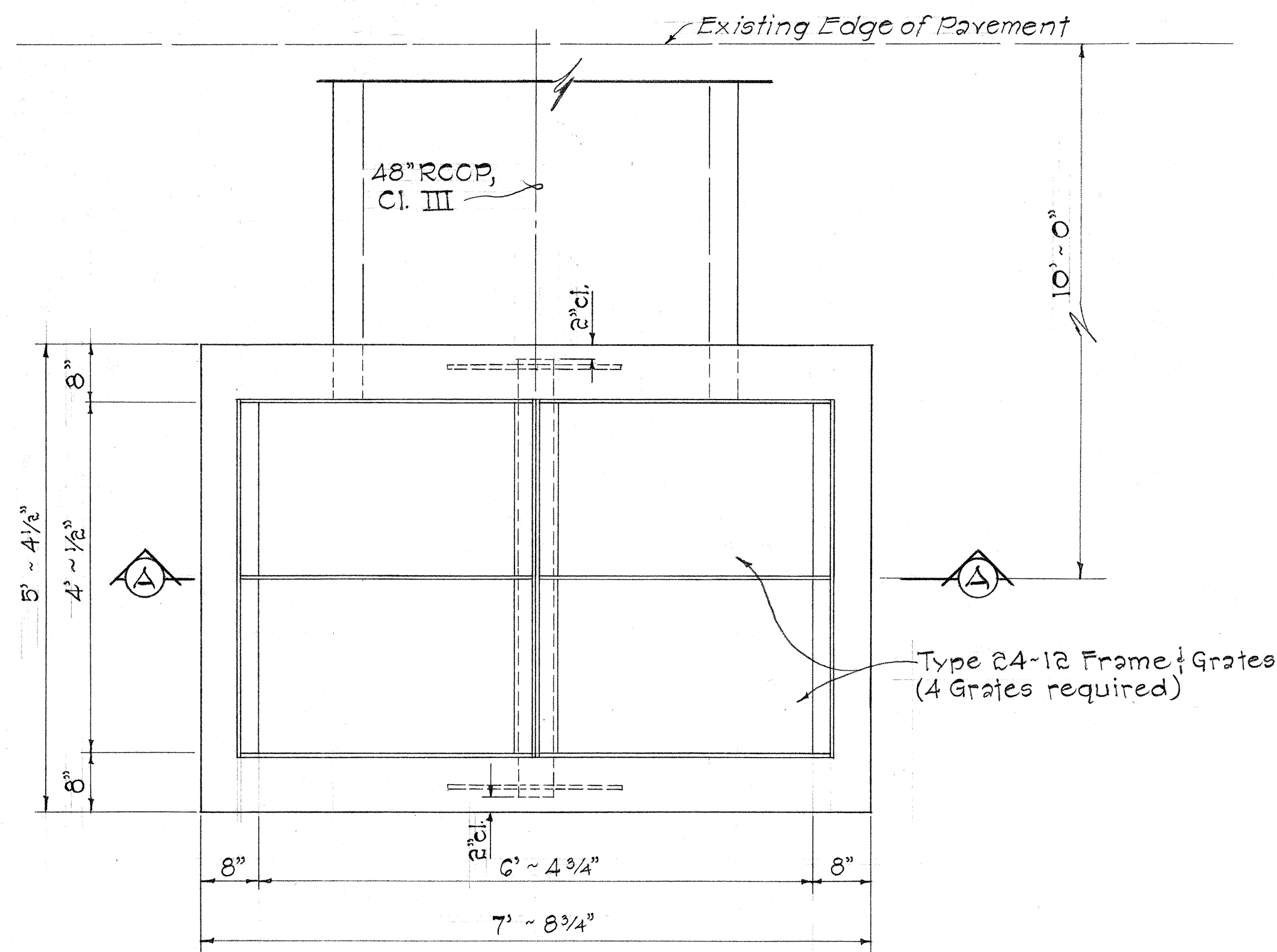
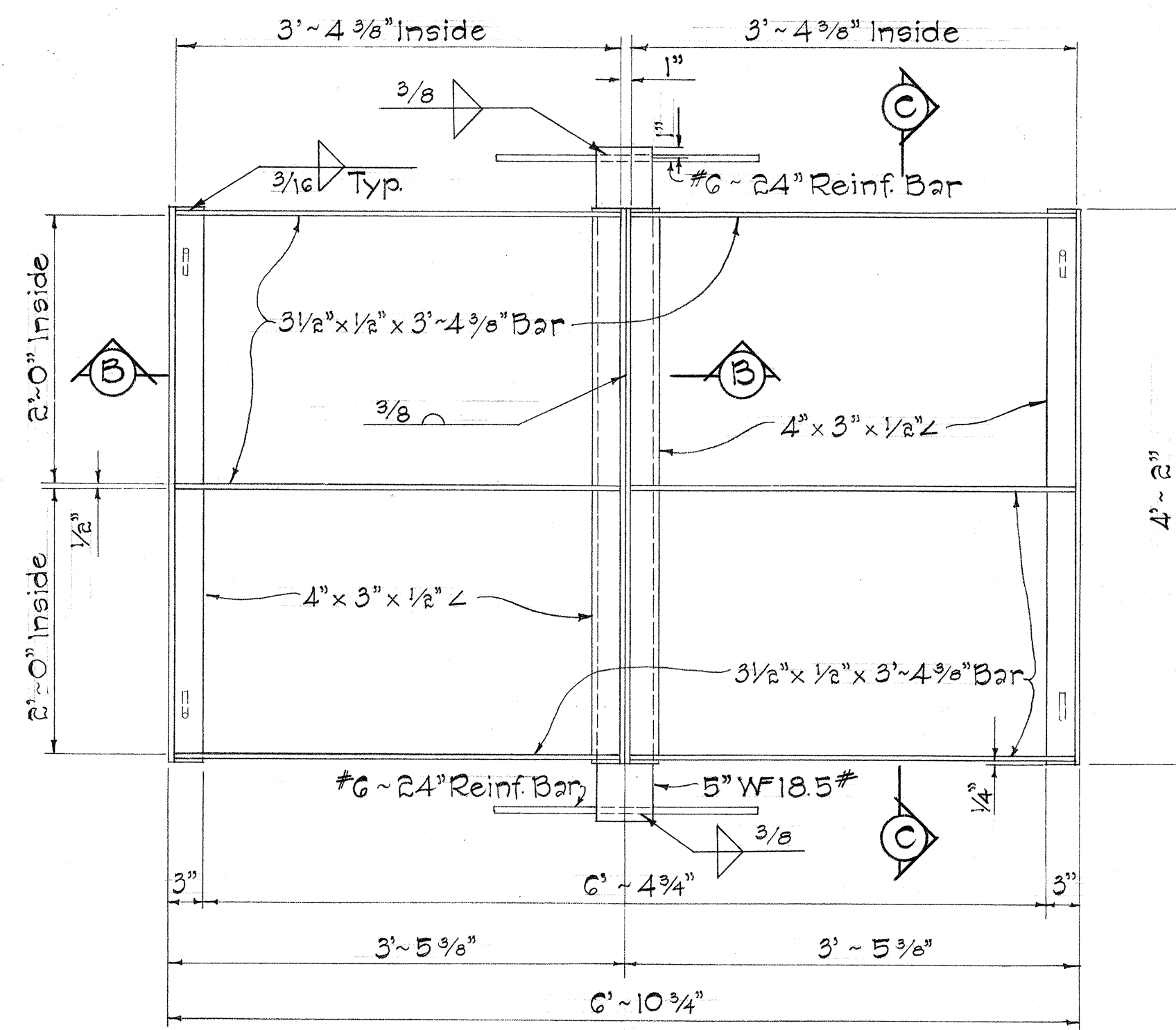


