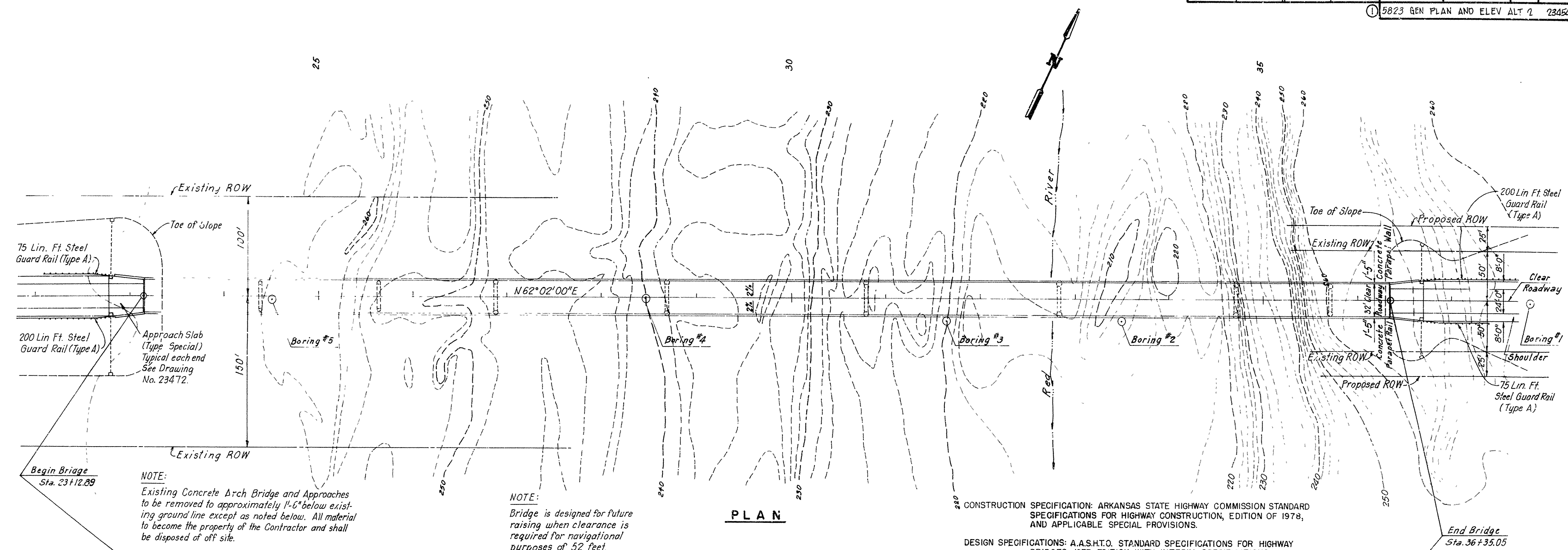


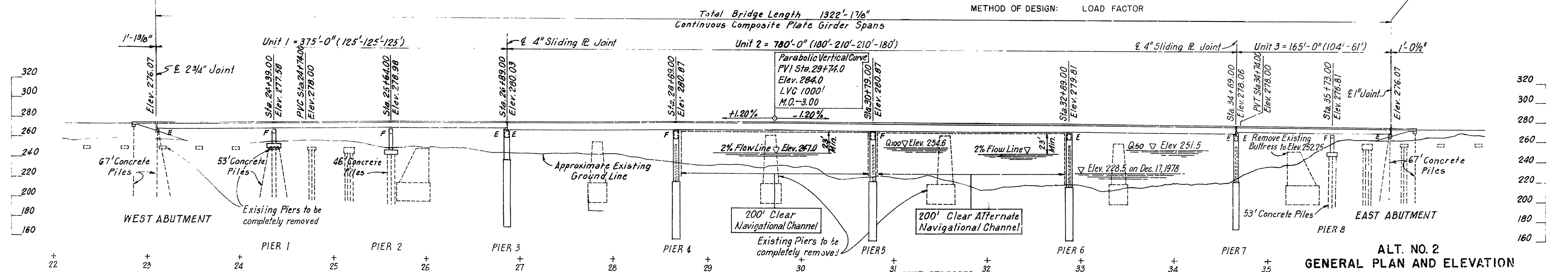
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRPS-A625(2)	28	65
				JOB NO.		3836		
① 5823 GEN PLAN AND ELEV ALT 2								23454



NOTE:
Existing Concrete Arch Bridge and Approaches to be removed to approximately 1'-6" below existing ground line except as noted below. All material to become the property of the Contractor and shall be disposed of off site.

NOTE:
Bridge is designed for future raising when clearance is required for navigational purposes of 52 feet.

CONSTRUCTION SPECIFICATION: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.
DESIGN SPECIFICATIONS: A.A.S.H.T.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1977 EDITION WITH INTERIM SPECIFICATIONS.
DESIGN LIVE LOADING: HS 20 FATIGUE LOAD CYCLE: CASE III
METHOD OF DESIGN: LOAD FACTOR



ELEVATION

Discharge	Elev.	Waterway Opening
Q10 101,000	247.0	15,800 Sq. Ft.
Q50 155,000	251.5	20,200 Sq. Ft.
Q100 195,000	254.6	23,200 Sq. Ft.

