

SCHEDULE OF BRIDGE QUANTITIES -JOB NO. 050321

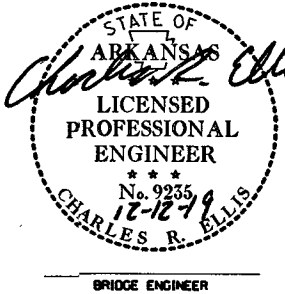
BRIDGE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	801	SS & 802	SP, SS, & 802	803	SS & 804	SS & 804	SS & 805	SP, SS, & 807	SS & 807	SS & 808	SS & 809	812	816	816	SP JOB 050321	SP JOB 050321
			ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO. )	UNCLASSIFIED EXCAVATION FOR STRUCTURE- BRIDGE	CLASS S CONCRETE- BRIDGE	CLASS S(AE) CONCRETE- BRIDGE	CLASS 2 PROTECTIVE SURFACE TREATMENT	EPOXY COATED REINFORCING STEEL (GRADE 60)	REINFORCING STEEL- BRIDGE (GRADE 60)	① STEEL PILING (HP 12X53)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A709, GR. 50W)	② PAINTING STRUCTURAL STEEL	ELASTOMERIC BEARINGS	SILICONE JOINT SEALANT	BRIDGE NAME PLATE (TYPE D)	DUMPED RIPRAP	FILTER BLANKET	DRILLED SHAFT (72" DIA.)	PERMANENT STEEL CASING (84" DIA.)
			UNIT	LUMP SUM	CU. YD.	CU. YD.	CU. YD.	SQ. YD.	LB.	LB.	LIN. FT.	LB.	TON	CU. IN.	LIN. FT.	EACH	CU. YD.	SQ. YD.	LIN. FT.	LIN. FT.
07437	HIGHWAY 56 OVER STRAWBERRY RIVER																			
		BENT 1				35.70		13.4		3,500	145	711		1,920.0	37		198	367		
		BENT 2				51.10				⚠ 12,401 10,050				2,356.0					33	18
		BENT 3				54.30				⚠ 13,549 10,660				2,356.0					33	18
		BENT 4		③ 812	75.40		13.4		6,130		711		1,920.0	37		50	88			
		335'-0" PLATE GIRDER UNIT				382.80	1,534.3	87,680			433,628	6.3			1					
		SITE NO. 1 (BRIDGE NO. 03219)	1																	
TOTALS FOR JOB NO. 050321				③ 812	216.50	382.80	1,561.1	87,680	⚠ 35,580 30,340	145	435,050	6.3	8,552.0	74	1	248	455	66	36	

UNIT OF STRUCTURE	ITEM NO.	SP JOB 050321	SP JOB 050321
	ITEM	CROSSHOLE SONIC LOGGING (72" DIA.)	CORING DRILLED SHAFT
		UNIT	
		EACH	LIN. FT.
BENT 1			
BENT 2		1	
BENT 3		1	33
BENT 4			
335'-0" PLATE GIRDER UNIT			
SITE NO. 1 (BRIDGE NO. 03219)			
TOTALS FOR JOB NO. 050321		2	33

THOMAS GERARD  
DESIGN SECTION SUPERVISOR

- ① All steel piling shall be Grade 50 and are required to have approved driving points which will not be paid for directly, but will be considered subsidiary to the item "Steel Piling (HP 12X53)".
- ② The color of paint shall be Brown equal or close to Federal Std. 595B, Color Chip No. 30070 and as approved by the Engineer.
- ③ Rock excavation.

⚠ Revision of rebar quantities.  
BY: KJT 12/12/19  
CHECKED BY: DHP 12/12/19

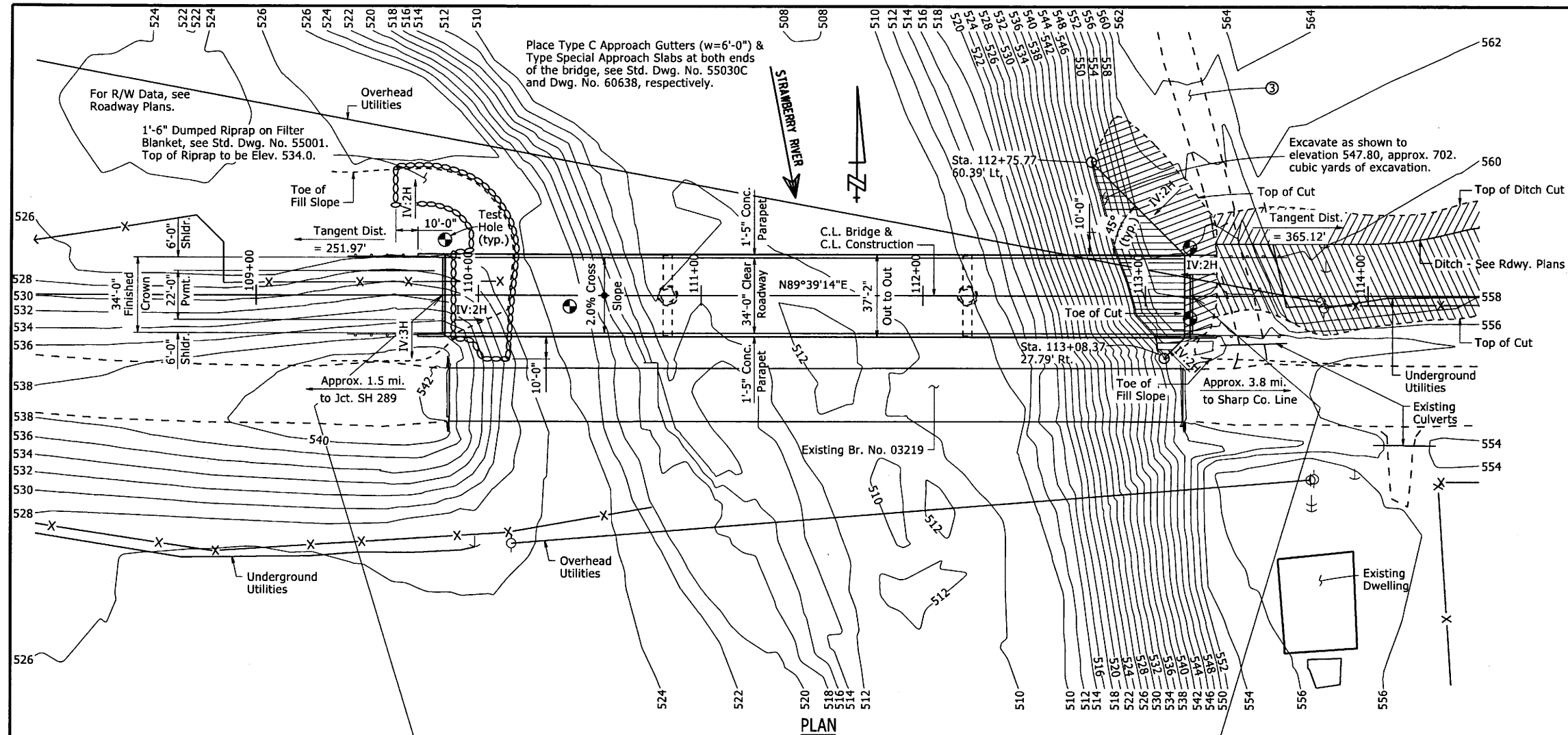


SCHEDULE OF BRIDGE QUANTITIES  
STRAWBERRY RIVER STR. & APPRS. (S)  
IZARD COUNTY

ROUTE 56 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KJT DATE: 3/15/2019 FILENAME: b050321\_q1.dgn  
CHECKED BY: OPT DATE: 8/1/19 SCALE: No Scale  
DESIGNED BY: DATE: BRIDGE NO. 07437 DRAWING NO. 60621

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	050321	41	78
JOB NO. 07437 - LAYOUT - 60622								

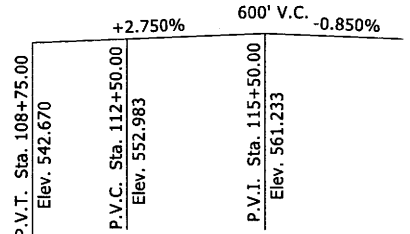


③ Existing road to be realigned, see Roadway Plans for additional information.

### HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY YEARS	DISCHARGE CFS	NATURAL WATER SURFACE ELEVATION FEET	WATER SURFACE ELEV. WITH BACKWATER FEET
Design	50	31,400	533.1	533.1
Base	100	36,600	534.3	534.3
Extreme	500	49,600	537.2	537.2
Overtopping	>500	-	-	-

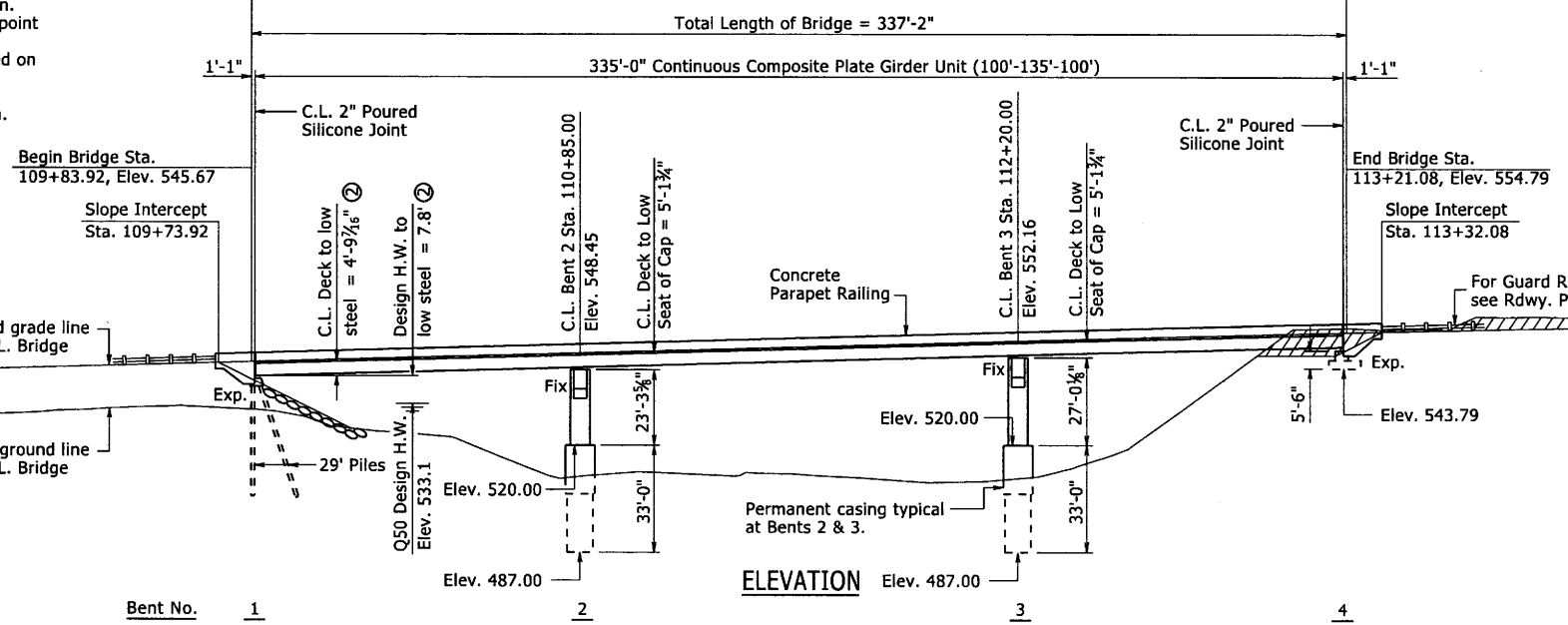
- ① Unconstricted water surface elevation without structure or roadway approaches.
- Q100 Backwater Elev. for existing structure = 534.3.
- ② Proposed Low Bridge Chord Elevation = 540.93 ft. @ Sta. 109+86.00.
- Drainage Area = 153.0 square miles.
- Historical H.W. Elevation = N/A



### VERTICAL ALIGNMENT DATA

Along C.L. Construction

NOTE:  
Stations shown are along C.L. Construction.  
Elevations shown are theoretical working point elevations at C.L. Bridge. Any vertical dimension referenced to C.L. Deck is based on theoretical working point elevation at C.L. Bridge. See "ROUNDING DETAIL" on Std. Dwg. No. 55007 for additional information.



BORING LEGEND

A1-Moist, Stiff, Reddish Brown Sandy Clay  
B1-Moist, Medium Dense, Reddish Brown Sand with Clay  
C1-Dolostone  
D1-DOLOSTONE - Weathered, Moderately Hard, Frequent Fractures, Gray  
E1-DOLOSTONE - Slightly Weathered, Moderately Hard, Frequent Fractures, Gray  
F1-DOLOSTONE - Unweathered, Moderately Hard, Trace Dolomite, Gray  
G1-DOLOSTONE - Unweathered, Moderately Hard, Gray  
H1-Moist, Soft, Reddish Brown Sandy Clay with Some Gravel  
J1-No Recovery  
K1-Moist, Very Dense, Brown and Gray Clayey Sand with Gravel (Rock Fragments)  
L1-DOLOSTONE - Slightly Weathered, Moderately Hard, Occasional Fractures, Gray  
M1-DOLOSTONE - Slightly Weathered, Hard, Gray  
N1-DOLOSTONE - Slightly Weathered, Hard, Trace Dolomite, Gray  
P1-DOLOSTONE - Slightly Weathered, Hard, Frequent Shale Partings and Seams, Gray  
Q1-DOLOSTONE - Slightly Weathered, Hard, Occasional Fractures, Gray  
R1-DOLOSTONE WITH INTERBEDDED SHALE - Slightly Weathered, Hard, Gray  
S1-Sandy Clay with Gravel (Rock Fragments)  
T1-DOLOSTONE - Unweathered, Hard, Gray  
U1-DOLOSTONE - Unweathered, Medium Hard, Frequent Shale Partings, Gray  
V1-SHALE - Unweathered, Medium Hard, Occasional Dolomite Seams, Gray  
W1-DOLOSTONE INTERBEDDED WITH SHALE - Unweathered, Medium Hard, Gray

"N" VALUES

Sta. 109+85 - 25' Left of C.L. Construction

4.5- 5.5, N=9  
9.5- 10.5, N=14  
14- 14.0, N=10(0")

Sta. 110+41 - 5' Right of C.L. Construction

4.5- 5.5, N=2  
9.5- 10.5, N=0  
14.5- 14.8, N=10(9")

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	42	78

GENERAL NOTES

BENCH MARK: Vertical Control Data are shown on Survey Control Details.

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (2014 edition) with applicable Supplemental Specifications and Special Provisions. Unless otherwise noted on the plans, Section and Subsection refer to the Standard Construction Specifications.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, 7th Edition (2014), with 2015 interim revisions.

LIVE LOADING: HL-93  
SEISMIC ZONE: 1  $S_D1=0.112$  SITE CLASS=B

MATERIALS AND STRENGTHS:  
Class S(AE) Concrete (Superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (Substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (AASHTO M 31 or M 322, Type A)  $f_y = 60,000$  psi  
Structural Steel (ASTM A709, Gr. 36)  $F_y = 36,000$  psi  
Structural Steel (ASTM A709, Gr. 50W)  $F_y = 50,000$  psi

BORING LOGS: Boring logs may be obtained from the Construction Contract Procurement Section of the Program Management Division.

STEEL PILING: All piling shall be HP 12x53 (Grade 50) and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 95 tons and into the material designated as dolostone on the boring legend. Piling in end bents shall be driven after embankment to bottom of cap is in place. Lengths of piling shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with Section 805. Actual pile lengths are to be determined in the field. The Contractor shall use approved steel H-Pile driving points on all piles.

SPREAD FOOTINGS: Footings shall be set a minimum of 1.5' into material designated as dolostone on the boring legend. Foundations for footings shall be prepared in accordance with Subsection 801.04. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

DRILLED SHAFTS: Drilled Shafts in Bents 2 & 3 shall be constructed in accordance with Special Provision Job No. 050321 "Drilled Shaft Foundations". Drilled shafts shall be socketed a minimum of 15' into material designated as dolostone on the boring legend. No adjustment to plan tip elevations shall be made without prior approval from the Engineer.

CROSSHOLE SONIC LOGGING: Nondestructive testing shall be performed in accordance with Special Provision Job No. 050321 "Nondestructive Testing of Drilled Shafts".

PAINTING: All Grade 50W structural steel, except galvanized members, surfaces in contact with concrete, and the expansion device, within five feet of bridge deck expansion joints shall be painted as specified in Subsection 807.75. The color of paint shall be Brown equal or close to Federal Std. 595B, Color Chip No. 30070 and as approved by the Engineer. The finish system may be applied in the shop. Any damage to the paint system occurring during transport or installation shall be corrected according to the manufacturer's recommendations at no cost to the Department.

BRIDGE DECK: The concrete bridge deck shall be given a tine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

PROTECTIVE SURFACE TREATMENT: Class 2 Protective Surface Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

DETAIL DRAWINGS: DRAWING NO.  
End Bent 1 60624 & 60625  
Intermediate Bents 60626-60628  
End Bent 4 60629-60631  
Elastomeric Bearings 60632  
335'-0" Continuous Composite Plate Girder Unit 60633-60637  
Type Special Approach Slab 60638  
General Notes for Steel Bridge Structures 55006  
Details for Steel Bridge Structures 55007  
Poured Silicone Joints 55008  
Steel H Piling 55020  
Type C Approach Gutters 55030C

EXISTING BRIDGE: Existing Bridge No. 03219 (Log Mile 11.91 ) is 28.5' wide (24.0' Roadway), 332.0' long and consists of three 45'-0" simple spans and three 65'-0" simple spans consisting of reinforced concrete decks on steel I-beams supported by a combination of multi-column piers with webwalls on spread footings, pile bents encased partially with spread footings, and a spread footing abutment.

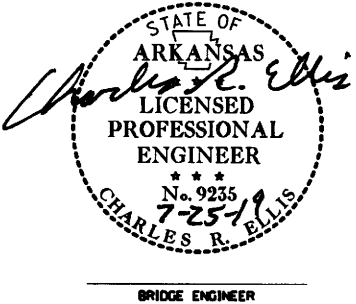
REMOVAL AND SALVAGE: After the new bridge is open to traffic, Existing Bridge No. 03219 shall be removed in accordance with Section 205. All material from the existing bridge shall become the property of the Contractor.

MAINTENANCE OF TRAFFIC: See Roadway Plans.

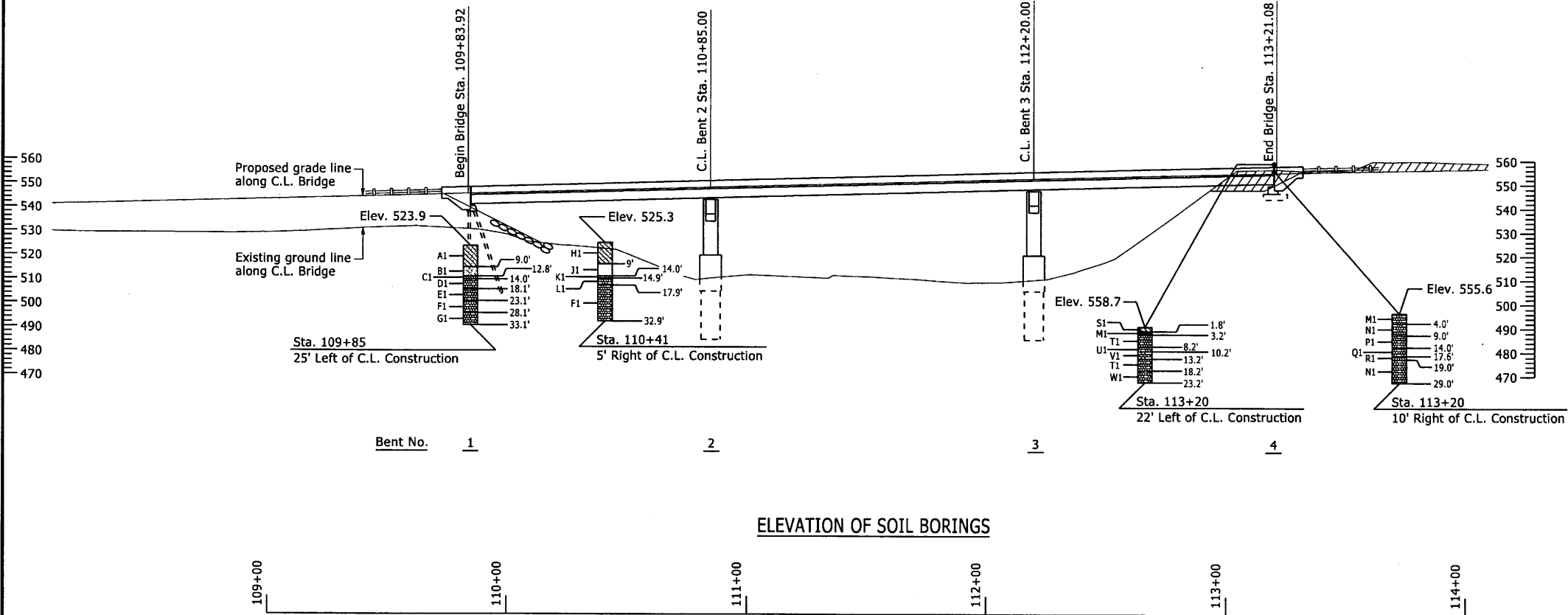
SHEET 2 OF 2  
LAYOUT OF BRIDGE  
HIGHWAY 56 OVER STRAWBERRY RIVER  
STRAWBERRY RIVER STR. & APPRS. (S)  
IZARD COUNTY

ROUTE 56 SEC. 2  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: CGP DATE: 8/23/17 FILENAME: b050321x11.dgn  
CHECKED BY: KJT DATE: 7/25/17 SCALE: 1" = 30'  
DESIGNED BY: CMW DATE: 9/17  
BRIDGE NO. 07437 DRAWING NO. 60623



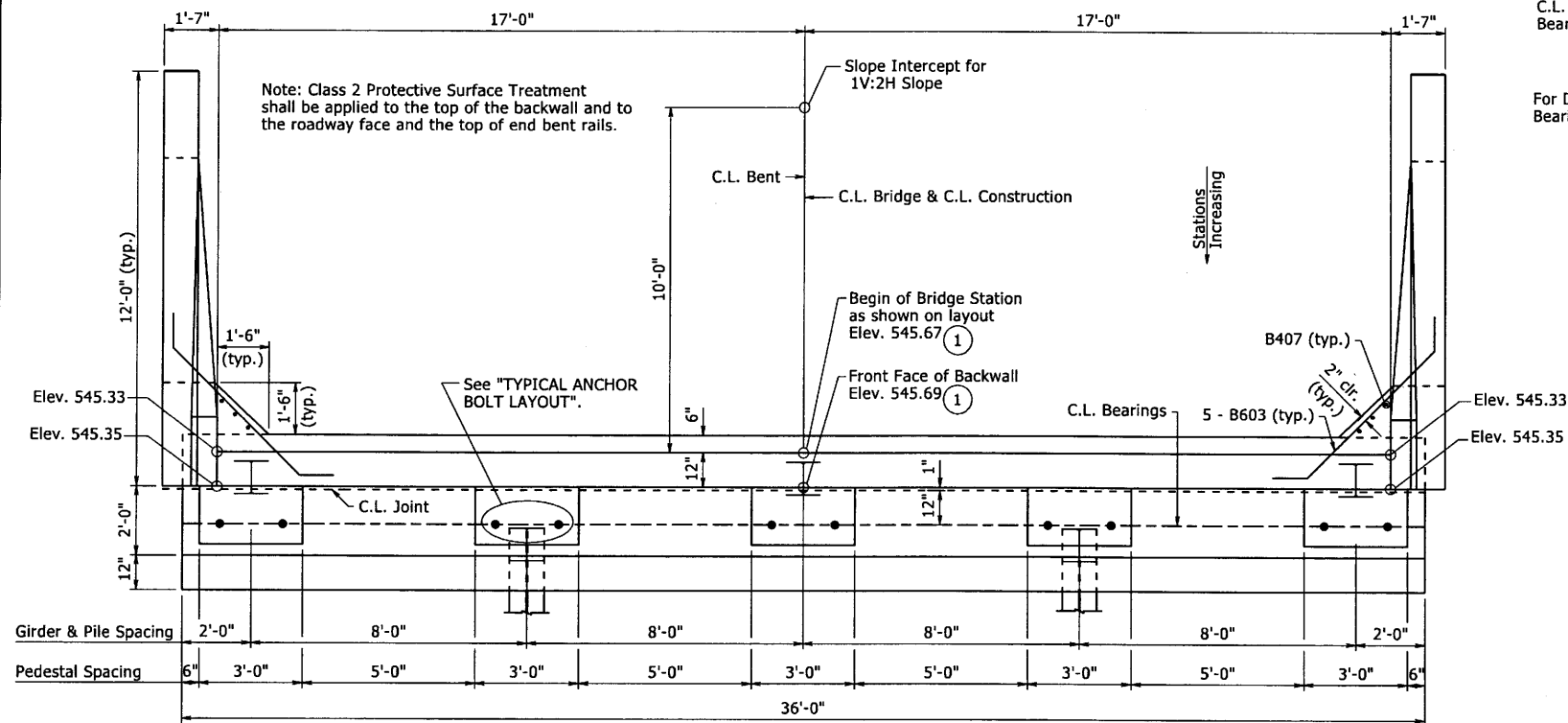
ELEVATION OF SOIL BORINGS



① Measured at Working Point, see "Rounding Detail" on Std. Dwg. No. 55007.

