

27° 14' 32"
K=10
L=6.5

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0380(6)	1967	50	87

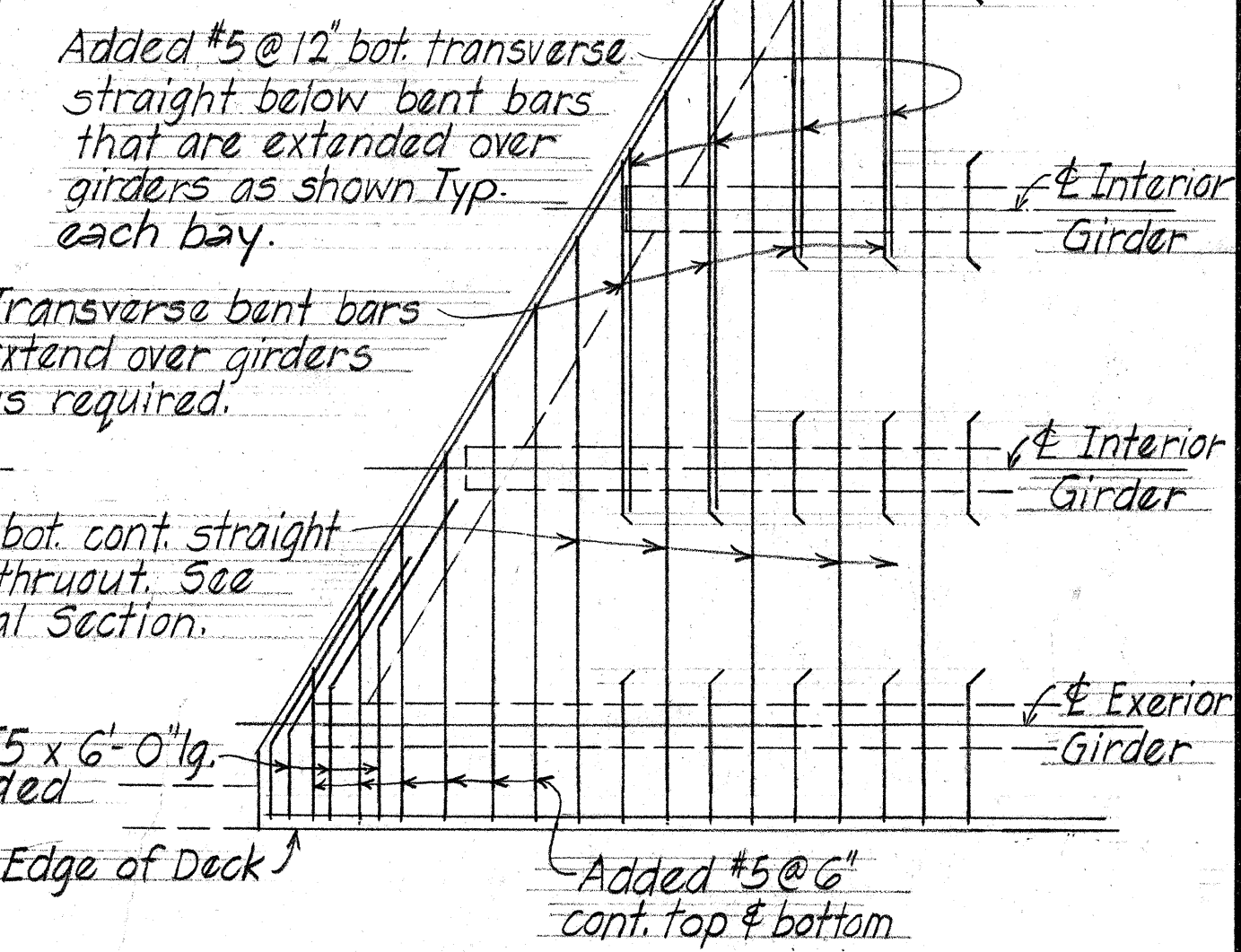