UNIT STRESSES	
CLASS S CONCRETE	F _c 3,500 PSI
CLASS S (AE) CONCRETE	F _c 3,500 PSI
REINFORCING STEEL (GR. 60)	F _y 60,000 PSI
STRUCTURAL STEEL:	
ASTM (A36)	F _y 36,000 PSI
ASTM (A572 GR. 50)	F _y 50,000 PSI
CASTINGS:	
ASTM (A27 GR. 70)	F _y 40,000 PSI
MINIMUM PILE BEARING CAPACITY	50 TONS
DRILLED SHAFTS:	
ALLOWABLE END BEARING	19 KSF
ALLOWABLE SIDE RESISTANCE IN VERY STIFF GRAY CLAY	1.0 KSF

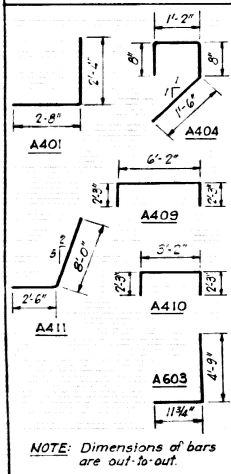
ALT. NO. 2
GENERAL PLAN AND ELEVATION
U.S. HIGHWAY 67
RED RIVER BRIDGE (FULTON)
HEMPSTEAD & MILLER COUNTIES
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.B.C. DATE: 9-79
CHECKED BY: T.B.H. DATE: 9-79
DESIGNED BY: J.D.T. DATE: 9-79
SCALE: 1" = 50'

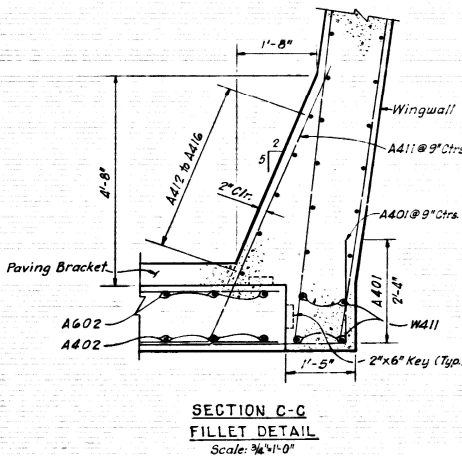
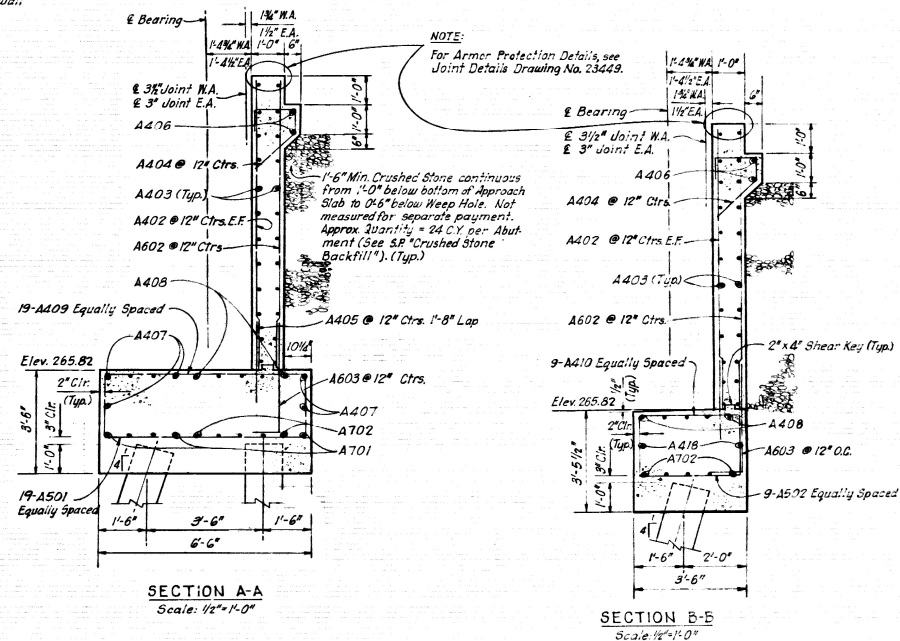
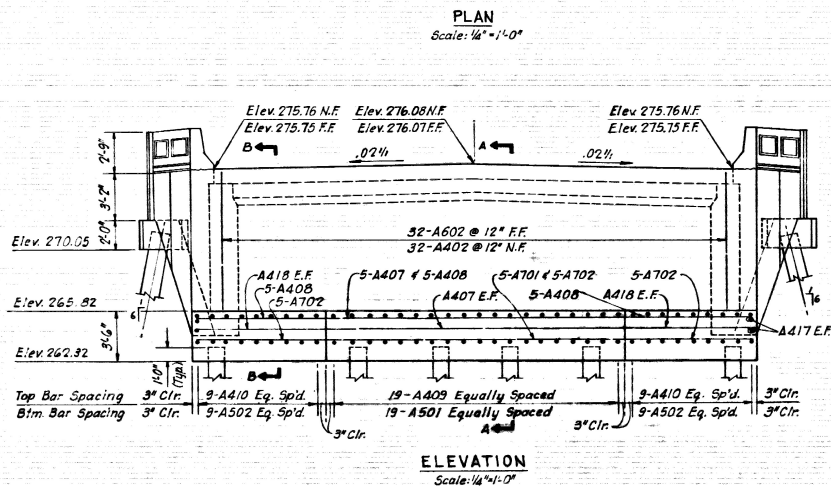
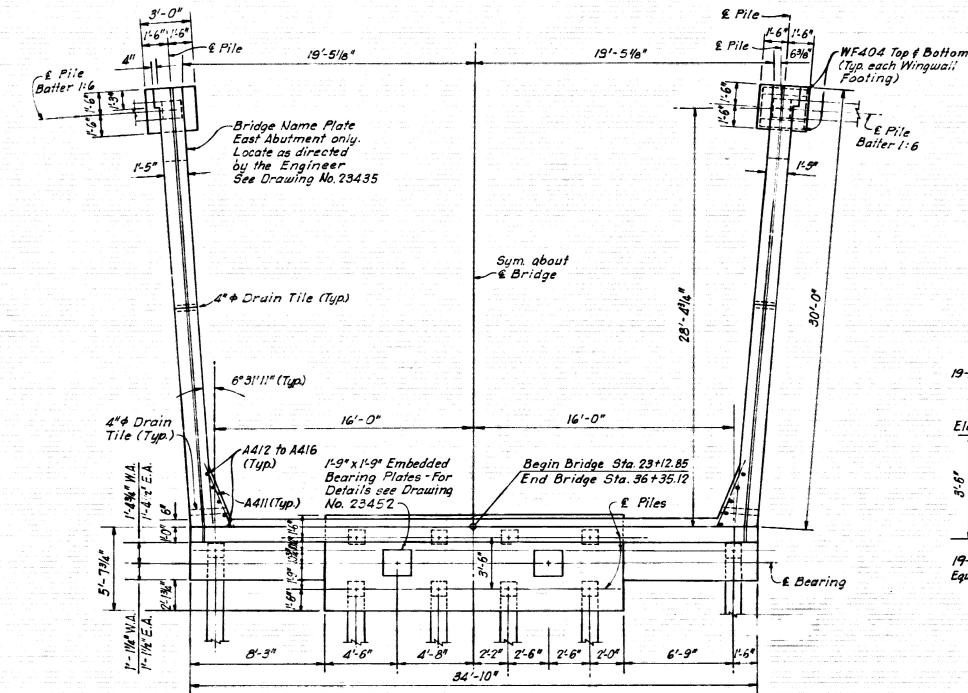
BRIDGE NO. 5823 DRAWING NO. 23454

