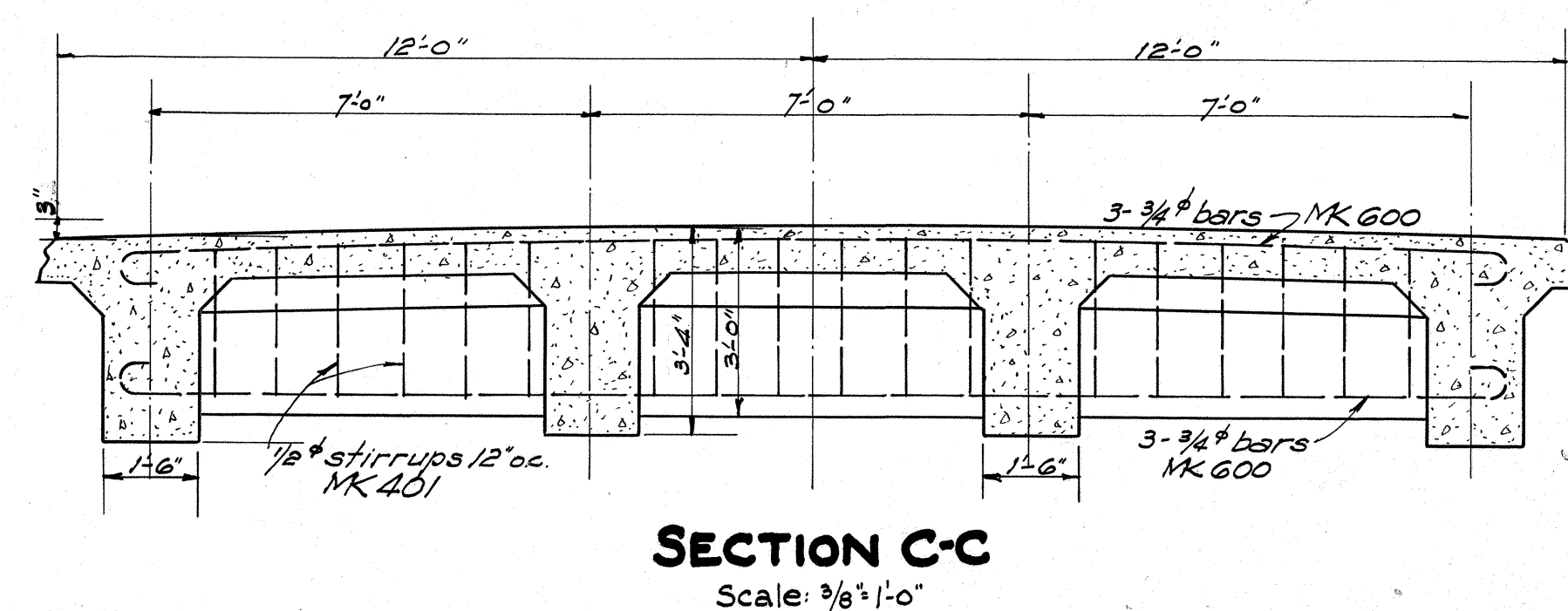
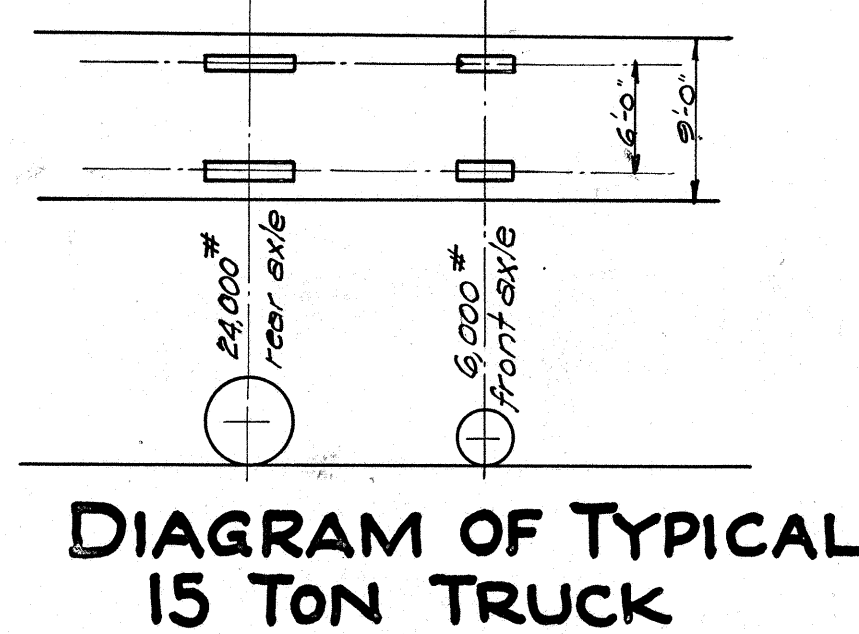
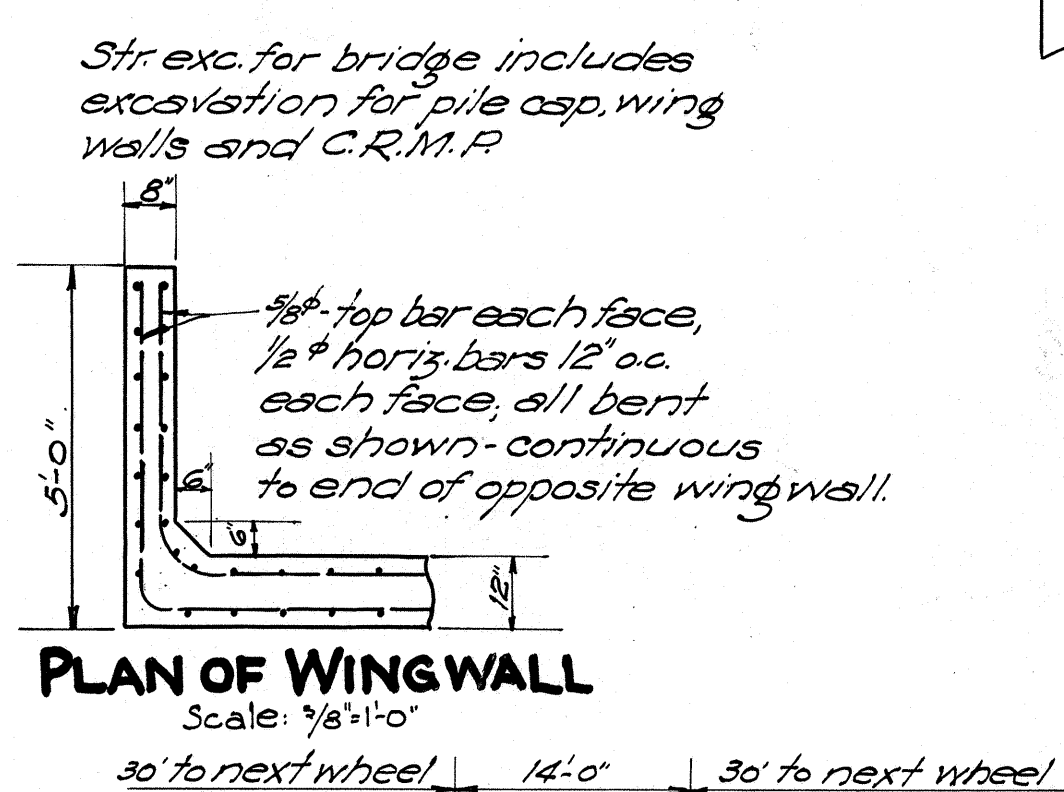
