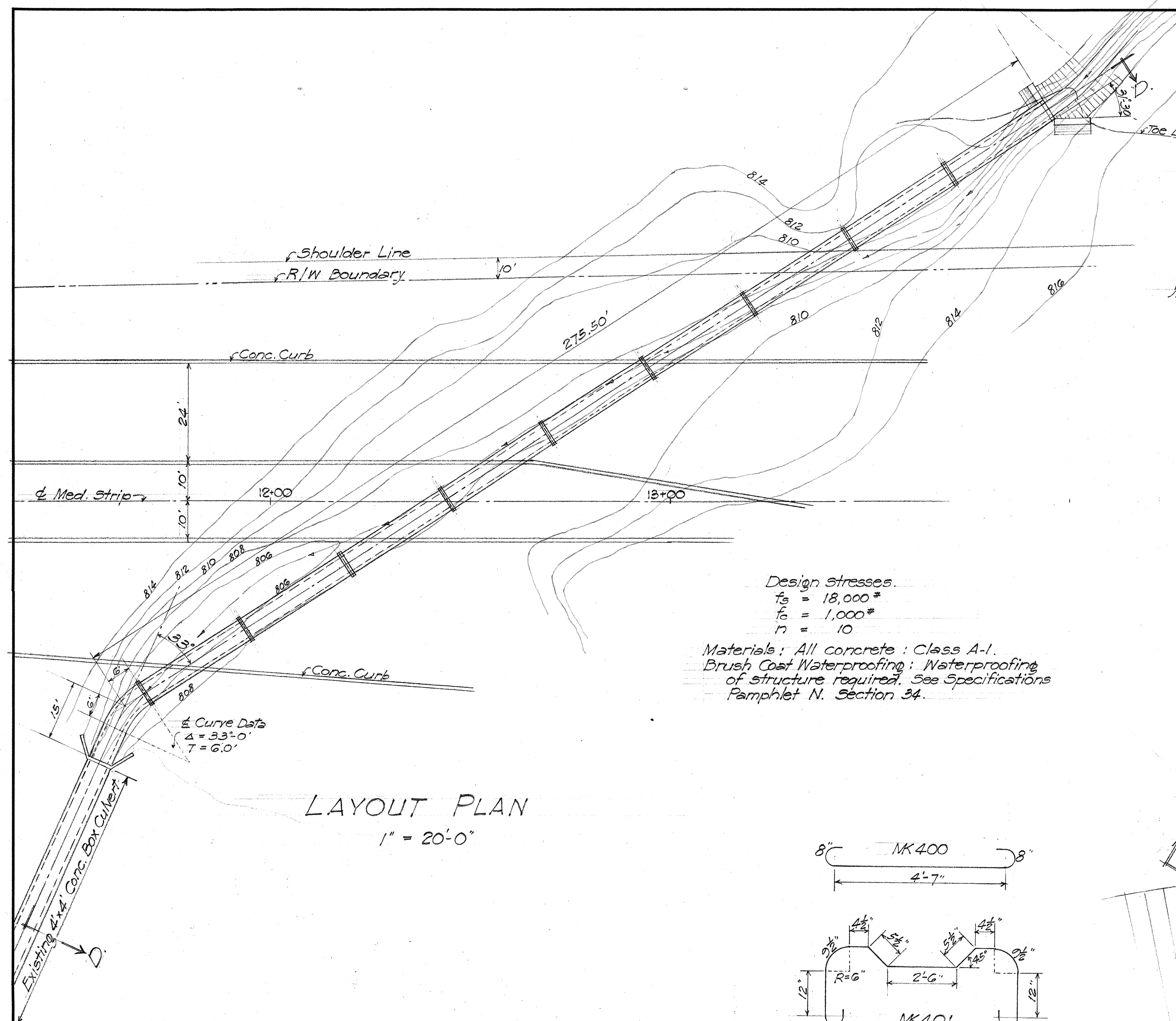
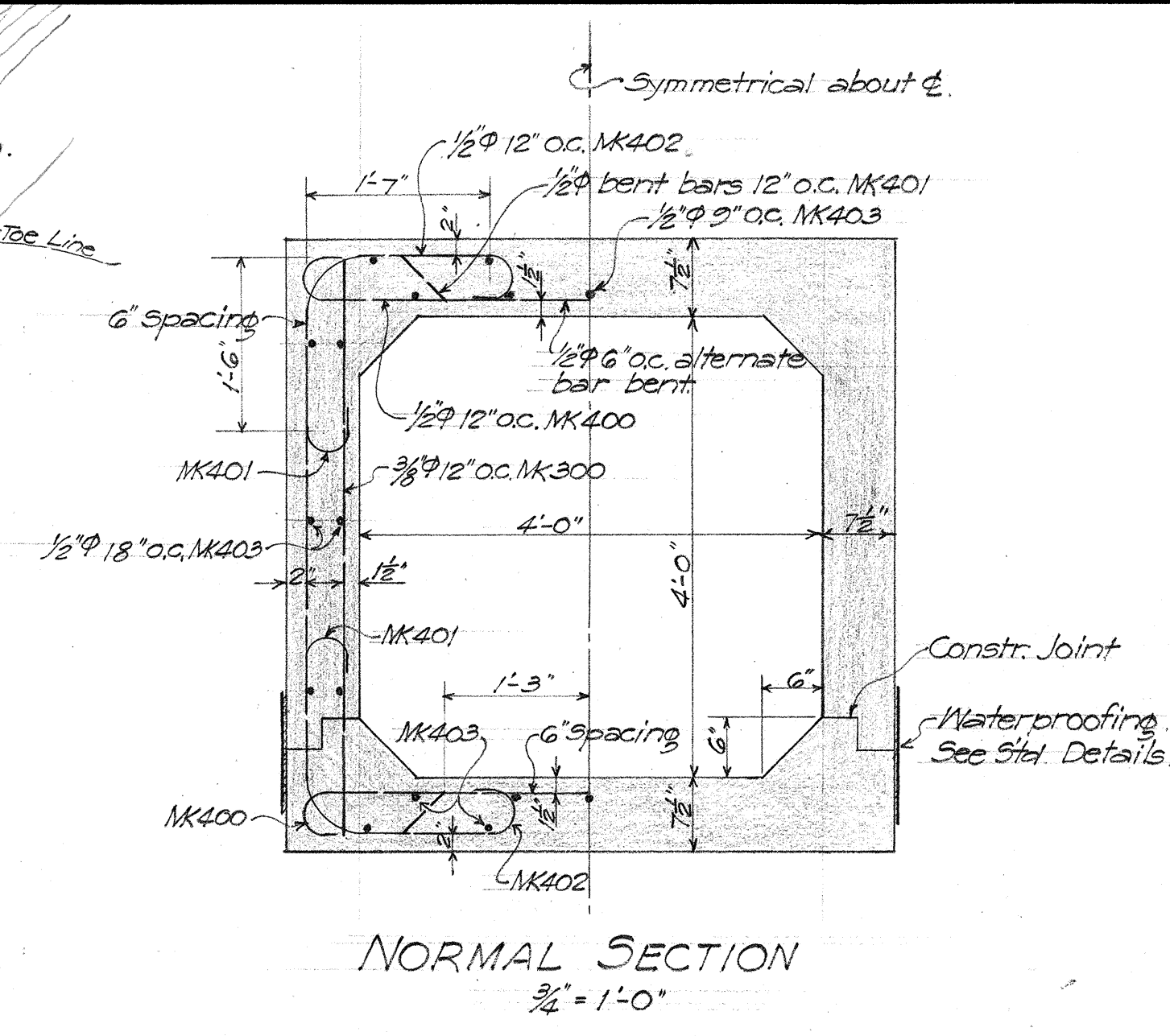


