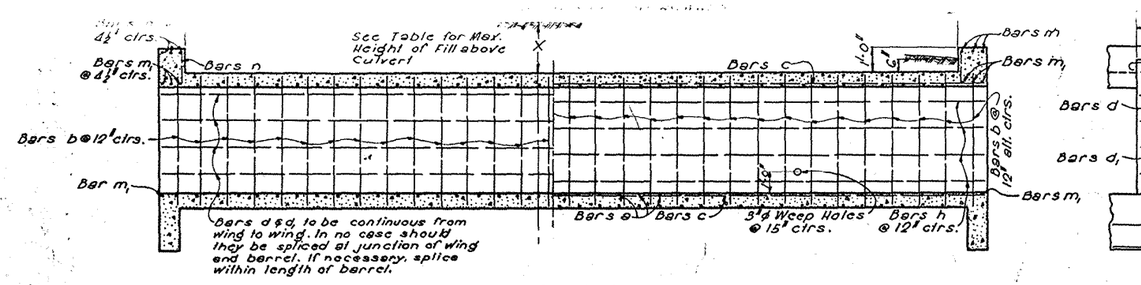
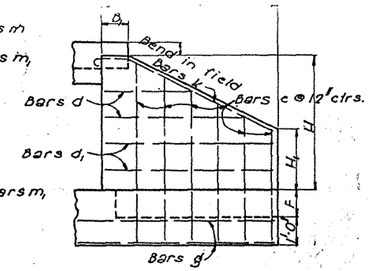
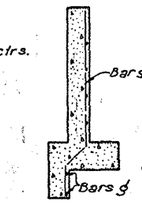