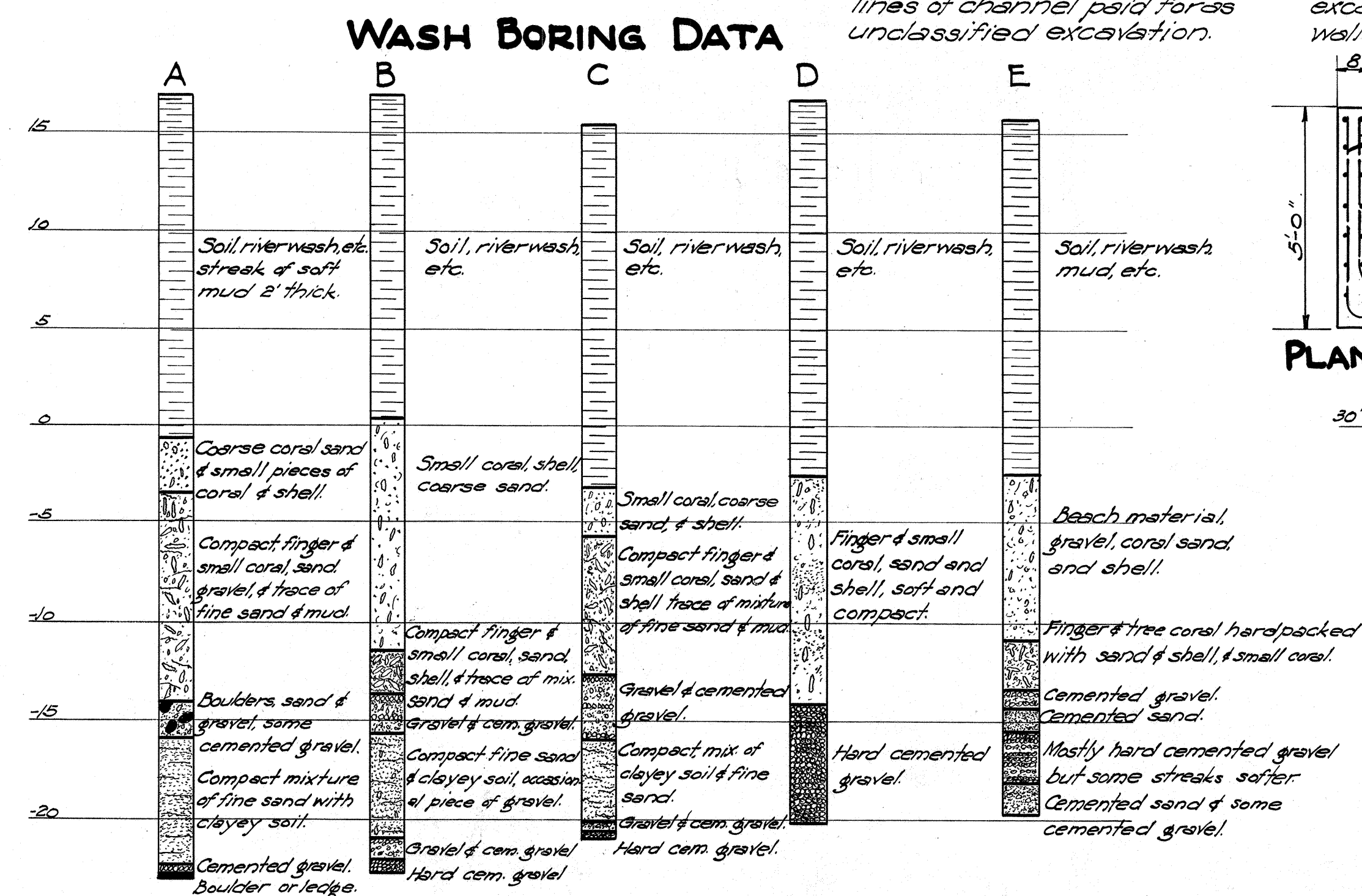
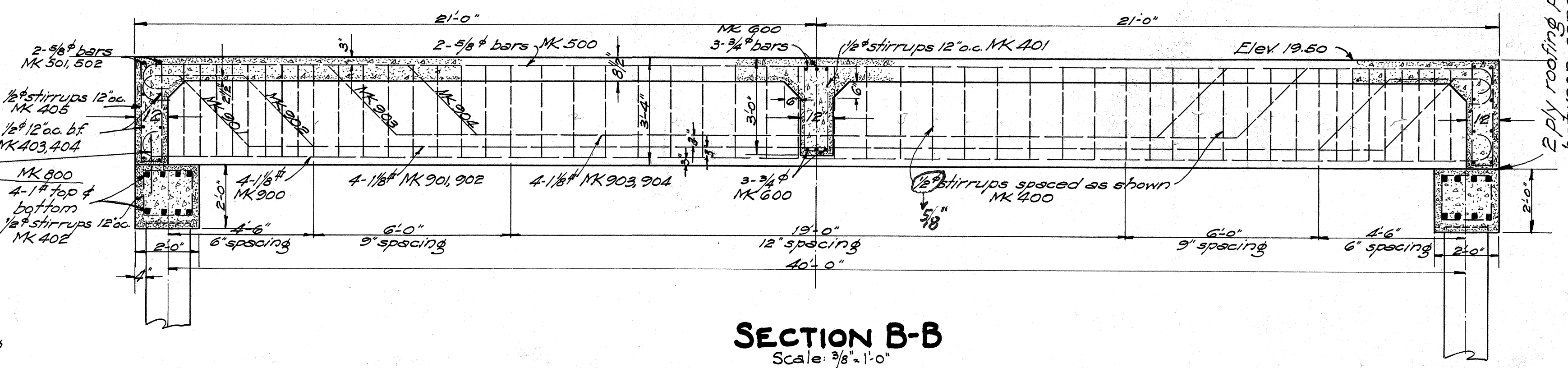
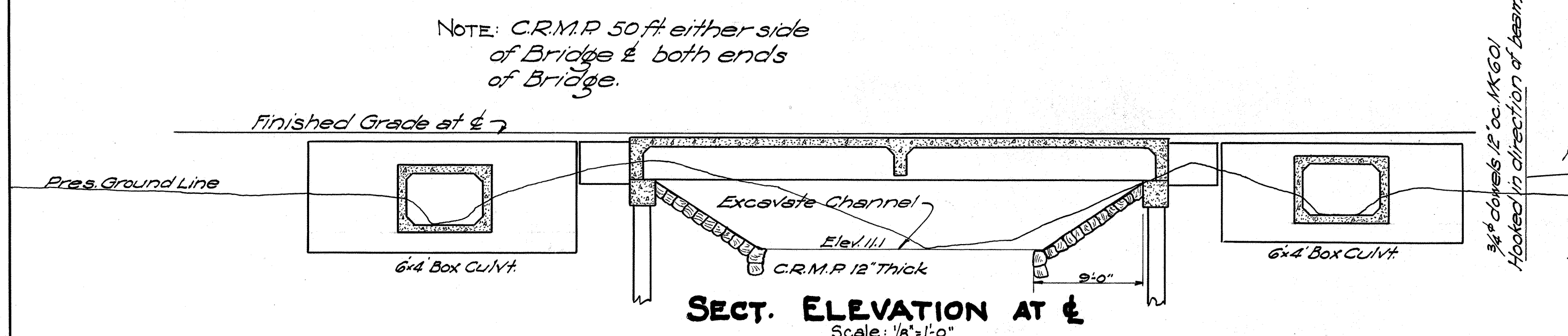
