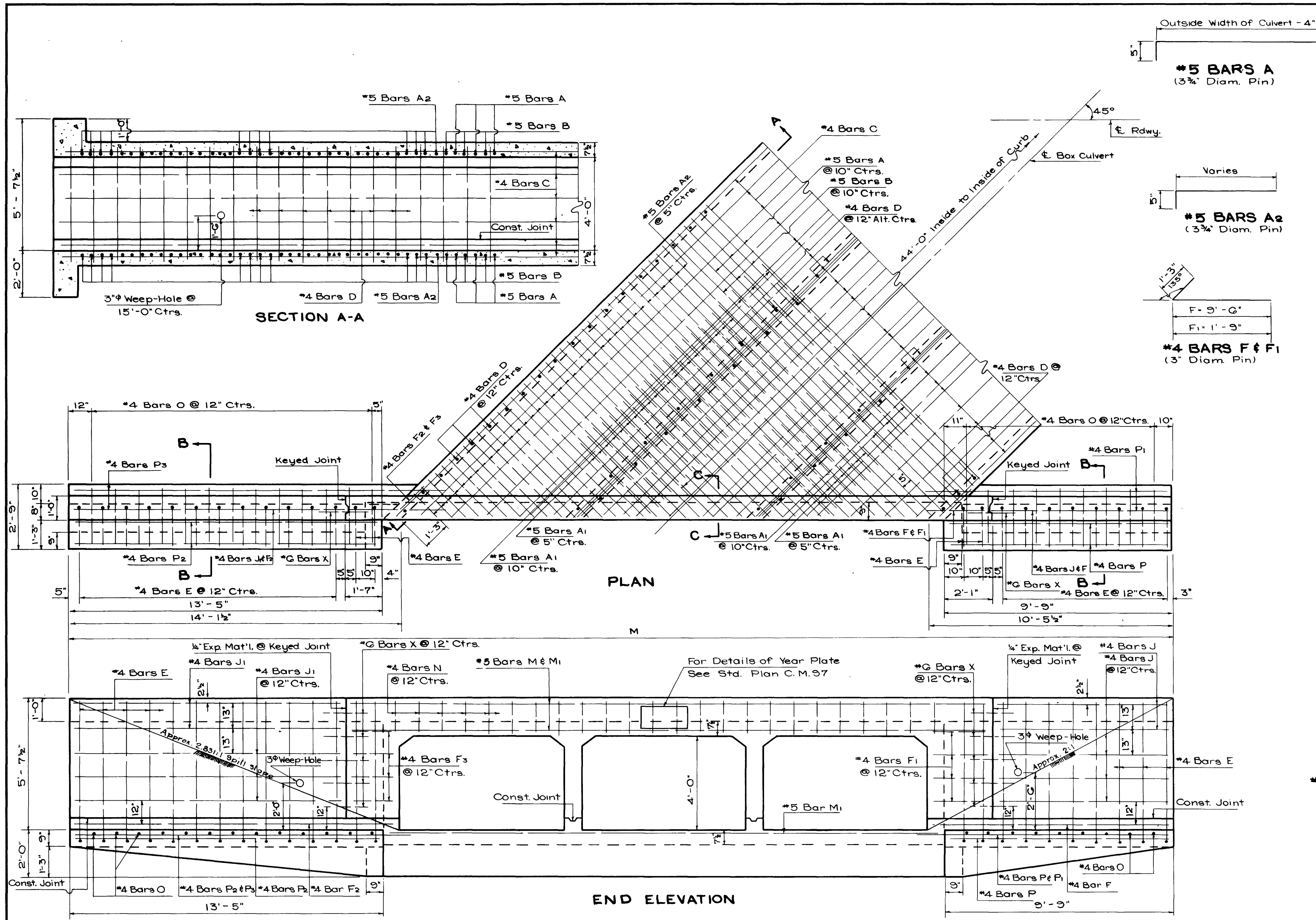

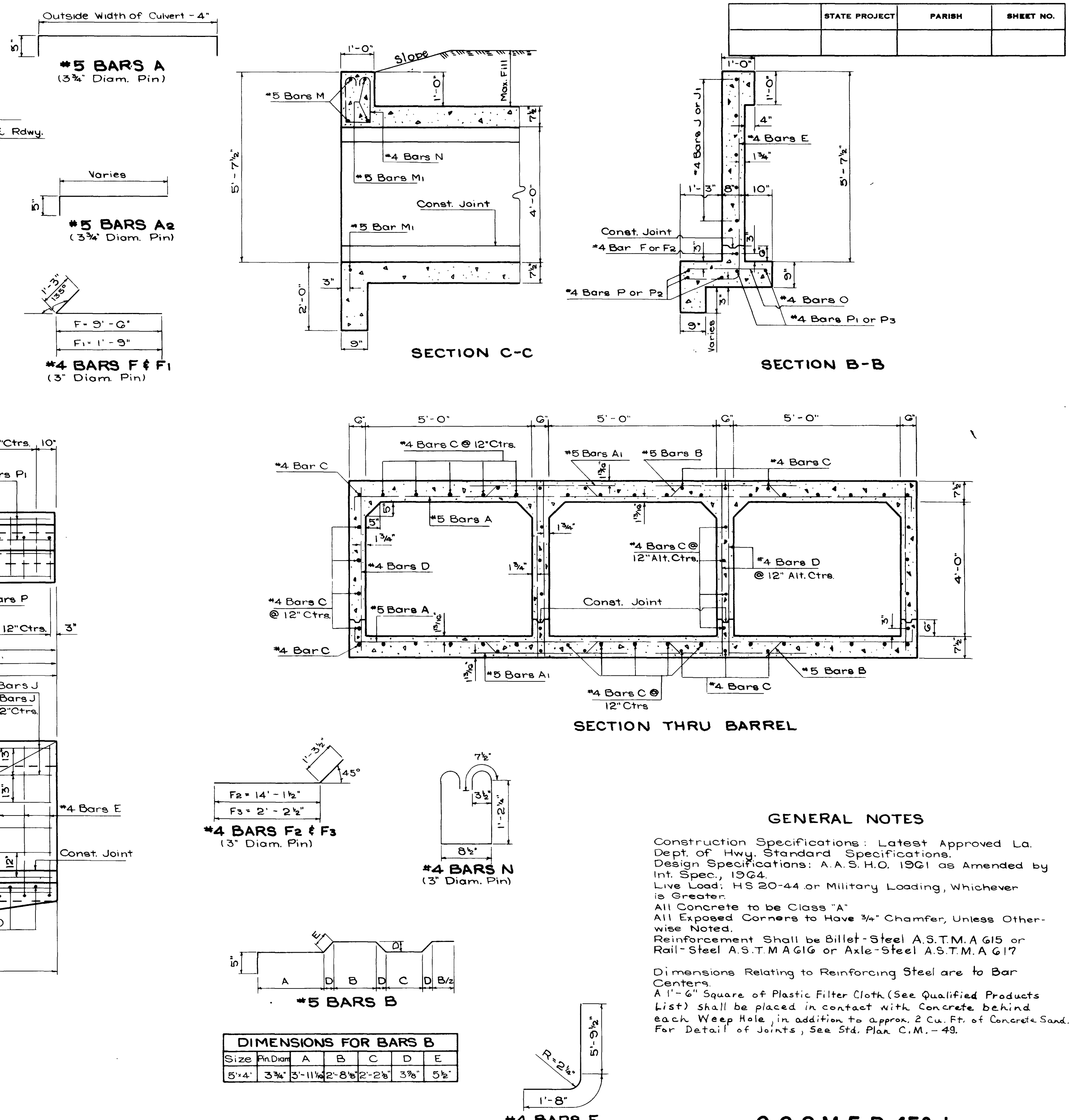

DIMENSIONS FOR BARS B					
Size	Pin Diam.	A	B	C	D	E
5'×4'	3¾"	3'-11⅛"	2'-8⅛"	2'-2⅛"	3⅜"	5½"

GENERAL NOTES

Construction Specifications: Latest Approved La. Dept. of Hwy. Standard Specifications.
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 ¾" Chamfer, Unless Otherwise Noted.
Reinforcement Shall be Billet-Steel A.S.T.M. A 615 or Rail-Steel A.S.T.M. A 616 or Axle-Steel A.S.T.M. A 617.

