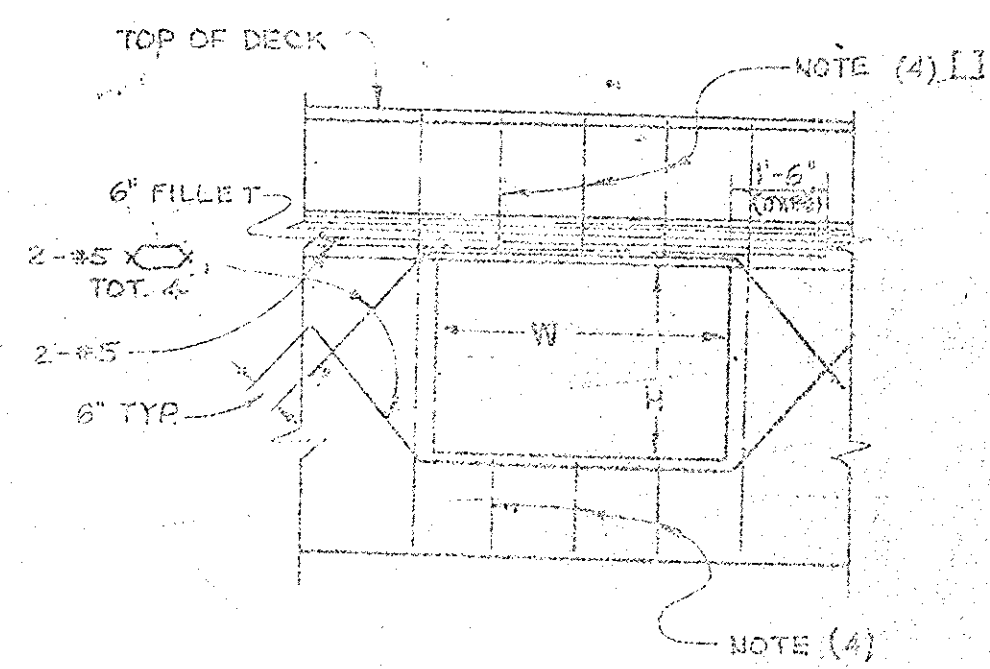
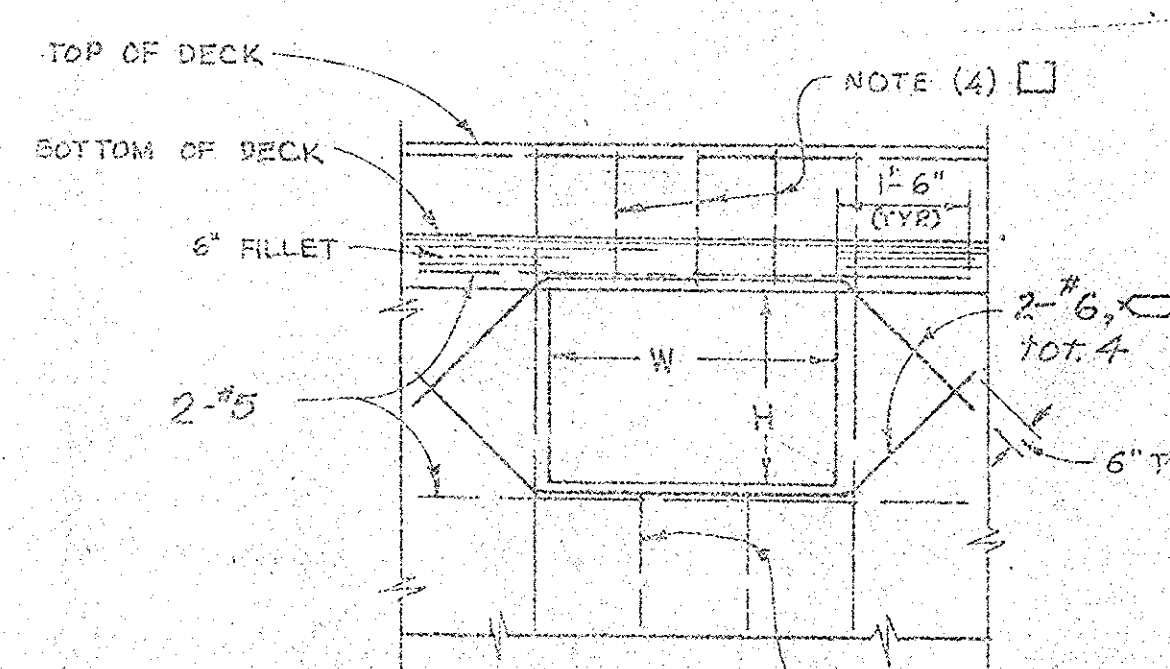




