1-7

S.D.D. 16 A 1-7



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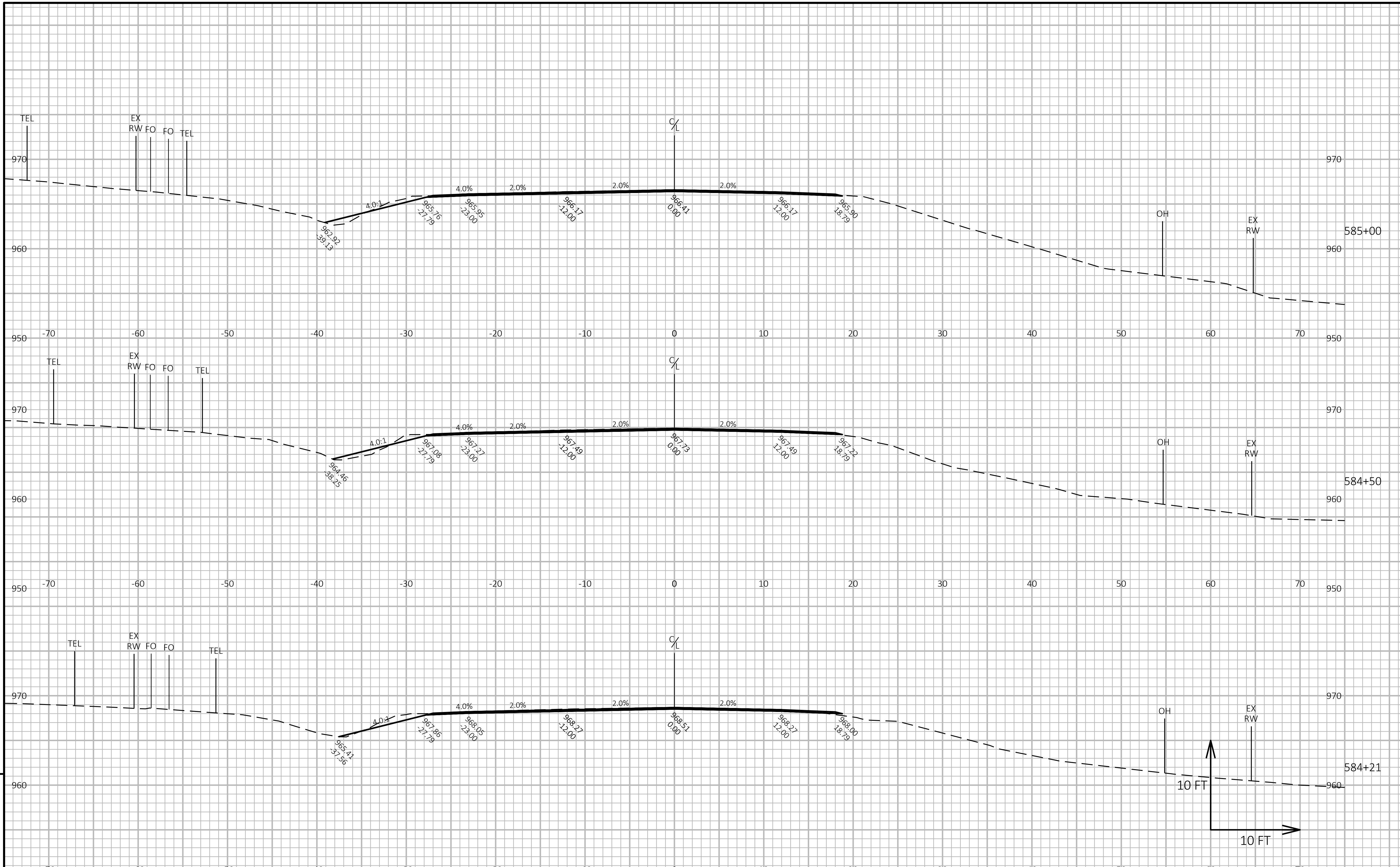
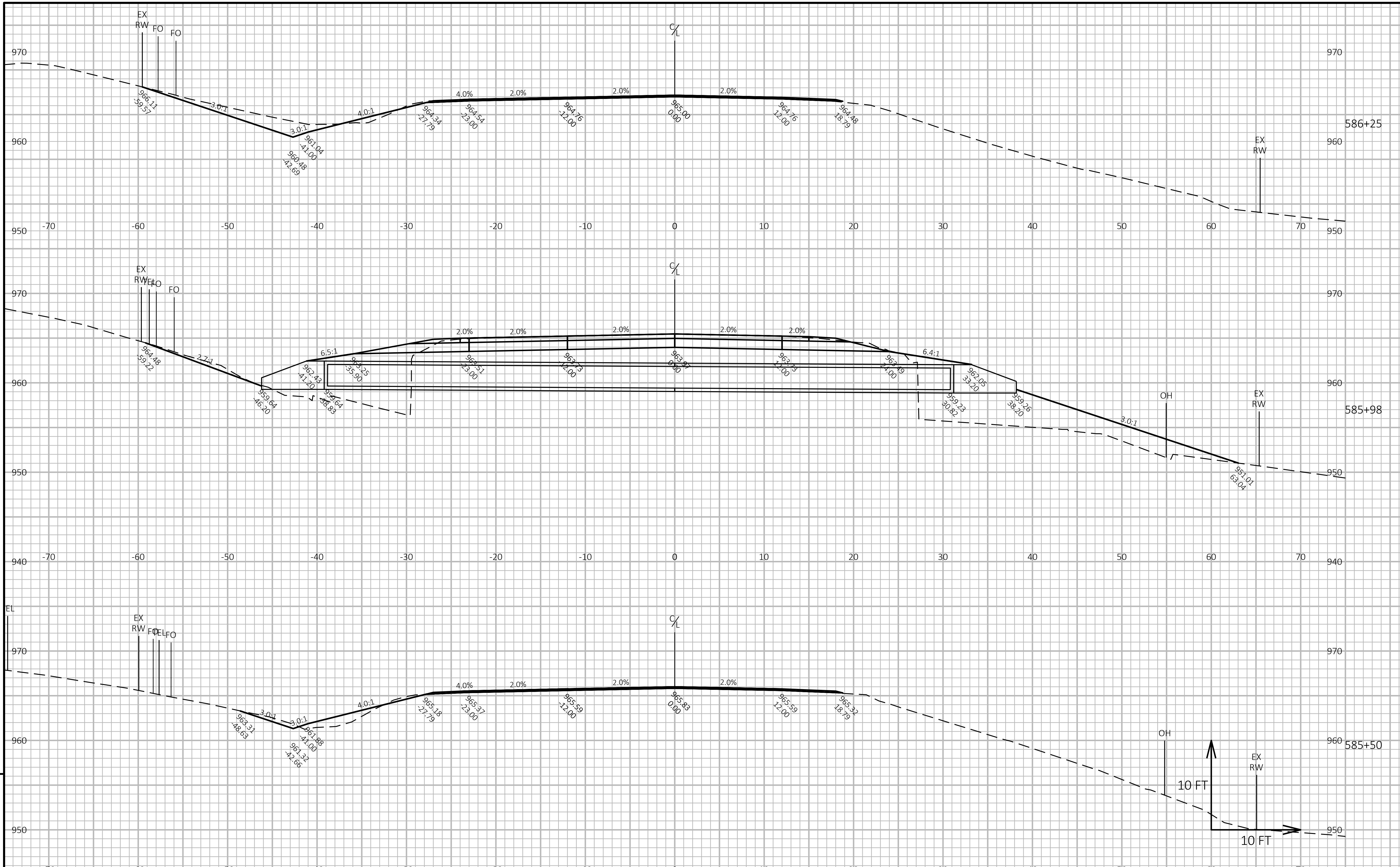
PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: CROSS SECTION	SHEET 88	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01-xs (2)
