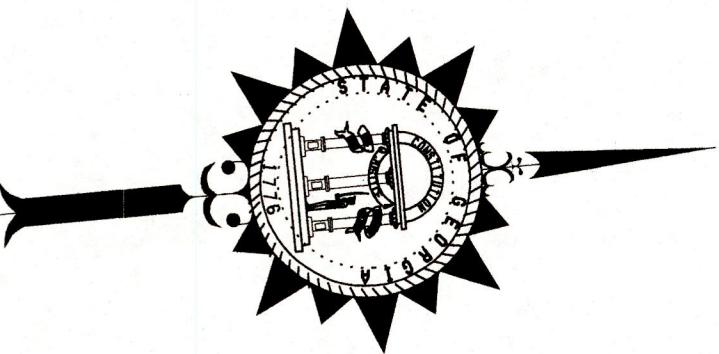


# DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

## PLAN AND PROFILE OF PROPOSED SR 11/ SR 49/US 41 @ ROCKY CREEK AND OVERFLOW AND @ TOBESOFKEE CREEK & OVERFLOW



FEDERAL AID PROJECT  
BIBB COUNTY

NOTE :  
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS,  
DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION  
WITH THIS DOCUMENT, TO "STATE HIGHWAY DEPARTMENT OF GEORGIA"; "STATE  
HIGHWAY DEPARTMENT", "GEORGIA STATE HIGHWAY DEPARTMENT"; "HIGHWAY  
DEPARTMENT", OR "DEPARTMENT" WHEN THE CONTEXT THEREOF MEANS THE  
STATE HIGHWAY DEPARTMENT OF GEORGIA, AND SHALL BE DEEMED TO MEAN  
THE DEPARTMENT OF TRANSPORTATION.

**DESIGN DATA:**  
TRAFFIC A.D.T.: 39600 (2020)  
TRAFFIC A.D.T.: 48350 (2040)  
TRAFFIC D.H.V.: 3850 (2040)  
DIRECTIONAL DIST: 50%  
% TRUCKS: 9.5%  
24 HR. TRUCKS %: 13%  
SPEED DESIGN: 55 MPH

LOCATION & DESIGN  
APPROVAL DATE: 1/9/17

FUNCTIONAL CLASS:  
URBAN PRINCIPAL ARTERIAL

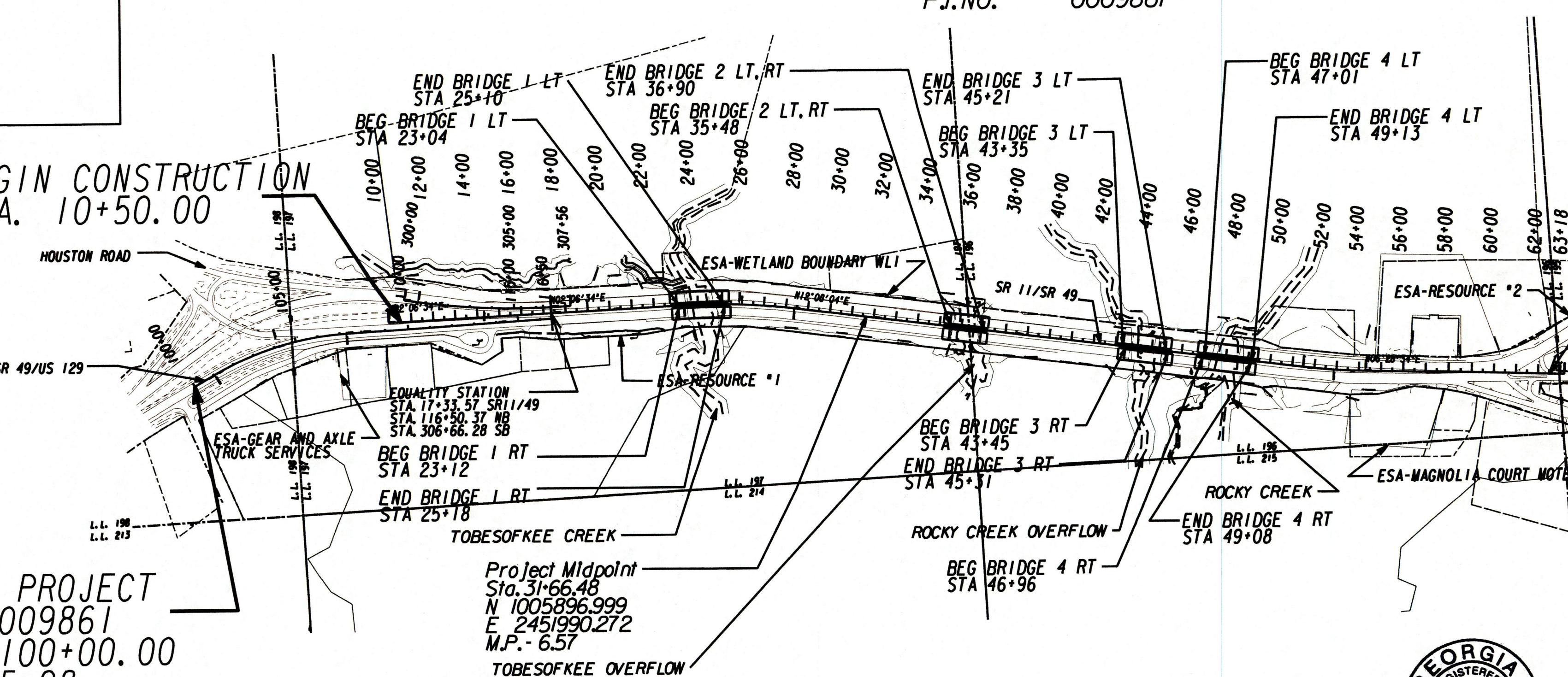
THIS PROJECT IS 100% IN  
BIBB COUNTY AND IS  
100% IN CONG.DIST.NO.2.

PROJECT DESIGNATION: EXEMPT

THIS PROJECT HAS BEEN PREPARED  
USING THE HORIZONTAL GEORGIA  
COORDINATE SYSTEM OF 1984 (NAD  
1983/94 WEST ZONE), AND THE NORTH  
AMERICAN VERTICAL DATUM (NAVD)  
OF 1988.

BEGIN CONSTRUCTION  
STA. 10+50.00

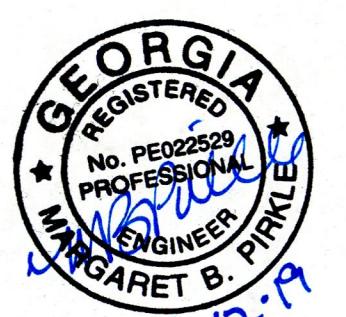
BEGIN PROJECT  
P. I. 0009861  
STA. 100+00.00  
M. P. 5.98



THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANY WAY  
INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON  
FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE  
SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT  
OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO  
SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

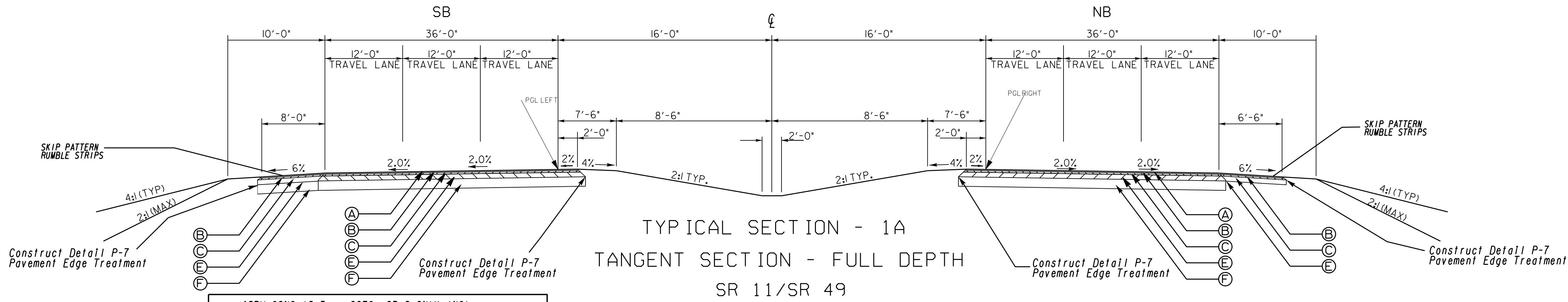
LENGTH OF PROJECT	COUNTY No. 021
	MILES
NET LENGTH OF ROADWAY	1.027
NET LENGTH OF BRIDGES	0.141
NET LENGTH OF PROJECT	1.168
NET LENGTH OF EXCEPTIONS	0.000
GROSS LENGTH OF PROJECT	1.168

SCALE IN FEET  
0 400 800 1600

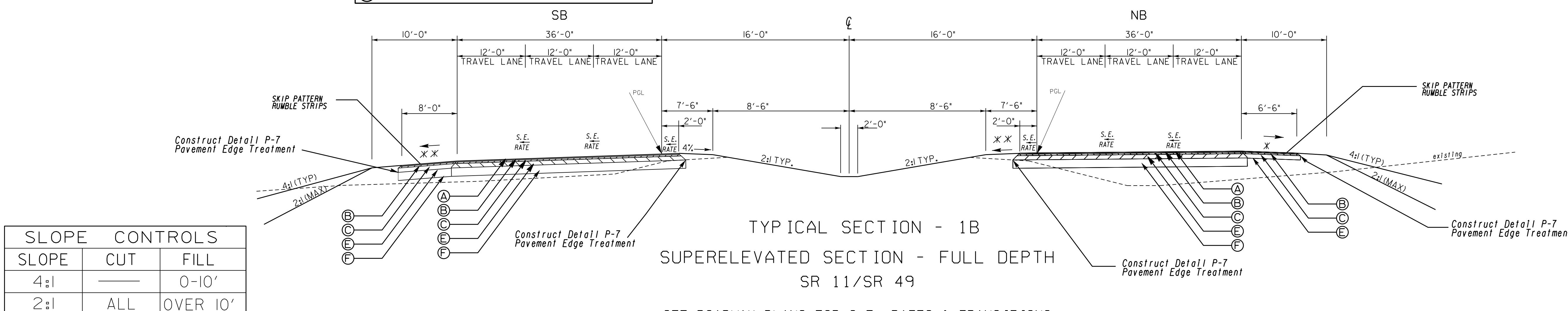


4.12.19	Margaret B. Pirkle
DATE	CHIEF ENGINEER
PLANS COMPLETED 4/12/19	4-27-20 - SHEETS: 13-0011, 22-0002
REVISIONS	7-7-20: 2-0001-2-0002, 3-0001, 8-0001, 50-0000, 54-0005,
9-23-19 - SHEETS: 04-0001, 06-0005, 07-0001, 7, 9, 10, 17, 19, 21, 22, 29, 31, 33, 34, 56-0017	24-0001-24-0012, 44-0001-44-0019, 50-0001-55-0001
10-4-19 - SHEETS: 05-0004	7-20-20: 3-0001, 27-0003 - 27-0005
11-6-19 - SHEETS: 08-0001, 21-0001, 22-0002, 35-0002	35-0012, 35-0025, 35-0036, 35-0059, 50-0001, 54-0003
35-0012, 35-0025, 35-0036, 35-0059, 50-0001, 54-0003	54-0005, 54-0015, 54-0017, 54-0027, 54-0029
54-0005, 54-0015, 54-0017, 54-0027, 54-0029	3-10-20 - SHEETS: 08-0001, 13-0011-13-0012, 26-0006
3-10-20 - SHEETS: 08-0001, 13-0011-13-0012, 26-0006	26-0011-26-0012, 27-0004-27-0005

DRAWING NO.  
01-0001

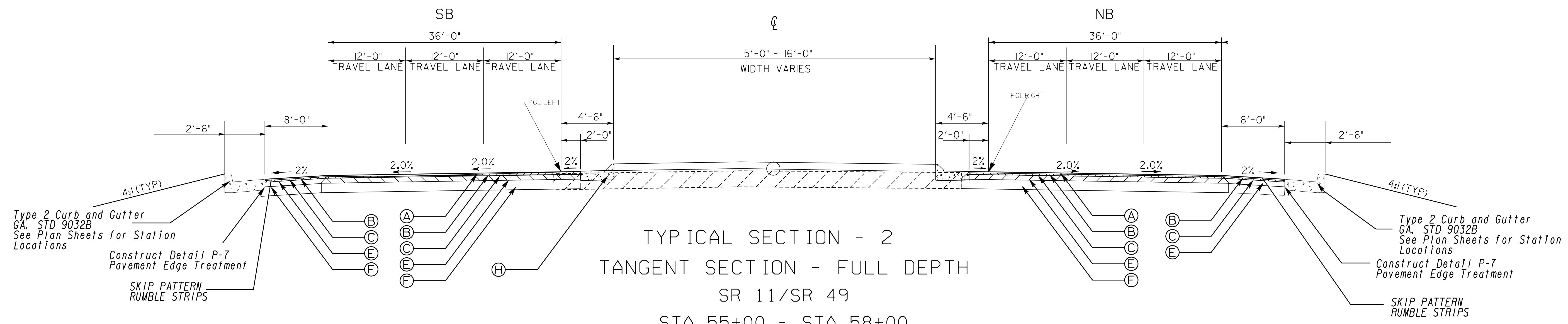


- (A) ASPH CONC 12.5 mm OGFC, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MTL & H LIME 100 lbs/sq yd
- (B) RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2, INCL POLYMER-MODIFIED BITUM MTL & H LIME 165 lbs/sq yd
- (C) INCL BITUM MTL & H LIME 220 lbs/sq yd
- (D) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MTL & H LIME 330 lbs/sq yd
- (E) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MTL & H LIME 880 lbs/sq yd
- (F) GR AGGR BASE CRS, 12 INCH, INCL MTL
- (G) GR AGGR BASE CRS, 8 INCH, INCL MTL

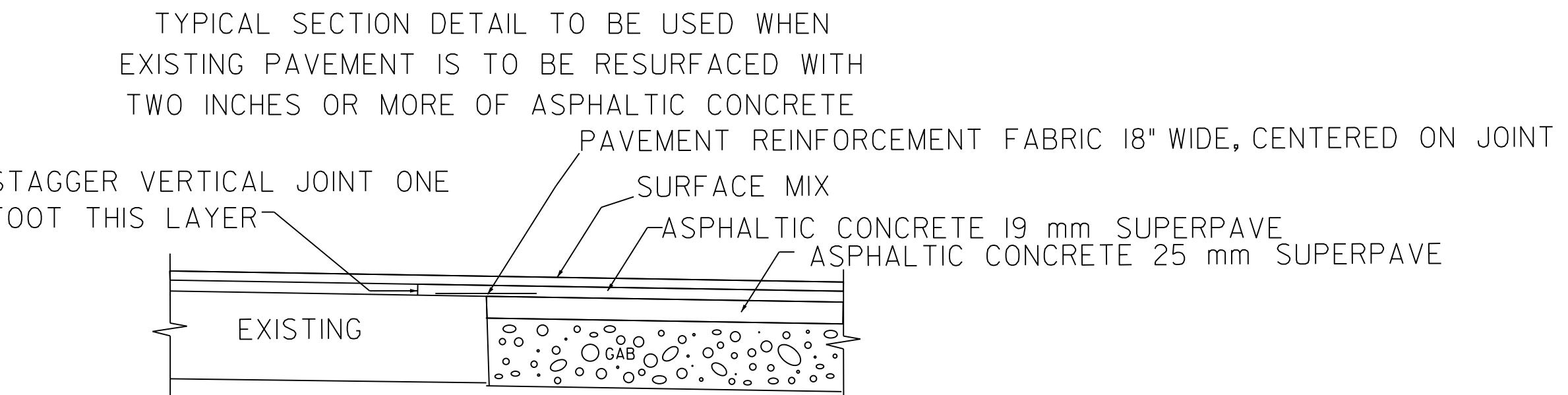


\* SHOULDER TO SLOPE AT NORMAL RATE, HOWEVER,  
THE ALGEBRAIC DIFFERENCE IN PAVING SLOPE AND  
SHOULDER SLOPE SHALL NOT EXCEED 8%.  
MINIMUM SHOULDER SLOPE TO BE 2%.

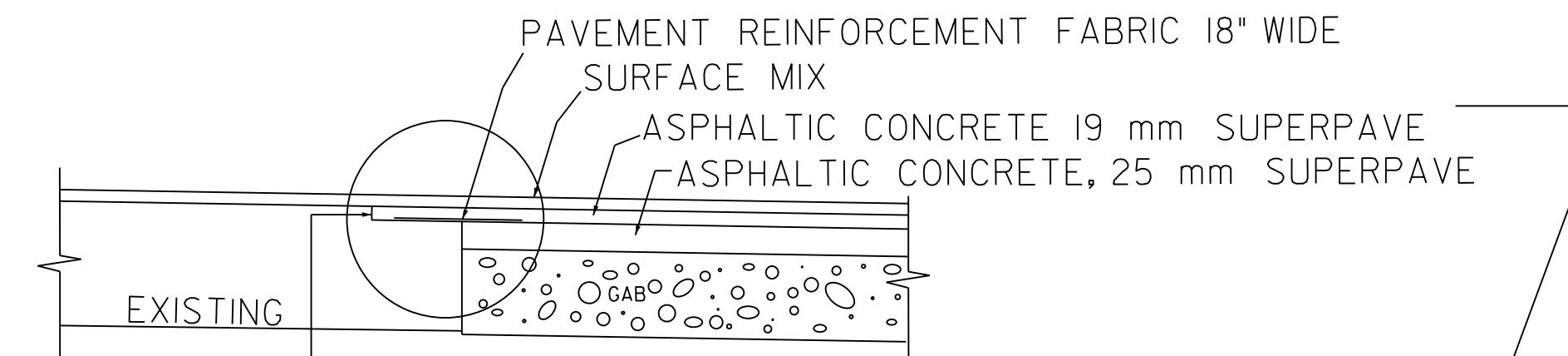
\*\* SHOULDER TO SLOPE AT NORMAL RATE OR  
SUPERELEVATION RATE, WHICHEVER IS GREATER.



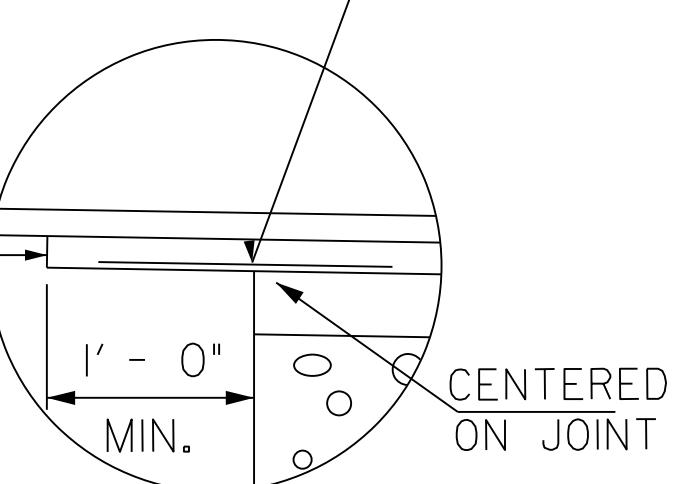
- (A) ASPH CONC 12.5 mm OGFC, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME 100 lbs/sq yd
- (B) RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME 165 lbs/sq yd
- (C) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 220 lbs/sq yd
- (D) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 330 lbs/sq yd
- (E) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 880 lbs/sq yd
- (F) GR AGGR BASE CRS, 12 INCH, INCL MATL
- (G) GR AGGR BASE CRS, 8 INCH, INCL MATL
- (H) 4" CONC. MEDIAN WITH TP 7 CURB FACE CONC. CURB AND GUTTER, 8 IN X 30 IN, TYPE 7 GA. STD 9032B



TYPICAL SECTION DETAIL TO BE USED WHEN EXISTING PAVEMENT IS TO BE RESURFACED WITH LESS THAN TWO INCHES OF ASPHALTIC CONCRETE



MILL EXISTING LANE ONE FOOT WIDE TO DEPTH OF ADJOINING LAYER TO BE PLACED. COST OF MILLING FOR THIS WORK TO BE INCLUDED IN THE UNIT PRICE BID FOR PAVEMENT REINFORCING FABRIC.

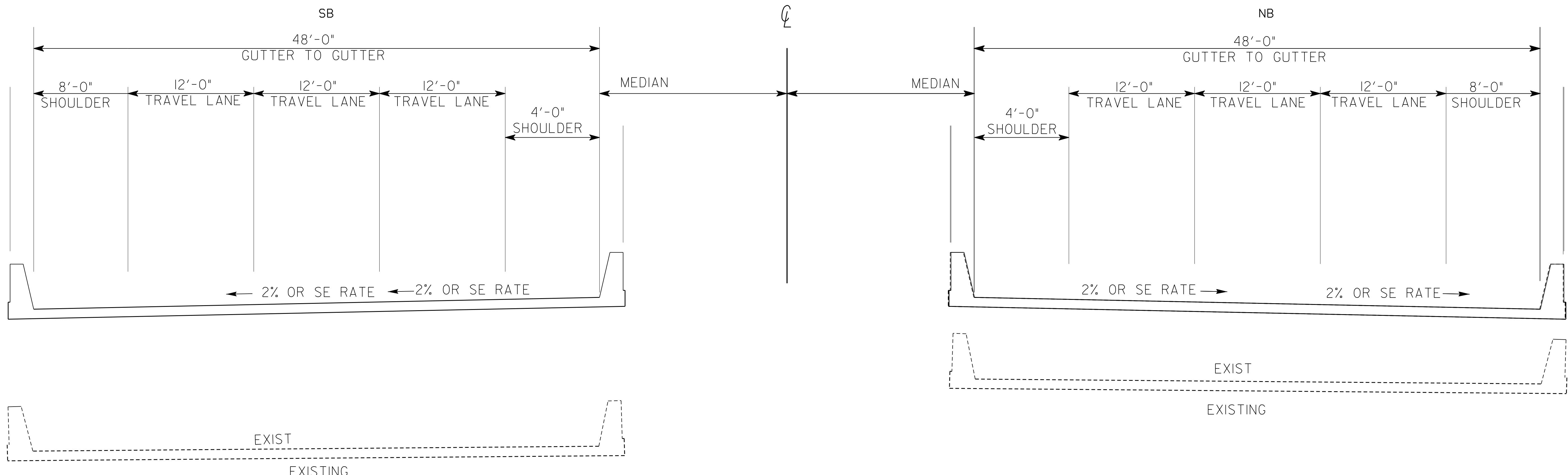


ALLOWABLE RANGES TABLE	
FOR THIS PROJECT, CROSS SLOPES THAT ARE ADJUSTED TO "BEST FIT" EXISTING PAVEMENT SLOPES ARE SUBJECT TO THE FOLLOWING LIMITS:	
A. NORMAL CROWN	SECTION WITH GRADES 0.5% OR GREATER SECTION WITH GRADES LESS THAN 0.5%
	0.0150 FT/FT - MINIMUM 0.0208 FT/FT - DESIRABLE 0.0250 FT/FT - MAXIMUM 0.0300 FT/FT - MAXIMUM
B. SUPERELEVATION RATE	S.E. RATE SHOWN ON PLANS OR SE RATE EXISTING IN FIELD, WHICHEVER IS GREATER.
C. SUPERELEVATION TRANSITION LENGTH (LENGTH FROM FLAT POINT TO FULL SE)	RATE OF CHANGE CORRESPONDING DIFFERENCE IN GRADE BETWEEN PIVOT POINT AND EDGE OF PAVEMENT
	MINIMUM 1:150 0.67% DESIRABLE 1:200 0.50% MAXIMUM 1:300 0.33%
D. POSITIONING OF SUPERELEVATION TRANSITION LENGTH ON SIMPLE CURVES	LENGTH SHALL BE SET TO AVOID CREATING A FLAT GUTTER GRADE ON LOW SIDE AND TO AVOID FLAT CROSS SLOPES AT OR NEAR THE LOW POINT OF VERTICAL CURVES.
E. SMOOTHING OF BREAKS IN EDGE PROFILE AT BEGIN AND END OF TRANSITION	50% OF TRANSITION INSIDE CURVE - MAXIMUM 33% OF TRANSITION INSIDE CURVE - DESIRABLE 20% OF TRANSITION INSIDE CURVE - MINIMUM
	NOTE: CROWN WIPE-OUT SHALL BE AT THE SAME RATE AS THE SE TRANSITION.
	SHALL BE ACCOMPLISHED BY VERTICAL CURVE WITH A MINIMUM LENGTH (IN FEET) EQUAL TO THE SPEED DESIGN (IN MPH).

			REVISION DATES		TYPICAL SECTIONS	
			DATE	DATE	SR 11/SR 49 @ ROCKY CREEK BIBB COUNTY	
					CHECKED:	DRAWING NO.
					BACKCHECKED:	
					CORRECTED:	
					VERIFIED:	
4/28/2016	GPLN					05-0002

- SHOULDER TO SLOPE AT NORMAL RATE, HOWEVER, THE ALGEBRAIC DIFFERENCE IN TRAVEL LANE SLOPE AND SHOULDER SLOPE SHALL NOT EXCEED 8%. MINIMUM SHOULDER SLOPE TO BE 2%.
- SHOULDER TO SLOPE AT NORMAL RATE OR SUPERELEVATION RATE, WHICHEVER IS GREATER.

## TWIN BRIDGE SECTION



TYPICAL SECTION - 3  
SR 11/SR 49/US 41 BRIDGE SECTION

STA. 23+04 - STA. 25+18  
STA. 35+48 - STA. 36+90  
STA. 43+45 - STA. 45+31  
STA. 46+96 - STA. 49+13

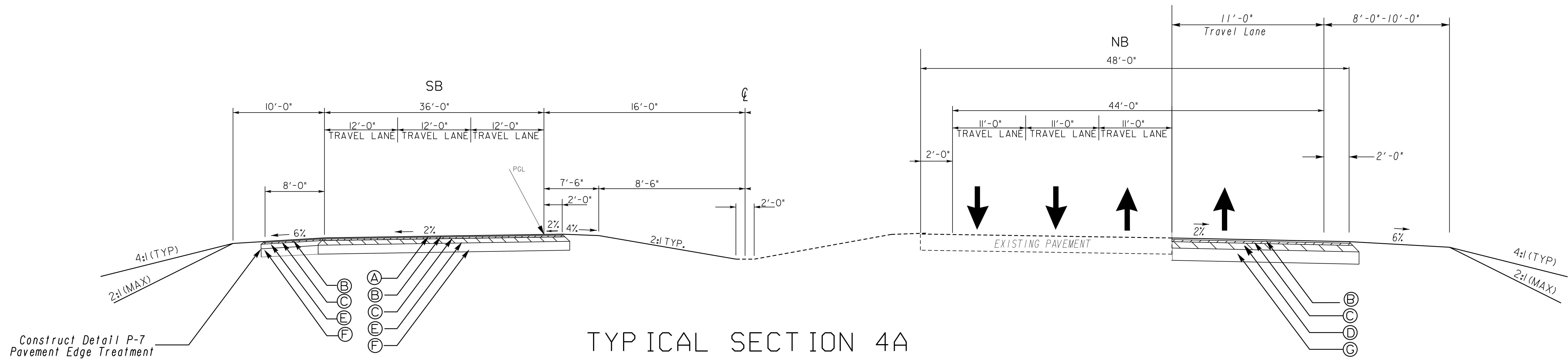
REVISION DATES

**TYPICAL SECTIONS**  
SR 11/ SR 49 @ ROCKY CREEK  
BIBB COUNTY

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	
VERIFIED:	DATE:	

05-0003

# VOID



SLOPES STEEPER THAN 2:1 WILL REQUIRE GUARDRAIL.  
SEE DETAIL "A" FOR TYPICAL SHOULDER DETAIL FOR GUARDRAIL.

SLOPE CONTROLS		
SLOPE	CUT	FILL
4:1	—	0-10'
2:1	ALL	OVER 10'

STA. 15+50 - STA. 23+04

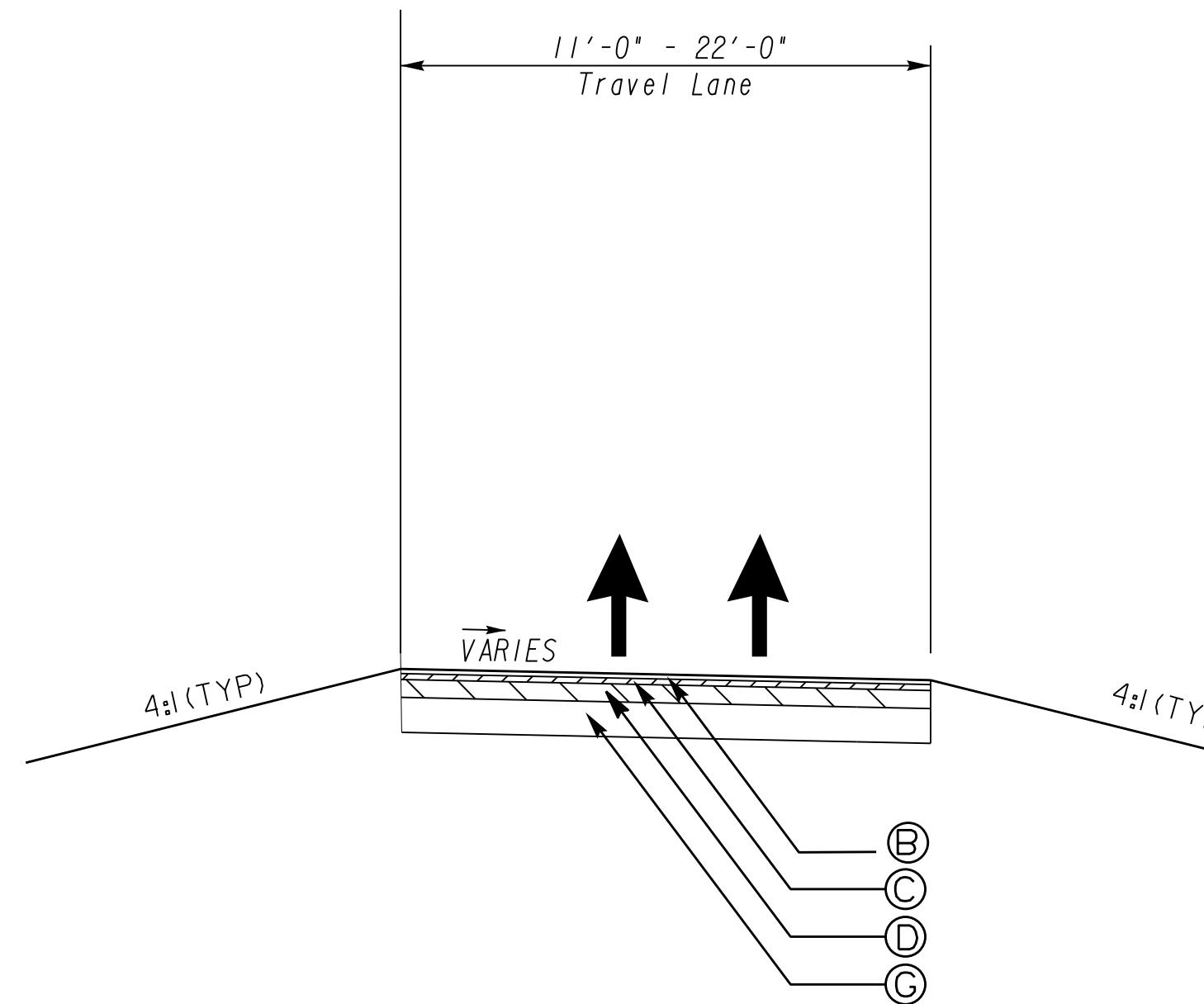
STA. 25+18 - STA. 35+48

STA. 36+90 - STA. 43+45

STA. 45+31 - STA. 46+96

STA. 49+13 - STA. 58+00

- (A) ASPH CONC 12.5 mm OGFC, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME 100 lbs/sq yd
- (B) RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME 165 lbs/sq yd
- (C) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 220 lbs/sq yd
- (D) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 330 lbs/sq yd
- (E) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 880 lbs/sq yd
- (F) GR AGGR BASE CRS, 12 INCH, INCL MATL
- (G) GR AGGR BASE CRS, 8 INCH, INCL MATL



**TYPICAL SECTION 5**  
**STAGING CROSSOVERS & TEMPORARY PAVEMENT SECTION**  
**SR 11/SR 49**

STAGE 1

STA. 10+72.36 - STA. 17+00

STA. 57+00 - STA. 61+00

STAGE 2

STA. 10+50 - STA. 20+00

STA. 57+00 - STA. 62+50

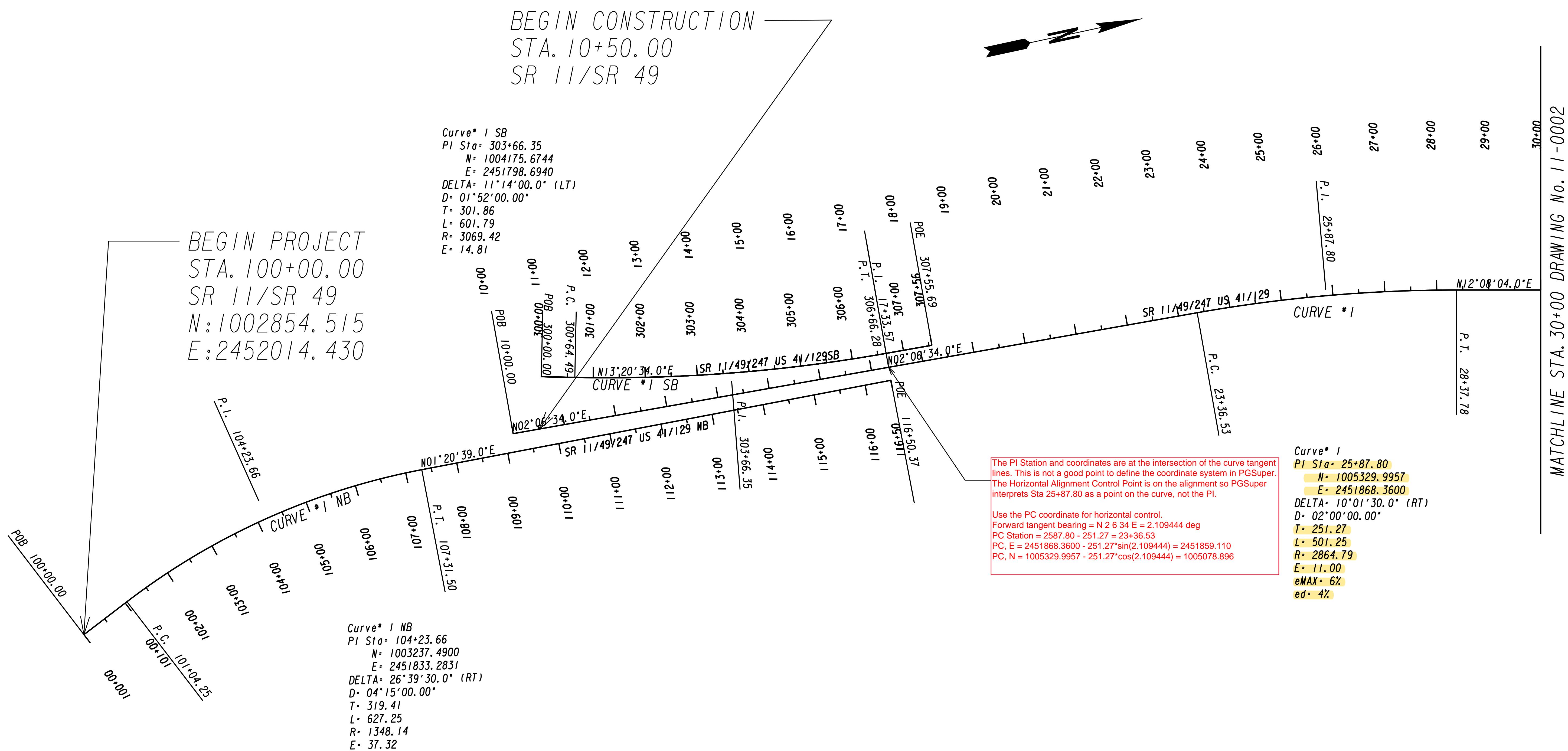
- (A) ASPH CONC 12.5 mm OGFC, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME 100 lbs/sq yd
- (B) RECYCLED ASPH CONC 12.5 mm SUPERPAVE, GP 2, INCL POLYMER-MODIFIED BITUM MATL & H LIME 165 lbs/sq yd
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- (E) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME 880 lbs/sq yd
- (F) GR AGGR BASE CRS, 12 INCH, INCL MATL
- (G) GR AGGR BASE CRS, 8 INCH, INCL MATL

REVISION DATES

**TYPICAL SECTIONS**  
**SR 11 / SR 49 @ ROCKY CREEK**  
**BIBB COUNTY**

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	
VERIFIED:	DATE:	

05-0005



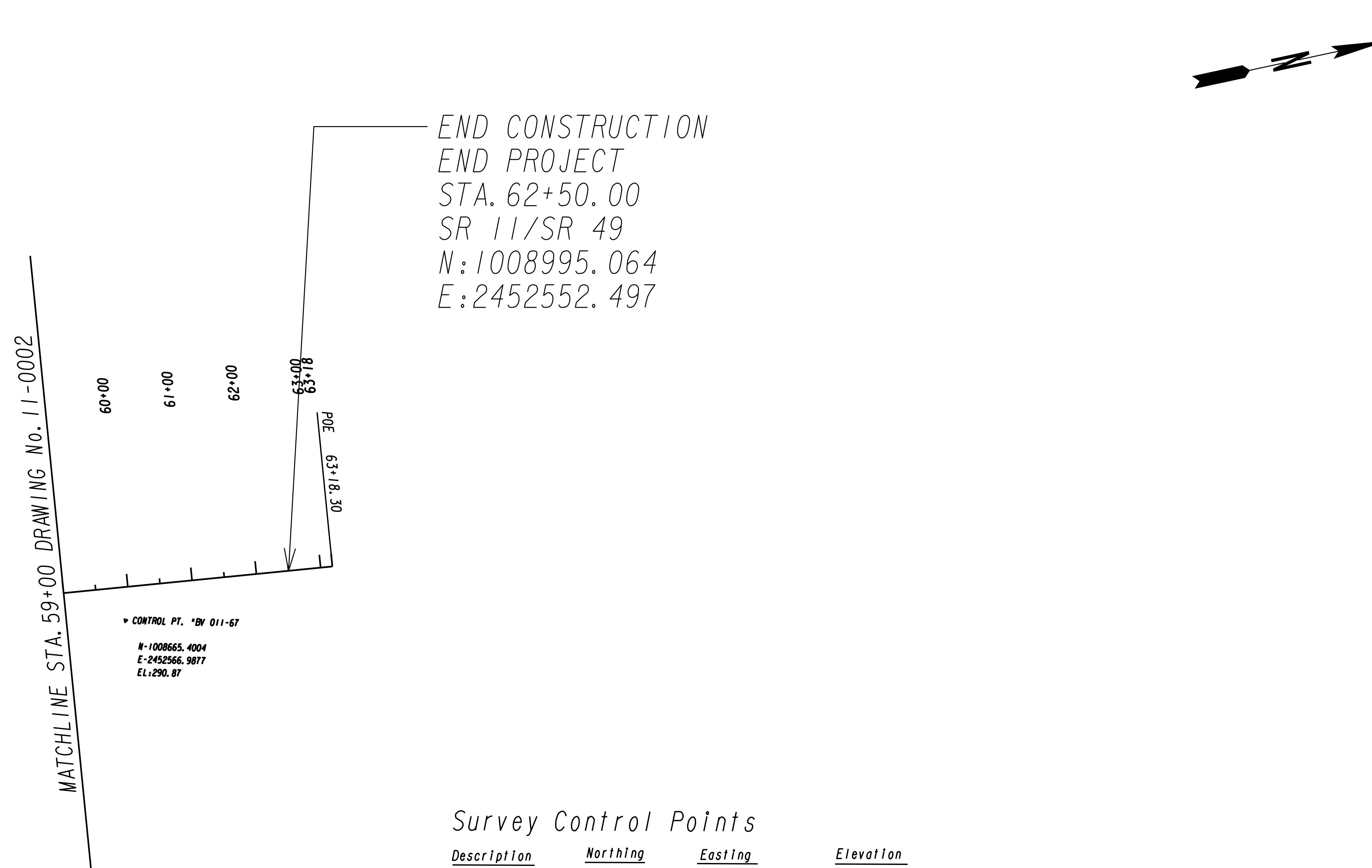
**Curve #1**  
PI Sta: 25+87.80  
N: 1005329.9957  
E: 2451868.3600  
DELTA: 10°01'30.0" (RT)  
D: 02°00'00.0"  
T: 251.27  
L: 501.25  
R: 2864.79  
E: 11.00  
eMAX: 6%  
ed: 4%

		REVISION DATES		CONSTRUCTION LAYOUT	
				SR 11 / SR 49 @ ROCKY CREEK	
				BIBB COUNTY	
CHECKED:	DATE:	BACKCHECKED:	DATE:	CORRECTED:	DATE:
VERIFIED:	DATE:				
					DRAWING No.
					11-0001

SCALE IN FEET  
0 100 200 300 400

10/23/2015 GPLN





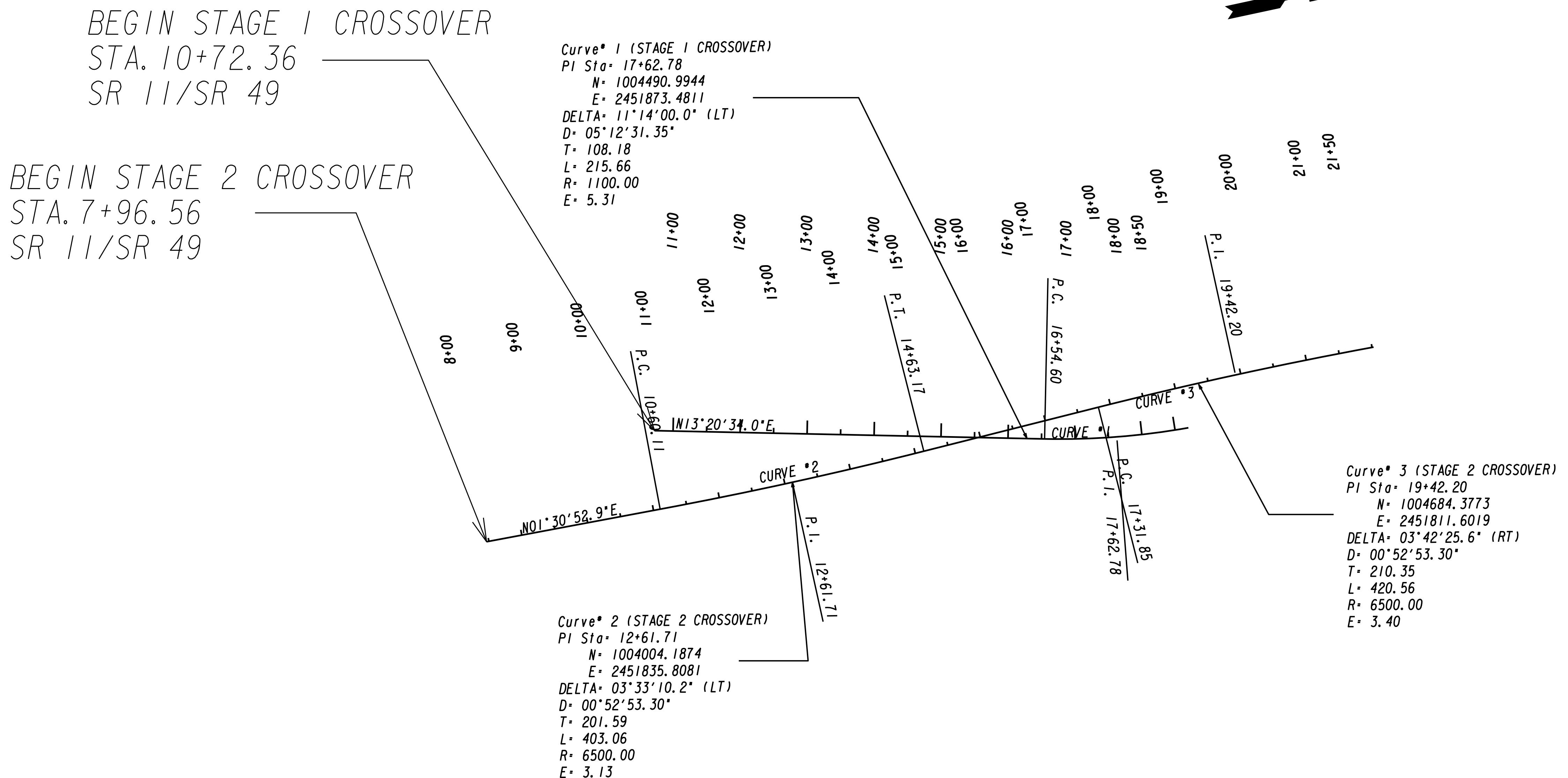
#### Survey Control Points

Description	Northing	Easting	Elevation
D 901	1,007,593.8130	2,452,288.5970	N/A
BV 011-67	1,008,665.4004	2,452,566.9887	290.866

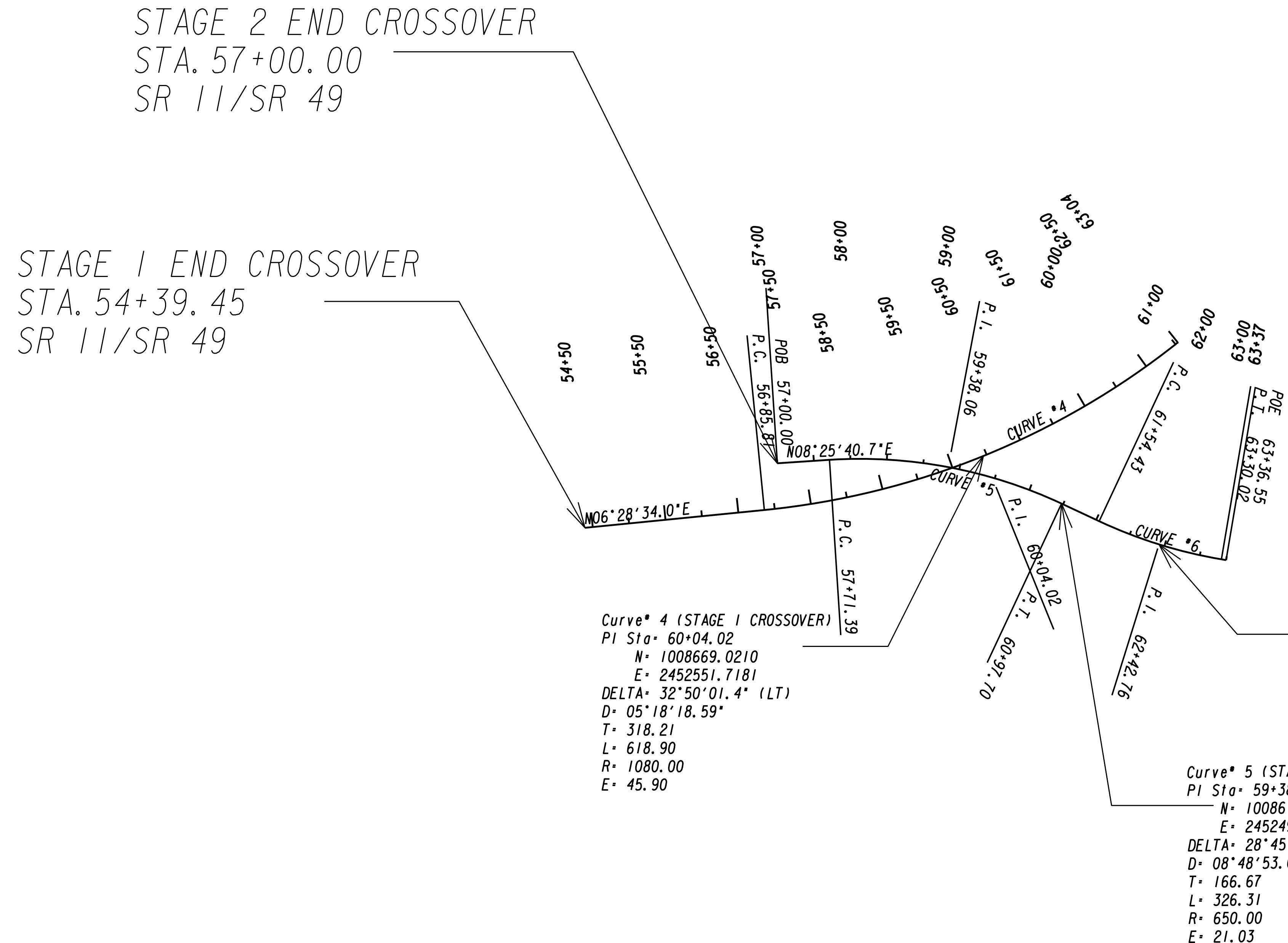
REVISION DATES

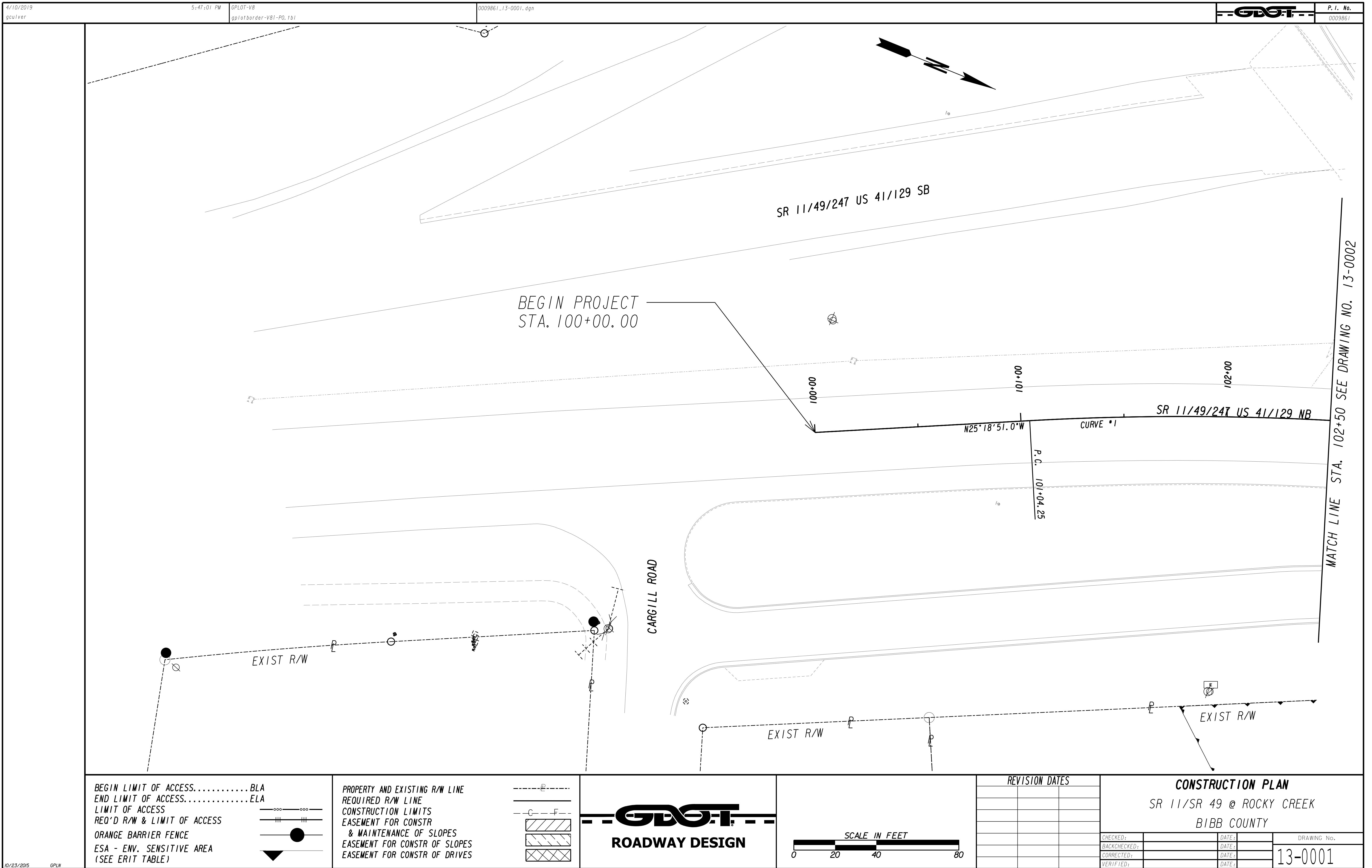
**CONSTRUCTION LAYOUT**  
SR 11 / SR 49 @ ROCKY CREEK  
BIBB COUNTY

CHECKED:	DATE:	DRAWING No.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	
VERIFIED:	DATE:	11-0003

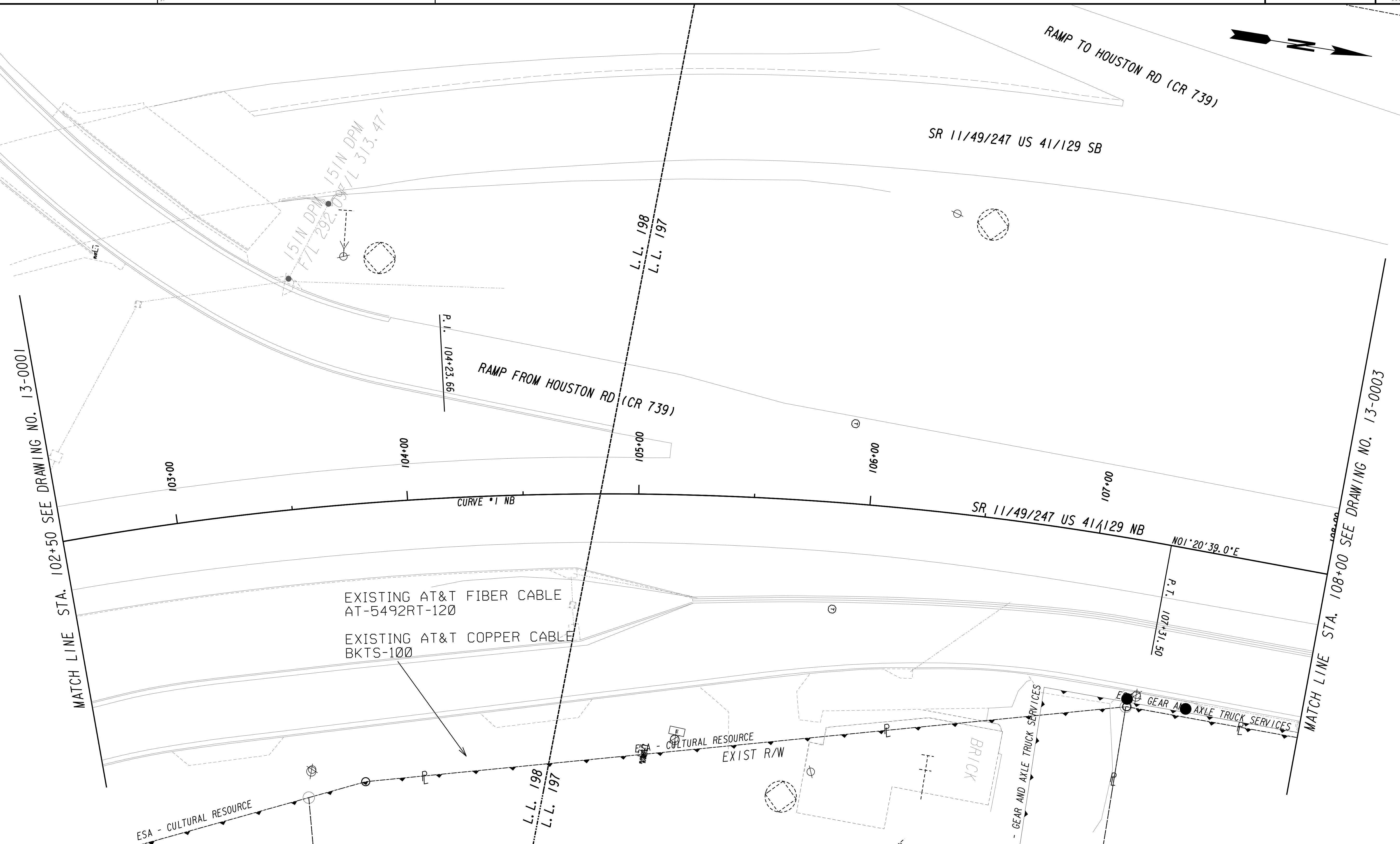


	STAGING CROSSOVERS	<b>ROADWAY DESIGN</b>	SCALE IN FEET 0 100 200 300 400	REVISION DATES		<b>CONSTRUCTION LAYOUT</b> SR 11 / SR 49 @ ROCKY CREEK BIBB COUNTY
				DATE:	DATE:	
10/23/2015	GPLN			CHECKED: BACKCHECKED: CORRECTED: VERIFIED:	DATE: DATE: DATE: DATE:	DRAWING No. 11-0004





P. I. No.  
0009861



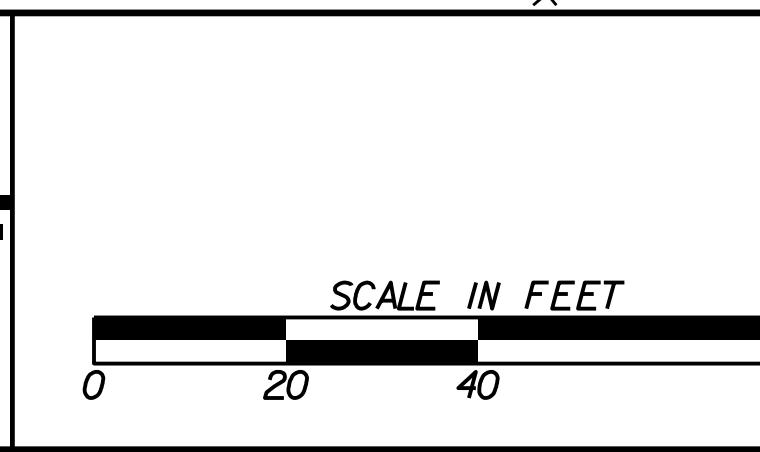
BEGIN LIMIT OF ACCESS.....BLA  
END LIMIT OF ACCESS.....ELA  
LIMIT OF ACCESS  
REQ'D R/W & LIMIT OF ACCESS  
ORANGE BARRIER FENCE  
ESA - ENV. SENSITIVE AREA  
(SEE ERIT TABLE)



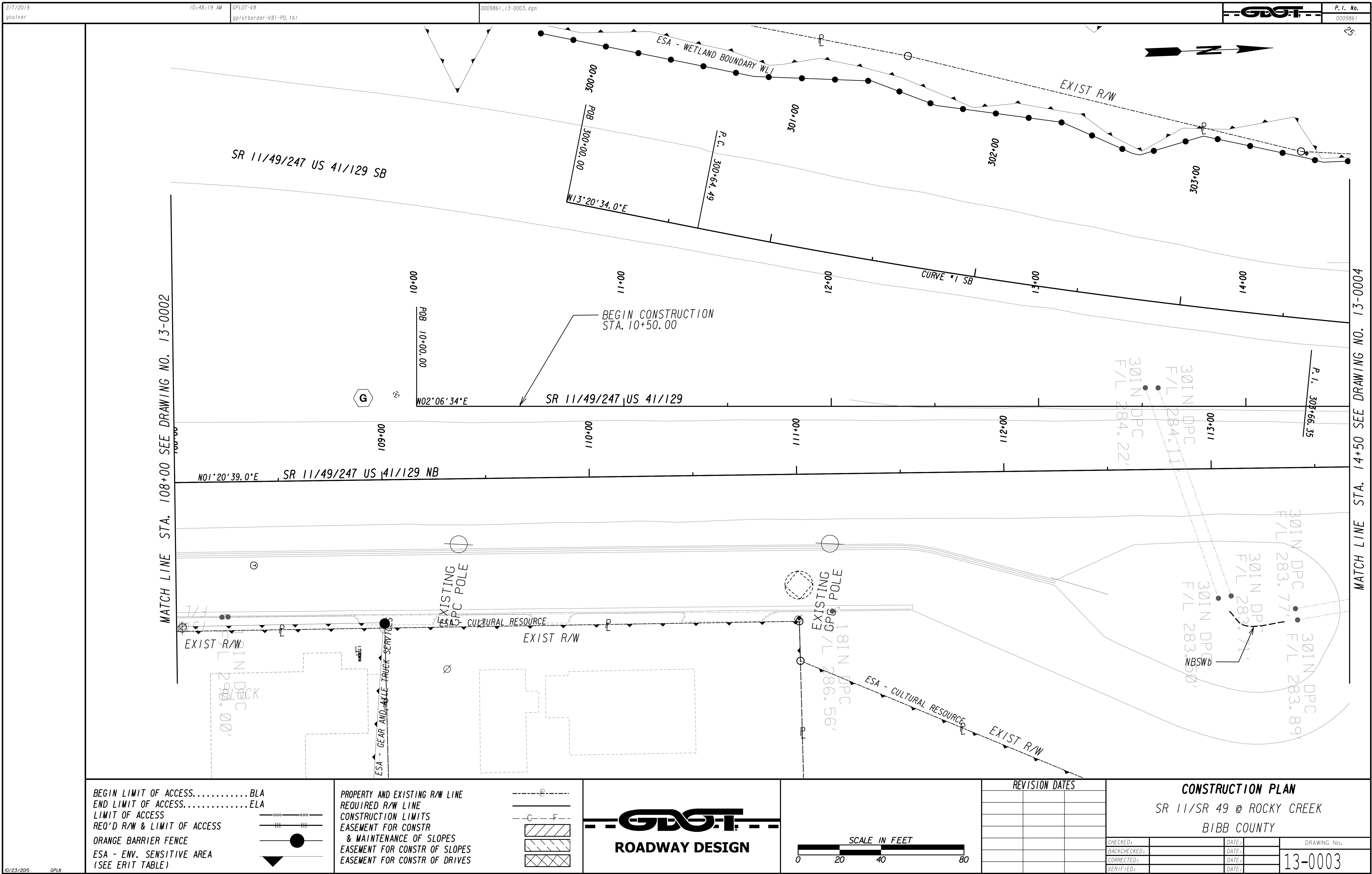
**PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES**

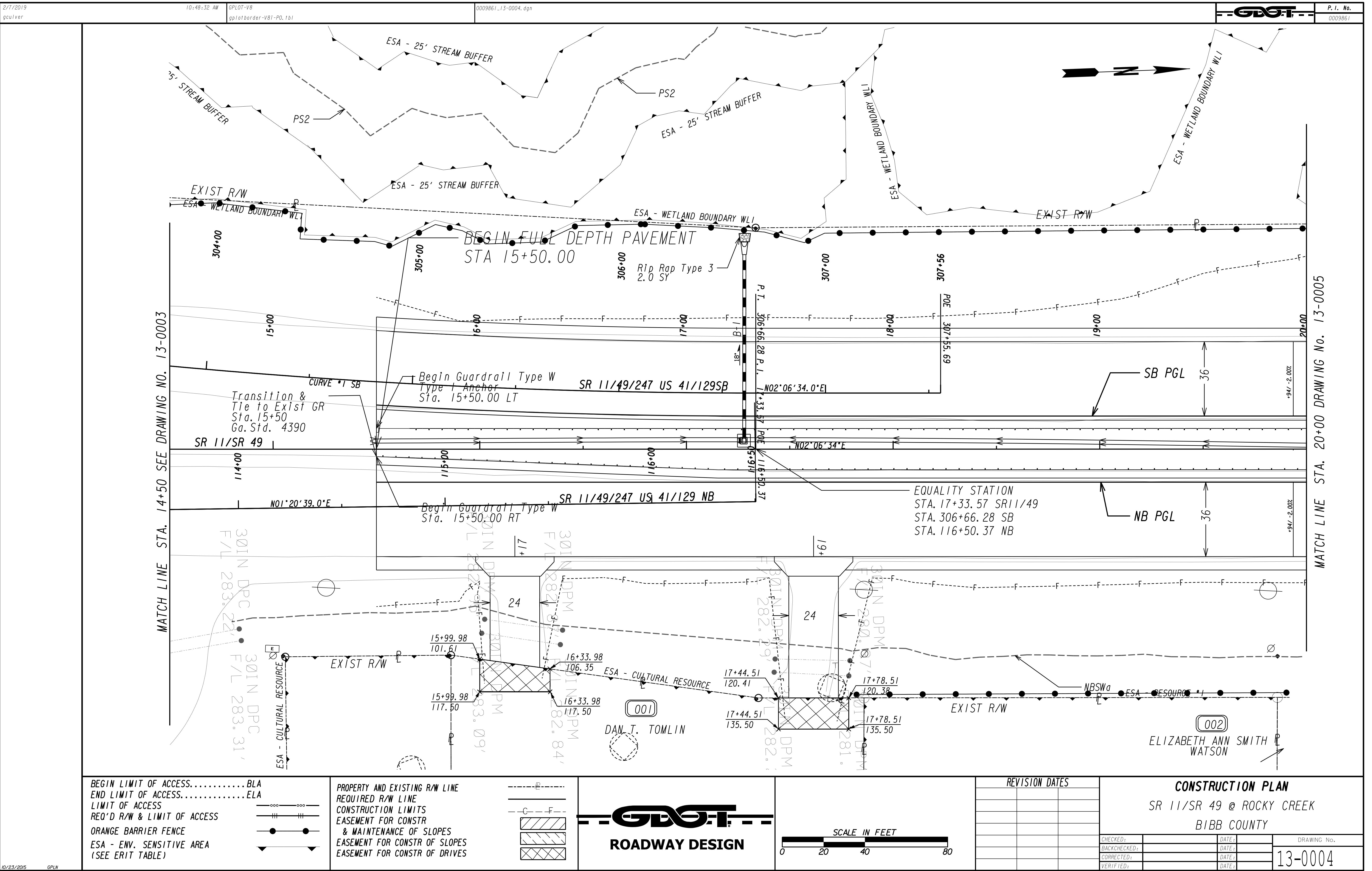


## **ROADWAY DESIGN**



REVISION DATES		<b>CONSTRUCTION PLAN</b> SR 11/SR 49 @ ROCKY CREEK BIBB COUNTY		
		CHECKED:	DATE:	DRAWING No.  13-0002
		BACKCHECKED:	DATE:	
		CORRECTED:	DATE:	
		VERIFIED:	DATE:	





4/11/2019  
gcuver5:39:47 PM  
GPLOT-V8  
gpplotborder-V8i-P0.tbl

0009861\_13-0005.dgn

P. I. No.  
0009861

MATCH LINE STA. 20+00 DRAWING NO. 13-0004

BEGIN LIMIT OF ACCESS.....BLA  
 END LIMIT OF ACCESS.....ELA  
 LIMIT OF ACCESS  
 REQ'D R/W & LIMIT OF ACCESS  
 ORANGE BARRIER FENCE  
 ESA - ENV. SENSITIVE AREA  
 (SEE ERIT TABLE)

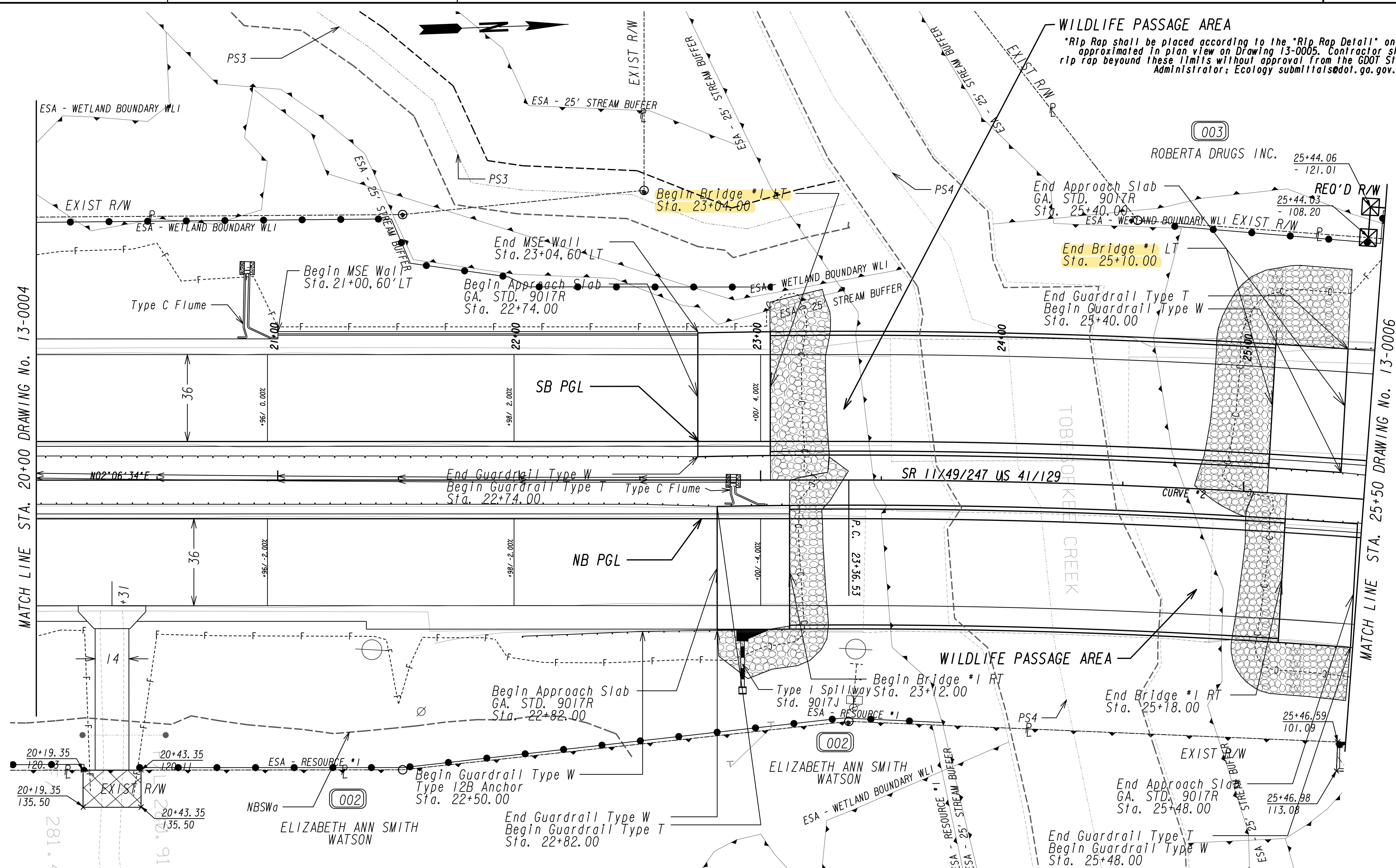
PROPERTY AND EXISTING R/W LINE  
 REQUIRED R/W LINE  
 CONSTRUCTION LIMITS  
 EASEMENT FOR CONSTR  
 & MAINTENANCE OF SLOPES  
 EASEMENT FOR CONSTR OF SLOPES  
 EASEMENT FOR CONSTR OF DRIVES

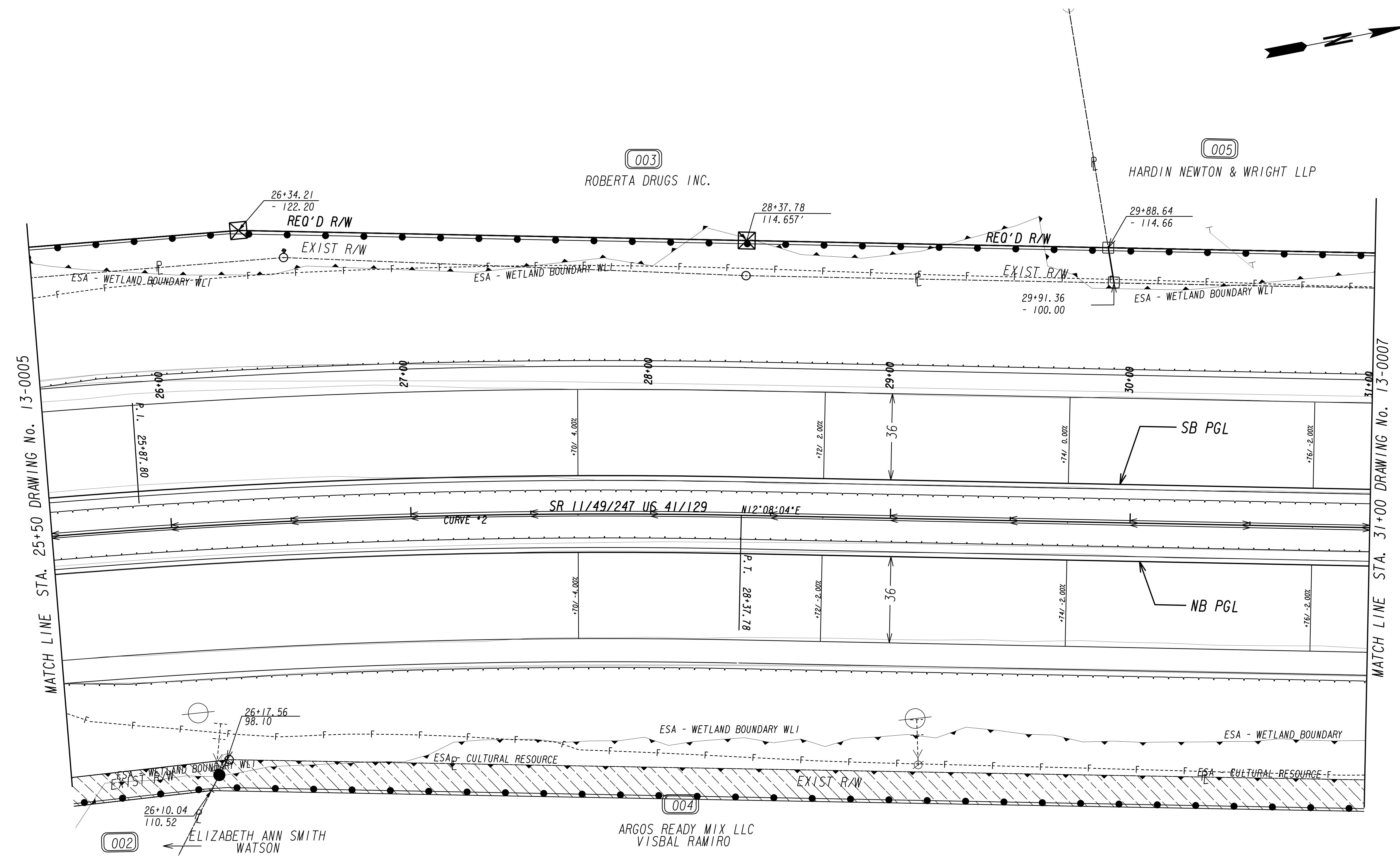
P  
 C - F -  
 C - F -  
 C - F -

**GDOT**  
ROADWAY DESIGN

REVISION DATES  
 0 20 40 60 80  
 SCALE IN FEET

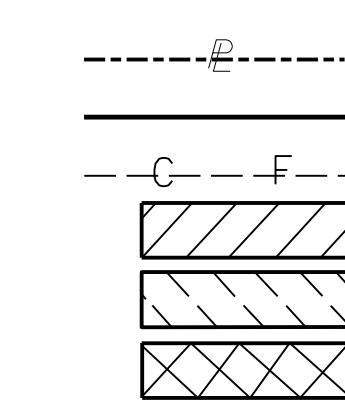
CONSTRUCTION PLAN  
 SR 11/SR 49 @ ROCKY CREEK  
 BIBB COUNTY  
 CHECKED: DATE:  
 BACKCHECKED: DATE:  
 CORRECTED: DATE:  
 VERIFIED: DATE:

DRAWING NO.  
13-0005



BEGIN LIMIT OF ACCESS.....BLA  
END LIMIT OF ACCESS.....ELA  
LIMIT OF ACCESS  
REQ'D R/W & LIMIT OF ACCESS  
ORANGE BARRIER FENCE  
ESA - ENV. SENSITIVE AREA  
(SEE ERIT TABLE)

PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPES  
EASEMENT FOR CONSTR OF DRIVES



**GDOT**  
ROADWAY DESIGN

REVISION DATES

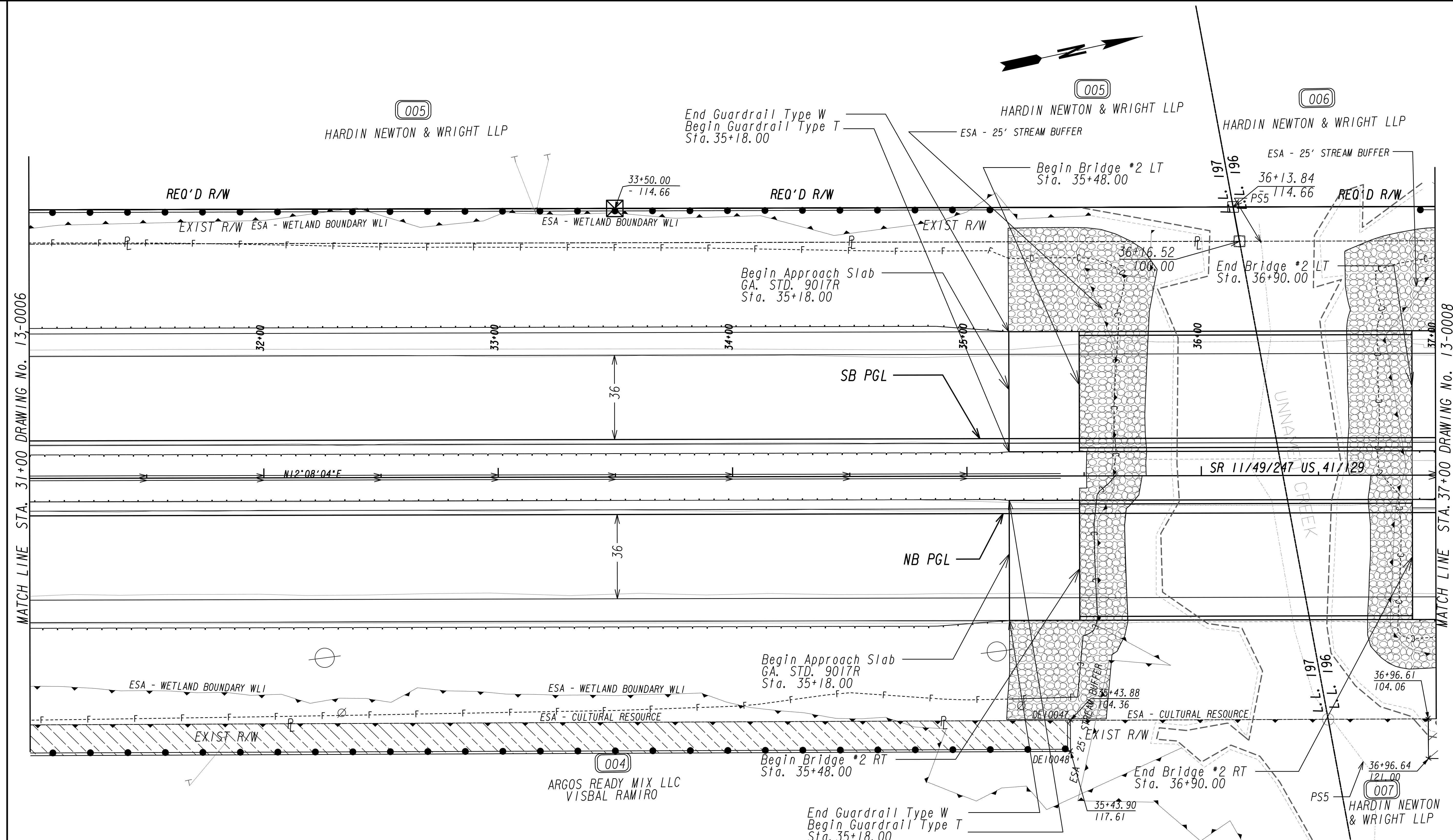
SCALE IN FEET

0 20 40 60 80

**CONSTRUCTION PLAN**  
SR 11/SR 49 @ ROCKY CREEK  
BIBB COUNTY

CHECKED:	DATE:
BACKCHECKED:	DATE:
CORRECTED:	DATE:
VERIFIED:	DATE:

DRAWING No. 13-0006



BEGIN LIMIT OF ACCESS.....  
END LIMIT OF ACCESS.....  
LIMIT OF ACCESS  
REQ'D R/W & LIMIT OF ACCESS  
ORANGE BARRIER FENCE  
ESA - ENV. SENSITIVE AREA  
(SEE ERIT TABLE)

**PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPE  
EASEMENT FOR CONSTR OF DRIVE**



REVISION DATE

## **CONSTRUCTION PLAN**

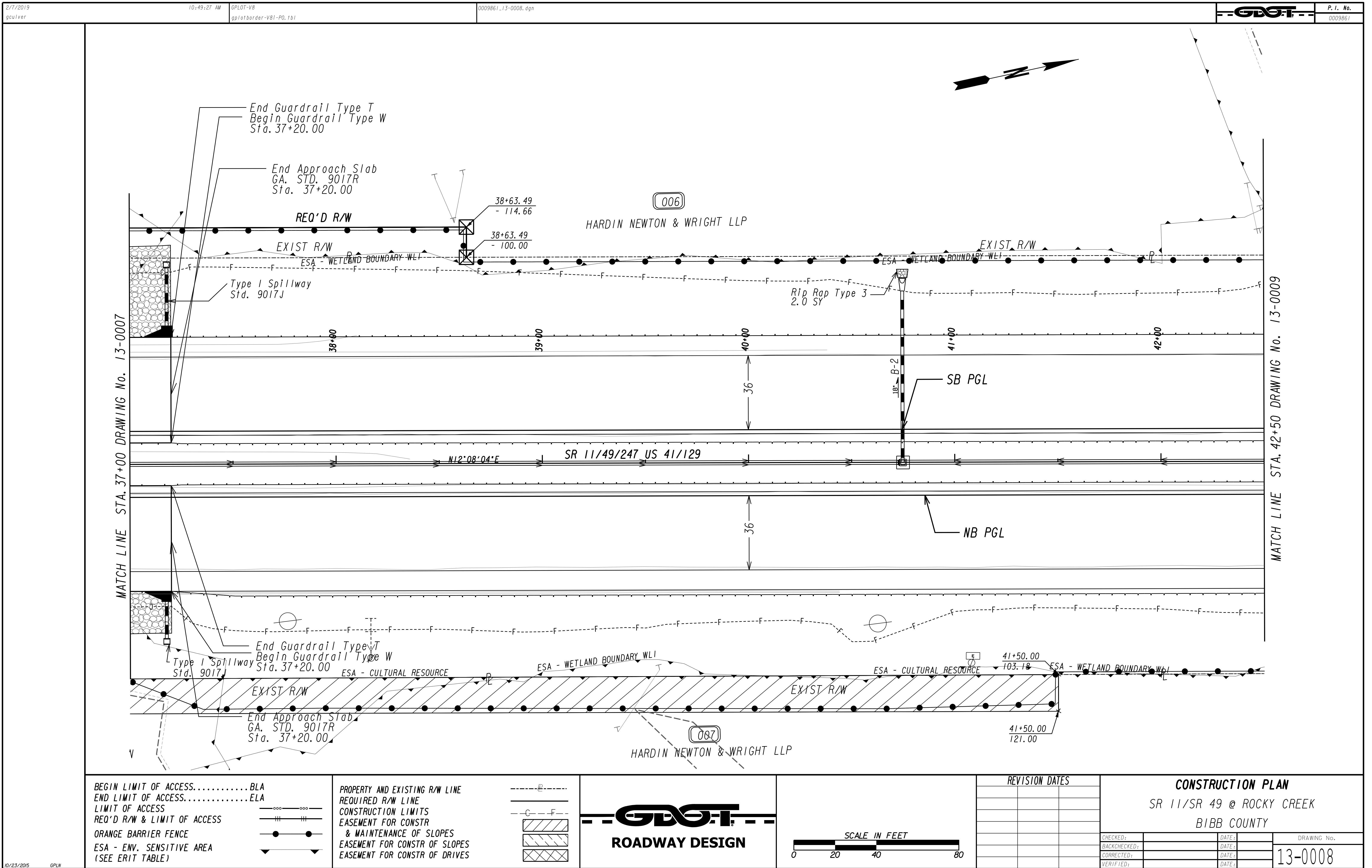
SR 11/SR 49 @ ROCKY CREEK  
BIBB COUNTY

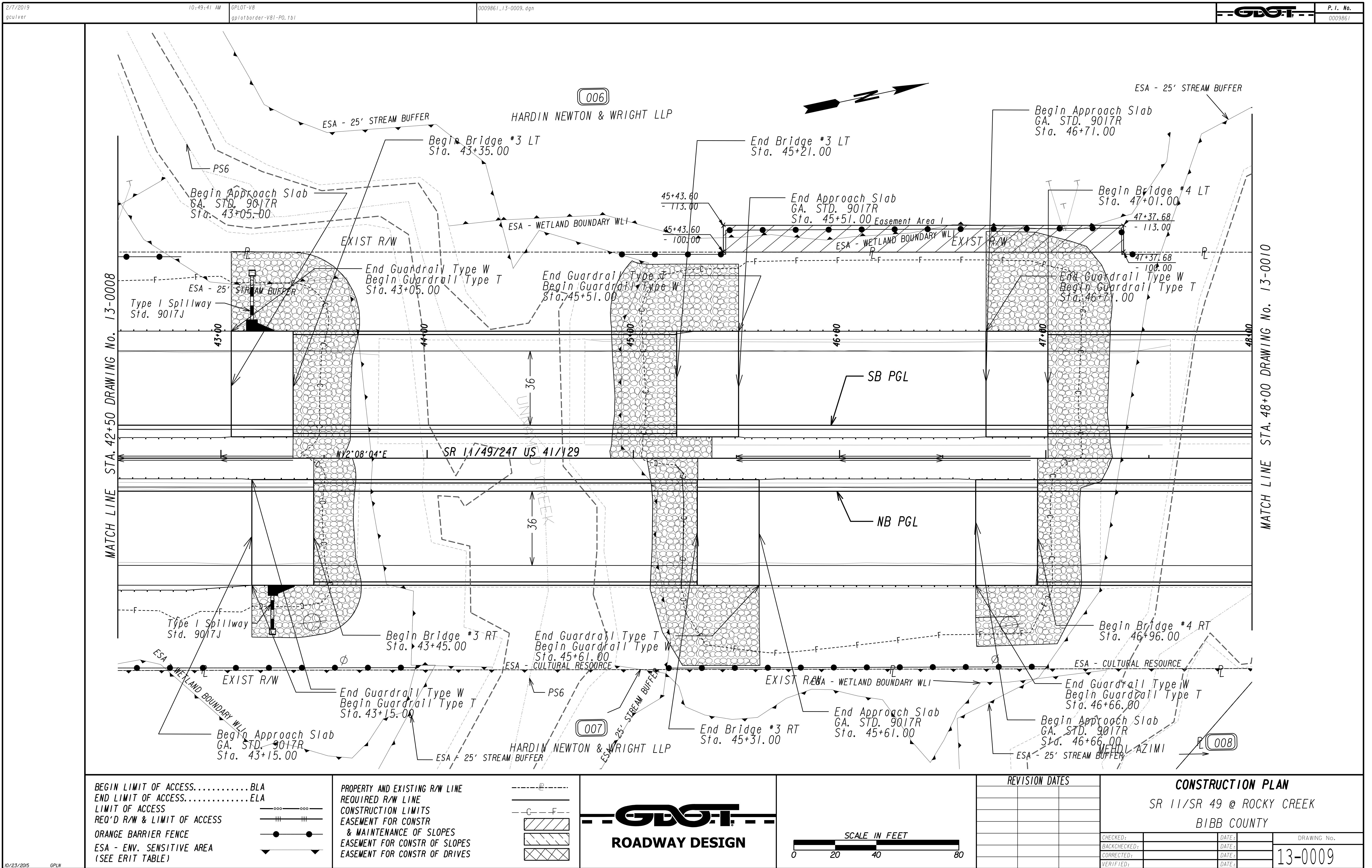
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		13-0007

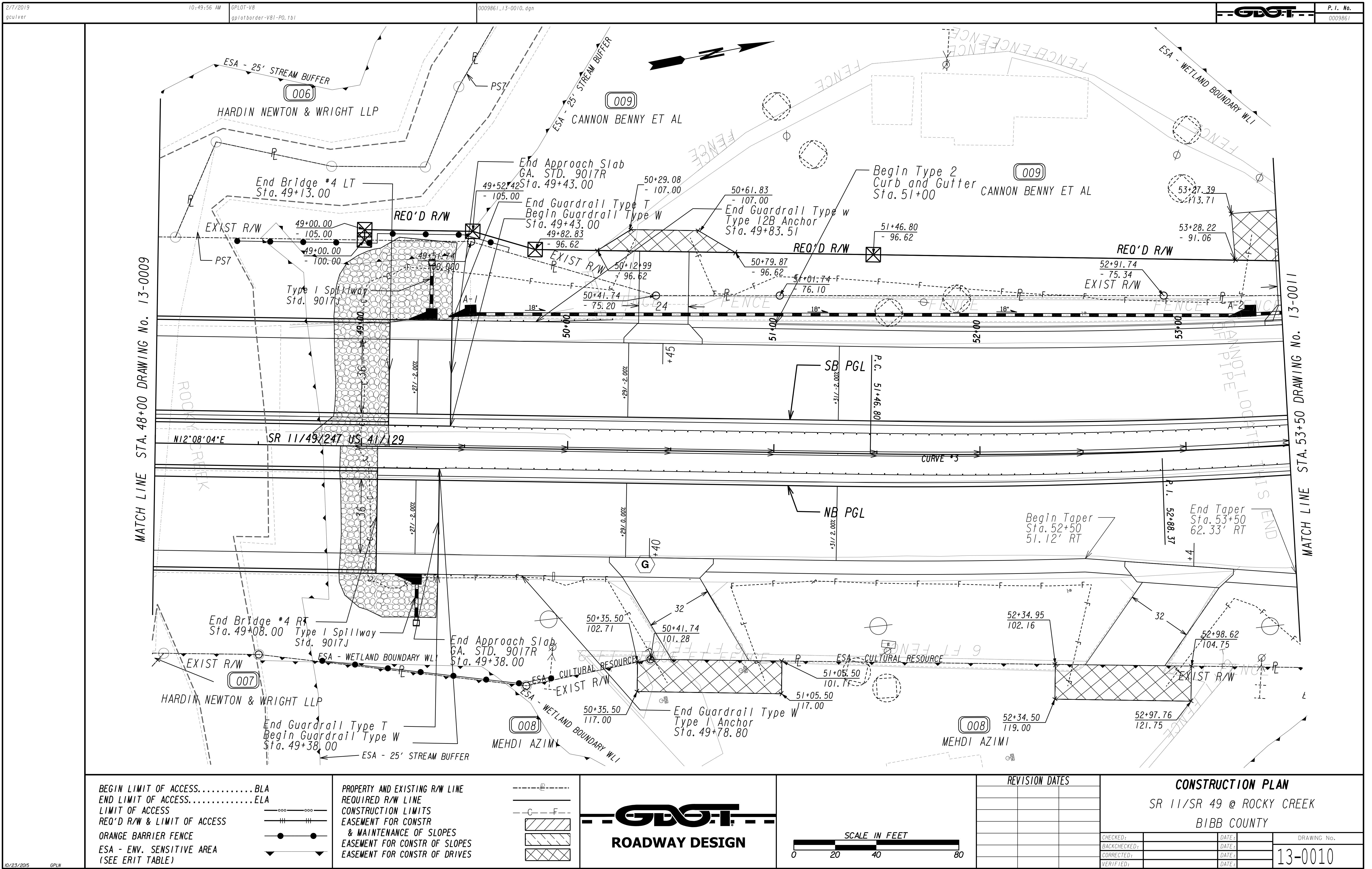
*SCALE IN FEET*



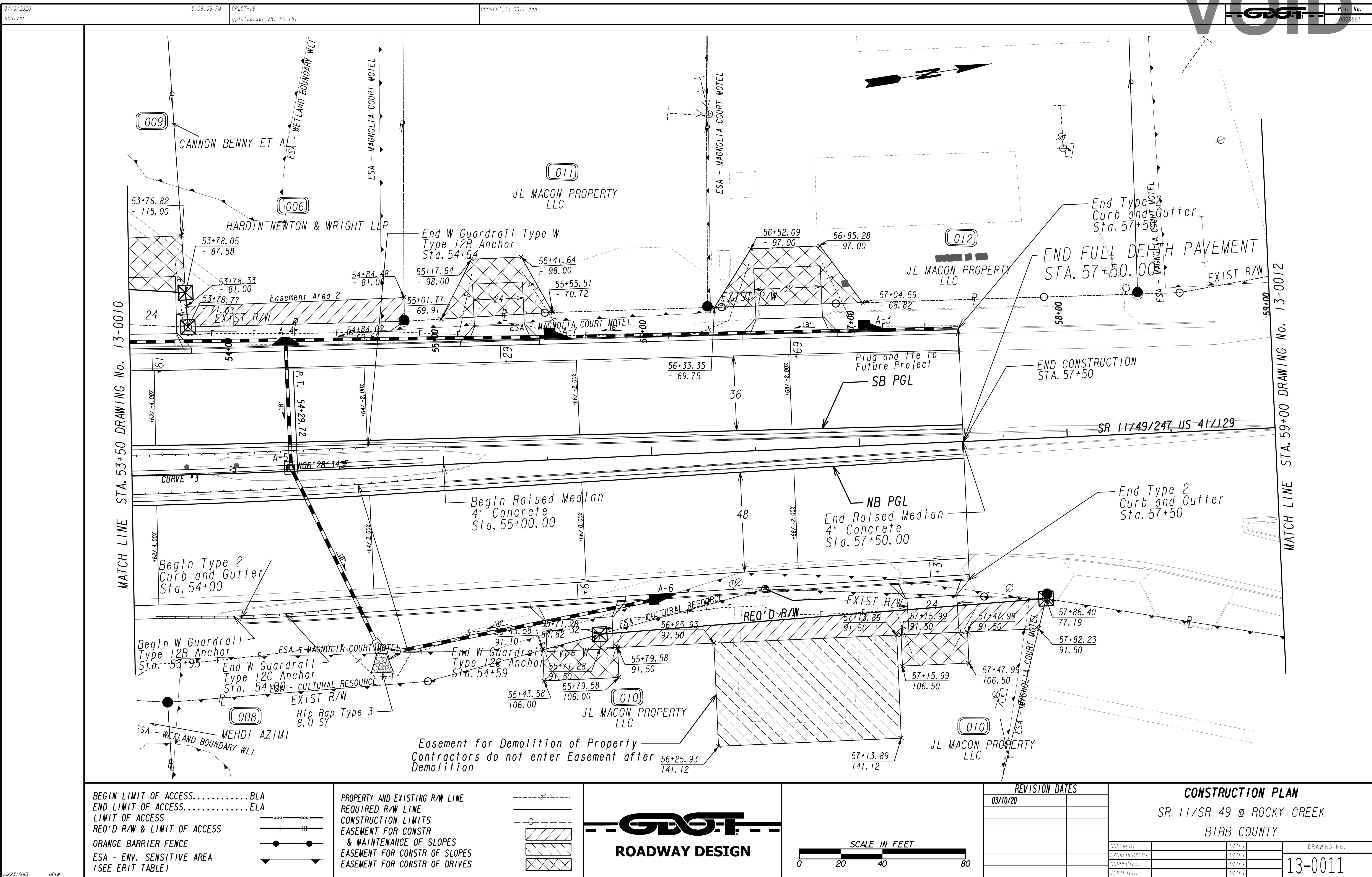
A horizontal scale bar divided into four equal segments by vertical tick marks. The segments are labeled with the values 0, 20, 40, and 80, representing feet.







