

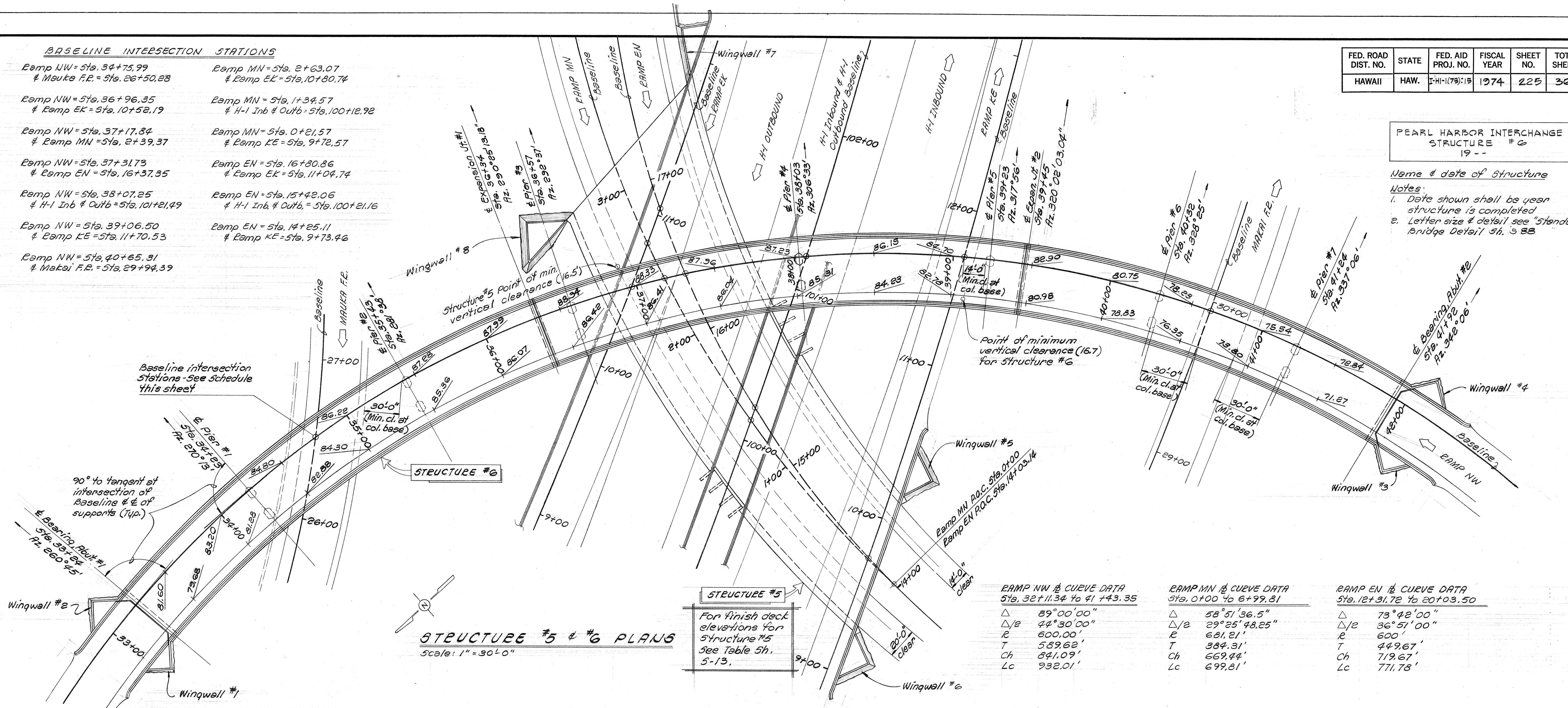
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73):15	1974	225	369

PEARL HARBOR INTERCHANGE
STRUCTURE #6
19--

Name & date of structure
Notes:
1. Date shown shall be year structure is completed
2. Letter size & detail see "Standard Bridge Detail 5h, 3 88"

BASELINE INTERSECTION STATIONS

Ramp NW = Sta. 34+75.99 & Mauka F.R. = Sta. 26+50.28	Ramp MN = Sta. 2+63.07 & Ramp EK = Sta. 10+80.74
Ramp NW = Sta. 36+96.35 & Ramp EK = Sta. 10+52.19	Ramp MN = Sta. 1+34.57 & H-1 Inb & Outb = Sta. 100+12.92
Ramp NW = Sta. 37+17.84 & Ramp MN = Sta. 2+39.37	Ramp MN = Sta. 0+21.57 & Ramp KE = Sta. 9+72.57
Ramp NW = Sta. 37+31.73 & Ramp EN = Sta. 16+37.35	Ramp EN = Sta. 16+30.86 & Ramp KE = Sta. 11+04.74
Ramp NW = Sta. 38+07.25 & H-1 Inb & Outb = Sta. 101+21.49	Ramp EN = Sta. 15+42.06 & H-1 Inb & Outb = Sta. 100+21.16
Ramp NW = Sta. 39+06.50 & Ramp KE = Sta. 11+70.53	Ramp EN = Sta. 14+25.11 & Ramp KE = Sta. 9+73.46
Ramp NW = Sta. 40+65.31 & Makai F.R. = Sta. 29+94.39	



STRUCTURE #5 & #6 PLANS
Scale: 1" = 30'-0"

STRUCTURE #5
For finish deck elevations for Structure #5 See Table 5h, 5-13.

RAMP NW & CURVE DATA
Sta. 32+11.34 to 41+43.35

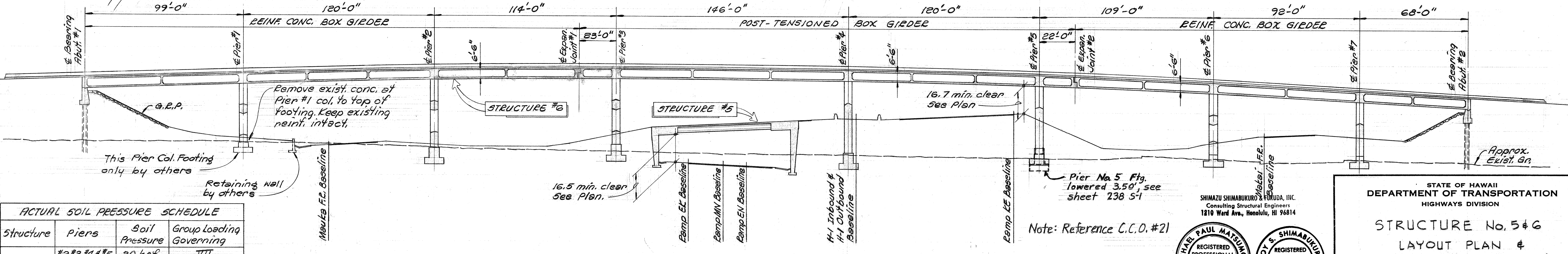
Δ	89°00'00"
Δ/2	44°30'00"
R	600.00'
T	589.62'
Ch	841.09'
Lc	932.01'

RAMP MN & CURVE DATA
Sta. 0+00 to 6+99.81

Δ	58°51'36.5"
Δ/2	29°25'48.25"
R	681.21'
T	384.31'
Ch	669.44'
Lc	699.81'

RAMP EN & CURVE DATA
Sta. 12+31.72 to 20+03.50

Δ	73°42'00"
Δ/2	36°51'00"
R	600'
T	449.67'
Ch	719.67'
Lc	771.78'



LONGITUDINAL SECTION ALONG RAMP NW BASELINE (STRUCTURE #6)
Scale: 1" = 30'-0"

ACTUAL SOIL PRESSURE SCHEDULE

Structure	Piers	Soil Pressure	Group Loading Governing
#6	#2, #3, #4, #5	30 ksf	VII
	#6 & #7	21 ksf	VIII
#5	Wall Fg's	11.5 ksf	I

4/16/74	LENGTHENED WINGWALL #7
DATE	REVISION

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

REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 5 & 6
LAYOUT PLAN &
LONGITUDINAL SECTION

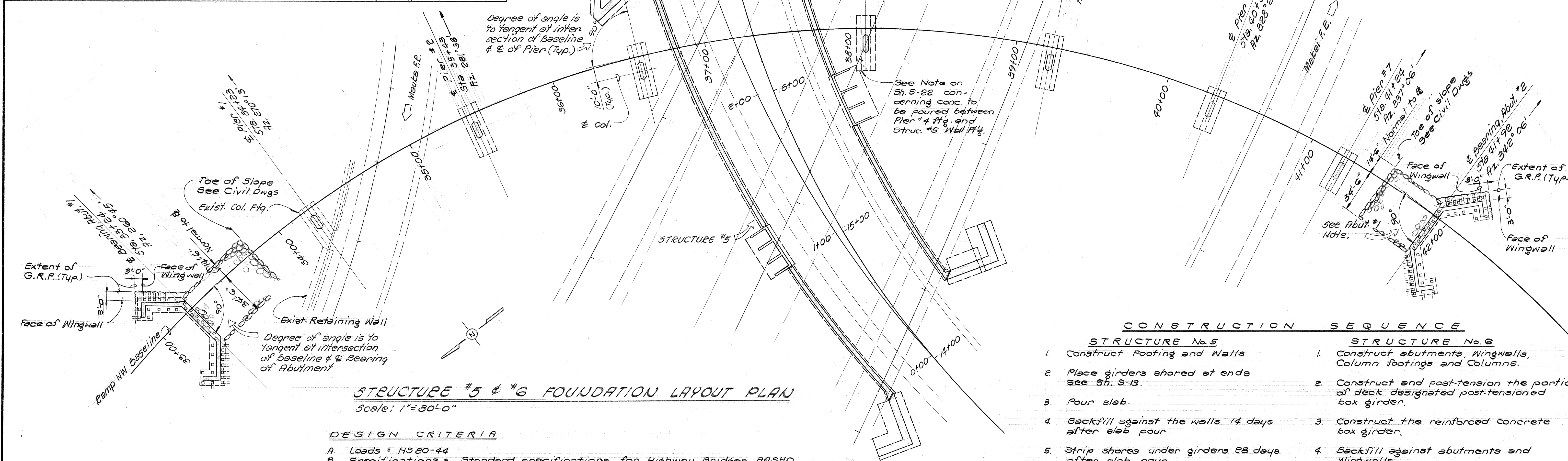
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. 1-HI-1(73):15

Scale: As Shown Date: DEC. 7, 1973

SHEET NO. 9-9 OF 106 SHEETS

BRIDGE QUANTITY ESTIMATES			
ITEM#	ITEM	UNIT	QUANTITY
206.60	Structural Excavation for Bridges	C.Y.	3002
503.0714	Concrete in Footings - Structure #5	L.S.	657 C.Y.
503.0701	Concrete in Bridges - Structure #5	L.S.	4460 C.Y.
504.16	Type III Prestressed Concrete Girders	L.F.	3499
602.015	Reinforcing Steel in Bridges	L.S.	798,924 LBS
206.80	Filter Material	C.Y.	798
507.70	Concrete Bridge Parapet, Including End Post	L.F.	756
206.65	Structural Backfill for Bridges	C.Y.	4692
206.60	Structural Excavation for Bridge	C.Y.	331
503.0715	Concrete in Footings - Structure #6	L.S.	521 C.Y.
504.54	Post-Tensioning Operation for Structures - Str. #6	L.S.	47,000 LBS
504.612	Concrete for Cast-in-Place Structure - Str. #6	L.S.	3796 C.Y.
602.016	Reinforcing Steel in Bridges	L.S.	1,520,000 LBS
206.80	Filter Material	C.Y.	70
507.70	Concrete Bridge Parapet, Including End Post	L.F.	1938
618.01	Grouted Rubble Paving	C.Y.	224
505.040	Precast, Prestressed Concrete Piles, Furnished	L.F.	3053
505.400	Precast, Prestressed Concrete Piles, Driven	L.F.	517
505.700	Drilled Holes	L.F.	2240
206.65	Structural Backfill for Bridges	C.Y.	616
505.040	Precast, Prestressed Concrete Test Piles, Furnished	L.F.	176
505.410	Precast, Prestressed Concrete Test Piles, Driven	L.F.	25

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)-15	1974	226	369



STRUCTURE #5 & #6 FOUNDATION LAYOUT PLAN
Scale: 1" = 30'-0"

DESIGN CRITERIA

- A. Loads = HS20-44
B. Specifications = Standard specifications for Highway Bridges, AASHTO 11th Edition including Interim specifications & Standard Specifications for Road & Bridge Construction, Hawaii 1973
C. Allowable Foundation Pressure (Footings bearing 18" inches min. into tuff) Structure #6 individual Pier Ftg. 30,000 p.s.f. Abutments & Wall ftgs - 12,000 p.s.f.
D. Piles (16" Octagonal prestressed piles) = 40 Tons
E. 28 Day concrete strengths: Structure No. 5
Superstructure - Post tensioned - Not Applicable
Superstructure - Reinforced concrete - $f'_c = 3000$ p.s.f. (Class A)
Prestressed Girders - $f'_c = 6000$ p.s.f.
Columns - Not Applicable
Column Footing - Not Applicable
Abutment Walls & Footings - $f'_c = 3000$ p.s.f. (Class A)
Structure No. 6
 $f'_c = 5000$ p.s.f.
 $f'_c = 3000$ p.s.f. (Class A) & $f'_c = 4500$ p.s.f.
Not Applicable
 $f'_c = 3000$ p.s.f. (Class A)
 $f'_c = 3000$ p.s.f. (Class A)
 $f'_c = 3000$ p.s.f. (Class A)
F. Reinforcing Steel: ASTM A615 Grade 60
G. Prestressing Strands: 270 ksi. ultimate strength
7 wire stress-relieved 1/2" & strands

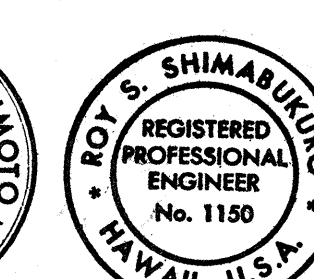
REFERENCE DRAWINGS

Structure #5	
Wall Footings	Sh. 5-13
Structure #6	
Abutment #1	Sh. 5-18
Abutment #2	Sh. 5-19
Pier Foundation	Sh. 5-22
G.R.P. Details	Sh. 5-1

CONSTRUCTION SEQUENCE

- | STRUCTURE No. 5 | STRUCTURE No. 6 |
|--|---|
| 1. Construct Footing and Walls. | 1. Construct abutments, Wingwalls, Column footings and Columns. |
| 2. Place girders shored at ends See Sh. 5-13. | 2. Construct and post-tension the portion of deck designated post-tensioned box girder. |
| 3. Pour slab. | 3. Construct the reinforced concrete box girder. |
| 4. Backfill against the walls 14 days after slab pour. | 4. Backfill against abutments and Wingwalls. |
| 5. Strip shores under girders 28 days after slab pour. | |

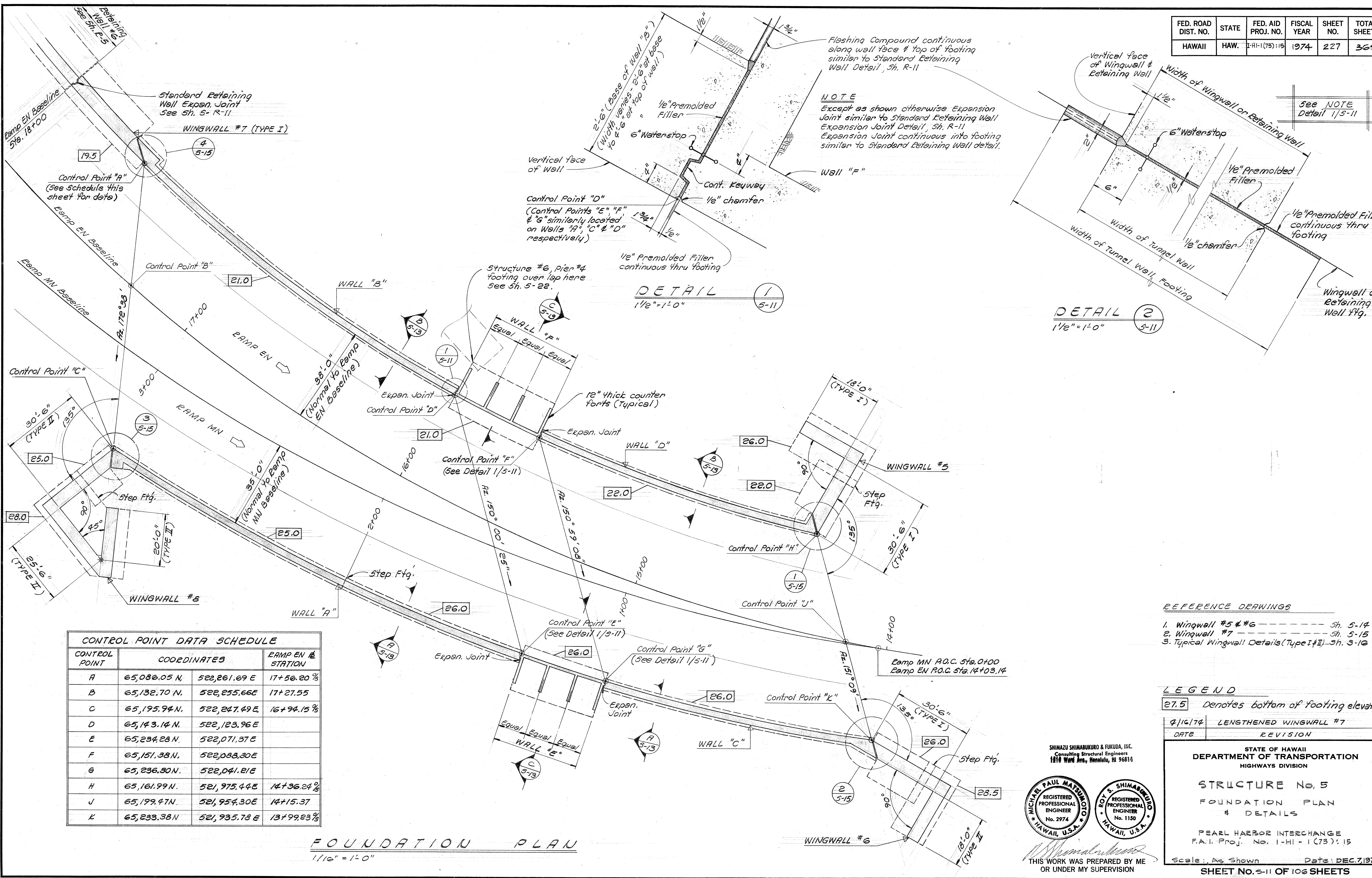
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Consulting Structural Engineers
1210 Ward Ave., Honolulu, HI 96814



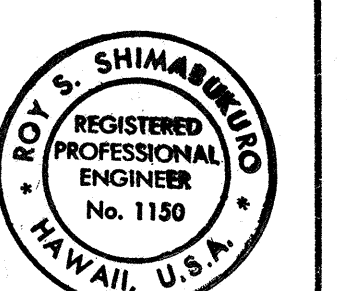
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4/16/74	LENGTHENED WINGWALL #7
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STRUCTURE No. 5 & 6 FOUNDATION LAYOUT PLAN	
PEARL HARBOR INTERCHANGE F.A.I. Proj. No. I-HI-1(73)-15	
Scale: As Shown	Date: DEC. 7, 1973
SHEET No. 9-10 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	227	369

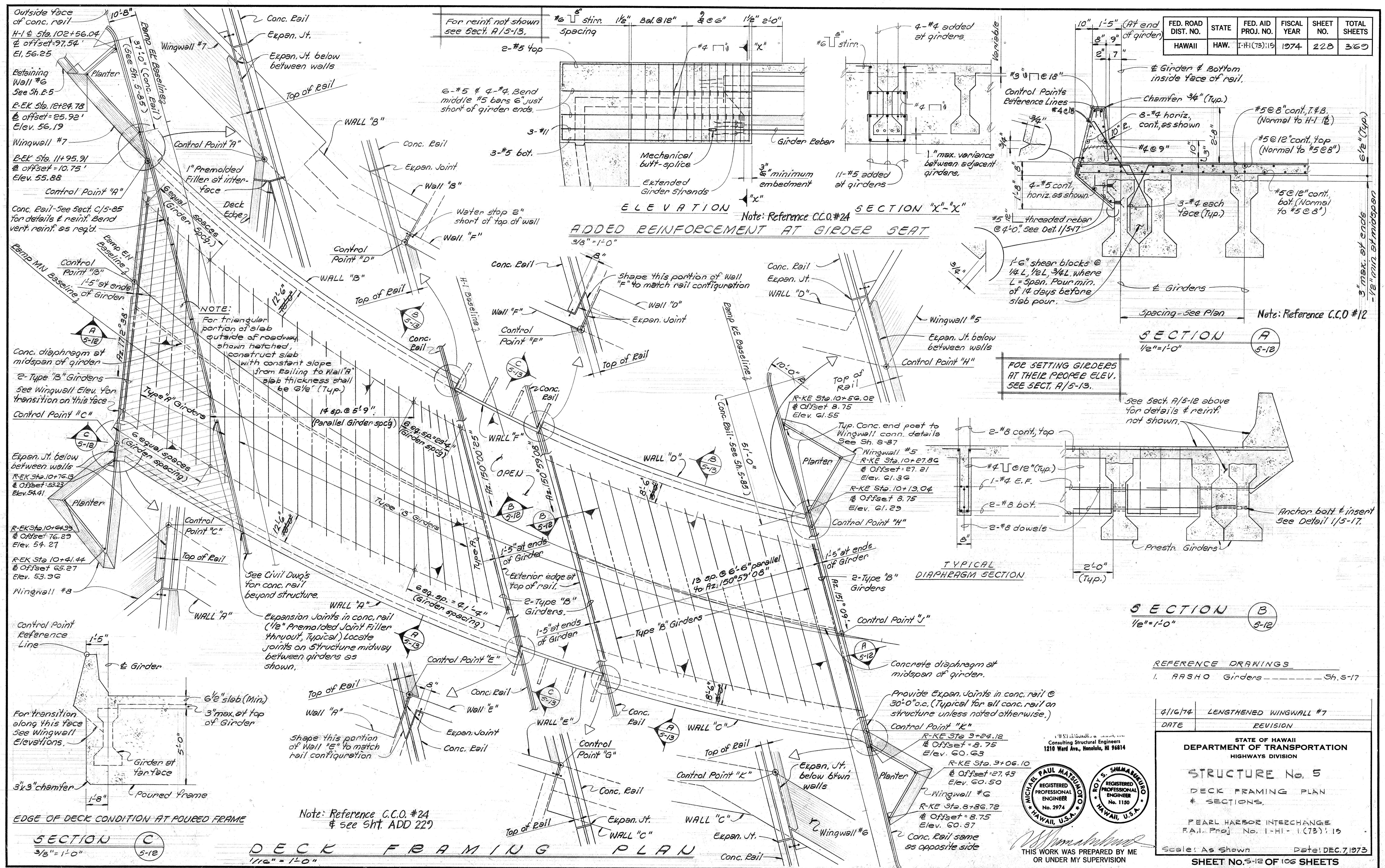


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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H(173)15	1974	228	369