INTERMEDIATE

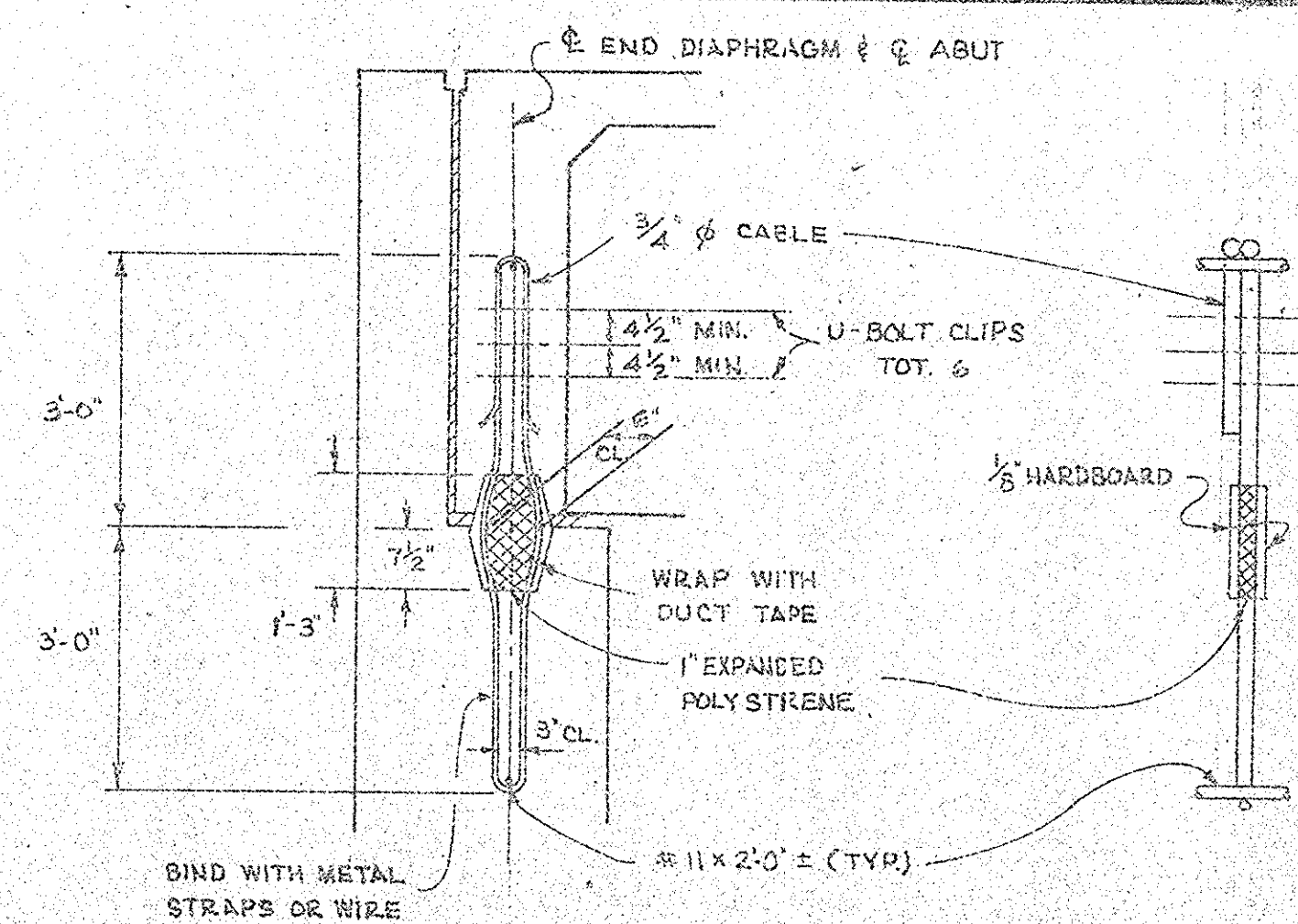


PIERS & ABUTMENTS

UTILITY OPENING DETAILS AT DIAPHRAGMS

NOTES

- (1) ALL REINFORCEMENT DETAILED TO BE PLACED IN ADDITION TO REINFORCEMENT SHOWN ON OTHER SHEETS.
- (2) STIRRUPS ARE SAME SIZE AS ADJACENT STIRRUPS SHOWN ON OTHER SHEETS.
- (3) FOR EXACT LOCATION, ELEVATION, SIZE AND DIRECTION OF OPENINGS, SEE OTHER SHEETS.
- (4) REINF. SHALL BE AT $\frac{2}{3}$ THE SPACING OF ADJACENT REINF. SHOWN ON OTHER SHEETS.



