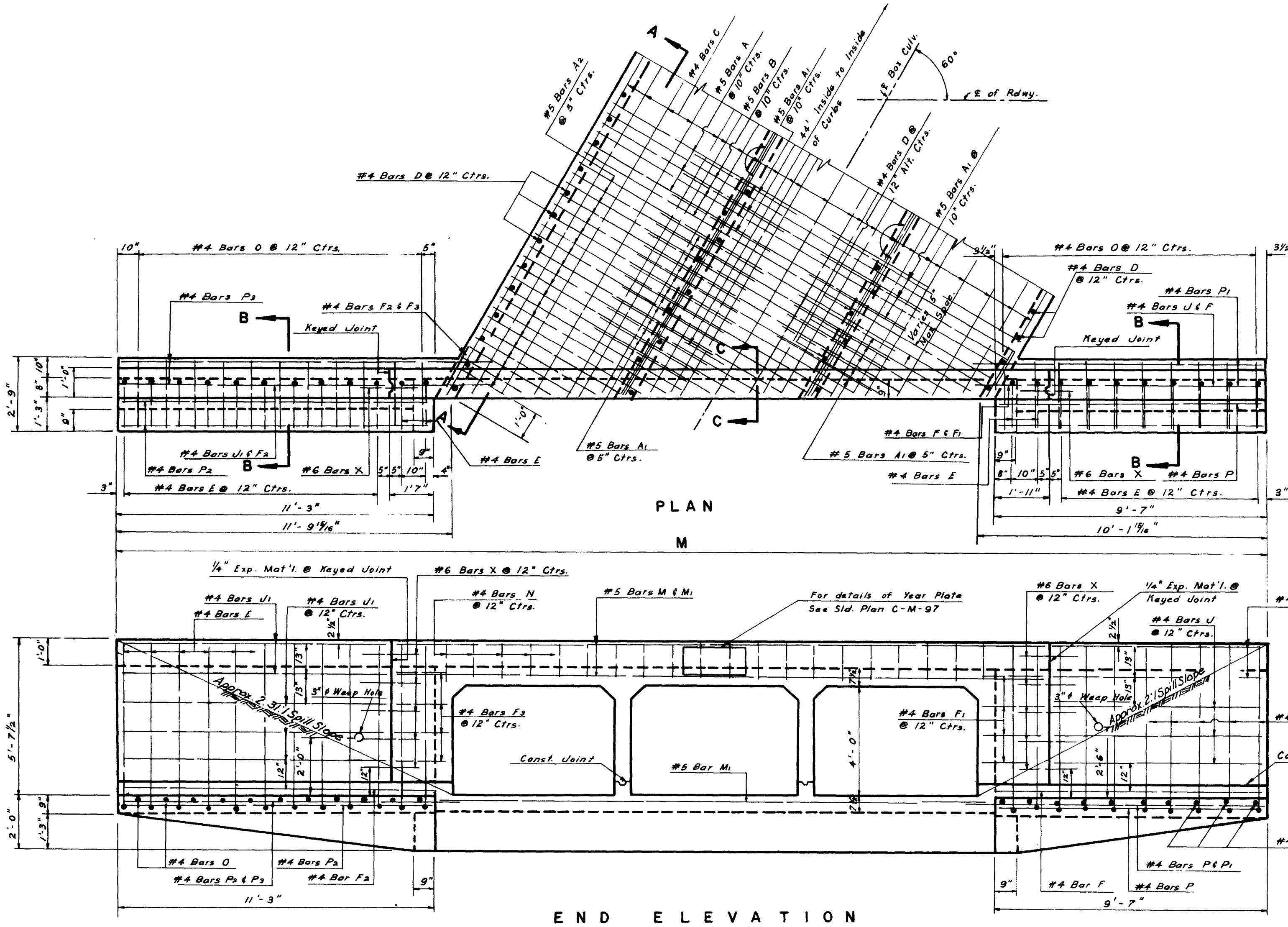
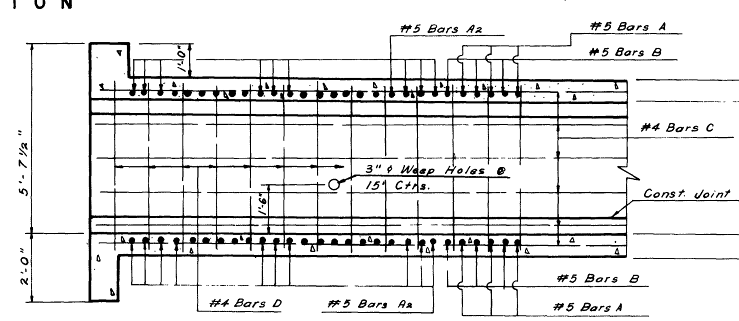
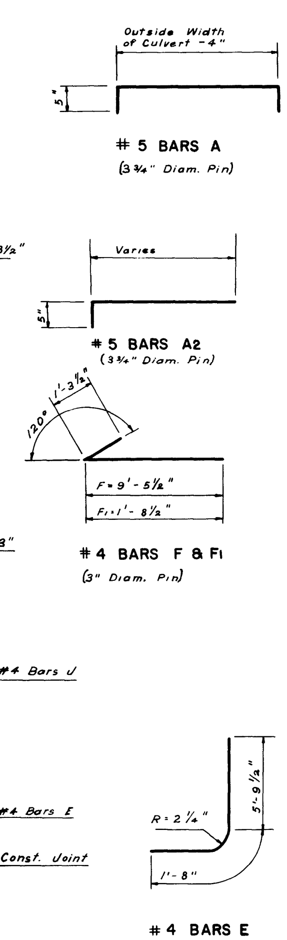