DATE	DESIGNED BY	CHECKED BY
12/1/73	PAUL MATSUOKA	ROY SHIMAMURA
NOTED BY	QUANTITIES BY	

PAUL MATSUOKA
REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

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

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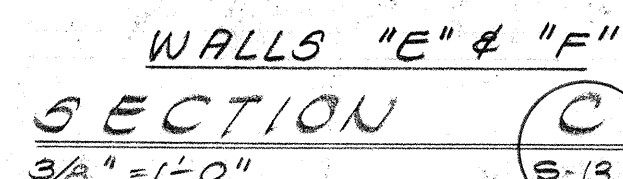


STRUCTURE No. 5
TYPICAL WALL SECTIONS

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 5-3 OF 106 SHEETS

ADD. 229



4/26/74	ADDED CONSTRUCTION JOINT IN DECK SLAB & SPECIAL NOTES ON POUR SEQUENCE
DATE	REVISION

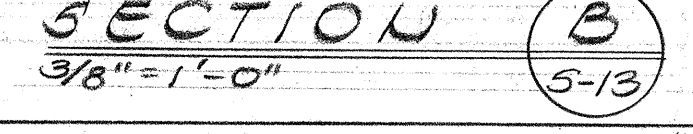
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 5
TYPICAL WALL SECTIONS

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

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 5-3 OF 106 SHEETS

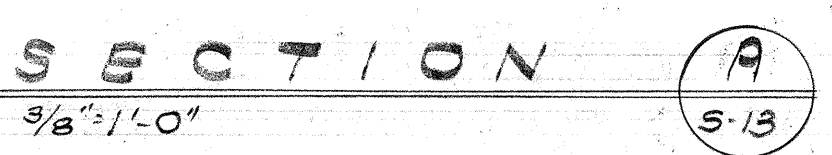


SPECIAL NOTES:

Concrete placement for concrete deck & concrete end block shall be scheduled as follows:

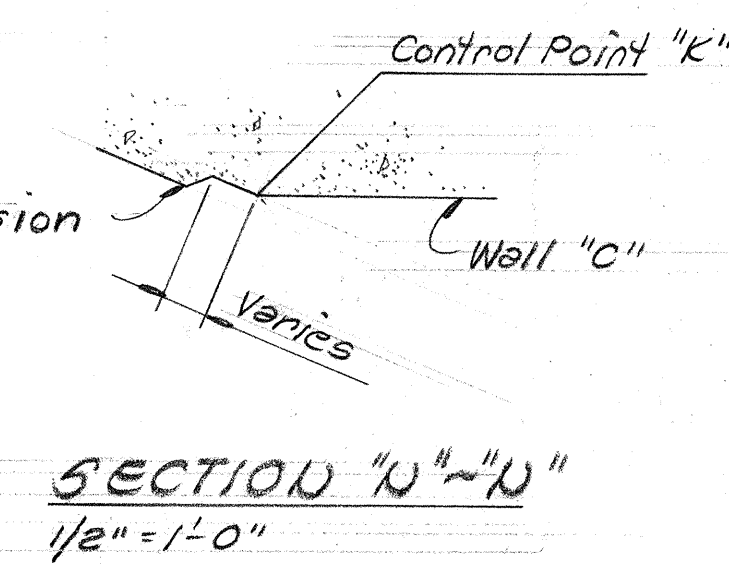
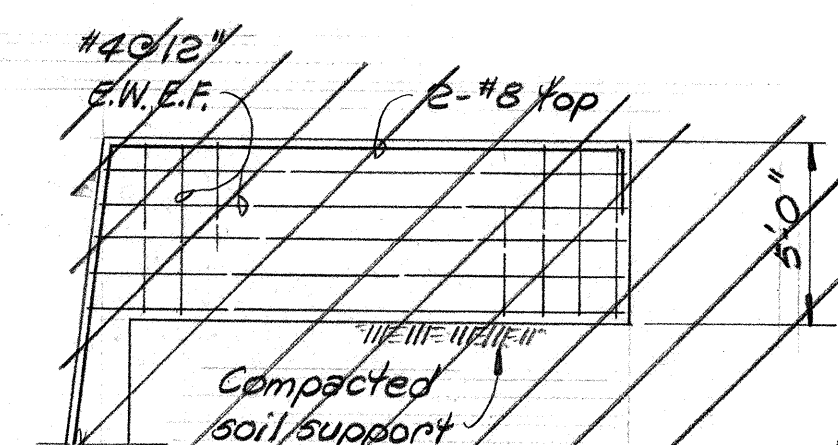
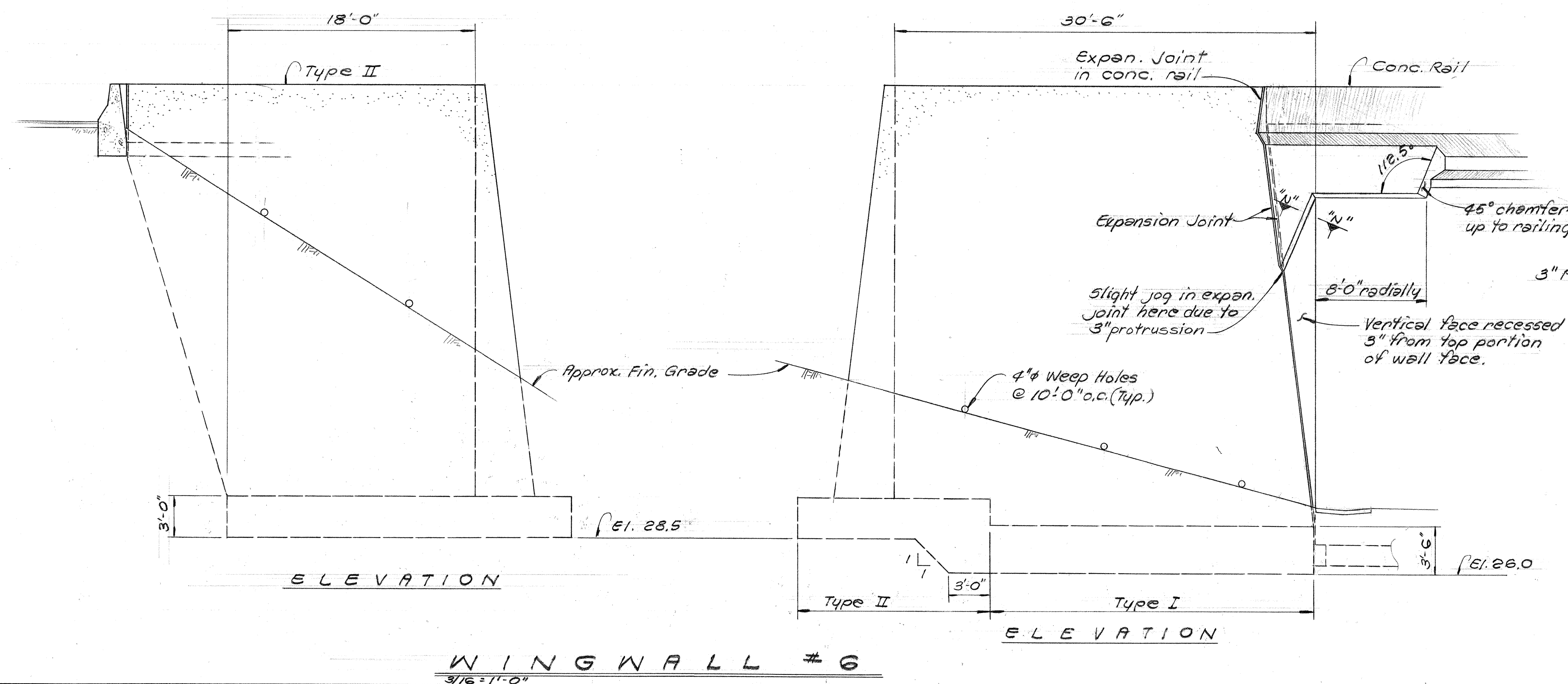
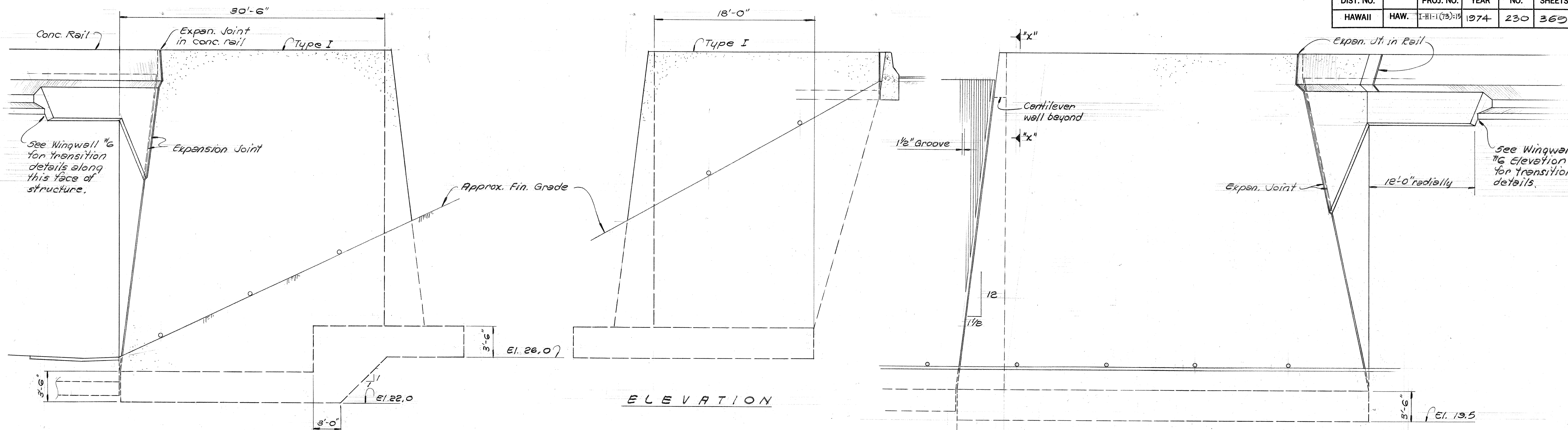
1. Pour concrete deck to limits shown on Section A/5-13.
2. Pour concrete end block in 60'-0" sections after Step 1 above is completed.

TOP OF STRUCTURE #5 ELEVATIONS									
RAMPEN # STA.	RIGHT OFFSET	RIGHT ELEVATION	LEFT OFFSET	LEFT ELEVATION	RAMPEN # STA.	RIGHT OFFSET	RIGHT ELEVATION	LEFT OFFSET	LEFT ELEVATION
13+99.66	—	—	34.90	58.11	15+90	38.00	56.20	45.01	52.87
14+00	—	—	34.91	58.10	16+00	—	55.94	45.73	52.54
14+10	—	—	35.27	57.66	16+10	—	55.69	46.47	52.22
14+20	—	—	35.64	57.23	16+20	—	55.45	47.22	51.91
14+30	—	—	36.04	56.86	16+30	—	55.22	48.00	51.60
14+36.40	38.00	58.69	—	—	16+40	—	54.99	48.79	51.30
14+40	—	58.56	36.43	56.43	16+50	—	54.77	49.60	51.01
14+50	—	58.21	36.88	56.01	16+60	—	54.56	50.43	50.72
14+60	—	57.86	37.34	55.59	16+68.47	—	—	51.15	50.49
14+70	—	57.52	37.81	55.18	16+70	—	54.36	51.28	↑
14+80	—	57.22	38.31	54.77	16+80	—	54.17	52.14	↑
14+90	—	56.89	38.82	54.36	16+90	—	53.98	53.02	LEVEL
15+00	—	56.56	39.35	53.96	16+94.13	—	—	53.39	↓
15+10	—	56.23	39.90	53.57	17+00	—	53.84	—	—
15+20	—	55.92	40.48	53.17	17+10	—	53.67	—	—
15+30	—	55.61	41.07	54.99	17+20	—	53.51	—	—
15+40	—	55.30	41.68	54.62	17+30	—	53.36	—	—
15+50	—	55.00	42.30	54.26	17+40	—	53.21	—	—
15+60	—	54.71	42.95	53.90	17+50	—	53.08	—	—
15+70	—	54.43	43.62	53.55	17+55.14	38.00	53.01	—	—
15+80	—	54.15	44.30	53.21					



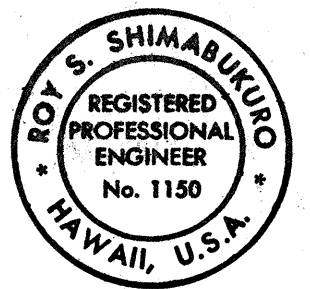
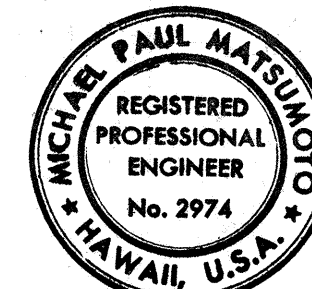
Note: Reference C.C.O. #24
\$ see Sht. ADD 228

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73):15	1974	230	360



See Section "X-X" Sheet # 218 S-1
Note: Reference C.C.O. #80
REFERENCE DRAWINGS
1. Wall Types Sh. S-16

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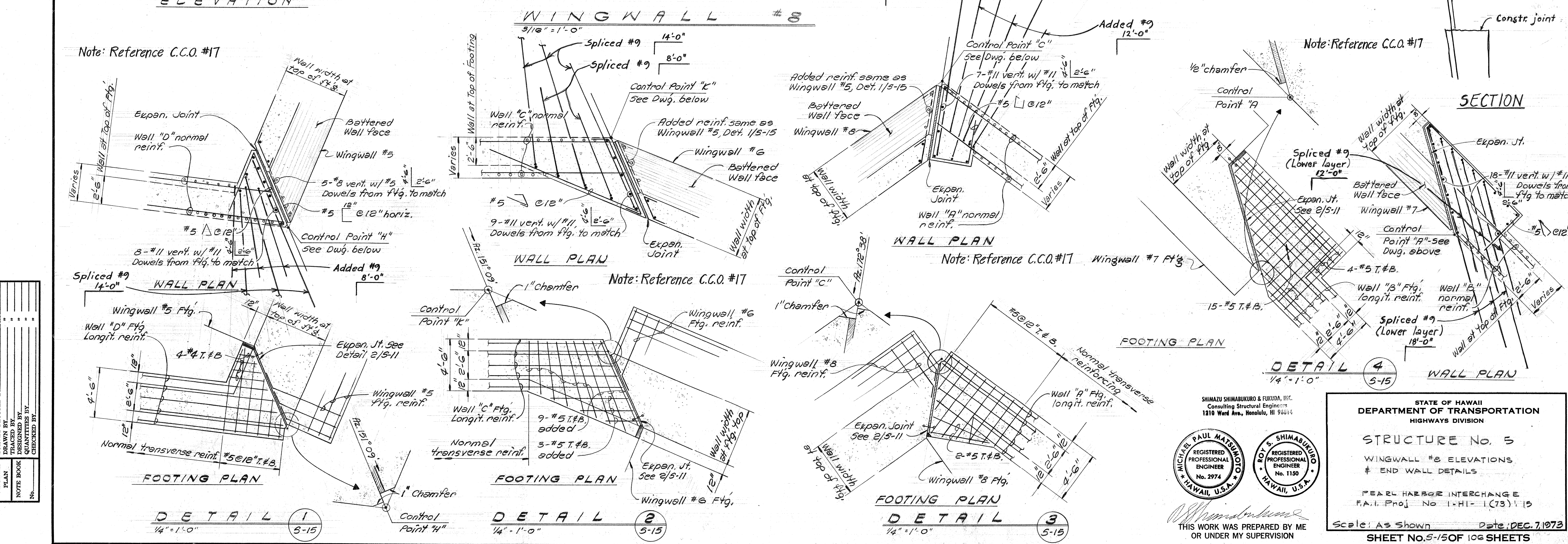
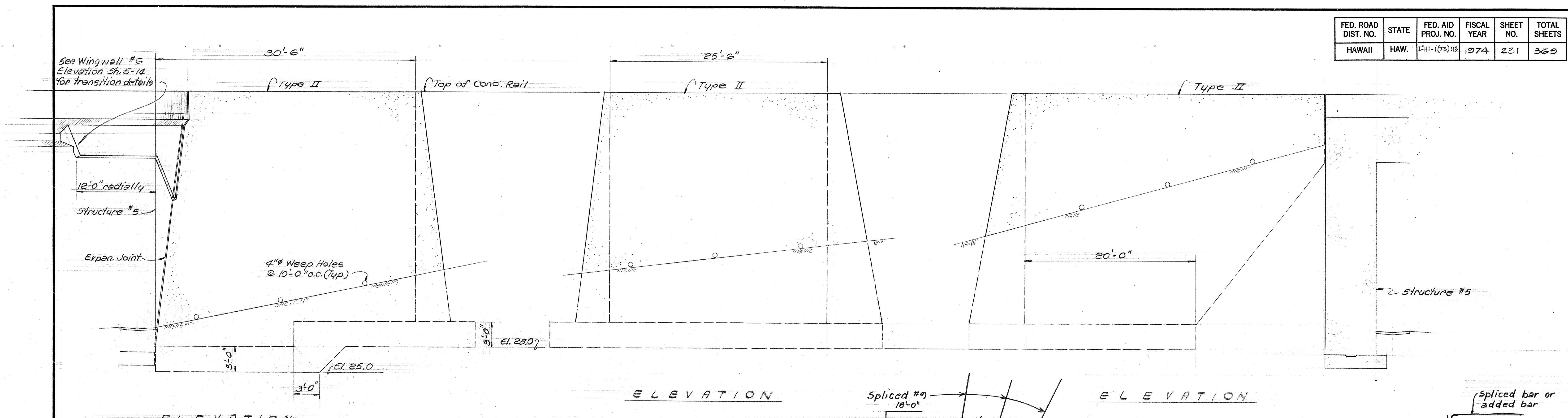


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DATE	REVISION
4/16/74	LENGTHENED WINGWALL #7
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STRUCTURE No. 5 WINGWALL #5, #6, #7 ELEVATIONS	
PEARL HARBOR INTERCHANGE F.A.I. Proj. No. I-HI-1 (73):15	
Scale: As Shown Date: DEC. 7, 1973	
SHEET NO. 5-14 OF 106 SHEETS	

ADD 230

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)115	1974	231	369



DATE	11-15-73
ORIGINAL PLAN	11-15-73
DRAWN BY	11-15-73
DESIGNED BY	11-15-73
CHECKED BY	11-15-73
NO.	11-15-73

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

REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

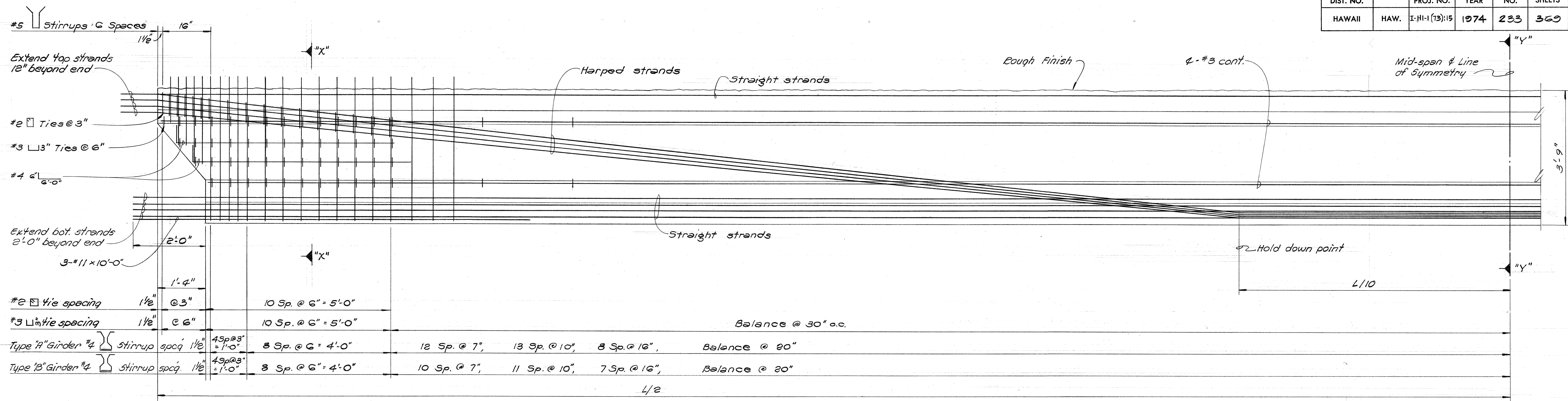
STRUCTURE No. 5
WINGWALL #8 ELEVATIONS
& END WALL DETAILS

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

Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-15 OF 106 SHEETS

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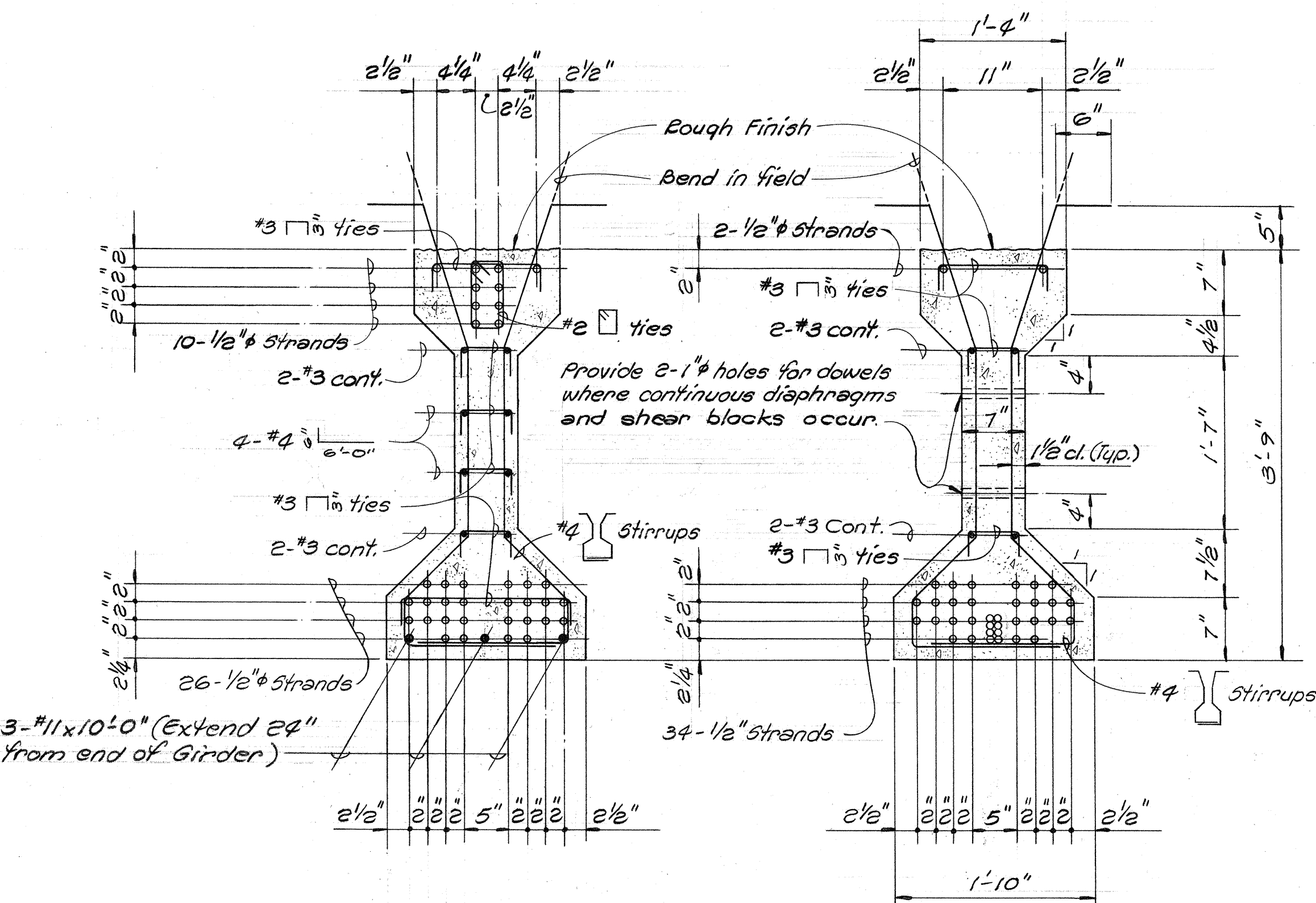
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1 (73):15	1974	233	360