**VOID**



**GDOT**  
ROADWAY DESIGN

A large, bold, grey 'VOID' stamp is overlaid on the image. In the center of the 'O' is a black 'GDI' logo. To the right of the 'O' is a vertical bar containing the text 'P. I. N.' above '000986'. A dashed line extends from the bottom of the 'I' through the 'D' to the bottom right corner of the image. A small 'P' is written near the bottom left of the 'D'.

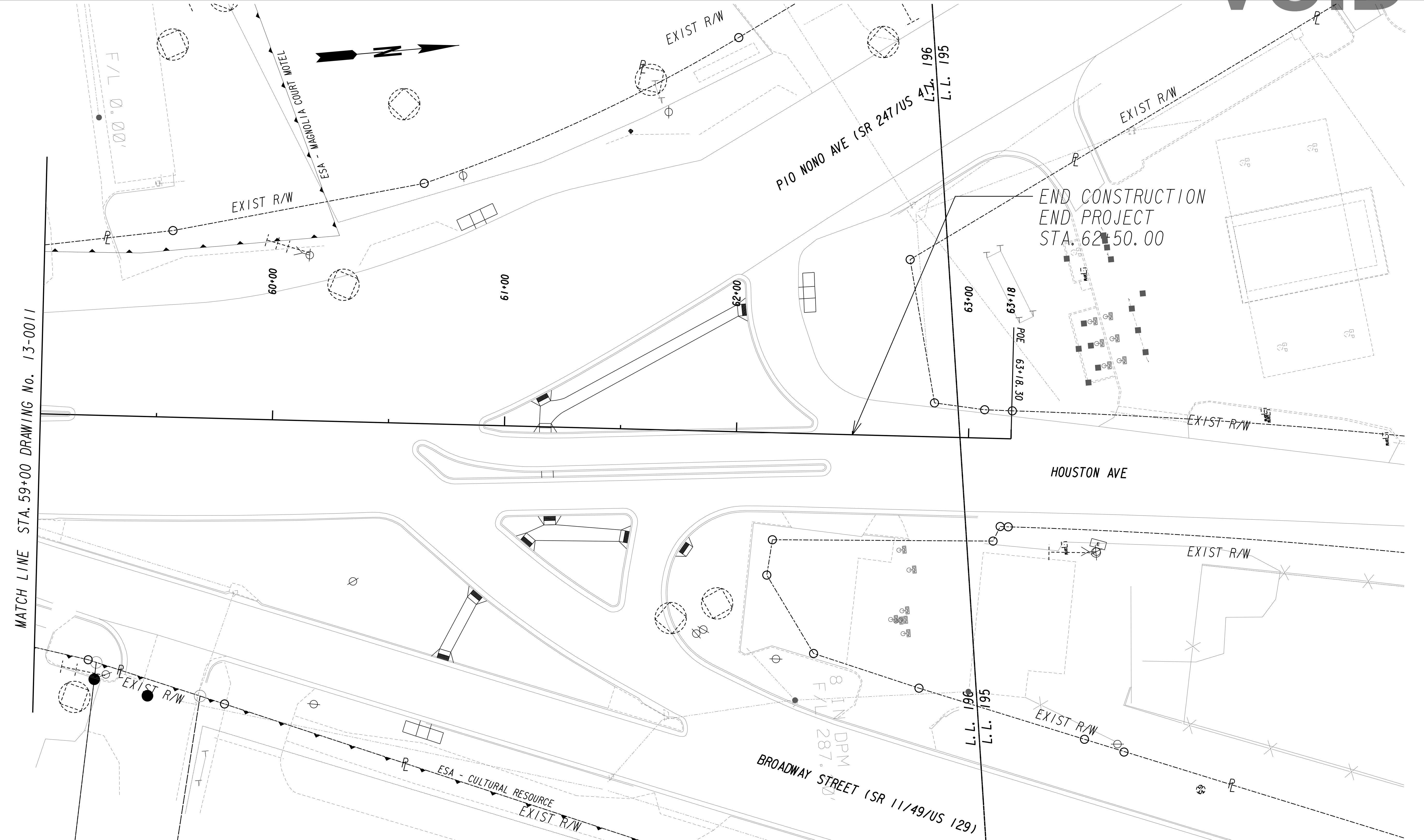
P. I. No.  
0009861

0009867

2/7/2019  
gculver

10:50:30 AM G PLOT-V8  
gplotborder-V8i

0009861\_13-0012.dgn



BEGIN LIMIT OF ACCESS.....  
END LIMIT OF ACCESS.....  
LIMIT OF ACCESS

**LIMIT OF ACCESS**

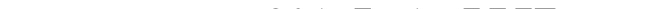
*REQ'D R/W & LIMIT OF*

*ORANGE BARRIER FENCE  
ESA - ENV. SENSITIVE AREA  
(SEE EDIT TABLE)*

**PROPERTY AND EXISTING R/W LINE  
REQUIRED R/W LINE  
CONSTRUCTION LIMITS  
EASEMENT FOR CONSTR  
& MAINTENANCE OF SLOPES  
EASEMENT FOR CONSTR OF SLOPE  
EASEMENT FOR CONSTR OF DRIVE**



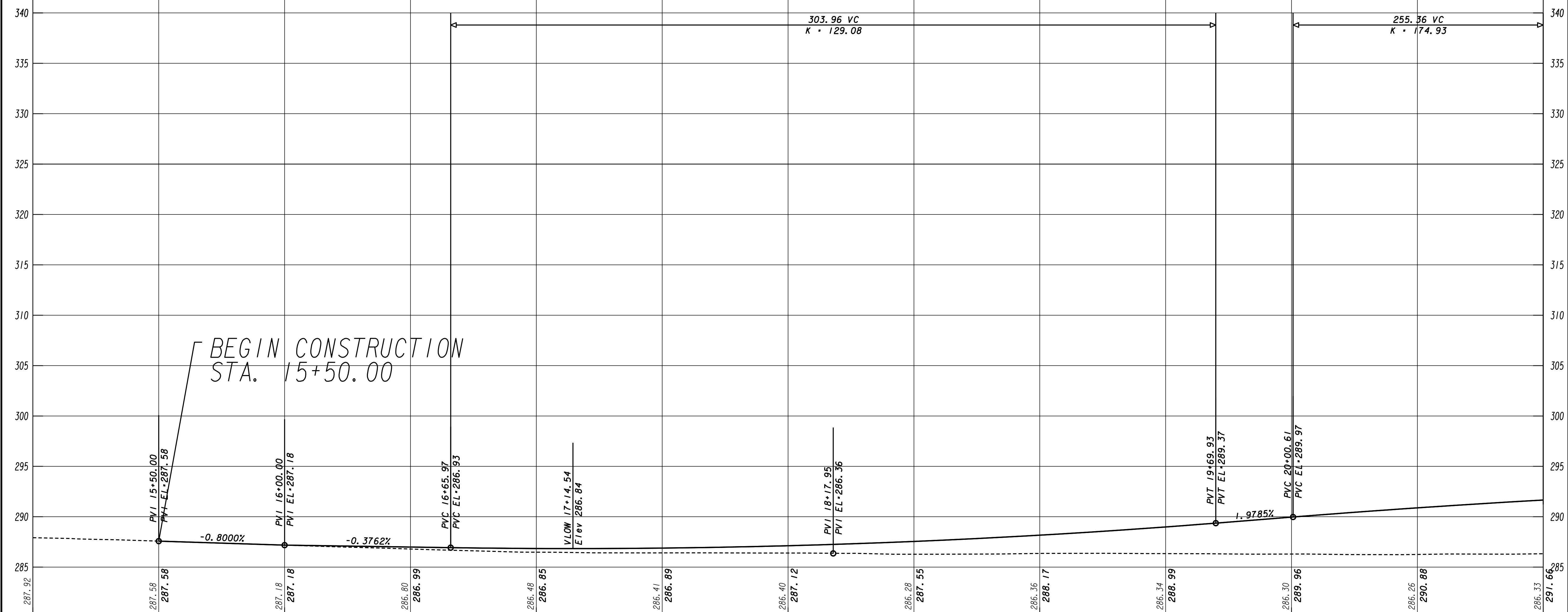
*SCALE IN FEET*



A horizontal scale bar with a black top segment and a white bottom segment. The numbers 0, 20, 40, and 80 are placed below the scale bar at regular intervals.

0      20      40      80

REVISION DATES			CONSTRUCTION PLAN		
			SR 11/SR 49 @ ROCKY CREEK		
			BIBB COUNTY		
			CHECKED:	DATE:	DRAWING No. 13-0012
			BACKCHECKED:	DATE:	
			CORRECTED:	DATE:	
			VERIFIED:	DATE:	



# LEFT PGL

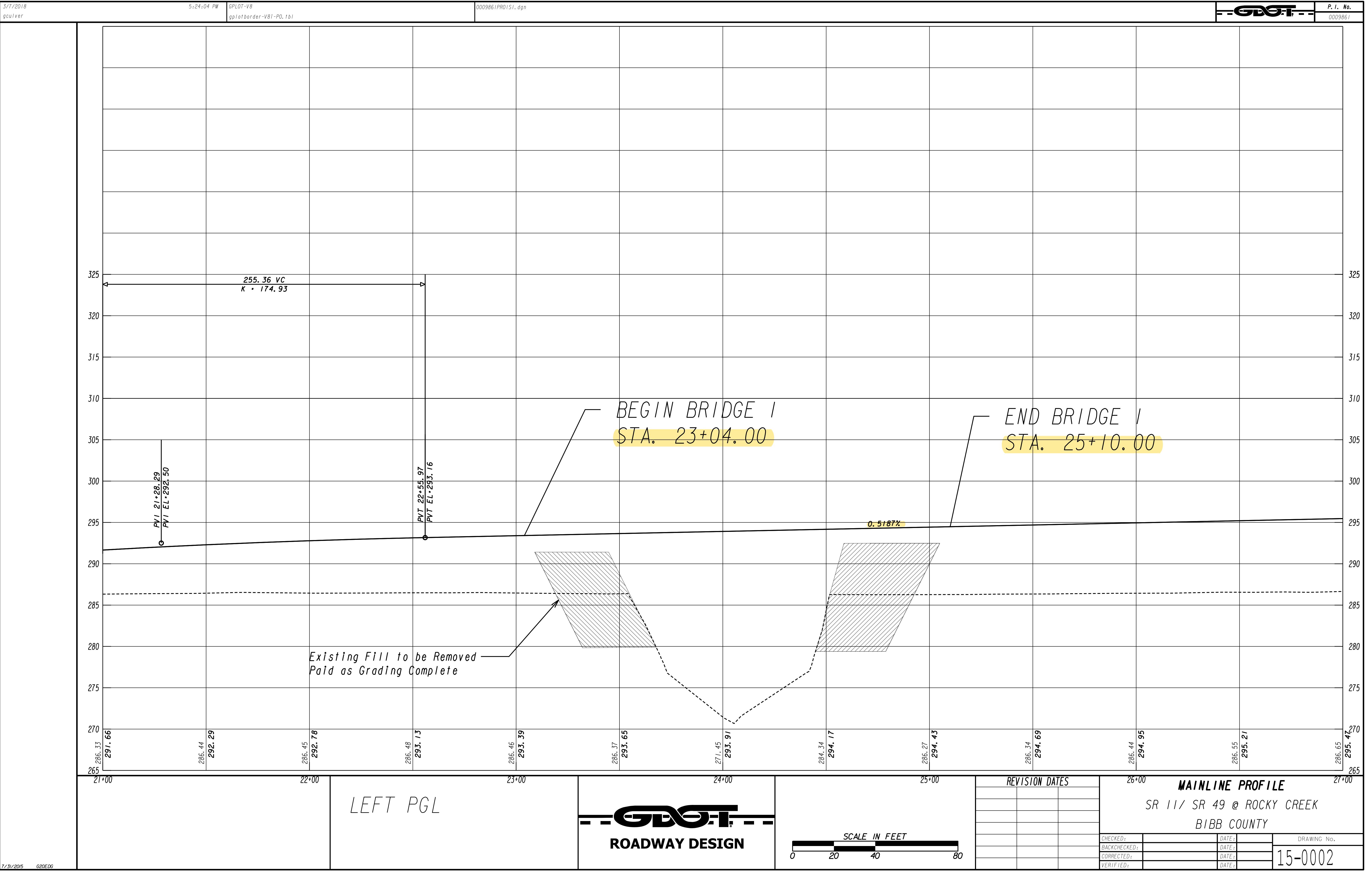


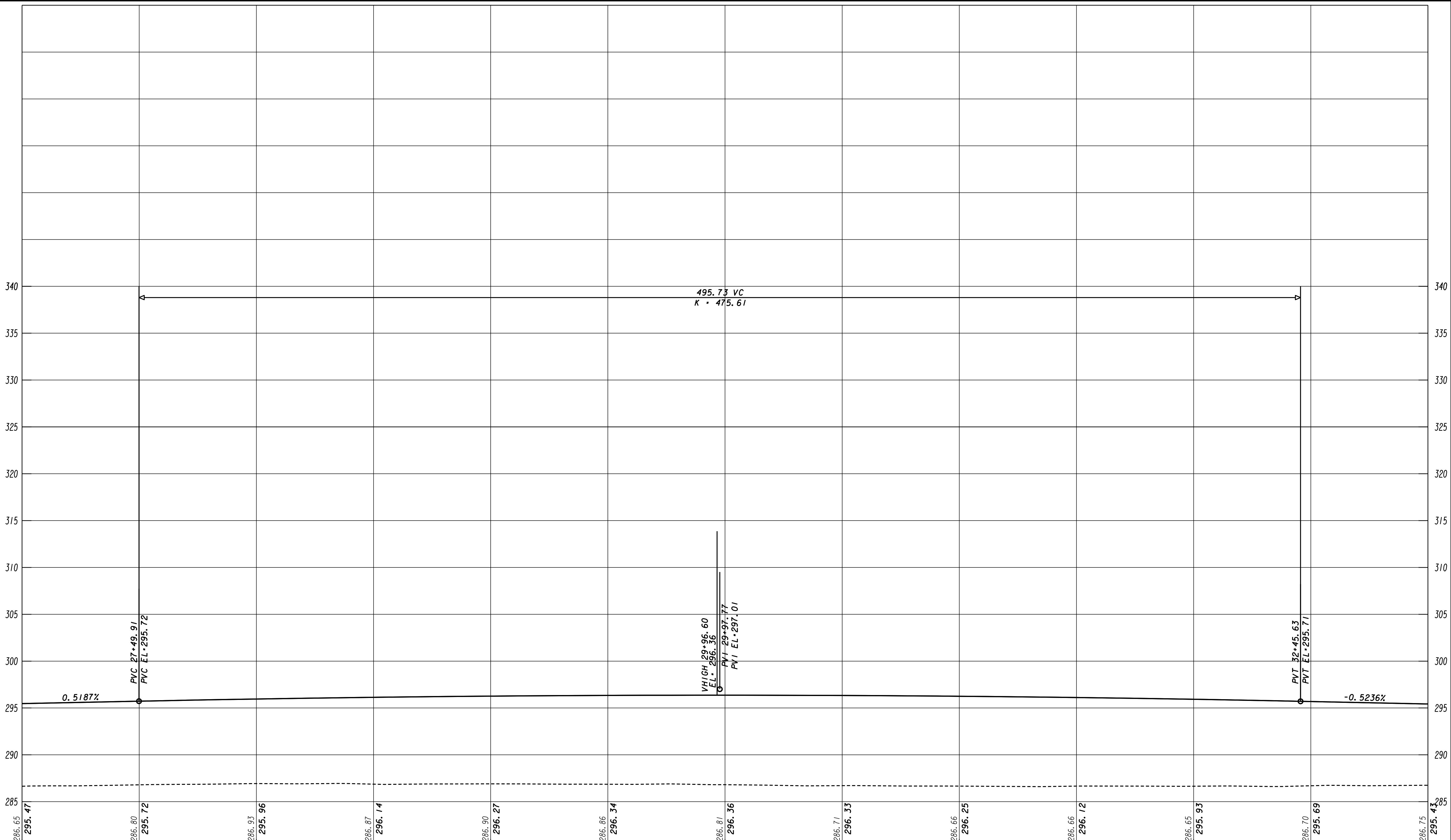
*SCALE IN FEET*



A horizontal scale bar divided into four equal segments by vertical tick marks. The first segment is labeled '0' at its left end. The second segment is labeled '20' at its right end. The third segment is labeled '40' at its right end. The fourth segment is labeled '80' at its right end.

REVISION DATES			20+00	<b>MAINLINE PROFILE</b>		21+00
			SR 11 / SR 49 @ ROCKY CREEK			
			BIBB COUNTY			
0			CHECKED:		DATE:	DRAWING No.
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			CORRECTED:		DATE:	
			VERIFIED:		DATE:	





# *LEFT PGL*

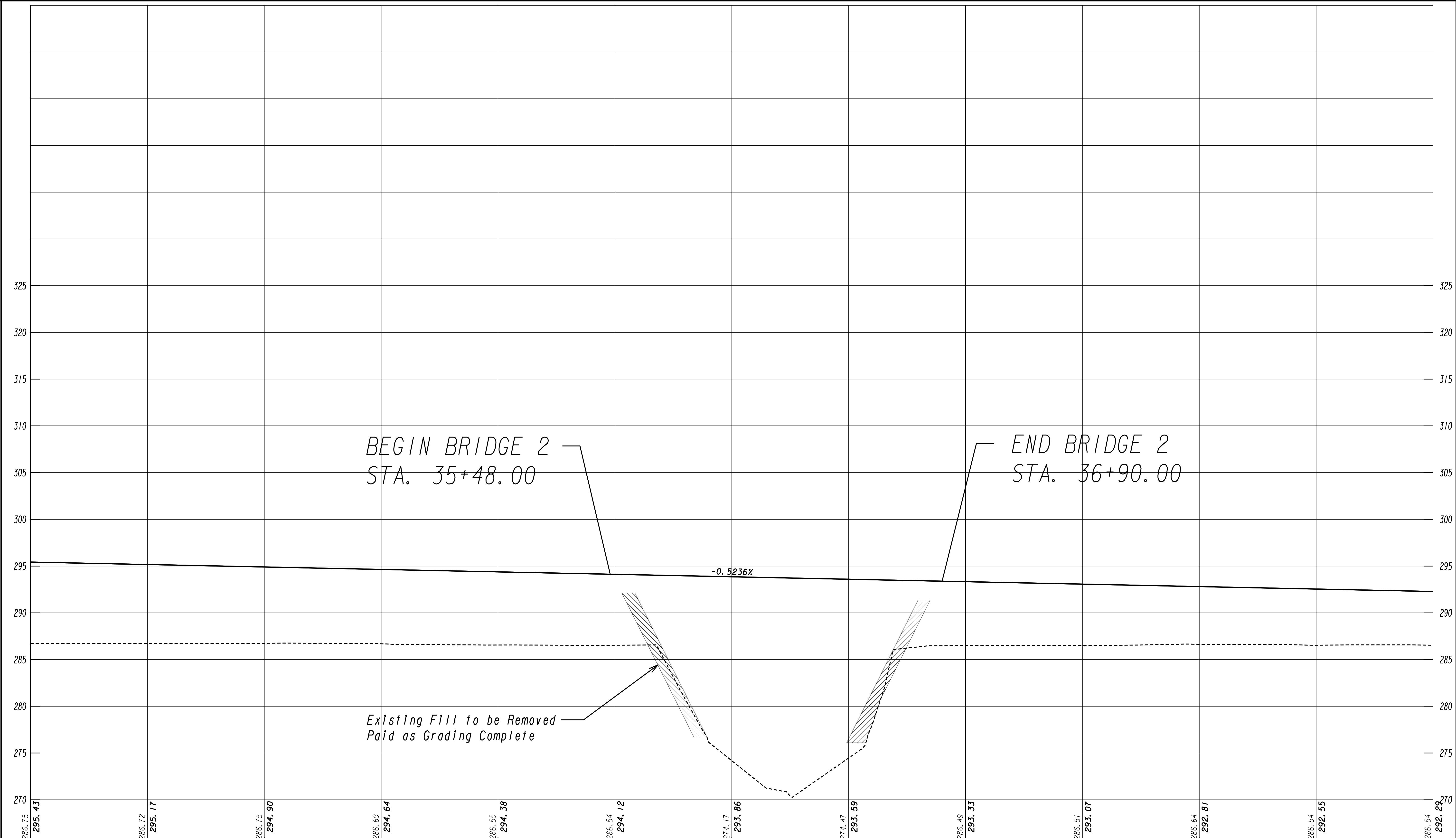


*SCALE IN FEET*



A horizontal scale bar with a black header reading "SCALE IN FEET". Below the header is a horizontal line with tick marks at 0, 20, 40, and 80. The segments between the tick marks are colored black, white, black, and black respectively.

REVISION DATES			32+00	<b>MAINLINE PROFILE</b>	33+00
			SR 11 / SR 49 @ ROCKY CREEK		
			BIBB COUNTY		
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			CORRECTED:	DATE:	
			VERIFIED:	DATE:	15-0003



LEFT PGL

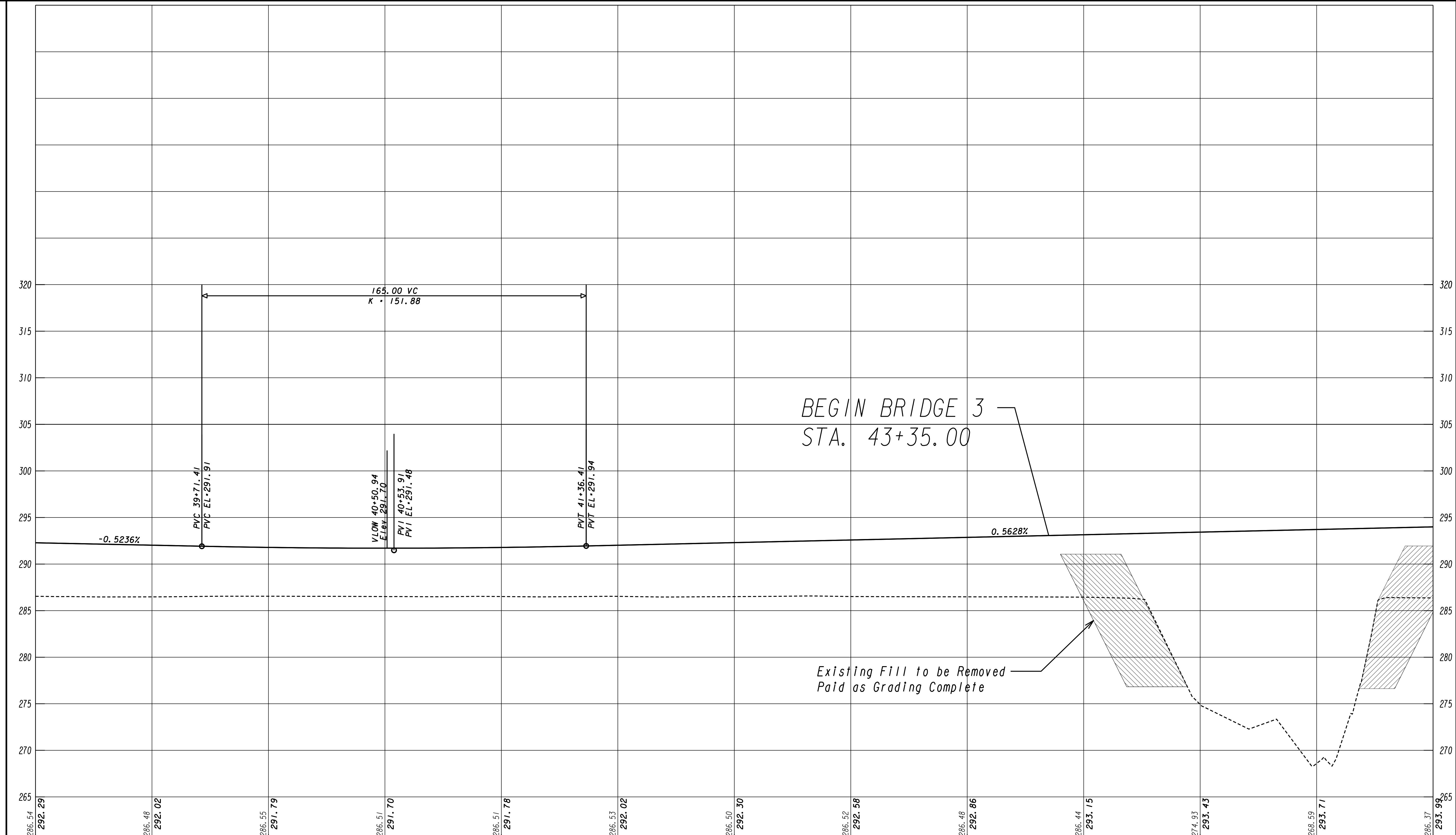


*SCALE IN FEET*



A horizontal scale bar divided into four equal segments by vertical tick marks. The first segment is labeled '0' at its left end. The second segment is labeled '20' at its right end. The third segment is labeled '40' at its right end. The fourth segment is labeled '80' at its right end.

<i>REVISION DATES</i>		<i>38+00</i>	<i>MAINLINE PROFILE</i>	<i>39+00</i>
			<i>SR 11 / SR 49 @ ROCKY CREEK</i>	
			<i>BIBB COUNTY</i>	
		<i>CHECKED:</i>	<i>DATE:</i>	<i>DRAWING No.</i>
		<i>BACKCHECKED:</i>	<i>DATE:</i>	
		<i>CORRECTED:</i>	<i>DATE:</i>	
		<i>VERIFIED:</i>	<i>DATE:</i>	



# LEFT PGL



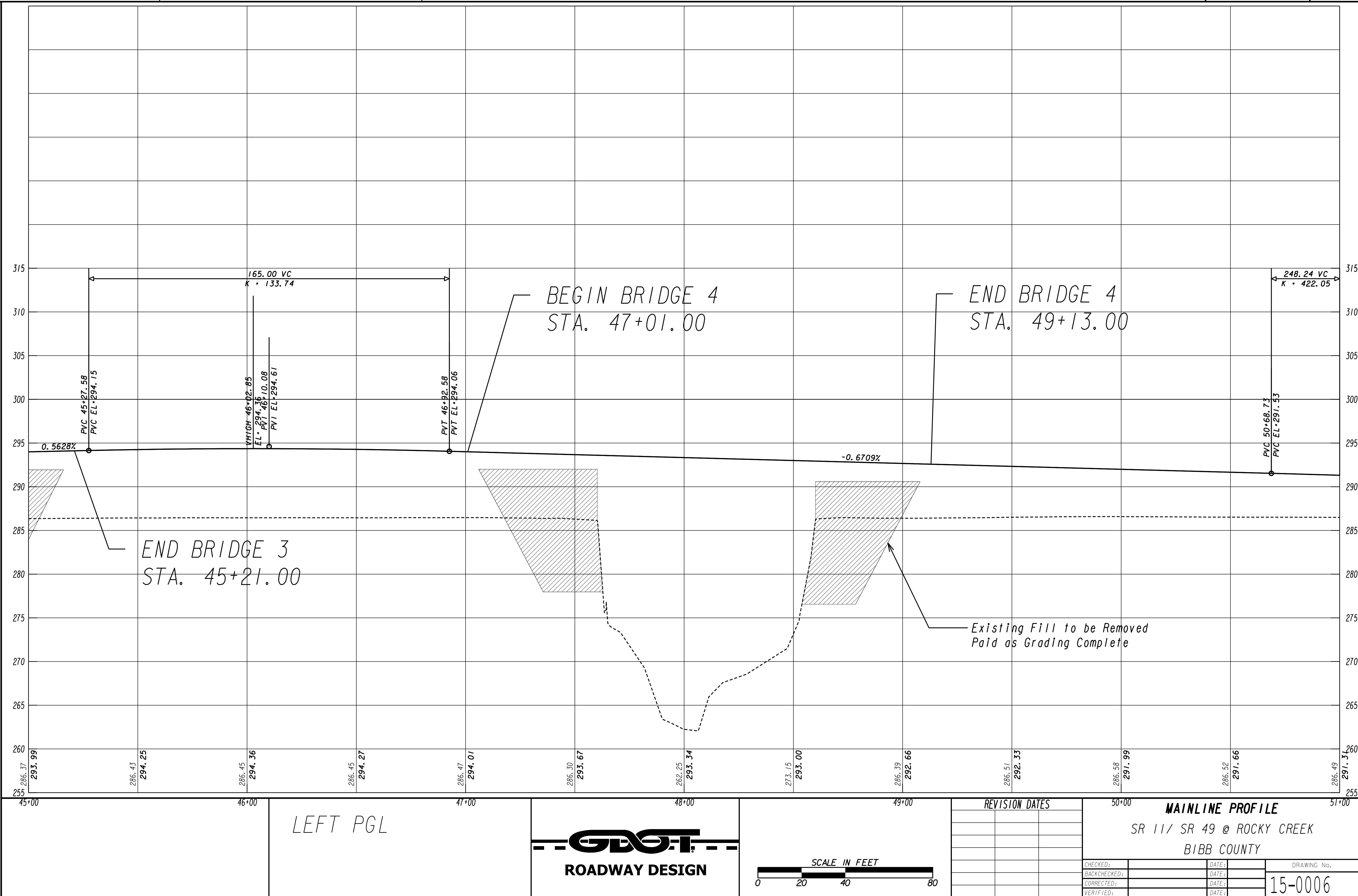
*SCALE IN FEET*

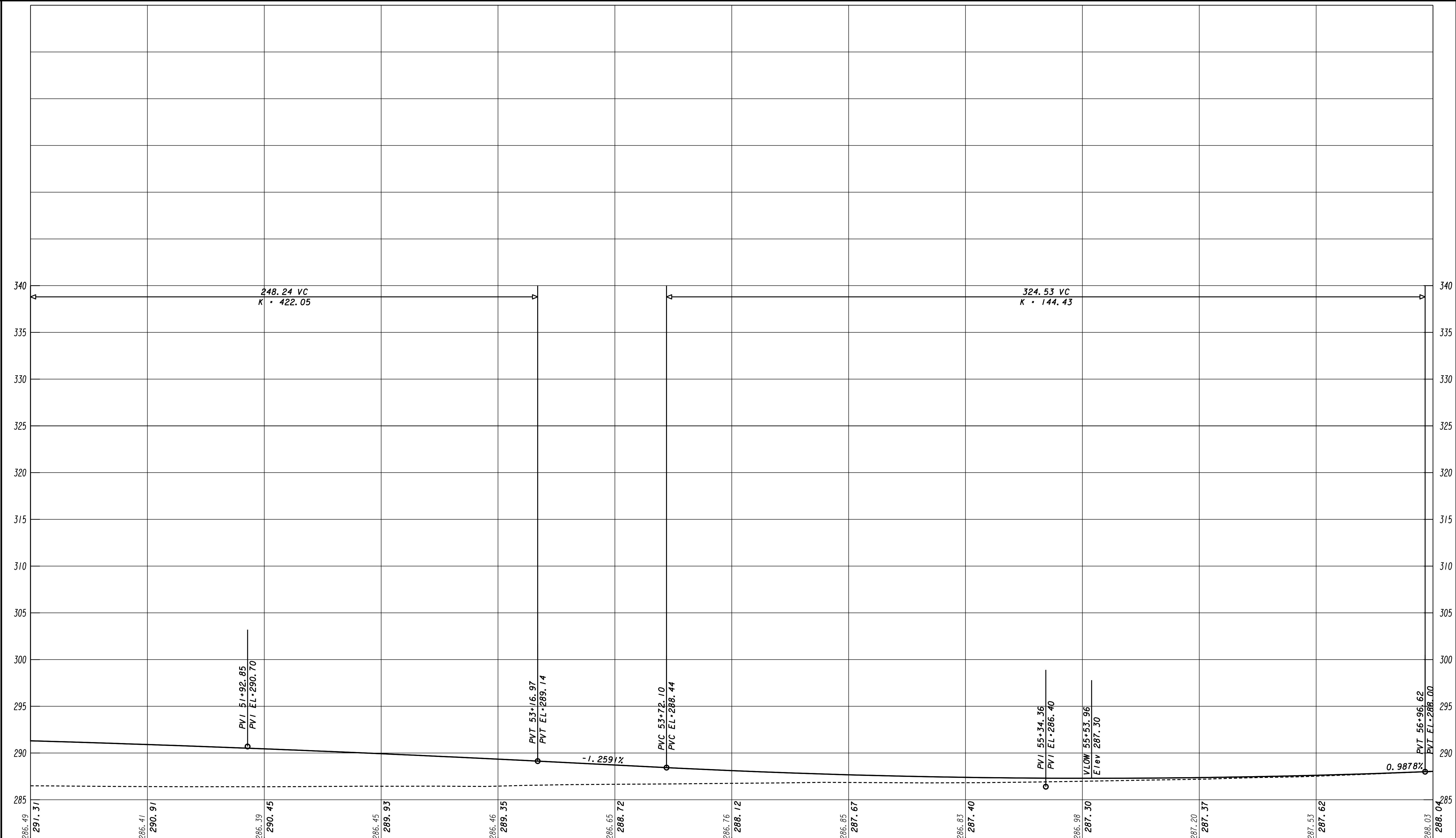


A horizontal scale bar divided into four equal segments by vertical tick marks. The first segment is labeled '0' at its left end. The second segment is labeled '20' at its right end. The third segment is labeled '40' at its right end. The fourth segment is labeled '80' at its right end.

<i>REVISION DATES</i>		44+00	<b>MAINLINE PROFILE</b>	45+00
			SR 11 / SR 49 @ ROCKY CREEK	
			BIBB COUNTY	
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		CORRECTED:	DATE:	
		VERIFIED:	DATE:	15-0005

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0009861





LEFT PGL



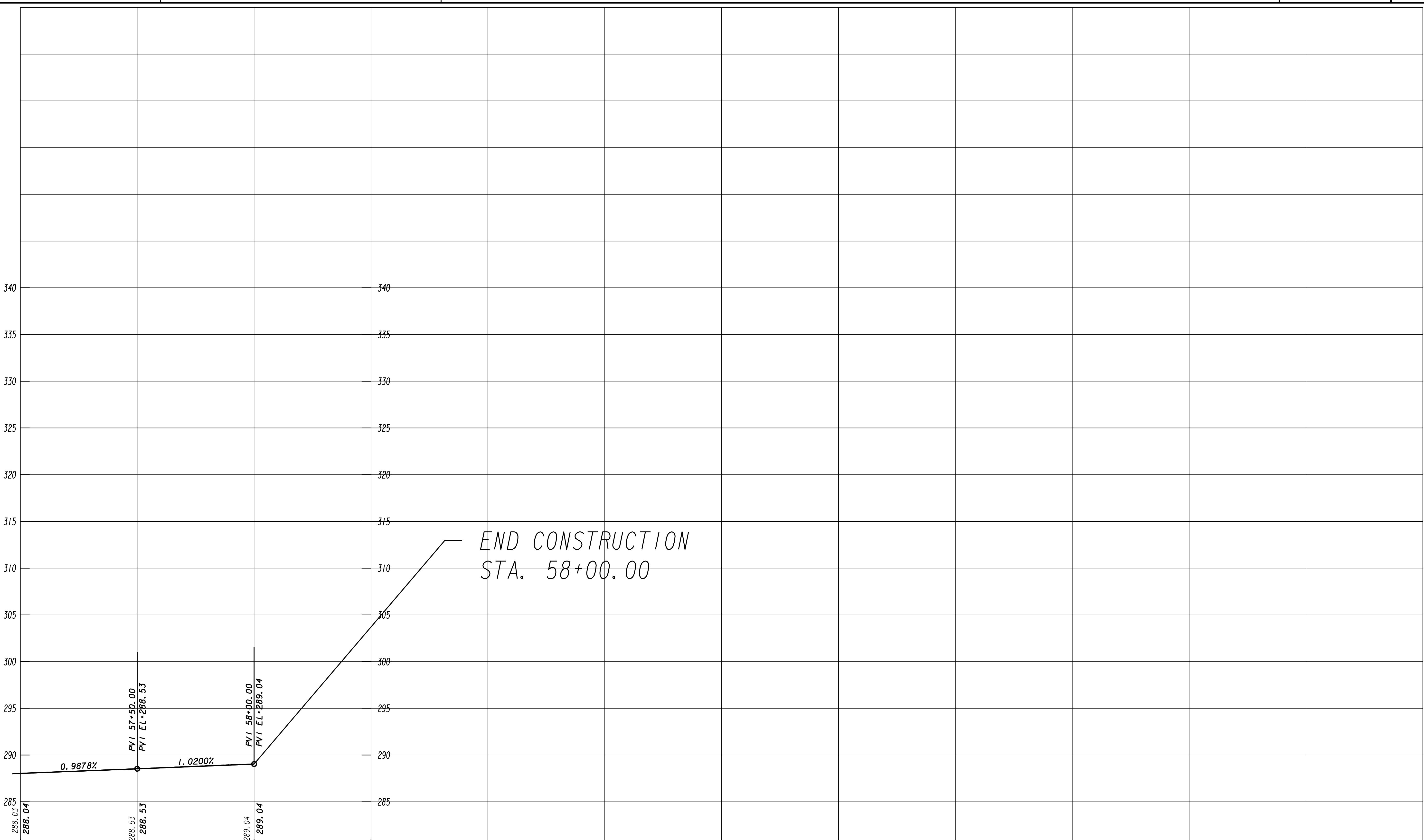
*SCALE IN FEET*



A horizontal scale bar with a black background. It features a white rectangular box in the center containing the numbers "20" and "40". Above the box, the text "SCALE IN FEET" is written in a cursive font.

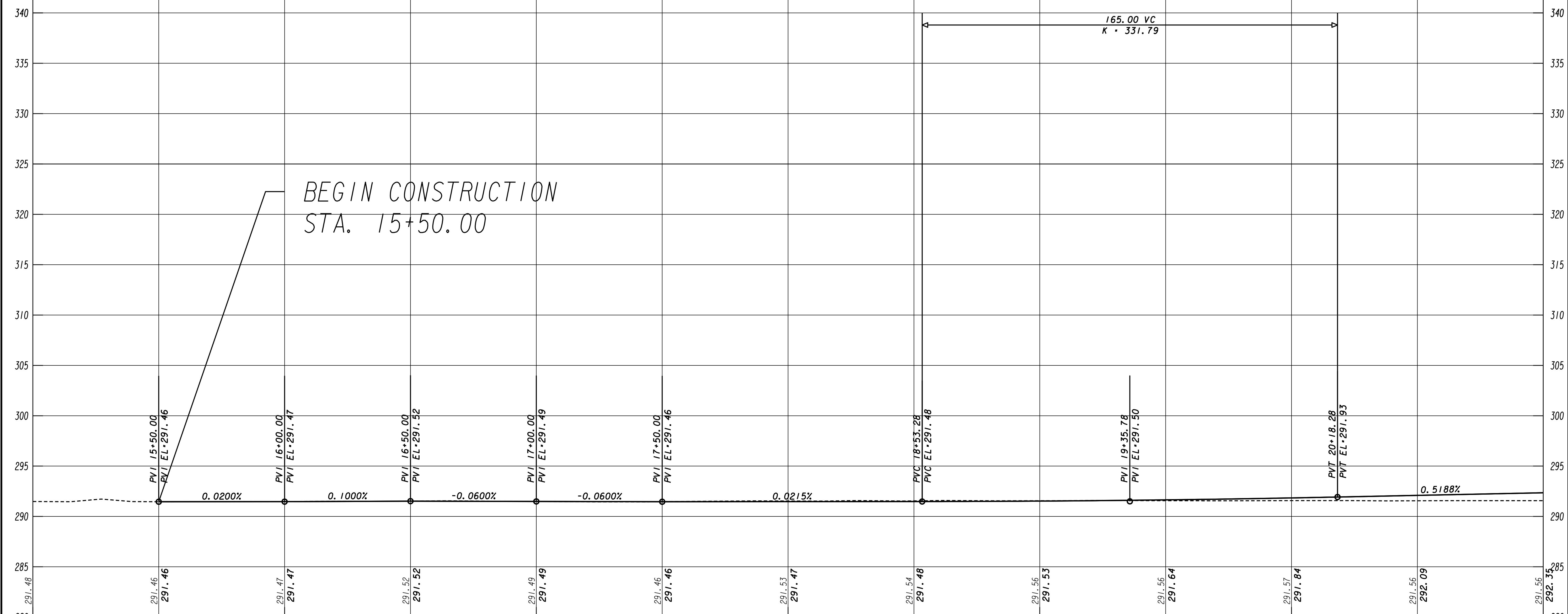
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LEFT PGL		ROADWAY DESIGN	SCALE IN FEET	MAINLINE PROFILE	
STATION	ELEVATION			REVISION DATES	DATE
57+00	288.04				SR 11 / SR 49 @ ROCKY CREEK
58+00	289.04				BIBB COUNTY
58+53	290.53				
60+00	291.04				CHECKED: DATE: DRAWING No.
60+53	292.53				BACKCHECKED: DATE: 15-0008
62+00	293.04				CORRECTED: DATE:
62+53	294.53				VERIFIED: DATE:
64+00	295.04				
64+53	296.53				
66+00	297.04				
66+53	298.53				
68+00	299.04				
68+53	300.53				
70+00	301.04				
70+53	302.53				
72+00	303.04				
72+53	304.53				
74+00	305.04				
74+53	306.53				
76+00	307.04				
76+53	308.53				
78+00	309.04				
78+53	310.53				
80+00	311.04				
80+53	312.53				
82+00	313.04				
82+53	314.53				
84+00	315.04				
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100+00	331.04				
100+53	332.53				
102+00	333.04				
102+53	334.53				
104+00	335.04				
104+53	336.53				
106+00	337.04				
106+53	338.53				
108+00	339.04				
108+53	340.53				

P. I. No.  
0009861



RIGHT PGL

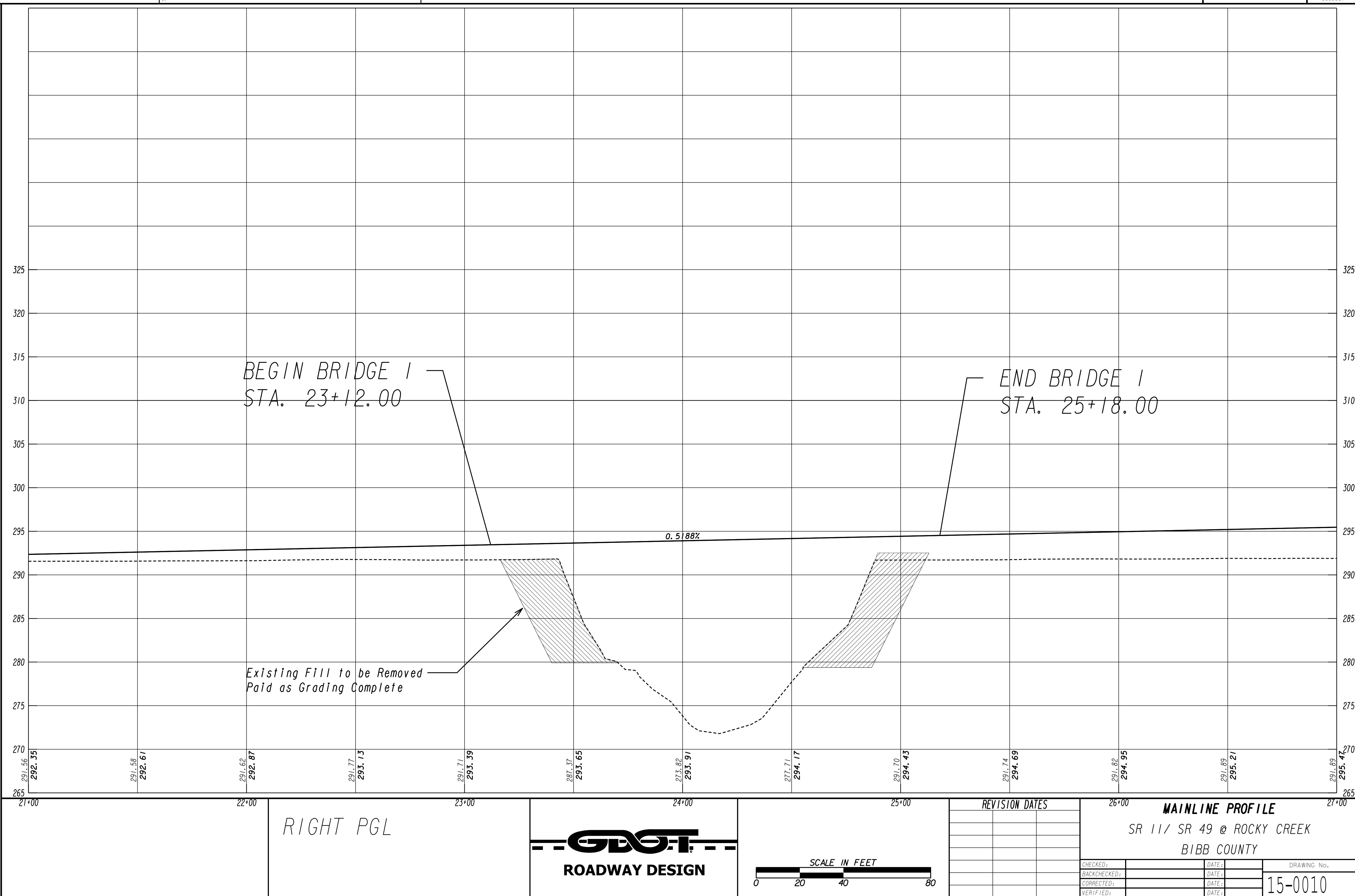


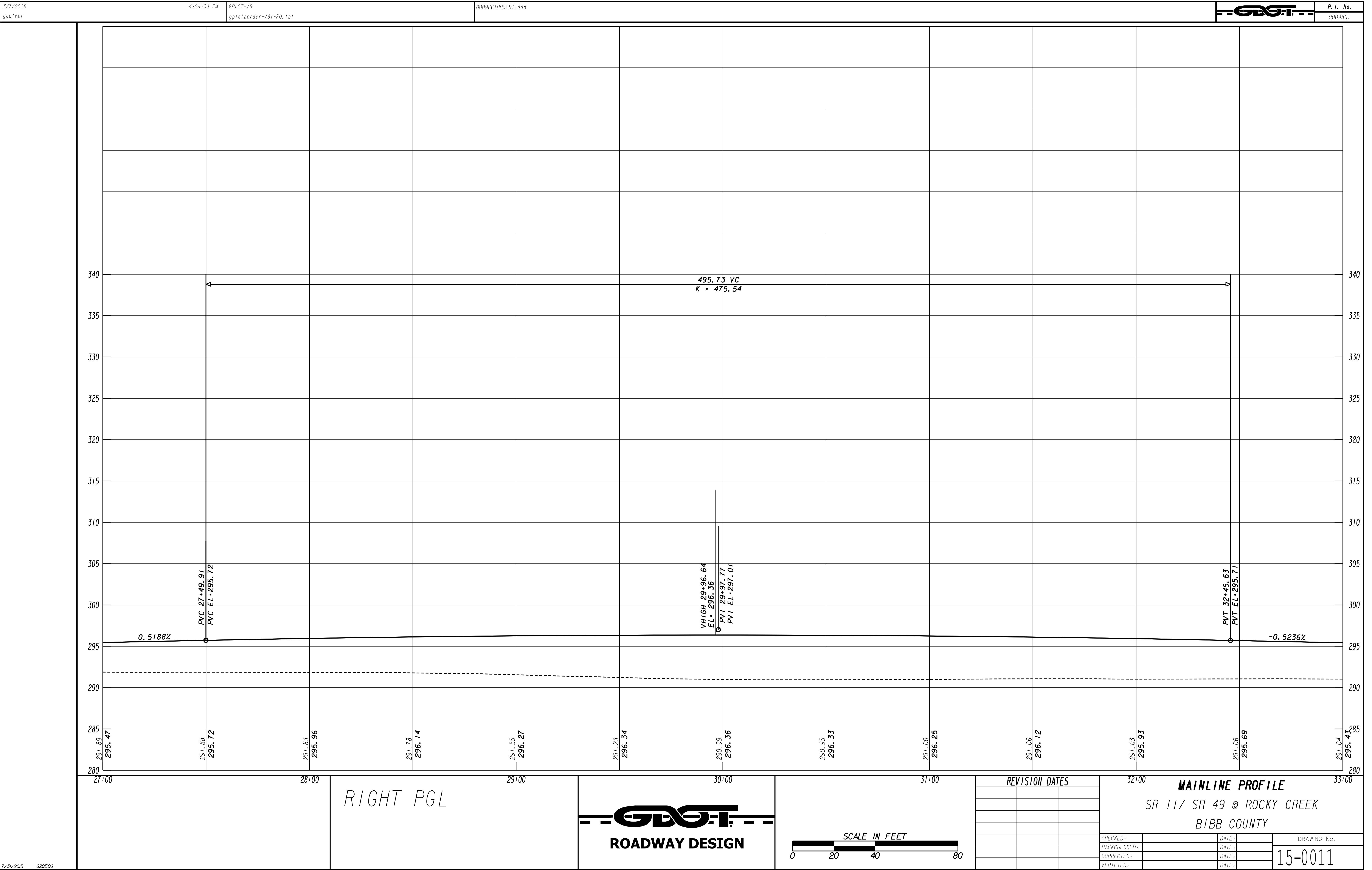
*SCALE IN FEET*



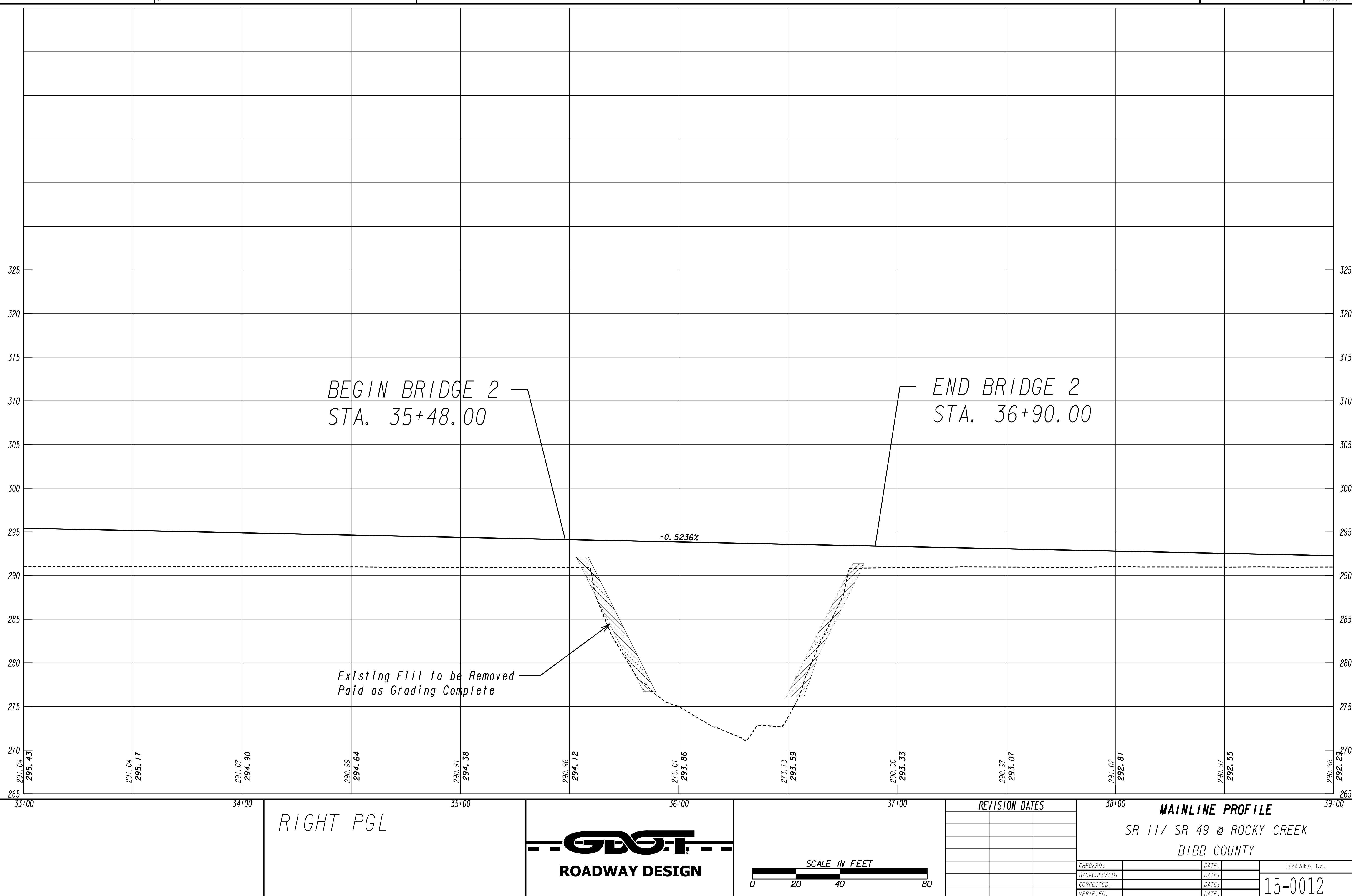
A horizontal scale bar with a black header reading "SCALE IN FEET". Below the header is a horizontal line with tick marks at 0, 20, 40, and 80. The segments between the tick marks are colored black, white, black, and black respectively.

REVISION DATES			20+00	<b>MAINLINE PROFILE</b>	21+00
				SR 11 / SR 49 @ ROCKY CREEK	
				BIBB COUNTY	
			CHECKED:	DATE:	DRAWING No.
			BACKCHECKED:	DATE:	
			CORRECTED:	DATE:	
			VERIFIED:	DATE:	15-0009





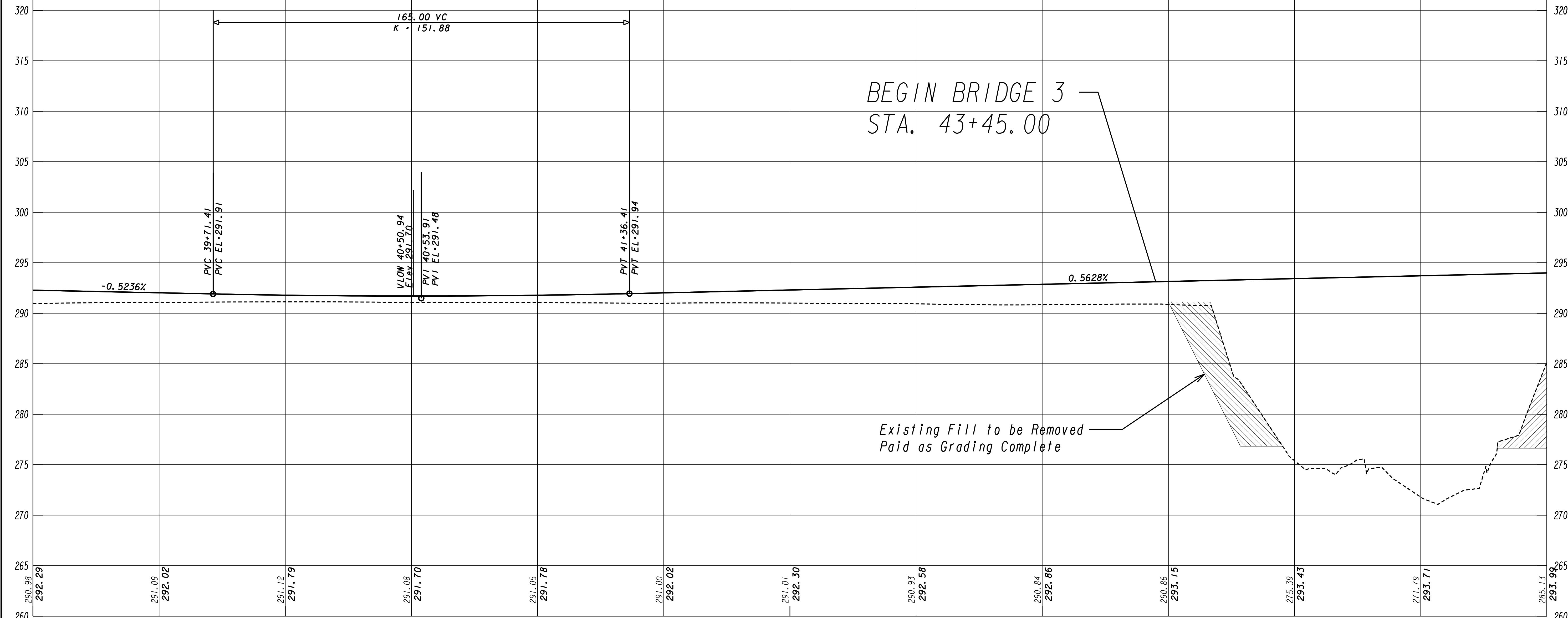
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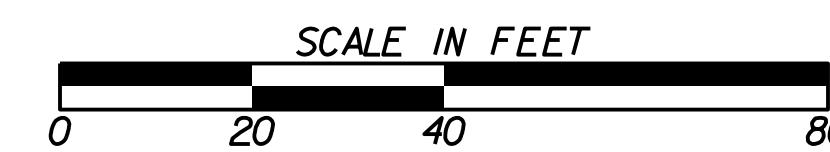
3/14/2018

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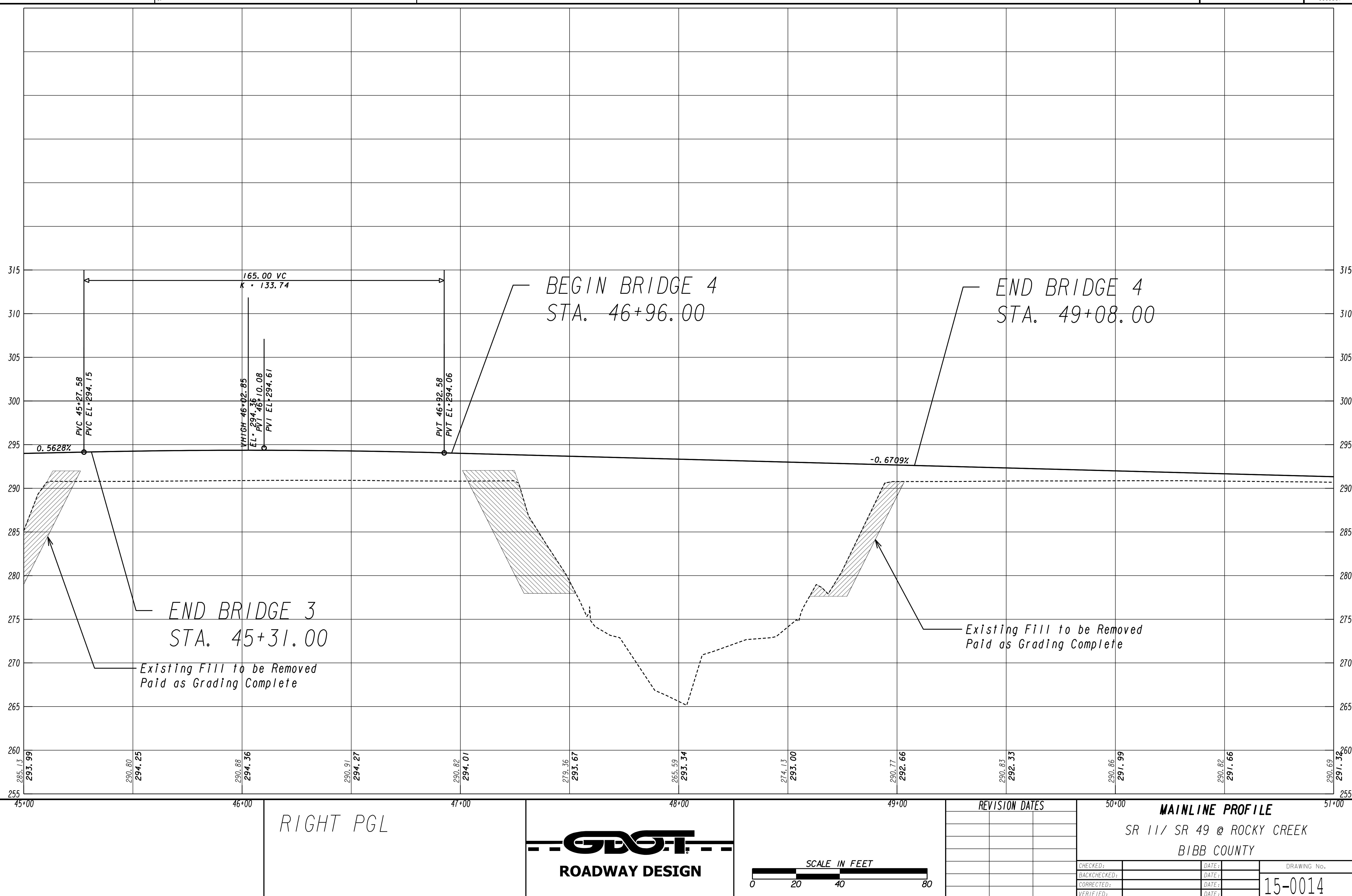
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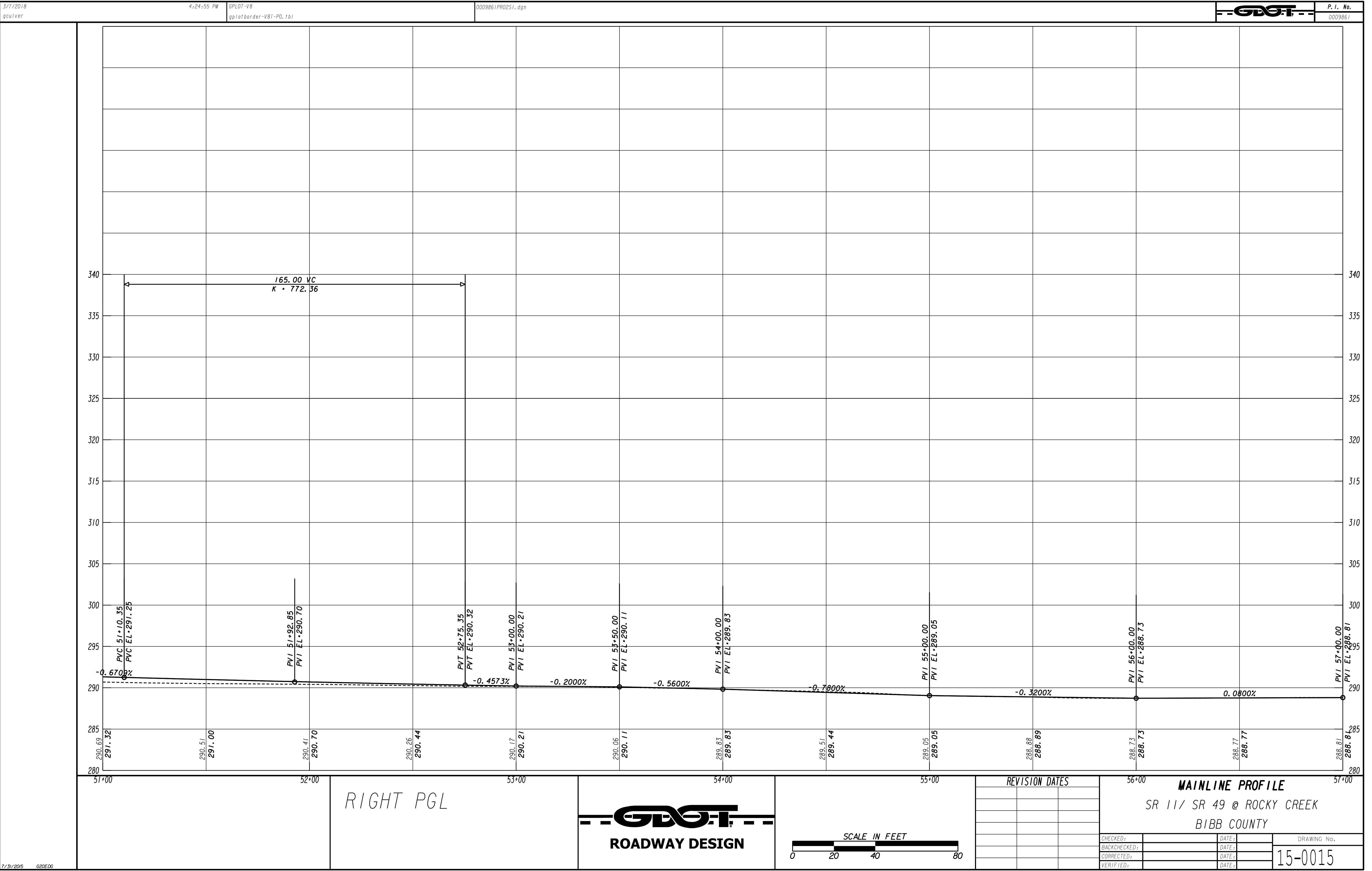
RIGHT PGL

**GA DOT**  
 ROADWAY DESIGN


REVISION DATES

MAINLINE PROFILE		SR 11 / SR 49 @ ROCKY CREEK		BIBB COUNTY	
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VERIFIED:	DATE:				
					DRAWING No.
					15-0013

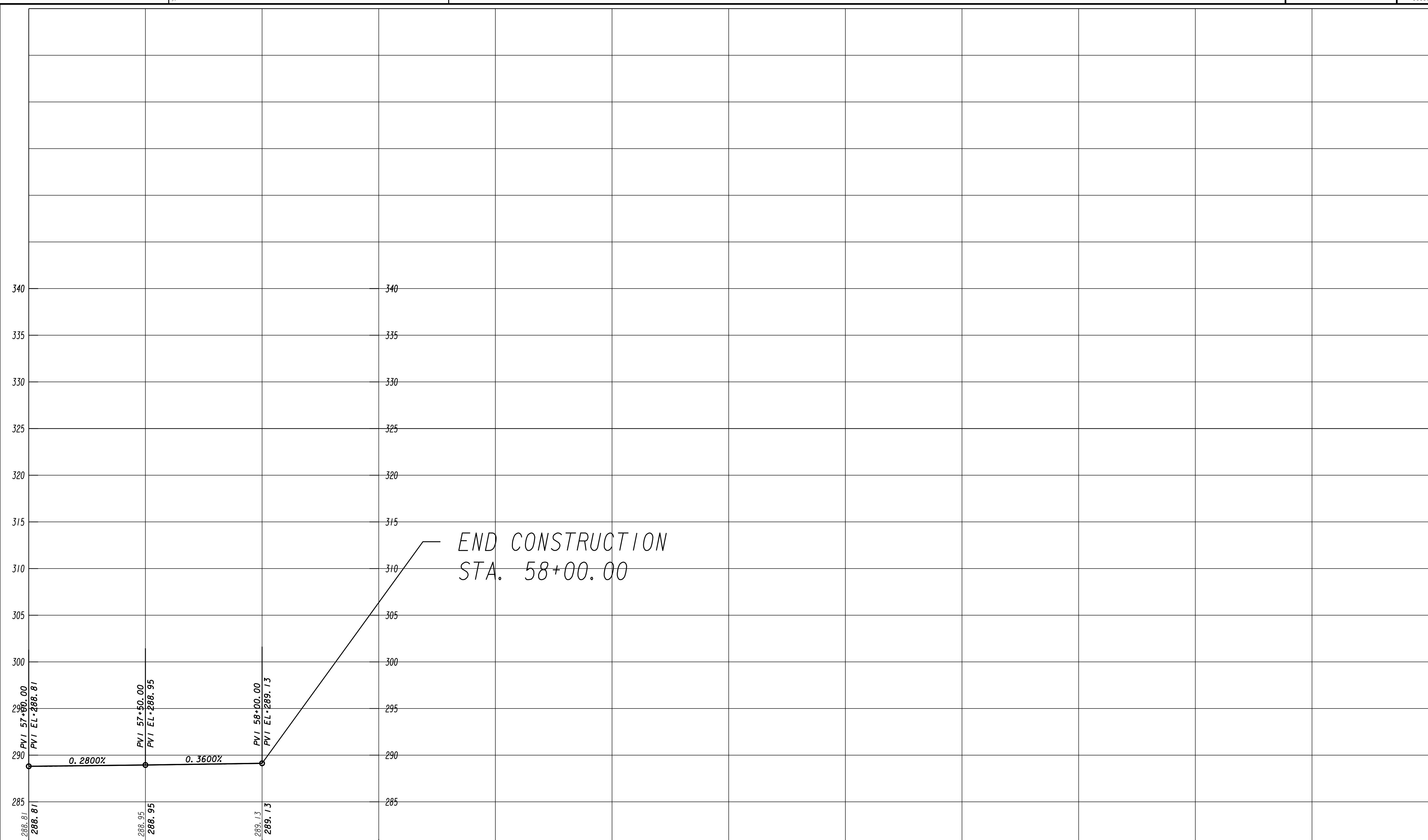




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gcuver



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RIGHT PGL

**GA DOT**  
ROADWAY DESIGN



REVISION DATES

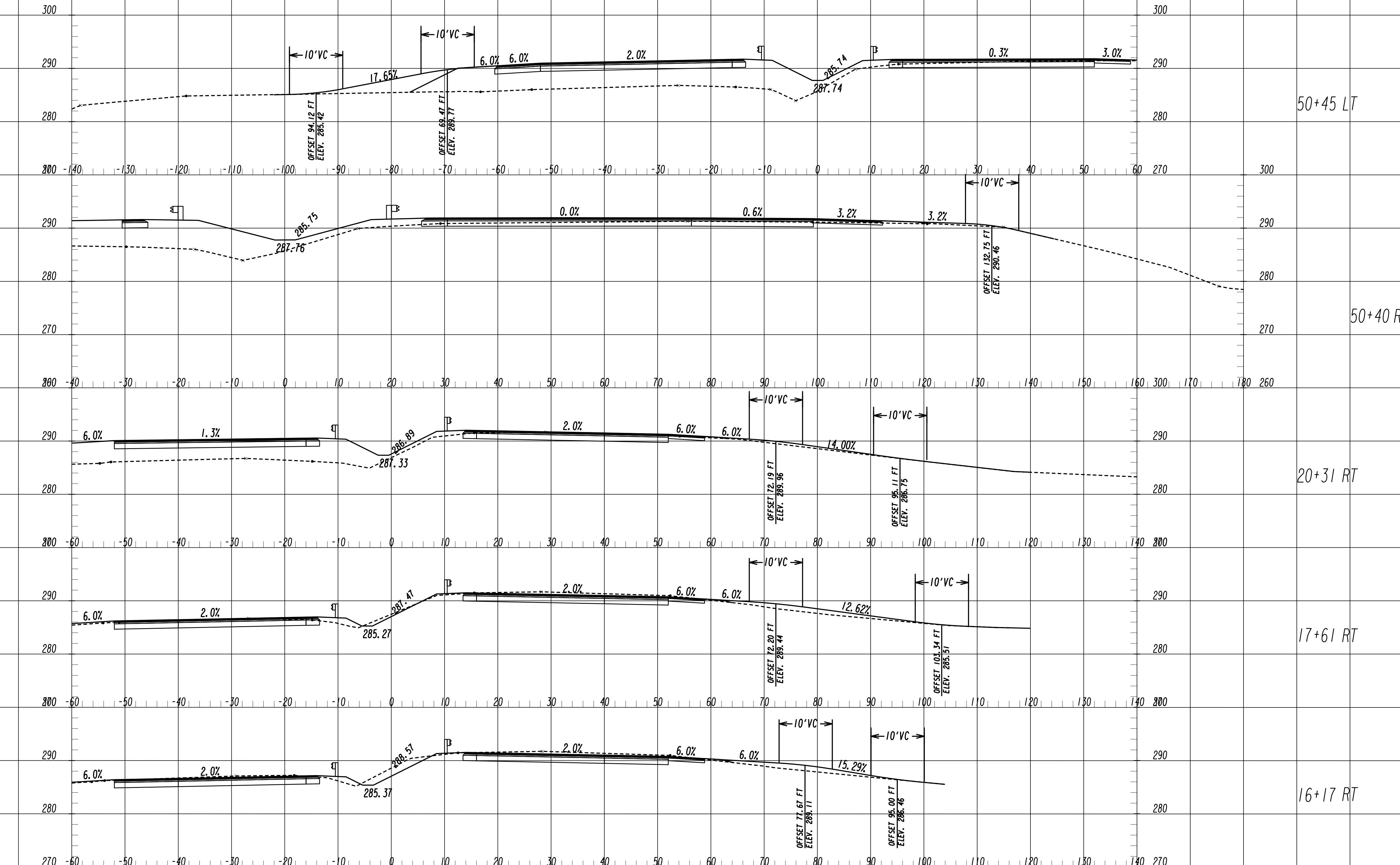
MAINLINE PROFILE

SR 11 / SR 49 @ ROCKY CREEK

BIBB COUNTY

CHECKED:	DATE:	DRAWING NO.
BACKCHECKED:	DATE:	
CORRECTED:	DATE:	
VERIFIED:	DATE:	

15-0016



# **- - G.D.T. - -**

## **ROADWAY DESIGN**

SCALE IN FEET

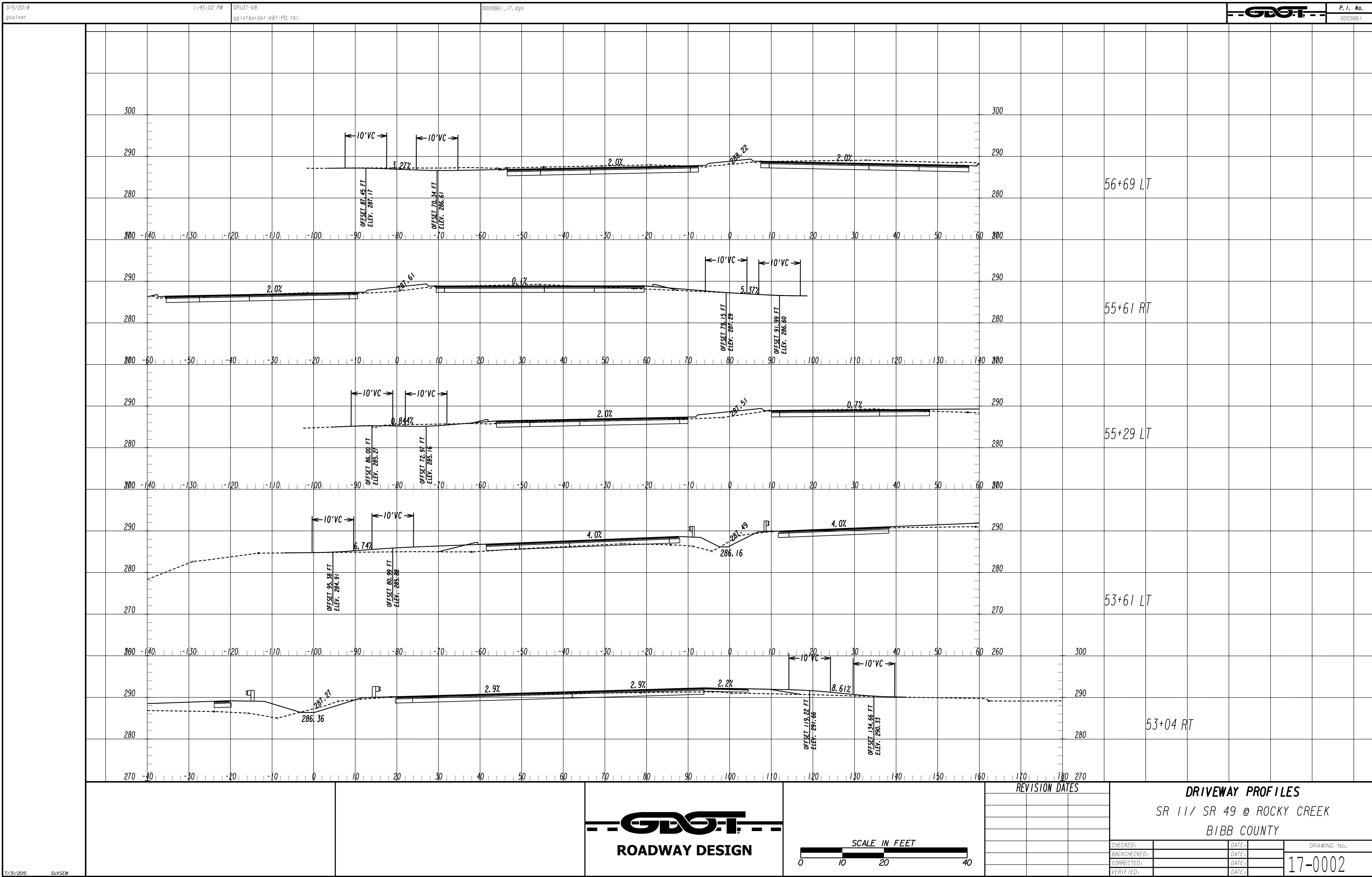
0      10      20      40

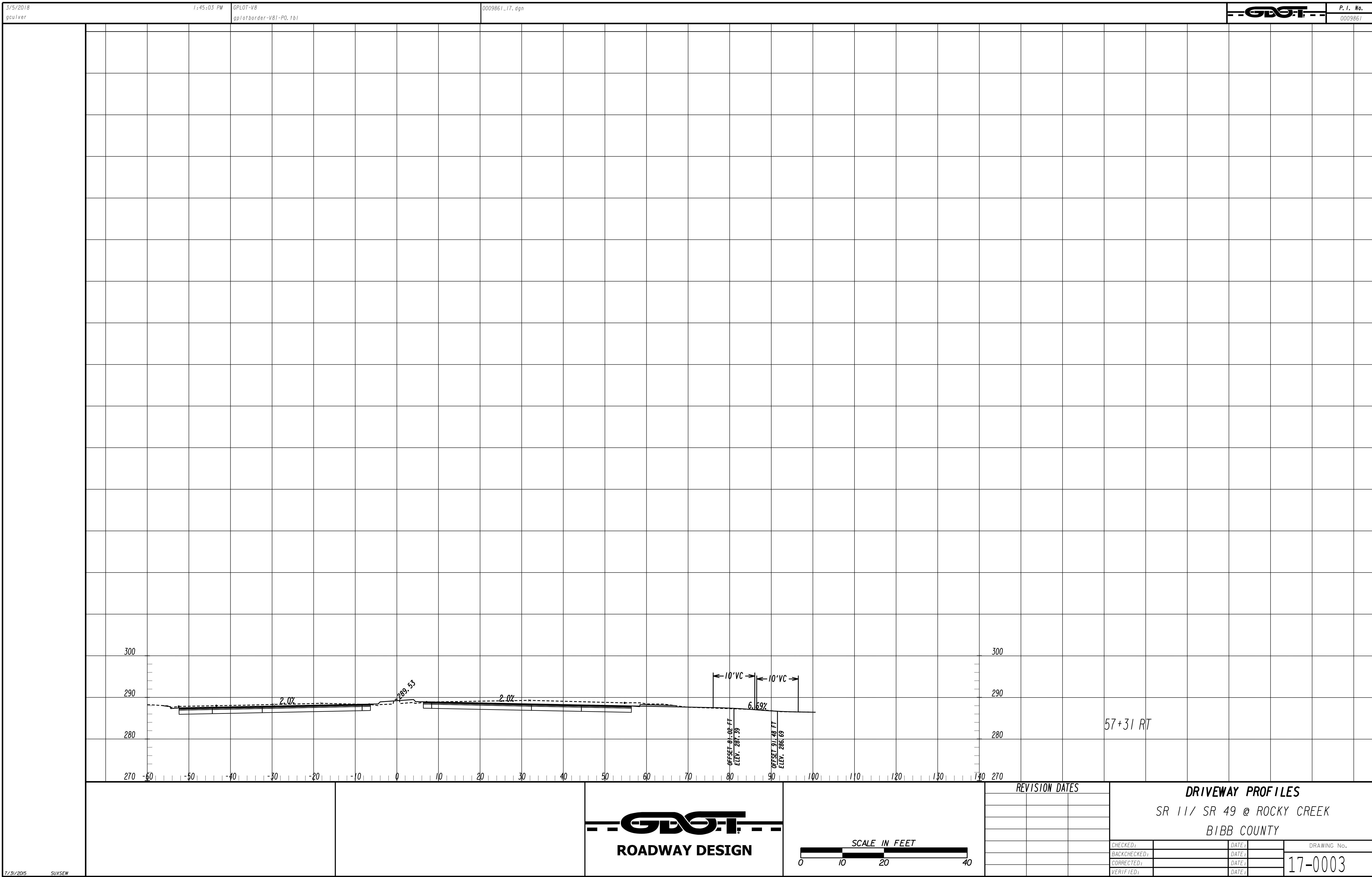
A horizontal scale bar with a black header reading "SCALE IN FEET". Below the header is a black line with tick marks. The first tick mark is at 0, the second is at 10, the third is at 20, and the fourth is at 40.

