

LAX
PROJECT ID:
WITH: N/A

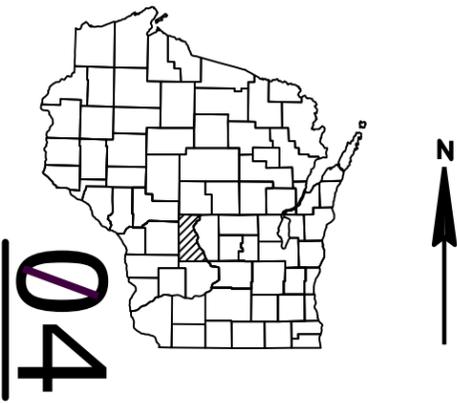
5020-01-60

COUNTY:
JUNEAU

APRIL 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.	9	Computer Earthwork Data
Section No.	9	Gross Sections

TOTAL SHEETS = 74



DESIGN DESIGNATION

A.A.D.T.	2026	=	2100
A.A.D.T.	2046	=	2300
D.H.V.		=	280
D.D.		=	60/40
T.		=	23.7%
DESIGN SPEED		=	55 MPH
ESALS		=	1,100,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LA VALLE - MAUSTON

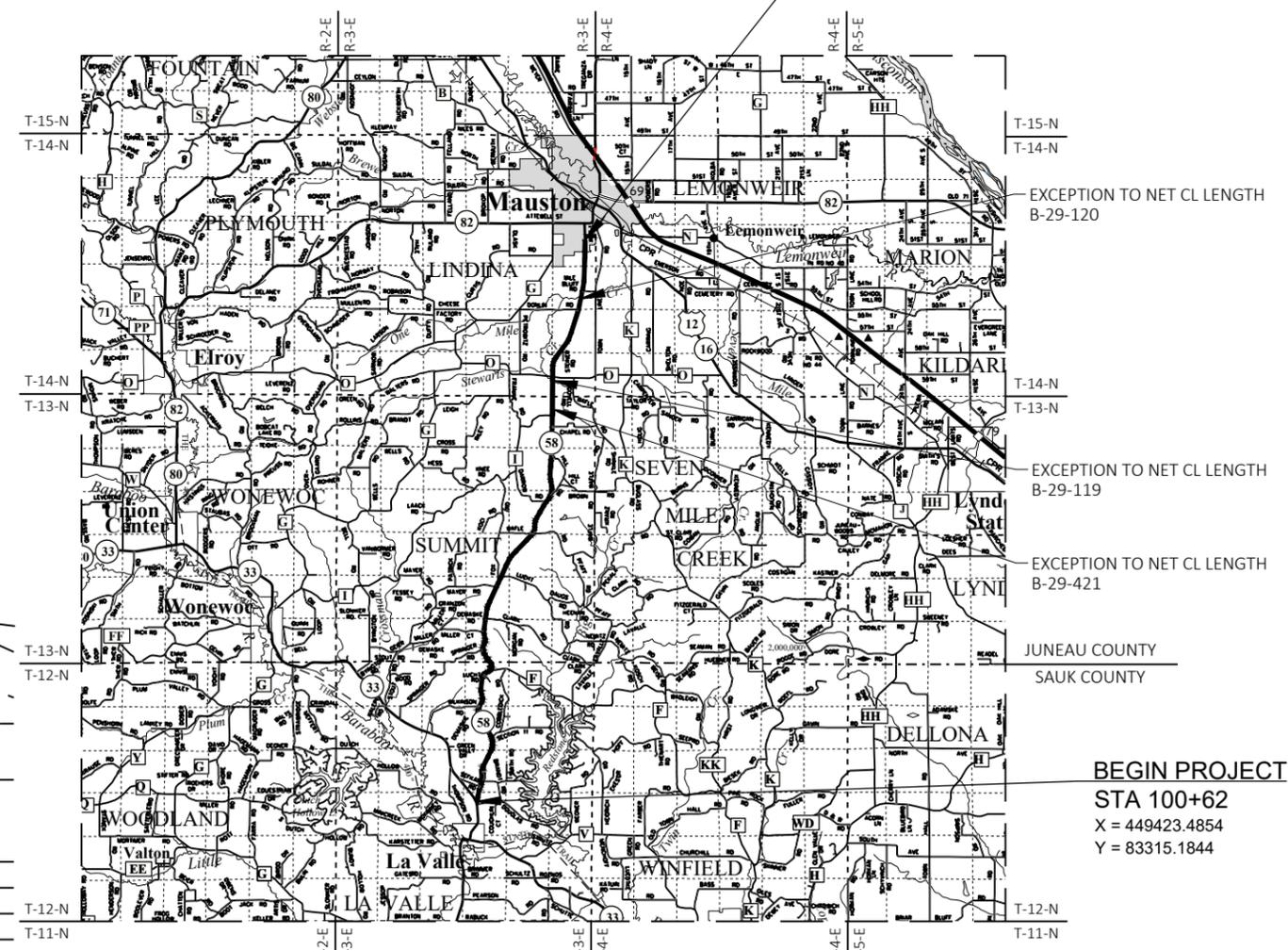
STH 33 TO 0.05 MI N SARA LANE

STH 58

JUNEAU COUNTY

STATE PROJECT NUMBER
5020-01-60

END PROJECT
STA 853+87



SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 14.266 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), JUNEAU 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 (2011). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5020-01-60	WISC 2022283	1

ORIGINAL PLANS PREPARED BY



10/14/2021
DATE
DEXTER D. KAETTERHENRY, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	GREMMER AND ASSOCIATES, INC.
Surveyor	GREMMER AND ASSOCIATES, INC.
Designer	NATHAN SCHUMAKER, P.E.
Project Manager	SW REGION
Regional Examiner	DAN KLEINERTZ, P.E.
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
DATE: 10/28/21 *Nathaniel Schumaker*
(Signature)

E

GENERAL NOTES

UTILITY FACILITIES SHOWN WITHIN THE PLANS ARE APPROXIMATE AND THERE MAY BE OTHER UTILITIES NOT SHOWN. PRIVATE UTILITIES AND OTHER UTILITIES NOT LOCATED BY A DIGGERS HOTLINE LOCATE ARE NOT SHOWN. FIELD VERIFY AND LOCATE ALL UTILITIES FOR ACTUAL LOCATIONS, OTHER FACILITIES SIZES, TYPES, MATERIAL AND DEPTHS.

CURVE DATA IS BASED ON ARC DEFINITION.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO MILLED PAVEMENT SURFACES.

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

ORDER OF SECTION 2 SHEETS

GENERAL NOTES

PROJECT OVERVIEW

TYPICAL SECTIONS

CONSTRUCTION DETAILS

EROSION CONTROL

PAVEMENT MARKING

TRAFFIC CONTROL

BENCH MARKS

Table with 4 columns: NO., STATION, DESCRIPTION, ELEV. Rows include BM A 659+71 BRASS CAP 906.615 and BM B 767+31 BRASS CAP 881.59

WDNR CONTACT

DEPARTMENT OF NATURAL RESOURCES
ATTN: KAREN KALVELAGE
3550 MORMON COULEE ROAD
LA CROSEE, WI 54601
OFFICE: (608) 785-9115
EMAIL: karen.kalvelage@wisconsin.gov

DESIGN CONTACTS

DEPARTMENT OF TRANSPORTATION
ATTN: NATHANIEL SCHUMAKER
3550 MORMON COULEE ROAD
LA CROSEE, WI 54601
OFFICE: (608) 789-5538
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GREMMER AND ASSOCIATES, INC
ATTN: DEXTER KAETTERHENRY
120 WILSHIRE BOULEVARD
STEVENS POINT, WI 54481
OFFICE: (715) 341-4363
EMAIL: d.kaetterhenry@gremmerassociates.com

ABBREVIATIONS

- AEW APRON ENDWALL
AGG AGGREGATE
AH AHEAD
ASP ASPHALT
BK BACK
BAD BASE AGGREGATE DENSE
BM BENCH MARK
CC CENTER OF CURVATURE
CE COMMERCIAL ENTRANCE
C&G CURB AND GUTTER
C/L CENTER OR CONSTRUCTION LINE
CONC CONCRETE
CP CULVERT PIPE
CPCM CULVERT PIPE CORRUGATED METAL
CPCS CULVERT PIPE CORRUGATED STEEL
CPRC CULVERT PIPE REINFORCED CONCRETE
CS CURVE SPIRAL, THE POINT OF CHANGE IN ALIGNMENT FROM CURVE TO SPIRAL
CSD CONCRETE SURFACE DRAIN
CY CUBIC YARD
D DEGREE OF CURVE
DELTA DELTA
DISCH DISCHARGE
E EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE
INTERSECTION
EB EASTBOUND
ELEV ELEVATION
FE FIELD ENTRANCE
HMA HOT MIX ASPHALT
HP HIGH POINT
HT HEIGHT
INV INVERT
L LENGTH OF CURVE
LHF LEFT HAND FORWARD
LP LOW POINT
LS LENGTH OF SPIRAL
LT LEFT
MAX MAXIMUM
MIN MINIMUM
M/L MATCHLINE

ABBREVIATIONS (CONTINUED)

- NB NORTHBOUND
NC NORMAL CROWN
NOM NOMINAL
NORM NORMAL
PAVT PAVEMENT
PC POINT OF CURVE
PCC POINT OF COMPOUND CURVE
PE PRIVATE ENTRANCE
PI POINT OF INTERSECTION
PLE PERMANENT LIMITED EASEMENT
PT POINT OF TANGENT
R RADIUS OF CURVE
R/L REFERENCE LINE
R/W RIGHT OF WAY
RC REVERSE CROWN
RCAEW APRON ENDWALL FOR CULVERT PIPE
REINFORCED CONCRETE
RCP REINFORCED CONCRETE PIPE
REQ'D REQUIRED
RHF RIGHT HAND FORWARD
RO RUN OFF LENGTH
RT RIGHT
SALV SALVAGED
SB SOUTHBOUND
SC SPIRAL CURVE, THE POINT OF CHANGE IN ALIGNMENT FROM SPIRAL TO CURVE
STANDARD DETAIL DRAWING
SDD SUPER ELEVATION
SEG SEGMENT
SF SQUARE FOOT
SS STORM SEWER
ST SPIRAL TANGENT, THE POINT OF CHANGE IN ALIGNMENT FROM SPIRAL TO TANGENT
STA STATION
SY SQUARE YARD
T TANGENT
TLE TEMPORARY LIMITED EASEMENT
TS TANGENT SPIRAL, THE POINT OF CHANGE IN ALIGNMENT FROM SPIRAL TO TANGENT
TYP TYPICAL
V VELOCITY OR DESIGN SPEED
VAR VARIES
VC VERTICAL CURVE
VCL VERTICAL CURVE LENGTH
VPC VERTICAL POINT OF CURVE
VPI VERTICAL POINT OF INTERSECTION
VPRC VERTICAL POINT OF REVERSE CURVE
VPT VERTICAL POINT OF TANGENCY
WB WESTBOUND

UTILITIES

- ALLIANT ENERGY - ELECTRICITY
ATTN: MARY MONTGOMERY
200 FIRST STREET
CEDAR RAPIDS, IA 52401
PHONE: (319) 786-4768
EMAIL: marymontgomery@alliantenergy.com
ALLIANT ENERGY - GAS/PETROLEUM
ATTN: MARY MONTGOMERY
200 FIRST STREET
CEDAR RAPIDS, IA 52401
PHONE: (319) 786-4768
EMAIL: marymontgomery@alliantenergy.com
ASTREA - COMMUNICATION LINE
ATTN: ANDREW HEIGL
105 KENT STREET
PO BOX 190
IRON MOUNTAIN, MI 49801
PHONE: (906) 221-7536
EMAIL: astreaconstruction@astreaconnect.com
CHARTER COMMUNICATIONS - COMMUNICATION LINE
ATTN: LUKAS LACROSSE
2701 DANIELS STREET
MADISON, WI 53718
PHONE: (608) 709-1562
EMAIL: lukas.lacrosse@charter.com
CITY OF MAUSTON - WATER
ATTN: ROB NELSON
1260 NORTH ROAD
MAUSTON, WI 53948
PHONE: (608) 847-4070
EMAIL: rnelson@mauston.com
DAIRYLAND POWER COOPERATIVE - ELECTRICITY
ATTN: ROB MALY
3200 EAST AVENUE SOUTH
PO BOX 817
LA CROSSE, WI 54602-0817
PHONE: (608) 788-4000
EMAIL: rob.maly@dairylandpower.com
FRONTIER COMMUNICATIONS OF WI LLC - COMMUNICATION LINE
ATTN: RUSS RYAN
118 DIVISION STREET
PLYMOUTH, WI 53073
PHONE: (920) 583-3275
EMAIL: russell.w.ryan@ftr.com
LA VALLE TELEPHONE COOPERATIVE, INC. - COMMUNICATION LINE
ATTN: JOHN BARTZ
108 WEST MAIN STREET
PO BOX 28
LA VALLE, WI 53941
PHONE: (608) 985-7201
EMAIL: jbartz@mwt.net
LA VALLE WATER WORKS - WATER
ATTN: JERRY CRAKER
101 WEST MAIN STREET
LA VALLE, WI 53941-0013
PHONE: (608) 985-6300
EMAIL: cacres@wmt.net
LEMONWEIR VALLEY TELEPHONE COMPANY - COMMUNICATION LINE
ATTN: BEN GRILLEY
127 US HIGHWAY 12
PO BOX 267
CAMP DOUGLAS, WI 54618
PHONE: (608) 427-6515
EMAIL: ben.grilley@getlynxx.com

RUNOFF COEFFICIENT TABLE

Table with columns for Hydrologic Soil Group (A, B, C, D) and Slope Range (Percent) (0-2, 2-6, 6 & Over). Rows include Land Use (ROW CROPS, MEDIAN STRIP-TURF, SIDE SLOPE-TURF) and Pavement (ASPHALT, CONCRETE, BRICK, DRIVES, WALKS, ROOFS, GRAVEL ROADS, SHOULDERS).

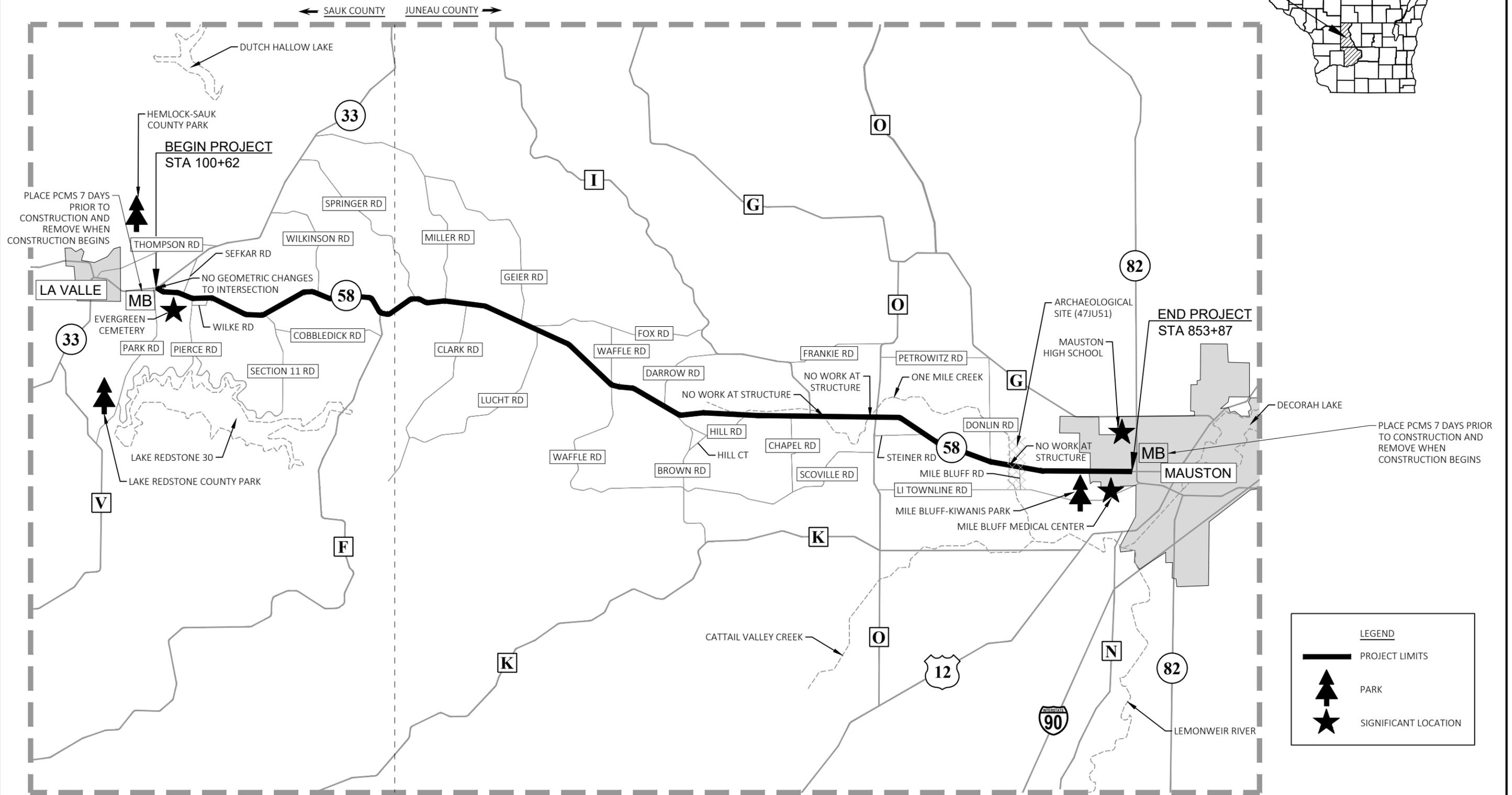
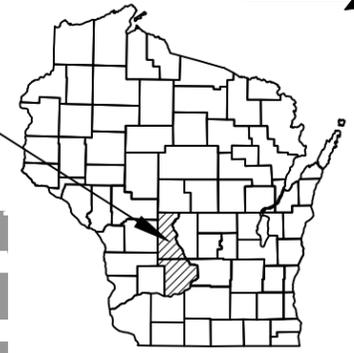
UTILITIES

- MEDICOM WISCONSIN LLC - COMMUNICATION LINE
ATTN: CRAIG EGGERT
1240 HIGHWAY 52
CHATFIELD, MN 55923
PHONE: (563) 419-5160
EMAIL: ceggert@medicomcc.com
NORTHERN NATURAL GAS COMPANY - GAS/PETROLEUM
ATTN: SERGIO GONZALEZ
8101 BIRCHWOOD COURT SUITE F
JOHNSTON, IA 50131
PHONE: (402) 530-2026
EMAIL: sergio.gonzalez@nngco.com
OAKDALE ELECTRIC COOPERATIVE - ELECTRICITY
ATTN: ROY BOYLES
PO BOX 128
OAKDALE, WI 54649-0128
PHONE: (608) 372-8851
EMAIL: rboyles@oakdalerec.com



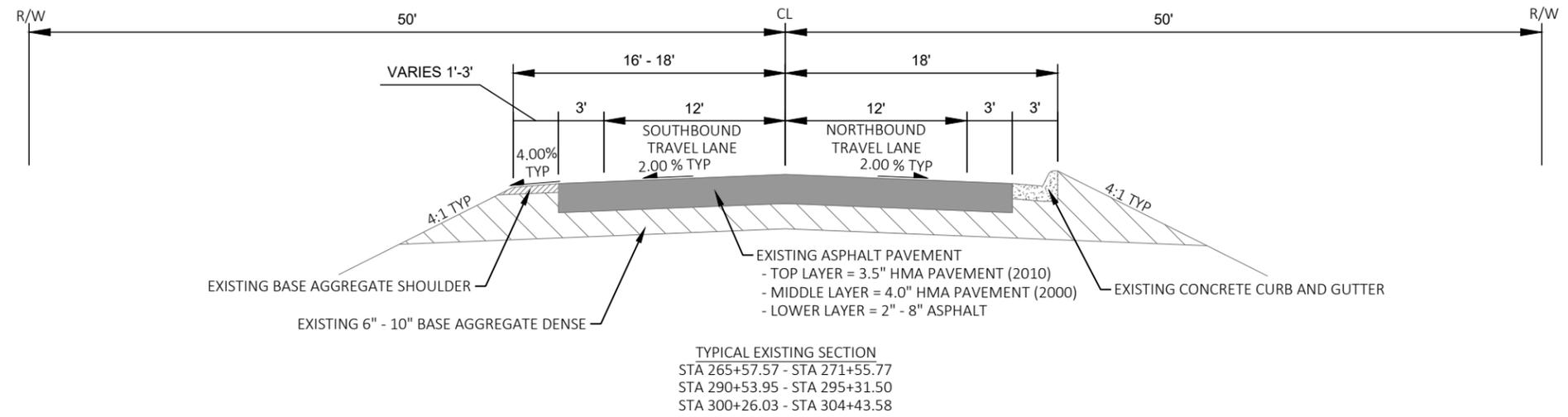
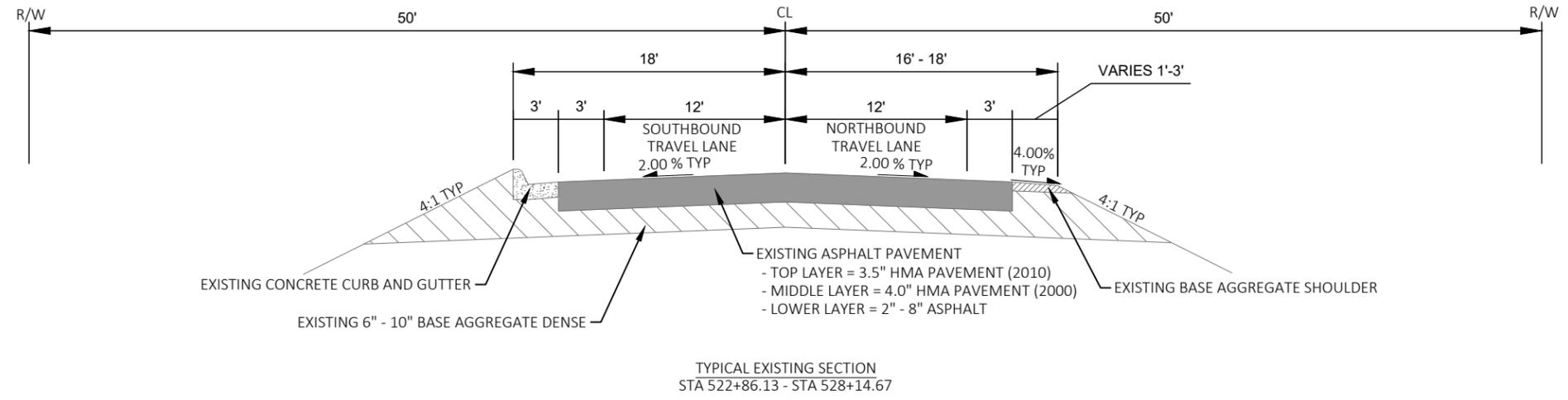
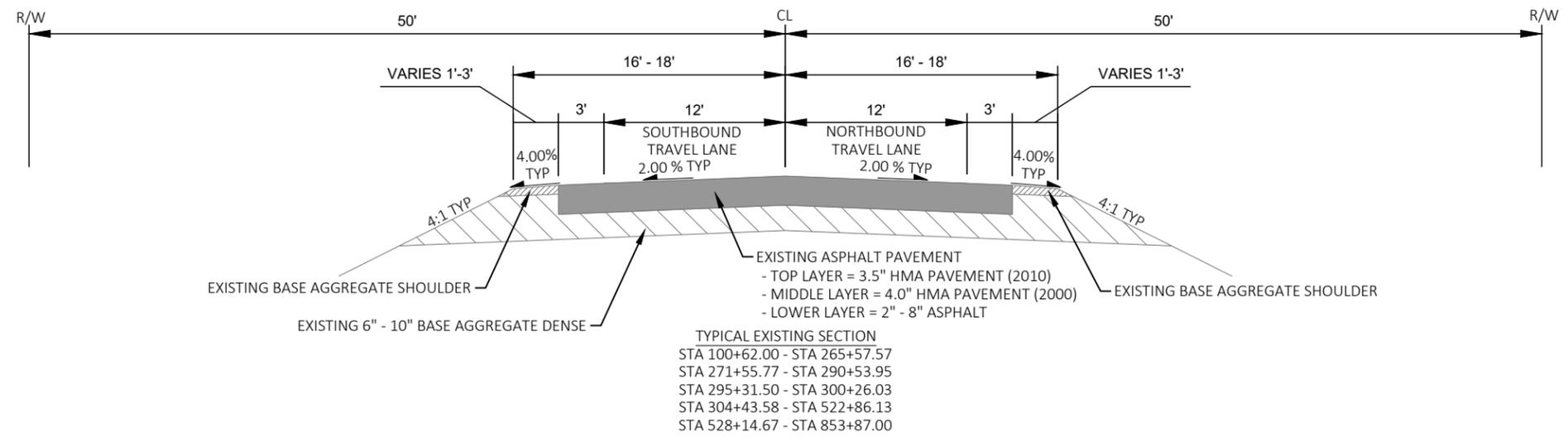
TOTAL PROJECT AREA = 58.9 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.05 ACRES

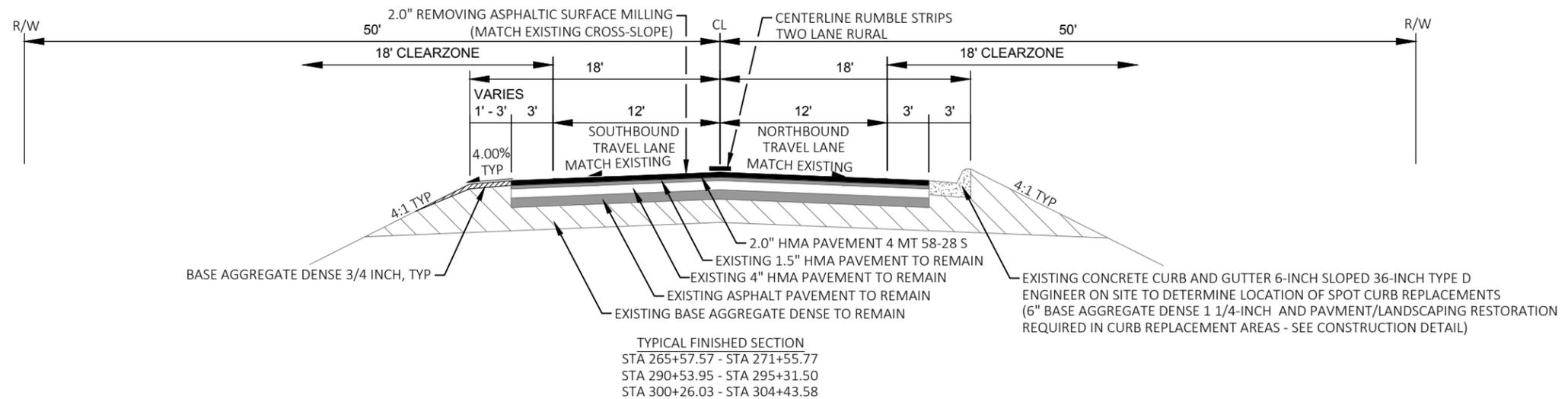
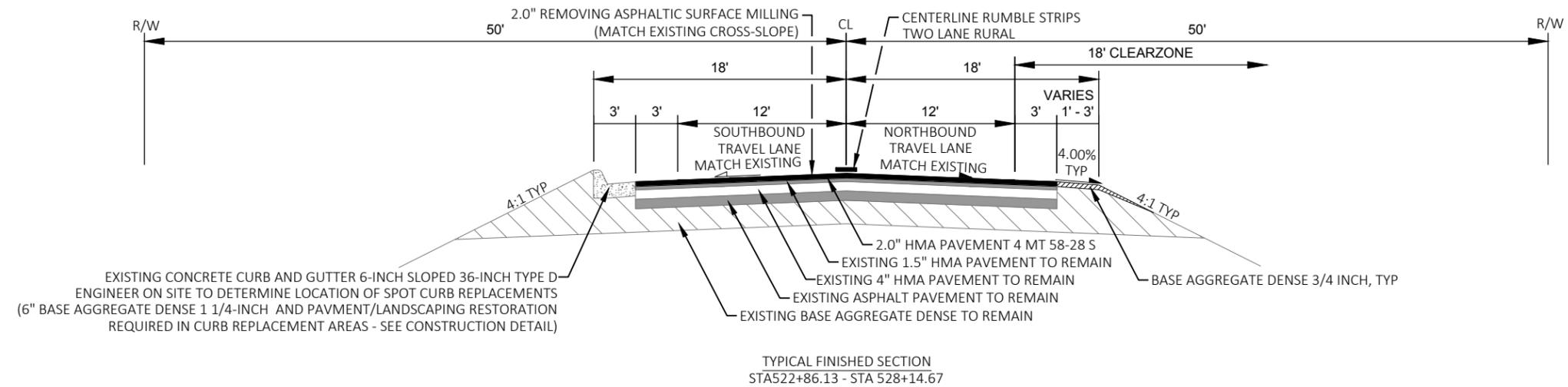
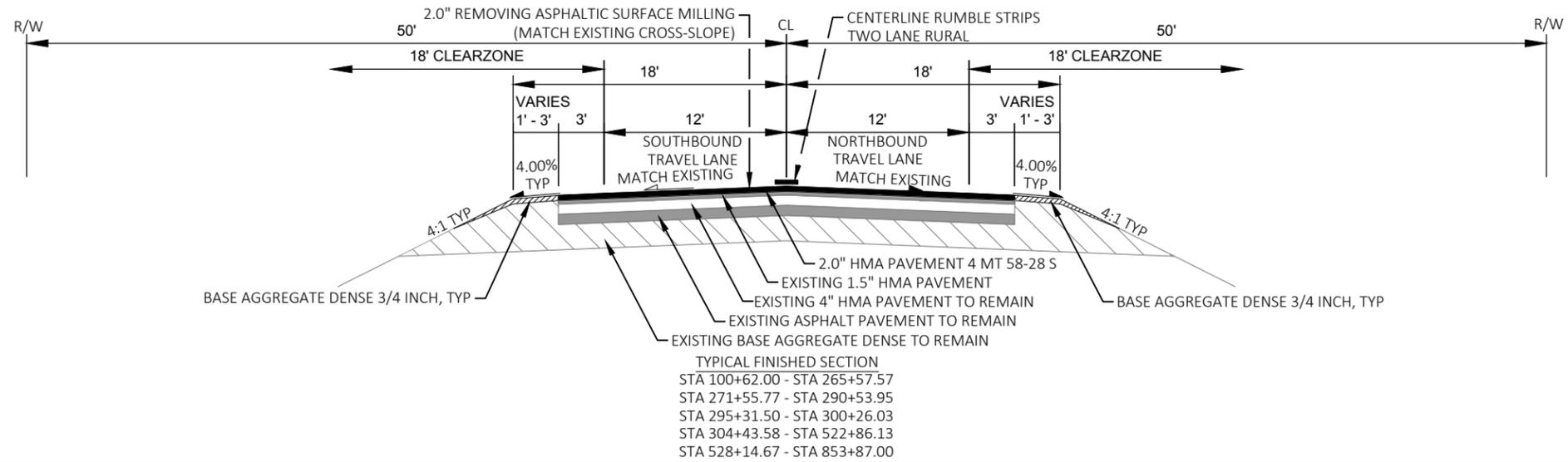
PROJECT LOCATION
JUNEAU/SAUK COUNTY
SOUTHWEST REGION - LA CROSSE OFFICE

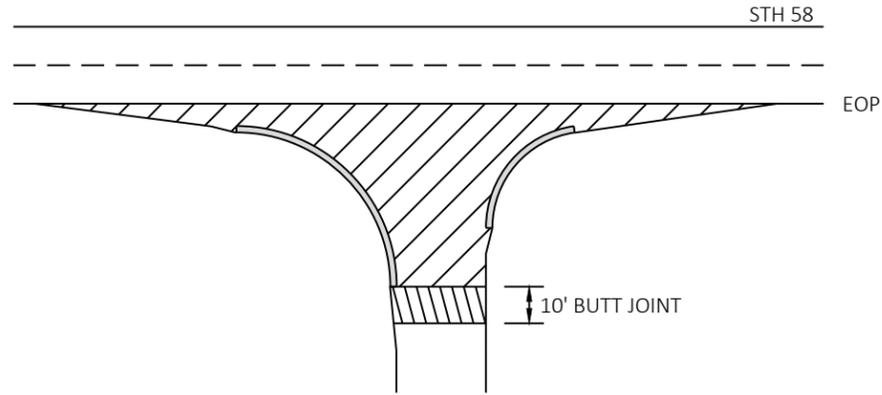


LEGEND

-  PROJECT LIMITS
-  PARK
-  SIGNIFICANT LOCATION







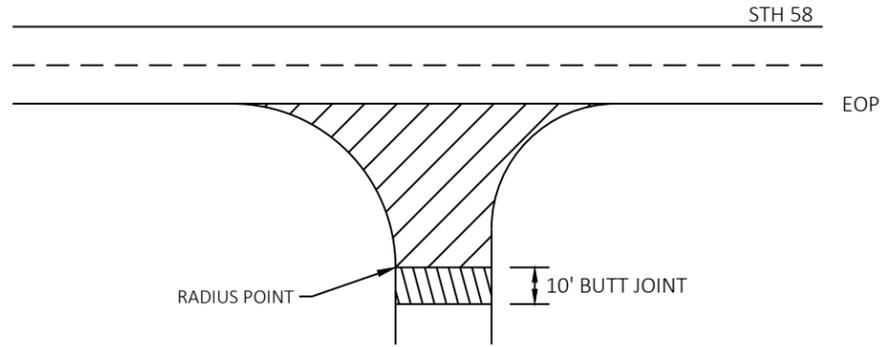
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

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

SIDE ROADS

WITH CURB AND GUTTER

- CTH F
- CTH I
- CTH O



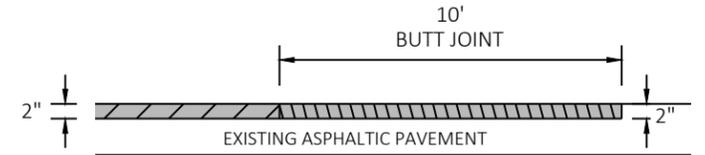
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS SEE BUTT JOINT DETAIL

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

SIDE ROADS

WITHOUT CURB AND GUTTER

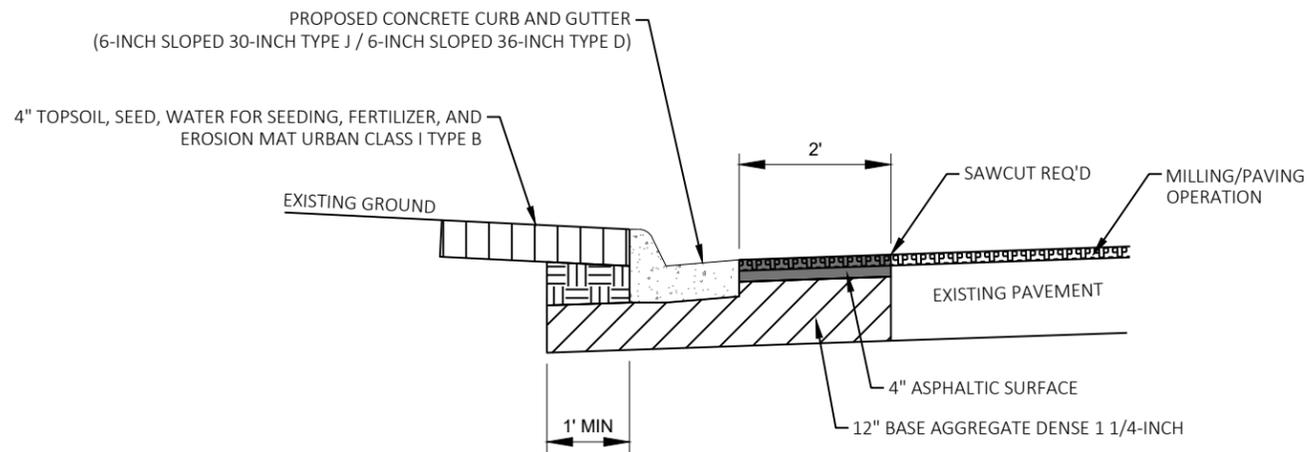
- | | | | |
|-----------------|---------------|--------------------------------|-----------------|
| SEFKAR ROAD | SPRINGER ROAD | DARROW ROAD | MILE BLUFF ROAD |
| PIERCE ROAD | MILLER ROAD | HILL ROAD | POWERS STREET |
| WILKE ROAD | CLARK ROAD | CHAPEL ROAD | HESS STREET |
| SECTION 11 ROAD | GEIER ROAD | STEINER ROAD | SARA LANE |
| WILKINSON ROAD | FOX ROAD | DONLIN ROAD | |
| LUCHT ROAD | WAFFLE ROAD | JUNEAU COUNTY FAIRGROUNDS ROAD | |



-  HMA PAVEMENT
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE BUTT JOINTS

BUTT JOINT

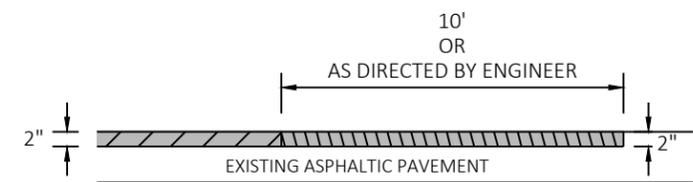
MAINLINE AND SIDE ROADS



CURB AND GUTTER

REPLACEMENT LOCATIONS

NOTES:
 CURB AND GUTTER WORK TO OCCUR PRIOR TO MILLING/PAVING OPERATION.
 ENGINEER ON SITE TO DETERMINE LOCATIONS OF CURB AND GUTTER REPLACEMENT

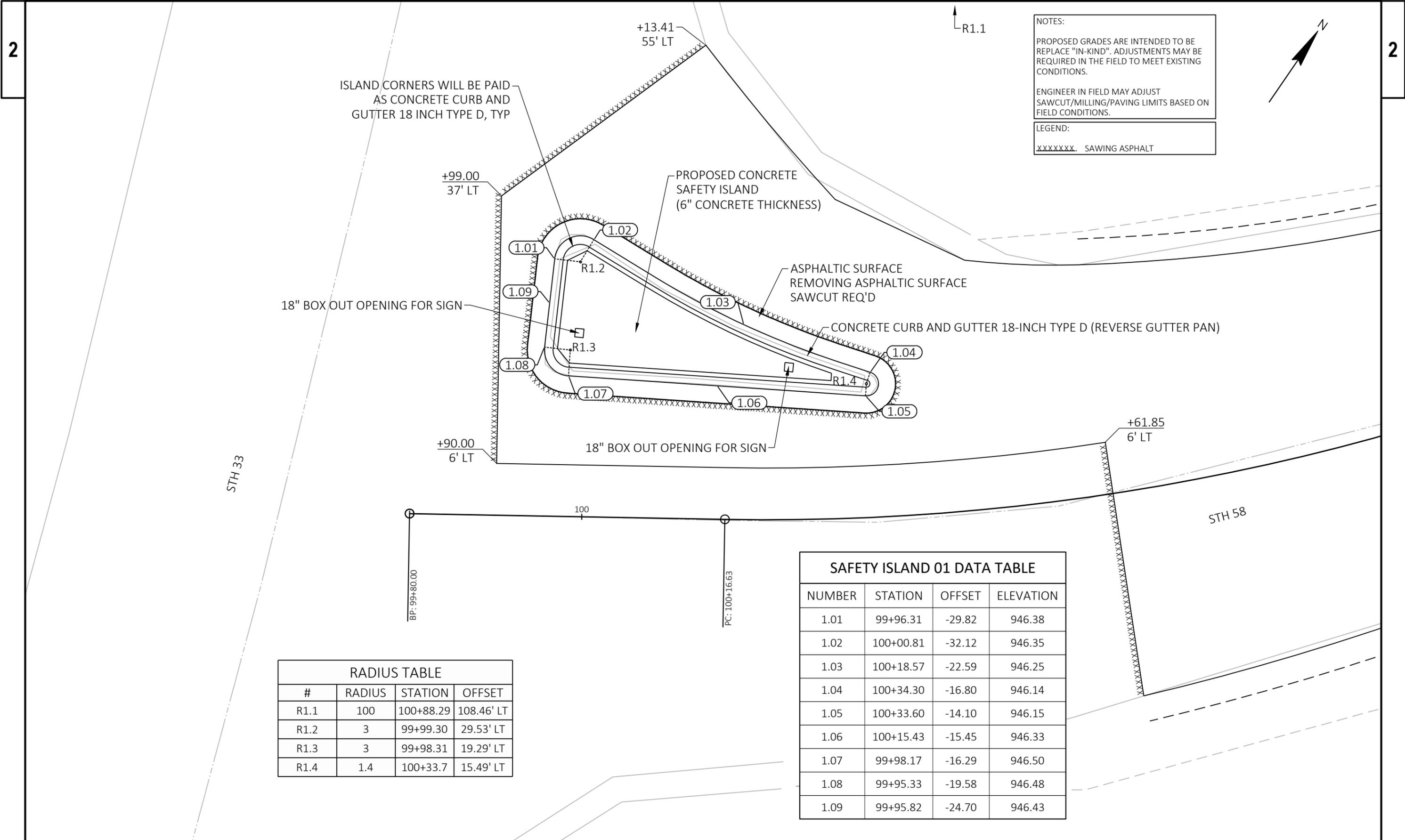


-  HMA PAVEMENT / ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES
-  REMOVING ASPHALTIC SURFACE MILLING
-  REMOVING ASPHALTIC SURFACE

DRIVEWAY RESTORATION

PROFILE VIEW

NOTES:
 DRIVEWAY RESTORATION ONLY REQUIRED WHERE SIGNIFICANT EXISTING DETERIORATION IS PRESENT. ENGINEER ON SITE TO DETERMINE.



NOTES:
 PROPOSED GRADES ARE INTENDED TO BE REPLACE "IN-KIND". ADJUSTMENTS MAY BE REQUIRED IN THE FIELD TO MEET EXISTING CONDITIONS.
 ENGINEER IN FIELD MAY ADJUST SAWCUT/MILLING/PAVING LIMITS BASED ON FIELD CONDITIONS.

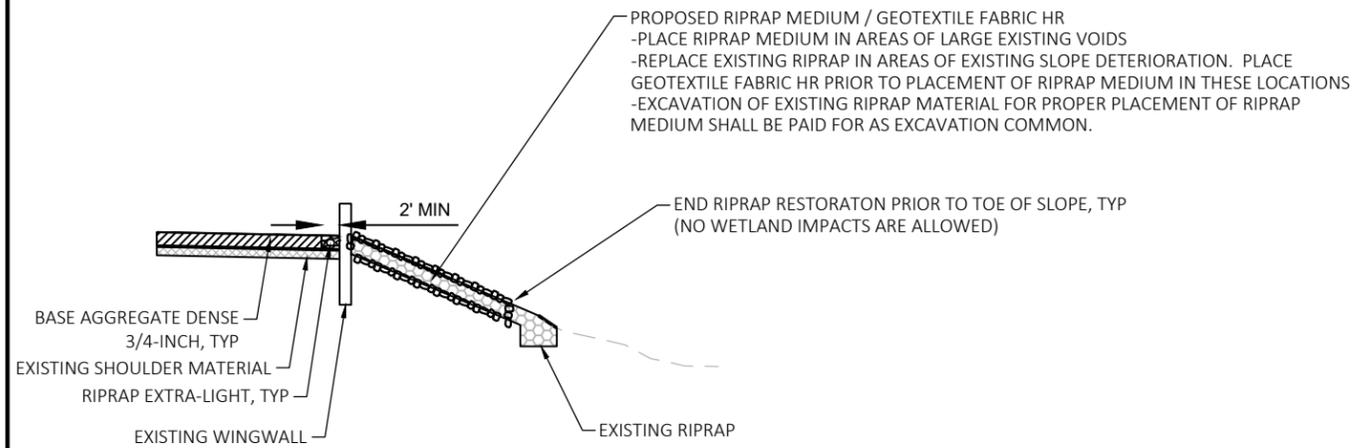
LEGEND:
 xxxxxxxx. SAWING ASPHALT

18" BOX OUT OPENING FOR SIGN

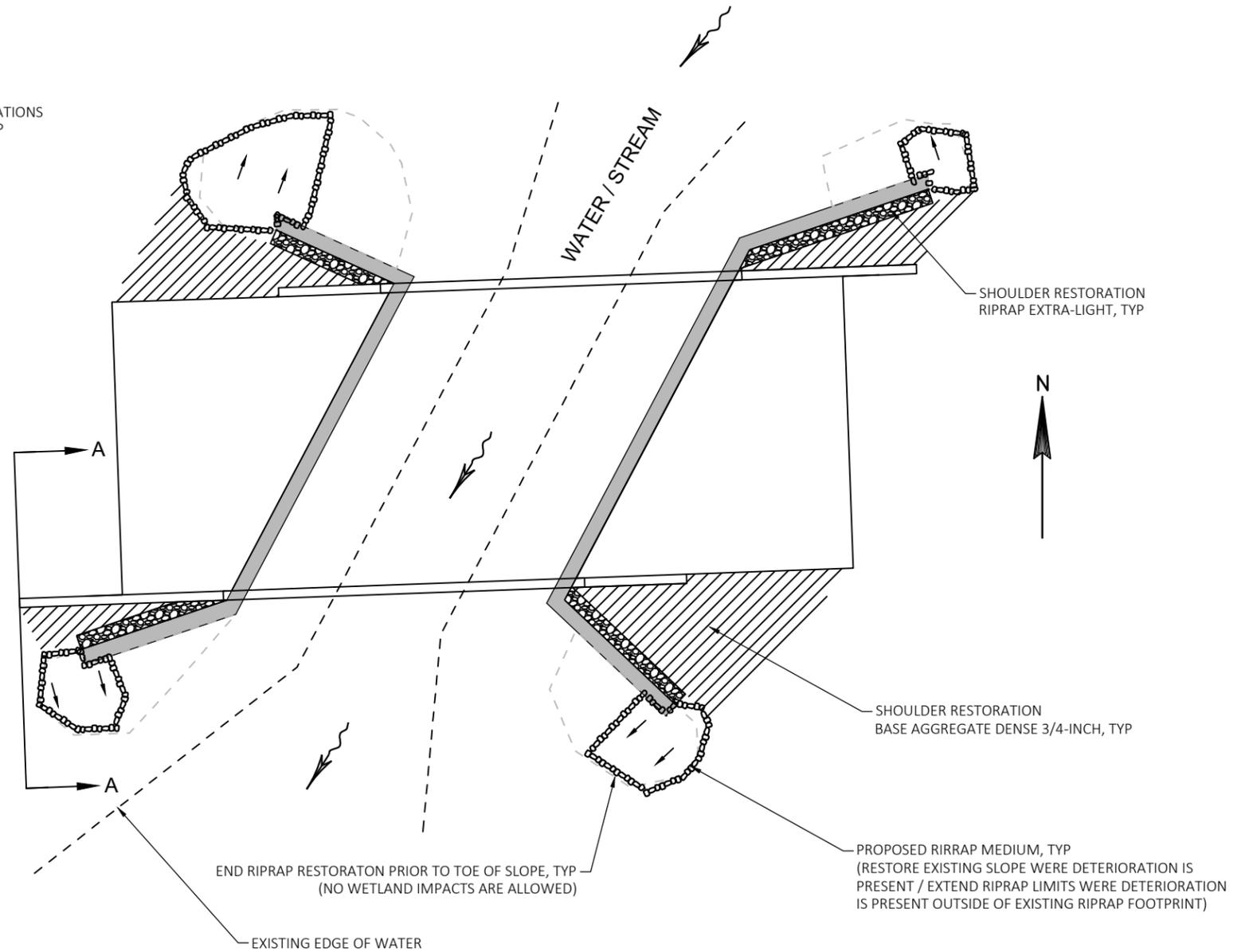
18" BOX OUT OPENING FOR SIGN

RADIUS TABLE			
#	RADIUS	STATION	OFFSET
R1.1	100	100+88.29	108.46' LT
R1.2	3	99+99.30	29.53' LT
R1.3	3	99+98.31	19.29' LT
R1.4	1.4	100+33.7	15.49' LT

SAFETY ISLAND 01 DATA TABLE			
NUMBER	STATION	OFFSET	ELEVATION
1.01	99+96.31	-29.82	946.38
1.02	100+00.81	-32.12	946.35
1.03	100+18.57	-22.59	946.25
1.04	100+34.30	-16.80	946.14
1.05	100+33.60	-14.10	946.15
1.06	100+15.43	-15.45	946.33
1.07	99+98.17	-16.29	946.50
1.08	99+95.33	-19.58	946.48
1.09	99+95.82	-24.70	946.43



CROSS SECTION AT END OF WING WALL
SECTION A-A



PLAN VIEW
B-29-0119
B-29-0120

B-29-0119 TO REMAIN
GUARDRAIL TO REMAIN
REPLACE ASPHALT SHOULDERS ADJACENT TO CONCRETE APPROACH SLAB
STABILIZE SHOULDER SLOPES BEHIND WING WALLS

RESTORATION LIMITS MAY BE ADJUSTED BY ENGINEER IN FIELD
PRIOR TO PLACEMENT OF TOPSOIL, SCARIFY EXISTING EMBANKMENT MATERIAL
4" TOPSOIL, SEED MIX NO 40, WATER FOR SEED, FERTILIZER TYPE B, AND
EROSION MAT URBAN CLASS I TYPE B, TYP



STH 58

660

CTHO

CTHO

RIPRAP EXTRA-LIGHT
EXCAVATE EXISTING SHOULDER WASHOUT MATERIAL ALONG
WINGWALL BEHIND GUARDRAIL TO A DEPTH OF 1 FOOT AND
PLACE RIPRAP MATERIAL.
GEOTEXTILE FABRIC IS NOT REQUIRED.

LEGEND

-  EROSION MAT URBAN CLASS I, TYPE B
-  SILT FENCE
-  SLOPE INTERCEPT
-  EXISTING SURFACE WATER FLOW
-  RIPRAP MEDIUM

NOTES:
NO WORK ALLOWED AT WETLANDS. ALL EROSION
CONTROL EFFORTS TO OCCUR ABOVE TOE OF SLOPE.
NO CONSTRUCTION EQUIPMENT ALLOWED BEYOND
SILT FENCE LIMITS.

