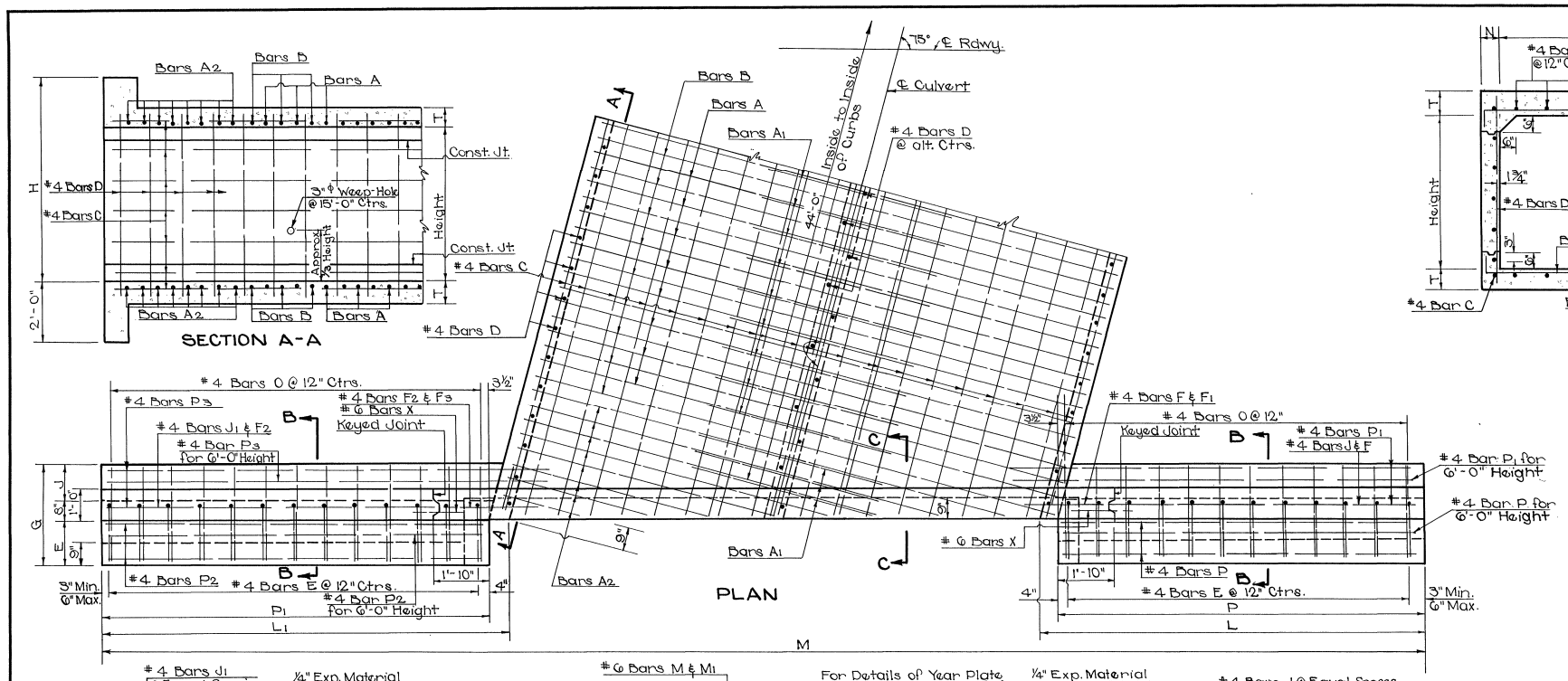
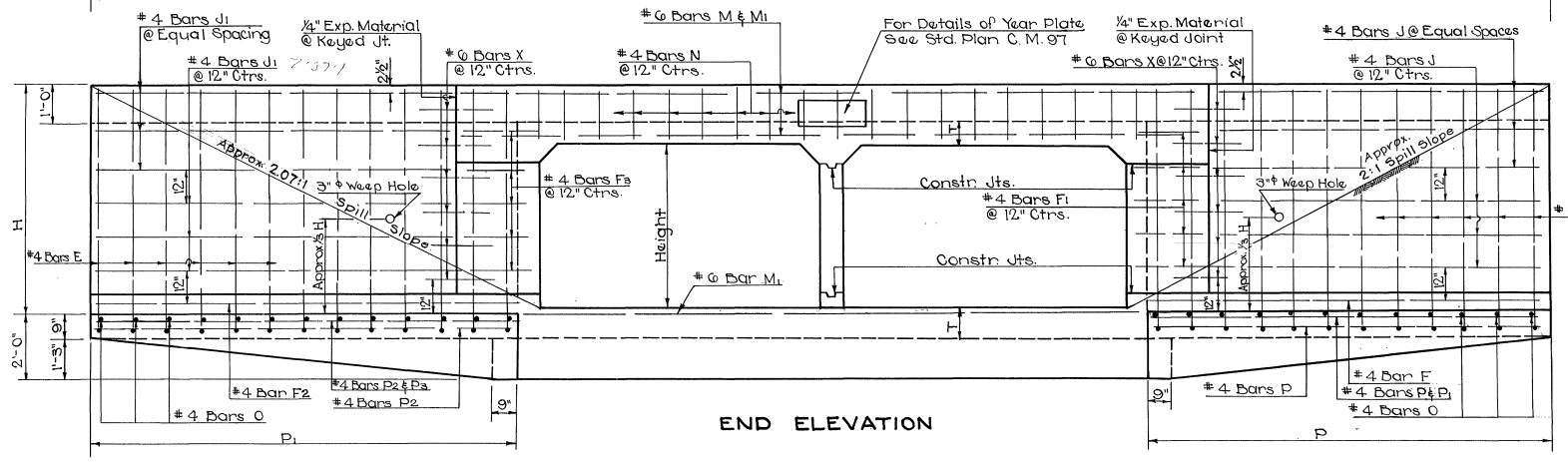
STATE PROJECT	PARISH	SHEET NO.

