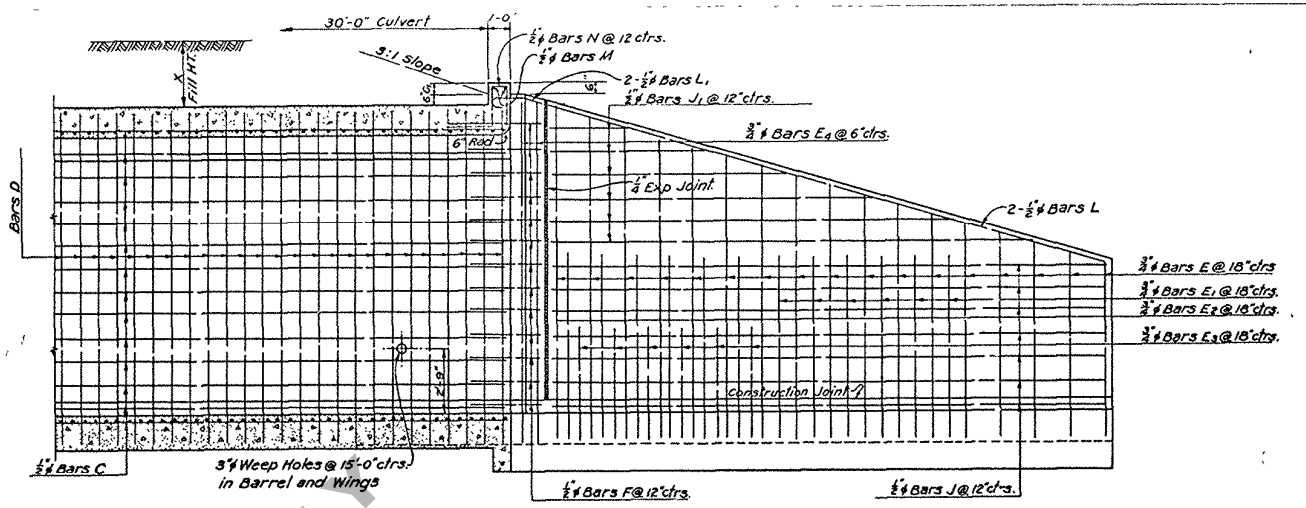
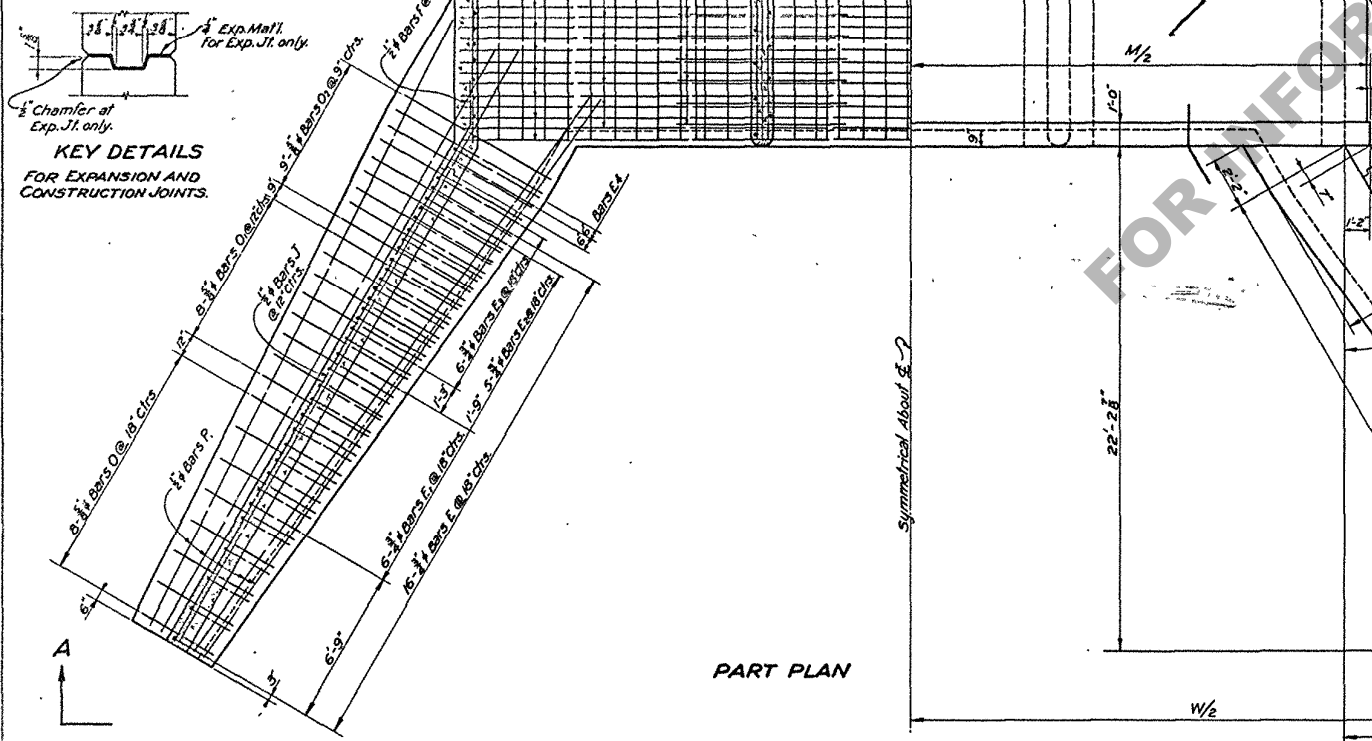
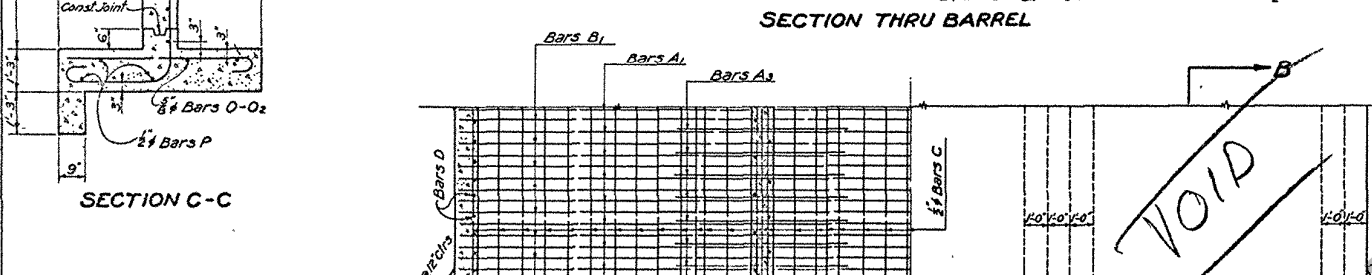