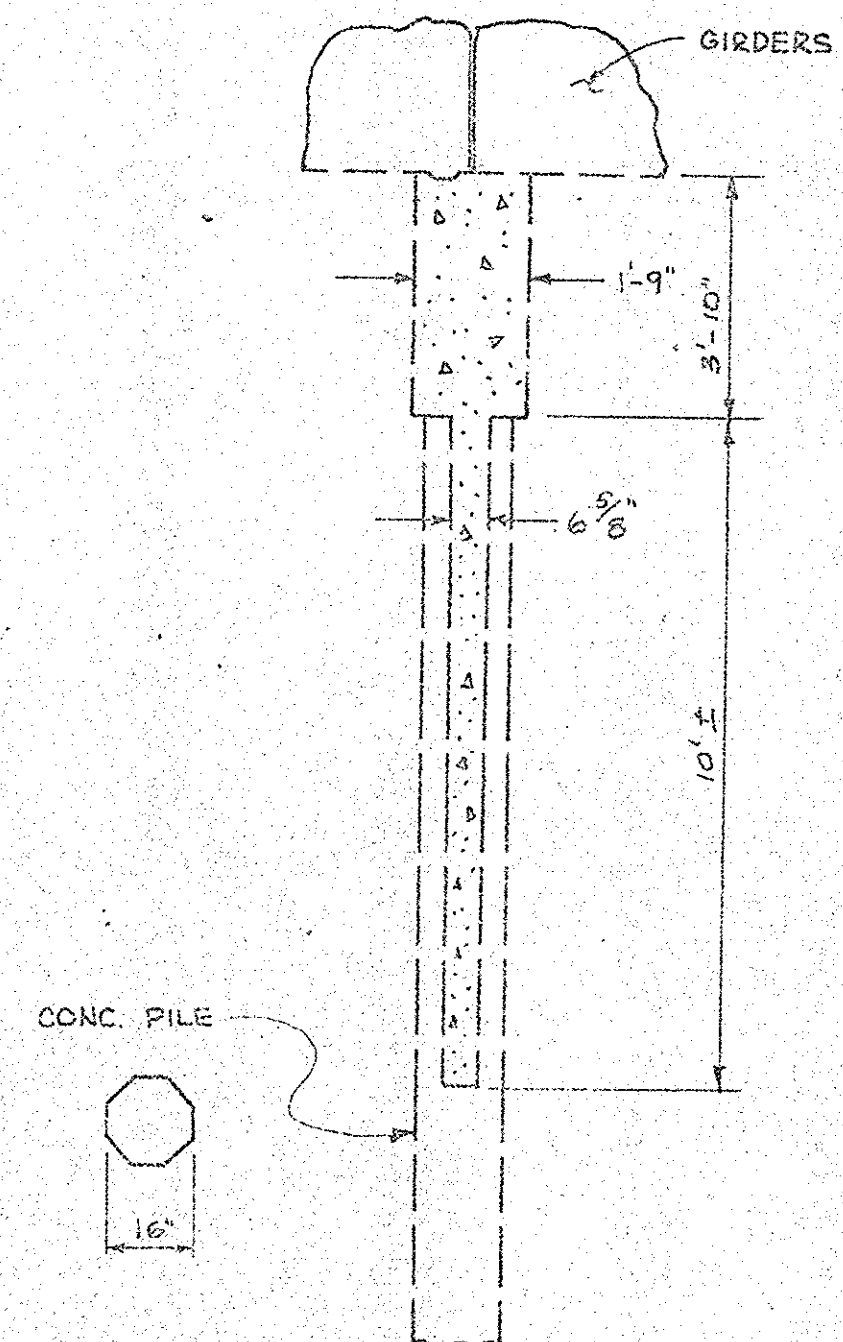
ELEVATION

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

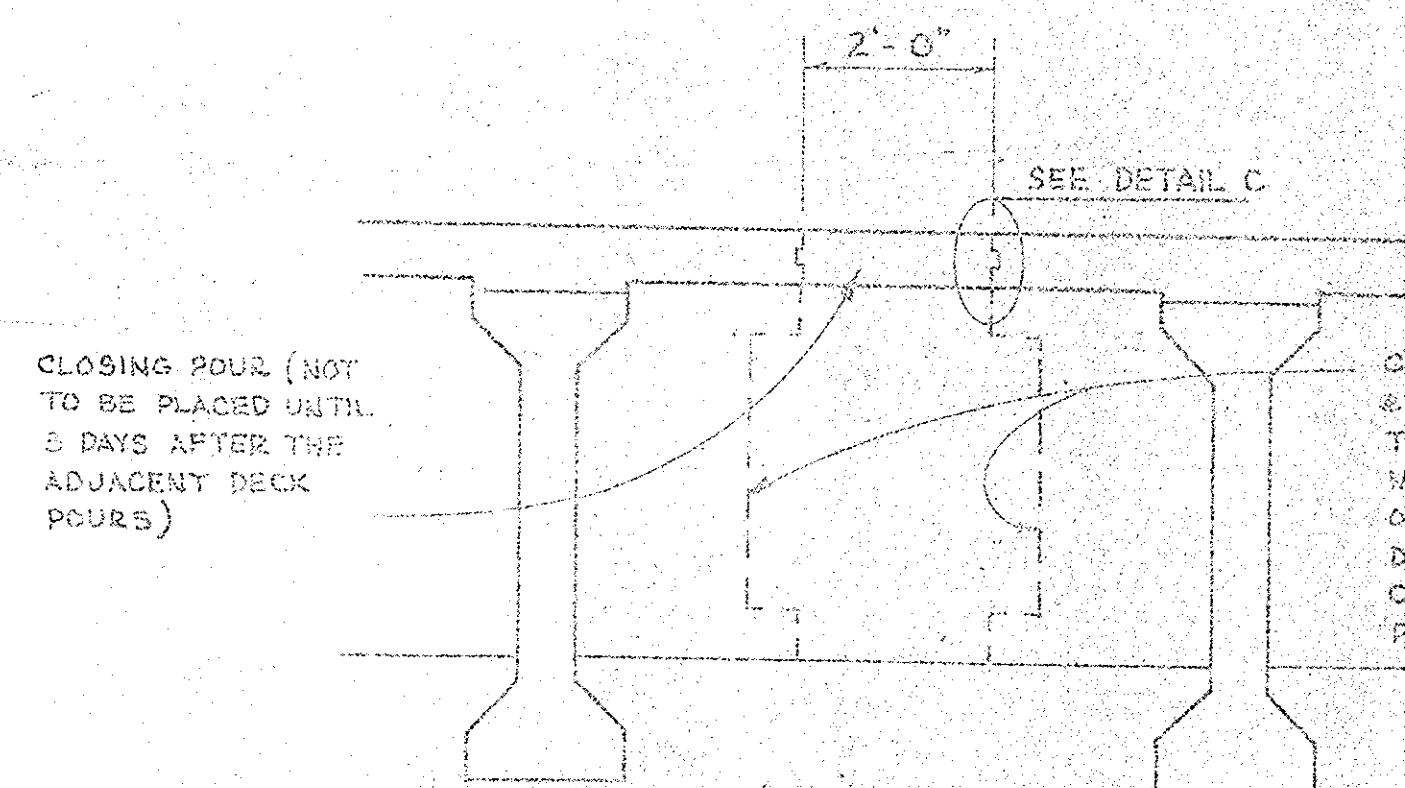
SECTION

