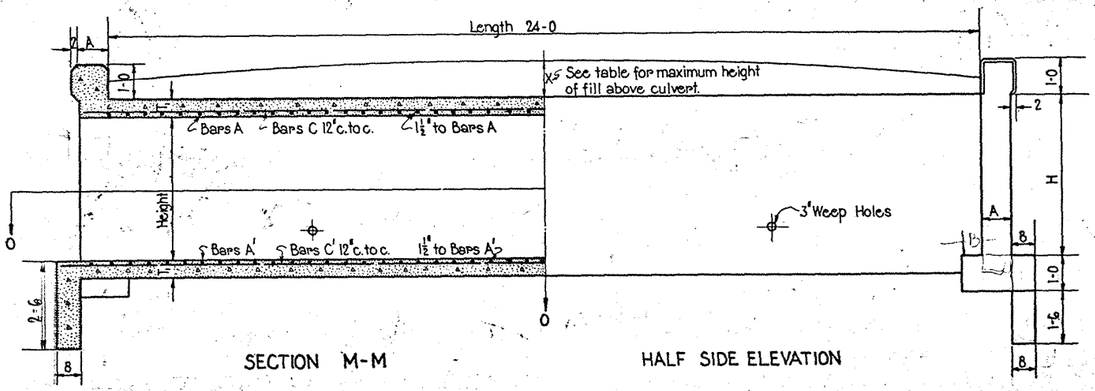
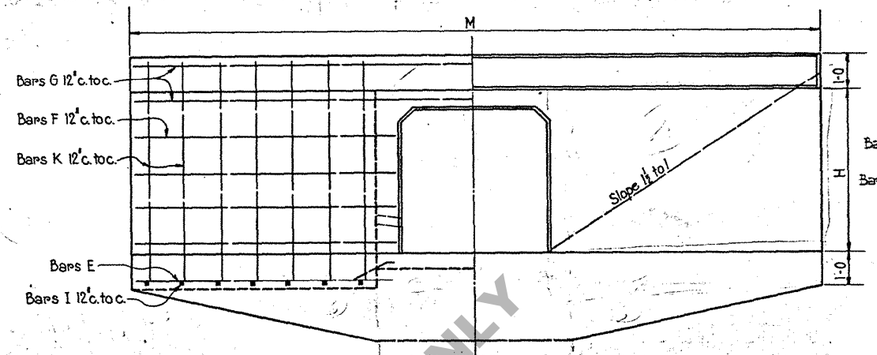
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
8	LA.				