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	DA WR 8 (3)	1947	37A	134

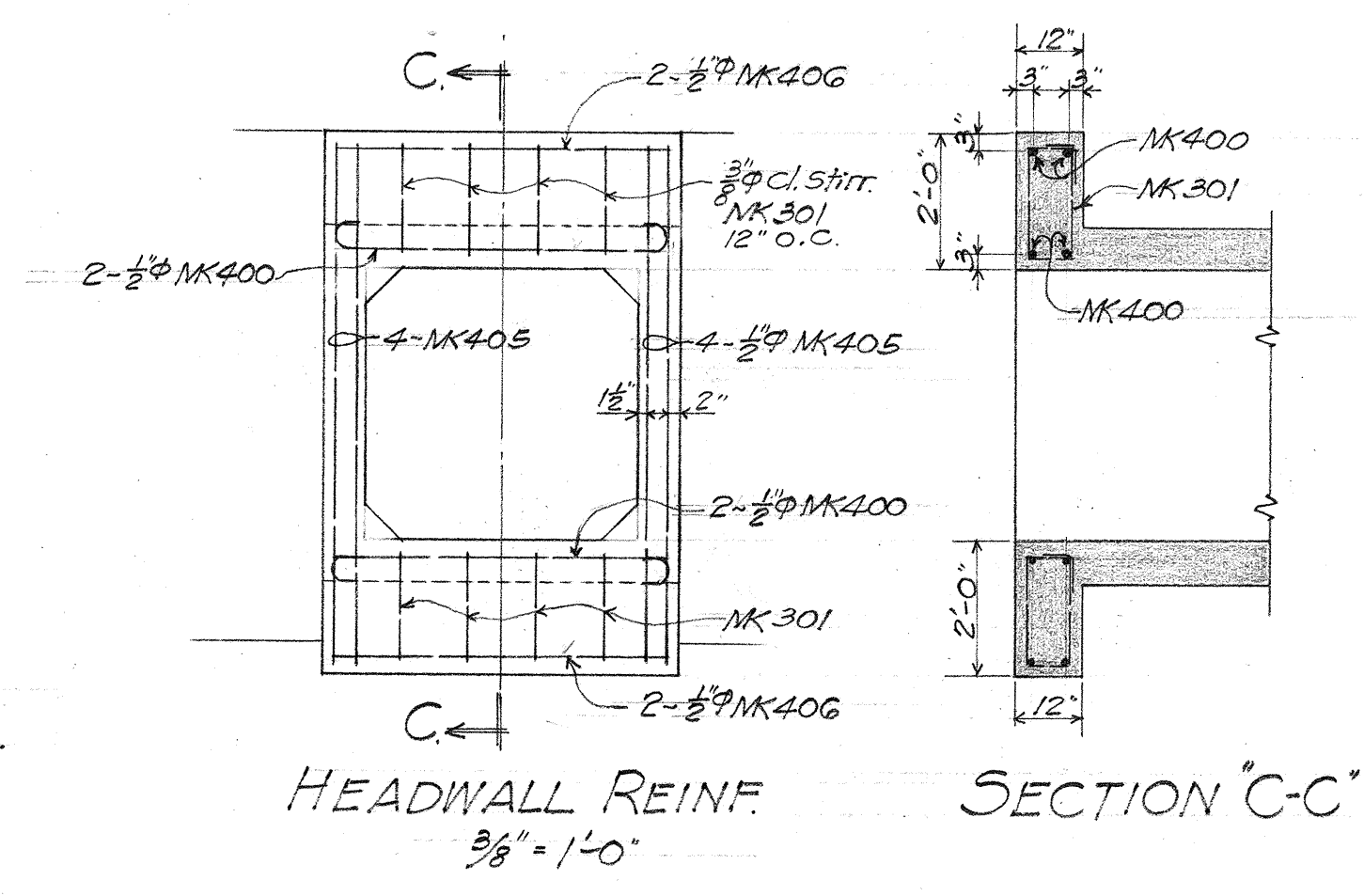


LAYOUT PLAN
1" = 20'-0"

Design Stresses:
 $f_c = 18,000^*$
 $f_s = 1,000^*$
 $n = 10$
 Materials: All concrete: Class A-1.
 Brush Coat Waterproofing: Waterproofing of structure required. See Specifications Pamphlet N. Section 34.