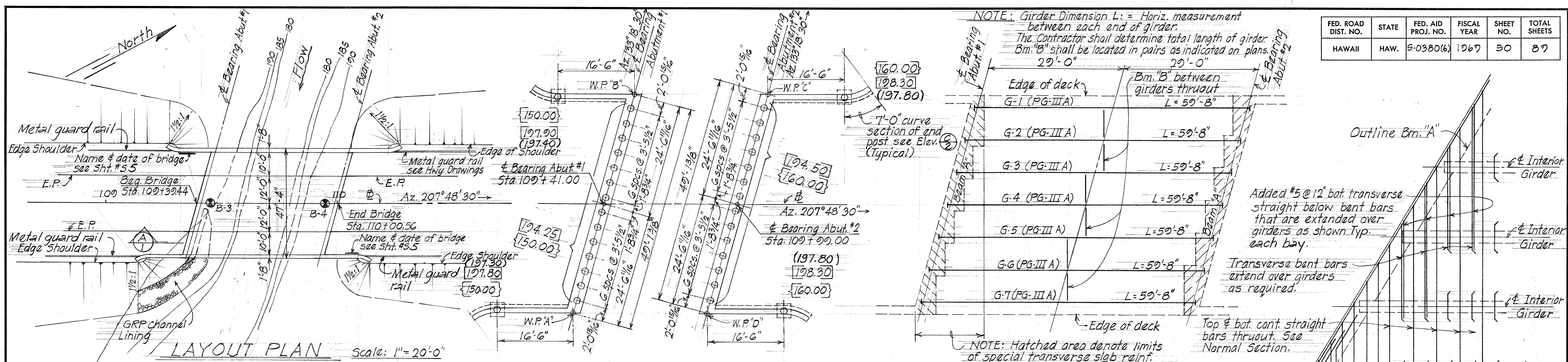
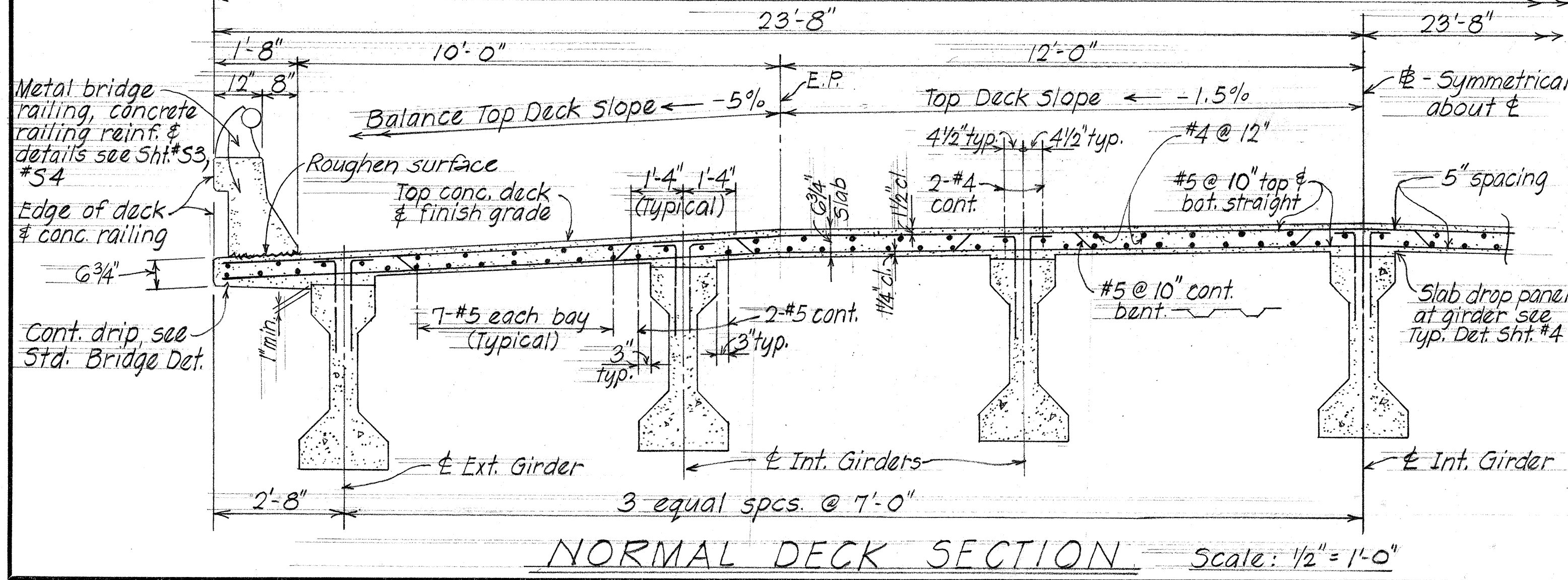
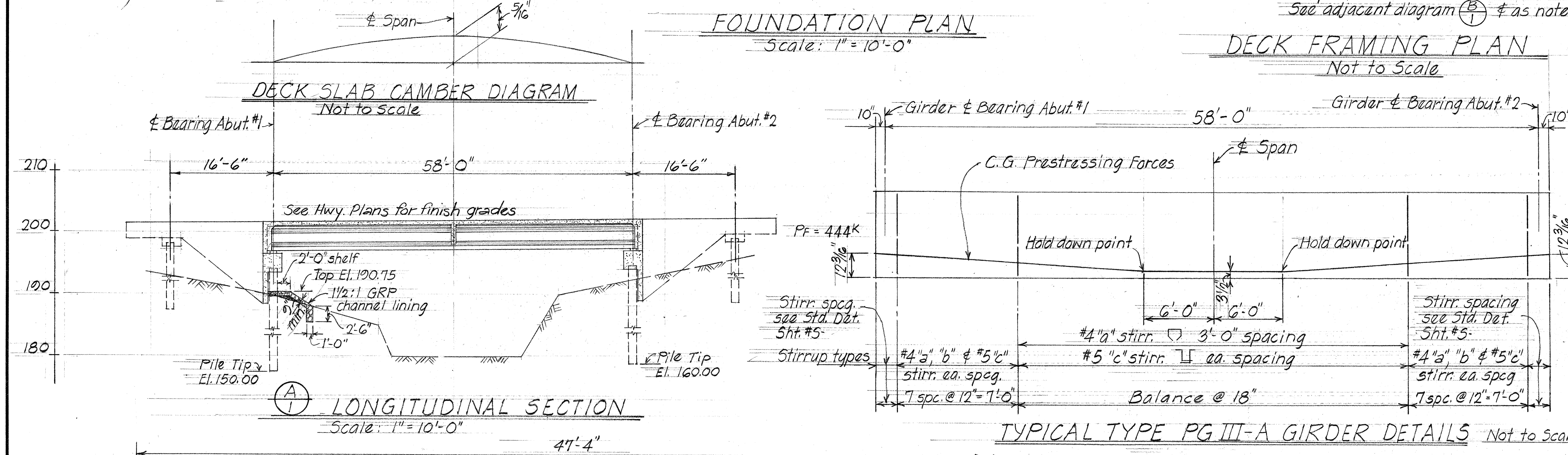