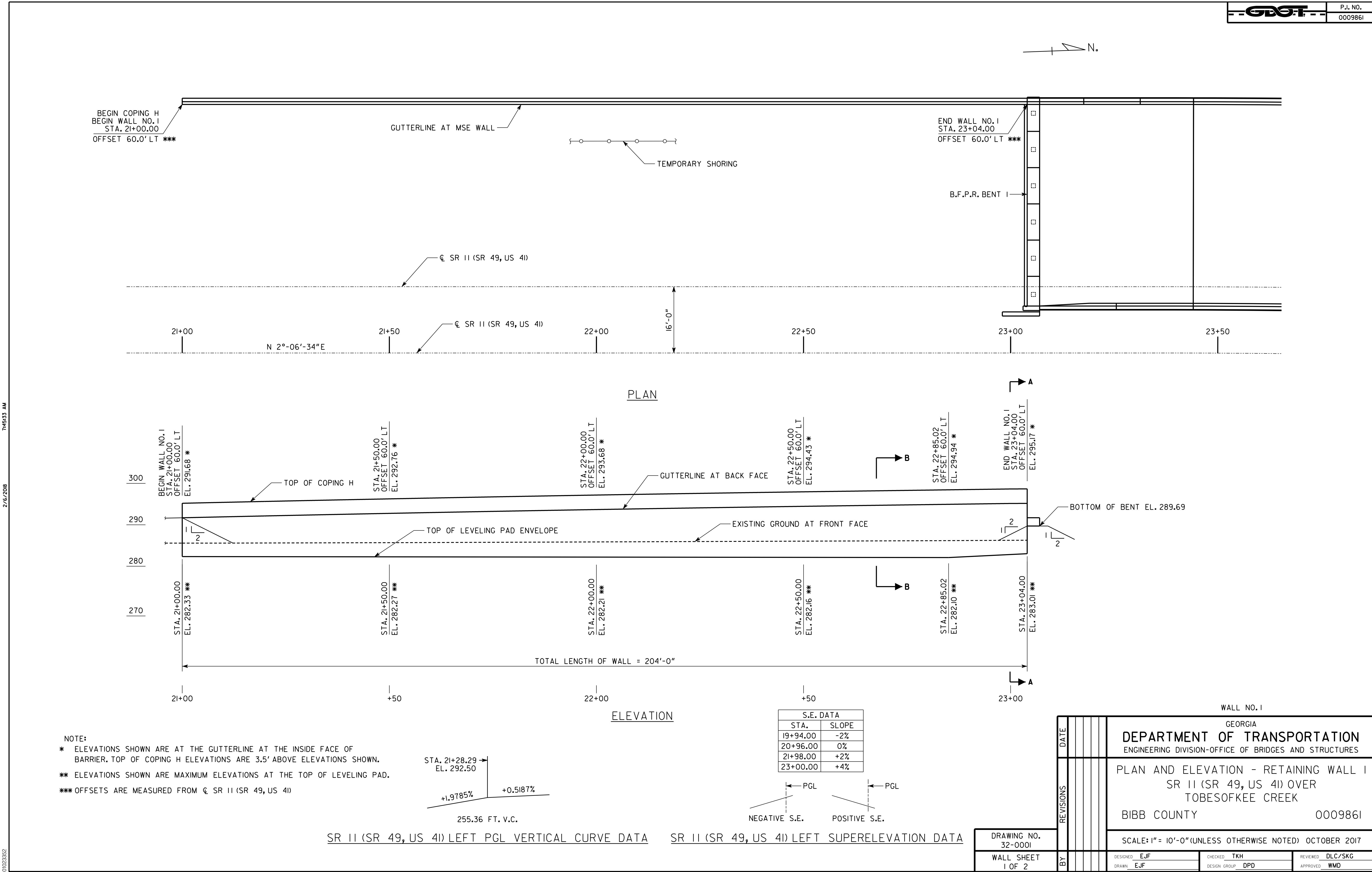
**DRIVEWAY PROFILES**

SR 11 / SR 49 @ ROCKY CREEK

BIBB COUNTY





7:45:33 AM  
2/6/2018

**GENERAL NOTES**

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION AND 2016 SUPPLEMENTAL SPECIFICATIONS, AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL.

FINISH - NO ARCHITECTURAL FINISH IS REQUIRED, UNLESS OTHERWISE STATED IN THE CONTRACT DOCUMENTS.

GRAFFITI PROOF COATING - ALL MSE WALL PANELS SHALL HAVE A GRAFFITI PROOF COATING AS PER SECTION 838 OF THE GEORGIA DOT SPECIFICATIONS.

CONCRETE COVER - MAINTAIN 2 INCHES COVER MINIMUM ON ALL REINFORCING STEEL.

STATIONS AND OFFSETS - STATIONS SHOWN ARE ALONG CONST. & SR II (SR 49, US 41). OFFSETS SHOWN ARE MEASURED TO THE GUTTERLINE.

FOUNDATION BACKFILL MATERIAL - REMOVE 3'-0" OF EXISTING SOIL PLACE 3'-0" OF TYPE II FOUNDATION BACKFILL MATERIAL UNDER MSE WALL AS SHOWN IN THE PLANS FROM STATIONS 22+50 TO 23+04.

MSE WALL BACKFILL MATERIAL - LIGHTWEIGHT BACKFILL MATERIAL SHALL NOT BE USED FOR THIS MSE WALL.

STAGE CONSTRUCTION - A WAITING PERIOD OF 30 DAYS SHALL BE OBSERVED AFTER FINAL STAGE OF BACKFILL PLACEMENT AND PRIOR TO THE CONSTRUCTION OF THE ABUTMENT OR TRAFFIC BARRIER COPING H.

TEMPORARY SHORING - PROVIDE TEMPORARY SHORING AS NECESSARY FOR WALL CONSTRUCTION.

JOINTS - PROVIDE ONE INCH EXPANSION JOINT IN COPING OR BARRIER AT EVERY FOURTH PANEL.

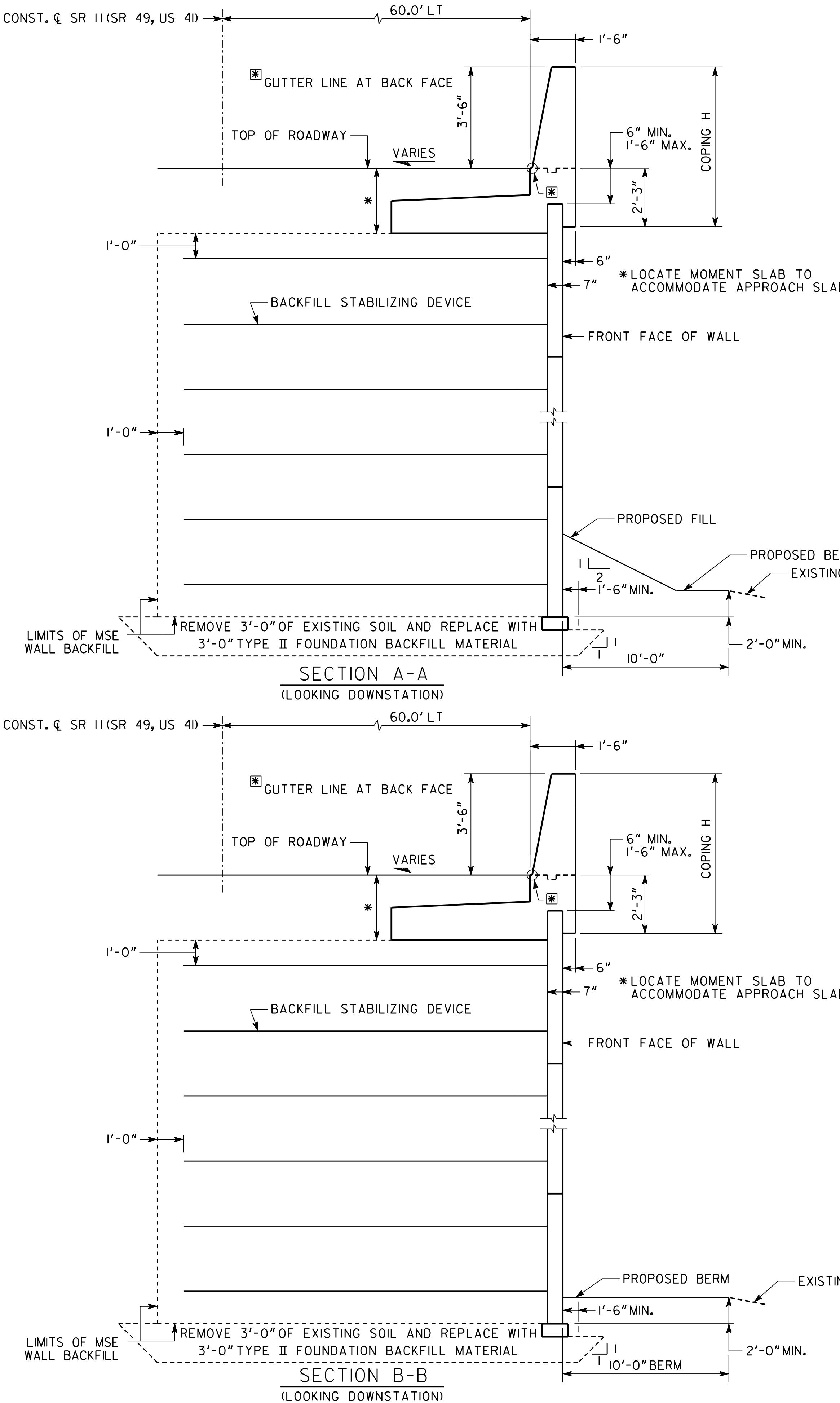
WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC

WALL PLANS - THE RETAINING WALL IS CONSIDERED A CONTRACTOR DESIGN. THESE WALL PLANS ARE CONCEPTUAL AND ARE FOR ILLUSTRATIVE PURPOSES ONLY. EXACT NUMBER OF SOIL REINFORCING STRIPS, THEIR LOCATIONS AND LENGTHS SHALL BE PROVIDED BY THE CONTRACTOR FOR THE WALL SYSTEM BID. THE PRESENCE OF THESE CONCEPTUAL PLANS IN THE CONTRACT DOCUMENTS IN NO WAY RELIEVES THE CONTRACTOR FROM PROVIDING A WALL SYSTEM WHICH PROVIDES STRUCTURAL ADEQUACY, IN ACCORDANCE WITH SECTION 627 OF THE GEORGIA DOT SPECIFICATIONS, AT THE BID PRICE.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF JOINT FILLERS, NEOPRENE PADS, WATERPROOFING AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

WALL DESIGN CALCULATIONS - CONTRACTOR TO PROVIDE WALL DESIGN CALCULATIONS. CALCULATIONS FOR EACH WALL DESIGN SECTION SHALL INCLUDE THE VERIFICATION OF INTERNAL STABILITY AND EXTERNAL STABILITY, AS WELL AS A DETERMINATION OF THE BEARING CAPACITY AND ESTIMATED SETTLEMENT FOR THE APPROPRIATE LRFD LIMIT STATES.

7/5/046 AM  
4/8/2019


**DESIGN DATA**

SPECIFICATION ----- AASHTO LFRD 7TH EDITION, 2014

STA. 21+00 TO 22+50  
RETAINED SOIL: COHESION ----- 0 PSF  
ANGLE OF INTERNAL FRICTION ----- 38°  
UNIT WEIGHT ----- 120 PCF

FOUNDATION SOIL: COHESION ----- 0 PSF  
ANGLE OF INTERNAL FRICTION ----- 38°  
UNIT WEIGHT ----- 120 PCF

ESTIMATED SETTLEMENT ----- 2.7 IN  
STA. 22+50 TO 23+04  
RETAINED SOIL: COHESION ----- 0 PSF  
ANGLE OF INTERNAL FRICTION ----- 28°  
UNIT WEIGHT ----- 110 PCF

FOUNDATION SOIL: COHESION ----- 0 PSF  
ANGLE OF INTERNAL FRICTION ----- 32°  
UNIT WEIGHT ----- 120 PCF

ESTIMATED SETTLEMENT ----- 2.9 IN

SOIL REINFORCEMENT NOTES:  
 1. H=DESIGN HEIGHT+EMBEDMENT  
 2. MINIMUM REINFORCEMENT LENGTH = 0.7H OR 10 FEET  
 WHICHEVER IS GREATER.  
 3. THE REINFORCEMENT STRAP LENGTHS PROVIDED ARE THE MINIMUM LENGTHS  
 REQUIRED FOR EXTERNAL STABILITY. THE REINFORCEMENT LENGTHS USED  
 IN THE CONSTRUCTION OF THE RETAINING WALLS SHALL BE THE LONGER  
 OF THAT REQUIRED FOR EXTERNAL OR INTERNAL STABILITY AS DETERMINED  
 BY PROPRIETARY WALL COMPANIES.

**SUMMARY OF QUANTITIES - WALL NO. I**

NUMBER	QUANTITY	UNIT	PAY ITEM
207-0203	69	CY	FOUND BKFL MATL, TP II
627-1000	267	SF	MSE WALL FACE, 0 - 10 FT HT, WALL NO - I
627-1010	2054	SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - I
627-1160	204	LF	COPING H, WALL NO - I

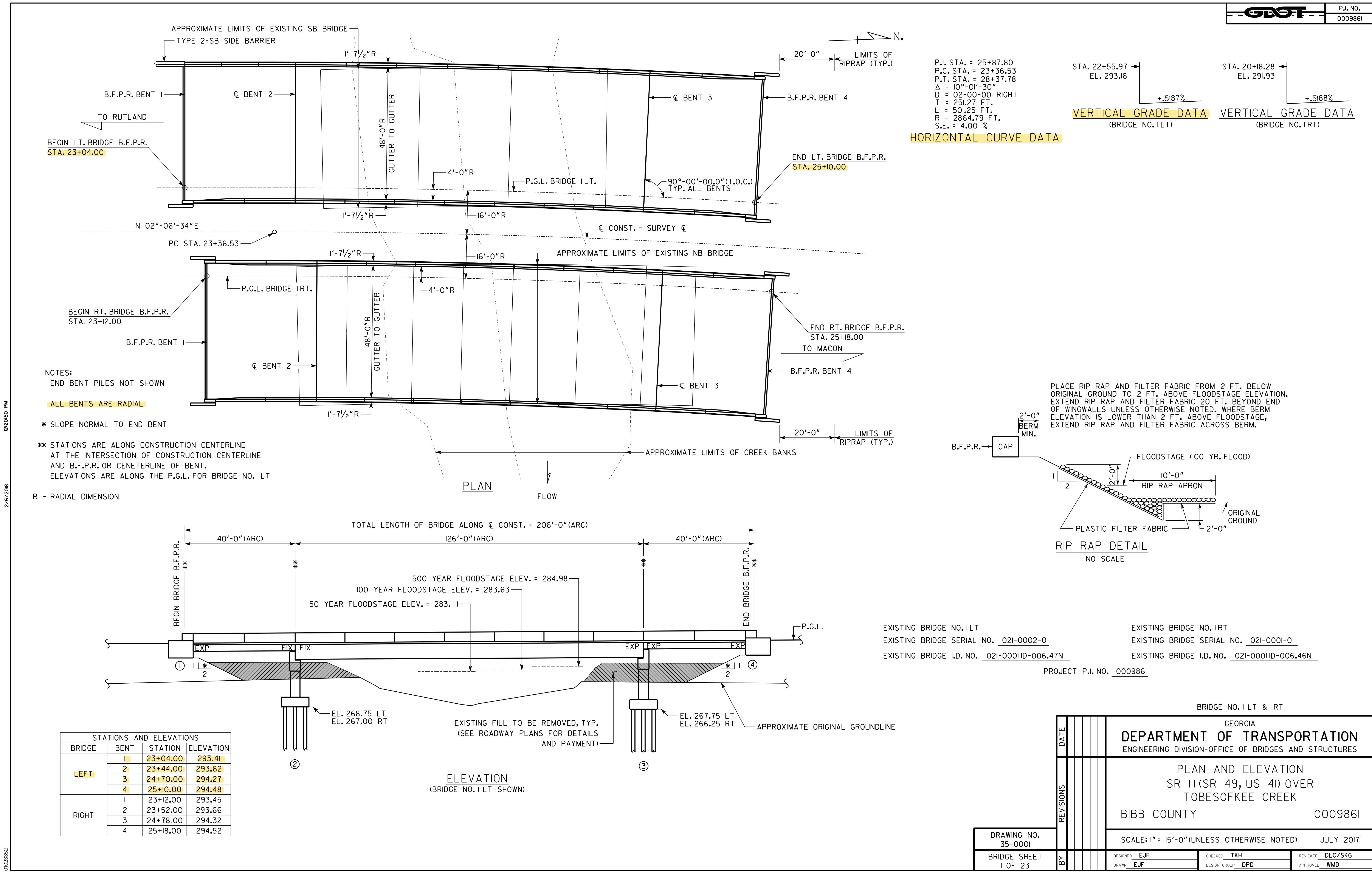
WALL NO. I

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

MISCELLANEOUS DETAILS - WALL I  
SR II (SR 49, US 41) OVER  
TOBESOFKEE CREEK

BIBB COUNTY 000986I

DATE									
REVISIONS									
DRAWING NO.	32-0002								
WALL SHEET	2 OF 2	BY							
NO SCALE									
REVIEWED	DLC/SKG	DESIGNED	EJF	DRAWN	EJF	CHECKED	TKH	APPROVED	WMD
000986I.dgn									



## GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION AND 2016 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL. MAINTAIN 2" MINIMUM CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

EXISTING BRIDGE PLANS - ORIGINAL BRIDGE PLANS MAY BE OBTAINED ON THE GEORGIA DOT WEBSITE AT:

<HTTP://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH>

THE ORIGINAL LEFT BRIDGE WAS BUILT AND HAS NO PLANS AVAILABLE. IT WAS FIRST WIDENED UNDER PROJECT NUMBER SP1552(8) (PROJECT ID NO. H017223). IT WAS WIDENED A SECOND TIME UNDER PROJECT NUMBER RAB(4)SP1552(15) (PROJECT ID NO. H011688). IT WAS WIDENED A THIRD TIME UNDER PROJECT NUMBER TSAPF-002-3(5) (PROJECT ID NO. H000234). THE ORIGINAL RIGHT BRIDGE WAS BUILT UNDER PROJECT NO. SN-FAP 79(2) (PROJECT ID NO. H014237). IT WAS WIDENED UNDER PROJECT NO. TSAPF-002-3(5) (PROJECT ID NO. H000234).

WAITING PERIOD - NONE REQUIRED.

COFFERDAMS - PROVIDE COFFERDAMS AT BENTS 2 AND 3 ON BOTH BRIDGES.

FOUNDATION BACKFILL MATERIAL - PLACE 1'-0" OF TYPE II FOUNDATION BACKFILL MATERIAL UNDER EACH FOOTING AT BENTS 2 AND 3 ON BOTH BRIDGES. THE QUANTITY IS BASED ON THE PLAN FOOTING DIMENSIONS PLUS 2'-0". THIS REQUIREMENT MAY BE WAIVED BY THE ENGINEER IF THE FOOTING AREA IS DRY.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

STANDARD PLAN MODIFICATION - MODIFY THE APPROACH SLAB STANDARD TO INCREASE THE 3/4" EXPANSION JOINT SHOWN BETWEEN THE APPROACH SLAB AND THE BACK FACE PAVING REST AND END POST TO 1" AT BENT 4. SEE ROADWAY PLANS FOR APPROACH SLAB PAYMENT.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

EXTERIOR BEAM BRACING - THE CONTRACTOR SHALL PROVIDE BRACING FPR SPANS 1 AND 3 BETWEEN EXTERIOR BEAM AND THE FIRST INTERIOR BEAM UNTIL THE DECK HAS BEEN POURED AND THE OVERHANG FORMS REMOVED. ALL COST FOR DESIGNING, PROVIDING, INSTALLING AND REMOVING BRACING SHALL BE INCLUDED IN PRICE BID FOR LUMP-SUPERSTRUCTURE CONCRETE.

## GENERAL NOTES CON'T

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

BRIDGE REMOVAL - REMOVE EXISTING BRIDGE AS PER SUB-SECTION 540.3.05 OF THE GEORGIA DOT SPECIFICATIONS.

SALVAGE MATERIAL - NO MATERIAL REMOVED FROM THE EXISTING STRUCTURE SHALL BE SALVAGED FOR USE BY THE GEORGIA DOT.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

## GENERAL NOTES (ALTERNATE 1)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED AT EACH TEST PILE.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 14 IN SQ PSC X 61 FT AT BRIDGE I LEFT BENT 1  
 ONE 14 IN SQ PSC X 18 FT AT BRIDGE I RIGHT BENT 2  
 ONE 14 IN SQ PSC X 24 FT AT BRIDGE I RIGHT BENT 3  
 ONE 14 IN SQ PSC X 48 FT AT BRIDGE I LEFT BENT 4

## GENERAL NOTES (ALTERNATE 2)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED FOR ONE PILE AT BENTS 1 LT, 2 RT, 3 RT AND 4 LT.

METAL SHELL PILES - USE A MINIMUM SHELL THICKNESS OF 3/8" FOR PILES HAVING AN OUTSIDE DIAMETER OF 14". USE THIS SHELL THICKNESS IN LIEU OF THOSE CALLED FOR IN SUB-SECTION 520.3.05.M AND SUB-SECTION 855.2.01.A.1 OF THE GEORGIA DOT SPECIFICATIONS.

PILE CLOSURE PLATE DETAIL - USE CLOSURE PLATE OPTION 2 AT THIS SITE IN ACCORDANCE WITH SUB-SECTION 520.3.05.M OF THE GEORGIA DOT SPECIFICATIONS.

## LEFT BRIDGE CONSISTS OF

2 - 40'-0" TYPE I MOD PSC BEAM SPANS ----- SPECIAL DESIGN  
 1 - 126'-0" BULB TEE, 65 IN, PSC BEAM SPAN ----- SPECIAL DESIGN  
 2 - PILE END BENTS ----- SPECIAL DESIGN  
 2 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN  
 3 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)  
 (L = 4'-0"; W = 1'-1"; H = 3'-6")  
 SQUARE PRESTRESSED CONCRETE PILES ----- GA. STD. 3215 (2-22-84)  
 BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)  
 TYPICAL FILL DETAIL AT END OF BRIDGE ----- GA. STD. 9037 (9-99)

**VOID**

## RIGHT BRIDGE CONSISTS OF

2 - 40'-0" TYPE I MOD PSC BEAM SPANS ----- SPECIAL DESIGN  
 1 - 126'-0" BULB TEE, 65 IN, PSC BEAM SPAN ----- SPECIAL DESIGN  
 2 - PILE END BENTS ----- SPECIAL DESIGN  
 2 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN  
 4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)  
 (L = 4'-0"; W = 1'-1"; H = 3'-6")  
 SQUARE PRESTRESSED CONCRETE PILES ----- GA. STD. 3215 (2-22-84)  
 BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)  
 TYPICAL FILL DETAIL AT END OF BRIDGE ----- GA. STD. 9037 (9-99)

BRIDGE NO. 1 LT & RT

GEORGIA		DEPARTMENT OF TRANSPORTATION			
		ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES			
GENERAL NOTES		SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK			
BIBB COUNTY		000986I			
DRAWING NO. 35-0002		NO SCALE			
DRAWING SHEET 2 OF 23		JULY 2017			
BY		DESIGNED	EJF	CHECKED	TKH
		DRAWN	EJF	DESIGN GROUP	DPD
				APPROVED	WMD

1 INCH WHEN PRINTED FULL SIZE

DRAINAGE DATA
SUMMARY OF QUANTITIES

DRAINAGE AREA ----- 262.0 SQ MILES						PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM
FLOOD FREQUENCY	TOTAL DISCHARGE	DISCHARGE THRU BRIDGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER					
50 YEAR	15,300 CFS	6,046 CFS	6.12 FPS	988 SQ FT	1.05 FT	207-0203	21	21	CY	FOUND BKFILL MATL, TP II
100 YEAR	17,300 CFS	6,902 CFS	6.41 FPS	1,077 SQ FT	1.09 FT	211-0300	290	330	CY	BRIDGE EXCAVATION, STREAM CROSSING
500 YEAR	22,600 CFS	9,258 CFS	7.07 FPS	1,309 SQ FT	1.18 FT	500-0100	1064	1031	SY	GROOVED CONCRETE
<u>TRAFFIC DATA</u>						500-1011	LUMP	---	LS	SUPERSTR CONCRETE, CL D, BR NO - I LT (333)
						500-1011	---	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - I RT (327)
TRAFFIC ----- ADT = 39,600 (2020) ADT = 48,350 (2040)						500-2100	407	395	LF	CONCRETE BARRIER
DESIGN SPEED ----- 55 MPH						500-3002	201	203	CY	CLASS AA CONCRETE
TRUCKS ----- 9.5 %						507-8900	468	---	LF	PSC BEAMS, AASHTO TYPE I MOD, BR NO - I LT
24 HR TRUCKS ----- 13 %						507-8900	---	460	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - I RT
DIRECTIONAL ----- 50 %						507-9034	760	---	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - I RT
						507-9034	---	741	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - I RT
<u>UTILITIES</u>						511-1000	35825	36080	LB	BAR REINF STEEL
NO UTILITIES ON BRIDGE						511-3000	LUMP	---	LS	SUPERSTR REINF STEEL, BR NO - I LT (82197)
						511-3000	---	LUMP	LS	SUPERSTR REINF STEEL, BR NO - I RT (81287)
<u>EXISTING UTILITIES</u>						523-1100	2	2	EA	DYNAMIC PILE TEST
GAS MAIN ----- ATLANTA GAS LIGHT COMPANY						525-1000	4	4	EA	COFFERDAM
FIBER OPTIC ----- GDOT						540-1102	LUMP	---	LS	REMOVAL OF EXISTING BRIDGE, BR NO - I LT
18 TELEPHONE CONDUITS ----- AT&T						540-1102	---	LUMP	LS	REMOVAL OF EXISTING BRIDGE, BR NO - I RT
WATER MAIN ----- MACON WATER AUTHORITY						603-2024	975	975	SY	STN DUMPED RIP RAP, TP I, 24 IN
						603-7000	975	975	SY	PLASTIC FILTER FABRIC

DESIGN DATA

 SPECIFICATIONS ----- AASHTO LRFD 7TH EDITION, 2014  
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2, SDI = 0.170)

ALTERNATE 1 QUANTITIES

DESIGN VEHICLE LIVE LOAD ----- HL-93

PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM
--------------------	----------------	-----------------	------	----------

FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT

520-2214	1420	1150	LF	PILING, PSC, 14 IN SQ
520-3214	2	2	EA	TEST PILE, PSC, 14 IN SQ
520-4214	1	1	EA	LOAD TEST, PSC, 14 IN SQ (IF REQD)

 REINFORCEMENT STEEL: ----- GRADE 60, f<sub>y</sub> = 60,000 PSI

 PRETENSIONING STRANDS: ----- f<sub>s</sub> = 270,000 PSI

 METAL SHELL PILES (ALT. 2) ----- GRADE 3, f<sub>y</sub> = 45,000 PSI

ALTERNATE 2 QUANTITIES

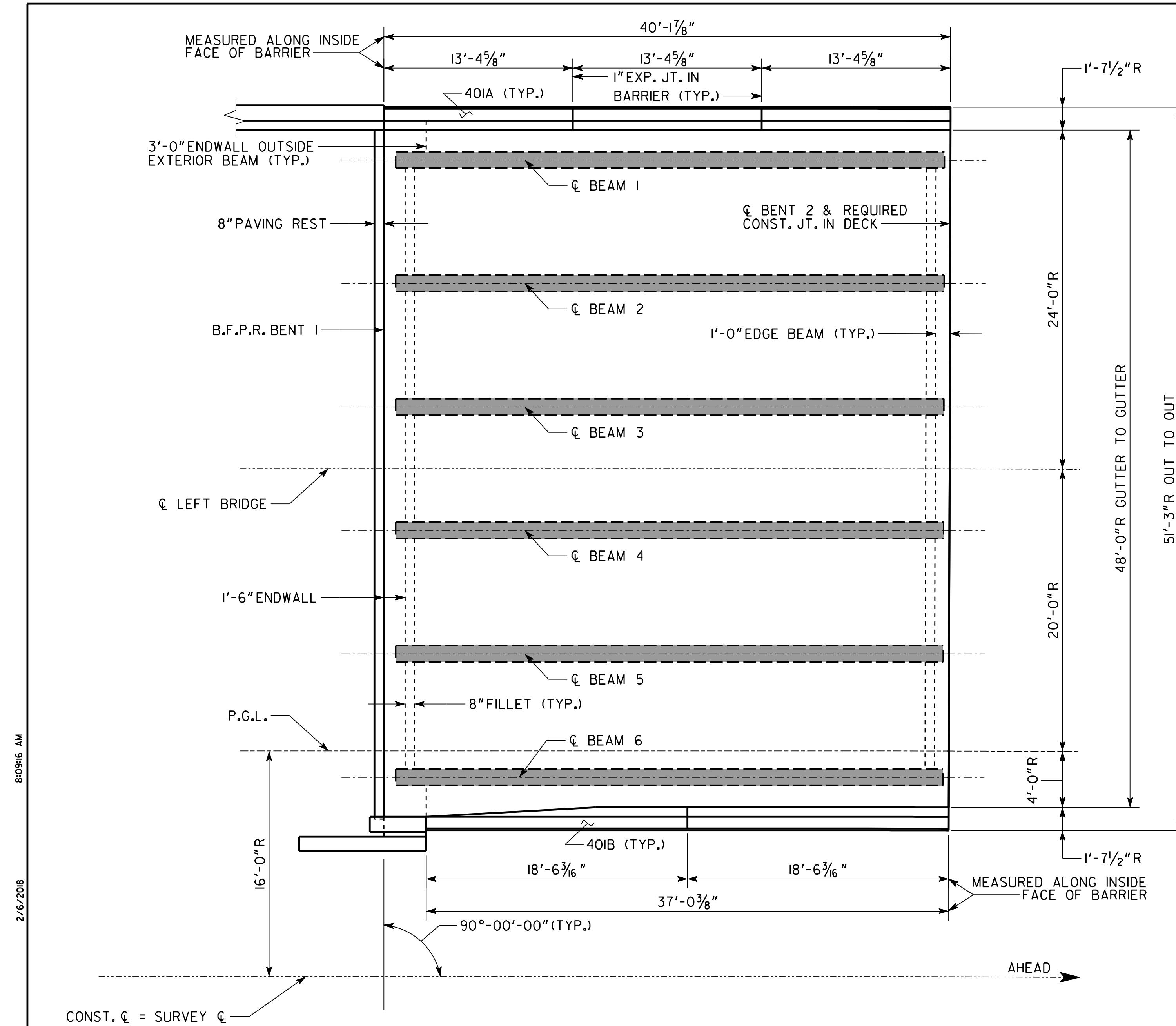
PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM
520-1314	1580	1490	LF	PILING IN PLACE, METAL SHELL, 14 IN OD
520-4314	1	1	EA	LOAD TEST, METAL SHELL, 14 IN OD (IF REQD)

BRIDGE NO. I LT &amp; RT

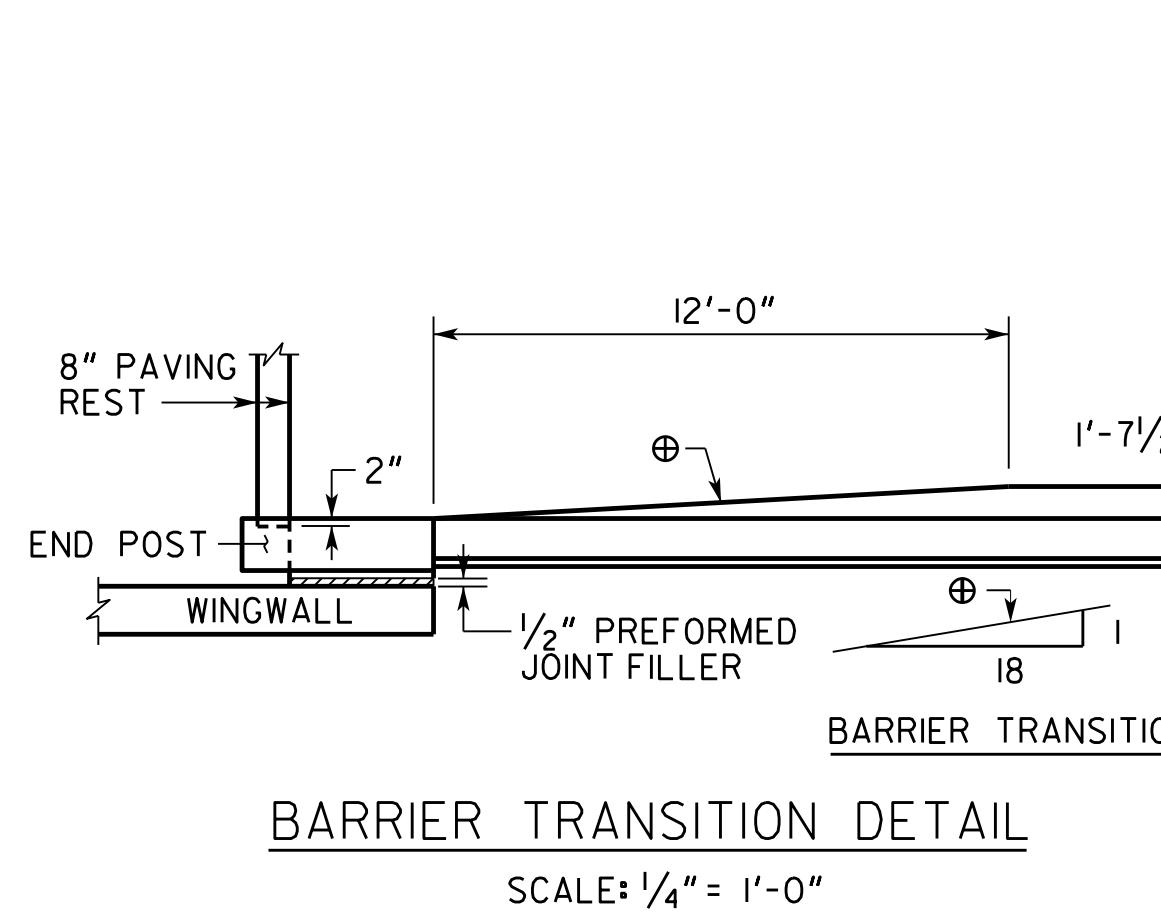
DATE				
REVISIONS				
DRAWING NO. 35-0003				
NO SCALE				
JULY 2017				
DRAWING SHEET 3 OF 23		BY	EJF DRAWN EJF	TKH DESIGN GROUP DPD
DLC/SKG APPROVED WMD				

1 INCH WHEN PRINTED FULL SIZE

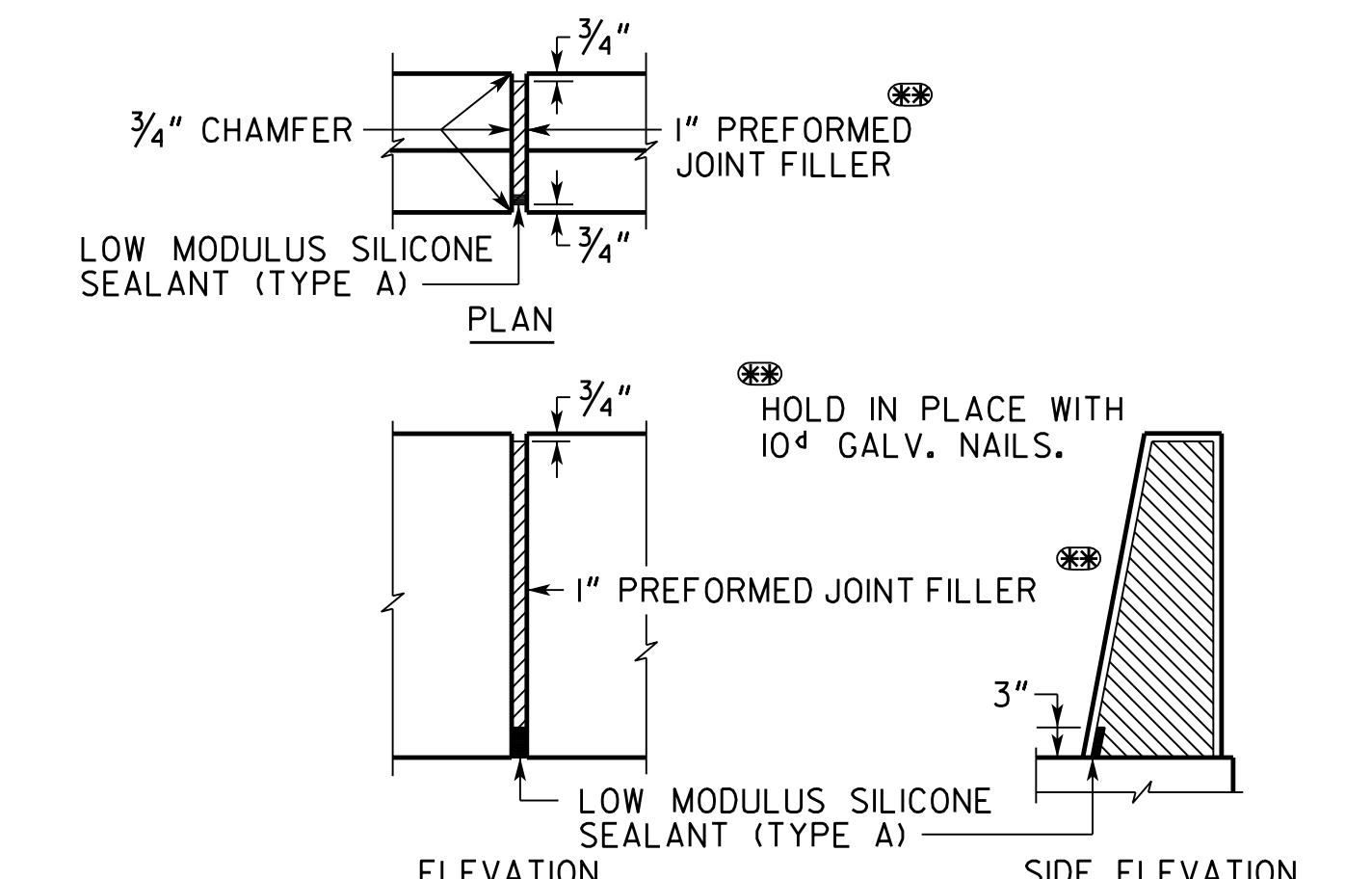
000986I.dgn



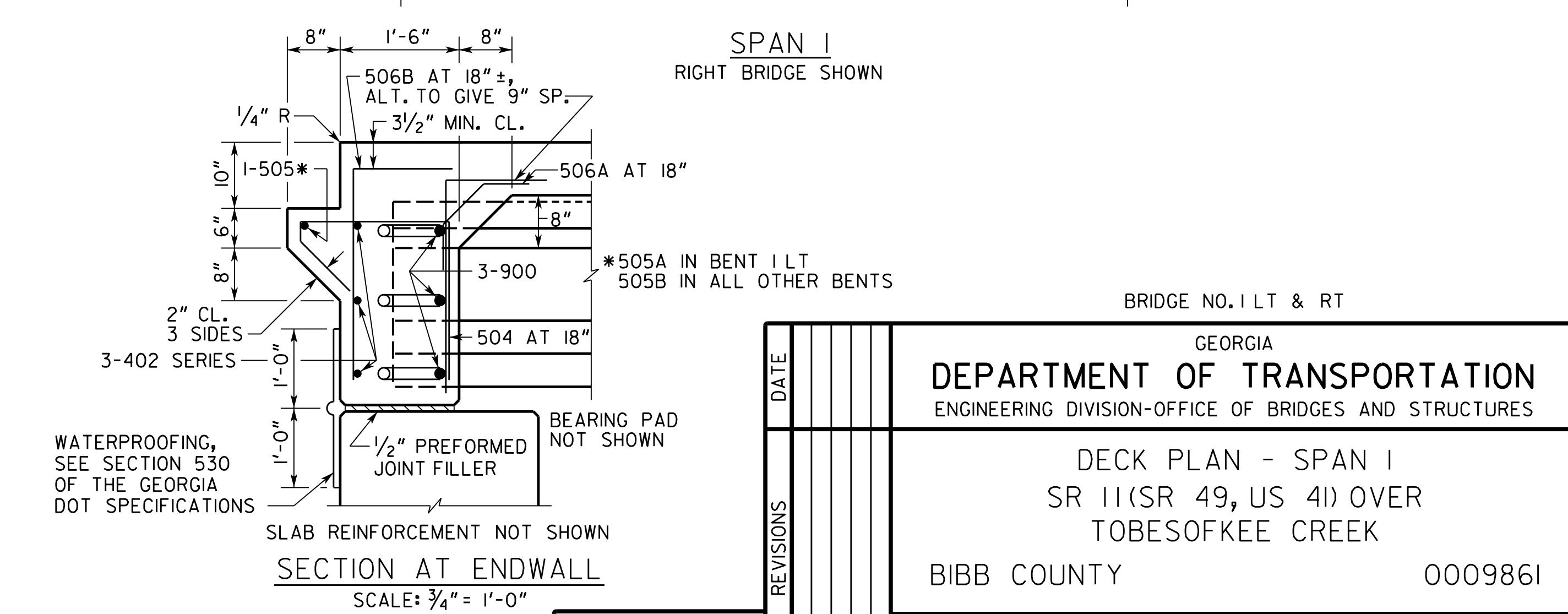
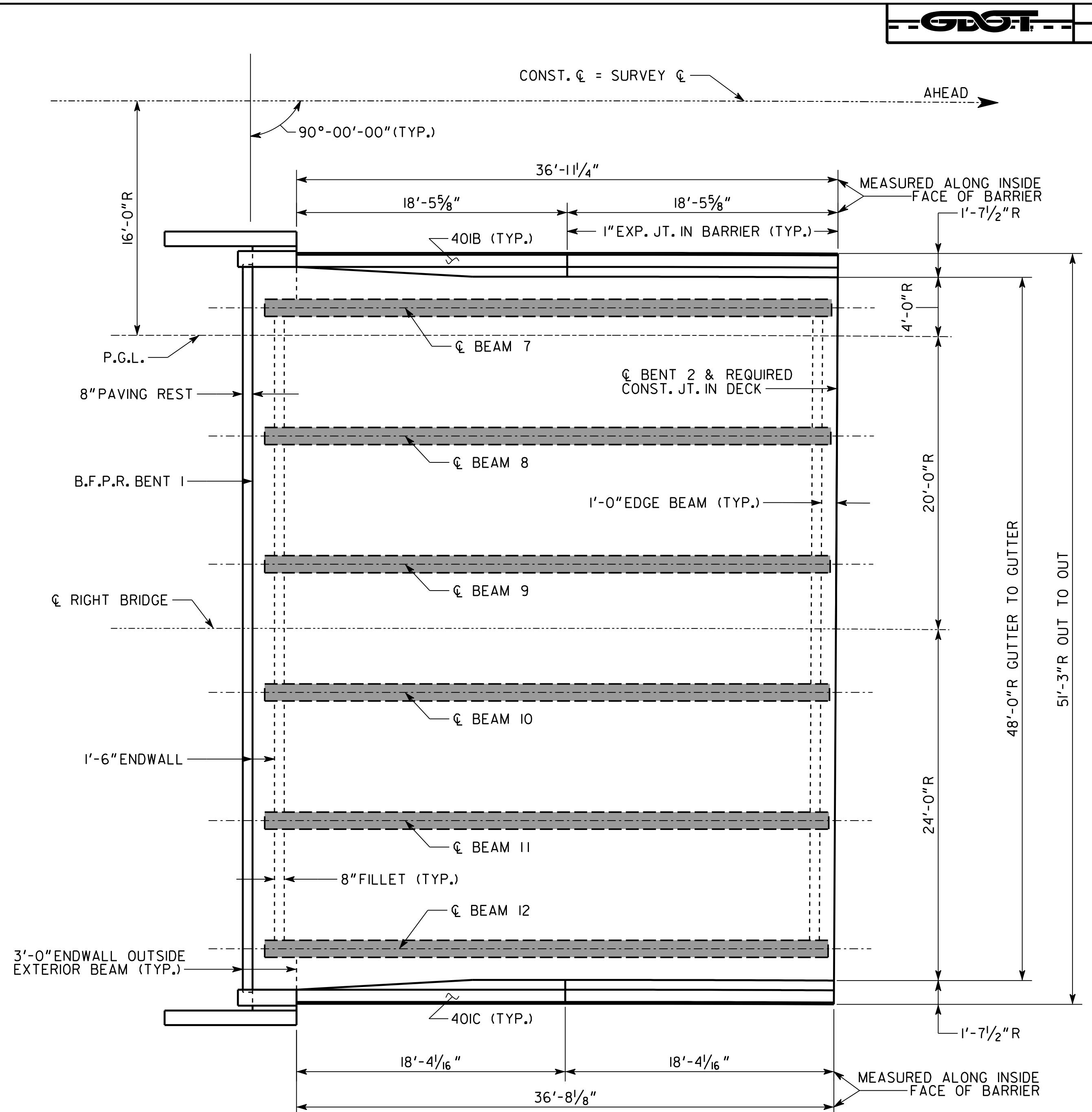
2/6/2016 AM



BARRIER TRANSITION DETAIL  
SCALE: 1/4" = 1'-0"



DETAILS OF 1" EXPANSION JOINT IN BARRIER  
SCALE: 1/2" = 1'-0"



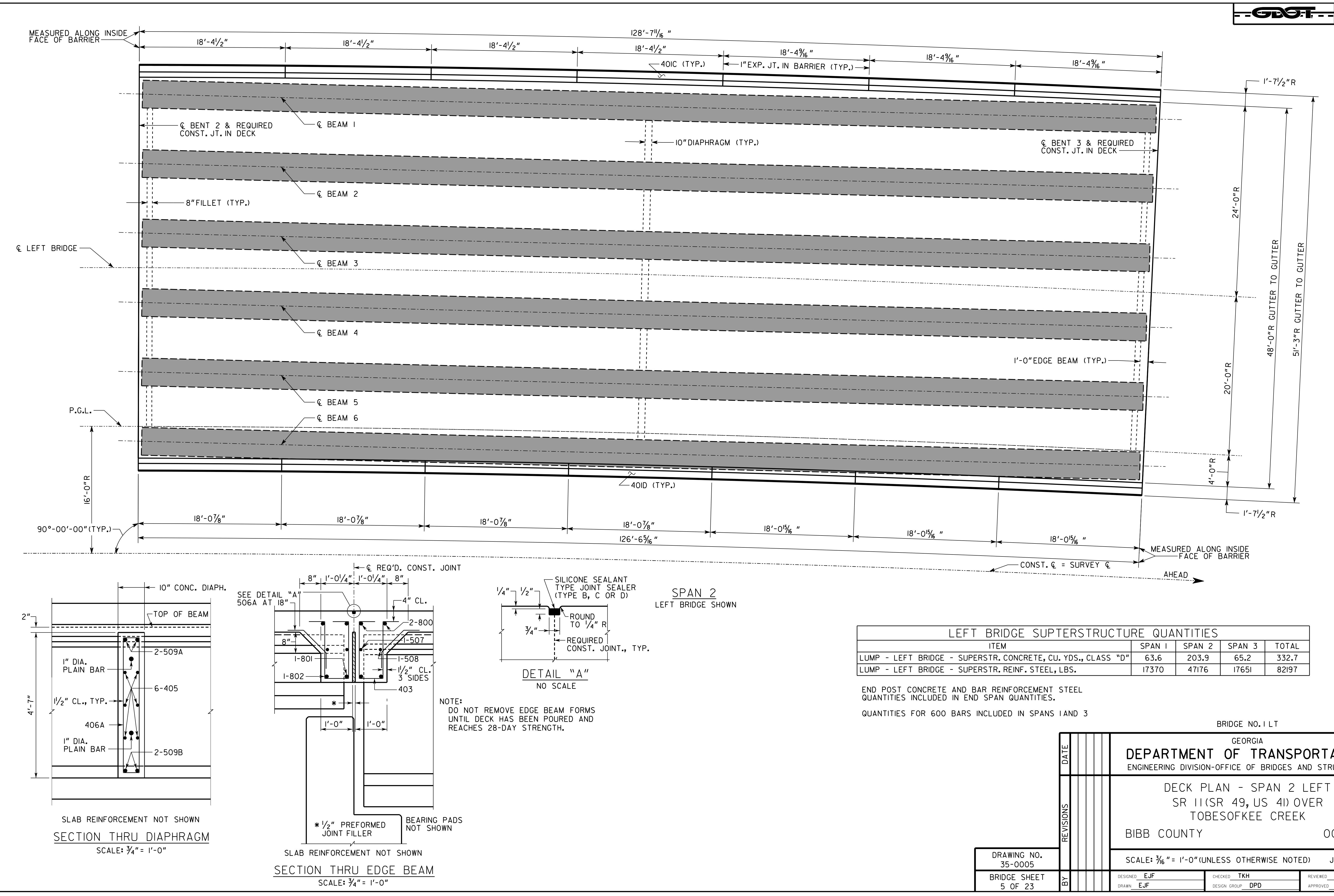
DRAWING NO. 35-0004		REVISIONS		DATE	
BRIDGE SHEET 4 OF 23	BY	DRAWN EJF	DESIGNED EJF	CHECKED TKH	REVIEWED DLC/SKG

SCALE: 3/16" = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017

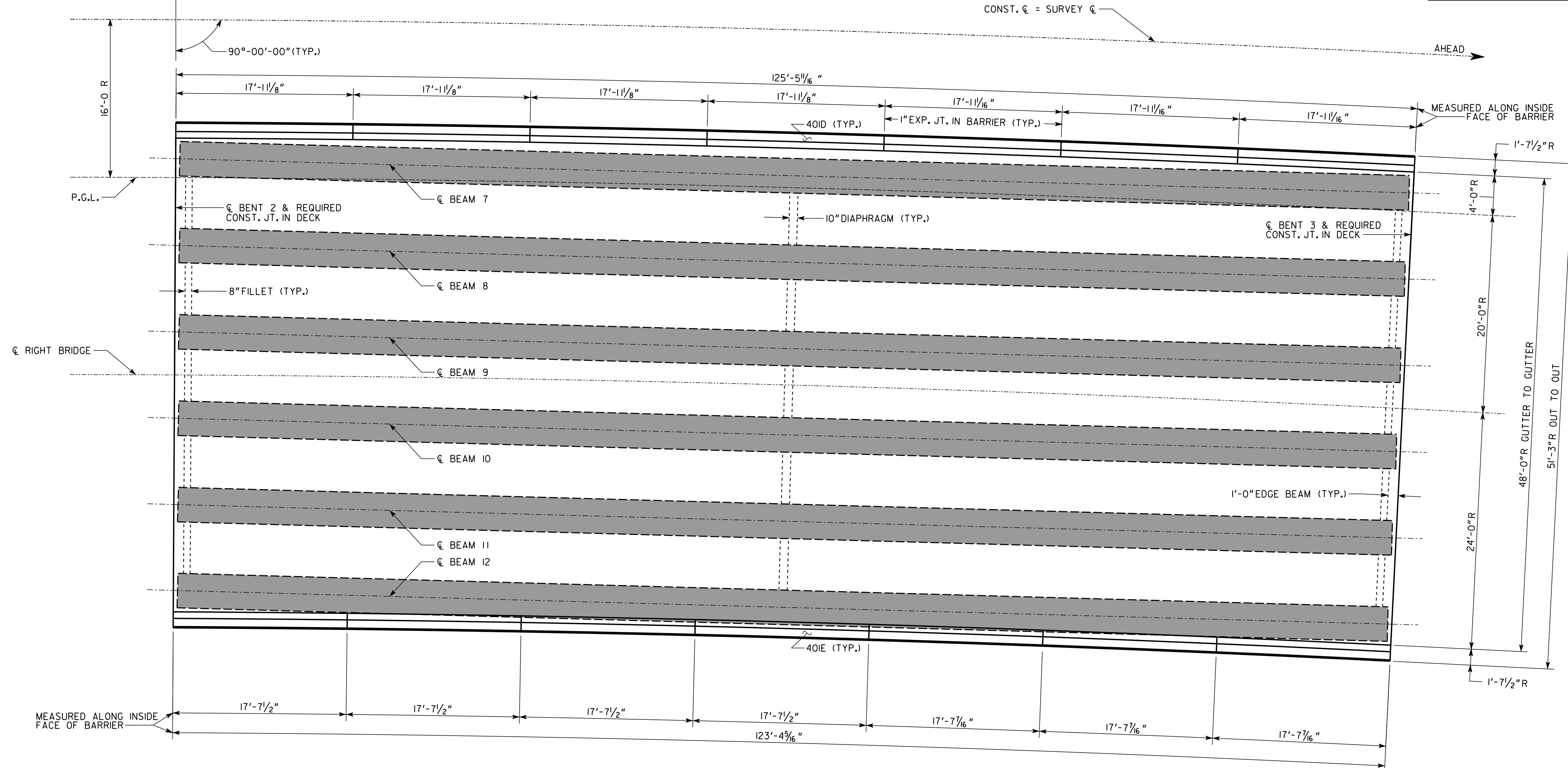
DECK PLAN - SPAN I  
SR II(SR 49, US 41) OVER  
TOBESOFKEE CREEK  
BIBB COUNTY 000986I

DESIGN GROUP DPD  
DRAWN EJF  
CHECKED TKH  
APPROVED WMD

8:002 AM  
2/6/2018



2/6/2018 8:12:57 AM



BAR REINFORCEMENT SCHEMATIC  
400 BAR DETAIL  
NO SCALE

NOTE: THE 400 SERIES BARS SHALL BE ALTERNATED AS SHOWN.  
ENT 4 THE MIN. LAP FOR THE 400 SERIES BARS SHALL BE 1'-9". TWO 600 BARS  
SHALL BE PLACED BETWEEN EACH PAIR OF 400 BARS IN TOP OF SLAB OVER  
INTERMEDIATE BENTS.

BRIDGE NO. I RT

GEORGIA

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

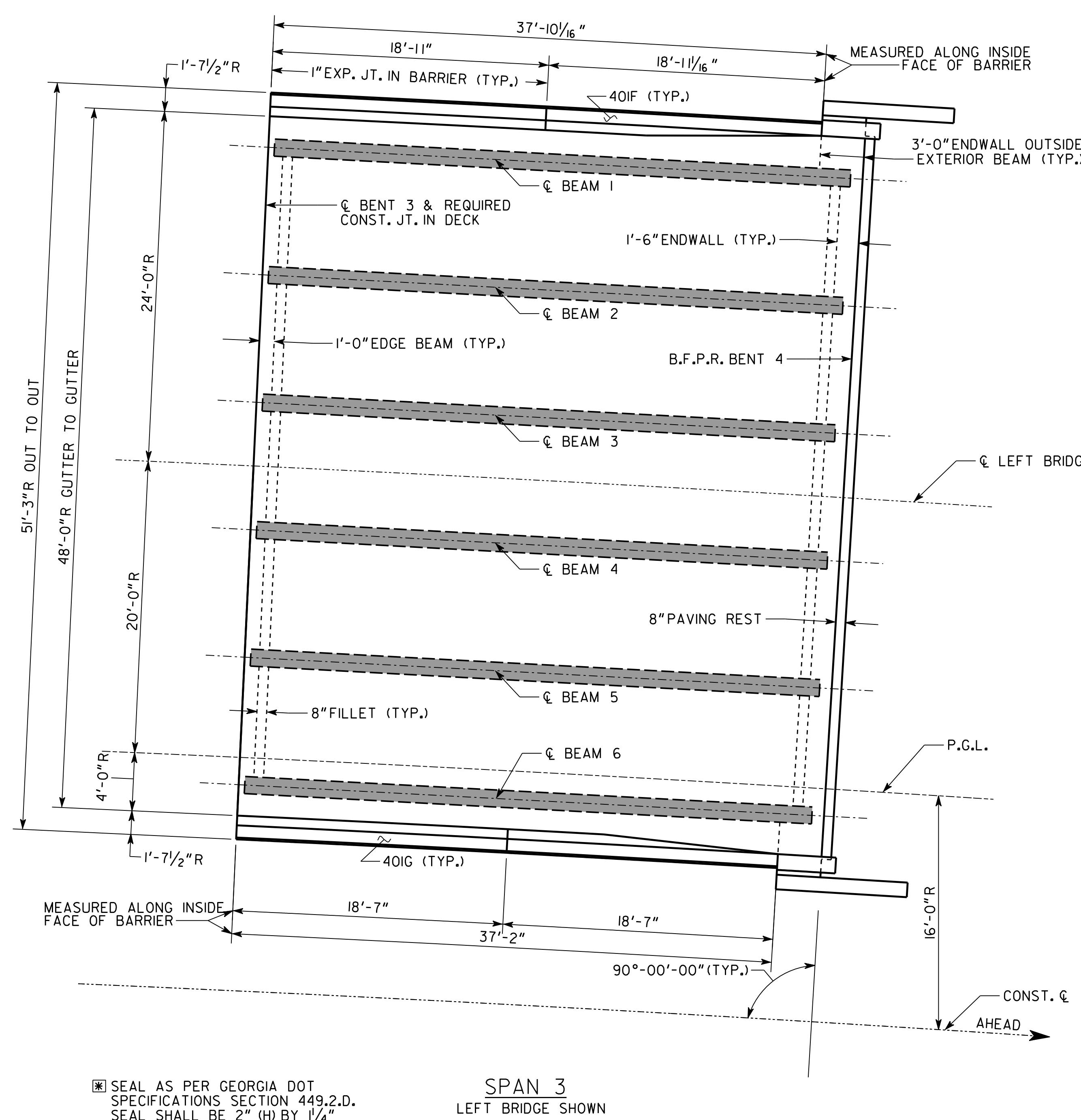
DECK PLAN - SPAN 2 RIGHT  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK

## BIBB COUNTY

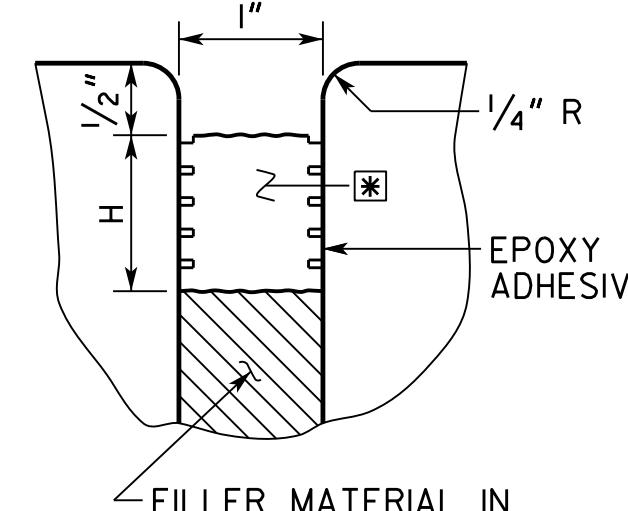
0009861

DATE	GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES		
REVISIONS	DECK PLAN - SPAN 2 RIGHT SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK		
	BIBB COUNTY	0009861	
	SCALE: $\frac{3}{16}$ " = 1'-0" (UNLESS OTHERWISE NOTED)      JULY 2017		
BY	DESIGNED DRAWN	TKH DPD	DLC/SKG WMD

2/6/2018 8:46:22 AM



\* SEAL AS PER GEORGIA DOT  
SPECIFICATIONS SECTION 449.2.D.  
SEAL SHALL BE 2" (H) BY  $\frac{1}{4}$ "  
WIDE PRIOR TO INSTALLATION.

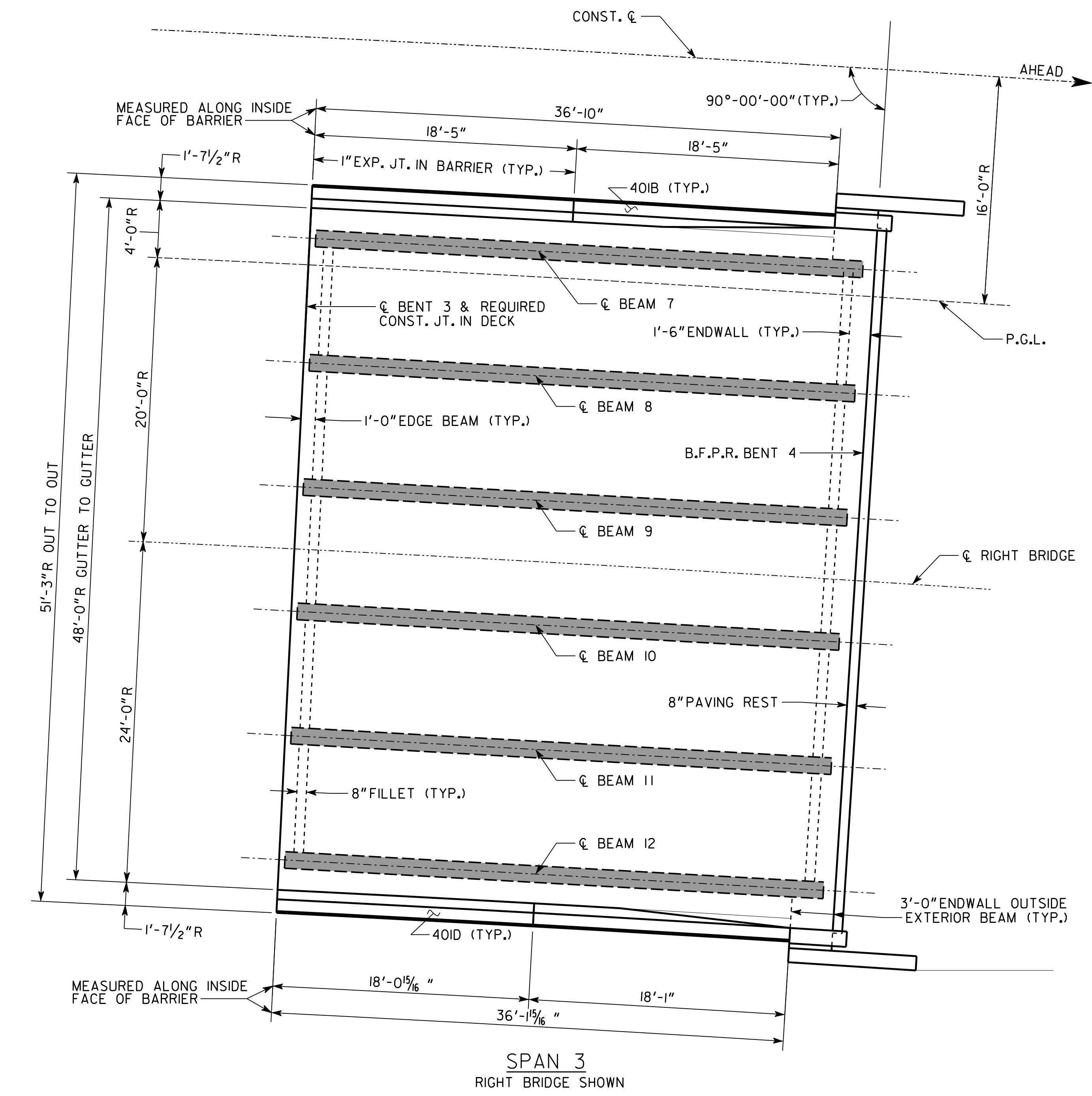


FILLER MATERIAL IN  
ACCORDANCE WITH  
SUB-SECTION 833.2.01  
OF THE GEORGIA  
DOT SPECIFICATIONS,  
HOLD IN PLACE  
WITH  $10^d$  GALV. NAILS

#### LONGITUDINAL SECTION

#### EXPANSION JOINT DETAILS

NO SCALE



RIGHT BRIDGE SUPERSTRUCTURE QUANTITIES				
ITEM	SPAN 1	SPAN 2	SPAN 3	TOTAL
LUMP - RIGHT BRIDGE - SUPERSTR. CONCRETE, CU. YDS., CLASS "D"	64.0	199.3	63.7	327.0
LUMP - RIGHT BRIDGE - SUPERSTR. REINF. STEEL, LBS.	17414	46463	17410	81287

END POST CONCRETE AND BAR REINFORCEMENT STEEL  
QUANTITIES INCLUDED IN END SPAN QUANTITIES.  
QUANTITIES FOR 600 BARS INCLUDED IN SPANS 1 AND 3

BRIDGE NO. I LT &amp; RT

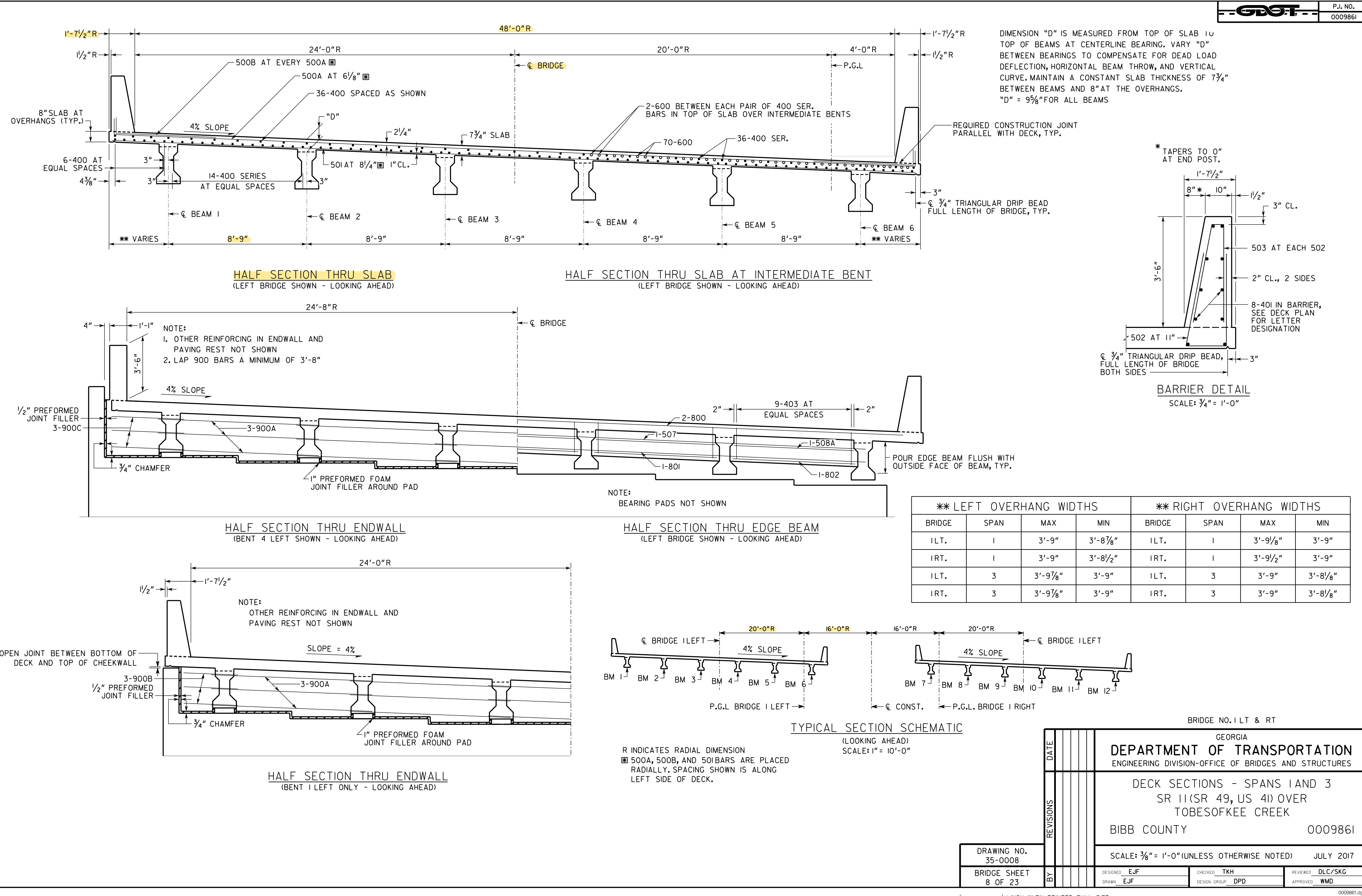
GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

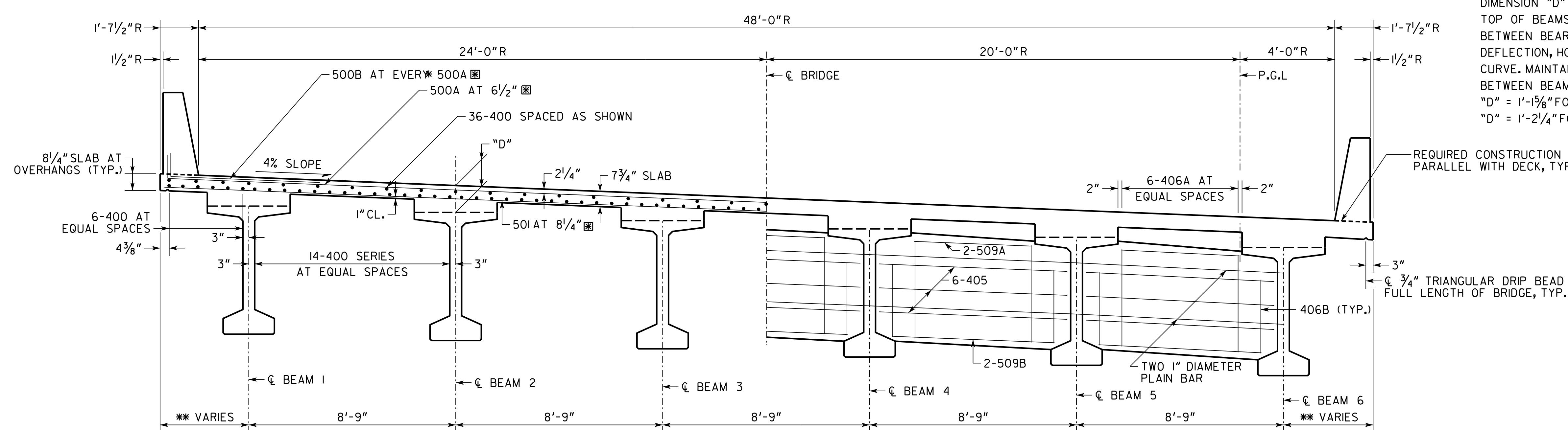
DECK PLAN - SPAN 3  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK

BIBB COUNTY

000986I

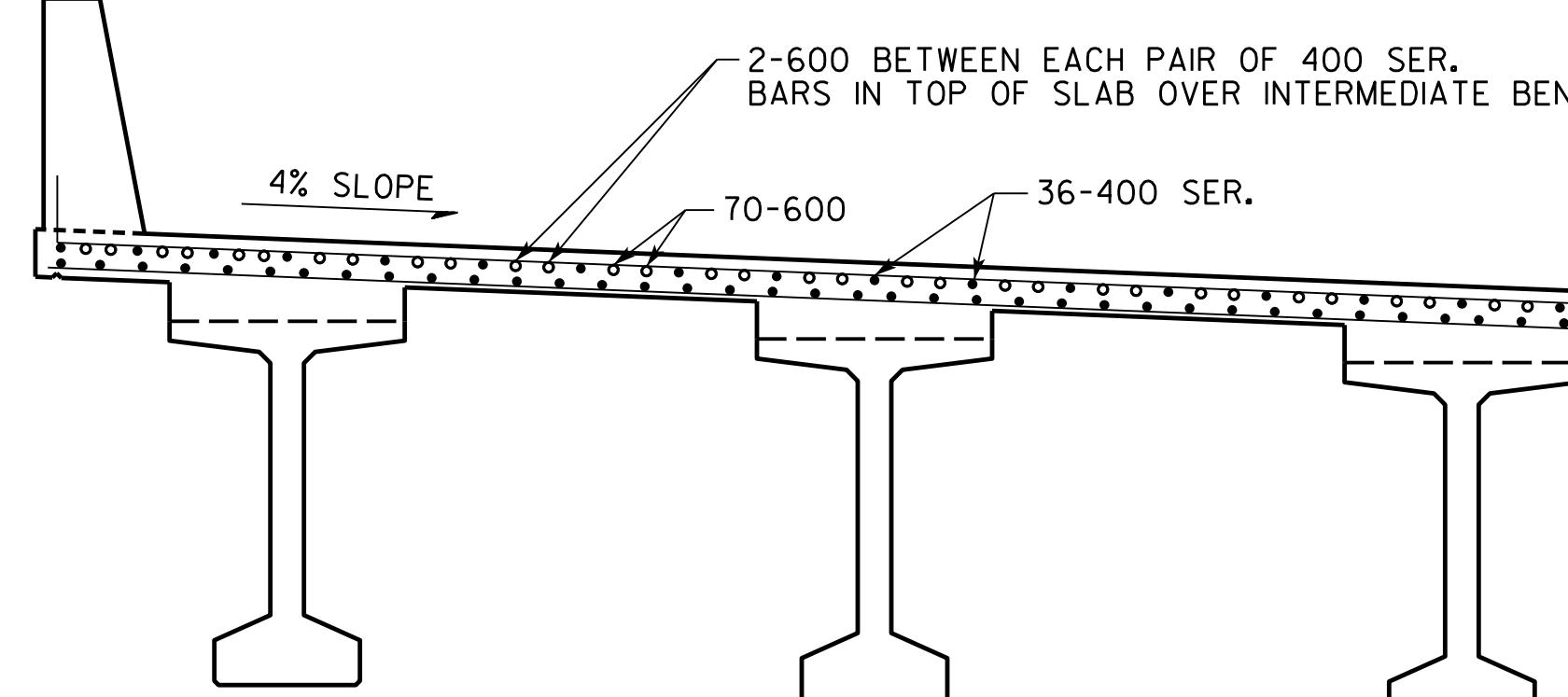
DRAWING NO. 35-0007	DATE	REVISIONS	BY	SCALE: $\frac{3}{16}$ " = 1'-0" (UNLESS OTHERWISE NOTED)	JULY 2017
BRIDGE SHEET 7 OF 23				DESIGNED EJF DRAWN EJF	CHECKED TKH DESIGN GROUP DPD APPROVED WMD



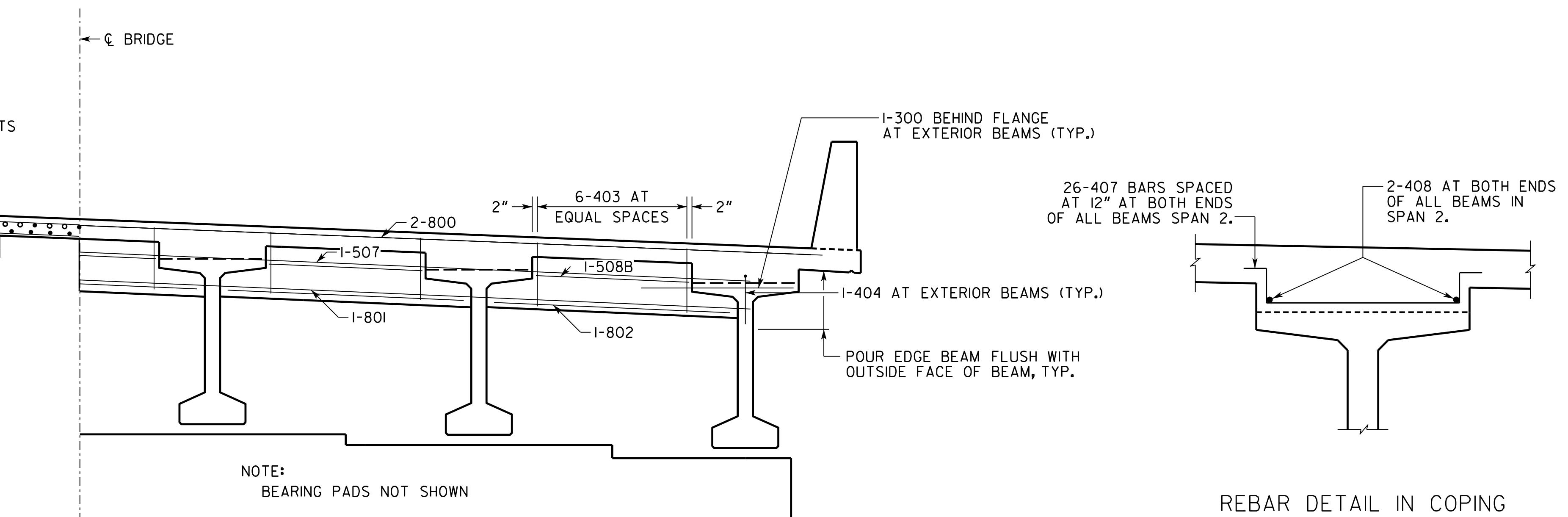


HALF SECTION THRU SLAB  
(LEFT BRIDGE SHOWN - LOOKING AHEAD)

HALF SECTION THRU DIAPHRAGM  
(LEFT BRIDGE SHOWN - LOOKING AHEAD)



HALF SECTION THRU SLAB AT INTERMEDIATE BENT  
(LEFT BRIDGE SHOWN - LOOKING AHEAD)



REBAR DETAIL IN COPING  
NO SCALE

** LEFT OVERHANG WIDTHS				** RIGHT OVERHANG WIDTHS			
BRIDGE	SPAN	MAX	MIN	BRIDGE	SPAN	MAX	MIN
ILT.	2	4'-5¾"	3'-9"	ILT.	2	3'-9"	3'-0¾"
IRT.	2	4'-5"	3'-9"	IRT.	2	3'-9"	3'-1⅛"

NOTE: SEE SHEET 35-0008 FOR TYPICAL SECTION SCHEMATIC

BRIDGE NO. ILT & RT

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

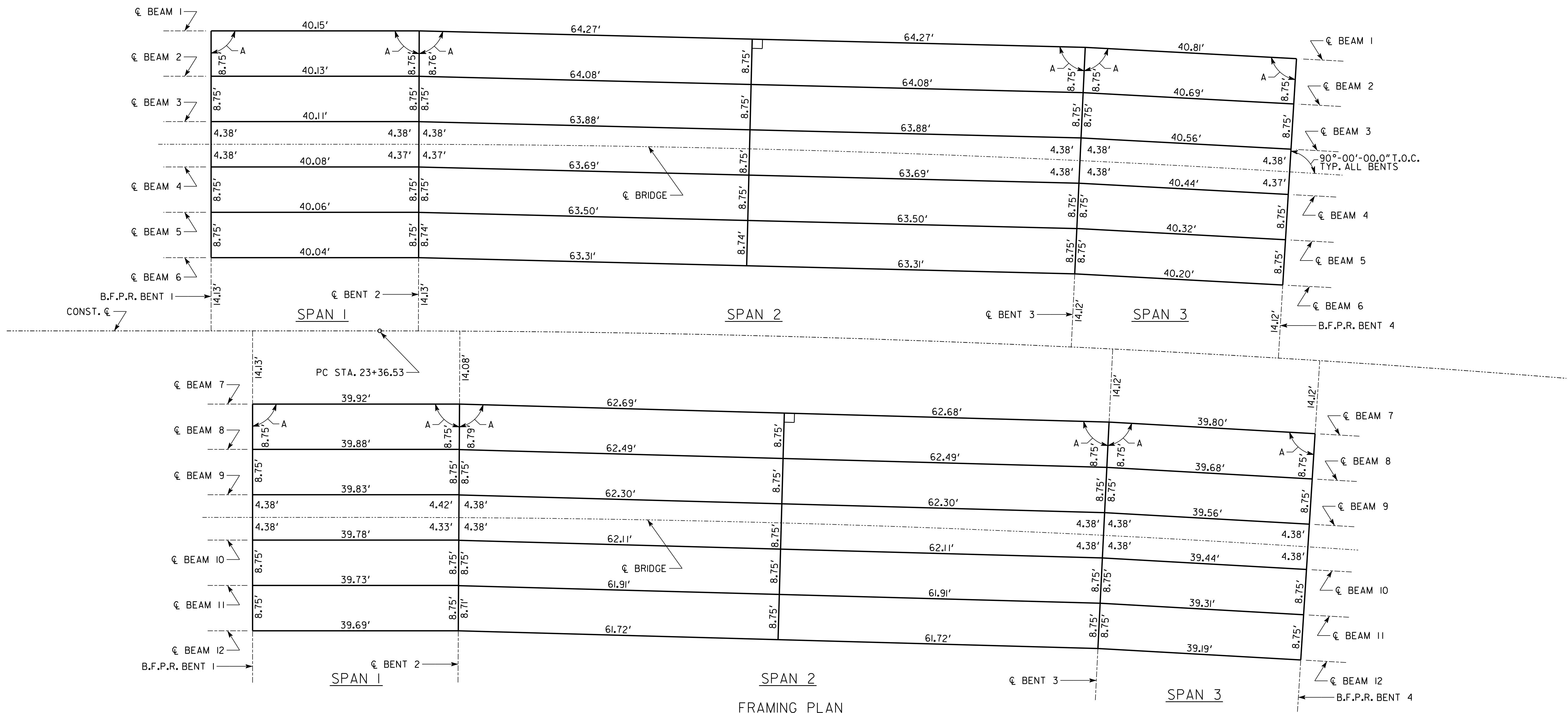
DECK SECTIONS - SPANS 2  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK

BIBB COUNTY

000986I

DRAWING NO. 35-0009	DATE
BRIDGE SHEET 9 OF 23	REVISIONS
BY	REVIEWED
EJF	DLC/SKG
DRAWN EJF	CHECKED TKH
DESIGN GROUP DPD	APPROVED WMD

SCALE: 3/8" = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017


**TABLE OF BEAM ANGLES "A"**

BEAM	BENT 1	BENT 2 BACK	BENT 2 AHEAD	BENT 3 BACK	BENT 3 AHEAD	BENT 4
1	90°-00'-00.0"	89°-51'-02.2"	88°-44'-08.9"	88°-44'-39.1"	89°-36'-00.0"	89°-36'-00.0"
2	90°-00'-00.0"	89°-51'-02.2"	88°-44'-24.0"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
3	90°-00'-00.0"	89°-51'-02.2"	88°-44'-24.0"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
4	90°-00'-00.0"	89°-51'-02.2"	88°-44'-24.0"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
5	90°-00'-00.0"	89°-51'-02.2"	88°-44'-24.0"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
6	90°-00'-00.0"	89°-51'-02.2"	88°-44'-07.1"	88°-44'-40.9"	89°-36'-00.0"	89°-36'-00.0"
7	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-45'-31.3"	89°-36'-00.0"	89°-36'-00.0"
8	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
9	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
10	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
11	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-44'-24.0"	89°-36'-00.0"	89°-36'-00.0"
12	90°-00'-00.0"	89°-41'-26.2"	88°-43'-16.5"	88°-45'-33.2"	89°-36'-00.0"	89°-36'-00.0"

BEAMS 2 THRU 5 ON SPAN 2 LT ARE PARALLEL TO A CHORD OF A CONCENTRIC CIRCLE FORMED BY THE LEFT BRIDGE CENTERLINE AND SPACED AS SHOWN.