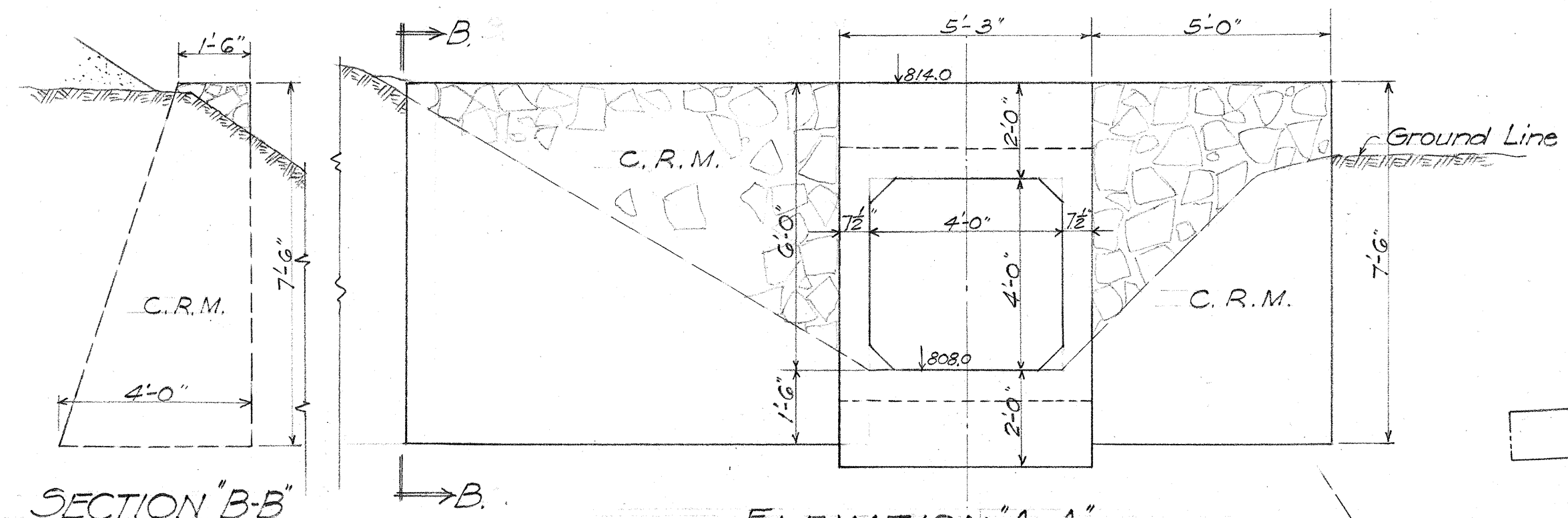


NORMAL SECTION
3/8" = 1'-0"