DIAGRAM-TYPICAL ARRANGEMENT OF SLAB REINFORCING AT SKEWED ENDS
Not to Scale

ESTIMATED QUANTITIES		
Concrete - Footing	(2 cy.)	Lump Sum
Concrete - All others	(156 cy.)	Lump Sum
Reinforcing Steel	(30,600 lbs.)	Lump Sum
Grouted Rubble Paving	19	Cu. Yd.
Prestressed Girder Type III	(417.69 Lin. Ft.)	Lump Sum
Furnishing-Type I Prestressed Conc. Piles	1,354.8 Lin. Ft.	
Driving Piles	1,274.8 Lin. Ft.	
Structural Excavation	25	Cu. Yd.
Metal Bridge Railing (One Rail Traffic Type)	170	Lin. Ft.
Conc. Bridge Railing & End Post	210	Lin. Ft.



GENERAL NOTES

DESIGN SPECIFICATIONS: AASHTO
Standard Specifications for Highway Bridges (9th Edition)
with subsequent additions and modifications.

DESIGN LOADS: HS-20-44 or Interstate Loading

DESIGN STRESSES:

1. R.C. Beams & Slabs - See AASHTO specifications & Special Provisions except as otherwise noted.
Class A
 $f'_c = 3,000 \text{ psi}$ $n = 10$
 $f_c = 1,200 \text{ psi}$ $f_s = 20,000 \text{ psi tension}$

2. Prestressed Girders - $f'_c = 5,500 \text{ psi}$, $f_{ci} = 4,000 \text{ psi}$,
 $\frac{1}{2}$ dia. 7 wire strands, tensioning load = 25,200 lbs.
per strand, design load = 20,160 lbs. per strand.
Forms must be removed and the beams inspected
before the strands are cut.

3. Pile Capacity: 32 tons

4. Refer to Sht. #4 for additional general notes.

SYMBOLS & ABBREVIATIONS

(0.00) - Bottom footing elevation.
10.00 - Pile cut-off elevation
10.00 - Pile tip elevation
○ - Type I pile
A-2 - Section designation
Sht. No. detail is drawn on.
B-2 - Boring No. & Designation
W.P. - Working Point
P.F. - Working Force