MARK	NO	LENGTH	PIN DIA
A401	26	4'-11"	2"
A402	32	9'-9"	5tr.
A403	24	3'-8"	5tr.
A404	32	3'-10"	5tr.
A405	36	2'-8"	5tr.
A406	2	32'-0"	5tr.
A407	7	18'-0"	5tr.
A408	5	34'-6"	5tr.
A409	19	10'-6"	2"
A410	18	7'-6"	2"
A411	24	10'-5 1/2"	2"
A412	2 Ea.	10'-7"	5tr.
A416	4	9'-1"	5tr.
A417	4	9'-0"	5tr.
A418	4	3'-0 1/2"	5tr.
A419	6	3'-0 1/2"	5tr.
A420	4	3'-2"	5tr.
A501	19	6'-0"	5tr.
A502	18	3'-2"	5tr.
A601	4	4'-0"	5tr.
A602	32	9'-9"	5tr.
A603	36	5'-7"	3 3/4"
A701	5	18'-0"	5tr.
A702	5	34'-6"	5tr.

BENDING DIAGRAM



UNIT	LENGTH
East Abutment	63'
West Abutment	63'



- NOTES:
- For details of Wingwall Elevation and other details, see Drawing No. 23440.
 - For cut on Section C-C, see Drawing No. 23440.

LEGEND
 W.A. - West Abutment
 E.A. - East Abutment
 N.F. - Near Face
 F.F. - Far Face
 E.F. - Each Face

ALT. NO. 1
 SHEET 1 OF 2
 DETAILS OF ABUTMENTS
 U.S. HIGHWAY 67
 RED RIVER BRIDGE (FULTON)
 HEMPSTEAD & MILLER COUNTIES
 ROUTE SEC.
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.

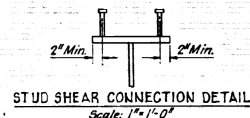
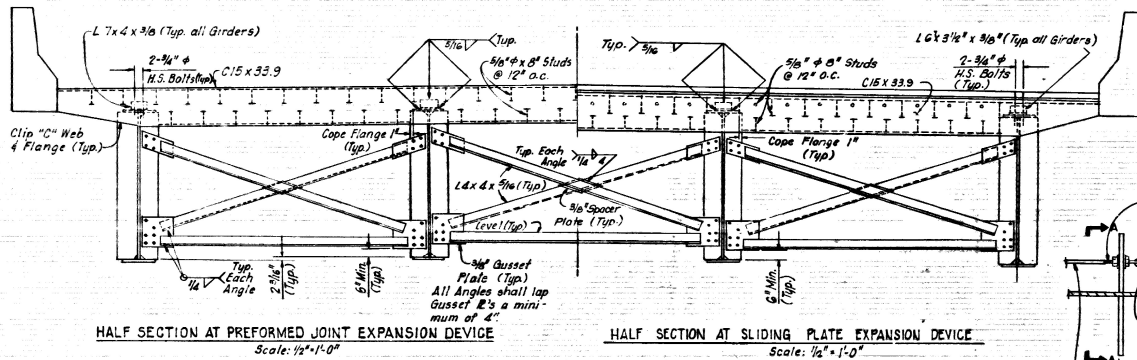
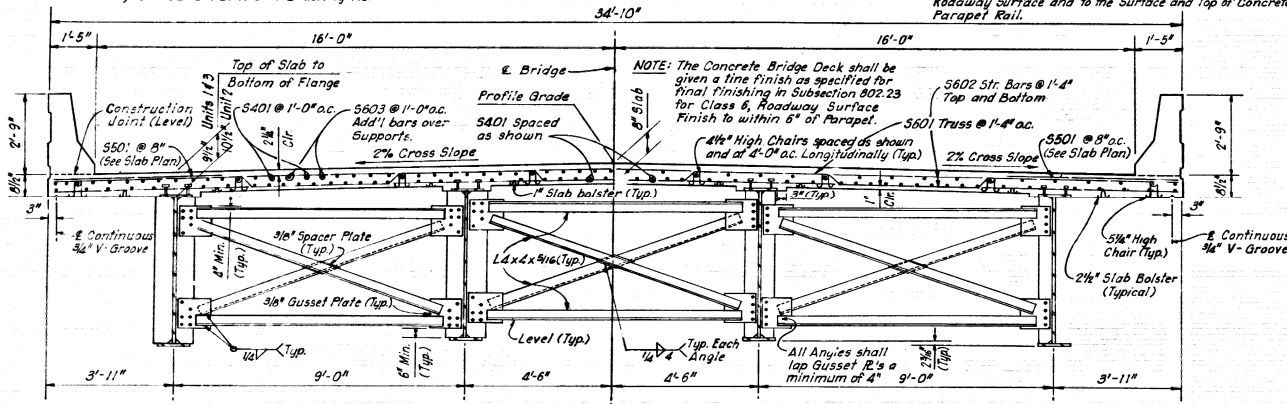
DESIGNED BY: J.M.B. DATE: 1-30
 CHECKED BY: R.P.H. DATE: 1-30
 BRIDGE NO. 5823 DRAWING NO. 23439

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRKS-A625(1)	13	25
						3836		
						5823 DTLS OF ABUTMENTS		23439

NOTE: For Parapet Reinforcing and location of Open Parapet Sections, see SLAB PLAN and Drawing No. 23471.