PLOT DATE : 10/22/2021 7:48 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: CROSS SECTION	SHEET 89	E

FILE NAME : H:\PROJECTS\13000\13654\CAD_BIM\17060234\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 01-xs
PLOT DATE : 10/22/2021 7:48 AM PLOT BY : BRIAN GENSKOW PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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PROJECT NO: 1706-02-64	HWY: STH 11	COUNTY: LAFAYETTE	CROSS SECTIONS: CROSS SECTION	SHEET 90	E

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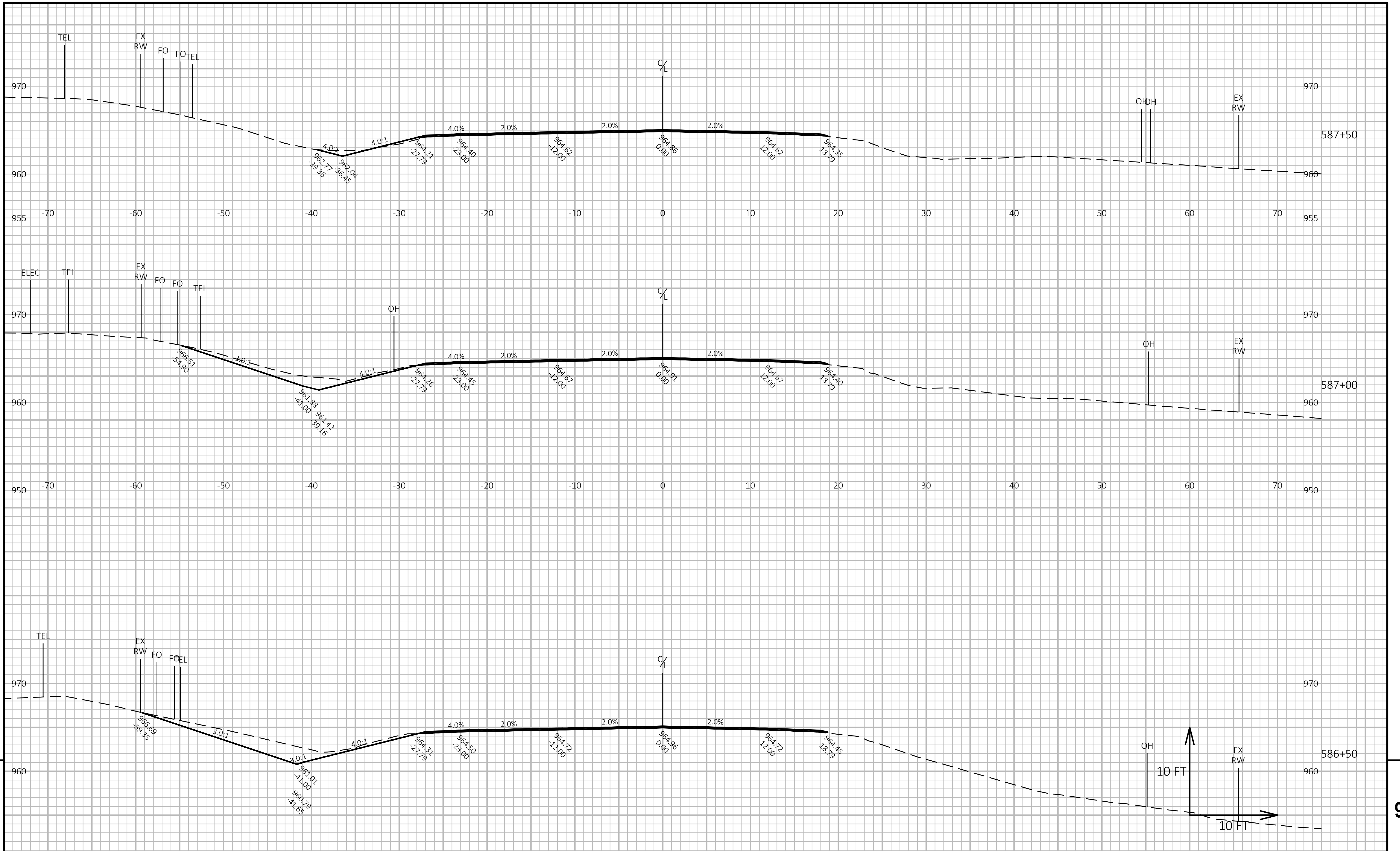