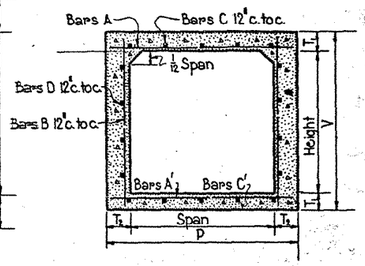


SECTION M-M

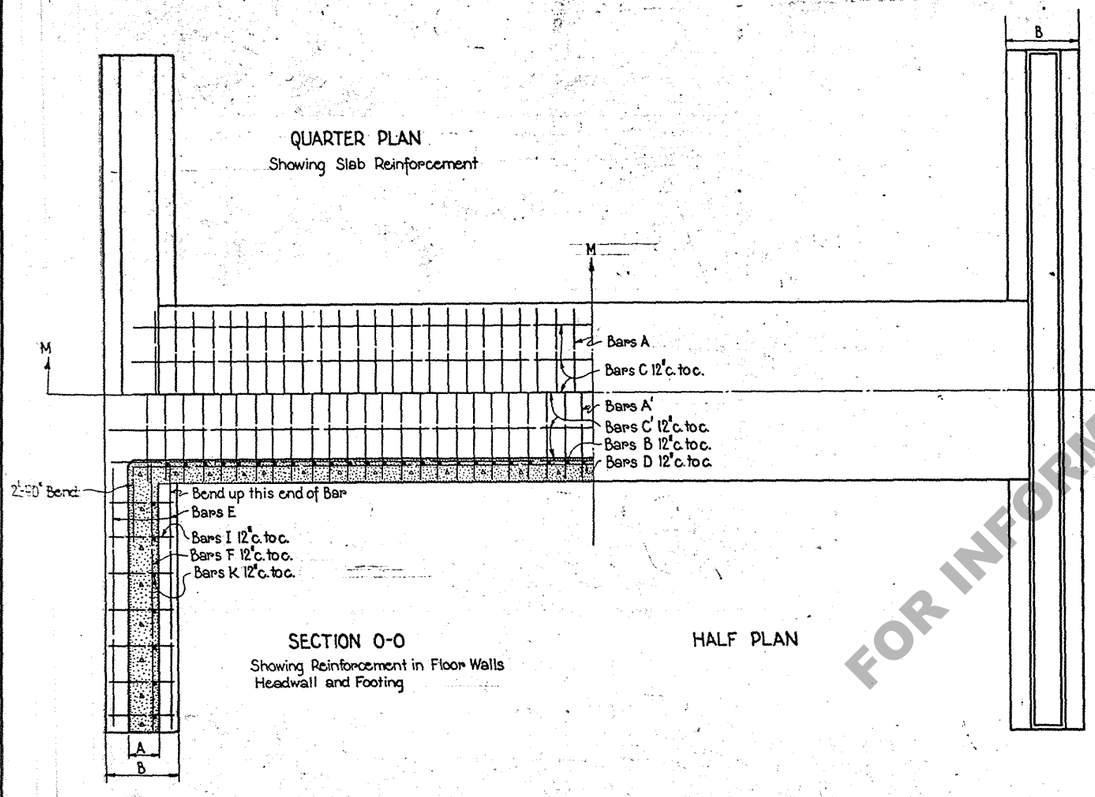
HALF SIDE ELEVATION



FRONT ELEVATION



SECTION OF BARREL



QUARTER PLAN
Showing Slab Reinforcement

SECTION O-O
Showing Reinforcement in Floor Walls Headwall and Footing

HALF PLAN

OPENING		BARREL OF CULVERT												TWO HEADWALLS										
		STEEL REINFORCEMENT ALL ½" ø BARS										CONCRETE		STEEL REINFORCEMENT ALL ½" ø BARS										CONCRETE
CLEAR SPAN FT.	CLEAR HEIGHT FT.-IN.	Bars A			Bars B		Bars C		Bars D		WEIGHT	PER LINEAL FOOT CU.YDS.	TOTAL CU.YDS.	Bars E		Bars F		Bars G		Bars K		Bars I		WEIGHT TOTAL LBS.	TOTAL CU. YDS.
		LENGTH	NO. REQ'D.	SPCG. C. to C.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO REQ'D.	PER LINEAL FT.	TOTAL LBS.		LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.	LENGTH	NO. REQ'D.		
2	2-0	2'-9"	74	8"	2'-9"	52	25'-1"	6	29'-1"	4	20	521	.186	4.46	4'-3"	8	4'-3"	8	10'-9"	4	4'-3"	20	1'-5"	20	191	3.56
3	2-0	3-9	85	7	2-9	52	25-1	8	29-1	4	26	602	.225	5.40	4-3	8	4-3	8	11-9	4	4-3	20	1-5	20	194	3.78
	2-6	3-9	85	7	3-3	52	25-1	8	29-1	6	28	734	.243	5.83	5-0	8	5-0	10	13-3	4	4-9	20	1-5	20	235	4.56
	3-0	3-9	85	7	3-9	52	25-5	8	29-5	6	29	760	.261	6.26	5-9	8	5-9	12	14-9	4	5-3	24	1-9	24	291	6.45
4	2-0	4-9	99	6	2-11	52	25-1	10	29-1	4	33	841	.294	7.06	4-3	8	4-3	8	12-9	4	4-4	20	1-5	20	199	4.09
	2-6	4-9	99	6	3-5	52	25-1	10	29-1	6	35	913	.312	7.49	5-0	8	5-0	10	14-3	4	4-10	20	1-5	20	240	4.87
	3-0	4-9	99	6	3-11	52	25-5	10	29-5	6	36	939	.331	7.94	5-9	8	5-9	10	15-9	4	5-4	24	1-9	24	296	6.80
	4-0	5-1	99	6	4-11	52	25-5	10	29-5	8	41	1061	.432	10.37	7-3	8	7-3	16	18-9	4	6-4	32	1-11	32	436	9.31
5	2-0	5-9	99	6	3-0	52	25-1	12	29-1	4	38	972	.358	8.59	4-3	8	4-3	8	13-9	4	4-4	20	1-5	20	202	4.36
	2-6	5-9	99	6	3-6	52	25-1	12	29-1	6	41	1043	.377	9.05	5-0	8	5-0	10	15-3	4	4-10	20	1-5	20	243	5.15
	3-0	5-9	99	6	4-0	52	25-5	12	29-5	6	42	1070	.395	9.48	5-9	8	5-9	12	16-9	4	5-4	24	1-9	24	299	7.13
	4-0	6-1	99	6	5-0	52	25-5	12	29-5	8	46	1192	.497	11.93	7-3	8	7-3	16	19-9	4	6-4	32	1-11	32	440	9.66
	5-0	6-1	99	6	6-0	52	25-5	12	29-5	10	50	1287	.546	13.10	8-9	8	8-9	20	22-9	4	7-4	36	2-1	36	574	12.70

