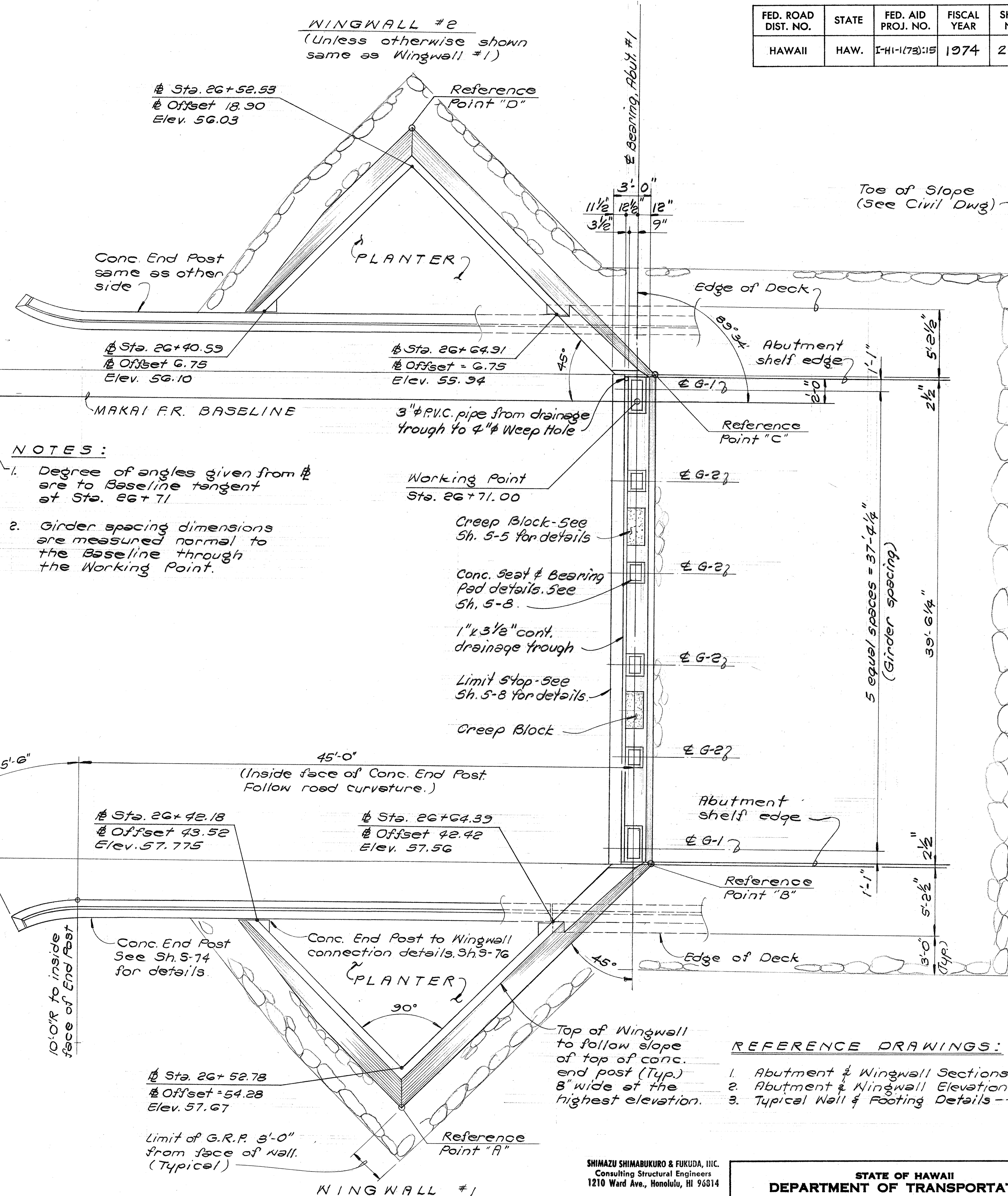


WINGWALL #2
(Unless otherwise shown,
same as Wingwall #1)



1. Degree of angles given from Δ are to Baseline tangent at Sta. 66+71
2. Girder spacing dimensions are measured normal to the Baseline through the Working Point.

1. Abutment & Wingwall Sections ---- Sh. 3-5
2. Abutment & Wingwall Elevations ---- Sh. 3-4
3. Typical Wall & Footing Details ----- Sh. 5-84



SHEET No. 9-2 OF 100 SHEETS

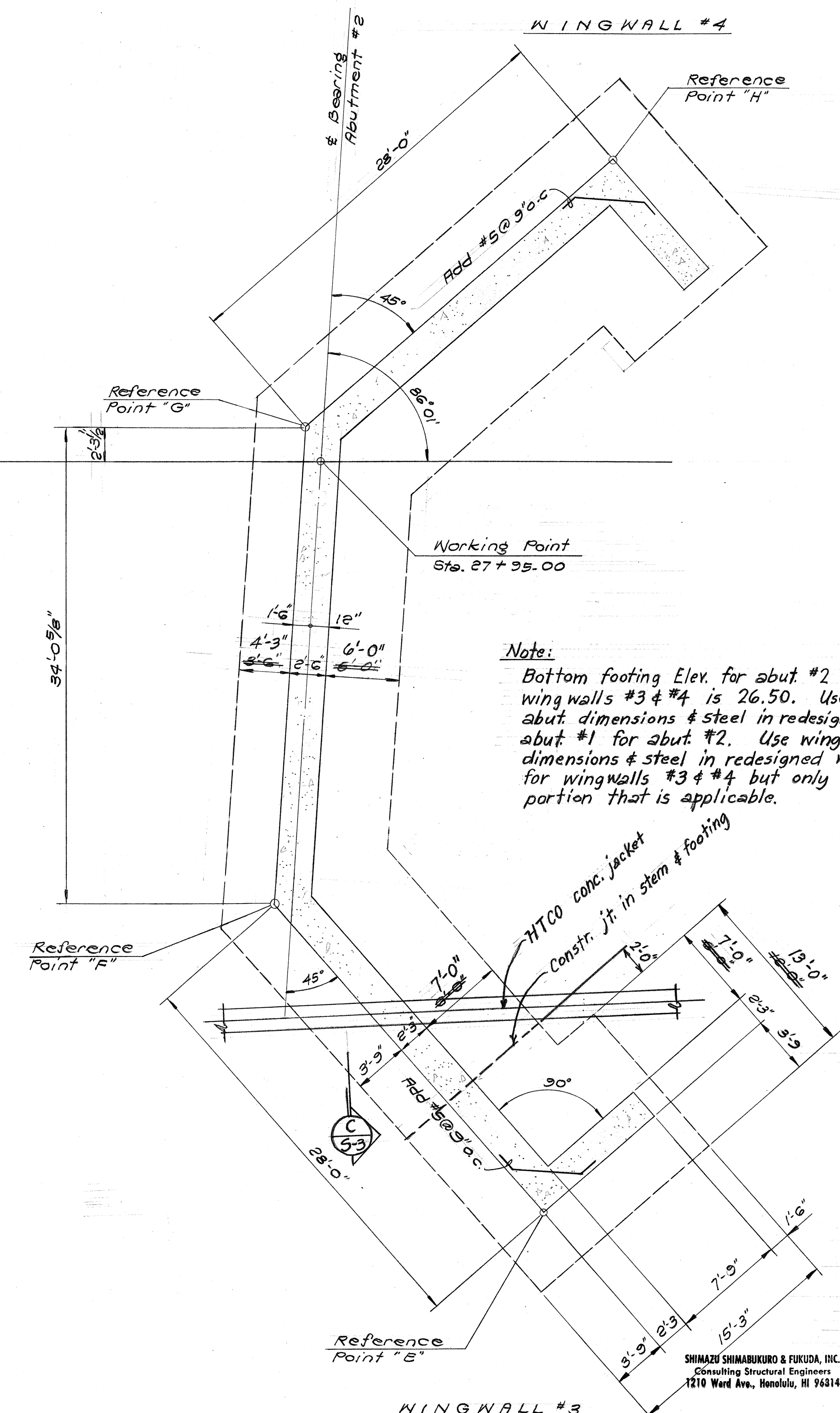
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Revised - See sheet #S-2A for revisions.
C.C.O. #25

3/10" - 11-0"

NOTES:

1. Degree of angles given from ϕ are to Baseline tangent at Sta. 27+95
2. Dimensions given between Edges of Deck are measured normal to the Baseline through the working point.



