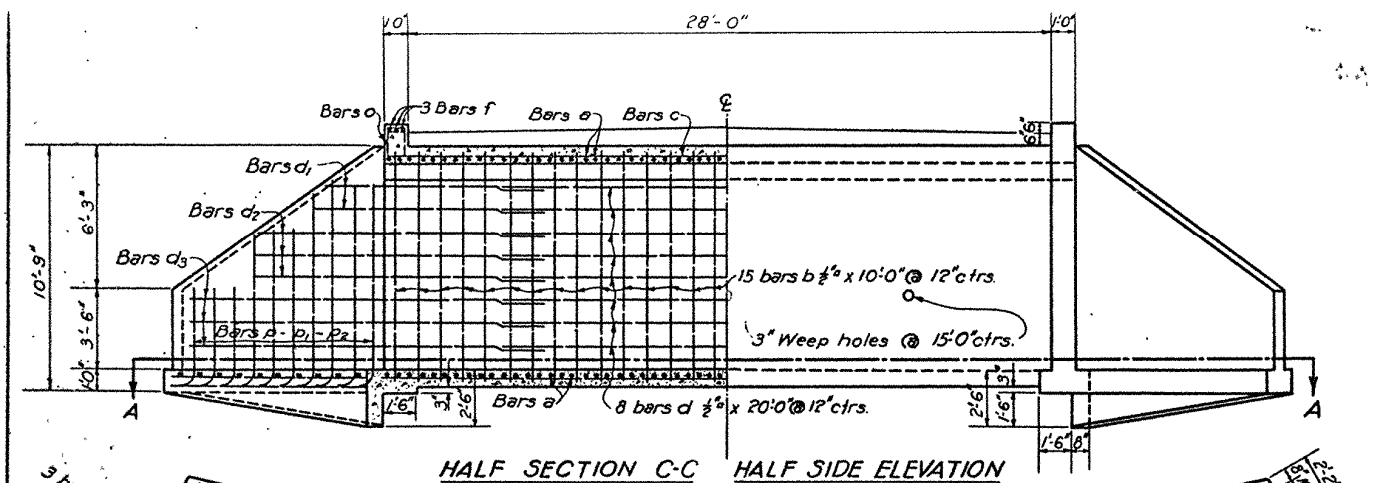
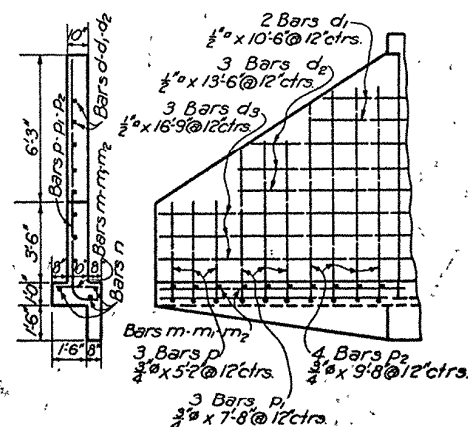
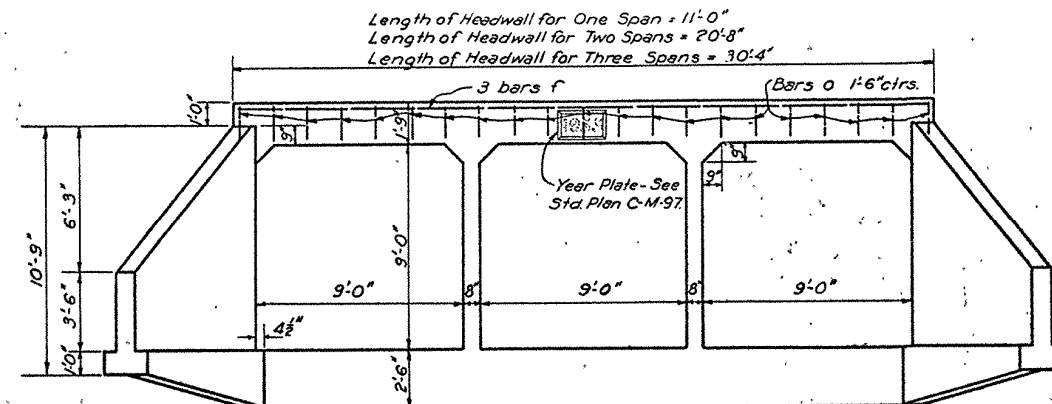