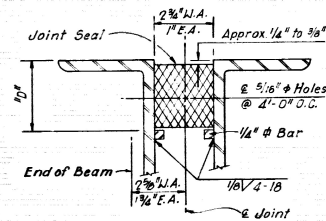
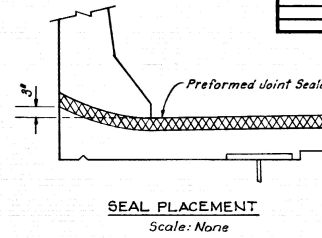
NOTE: Boiled Linseed Oil Treatment shall be applied to the Roadway Surface and to the Surface and Top of Concrete Parapet Rail.

NOTE: The Concrete Bridge Deck shall be given a fine finish as specified for final finishing in Subsection 802.23 for Class 4 Roadway Surface Finish to within 6" of Parapet.

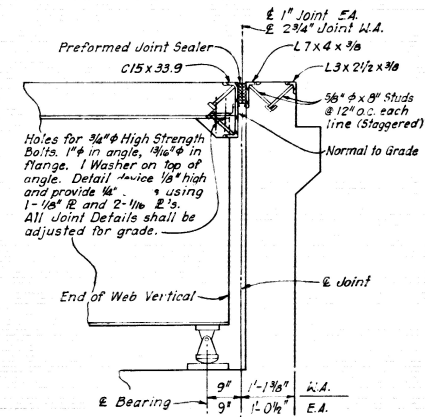
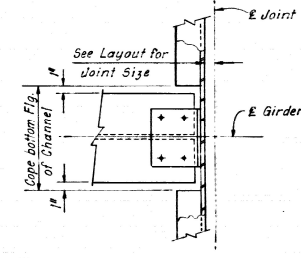


NOTE: Stud Shear Connector shown shall be 4" long, Granular Flux Filled, Solid Fluxed or equal and automatically end welded to girder flanges in accordance with recommendations of the manufacturer. 3/4" Diameter Studs may be substituted for the 7/8" diameter Studs at the ratio of 1.37 - 3/4" Studs in place of 1-7/8" Stud. The 7/8" shall be used as the basis of payment of \$1.0 lbs. per one hundred Studs.

LOAD DISTRIBUTION		
	INTERIOR GIRDERS	EXTERIOR GIRDERS
Dead Load Non Composite	930 PLF + Girder	905 PLF + Girder
Dead Load Composite Includes 20 lbs./sq. ft. for Future Wearing Surface.	575 PLF	335 PLF
Live Load to Composite Girder	1,636 Wheels + Impact	1,440 Wheels + Impact



The dimension "D" shall conform to the recommendations of the seal manufacturer as approved by the Bridge Engineer. The depth of the seal shall be approximately equal to the uncompressed width of the seal. The seal shall not be such 1/4" Bar at normal temperature.



LEGEND:
W.A. - West Abutment
E.A. - East Abutment


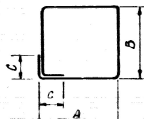
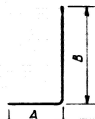

NOTE:
For Details of Sliding Plate Expansion Device, see Drawing No. 23467.

ALT. NO. 2
SHEET 1 OF 1
DETAILS OF PLATE GIRDER SPANS
U.S. HIGHWAY 67
RED RIVER BRIDGE (FULTON)
HEMPSTEAD & MILLER COUNTIES
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

BRIDGE NO. 5823
DRAWING NO. 23462

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRKS-AG25(2)	21	65
				JOB NO.		585G		
				1023 DLS OF PIER 1 AND 2				25.57