ABUTMENT #2 - FOUNDATION PLAN

NOTE: Reference C.C.O. #26
& see Sht. #2215-1

-

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 4

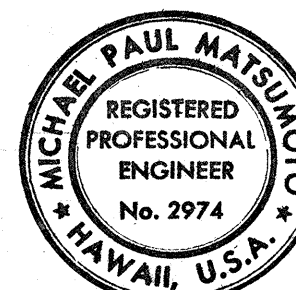
ABUTMENT #2 FOUNDATION PLAN
& PLAN AT BOX GIRDER SEAT

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-HI-1 (73) : 15

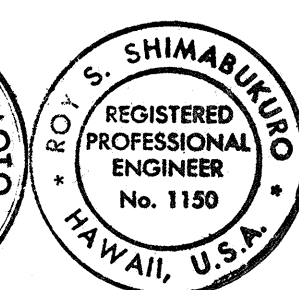
Scale: As Shown Date: DEC. 7, 1973

SHEET No. 5-3 OF 106 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	" _____
	TRACED BY _____	" _____
	DESIGNED BY _____	" _____
	QUANTITIES BY _____	" _____
No. _____	CHECKED BY _____	" _____



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Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 4

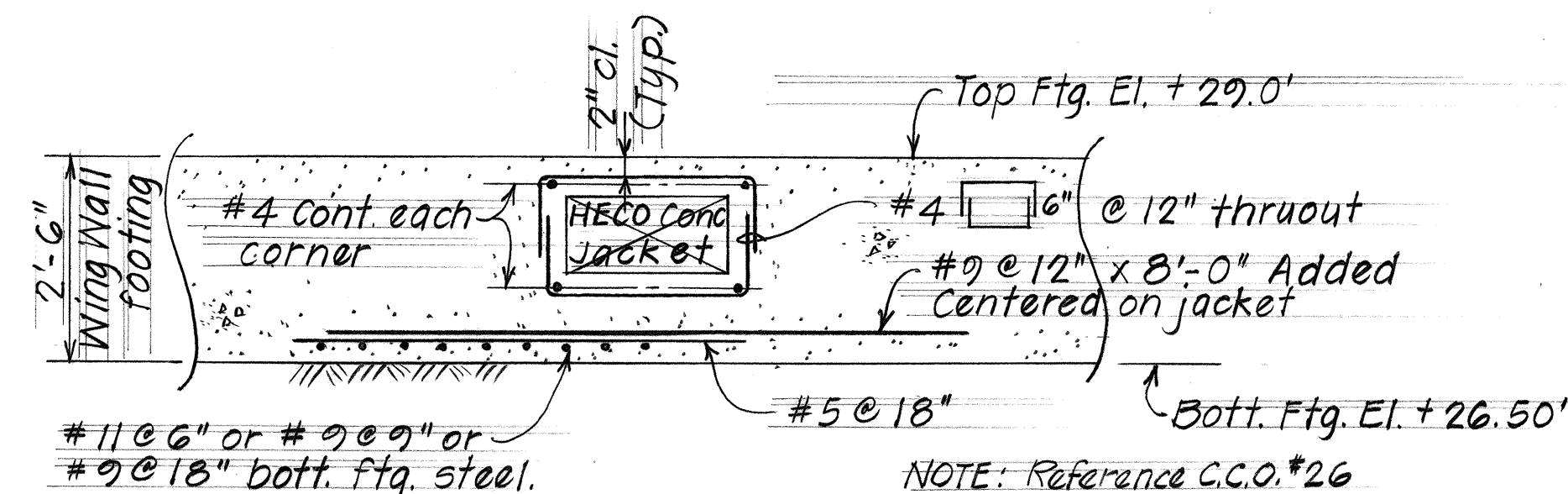
TYPICAL ABUTMENT
WINGWALL SECTIONS
CREEP BLOCK DETAILS

PEARL HARBOR INTERCHANGES
E.A.I. Proj. No. 1-41-1 (73): 15

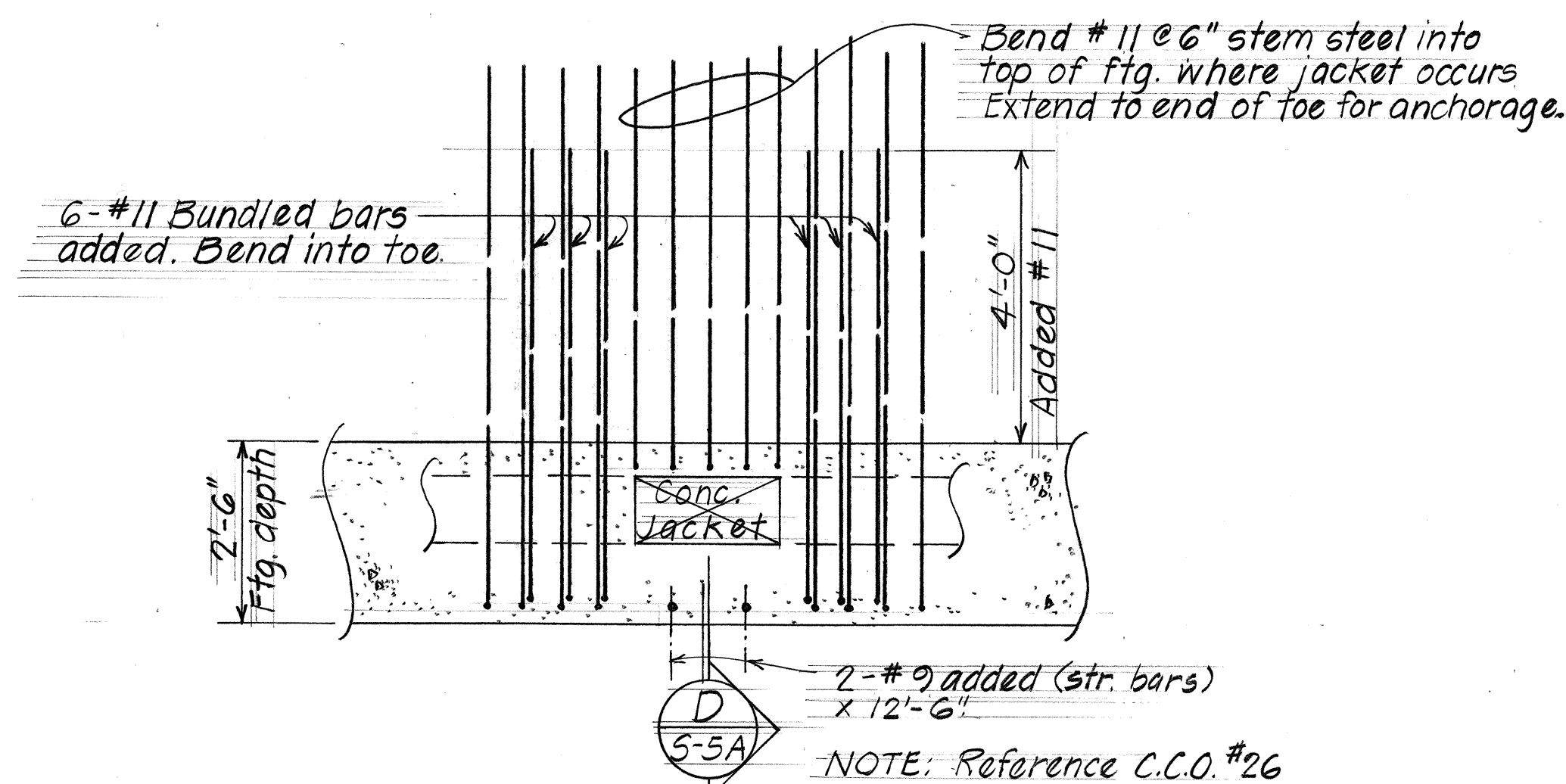
Scale: As Shown Date: DEC. 7, 1973

SHEET No. 3-5 OF 106 SHEETS

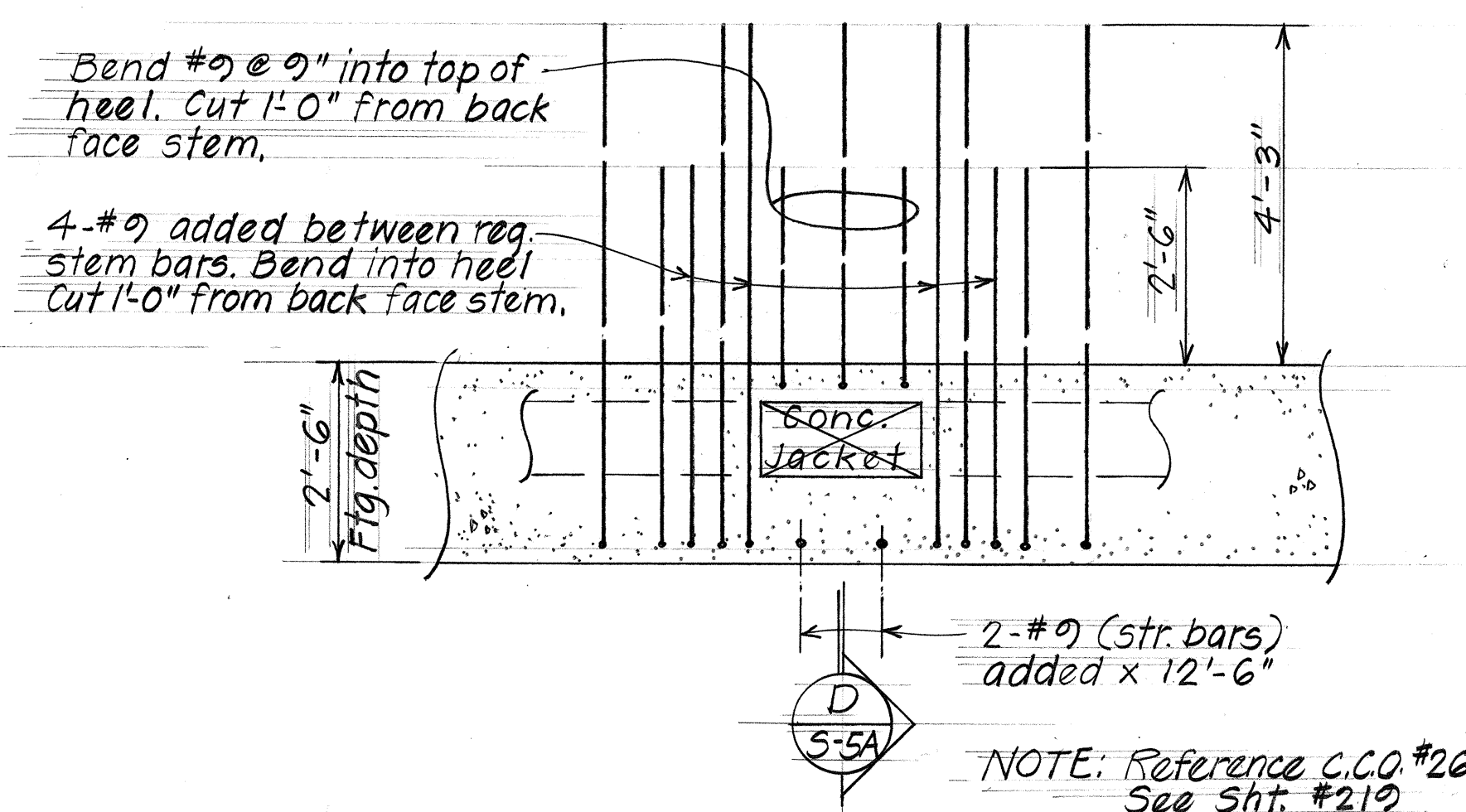
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(75):15	1974	2215-1	369



