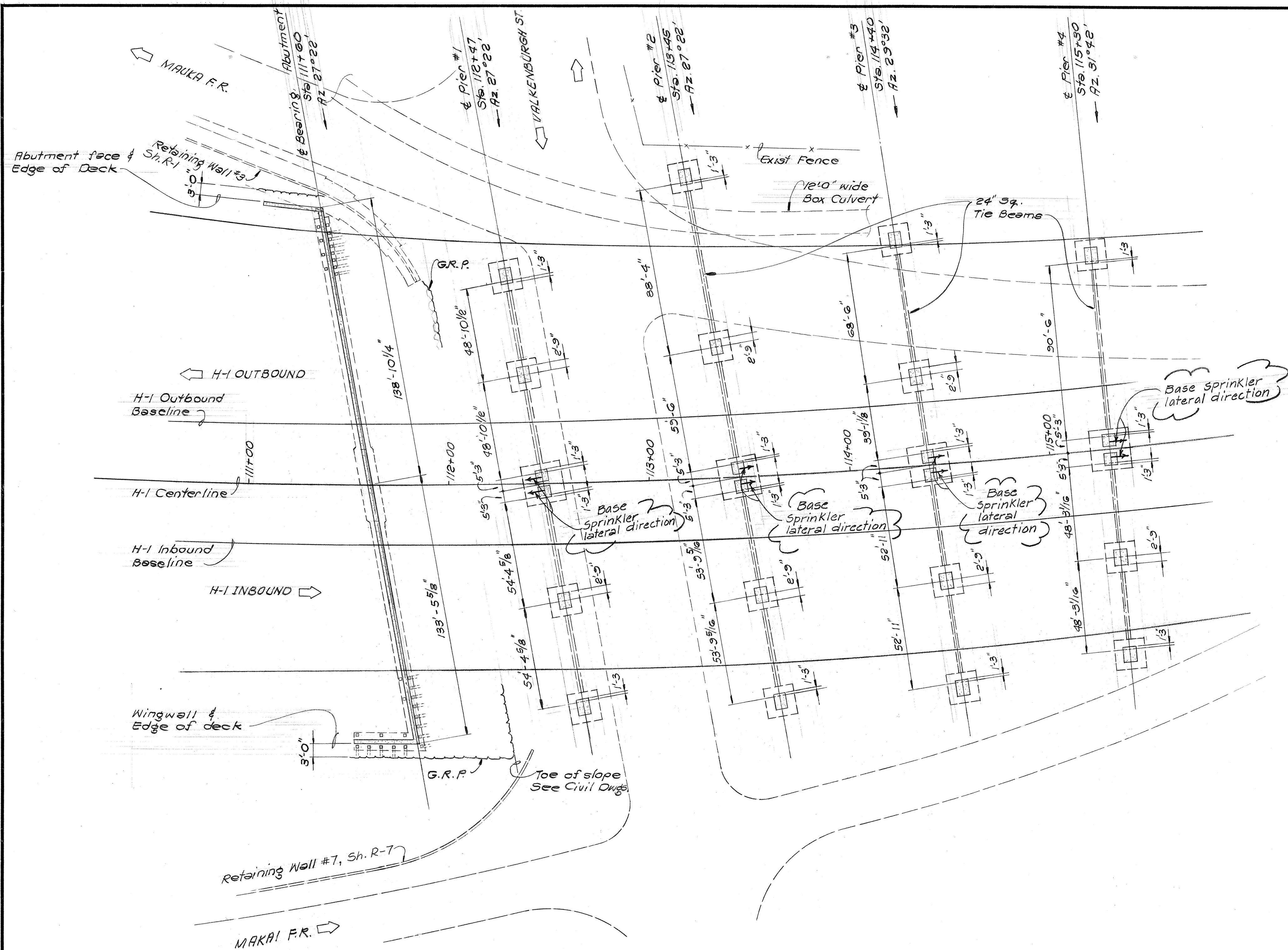


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73):15	1974	270	369



STRUCTURE No. 8 QUANTITY ESTIMATES				
ITEM NO.	ITEM	UNIT	QUANTITY	
206.60	Structural Excavation For Bridges	C.Y.	1662	
206.65	Structural Backfill For Bridges	C.Y.	593	
503.0717	Concrete in Footings	L.S.	1074 C.Y.	
504.55	Post-Tensioning Operation for Structure	L.S.	56,530 #	
504.613	Concrete for Prestressed Cast-in-place Structure	L.S.	6551 C.Y.	
602.018	Reinforcing Steel in Bridges	L.S.	1,428,000 #	
206.80	Filter Material	C.Y.	156	
507.70	Concrete Bridge Parapet, Including End Post	L.F.	1493	
505.700	Drilled Holes	L.F.	3049	
505.040	Precast, prestressed concrete piles furnished	L.F.	4084	
505.400	Precast, prestressed concrete piles driven	L.F.	754	
505.040	Precast, Prestressed Concrete Test Piles, Furnished	L.F.	173	
505.410	Precast, Prestressed Concrete Test Piles, Driven	L.F.	25	
504.33	Prestressed Concrete Girders	L.F.	13,535	
612.01	Grouted Rubble Paving	C.Y.	619	

- DESIGN CRITERIA**
- A. Specifications = Standard Specifications for Highway Bridges, AASHTO 11th Edition, including interim specifications & Standard Specifications for Road & Bridge Construction, Hawaii 1973.
 - B. Allowable Foundation Pressure = 30,000 p.s.f. (Footings shall bear 1'-0" minimum into tuff subject to the soils Engineer's approval)
 - C. 28 Day Concrete strengths:
 - Abutment walls, wingwall, footings, columns 3,000 p.s.i. (Class A concrete)
 - poured-in-place slabs 5,000 p.s.i.
 - Post-tensioned pier caps 3,000 p.s.i. (Class A concrete)
 - Reinforced concrete pier caps
 - D. Reinforcing Steel: ASTM A615, Grade 60
 - E. Loads = HS 20-44

Note: E 3 Denotes changes to C.O. 270R

- REFERENCE DRAWINGS**
- 1. Abutment Foundation-----Sh. 5-55
 - 2. Pier Foundations-----Sh. 5-61

SHIMAZU SHIMABUKURO & FUKUDA, INC.
 Consulting Structural Engineers
 1210 Ward Ave., Honolulu, HI 96814

REGISTERED PROFESSIONAL ENGINEER
 No. 1343
 HAWAII, U.S.A.

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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

 STRUCTURE No. 8
 FOUNDATION LAYOUT PLAN

 PEARL HARBOR INTERCHANGE
 F.A.I. Proj. No. 1-H-1(73):15
 Scale: As Shown Date: DEC. 7, 1973
 SHEET No. 5-54 OF 106 SHEETS

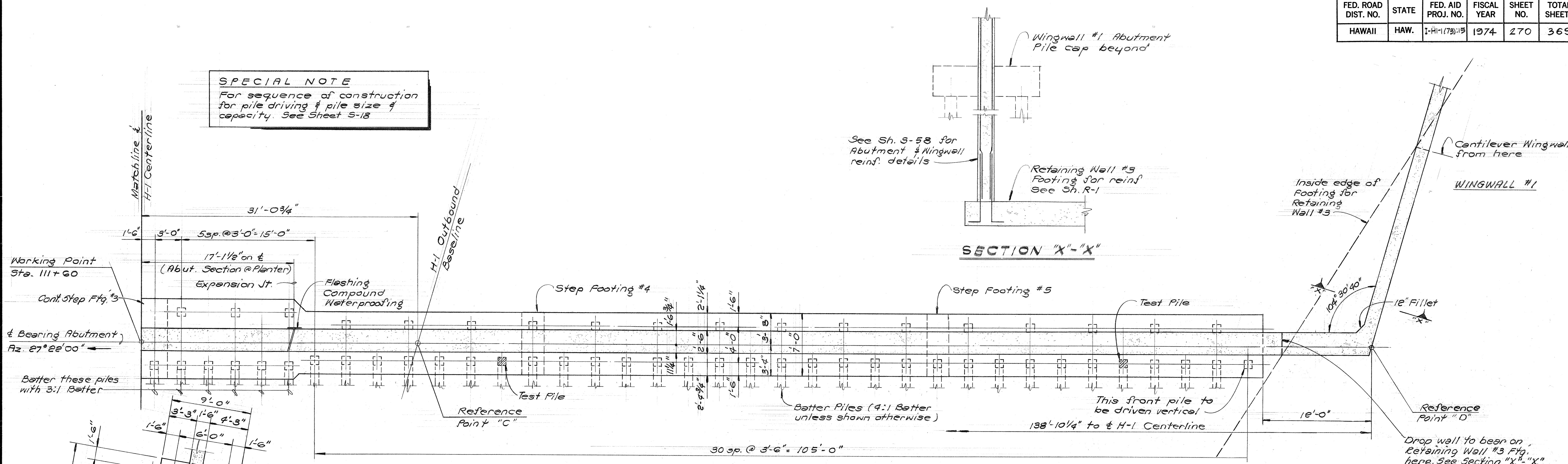
4/25/75	REVISE SPRINKLER LATERAL AND LOCATION.
4/26/74	SHOW GROUTED RUBBLE PAVING ITEM
DATE	REVISION

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C.O. 270R

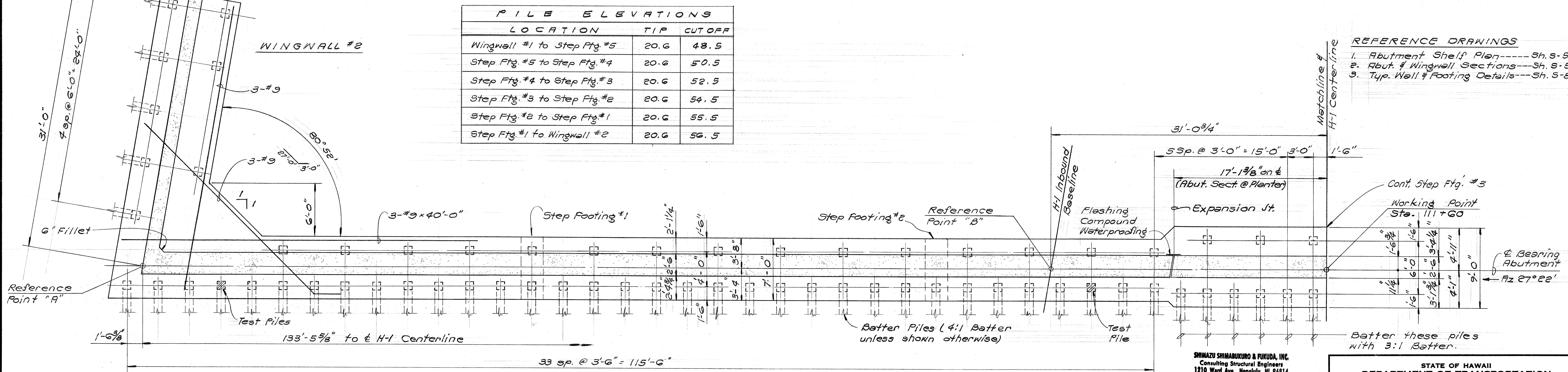
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73)-15	1974	270	369

SPECIAL NOTE
For sequence of construction for pile driving & pile size & capacity. See Sheet S-18



PILE ELEVATIONS		
LOCATION	TIP	CUT OFF
Wingwall #1 to Step Ftg. #5	20.6	48.5
Step Ftg. #5 to Step Ftg. #4	20.6	50.5
Step Ftg. #4 to Step Ftg. #3	20.6	52.5
Step Ftg. #3 to Step Ftg. #2	20.6	54.5
Step Ftg. #2 to Step Ftg. #1	20.6	55.5
Step Ftg. #1 to Wingwall #2	20.6	56.5

- REFERENCE DRAWINGS**
1. Abutment Shelf Plan-----Sh. S-56
 2. Abut. & Wingwall Sections-----Sh. S-58
 3. Typ. Wall & Footing Details-----Sh. S-84



ABUTMENT FOUNDATION PLAN

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
ABUTMENT FOUNDATION PLAN

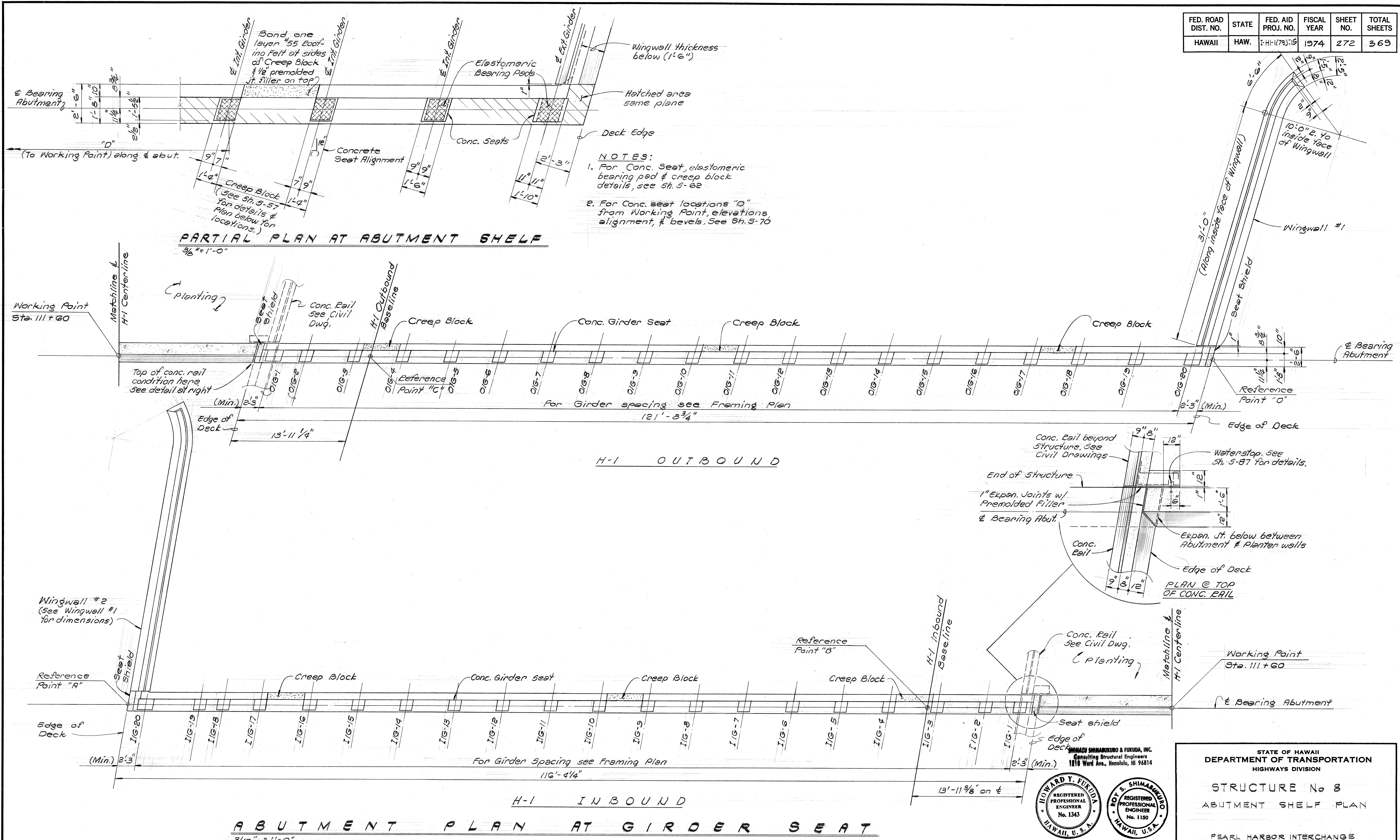
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-H-1(73)-15

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 270 OF 369 SHEETS

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73):15	1974	272	369



DATE	12/7/73
SURVEY PLOTTED BY	SHIMAZU SHIMAZUKURO & FUKUDA, INC.
DRAWN BY	SHIMAZU SHIMAZUKURO & FUKUDA, INC.
TRACED BY	SHIMAZU SHIMAZUKURO & FUKUDA, INC.
CHECKED BY	SHIMAZU SHIMAZUKURO & FUKUDA, INC.
ORIGINAL PLAN	No.
NOTE BOOK	No.

SHIMAZU SHIMAZUKURO & FUKUDA, INC.
Consulting Structural Engineers
1218 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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STRUCTURE No. 8
ABUTMENT SHELF PLAN

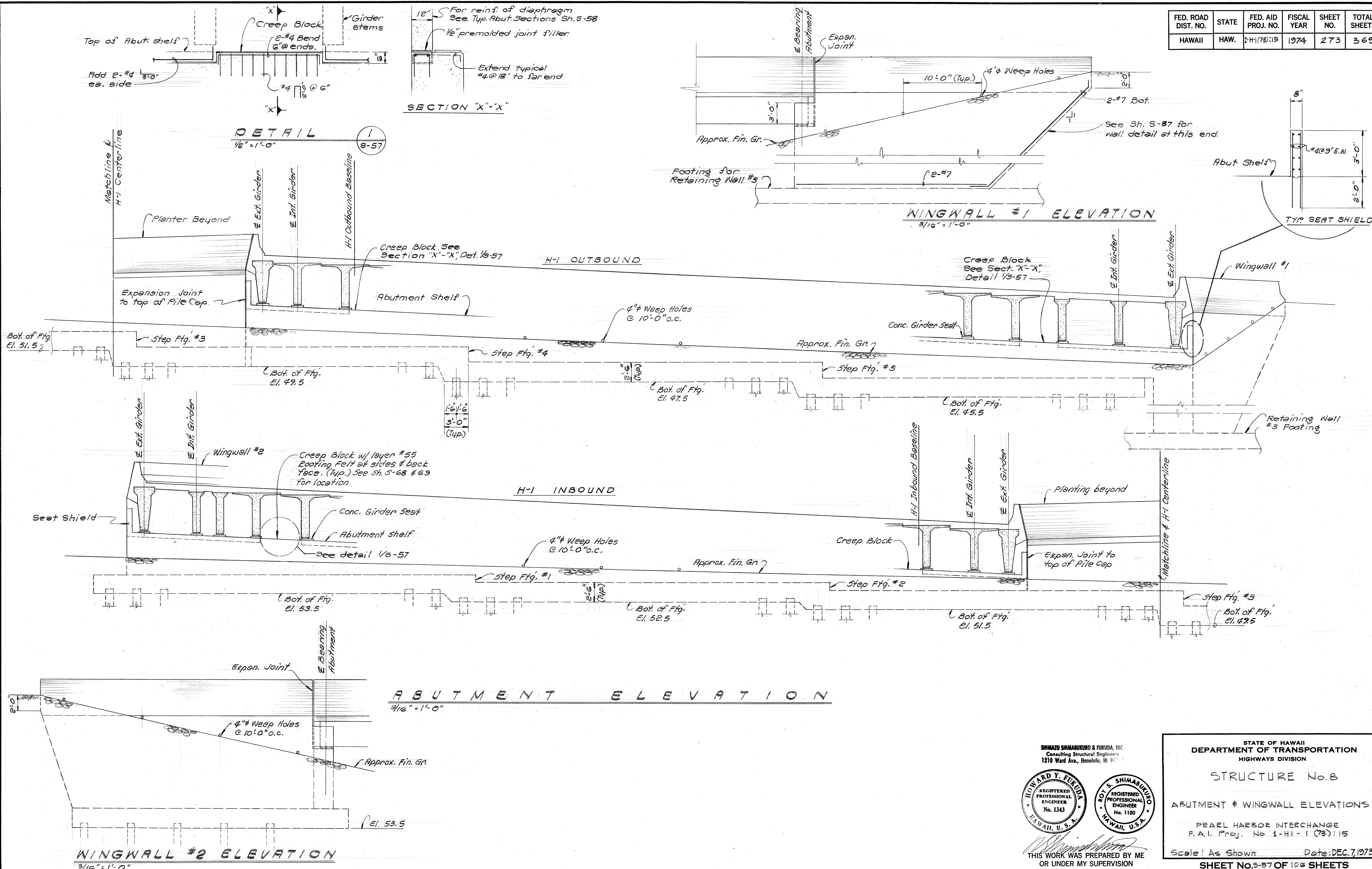
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-H-1(73):15

Scale: As Shown Date: DEC. 7, 1973

SHEET NO. 3-56 OF 106 SHEETS

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73)115	1974	273	360



ORIGINAL	SURVEY PLOTTED BY	DATE
PLAN	DRAWN BY	
NOTE BOOK	DESIGNED BY	
QUANTITIES BY	CHECKED BY	
NO.		

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Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96817

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8

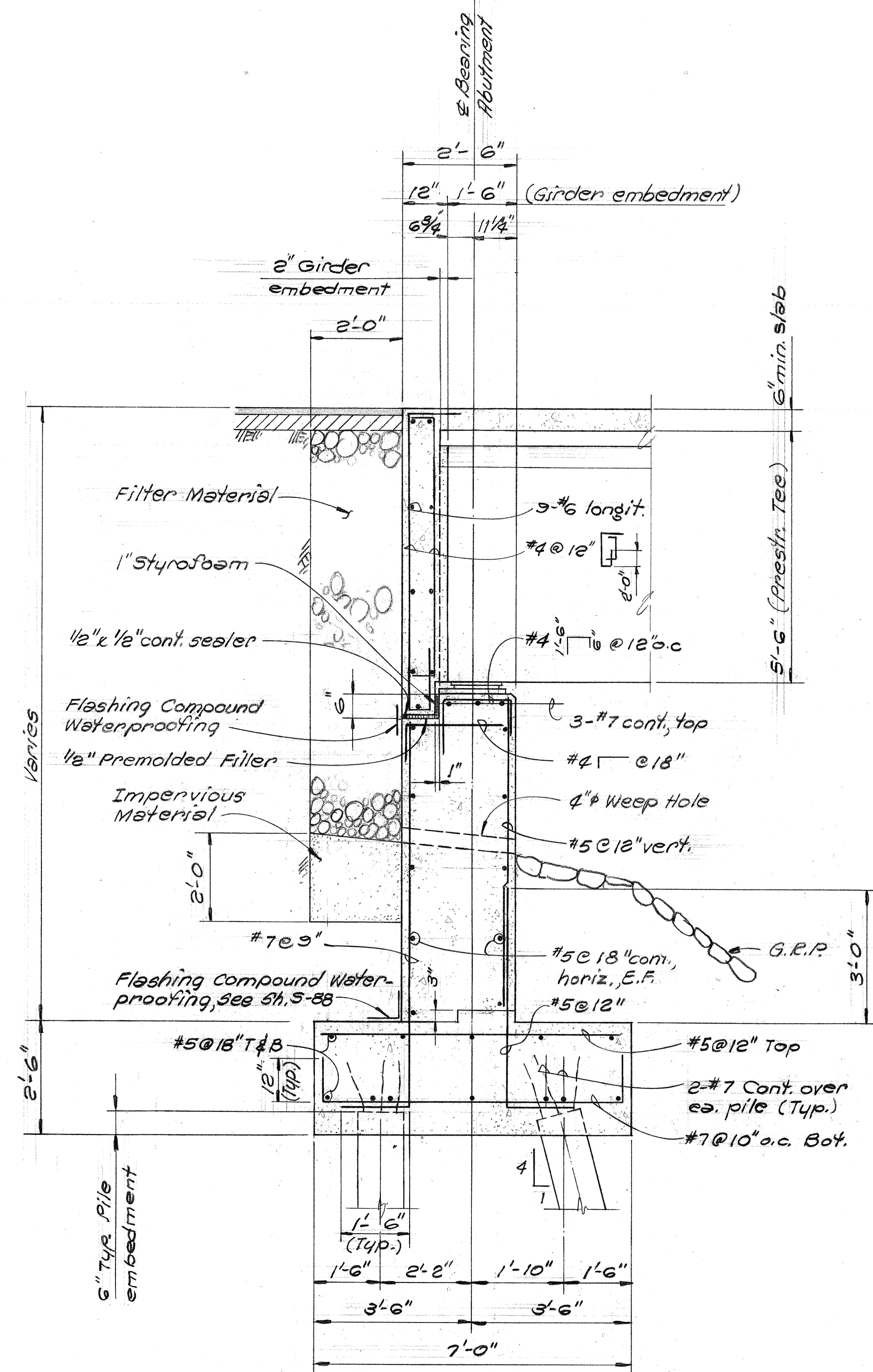
ABUTMENT & WINGWALL ELEVATIONS

PEARL HARBOR INTERCHANGE
P.A.I. Proj. No. 1-H-1 (73) 115

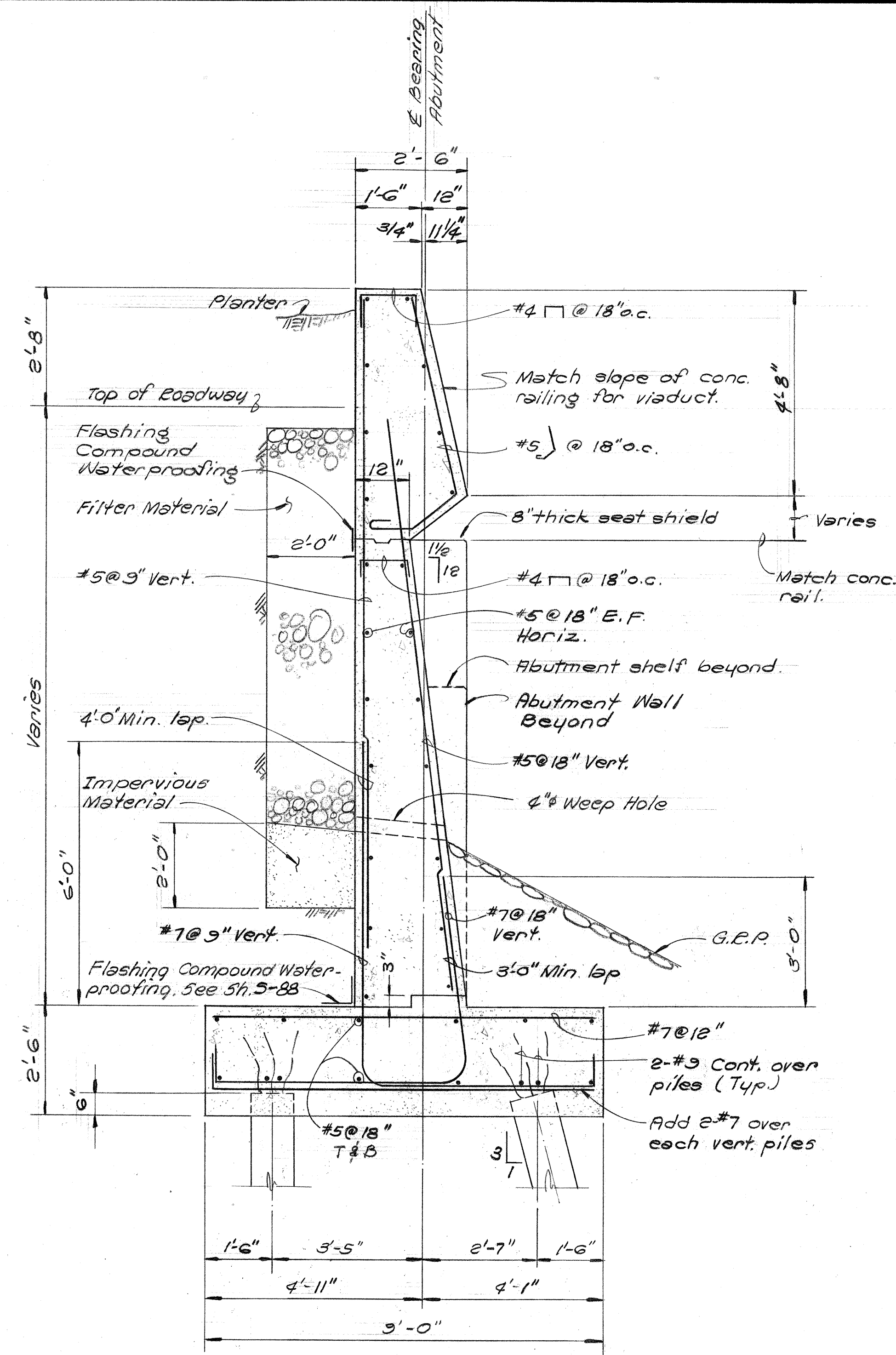
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SHEET NO. 5-57 OF 106 SHEETS

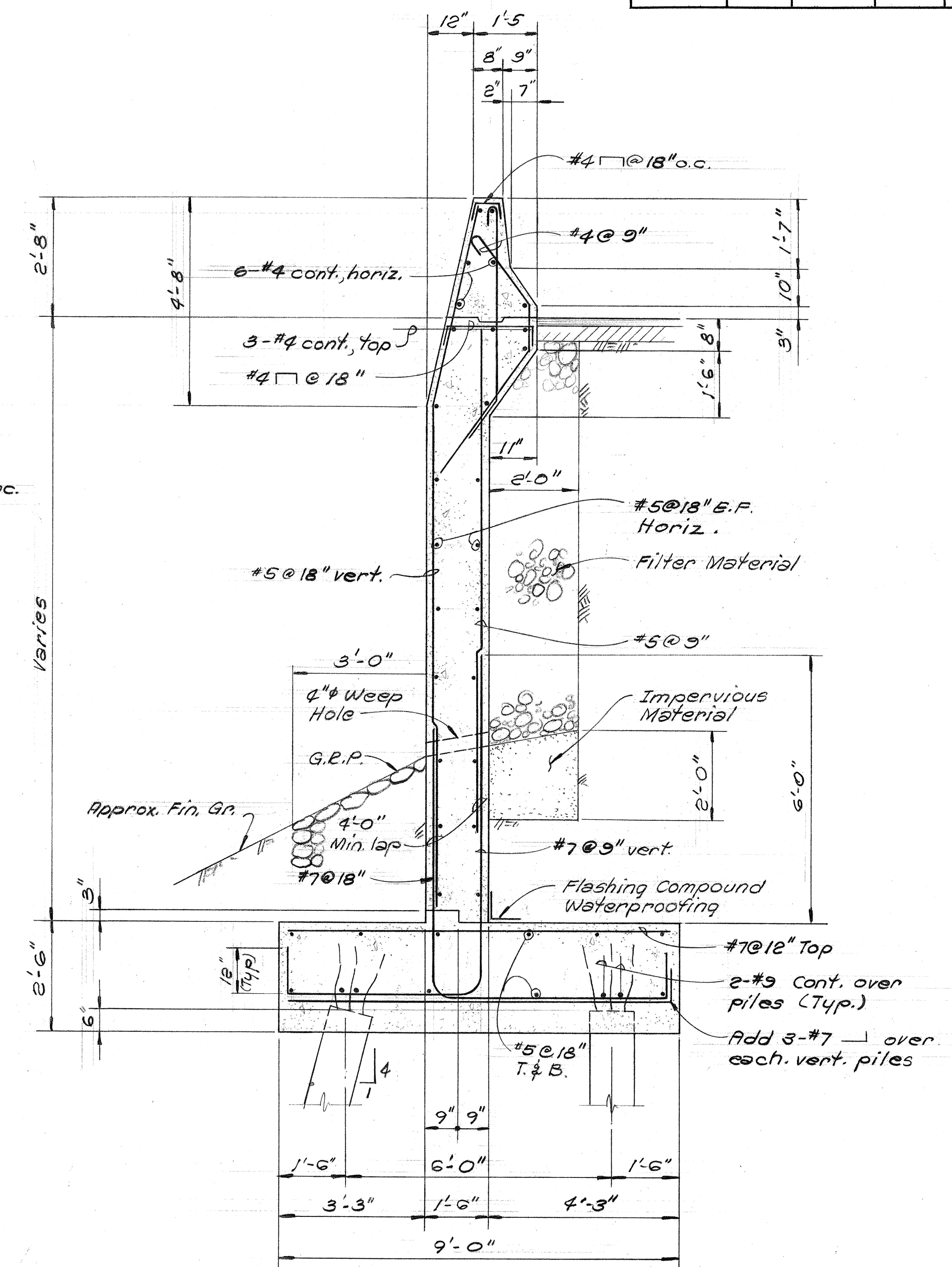
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	2-H-1(73)-15	1974	274	369



TYPICAL ABUTMENT SECTION
1/2" = 1'-0"

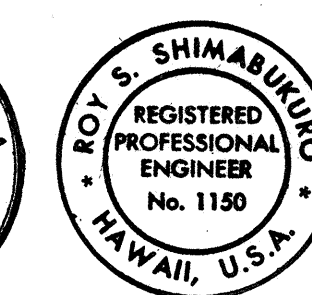
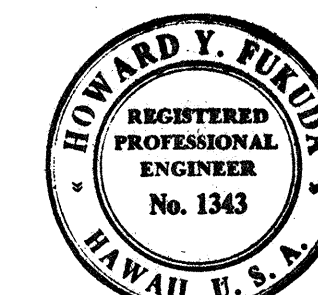


ABUTMENT SECTION AT PLANTER
1/2" = 1'-0"



TYPICAL WINGWALL SECTION
1/2" = 1'-0"

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STATE OF HAWAII
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STRUCTURE No. 8

TYPICAL ABUTMENT &
WINGWALL SECTIONS

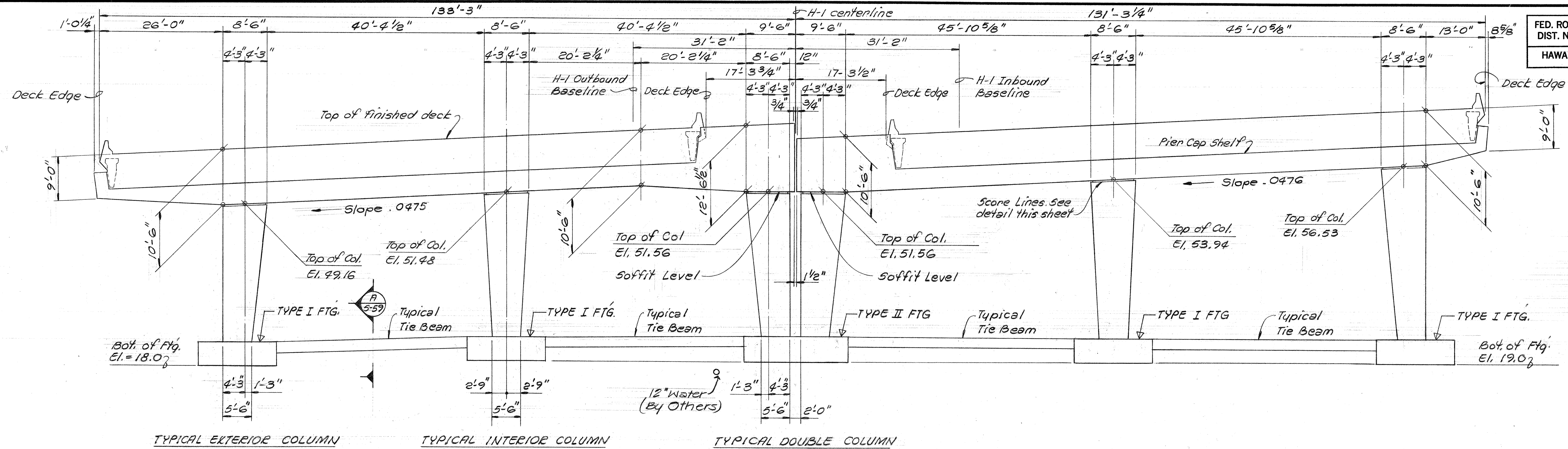
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1(73)-15

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 58 OF 106 SHEETS

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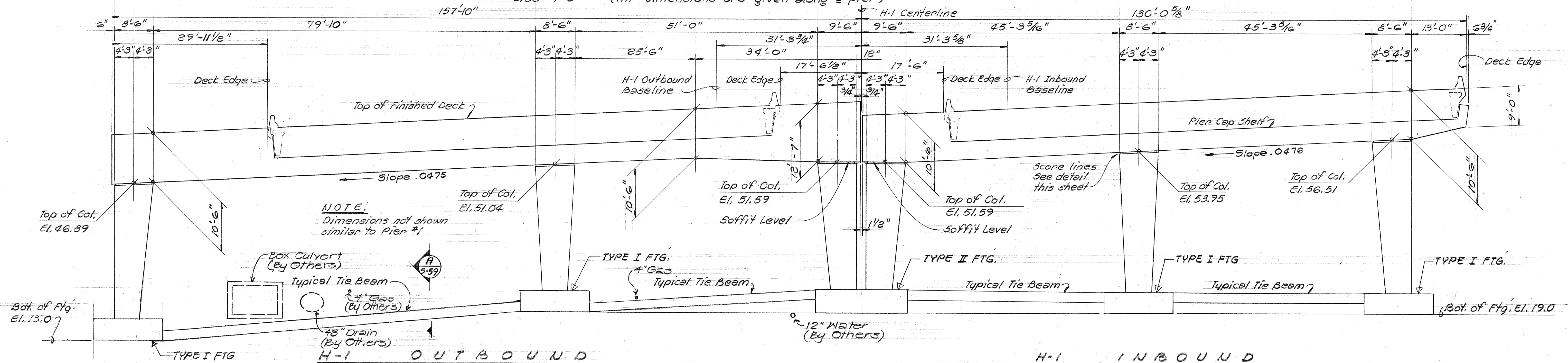
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-173(7)5	1974	275	369



- NOTES:
- For finish grades see Civil sheets.
 - All elevations and dimensions shown are at $\frac{1}{2}$ of piers.

H-1 OUTBOUND PIER #1 ELEVATION (FIXED) H-1 INBOUND

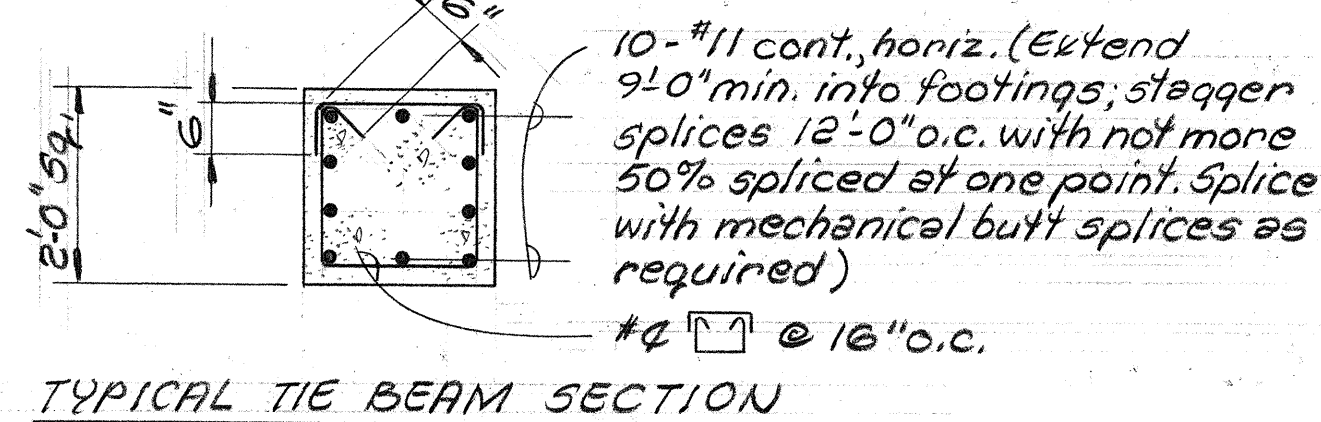
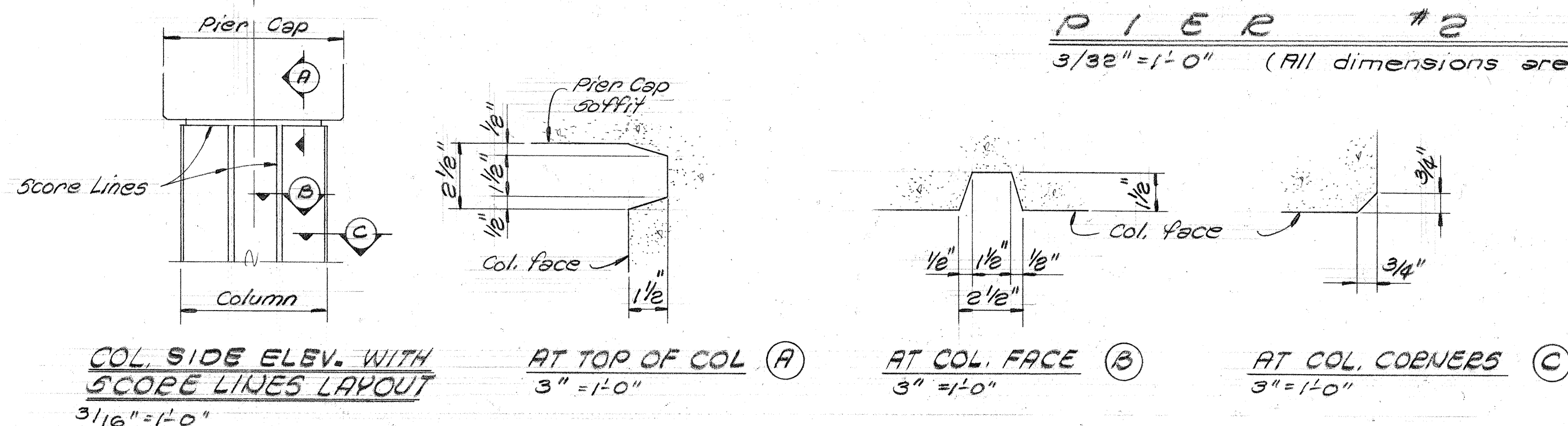
$\frac{3}{32}'' = 1'-0''$ (All dimensions are given along $\frac{1}{2}$ pier)



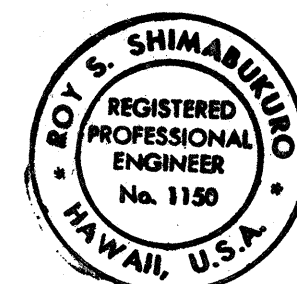
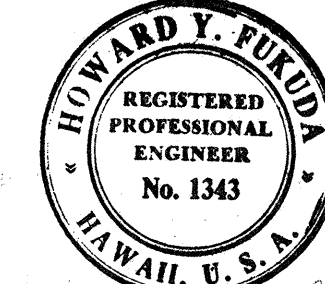
NOTE:
Dimensions not shown similar to Pier #1

H-1 OUTBOUND PIER #2 ELEVATION (EXPANSION) H-1 INBOUND

$\frac{3}{32}'' = 1'-0''$ (All dimensions are given along $\frac{1}{2}$ pier.)