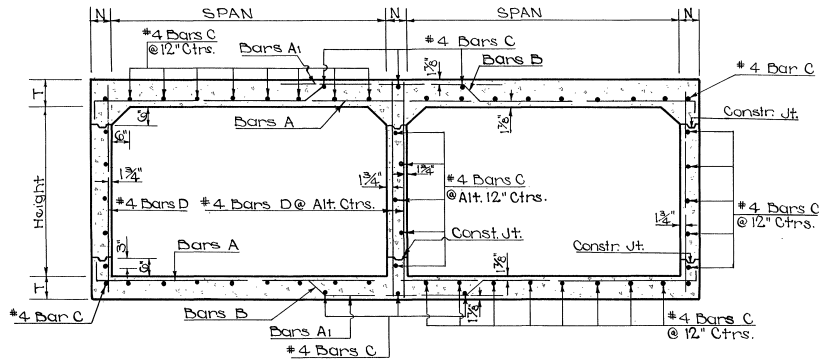
SECTION A-A



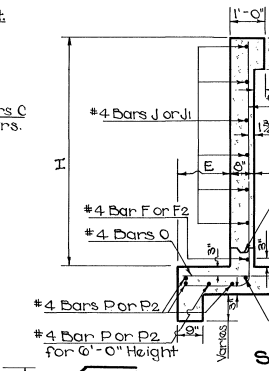
PLAN



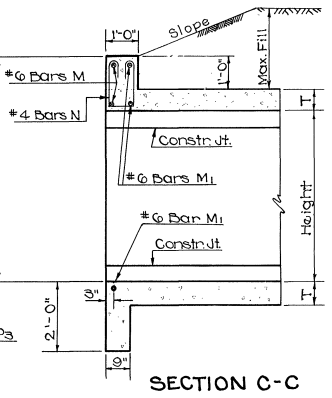
END ELEVATION



SECTION THRU BARREL

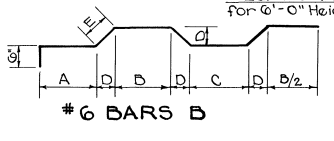


SECTION B-B

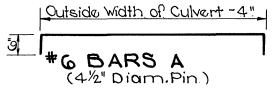


SECTION C-C

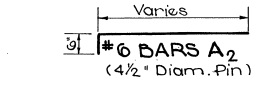
DIMENSIONS FOR BARS B						
Span	Pin Diam.	A	B	C	D	E
7'-0"	4½"	5'-4⅝"	3'-7¼"	3'-1¼"	4¾"	6¾"
8'-0"	4½"	6'-2⅜"	4'-1¾"	3'-6¾"	5¾"	7⅜"