B-29-0120 TO REMAIN
GUARDRAIL TO REMAIN
REPLACE ASPHALT SHOULDERS ADJACENT TO CONCRETE APPROACH SLAB
STABILIZE SHOULDER SLOPES BEHIND WING WALLS



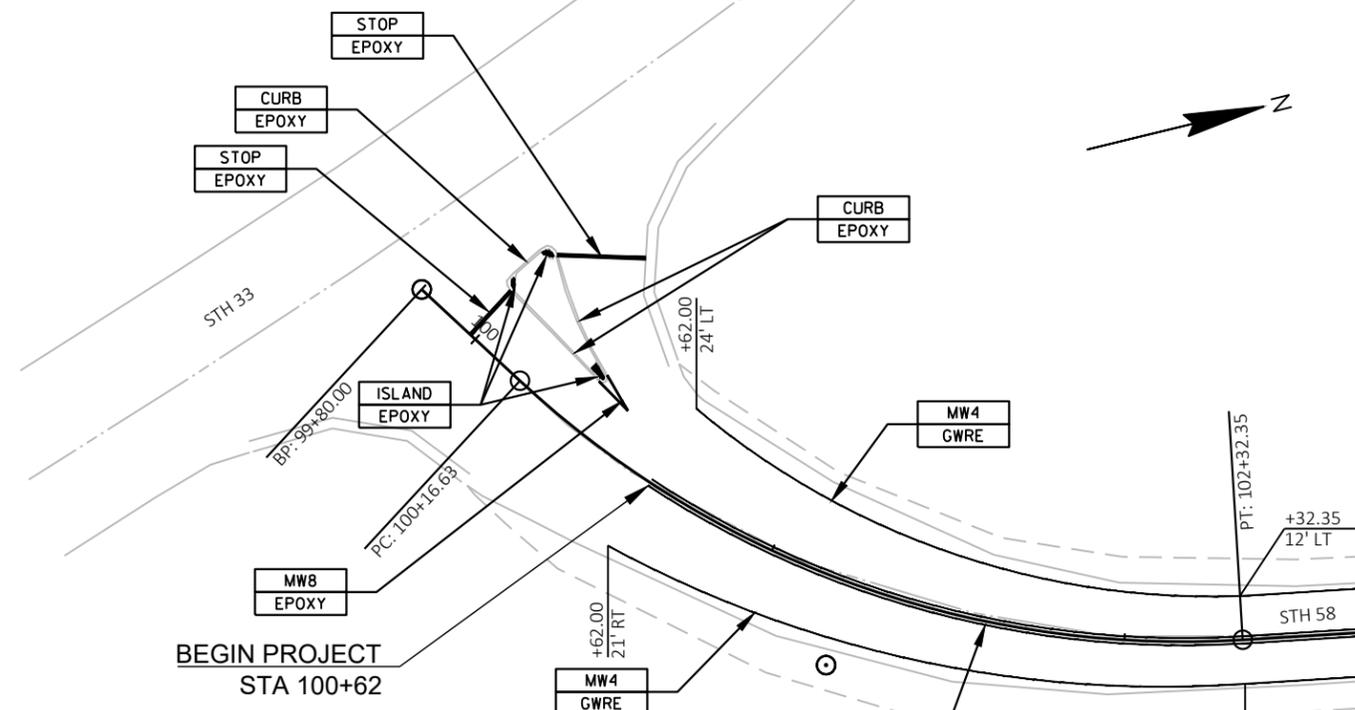
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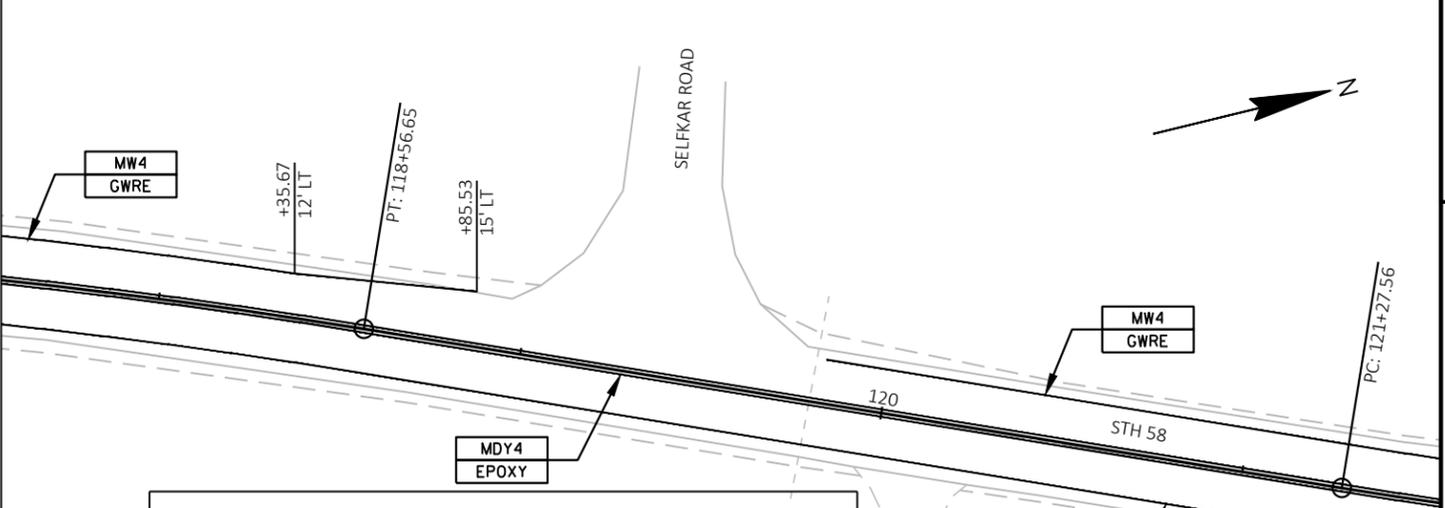
STH 58

RIPRAP EXTRA-LIGHT
EXCAVATE EXISTING SHOULDER WASHOUT MATERIAL ALONG
WINGWALL BEHIND GUARDRAIL TO A DEPTH OF 1 FOOT AND
PLACE RIPRAP MATERIAL.
GEOTEXTILE FABRIC IS NOT REQUIRED.

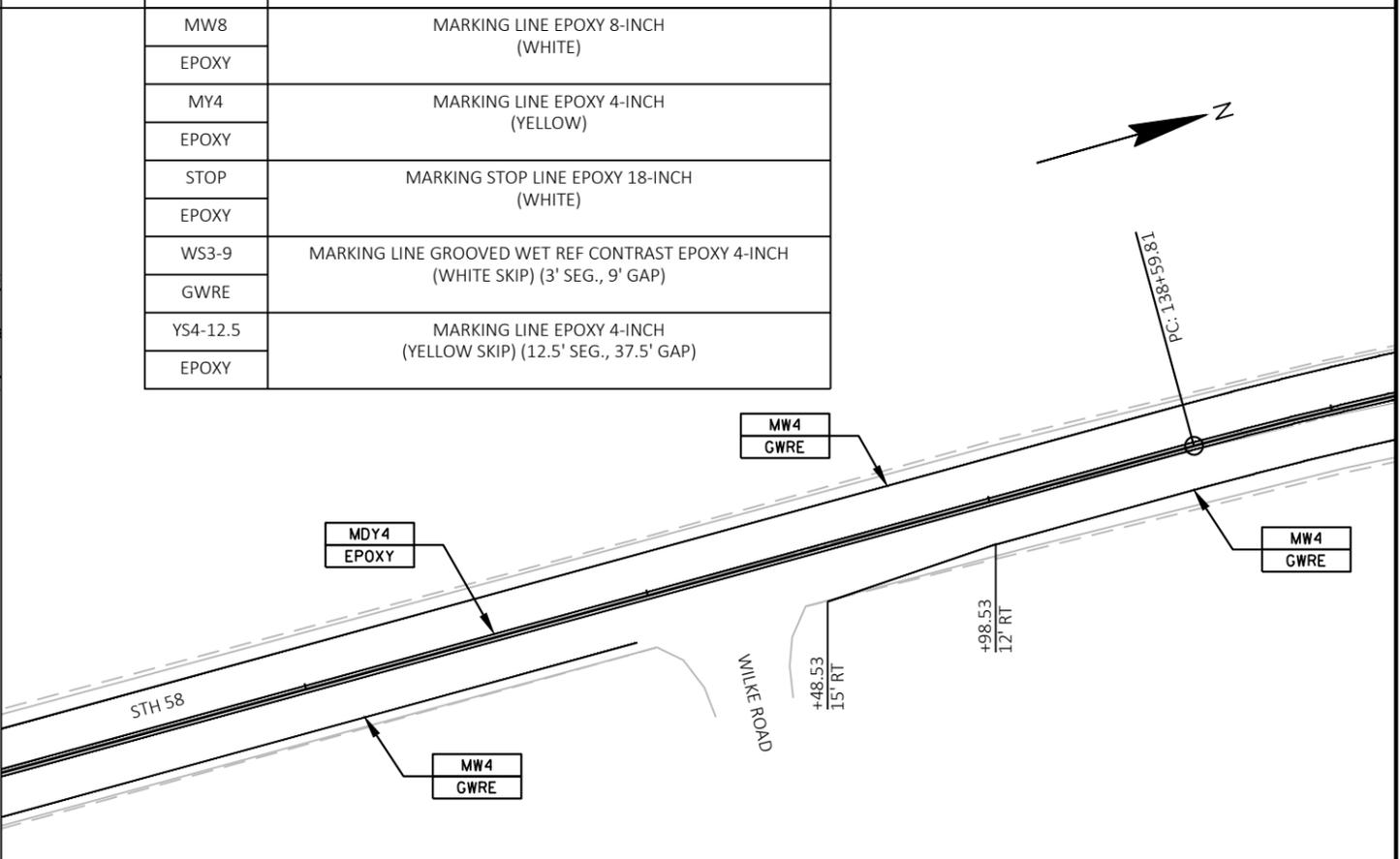
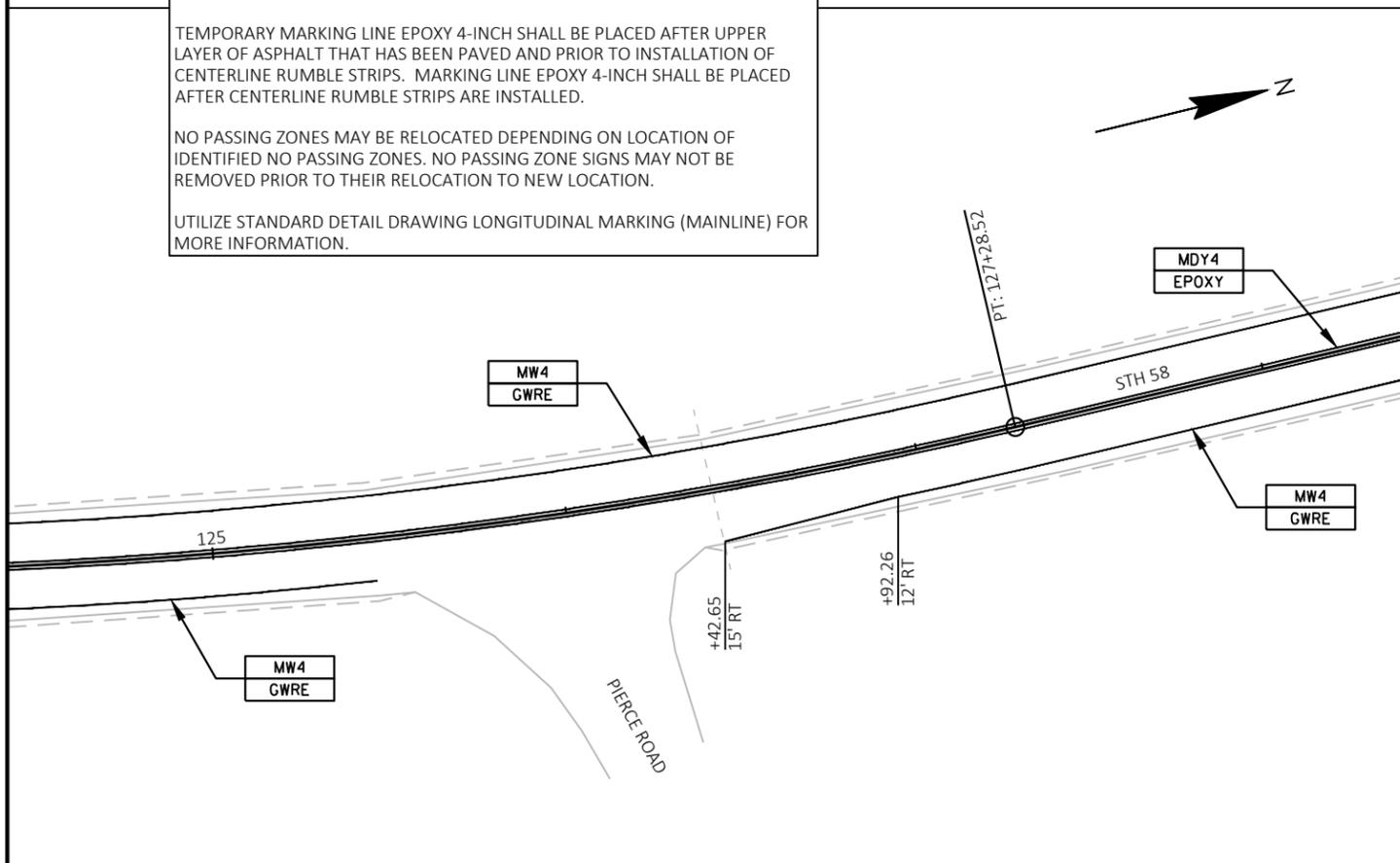
RESTORATION LIMITS MAY BE ADJUSTED BY ENGINEER IN FIELD
PRIOR TO PLACEMENT OF TOPSOIL, SCARIFY EXISTING EMBANKMENT MATERIAL
4" TOPSOIL, SEED MIX NO 40, WATER FOR SEED, FERTILIZER TYPE B, AND
EROSION MAT URBAN CLASS I TYPE B, TYP

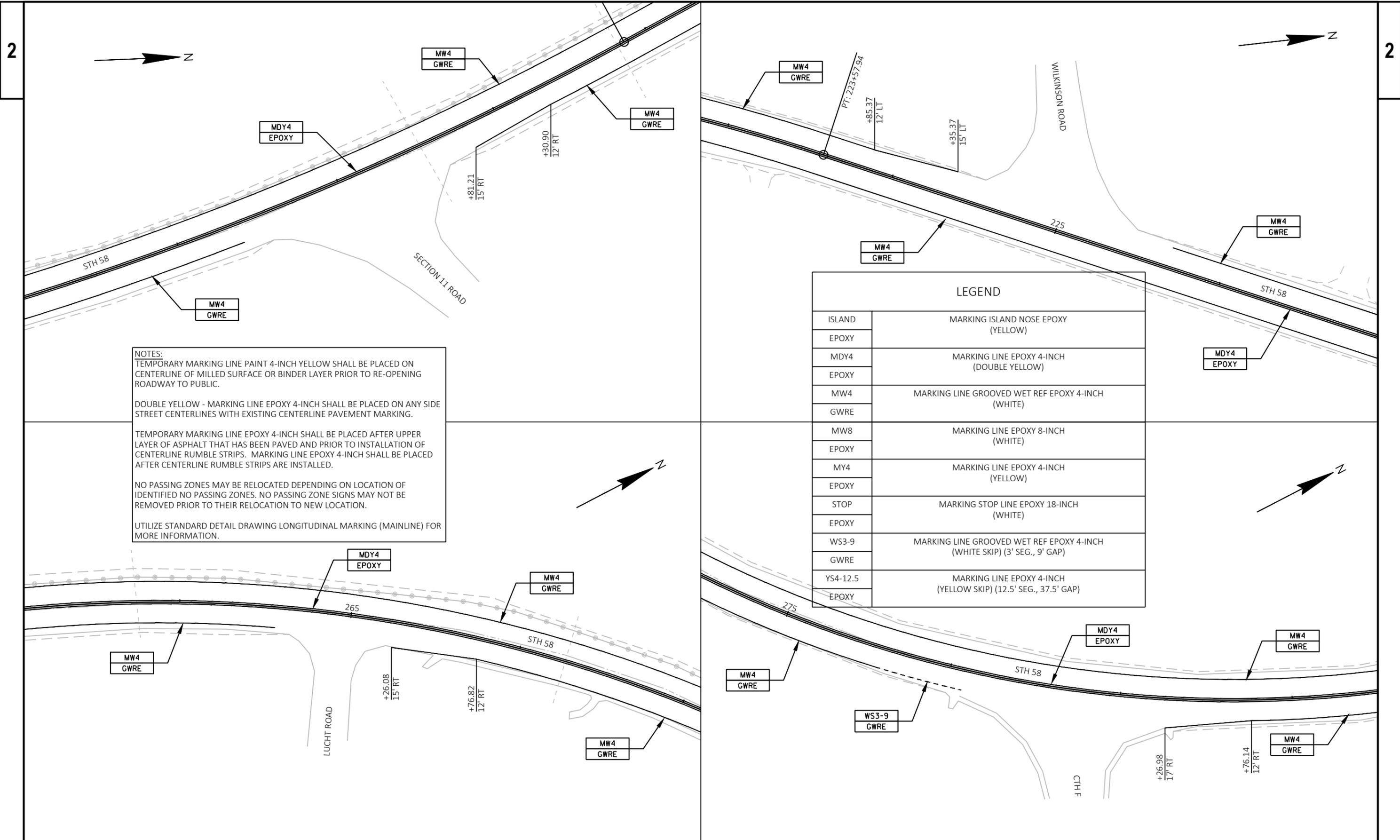


NOTES:
 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW SHALL BE PLACED ON CENTERLINE OF MILLED SURFACE OR BINDER LAYER PRIOR TO RE-OPENING ROADWAY TO PUBLIC.
 DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.
 TEMPORARY MARKING LINE EPOXY 4-INCH SHALL BE PLACED AFTER UPPER LAYER OF ASPHALT THAT HAS BEEN PAVED AND PRIOR TO INSTALLATION OF CENTERLINE RUMBLE STRIPS. MARKING LINE EPOXY 4-INCH SHALL BE PLACED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED.
 NO PASSING ZONES MAY BE RELOCATED DEPENDING ON LOCATION OF IDENTIFIED NO PASSING ZONES. NO PASSING ZONE SIGNS MAY NOT BE REMOVED PRIOR TO THEIR RELOCATION TO NEW LOCATION.
 UTILIZE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR MORE INFORMATION.



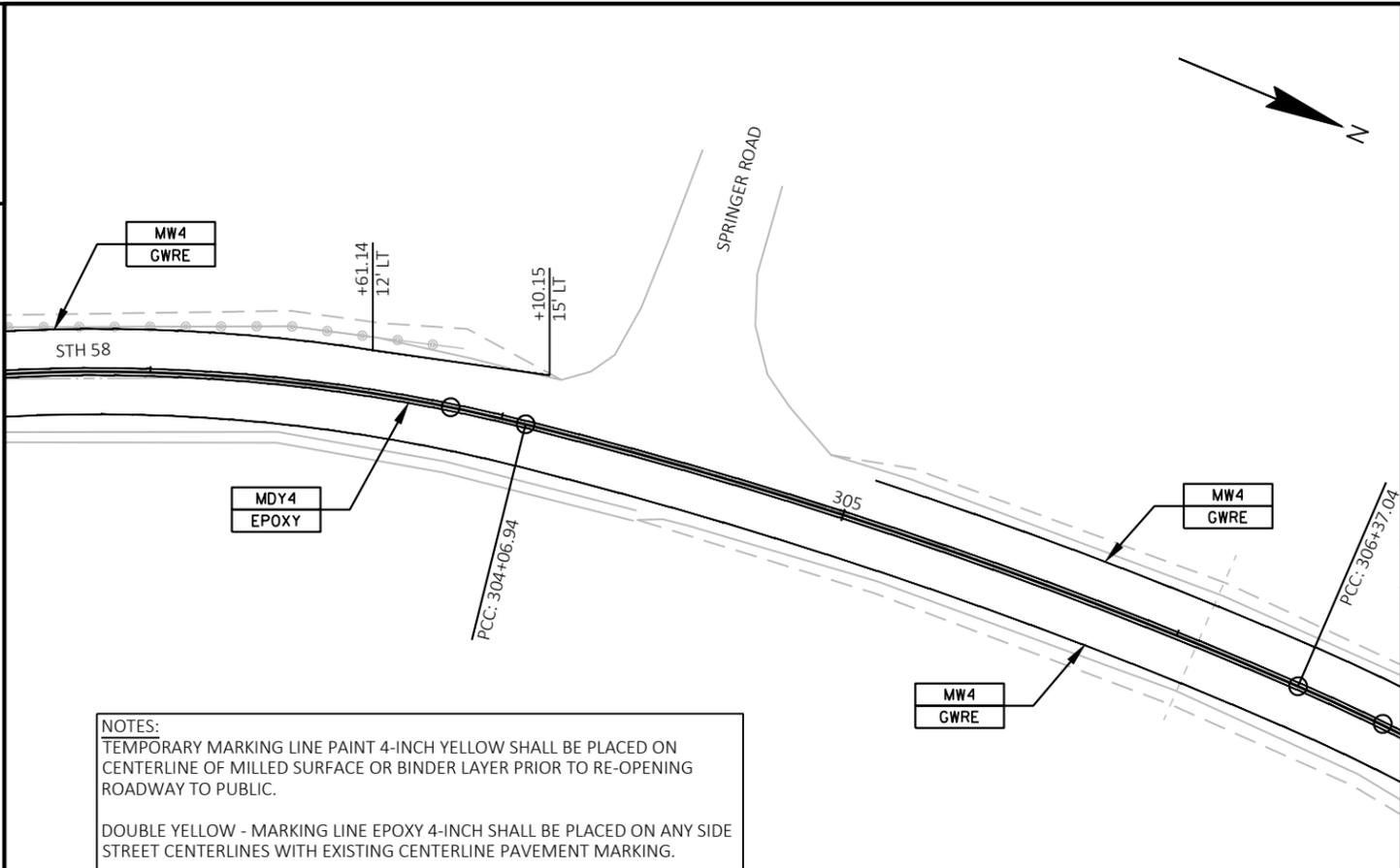
LEGEND	
CURB EPOXY	MARKING CURB EPOXY (YELLOW)
ISLAND EPOXY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4 EPOXY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4 GWRE	MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE)
MW8 EPOXY	MARKING LINE EPOXY 8-INCH (WHITE)
MY4 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW)
STOP EPOXY	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS3-9 GWRE	MARKING LINE GROOVED WET REF CONTRAST EPOXY 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)





NOTES:
 TEMPORARY MARKING LINE PAINT 4-INCH YELLOW SHALL BE PLACED ON CENTERLINE OF MILLED SURFACE OR BINDER LAYER PRIOR TO RE-OPENING ROADWAY TO PUBLIC.
 DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.
 TEMPORARY MARKING LINE EPOXY 4-INCH SHALL BE PLACED AFTER UPPER LAYER OF ASPHALT THAT HAS BEEN PAVED AND PRIOR TO INSTALLATION OF CENTERLINE RUMBLE STRIPS. MARKING LINE EPOXY 4-INCH SHALL BE PLACED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED.
 NO PASSING ZONES MAY BE RELOCATED DEPENDING ON LOCATION OF IDENTIFIED NO PASSING ZONES. NO PASSING ZONE SIGNS MAY NOT BE REMOVED PRIOR TO THEIR RELOCATION TO NEW LOCATION.
 UTILIZE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR MORE INFORMATION.

LEGEND	
ISLAND EPOXY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4 EPOXY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
MW8 EPOXY	MARKING LINE EPOXY 8-INCH (WHITE)
MY4 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW)
STOP EPOXY	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS3-9 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)



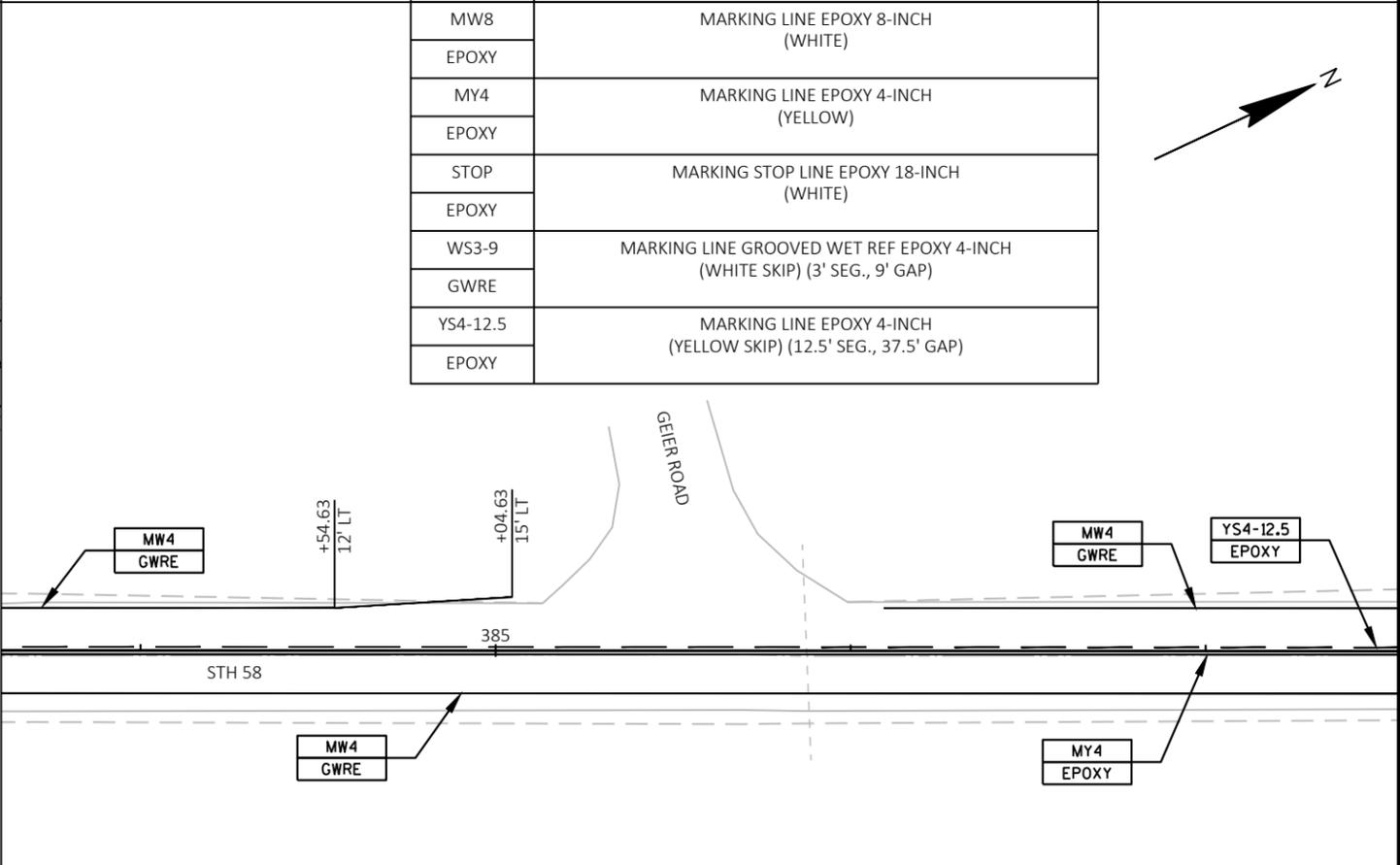
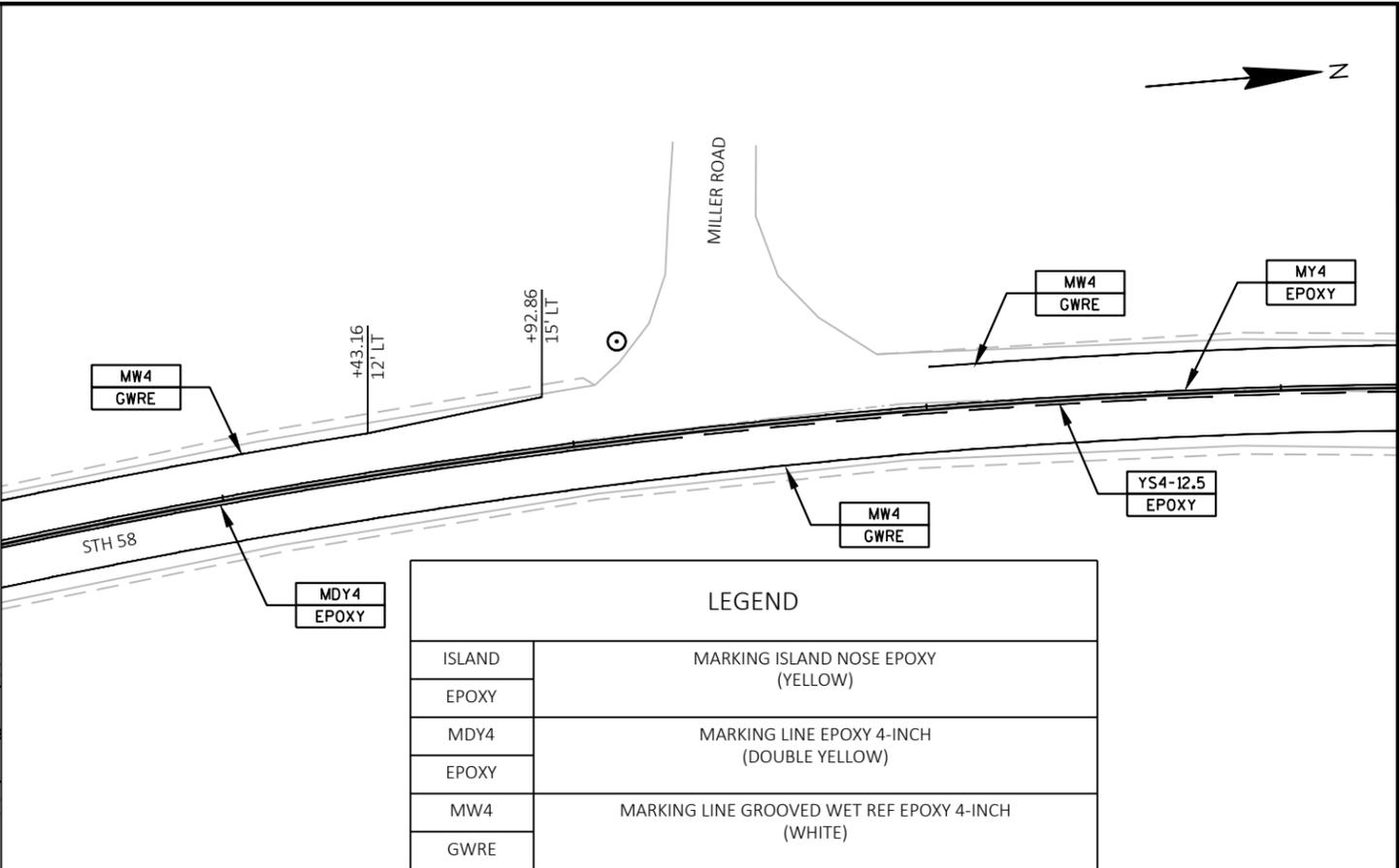
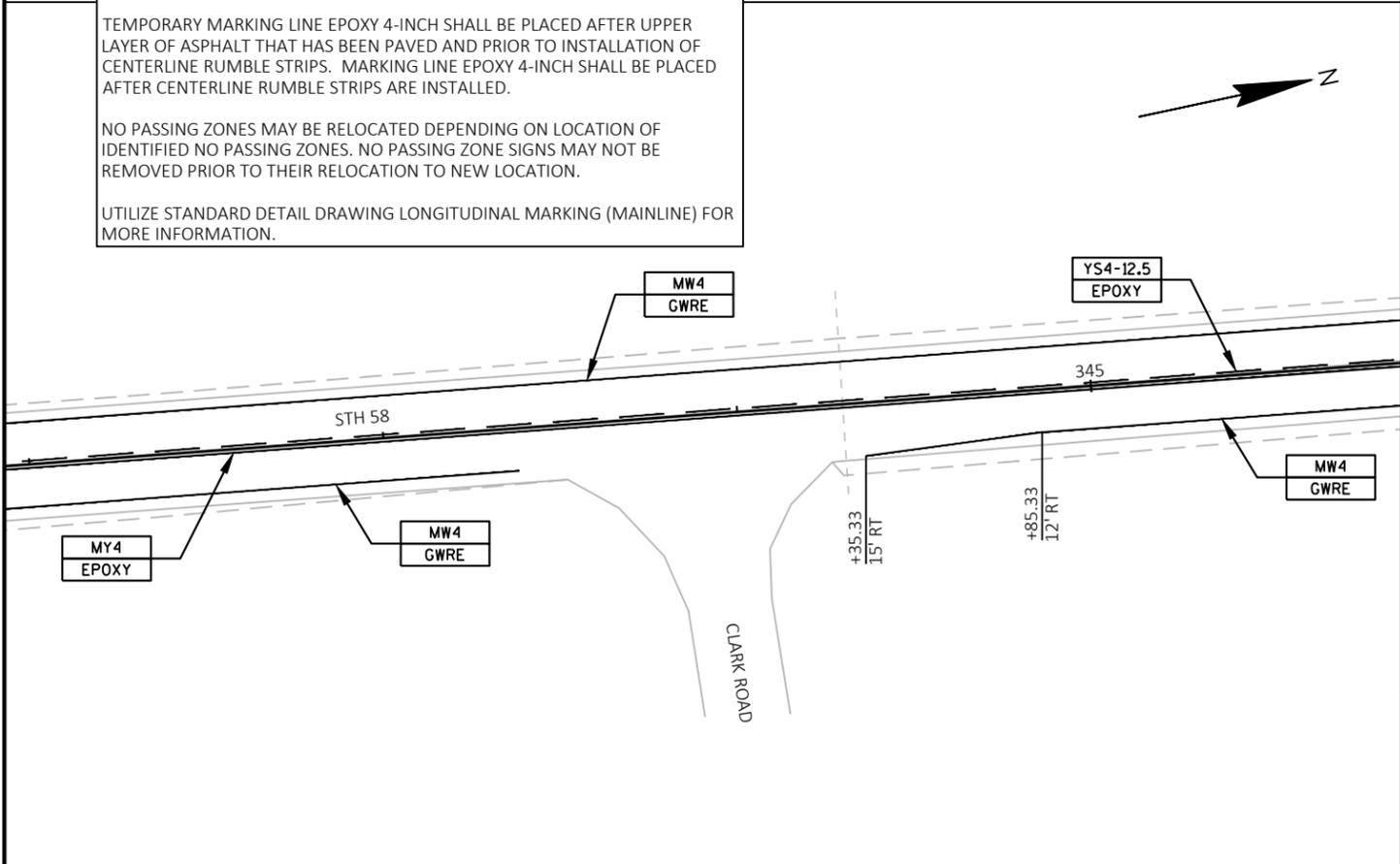
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DOUBLE YELLOW - MARKING LINE EPOXY 4-INCH SHALL BE PLACED ON ANY SIDE STREET CENTERLINES WITH EXISTING CENTERLINE PAVEMENT MARKING.

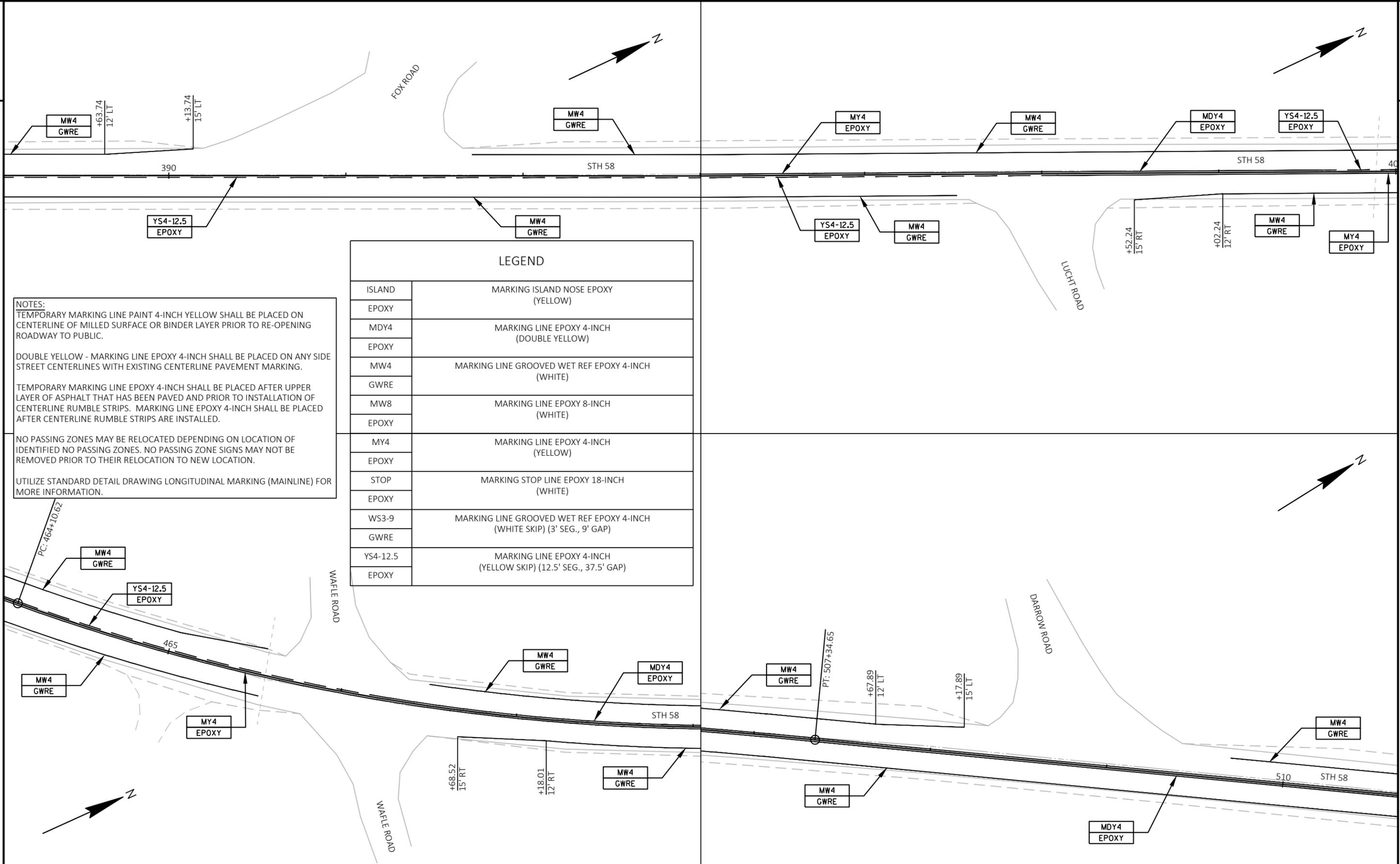
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UTILIZE STANDARD DETAIL DRAWING LONGITUDINAL MARKING (MAINLINE) FOR MORE INFORMATION.

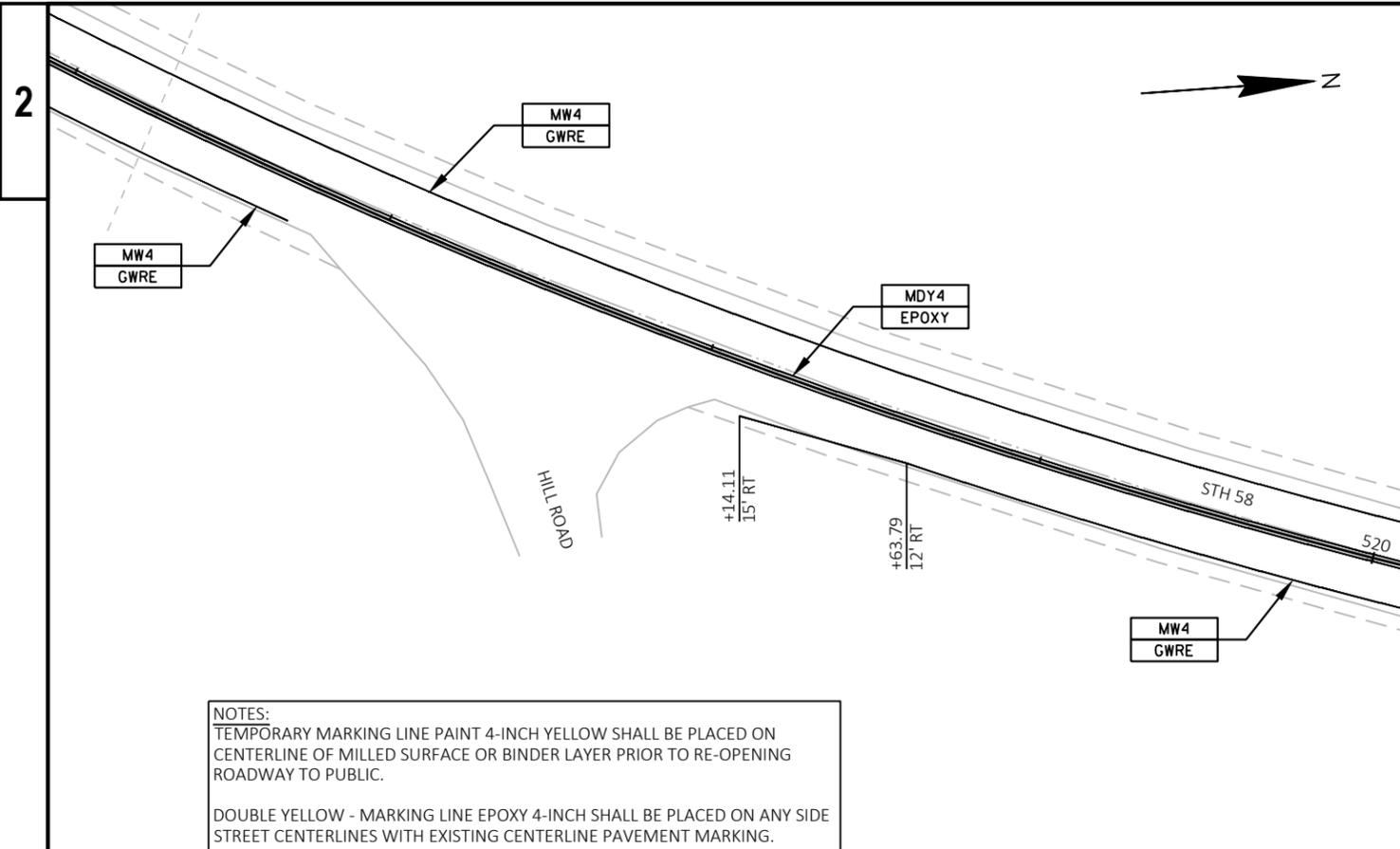


LEGEND	
ISLAND EPOXY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4 EPOXY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
MW8 EPOXY	MARKING LINE EPOXY 8-INCH (WHITE)
MY4 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW)
STOP EPOXY	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS3-9 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
YS4-12.5 EPOXY	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)

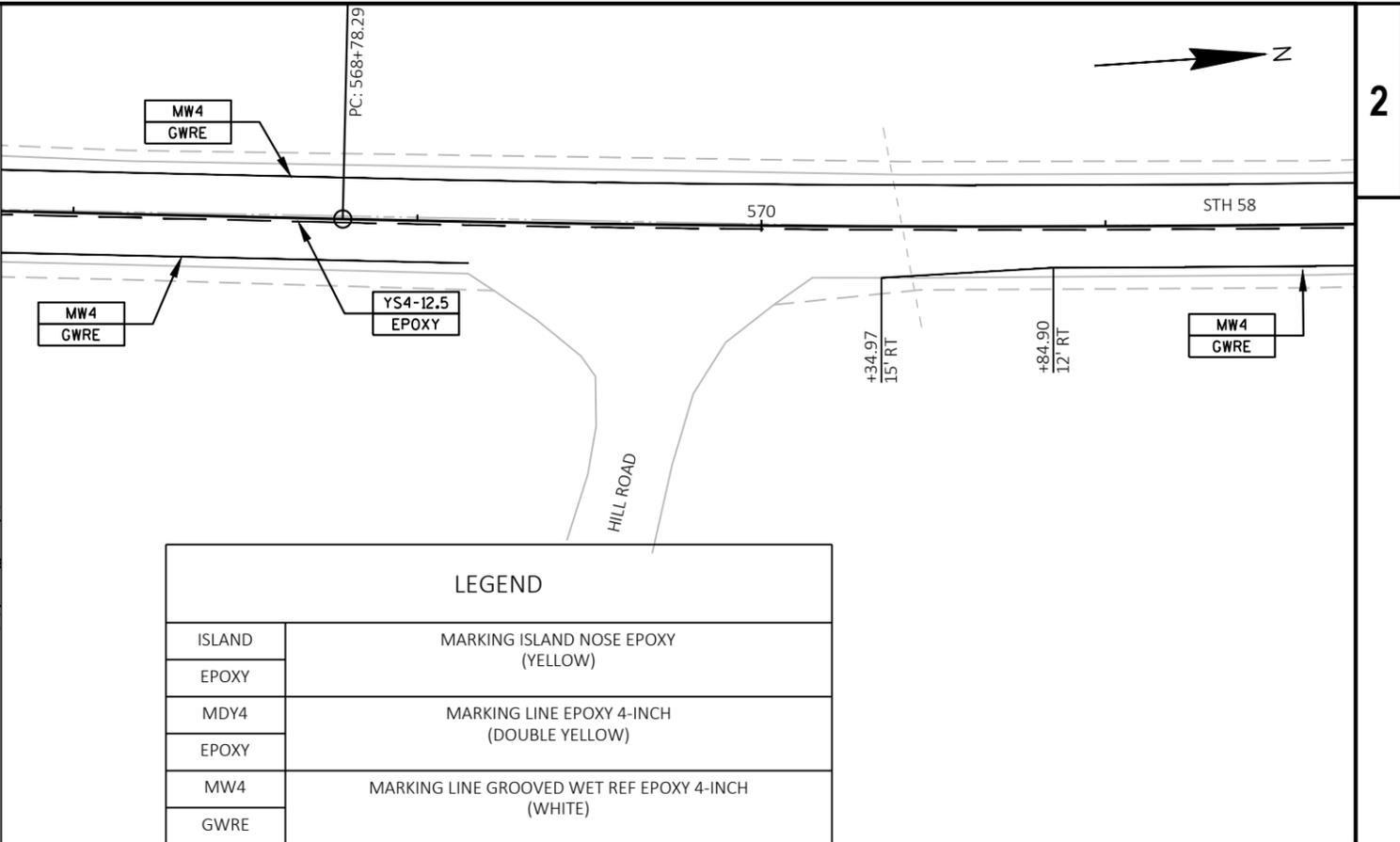


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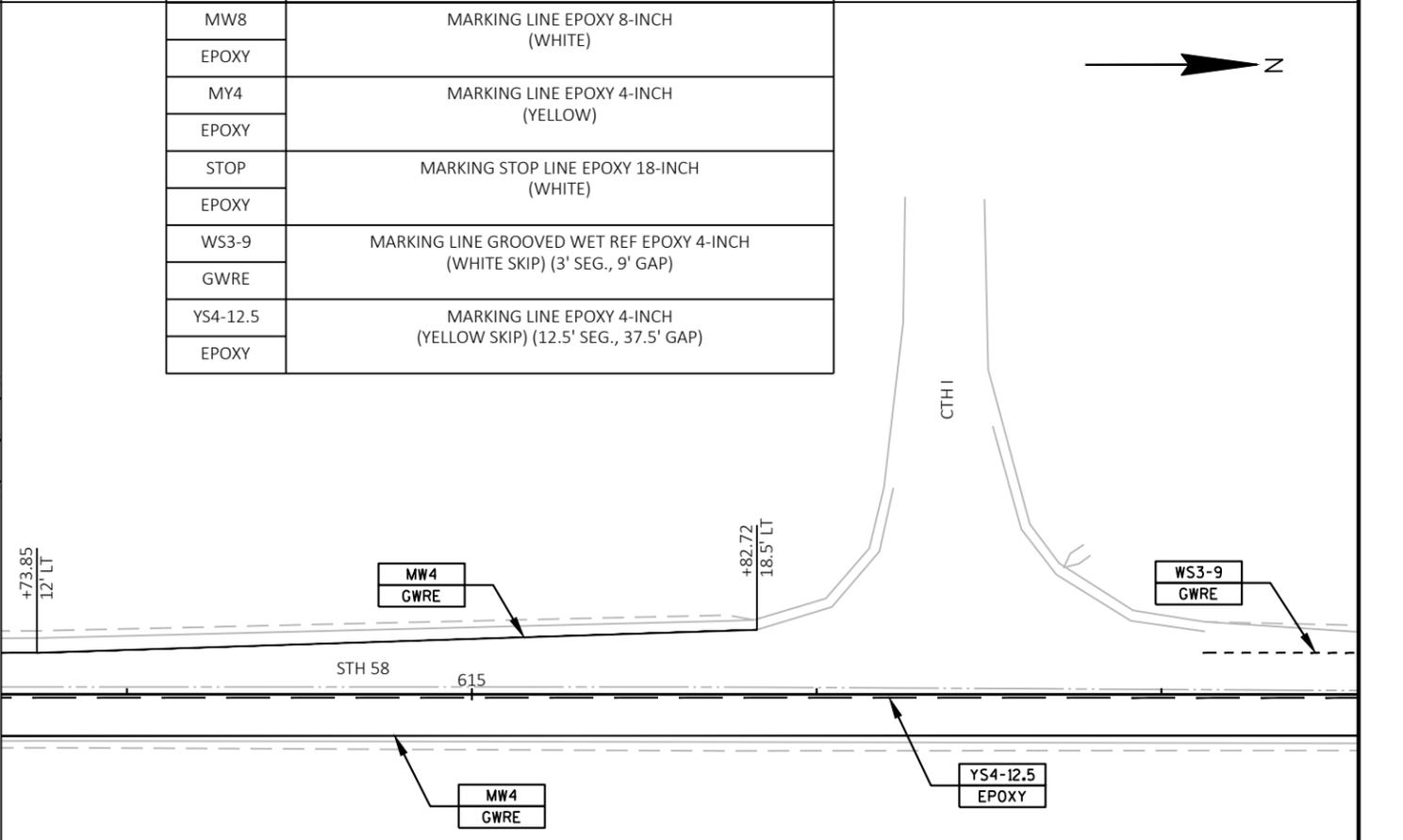
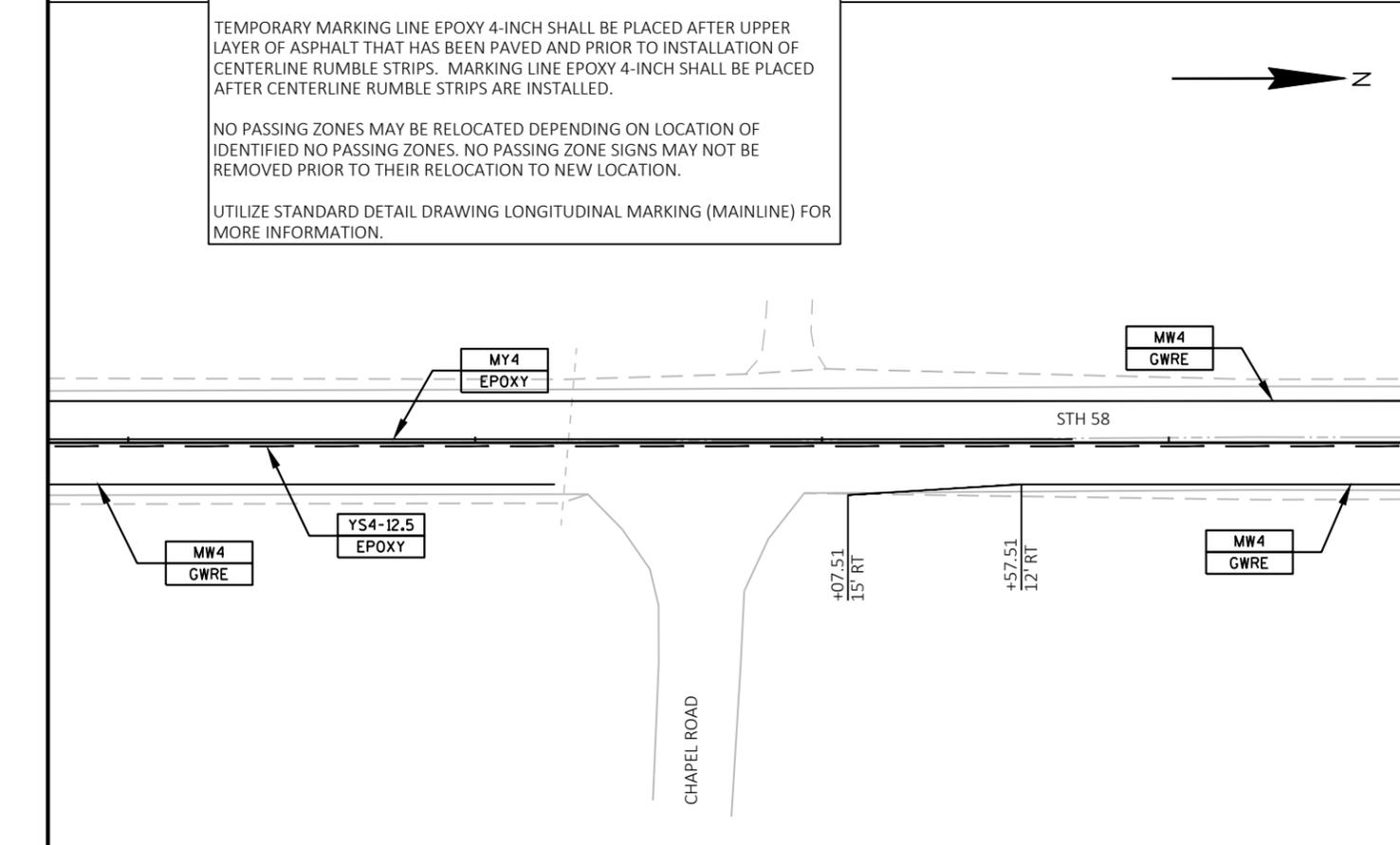
LEGEND	
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MDY4 EPOXY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
MW8 EPOXY	MARKING LINE EPOXY 8-INCH (WHITE)
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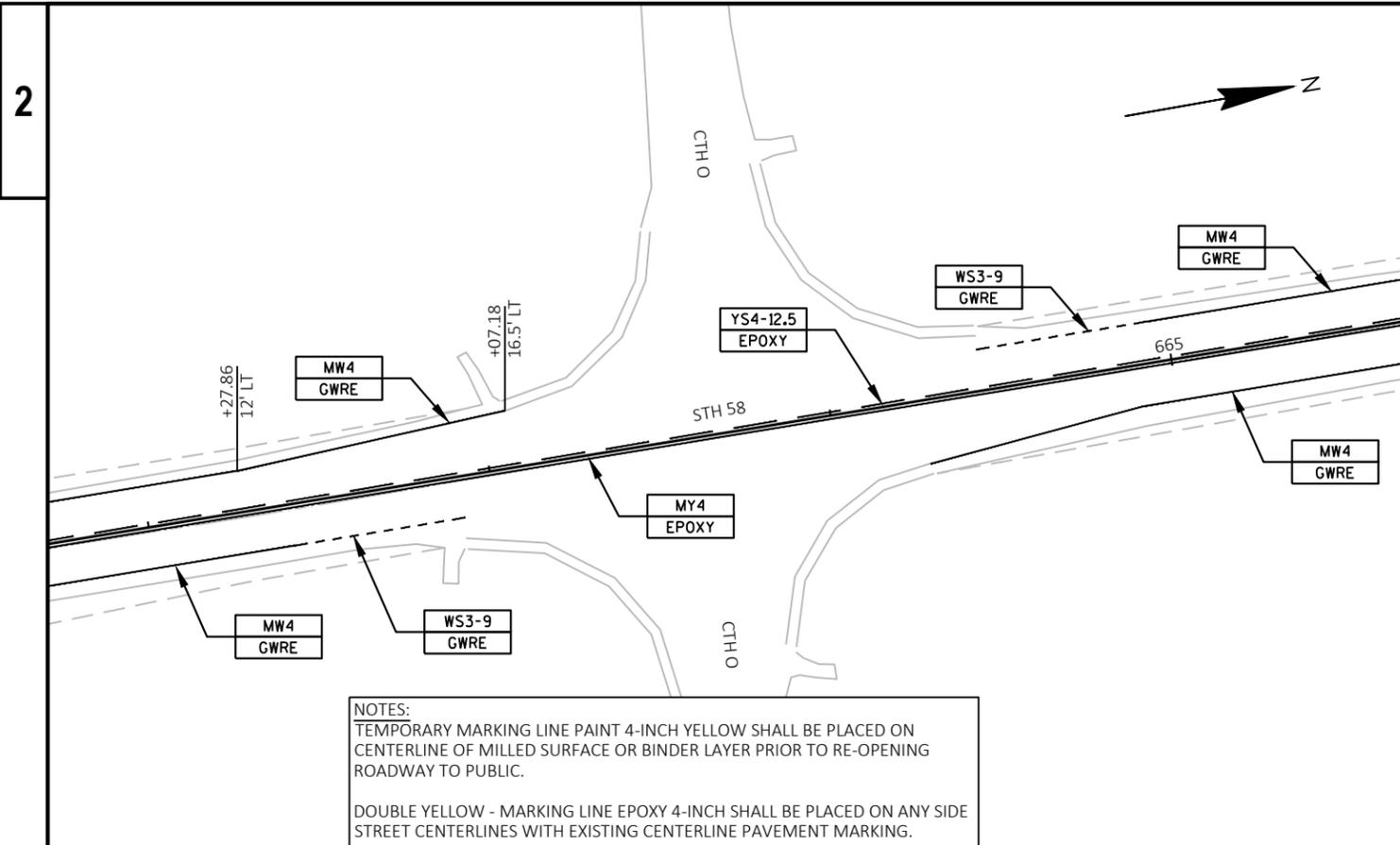