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

VERTICAL RESTRAINER UNIT

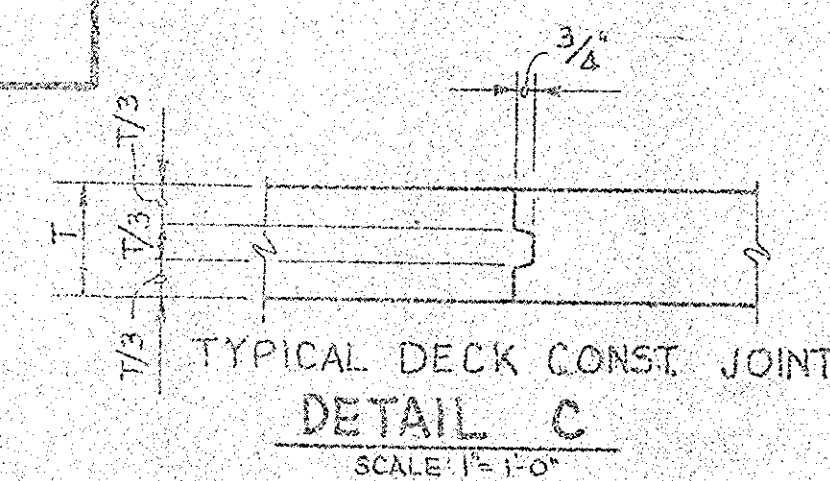


TYPICAL SECTION @ EXIST. PIER



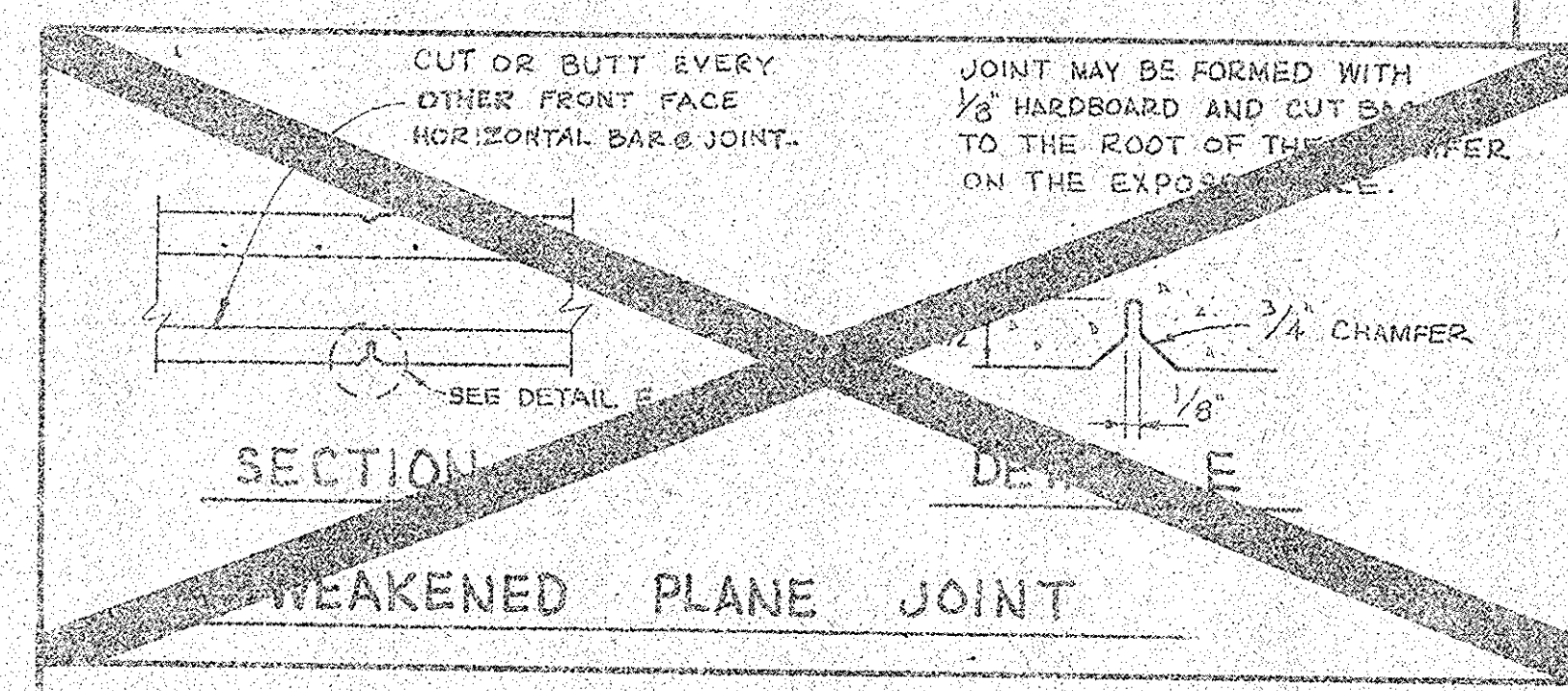