*6 BARS B



*6 BARS A (4½" Diam. Pin)



*6 BARS A2 (4½" Diam. Pin)

DIMENSIONS															QUANTITIES				OPENINGS	
OPENINGS			MAX. FILL		BARREL		WINGS AND CURBS								PER LIN. FT. OF BARREL		44'-0" CULVERT (ALONG ℄)			
SIZE FEET	NO.	AREA SQ. FT.	SLAB FEET	WALL FEET	T IN.	N IN.	E FT.-IN.	J FT.-IN.	G FT.-IN.	H FT.-IN.	L FT.-IN.	L1 FT.-IN.	P FT.-IN.	P1 FT.-IN.	M FT.-IN	STEEL LBS.	CONC. CU.YDS.	STEEL LBS.	CONC. CU.YDS.	NO.	SIZE FEET
7x5	2	70	12		8½	6	1-5	1-2	3-3	6-8½	12-4¼	13-1¼	11-10	12-7	40-5 9/16	153.89	1.1096	8,356	67.66	2	7x5
	3	105													46-2¾	232.89	1.6049	12,254	91.61	3	
	4	140	16	7											55-11 15/16	311.86	2.1003	16,142	115.56	4	
	5	175													63-9 1/16	390.86	2.5957	20,196	139.51	5	
	6	210													71-6¼	481.89	3.0910	24,774	163.46	6	
7x6	2	84	11												44-5 9/16	160.74	1.1651	9,009	74.72	2	7x6
	3	126													52-2¾	242.02	1.6780	13,014	99.53	3	
	4	168	16	5			1-7	1-6	3-9	7-8½	14-4¼	15-1¼	13-10	14-7	59-11 15/16	323.29	1.9929	16,949	124.34	4	
	5	210													67-9 1/16	404.57	2.7066	21,175	149.14	5	
	6	252													75-6¼	497.86	3.2207	25,863	173.95	6	
8x5	2	80	10												42-9½	160.67	1.3267	9,064	76.10	2	8x5
	3	120													51-8⅛	273.98	1.9228	14,240	106.75	3	
	4	160	14	9	9	7	1-5	1-2	3-3	6-9	12-5¼	13-2¼	11-10	12-7	60-6¾	367.30	2.5170	18,954	135.39	4	
	5	200													69-5 7/16	473.63	3.1111	24,079	164.04	5	
	6	240													78-4 1/16	566.94	3.7053	29,028	192.69	6	
8x6	2	96	9												46-9½	184.68	1.3935	10,194	85.60	2	8x6
	3	144													55-6⅛	279.33	2.0092	14,620	115.24	3	
	4	192	13	5	9	7	1-7	1-6	3-9	7-9	14-5¼	15-2¼	13-10	14-7	64-6¾	373.98	2.6250	19,587	144.88	4	
	5	240													73-5 7/16	481.64	3.2407	24,775	174.53	5	
	6	288													82-4 1/16	576.29	3.8565	29,787	204.17	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