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MW4 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
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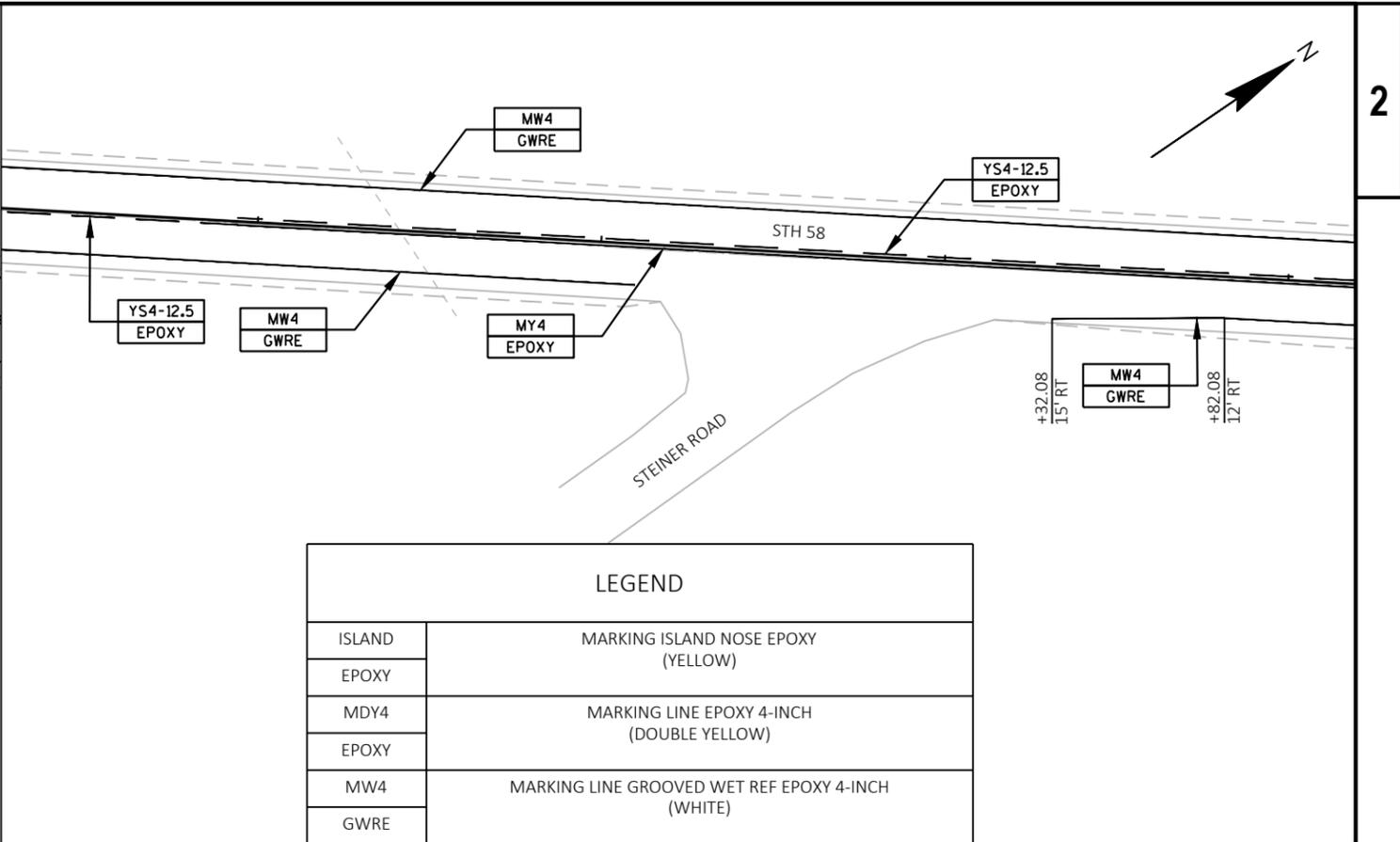
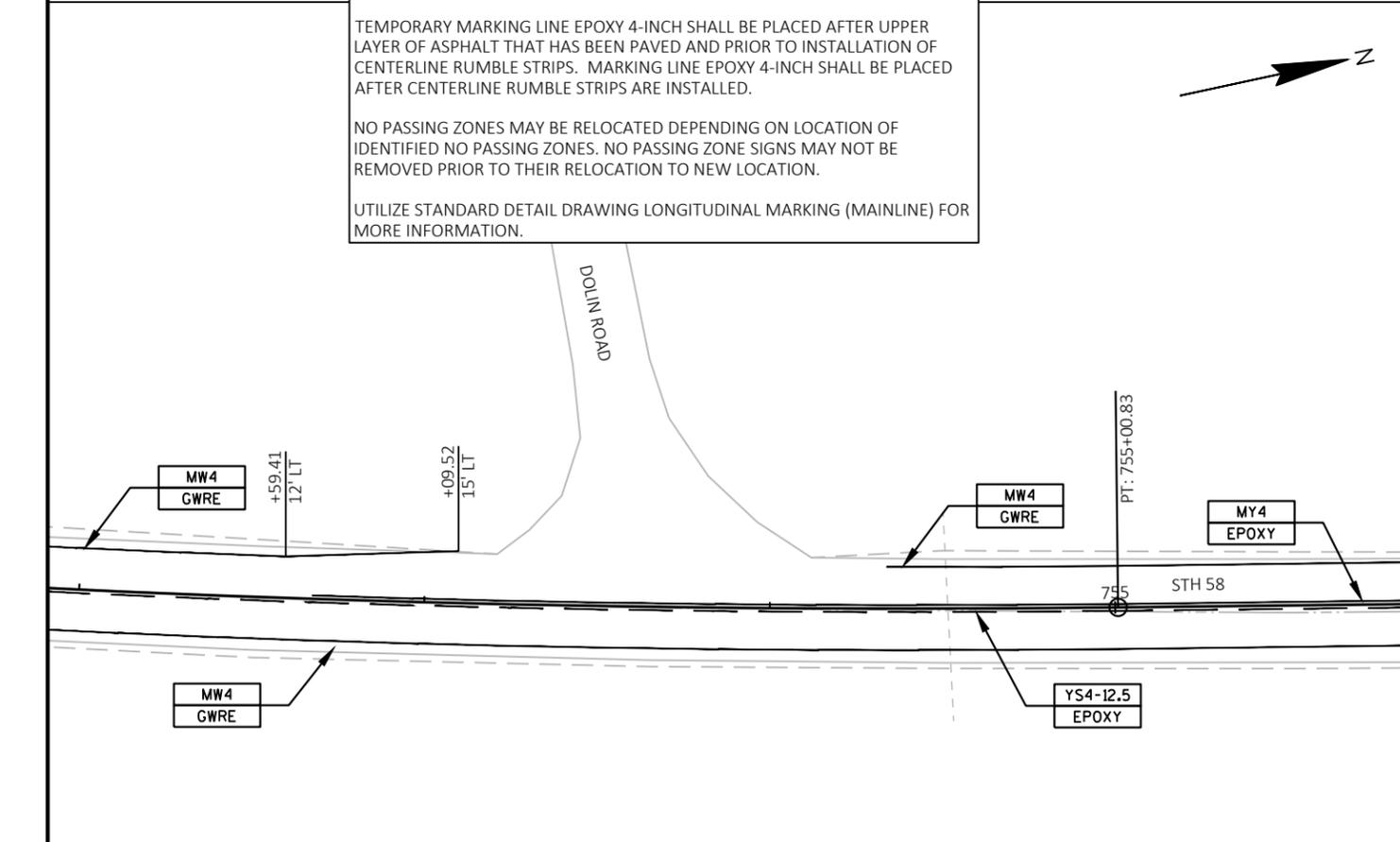
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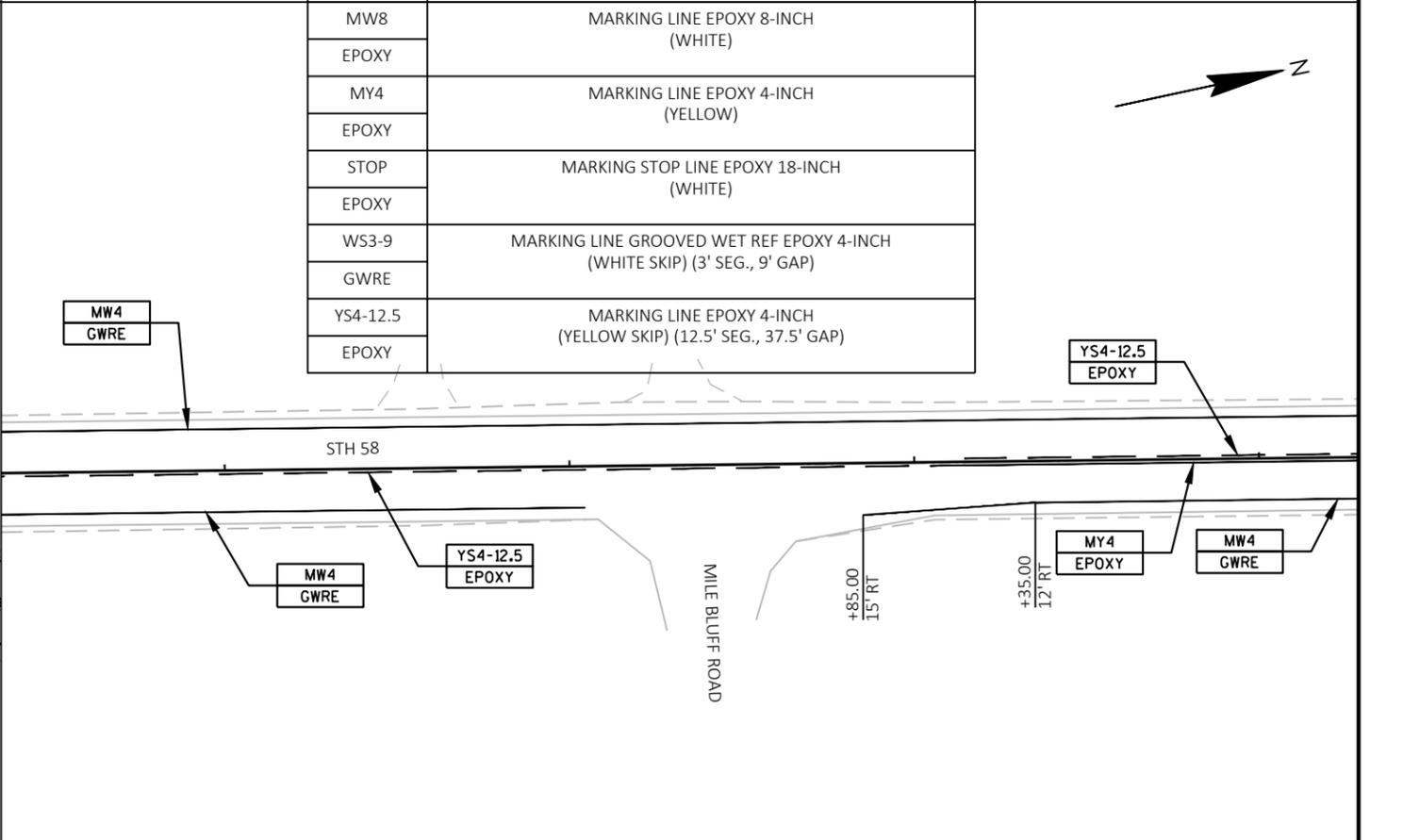
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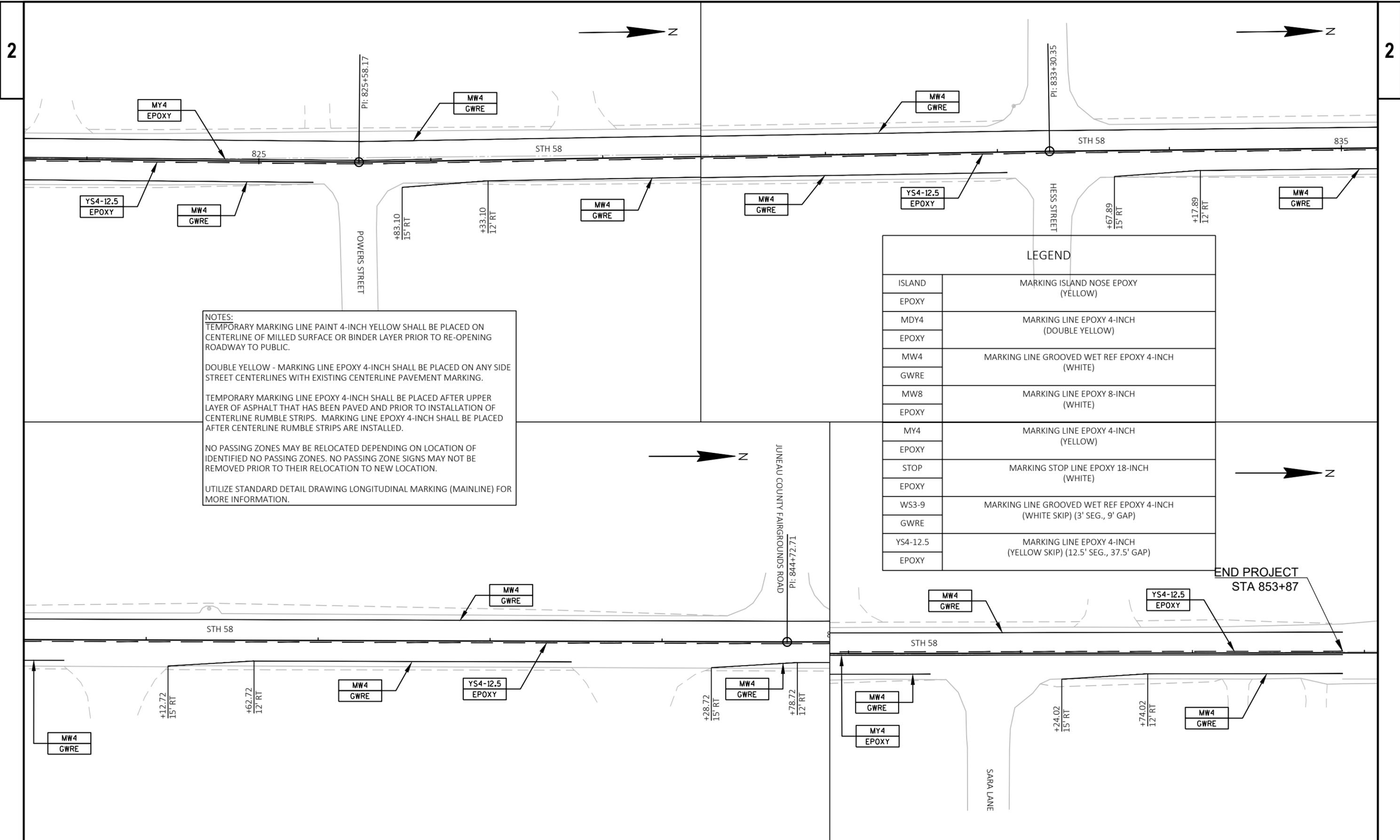
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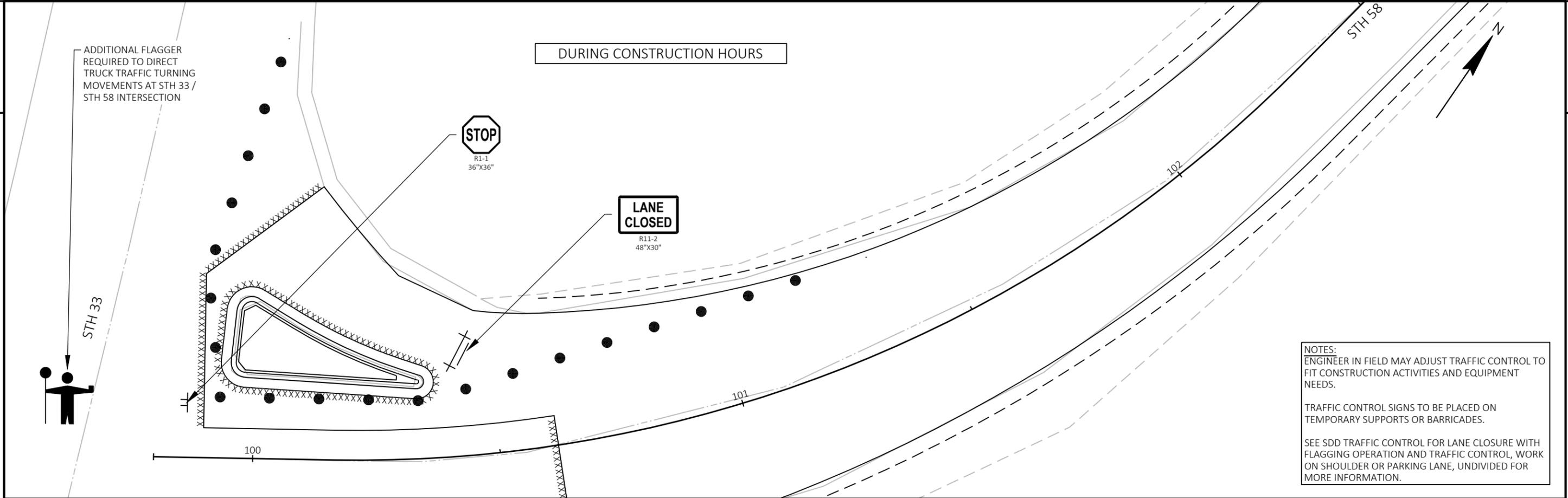
LEGEND	
ISLAND EPOXY	MARKING ISLAND NOSE EPOXY (YELLOW)
MDY4 EPOXY	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MW4 GWRE	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
MW8 EPOXY	MARKING LINE EPOXY 8-INCH (WHITE)
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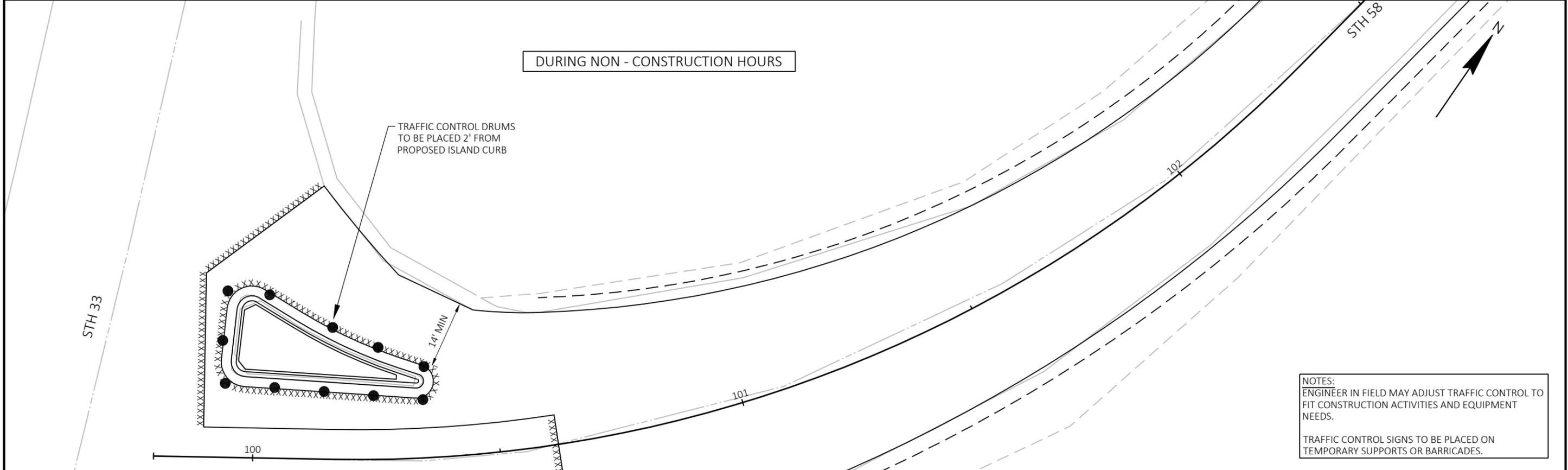
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LEGEND	
ISLAND	MARKING ISLAND NOSE EPOXY (YELLOW)
EPOXY	
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
EPOXY	
MW4	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE)
GWRE	
MW8	MARKING LINE EPOXY 8-INCH (WHITE)
EPOXY	
MY4	MARKING LINE EPOXY 4-INCH (YELLOW)
EPOXY	
STOP	MARKING STOP LINE EPOXY 18-INCH (WHITE)
EPOXY	
WS3-9	MARKING LINE GROOVED WET REF EPOXY 4-INCH (WHITE SKIP) (3' SEG., 9' GAP)
GWRE	
YS4-12.5	MARKING LINE EPOXY 4-INCH (YELLOW SKIP) (12.5' SEG., 37.5' GAP)
EPOXY	



NOTES:
 ENGINEER IN FIELD MAY ADJUST TRAFFIC CONTROL TO FIT CONSTRUCTION ACTIVITIES AND EQUIPMENT NEEDS.
 TRAFFIC CONTROL SIGNS TO BE PLACED ON TEMPORARY SUPPORTS OR BARRICADES.
 SEE SDD TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION AND TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED FOR MORE INFORMATION.

DURING NON - CONSTRUCTION HOURS



NOTES:
 ENGINEER IN FIELD MAY ADJUST TRAFFIC CONTROL TO FIT CONSTRUCTION ACTIVITIES AND EQUIPMENT NEEDS.
 TRAFFIC CONTROL SIGNS TO BE PLACED ON TEMPORARY SUPPORTS OR BARRICADES.

Estimate Of Quantities

5020-01-60

Line	Item	Item Description	Unit	Total	Qty
0002	204.0110	Removing Asphaltic Surface	SY	200.000	200.000
0004	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,035.000	1,035.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	253,000.000	253,000.000
0008	204.0150	Removing Curb & Gutter	LF	500.000	500.000
0010	205.0100	Excavation Common	CY	200.000	200.000
0012	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 5020-01-60	LS	1.000	1.000
0014	213.0100	Finishing Roadway (project) 01. 5020-01-60	EACH	1.000	1.000
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	4,500.000	4,500.000
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	500.000	500.000
0020	455.0605	Tack Coat	GAL	19,050.000	19,050.000
0022	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0024	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0026	460.2005	Incentive Density PWL HMA Pavement	DOL	25,000.000	25,000.000
0028	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	29,420.000	29,420.000
0030	460.2010	Incentive Air Voids HMA Pavement	DOL	31,300.000	31,300.000
0032	460.6224	HMA Pavement 4 MT 58-28 S	TON	31,300.000	31,300.000
0034	465.0105	Asphaltic Surface	TON	500.000	500.000
0036	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	75.000	75.000
0038	465.0315	Asphaltic Flumes	SY	85.000	85.000
0040	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	73,550.000	73,550.000
0042	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	95.000	95.000
0044	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	255.000	255.000
0046	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	150.000	150.000
0048	602.2400	Concrete Safety Islands	SF	320.000	320.000
0050	606.0050	Riprap Extra-Light	CY	10.000	10.000
0052	606.0200	Riprap Medium	CY	105.000	105.000
0054	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5020-01-60	EACH	1.000	1.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	50.000	50.000
0060	625.0100	Topsoil	SY	4,000.000	4,000.000
0062	628.1504	Silt Fence	LF	1,500.000	1,500.000
0064	628.1520	Silt Fence Maintenance	LF	750.000	750.000
0066	628.2008	Erosion Mat Urban Class I Type B	SY	4,000.000	4,000.000
0068	628.7504	Temporary Ditch Checks	LF	300.000	300.000
0070	629.0210	Fertilizer Type B	CWT	2.000	2.000
0072	630.0140	Seeding Mixture No. 40	LB	60.000	60.000
0074	630.0500	Seed Water	MGAL	80.000	80.000
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	2.000	2.000
0078	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	10.000	10.000
0080	638.2102	Moving Signs Type II	EACH	12.000	12.000
0082	638.3000	Removing Small Sign Supports	EACH	12.000	12.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0300	Traffic Control Drums	DAY	1,200.000	1,200.000
0088	643.0420	Traffic Control Barricades Type III	DAY	80.000	80.000
0090	643.0900	Traffic Control Signs	DAY	2,000.000	2,000.000
0092	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0094	643.5000	Traffic Control	EACH	1.000	1.000
0096	645.0120	Geotextile Type HR	SY	160.000	160.000
0098	646.1020	Marking Line Epoxy 4-Inch	LF	137,500.000	137,500.000

Estimate Of Quantities

5020-01-60

Line	Item	Item Description	Unit	Total	Qty
0100	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	147,500.000	147,500.000
0102	646.3020	Marking Line Epoxy 8-Inch	LF	40.000	40.000
0104	646.6120	Marking Stop Line Epoxy 18-Inch	LF	30.000	30.000
0106	646.8120	Marking Curb Epoxy	LF	90.000	90.000
0108	646.8220	Marking Island Nose Epoxy	EACH	3.000	3.000
0110	648.0100	Locating No-Passing Zones	MI	14.300	14.300
0112	649.0105	Temporary Marking Line Paint 4-Inch	LF	137,500.000	137,500.000
0114	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	137,500.000	137,500.000
0116	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	500.000	500.000
0118	650.8000	Construction Staking Resurfacing Reference	LF	73,550.000	73,550.000
0120	650.9910	Construction Staking Supplemental Control (project) 01. 5020-01-60	LS	1.000	1.000
0122	690.0150	Sawing Asphalt	LF	220.000	220.000
0124	690.0250	Sawing Concrete	LF	20.000	20.000
0126	740.0440	Incentive IRI Ride	DOL	36,775.000	36,775.000
0128	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	500.000	500.000
0130	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0132	SPV.0060	Special 01. Landmark Reference Monument Special	EACH	3.000	3.000
0134	SPV.0060	Special 02. Verify Landmark Reference Monument	EACH	3.000	3.000
0136	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	13,000.000	13,000.000

3

REMOVING ASPHALTIC SURFACE BUTT JOINTS

REMOVING ASPHALTIC SURFACE

REMOVING CURB AND GUTTER

STATION - STATION	LOCATION	204.0115 SY	COMMENTS
100+62	CL	55	BEGIN PROJECT
119+50	LT	30	SEFKAR ROAD
126+00	RT	40	PIERCE ROAD
137+10	RT	28	WILKE ROAD
182+00	RT	35	SECTION 11 ROAD
225+00	LT	30	WILKINSIN ROAD
264+95	RT	25	LUCHT ROAD
276+75	RT	36	CTH F
304+50	LT	30	SPRINGER ROAD
327+50	LT	28	MILLER ROAD
343+90	RT	28	CLARK ROAD
385+50	LT	35	GEIER ROAD
391+00	LT	75	FOX ROAD
398+00	RT	38	LUCHT ROAD
466+00	LT	28	WAFLE ROAD
466+10	RT	27	WAFLE ROAD
508+80	LT	40	DARROW ROAD
517+50	RT	25	HILL ROAD
569+75	RT	28	HILL ROAD
603+75	RT	28	CHAPEL ROAD
616+50	LT	35	CTH I
663+70	RT	35	CTH O
663+80	LT	35	CTH O
702+75	RT	25	STEINER ROAD
753+50	LT	25	DONLIN ROAD
777+20	RT	30	MILE BLUFF ROAD
825+60	RT	24	POWERS STREET
833+30	LT	27	JUNEAU COUNTY FAIRGROUNDS ROAD
833+30	RT	25	HESS STREET
844+75	LT	25	JUNEAU COUNTY FAIRGROUNDS ROAD
851+80	RT	30	SARA LANE
853+87	CL	30	END PROJECT
TOTALS		1,035	

STATION - STATION	LOCATION	204.0110 SY	COMMENTS
99+94 - 100+36	LT	40	ISLAND
100+62 - 853+87	LT & RT	100	CURB & GUTTER
100+62 - 853+87	LT & RT	60	DRIVEWAYS
TOTALS		200	

STATION - STATION	LOCATION	204.0150 LF	COMMENTS
99+95 - 100+35	LT	95	CONC ISLAND
UNDISTRIBUTED	LT/RT	405	SPOT REPLACEMENT
TOTAL		500	

REMOVING ASPHALTIC SURFACE MILLING

REMOVING DISTRESSED PAVEMENT MILLING

STATION - STATION	LOCATION	204.0120 SY
100+62 - 853+87	LT & RT	253,000
TOTALS		253,000

STATION - STATION	LOCATION	SPV.0180.01 REMOVING DISTRESSED PAVEMENT MILLING SY
100+62 - 853+87	CL	13,000
TOTALS		13,000

EXCAVATION COMMON ITEMS

BASE AGGREGATE DENSE ITEMS

STATION	LOCATION	205 0100 EXCAVATION COMMON CY
CATEGORY CODE 0010		
659+50 - 660+20	LT/RT	100
767+00 - 768+20	LT/RT	100
TOTALS		200

STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	COMMENTS
CATEGORY CODE 0010				
100+62 - 853+87	RT / LT	4,500	--	SHOULDERING
UNDISTRIBUTED	RT / LT	--	500	CURB & GUTTER
TOTALS		4,500	500	

ASPHALTIC ITEMS

PWL ITEMS

STATION - STATION	LOCATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
CATEGORY CODE 0010					
100+62 - 853+87	CL / RT/ LT	19,050	31,300	500	75
TOTALS		19,050	31,300	500	75

STATION - STATION	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
CATEGORY CODE 0010		
PROJECT 5020-01-60	1	1
TOTALS		1

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
12' Driving Lane	100+62 - 853+87	Upper Layer	Existing HMA Surface	4 MT 58-28 S	25,000	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
3' Shoulder / Side Roads / Guardrail	100+62 - 853+87	Upper Layer	Existing HMA Surface	4 MT 58-28 S	6,300	2"	PWL Incentive Air Voids HMA Pavement 460.2010	Acceptance testing by the department, not eligible for incentive

MISC. SHEET 1

3

FLUME ITEMS

STATION - STATION LOCATION		465.0315 ASPHALTIC FLUMES		COMMENTS
SY	SY	SY	SY	
CATEGORY CODE 0010				
276+50	RT	10		STH 58/ CTH F INTERSECTION
299+00 - 300+00	RT	50		STH 58 MAINLINE C&G
616+50	LT	10		STH 58/CTH I INTERSECTICION
664+00	LT/RT	15		STH 58/CTH O INTERSECTION
TOTALS		85		

RUBBLE STRIP ITEMS

STATION - STATION LOCATION		465.0475 ASPHALTIC CENTERLINE 2-LANE RURAL	
LF	LF	LF	LF
CATEGORY CODE 0010			
100+62 - 853+87	CL	73,550	
TOTALS		73,550	

SIGNING ITEMS

STATION - STATION LOCATION	638.2102 MOVING SIGNS TYPE II	638.3000 REMOVING SMALL SIGN SUPPORTS	634.0612 POSTS WOOD 4X6-INCH X 12-FT	634.0616 POSTS WOOD 4X6-INCH X 16-FT	COMMENT
	EACH	EACH	EACH	EACH	
CATEGORY CODE 0010					
100+00 - 100+50	2	2	2	--	ISLAND SIGNS
UNDISTRIBUTED	10	10	--	10	NO PASSING SIGNS
TOTALS		12	12	2	10

3

CONCRETE CURB AND GUTTER ITEMS

STATION - STATION LOCATION	LOCATION	601.0415 CONCRETE C&G 6-INCH SLOPED 30-INCH TYPE J	601.0407 CONCRETE C&G 18-INCH TYPE D	601.0557 CONCRETE C&G 6-INCH SLOPED 36-INCH TYPE D	650.5500 CONSTRUCTION STAKING CURB AND GUTTER
		LF	LF	LF	LF
CATEGORY CODE 0010					
99+95 - 100+35	LT	--	95	--	95
UNDISTRIBUTED	LT/RT	255	--	150	405
TOTALS		255	95	150	500

RIPRAP AND GEOTEXTILE FABRIC ITEMS

STATION	LOCATION	606.0050 RIPRAP EXTRA-LIGHT	606.0200 RIPRAP MEDIUM	645.0120 GEOTEXTILE FABRIC TYPE HR
		CY	CY	SY
CATEGORY CODE 0010				
659+50 - 660+20	LT/RT	5	50	75
767+00 - 768+20	LT/RT	5	55	85
TOTALS		10	105	160

LANDSCAPING ITEMS

STATION - STATION LOCATION	LOCATION	625.0100 TOPSOIL	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.2008 EROSION MAT URBAN CLASS I TYPE B	629.0210 FERTILIZER TYPE B	630.0140 SEED MIX NO. 40	630.0500 SEED WATER	COMMENTS
		SY	LF	LF	SY	CWT	LBS	MGAL	
CATEGORY CODE 0010									
658+67 - 659+75	LT	275	150	75	275	0.1	4	5	
658+67 - 659+75	RT	400	150	75	400	0.2	6	8	
660+00 - 661+04	LT	500	150	75	500	0.3	7	10	DO NOT APPLY
660+00 - 661+04	RT	375	150	75	375	0.2	5	7	FERTILIZER WITHIN
766+40 - 767+50	LT	500	150	75	500	0.3	8	11	20 FT OF WATER /
766+33 - 767+50	RT	450	150	75	450	0.2	7	9	WETLANDS
768+00 - 769+12	LT	400	150	75	400	0.2	6	8	
768+00 - 769+14	RT	450	150	75	450	0.2	6	9	
UNDISTRIBUTED	LT/RT	650	300	150	650	0.3	12	13	C&G RESTORATION
TOTALS		4,000	1,500	750	4,000	2.0	60	80	

SAFETY ISLAND ITEMS

STATION	LOCATION	602.2400 CONCRETE SAFETY ISLAND SF
CATEGORY CODE 0010		
99+95 - 100+35	LT/RT	320
TOTAL		320

WATER

STATION - STATION LOCATION	624.0100 WATER	COMMENT
CATEGORY CODE 0010		
PROJECT 5020-01-60	50	COMPACTION / DUST
TOTALS		50

MISC. SHEET 2

3

3

MARKING LINE ITEMS

STATION - STATION	LOCATION	646.1020 EPOXY 4-INCH YELLOW LF	646.1040 GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE LF	646.3020 EPOXY 8-INCH WHITE LF	646.6120 STOP LINE EPOXY 18-INCH WHITE LF	646.8120 CURB EPOXY YELLOW LF	646.8220 ISLAND NOSE EPOXY YELLOW EACH	648.0101 LOCATING NO PASSING ZONES MI	649.0106 TEMPORARY PAINT 4-INCH YELLOW LF	649.0120 TEMPORARY EPOXY 4-INCH YELLOW LF	COMMENTS
100+00 - 853+87	LT/ RT/CL	137,500	147,500	40	30	90	3	14.3	137,500	137,500	TEMP PAINT FOR MILLED SURFACE
TOTALS		137,500	147,500	40	30	90	3	14.3	137,500	137,500	

DITCH CHECK ITEMS

STATION	LOCATION	628.7504 TEMPORARY DITCH CHECKS LF	COMMENTS
UNDISTRIBUTED	LT/RT	300	PERPENDICULAR TO EX DIRECTION OF FLOW AS NEEDED
TOTAL		300	

SAWING ITEMS

STATION - STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	COMMENTS
100+62 UNDISTRIBUTED	CL LT/RT	110 110	-- 20	SAFETY ISLAND CURB & GUTTER REPLACEMENT
TOTALS		220	20	

TRAFFIC CONTROL ITEMS

LOCATION	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0900 SIGNS DAYS	643.1050 PCMS DAYS	643.5000 TRAFFIC CONTROL EACH	
Project 5020-01-60	1,200	80	2,000	14	1	
TOTALS		1,200	80	2,000	14	1

REFERENCE MONUMENTS ITEMS

STATION	LOCATION	SPV.0060.01 LANDMARK REFERENCE MONUMENT SPECIAL EACH	SPV.0060.02 VERIFY LANDMARK REFERENCE MONUMENT EACH
576+12	1' RT	1	1
602+63	7' LT	1	1
640+05	24' LT	1	1
TOTALS		3	3

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.8000 RESURFACING REFERENCE LF	650.9910 SUPPLEMENTAL CONTROL LS
PROJECT 5020-01-60	CL	73,550	1
TOTALS		73,550	1

STAKING ITEMS FOR CURB AND GUTTER SHOWN ELSEWHERE

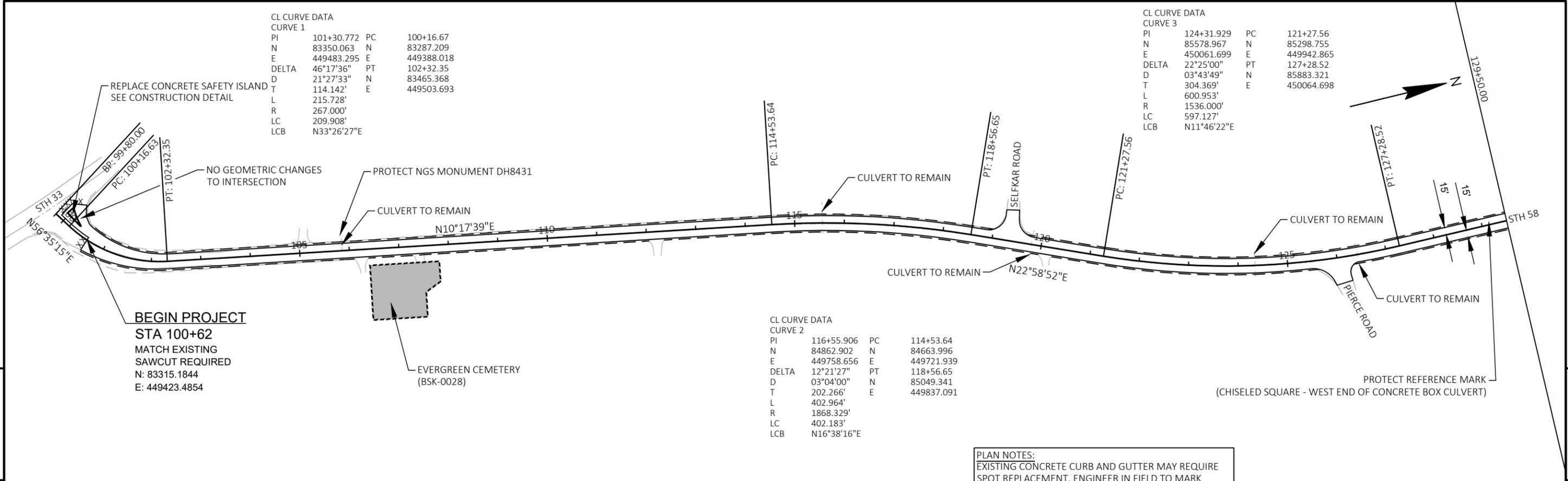
MISC. SHEET 3

CL CURVE DATA			
CURVE 1			
PI	101+30.772	PC	100+16.67
N	83350.063	N	83287.209
E	449483.295	E	449388.018
DELTA	46°17'36"	PT	102+32.35
D	21°27'33"	N	83465.368
T	114.142'	E	449503.693
L	215.728'		
R	267.000'		
LC	209.908'		
LCB	N33°26'27"E		

CL CURVE DATA			
CURVE 3			
PI	124+31.929	PC	121+27.56
N	85578.967	N	85298.755
E	450061.699	E	449942.865
DELTA	22°25'00"	PT	127+28.52
D	03°43'49"	N	85883.321
T	304.369'	E	450064.698
L	600.953'		
R	1536.000'		
LC	597.127'		
LCB	N11°46'22"E		

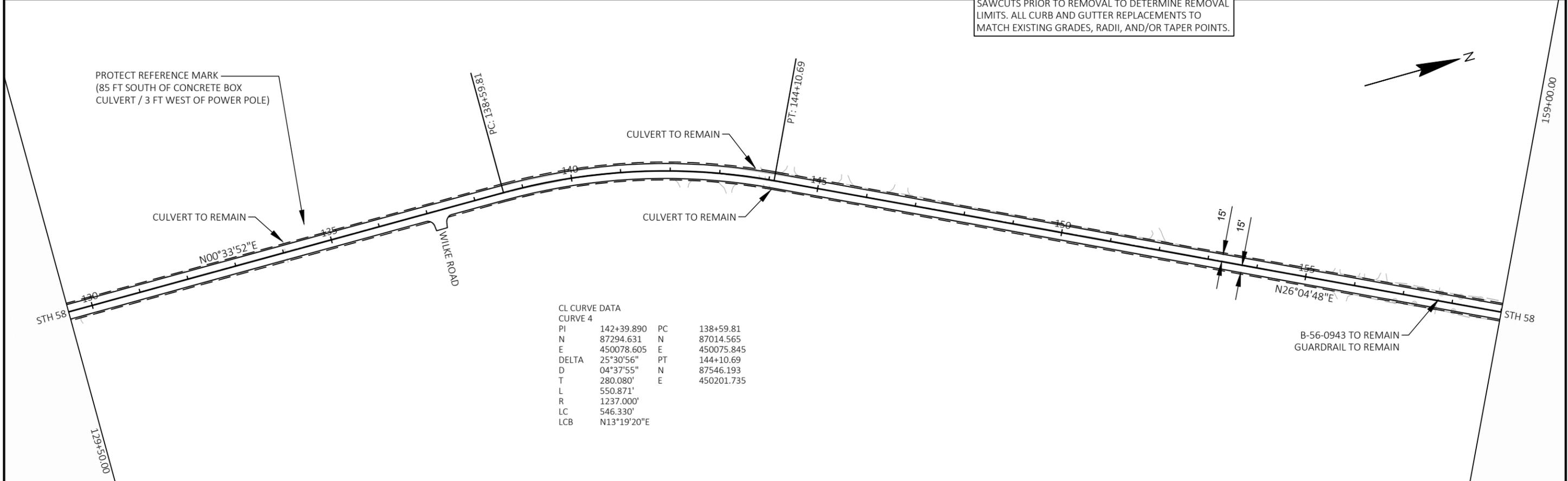
CL CURVE DATA			
CURVE 2			
PI	116+55.906	PC	114+53.64
N	84862.902	N	84663.996
E	449758.656	E	449721.939
DELTA	12°21'27"	PT	118+56.65
D	03°04'00"	N	85049.341
T	202.266'	E	449837.091
L	402.964'		
R	1868.329'		
LC	402.183'		
LCB	N16°38'16"E		

CL CURVE DATA			
CURVE 4			
PI	142+39.890	PC	138+59.81
N	87294.631	N	87014.565
E	450078.605	E	450075.845
DELTA	25°30'56"	PT	144+10.69
D	04°37'55"	N	87546.193
T	280.080'	E	450201.735
L	550.871'		
R	1237.000'		
LC	546.330'		
LCB	N13°19'20"E		



