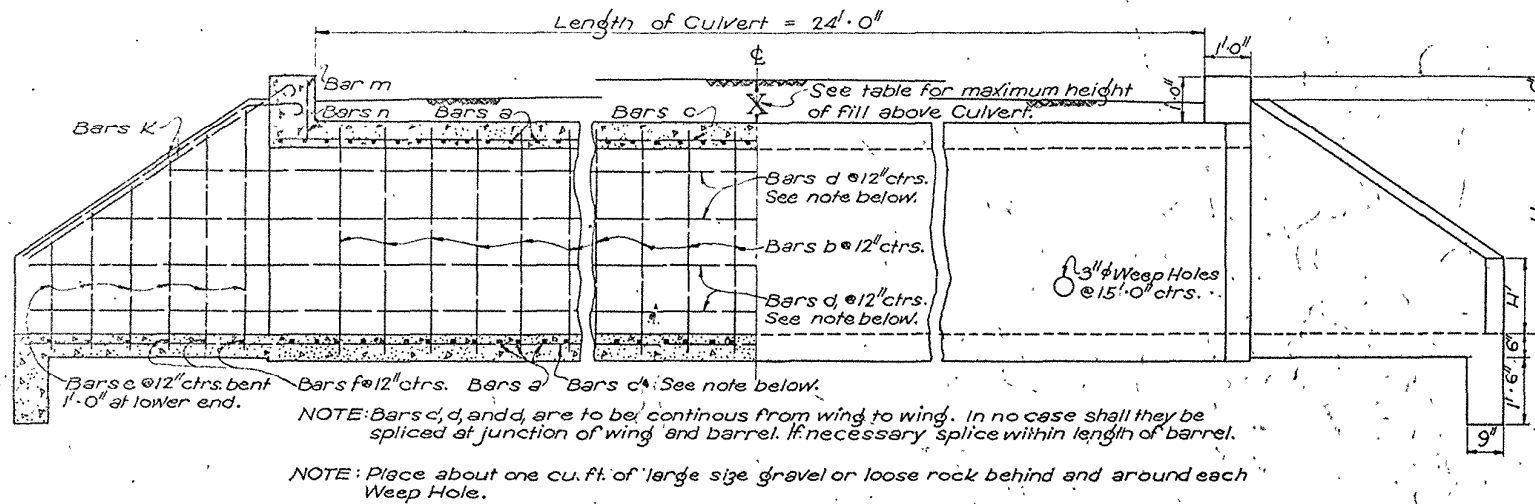
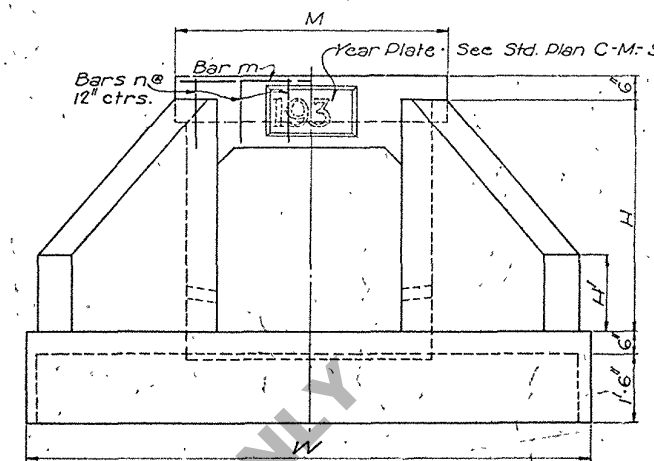
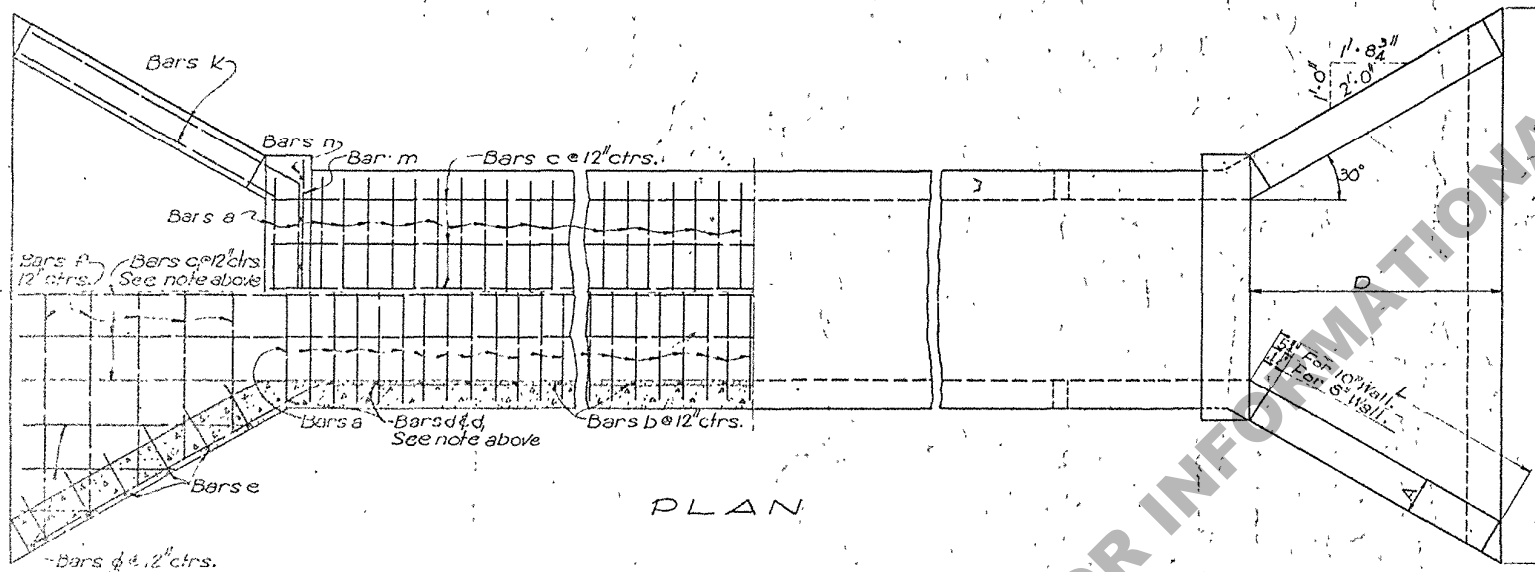


