MAD JANUARY 2020

PROJECT ID: 5590-00-81

COUNTY: LAFAYETTE

ORDER OF SHEETS

TOTAL SHEETS = 120

04

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WARREN - ARGYLE

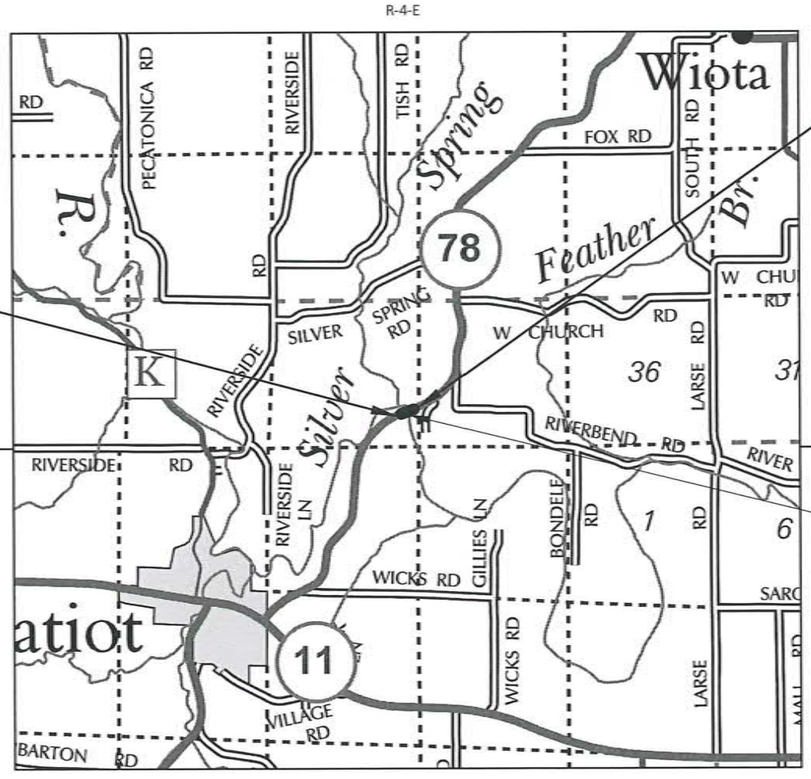
PECATONICA RIV STRUCTURE B-33-0009

STH 78

LAFAYETTE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5590-00-81	WISC 2019800	1

STATE PROJECT NUMBER
5590-00-81



LAYOUT

SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.123 MILES

DESIGN DESIGNATION 5590-00-81

A.A.D.T.	2021	=	310
A.A.D.T.	2041	=	430
D.H.V.		=	75
D.D.		=	60/40
T.		=	16.6%
DESIGN SPEED		=	60 MPH
ESALS		=	200,000

CONVENTIONAL SYMBOLS

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

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

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

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, LAFAYETTE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD(2012).

ORIGINAL PLANS DEVELOPED BY
WISDOT SW REGION

WISCONSIN DEPARTMENT OF TRANSPORTATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JEWELL ASSOCIATES ENGINEERS, INC.
Designer	JAMES RINZEL
Project Manager	LALITHA BALACHANDRAN, P.E.
Regional Examiner	SW REGION
Regional Supervisor	WILLIAM STROBEL, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 8/1/2019 Lalitha, B. (Signature)

E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\010101_TI.DWG PLOT DATE : 6/12/2019 11:02 AM PLOT BY : RINZEL, JAMES M PLOT NAME :

GENERAL NOTES

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

UTILITY LINES IN THE CROSS SECTIONS ARE FOR HORIZONTAL REFERENCE ONLY.

CONTRACTOR TO VERIFY ELEVATIONS OF THE EXISTING PAVEMENT TO REMAIN IN PLACE, PRIOR TO STAKING.

D.O.T. BRIDGE BENCHMARK MONUMENT TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.

EXCAVATION FOR STRUCTURE LIMITS ARE BETWEEN STA 98+43.8 TO STA 98+57.15 AND STA 100+24.27 TO STA 100+39.0, APPROXIMATELY.

CONTRACTORS SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS AT ALL TIMES. ACCESS SHALL BE PROVIDED DURING ALL NON-WORKING HOURS.

PRIOR TO THE PLACEMENT OF MGS GUARDRAILS, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

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

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

APPLY TACK COAT BETWEEN LAYERS OF ASPHALT SURFACE AND TO MILLED SURFACES. THE APPLICATION RATE IS 0.05 GAL/SY BETWEEN LAYERS OF NEW ASPHALTIC SURFACE AND 0.07 GAL/SY PLACED ON EXISTING ASPHALT, MILLED SURFACES AND CONCRETE PAVEMENT OR AS DIRECTED BY THE ENGINEER.

3" ASPHALTIC SURFACE SHALL BE CONSTRUCTED IN ONE LAYER. 6" ASPHALTIC SURFACE SHALL BE CONSTRUCTED IN TWO OR MORE LAYERS.

SAWCUTS, AS SHOWN ON THE PLANS, ARE SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

CONTRACTOR WILL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY HIS OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS.

THE QUALITY OF THE ITEMS FOR EROSION PROTECTION INCLUDES AN UNDISTURBED AMOUNT FOR PROTECTION, CONTROL AND ABATEMENT OF WATER POLLUTION RESULTING FROM SOIL EROSION. THE DISTRIBUTION AND LOCATION OF THESE MATERIALS ARE TO BE DETERMINED BY THE ENGINEER.

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

THE EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL SHEETS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER. EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

NATIVE SEED MIX WEIGHT CALCULATIONS ARE BASED ON 12 LB/ACRE.

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

NUMBER, LOCATION, AND SPACING OF SIGNS AND DEVICES, AS SHOWN IN THE PLANS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

EXISTING RIGHT OF WAY LINES SHOWN IN THE PLANS AND CROSS SECTIONS ARE APPROXIMATE.

SECTION 2 ORDER OF SHEETS

UTILITY CONTACTS

CHAD OLMSTEAD
SCENIC RIVERS ENERGY COOPERATIVE - ELECTRICITY
231 N SHERIDAN ST
LANCASTER, WI 53813
(608) 723-2121 EXT 561
COLMSTEAD@SREC.NET

JIM WOLF
SCENIC RIVERS ENERGY COOPERATIVE - ELECTRICITY
231 N SHERIDAN ST
LANCASTER, WI 53813
(608) 723-2121 EXT 501
JWOLF@SREC.NET

SURVEYOR CONTACT

FRED GRUBER
JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
OFFICE: (608) 588-7484
CELL: (608) 341-8194
FRED.GRUBER@JEWELLASSOC.COM

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

DNR LIAISON

SHELLEY WARWICK
3911 FISH HATCHERY ROAD
MADISON, WI 53711
(608) 444-2835
SHELLEY.WARWICK@WISCONSIN.GOV

DESIGN CONTACTS

LALITHA BALACHANDRAN, P.E.
WISDOT SOUTHWEST REGION
MADISON OFFICE
2101 WRIGHT ST.
MADISON, WI. 53704
(608) 243-3382
LALITHA.BALACHANDRAN@DOT.WI.GOV

JAMES RINZEL
WISDOT SOUTHWEST REGION
MADISON OFFICE
2101 WRIGHT ST.
MADISON, WI. 53704
(608) 245-5343
JAMES.RINZEL@DOT.WI.GOV

ABBREVIATIONS

AC	ACRE
AGG	AGGREGATE
<	ANGLE
AE, AEW	APRON ENDWALL
ASPH	ASPHALTIC
ADT	AVERAGE DAILY TRAFFIC
AADT	ANNUAL AVERAGE DAILY TRAFFIC
BAD	BASE AGGREGATE DENSE
BF	BACK FACE
BM	BENCHMARK
BTWN	BETWEEN
CTR	CENTER
C/L	CENTERLINE
Δ	CENTRAL ANGLE OR DELTA
CE	COMMERCIAL ENTRANCE
CONST	CONSTRUCTION
CMCP	CORRUGATED METAL CULVERT PIPE
CMP	CORRUGATED METAL PIPE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAYS
CY	CUBIC YARD
CP	CONTROL POINT OR CULVERT PIPE
C&G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DISCH	DISCHARGE
DMS	DYNAMIC MESSAGE SIGN
EA	EACH
E	EAST
EB	EASTBOUND
ELEC	ELECTRIC(AL), ELEC. CABLE
EL, ELEV	ELEVATION
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EXIST	EXISTING
FF	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
F/L, FL	FLOW LINE
GALV	GALVANIZE
HS	HIGH STRENGTH
CWT	HUNDRED WEIGHT
INL	INLET
INTER	INTERSECTION
JT	JOINT
LT	LEFT
L	LENGTH OF CURVE
LF	LINEAR FOOT (FEET)
LC	LONG CHORD
LS	LUMP SUM
MP	MARKER POST
MGAL	1000 GALLONS
NC	NORMAL CROWN
N	NORTH
NB	NORTH BOUND
NOR	NORMAL
NO	NUMBER
PAV'T	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY

ABBREVIATIONS CONT'D

PCC	PORTLAND CEMENT CONCRETE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PL	PROPERTY LINE
R	RADIUS OR RANGE
R/L	REFERENCE LINE
RCCP	REINFORCED CONCRETE CULVERT PIPE
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT OF WAY
RD	ROAD
SHLD	SHOULDER(S)
S	SOUTH
SB	SOUTHBOUND
SF	SQUARE FOOT (FEET)
SDD	STANDARD DETAIL DRAWING(S)
STH	STATE TRUNK HIGHWAYS
SS	STORM SEWER
SSD	STOPPING SIGHT DISTANCE
STA	STATION
SE	SUPERELEVATION
S/L	SURVEY LINE
SYM	SYMMETRICAL
T	TRUCKS (PERCENT OF)
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
TOC	TOP OF CURB
TYP	TYPICAL
UNCL	UNCLASSIFIED
UG	UNDERGROUND
VAR	VARIABLE
VC	VERTICAL CURVE
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
WT	WEIGHT
W	WEST
WB	WEST BOUND

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 3.68 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.64 ACRES (EXCLUDES BRIDGE STRUCTURE AND MITIGATION SITE)
TOTAL BLANCHARD'S CRICKET FROG MITIGATION SITE AREA TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2,337.50 SF (FOR INFORMATION ONLY)

2

N

STA 100+24.27 - STA 100+43.7
EXCAVATE ROADWAY FOR STRUCTURE REHABILITATION

STA 98+39.8 - STA 98+57.15
EXCAVATE ROADWAY FOR STRUCTURE REHABILITATION

STA 97+57- STA 98+39.8
MILL AND OVERLAY LANES

BLANCHARD'S CRICKET FROG
MITIGATION SITE

STA 96+73.9 LT - STA 98+39.8 LT
REMOVE AND REPLACE EXISTING ASPHALTIC SHOULDER

BEGIN PROJECT
STA 96+17.2

STA 100+43.7 LT - STA 102+66.3 LT
REMOVE AND REPLACE EXISTING ASPHALTIC SHOULDER

PT: 108+12.40

PC: 102+39.31

END PROJECT
STA 102+66.3

STA 100+43.7 - STA 101+00
MILL AND OVERLAY LANES

STA 100+43.7 RT - STA 102+09.5 RT
REMOVE AND REPLACE EXISTING ASPHALTIC SHOULDER

STRUCTURE B-33-0009
BRIDGE DECK REPLACEMENT
STA 98+57.15 - STA 100+24.27

PECATONICA RIVER

PT: 95+91.21

STA 96+17.2 RT - STA 98+39.8 RT
REMOVE AND REPLACE EXISTING ASPHALTIC SHOULDER

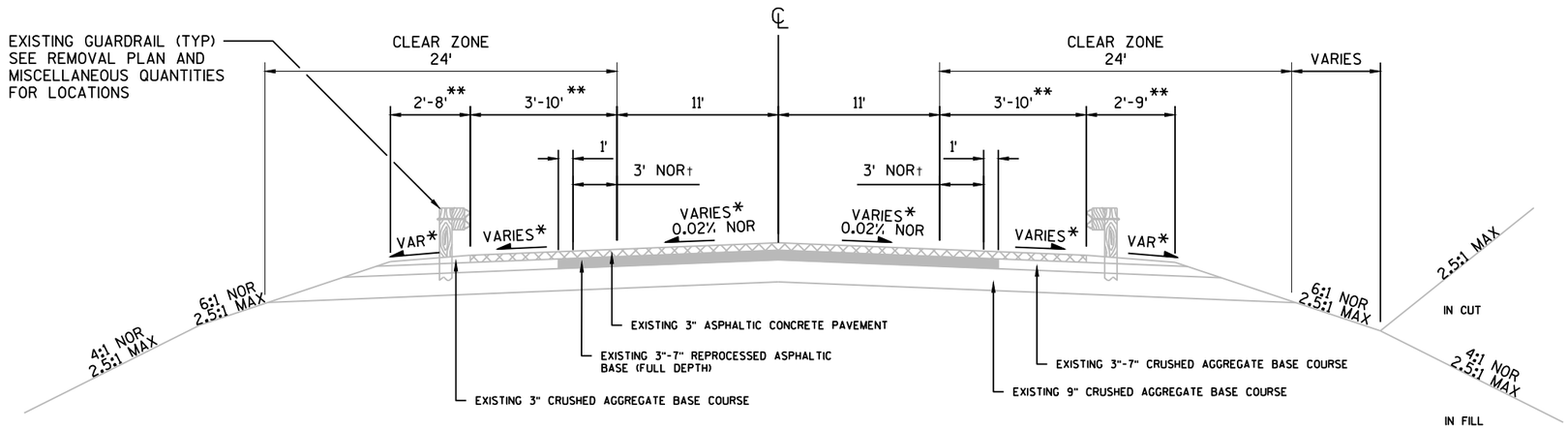
STH 78

92 94 96 98 100 102 104 106 108

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	PROJECT OVERVIEW	SHEET 4 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 020201-po
PLOT DATE : 6/27/2019 2:08 PM
PLOT BY : RINZEL, JAMES M
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



EXISTING TYPICAL SECTION STH 78

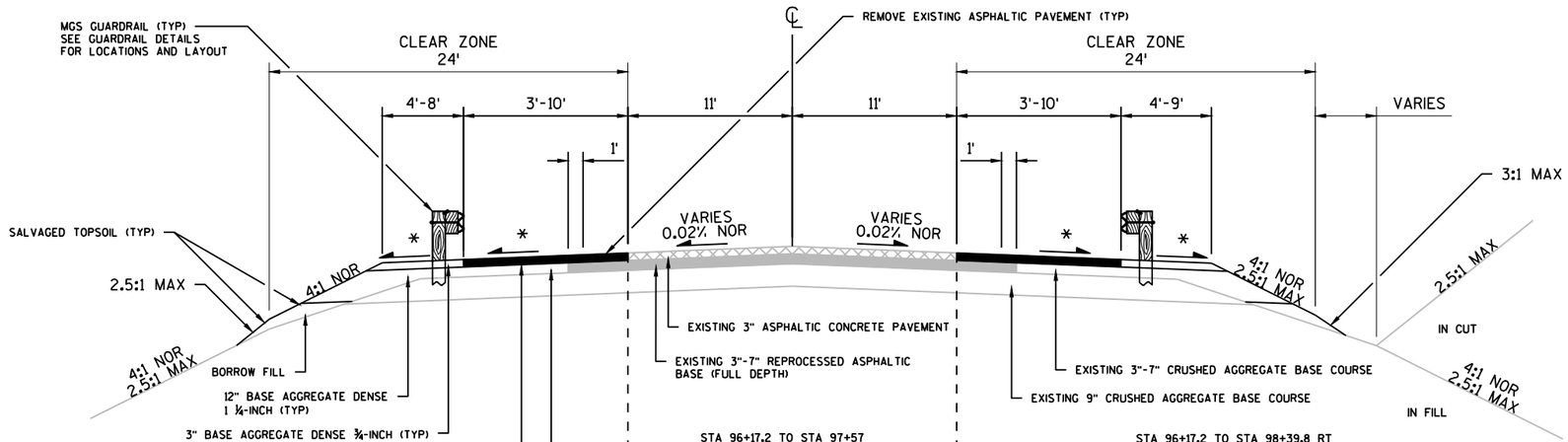
STA 96+17.2 TO STA 98+57.15
STA 100+24.27 TO STA 102+66.3

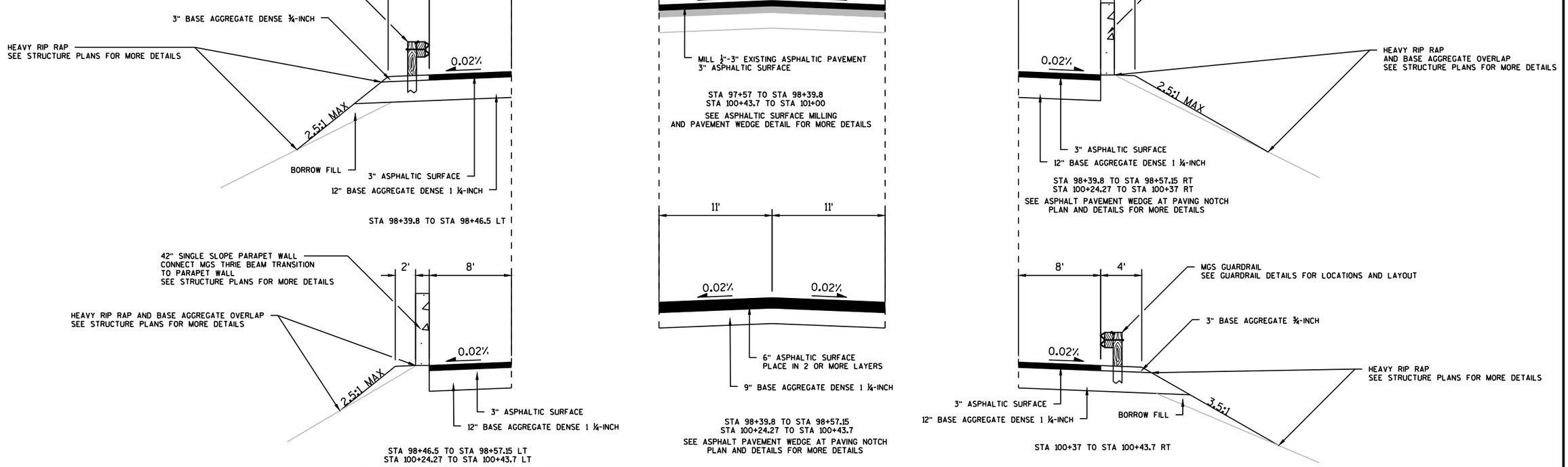
B-33-0009
(STA 97+57.15 - STA 100+24.27)

†NOTE: NORMAL PAVED SHOULDER WIDTH IS 3' APPROACHING GUARDRAIL.

*NOTE: LANE SLOPES VARY FROM 0.2% TO 4.6% SLOPES IN SUPERELEVATION TRANSITION SECTIONS. NORMAL CROWN IS 2%. SHOULDER SLOPES VARY FROM 2.0% TO 10%.

**NOTE: STA 96+17 TO STA 97+54 - 9' AGGREGATE SHOULDER RT
STA 97+54 TO STA 98+57.15 - 8'-10' PAVED SHOULDER RT
STA 96+74 TO STA 97+61 - 8' AGGREGATE SHOULDER LT
STA 97+61 TO STA 98+57.15 - 8' PAVED SHOULDER LT
STA 100+24.27 - STA 102+03 - 8'-14' PAVED SHOULDER RT
STA 102+03 - STA 102+16 - 8' AGGREGATE SHOULDER RT
STA 100+24.27 - STA 101+23 - 8'-9' PAVED SHOULDER LT
STA 101+23 - STA 102+65 - 8' AGGREGATE SHOULDER LT





PROPOSED TYPICAL SECTION STH 78

STA 96+17.2 TO STA 98+57.15
STA 100+24.27 TO STA 102+66.3

*NOTE: SEE SHOULDER TRANSITION TABLES.

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	PROPOSED TYPICAL SECTIONS	SHEET 6 E

RIGHT SHOULDER TRANSITION TABLE		
STATION	PAVED SHOULDER SLOPE	BASE AGGREGATE SHOULDER SLOPE
96+17.2	4.0%	4.0%
97+11.8	4.0%	4.0%
97+62	2.0%	2.0%
98+57.15	2.0%	2.0%
100+24.27	2.0%	2.0%
102+09.5	2.0%	2.0%

LEFT SHOULDER TRANSITION TABLE		
STATION	PAVED SHOULDER SLOPE	BASE AGGREGATE SHOULDER SLOPE
96+73.9	2.0%	2.0%
98+57.15	2.0%	2.0%
100+24.27	2.0%	2.0%
100+45	2.0%	2.0%
100+97.4	4.0%	4.0%
101+40.9	4.0%	4.0%
101+95.9	4.0%	10.0%
102+66.3	4.0%	10.0%

2

N

EXISTING R/W

SCENIC RIVERS - ELECTRIC

SCENIC RIVERS - ELECTRIC

EXISTING R/W

REMOVING GUARDRAIL

SLOPE INTERCEPT

EXCAVATE ROADWAY
(PAID FOR AS COMMON EXCAVATION OR EXCAVATE FOR STRUCTURE
SEE CROSS SECTIONS AND STRUCTURE PLANS)

REMOVE EXISTING BRIDGE DECK

ROADWAY EXCAVATION
(PAID FOR AS COMMON EXCAVATION OR EXCAVATE FOR STRUCTURE
SEE CROSS SECTIONS AND STRUCTURE PLANS)

SLOPE INTERCEPT

REMOVING GUARDRAIL

SCENIC RIVERS - ELECTRIC

PT: 95+91.21

STH 78

B-33-0009

PC: 102+39.31

REMOVING GUARDRAIL

SLOPE INTERCEPT

REMOVING GUARDRAIL

SLOPE INTERCEPT

EXISTING R/W

PECATONICA RIVER

96 97 98 99 100 101 102 103

GUY

GUY

FIRST

OH

LEGEND

XXXX XXXX SAWING ASPHALT

REMOVING ASPHALTIC SURFACE MILLING

REMOVING ASPHALTIC SURFACE

CLEARING AND GRUBBING

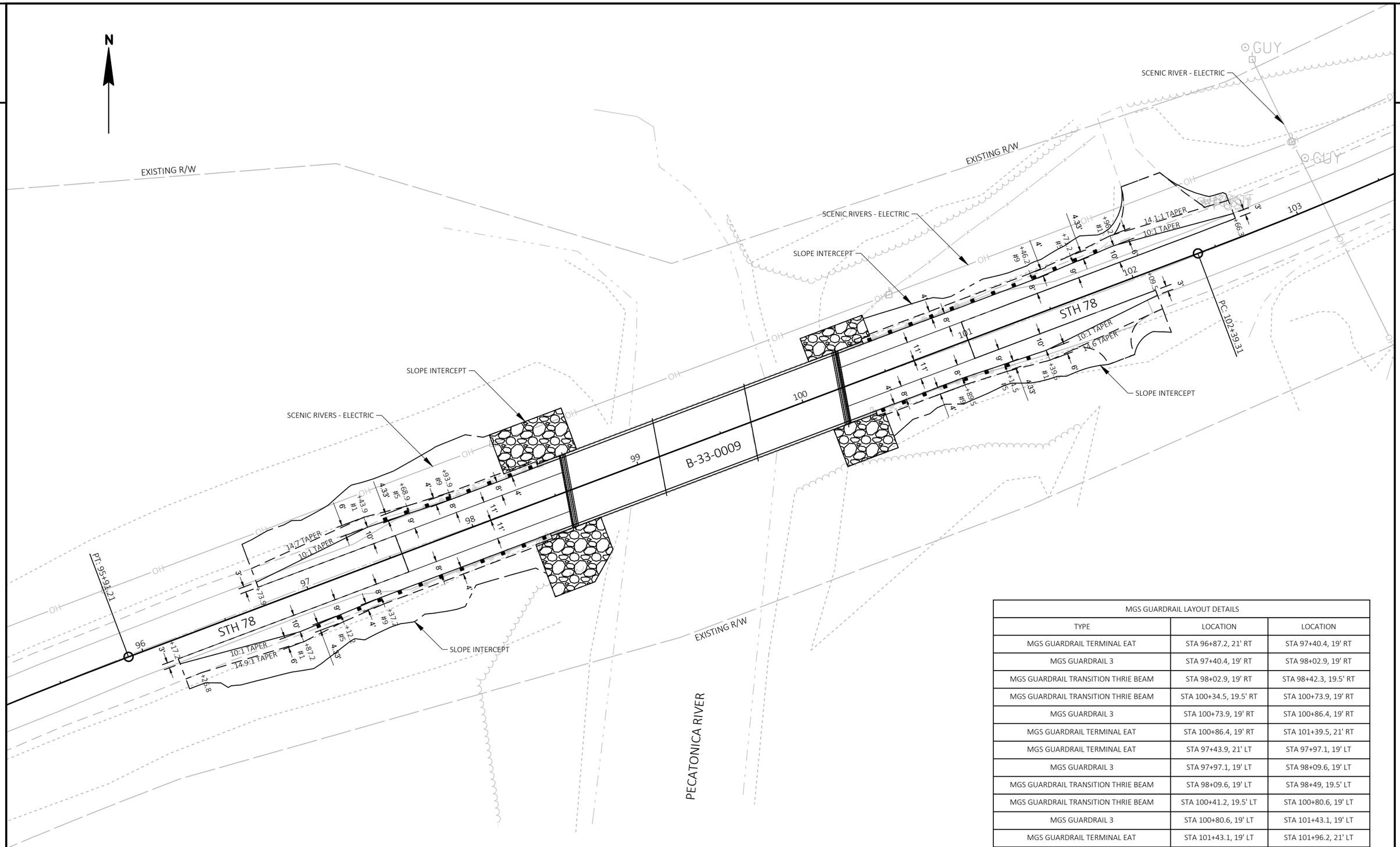
REMOVING FENCE

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	REMOVAL PLAN	SHEET 8 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 021001-cd

PLOT DATE : 6/25/2019 11:14 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:50 FT

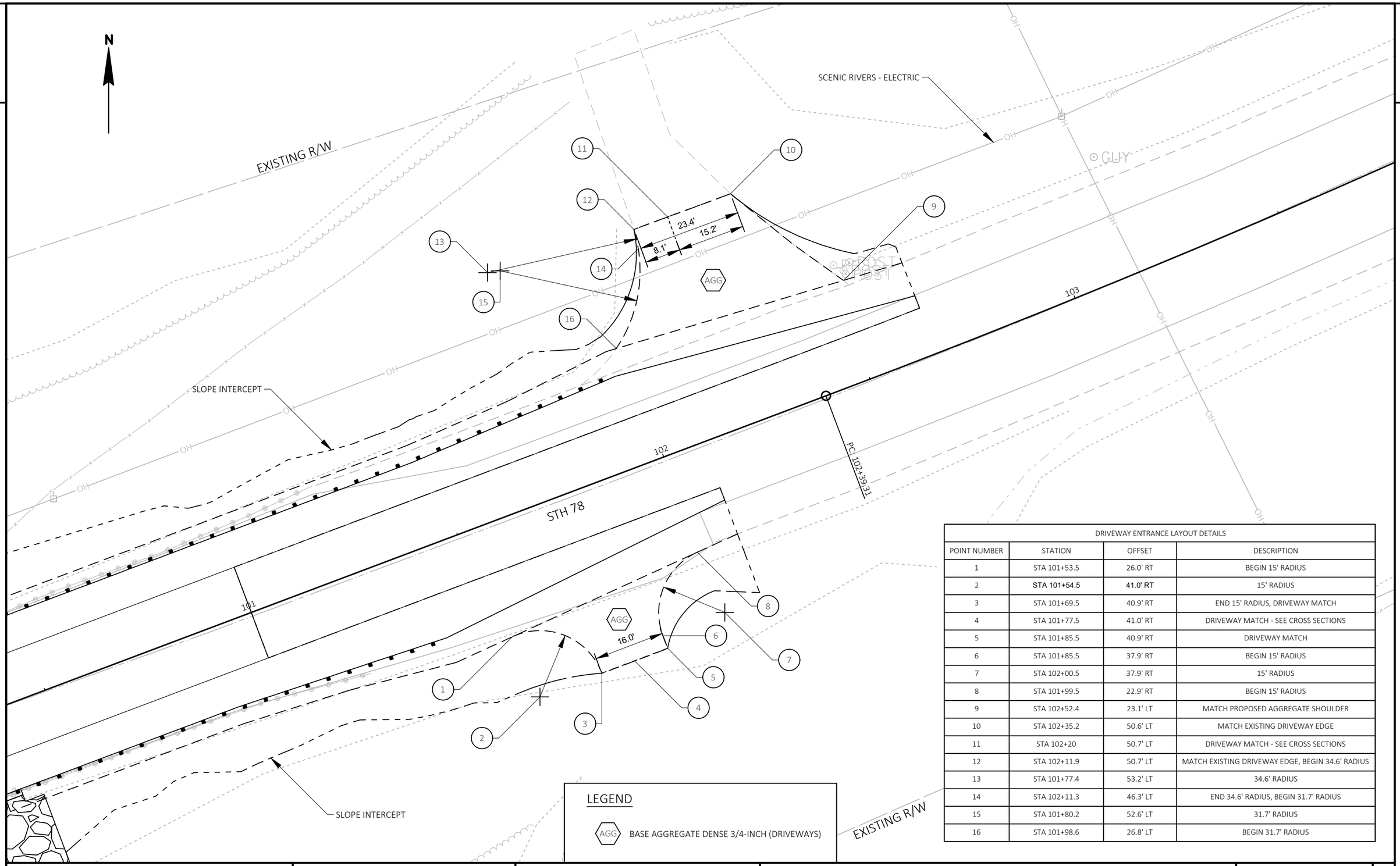
WISDOT/CADDS SHEET 42



MGS GUARDRAIL LAYOUT DETAILS		
TYPE	LOCATION	LOCATION
MGS GUARDRAIL TERMINAL EAT	STA 96+87.2, 21' RT	STA 97+40.4, 19' RT
MGS GUARDRAIL 3	STA 97+40.4, 19' RT	STA 98+02.9, 19' RT
MGS GUARDRAIL TRANSITION THRIE BEAM	STA 98+02.9, 19' RT	STA 98+42.3, 19.5' RT
MGS GUARDRAIL TRANSITION THRIE BEAM	STA 100+34.5, 19.5' RT	STA 100+73.9, 19' RT
MGS GUARDRAIL 3	STA 100+73.9, 19' RT	STA 100+86.4, 19' RT
MGS GUARDRAIL TERMINAL EAT	STA 100+86.4, 19' RT	STA 101+39.5, 21' RT
MGS GUARDRAIL TERMINAL EAT	STA 97+43.9, 21' LT	STA 97+97.1, 19' LT
MGS GUARDRAIL 3	STA 97+97.1, 19' LT	STA 98+09.6, 19' LT
MGS GUARDRAIL TRANSITION THRIE BEAM	STA 98+09.6, 19' LT	STA 98+49, 19.5' LT
MGS GUARDRAIL TRANSITION THRIE BEAM	STA 100+41.2, 19.5' LT	STA 100+80.6, 19' LT
MGS GUARDRAIL 3	STA 100+80.6, 19' LT	STA 101+43.1, 19' LT
MGS GUARDRAIL TERMINAL EAT	STA 101+43.1, 19' LT	STA 101+96.2, 21' LT

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	GUARDRAIL DETAILS	SHEET 9 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 021002-cd
PLOT DATE : 6/25/2019 2:14 PM
PLOT BY : RINZEL, JAMES M
PLOT NAME :
PLOT SCALE : 1 IN:50 FT



DRIVEWAY ENTRANCE LAYOUT DETAILS			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1	STA 101+53.5	26.0' RT	BEGIN 15' RADIUS
2	STA 101+54.5	41.0' RT	15' RADIUS
3	STA 101+69.5	40.9' RT	END 15' RADIUS, DRIVEWAY MATCH
4	STA 101+77.5	41.0' RT	DRIVEWAY MATCH - SEE CROSS SECTIONS
5	STA 101+85.5	40.9' RT	DRIVEWAY MATCH
6	STA 101+85.5	37.9' RT	BEGIN 15' RADIUS
7	STA 102+00.5	37.9' RT	15' RADIUS
8	STA 101+99.5	22.9' RT	BEGIN 15' RADIUS
9	STA 102+52.4	23.1' LT	MATCH PROPOSED AGGREGATE SHOULDER
10	STA 102+35.2	50.6' LT	MATCH EXISTING DRIVEWAY EDGE
11	STA 102+20	50.7' LT	DRIVEWAY MATCH - SEE CROSS SECTIONS
12	STA 102+11.9	50.7' LT	MATCH EXISTING DRIVEWAY EDGE, BEGIN 34.6' RADIUS
13	STA 101+77.4	53.2' LT	34.6' RADIUS
14	STA 102+11.3	46.3' LT	END 34.6' RADIUS, BEGIN 31.7' RADIUS
15	STA 101+80.2	52.6' LT	31.7' RADIUS
16	STA 101+98.6	26.8' LT	BEGIN 31.7' RADIUS

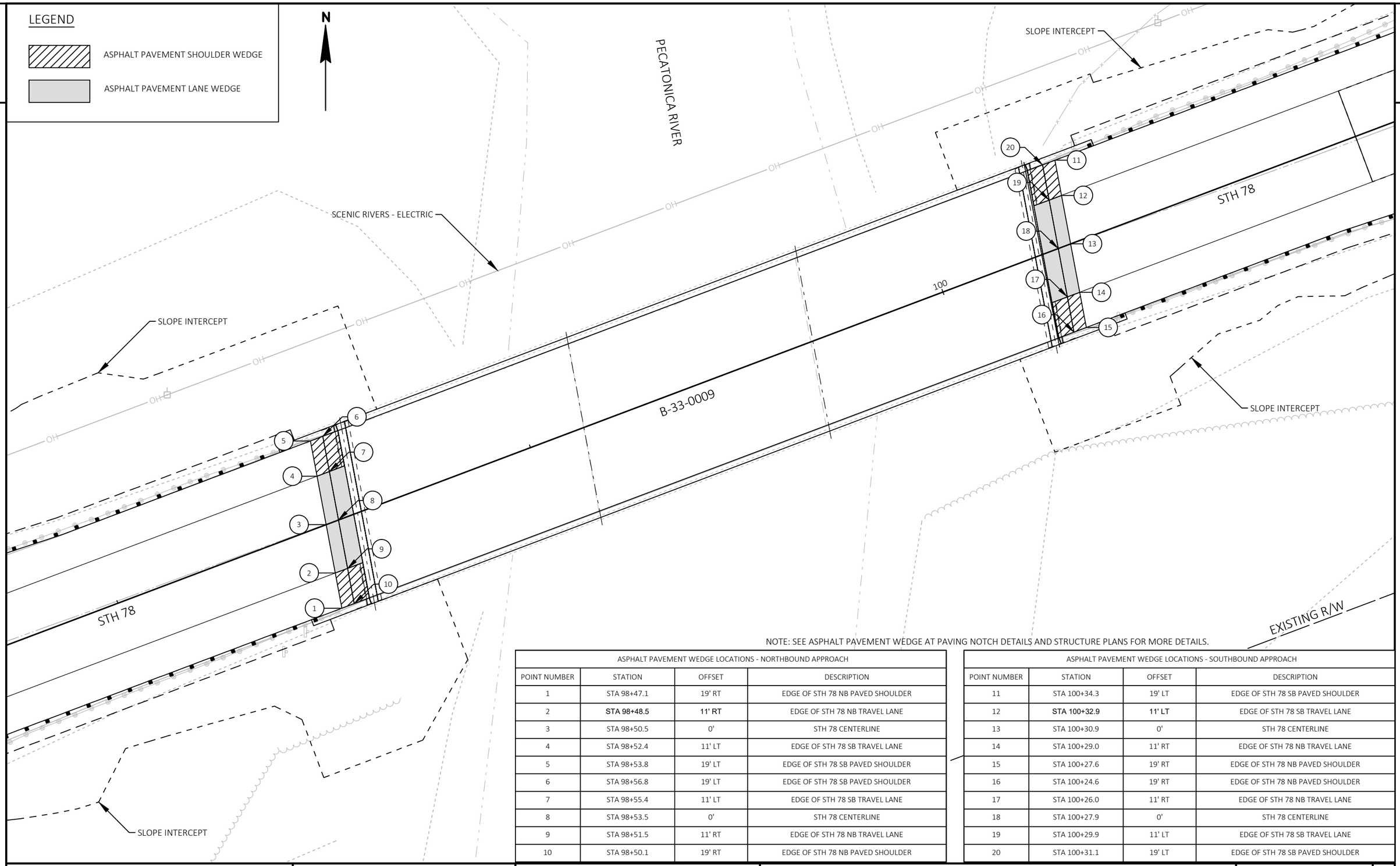
LEGEND

AGG BASE AGGREGATE DENSE 3/4-INCH (DRIVEWAYS)

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DRIVEWAY ENTRANCE DETAILS	SHEET 10 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 021003-cd

PLOT DATE : 6/25/2019 11:45 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:20 FT



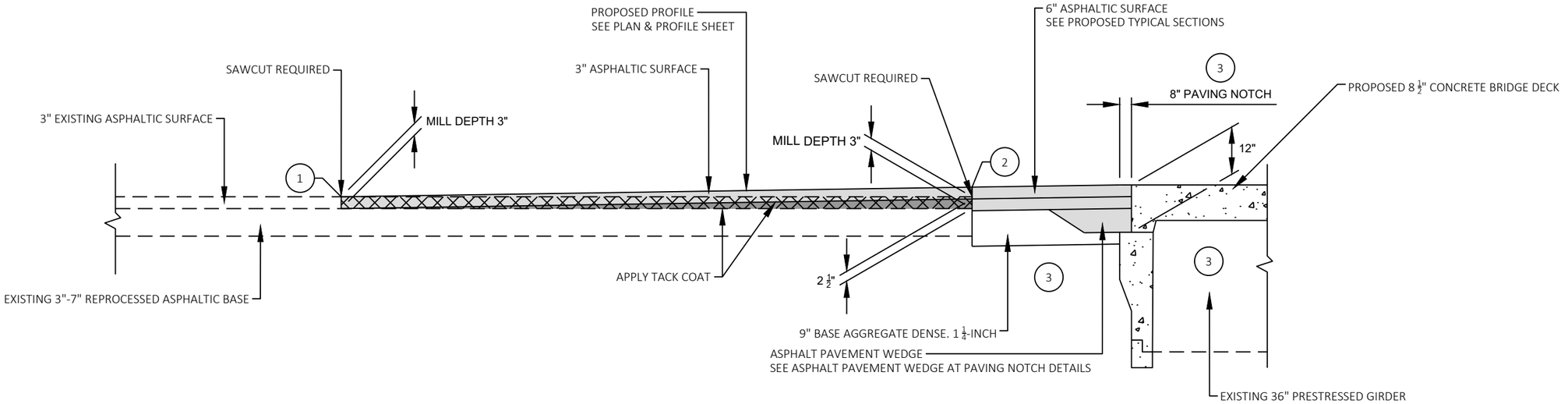
NOTE: SEE ASPHALT PAVEMENT WEDGE AT PAVING NOTCH DETAILS AND STRUCTURE PLANS FOR MORE DETAILS.

ASPHALT PAVEMENT WEDGE LOCATIONS - NORTHBOUND APPROACH			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
1	STA 98+47.1	19' RT	EDGE OF STH 78 NB PAVED SHOULDER
2	STA 98+48.5	11' RT	EDGE OF STH 78 NB TRAVEL LANE
3	STA 98+50.5	0'	STH 78 CENTERLINE
4	STA 98+52.4	11' LT	EDGE OF STH 78 SB TRAVEL LANE
5	STA 98+53.8	19' LT	EDGE OF STH 78 SB PAVED SHOULDER
6	STA 98+56.8	19' LT	EDGE OF STH 78 SB PAVED SHOULDER
7	STA 98+55.4	11' LT	EDGE OF STH 78 SB TRAVEL LANE
8	STA 98+53.5	0'	STH 78 CENTERLINE
9	STA 98+51.5	11' RT	EDGE OF STH 78 NB TRAVEL LANE
10	STA 98+50.1	19' RT	EDGE OF STH 78 NB PAVED SHOULDER

ASPHALT PAVEMENT WEDGE LOCATIONS - SOUTHBOUND APPROACH			
POINT NUMBER	STATION	OFFSET	DESCRIPTION
11	STA 100+34.3	19' LT	EDGE OF STH 78 SB PAVED SHOULDER
12	STA 100+32.9	11' LT	EDGE OF STH 78 SB TRAVEL LANE
13	STA 100+30.9	0'	STH 78 CENTERLINE
14	STA 100+29.0	11' RT	EDGE OF STH 78 NB TRAVEL LANE
15	STA 100+27.6	19' RT	EDGE OF STH 78 NB PAVED SHOULDER
16	STA 100+24.6	19' RT	EDGE OF STH 78 NB PAVED SHOULDER
17	STA 100+26.0	11' RT	EDGE OF STH 78 NB TRAVEL LANE
18	STA 100+27.9	0'	STH 78 CENTERLINE
19	STA 100+29.9	11' LT	EDGE OF STH 78 SB TRAVEL LANE
20	STA 100+31.1	19' LT	EDGE OF STH 78 SB PAVED SHOULDER

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	ASPHALT PAVEMENT WEDGE AT PAVING NOTCH PLAN	SHEET 11 E

2



EXISTING PAVEMENT MILLING (PAID AS REMOVING ASPHALTIC SURFACE MILLING)

PAVEMENT WEDGE (PAID AS ASPHALTIC SURFACE)

(1) STA 97+57 AND STA 101+00

(2) STA 98+39.8 AND STA 100+43.7

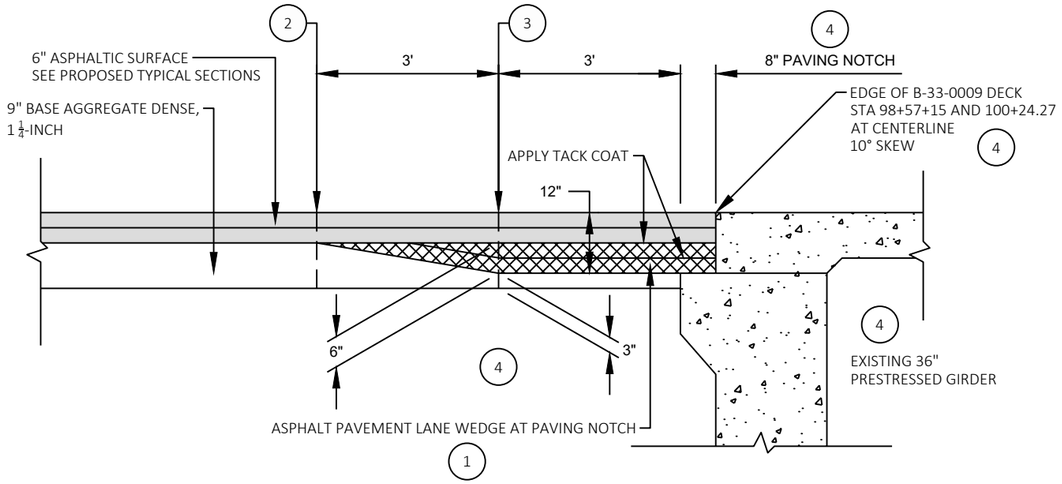
(3) SEE STRUCTURE PLANS FOR DETAILS.

ASPHALTIC SURFACE MILLING AND PAVEMENT WEDGE DETAIL

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	ASPHALTIC SURFACE MILLING AND PAVEMENT WEDGE DETAIL	SHEET 12	E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\021005-CD.DWG
LAYOUT NAME - 021005-cdA

PLOT DATE : 1/18/2019 10:19 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:10 FT



ASPHALT PAVEMENT LANE WEDGE AT PAVING NOTCH (PAID AS ASPHALTIC SURFACE)

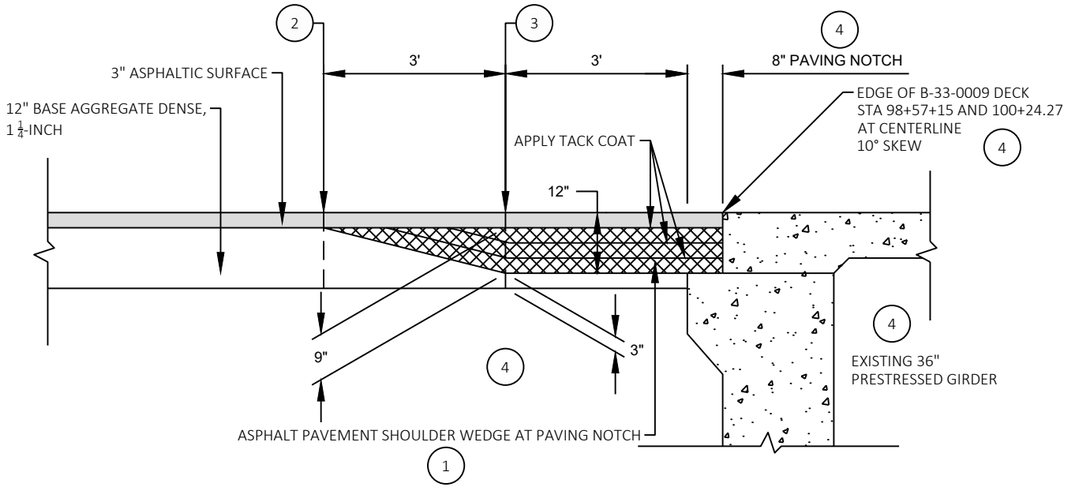
(1) PLACE ASPHALT PAVEMENT WEDGE IN TWO LAYERS AND COMPACT PER STANDARD SPECS.

(2) (3) SEE ASPHALT PAVEMENT WEDGE AT PAVING NOTCH PLAN FOR STA AND OFFSETS FOR LANE WEDGES.

(4) SEE STRUCTURE PLANS FOR DETAILS.

NOTE: FOR ADJUSTMENTS TO DETAIL OR TO TO FIT FIELD CONDITIONS, OBTAIN APPROVAL FROM THE ENGINEER.

ASPHALT PAVEMENT LANE WEDGE AT PAVING NOTCH - DETAIL



ASPHALT PAVEMENT SHOULDER WEDGE AT PAVING NOTCH (PAID AS ASPHALTIC SURFACE)

(1) PLACE ASPHALT PAVEMENT WEDGE IN THREE LAYERS AND COMPACT PER STANDARD SPECS.

(2) (3) SEE ASPHALT PAVEMENT WEDGE AT PAVING NOTCH PLAN FOR STA AND OFFSETS FOR SHOULDER WEDGES.

(4) SEE STRUCTURE PLANS FOR DETAILS.

NOTE: FOR ADJUSTMENTS TO DETAIL OR TO TO FIT FIELD CONDITIONS, OBTAIN APPROVAL FROM THE ENGINEER.

ASPHALT PAVEMENT SHOULDER WEDGE AT PAVING NOTCH - DETAIL

2

N

EXISTING R/W

EXISTING TOE OF SLOPE

STA 98+90, 130' LT

STA 99+05, 115' LT

STA 98+65, 118' LT

STA 99+21, 91' LT

STA 98+55, 91' LT

STA 99+13, 70' LT

HEAVY RIPRAP (TYP)
(SEE STRUCTURE PLANS FOR MORE DETAILS)

SLOPE INTERCEPT

EXISTING TOE OF SLOPE

SCENIC RIVERS - ELECTRIC

PT: 95+91.21

96

97

98

99

100

101

102

103

B-33-0009

STH 78

PC 102+39.31

SCENIC RIVERS - ELECTRIC

EXISTING TOE OF SLOPE

EXISTING R/W

SLOPE INTERCEPT

EXISTING DITCH LINE

EXISTING DITCH LINE

SLOPE INTERCEPT

EXISTING TOE OF SLOPE

SLOPE INTERCEPT

EXISTING TOE OF SLOPE

EXISTING R/W

PECATONICA RIVER

GUY

GUY

FROST

OH

LEGEND

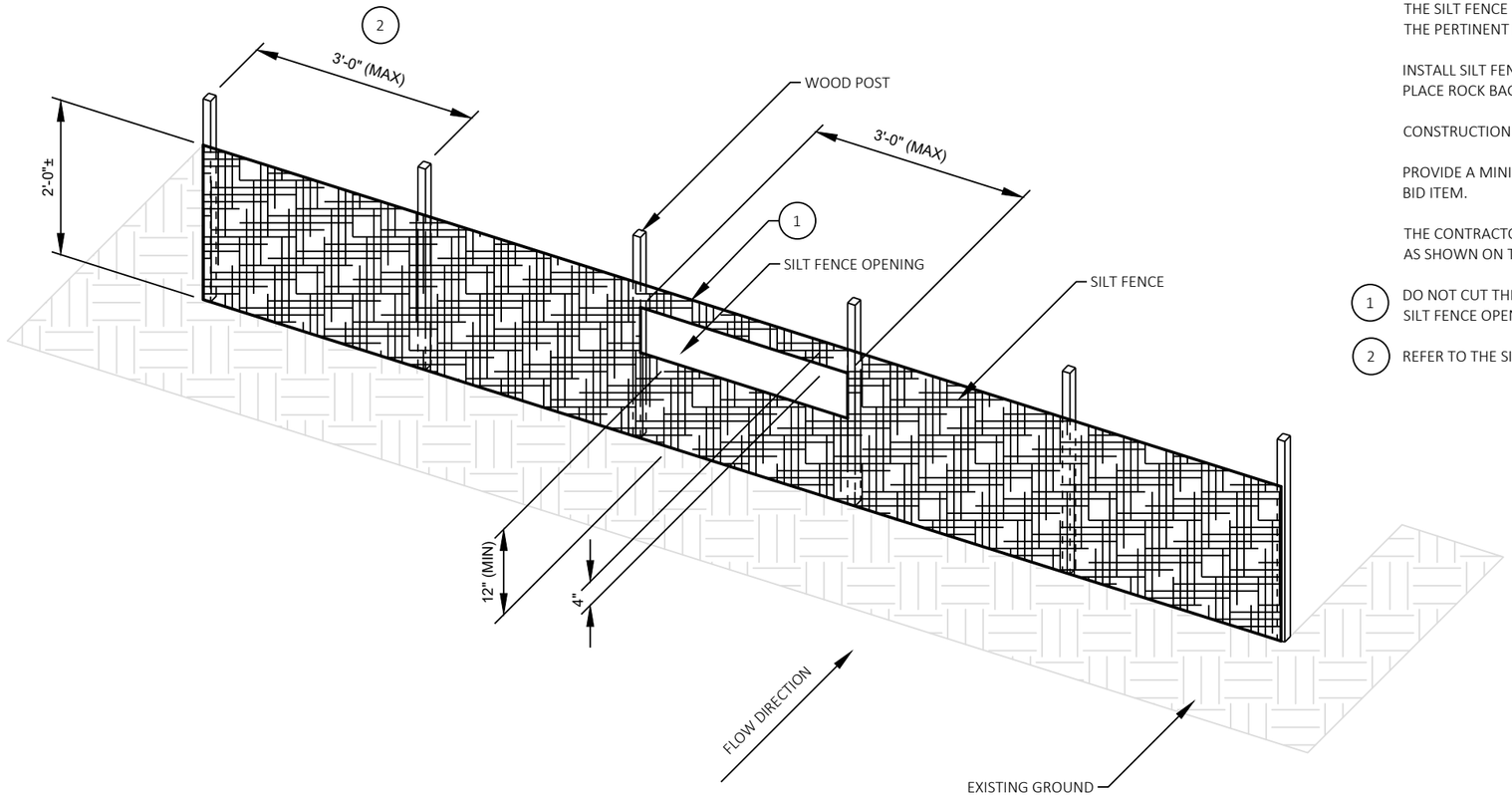
- BLANCHARD'S CRICKET FROG MITIGATION SITE, SALVAGED TOPSOIL, SEEDING, FERTILIZER AND MULCHING
- EROSION MAT CLASS I TYPE A, SALVAGED TOPSOIL, SEEDING AND FERTILIZER
- SALVAGED TOPSOIL, SEEDING, FERTILIZER AND MULCHING
- TEMPORARY DITCH CHECK
- SILT FENCE W/ROCK BAG RELIEF

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	EROSION CONTROL PLAN	SHEET 14 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\022001-EC.DWG
LAYOUT NAME - 022001-ec

PLOT DATE : 6/27/2019 9:21 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

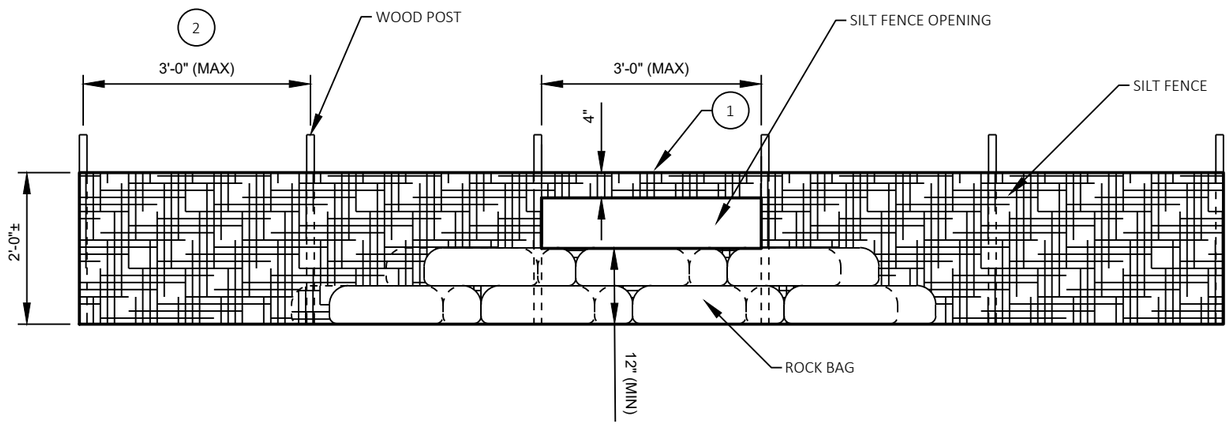
INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CONSTRUCTING THE SILT FENCE OPENING, PLACE ROCK BAGS AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE BID ITEM.

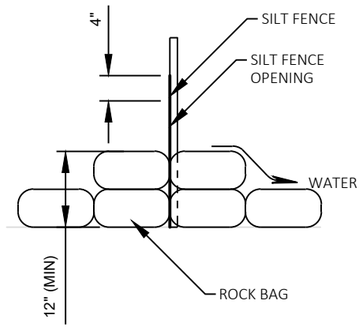
PROVIDE A MINIMUM OF 22 ROCK BAGS MINIMUM PER 3 FOOT OPENING. ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM.

THE CONTRACTOR SHALL ADJUST THE SILT FENCE RELIEF OPENINGS WITHIN THE SILT FENCE AS NECESSARY TO PROVIDE RELIEF: AS SHOWN ON THE PLANS, TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE FIELD ENGINEER.

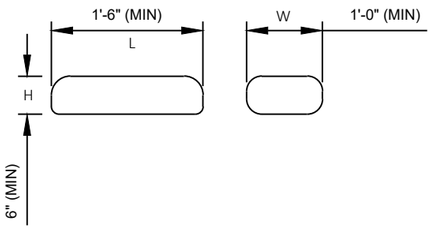
1. DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. KEEP THE TOP OF THE SILT FENCE OPENING 1"± BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.
2. REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.



SECTION VIEW



ROCK BAG DETAIL



SILT FENCE RELIEF DETAIL

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	EROSION CONTROL DETAILS	SHEET 15 E

2

N

EXISTING R/W

SCENIC RIVERS - ELECTRIC

SCENIC RIVES - ELECTRIC

EXISTING R/W

GUY

GUY

FIRST

OH

W5-52R
6

SLOPE INTERCEPT

103

+59.4

102

STH 78

101

PC: 102+39.31

W5-52L
1

SCENIC RIVERS - ELECTRIC

100

B-33-0009

99

SLOPE INTERCEPT

98

PT: 95+91.21

97

STH 78

96

SLOPE INTERCEPT

4
PECATONICA RIVER
I3-1

5
W5-52L

EXISTING R/W

3
PECATONICA RIVER
I3-1

2
W5-52R

PECATONICA RIVER

LEGEND

REMOVE EXISTING SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	SIGN REMOVALS	SHEET 16 E

FILE NAME : N:\PDS\C3D\559000001\SHEETSPLAN\023201-PS.DWG
LAYOUT NAME - 023201-ps

PLOT DATE : 1/23/2019 5:06 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2

N

DETAIL A

DETAIL B

DETAIL C

DETAIL D

DETAIL E

DETAIL F

DETAIL G

DETAIL H

DETAIL I

81

81

23

11

78

78

MB

MB

WORKZONE

BRIDGE OUT
R11-2B
48"X30"

BRIDGE OUT
12 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60"X30"

BRIDGE OUT
4.5 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60"X30"

BRIDGE OUT
3.5 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60"X30"

BRIDGE OUT
2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3B
60"X30"

BRIDGE OUT
1.5 MILES AHEAD
R11-3C
60"X30"

BRIDGE OUT
0.5 MILES AHEAD
R11-3C
60"X30"

TYPE III BARRICADE

ROAD CLOSED AHEAD
W20-3A

ROAD CLOSED 1000 FT
W20-3C

ROAD CLOSED 500 FT
W20-3D

HWY 78 CLOSED

BEGIN (DATE)

*NOTE: ADJUST BARRICADE CLOSURE AS NEEDED AT THE NORTH WORK ZONE LIMITS TO ALLOW FOR PROPERTY ACCESS.