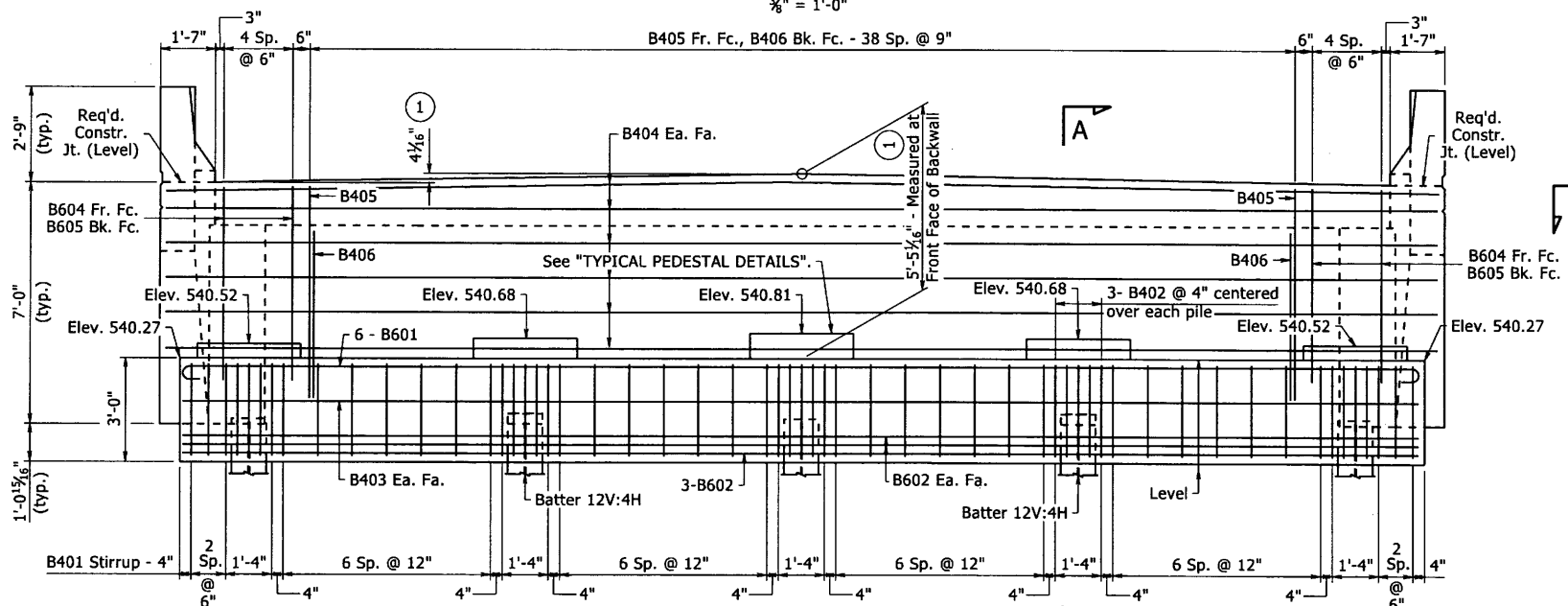
Note: For additional Details of Wing & Rail and Bar List see Dwg. No. 60625.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	43	78
① 07437 - END BENT DETAILS - 60624								



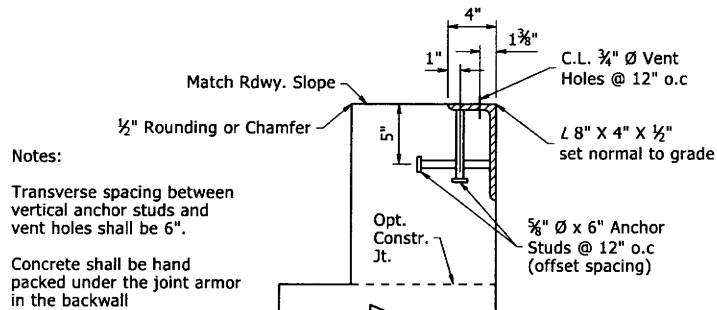
PLAN

$\frac{3}{8}'' = 1'-0''$



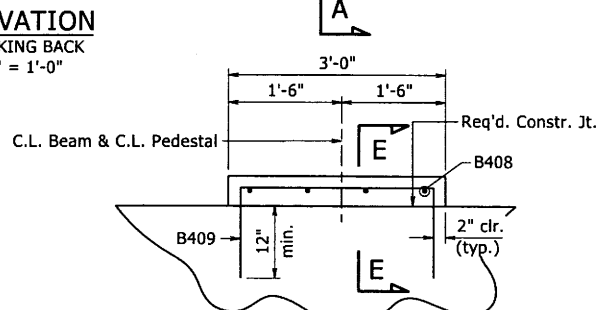
ELEVATION

LOOKING BACK  
 $\frac{3}{8}'' = 1'-0''$



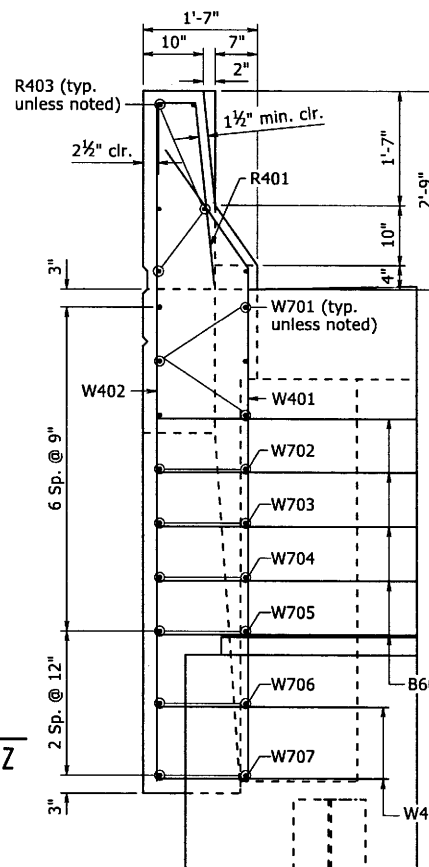
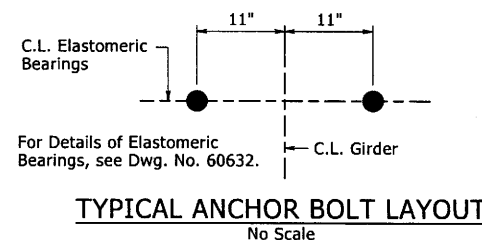
DETAIL Z

$1\frac{1}{2}'' = 1'-0''$



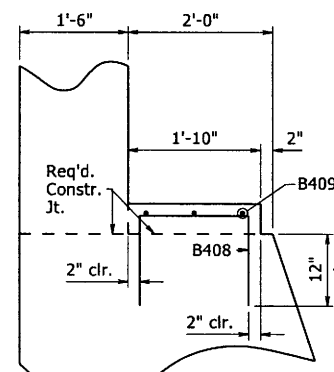
TYPICAL PEDESTAL DETAILS

No Scale



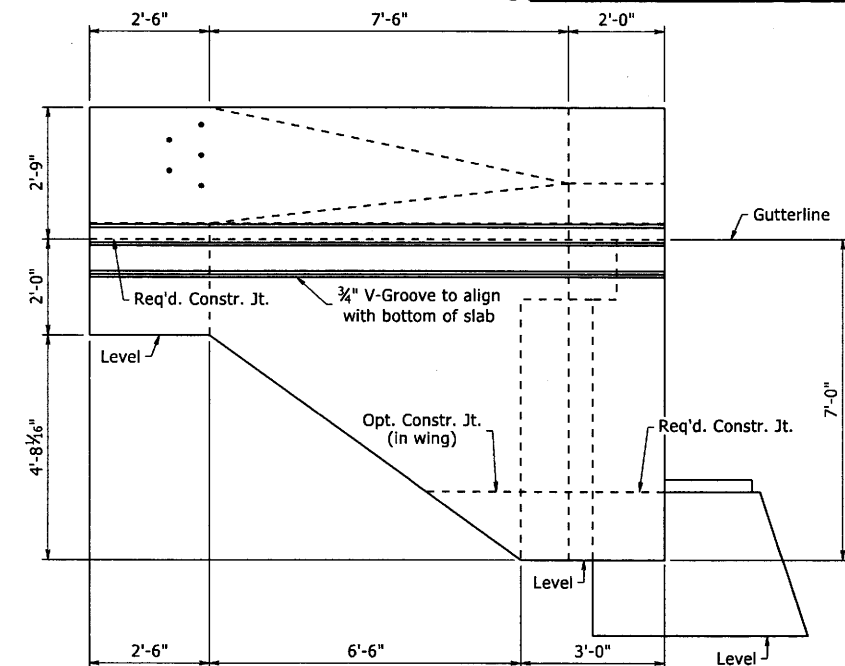
VIEW W-W

$\frac{3}{4}'' = 1'-0''$



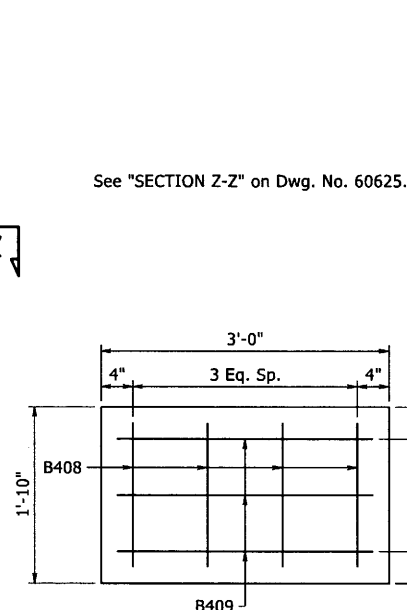
SECTION E-E

No Scale



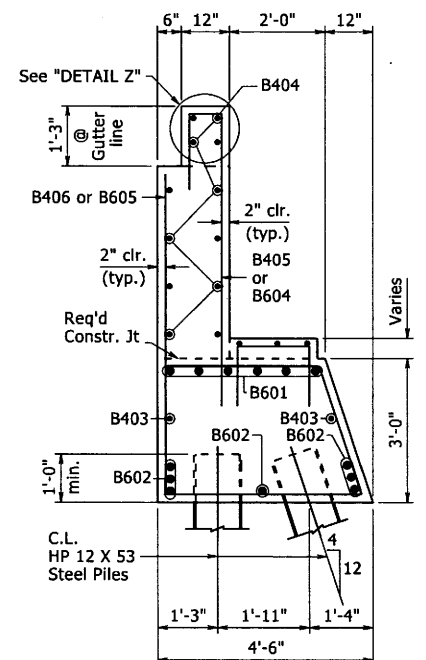
VIEW D-D

$\frac{1}{2}'' = 1'-0''$



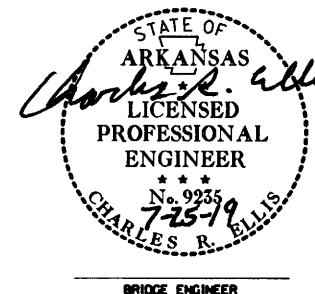
PEDESTAL PLAN

No Scale



SECTION A-A

$\frac{1}{2}'' = 1'-0''$



SHEET 1 OF 2  
DETAILS OF END BENT 1  
STRAWBERRY RIVER

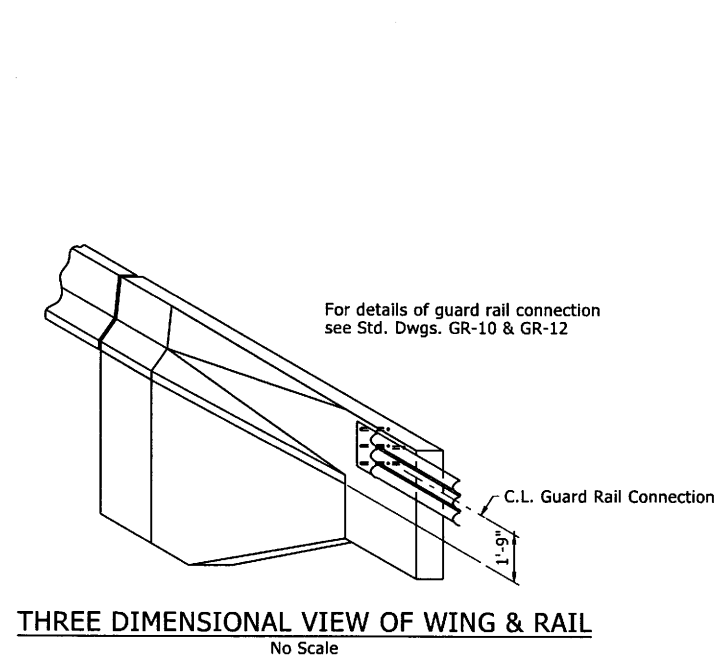
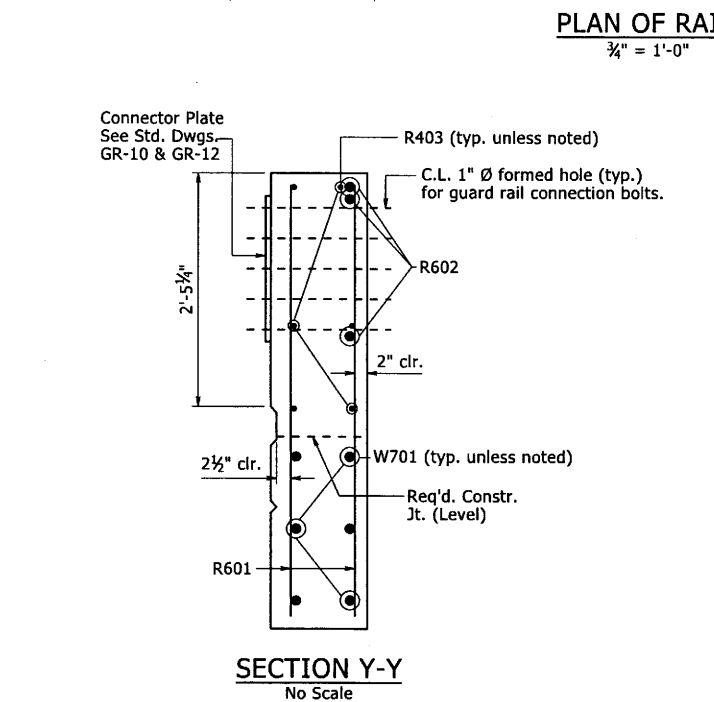
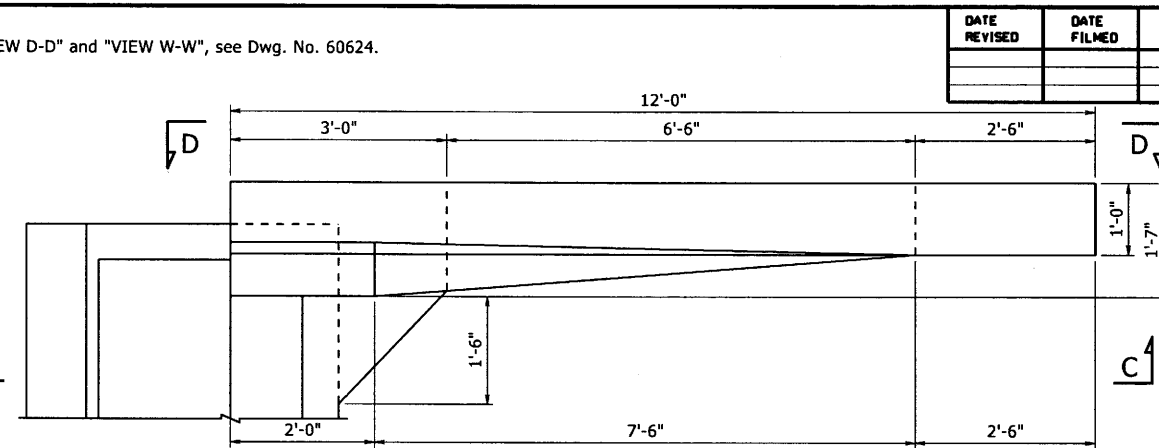
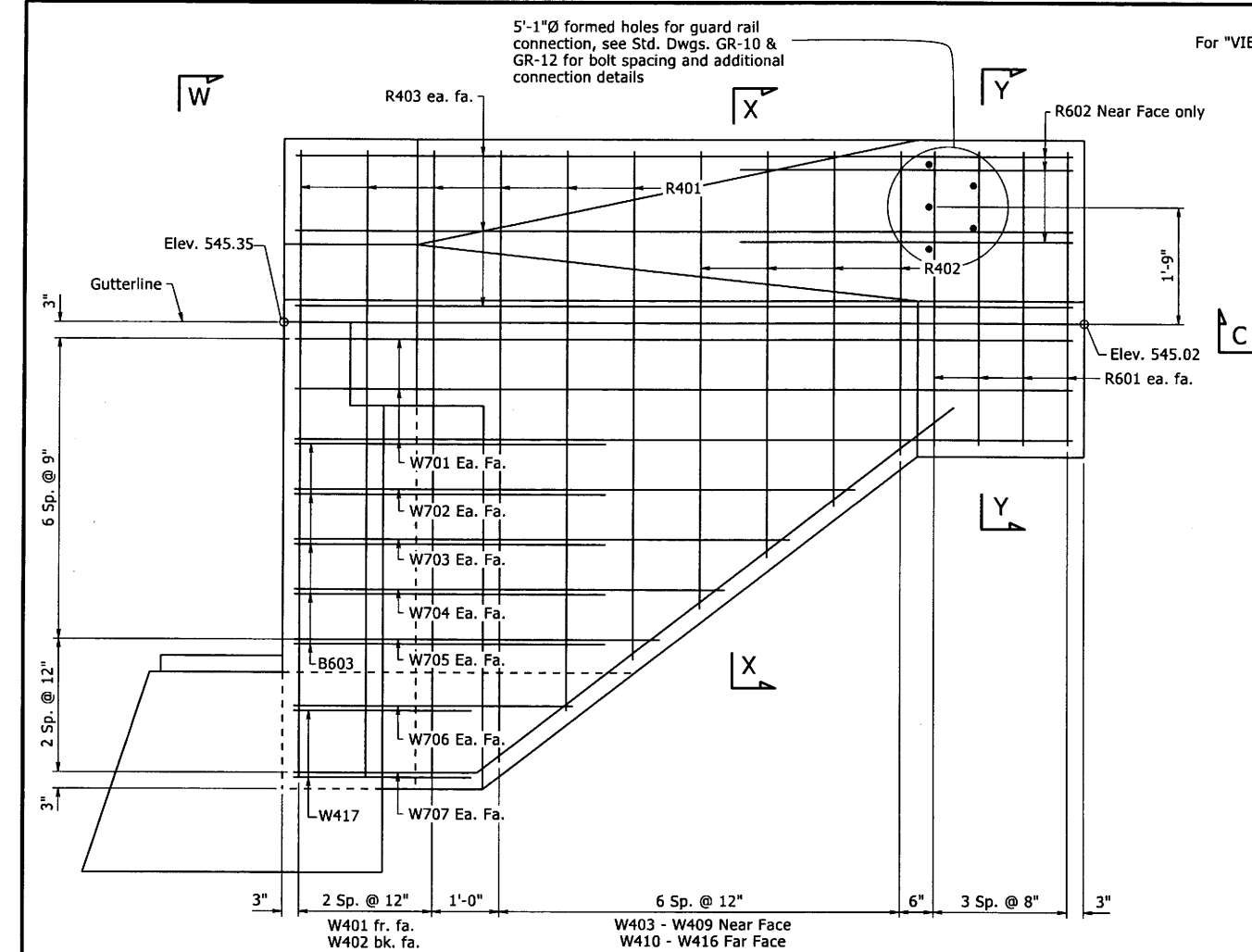
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KJT DATE: 3/15/19  
CHECKED BY: KJT DATE: 7/27/19  
DESIGNED BY: KJT DATE: 3/19