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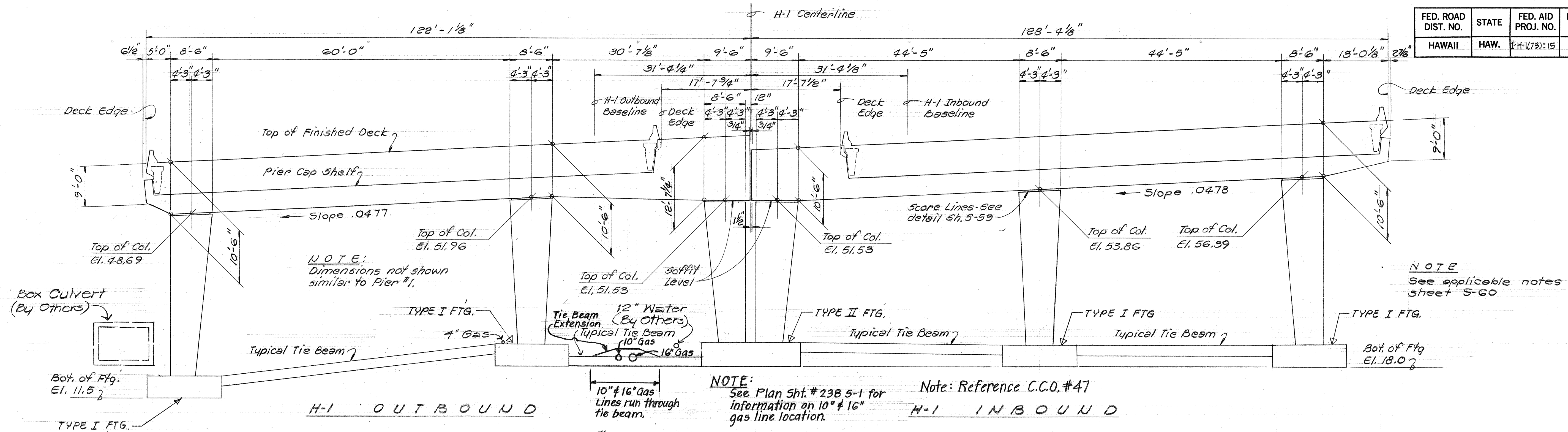
STRUCTURE No. 8
PIER #1 & #2 ELEVATIONS

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-173(7)5

Scale: As Shown Date: DEC. 7, 1973

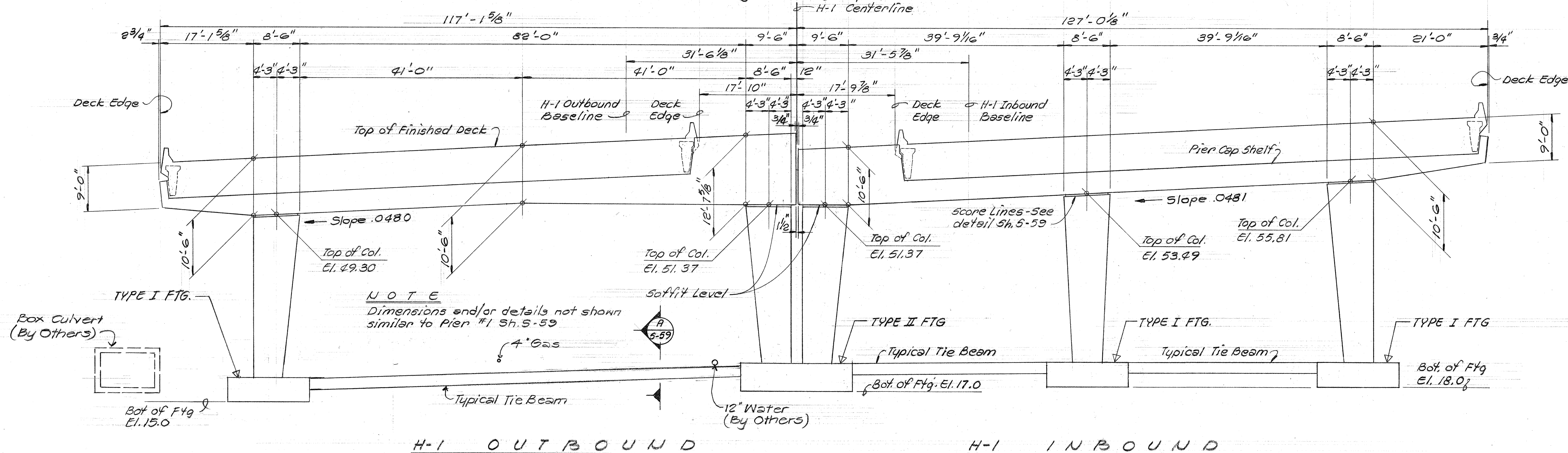
SHEET No. 5-59 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73):15	1974	276	369



PIER #3 ELEVATION (FIXED)

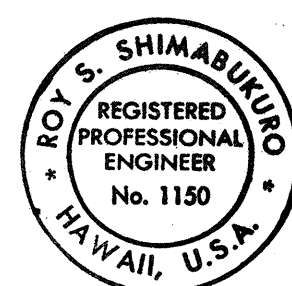
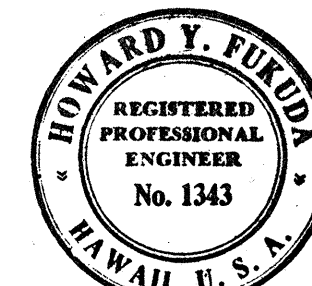
3/32" = 1'-0" (All dimensions are given along & pier)



PIER #4 ELEVATION (EXPANSION)

3/32" = 1'-0" (All dimensions are given along & pier)

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Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96813



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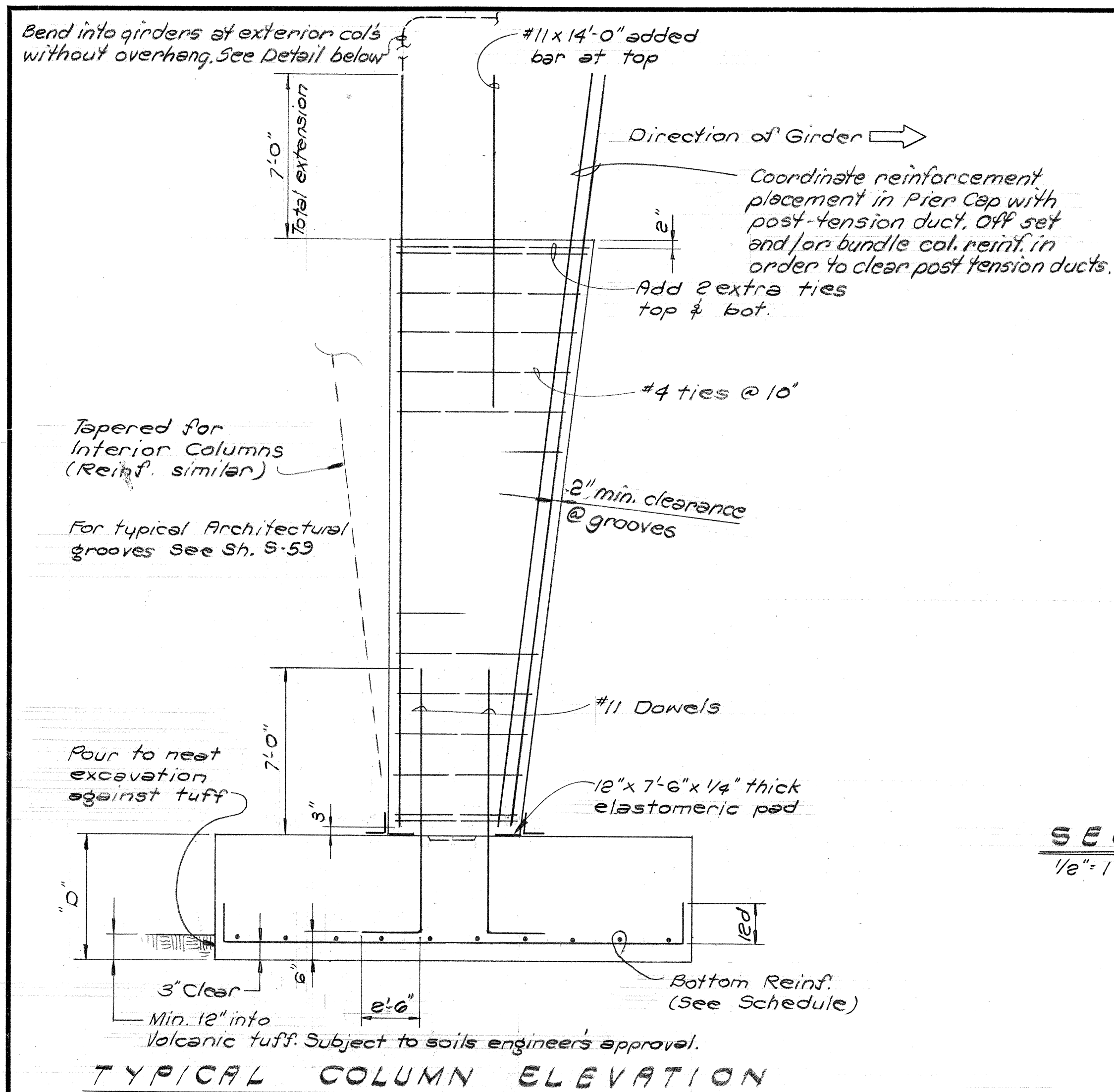
STRUCTURE No. 8
PIER #3 & #4 ELEVATIONS

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

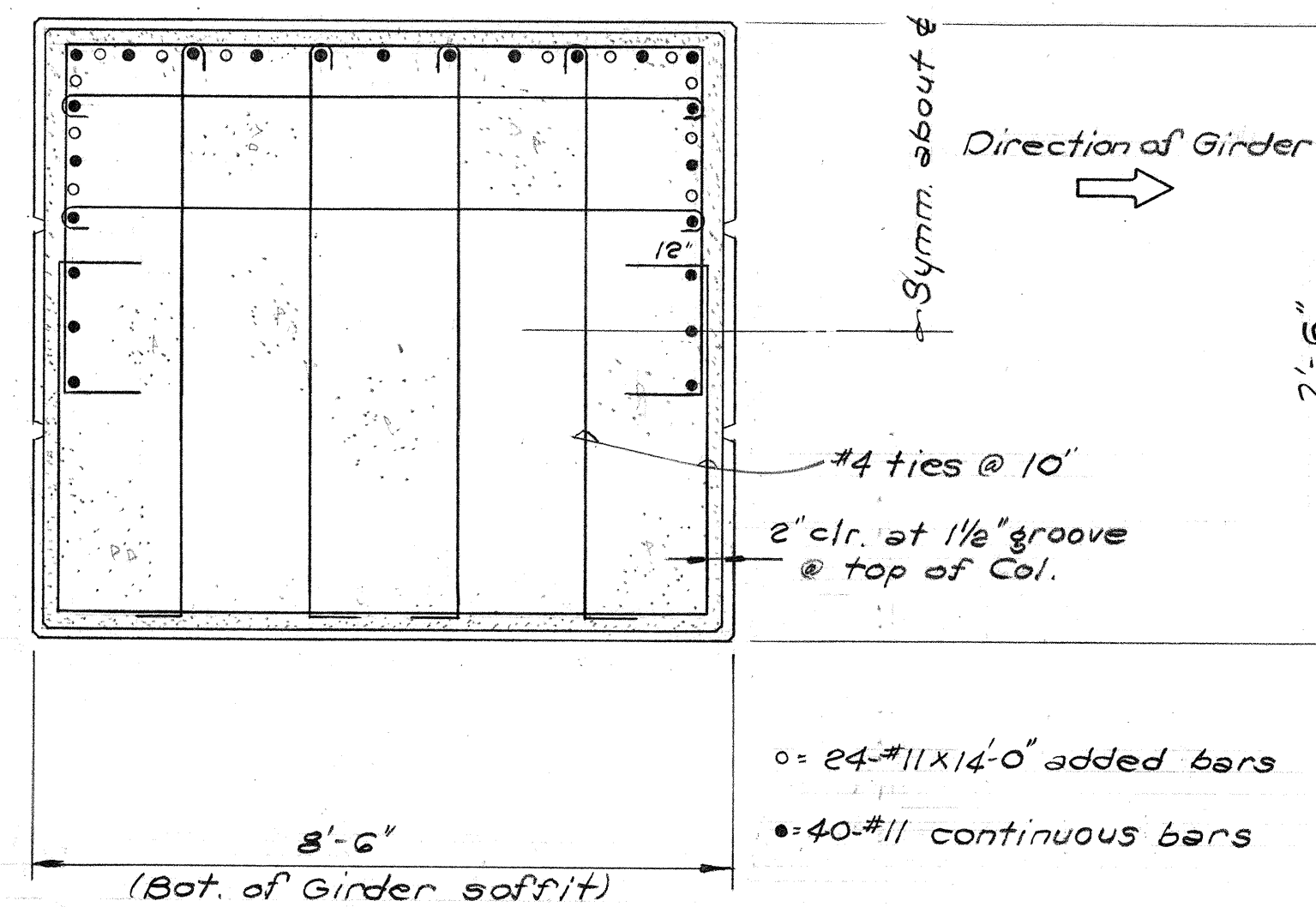
Scale: As Shown Date: DEC. 7, 1973

SHEET No. 560 OF 106 SHEETS

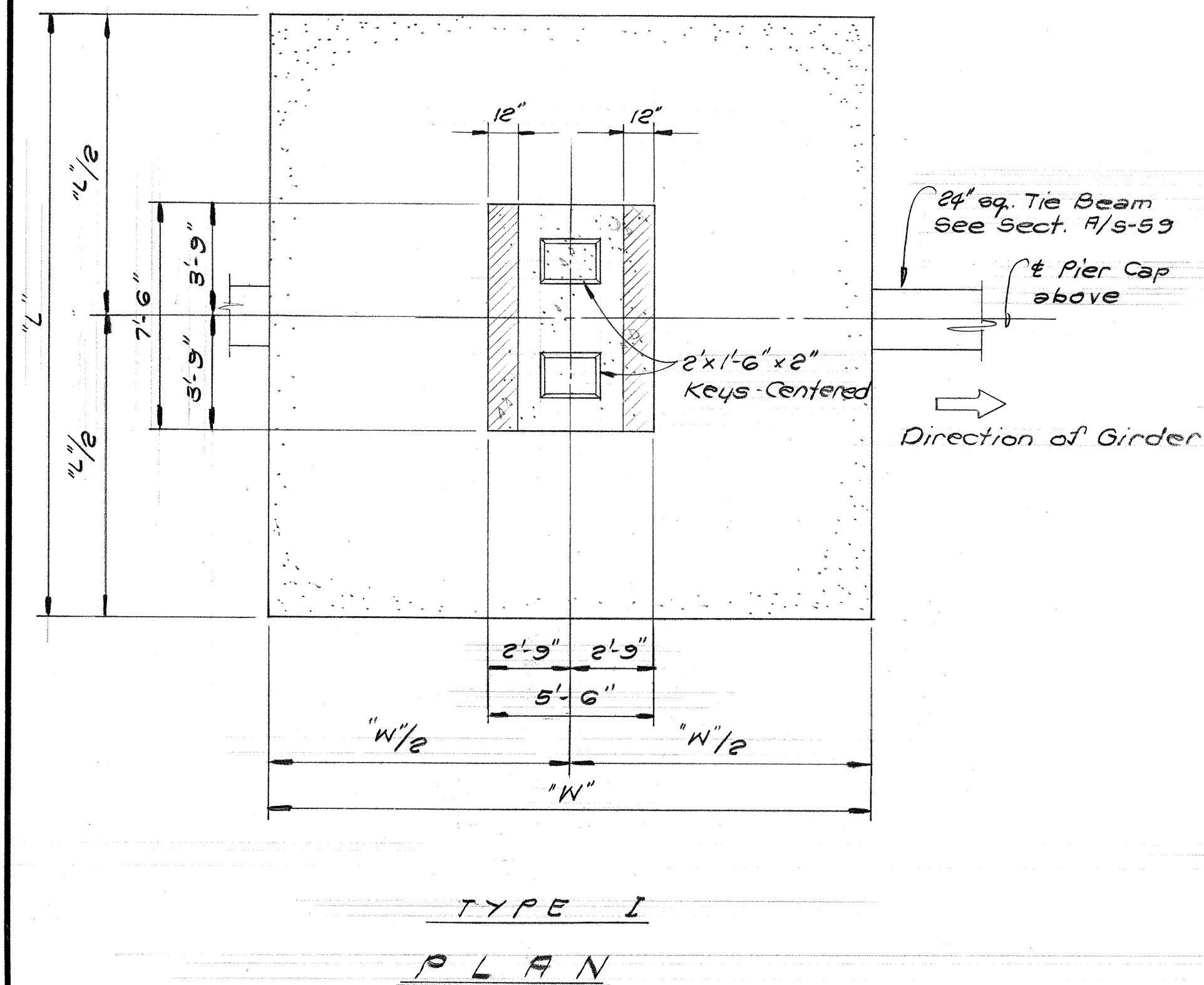
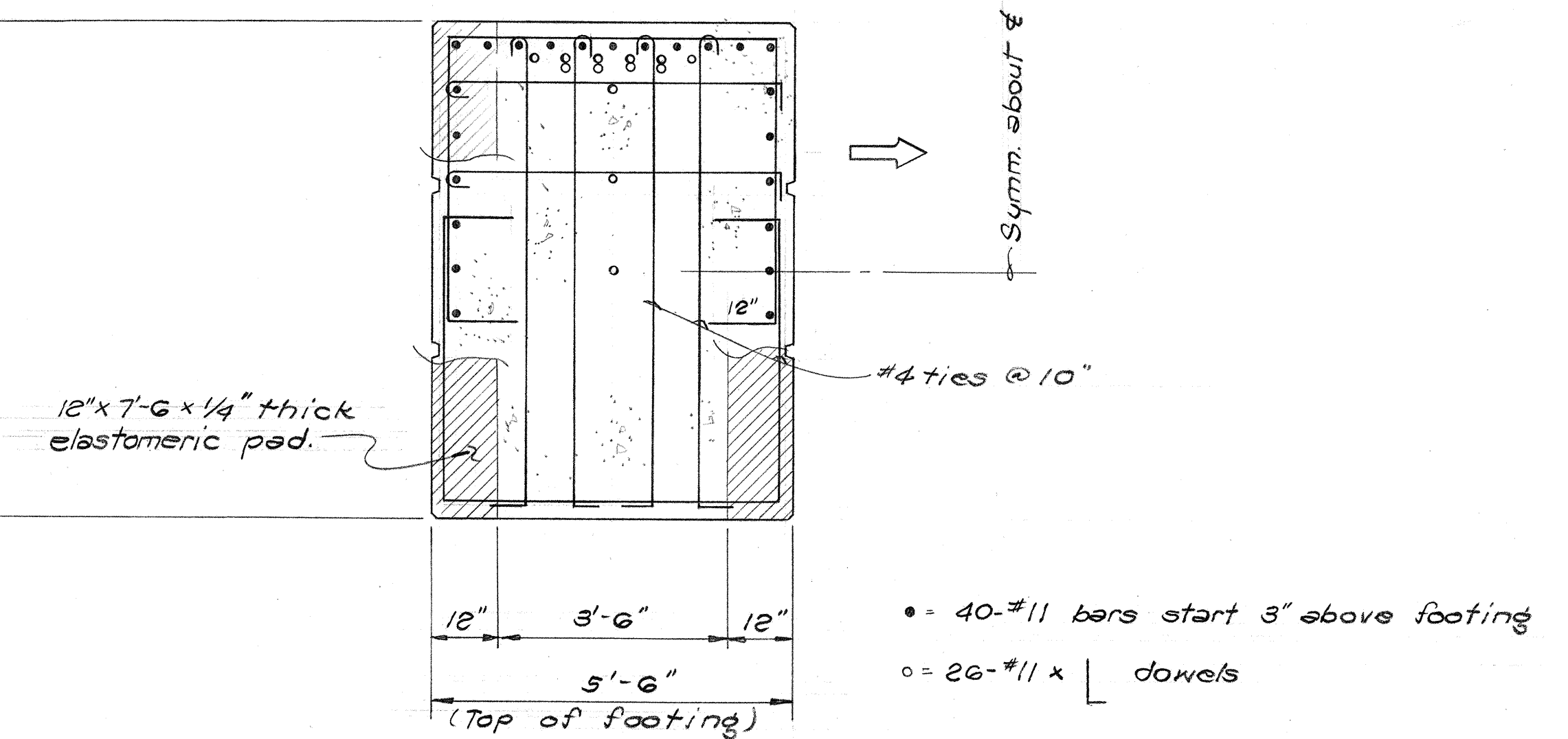
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)15	1974	277	369



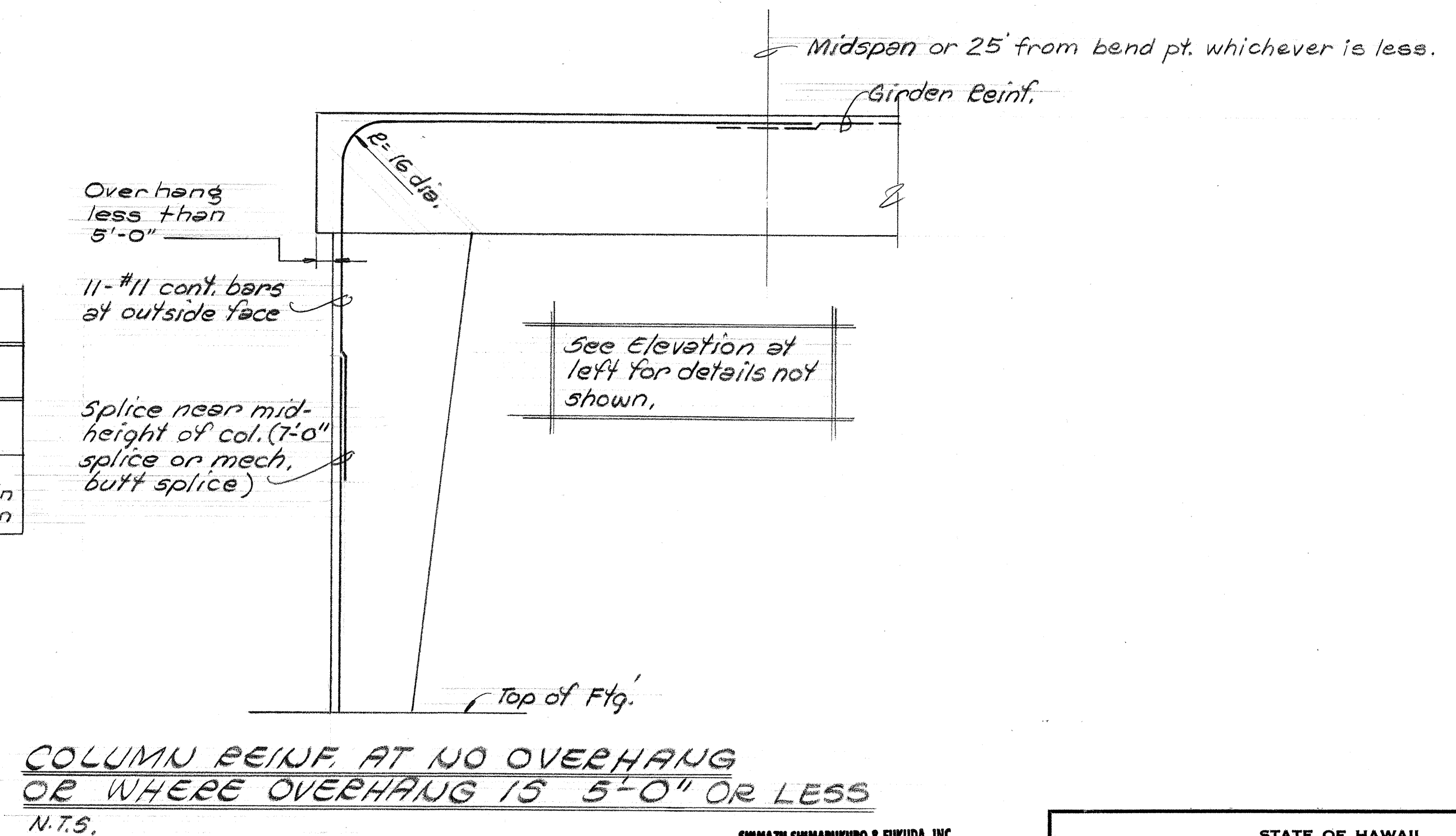
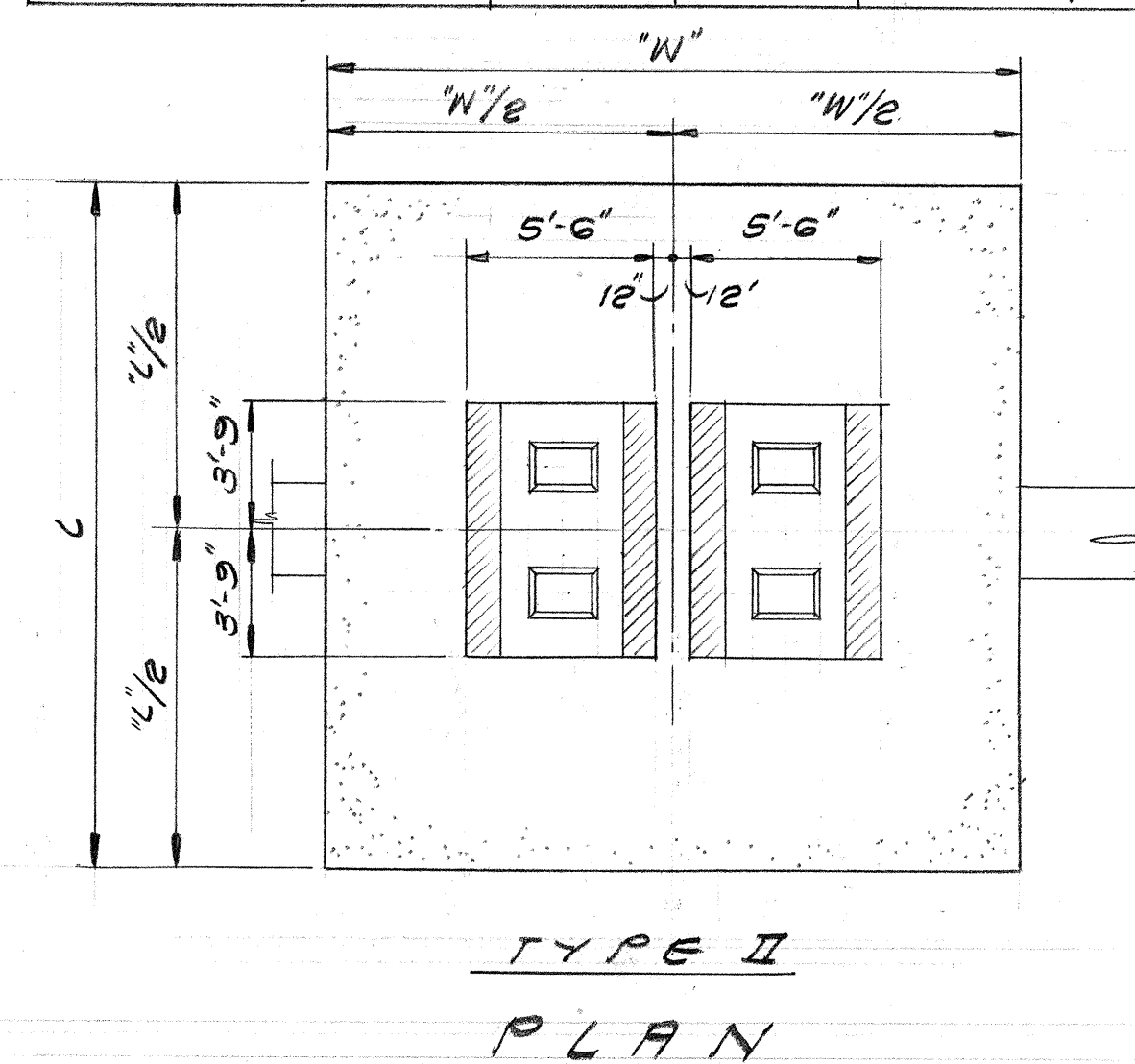
SECTION AT TOP OF COLUMN
1/8" = 1'-0"



SECTION AT TOP OF FOOTING
1/8" = 1'-0"



PIER FOOTING SCHEDULE				
MARK TYPES	"L"	"N"	"D"	Reinforcement
TYPE I	15'-0"	15'-0"	4'-6"	#8 @ 5 1/2" E.W. Bot.
TYPE II	20'-0"	20'-0"	5'-0"	#8 @ 6" E.W. Bot. #8 @ 6" Top in "W" direction #8 @ 12" Top in "L" direction



SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1810 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

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HIGHWAYS DIVISION

STRUCTURE No. 8

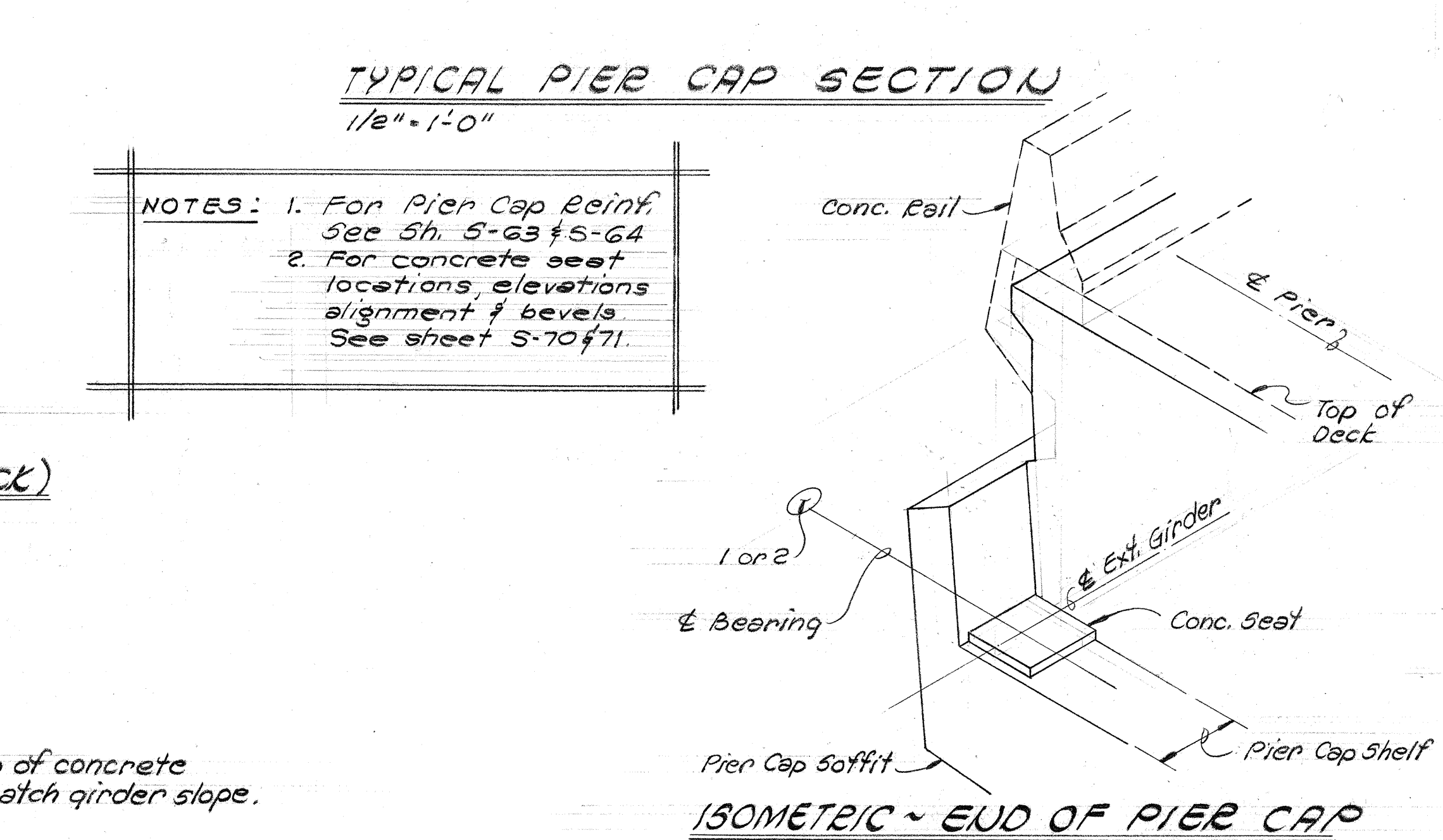
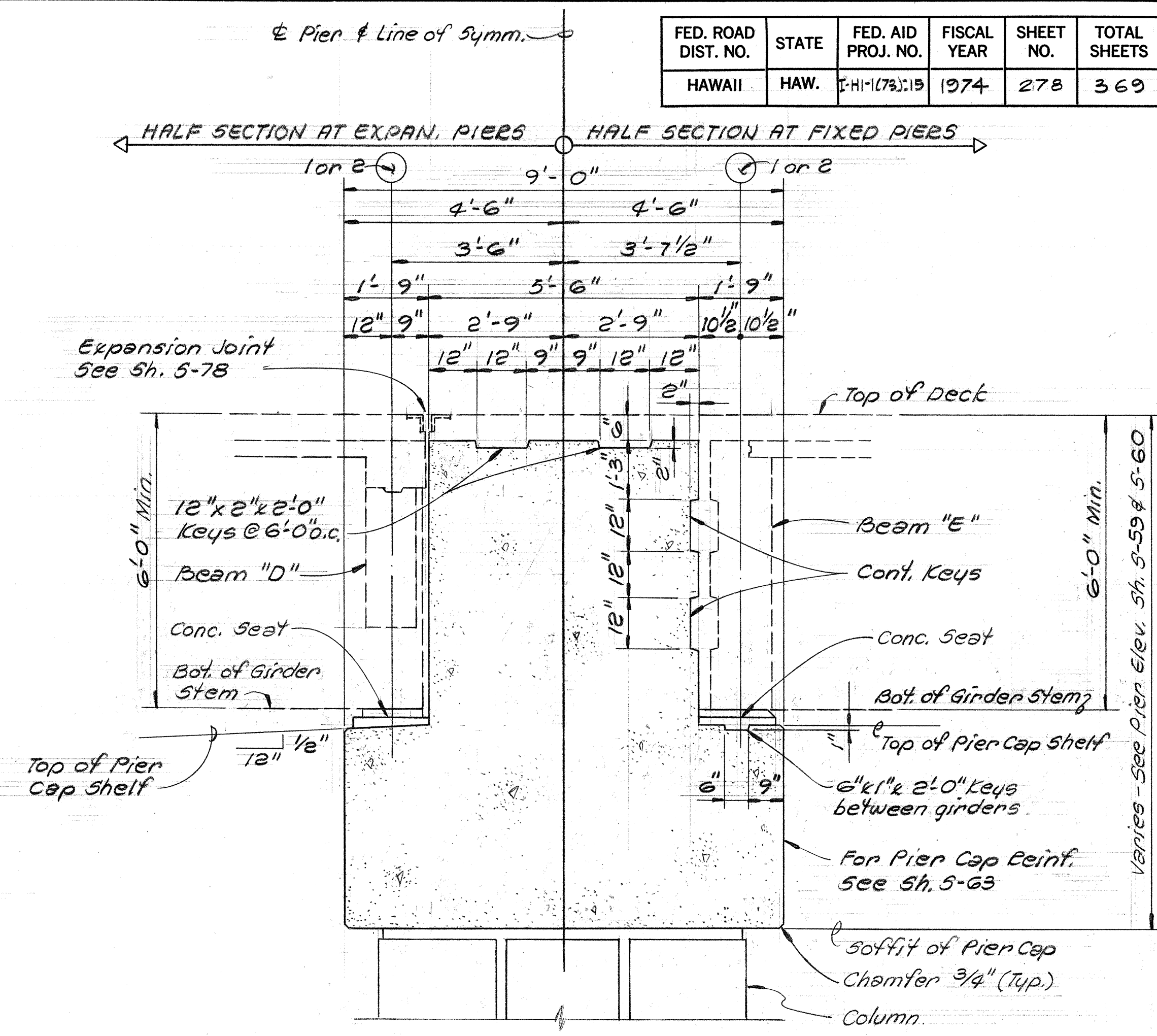
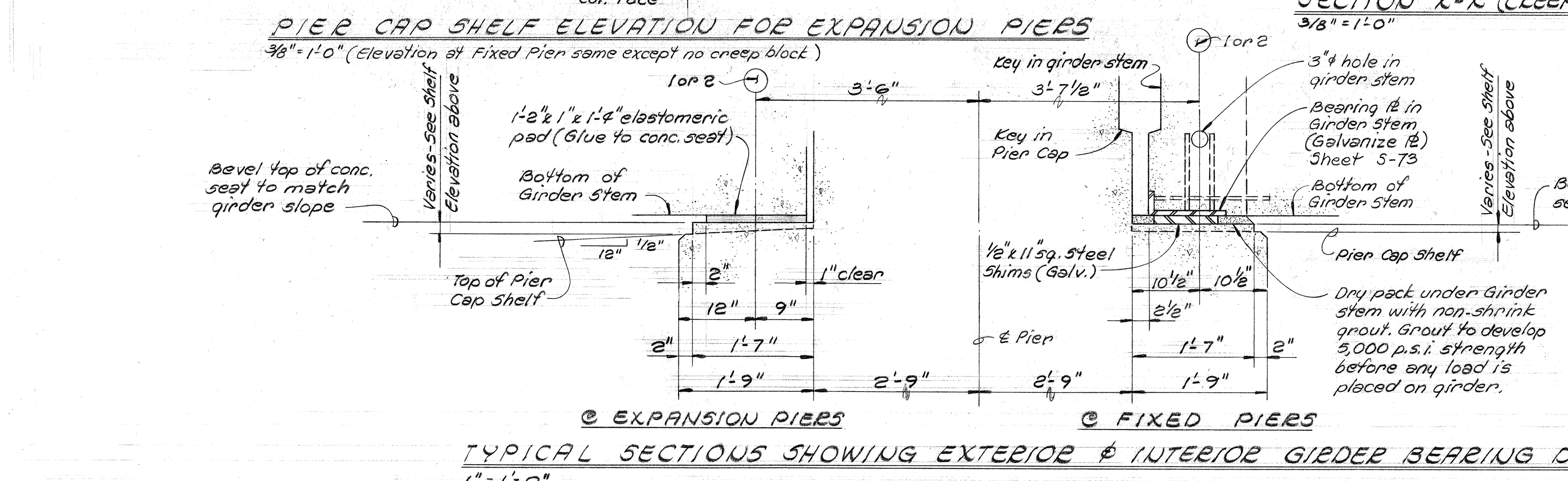
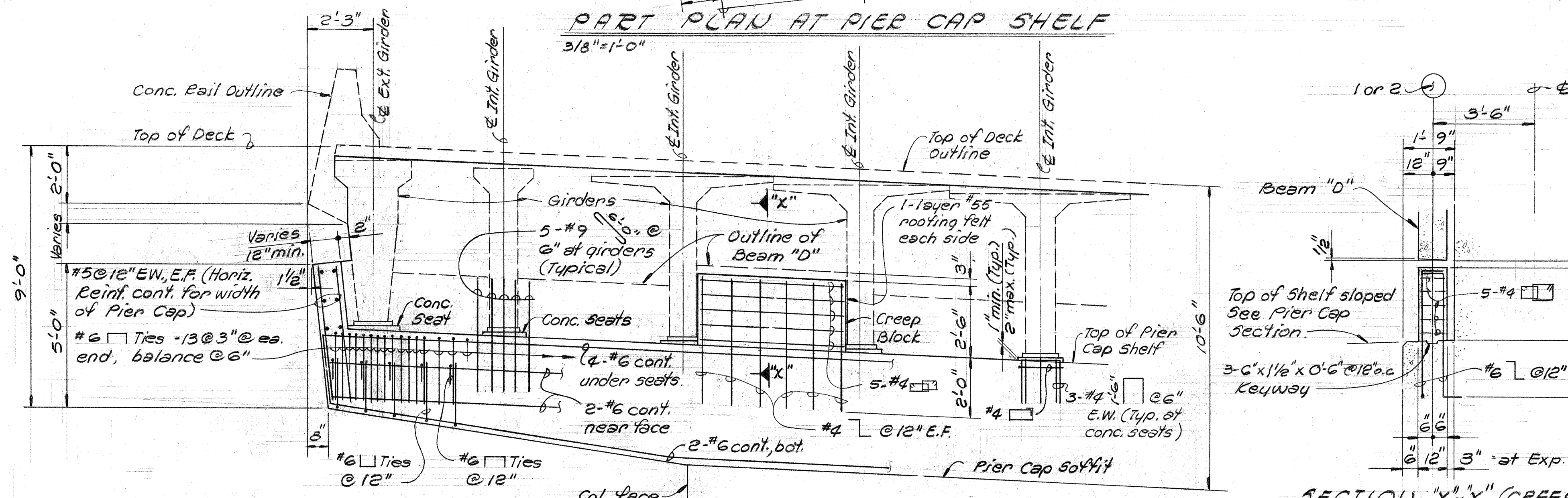
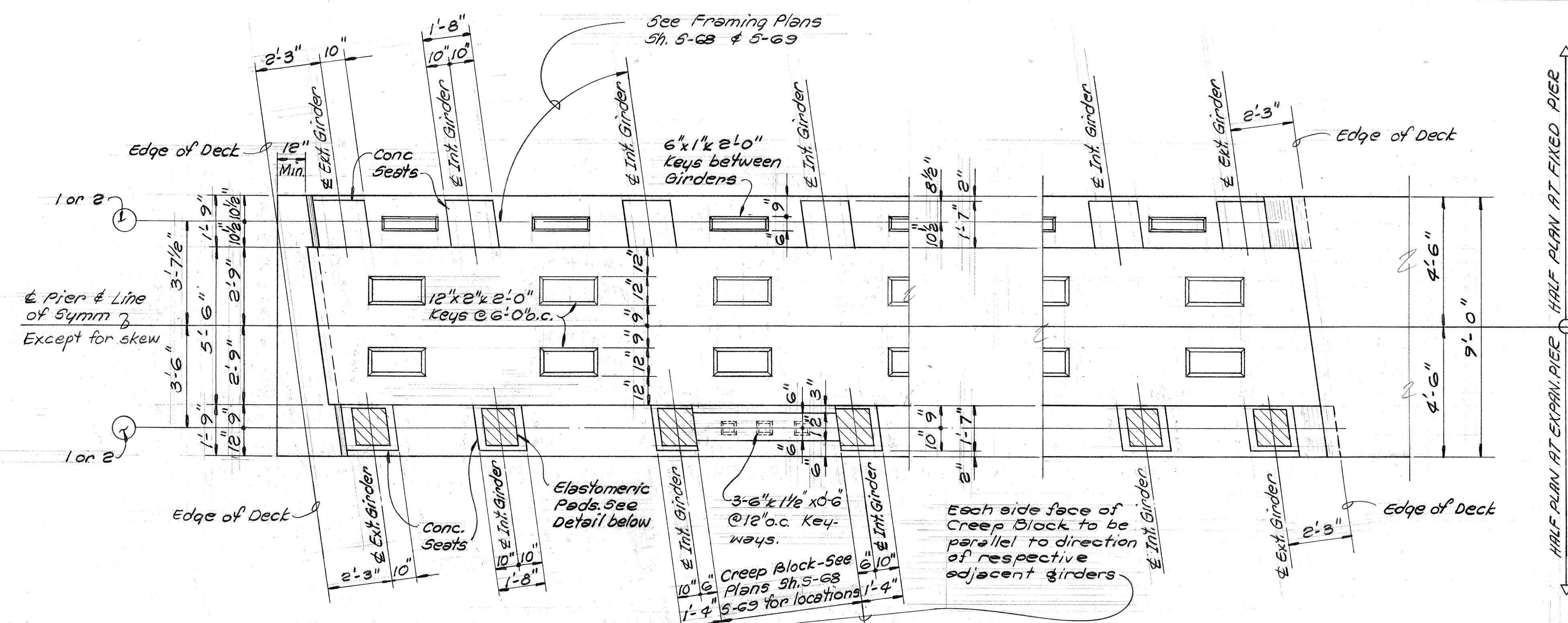
PIER COLUMN & FOOTING DETAILS

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

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 277 of 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-173-15	1974	278	369



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
TYPICAL PIER CAP SECTION, PIER CAP SHELF PLAN & ELEVATION & CREEP BLOCK, CONC. SEAT & GIRDER BEARING DETAILS
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-173-15

Scale: As Shown Date: DEC. 7, 1973
SHEET NO. 5-62 OF 106 SHEETS

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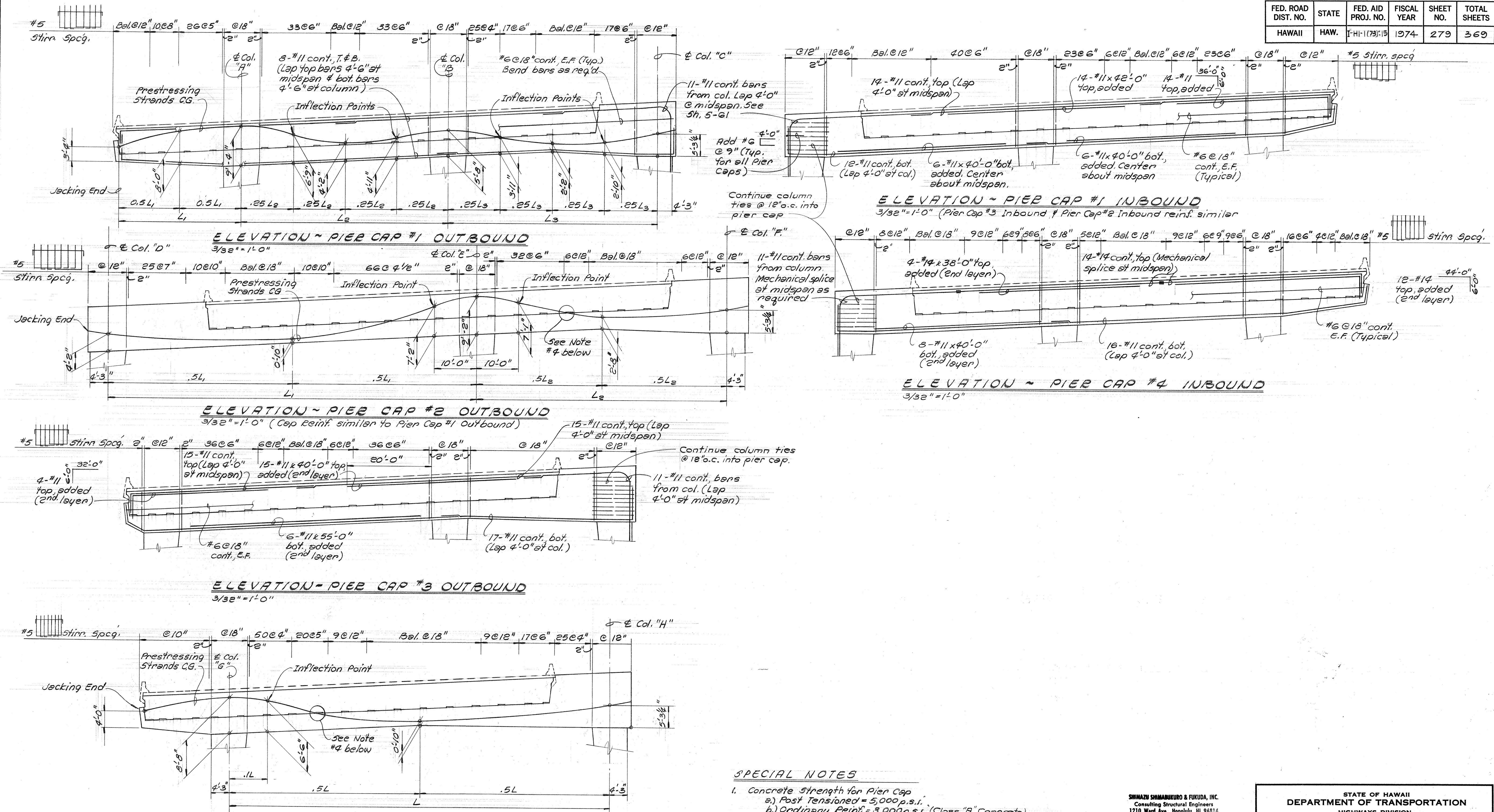
HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

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ORIGINAL PLAN	DATE
DESIGNED BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)15	1974	279	369



SPECIAL NOTES

- Concrete Strength for Pier Cap
 a) Post Tensioned = 5,000 p.s.i.
 b) Ordinary Reinf. = 3,000 p.s.i. (Class "A" Concrete)
- For post tension details & notes see Sh. 5-65
- For Pier Cap dimensions see Pier Elevations, Sh. 5-53 & 5-56 & Pier Cap Section Sh. 5-64
- Reinforcement interfering with Post Tension Ducts shall be moved as required to clear ducts.