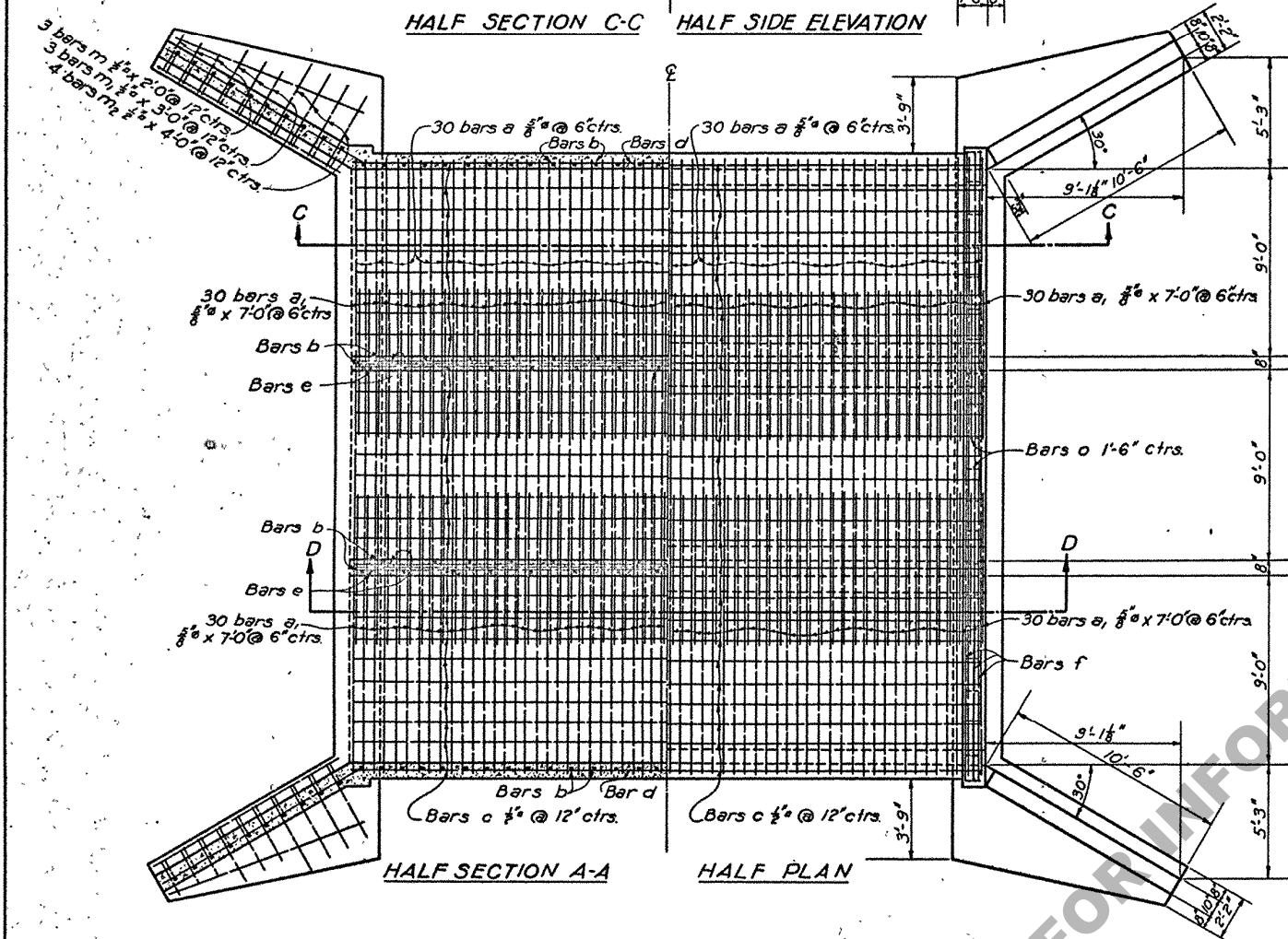
HALF SECTION C-C HALF SIDE ELEVATION



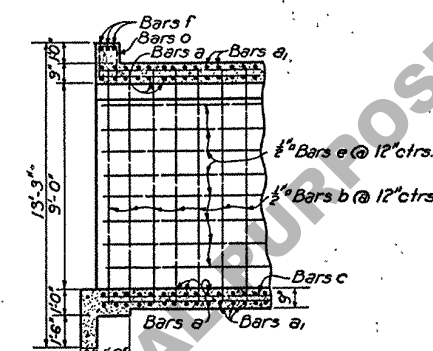
END AND FRONT ELEVATION OF WING



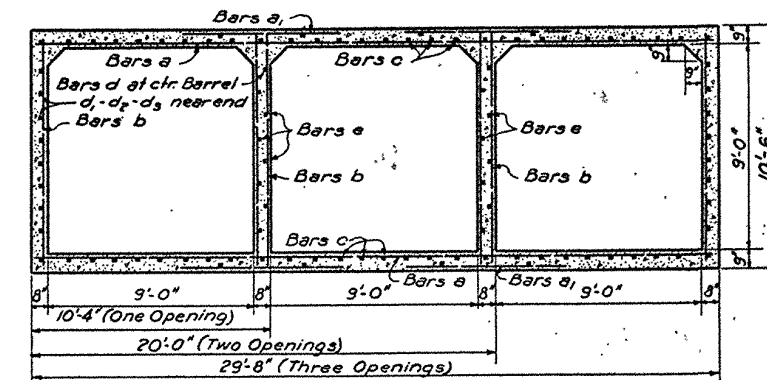
END ELEVATION



HALF SECTION A-A HALF PLAN



PART SECTION D-D

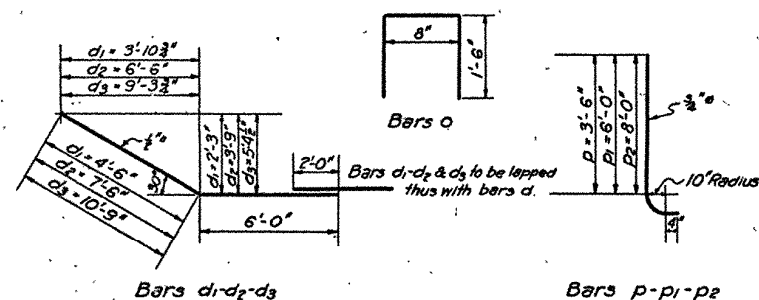


SECTION OF BARREL

BILL OF MATERIALS FOR 28'-0" CULVERT														
		ONE SPAN(9x9' CLEAROPENING)				TWO SPANS(9x18' CLEAROPENING)				THREE SPANS(9x27' CLEAROPENING)				Location
Name	Size	No.	Unit Lgth.	Total Lgth.	Weight	No.	Unit Lgth.	Total Lgth.	Weight	No.	Unit Lgth.	Total Lgth.	Weight	
a	3/8"	120	9'-10"	1180'-0"		120	19'-6"	2340'-0"		120	29'-2"	3500'-0"		Transv. in Top & Bottom Slabs
a ₁						120	7'-0"	840'-0"		240	7'-0"	1680'-0"		Transv. in Top & Bot. Slabs over Vert. Walls
Total 3/8" Bars				1180'-0"	1231 #			3180'-0"	3317 #			5180'-0"	5403 #	
b	1/2"	60	10'-0"	600'-0"		90	10'-0"	900'-0"		120	10'-0"	1200'-0"		Vertical in Barrel Walls
c	"	20	29'-6"	590'-0"		42	29'-6"	1239'-0"		64	29'-6"	1888'-0"		Longitudinal in Top & Bot. Slabs
d	"	16	20'-0"	320'-0"		16	20'-0"	320'-0"		16	20'-0"	320'-0"		Horizontal in outside Barrel Walls