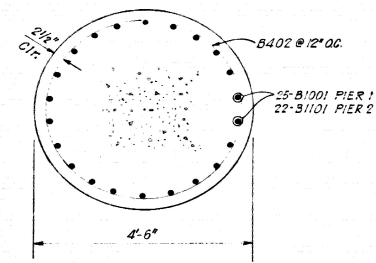
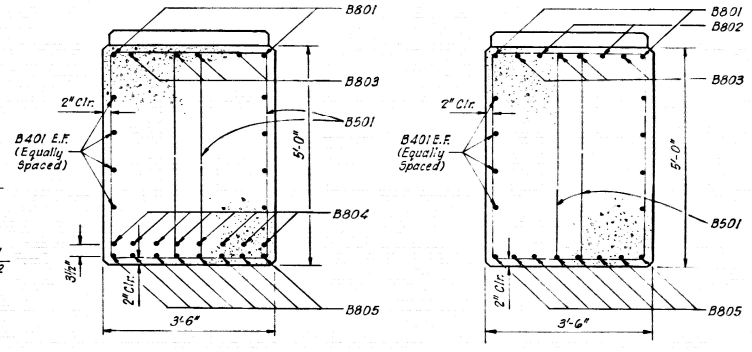
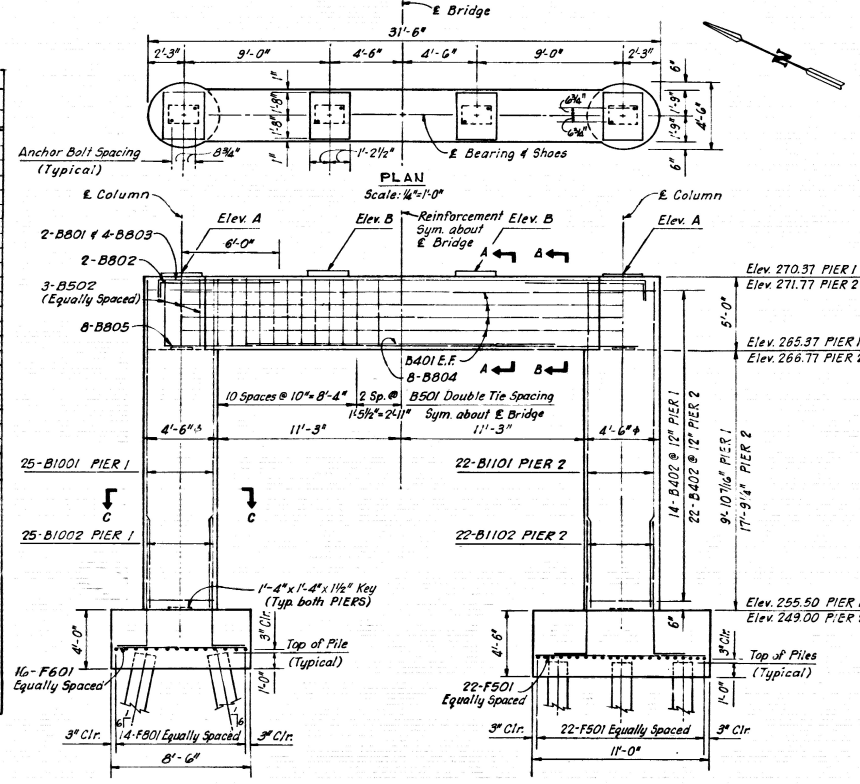
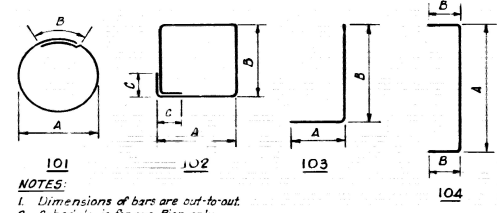
REINFORCEMENT SCHEDULE									
COMMON TO BOTH PIERS	MARK	NO.	LENGTH	FIN DIA.	TYPE	DIMENSIONS			
						A	B	C	
	B401	6	29'-0"	5/8"					
	B501	50	14'-1 1/2"	2 1/2"	102	1'-10 1/2"	4'-8"	9 1/4"	
	B502	6	12'-3 1/2"	2 1/2"	104	3'-2"	4'-8"		
	B801	2	31'-5"	6"	104	29'-2"	1'-4"		
	B802	4	8'-8 1/4"	6"	103	1'-4"	7'-7"		
	B803	4	32'-5"	6"	104	30'-2"	1'-4"		
	B804	8	29'-0"	5/8"					
	B805	8	29'-0"	5/8"					
PIER 1	B402	28	14'-6"	—	101	4'-1"	1'-8"		
	B1001	50	14'-7"	5/8"					
	B1002	50	11'-6"	10"	103	1'-9 3/4"	10'-0"		
	F601	32	8'-0"	5/8"					
	F801	28	14'-6"	5/8"					
PIER 2	B402	44	14'-6"	—	101	4'-1"	1'-8"		
	B1101	44	22'-5"	5/8"					
	B1102	44	13'-7"	1 1/4"	103	2'-0"	11'-11 1/2"		
	F501	88	10'-6"	5/8"					

BENDING DIAGRAM																																							
																																							
101										102										103										104									

NOTES:

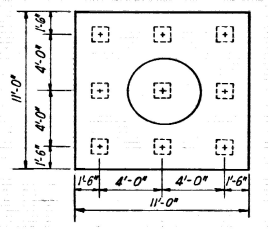
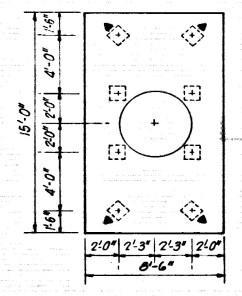
1. Dimensions of bars are cut-to-out.
2. Schedule is for one Pier only.

BENDING DIAGRAM



BEAM SEAT ELEVATIONS		
ELEV.	PIER 1	PIER 2
A	270.54	271.94
B	270.72	272.12

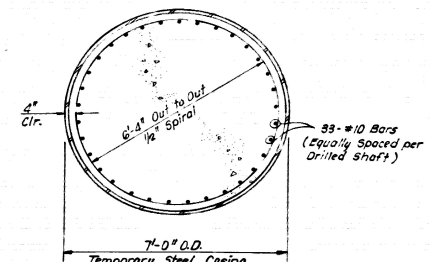
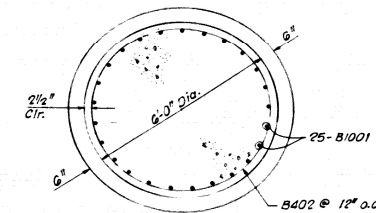
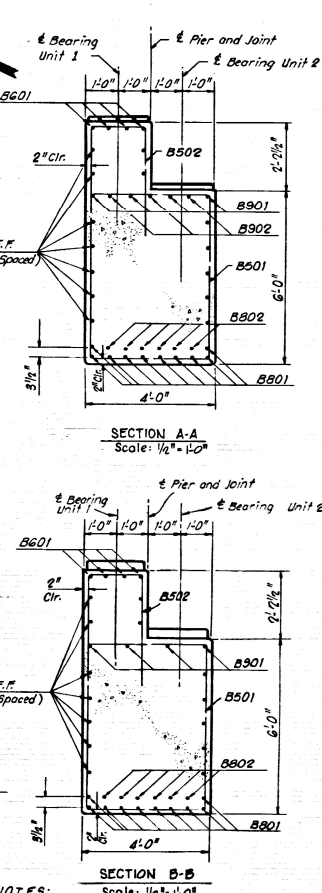
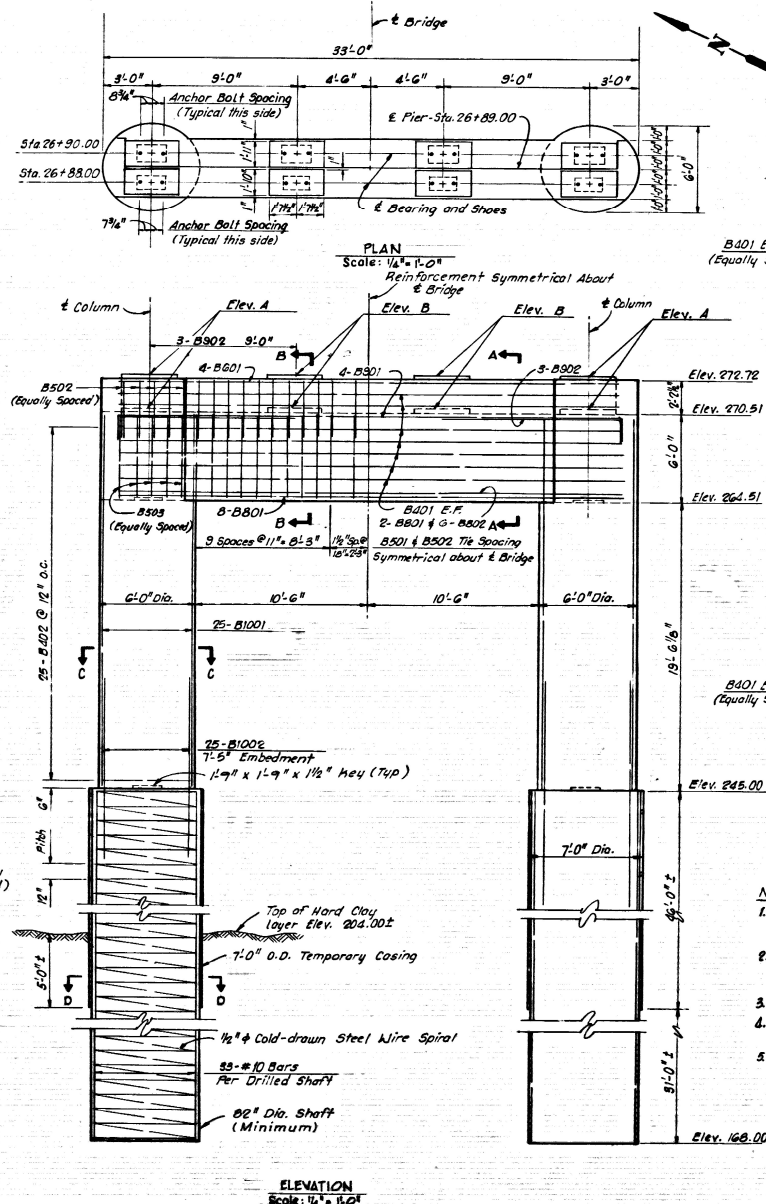
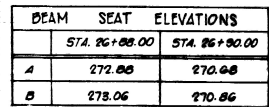
14" SQUARE OR 16" OCTAGONAL CONCRETE BEARING PILES	
PIER NO.	LENGTH
1	53'
2	46'