LONGITUDINAL CONSTRUCTION JOINT

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



DETAIL C

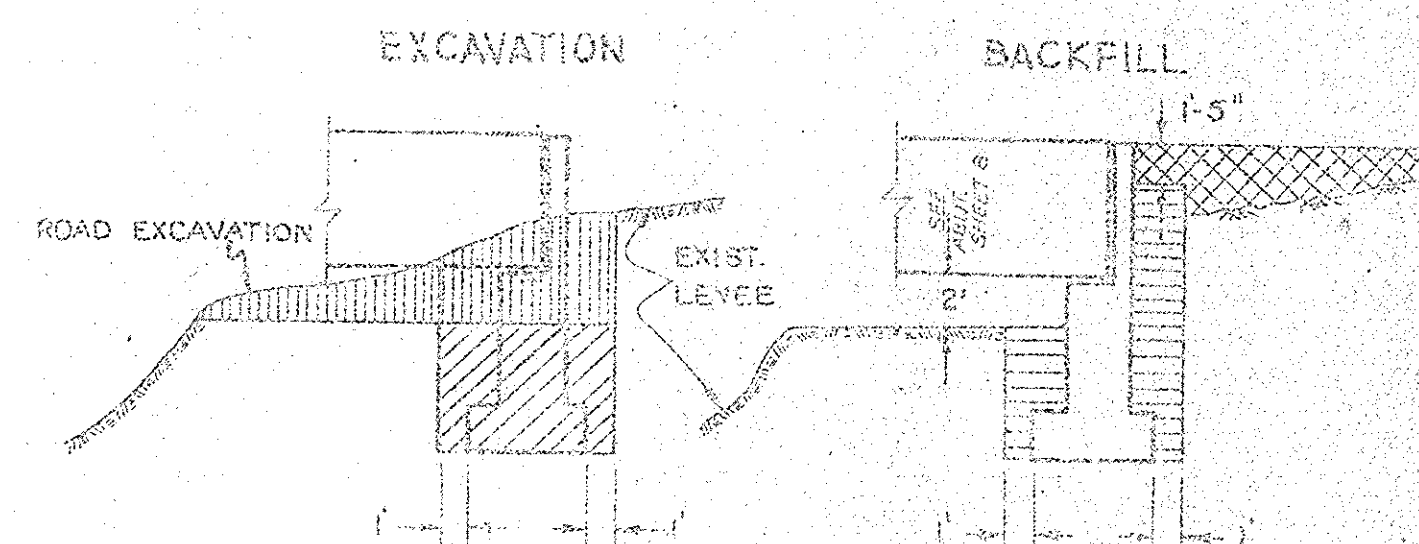
SCALE: $\frac{1}{2}$ " = 1'-0"