**NOTE: PLACE "ROAD CLOSED AHEAD" SIGN 1500 FEET IN ADVANCE OF THE "BRIDGE OUT" SIGN WITH BARRICADE.

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN OVERVIEW	SHEET 17 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 027001-dt

PLOT DATE : 1/10/2019 5:59 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

2

END DETOUR SOUTH M4-8A 24"X18" M3-3 24"X12"
PLACE OVER EXISTING SIGN
JCT COUNTY K JCT COUNTY 78
DETOUR NORTH 78 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" M06-1 21"X21"
COUNTY K 11
CTH K
COUNTY K
JCT COUNTY K
SOUTH 78
SOUTH 78
DETOUR NORTH 78 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" M06-1 21"X21"
WEST 11
M4-8 24"X12" M3-1 24"X12" M1-6 24"X24"
DETOUR NORTH 78
EAST 11 SOUTH 78
DETOUR NORTH 78 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24"
EAST 11 WEST 11
STH 78
NORTH 78
STH 11/STH 78
Monroe
Warren
EAST 11
SOUTH COUNTY K 78
DETOUR NORTH 11 78 M4-8 24"X12"
M06-1 21"X21" PLACE OVER EXISTING SIGN
DETOUR NEXT 28 MILES G20-51 60"X24"
BRIDGE OUT 2 MILES AHEAD LOCAL TRAFFIC ONLY R11-3B 60"X30"
NORTH 78 M3-1 24"X12" M1-6 24"X24" DETOUR AHEAD W20-2-A
STH 78
DETOUR NORTH 78 M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" M05-1L 21"X21"
SOUTH 78
Monroe
NORTH 78 M3-1 24"X12" M1-6 24"X24" ROAD CLOSED AHEAD W20-3-A
DETOUR SOUTH 78 NORTH 78 M4-8 24"X12" M06-2 21"X21" PLACE OVER EXISTING SIGN
EAST 11 South Wayne 8 Monroe 21
Dubuque Gratiot
Argyle
PLACE OVER EXISTING SIGN (PAID AS TRAFFIC CONTROL COVERING SIGNS TYPE II)
DETOUR SOUTH 78 NORTH 78 M4-8 24"X12" M06-1 21"X21" PLACE OVER EXISTING SIGN
STH 11
JCT 78
NORTH 78 M3-1 24"X12" M1-6 24"X24" DETOUR AHEAD W20-2-A
M3-1 24"X12" M1-6 24"X24" NORTH 78 ROAD CLOSED AHEAD W20-3-A

N

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL A	SHEET 18	E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtA
PLOT DATE : 1/10/2019 6:27 PM
PLOT BY : RINZEL, JAMES M
PLOT NAME :
PLOT SCALE :

2

2

N

STH 23

STH 11

STH 11

CTH P

END JCT JCT
23 11 COUNTY P

DETOUR SOUTH 78
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M05-1L 21"X21"

EAST WEST
11 11

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M06-1 21"X21"

DETOUR SOUTH 78
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"
M06-1 21"X21"

EAST SOUTH WEST
11 COUNTY P 11

SOUTH NORTH
COUNTY P 23

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M05-1R 21"X21"

WEST NORTH
11 23

M3-1 24"X12"
NORTH 78
M1-6 24"X24"
DETOUR AHEAD
W20-2-A

NORTH EAST
23 11

Monroe
Darlington

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M05-1L 21"X21"

NORTH SOUTH
23 COUNTY P

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M06-1 21"X21"

EAST
11

Gratiot 6
Monroe 28

DETOUR SOUTH 78
M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

11 23

DETOUR NORTH 78
M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"
M06-1 21"X21"

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL B	SHEET E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtB
PLOT DATE : 1/10/2019 6:27 PM
PLOT BY : RINZEL, JAMES M
PLOT NAME :
PLOT SCALE :
WISDOT/CADDS SHEET 42

2

2

N

STH 23

NORTH 23

DETOUR NORTH 78

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

23

COUNTY E

COUNTY E

CTH E

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

DETOUR SOUTH 78

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL C	SHEET 20 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtC

PLOT DATE : 1/10/2019 6:27 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

2

N

CTH K

CTH K

STH 23

DETOUR NORTH 78

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

JCT 23

COUNTY K

23

JCT 23

23

COUNTY K

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

DETOUR SOUTH 78

SOUTH 23

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL D	SHEET 21	E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtD

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

WISDOT/CADDS SHEET 42

2

N

STH 81

COUNTY SHOP ROAD

STH 23

M4-8
24"X12"
M3-3
24"X12"
M1-6
24"X24"
M06-1
21"X21"
DETOUR
SOUTH
78

M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
DETOUR
NORTH
78

JCT
23

NORTH EAST SOUTH
23 81 23

WEST EAST
81 81

NORTH EAST SOUTH
23 81 23

M4-8
24"X12"
M3-3
24"X12"
M1-6
24"X24"
DETOUR
SOUTH
78

M4-8
24"X12"
M3-1
24"X12"
M1-6
24"X24"
M06-1
21"X21"
DETOUR
NORTH
78

WEST NORTH EAST
81 23 81

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL E	SHEET E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtE

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

2

N

STH 23

STH 81

CTH F

STH 23/STH 81

DETOUR SOUTH 78 — M4-8 24"X12", M3-3 24"X12", M1-6 24"X24", M06-1 21"X21"

DETOUR SOUTH 78 — M4-8 24"X12", M3-3 24"X12", M1-6 24"X24", M05-1L 21"X21"

DETOUR NORTH 78 — M4-8 24"X12", M3-1 24"X12", M1-6 24"X24"

DETOUR NORTH 78 — M4-8 24"X12", M3-1 24"X12", M1-6 24"X24", M05-1R 21"X21"

DETOUR NORTH 78 — M4-8 24"X12", M3-1 24"X12", M1-6 24"X24", M06-1 21"X21"

DETOUR NORTH 78 — M4-8 24"X12", M3-1 24"X12", M1-6 24"X24"

DETOUR SOUTH 78 — M4-8 24"X12", M3-3 24"X12", M1-6 24"X24"

DETOUR SOUTH 78 — M4-8 24"X12", M3-3 24"X12", M1-6 24"X24"

*NOTE: MOUNT SIGN(S) ON EXISTING LIGHT POLE

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 — DETOUR SIGN
- 11 — EXISTING SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL F	SHEET 23 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtF

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

N

STH 81

JCT
COUNTY
M

DETOUR
SOUTH
78

M4-8
24"X12"
M3-3
24"X12"

M1-6
24"X24"

WEST
81

COUNTY
M

EAST
81

COUNTY
M

81

DETOUR
NORTH
78

M4-8
24"X12"
M3-1
24"X12"

M1-6
24"X24"

CTH M

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL G	SHEET E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtG

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

2

N

CTH D

JCT 81

81

DETOUR SOUTH 78

M4-8 24"X12"
M3-3 24"X12"
M1-6 24"X24"

WEST 81

COUNTY D

EAST 81

JCT COUNTY D

STH 81

COUNTY D

DETOUR NORTH 78

M4-8 24"X12"
M3-1 24"X12"
M1-6 24"X24"

81

CTH D

JCT 81

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN — COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL H	SHEET 25	E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtH

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

2

M4-8 24"X12" M3-3 24"X12" M1-6 24"X24" DETOUR SOUTH 78

M4-8 24"X12" M3-3 24"X12" M1-6 24"X24" DETOUR SOUTH 78

M06-1 21"X21"

CTH G

81

COUNTY G COUNTY N

WEST 81

COUNTY G COUNTY N

WEST 81

M4-8 24"X12" M3-1 24"X12" M1-6 24"X24" DETOUR NORTH 78

STH 81

BRIDGE OUT 12 MILES AHEAD LOCAL TRAFFIC ONLY R11-3B 60"X30"

DETOUR NEXT 28 MILES G20-51 60"X24"

M4-8 24"X12" M3-3 24"X12" M1-6 24"X24" DETOUR SOUTH 78

WEST 81

M4-8A 24"X18" END DETOUR

NORTH EAST 78 81

Blanchardville Monroe

NORTH 78

SOUTH 78

STH 78

M06-1 21"X21" PLACE OVER EXISTING SIGN

M4-8 24"X12" DETOUR SOUTH 78

Darlington Gratiot

PLACE OVER EXISTING SIGN (PAID AS TRAFFIC CONTROL COVERING SIGNS TYPE II)

M4-8 24"X12" DETOUR SOUTH WEST 78 81

M06-1 21"X21" PLACE OVER EXISTING SIGN

STH 78/81

NORTH EAST 78 81

WEST NORTH EAST 81 78 81

WEST NORTH EAST 81 78 81

JCT 81

M3-3 24"X12" M1-6 24"X24" SOUTH 78 DETOUR AHEAD W20-2-A

M3-3 24"X12" M1-6 24"X24" SOUTH 78 ROAD CLOSED AHEAD W20-3-A

N

LEGEND

- DETOUR ROUTE
- EXISTING SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- 78 DETOUR SIGN
- 11 EXISTING SIGN
- COVER EXISTING SIGN PAID FOR AS TRAFFIC CONTROL COVERING SIGNS TYPE II
- TYPE III BARRICADE W/TYPE A FLASHERS AND SIGN

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	DETOUR PLAN - DETAIL I	SHEET E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 027002-dtl

PLOT DATE : 1/10/2019 6:28 PM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE :

2

N

END ALIGNMENT
STA 110+84.85
X = 516635.75
Y = 136928.73

CURVE 2

PC: 102+39.31

PT: 108+12.40

4 N55° 39' 52"E 272.45'

3

100 N69° 20' 45.64"E 648.102

2

10

1

PT: 95+91.21

CURVE 1

BEGIN ALIGNMENT
STA 87+00
X = 514531.41
Y = 135834.88

CURVE 1
PI STA = 82+18.26
Y = 135635.686
X = 513581.246
Δ = 69°28'45"
D = 2°10'00"
T = 1833.79'
L = 3206.73'
R = 2644.42'
PC STA = 63+84.48
Y = 133801.904
X = 513585.507
PT STA = 95+91.21
Y = 136282.506
X = 515297.171
BK = N00°07'59.3"W
AH = N69°20'45.6"E

CURVE 2
PI STA = 105+27.22
Y = 136612.661
X = 516173.028
Δ = 13°40'54"
D = 2°23'14"
T = 287.91'
L = 573.09'
R = 2400.00'
PC STA = 102+39.31
Y = 136511.107
X = 515903.618
PT STA = 108+12.40
Y = 136775.056
X = 516410.773
BK = N69°20'45.6"E
AH = N55°39'52.1"E

CONTROL POINT AND BENCHMARK DATA

POINT	DESCRIPTION	STATION	OFFSET	X COORDINATE	Y COORDINATE	ELEVATION
1	CP FENO MARKER	91+23.27	70.84' LT	514839.815	136140.489	794.65
2	CP FENO MARKER	96+79.19	29.23' LT	515369.195	136340.887	803.19
3	CP FENO MARKER	102+87.63	29.75' RT	515959.711	136500.978	823.33
4	CP FENO MARKER	107+93.75	28.65' LT	516379.362	136788.379	846.41
10	EXISTING BENCHMARK ON TOP OF SE PARAPET	98+53.47	20.86' RT	515549.937	136355.494	811.16

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	ALIGNMENT DIAGRAM: STH 78	SHEET 27 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 027201-ad
PLOT DATE : 6/12/2019 10:53 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

5590-00-81

Line	Item	Item Description	Unit	Total	Qty
10	204.0110	Removing Asphaltic Surface	SY	576.000	576.000
100	630.0500	Seed Water	MGAL	24.000	24.000
102	638.2602	Removing Signs Type II	EACH	6.000	6.000
104	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
106	642.5201	Field Office Type C	EACH	1.000	1.000
108	643.0420	Traffic Control Barricades Type III	DAY	976.000	976.000
110	643.0705	Traffic Control Warning Lights Type A	DAY	1,952.000	1,952.000
112	643.0900	Traffic Control Signs	DAY	11,224.000	11,224.000
114	643.0920	Traffic Control Covering Signs Type II	EACH	13.000	13.000
116	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
118	643.5000	Traffic Control	EACH	1.000	1.000
12	204.0120	Removing Asphaltic Surface Milling	SY	340.000	340.000
120	645.0111	Geotextile Type DF Schedule A	SY	112.000	112.000
122	645.0120	Geotextile Type HR	SY	520.000	520.000
124	646.1020	Marking Line Epoxy 4-Inch	LF	1,272.500	1,272.500
126	650.4500	Construction Staking Subgrade	LF	482.000	482.000
128	650.5000	Construction Staking Base	LF	37.000	37.000
130	650.6500	Construction Staking Structure Layout (structure) 01. B-33-0009	LS	1.000	1.000
132	650.8000	Construction Staking Resurfacing Reference	LF	140.000	140.000
134	650.9910	Construction Staking Supplemental Control (project) 01. 5590-00-81	LS	1.000	1.000
136	650.9920	Construction Staking Slope Stakes	LF	482.000	482.000
138	690.0150	Sawing Asphalt	LF	912.000	912.000
14	204.0165	Removing Guardrail	LF	374.000	374.000
140	715.0502	Incentive Strength Concrete Structures	DOL	1,734.000	1,734.000
142	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	325.000	325.000
144	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	250.000	250.000
146	SPV.0085	Special 01. Native Seed Mix	LB	3.000	3.000
148	SPV.0105	Special 01. Site Mowing	LS	1.000	1.000
150	SPV.0105	Special 02. Blanchard's Cricket Frog Mitigation Site	LS	1.000	1.000
16	204.0170	Removing Fence	LF	27.000	27.000
18	205.0100	Excavation Common	CY	23.000	23.000
2	201.0105	Clearing	STA	1.000	1.000
20	206.1000	Excavation for Structures Bridges (structure) 01. B-33-0009	LS	1.000	1.000
22	208.0100	Borrow	CY	141.000	141.000
24	210.1500	Backfill Structure Type A	TON	280.000	280.000
26	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	8.000	8.000
28	213.0100	Finishing Roadway (project) 01. 5590-00-81	EACH	1.000	1.000

5590-00-81

Line	Item	Item Description	Unit	Total	Qty
30	305.0110	Base Aggregate Dense 3/4-Inch	TON	100.000	100.000
32	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	224.000	224.000
34	455.0605	Tack Coat	GAL	53.000	53.000
36	465.0105	Asphaltic Surface	TON	252.000	252.000
38	502.0100	Concrete Masonry Bridges	CY	289.000	289.000
4	201.0205	Grubbing	STA	1.000	1.000
40	502.3200	Protective Surface Treatment	SY	720.000	720.000
42	502.3210	Pigmented Surface Sealer	SY	195.000	195.000
44	502.4204	Adhesive Anchors No. 4 Bar	EACH	128.000	128.000
46	502.4205	Adhesive Anchors No. 5 Bar	EACH	232.000	232.000
48	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	66,730.000	66,730.000
50	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	10.000	10.000
52	506.4000	Steel Diaphragms (structure) 01. B-33-0009	EACH	12.000	12.000
54	506.7050.S	Removing Bearings (structure) 01. B-33-0009	EACH	10.000	10.000
56	509.1500	Concrete Surface Repair	SF	142.000	142.000
58	516.0500	Rubberized Membrane Waterproofing	SY	24.000	24.000
6	203.0210.S	Abatement of Asbestos Containing Material (structure) 01. B-33-0009	LS	1.000	1.000
60	606.0300	Riprap Heavy	CY	299.000	299.000
62	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	200.000	200.000
64	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
66	614.2300	MGS Guardrail 3	LF	150.000	150.000
68	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
70	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
72	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5590-00-81	EACH	1.000	1.000
74	619.1000	Mobilization	EACH	1.000	1.000
76	624.0100	Water	MGAL	1.900	1.900
78	625.0500	Salvaged Topsoil	SY	1,028.000	1,028.000
8	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 99+39.78	LS	1.000	1.000
80	627.0200	Mulching	SY	661.000	661.000
82	628.1504	Silt Fence	LF	1,340.000	1,340.000
84	628.1520	Silt Fence Maintenance	LF	1,340.000	1,340.000
86	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
88	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
90	628.2002	Erosion Mat Class I Type A	SY	367.000	367.000
92	628.7504	Temporary Ditch Checks	LF	28.000	28.000
94	628.7570	Rock Bags	EACH	194.000	194.000
96	629.0210	Fertilizer Type B	CWT	1.000	1.000

					5590-00-81
98	630.0200	Seeding Temporary	LB	28.000	28.000

3

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
0010	98+30	-	98+54	RT	1	1	B-33-0009 SW CORNER
				TOTALS	1	1	

ASPHALTIC PAVEMENT REMOVALS

CATEGORY	STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	REMARKS
0010	96+17.2	-	98+39.8	RT	126.1	---	PAVED SHOULDER
0010	97+57	-	98+39.8	MAINLINE	---	202.3	LANES
0010	96+73.9	-	98+39.8	LT	116.2	---	PAVED SHOULDER
0010	100+43.7	-	101+00	MAINLINE	---	137.7	LANES
0010	100+43.7	-	102+09.5	RT	199.7	---	PAVED SHOULDER
0010	100+43.7	-	102+66.3	LT	133.6	---	PAVED SHOULDER
				TOTALS	576	340	

3

REMOVING GUARDRAIL

204.0165

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	97+54	-	98+48	RT	93.3	B-33-0009 SW CORNER
0010	97+57	-	98+55	LT	97.4	B-33-0009 NW CORNER
0010	100+27	-	101+20	RT	93.8	B-33-0009 SE CORNER
0010	100+34	-	101+23	LT	89.5	B-33-0009 NE CORNER
				TOTALS	374	

FENCE REMOVALS

204.0170

REMOVING FENCE

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	100+33	-	100+56	LT	27	B-33-0009 NE CORNER
				TOTALS	27	

3

Division	From/To Station	Location	205.0100 Common Excavation (1) (17) (18)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	205.0500 Marsh Excavation (6)	205.0200 Rock Excavation (7)	Reduced Marsh in Fill (8)	Reduced EBS in Fill (9)	Expanded Marsh Backfill (10)	Expanded EBS Backfill (11)	Expanded Rock (12)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	208.0100 Borrow	Comment:
			Cut (2)	EBS Excavation (3)					Factor 0.60	Factor 0.80	Factor 1.50	Factor 1.30	Factor 1.10		Factor 1.25				
Division 1																			
STH 78	96+12 - 102+72	Roadway	23	0	6	17	0	0	0	0	0	0	0	126	158	-141	0	141	
Division 1 Subtotal			23	0	6	17	0	0	0	0	0	0	0	126	158	-141	0	141	
Grand Total			23	0	6	17	0	0	0	0	0	0	0	126	158	-141	0	141	
Total Common Exc			23																

Notes:

(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100

(2) Salvaged/Unsuable Pavement Material is included in Cut.

(3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.

(4) Salvaged/Unusable Pavement Material

5) Available Material = Cut - Salvaged/Unusuable Pavement Material

(6) Marsh Excavation - to be backfilled with Select Borrow Material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well. Item number 205.0500

(7) Rock Excavation item number 205.0200

(8) Reduced Marsh in Fill - Excavated Marsh material is usuable in Fills outside the 1:1 slope. Marsh in Fill Reduction factor = 0.6

(9) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8

(10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item number 208.1100

(11) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3. Item number 208.1100

(12) Expanded Rock Factor = 1.1

(13) Expanded Fill Factor = 1.25

Depending on selections: **Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced Marsh - Reduced EBS) * Fill Factor**

Or Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced EBS) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Expanded Rock - Reduced Marsh) * Fill Factor

Or Expanded Fill = (Unexpanded Fill - Expanded Rock) * Fill Factor

(14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

(15) No Borrow Needed

(17) STA 98+43.75 - STA 98+57.15: Excavation within the proposed roadway shoulder points to be paid under item number 206.1000

(18) STA 100+24.27 - STA 100+39: Excavation within the roadway shoulder points to be paid under item number 206.1000

3

BASE AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	REMARKS
0010	96+17.2	-	98+43.8	RT	20.9	42.0	---
0010	96+73.9	-	98+50.5	LT	17.2	53.0	---
0010	98+39.8	-	98+57.15	MAINLINE	---	41.9	---
0010	100+24.27	-	100+43.7	MAINLINE	---	46.0	---
0010	100+33	-	102+09.5	RT	17.2	31.1	---
0010	100+39.7	-	102+66.3	LT	20.7	9.3	---
0010	101+53.5		101+95.5	RT	6.5		DRIVEWAY ENTRANCE
0010	101+98.6		102+52.4	LT	16.6	---	DRIVEWAY ENTRANCE
				TOTALS	100	224	

GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	96+87.2	-	98+42.3	RT	62.5	39.4	1	---
0010	97+43.9	-	98+49.0	LT	12.5	39.4	1	---
0010	100+34.5	-	101+39.5	RT	12.5	39.4	1	---
0010	100+41.2	-	101+96.2	LT	62.5	39.4	1	---
				TOTALS	150	157.6	4	

HMA ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	REMARKS
0010	96+17.2	-	98+39.8	RT	2.2	---	32.2	---
0010	96+73.9	-	98+39.8	LT	1.7	---	23.8	---
0010	97+57	-	98+39.8	MAINLINE	---	10.1	34.0	3" SURFACE
0010	97+57	-	98+39.8	MAINLINE	---	14.2	14.2	WEDGE
0010	98+39.8	-	98+55.2	RT	---	---	2.2	---
0010	98+39.8	-	98+59.1	LT	---	---	3.0	---
0010	98+39.8	-	98+57.15	MAINLINE	---	2.1	14.3	---
0010	100+24.27	-	100+43.7	MAINLINE	---	2.4	15.9	---
0010	100+22.3	-	100+43.7	RT	---	---	3.3	---
0010	100+26.2	-	100+43.7	LT	---	---	2.5	---
0010	100+43.7	-	101+00	MAINLINE	---	6.9	23.1	3" SURFACE
0010	100+43.7	-	101+00	MAINLINE	---	9.6	9.6	WEDGE
0010	100+43.7	-	102+09.5	RT	1.7	---	23.7	---
0010	100+43.7	-	102+66.3	LT	2.2	---	32.3	---
0010	PAVING NOTCH WEDGE			MAINLINE	---	3.3	8.5	SEE PLANS
0010	PAVING NOTCH WEDGE			LT & RT	---	3.6	9.3	SEE PLANS
				TOTALS	8	53	252	

WATER ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	624.0100 WATER MGAL	REMARKS
0010	96+17.2	-	102+66.3	PROJECT	0.6	EARTHWORK
0010	96+17.2	-	102+66.3	PROJECT	1.3	BASE COURSE
				TOTALS	1.9	

3

RESTORATION ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2002 EROSION MAT CLASS I TYPE A SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH	629.0210 FERTILIZER TYPE B CWT	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	SPV.0085.01 NATIVE SEED MIX LB	SPV.0105.01 SITE MOWING LS	SPV.0105.02 BLANCHARD'S CRICKET FROG MITIGATION SITE LS	REMARKS
0010	96+17.2	-	98+75.3	RT	194.9	97.9	317.6	317.6	---	---	97.0	---	44	0.1	5.3	4.4	0.5	---	---	SEED WATER FOR SEEDING TEMPORARY
0010	96+73.9	-	99+21.0	LT	498.7	339.4	363.8	363.8	---	---	159.3	---	44	0.3	13.5	11.2	1.2	---	1	SEED WATER FOR SEEDING TEMPORARY
0010	100+05.1	-	102+65.0	RT	75.0	62.9	114.8	114.8	---	---	12.2	14.0	22	0.0	2.0	1.7	0.2	---	---	SEED WATER FOR SEEDING TEMPORARY
0010	100+05	-	102+66.3	LT	53.5	28.6	275.6	275.6	---	---	25.0	---	44	0.0	1.4	1.2	0.1	---	---	SEED WATER FOR SEEDING TEMPORARY
0010	UNDISTRIBUTED			LT & RT	205.5	132.2	268	268	1	1	73.4	14.0	40	0.1	5.5	4.6	0.5	1	---	SEED WATER FOR SEEDING TEMPORARY
				TOTALS	1,028	661	1,340	1,340	1	1	367	28	194	1	28	24	3	1	1	

3

SIGN REMOVAL ITEMS

CATEGORY	STATION	LOCATION	SIGN NO.	SIGN CODE	W x H	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	98+48	LT	1	W5-52L	12" x 36"	1	1	---
0010	98+31	RT	2	W5-52R	12" x 36"	1	1	---
0010	98+37	RT	3	I3-1	60" x 24"	1	1	---
0010	98+39	RT	4	I3-1	60" x 24"	1	---	---
0010	100+35	RT	5	W5-52L	12" x 36"	1	1	---
0010	100+39	LT	6	W5-52R	12" x 36"	1	1	---
					TOTALS	6	5	

3

TRAFFIC CONTROL ITEMS

TRAFFIC CONTROL OPERATIONS	DURATION (DAYS)	CATEGORY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900 TRAFFIC CONTROL SIGNS		643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II			643.1050 TRAFFIC CONTROL SIGNS PCMS	
			EACH	DAY	EACH	DAY	EACH	DAY	EACH	NO. OF CYCLES	NO. OF SIGNS	UNITS	DAY
STH 78	61	0010	16	976	32	1,952	14	854	---	---		---	---
DETOUR	61	0010	---	---	---	---	170	10,370	13	1	13	---	---
ADVANCED NOTICE	7	0010	---	---	---	---	---	---	---	---	---	2	14
		TOTALS		976		1,952		11,224	13				14

3

PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH CENTERLINE (YELLOW) (12.5' LINE, 37.5' SKIP) LF	646.1020 MARKING LINE EPOXY 4-INCH EDGELINE (WHITE) LF	REMARKS
0010	96+17.2	-	102+66.3	MAINLINE	---	1,185	---
0010	97+57.0	-	101+00.0	MAINLINE	87.5	---	7 12.5' LINES
				TOTALS	1,272.5		

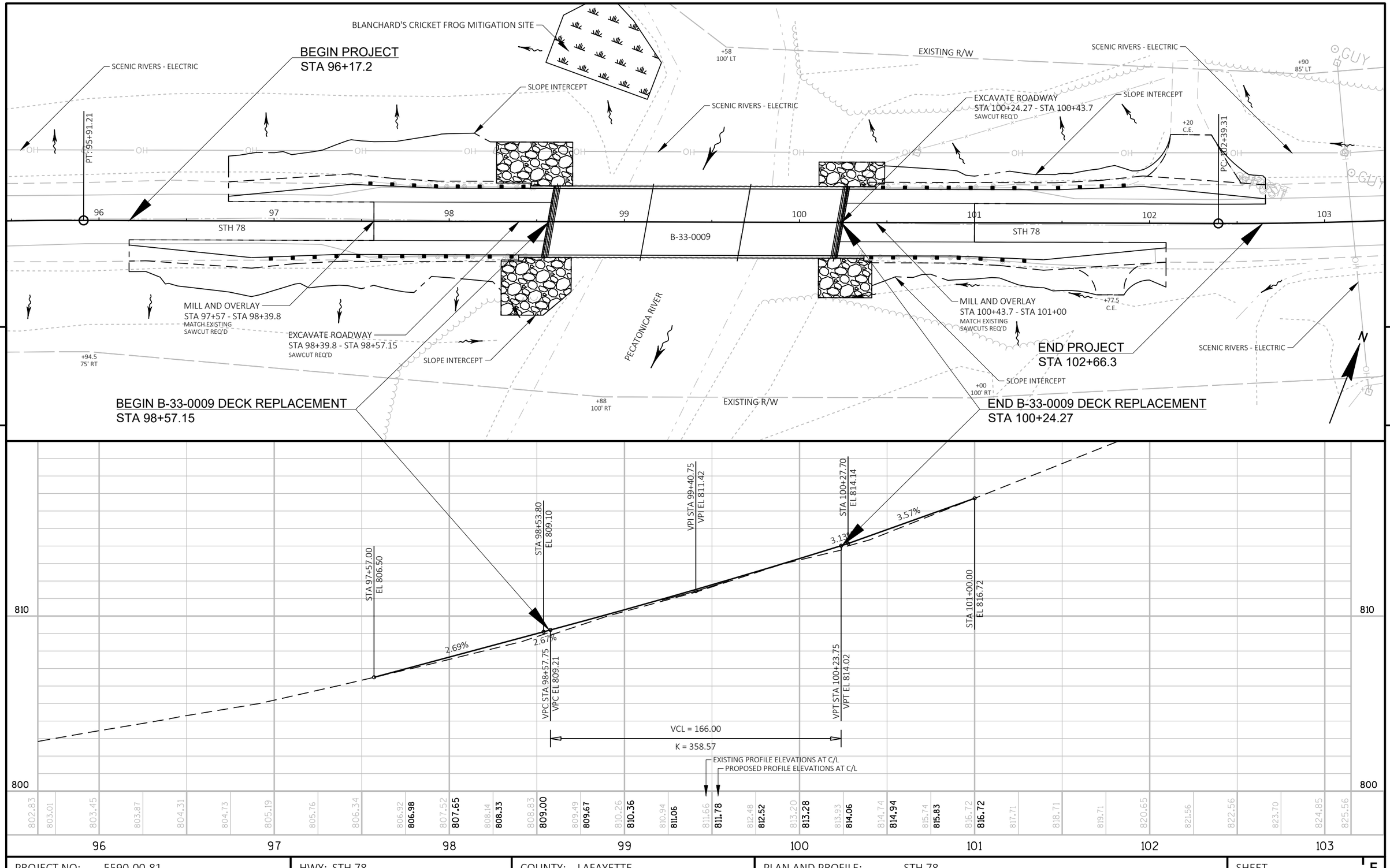
3

CONSTRUCTION STAKING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.6500 CONSTRUCTION STAKING STRUCTURE LAYOUT (B-33-0009) LS	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (5590-00-81) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	REMARKS
0010	96+17.2	-	97+57	LT & RT	139.8	---	---	---	---	139.8	---
0010	97+57	-	98+39.8	MAINLINE	82.8	---	---	82.8	---	82.8	---
0010	98+39.8	-	98+57.15	MAINLINE	17.4	17.4	---	---	---	17.4	---
0010	98+57.15	-	100+24.27	B-33-0009	---	---	1	---	---	---	---
0010	100+24.27	-	100+43.7	MAINLINE	19.4	19.4	---	---	---	19.4	---
0010	100+43.7	-	101+00	MAINLINE	56.3	---	---	56.3	---	56.3	---
0010	101+00	-	102+66.3	LT & RT	166.3	---	---	---	---	166.3	---
0010	96+17.2	-	102+66.3	PROJECT	---	---	---	---	1	---	---
				TOTALS	482	37	1	140	1	482	

SAWING ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	690.0150 SAWING ASPHALT LF	REMARKS
0010	96+17.2	-	98+39.8	RT	224.7	RIGHT SHOULDER
0010	96+73.9	-	98+39.8	LT	169.9	LEFT SHOULDER
0010	97+57	-	97+57	MAINLINE	22	LANES
0010	98+39.8	-	98+39.8	MAINLINE	38.7	LANES & SHOULDERS
0010	100+43.7	-	100+43.7	MAINLINE	38.8	LANES & SHOULDERS
0010	101+00	-	101+00	MAINLINE	22	LANES
0010	100+43.7	-	102+09.5	RT	169.4	RIGHT SHOULDER
0010	100+43.7	-	102+66.3	LT	225.7	LEFT SHOULDER
				TOTALS	912	



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	PLAN AND PROFILE: STH 78	SHEET 37 E

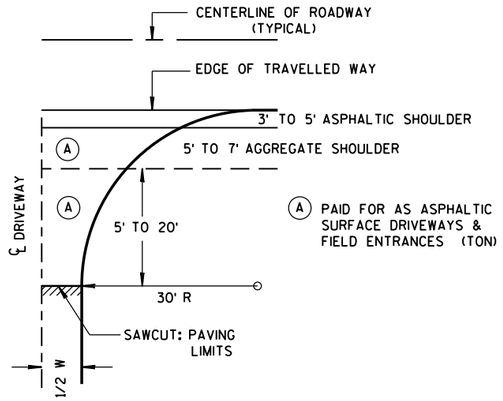
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\050101-PP.DWG
LAYOUT NAME - 050101-pp

PLOT DATE : 6/28/2019 10:12 AM PLOT BY : RINZEL, JAMES M PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

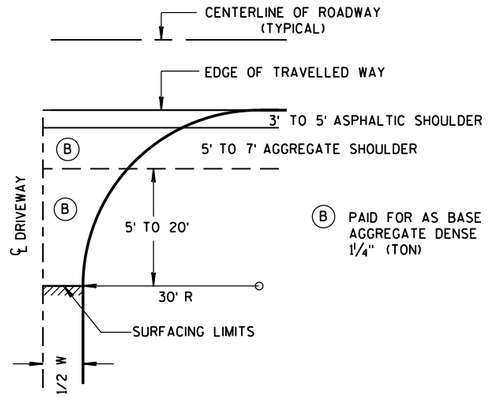
Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
12A03-10	NAME PLATE (STRUCTURES)
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-07C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-07D	ON RAMP LANE CLOSURE
15C02-07E	OFF RAMP LANE CLOSURE
15C02-07F	ADVANCED WIDTH RESTRICTION SIGNING
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C08-19C	PAVEMENT MARKING (TURN LANES)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



PLAN VIEW
HALF SECTION

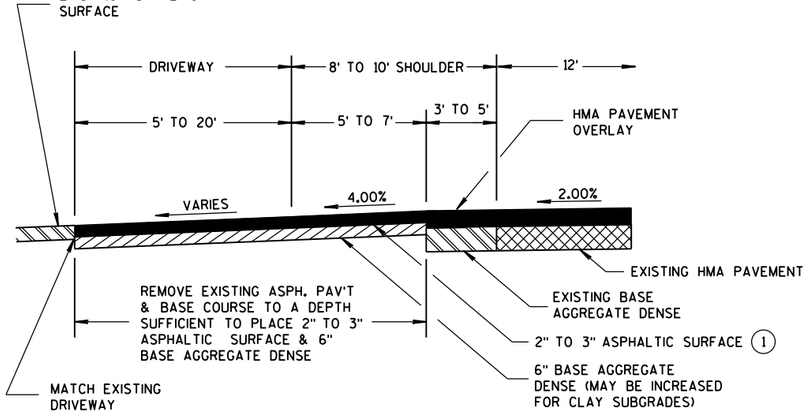
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION

GENERAL NOTES

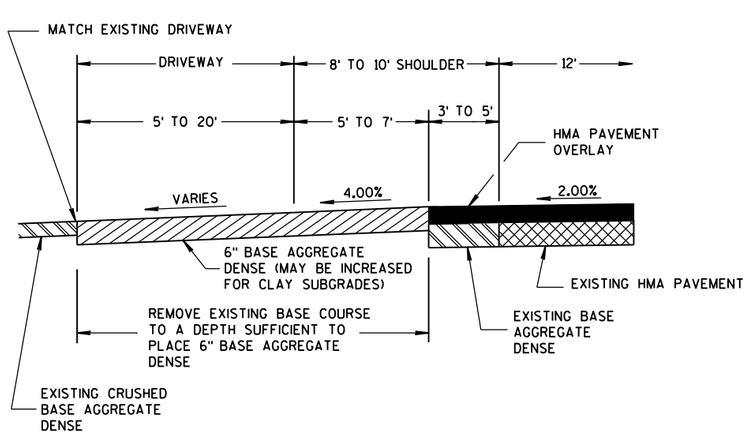
(1) DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.



PROFILE VIEW

RURAL ENTRANCE WITH ASPHALTIC SURFACE

RESURFACING PROJECTS



PROFILE VIEW

RURAL ENTRANCE WITH AGGREGATE SURFACE

6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

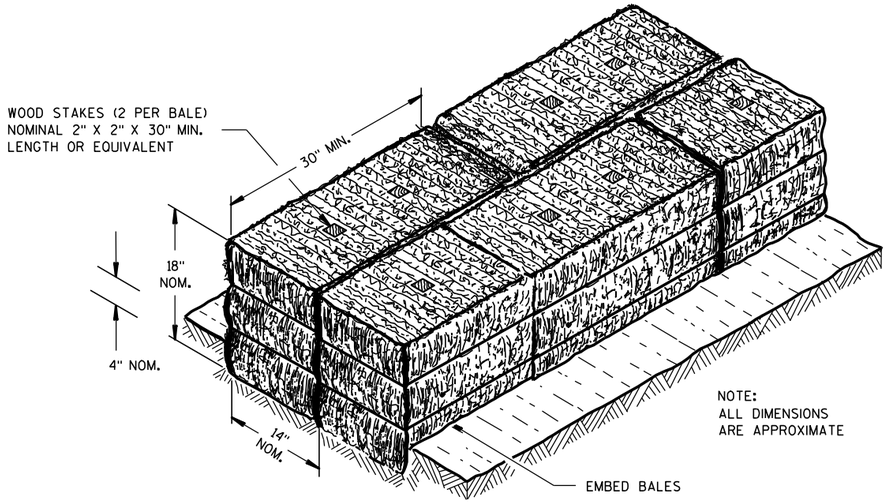
DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

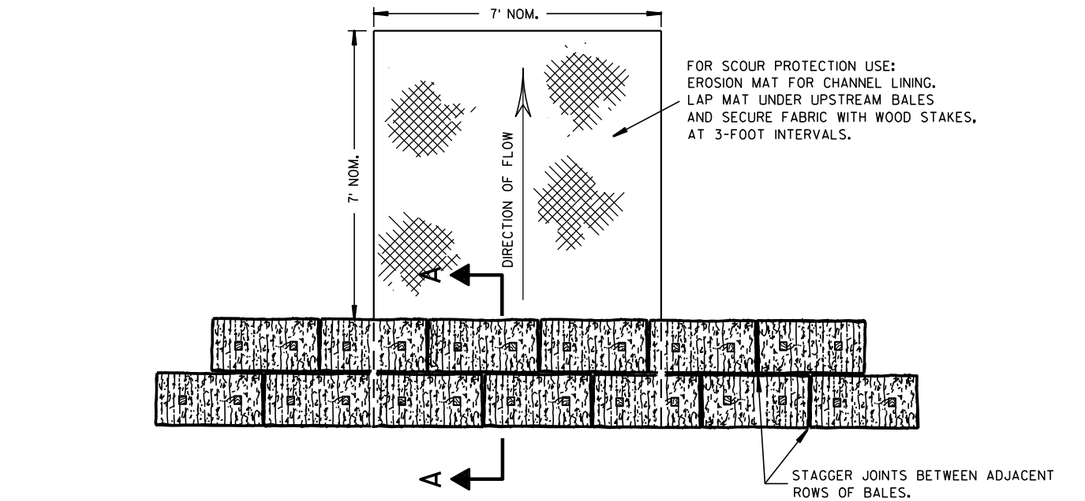
APPROVED
December, 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERV
ENT
FHWA

6

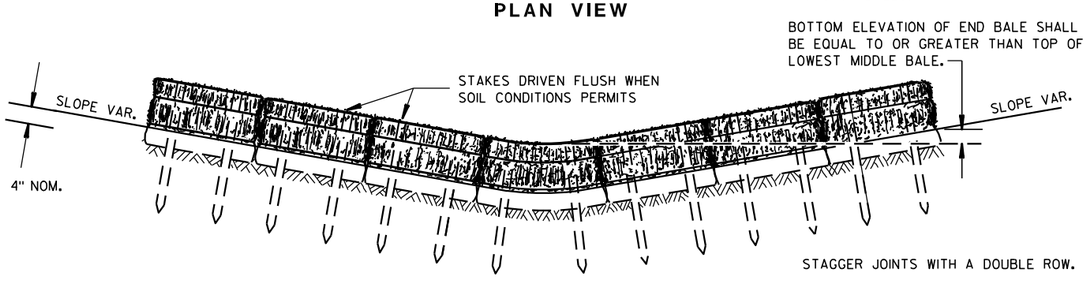
S.D.D. 8 D 22-1



SECTION A-A



PLAN VIEW



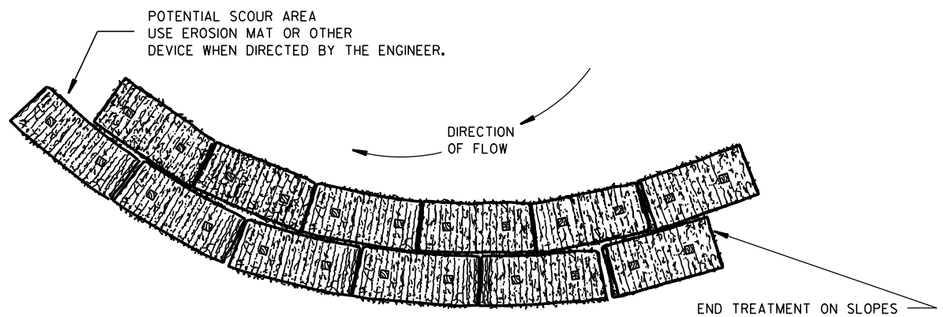
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

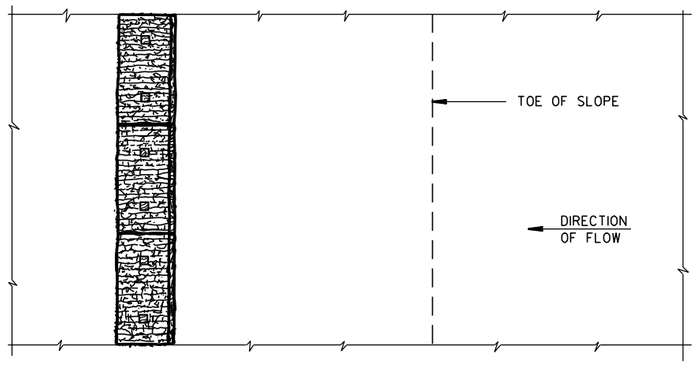
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

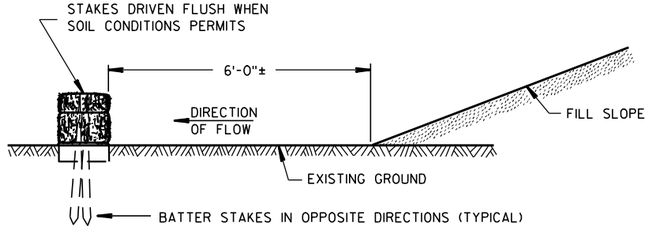


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

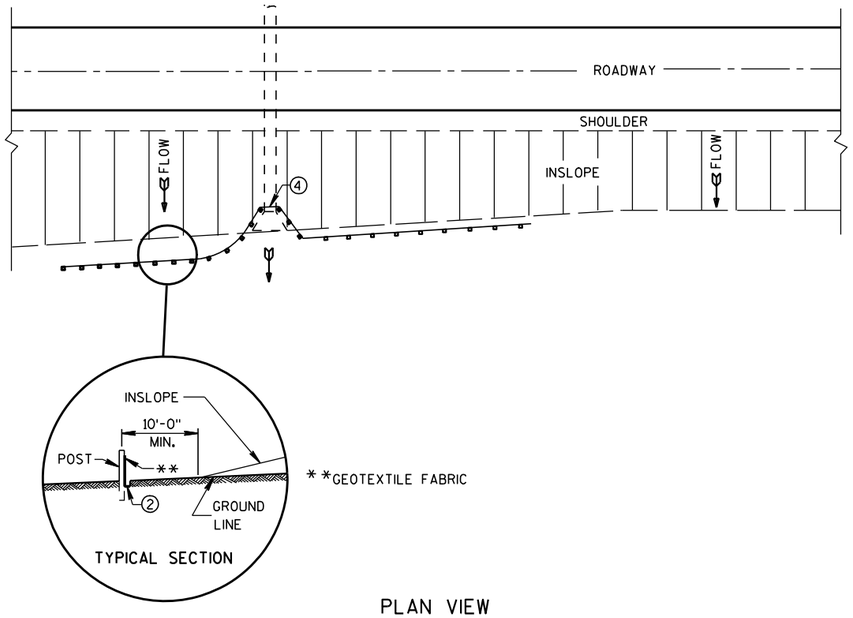
FHWA

6

S.D.D. 8 E 8-3

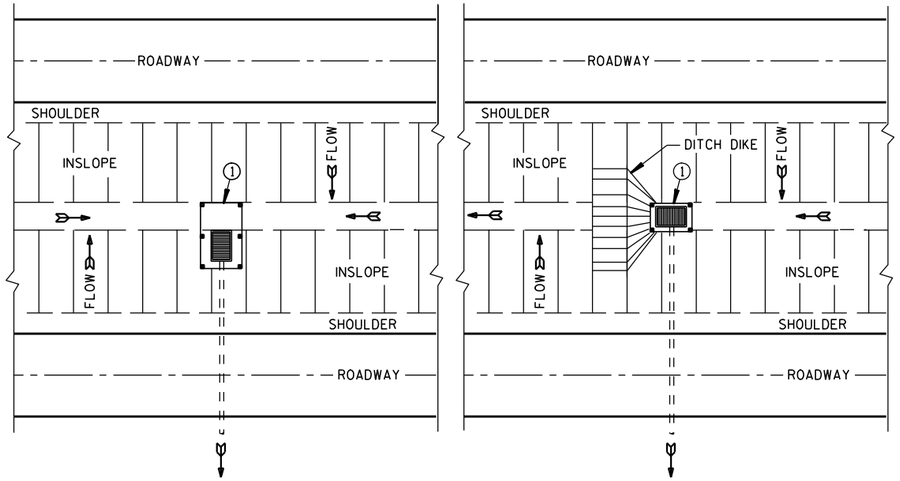
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



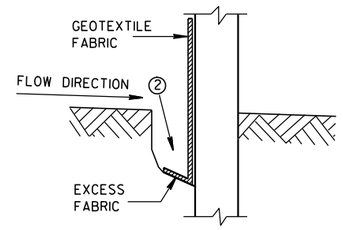
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

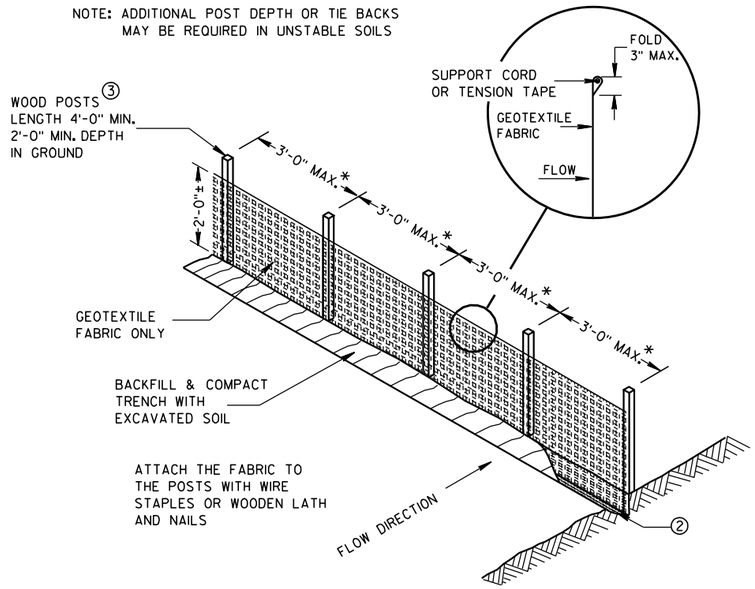
GENERAL NOTES

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

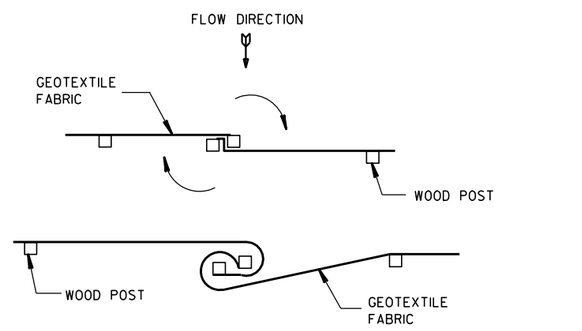
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



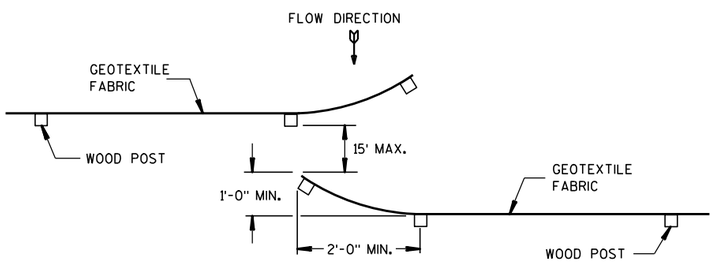
TRENCH DETAIL



SILT FENCE

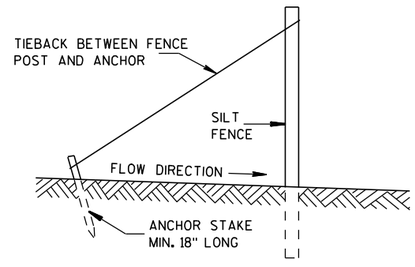


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

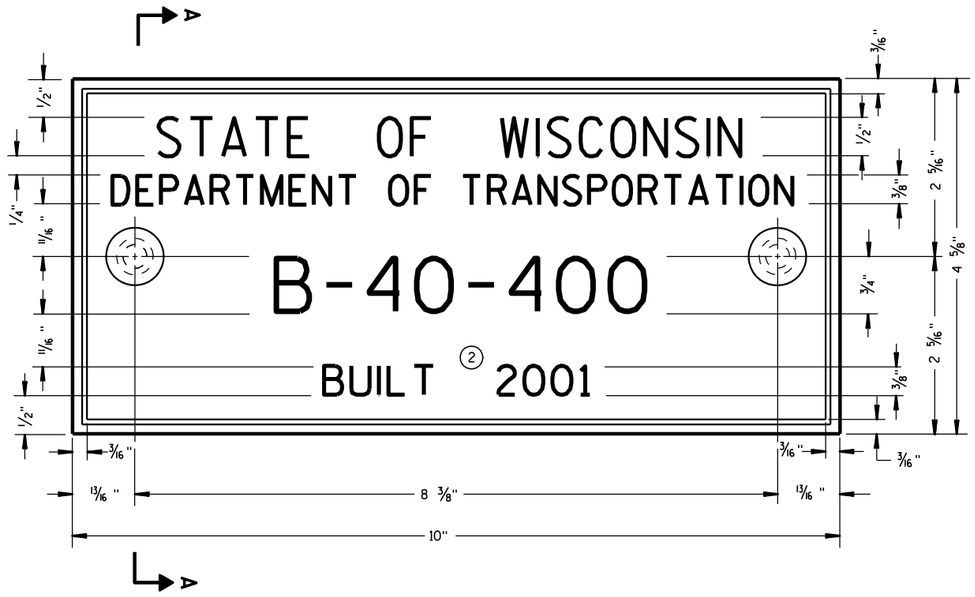
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

6

S.D.D. 8 E 9-6



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

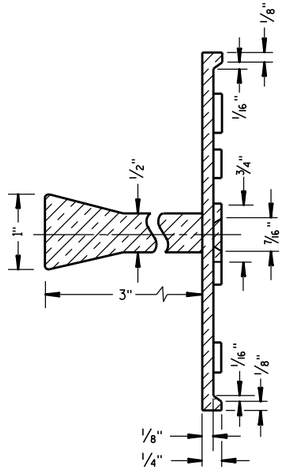
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

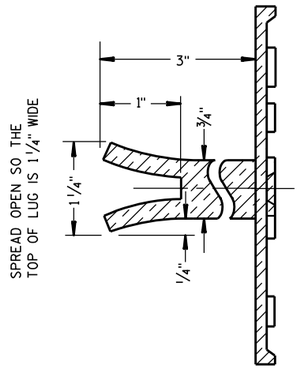
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

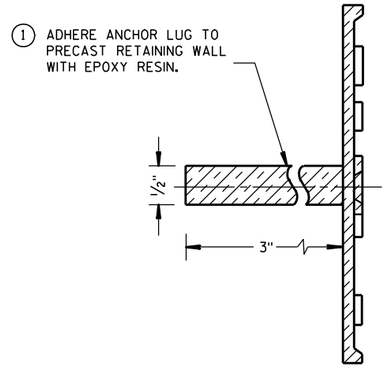
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 12 A 3-10

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

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

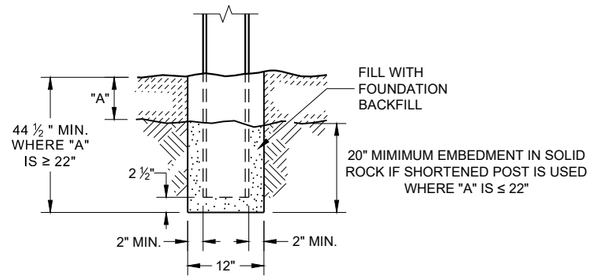
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS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

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

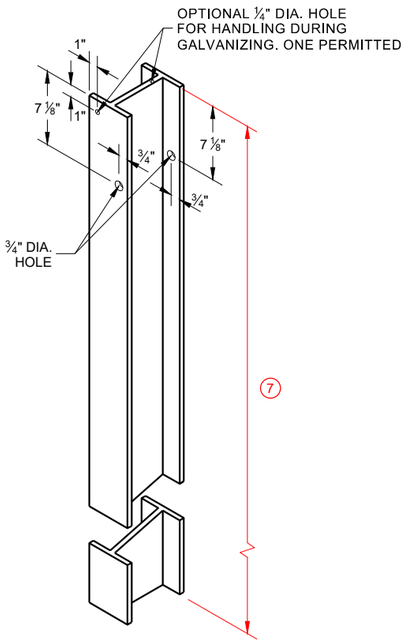
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

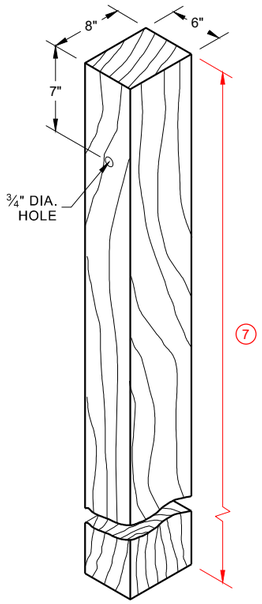
7. TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



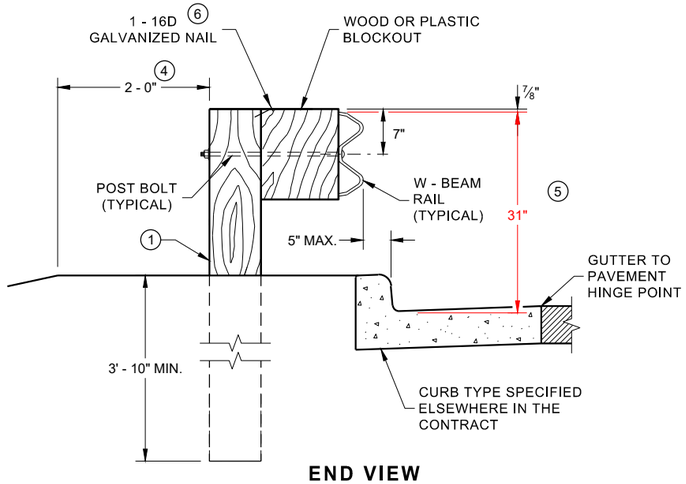
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



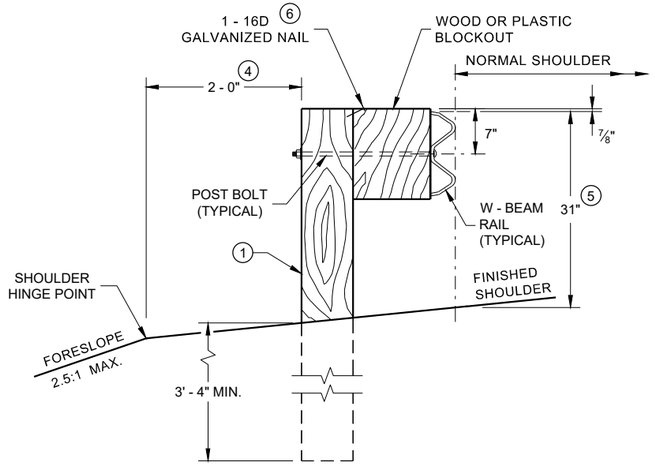
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



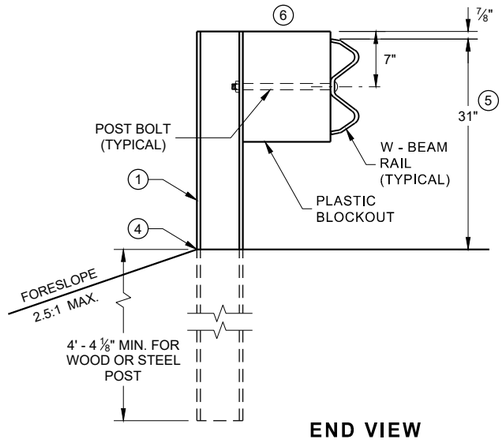
WOOD POST (6" X 8") NOMINAL (1)



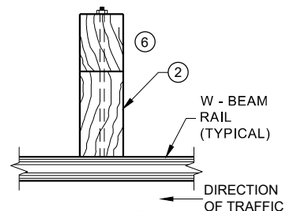
END VIEW
LOCATED ALONG A CURBED ROADWAY



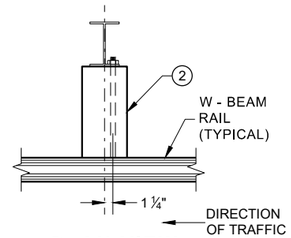
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



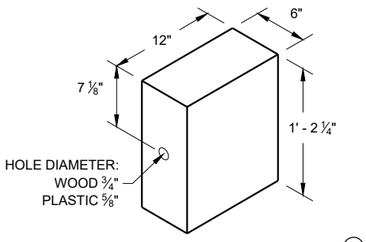
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

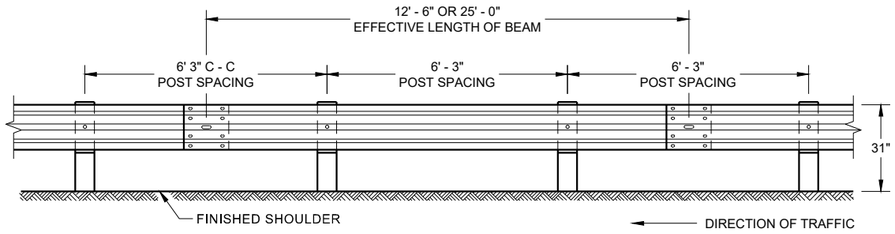
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

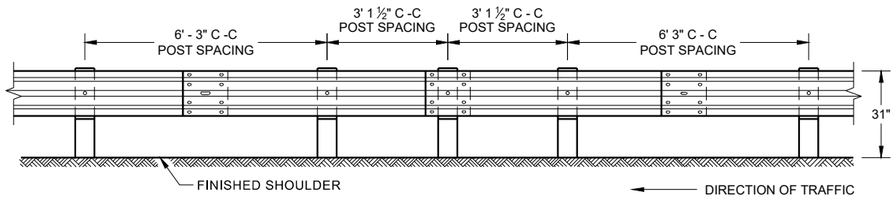
SDD 14B42 - 06a

6

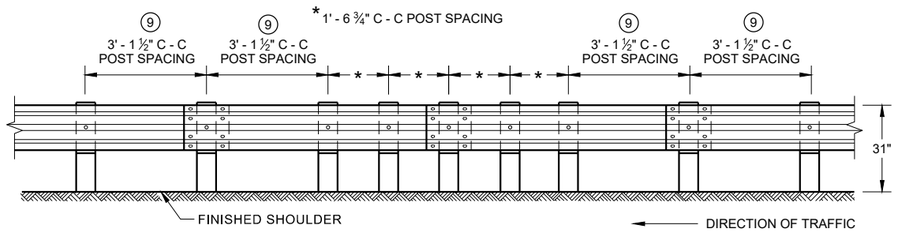
SDD 14B42 - 06a



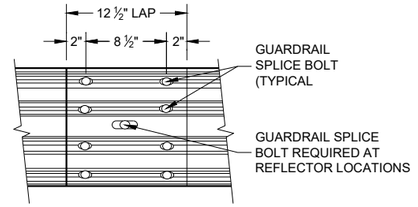
FRONT VIEW
POST SPACING STANDARD INSTALLATION



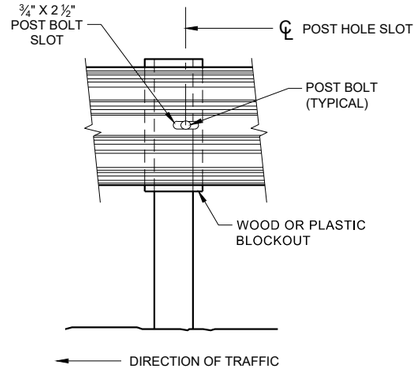
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



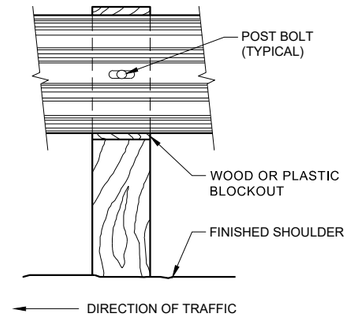
FRONT VIEW
QUARTER POST SPACING (QS)