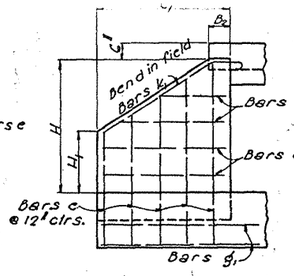
SECTION A·A



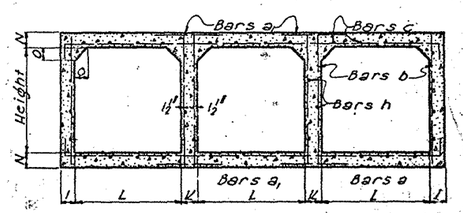
VIEW B·B



SECTION OF WING

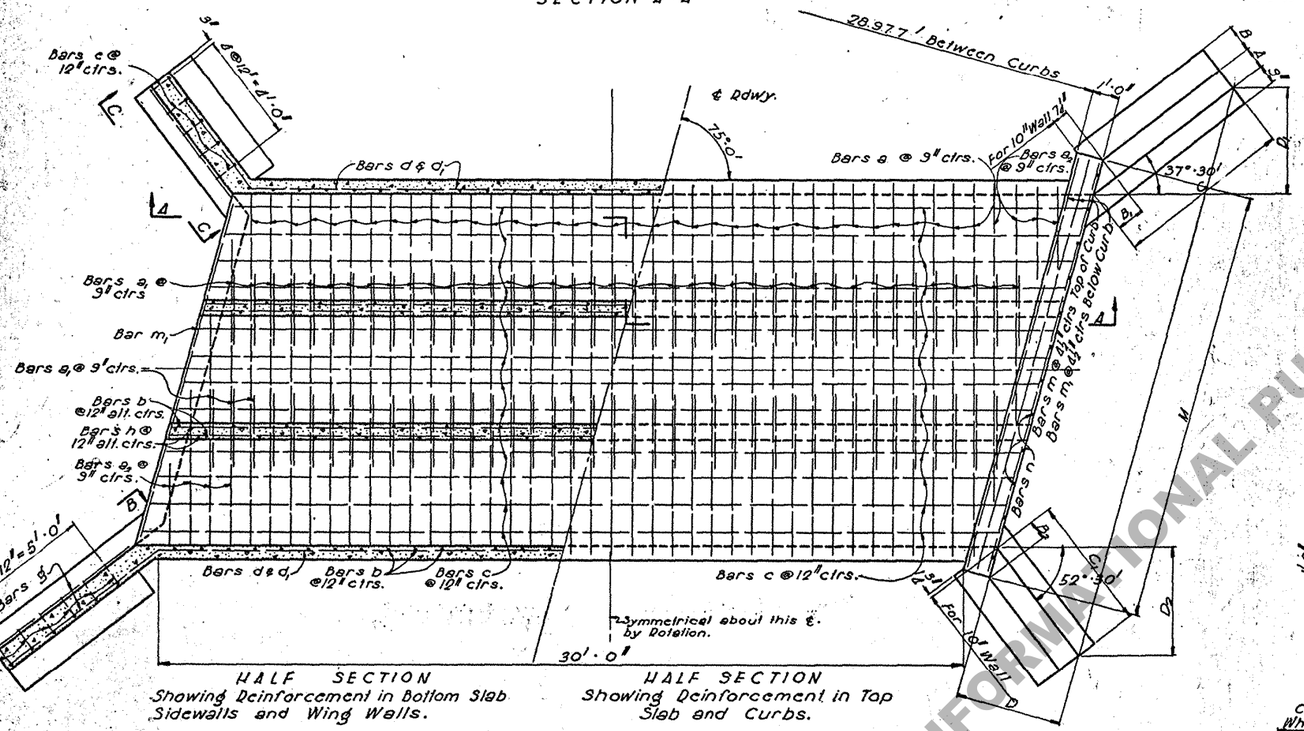


VIEW C·C



SECTION OF BARREL

Total Clear Span = L × No. of Openings

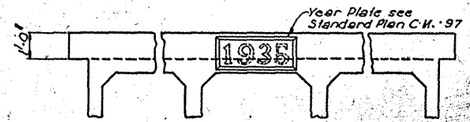


HALF SECTION
Showing Reinforcement in Bottom Slab Sidewalls and Wing Walls.

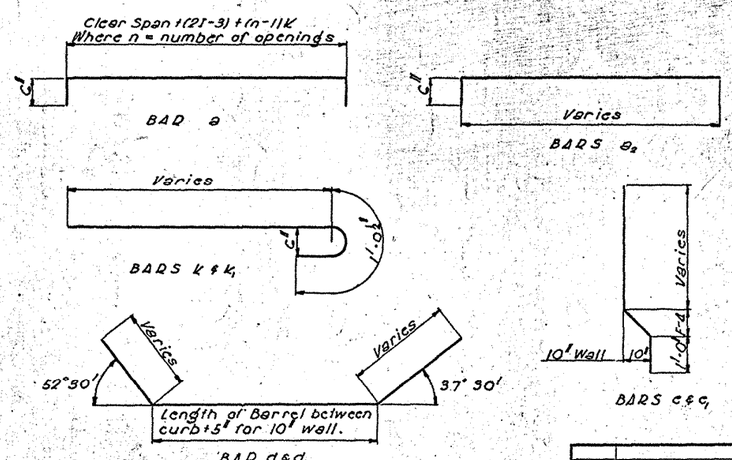
HALF SECTION
Showing Reinforcement in Top Slab and Curbs.