▲ Indicates direction of 6/1 batter.

NOTE:
Riser Blocks shall be poured monolithically with Pier Cap.

ALT. NO. 2
SHEET 1 OF 1
DETAILS OF PIERS 1 AND 2
U.S. HIGHWAY 67
RED RIVER BRIDGE (FULTON)
HEMPSTEAD & MILLER COUNTIES
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: S.S.B. DATE: 1-80
CHECKED BY: J.M.B. DATE: 1-80
DESIGNED BY: R.F.M. DATE: 1-80
SCALE: AS NOTED
BRIDGE ENGINEER
BRIDGE NO. 5823
DRAWING NO. 23457

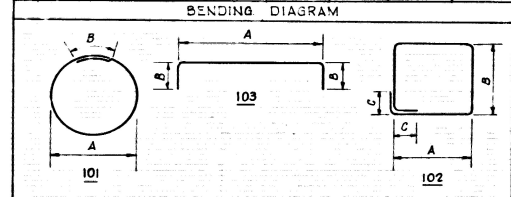


- NOTES:** Scale: $\frac{1}{4}'' = 1'-0''$
1. Reinforcement and concrete in the Drilled Shafts shall not be paid for separately, but shall be considered subsidiary to the item "Drilled Shafts (24" Diameter)".
 2. Anchorage of spiral reinforcement shall be provided by one and one-half extra turns of spiral bar at each end of the spiral unit.
 3. Splice length in spiral bar shall be 48 bar diameters.
 4. Spiral reinforcement shall be Cold-drawn Steel Wire conforming to ASTM A692.
 5. Riser Blocks shall be poured monolithically with Pier Caps.

ALT. NO. 2
SHEET 1 OF 1
DETAILS OF PIER 3
U.S. HIGHWAY 67
RED RIVER BRIDGE (FULTON)
HEMPSTEAD & MILLER COUNTIES
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: CEH DATE: 1-20
CHECKED BY: WHE DATE: 1-20 SCALE: AS NOTED
DESIGNED BY: EPH DATE: 1-20
BRIDGE NO. 6923 DRAWING NO. 23458

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRRS-AG25(2)	33	65
				JOB NO.		3836		
				5825 DLS OF PIERS 4, 5, AND 6 23457				