BRIDGE NO. I LT &amp; RT

BEAMS 8 THRU 11 ON SPAN 2 RT ARE PARALLEL TO A CHORD OF A CONCENTRIC CIRCLE FORMED BY THE RIGHT BRIDGE CENTERLINE AND SPACED AS SHOWN.

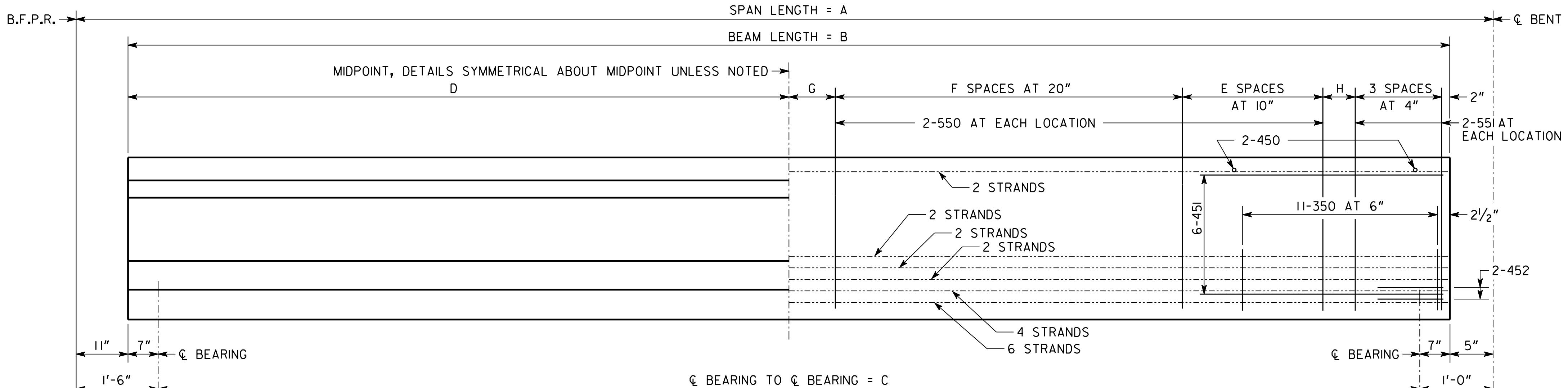
 GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
 ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BEAMS 1, 6, 7, AND 12 OF SPAN 2 ARE ORIENTED TO INTERSECT THE RESPECTIVE BEAM CENTERLINES OF SPANS 1 AND 3.

BEAMS 1 THRU 6 ON SPAN 3 LT ARE PARALLEL TO A CHORD OF A CONCENTRIC CIRCLE FORMED BY THE LEFT BRIDGE CENTERLINE AND SPACED AS SHOWN.

BEAMS 7 THRU 12 ON SPAN 3 RT ARE PARALLEL TO A CHORD OF A CONCENTRIC CIRCLE FORMED BY THE RIGHT BRIDGE CENTERLINE AND SPACED AS SHOWN.

REVISIONS	DATE			
DRAWING NO. 35-0010	NO SCALE	JULY 2017		
BRIDGE SHEET 10 OF 23	BY	DESIGNED EJF	CHECKED TKH	REVIEWED DLC/SKG
		DRAWN EJF	DESIGN GROUP DPD	APPROVED WMD



#### NOTES

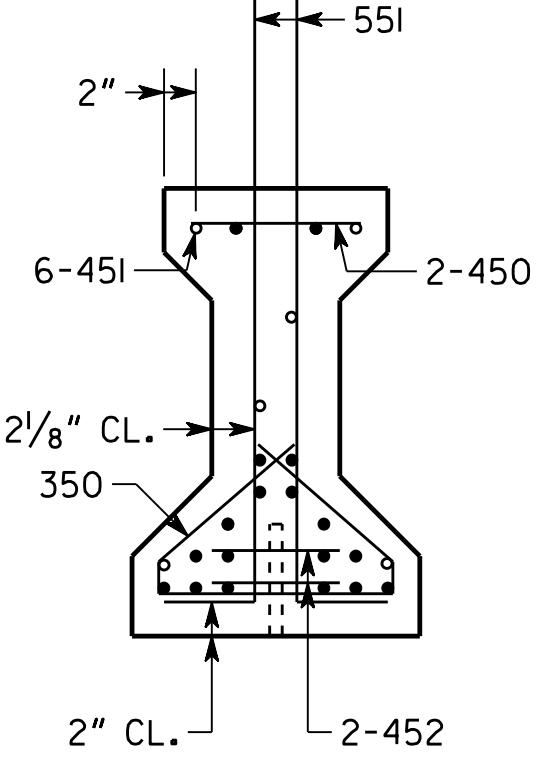
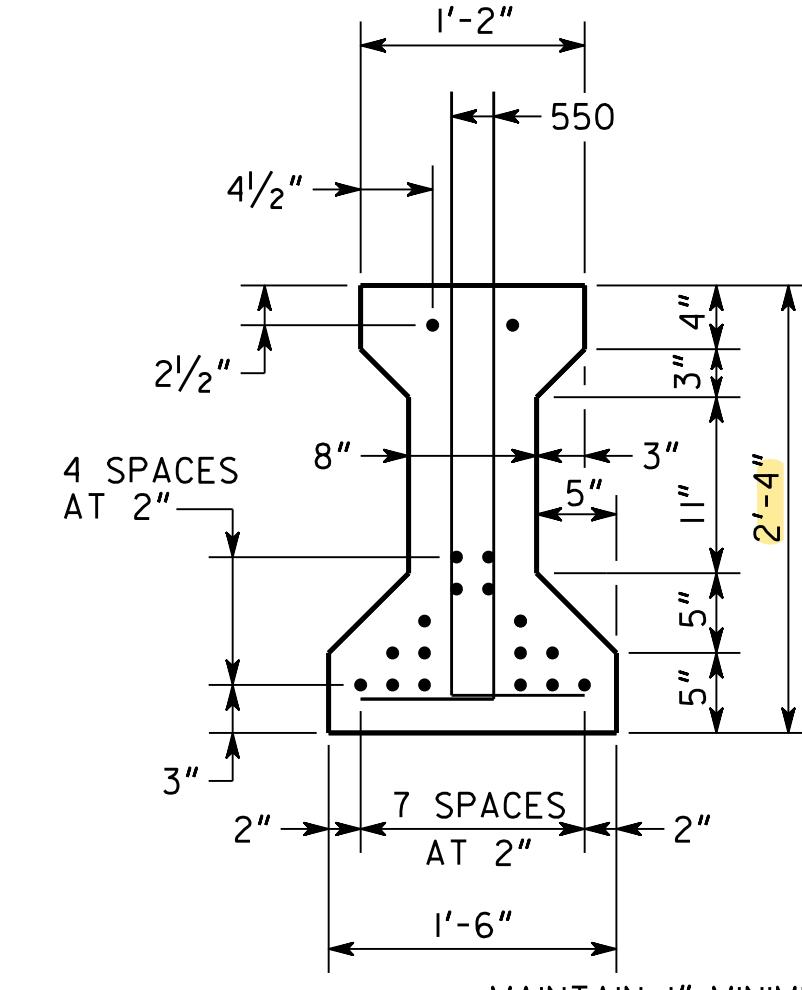
1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 3'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS  $\frac{1}{2}$ " OR  $\frac{3}{4}$ ".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}$ " EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT  $\frac{1}{2}$  BEARING, FORM A  $1\frac{3}{4}$ " DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X  $1\frac{3}{4}$ " X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $1\frac{1}{2}$ " DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}$ ". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:

- A. USE 18 -  $\frac{1}{2}$ " DIAMETER SPECIAL LOW-RELAXATION ( $A = 0.167 \text{ SQ IN}$ ) STRANDS. PRETENSION STRANDS TO 33,818 LBS EACH.
- B. PRETENSION STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 5,000 PSI.
- C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 608,724 LBS.
- D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 482,88 LBS.
10. CONCRETE STRENGTH ( $f'_c$ ) = 5,500 PSI.
11. ALLOWABLE PSC BEAM TENSION = 445 PSI.

#### ELEVATION

TABLE OF LETTERED BEAM DIMENSIONS

SPAN	BEAM	A	B	C	D	E	F	G	H	$\Delta_{NC}$	$\Delta_C$
I	1	40'-1 $\frac{13}{16}$ "	38'-9 $\frac{13}{16}$ "	37'-7 $\frac{13}{16}$ "	19'-4 $\frac{15}{16}$ "	7	7	4 $\frac{7}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	2	40'-1 $\frac{9}{16}$ "	38'-9 $\frac{9}{16}$ "	37'-7 $\frac{9}{16}$ "	19'-4 $\frac{15}{16}$ "	7	7	4 $\frac{3}{4}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	3	40'-1 $\frac{1}{4}$ "	38'-9 $\frac{1}{4}$ "	37'-7 $\frac{1}{4}$ "	19'-4 $\frac{15}{8}$ "	7	7	4 $\frac{7}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	4	40'-1"	38'-9"	37'-7"	19'-4 $\frac{1}{2}$ "	7	7	4 $\frac{1}{2}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	5	40'-0 $\frac{1}{16}$ "	38'-8 $\frac{11}{16}$ "	37'-6 $\frac{11}{16}$ "	19'-4 $\frac{3}{4}$ "	8	6	9 $\frac{5}{16}$ "	9"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	6	40'-0 $\frac{9}{16}$ "	38'-8 $\frac{7}{16}$ "	37'-6 $\frac{7}{16}$ "	19'-4 $\frac{1}{4}$ "	8	6	9 $\frac{1}{16}$ "	9"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	7	39'-1 $\frac{1}{16}$ "	38'-7 $\frac{1}{16}$ "	37'-5 $\frac{1}{16}$ "	19'-3 $\frac{3}{16}$ "	8	6	8 $\frac{1}{2}$ "	9"	$\frac{5}{16}$ "	$\frac{1}{16}$ "
	8	39'-10 $\frac{1}{2}$ "	38'-6 $\frac{1}{2}$ "	37'-4 $\frac{1}{2}$ "	19'-3 $\frac{1}{4}$ "	10	5	9 $\frac{1}{4}$ "	8"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	9	39'-9 $\frac{7}{16}$ "	38'-5 $\frac{15}{16}$ "	37'-3 $\frac{15}{16}$ "	19'-3"	10	5	8 $\frac{5}{16}$ "	8"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	10	39'-9 $\frac{3}{8}$ "	38'-5 $\frac{3}{8}$ "	37'-3 $\frac{3}{8}$ "	19'-2 $\frac{5}{8}$ "	10	5	8 $\frac{1}{16}$ "	8"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	11	39'-8 $\frac{1}{16}$ "	38'-4 $\frac{1}{16}$ "	37'-2 $\frac{1}{16}$ "	19'-2 $\frac{1}{16}$ "	10	5	9 $\frac{3}{8}$ "	7"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	12	39'-8 $\frac{1}{4}$ "	38'-4 $\frac{1}{4}$ "	37'-2 $\frac{1}{4}$ "	19'-2 $\frac{1}{4}$ "	10	5	9 $\frac{1}{8}$ "	7"	$\frac{5}{16}$ "	$\frac{1}{16}$ "
	1	40'-9 $\frac{11}{16}$ "	39'-5 $\frac{11}{16}$ "	38'-3 $\frac{11}{16}$ "	19'-8 $\frac{7}{8}$ "	7	7	8 $\frac{15}{16}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	2	40'-8 $\frac{1}{4}$ "	39'-4 $\frac{1}{4}$ "	38'-2 $\frac{1}{4}$ "	19'-8 $\frac{1}{2}$ "	11	5	8 $\frac{1}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	3	40'-6 $\frac{3}{4}$ "	39'-2 $\frac{3}{4}$ "	38'-0 $\frac{3}{4}$ "	19'-7 $\frac{7}{8}$ "	11	5	7 $\frac{3}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	4	40'-5 $\frac{5}{16}$ "	39'-1 $\frac{15}{16}$ "	37'-1 $\frac{15}{16}$ "	19'-6 $\frac{15}{16}$ "	11	5	6 $\frac{5}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	5	40'-3 $\frac{3}{16}$ "	38'-11 $\frac{11}{16}$ "	37'-9 $\frac{11}{16}$ "	19'-5 $\frac{15}{16}$ "	11	5	5 $\frac{7}{8}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	6	40'-2 $\frac{1}{8}$ "	38'-10 $\frac{1}{8}$ "	37'-8 $\frac{1}{8}$ "	19'-5 $\frac{3}{16}$ "	7	7	5 $\frac{5}{16}$ "	4"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	7	39'-9 $\frac{5}{8}$ "	38'-5 $\frac{5}{8}$ "	37'-3 $\frac{5}{8}$ "	19'-2 $\frac{15}{16}$ "	8	6	8 $\frac{1}{16}$ "	8"	$\frac{5}{16}$ "	$\frac{1}{16}$ "
	8	39'-8 $\frac{1}{8}$ "	38'-4 $\frac{3}{8}$ "	37'-2 $\frac{1}{8}$ "	19'-2 $\frac{1}{8}$ "	10	5	9 $\frac{1}{16}$ "	7"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	9	39'-6 $\frac{1}{16}$ "	38'-2 $\frac{11}{16}$ "	37'-0 $\frac{11}{16}$ "	19'-1 $\frac{1}{16}$ "	10	5	9 $\frac{5}{16}$ "	6"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	10	39'-5 $\frac{1}{4}$ "	38'-1 $\frac{1}{4}$ "	36'-11 $\frac{1}{4}$ "	19'-0 $\frac{5}{8}$ "	10	5	8 $\frac{5}{8}$ "	6"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	11	39'-3 $\frac{3}{4}$ "	37'-1 $\frac{15}{16}$ "	36'-9 $\frac{3}{4}$ "	18'-11 $\frac{1}{8}$ "	10	5	8 $\frac{1}{8}$ "	5"	$\frac{3}{8}$ "	$\frac{1}{16}$ "
	12	39'-2 $\frac{5}{16}$ "	37'-10 $\frac{11}{16}$ "	36'-8 $\frac{5}{16}$ "	18'-11 $\frac{1}{16}$ "	8	6	9 $\frac{1}{8}$ "	4"	$\frac{5}{16}$ "	$\frac{1}{16}$ "



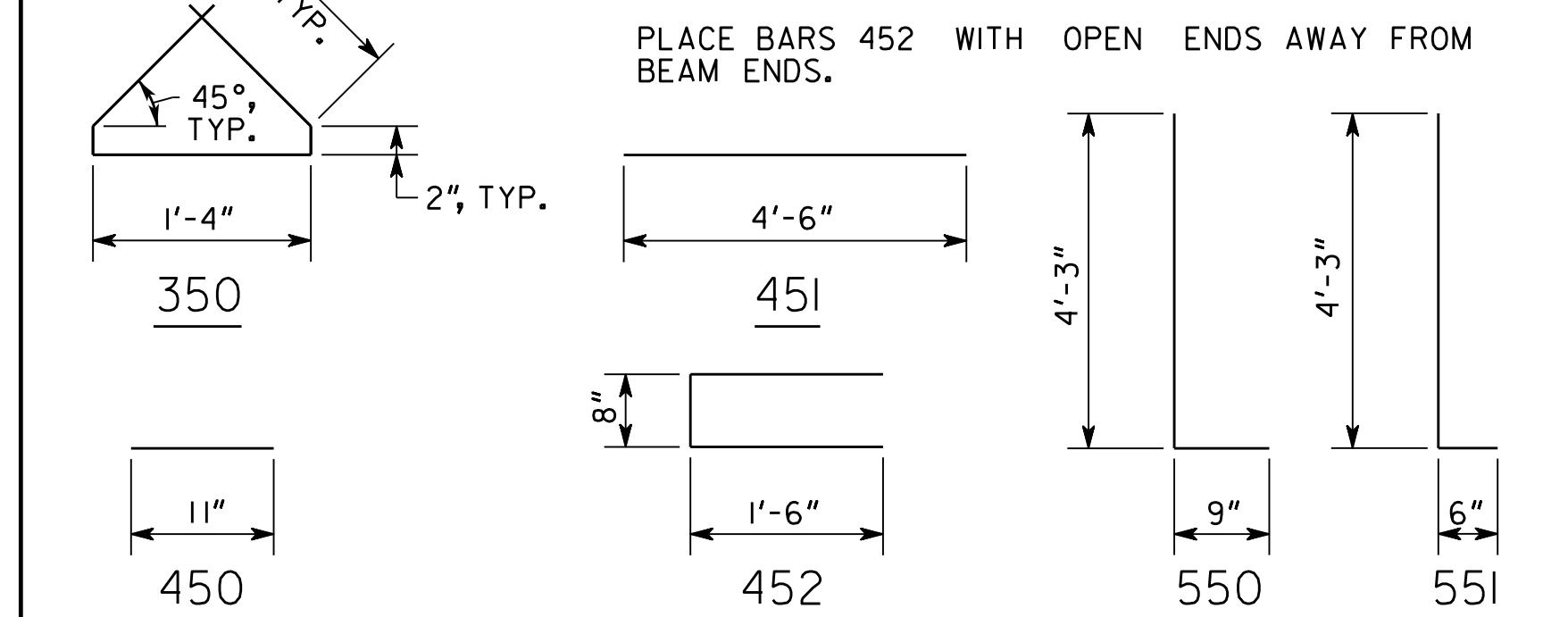
#### REINFORCEMENT

ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 551 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT. SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

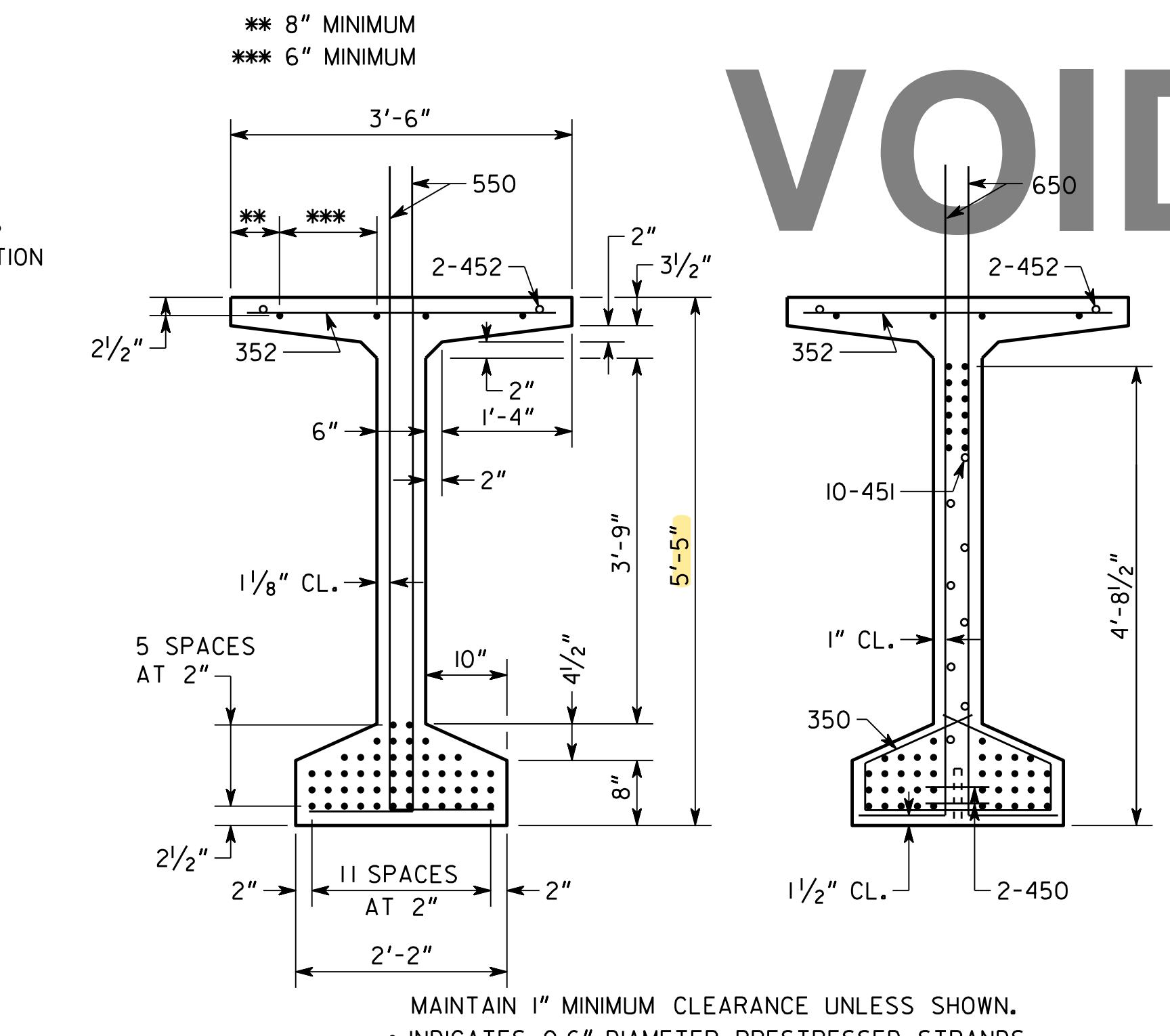
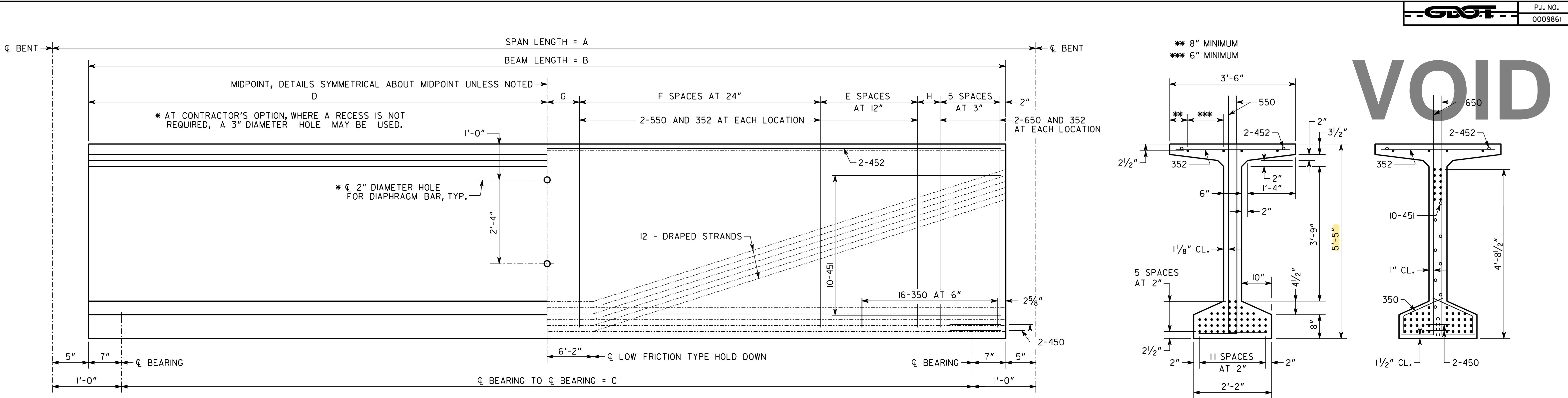
BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 452 WITH OPEN ENDS AWAY FROM BEAM ENDS.



BRIDGE NO. I LT & RT

DATE	REVISIONS	DRAWING NO. 35-001		NO SCALE		JULY 2017	
		BRIDGE SHEET 11 OF 23		BY			
		DESIGNED EJF DRAWN EJF		CHECKED TKH DRAWN EJF		REVIEWED DLC/SKG DESIGN GROUP DPD APPROVED WMD	



NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.

2. CHAMFER EDGES OF BEAMS  $\frac{1}{2}$ ",  $\frac{3}{4}$ " OR 1".

3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}$ " EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.

4. AT C BEARING, FORM A  $1\frac{3}{4}$ " DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X  $1\frac{3}{4}$ " X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $1\frac{1}{2}$ " DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.

5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}$ ". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.

6. NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.

7. COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.

8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.

9. PRESTRESSING DATA IS AS FOLLOWS:

A. USE 54 - 0.6" DIAMETER LOW-RELAXATION ( $A = 0.217$  SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.

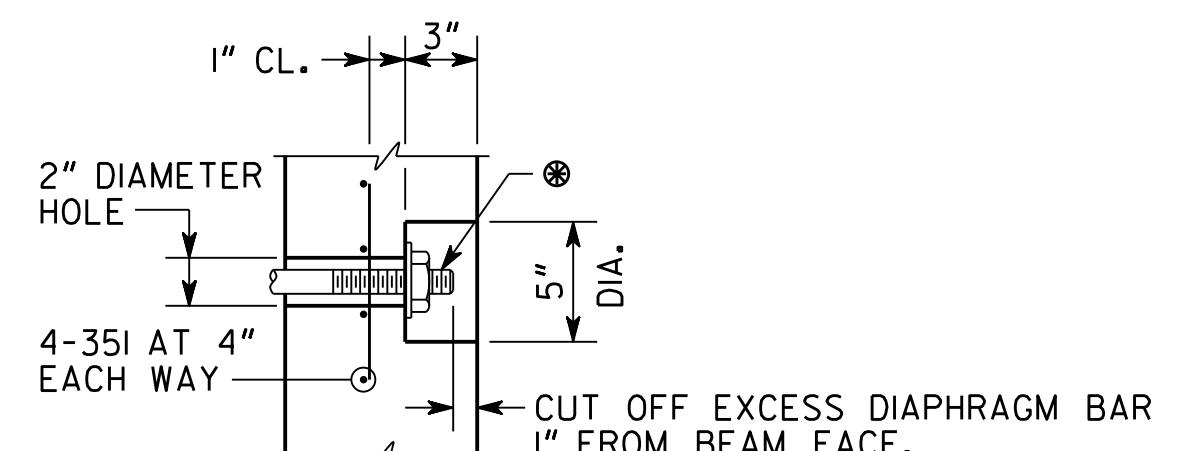
B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 8,000 PSI.

C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 2,237,150 LBS.

D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,675,435 LBS.

10. CONCRETE STRENGTH ( $f'_c$ ) = 8,500 PSI.

11. ALLOWABLE PSC BEAM TENSION = 553 PSI.



⑧ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH  $\frac{1}{4}$ " X  $\frac{3}{8}$ " DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).

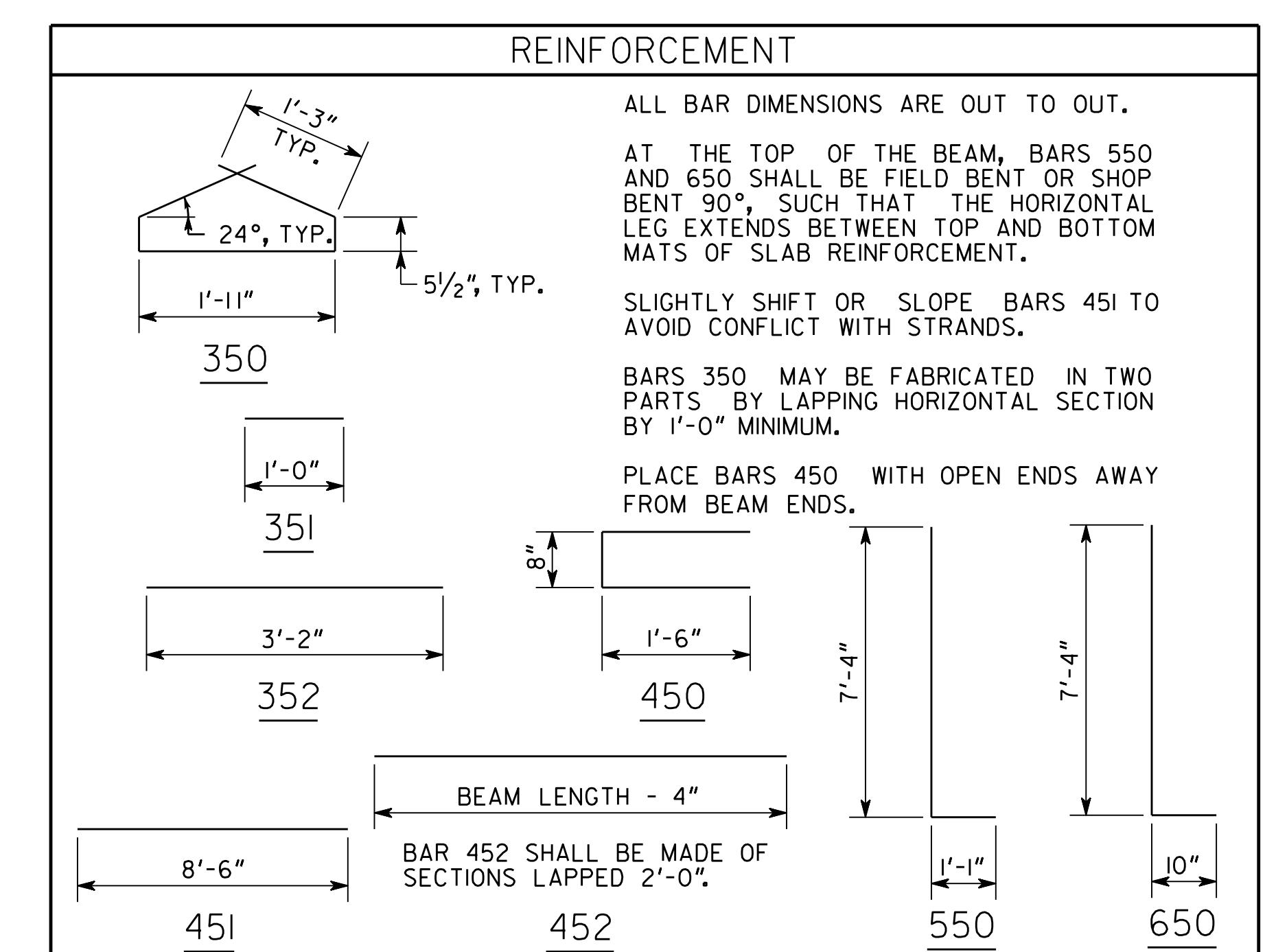
TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.

AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.

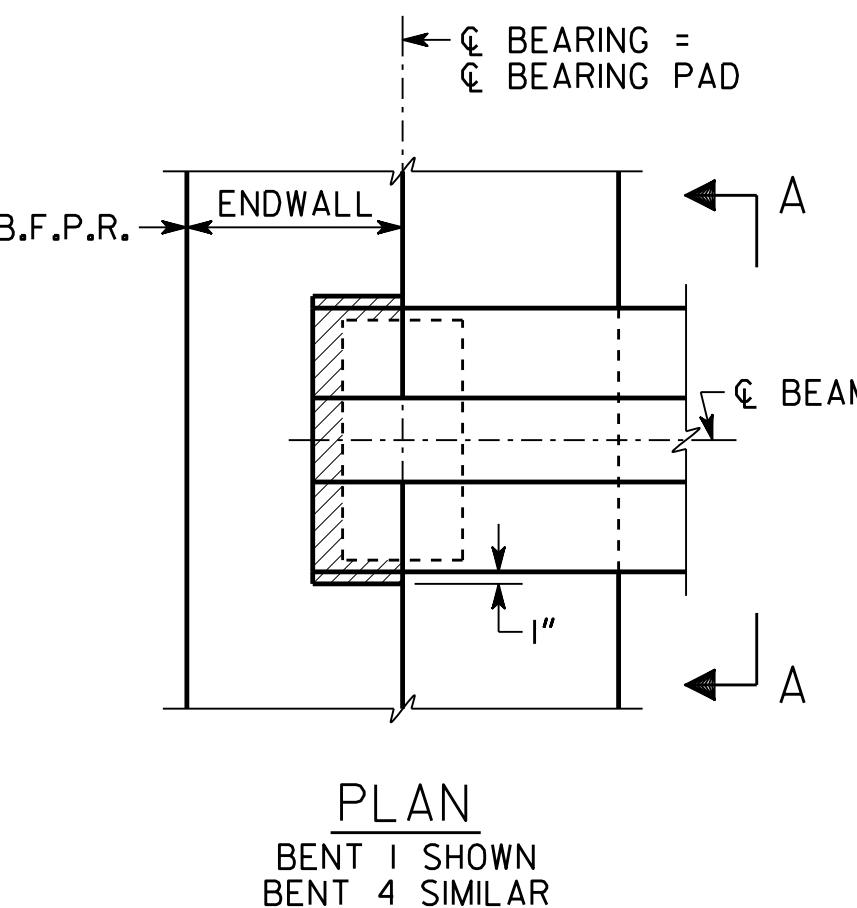
GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.2 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS

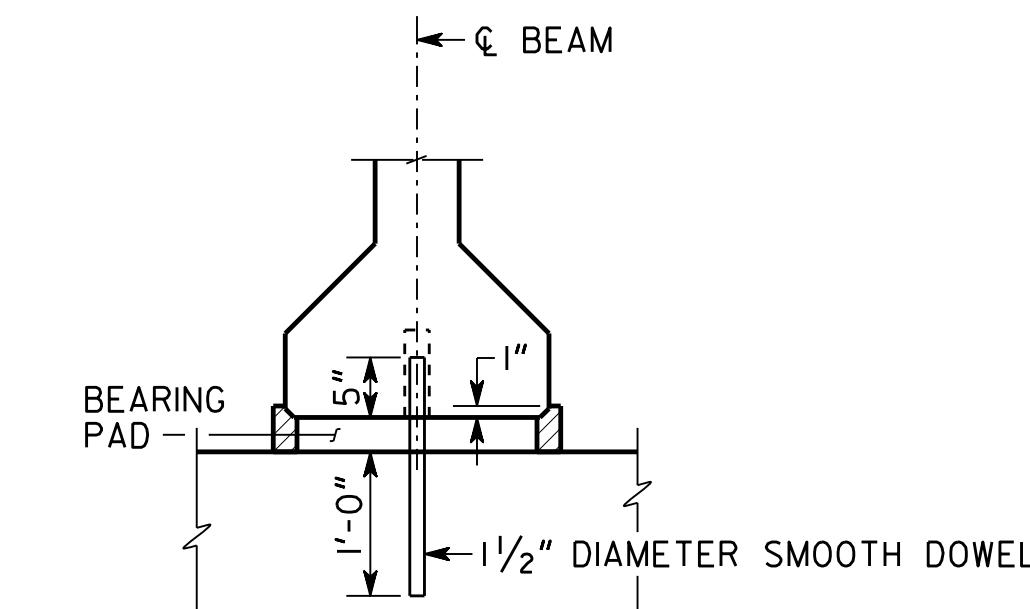
TABLE OF LETTERED BEAM DIMENSIONS											
SPAN	BEAM	A	B	C	D	E	F	G	H	$\Delta_{NC}$	$\Delta_C$
2	1	128'-6 $\frac{1}{16}$ "	127'-8 $\frac{7}{16}$ "	126'-6 $\frac{1}{16}$ "	63'-10 $\frac{1}{4}$ "	21	20	11 $\frac{1}{4}$ "	6"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	2	128'-10 $\frac{15}{16}$ "	127'-3 $\frac{13}{16}$ "	126'-11 $\frac{15}{16}$ "	63'-7 $\frac{7}{16}$ "	21	20	9 $\frac{1}{16}$ "	5"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	3	127'-9 $\frac{9}{16}$ "	126'-11 $\frac{1}{16}$ "	125'-9 $\frac{9}{16}$ "	63'-5 $\frac{7}{16}$ "	21	20	7 $\frac{7}{8}$ "	5"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	4	127'-4 $\frac{15}{16}$ "	126'-6 $\frac{3}{16}$ "	125'-4 $\frac{15}{16}$ "	63'-3 $\frac{3}{16}$ "	21	20	5 $\frac{1}{16}$ "	5"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	5	126'-1 $\frac{1}{16}$ "	126'-1 $\frac{1}{16}$ "	124'-1 $\frac{1}{16}$ "	63'-0 $\frac{1}{16}$ "	20	20	10 $\frac{1}{16}$ "	9"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	6	126'-7 $\frac{1}{16}$ "	125'-9 $\frac{1}{16}$ "	124'-7 $\frac{1}{16}$ "	62'-10 $\frac{1}{16}$ "	20	20	10 $\frac{1}{16}$ "	7"	2 $\frac{7}{16}$ "	$\frac{1}{4}$ "
	7	125'-4 $\frac{1}{16}$ "	124'-6 $\frac{1}{16}$ "	123'-4 $\frac{1}{16}$ "	62'-3 $\frac{1}{4}$ "	20	20	5 $\frac{1}{4}$ "	5"	2 $\frac{7}{16}$ "	$\frac{3}{8}$ "
	8	124'-1 $\frac{1}{16}$ "	124'-1 $\frac{1}{16}$ "	122'-1 $\frac{1}{16}$ "	62'-0 $\frac{1}{16}$ "	21	19	11 $\frac{1}{16}$ "	8"	2 $\frac{7}{16}$ "	$\frac{3}{8}$ "
	9	124'-7 $\frac{1}{16}$ "	123'-9 $\frac{3}{16}$ "	122'-7 $\frac{1}{16}$ "	61'-10 $\frac{1}{8}$ "	21	19	11 $\frac{1}{16}$ "	6"	2 $\frac{7}{16}$ "	$\frac{3}{8}$ "
	10	124'-2 $\frac{1}{16}$ "	123'-4 $\frac{1}{16}$ "	122'-2 $\frac{1}{16}$ "	61'-8 $\frac{1}{16}$ "	21	19	10 $\frac{1}{16}$ "	5"	2 $\frac{7}{16}$ "	$\frac{3}{8}$ "
	11	123'-9 $\frac{1}{16}$ "	122'-11 $\frac{1}{16}$ "	121'-9 $\frac{1}{16}$ "	61'-5 $\frac{15}{16}$ "	21	19	7 $\frac{1}{16}$ "	5"	2 $\frac{1}{4}$ "	$\frac{3}{8}$ "
	12	123'-5 $\frac{1}{16}$ "	122'-7 $\frac{1}{16}$ "	121'-5 $\frac{1}{16}$ "	61'-3 $\frac{1}{16}$ "	21	19	5 $\frac{1}{16}$ "	5"	2 $\frac{1}{16}$ "	$\frac{5}{16}$ "



DATE	REVISIONS	REVISIONS	REVISIONS
DRAWING NO. 35-0012	NO SCALE	JULY 2017	
BRIDGE SHEET 12 OF 23	BY	DESIGNED EJF DRAWN EJF	CHECKED TKH APPROVED WMD
0009861			

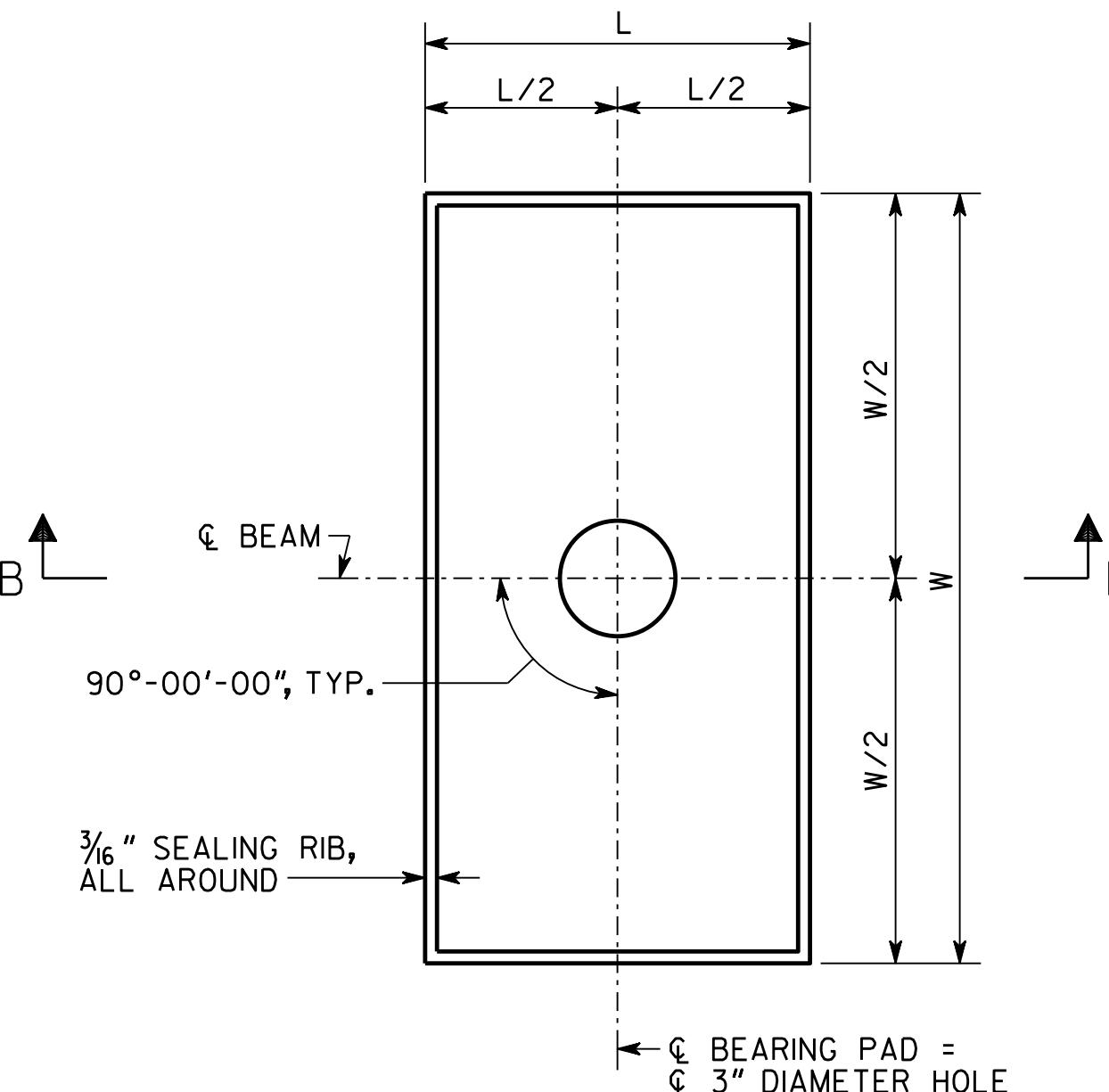


PLAN  
BENT 1 SHOWN  
BENT 4 SIMILAR

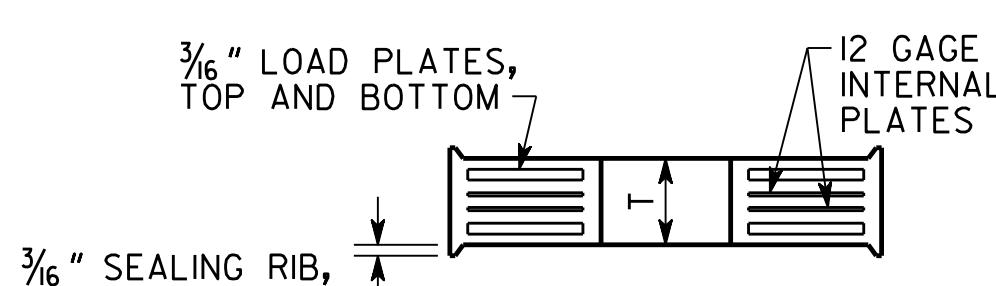


PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.10 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN  
SECTION A-A



PLAN



SECTION B-B  
BEARING PAD

#### NOTES

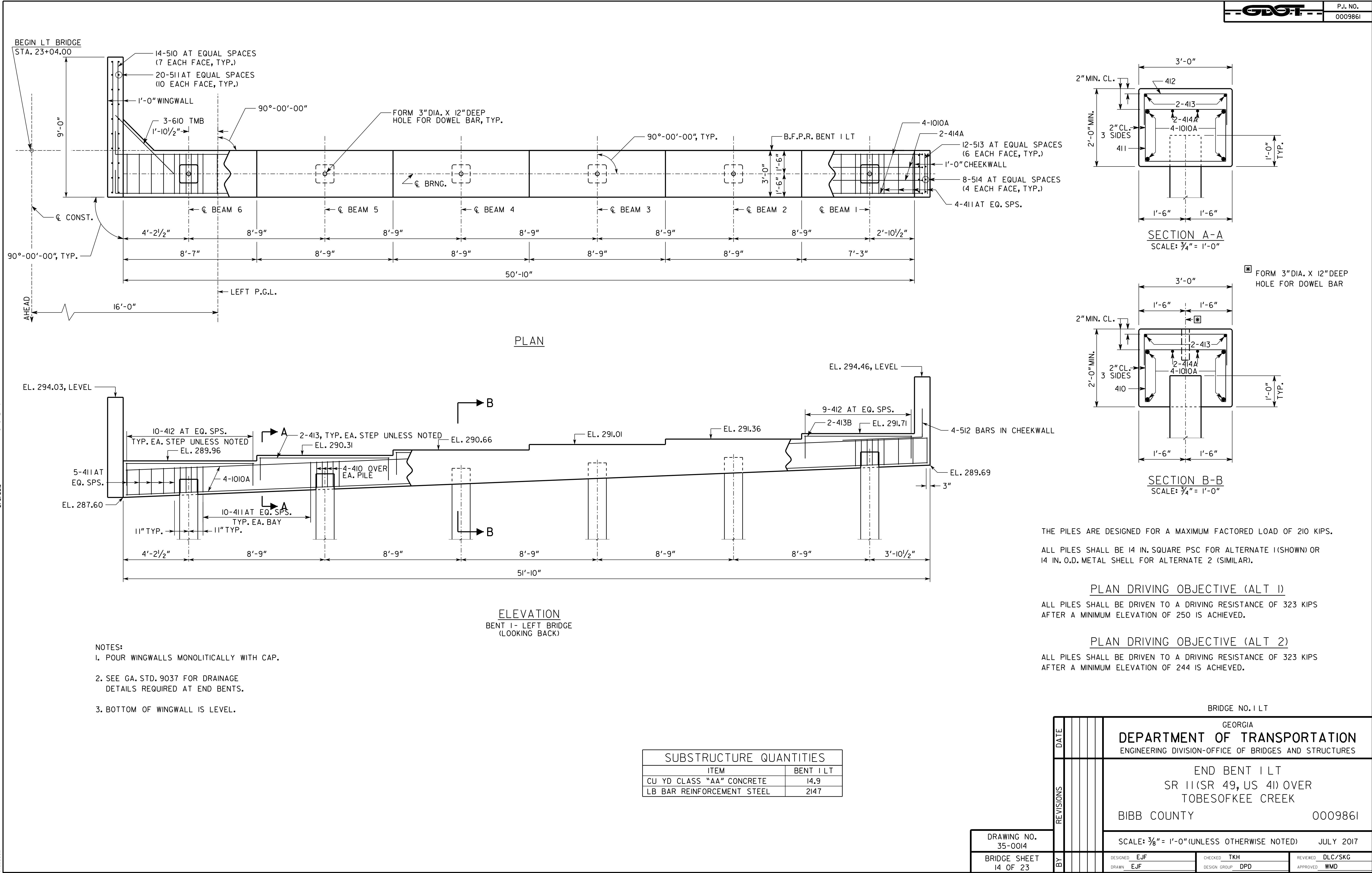
1. BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO SPECIFICATIONS DIVISION I, SECTION 14.6.6 METHOD A AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO SPECIFICATIONS DIVISION II, SECTION 18, BEARINGS.
2. 1 1/2'' DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.
3. BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.
4. 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.
5. BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.
6. 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.
7. NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.
8. USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.

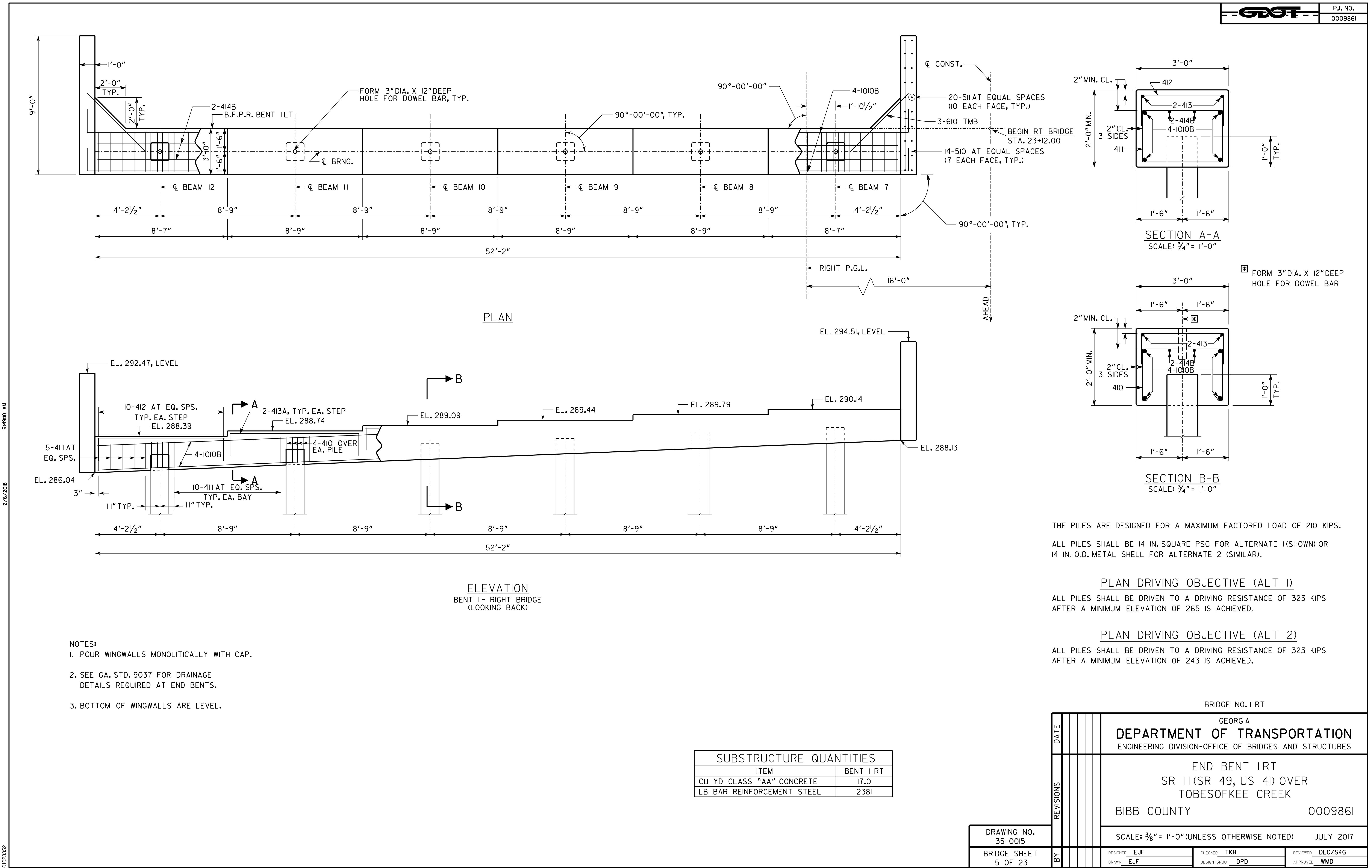
BENT	BEARING PADS						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	
1	16"	10"	3"	3	1/4"	57.9	57.4	115.3	
2 BACK	16"	10"	3"	3	0"	36.9	57.4	94.3	
2 AHEAD	22"	10"	3 1/4"	4	0"	155.8	92.8	248.6	
3 BACK	22"	10"	3 1/4"	4	1/2"	155.8	92.8	248.6	
3 AHEAD	16"	10"	3"	3	1/2"	36.5	57.7	94.2	
4	16"	10"	3"	3	3/4"	57.6	57.7	114.3	

BRIDGE NO. 1 LT & RT

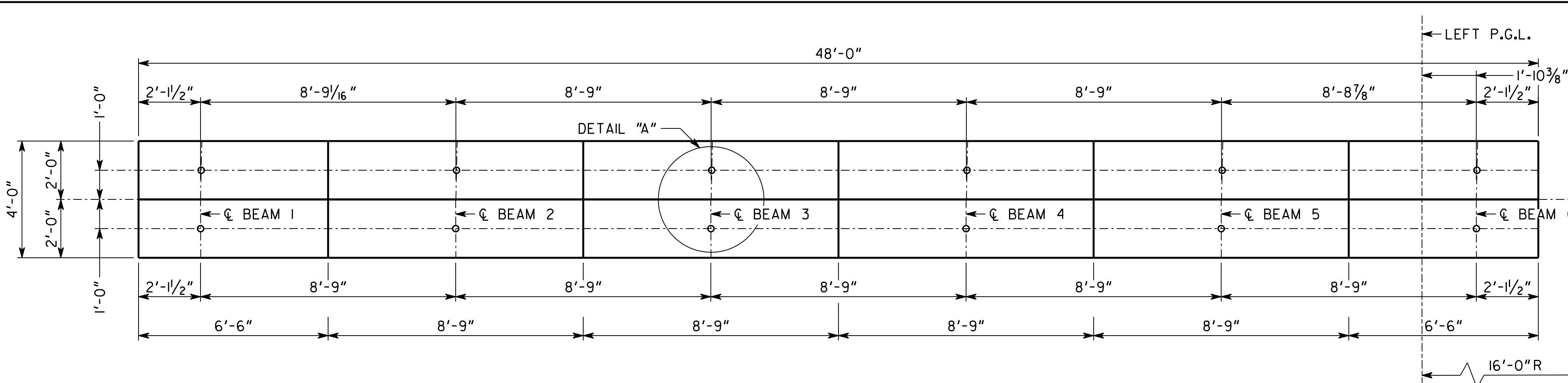
GEORGIA	
DEPARTMENT OF TRANSPORTATION	
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES	
BEARING PAD DETAILS	
SR 11(SR 49, US 41) OVER	
TOBESOFKEE CREEK	
BIBB COUNTY 0009861	
DRAWING NO. 35-0013	NO SCALE
BRIDGE SHEET 13 OF 23	DATE REVISIONS
BY EJF	DESIGNED BY EJF
	CHECKED BY TKH
	REVIEWED BY DLC/SKG
	APPROVED BY WMD

0009861.dgn

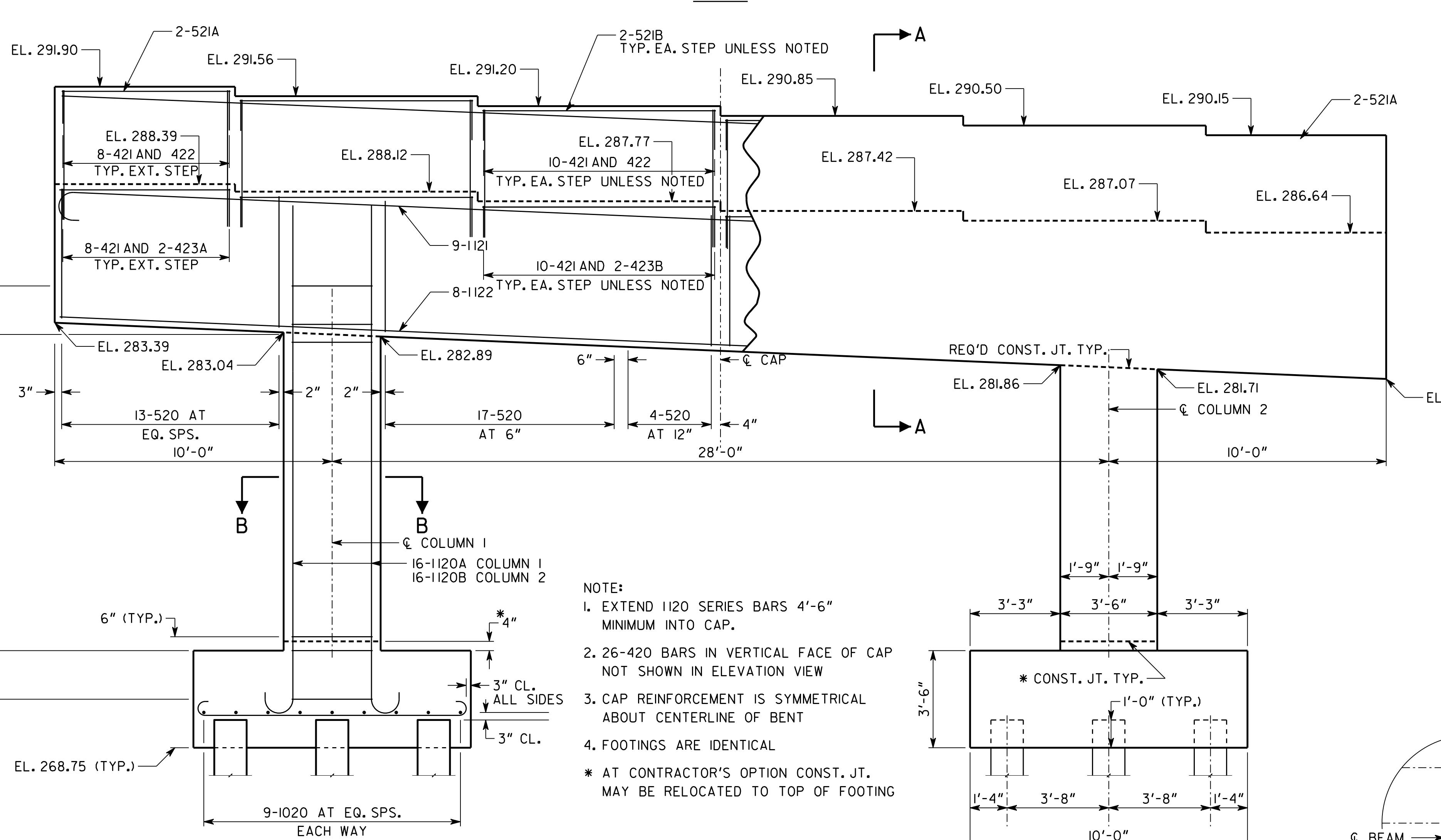




P.I. NO.  
0009861



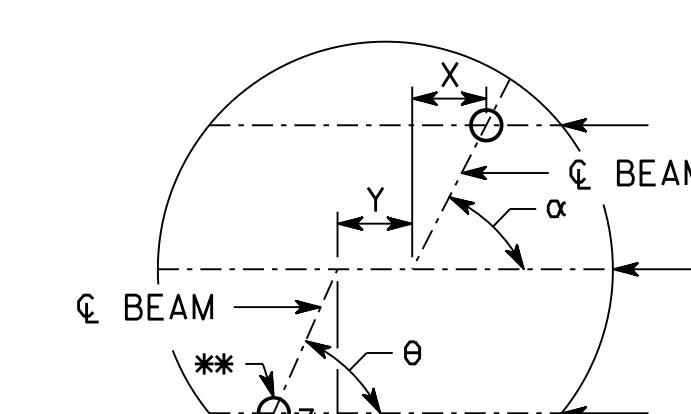
PLAN



## ELEVATION (LOOKING AHEAD)

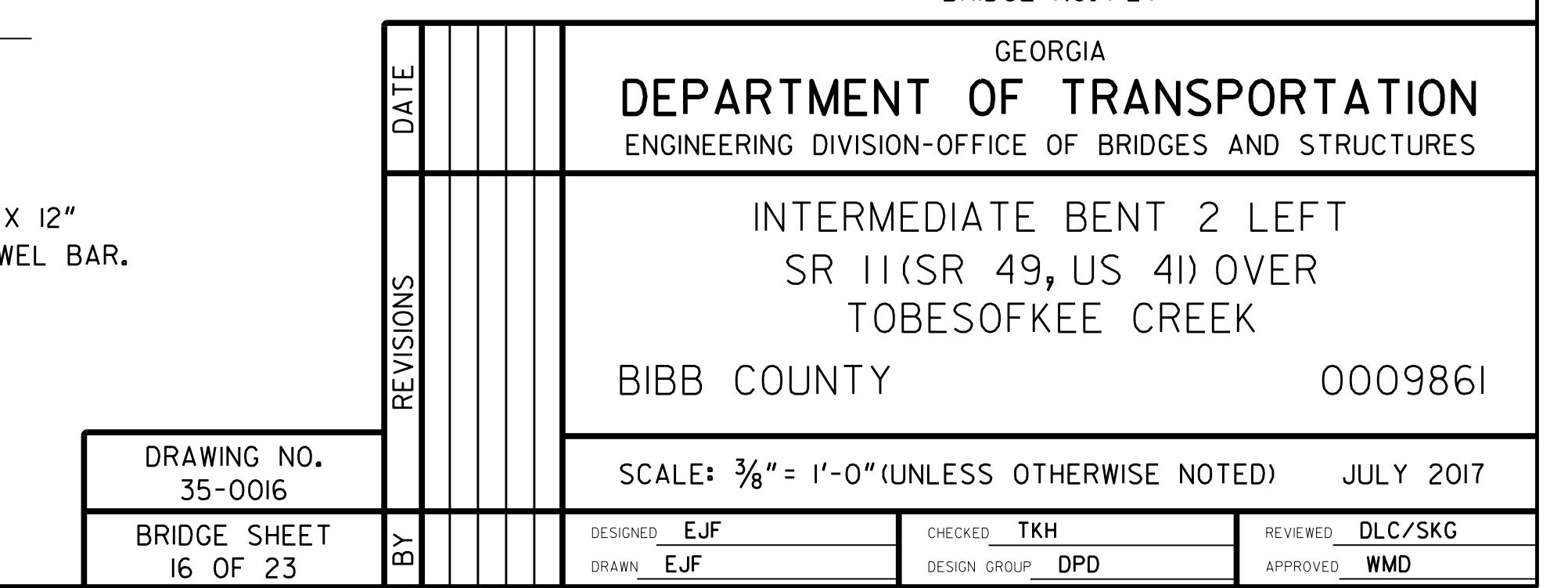
SUBSTRUCTURE QUANTITIES		
ITEM	BENT	LT
CU YD CLASS "AA" CONCRETE	83.6	
LB BAR REINFORCEMENT STEEL	15345	

BEAM THROW DETAIL						
		X	Y	Z	θ	α
BENT 2 LT	BEAM 1	1/4"	0"	1/16"	89°-51'-02.2"	88°-44'-08.9"
	BEAM 2	1/4"	1/16"	1/16"	89°-51'-02.2"	88°-44'-24.0"
	BEAM 3	1/4"	1/8"	1/16"	89°-51'-02.2"	88°-44'-24.0"
	BEAM 4	1/4"	1/8"	1/16"	89°-51'-02.2"	88°-44'-24.0"
	BEAM 5	1/4"	1/8"	1/16"	89°-51'-02.2"	88°-44'-24.0"
	BEAM 6	1/4"	0"	1/16"	89°-51'-02.2"	88°-44'-07.1"



DETAIL "A

DETAIL A  
NO SCALE  
\*\* FORM 3" DIAMETER X 12"  
DEEP HOLE FOR DOWEL BAR



INTERMEDIATE BENT 2 LEFT  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK

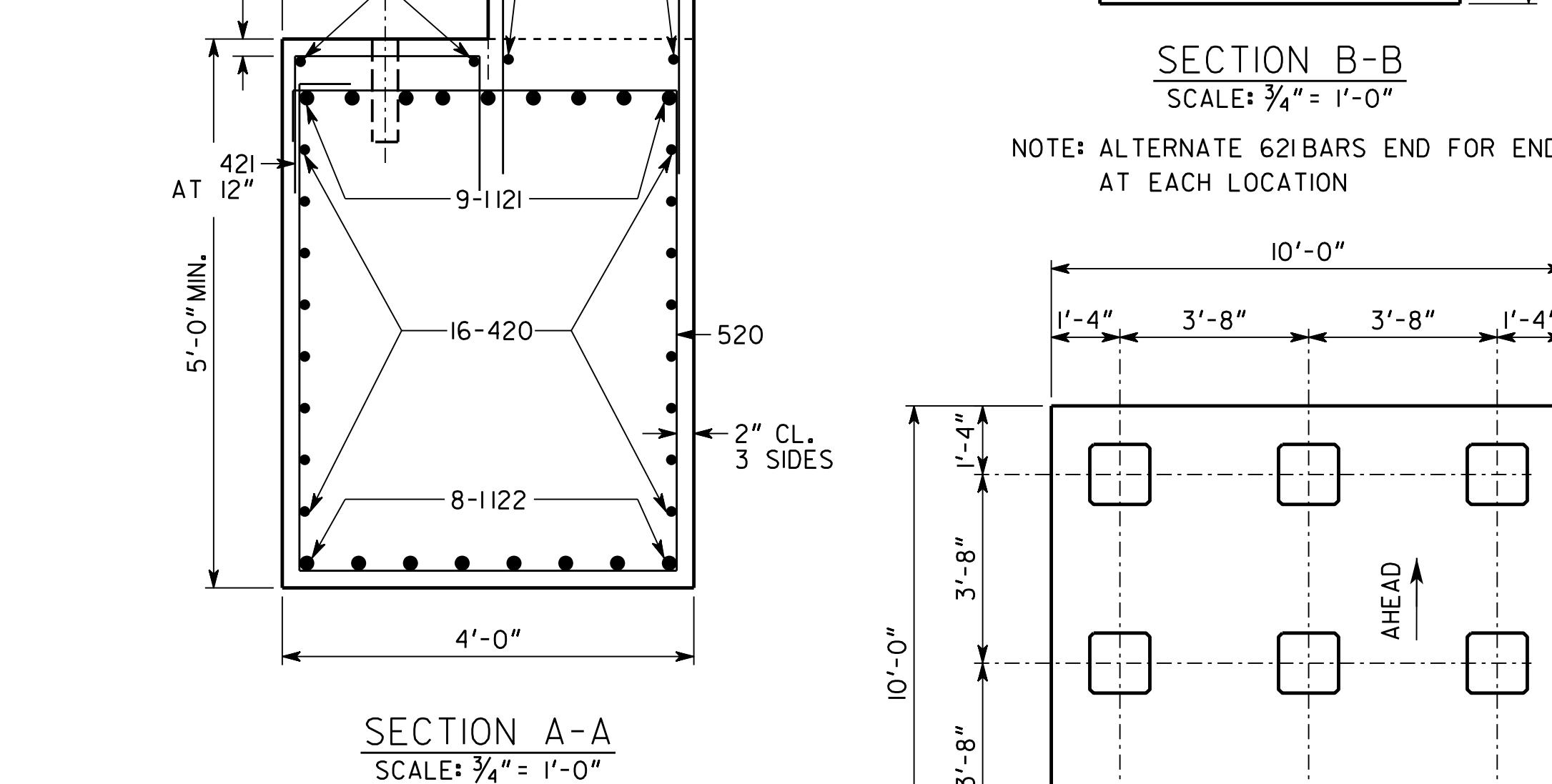
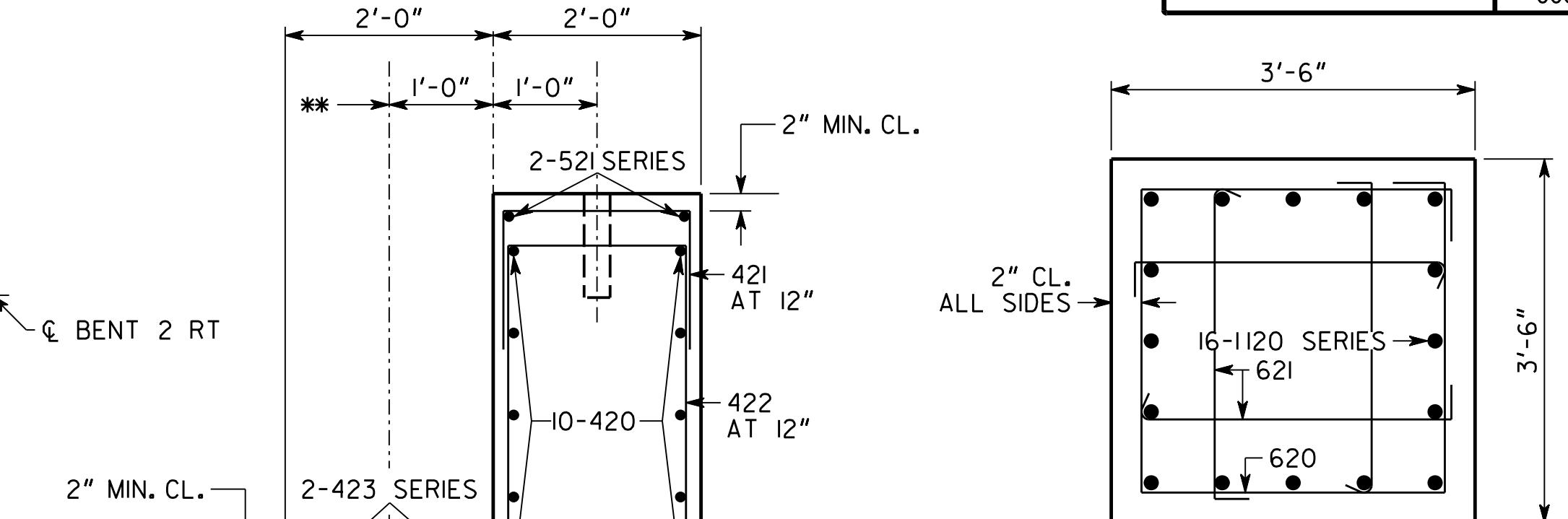
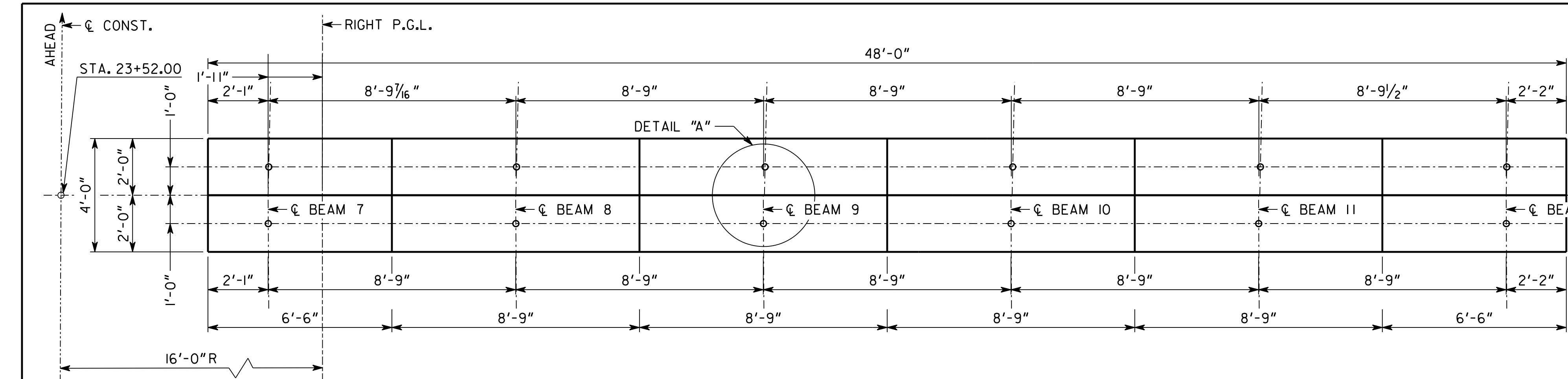
BB COUNTY

0009861

**ANSWER**

= 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017

CHECKED	<b>TKH</b>	REVIEWED	<b>DLC/SKG</b>
DESIGN GROUP	<b>DPD</b>	APPROVED	<b>WMD</b>



THE PILES ARE DESIGNED FOR A MAXIMUM FACTORED LOAD OF 211KIPS.  
ALL PILES SHALL BE 14 IN. SQUARE PSC FOR ALTERNATE 1(SHOWN) OR  
14 IN. O.D. METAL SHELL FOR ALTERNATE 2 (SIMILAR).

**PLAN DRIVING OBJECTIVE (ALT 1)**  
ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 345 KIPS  
AFTER A MINIMUM ELEVATION OF 257 IS ACHIEVED.

**PLAN DRIVING OBJECTIVE (ALT 2)**  
ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 345 KIPS  
AFTER A MINIMUM ELEVATION OF 256 IS ACHIEVED.

BRIDGE NO. I RT  
GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

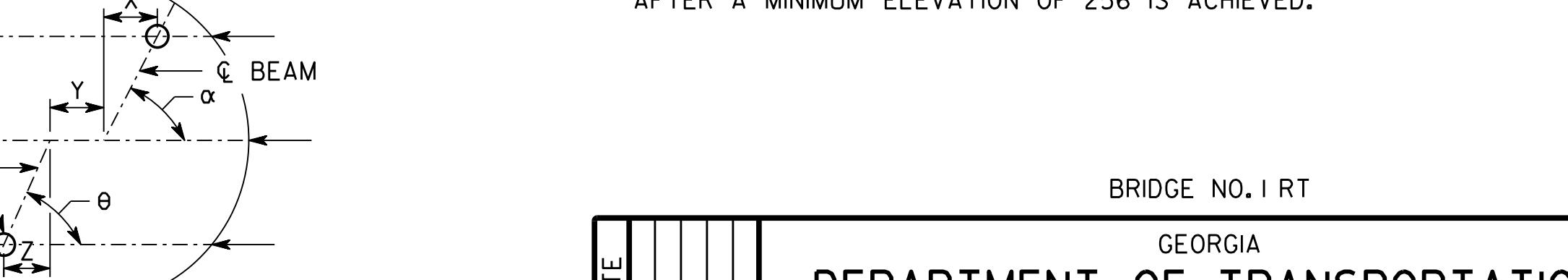
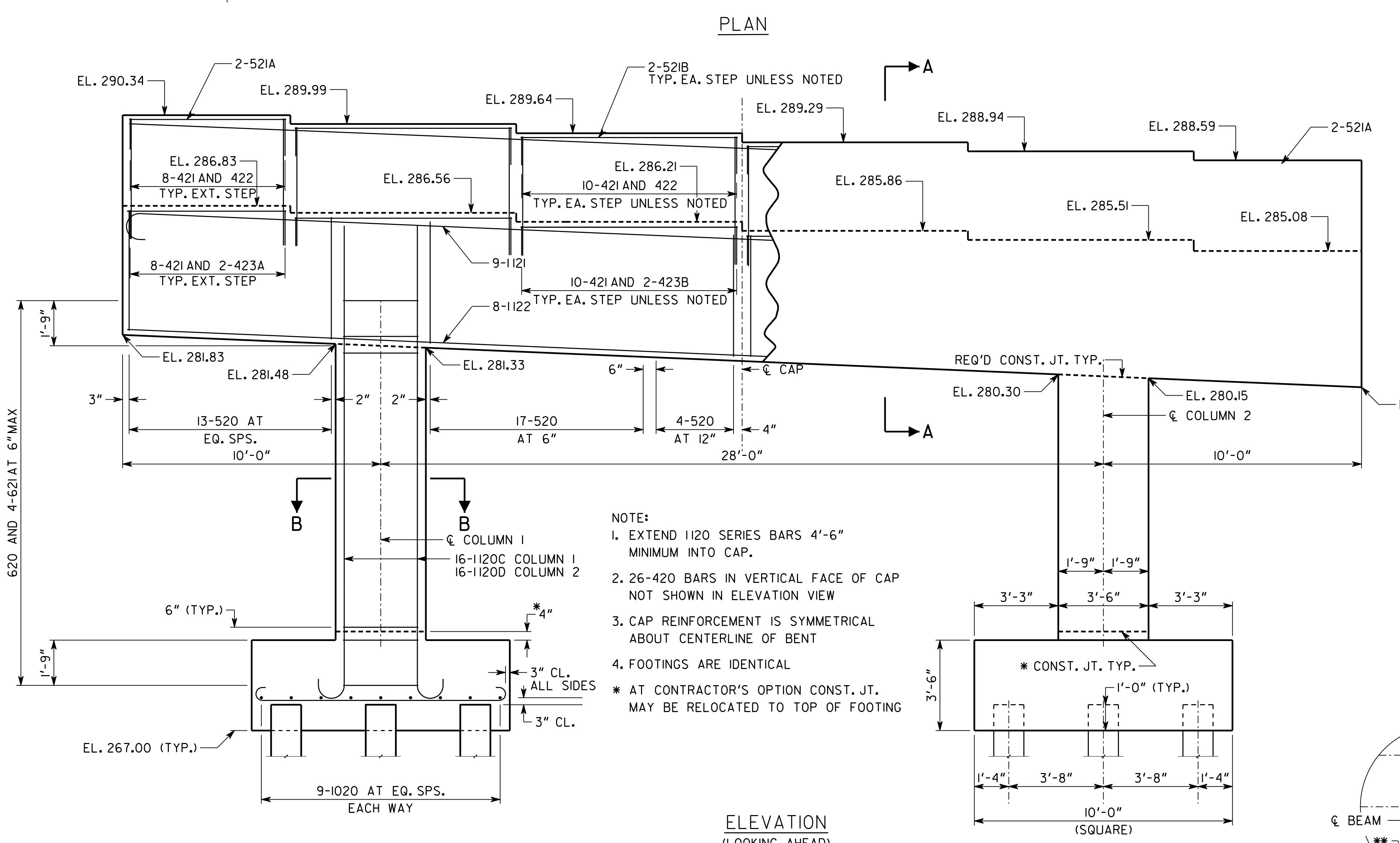
INTERMEDIATE BENT 2 RIGHT  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK  
BIBB COUNTY 000986I

DRAWING NO.	35-0017	SCALE: $\frac{3}{8}$ " = 1'-0" (UNLESS OTHERWISE NOTED)	JULY 2017
BRIDGE SHEET	17 OF 23	BY	
DESIGNED	EJF	CHECKED	TKH
DRAWN	EJF	DESIGN GROUP	DPD
APPROVED	WMD	REVIEWED	DLC/SKG

000986I.dgn

2/6/2018 9:53:22 AM

01023352



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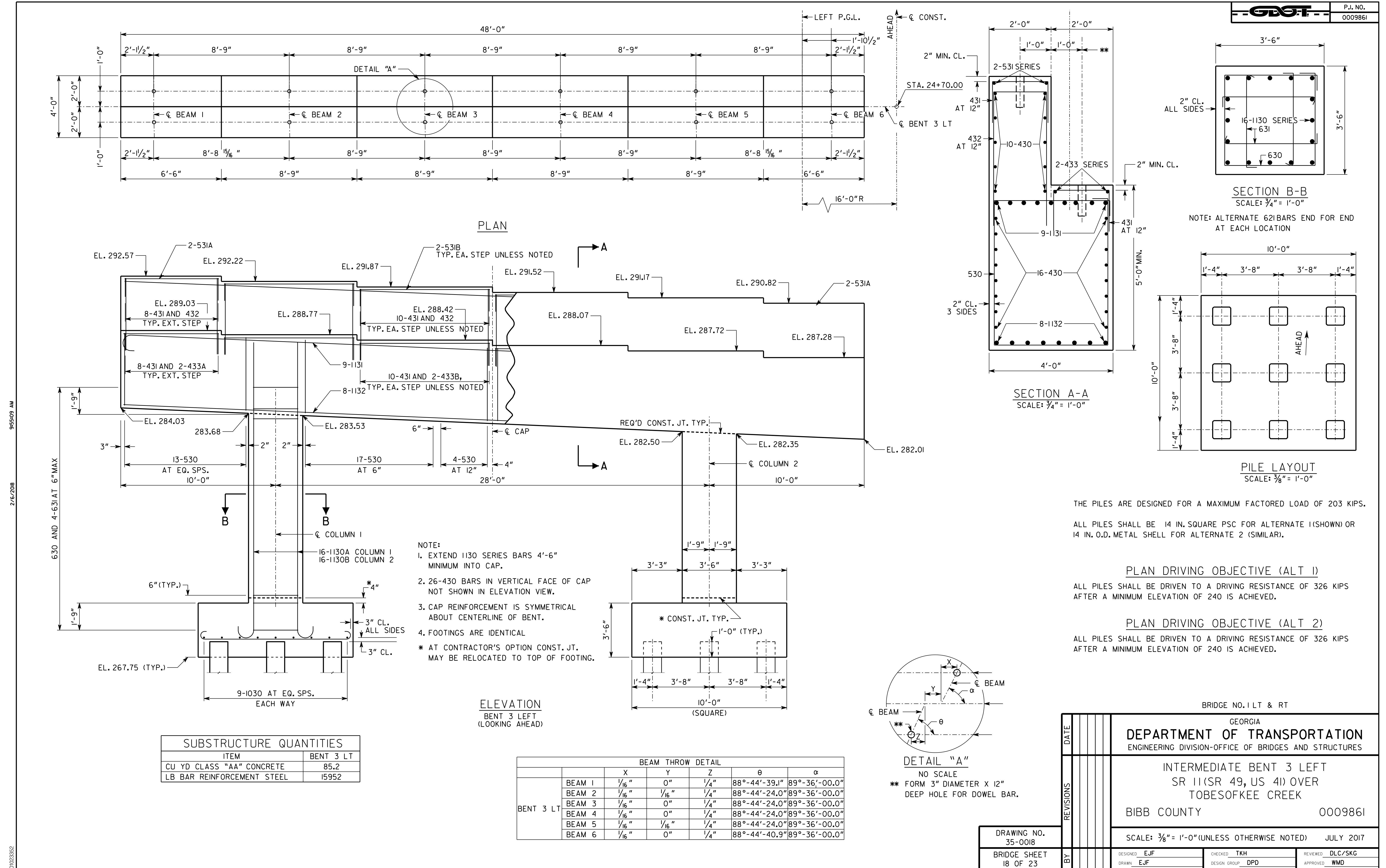
DATE			
REVISIONS			
DRAWING NO.	35-0017	SCALE: $\frac{3}{8}$ " = 1'-0" (UNLESS OTHERWISE NOTED)	JULY 2017
BRIDGE SHEET	17 OF 23	BY	
DESIGNED	EJF	CHECKED	TKH
DRAWN	EJF	DESIGN GROUP	DPD
APPROVED	WMD	REVIEWED	DLC/SKG

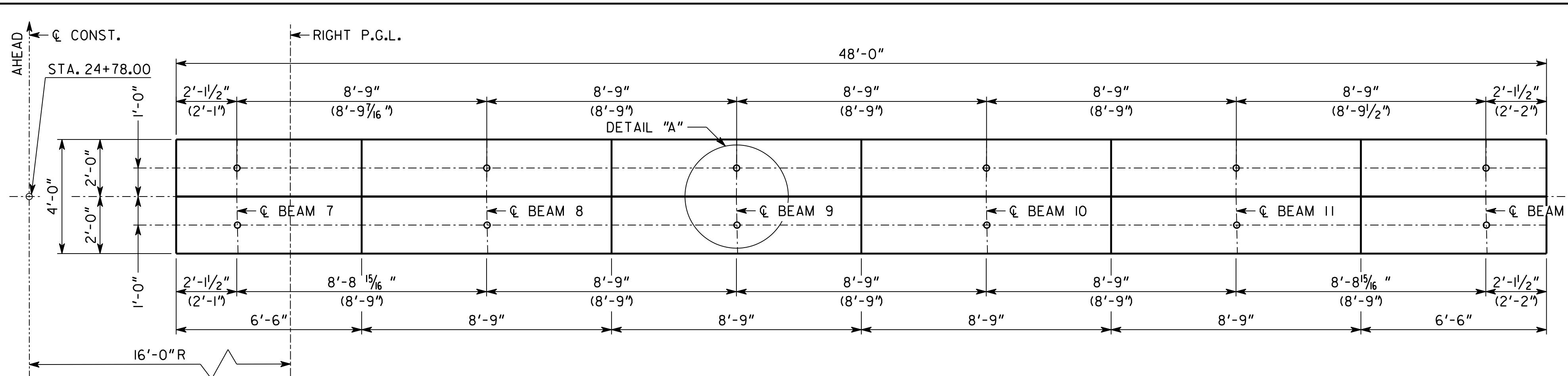
000986I.dgn

SUBSTRUCTURE QUANTITIES	
ITEM	BENT 2 RT
CU YD CLASS "AA" CONCRETE	83.8
LB BAR REINFORCEMENT STEEL	15427

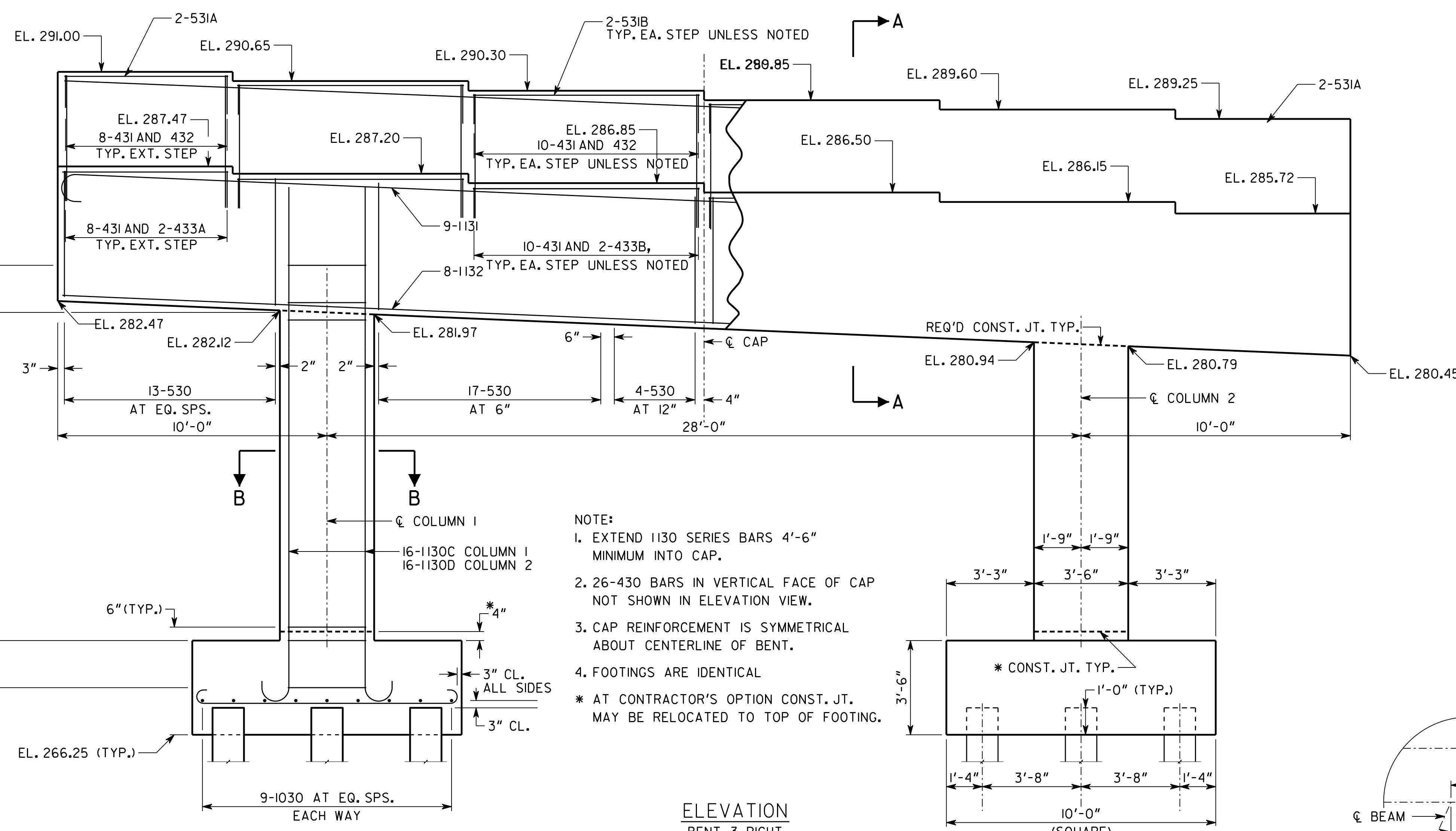
BENT 2 RT	BEAM THROW DETAIL					
	X	Y	Z	$\theta$	$\alpha$	
BEAM 7	$\frac{1}{4}$ "	0"	$\frac{1}{16}$ "	89°-41'-26.2"	88°-43'-16.5"	
BEAM 8	$\frac{1}{4}$ "	$\frac{7}{16}$ "	$\frac{1}{16}$ "	89°-41'-26.2"	88°-44'-24.0"	
BEAM 9	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{1}{16}$ "	89°-41'-26.2"	88°-44'-24.0"	
BEAM 10	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{1}{16}$ "	89°-41'-26.2"	88°-44'-24.0"	
BEAM 11	$\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{1}{16}$ "	89°-41'-26.2"	88°-44'-24.0"	
BEAM 12	$\frac{1}{4}$ "	0"	$\frac{1}{16}$ "	89°-41'-26.2"	88°-43'-14.8"	

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## PLAN



ELEVATION  
BENT 3 RIGHT  
(LOOKING AHEAD)

SUBSTRUCTURE QUANTITIES			
ITEM		BENT	3 RT
CU YD CLASS "AA" CONCRETE		85.1	
LB BAR REINFORCEMENT STEEL		15891	

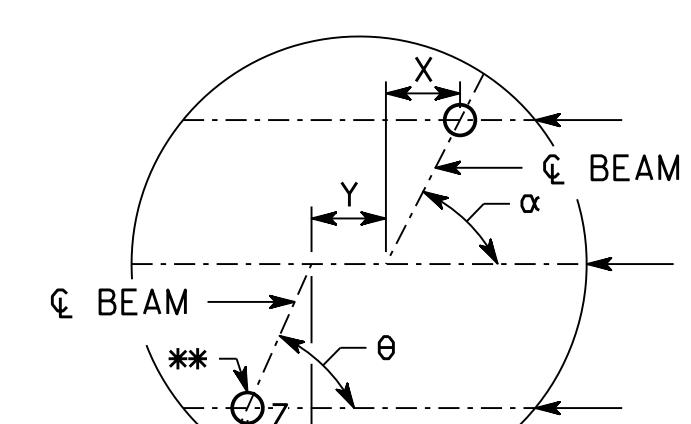
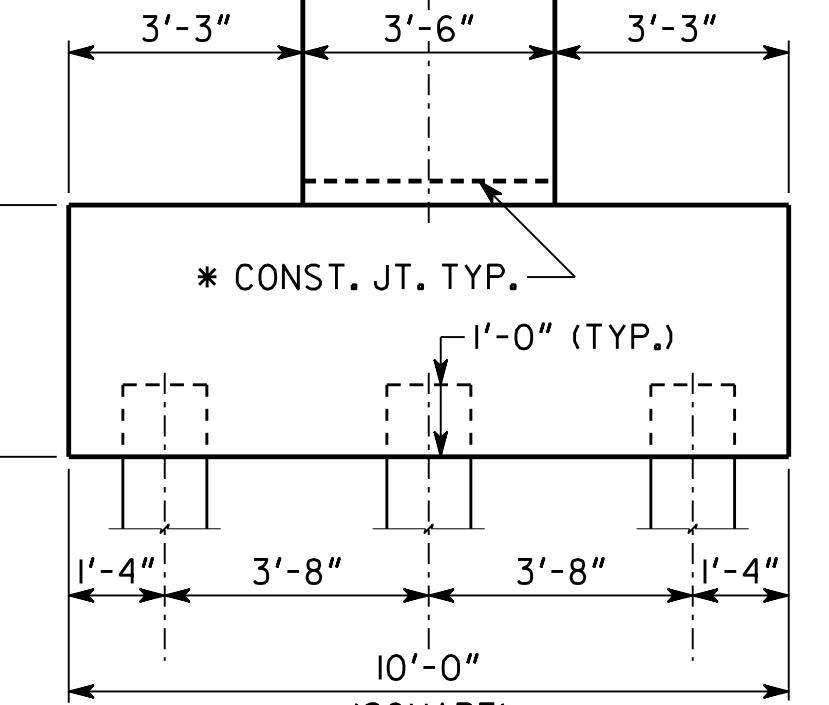
BEAM THROW DETAIL						
		X	Y	Z	$\theta$	$\alpha$
BENT 3 RT	BEAM 7	$1/16$ "	0"	$1/4$ "	$88^\circ-45'-31.5''$	$89^\circ-36'-00.0''$
	BEAM 8	$1/16$ "	$1/16$ "	$1/4$ "	$88^\circ-44'-24.0''$	$89^\circ-36'-00.0''$
	BEAM 9	$1/16$ "	0"	$1/4$ "	$88^\circ-44'-24.0''$	$89^\circ-36'-00.0''$
	BEAM 10	$1/16$ "	0"	$1/4$ "	$88^\circ-44'-24.0''$	$89^\circ-36'-00.0''$
	BEAM 11	$1/16$ "	$1/16$ "	$1/4$ "	$88^\circ-44'-24.0''$	$89^\circ-36'-00.0''$
	BEAM 12	$1/16$ "	0"	$1/4$ "	$88^\circ-45'-33.2''$	$89^\circ-36'-00.0''$

NOTE:

1. EXTEND 1130 SERIES BARS 4'-6"  
MINIMUM INTO CAP.
2. 26-430 BARS IN VERTICAL FACE OF CAP  
NOT SHOWN IN ELEVATION VIEW.
3. CAP REINFORCEMENT IS SYMMETRICAL  
ABOUT CENTERLINE OF BENT.
4. FOOTINGS ARE IDENTICAL

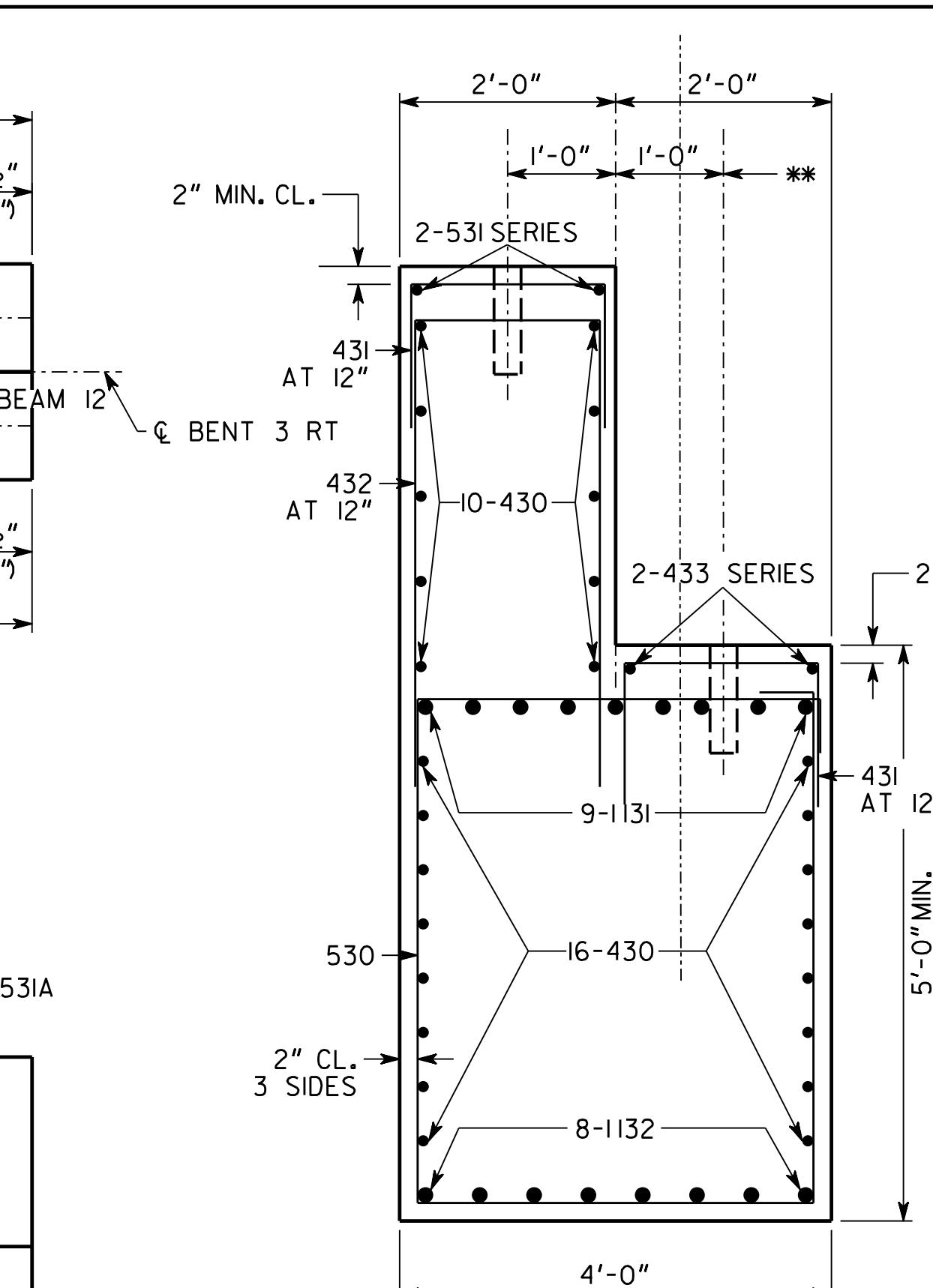
\* AT CONTRACTOR'S OPTION CONST. JT.  
MAY BE RELOCATED TO TOP OF FOOTING.

