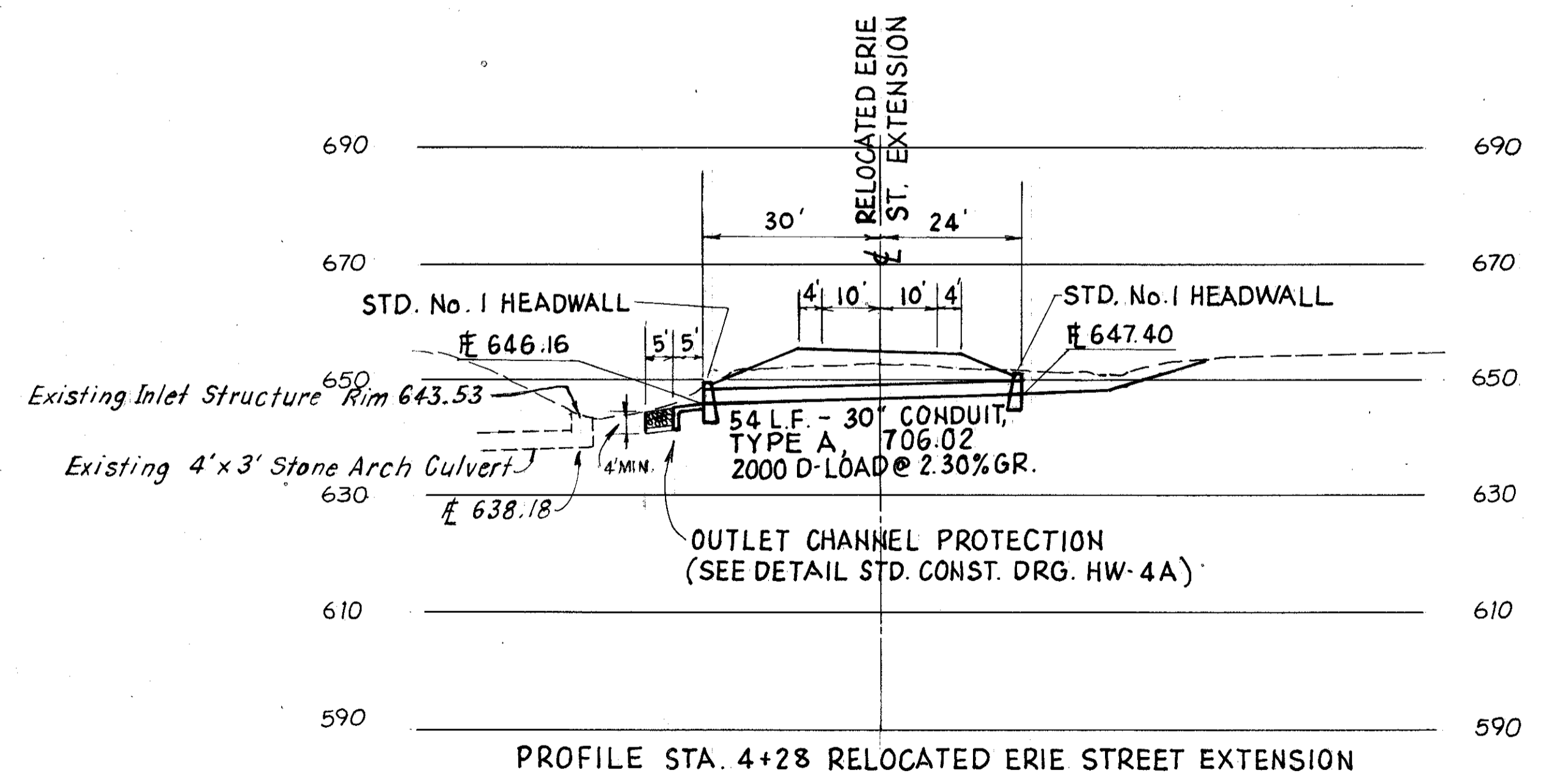
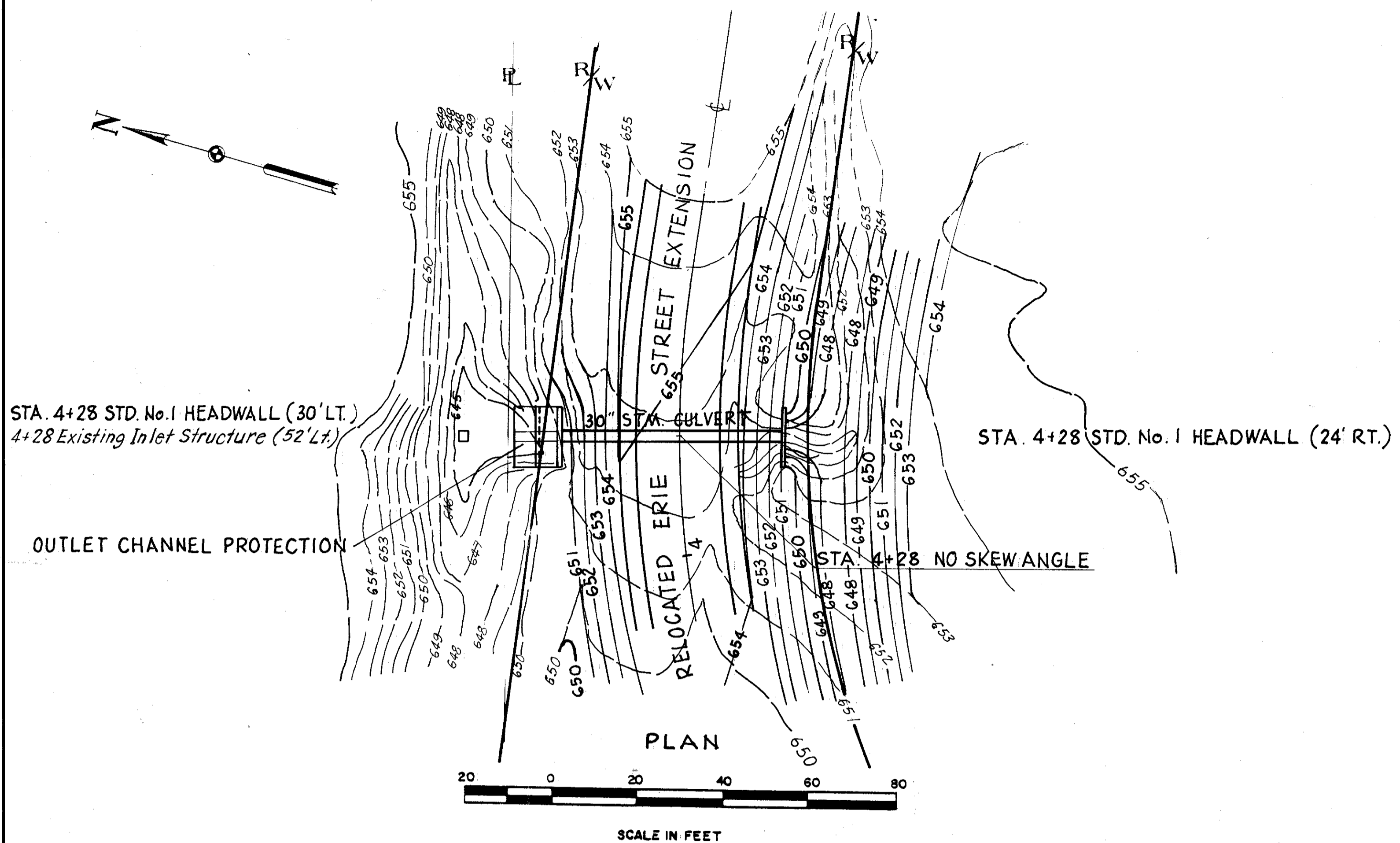


QUANTITY CALCULATIONS
 BY C.E.R. DATE 9-85
 CHKD. I.M. DATE 9-85
 WOODRUFF, INC.

F.H.W.A. REGION	STATE	PROJECT
5	OHIO	

LAKE COUNTY
 LAK-20-17.14



ESTIMATED QUANTITIES

603 Conduit Type A, 30" 706.02, 2000 D-Load	54 Lin. Ft.
601 Riprap Using 6" Reinforced Concrete Slab	14 Sq. Yds.
601 Rock Channel Protection, Type B with Bedding	10 Cu. Yds.
602 Concrete Masonry	9.4 Cu. Yds.

Drainage Area = 23.6 Acres
 Q10 = 29.6 c.f.s.

SCALE 1"=20'
 MADE C.E.R. DATE 9/85
 TRCD. I.M. DATE 9/85
 CKD. I.M. DATE 9/85
WOODRUFF, INC.
 CONSULTING ENGINEERS
 CLEVELAND OHIO