BRIDGE NO. 07437 DRAWING NO. 60624

FILENAME: b050321\_b1.dgn  
SCALE: As Shown

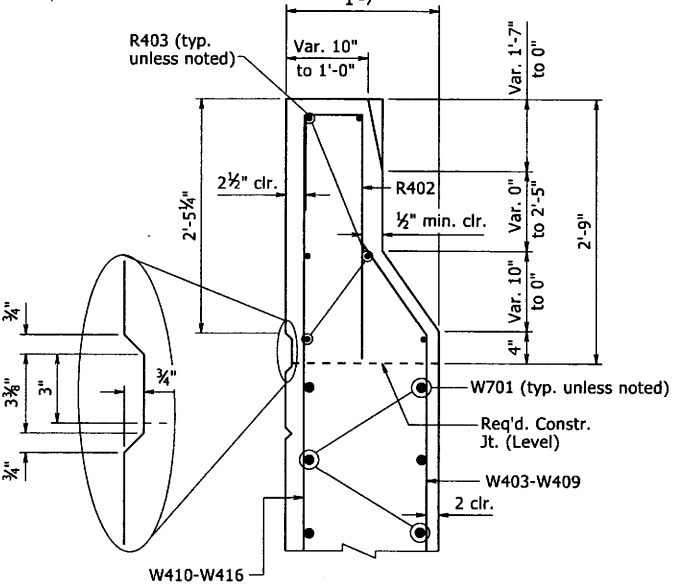
PRINT DATE: 7/25/2019



### BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
B401	42	13'-2"	2"	Dimensions are out to out of bars.
B402	15	8'-8"	2"	
B403	2	35'-8"	Str.	
B404	12	36'-10"	Str.	
B405	39	9'-2"	2"	
B406	39	4'-10"	Str.	
B407	6	5'-5"	Str.	
B408	20	4'-6"	2"	
B409	15	5'-8"	2"	
B601	6	37'-0"	4 1/2"	
B602	7	35'-8"	Str.	
B603	10	7'-5"	4 1/2"	
B604	10	10'-1"	4 1/2"	
B605	10	5'-6"	Str.	
W401	6	9'-0"	2"	
W402	6	9'-4"	Str.	
W403 - W409	2 Each	7'-10" to 3'-6"	2"	
W410 - W416	2 Each	9'-0" to 4'-7"	Str.	
W417	4	5'-0"	2"	
W701	12	11'-8"	Str.	
W702	4	8'-7"	Str.	
W703	4	7'-5"	Str.	
W704	4	6'-5"	Str.	
W705	4	5'-5"	Str.	
W706	4	4'-1"	Str.	
W707	4	11'-9"	5 1/4"	
R401	12	3'-11"	2"	
R402	8	4'-0"	2"	
R403	12	11'-8"	Str.	
R601	16	4'-5"	Str.	
R602	6	5'-0"	Str.	

### VIEW C-C



### SECTION X-X

No Scale

### SECTION Z-Z

$\frac{1}{2}" = 1'-0"$

#### GENERAL NOTES

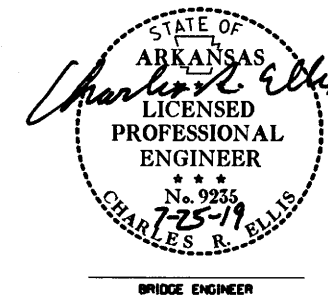
For "SUBSTRUCTURE NOTES", see Std. Dwg. No. 55006.

For details of Steel H-Piling, see Std. Dwg. No. 55020.

Structural steel, unless noted otherwise, in end bents shall be ASTM A709, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (ASTM A709, Gr. 50W)".

No portion of the backwall shall be poured before girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the deck pour has been made. Refer to the "Expansion Device Installation" note, see Std. Dwg. No. 55008. No heavy construction equipment or backfill shall be allowed directly behind the backwall until the deck concrete for the adjacent span has been completed.

For additional information, see Layout.



SHEET 2 OF 2  
DETAILS OF END BENT 1  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

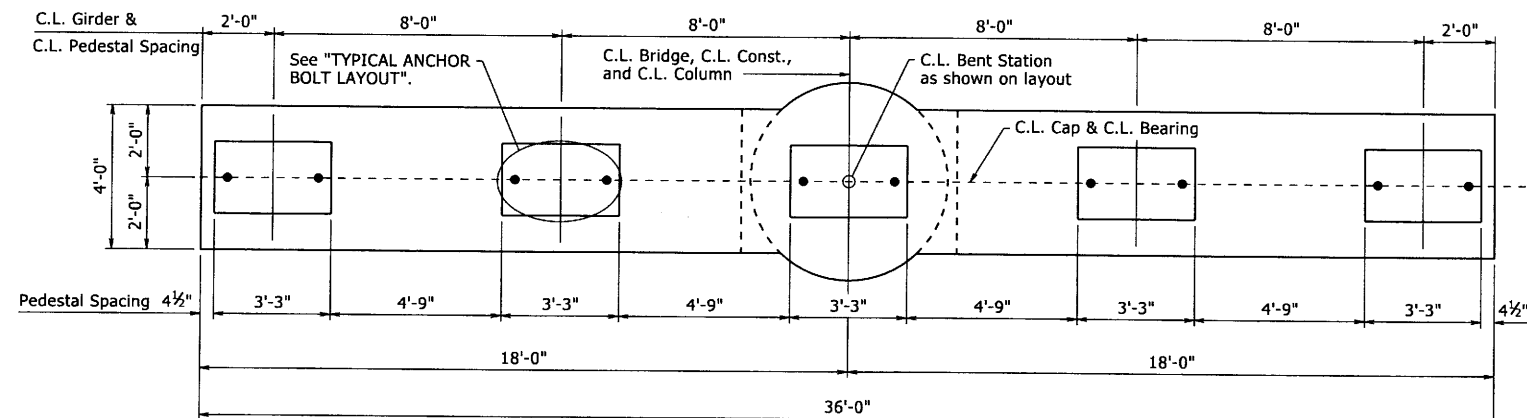
DRAWN BY: KJT DATE: 3/15/19  
CHECKED BY: APT DATE: 7/17/19  
DESIGNED BY: KJT DATE: 3/19

BRIDGE NO. 07437

FILENAME: b050321\_b1.dgn  
SCALE: As Shown

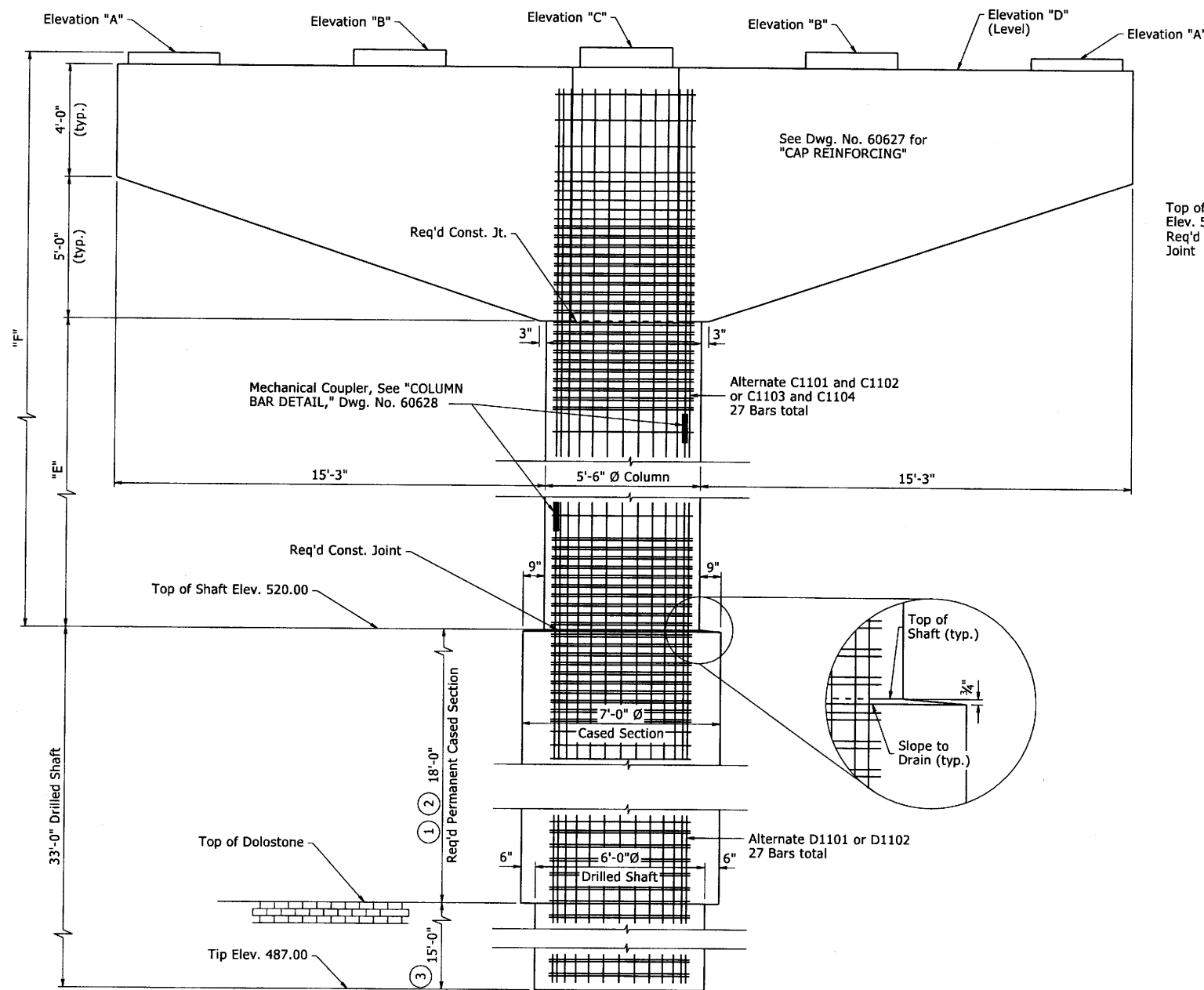
DRAWING NO. 60625

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	45	78
07437 - INT. BENTS - 60626								



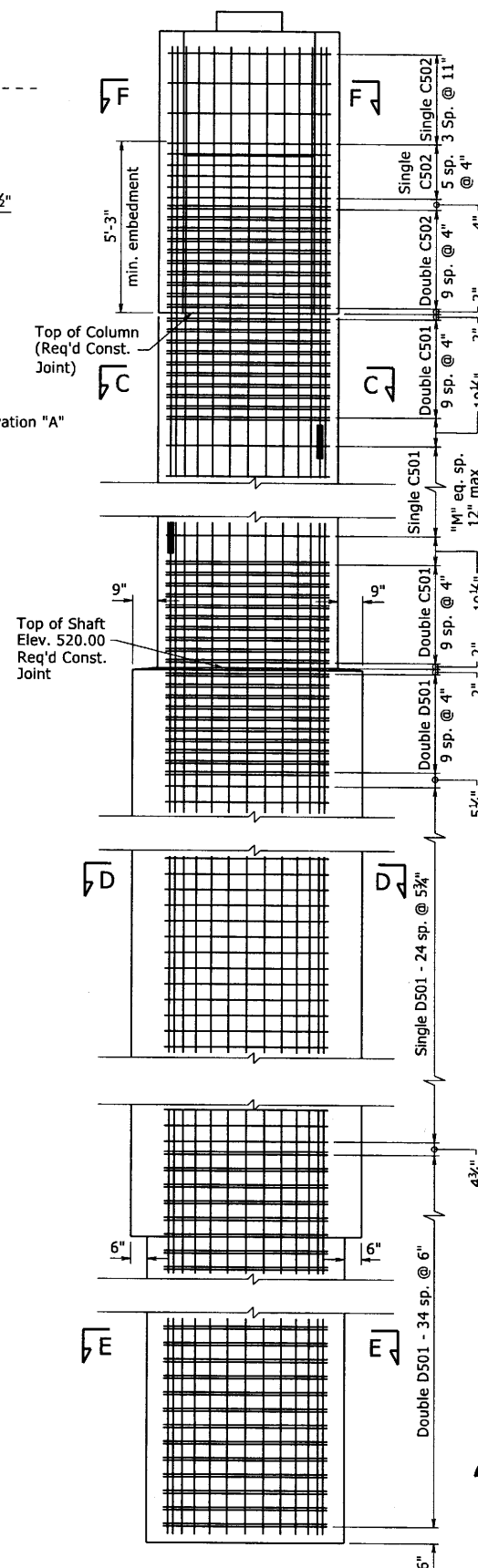
For Pedestal Details, see "TYPICAL PEDESTAL DETAILS," Dwg. No. 60627.

**PLAN**  
3/8" = 1'-0"

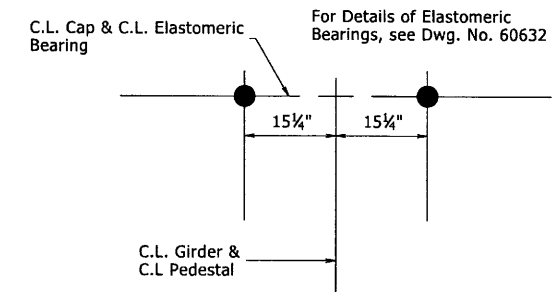


**ELEVATION**  
3/8" = 1'-0"

Note:  
See Dwg. No. 60628 for "SECTION C-C", "SECTION D-D", "SECTION E-E", and "SECTION F-F".



**SIDE VIEW**  
3/8" = 1'-0"



**TYPICAL ANCHOR BOLT LAYOUT**  
No Scale

#### GENERAL NOTES

Concrete and Reinforcing Steel placed in the Drilled Shaft will not be paid directly but shall be considered subsidiary to the unit price bid for "Drilled Shaft (72" Dia.)". No additional payment shall be made for spacers, additional splices, or bracing needed for assembly, shipping, handling, or erecting. Drilled Shafts shall conform to Special Provision Job No. 050321 "Drilled Shaft Foundations" and shall be paid for at the unit price bid for "Drilled Shaft (72" Dia.)".

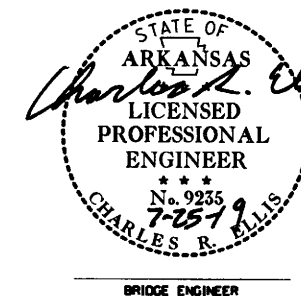
For "SUBSTRUCTURE NOTES," see Std. Dwg. No. S5006

For additional information, see Layout.

- Length of Permanent Casing shown is for estimating quantities only. Actual length is to be determined in the field. See Special Provision Job No. 050321 "Drilled Shaft Foundations." Permanent casing shall extend to material designated as Dolostone on the Boring Legend. The upper 10'-0" of permanent casing at Bent 2 and 3 shall be painted in accordance with SP Job 050321 "Drilled Shaft Foundations."
- Vibration of the concrete in the top 10'-0" of the shaft will be needed to ensure the consolidation of concrete around the reinforcing steel.
- Minimum penetration into material designated as dolostone below bottom of permanent casing.

#### TABLE OF VARIABLES

Bent No.	"A"	"B"	"C"	"D"	"E"	"F"	"M"
Bent 2	543.30	543.46	543.59	542.88	13'-10 1/16"	23'-3 3/8"	6
Bent 3	547.01	547.17	547.30	546.59	17'-7 1/16"	27'-0 1/8"	10



SHEET 1 OF 3  
DETAILS OF INTERMEDIATE BENTS  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: DPT DATE: 03/15/2019 FILENAME: b050321\_b2.dgn

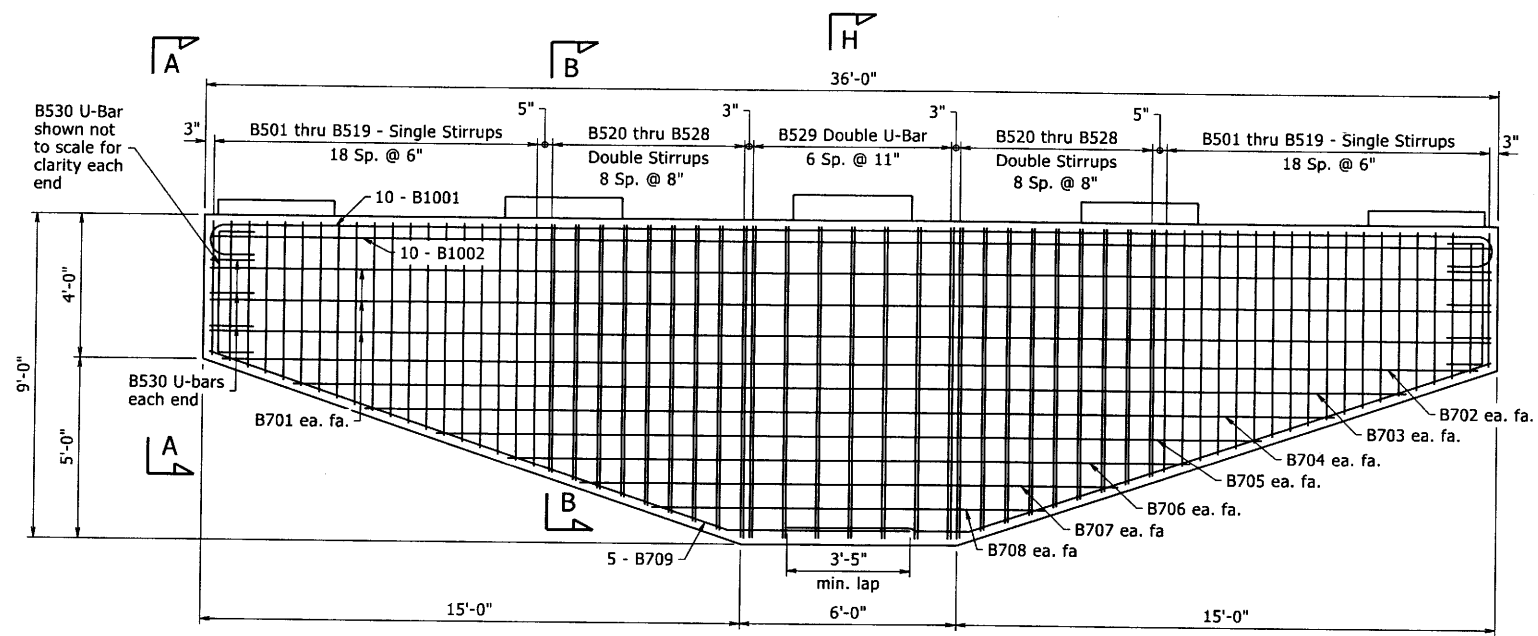
CHECKED BY: KJT DATE: 7/24/19 SCALE: As Shown

DESIGNED BY: KJT DATE: 3/19

BRIDGE NO. 07437

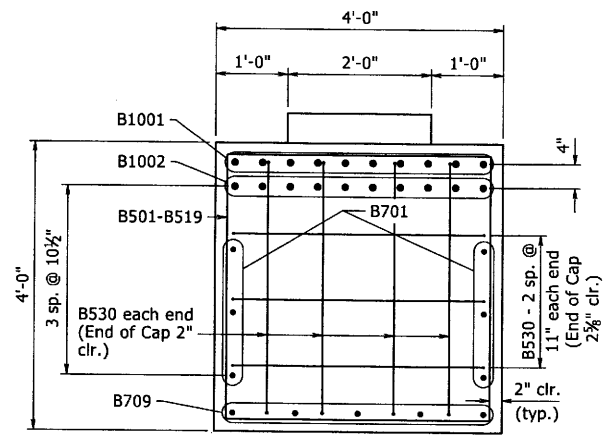
DRAWING NO. 60626

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	46	78
07437 - INT. BENTS - 60627								

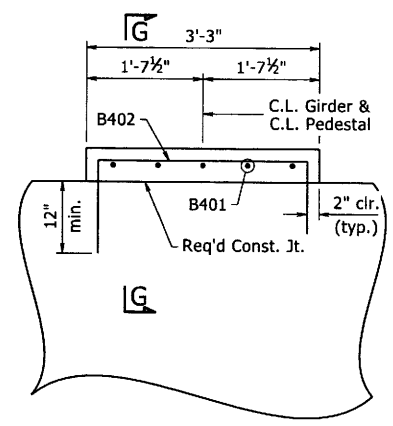


Note:  
Legs of B530 U-Bars are parallel to B701.

