

~~For R/W Data - See Rdwy. Plans~~

DATE REVIEWED	DATE FILMED	DATE REVIEWED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	7836	10	30	
				6164	LAYOUT	27846		

GENERAL NOTES

BENCH MARK: NAIL IN SIDE OF 16" GUM 40' LT. CL. STA. 730+04, ELEV. 190.92.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

LIVE LOADING: HS20

METHOD OF DESIGN: LOAD FACTOR

DETAIL DRAWINGS: DRAWING NO.

END BENTS	78247
INTERMEDIATE BENTS	27847
SPANS	27846
EXCAVATION FOR STRUCTURES	1891F
EMBANKMENT CONSTRUCTION	1888A
CONCRETE PILING	23B3
GUARD RAIL CONNECTION	GR-8A
TYPE C BRIDGE NAME PLATES	2389A
TYPE J APPROACH GUTTERS	1898J
TEMPORARY BRIDGE STRUCTURES	2381 & 239J

CONCRETE PILING: PILING FOR BENTS 1 THRU 4 SHALL BE 16" OCTAGON 16" SQ. PRECAST CONCRETE AND SHALL BE DRIVEN WITH AN UNBALANCED, RAMP, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE AND TO A MINIMUM PENETRATION OF 20' BELOW NATURAL GROUND. LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. DRIVE ONE 30' TEST PILE IN BENT 1 AND DRIVE ONE 35' TEST PILE IN BENT 3. PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE. PILE SHAPES SHALL NOT BE MIXED ON ANY BRIDGE.

BOILED LINSEED OIL TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE AND FACE AND TOP OF THE CONCRETE PARAPET RAIL.

EXISTING BRIDGE: REMOVE THE EXISTING BRIDGE #M0175 WHICH IS 23' WIDE BY 61' LONG. THE EXISTING BRIDGE CONSISTS OF TIMBER CAPS, TIMBER PILING AND A CONCRETE DECK ON TIMBER STRINGERS. ALL EXISTING BRIDGE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR EXCEPT:

- 2 - 12" X 12" X 24' TREATED TIMBER CAPS
40 - 6" X 14" X 20' TREATED TIMBER STRINGERS
10 - 12'-6" GUARD RAIL PIECES
4 - END TERMINALS

THESE ITEMS WILL REMAIN THE PROPERTY OF THE STATE. SEE SECTION 205 OF THE STANDARD SPECIFICATIONS.

BRIDGE DECK: THE CONCRETE BRIDGE DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR FINAL FINISHING IN SUBSECTION 802.23 FOR CLASS 6 ROADWAY SURFACE FINISH.

TEMPORARY BRIDGE: CONSTRUCT A 60' LONG TEMPORARY BRIDGE APPROXIMATELY 45' DOWNSTREAM. THE TEMPORARY BRIDGE SHALL HAVE A MINIMUM ROADWAY WIDTH OF 20' WITH A MINIMUM LIVE LOAD CAPACITY OF H15 AND A MINIMUM DECK ELEVATION OF 122.0. SEE SECTION 603 OF THE STANDARD SPECIFICATIONS.

"UNTREATED TIMBER PILING AND UNTREATED PINE TIMBER MAY BE USED IN THE CONSTRUCTION OF THE TEMPORARY BRIDGE STRUCTURE."

BORING LOG

- A-Moist, Med. Dense, Brown Silty Sand With Some Gravel
B-Wet, Very Loose, Brown Silty Sand
C-Wet, Dense, Brown Sand & Gravel
D-Moist, Dense, Dark Brown Sandy Silt
E-Moist, Dense, Dark Brown Sandy Silt With Seams Of
Stiff, Brown Clay
F-Moist, Med. Stiff, Brown & Gray Sandy, Silty Clay
G-Moist, Med. Dense, Dark Brown Silt
H-Moist, Dense, Dark Brown Silty Sand