TYPICAL ELEVATION

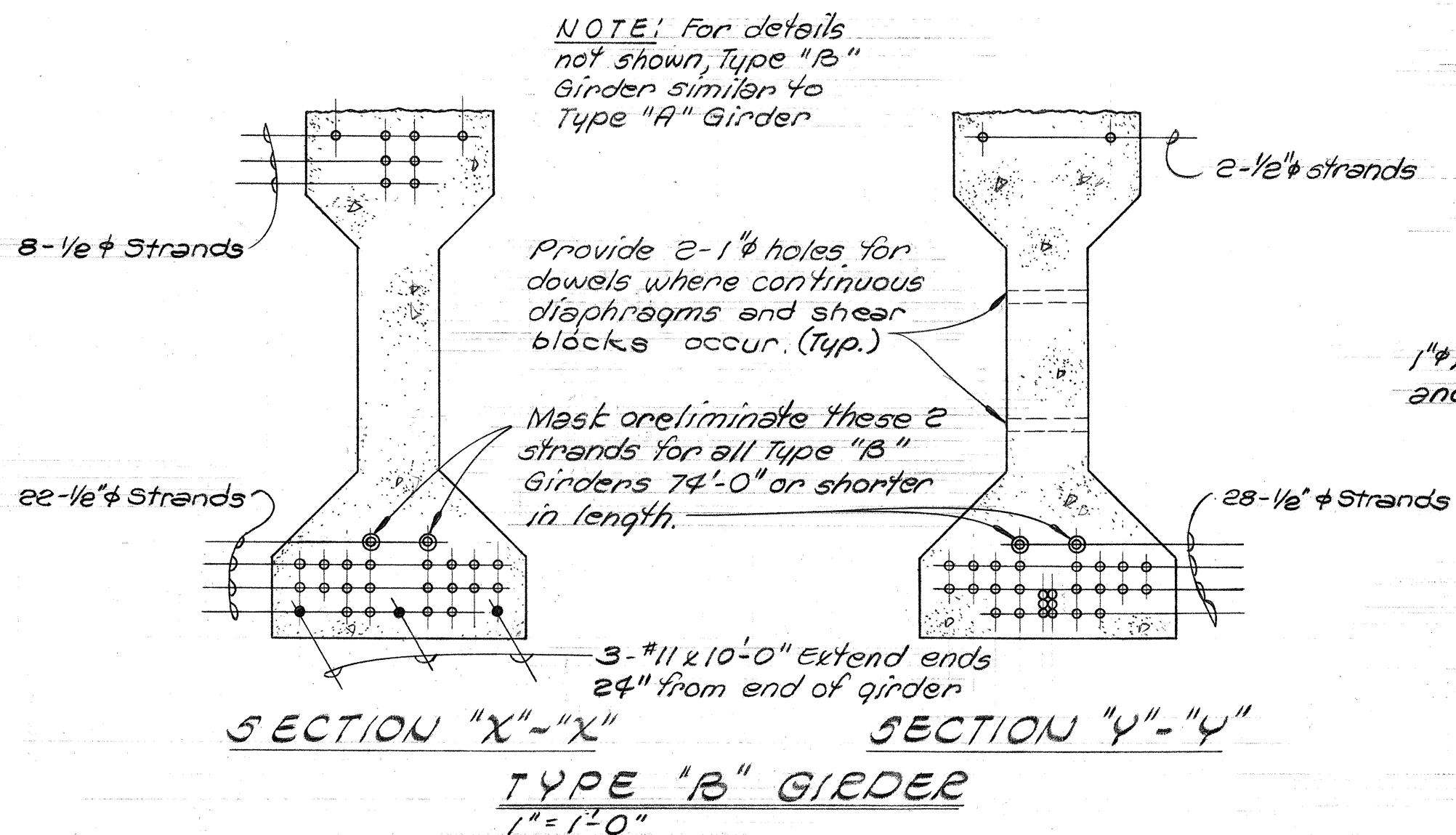
3/4" = 1'-0"

- CAMBER NOTES**
- Initial design camber is for the condition immediately after removal of the girders from the casting bed. Initial design cambers shall be as follows:
 Type "A" Girder ----- 1 3/8"
 Type "B" Girder (74'-0" or shorter) ----- 7/8"
 Type "B" Girder (longer than 74'-0") ----- 1"
 - All camber shall be measured from a straight line connecting the ends of the girders.
 - Contractor shall submit camber calculations with the shop drawings.
 - Slab camber diagrams shall be as follows:



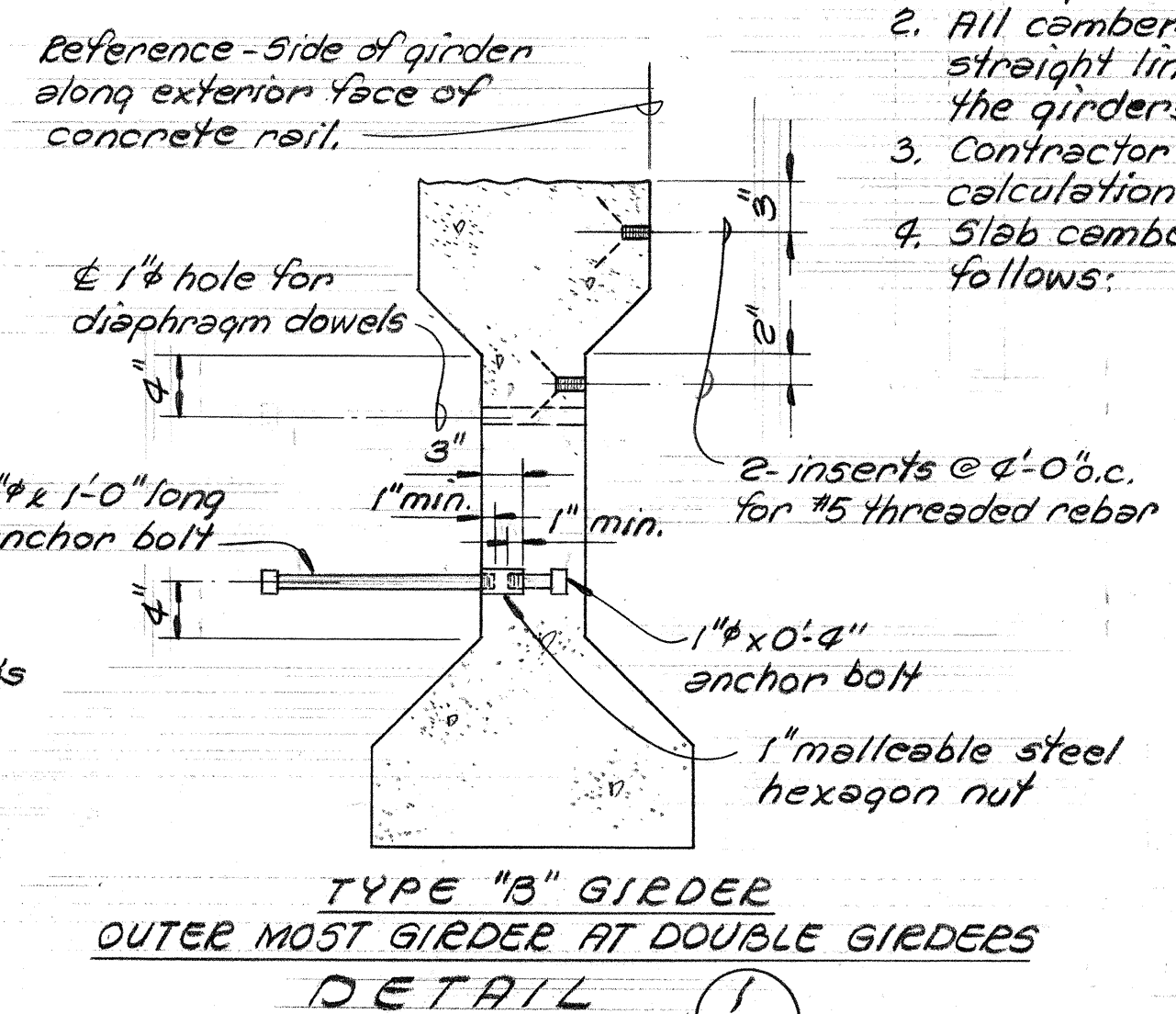
SECTION "X"-X" SECTION "Y"-Y"

TYPE "A" GIRDER 1" = 1'-0" PRESTRESSED AASHTO GIRDER II DETAILS



SECTION "X"-X" SECTION "Y"-Y"
TYPE "B" GIRDER
1" = 1'-0"

- SPECIAL NOTES**
- Concrete compressive strength at 28 days = 6,000 p.s.i.
 - Concrete strength at stress transfer = 4,500 p.s.i.
 - Prestressing steel shall be 270 k.s.i. ultimate strength, 7 wire stress relieved strands.
 - All girders shall be aged at least 7 days from stress transfer before deck slab can be poured.



TYPE "B" GIRDER
OUTER MOST GIRDER AT DOUBLE GIRDERS
DETAIL
1" = 1'-0"



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

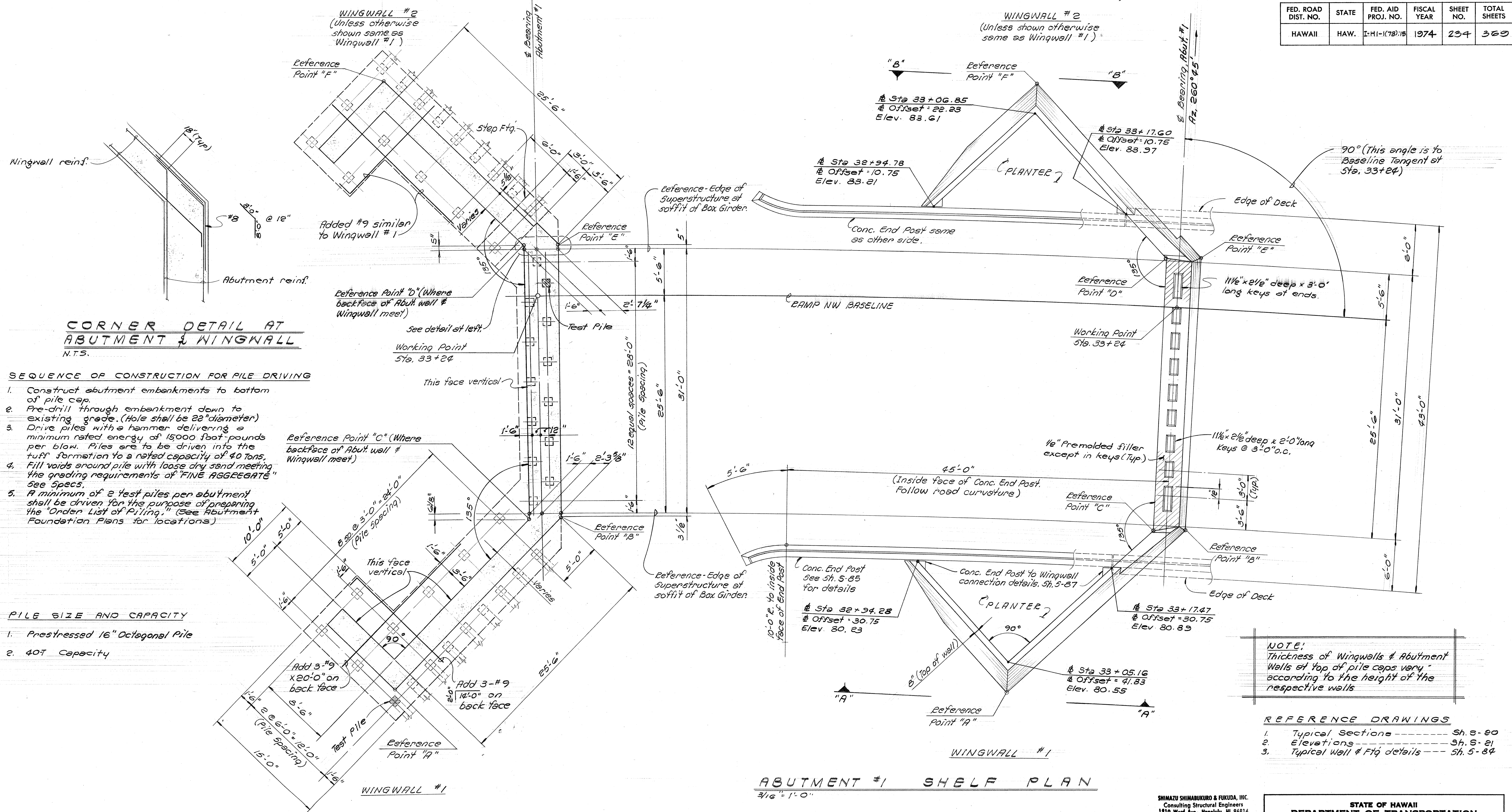
STRUCTURE No. 5
PRESTRESSED AASHTO II GIRDER
DETAILS

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

Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-17 OF 106 SHEETS

ORIGINAL
PLAN
DATE
DRAWN BY
CHECKED BY
NOTED BY
QUANTITIES BY
No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(72)15	1974	234	369



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

ABUTMENT #1 FOUNDATION PLAN
3/16" = 1'-0"

ABUTMENT #1 SHELF PLAN
3/16" = 1'-0"

LEGEND

[] = Vert. piles

[] [] [] [] = Batter piles (4:12)

REFERENCE DRAWINGS

1.	Typical Sections -----	Sh. S-20
2.	Elevations -----	Sh. S-21
3.	Typical Wall & Ftg details ---	Sh. S-84

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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. G

ABUTMENT # 1

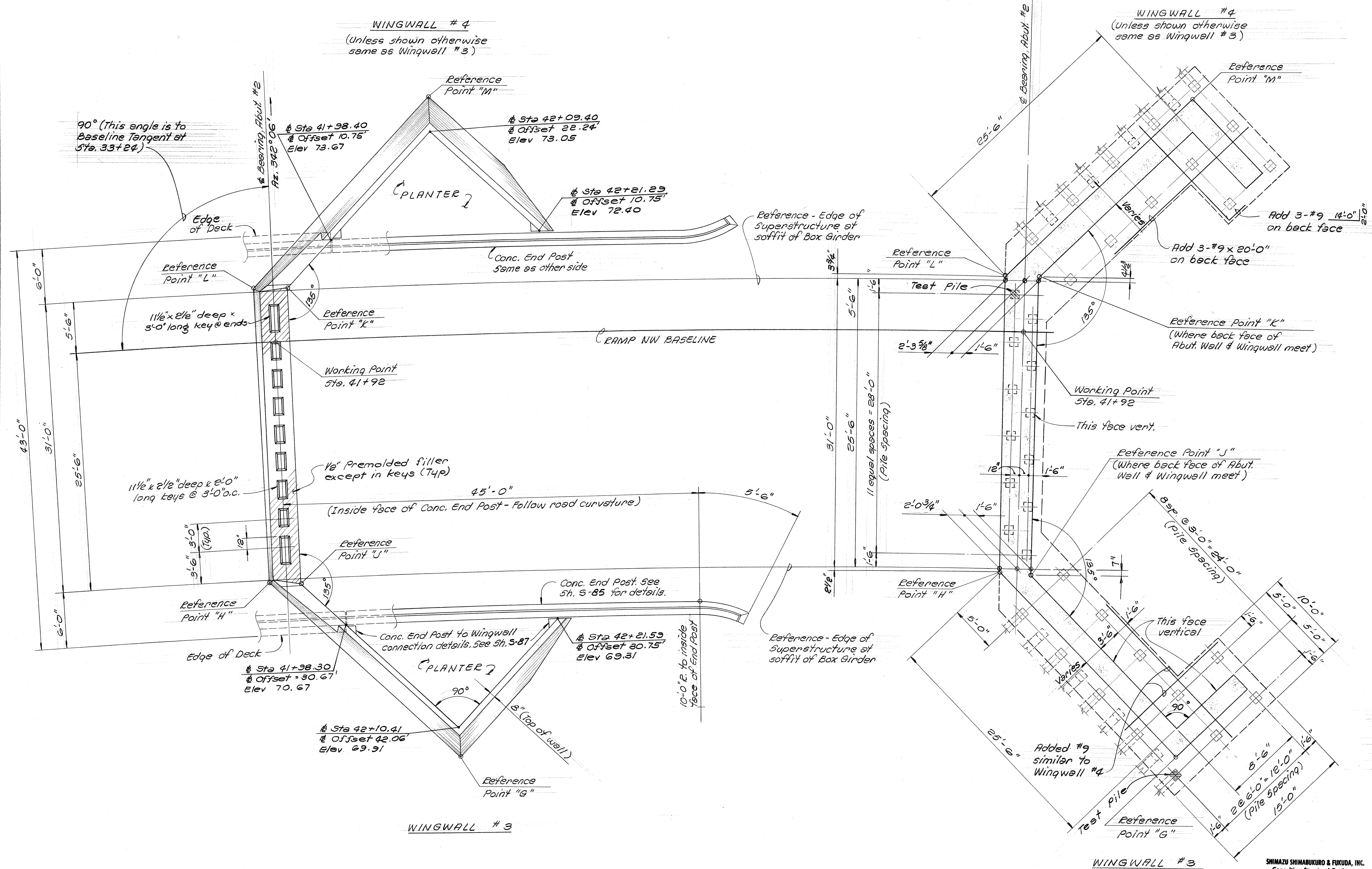
FOUNDATION & SHELF PLANS

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

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 9-18 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	235	360



ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
NO.	

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

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

STRUCTURE No. C

ABUTMENT #2

FOUNDATION & SHELF PLANS

PEARL HARBOR INTERCHANGE

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

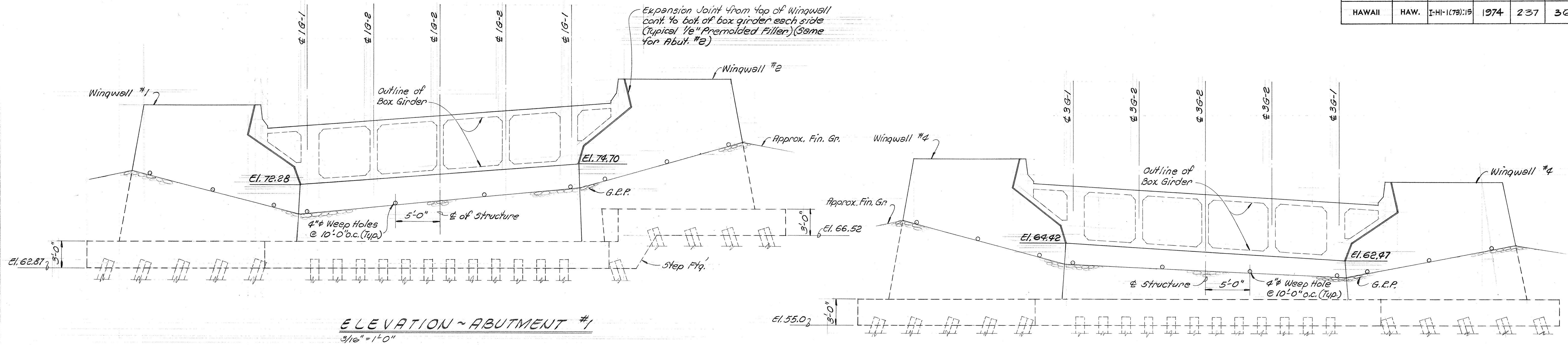
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Date: DEC. 7, 1973