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WAIKAPU STREAM BRIDGE

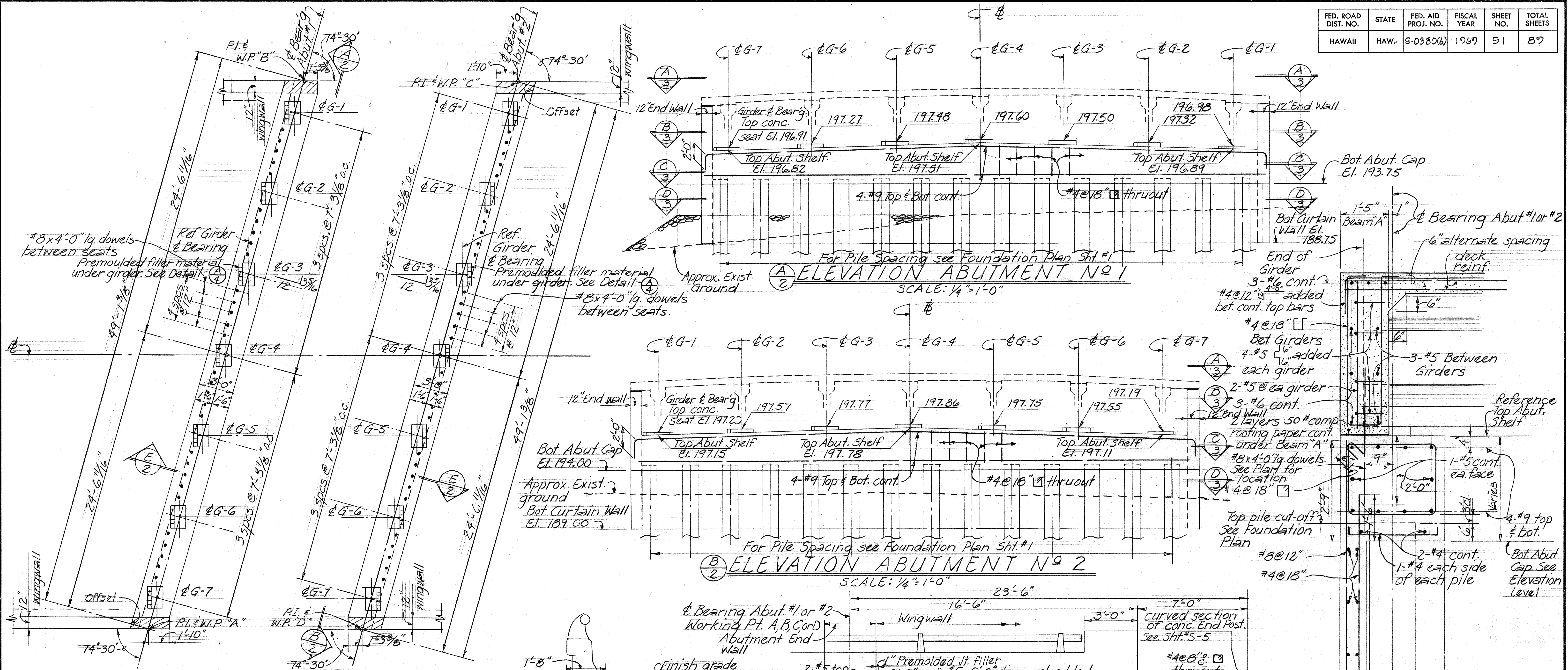
STA. 109 + 39.44 TO STA. 110 + 00.56

Kahului Airport - Maalaea Highway
Proj. No. 5-0380(6) Oct. 1967

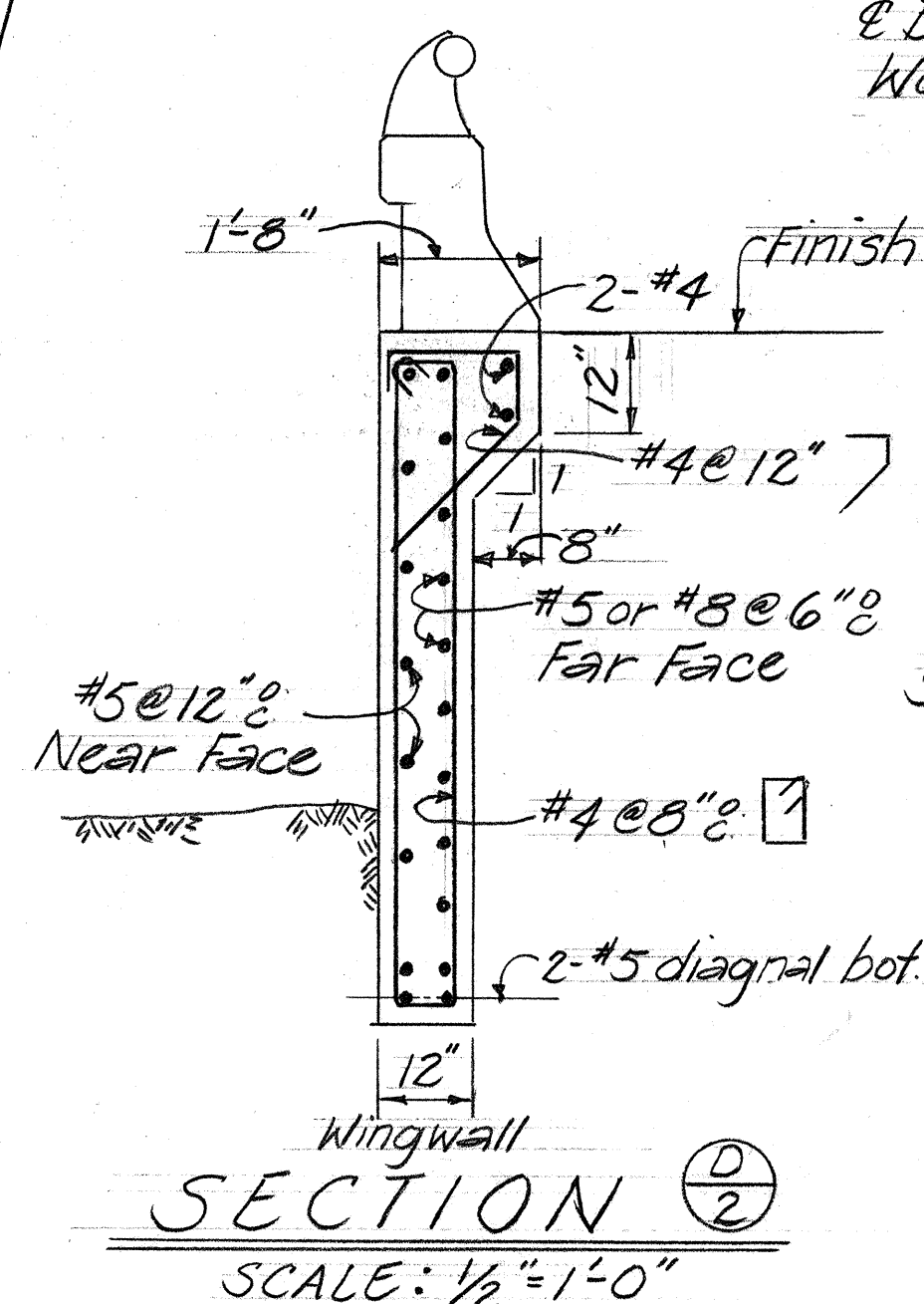