SHIMAZU SHIMABUKURO & FUKUDA, INC.
 Consulting Structural Engineers
 1210 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
 REGISTERED PROFESSIONAL ENGINEER
 No. 1343
 HAWAII, U.S.A.

ROY G. SHIMABUKURO
 REGISTERED PROFESSIONAL ENGINEER
 No. 1150
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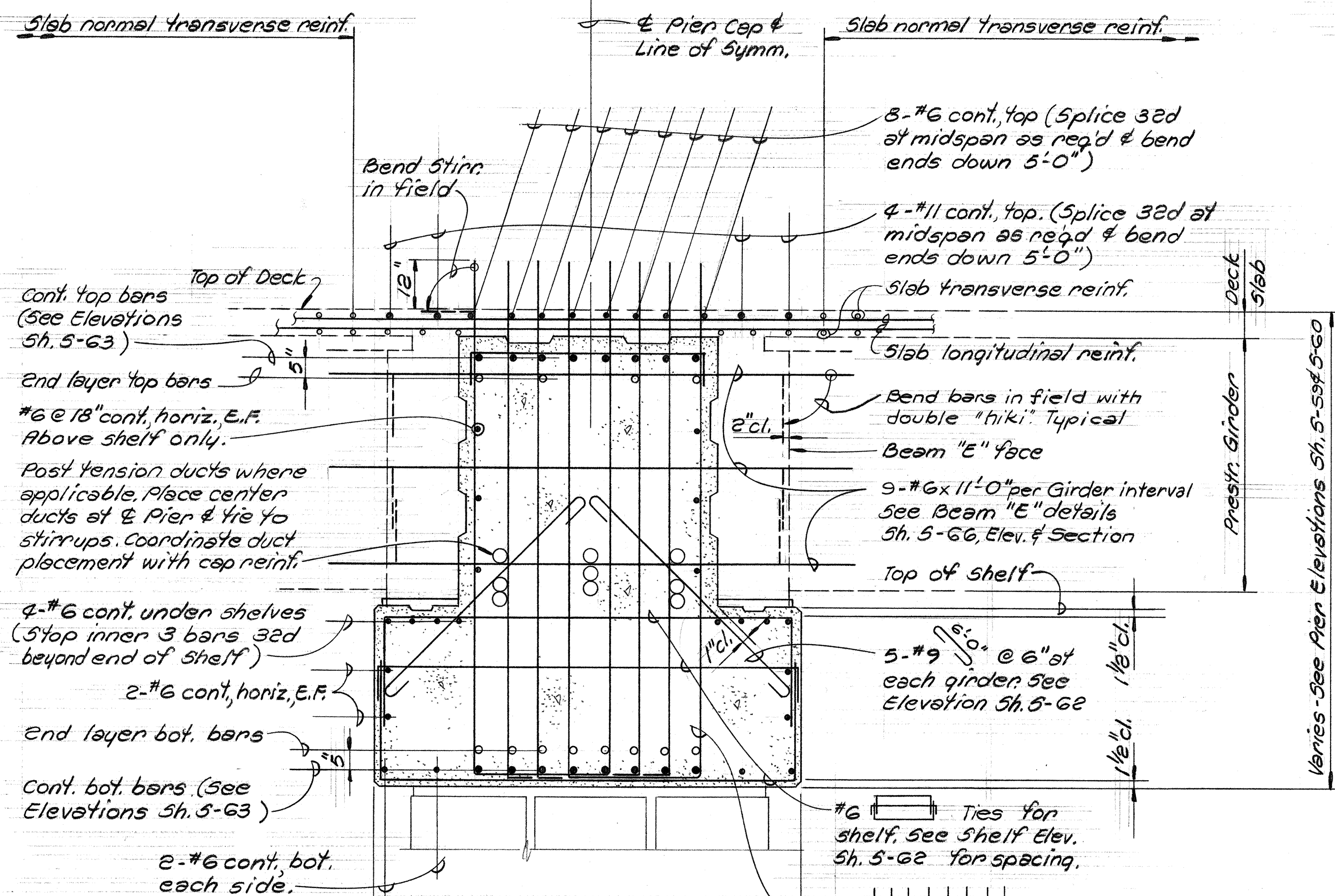
STRUCTURE No. 8
 PIER CAP ELEVATIONS
 SHOWING REINF.

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

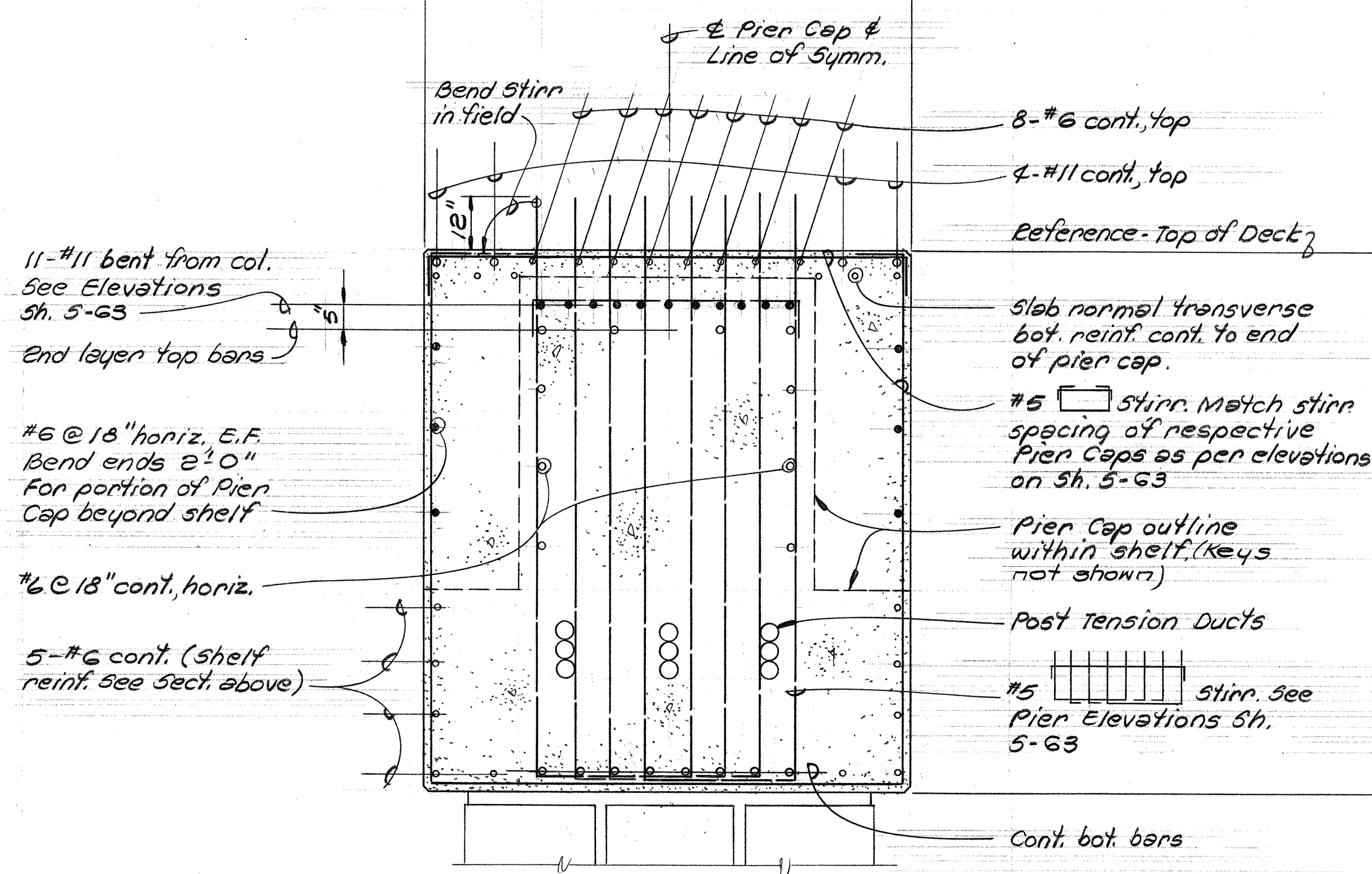
Scale: As Shown Date: DEC. 7, 1973
 SHEET No. 5-63 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	J-H-1(73)-15	1974	280	369

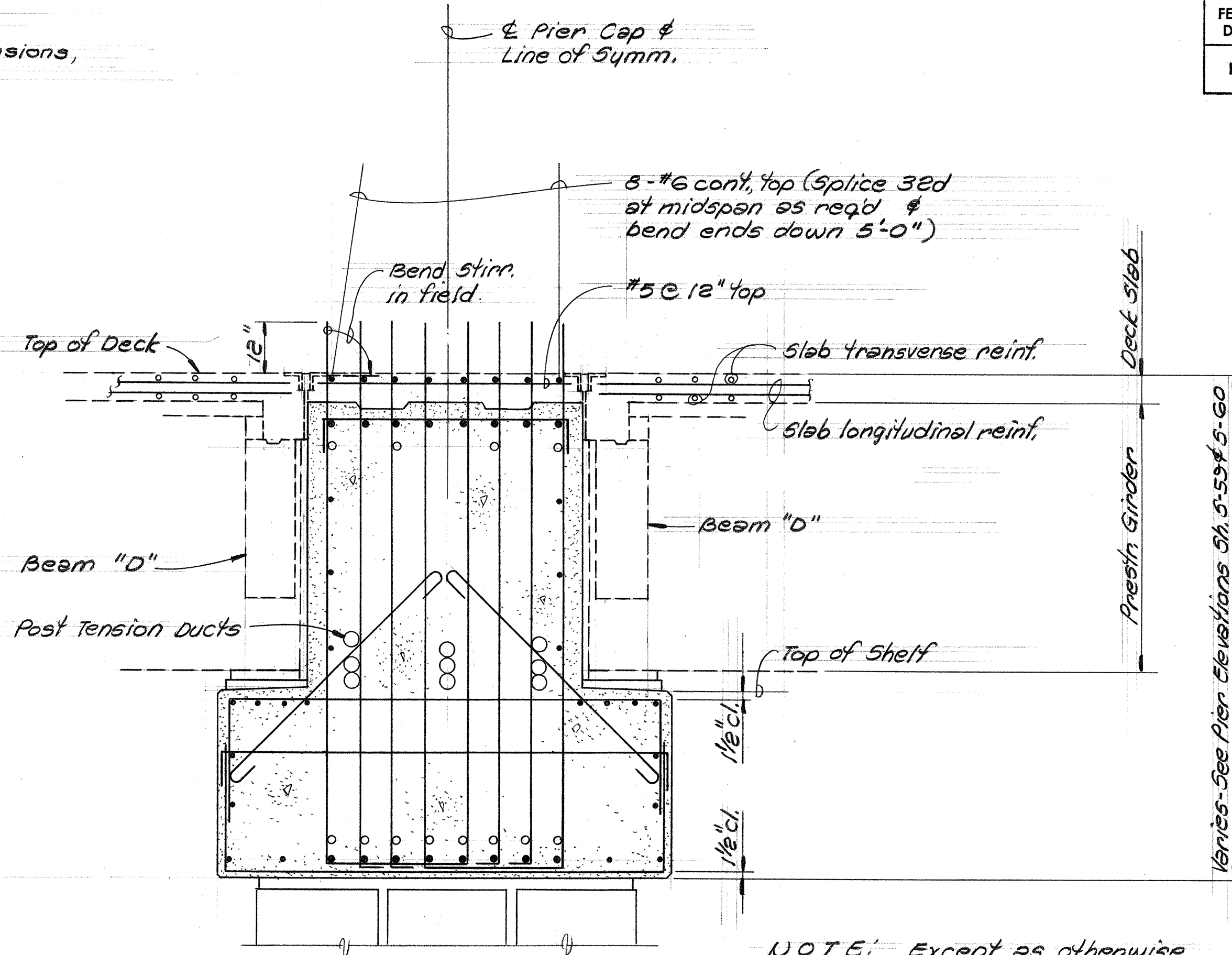
NOTE:
For key dimensions,
See Sh. 5-62



TYPICAL SECTION AT SHELF

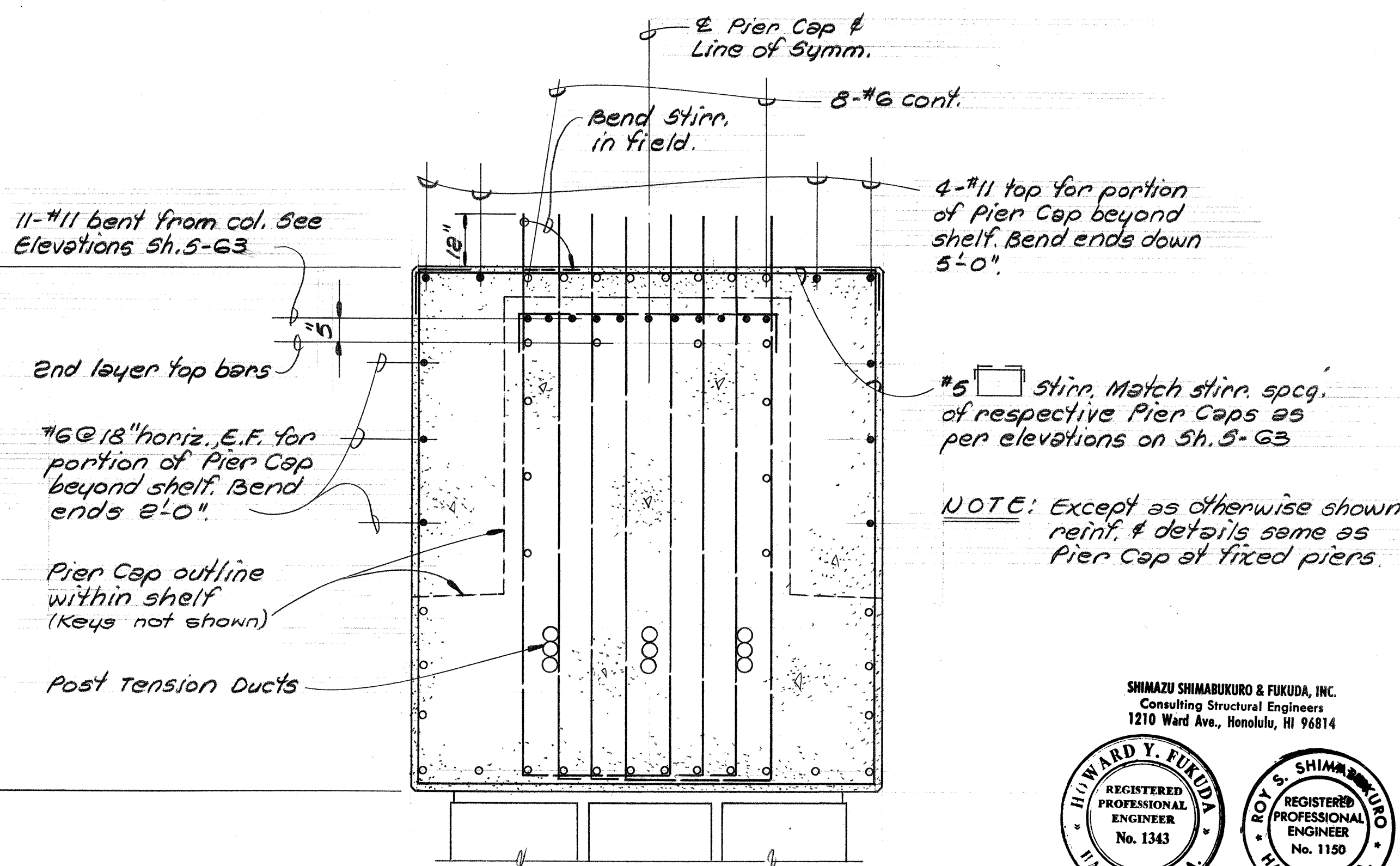


TYPICAL SECTION BEYOND SHELF
PIER CAP SECTIONS AT FIXED PIERS
Scale: 1/2" = 1'-0"

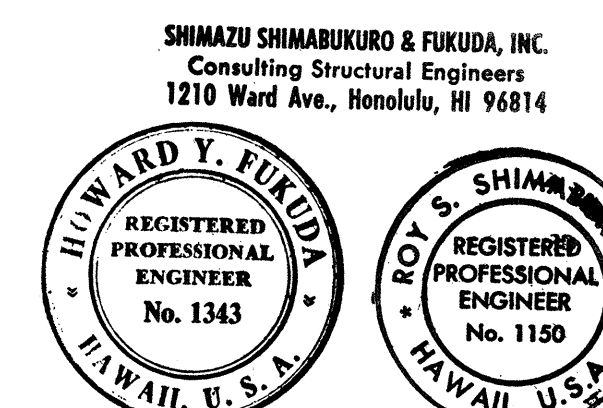


NOTE: Except as otherwise shown reinf. & details same as Pier Cap at fixed piers.

TYPICAL SECTION AT SHELF



TYPICAL SECTION BEYOND SHELF
PIER CAP SECTIONS AT EXPANSION PIERS
Scale: 1/2" = 1'-0"



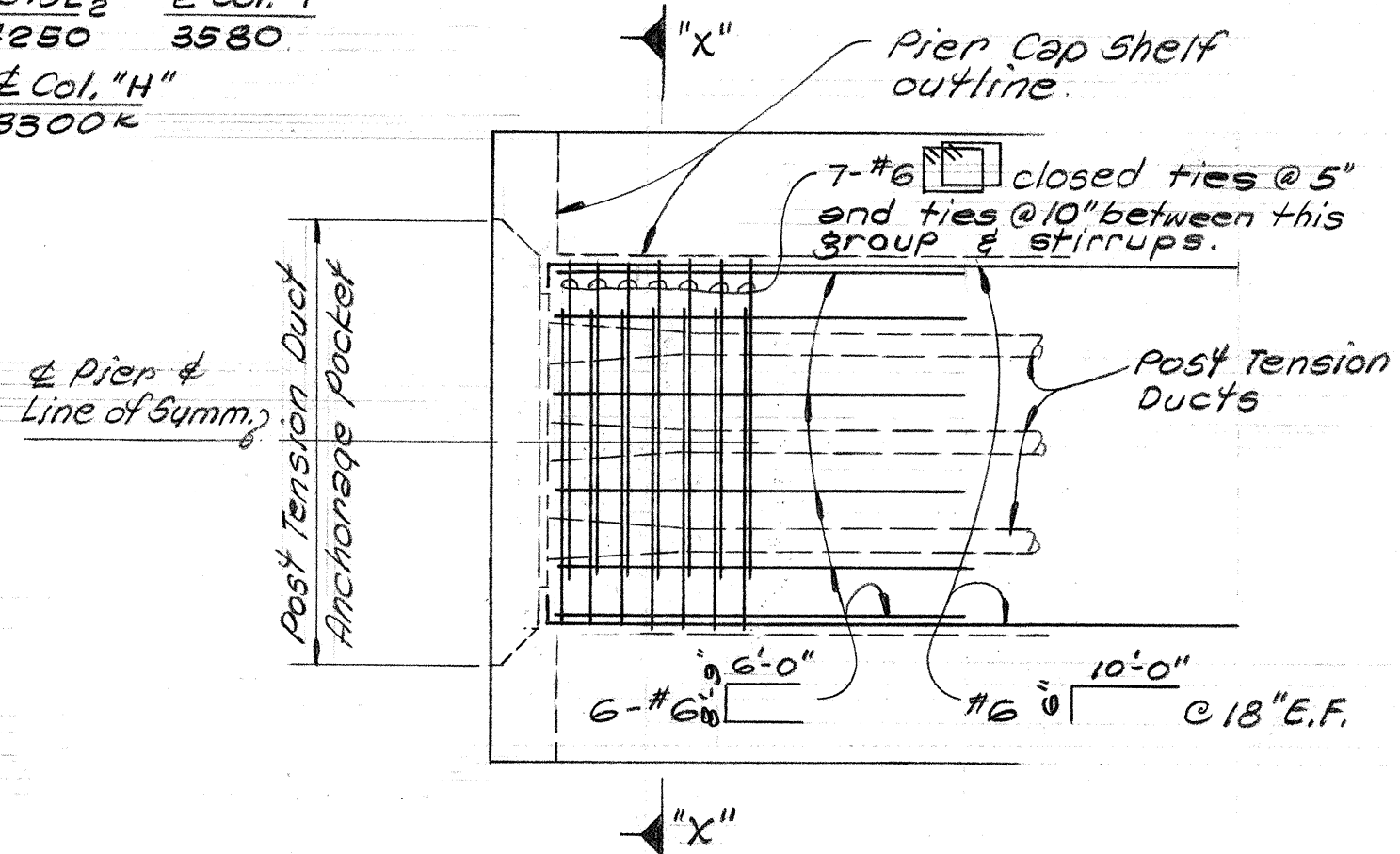
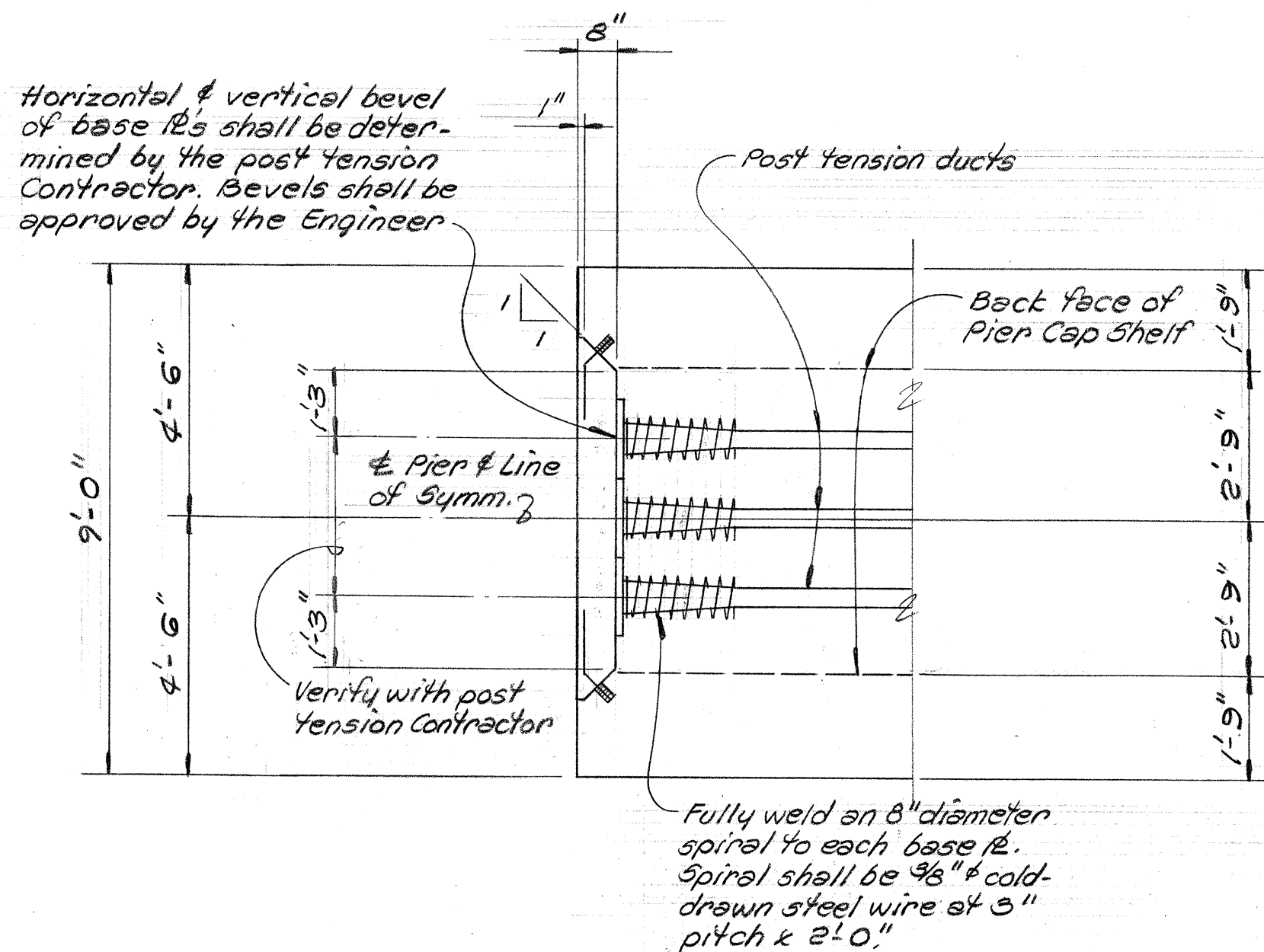
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STRUCTURE No. 8
PIER CAP SECTIONS
SHOWING REINF.
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-H-1(73)-15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-64 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73):15	1974	281	369

POST TENSION NOTES

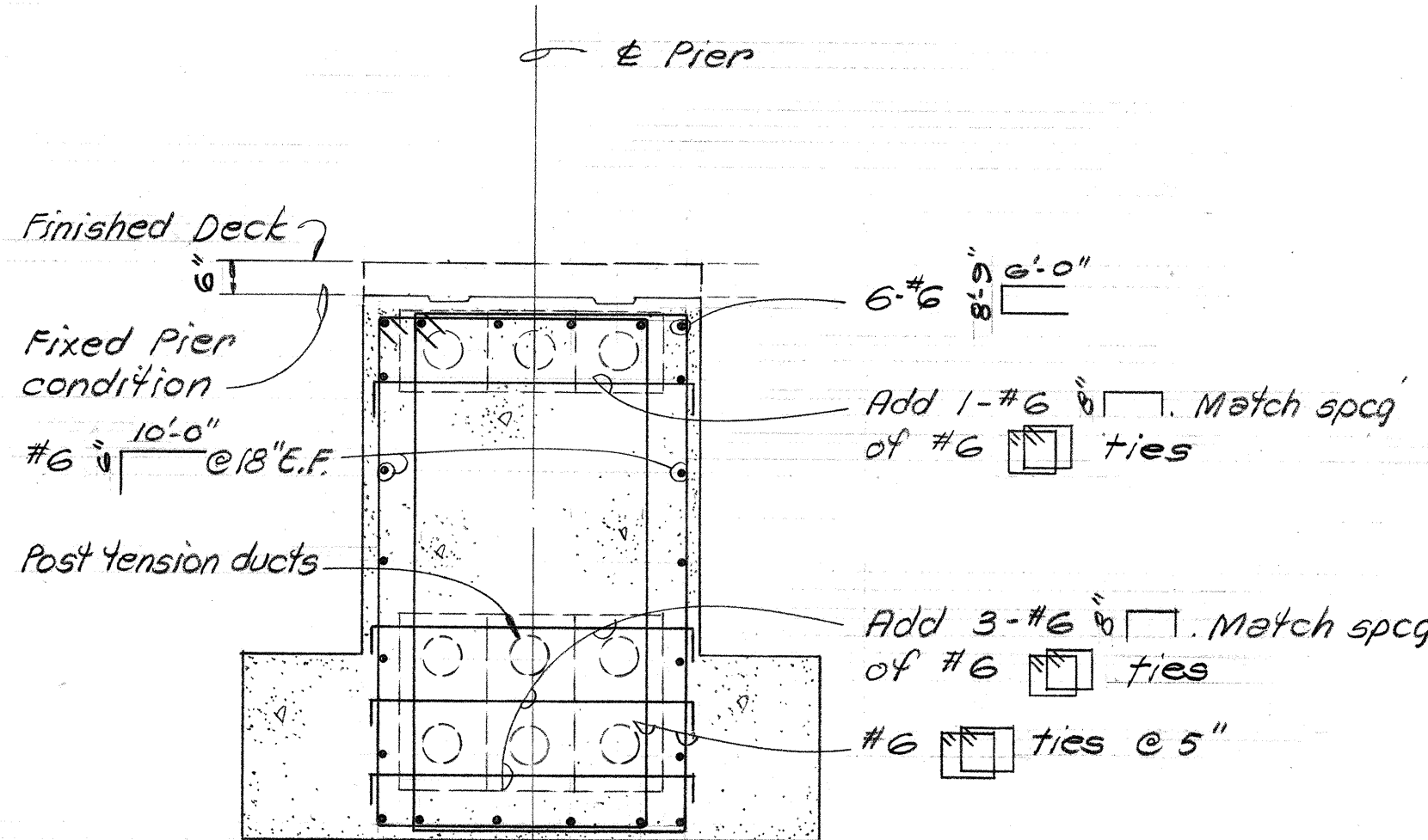
- See Typical Detail Sheets 5-81 for applicable notes & special notes.
- Min. effective post tension forces after all losses shall be: (See Sh. 5-63 for locations of effective post tension forces)

	@ Jacking End	@ Col. "A"	@ .5L ₂	@ Col. "B"	@ .5L ₃	@ Col. "C"
Pier #1 Outbound	4250K	4880K	5040K	4500K	3940K	3220K
Pier #2 Outbound	4820K	5730K	4870K	4250K	3580K	
	@ Jacking End	@ Col. "G"	@ .5L	@ Col. "H"		
Pier #4 Outbound	3600K	3880K	4050K	3300K		
- All strands shall be post tensioned from one end only. See Sh. 5-63 for jacking ends.
- For each pier cap & ducts designated by the Engineer shall be jacked at the opposite end to check the effective post tension force at that end. (Cost incidental to post tensioning)
- Maximum number of ducts per stem shall be nine (9).
- All curves in ducts shall be parabolic & smooth between inflection points & anchorages.

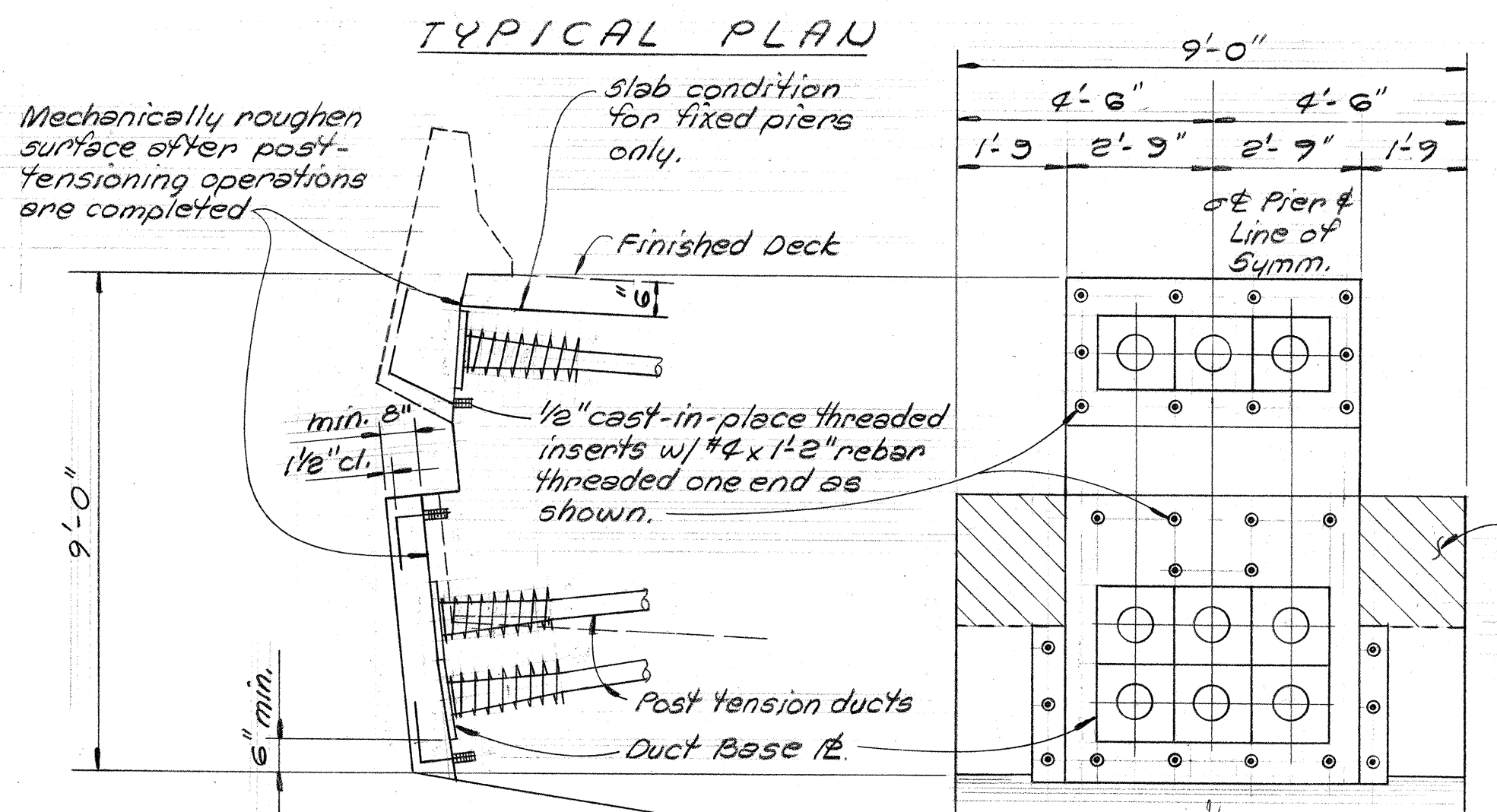


TYPICAL PLAN-ADDED REINF. LAYOUT AT POST TENSION DUCT ANCHORAGE

3/8"=1'-0"