WISDOT/CADDS SHEET 49



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LAYOUT NAME - 03-xs
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PLOT NAME :
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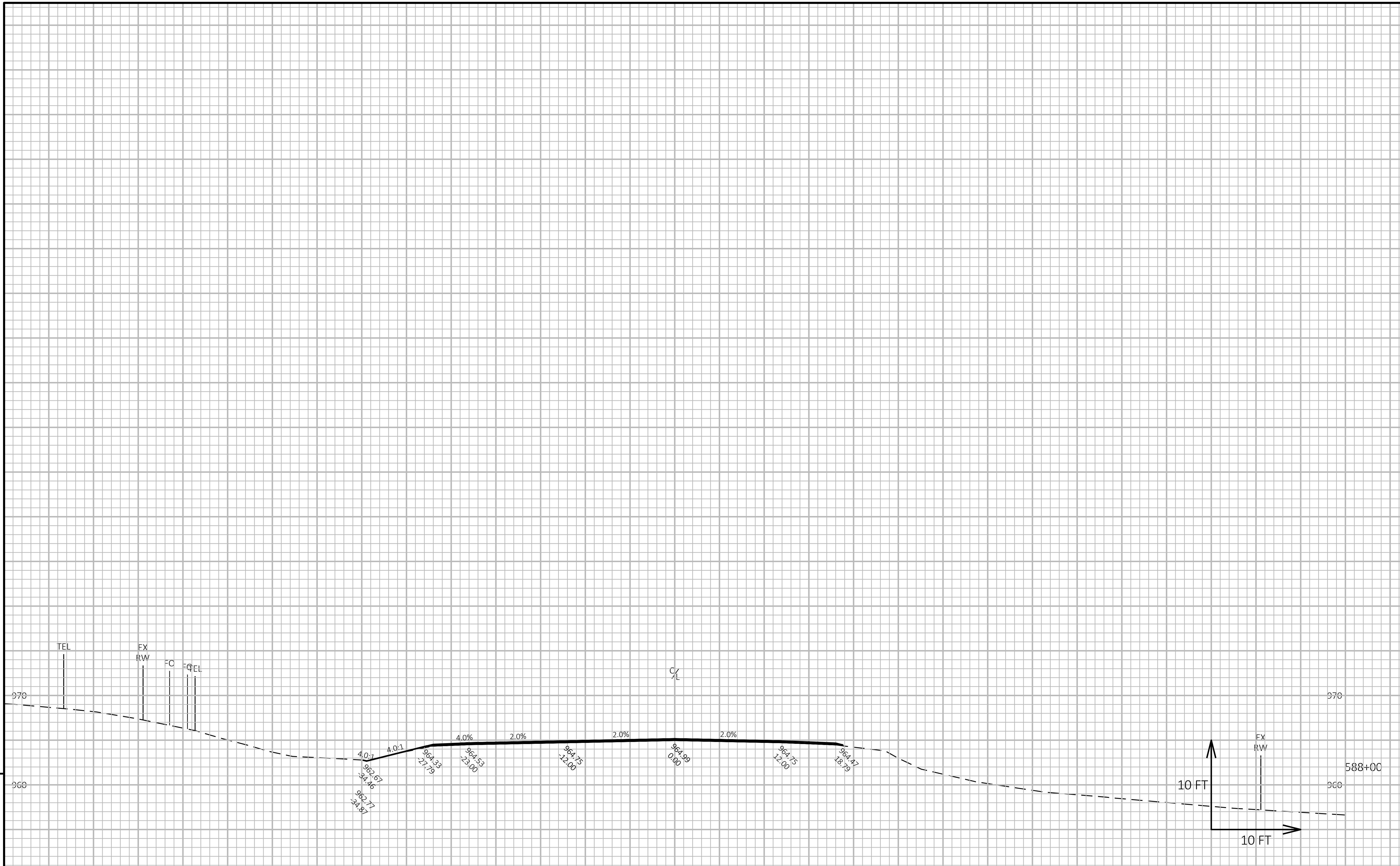
WISDOT/CADDS SHEET 49