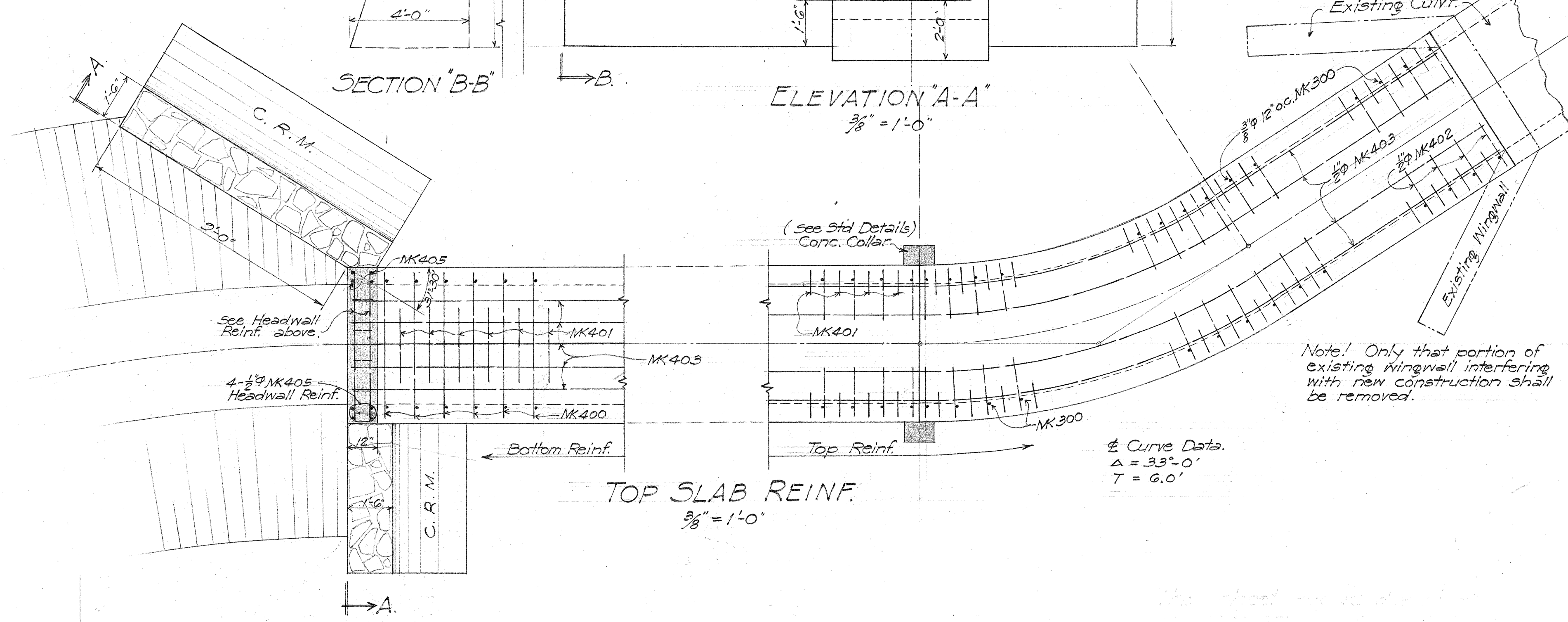
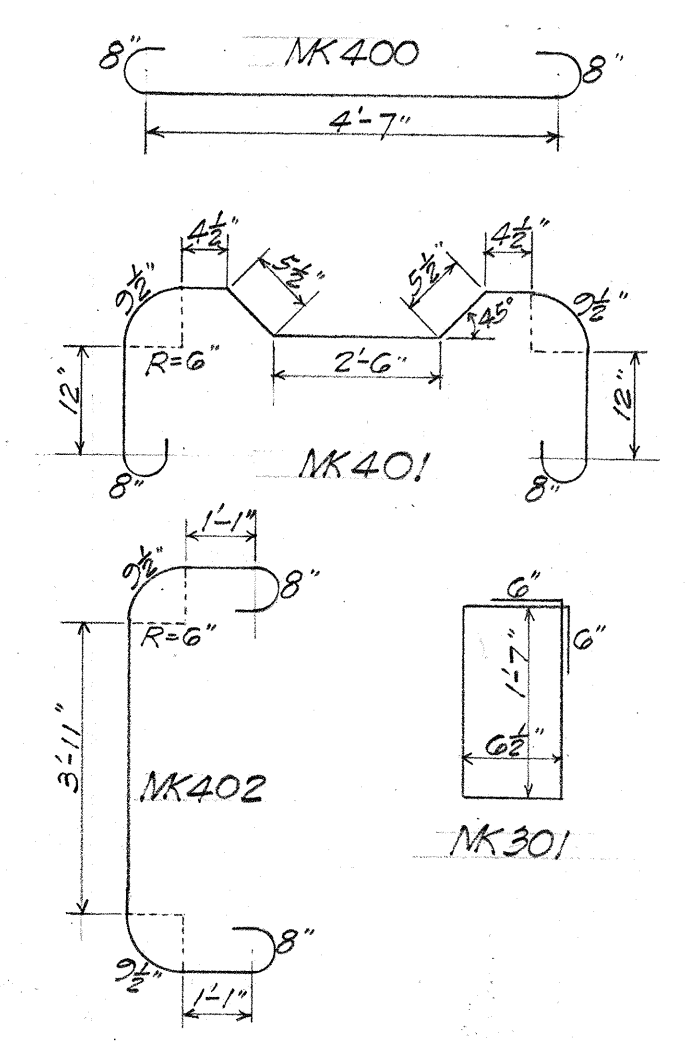
HEADWALL REINF.
3/8" = 1'-0"

