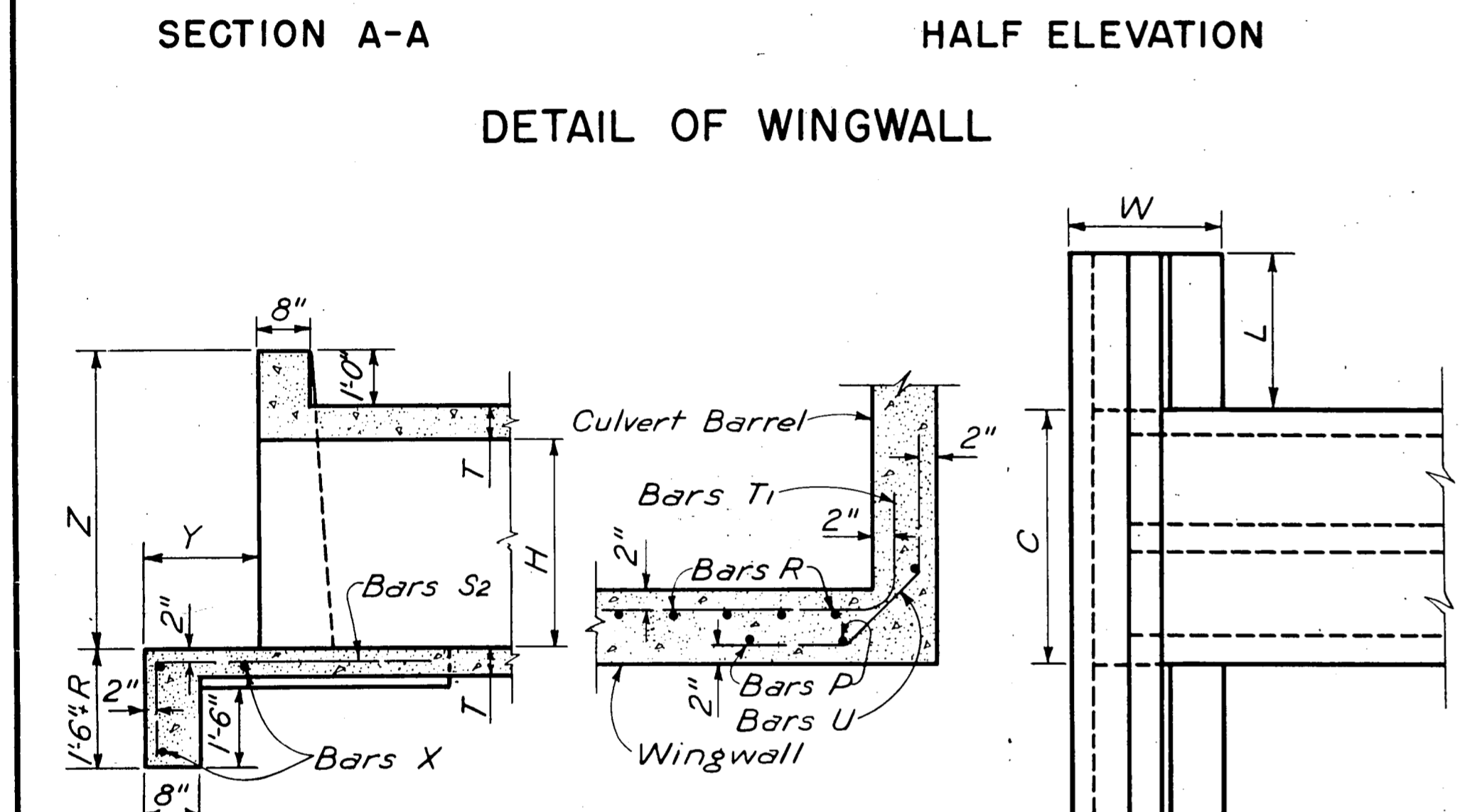
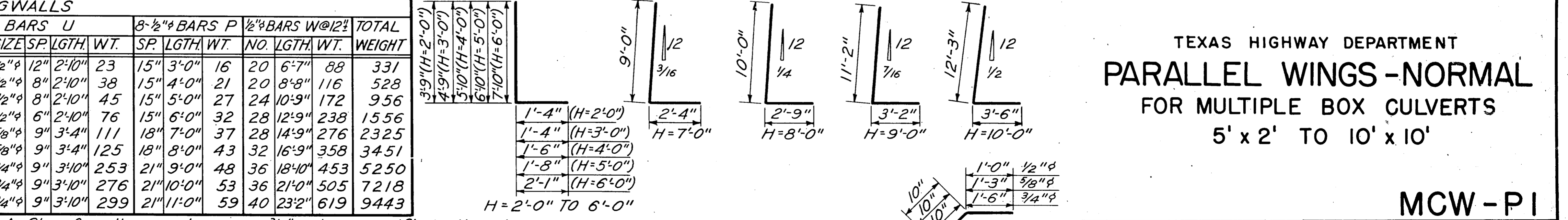