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LAYOUT NAME - 04-xs

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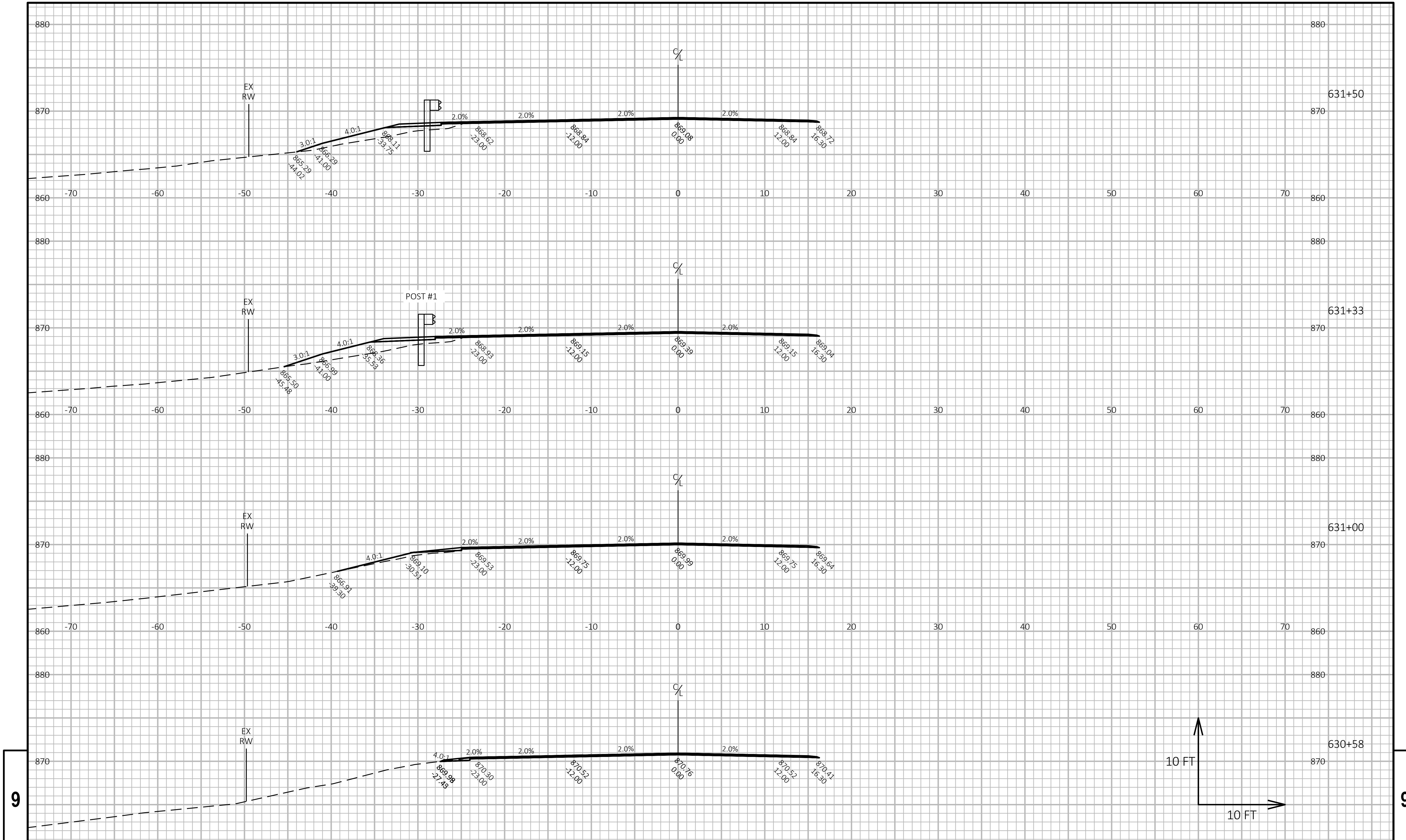
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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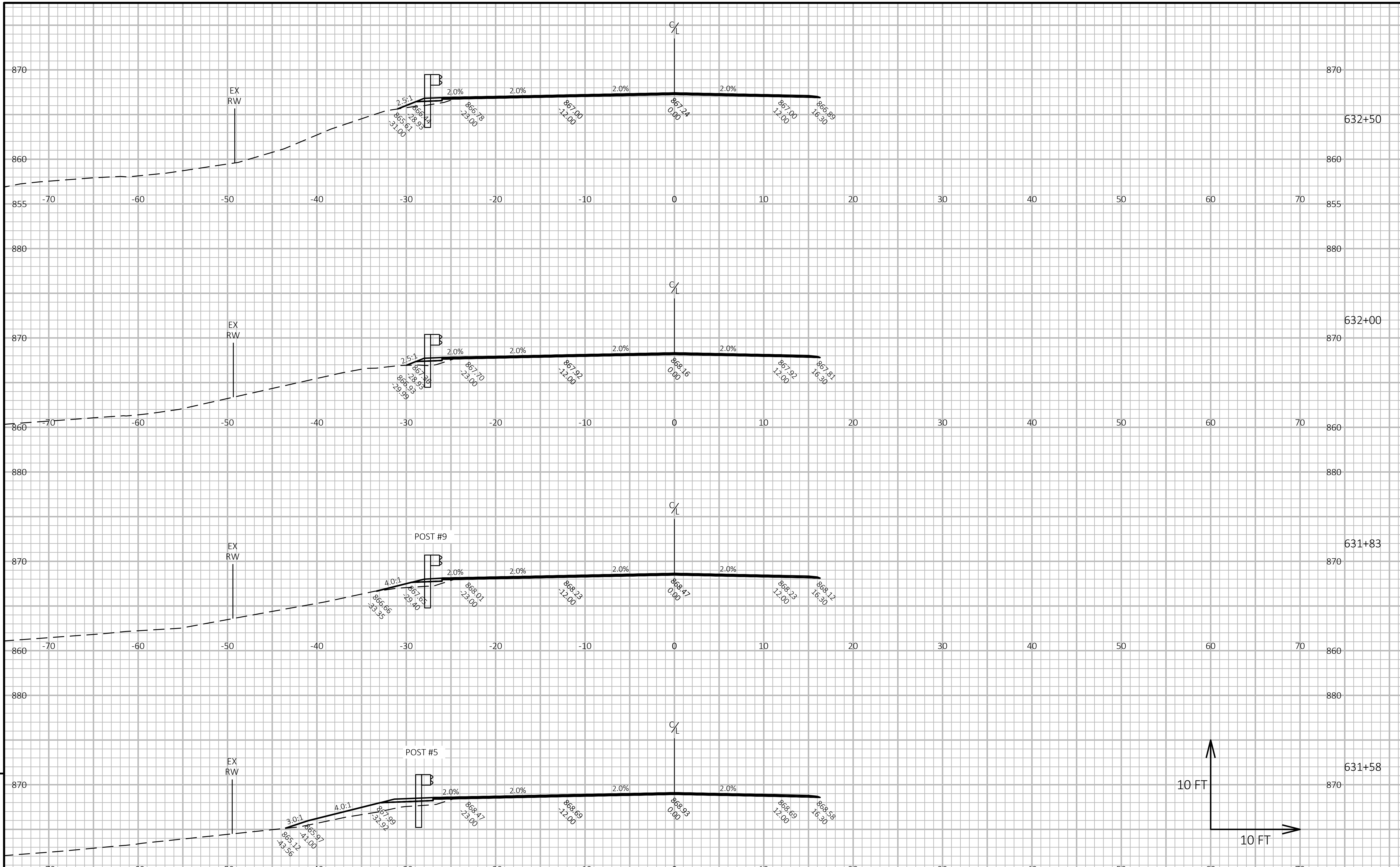