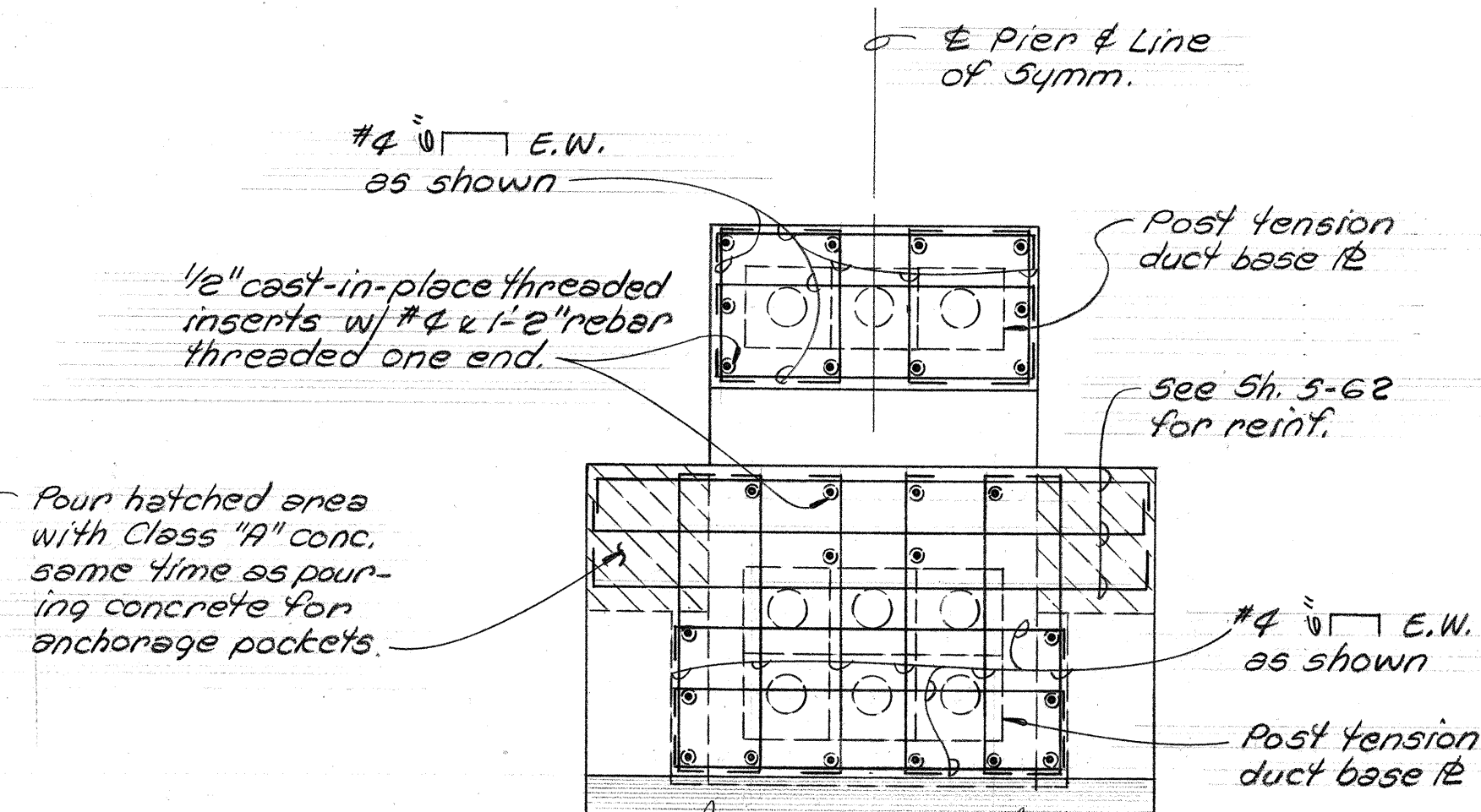


SECTION AT CANTILEVERED PIER CAP END

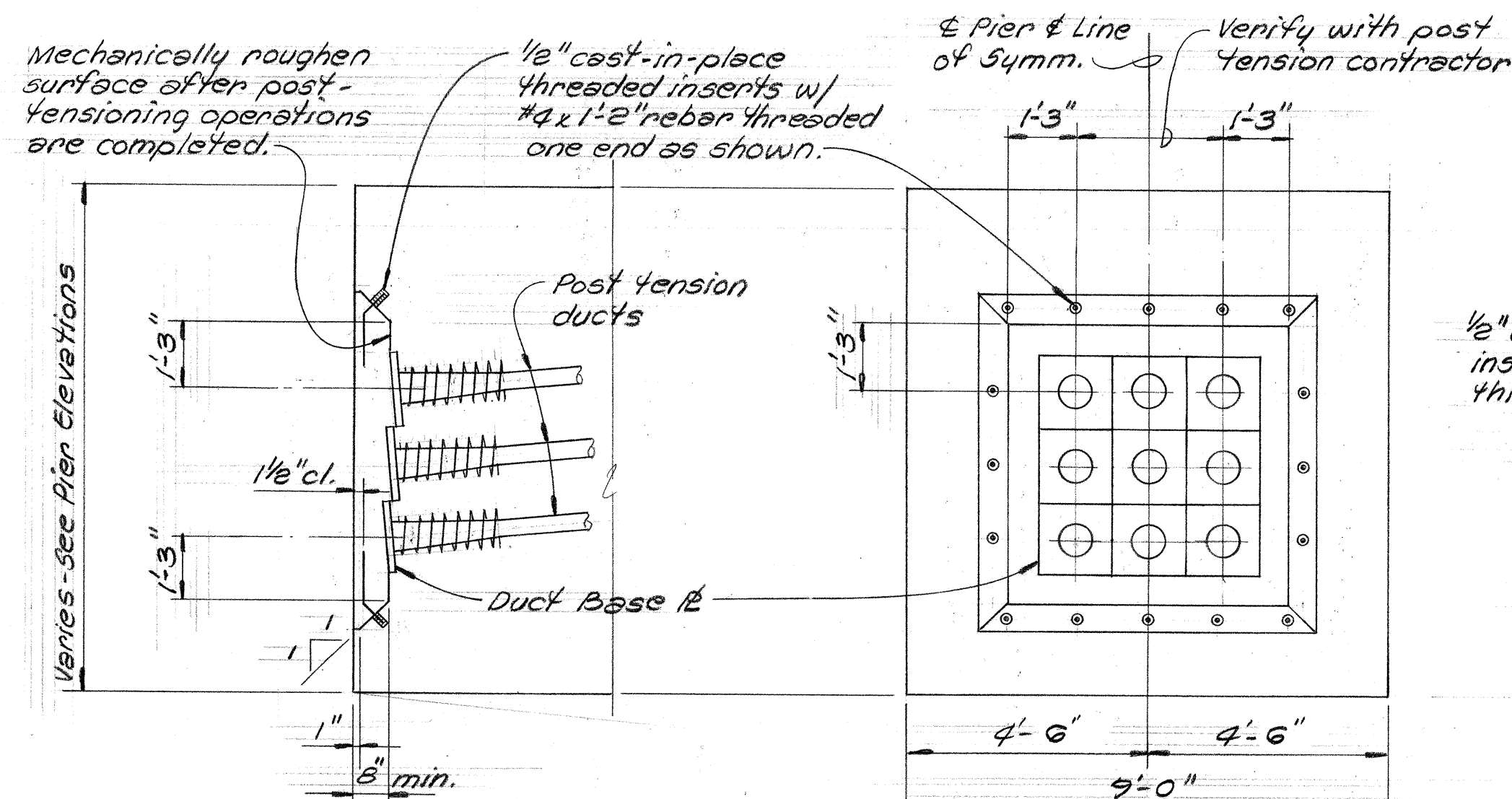


ELEVATION CANTILEVERED PIER CAP END

END VIEW

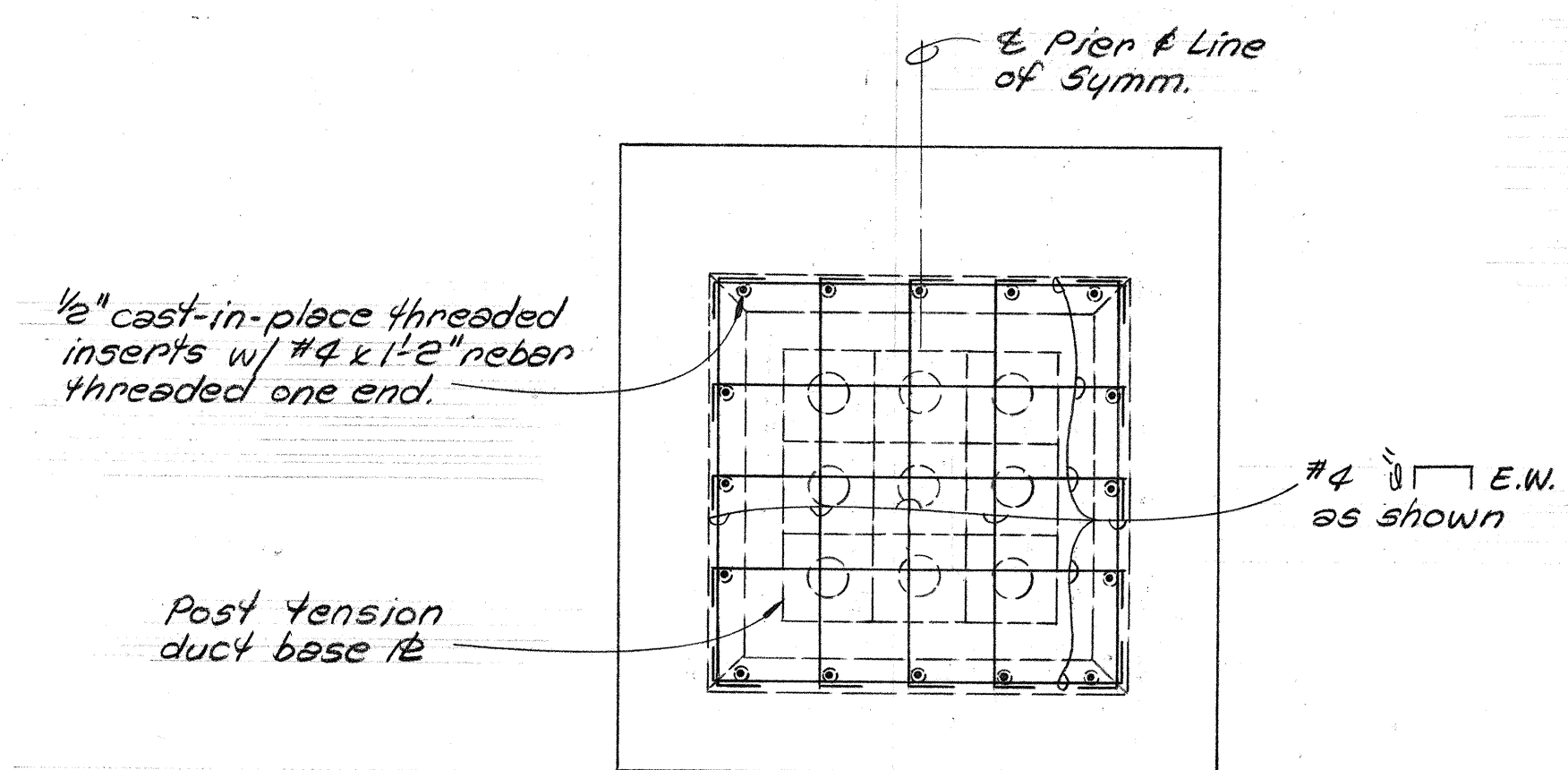


END VIEW REINF. LAYOUT FOR CANTILEVERED PIER CAP END



ELEVATION PIER CAP END OVER SUPPORTS

END VIEW

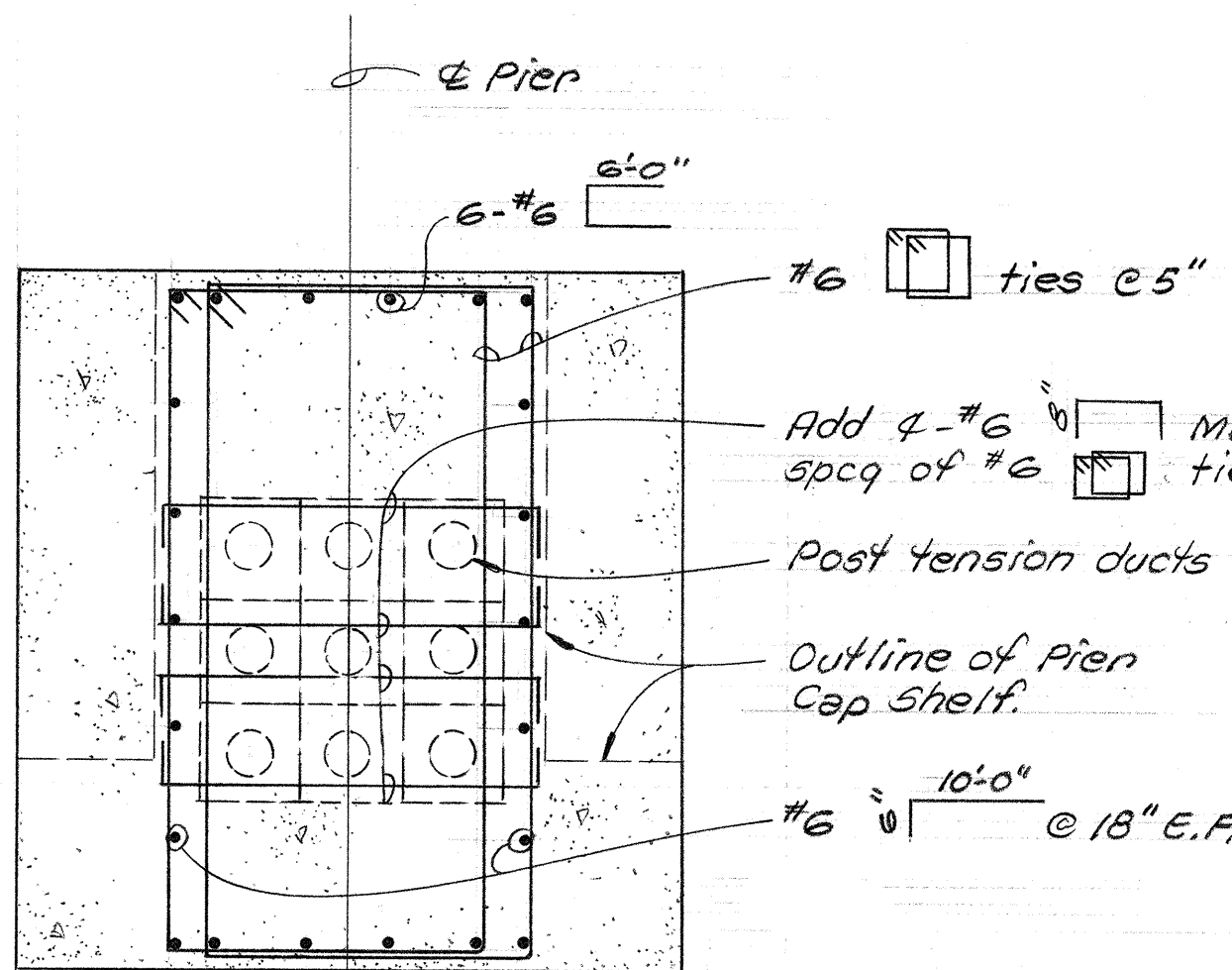


END VIEW REINF. LAYOUT FOR PIER CAP END OVER SUPPORTS

POST TENSION ANCHORAGE POCKET DETAILS AND REINFORCING

3/8"=1'-0"

NOTE:
See Sheets 5-62, 5-63, & 5-4 for typical reinf. at shelf & pier cap.



SECTION AT PIER CAP END OVER SUPPORT

SECTION "X"~"X"

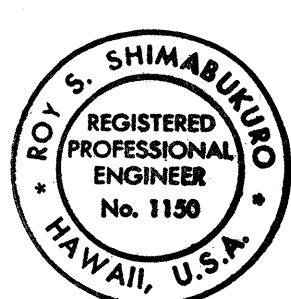
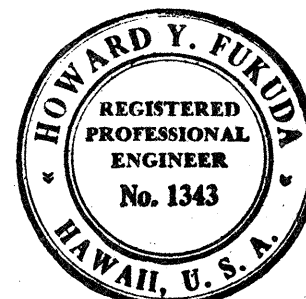
3/8"=1'-0"

NOTE
See Anchorage Assembly Protection notes 3 & 4 on sheet 81 for epoxy requirements on post tension hardware

NOTE: See Sh. 5-63 for Pier Cap horizontal & vertical reinf. not shown on this sheet.

Paint existing concrete surface of pocket at jacking end with epoxy just before pouring concrete.

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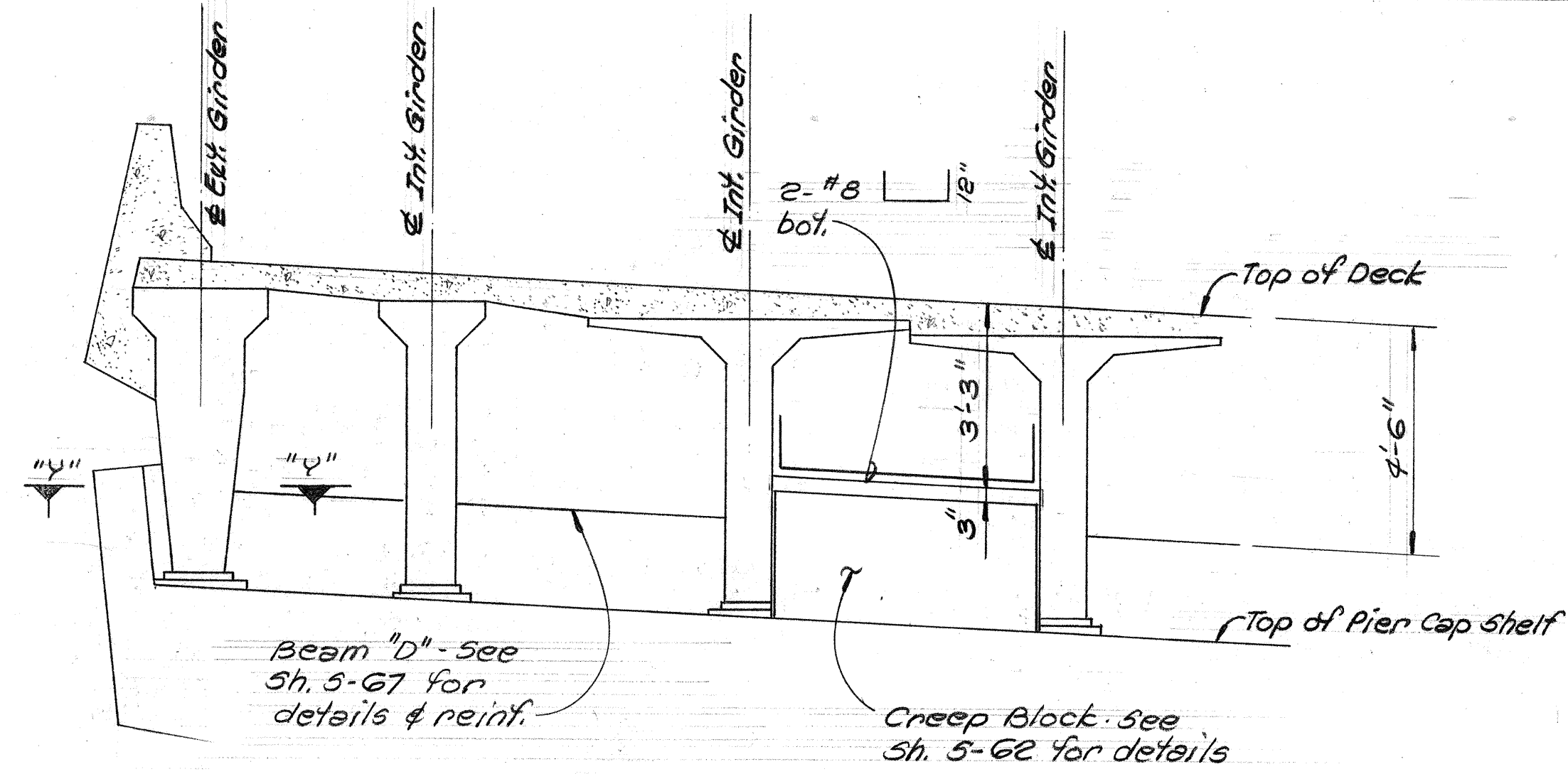
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
PIER CAP
POST TENSION ANCHORAGE DETAILS

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

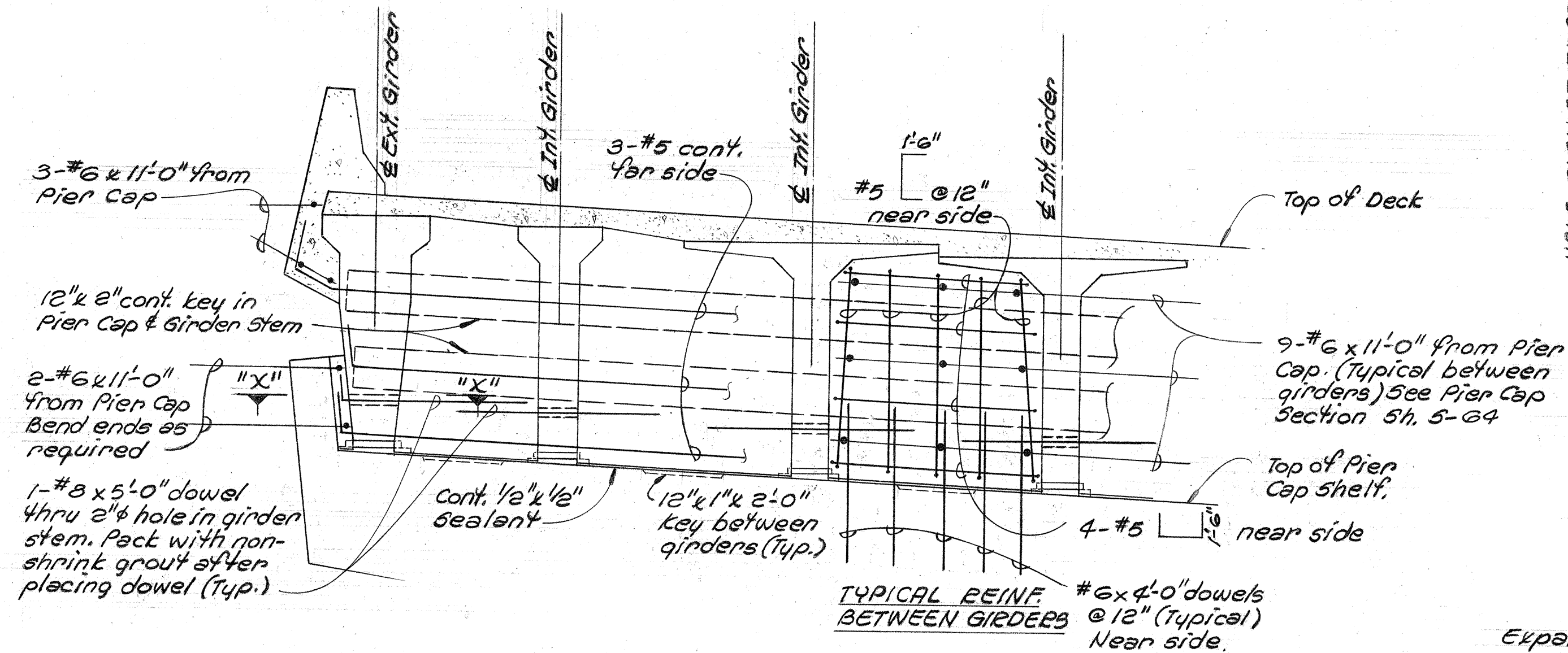
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 565 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(78):15	1974	282	369



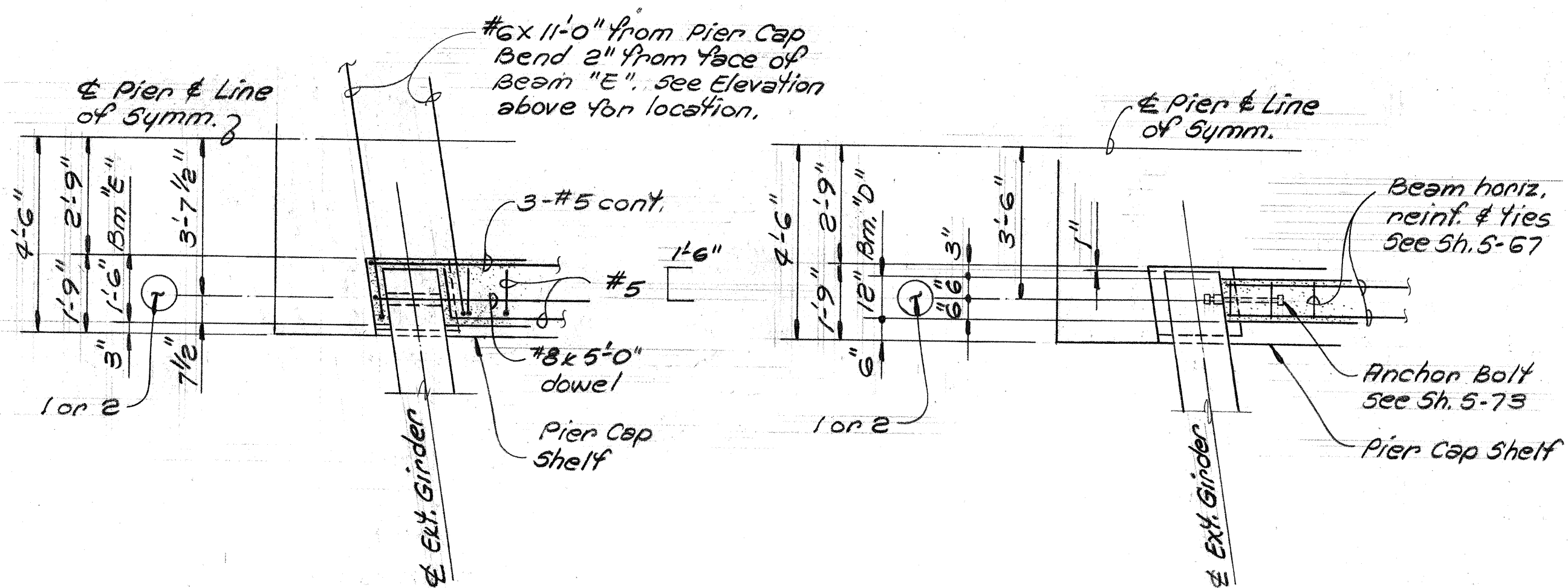
3/8" = 1'-0"

PART ELEVATION - BEAM "D" OVER EXPANSION PIERS



3/8" = 1'-0"

PART ELEVATION - BEAM "E" OVER FIXED PIERS

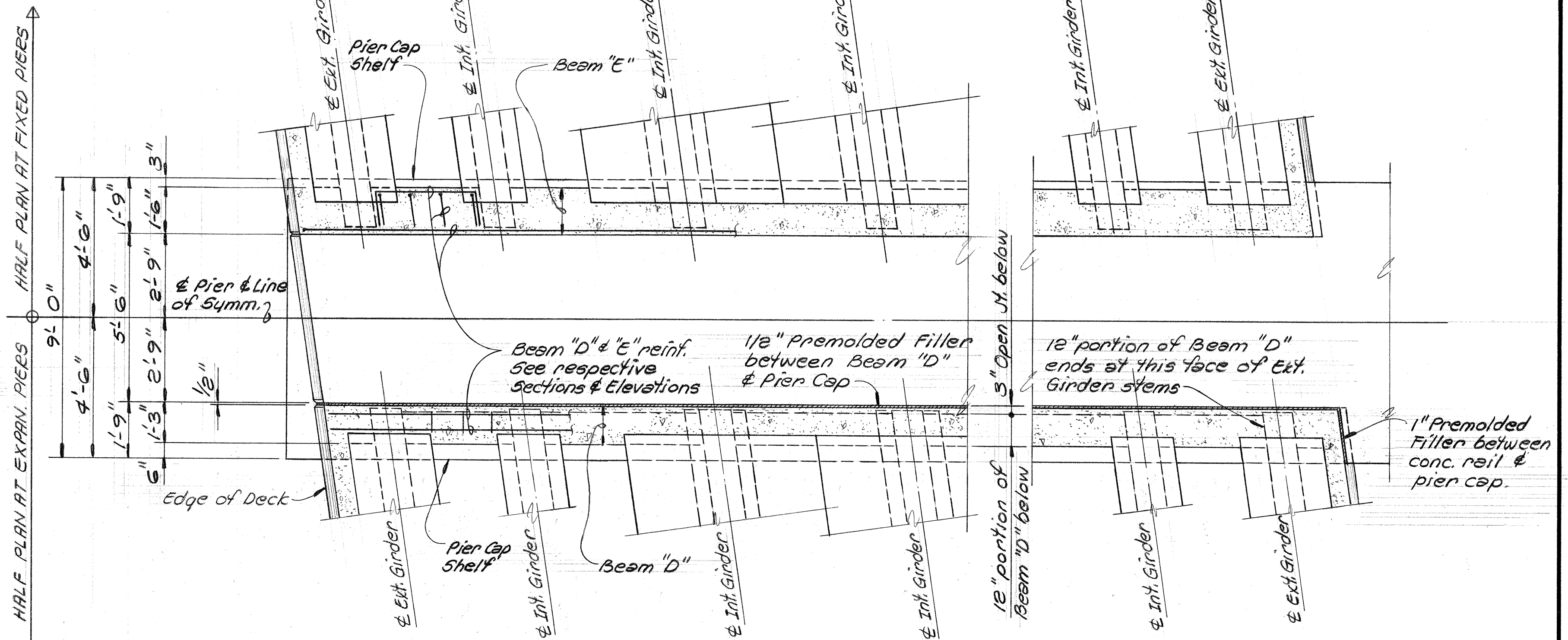


3/8" = 1'-0"

SECTION "X"-"X"

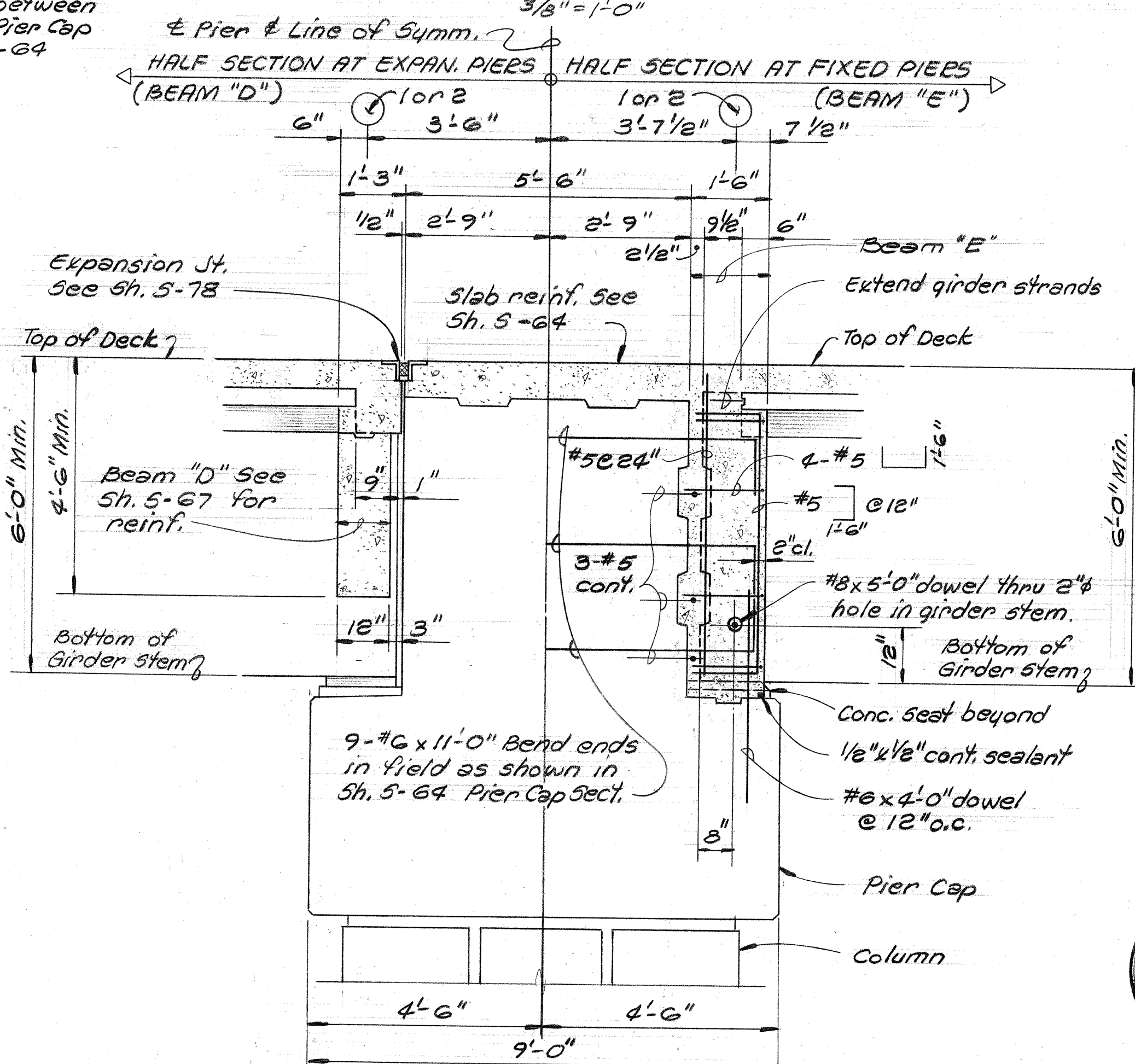
3/8" = 1'-0"

SECTION "Y"-"Y"



3/8" = 1'-0"

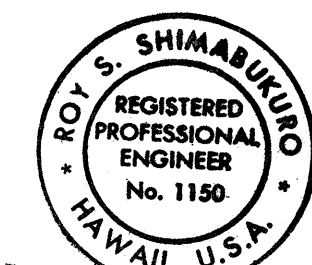
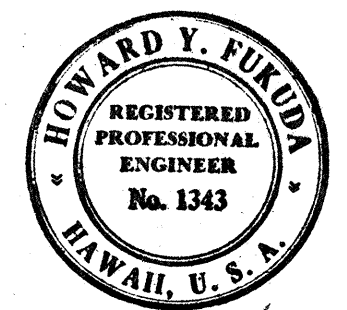
PART PLAN - BEAMS "D" & "E" AT TOP OF GIRDER FLANGE



1/2" = 1'-0"

TYPICAL SECTION OF BEAM "D" & "E"

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
DETAILS OF
BEAMS "D" & "E"

PEARL HARBOR INTERCHANGE
P.A.I. Proj. No. 1-HI-1(78):15

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 9-66 OF 106 SHEETS

Top conc. deck

Top of tee flange

Soffit of girder or tee flange

2-#5 cont.

Top & bot. deck reinf.

Construction jt.

1-#5 added thru each slot at ends of tee flange

#4 @ 12" cl. stirr.

1-#8 top & bot. dowel thru hole.

2-#7 top & bot. between tees.

Beam "B"

3'-0"

2'-1 1/2"

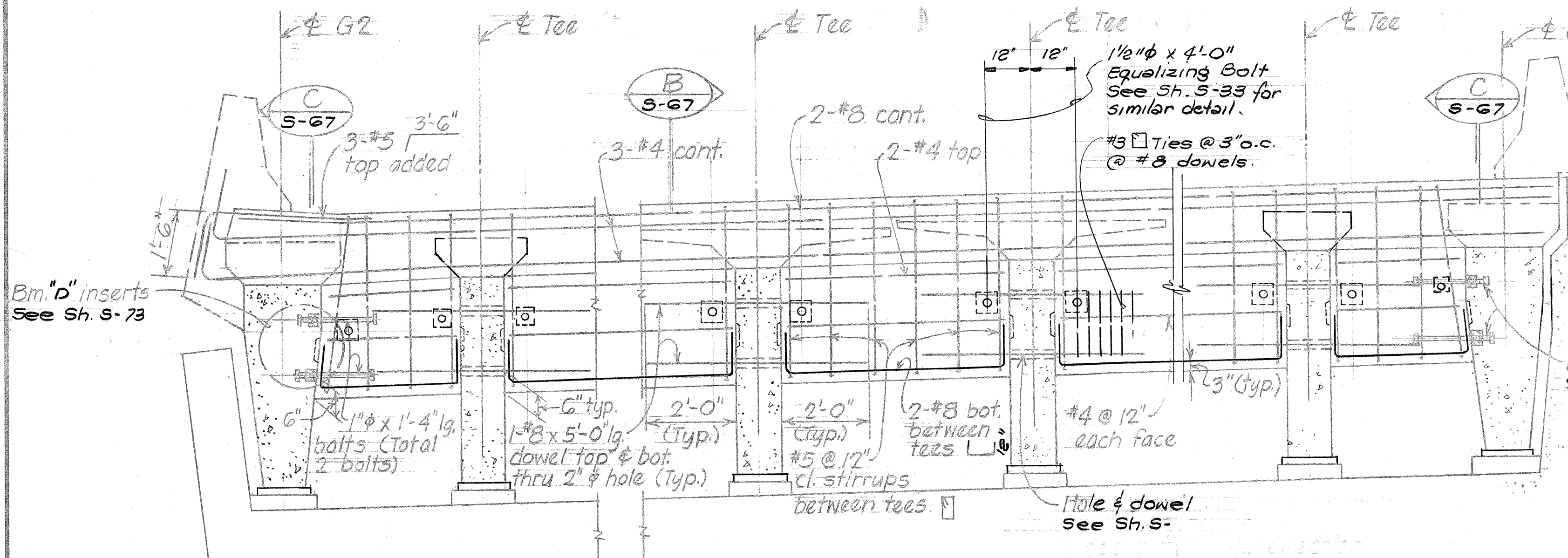
8"

8"

2-#7

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-11(73) 15	1974	283	369

SECTION "X" - "X" (Scale: 1" = 1'-0")



The image contains two hand-drawn structural drawings of a bridge deck and girder connection.

Left Drawing (Cross-section):

- Top:** Pier, T. & B. deck reinf., Top pier cap.
- Deck:** Top & bot. deck reinf., Top conc. deck, Deck slab.
- Reinforcement:** 3-#5 added - see Elevation, 2-#8, 3-#4 cont., 2-#4 top bet. tees, #5 @ 12" cl. stirr., #4 @ 12" ea. face bet. tees, 2-#8 bot. bet. tees, #3 ties @ 3' o.c. @ ea. #8 dowel.
- Dimensions:** 3'-0" (width), 4'-6" (height), 2'-0" (width), 12" (width), 6" (width), 6" (width), 8" (width), 2'-0" (width), 3" void space.
- Other:** For expan. JT see Sh. S-78, 1/2" premolded jt. filler, #4 @ 12" □, 1/2" premolded filler, Beam "D" inserts See Sh. S-73, 1/2" hole & dowel each tee.

Right Drawing (Longitudinal section):

- Top:** Pier, 3-#5 added - see Elevation, 2-#8.
- Deck:** Top & bot. deck reinf., Top conc. deck, Deck slab.
- Reinforcement:** 3-#4 cont., 2-#4 top bet. tees, #5 @ 12" cl. stirr., #4 @ 12" ea. face bet. tees, 2-#8 bot. bet. tees, #3 ties @ 3' o.c. @ ea. #8 dowel.
- Dimensions:** 4'-6" (height), 2'-0" (height), 12" (width), 6" (width), 6" (width), 8" (width), 2'-0" (width), 3" void space.
- Other:** Add 2-#4 at ea. girder, Hatched area - limits of girder.

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

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

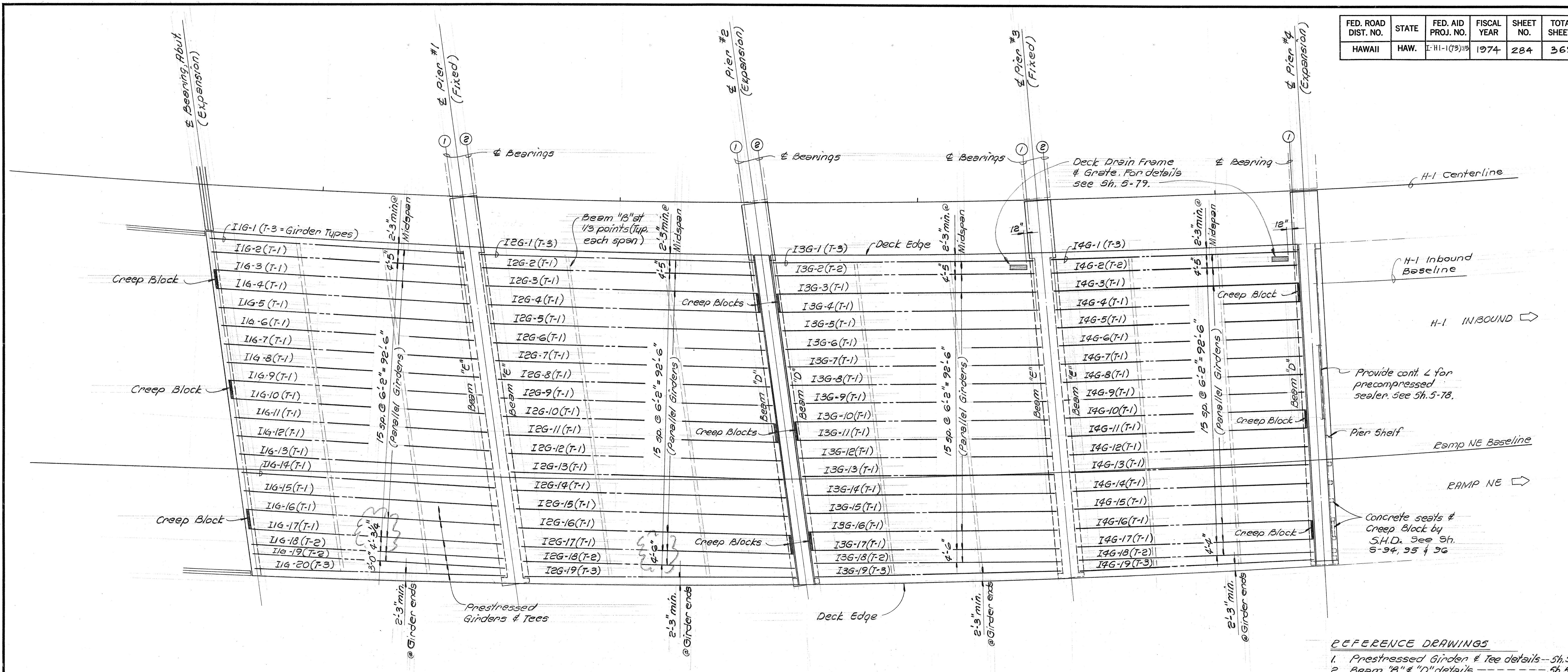


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Scale: AS SHOWN Date DEC. 7, 1973
SHEET No. 5-67 OF 106 SHEETS

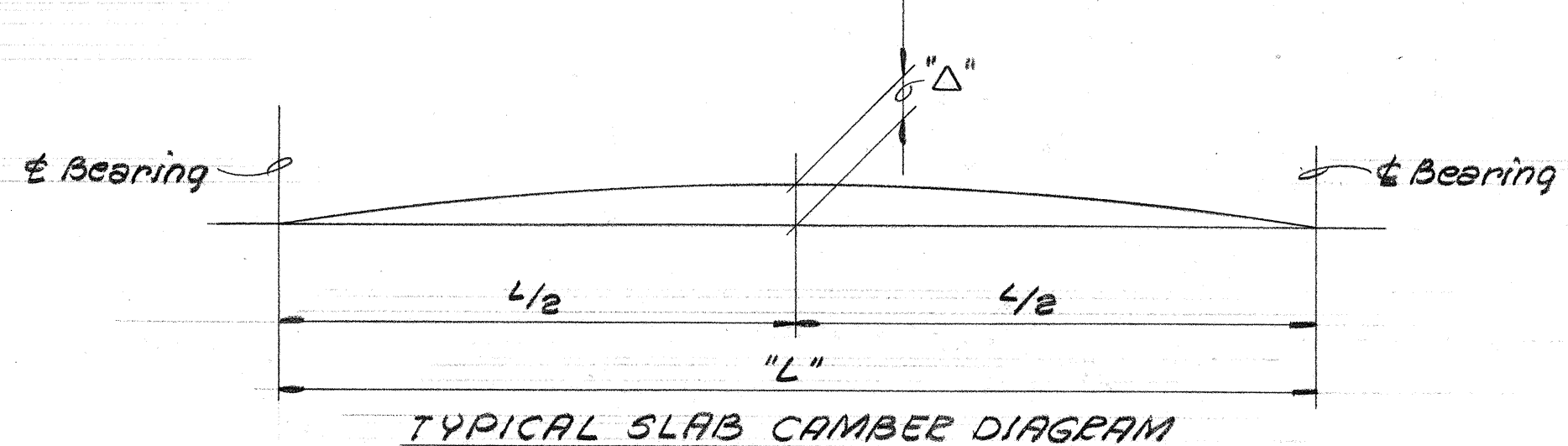
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)115	1974	284	369



H-1 INBOUND DECK FRAMING PLAN
Scale: 1/16" = 1'-0"

- REFERENCE DRAWINGS**
- 1. Prestressed Girder & Tee details -- 5h. 5-73
 - 2. Beam "B" & "D" details -- 5h. 5-66
 - 3. Beam "E" details -- 5h. 5-67
 - 4. Creep Block details -- 5h. 5-62

NOTE:
For items purposely not shown here, see other sheets.



