

54" & 68" x 43"

# ROADWAY PIPE CULVERT

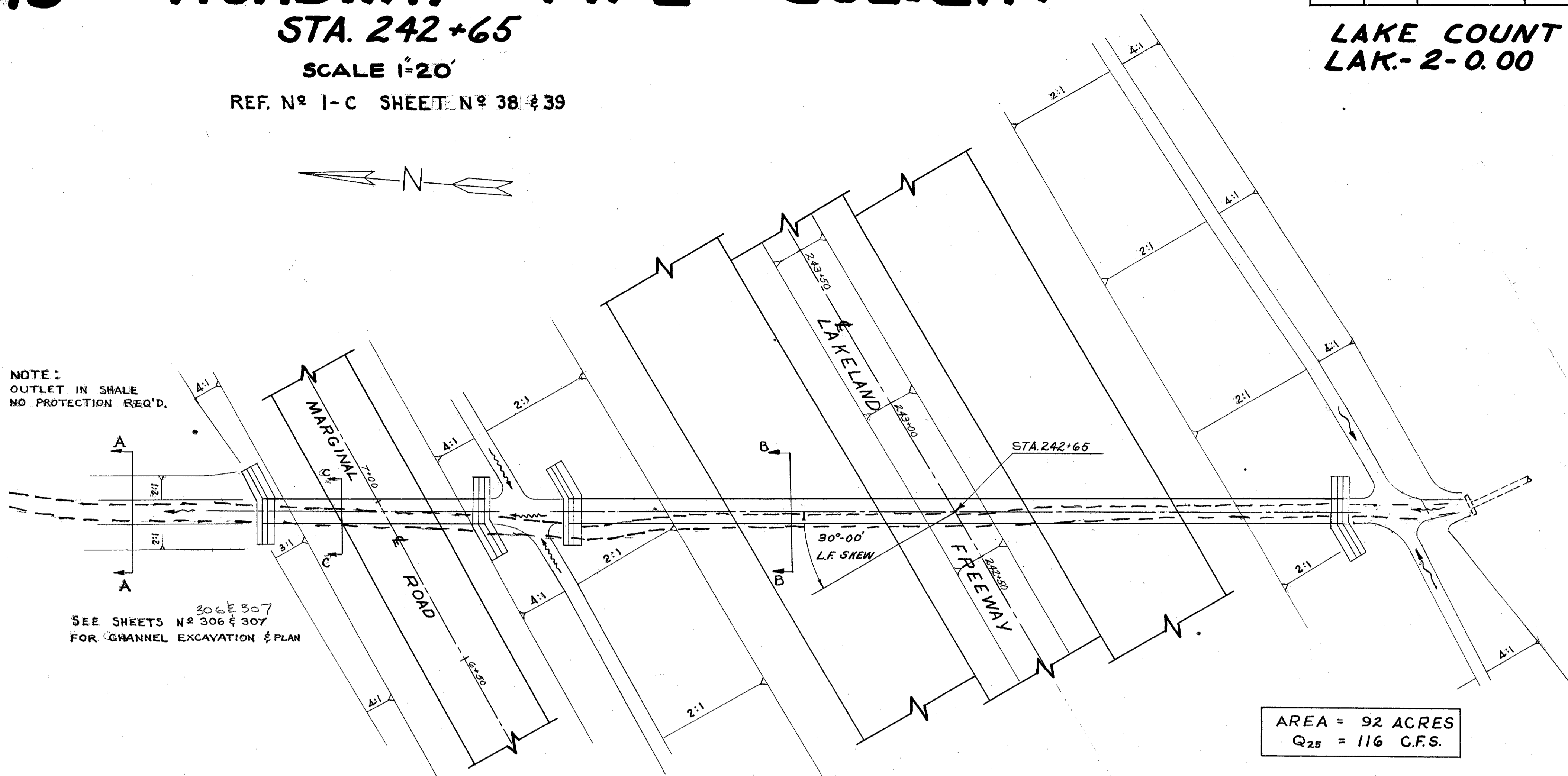
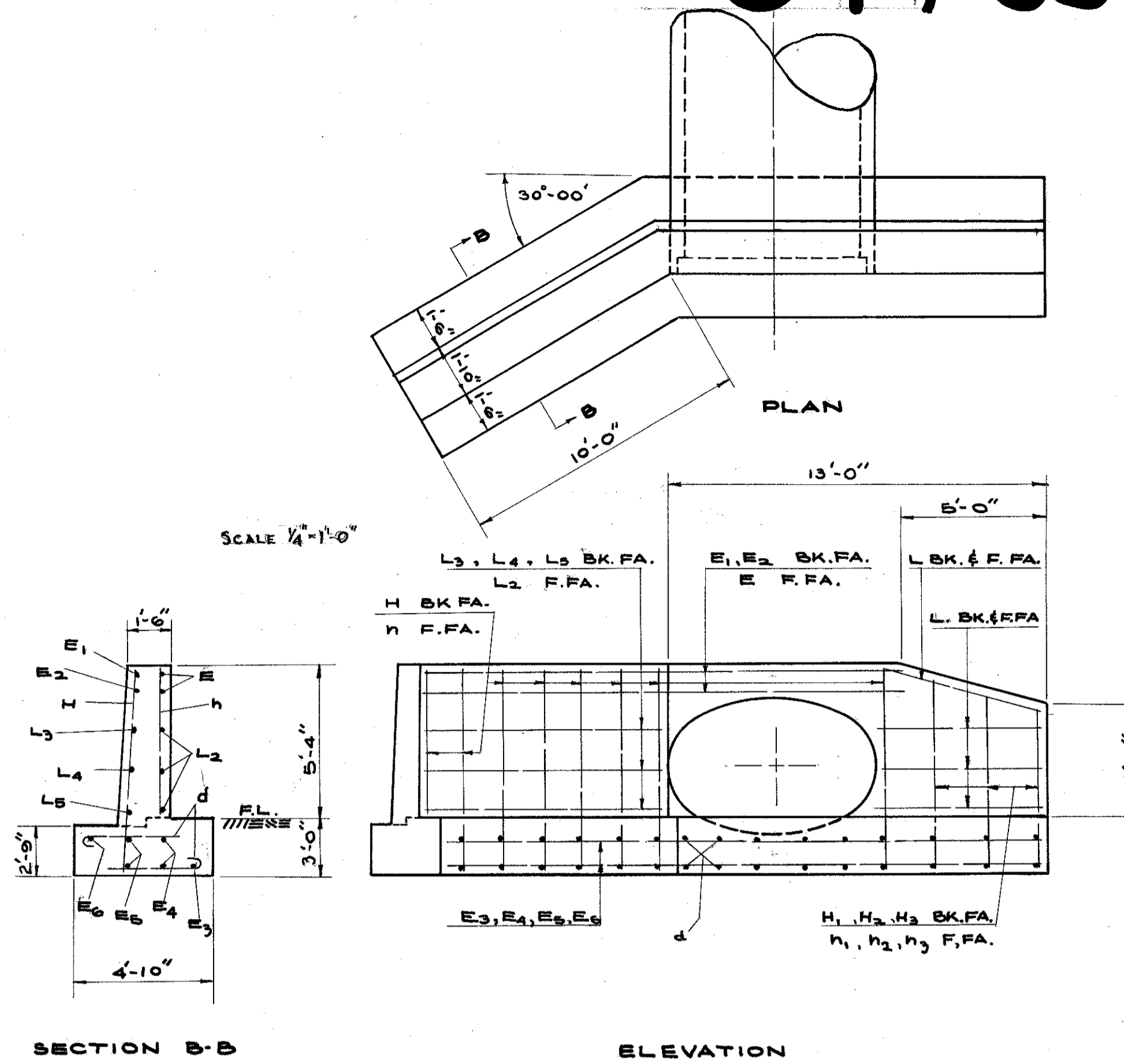
STA. 242+65