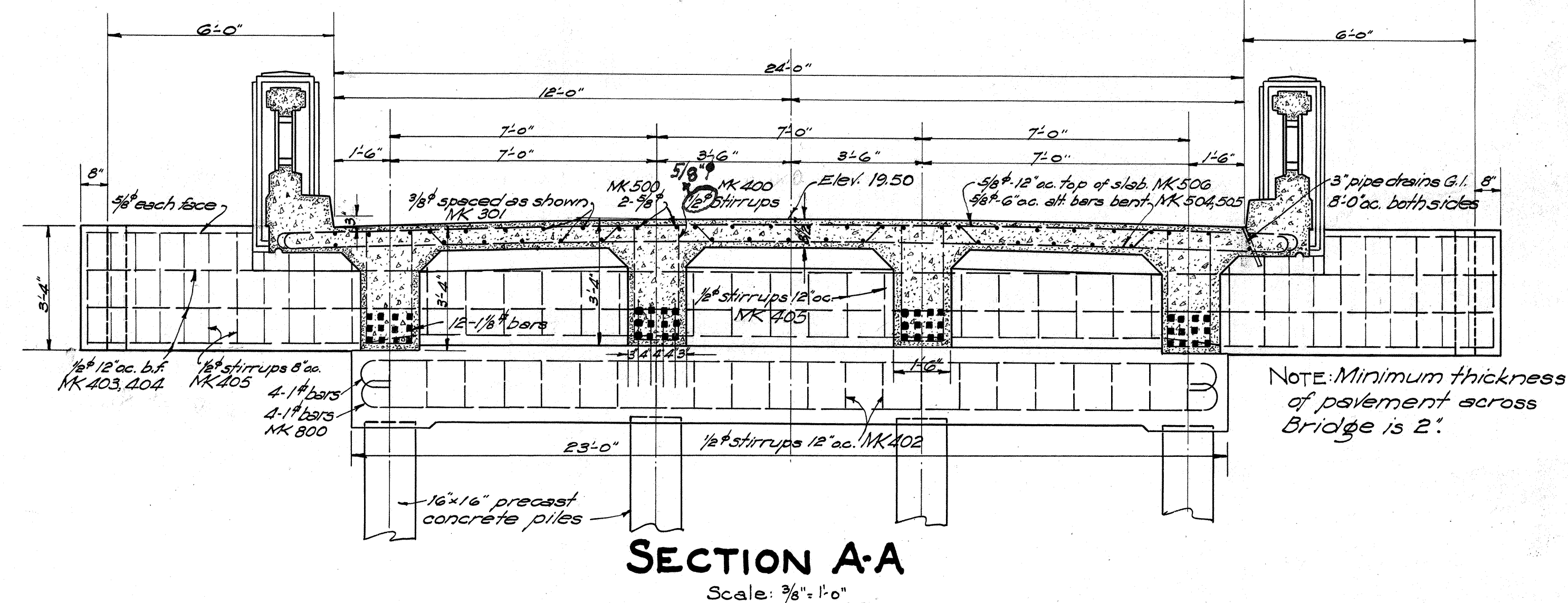
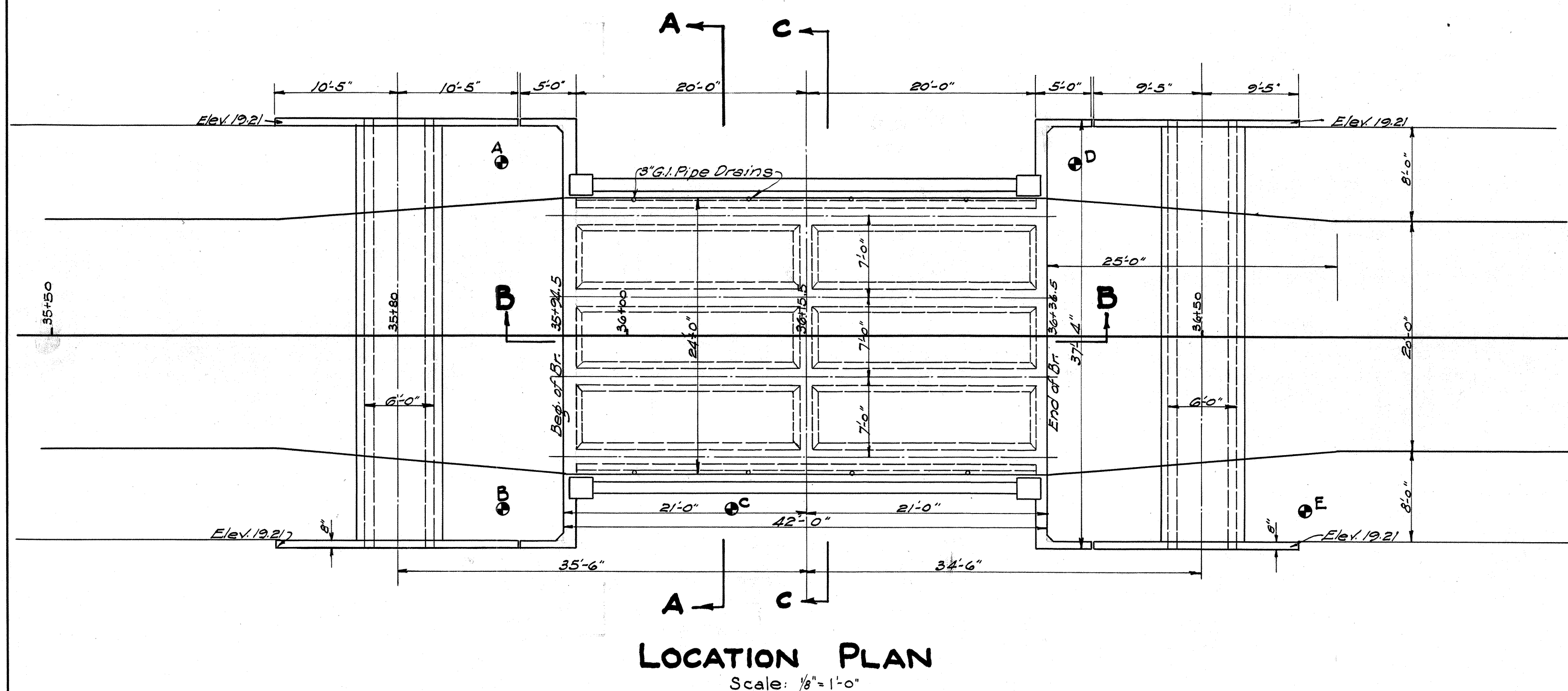
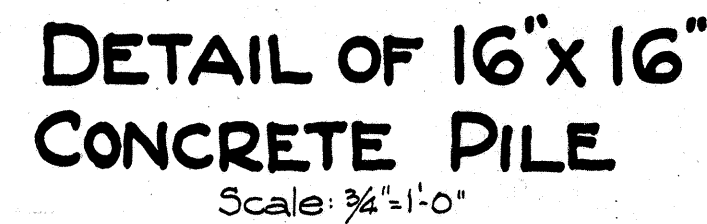