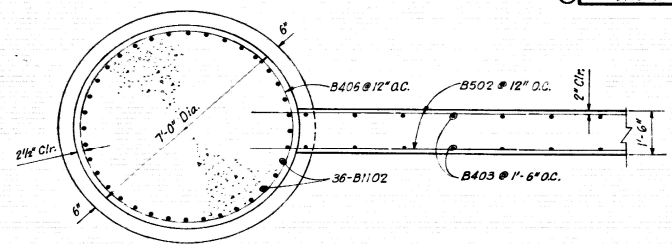
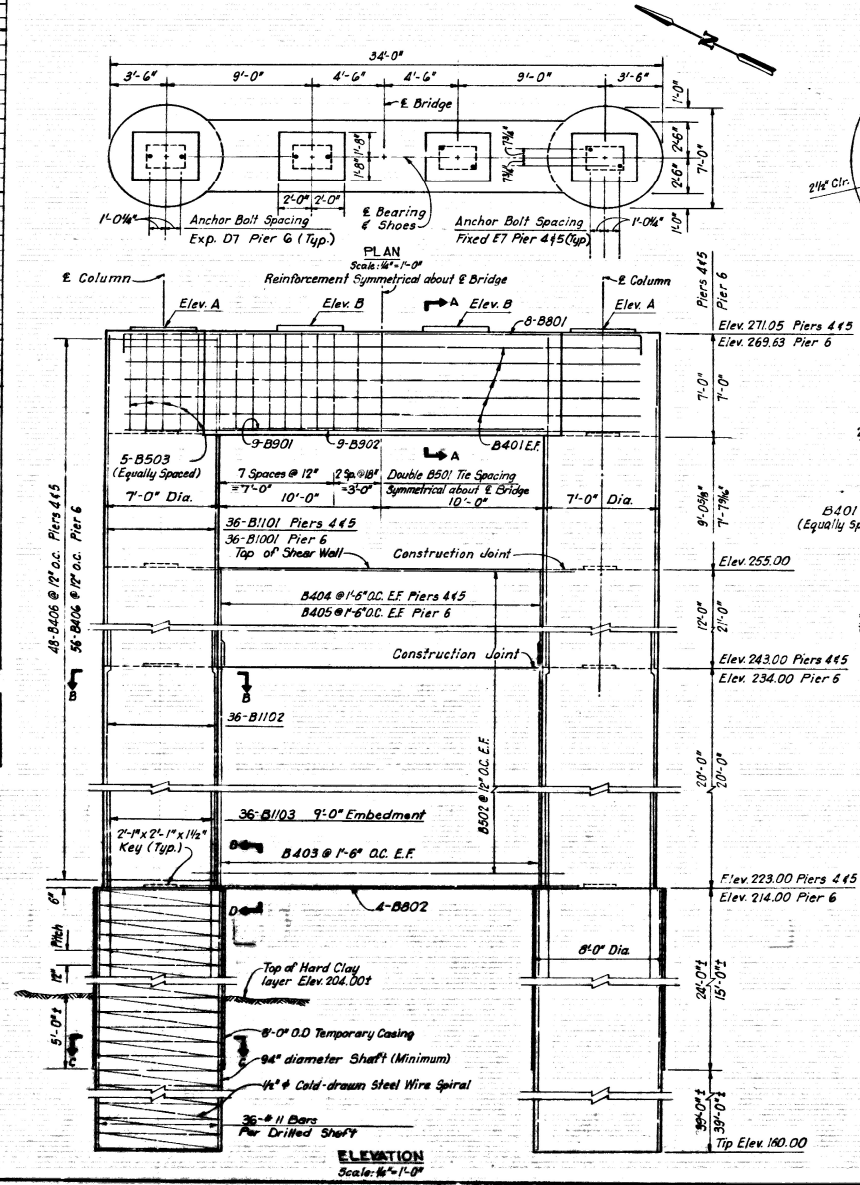
REINFORCEMENT SCHEDULE									
MARK	NO.	LENGTH	PIN DIA.	TYPE	DIMENSIONS				
B401	10	3'-3"	Str.		A	B	C		
B402	26	4'-0"	2"	103	1'-2"	1'-6"			
B403	28	2'-5"	Str.						
B501	38	2'-3 1/2"	2 1/2"	102	3'-5 1/2"	6'-8"	9 1/4"		
B503	10	17'-3 1/2"	2 1/2"	103	4'-8"	6'-8"			
B801	8	34'-0"	6"	103	9'-9"	1'-4"			
B802	4	25'-0"	Str.						
B301	9	20'-0"	Str.						
B902	9	3'-4 1/2"	Str.						
B1102	72	29'-0"	Str.						
B1103	72	16'-0"	Str.						
B404	28	11'-10"	Str.						
B406	96	21'-7"	—	101	6'-5"	1'-8"			
B502	64	23'-0"	Str.						
B1101	72	27'-6"	Str.						
B405	23	20'-10"	Str.						
B406	112	21'-7"	—	101	6'-5"	1'-8"			
B502	82	23'-0"	Str.						
B1101	72	35'-2"	Str.						



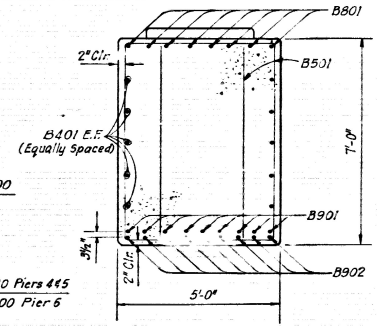
NOTES:
 1. Dimensions of bars are out-to-out.
 2. Schedule is for one Pier only.

BEAM SEAT ELEVATIONS		
	PIERS 4 & 5	PIER 6
A	271.22	269.80
B	271.40	269.98

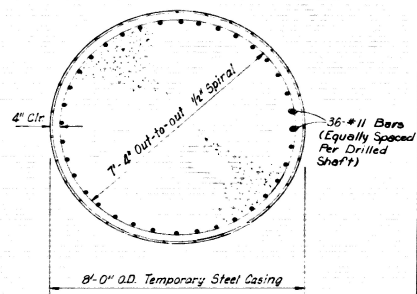
- NOTES:
- Reinforcement and concrete in the Drilled Shafts shall not be paid for separately, but shall be considered subsidiary to the item "Drilled Shafts (96" Diameter)".
 - Anchorage of spiral reinforcement shall be provided by one and one-half extra turns of spiral bar at each end of the spiral unit.
 - Splice length in spiral bar shall be 48 bar diameters.
 - Spiral reinforcement shall be Cold-drawn Steel Wire conforming to ASTM A82.
 - Riser Blocks shall be poured monolithically with Pier Cap.



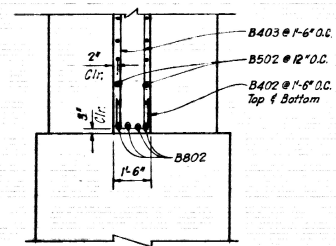
SECTION B-B
Scale: 1/2" = 1'-0"



SECTION A-A
Scale: 1/2" = 1'-0"



SECTION C-C
Scale: 1/2" = 1'-0"

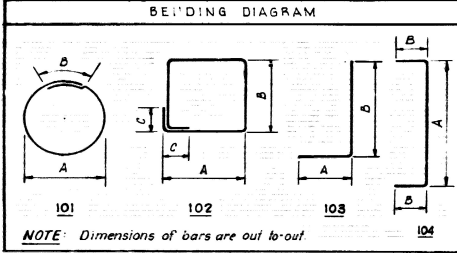


SECTION D-D
Scale: 3/8" = 1'-0"