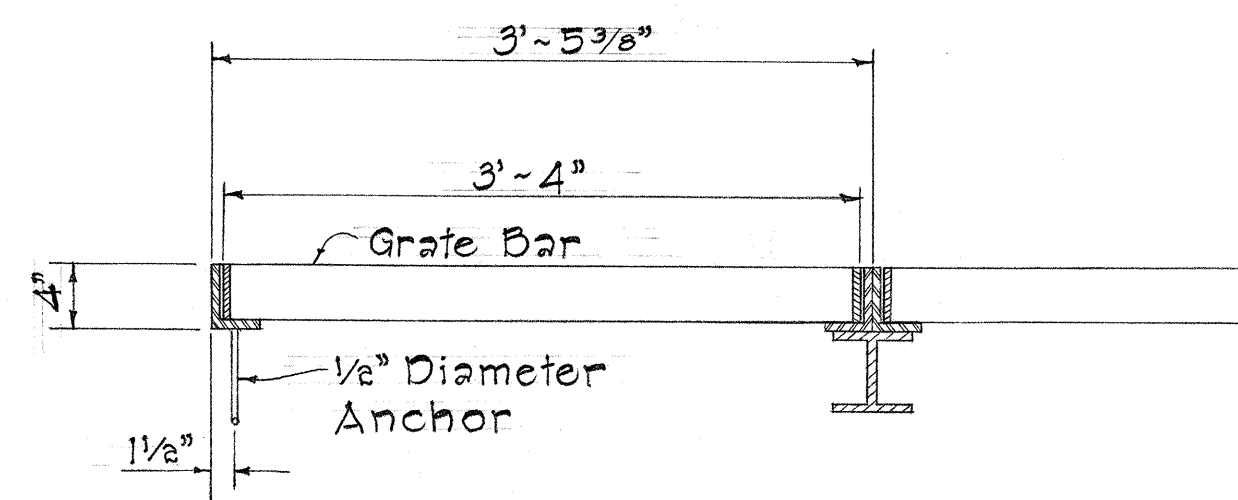
| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-----------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 83C-04-68 | 1968        | 3         | 6            |