BEGIN PROJECT
STA 100+62
 MATCH EXISTING
 SAWCUT REQUIRED
 N: 83315.1844
 E: 449423.4854

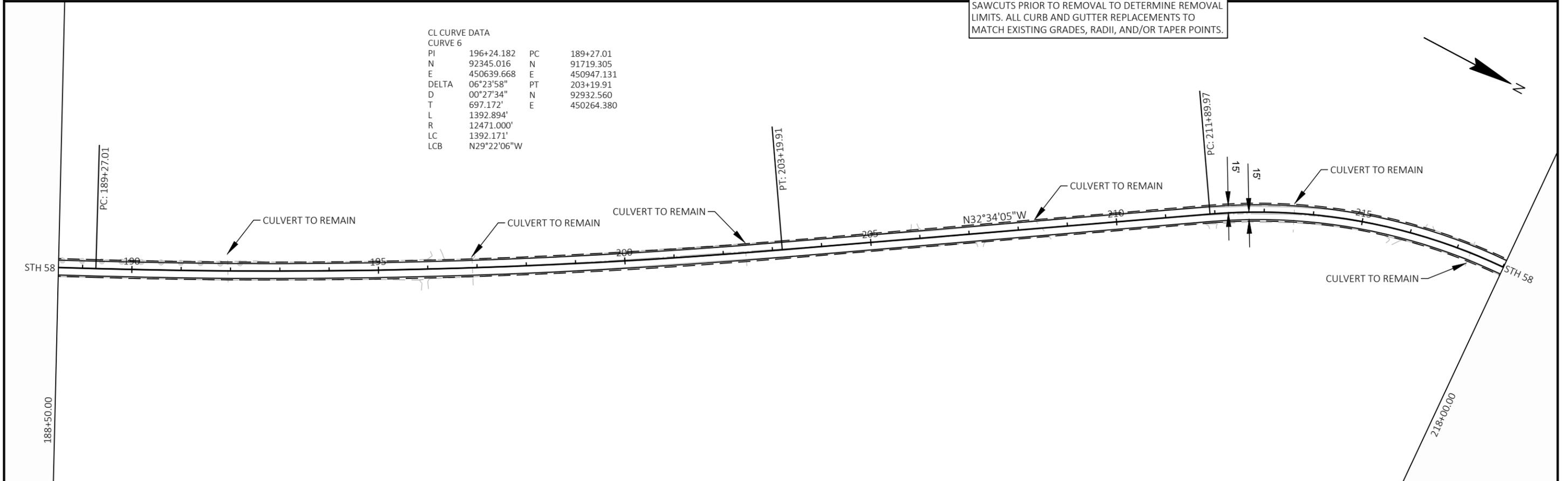
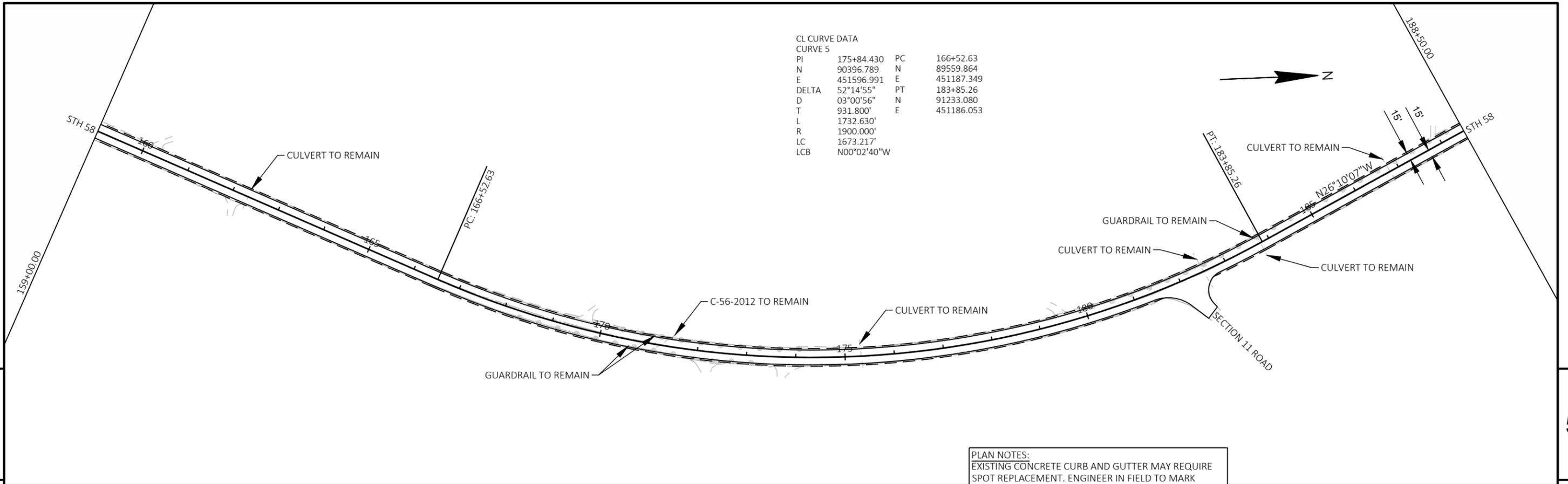
PLAN NOTES:
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CL CURVE DATA			
CURVE 5			
PI	175+84.430	PC	166+52.63
N	90396.789	N	89559.864
E	451596.991	E	451187.349
DELTA	52°14'55"	PT	183+85.26
D	03°00'56"	N	91233.080
T	931.800'	E	451186.053
L	1732.630'		
R	1900.000'		
LC	1673.217'		
LCB	N00°02'40"W		

CL CURVE DATA			
CURVE 6			
PI	196+24.182	PC	189+27.01
N	92345.016	N	91719.305
E	450639.668	E	450947.131
DELTA	06°23'58"	PT	203+19.91
D	00°27'34"	N	92932.560
T	697.172'	E	450264.380
L	1392.894'		
R	12471.000'		
LC	1392.171'		
LCB	N29°22'06"W		

PLAN NOTES:
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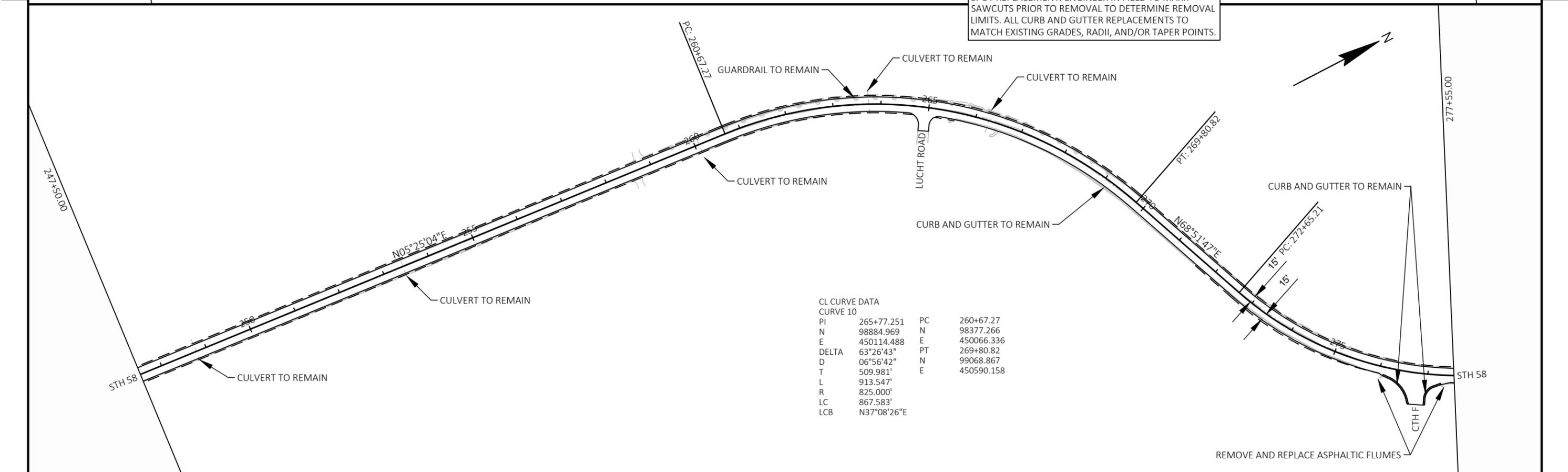
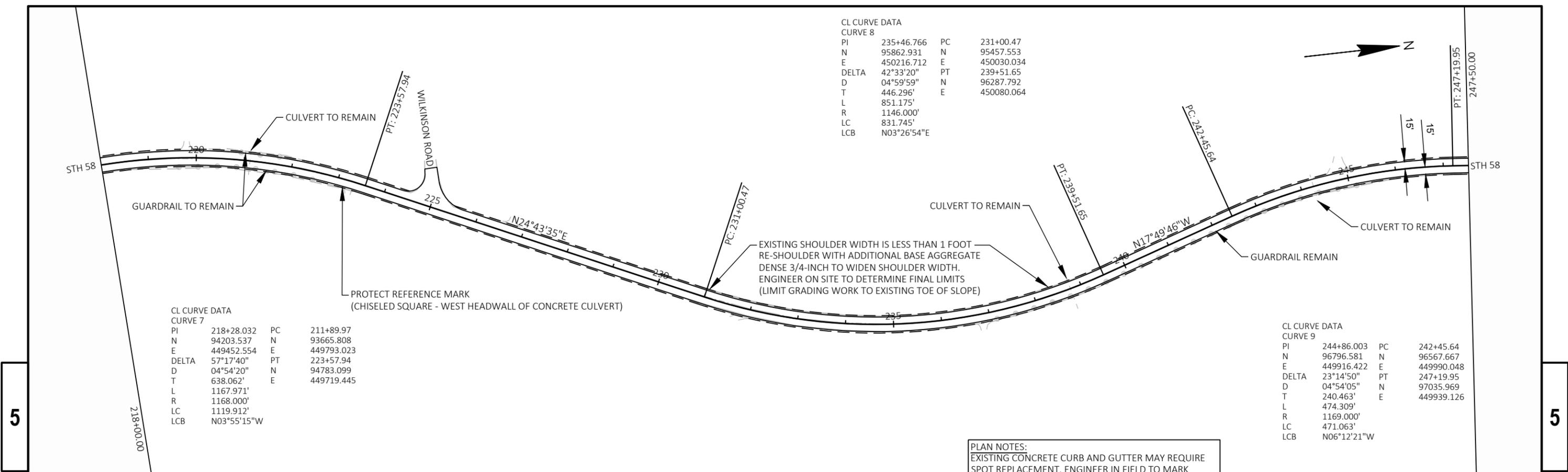
PROJECT NO: 5020-01-60	HWY: STH 58	COUNTY: JUNEAU	PLAN SHEETS	SHEET	E
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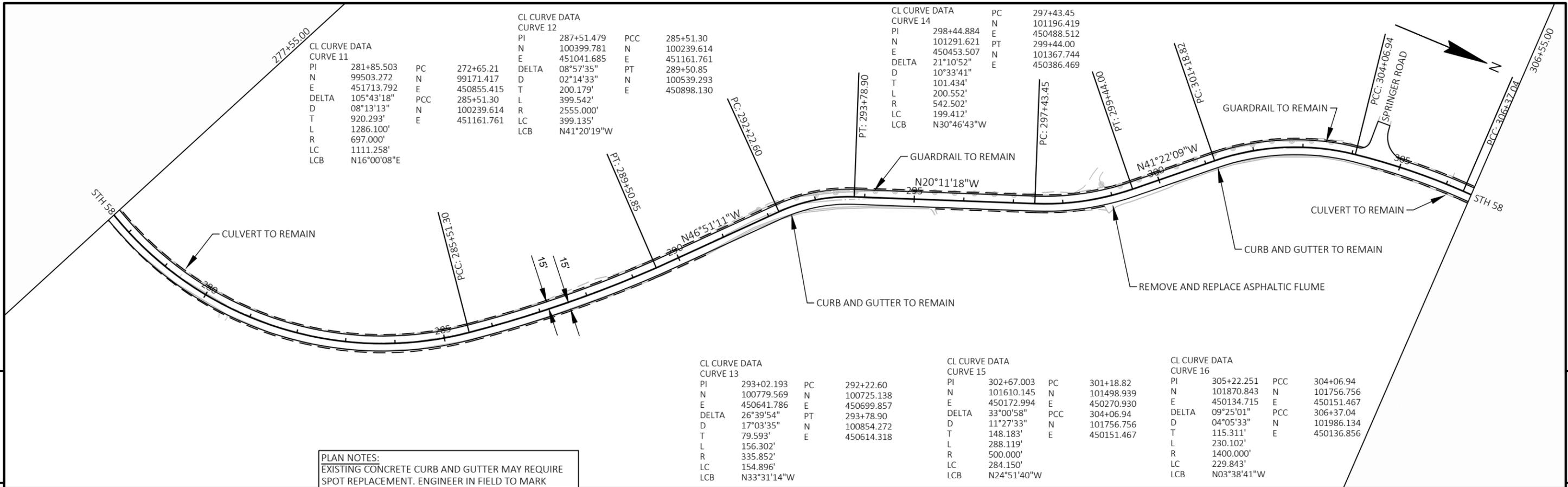
CL CURVE DATA			
CURVE 8			
PI	235+46.766	PC	231+00.47
N	95862.931	N	95457.553
E	450216.712	E	450030.034
DELTA	42°33'20"	PT	239+51.65
D	04°59'59"	N	96287.792
T	446.296'	E	450080.064
L	851.175'		
R	1146.000'		
LC	831.745'		
LCB	N03°26'54"E		

CL CURVE DATA			
CURVE 7			
PI	218+28.032	PC	211+89.97
N	94203.537	N	93665.808
E	449452.554	E	449793.023
DELTA	57°17'40"	PT	223+57.94
D	04°54'20"	N	94783.099
T	638.062'	E	449719.445
L	1167.971'		
R	1168.000'		
LC	1119.912'		
LCB	N03°55'15"W		

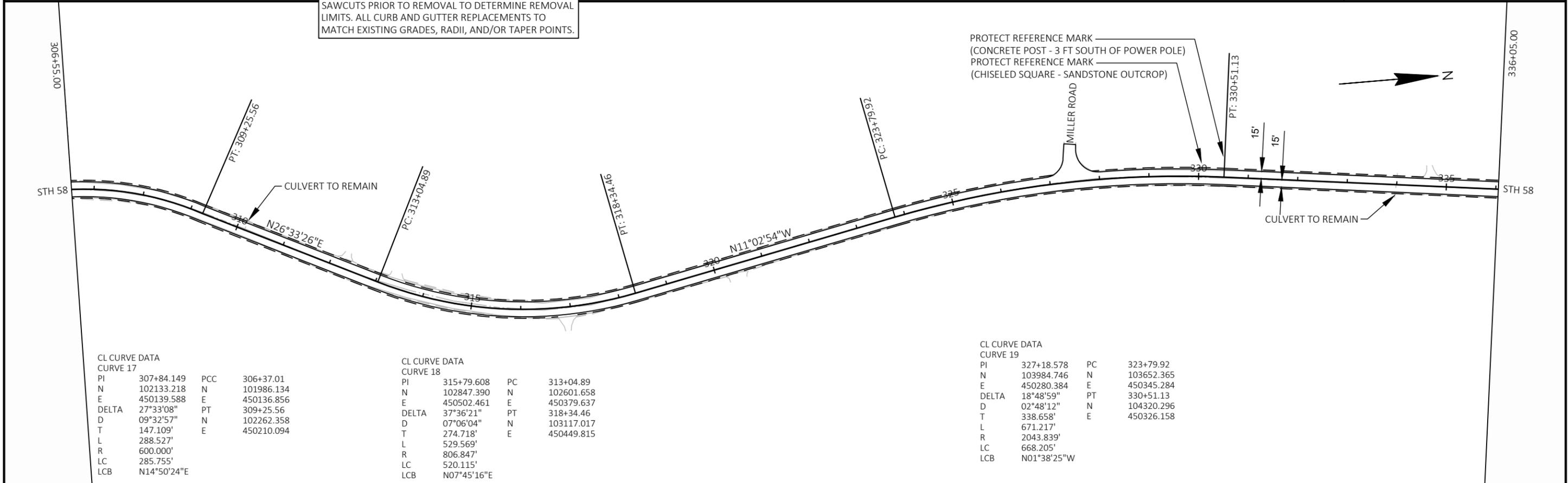
CL CURVE DATA			
CURVE 9			
PI	244+86.003	PC	242+45.64
N	96796.581	N	96567.667
E	449916.422	E	449990.048
DELTA	23°14'50"	PT	247+19.95
D	04°54'05"	N	97035.969
T	240.463'	E	449939.126
L	474.309'		
R	1169.000'		
LC	471.063'		
LCB	N06°12'21"W		

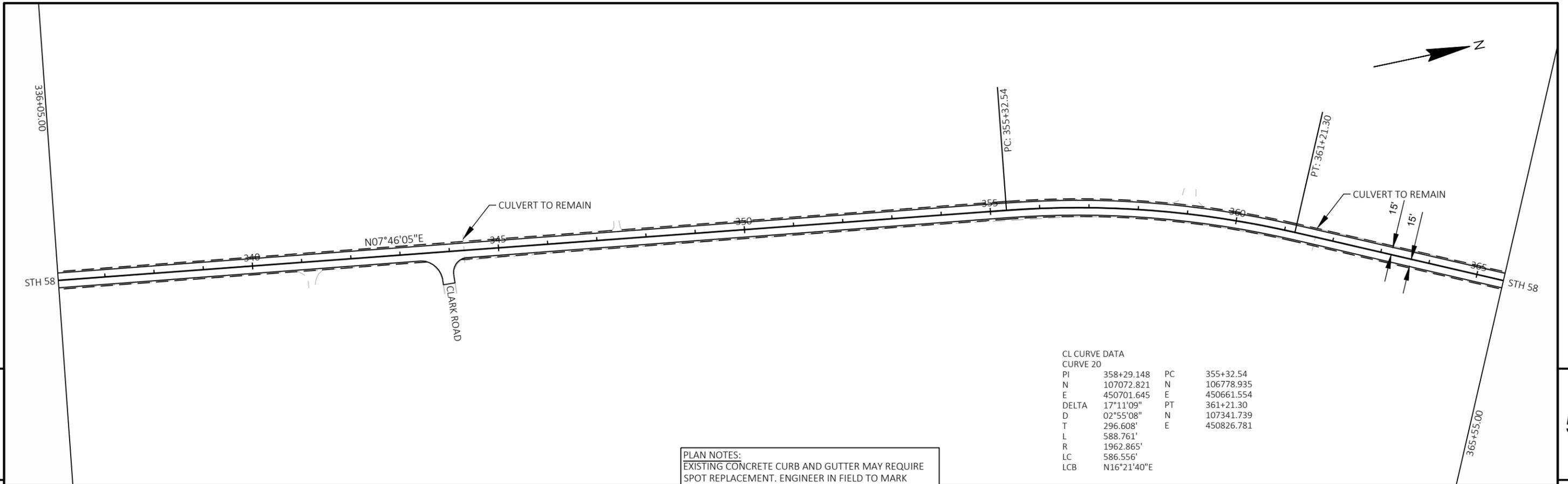
PLAN NOTES:
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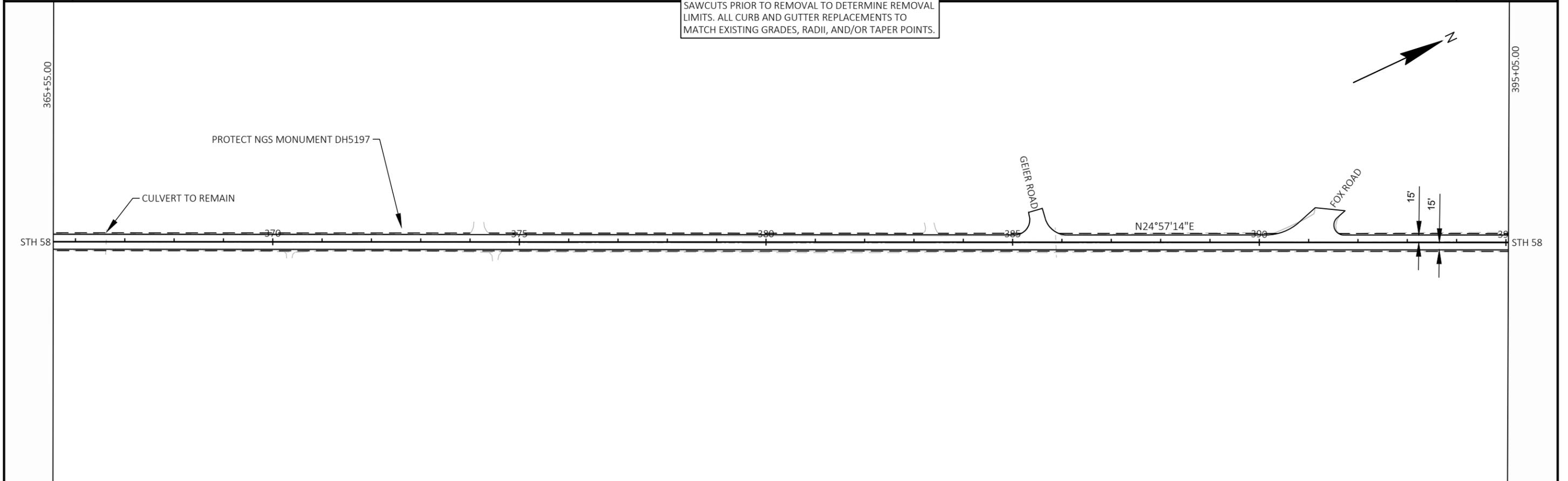


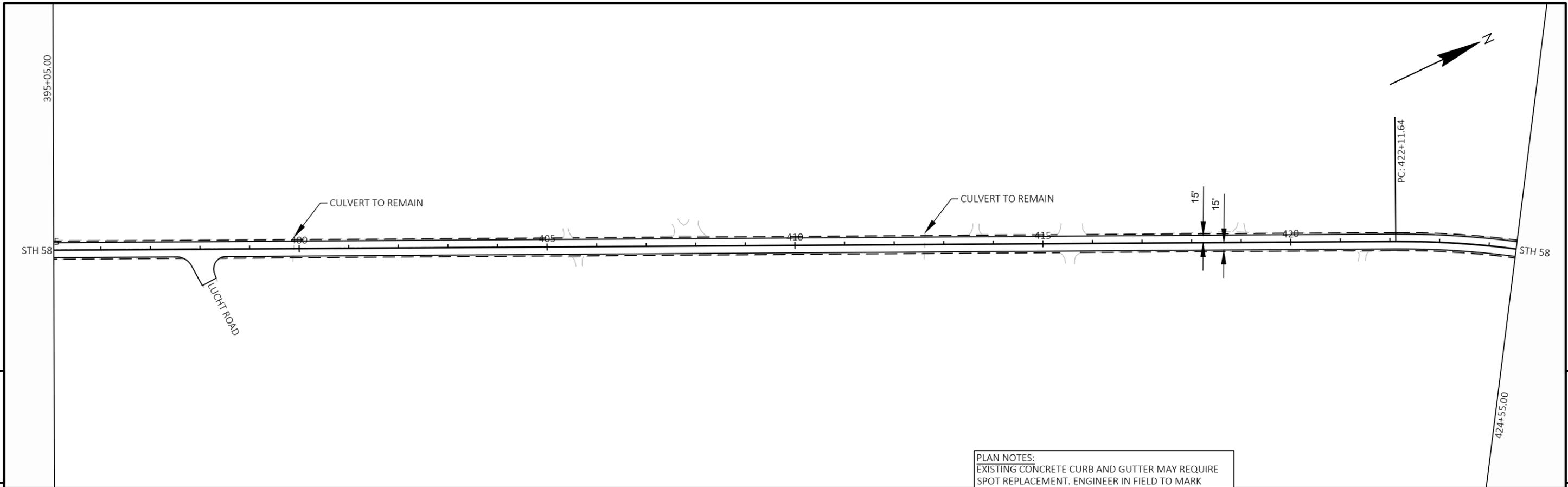


CL CURVE DATA
CURVE 20

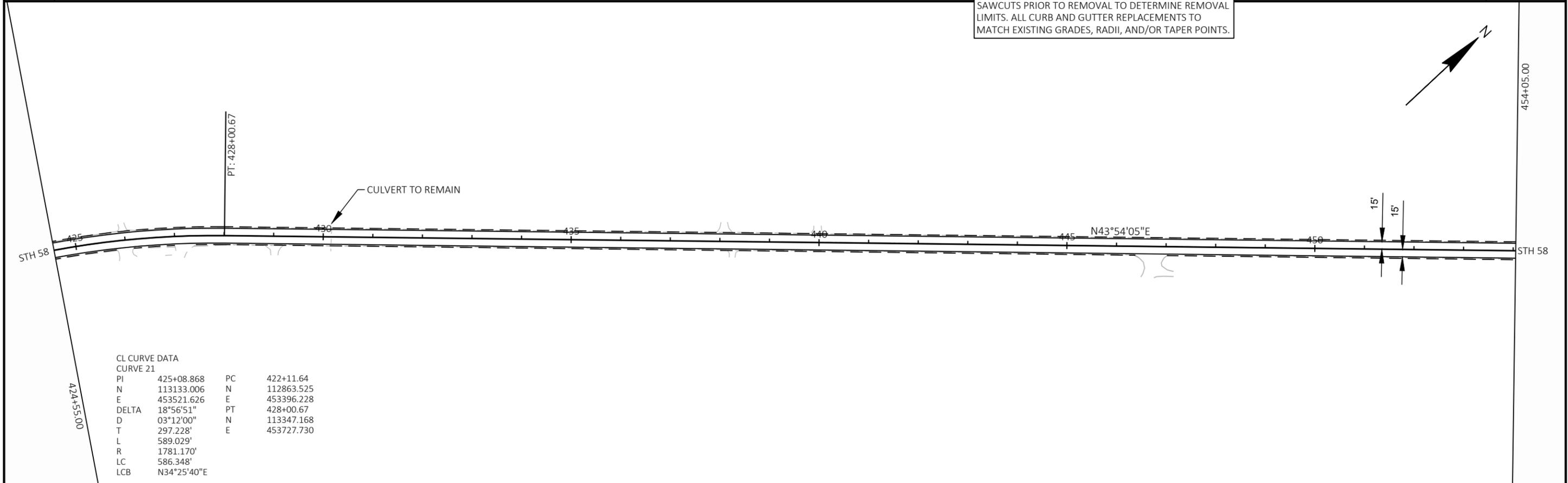
PI	358+29.148	PC	355+32.54
N	107072.821	N	106778.935
E	450701.645	E	450661.554
DELTA	17°11'09"	PT	361+21.30
D	02°55'08"	N	107341.739
T	296.608'	E	450826.781
L	588.761'		
R	1962.865'		
LC	586.556'		
LCB	N16°21'40"E		

PLAN NOTES:
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CL CURVE DATA
 CURVE 21

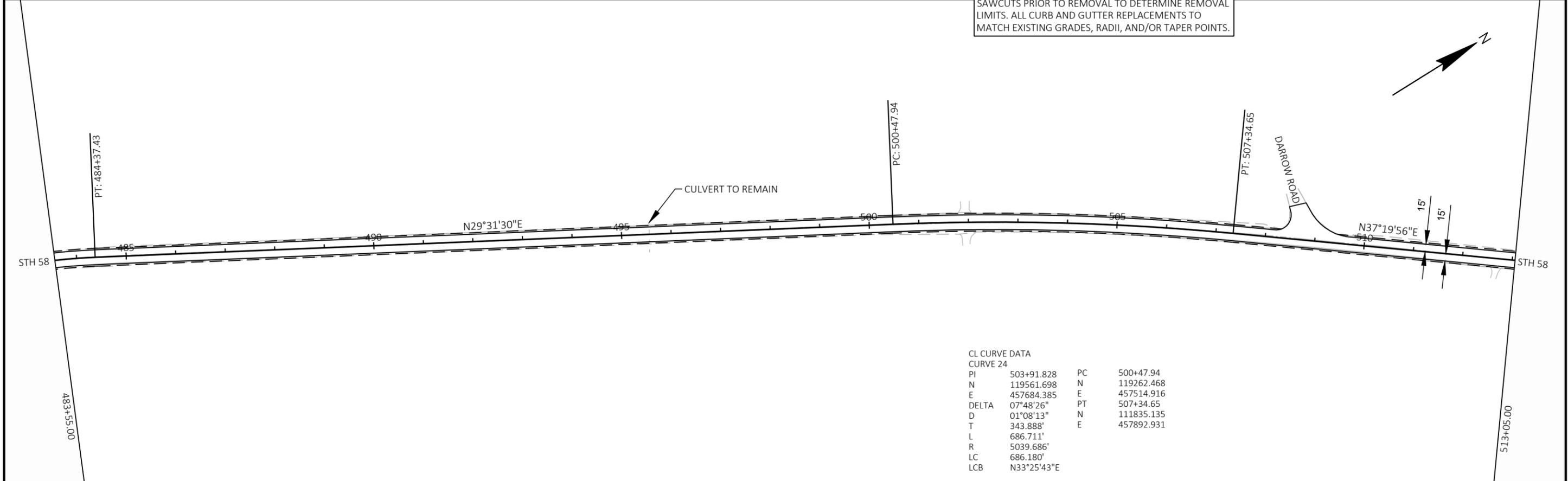
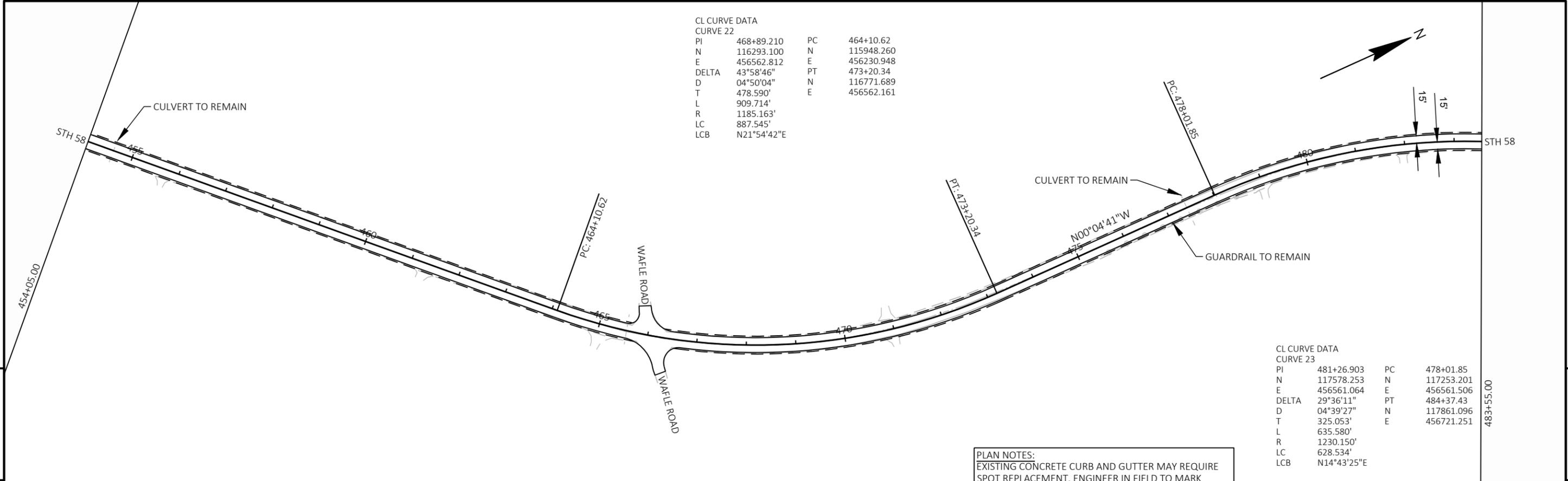
PI	425+08.868	PC	422+11.64
N	113133.006	N	112863.525
E	453521.626	E	453396.228
DELTA	18°56'51"	PT	428+00.67
D	03°12'00"	N	113347.168
T	297.228'	E	453727.730
L	589.029'		
R	1781.170'		
LC	586.348'		
LCB	N34°25'40"E		

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CL CURVE DATA			
CURVE 22			
PI	468+89.210	PC	464+10.62
N	116293.100	N	115948.260
E	456562.812	E	456230.948
DELTA	43°58'46"	PT	473+20.34
D	04°50'04"	N	116771.689
T	478.590'	E	456562.161
L	909.714'		
R	1185.163'		
LC	887.545'		
LCB	N21°54'42"E		

CL CURVE DATA			
CURVE 23			
PI	481+26.903	PC	478+01.85
N	117578.253	N	117253.201
E	456561.064	E	456561.506
DELTA	29°36'11"	PT	484+37.43
D	04°39'27"	N	117861.096
T	325.053'	E	456721.251
L	635.580'		
R	1230.150'		
LC	628.534'		
LCB	N14°43'25"E		

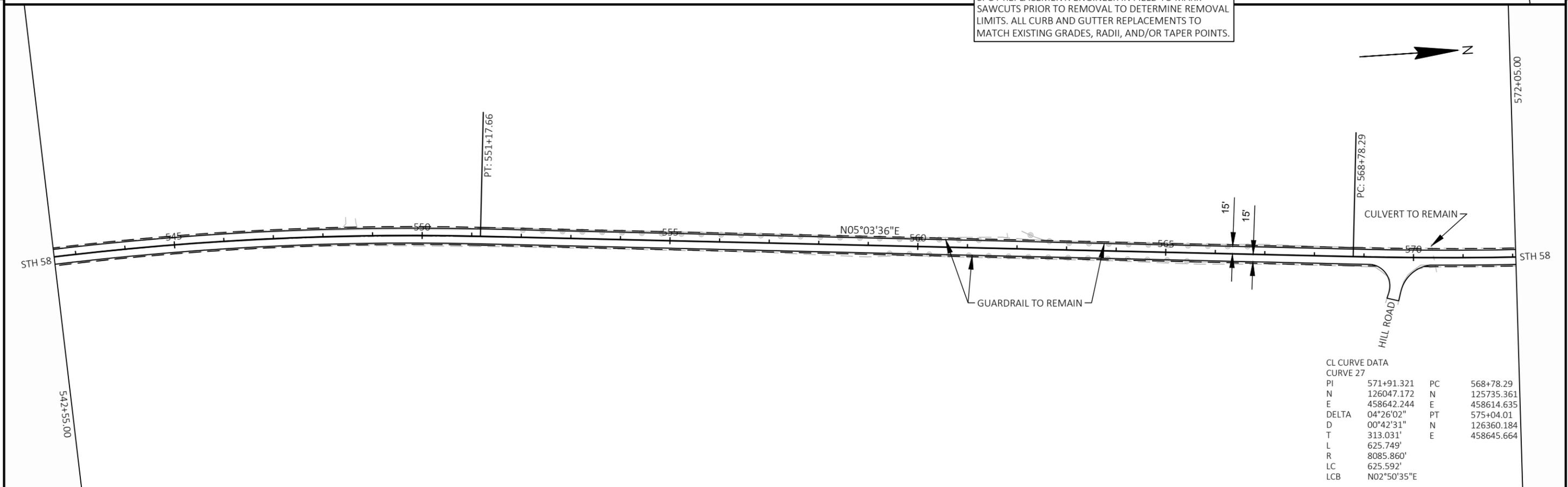
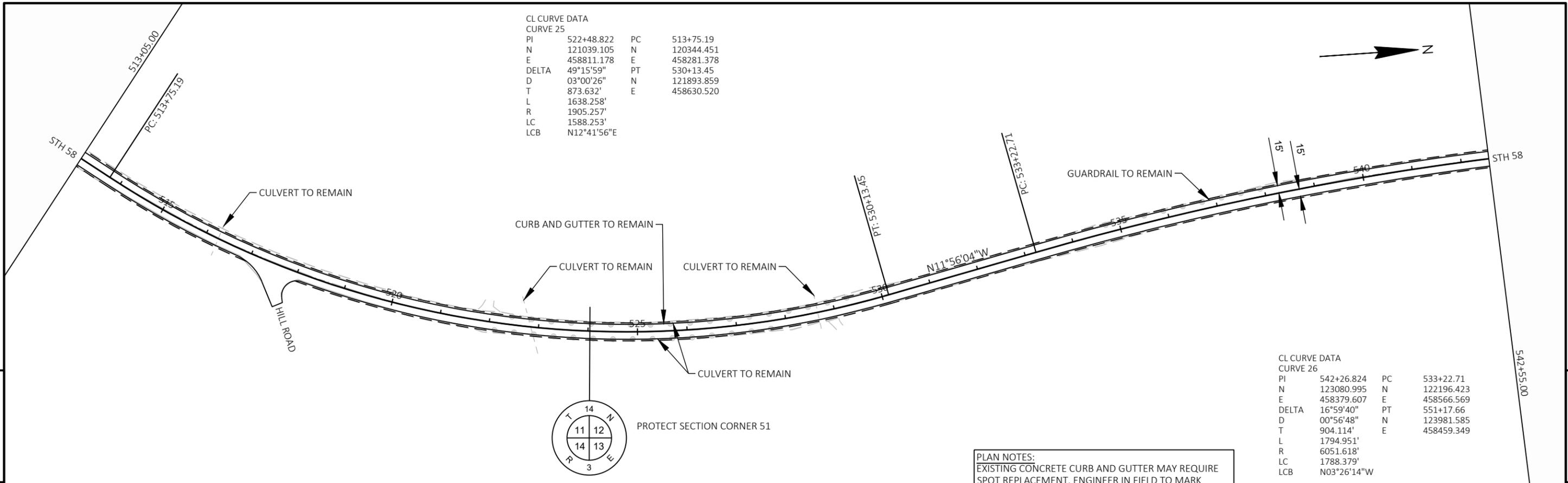
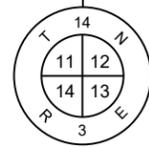
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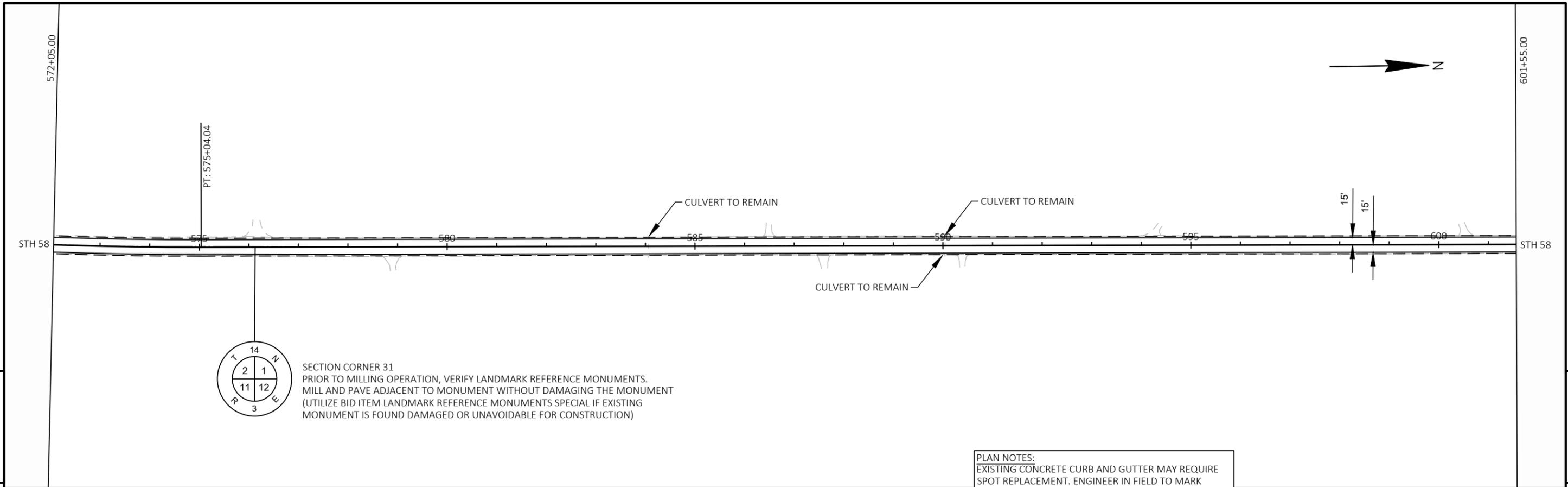
CL CURVE DATA			
CURVE 25			
PI	522+48.822	PC	513+75.19
N	121039.105	N	120344.451
E	458811.178	E	458281.378
DELTA	49°15'59"	PT	530+13.45
D	03°00'26"	N	121893.859
T	873.632'	E	458630.520
L	1638.258'		
R	1905.257'		
LC	1588.253'		
LCB	N12°41'56"E		

CL CURVE DATA			
CURVE 26			
PI	542+26.824	PC	533+22.71
N	123080.995	N	122196.423
E	458379.607	E	458566.569
DELTA	16°59'40"	PT	551+17.66
D	00°56'48"	N	123981.585
T	904.114'	E	458459.349
L	1794.951'		
R	6051.618'		
LC	1788.379'		
LCB	N03°26'14"W		

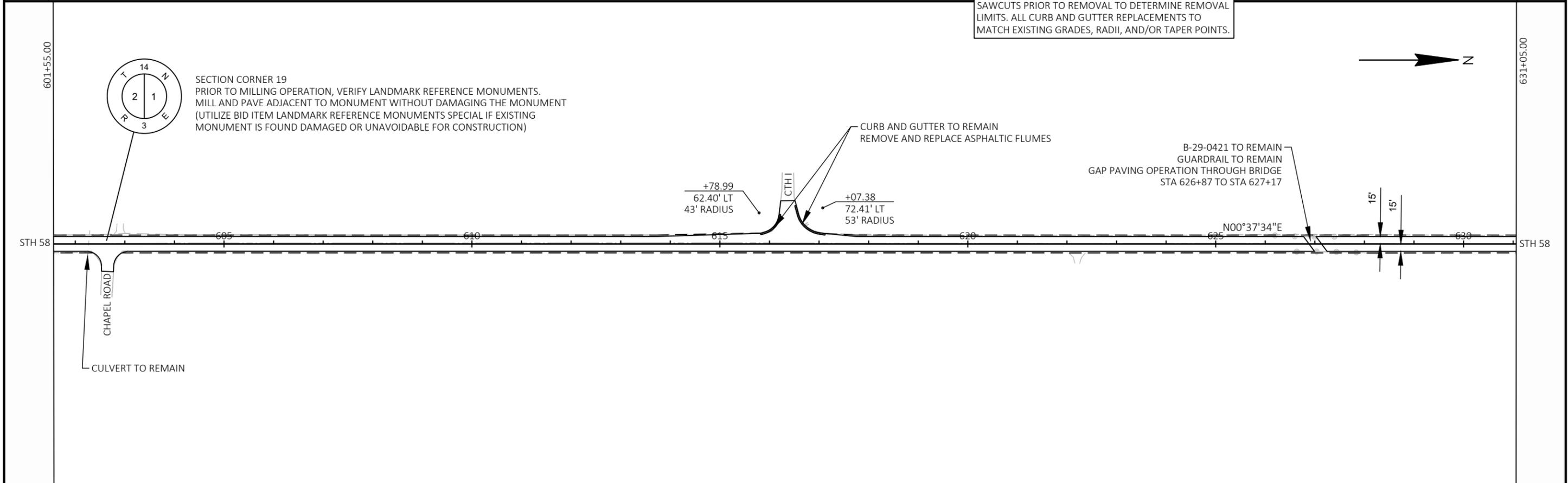
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PROJECT NO: 5020-01-60	HWY: STH 58	COUNTY: JUNEAU	PLAN SHEETS	SHEET	E
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PLAN NOTES:
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PROJECT NO: 5020-01-60	HWY: STH 58	COUNTY: JUNEAU	PLAN SHEETS	SHEET	E
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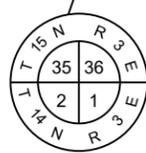
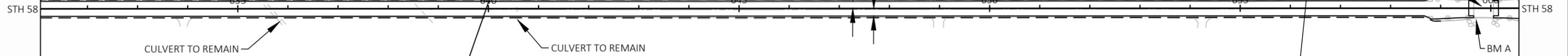
631+05.00

660+55.00

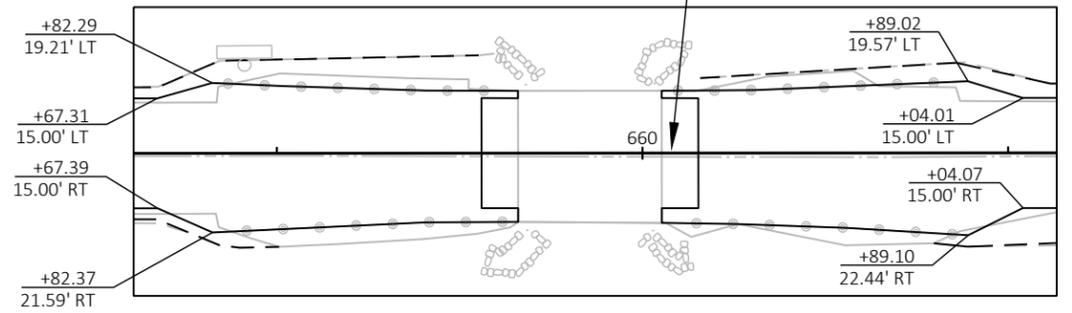
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
BM A	659+71	BRASS CAP	906.615



B-29-0119 TO REMAIN
 GUARDRAIL TO REMAIN
 GAP PAVING OPERATION THROUGH THE BRIDGE (STA 659+56 TO STA 660+15)
 REPLACE ASPHALT SHOULDERS ADJACENT TO CONCRETE APPROACH SLAB
 STABILIZE SHOULDER SLOPES BEHIND WING WALLS
 SEE EROSION CONTROL PLAN FOR MORE INFORMATION



SECTION CORNER 131
 PRIOR TO MILLING OPERATION, VERIFY LANDMARK REFERENCE MONUMENTS.
 MILL AND PAVE ADJACENT TO MONUMENT WITHOUT DAMAGING THE MONUMENT
 (UTILIZE BID ITEM LANDMARK REFERENCE MONUMENTS SPECIAL IF EXISTING
 MONUMENT IS FOUND DAMAGED OR UNAVOIDABLE FOR CONSTRUCTION)

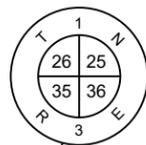


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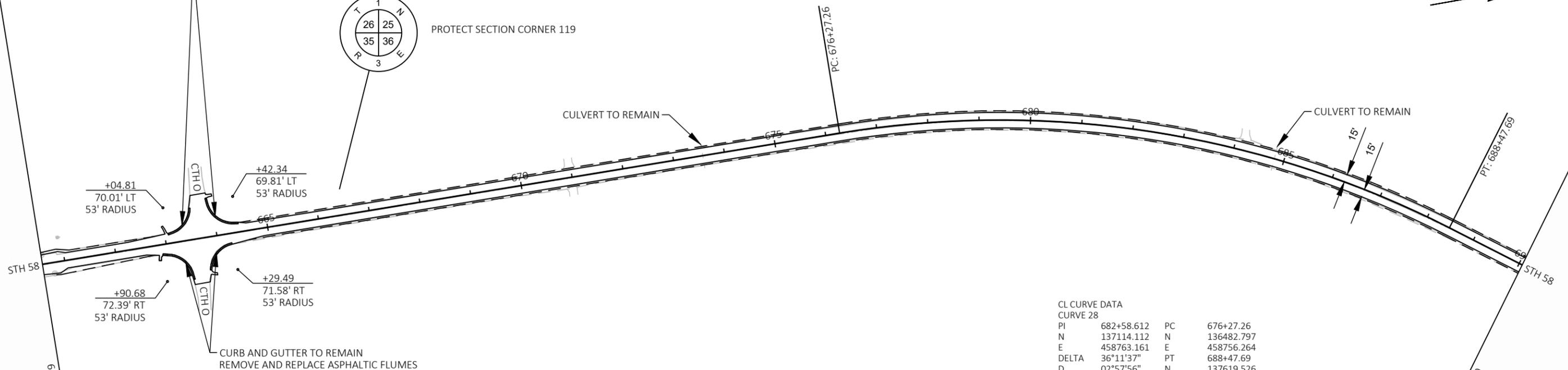
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PLAN NOTES:
 EXISTING CONCRETE CURB AND GUTTER MAY REQUIRE
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CURB AND GUTTER TO REMAIN
 REMOVE AND REPLACE
 ASPHALTIC FLUMES



PROTECT SECTION CORNER 119



CL CURVE DATA			
CURVE 28			
PI	682+58.612	PC	676+27.26
N	137114.112	N	136482.797
E	458763.161	E	458756.264
DELTA	36°11'37"	PT	688+47.69
D	02°57'56"	N	137619.526
T	631.352'	E	459141.529
L	1220.433'		
R	1931.993'		
LC	1200.243'		
LCB	N18°43'22"E		

PROJECT NO: 5020-01-60

HWY: STH 58

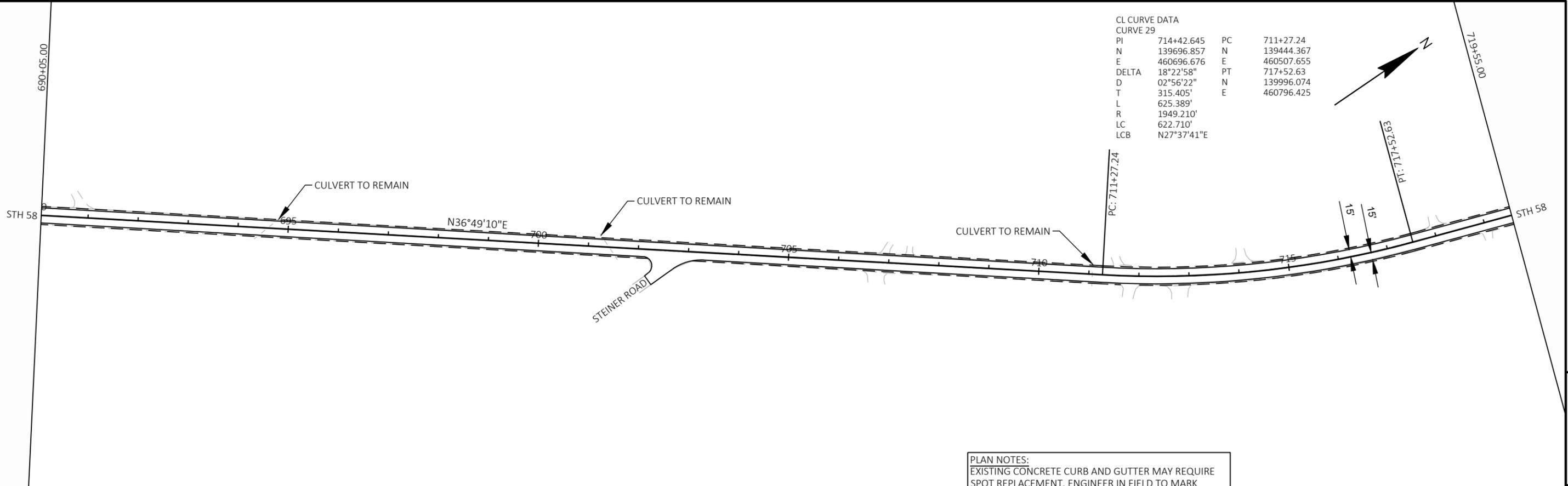
COUNTY: JUNEAU

PLAN SHEETS

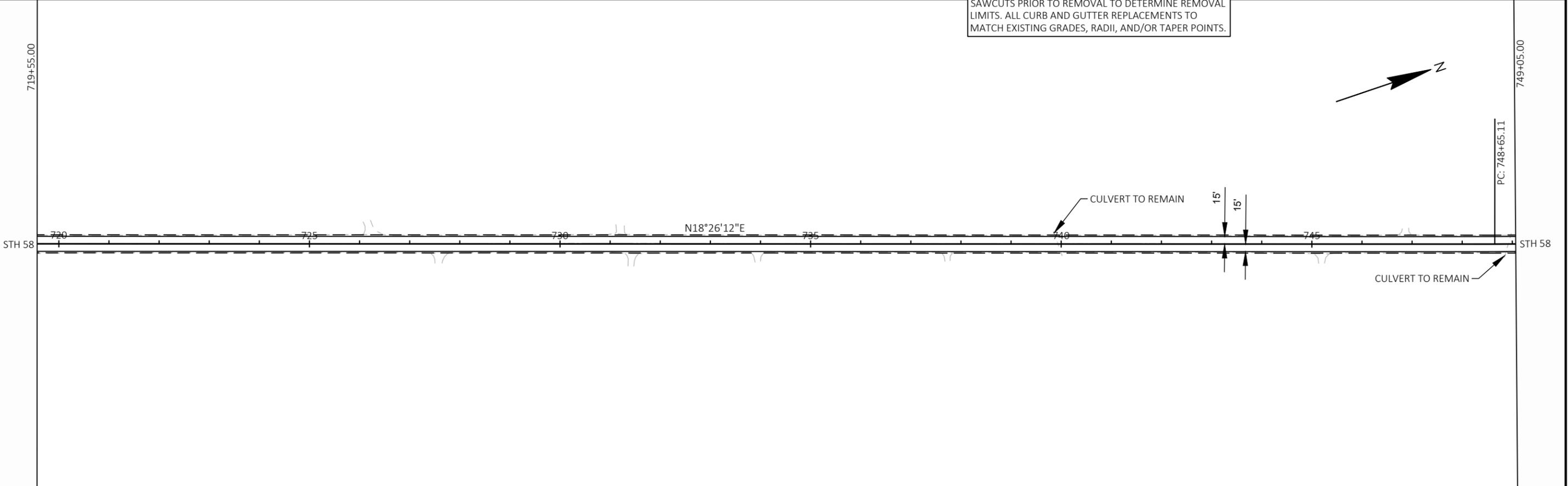
SHEET

E

CL CURVE DATA			
CURVE 29			
PI	714+42.645	PC	711+27.24
N	139696.857	N	139444.367
E	460696.676	E	460507.655
DELTA	18°22'58"	PT	717+52.63
D	02°56'22"	N	139996.074
T	315.405'	E	460796.425
L	625.389'		
R	1949.210'		
LC	622.710'		
LCB	N27°37'41"E		



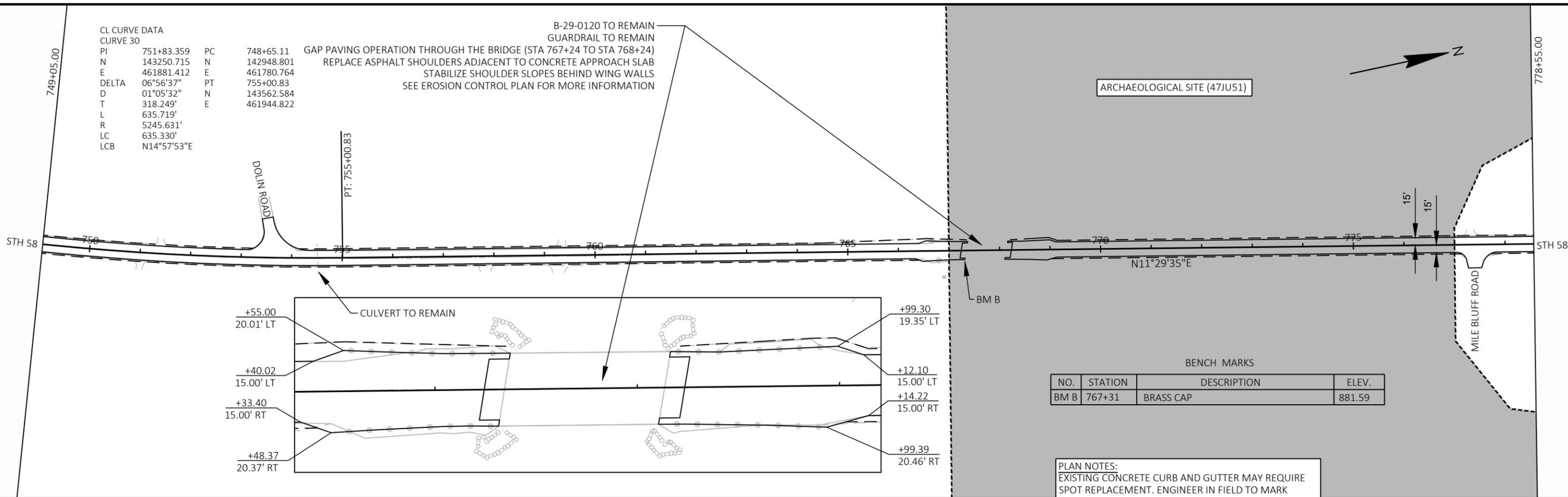
PLAN NOTES:
 EXISTING CONCRETE CURB AND GUTTER MAY REQUIRE SPOT REPLACEMENT. ENGINEER IN FIELD TO MARK SAWCUTS PRIOR TO REMOVAL TO DETERMINE REMOVAL LIMITS. ALL CURB AND GUTTER REPLACEMENTS TO MATCH EXISTING GRADES, RADII, AND/OR TAPER POINTS.