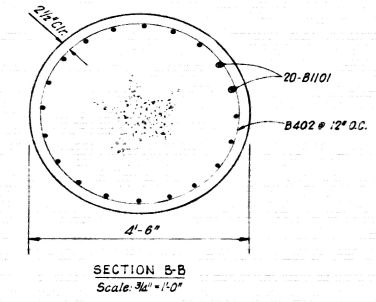
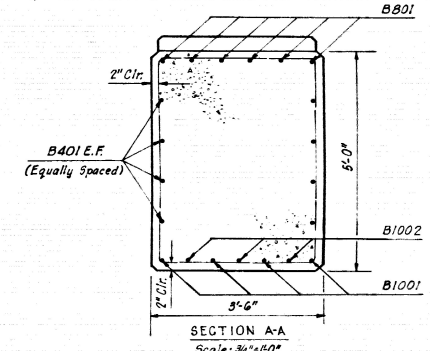
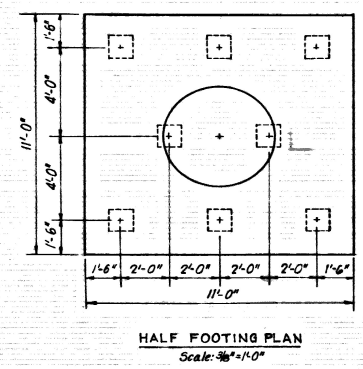
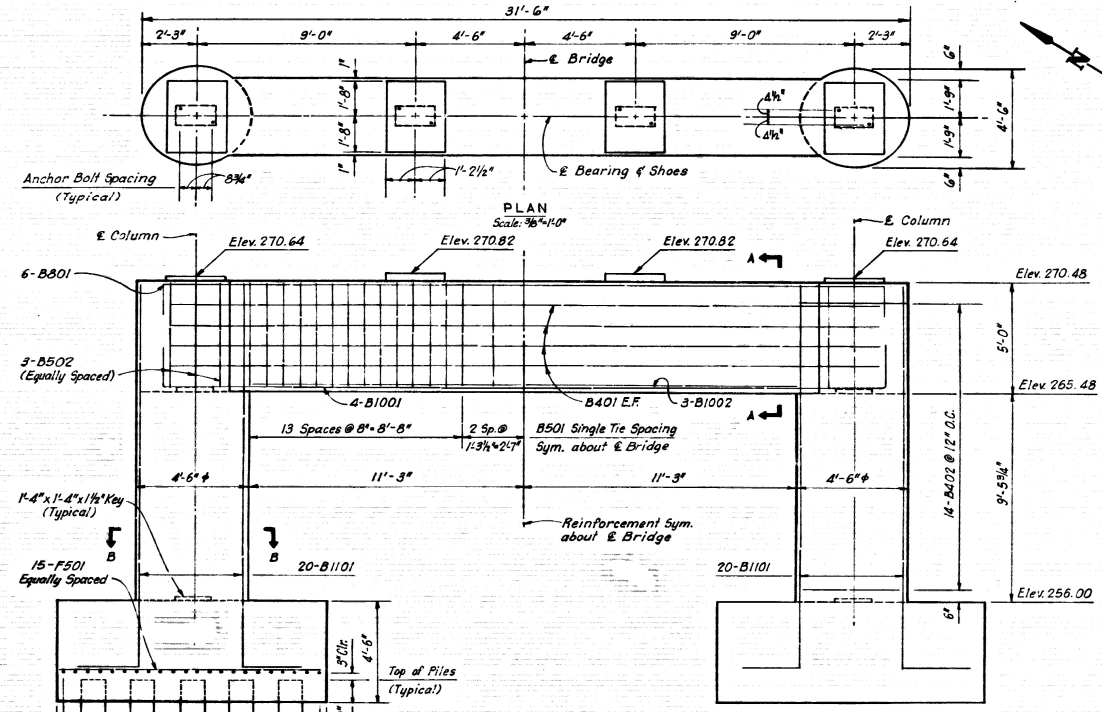
ALT. NO. 2
 SHEET 1 OF 1
 DETAILS OF PIERS 4, 5 AND 6
 U.S. HIGHWAY 67
 RED RIVER BRIDGE (FULTON)
 HEMPSTEAD & MILLER COUNTIES
 ROUTE SEC.
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.
 DRAWN BY: G.S.B. DATE: 1-80
 CHECKED BY: J.M.B. DATE: 1-80
 DESIGNED BY: R.P.H. DATE: 1-80
 SCALE: AS NOTED
 BRIDGE NO. 5823 DRAWING NO. 23459

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.	BRRS-AG(2)(2)	35	65
				JOB NO.				
				5823 OTLS OF PIER 8				

REINFORCEMENT SCHEDULE							
MARK	NO	LENGTH	PIN DIA.	TYPE	DIMENSIONS		
					A	B	C
B401	8	29'-0"	Str.				
B402	28	14'-6"	—	101	4'-1"	1'-8"	
B501	31	16'-8"	2½"	102	3'-2"	4'-8"	9½"
B502	6	12'-3½"	2½"	104	3'-2"	4'-8"	
B801	6	31'-3"	6"	104	29'-0"	1'-4"	
B1001	4	32'-0"	10"	104	29'-0"	1'-9¾"	
B1002	3	22'-6"	6½"				
B1101	40	18'-9"	11"	103	2'-0"	17'-1½"	
F501	74	10'-6"	Str.				



14" SQUARE OR 16" OCTAGONAL CONCRETE BEARING PILES	
PIER NO.	LENGTH
8	55'



NOTE:
Riser Blocks shall be poured monolithically with Pier Cap.

ALT. NO. 2
SHEET 1 OF 1
DETAILS OF PIER 8
U.S. HIGHWAY 67
RED RIVER BRIDGE (FULTON)
HEMPSTEAD & MILLER COUNTIES
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: S.S.B. DATE: 1-20
CHECKED BY: J.M.B. DATE: 1-20
DESIGNED BY: R.F.H. DATE: 1-20
SCALE: AS NOTED
BRIDGE NO. 5823 DRAWING NO. 23461