PLAN

END ELEVATION



SECTION C-C

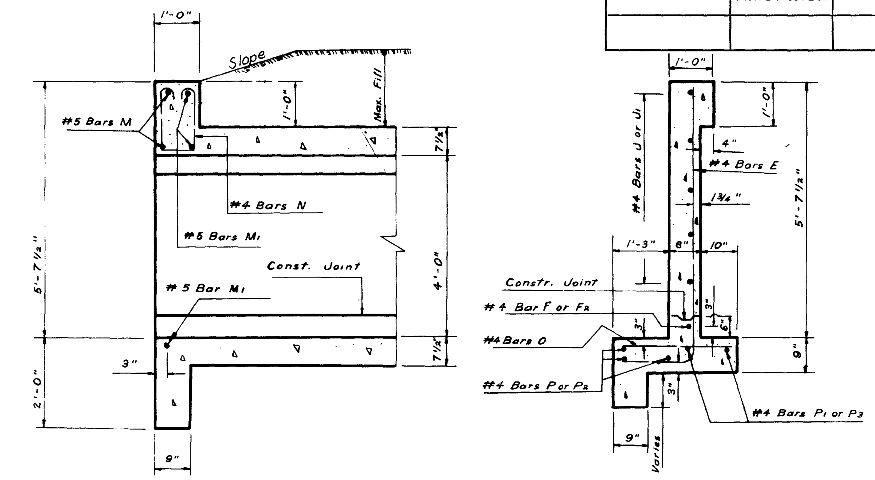


 # 5 BARS A (3 3/4" Diam. Pin)

 # 5 BARS A2 (3 3/4" Diam. Pin)

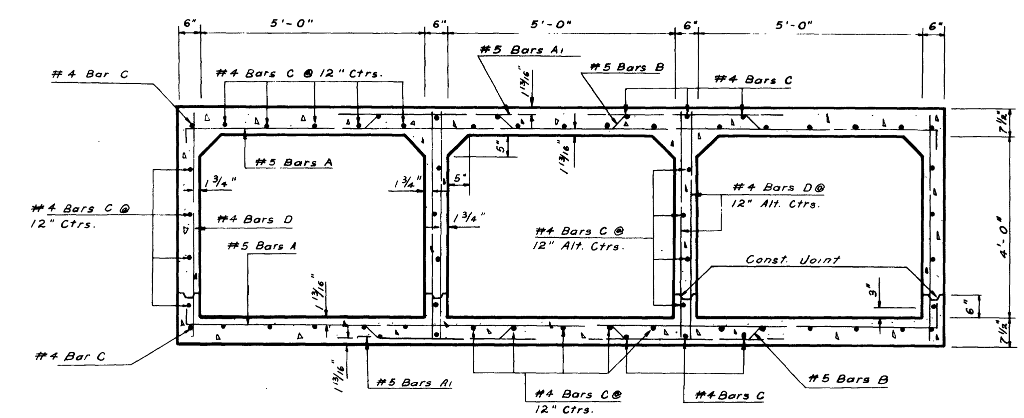
 # 4 BARS F & F1 (3" Diam. Pin)

 # 4 BARS E

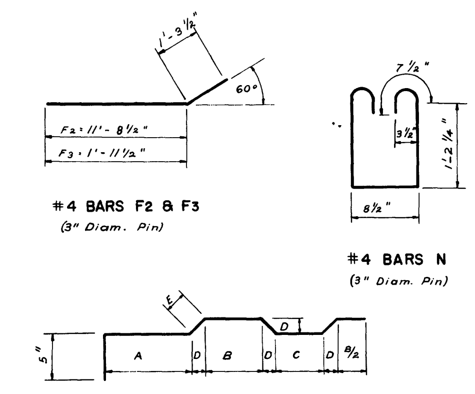


SECTION C-C

SECTION B-B



SECTION THRU BARREL



#4 BARS F2 & F3 (3" Diam. Pin)

#4 BARS N (3" Diam. Pin)

#5 BARS B

DIMENSIONS FOR BARS B					
SIZE	PIN DIAM.	A	B	C	D	E
5'x4'	3 3/4"	3'-11 1/16"	2'-8 1/8"	2'-2 1/8"	3 7/8"	5 1/2"

GENERAL NOTES

Construction Specification: Latest approved La. Dept. of Hwy. Standard Specification.
Design Specifications: A.A.S.H.O. 1961 as amended by Int. Spec., 1964.
Live Load: HS 20-44 or Military loading, whichever is greater.
All concrete to be Class "A".
All exposed corners to have 3/4" Chamfer, unless otherwise noted.
Reinforcement Shall Be Billet-Steel A.S.T.M. A 615 or Rail-Steel A.S.T.M. A616 or Axle-Steel A.S.T.M. A617.
Dimensions relating to Reinforcing Steel are to Bar centers.
A 1'-6" Square of Plastic Filter Cloth (See Qualified Products List) shall be placed in contact with Concrete behind each Weep Hole, in addition to approx. 2 Cu. Ft. of Concrete Sand.
For Detail of Joints, See Std. Plan C.M.-49.