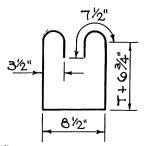
BARREL REINFORCEMENT

OPENINGS		BARS A				BARS A1				BARS A2						BARS B				*4 BARS D			*4 BARS C	
SIZE FEET	NO.	SIZE	NO.	LGTH. FT.-IN.	SPAC. IN.	SIZE	NO.	LGTH. FT.-IN.	SPAC. IN.	SIZE	NO.	SHORT BAR FT.-IN.	VAR. IN.	LONG BAR FT.-IN.	SPAC. IN.	SIZE	NO.	LGTH. FT.-IN.	SPAC. IN.	NO.	LGTH. FT.-IN.	SPAC. IN.	NO.	①LGTH. FT.-IN.
7x5	2	*6	76	16-2	13	*6	88	5-8	6½ / 13	*6	28	3-0	24.3333	15-2	6½	*6	76	16-6	13	138	6-1	12	53	47-2
	3	*6	74	23-8	13	*6	180	5-8	6½ / 13	*6	40	3-0	24.2222	21-2	6½	*6	76	24-4	13	184	6-1	12	76	47-2
	4	*6	70	31-2	13	*6	282	5-8	6½ / 13	*6	56	3-0	24.2308	29-3	6½	*6	70	32-2	13	230	6-1	12	103	47-2
	5	*6	66	38-8	13	*6	392	5-8	6½ / 13	*6	72	3-0	24.2353	37-4	6½	*6	66	40-0	13	276	6-1	12	126	47-2
	6	*6	62	③46-4	13	*6	514	5-8	6½ / 13	*6	88	3-0	24.2381	③45-5	6½	*6	62	③50-0	13	322	6-1	12	153	47-2
7x6	2	*6	76	16-2	13	*6	88	5-8	6½ / 13	*6	28	3-0	24.3333	15-2	6½	*6	76	16-6	13	168	7-1	10	59	47-2
	3	*6	74	23-8	13	*6	180	5-8	6½ / 13	*6	40	3-0	24.2222	21-2	6½	*6	76	24-4	13	224	7-1	10	82	47-2
	4	*6	70	31-2	13	*6	282	5-8	6½ / 13	*6	56	3-0	24.2308	29-3	6½	*6	70	32-2	13	280	7-1	10	106	47-2
	5	*6	66	38-8	13	*6	392	5-8	6½ / 13	*6	72	3-0	24.2353	37-4	6½	*6	66	40-0	13	336	7-1	10	134	47-2
	6	*6	62	③46-4	13	*6	514	5-8	6½ / 13	*6	88	3-0	24.2381	③45-5	6½	*6	62	③50-0	13	392	7-1	10	160	47-2
8x5	2	*6	84	18-5	12	*6	96	6-2	6 / 12	*6	32	3-1	22.4286	16-2	6	*6	84	18-9¼	12	138	6-2	12	57	47-2
	3	*6	78	27-0	12	*6	200	6-2	6 / 12	*6	52	3-1	22.4167	25-6	6	*6	78	27-6½	12	184	6-2	12	84	47-2
	4	*6	72	35-7	12	*6	312	6-2	6 / 12	*6	72	3-1	22.4118	34-10	6	*6	74	36-7¾	12	230	6-2	12	111	47-2
	5	*6	68	③46-4	12	*6	428	6-2	6 / 12	*6	88	3-1	22.3810	③42-3	6	*6	70	③47-9	12	276	6-2	12	138	47-2
	6	*6	64	③54-11	12	*6	568	6-2	6 / 12	*6	108	3-1	22.3846	③51-7	6	*6	64	③56-6¼	12	322	6-2	12	165	47-2
8x6	2	*6	84	18-5	12	*6	96	6-2	6 / 12	*6	32	3-1	22.4286	16-2	6	*6	84	18-9¼	12	138	7-2	12	60	47-2
	3	*6	78	27-0	12	*6	200	6-2	6 / 12	*6	52	3-1	22.4167	25-6	6	*6	78	27-6½	12	184	7-2	12	88	47-2
	4	*6	72	35-7	12	*6	312	6-2	6 / 12	*6	72	3-1	22.4118	34-10	6	*6	74	36-7¾	12	230	7-2	12	116	47-2
	5	*6	68	③46-4	12	*6	428	6-2	6 / 12	*6	88	3-1	22.3810	③42-3	6	*6	70	③47-9	12	276	7-2	12	144	47-2
	6	*6	64	③54-11	12	*6	568	6-2	6 / 12	*6	108	3-1	22.3846	③51-7	6	*6	64	③56-6¼	12	322	7-2	12	172	47-2