ESTIMATED QUANTITIES BR. No. 1

Unclassified Excavation	300.0 c.y.
Structure Exc. at Bridge	106.0 c.y.
Class 'A' Conc. at Bridge	82.0 c.y.
Reinforcing Steel	19,325.0 + 8,700.0 lbs.
C.R.M. Paving	81.5 c.y.
16"x16" Conc. Piles (30 ft)	8 only

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
BRIDGE No. 1 & 6"x4" CULVERTS
PAIA SPUR N.R.S. 17A
Stas. 35+80, 36+15.5, and 36+50
Sheet 1 of 2 Sheets



22-01580 12-26-33 as per Bu's radio Nov. 24 '33



Scale: $\frac{1}{2}'' = 1'-0''$



Scale: $\frac{3}{8}" = 1'-0"$



CULVT. AT STA. 36+50

Scale: $\frac{3}{8}'' = 1'-0''$



Scale: $\frac{3}{8}'' = 1'-0''$



Scale: $\frac{3}{8}'' = 1' - 0''$

Total 42,93
13,55

Total 5,768.72#
Grand Total ~~18,699.08~~
19,324.29

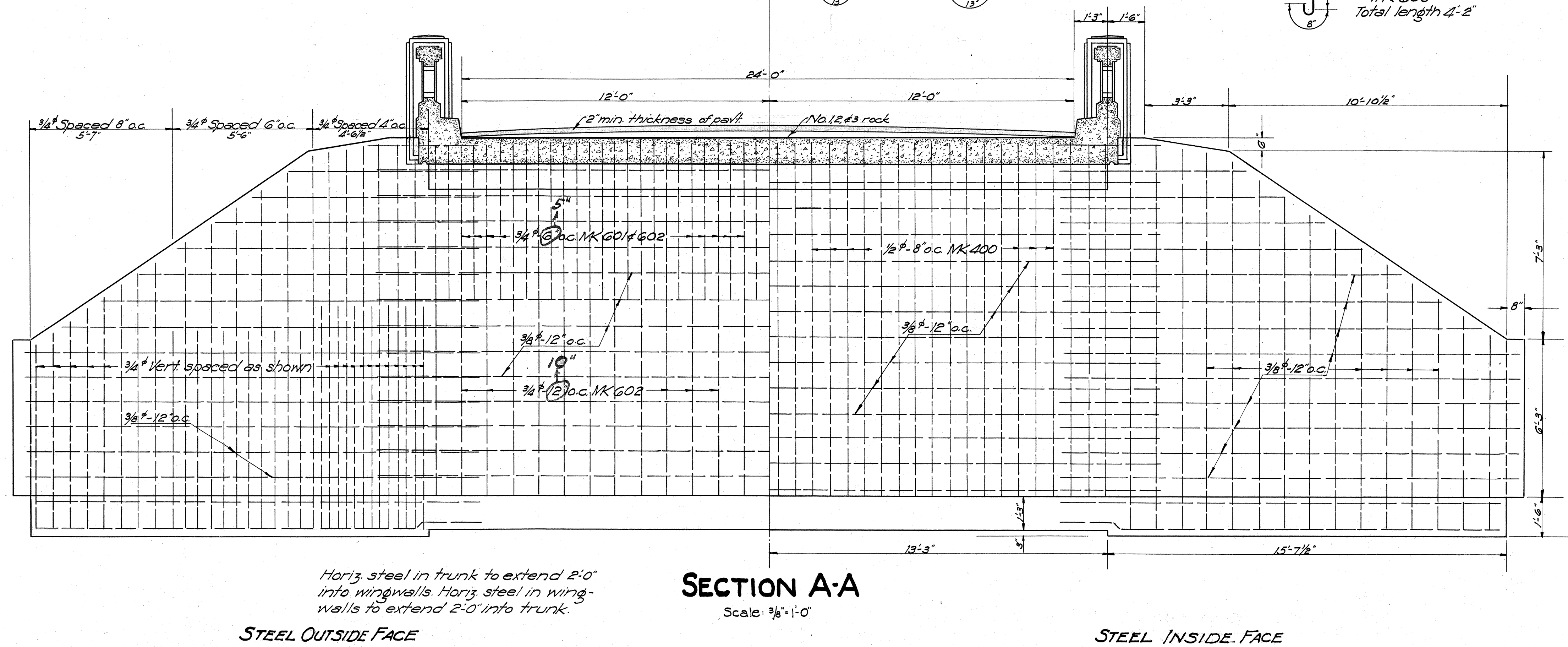
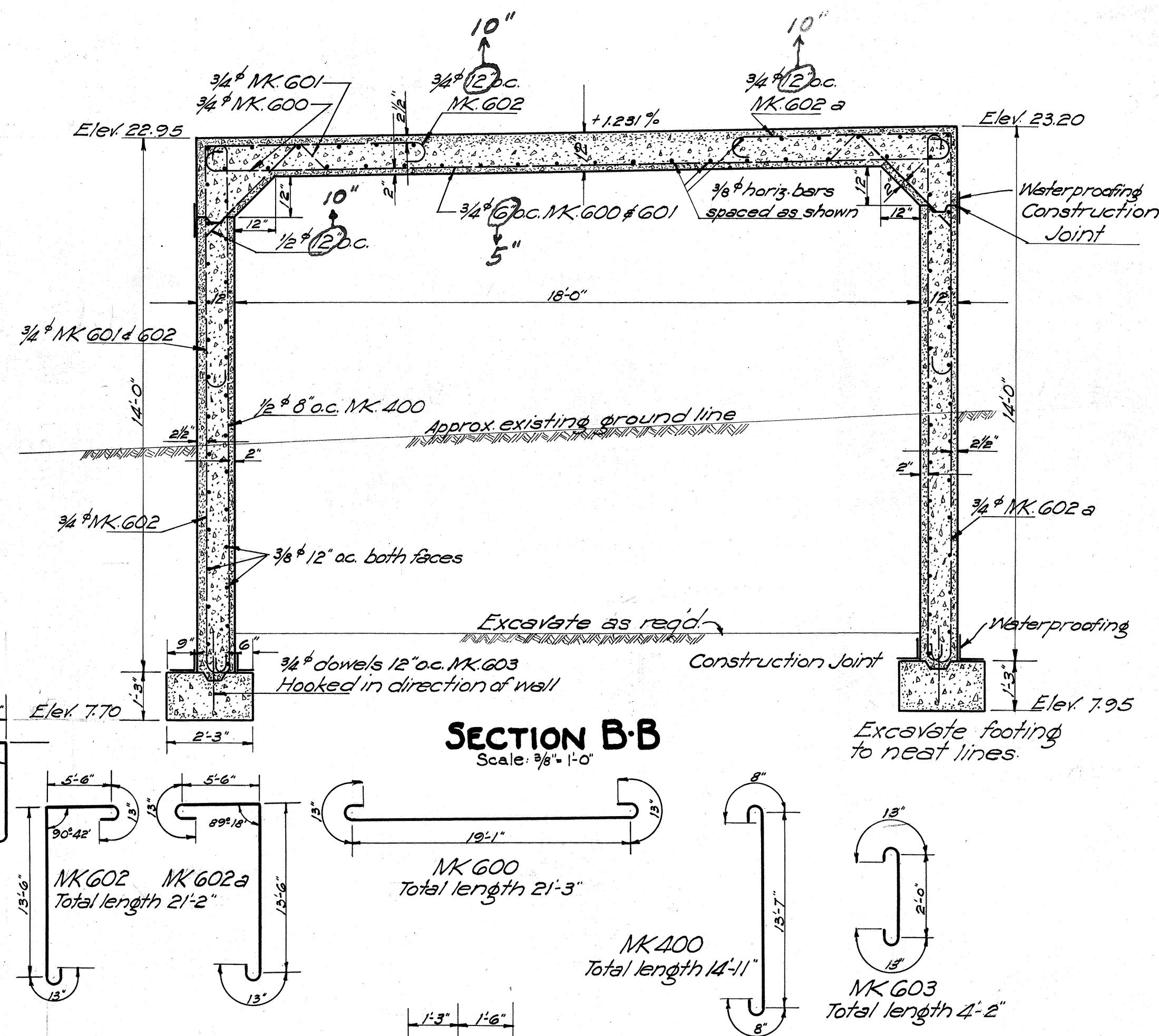
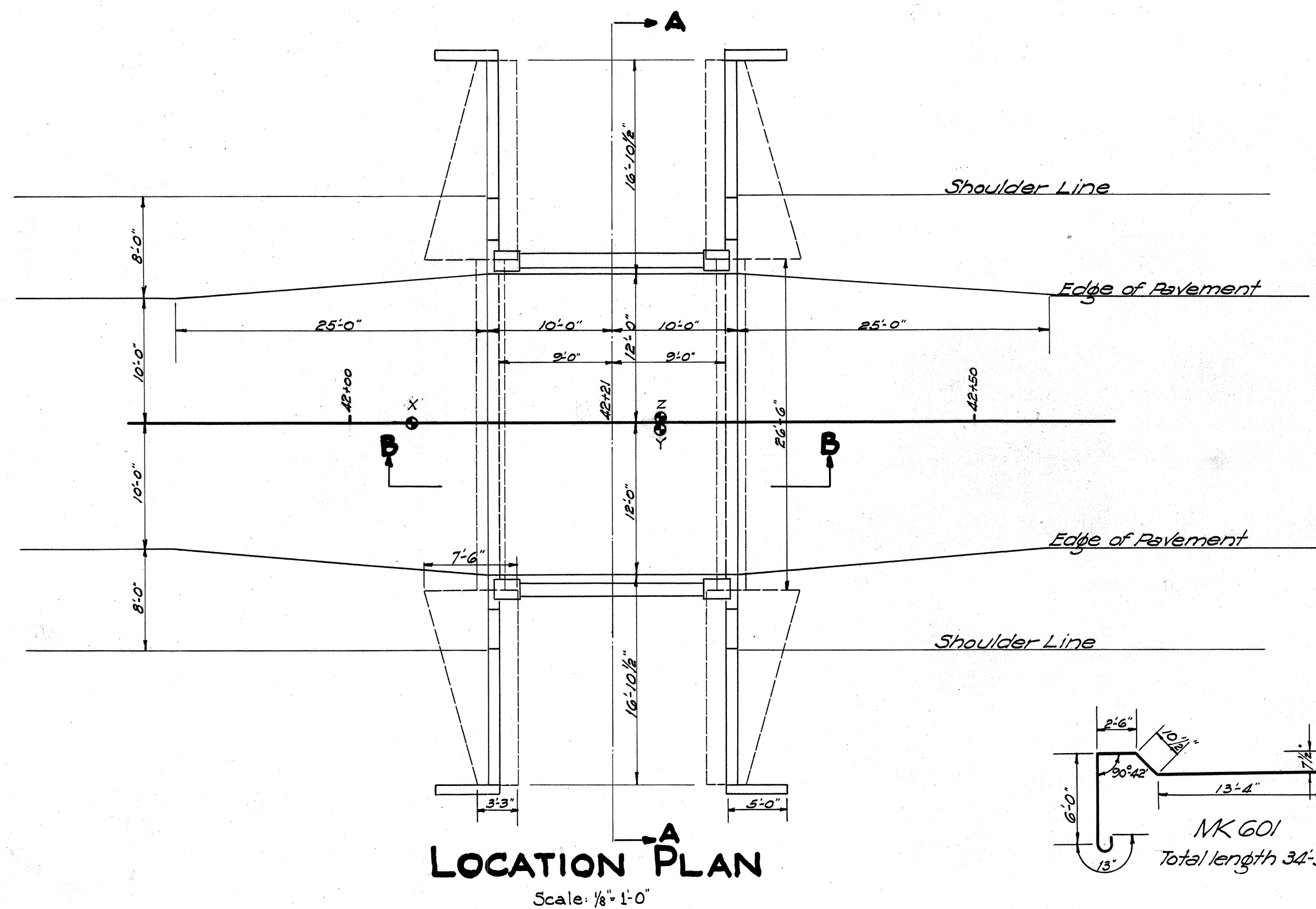
Dead Load: Concrete at 150# per cu.ft.
Live Load: Two 15 ton trucks spaced as per diagram with 30% allowance for impact.
Concrete: Class A (1:2.4 mix) with all exposed edges chamfered $\frac{3}{4}"$ unless otherwise noted. Allowable compression 6500# per sq. in.
Reinforcing Steel: Allowable tensile stress 60000# per sq. in. All steel to be round or square deformed bars of approved design. Square twisted bars not to be considered deformed. All dimensions relating to reinforcement are to centers of bars unless otherwise noted. Where splicing is necessary, bars are to be lapped 40 diameters and splices are to be staggered. Main longitudinal bars are not to be spliced. No allowance is made in quantities for splices. Unless otherwise noted the minimum covering measured from the surface of the concrete to the face of any steel shall be not less than $2\frac{1}{2}"$ in abutments and abutment footings, 2" in basins, girders, and hand rails, and $1\frac{1}{4}"$ in slabs. Steel to be held rigidly and accurately in place before and during placing of concrete.