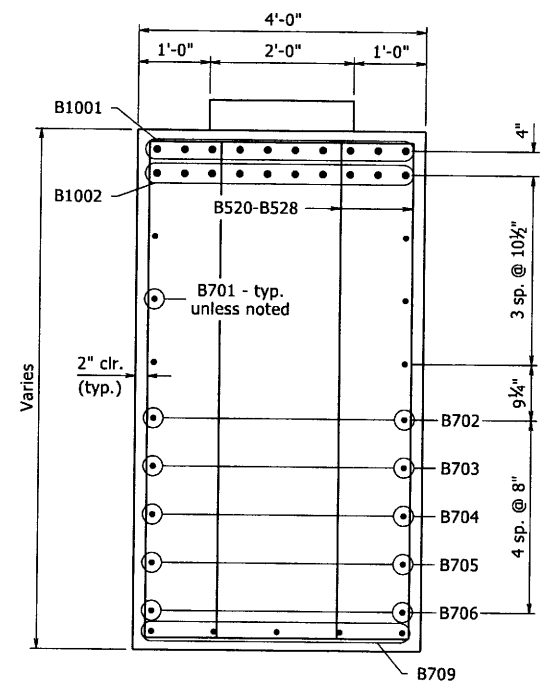
**CAP REINFORCING**  
3/8" = 1'-0"



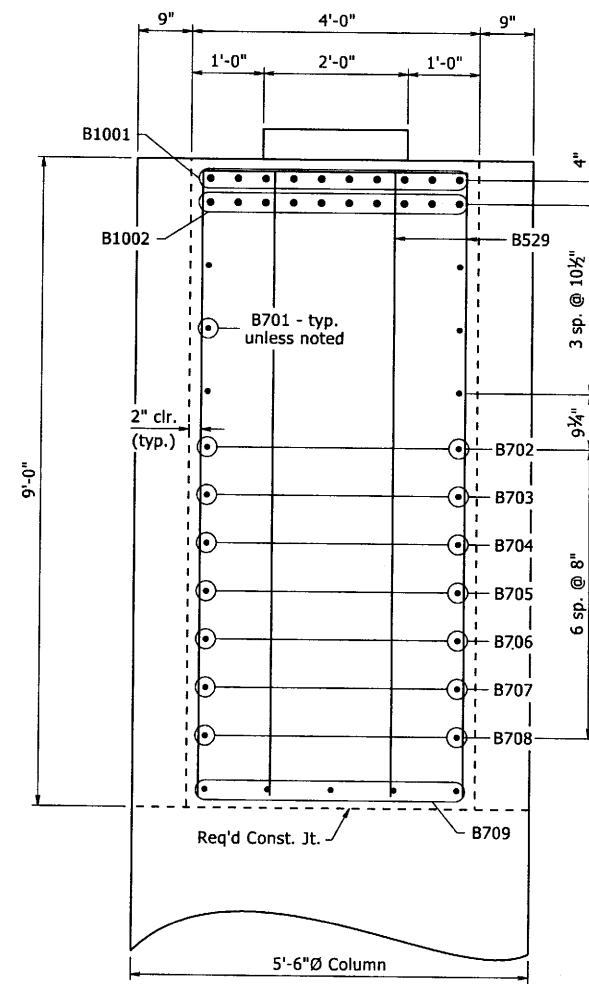
**VIEW A-A**  
3/4" = 1'-0"



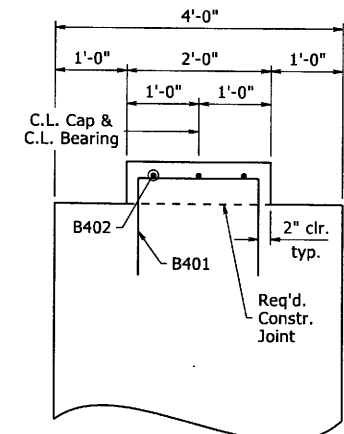
**TYPICAL PEDESTAL DETAIL**  
3/4" = 1'-0"



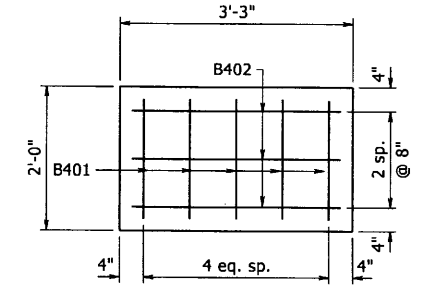
**SECTION B-B**  
3/4" = 1'-0"



**SECTION H-H**  
3/4" = 1'-0"



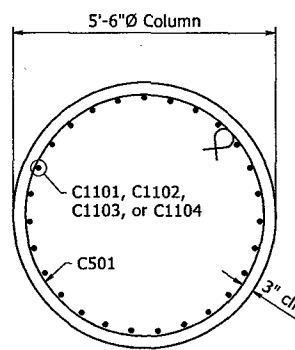
**SECTION G-G**  
3/4" = 1'-0"



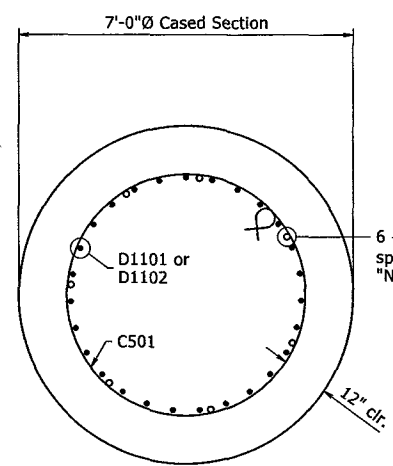
**PEDESTAL PLAN**  
3/4" = 1'-0"

STATE OF  
ARKANSAS  
LICENSED  
PROFESSIONAL  
ENGINEER  
No. 9235  
7-25-19  
CHARLES R. ELLIS  
BRIDGE ENGINEER

SHEET 2 OF 3  
DETAILS OF INTERMEDIATE BENTS  
STRAWBERRY RIVER  
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: DPT DATE: 03/15/2019 FILENAME: b050321\_b2.dgn  
CHECKED BY: KST DATE: 7/24/19 SCALE: As Shown  
DESIGNED BY: KST DATE: 3/14/19  
BRIDGE NO. 07437 DRAWING NO. 60627

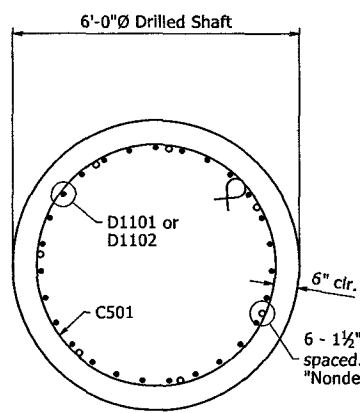


**SECTION C-C**  $\Delta$   
 $\frac{1}{2}'' = 1'-0''$



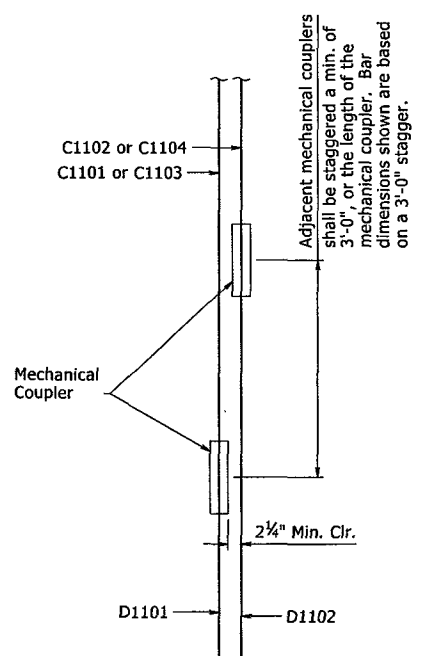
**SECTION D-D**  $\Delta$   
 $\frac{1}{2}'' = 1'-0''$

6 - 1 1/2" Schedule 40 Steel pipes equally spaced. See SP Job No. 050321 "Nondestructive Testing of Drilled Shafts."



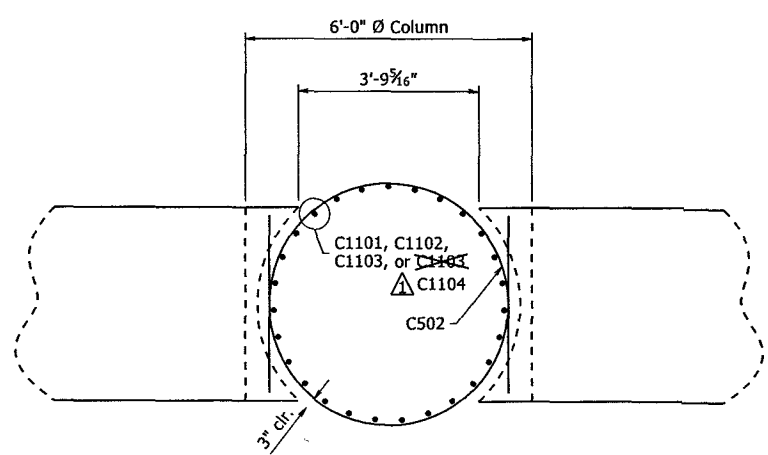
**SECTION E-E**  $\Delta$   
 $\frac{1}{2}'' = 1'-0''$

6 - 1 1/2" Schedule 40 Steel pipes equally spaced. See SP Job No. 050321 "Nondestructive Testing of Drilled Shafts."



**COLUMN BAR DETAIL**  
 $\frac{3}{4}'' = 1'-0''$

Mechanical couplers in the column shall maintain the clearances shown. Their payment shall be subsidiary to the item "Reinforcing Steel - Bridge (Grade 60)". The QPL approved couplers shall develop at least 125% of the specified yield strength of the bar.



**SECTION F-F**  $\Delta$   
 $\frac{1}{2}'' = 1'-0''$

**BAR LIST**

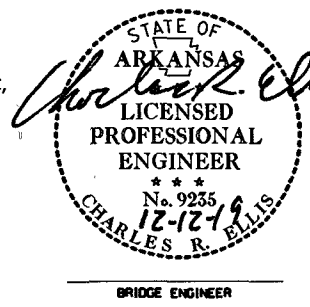
MARK	NO. REQ'D BENT 2	NO. REQ'D BENT 3	LENGTH	P. D.	BENDING DIAGRAMS
B401	25	25	4'-8"	2"	
B402	15	15	5'-11"	2"	
B501-B519	2 ea.	2 ea.	Var. 15'-4" to 21'-4"	2 1/2"	
B520-B528	4 ea.	4 ea.	Var. 19'-7" to 22'-8"	2 1/2"	
B529	14	14	19'-10"	2 1/2"	
B530	14	14	5'-11"	2 1/2"	
B701	6	6	35'-8"	Str.	
B702	2	2	35'-0"	Str.	
B703	2	2	31'-0"	Str.	
B704	2	2	27'-0"	Str.	
B705	2	2	23'-0"	Str.	
B706	2	2	19'-0"	Str.	
B707	2	2	15'-0"	Str.	
B708	2	2	11'-0"	Str.	
B709	5	5	20'-4"	5 1/4"	
B1001	10	10	38'-6"	10"	
B1002	10	10	35'-8"	Str.	
C501	47 ② 115	51 ② 115	17'-1"	3 3/4"	
C502	29	29	11'-7"	3 3/4"	
C1101	$\Delta$ 27	13	17'-10"	Str.	
C1102	$\Delta$ 27	14	14'-10"	Str.	
C1103	-	$\Delta$ 27	21'-7"	Str.	
C1104	-	$\Delta$ 27	18'-7"	Str.	
D1101	$\Delta$ 27	13	36'-9"	Str.	
D1102	$\Delta$ -	14	39'-9"	Str.	

② Non-pay item - Subsidiary to the pay item "Drilled Shaft (72" Dia.)".

Dimensions are out to out of bars.

$\Delta$  Revised the number of bars in Sections C-C, D-D, E-E, F-F, and the bar list. Revised bar designation in Section F-F.

BY: KJT 12/12/19  
CHECKED BY: DHP 12/12/19



SHEET 3 OF 3  
DETAILS OF INTERMEDIATE BENTS  
STRAWBERRY RIVER

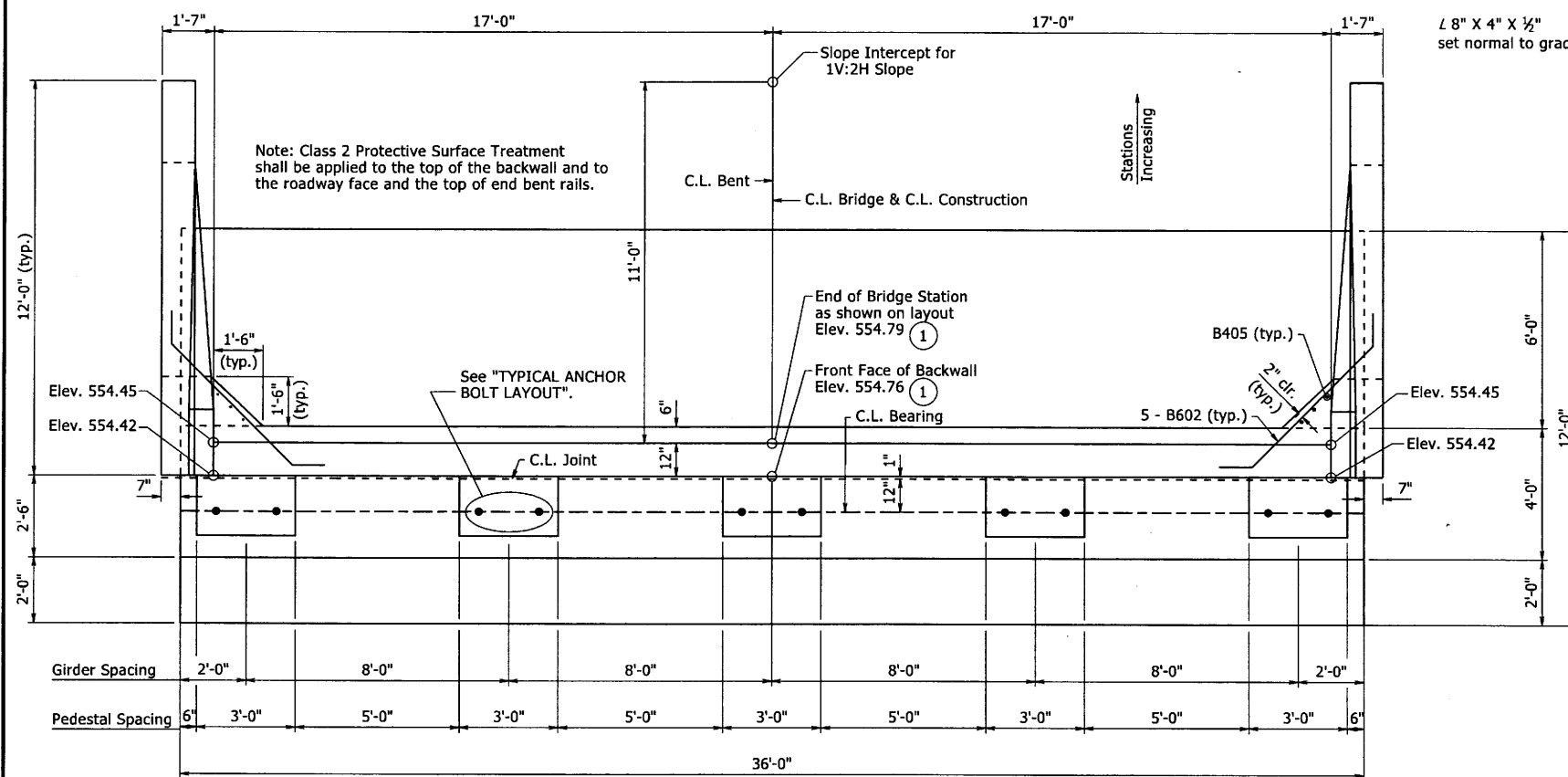
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: DPT DATE: 03/15/2019 FILENAME: b050321\_b2.dgn  
CHECKED BY: KJT DATE: 01/24/19 SCALE: As Shown  
DESIGNED BY: KJT DATE: 03/15/19  
BRIDGE NO. 07437 DRAWING NO. 60628

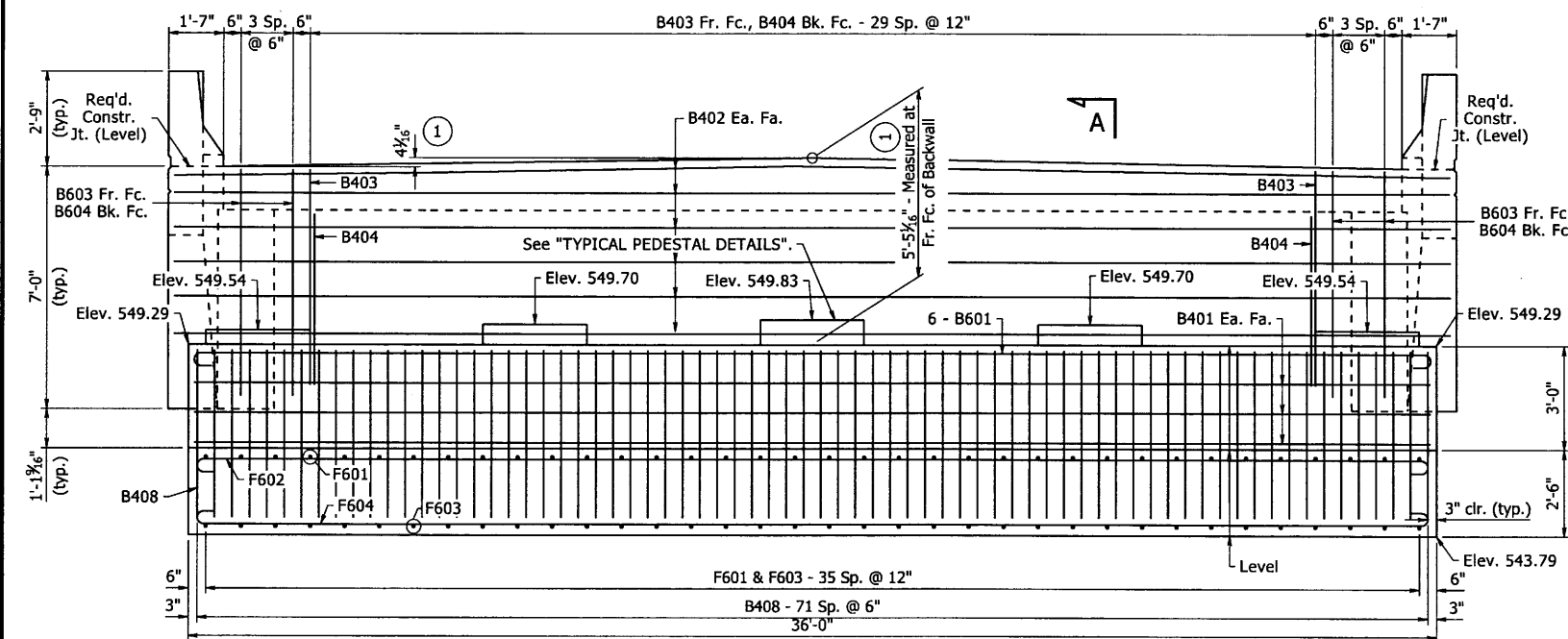


1 Measured at Working Point, see "Rounding Detail" on Std. Dwg. No. 55007.

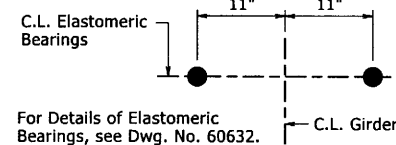
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	48	78
				07437 - END BENT DETAILS - 60629				



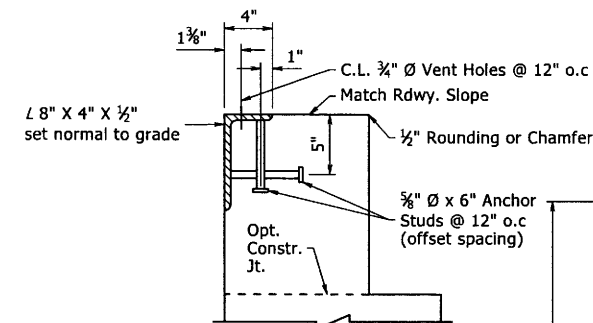
PLAN  
3/8" = 1'-0"



ELEVATION  
LOOKING AHEAD  
3/8" = 1'-0"

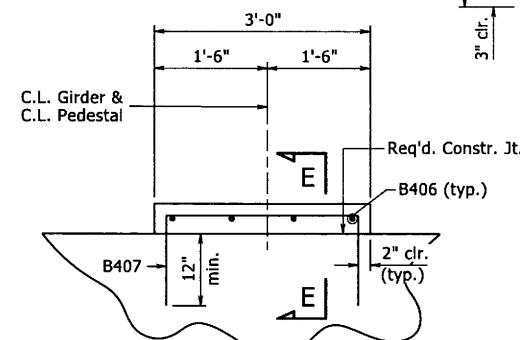


TYPICAL ANCHOR BOLT LAYOUT  
No Scale

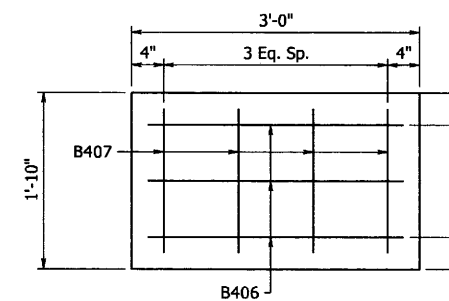


DETAIL Z  
1 1/2" = 1'-0"

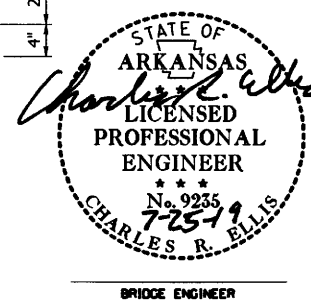
Notes:  
Transverse spacing between vertical anchor studs and vent holes shall be 6".  
Concrete shall be hand packed under the joint armor in the backwall.  
For additional Joint Details, see Std. Dwg. No. 55008.



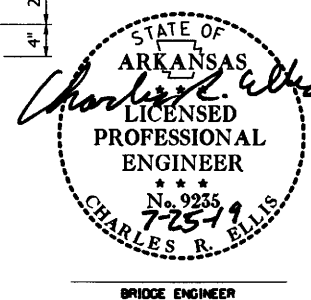
TYPICAL PEDESTAL DETAILS  
No Scale



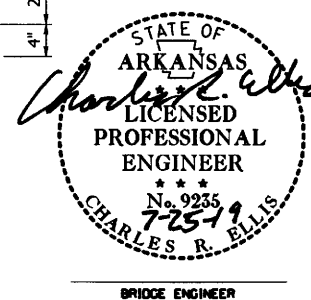
PEDESTAL PLAN  
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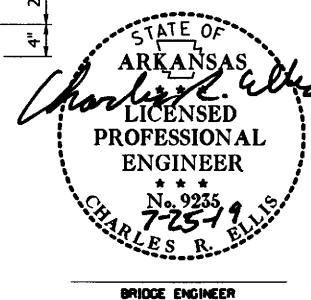
Note: For Details of Wing & Rail see Dwg. No. 60630.  
For the Bar List, see Dwg. No. 60631.