TYPE	TYPE	TYPE T-2 "Δ"
T-1 "Δ"	T-3 "Δ"	Spacing 3'-0" & less
5/8"	1/4"	Spacing over 3'-0"
		1/2"

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

2-24-76	REVISED GIRDER SPACING
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
H-1 INBOUND
DECK FRAMING PLAN

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1(73)115

Scale: As Shown Date: DEC. 7, 1973

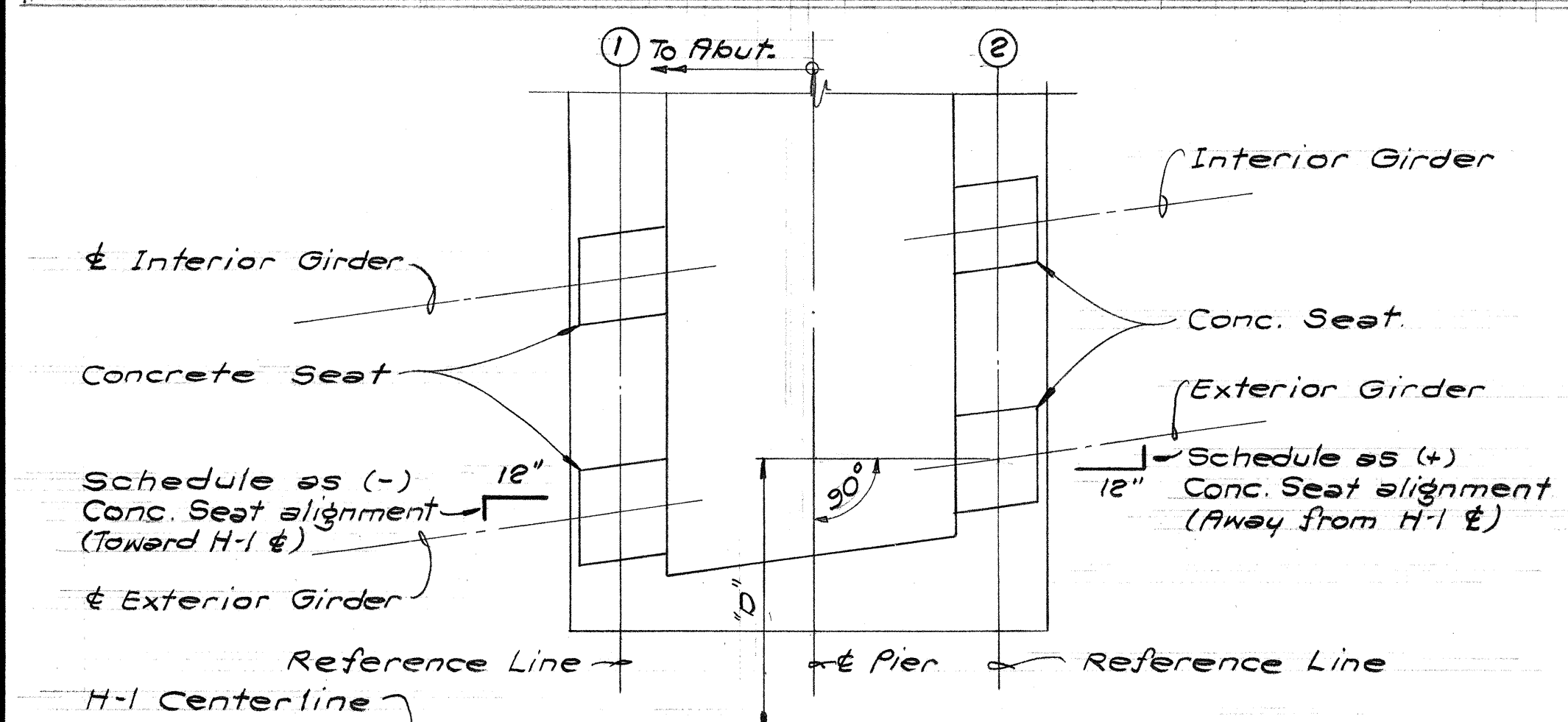
SHEET NO. 284 OF 106 SHEETS

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GEOMETRICS FOR INBOUND LANES ABUTMENT & PIERS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73):15	1974	286	369

PIER	REFERENCE LINE	① = # Concrete Seat	② = # Concrete Seat
GIRDER	"D"	TOP OF ROADWAY ELEVATION	TOP OF CONC. SEAT ELEVATION
CONC. SEAT ALIGNMENT (in/ft.)	CONC. SEAT BEVEL (in/ft.)		
PIER #1			
PIER #2			
PIER #3			
PIER #4			
Abutment			



SEAT ALIGNMENT

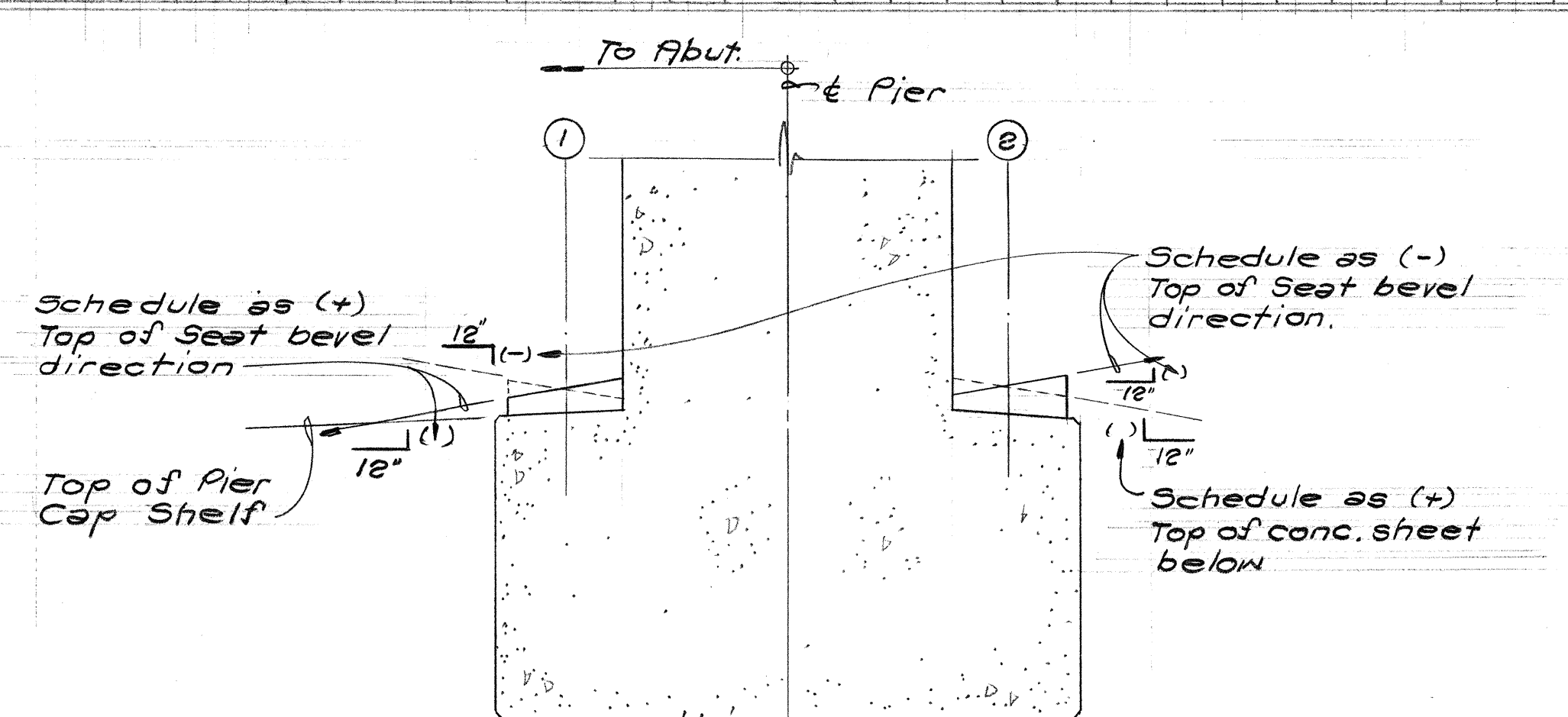
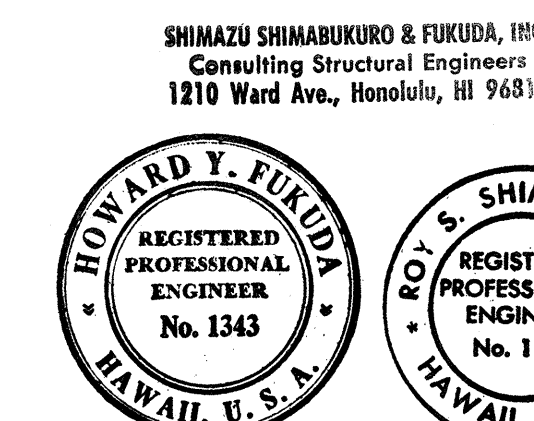


DIAGRAM SHOWING CONC. SEAT BEVEL DIRECTION



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2-24-76 REVISED ELEVATIONS & GIRDER DISTANCES "D"

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8

CONC. SEAT GEOMETRICS FOR
INBOUND LANES ABUTMENT & PIERS

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

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 5-70 OF 106 SHEETS

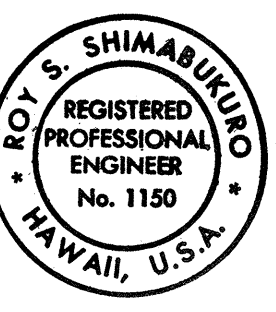
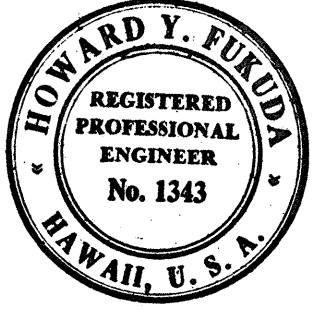
GEOMETRICS FOR OUTBOUND LANES ABUTMENT & PIERS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)-15	1974	287	369

PIER	REFERENCE LINE	GIRDER	"O"	TOP OF ROADWAY ELEVATION	TOP OF CONC. SEAT ELEVATION	CONC. SEAT ALIGNMENT (in/ft.)	CONC. SEAT BEVEL (in/ft.)
Pier # 1							
	① = # Concrete Seat	016-1	20'-3"	63.59	57.29	+2 1/4"	+1/32"
		016-2	24'-8 3/8"	63.38	57.02		
		016-3	31'-0 1/8"	63.08	56.72		
		016-4	37'-3 3/8"	62.78	56.42		
		016-5	43'-6 5/8"	62.48	56.12		
		016-6	49'-9 7/8"	62.18	55.82		
		016-7	56'-1 1/8"	61.89	55.53		
		016-8	62'-4 3/8"	61.59	55.23		
		016-9	68'-7 3/8"	61.29	54.93		
		016-10	74'-10 7/8"	60.99	54.63		
		016-11	81'-2 1/8"	60.69	54.33		
		016-12	87'-5 3/8"	60.40	54.04		
		016-13	93'-8 3/8"	60.10	53.74		
		016-14	99'-1 1/8"	59.80	53.44		
		016-15	106'-3 1/8"	59.50	53.14		
		016-16	112'-6 3/8"	59.21	52.85		
		016-17	118'-9 3/8"	58.91	52.55		
		016-18	124'-10 7/8"	58.62	52.26	+2 1/4"	+1/32"
		016-19	128'-4 1/4"	58.45	52.09	+2 3/8"	+1/32"
		016-20	131'-4 3/8"	58.54	51.99	+3"	+1/32"
Pier # 2							
	① = # Concrete Seat	026-1	20'-4 1/8"	63.65	57.35	+1 7/8"	0
		026-2	24'-9 3/4"	63.44	57.07		
		026-3	31'-0 3/8"	63.14	56.78		
		026-4	37'-3 1/2"	62.85	56.49		
		026-5	43'-6 3/8"	62.55	56.19		
		026-6	49'-9 1/4"	62.25	55.89		
		026-7	56'-0"	61.96	55.60		
		026-8	62'-2 7/8"	61.66	55.30		
		026-9	68'-5 3/4"	61.37	55.01		
		026-10	74'-8 5/8"	61.07	54.71		
		026-11	80'-1 1/2"	60.77	54.41		
		026-12	87'-2 1/4"	60.48	54.12		
		026-13	93'-5 1/8"	60.18	53.82		
		026-14	99'-8"	59.88	53.52		
		026-15	105'-10 1/8"	59.59	53.23		
		026-16	112'-1 3/4"	59.29	52.93		
		026-17	118'-4 3/8"	58.99	52.72		
		026-18	124'-7 1/2"	58.69	52.51		
		026-19	129'-11 1/8"	58.42	52.26	-1 3/8"	-1/32"
		026-20	134'-9 3/4"	58.62	52.07	-2 1/2"	-1/32"
Pier # 3							
	① = # Concrete Seat	036-1	20'-2 3/8"	63.62	57.32	+1"	0
		036-2	24'-7 1/8"	63.40	57.04		
		036-3	30'-3 3/4"	63.11	56.75		
		036-4	37'-0"	62.81	56.45		
		036-5	43'-2 1/4"	62.52	56.16		
		036-6	49'-4 1/2"	62.22	55.86		
		036-7	55'-6 3/4"	61.93	55.57		
		036-8	61'-9"	61.63	55.27		
		036-9	67'-1 1/4"	61.34	54.98		
		036-10	74'-1 1/2"	61.04	54.68		
		036-11	80'-3 3/4"	60.75	54.39		
		036-12	86'-6"	60.45	54.09		
		036-13	92'-8 1/4"	60.16	53.80		
		036-14	98'-10 1/2"	59.86	53.50		
		036-15	105'-0 3/4"	59.57	53.21		
		036-16	109'-4 1/8"	59.36	53.00		
		036-17	118'-9"	59.15	52.79	+1"	
		036-18	117'-0 1/2"	58.99	52.63	+1 1/4"	0
		036-19	119'-10 7/8"	59.09	52.54	+1 3/8"	+1/32"
	② = # Concrete Seat	046-1	19'-8 3/4"	63.64	57.34	-9/16"	+1/32"
		046-2	24'-1 3/4"	63.43	57.07		
		046-3	30'-3 3/8"	63.13	56.77		
		046-4	36'-6"	62.84	56.48		
		046-5	42'-8"	62.54	56.18		
		046-6	48'-10 1/8"	62.25	55.89		
		046-7	55'-0 1/4"	61.95	55.59		
		046-8	61'-2 1/4"	61.66	55.30		
		046-9	67'-4 3/8"	61.36	55.00		
		046-10	73'-6 1/2"	61.07	54.71		
		046-11	79'-8 1/2"	60.77	54.41		
		046-12	85'-10 3/8"	60.48	54.12		
		046-13	92'-0 3/4"	60.18	53.82		
		046-14	98'-2 3/8"	59.89	53.53		
		046-15	102'-6 3/8"	59.68	53.32		
		046-16	106'-11"	59.47	53.11	-9/16"	+1/32"
		046-17	113'-2 1/4"	59.17	52.81	-7/8"	0
		046-18	119'-0 3/8"	59.13	52.58	-1 1/4"	0
Pier # 4							
	① = # Concrete Seat	046-1	20'-1 1/8"	63.48	57.18	+1 1/8"	-1/32"
		046-2	24'-6 3/8"	63.27	56.91		
		046-3	30'-8 3/8"	62.97	56.61		
		046-4	36'-10 3/8"	62.67	56.31		
		046-5	43'-0 3/8"	62.38	56.02		
		046-6	49'-2 3/8"	62.08	55.72		
		046-7	55'-4 3/8"	61.79	55.43		
		046-8	61'-6 3/8"	61.49	55.13		
		046-9	67'-8 3/8"	61.19	54.83		
		046-10	73'-10 3/8"	60.90	54.54		
		046-11	80'-0 3/8"	60.60	54.24		
		046-12	86'-2 3/4"	60.31	53.95		
		046-13	92'-4 3/4"	60.01	53.65		
		046-14	98'-6 3/4"	59.71	53.35		
		046-15	102'-10 3/4"	59.50	53.14		
		046-16	107'-2 3/4"	59.30	52.94	+1 1/8"	-1/32"
		046-17	111'-2"	59.10	52.74	+1 1/2"	0
		046-18	114'-8 1/4"	59.17	52.62	+3/4"	0
Abutment							
	# Bearing Abutment	016-1	19'-5"	63.47	57.17	-2 1/2"	-1/32"
		016-2	23'-10 7/8"	63.26	56.90		
		016-3	30'-2 1/8"	62.96	56.60		
		016-4	36'-5 3/8"	62.66	56.30		
		016-5	42'-8 3/8"	62.37	56.01		
		016-6	48'-1 1/8"	62.07	55.71		
		016-7	55'-3 1/8"	61.77	55.41		
		016-8	61'-6 3/8"	61.47	55.11		
		016-9	67'-9 3/8"	61.18	54.82		
		016-10	74'-0 7/8"	60.88	54.52		
		016-11	80'-4 1/8"	60.58	54.22		
		016-12	86'-7 3/8"	60.28	53.92		
		016-13	92'-10 3/8"	59.99	53.63		
		016-14	99'-1 7/8"	59.69	53.33		
		016-15	105'-5 1/8"	59.39	53.03		
		016-16	111'-8 3/8"	59.09	52.73		
		016-17	117'-11 3/8"	58.80	52.44		
		016-18	124'-0 7/8"	58.51	52.15	-2 1/4"	-1/32"
		016-19	130'-3 3/4"	58.21	51.85	-2 3/8"	-1/32"
		016-20	136'-1 3/4"	58.16	51.61	-3"	-1/16"

SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814

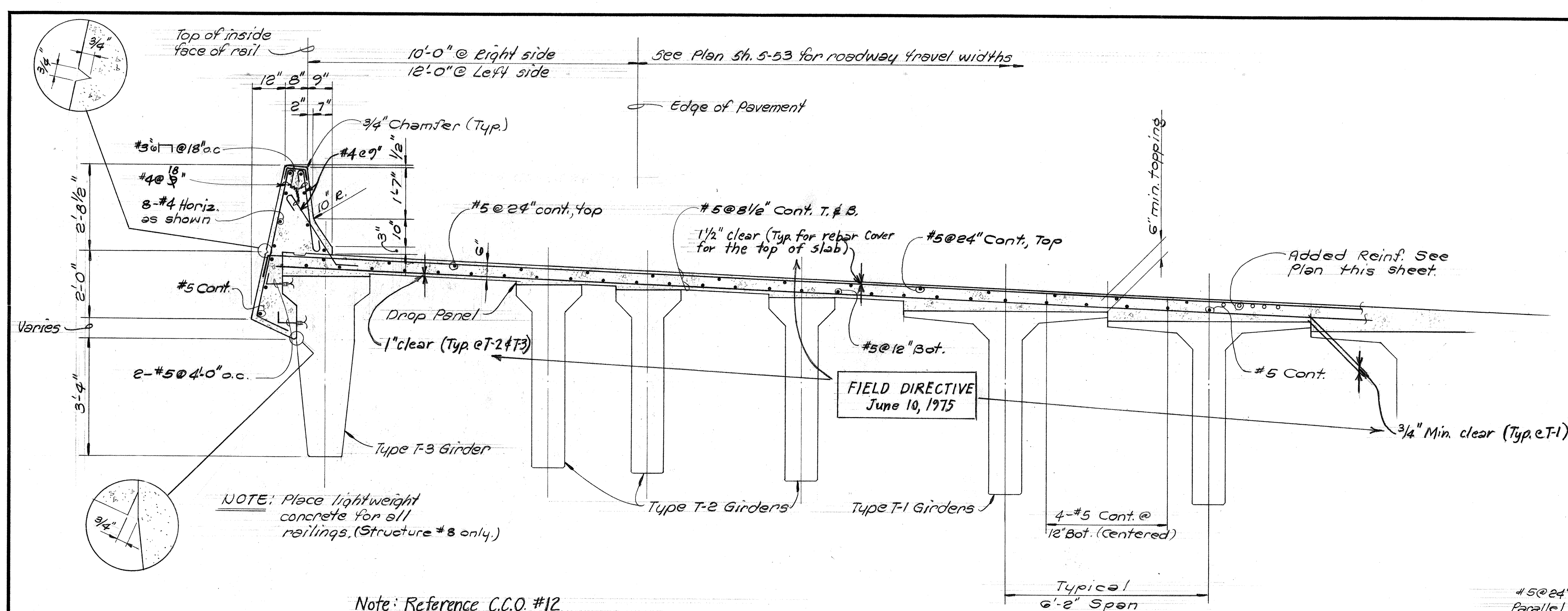


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2-24-76	REVISED ELEVATIONS & GIRDER DISTANCES "D"
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STRUCTURE No. 8	
CONC. SEAT GEOMETRICS FOR OUTBOUND LANES ABUTMENT & PIERS	
PEARL HARBOR INTERCHANGE F.A.I. Proj. No. 1-HI-1(73)-15	
Scale: As Shown	Date: DEC. 7, 1973

SHEET No. 5-71 OF 106 SHEETS

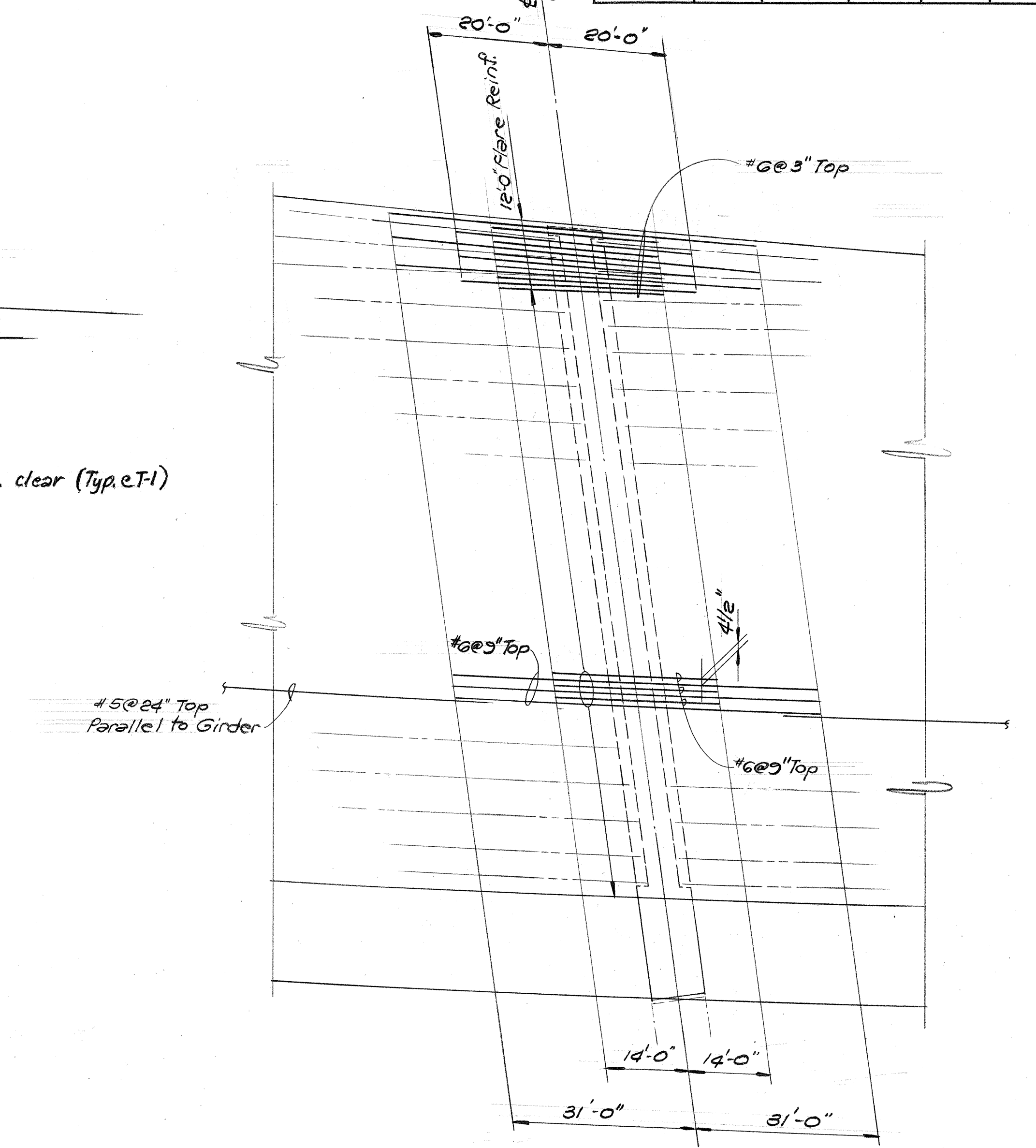
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)-15	1974	288	369



NOTE: Place lightweight concrete for all railings. (Structure #3 only.)

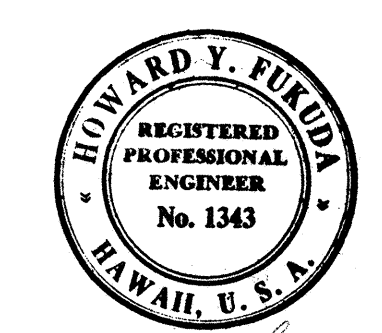
Note: Reference C.C.O. #12

TYPICAL DECK REINF.
1/8" = 1'-0"



PARTIAL DECK PLAN (ADDED BARS OVER PIER #1 & #3)
1/8" = 1'-0"

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



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

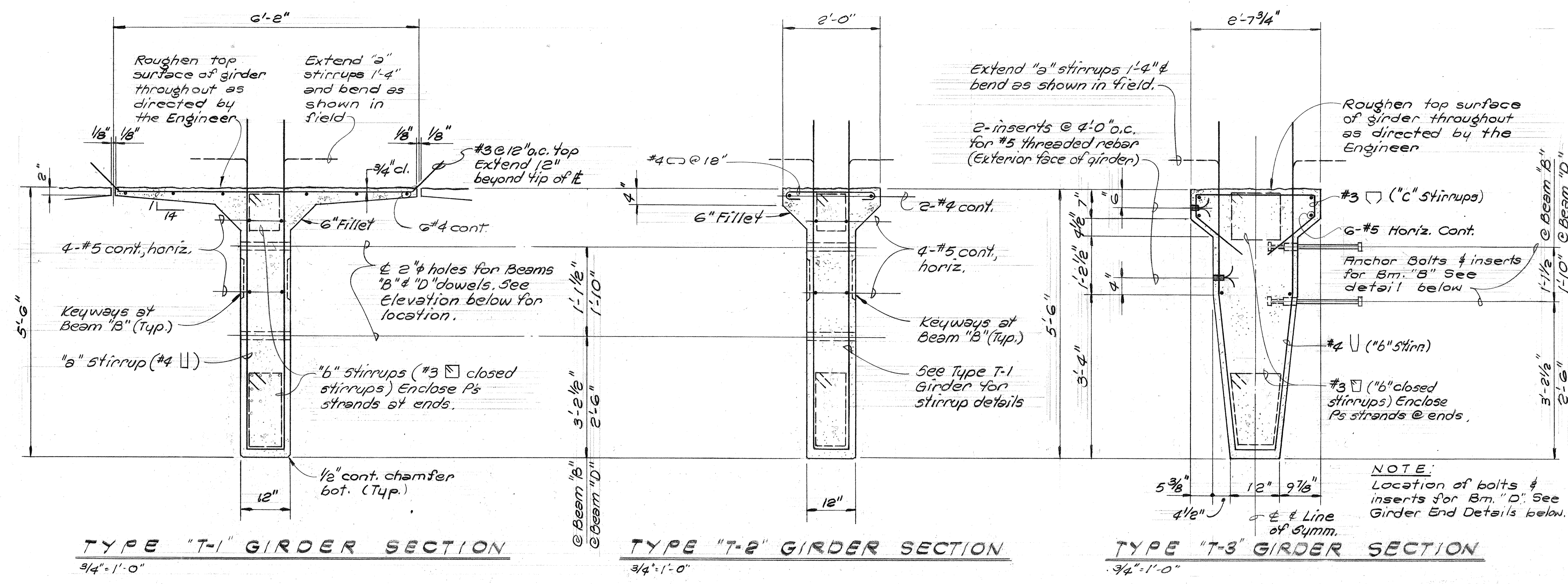
STRUCTURE No. 3

TYPICAL DECK SECTION
DECK PLAN SHOWING ADDED BARS
DIAPHRAGM DETAILS
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-HI-1(73)-15

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 3-72 OF 106 SHEETS

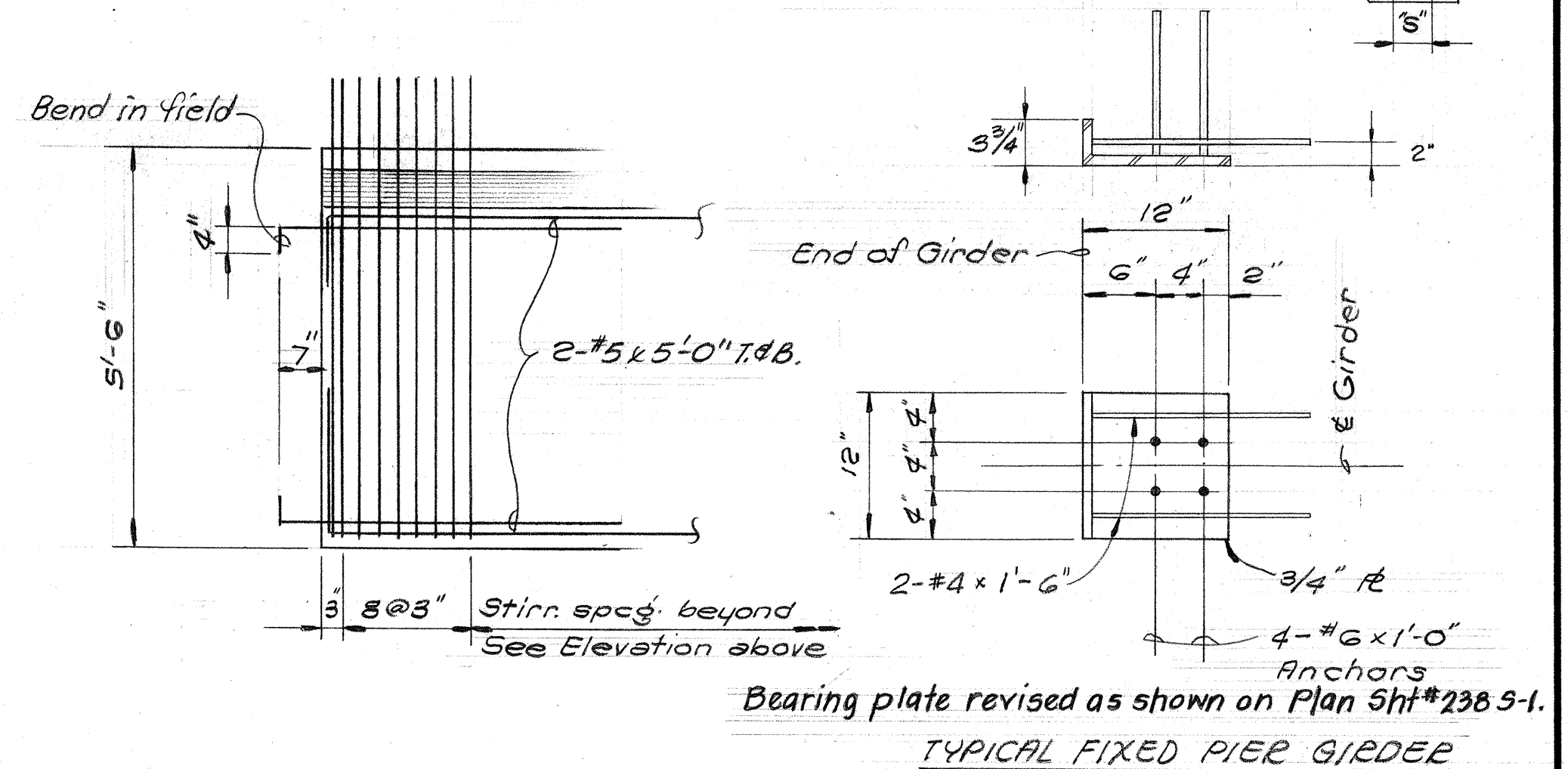
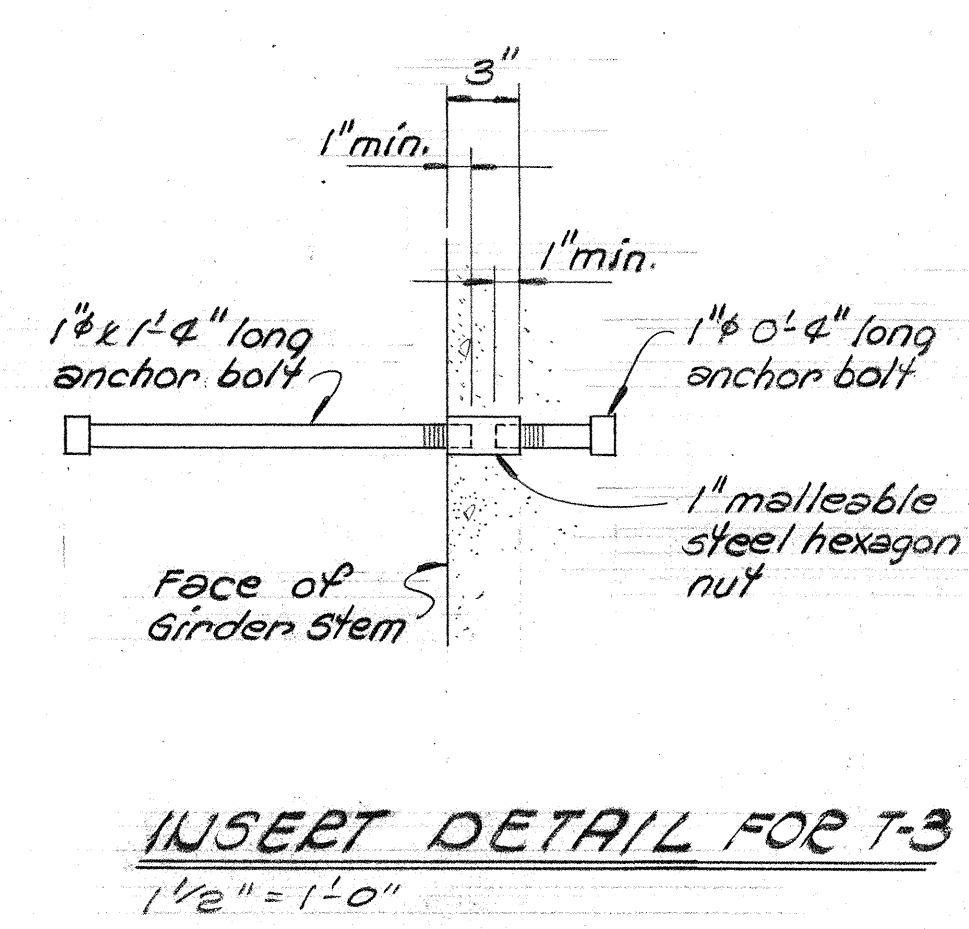
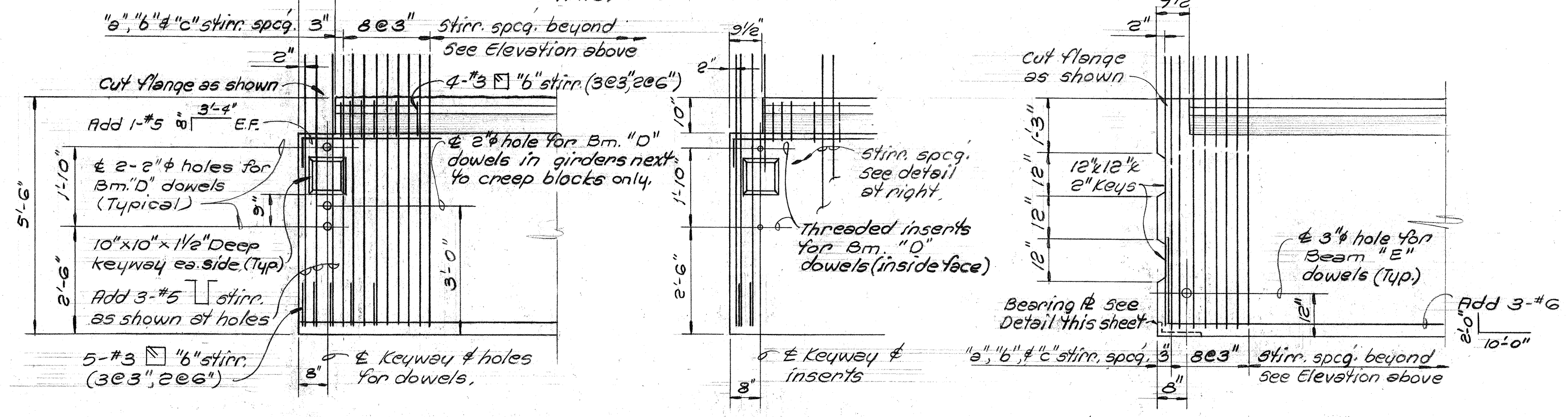
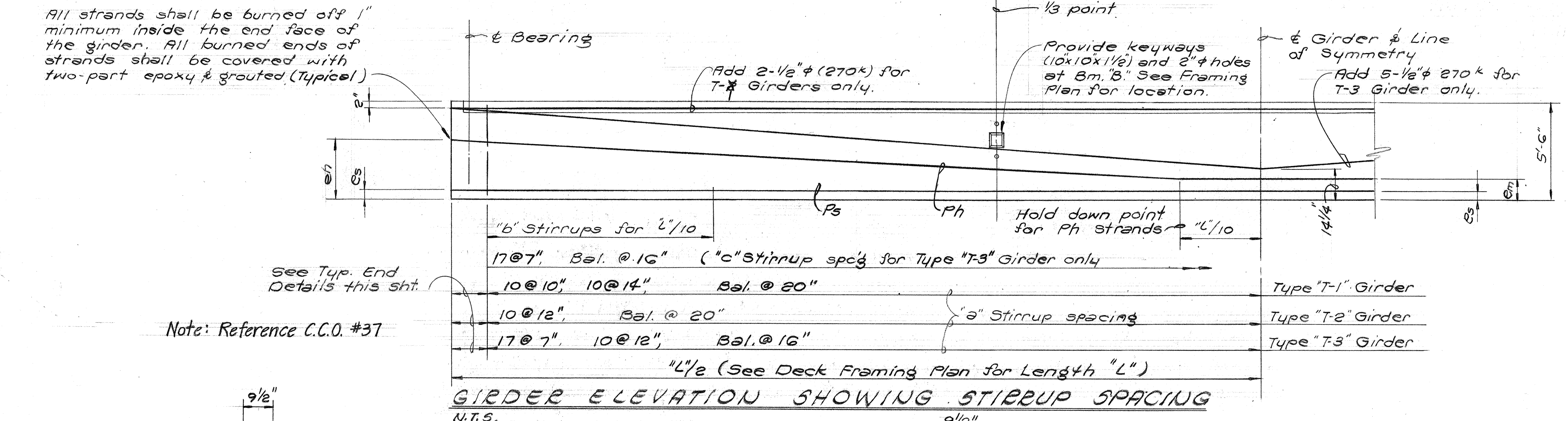
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)115	1974	289	369



GIRDER SCHEDULE						
Girder Type	Initial Design Camber	Eccentricity of Prestress Force			Working Prestress Force	
		e_s	e_m	e_h	P_s	P_h
"T-1"	5/8" ↑	5 1/2"	10 1/2"	61"	494K	188K
"T-2"	5/8" ↑	4 1/4"	8"	63"	353K	165K
"T-3"	1/2" ↑	5 1/4"	11 1/4"	61"	470K	236

- CAMBER NOTES:**
- Initial design camber is for the condition immediately after removal of the girder from the casting bed.
 - The camber shall be measured from a straight line connecting the ends of the girders.
 - Contractor shall submit camber calculations with the shop drawings.

- SPECIAL NOTES:**
- Concrete compressive strength at 28 days = 6000 p.s.i.
 - Concrete strength at stress transfer = 4000 p.s.i.
 - Prestressing steel shall be 270 ksi. ultimate strength, 7 wire stress relieved strands.
 - Unless approved otherwise by the Engineer, forms must be removed and the girder inspected before the strands are cut.
 - Clearance for strands:
 - Strands may be bundled in groups consisting of 3 vertical & 2 horizontal, separated at ends.
 - Minimum "s" between groups or individual strands is 2" "s" is measured between centers of adjacent strands.
 - All girders shall be aged at least 7 days from stress transfer before deck slab can be poured.
 - Approval of Engineer is required for deviation.
 - See Standard details for flanges at diaphragm.