LAYOUT OF BRIDGE OVER
BEACH BRANCH
BEACH BRANCH BRIDGE & APPRS.
DALLAS COUNTY
ROUTE 7 SEC. 5

ARKANSAS STATE HIGHWAY COMMISSION

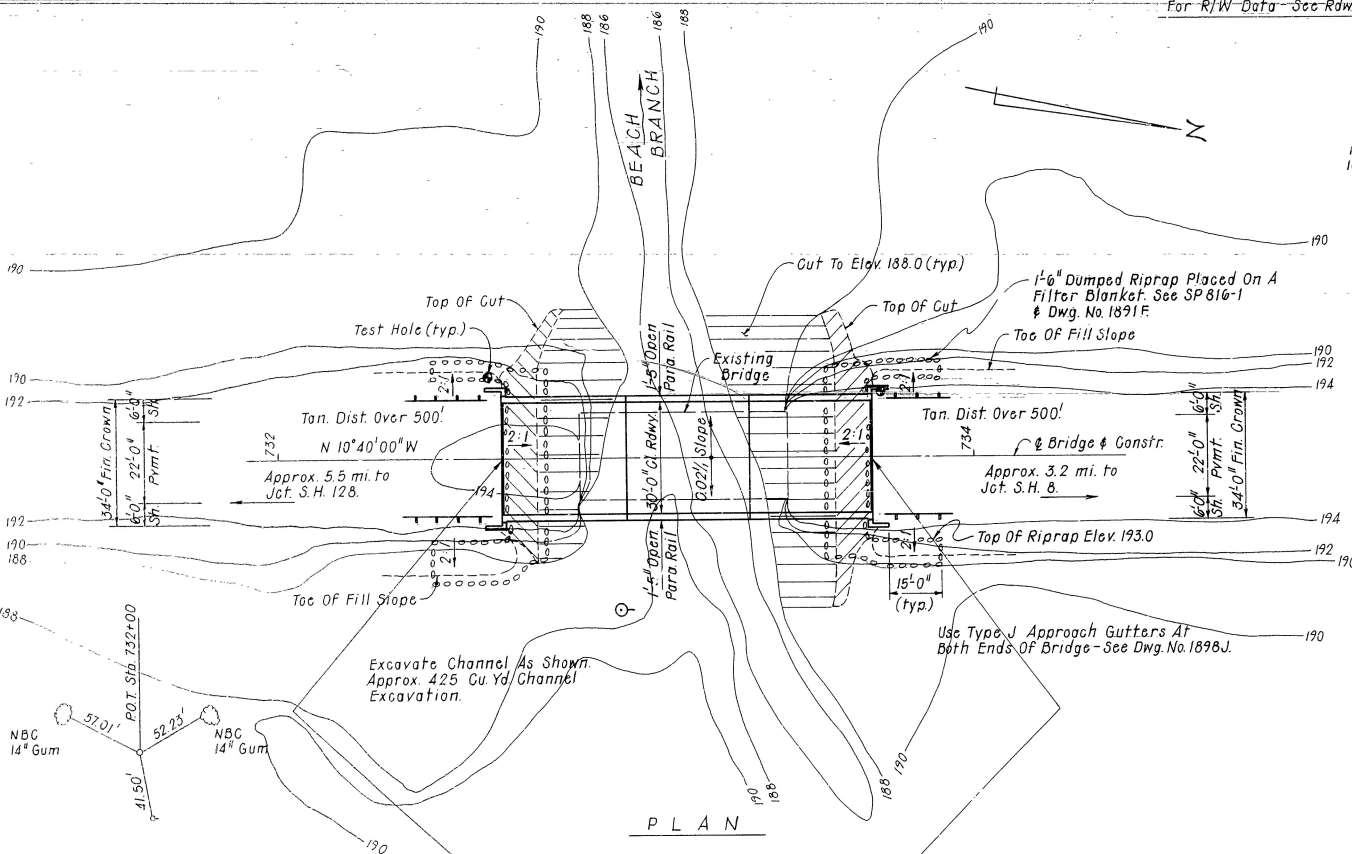
LITTLE ROCK, ARK.