DIMENSIONS						QUANTITIES				OPENINGS	
OPENINGS			MAX. FILL		WINGS & CURBS	PER LINEAR FT. OF BARREL		FOR 44'-0" OF CULVERT			
SIZE	NO.	AREA	SLAB	WALL	M	STEEL	CONCRETE	STEEL	CONCRETE	NO.	SIZE
FEET		SQ. FT.	FEET	FEET	FT. - IN.	LBS.	CU. YDS.	LBS.	CU. YDS.		FEET
5x4	2	40	21	13	34 - 1 3/8	109.51	0.7675	5967	47.97	2	5x4
	3	60	27		40 - 5 9/16	165.22	1.1026	8745	64.45	3	
	4	80			46 - 9 3/4	220.92	1.4378	11610	80.92	4	
	5	100			53 - 2	276.62	1.7729	14421	97.40	5	
	6	120			59 - 6 3/16	332.33	2.1080	17429	113.88	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

SIZE		#5 BARS A		#5 BARS A1		#5 BARS A2				#5 BARS B		#4 BARS C		#4 BARS D	
SIZE FEET	NO.	NO.	LENGTH Ft.-In.	NO.	LENGTH Ft.-In.	NO.	SHORT BAR Ft.-In.	VAR. In.	LONG BAR Ft.-In.	NO.	LENGTH Ft.-In.	NO.	LENGTH ① Ft.-In.	NO.	LENGTH Ft.-In.
5x4	2	94	12-0	114	4-4	56	2-2	8.6154	11-6	94	12-3 1/4	42	47-5	138	4-11
	3	88	17-6	244	4-4	84	2-2	8.6500	16-7	88	18-0 1/2	62	47-5	184	4-11
	4	80	23-0	392	4-4	116	2-2	8.6429	22-4	80	23-9 3/4	82	47-5	230	4-11
	5	72	28-6	540	4-4	144	2-2	8.6571	27-5	74	29-7	102	47-5	276	4-11
	6	64	34-0	720	4-4	176	2-2	8.6512	33-2	66	35-4 1/4	122	47-5	322	4-11

① Includes 1-1'-6" Lap Splice.

WINGS AND CURBS REINFORCEMENT

#4 BARS E NO.	LENGTH Ft.-In.	#4 BARS F NO.	LENGTH Ft.-In.	#4 BARS F1 NO.	LENGTH Ft.-In.	#4 BARS F2 NO.	LENGTH Ft.-In.	#4 BARS F3 NO.	LENGTH Ft.-In.	#4 BARS J NO.	LENGTH Ft.-In.	#4 BARS J1 NO.	LENGTH Ft.-In.	#4 BARS O NO.	LENGTH Ft.-In.	#4 BARS P NO.	LENGTH Ft.-In.	#4 BARS P1 NO.	LENGTH Ft.-In.	#4 BARS P2 NO.	LENGTH Ft.-In.	#4 BARS P3 NO.	LENGTH Ft.-In.	#5 BARS M NO.	LENGTH Ft.-In.	#5 BARS M1 NO.	LENGTH Ft.-In.	#4 BARS N NO.	LENGTH Ft.-In.	#6 BARS X Ⓐ NO.	LENGTH Ft.-In.	OPENINGS NO.	SIZE FEET
																								4	16-3	6	12-10	26	4-4			2	5x4
																								4	22-7	6	19-3	38	4-4			3	
44	7-5 1/2	2	10-9	8	3-0	2	13-0	8	3-3	10	7-4	10	9-4	42	2-4	6	9-3	4	10-8	6	10-11	4	13-4	4	28-11	6	25-7	52	4-4	20	2-0	4	
																								4	35-3	6	31-11	64	4-4			5	
																								4	② 43-5	6	38-3	76	4-4			6	

② Includes 1'-10" Lap Splice.
Ⓐ #6 Bars X to be 3/4" φ smooth & greased for 1'-0" of Length.

CC·S·M·5·R·60°-I

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS 60° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
2 THRU 6-5'x4'

DATED September 22, 1967

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	W.E. Marcum	DETAILED	B.L. Burke	TRACED	C. Breaux
CHECKED	N.K. Brown	CHECKED	W.E. Marcum	CHECKED	W.E. Marcum
IN CHARGE OF					

DATE	DESCRIPTION	BY
1-5-78	Rev. Weep Hole Note	W.T.J.
2-20-73	Rev. Slope Intercept	W.T.J.
6-8-72	Rev. General Notes For Steel	W.E.M.

REVISIONS

STATE PROJECT	PARISH	SHEET NO.

C·C·S·M·5·R·60°-I