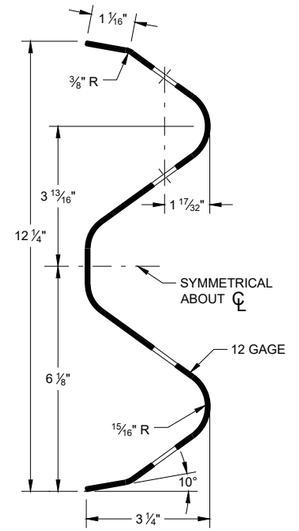
FRONT VIEW
MID-SPAN BEAM SPLICE



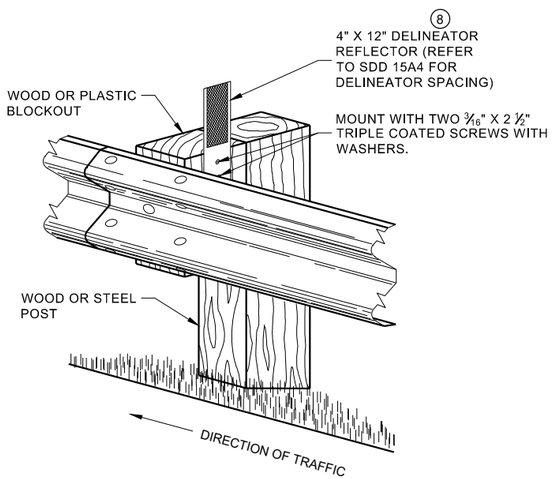
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

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

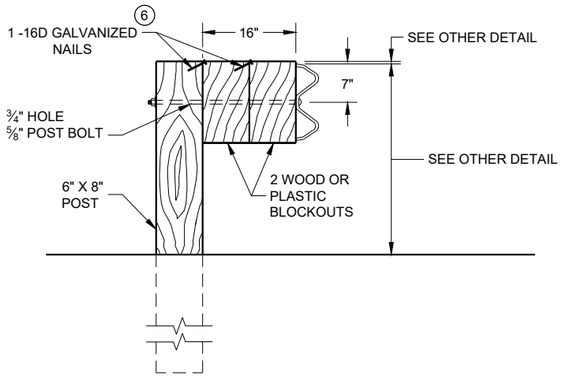
POST BOLTS ARE A ¾" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B42 - 06b

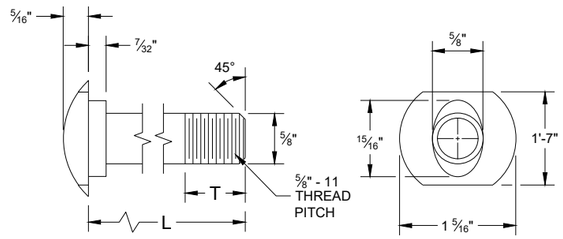


DETAIL FOR 16" BLOCKOUT DEPTH

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

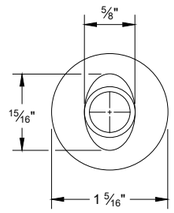
NOTE:

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

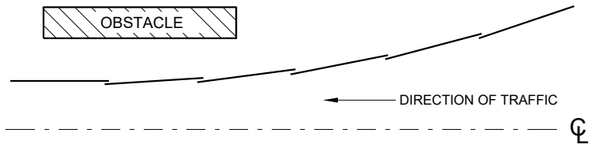


POST BOLT TABLE

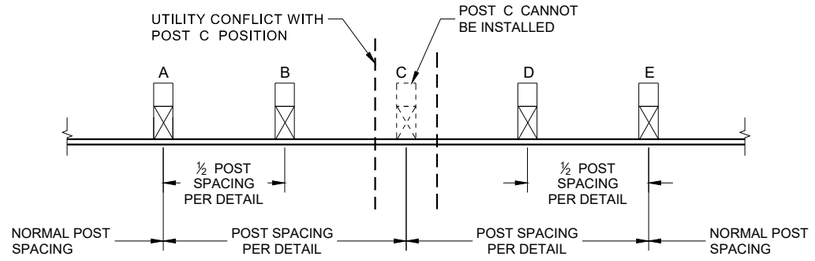
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



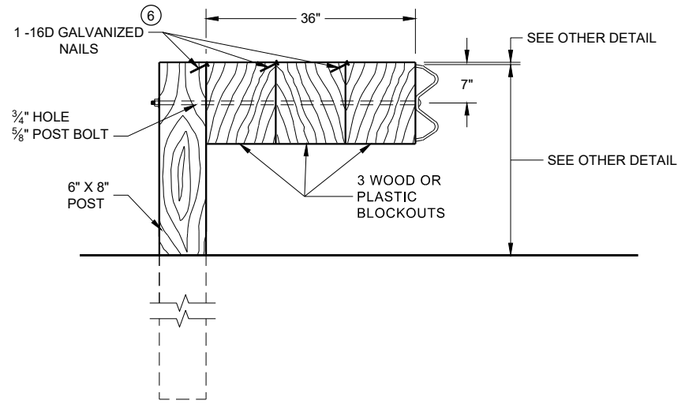
ALTERNATE BOLT HEAD



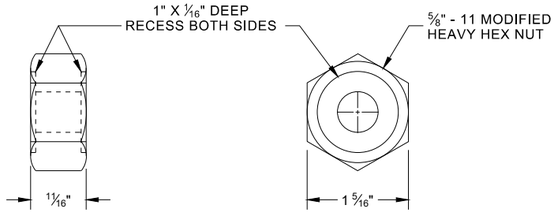
PLAN VIEW
BEAM LAPPING DETAIL



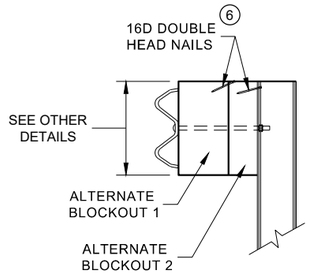
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



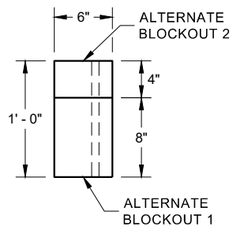
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

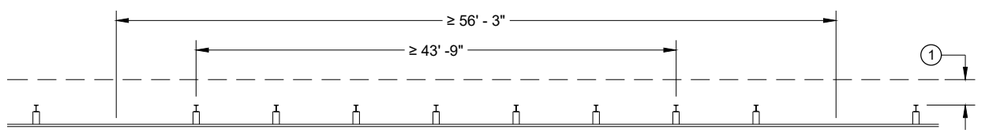
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

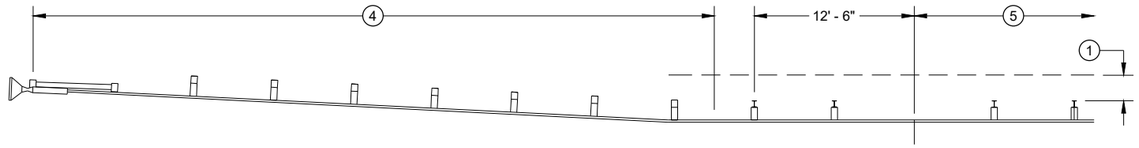
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

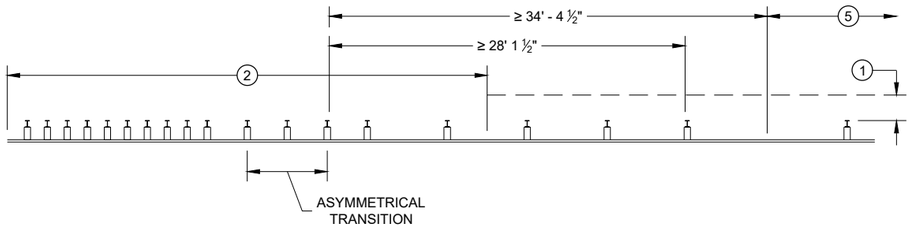
SDD 14B42 - 06c



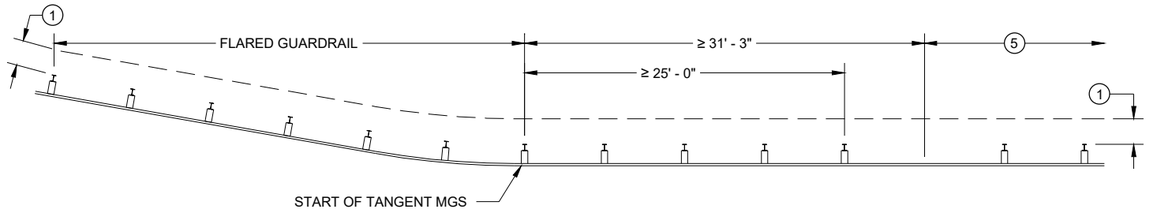
MISSING POST IN NORMAL BEAM GUARD RUN



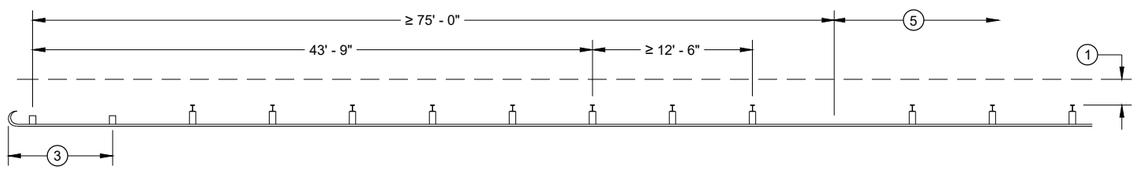
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



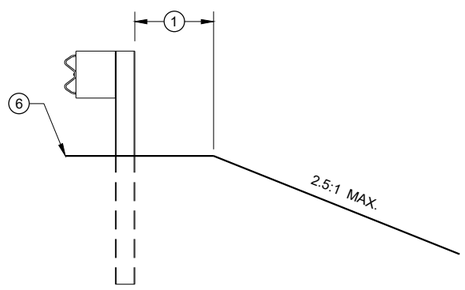
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B42 - 06d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

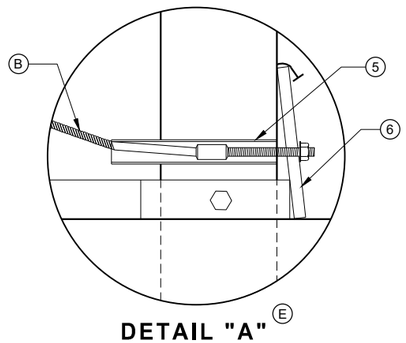
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

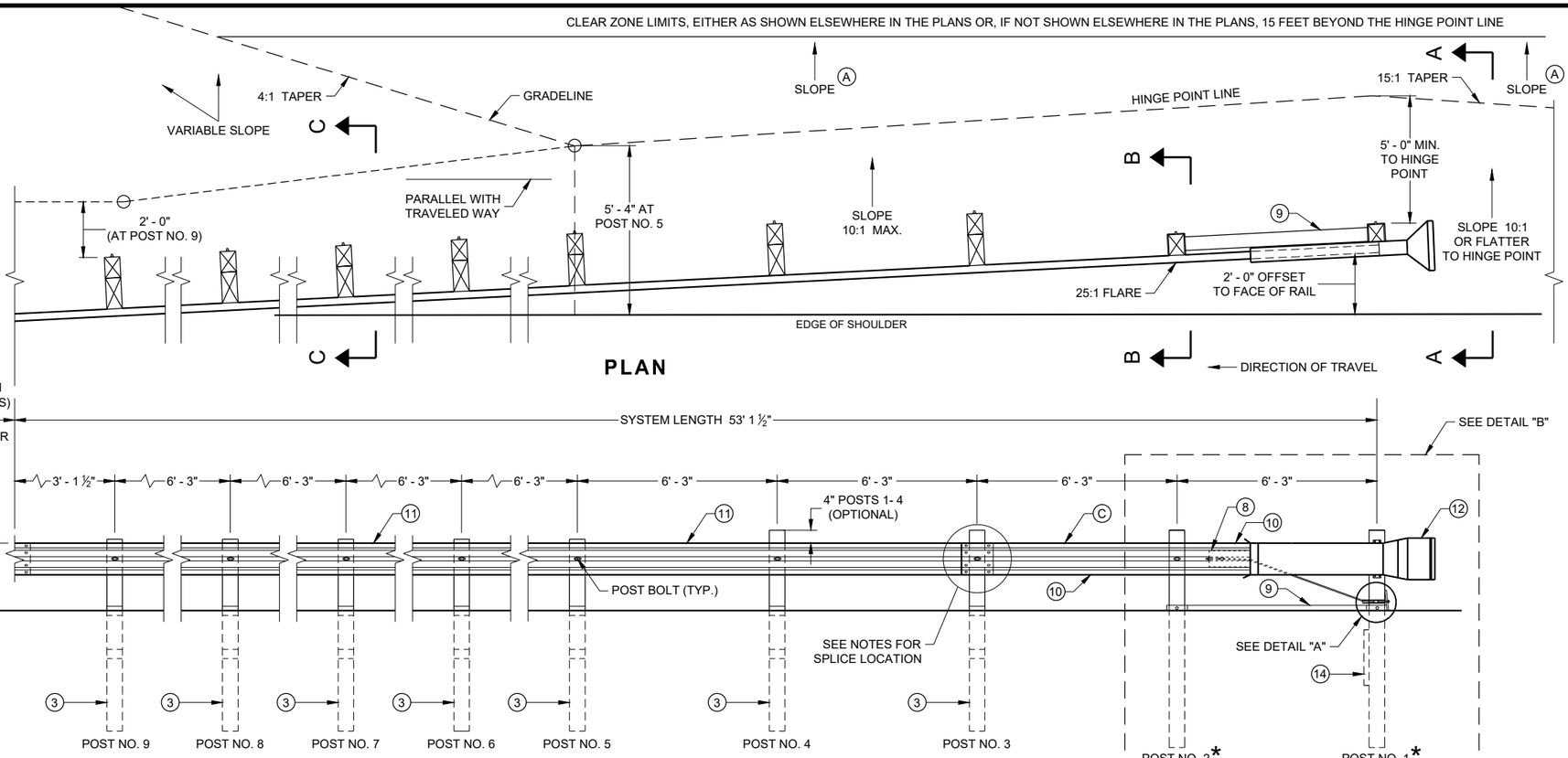
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

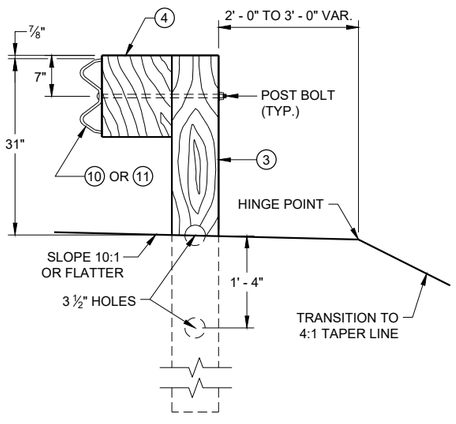
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

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

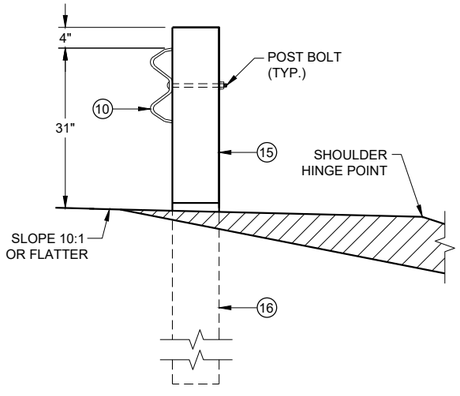


DETAIL "A" (E)

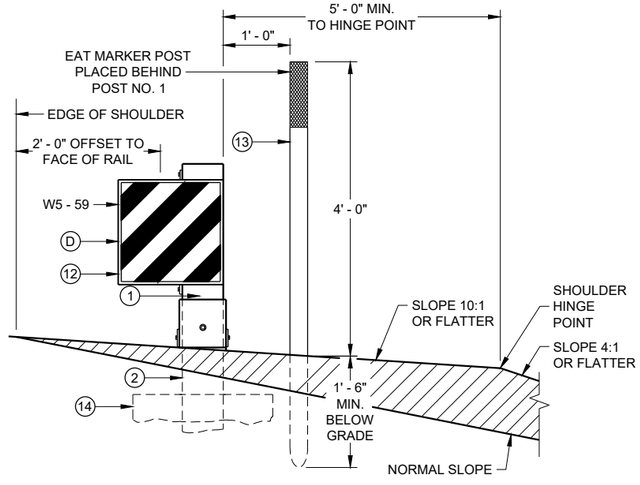




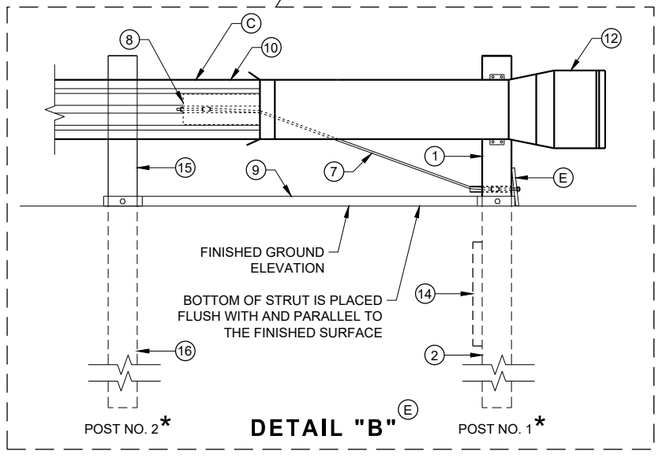
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*

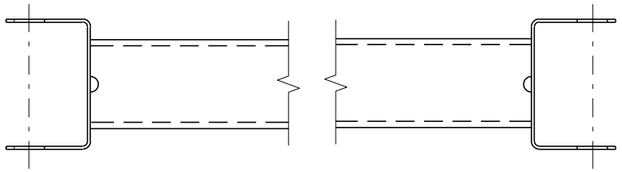


MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

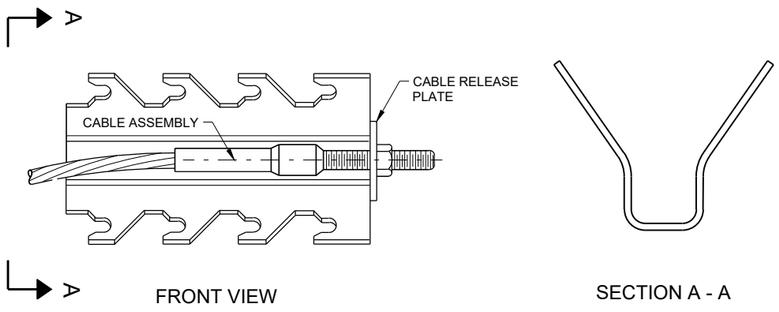
6



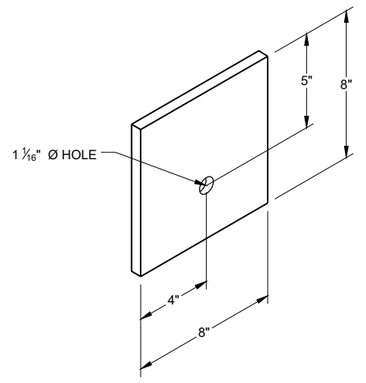
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX (9) (E)



BEARING PLATE (6) (E)

6

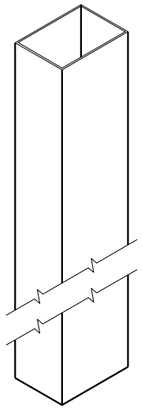
6

SDD 14B44 - 04b

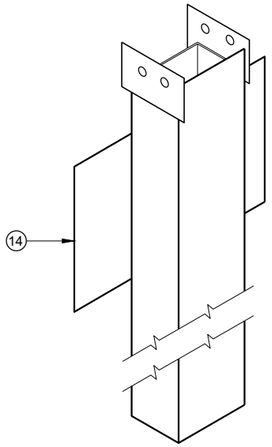
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

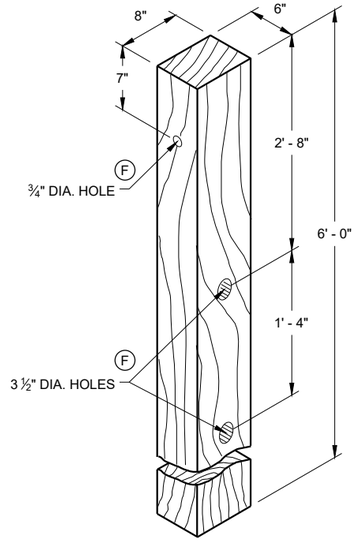
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



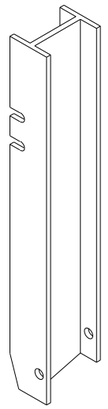
UPPER POST NO. 1 (1) (E)



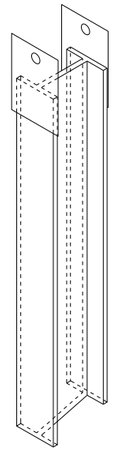
LOWER POST NO. 1 (2) (E)



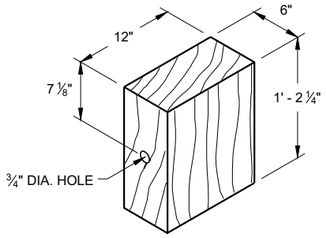
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



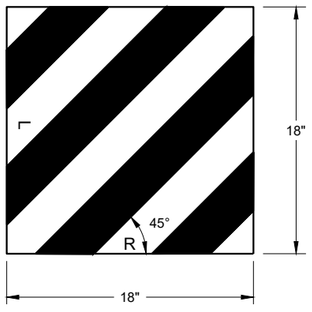
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

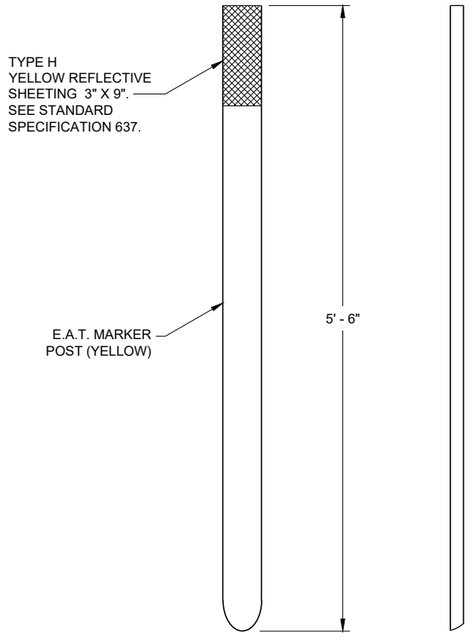


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



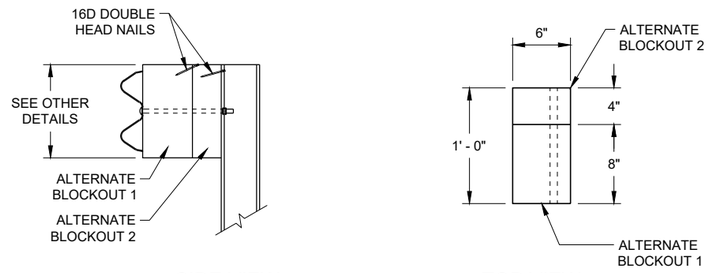
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

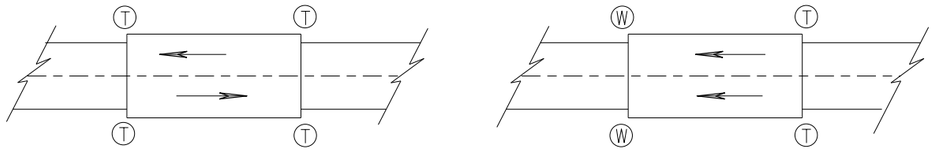
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

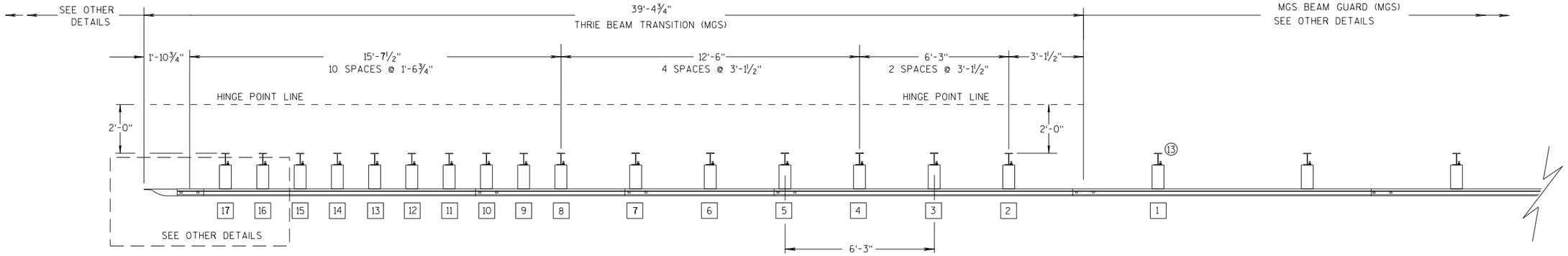
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

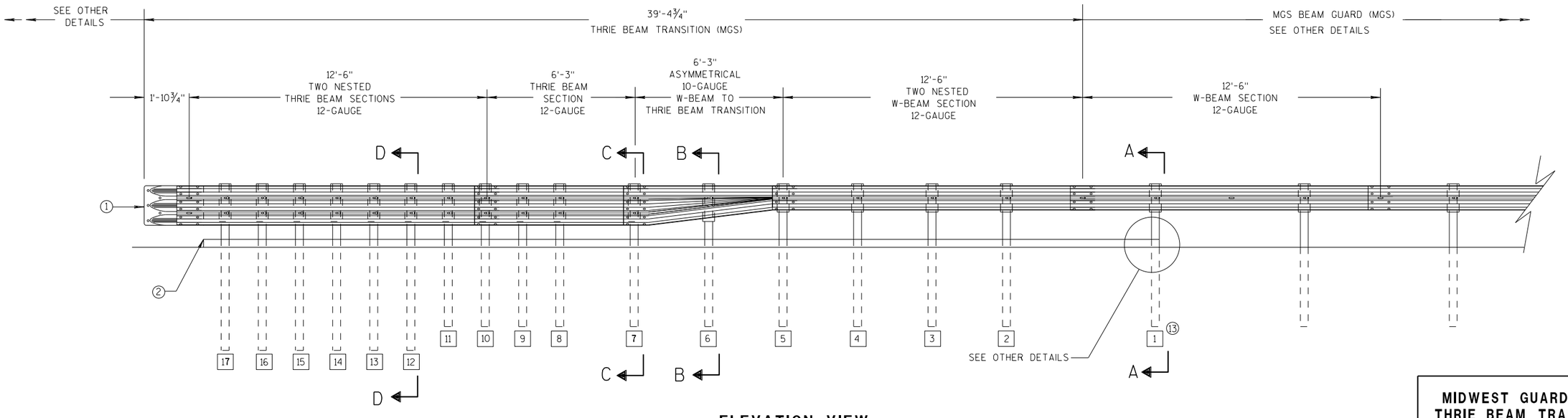
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

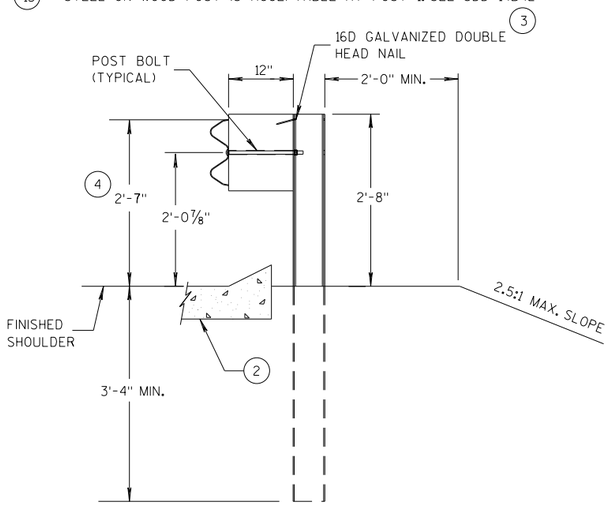
GENERAL NOTES

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

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

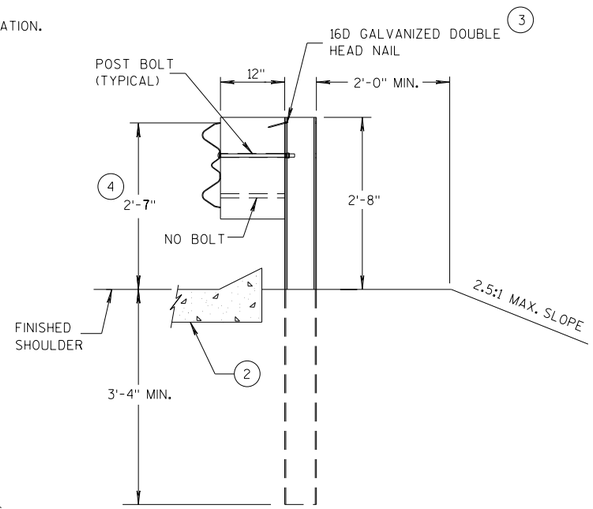
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



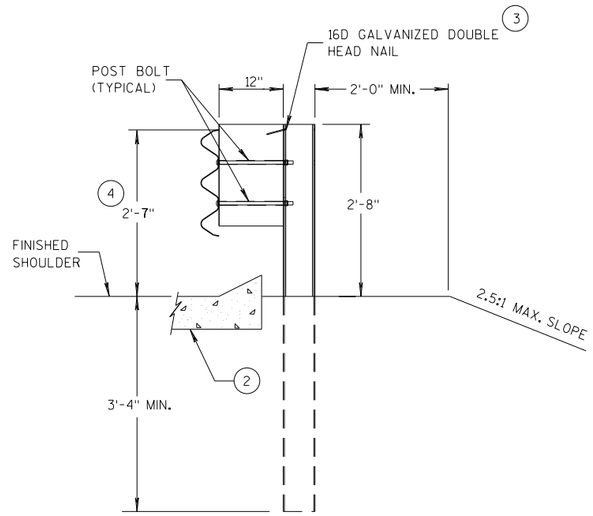
SECTION A-A (13)

POSTS 1-5



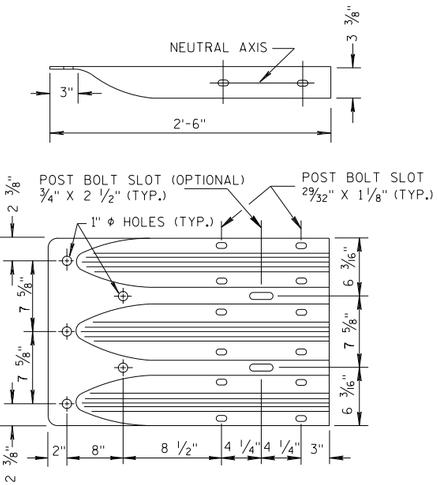
SECTION B-B

POST 6

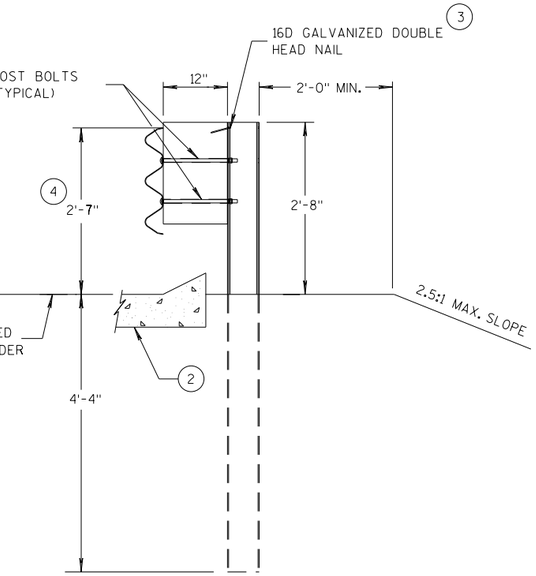


SECTION C-C

POSTS 7-11

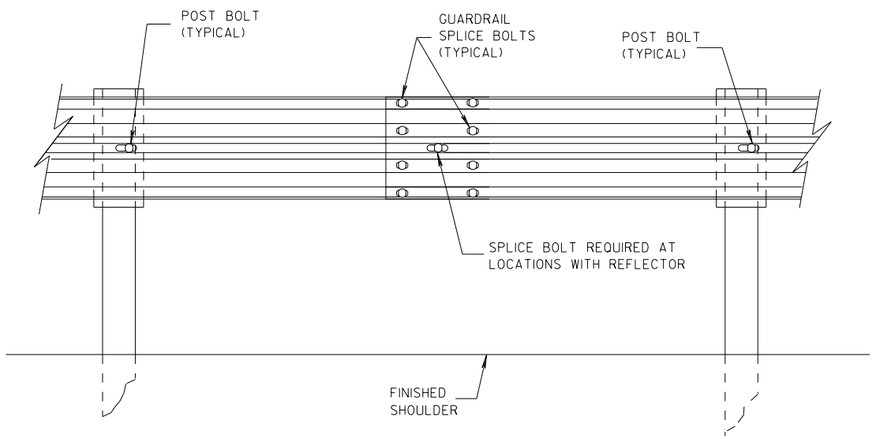


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

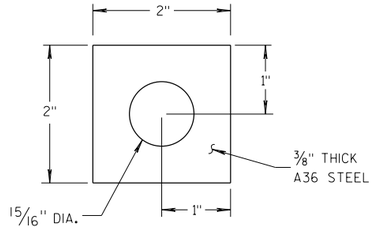
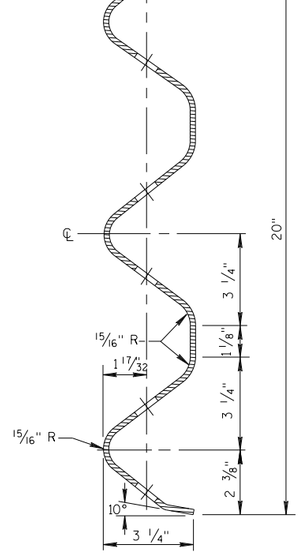


PLATE WASHER DETAIL



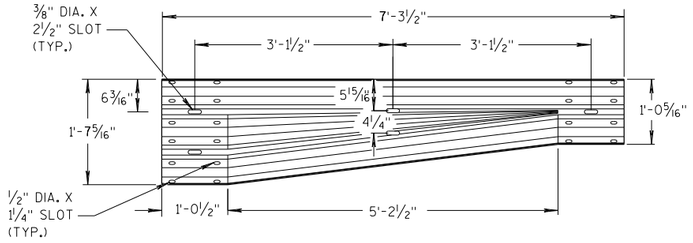
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

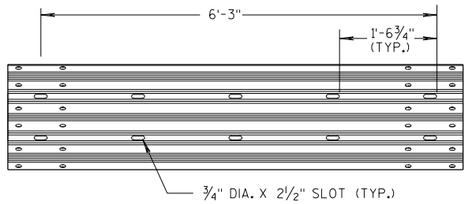
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

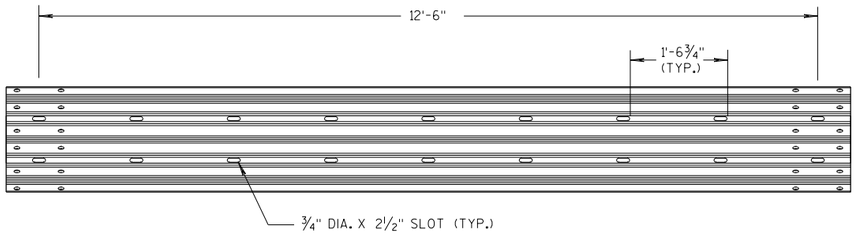
S.D.D. 14 B 45-5b



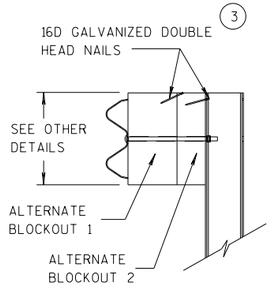
W-BEAM TO THRIE BEAM TRANSITION SECTION



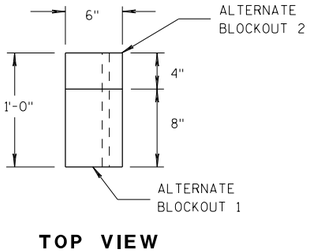
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

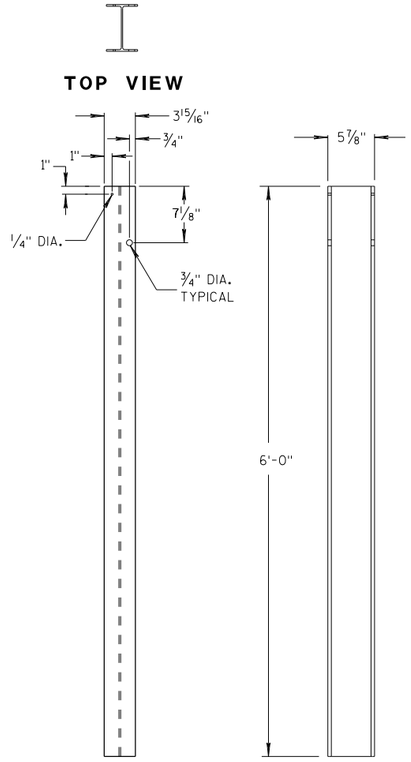


SIDE VIEW



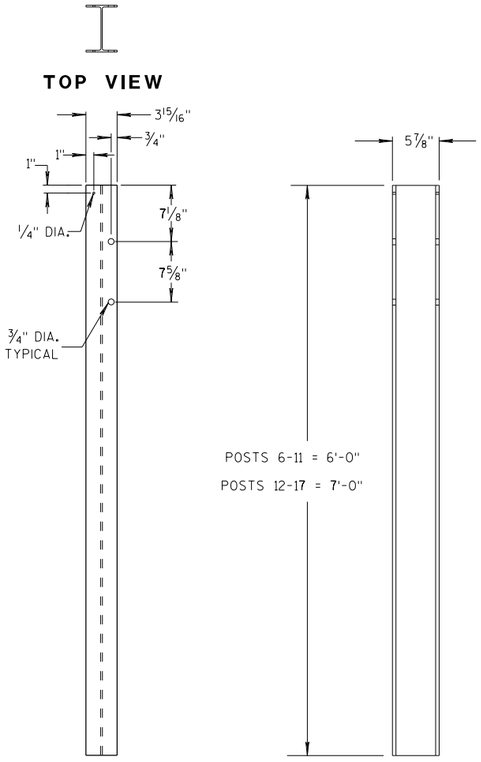
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



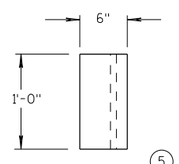
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

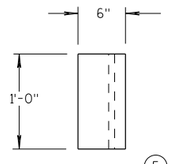


FRONT VIEW SIDE VIEW

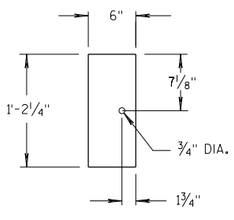
STEEL POSTS 6-17



TOP VIEW (5)

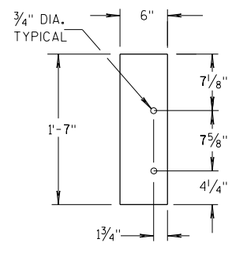


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

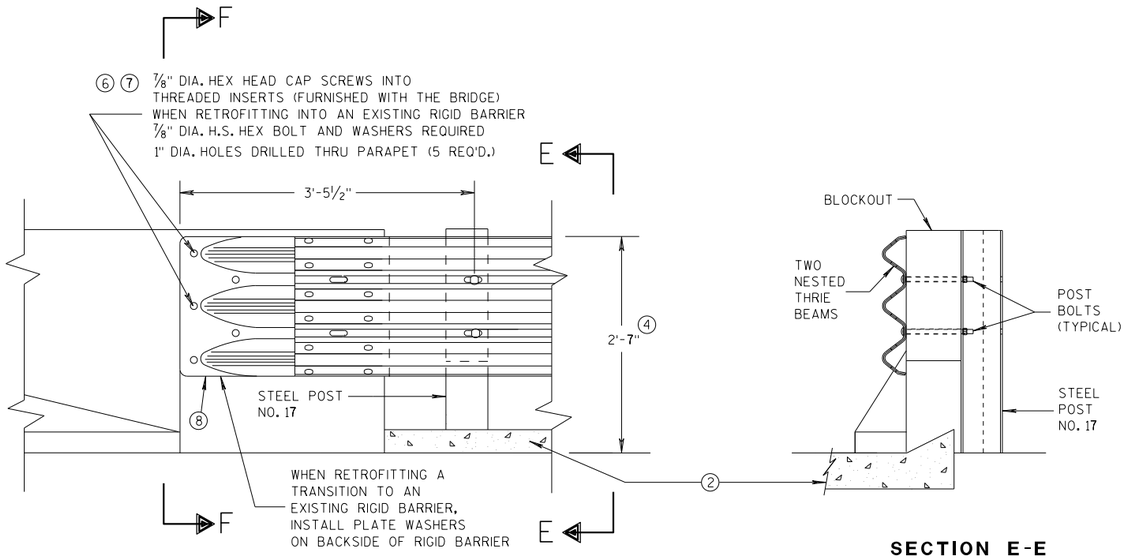
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

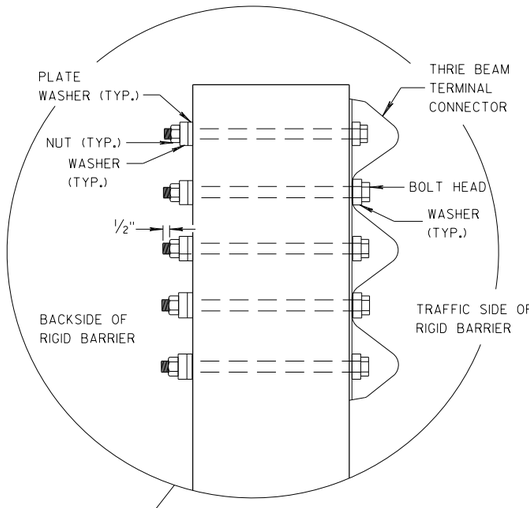
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

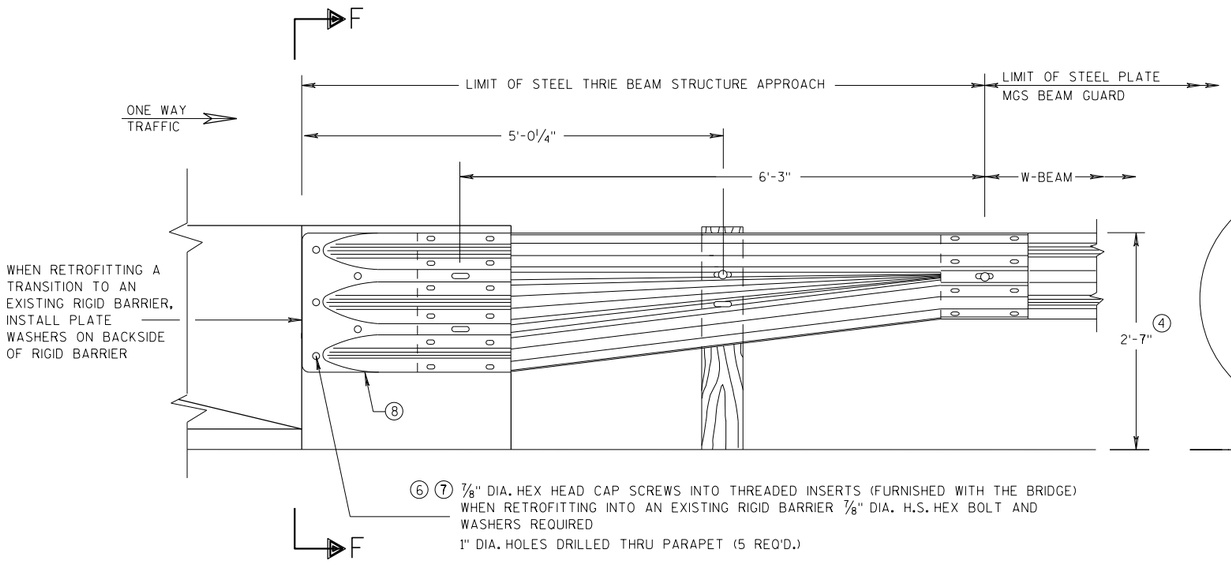
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

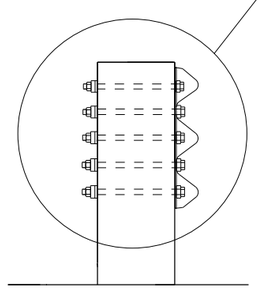
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

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

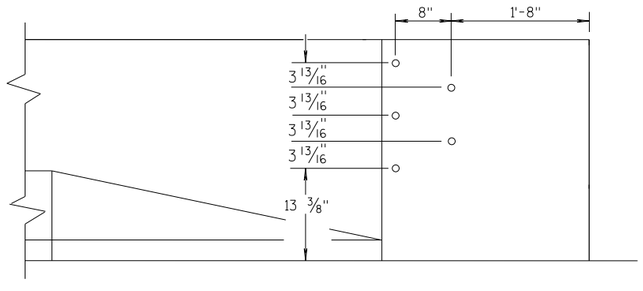




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

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GENERAL NOTES

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

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

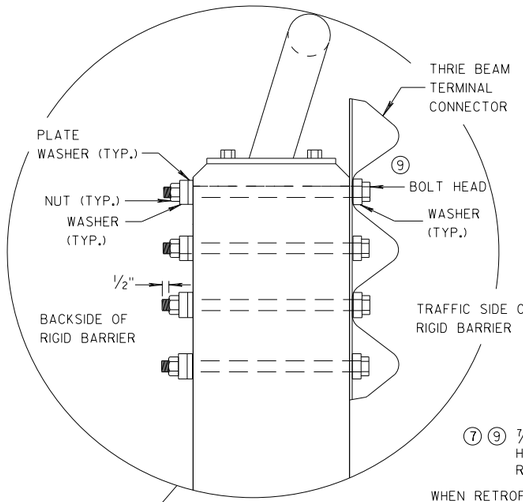
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

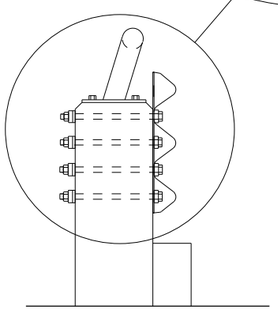
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

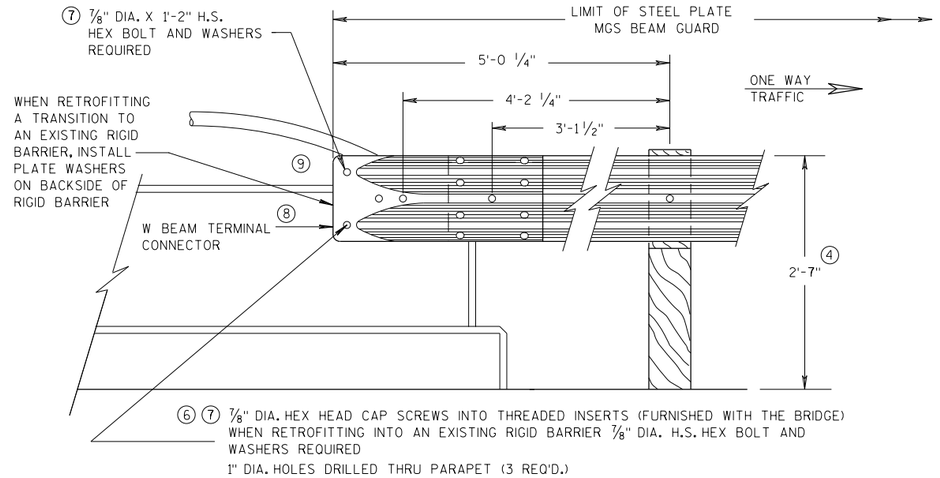
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

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





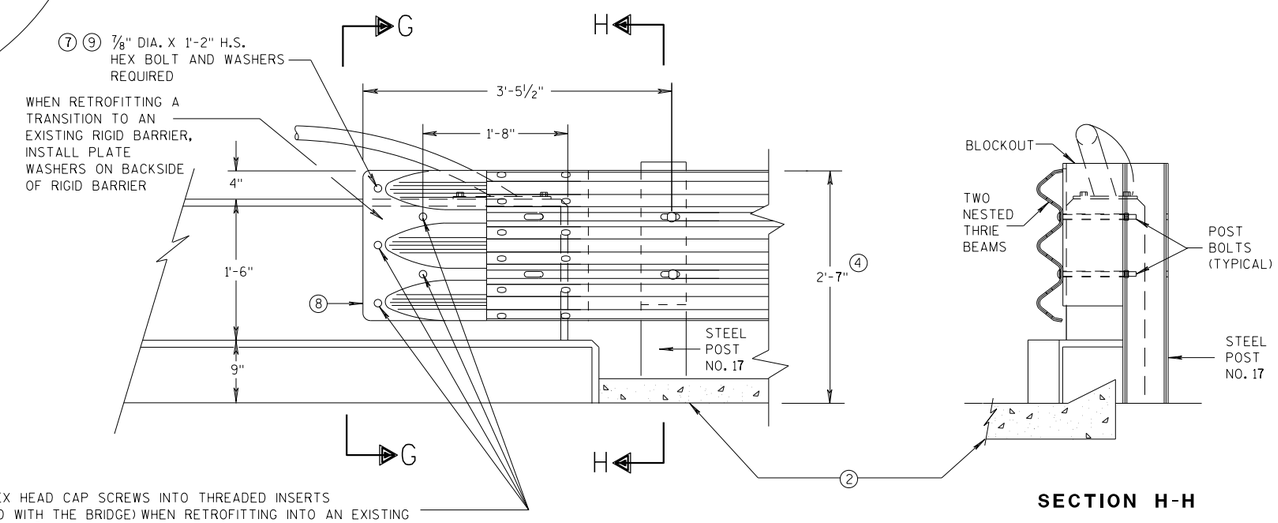
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
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FHWA

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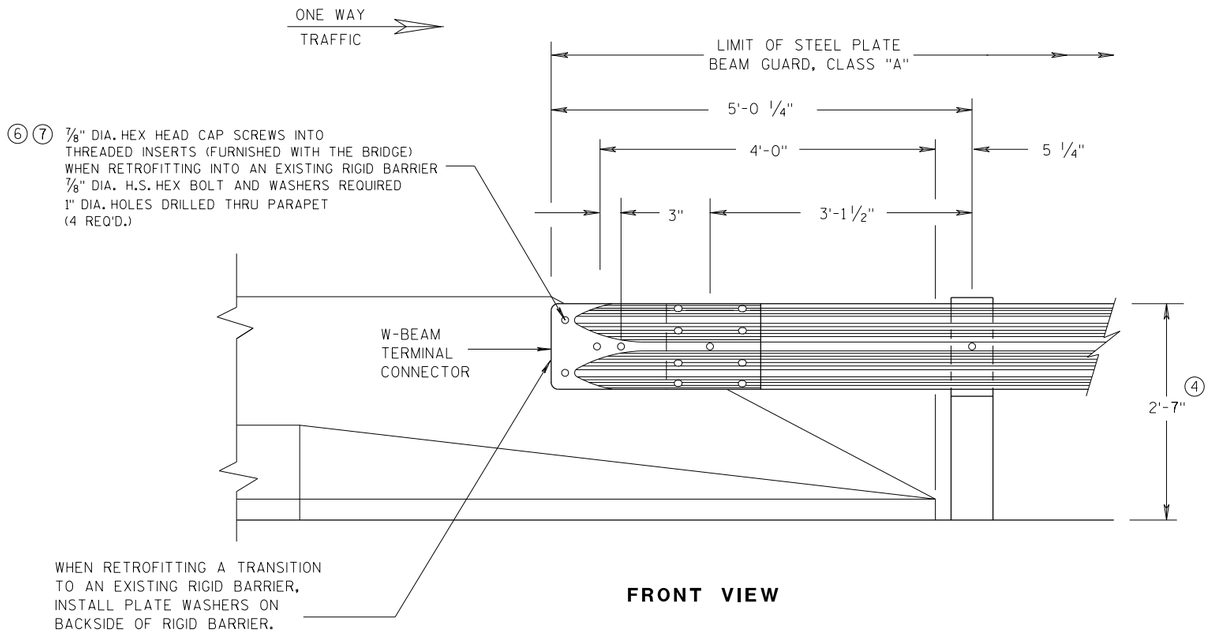
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

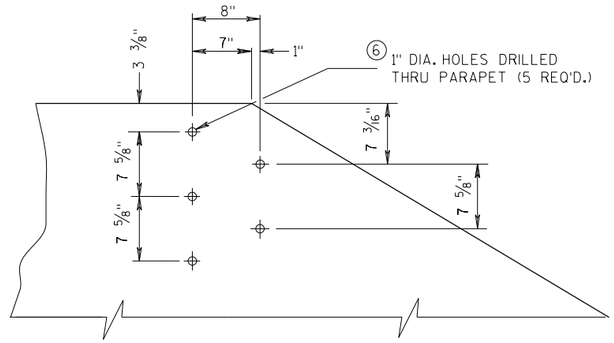
GENERAL NOTES

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

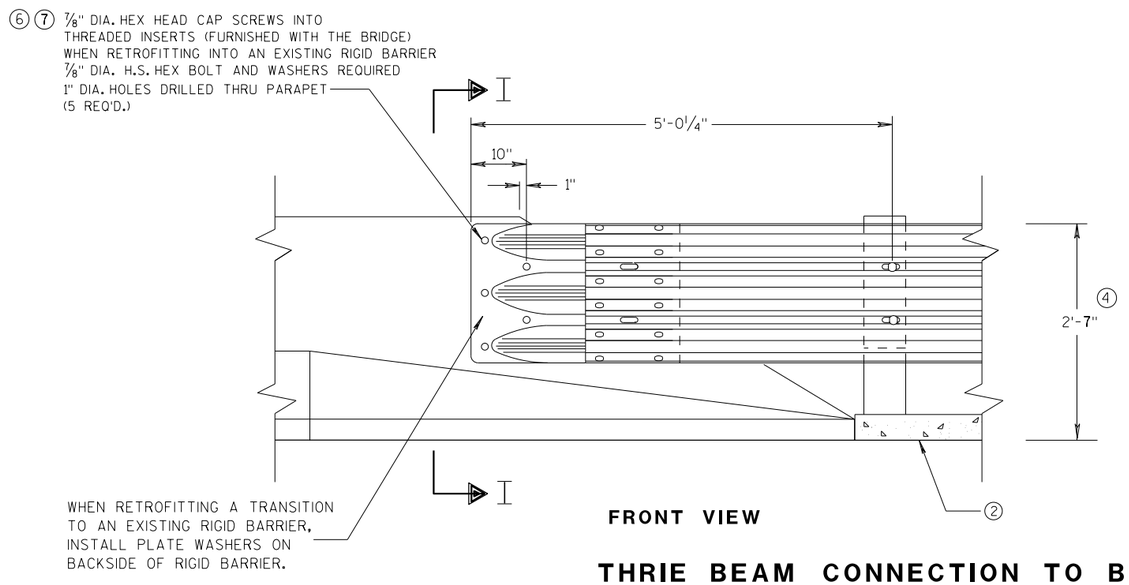
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

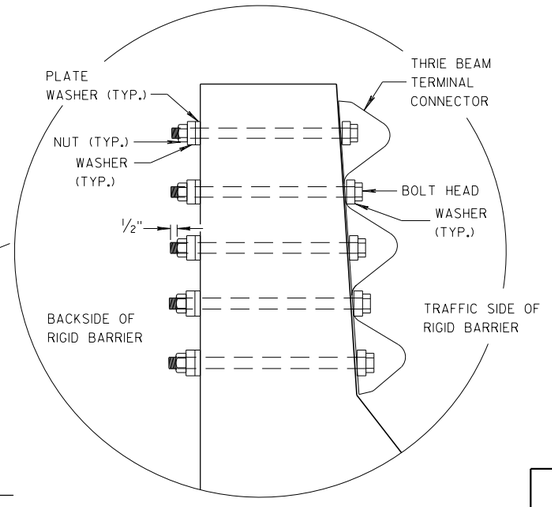


DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW

SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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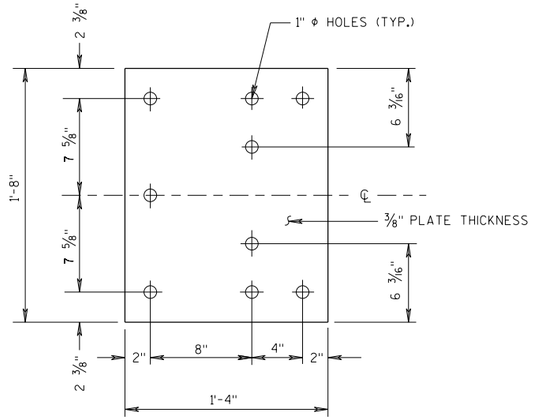
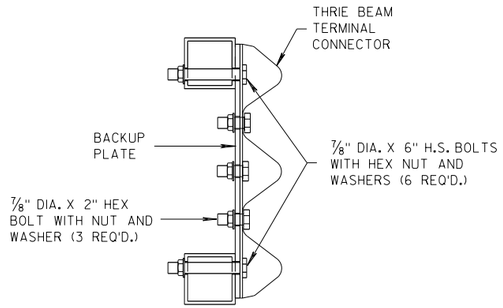
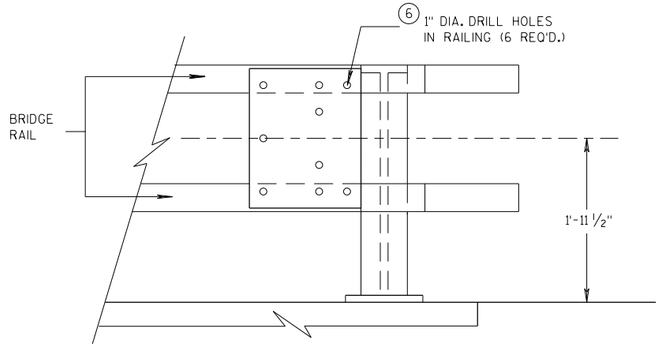
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