TYP. GIRDER END DETAIL AT ABUT.
1/2" = 1'-0"

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

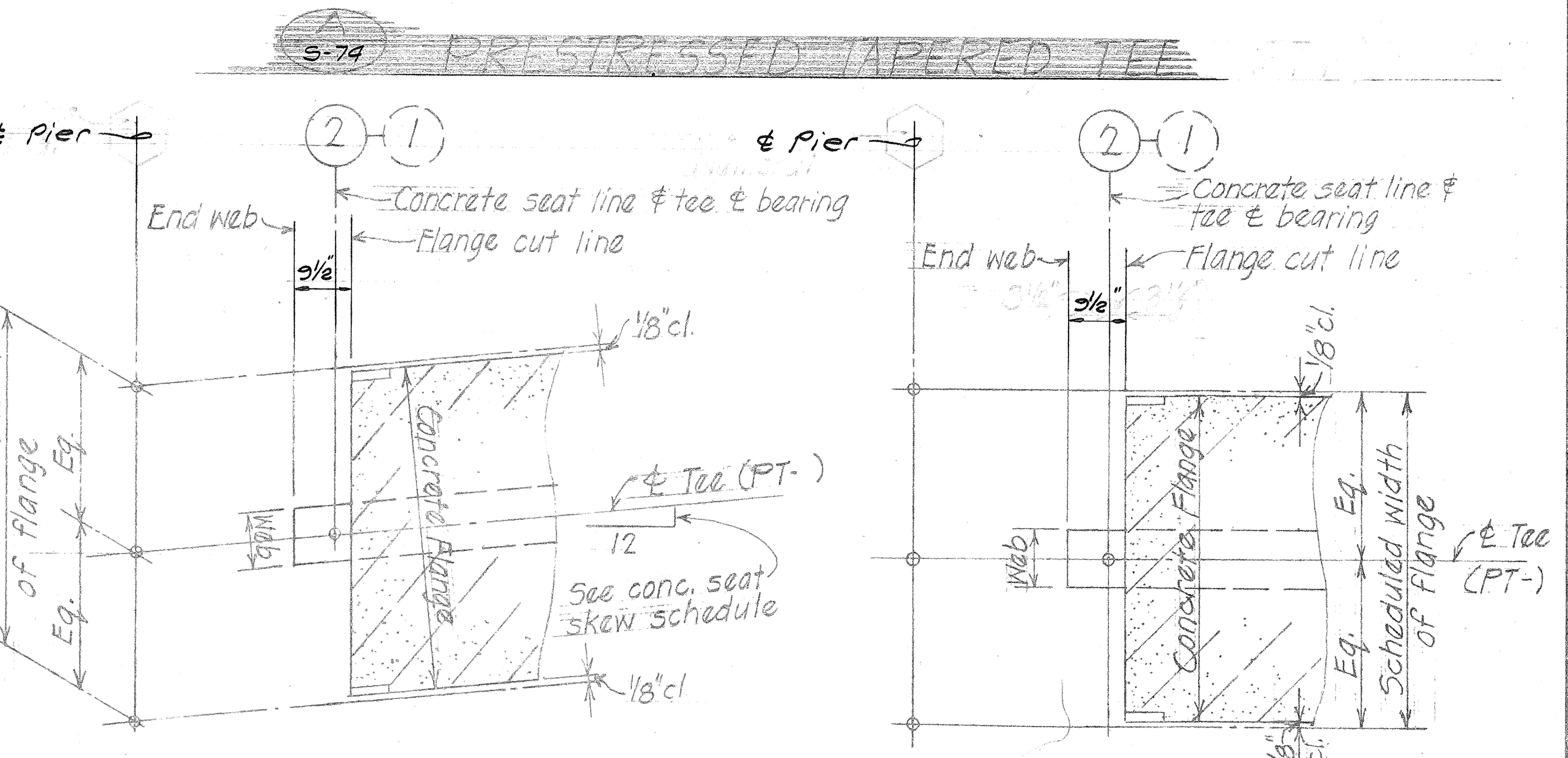
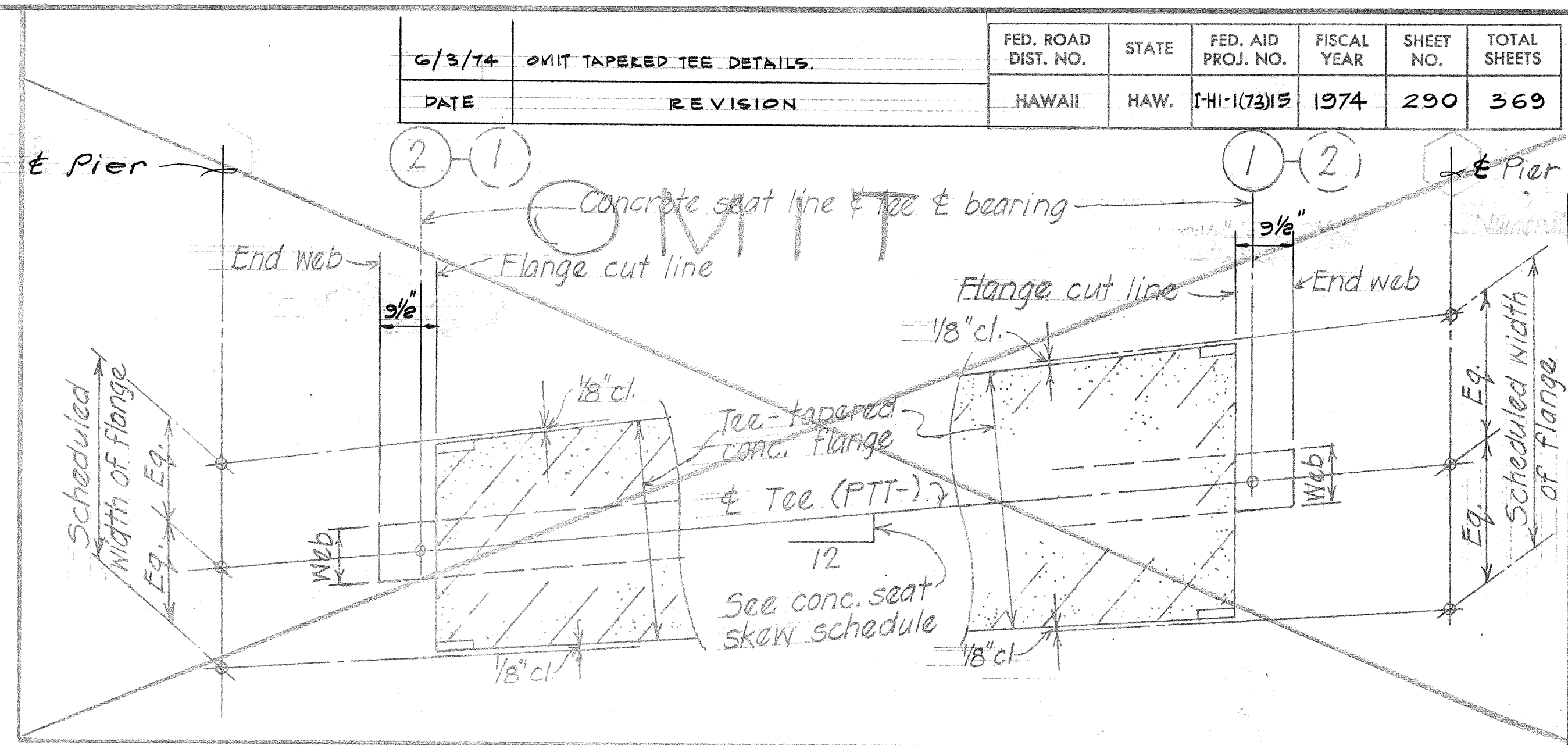
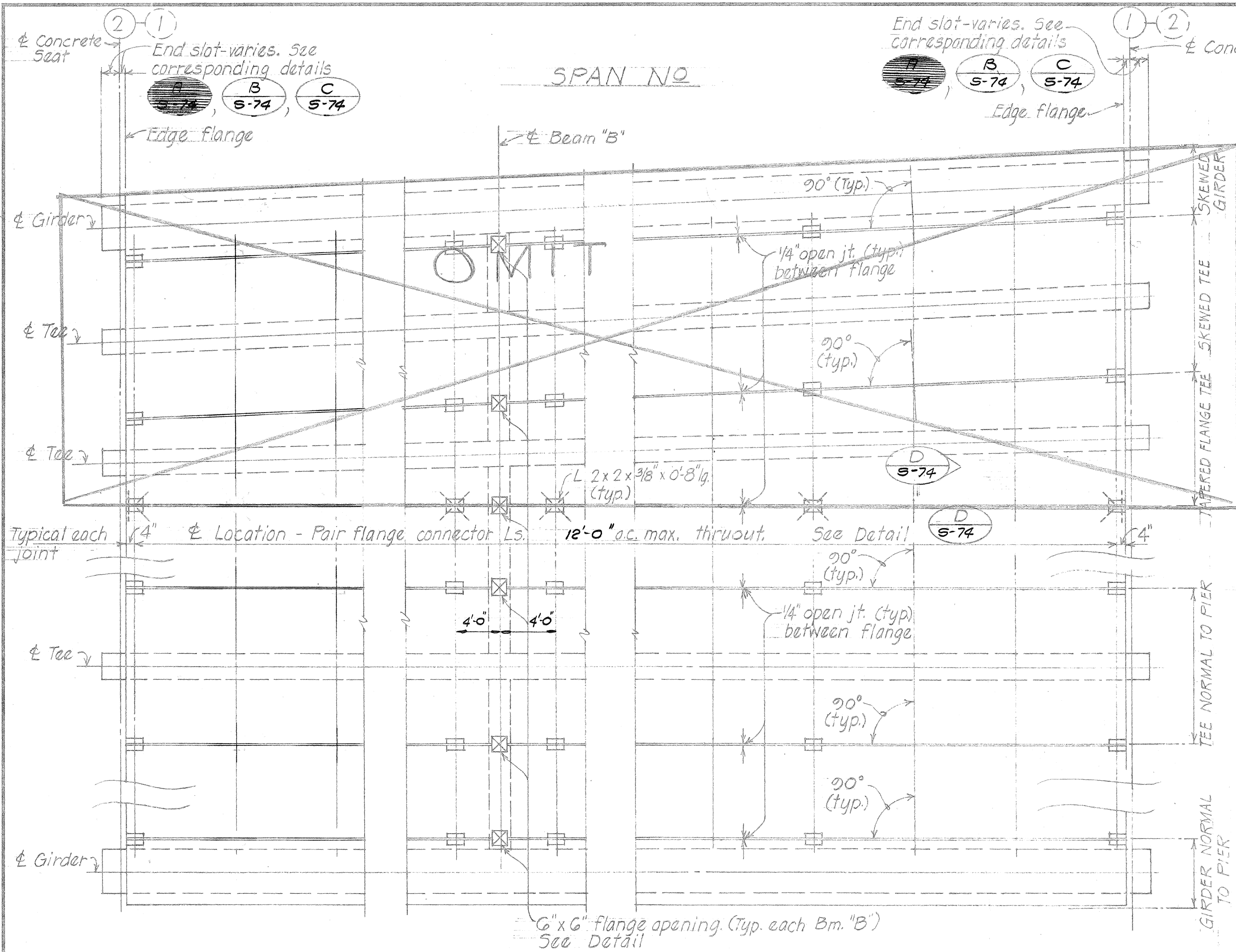
STRUCTURE No. 3
PRESTRESSED GIRDER
DETAILS

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. I-HI-1(73)115

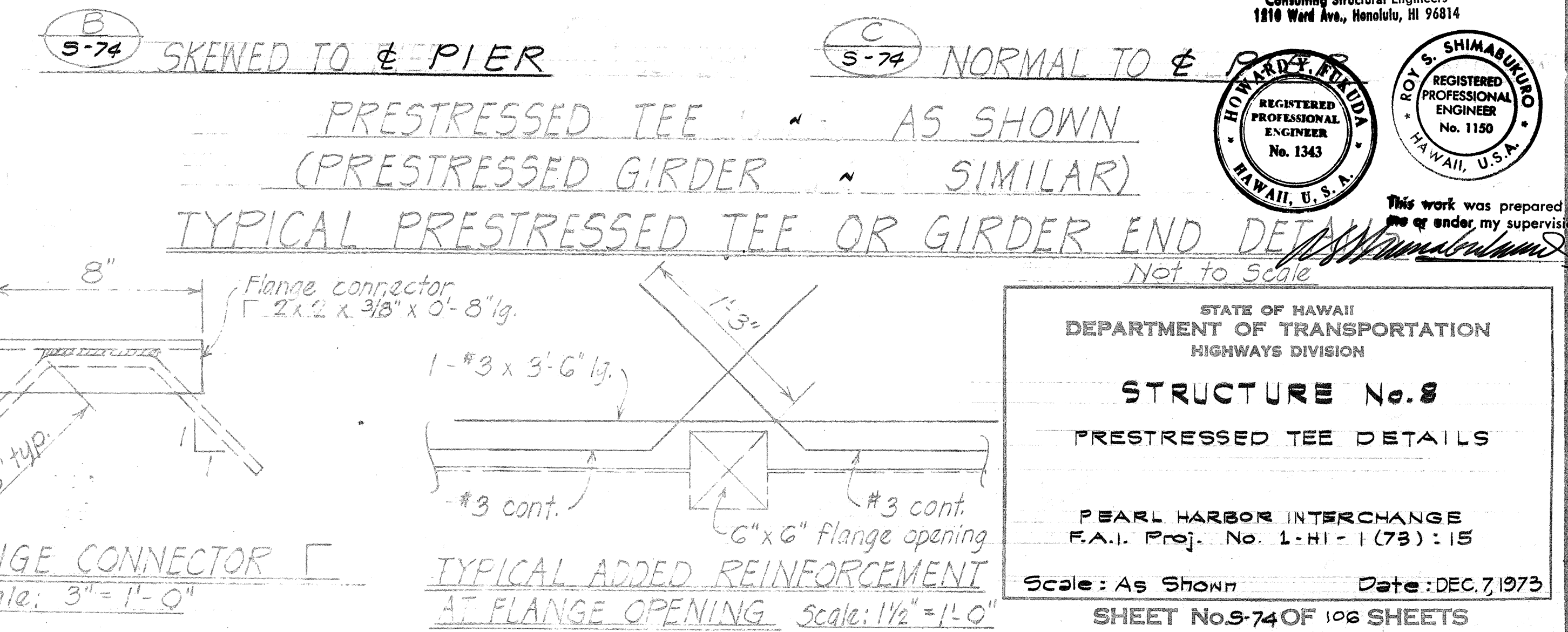
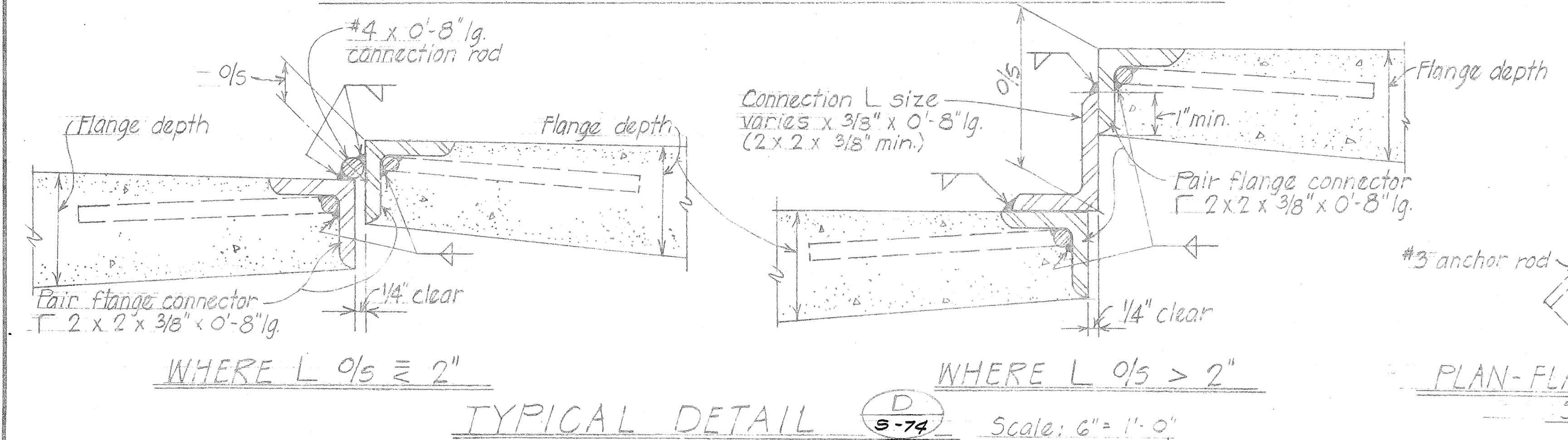
Scale: As Shown Date: DEC. 7, 1973
SHEET NO. 289 OF 106 SHEETS

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6/3/74	OMIT TAPERED TEE DETAILS.	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
DATE	REVISION	HAWAII	HAW.	1-HI-1(73)5	1974	290	369



END AT SUPPORT AT BEAM "B" END AT SUPPORT
 DIAGRAM - TYPICAL PRESTRESSED TEE AND GIRDER FLANGE CONNECTION
 DETAIL FOR VARIOUS LOCATIONS EACH SPAN



SHIMAZU SHIMABUKURO & FUKUDA, INC.
 Consulting Structural Engineers
 1210 Ward Ave., Honolulu, HI 96814

REGISTERED PROFESSIONAL ENGINEER
 No. 1343
 HAWAII, U.S.A.

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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STRUCTURE No. 8
 PRESTRESSED TEE DETAILS

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

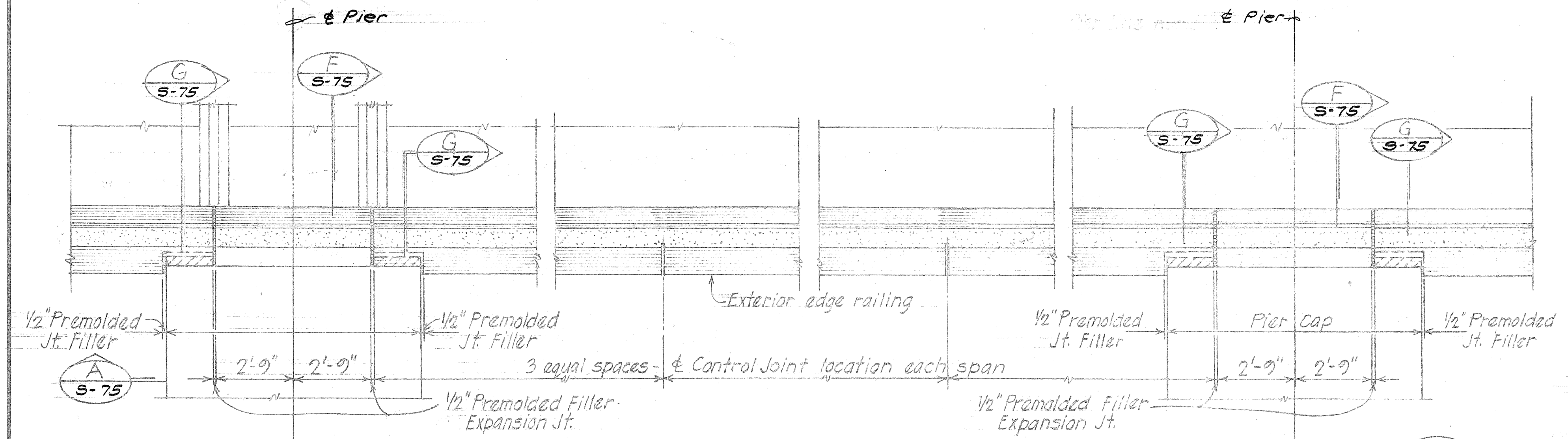
Scale: As Shown Date: DEC. 7, 1973
 SHEET No. 5-74 OF 106 SHEETS

AT DECK EXPANSION JOINTS

INTERMEDIATE CONTROL JOINT

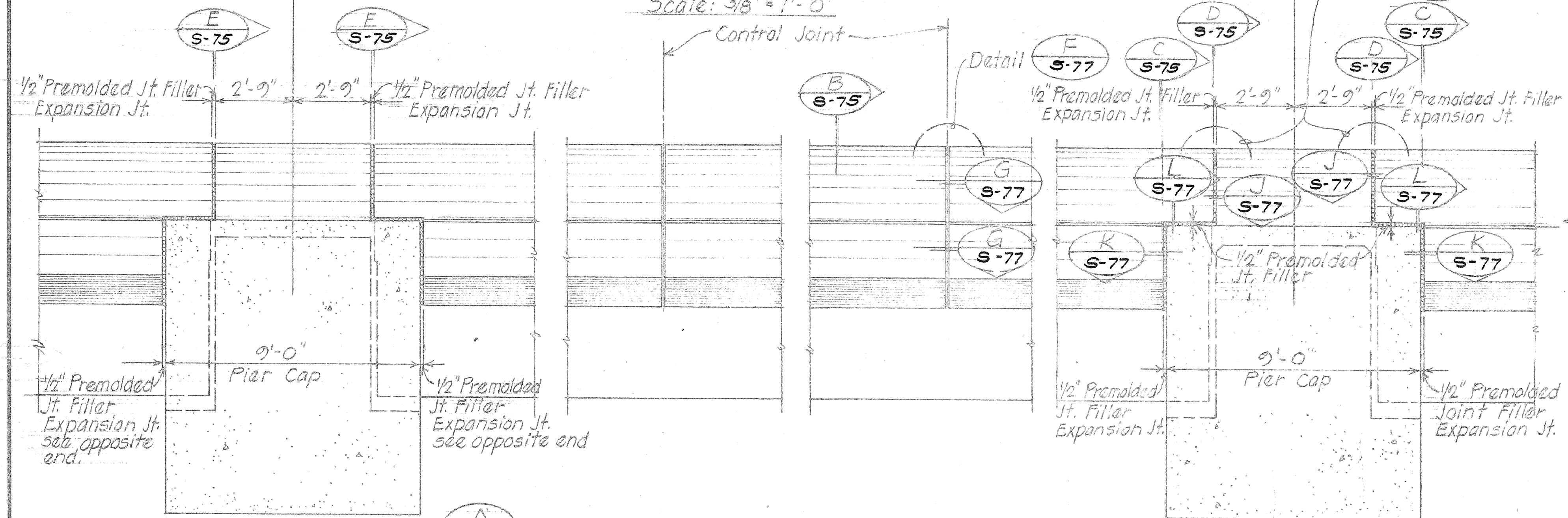
CONTINUOUS DECK OVER PIER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H-1(73):15	1974	291	369



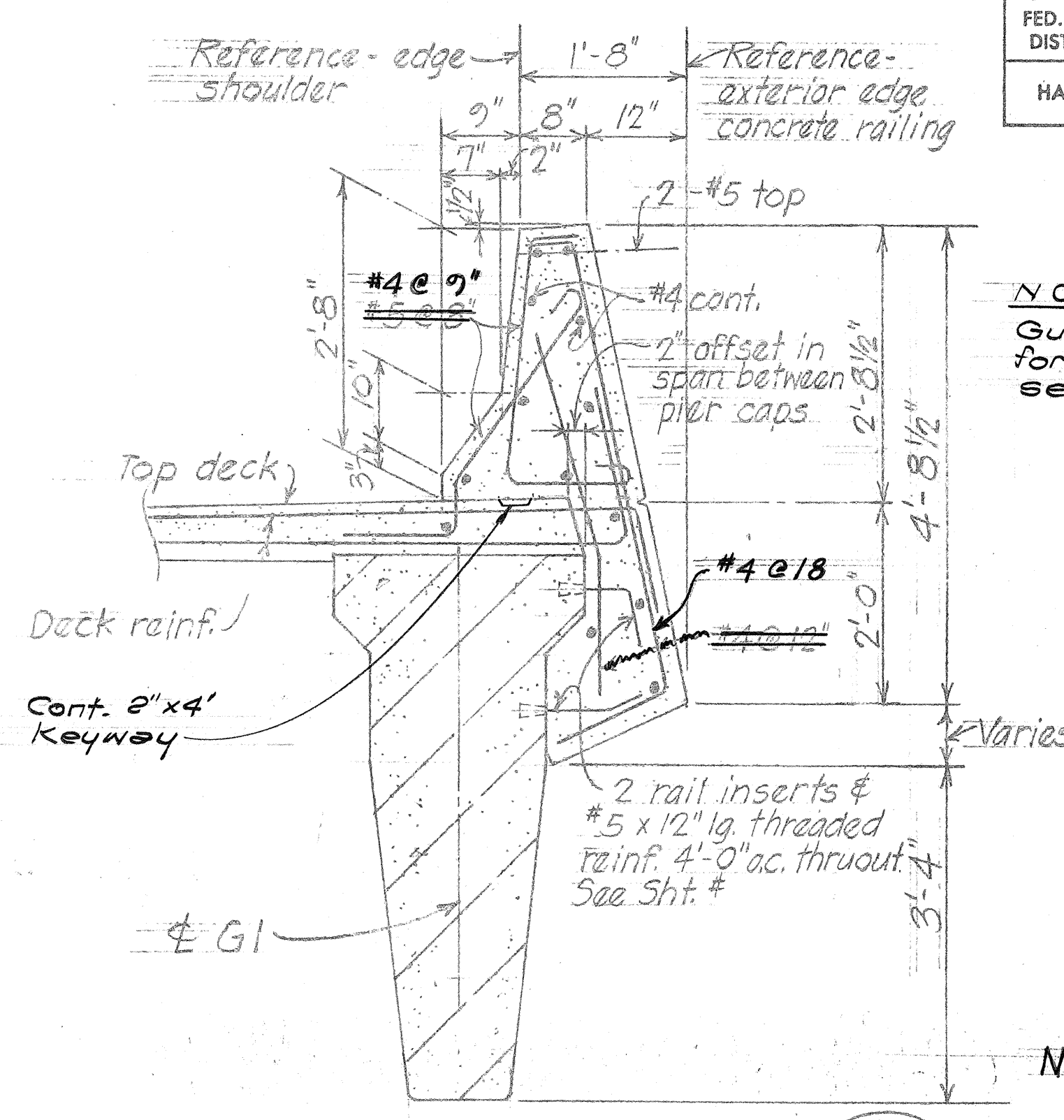
PART PLAN - LEFT RAILING

Scale: 3/8" = 1'-0"



EXTERIOR ELEVATION - LEFT RAILING

Scale: 3/8" = 1'-0"

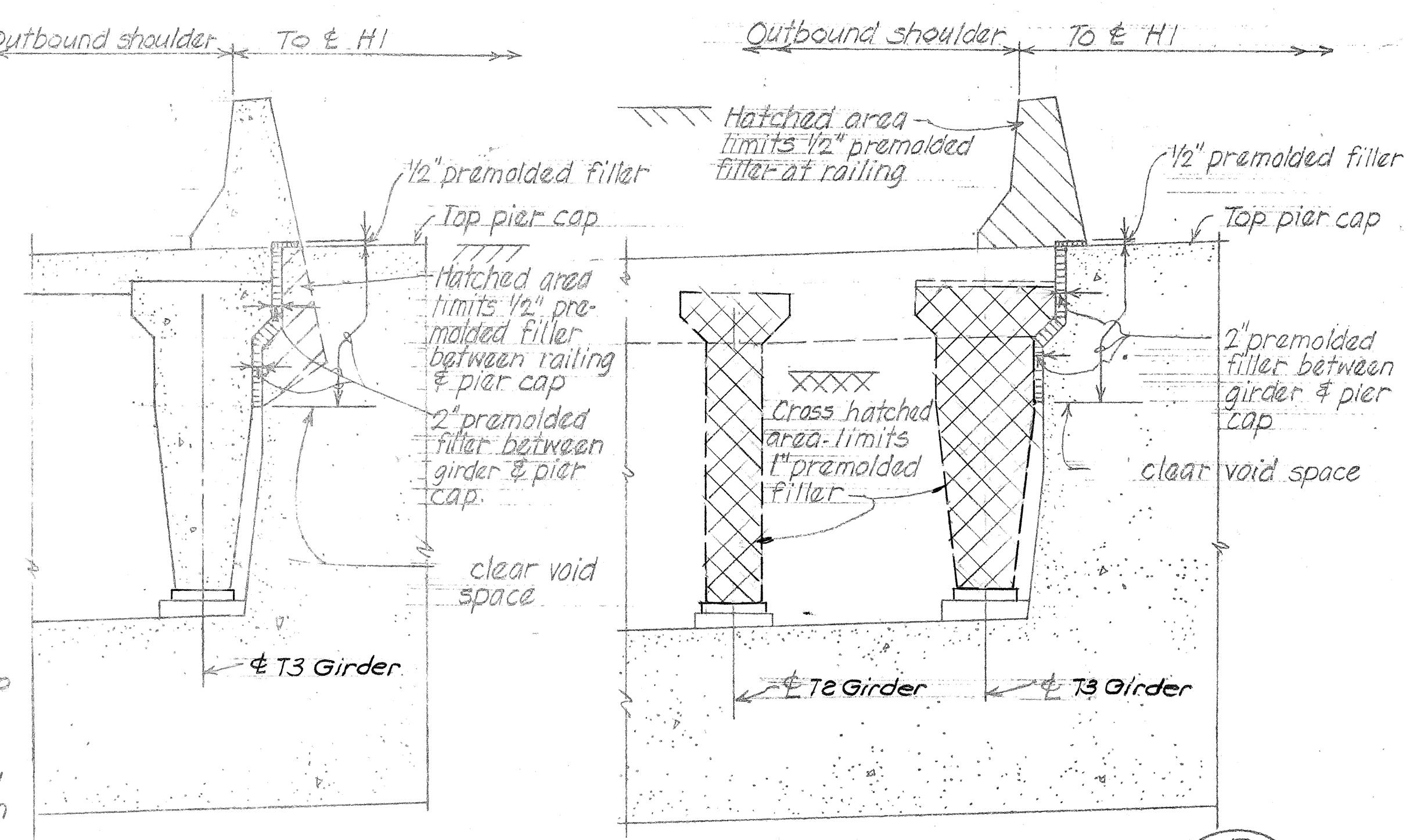


TYPICAL SECTION

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

NOTE:
Gutter at left railing for H-1 Inbound. See section 8/5-76

Note: Reference C.C.O. #12 &

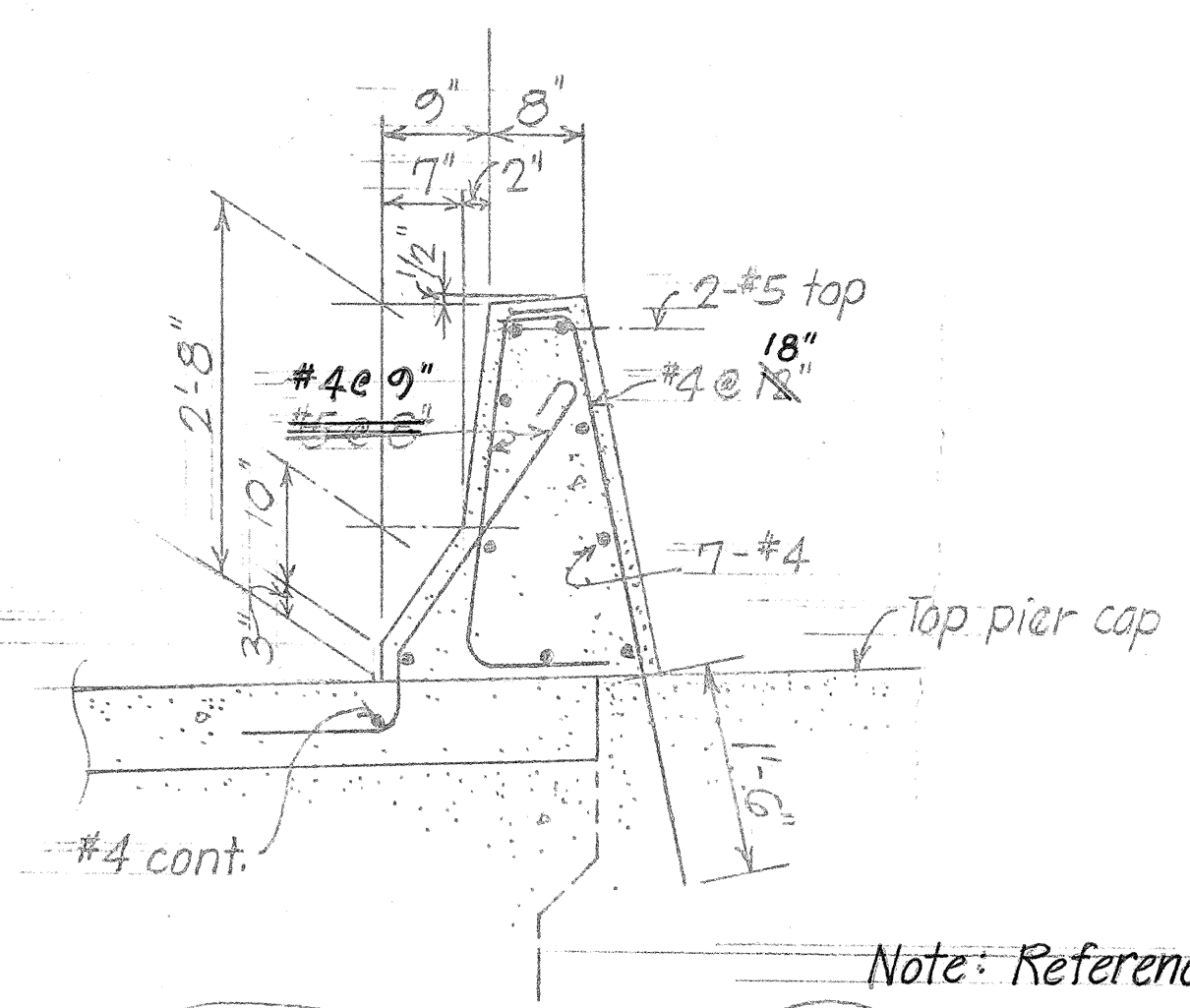


TYPICAL SECTION

Scale: 1/2" = 1'-0"

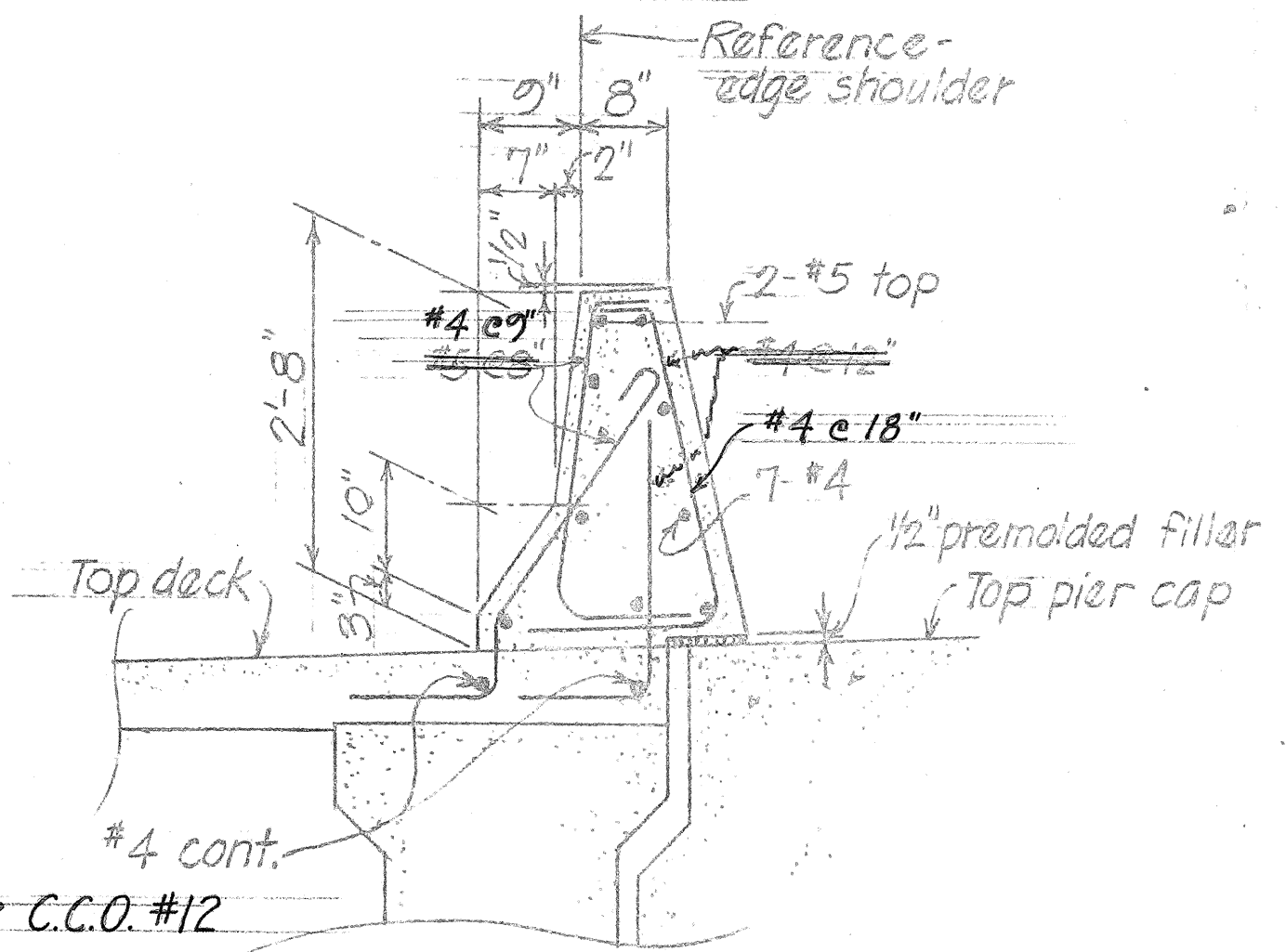
TYPICAL SECTION

Scale: 1/2" = 1'-0"



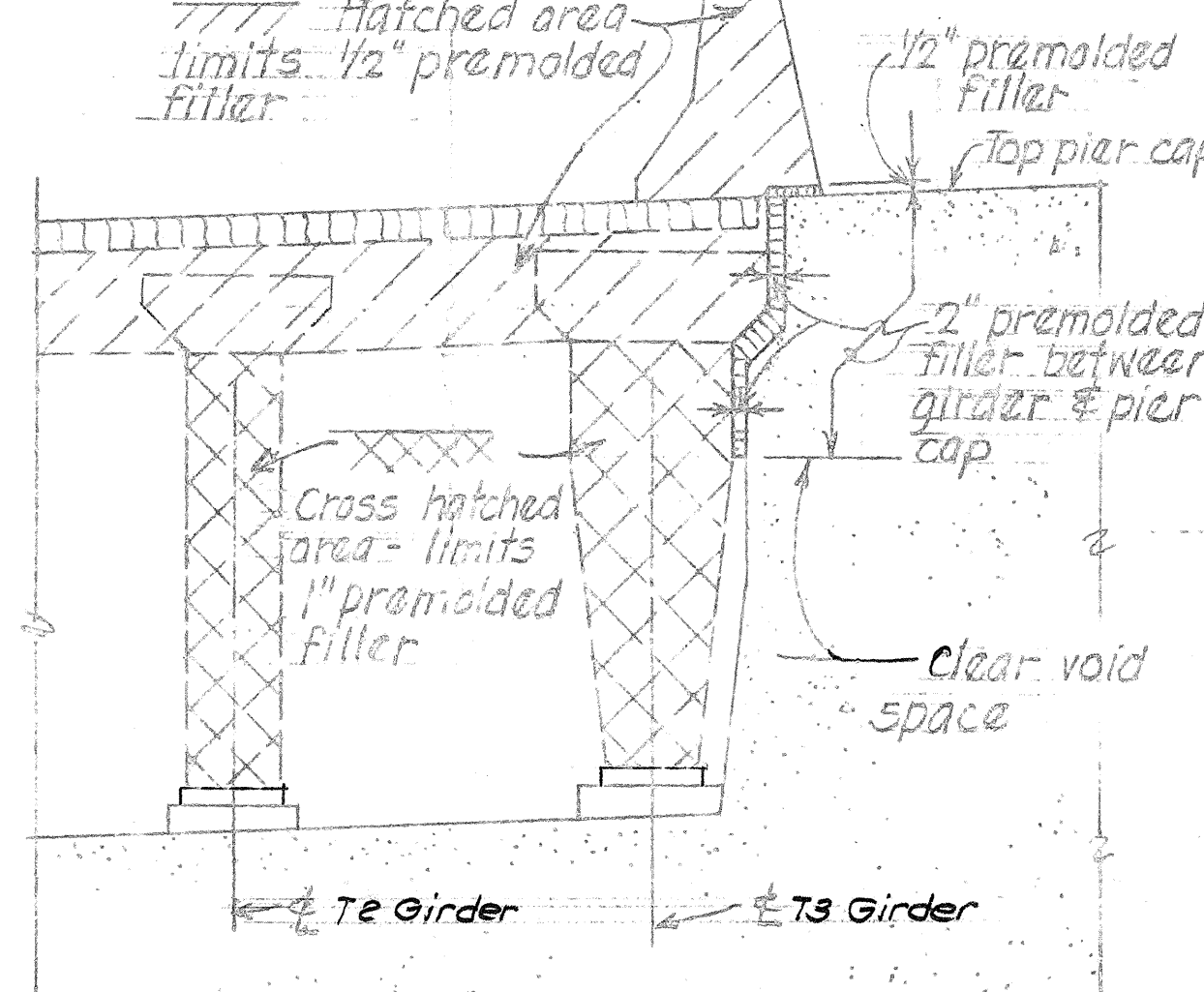
TYPICAL SECTION

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



TYPICAL SECTION

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



TYPICAL SECTION

Scale: 1/2" = 1'-0"

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1818 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
CONCRETE RAIL DETAIL

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

Scale: As Shown Date DEC. 7, 1973

SHEET No. S-75 OF 106 SHEETS

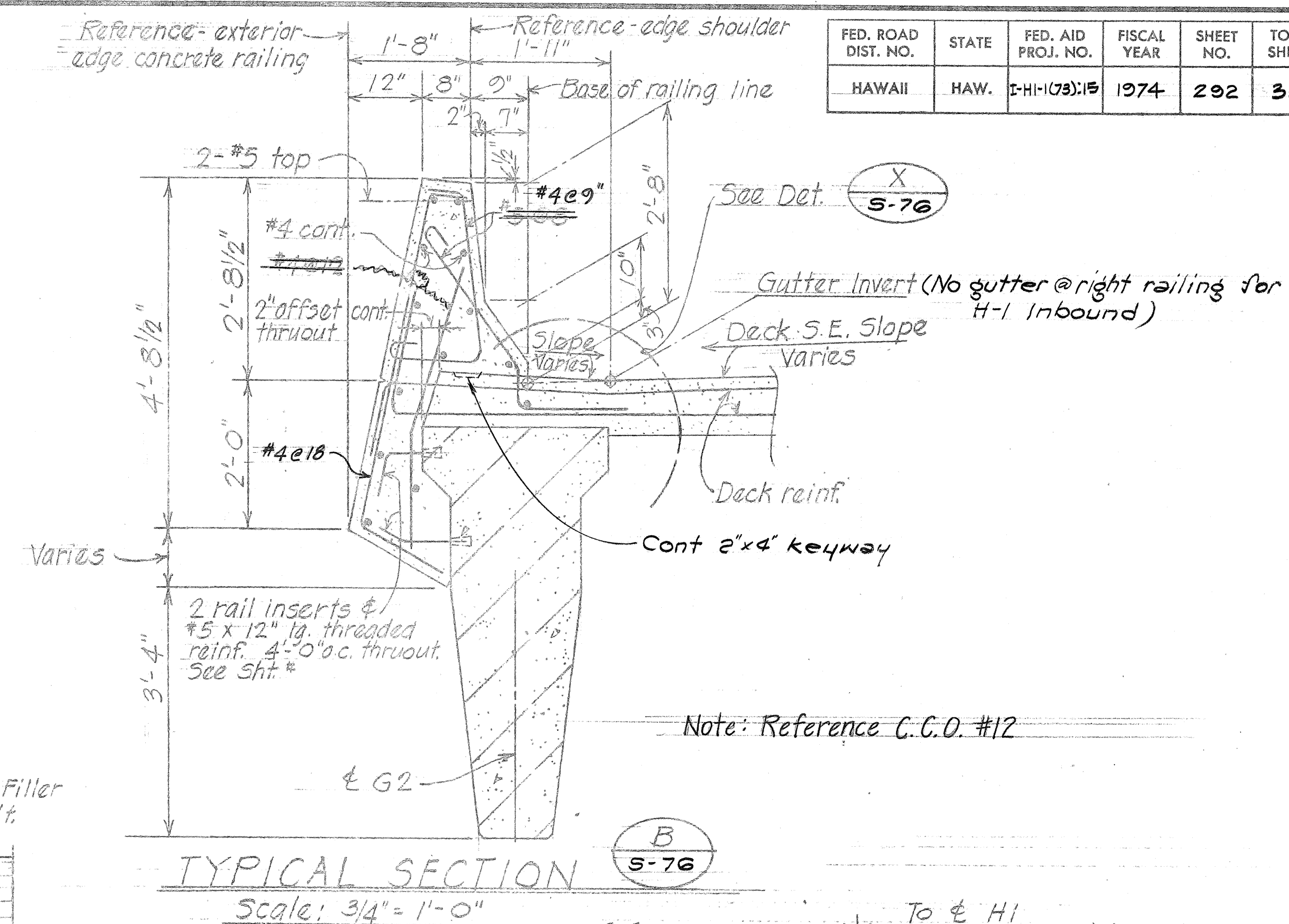
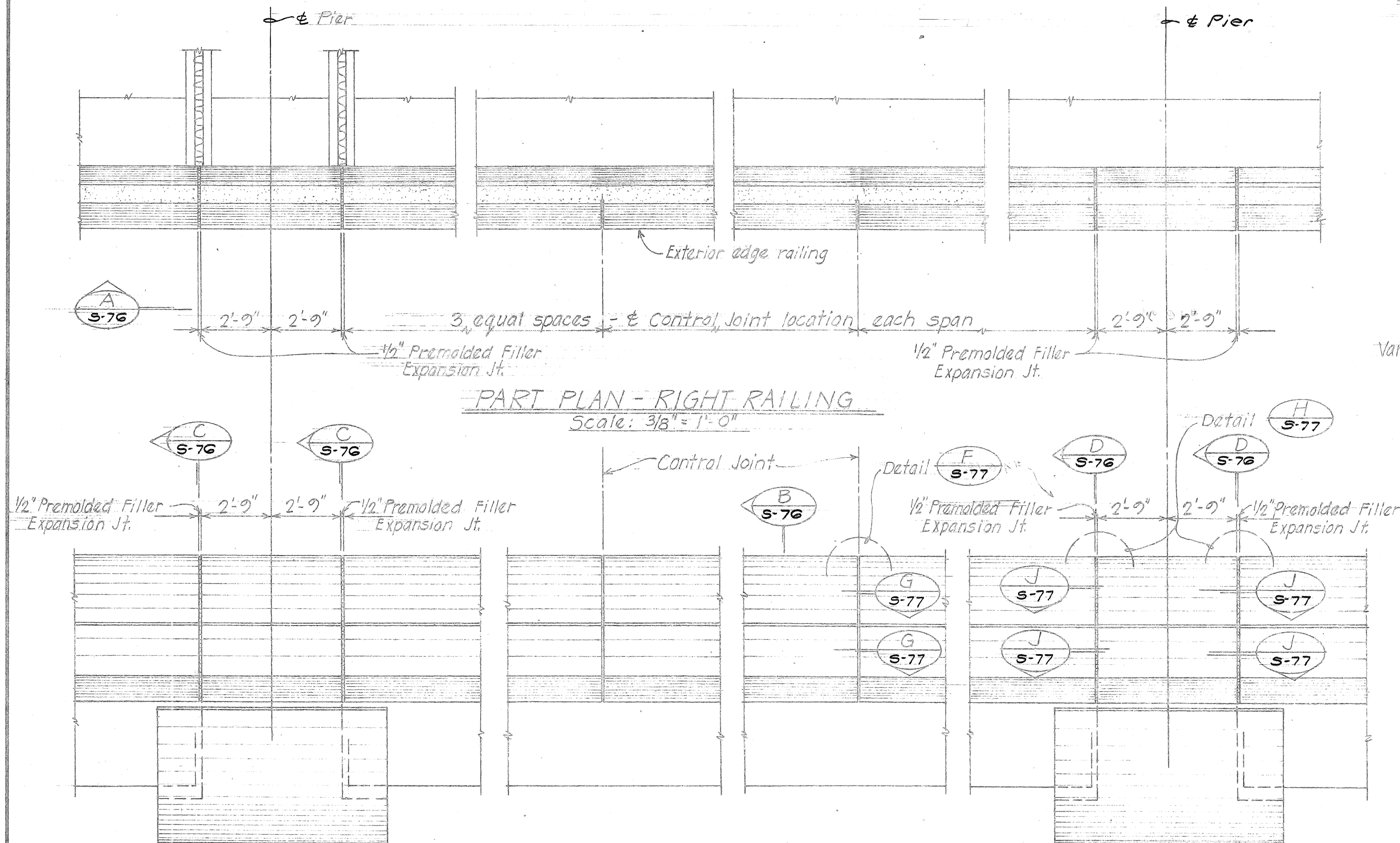
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AT DECK EXPANSION JOINTS

INTERMEDIATE CONTROL JOINTS

CONTINUOUS DECK OVER PIER

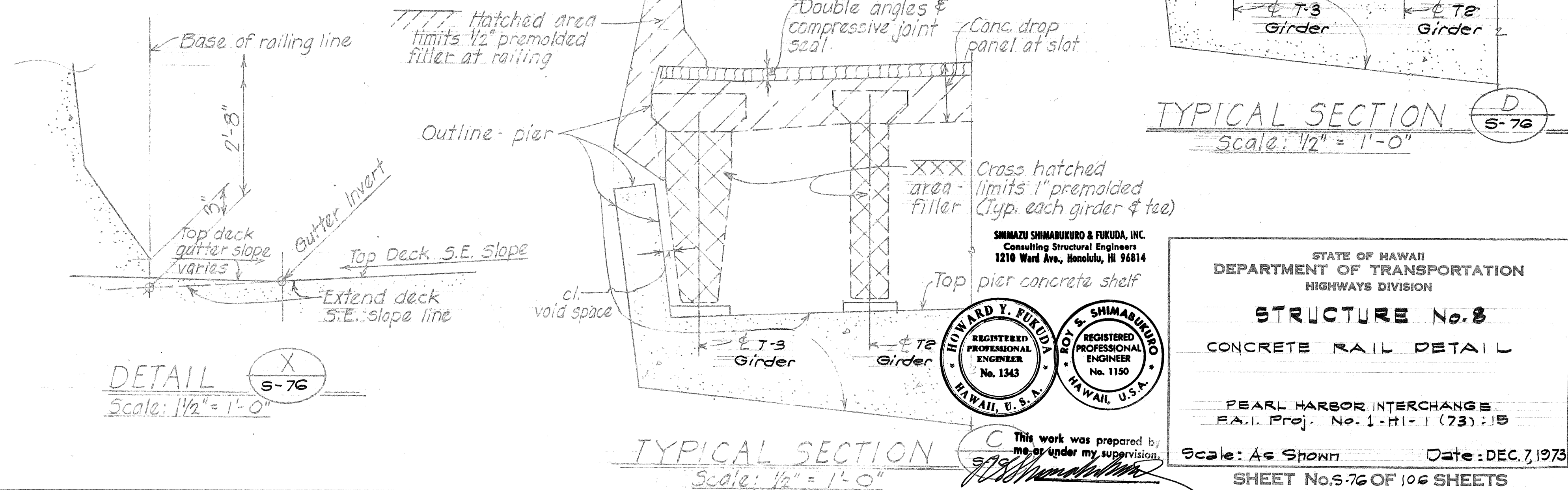
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)-15	1974	292	369



EXTERIOR ELEVATION - RIGHT RAILING. Scale: 3/8" = 1'-0"

NOTE!