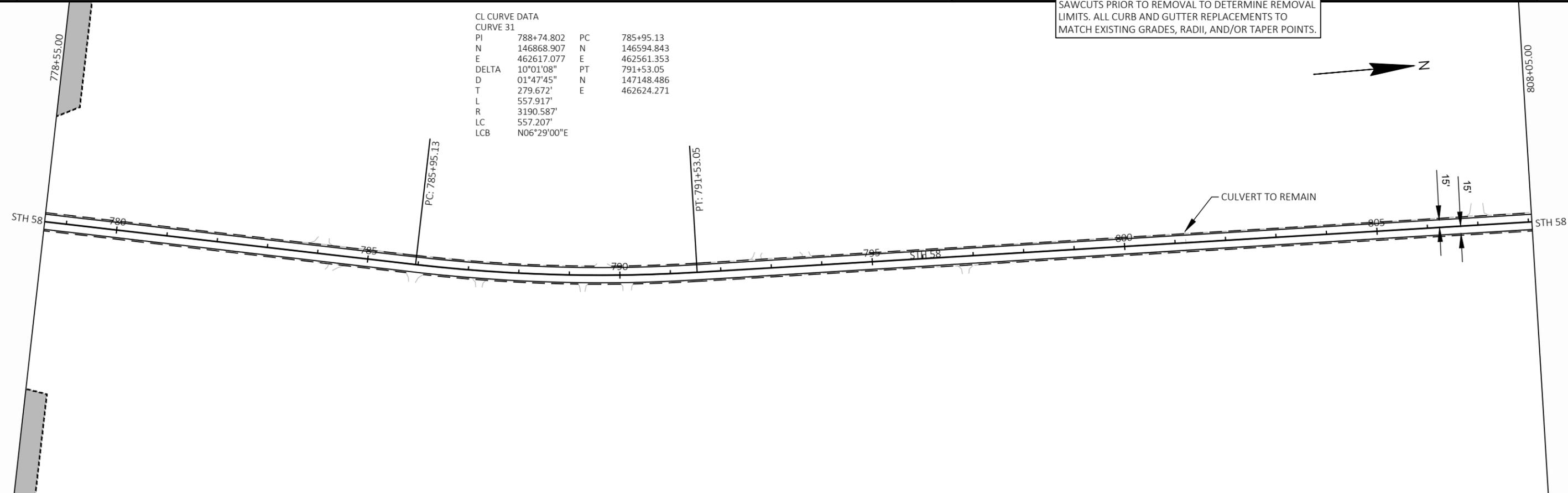
CL CURVE DATA
 CURVE 30
 PI 751+83.359 PC 748+65.11
 N 143250.715 N 142948.801
 E 461881.412 E 461780.764
 DELTA 06°56'37" PT 755+00.83
 D 01°05'32" N 143562.584
 T 318.249' E 461944.822
 L 635.719'
 R 5245.631'
 LC 635.330'
 LCB N14°57'53"E

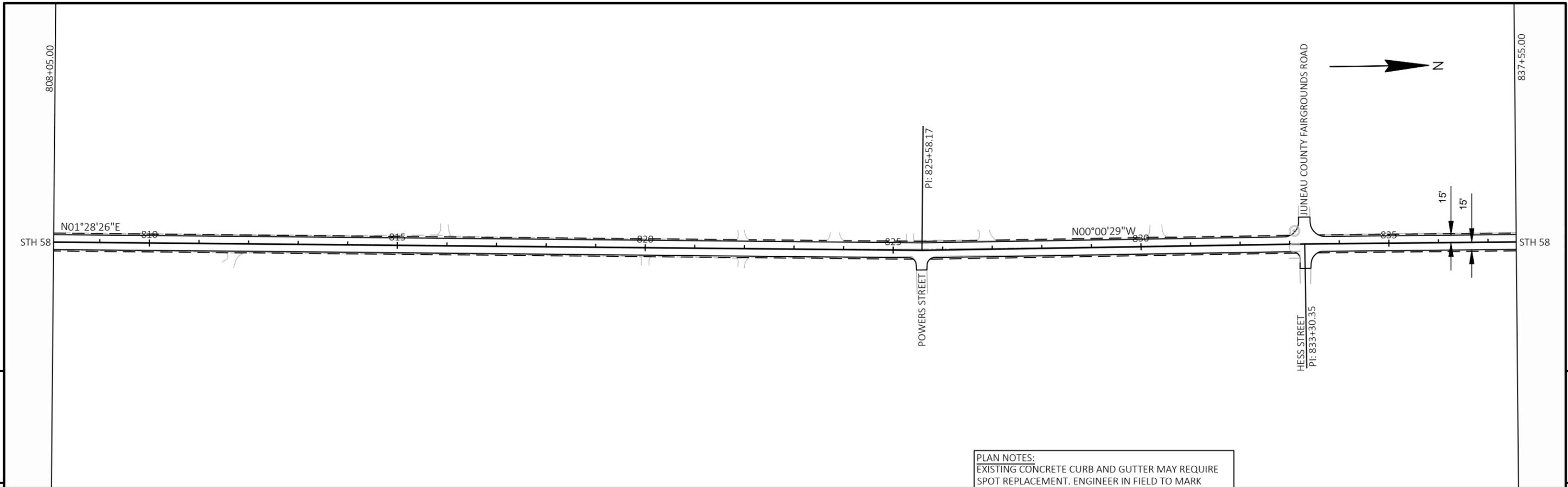
B-29-0120 TO REMAIN
 GUARDRAIL TO REMAIN
 GAP PAVING OPERATION THROUGH THE BRIDGE (STA 767+24 TO STA 768+24)
 REPLACE ASPHALT SHOULDERS ADJACENT TO CONCRETE APPROACH SLAB
 STABILIZE SHOULDER SLOPES BEHIND WING WALLS
 SEE EROSION CONTROL PLAN FOR MORE INFORMATION

ARCHAEOLOGICAL SITE (47JU51)



CL CURVE DATA
 CURVE 31
 PI 788+74.802 PC 785+95.13
 N 146868.907 N 146594.843
 E 462617.077 E 462561.353
 DELTA 10°01'08" PT 791+53.05
 D 01°47'45" N 147148.486
 T 279.672' E 462624.271
 L 557.917'
 R 3190.587'
 LC 557.207'
 LCB N06°29'00"E

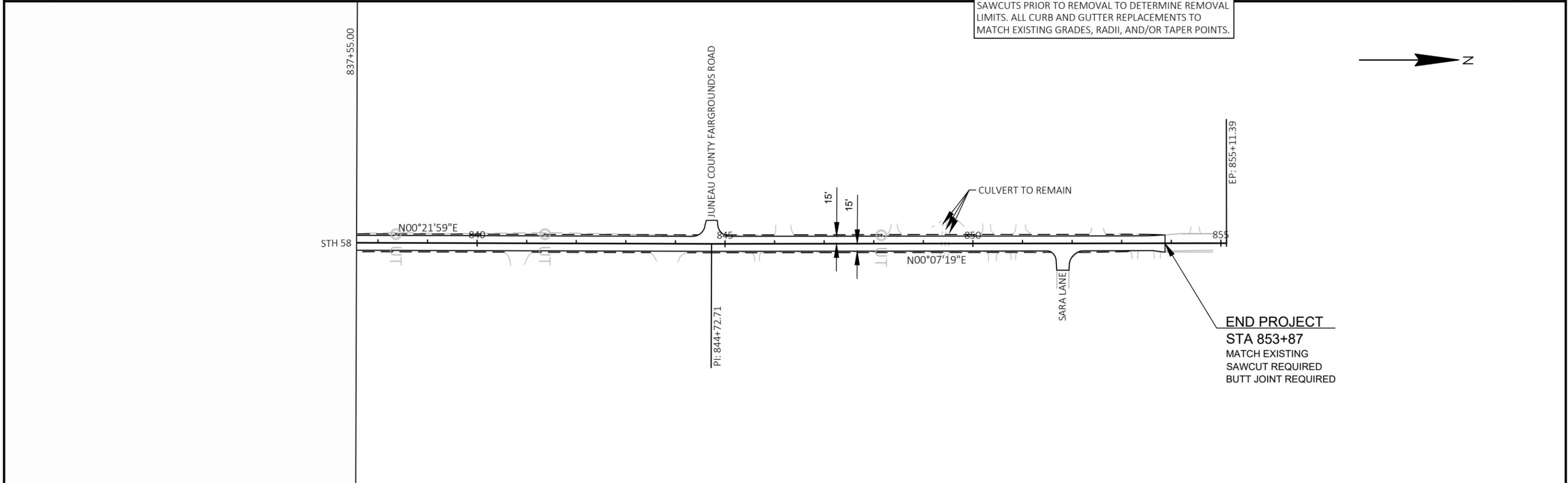




5

5

PLAN NOTES:
 EXISTING CONCRETE CURB AND GUTTER MAY REQUIRE
 SPOT REPLACEMENT. ENGINEER IN FIELD TO MARK
 SAWCUTS PRIOR TO REMOVAL TO DETERMINE REMOVAL
 LIMITS. ALL CURB AND GUTTER REPLACEMENTS TO
 MATCH EXISTING GRADES, RADII, AND/OR TAPER POINTS.

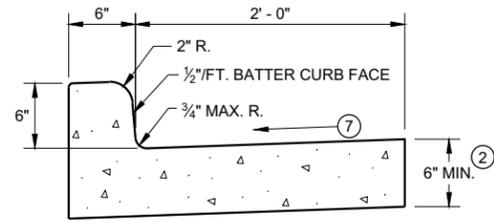


END PROJECT
 STA 853+87
 MATCH EXISTING
 SAWCUT REQUIRED
 BUTT JOINT REQUIRED

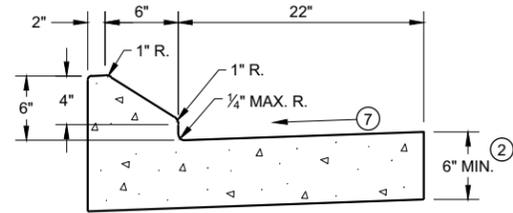
PROJECT NO: 5020-01-60	HWY: STH 58	COUNTY: JUNEAU	PLAN SHEETS	SHEET	E
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Standard Detail Drawing List

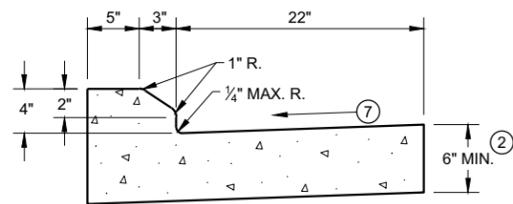
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20B	PAVEMENT MARKING (TURN LANES)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-05A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-05B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D06-04	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



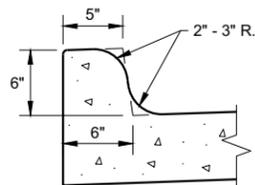
TYPES A^① & D



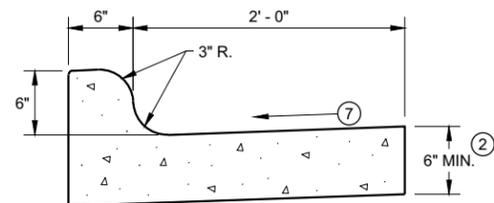
6" SLOPED CURB TYPES G^① & J



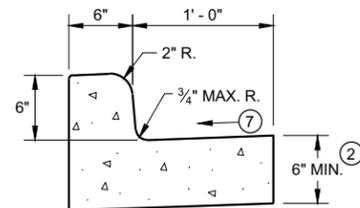
4" SLOPED CURB TYPES G^① & J



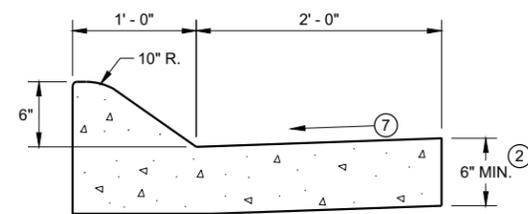
TYPES K^① & L
(OPTIONAL CURB SHAPE)



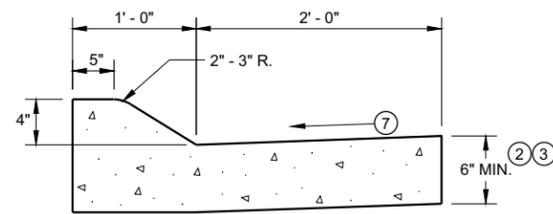
TYPES K^① & L
CONCRETE CURB AND GUTTER 30"



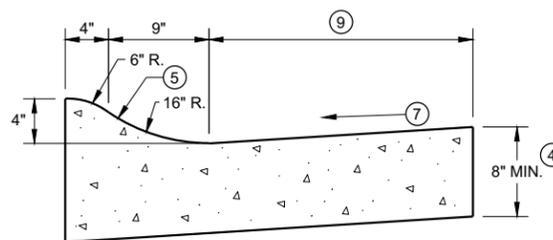
TYPES A^① & D
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D

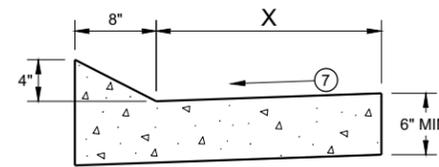


4" SLOPED CURB TYPES A^① & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

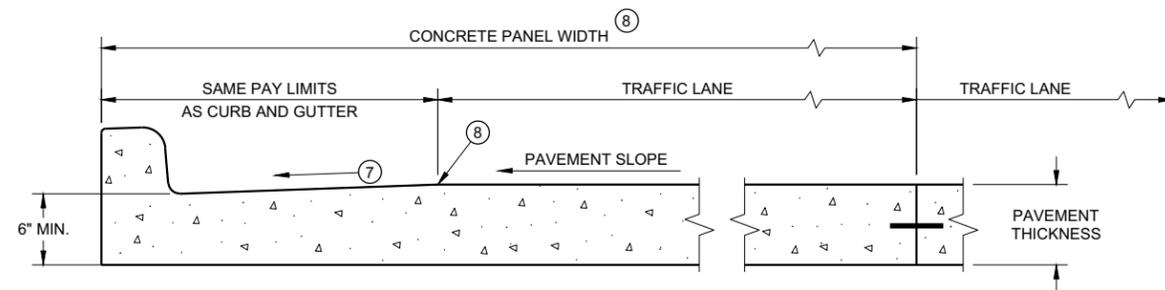
TBT & TBTT	X
30"	22"
36"	28"



TYPES TBT & TBTT^①
CONCRETE CURB AND GUTTER

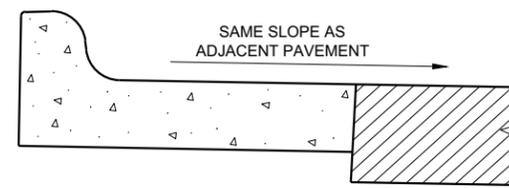
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

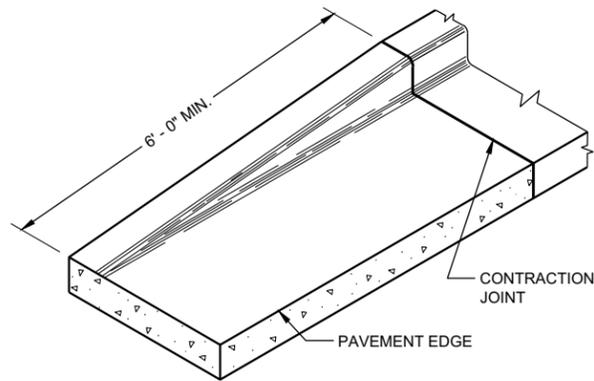
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

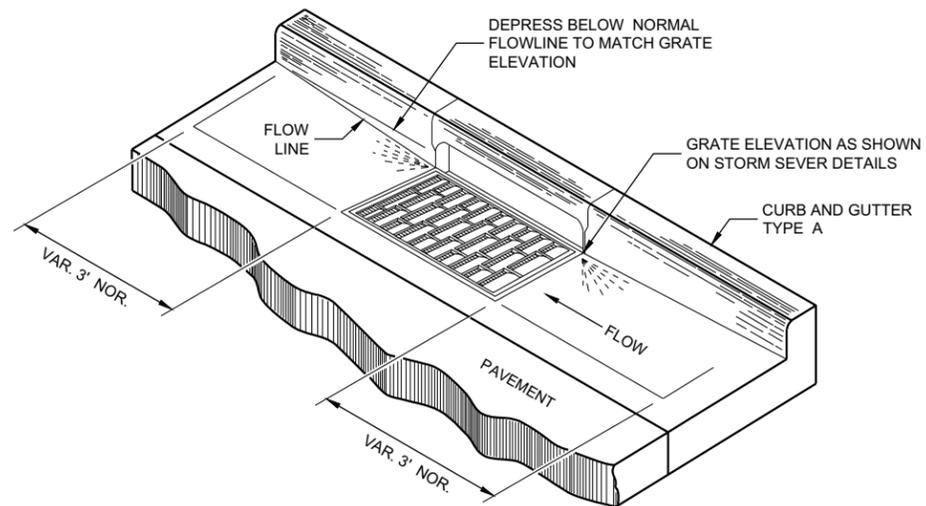
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

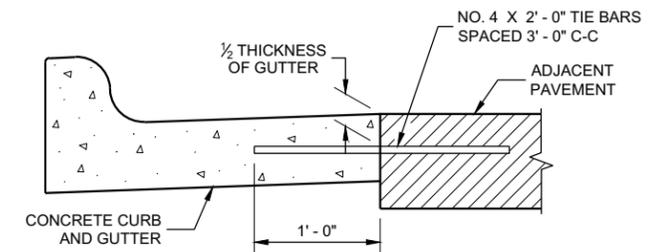
GENERAL NOTES

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

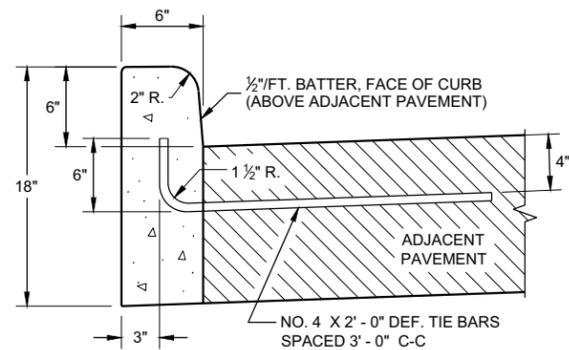
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

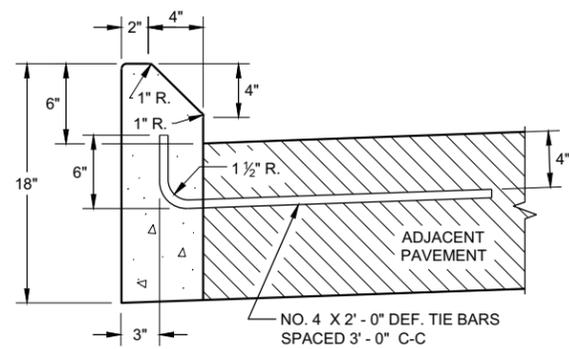
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION ①

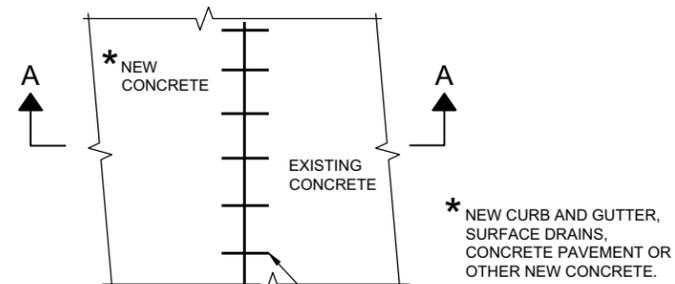


TYPES A ① & D

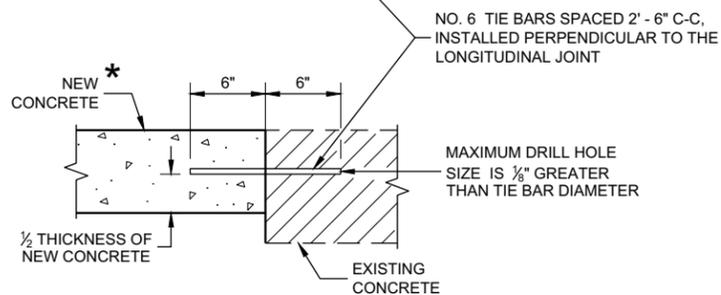


TYPES G ① & J

CONCRETE CURB

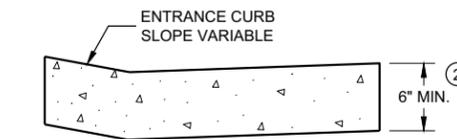


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB ⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

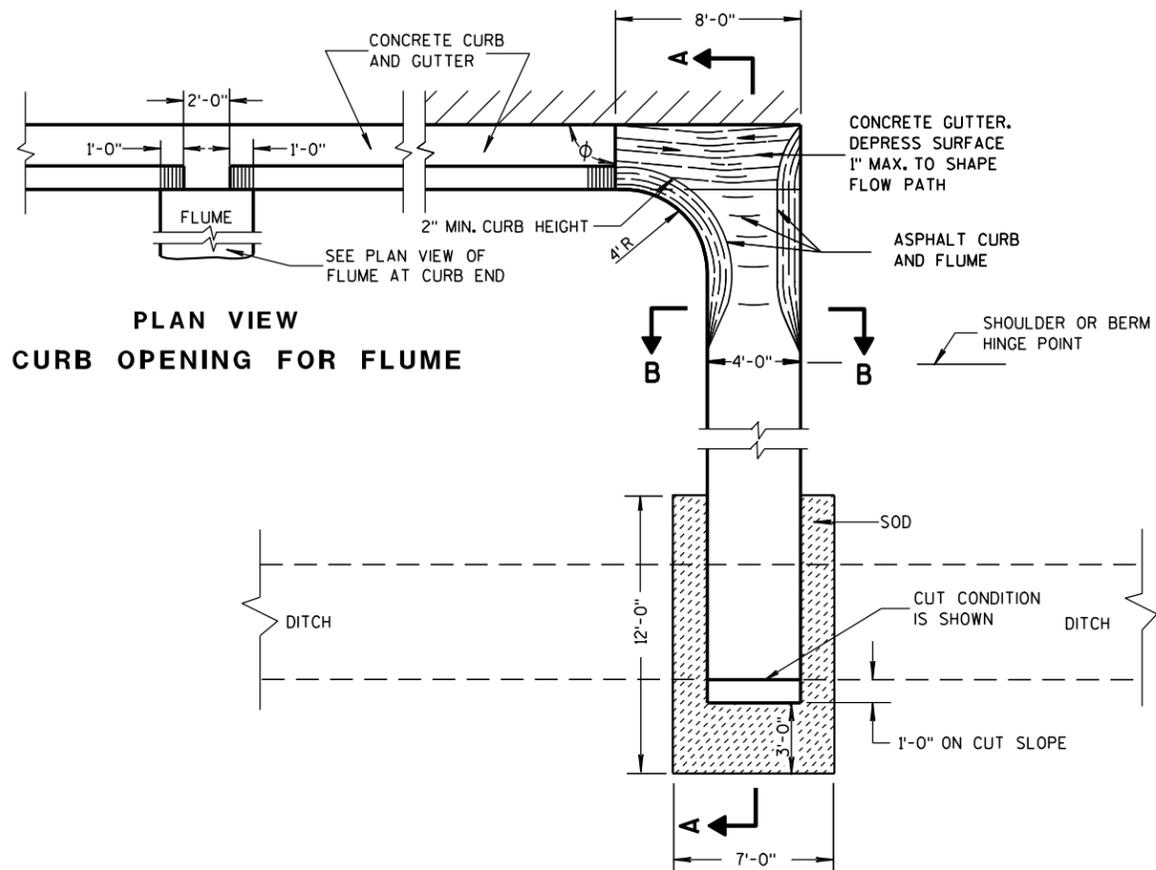
APPROVED
February 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

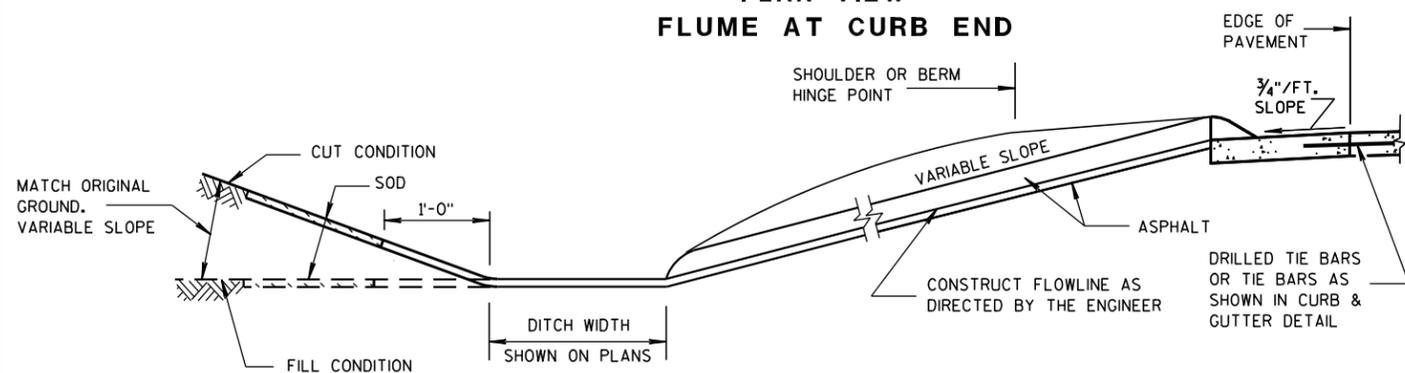
ASPHALTIC FLUME

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

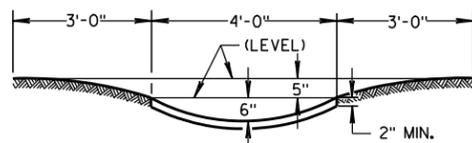
INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS



PLAN VIEW FLUME AT CURB END



SECTION B-B



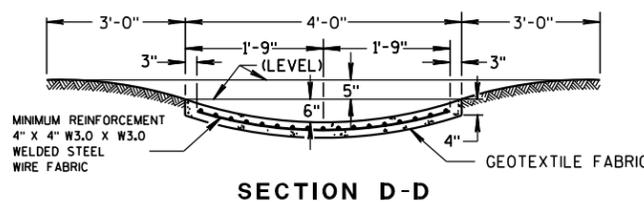
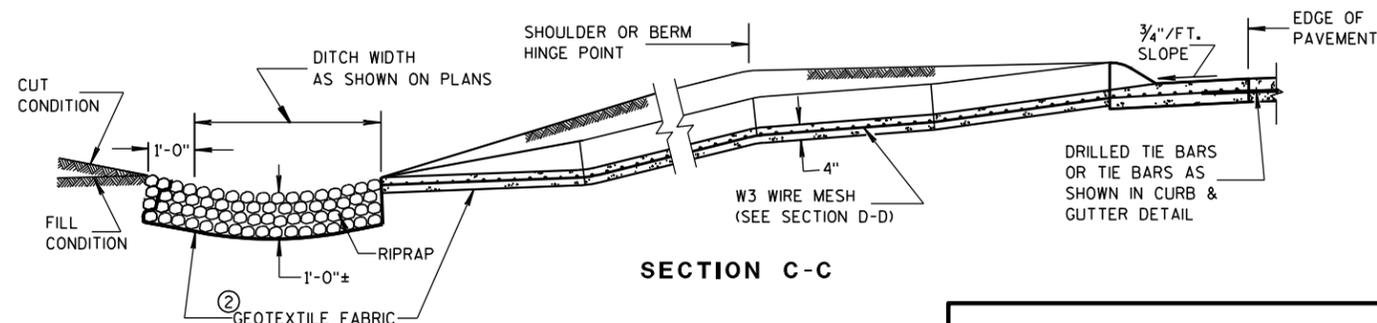
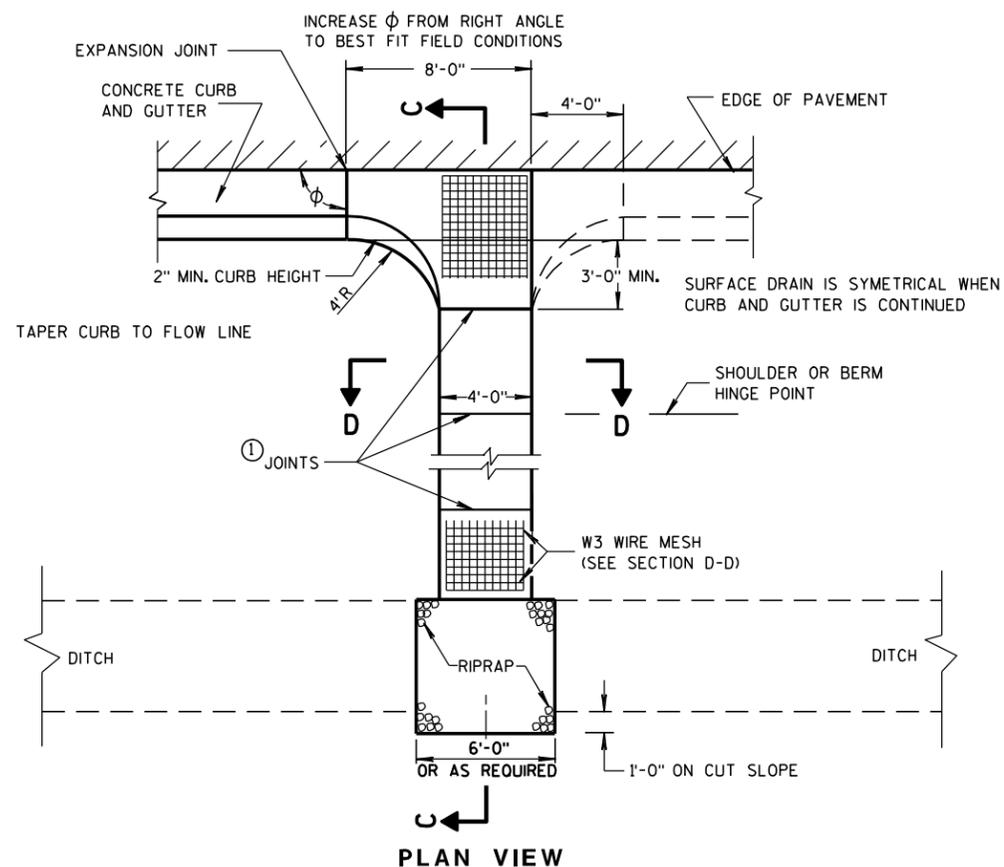
GENERAL NOTES

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

WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8 TO 1/4 INCH WIDE BY 1 1/2 INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

③ CONCRETE SURFACE DRAIN



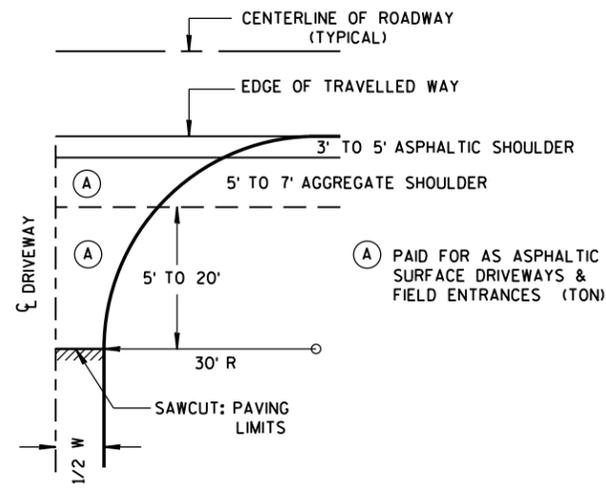
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

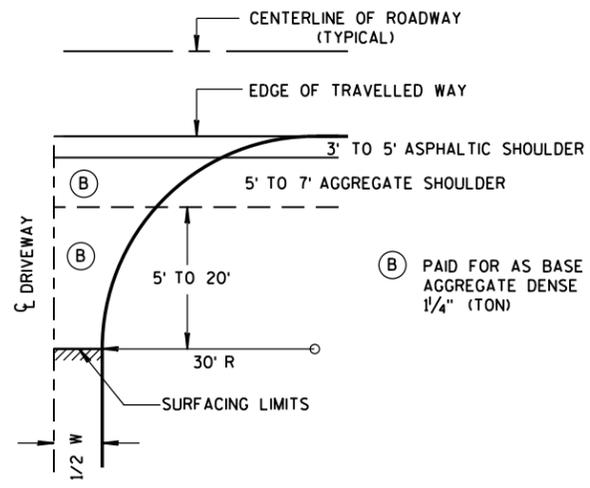
APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

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

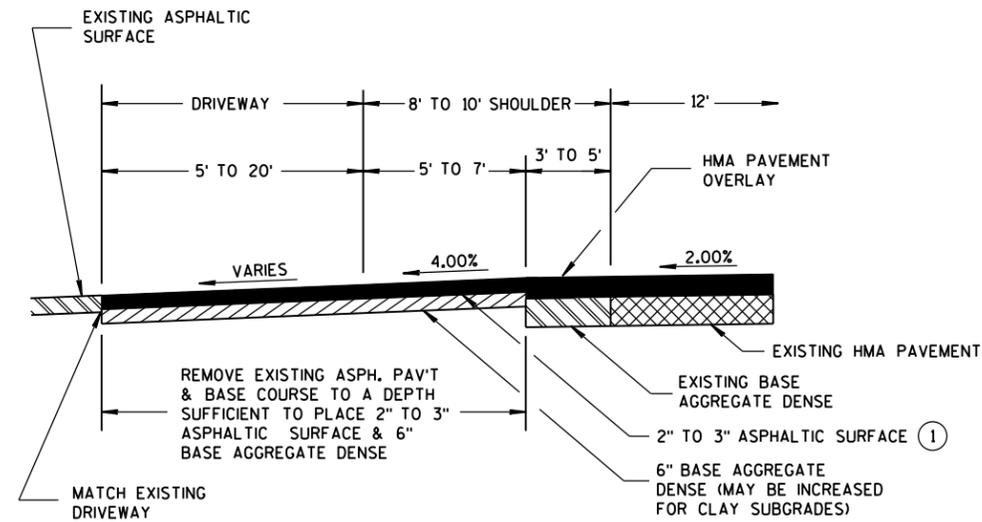


W MIN. = 16'
W MAX. = 24'

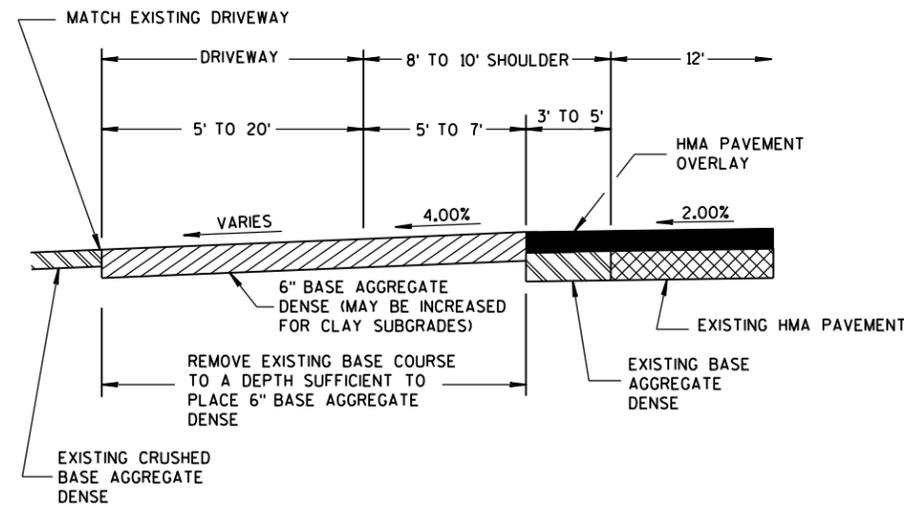


**PLAN VIEW
HALF SECTION**

**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



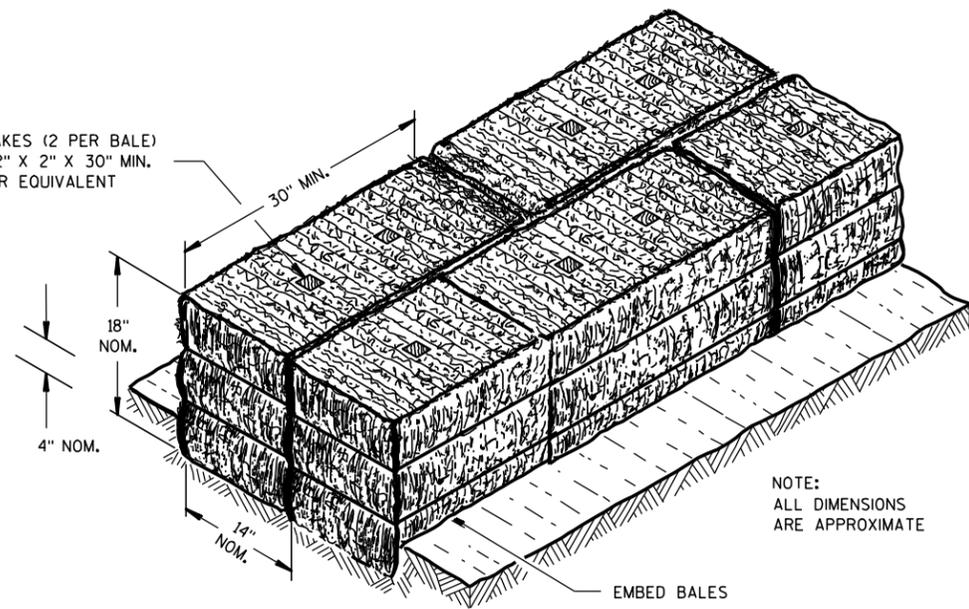
**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

6

6

DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
DATE	
FHWA	

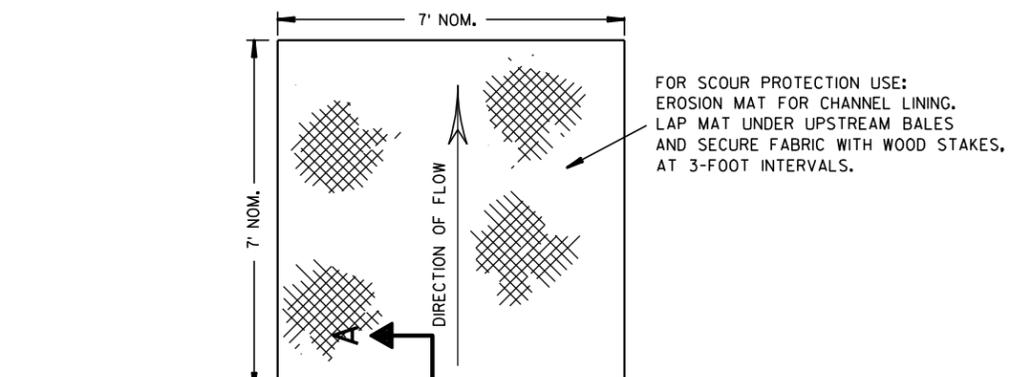
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



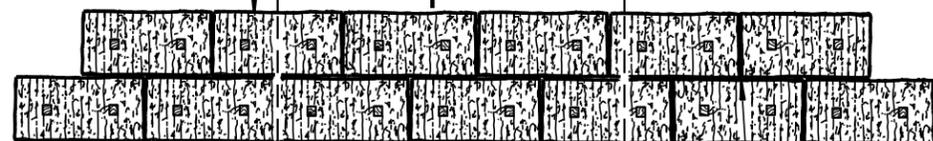
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



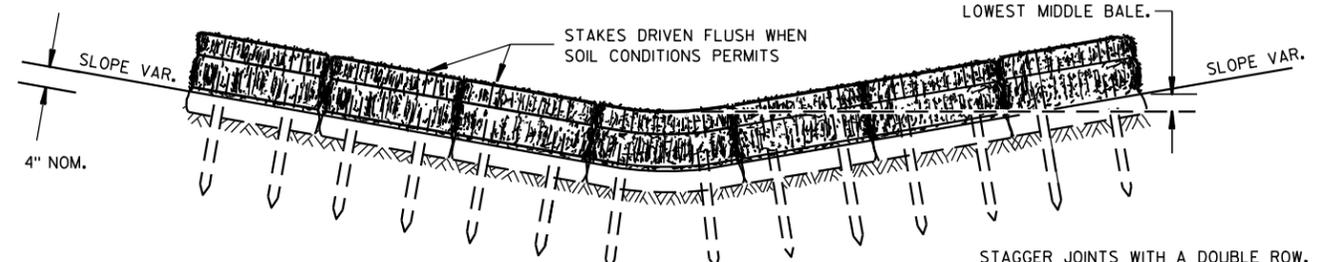
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



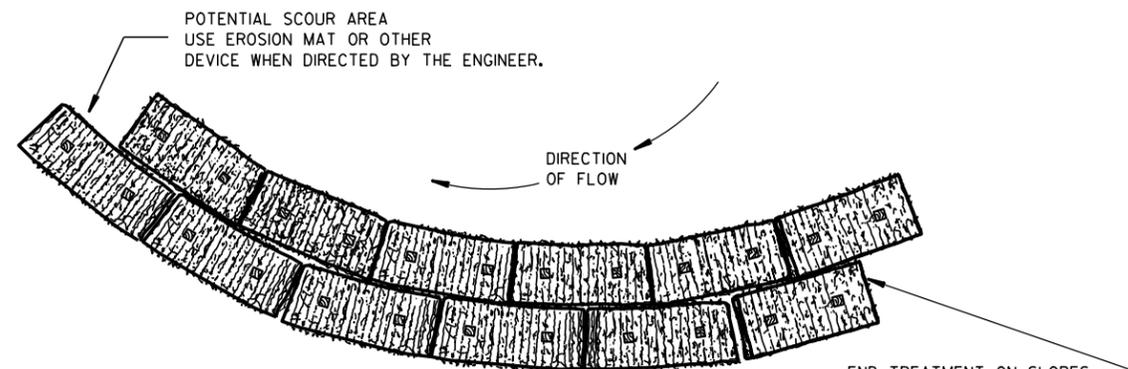
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

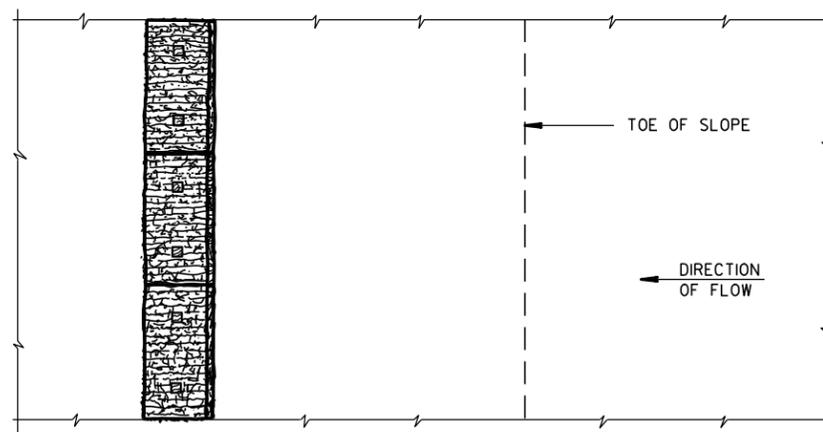
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

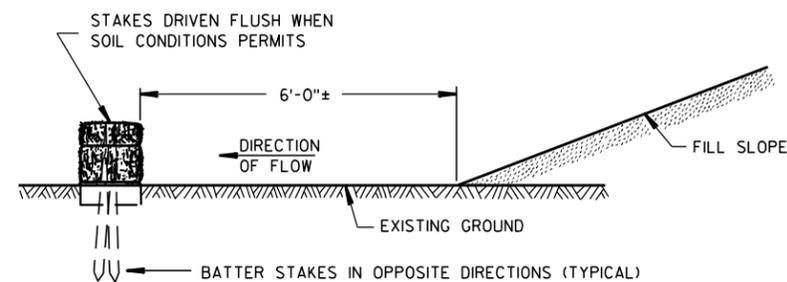


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

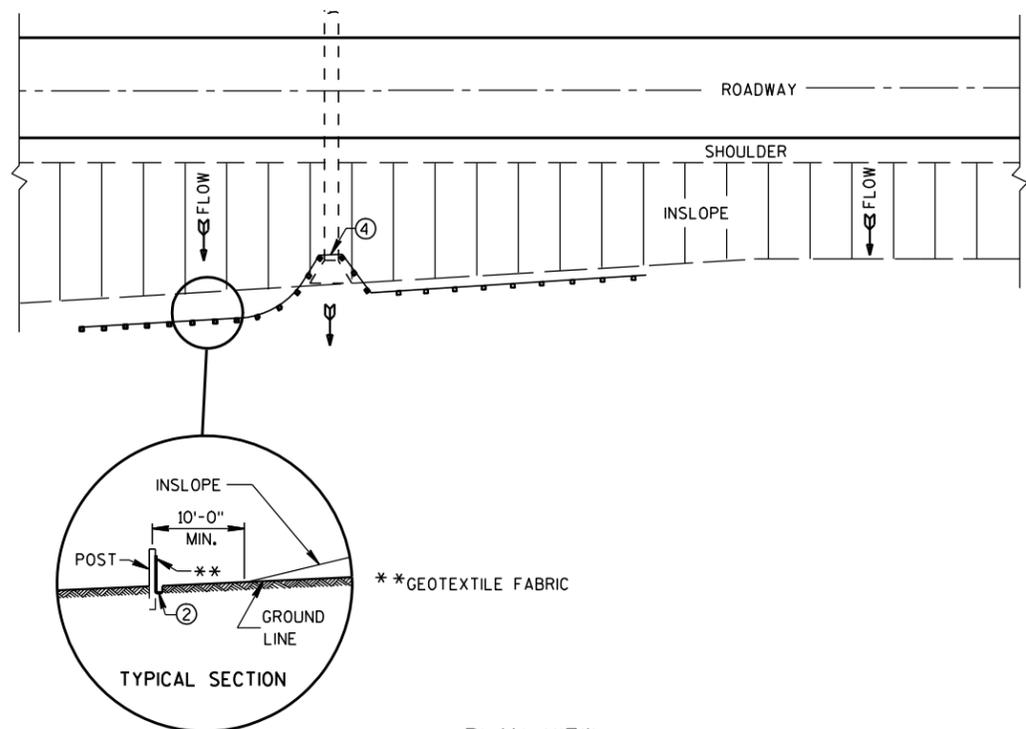
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

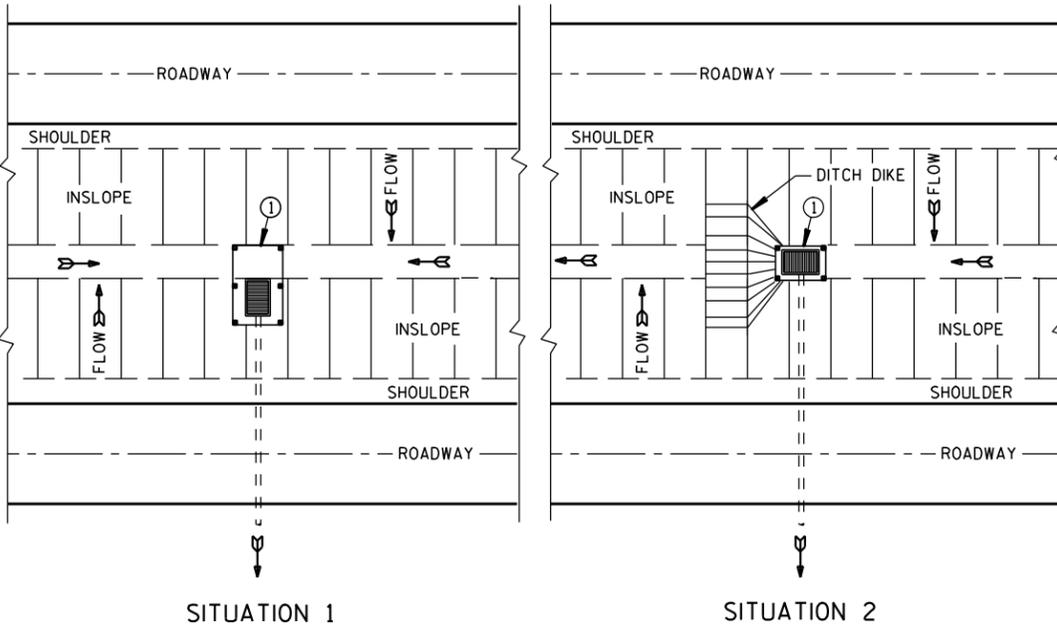
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 6/04/02 /S/ Beth Canestra
 DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
 FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

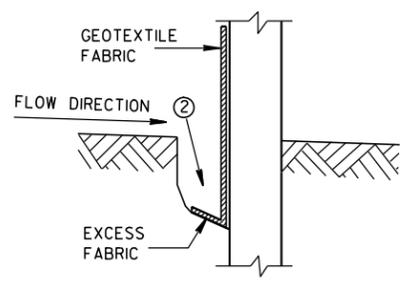


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

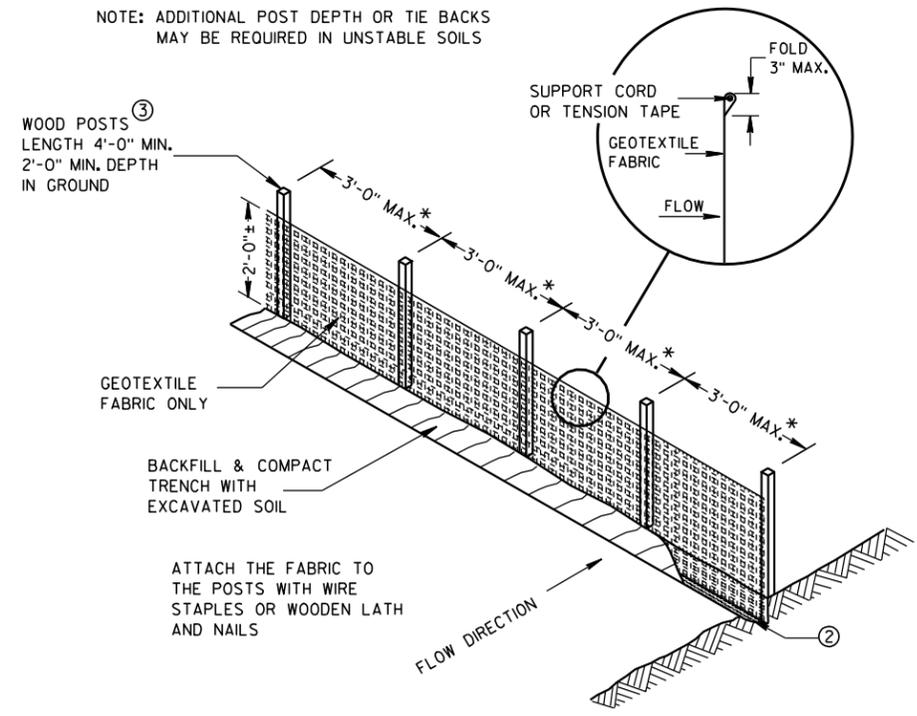
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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 1 1/8" X 1 1/8" 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.