SHEET No. 1 OF 4 SHEETS

DATE	
SURVEY PLOTTED BY	
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0380(6)	1967	51	87



PLAN - ABUTMENT NO. 1 AND NO. 2
SCALE: 1/4" = 1'-0"

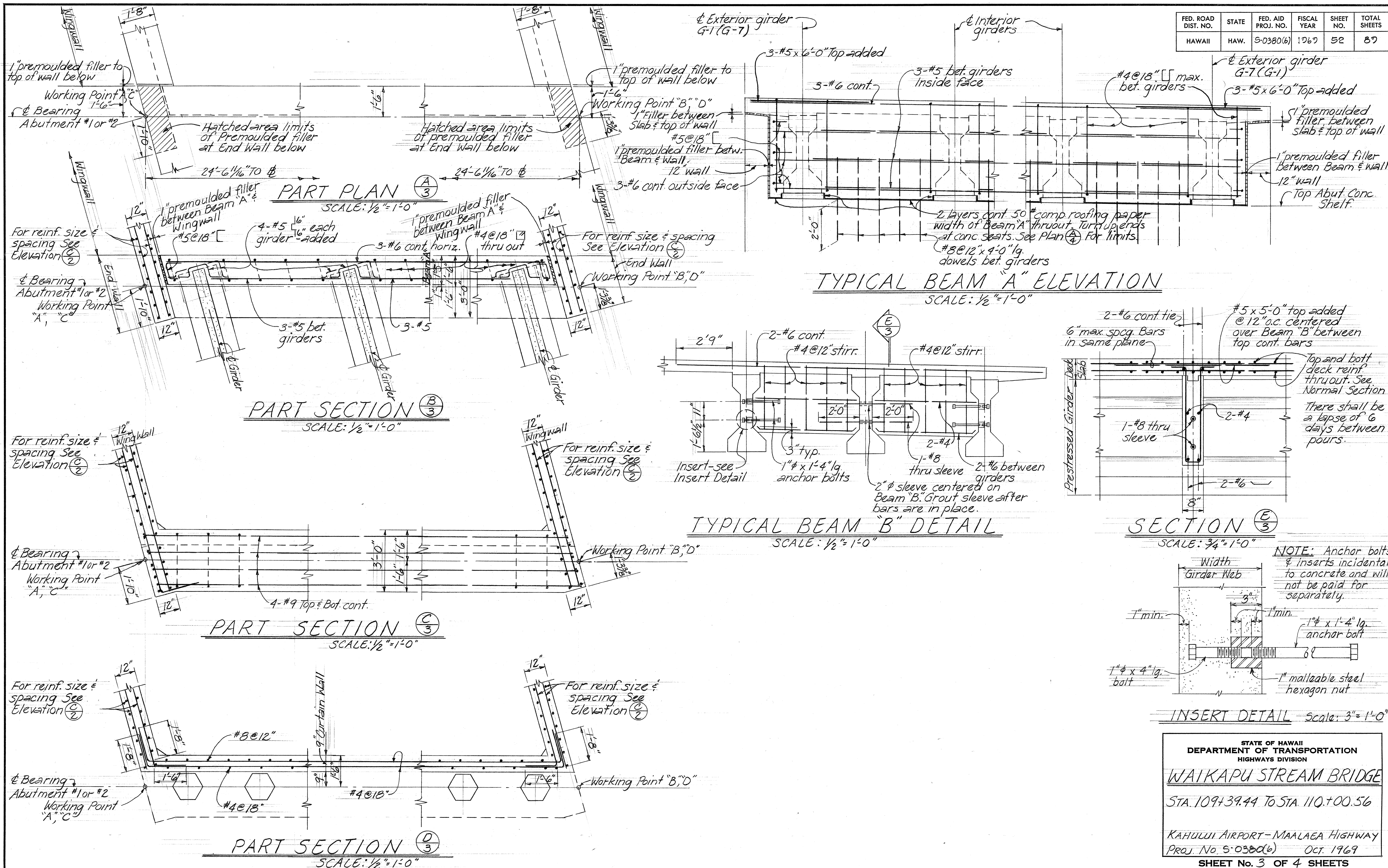


EXTERIOR ELEVATION - TYP. ABUT. WINGWALL
SCALE: 3/8" = 1'-0"