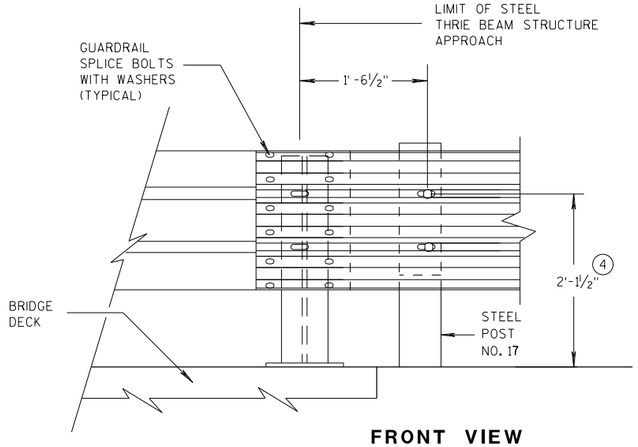


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

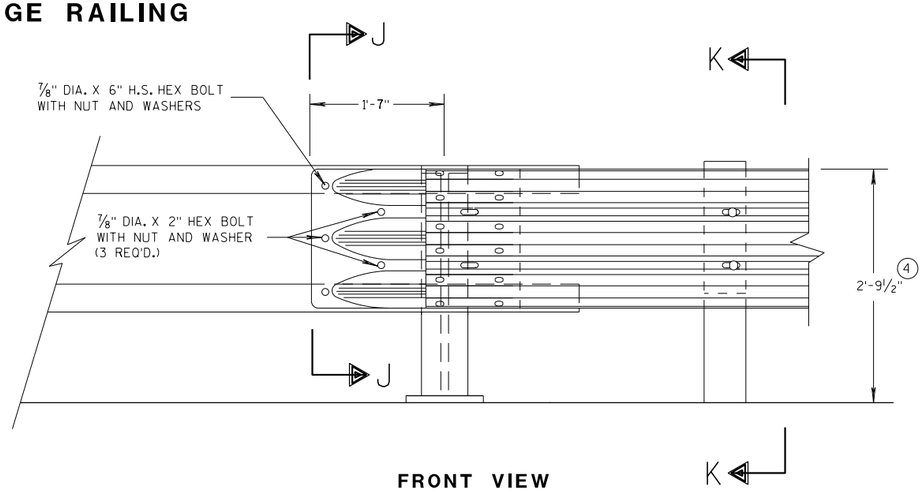
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

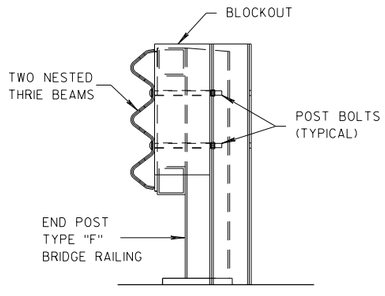


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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

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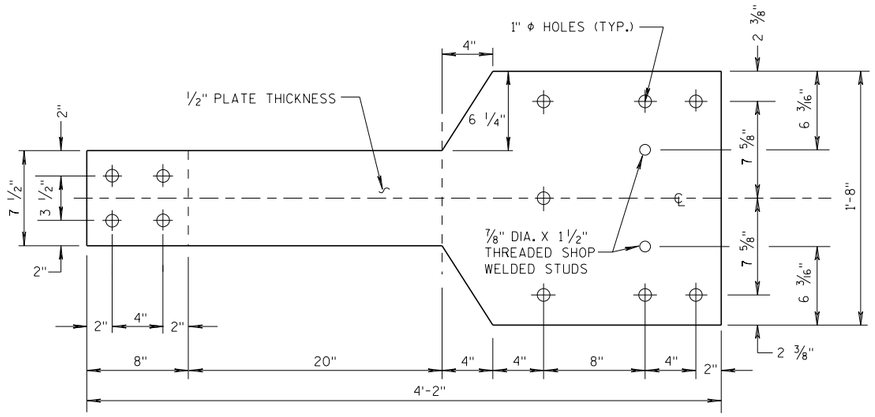
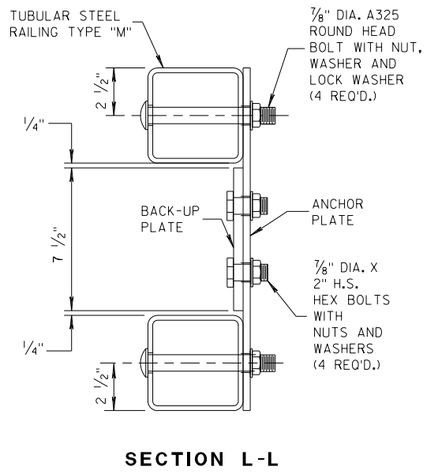
S.D.D. 14 B 45-5g

GENERAL NOTES

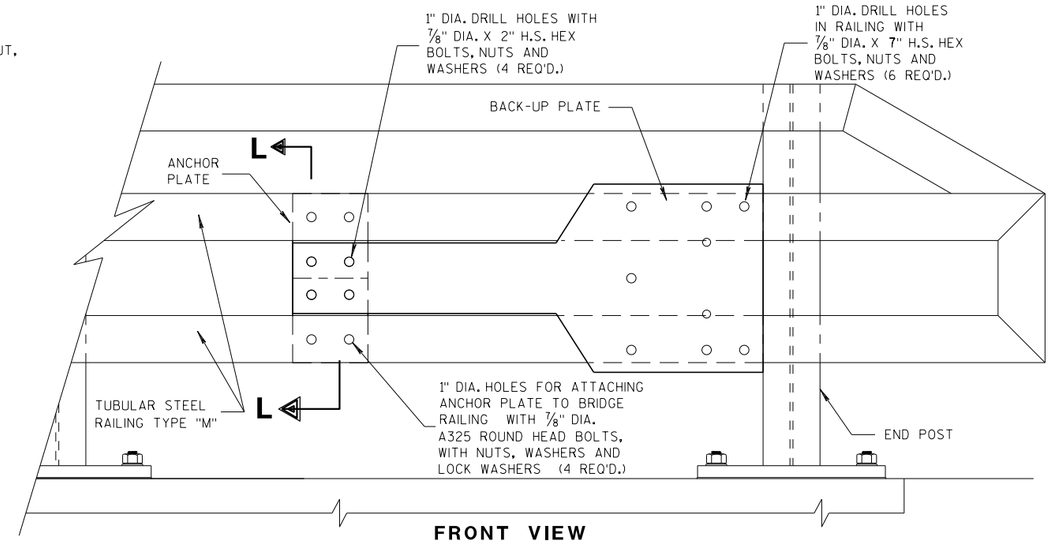
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



FRONT VIEW

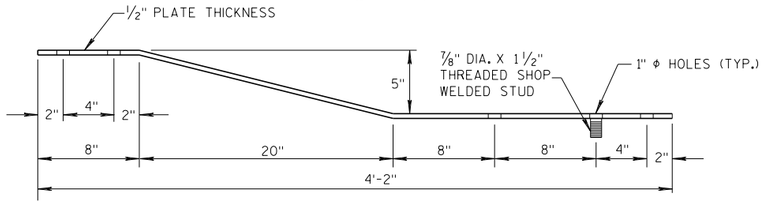


SECTION L-L



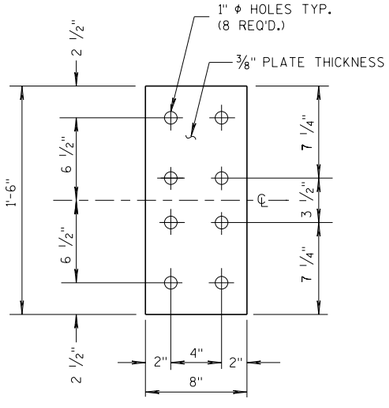
FRONT VIEW

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



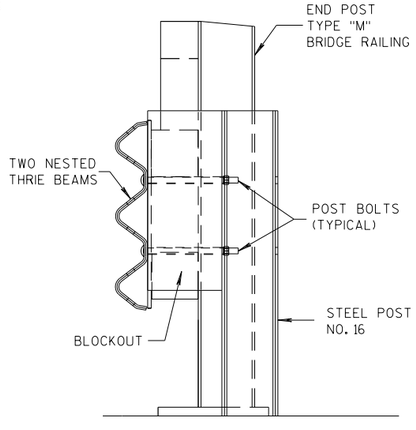
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

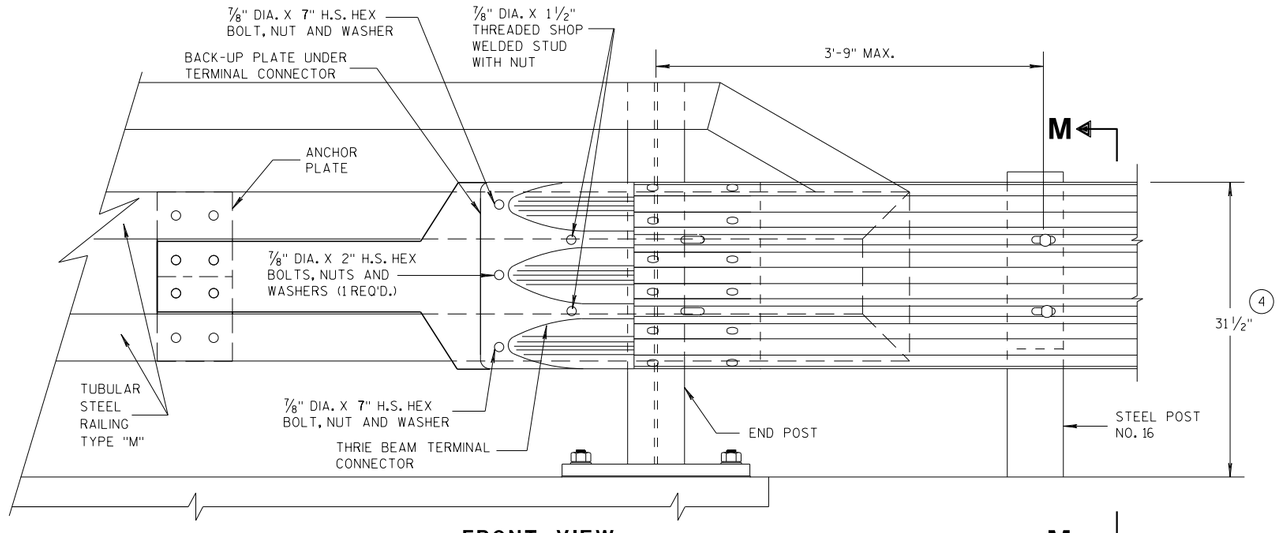


FRONT VIEW

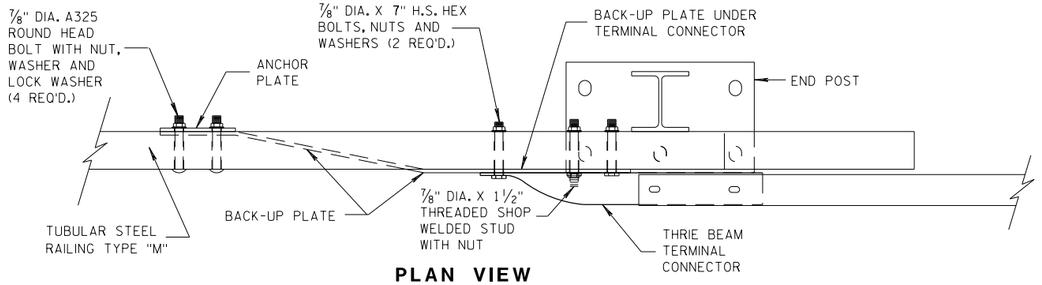
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA

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

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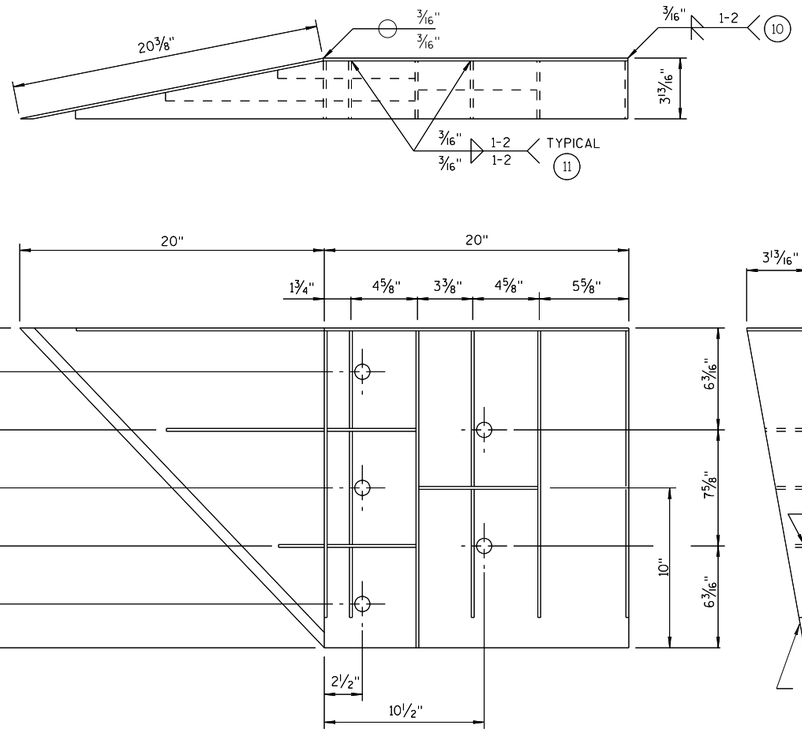
S.D.D. 14 B 45-5h



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

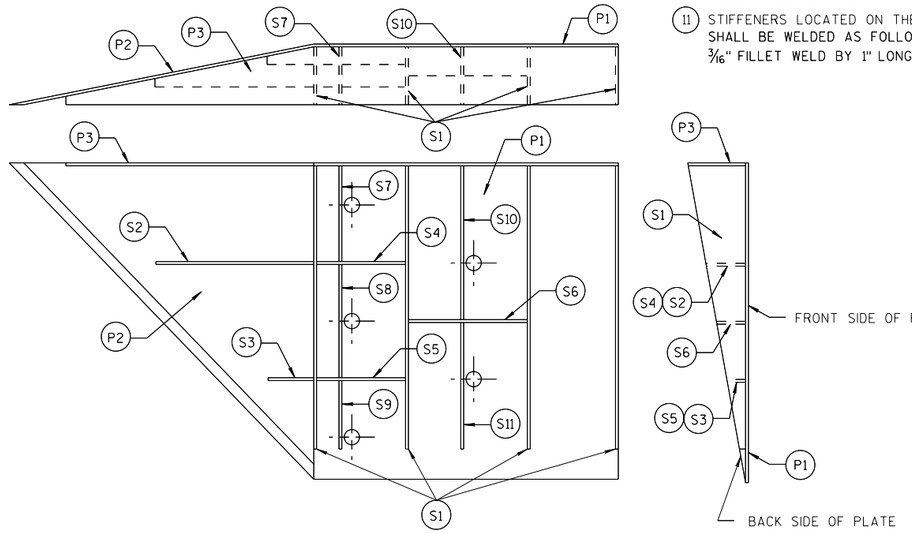


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

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

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

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ROADWAY STANDARDS I
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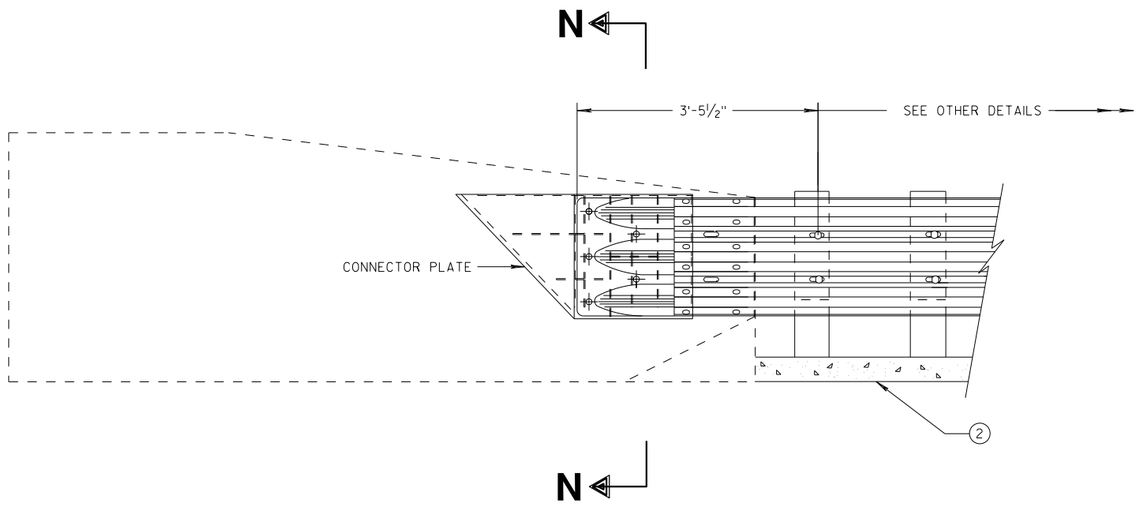
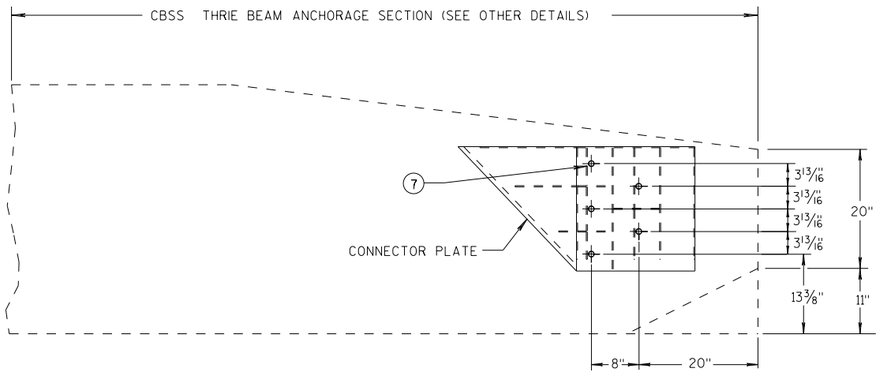


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



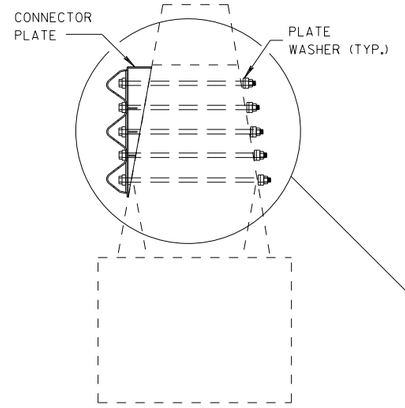
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

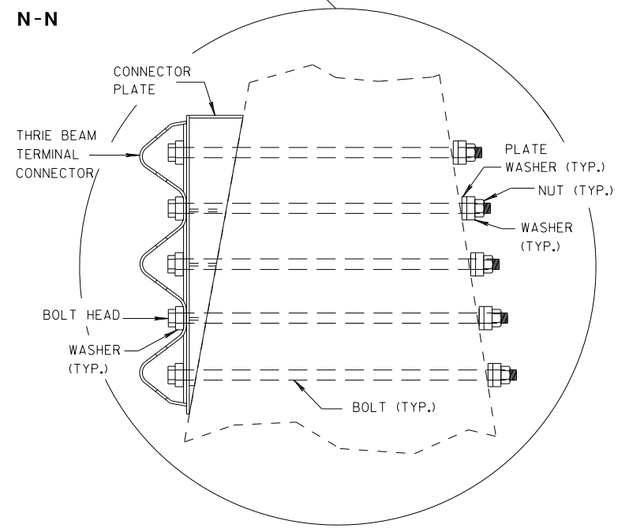
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS DI
UNIT SUPERVIS

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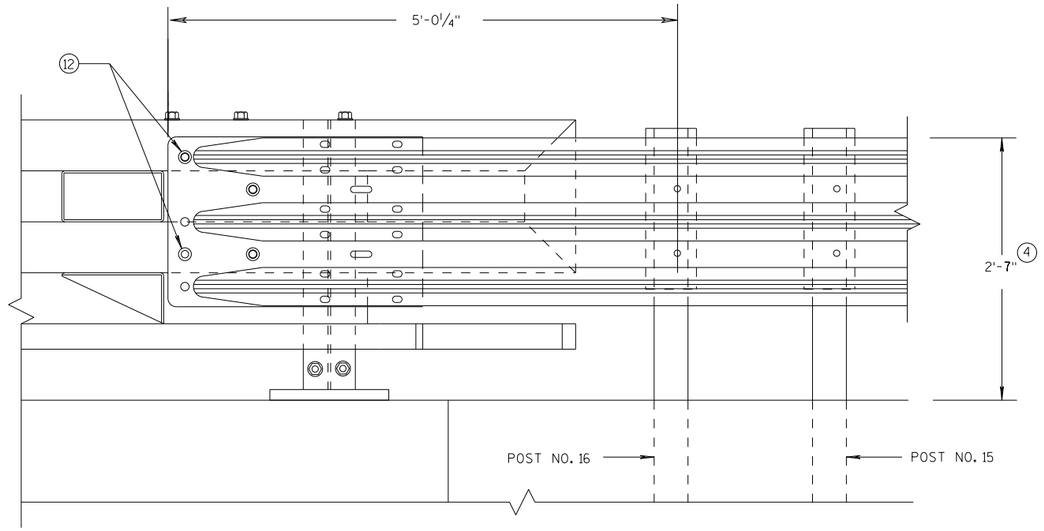
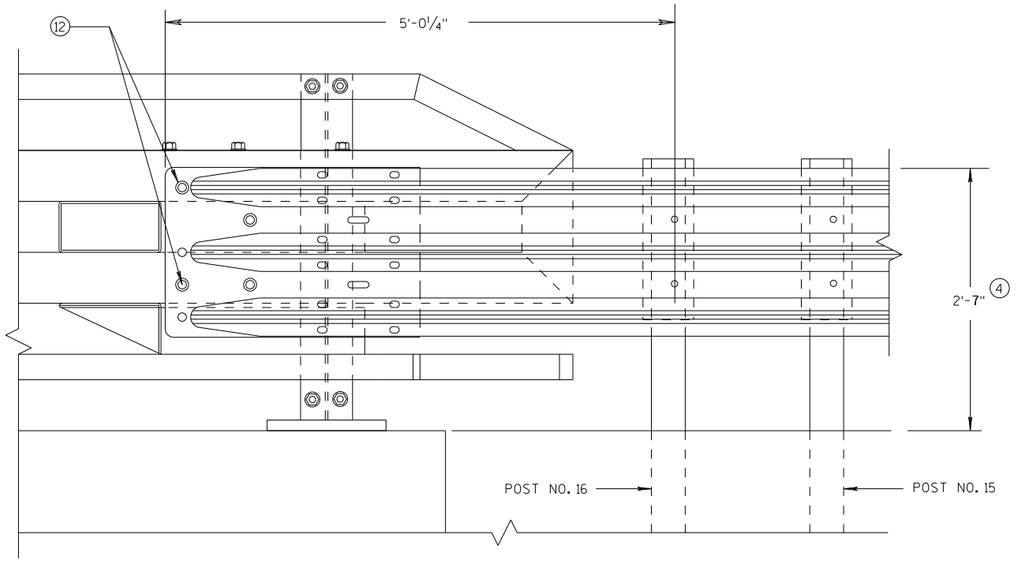


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Rodney Taylor
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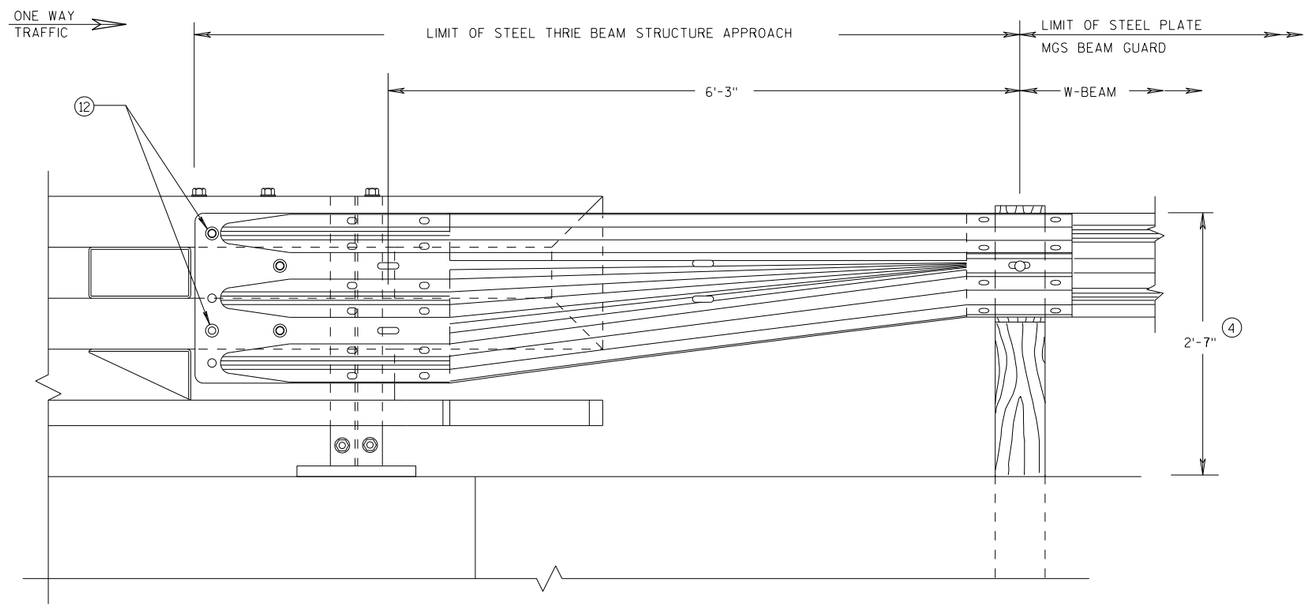


FRONT VIEW

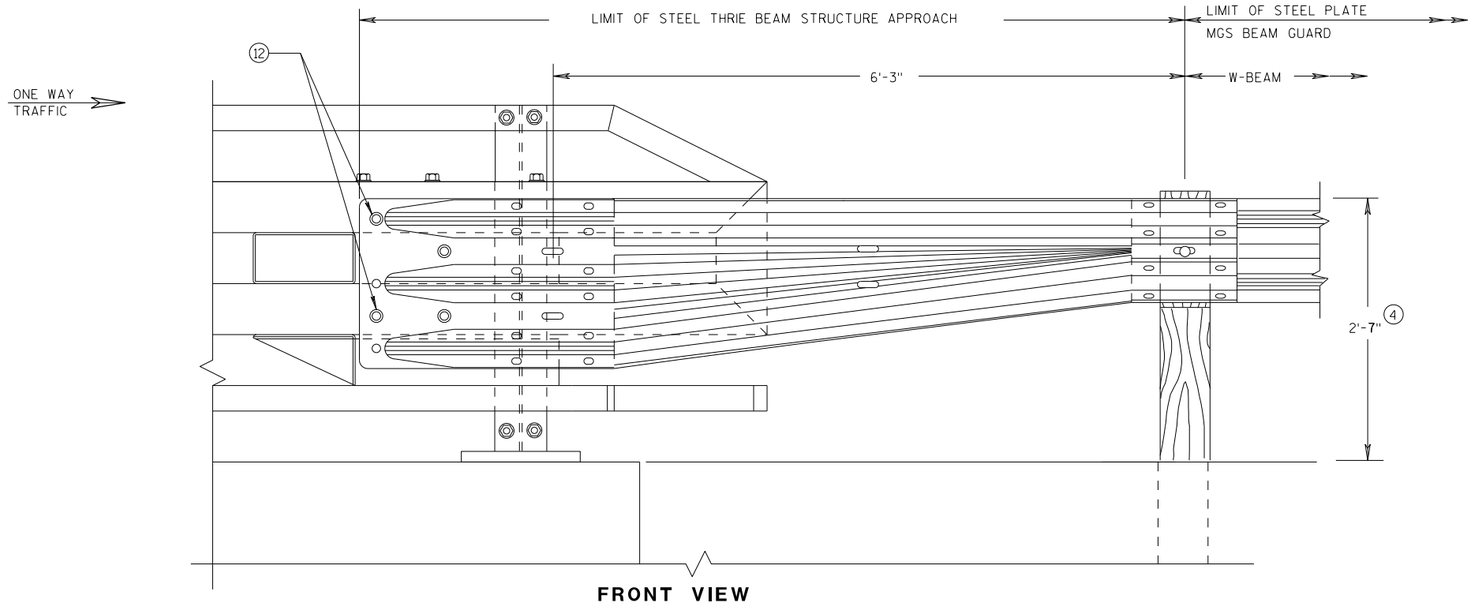
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

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



FRONT VIEW

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

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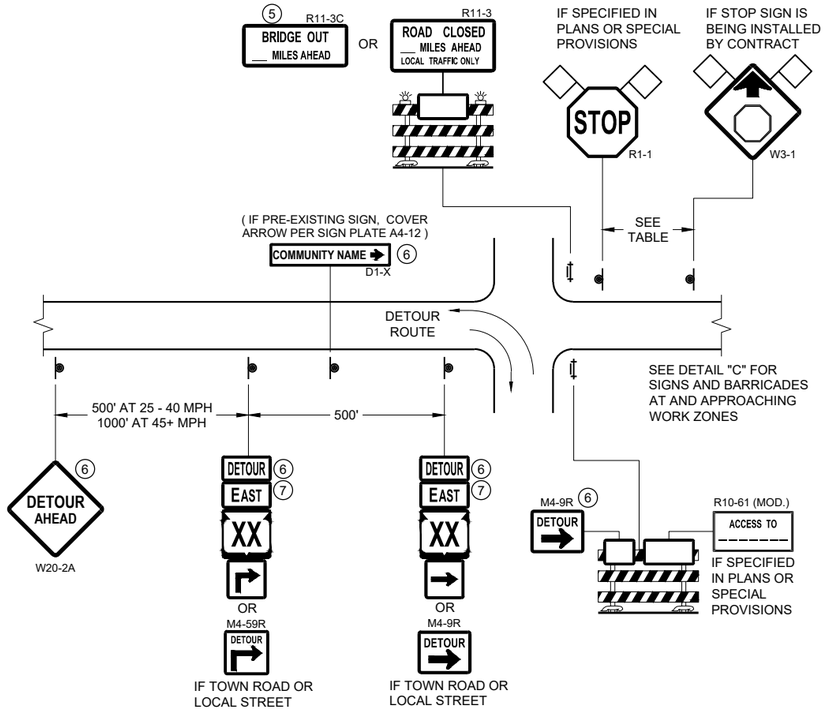
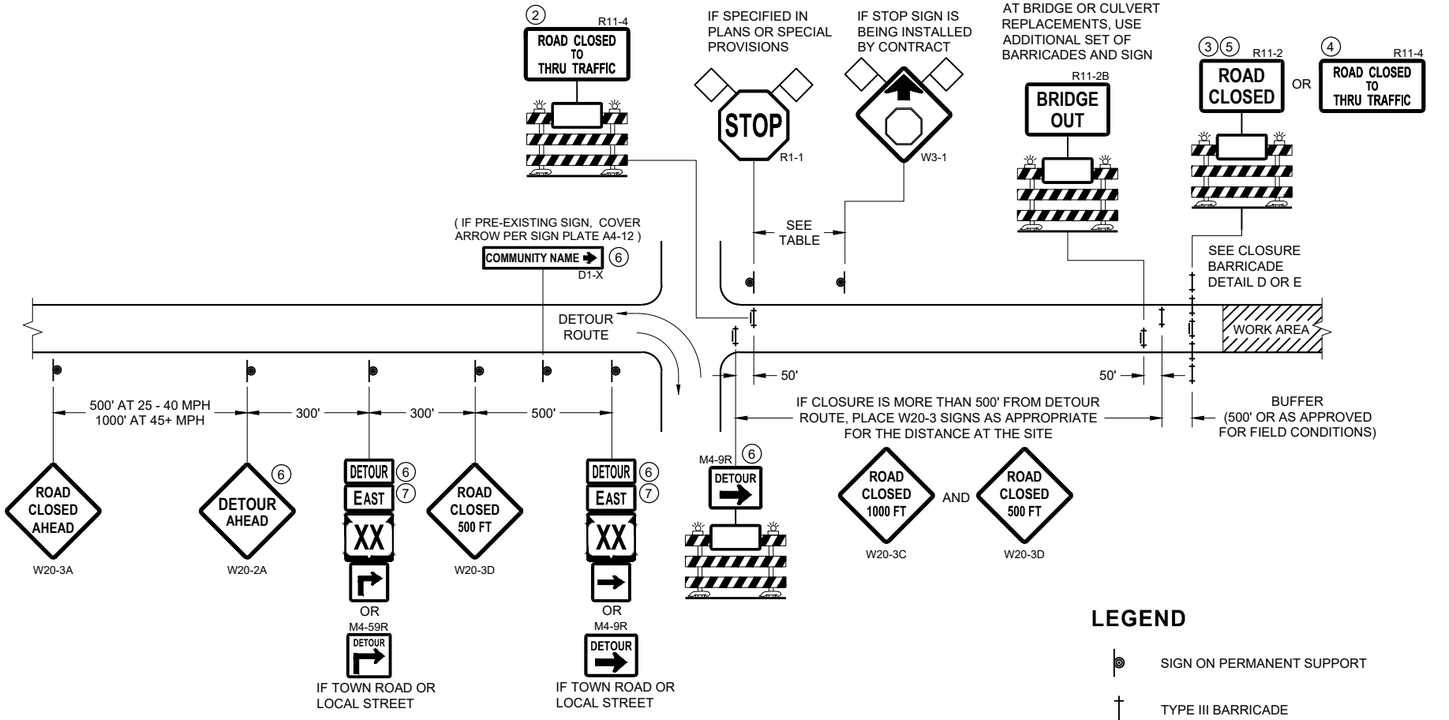


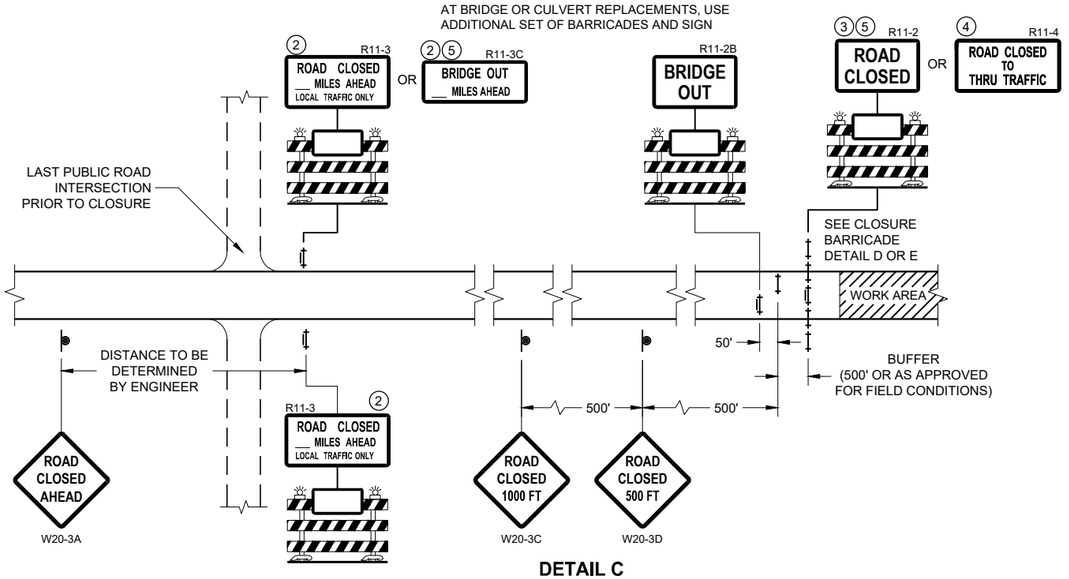
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

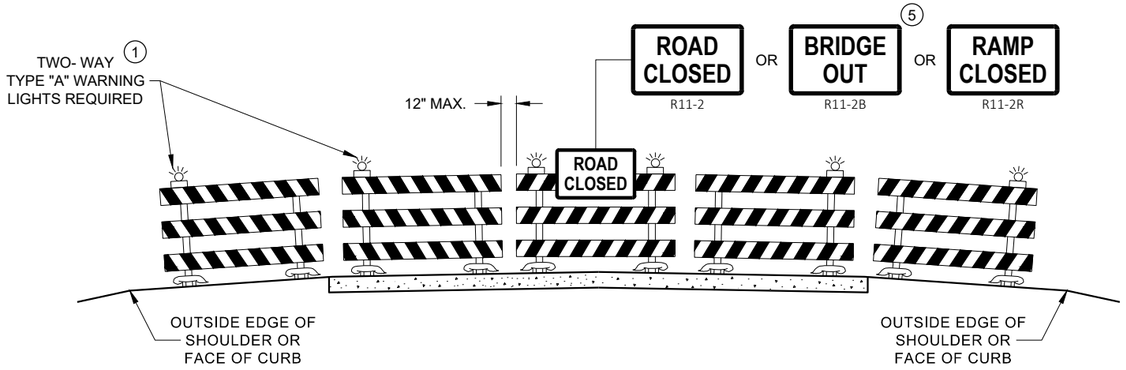
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

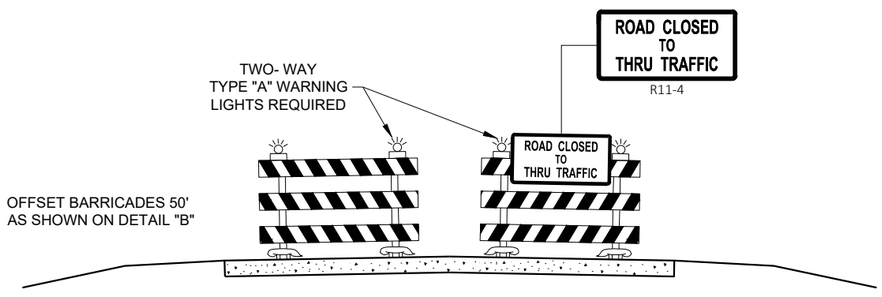
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 07a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 07b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

DETOUR EAST XX *
D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST XX *

DETOUR EAST XX / WEST XX

DETOUR ROUTE

WORK AREA

DETOUR EAST XX

WEST XX OR M4-9L DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR NEXT X MILES * G20-51

DETOUR WEST XX * OR M4-59L DETOUR ** IF TOWN ROAD OR LOCAL STREET

MATCH POINT

* M4-59L DETOUR ** OR DETOUR EAST XX * IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME * (IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR DETOUR EAST XX IF TOWN ROAD OR LOCAL STREET

500'

DETOUR WEST XX

DETOUR WEST XX OR M4-9R DETOUR ** IF TOWN ROAD OR LOCAL STREET

DETOUR WEST XX * OR M4-59R * DETOUR ** IF TOWN ROAD OR LOCAL STREET

500'

DETOUR ROUTE

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

DETOUR EAST XX *

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX

500'

DETOUR EAST XX

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR EAST XX *

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

DETOUR EAST XX *

EAST XX M3-X 24" X 12" M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

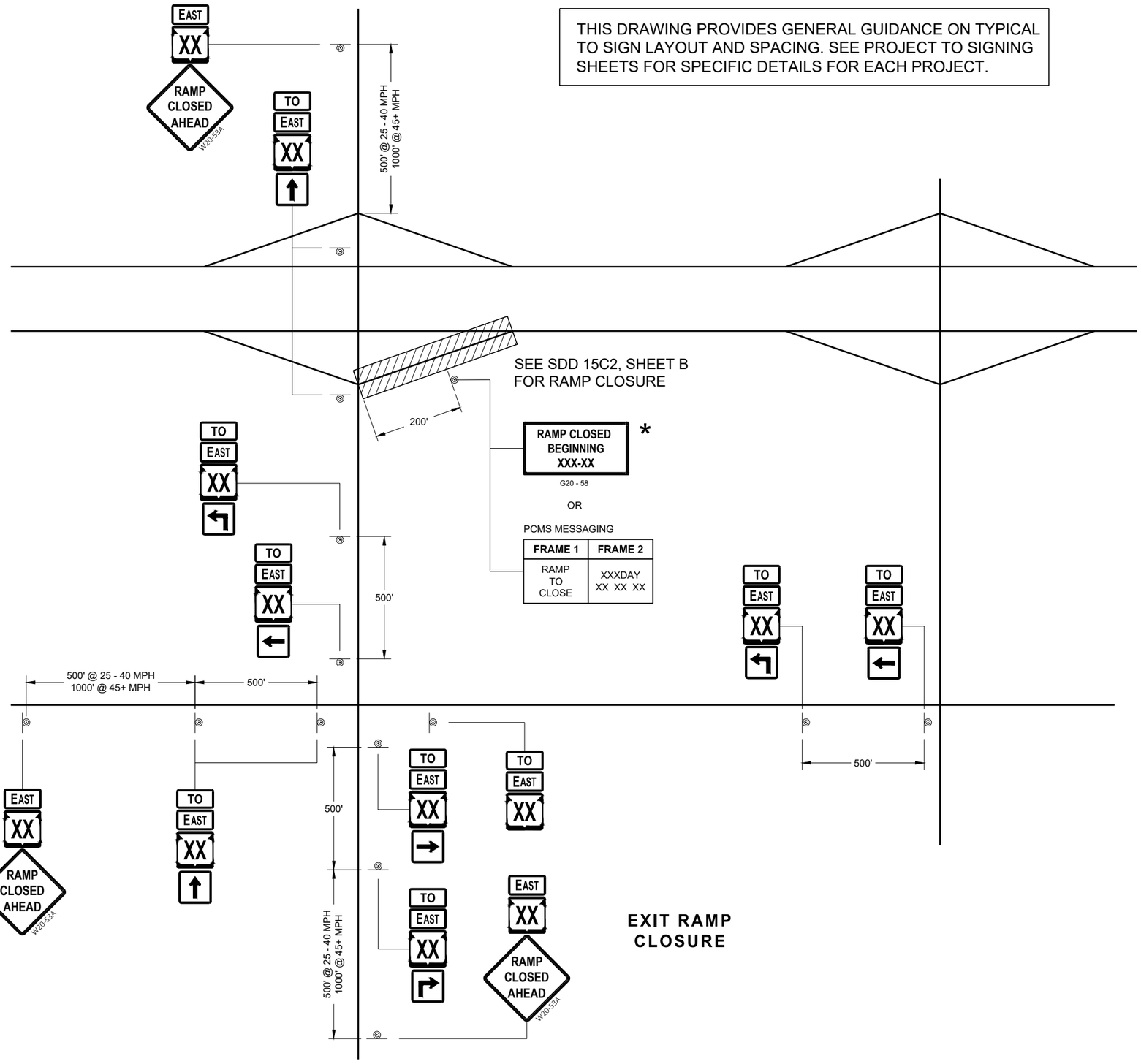
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 07c

6

SDD 15C02 - 07c



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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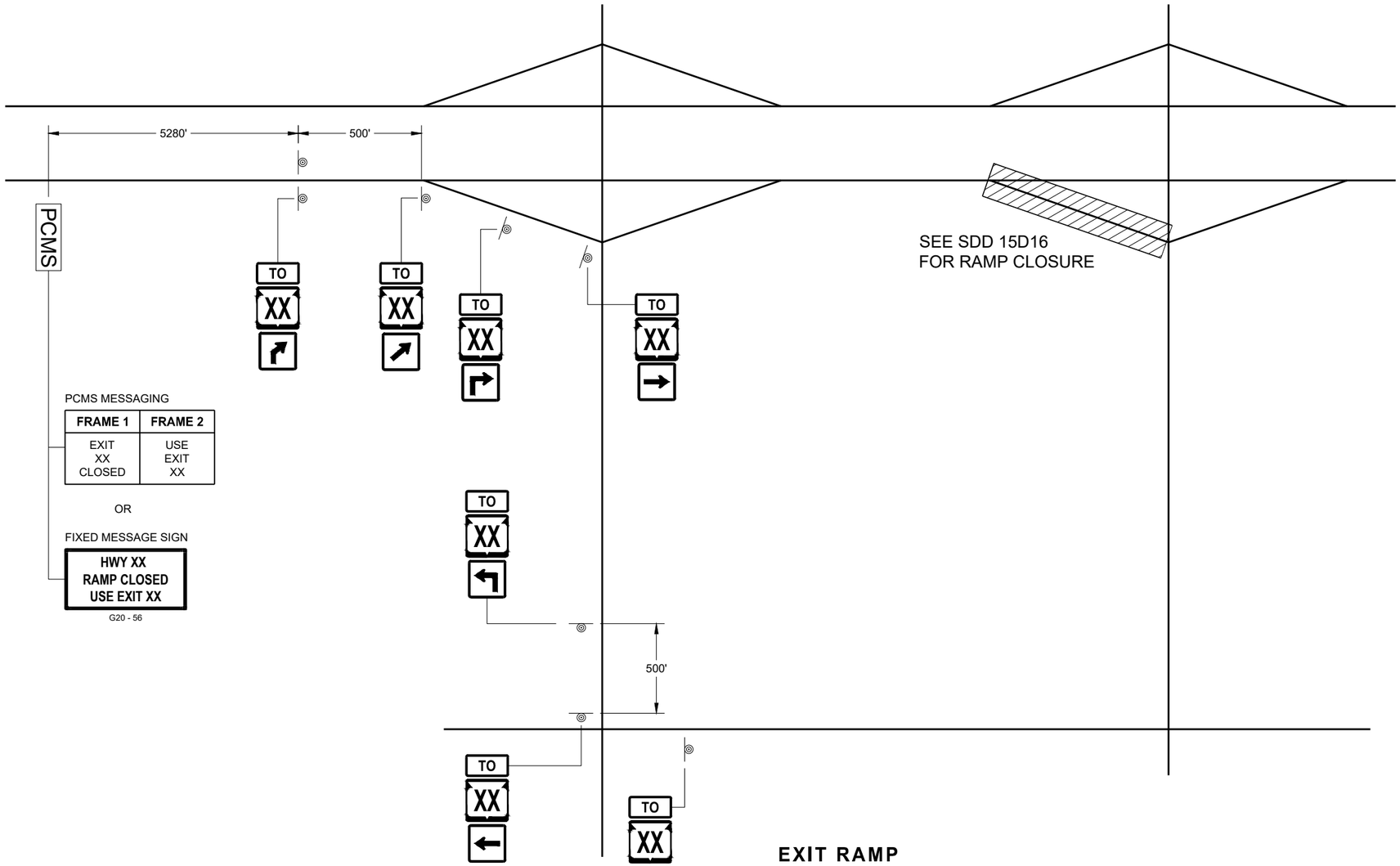
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

EXIT RAMP CLOSURE

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:

MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
M1 - 4, M1 - 5A, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

OFF RAMP LANE CLOSURE

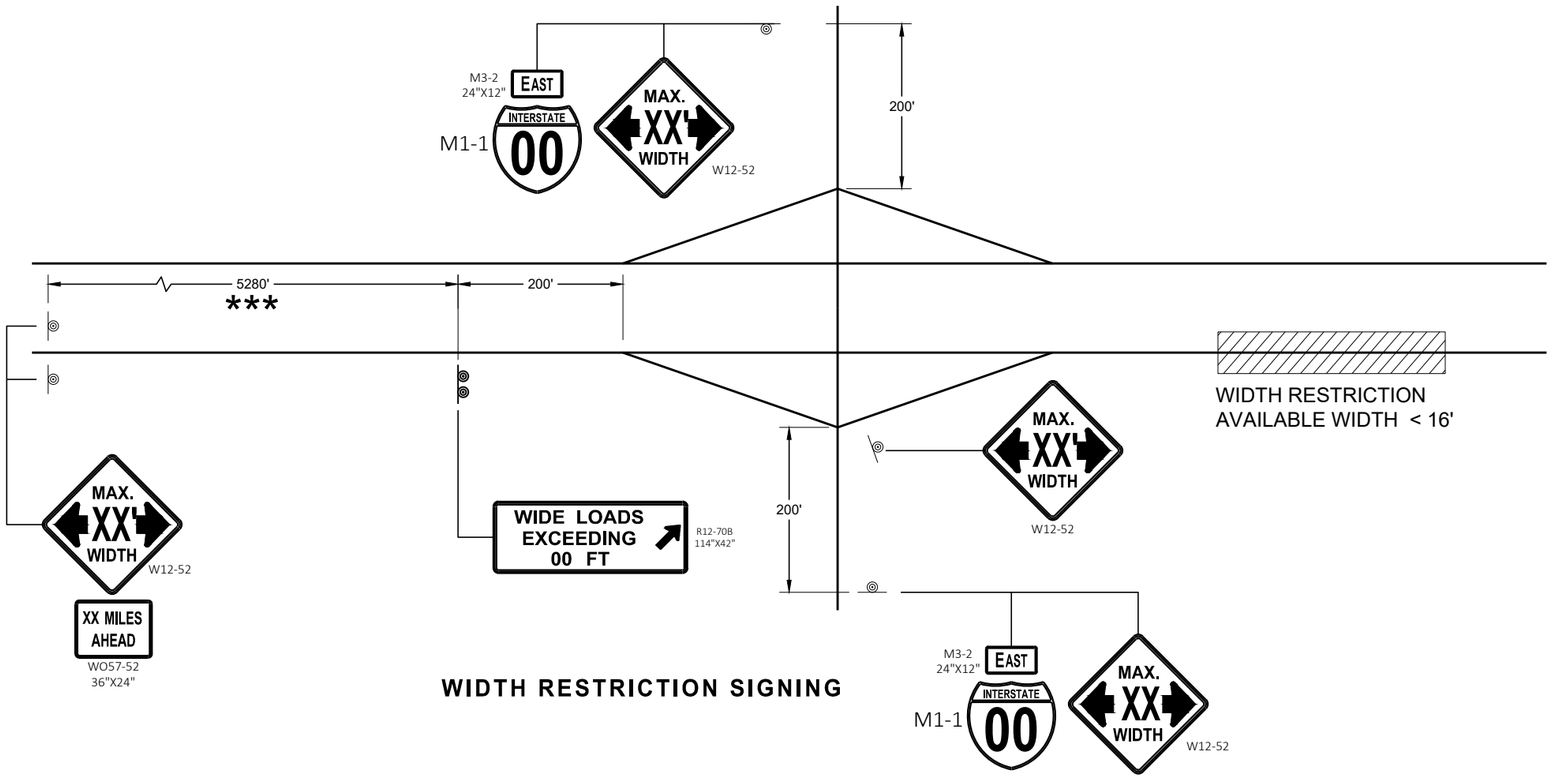
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

SDD 15C02 - 07e

SDD 15C02 - 07e



WIDTH RESTRICTION SIGNING

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

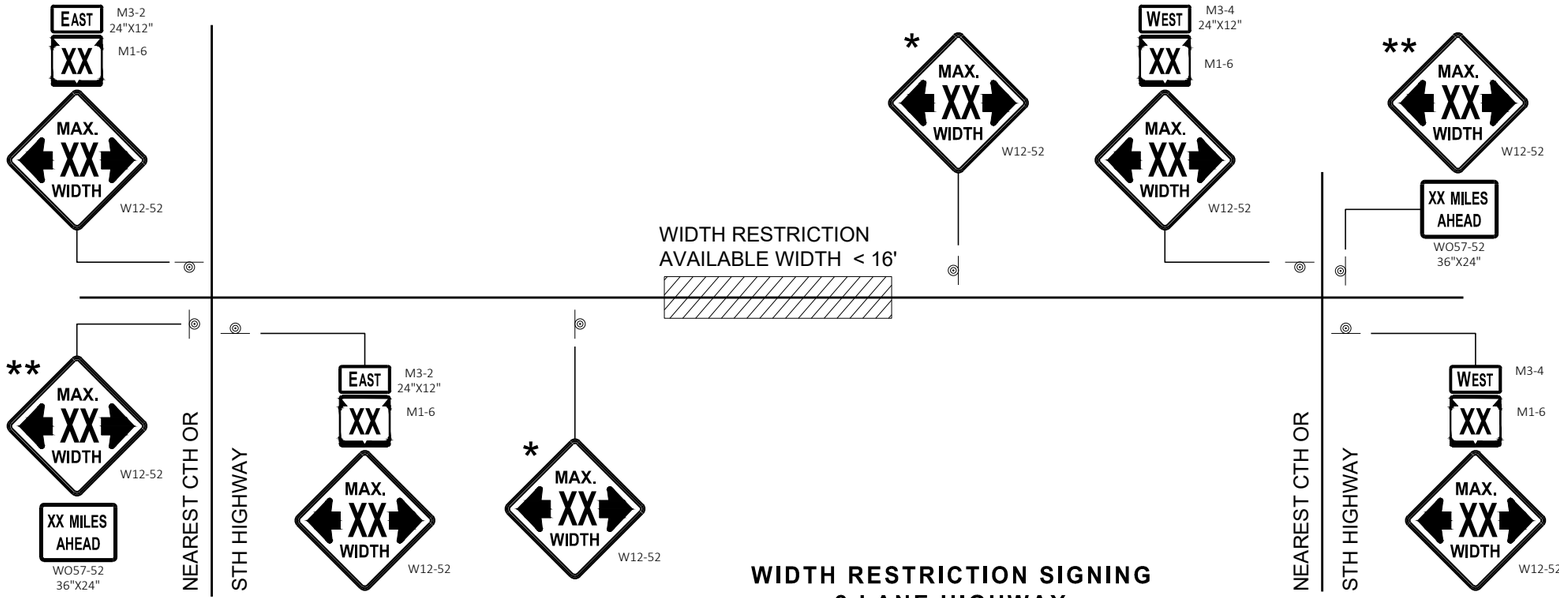
WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

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

** SIGN SHALL BE VISIBLE FROM ROADWAY.

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

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



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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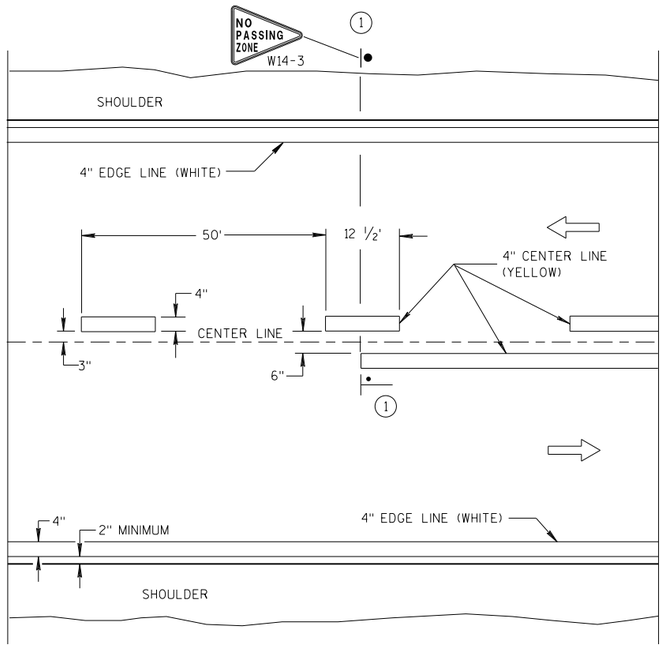
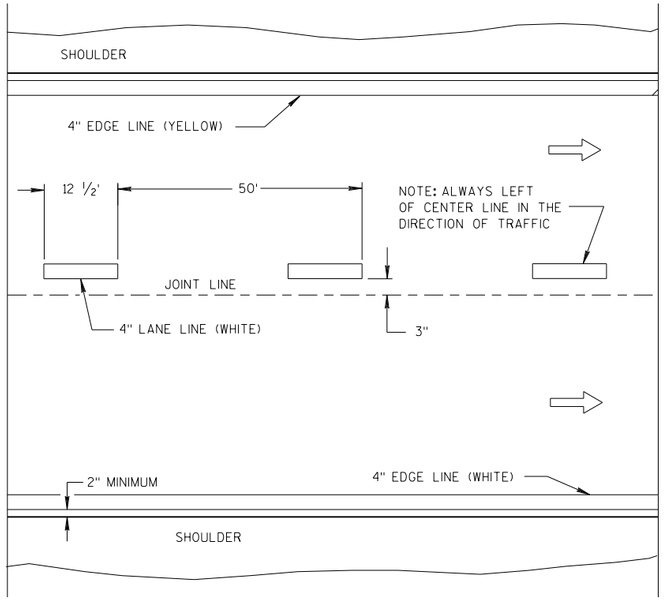
SDD 15C02 - 07f



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT 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.