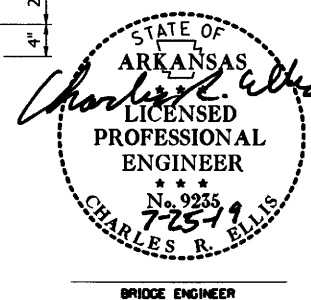
BRIDGE ENGINEER



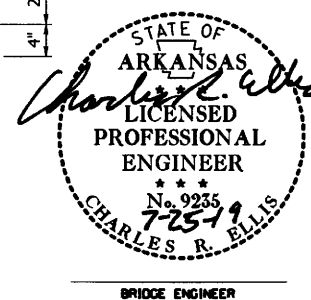
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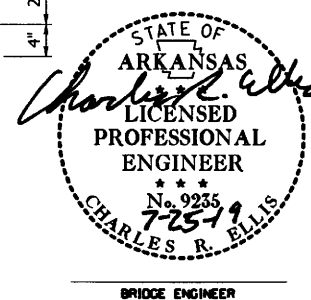
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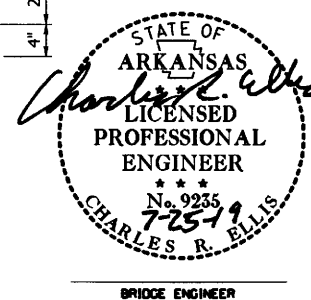
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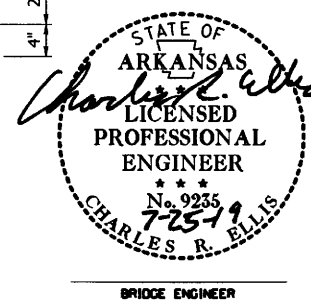
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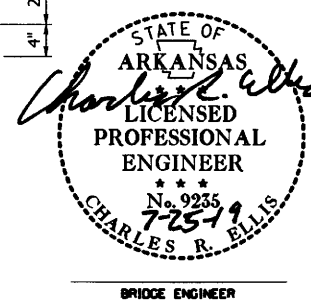
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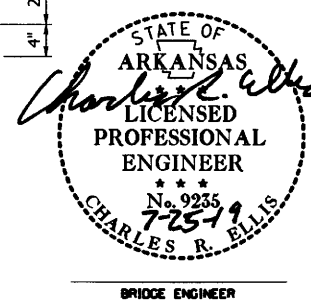
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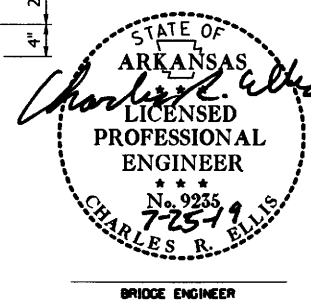
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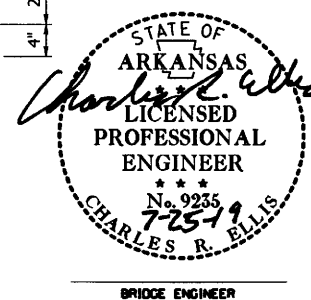
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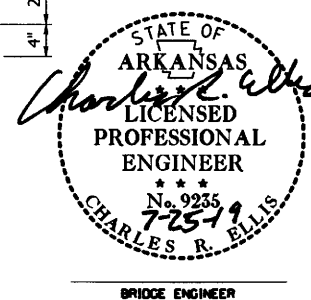
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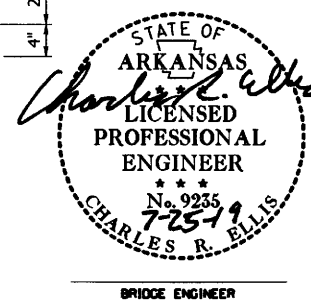
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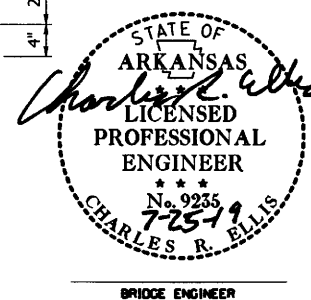
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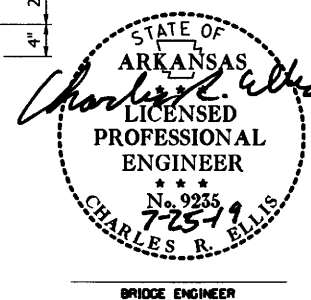
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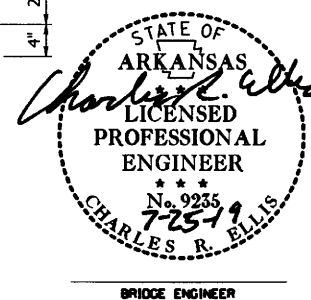
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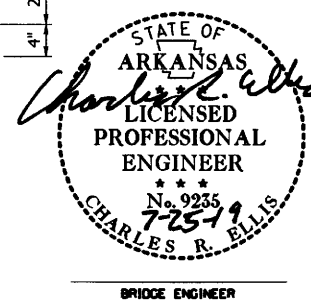
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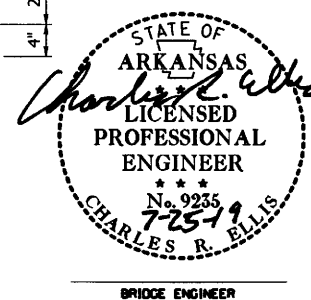
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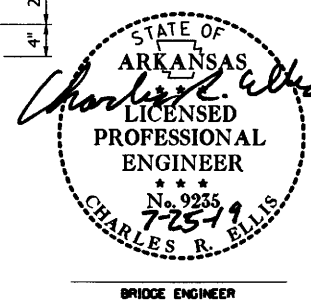
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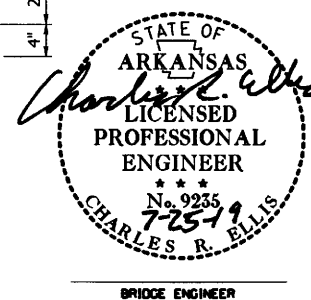
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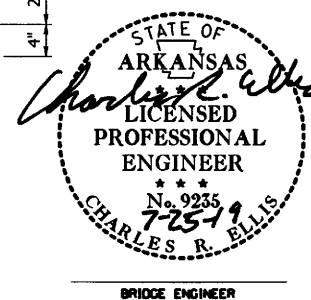
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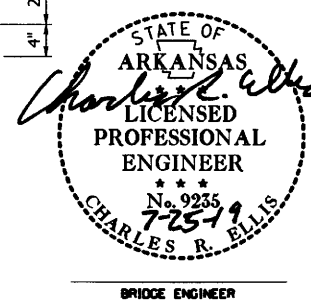
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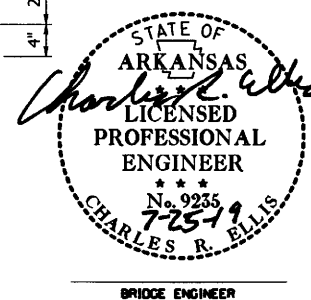
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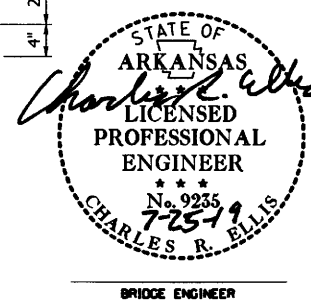
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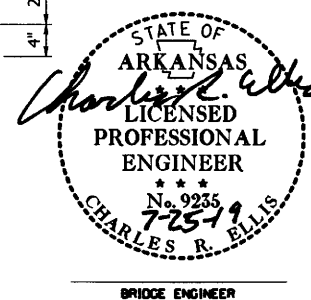
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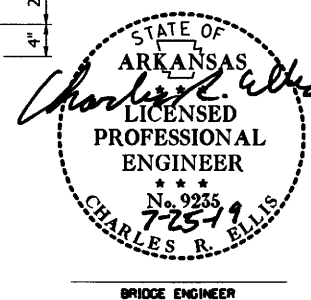
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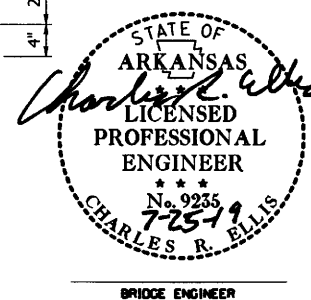
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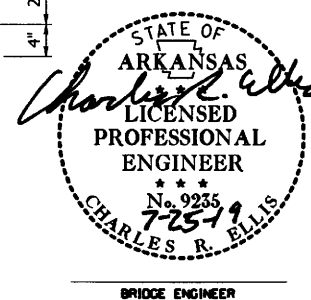
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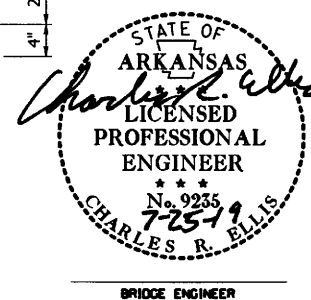
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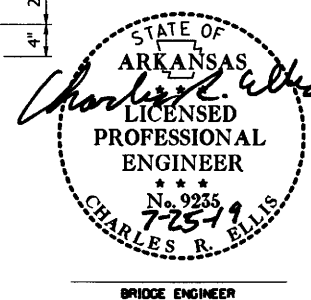
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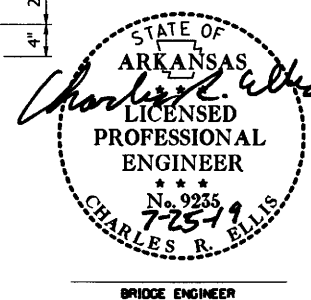
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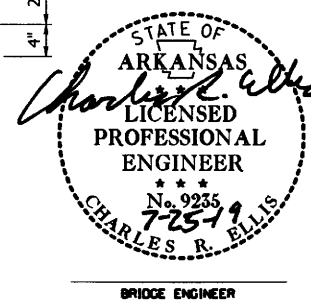
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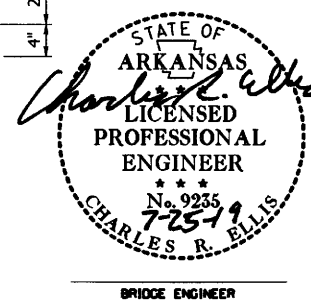
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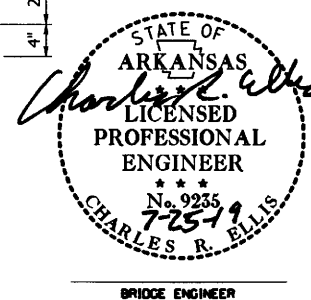
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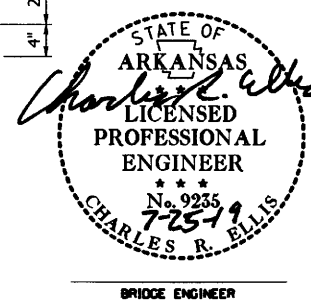
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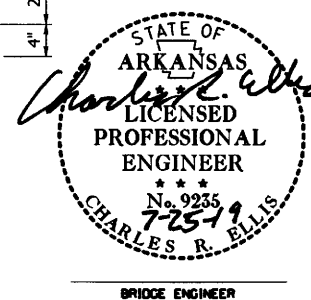
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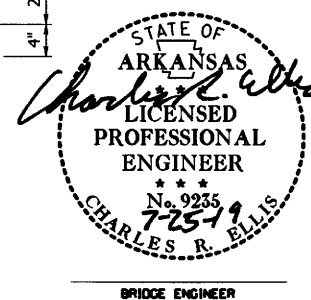
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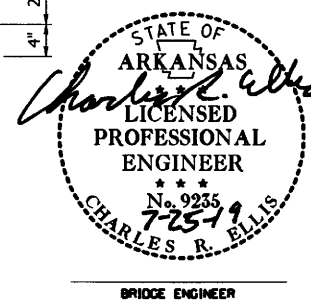
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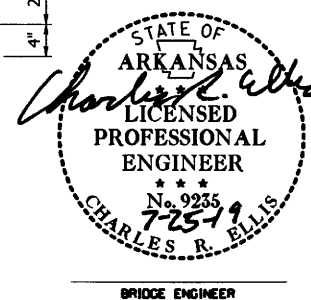
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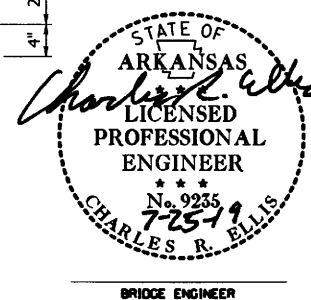
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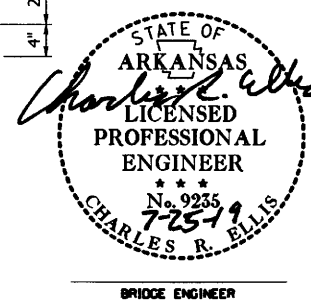
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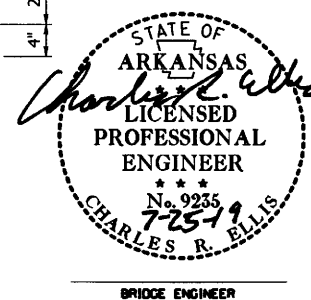
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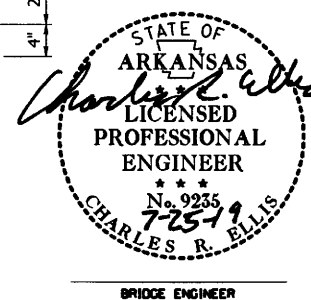
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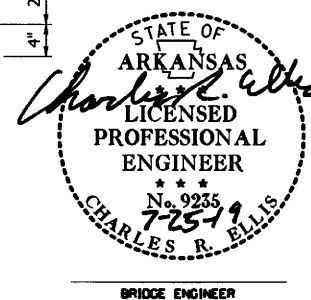
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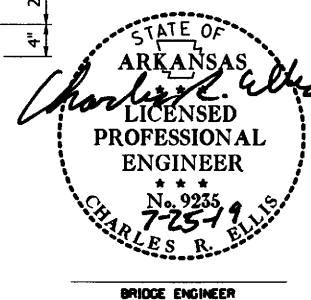
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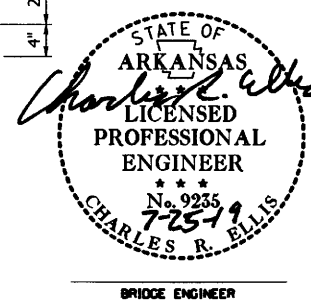
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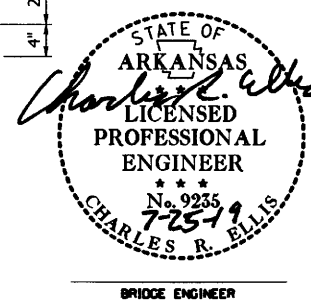
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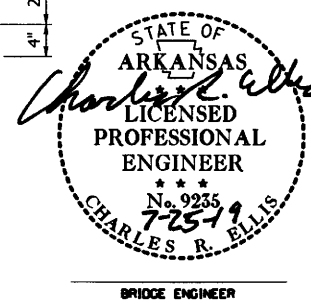
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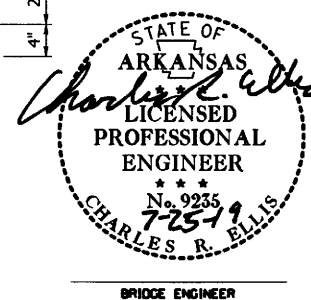
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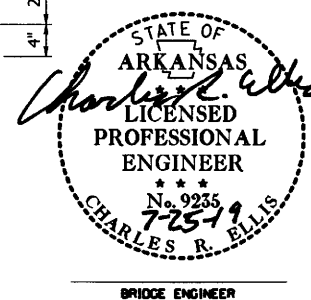
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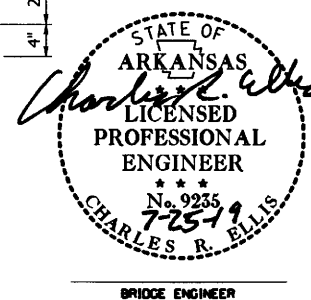
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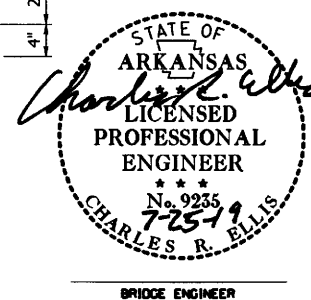
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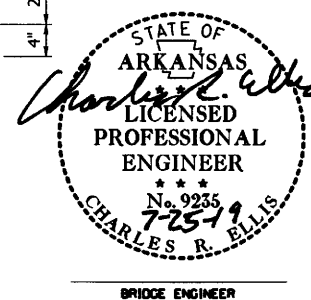
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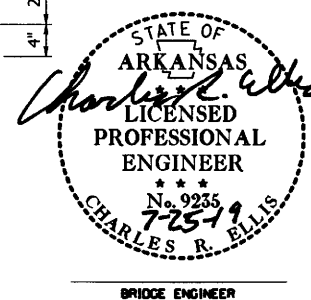
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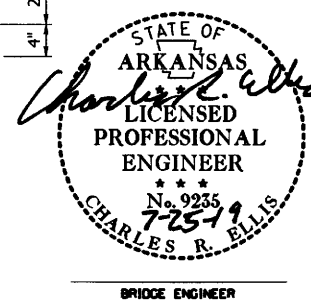
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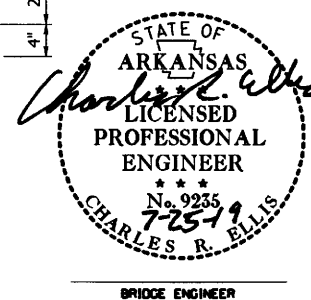
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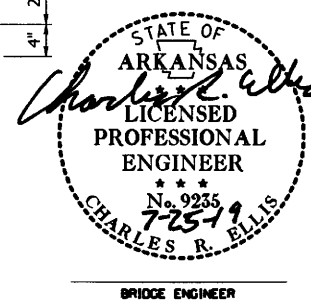
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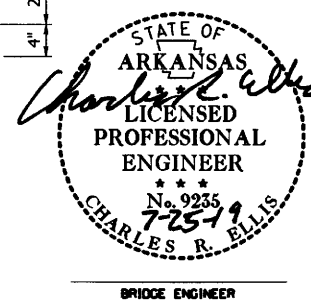
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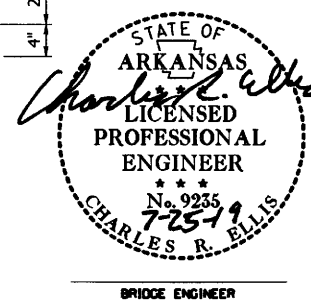
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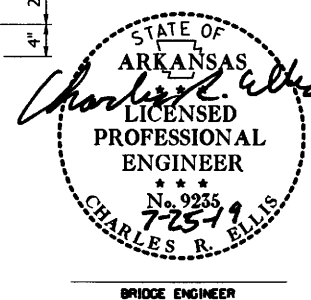
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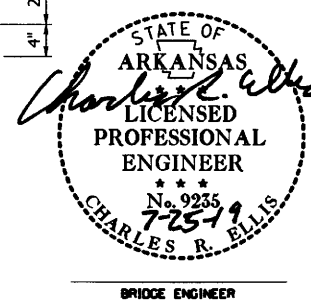
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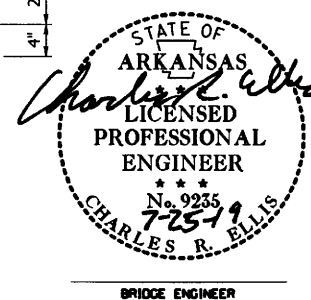
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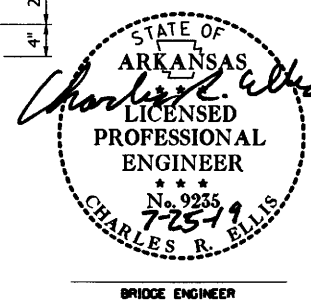
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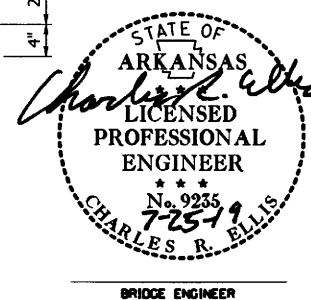
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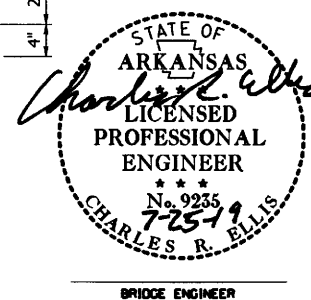
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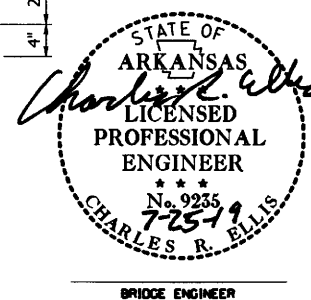
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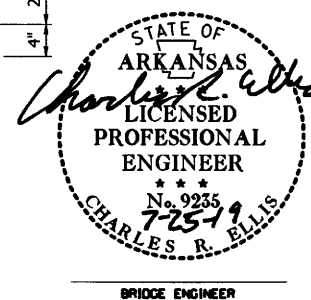
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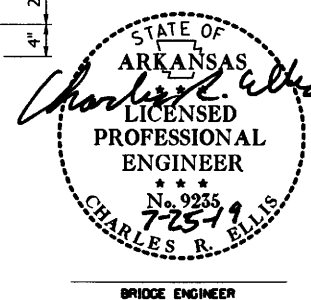
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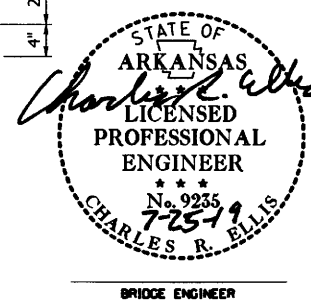
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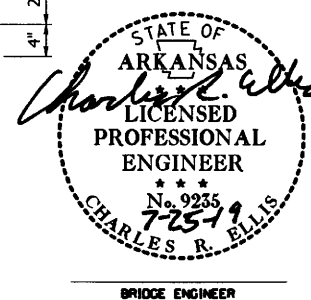
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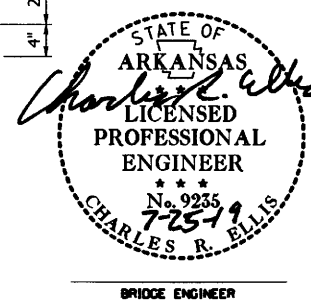
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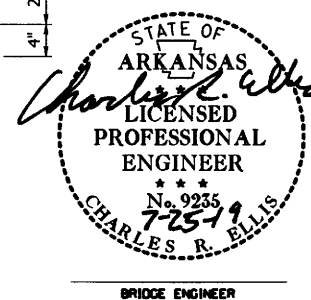
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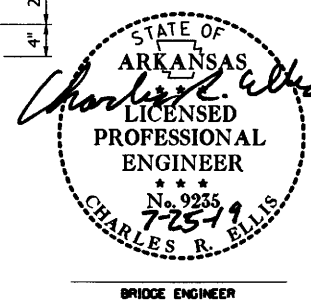
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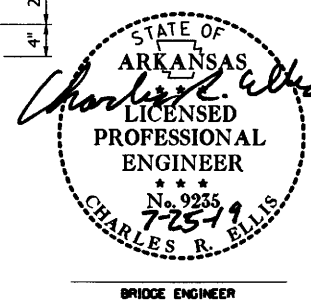
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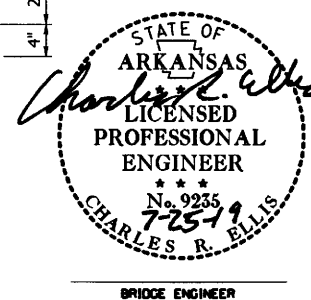
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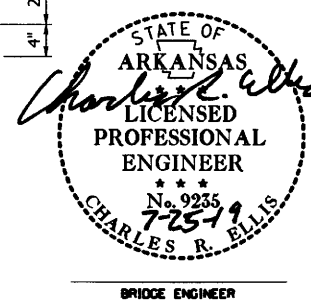
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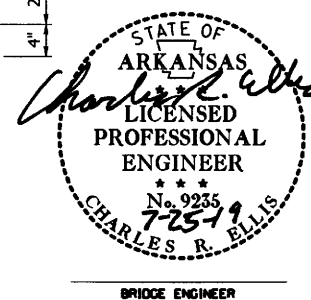
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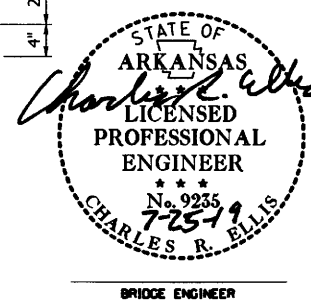
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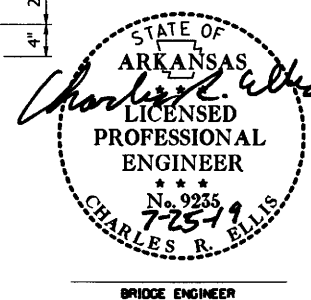
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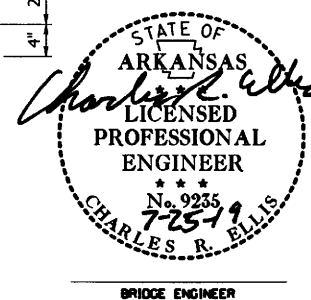
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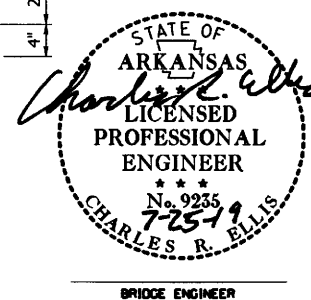
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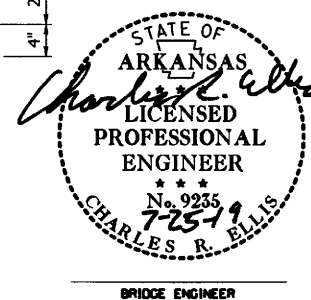
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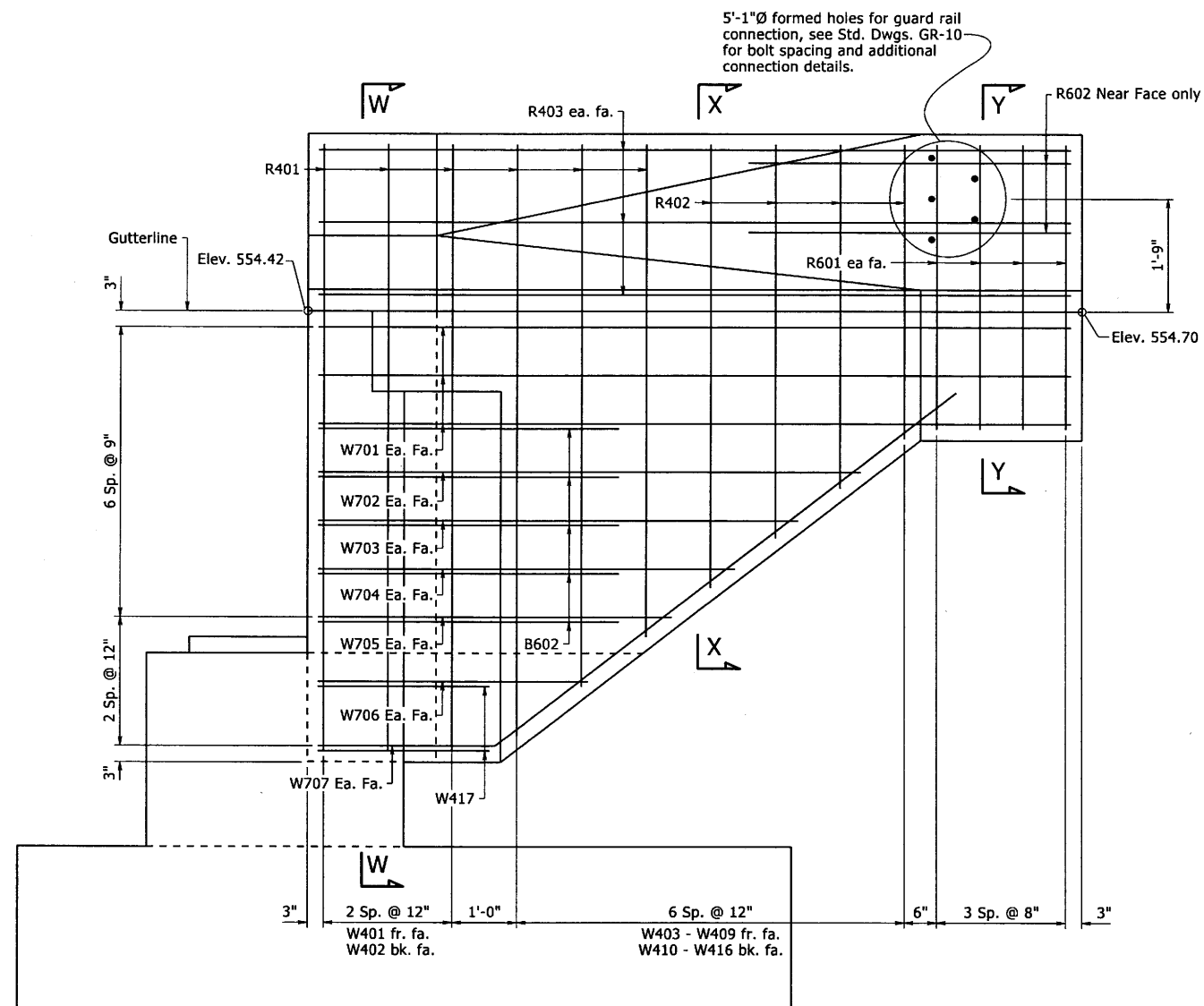
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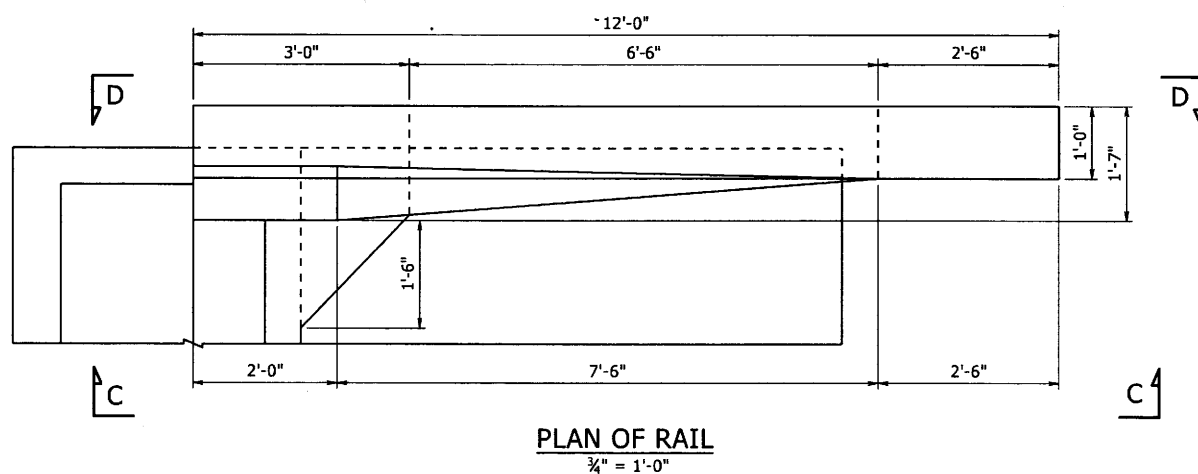
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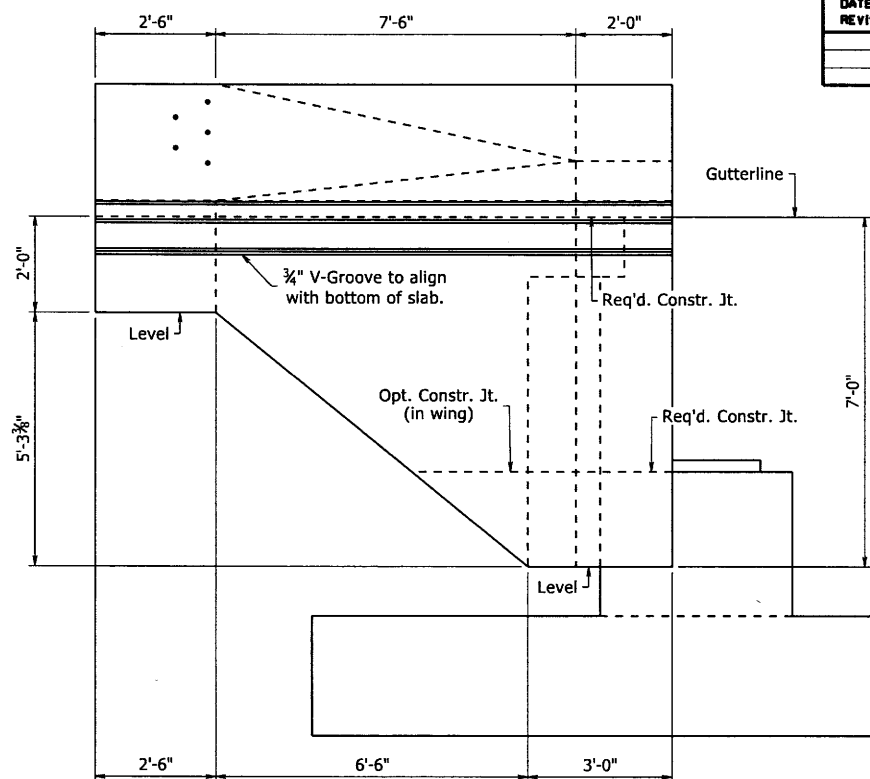
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				6	ARK.			
				JOB NO.		050321	49	78
07437 - END BENT DETAILS - 60630								



