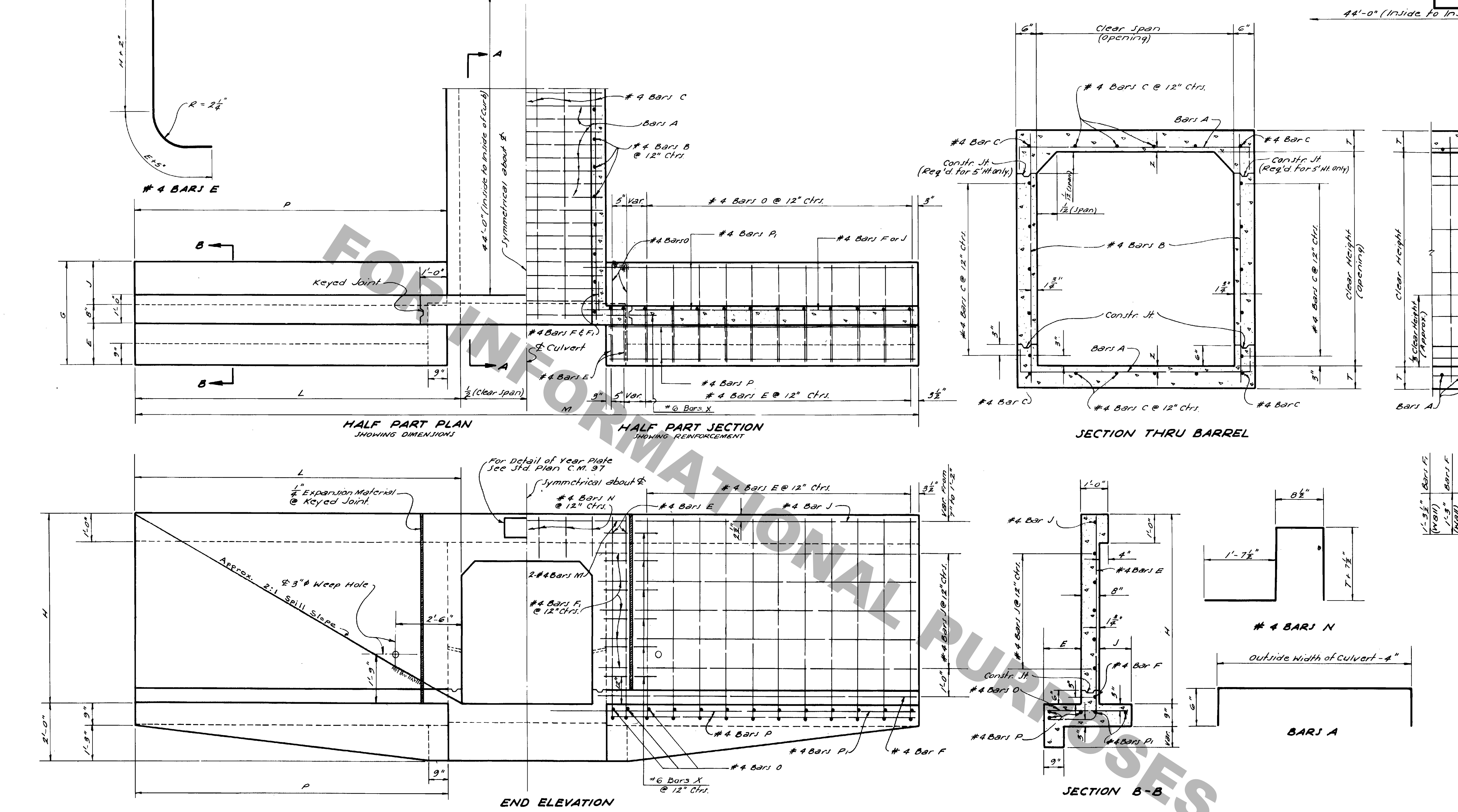
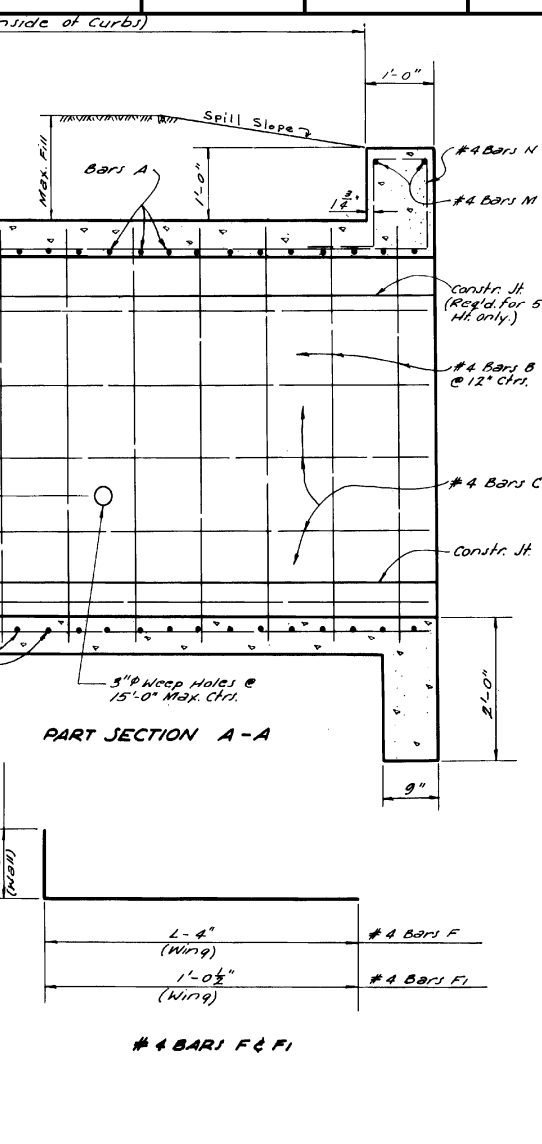
28-NOV-2007 09:48