REINFORCING FOR 2 CULVERT APRONS		TABLE OF DIMENSIONS												TOTAL QUANTITIES (FOR 4 WINGS AND 2 APRONS)																																																		
*BARS X - 1/2" @ 12" ±		BARS S <sub>2</sub> - 1/2" @ 12" ±												WING												APRON																																						
NUMBER OF SPANS		NUMBER OF SPANS												NUMBER OF SPANS												NUMBER OF SPANS																																						
2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6	2	3	4	5	6																														
WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.	WT.																									
31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90	31	45	60	75	90



BARS S <sub>1</sub>		BARS T <sub>1</sub>		BARS S <sub>2</sub> (Culvert Apron)	
H	L	H	L	H	L
2'-2"	(H=2'-0")	5'-4"	(H=2'-0")	2'-3"	(H=2'-0")
2'-6"	(H=3'-0")	7'-5"	(H=3'-0")	2'-5"	(H=3'-0")
3'-1"	(H=4'-0")	9'-6"	(H=4'-0")	2'-7"	(H=5'-0")
3'-8"	(H=5'-0")	13'-6"	(H=6'-0")	3'-1"	(H=6'-0")
4'-4"	(H=6'-0")	15'-6"	(H=7'-0")	3'-5"	(H=8'-0")
4'-10"	(H=7'-0")	17'-7"	(H=8'-0")	3'-9"	(H=9'-0")
5'-7"	(H=8'-0")	21'-11"	(H=10'-0")	3'-11"	(H=10'-0")
6'-2"	(H=9'-0")				
6'-8"	(H=10'-0")				

TABLE OF REINFORCING STEEL FOR 4 WINGWALLS		BARS S <sub>1</sub>		1/2" BARS T <sub>1</sub> @ 12"		1/2" BARS S <sub>2</sub> @ 12"		3/8" BARS P		1/2" BARS W @ 12"		TOTAL																	
H	L	NO.	SIZE	SP.	LGTH.	WT.	NO.	SIZE	SP.	LGTH.	WT.	NO.	SIZE	SP.	LGTH.	WT.	NO.	SIZE	SP.	LGTH.	WT.	NO.	SIZE	SP.	LGTH.	WT.	WEIGHT		
2'-0"	5'-4"	24	1/2"	12"	5'-11"	81	24	1/2"	12"	3'-11"	63	8	6'-3"	33	8	5'-0"	27	12	1/2"	12"	2'-10"	23	15	3'-0"	16	20	6'-7"	88	331



GENERAL NOTES: All concrete shall be Class A. Chamfer all exposed corners 3/4" unless specified otherwise. All dimensions relating to reinforcing steel are to centers of bars. Provide Weep Holes for H=5'-0" and greater. The bottom slab of the barrel, wing footings and toewalls shall be placed in one continuous operation.

TEXAS HIGHWAY DEPARTMENT  
**PARALLEL WINGS-NORMAL**  
 FOR MULTIPLE BOX CULVERTS  
 5' x 2' TO 10' x 10'

**MCW-P1**

OAKS NORTH ADDITION