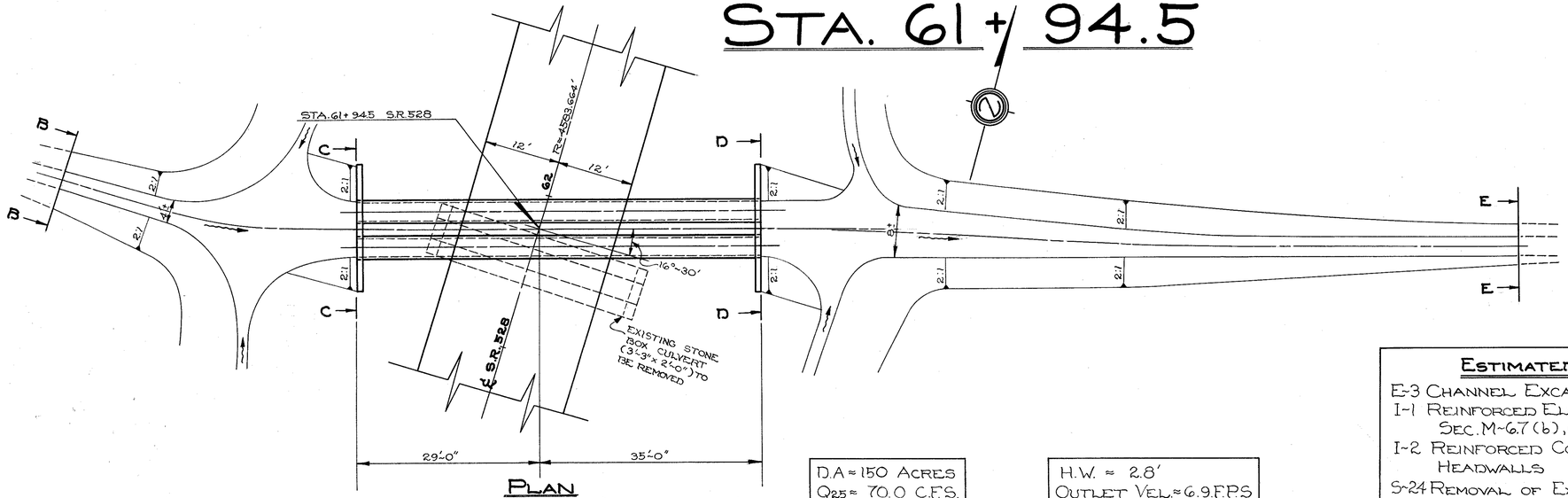
38"× 24" ROADWAY PIPE CULVERTS

STA. 61+94.5

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

54/70

LAKE COUNTY
LAK.-528-1.24



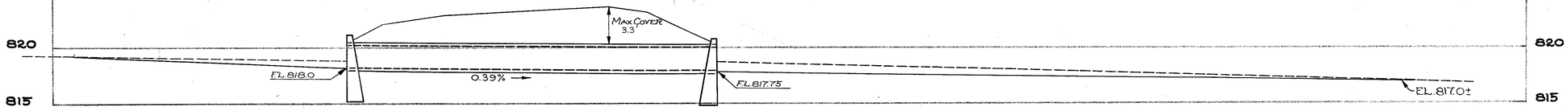
PLAN
SCALE: 1" = 10'

D.A. = 150 ACRES
Q25 = 70.0 C.F.S.

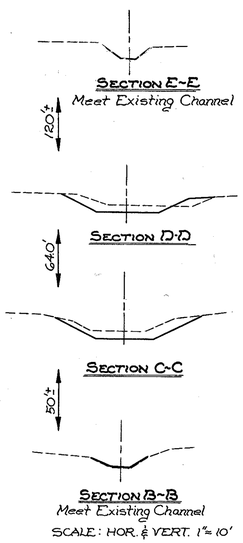
H.W. = 2.8'
OUTLET VEL. = 6.9 F.P.S.

ESTIMATED QUANTITIES

E-3 CHANNEL EXCAVATION	90 CU. YDS.
I-1 REINFORCED ELLIPTICAL CONCRETE PIPE SEC. M-6.7(b), CLASS G-1	128 LIN. FT.
I-2 REINFORCED CONCRETE MASONRY HEADWALLS	16.8 CU. YDS.
S-24 REMOVAL OF EXISTING STRUCTURE	LUMP SUM



ELEVATION
SCALE: (HOR.) 1" = 10'
(VERT.) 1" = 5'



SCALE: HOR. & VERT. 1" = 10'

CULVERT DATA

SKEW 16°-30' R.F.

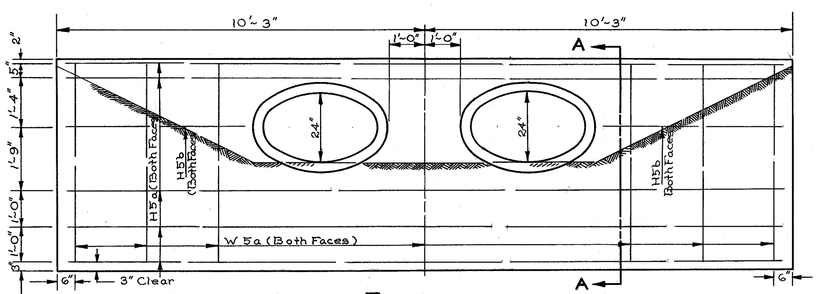
TYPE Item I-1 Twin (2) Reinforced Elliptical Concrete Culvert Pipe Sec. M-6.7(b) Class G-1.

SIZE 2-38" × 24" × 64'

WORK REQUIRED Build Twin(2) 38" × 24" Reinforced Elliptical Concrete Culvert Pipe with headwalls as detailed hereon at left and right. Channel excavation both ends.

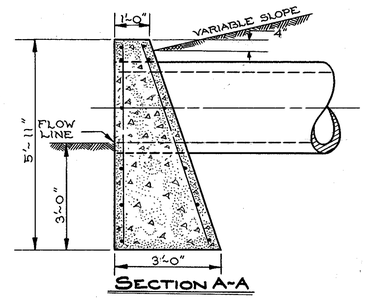
REINFORCING STEEL

MARK	SIZE	NUMBER	SHAPE	LENGTH	TOTAL LENGTH	WEIGHT POUNDS
H5a	5/8"Ø	10	STRAIGHT	20'-0"	200.0'	208.6
H5b	5/8"Ø	4	STRAIGHT	5'-0"	20.0'	20.9
W5a	5/8"Ø	14	STRAIGHT	5'-6"	77.0'	80.3
				TOTAL (EACH HEADWALL) =		309.8



Vertical Bars spaced @ 2'-0" ℄
Minimum Cover for bars shall be 2" unless otherwise shown

ELEVATION



SECTION A-A

HEADWALL DETAILS
SCALE: 1/2" = 1'-0"

STRUC. No. LAK-528-0237