BRIDGE No.1 & 6'x4' CULVERTS
PAIA SPUR N.R.S.17A

Stas. 35+80, 36+15.5, and 36+50
Sheet 2 of 2 Sheets



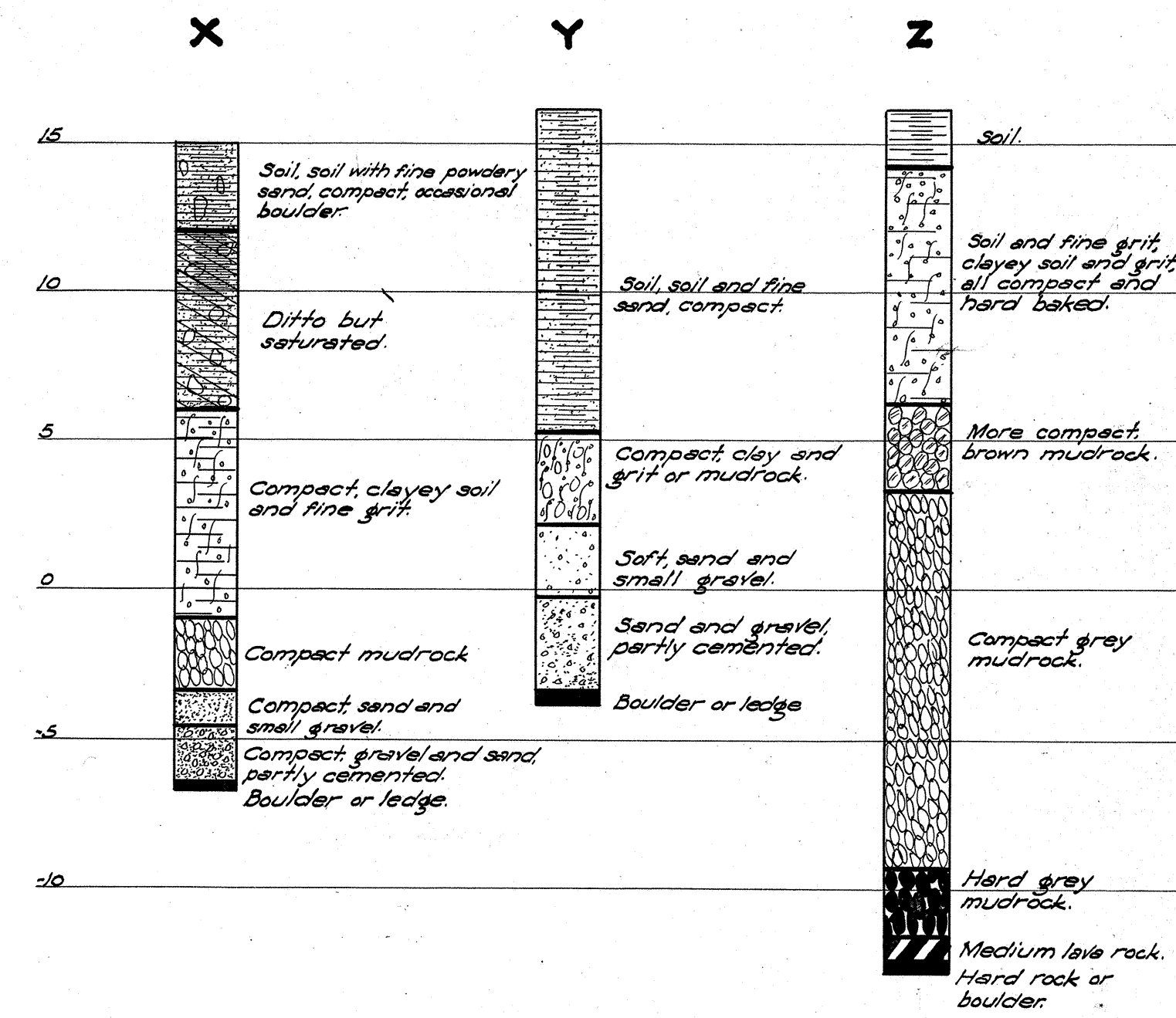
Scale: $\frac{3}{8}'' = 1'-0''$



CONSTRUCTION JOINT: WATERPROOFING:
Mop surface 18" either side of joint with hot asphalt. Apply one layer of 2 ply roofing paper 12" either side of joint to hot asphalt; then mop entire surface with a thick coat of hot asphalt.

GENERAL NOTES:
Joints to have surface roughened and 1:2 cement grout applied immediately before second pour. Bottom construction joints in culverts to be placed at top of haunches only. In case of no bottom slab in culvert, place joint at top of footing. Wherever possible the culvert shall be poured in one lift above the bottom construction joint. Where this is not possible another construction joint shall be placed at the bottom of the slab haunches.