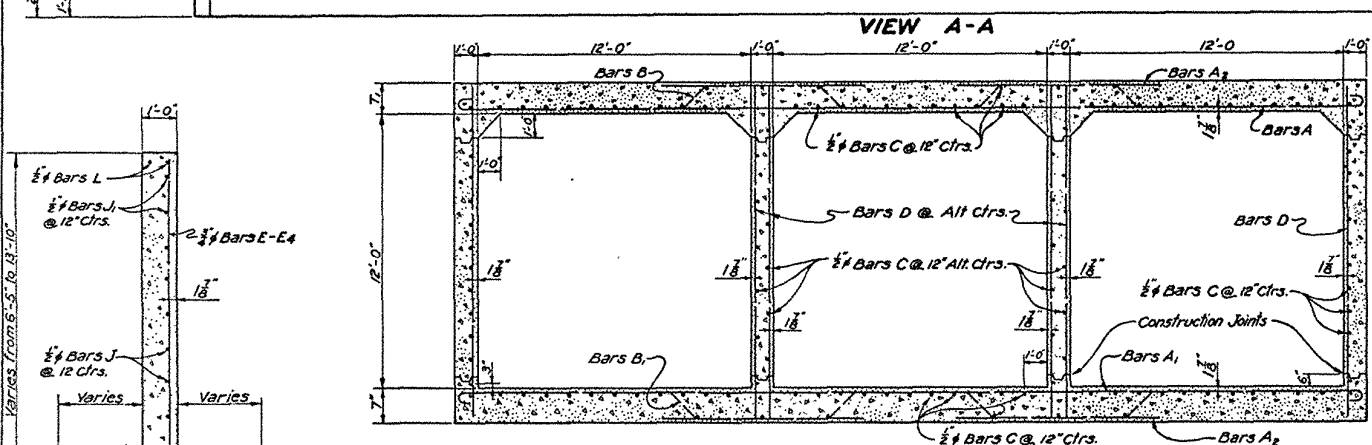
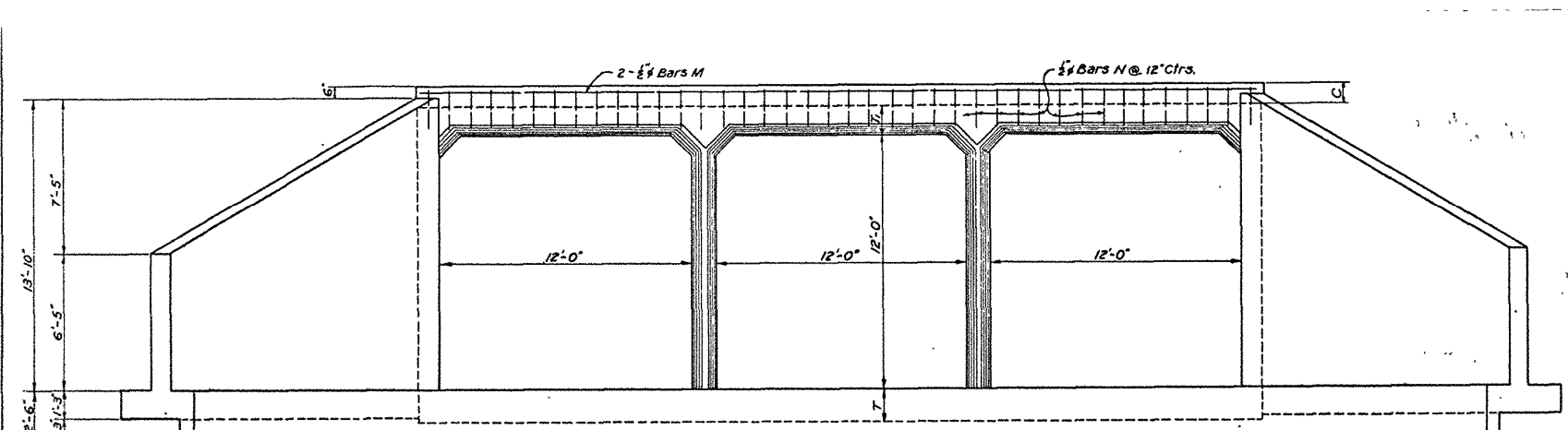