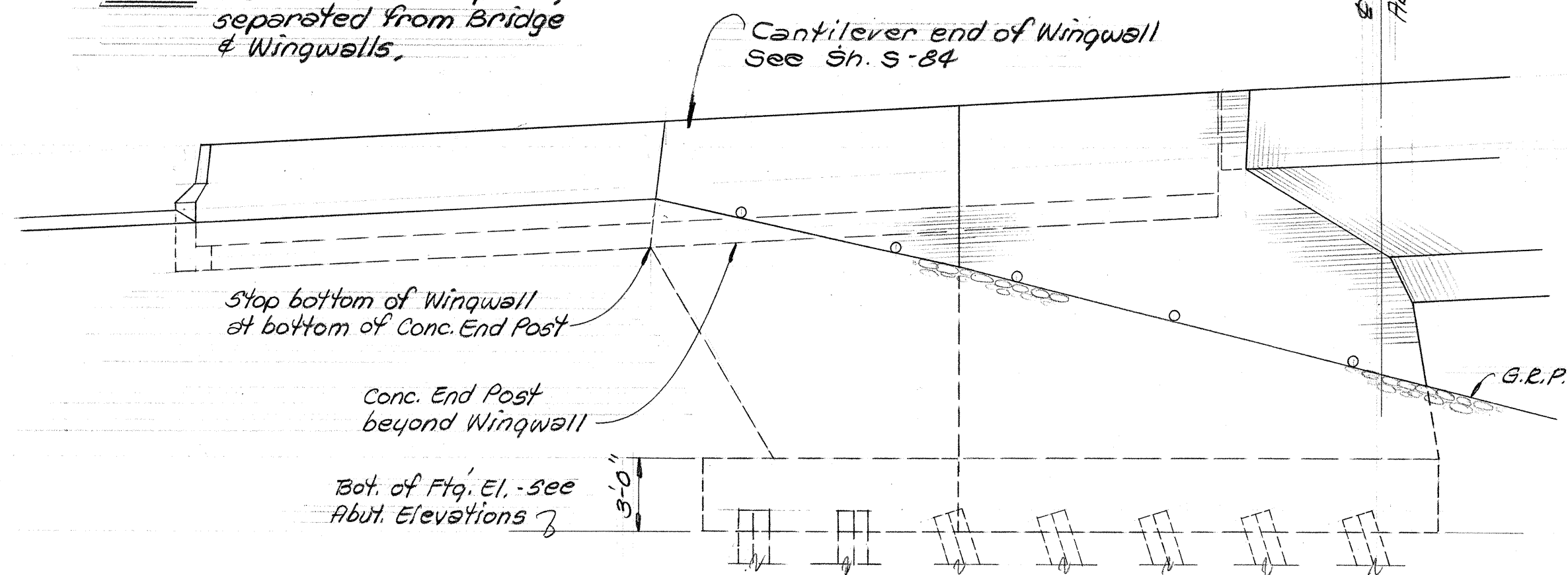
SHEET No. 9-19 OF 106 SHEETS

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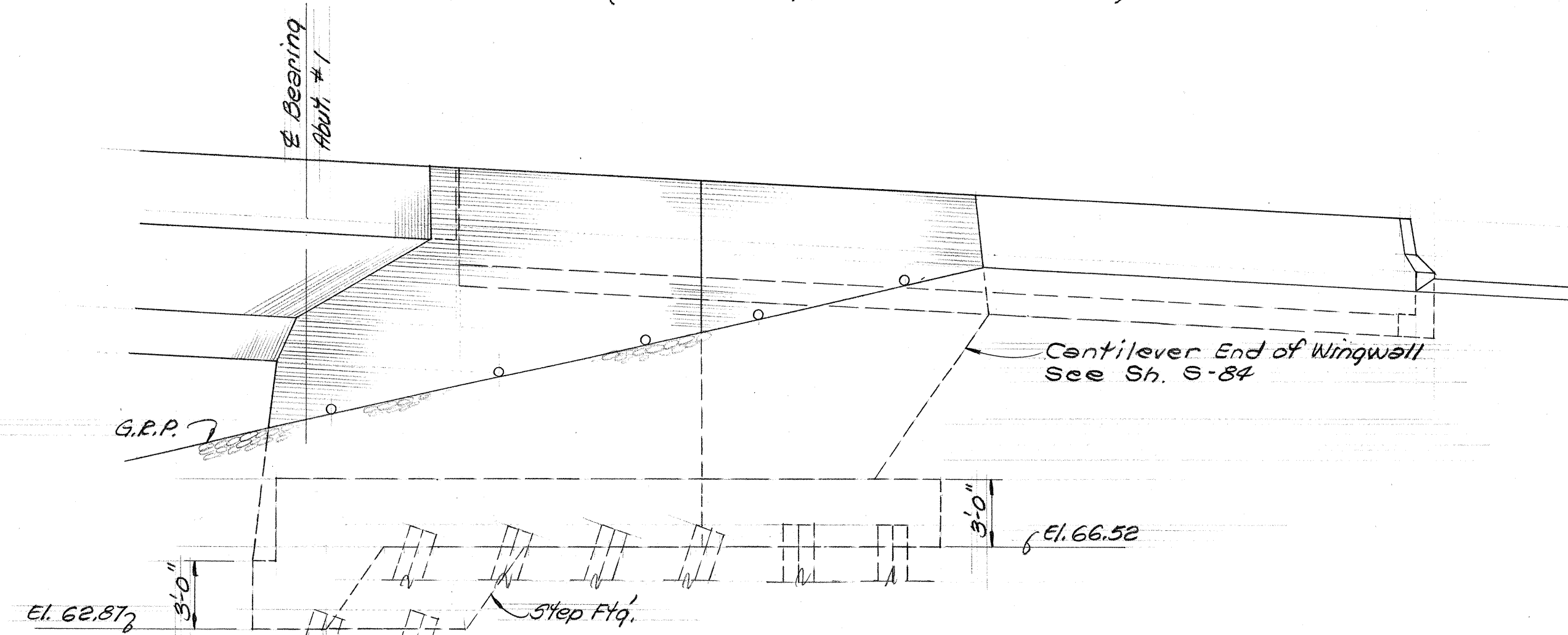
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73):15	1974	237	369



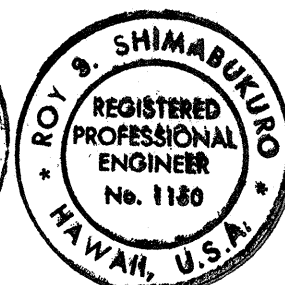
NOTE: Guard Rail is completely separated from Bridge & Wingwalls.



PILE ELEVATIONS		
LOCATION	TIP	CUT OFF
Abutment #1	35.0	63.87
Wingwall #1	35.0	65.87
Wingwall #2	35.0	63.52
Abutment #2 & Wingwall #3 & #4	22.5	58.0



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HIGHWAYS DIVISION

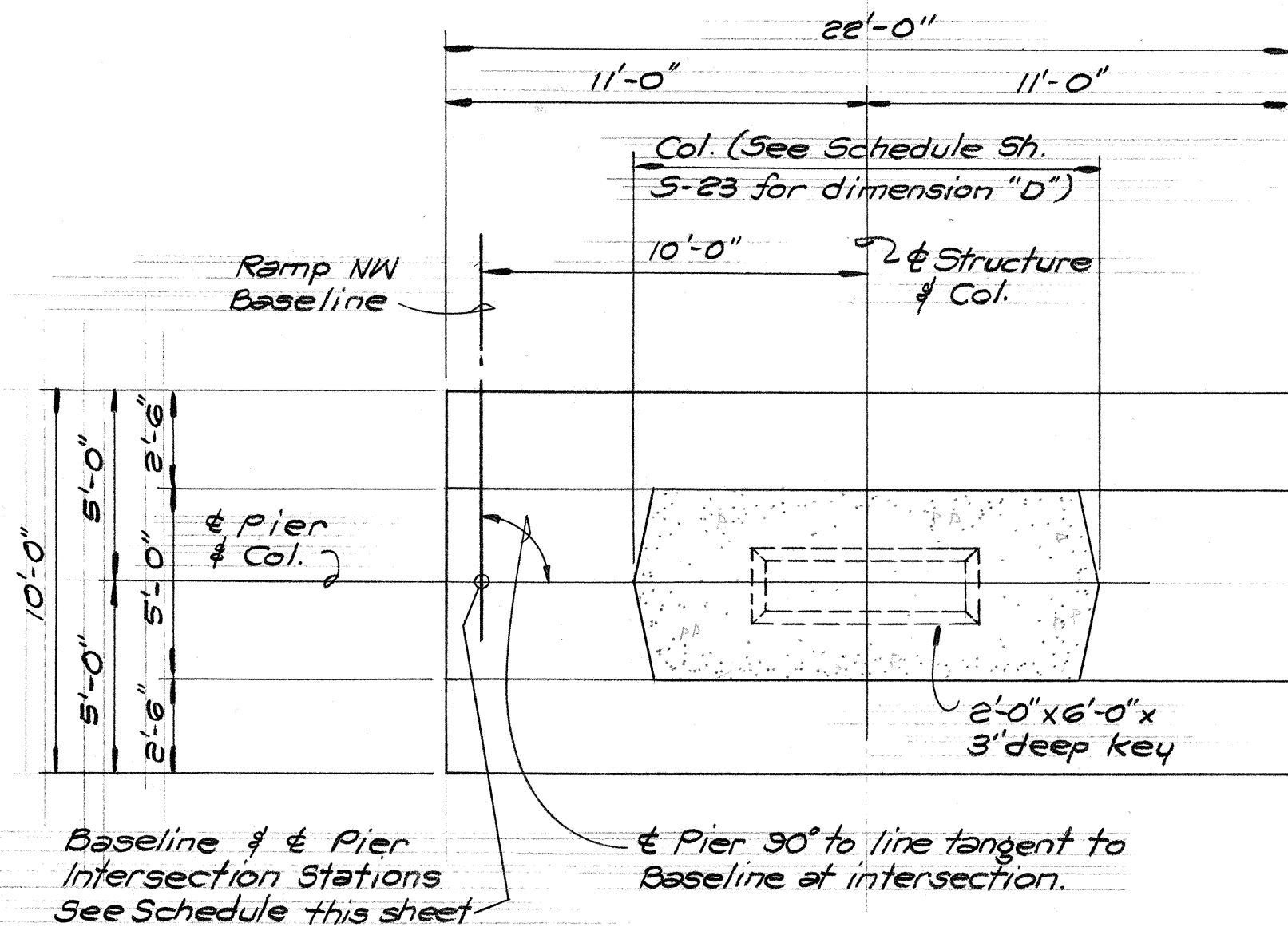
STRUCTURE No. 6
ABUTMENT #1 & #2 &
WINGWALL ELEVATIONS

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

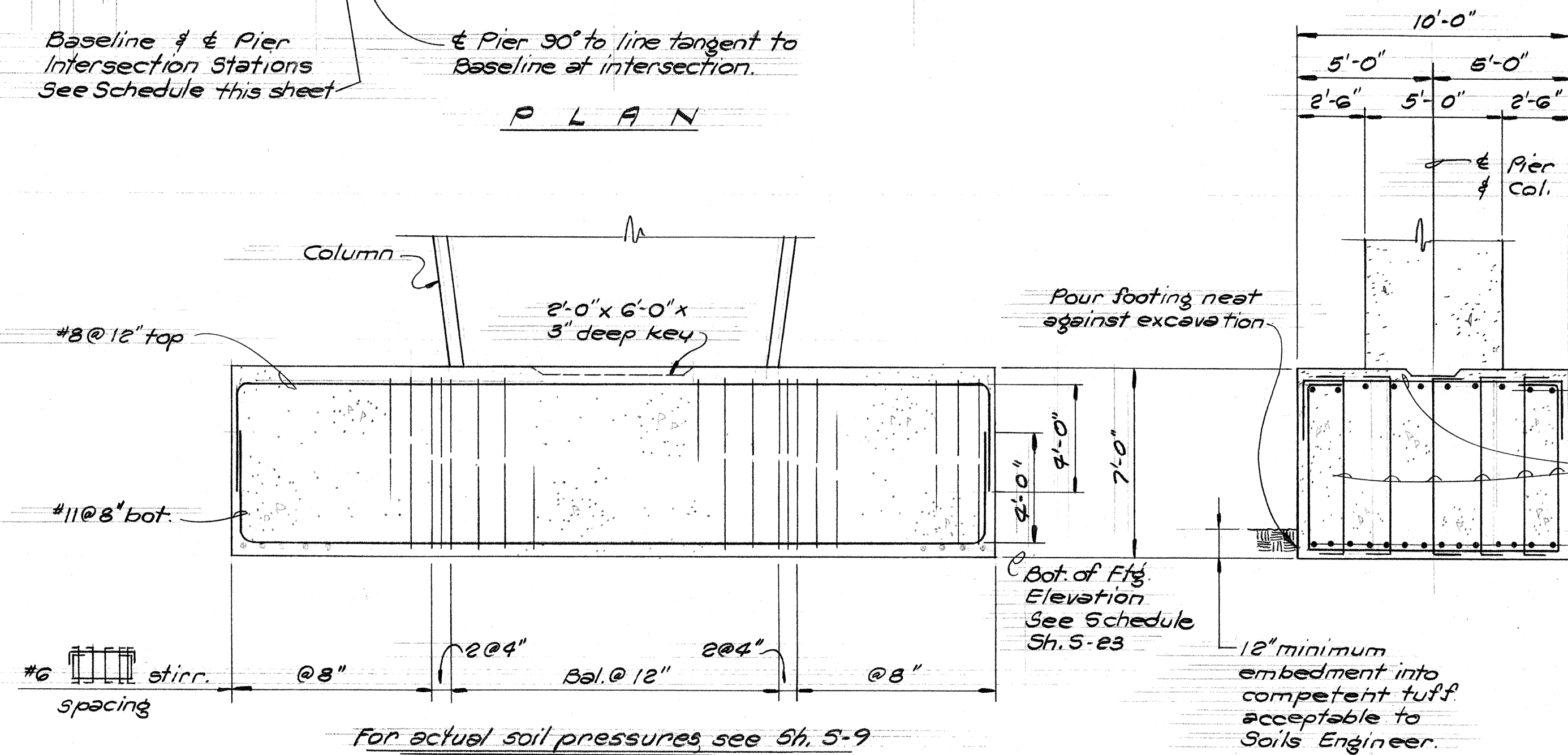
Scale: As Shown Date: DEC. 7, 1973

SHEET No. 21 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	238	369



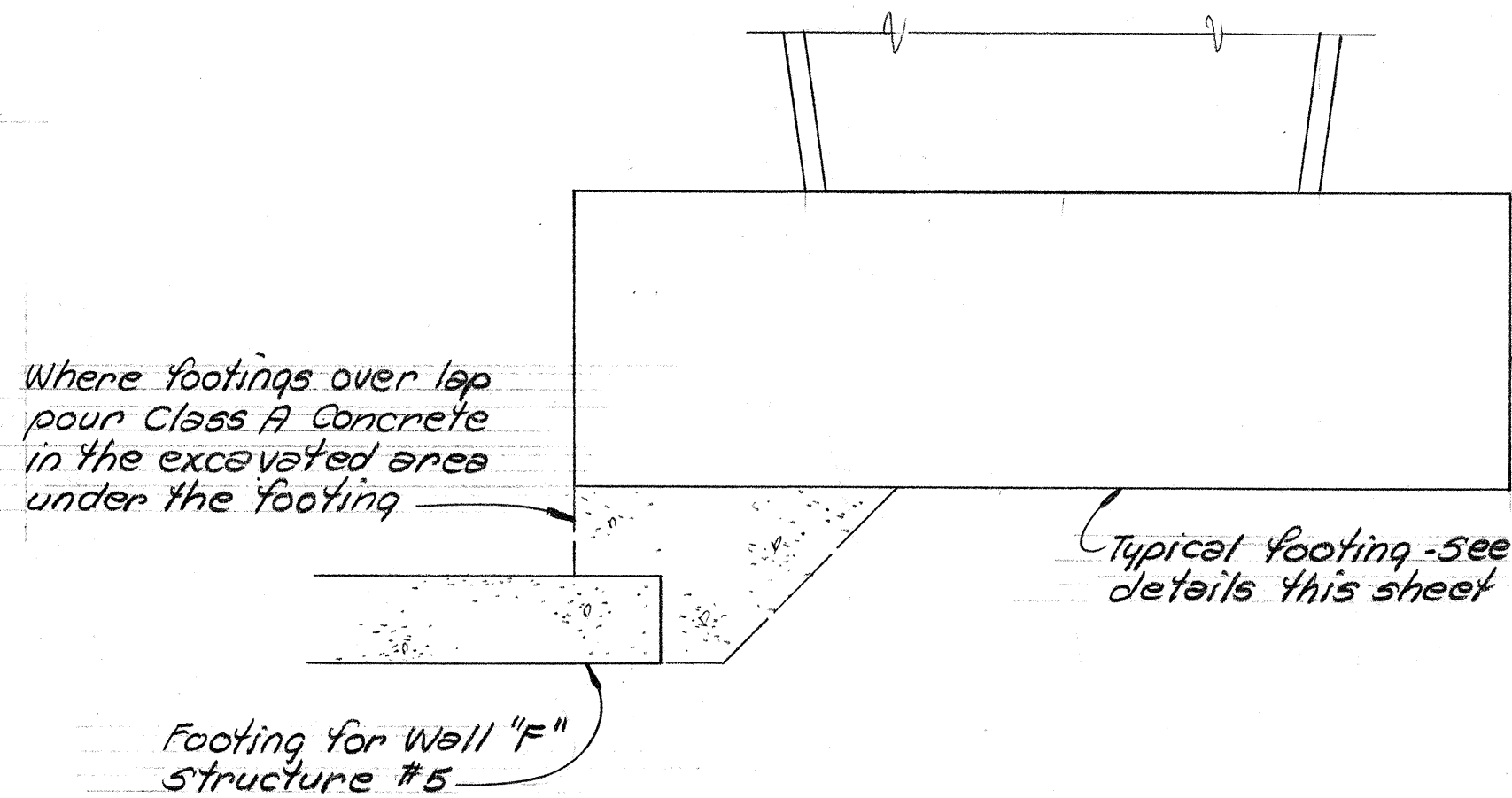
SCHEDULE OF STATIONS FOR RAMP NW BASELINE & PIER INTERSECTIONS		
PIER	#	STATIONS
1		34 + 23
2		35 + 43
3		36 + 57
4		38 + 03
5		39 + 23
6		40 + 32
7		41 + 24



ELEVATION

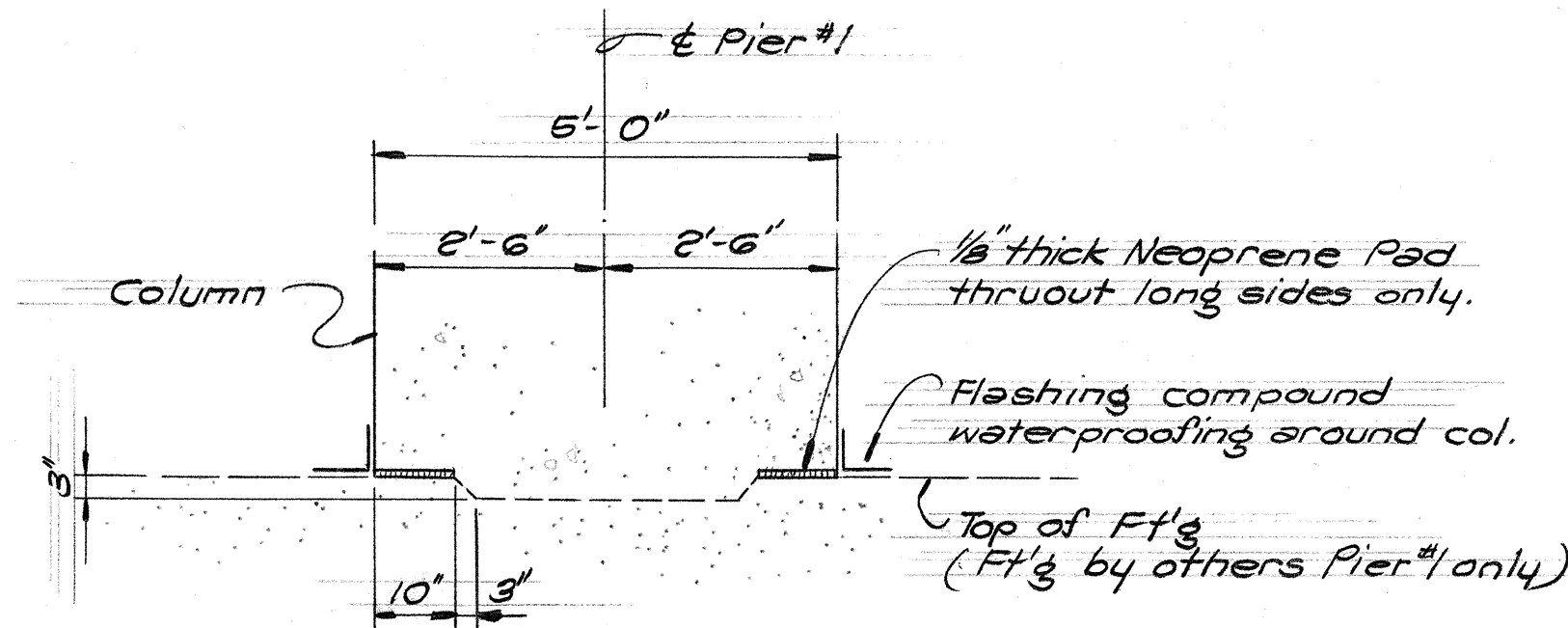
SECTION

TYPICAL PIER COLUMN FOOTING
1/4" = 1'-0"



ELEVATION

PIER #4 COLUMN FOOTING
1/4" = 1'-0"



PIER #1 COL. SECTION AT
TOP OF EXIST. FOOTING
1/4" = 1'-0"

Pier 5 Ftg. redesigned, see
drawing on Plan Sh. 238 5-1.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 6

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. 5-22 OF 106 SHEETS

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[Signature]