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
5×4	2	40	21		39-5¾	109.51	0.7675	6133	49.97	2	5×4
	3	60	27	13	47-2½	165.22	1.1026	8995	66.83	3	
	4	80			54-11⅞	220.92	1.4378	11945	83.69	4	
	5	100			62-9¾	276.62	1.7729	15090	100.56	5	
	6	120			70-6½	332.33	2.1080	18291	117.42	6	

BILL OF REINFORCING STEEL FOR 44'-0" CULVERT

BARREL REINFORCEMENT

Size Feet	No.	#5 Bars A No.	Length Ft.-In.	#5 Bars A1 No.	Length Ft.-In.	#5 Bars A2 No.	Short Bar Ft.-In.	Var. In.	Long Bar Ft.-In.	#5 Bars B No.	Length Ft.-In.	#4 Bars C No.	Length ① Ft.-In.	#4 Bars D No.	Length Ft.-In.
5×4	2	84	12-0	116	4-4	96	1-9	50000	11-4	86	12-3¼	42	47-10	141	4-11
	3	72	17-6	200	4-4	148	1-9	50000	16-9	72	18-0½	62	47-10	188	4-11
	4	58	23-0	426	4-4	200	1-9	50000	22-2	60	23-9¾	82	47-10	235	4-11
	5	46	28-6	624	4-4	252	1-9	50000	27-7	48	29-7	102	47-10	282	4-11
	6	34	34-0	846	4-4	304	1-9	50000	33-0	34	35-4¼	122	47-10	329	4-11

WINGS AND CURBS REINFORCEMENT

No.	#4 Bars E No.	Length	#4 Bars F No.	Length	#4 Bars F1 No.	Length	#4 Bars F2 No.	Length	#4 Bars F3 No.	Length	#4 Bars J No.	Length	#4 Bars J1 No.	Length	#4 Bars O No.	Length	#4 Bars P No.	Length	#4 Bars P1 No.	Length	#4 Bars P2 No.	Length	#4 Bars P3 No.	Length	#4 Bars N No.	Length	#5 Bars M No.	Length	#5 Bars M1 No.	Length	#6 Bars X Ⓐ No.	Length	OPENINGS No.	Size Feet
2	48	7-5½	2	10-9	8	3-0	2	15-5	8	3-6	10	7-4	10	11-6	44	2-4	6	9-5	4	10-7	6	13-1	4	16-0	32	4-4	4	19-4	6	15-9	20	2-0	2	5×4
3	48	7-5½	2	10-9	8	3-0	2	15-5	8	3-6	10	7-4	10	11-6	44	2-4	6	9-5	4	10-7	6	13-1	4	16-0	48	4-4	4	27-2	6	23-7	20	2-0	3	
4	48	7-5½	2	10-9	8	3-0	2	15-5	8	3-6	10	7-4	10	11-6	44	2-4	6	9-5	4	10-7	6	13-1	4	16-0	64	4-4	4	34-11	6	31-4	20	2-0	4	
5	48	7-5½	2	10-9	8	3-0	2	15-5	8	3-6	10	7-4	10	11-6	44	2-4	6	9-5	4	10-7	6	13-1	4	16-0	78	4-4	4	44-7 ②	6	39-1	20	2-0	5	
6	48	7-5½	2	10-9	8	3-0	2	15-5	8	3-6	10	7-4	10	11-6	44	2-4	6	9-5	4	10-7	6	13-1	4	16-0	94	4-4	4	52-4 ②	6	48-9 ②	20	2-0	6	

(Lengths in Ft.-In.)

① Includes 1'-1"-6" Lap Splice ② Includes 1'-1"-10" Lap Splice Ⓐ #6 Bars X to be ¾"φ Smooth and Greased for 1'-0" of Length

STATE PROJECT	PARISH	SHEET NO.

C.C.S.M.5.R.45°-1

APPROVED BY:

Original Signed by Chief Engineer

CHIEF ENGINEER DATE

STANDARD PLAN
MULTIPLE OPENINGS
REINFORCED CONCRETE BOX CULVERTS
STRAIGHT WINGS 45° CROSSING
2:1 SPILL SLOPE NORMAL TO CHANNEL
DATED Aug. 28, 1967 2 THRU 6 - 5'×4'

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED W. E. M.	DETAILED A. P. Booz	TRACED E. S. Johnson, Jr.
CHECKED N. K. B.	CHECKED B. L. Burke	CHECKED W. E. Marcum
IN CHARGE OF		

DATE	DESCRIPTION	BY
1-5-78	Rev. Weep Hole Note	W.T.J.
5-30-75	Revised Spill Slope	W.T.J.
6-8-72	Rev. Gen. Notes for Steel	W.E.M.

REVISIONS

C.C.S.M. 5. R. 45°-1