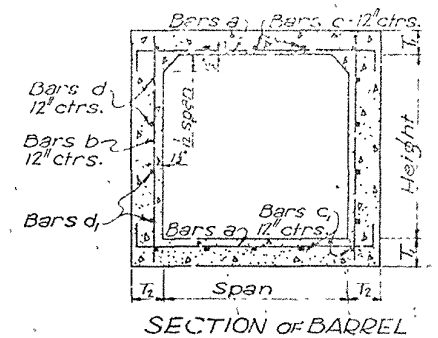


HALF LONGITUDINAL SECTION

HALF SIDE ELEVATION



END ELEVATION



STEEL SCHEDULE FOR 24' 0" CULVERT

OPENING CLEAR SPAN HEIGHT	BARREL REINFORCEMENT										WING WALL AND APRON REINFORCEMENT									
	BAR a	BAR b	BAR c	BAR d	BAR e	BAR f	BAR g	BAR h	BAR i	BAR j	BAR k	BAR l	BAR m	BAR n	BAR o	BAR p	BAR q	BAR r	BAR s	BAR t
2' 0"	79.3	9.8	50.2	9.3	25.0	3.32	5.31	3.3	2.4	7.4	4.1	4.4	0.1	2.6	4.2	3.0	4.8	5.4	2.3	3.3
2' 0"	89.4	9.7	50.2	9.4	25.9	4.32	5.31	3.3	2.4	7.4	4.1	4.5	0.1	2.7	4.2	3.0	4.8	5.4	2.4	3.3
2' 6"	89.4	9.7	50.3	9.3	4.25	4.33	5.31	3.3	2.6	7.4	4.3	4.5	0.1	2.8	4.2	1.9	3.3	6.4	9.6	2.4
3' 0"	89.4	9.7	50.3	9.4	4.25	4.34	5.31	3.3	2.8	7.4	5.0	4.5	0.1	2.8	4.2	2.7	3.1	9.4	4.0	1.3
2' 0"	104.5	9.6	50.2	11.5	25.9	5.32	7.31	6.6	2.4	7.4	4.1	4.6	0.1	2.8	4.2	3.0	4.8	5.6	2.5	3.2
2' 6"	104.5	9.6	50.3	9.5	25.9	5.33	7.31	6.6	2.6	7.4	4.3	4.6	0.1	2.9	4.2	1.9	3.3	6.4	9.6	2.5
3' 0"	104.5	9.6	50.3	11.5	25.9	5.34	7.31	6.6	2.8	7.4	5.0	4.6	0.1	2.9	4.2	2.7	3.1	9.4	4.0	1.3
4' 0"	104.6	1.6	50.4	11.5	25.9	5.36	9.31	6.3	3.0	7.4	5.1	4.6	0.1	2.10	8.2	1.6	1.3	5.0	4.8	1.3
2' 0"	104.6	9.6	50.3	9.6	25.9	6.32	9.31	8.8	2.4	7.4	4.1	4.7	0.1	2.9	4.2	3.0	4.8	5.8	2.6	3.4
2' 6"	104.6	9.6	50.3	9.6	25.9	6.33	9.31	8.8	2.6	7.4	4.3	4.7	0.1	2.10	6.6	2.1	1.3	5.0	4.8	1.3
3' 0"	104.6	9.6	50.4	9.6	25.9	6.34	9.31	8.8	2.8	7.4	5.0	4.7	0.1	2.10	6.6	2.7	3.1	9.4	4.0	1.3
4' 0"	104.7	1.6	50.5	9.6	25.9	6.36	11.31	8.3	3.0	7.4	5.1	4.7	0.1	2.11	8.2	1.6	1.3	5.0	4.8	1.3
5' 0"	104.7	1.6	50.6	9.6	25.9	6.39	5.31	8.3	3.2	7.4	7.3	4.7	0.1	2.12	10.2	2.10	1.3	5.0	4.8	1.3