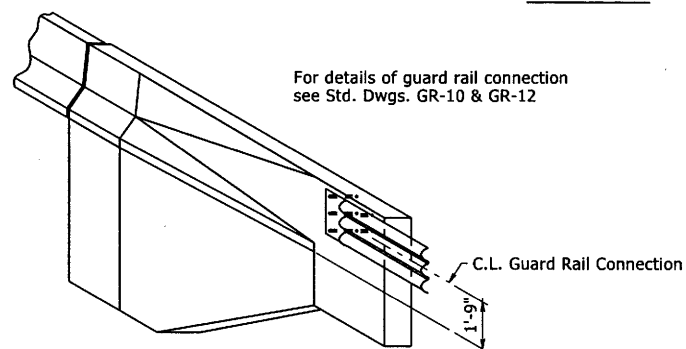
VIEW C-C  
¾" = 1'-0"



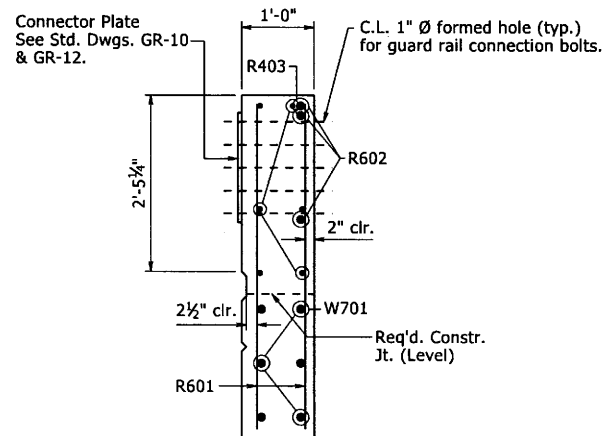
PLAN OF RAIL  
¾" = 1'-0"



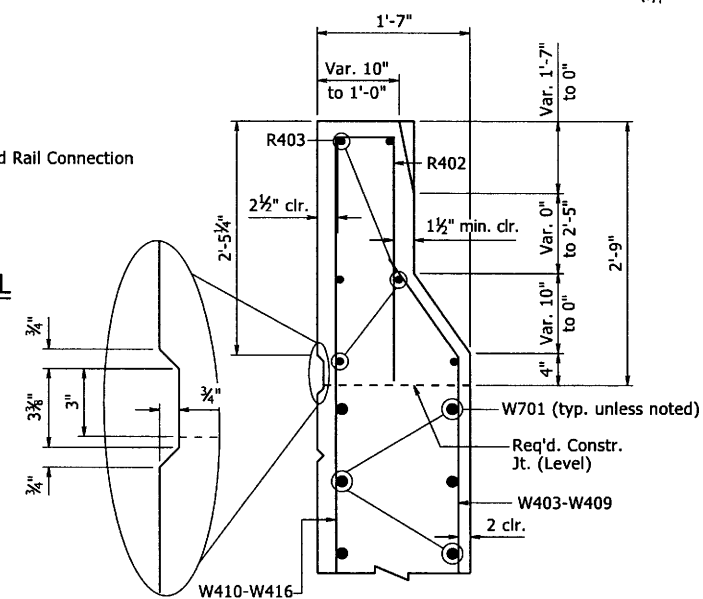
VIEW D-D



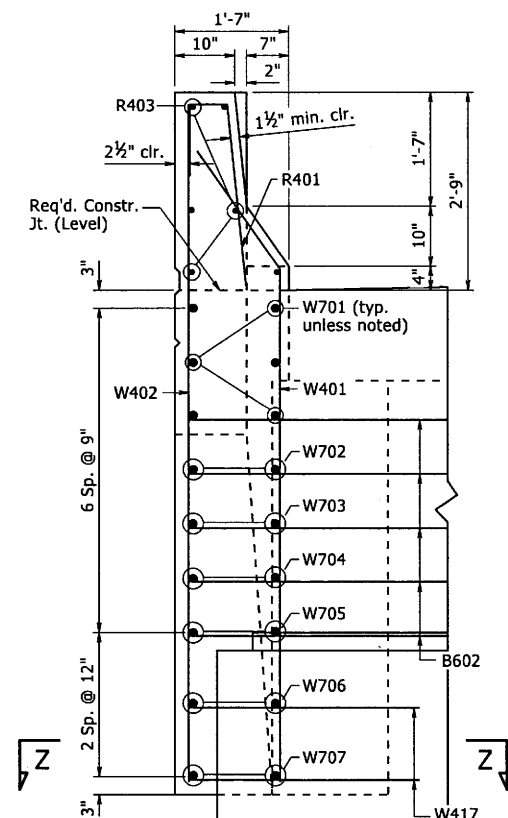
THREE DIMENSIONAL VIEW OF WING & RAIL  
No Scale



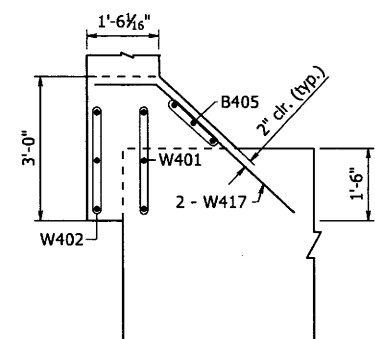
SECTION Y-Y  
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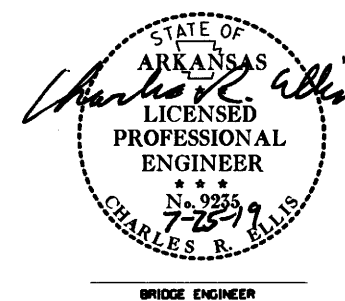
SECTION X-X  
No Scale



VIEW W-W  
¾" = 1'-0"



SECTION Z-Z  
½" = 1'-0"



SHEET 2 OF 3  
DETAILS OF END BENT 4  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KJT DATE: 7/2/19  
CHECKED BY: DPT DATE: 8/27/19  
DESIGNED BY: KJT DATE: 7/19

BRIDGE NO. 07437 DRAWING NO. 60630

FILENAME: b050321\_b4.dgn  
SCALE: As Shown

GENERAL NOTES

For "SUBSTRUCTURE NOTES", see Std. Dwg. No. 55006.

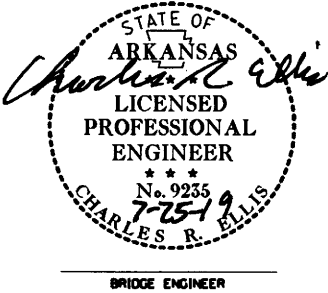
Structural steel, unless noted otherwise, in end bents shall be ASTM A709, Gr. 50W and shall be paid for as "Structural Steel in Plate Girder Spans (ASTM A709, Gr. 50W)".

No portion of the backwall shall be poured before girders are in place. The portion of the backwall above the optional construction joint at the paving bracket shall not be placed until the deck pour has been made. Refer to the "Expansion Device Installation" note, see Std. Dwg. No. 55008. No heavy construction equipment or backfill shall be allowed directly behind the backwall until the deck concrete for the adjacent span has been completed.

For additional information, see Layout.

BAR LIST

MARK	NO. REQ'D.	LENGTH	P.D.	BENDING DIAGRAMS
				Dimensions are out to out of bars.
B401	6	35'-8"	Str.	
B402	12	35'-10"	Str.	
B403	30	9'-3"	2"	
B404	30	5'-1"	Str.	
B405	6	5'-4"	Str.	
B406	20	4'-6"	2"	
B407	15	5'-8"	2"	
B408	72	17'-4"	2"	
B601	6	37'-0"	4 1/2"	
B602	10	7'-5"	4 1/2"	
B603	8	10'-2"	4 1/2"	
B604	8	5'-7"	Str.	
W401	6	8'-2"	2"	
W402	6	9'-5"	Str.	
W403 - W409	2 Each	8'-2" to 4'-5"	2"	
W410 - W416	2 Each	9'-3" to 4'-6"	Str.	
W417	4	4'-9"	2"	
W701	12	11'-8"	Str.	
W702	4	8'-4"	Str.	
W703	4	7'-5"	Str.	
W704	4	6'-5"	Str.	
W705	4	5'-6"	Str.	
W706	4	4'-3"	Str.	
W707	4	11'-9"	5 1/4"	
R401	12	3'-11"	2"	
R402	8	4'-0"	2"	
R403	12	11'-8"	Str.	
R601	16	4'-4"	Str.	
R602	6	5'-0"	Str.	
F601	36	12'-4"	4 1/2"	
F602	12	36'-10"	4 1/2"	
F603	36	12'-4"	4 1/2"	
F604	12	36'-10"	4 1/2"	
B601	6	35'-8"	Str.	
B602	6	35'-5"	Str.	
B603	6	11'-0"	Str.	
B604	6	11'-0"	Str.	
F601 & F603	6	11'-0"	Str.	
F602 & F604	6	11'-0"	Str.	
W707	4	11'-9"	5 1/4"	
W707	4	11'-9"	5 1/4"	



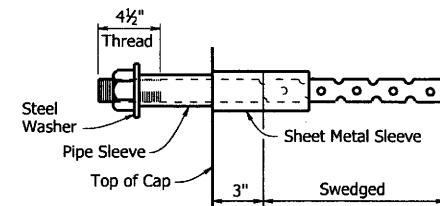
SHEET 3 OF 3  
DETAILS OF END BENT 4  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: KJT DATE: 7/2/19 FILENAME: b050321\_b4.dgn  
CHECKED BY: DRT DATE: 7/24/19 SCALE: As Shown  
DESIGNED BY: KJT DATE: 7/19  
BRIDGE NO. 07437 DRAWING NO. 60631

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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				JOB NO.		050321	51	78

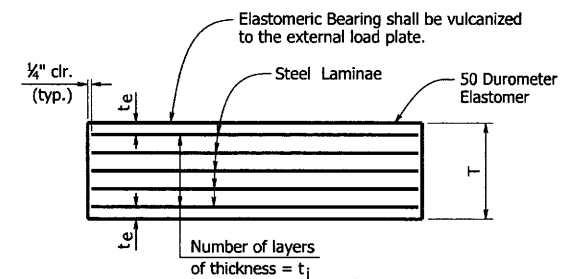
07437 - ELASTOMERIC BEARINGS - 60632



### ANCHOR BOLT DETAIL

Anchor Bolts may be cast in place or drilled and grouted in place. If Anchor Bolts are to be cast in place, the Galvanized Sheet Metal Sleeves will not be required.

If Anchor Bolts are to be drilled and grouted in place, the Galvanized Sheet Metal Sleeves shall be cast in place as shown. Sleeves shall be dry packed with styrofoam, urethane foam or approved equal prior to pouring of concrete. After pouring of the cap and prior to erection of Structural Steel, the dry pack shall be removed and holes for the anchor bolts shall be accurately drilled into the concrete. Bolts placed in drilled holes shall be accurately set and fixed using a QPL approved epoxy or non-shrink grout that completely fills the holes. Galvanized Sheet Metal Sleeves will not be paid for directly, but will be considered subsidiary to the item "Structural Steel in Plate Girder Spans (A709, Gr. 50W)"



$t_e$  = Thickness of elastomer cover on top and bottom of pad  
 $t_i$  = Thickness of elastomer between steel laminae  
 $N$  = Number of elastomer layers of thickness  $t_i$

### ELASTOMERIC BEARING

#### GENERAL NOTES

Elastomeric Bearings shall conform to Section 808 and shall be paid for at the unit price bid for "Elastomeric Bearings".