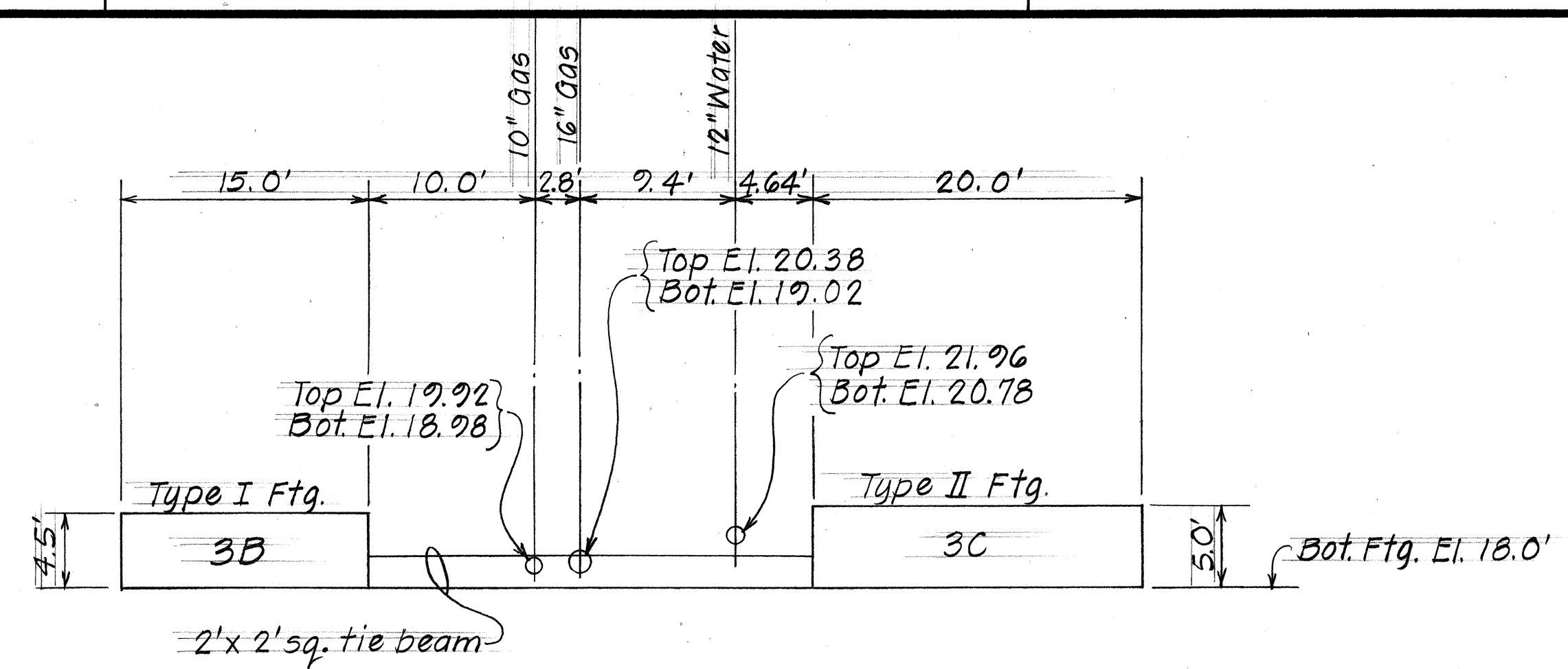
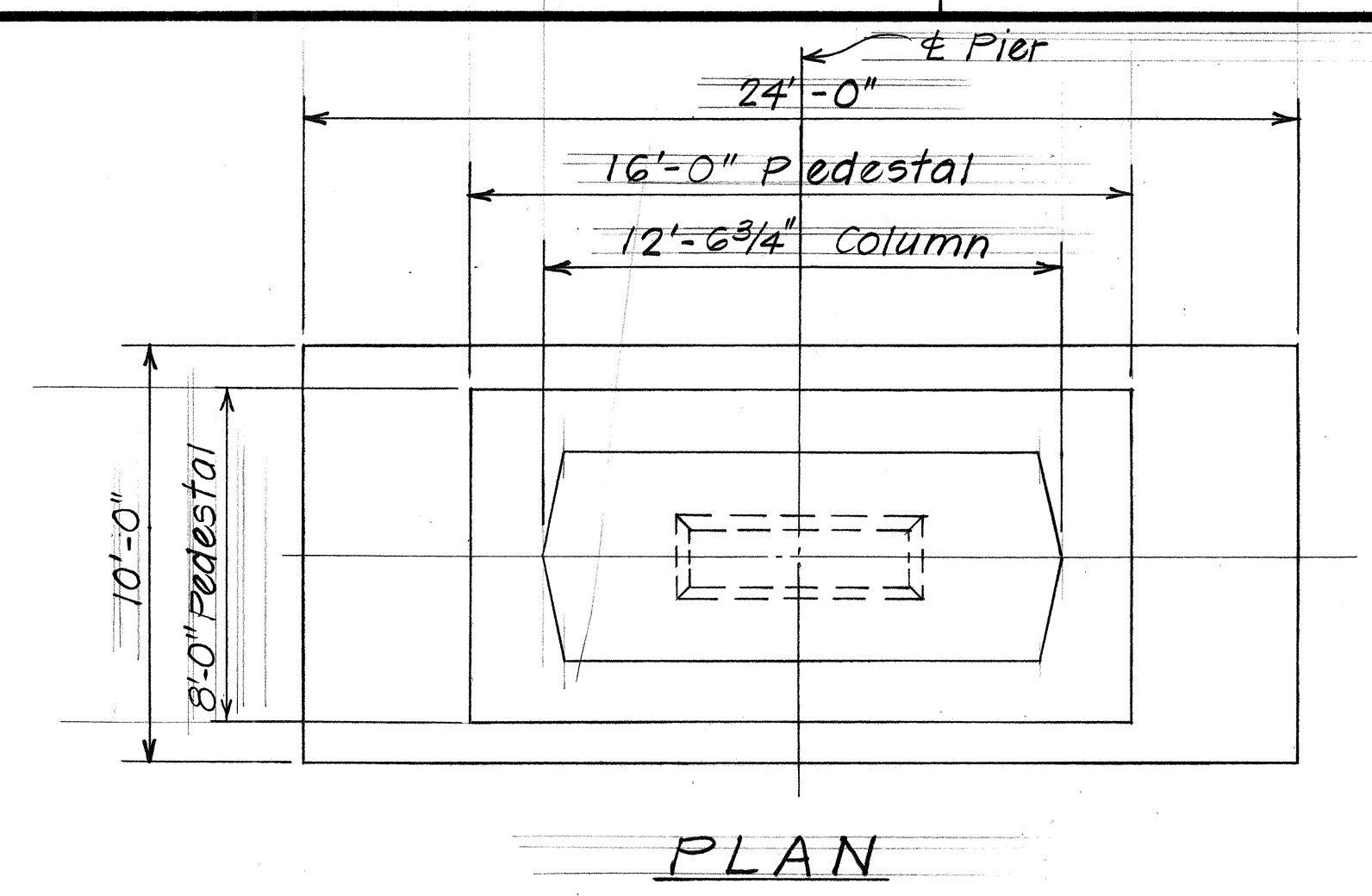
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)-15	1974	238 S-1	369

RETAINING WALL #3 - SCHEDULE OF DIMENSIONS & REINFORCING STEEL

"NK AS PER CONTRACT PLAN	16	20	22	24	26
"H"	20	24	26	28	30
"L"	14'-6"	16'-0"	18'-3"	18'-6"	20'-6"
"a"	8'-6"	9'-6"	10'-9"	11'-6"	12'-9"
"t"	2'-0"	2'-3"	2'-6"	2'-9"	2'-9"
"a" Bars	#4 @ 14"	#5 @ 13"	#7 @ 11"	#8 @ 13"	#8 @ 11"
"b" Bars	#7 @ 8"	#10 @ 6 1/2"	#10 @ 5 1/2"	#11 @ 6 1/2"	#11 @ 5 1/2"
"c" Bars	#8 @ 16"	#7 @ 13"	#11 @ 18"	#11 @ 13"	#11 @ 11"
"d" Bars	#8 @ 16"	#7 @ 13"	#11 @ 18"	#11 @ 13"	#11 @ 11"
"e" Bars	#5 @ 12"	#6 @ 12"	#7 @ 12"	#7 @ 12"	#7 @ 12"

REFERENCE: Pearl Harbor Interchange Contract Plans sheets #323, #332.

Note: Reference C.C.O. #7



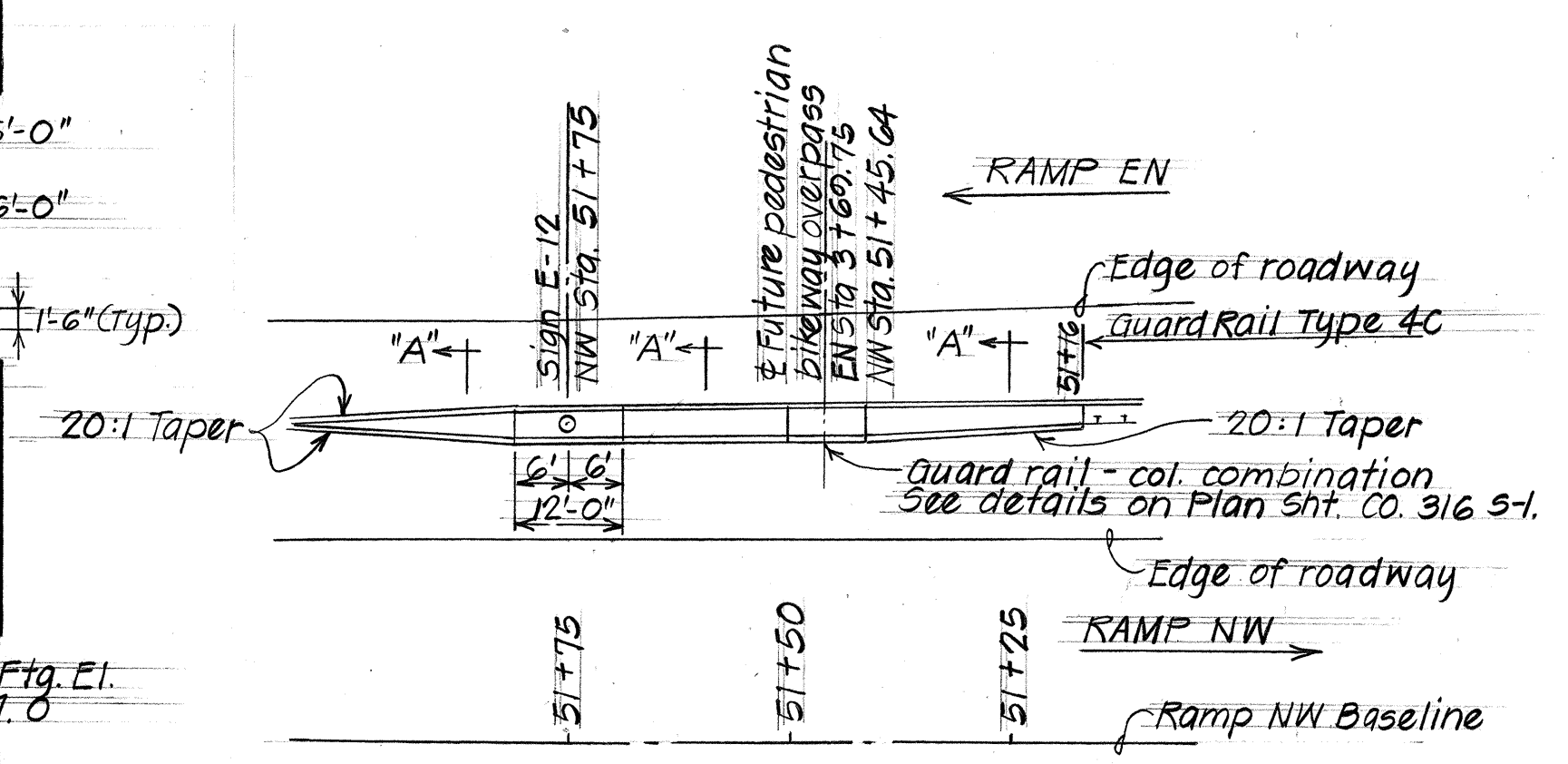
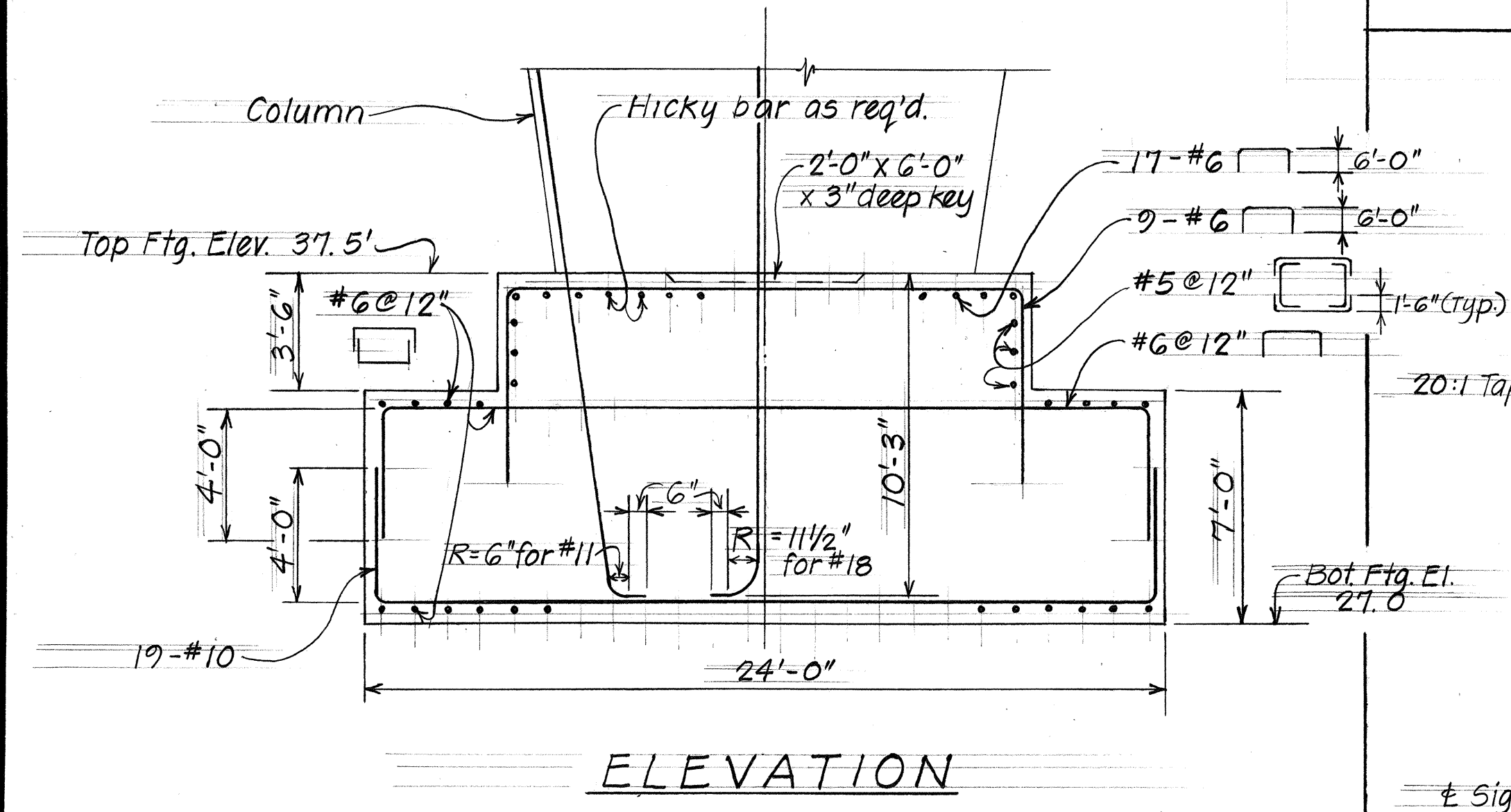
REFERENCE: Plan Sht. # 275, 276, 277.

STRUCTURE NO. 8

ELEVATION VIEW

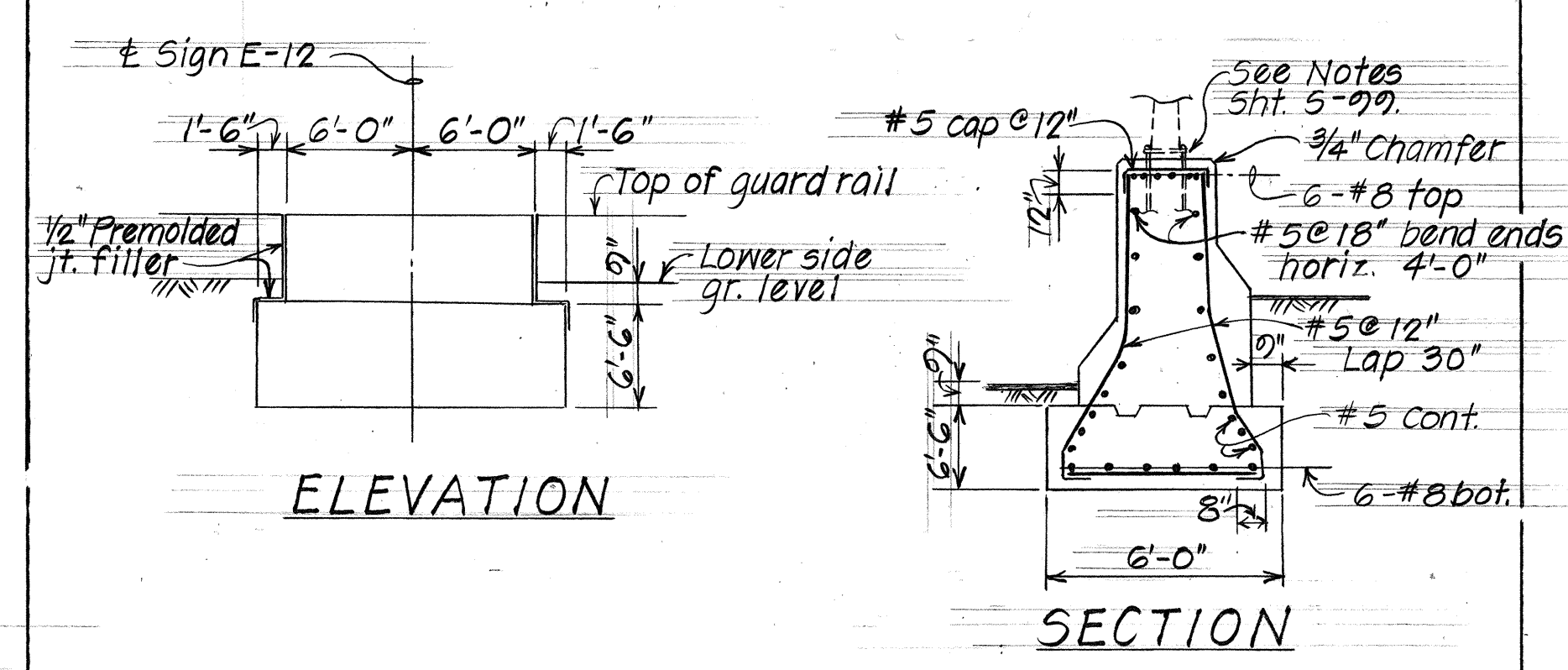
Scale: 1/8" = 1'-0"

Note: Reference C.C.O. #47



PARTIAL PLAN

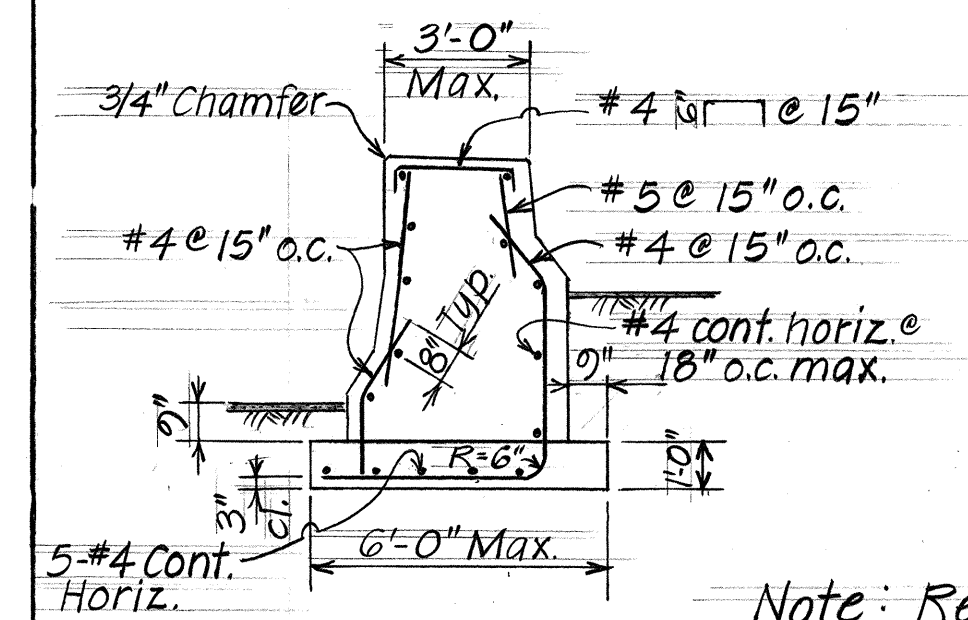
Scale: 1" = 20'



SIGN E-12 DETAILS

Scale: NTS

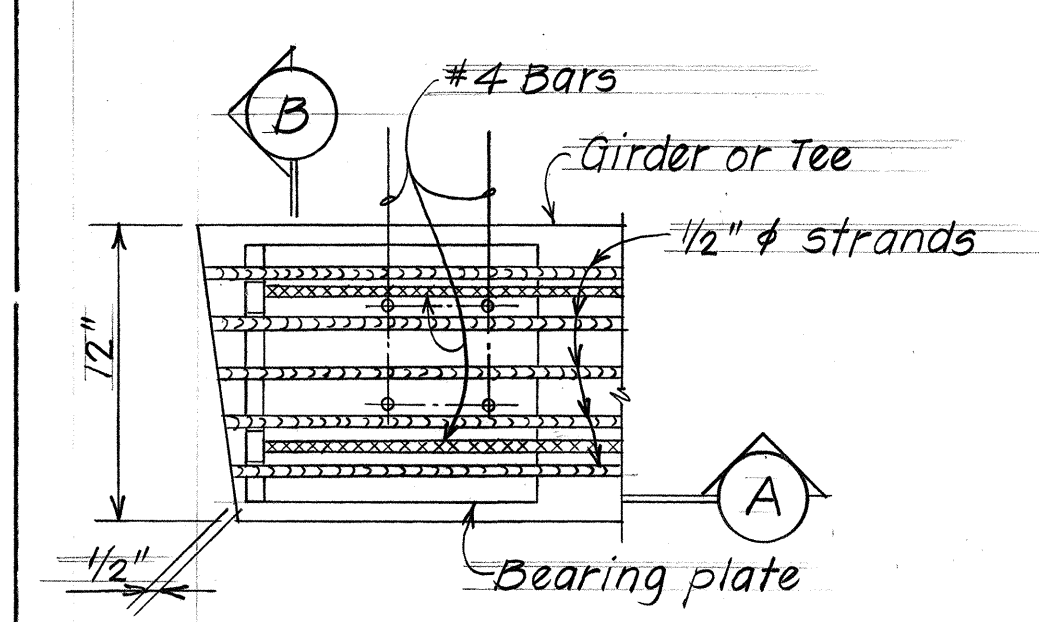
- NOTES:
- Details on this drawing supercedes detail 2/5-99 for Sign E-12 on Plan Sht. # C.O. 315.
 - Refer to Type 4C Guard Rail Details on Plan Sht. #45 for Type 4C Modified Guard Rail Details not shown.
 - Provide 3/4" chamfer at top of concrete barrier section for sign pedestal and pedestrian overpass - guard rail combination.
 - Refer to Plan Sht. #38 for Metal Rail connection at NW Sta. 51+16.



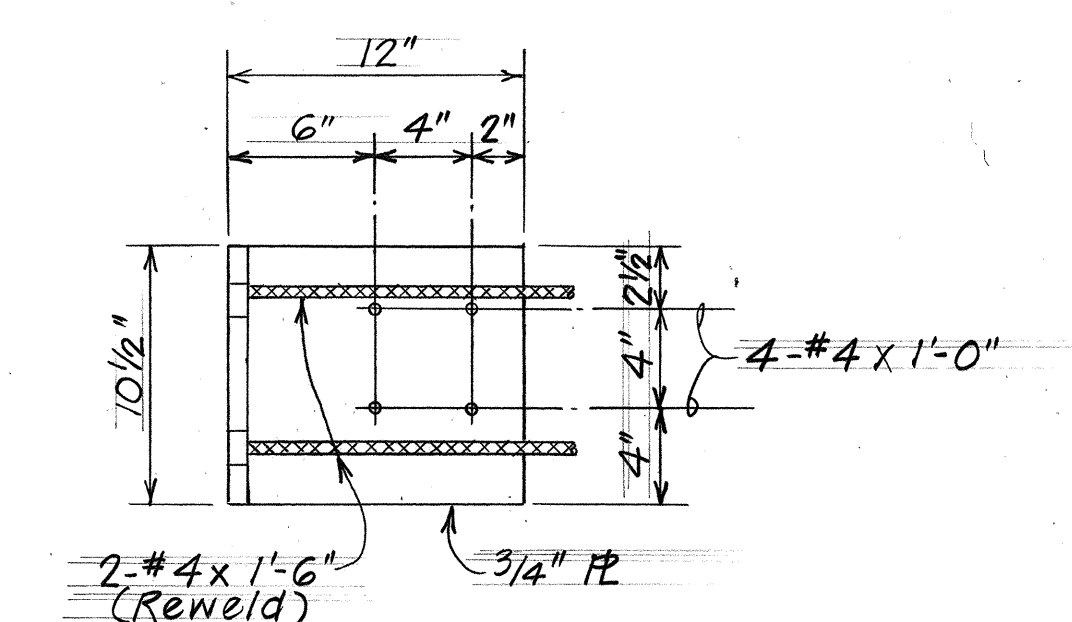
SECTION "A" - TYPE 4C MODIFIED G.R.