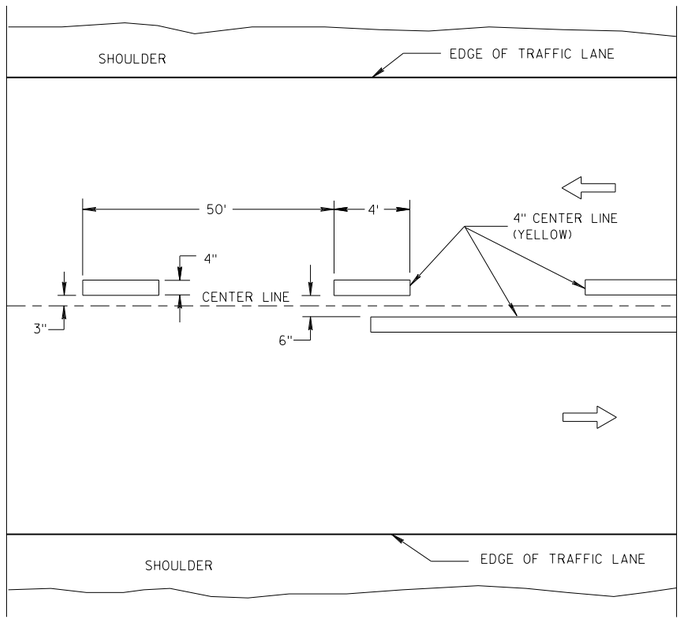
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

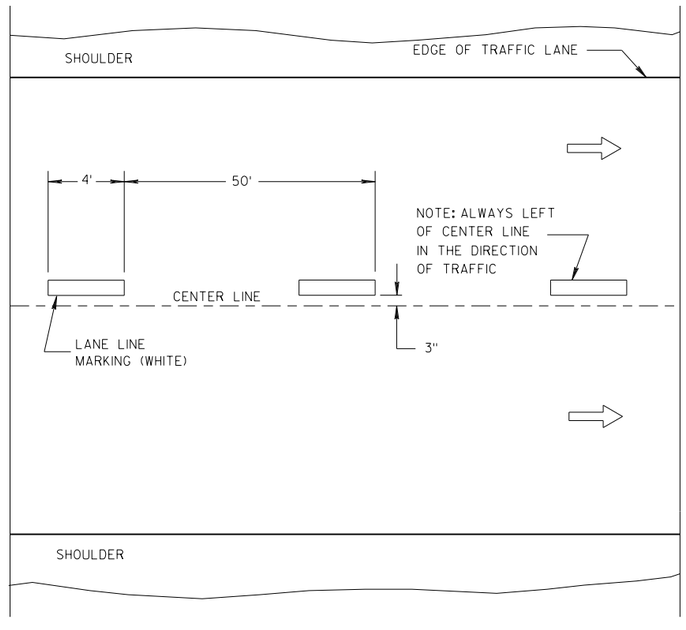
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 8-19a

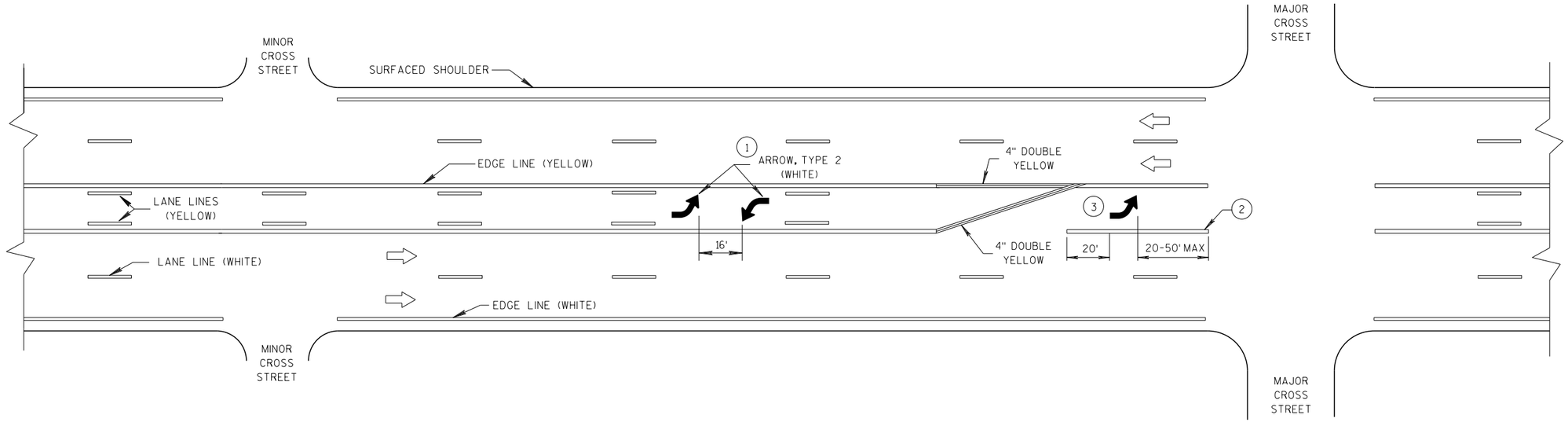
6

S.D.D. 15 C 8-19a

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

PAVEMENT MARKING (TURN LANES)

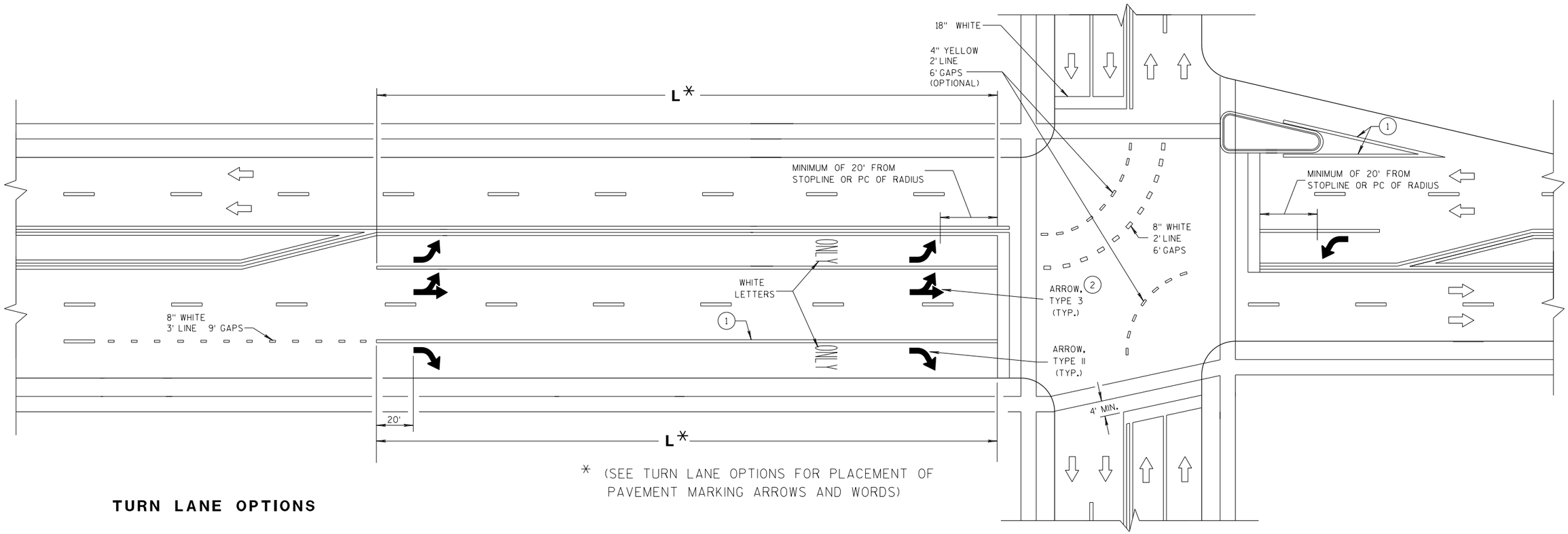
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-19b

6

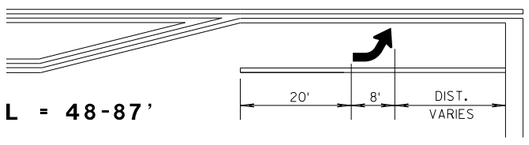
S.D.D. 15 C 8-19b



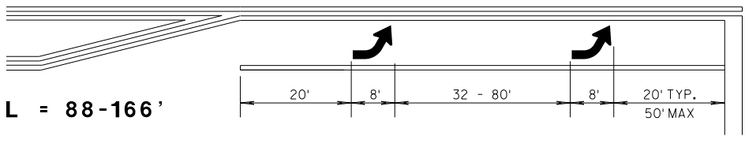
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

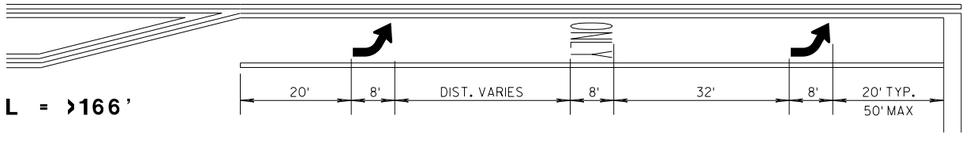
LENGTH OF TURN BAY (**L**) OF 0-47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48-87'



L = 88-166'



L = >166'

GENERAL NOTES

(1) 8" WHITE

(2) QUANTITY AND LOCATION OF TYPE 3 ARROW ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION, THE ARROWS AND ONLY MARKING ARE ELIMINATED.

⇨ DIRECTION OF TRAFFIC

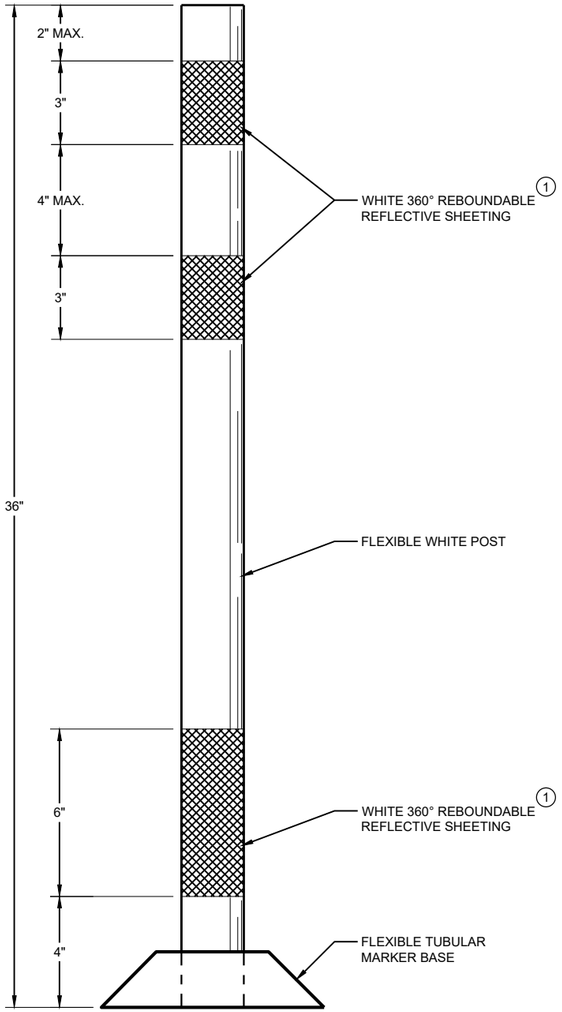
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

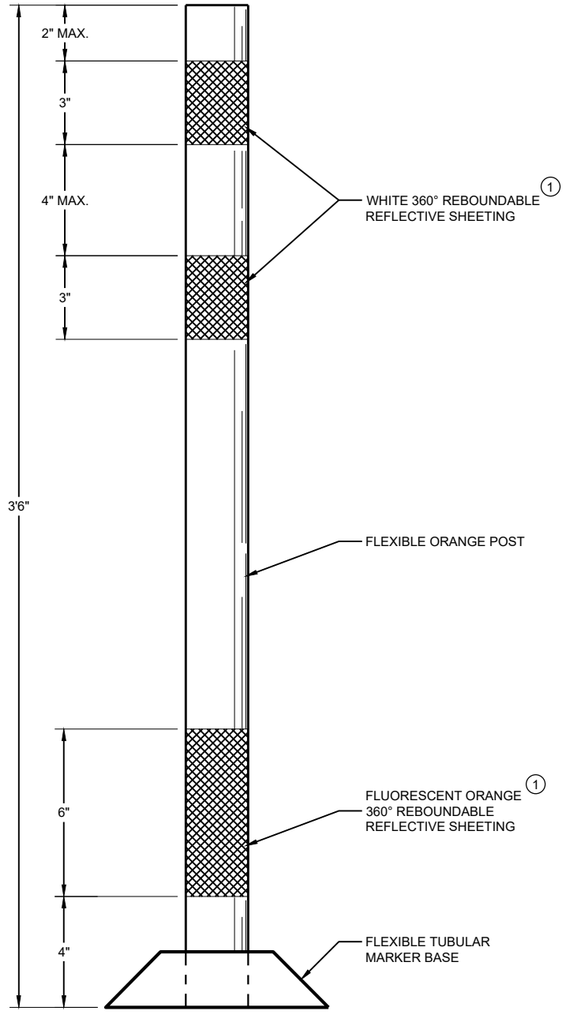
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORT

6

S.D.D. 15 C 8-19c



FLEXIBLE TUBULAR MARKER POST PERMANENT CROSSOVER



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

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

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

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

6

SDD 15C11 - 07a

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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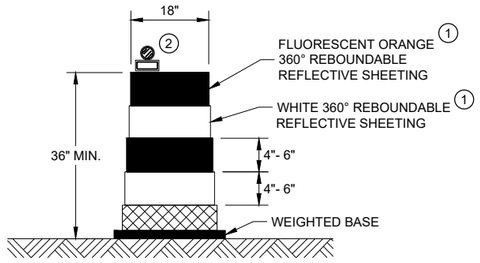
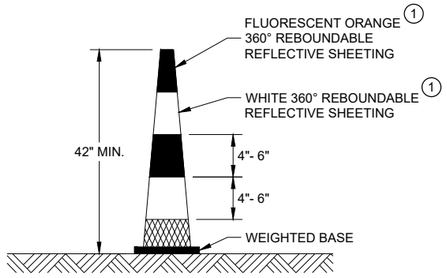
SDD 15C11 - 07a

GENERAL NOTES

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

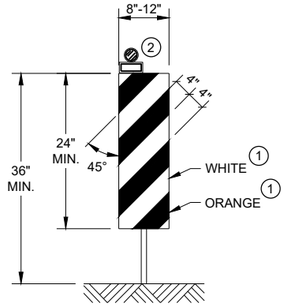


DRUM



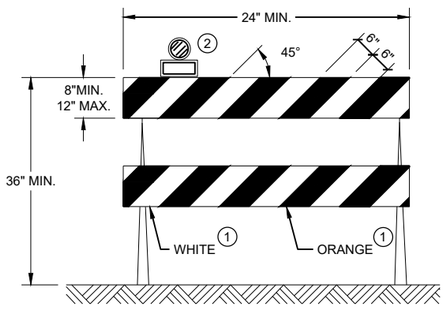
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



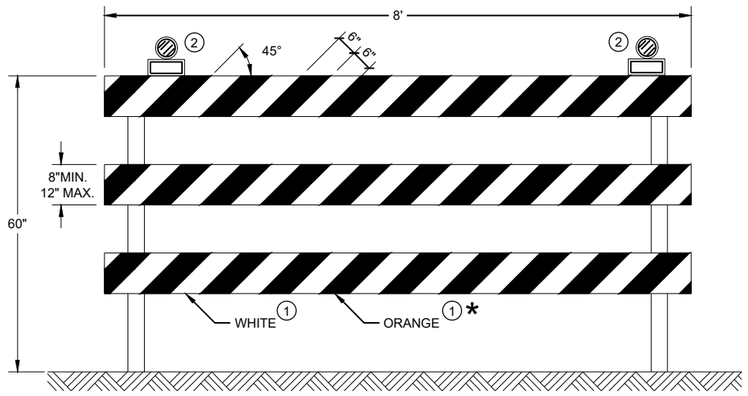
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
FHWA

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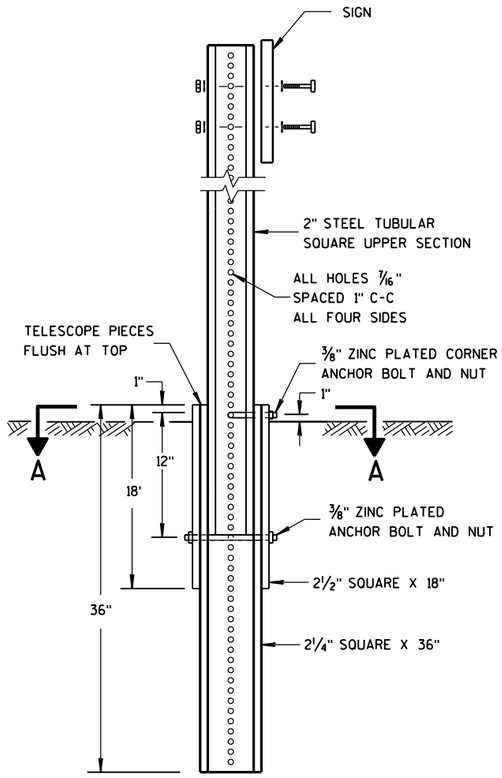
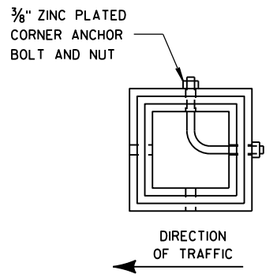
SDD 15C11 - 07b

6

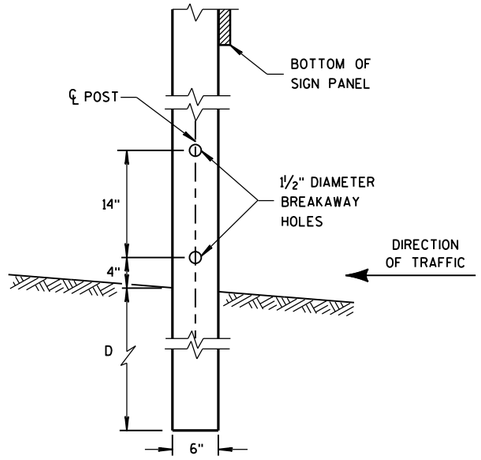
SDD 15C11 - 07b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



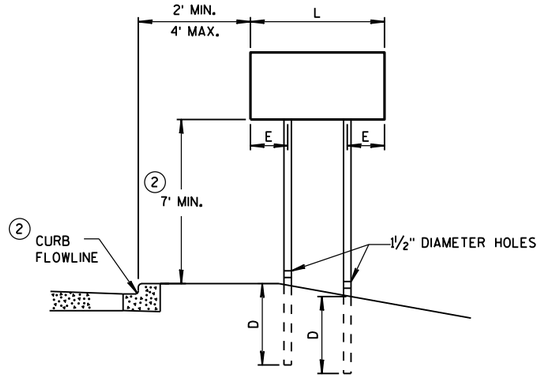
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

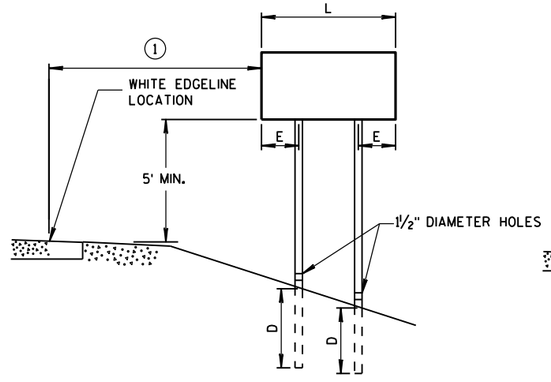
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

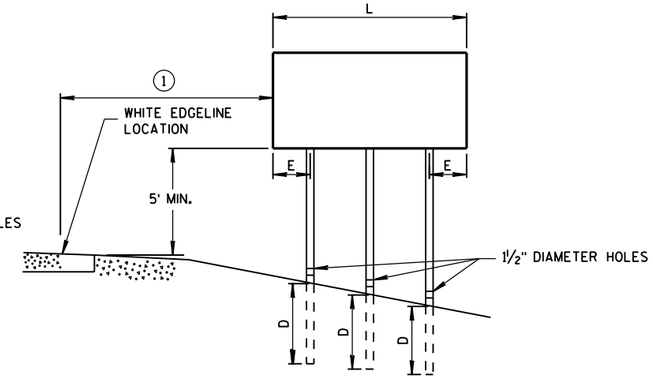
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL 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).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

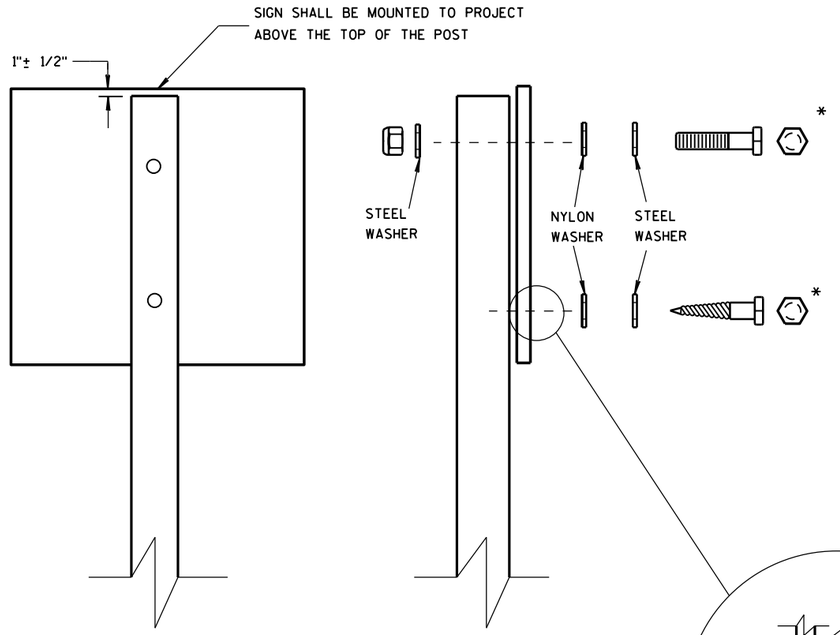
SEE NOTE (3)

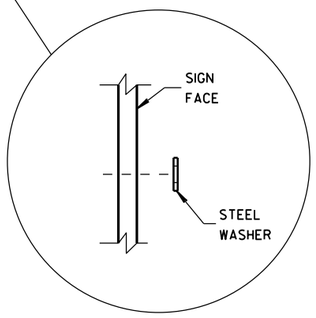
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

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

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

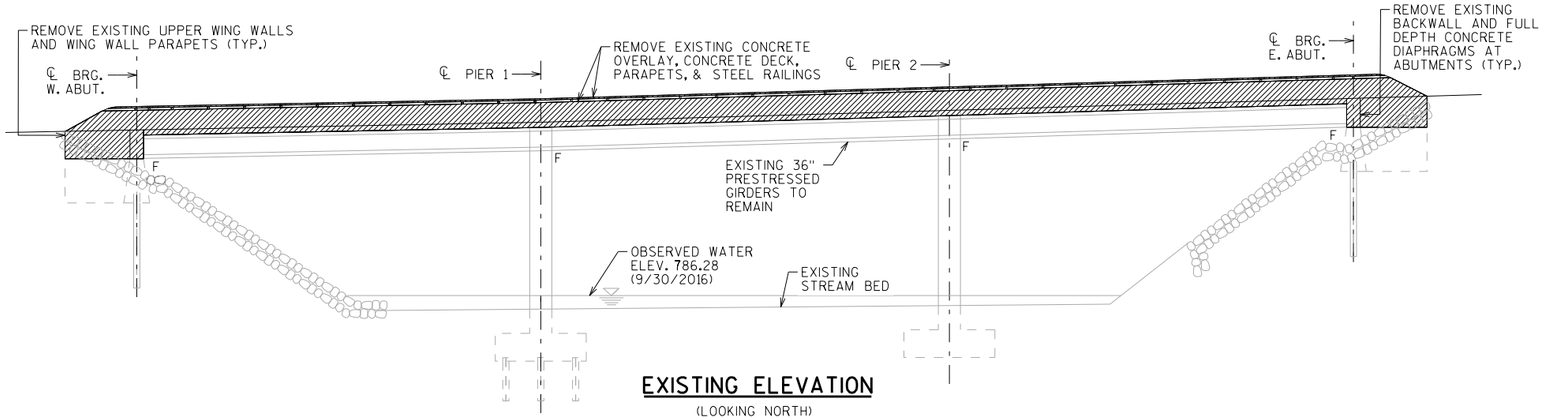
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

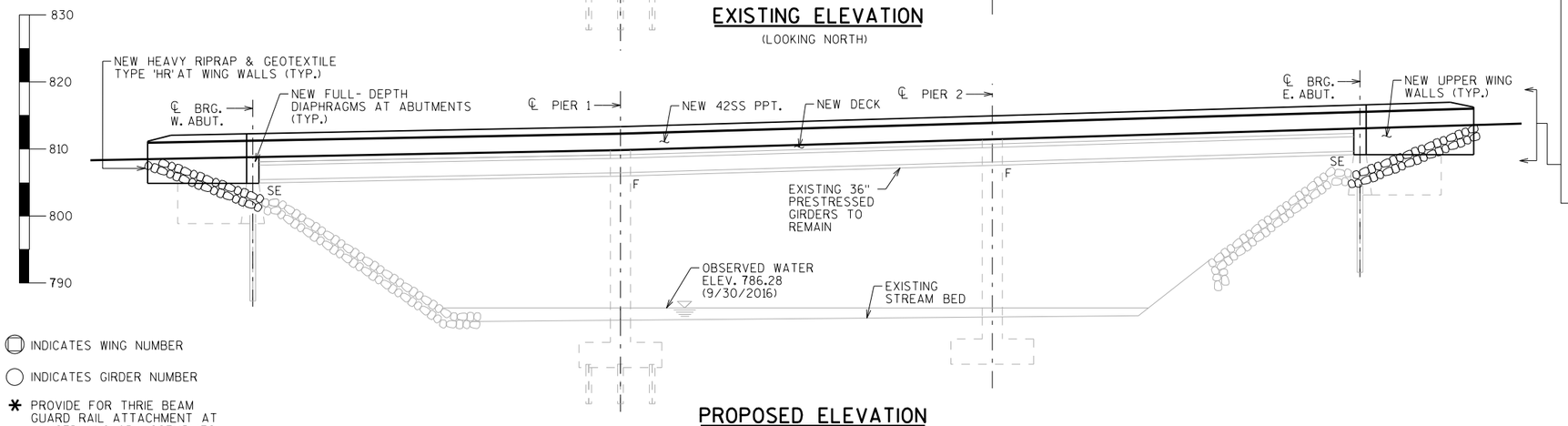
STATE PROJECT NUMBER

5590-00-81



EXISTING ELEVATION

(LOOKING NORTH)



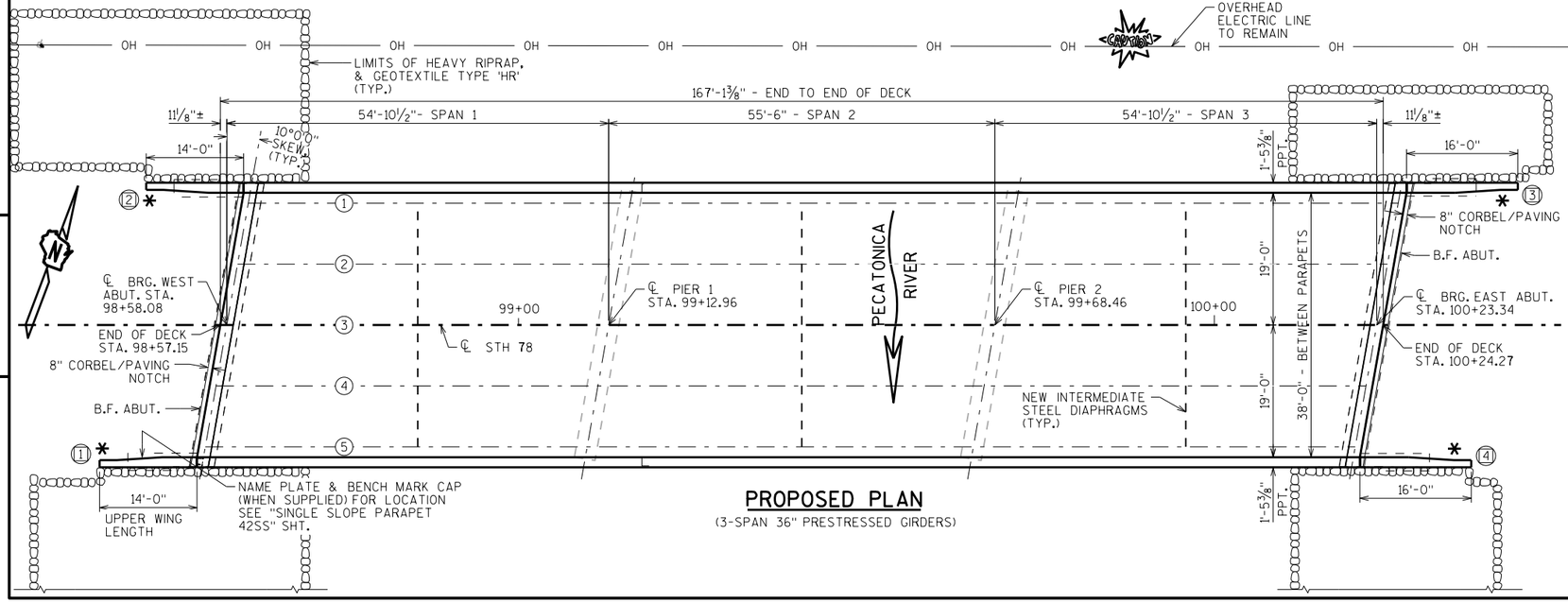
PROPOSED ELEVATION

(LOOKING NORTH)

⬭ INDICATES WING NUMBER

◯ INDICATES GIRDER NUMBER

✱ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".



PROPOSED PLAN

(3-SPAN 36" PRESTRESSED GIRDERS)

DESIGN DATA

LIVE LOAD:

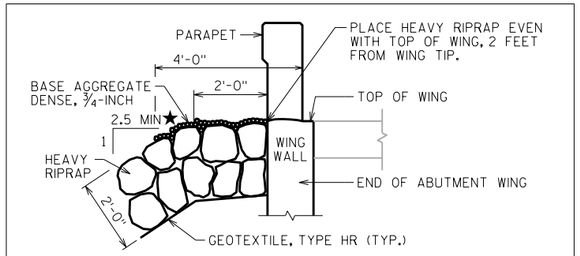
DESIGN RATING: HS-20
INVENTORY RATING: HS-16
OPERATIONAL RATING: HS-28
MAXIMUM STANDARD PERMIT VEHICLE LOAD: 250 (KIPS)

STRUCTURE IS DESIGN FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.



TYPICAL FILL SECTION AT WING TIPS

★ 2.5 MIN OR UNLESS NOTED ON PLANS

TRAFFIC VOLUME

STH 78

ADT = 430 (2041)
R.D.S. = 60 M.P.H.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:

JOHN SENDOR (608) 266-5163
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 1/30/19 DATE

STRUCTURE B-33-9

STH 78 OVER PECATONICA RIVER

COUNTY	TOWN
LAFAYETTE	GRATIOT

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
JJS	ABS	JJS	ABS

NEW DECK

SHEET 1 OF 12

75

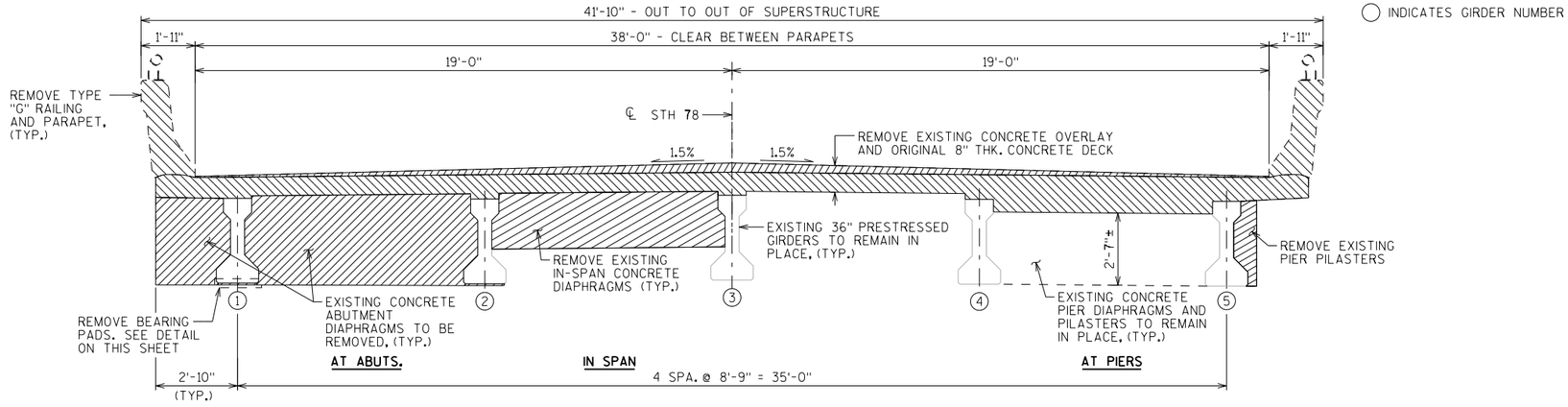
I.D. 5590-00-01A

DATE: OCT. 2018

SCALE = 10.00

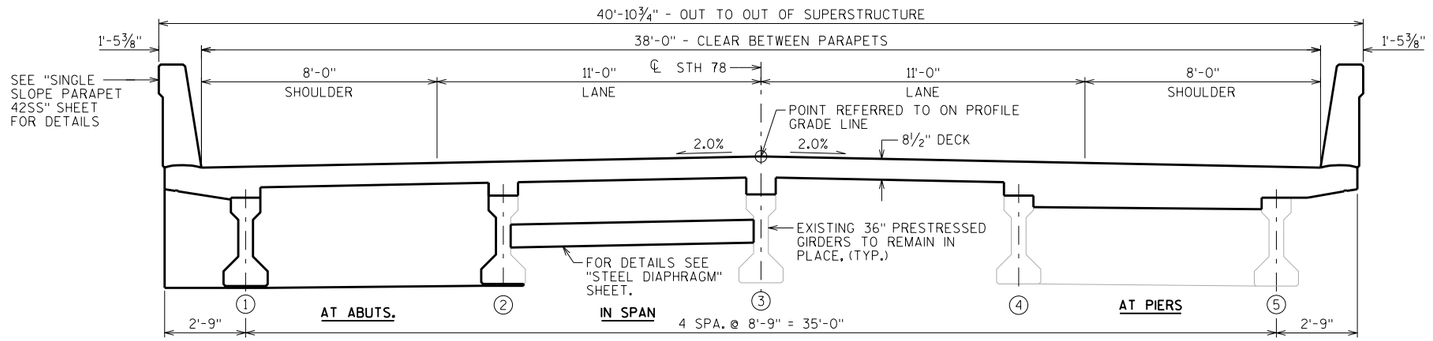
8

8



EXISTING SECTION THRU ROADWAY

(SHOWING REMOVAL - LOOKING EAST)



PROPOSED SECTION THRU ROADWAY

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER 1	PIER 2	EAST ABUT.	TOTALS
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-33-9	LS	———	———	———	———	———	1
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 99+39.78	LS	———	———	———	———	———	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-33-9	LS	———	———	———	———	———	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	———	140	———	———	140	280
502.0100	CONCRETE MASONRY BRIDGES	CY	267	10	———	———	12	289
502.3200	PROTECTIVE SURFACE TREATMENT	SY	720	———	———	———	———	720
502.3210	PIGMENTED SURFACE SEALER	SY	195	———	———	———	———	195
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	———	64	———	———	64	128
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	———	52	64	64	52	232
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	62900	1790	———	———	2040	66,730
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	10	———	———	———	———	10
506.4000	STEEL DIAPHRAGMS B-33-9	EACH	12	———	———	———	———	12
506.7050.S	REMOVING BEARINGS B-33-9	EACH	10	———	———	———	———	10
509.1500	CONCRETE SURFACE REPAIR	SF	———	60	———	———	82	142
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	12	———	———	12	24
606.0300	RIPRAP HEAVY	CY	———	193	———	———	106	299
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	100	———	———	100	200
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	———	———	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	———	56	———	———	56	112
645.0120	GEOTEXTILE TYPE HR	SY	———	330	———	———	190	520
	NON-BID ITEMS							
	FILLER	SIZE	———	———	———	———	———	½", ¾"

◯ INDICATES GIRDER NUMBER

STATE PROJECT NUMBER

5590-00-81

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-33-9" SHALL BE THE EXISTING GROUNDLINE

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

ELASTOMERIC BEARING PADS NEED NOT BE MOLDED INDIVIDUALLY PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF THE PARAPETS, INCLUDING PARAPETS ON WINGS.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS (1970).

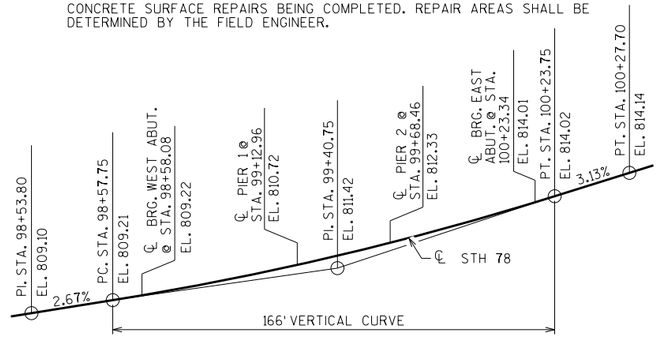
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR 1970.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1" SAWCUT.

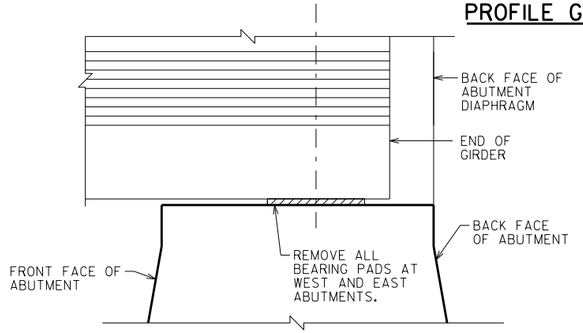
THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH THICKNESS SHOWN ON THE "SUPERSTRUCTURE DETAILS 1" SHEET.

THE CAULK LOCATED IN THE PARAPET EXPANSION JOINT, AND POST ANCHOR PLATES, TESTED POSITIVE FOR ASBESTOS GREATER THAN 1%. THIS MATERIAL SHALL BE REMOVED AND PAID FOR UNDER THE BID ITEM "ABATEMENT OF ASBESTOS CONTAINING MATERIALS B-33-9".

REMOVE LOOSE CONCRETE AT THE SUBSTRUCTURES UNDER THE BID ITEM "CONCRETE SURFACE REPAIR". SURFACES SHALL BE BLAST CLEANED AND ANY EXPOSED STEEL SHALL BE BRUSH CLEANED TO BARE STEEL PRIOR TO CONCRETE SURFACE REPAIRS BEING COMPLETED. REPAIR AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER.



PROFILE GRADE LINE - STH 78



BEARING PAD REMOVAL DETAIL

NOTE:
REMOVAL AND DISPOSAL OF EXISTING BEARING PADS AS SHOWN, INCLUDING JACKING OF THE BRIDGE AS REQUIRED TO REMOVE AND REPLACE THE BEARING PADS SHALL BE INCLUDED IN BID ITEM "REMOVING BEARINGS B-33-9". NEW PADS TO BE PLACED ON TOP OF POLYETHYLENE SHEETS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

CROSS SECTION & QUANTITIES

SHEET 2

76

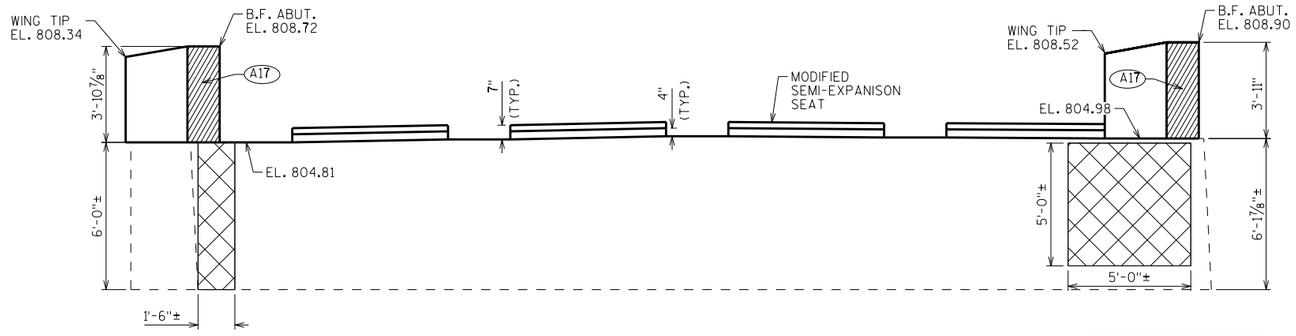
8

8

SCALE = 10.00

STATE PROJECT NUMBER

5590-00-81



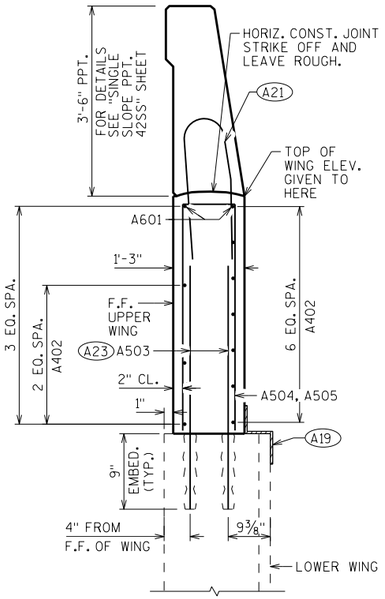
ELEVATION

(SHOWING PROPOSED STRUCTURE WORK - LOOKING WEST)

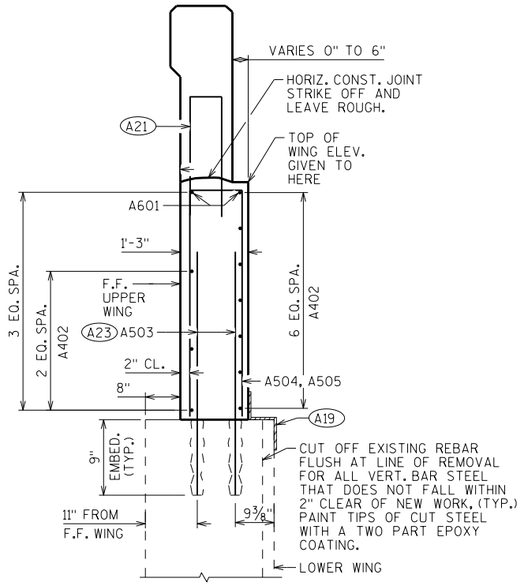
CONCRETE SURFACE REPAIR

NOTE: REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAWCUT.

INDICATES GIRDER NUMBER

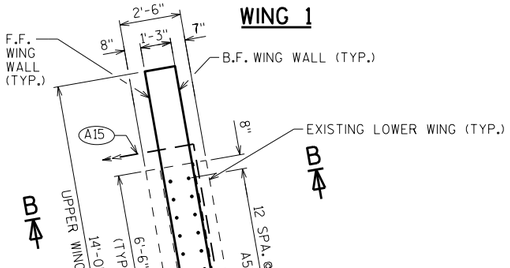


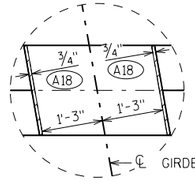
SECTION A-A



SECTION B-B

WING 1

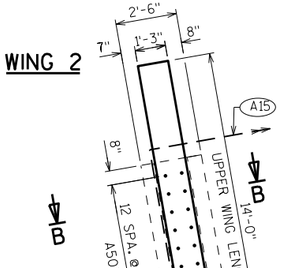


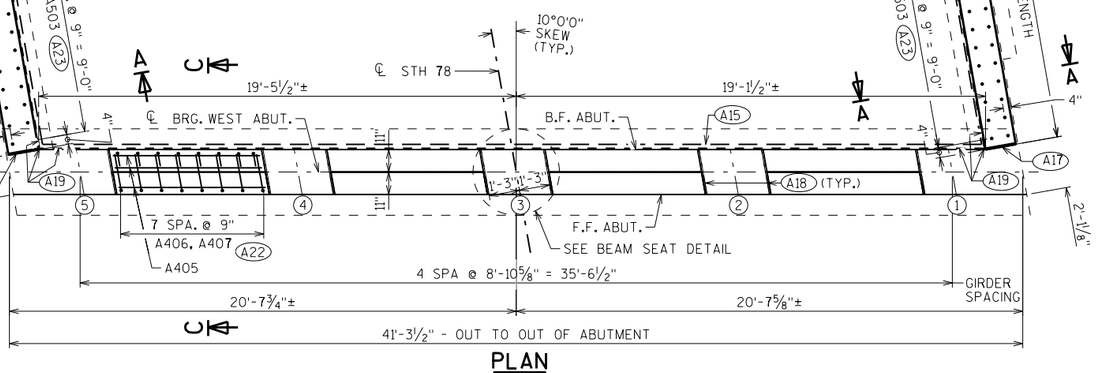


BEAM SEAT DETAIL

(BEAM SEAT 3 SHOWN, OTHERS SIMILAR)

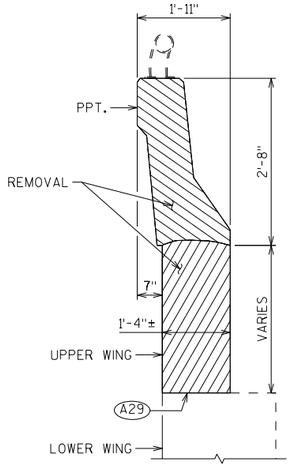
WING 2





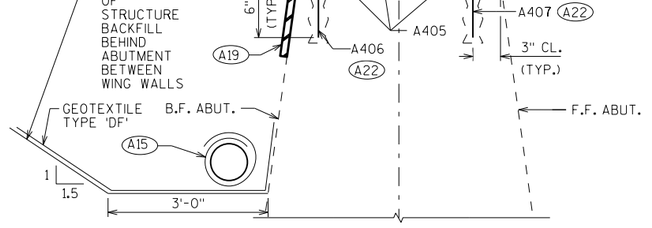
PLAN

(SHOWING PROPOSED STRUCTURE WORK)



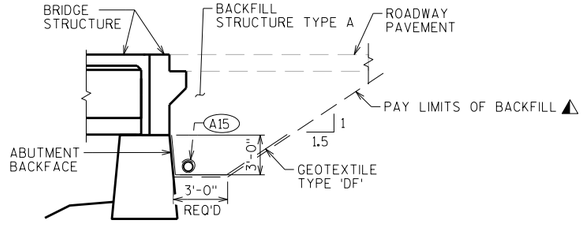
SECTION THRU WING

(SHOWING REMOVAL)



SECTION C-C THRU ABUTMENT

(SHOWING PROPOSED STRUCTURE WORK)



TYPICAL SECTION THRU ABUTMENT

◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES BRIDGES B-33-9". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(A15) PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE "SINGLE SLOPE PPT. 42SS" SHEET.

(A22) ADHESIVE ANCHORS NO. 4 BARS. EPOXY ANCHORED.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EPOXY ANCHORED.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A29) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM ALL AREAS OF NEW TO EXISTING CONCRETE CONTACT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

WEST ABUTMENT

SHEET 3

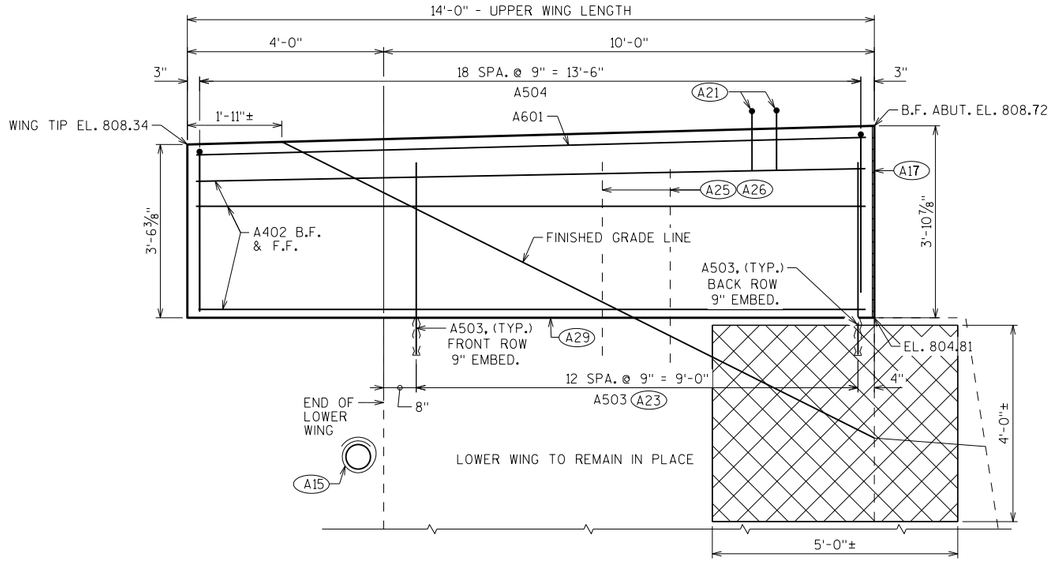
77

SCALE = 3.00

8

8

STATE PROJECT NUMBER
5590-00-81



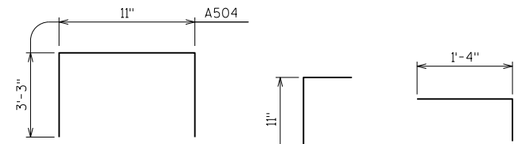
WING 1 ELEVATION

LOOKING NORTH AT FRONT FACE

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
	A601	X	4	13'-7"			WING 1&2 TOP HORIZ.
	A402	X	18	13'-7"			WING 1&2 TOP HORIZ.
A23	A503	X	52	3'-11"			WING 1&2 TOP VERT. ADHESIVE ANCHOR
	A504	X	38	7'-2"	X		WING 1&2 TOP VERT.
	A405	X	12	5'-10"			ABUT. DIAPHRAGM HORIZ.
A22	A406	X	32	1'-4"	X		ABUT. DIAPHRAGM VERT. ADHESIVE ANCHOR
A22	A407	X	32	1'-3"	X		ABUT. DIAPHRAGM VERT. ADHESIVE ANCHOR



A504 A406 A407

⊠ CONCRETE SURFACE REPAIR

(A15) PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE "SINGLE SLOPE PPT. 42SS" SHEET.

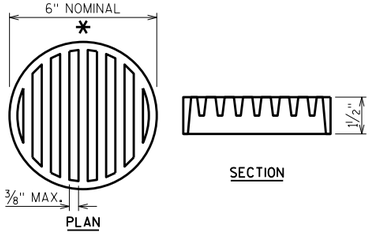
(A22) ADHESIVE ANCHORS NO. 4 BARS. EPOXY ANCHORED.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EPOXY ANCHORED.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, CUT FLUSH DOWN TO THE LIMITS OF REMOVAL. WORK TO BE PAID UNDER ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 99+39.78.

(A29) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM ALL AREAS OF NEW TO EXISTING CONCRETE CONTACT.

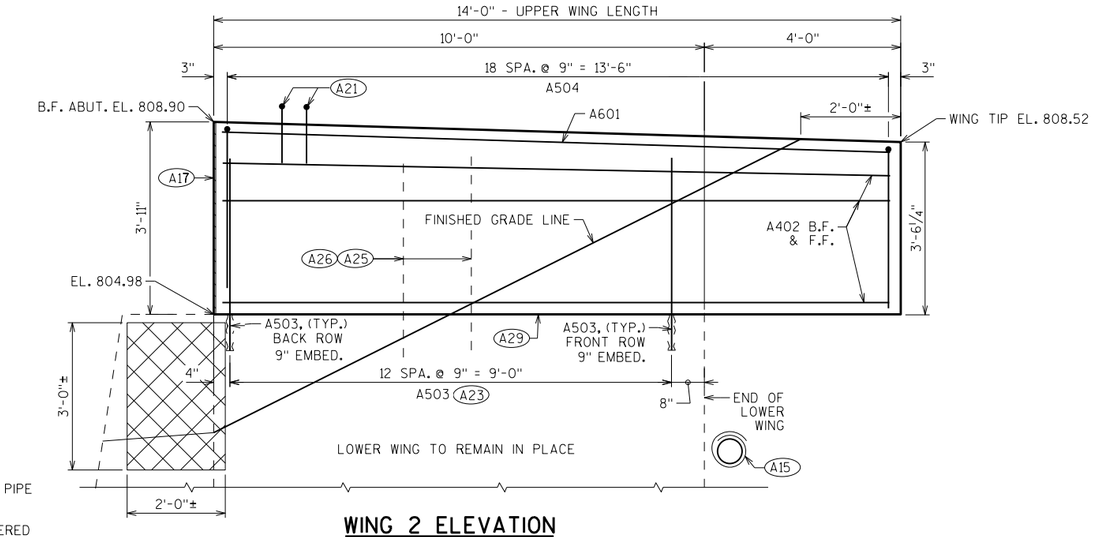


RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



WING 2 ELEVATION

LOOKING SOUTH AT FRONT FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

WEST ABUTMENT DETAILS

SHEET 4

78

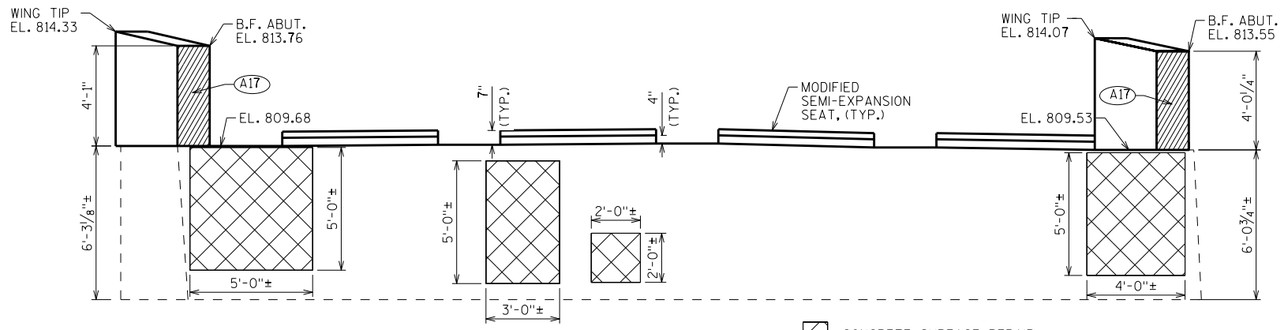
SCALE = 1.50

8

8

STATE PROJECT NUMBER

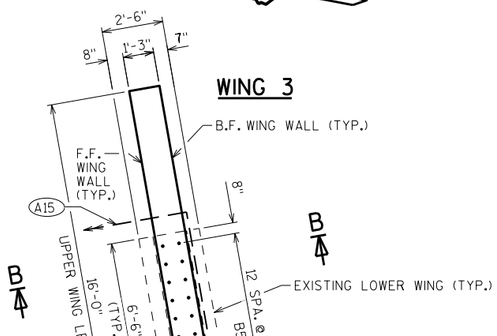
5590-00-81

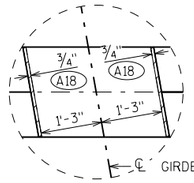


ELEVATION

(SHOWING PROPOSED STRUCTURE WORK - LOOKING EAST)

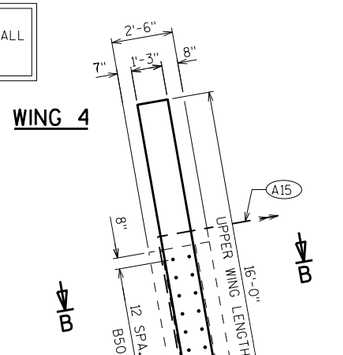
NOTE: REMOVAL LINES SHALL BE DEFINED BY A 1" DEEP SAWCUT.





BEAM SEAT DETAIL

BEAM SEAT 3 SHOWN, OTHERS SIMILAR



PLAN

(SHOWING PROPOSED STRUCTURE WORK)

(A15) PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

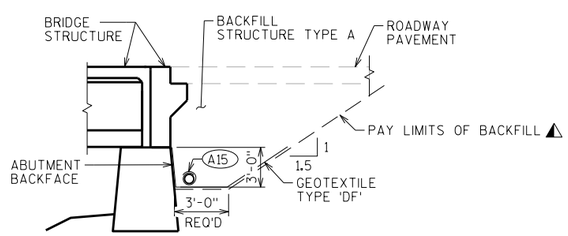
(A21) FOR PPT. BARS & DIMENSION SEE "SINGLE SLOPE PPT. 42SS" SHEET.

(A22) ADHESIVE ANCHORS NO. 4 BARS. EPOXY ANCHORED.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EPOXY ANCHORED.

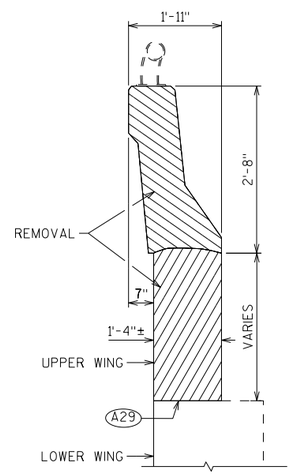
(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A29) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM ALL AREAS OF NEW TO EXISTING CONCRETE CONTACT.



TYPICAL SECTION THRU ABUTMENT

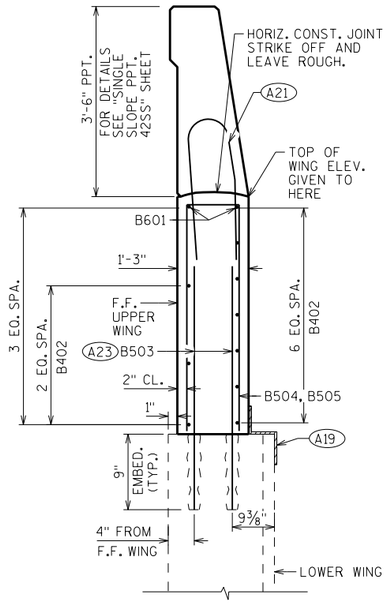
⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO "EXCAVATION FOR STRUCTURES BRIDGES B-33-9". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



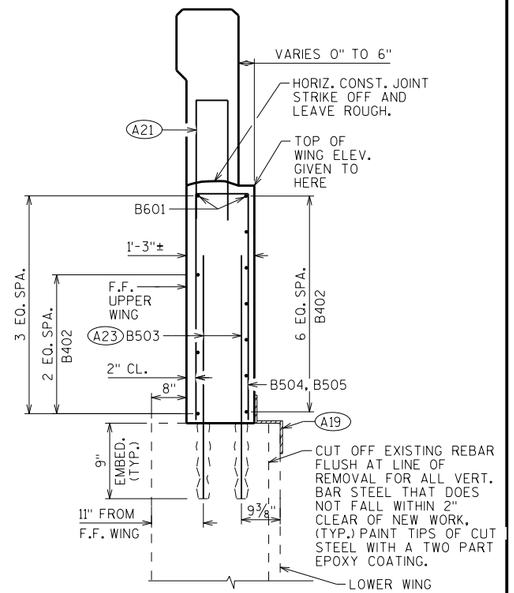
SECTION THRU WING

(SHOWING REMOVAL)

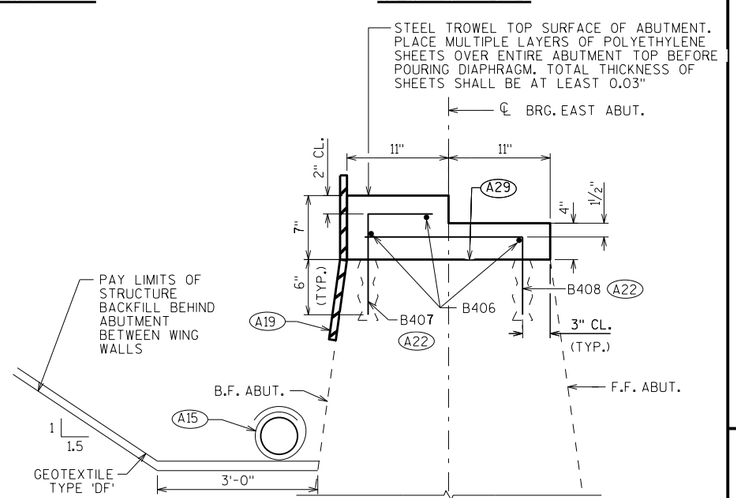
◯ INDICATES GIRDER NUMBER



SECTION A-A



SECTION B-B



SECTION C-C THRU ABUTMENT

(SHOWING PROPOSED STRUCTURE WORK)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

EAST ABUTMENT

SHEET 5

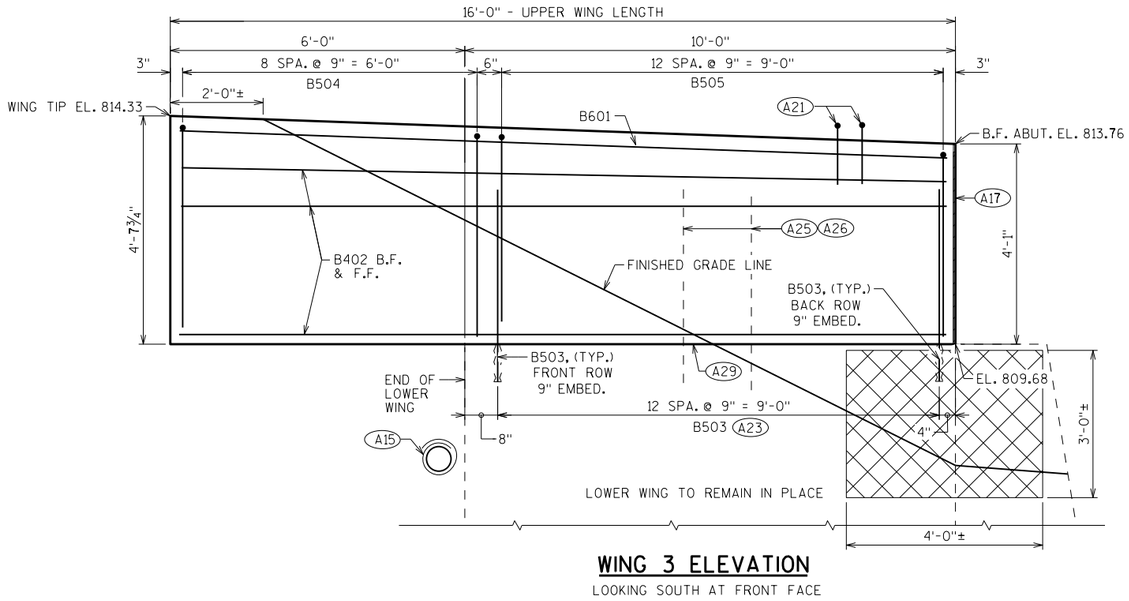
79

8

8

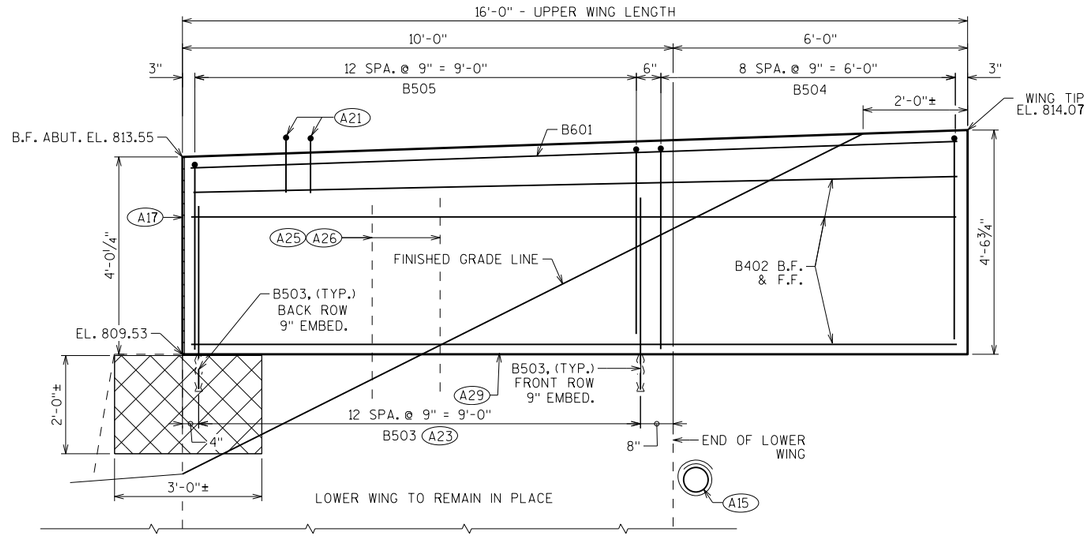
SCALE = 3.00

STATE PROJECT NUMBER
5590-00-81



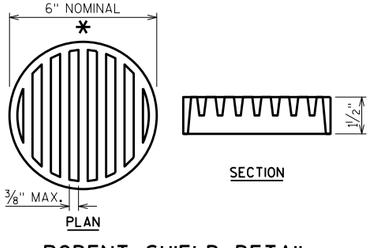
WING 3 ELEVATION

LOOKING SOUTH AT FRONT FACE



WING 4 ELEVATION

LOOKING NORTH AT FRONT FACE



RODENT SHIELD DETAIL

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

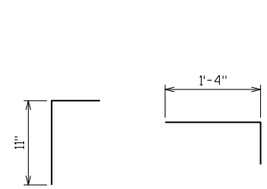
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

BILL OF BARS

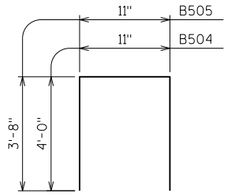
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
	B601	X	4	15'-7"		WING 3&4 TOP HORIZ.
	B402	X	18	15'-7"		WING 3&4 TOP HORIZ.
A23	B503	X	52	3'-11"		WING 3&4 TOP VERT. ADHESIVE ANCHOR
	B504	X	18	8'-8"	X	WING 3&4 TOP VERT.
	B505	X	26	8'-0"	X	WING 3&4 TOP VERT.
	B406	X	12	5'-10"		ABUT. DIAPHRAGM HORIZ.
A22	B407	X	32	1'-4"	X	ABUT. DIAPHRAGM VERT. ADHESIVE ANCHOR
A22	B408	X	32	1'-3"	X	ABUT. DIAPHRAGM VERT. ADHESIVE ANCHOR



A407

A408



B504, B505

(A15) PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(A21) FOR PPT. BARS & DIMENSIONS SEE "SINGLE SLOPE PPT. 42SS" SHEET.