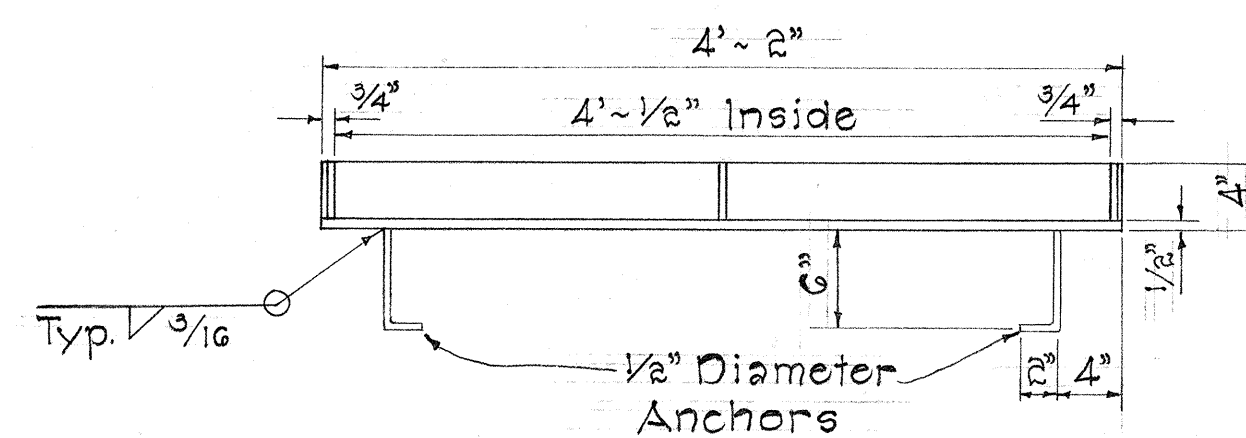
PLAN



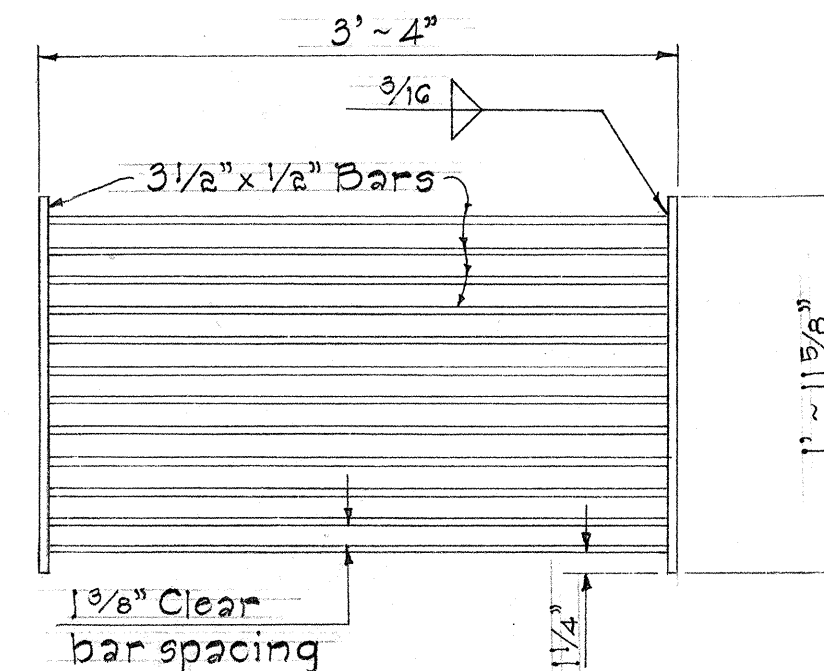
PLAN



SECTION "B-B"  
(Thru Frame & Grate)