DIMENSIONS AND QUANTITIES FOR 30'-0" CULVERT

Dimension of Single Opening	Openings			X	Barrel				Wings and Curb																				Per Lin. Ft. of Barrel		Total Quantities	
	No. of Openings	Total Clear Span	Area		I	N	K	O	M	A	B	B_1	B_2	C	C_1	D	D_1	D_2	F	H	H_1		Steel	Conc.	Steel	Conc.
Ft.		Ft.	Sq. Ft.	Ft.	In.	In.	In.	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.		Lbs.	Cu. Yds.	Lbs.	Cu. Yds.
3×3	2	6	18																													
	3	9	27																													
	4	12	36																													
	5	15	45																													
	6	18	54																													
4×4	2	8	32	3																												
	3	12	48	3	6	6	7	6	6·1	7·0	1·0	1·0	1·0	7·6	7·5	0·5	4·0	4·0	4·0	1·0	5·0	2·4	92.13	8.75	3155	35.29
	4	16	64	3																												
	5	20	80	3																												
	6	24	96	3																												
5×5	2	10	50																													
	3	15	75																													
	4	20	100																													
	5	25	125																													
	6	30	150																													
6×6	2	12	72																													
	3	18	108																													
	4	24	144																													
	5	30	180																													
	6	36	216																													
8×8	2	16	128																													
	3	24	192																													
	4	32	256																													
	5	40	320																													
	6	48	384																													



VIEW Normal to Curb



BAR BENDING DIAGRAMS

REINFORCEMENT FOR 30 FT. CULVERTS

Opening Height	Total Clear Span	Barrel Reinforcement: Bars a			Bars a_2			Bars a_1			Bars b		Bars c		Bars d				Bars d_1		Bars h		Long Wing: Bars k		Bars g		Bars c				Short Wing: Bars k_1		Bars g_1		Bars c_1				Curb & Top of Addon: Bars m		Bars n		Bars m_1	
		No.	Lgth.	Spacing	No.	Lgth.	No. of Each	Short Lgth.	Variation	Long Lgth.	No.	Lgth.	No.	Lgth.	No. of Each	Short Lgth.	Variation	Long Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No. of Each	Short Lgth.	Variation	Long Lgth.	No.	Lgth.	No.	Lgth.	No. of Each	Short Lgth.	Variation	Long Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.
Ft.	Ft.		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.		Ft.-In.		Ft.-In.	Ft.-In.	Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.	Ft.-In.	Ft.-In.		Ft.-In.		Ft.-In.		Ft.-In.
3	6																																											
	9																																											
	12																																											
	15																																											
	18																																											
4	8																																											
	12	74	14·11	9	100	2·9	4	4·0	2·9	12·3	128	4·9	24	5·9	2	3C·5	3·9	40·4	4	4·9	8	9·6	4	7·10	4	6·9	2	4·6	0·3	6·10	4	6·10	4	4·9	2	4·6	0·7	6·10	6	15·9	32	1·9	8	14·5
	16																																											
	20																																											
	24																																											
5	10																																											
	15																																											
	25																																											
	30																																											
	35																																											
6	12																																											
	18																																											
	24																																											
	30																																											
	36																																											
8	16																																											
	24																																											
	32																																											
	40																																											
	48																																											

GENERAL NOTES & DESIGN DATA

Const. Specs. – Latest Approved La. Hwy. Dept. Std. Specs.
Design Specs. – La. Hwy. Comm. 1929.
Concrete: All Class "A".
Steel: All ½" ϕ deformed bars.
All exposed corners to be chamfered ¾".

Load Designs:
Concentrated Load: 15 ton Typical Truck with 30% impact allowance distributed as specified in General Specifications.
Entire weight of all fill above culvert assumed as acting on culvert.
All dimensions relating to bars are to center of bars.
Bars of splices are to be lapped 2'-0".
Reinforcing bars should be wired at intersections and properly secured against displacement during pouring of concrete.

DISCARDED 3-7-57 CEH

MULTIPLE
CONCRETE BOX CULVERTS
6 FT. TO 48 FT. SPANS ~ 3 FT. TO 8 FT. HEIGHT
75° CROSSING

LOUISIANA HIGHWAY COMMISSION
BATON ROUGE, LA. 7 1935

Date	Description	By
Jan. 46	Gen. Notes & Std. No.	

REVISIONS

Designed	Detailed P. Olivier	Traced
Checked	Checked J. Emery	Checked Rolando
In Charge of		Bridge Designing Engineer

FOR INFORMATIONAL PURPOSES ONLY