For condition where edge girder T-3 meets the interior of the pier cap rather than the edge, see details for left rail, S-75.



DETAIL X. Scale: 1 1/2" = 1'-0"

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

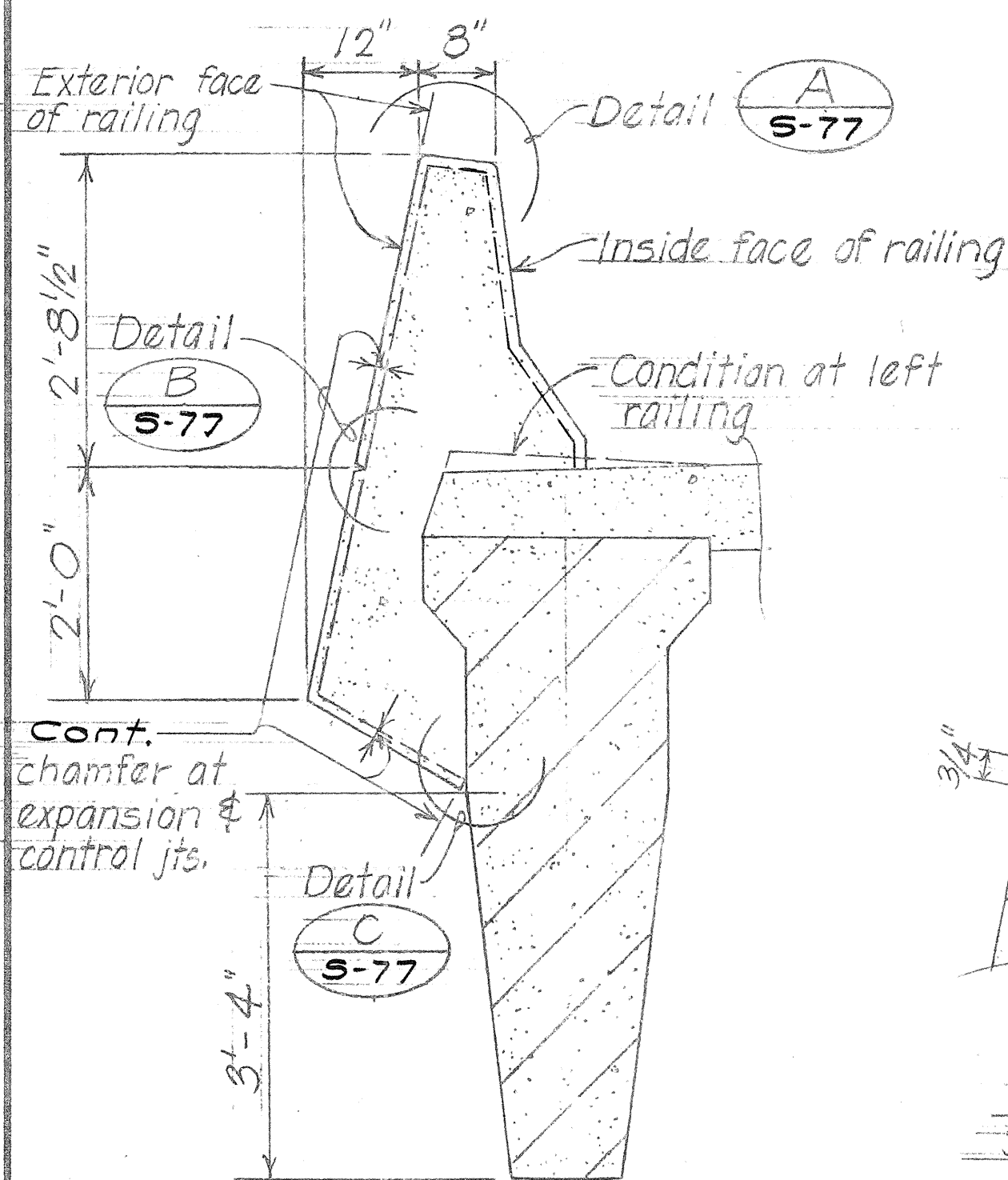
ROD S. SHIMABUKURO
REGISTERED PROFESSIONAL ENGINEER
No. 1150
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

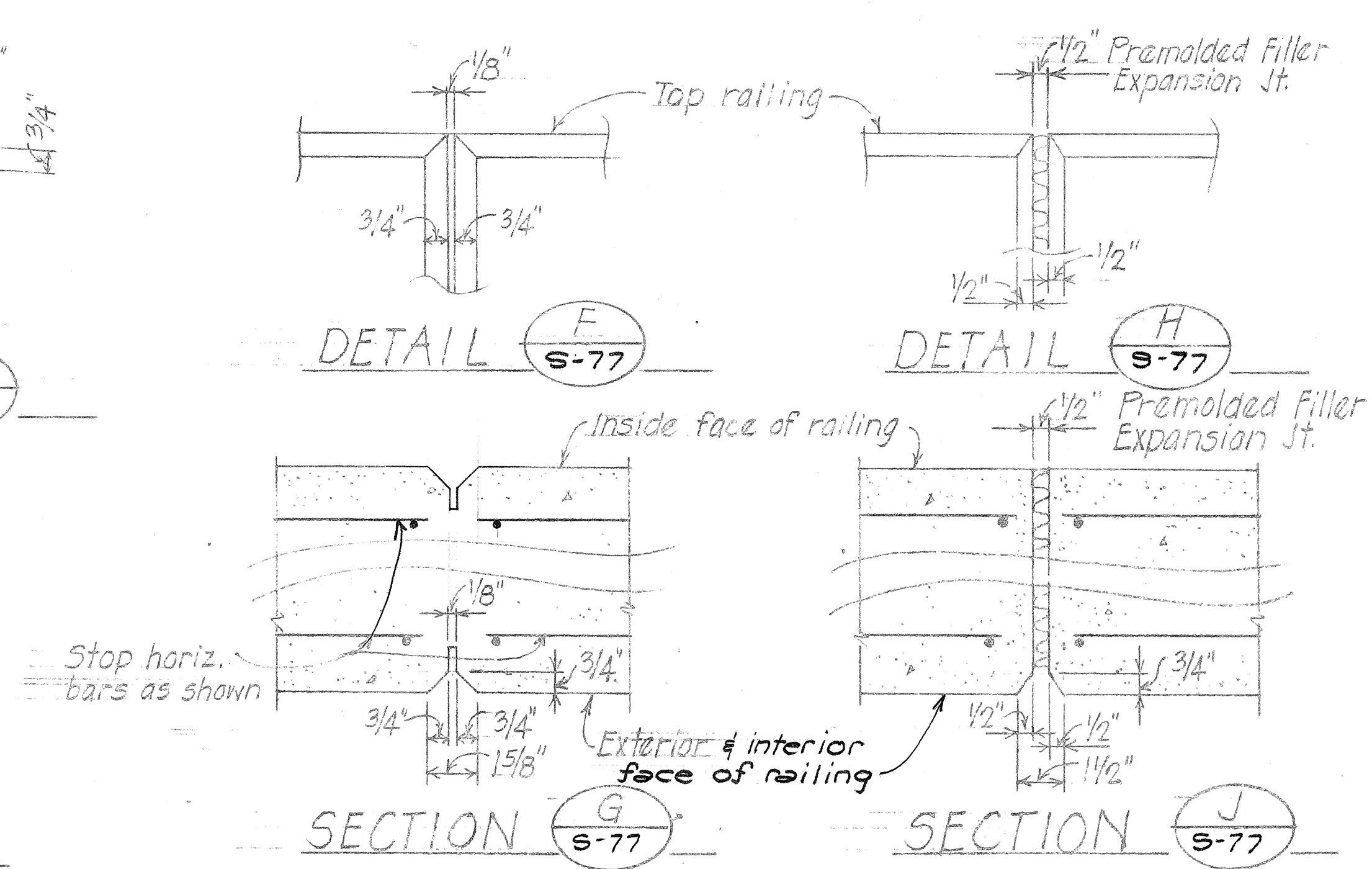
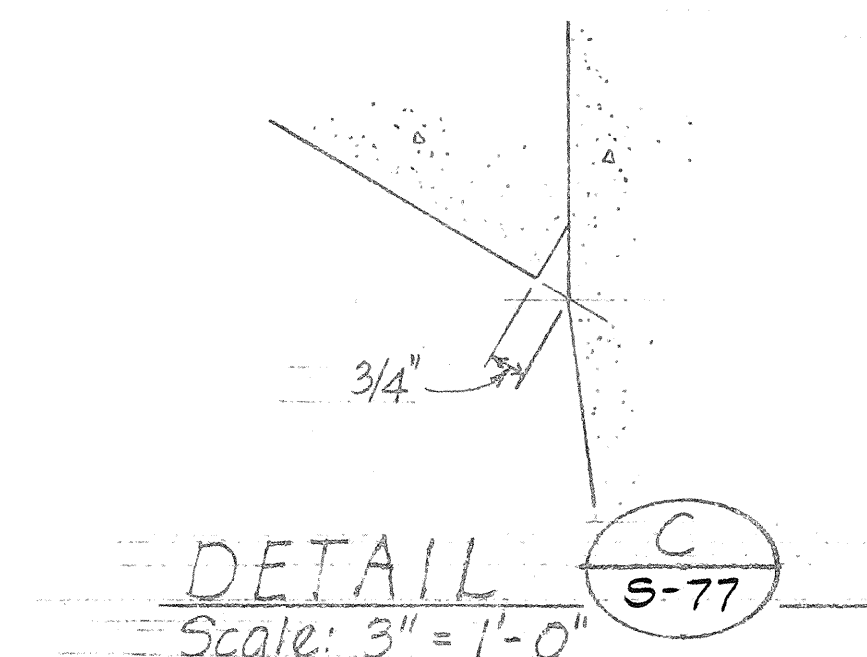
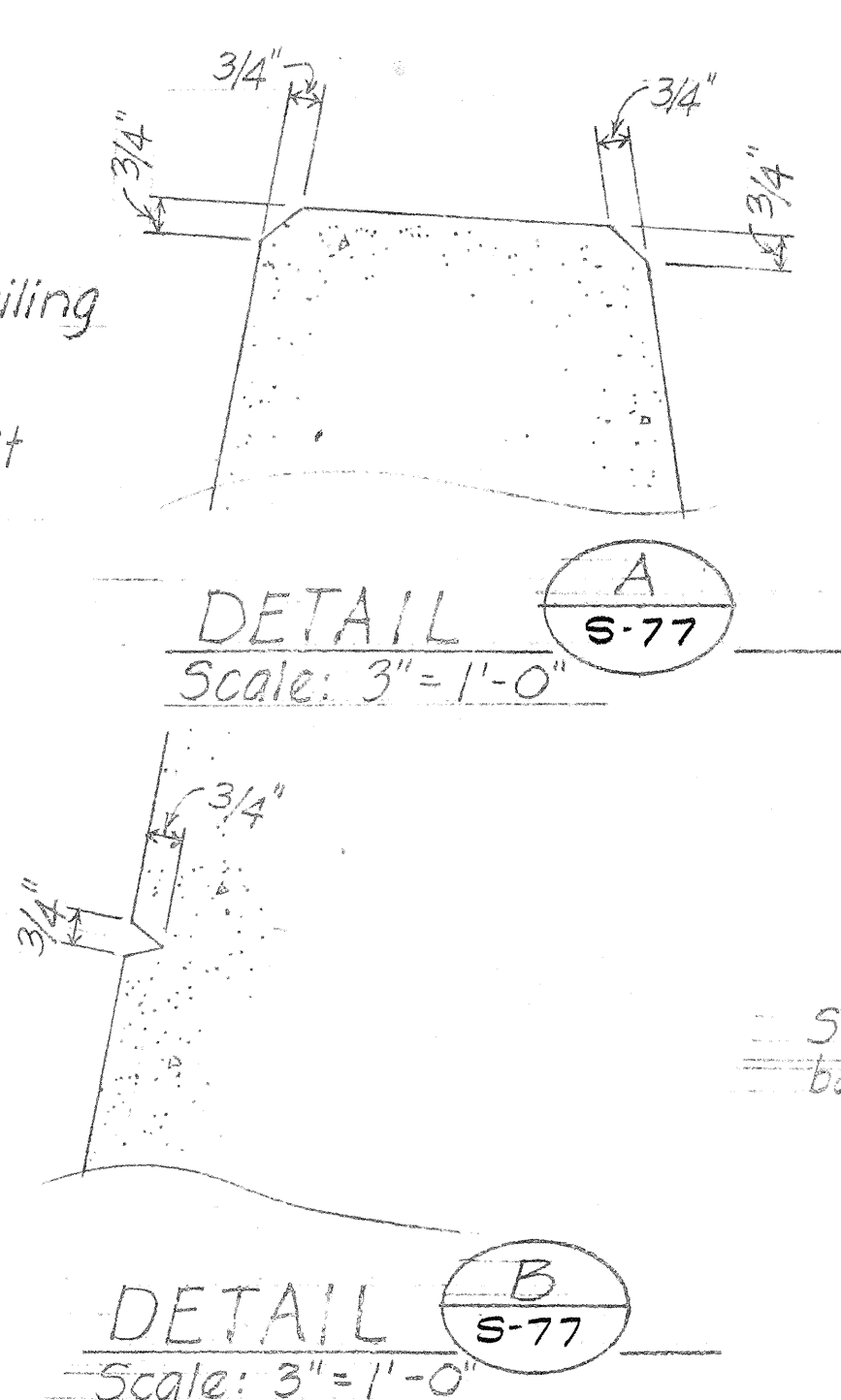
STRUCTURE No. 8
CONCRETE RAIL DETAIL

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1 (73)-15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. S-76 OF 106 SHEETS

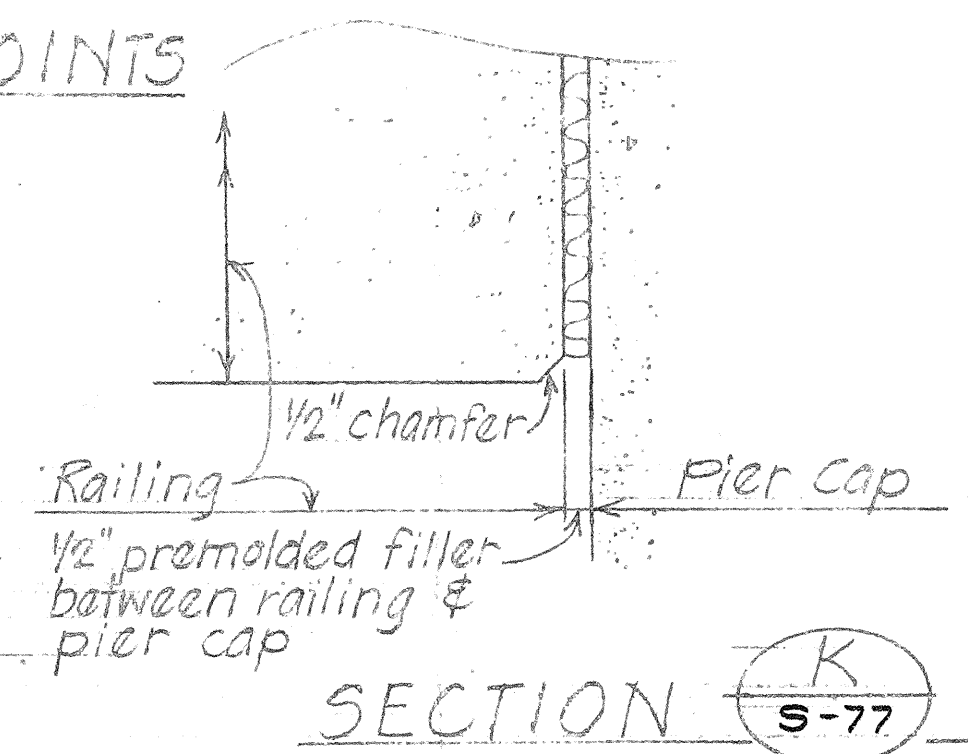
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)-15	1974	293	369



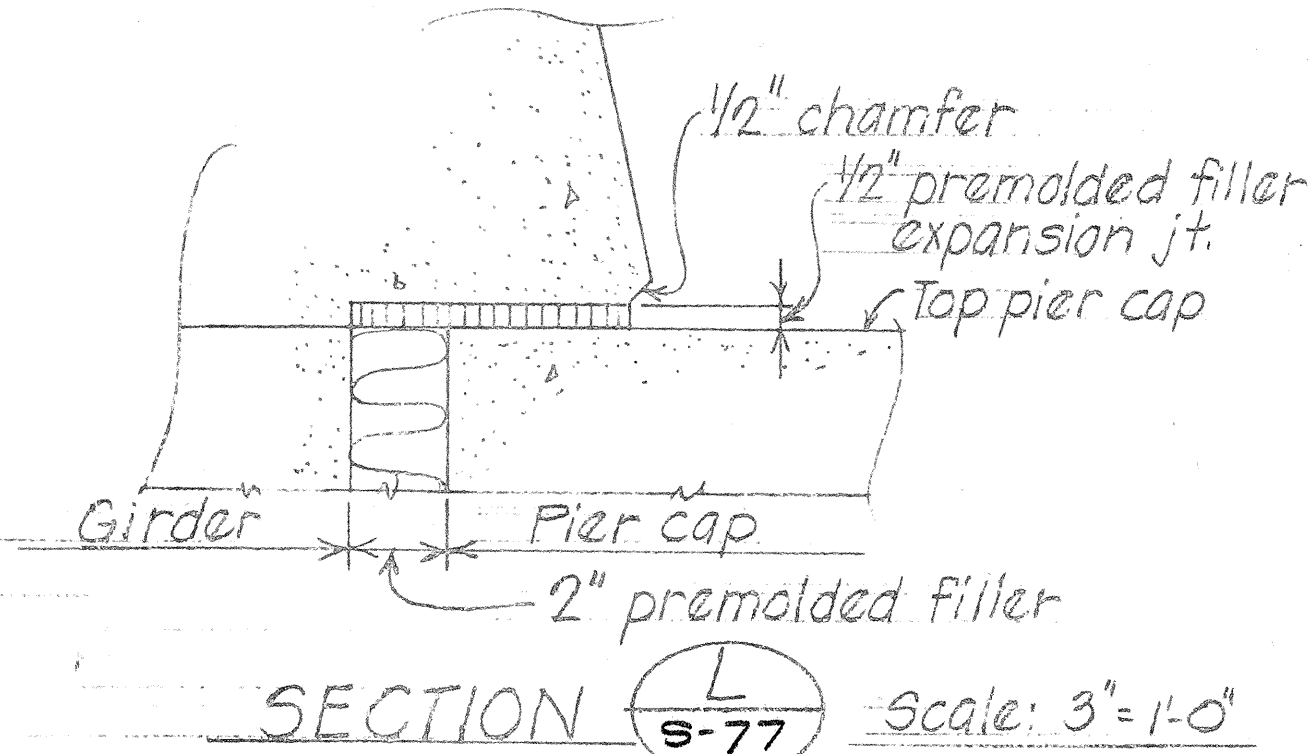
TYPICAL RAILING SECTION
Scale: 3/4" = 1'-0"



TYPICAL AT CONTROL JOINTS
Scale: 3" = 1'-0"

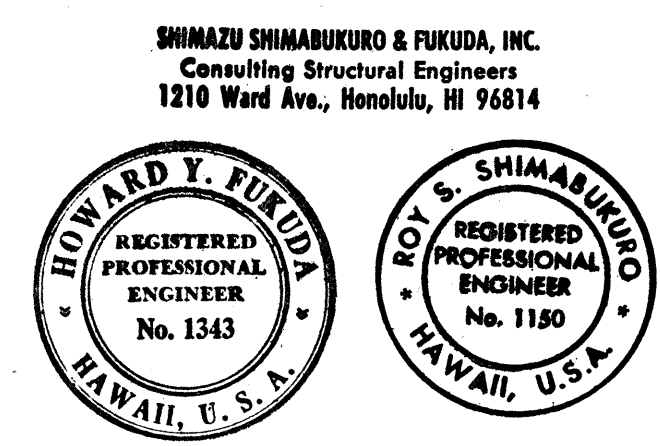


TYPICAL AT EXPANSION JOINTS Scale: 3" = 1'-0"



TYPICAL CONCRETE RAILING FASCIA DETAILS & FINISH

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	



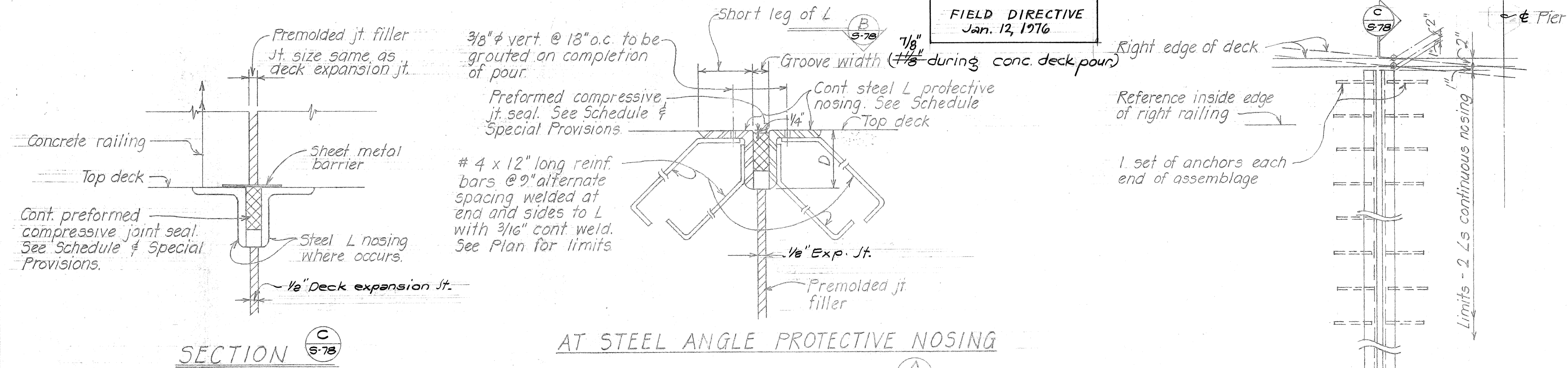
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[Signature]

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
TYPICAL CONCRETE RAILING
DETAILS & FINISH

PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1 (73) - 15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 9-77 OF 100 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	T-HI-(73)-15	1974	294	369

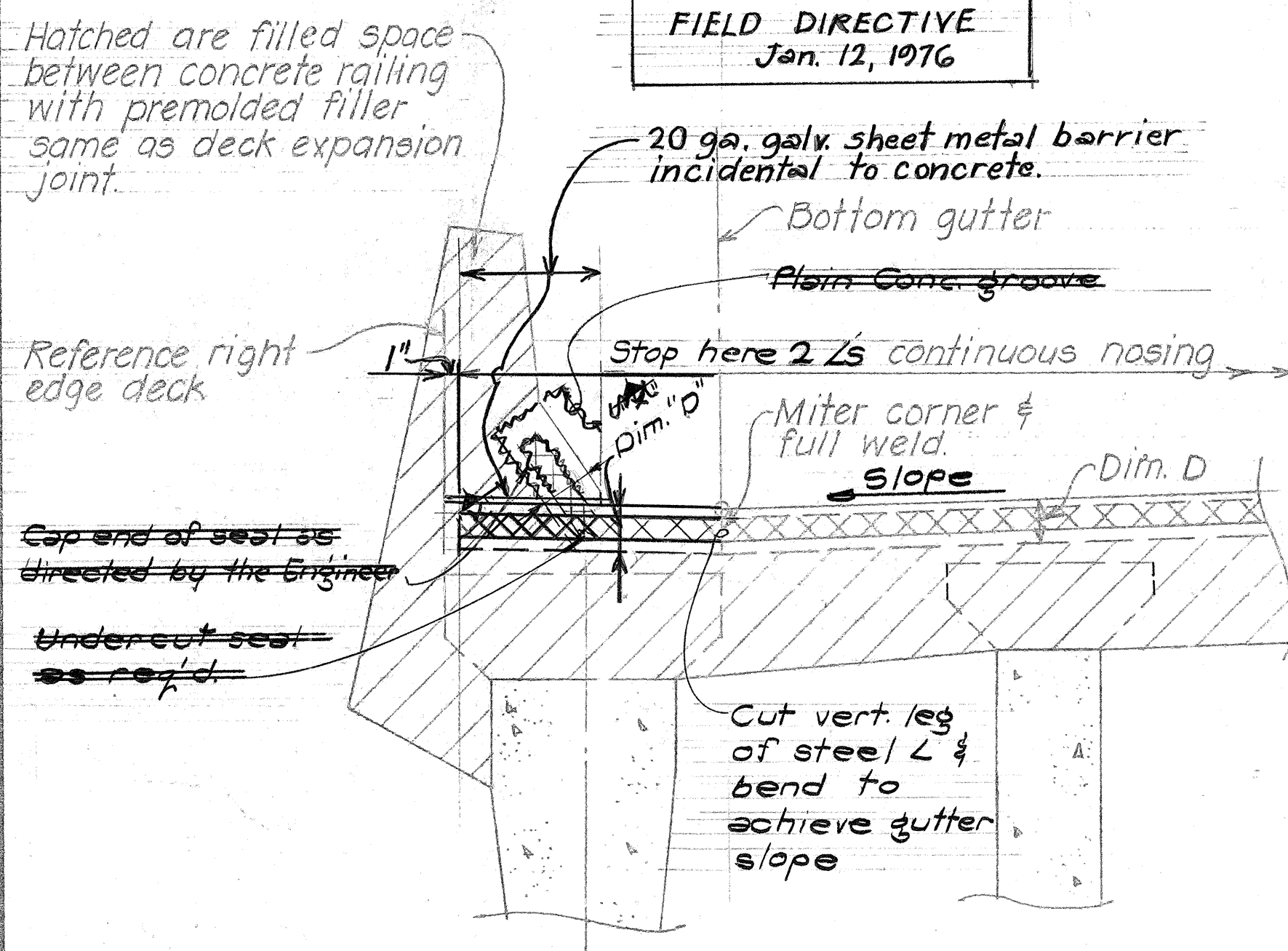


SECTION C S-78

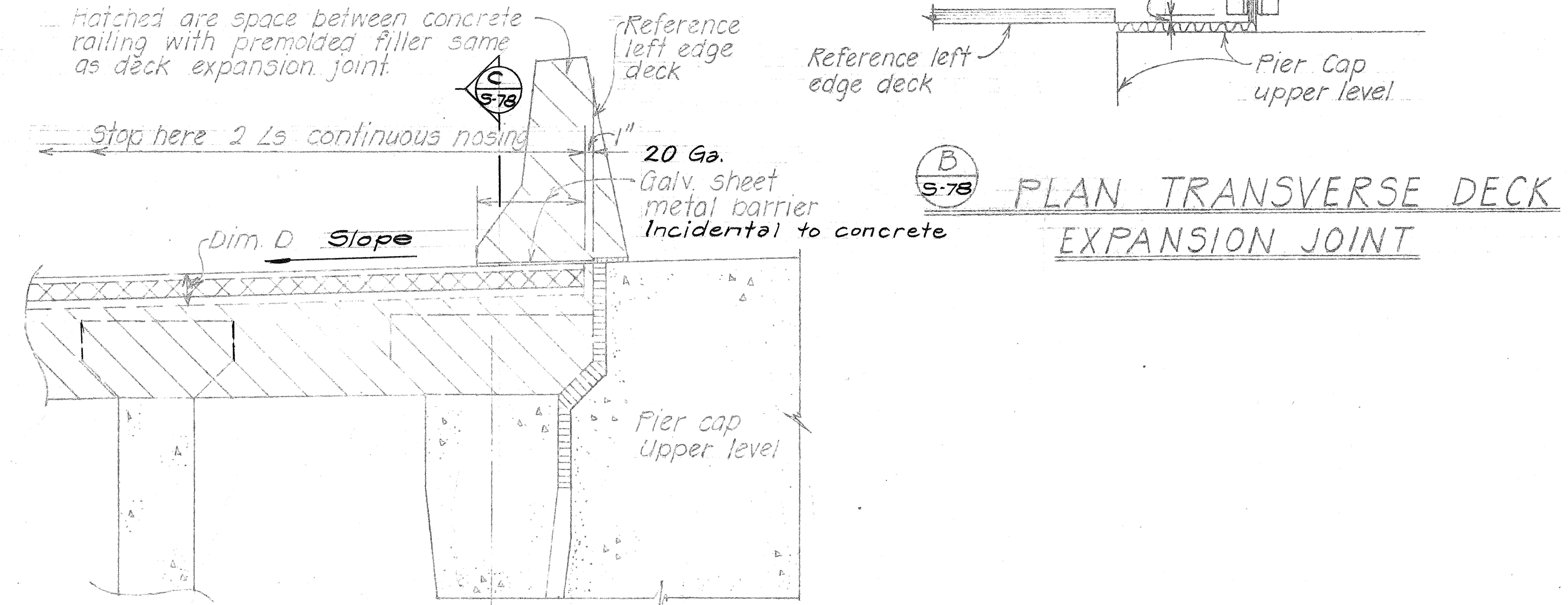
AT STEEL ANGLE PROTECTIVE NOSING

TYPICAL SECTION A S-78

Scale: 3" = 1'-0"



AT CONCRETE RAILING w/ GUTTER

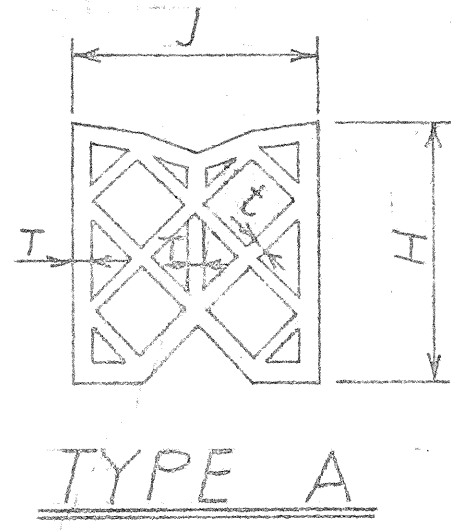


AT CONCRETE RAILING w/o GUTTER

SECTION C S-78

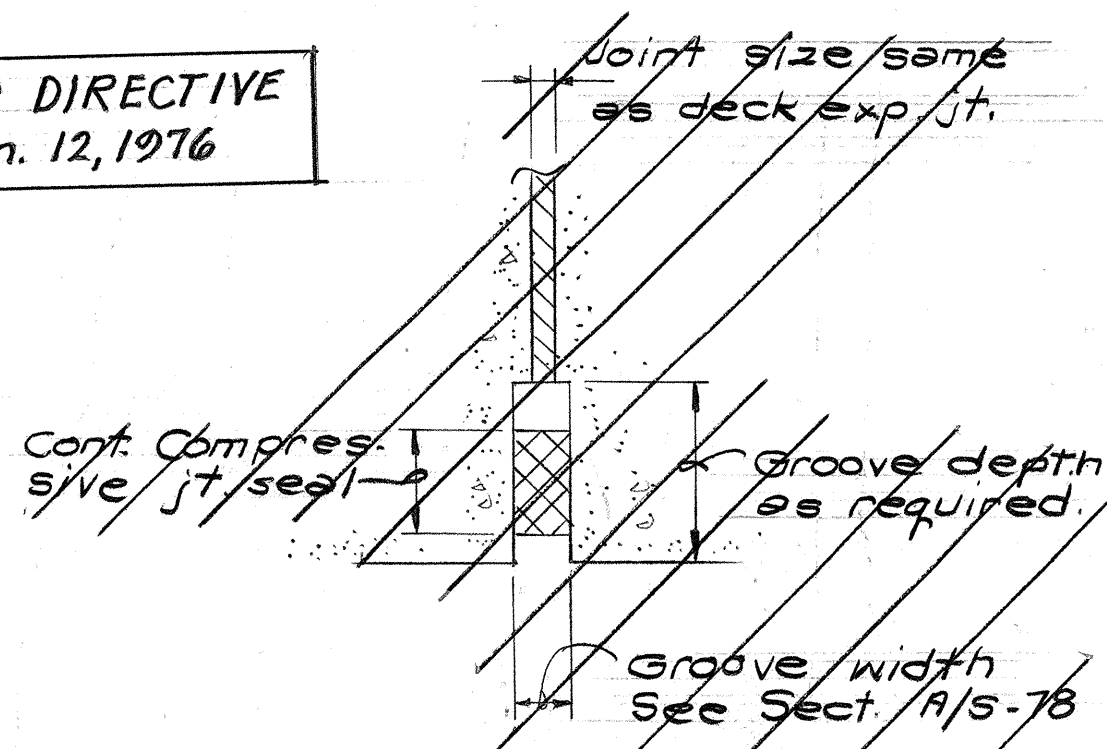
EXPANSION JOINT SEALER SCHEDULE

Joint Seal Size	Type A - Joint Sealer (Dimensions and Tolerances)				Steel Angle Protective Nosing	Groove Dim. D
	J	H	Thickness			
			T	t		
③	2 $\begin{smallmatrix} +3/16 \\ -0 \end{smallmatrix}$	2 1/16 $\pm 1/8$	1/8 $\begin{smallmatrix} +1/32 \\ -1/64 \end{smallmatrix}$	3/32 $\begin{smallmatrix} +1/32 \\ -1/64 \end{smallmatrix}$	4" x 3 1/2" x 1/2"	4"

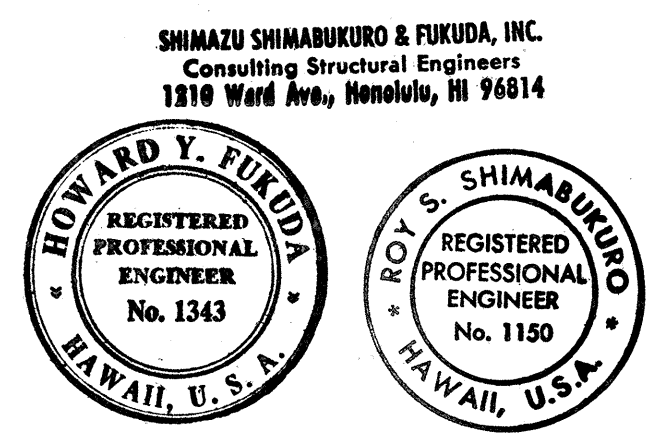


TYPE A

FIELD DIRECTIVE Jan. 12, 1976



SECTION 'X-X'



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
PIER EXPANSION
JOINT DETAIL

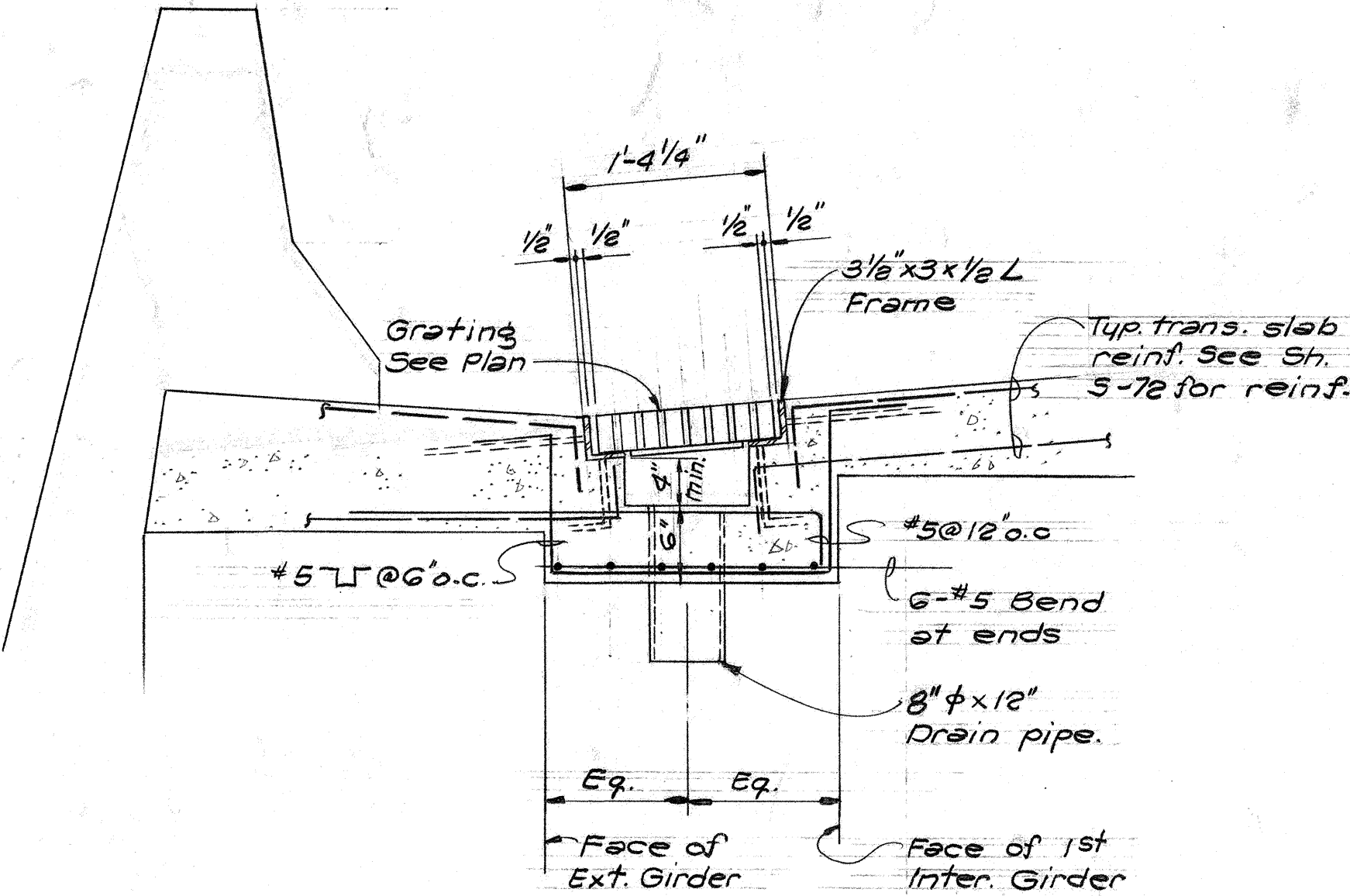
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1 (73) : 15

Scale: As Shown Date DEC. 7, 1973
SHEET No. S-78 OF 106 SHEETS.