DRAWN BY: H. Maj. DATE: 8-15-85

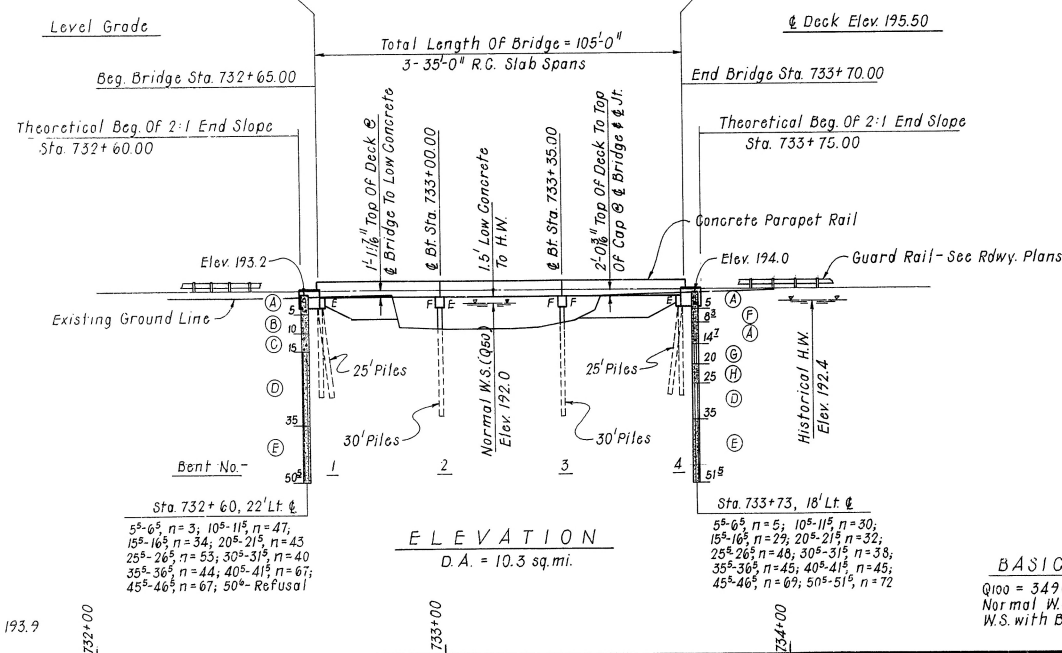
CHECKED BY: D.H.P. DATE: 10-4-85

DESIGNED BY: FL DATE: 8
BRIDGE NO. 6164

DRAWING NO. 27846



P L A N

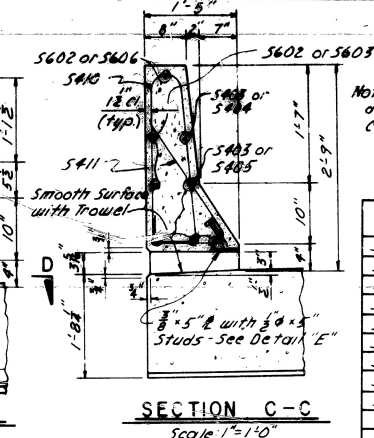


DESIGN FLOOD

Q50 = 3070 cfs
Normal W.S. Elev. 192.0
W.S. with Backwater Elev. 193.9

BASIC FLOOD

Q100 = 3490 cfs
Normal W.S. Elev. 192.2
W.S. with Backwater Elev. 194.4



SECTION B-B

SECTION C-C

BAR LIST PER SPAN

MK	No Reg'd		Length	Pin Dia	Bending Diagrams	
	End	Int				
5401	21	121	34" 8"	5/16"	32" 6"	5' 10"
5402	2 1/2	2 1/2	33" 6"	3"		
5403	20	30	11 1/4"	5/16"		5' 6"
5404			10" 10"	5/16"		
5405	8		11" 10"	5/16"		
5406	44	48	6" 10"	2"		
5407	44	48	7" 9"	2"		
5408	55	55	32" 4"	5/16"		
5409	8		15" 0"	5/16"		
5410	54	54	6" 4"	2"		
5411	54	54	3" 2"	2"		
5501	24	24	5" 0"	5/16"		
5601	12	12	5" 8"	4 3/8"		
5602	12	18	11" 4"	5/16"		
5603	4		11" 10"	5/16"		
5604	4		8" 10"	3 3/4"		
5605	6		4" 9"	3 3/4"		
5701	61	69	34" 8"	5/16"		
5902	8		35" 2"	5/16"		
5606	2		10" 10"	5/16"		

Dimensions are out to out of Bars

GENERAL NOTES

ALL CONCRETE TO BE CLASS S(A.E.) CONCRETE. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.

BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL".

ROOFING FELT, BITUMINOUS FELT, PREFORMED JOINT, STRUCTURAL STEEL, AND POURED JOINTS SHALL BE MEASURED AND PAID FOR AS CLASS S(AE) CONCRETE

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS AASHTO 1983 AND INTERIMS.

DESIGN LIVE LOADING: HS20

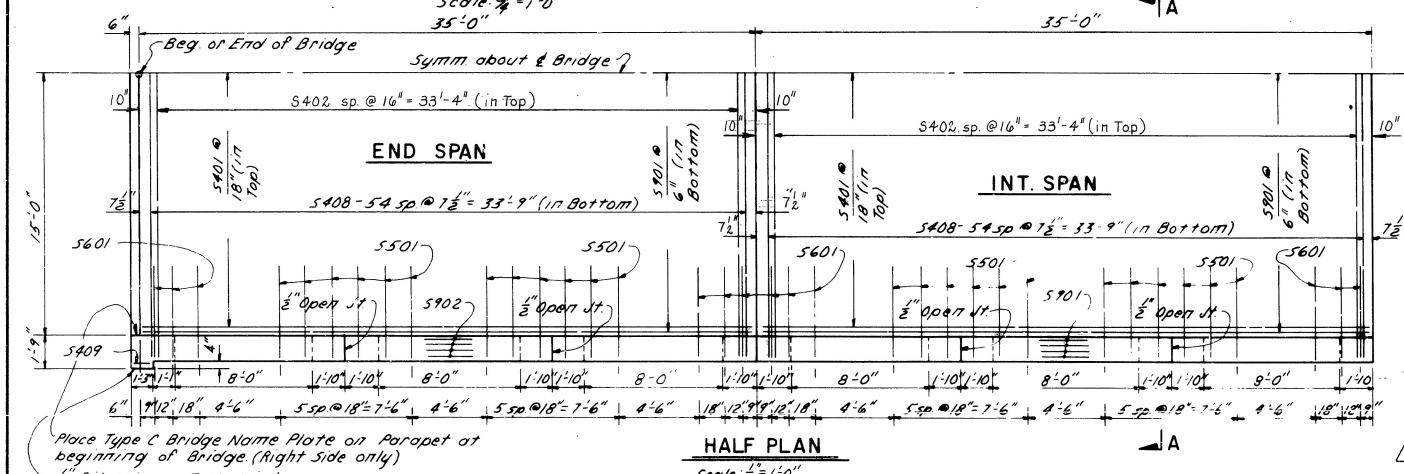
LOAD DISTRIBUTION TO SLAB: DEAD LOAD = 286 PSF; LIVE LOAD = 0.166 WHEELS/FT. OF WIDTH PLUS 30% IMPACT.

UNIT STRESSES. COMPRESSIVE STRENGTH OF CLASS S OR S(AE) CONCRETE = 3,500 PSI
YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI

LOAD FACTOR USED FOR DESIGN OF SLAB

Guard Rail Connection Bolts shall be $\frac{3}{4}$ " x 8" A325 Galvanized Bolts with $\frac{3}{4}$ " threaded. (Non-Pay Item - Subsidiary to other items.) (Type I)