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

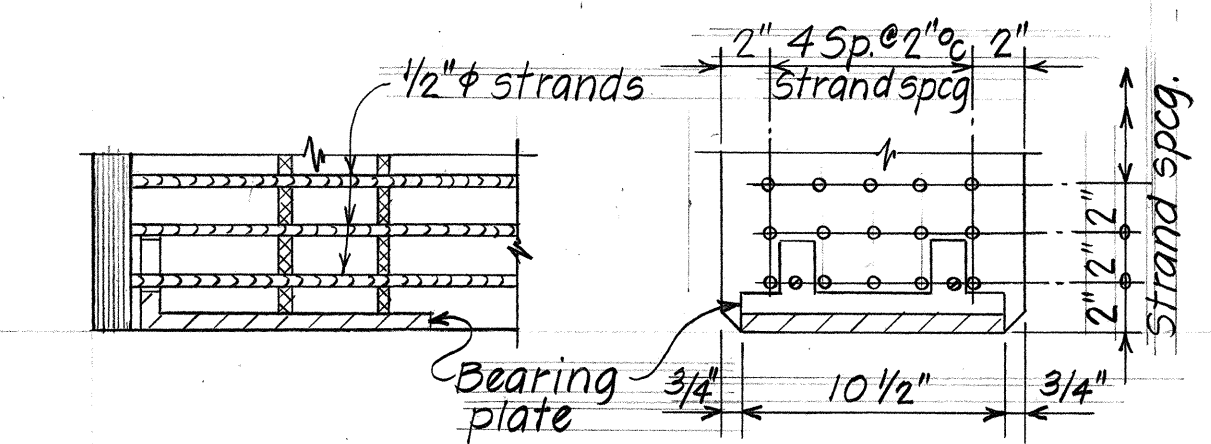
Note: Reference C.C.O. #81 & see Sht. #C0315



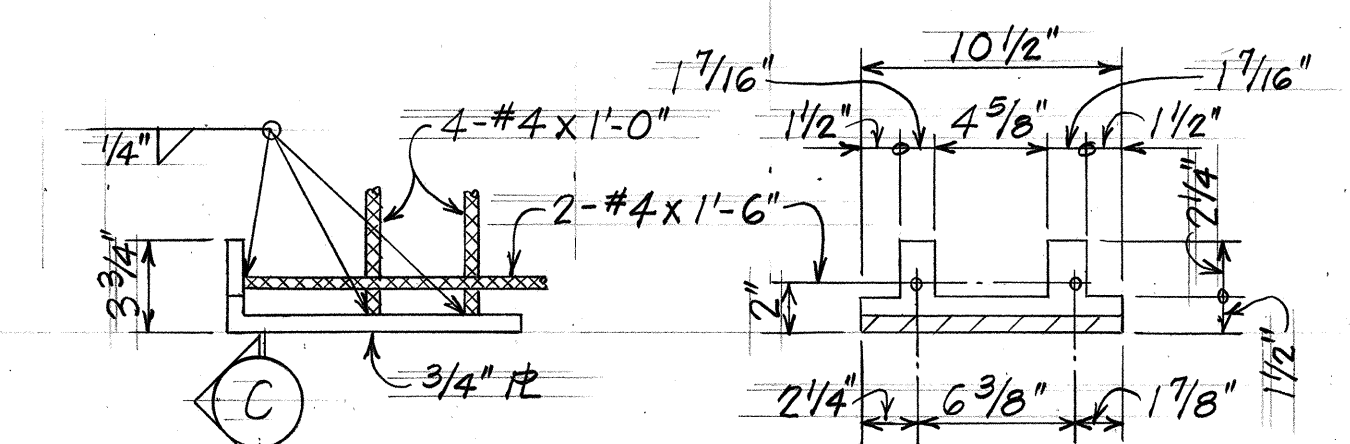
PLAN-SECTION



PLAN



SECTION A



SECTION B

SECTION C

IN PLACE

(Skewed Condition Shown Square Condition Similar)

ELEVATION

FABRICATION

BEARING PLATE DETAILS (REVISED)

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

Note: Reference C.C.O. #43 See Sht. #289.

NOTE:

This tracing prepared during "As-Built" postings.

(STRUCTURE #6) PIER #5 FOOTING

REDESIGN

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

NOTE: Reference C.C.O. #21, & see Sht. ADD #225, #238, ADD #239.

See Plan Sht. Nos. 238 & 239 for details not covered on this sheet.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

LAND TRANSPORTATION FACILITIES DIVISION

MISCELLANEOUS DETAILS

PIER #5 FOOTING DETAILS

SIGN E-12 & BEARING PLATE DETAILS

RETAINING WALL #3 SCHEDULE

PEARL HARBOR INTERCHANGE

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

Scale: As Shown

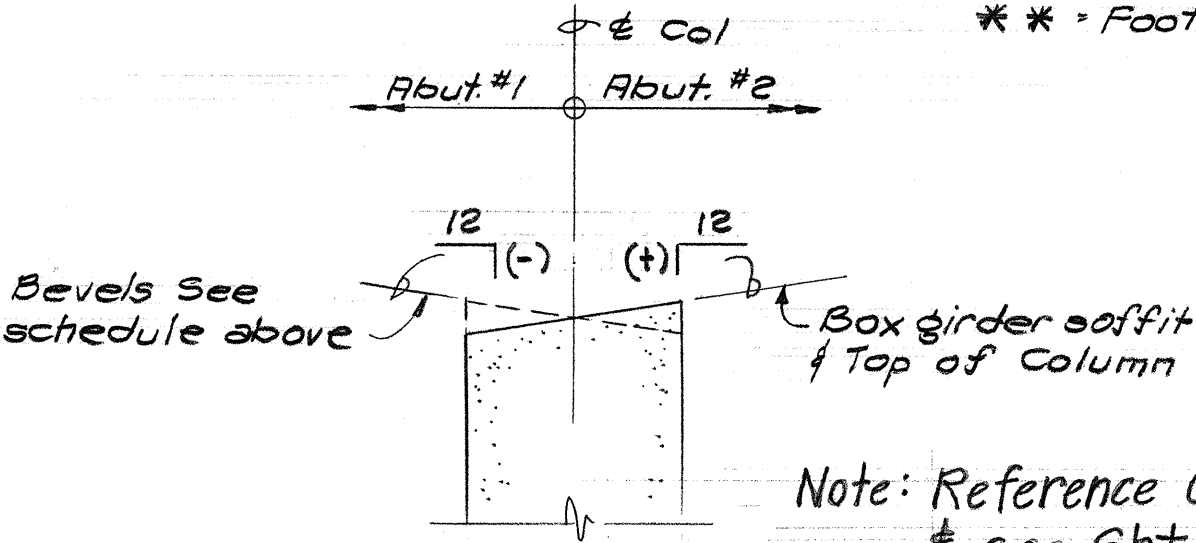
Date: DEC. 7, 1973

SHEET No. S-22A OF 106 SHEETS

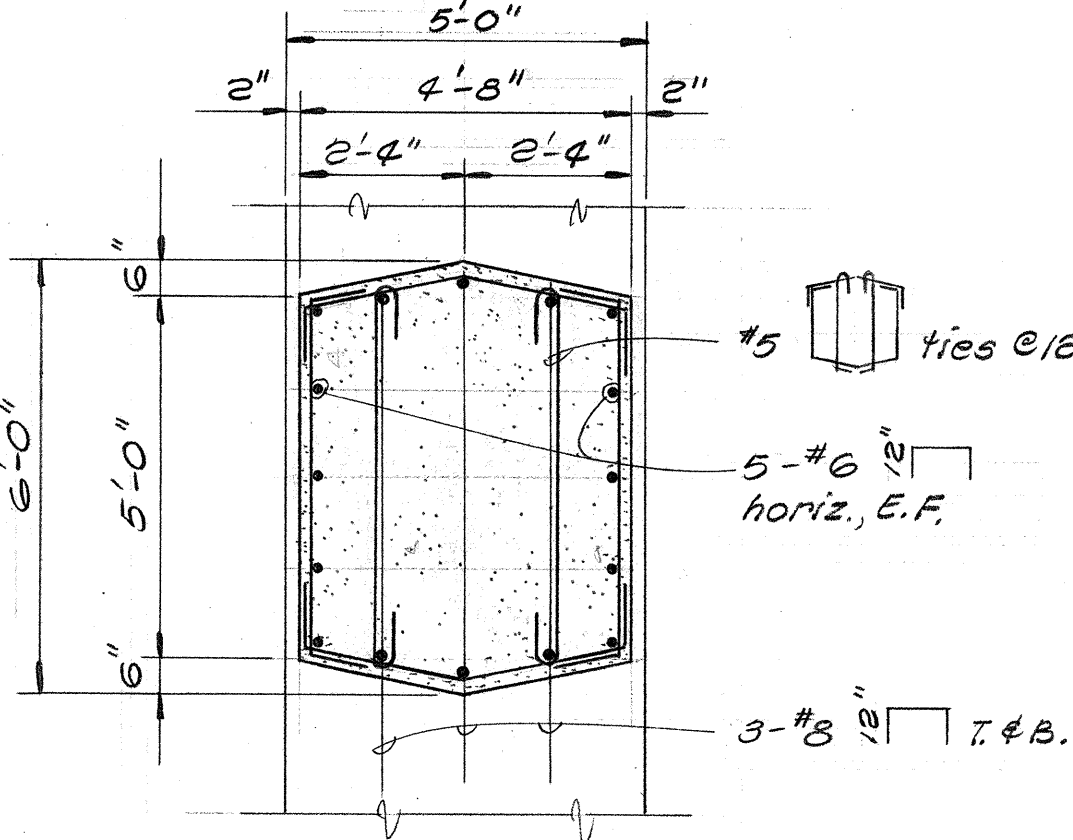
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73)15	1974	239	360

PIER COLUMN & FOOTING SCHEDULE						
PIER NO	ELEVATION AT TOP OF COL. (Along & of Pier)		DIMENSION "D"	TOP OF FTG. ELEVATION	* COLUMN BEVELS	COLUMN Reinf. Type
1	77.60	75.68	9'-0"	40.0 **	+ 3/8":12	"I" "C"
2	80.82	78.90	11'-9"	37.5	+ 1/8":12	"I" "B"
3	82.02	80.10	11'-11 1/2"	39.5	0"	"I" "B"
4	80.84	78.92	11'-0"	34.5	- 3/16":12	"II" "B"
5	77.58	75.66	12'-6 3/4"	37.5 34.0	- 3/8":12	"I" "B"
6	72.84	70.95	12'-9"	34.0	- 3/16":12	"I" "A"
7	67.88	66.23	13'-2"	23.5	- 5/8":12	"II" "A"

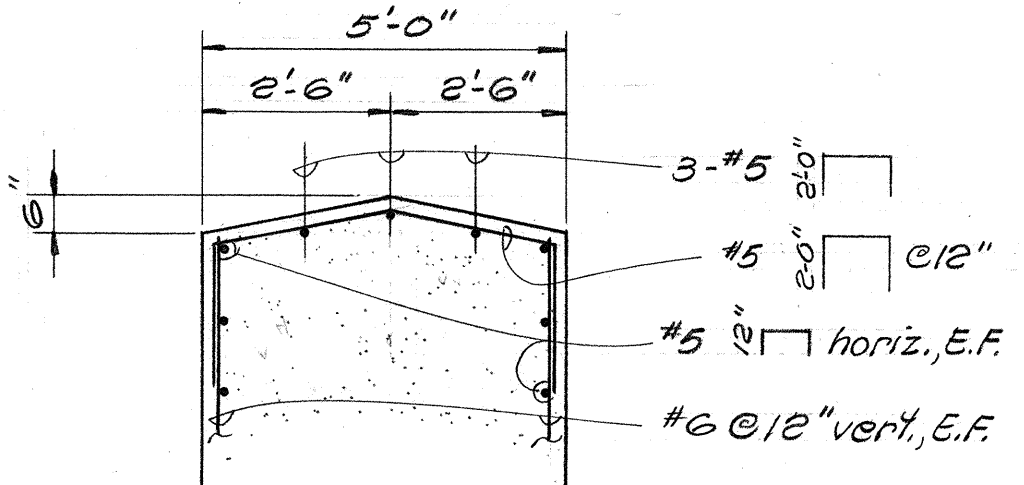
* = See Section "Y-Y" below.
 ** = Footing by others



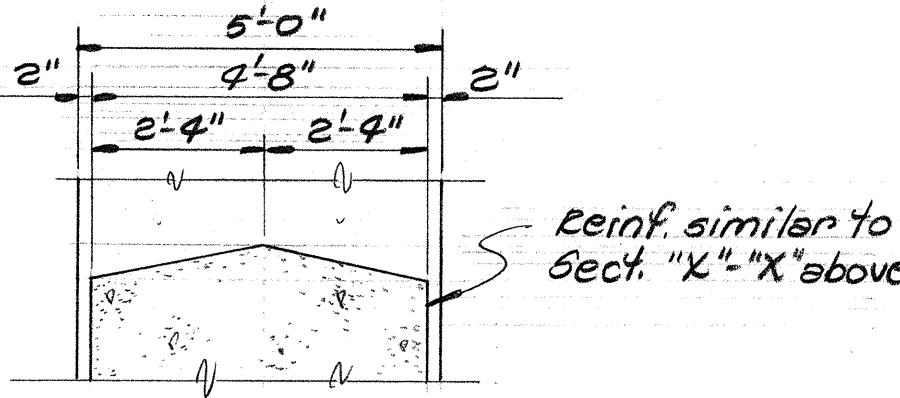
SECTION "Y-Y"
 N.T.S.



SECTION "W-W"
 3/8"=1'-0"



SECTION "X-X"
 3/8"=1'-0"



SECTION "Z-Z"
 3/8"=1'-0"

DATE	REVISION
4/16/74	ADDED 2" INDENTATION IN PIER COLS.

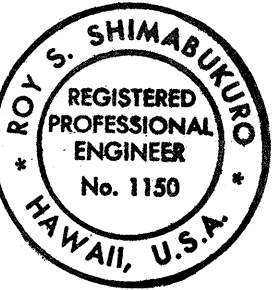
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

STRUCTURE No. G
 PIER COLUMN DETAILS

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

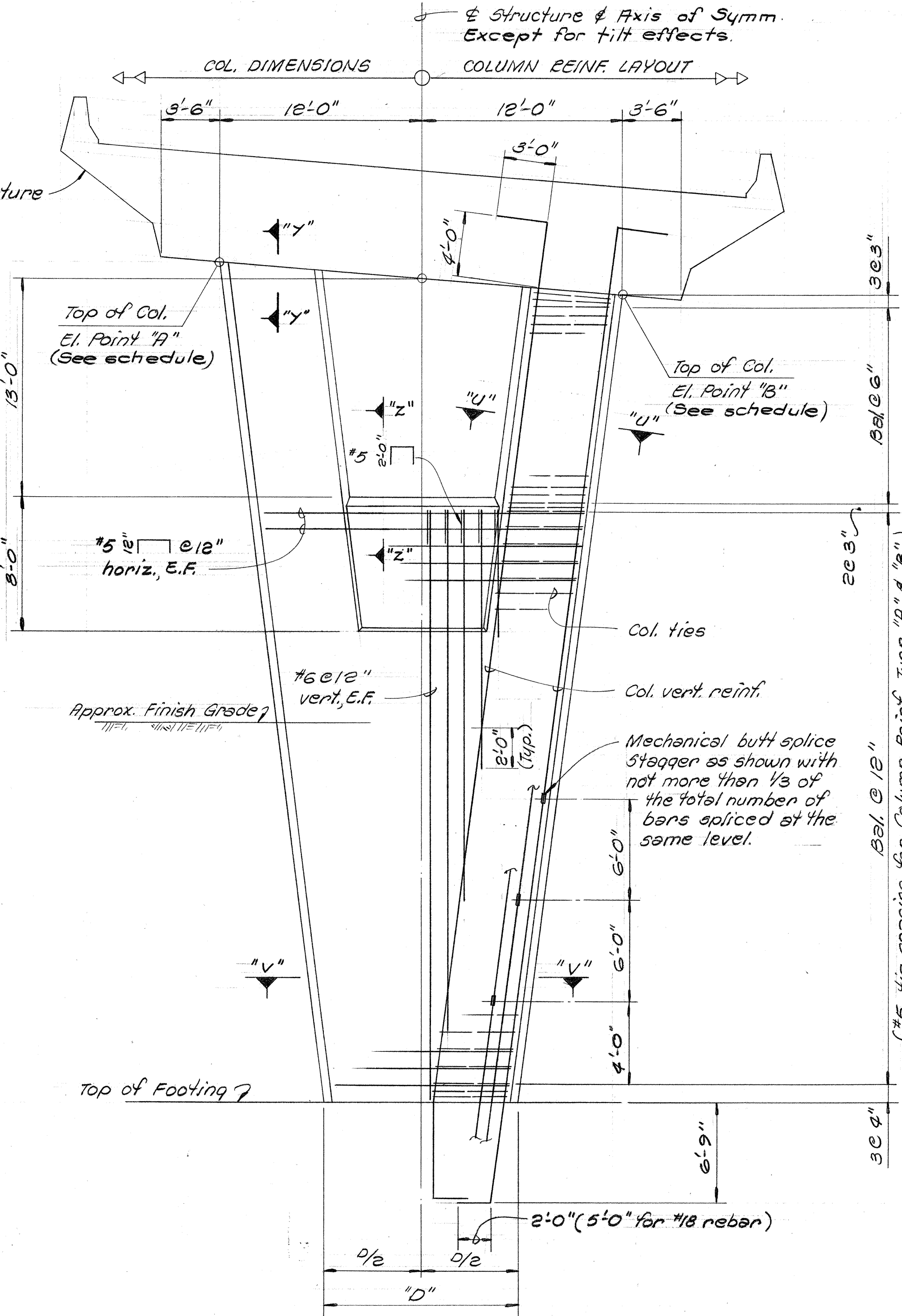
Scale: As Shown Date: DEC. 7, 1973
 SHEET No. 239 OF 106 SHEETS

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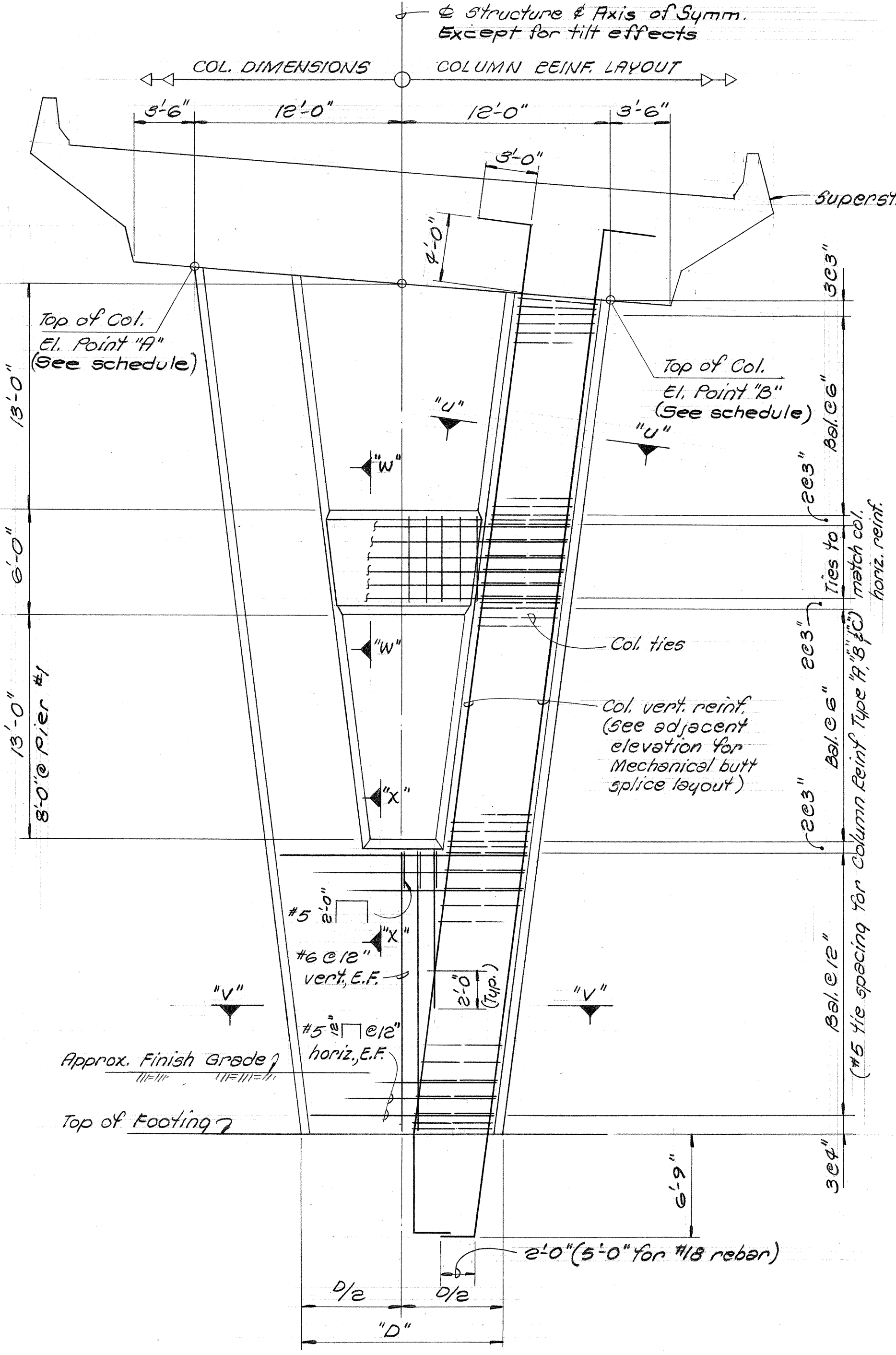