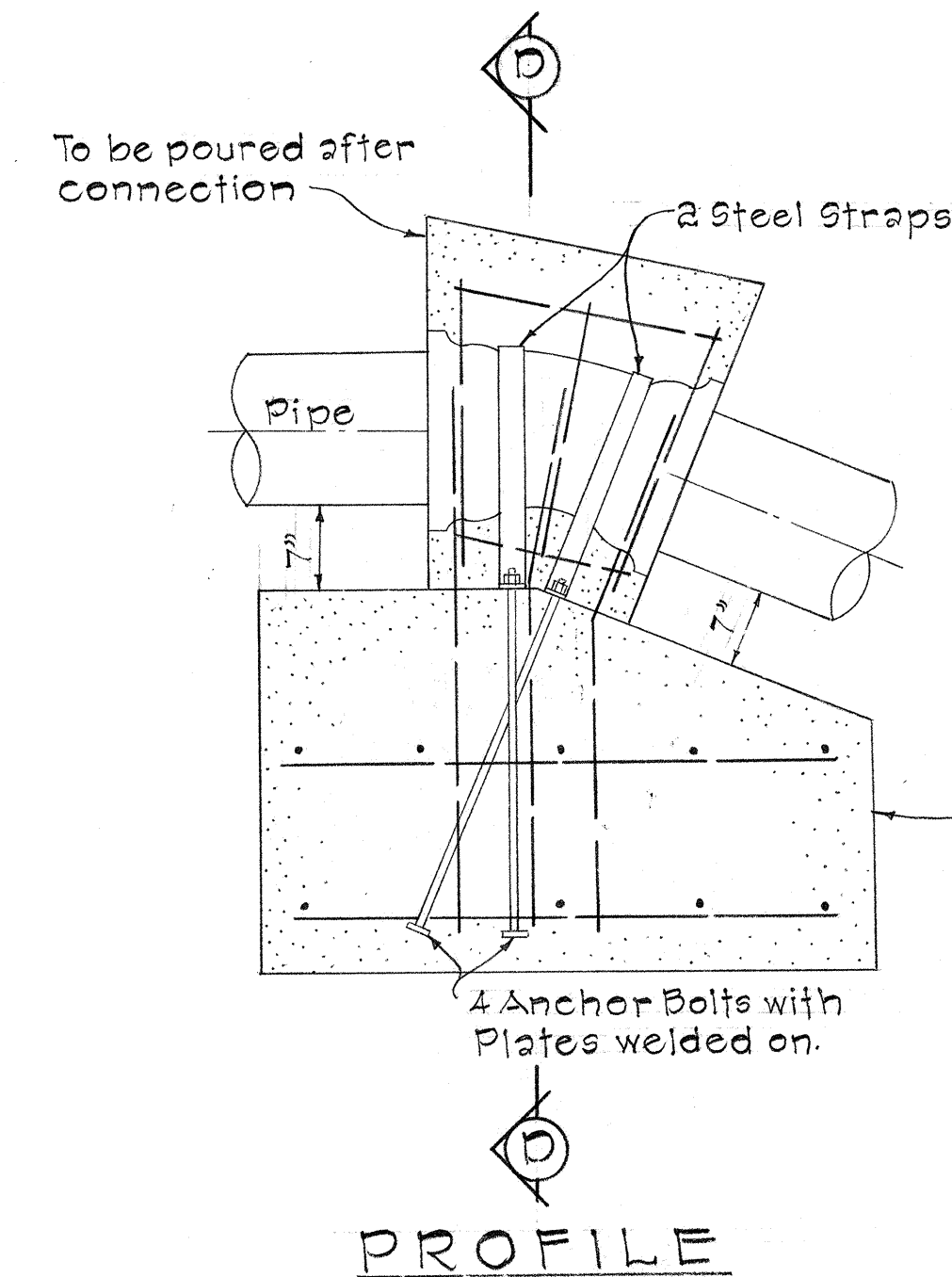
SECTION "C-C"