TYPICAL ABUT. SECTION
SCALE: 3/4" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WAIKAPU STREAM BRIDGE
STA. 109+39.44 TO STA. 110+00.56
KAHULUI AIRPORT - MAALAE HIGHWAY
PROJ. NO. 5-0380(6) OCT. 1967
SHEET No. 2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0380(6)	1967	52	87



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

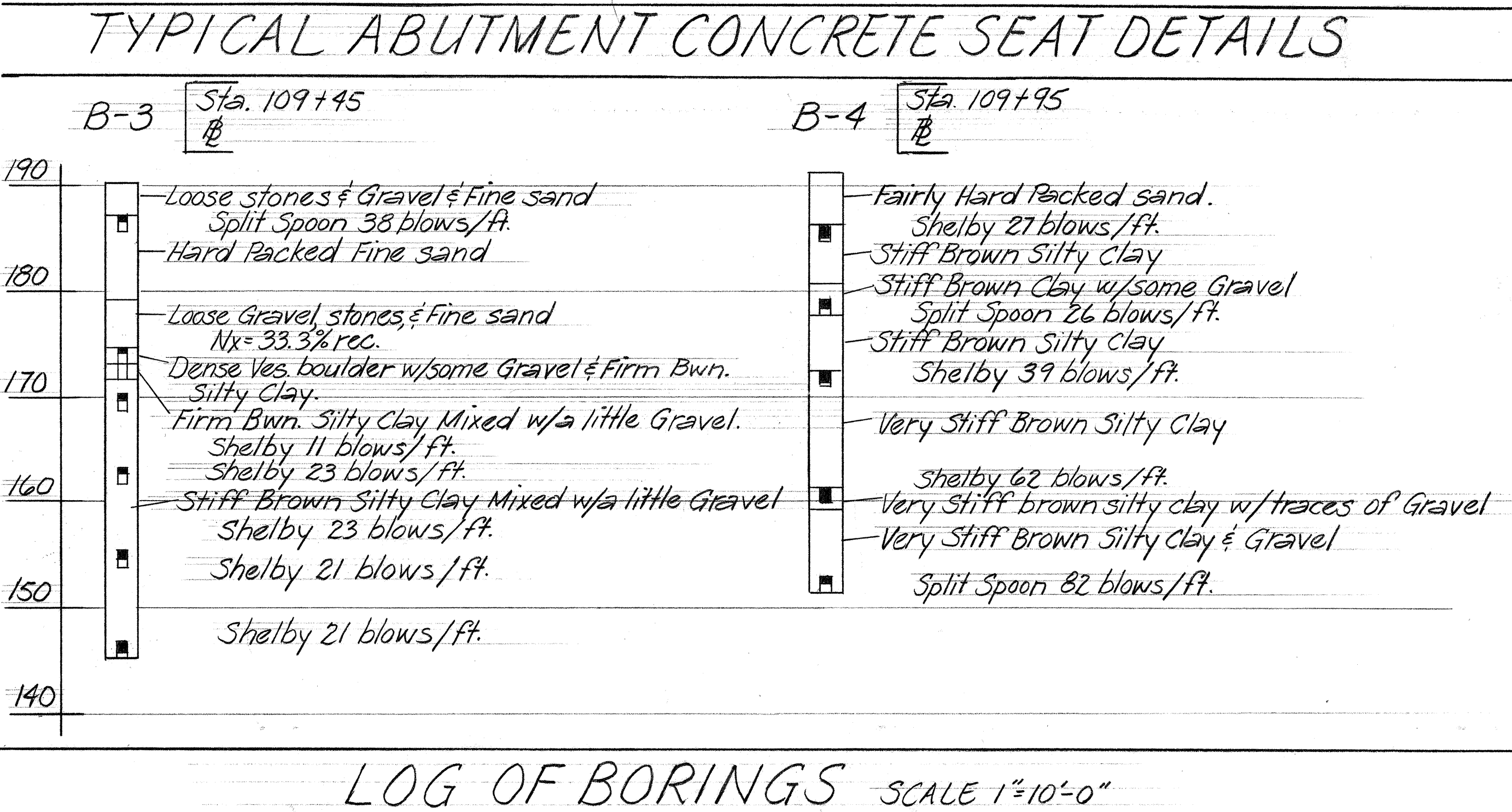
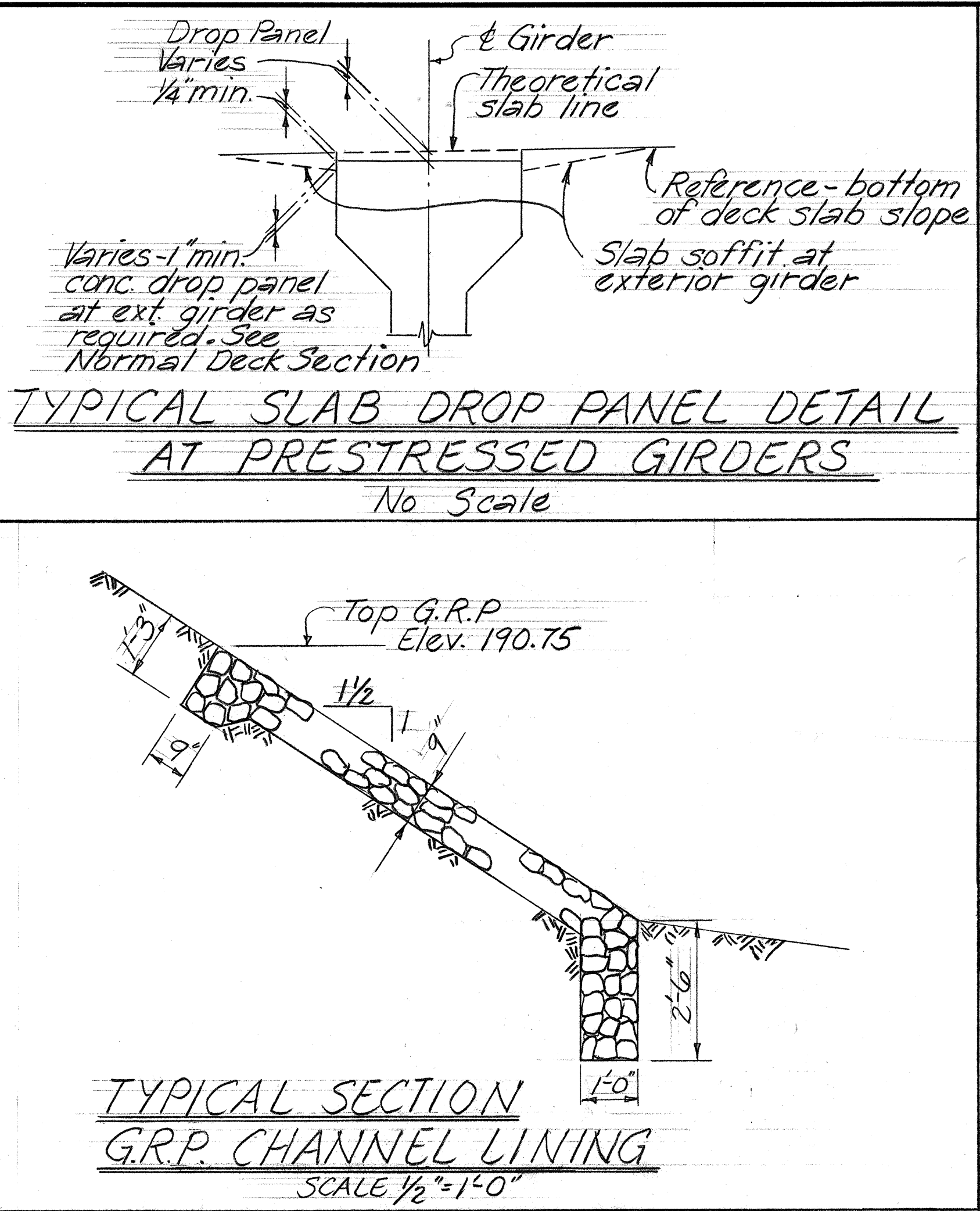
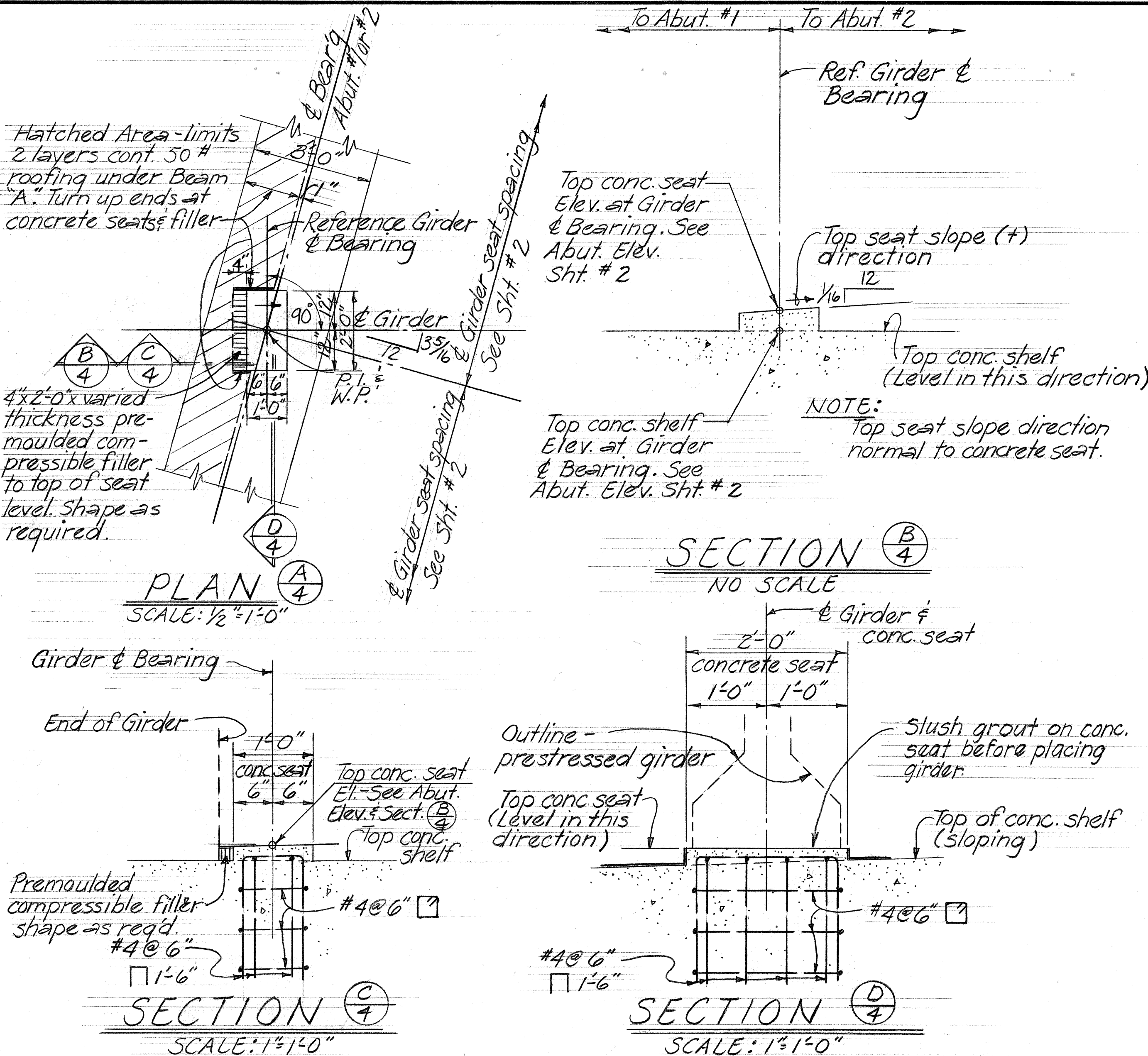
WAIKAPU STREAM BRIDGE