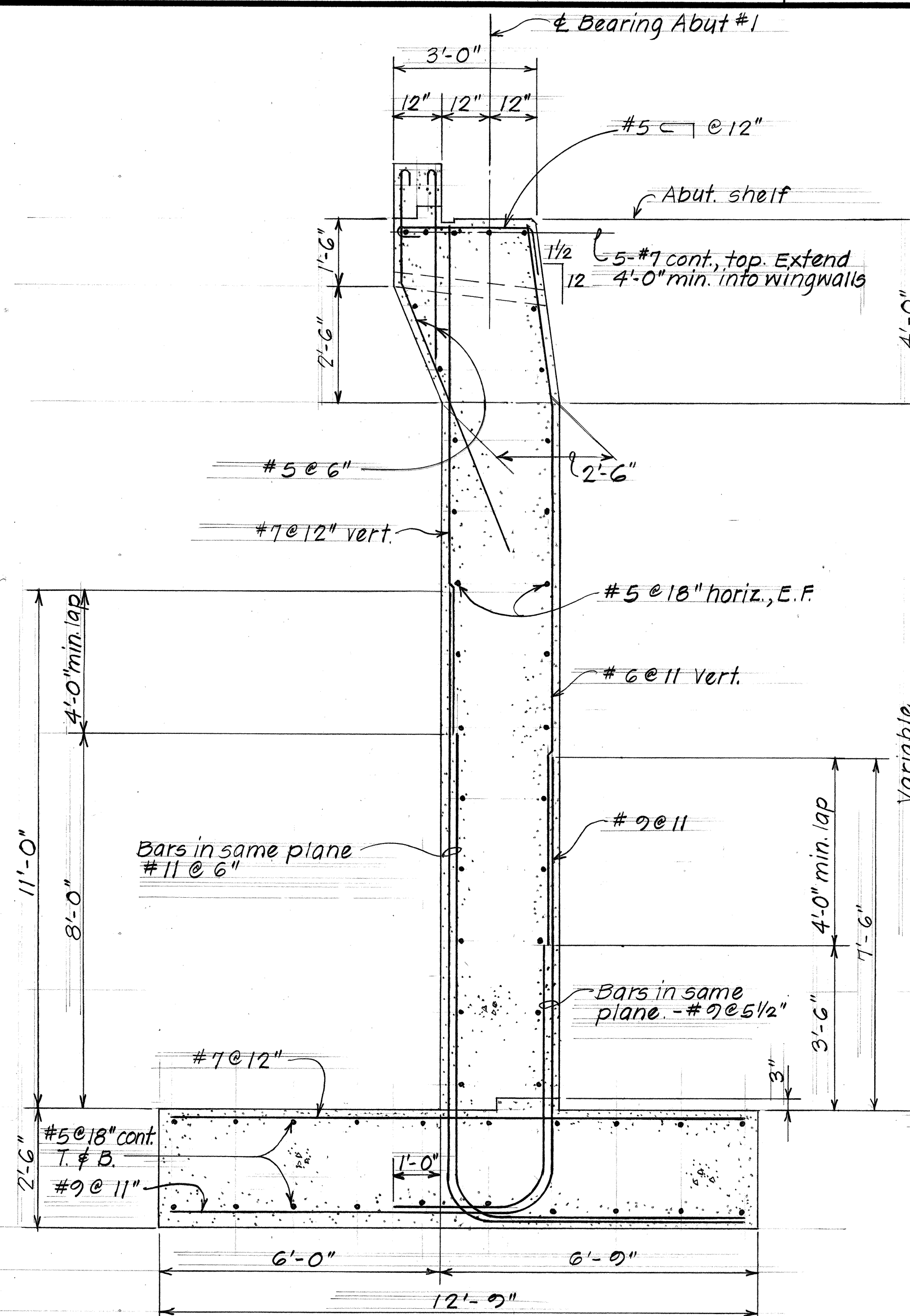
SECTION C-5-3



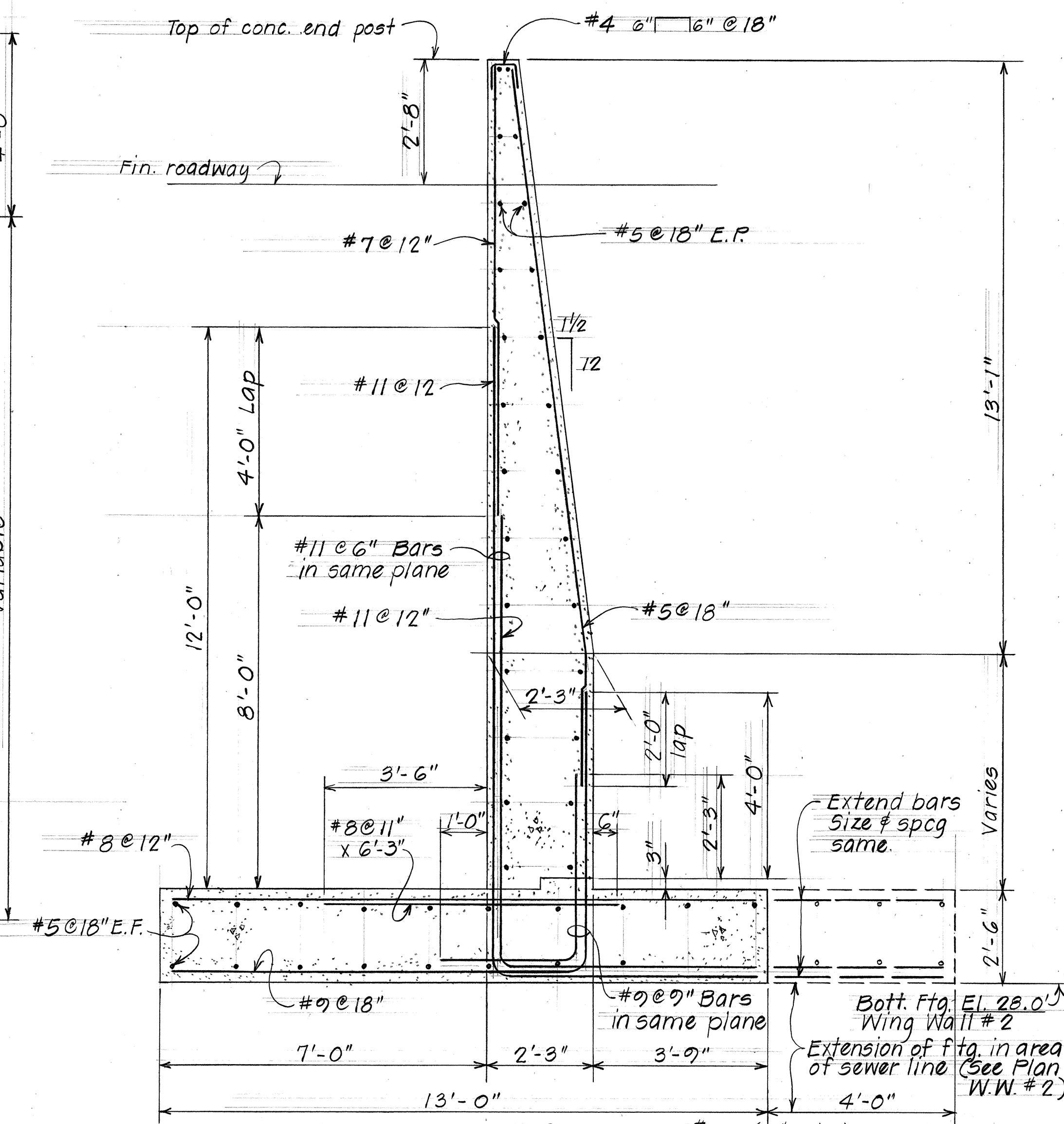
SECTION - SHOWING ADJUSTMENT OF STEM STEEL AT JACKET (BACK FACE)



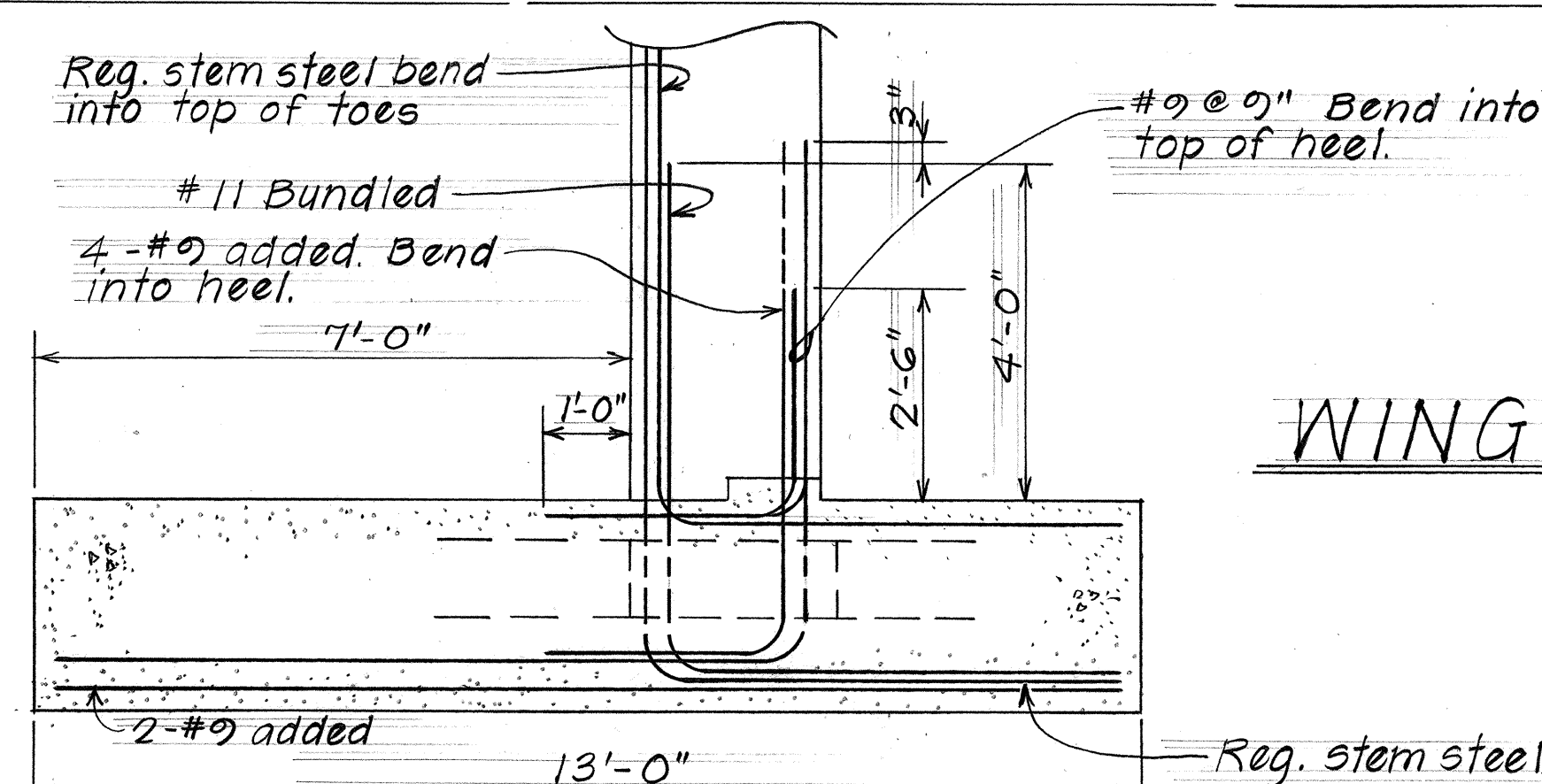
SECTION - SHOWING ADJUSTMENT OF STEM STEEL AT JACKET (FRONT FACE)



ABUTMENT #1 SECTION
Scale: 1/2" = 1'-0" (ABUTMENT #2 SIMILAR)



WINGWALL #2 SECTION
(WINGWALL #3 & #4 SIMILAR)
Scale: 1/2" = 1'-0"



SECTION D-5-5A

NOTE: Reference C.C.O. #26, & see Sht. #219

WING WALL #3 DETAILS
Scale: 1/2" = 1'-0"

NOTE: See Wing Wall #2 Section for other reinf. applicable to these details.

NOTE: This tracing prepared during "As-Built" postings.