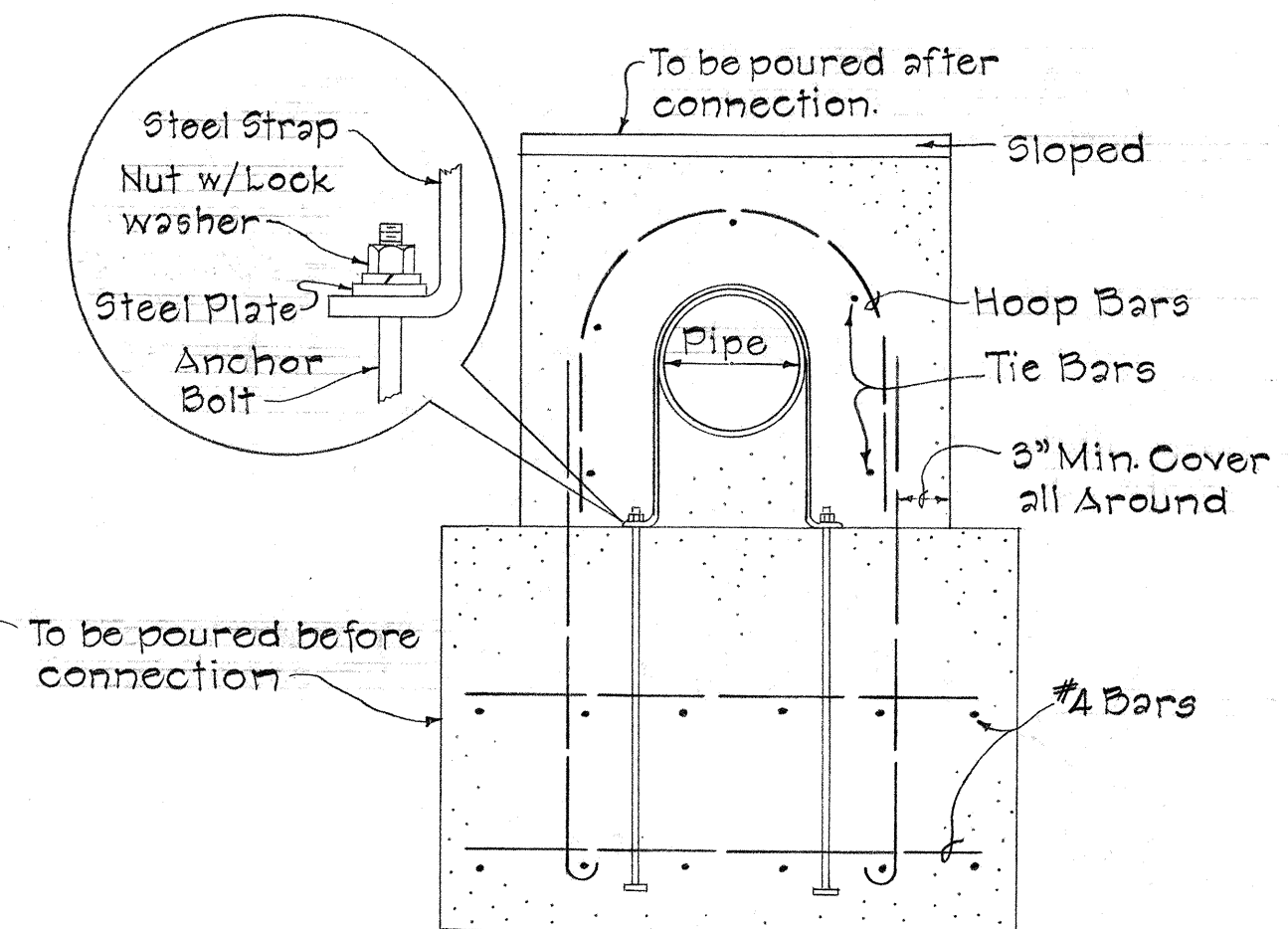
GRATE

DETAIL OF TYPE 24-12 FRAME & GRATE

Scale: 1" = 1'-0"