STA. 109+39.44 To STA. 110+00.56

KAHULUI AIRPORT-MAALAEA HIGHWAY
PROJ. No. 5-0380(6) OCT. 1967

SHEET No. 3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	5-0380(6)	1967	53	87



GENERAL NOTES

MATERIALS:

- All concrete shall be Class A except as otherwise noted on Plans. Concrete for prestressed concrete girders see Special Provisions and as noted under Design Stresses, Sht. #1
- Preformed fabric bridge bearing pads are incidental to concrete and will not be paid for separately.
- See Special Provisions for admixture in concrete.
- All piles to be prestressed concrete piles Type I - see Standard Details Sht. #5-6, #5-7
- All reinforcing steel to be ASTM Designation A-615 grade 40 except as otherwise noted.

CONSTRUCTION METHODS:

- See Standard Specifications and Special Provisions.
- In general top and edge of concrete deck of superstructure shall be constructed to follow the finish roadway vertical and horizontal curves and grades.
- For concrete finish see Special Provisions. Concrete seats and creep blocks to be poured monolithically with Abutments.
- Hand finish will be permitted for deck surface finish.

REFERENCE:

- Refer to Standard Detailed Drawing Sht. #5-1 thru #5-7 inclusive, for details not covered by these drawings.
- For deck slab camber diagram refer to Sht. #1.

**STATE OF HAWAII
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HIGHWAYS DIVISION**

WAIKAPU STREAM BRIDGE

Sta. 109+39.44 To Sta. 110+00.56

KAHULUI AIRPORT-MAALAEA HIGHWAY

PROJ. NO. 5-0380(6) Oct. 1969

SHEET No. 4 OF 4 SHEETS

DATE: _____

DESIGNED BY: _____

CHECKED BY: _____

NOTED BY: _____

NO. _____