* NOTE: To obtain lengths of intermediate bars, use "Variation" as increment between short and long bars.

DIMENSIONS & QUANTITIES FOR 24' 0" CULVERT

CELLAR CLEAR SPAN		HEIGHT		AREA		WINGS AND FLOOR																TWO HEADWALLS											
						T		T		M		H		H'		L		A		W		D		Y		STEEL CONC.		STEEL CONC.		STEEL CONC.		STEEL CONC.	
FE.	FE.	In.	Sq. Ft.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	Lbs.	Cu Yds.	Lbs.	Cu Yds.	Lbs.	Cu Yds.	Lbs.	Cu Yds.	
2	2	0	4.0	6	6	3	6.3	0.1	0.3	10	8	7	4	3	4	12	22.74	1862	757	700	211	253											
3	2	0	6.0	6	6	4	6.3	0.1	0.3	10	8	8	4	3	4	14	28.72	2245	923	834	238	295											
	2	6	7.5	6	6	4	6.3	0.1	0.3	10	8	8	11	3	10	12	29.17	2431	978	877	263	341											
	3	0	9.0	6	6	4	6.4	0.1	0.3	10	8	9	6	4	17	32.12	2614	1032	928	281	403												
4	2	0	8.0	7	6	5	6.3	1.1	0.4	0	8	3	6	3	5	9	36.41	2942	1140	1052	266	341											
	2	6	10.0	7	6	5	6.3	1.1	0.4	0	8	10	0	3	11	9	37.26	3128	1198	1147	303	396											
	3	0	12.0	7	6	5	6.4	1.1	0.4	5	1	8	10	7	4	5	39.8	3513	1317	1248	356	453											
	4	0	16.0	7	8	5	11	5	1	0	6	4	10	12	3	5	6	44.74	4721	1527	1701	463	604										
5	2	0	10.0	7	6	6	6.3	1.1	0.4	1	8	10	7	3	6	5	41.05	3583	1293	1254	293	394											
	2	6	12.5	7	6	6	6.3	1.1	0.4	7	8	11	1	4	0	5	42.30	3768	1353	1350	333	446											
	3	0	15.0	7	6	6	6.4	1.1	0.4	5	2	8	11	6	4	6	45.05	3953	1463	1454	387	505											
	4	0	20.0	7	8	6	11	5	1	0	6	5	10	13	4	5	7	49.58	4972	1687	1917	457	724										
	5	0	25.0	7	8	6	11	6	1	0	7	11	10	14	10	6	10	52.36	5466	1915	2242	644	932										

BAR BENDING DIAGRAM

GENERAL NOTES & DESIGN DATA

Construction Specs. Latest Approved La. Hwy. Dept. Std. Specs.
 Concrete: All Class A 1:6 mix.
 Steel: All 1" bars, deformed.
 All exposed corners to be chamfered 1/2".

Reinforcing bars should be wired at intersections and properly secured against displacement during depositing of concrete.
 Design Specs. La. Hwy. Commission Std. Spec. Feb. 1929.
 Concentrated Load: 15 Ton typical truck with 30% impact allowance.
 Entire weight of fill above culvert assumed as acting on culvert.
 Horizontal component of earth taken as 30 lbs. per sq. ft.
 Steel in tension - 16,000 lbs. concrete in compression - 650 lbs.
 Fill above slab of culvert is not to exceed the maximum height 1/2".
 All dimensions referring to bars are to centers of bars.
 Bars at splices to be lapped 2' 0" and separated 2'.

Revision and replacement of Standard Plan B-2-5b.

CONCRETE BOX CULVERTS
 PLACING WING WALLS
 2' TO 5' SPANS
 STANDARD PLAN
 LOUISIANA HIGHWAY COMMISSION