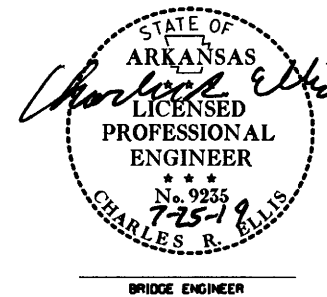
External load plates and shear blocks shall conform to ASTM A709, Gr. 50W. Pipe sleeves shall be ASTM A500, Grade B, and shall be galvanized to conform to AASHTO M 232, Class C or ASTM B695, Class 50.

External load plates and shear blocks shall be completely fabricated (including bevel, bolt holes and all shop welding) and shall be cleaned before vulcanizing to the elastomeric bearing. The surface in contact with the elastomeric bearing shall be cleaned in accordance with Subsection 808.03. Other surfaces shall be blast cleaned in accordance with Subsection 807.84(b) for painted steel and 807.84(e) for unpainted Grade 50W steel.

Anchor Bolts, Washers and Nuts shall conform to Subsection 807.07. The anchor bolt grade of steel shall be as specified in the "Table of Fabricator Variables". Indentations shall be circular with rounded bottoms and staggered as shown in the details.

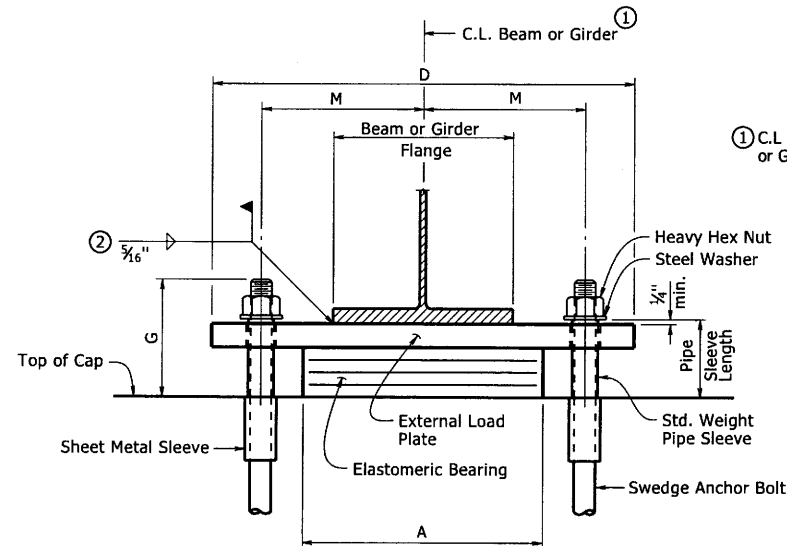
Pipe Sleeves, Anchor Bolts, Washers and Nuts shall be paid for at the unit price bid for "Structural Steel in Plate Girder Spans (A709, Gr. 50W)". External load plates and shear blocks will not be measured or paid for separately, but will be considered incidental to the unit price bid for "Elastomeric Bearings".

Bearings shall be seated in accordance with Subsection 808.08. This work and materials are considered subsidiary to the item "Elastomeric Bearings" and will not be paid for directly.

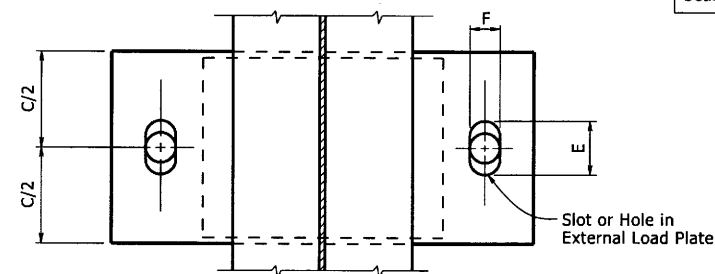


### DETAILS OF ELASTOMERIC BEARINGS

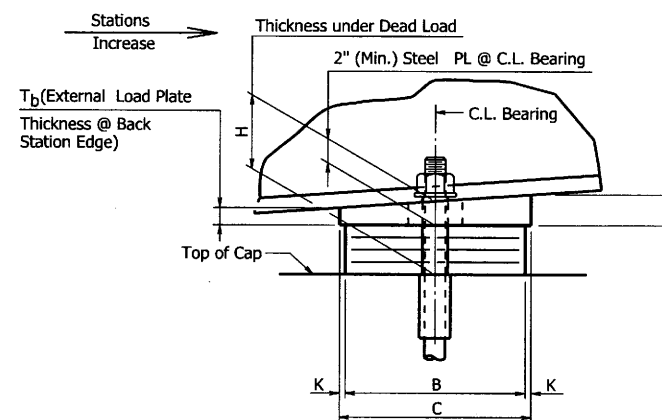
ROUTE SEC.  
**ARKANSAS STATE HIGHWAY COMMISSION**  
 LITTLE ROCK, ARK.  
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 CHECKED BY: DPT DATE: 3/21/19 SCALE: No Scale  
 DESIGNED BY: KJT DATE: 3/2019  
 BRIDGE NO. 07437 DRAWING NO. 60632



FRONT VIEW - AT BENT NOS. 1 & 4



PLAN VIEW - AT BENT NOS. 1 & 4



SIDE VIEW - AT BENT NOS. 1 & 4

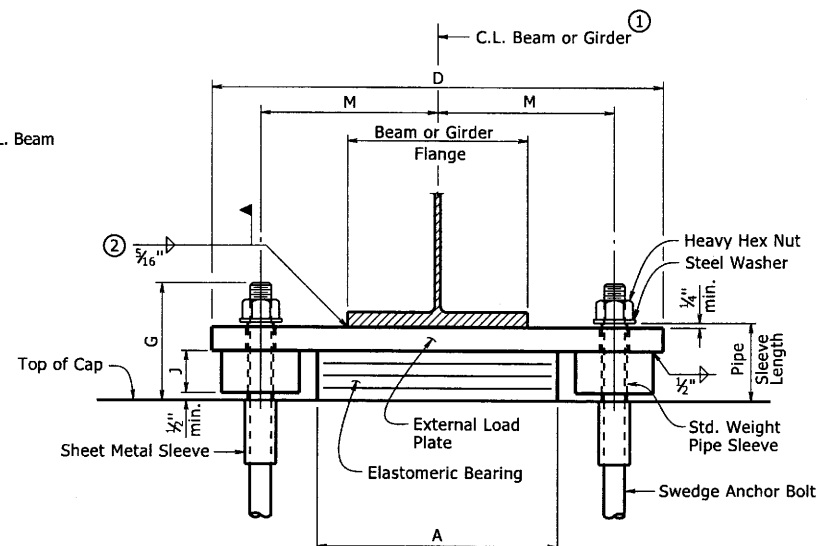
① C.L. Elastomeric Pad shall be aligned with C.L. Beam or Girder.

Prior to erection of the beams or girders, the Contractor shall verify the orientation of the bearings with respect to Ta and Tb.

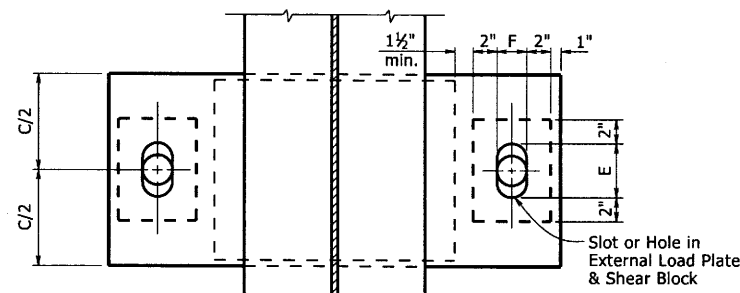
The direction of bevel of the external load plate may not be accurately depicted with respect to Ta and Tb values shown in the "Table of Fabricator Variables".

② Unless otherwise approved by the Engineer, welding of the external load plate at expansion bearings to the beam or girder will be allowed only when: 1) the approximate average air temperature during the 24 hour period immediately preceding welding is between 40°F and 80°F; and 2) the slots in the external load plate are positioned to center on the anchor bolts; and 3) no horizontal deformation of the elastomeric pad is evident. If welding at other temperatures is required, the Engineer will provide adjustment data.

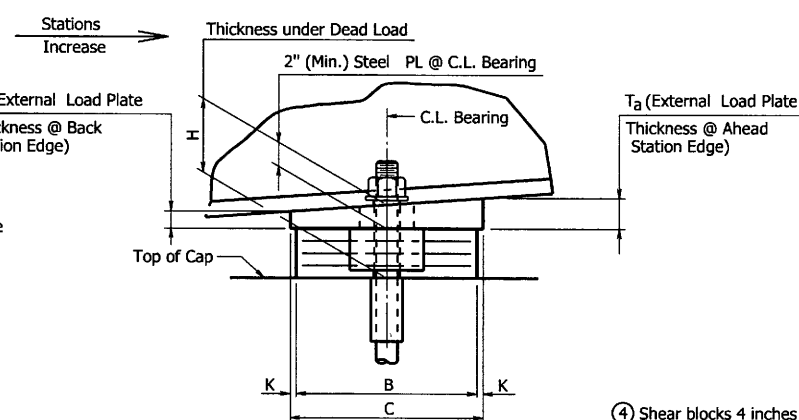
Care shall be taken to ensure that the external load plate is in full and complete contact with the beam or girder flange before welding begins.



FRONT VIEW - AT BENT NOS. 2 & 3



PLAN VIEW - AT BENT NOS. 2 & 3



SIDE VIEW - AT BENT NOS. 2 & 3

④ Shear blocks 4 inches or thicker may be fabricated from built-up plates with a 3/16 inch groove weld on all sides. No plate shall be less than 2 inch nominal thickness.

### TABLE OF FABRICATOR VARIABLES

③ Maximum Design Load = Service 1 Limit State

BRIDGE NO.	③ Maximum Design Load = Service 1 Limit State								ELASTOMERIC PAD						EXTERNAL LOAD PLATE								ANCHOR BOLT					
	LOCATION		BEARING TYPE	NO. of BEARINGS EACH BENT	③ MAXIMUM DESIGN LOAD (KIPS)	G	H	A	B	N	t <sub>i</sub>	t <sub>e</sub>	NO. & THICKNESS OF STEEL LAMINAE	T	C	D	E	F	④ J	K	M	T <sub>a</sub>	T <sub>b</sub>	ANCHOR BOLT		PIPE SLEEVE SIZE (Ø x L)	SHEET METAL SLEEVE SIZE (Ø x L)	STEEL WASHER SIZE (O.D.)
	BENT NO(S)	BEAM OR GIRDER NO.																						Ø x L	GRADE			
07437	1 & 4	All	Exp.	5	125	8¾"	4⅞"	16"	8"	4	½"	¼"	5 @ 12 ga.	3"	9"	29"	6⅝"	3¾"	NA	½"	11"	2.12"	1.88"	2½"Ø x 36"	55	3"Ø x 5¼"	4"Ø x 10"	4½"
	2 & 3	All	Fix.	5	354	7½"	3⅞"	20"	13"	2	½"	¼"	3 @ 12 ga.	1⅞"	14"	39¾"	3⅝"	3⅝"	1¼"	½"	15¼"	2.17"	1.83"	2¼"Ø x 32"	55	2½"Ø x 4⅝"	4"Ø x 17"	4"

Notes:

Class 2 Protective Surface Treatment shall be applied to the Roadway Surface and to the Roadway Face and top of the Concrete Parapet Rail.

At the Contractor's option, two straight epoxy coated #5 bars may be substituted for bar S502E. Payment for reinforcing will be based on the weight of bar S502E.

Bar positions or clearances from the forms shall be maintained by means of stays, ties, hangers, or other approved devices per Subsection 804.06.

The Superstructure details shown are for use when removable deck forming is used and are the basis for measurement of Class S(AE) concrete.

All bars with an "E" suffix shall be Epoxy Coated.

Slab Reinforcing

Longitudinal: S401E in top and bottom as shown  
S601E place as shown over int. supports  
see "PARTIAL REINFORCING PLAN & DECK POURING SEQUENCE" Dwg. No. 60636.

Transverse: S501E @ 12" o.c. in top, S402E @ 12" o.c. in bottom  
S502E @ 12" o.c. bent up over beams  
S503E @ 6" in top of overhangs (bundled with #5 bars) Alternate

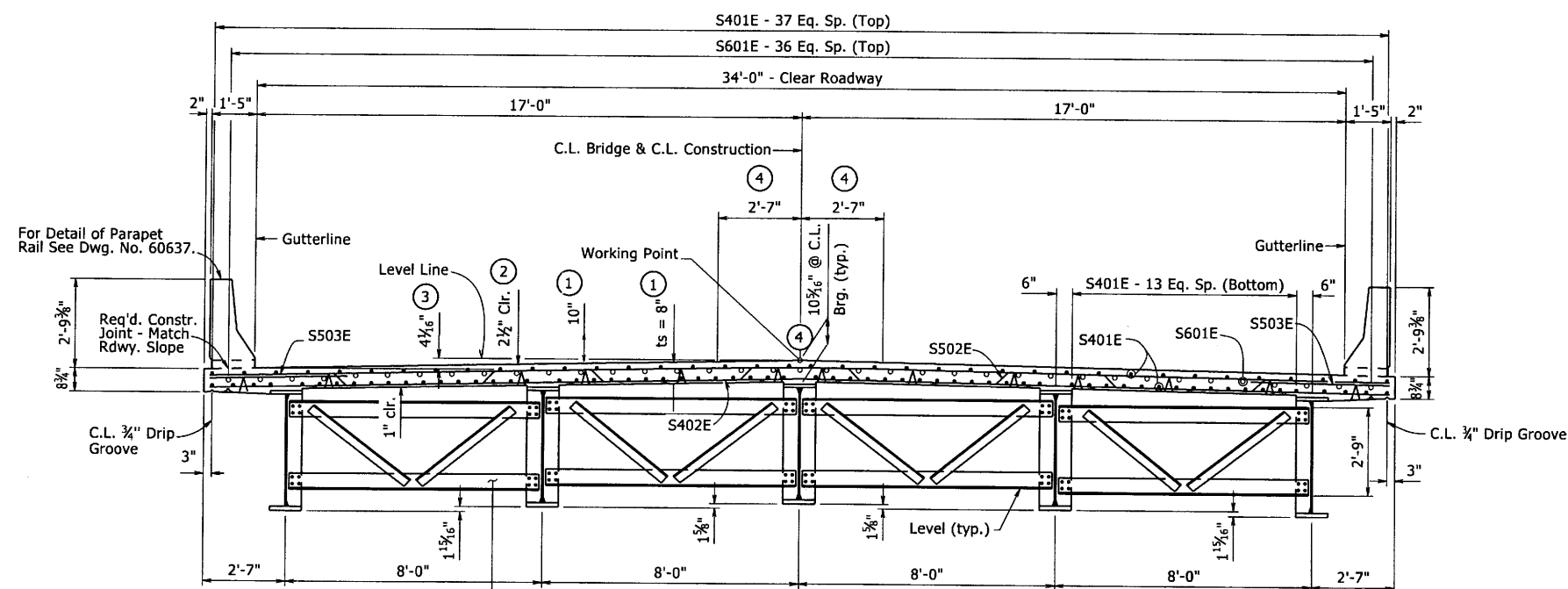
① See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE", Std. Dwg. No. 55007.

② Tolerance: Minus =  $\frac{1}{4}$ "  
Plus = Equal to amount of slab thickening  
used to meet slab thickness tolerance.  
See "ADJUSTMENT FOR SLAB THICKNESS TOLERANCE",  
See Std. Dwg. No. 55007.

③ Working Point to Gutterline.

④ For Working Point and "ROUNDING DETAIL", See Std. Dwg. No. 55007

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	52	78
				07437 - SPAN DETAILS - 60633				



TYPICAL ROADWAY SECTION

SCALE:  $\frac{3}{8}$ " = 1'-0"

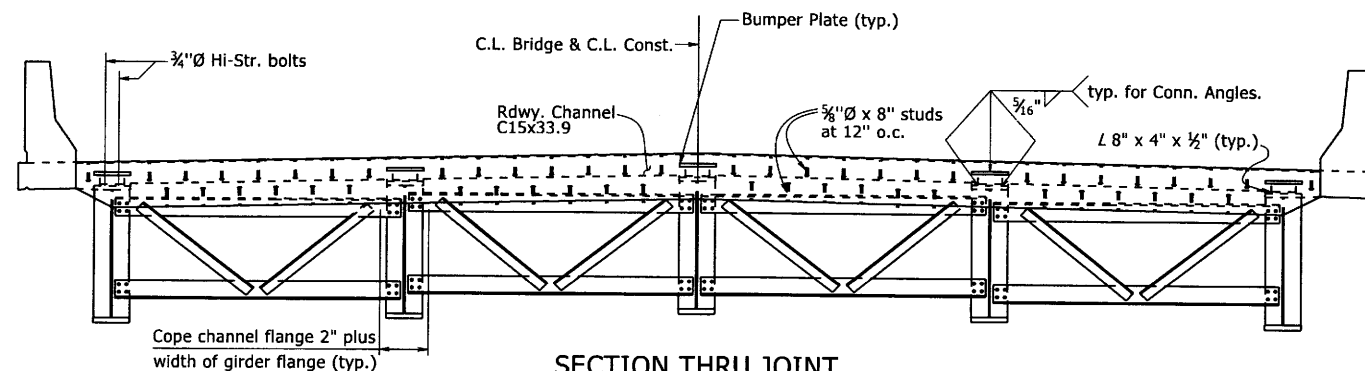
Expansion Device:

Rdwy. Channel - C15x33.9

Conn. L's 8"x4"x  $\frac{1}{2}$ "

Detail Device  $\frac{1}{8}$ " high & provide  $\frac{1}{4}$ "

shims using 2-  $\frac{1}{16}$ " & 1-  $\frac{1}{8}$ " PLs



SECTION THRU JOINT

LOOKING AHEAD - BENT 1

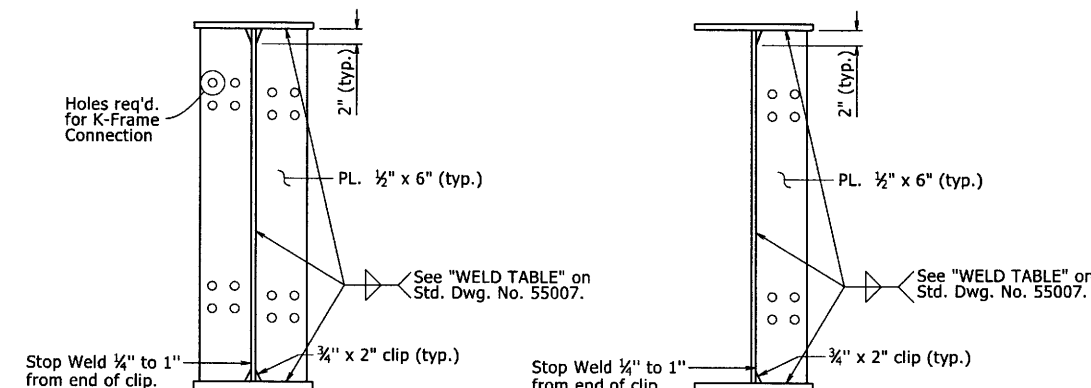
SCALE:  $\frac{3}{8}$ " = 1'-0"

SILICONE JOINT DATA

For details of poured silicone joint, see Std. Dwg. No. 55008.

Bent Number	"A" Width Perpendicular to Joint at 24 Hour Average Temperature Of: ⑤			"B" Perpendicular to Joint at 60°F	Bumper Plate Size
	40°F	60°F	80°F		
1 & 4	2 $\frac{1}{4}$ "	2"	1 $\frac{3}{4}$ "	2 $\frac{1}{4}$ " +/-	1" x 1"

⑤ The temperature used to set the joint opening shall be the approximate average air temperature during the 24 hour period immediately before the bolts are tightened. The Engineer shall establish the temperature. Interpolation of the table may be necessary.

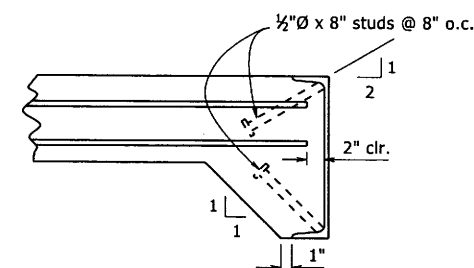


CONNECTION PLATE DETAIL

NO SCALE

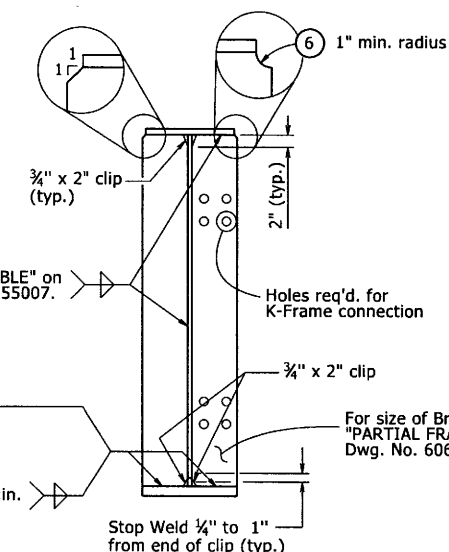
⑥ If permanent steel bridge deck forms are used, the fabricator shall clip the plate as necessary to accommodate the deck form support.

Bearing stiffeners to be fabricated so as to be vertical in their final position.