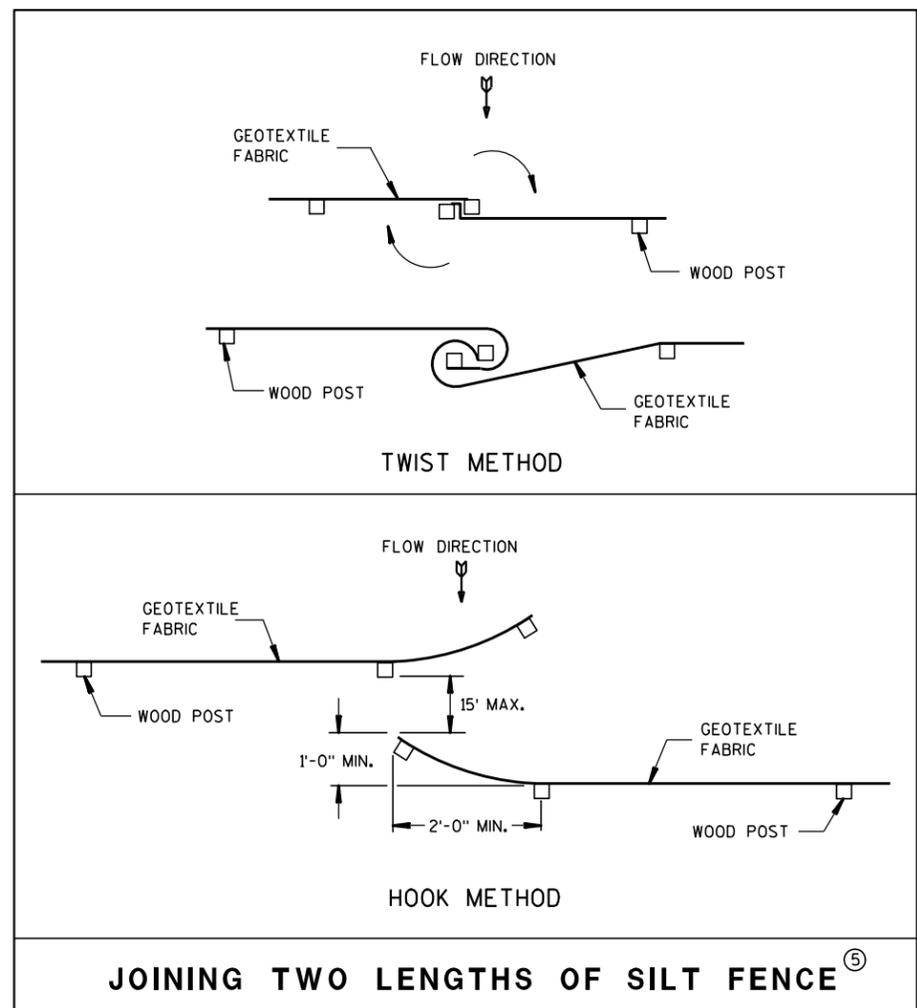
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

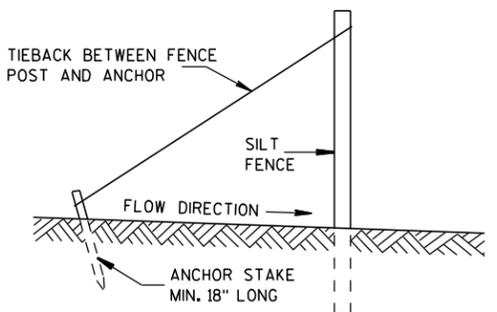


SILT FENCE

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



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 4-29-05 DATE	/S/ Beth Canestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

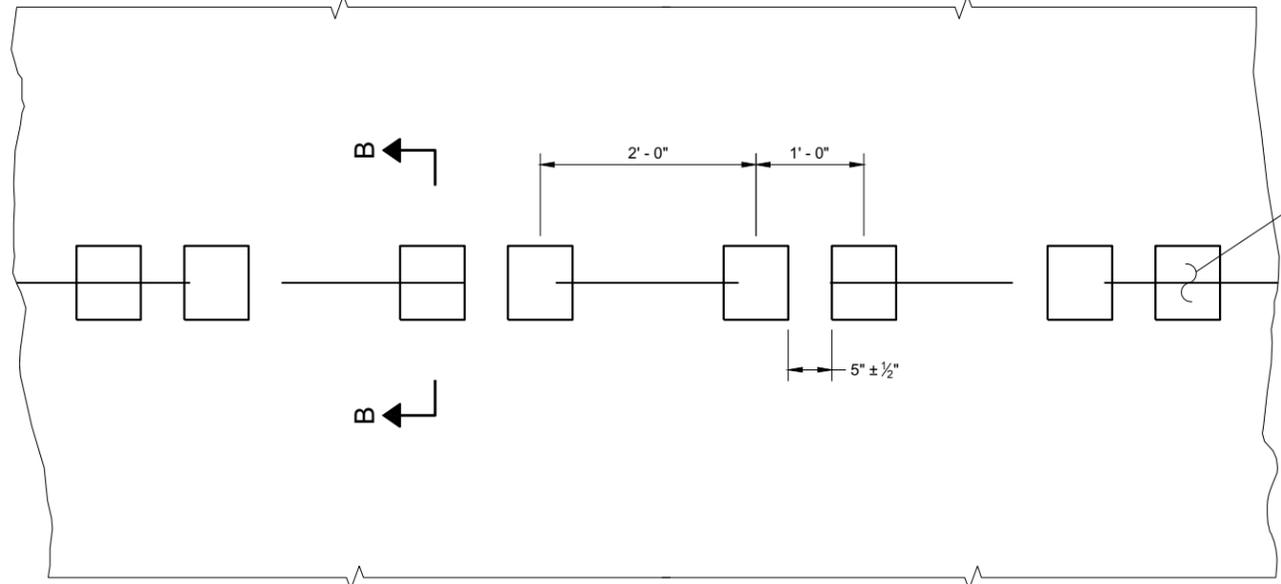
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

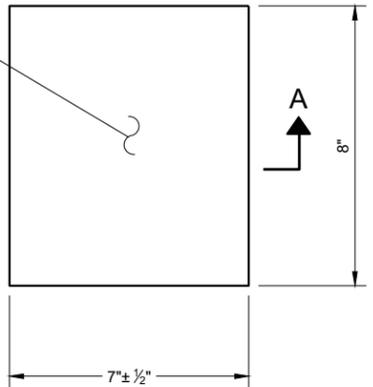
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

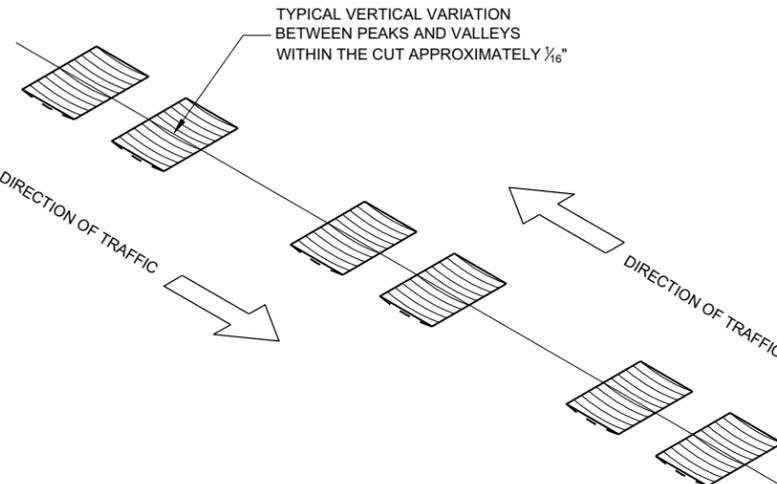
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



**PLAN VIEW
SHOULDER WITH GROOVES**

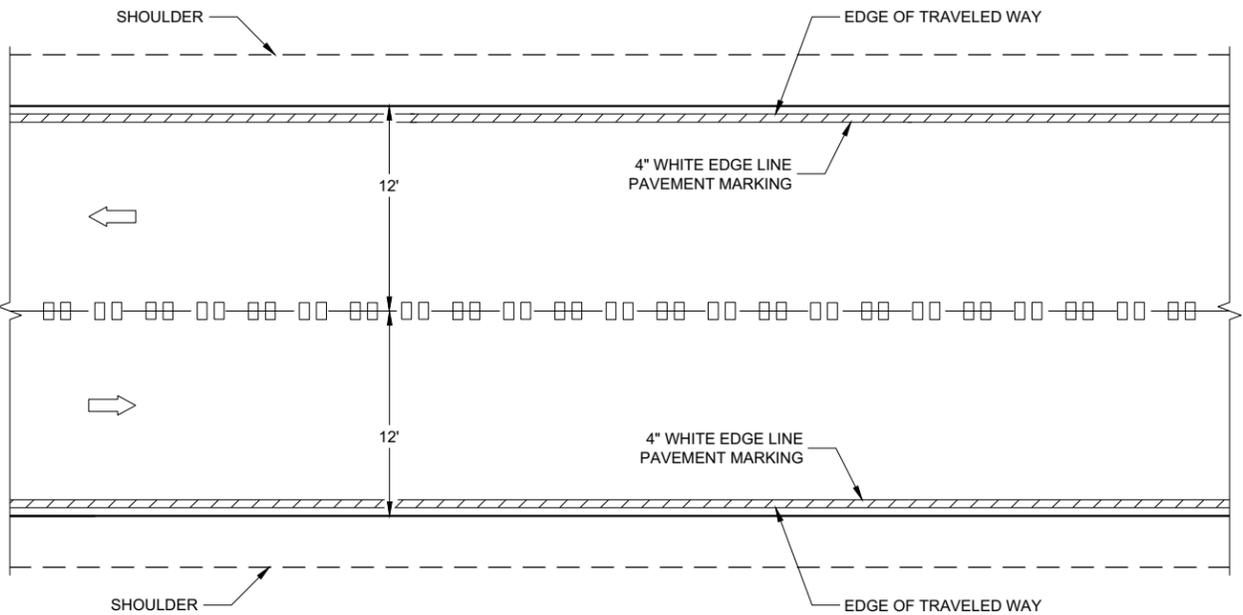


**PLAN VIEW
(SINGLE GROOVE)**

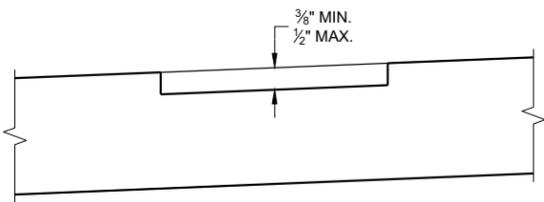


ISOMETRIC

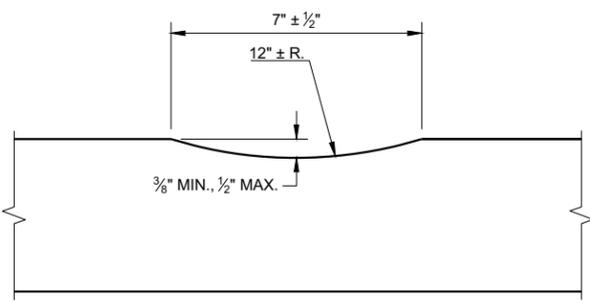
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



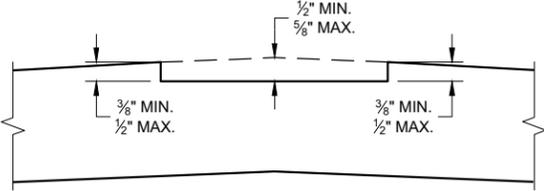
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



**SECTION B - B
SUPERELEVATED ROADWAY**



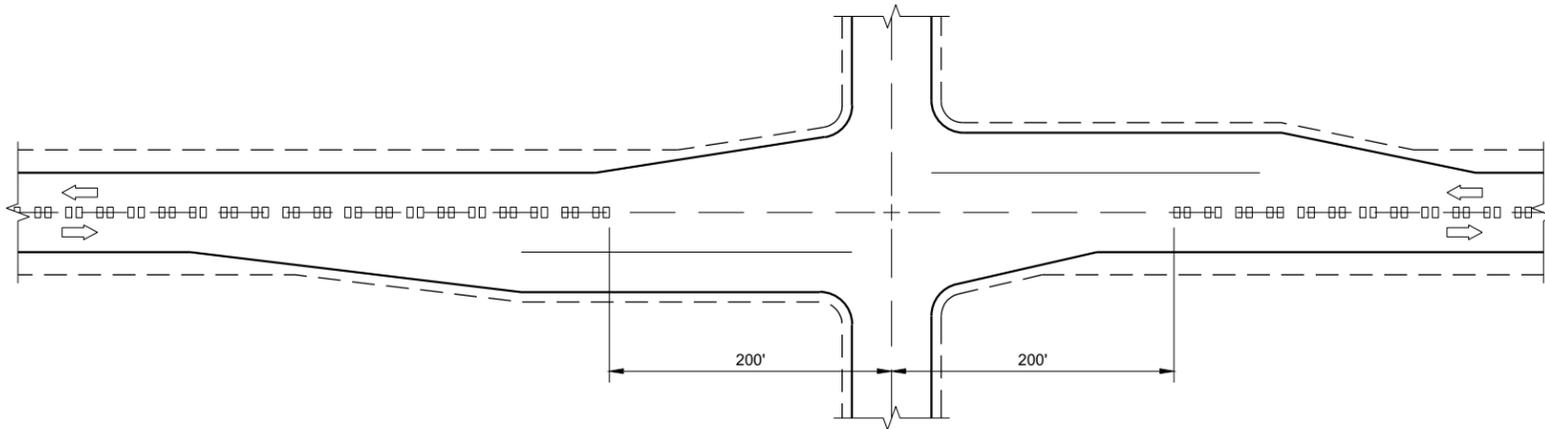
SECTION A - A



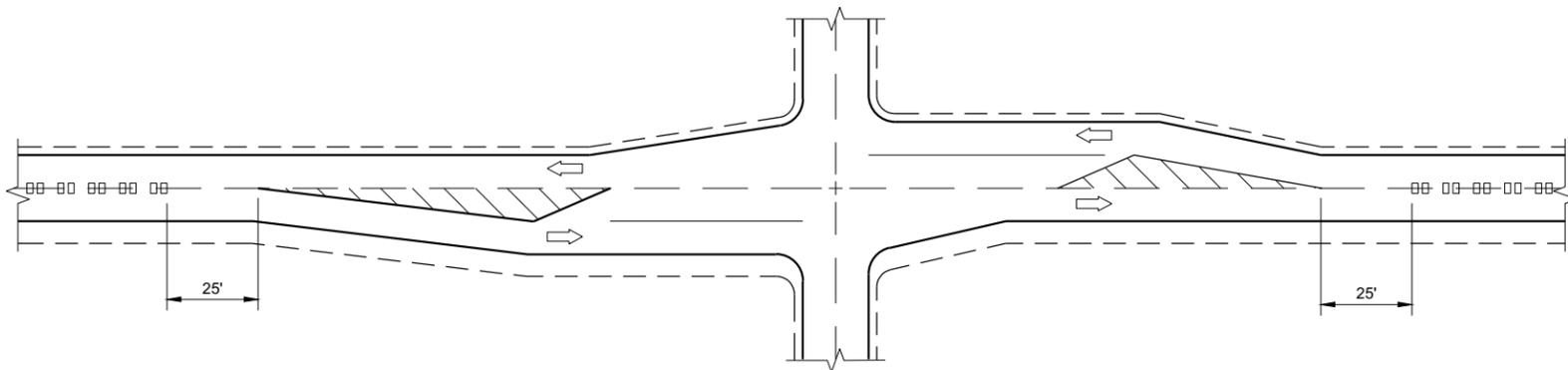
**SECTION B - B
CROWNED ROADWAY**

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

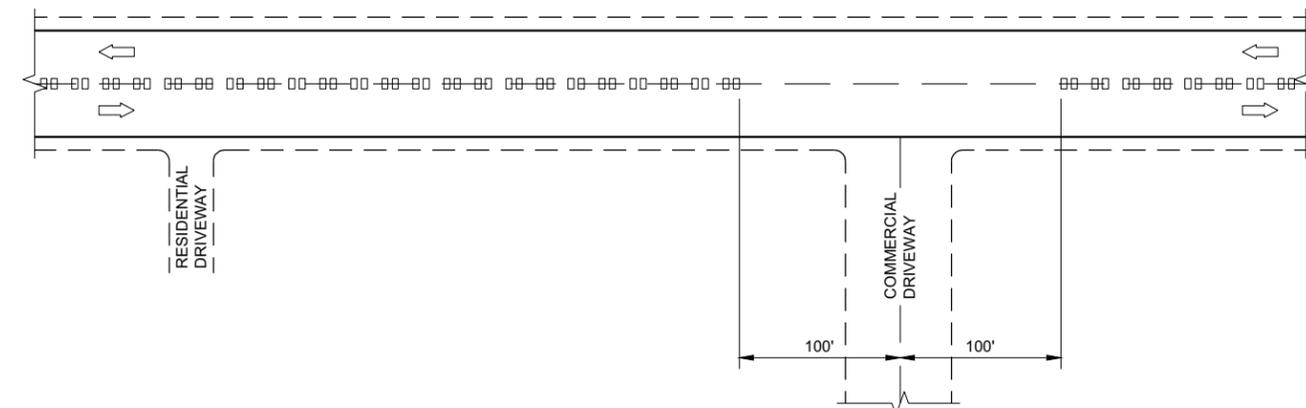
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



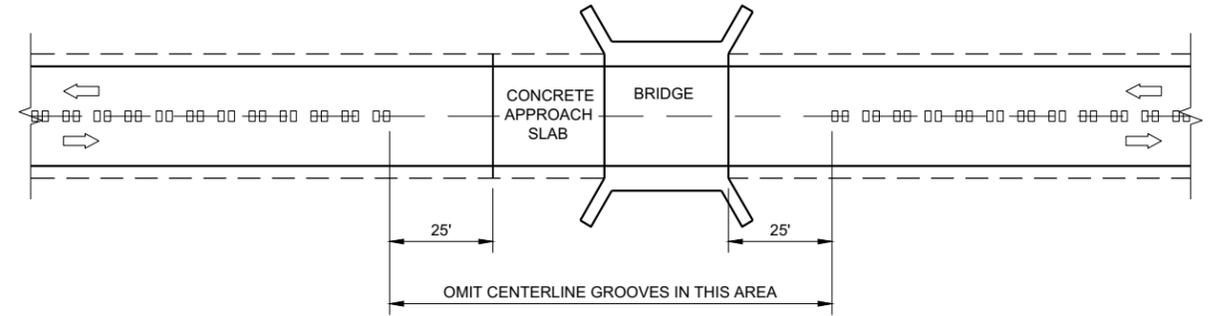
**CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)**



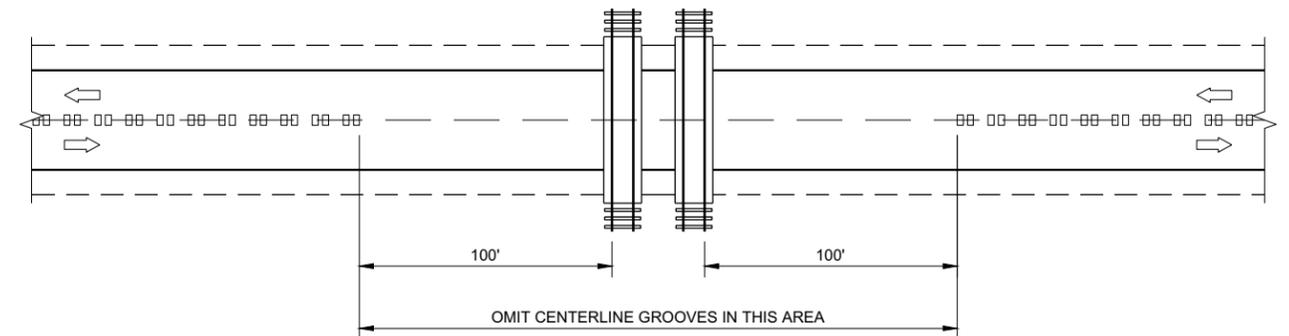
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

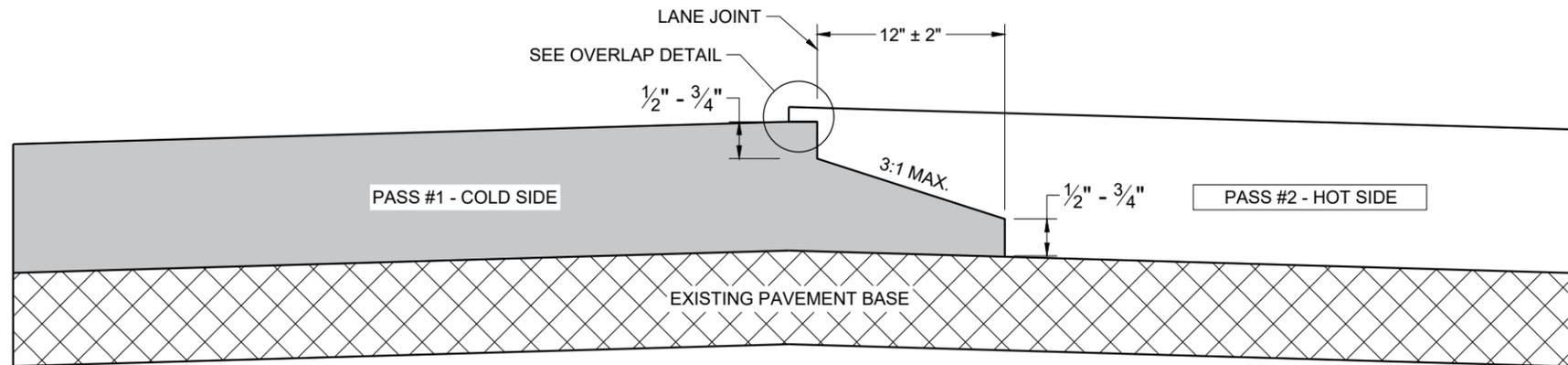
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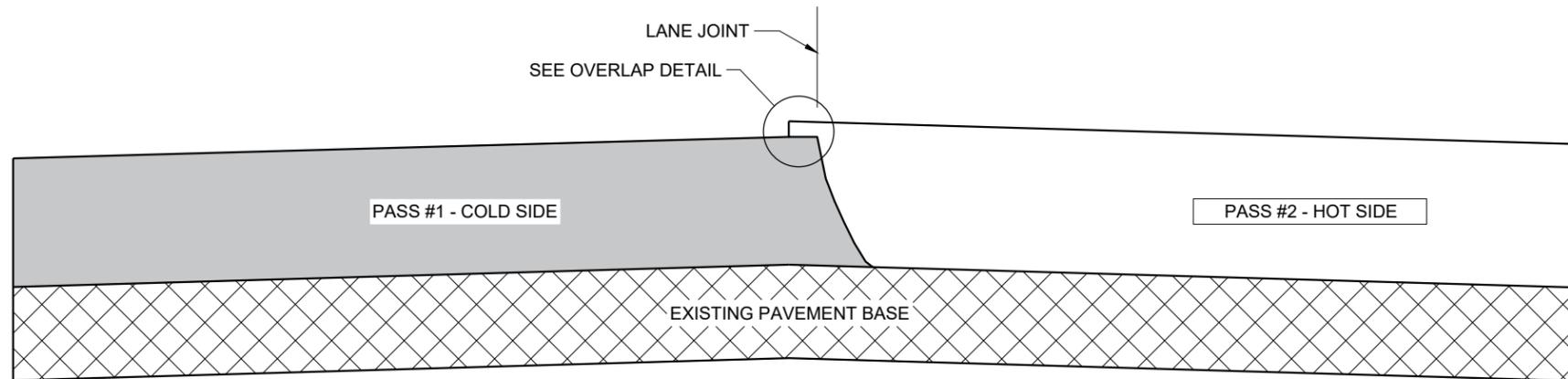
SDD 13A11 - 03b

SDD 13A11 - 03b

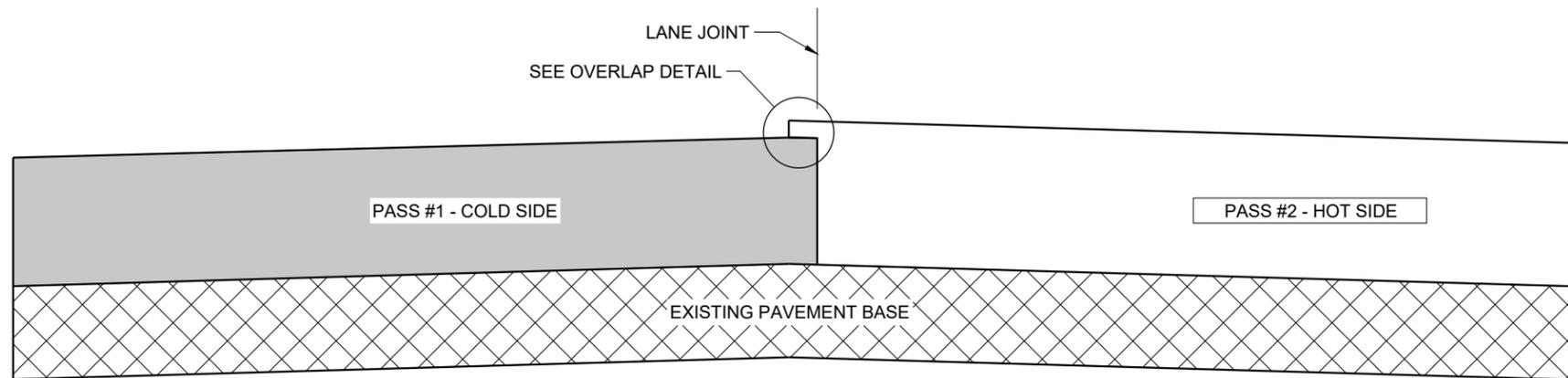
2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT ENGINEER
<small>FHWA</small>	



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

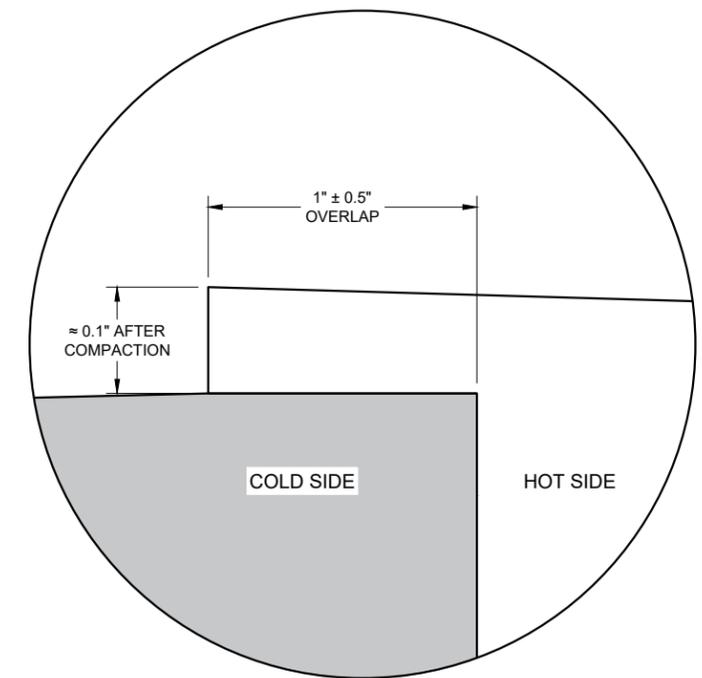
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

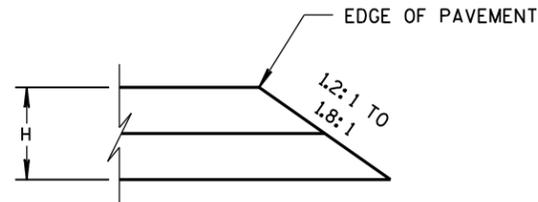
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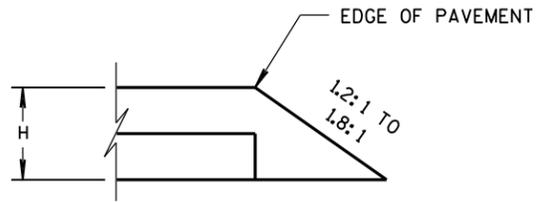
SDD 13C19 - 03

SDD 13C19 - 03

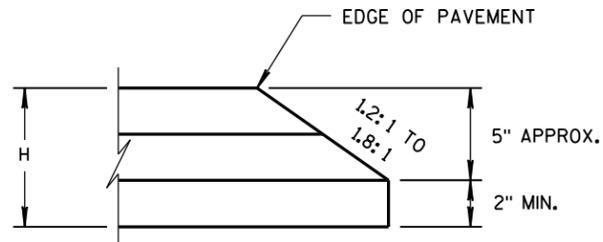
HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



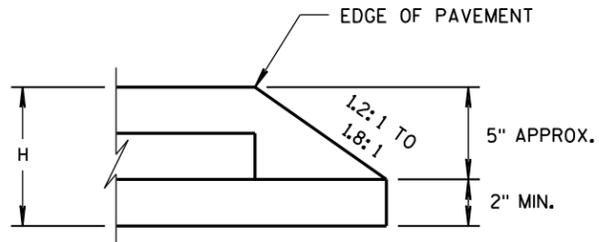
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

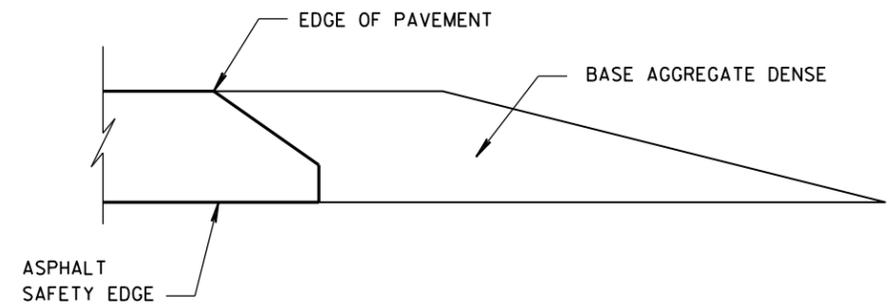


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

GENERAL NOTES

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

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

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

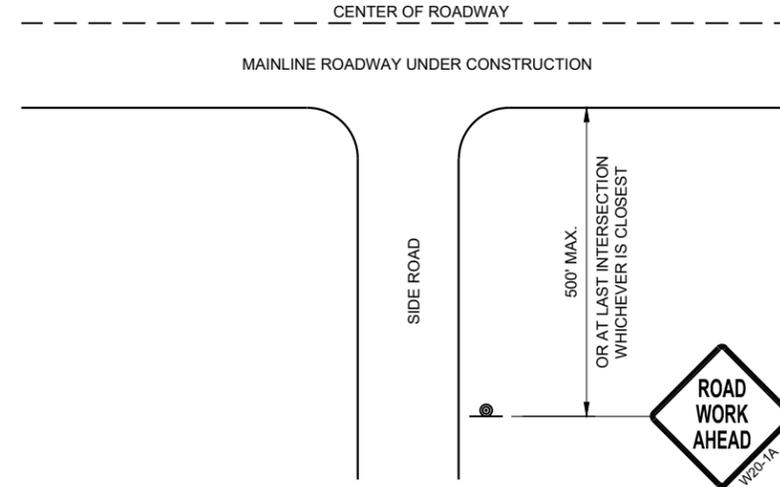
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

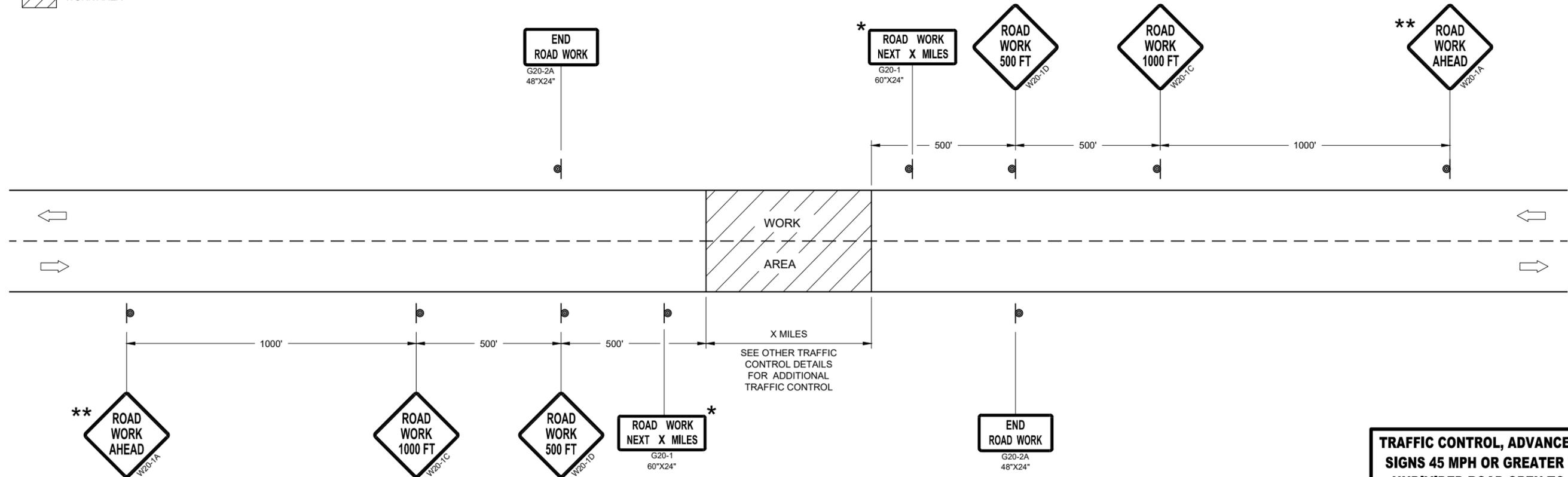
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



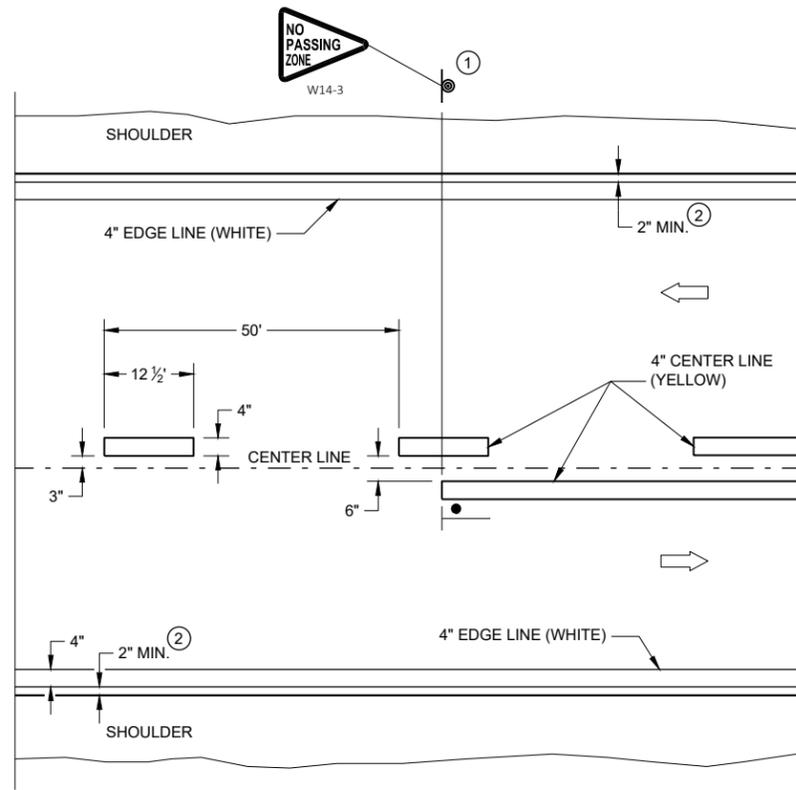
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

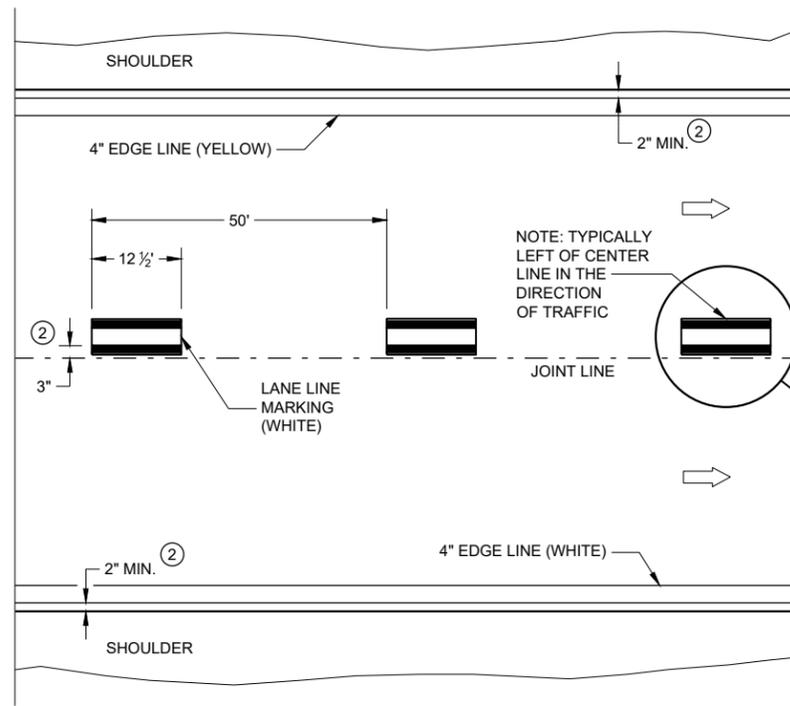
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

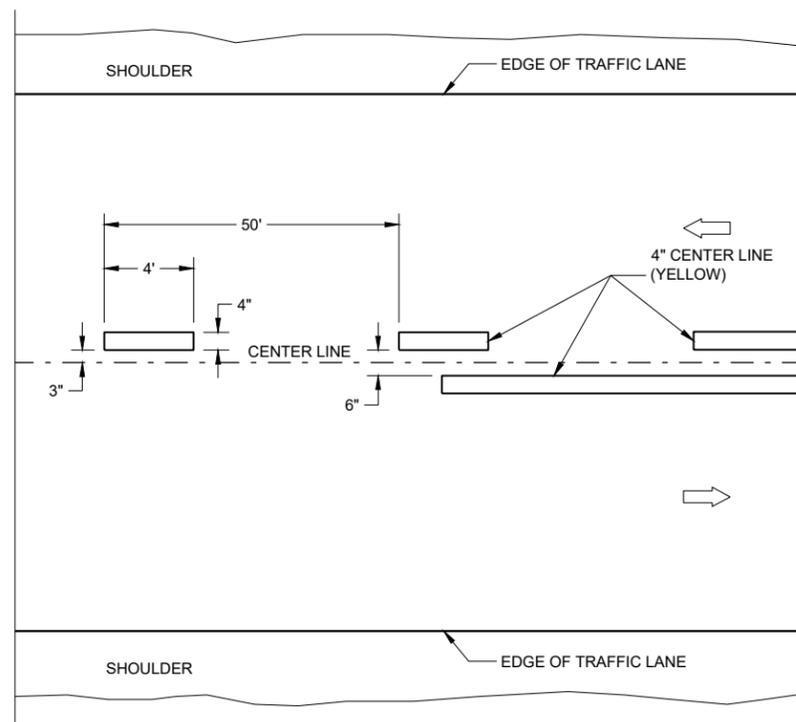


TWO WAY TRAFFIC

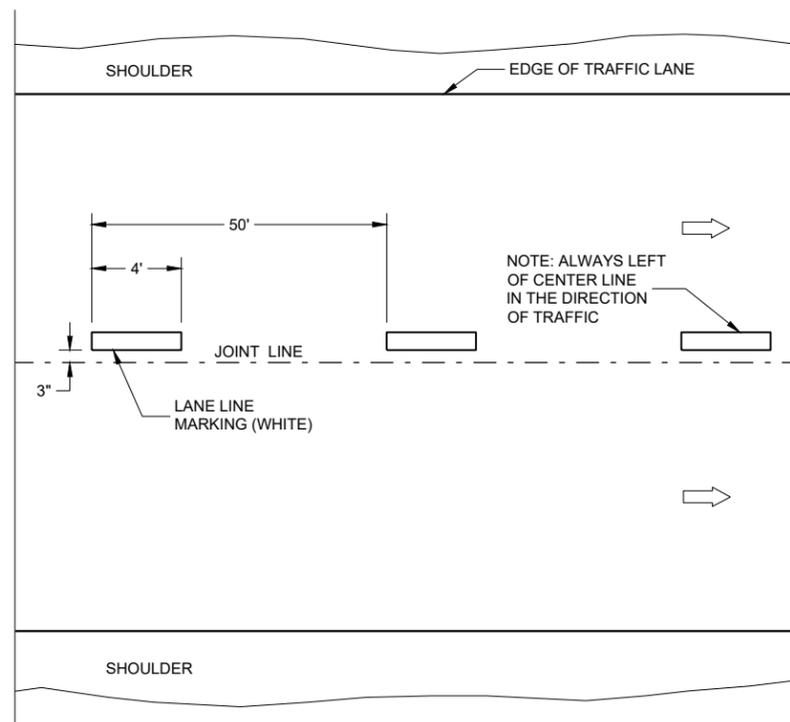


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

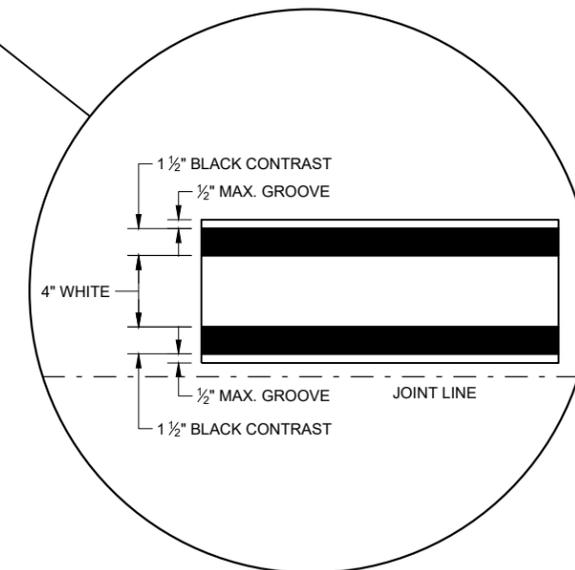
GENERAL NOTES

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



**LONGITUDINAL MARKING
(MAINLINE)**

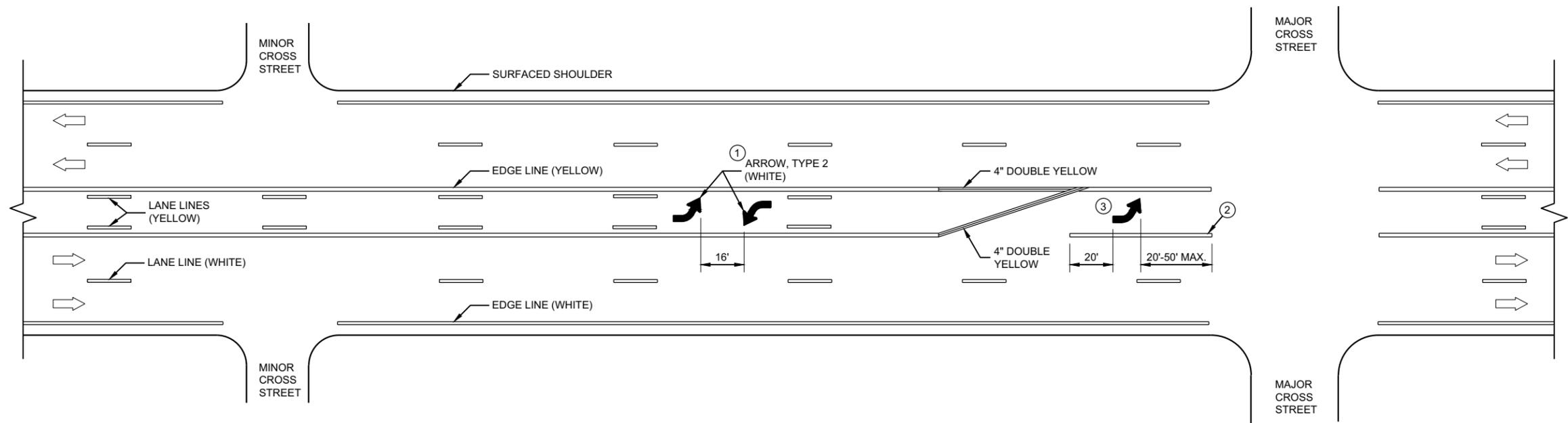
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING
ENGINEER

GENERAL NOTES

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

➡ DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

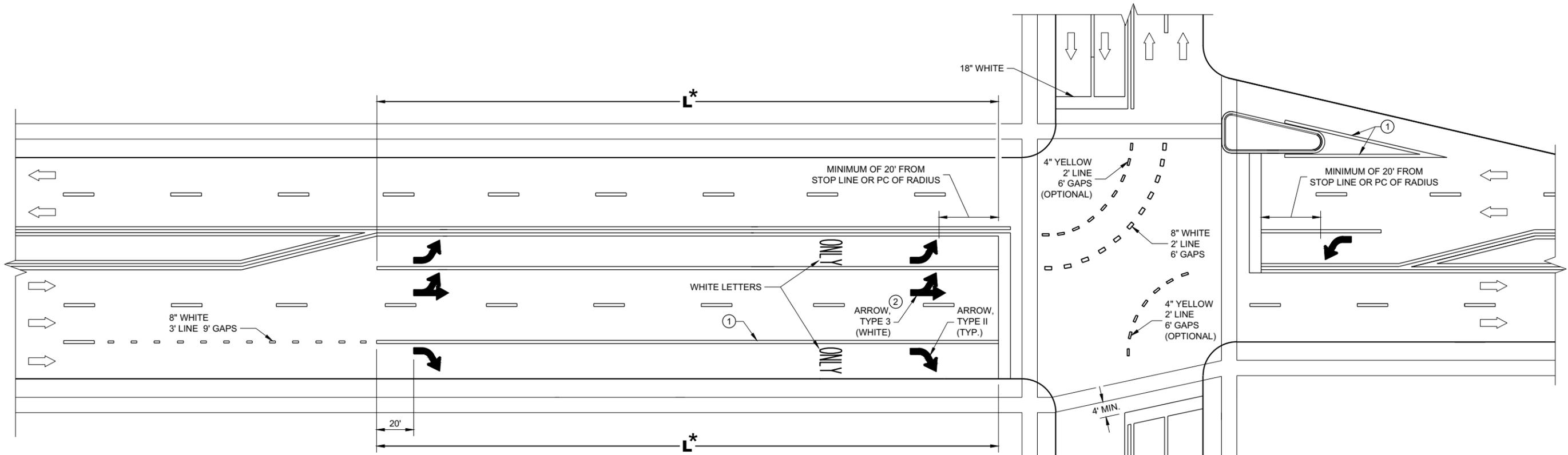
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SDD 15C08 - 20b

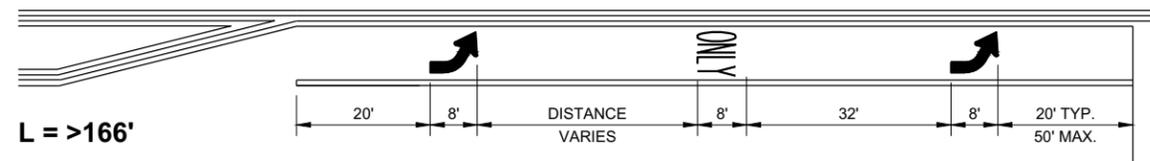
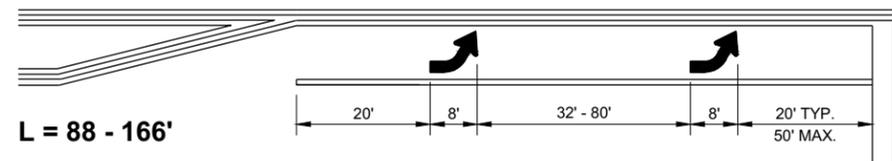
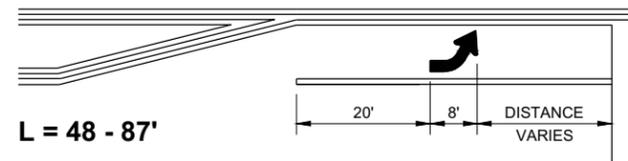
SDD 15C08 - 20b

<p>PAVEMENT MARKING (TURN LANES)</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



TURN LANE OPTIONS

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



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

GENERAL NOTES

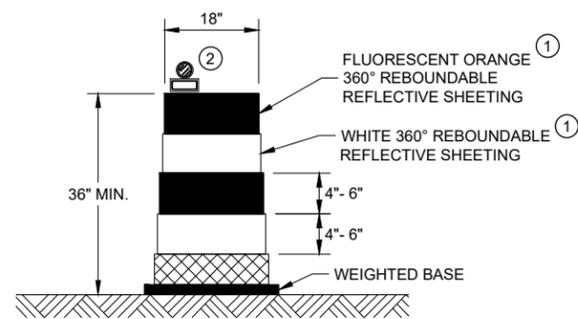
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

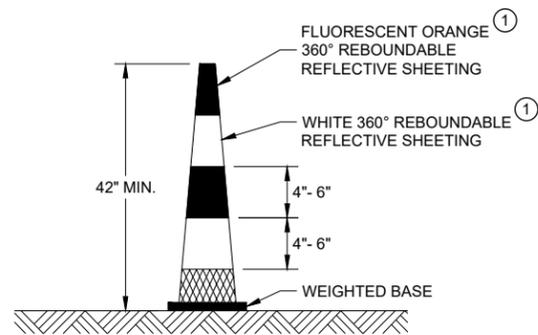
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DRUM

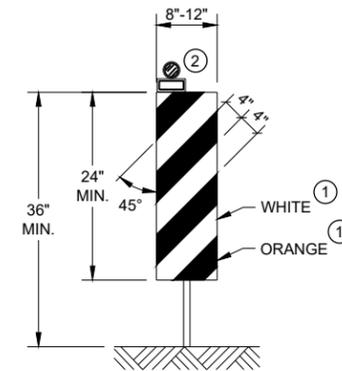


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

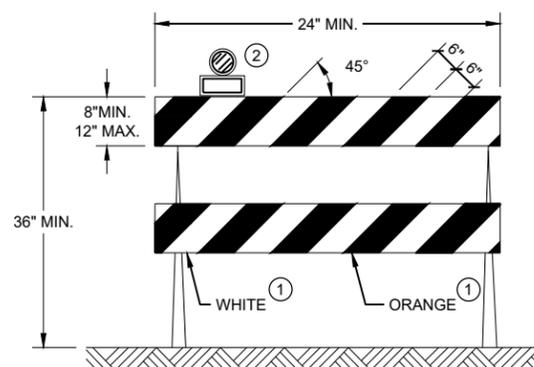
GENERAL NOTES

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



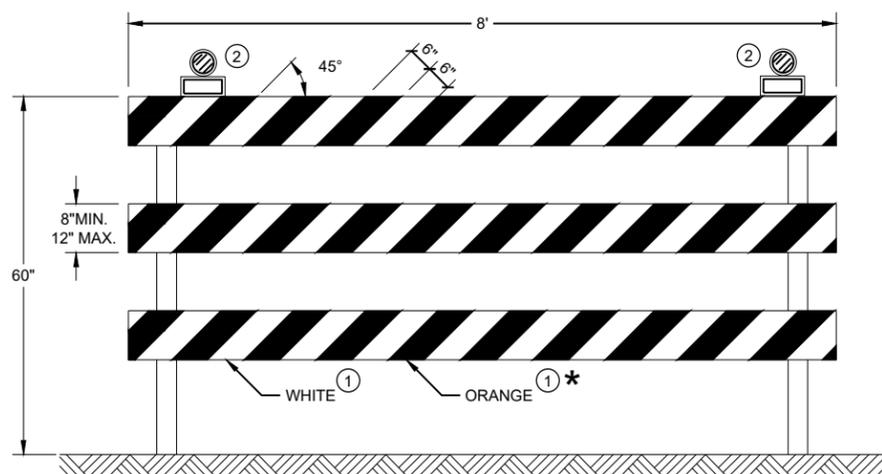
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

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.