3'-6"

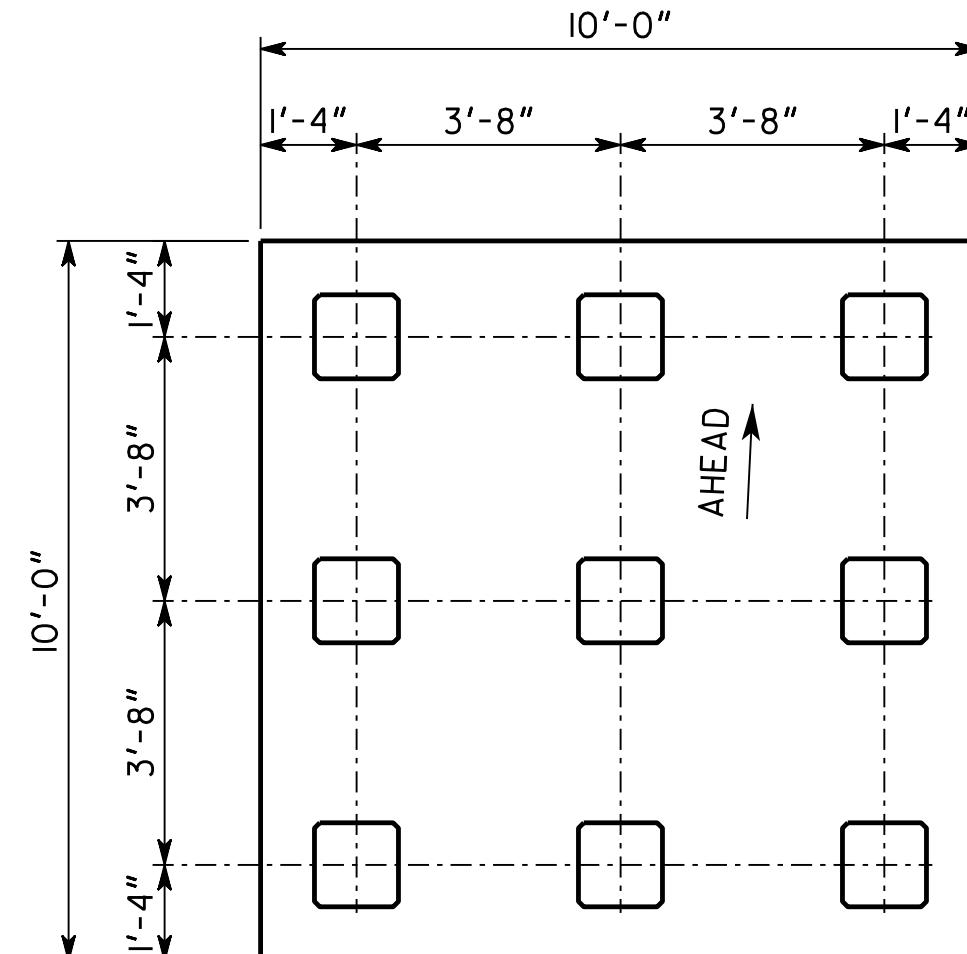


DETAIL "A"

NO SCALE  
\*\* FORM 3" DIAMETER X 12"  
DEEP HOLE FOR DOWEL BAR.



SECTION A-A



## PILE LAYOUT

THE PILES ARE DESIGNED FOR A MAXIMUM FACTORED LOAD OF 203 KIPS.

ALL PILES SHALL BE 14 IN. SQUARE PSC FOR ALTERNATE 1 (SHOWN) OR 14 IN. O.D. METAL SHELL FOR ALTERNATE 2 (SIMILAR).

## PLAN DRIVING OBJECTIVE (ALT B)

---

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 326 KIPS  
AFTER A MINIMUM ELEVATION OF 255 IS ACHIEVED.

## PLAN DRIVING OBJECTIVE (ALT 2)

---

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 326 KIPS  
AFTER A MINIMUM ELEVATION OF 24I IS ACHIEVED.

BRIDGE NO. I

FORGIA

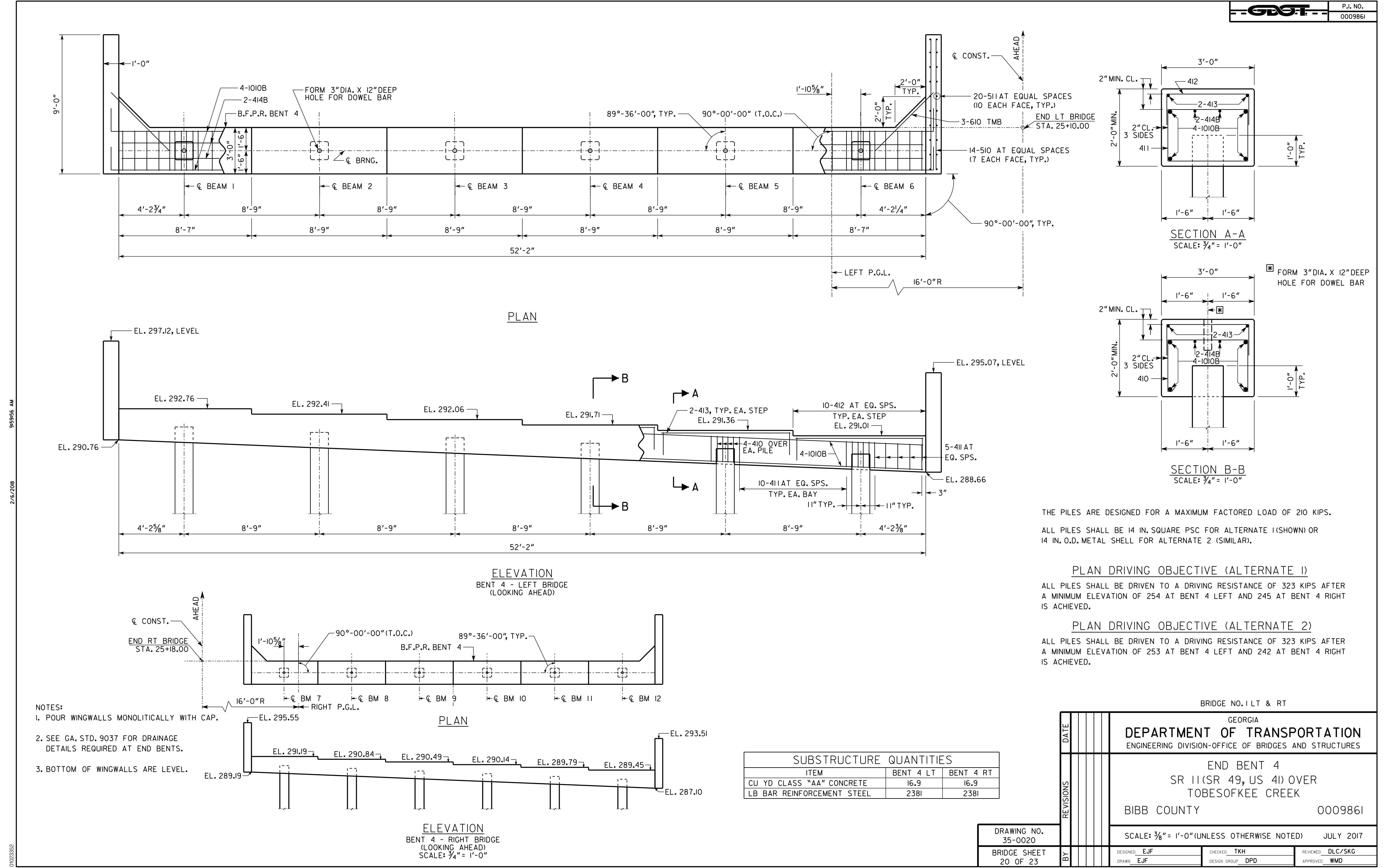
GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

INTERMEDIATE BENT 3 RIGHT  
SR 11(SR 49, US 41) OVER  
TOBESOFEKEE CREEK

BIBB COUNTY

0009861

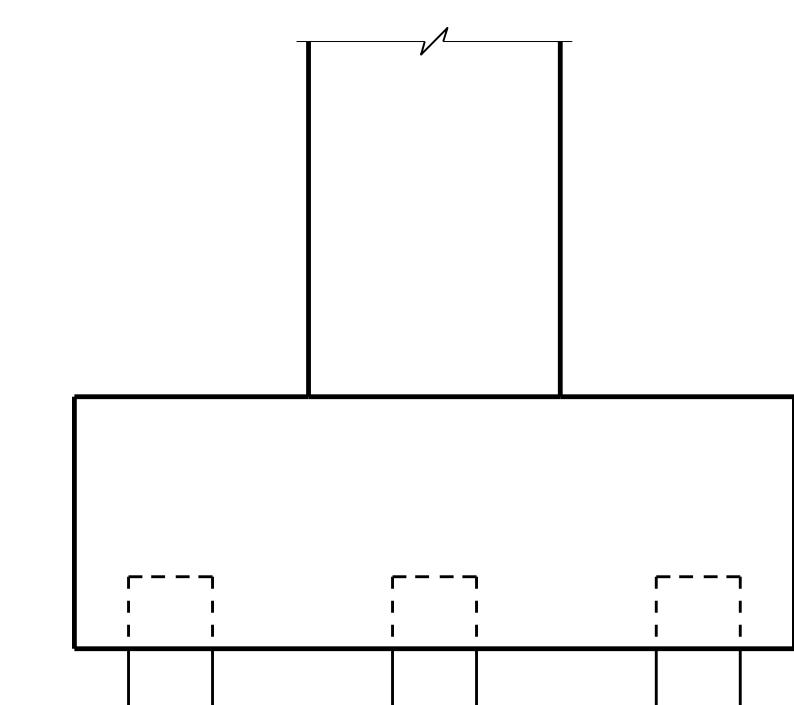
DATE		GEORGIA <b>DEPARTMENT OF TRANSPORTATION</b> ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES
REVISIONS		INTERMEDIATE BENT 3 RIGHT SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK BIBB COUNTY 0009861
		SCALE: $\frac{3}{8}$ " = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017
BY		DESIGNED <u>EJF</u> CHECKED <u>TKH</u> REVIEWED <u>DLC/SKG</u> DRAWN <u>EJF</u> DESIGN GROUP <u>DPD</u> APPROVED <u>WMD</u>



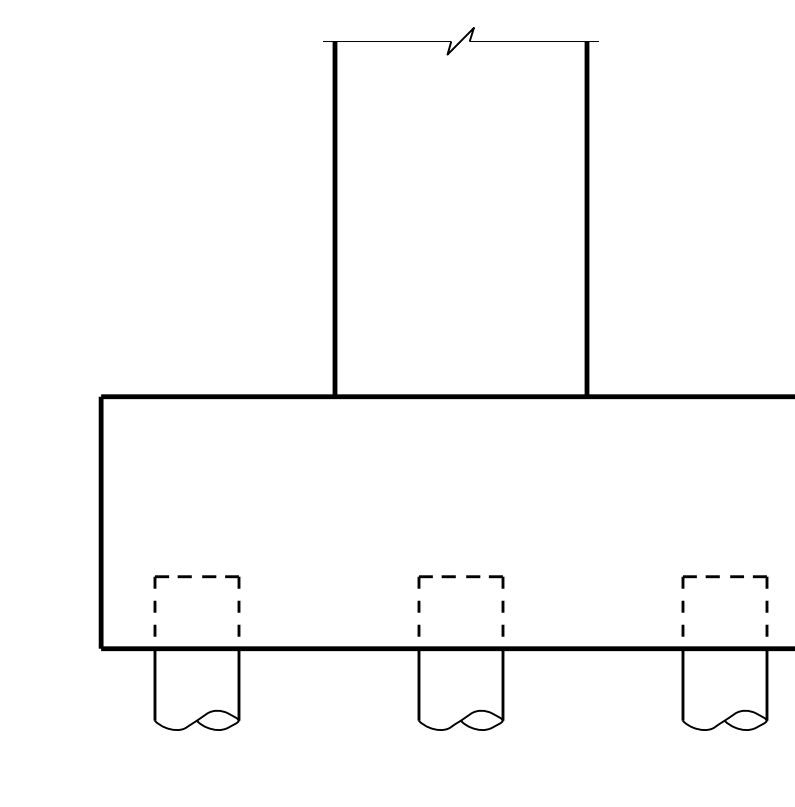
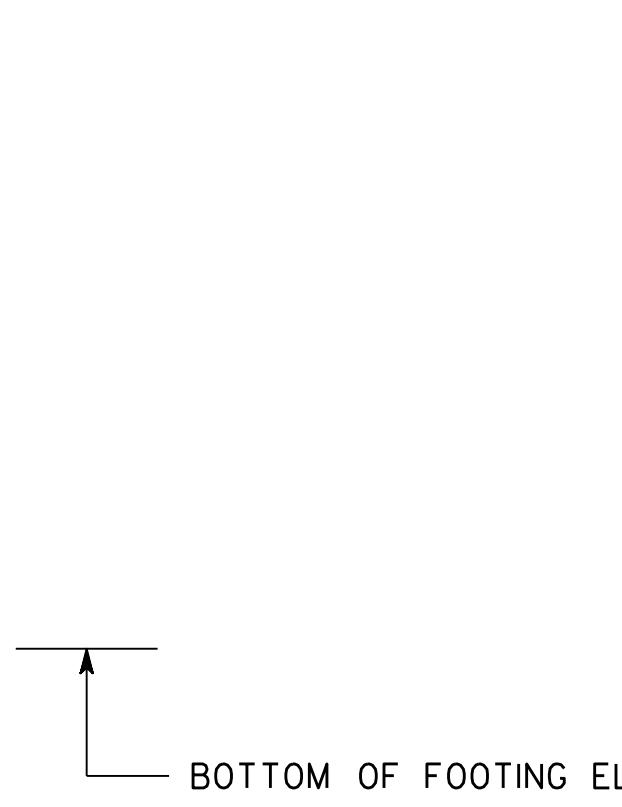
AS BUILT FOUNDATION INFORMATION BRIDGE NO. I LEFT ALT. ( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEV
1	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
4	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		

MARK ALTERNATE SELECTED		
ALT. 1	PSC PILES	
ALT. 2	METAL SHELL PILES	

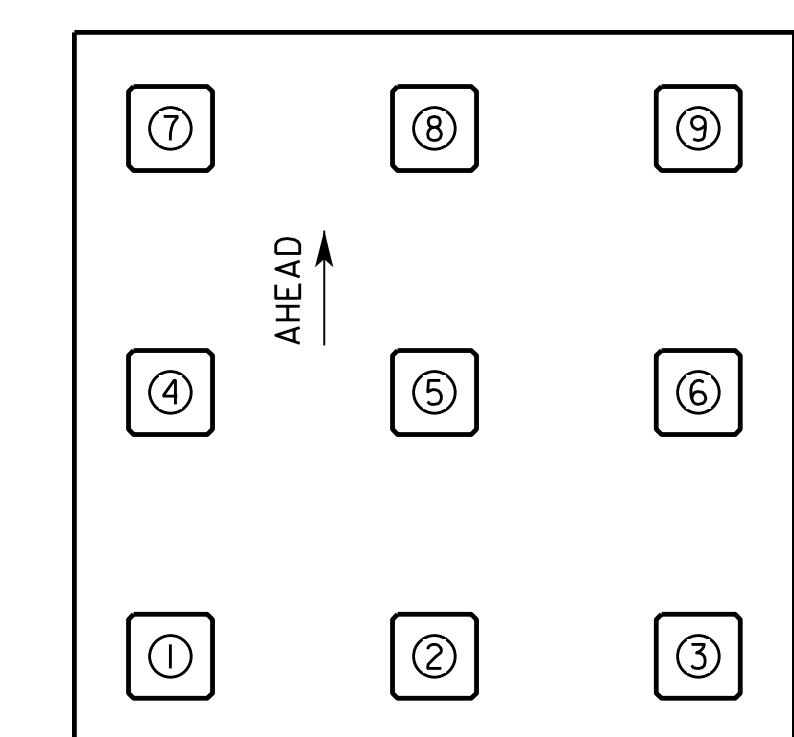
AS BUILT FOUNDATION INFORMATION BRIDGE NO. I RIGHT ALT. ( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEV
1	BEAM 7		
	BEAM 8		
	BEAM 9		
	BEAM 10		
	BEAM 11		
	BEAM 12		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
4	BEAM 7		
	BEAM 8		
	BEAM 9		
	BEAM 10		
	BEAM 11		
	BEAM 12		



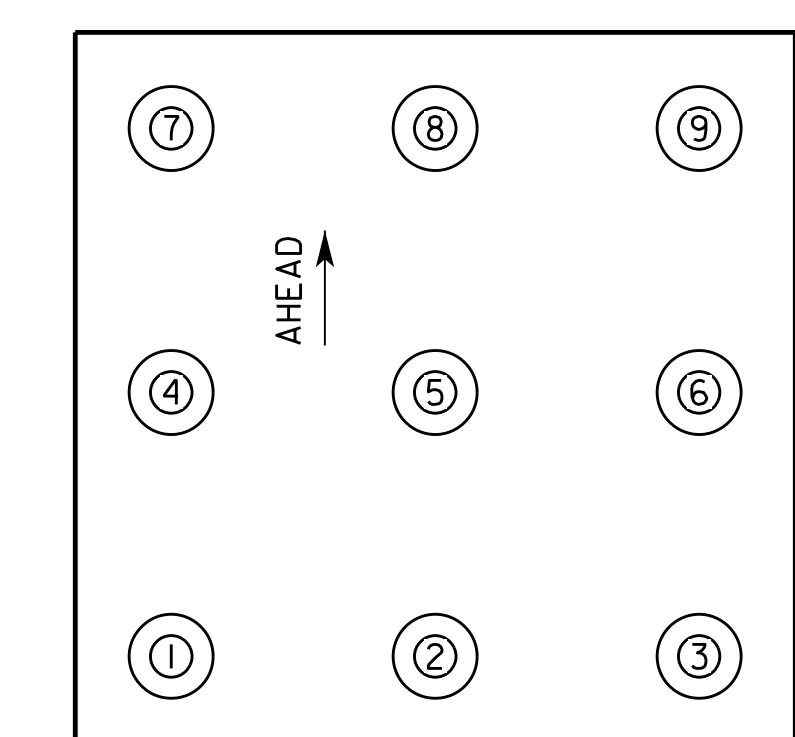
TYPICAL FOOTING ELEVATION  
(ALTERNATE 1)



TYPICAL FOOTING ELEVATION  
(ALTERNATE 1)



PILE LAYOUT  
(ALTERNATE 1)



PILE LAYOUT  
(ALTERNATE 2)

THIS "AS BUILT FOUNDATION INFORMATION" SHEET SHALL BE FILLED IN BY THE PROJECT ENGINEER AND FORWARDED TO THE BRIDGE OFFICE AFTER INSTALLATION OF ALL PILES AND FOOTINGS FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER

DATE

(AREA CODE) TELEPHONE NUMBER  
BRIDGE NO. I LT & RT

GEORGIA	
<b>DEPARTMENT OF TRANSPORTATION</b>	
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES	
AS BUILT FOUNDATION DATA	
SR 11(SR 49, US 41) OVER	
TOBESOFKEE CREEK	
BIBB COUNTY 0009861	
DRAWING NO. 35-0021	NO SCALE
BRIDGE SHEET 21 OF 23	JULY 2017
BY	REVISIONS
DESIGNED EJF DRAWN EJF	CHECKED TKH DRAWN EJF
DESIGN GROUP DPD	APPROVED DLC/SKG WMD

1 INCH WHEN PRINTED FULL SIZE



**GDT** P.I. NO.  
0009861

P.I. NO.  
0009861

CE NO HT ^ DT

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE OF BRIDGES AND STRUCTURES

R REINFORCEMENT SCHEDULE  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK

## BB COUNTY

0009861

DRAWING NO.  
35-0023  
RIDGE SHEET  
23 OF 23  
BY

L INCH WHEN P

## SCALE

JULY 2017

EJF

**DLC/SKG**

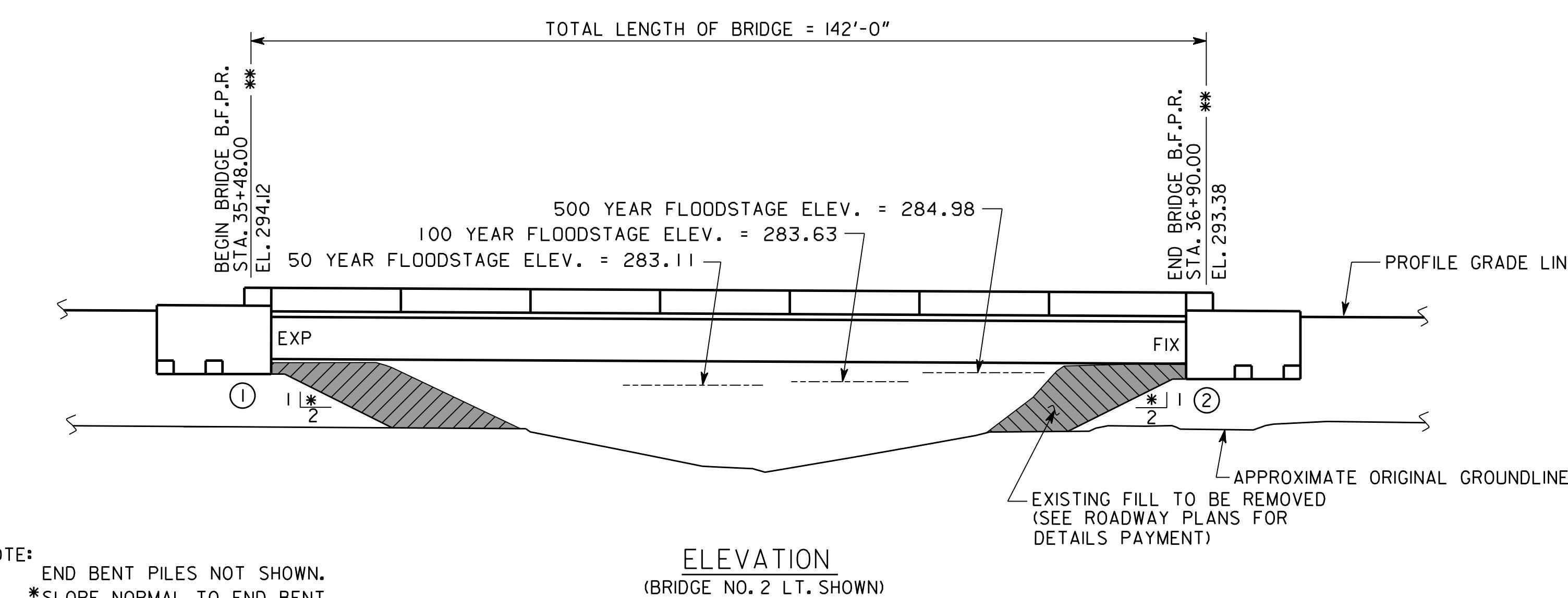
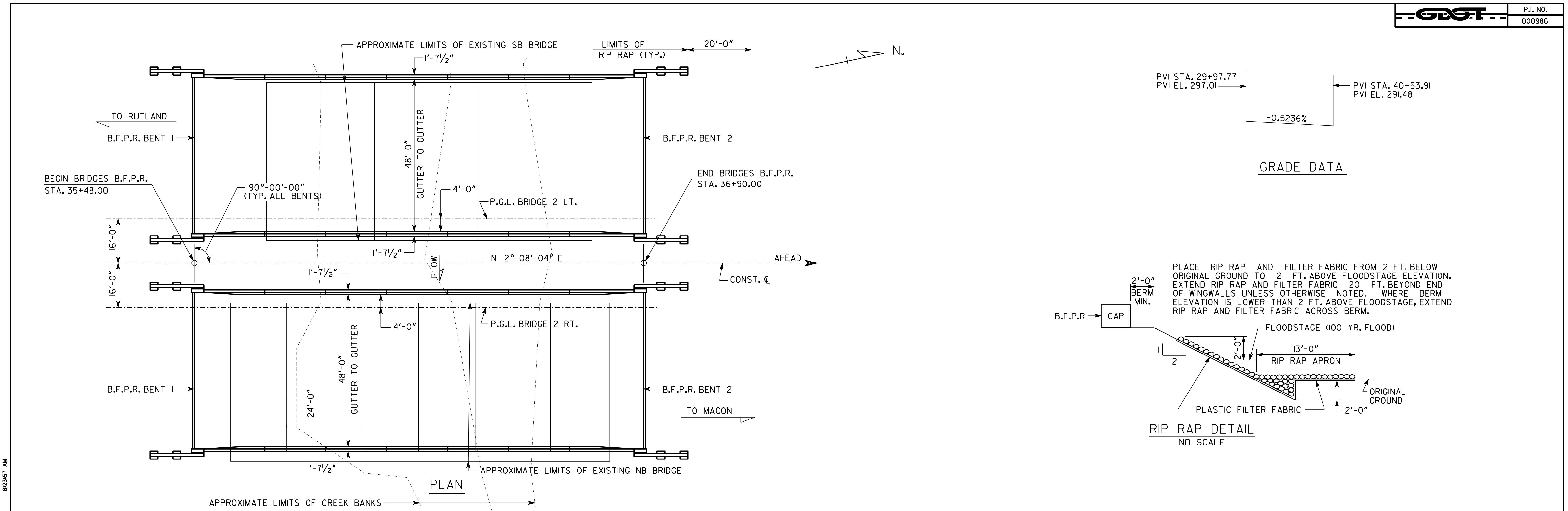
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8:23:57 AM  
2/6/2018  
0023352

EXISTING BRIDGE NO. 2 LT. EXISTING BRIDGE NO. 2 RT.  
BRIDGE SERIAL NO. 021-0004-0 BRIDGE SERIAL NO. 021-0003-0  
BRIDGE ID NO. 021-0001ID-006.70N BRIDGE ID NO. 021-0001ID-006.69N  
PROJECT PI NO. 000986I

BRIDGE NO. 2 LT &amp; RT

DATE	REVISIONS	BY	DESIGNED ASA	CHECKED LOL	REVIEWED DLC/SKG
DRAWING NO. 35-0024	BRIDGE SHEET 1 OF 11	BY WMC	DRAWN WMC	Design Group DPD	Approved WMD

SCALE: 1" = 15'-0" (UNLESS OTHERWISE NOTED) JULY 2017

009861.dgn

## GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION, AND 2016 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL. MAINTAIN 2" MINIMUM CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

EXISTING BRIDGE PLANS - ORIGINAL BRIDGE PLANS MAY BE OBTAINED ON THE GEORGIA DOT WEBSITE AT:

[HTTP://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH](http://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH)

THE ORIGINAL LEFT BRIDGE PLANS ARE NOT AVAILABLE. THE ORIGINAL LEFT BRIDGE WAS WIDENED UNDER PROJECT NUMBER R.A.B.(4)S.P.1552(15) (PROJECT ID NO. H011688). IT WAS WIDENED A SECOND TIME UNDER PROJECT NUMBER F-002-3(4) (PROJECT ID NO. H000234). THE ORIGINAL RIGHT BRIDGE WAS BUILT UNDER PROJECT NUMBER S.N.F.A.P. 79(2) (PROJECT ID NO. H014237). THE ORIGINAL RIGHT BRIDGE WAS WIDENED UNDER PROJECT NUMBER F-002-3(4) (PROJECT ID NO. H000234).

WAITING PERIOD - NONE REQUIRED.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

STANDARD PLAN MODIFICATION - MODIFY THE APPROACH SLAB STANDARD TO INCREASE THE 3/4" EXPANSION JOINT SHOWN BETWEEN THE APPROACH SLAB AND THE BACK FACE PAVING REST AND END POST TO 1" AT END BENT 1. SEE ROADWAY PLANS FOR APPROACH SLAB PAYMENT.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

HIGH PERFORMANCE CONCRETE (HPC) - PRESTRESSED CONCRETE BEAMS FOR SPAN 1 OF THIS BRIDGE UTILIZE HIGH PERFORMANCE CONCRETE. SPECIAL REQUIREMENTS ARE REQUIRED AS DETAILED IN SPECIAL PROVISION SECTIONS 500 AND 865. HPC BEAMS WILL BE PAID FOR AS \*PSC BEAMS\*.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

BRIDGE REMOVAL - REMOVE EXISTING BRIDGE AS PER SUB-SECTION 540.3.05 OF THE GEORGIA DOT SPECIFICATIONS.

SALVAGE MATERIAL - NO MATERIAL REMOVED FROM THE EXISTING STRUCTURE SHALL BE SALVAGED FOR USE BY THE GEORGIA DOT.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

## GENERAL NOTES (ALTERNATE 1)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED AT EACH TEST PILE AT EACH TEST PILE.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 16 IN SQ PSC X 61 FT AT BRIDGE 2 LEFT BENT 1  
ONE 16 IN SQ PSC X 43 FT AT BRIDGE 2 RIGHT BENT 2

## GENERAL NOTES (ALTERNATE 2)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED FOR ONE PILE AT BENTS 1 LT, 2 RT.

METAL SHELL PILES - USE A MINIMUM SHELL THICKNESS OF 5/16" FOR PILES HAVING AN OUTSIDE DIAMETER OF 16". USE THIS SHELL THICKNESSES IN LIEU OF THOSE CALLED FOR IN SUB-SECTION 520.3.05.M AND SUB-SECTION 855.2.01.A.1 OF THE GEORGIA DOT SPECIFICATIONS.

PILE CLOSURE PLATE DETAIL - USE CLOSURE PLATE OPTION 2 AT THIS SITE IN ACCORDANCE WITH SUB-SECTION 520.3.05.M OF THE GEORGIA DOT SPECIFICATIONS.

## EACH BRIDGE CONSISTS OF

1 - 142'-0" BULB TEE, 74 IN, PSC BEAM SPAN ----- SPECIAL DESIGN

2 - PILE END BENTS ----- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)  
(L = 4'-0"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ----- GA. STD. 3215 (2-22-84)

BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ----- GA. STD. 9037 (9-99)

## DRAINAGE DATA

DRAINAGE AREA ----- 16.7 SQ MILES

FLOOD FREQUENCY	TOTAL DISCHARGE	DISCHARGE THRU BRIDGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER
50 YEAR	15,300 CFS	2,216 CFS	2.59 FPS	855 SQ FT	1.05 FT
100 YEAR	17,300 CFS	2,497 CFS	2.70 FPS	926 SQ FT	1.09 FT
500 YEAR	22,600 CFS	3,173 CFS	2.83 FPS	1,118 SQ FT	1.18 FT

## TRAFFIC DATA

TRAFFIC ----- ADT = 39,600 (2020)  
ADT = 48,350 (2040)

DESIGN SPEED ----- 55 MPH

TRUCKS ----- 9.5 %

24 HR TRUCKS ----- 13 %

DIRECTIONAL ----- 50 %

## UTILITIES

NO UTILITIES ON BRIDGE

## EXISTING UTILITIES



P.I. NO.  
0009861

GAS MAIN ----- ATLANTA GAS LIGHT COMPANY  
FIBER OPTIC ----- GDOT  
18 TELEPHONE CONDUITS ----- AT&T  
WATER MAIN ----- MACON WATER AUTHORITY

**VOID**

## DESIGN DATA

SPECIFICATIONS ----- AASHTO LRFD 7TH EDITION, 2014  
(DESIGNED FOR SEISMIC PERFORMANCE ZONE 2, SDI = 0.170)

DESIGN VEHICLE LIVE LOAD ----- HL-93

FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ----- CLASS D,  $f'_c$  = 4,000 PSI  
BARRIER ----- CLASS D,  $f'_c$  = 4,000 PSI  
PSC BEAMS ----- CLASS AAA,  $f'_c$  = 9000 PSI  
PSC BEAM ALLOWABLE TENSION ----- 569 PSI  
SUBSTRUCTURE ----- CLASS A,  $f'_c$  = 3,000 PSI

REINFORCEMENT STEEL: ----- GRADE 60,  $f_s$  = 60,000 PSI

PRETENSIONING STRANDS: -----  $f_s$  = 270,000 PSI

METAL SHELL PILES (ALT. 2): ----- GRADE 3,  $f_s$  = 45,000 PSI

BRIDGE NO. 2 LT & RT

DATE				
REVISIONS				
GEORGIA				
DEPARTMENT OF TRANSPORTATION				
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES				
GENERAL NOTES				
SR 11(SR 49, US 41) OVER				
TOBESOFKEE CREEK OVERFLOW				
BIBB COUNTY 0009861				
NO SCALE JULY 2017				
DRAWING NO. 35-0025				
BRIDGE SHEET 2 OF 11		BY	DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD
			APPROVED WMD	REVIEWED DLC/SKG

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SUMMARY OF QUANTITIES

PAY ITEM NUMBER	QUANTITIES				PAY ITEM
	LEFT BRIDGE	RIGHT BRIDGE	UNIT		
500-0100	726	726	SY	GROOVED CONCRETE	
500-1011	LUMP	----	LS	SUPERSTR CONCRETE, CL D, BR NO - 2 LT (258)	
500-1011	----	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 2 RT (258)	
500-2100	272	272	LF	CONCRETE BARRIER	
500-3102	60	60	CY	CLASS A CONCRETE	
507-9033	842	----	LF	PSC BEAMS, AASHTO, BULB TEE, 74 IN, BR NO - 2 LT	
507-9033	----	842	LF	PSC BEAMS, AASHTO, BULB TEE, 74 IN, BR NO - 2 RT	
511-1000	7312	7312	LB	BAR REINF STEEL	
511-3000	LUMP	----	LS	SUPERSTR REINF STEEL, BR NO - 2 LT (58516)	
511-3000	----	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 2 RT (58516)	
523-1100	I	I	EA	DYNAMIC PILE TEST	
540-1102	LUMP	----	LS	REMOVAL OF EXISTING BR, STA NO - 2 LT	
540-1102	----	LUMP	LS	REMOVAL OF EXISTING BR, STA NO - 2 RT	
603-2024	1673	1673	SY	STD DUMPED RIP RAP, TP I, 24 IN	
603-7000	1673	1673	SY	PLASTIC FILTER FABRIC	

ALTERNATE 1 QUANTITIES

PAY ITEM NUMBER	QUANTITIES				PAY ITEM
	LEFT BRIDGE	RIGHT BRIDGE	UNIT		
520-2216	1650	1155	LF	PILE IN PLACE, PSC, 16 IN SQ	
520-3216	I	I	EA	TEST PILE, PSC, 16 IN SQ	
520-4216	I	I	EA	LOAD TEST, PSC, 16 IN SQ (IF REQD)	

ALTERNATE 2 QUANTITIES

PAY ITEM NUMBER	QUANTITIES				PAY ITEM
	LEFT BRIDGE	RIGHT BRIDGE	UNIT		
520-1316	1930	1530	LF	PILE IN PLACE, METAL SHELL, 16 IN OD	
520-4316	I	I	EA	LOAD TEST, METAL SHELL, 16 IN OD (IF REQD)	

BRIDGE NO. 2 LT & RT

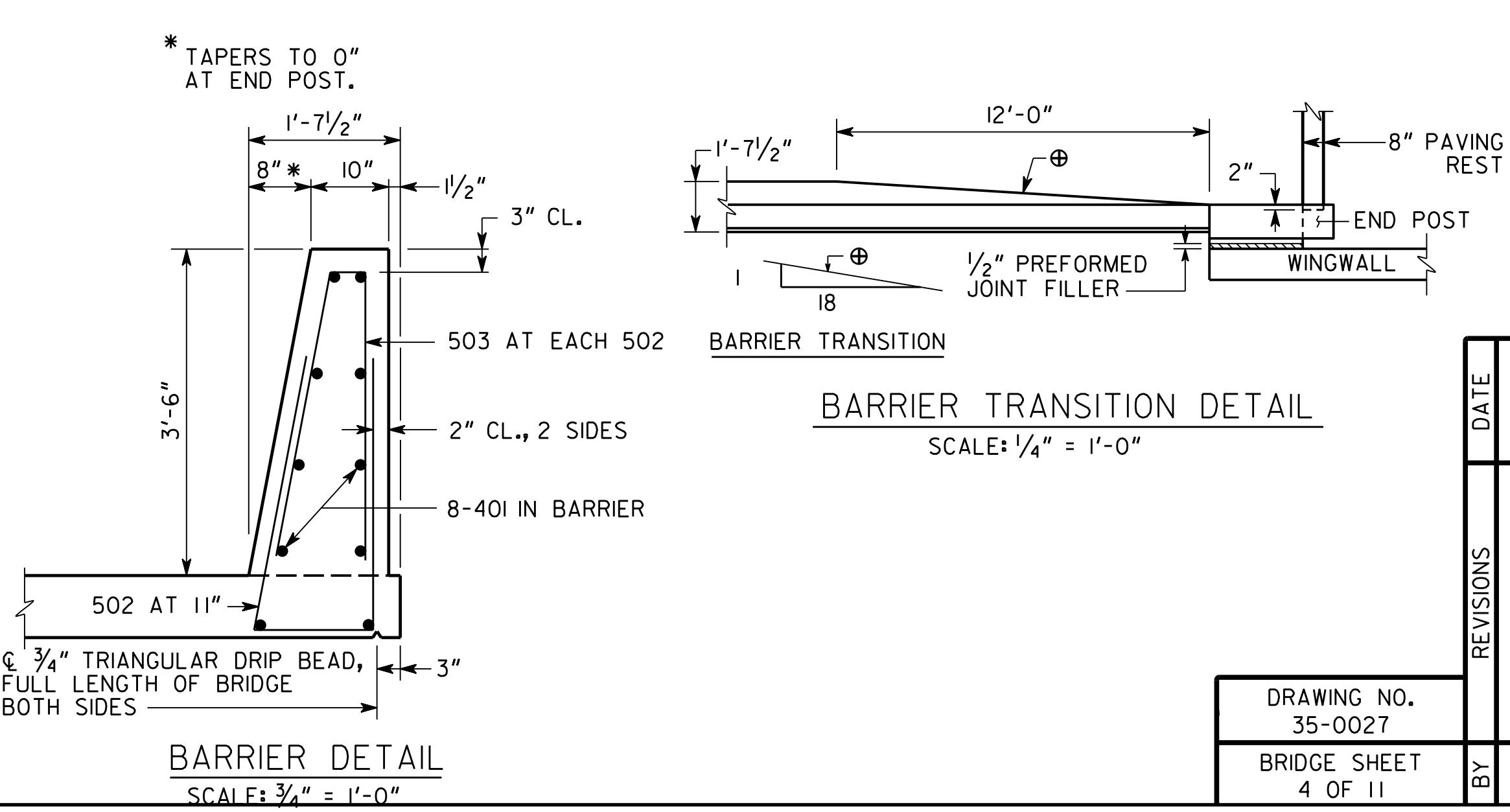
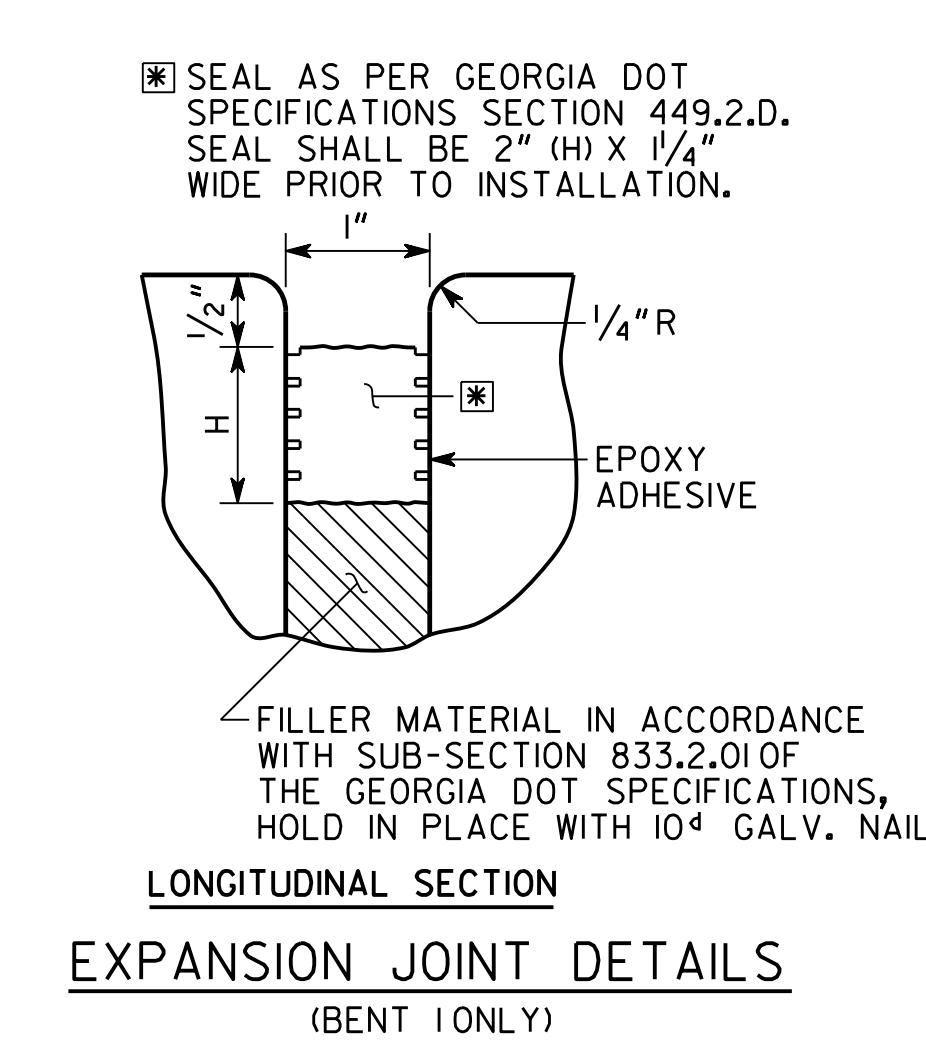
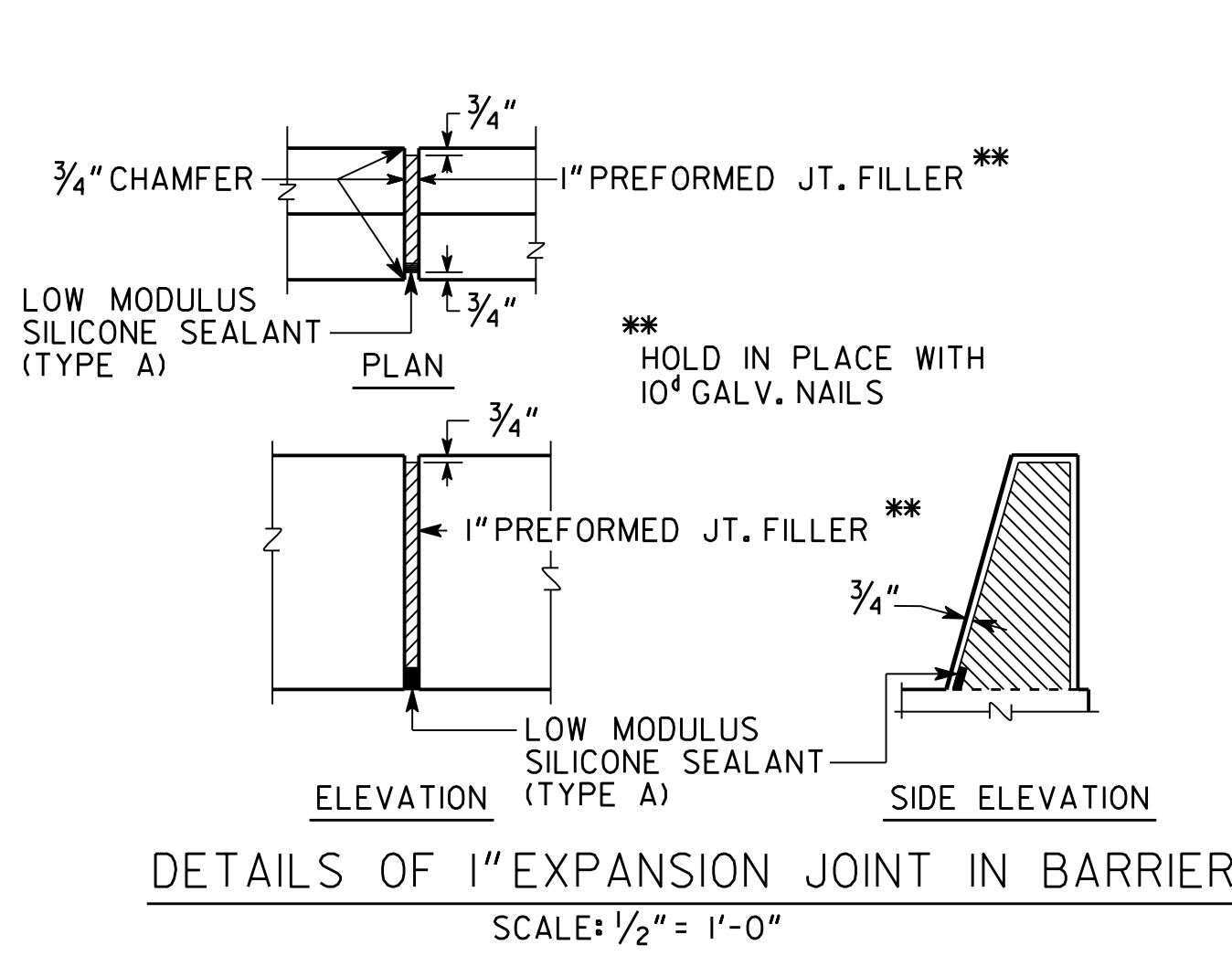
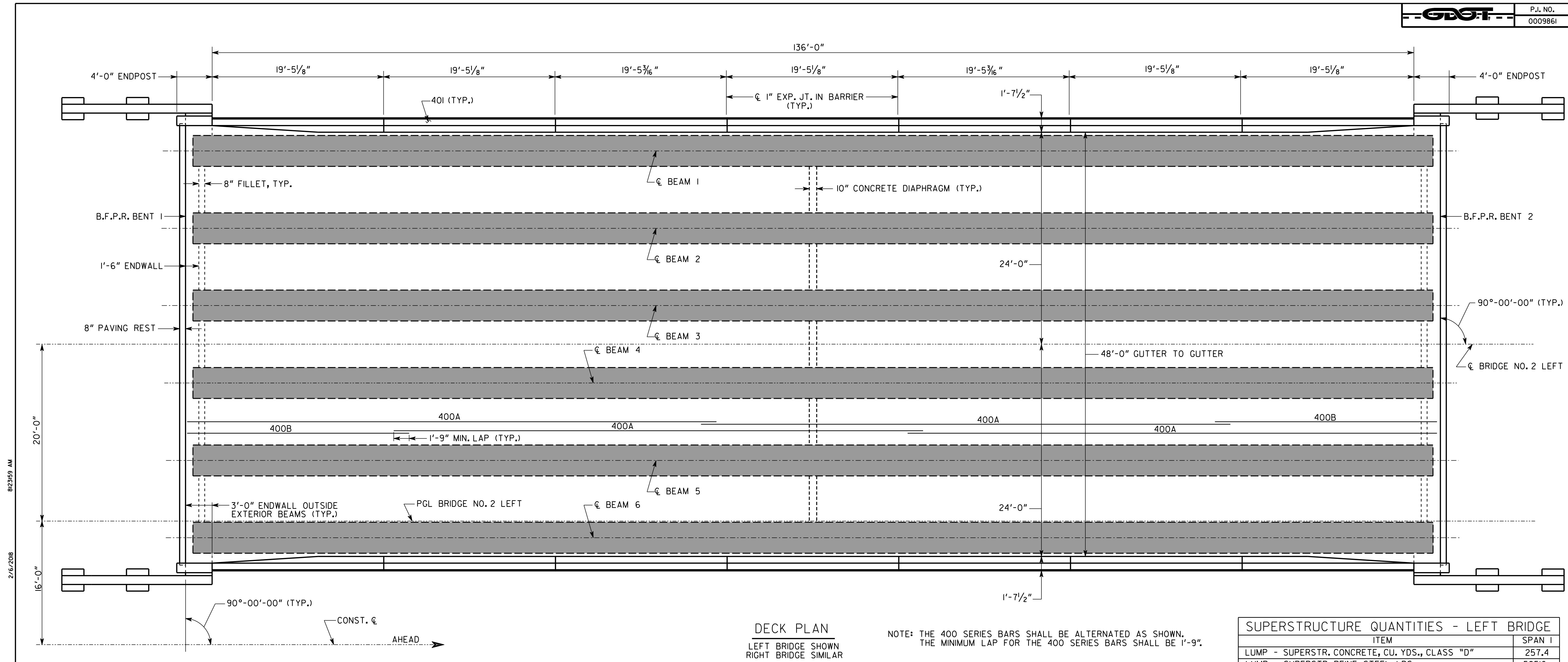
GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK OVERFLOW

BIBB COUNTY 000986I

DRAWING NO. 35-0026	DATE	REVISIONS	NO SCALE	JULY 2017
BRIDGE SHEET 3 OF 11	BY		DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD
			APPROVED WMD	REVIEWED DLC/SKG

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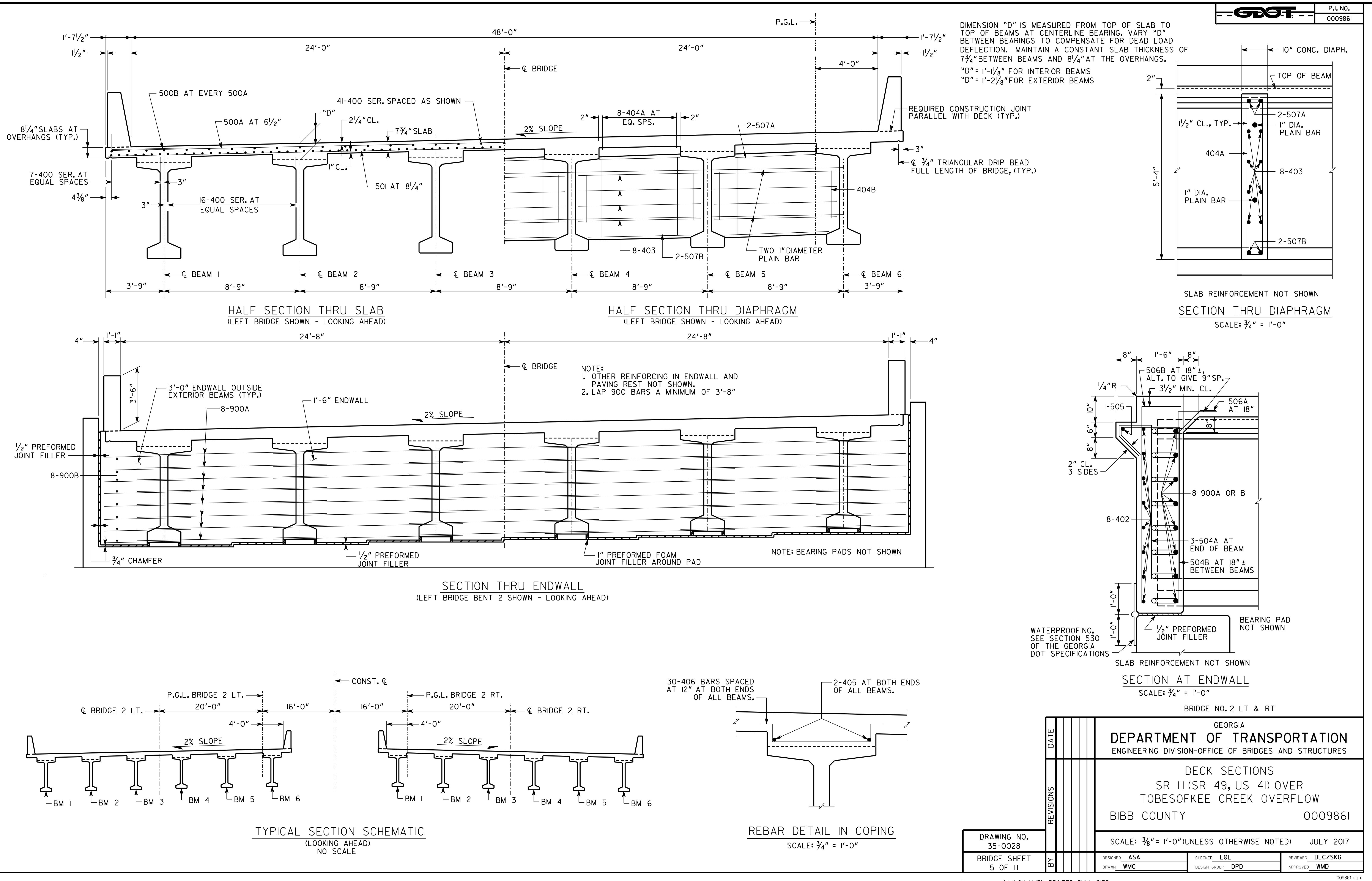
**SUPERSTRUCTURE QUANTITIES - RIGHT BRIDGE**

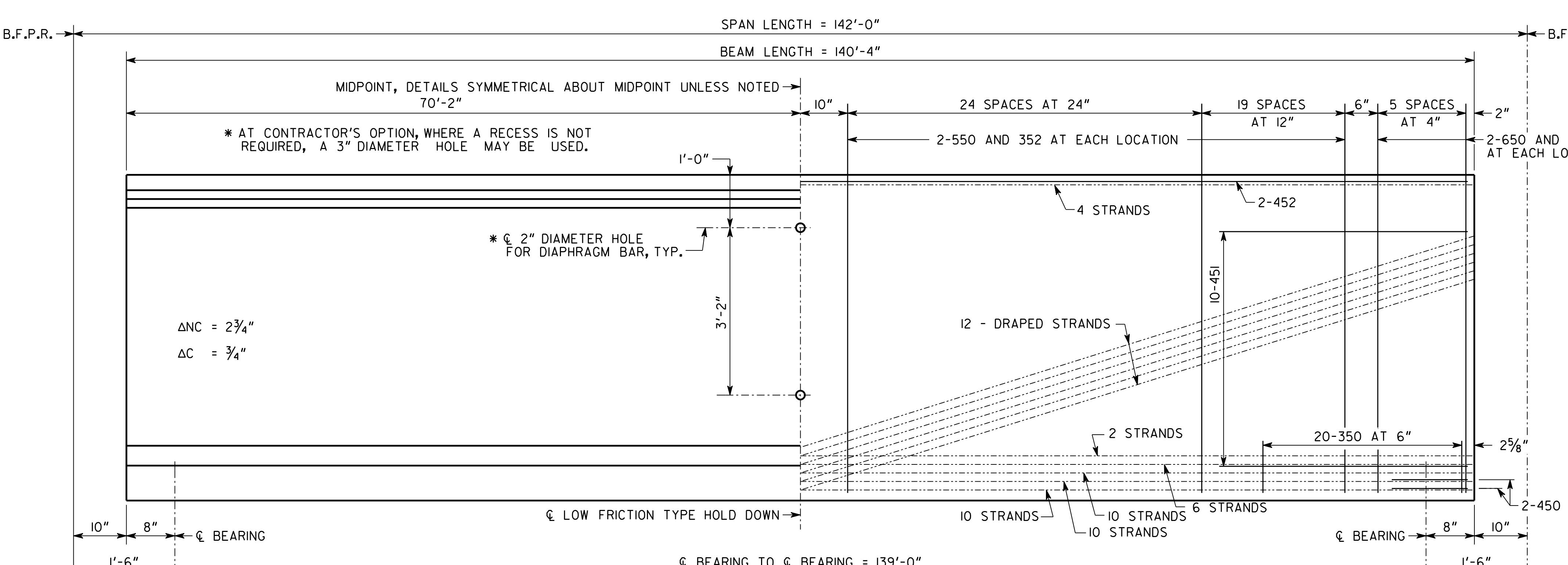
ITEM	SPAN I
LUMP - SUPERSTR. CONCRETE, CU. YDS., CLASS "D"	257.4
LUMP - SUPERSTR. REINF. STEEL, LBS.	58516

END POST CONCRETE AND BAR REINFORCEMENT STEEL INCLUDED IN QUANTITIES.

BRIDGE NO. 2 LT & RT

DATE	REVISIONS	BY
GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES		
SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK OVERFLOW		
BIBB COUNTY 000986I		
SCALE: 3/16" = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017		
DRAWING NO. 35-0027	DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD
BRIDGE SHEET 4 OF 11	REVIEWED DLC/SKG APPROVED WMD	009861.dgn

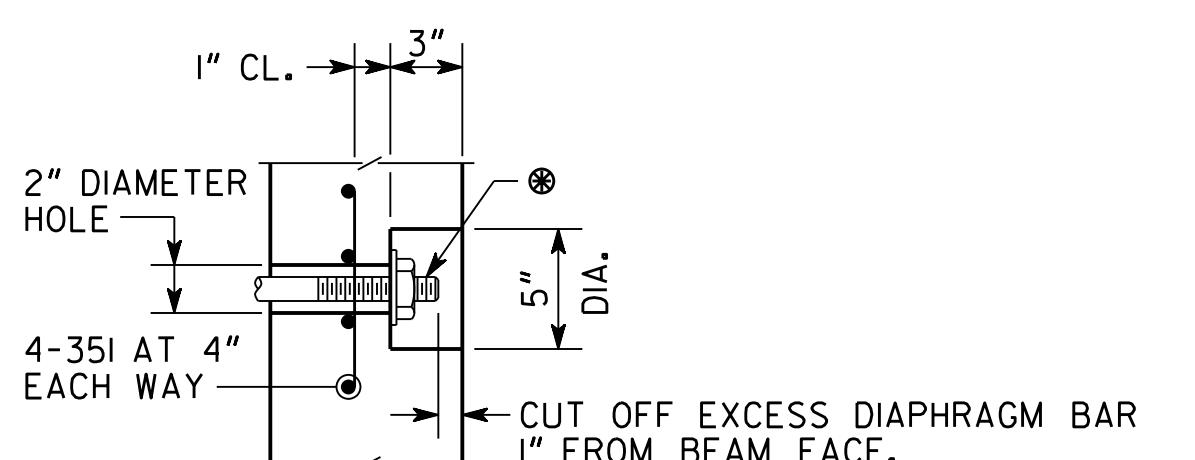




ELEVATION

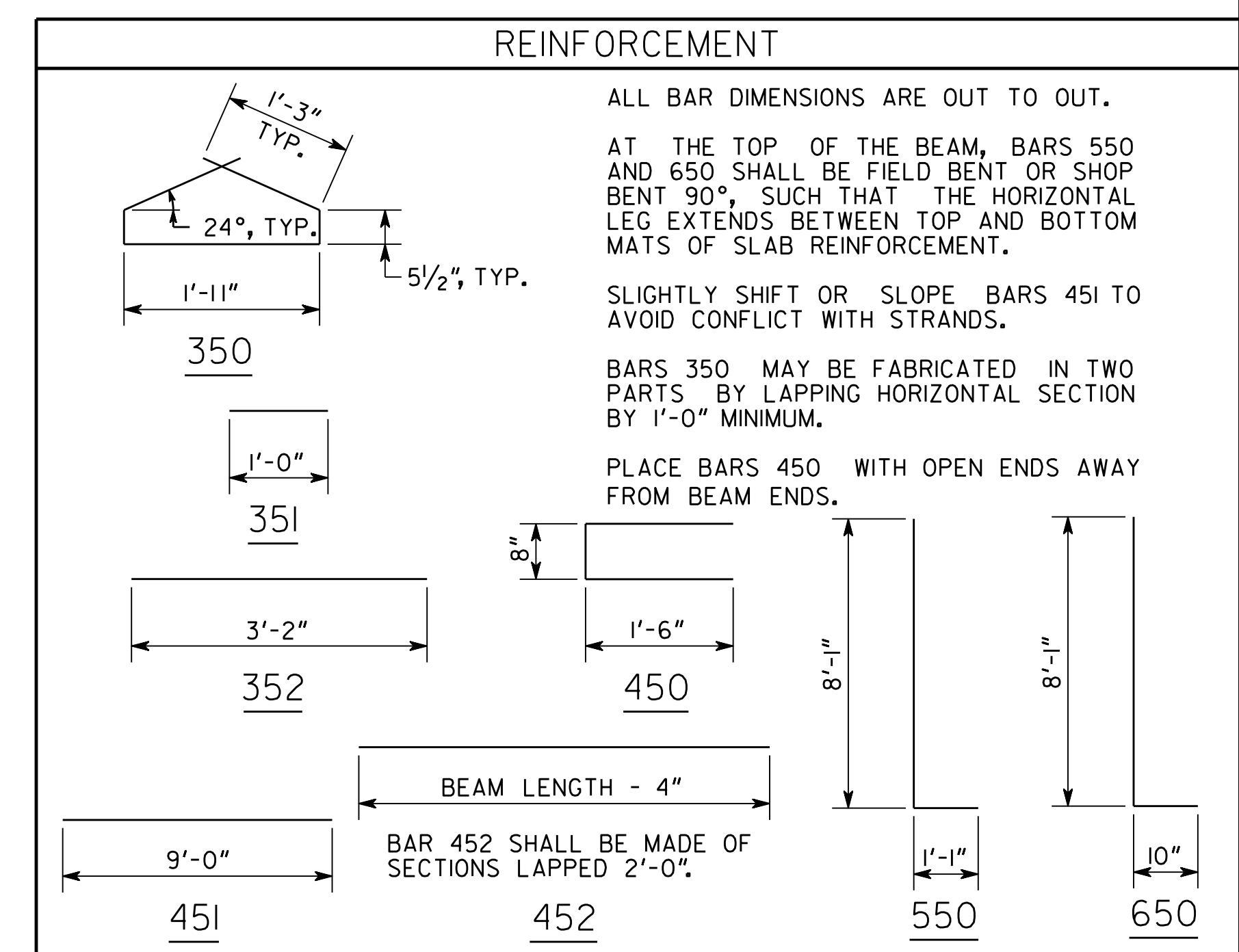
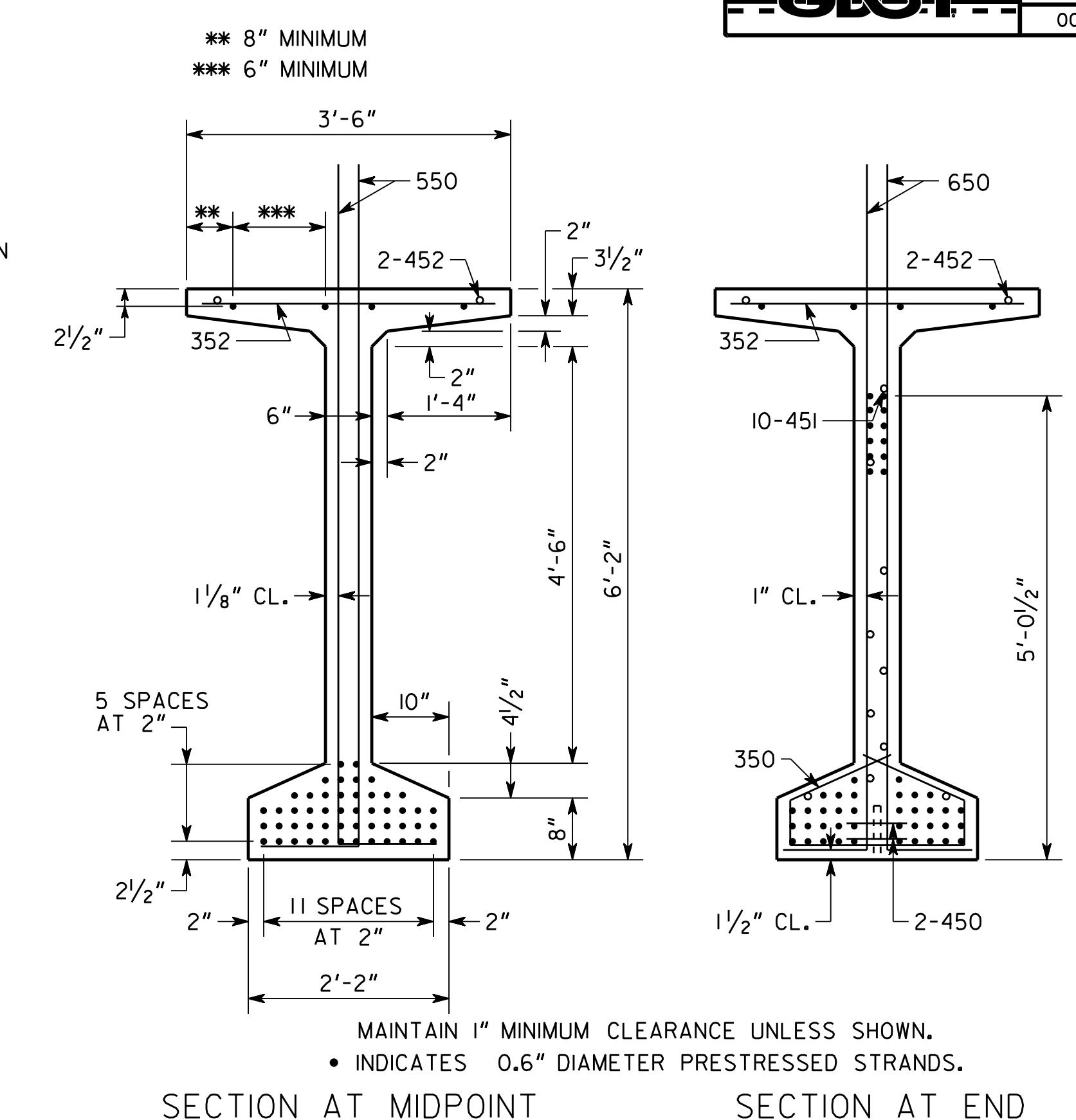
NOTES

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 9'-0" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS  $\frac{1}{2}$ ",  $\frac{3}{4}$ " OR 1".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}$ " EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT 8" BEARING, FORM A  $1\frac{3}{4}$ " DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X  $1\frac{3}{4}$ " X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $1\frac{1}{2}$ " DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}$ ". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta NC$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION ( $\Delta C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
  - A. USE 54 - 0.6" DIAMETER LOW-RELAXATION ( $A = 0.217$  SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
  - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 8,000 PSI.
  - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 2,237,50 LBS.
  - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,705,920 LBS.
10. CONCRETE STRENGTH ( $f'_c$ ) = 9,000 PSI.
11. ALLOWABLE PSC BEAM TENSION = 569 PSI.



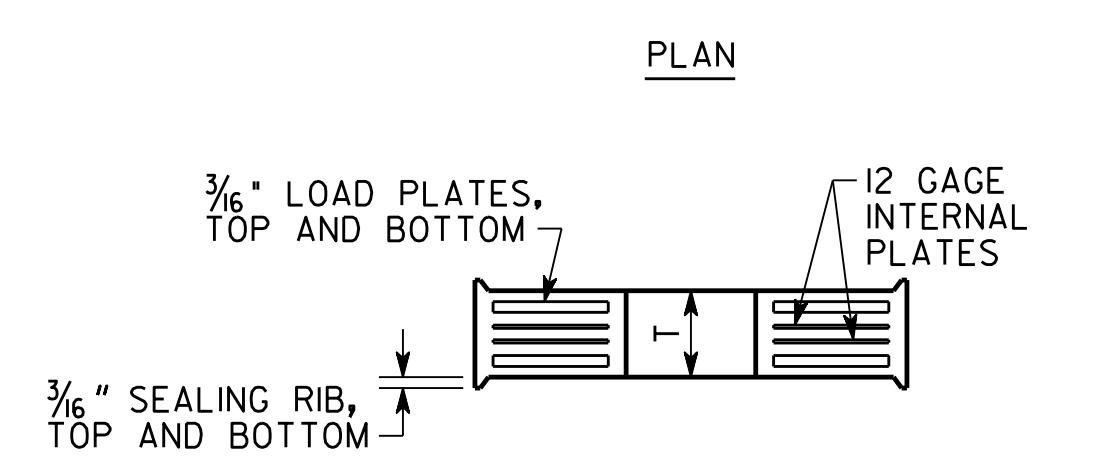
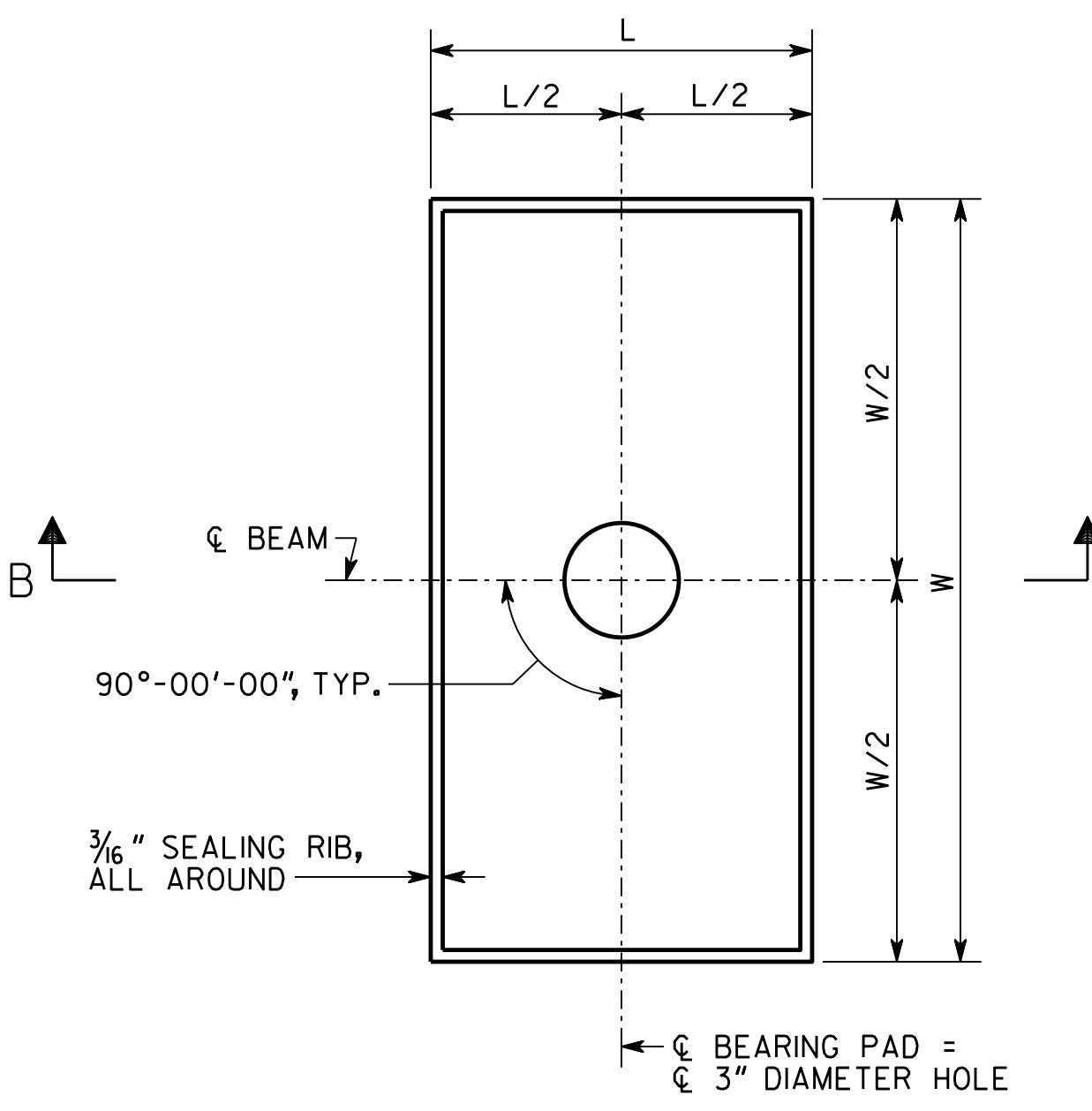
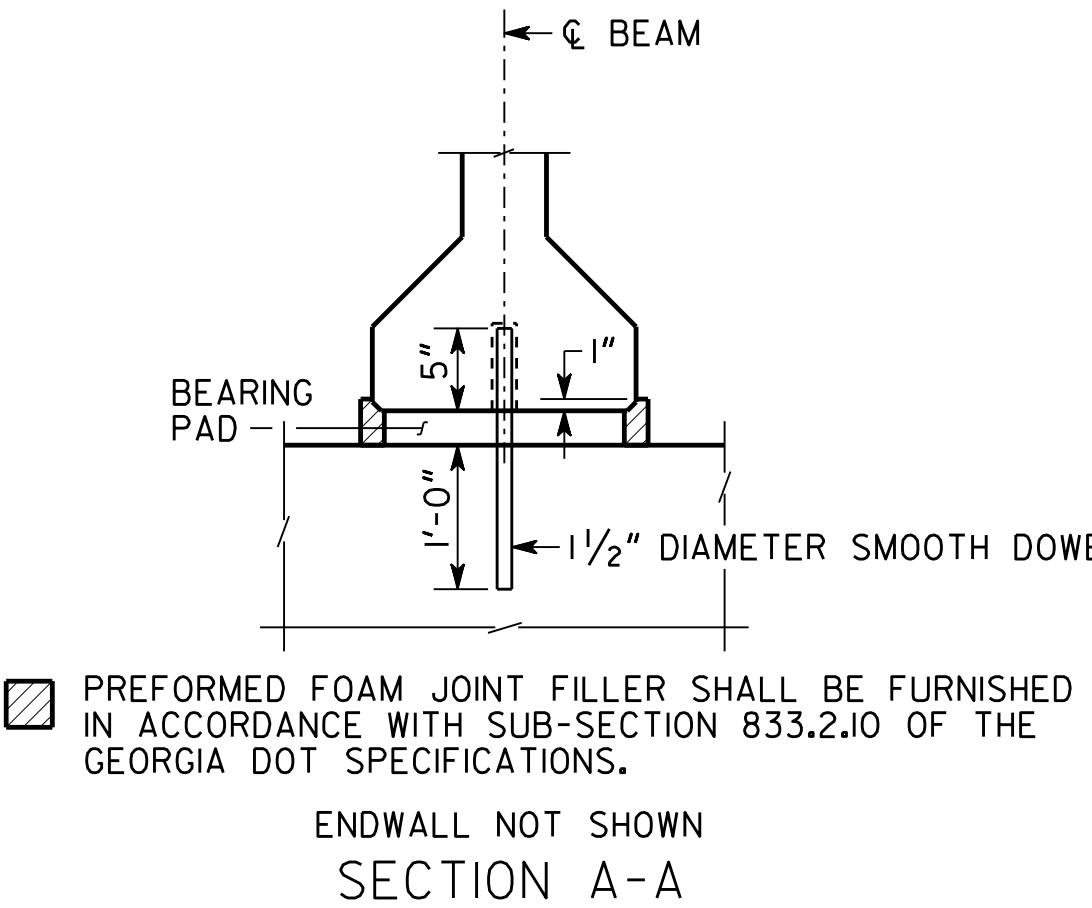
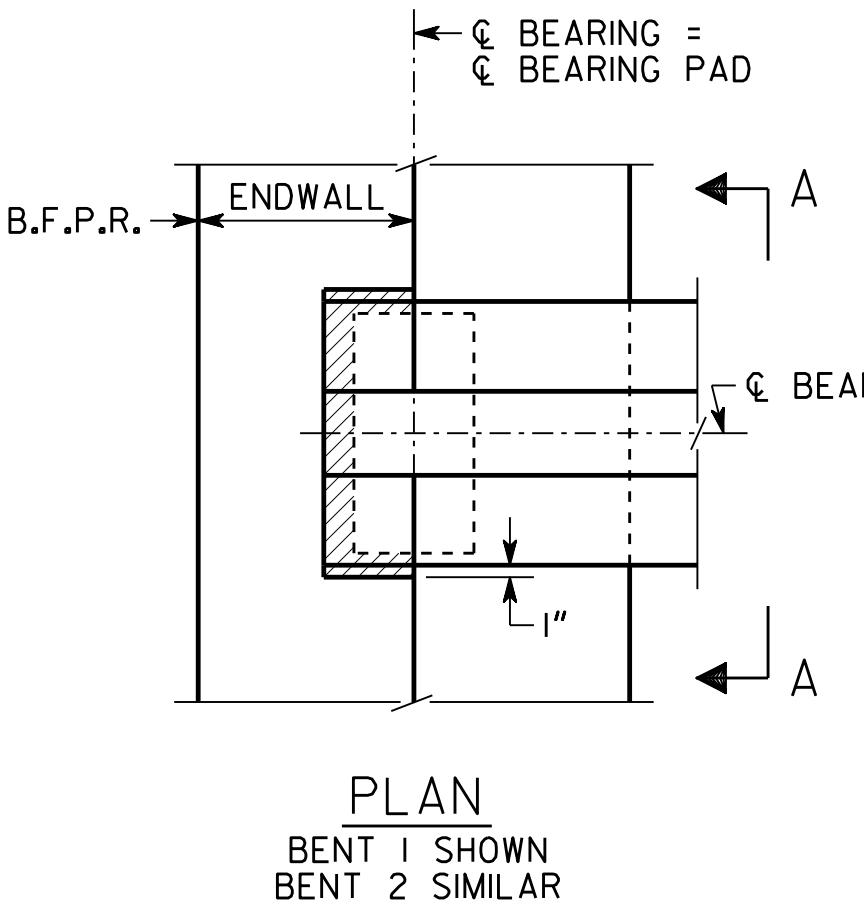
DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH 1/4" X 3 1/2" DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36). TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS. AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT. GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.O.B.2 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

RECESS DETAIL FOR DIAPHRAGM BAR ENDS



DATE	GEORGIA		
REVISIONS	DEPARTMENT OF TRANSPORTATION		
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES			
BULB TEE, 74 IN PSC BEAM			
SR 11(SR 49, US 41) OVER			
TOBESOFKEE CREEK OVERFLOW			
BIBB COUNTY 000986I			
NO SCALE JULY 2017			
DRAWING NO. 35-0029		BY	
BRIDGE SHEET 6 OF 11		DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD
		REVIEWED DLC/SKG APPROVED WMD	

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#### NOTES

- 1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 14.7.6 METHOD A AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18, BEARING DEVICES.
- 2) 1 1/2" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.
- 3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.
- 4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.
- 5) BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.
- 6) 3/16" LOAD PLATES, 12 GAUGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A709 GRADE 36 OR ASTM A 1011 GRADE 36.
- 7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.
- 8) USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.