* Includes 25# Future Wearing Surface

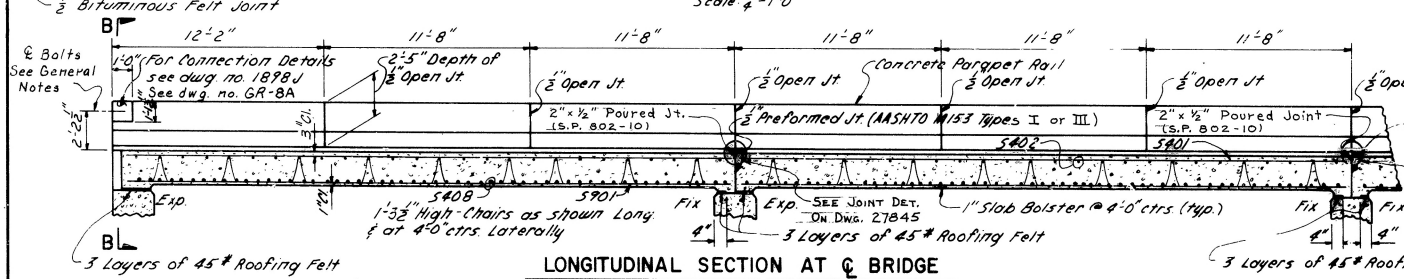


HALF PLAN

SECTION D - I

DEAD LOAD DEFLECTION

Variable	a	b
Immediate	$14''$	$5_{16}''$
Long Term	$12''$	$11_{16}''$
Total Deflection	$34''$	$1''$

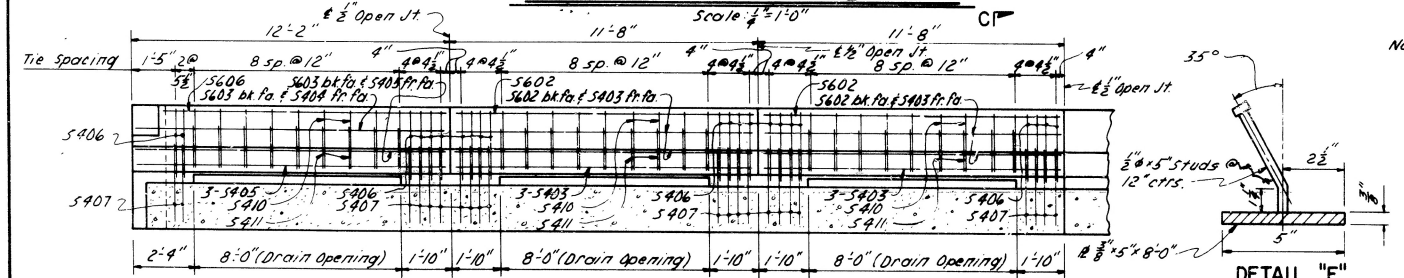


LONGITUDINAL SECTION AT C BRIDGE

RISER DETAIL

D: CAMBER DIAGRAM

N.T.S.



LONGITUDINAL SECTION AT CURB

DETAIL '1

Note: The surfaces of the $\frac{3}{8}$ " Plates which will not be in contact with concrete shall receive two coats of paint in the Shop. These coats shall be those specified as First Shop Coat and Second Field Coat in Subsection 807.59(a) and 807.59 (c) SP807-10.

The $\frac{1}{2}$ " x $\frac{1}{2}$ " Studs shall be Granular Flux Filled, Solid Fluxed, or equal, and automatically welded to the $\frac{3}{8}$ " Plate in accordance with recommendations of the Manufacturer.

△ Revised Deflections 4-9-86, D.H.P.

QUANTITIES (PER SPAN)

	Concrete	Reinforcing Steel	Structural Steel
End Span	76.31 cu yd	12,040 Lbs.	322 Lbs.
Int. Span	75.82 cu yd	11,960 Lbs.	322 Lbs.

* For information only ; Structural Steel to be measured and paid for as Class S or S(AE) concrete.

Concrete Quantities calculated for
2'-4" caps

DETAILS OF STANDARD

35'-0" R.C. SLAB SPAN

30' CL. RDWY.-CONCRETE PARAPET RAIL

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: D.H.P. DATE: 5-9-83 *as noted*

CHECKED BY: _____ DATE: _____
DESIGNED BY: D.H.P. DATE: 5-8-83

BRIDGE NO. 6164 DRAWING NO. 27848

Gerald P. ...
BRIDGE ENGINEER