SCALE 1"=20'

REF. N° 1-C SHEET N° 38 & 39

FED. RD. DIVISION	STATE	PROJECT	305 394
2	OHIO		

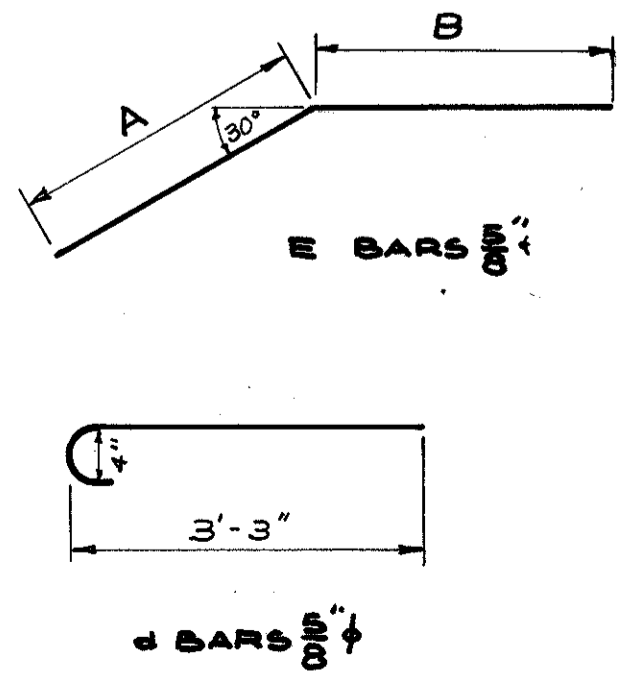
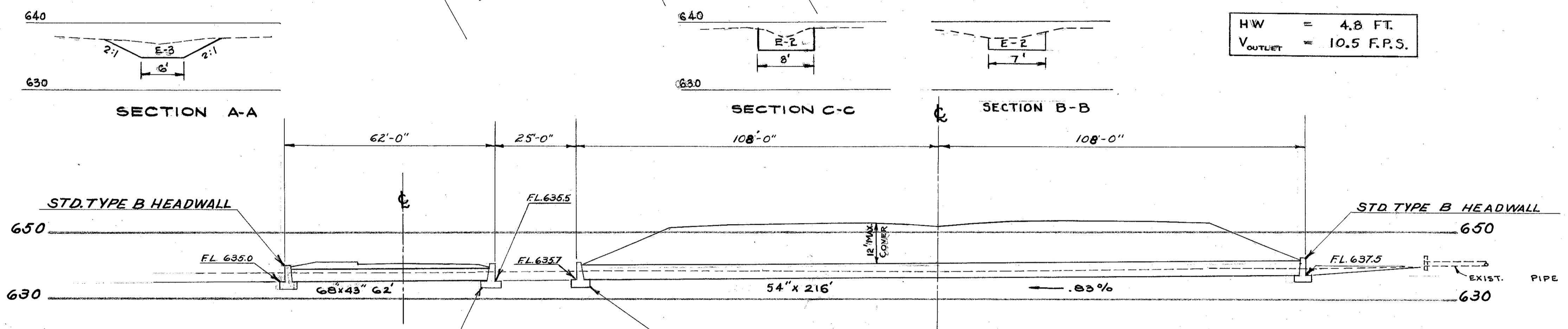
LAKE COUNTY  
LAK-2-0.00