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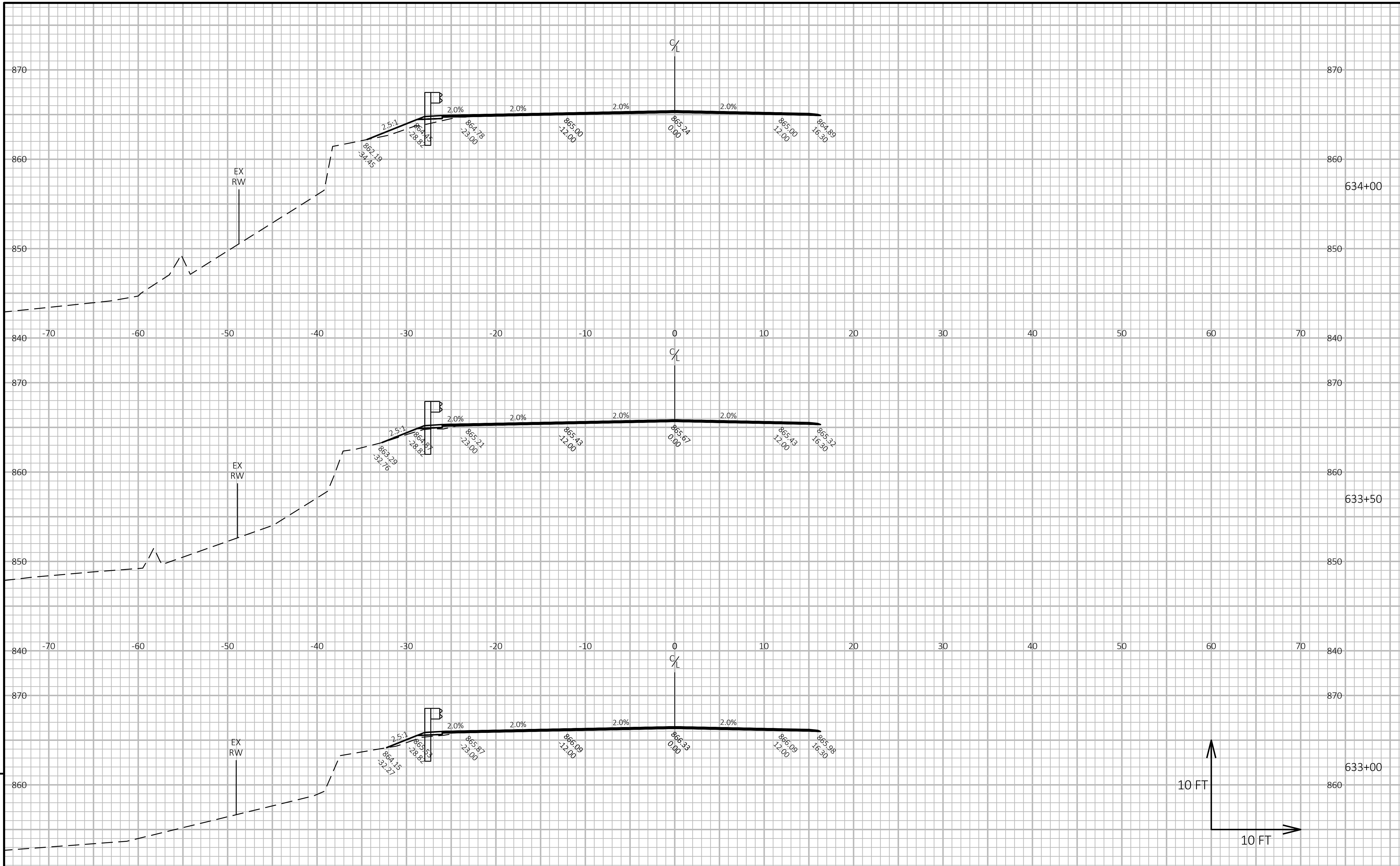

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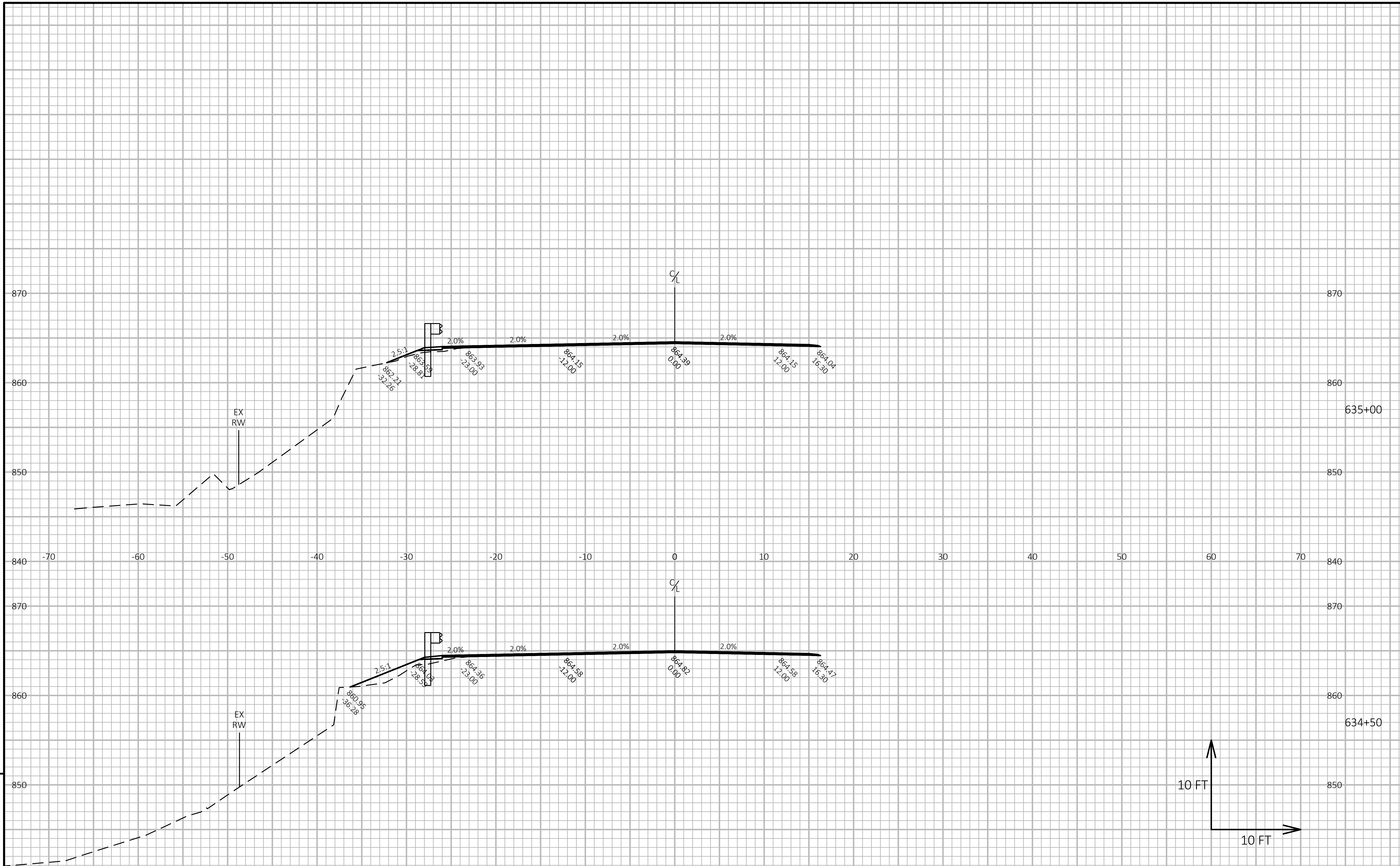

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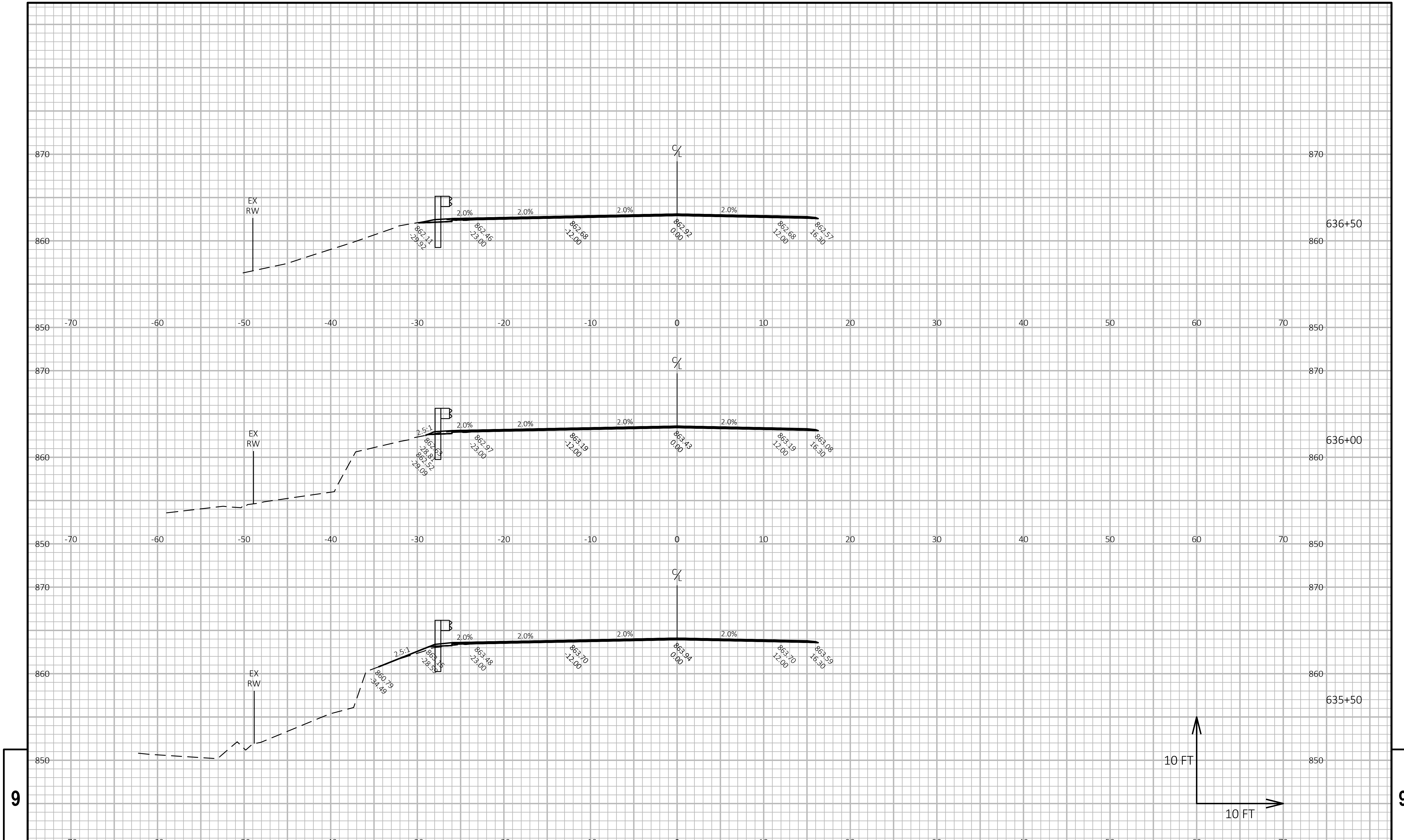