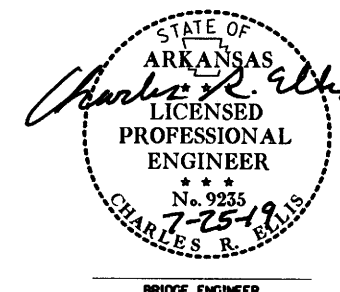
DETAILS OF ALTERNATE ANCHORS AND PLACEMENT OF LONGITUDINAL REINFORCING

NO SCALE



BEARING STIFFENER DETAIL

NO SCALE



SHEET 1 OF 5  
DETAILS OF 335'-0" CONTINUOUS  
COMPOSITE PLATE GIRDER UNIT  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: KJT DATE: 10/24/17 FILENAME: b050321\_s1.dgn

CHECKED BY: OPT DATE: 11/24/19

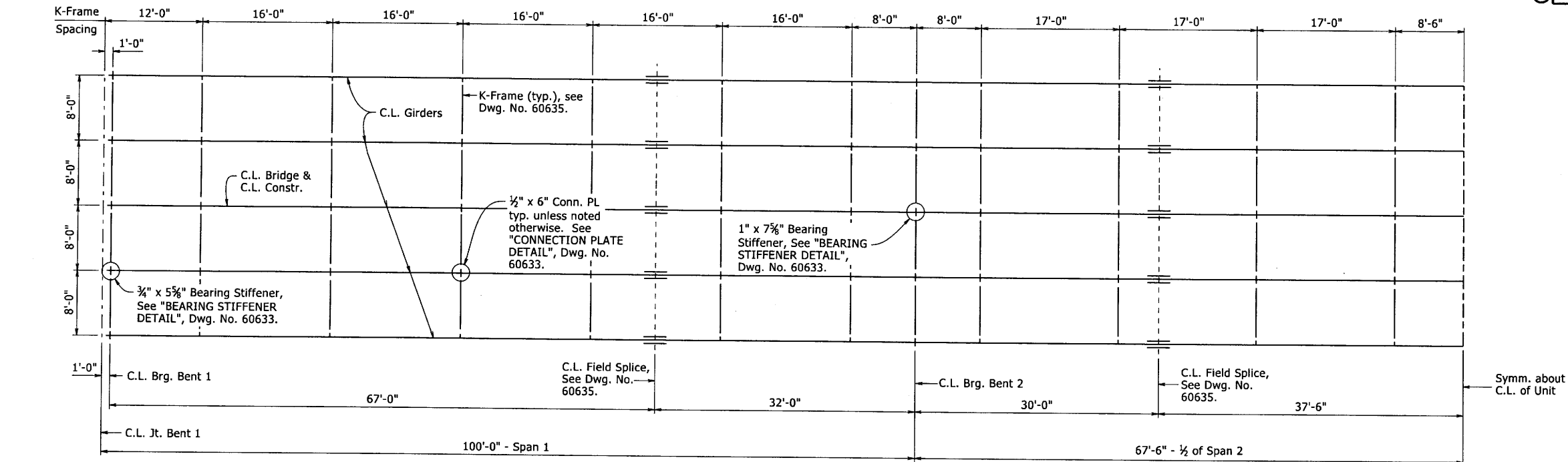
DESIGNED BY: KJT DATE: 10/17

BRIDGE NO. 07437

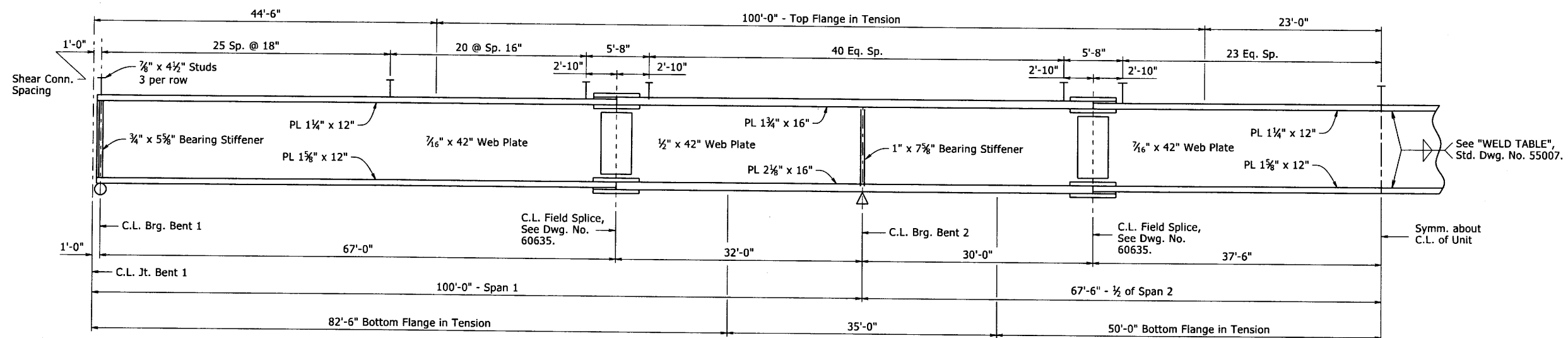
DRAWING NO. 60633

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	53	78

07437 - SPAN DETAILS - 60634

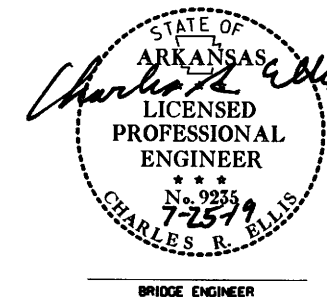


**PARTIAL FRAMING PLAN**  
NO SCALE



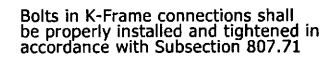
**PARTIAL GIRDER ELEVATION**  
NO SCALE

Notes:  
All Structural Steel shall be ASTM A709, Gr. 50W unless otherwise noted,  
and shall be paid for as "Structural Steel in Plate Girder Spans (A709, Gr. 50W).  
For additional information, see Layout.  
For General Notes, see Std. Dwg. No. 55006.  
For additional Details, see Std. Dwg. No. 55007.

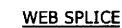
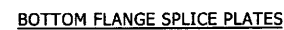
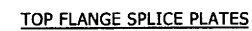


SHEET 2 OF 5  
DETAILS OF 335'-0" CONTINUOUS  
COMPOSITE PLATE GIRDER UNIT  
STRAWBERRY RIVER  
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: KJT DATE: 10/24/17 FILENAME: b050321\_s1.dgn  
CHECKED BY: DPT DATE: 3/24/19 SCALE: As Shown  
DESIGNED BY: KJT DATE: 10/17  
BRIDGE NO. 07437 DRAWING NO. 60634

①



NO SCALE



NO SCALE

STATE OF  
ARKANSAS  
LICENSED  
PROFESSIONAL  
ENGINEER  
No. 9235  
7-25-19  
CHARLES R. ELLIS

**DRAWING NO. 60635**

Pours with the same number may be placed simultaneously or separately. All pours (1) must be placed before pour (2) can be placed. Pour (2) must be placed before all pours (3) can be placed. A minimum of 48 hours shall elapse between the end of a pour and the start of the next pour. A minimum of 72 hours shall elapse between the end of a pour and the start of an adjacent pour.

Any railing pours made before the entire slab unit has been placed must be approved by the Engineer.

The Contractor must obtain approval from the Engineer for any deviations from the pouring sequence shown.

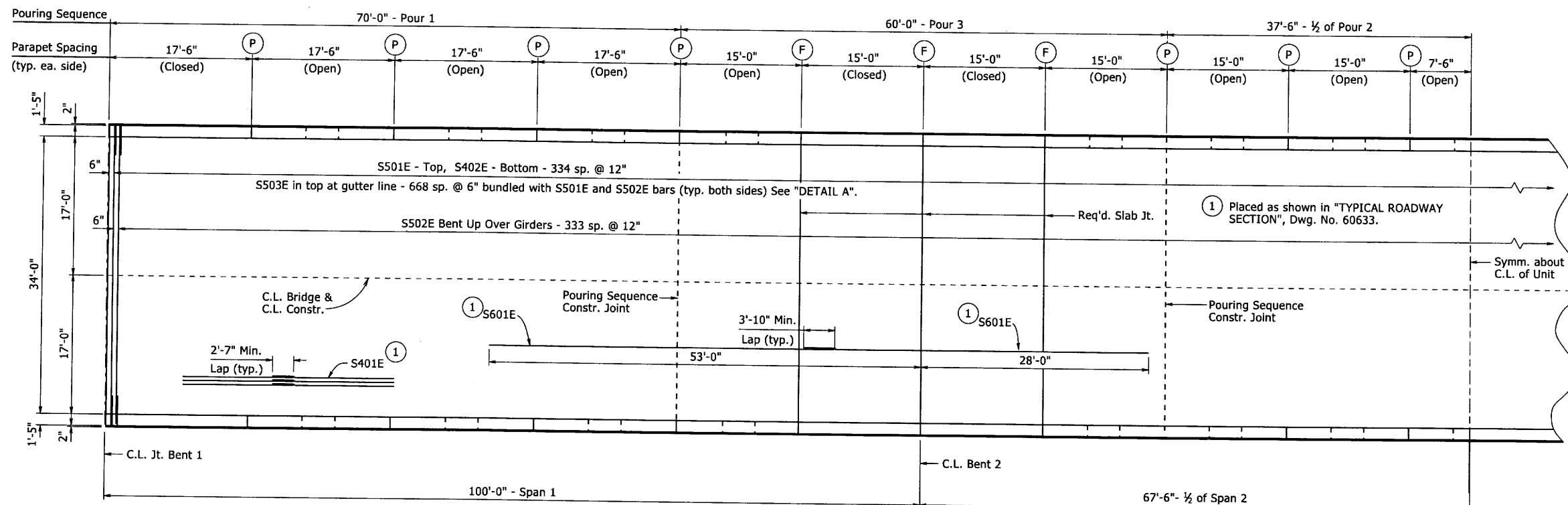
Concrete in bridge superstructure unit shall be placed, consolidated, and screeded off before any concrete has taken its initial set. This may require the use of a retarding agent.

Unless otherwise noted, required slab joints and pouring sequence construction joints shall align with parapet joints at the gutterline.

Notes:  
Parapet joint types shown are typical for both sides of roadway.

- (F) C.L. Full-Depth Parapet Joint  
( $\frac{1}{4}$ " to 1" max.) Stop 4"  
from top of slab.
- (P) C.L. Partial-Depth Parapet Joint  
( $\frac{1}{4}$ " to 1" max.) Stop 1'-2"  
from top of slab.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	55	78
07437 - SPAN DETAILS - 60636								



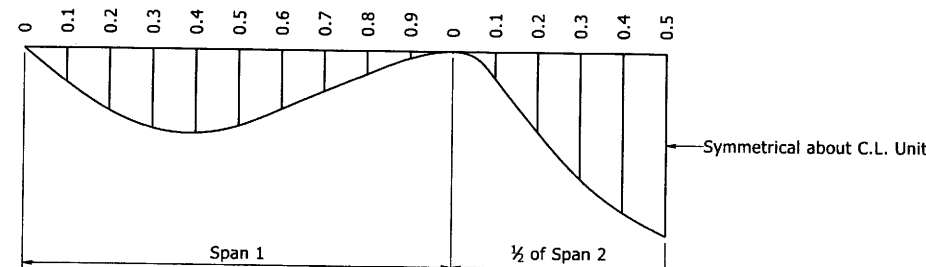
PARTIAL REINFORCING PLAN & DECK POURING SEQUENCE  
NO SCALE

TABLE OF DEAD LOAD DEFLECTIONS (INCHES)

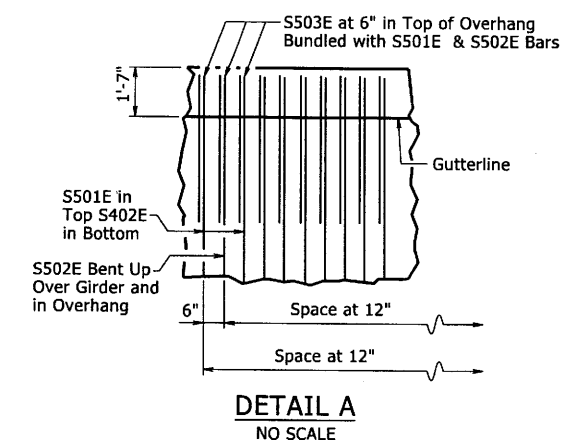
	Point of Deflection	Structural Steel		Structural Steel + Slab		Structural Steel + Slab + Parapet	
		Int. Girder	Ext. Girder	Int. Girder	Ext. Girder	Int. Girder	Ext. Girder
Span 1	0	0	0	0	0	0	0
	0.1	0.098	0.092	0.521	0.436	0.560	0.478
	0.2	0.178	0.168	0.944	0.790	1.015	0.866
	0.3	0.229	0.215	1.206	1.010	1.298	1.107
	0.4	0.243	0.229	1.277	1.069	1.374	1.172
	0.5	0.222	0.209	1.160	0.971	1.249	1.065
	0.6	0.173	0.163	0.894	0.749	0.963	0.822
	0.7	0.109	0.102	0.554	0.465	0.597	0.510
	0.8	0.046	0.043	0.231	0.194	0.248	0.212
	0.9	0.003	0.002	0.012	0.010	0.012	0.010
1/2 of Span 2	0	0	0	0	0	0	0
	0.1	0.087	0.082	0.433	0.364	0.470	0.403
	0.2	0.233	0.220	1.171	0.983	1.269	1.086
	0.3	0.388	0.366	1.965	1.648	2.127	1.818
	0.4	0.502	0.474	2.561	2.147	2.770	2.367
	0.5	0.544	0.513	2.779	2.330	3.005	2.568

Symmetrical about C.L. Unit

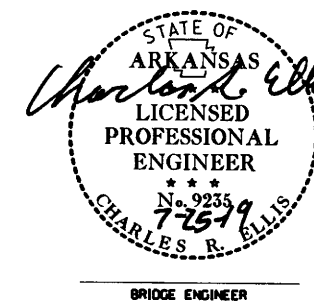
Note: Camber for dead load deflection plus vertical curve  $\pm \frac{1}{4}$ " tolerance. Deflections shown are along C.L. Girder from a chord from C.L. Bearing to C.L. Bearing. Vertical curve corrections not included.



DEAD LOAD DEFLECTION DIAGRAM  
NO SCALE



DETAIL A  
NO SCALE



SHEET 4 OF 5  
DETAILS OF 335'-0" CONTINUOUS  
COMPOSITE PLATE GIRDER UNIT  
STRAWBERRY RIVER

ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

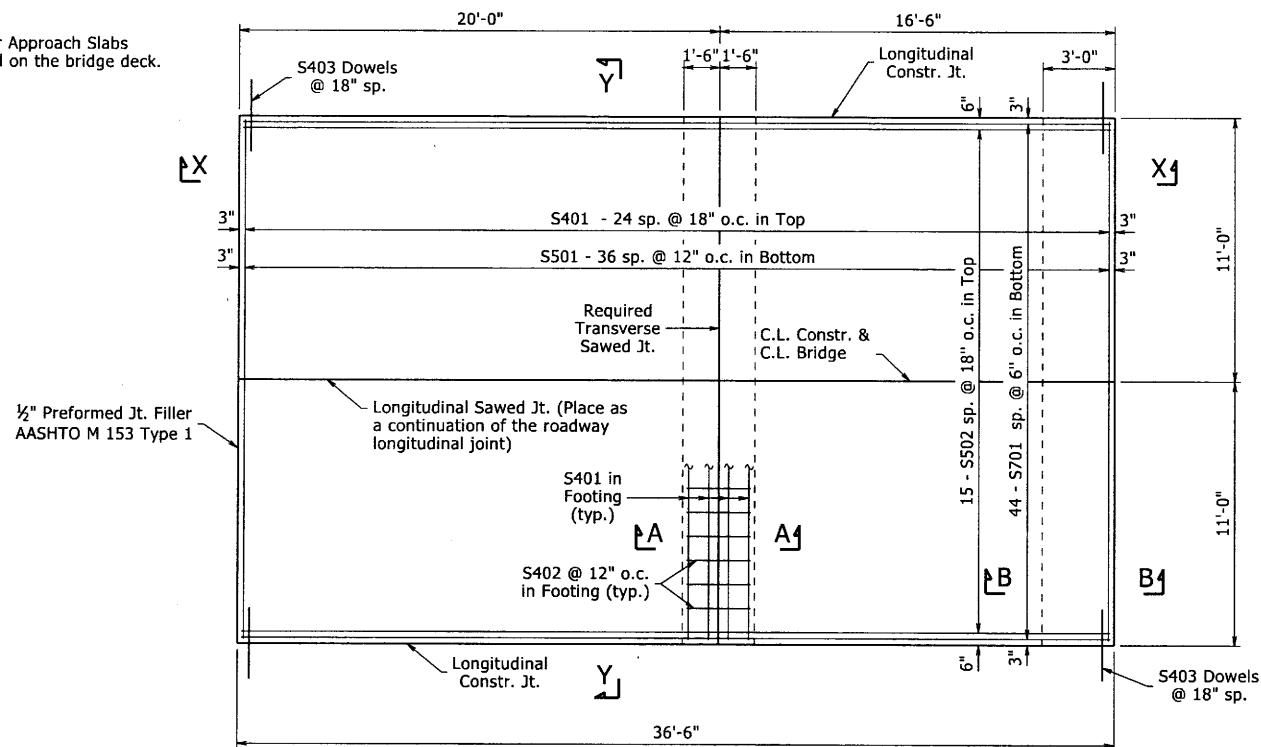
DRAWN BY: KJT DATE: 10/24/17 FILENAME: b050321\_s1.dgn  
CHECKED BY: JET DATE: 7/25/19 SCALE: As Shown  
DESIGNED BY: KJT DATE: 10/17  
BRIDGE NO. 07437 DRAWING NO. 60636





DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		050321	57	78
07437 - APPROACH SLAB - 60638								

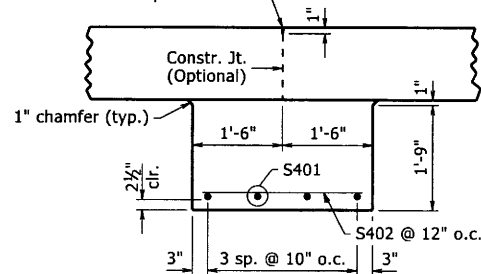
Notes:  
The surface finish for Approach Slabs shall match that used on the bridge deck.



PLAN - APPROACH SLAB

$\frac{1}{4}" = 1'-0"$

$\frac{1}{2}" \times 1"$  Poured Jt. Sealer (Type 3 or 4) per Subsection 501.02(h)(2) Backer rod is not required.



SECTION A-A

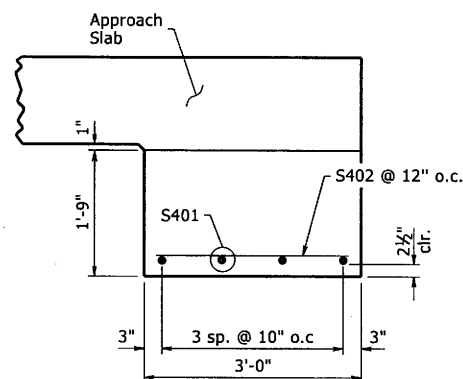
Not to Scale

#### GENERAL NOTES

All concrete shall be Class S (AE) with a minimum 28 day compressive strength  $f_c = 4,000$  psi and shall be poured in the dry.

All reinforcing steel shall be Grade 60 (yield strength = 60,000 psi) conforming to AASHTO M 31 or M 322, Type A, with mill test reports.

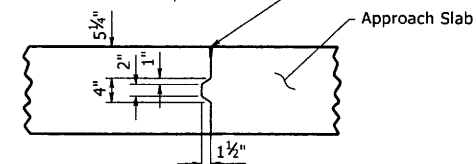
Approach Slabs will be measured and paid for in accordance with Section 504.



SECTION B-B

AT ASPHALT APPROACH PAVEMENT  
Not to Scale

$\frac{1}{2}" \times 1"$  Poured Jt. Sealer (Type 3 or 4) per Subsection 501.02(h)(2) Backer rod is not required.



DETAILS OF LONGITUDINAL CONSTRUCTION JOINT

$\frac{1}{4}" = 1'-0"$

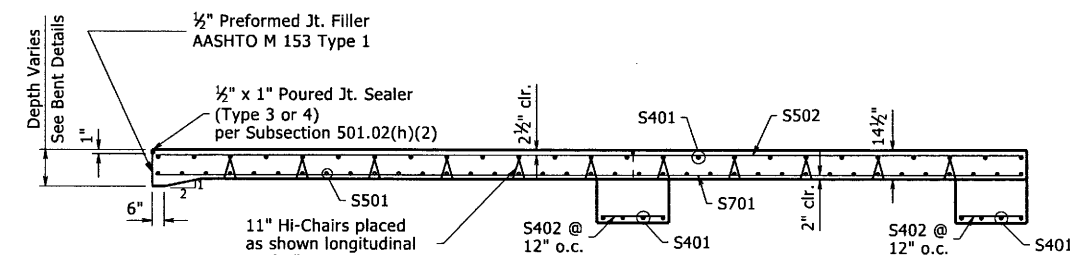
#### BAR LIST

Mark	No. Req'd	Length	P.D.
S401	33	21'-8"	Str.
S402	44	2'-8"	Str.
S403	50	3'-0"	Str.
S501	37	21'-8"	Str.
S502	15	36'-2"	Str.
S701	44	36'-2"	Str.

#### QUANTITIES FOR ONE TYPE SPECIAL APPROACH SLAB

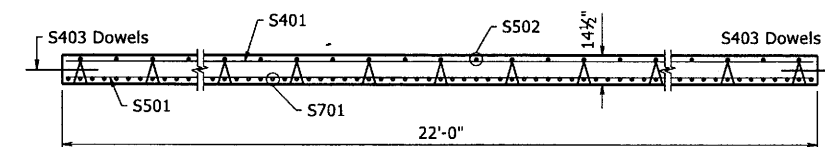
(FOR INFORMATION ONLY)

Reinforcing Steel (lbs.)	Concrete (Cu. yds.)
5,311	44.49



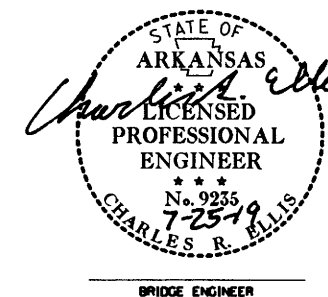
SECTION X-X

$\frac{1}{4}" = 1'-0"$



SECTION Y-Y

Not to Scale



DETAILS OF  
TYPE SPECIAL APPROACH SLAB  
STRAWBERRY RIVER  
ROUTE SEC.  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.  
DRAWN BY: DPT DATE: 4/3/2019 FILENAME: b050321\_as.dgn  
CHECKED BY: KST DATE: 7/15/2019 SCALE: As Shown  
DESIGNED BY: DATE:  
BRIDGE NO. 07437 DRAWING NO. 60638