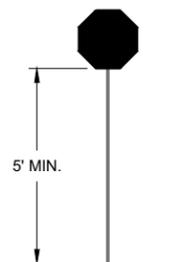
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.



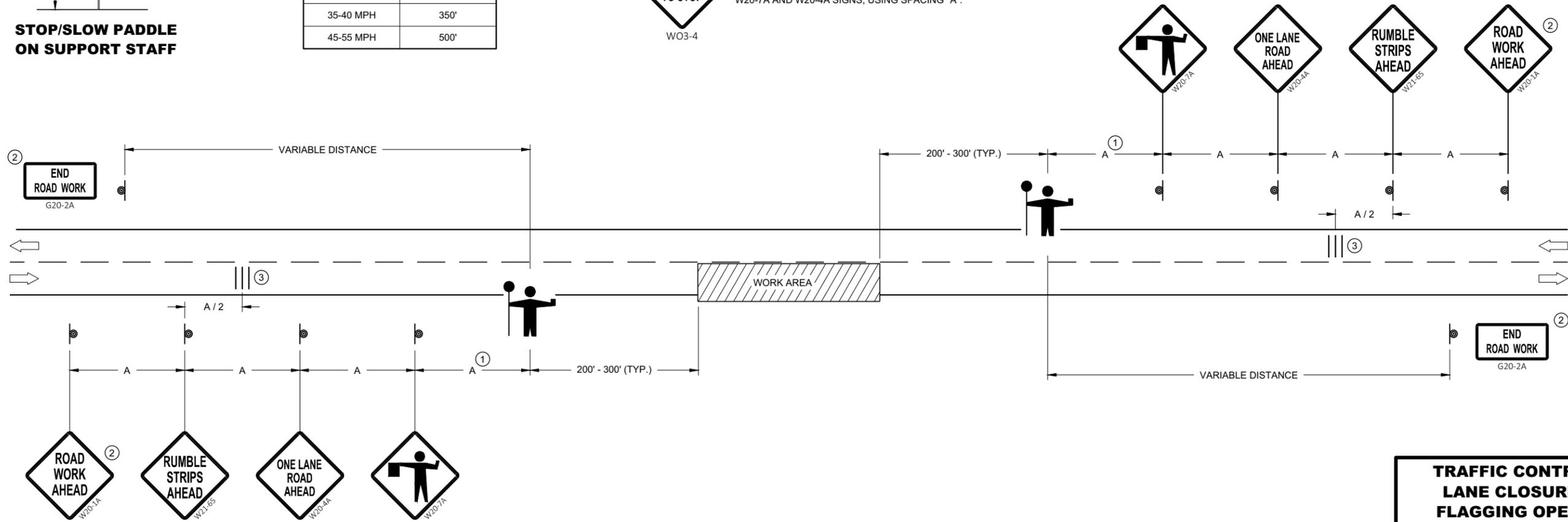
STOP/SLOW PADDLE ON SUPPORT STAFF

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 W03-4 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
DATE May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

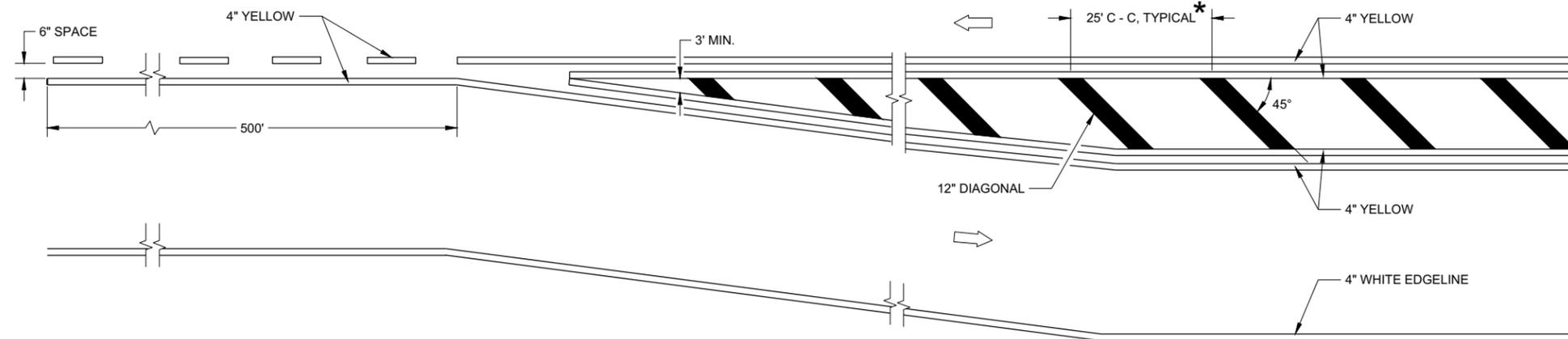
FHWA

GENERAL NOTES

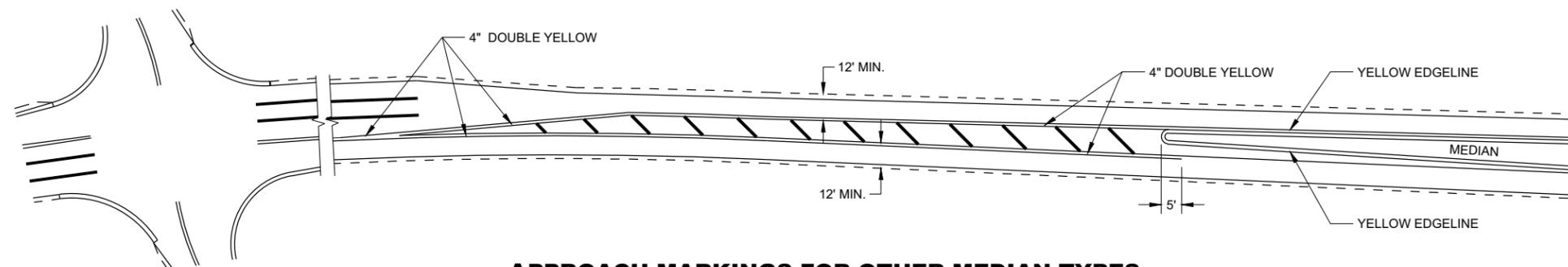
DIAGONALS ARE OPTIONAL WHEN PAINED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL

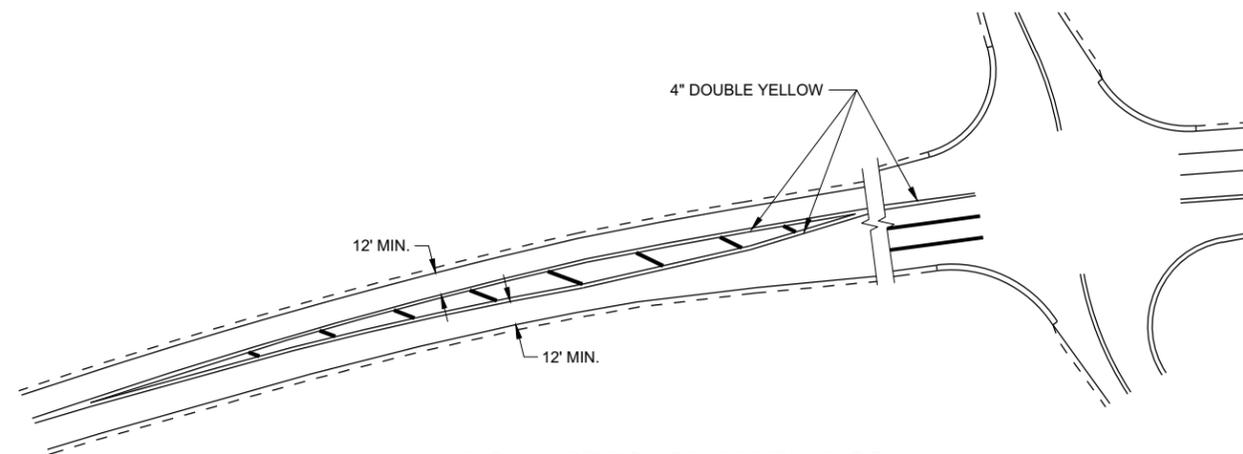
* WHEN THE PAINTED MEDIAN LENGTH IS LESS THAN 50 FEET THE SPACING IS 10'.



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

6

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SDD 15C18 - 05a

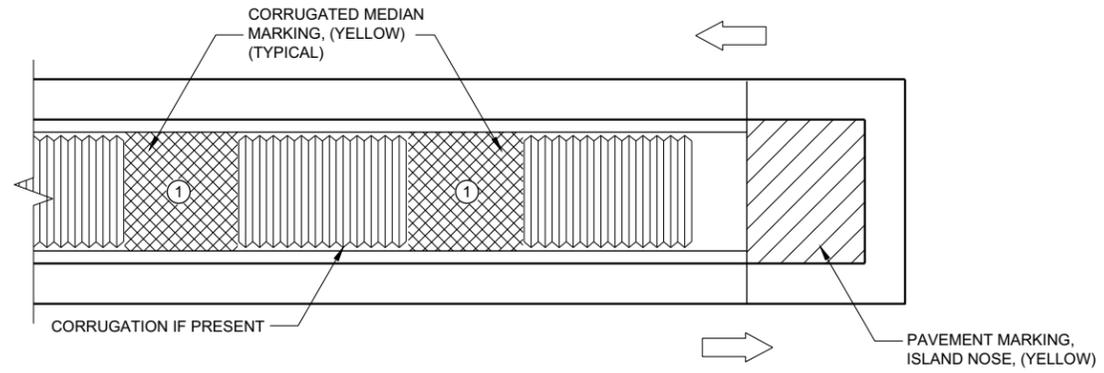
SDD 15C18 - 05a

**MEDIAN ISLAND
PAVEMENT MARKINGS**

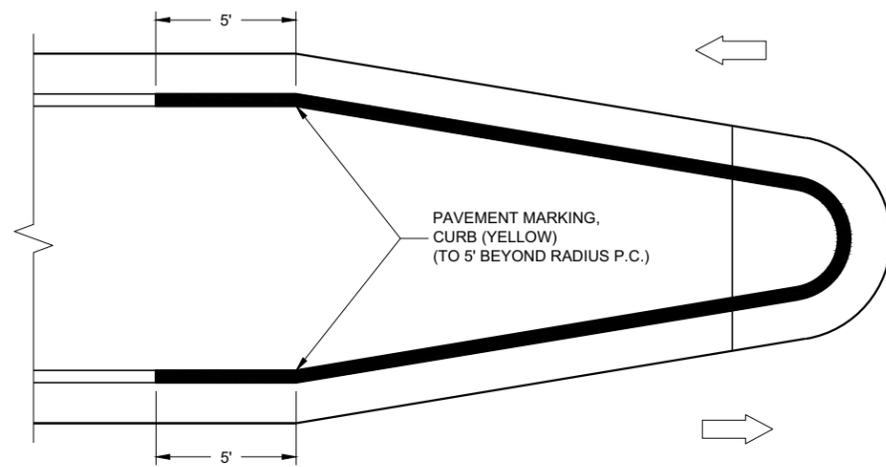
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

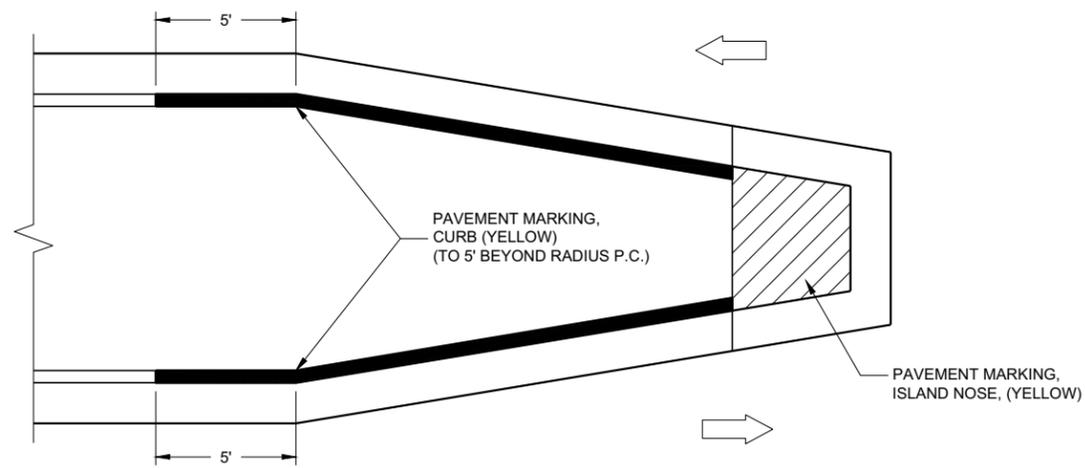
FHWA



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2021 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
<small>FHWA</small>	

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.

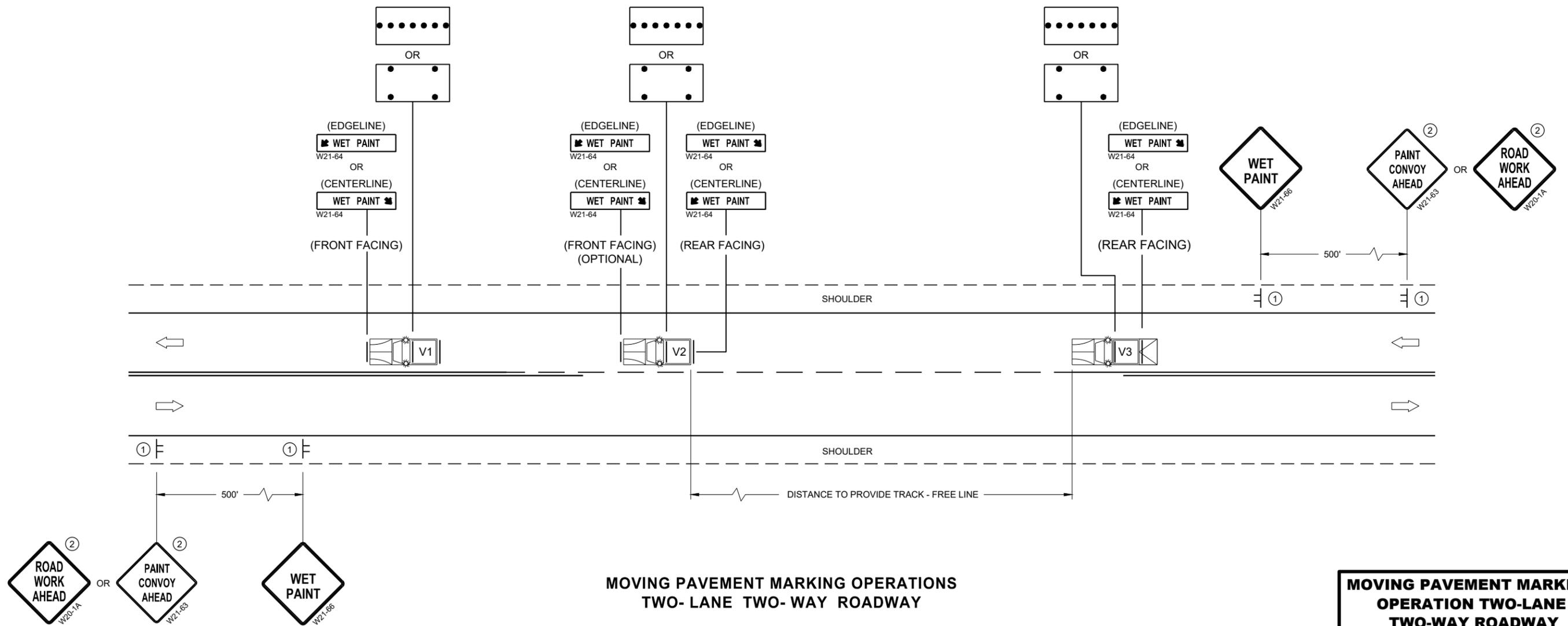
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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.

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**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19 - 06a

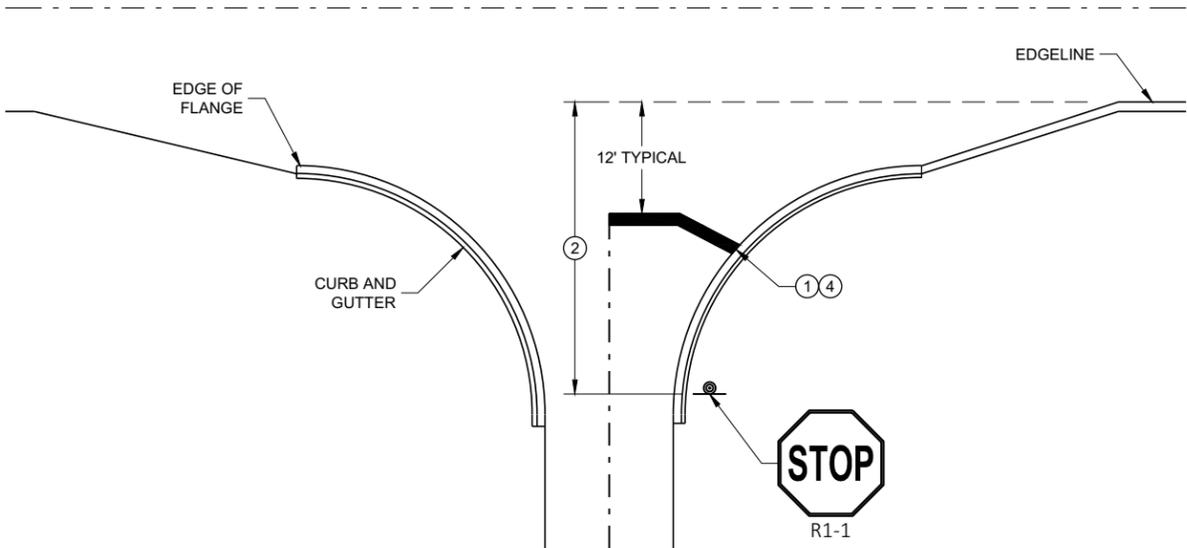
SDD 15C19 - 06a

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	

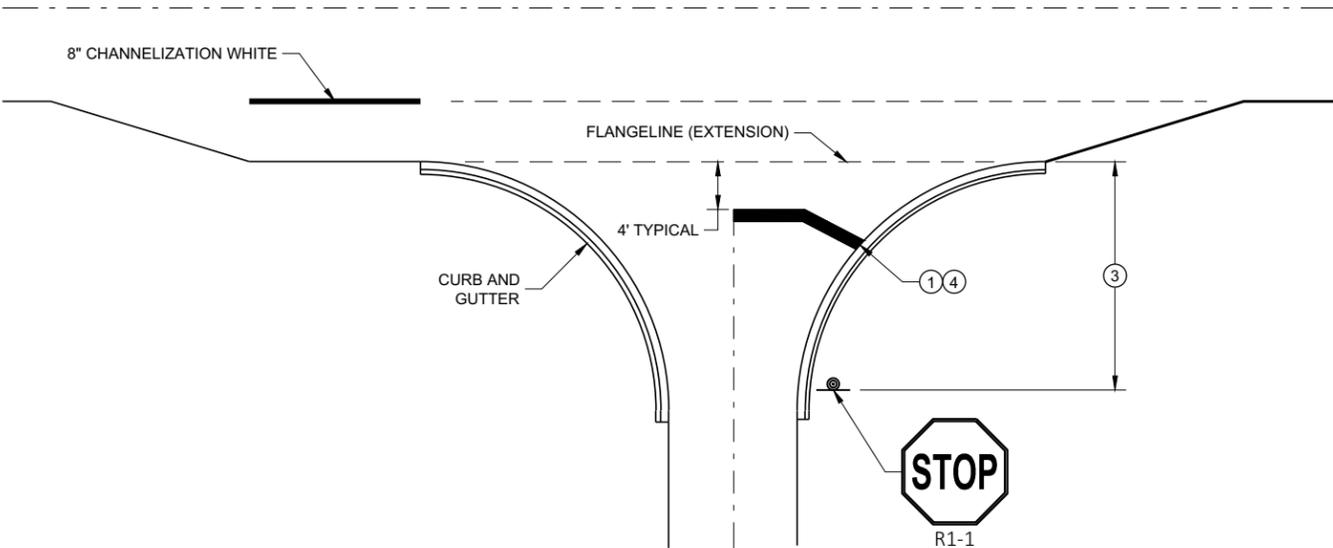
GENERAL NOTES

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

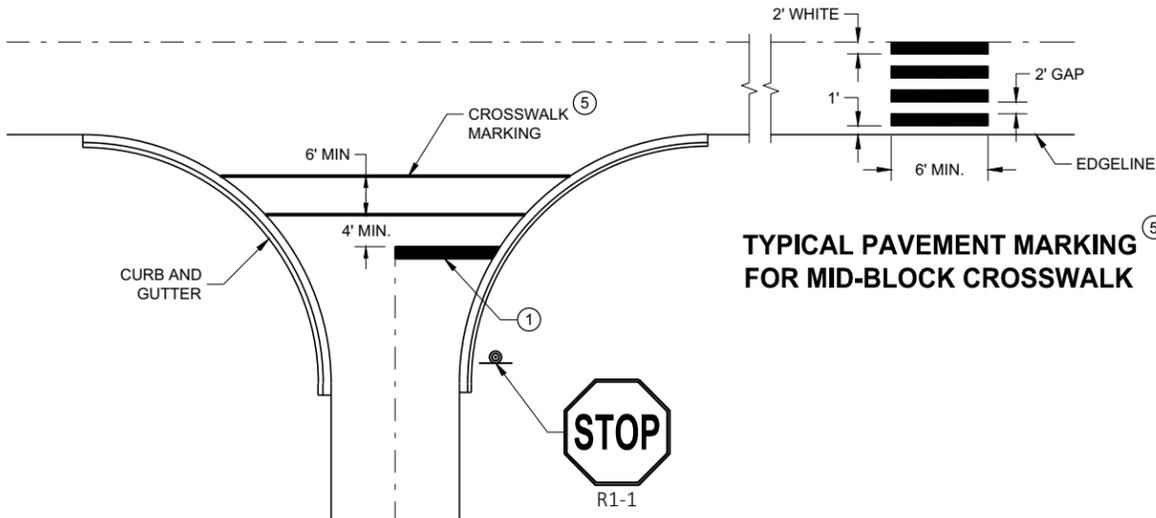
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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.



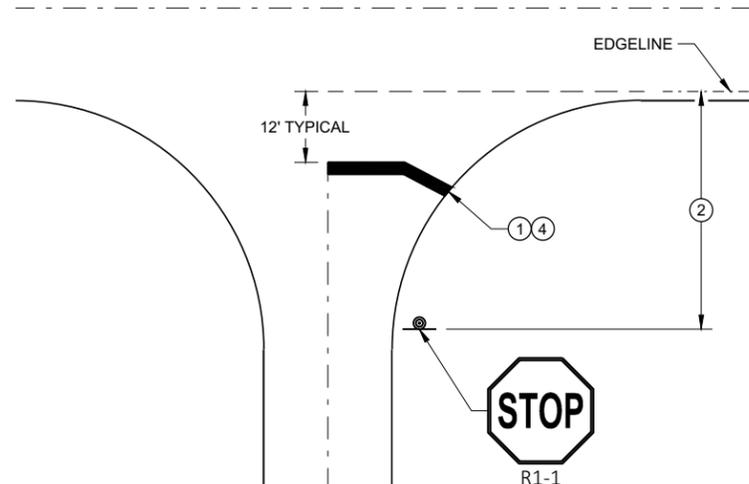
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

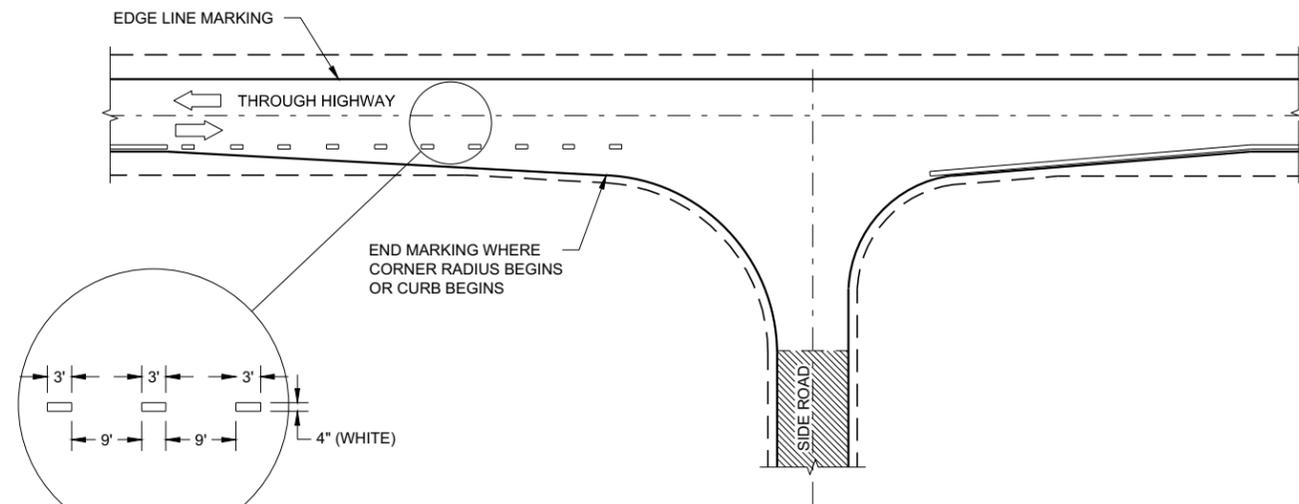
GENERAL NOTES

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

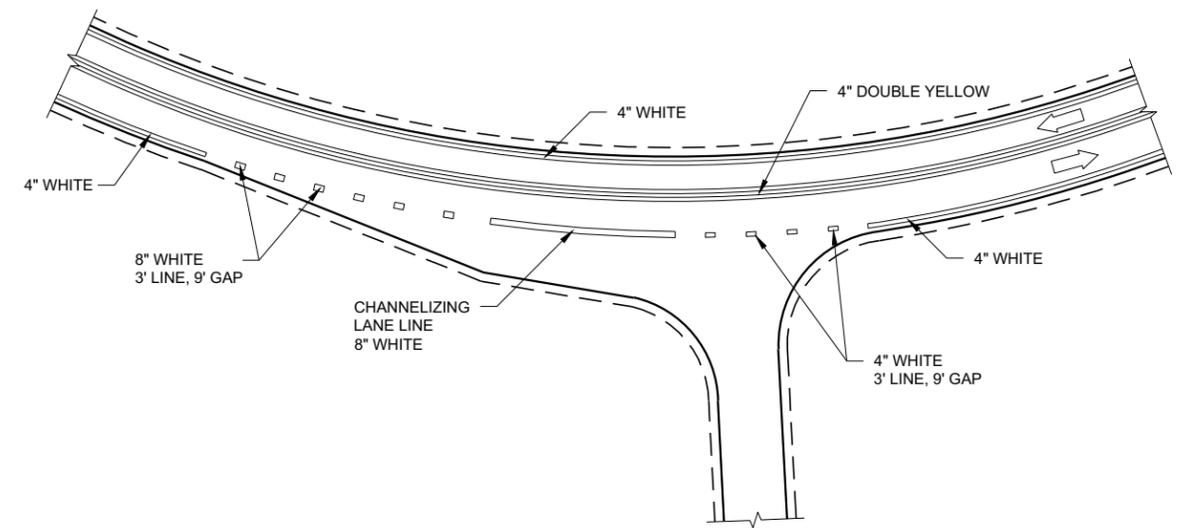
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

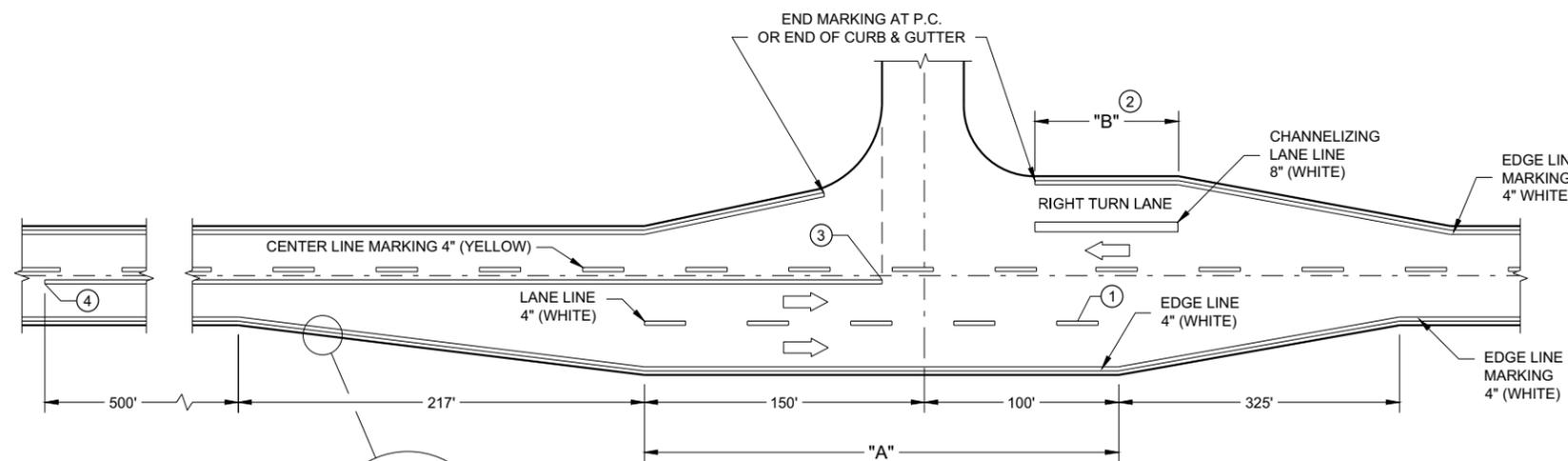
➡ DIRECTION OF TRAVEL



MINOR INTERSECTION



INTERSECTION ON OUTSIDE OF CURVE



**MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)**

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DELINEATOR, FLEXIBLE/TUBULAR MARKER
-  DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

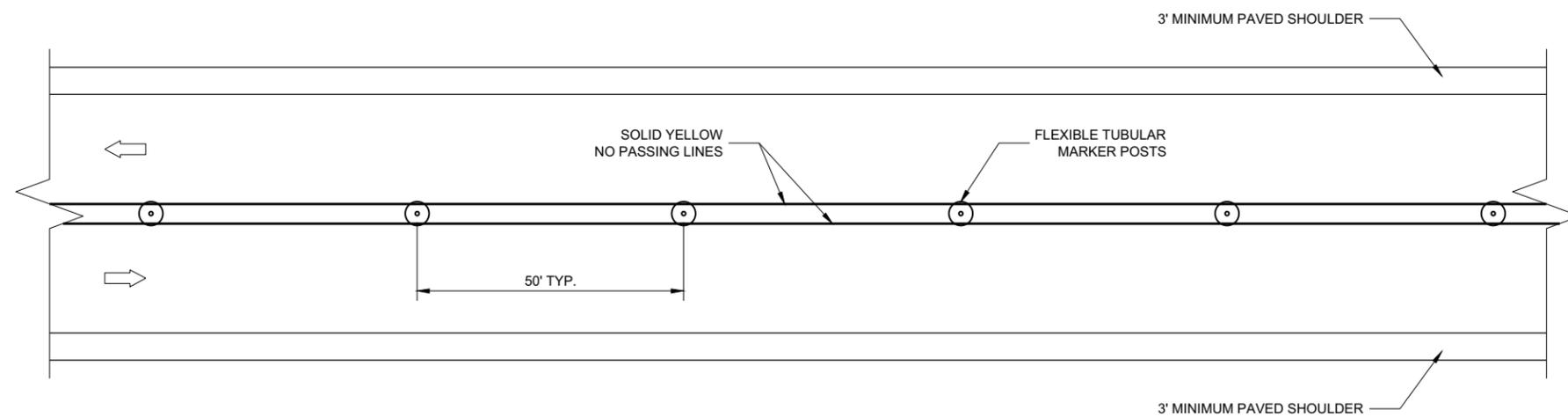
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

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

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



- ① THE W06-3 AND W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.
- ② CONVENTIONAL: 24" X 30"
 FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

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SDD 15D06 - 04

SDD 15D06 - 04

TRAFFIC CONTROL TWO LANE TWO WAY OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke STATE TRAFFIC ENGINEER OF DESIGN
FHWA	

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

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

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

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

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

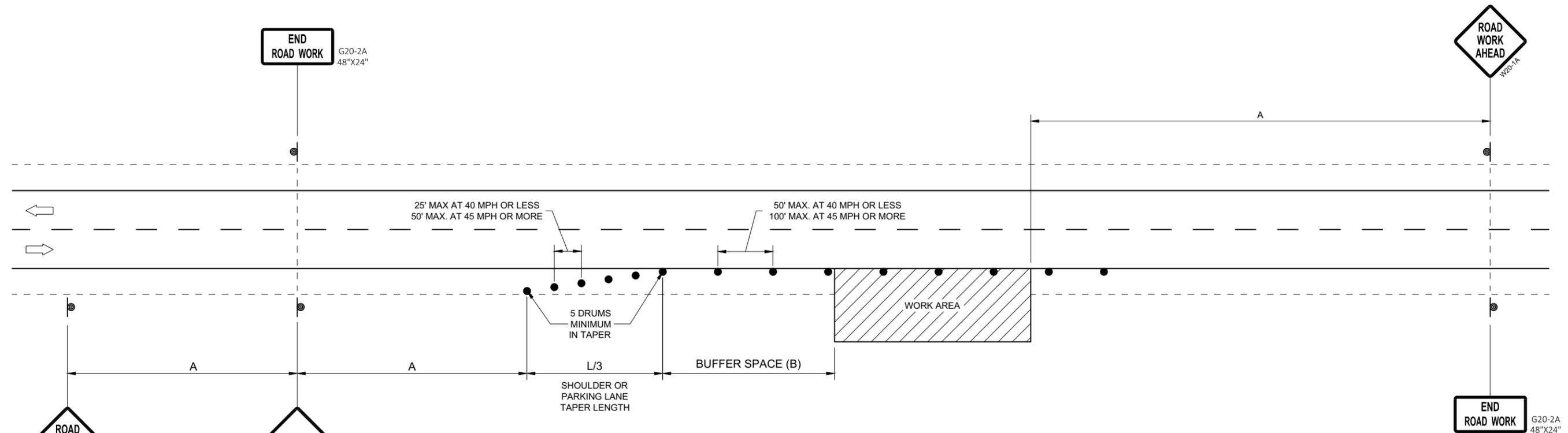
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

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OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

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

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

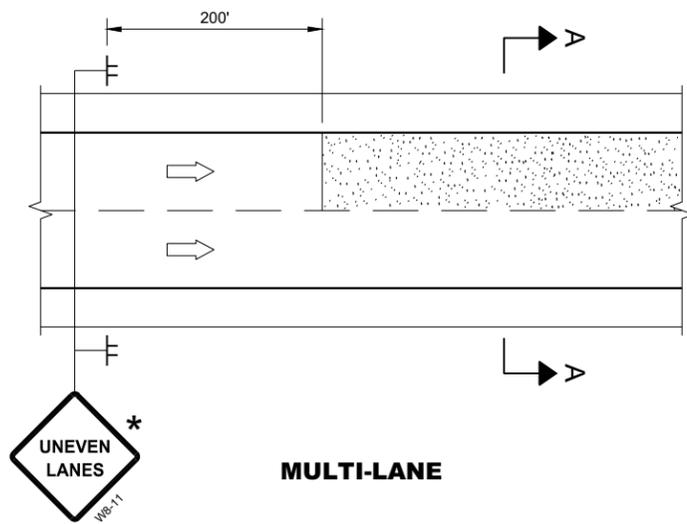
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

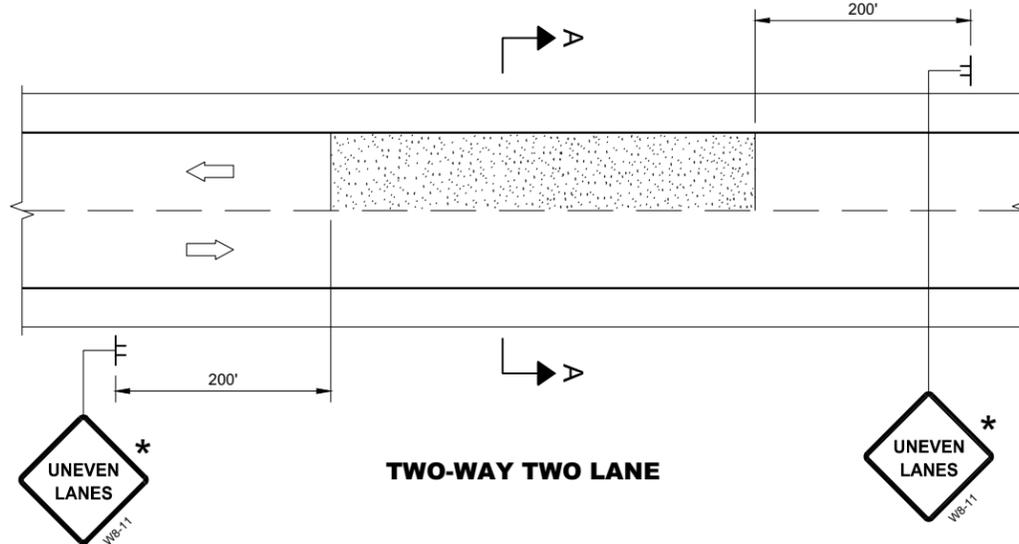
FHWA

SDD 15D28 - 04

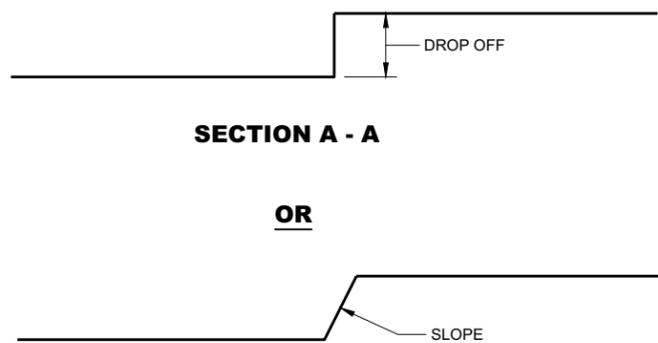
SDD 15D28 - 04



MULTI-LANE



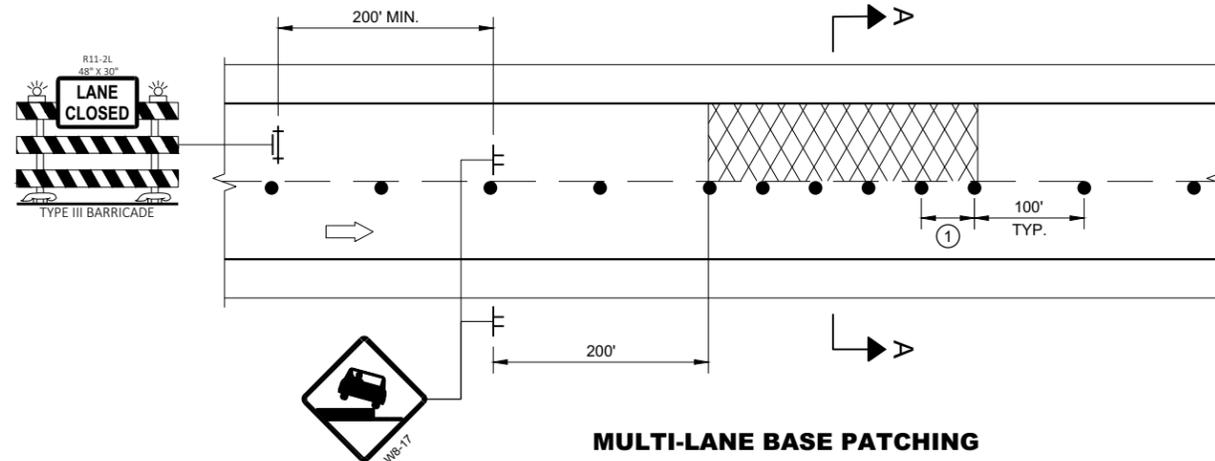
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

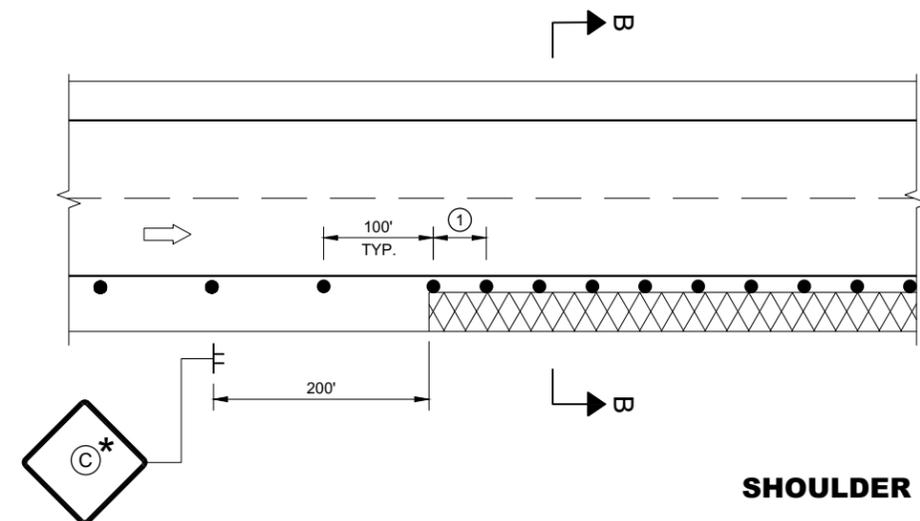
- FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.
- * IF THE DROP-OFF 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

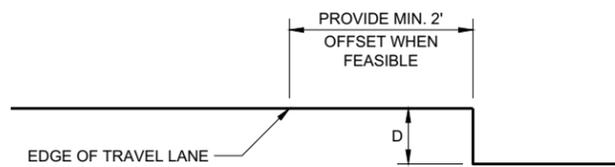
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

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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

SDD 15D39 - 02

SDD 15D39 - 02

**TRAFFIC CONTROL,
DROP-OFF SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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

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

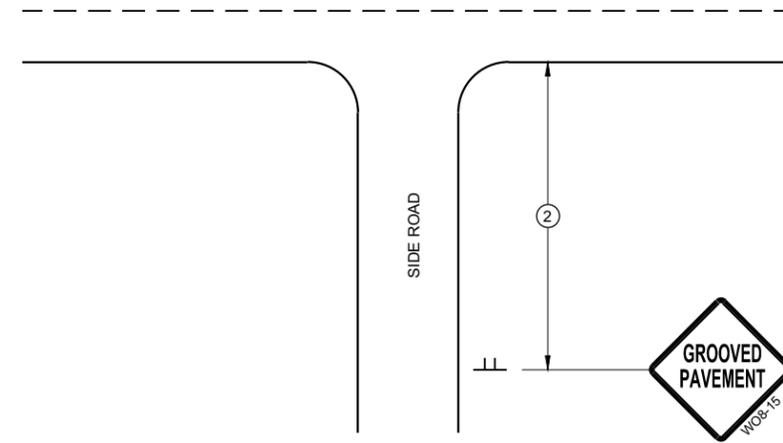
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

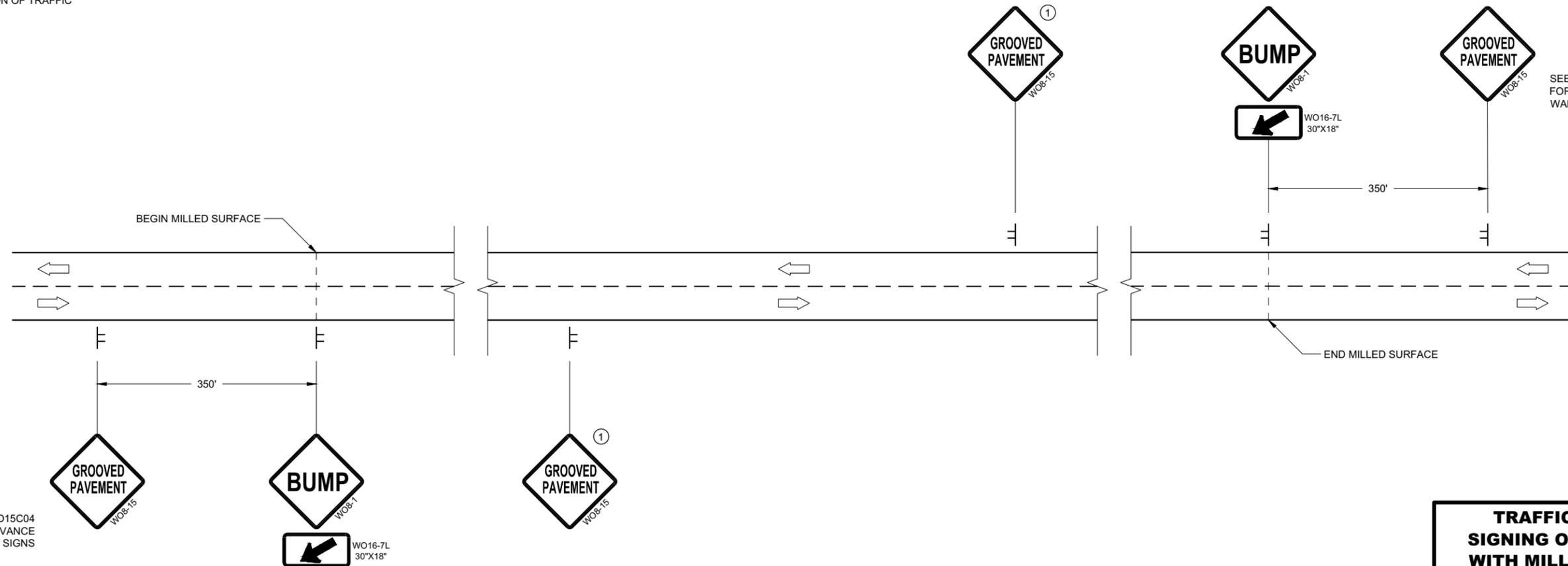
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



SEE SDD15C04 FOR ADVANCE WARNING SIGNS

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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