F.A.P.	STATE PROJECT	PARISH	SHEET NO.





DIMENSIONS / **BILL OF REINFORCING STEEL FOR 44'-0" CULVERT** / **QUANTITIES**

Openings: Clear Span	Openings: Clear Height	Openings: Area	Max. Fill: Top Slab	Max. Fill: Bott. Slab	Max. Fill: Walls	Barrel: T	Barrel: Z	Wings & Curbs: E	J	G	H	L	P	M	Barrel Reinf. Bars A: Size	Bars A: Nº	Bars A: Length	Bars A: Space	#4 Bars B: Nº	#4 Bars B: Length	#4 Bars C: Nº	#4 Bars C: Length *	Wing & Curb Reinf. #4 Bars E: Nº	#4 Bars E: Length	#4 Bars F: Nº	#4 Bars F: Length	#4 Bars F1: Nº	#4 Bars F1: Length	#4 Bars J: Nº	#4 Bars J: Length	#4 Bars N: Nº	#4 Bars N: Length	#4 Bars O: Nº	#4 Bars O: Length	#4 Bars P: Nº	#4 Bars P: Length	#4 Bars P1: Nº	#4 Bars P1: Length	#4 Bars M: Nº	#4 Bars M: Length	#6 Bars X (A): Nº	#6 Bars X: Length	Per Lin. Ft. of Barrel: Steel	Per Lin. Ft. of Barrel: Conc.	44'-0" Culvert: Steel	44'-0" Culvert: Conc.	Openings: Clear Span	Openings: Clear Height
Feet	Ft.-In.	Sq. Ft.	Feet	Feet	Feet	In.	In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.			Ft.-In.	In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.	Lbs.	Cu. Yds.	Lbs.	Cu. Yds.	Feet	Ft. In.
2	2-0	4	44	42	54	6	1¾	0-9	0-8	2-1	3-6	6-0	5-6	14-0	#4	220	3-8	5	92	2-8	10	47-2	28	4-10	4	6-11	8	2-4	12	4-2	6	4-7	28	1-8	12	5-2	8	6-10	4	4-5	12	2-0	22.00	0.1862	1340	13.02	2	2-0
3	2-0	6	28	27	51	6½	1 13/16	0-9	0-8	2-1	3-6½	6-1	5-7	15-2	#5	170	4-8	6½	92	2-9	12	47-2	28	4-10½	4	7-0	8	2-4	12	4-3	8	4-8	28	1-8	12	5-3	8	6-11	4	5-5	12	2-0	29.66	0.2369	1717	15.58	3	2-0
	2-6	7.5	28	27	35	6½	1 13/16	0-9	0-8	2-1	4-0½	7-1	6-7	17-2	#5	170	4-8	6½	92	3-3	14	47-2	32	5-4½	4	8-0	8	2-4	16	5-3	8	4-8	32	1-8	12	6-3	8	7-11	4	5-5	12	2-0	31.67	0.2554	1877	17.46		2-6
	3-0	9	28	27	24	6½	1 13/16	1-0	0-8	2-4	4-6½	8-1	7-7	19-2	#5	170	4-8	6½	92	3-9	14	47-2	36	6-1½	4	9-0	12	2-4	16	6-3	8	4-8	36	1-11	12	7-3	8	8-11	4	5-5	16	2-0	32.33	0.2739	1995	19.68		3-0
4	2-0	8	21	20	50	7	1 13/16	0-9	0-8	2-1	3-7	6-2	5-8	16-4	#5	200	5-8	5½	92	2-10	14	47-2	28	4-11	4	7-1	8	2-4	12	4-4	10	4-9	28	1-8	12	5-4	8	7-0	4	6-5	12	2-0	38.93	0.2942	2152	18.45	4	2-0
	2-6	10	21	20	34	7	1 13/16	0-9	0-8	2-1	4-1	7-2	6-8	18-4	#5	200	5-8	5½	92	3-4	16	47-2	32	5-5	4	8-1	8	2-4	16	5-4	10	4-9	32	1-8	12	6-4	8	8-0	4	6-5	12	2-0	40.93	0.3128	2312	20.33		2-6
	3-0	12	21	20	24	7	1 13/16	1-0	0-8	2-4	4-7	8-2	7-8	20-4	#5	200	5-8	5½	92	3-10	16	47-2	36	6-2	4	9-1	12	2-4	16	6-4	10	4-9	36	1-11	12	7-4	8	9-0	4	6-5	16	2-0	41.60	0.3313	2431	22.56		3-0
	4-0	16	21	20	13	7	1 13/16	1-3	0-10	2-9	5-7	10-2	9-8	24-4	#5	200	5-8	5½	92	4-10	18	47-2	44	7-5	4	11-1	16	2-4	20	8-4	10	4-9	44	2-4	12	9-4	8	11-0	4	6-5	20	2-0	44.27	0.3683	2741	27.37		4-0
5	2-0	10	17	15	46	7½	1 13/16	0-9	0-8	2-1	3-7½	6-4	5-10	17-8	#5	220	6-8	5	92	2-11	18	47-2	28	4-11½	4	7-3	8	2-4	12	4-6	12	4-10	28	1-8	12	5-6	8	7-2	4	7-5	12	2-0	47.96	0.3583	2645	21.67	5	2-0
	2-6	12.5	17	15	33	7½	1 13/16	0-9	0-8	2-1	4-1½	7-4	6-10	19-8	#5	220	6-8	5	92	3-5	18	47-2	32	5-5½	4	8-3	8	2-4	16	5-6	12	4-10	32	1-8	12	6-6	8	8-2	4	7-5	12	2-0	49.96	0.3768	2743	23.57		2-6
	3-0	15	17	15	23	7½	1 13/16	1-0	0-8	2-4	4-7½	8-4	7-10	21-8	#5	220	6-8	5	92	3-11	18	47-2	36	6-2½	4	9-3	12	2-4	16	6-6	12	4-10	36	1-11	12	7-6	8	9-2	4	7-5	16	2-0	50.63	0.3953	2862	25.82		3-0
	4-0	20	17	15	13	7½	1 13/16	1-3	0-10	2-9	5-7½	10-4	9-10	25-8	#5	220	6-8	5	92	4-11	20	47-2	44	7-5½	4	11-3	16	2-4	20	8-6	12	4-10	44	2-4	12	9-6	8	11-2	4	7-5	20	2-0	53.30	0.4324	3173	30.65		4-0
	5-0	25	17	15	7	7½	1 13/16	1-5	1-2	3-3	6-7½	12-4	11-10	29-8	#5	220	6-8	5	92	5-11	22	47-2	52	8-7½	4	13-3	20	2-4	24	10-6	12	4-10	52	2-10	12	11-6	8	13-2	4	7-5	24	2-0	55.98	0.4694	3513	36.17		5-0