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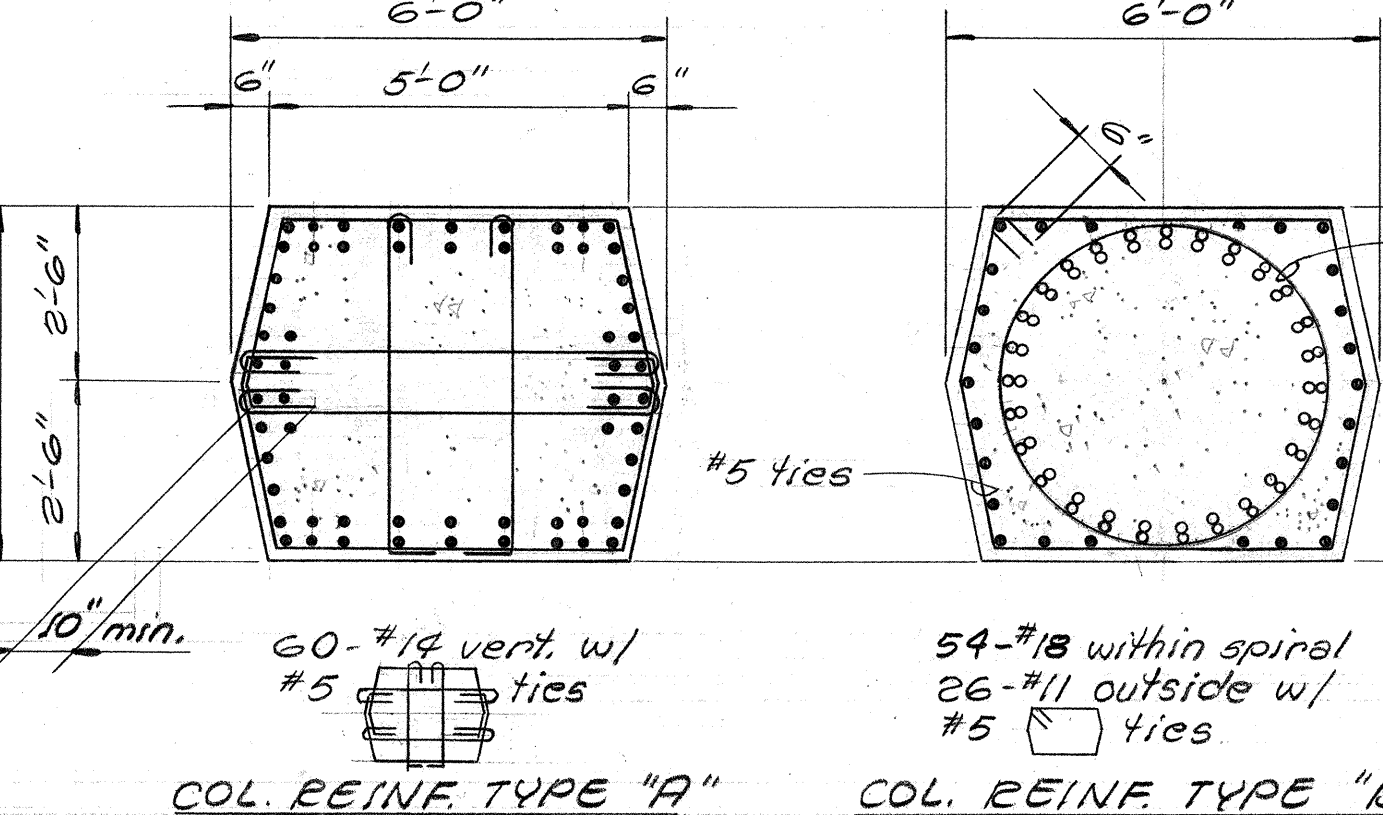
ADD 239



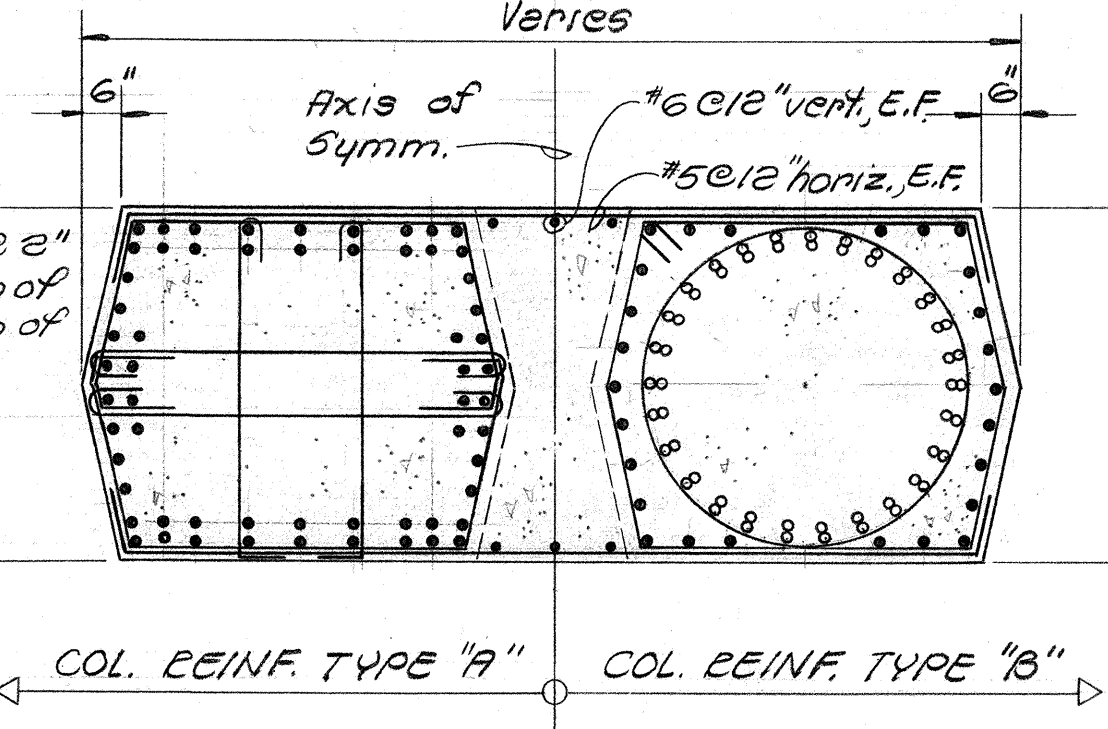
ELEVATION ~ TYPE "II" COL.
 3/16"=1'-0"



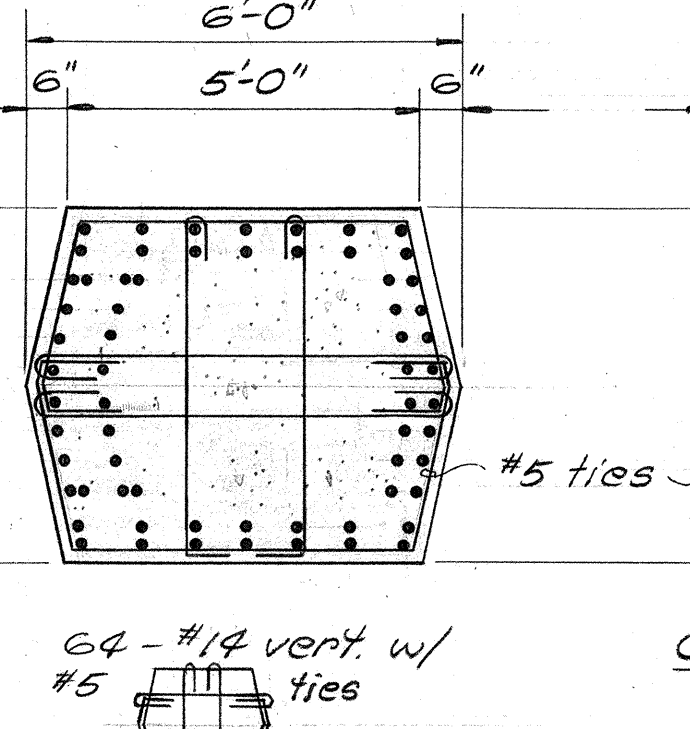
ELEVATION ~ TYPE "I" COL.
 3/16"=1'-0"



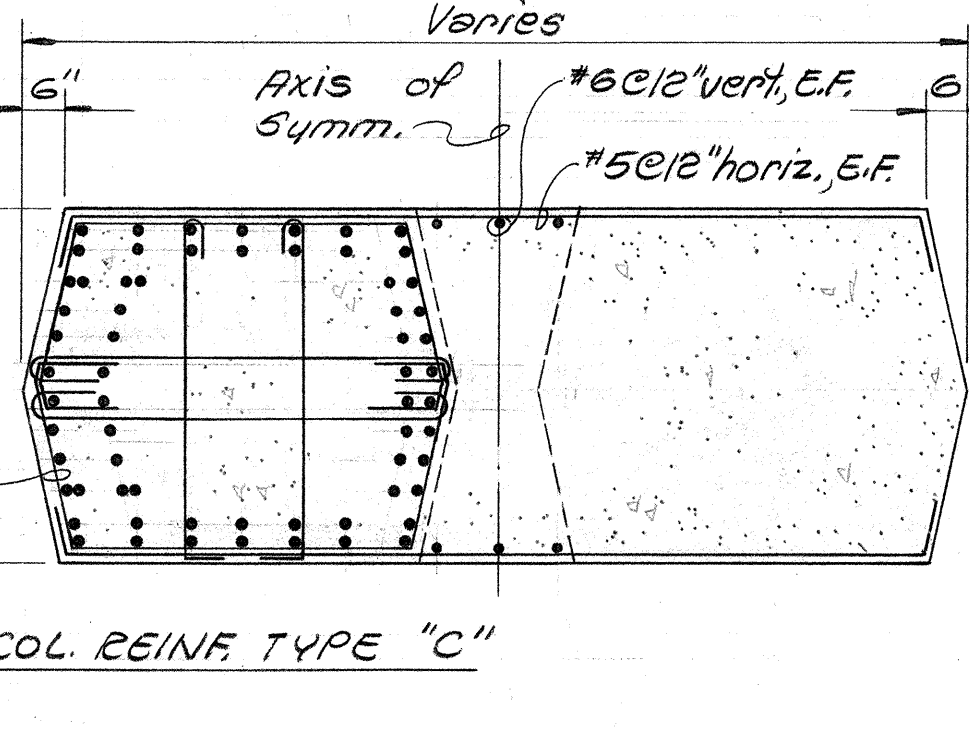
COL. REINF. TYPE "A" COL. REINF. TYPE "B"



COL. REINF. TYPE "C"



COL. REINF. TYPE "C"



COL. REINF. TYPE "C"

SECTION "U-U"
 3/8"=1'-0"

SECTION "V-V"
 3/8"=1'-0"

SECT. "U-U" ~ PIER #1 COL.
 3/8"=1'-0"

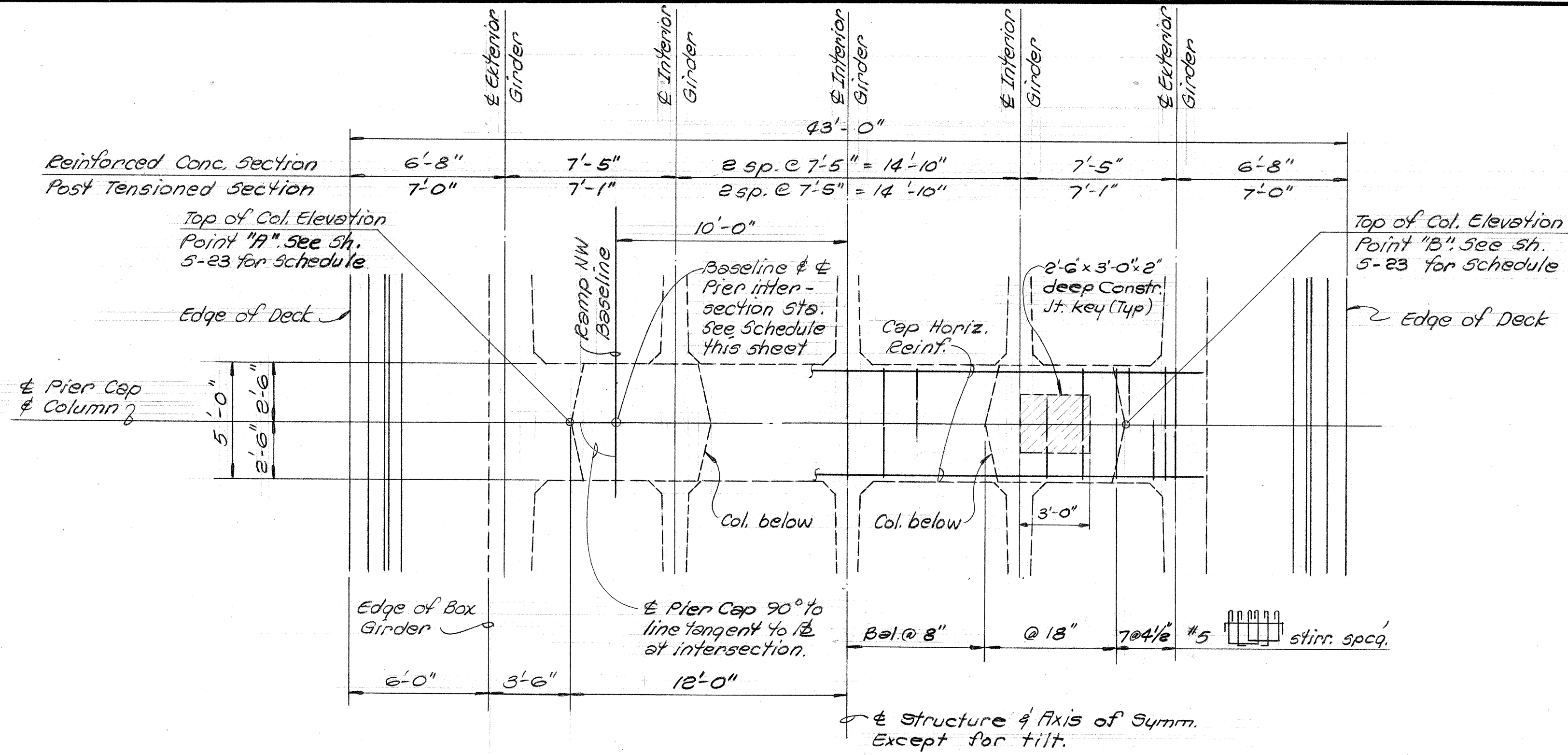
SECT. "V-V" ~ PIER #1 COL.
 3/8"=1'-0"

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

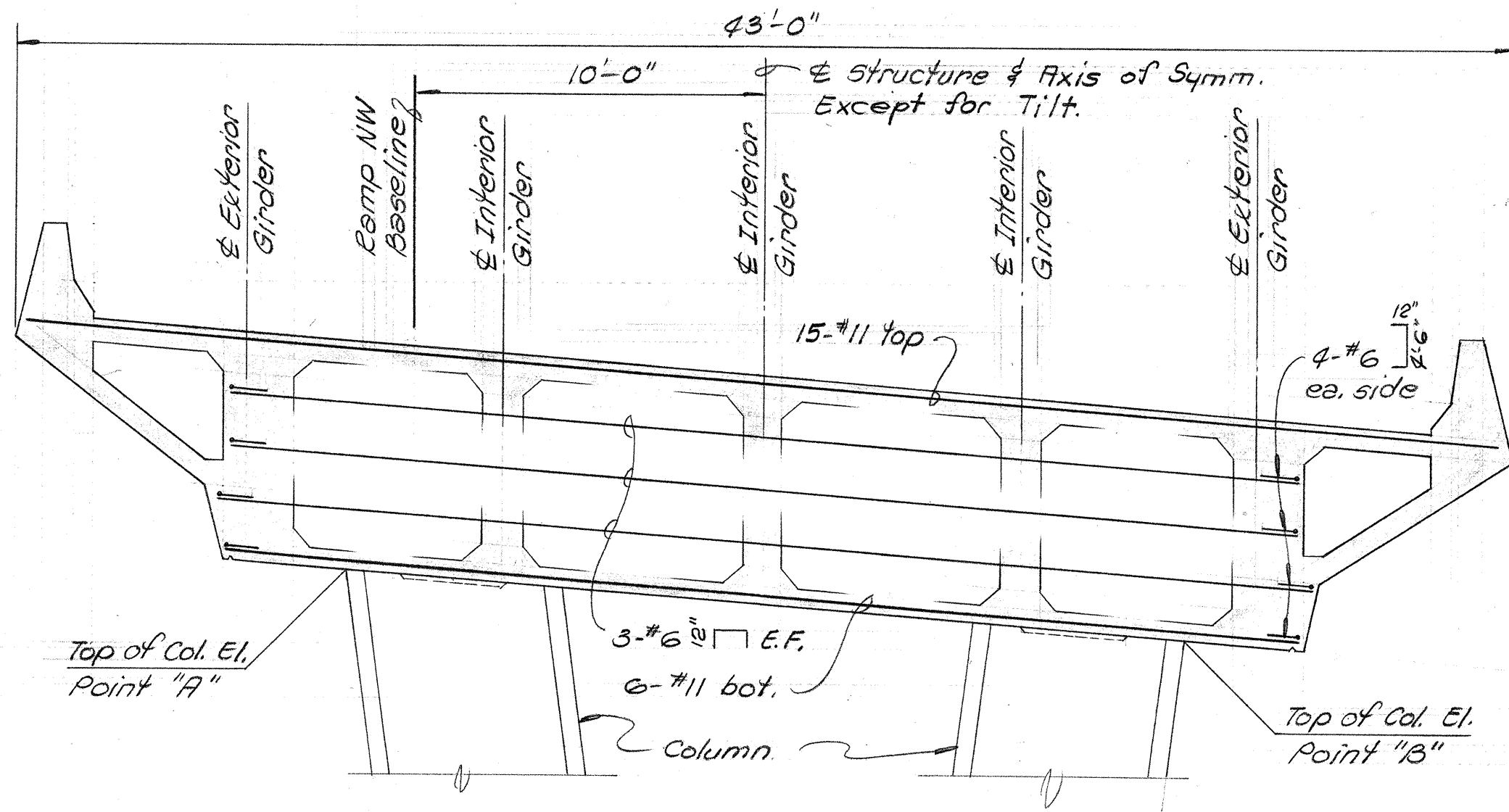
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HA-1(73)-15	1974	240	360

SCHEDULE OF STATIONS FOR RAMP NW BASELINE & PIER INTERSECTIONS

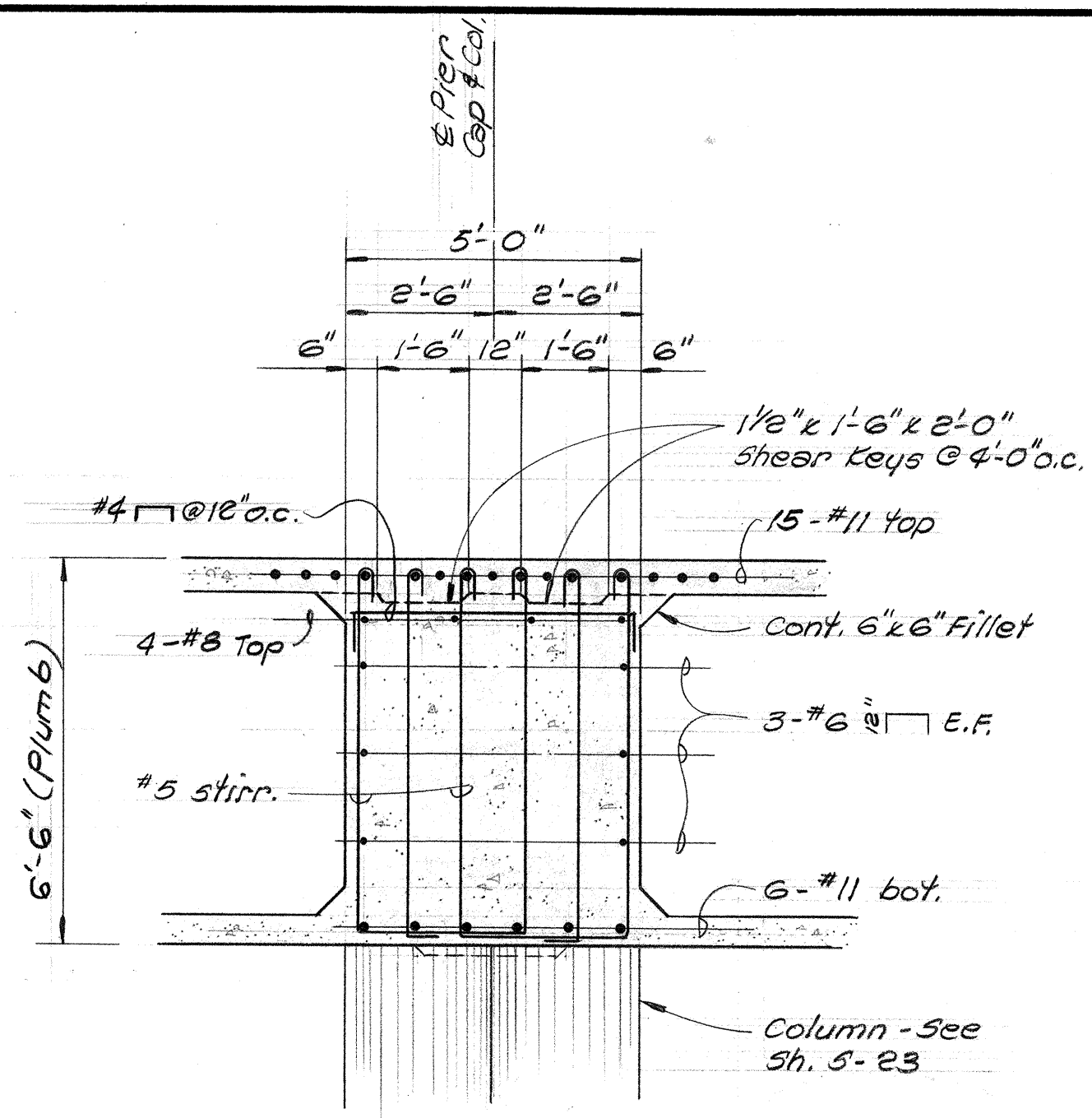
PIER	STATIONS
1	34+23
2	35+43
3	36+57
4	38+03
5	39+23
6	40+32
7	41+24



PLAN
1/4" = 1'-0"

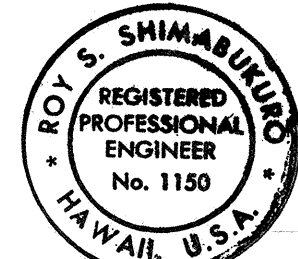


ELEVATION
1/4" = 1'-0"



TYPICAL SECTION
3/8" = 1'-0"