WISDOT/CADDS SHEET 49



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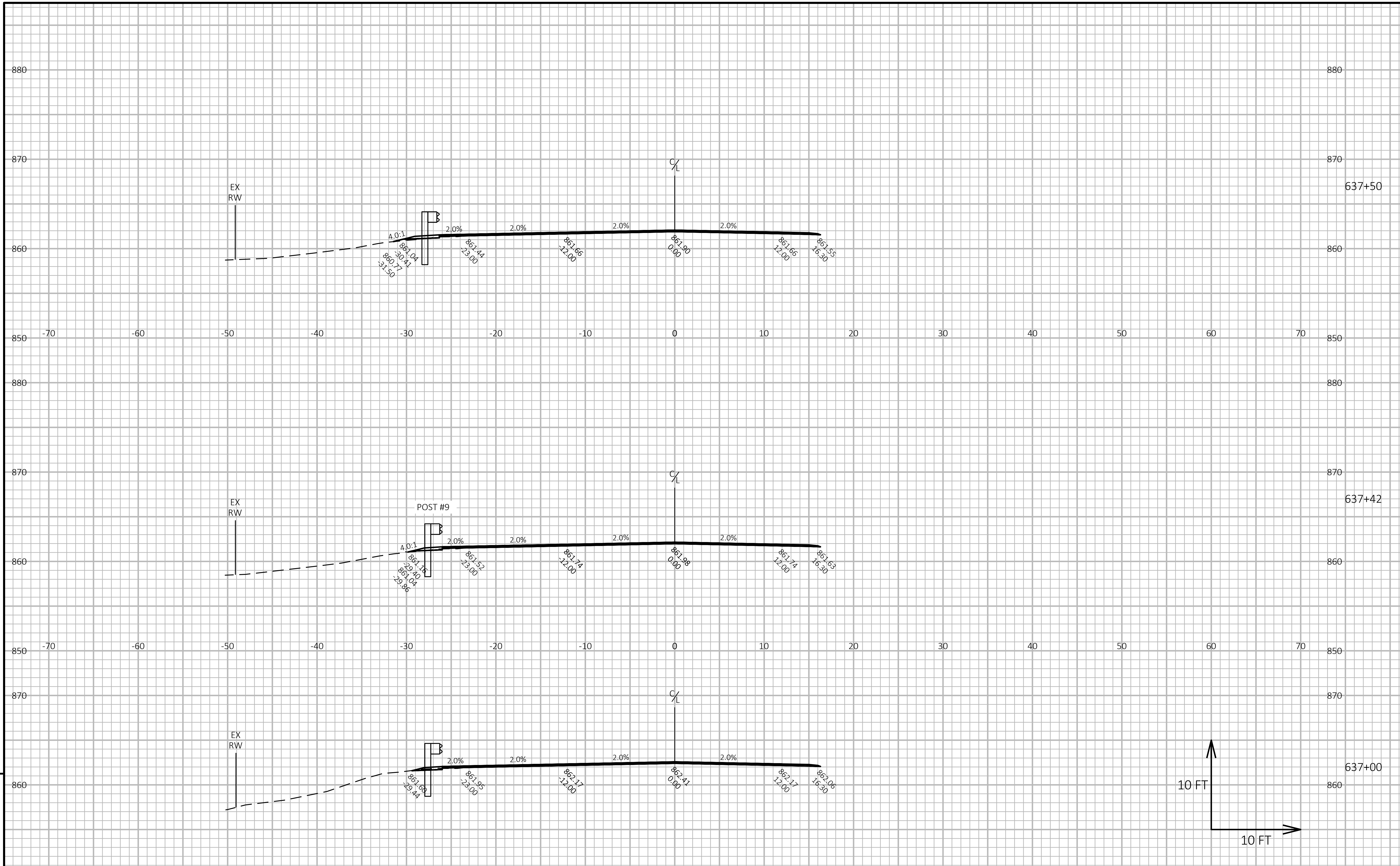

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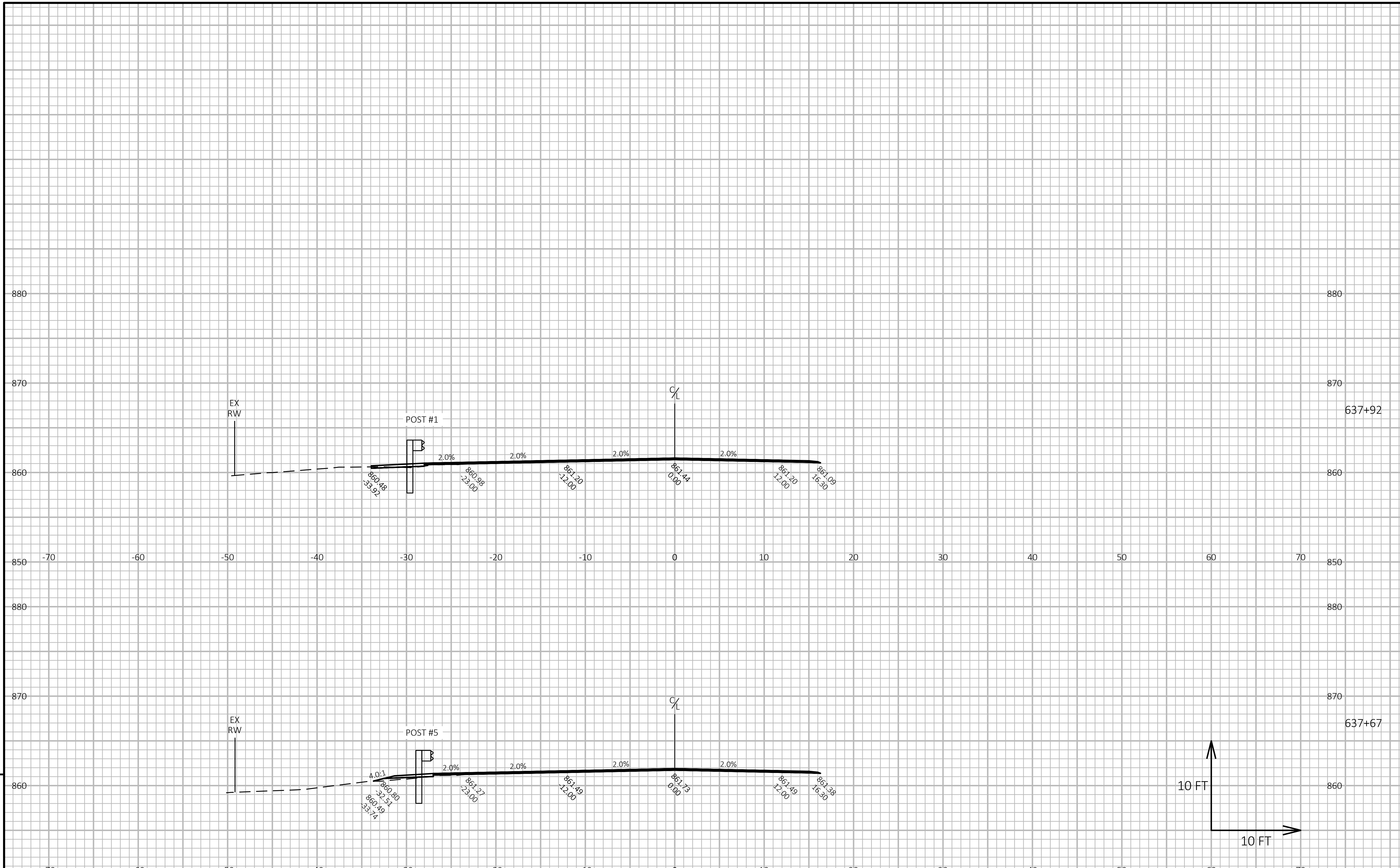
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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LAYOUT NAME - 11-xs