WASH BORING DATA



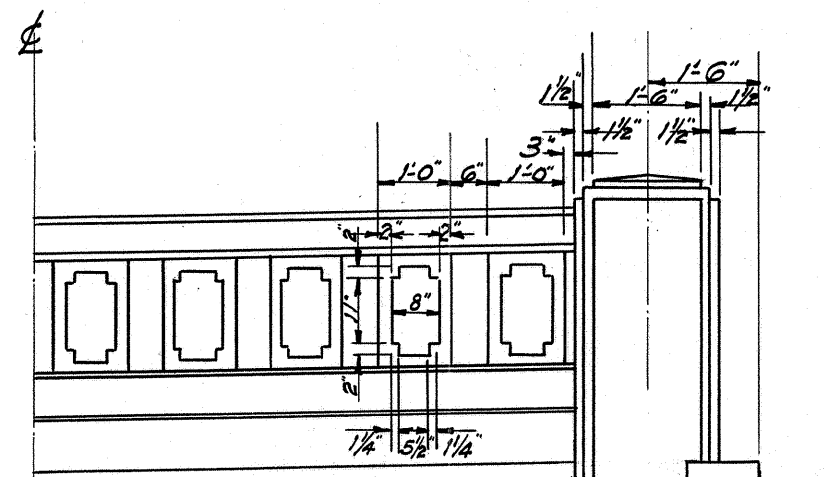
TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII

CONCRETE BOX
PAIA SPUR N.R.S.17A

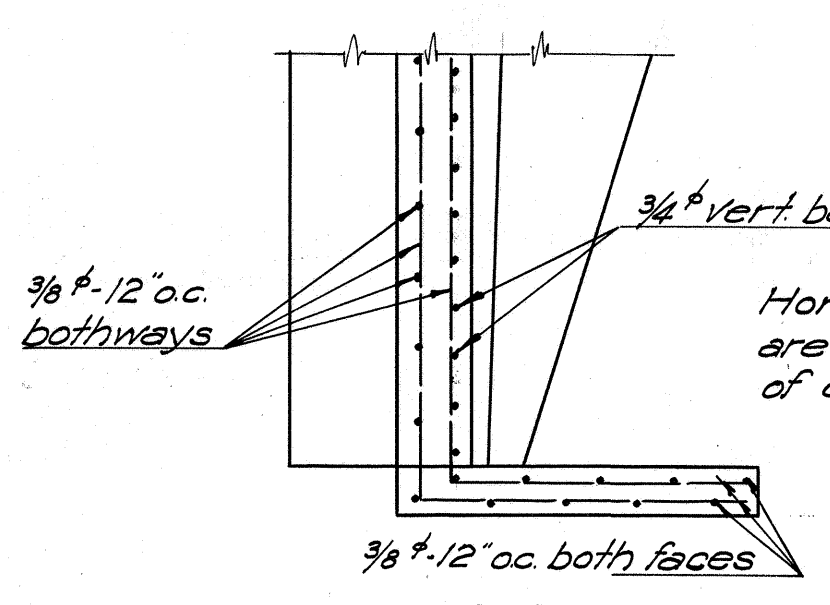
Sta. 42+21
Sheet 1 of 2 Sheets

4301.17

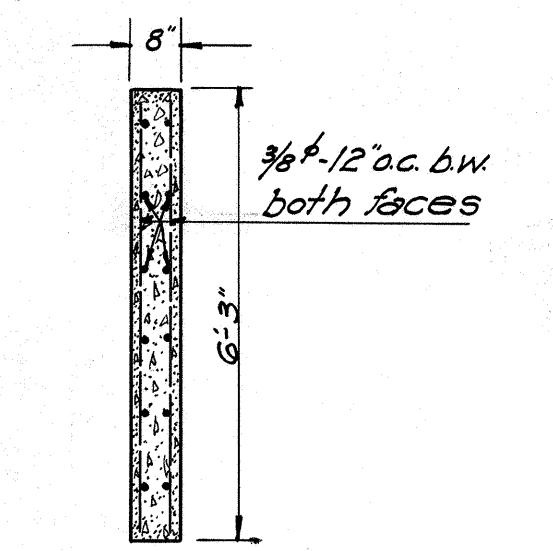
ORIGINAL PLAN
DESIGNED BY: W.R.B.
DRAWN BY: J.C.M.
CHECKED BY: W.R.B.
DATE: 12-26-33
REVISION: 12-26-33
BY: J.C.M.
REASON: 12-26-33
BY: J.C.M.
REASON: 12-26-33



HALF END ELEVATION
Scale: 3/8"=1'-0"