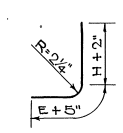
WINGS AND CURBS REINFORCEMENT

OPENINGS	*4 BARS E		*4 BARS F		*4 BARS F1		*4 BARS F2		*4 BARS F3		*4 BARS J		*4 BARS J1		*4 BARS O		*4 BARS P		*4 BARS P1		*4 BARS P2		*4 BARS P3		*4 BARS N		*6 BARS M		*6 BARS M1		⑧*6 BARS X	
SIZE FEET	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.	NO.	LGTH. FT.-IN.
7x5	50	8-6½	2	13-2	10	3-0½	2	14-1½	10	3-3	12	9-8	12	10-5	50	2-10	6	11-6	4	13-0	6	12-3	4	14-4	32	4-6	4	19-2	6	15-8	24	2-0
																									48	4-6	4	26-11	6	23-5	24	2-0
																									64	4-6	4	34-8	6	31-2	24	2-0
																									80	4-6	4	③44-8	6	39-0	24	2-0
																									94	4-6	4	③52-5	6	③46-11	24	2-0
7x6	58	9-10½	2	15-2	12	3-0½	2	16-1½	12	3-3	14	11-8	14	12-5	58	3-4	8	13-6	6	15-0	8	14-3	6	16-5	32	4-6	4	19-2	6	15-8	28	2-0
																									48	4-6	4	26-11	6	23-5	28	2-0
																									64	4-6	4	34-8	6	31-2	28	2-0
																									80	4-6	4	③44-8	6	39-0	28	2-0
																									94	4-6	4	③52-5	6	③46-11	28	2-0
8x5	50	8-9	2	13-3	10	3-2	2	14-2½	10	3-4	12	9-8	12	10-5	50	2-10	6	11-6	4	13-0	6	12-3	4	14-4	38	4-7	4	21-6	6	18-0	24	2-0
																									56	4-7	4	30-5	6	26-11	24	2-0
																									72	4-7	4	39-3	6	35-10	24	2-0
																									92	4-7	4	③50-4	6	③46-10	24	2-0
																									108	4-7	4	③59-2	6	③55-9	24	2-0
8x6	58	9-11	2	15-2	12	3-2	2	16-2½	12	3-4	14	11-8	14	12-5	58	3-4	8	13-6	6	15-0	8	14-3	6	16-5	38	4-7	4	21-6	6	18-0	28	2-0
																									56	4-7	4	30-5	6	26-11	28	2-0
																									72	4-7	4	39-3	6	35-10	28	2-0
																									92	4-7	4	③50-4	6	③46-10	28	2-0
																									108	4-7	4	③59-2	6	③55-9	28	2-0

① Includes One 1'-6" Lap Splice.
② Includes One 2'-2" Lap Splice.
③ Does not Include Lap Splice, when Length of Bar Exceeds 40', Add 2'-2" Lap Splice.



*4 BARS N (3" Diam Pin)



*4 BARS E

*4 BARS F & F1 (3" Dia. Pin)

*4 BARS F2 & F3 (3" Dia. Pin)

GENERAL NOTES:
Construction Specifications: Latest Approved La. Dept. of Highways Standard Specifications.
Design Specifications: A.A.S.H.O. 1961 as Amended by Int. Spec. 1964.
Live Load HS 20-44 or Military; Whichever is Greater.
All Concrete to be Class "A".
All Exposed Corners to have ¾" Chamfer Unless Otherwise Noted.
Reinforcement Shall be Billet-Steel A.S.T.M. A615 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.

⑧ *6 Bars X to be ¾" ϕ Smooth and Greased for 1'-0" of Length.

APPROVED BY:

Original Signed by Chief Engineer
CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-11-78	Rev. Weep Hole Note	W.T.J.
5-30-73	Revised Spill Slope	W.T.J.
6-8-72	Rev. Gen. Notes for Steel	W.E.M.
5-2-67	Added Axle Steel	W.E.M.

REVISIONS

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS 75° CROSSING
7'x5' 7'x6' 8'x5' 8'x6'

DATED Nov. 24, 1964

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W.E. Marcum	DETAILED N. Knapp	TRACED J. L. Read
CHECKED N.K. Brown	CHECKED W.E. Grice	CHECKED W.E. Marcum
IN CHARGE OF		

CC·S·M·7-8·R·75°·1

K+E IMPERIAL™ TRACING CLOTH 71374