PROFILE

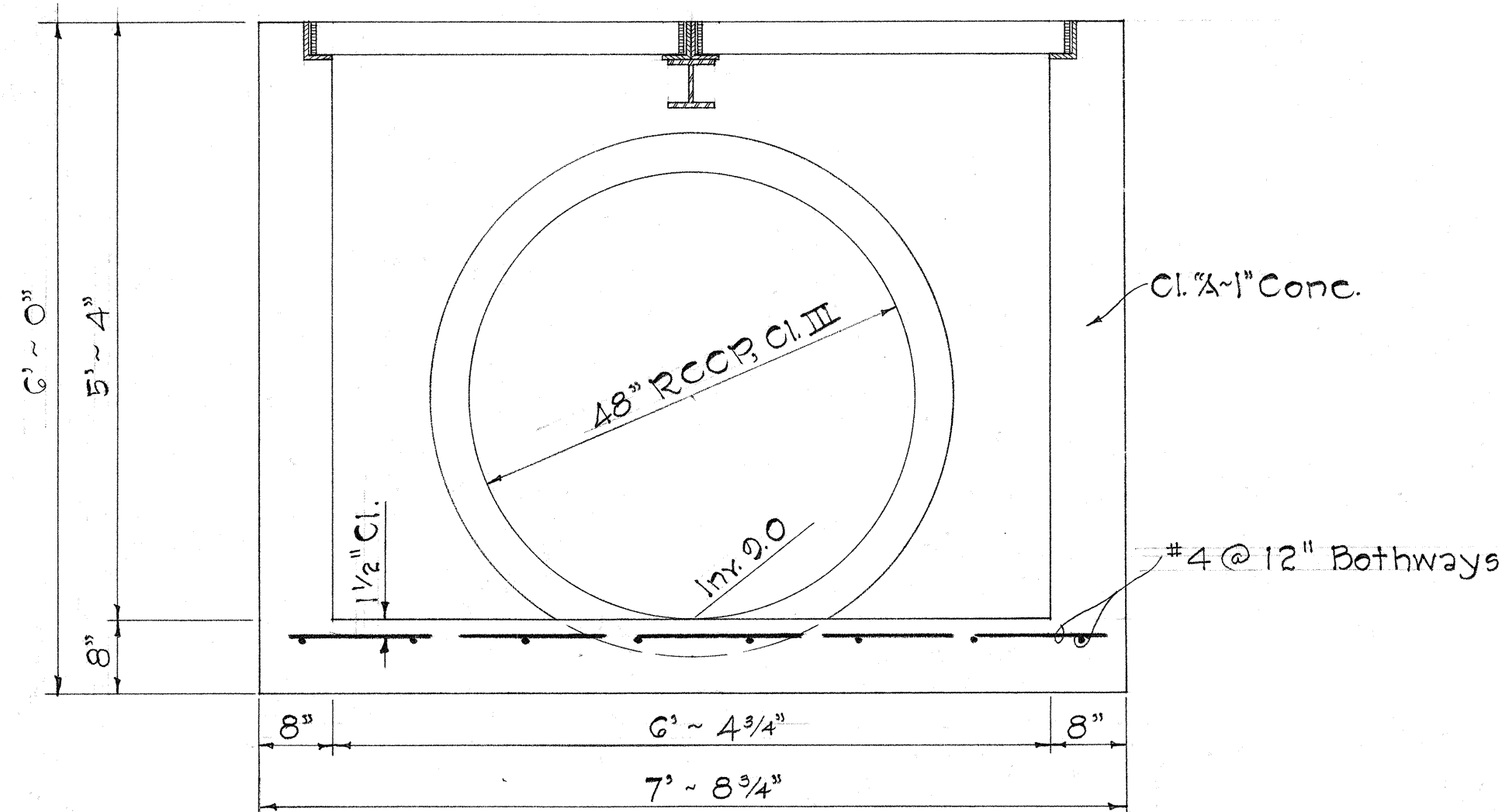


SECTION "D-D"

NOTE:  
Typical Detail of Reaction Block with Straps.  
Detail of actual block to be used shall be furnished during construction. Cost of straps, bolts, nuts and washers shall be included in the unit price bid for concrete.

TYPICAL DETAIL OF CONCRETE BLOCK  
WITH STRAPS

Not to Scale



SECTION "A-A"

DETAIL OF C.D.I. FOR  
48" PIPE CULVERT

Scale: 3/4" = 1'-0"

- NOTE:
1. All welds 3/16 unless otherwise noted.
  2. All steel shall be structural grade.
  3. Grate and Frame shall be hot dip galvanized after fabrication in accordance with Section 44 (H) of the Standard Specifications.

Approved: R. K. Hagato 5/10/68  
for CHIEF, ENGINEERING DIVISION BWS DATE

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**DRAINAGE DETAILS**

KAMEHAMEHA HIGHWAY  
(Vicinity of Waimea Bay)  
Proj. No. 83C-04-68

Scale: As Shown Date: May 17, 1968

SHEET No. OF SHEETS