SECTION B-B																																													
X	CURB REINFORCING										BARREL REINFORCING																		X																
FILL HEIGHT	NO. OPENINGS	1/2# BARS M		1/2# BARS N		BARS A		BARS A ₁		BAR A ₂		BARS B		BARS B ₁		1/2# BARS C		BARS D		NO. OPENINGS	FILL HEIGHT																								
		NO.	LENGTH	NO.	LENGTH	SPC.	SIZE	NO.	LENGTH	SPC.	SIZE	NO.	LENGTH	SPC.	SIZE	NO.	LENGTH	SPC.	SIZE			NO.	LENGTH	SPC.	SIZE	NO.	LENGTH	SPC.	SIZE																
FEET		FT.	IN.	FT.	IN.	IN.		FT.	IN.	IN.		FT.	IN.	IN.		FT.	IN.	IN.		FT.	IN.	IN.		FT.	IN.	IN.		FT.	IN.	IN.	FEET														
4	2	4	27	0	54	6	5 1/2	12	3/8	23	28	4 1/2	16	8 3/4	29	28	4 1/2	13	3/8	52	8	7	13	16	8 3/4	30	29	0	13	90	31	9	12	3/8	84	13	7 1/2	14	2	4					
	3	4	40	0	80	6	5 1/2	"	"	46	22	4	"	"	58	22	4	"	"	104	8	7	"	"	48	22	10 1/2	"	60	22	11 1/2	"	130	31	9	"	"	112	13		7 1/2	"	3		
	4	8	27	5	106	6	5 1/2	"	"	46	29	1 1/2	"	"	58	29	1 1/2	"	"	156	8	7	"	"	48	29	8	"	60	29	9 1/2	"	170	31	9	"	"	40	13		7 1/2	"	4		
10	2	4	27	0	54	6	5 1/2	12	3/8	31	28	4 1/2	12	8 3/4	38	28	4 1/2	10	8 3/4	69	8	7	10	12	8 3/4	39	29	2	10	90	31	9	12	3/8	129	14	2	9 1/2	2	10					
	3	4	40	0	80	6	5 1/2	"	"	62	22	4	"	"	76	22	4	"	"	138	8	7	"	"	64	23	0 1/2	"	78	23	1 1/2	"	130	31	9	"	"	172	14		2	"	3		
	4	8	27	5	106	6	5 1/2	"	"	62	29	1 1/2	"	"	76	29	1 1/2	"	"	207	8	7	"	"	64	29	11	"	78	30	0	"	170	31	9	"	"	215	14		2	"	4		
14	2	4	27	0	54	6	5 1/2	12	1/4	27	28	6	14	1 1/4	31	28	6	12	1 1/4	58	9	0	12	1/4	1 1/4	28	29	3 1/2	14	1 1/4	32	29	5 1/2	12	90	31	9	18	1 1/4	123	14	6	9 1/2	2	14
	3	4	40	0	80	6	5 1/2	"	"	54	22	5	"	"	62	22	5	"	"	116	9	0	"	"	56	23	5	"	64	23	7	"	130	31	9	"	"	164	14	6	"	3			
	4	8	27	5	106	6	5 1/2	"	"	54	28	11	"	"	62	28	11	"	"	174	9	0	"	"	56	30	3 1/2	"	64	30	6 1/2	"	170	31	9	"	"	205	14	6	"	4			