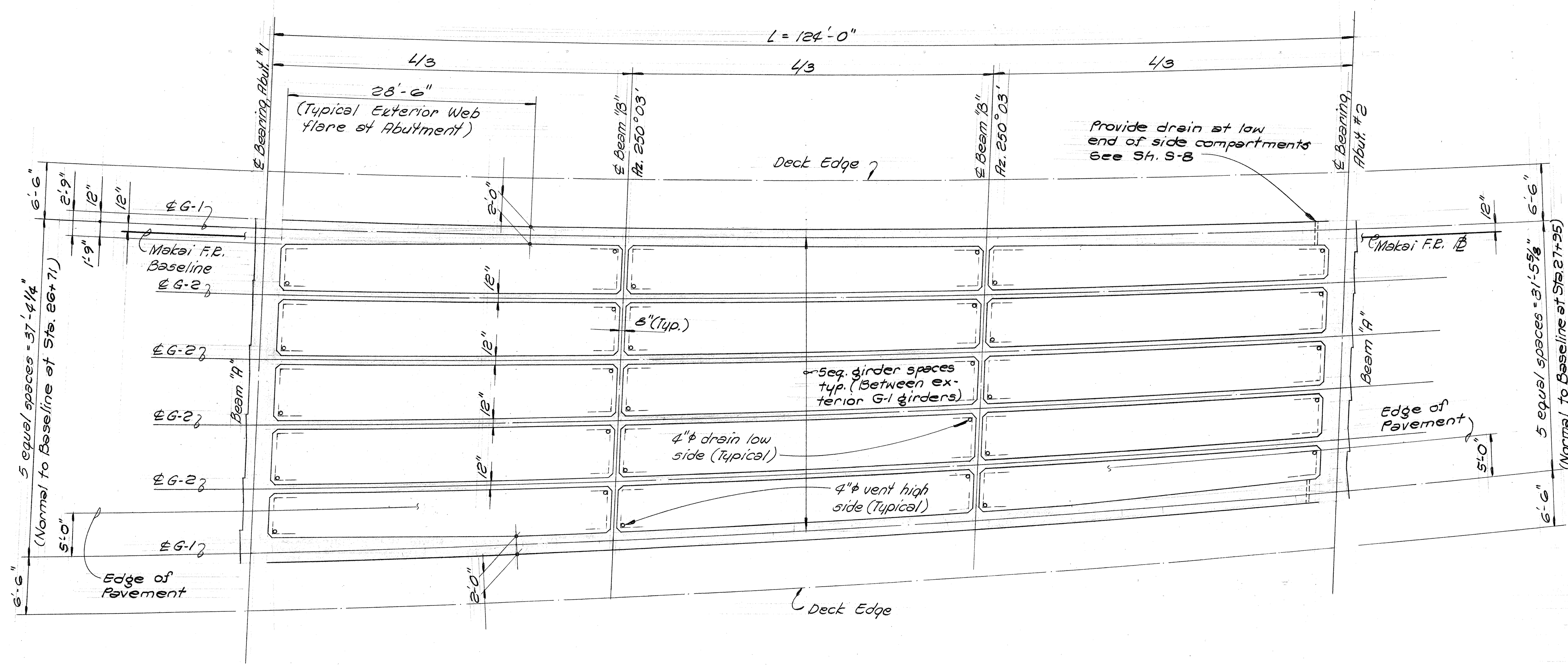
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

STRUCTURE No. 4
ABUTMENT & WINGWALL SECTIONS

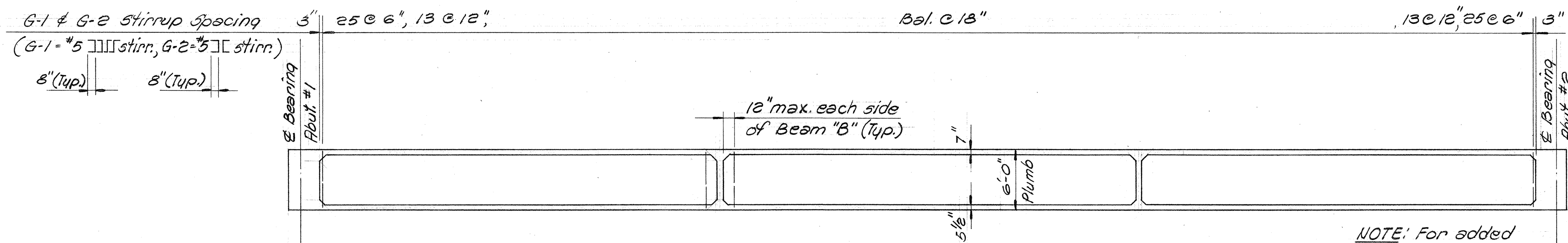
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1(75):15

Scale: As Shown Date: DEC. 7, 1973
SHEET NO. 5-5A OF 106 SHEETS

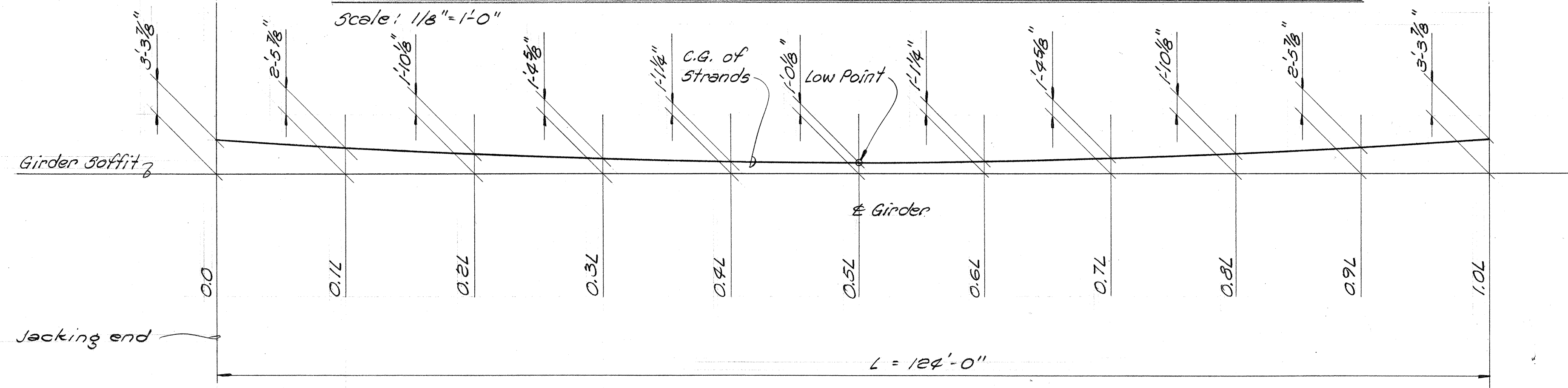
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HI-1(73):15	1974	222	369



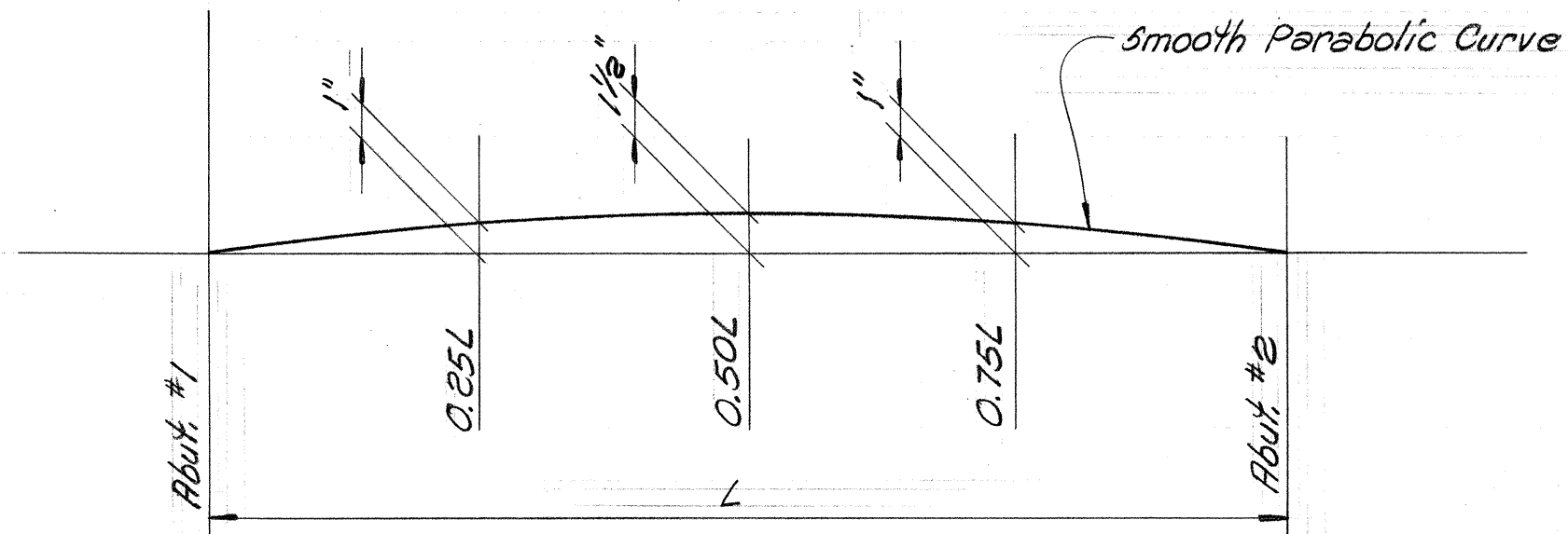
DECK FRAMING PLAN
Scale: 1/8" = 1'-0"



ELEVATION SHOWING GIRDER STIRRUP SIZE & SPACING
Scale: 1/8" = 1'-0"



CENTER OF GRAVITY OF POST TENSION FORCES
Scale: 1/8" = 1'-0"



CAMBER DIAGRAM
N. T. S.