(A22) ADHESIVE ANCHORS NO. 4 BARS. EPOXY ANCHORED.

(A23) ADHESIVE ANCHORS NO. 5 BARS. EPOXY ANCHORED.

(A25) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.

(A26) IF EXISTING BARS ARE SEVERELY CORRODED OR DAMAGED DURING CONCRETE REMOVAL, CUT FLUSH DOWN TO THE LIMITS OF REMOVAL. WORK TO BE PAID UNDER ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 99+39.78.

(A29) ROUGHEN SURFACE OF CONCRETE 1/4" DEEP MINIMUM ALL AREAS OF NEW TO EXISTING CONCRETE CONTACT.

CONCRETE SURFACE REPAIR

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

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EAST ABUTMENT DETAILS

SHEET 6

80

SCALE = 1.50

8

8

STATE PROJECT NUMBER
5590-00-81

NOTES

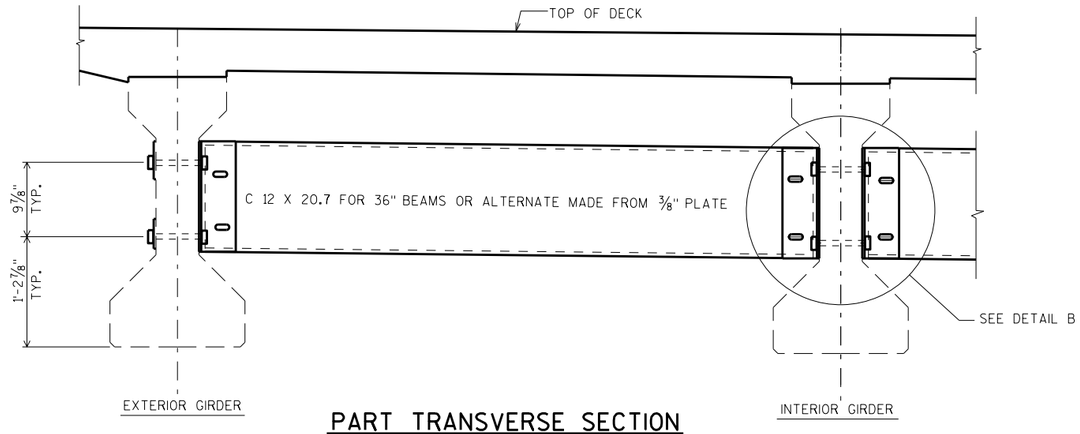
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-33-9", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

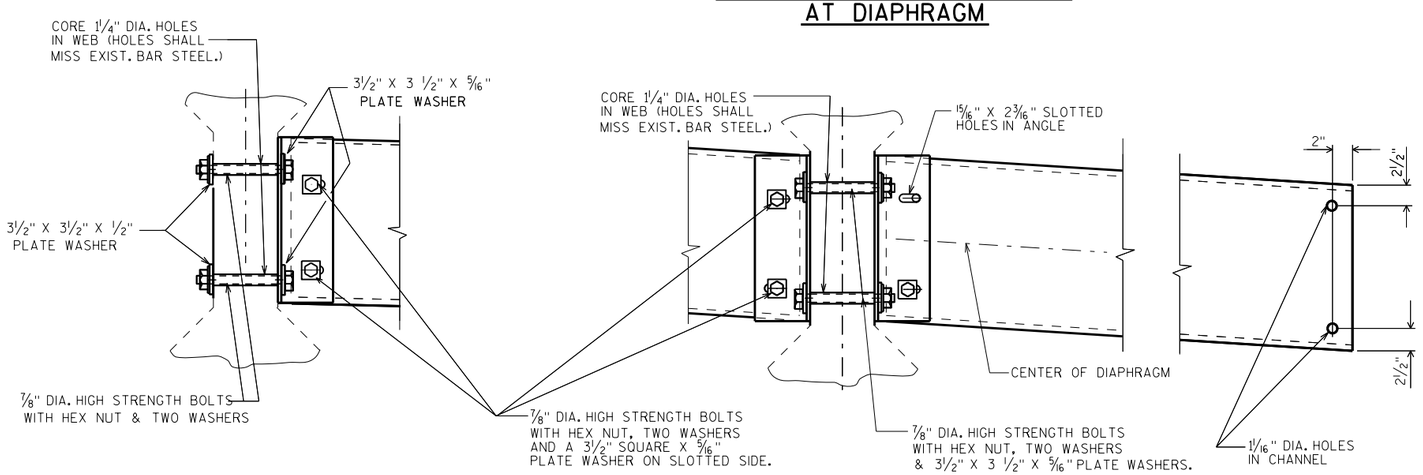
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

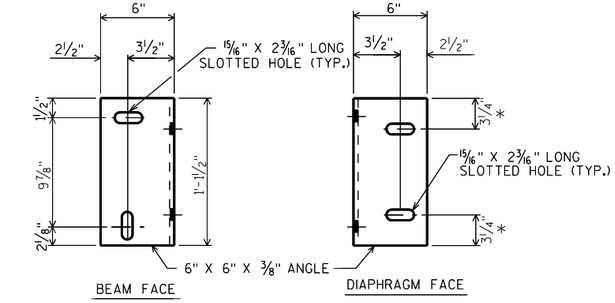
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4" TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



PART TRANSVERSE SECTION AT DIAPHRAGM

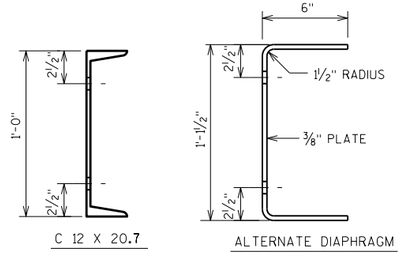


DETAIL B

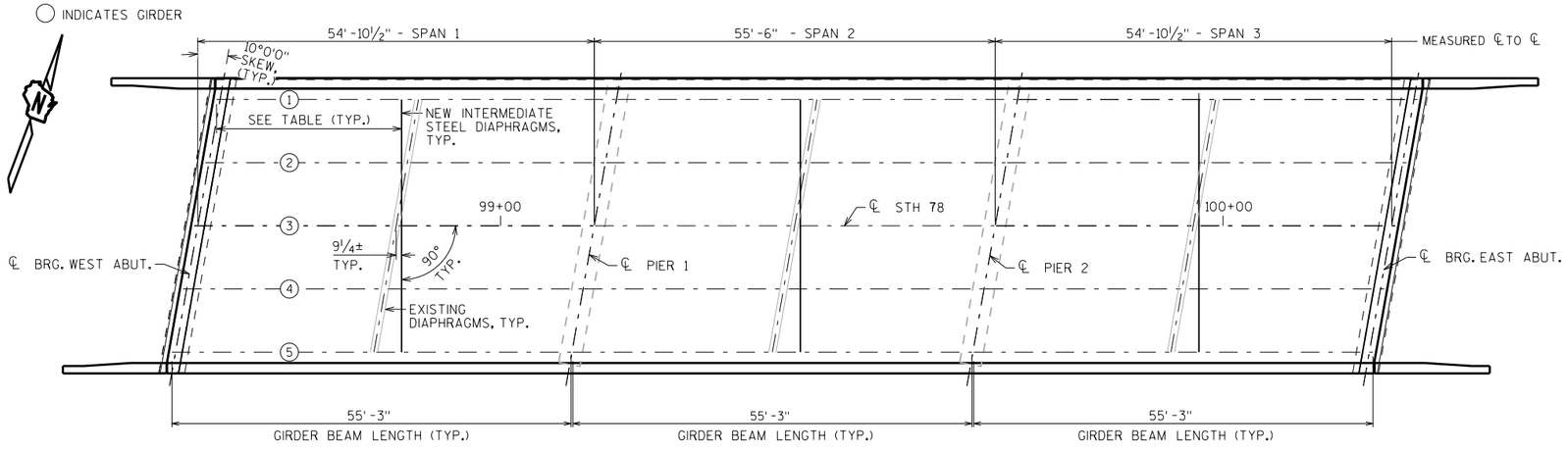


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM



SECTION THRU DIAPHRAGM



INTERMEDIATE STEEL DIAPHRAGM LAYOUT

DIAPHRAGM INSERT LOCATIONS

	MEASURED FROM GIRDER END AT WEST ABUT. SPAN 1	MEASURED FROM GIRDER END AT PIER 1 SPAN 2	MEASURED FROM GIRDER END AT PIER 2 SPAN 3
GIRDER 1	25'-7½"	25'-3¾"	25'-0"
GIRDER 2	27'-2"	26'-10¼"	26'-6½"
GIRDER 3	28'-8½"	28'-4¾"	28'-1"
GIRDER 4	30'-3"	29'-11¼"	29'-7½"
GIRDER 5	31'-9½"	31'-5¾"	31'-2"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

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STEEL DIAPHRAGM

SHEET 7

81

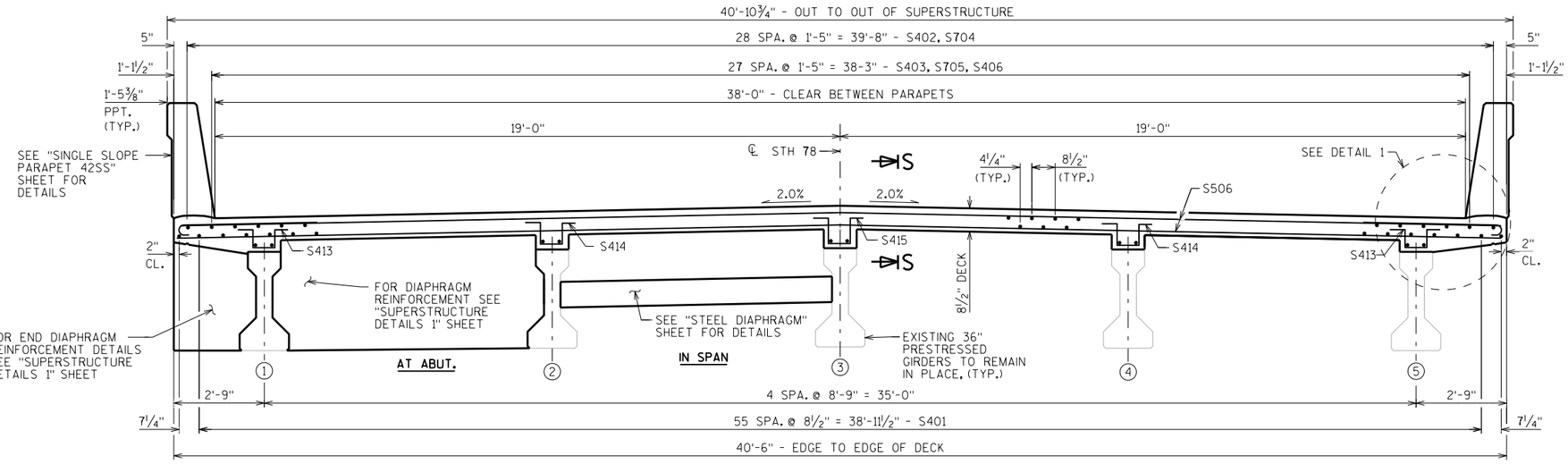
SCALE = 1.00

8

8

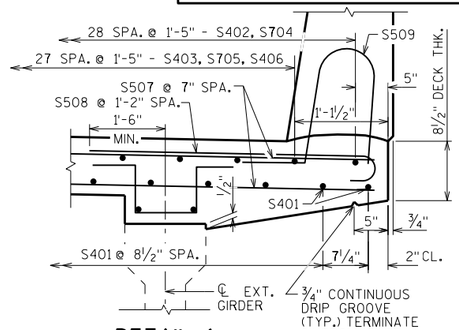
STATE PROJECT NUMBER

5590-00-81

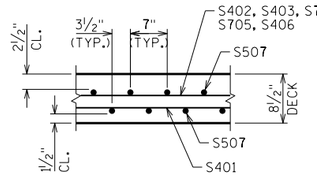


PROPOSED SECTION THRU ROADWAY

(LOOKING EAST)



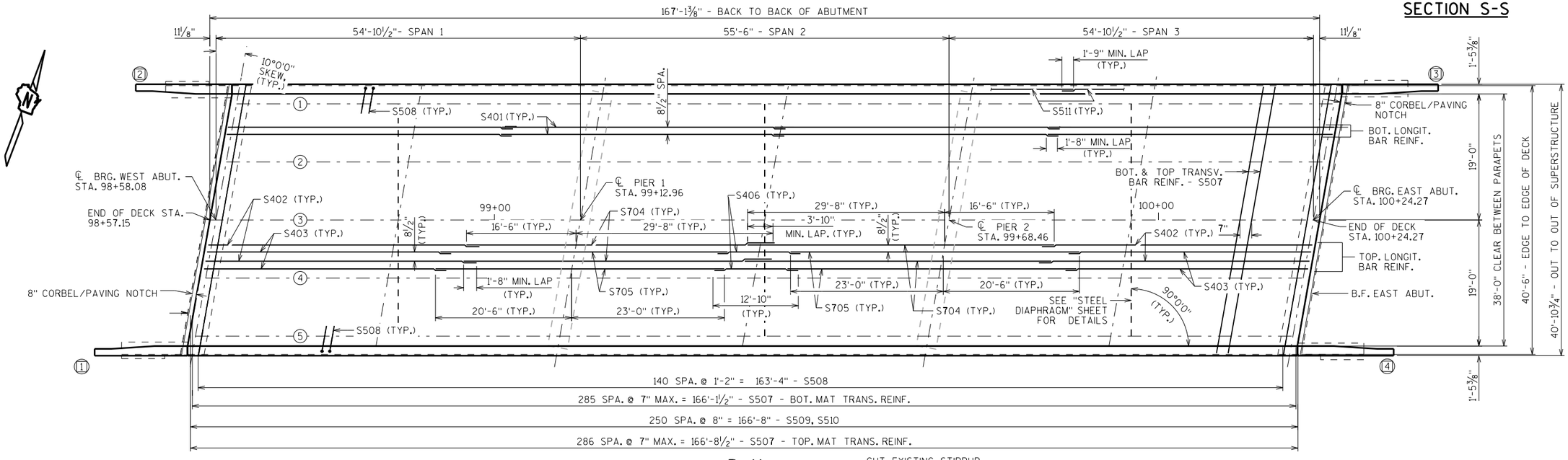
DETAIL 1



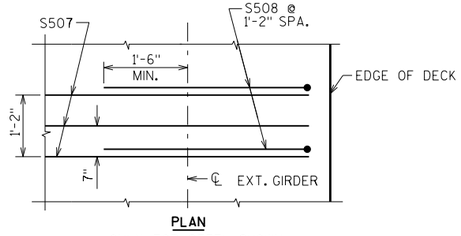
SECTION S-S

○ INDICATES WING NUMBER

○ INDICATES GIRDER NUMBER



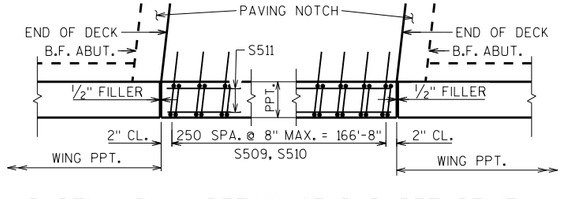
PLAN



PLAN

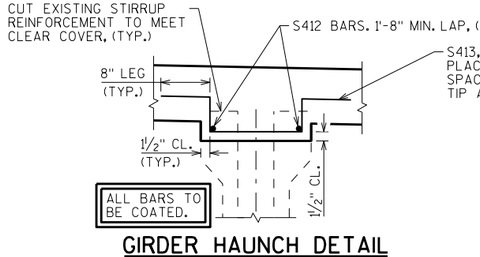
ONLY TOP STEEL SHOWN

ADDITIONAL REINF. DETAIL



PARTIAL PLAN DETAIL OF PARAPET REINF.

(SHOWING S.W. & S.E. CORNERS - DETAIL TYP. @ BOTH SIDES OF SUPERSTRUCTURE)



GIRDER HAUNCH DETAIL

SEE "SUPERSTRUCTURE DETAILS 2" FOR REBAR LAYOUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

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SUPERSTRUCTURE

SHEET 8

82

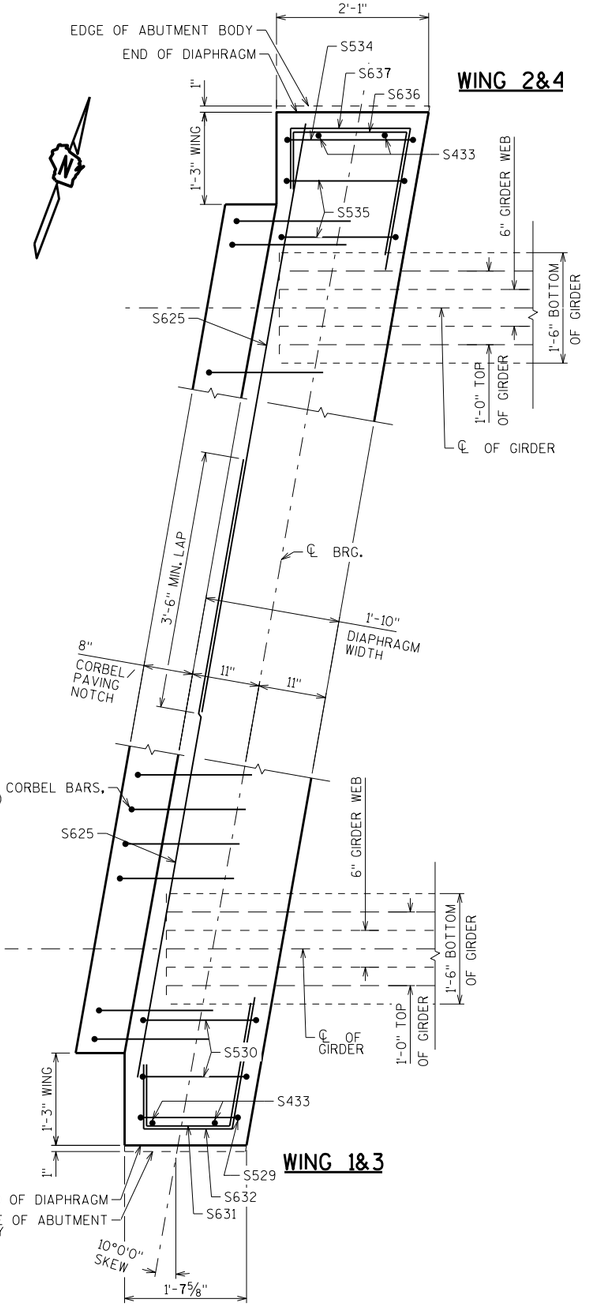
SCALE = 8.00

8

8

STATE PROJECT NUMBER

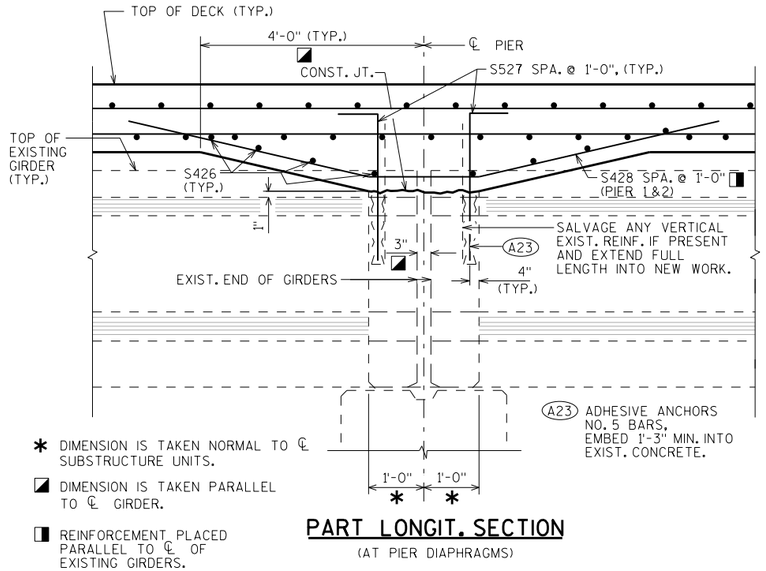
5590-00-81



WING 2&4

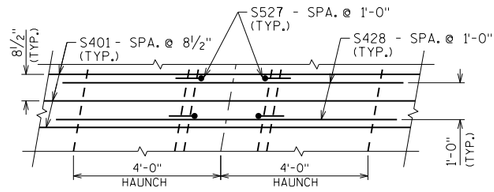
WING 1&3

ABUTMENT DIAPHRAGM AT EXTERIOR GIRDERS

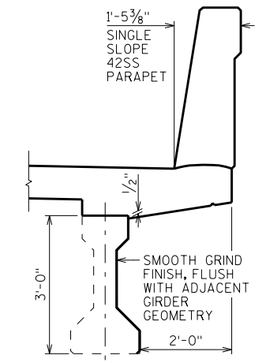


PART LONGIT. SECTION

(AT PIER DIAPHRAGMS)

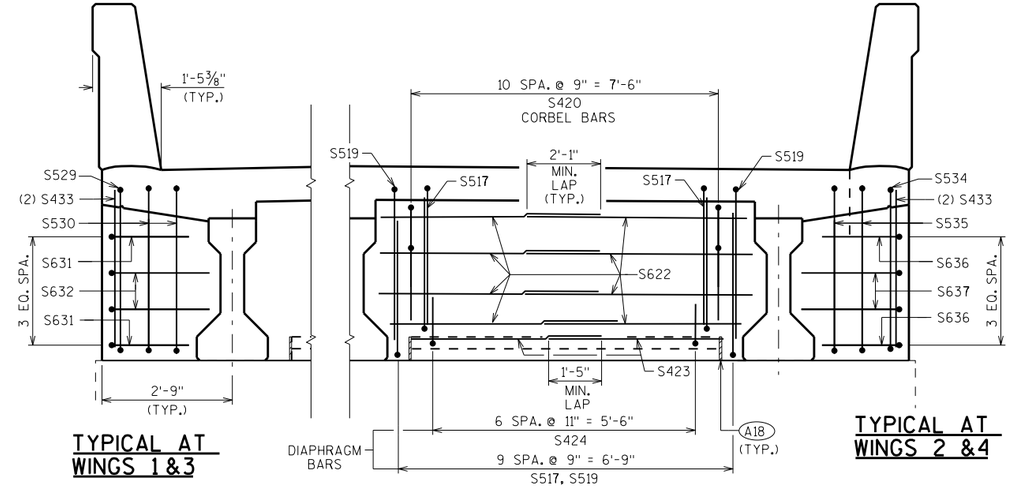


PIER HAUNCH REINF.



AT PIER EXTERIOR

(EXTERIOR GIRDER, TYP.)



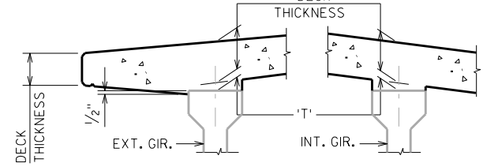
TYPICAL AT WINGS 1&3

TYPICAL AT WINGS 2 &4

ABUT. DIAPHRAGM BETWEEN GIRDERS

(WEST SHOWN, EAST ABUTMENT SIMILAR)

A18 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.



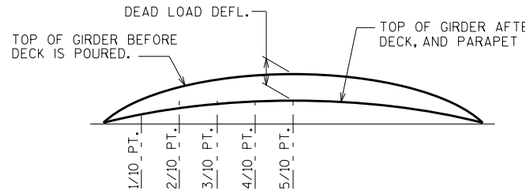
DECK HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½".

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.97" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

DEAD LOAD DEFLECTIONS

SPAN	GIRDER NO.	DEAD LOAD DEFLECTION (IN.)								
		1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
1-3	ALL	0.2	0.5	0.6	0.7	0.8	0.7	0.6	0.5	0.2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

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SUPERSTRUCTURE DETAILS 1

SHEET 9

83

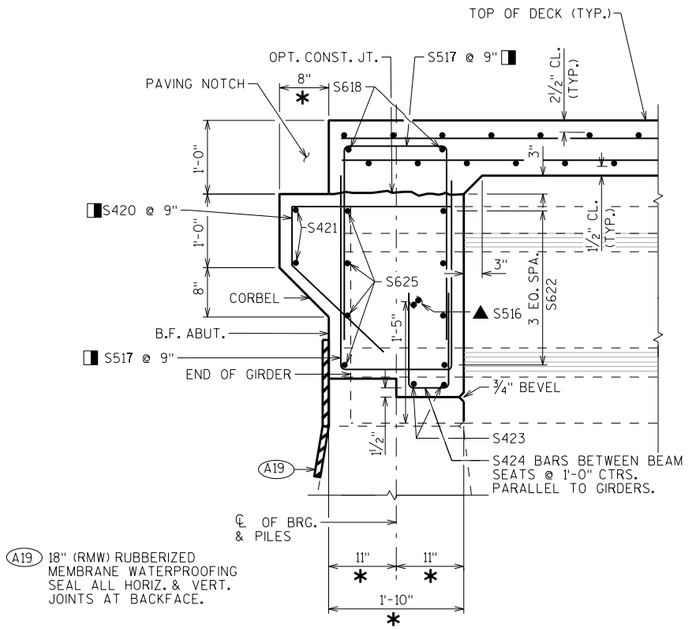
8

8

SCALE = 8.00

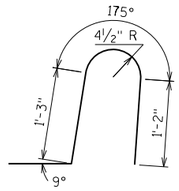
STATE PROJECT NUMBER

5590-00-81

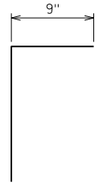


PART LONGIT. SECTION

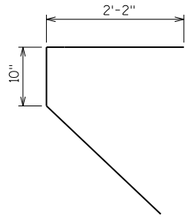
(AT ABUTMENTS)



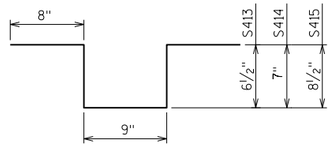
S509



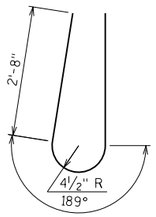
S527



S420



S413, S414, S415



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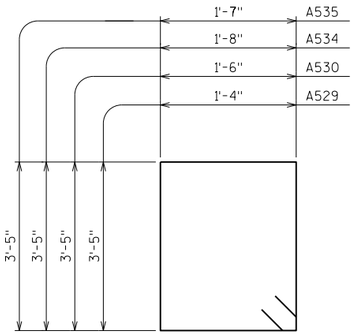
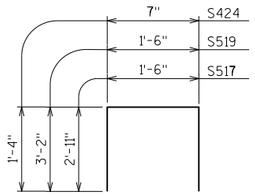
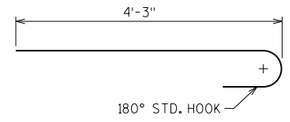


S529, S530, S534, S535



S517, S519, S424

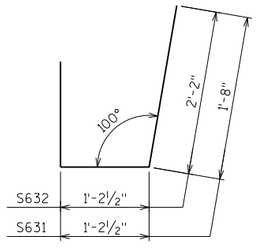


S508

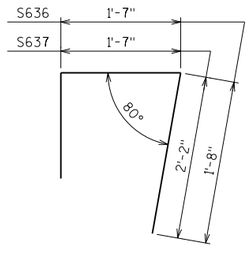
▲ HOLE TO BE CORED THRU GIRDER, INCLUDED IN "CONCRETE MASONRY BRIDGES". (1) - 1½" DIA. HOLE IN WEB FOR (2) S516 BARS. S516 BARS TO BE 6'-0" LONG AND PLACED SYM. ABUT ℄ OF GIRDERS. FIELD BEND BARS ALONG SKEW. OFFSET HOLE 7¾" FROM END OF GIRDER PLACED IN THE VERTICAL WEB OF GIRDER.

✱ DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

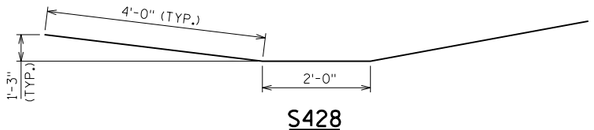
◨ REINFORCEMENT PLACED PARALLEL TO ℄ OF EXISTING GIRDERS.



S631, S632



S636, S637



S428

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

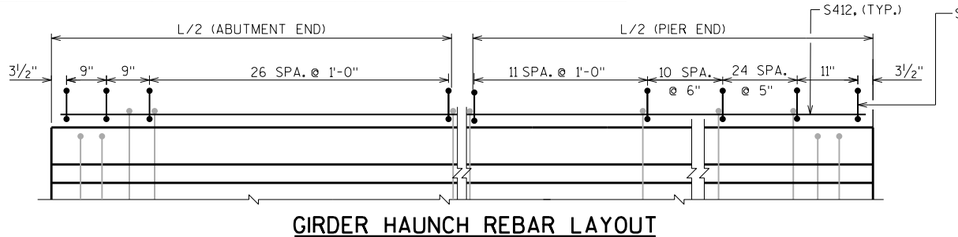
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S401	X	232	43'-5"		BOT. LONGIT.
S402	X	58	40'-10"		TOP LONGIT. WEST END & EAST END
S403	X	56	36'-10"		TOP LONGIT. WEST END & EAST END
S704	X	58	46'-2"		CONTINUITY OVER PIER 1 & 2
S705	X	56	43'-6"		CONTINUITY OVER PIER 1 & 2
S406	X	56	12'-10"		TOP LONGIT. SPAN 2
S507	X	573	40'-2"		TRANS. TOP AND BOT.
S508	X	282	4'-10"	X	TRANS. TOP BOTH EDGES OF DECK
S509	X	504	4'-5"	X	PARAPETS/SLAB-VERTICAL-TRANSV.
S510	X	504	6'-8"	X	PARAPETS-VERTICAL-TRANSV.
S511	X	48	56'-9"		PARAPETS-BOTH FACES-HORIZ.-LONGIT.
S412	X	60	29'-3"		GIRDER HAUNCH HORIZ.
S413	X	492	2'-10"	X	GIRDER HAUNCH VERT. GIRS. 1 & 5
S414	X	492	2'-11"	X	GIRDER HAUNCH VERT. GIRS. 2 & 4
S415	X	246	3'-2"	X	GIRDER HAUNCH VERT. GIR. 3
S516	X	20	6'-0"		ABUT. DIAPH. - HORIZ. THRU GIRDER
S517	X	128	7'-1"	X	ABUT. DIAPH. - VERT.
S618	X	4	40'-2"		ABUT. DIAPH. - HORIZ. TOP
S519	X	32	7'-7"	X	ABUT. DIAPH. - VERT. AT GIRDERS
S420	X	96	4'-9"	X	CORBEL - VERT. BTWN. GIRDERS
S421	X	4	38'-3"		CORBEL - HORIZ.
S622	X	64	5'-0"		ABUT. DIAPH. - HORIZ. BTWN. GIRDERS
S423	X	32	3'-9"		ABUT. DIAPH. - HORIZ. BTWN. GIRDER
S424	X	56	3'-1"	X	ABUT. DIAPH. - VERT. BTWN. GIRDER
S625	X	16	21'-8"		ABUT. DIAPH. - HORIZ. B.F.
S426	X	64	7'-6"		PIER 1 & 2 DIAPHS. HORIZ.
(A23) S527	X	128	3'-1"	X	PIER 1 & 2 DIAPHS. VERT.
S428	X	64	10'-5"	X	PIER 1 & 2 DIAPHS. VERT.
S529	X	2	10'-2"	X	ABUT. DIAPH. END - WING 1&3
S530	X	4	10'-6"	X	ABUT. DIAPH. END - WING 1&3
S631	X	4	3'-8"	X	ABUT. DIAPH. END - WING 1&3
S632	X	4	4'-2"	X	ABUT. DIAPH. END - WING 1&3
S433	X	8	3'-6"	X	ABUT. DIAPH. END - WING 1&3, 2&4
S534	X	2	10'-10"	X	ABUT. DIAPH. END - WING 2&4
S535	X	4	10'-8"	X	ABUT. DIAPH. END - WING 2&4
S636	X	4	3'-11"	X	ABUT. DIAPH. END - WING 2&4
S637	X	4	4'-5"	X	ABUT. DIAPH. END - WING 2&4

(A23) ADHESIVE ANCHORS NO. 5 BARS. EMBED 1'-3" MIN. INTO EXIST. CONCRETE

TOP OF DECK ELEVATIONS

	℄ BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. PIER 2
N. EDGE OF DECK	808.93	809.07	809.23	809.38	809.53	809.68	809.83	809.98	810.14	810.29	810.45	810.60	810.76	810.92	811.08	811.24	811.40	811.56	811.73	811.89	812.05
GIRDER 1	808.95	809.10	809.25	809.40	809.55	809.70	809.85	810.00	810.15	810.31	810.46	810.62	810.78	810.94	811.10	811.26	811.42	811.58	811.75	811.91	812.08
GIRDER 2	809.08	809.23	809.38	809.53	809.68	809.83	809.98	810.13	810.29	810.44	810.59	810.75	810.91	811.07	811.23	811.39	811.55	811.71	811.88	812.04	812.21
GIRDER 3/℄	809.22	809.37	809.51	809.66	809.81	809.96	810.11	810.26	810.42	810.57	810.73	810.88	811.04	811.20	811.36	811.52	811.68	811.84	812.01	812.17	812.33
GIRDER 4	809.00	809.15	809.30	809.45	809.59	809.74	809.90	810.05	810.20	810.35	810.51	810.66	810.82	810.98	811.14	811.30	811.46	811.62	811.79	811.95	812.11
GIRDER 5	808.79	808.93	809.08	809.23	809.38	809.53	809.68	809.83	809.98	810.13	810.29	810.44	810.60	810.76	810.92	811.08	811.24	811.40	811.56	811.73	811.89
S. EDGE OF DECK	808.75	808.90	809.04	809.19	809.34	809.49	809.64	809.79	809.94	810.10	810.25	810.41	810.57	810.72	810.88	811.04	811.20	811.36	811.53	811.69	811.85

	℄ BRG. PIER 2	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. E. ABUT.
N. EDGE OF DECK	812.05	812.22	812.38	812.55	812.72	812.88	813.05	813.22	813.39	813.56	813.74
GIRDER 1	812.08	812.24	812.41	812.57	812.74	812.91	813.07	813.24	813.41	813.58	813.76
GIRDER 2	812.21	812.37	812.53	812.70	812.87	813.03	813.20	813.37	813.54	813.71	813.88
GIRDER 3/℄	812.33	812.50	812.66	812.83	812.99	813.16	813.33	813.50	813.67	813.84	814.01
GIRDER 4	812.11	812.28	812.44	812.61	812.77	812.94	813.11	813.28	813.44	813.61	813.79
GIRDER 5	811.89	812.06	812.22	812.38	812.55	812.72	812.88	813.05	813.22	813.39	813.56
S. EDGE OF DECK	811.85	812.02	812.18	812.35	812.51	812.68	812.85	813.02	813.18	813.35	813.52



GIRDER HAUNCH REBAR LAYOUT

SEE "SUPERSTRUCTURE" SHEET FOR GIRDER HAUNCH DETAIL
(NOT ALL GIRDER REINFORCEMENT SHOWN FOR CLARITY)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

SUPERSTRUCTURE DETAILS 2

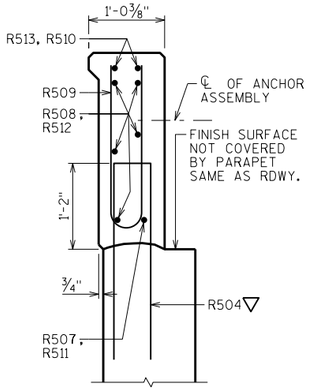
SHEET 10

84

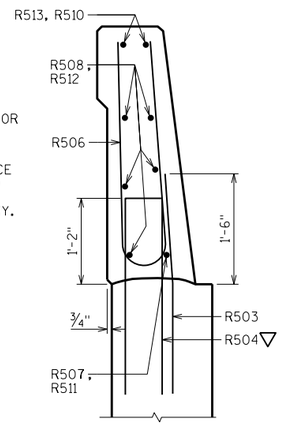
SCALE = 8.00

8

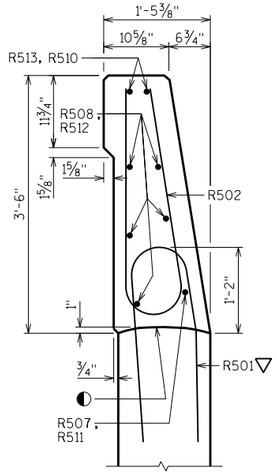
8



SECTION A-A



SECTION B-B



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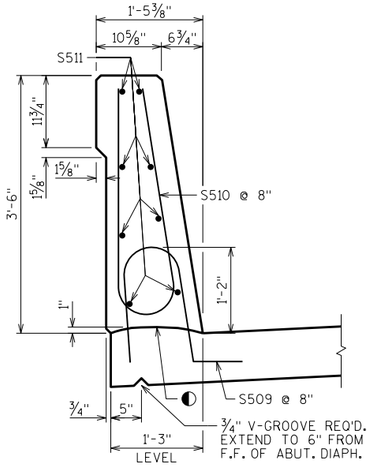
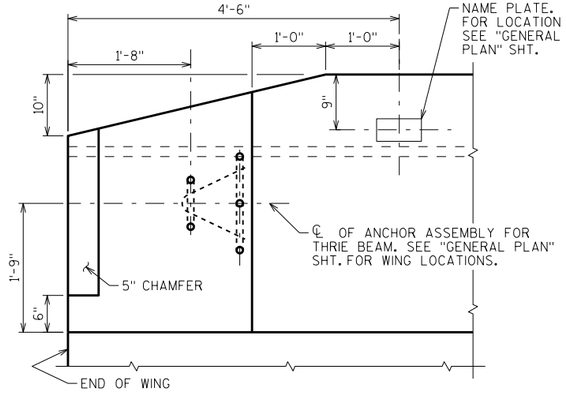


SECTION THRU PARAPET ON DECK



PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET

STATE PROJECT NUMBER

5590-00-81

BILL OF BARS

FOR ABUTMENT PARAPETS

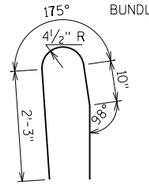
BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	18	24	5'-10	X		PARAPET VERT.
R502	X	18	24	6'-8"	X		PARAPET VERT.
R503	X	22	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2		13'-7"	X		PARAPET HORIZ.
R508	X	10		13'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	⚠	PARAPET VERT.
R510	X	4		13'-7"	X		PARAPET HORIZ.
R511	X		2	15'-7"	X		PARAPET HORIZ.
R512	X		10	15'-7"			PARAPET HORIZ.
R513	X		4	15'-7"	X		PARAPET HORIZ.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

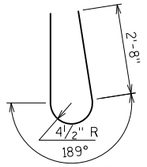
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

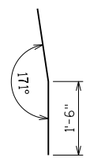
BUNDLE AND TAG EACH SERIES SEPARATELY.



R501

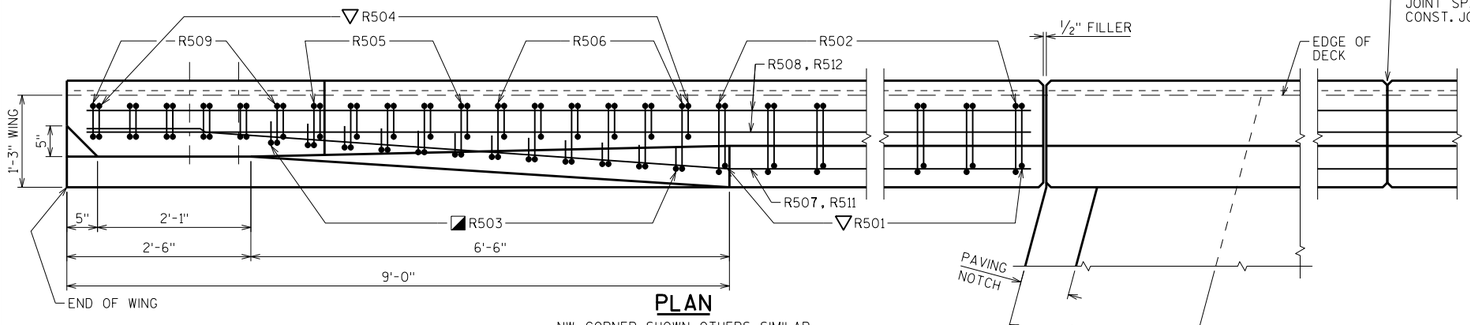


R502



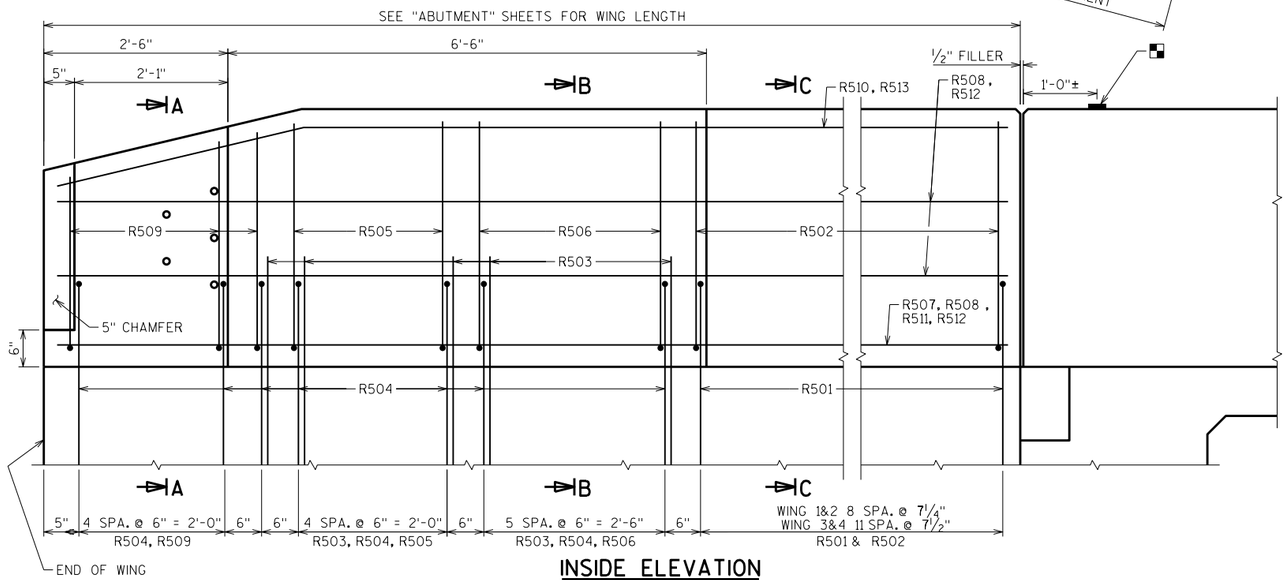
R503

R504



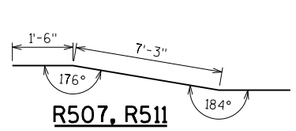
PLAN

NW CORNER SHOWN, OTHERS SIMILAR

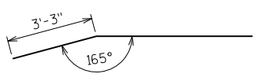


INSIDE ELEVATION

NW CORNER SHOWN, OTHERS SIMILAR

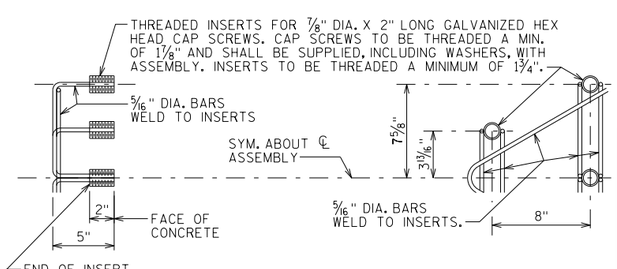


R507, R511



R510, R513

■ BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.



DETAIL OF ANCHOR ASSEMBLY

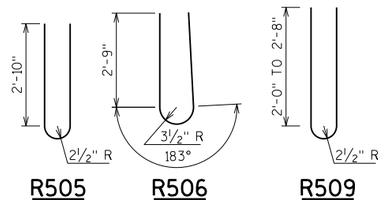
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

◐ CONST. JOINT - STRIKE OFF AS SHOWN

◪ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



R505 R506 R509

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

SINGLE SLOPE PARAPET 42SS

SHEET 11

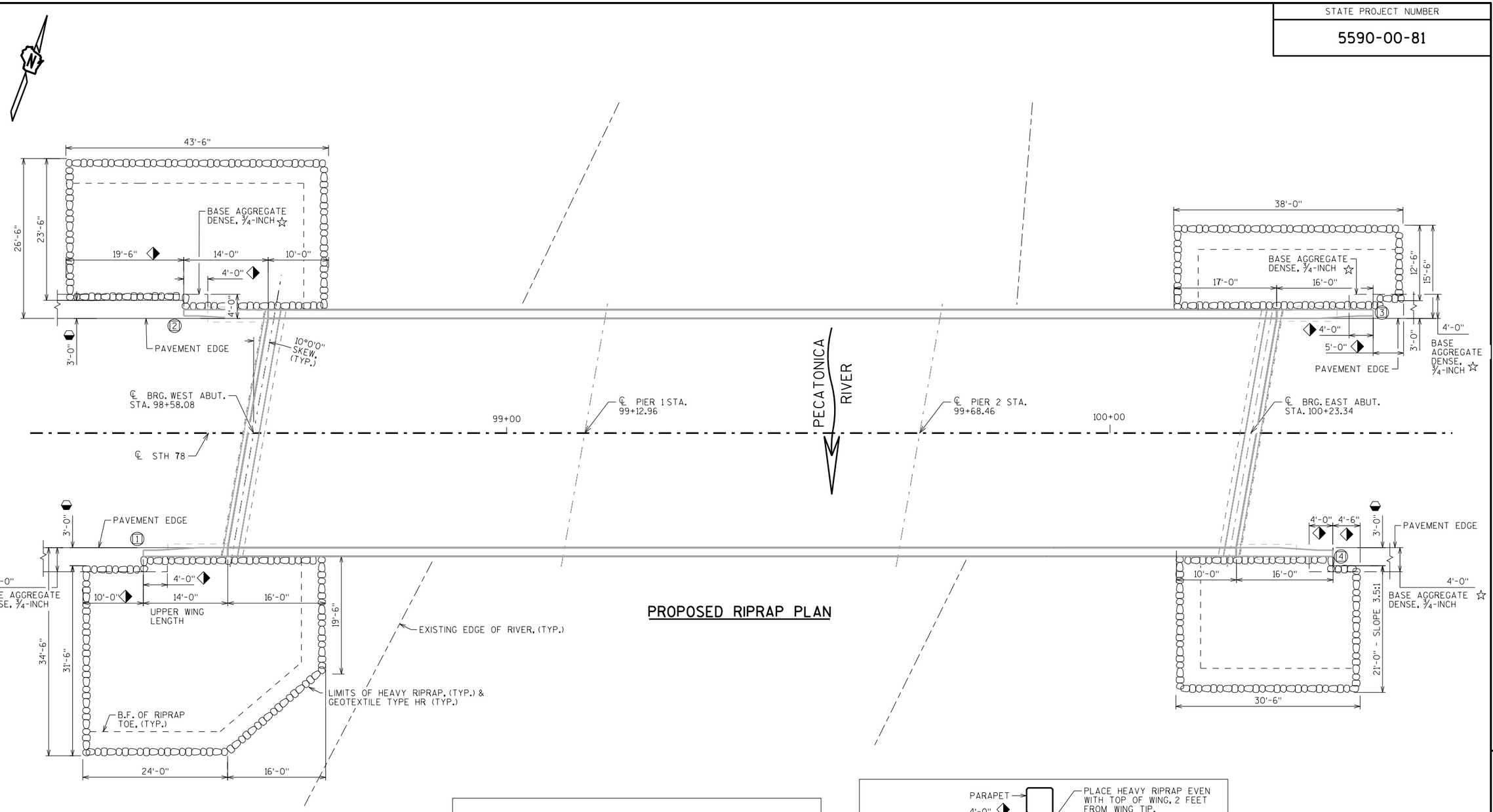
85

SCALE = 1.00

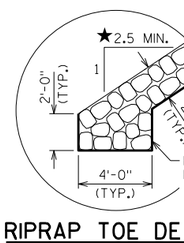
8

8

STATE PROJECT NUMBER
5590-00-81



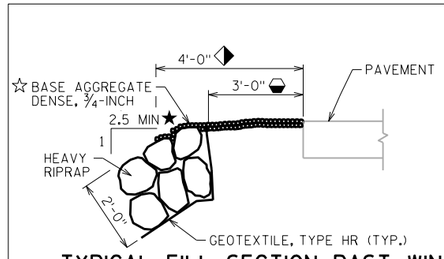
PROPOSED RIPRAP PLAN



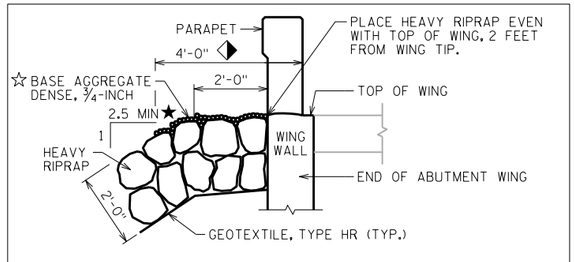
RIPRAP TOE DETAIL

(LOCATED AT BOTH ABUTMENTS AND TOE SLOPES AT WINGS 1,2,3,4)

- INDICATES WING NUMBER
- ☆ BID ITEM "BASE DENSE AGGREGATE ¾-INCH". SEE ROADWAY PLANS FOR ESTIMATED QUANTITIES.
- ★ 2.5 MIN. UNLESS NOTED ON PLAN
- RIPRAP EDGE 3' FROM PAVEMENT EDGE PAST WING TIPS
- BASE AGGREGATE OVERLAP OVER HEAVY RIPRAP



TYPICAL FILL SECTION PAST WING TIPS



TYPICAL FILL SECTION AT WING TIPS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-33-9