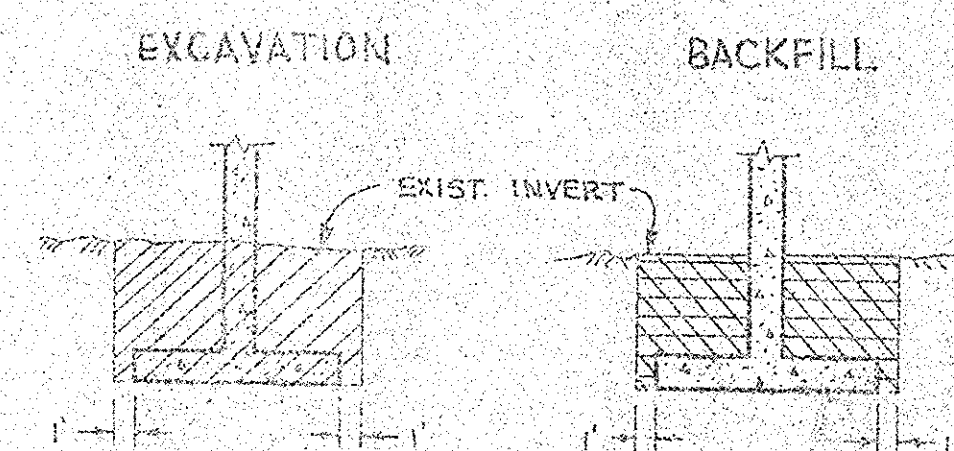
SECTION

DETAIL E

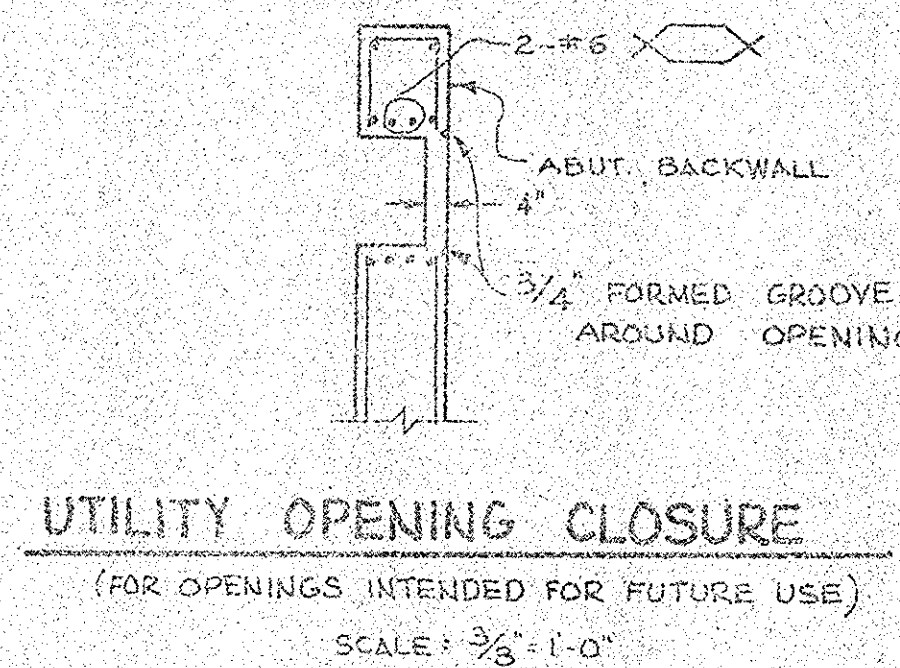
WEAKENED PLANE JOINT



ABUTMENTS ON EXISTING LEVELS



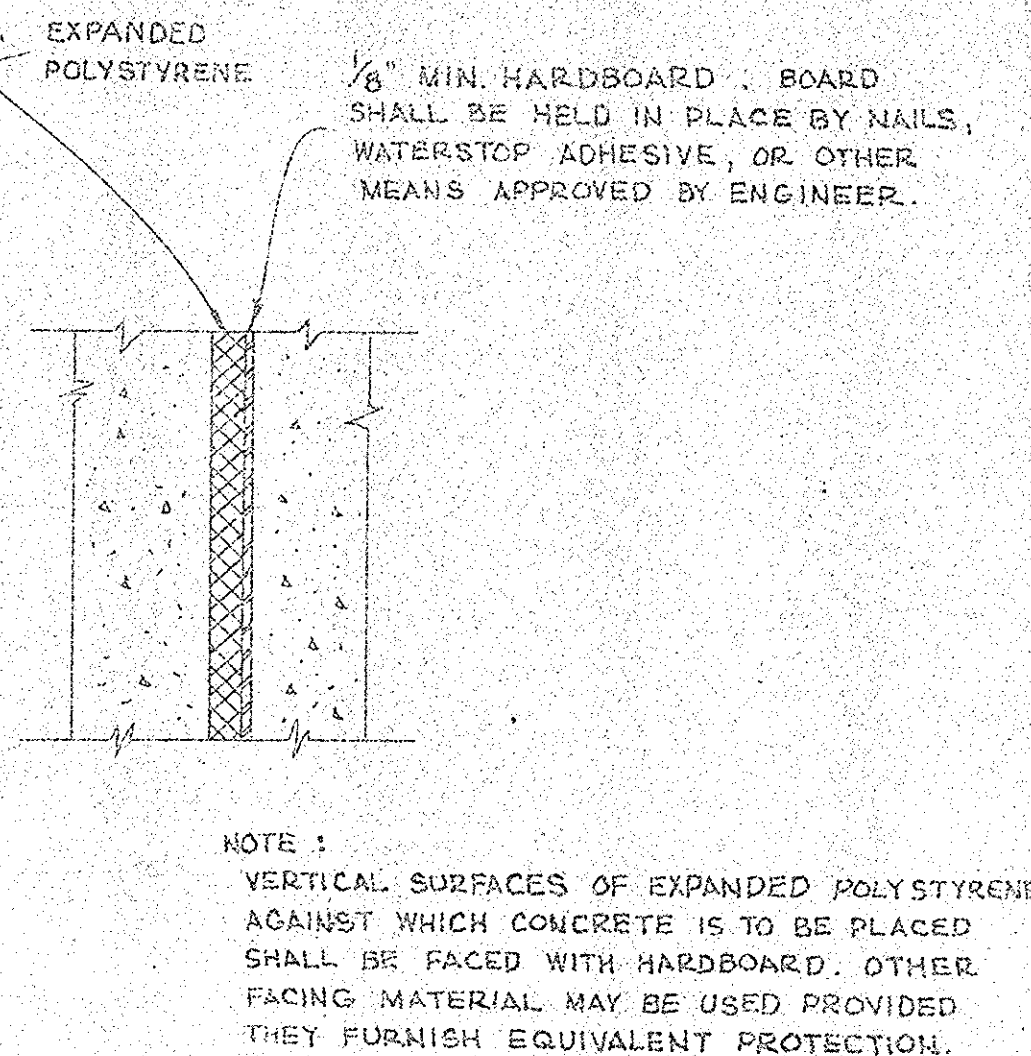
PIERS



UTILITY OPENING CLOSURE

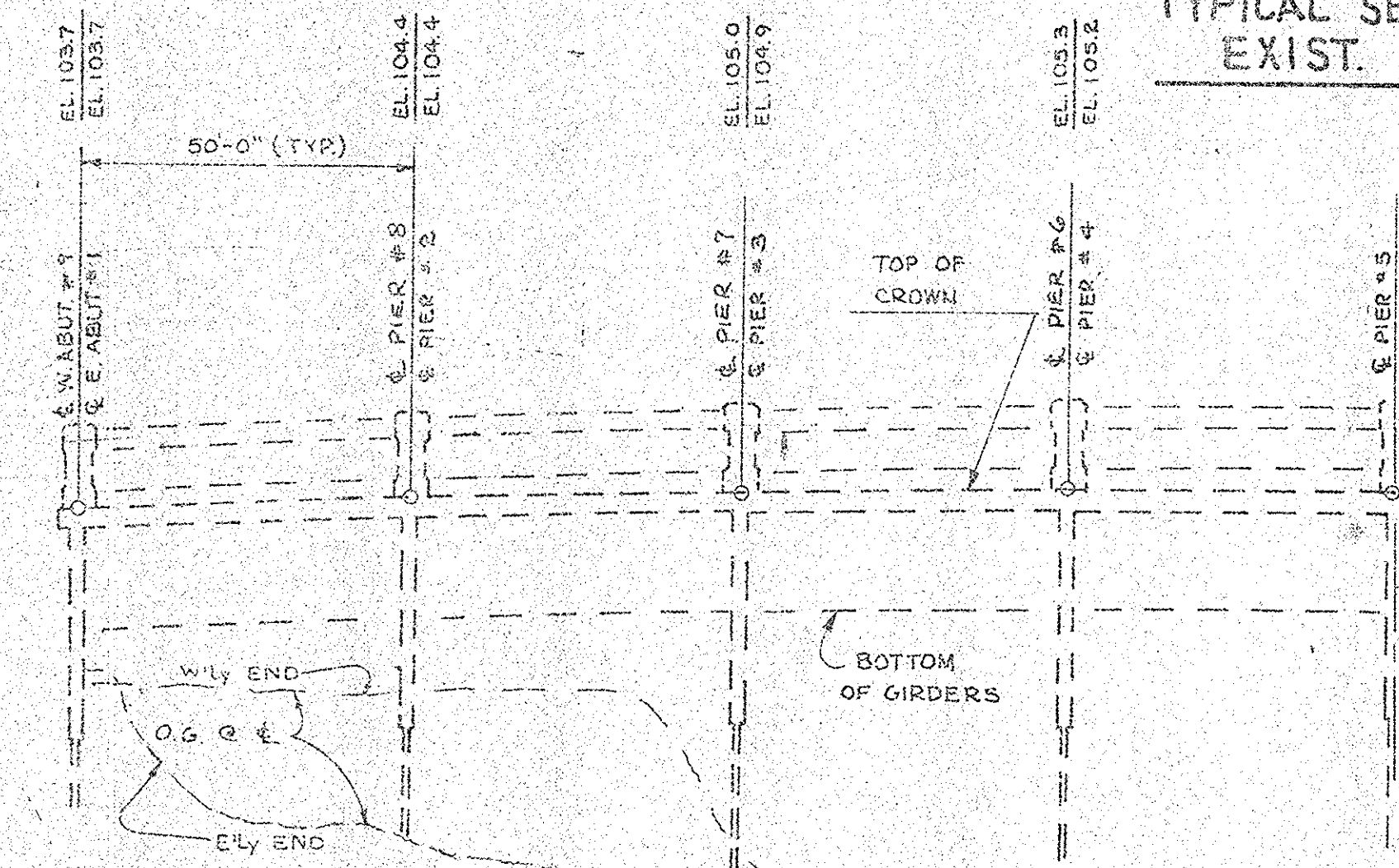
(FOR OPENINGS INTENDED FOR FUTURE USE)

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



NOTE: VERTICAL SURFACES OF EXPANDED POLYSTYRENE AGAINST WHICH CONCRETE IS TO BE PLACED SHALL BE FACED WITH HARDBOARD. OTHER FACING MATERIAL MAY BE USED PROVIDED THEY FURNISH EQUIVALENT PROTECTION.