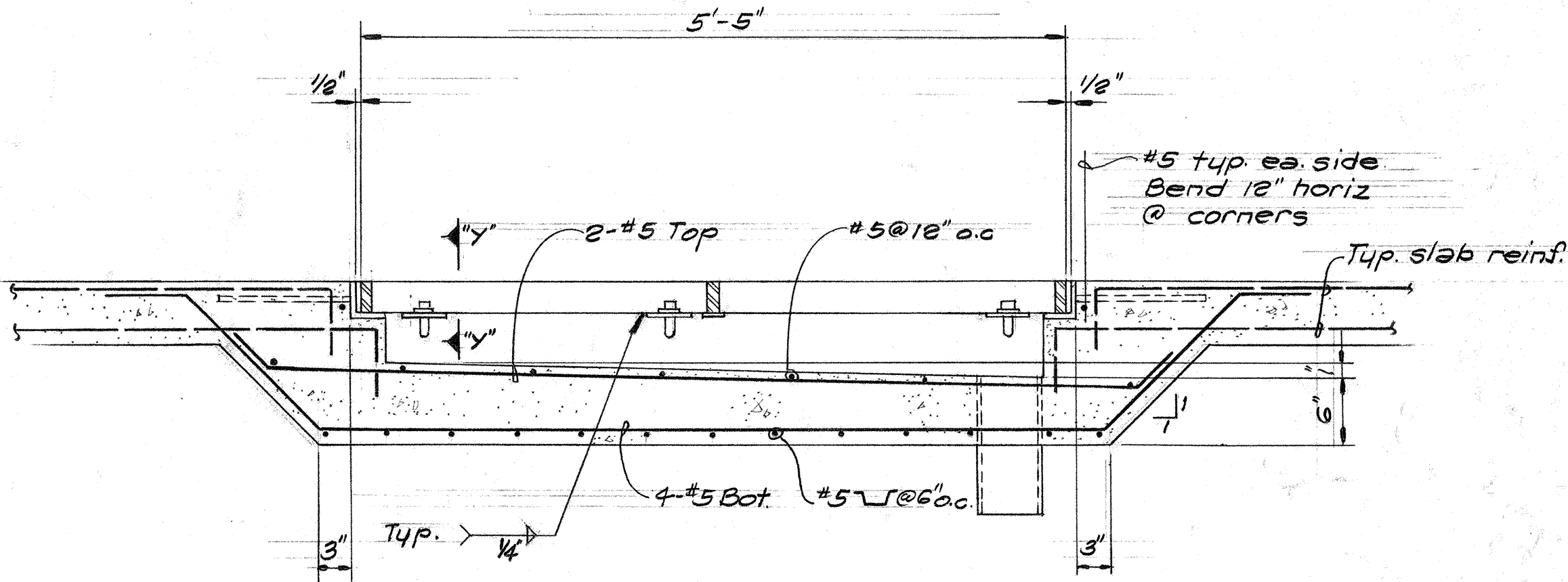
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73)15	1974	205	360

GENERAL NOTES

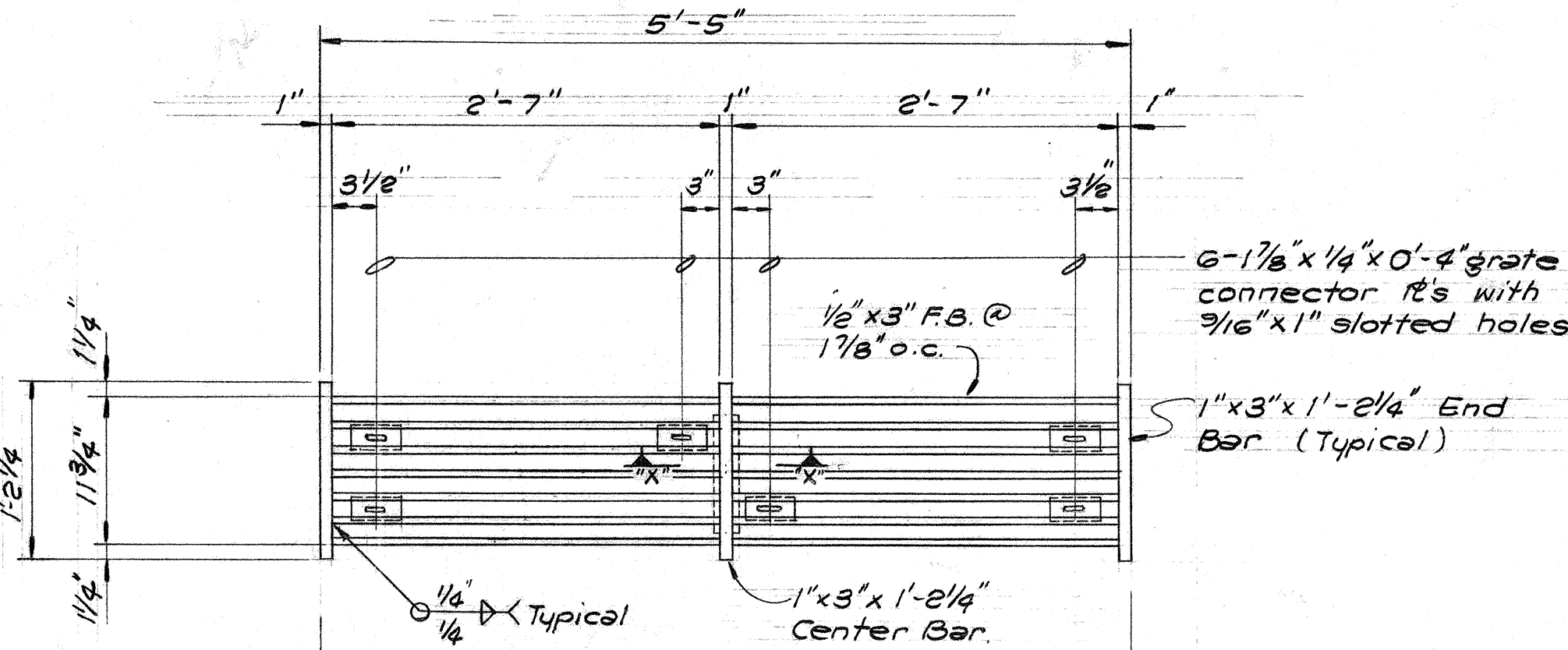
- Grates, frames, bolts, etc. shall be hot dip galvanized after fabrication. See Specs.
- All structural steel shall conform to A.S.T.M. A36



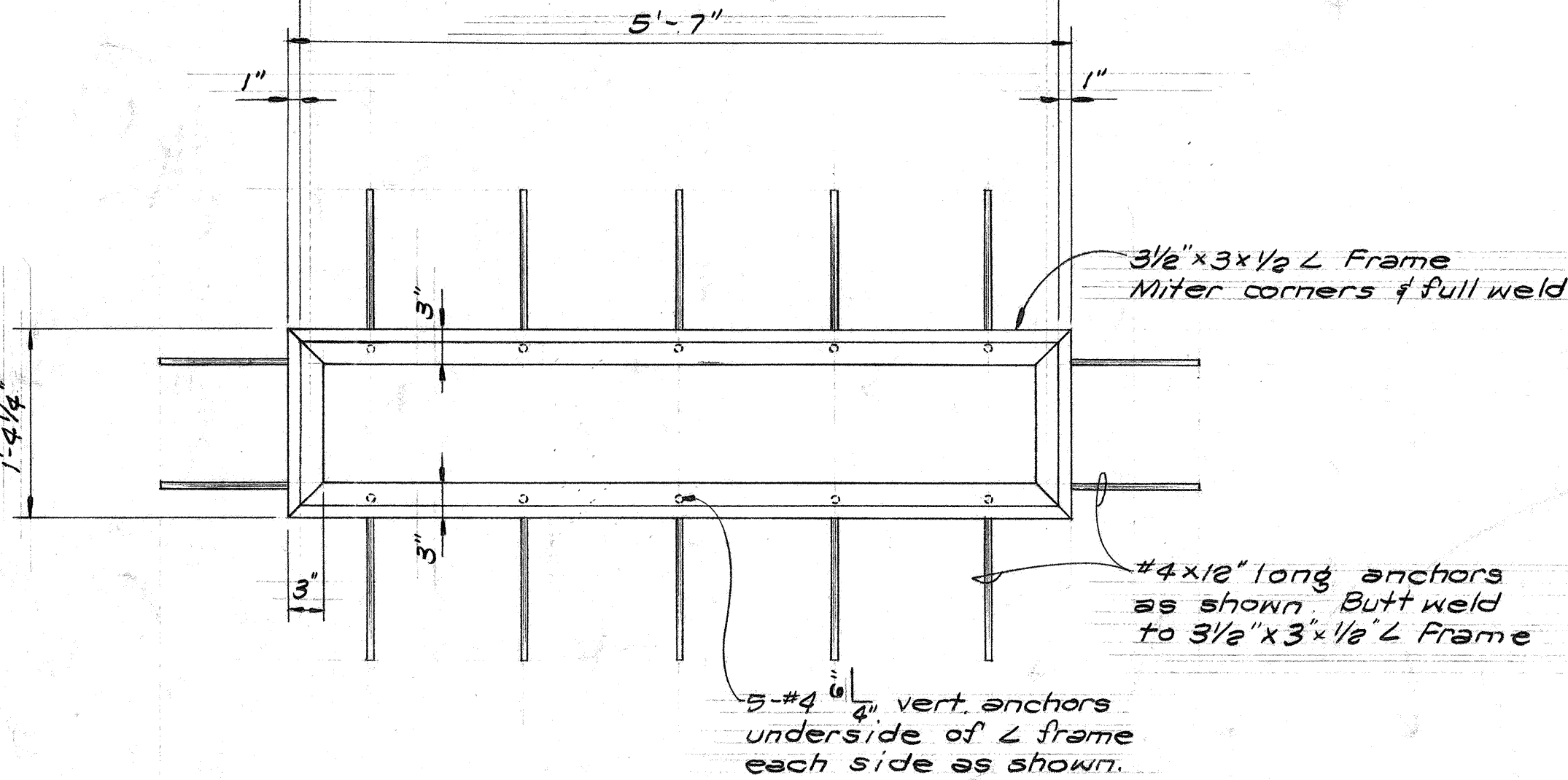
TYPICAL CROSS SECTION
1"=1'-0"



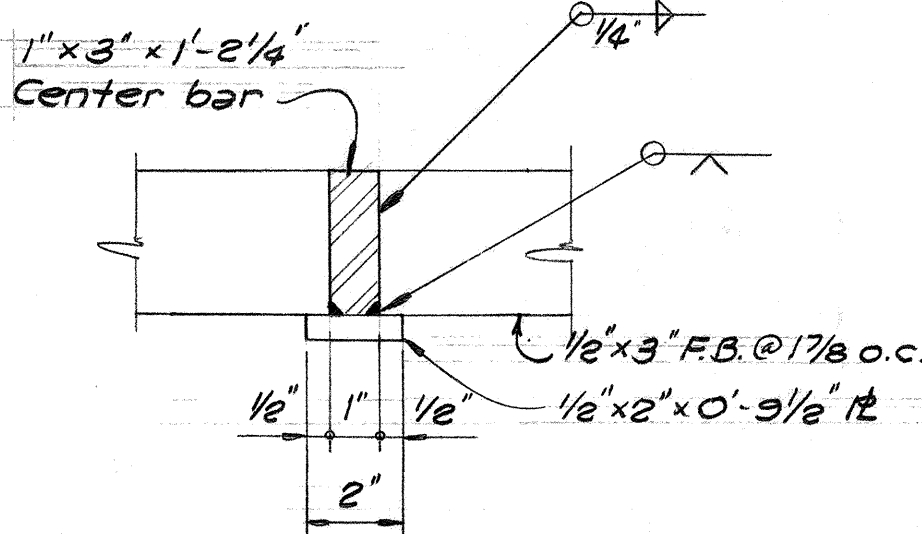
TYPICAL LONGITUDINAL SECTION
1"=1'-0"



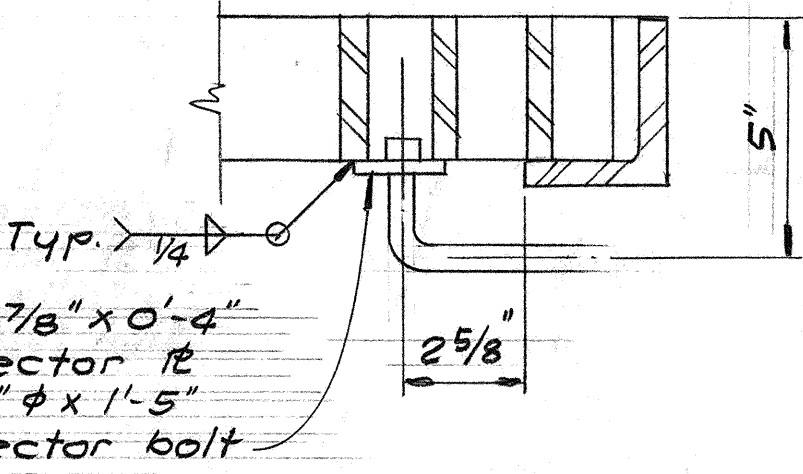
GRATING PLAN
1"=1'-0"



FRAME PLAN
1"=1'-0"

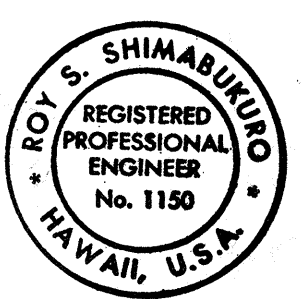
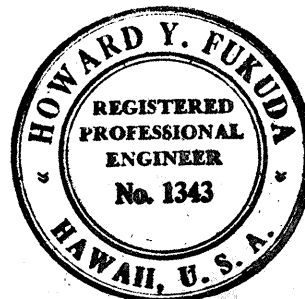


SECTION "X"-X"
3"=1'-0"



SECTION "Y"-Y"
3"=1'-0"

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



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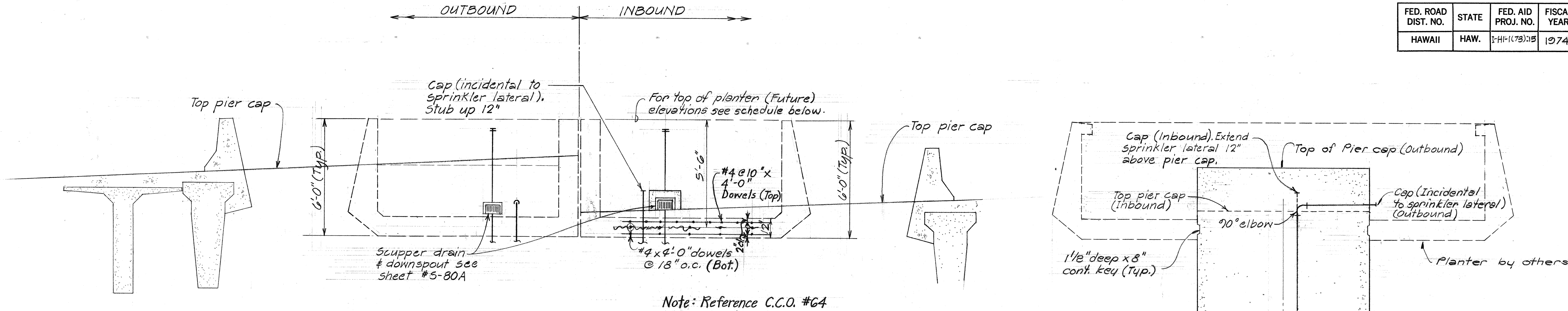
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
DECK DRAINAGE DETAIL

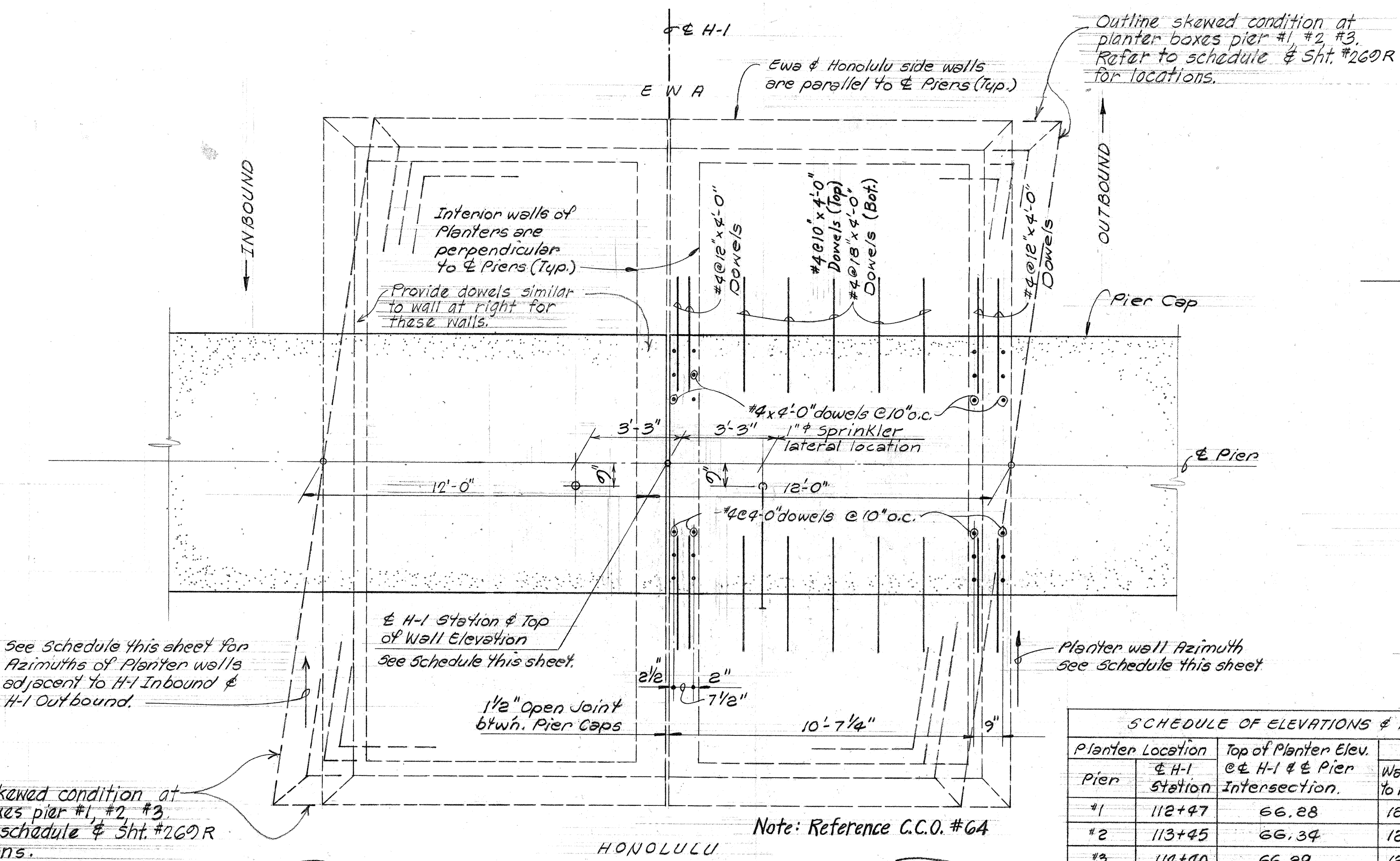
PEARL HARBOR INTERCHANGE
P.A.I. Proj. No. 1-H-1(73)15

Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-79 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73):15	1974	206	369



ELEVATION 3/8" = 1'-0"



SPRINKLER LINE LAYOUT FOR FUTURE PLANTER N.T.S.

Note: E 3 Denotes changes to C.O. 296R

SCHEDULE OF ELEVATIONS & AZIMUTHS				
Planter Location	Top of Planter Elev. @ E H-1 & E Pier Intersection.	Wall Azimuths		
Pier	E H-1 Station	Wall adjacent to H-1 Outbound	Wall adjacent to H-1 Inbound	
#1	112+47	66.28	126°59'00"	127°13'11"
#2	113+45	66.34	125°06'44"	125°20'51"
#3	114+40	66.29	123°17'08"	123°32'44"
#4	115+30	66.16	121°42'00"	121°42'00"

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96813

HOWARD Y. FUKUDA
REGISTERED PROFESSIONAL ENGINEER
No. 1343
HAWAII, U.S.A.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

4/25/75	REVISE SPRINKLER LATERAL & PLANTER BOX FLOOR DRAIN.
6/3/74	ADDED SCHEDULE OF ELEVATIONS & AZIMUTHS
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 8
SPRINKLER LINE & REBAR
DOWEL LAYOUT FOR FUTURE
PLANTER BOX

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

Scale: As Shown Date: DEC. 7, 1973

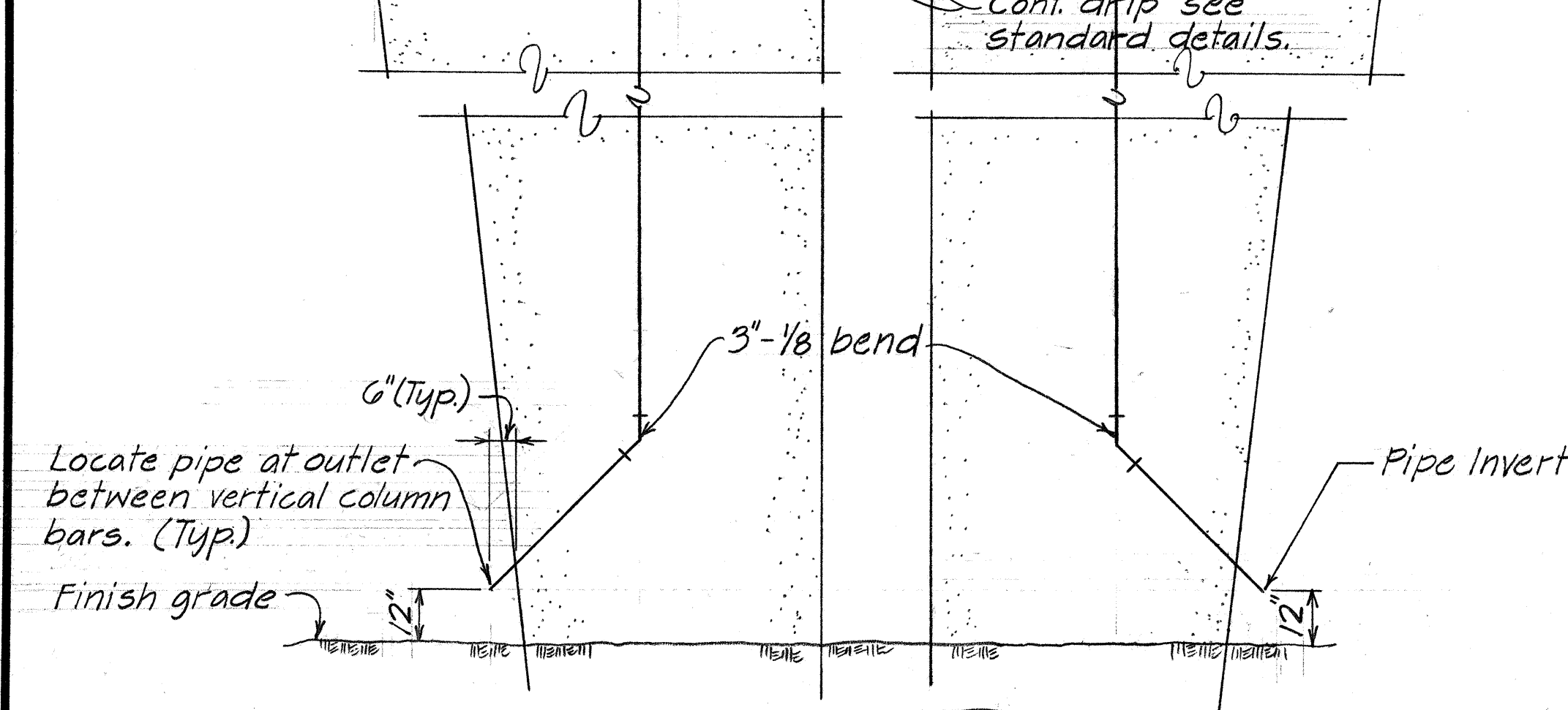
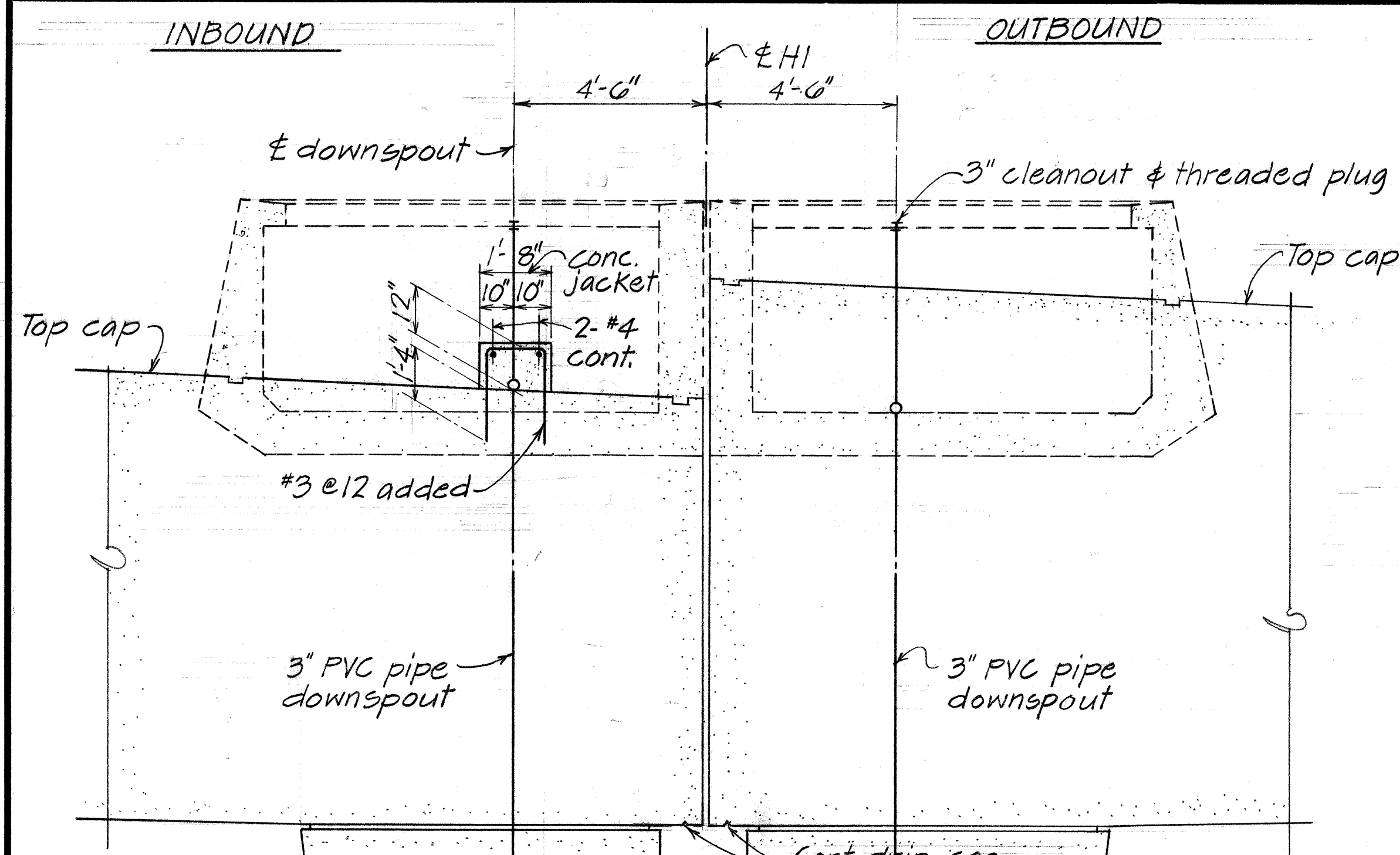
SHEET No. 8-80 OF 106 SHEETS

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

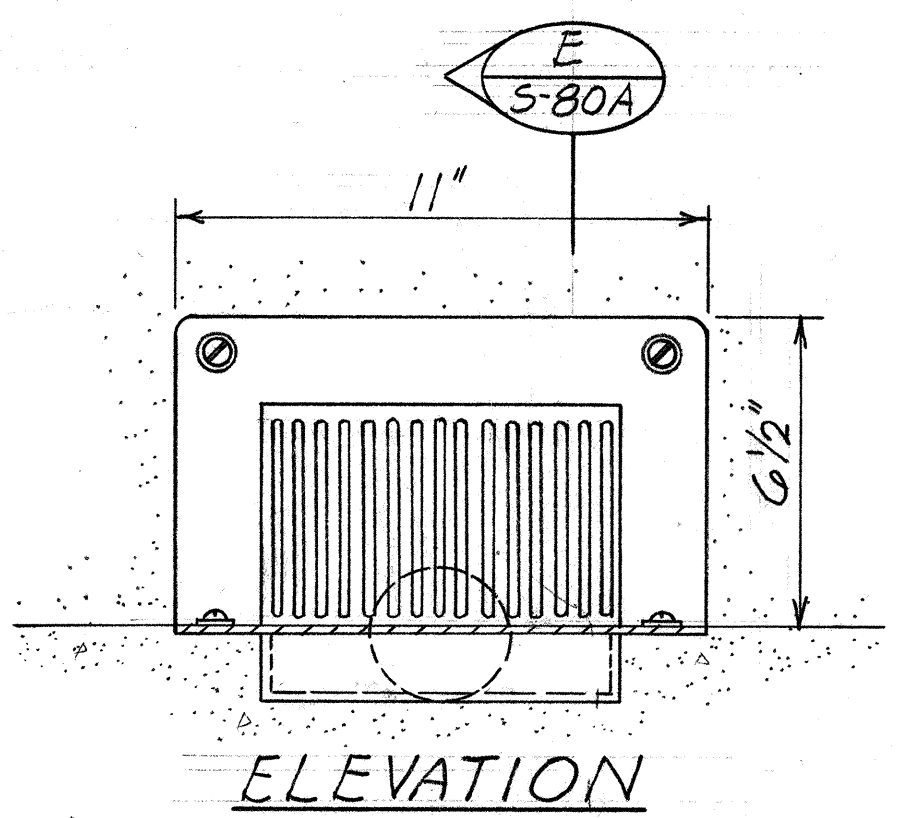
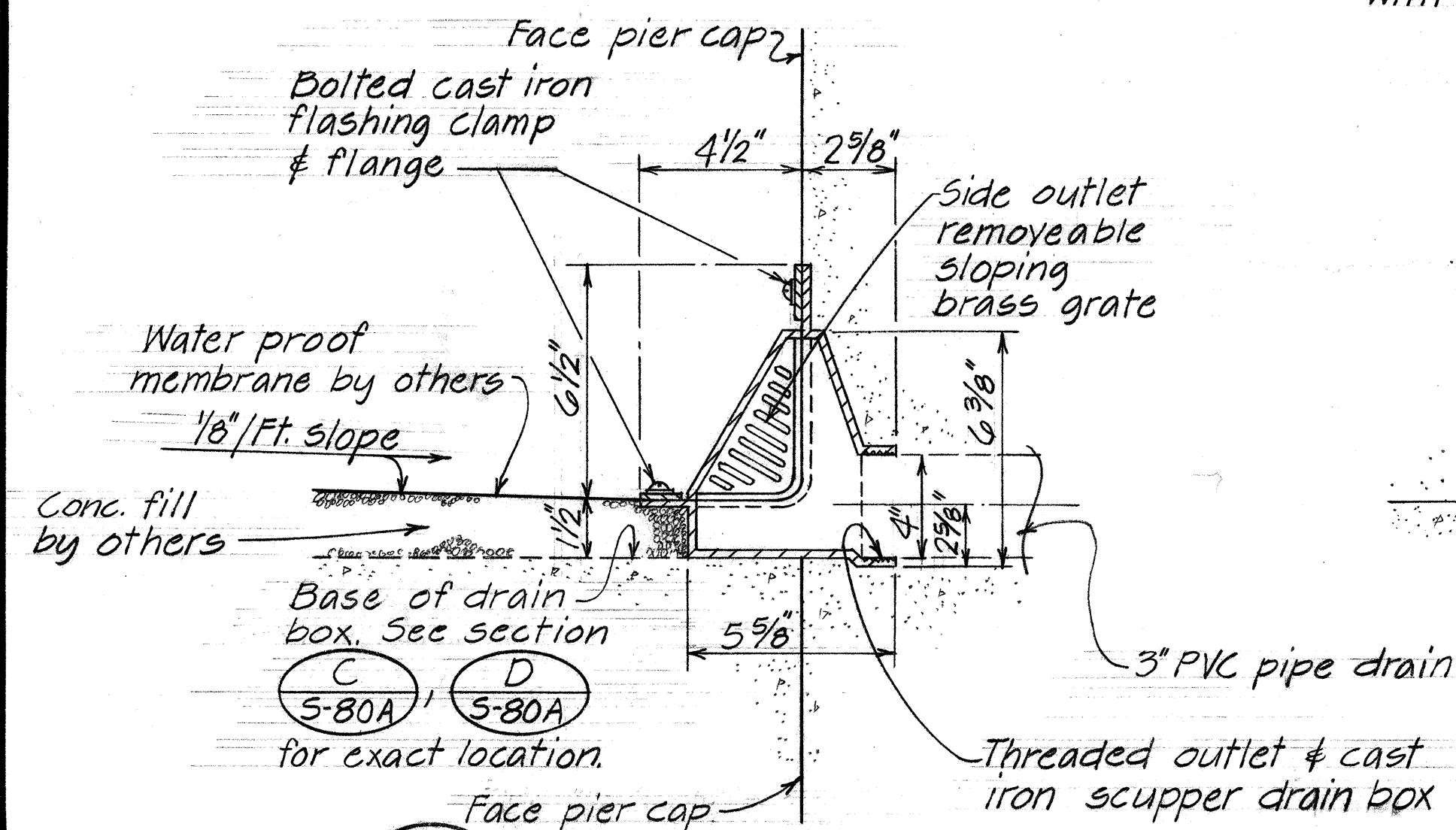
Outline skewed condition at planter boxes pier #1, #2, #3. Refer to schedule & Sht. #260R for locations.

PLAN - PLANTER BOX PIER #4 AS SHOWN
PLANTER BOX PIER #1, #2, #3 SIMILAR EXCEPT AS OTHERWISE NOTED
Scale: 3/8" = 1'-0"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI(73):15	1974	CO 296 RS-1	



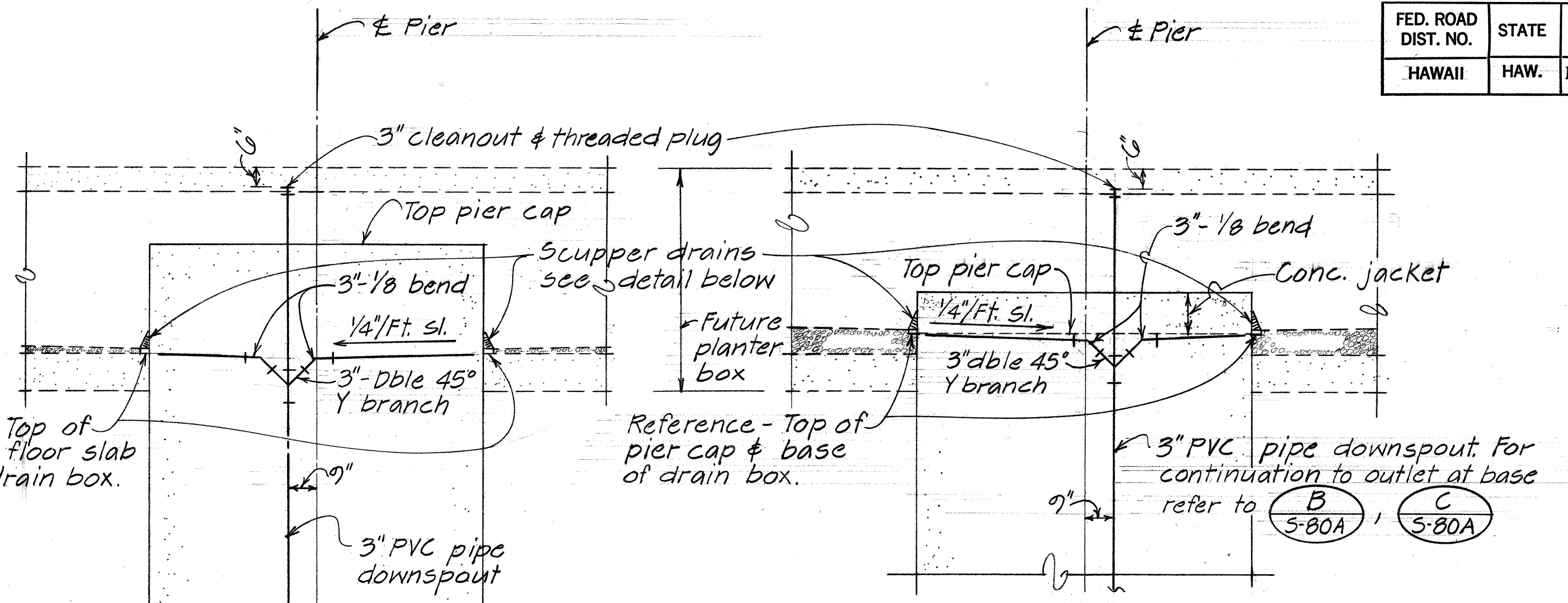
SECTION **B**
5-80A
Scale: 3/8" = 1'-0"



ELEVATION

SECTION **E**
5-80A
SCUPPER DRAIN DETAIL **A**
5-80A Not to scale

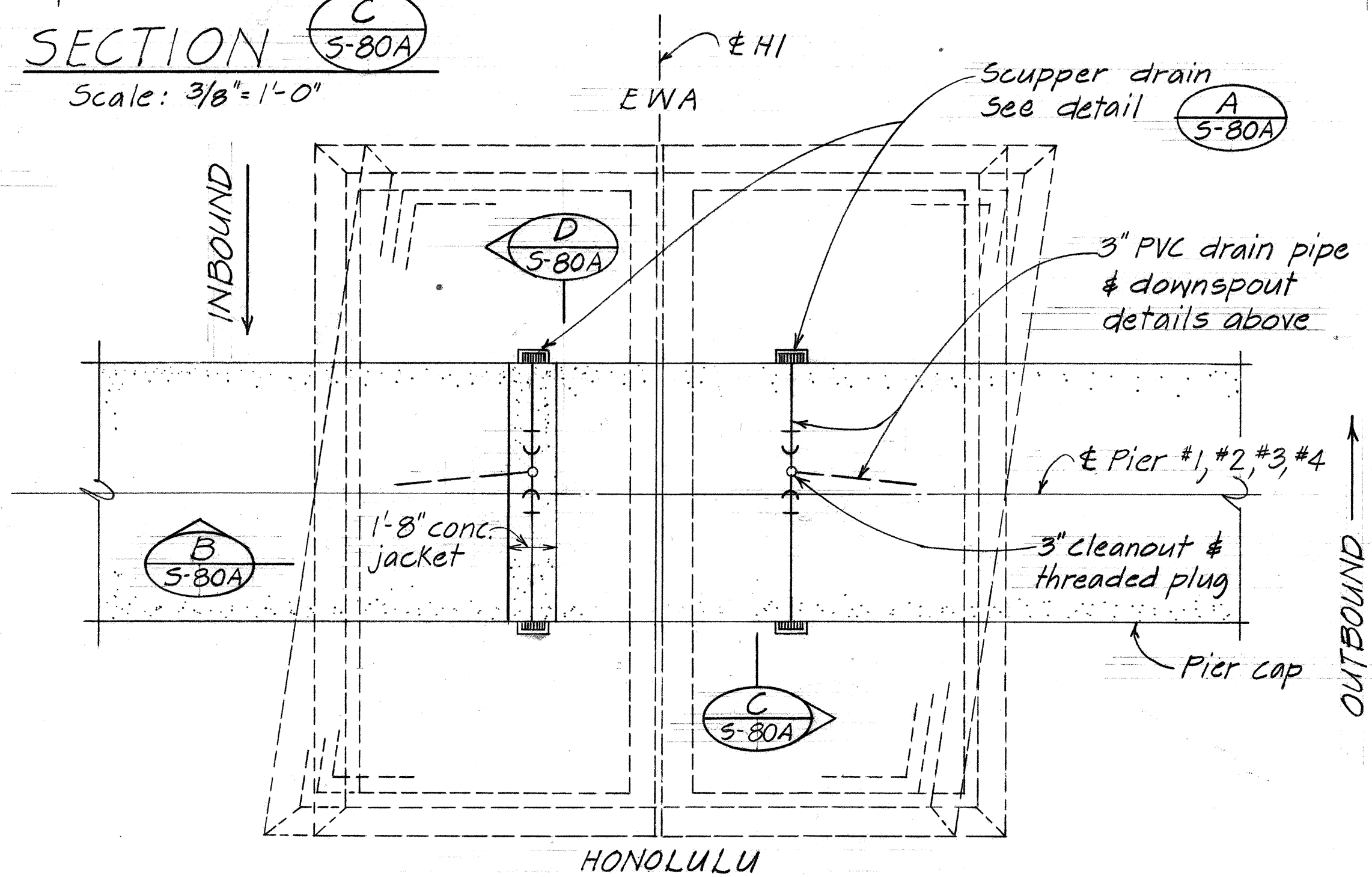
Reference - Top of planter box floor slab & base of drain box.



SECTION **D**
5-80A
Scale: 3/8" = 1'-0"

ESTIMATED QUANTITIES FOR PLANTER BOX SPRINKLER LINE, DRAIN & DOWNSPOUT		
3" PVC pipe (Include fittings)	387	L.F.
1" PVC pipe (Include fittings)	Exist. 247 New 335	L.F.
Scupper drain box & grate	16	only

SECTION **C**
5-80A
Scale: 3/8" = 1'-0"



PLAN-PLANTER BOX
Scale: 1/4" = 1'-0"

4/25/75	SHEET ADDED TO CONTRACT PLAN SET FOR ADDITIONAL DETAILS REQUIRED ON SHEET NO. CO 296 R.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION STRUCTURE No 8 REVISE PLANTER BOX FLOOR DRAIN AND DOWNSPOUT-FUTURE PLANTER BOX PEARL HARBOR INTERCHANGE F.A.I. PROJ. NO. I-HI-1 (73):15 SCALE: AS SHOWN DATE: APRIL 1975 SHEET No. 5-80A OF SHEETS	