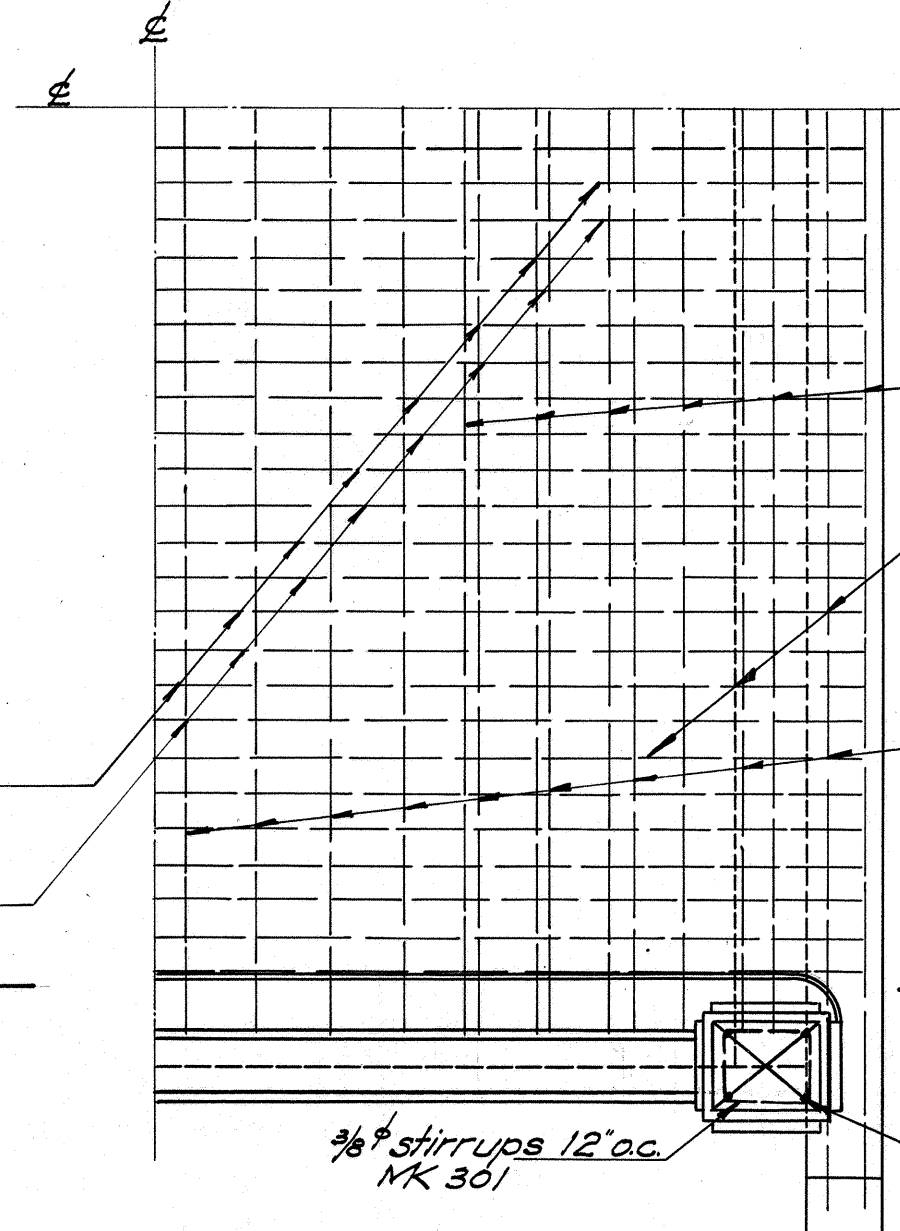


SECT. D-D

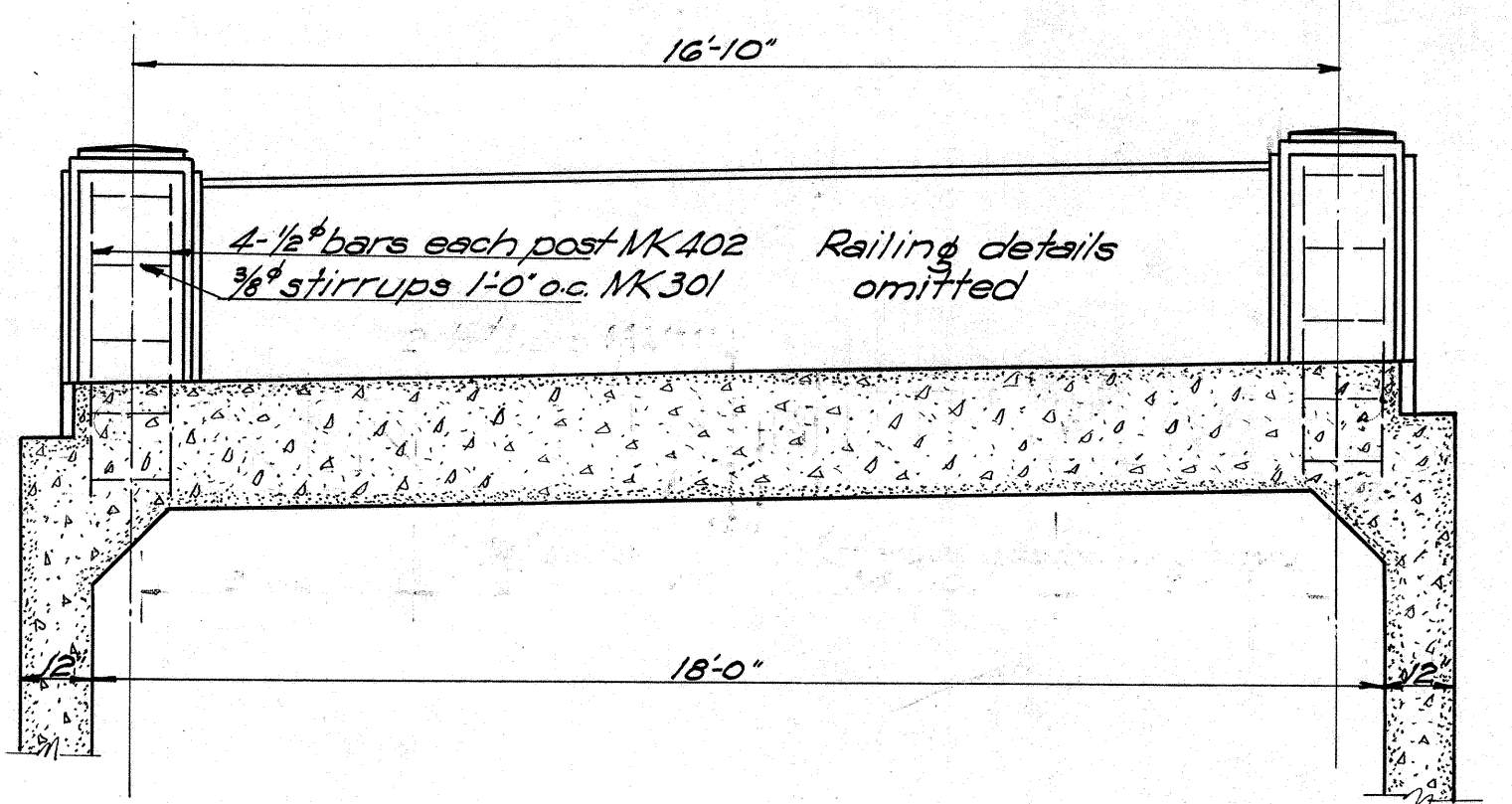


SECT. G-G

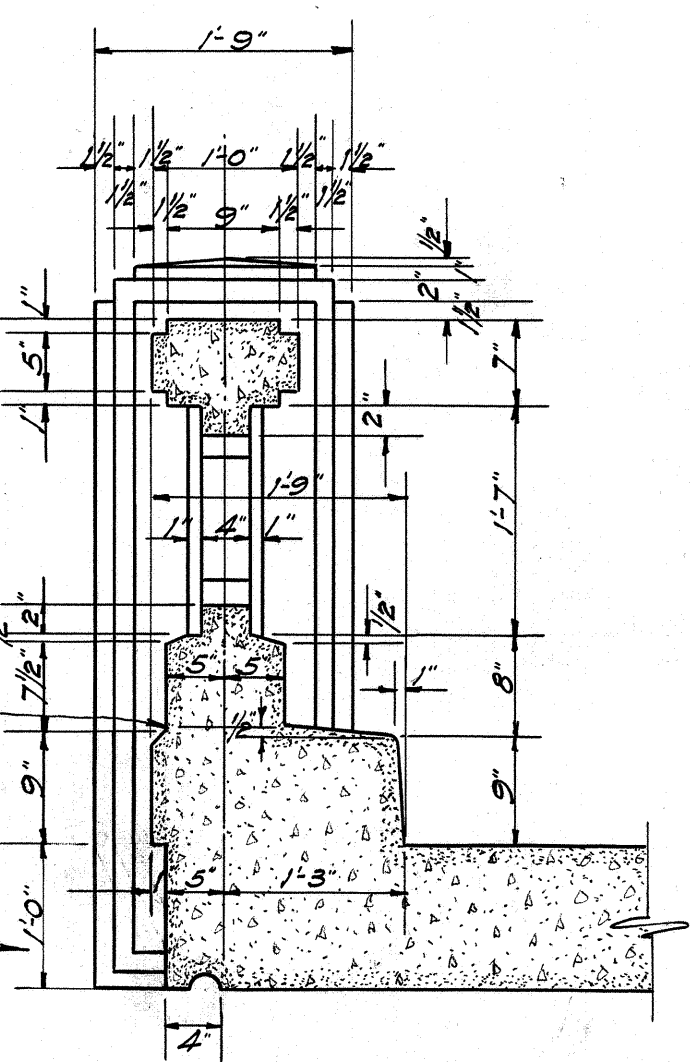
Horiz bars in wingwalls are continuous to end of 8' cutoff wall.



QUARTER DECK PLAN
Scale: 3/8"=1'-0"



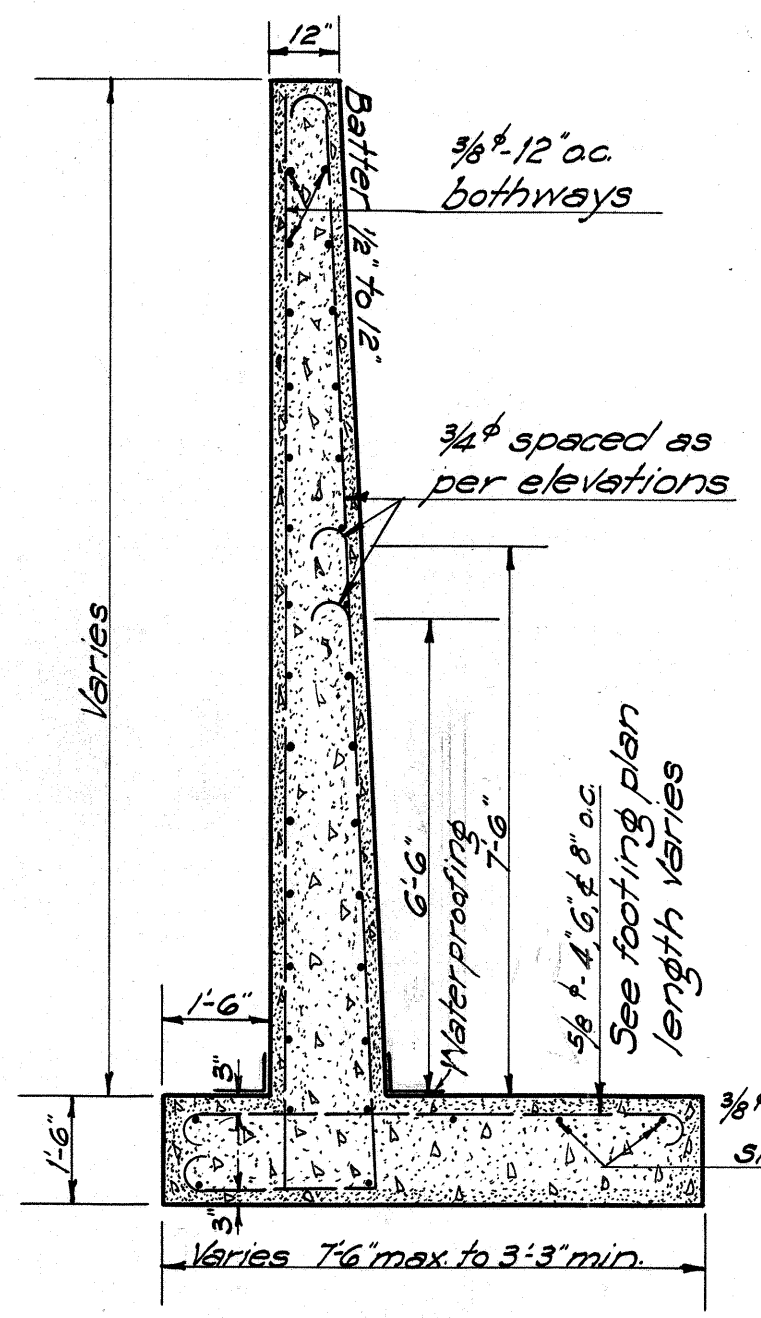
SECT. E-E
Scale: 3/8"=1'-0"