POST TENSION NOTES

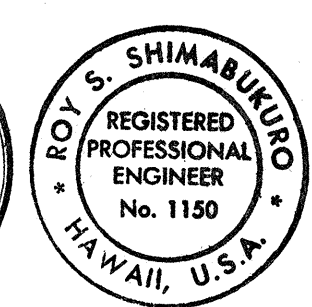
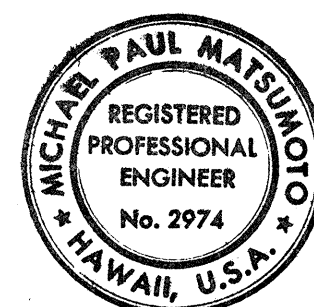
- See "TYPICAL POST TENSION NOTES" Sh. S-81
- Minimum effective post tension force (kips) after all losses shall be:

Girder	@ 0.0 (Jacking end)	@ 0.5L	@ 1.0L
G-1	2466.14	2577.22	2675.06
G-2	1233.07	1288.61	1337.53
- All strands shall be post tensioned from Abutment #1 (L=124'-0")
- For each girder, one duct designated by the Engineer shall be jacked additionally at Abut #2 end to check the effective force at that end. (Incidental to post tension cost)
- Maximum number of ducts per stem shall be three (3) for G-2 girders & six (6) for G-1 girders.
- All post tension ducts in each stem shall be placed to satisfy the locations shown for the Center of Gravity of Post Tension Force.
- All curves in ducts shall be parabolic & smooth.

REFERENCE DRAWINGS

- Post Tension Notes ----- Sh. S-81
- Typical Deck Cross Section ----- Sh. S-8
- Beam "A" ----- Sh. S-82
- Beam "B" ----- Sh. S-83

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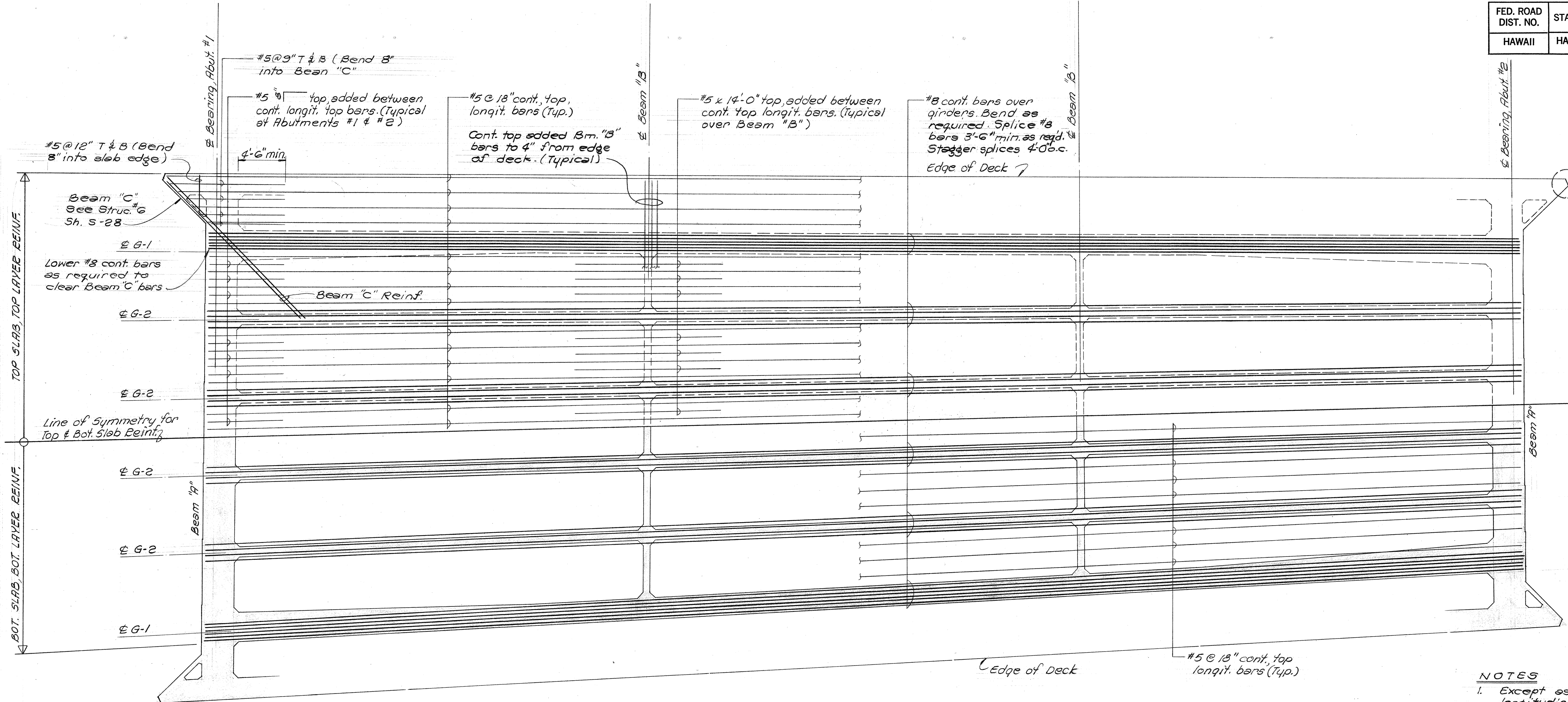
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 4
FRAMING PLAN, GIRDER STIRRUP SPACING
& POST TENSION STRAND PROFILE

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-HI-1 (73):15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-6 OF 106 SHEETS

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[Signature]

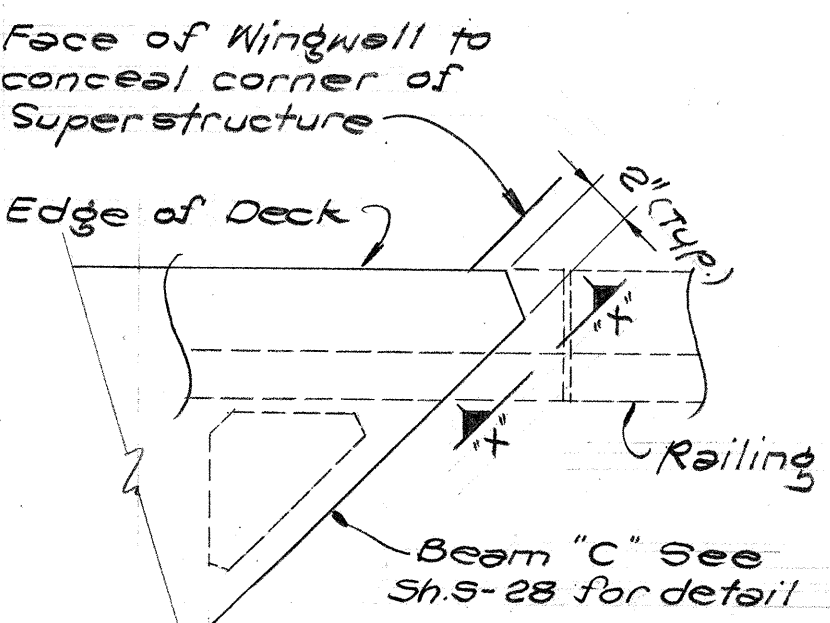
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(73):15	1974	223	369



TYPICAL ARRANGEMENT OF TOP SLAB, TOP LAYER & BOTTOM SLAB, BOTTOM LAYER LONGITUDINAL REINFORCING
Scale: 3/16" = 1'-0"

- NOTES
- Except as otherwise noted all slab longitudinal bars to be #8 bars.
 - All #5 bars @ 18" max. spacing shall be extended & lapped a min. of 2'-6" with adjacent #8 bars as shown.
 - Longitudinal deck reinf. to follow curvature of deck slab & girder where curvature occurs.
 - For longitudinal & transverse deck reinforcing not shown, See Normal Section Sh. 9-8