PROTECTION OF VERTICAL POLYSTYRENE

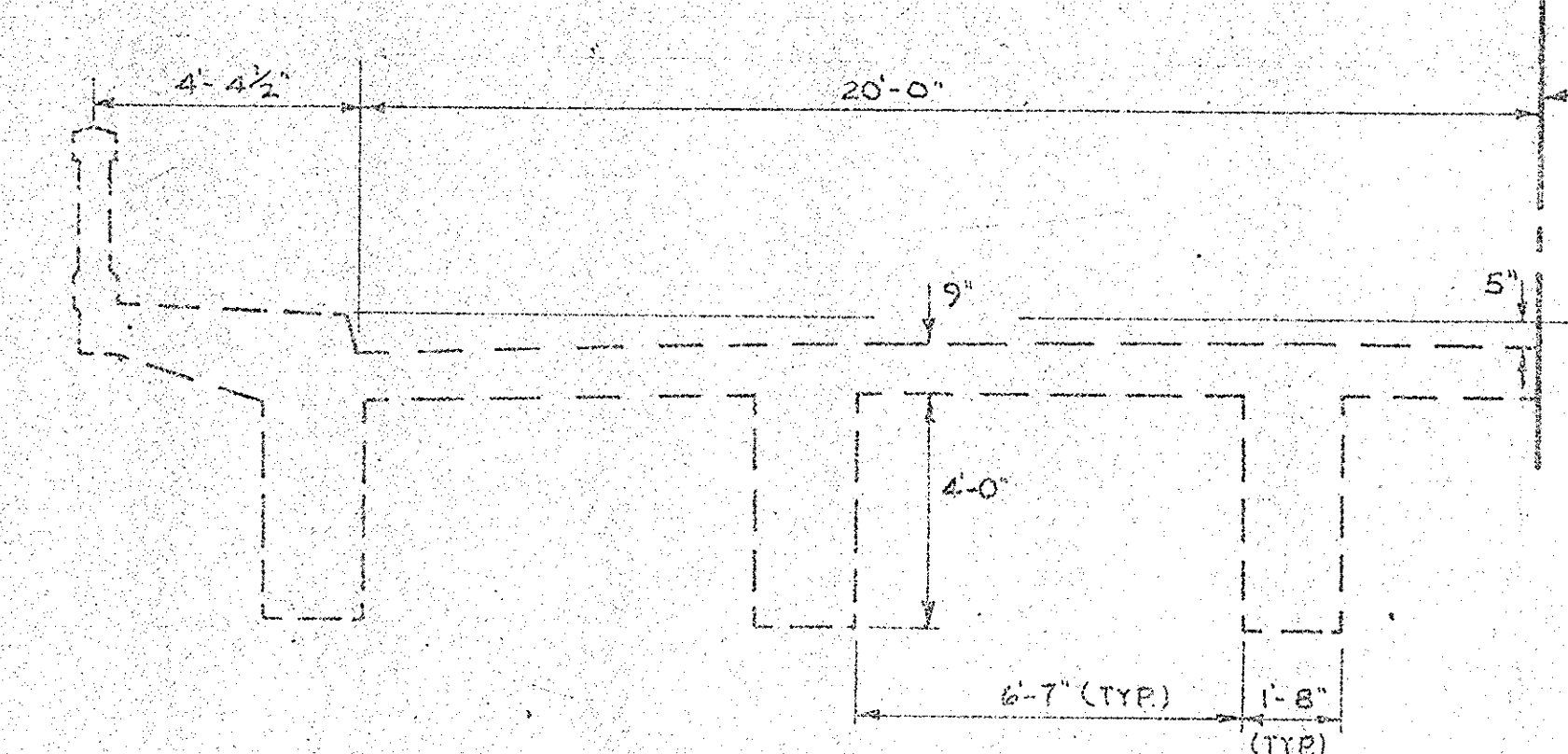


PROFILE OF EXISTING BRIDGE

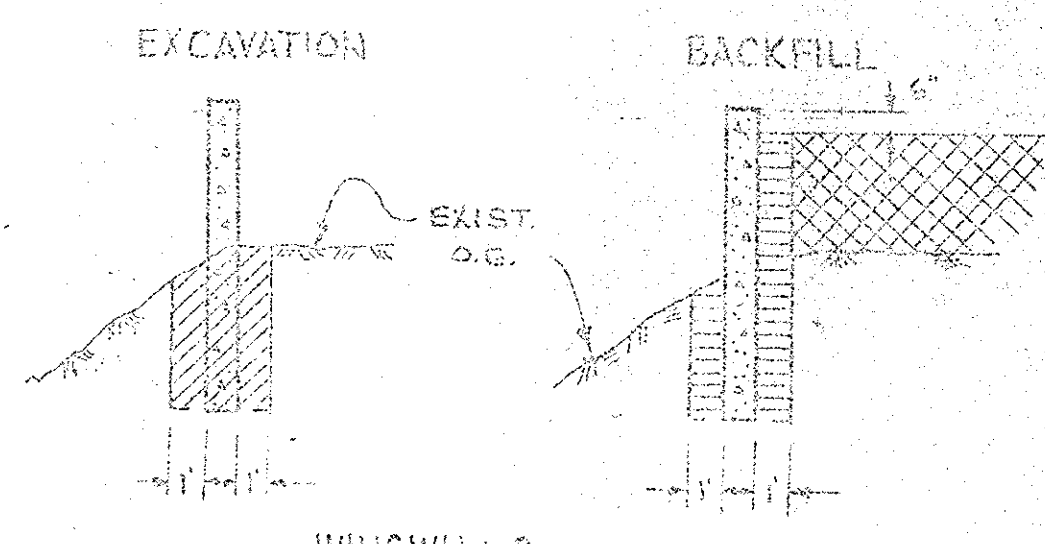
VERTICAL SCALE EXAGGERATED

EXIST. BRIDGE SYMMETRICAL ABOUT & EXIST. PIER #5 BOTH HORIZ. & VERT.

- NOTES:
1. ELEVATIONS SHOWN ARE EXIST. TOP OF CROWN.
 2. FOR CUT-OFF ELEV. FOR EXIST. PILES, SEE SHT. 7



EXIST. BRIDGE HALF SECTION



WINGWALLS

STRUCTURE EXCAVATION & BACKFILL DETAILS

- ROADWAY EXCAVATION
- STRUCTURE EXCAVATION
- STRUCTURE BACKFILL (METHOD A)
- STRUCTURE BACKFILL (METHOD B)
- ROADWAY EMBANKMENT (BY CITY OF SANTA ANA)

ORANGE COUNTY ROAD DEPARTMENT

SEVENTEENTH STREET BRIDGE
SA-20
ACROSS SANTA ANA RIVER
MISCELLANEOUS DETAILS

SCALE AS SHOWN

SHEET 14 OF 20

DR17 (12215)