DRAWN BY JJS | PLANS CK'D. ABS

RIPRAP DETAILS

SHEET 12

86

SCALE = 8.00

8

8

Division 1 - STH 78

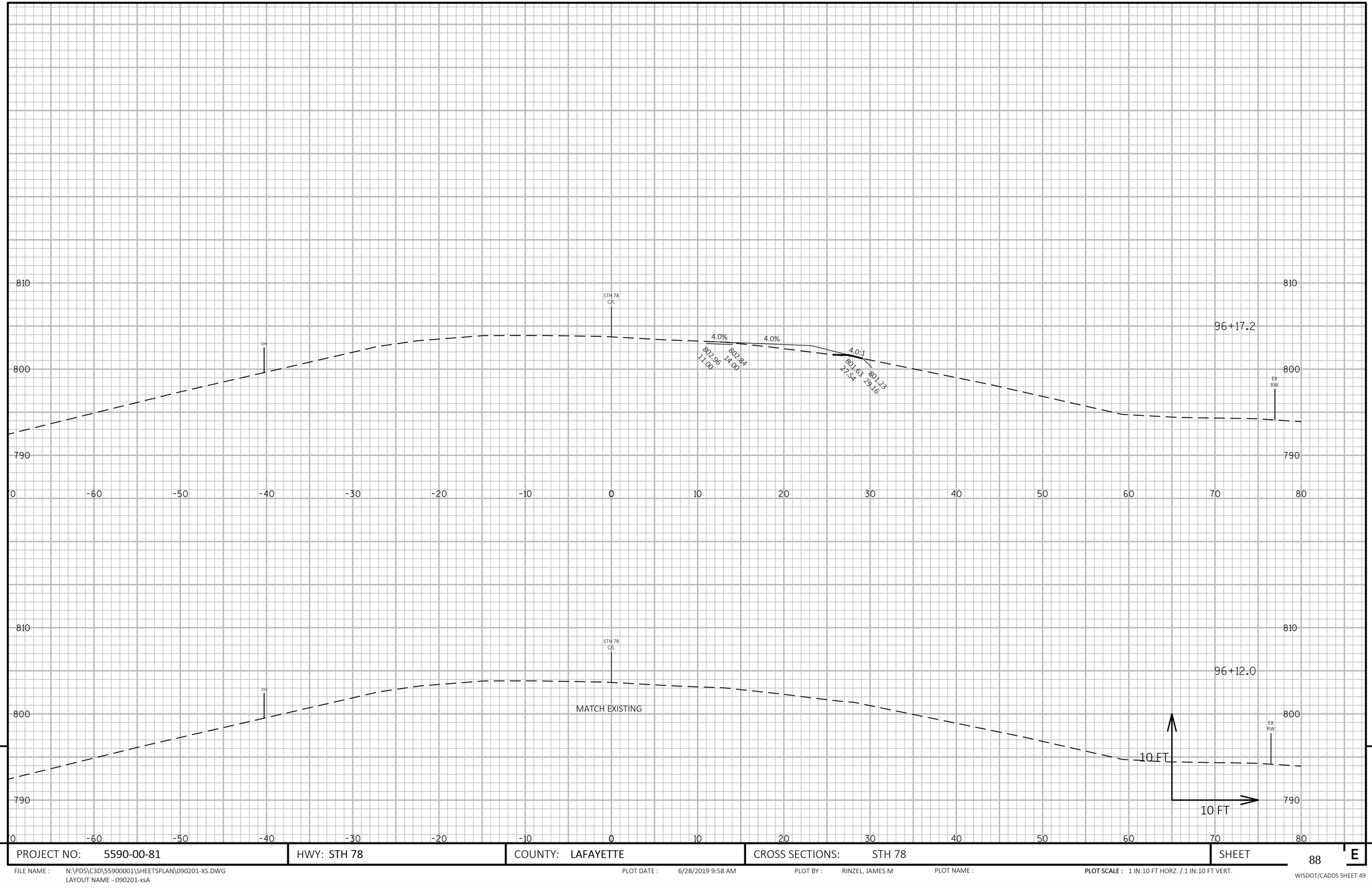
STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/Unusable Pavement Material	Fill	Marsh Exc	Rock Exc	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Marsh Exc	Rock Exc	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.25	Expanded Marsh Backfill 1.50 Note 4	Expanded Rock 1.10	Expanded EBS Backfill 1.30 Note 5	Reduced Marsh in Fill 0.60 Note 6	Reduced EBS in Fill 0.80 Note 7	Mass Ordinate Note 8
96+12	9612.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96+17.24	9617.24	5.24	0.00	0.00	0.20	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96+40	9640.00	22.76	0.00	0.00	1.47	0.00	0.00	0.00	0	0	1	0	0	0	0	1	0	0	0	0	0	-1
96+50	9650.00	10.00	0.00	0.00	3.14	0.00	0.00	0.00	0	0	1	0	0	0	0	2	0	0	0	0	0	-2
96+68	9668.00	18.00	0.00	0.00	5.06	0.00	0.00	0.00	0	0	3	0	0	0	0	5	0	0	0	0	0	-5
96+73.94	9673.94	5.94	0.00	0.00	7.05	0.00	0.00	0.00	0	0	1	0	0	0	0	7	0	0	0	0	0	-7
96+87.24	9687.24	13.30	0.00	0.00	10.94	0.00	0.00	0.00	0	0	4	0	0	0	0	13	0	0	0	0	0	-13
97+00	9700.00	12.76	0.00	0.00	8.04	0.00	0.00	0.00	0	0	4	0	0	0	0	18	0	0	0	0	0	-18
97+12.24	9712.24	12.24	0.00	0.00	4.09	0.00	0.00	0.00	0	0	3	0	0	0	0	22	0	0	0	0	0	-22
97+20	9720.00	7.76	0.00	0.00	6.55	0.00	0.00	0.00	0	0	2	0	0	0	0	24	0	0	0	0	0	-24
97+37.24	9737.24	17.24	0.00	0.00	10.89	0.00	0.00	0.00	0	0	6	0	0	0	0	31	0	0	0	0	0	-31
97+43.94	9743.94	6.70	0.00	0.00	15.20	0.00	0.00	0.00	0	0	3	0	0	0	0	35	0	0	0	0	0	-35
97+50	9750.00	6.06	0.00	0.00	15.70	0.00	0.00	0.00	0	0	3	0	0	0	0	39	0	0	0	0	0	-39
97+57	9757.00	7.00	0.00	0.00	14.65	0.00	0.00	0.00	0	0	4	0	0	0	0	44	0	0	0	0	0	-44
97+65	9765.00	8.00	0.00	0.00	17.39	0.00	0.00	0.00	0	0	5	0	0	0	0	50	0	0	0	0	0	-50
97+68.94	9768.94	3.94	0.00	0.00	18.76	0.00	0.00	0.00	0	0	3	0	0	0	0	53	0	0	0	0	0	-53
97+70	9770.00	1.06	0.00	0.00	19.35	0.00	0.00	0.00	0	0	1	0	0	0	0	54	0	0	0	0	0	-54
97+90	9790.00	20.00	0.00	0.00	25.00	0.00	0.00	0.00	0	0	16	0	0	0	0	75	0	0	0	0	0	-75
97+93.94	9793.94	3.94	0.00	0.00	27.01	0.00	0.00	0.00	0	0	4	0	0	0	0	79	0	0	0	0	0	-79
98+00	9800.00	6.06	0.00	0.00	28.19	0.00	0.00	0.00	0	0	6	0	0	0	0	87	0	0	0	0	0	-87
98+10	9810.00	10.00	0.00	0.00	29.73	0.00	0.00	0.00	0	0	11	0	0	0	0	100	0	0	0	0	0	-100
98+14.21	9814.21	4.21	0.00	0.00	30.42	0.00	0.00	0.00	0	0	5	0	0	0	0	106	0	0	0	0	0	-106
98+35	9835.00	20.79	0.02	0.00	11.26	0.00	0.00	0.00	0	0	16	0	0	0	0	126	0	0	0	0	0	-126
98+39.76	9839.76	4.76	41.80	19.00	29.39	0.00	0.00	0.00	4	0	4	0	0	0	4	131	0	0	0	0	0	-127
98+41.93	9841.93	2.17	41.54	19.00	38.83	0.00	0.00	0.00	3	2	3	0	0	0	7	134	0	0	0	0	0	-129
98+43.75	9843.75	1.82	42.37	19.00	28.37	0.00	0.00	0.00	3	1	2	0	0	0	10	137	0	0	0	0	0	-130
98+46.46	9846.46	2.71	0.00	0.00	16.73	0.00	0.00	0.00	0	0	2	0	0	0	10	140	0	0	0	0	0	-133
98+48.63	9848.63	2.17	0.00	0.00	12.34	0.00	0.00	0.00	0	0	1	0	0	0	10	141	0	0	0	0	0	-134
98+50	9850.00	1.37	0.00	0.00	4.98	0.00	0.00	0.00	0	0	0	0	0	0	10	142	0	0	0	0	0	-135
98+53.76	9853.76	3.76	0.00	0.00	0.08	0.00	0.00	0.00	0	0	0	0	0	0	10	142	0	0	0	0	0	-135
98+57.15	9857.15	3.39	0.00	0.00	0.08	0.00	0.00	0.00	0	0	0	0	0	0	10	142	0	0	0	0	0	-135
100+24.27	10024.27	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0	0	0	0	0	0	10	142	0	0	0	0	0	-135
100+27.7	10027.70	3.43	0.00	0.00	0.01	0.00	0.00	0.00	0	0	0	0	0	0	10	142	0	0	0	0	0	-135
100+34.96	10034.96	7.26	0.00	0.00	8.83	0.00	0.00	0.00	0	0	1	0	0	0	10	144	0	0	0	0	0	-137
100+36.96	10036.96	2.00	0.00	0.00	9.18	0.00	0.00	0.00	0	0	1	0	0	0	10	145	0	0	0	0	0	-138
100+39	10039.00	2.04	44.62	19.00	4.63	0.00	0.00	0.00	0	0	1	0	0	0	10	145	0	0	0	0	0	-138
100+41.66	10041.66	2.66	43.75	19.00	6.84	0.00	0.00	0.00	4	2	1	0	0	0	14	146	0	0	0	0	0	-136
100+43.66	10043.66	2.00	44.25	19.00	6.16	0.00	0.00	0.00	3	1	0	0	0	0	17	147	0	0	0	0	0	-135
100+50	10050.00	6.34	0.00	0.00	3.10	0.00	0.00	0.00	5	0	1	0	0	0	23	148	0	0	0	0	0	-131
100+65	10065.00	15.00	0.00	0.00	1.70	0.00	0.00	0.00	0	0	1	0	0	0	23	150	0	0	0	0	0	-133
100+85	10085.00	20.00	0.00	0.00	1.42	0.00	0.00	0.00	0	0	1	0	0	0	23	151	0	0	0	0	0	-134
100+89.48	10089.48	4.48	0.00	0.00	1.35	0.00	0.00	0.00	0	0	0	0	0	0	23	151	0	0	0	0	0	-135
101+00	10100.00	10.52	0.00	0.00	0.19	0.00	0.00	0.00	0	0	0	0	0	0	23	152	0	0	0	0	0	-135
101+14.48	10114.48	14.48	0.00	0.00	0.07	0.00	0.00	0.00	0	0	0	0	0	0	23	152	0	0	0	0	0	-135
101+20	10120.00	5.52	0.00	0.00	0.32	0.00	0.00	0.00	0	0	0	0	0	0	23	152	0	0	0	0	0	-135
101+39.48	10139.48	19.48	0.00	0.00	0.81	0.00	0.00	0.00	0	0	0	0	0	0	23	152	0	0	0	0	0	-136
101+46.18	10146.18	6.70	0.00	0.00	1.32	0.00	0.00	0.00	0	0	0	0	0	0	23	153	0	0	0	0	0	-136
101+50	10150.00	3.82	0.00	0.00	0.95	0.00	0.00	0.00	0	0	0	0	0	0	23	153	0	0	0	0	0	-136
101+71.18	10171.18	21.18	0.00	0.00	0.37	0.00	0.00	0.00	0	0	1	0	0	0	23	154	0	0	0	0	0	-137
101+77.52	10177.52	6.33	0.00	0.00	0.76	0.00	0.00	0.00	0	0	0	0	0	0	23	154	0	0	0	0	0	-137
101+96.18	10196.18	18.67	0.00	0.00	1.71	0.00	0.00	0.00	0	0	1	0	0	0	23	155	0	0	0	0	0	-138
102+00	10200.00	3.82	0.00	0.00	1.62	0.00	0.00	0.00	0	0	0	0	0	0	23	155	0	0	0	0	0	-139
102+09.48	10209.48	9.48	0.00	0.00	1.72	0.00	0.00	0.00	0	0	1	0	0	0	23	156	0	0	0	0	0	-139
102+20	10220.00	10.52	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	23	156	0	0	0	0	0	-140
102+50	10250.00	30.00	0.00	0.00	1.24	0.00	0.00	0.00	0	0	1	0	0	0	23	157	0	0	0	0	0	-141
102+66.34	10266.34	16.34	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	23	158	0	0	0	0	0	-141
102+72	10272.00	5.66	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	23	158	0	0	0	0	0	-141
									23	6	126	0	0	0								

9

9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	EARTHWORK SUMMARY	SHEET NO: 87	E

FILE NAME : _____ PLOT DATE : _____ PLOT BY : _____ PLOT NAME : _____ ORG DATE : _____ ORIGINATOR : DIST _ PLOT SCALE : 1:1



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 88 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsA

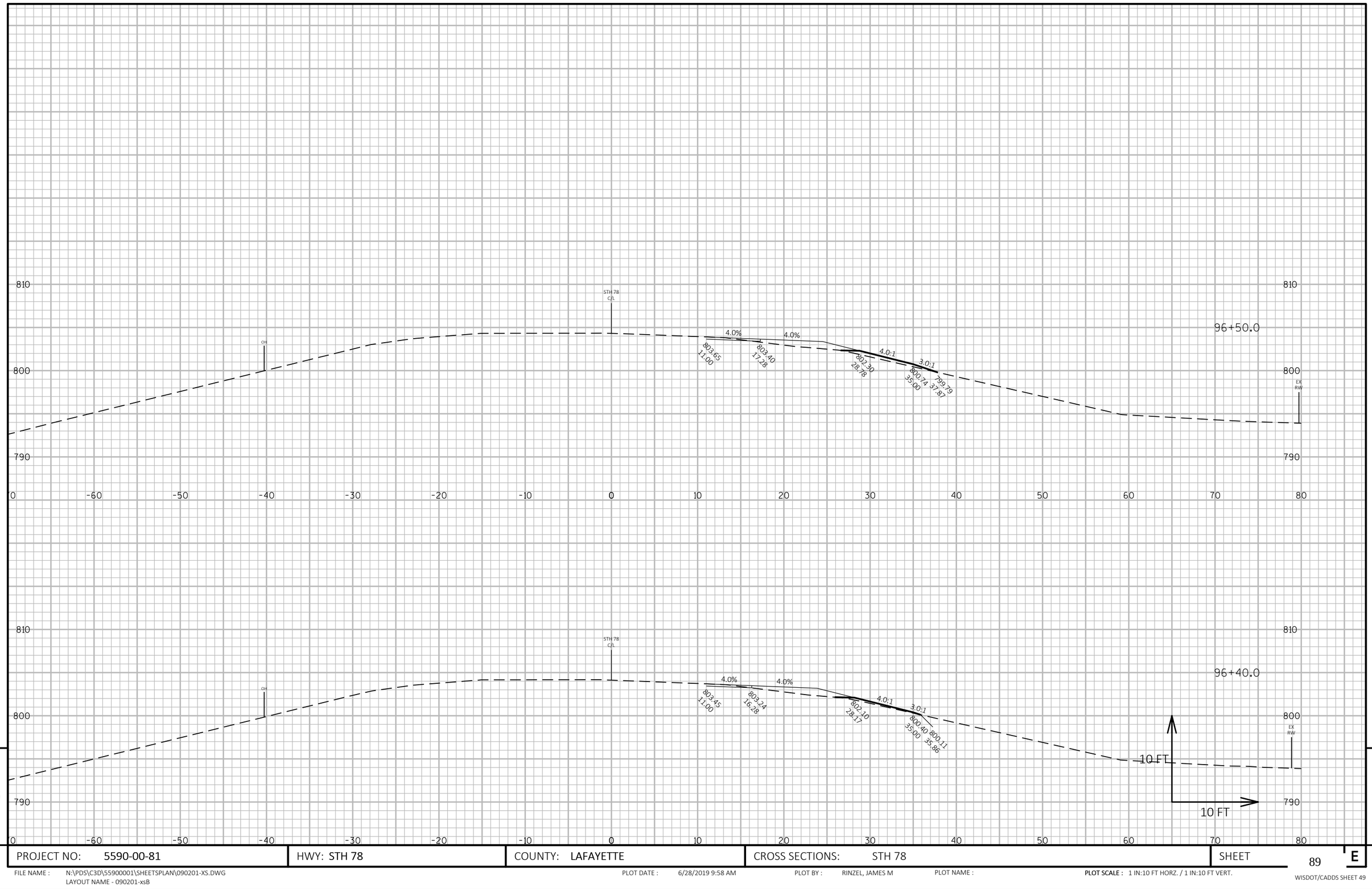
PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 89 E

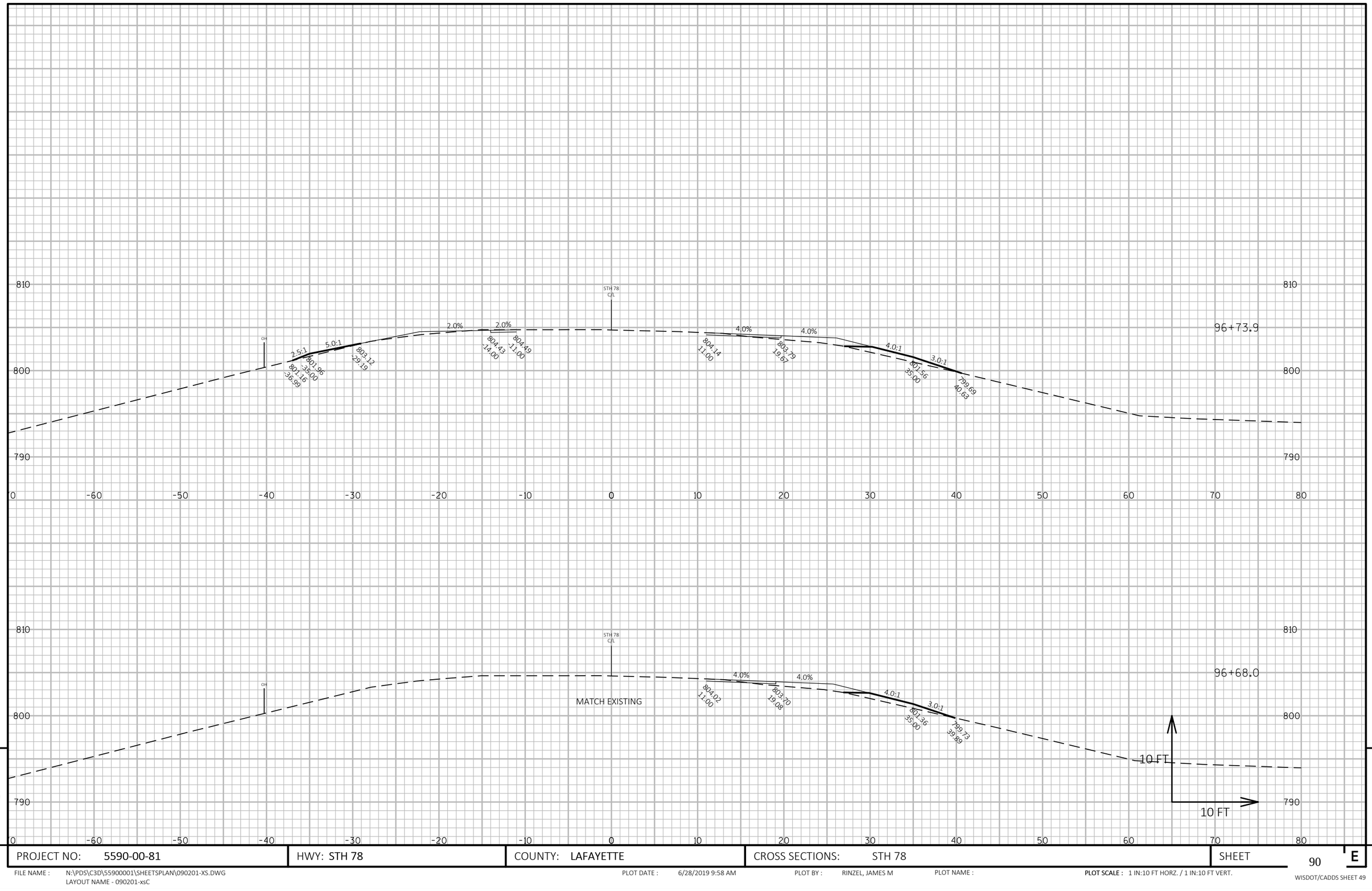
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsB

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 90 E

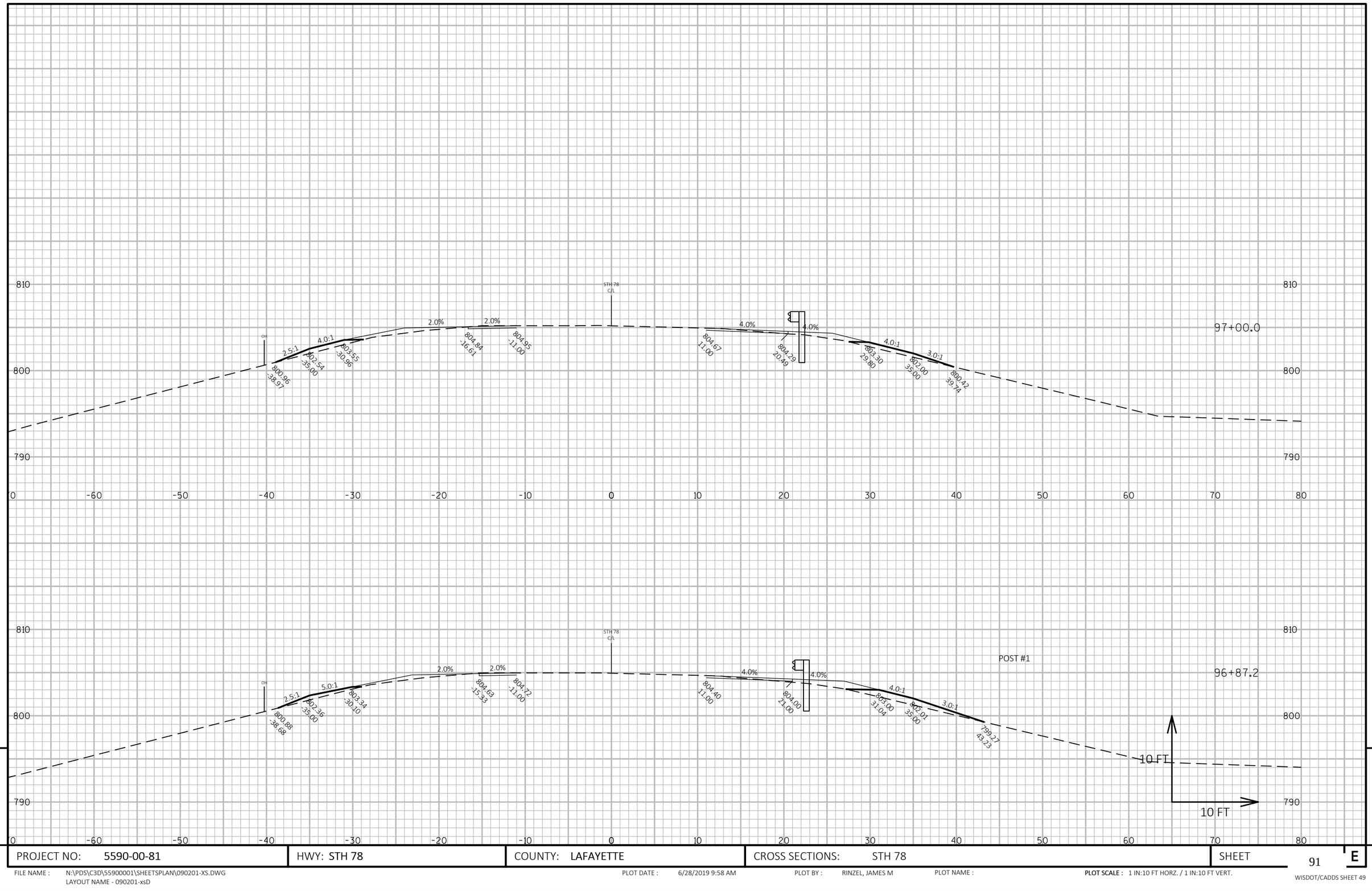
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsC

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 91 E

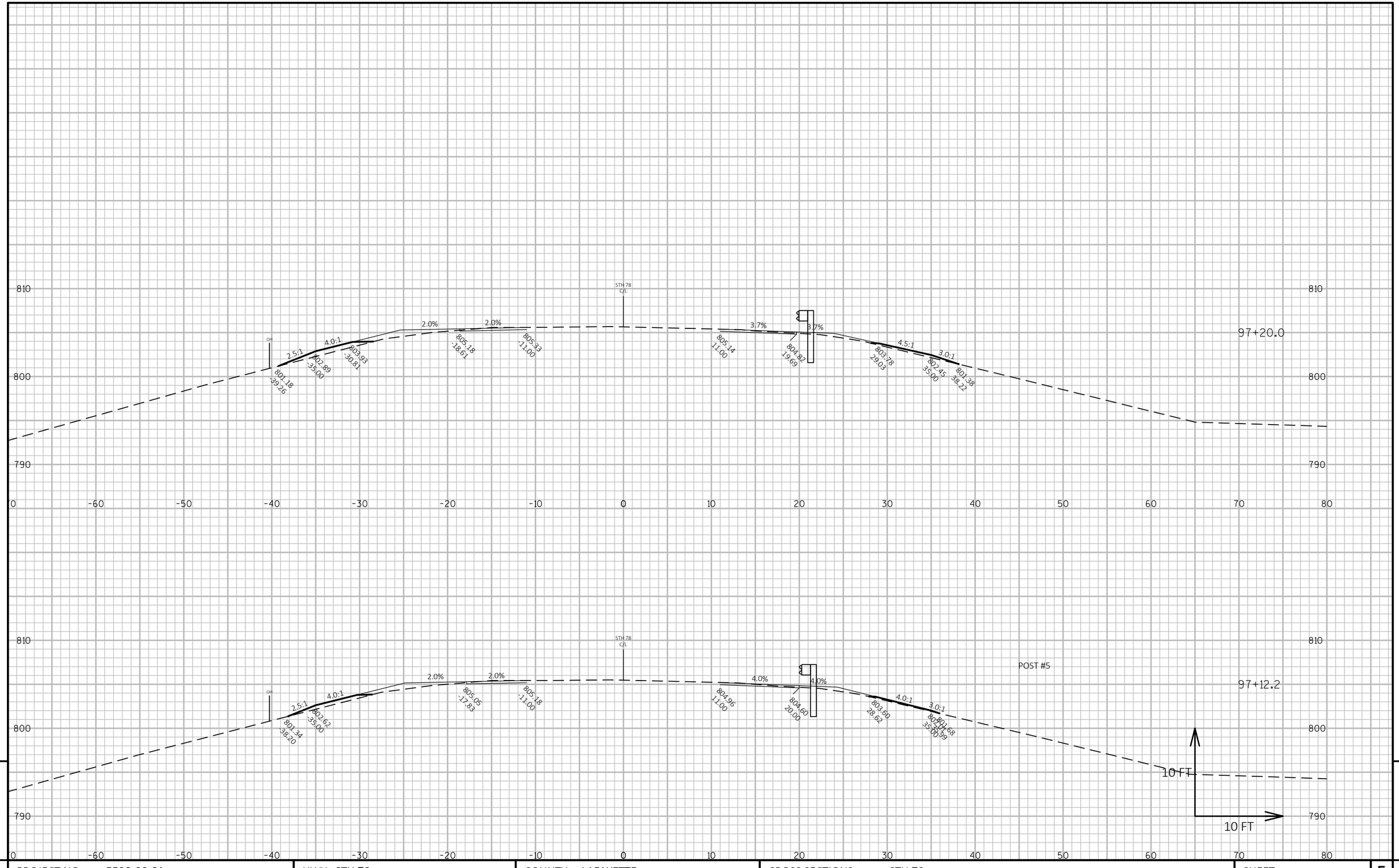
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsD

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 92 E

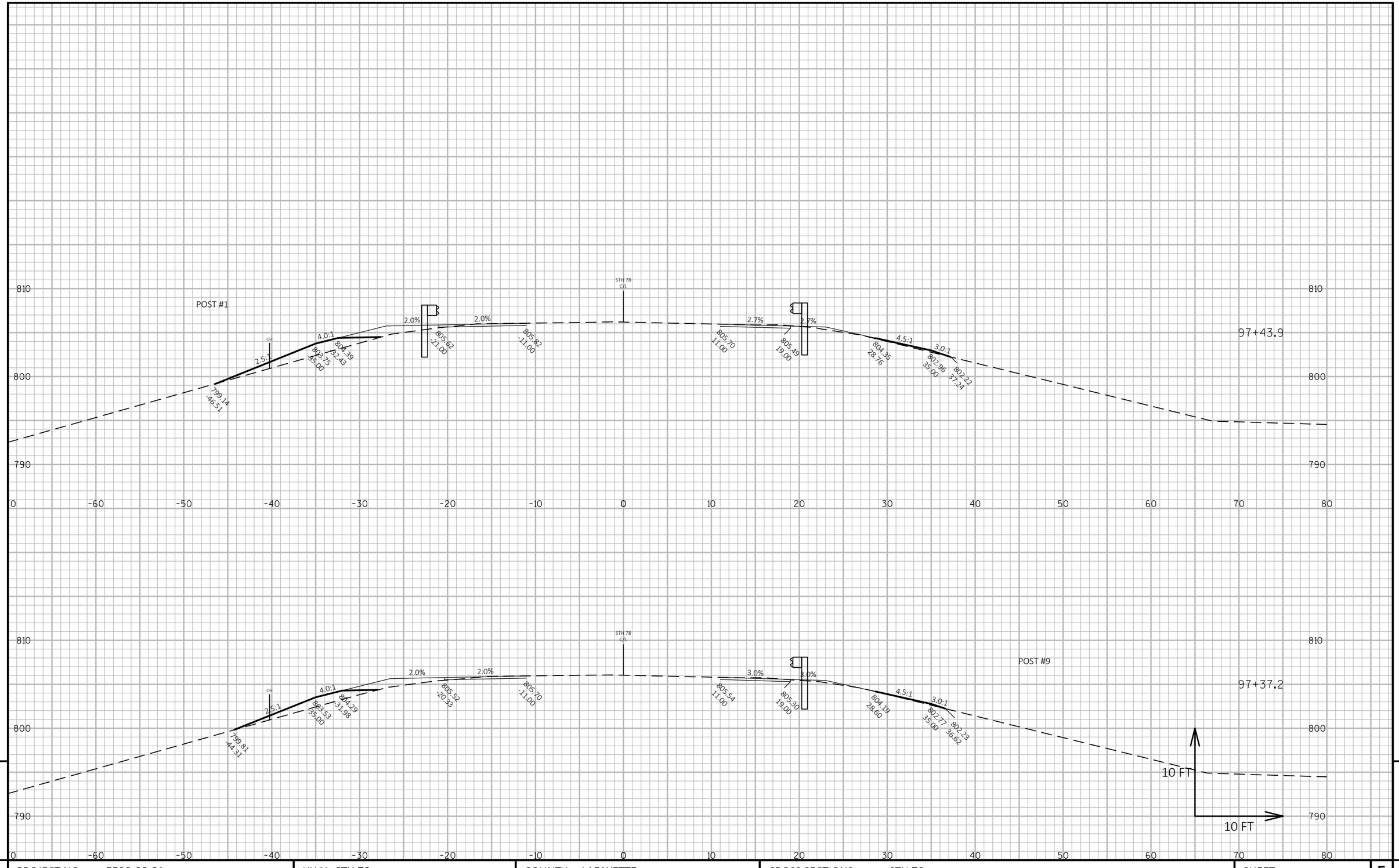
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsE

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 93 E

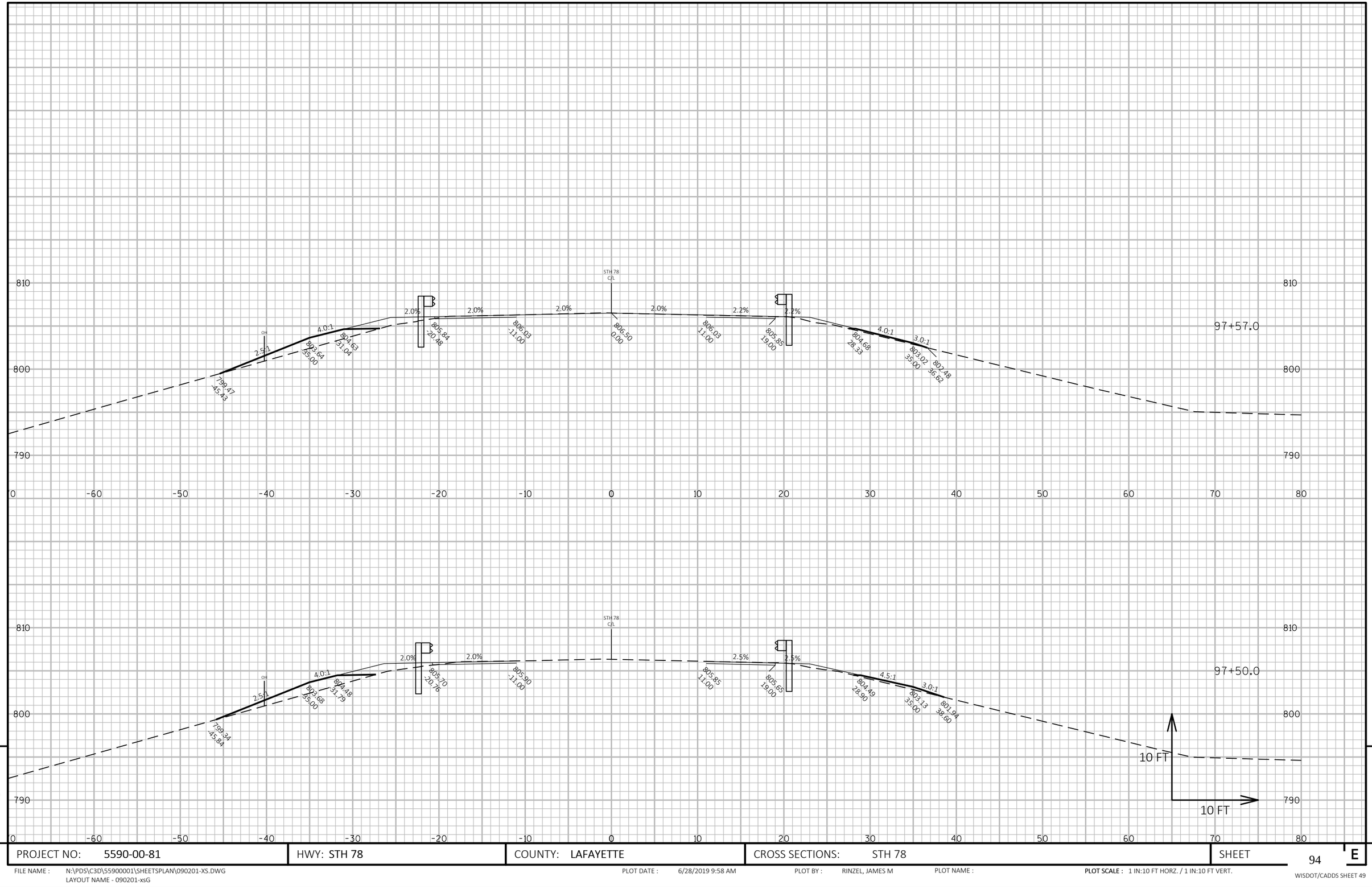
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsF

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 94 E

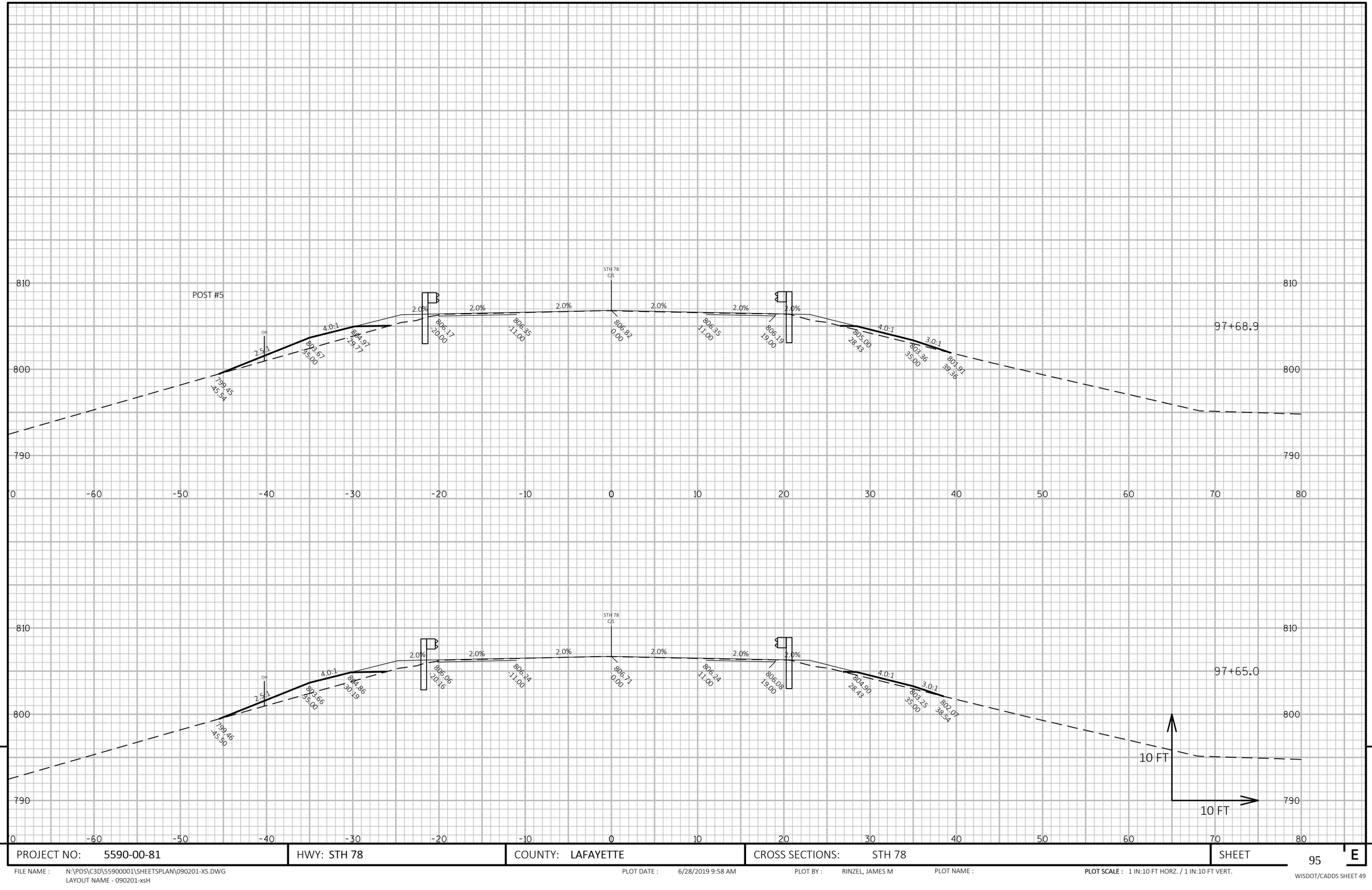
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsG

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 95 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsH

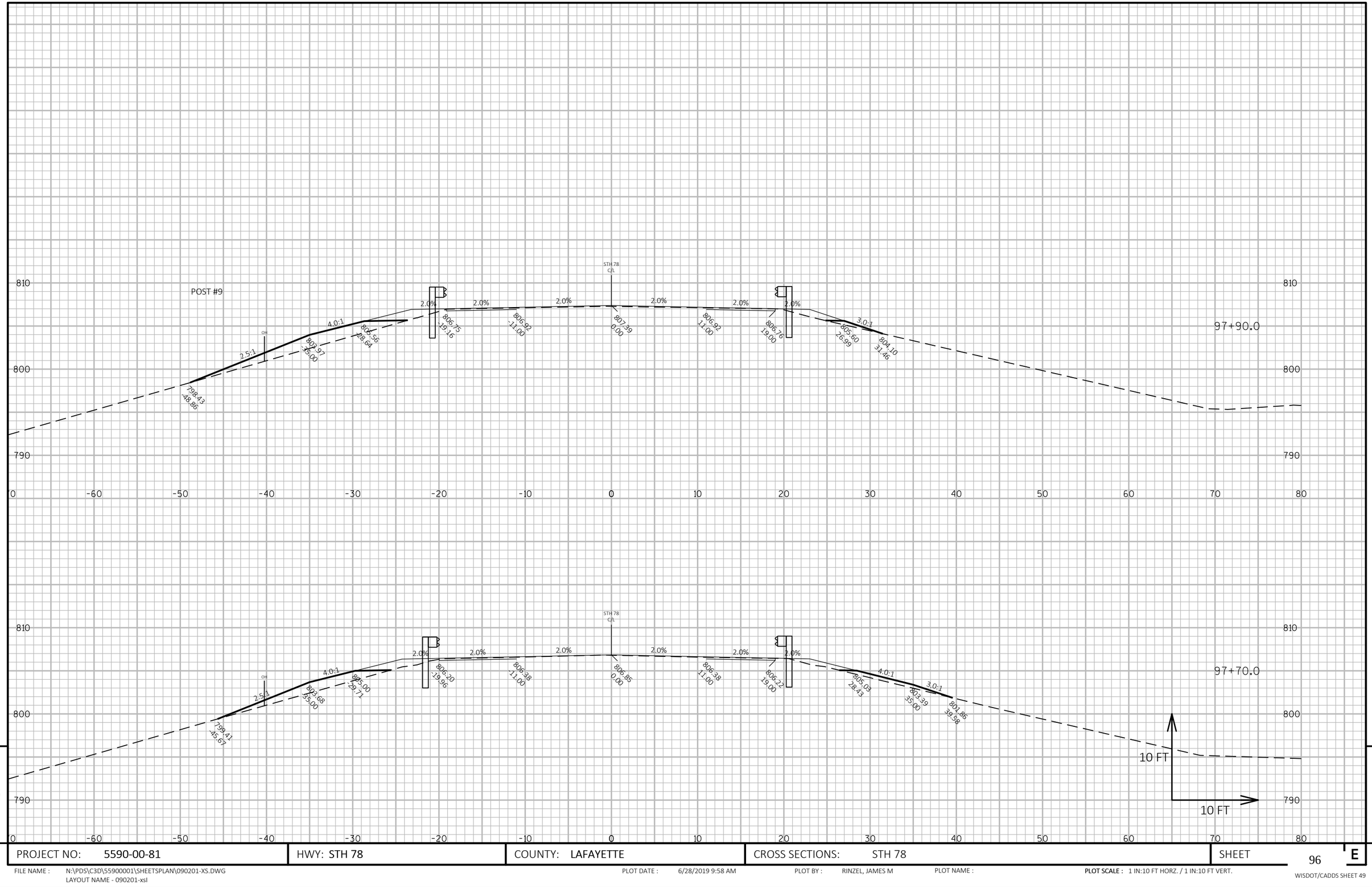
PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 96 E

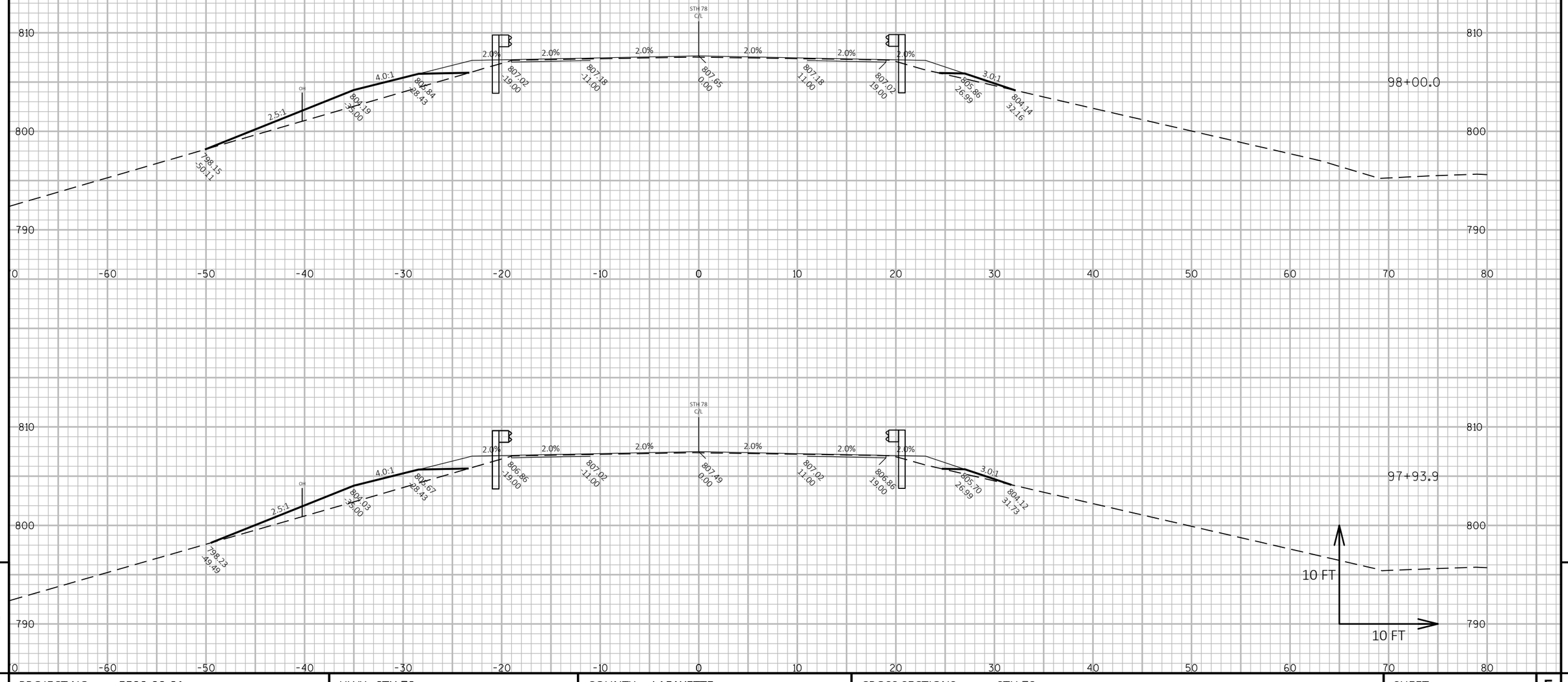
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsl

PLOT DATE : 6/28/2019 9:58 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 97 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsJ

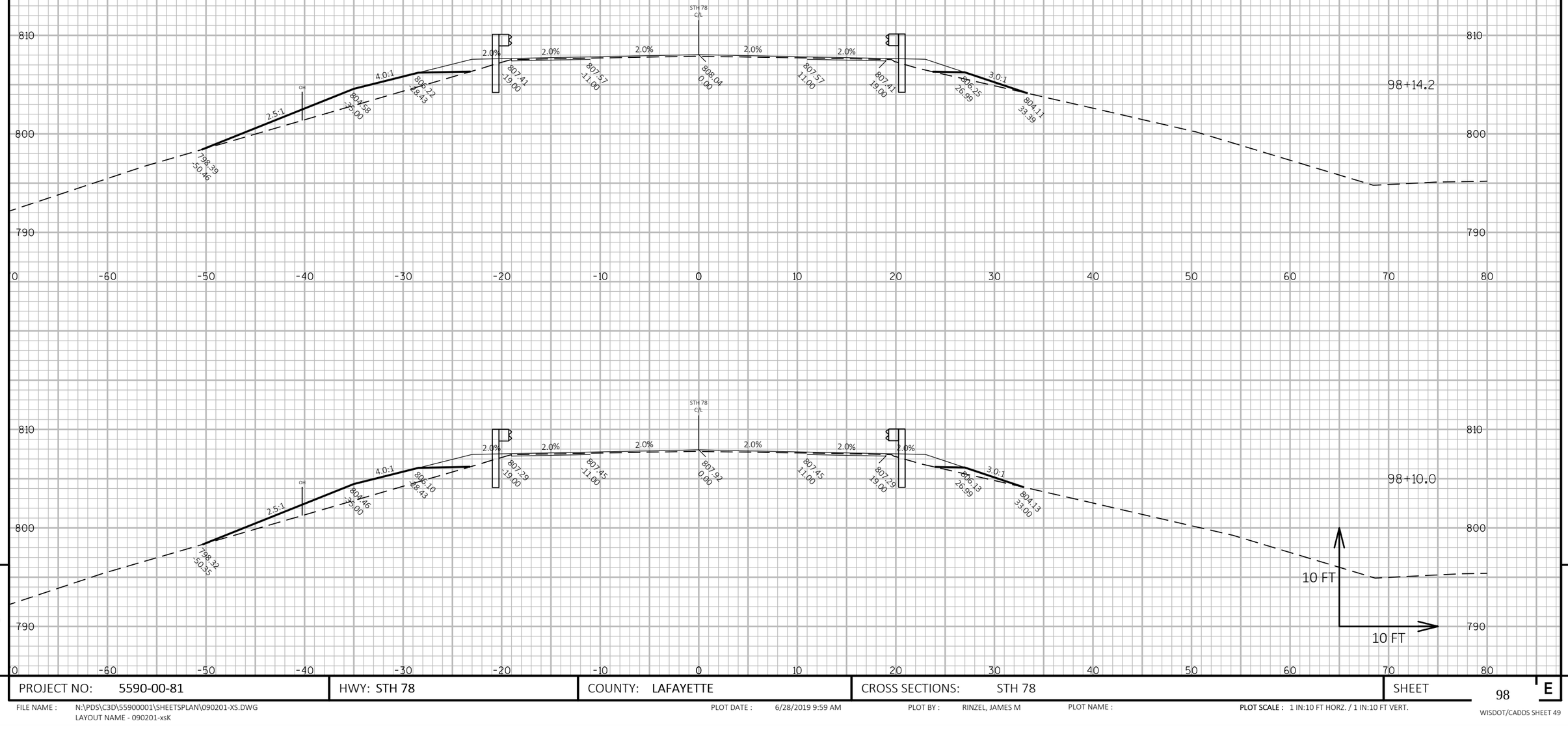
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 98 E

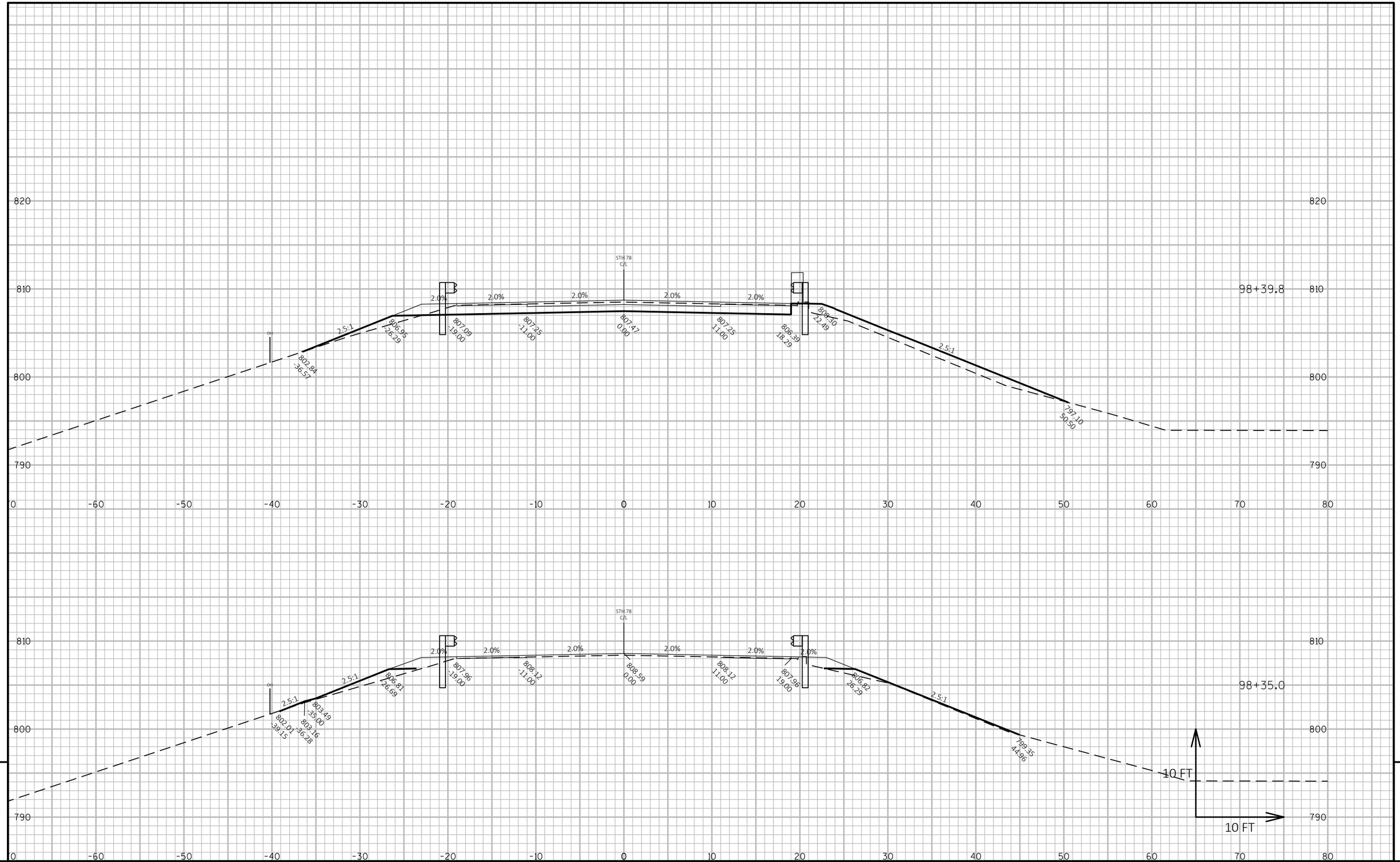
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsK

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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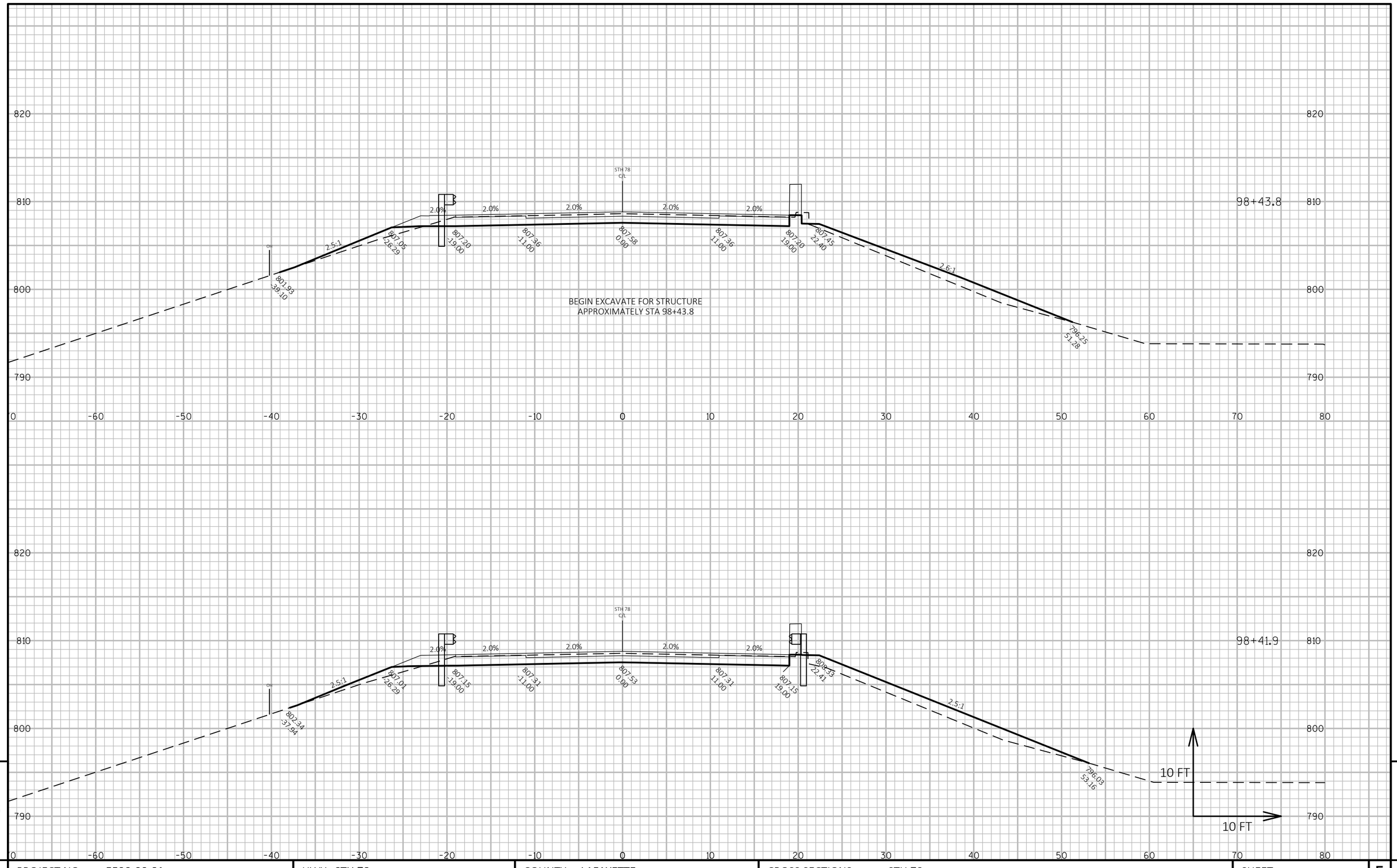
PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 99 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsL

PLOT DATE : 6/28/2019 9:59 AM PLOT BY : RINZEL, JAMES M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 100 E

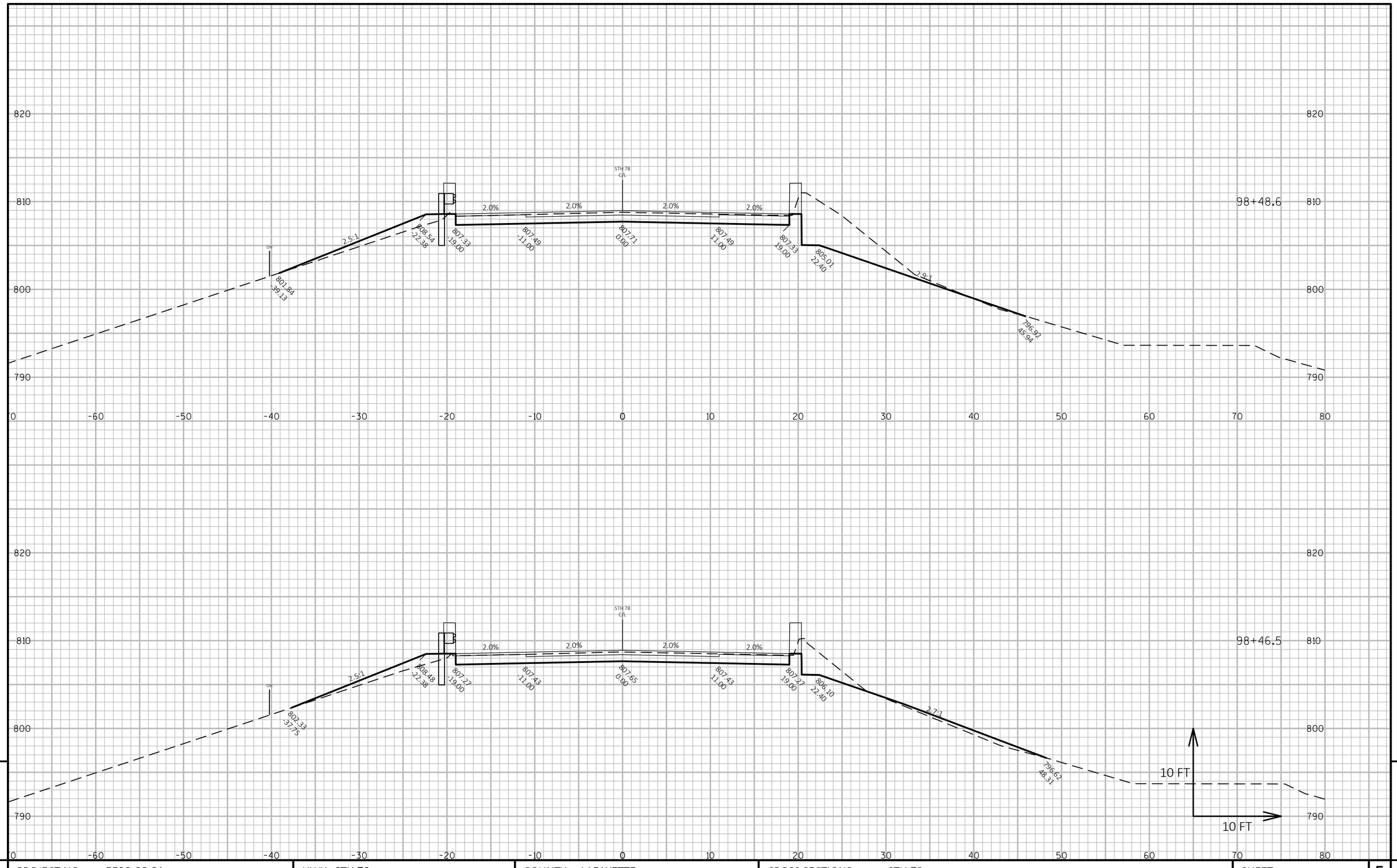
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsM

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 101 E

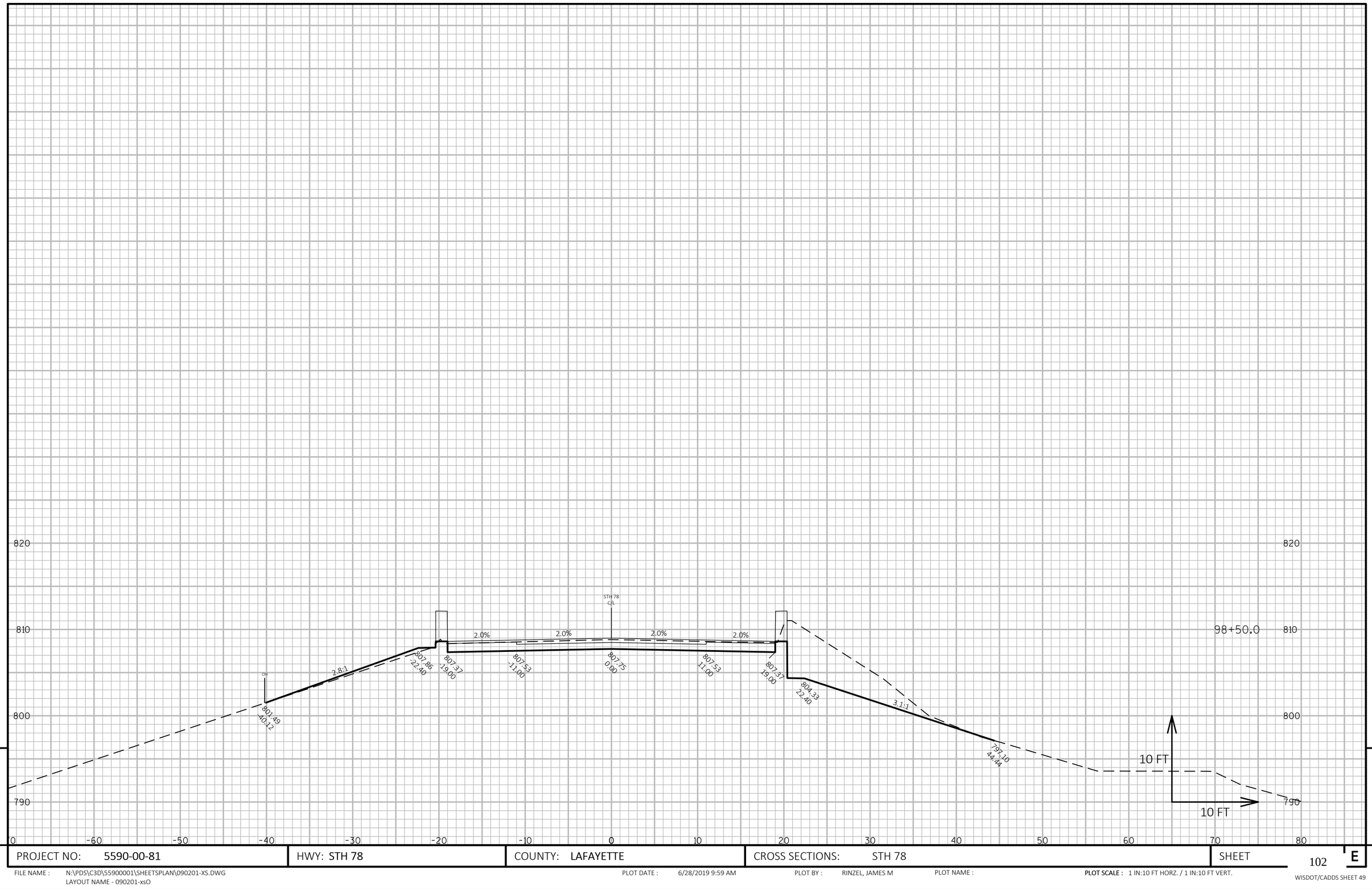
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsN

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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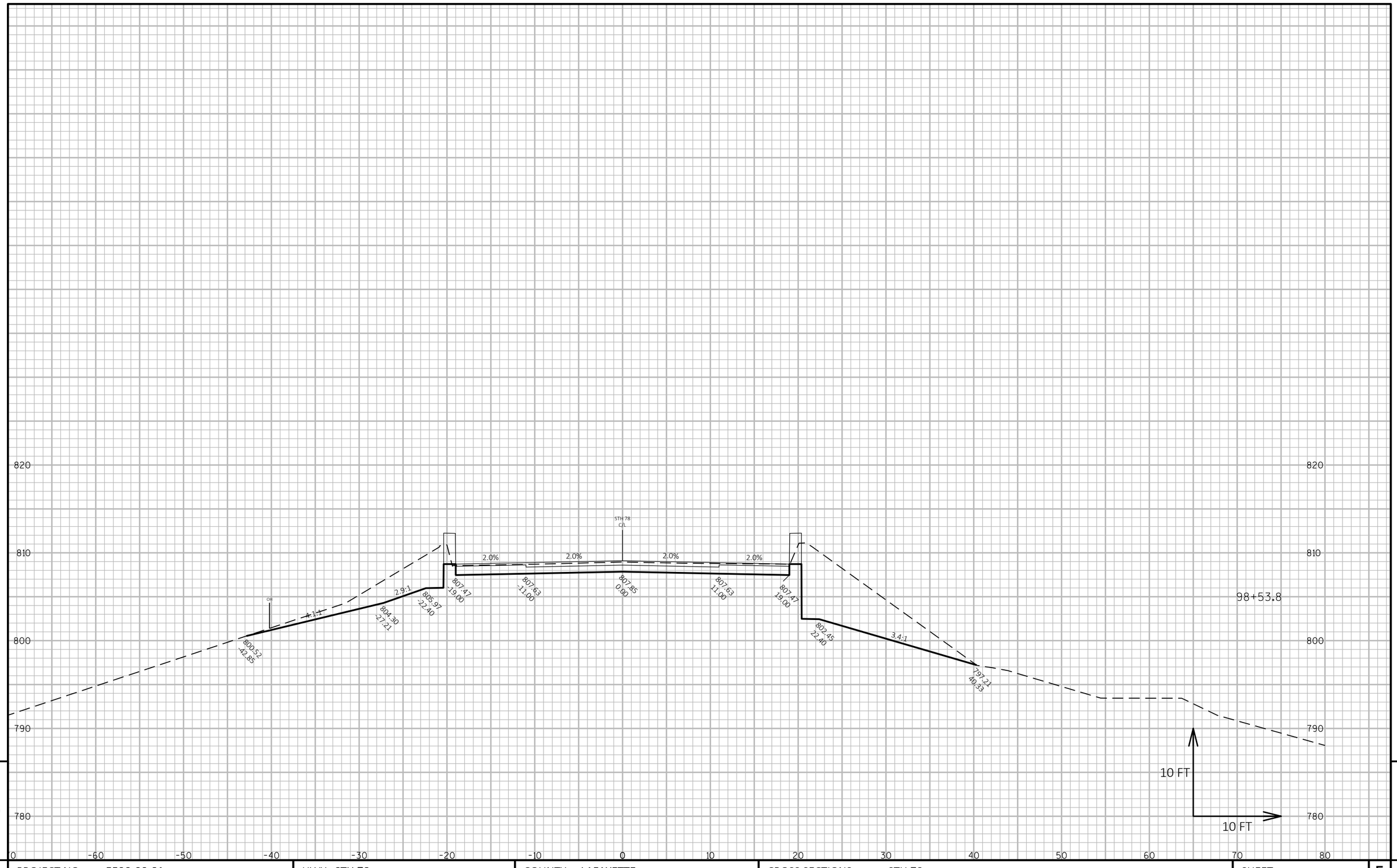
PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 102 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsO

PLOT DATE : 6/28/2019 9:59 AM PLOT BY : RINZEL, JAMES M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 103 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsP

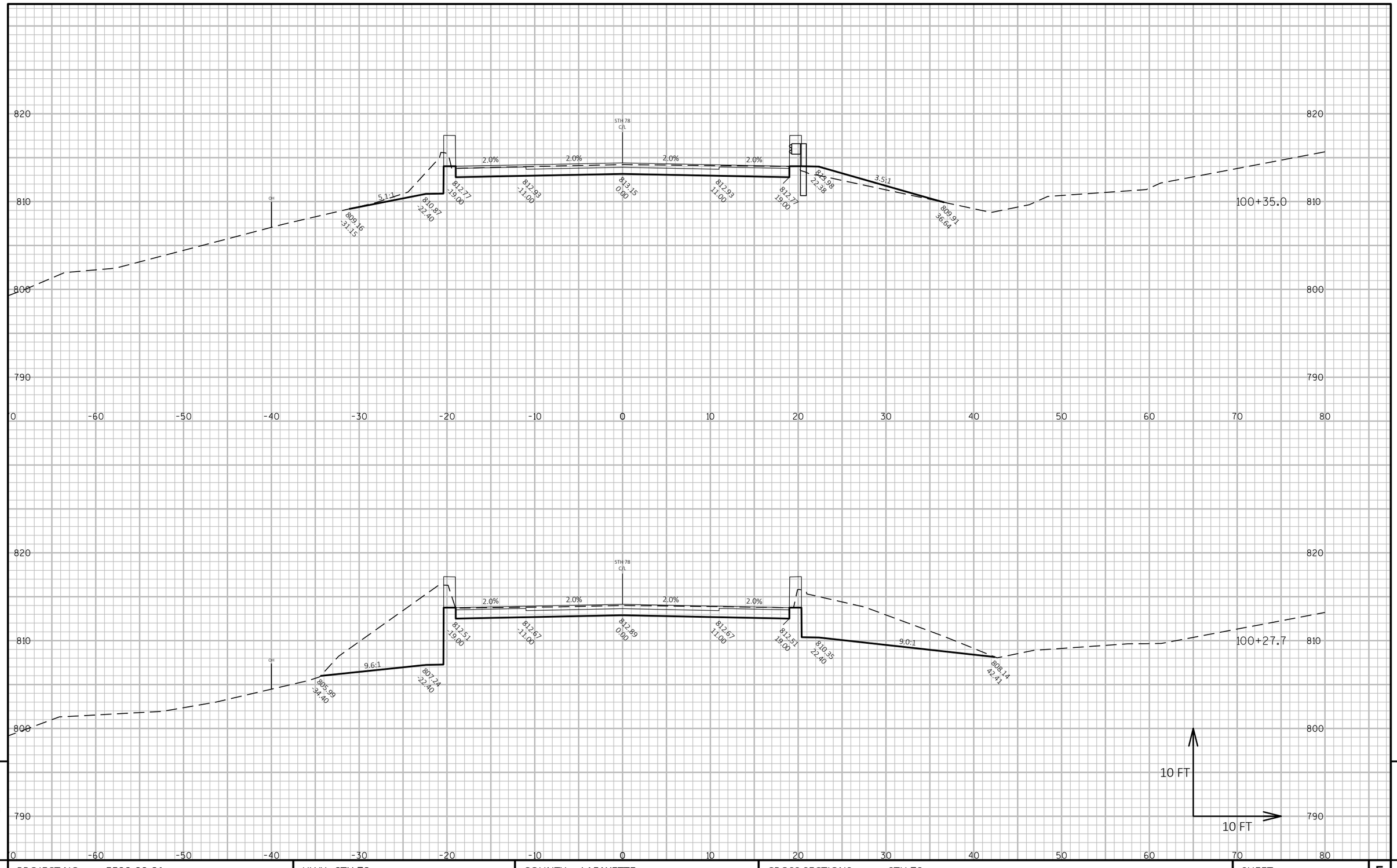
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 104 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsQ

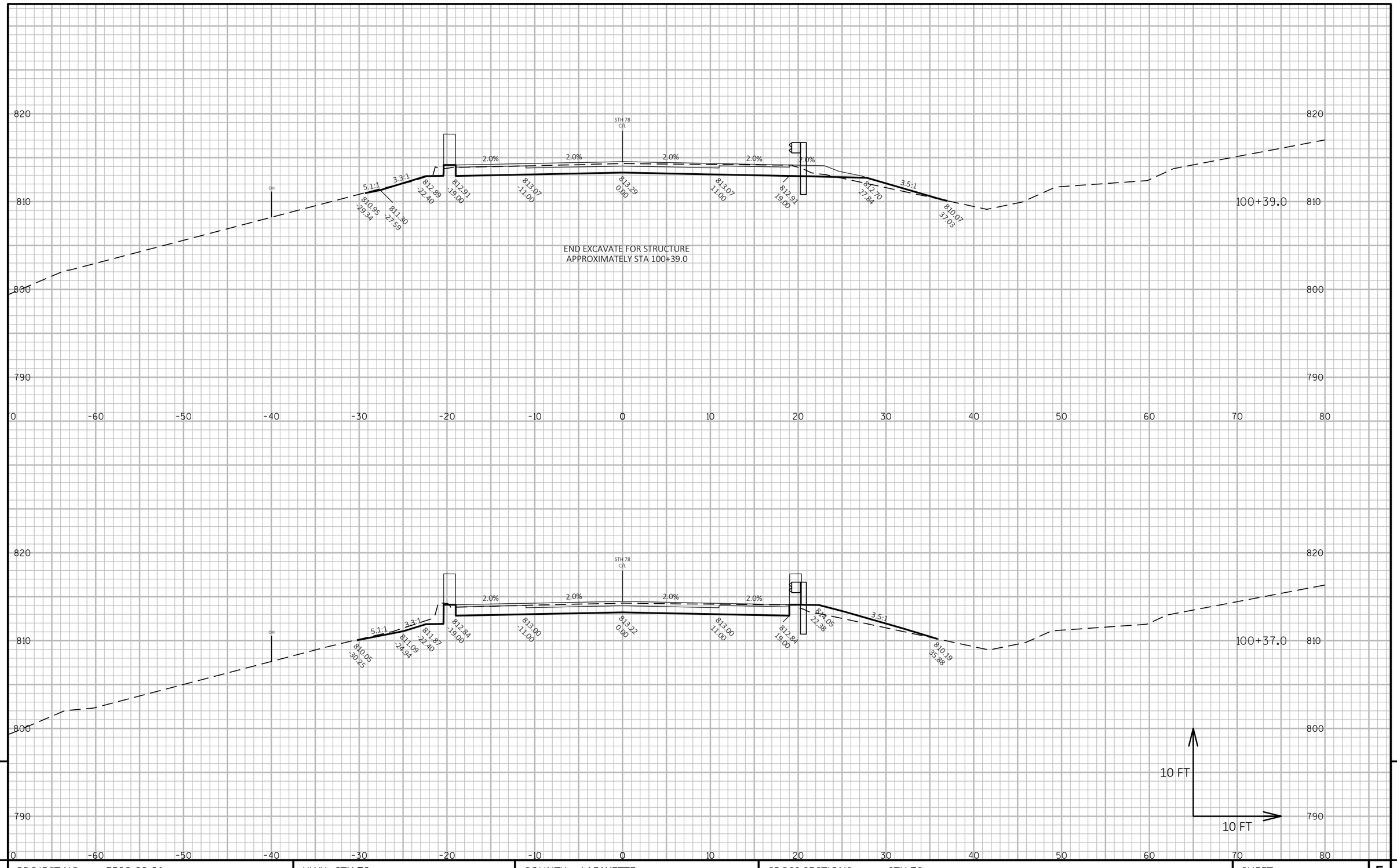
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 105 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsR

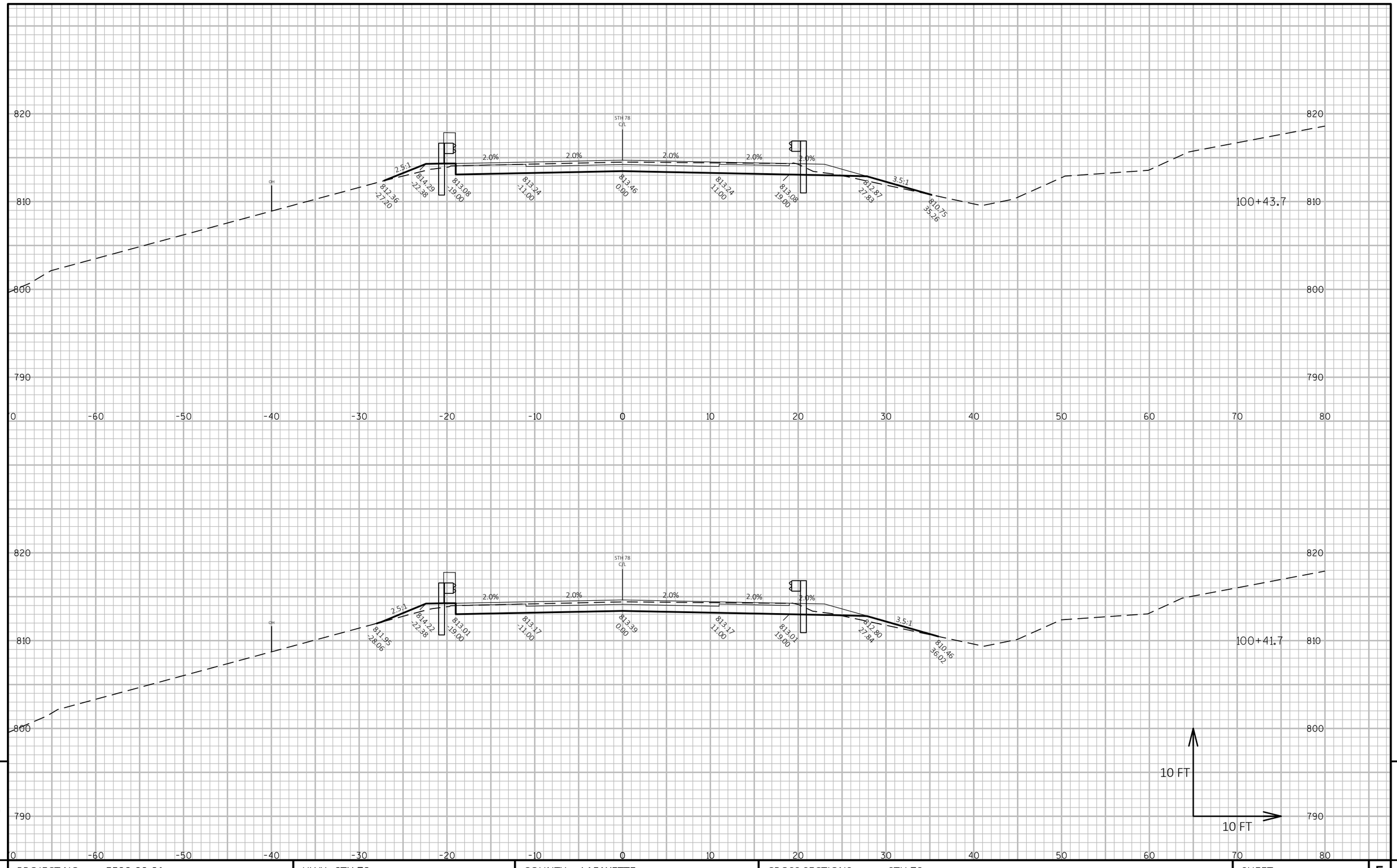
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 106 E

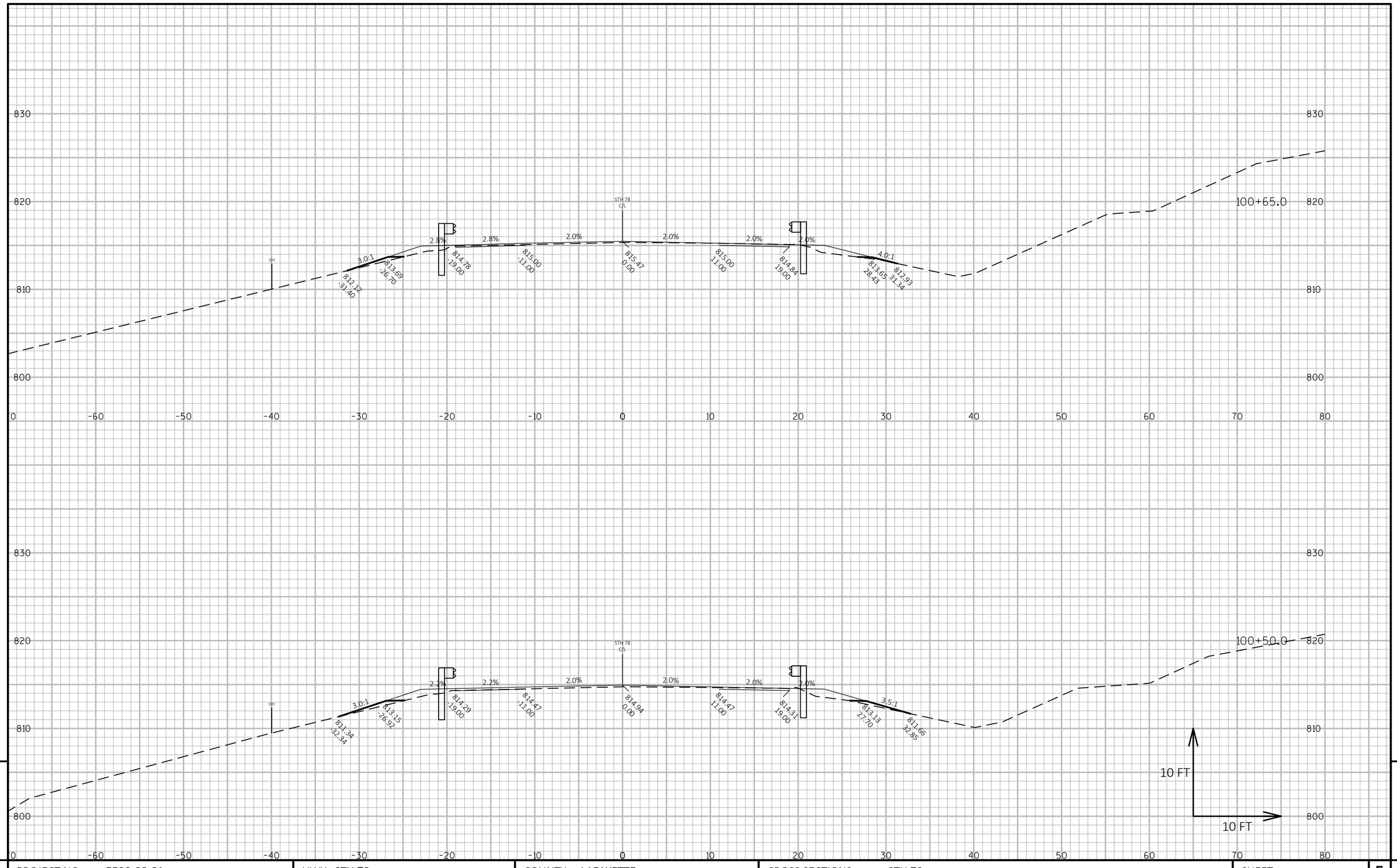
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsS

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

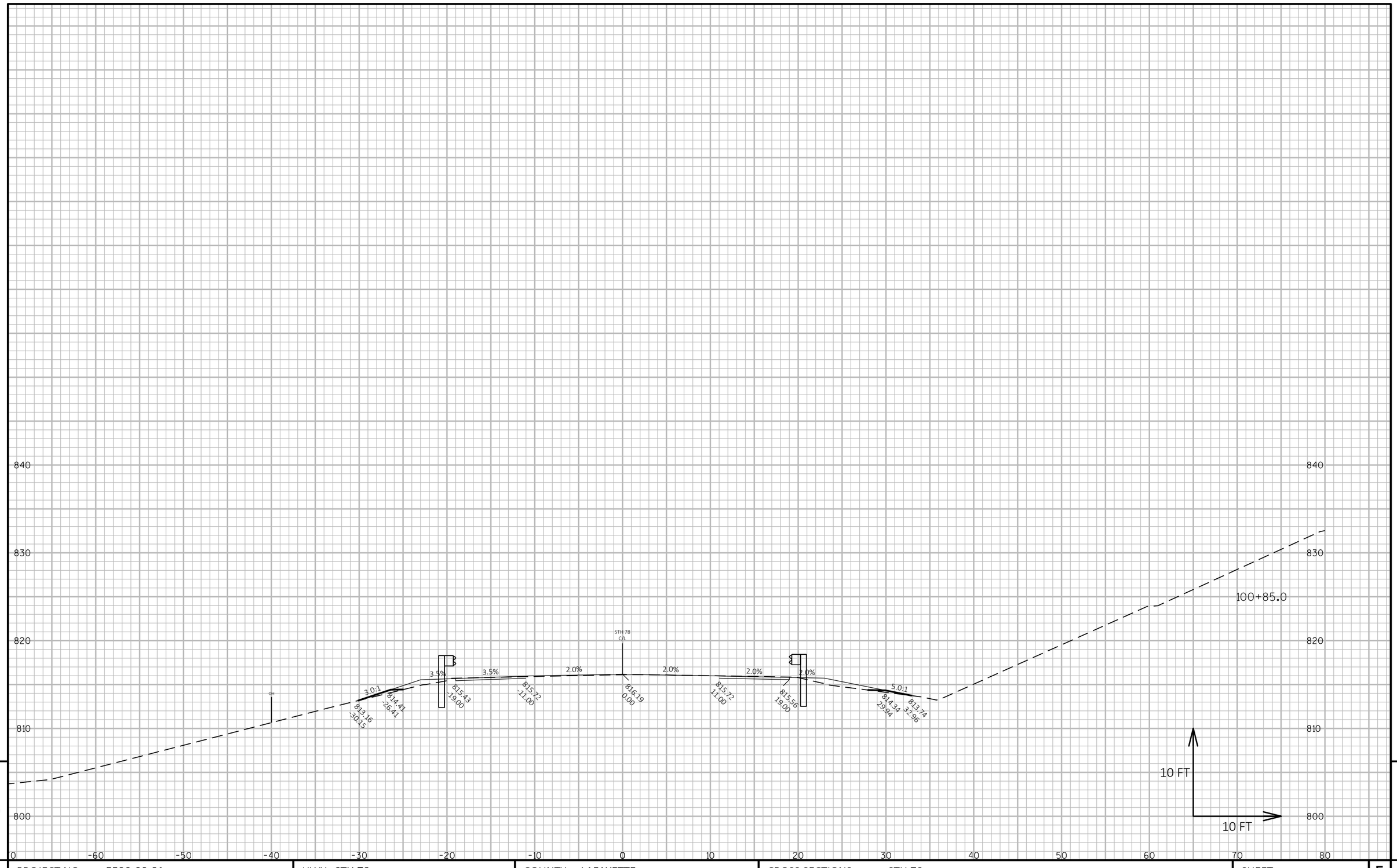


PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 107 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsT

PLOT DATE : 6/28/2019 9:59 AM PLOT BY : RINZEL, JAMES M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET PRI 108 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsU

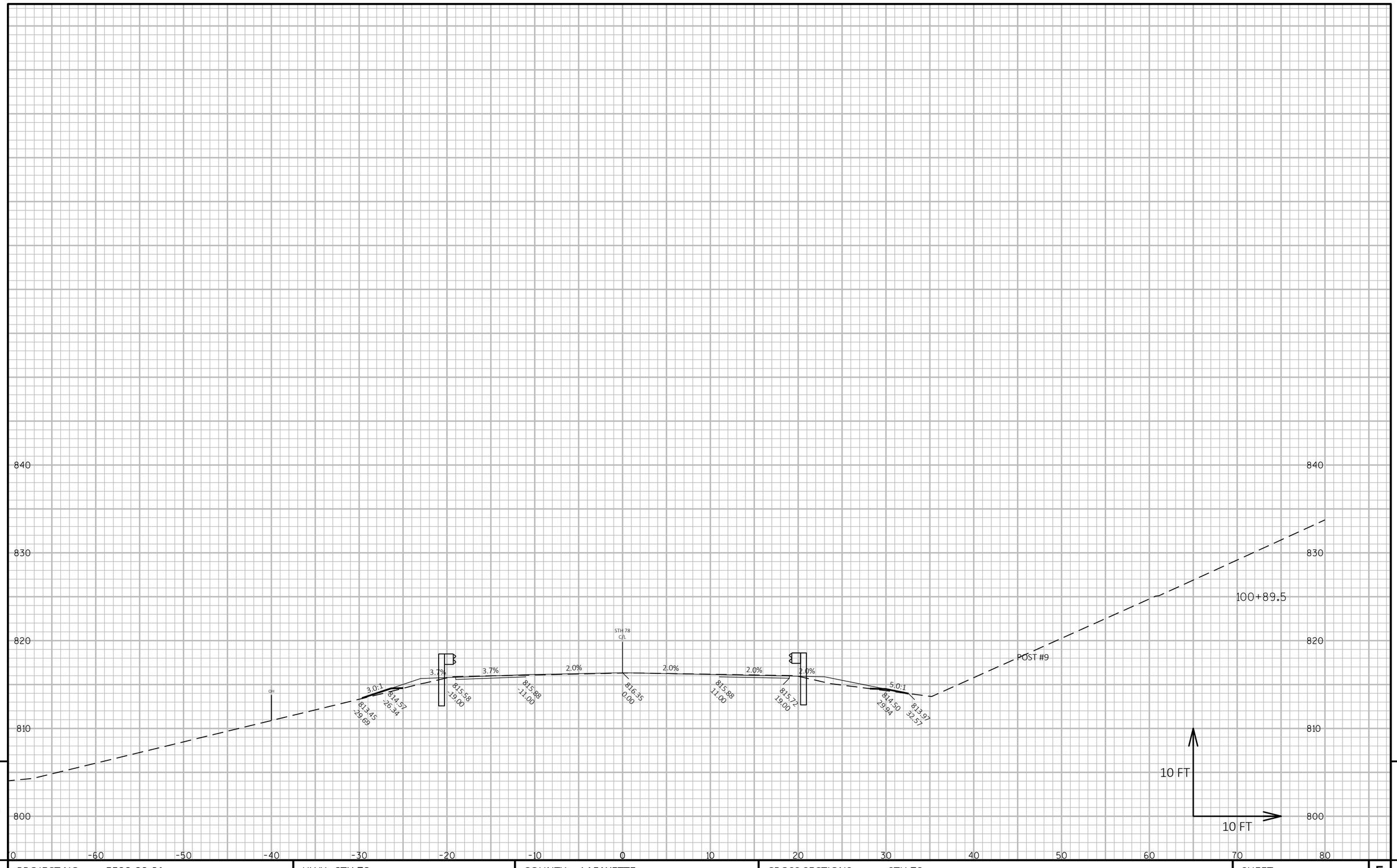
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 109 E

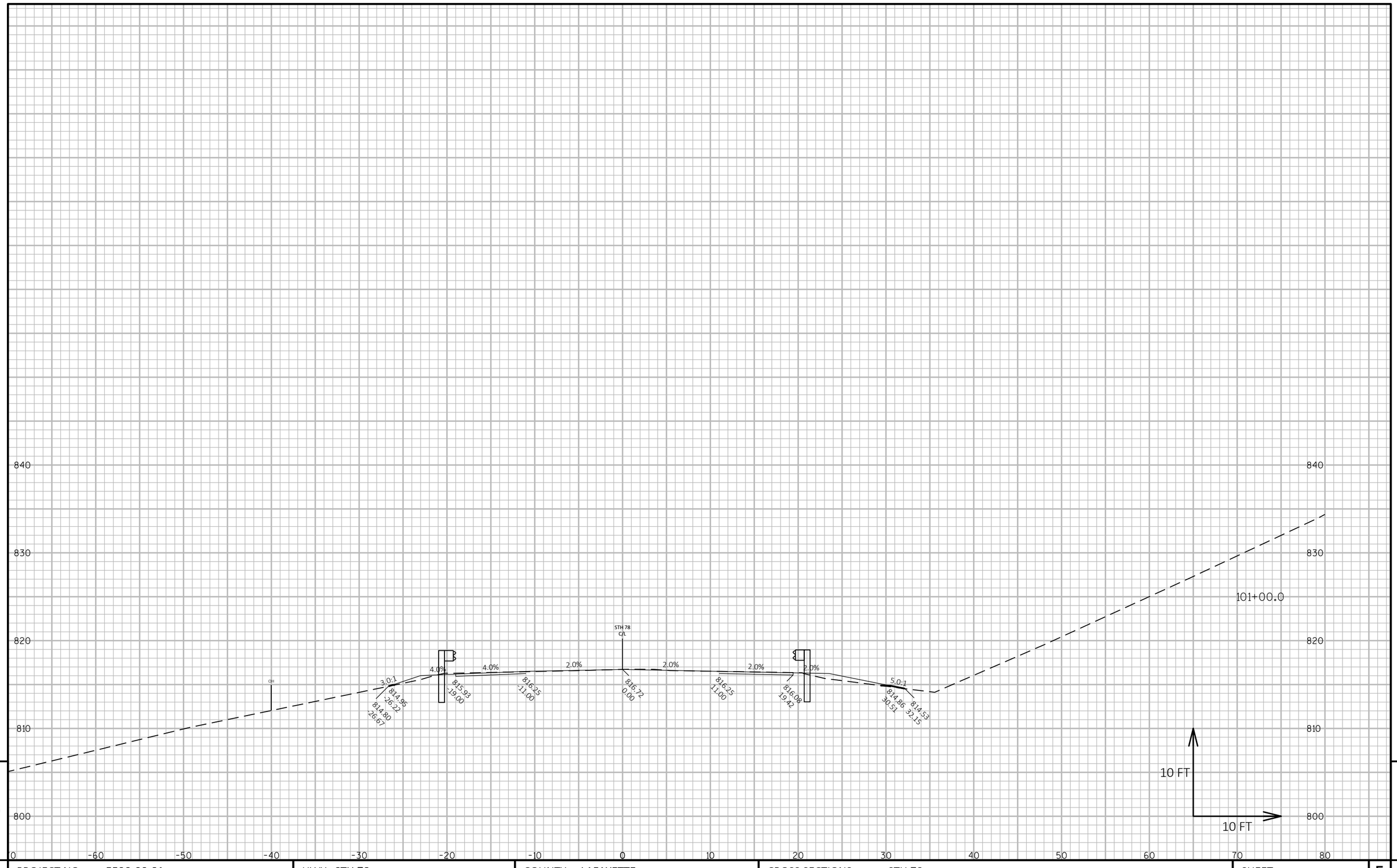
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsV

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 110 E

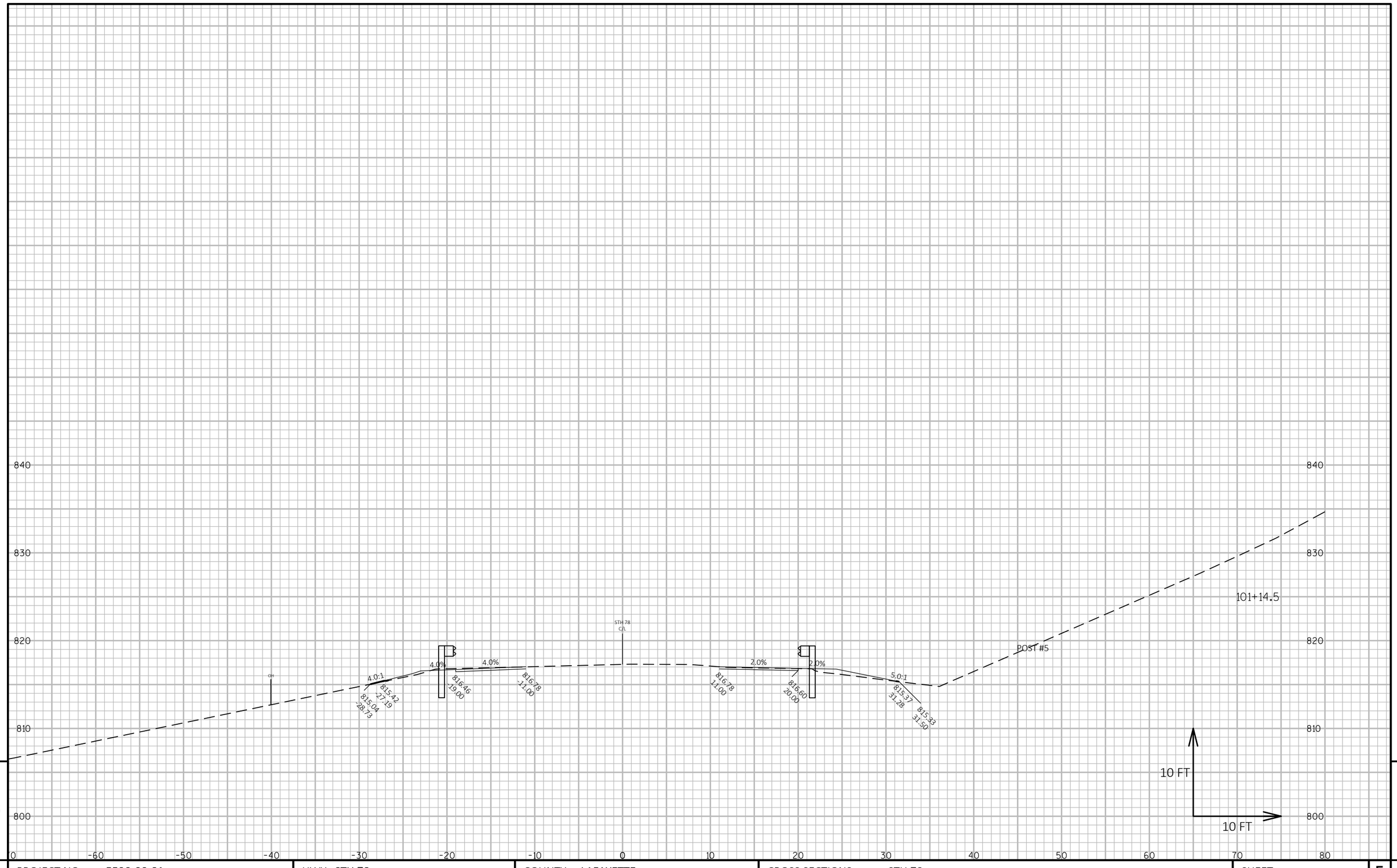
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsW

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 111 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsX

PLOT DATE : 6/28/2019 9:59 AM PLOT BY : RINZEL, JAMES M PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

840
830
820
810
800

0 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80

OH

4.0:1
815.66
27.39
815.13
29.51

4.0%
816.66
19.00

4.0%
816.98
11.00

STH 78
C/L

817.11
11.00

2.0%
816.92
20.22

2.0%

5.0:1
815.69
31.87
815.36
33.51

101+20.0

10 FT
10 FT

9

9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 112 E

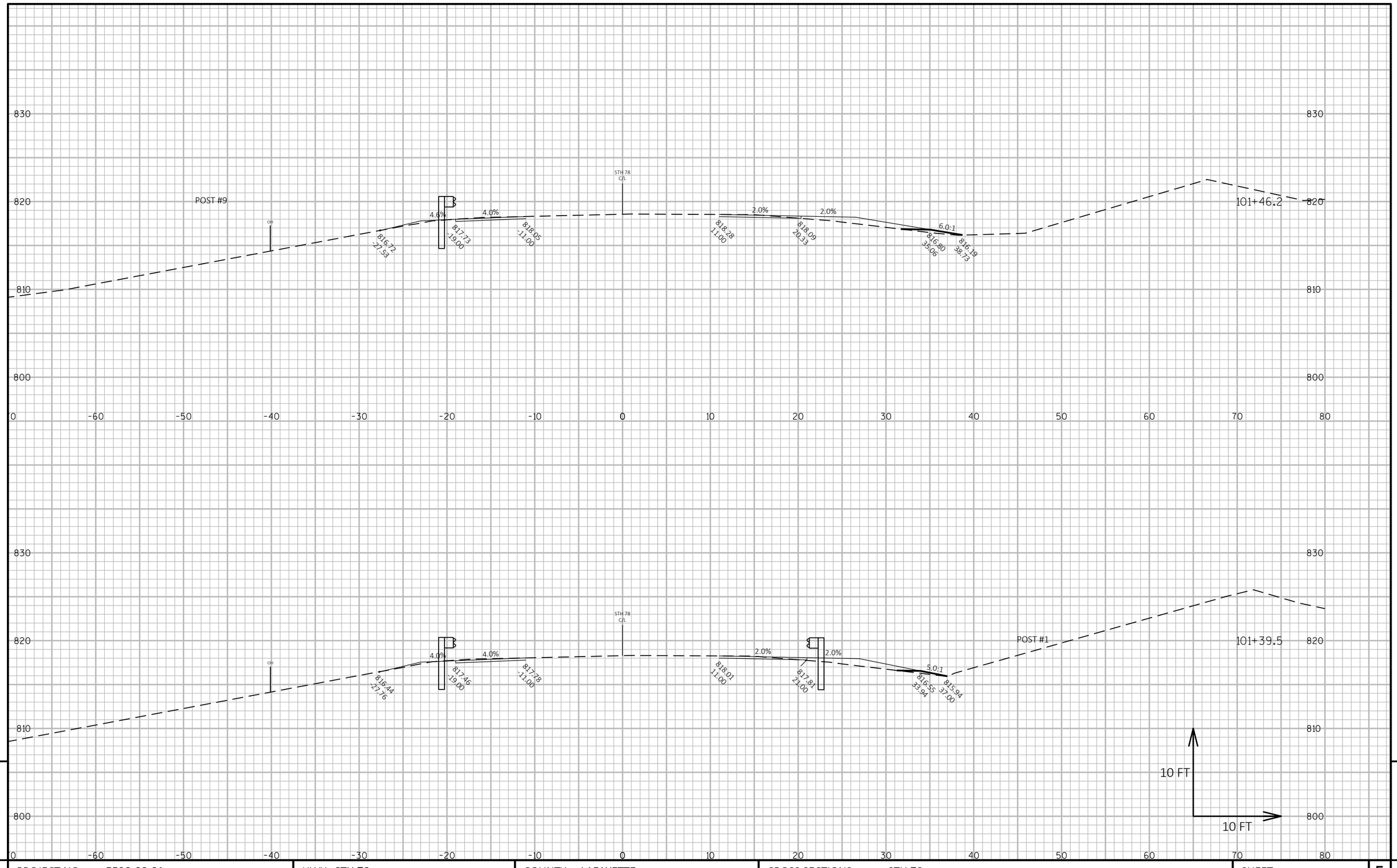
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsY

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 113 E

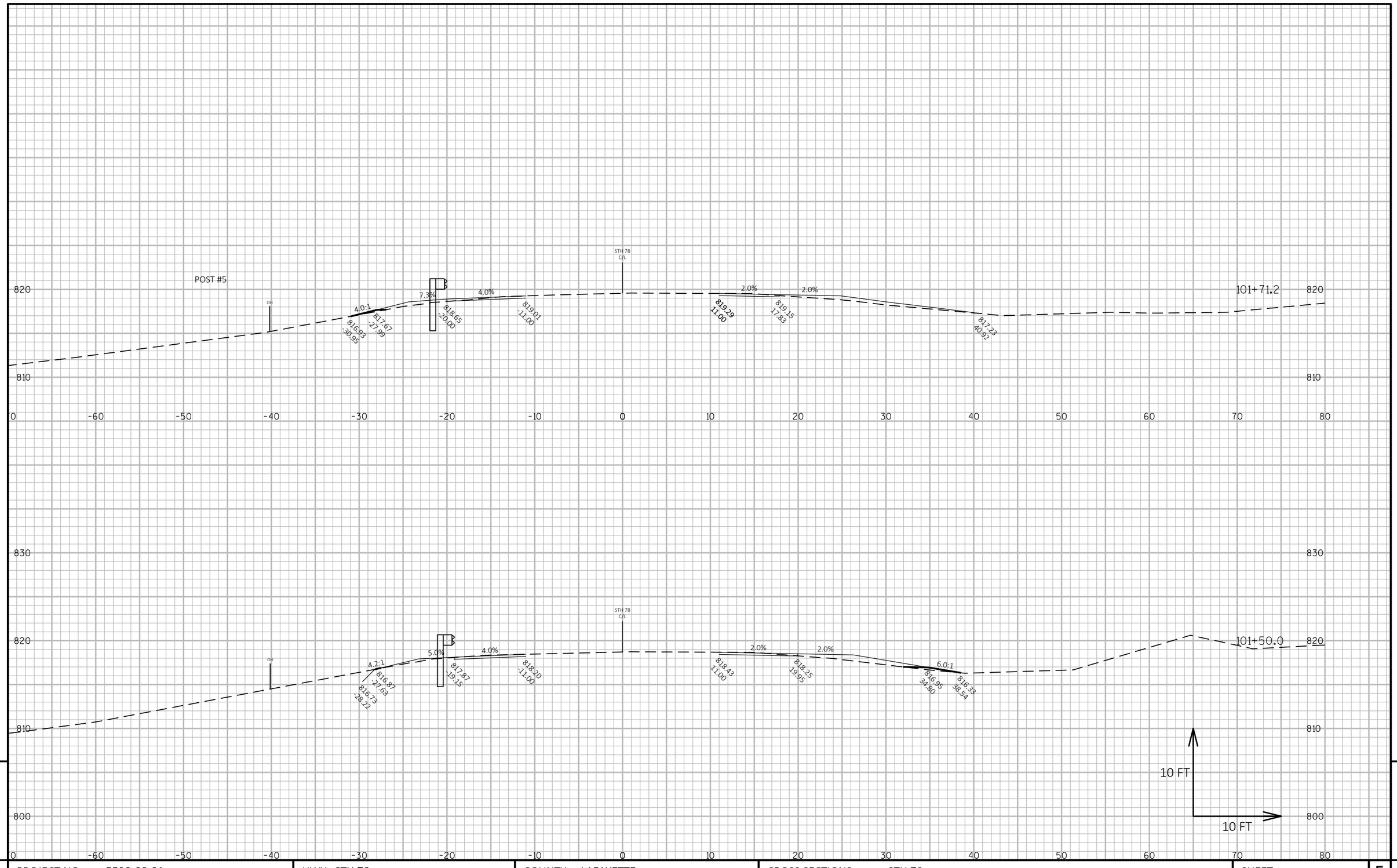
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsZ

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 114 E

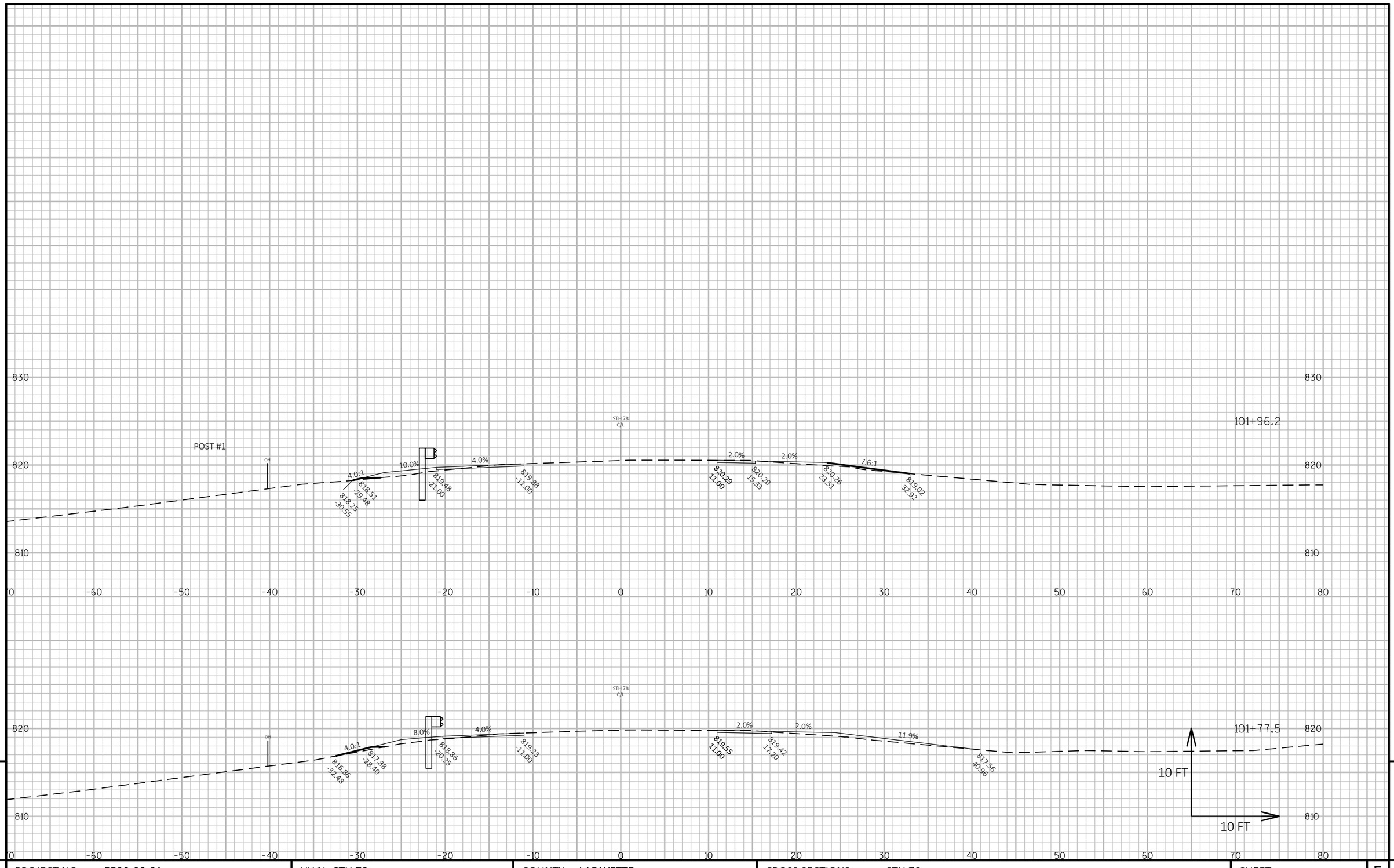
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsAA

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 115 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsAB

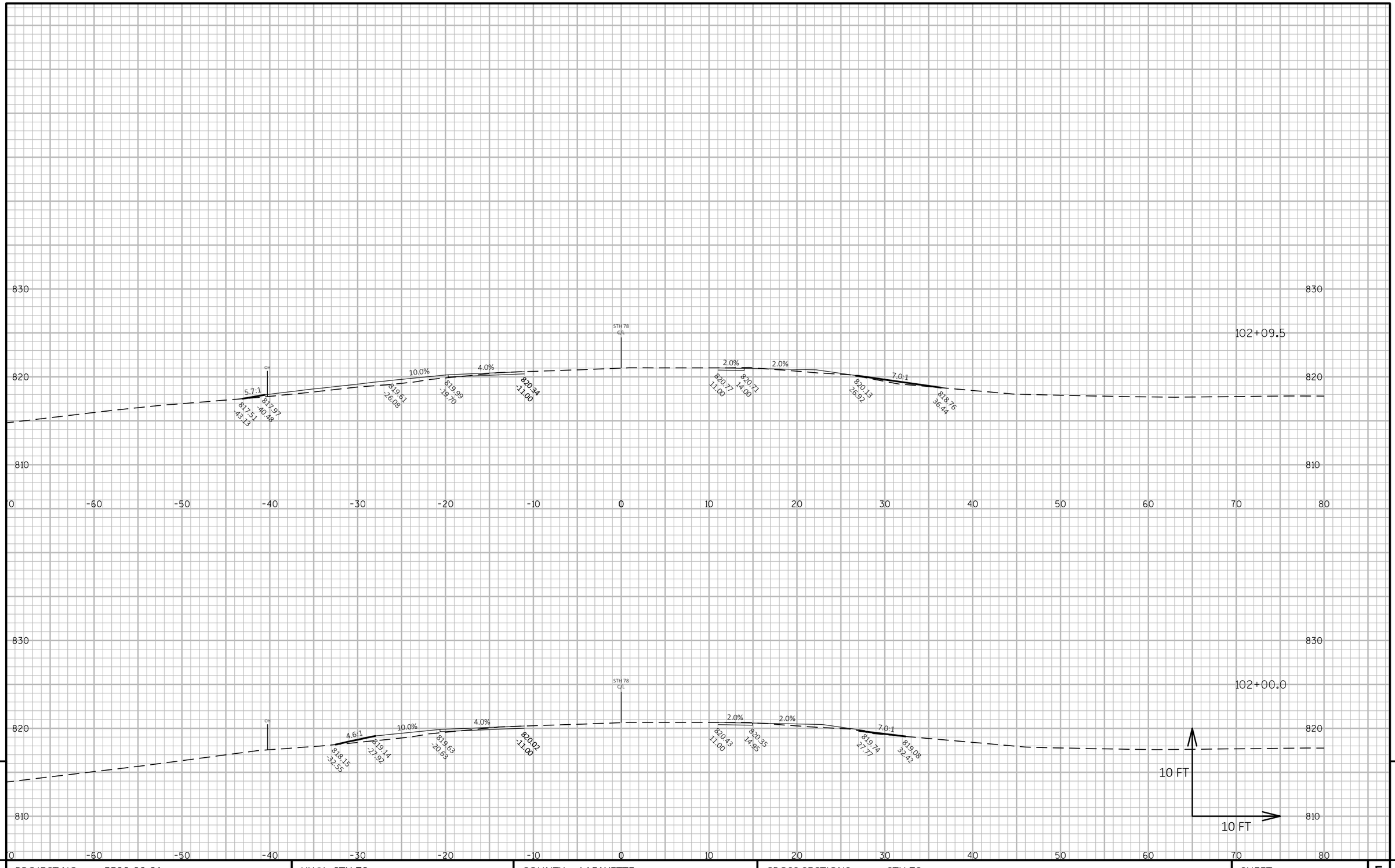
PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 116 E

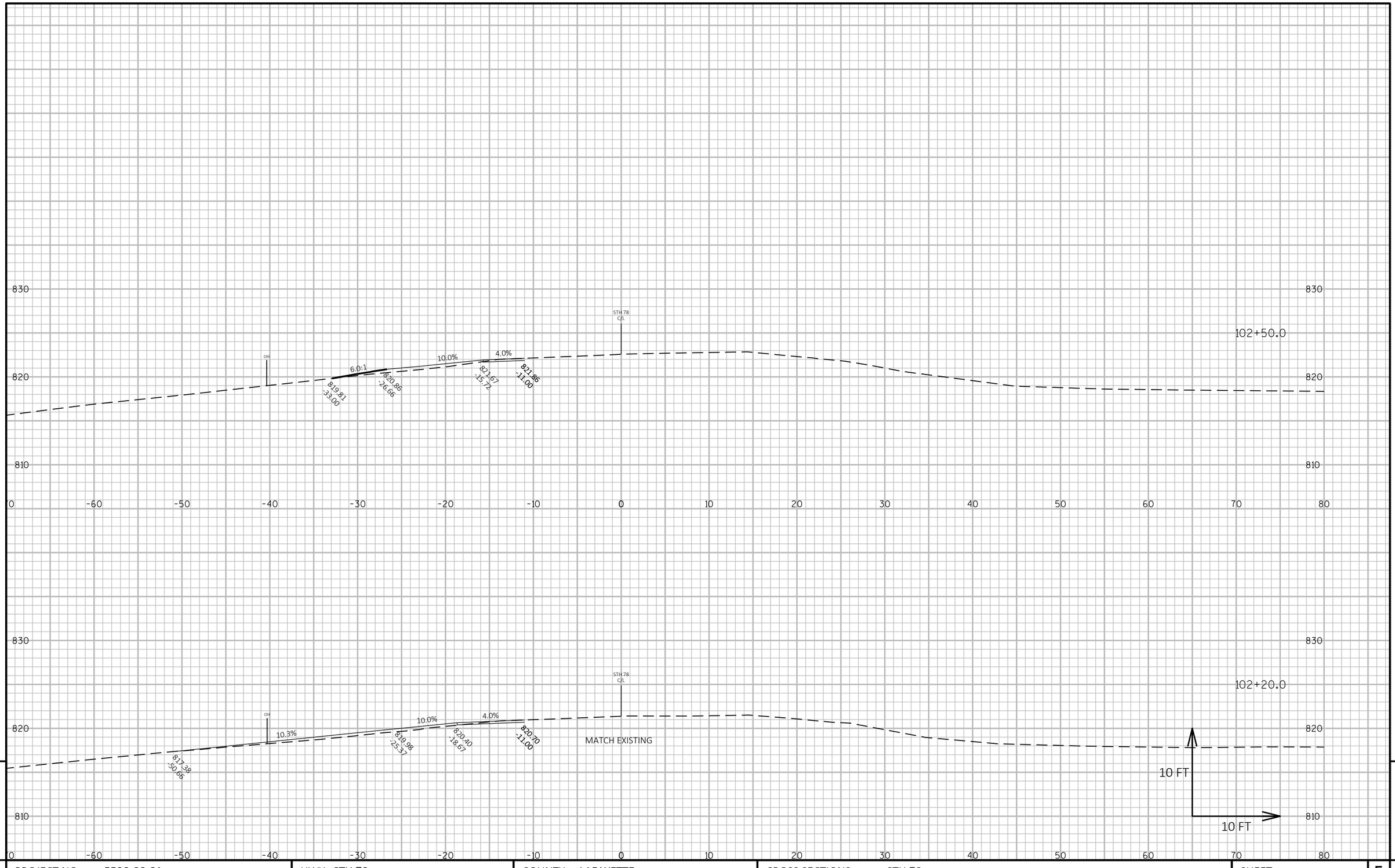
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsAC

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



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PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 117 E

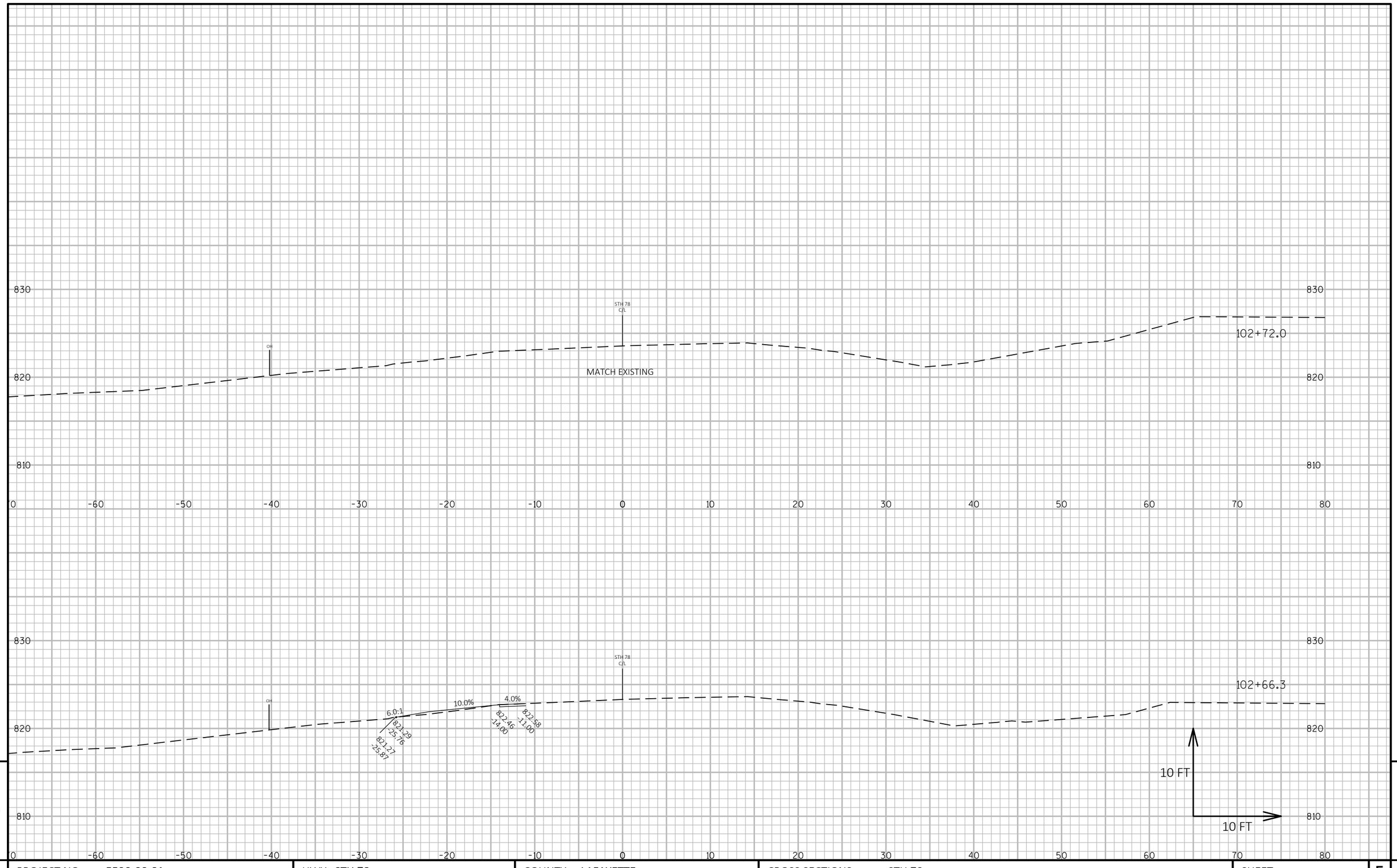
FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsAD

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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



9

9

PROJECT NO: 5590-00-81	HWY: STH 78	COUNTY: LAFAYETTE	CROSS SECTIONS: STH 78	SHEET 118 E

FILE NAME : N:\PDS\C3D\55900001\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 090201-xsAE

PLOT DATE : 6/28/2019 9:59 AM

PLOT BY : RINZEL, JAMES M

PLOT NAME :

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

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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