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

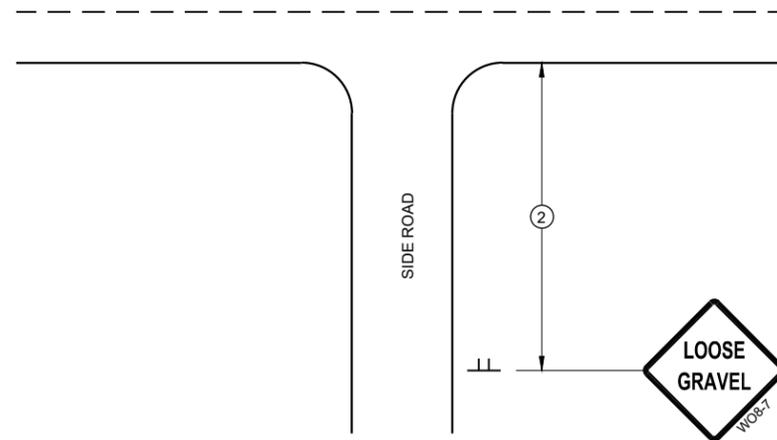
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

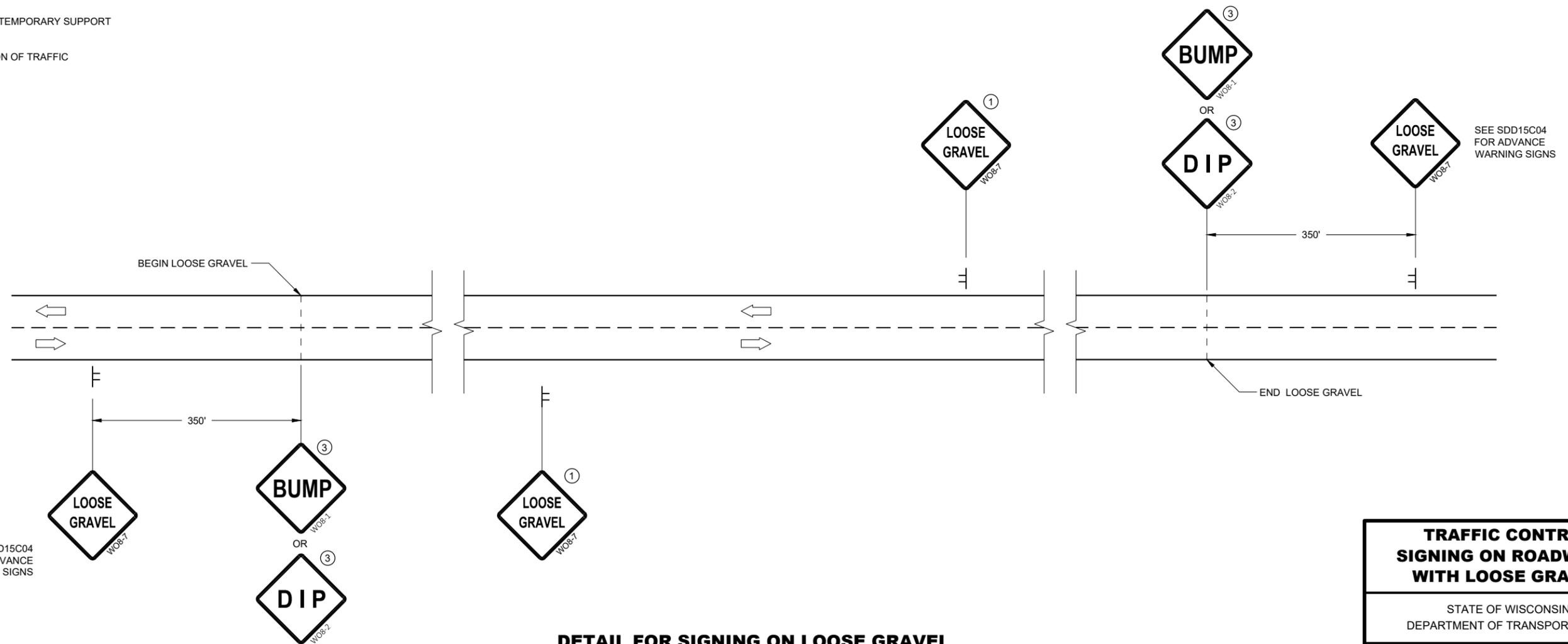
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

LEGEND

- V1 WORK VEHICLE
- V2 SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  FLASHING ARROW PANEL (CAUTION)
-  WORK AREA
-  DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

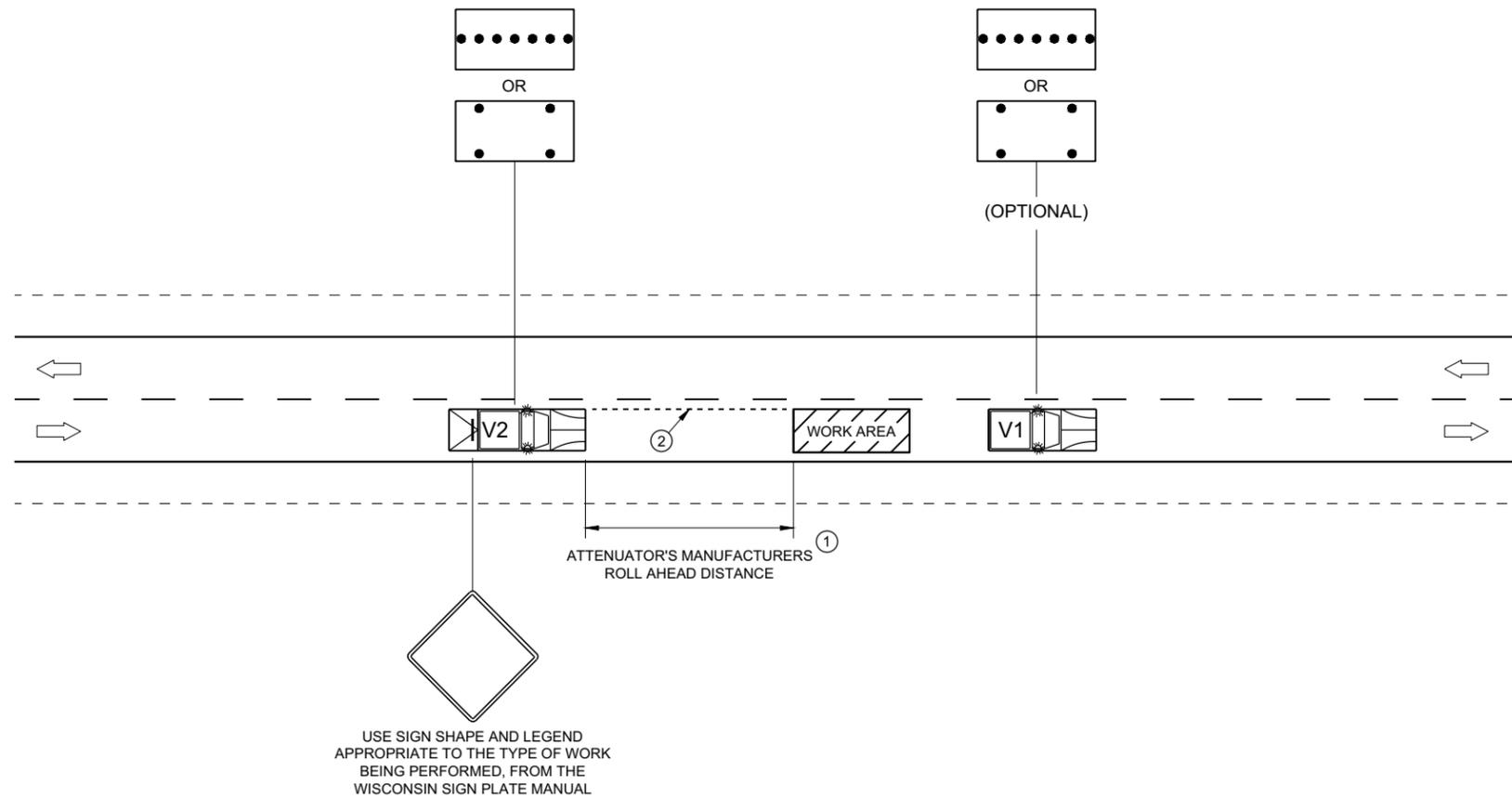
MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

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

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

- ① DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
- ② ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



6

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SDD 15D51 - 01

SDD 15D51 - 01

**TRAFFIC CONTROL,
MOBILE OPERATIONS ON
AN UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

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.

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.

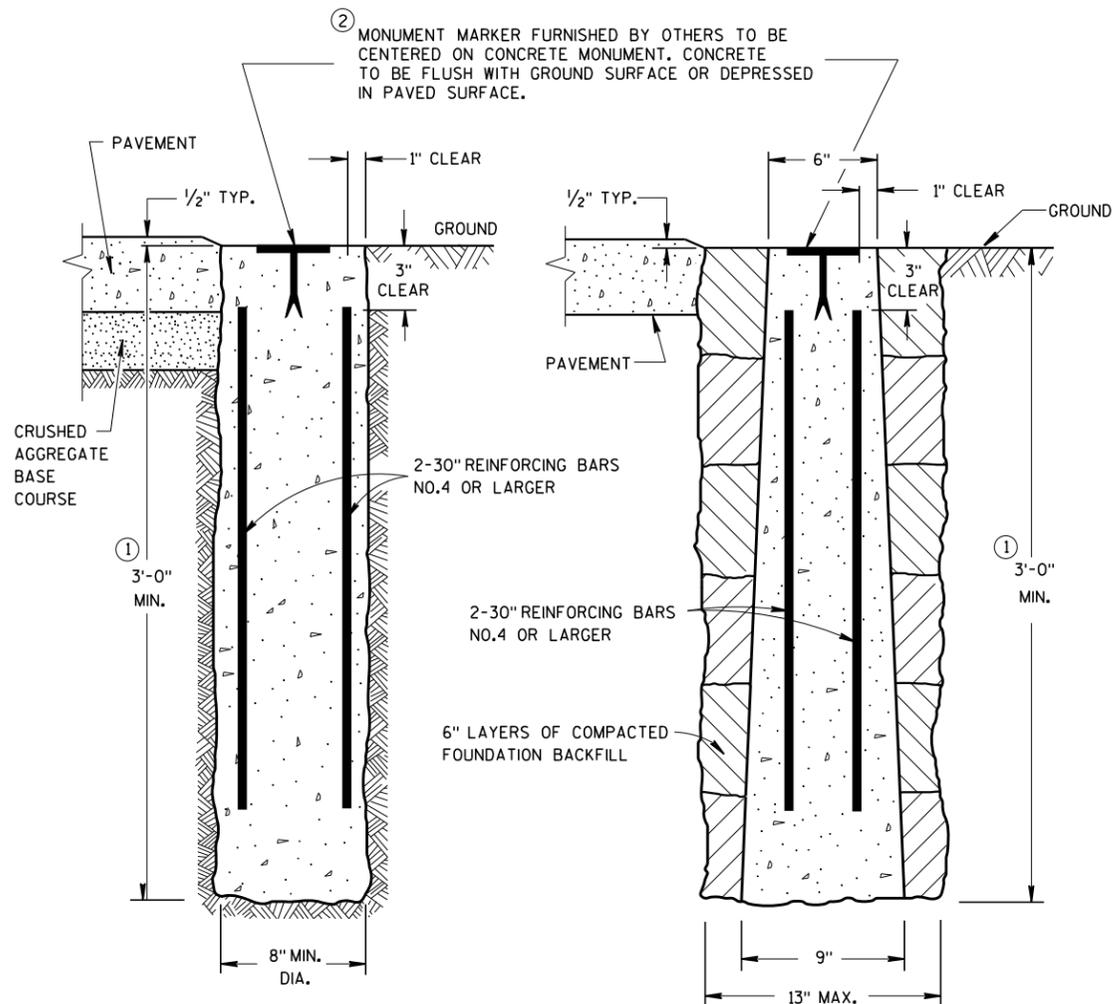
MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

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

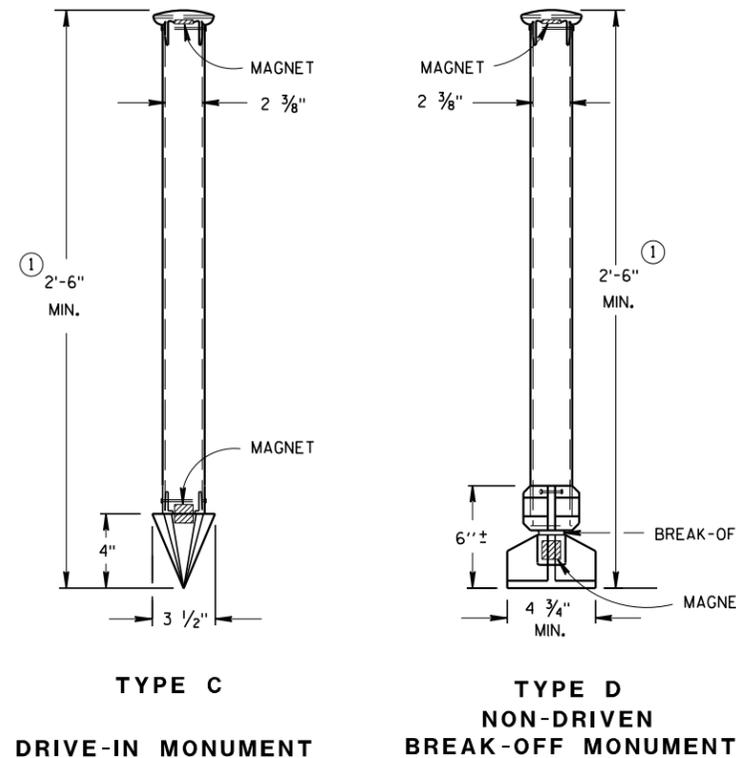
THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

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

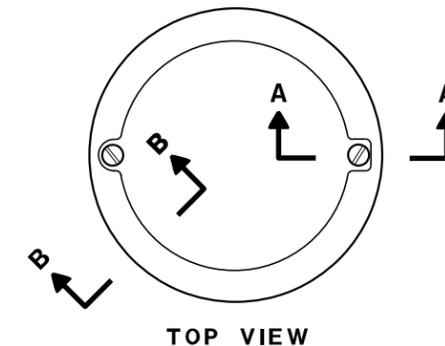
- ① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.
- ② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



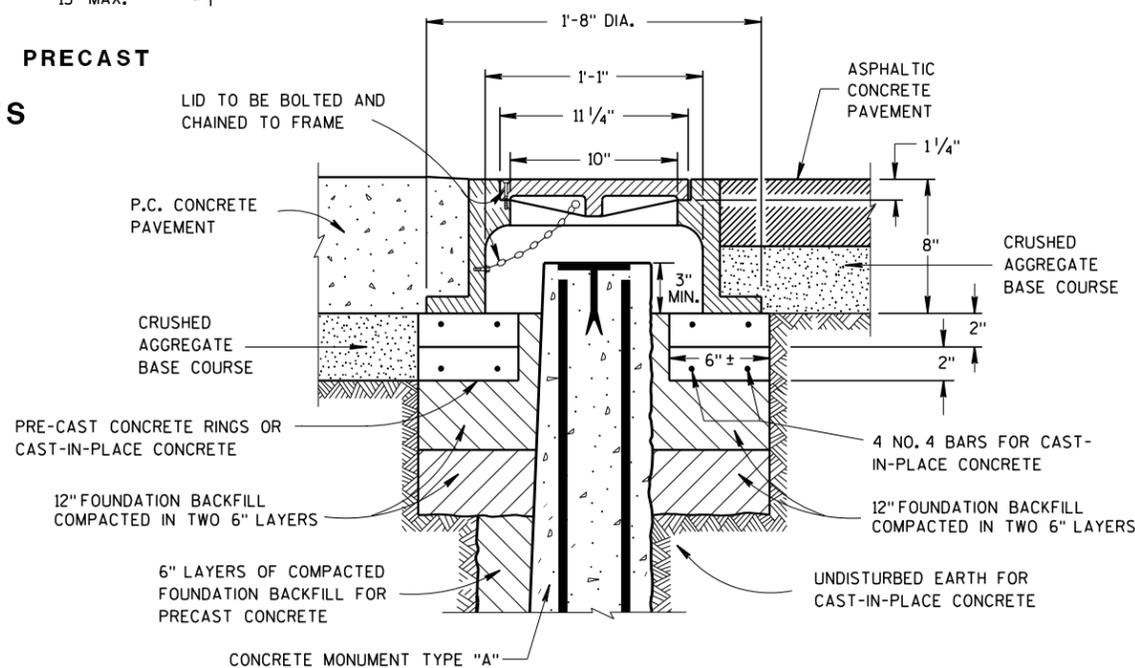
**CAST-IN-PLACE
CONCRETE MONUMENTS
TYPE A**



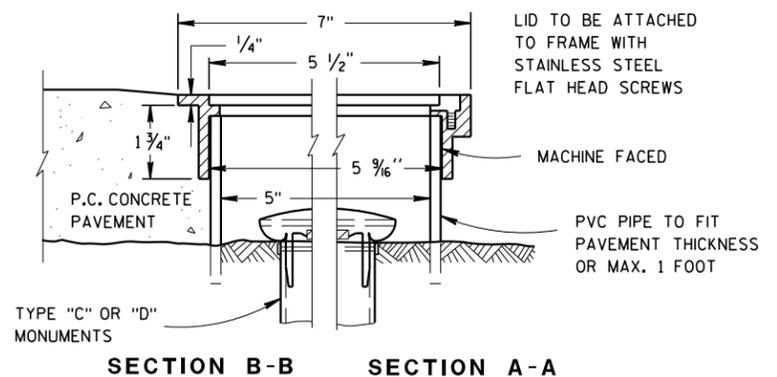
**ALUMINUM MONUMENTS
(INCLUDES MARKER)**



TOP VIEW

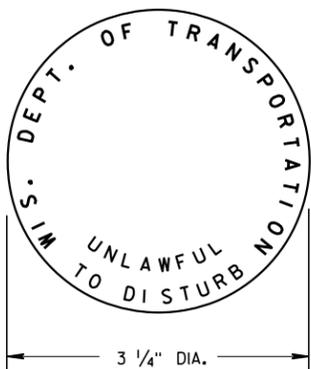


**CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)**



ALUMINUM MONUMENT COVER

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



**WIS DOT MONUMENT
MARKER LOGO
FOR TYPES "A", "C", & "D"**

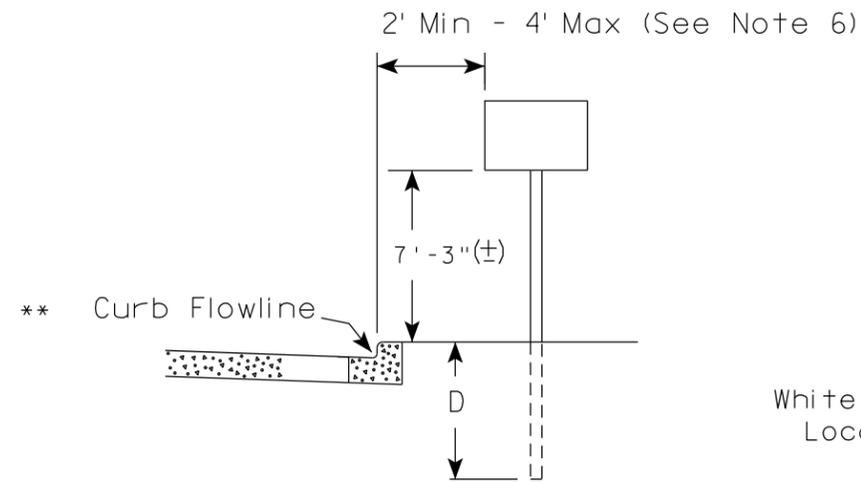
**LANDMARK REFERENCE
MONUMENTS AND COVERS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

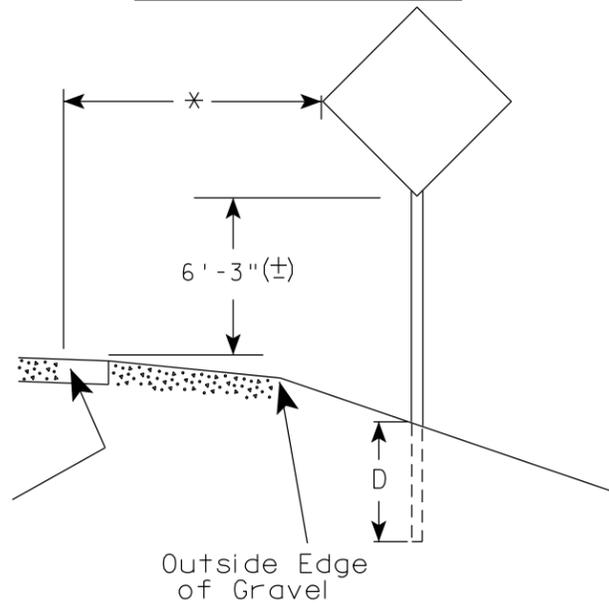
APPROVED
March 2018 /S/ Raymond A. Kumapayi
DATE CHIEF SURVEYING AND MAPPING ENGINEER
FHWA

URBAN AREA

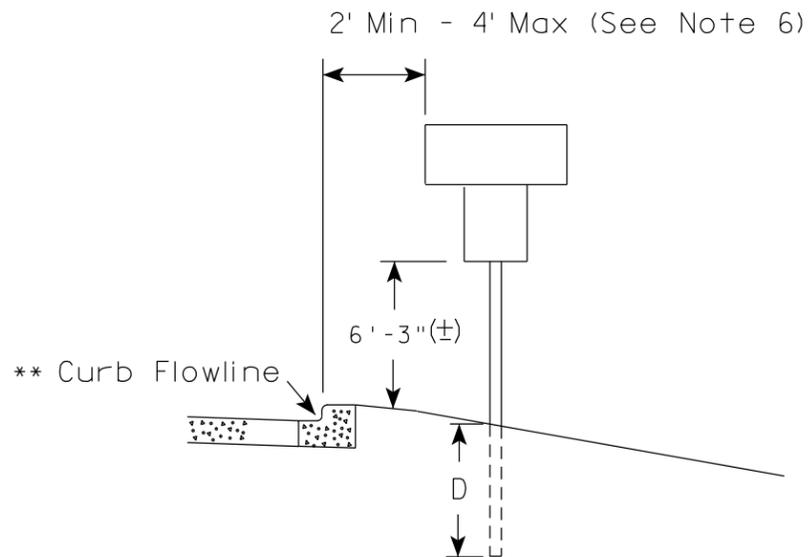
RURAL AREA (See Note 2)



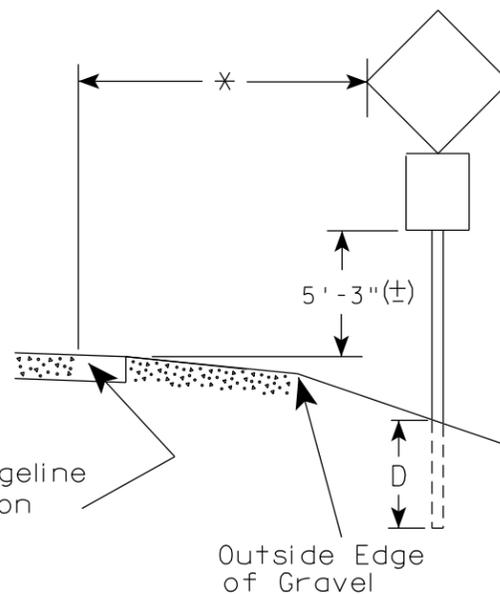
White Edgeline Location



Outside Edge of Gravel



White Edgeline Location



Outside Edge of Gravel

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

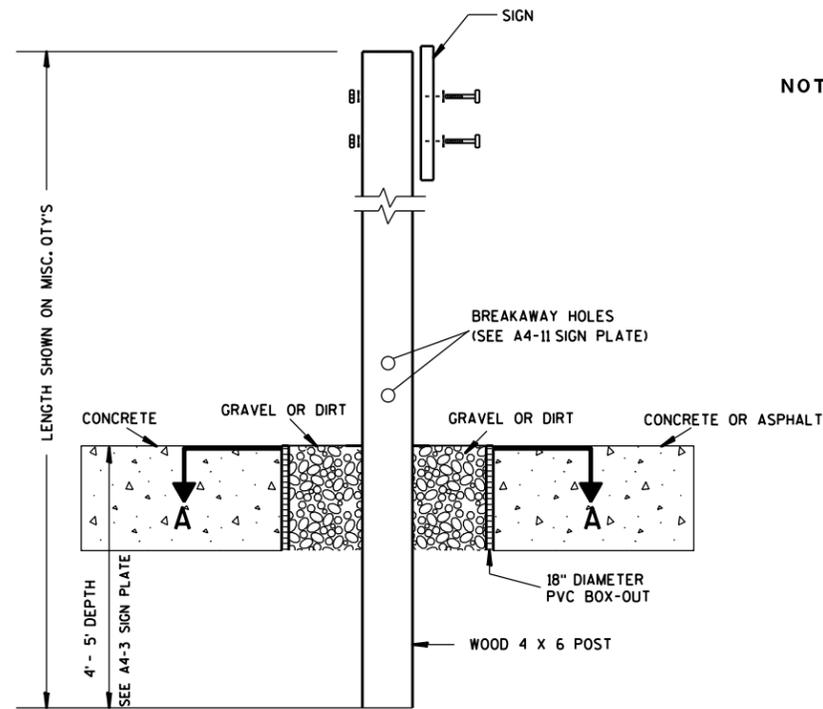
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

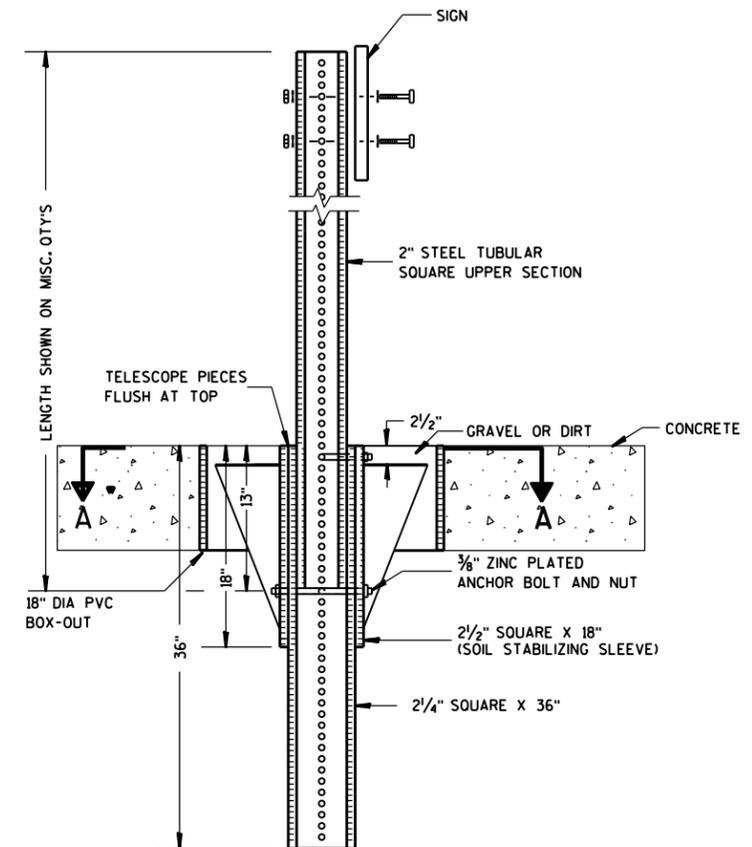
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

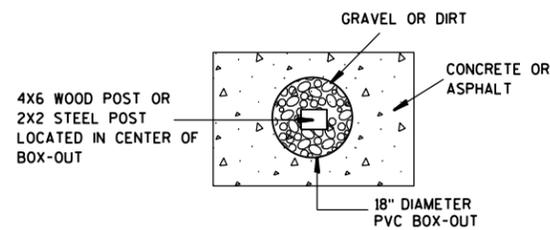
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES:**
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
 2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
 3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

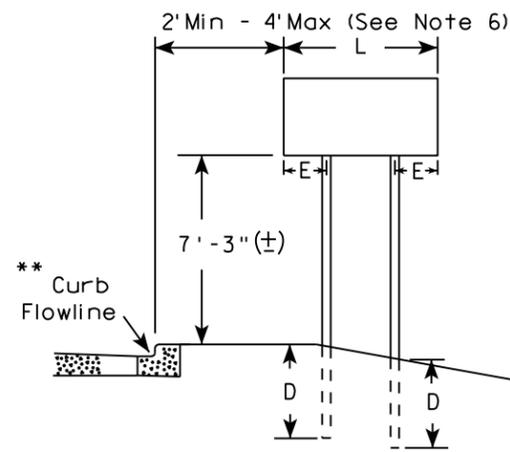
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

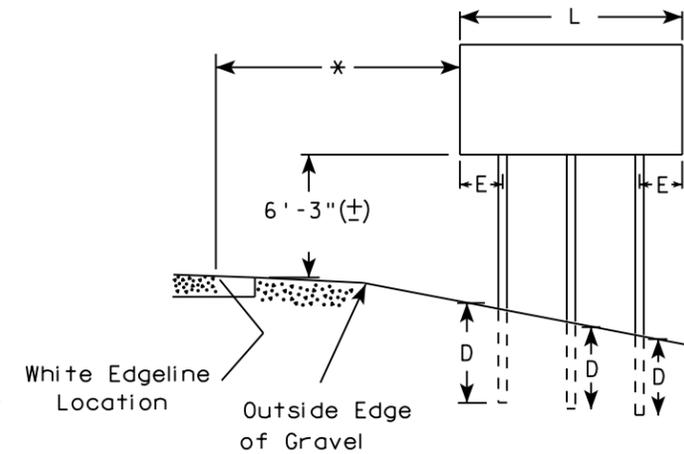
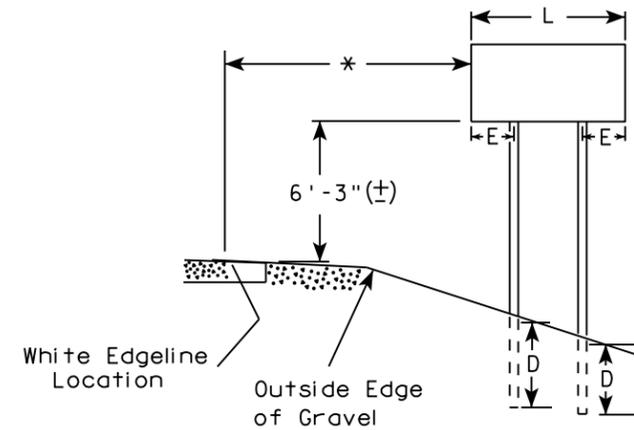
GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

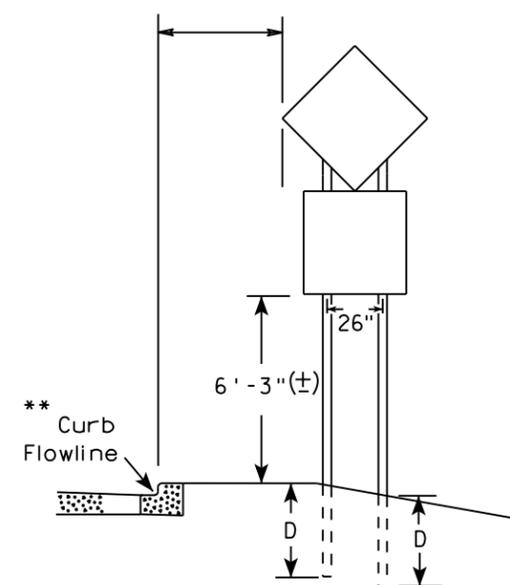
URBAN AREA



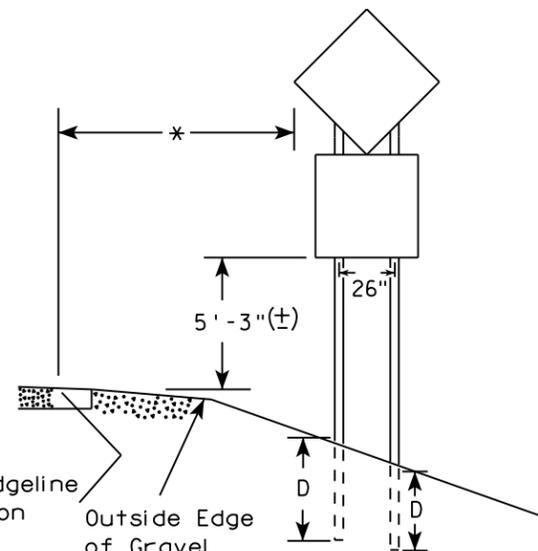
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

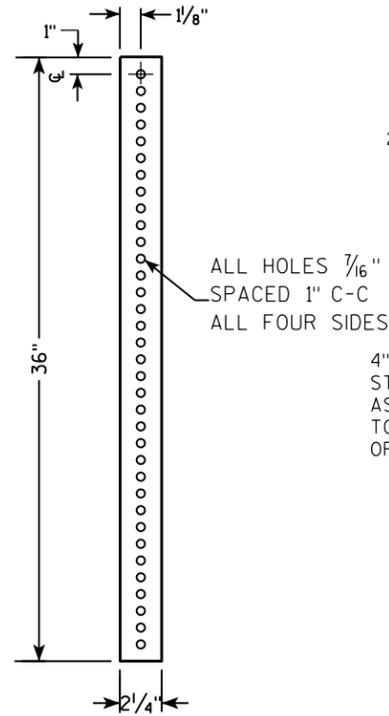
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

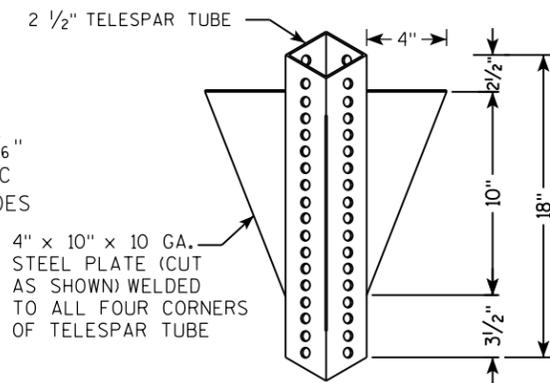
WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

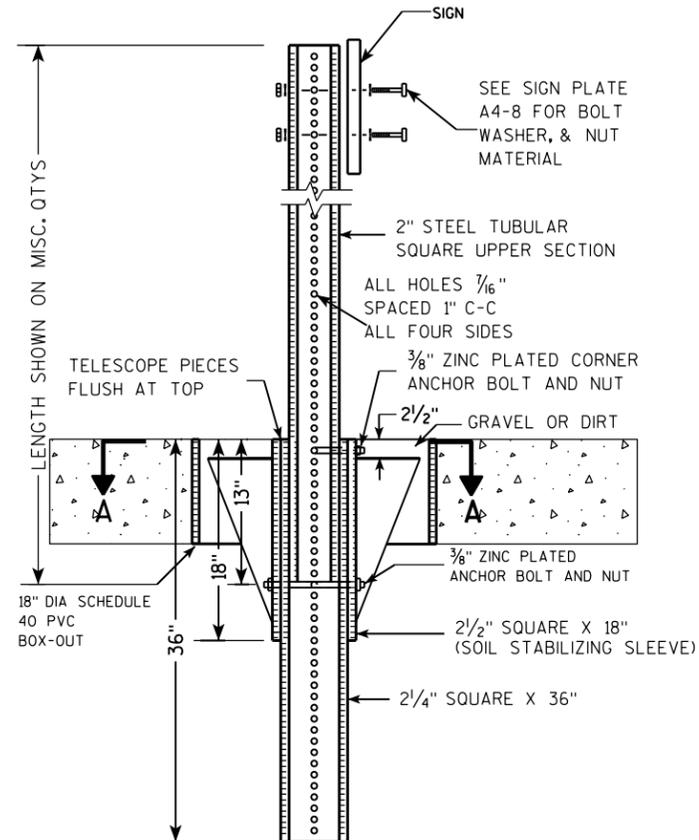
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



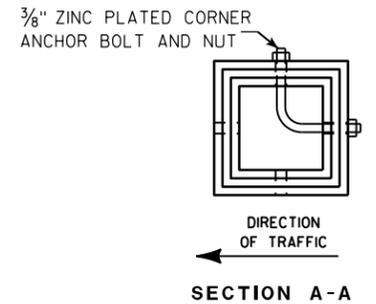
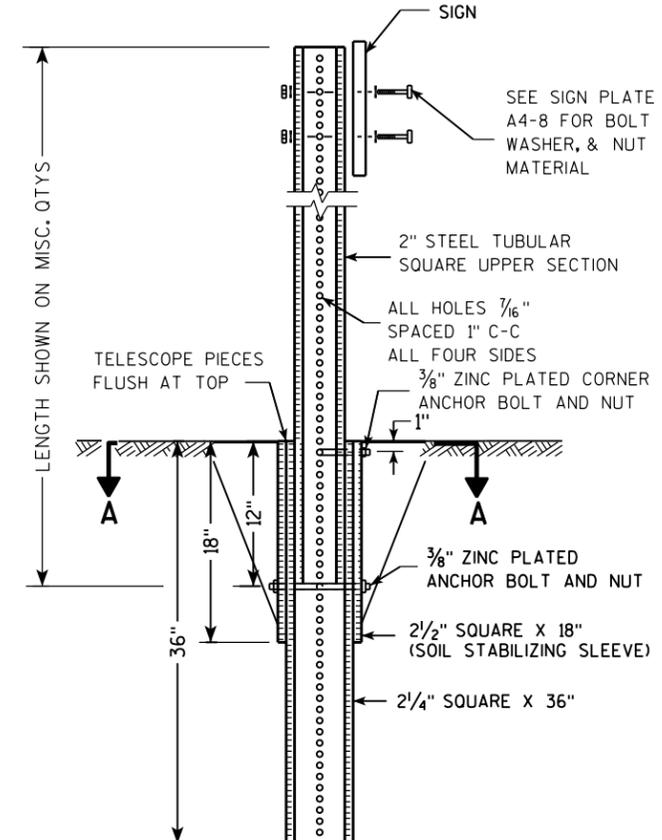
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

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

**TUBULAR STEEL
SIGN POST
A4-9**

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

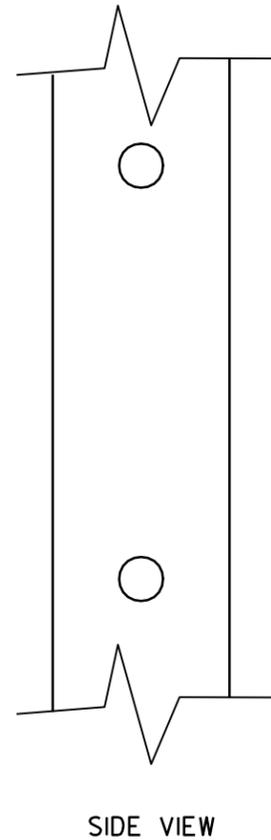
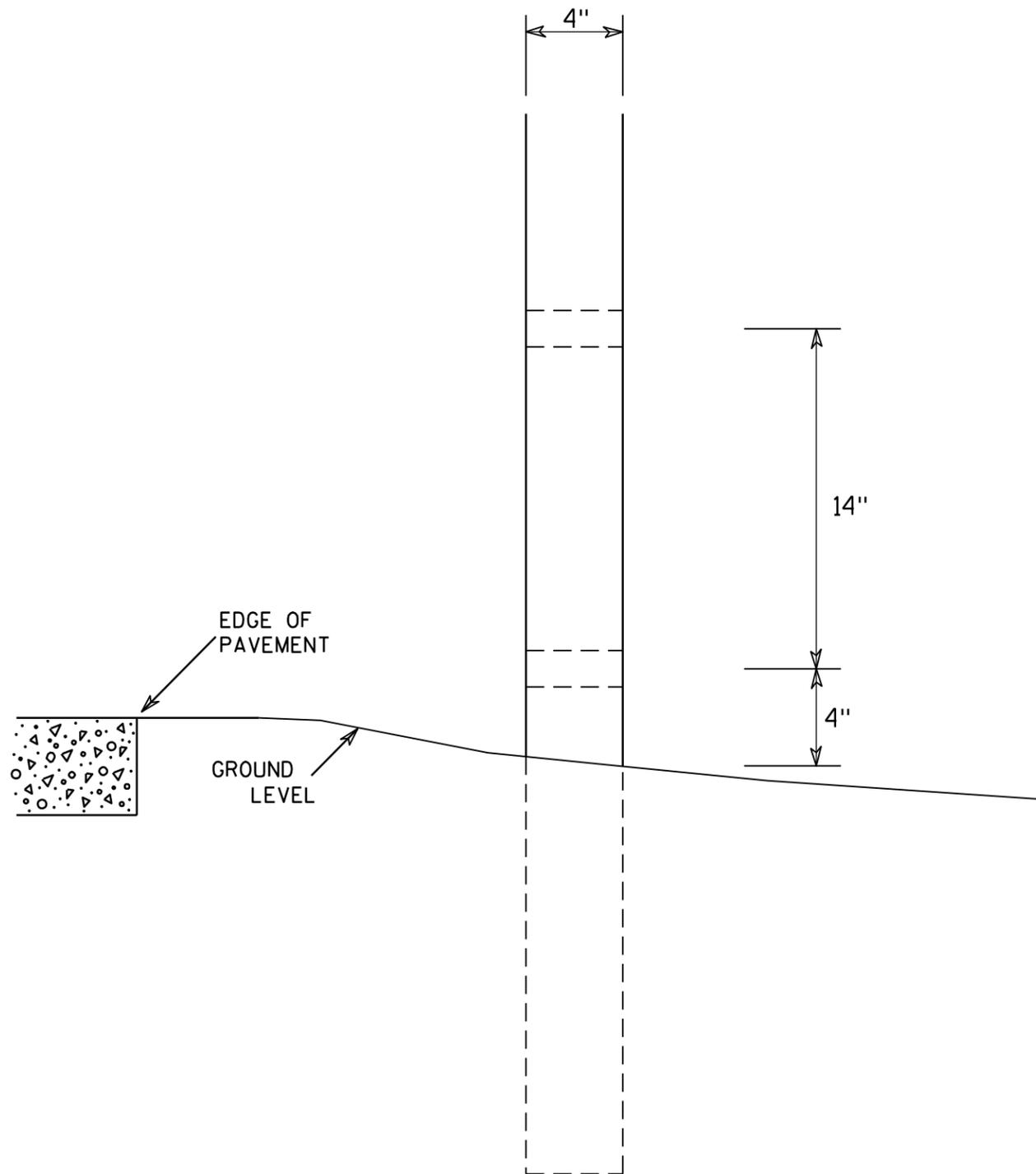
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

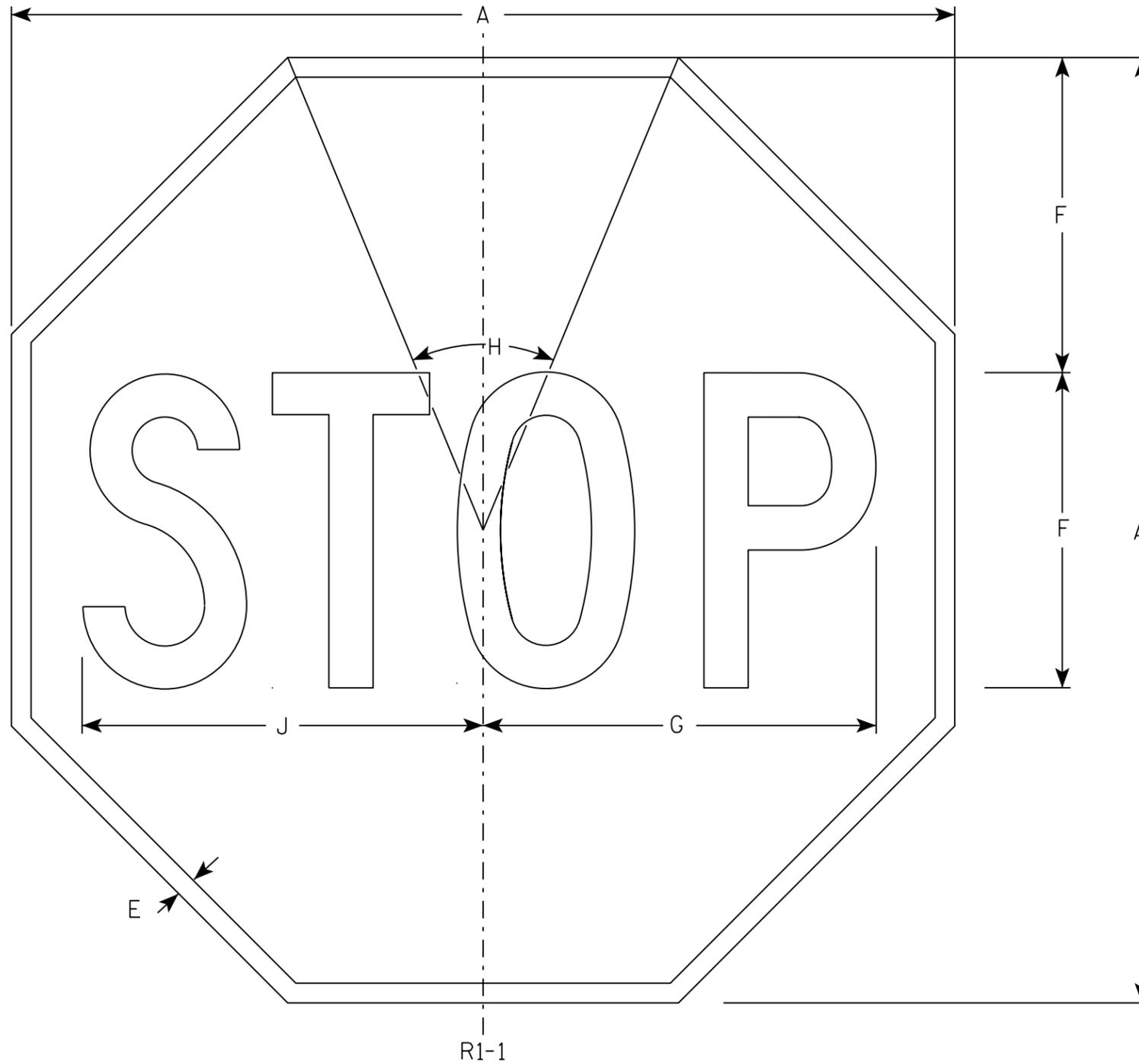
7

7

4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

NOTES

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



R1-1

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

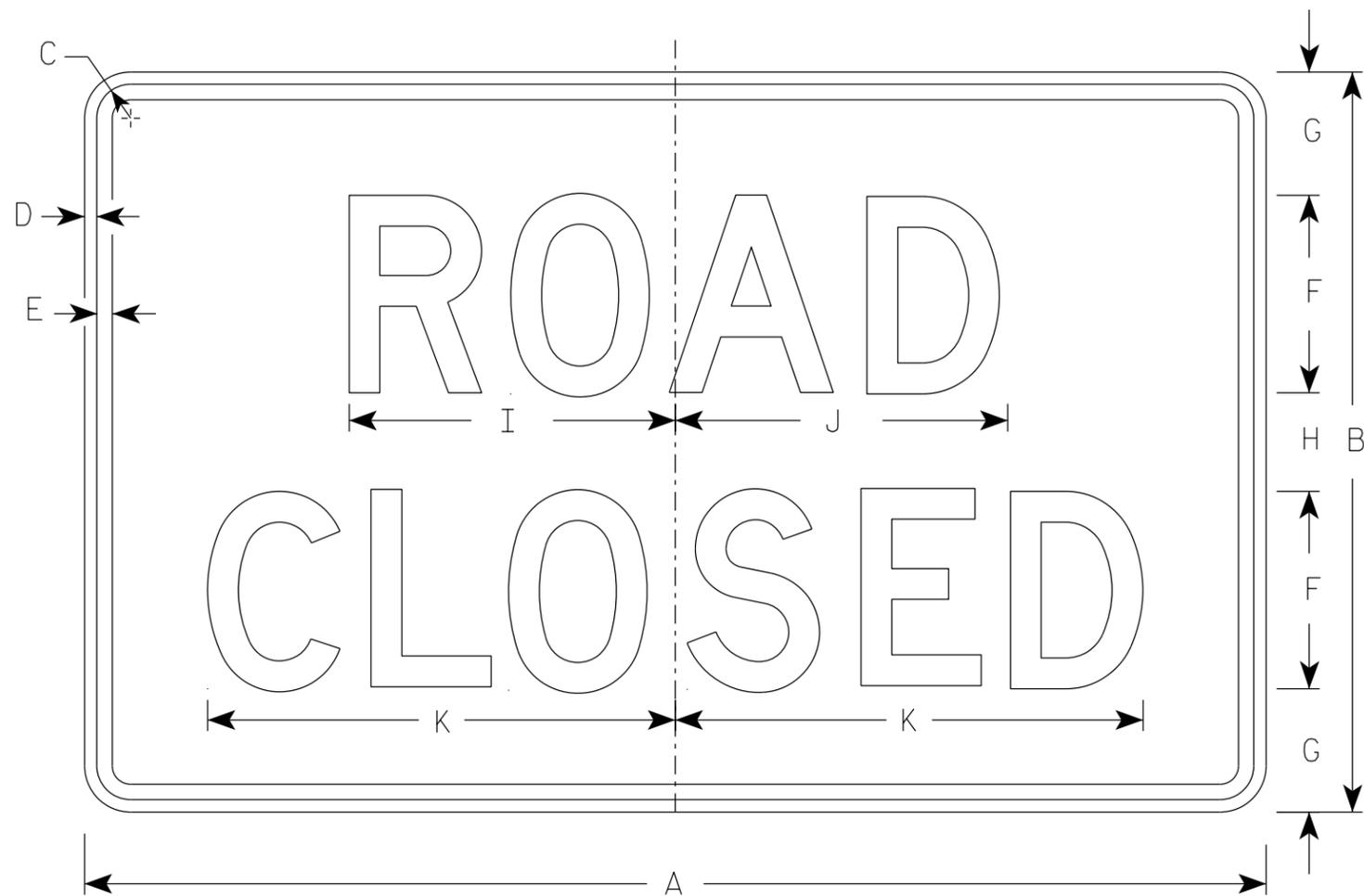
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



R11-2



R11-2R



R11-2T



R11-2L

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

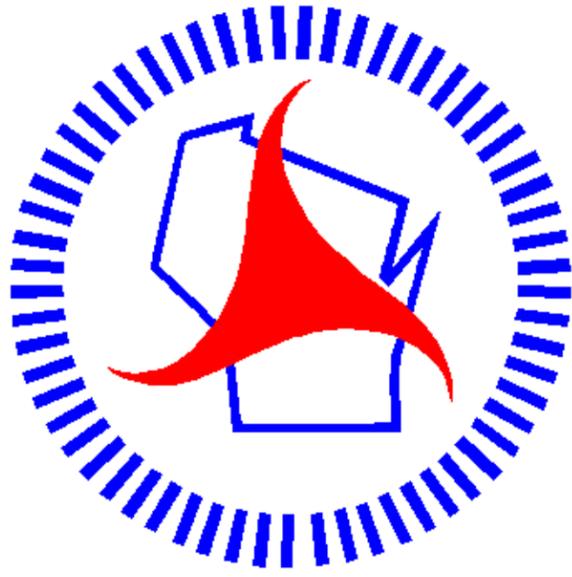
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

Notes



Wisconsin Department of Transportation

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