- REFERENCE DRAWINGS
- Beam "A"-----Sh. 9-82
 - Beam "B"-----Sh. 9-83



PLAN

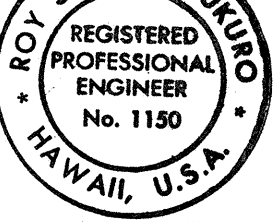
SECTION "X"-"X"

TYPICAL ACUTE DECK CORNER

3/8" = 1'-0"

1
6-7

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Consulting Structural Engineers
1810 Ward Ave., Honolulu, HI 96814



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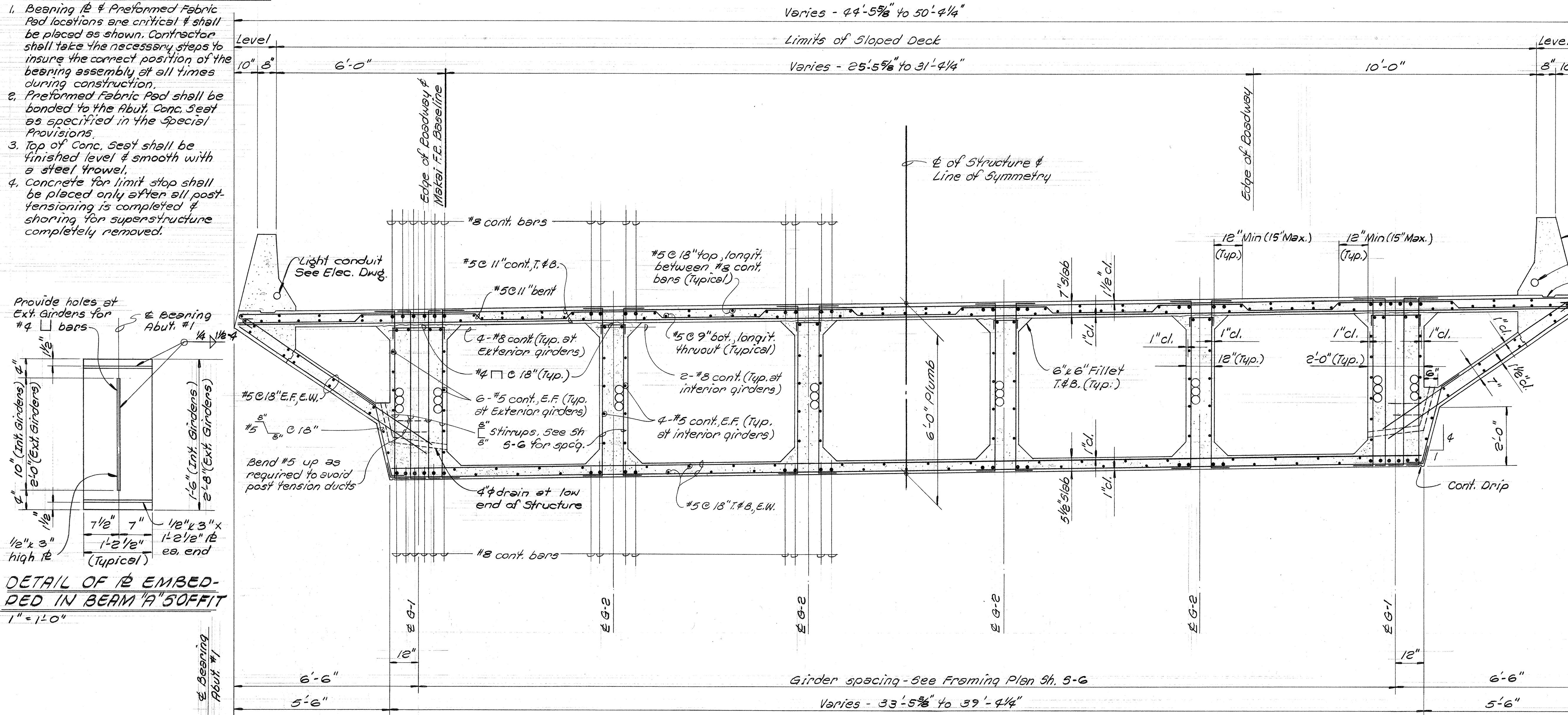
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 4
TOP SLAB, TOP LAYER & BOTTOM SLAB,
BOTTOM LAYER LONGITUDINAL REINF.

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-H-1 (73):15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 9-7 OF 106 SHEETS

1. Bearing & Preformed Fabric Pad locations are critical & shall be placed as shown. Contractor shall take the necessary steps to insure the correct position of the bearing assembly at all times during construction.
2. Preformed Fabric Pad shall be bonded to the Abut. Conc. Seat as specified in the Special Provisions.
3. Top of Conc. Seat shall be finished level & smooth with a steel trowel.
4. Concrete for limit stop shall be placed only after all post-tensioning is completed & shoring for superstructure completely removed.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	J-H-1(73):15	1974	224	360