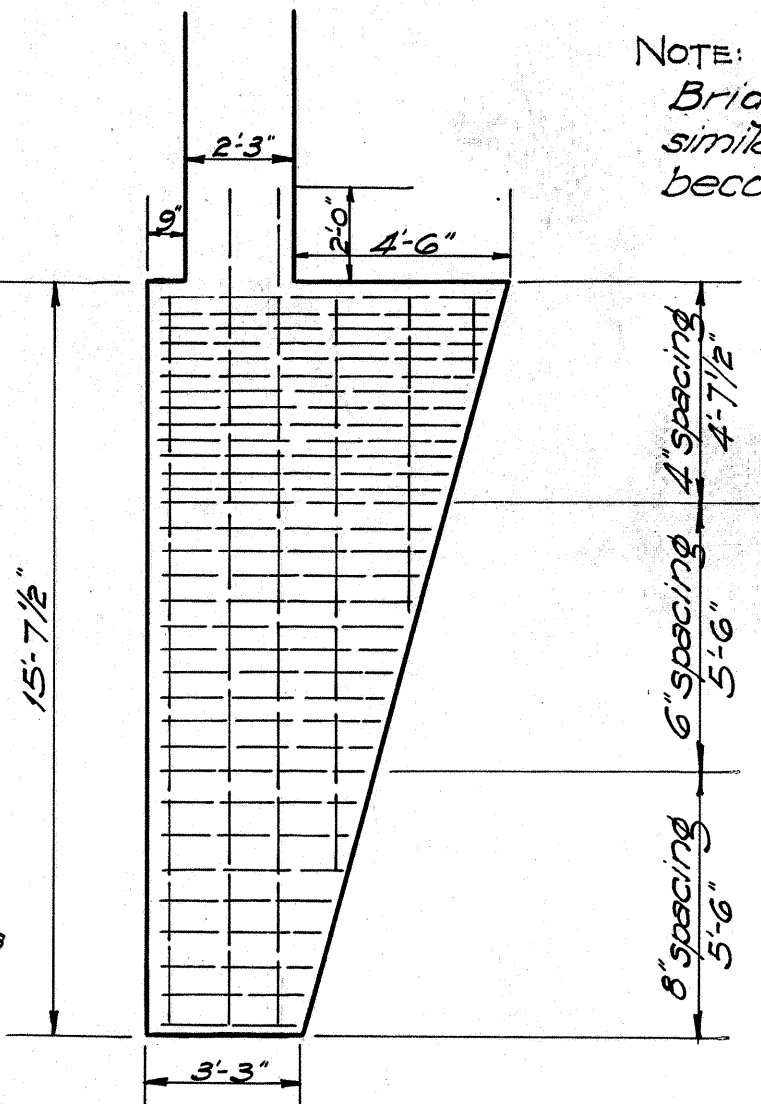
SECTION THRU RAILING
Scale: 3/4"=1'-0"

ESTIMATED QUANTITIES

Unclassified excavation	306.0 cu yd.
Structure excavation	189.0 " "
Class "A" concrete	110.0 " "
Reinforcing steel	4,060.0 lbs. 11,674

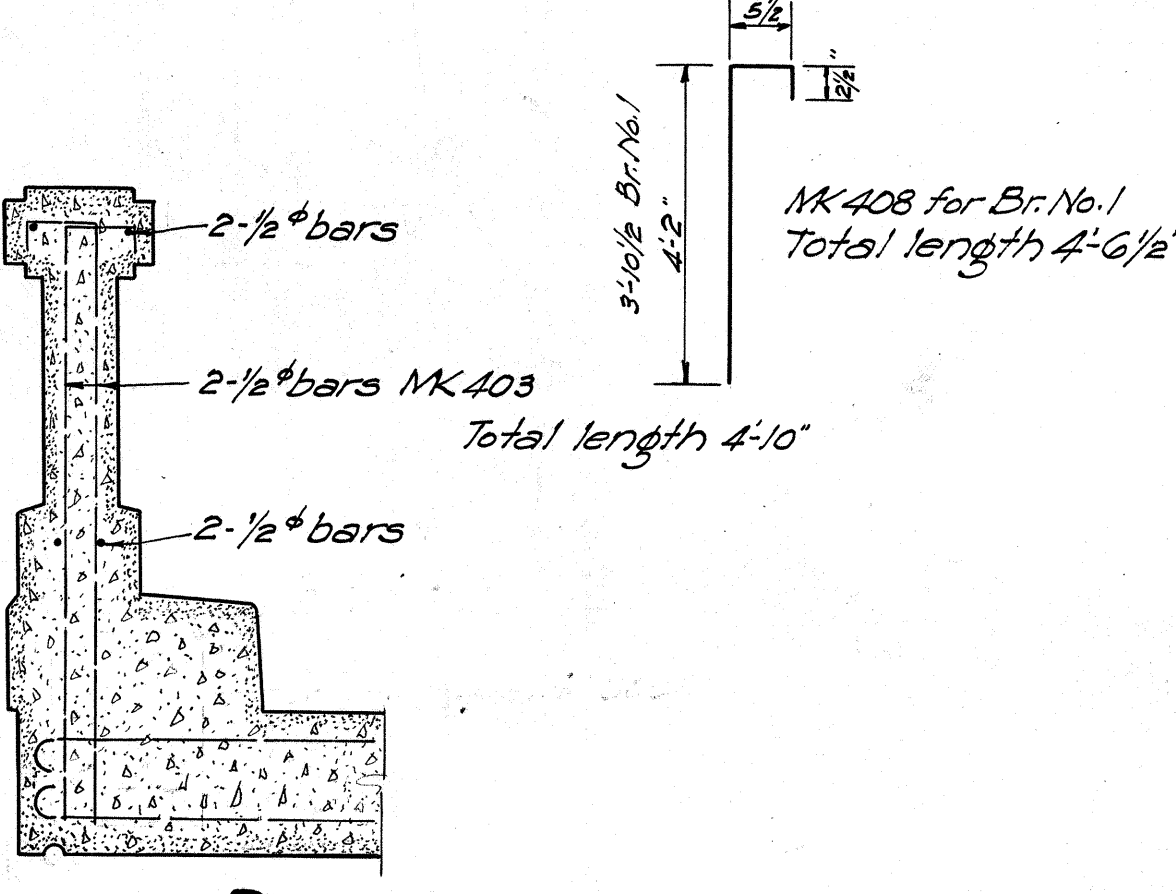


SECTION OF RETAINING WALL
Scale: 3/8"=1'-0"



PLAN OF FOOTING
Scale: 1/4"=1'-0"

NOTE: Railing details for Bridge No. 1 at sta 36+15.5 similar. This dimension becomes 8 1/2"



DETAIL OF RAILING REINFORCING
Scale: 3/4"=1'-0"

REVISION 12-26-33 as per Civil Engineer Nov 24, 33