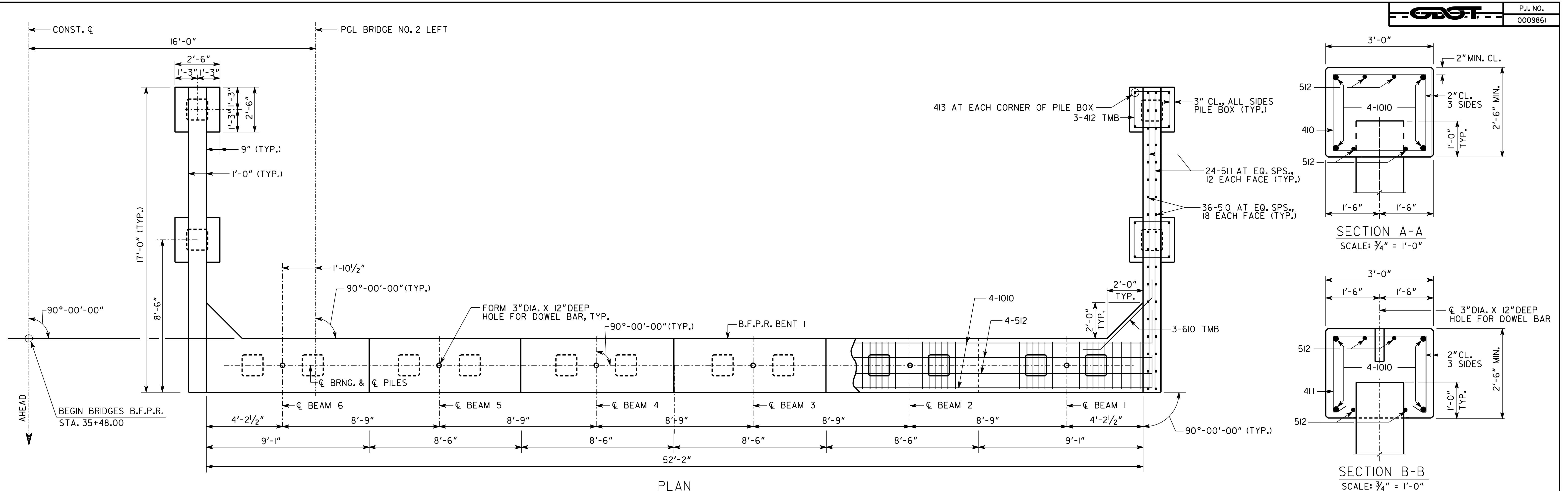
BENT	BEARING PADS							DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	GAGE OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	
1	22"	12"	2 1/4"	2	12	3/16"	170.0	96.8	266.8	
2	22"	12"	2 1/4"	2	12	0"	170.0	96.8	266.8	

BRIDGE NO. 2 LT & RT

DATE	REVISIONS	GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES		
BEARING PAD DETAILS SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK OVERFLOW BIBB COUNTY 0009861				
DRAWING NO. 35-0030	NO SCALE			JULY 2017
BRIDGE SHEET 7 OF 11	BY	DESIGNED ASA DRAWN WMC	CHECKED LOL DRAWN WMC	REVIEWED DLC/SKG DESIGN GROUP DPD APPROVED WMD

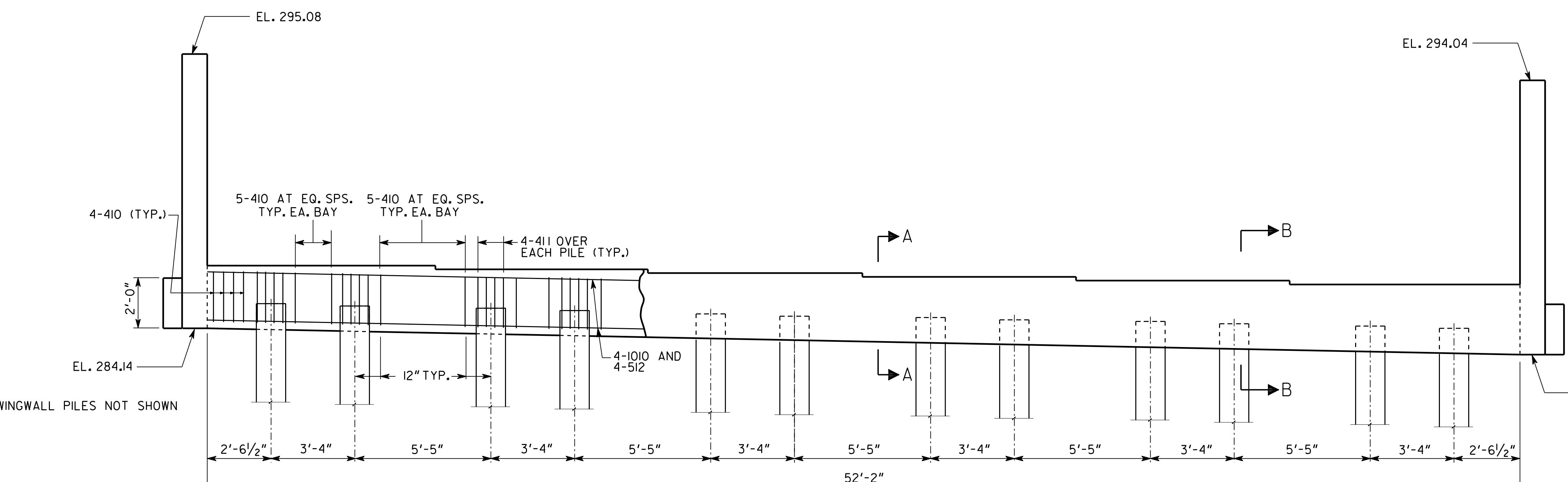
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- NOTE: 1. SEE GA. STD. 9037 FOR DRAINAGE DETAILS REQUIRED AT END BENTS.  
 2. POUR WINGWALLS MONOLITHICALLY WITH CAP.  
 3. WINGWALL PILES NOT SHOWN  
 4. FOR CAP ELEVATIONS AT ALL BENTS, SEE SUBSTRUCTURE LAYOUT SCHEMATIC ON BR. SH. 9.  
 5. RIGHT BRIDGE NOT SHOWN.  
 6. BOTTOM OF WINGWALLS ARE LEVEL.

ELEVATION  
BENT I - LEFT BRIDGE  
(LOOKING BACK)

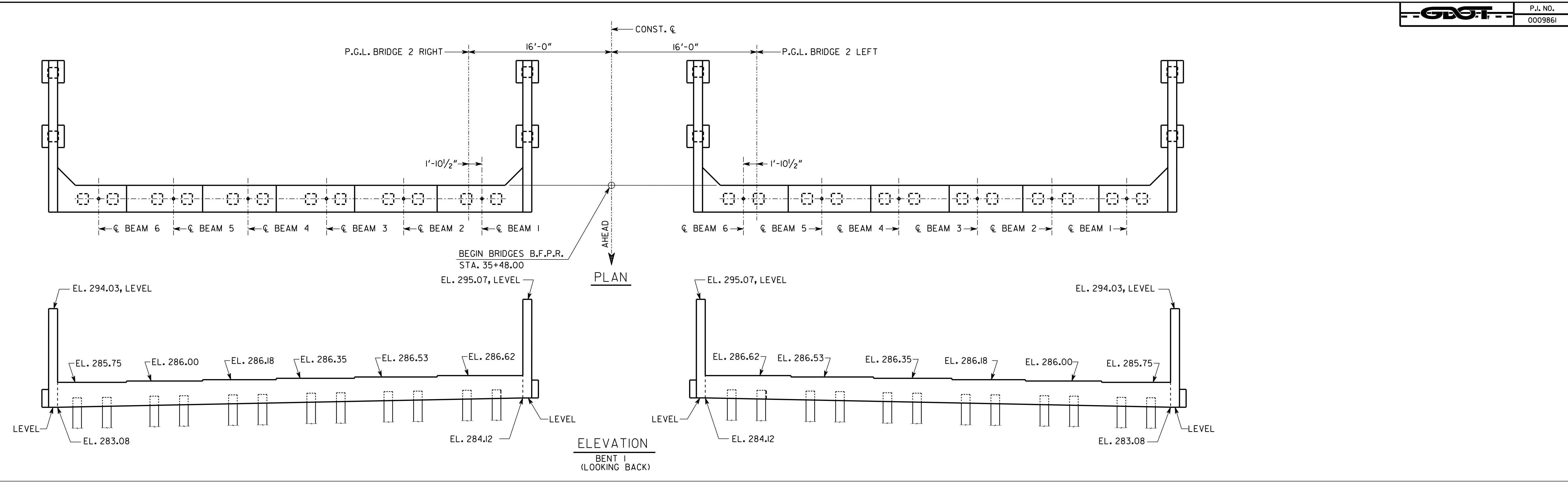
SUBSTRUCTURE QUANTITIES (PER EACH BRIDGE)

ITEM	BENT 1	BENT 2	TOTAL
CU YD CLASS "A" CONCRETE	29.8	29.9	59.7
LB BAR REINFORCEMENT STEEL	3656	3656	7312

DRAWING NO. 35-0031	REVISIONS	DATE	END BENT DETAILS SR 11(SR 49, US 41) OVER TOBESOFKEE CREEK OVERFLOW BIBB COUNTY
BRIDGE SHEET 8 OF 11	BY	DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD
		APPROVED WMD	REVIEWED DLC/SKG

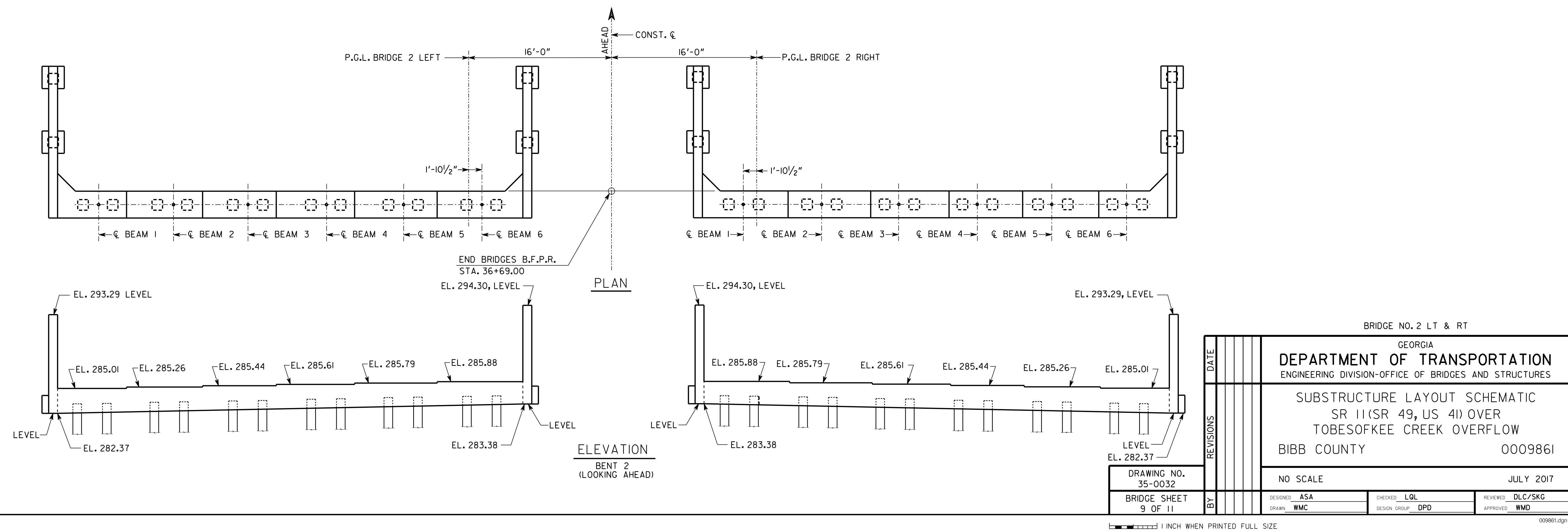
SCALE:  $\frac{3}{8}$ " = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017

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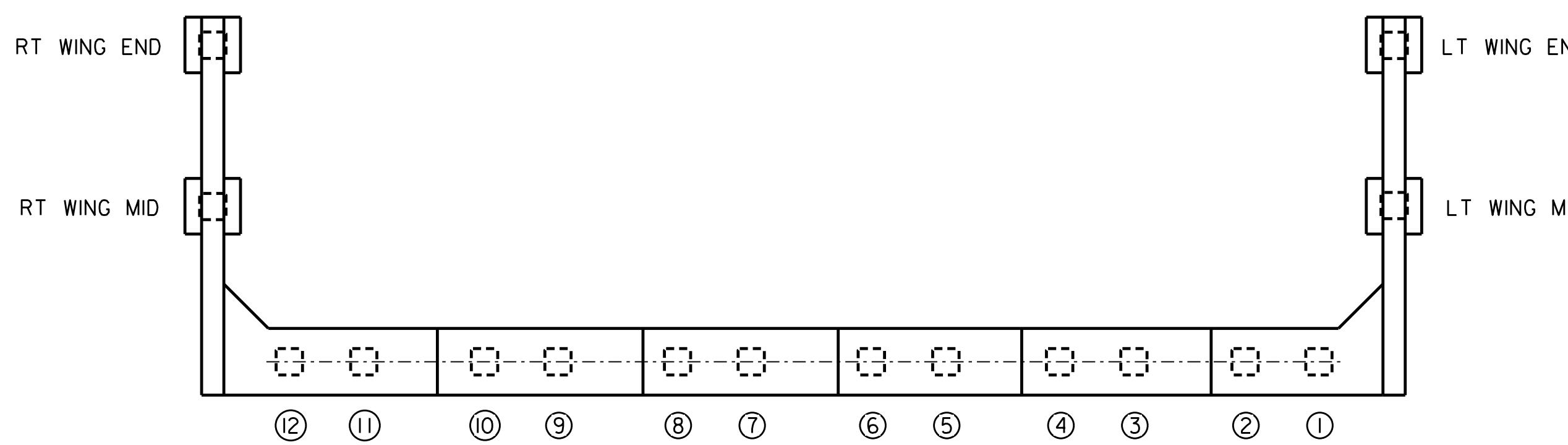
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## PLAN

BENT 1 LT BRIDGE SHOWN,  
BENT 1 RT AND BENT 2 LT AND RT SIMILAR  
LOOKING BACK

AS BUILT FOUNDATION INFORMATION BRIDGE NO. 2 LEFT ALT. ( )		
BENT	PILE LOCATION	PILE TIP ELEVATION
1	LT WING END	
	LT WING MID	
	PILE 1	
	PILE 2	
	PILE 3	
	PILE 4	
	PILE 5	
	PILE 6	
	PILE 7	
	PILE 8	
	PILE 9	
	PILE 10	
2	PILE 11	
	PILE 12	
	RT WING MID	
	RT WING END	
	LT WING END	
	LT WING MID	
	PILE 1	
	PILE 2	
	PILE 3	
	PILE 4	
	PILE 5	
	PILE 6	
2	PILE 7	
	PILE 8	
	PILE 9	
	PILE 10	
	PILE 11	
	PILE 12	
	RT WING MID	
	RT WING END	

AS BUILT FOUNDATION INFORMATION BRIDGE NO. 2 RIGHT ALT. ( )		
BENT	PILE LOCATION	PILE TIP ELEVATION
1	LT WING END	
	LT WING MID	
	PILE 1	
	PILE 2	
	PILE 3	
	PILE 4	
	PILE 5	
	PILE 6	
	PILE 7	
	PILE 8	
	PILE 9	
	PILE 10	
2	PILE 11	
	PILE 12	
	RT WING MID	
	RT WING END	
	LT WING END	
	LT WING MID	
	PILE 1	
	PILE 2	
	PILE 3	
	PILE 4	
	PILE 5	
	PILE 6	
2	PILE 7	
	PILE 8	
	PILE 9	
	PILE 10	
	PILE 11	
	PILE 12	
	RT WING MID	
	RT WING END	

MARK ALTERNATE SELECTED		
ALT. 1	PSC PILES	
ALT. 2	METAL SHELL PILES	

THIS "AS BUILT FOUNDATION INFORMATION" SHEET SHALL  
BE FILLED IN BY THE PROJECT ENGINEER AND  
FORWARDED TO THE BRIDGE OFFICE AFTER INSTALLATION  
OF ALL PILES FOR POSTING TO THE PLANS AS A  
PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER DATE

(AREA CODE) TELEPHONE NUMBER

BRIDGE NO. 2 LT & RT

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AS BUILT FOUNDATION INFORMATION  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK OVERFLOW  
BIBB COUNTY 000986I

DRAWING NO.	NO SCALE			JULY 2017	
	BY			REVIEWED	
35-0033	DESIGNED ASA	CHECKED LOL	DLC/SKG	APPROVED WMD	REVIEWED DPD
BRIDGE SHEET 10 OF 11	DRAWN WMC	DESIGN GROUP DPD	APPROVED WMD	000986I.dgn	

P.I. NO.  
000986I

LOCATION	NO. OR LOC.	MARK	LENGTH FT. IN.	NO. BARS REQ'D.	T Y P E	AG	B		C		D		E		F		H		J		K		N	θ
							FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.
SPAN I LT OR RT	2																							
	400A	60- 0	270	1																				
	400B	25- 2	135	1																				
	401	19- 0	112	1																				
	402	51- 9	16	1																				
	403	7-11	40	1																				
	404A	12- 1	40	25 4 4	0- 7		5- 1																	
	404B	8- 2	10	25 4 4	0- 7		3- 1 5/8																	
	405	30- 0	24	1																				
	406	5- 5	372	14 4 4	3- 2		0- 6 3/8	0- 8		0- 4 3/8	0- 8													
	500A	52- 4	263	2			50- 8		0-10		0-10													
	500B	7- 4	526	3			6- 5 1/2		0-10		0-10													
	501	50-11	208	1																				
	502	8- 7	308	23			1- 3		3- 8		3- 8													
	503	6- 8	308	23			0- 6		3- 1		3- 1													
	504A	8- 7	36	46			6- 3		1- 1 7/8		0- 3		0- 8		0- 8									
	504B	9- 3	62	46			6- 3		1-10		0- 3		0- 8		0- 8									
	505	49- 4	2	1																				
	506A	3- 4	50	6			1- 1		0-10		0-10		0- 7		0- 7									
	506B	8- 6	140	3			7- 0		1- 6															
	507A	4-11	10	1																				
	507B	6- 7	10	1																				
	900A	12-10	80	16 6 6	3- 7		0- 8		0- 8		3- 8		3- 8											
	900B	6- 1	32	34 6	1- 5 1/2		0- 8		3- 8		0- 8													
ENDBENT LT OR	4																							
	RT																							
	410	10- 5	63	25 4 4	2- 8		2- 2																	
	411	7- 9	48	32 5 5	2- 8		2- 2		2- 2															
	412	9- 5	12	25 4 4	2- 2		2- 2																	
	413	1- 8	16	1																				
	510	10- 7	72	1																				
	511	16- 7	48	1																				
	512	51-10	4	1																				
	610	6- 3	6	2			4- 3		1- 0		1- 0		0- 8 1/2		0- 8 1/2									
	1010	56-10	4	2			53- 2		1-10		1-10													
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BRIDGE NO. 2 LT &amp; RT

GEORGIA

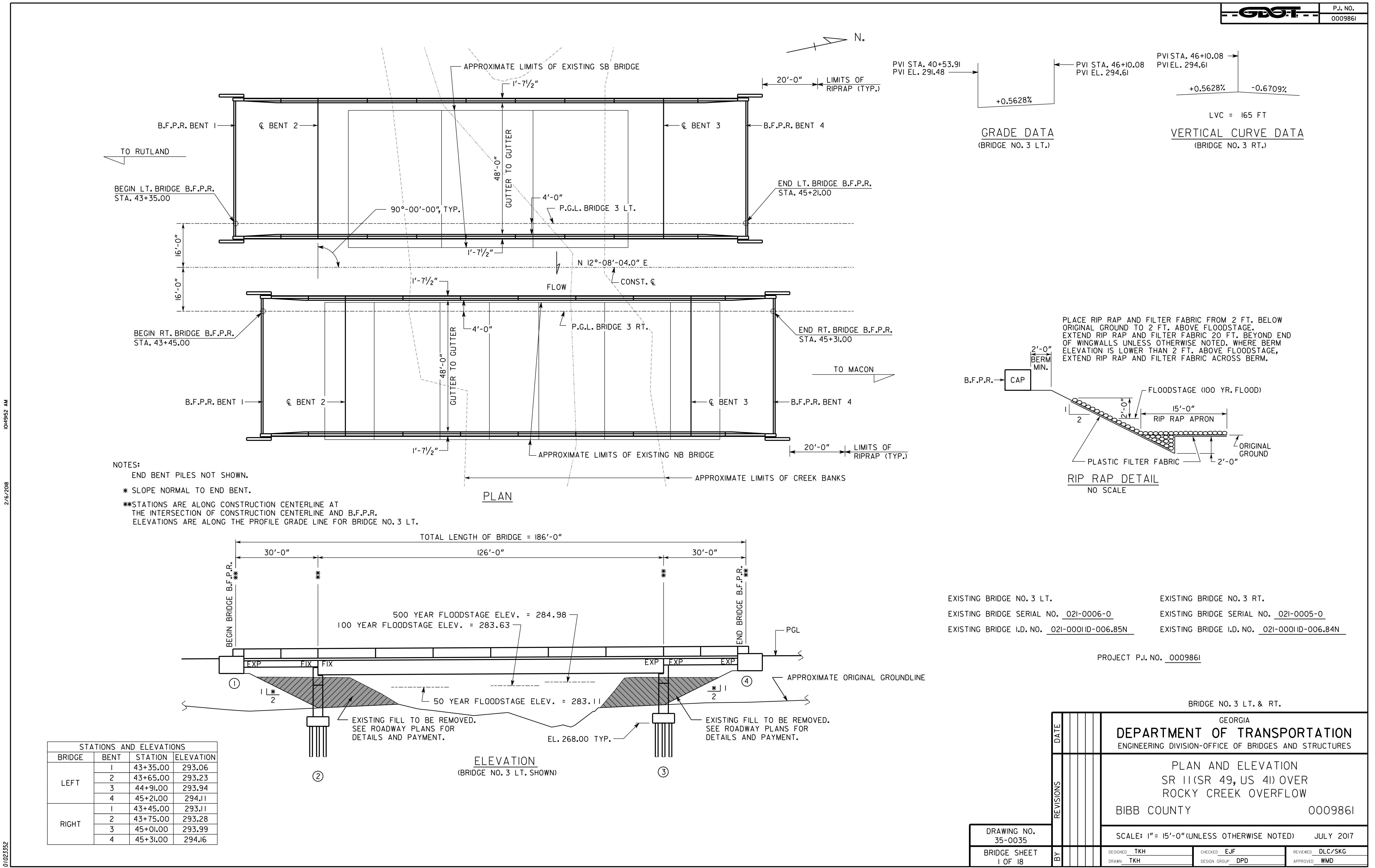
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURESBAR REINFORCING SCHEDULE  
SR 11(SR 49, US 41) OVER  
TOBESOFKEE CREEK OVERFLOW

BIBB COUNTY 000986I

DRAWING NO. 35-0034	REVISIONS	DATE				
BRIDGE SHEET 11 OF 11	BY					
DESIGNED ASA DRAWN WMC	CHECKED LOL DESIGN GROUP DPD	REVIEWED DLC/SKG APPROVED WMD				

1 INCH WHEN PRINTED FULL SIZE

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## GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION, AND 2016 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL. MAINTAIN 2" MINIMUM CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

EXISTING BRIDGE PLANS - ORIGINAL BRIDGE PLANS MAY BE OBTAINED ON THE GEORGIA DOT WEBSITE AT:

[HTTP://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH](http://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH)

THE ORIGINAL LEFT BRIDGE PLANS ARE NOT AVAILABLE. THE ORIGINAL LEFT BRIDGE WAS WIDENED UNDER PROJECT NUMBER R.A.B.(4)-S.P.-1552(15) (PROJECT ID NO. H011688) AND WIDENED AGAIN UNDER PROJECT NUMBER F-002-3(4) (PROJECT ID NO. H000234).

THE ORIGINAL RIGHT BRIDGE WAS BUILT UNDER PROJECT NUMBER S.N.F.A.P.79(2) (PROJECT ID NO. H014237) AND WIDENED UNDER PROJECT NUMBER F-002-3(4) (PROJECT ID NO. H000234).

WAITING PERIOD - NONE REQUIRED.

COFFERDAMS - PROVIDE COFFERDAMS AT BENTS 2 AND 3 ON BOTH BRIDGES.

FOUNDATION BACKFILL MATERIAL - PLACE 1'-0" OF TYPE II FOUNDATION BACKFILL MATERIAL UNDER EACH FOOTING AT BENTS 2 AND 3 ON BOTH BRIDGES. THE QUANTITY IS BASED ON THE PLAN FOOTING DIMENSIONS PLUS 2'-0". THIS REQUIREMENT MAY BE WAIVED BY THE ENGINEER IF THE FOOTING AREA IS DRY.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

STANDARD PLAN MODIFICATION - MODIFY THE APPROACH SLAB STANDARD TO INCREASE THE 3/4" EXPANSION JOINT SHOWN BETWEEN THE APPROACH SLAB AND THE BACK FACE PAVING REST AND END POST TO 1" AT BENT 4. SEE ROADWAY PLANS FOR APPROACH SLAB PAYMENT.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

EXTERIOR BEAM BRACING - THE CONTRACTOR SHALL PROVIDE BRACING FOR SPANS 1 AND 3 BETWEEN EXTERIOR BEAM AND THE FIRST INTERIOR BEAM UNTIL THE DECK HAS BEEN POURED AND THE OVERHANG FORMS REMOVED. ALL COST FOR DESIGNING, PROVIDING, INSTALLING AND REMOVING BRACING SHALL BE INCLUDED IN PRICE BID FOR LUMP-SUPERSTRUCTURE CONCRETE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

## GENERAL NOTES

BRIDGE REMOVAL - REMOVE EXISTING BRIDGE AS PER SUB-SECTION 540.3.05 OF THE GEORGIA DOT SPECIFICATIONS.

SALVAGE MATERIAL - NO MATERIAL REMOVED FROM THE EXISTING STRUCTURE SHALL BE SALVAGED FOR USE BY THE GEORGIA DOT.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF WATERPROOFING, JOINT FILLERS AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

## GENERAL NOTES (ALTERNATE 1)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED FOR EACH TEST PILE.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 14 IN SQ PSC X 52 FT AT BRIDGE 3 LEFT BENT 1  
 ONE 14 IN SQ PSC X 26 FT AT BRIDGE 3 RIGHT BENT 2  
 ONE 14 IN SQ PSC X 27 FT AT BRIDGE 3 RIGHT BENT 3  
 ONE 14 IN SQ PSC X 53 FT AT BRIDGE 3 LEFT BENT 4

## GENERAL NOTES (ALTERNATE 2)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED FOR ONE PILE AT EACH OF BENTS 1 LT, 2 RT, 3 RT, AND 4 LT.

METAL SHELL PILES - USE A MINIMUM SHELL THICKNESS OF 3/8" FOR PILES HAVING AN OUTSIDE DIAMETER OF 14". USE THIS SHELL THICKNESS IN LIEU OF THOSE CALL FOR IN SUB-SECTION 520.3.05.M AND SUB-SECTION 855.2.01.A.1 OF THE GEORGIA DOT SPECIFICATIONS.

PILE CLOSURE PLATE DETAIL - USE CLOSURE PLATE OPTION 2 AT THIS SITE IN ACCORDANCE WITH SUB-SECTION 520.3.05.M OF THE GEORGIA DOT SPECIFICATIONS.

## DESIGN DATA

SPECIFICATIONS ----- AASHTO LRFD 7TH EDITION, 2014  
 (DESIGNED FOR SEISMIC PERFORMANCE ZONE 2, SDI = 0.170)

DESIGN VEHICLE LIVE LOAD ----- HL-93

FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ----- CLASS D,  $f'_c$  = 4,000 PSI  
 BARRIER ----- CLASS D,  $f'_c$  = 4,000 PSI  
 PSC BEAMS ----- CLASS AAA,  $f'_c$  = SEE BEAM SHEETS  
 PSC BEAM ALLOWABLE TENSION ----- SEE BEAM SHEETS  
 SUBSTRUCTURE ----- CLASS AA,  $f'_c$  = 3,500 PSI

REINFORCEMENT STEEL: ----- GRADE 60,  $f_y$  = 60,000 PSI

PRETENSIONING STRANDS: -----  $f'_s$  = 270,000 PSI

METAL SHELL PILES (ALT. 2): ----- GRADE 3,  $f_y$  = 45,000 PSI

EACH BRIDGE CONSISTS OF  
**VOID**

2 - 30' -0" TYPE I MOD PSC BEAM SPANS ----- SPECIAL DESIGN

1 - 126' -0" BULB TEE, 65 IN, PSC BEAM SPAN ----- SPECIAL DESIGN

2 - PILE END BENTS ----- SPECIAL DESIGN

2 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)  
 (L = 4' -0"; W = 1' -1"; H = 3' -6")

SQUARE PRESTRESSED CONCRETE PILES ----- GA. STD. 3215 (2-22-84)

BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ----- GA. STD. 9037 (9-99)

BRIDGE NO. 3 LT. & RT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
 ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES SHEET  
 SR 11(SR 49, US 41) OVER  
 ROCKY CREEK OVERFLOW

BIBB COUNTY 000986I

JULY 2017

DRAWING NO. 35-0036	NO SCALE		
	DATE	REVISIONS	BY
BRIDGE SHEET 2 OF 18	DESIGNED TKH DRAWN TKH	CHECKED EJF DRAWN TKH	REVIEWED DLC/SKG DESIGN GROUP DPD
APPROVED WMD			

000986IB3.DGN  
 1 INCH WHEN PRINTED FULL SIZE

DRAINAGE DATA
SUMMARY OF QUANTITIES

DRAINAGE AREA ----- 262.0 SQ MILES						ALTERNATE 1 QUANTITIES										
FLOOD FREQUENCY	TOTAL DISCHARGE	DISCHARGE THRU BRIDGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER	PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM	PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM	
50 YEAR	15,300 CFS	3,041 CFS	2.47 FPS	1,231 SQ FT	1.05 FT	207-0203	21	21	CY	FOUND BKFILL MATL, TP II	520-2214	1150	1110	LF	PILING, PSC, 14 IN SQ	
100 YEAR	17,300 CFS	3,428 CFS	2.61 FPS	1,315 SQ FT	1.09 FT	211-0300	167	167	CY	BRIDGE EXCAVATION, STREAM CROSSING	520-3214	2	2	EA	TEST PILE, PSC, 14 IN SQ	
500 YEAR	22,600 CFS	4,462 CFS	2.90 FPS	1,538 SQ FT	1.18 FT	500-0100	951	951	SY	GROOVED CONCRETE	520-4214	1	1	EA	LOAD TEST, PSC, 14 IN SQ (IF REQD)	
<u>TRAFFIC DATA</u>						500-1011	LUMP	---	LS	SUPERSTR CONCRETE, CL D, BR NO - 3 LT (299)	520-3214	2	2	EA	TEST PILE, PSC, 14 IN SQ (IF REQD)	
TRAFFIC ----- ADT = 39,600 (2020) ADT = 48,350 (2040)						500-1011	---	LUMP	LS	SUPERSTR CONCRETE, CL D, BR NO - 3 RT (299)	520-4214	1	1	EA	LOAD TEST, PSC, 14 IN SQ (IF REQD)	
DESIGN SPEED ----- 55 MPH						500-2100	360	360	LF	CONCRETE BARRIER						
TRUCKS ----- 9.5 %						500-3002	198	198	CY	CLASS AA CONCRETE						
24 HR TRUCKS ----- 13 %						507-8900	344	---	LF	PSC BEAMS, AASHTO TYPE I MOD, BR NO - 3 LT						
DIRECTIONAL ----- 50 %						507-8900	---	344	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 3 RT	507-9034	751	---	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 3 LT	
<u>EXISTING UTILITIES</u>						507-9034	751	---	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 3 RT	507-9034	751	---	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 3 LT	
GAS MAIN ----- ATLANTA GAS LIGHT COMPANY						511-1000	35489	35517	LB	BAR REINF STEEL	511-1000	35489	35517	LB	BAR REINF STEEL	
FIBER OPTIC ----- GDOT						511-3000	LUMP	---	LS	SUPERSTR REINF STEEL, BR NO - 3 LT (73210)	511-3000	---	LUMP	LS	SUPERSTR REINF STEEL, BR NO - 3 RT (73210)	
18 TELEPHONE CONDUITS ----- AT&T						523-1100	2	2	EA	DYNAMIC PILE TEST	523-1100	2	2	EA	DYNAMIC PILE TEST	
WATER MAIN ----- MACON WATER AUTHORITY						525-1000	4	4	EA	COFFERDAM	525-1000	4	4	EA	COFFERDAM	
<u>UTILITIES</u>						540-1102	LUMP	---	LS	REMOVAL OF EXISTING BRIDGE, BR NO - 3 LT	540-1102	LUMP	---	LS	REMOVAL OF EXISTING BRIDGE, BR NO - 3 RT	
NO UTILITIES ON BRIDGE						603-2024	1702	1702	SY	STN DUMPED RIP RAP, TP I, 24 IN	603-2024	1702	1702	SY	STN DUMPED RIP RAP, TP I, 24 IN	
NO UTILITIES ON BRIDGE						603-7000	1702	1702	SY	PLASTIC FILTER FABRIC	603-7000	1702	1702	SY	PLASTIC FILTER FABRIC	

105201AM

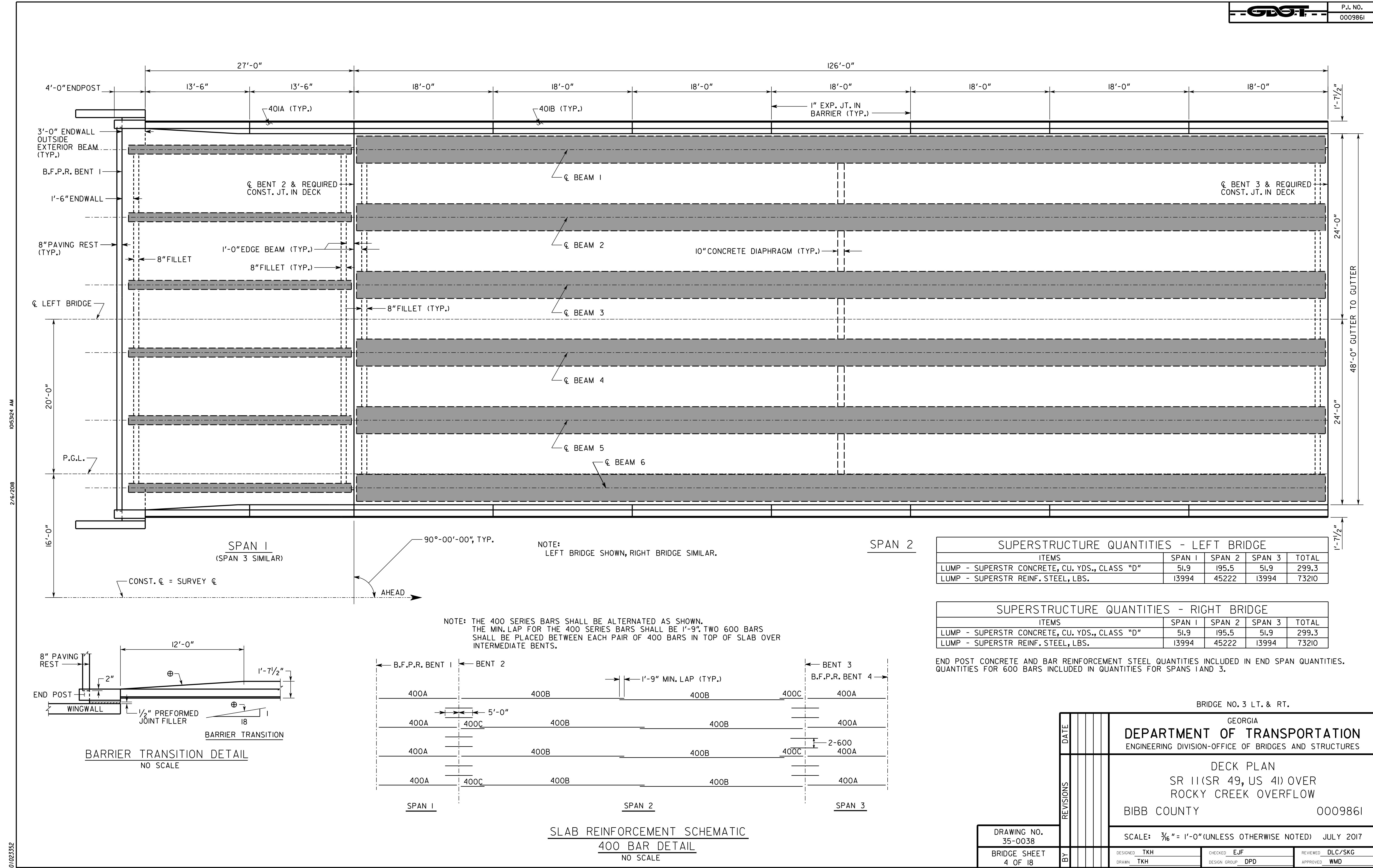
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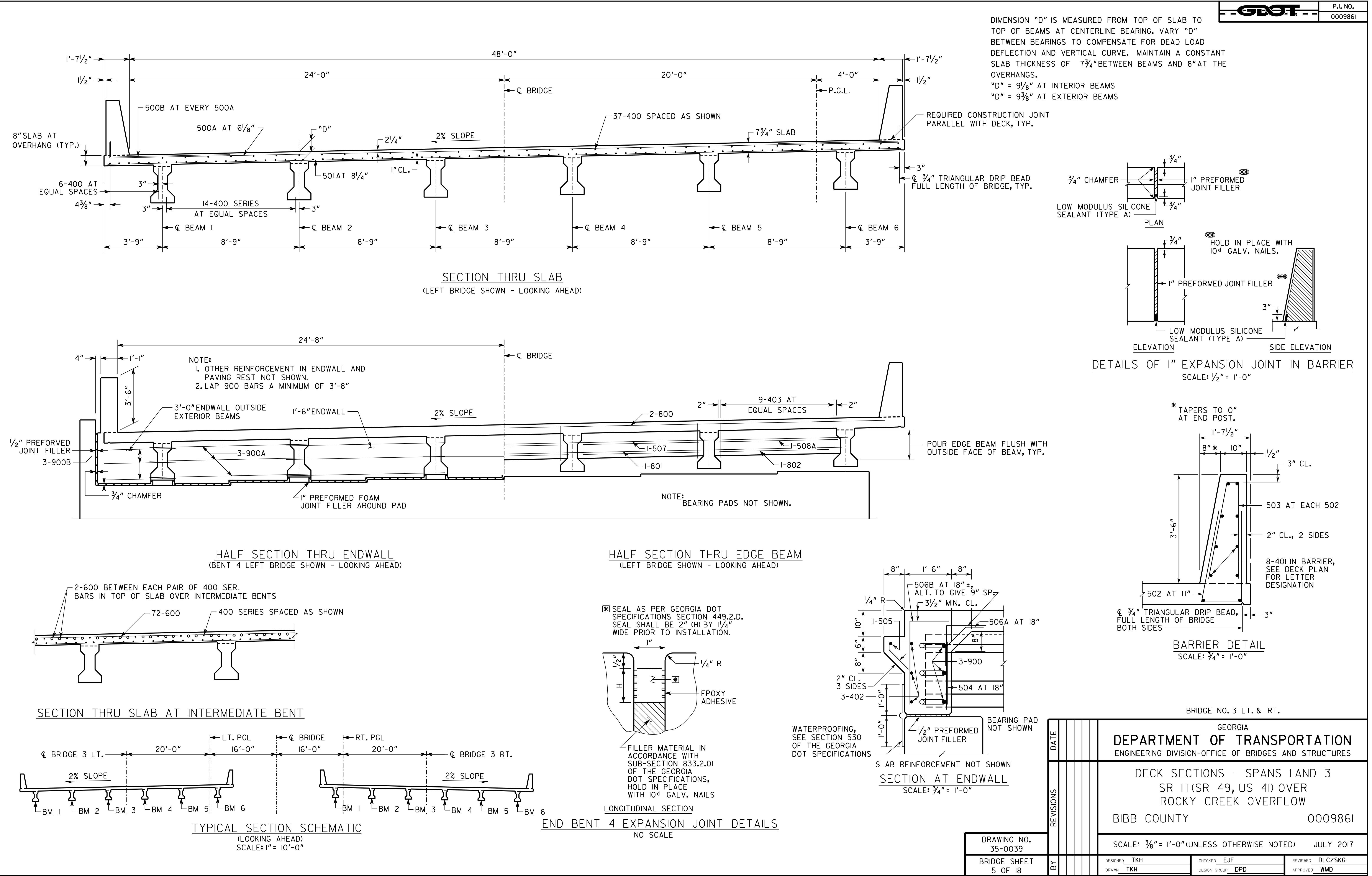
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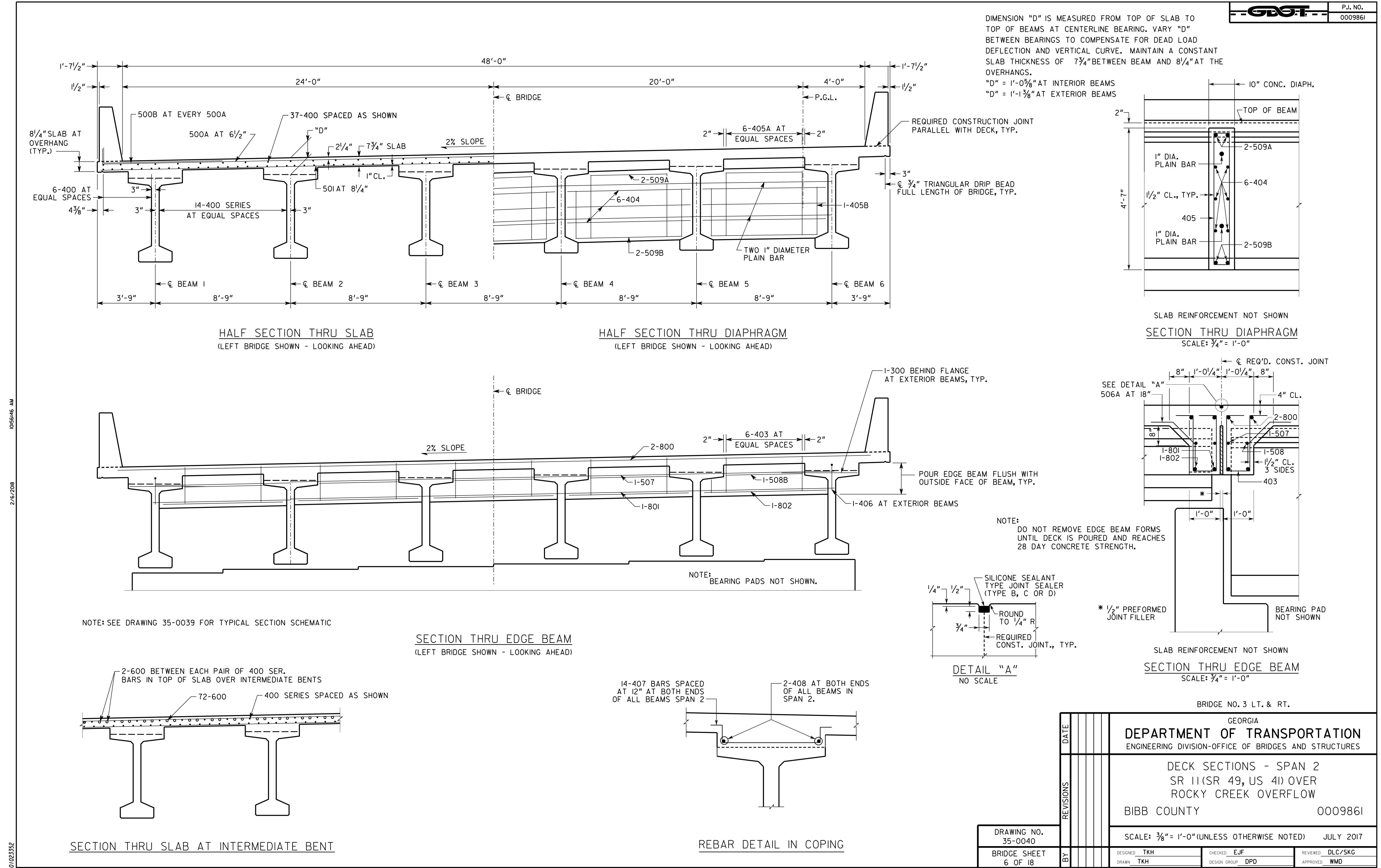
BRIDGE NO. 3 LT. AND RT.

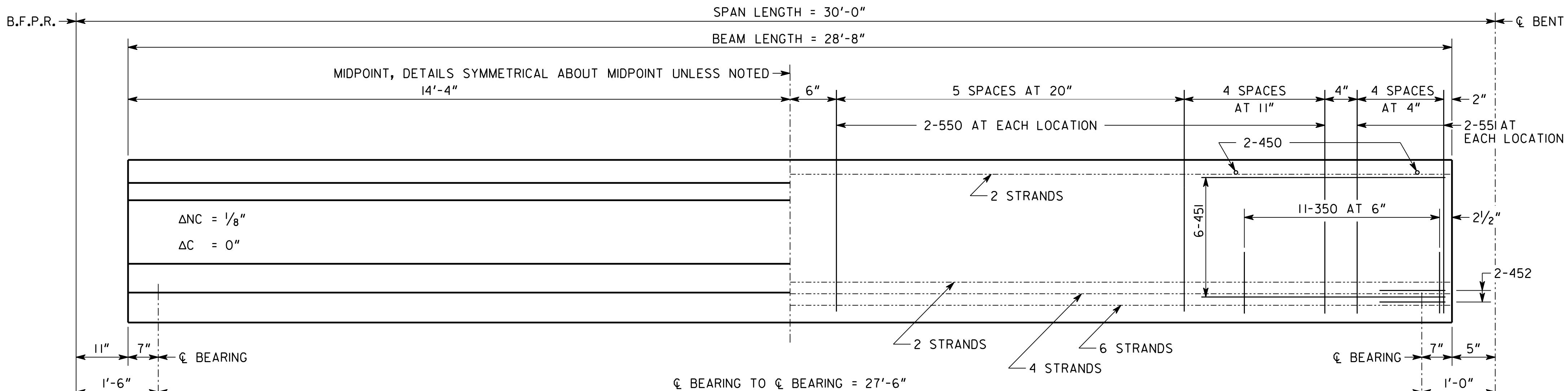
GEORGIA <b>DEPARTMENT OF TRANSPORTATION</b> ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES			
GENERAL NOTES SHEET SR 11(SR 49, US 41) OVER ROCKY CREEK OVERFLOW			
BIBB COUNTY                    000986I			
DRAWING NO. 35-0037			
NO SCALE                    JULY 2017			
REVISONS			
DATE			
BY			
DESIGNED TKH	CHECKED EJF	REVIEWED DLC/SKG	
DRAWN TKH	DESIGN GROUP DPD	APPROVED WMD	
1 INCH WHEN PRINTED FULL SIZE			

000986IB3.DGN





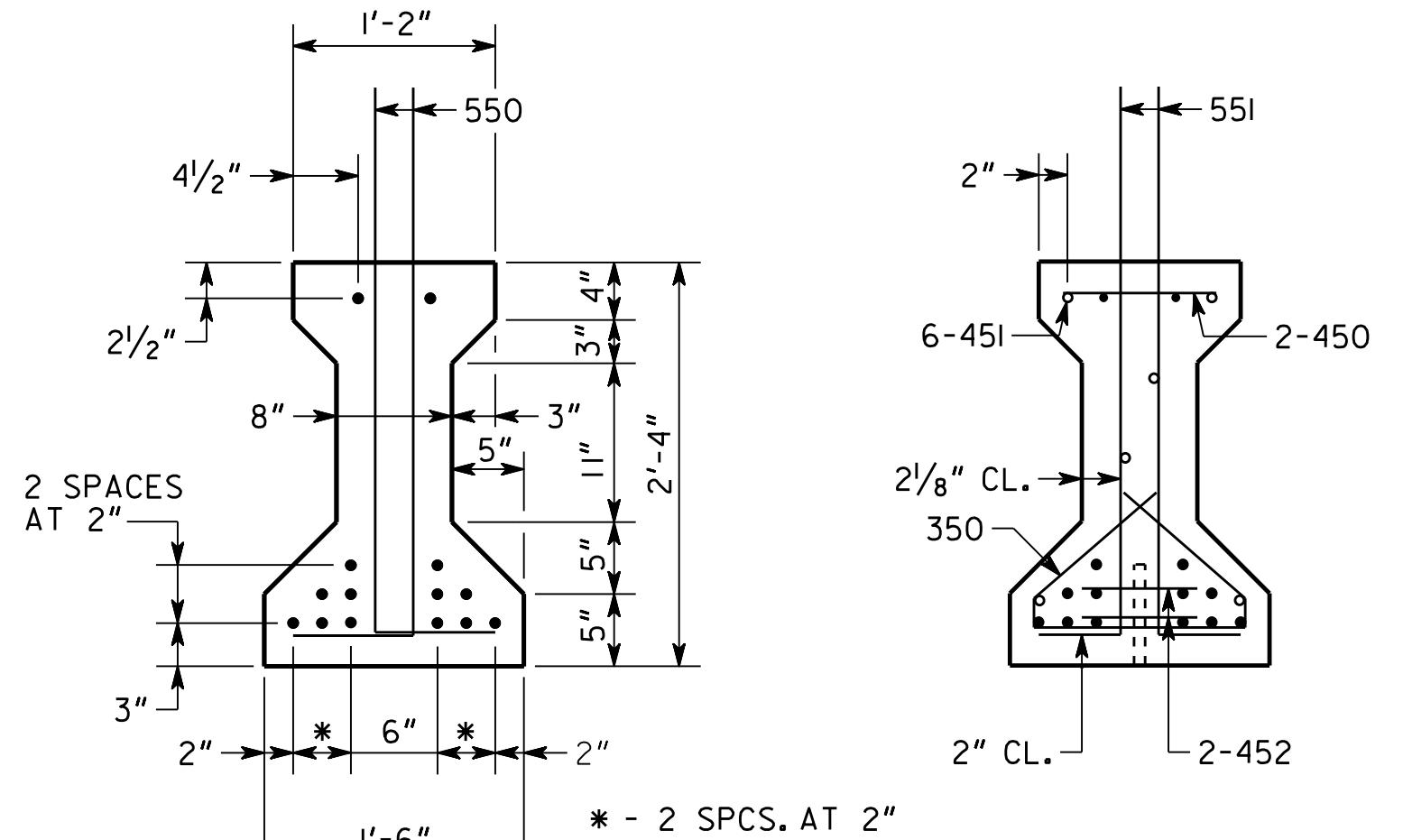




NOTES

ELEVATION

1. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 3'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
2. CHAMFER EDGES OF BEAMS 1/2" OR 3/4".
3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE 1/8" EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
4. AT C BEARING, FORM A 1 3/4" DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X 1 3/4" X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A 1 1/2" DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY 1/4". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
6. NON-COMPOSITE DEAD LOAD DEFLECTION (ΔNC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
7. COMPOSITE DEAD LOAD DEFLECTION (ΔC) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
9. PRESTRESSING DATA IS AS FOLLOWS:
  - A. USE 14 - 1/2" DIAMETER SPECIAL LOW-RELAXATION ( $A = 0.167 \text{ SQ IN}$ ) STRANDS. PRETENSION STRANDS TO 33,818 LBS EACH.
  - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_c$ ) OF 4,500 PSI.
  - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 473,452 LBS.
  - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 380,570 LBS.
10. CONCRETE STRENGTH ( $f'_c$ ) = 5,000 PSI.
11. ALLOWABLE PSC BEAM TENSION = 424 PSI.



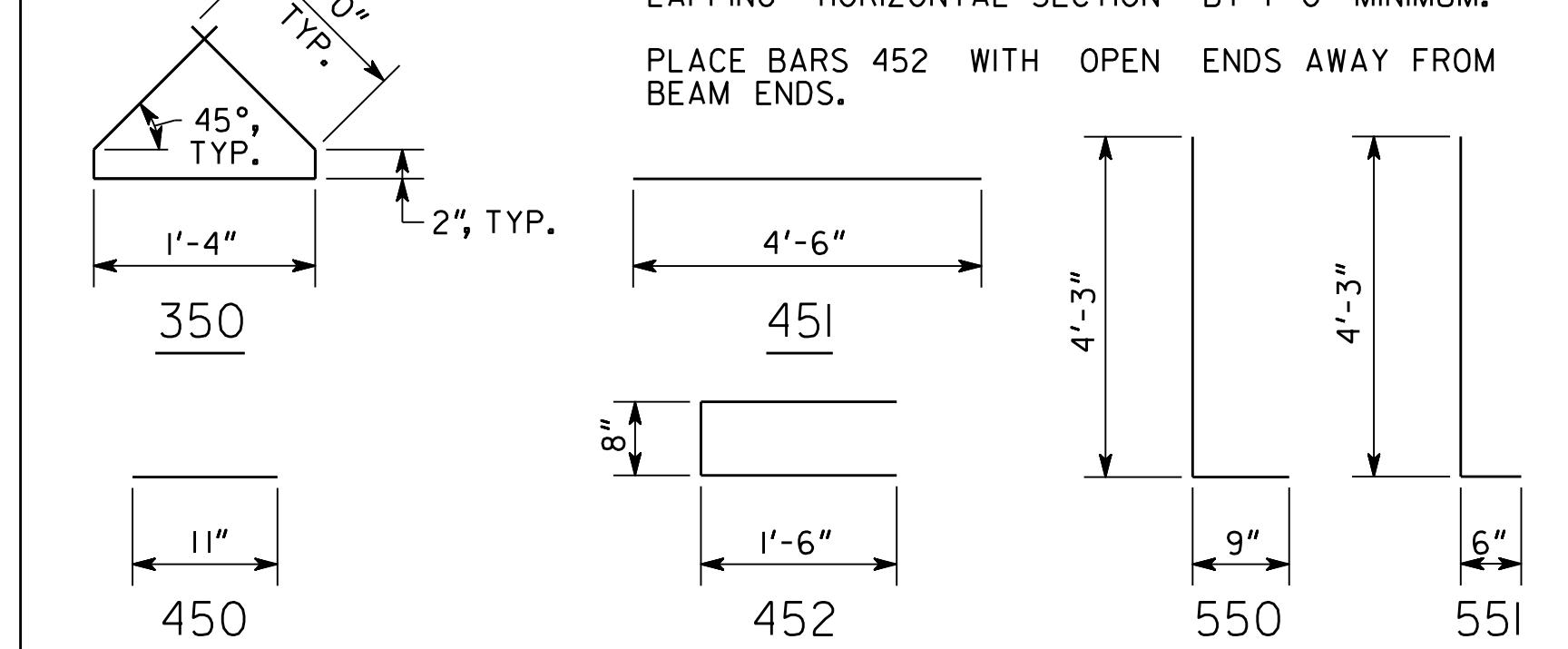
SECTION AT MIDPOINT

SECTION AT END

REINFORCEMENT

ALL BAR DIMENSIONS ARE OUT TO OUT.  
AT THE TOP OF THE BEAM, BARS 550 AND 551 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT. SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPING HORIZONTAL SECTION BY 1'-0" MINIMUM. PLACE BARS 452 WITH OPEN ENDS AWAY FROM BEAM ENDS.

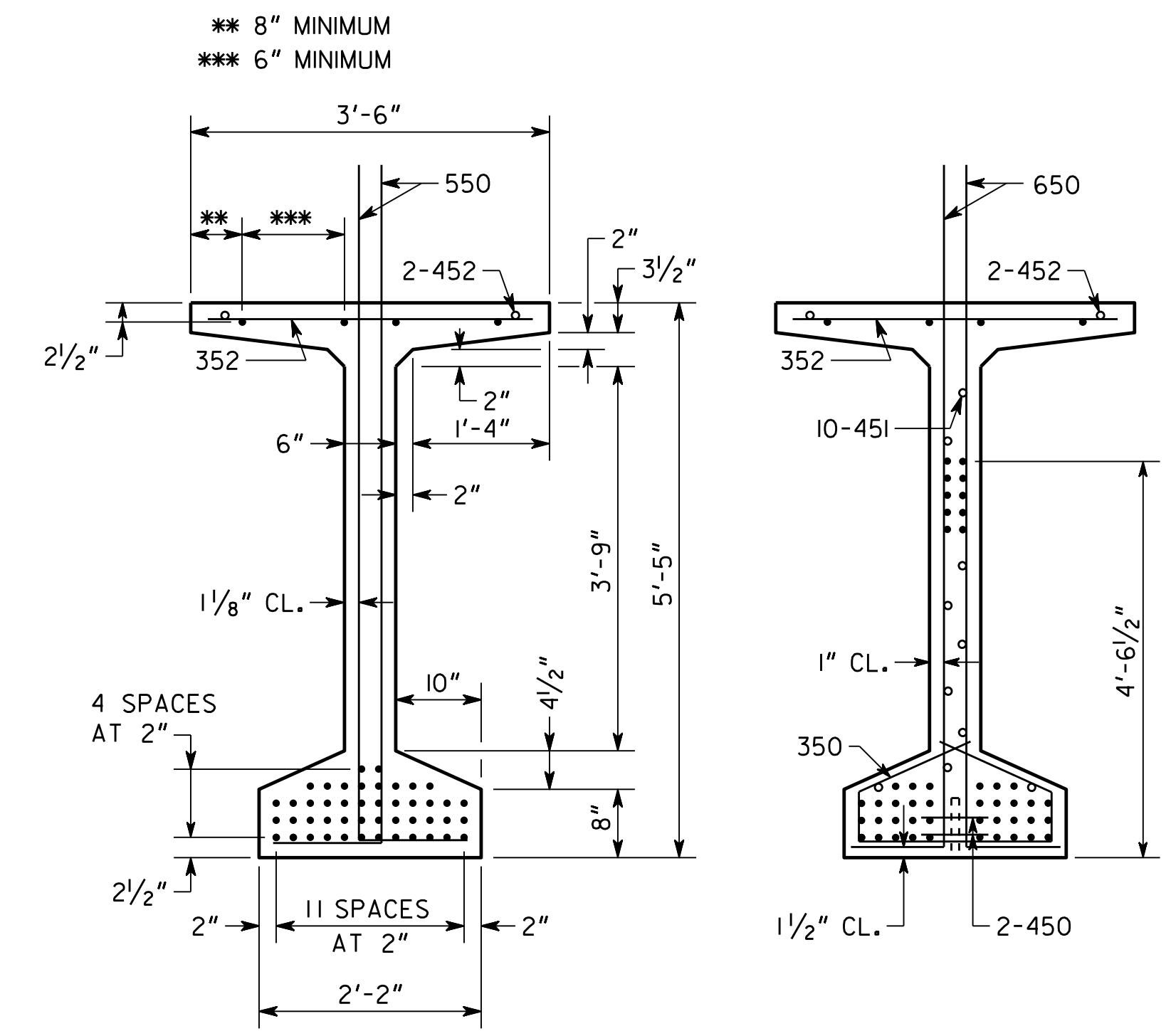
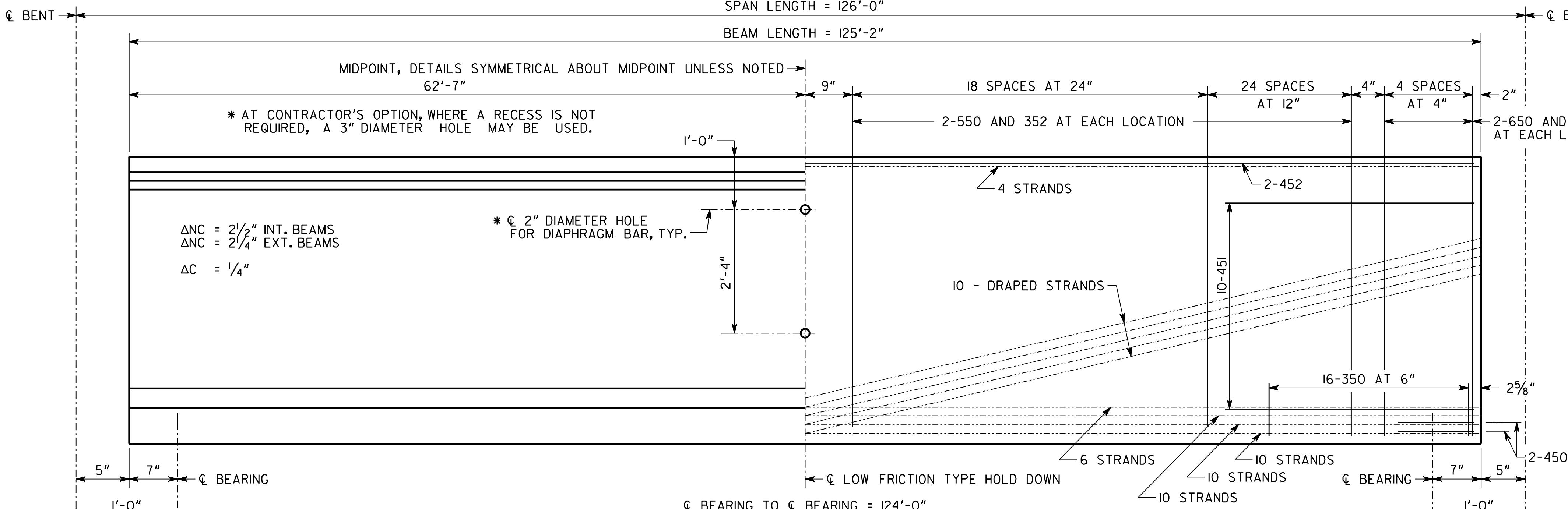


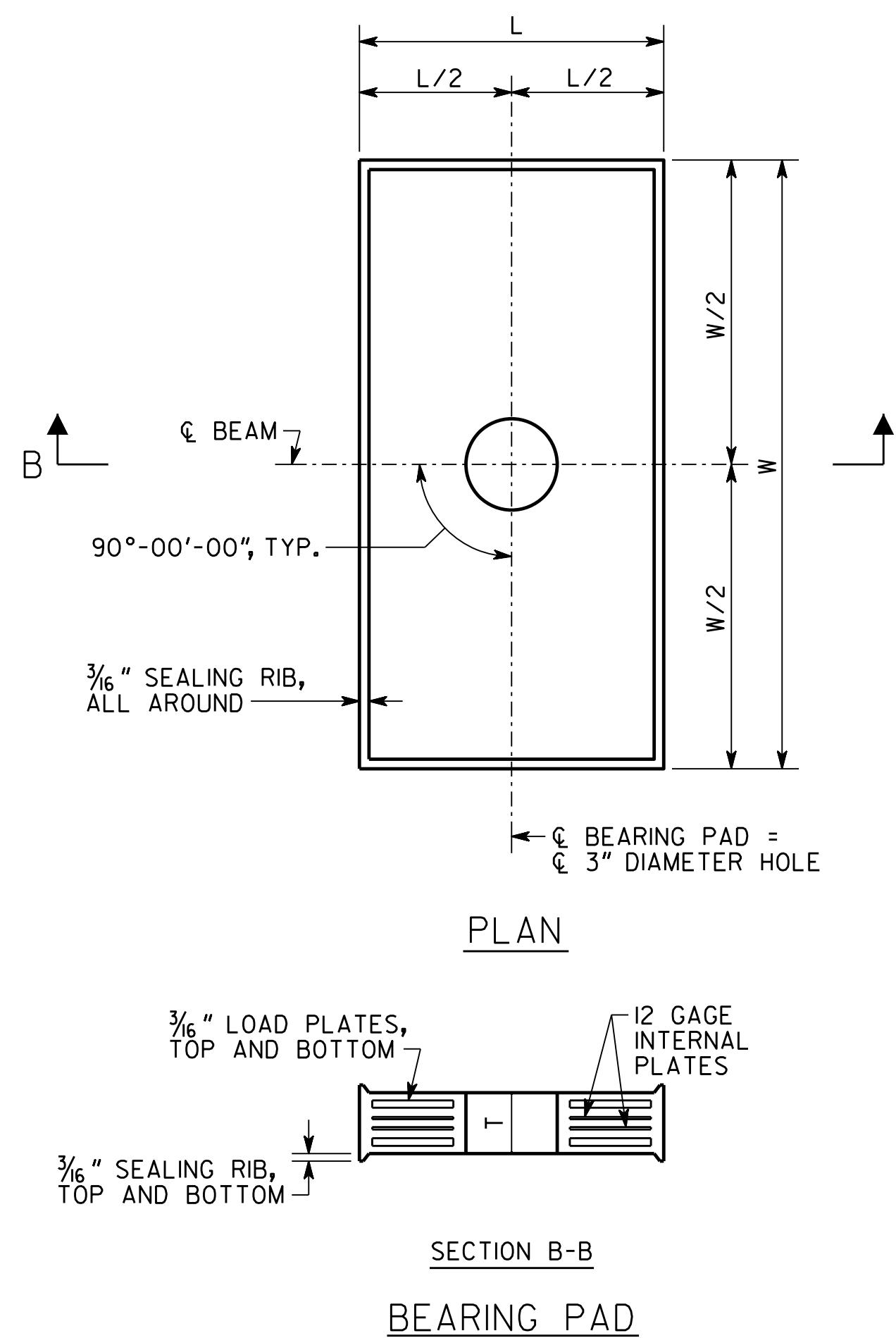
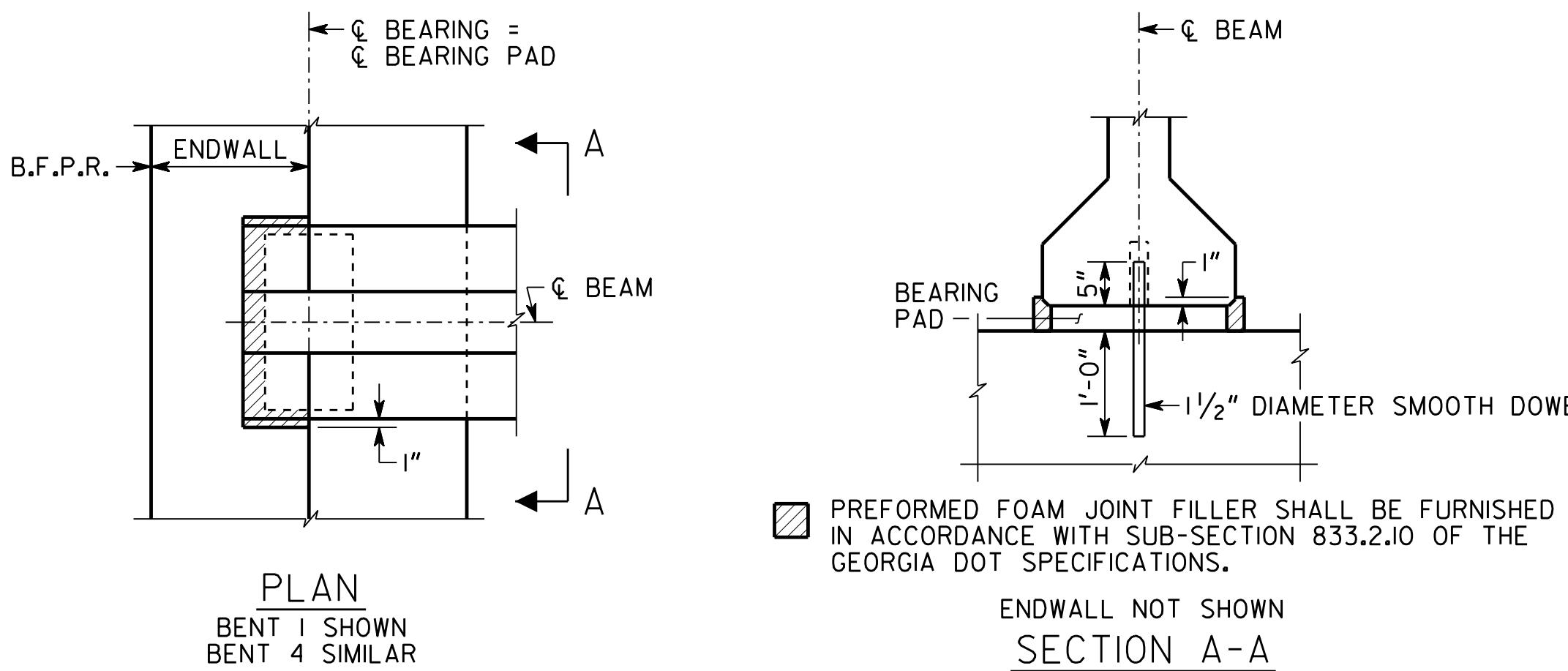
BRIDGE NO. 3 LT. & RT.

GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES		
TYPE I MOD PSC BEAM - END SPANS SR II(SR 49, US 41) OVER ROCKY CREEK OVERFLOW		
BIBB COUNTY 0009861		
DRAWING NO. 35-004I	NO SCALE	
	JULY 2017	
BRIDGE SHEET 7 OF 18	DESIGNED BY TKH	CHECKED BY EJF
	DRAWN BY TKH	APPROVED DLC/SKG DESIGN GROUP DPD APPROVED WMD

1 INCH WHEN PRINTED FULL SIZE

0009861B3.DGN





- NOTES
1. BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 14.7.6 METHOD A AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18, BEARING DEVICES.
  2. 1 1/2" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 50.
  3. BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.
  4. 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.
  5. BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.
  6. 3/16" LOAD PLATES AND 12 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.
  7. NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.
  8. USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.

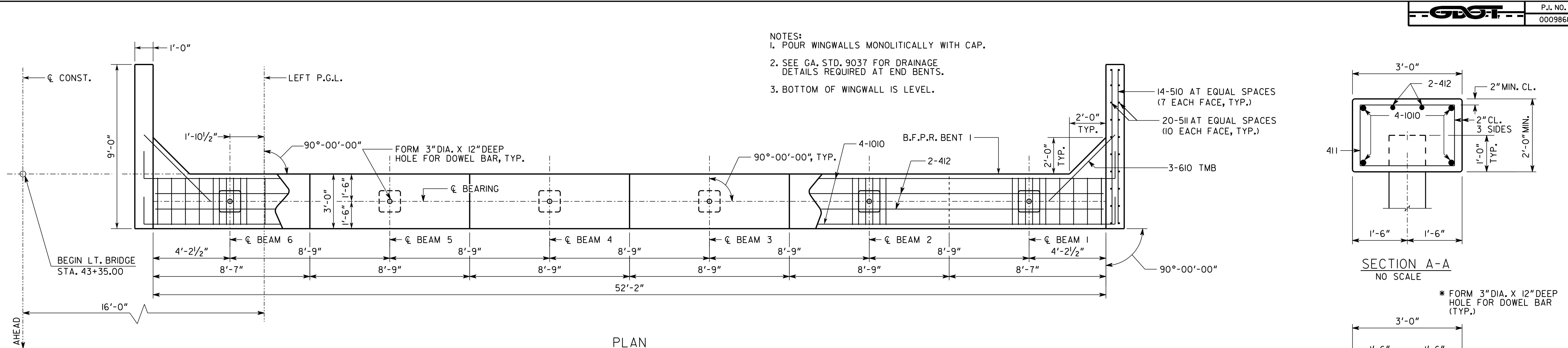
BENT	BEARING PADS						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	
1	16"	10"	3 1/4"	3	1/4"	48	49	97	
2 BACK	16"	10"	3 1/4"	3	0"	28	49	77	
2 AHEAD	22"	10"	2 1/4"	2	0"	150	92	242	
3 BACK	22"	10"	2 1/4"	2	1/2"	150	92	242	
3 AHEAD	16"	10"	3 1/4"	3	1"	28	49	77	
4	16"	10"	3 1/4"	3	1 1/4"	48	49	97	

BRIDGE NO. 3 LT. & RT.

DATE	REVISED	GEORGIA		
DEPARTMENT OF TRANSPORTATION				
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES				
BEARING PAD DETAILS				
SR 11(SR 49, US 41) OVER				
ROCKY CREEK OVERFLOW				
BIBB COUNTY 0009861				
DRAWING NO. 35-0043	NO SCALE	JULY 2017		
BRIDGE SHEET 9 OF 18	BY	DESIGNED TKH	CHECKED EJF	REVIEWED DLC/SKG
		DRAWN TKH	DESIGN GROUP DPD	APPROVED WMD

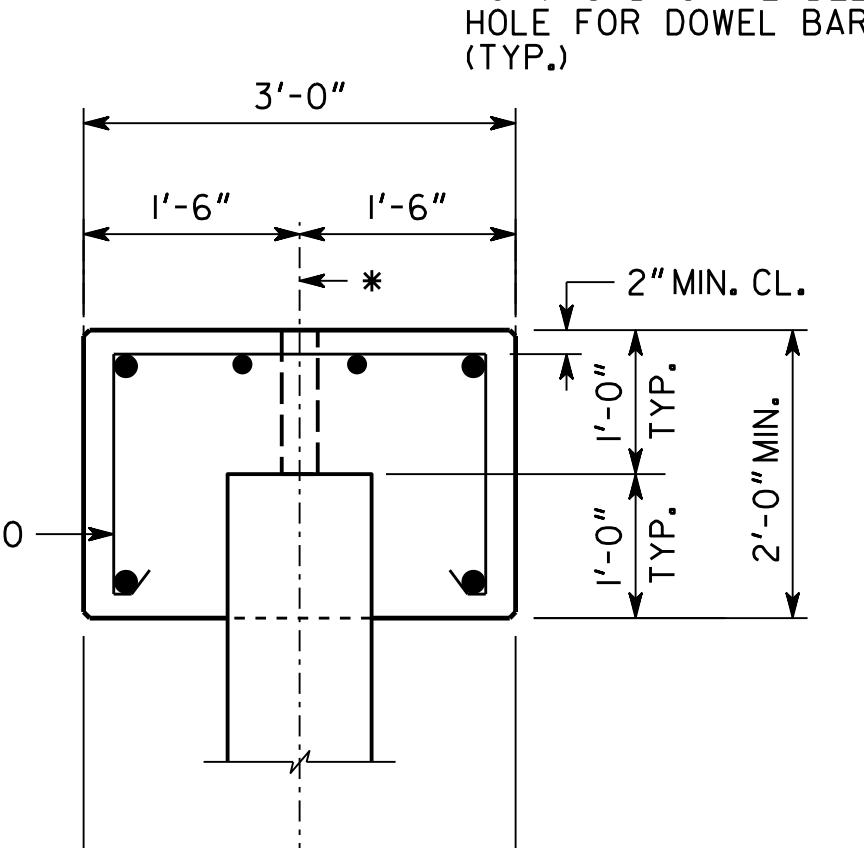
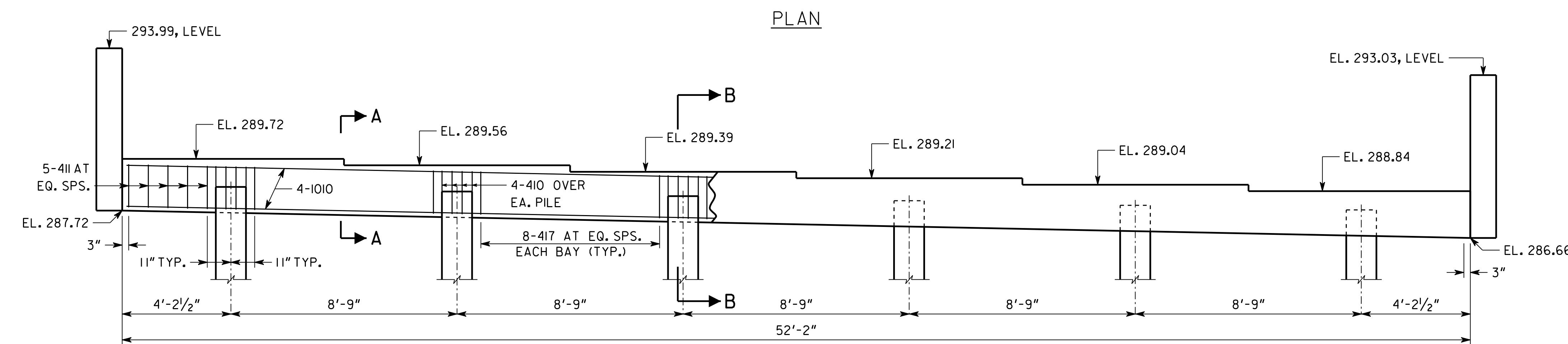
1 INCH WHEN PRINTED FULL SIZE

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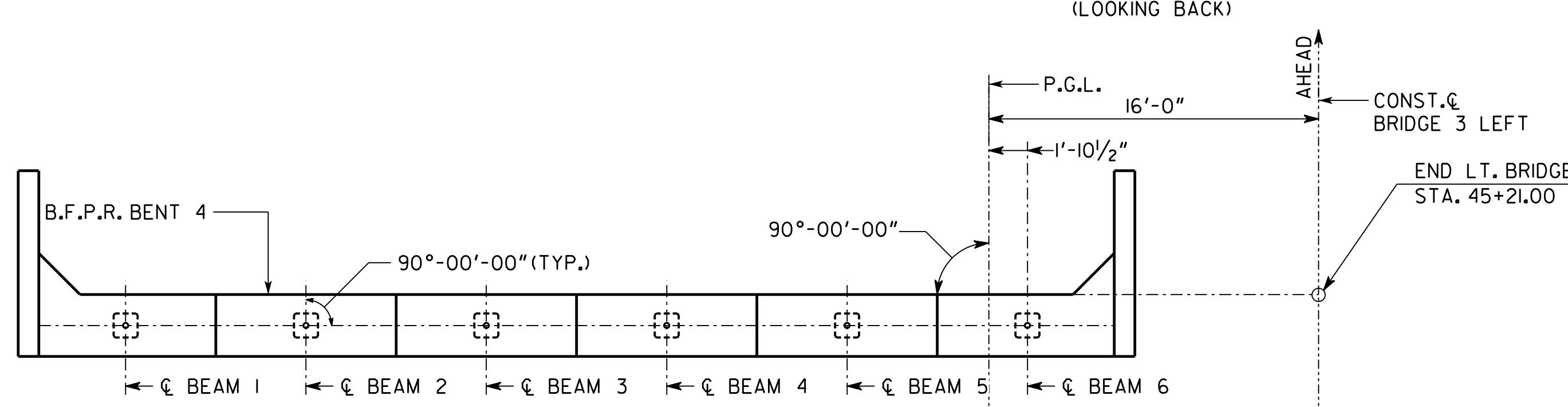
\* FORM 3" DIA. X 12" DEEP HOLE FOR DOWEL BAR (TYP.)

2/6/2018  
110107 AM



SECTION B-B  
NO SCALE

ELEVATION  
BENT 1 - LEFT BRIDGE  
(LOOKING BACK)



PILES ARE DESIGNED FOR A MAXIMUM FACTORED LOAD OF 181 KIPS.

ALL PILES SHALL BE 14 IN. SQ. PSC FOR ALTERNATE 1 (SHOWN), OR 14 IN. O.D. METAL SHELL FOR ALTERNATE 2 (SIMILAR).

#### PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 278 KIPS AFTER A MINIMUM TIP ELEVATION OF 260 AT BENT 1 AND 245 AT BENT 4 IS ACHIEVED.