**NOTE:**  
REINFORCING STEEL: ALL BARS  $\uparrow$   
QUANTITIES SHOW IN STEEL LIST ARE FOR ONE HEADWALL ONLY.  
FOR ADDITIONAL INFORMATION -  
**SEE STD. CONSTR. DWG. TYPE B HEADWALL.**

AREA = 92 ACRES  
Q<sub>25</sub> = 116 C.F.S.  
HW = 4.8 FT.  
V<sub>OUTLET</sub> = 10.5 F.P.S.

REINFORCING STEEL LIST					
MARK N°	A	B	LENGTH	LBS.	SHAPE
H	8		8'-0"	66.72	STR.
H <sub>1</sub>	1		7'-6"	7.32	
H <sub>2</sub>	1		7'-1"	7.38	
H <sub>3</sub>	1		6'-8"	6.96	
h	8		4'-11"	41.04	
h <sub>1</sub>	1		4'-5"	4.61	
h <sub>2</sub>	1		4'-0"	4.17	
h <sub>3</sub>	1		3'-7"	3.74	
L	2		5'-7"	11.64	
L <sub>1</sub>	6		5'-8"	35.40	
L <sub>2</sub>	3		9'-9"	30.51	
L <sub>3</sub>	1		10'-2"	10.60	
L <sub>4</sub>	1		10'-5"	10.69	
L <sub>5</sub>	1		10'-4"	10.78	STR.
E	2	9'-10"	8'-1"	17'-11"	37.38 BENT
E <sub>1</sub>		10'-6"	8'-3"	18'-9"	19.56
E <sub>2</sub>		10'-3"	8'-4"	18'-7"	19.38
E <sub>3</sub>	1	9'-6"	12'-5"	21'-11"	22.86
E <sub>4</sub>	2	9'-10"	12'-10"	22'-8"	47.28
E <sub>5</sub>	2	10'-4"	13'-2"	23'-6"	49.00
E <sub>6</sub>	1	10'-10"	13'-4"	24'-2"	25.21
d	32		3'-10"	128.00	BENT
TOTAL				600.73	



**CULVERT DATA**  
 SKEW : 30°00" LT FWD.  
 TYPE : S-27 M-206.6 (b) & S-27 PIPE FOR ROADWAY CULVERT  
 SIZE : 68" x 43" - 62' & 54" x 216'  
 WORK REQUIRED : BUILD 68" x 43" x 62' PIPE CULVERT WITH STD. TYPE B HEADWALLS AS SHOWN.  
 BUILD 54" x 216' PIPE CULVERT WITH STD. TYPE B HEADWALLS AS SHOWN.  
 EXCAVATE CHANNEL DOWNSTREAM AS SHOWN ON SHEET N° 307

**NOTE:**  
FOR DETAILS OF TYPE B HW'S @ 54" PIPE, SEE SHEET N° 298  
SKEW IS 30° L.F.

ESTIMATED QUANTITIES		
* E-2 EXCAVATION FOR STRUCTURES	200	CU. YDS.
E-3 CHANNEL EXCAVATION	435	CU. YDS.
S-1 CONCRETE FOR STRUCTURES CLASS C	80	CU. YDS.
S-4 REINFORCING STEEL	2650	LBS.
S-27 68" x 43" REINFORCED ELLIPTICAL PIPE M-206.6 (b) 62'		L.F.
S-27 54" PIPE FOR ROADWAY CULVERT	216	L.F.
* INCLUDES E-2 FOR HEADWALLS		

STRUCTURE N° LAK-2-0270