DIMENSIONS

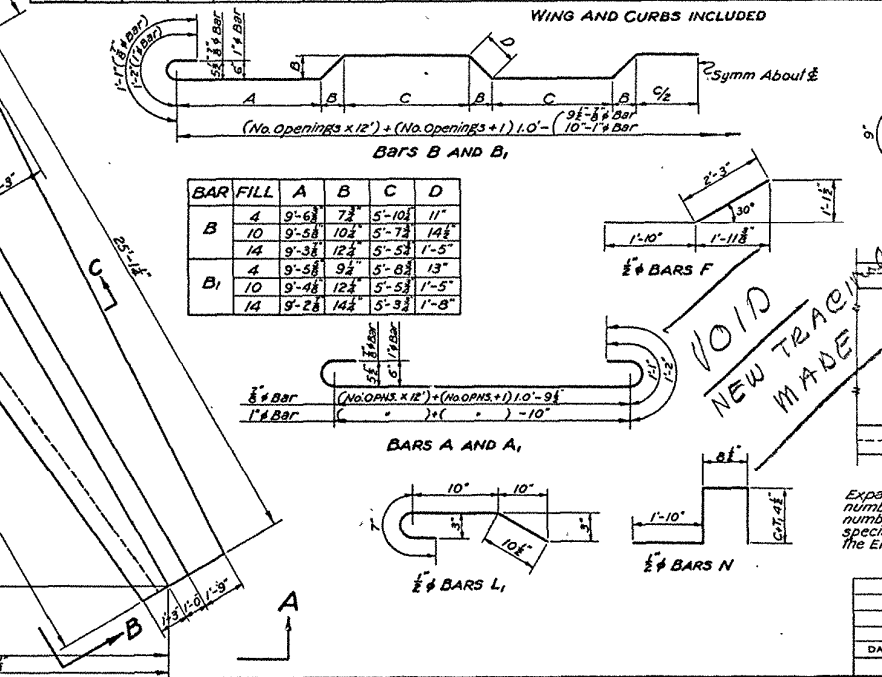
X	OPENINGS	BARREL	CURB AND WING	PER LIN. FOOT	FOR 30'-0" CULVERT	X
FEET	NO.	AREA	T, M, W, C, C ₁	STEEL	CONCRETE	FEET
4	2	286	27 4	357.17	3.4490	2
10	3	429	13 11 1/2	550.61	4.9135	3
14	4	572	16 14	723.48	6.3780	4