BRIDGE NO. 3 LT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

END BENTS 1 LT AND 4 LT  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK OVERFLOW

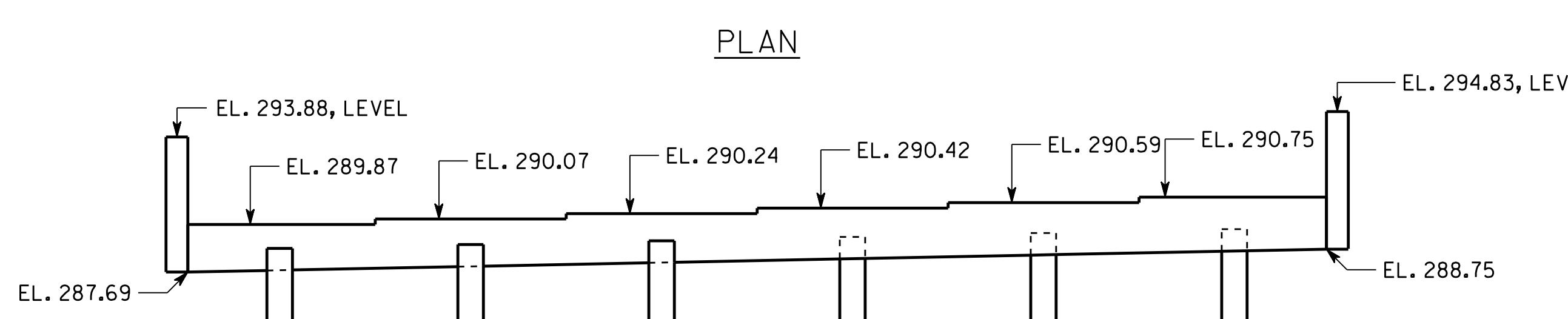
BIBB COUNTY 000986I

ITEM	BENT 1 LT	BENT 4 LT
CY CLASS "AA" CONCRETE	16.3	16.3
LB BAR REINFORCEMENT STEEL	2014	2014

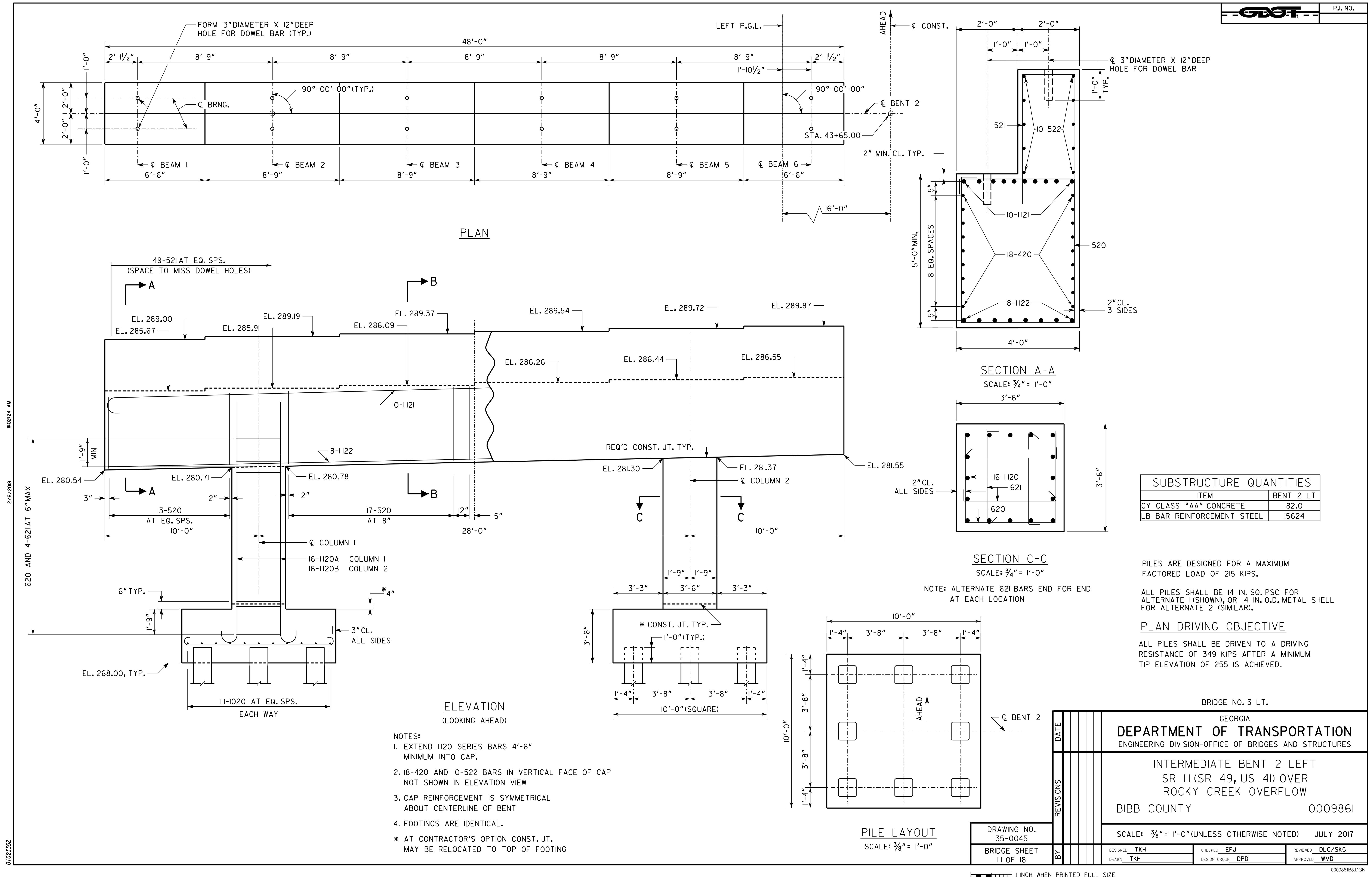
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35-0044  
BRIDGE SHEET  
10 OF 18

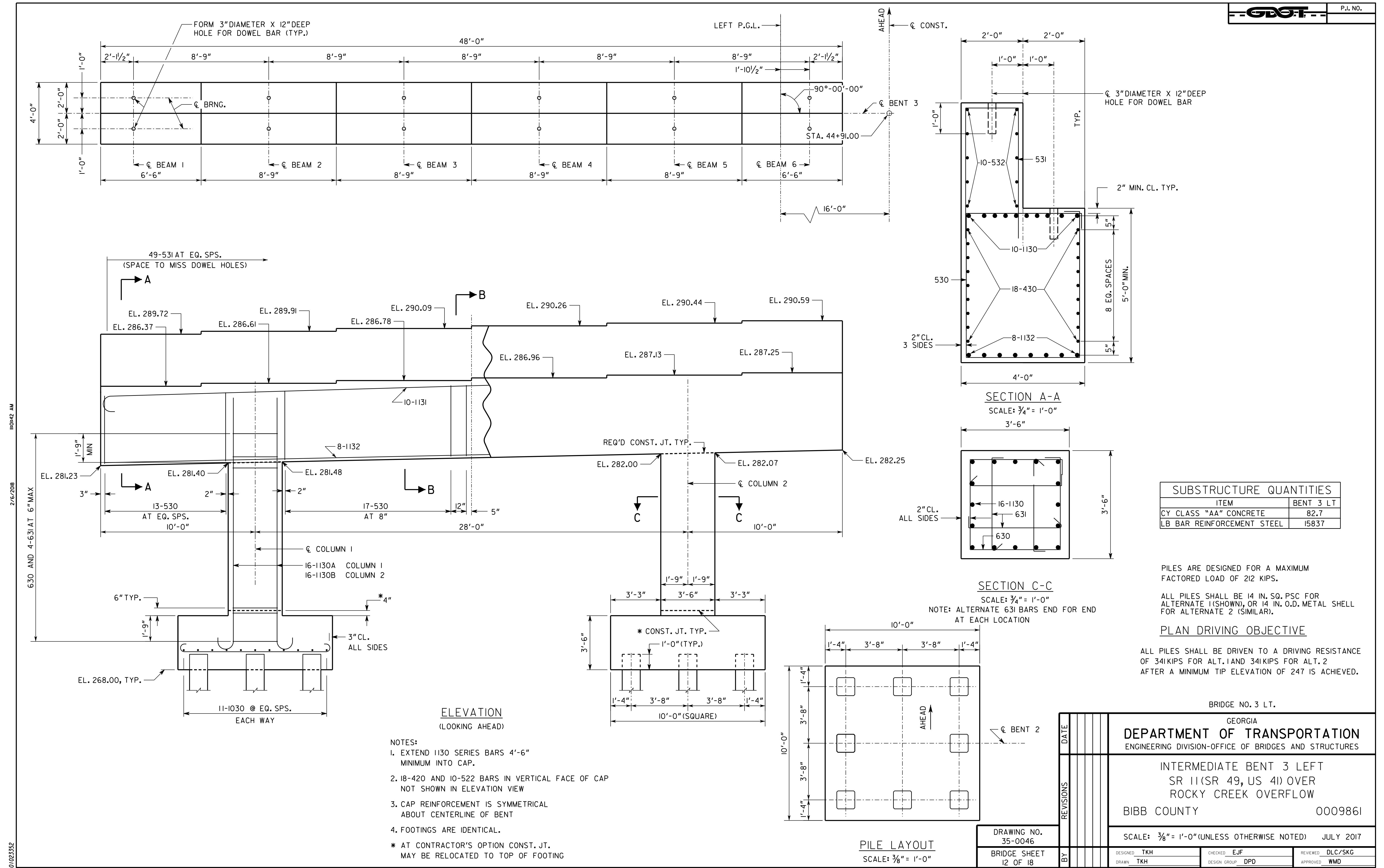
DATE	REVISIONS	BY	SCALE: $\frac{3}{16}$ " = 1'-0" (UNLESS OTHERWISE NOTED)	JULY 2017
			DESIGNED TKH	CHECKED EJF
			DRAWN TKH	APPROVED DPD
			DESIGN GROUP DPD	APPROVED WMD

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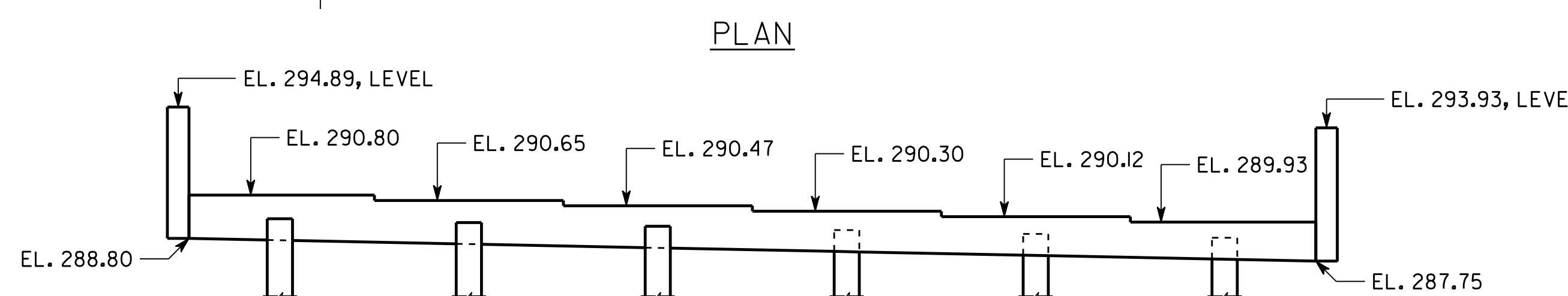
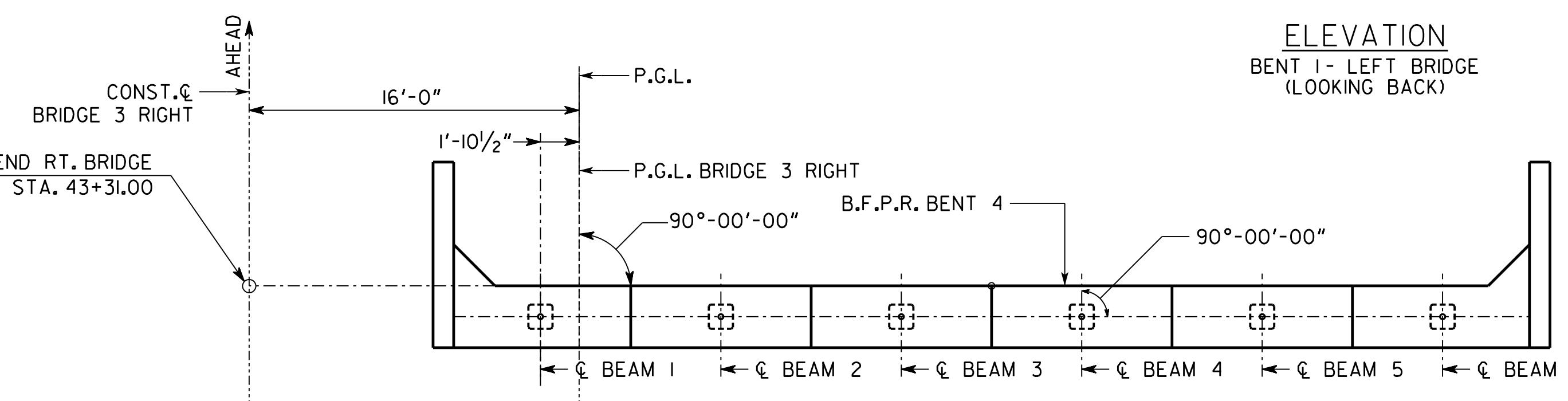
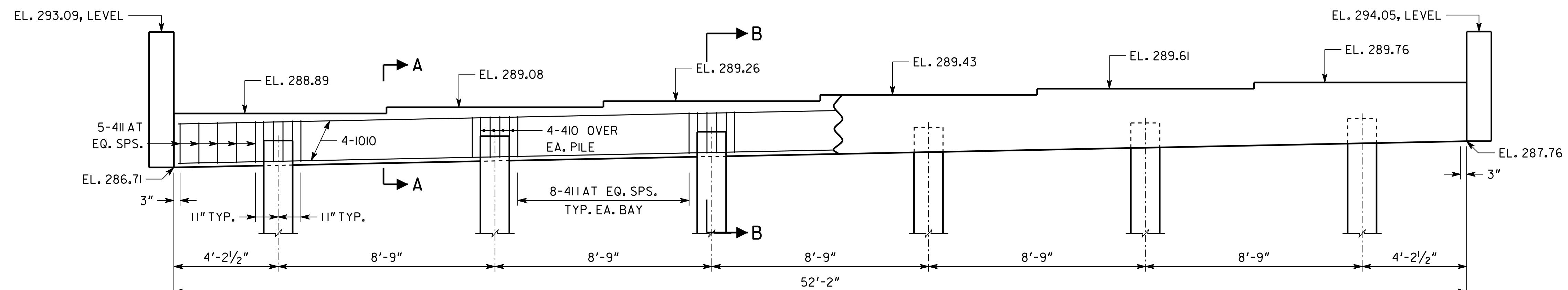
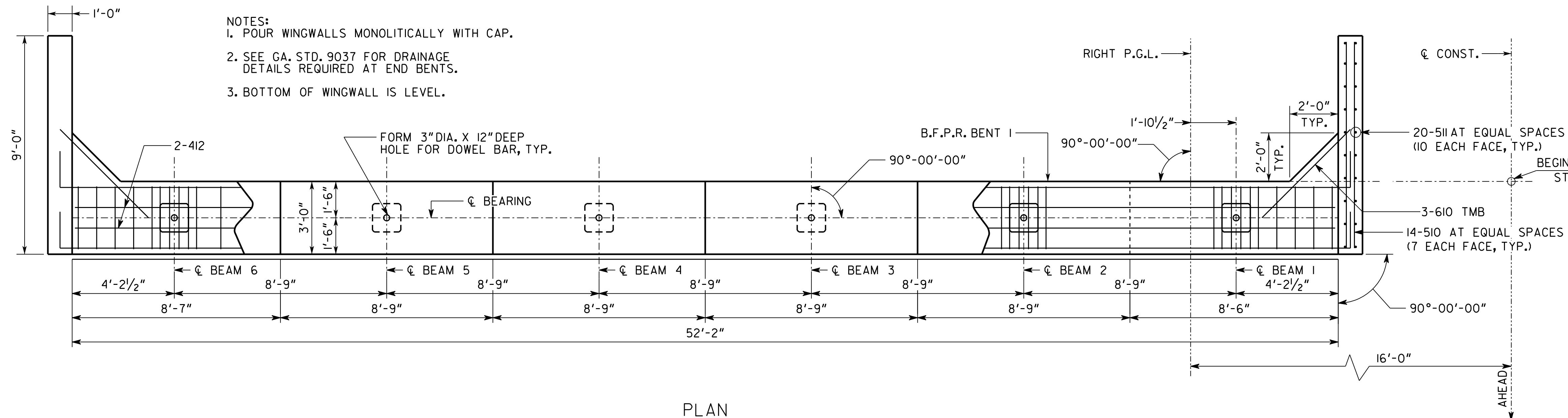


ELEVATION  
BENT 4  
(LOOKING AHEAD)  
SCALE:  $\frac{3}{16}$ " = 1'-0"





01023352



ELEVATION  
BENT 4  
(LOOKING AHEAD)  
SCALE:  $\frac{1}{6}$ " = 1'-0"

ITEM	BENT 1 RT.	BENT 4 RT.
CY CLASS "AA" CONCRETE	16.3	16.3
LB BAR REINFORCEMENT STEEL	2014	2014

DRAWING NO.	35-0047
BRIDGE SHEET	13 OF 18

PILES ARE DESIGNED FOR A MAXIMUM  
FACTOR LOAD OF 181 KIPS.

ALL PILES SHALL BE 14 IN. SQ. PSC FOR  
ALTERNATE 1 (SHOWN), OR 14 IN. METAL SHELL  
FOR ALTERNATE 2 (SIMILAR).

#### PLAN DRIVING OBJECTIVE

ALL PILES SHALL BE DRIVEN TO A DRIVING  
RESISTANCE OF 278 KIPS AFTER A MINIMUM  
TIP ELEVATION OF 260 AT BENT 1 AND 254  
AT BENT 4 IS ACHIEVED.

BRIDGE NO. 3 RT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

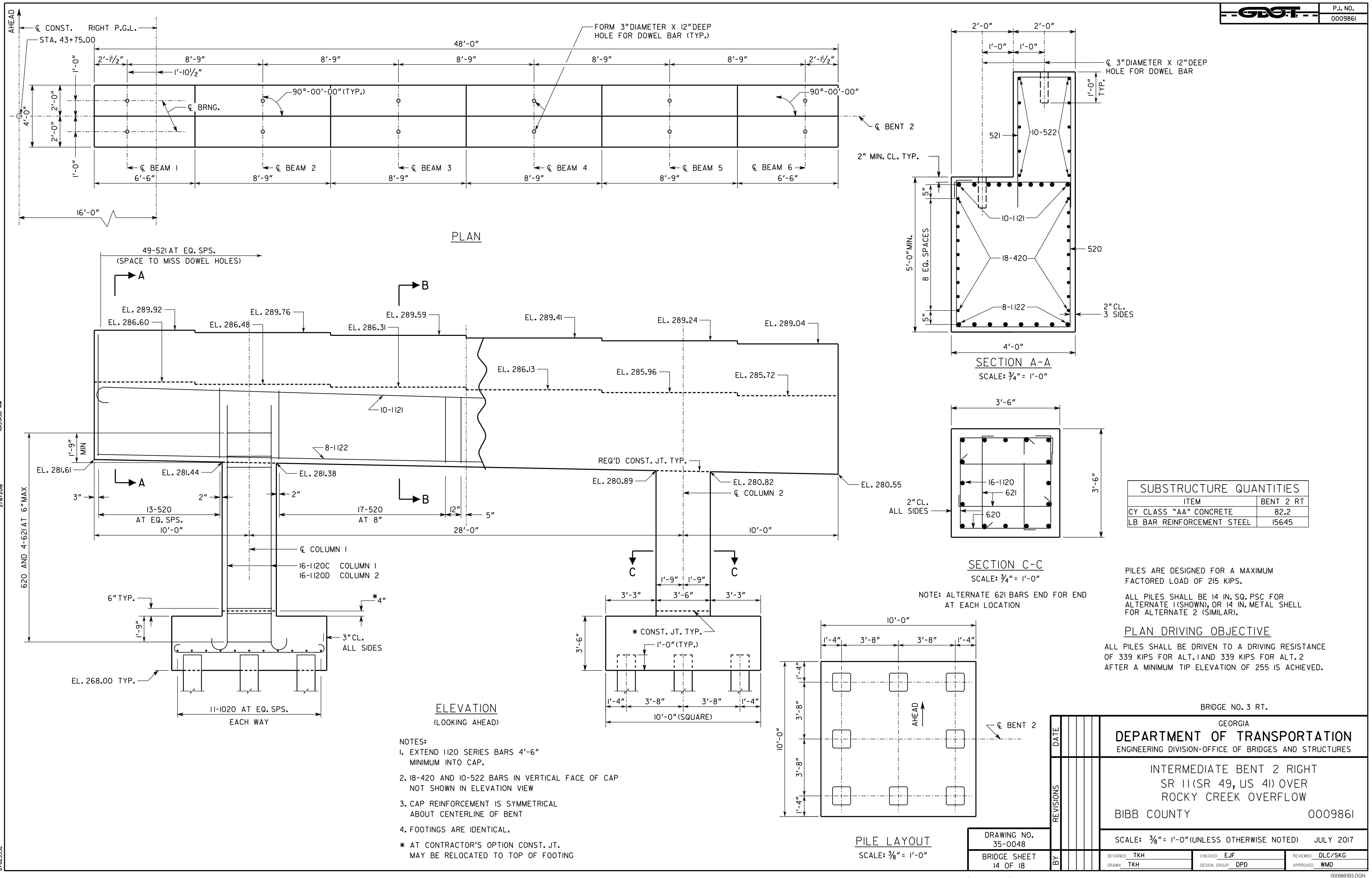
END BENTS 1 RT AND 4 RT  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK OVERFLOW

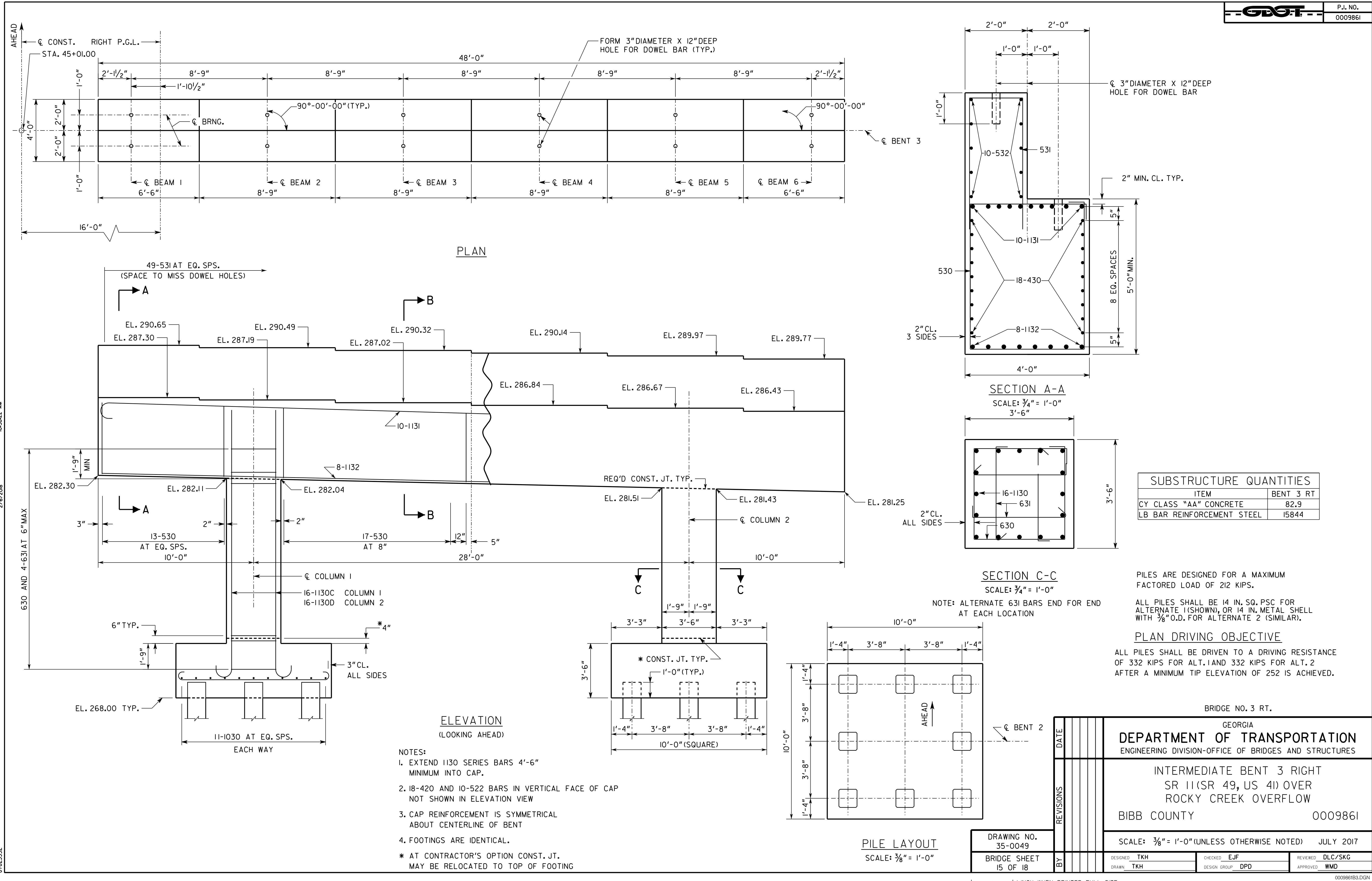
BIBB COUNTY 000986I

SCALE:  $\frac{1}{6}$ " = 1'-0" (UNLESS OTHERWISE NOTED) JULY 2017

DESIGNED BY EJF  
DRAWN BY TKH  
REVIEWED BY DLC/SKG  
APPROVED BY WMD

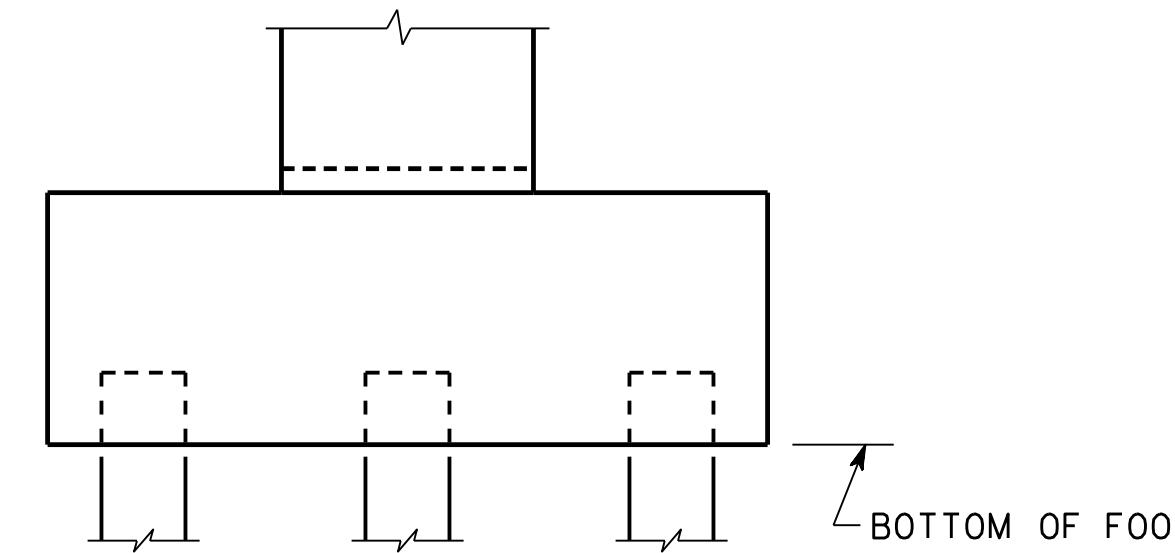
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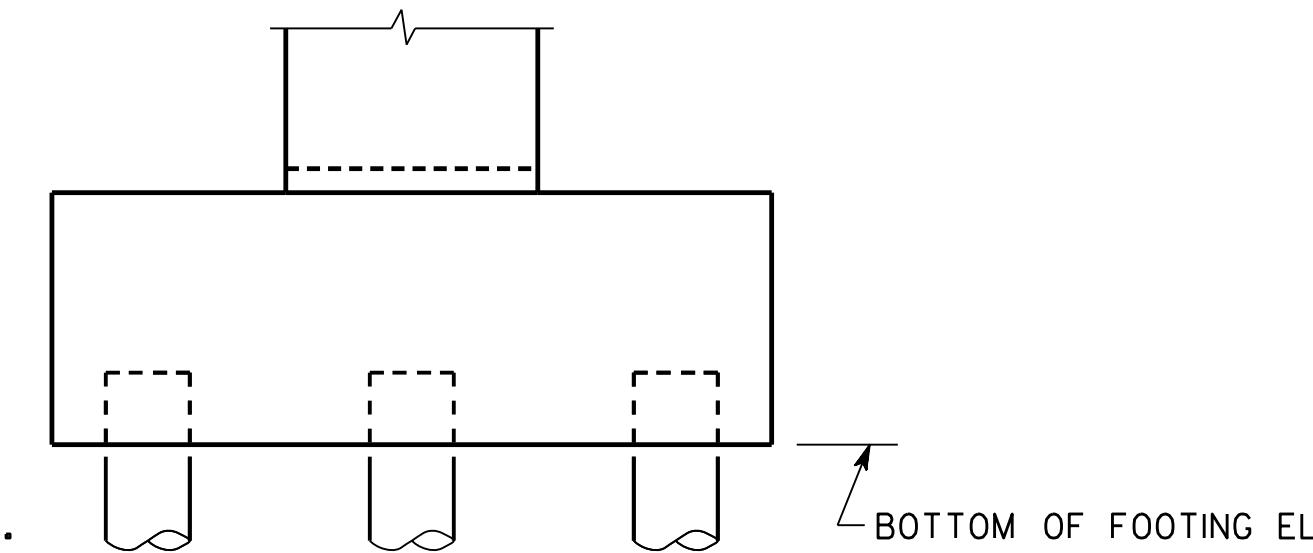


AS BUILT FOUNDATION INFORMATION			
BRIDGE NO. 3 LEFT ALT. ( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEVATION
1	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
4	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
BEAM 1			
BEAM 2			
BEAM 3			
BEAM 4			
BEAM 5			
BEAM 6			

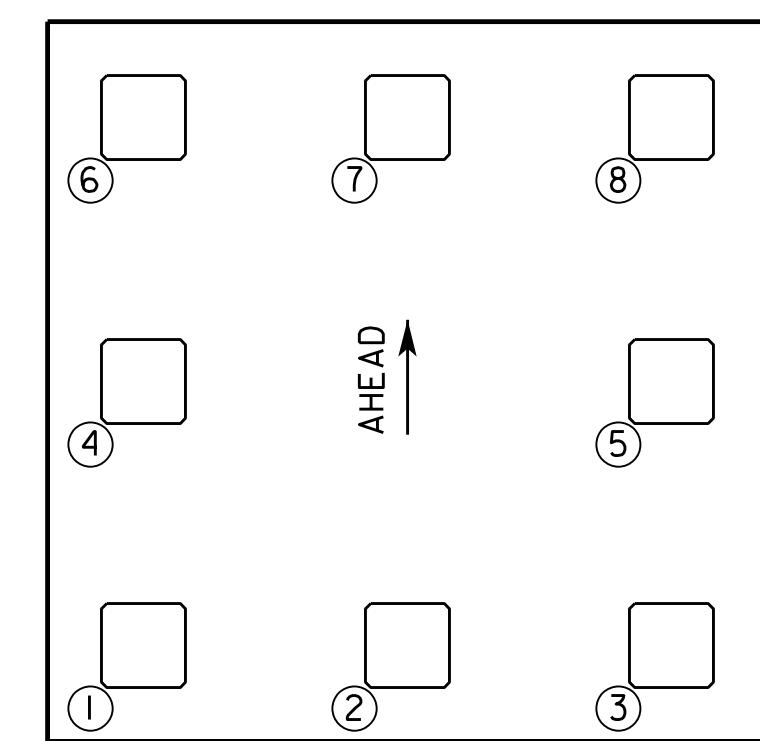
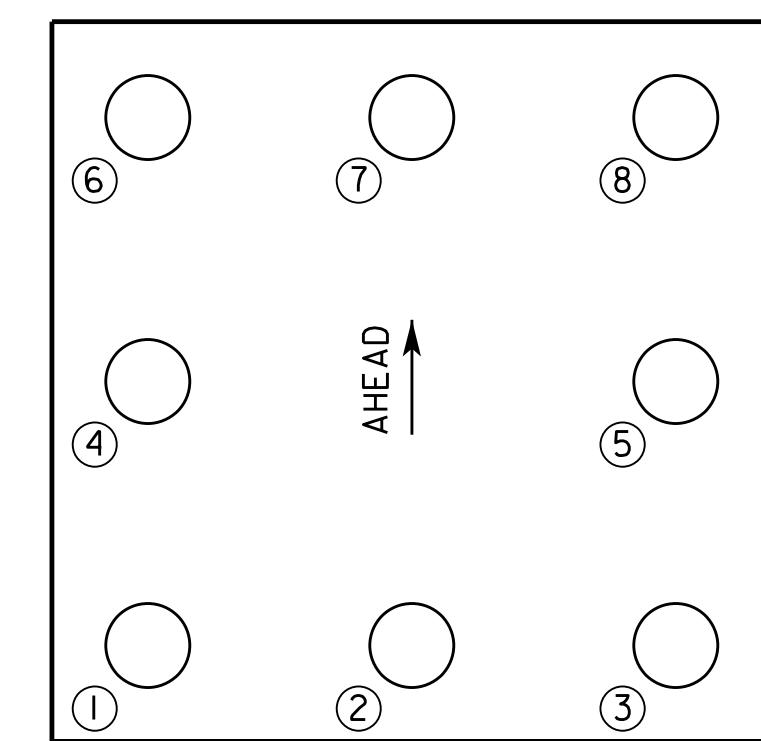
AS BUILT FOUNDATION INFORMATION			
BRIDGE NO. 3 RIGHT ALT. ( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEVATION
1	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
4	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		



TYPICAL FOOTING ELEVATION



TYPICAL FOOTING ELEVATION


 PILE LAYOUT  
ALT. 1

 PILE LAYOUT  
ALT. 2

THIS "AS BUILT FOUNDATION INFORMATION" SHEET SHALL BE FILLED IN BY THE PROJECT ENGINEER AND FORWARDED TO THE BRIDGE OFFICE AFTER INSTALLATION OF ALL PILES AND FOOTINGS FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

(AREA CODE) TELEPHONE NUMBER \_\_\_\_\_

BRIDGE NO. 3 LT. &amp; RT.

MARK ALTERNATE SELECTED	
ALT. 1	PSC PILES
ALT. 2	METAL SHELL PILES

 10:57:40 AM  
2/6/2018

0023352

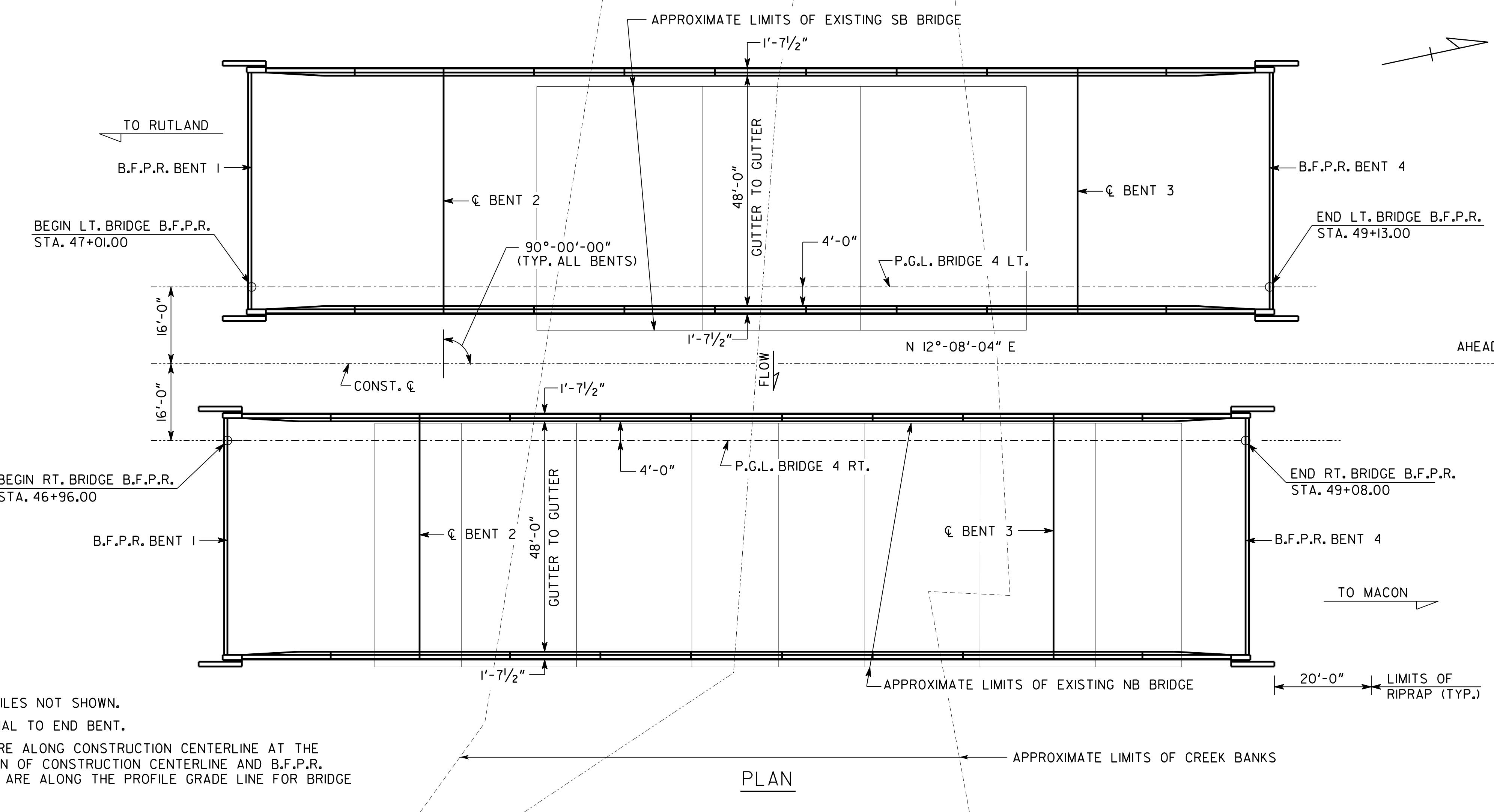
GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES	
AS BUILT FOUNDATION INFORMATION SR 11(SR 49, US 41) OVER ROCKY CREEK OVERFLOW	
BIBB COUNTY 0009861	
DRAWING NO. 35-0050	NO SCALE
BRIDGE SHEET 16 OF 18	JULY 2017
REVISIONS	BY
DESIGNED TKH DRAWN TKH	CHECKED EJF DRAWN WMD
DESIGN GROUP DPD	APPROVED DLC/SKG DESIGN GROUP WMD

1 INCH WHEN PRINTED FULL SIZE

0009861B3.DGN







PVT STA. 46+92.58  
PVT EL. 294.06 →  
-0.6709%

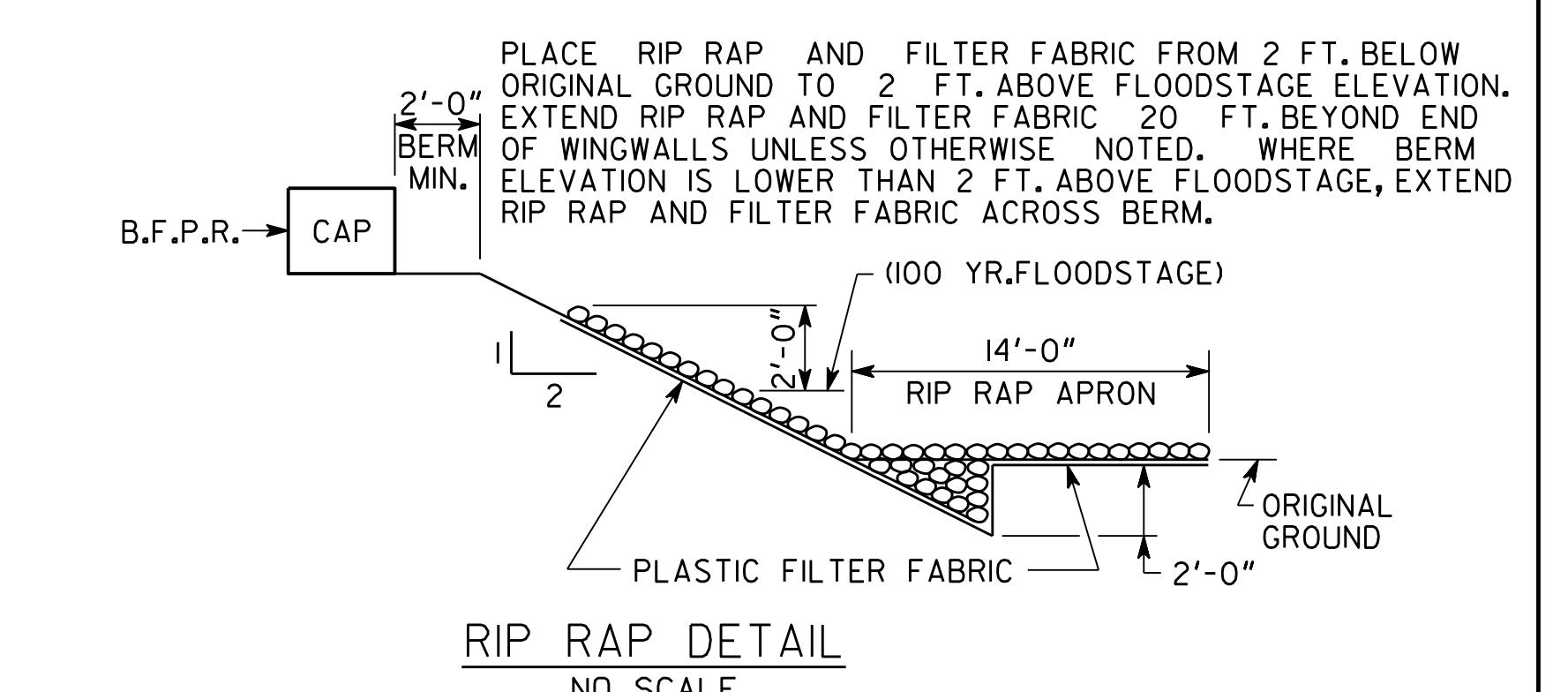
PVT STA. 50+68.73  
PVT EL. 291.53 →  
-0.6709%

GRADE DATA  
(BRIDGE NO. 4 LT.)

PVT STA. 46+92.58  
PVT EL. 294.06 →  
-0.6709%

PVT STA. 51+01.35  
PVT EL. 291.25 →  
-0.6709%

GRADE DATA  
(BRIDGE NO. 4 RT.)



EXISTING BRIDGE NO. 4 LT.  
BRIDGE SERIAL NO. 021-0008-0  
BRIDGE ID NO. 021-0001ID-006.9IN

EXISTING BRIDGE NO. 4 RT.  
BRIDGE SERIAL NO. 021-0007-0  
BRIDGE ID NO. 021-0001ID-006.90N

PROJECT PINO. 000986I

BRIDGE NO. 4 LT. & RT.

STATIONS AND ELEVATIONS			
BRIDGE	BENT	STATION	ELEVATION
LEFT	1	47+01.00	294.00
	2	47+41.00	293.74
	3	48+73.00	292.85
	4	49+13.00	292.58
RIGHT	1	46+96.00	294.04
	2	47+36.00	293.77
	3	48+68.00	292.88
	4	49+08.00	292.61

ELEVATION  
(BRIDGE NO. 4 LT. SHOWN)

500 YEAR FLOODSTAGE ELEV. = 284.98  
100 YEAR FLOODSTAGE ELEV. = 283.63  
50 YEAR FLOODSTAGE ELEV. = 283.11

EL. 268.00 TYP.

EXISTING FILL TO BE REMOVED.  
SEE ROADWAY PLANS FOR DETAILS AND PAYMENT.

APPROXIMATE ORIGINAL GROUNDLINE

EXISTING FILL TO BE REMOVED.  
SEE ROADWAY PLANS FOR DETAILS AND PAYMENT.

DRAWING NO.	REVISIONS	DATE	GEORGIA	
			35-0053	DEPARTMENT OF TRANSPORTATION
BRIDGE SHEET 1 OF 18	BY		DESIGNED DLW DRAWN SLW/DLW	CHECKED DPD DESIGN GROUP DPD
			REVIEWED DLC/SKG APPROVED WMD	

SCALE: 1" = 15'-0" (UNLESS OTHERWISE NOTED) MAY 2017

GENERAL NOTES

SPECIFICATIONS - GEORGIA STANDARD SPECIFICATIONS, 2013 EDITION, AND 2016 SUPPLEMENTAL SPECIFICATIONS AS MODIFIED BY CONTRACT DOCUMENTS.

REINFORCING STEEL - PLACE AND TIE ALL REINFORCING STEEL IN ACCORDANCE WITH THE GEORGIA DOT SPECIFICATIONS. DO NOT WELD REINFORCING STEEL. MAINTAIN 2" MINIMUM CLEARANCE ON ALL REINFORCEMENT UNLESS OTHERWISE NOTED.

CHAMFER - CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROLS - SEE ROADWAY PLANS FOR TRAFFIC CONTROLS AND TRAFFIC CONTROL PAYMENT.

EXISTING BRIDGE PLANS - ORIGINAL BRIDGE PLANS MAY BE OBTAINED ON THE GEORGIA DOT WEBSITE AT:

[HTTP://WWW.DOT.GA.GOV/BS/PROJECTS/PROJECTSEARCH](http://www.dot.ga.gov/bs/projects/projectsearch)

THE ORIGINAL LEFT BRIDGE PLANS ARE NOT AVAILABLE. THE ORIGINAL LEFT BRIDGE WAS WIDENED UNDER PROJECT NUMBER RAB(4)SP1552(15) (PROJECT ID NO. H011688) AND WIDENED AGAIN UNDER PROJECT NUMBER TSAPF-002-3(5) (PROJECT NO. H000234).

THE ORIGINAL RIGHT BRIDGE WAS BUILT UNDER PROJECT NUMBER SN-FAP79(2) (PROJECT NO. H014237) AND WAS WIDENED UNDER PROJECT NUMBER TSAF-002-3(5) (PROJECT NO. H000234).

WAITING PERIOD - NONE REQUIRED.

COFFERDAMS - PROVIDE COFFERDAMS AT BENTS 2 AND 3 ON BOTH BRIDGES.

FOUNDATION BACKFILL MATERIAL - PLACE 1'-0" OF TYPE II FOUNDATION BACKFILL MATERIAL UNDER EACH FOOTING AT BENTS 2 AND 3 ON BOTH BRIDGES. THE QUANTITY IS BASED ON THE PLAN FOOTING DIMENSIONS PLUS 2'-0". THIS REQUIREMENT MAY BE WAIVED BY THE ENGINEER IF THE FOOTING AREA IS DRY.

PLAN DRIVING OBJECTIVE - SEE SUBSTRUCTURE DETAILS.

DYNAMIC PILE TESTING - PERFORM PILE TESTING USING THE PILE DRIVING ANALYZER (PDA) IN ACCORDANCE WITH SPECIAL PROVISION SECTION 523. NOTIFY THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING AT 404-608-4720 TWO WEEKS PRIOR TO DRIVING PILES.

WAVE EQUATION - PERFORM WAVE EQUATION ANALYSIS (WEAP) IN ACCORDANCE WITH SPECIAL PROVISION 520. PROVIDE RESULTS OF THE WEAP TO THE GEOTECHNICAL BUREAU OF THE GEORGIA DOT OFFICE OF MATERIALS AND TESTING FOR REVIEW AND APPROVAL TWO WEEKS PRIOR TO DRIVING PILES.

SMOOTH DOWEL BARS - PLACE SMOOTH DOWEL BARS IN FORMED 3" DIAMETER X 12" DEEP HOLES AND GROUT IN PLACE SIMILAR TO ANCHOR BOLTS, SEE SUB-SECTION 501.3.05.B.3 OF THE GEORGIA DOT SPECIFICATIONS. STIRRUPS MAY BE SHIFTED SLIGHTLY TO CLEAR FORMED HOLES.

STANDARD PLAN MODIFICATION - MODIFY THE APPROACH SLAB STANDARD TO INCREASE THE 3/4" EXPANSION JOINT SHOWN BETWEEN THE APPROACH SLAB AND THE BACK FACE PAVING REST AND END POST TO 1" AT BENT 4. SEE ROADWAY PLANS FOR APPROACH SLAB PAYMENT.

GROOVED CONCRETE - GROOVE THE ENTIRE LENGTH OF THE BRIDGE TRANSVERSELY AS PER SUB-SECTION 500.3.05.T.9.C OF THE GEORGIA DOT SPECIFICATIONS.

GENERAL NOTES

EXTERIOR BEAM BRACING - THE CONTRACTOR SHALL PROVIDE BRACING FOR SPANS 1 AND 3 BETWEEN EXTERIOR BEAM AND THE FIRST INTERIOR BEAM UNTIL THE DECK HAS BEEN POURED AND THE OVERHANG FORMS REMOVED. ALL COST FOR DESIGNING, PROVIDING, INSTALLING AND REMOVING BRACING SHALL BE INCLUDED IN PRICE BID FOR LUMP-SUPERSTRUCTURE CONCRETE.

WELDING - ALL WELDING ON GEORGIA DOT PROJECTS SHALL BE PERFORMED BY CERTIFIED WELDERS THAT HAVE IN THEIR POSSESSION A CURRENT WELDING CERTIFICATION CARD ISSUED BY THE OFFICE OF MATERIALS AND TESTING. USE ONLY E70XX (EXCLUDING E7014 AND E7024) LOW HYDROGEN ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING.

BRIDGE REMOVAL - REMOVE EXISTING BRIDGE AS PER SUB-SECTION 540.3.05 OF THE GEORGIA DOT SPECIFICATIONS.

SALVAGE MATERIAL - NO MATERIAL REMOVED FROM THE EXISTING STRUCTURE SHALL BE SALVAGED FOR USE BY THE GEORGIA DOT.

INCIDENTAL ITEMS - INCLUDE THE COST INCIDENTAL TO THE WORK THAT IS NOT SPECIFICALLY COVERED BY THE GEORGIA STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS IN THE OVERALL BID SUBMITTED. THIS INCLUDES THE COST OF, WATERPROOFING, JOINT FILLERS AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE THE WORK.

GENERAL NOTES (ALTERNATE 1)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED AT EACH TEST PILE.

TEST PILES - DRIVE TEST PILES AT THE FOLLOWING LOCATIONS:

ONE 14 IN SQ PSC X 69 FT AT BRIDGE 3 LEFT BENT 1  
 ONE 14 IN SQ PSC X 27 FT AT BRIDGE 3 RIGHT BENT 2  
 ONE 14 IN SQ PSC X 42 FT AT BRIDGE 3 RIGHT BENT 3  
 ONE 14 IN SQ PSC X 63 FT AT BRIDGE 3 LEFT BENT 4

GENERAL NOTES (ALTERNATE 2)

DRIVING RESISTANCE - DETERMINE DRIVING RESISTANCE FOR PILES USING DYNAMIC PILE TESTING IN ACCORDANCE WITH SPECIAL PROVISION 520. DYNAMIC PILE TESTING SHALL BE REQUIRED FOR ONE PILE AT EACH OF BENTS 1 LT, 2 RT, 3 RT, 4 LT.

METAL SHELL PILES - USE A MINIMUM SHELL THICKNESS OF 3/8" FOR PILES HAVING AN OUTSIDE DIAMETER OF 14". USE THIS SHELL THICKNESS IN LIEU OF THOSE CALL FOR IN SUB-SECTION 520.3.05.M AND SUB-SECTION 855.2.01.A.1 OF THE GEORGIA DOT SPECIFICATIONS.

PILE CLOSURE PLATE DETAIL - USE CLOSURE PLATE OPTION 2 AT THIS SITE IN ACCORDANCE WITH SUB-SECTION 520.3.05.M OF THE GEORGIA DOT SPECIFICATIONS.

DESIGN DATA

SPECIFICATIONS ----- AASHTO LRFD 7TH EDITION, 2014  
 (DESIGNED FOR SEISMIC PERFORMANCE ZONE 2, SDI = 0.170)

DESIGN VEHICLE LIVE LOAD ----- HL-93

FUTURE PAVING ALLOWANCE ----- 30 LBS PER SQ FT

CONCRETE: SUPERSTRUCTURE ----- CLASS D,  $f_c' = 4,000$  PSI  
 BARRIER ----- CLASS D,  $f_c' = 4,000$  PSI  
 PSC BEAMS ----- CLASS AAA,  $f_c' = \text{SEE BEAM SHEETS}$   
 PSC BEAM ALLOWABLE TENSION ----- SEE BEAM SHEETS  
 SUBSTRUCTURE ----- CLASS AA,  $f_c' = 3,500$  PSI

REINFORCEMENT STEEL: ----- GRADE 60,  $f_y = 60,000$  PSI

PRETENSIONING STRANDS: -----  $f_s' = 270,000$  PSI

METAL SHELL PILES (ALT. 2): ----- GRADE 3,  $f_y = 45,000$  PSI

EACH BRIDGE CONSISTS OF

2 - 30' -0" TYPE I MOD PSC BEAM SPANS ----- SPECIAL DESIGN

1 - 132' -0" BULB TEE, 65 IN, PSC BEAM SPAN ----- SPECIAL DESIGN

2 - PILE END BENTS ----- SPECIAL DESIGN

2 - CONCRETE INTERMEDIATE BENTS ----- SPECIAL DESIGN

4 - END POST AND GUARDRAIL ATTACHMENT DETAIL ----- GA. STD. 3054 (9-30-02)  
 (L = 4'-0"; W = 1'-1"; H = 3'-6")

SQUARE PRESTRESSED CONCRETE PILES ----- GA. STD. 3215 (2-22-84)

BAR BENDING DETAILS ----- GA. STD. 3901 (8-69)

TYPICAL FILL DETAIL AT END OF BRIDGE ----- GA. STD. 9037 (9-99)

BRIDGE NO. 4 LT. & RT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**

ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

GENERAL NOTES SHEET  
 SR 11(SR 49, US 41) OVER  
 ROCKY CREEK

DATE	REVISIONS	BIBB COUNTY		0009861	
DRAWING NO. 35-0054		NO SCALE		MAY 2017	
BRIDGE SHEET 2 OF 18		BY	DESIGNED DLW DRAWN JTM/DLW	CHECKED DPD DESIGN GROUP DPD	REVIEWED DLC/SKG APPROVED WMD

1 INCH WHEN PRINTED FULL SIZE

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DRAINAGE DATA
SUMMARY OF QUANTITIES
ALTERNATE 1 QUANTITIES

DRAINAGE AREA ----- 262.0 SQ MILES						QUANTITIES						QUANTITIES							
FLOOD FREQUENCY	TOTAL DISCHARGE	DISCHARGE THRU BRIDGE	MEAN VELOCITY	AREA OF OPENING UNDER FLOODSTAGE	BACKWATER	PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM	PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM				
50 YEAR		15,300 CFS	3,997 CFS	2.82 FPS	1,416 SQ FT	1.05 FT	207-0203	21	21	CY	FOUND BKFILL MATL, TP II		520-2214	1835	1615	LF	PILING, PSC, 14 IN SQ		
100 YEAR		17,300 CFS	4,473 CFS	2.96 FPS	1,513 SQ FT	1.09 FT	211-0300	236	210	CY	BRIDGE EXCAVATION, STREAM CROSSING		520-3214	2	2	EA	TEST PILE, PSC, 14 IN SQ		
500 YEAR		22,600 CFS	5,707 CFS	3.23 FPS	1,769 SQ FT	1.18 FT	500-0100	1084	1084	SY	GROOVED CONCRETE		520-4214	1	1	EA	LOAD TEST, PSC, 14 IN SQ (IF REQD)		
<u>TRAFFIC DATA</u>																<u>ALTERNATE 2 QUANTITIES</u>			
TRAFFIC ----- ADT = 39,600 (2020) ADT = 48,350 (2040)						500-2100	412	412	LF	CONCRETE BARRIER		<u>QUANTITIES</u>							
DESIGN SPEED ----- 55 MPH						500-3002	199	199	CY	CLASS AA CONCRETE		PAY ITEM NUMBER	LEFT BRIDGE	RIGHT BRIDGE	UNIT	PAY ITEM			
TRUCKS ----- 9.5 %						507-8900	464	---	LF	PSC BEAMS, AASHTO TYPE I MOD, BR NO - 4 LT		<u>QUANTITIES</u>							
24 HR TRUCKS ----- 13 %						507-8900	---	464	LF	PSC BEAMS, AASHTO TYPE I MOD, BR NO - 4 RT		520-1314	2480	2135	LF	PILING IN PLACE, METAL SHELL, 14 IN OD			
DIRECTIONAL ----- 50 %						507-9034	787	---	LF	PSC BEAMS, AASHTO, BULB TEE, 65 IN, BR NO - 4 LT		520-4314	1	1	EA	LOAD TEST, METAL SHELL, 14 IN OD (IF REQD)			
<u>EXISTING UTILITIES</u>																			
GAS MAIN ----- ATLANTA GAS LIGHT COMPANY						511-1000	34476	34497	LB	BAR REINF STEEL		<u>QUANTITIES</u>							
TELEPHONE CONDUITS ----- AT&T						511-3000	LUMP	---	LS	SUPERSTR REINF STEEL, BR NO - 4 LT (82692)		<u>QUANTITIES</u>							
FIBER OPTIC ----- GDOT						523-1100	2	2	EA	DYNAMIC PILE TEST		<u>QUANTITIES</u>							
WATER MAIN ----- MACON WATER AUTHORITY						525-1000	4	4	EA	COFFERDAM		<u>QUANTITIES</u>							
<u>UTILITIES</u>																			
NO UTILITIES ON BRIDGE						540-1102	LUMP	---	LS	REMOVAL OF EXISTING BRIDGE, BR NO - 4 LT		<u>QUANTITIES</u>							
						540-1102	---	---	LS	REMOVAL OF EXISTING BRIDGE, BR NO - 4 RT		<u>QUANTITIES</u>							

BRIDGE NO. LT. &amp; RT.

GEORGIA

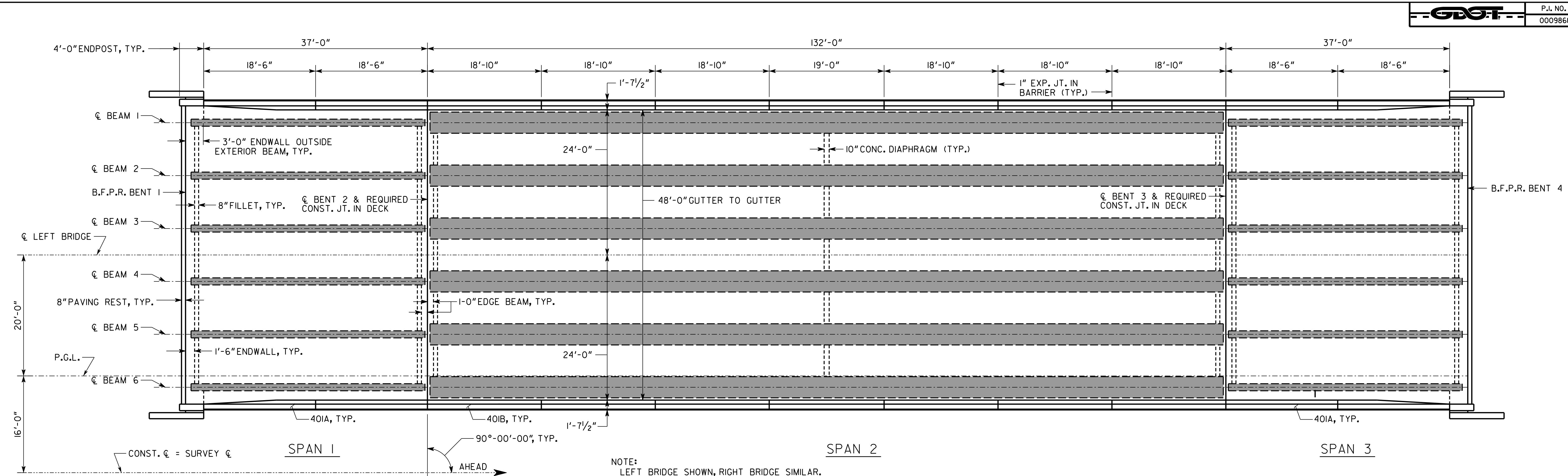
**DEPARTMENT OF TRANSPORTATION**  
 ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

 GENERAL NOTES - SHEET 2  
 SR 11(SR 49, US 41) OVER  
 ROCKY CREEK

BIBB COUNTY 000986I

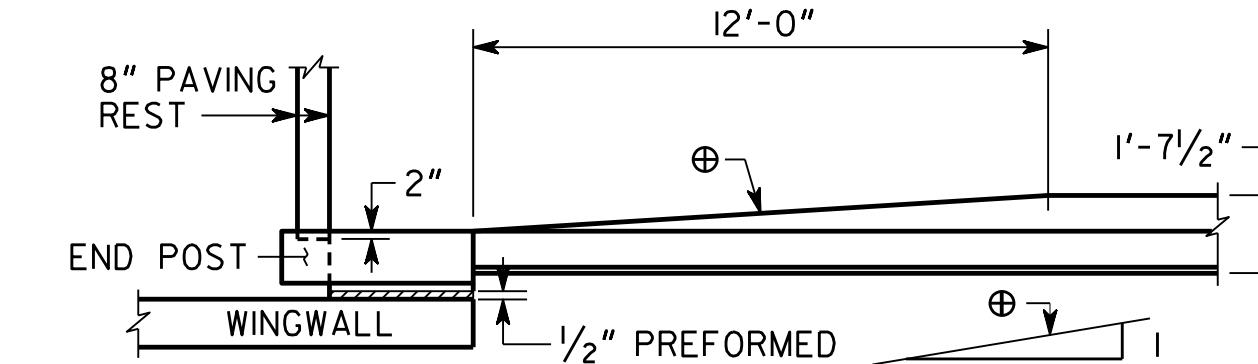
DRAWING NO. 35-0055	DATE	REVISIONS	NO SCALE	MAY 2017
BRIDGE SHEET 3 OF 18	BY		DESIGNED DLW DRAWN JTM/DLW	CHECKED DPD DESIGN GROUP DPD
			APPROVED WMD	PRINTING.dgn

1 INCH WHEN PRINTED FULL SIZE



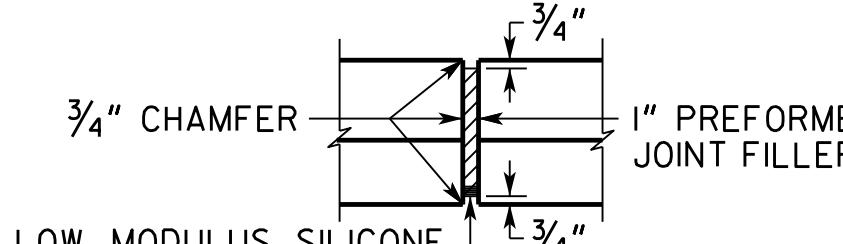
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2/6/2018



BARRIER TRANSITION

SCALE: 1/4" = 1'-0"



LOW MODULUS SILICONE SEALANT (TYPE A)

PLAN

1" PREFORMED JOINT FILLER

HOLD IN PLACE WITH 10<sup>d</sup> GALV. NAILS.

3/4"

LOW MODULUS SILICONE SEALANT (TYPE A)

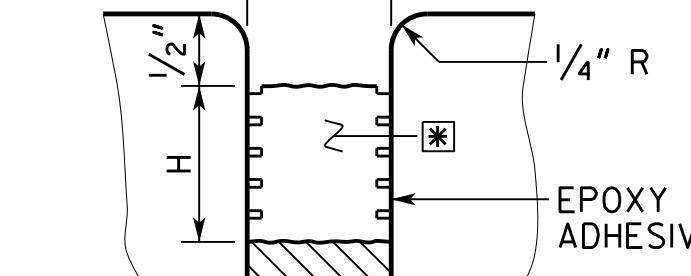
ELEVATION

SIDE ELEVATION

DETAILS OF 1" EXPANSION JOINT IN BARRIER

SCALE: 1/2" = 1'-0"

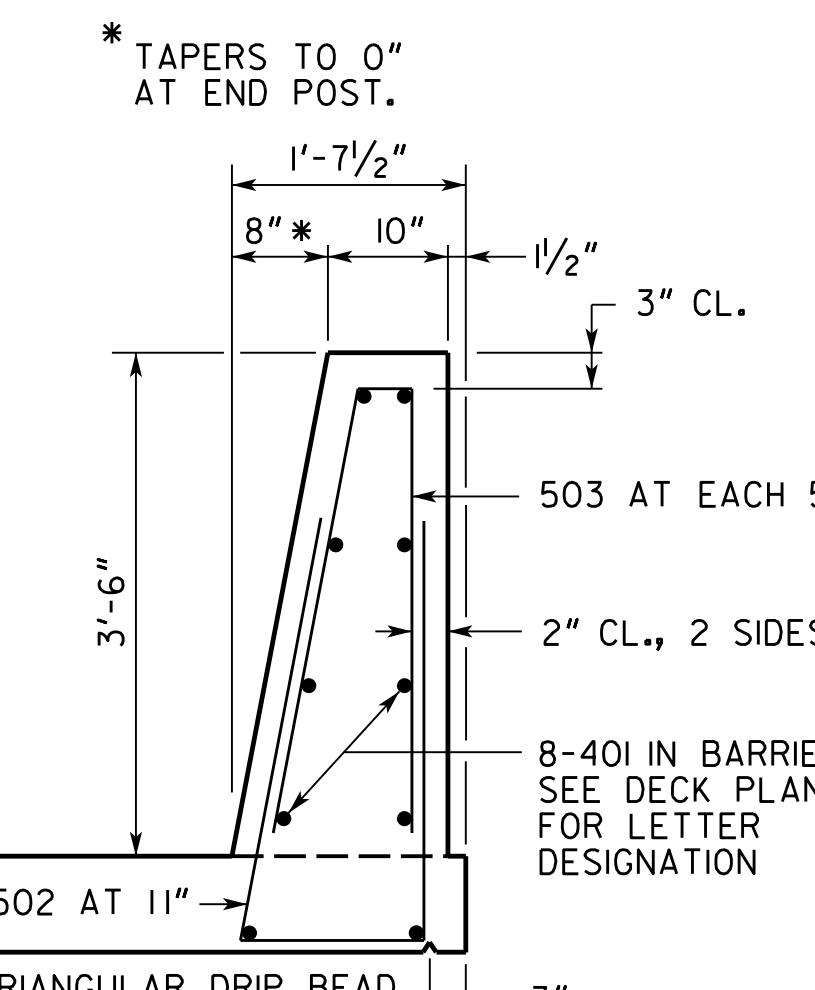
SEAL AS PER GEORGIA DOT SPECIFICATIONS SECTION 449.2.D. SEAL SHALL BE 2" (H) BY 1/4" WIDE PRIOR TO INSTALLATION.



FILLER MATERIAL IN ACCORDANCE WITH SUB-SECTION 833.2.01 OF THE GEORGIA DOT SPECIFICATIONS, HOLD IN PLACE WITH 10<sup>d</sup> GALV. NAILS

NO SCALE

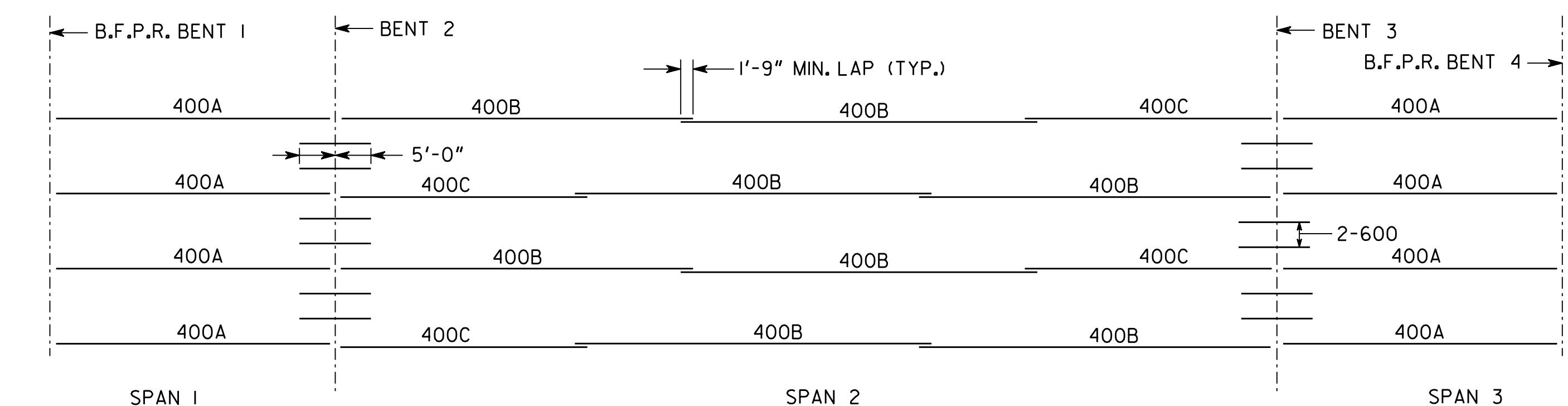
EXPANSION JOINT DETAILS



BARRIER DETAIL

SCALE: 3/4" = 1'-0"

NOTE: THE 400 SERIES BARS SHALL BE ALTERNATED AS SHOWN. THE MIN. LAP FOR THE 400 SERIES BARS SHALL BE 1'-9". TWO 600 BARS SHALL BE PLACED BETWEEN EACH PAIR OF 400 BARS IN TOP OF SLAB OVER INTERMEDIATE BENTS.



SLAB REINFORCEMENT SCHEMATIC

400 BAR DETAIL

NO SCALE

BRIDGE NO. 4 LT. & RT.

GEORGIA  
DEPARTMENT OF TRANSPORTATION  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

DECK PLAN  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK

BIBB COUNTY

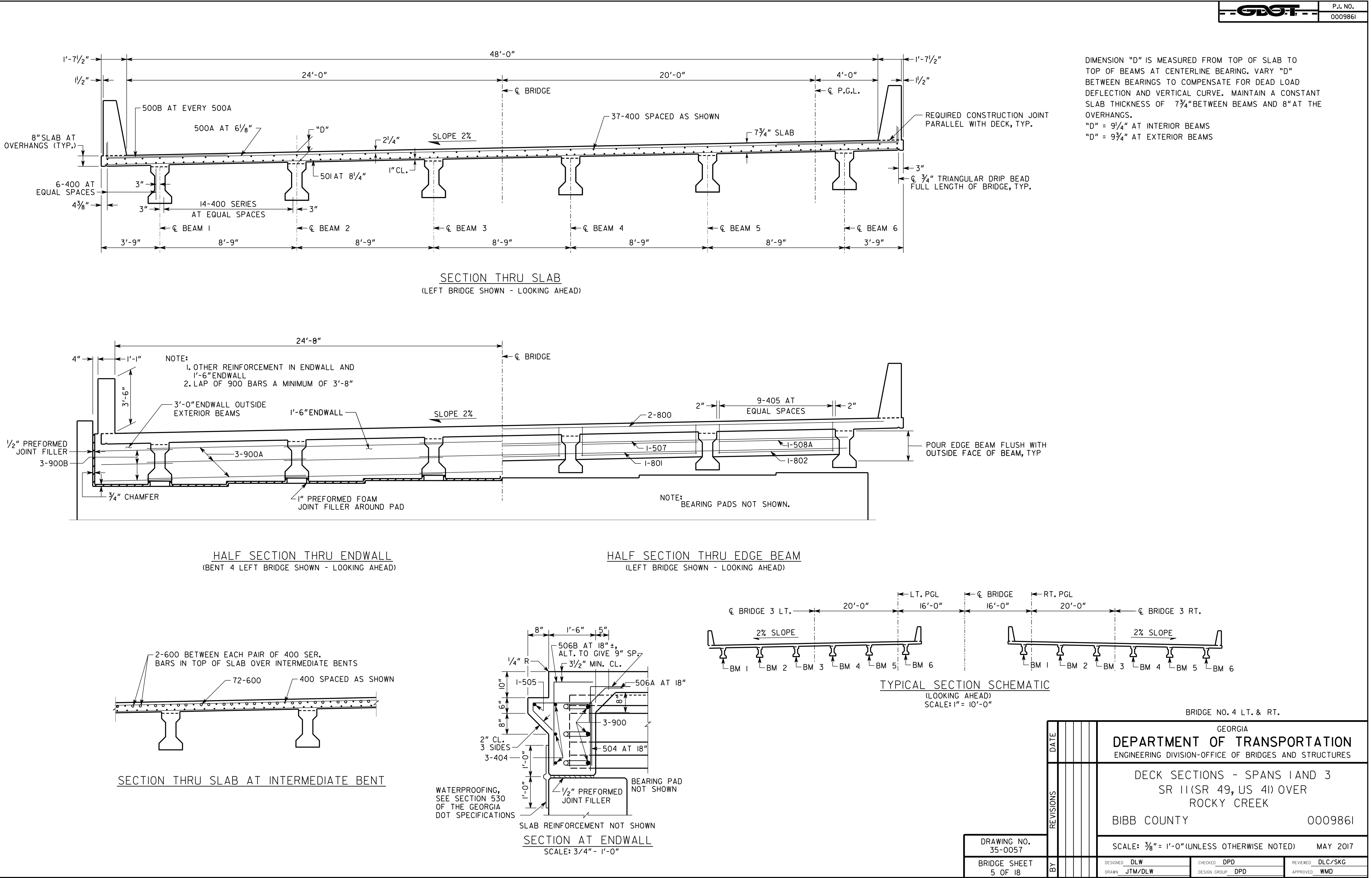
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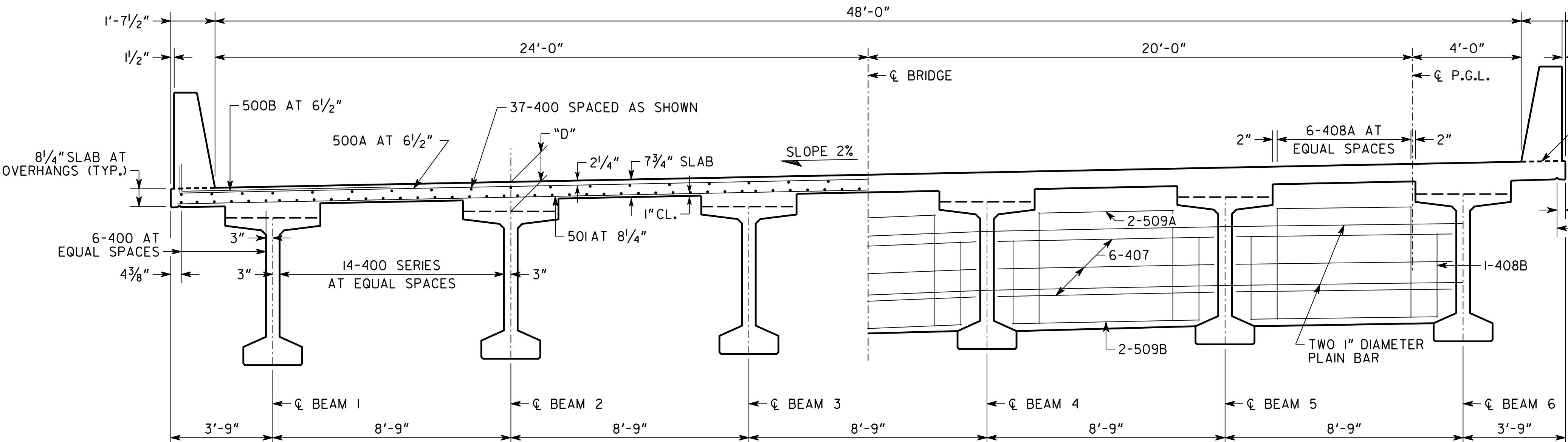
LEFT BRIDGE SUPERSTRUCTURE QUANTITIES				
ITEM	SPAN 1	SPAN 2	SPAN 3	TOTAL
LUMP - SUPERSTR. CONCRETE, CU. YDS., CLASS "D"	64.2	203.4	64.2	331.8
LUMP - SUPERSTR. REINF. STEEL, LBS.	17060	48572	17060	82692

RIGHT BRIDGE SUPERSTRUCTURE QUANTITIES				
ITEM	SPAN 1	SPAN 2	SPAN 3	TOTAL
LUMP - SUPERSTR. CONCRETE, CU. YDS., CLASS "D"	64.2	203.4	64.2	331.8
LUMP - SUPERSTR. REINF. STEEL, LBS.	17060	48572	17060	82692

END POST CONCRETE AND BAR REINFORCEMENT STEEL QUANTITIES INCLUDED IN SPANS 1 AND 3 QUANTITIES. 600 BARS INCLUDED IN THE REINFORCEMENT QUANTITIES FOR SPANS 1 AND 3.

DRAWING NO. 35-0056	DATE	REVISIONS	DECK PLAN SR 11(SR 49, US 41) OVER ROCKY CREEK		
BRIDGE SHEET 4 OF 18	BY		DESIGNED DRAWN SLW/DLW	CHECKED DRAWN DLC/SKG	REVIEWED APPROVED WMD
SCALE: 1/8" = 1'-0" (UNLESS OTHERWISE NOTED) MAY 2017					



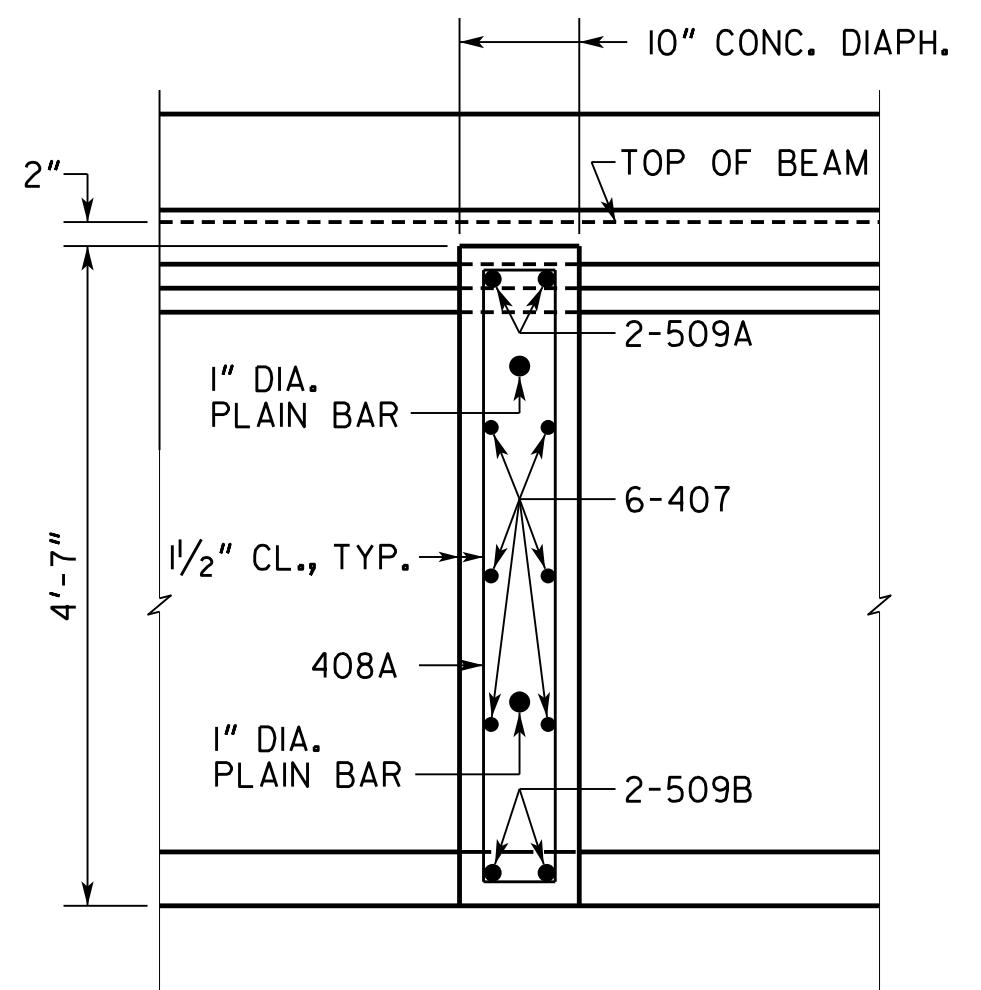


HALF SECTION THRU SLAB  
(LEFT BRIDGE SHOWN - LOOKING AHEAD)

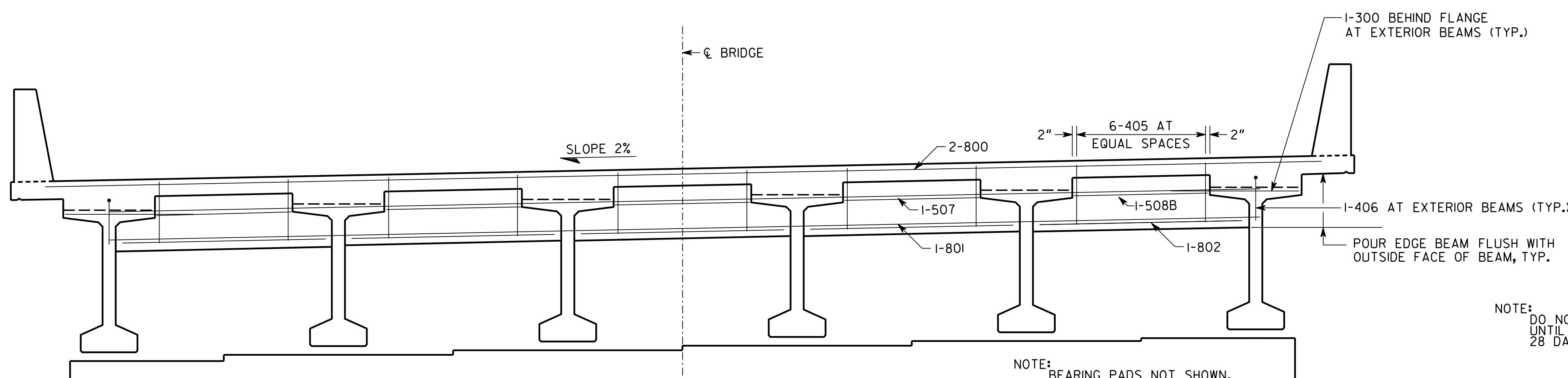
HALF SECTION THRU DIAPHRAGM  
(LEFT BRIDGE SHOWN - LOOKING AHEAD)

DIMENSION "D" IS MEASURED FROM TOP OF SLAB TO TOP OF BEAMS AT CENTERLINE BEARING. VARY "D" BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTION AND VERTICAL CURVE. MAINTAIN A CONSTANT SLAB THICKNESS OF 7 3/4" BETWEEN BEAM AND 8 1/4" AT THE OVERHANGS.