DIMENSIONS & TOTAL QUANTITIES

SPAN FT.	HEIGHT FT.-IN.	AREA SQ. FT.	T_1 IN.	T_2 IN.	M FT.-IN.	H FT.-IN.	A IN.	B FT.-IN.	X FT.	V FT.-IN.	P FT.-IN.	STEEL LBS.	CONCRETE CU.YDS.	
2	2-0	4.0	6	6	11-0	2-6	8	1-8	12	3-0	3-0	712	8.04	8.04
3	2-0	6.0	6	6	12-0	2-6	8	1-8	12	3-0	4-0	796	9.2	9.19
	2-6	7.5	6	6	13-6	3-0	8	1-8	12	3-6	4-0	929	10.4	10.42
	3-0	9.0	6	6	15-0	3-6	10	2-0	12	4-0	4-0	1051	12.7	12.73
4	2-0	8.0	7	6	13-0	2-7	8	1-8	9	3-2	5-0	1040	11.2	11.18
	2-6	10.0	7	6	14-6	3-1	8	1-8	9	3-8	5-0	1153	12.4	12.41
	3-0	12.0	7	6	16-0	3-7	10	2-0	9	4-2	5-0	1235	14.7	14.77
	4-0	16.0	7	8	19-0	4-7	10	2-2	9	5-2	5-4	1497	19.7	19.72
5	2-0	10.0	7½	6	14-0	2-7½	8	1-8	5	3-3	6-0	1174	13.0	13.00
	2-6	12.5	7½	6	15-6	3-1½	8	1-8	5	3-9	6-0	1286	14.2	14.23
	3-0	15.0	7½	6	17-0	3-7½	10	2-0	5	4-3	6-0	1369	16.6	16.66
	4-0	20.0	7½	8	20-0	4-7½	10	2-2	5	5-3	6-4	1632	21.6	21.63
	5-0	25.0	7½	8	23-0	5-7½	10	2-4	5	6-3	6-4	1861	25.8	25.80

GENERAL NOTES & DESIGN DATA

General Specifications:- La. State Highway Dept. Spec.
Concrete - all class A - 1:2:4 mix.
Steel - all ½" ø bars, deformed.
All exposed corners to be chamfered ¾ in.
All exposed surfaces to be given a smooth finish
In computing the total quantities for "Barrel of Culvert" above, the barrel was assumed as extending the clear width of roadway only
Design Loads:-
Concentrated load - 15 ton typical truck, with 30% impact allowance distributed as specified in general specifications.
Entire weight of fill above culvert assumed as acting on culvert.
Horizontal component of earth pressure taken as 30 lbs. per sq. ft.
Steel in tension - 16000 lbs. Concrete in compression - 650 lbs.
Fill above slab of culvert is not to exceed the maximun height "X" as given in table.
For multiple opening use same dimensions and steel. Intermediate walls to be 8" thick, with same reinforcement as side walls.
All dimensions refering to bars are to centers of bars.
Reinforcing bars should be wired at intersections and properly secured against displacement during depositing of concrete.

GENERAL NOTES only

Plscard

CONCRETE BOX CULVERTS

STRAIGHT HEADWALLS

2 FT. TO 5 FT. SPANS

Louisiana State Highway Department
Board of State Engineers

NEW ORLEANS, LA. SCALE ½ IN. = 1 FT. JULY 1921

see B-3-5a July 27-1921

Approved:- H. Duncan Rose
STATE HIGHWAY ENGINEER

RETRACED JUNE 28, 1929

Design - Adopted from B.P.R. Standard plan G-223
Revised - July 25, 1921, Superceding Plan B-2-5

FOR INFORMATIONAL PURPOSES ONLY