QUANTITIES

X	OPENINGS	BARREL	CURB AND WING	PER LIN. FOOT	FOR 30'-0" CULVERT	X
FEET	NO.	AREA	T, M, W, C, C ₁	STEEL	CONCRETE	FEET
4	2	286	27 4	357.17	3.4490	2
10	3	429	13 11 1/2	550.61	4.9135	3
14	4	572	16 14	723.48	6.3780	4

WING REINFORCING (2 HEADWALLS)

MARK	SIZE	NO.	SHORT BAR	VAR.	LONG BAR	TOTAL LENGTH
E	#5	64	9'-9"	7 1/2"	18'-10"	597'-4"
E ₁	#5	24	10'-10"	2"	11'-8"	271'-0"
E ₂	#5	20	11'-10"	2"	12'-6"	244'-2"
E ₃	#5	24	8'-11"	2"	9'-9"	224'-0"
E ₄	#5	8	19'-9"			158'-0"
Total #5 Bars						1494'-6" = 2245 Lbs.
O	#5	37	4'-2"	3"	5'-11"	161'-4"
O ₁	#5	32	6'-1"	2"	7'-2"	212'-0"
O ₂	#5	36	7'-3"	1 1/2"	8'-1 1/2"	277'-5 1/2"
Total #5 Bars						650'-9 1/2" = 679 Lbs.
F	#5	52	4'-1"			212'-4"
J ₁	#5	28	23'-10"			667'-4"
J	#5	24	3'-9"	3'-4 1/2"	20'-7 1/2"	292'-6"
L	#5	8	24'-10"			198'-8"
L	#5	8	2'-3 1/2"			18'-4"
P	#5	20	30'-0"			600'-0"
Total #5 Bars						1989'-2" = 1329 Lbs.
Total Reinforcing Steel						4233 LBS



GENERAL NOTES:
 Specifications: Latest approved La. Dept. of Hwys. Std. Specs.
 Design Specifications: A.A.S.H.O. 1944. Revised.
 Loading: H20-S16-H20-H15.
 All Concrete to be Class "A".
 Reinf. Steel to be Intermediate Grade.
 Dimensions Reinforcing Steel are to Bar Centers.
 All exposed Corners to be chamfered.
 Place approx. one Cu. Ft. of large size Gravel or loose Rock behind and around each Weep Hole.
 When Culvert is located at a Site subject to scour, the Curtain Walls shall be made deeper or Rip Rap placed around inside face of Curtain Walls to prevent scouring.

STANDARD PLAN
MULTIPLE 12'x12' OPENINGS
REINFORCED CONCRETE BOX CULVERTS
3:1 SLOPE

DESIGNED: _____
 CHECKED: _____
 IN CHARGE OF: _____

DATE: _____
 DESCRIPTION: _____
 REVISIONS: _____

STATE OF LOUISIANA
 DEPARTMENT OF HIGHWAYS

TRACED: L. B. Cole
 CHECKED: _____