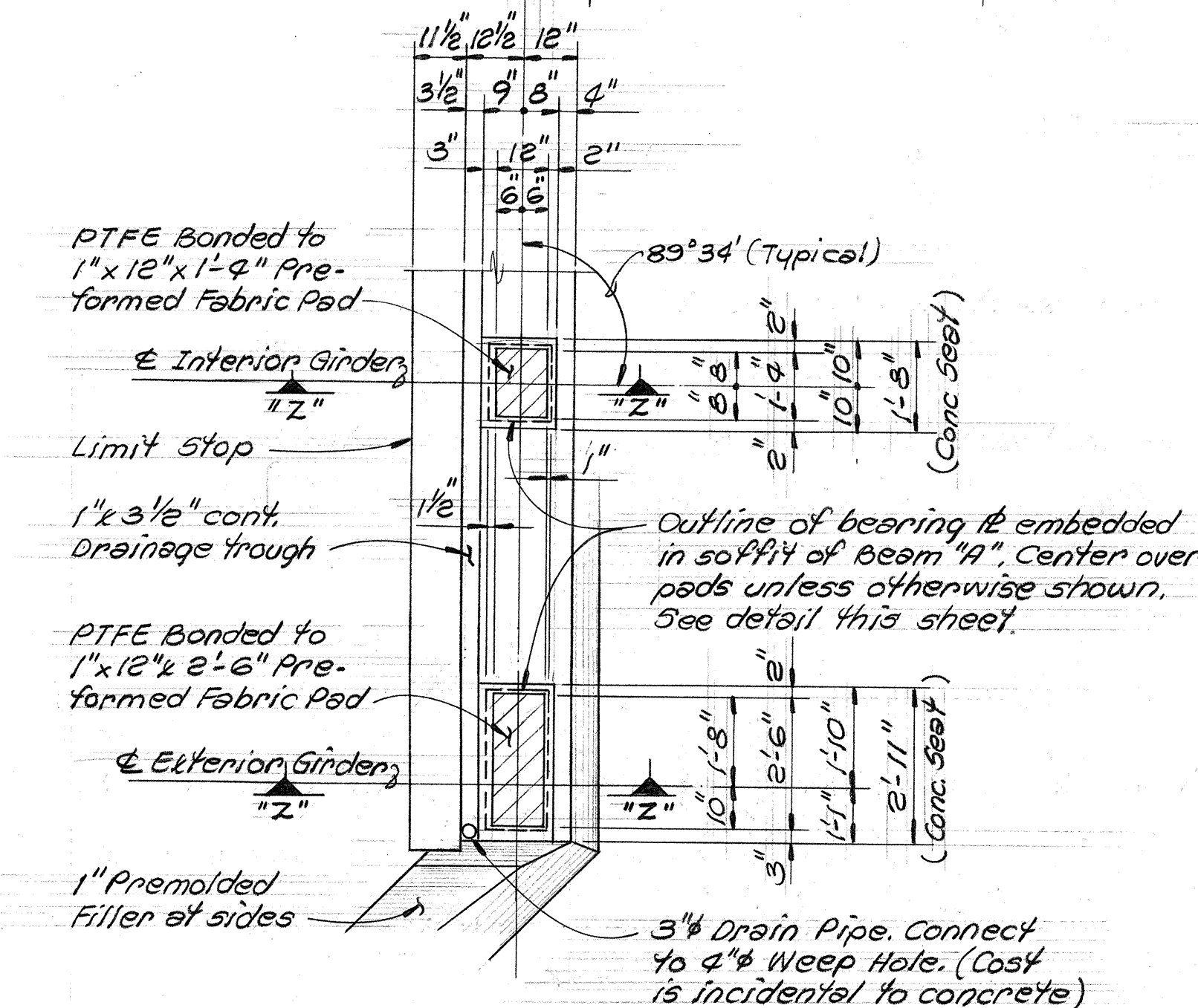
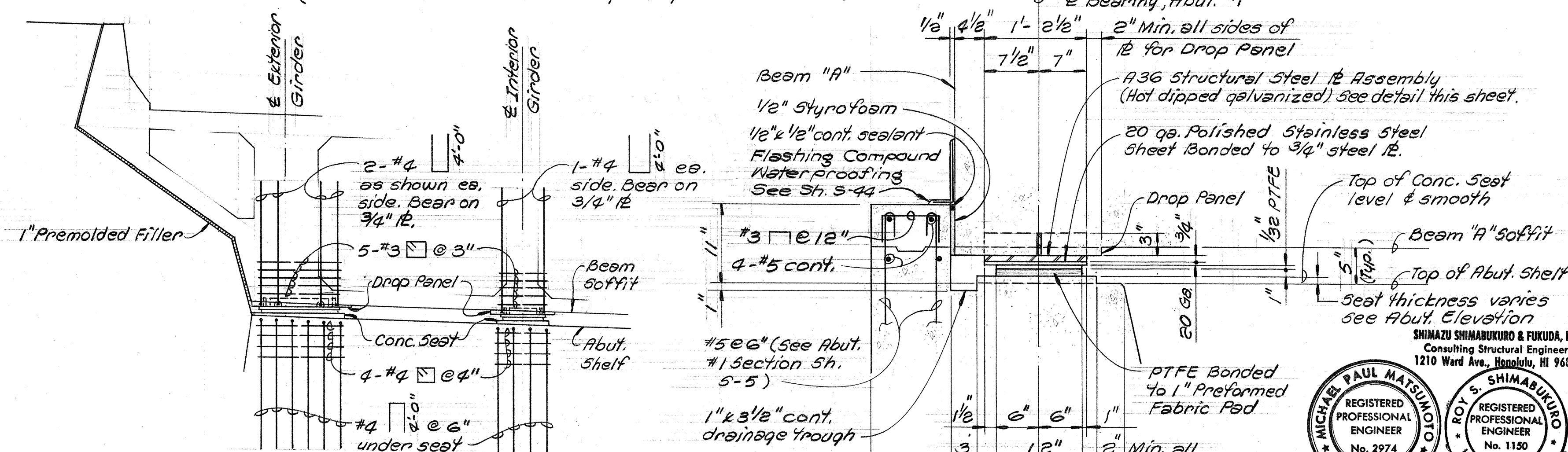
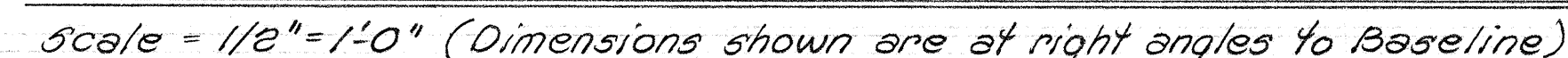
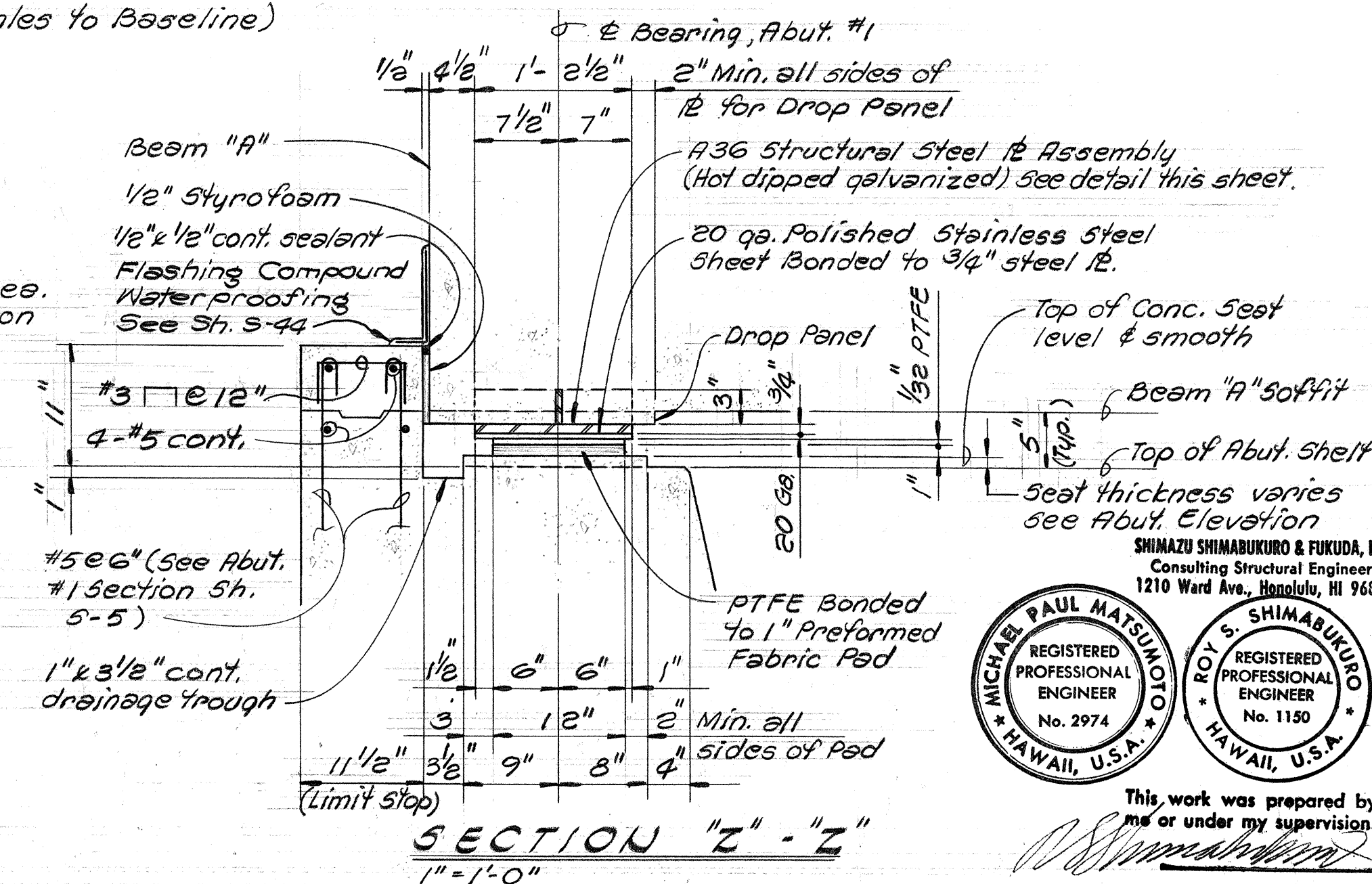


1. Bend all bottom longitudinal #8 bars 90° at Abutment ends.

2. Bend all #5 longitudinal top & bot. slab bars 90° at Abutment ends.

1. Longitudinal reinf. along edge of deck to follow deck curvature.
2. All vertical dimensions are measured plumb.
3. All horizontal dimensions are measured normal to the Baseline.

1. Post Tension Notes ----- 5h. 5-6
2. Stirrup size & spacing ----- 5h. 5-6
3. Concrete Railing ----- 5h. 5-86
4. Top slab added reinf. Plan --- 5h. 5-7


$$3/8" = 1'-0"$$

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


A circular professional engineer seal for Michael Paul Mats. The outer ring contains the name "MICHAEL PAUL MATS" at the top and "HAWAII" at the bottom, separated by a star on the left. The center of the seal contains the text "REGISTERED PROFESSIONAL ENGINEER" and the number "No. 2974".

210 Ward Ave., Honolulu, HI 96815

ROY S. SHIMABUKURO
REGISTERED PROFESSIONAL ENGINEER
No. 1150
HAWAII, U.S.A.

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me or under my supervision

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

STRUCTURE No.4
TYPICAL BOX GIRDER SECTION
& ABUT. #1 CONC. SEAT DETAILS

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-HI-1 (73): 15

Scale: As Shown Date: DEC. 7, 1973