d ₁	"	8	10'-6"	84'-0"		8	10'-6"	84'-0"		8	10'-6"	84'-0"		Horiz. in Wings - Ties to d Bars in Barrel Wall
d ₂	"	12	13'-6"	162'-0"		12	13'-6"	162'-0"		12	13'-6"	162'-0"		" " " " " " " "
d ₃	"	12	16'-9"	201'-0"		12	16'-9"	201'-0"		12	16'-9"	201'-0"		" " " " " " " "
e	"					8	29'-0"	232'-0"		16	29'-0"	464'-0"		Horiz. in Intermediate Barrel Walls
f	"	6	10'-6"	63'-0"		6	20'-2"	121'-0"		6	29'-10"	179'-0"		Longitudinal in Top of Headwalls
m	"	12	2'-0"	24'-0"		12	2'-0"	24'-0"		12	2'-0"	24'-0"		Transverse in Wing Footings
m ₁	"	12	3'-0"	36'-0"		12	3'-0"	36'-0"		12	3'-0"	36'-0"		" " " " " " " "
m ₂	"	16	4'-0"	64'-0"		16	4'-0"	64'-0"		16	4'-0"	64'-0"		" " " " " " " "
n	"	12	10'-0"	120'-0"		12	10'-0"	120'-0"		12	10'-0"	120'-0"		Longitudinal in Wing Footings
o	"	16	3'-8"	58'-8"		28	3'-8"	102'-8"		42	3'-8"	154'-0"		Vertical in Top of Headwalls
Total 1/2" Bars				2322'-8"	1974 #			3605'-8"	3065 #			4896'-0"	4162 #	
p	3/4"	12	5'-2"	62'-0"		12	5'-2"	62'-0"		12	5'-2"	62'-0"		Vertical in Wings
p ₁	"	12	7'-8"	92'-0"		12	7'-8"	92'-0"		12	7'-8"	92'-0"		" " " " " " " "
p ₂	"	16	9'-8"	154'-8"		16	9'-8"	154'-8"		16	9'-8"	154'-8"		" " " " " " " "
Total 3/4" Bars				308'-8"	464 #			308'-8"	464 #			308'-8"	464 #	
Total Weight					3669 #				6846 #				10029 #	