SECTION "C-C"



SECTION "B-B"

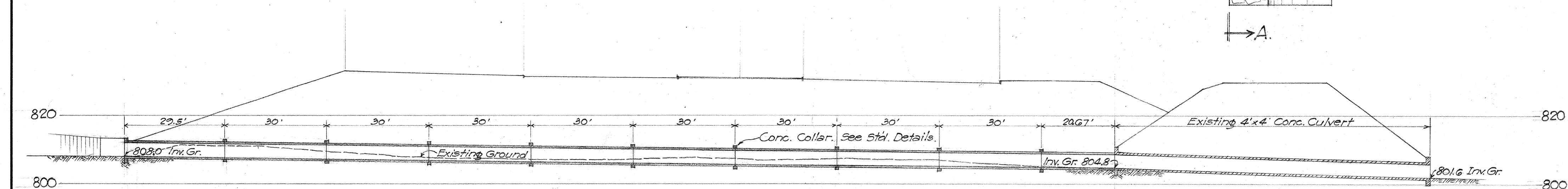
ELEVATION "A-A"
3/8" = 1'-0"



TOP SLAB REINF.
3/8" = 1'-0"

Note: Only that portion of existing wingwall interfering with new construction shall be removed.

Δ Curve Data:
 $\Delta = 33^\circ 0'$
 $T = 6.0'$



SECTION "D-D"
1" = 20'-0"

THIS SHEET SUPERSEDES SH. No. 5245. 37

ESTIMATED QUANTS.

Reinf. Steel	16,865 Lbs.
Class A-1 Conc.	135.21 C.Y.
C.R.M.	11.3 C.Y.
Structural Exc.	218 C.Y.
Channel Exc.	15 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
 TERRITORY OF HAWAII

4' x 4' BOX CULVERT
 Sta. 12+43.2

KUNIA ROAD DA-WR 8 (3)

Dec. 1947

DESIGNED BY	DATE
TRACED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	