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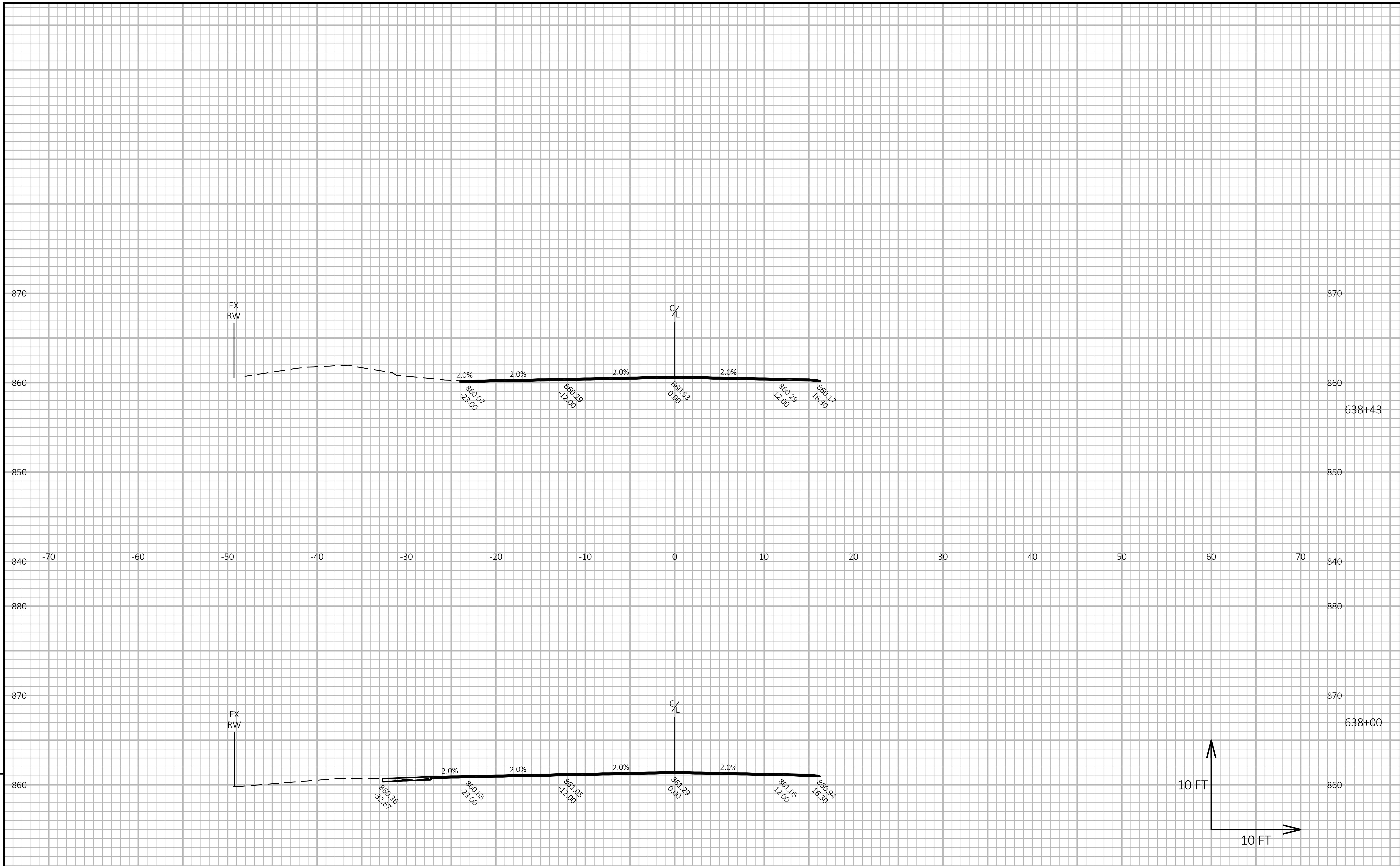
WISDOT/CADDS SHEET 49



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WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

http://www.dot.wisconsin.gov