STEEL					366.9 Pounds				684.6 Pounds				1002.9 Pounds	
CONCRETE					48.54 Cu. Yds.				75.10 Cu. Yds.				99.27 Cu. Yds.	
STEEL PER LIN. FT. BARREL					88.61 Pounds				132.16 Pounds				295.69 Pounds	
CONC. " " " "					1.04 Cu. Yds.				1.82 Cu. Yds.				2.60 Cu. Yds.	

GENERAL NOTES:-
 Const. Specs. - Latest Approved La. Hwy. Dept. Std. Specs.
 Design Specs. - La. Hwy. Comm. 1925.
 Assumed Live Load - 2 Typical, 15-Ton Trucks.
 Maximum height of fill = 5'-0".
 Concrete to be Class A throughout.
 All reinforcing steel shall be deformed bars.
 Square twisted bars not to be considered as deformed.
 Where splicing of bars is necessary they shall be lapped
 40 diameters.
 All exposed corners to be chamfered 1/2".

Place about One (1) Cu. ft. of large size gravel or loose rock
 behind and around each Weep hole.



BENDING DIAGRAMS

DISCARDED
 3-7-57
 CEA

STANDARD PLAN
 9x9' REIN. CONCRETE BOX CULVERT
 ONE-TWO OR THREE OPENINGS
 LOUISIANA HIGHWAY COMMISSION
 BATON ROUGE, LA. January 1927

DESIGNED E.L.E. & T.A.B.	DETAILED T.A.B.	TRACED T.B.S.
CHECKED T.B.S.	CHECKED T.B.S.	CHECKED E.L.E.
IN CHARGE OF <i>Charles A. Miller</i> BRIDGE DESIGNING ENGINEER		

C-C-17-15 C-C-17-