* Length Includes 1-1'-6" Lap Splice.

(A) #6 Bars X to be ¾"φ Smooth and Greased for 1'-0" of Length.

GENERAL NOTES:

CONSTRUCTION SPECIFICATIONS: Latest Approved La. Dept. of Highways Std. Specs.
DESIGN SPECIFICATIONS: A.A.S.H.O. 1957 as amended to Dec. 31, 1958.
LIVE LOAD: H20-S16-44.
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.
Concrete to be class "A".
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 Details of Joints, See Std. Plan C.M.-49.

APPROVED BY:
Dempsey D. White 1-5-78
CHIEF ENGINEER DATE

DATE	DESCRIPTION	BY
1-5-78	Rev. Weep Hole Note	W.T.J.
6-8-72	Rev. General Notes for Steel	W.E.M.
7-12-68	Rev. "4 Bars P & Quantities	W.E.M.
5-2-67	Added Axle Steel	W.E.M.
6-2-64	Deformed Dowels 'X' to Smooth	W.E.M.
11-13-61	Added #6 Dowels @ Keyed Jt.	[illegible]
9-23-59	Nº and Length of Bars C	M.C.L.

REVISIONS

CC-30-20

STANDARD PLAN
REINFORCED CONC. BOX CULVERT
STRAIGHT WINGWALLS
2:1 SPILL SLOPE NORMAL TO CHANNEL
2' THRU 5' CLEAR SPANS, 2' THRU 5' CLEAR HTS.
DATED May 19, 1959

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Malamos	DETAILED Malamos	TRACED E. C. Jelinger
CHECKED W.E. Marcum	CHECKED W.E. Marcum	CHECKED Malamos

FOR INFORMATIONAL PURPOSES ONLY

R:\Standard Plans\English\Old Sheets\CC-30-20.dgn