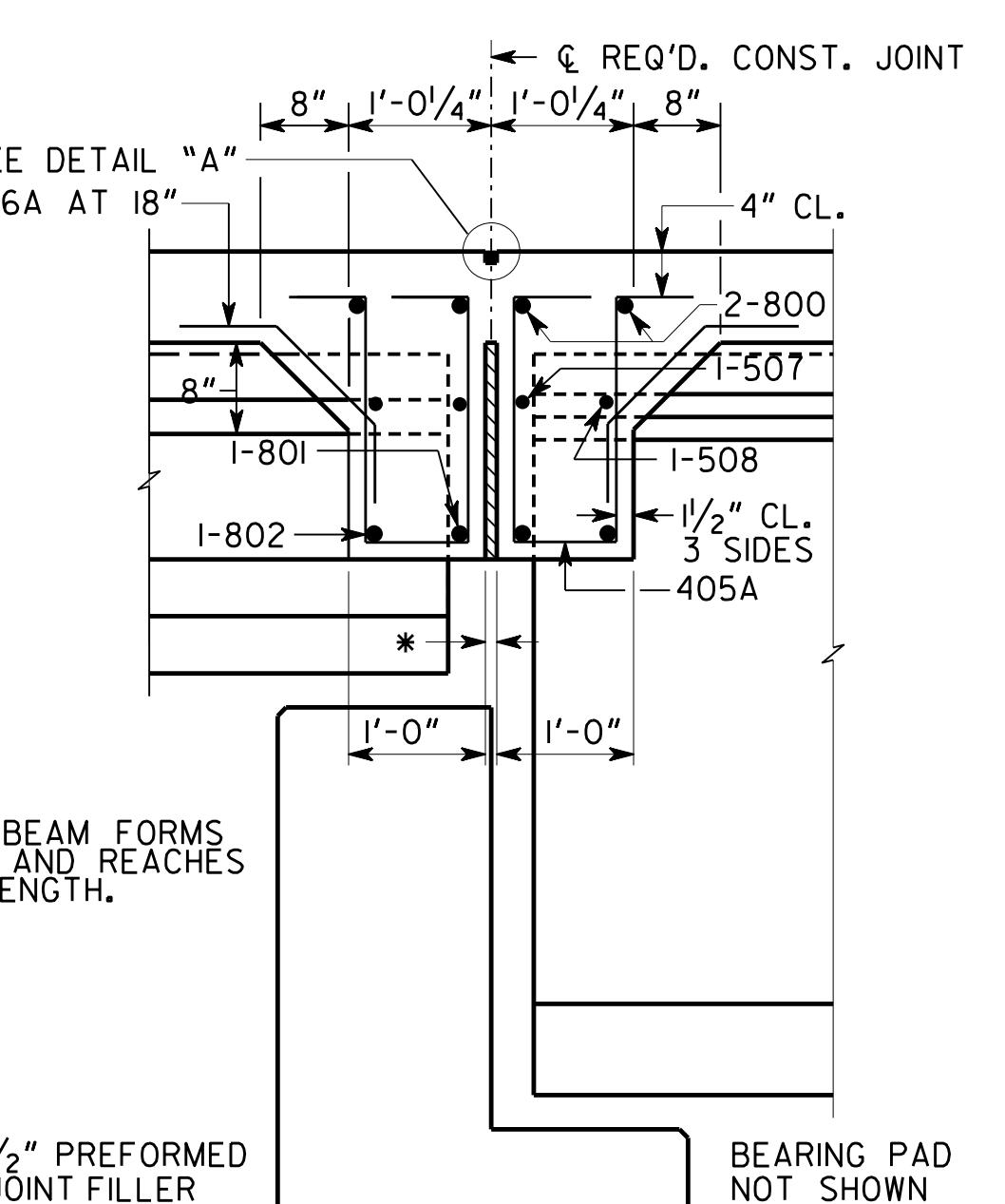
"D" = 1'-0 3/4" AT INTERIOR BEAMS  
"D" = 1'-1 1/2" AT EXTERIOR BEAMS



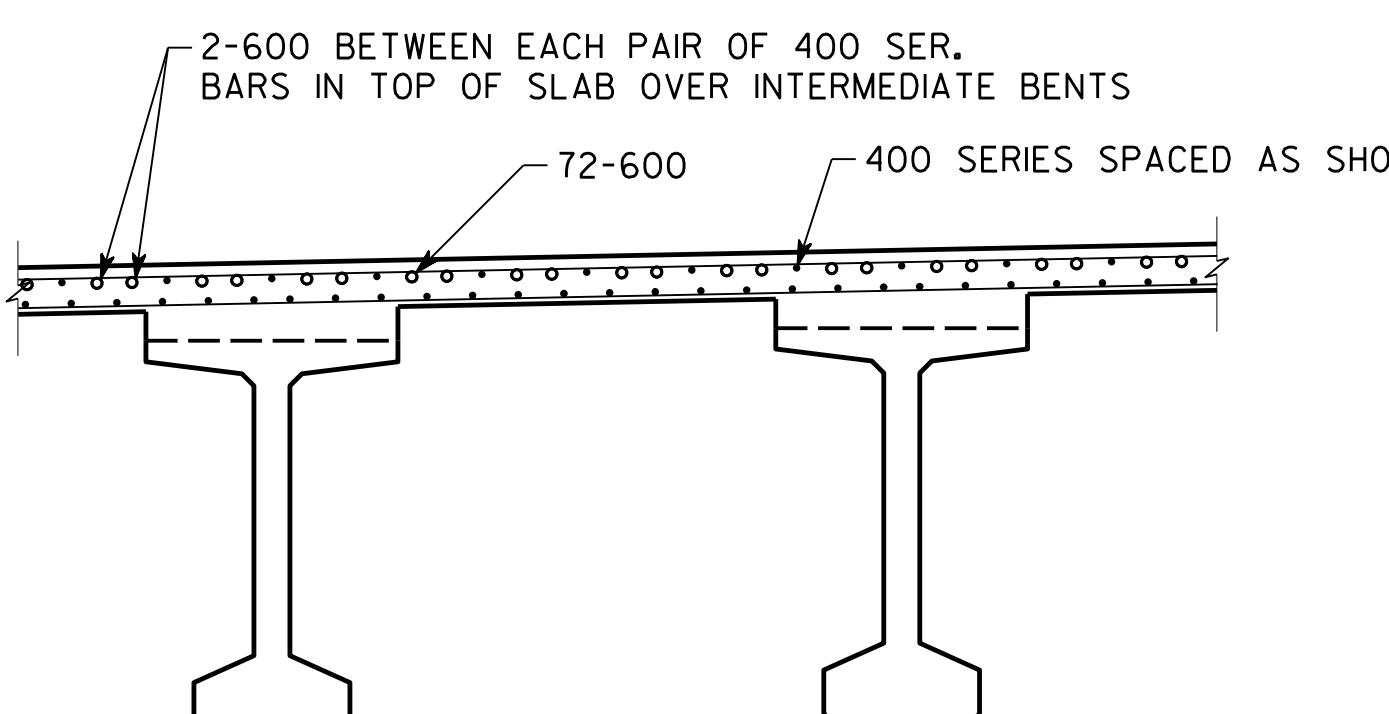
SECTION THRU DIAPHRAGM  
SCALE: 3/4" = 1'-0"



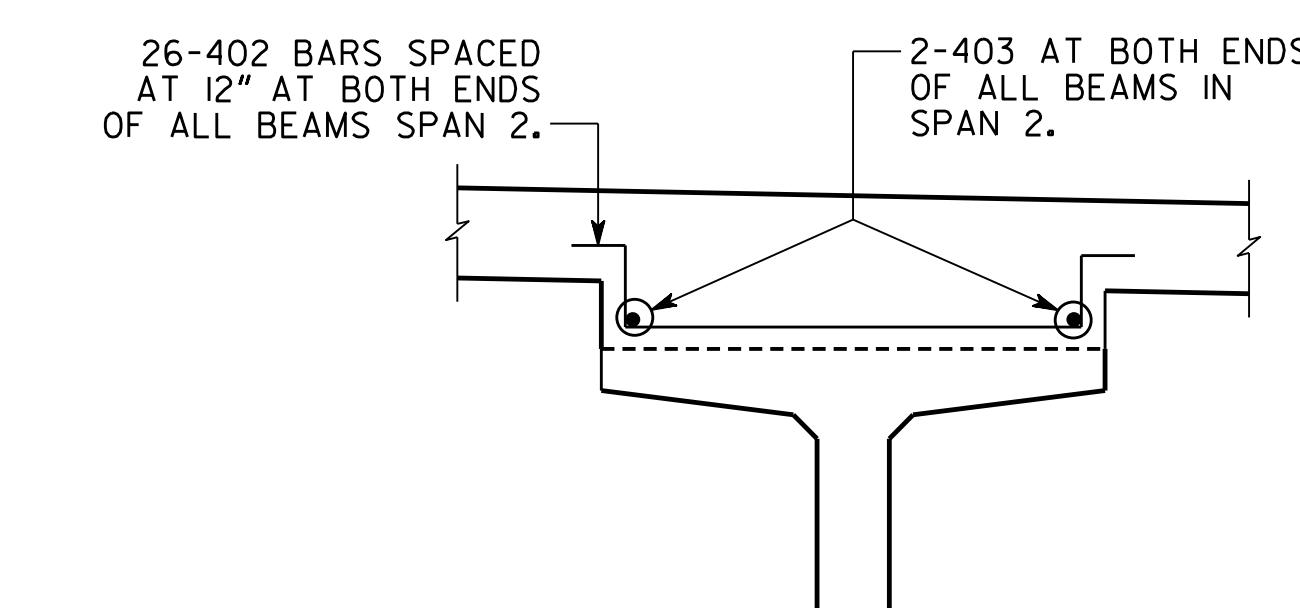
NOTE: DO NOT REMOVE EDGE BEAM FORMS UNTIL DECK IS POURED AND REACHES 28 DAY CONCRETE STRENGTH.



SECTION THRU EDGE BEAM  
SCALE: 3/4" = 1'-0"  
BRIDGE NO. 4 LT. & RT.



SECTION THRU SLAB AT INTERMEDIATE BENT

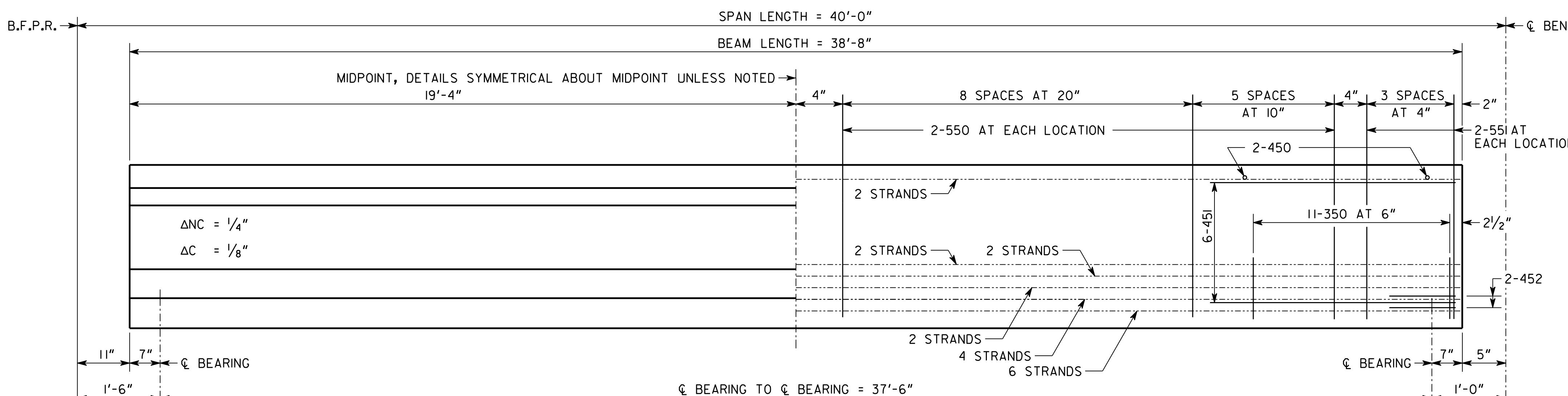


REBAR DETAIL IN COPING  
NO SCALE

DRAWING NO.		DATE		GEORGIA	
35-0058				DEPARTMENT OF TRANSPORTATION	
				ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES	
BRIDGE SHEET	6 OF 18	REVISIONS		DECK SECTIONS - SPAN 2	
BY				SR 11(SR 49, US 41) OVER	
DRAWN	JTM/DLW	DESIGNED	DLW	ROCKY CREEK	
		CHECKED	DPD	BIBB COUNTY	000986I
		REVIEWED	DLC/SKG		MAY 2017
		APPROVED	WMD		

1 INCH WHEN PRINTED FULL SIZE

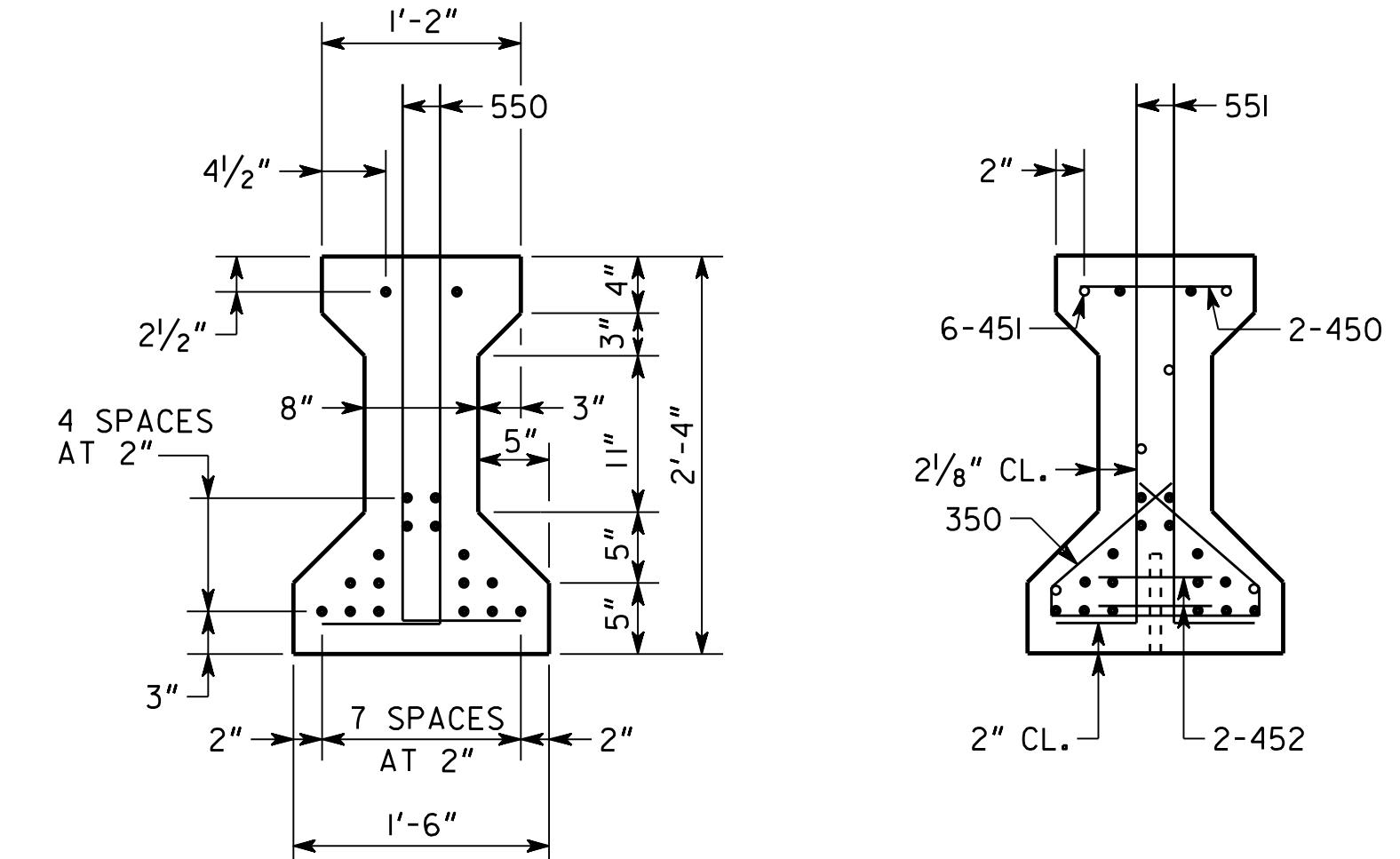
# void



## NOTES

## ELEVATION

- I. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 3'-6" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
  2. CHAMFER EDGES OF BEAMS  $\frac{1}{2}$ " OR  $\frac{3}{4}$ ".
  3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}$ " EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
  4. AT  $\frac{1}{4}$  BEARING, FORM A  $1\frac{3}{4}$ " DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 4" X  $1\frac{3}{4}$ " X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $1\frac{1}{2}$ " DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
  5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}$ ". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
  6. NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
  7. COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
  8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
  9. PRESTRESSING DATA IS AS FOLLOWS:
    - A. USE I8 -  $\frac{1}{2}$ " DIAMETER SPECIAL LOW-RELAXATION ( $A = 0.167$  SQ IN) STRANDS. PRETENSION STRANDS TO 33,818 LBS EACH.
    - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_{ci}$ ) OF 5,000 PSI.
    - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 608,724 LBS.
    - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 482,188 LBS.
  10. CONCRETE STRENGTH ( $f'_c$ ) = 5,500 PSI.
  11. ALLOWABLE PSC BEAM TENSION = 445 PSI.



## SECTION AT MIDPOINT

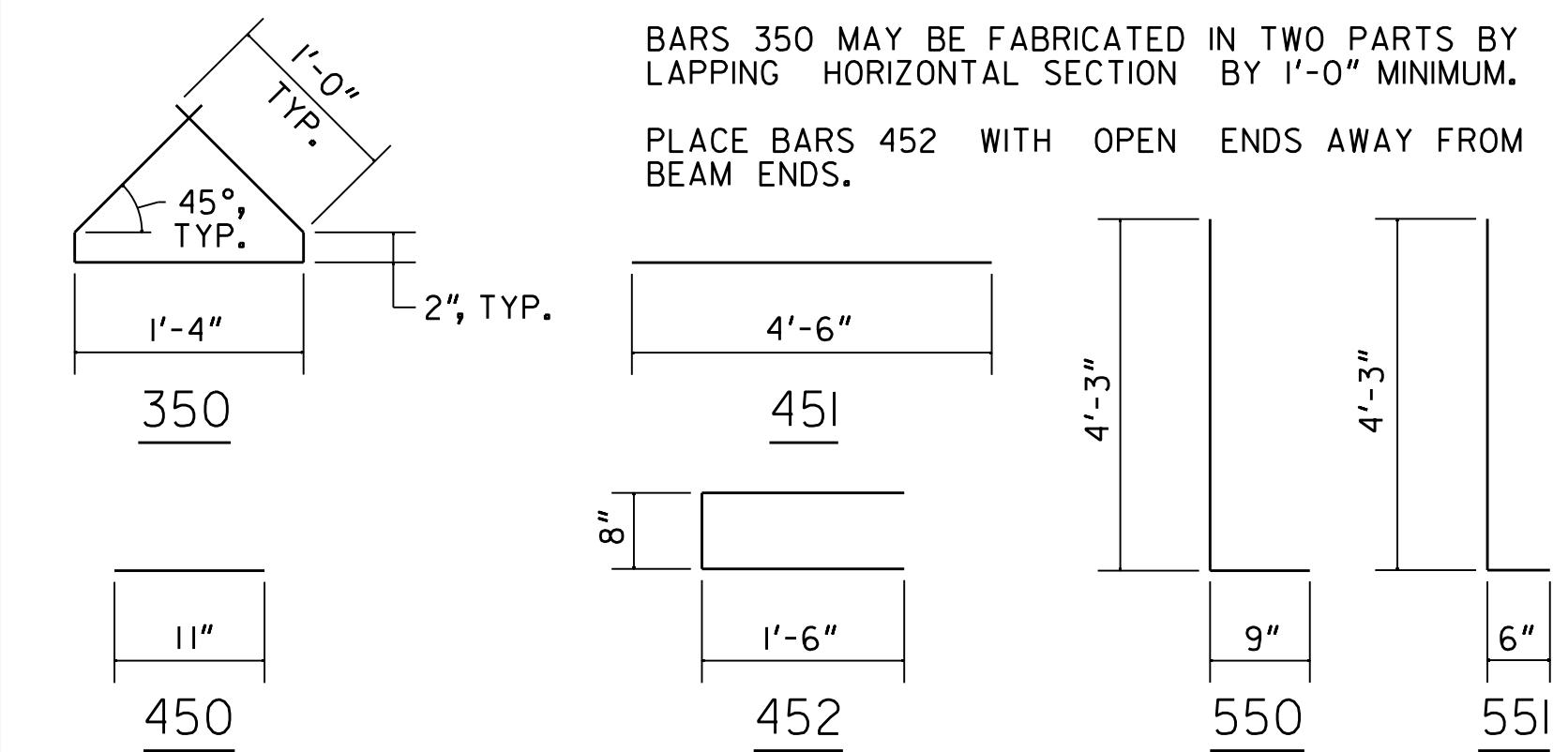
## SECTION AT END

## REINFORCEMENT

ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 551  
SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH  
THAT THE HORIZONTAL LEG EXTENDS BETWEEN  
TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.  
  
SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID  
COLLISION WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY  
LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.  
PLACE BARS 452 WITH OPEN ENDS AWAY FROM  
BEAM ENDS.



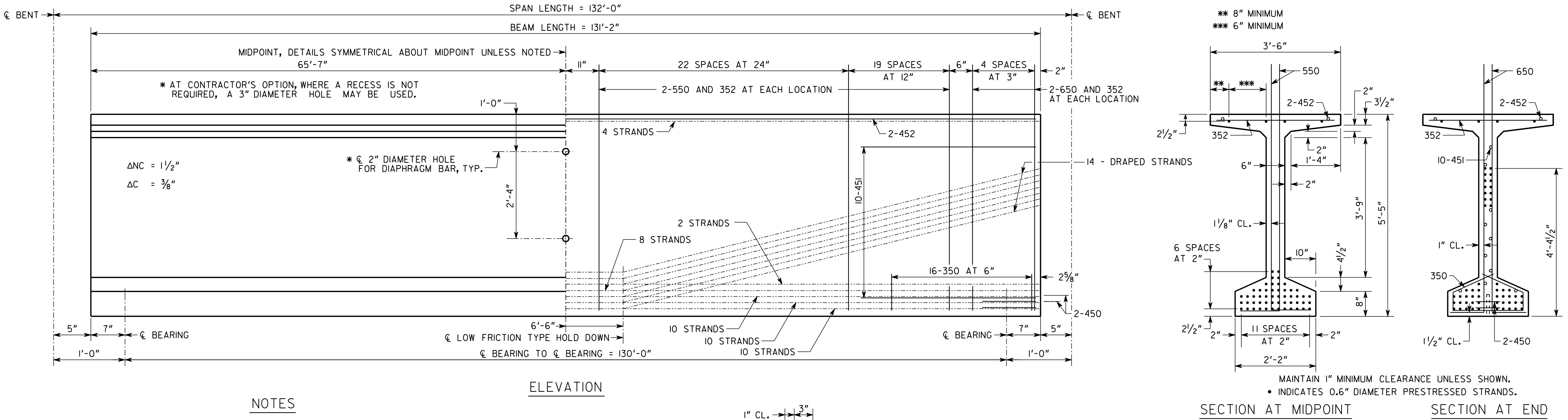
BRIDGE NO. 4 LT. & RT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

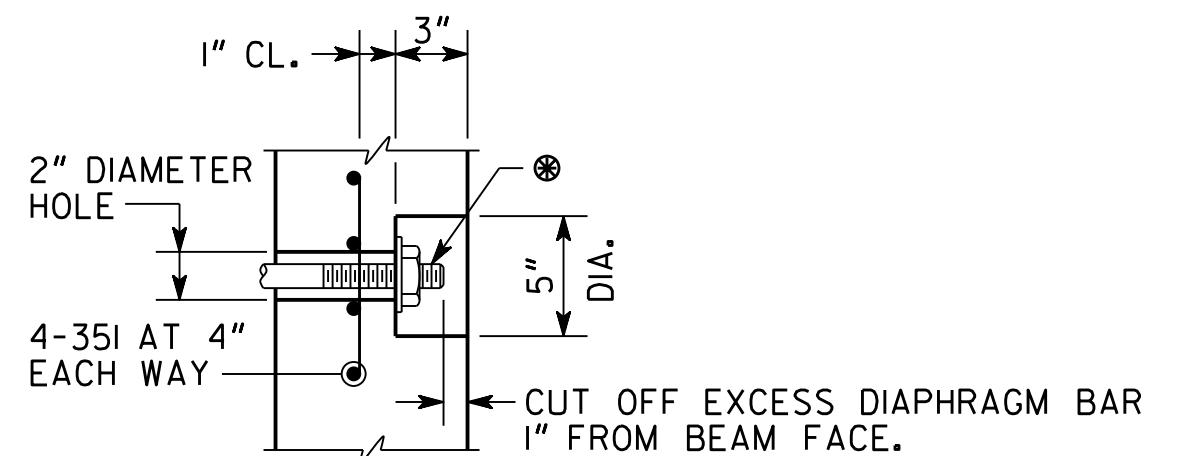
TYPE I MOD PSC BEAM - END SPANS  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK

BIBB COUNTY 0009861

 1 INCH WHEN PRINTED FULL SIZE



- I. BEAMS SHALL BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND SHALL BE PICKED UP WITHIN 7'-9" FROM THEIR ENDS. DISREGARDING THIS REQUIREMENT COULD LEAD TO COLLAPSE OF THE BEAM. PICK-UPS SHALL BE EMBEDDED TO WITHIN 4" OF THE BOTTOM OF THE BEAM. DETAILS OF PICK-UPS SHALL BE INCLUDED IN THE SHOP DRAWINGS.
  2. CHAMFER EDGES OF BEAMS  $\frac{1}{2}$ ",  $\frac{3}{4}$ " OR 1".
  3. HORIZONTAL DIMENSIONS ARE IN PLACE DIMENSIONS. THE BEAM LENGTH INCLUDES THE  $\frac{1}{8}$ " EPOXY MORTAR AT EACH END. SHOP DRAWINGS SHALL ADJUST HORIZONTAL DIMENSIONS FOR GRADE AND FABRICATION EFFECTS SUCH AS SHRINKAGE AND ELASTIC SHORTENING.
  4. AT  $\frac{1}{4}$  BEARING, FORM A  $1\frac{3}{4}$ " DIAMETER X 7" DEEP HOLE AT THE FIXED ENDS AND A 6" X  $1\frac{3}{4}$ " X 7" DEEP SLOT AT THE EXPANSION ENDS FOR A  $1\frac{1}{2}$ " DIAMETER SMOOTH DOWEL. SEE PLAN AND ELEVATION SHEET FOR LOCATION OF FIXED AND EXPANSION ENDS.
  5. TOPS OF BEAMS SHALL BE ROUGH FLOATED AT APPROXIMATELY THE TIME OF INITIAL SET. ENTIRE TOP SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE BRUSH TO REMOVE ALL LAITANCE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING TO THE SLAB. ROUGHENED SURFACE SHALL HAVE AN AMPLITUDE OF APPROXIMATELY  $\frac{1}{4}$ ". CONCRETE FINS OR PROJECTIONS SHALL BE REMOVED TO PRODUCE A VERTICAL FACE AT THE EDGE OF THE BEAM.
  6. NON-COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_{NC}$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF THE SLAB AND COPING.
  7. COMPOSITE DEAD LOAD DEFLECTION ( $\Delta_C$ ) AT THE MIDPOINT IS DUE TO THE WEIGHT OF BARRIER.
  8. STRANDS SHALL MEET ALL REQUIREMENTS OF ASTM A 416 GRADE 270.
  9. PRESTRESSING DATA IS AS FOLLOWS:
    - A. USE 56 - 0.6 DIAMETER LOW-RELAXATION ( $A = 0.217$  SQ IN) STRANDS. PRETENSION TOP FOUR (4) STRANDS TO 10,000 LBS EACH. PRETENSION BOTTOM STRANDS TO 43,943 LBS EACH.
    - B. PRETENSIONED STRANDS SHALL BE RELEASED AFTER THE CONCRETE HAS REACHED A MINIMUM STRENGTH ( $f'_{ci}$ ) OF 8,000 PSI.
    - C. INCLUDING THE TOP STRANDS, THE TOTAL JACKING FORCE OF PRETENSIONING IS 2,325,036 LBS.
    - D. INCLUDING THE TOP STRANDS, THE NET PRESTRESSING FORCE OF THE STRANDS AFTER ALL LOSSES IS 1,735,727 LBS.
  10. CONCRETE STRENGTH ( $f'_c$ ) = 8,500 PSI.
  11. ALLOWABLE PSC BEAM TENSION = 553 PSI.



- ④ DIAPHRAGM BAR SHALL BE A 1" DIAMETER PLAIN BAR, THREADED 5" ON EACH END, WITH  $\frac{1}{4}$ " X  $3\frac{1}{2}$ " DIAMETER WASHERS AND HEX NUTS (ASTM A 709 GRADE 36).  
TIGHTEN DIAPHRAGM BAR AS PER SUB-SECTION 507.3.05.C OF THE GEORGIA DOT SPECIFICATIONS.  
AFTER EXCESS DIAPHRAGM BAR HAS BEEN CUT OFF, PAINT DIAPHRAGM BAR, WASHER, AND NUT EXPOSED IN RECESS WITH SPECIAL PROTECTIVE COATING NO. 2 P AS PER SECTION 535 OF THE GEORGIA DOT SPECIFICATIONS. AFTER PAINTING, FILL THE RECESS WITH AN APPROVED EPOXY GROUT.  
GALVANIZING OF THE DIAPHRAGM BAR AS PER SUB-SECTION 865.2.01.B.12 OF THE GEORGIA DOT SPECIFICATIONS IS NOT REQUIRED.

## RECESS DETAIL FOR DIAPHRAGM BAR ENDS

# REINFORCEMENT

The diagram illustrates the reinforcement for a slab. It shows various bars labeled 350, 351, 352, 450, 452, 550, and 650. Bar 350 has a top width of 1'-3" TYP., a height of 24°, TYP., and a side length of 5½", TYP. Bar 351 has a height of 1'-0". Bar 352 has a height of 3'-2". Bar 450 has a top width of 8", a height of 1'-6", and a side length of 7'-4". Bar 452 has a beam length of 4". Bar 550 has a height of 7'-4". Bar 650 has a height of 10". A note specifies that bar 452 shall be made of sections lapped 2'-0". A general note states that all bar dimensions are out to out, and at the top of the beam, bars 550 and 650 shall be field bent or shop bent 90° such that the horizontal leg extends between top and bottom mats of slab reinforcement. It also notes to slightly shift or slope bars 451 to avoid conflict with strands, and that bars 350 may be fabricated in two parts by lapping horizontal section by 1'-0" minimum. A note also places bars 450 with open ends away from beam ends.

ALL BAR DIMENSIONS ARE OUT TO OUT.

AT THE TOP OF THE BEAM, BARS 550 AND 650 SHALL BE FIELD BENT OR SHOP BENT 90°, SUCH THAT THE HORIZONTAL LEG EXTENDS BETWEEN TOP AND BOTTOM MATS OF SLAB REINFORCEMENT.

SLIGHTLY SHIFT OR SLOPE BARS 451 TO AVOID CONFLICT WITH STRANDS.

BARS 350 MAY BE FABRICATED IN TWO PARTS BY LAPPING HORIZONTAL SECTION BY 1'-0" MINIMUM.

PLACE BARS 450 WITH OPEN ENDS AWAY FROM BEAM ENDS.

BAR 452 SHALL BE MADE OF SECTIONS LAPPED 2'-0".

BEAM LENGTH - 4"

350  
351  
352  
450  
452  
550  
650

8"- 1'-0"- 3'-2"- 8"- 1'-6"- 7'-4"- 7'-4"- 10"

1'-3", TYP.  
24°, TYP.  
5½", TYP.  
1'-11"  
350  
1'-0"  
351  
3'-2"  
352  
8"- 1'-6"- 7'-4"- 7'-4"- 10"  
450  
452  
550  
650

8'-6"  
451

RIDGE NO. 4 LT. & RT.

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

EEING DIVISION OFFICE OF BRIDGES AND STRUCTURES

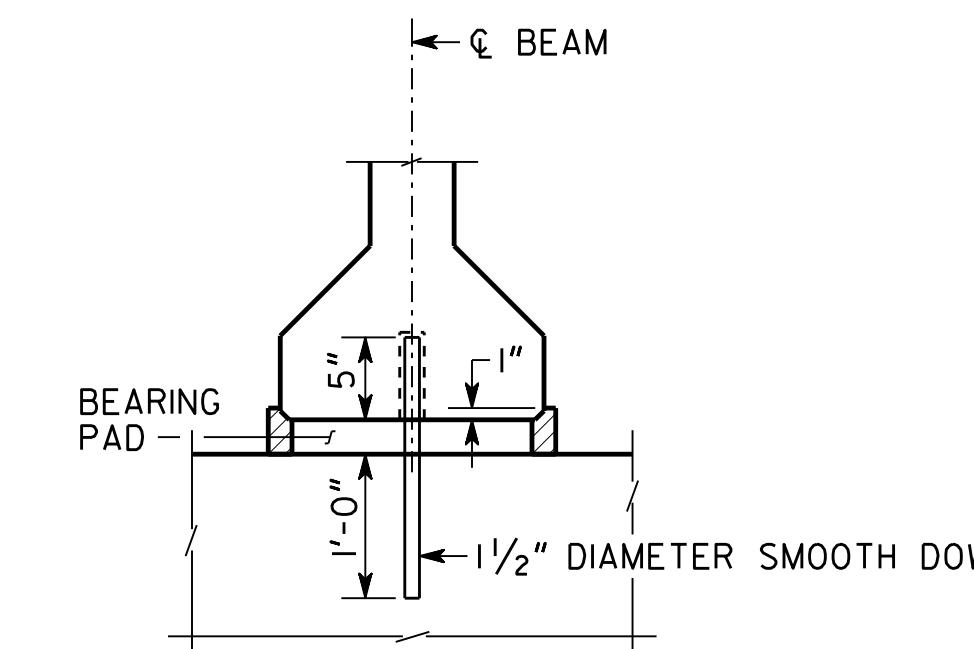
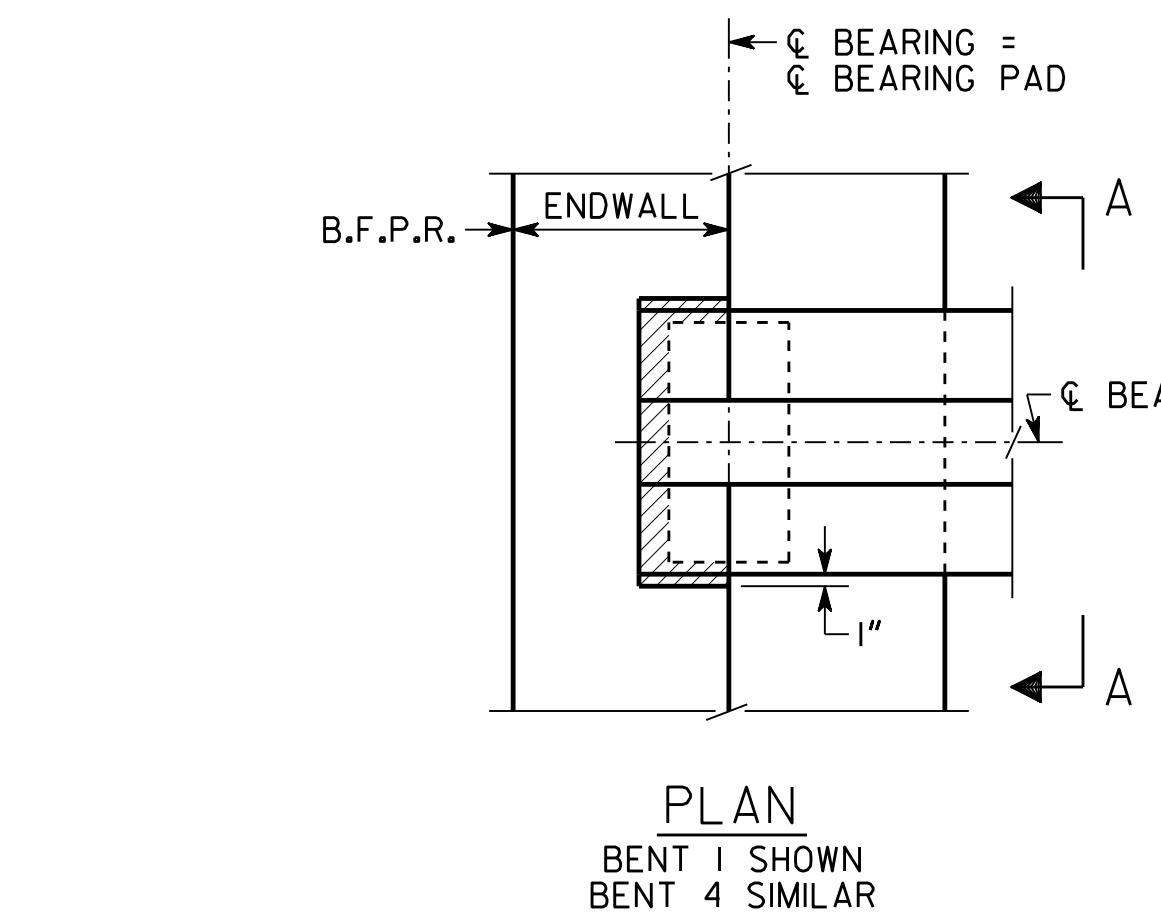
TEE, 65 IN PSC BEAM-INTERMEDIATE SPANS  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK

## BB COUNTY

0009861

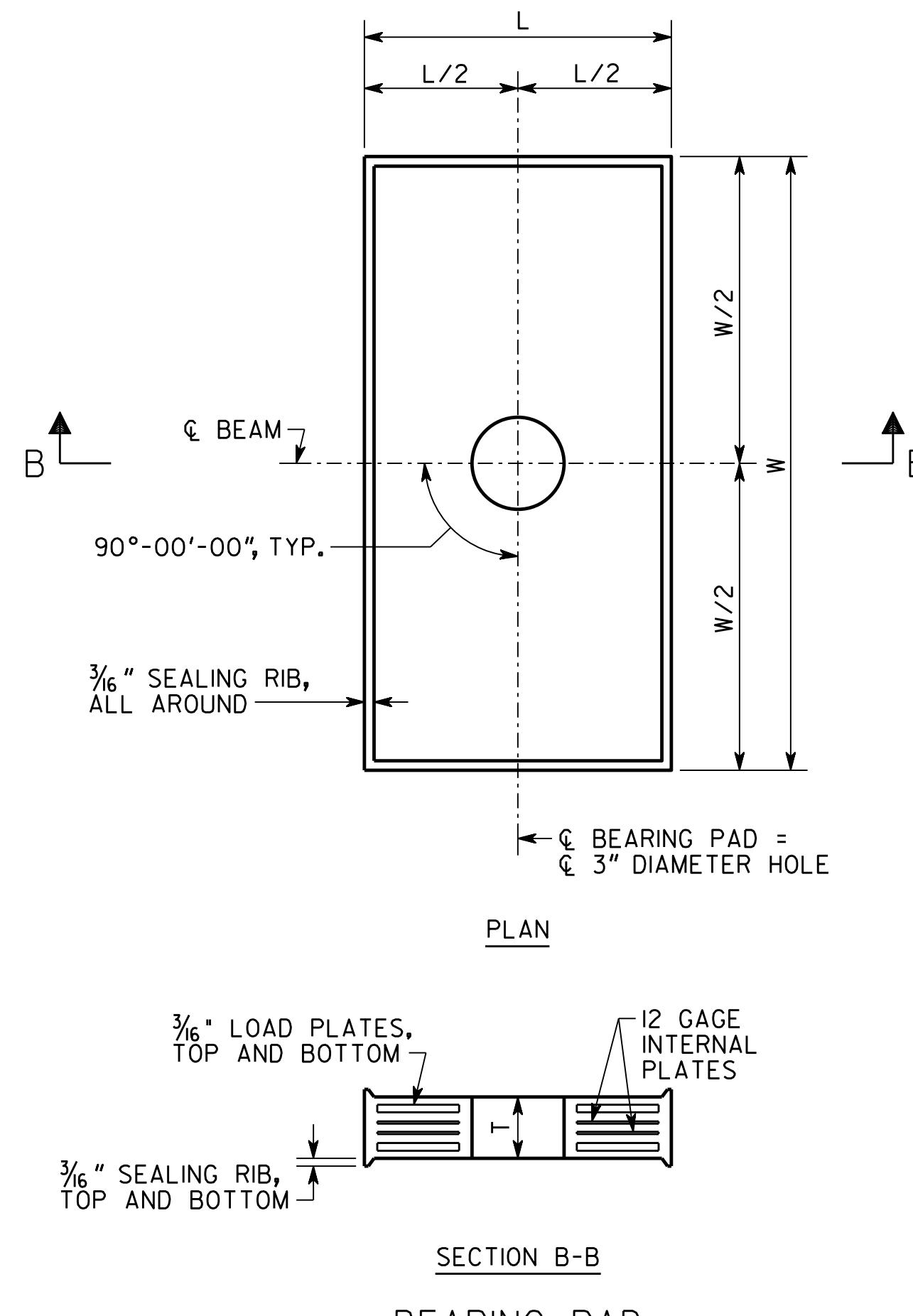
DRAWING NO. 35-0060				NO SCALE	MAY 2017	
BRIDGE SHEET 8 OF 18	BY			DESIGNED <u>DLW</u> DRAWN <u>SLW/DLW</u>	CHECKED <u>DPD</u> DESIGN GROUP <u>DPD</u>	REVIEWED <u>DLC/SKG</u> APPROVED <u>WMD</u>

 1 INCH WHEN PRINTED FULL SIZE



PREFORMED FOAM JOINT FILLER SHALL BE FURNISHED IN ACCORDANCE WITH SUB-SECTION 833.2.0 OF THE GEORGIA DOT SPECIFICATIONS.

ENDWALL NOT SHOWN  
SECTION A-A



- NOTES**
- 1) BEARING PADS HAVE BEEN DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 14.7.6 METHOD A AND SHALL BE FURNISHED IN ACCORDANCE WITH AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, SECTION 18, BEARING DEVICES.
  - 2) 1 1/2" DIAMETER SMOOTH DOWELS SHALL BE ASTM A 709 GRADE 36.
  - 3) BEARING PADS SHALL BE MADE OF 60 DUROMETER HARDNESS NEOPRENE, GRADE 2 OR HIGHER.
  - 4) 3" DIAMETER HOLE IN BEARING PADS MAY BE FORMED OR DRILLED.
  - 5) BEARING PADS SHALL HAVE 1/4" COVER ON THE TOP, BOTTOM, AND SIDES AND AROUND THE HOLE.
  - 6) 3/16" LOAD PLATES AND I2 GAGE INTERNAL PLATE(S) (IF REQUIRED) SHALL BE ASTM A 709 GRADE 36 OR ASTM A 1011 GRADE 36.
  - 7) NUMBER OF INTERNAL PLATES SHOWN FOR ILLUSTRATION PURPOSES ONLY. THE NUMBER OF INTERNAL PLATE(S) SPECIFIED SHALL BE EQUALLY SPACED BETWEEN LOAD PLATES.
  - 8) USE OF 1 1/2° MOLD DRAFT IS OPTIONAL.

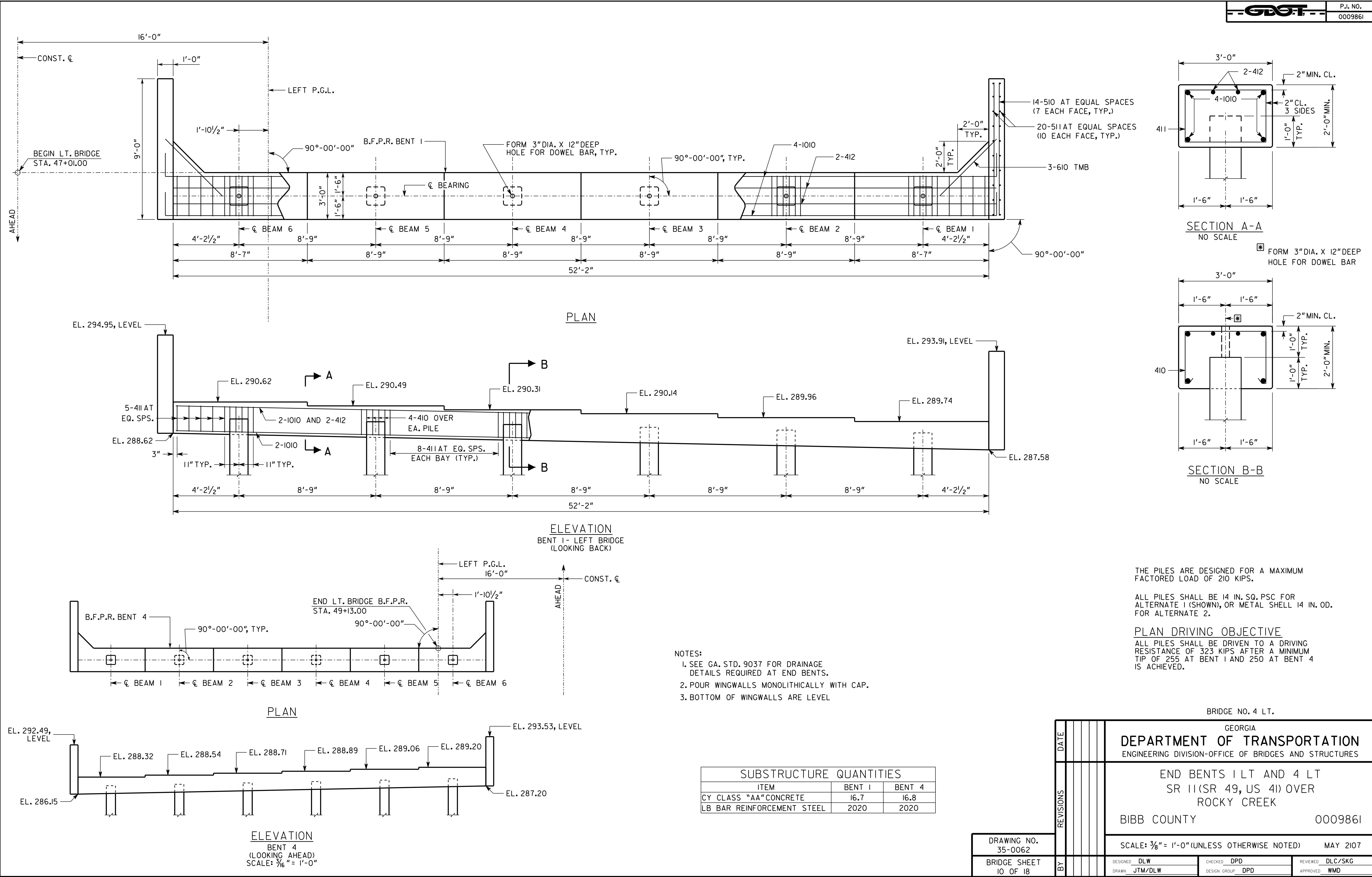
BENT	BEARING PADS						DESIGN LOADS (KIPS)		
	W	L	T	NUMBER OF INTERNAL PLATE(S)	DESIGN SHEAR DEFLECTION	DEAD LOAD	LIVE LOAD (NO IMPACT)	DEAD LOAD + LIVE LOAD	
I	16"	10"	3 1/4"	3	5/16"	61.6	57.3	118.9	
2BK	16"	10"	3 1/4"	3	0"	38.7	57.3	96.0	
2AH	22"	10"	2 3/4"	3	0"	165.8	94.0	259.8	
3BK	22"	10"	2 3/4"	3	1/2"	165.8	94.0	259.8	
3AH	16"	10"	3 1/4"	3	15/16"	38.7	57.3	96.0	
4	16"	10"	3 1/4"	3	13/16"	61.6	57.3	118.9	

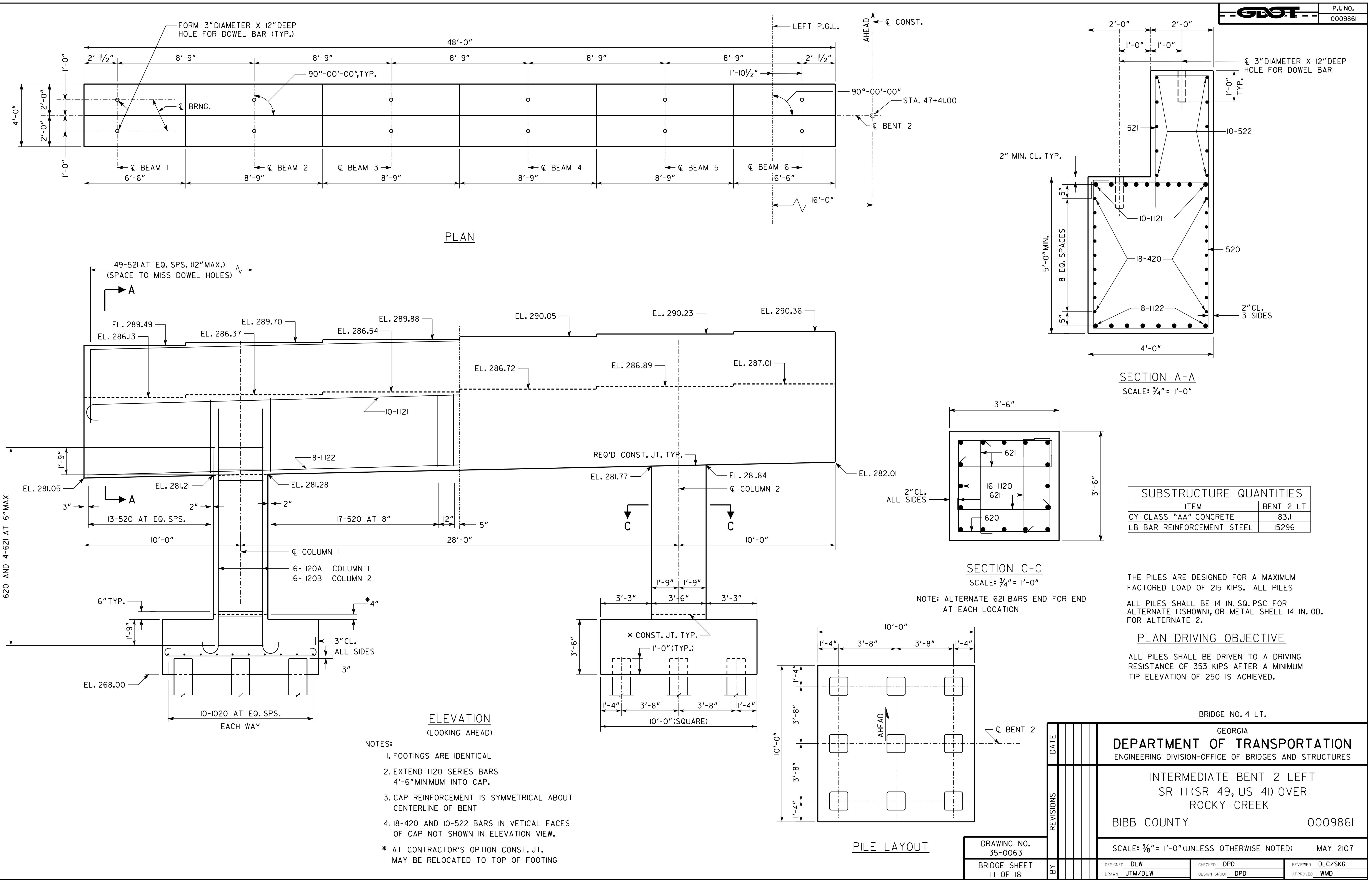
BRIDGE NO. 4 LT. & RT.

DATE	REVISED	GEORGIA		
DEPARTMENT OF TRANSPORTATION				
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES				
BEARING PAD DETAILS				
SR 11(SR 49, US 41) OVER				
ROCKY CREEK				
BIBB COUNTY 000986I				
DRAWING NO. 35-006I	NO SCALE			MAY 2017
BRIDGE SHEET 9 OF 18	BY	DESIGNED BY	CHECKED BY	REVIEWED BY
		DLW	DPD	DLC/SKG
		DRAWN BY	SLW/DLW	APPROVED WMD

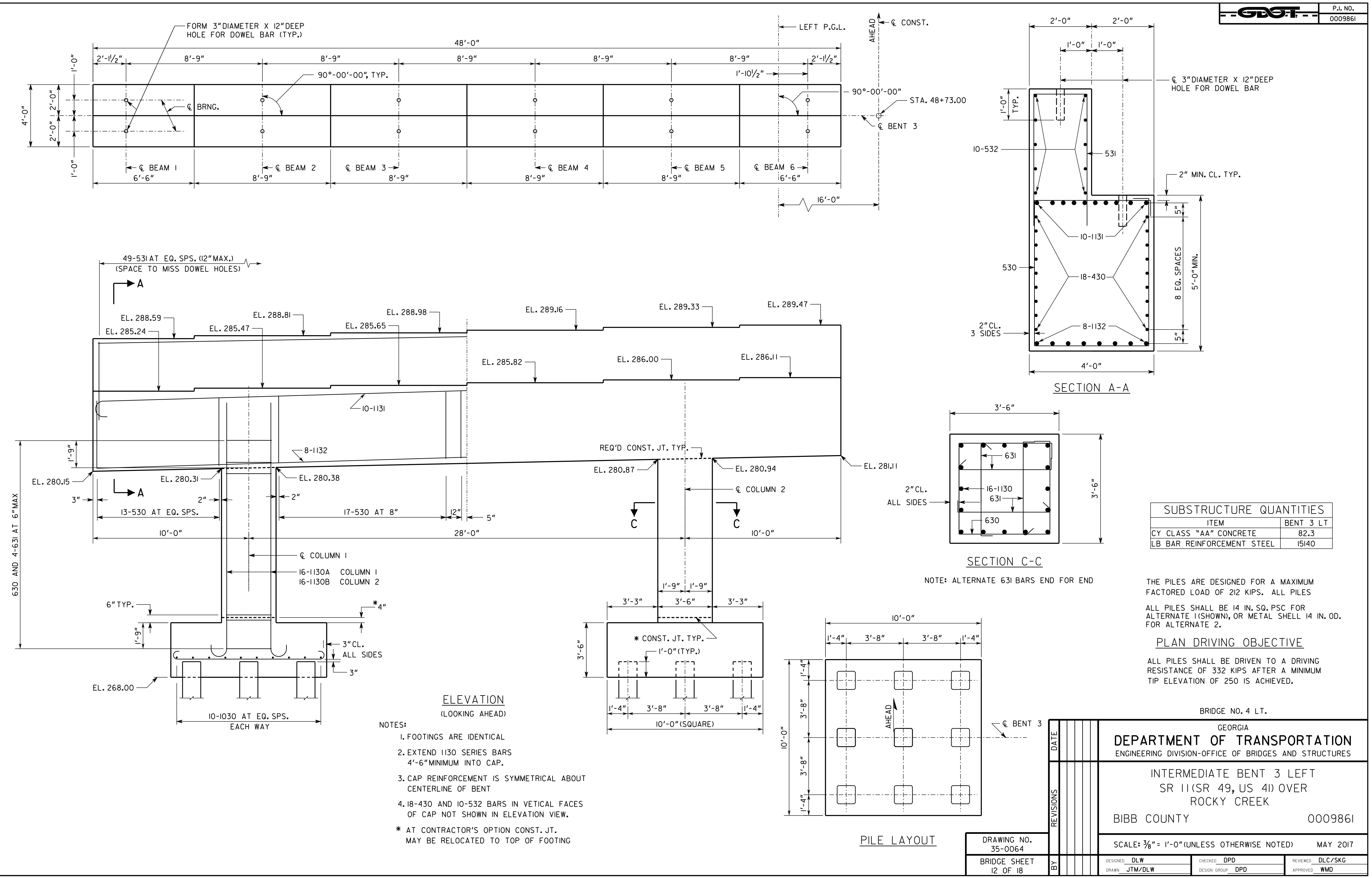
1 INCH WHEN PRINTED FULL SIZE

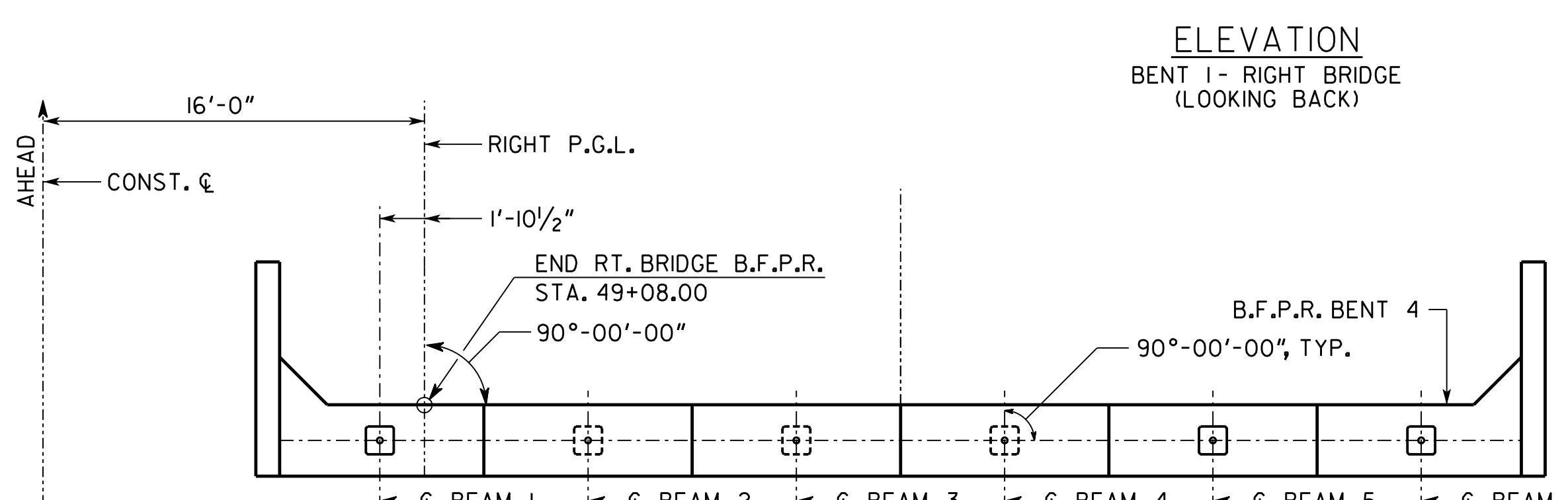
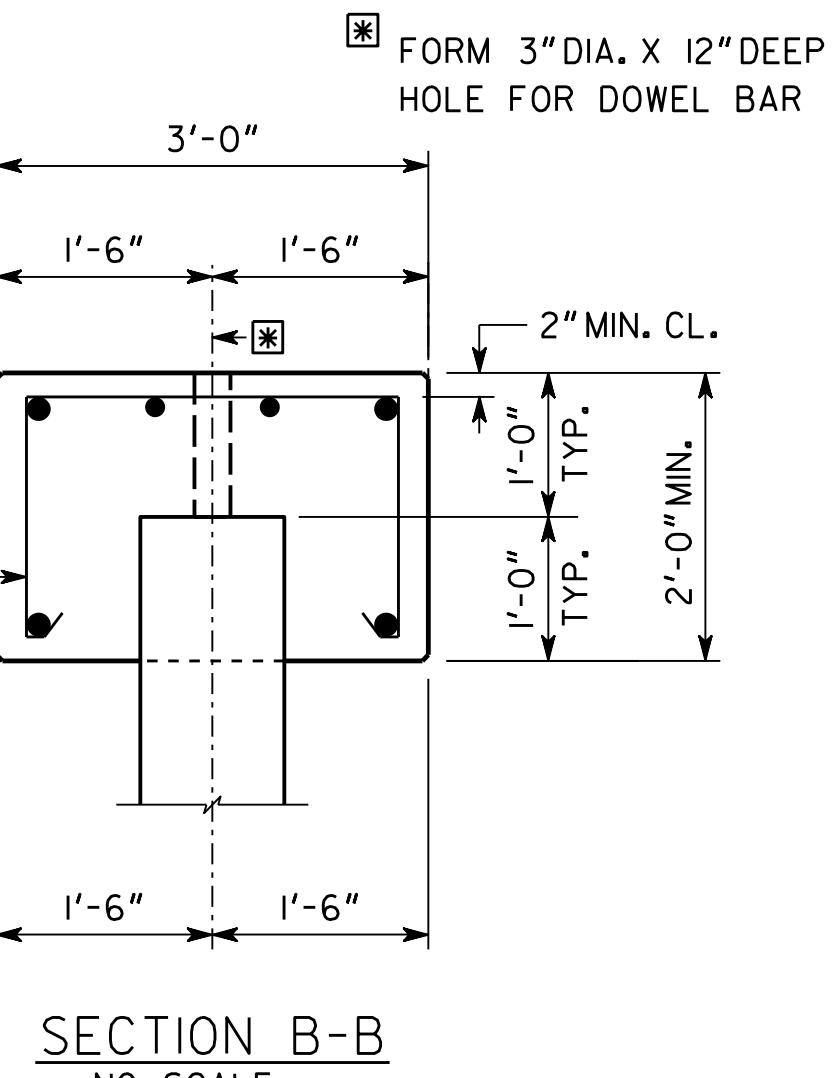
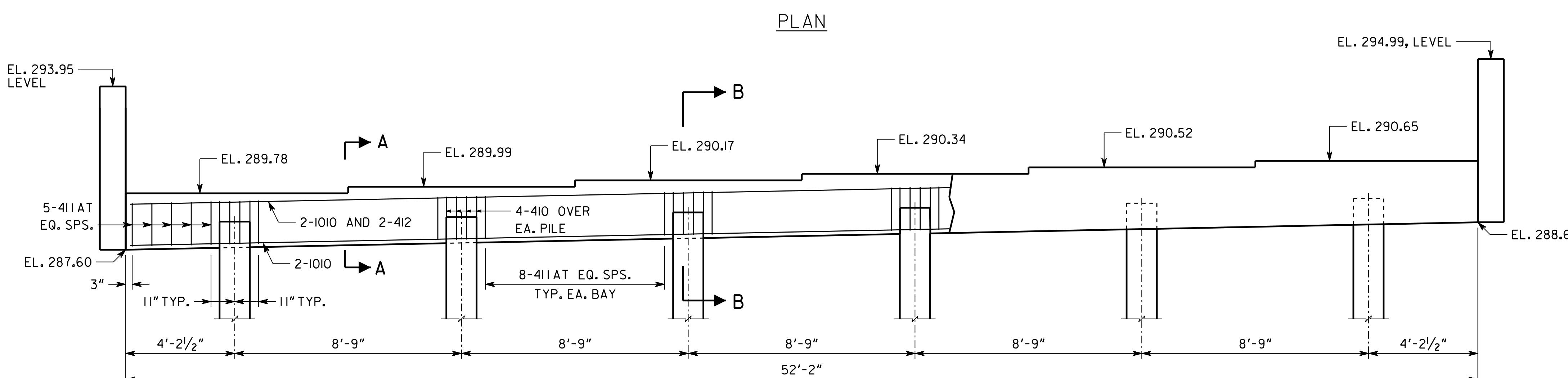
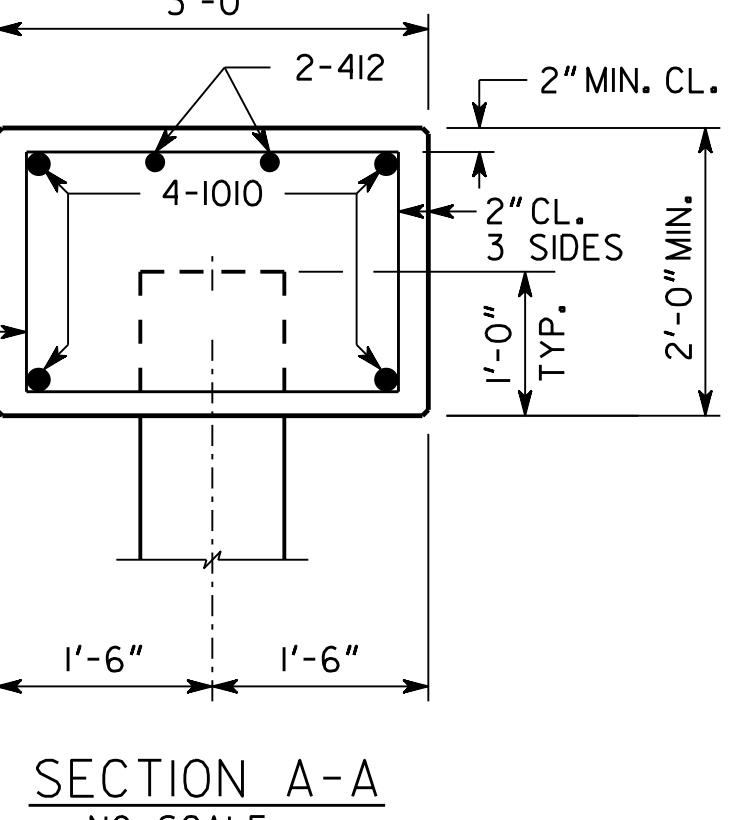
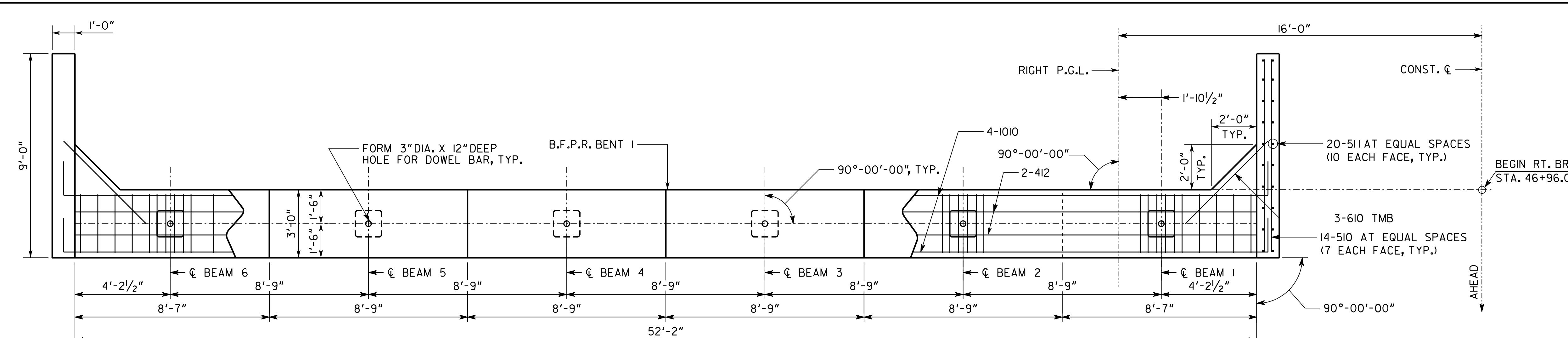
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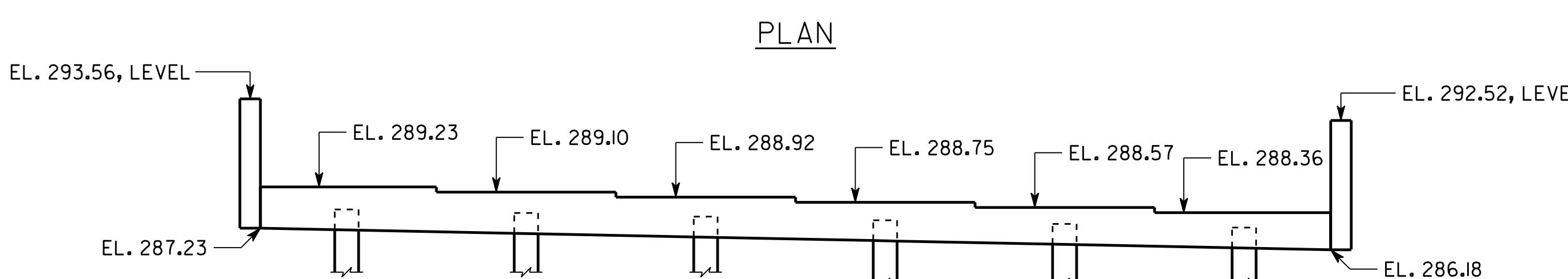


THE PILES ARE DESIGNED FOR A MAXIMUM FACTORED LOAD OF 210 KIPS.

ALL PILES SHALL BE 14 IN. SQ. PSC FOR ALTERNATE 1 (SHOWN), OR METAL SHELL 14 IN. OD. FOR ALTERNATE 2.

#### PLAN DRIVING OBJECTIVE

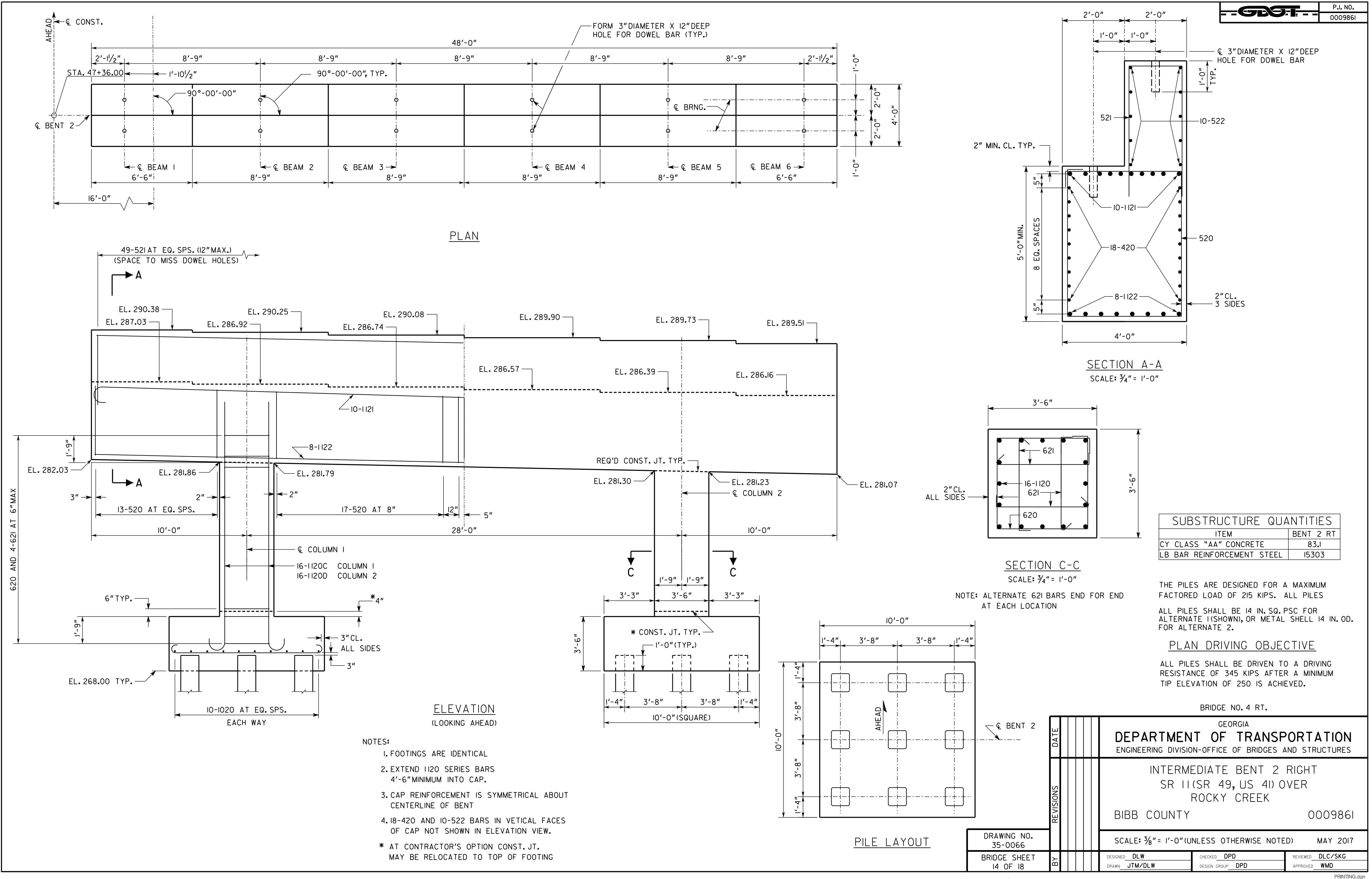
ALL PILES SHALL BE DRIVEN TO A DRIVING RESISTANCE OF 323 KIPS AFTER A MINIMUM TIP OF 255 AT BENT 1 AND 250 AT BENT 4 IS ACHIEVED.

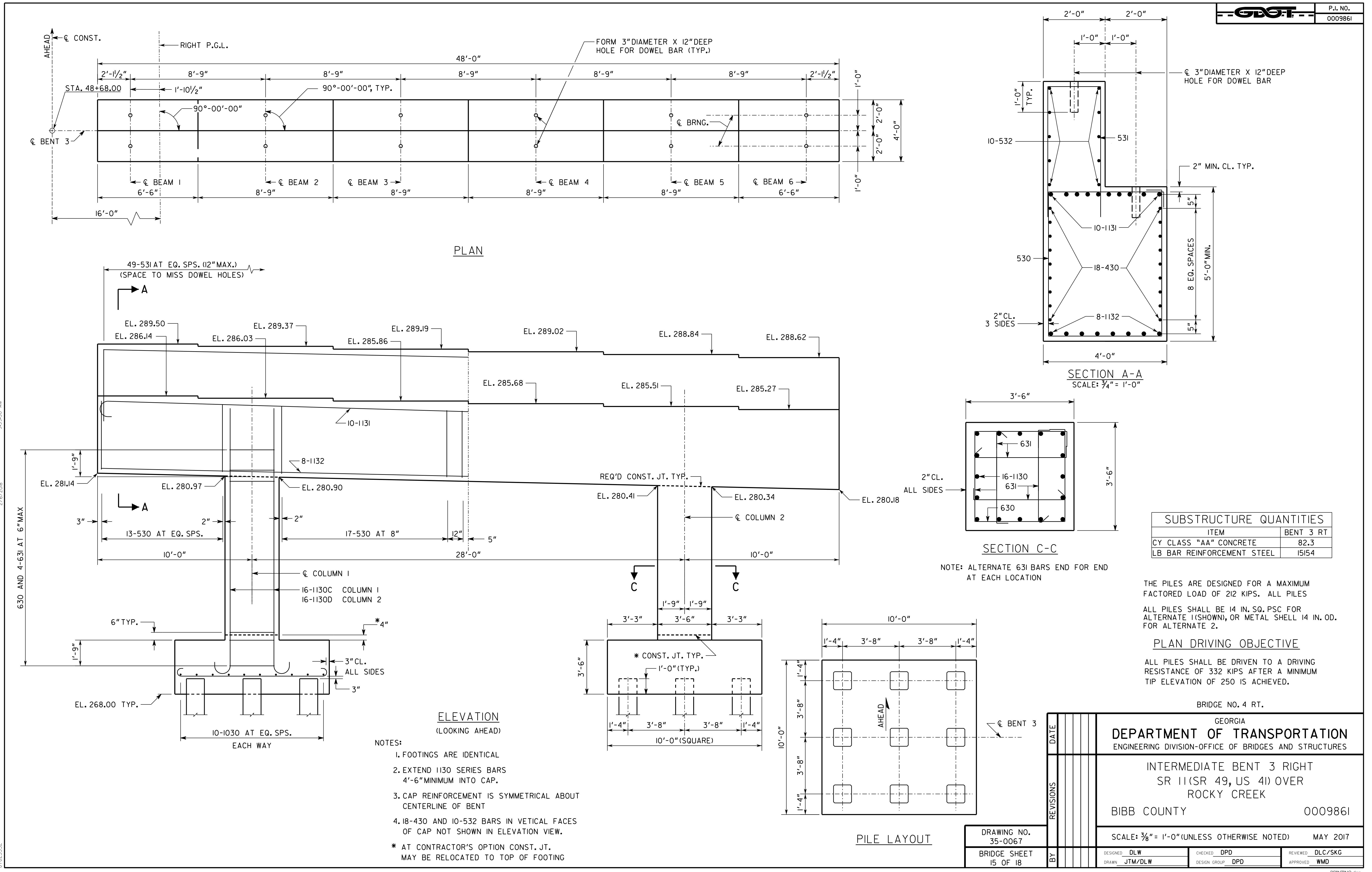


**ELEVATION**  
BENT 4 - RIGHT BRIDGE  
(LOOKING AHEAD)  
SCALE: 1/16 = 1'-0"

ITEM	BENT 1	BENT 4
CY CLASS "AA" CONCRETE	16.7	16.8
LB BAR REINFORCEMENT STEEL	2020	2020

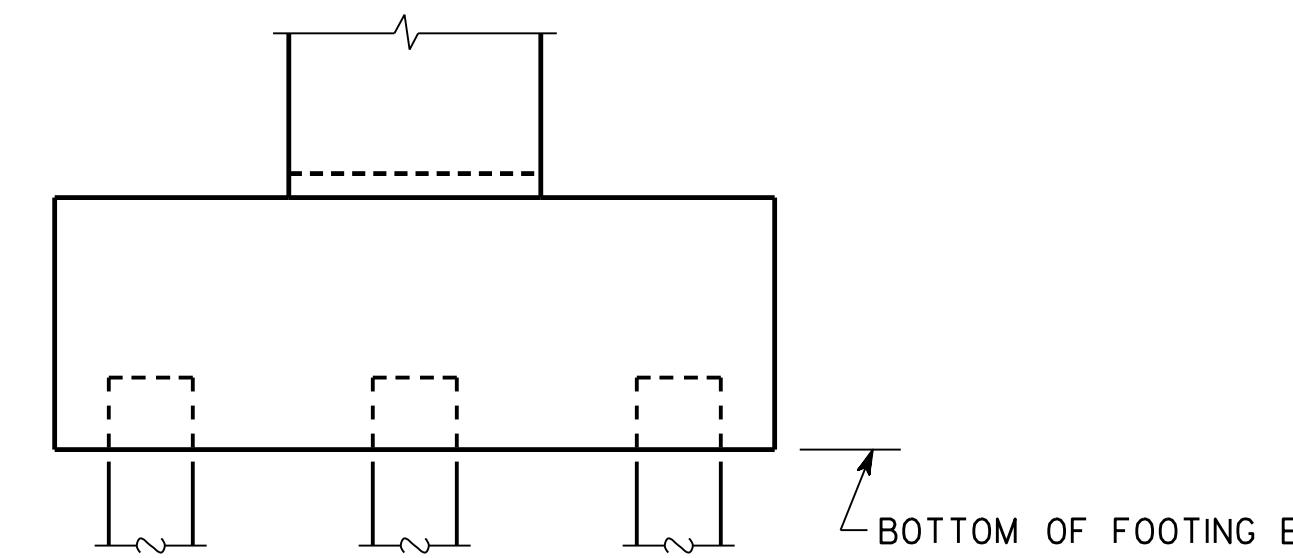
DATE	REVISIONS	BY
DRAWING NO. 35-0065	SCALE: 1/8" = 1'-0" (UNLESS OTHERWISE NOTED)	MAY 2017
BRIDGE SHEET 13 OF 18	DESIGNED BY DRAWN BY JTM/DLW	CHECKED BY DPD DESIGN GROUP DPD
	APPROVED BY WMD	REVIEWED BY DLC/SKG APPROVED WMD



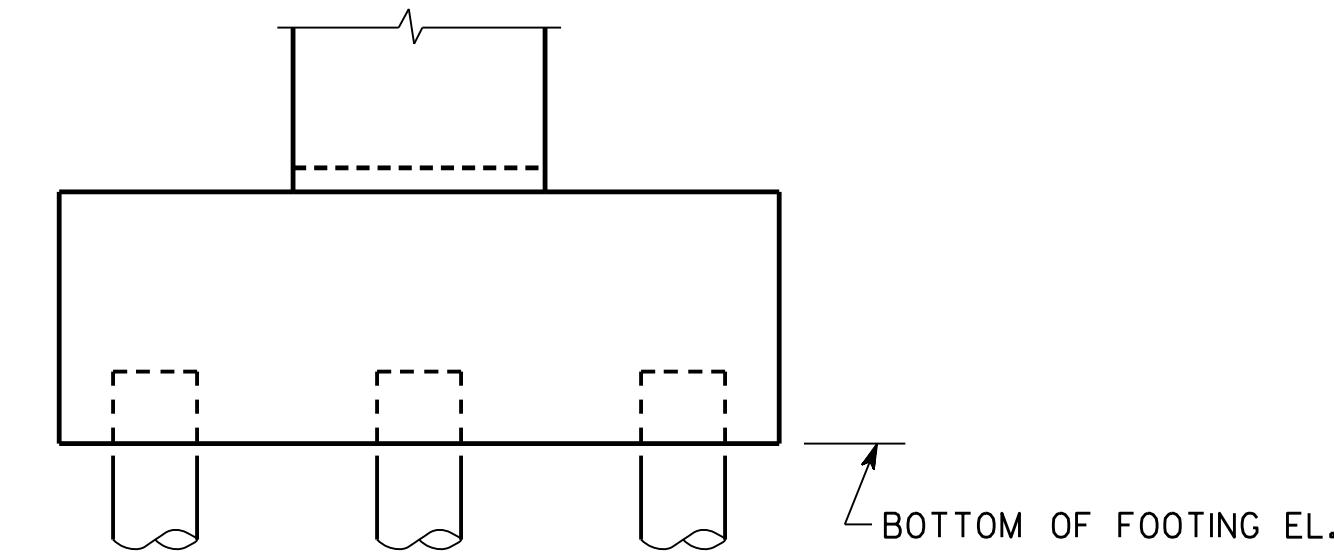


AS BUILT FOUNDATION INFORMATION BRIDGE NO. 4 LEFT ALT.( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEVATION
1	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
4	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		

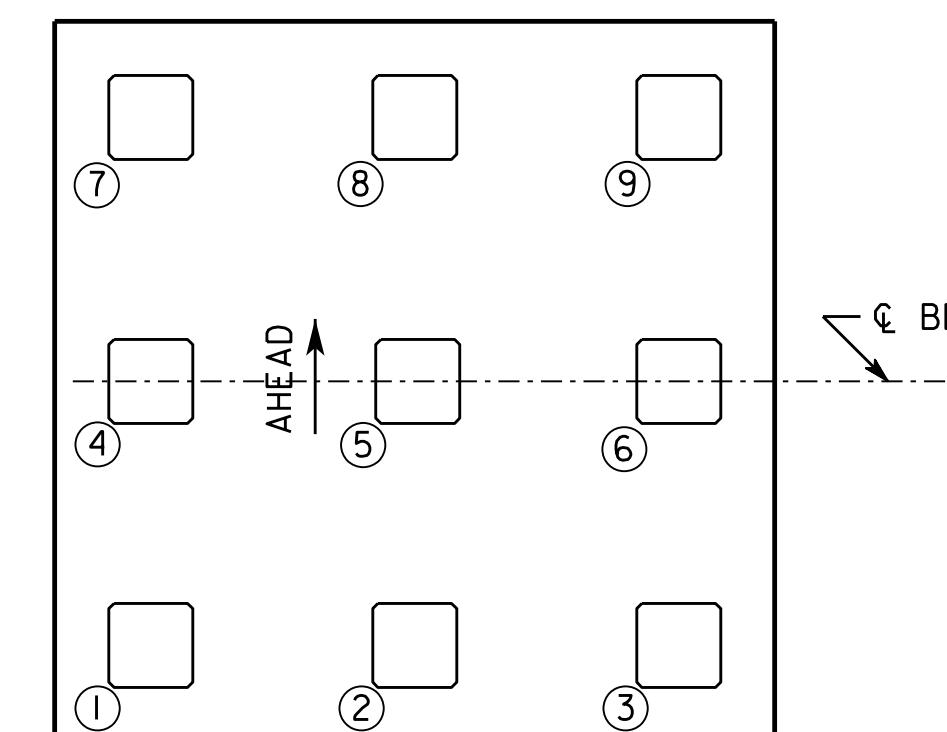
AS BUILT FOUNDATION INFORMATION BRIDGE NO. 4 RIGHT ALT.( )			
BENT	PILE/FOOTING LOCATION	PILE TIP ELEVATION	BOTTOM OF FOOTING ELEVATION
1	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		
2 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
2 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 1	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
3 COL. 2	PILE 1		
	PILE 2		
	PILE 3		
	PILE 4		
	PILE 5		
	PILE 6		
	PILE 7		
	PILE 8		
	PILE 9		
4	BEAM 1		
	BEAM 2		
	BEAM 3		
	BEAM 4		
	BEAM 5		
	BEAM 6		



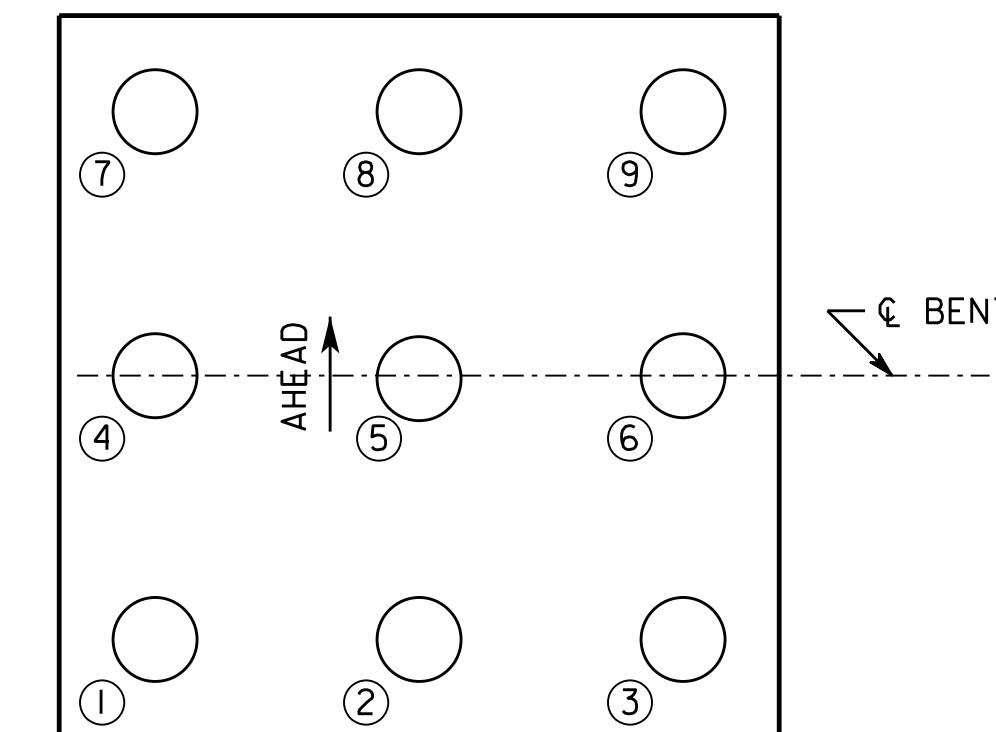
TYPICAL FOOTING ELEVATION  
ALTERNATE 1



TYPICAL FOOTING ELEVATION  
ALTERNATE 2



PILE LAYOUT



PILE LAYOUT

THIS "AS BUILT FOUNDATION INFORMATION" SHEET SHALL BE FILLED IN BY THE PROJECT ENGINEER AND FORWARDED TO THE BRIDGE OFFICE AFTER INSTALLATION OF ALL PILES AND FOOTINGS FOR POSTING TO THE PLANS AS A PERMANENT RECORD OF THE BRIDGE CONSTRUCTION.

PROJECT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

(AREA CODE) TELEPHONE NUMBER \_\_\_\_\_

BRIDGE NO. 4 LT. & RT.

MARK ALTERNATE SELECTED	
ALT. 1	PSC PILES
ALT. 2	METAL SHELL PILES

GEORGIA <b>DEPARTMENT OF TRANSPORTATION</b> ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES	
AS BUILT FOUNDATION INFORMATION SR 11(SR 49, US 41) OVER ROCKY CREEK	
BIBB COUNTY 0009861	
DRAWING NO. 35-0068	NO SCALE
BRIDGE SHEET 16 OF 18	MAY 2017
BY _____	REVISIONS _____
DESIGNED DLW DRAWN JTM/DLW	CHECKED DPD DESIGN GROUP DPD
APPROVED WMD	REVIEWED DLC/SKG APPROVED WMD

**GDT** P.I. NO.  
0009861

P.I. NO.  
0009861

**BRIDGE NO. 4 LT. & RT.**

GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES

AR REINFORCEMENT SCHEDULE  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK

BIBB COUNTY 0009861

DATE	GEORGIA DEPARTMENT OF TRANSPORTATION ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES		
REVISIONS	BAR REINFORCEMENT SCHEDULE SR 11(SR 49, US 41) OVER ROCKY CREEK		
	BIBB COUNTY	0009861	
	NO SCALE	MAY 2017	
BY	DESIGNED <u>DLW</u> DRAWN <u>DLW/JTM</u>	CHECKED <u>DPD</u> DESIGN GROUP <u>DPD</u>	REVIEWED <u>DLC/SKG</u> APPROVED <u>WMD</u>

**--GDT--**

P.I. NO.  
0009861

BRIDGE NO. 4 LT. & RT.  
GEORGIA  
**DEPARTMENT OF TRANSPORTATION**  
DIVISION-OFFICE OF BRIDGES AND STRUCTURES

BAR REINFORCEMENT SCHEDULE  
SR 11(SR 49, US 41) OVER  
ROCKY CREEK

BB COUNTY 0009861

DATE		GEORGIA
		DEPARTMENT OF TRANSPORTATION
		ENGINEERING DIVISION-OFFICE OF BRIDGES AND STRUCTURES
REVISIONS		BAR REINFORCEMENT SCHEDULE
		SR 11(SR 49, US 41) OVER
		ROCKY CREEK
	BIBB COUNTY	0009861
	NO SCALE	MAY 2017
BY	DESIGNED DRAWN	DPD
	DLW DLW/JTM	REVIEWED APPROVED
		DLC/SKG WMD

WHEN PRINTED FULL SIZE PRINTING.dgn