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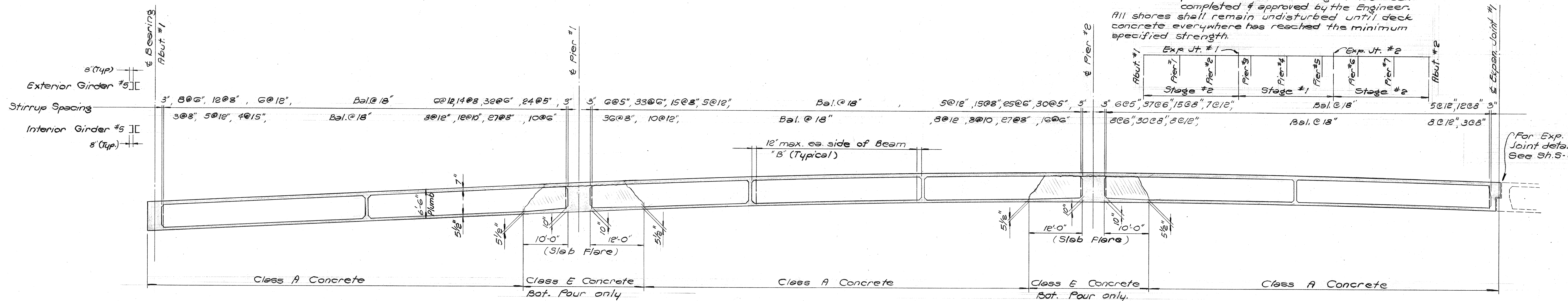
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 6
PIER CAP DETAILS

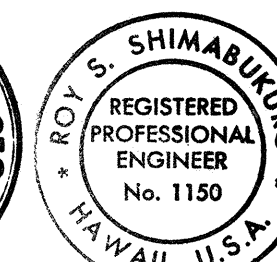
PEARL HARBOR INTERCHANGE
F.A.I. Proj. No. HA-1(73)-15

Scale: As Shown Date: DEC. 7, 1973
SHEET No. 24 OF 106 SHEETS

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

[illegible]

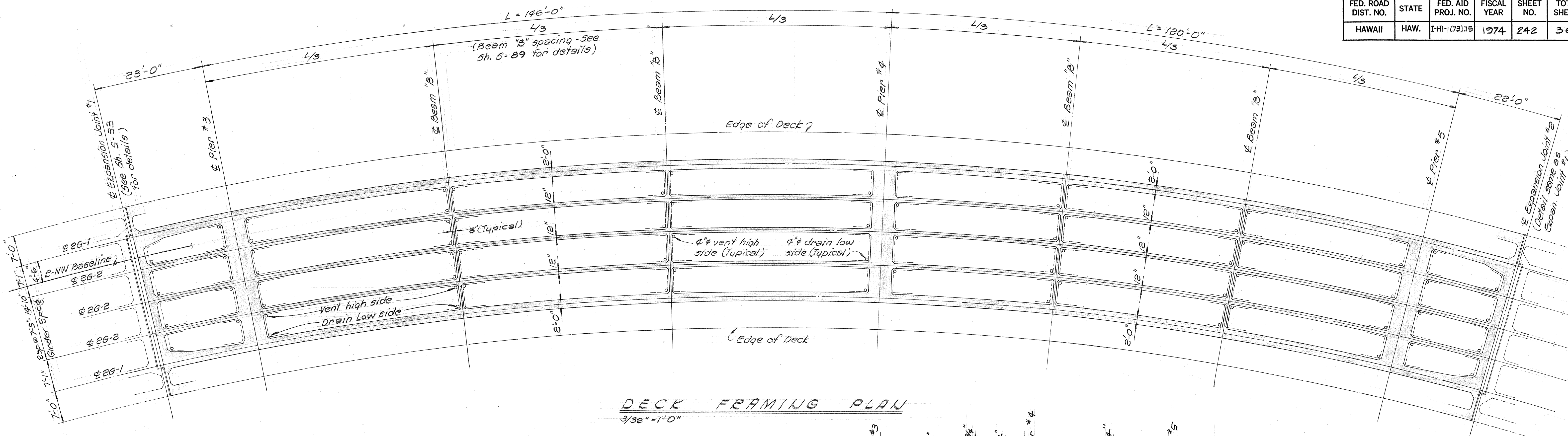
1. Cross Section — — Sh. S-31
2. Beam "D" — — — Sh. S-28



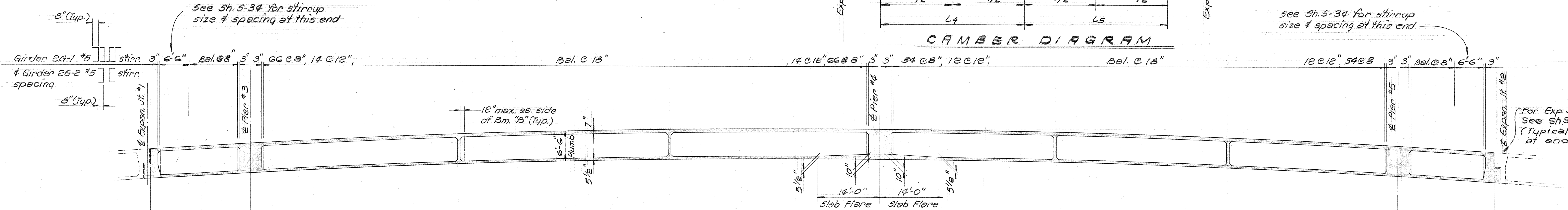
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Scale: As Shown Date: DEC. 7, 1971
SHEET NO. 525 OF 106 SHEETS

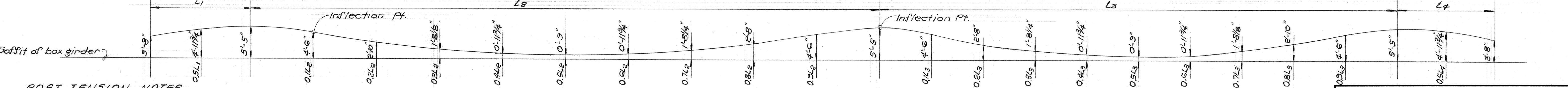
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73)15	1974	242	369



DECK FRAMING PLAN
3/32" = 1'-0"



DECK ELEVATION SHOWING GIRDER SIZE & SPACING
3/32" = 1'-0"



POST TENSION NOTES

- See "TYPICAL POST TENSION NOTES" Sh. 3-81
- Effective post tension force after all losses shall be:

Girder	At Exp. Jt. #1	Pier #3	Pier #4	Pier #5	@ Exp. Jt. #2
26G-1	1610K	1630K	1540K	1624K	1574K
26G-2	805K	815K	769K	812K	787K
- All strands shall be post tensioned from both ends.
- Maximum number of ducts per stem shall be four (4) for 26G-1 Girders & two (2) for 26G-2 Girders.
- Prior to final tensioning of the prestressing steel, friction tests shall be conducted by the contractor to verify the friction losses used in calculating the working force. At least two friction tests shall be conducted for each tendon or duct length & profile. The cost of such tests shall be incidental to the prestressing operation & shall not be paid for separately.

SPECIAL NOTES

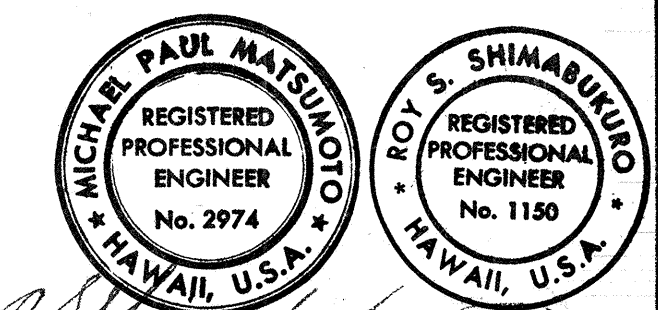
- All post tension ducts in each stem shall be placed to satisfy the locations shown for the center of gravity of post tension force.
- All curves in ducts shall be parabolic & smooth.

The post-tension notes (esp. note #6) on plan sh. #297 must be followed.

REFERENCE DRAWINGS

- Post Tension Notes --- Sh. 3-81
- Expansion Joints --- Sh. 3-33
- Beam "B" --- Sh. 3-89
- Cross Section --- Sh. 3-32

6/3/74	REVISED POST TENSION NOTE 2
DATE	REVISION



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 6

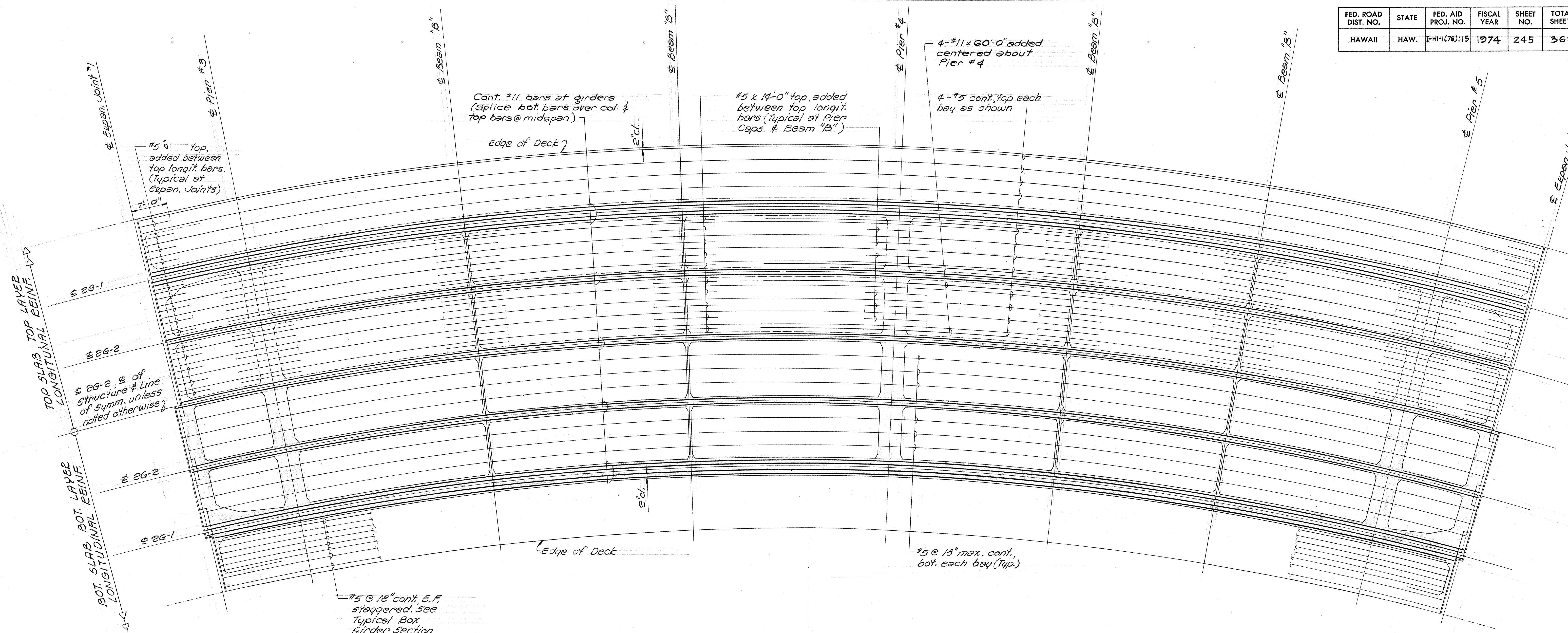
FRAMING PLAN, GIRDER STIRRUP
SPACING AND POST TENSION STRAND
PROFILE BETWEEN EXP. JT. #1 & #2

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

Scale: As Shown Date: DEC. 7, 1973

SHEET NO. 26 OF 106 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEET
HAWAII	HAW.	I-HI-1(73):15	1974	245	36

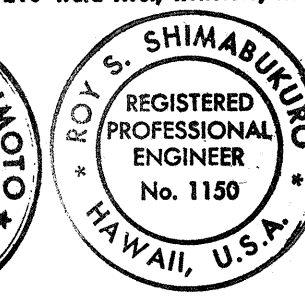


PLAN BETWEEN EXPANSION JOINTS SHOWING ARRANGEMENT OF TOP SLAB, TOP LAYER & BOT. SLAB, BOT. LAYER LONGIT. REINF.

REFERENCE DRAWINGS

1. Beam "B" details-----5h, S-89
2. Pier Cap details-----5h, S-24
3. Expan. Joint details-----5h, S-33

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1210 Ward Ave., Honolulu, HI 96813



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

STRUCTURE No. 6

TOP & BOTTOM SLAB LONGITUDINAL
REINFORCEMENT BETWEEN
EXPANSION JOINTS #1 & #2

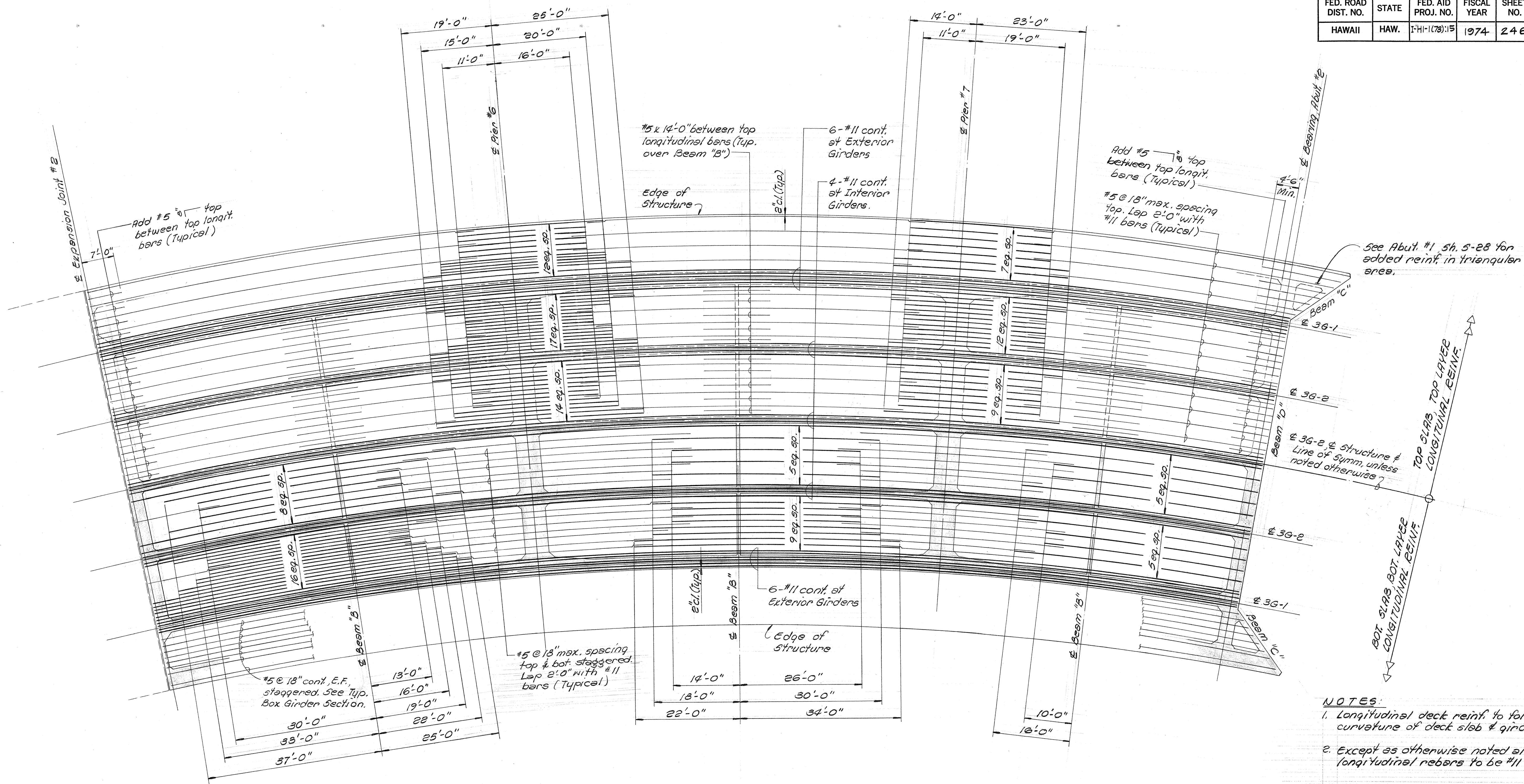
PEARL HARBOR INTERCHANGE
F.A. Proj. No. 1-HI-1(73): 15

Scale: As Shown Date: DEC. 7, 1973

SHEET No. 5-29 OF 106 SHEETS

245

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73):15	1974	246	369



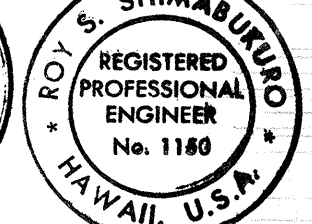
NOTES:
 1. Longitudinal deck reinf. to follow curvature of deck slab & girders.
 2. Except as otherwise noted all slab longitudinal rebars to be #11 bars.

PLAN BETWEEN EXPANSION JOINT #2 & ABUTMENT #2 SHOWING ARRANGEMENT OF TOP SLAB, TOP LAYER & BOT. SLAB, LONGIT. REINF.
 Scale: Horiz. = 3/32" = 1'-0", Vert. = 3/16" = 1'-0"

REFERENCE DRAWINGS

1. Beam "D" details --- Sh. S-28
2. Beam "B" details --- Sh. S-29
3. Beam "C" details --- Sh. S-28
4. Pier Cap details --- Sh. S-24
5. Exp. Jt. details --- Sh. S-33

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 HIGHWAYS DIVISION

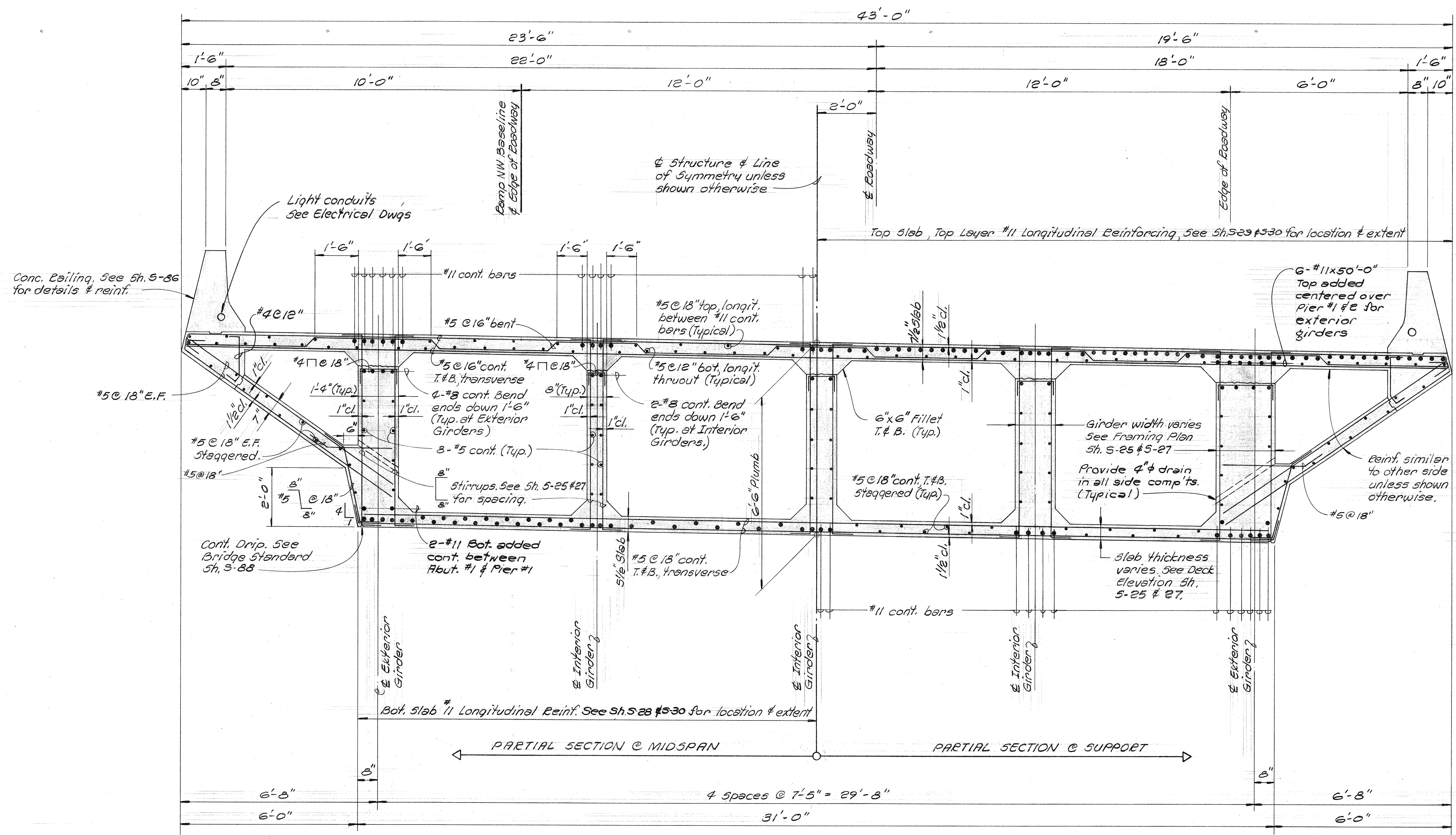
STRUCTURE No. G

TOP & BOT. SLAB LONGITUDINAL
 REINFORCEMENT BETWEEN
 EXP. JT. #2 & ABUT. #2

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

Scale: As Shown Date: DEC. 7, 1973
 SHEET NO. 246 OF 100 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H-1(73)-15	1974	248	369

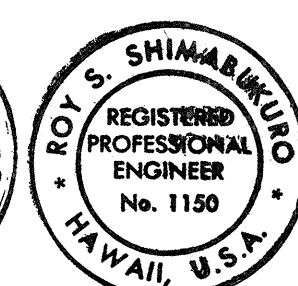
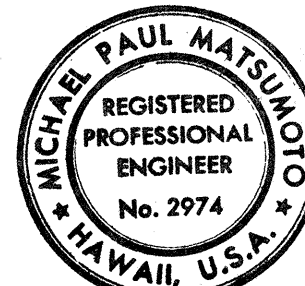


REINFORCING NOTES

- Bend all top & bottom longitudinal #11 & #5 bars 90° at Abutment & Expansion Joint ends.
9" R. for #11 bars
4" R. for #5 bars
Splice minimum of 20'-0" away from bend.
- All slab transverse reinforcing shall be placed normal to the Baseline.
- Longitudinal deck reinforcing along edge of deck to follow curvature of deck edge.

TYPICAL REINFORCED CONCRETE BOX GIRDER SECTION
1/2"=1'-0" (Dimensions shown are at right angles to the Baseline)

SHIMAZU SHIMABUKURO & FUKUDA, INC.
Consulting Structural Engineers
1000 Ward Ave., Honolulu, HI 96814



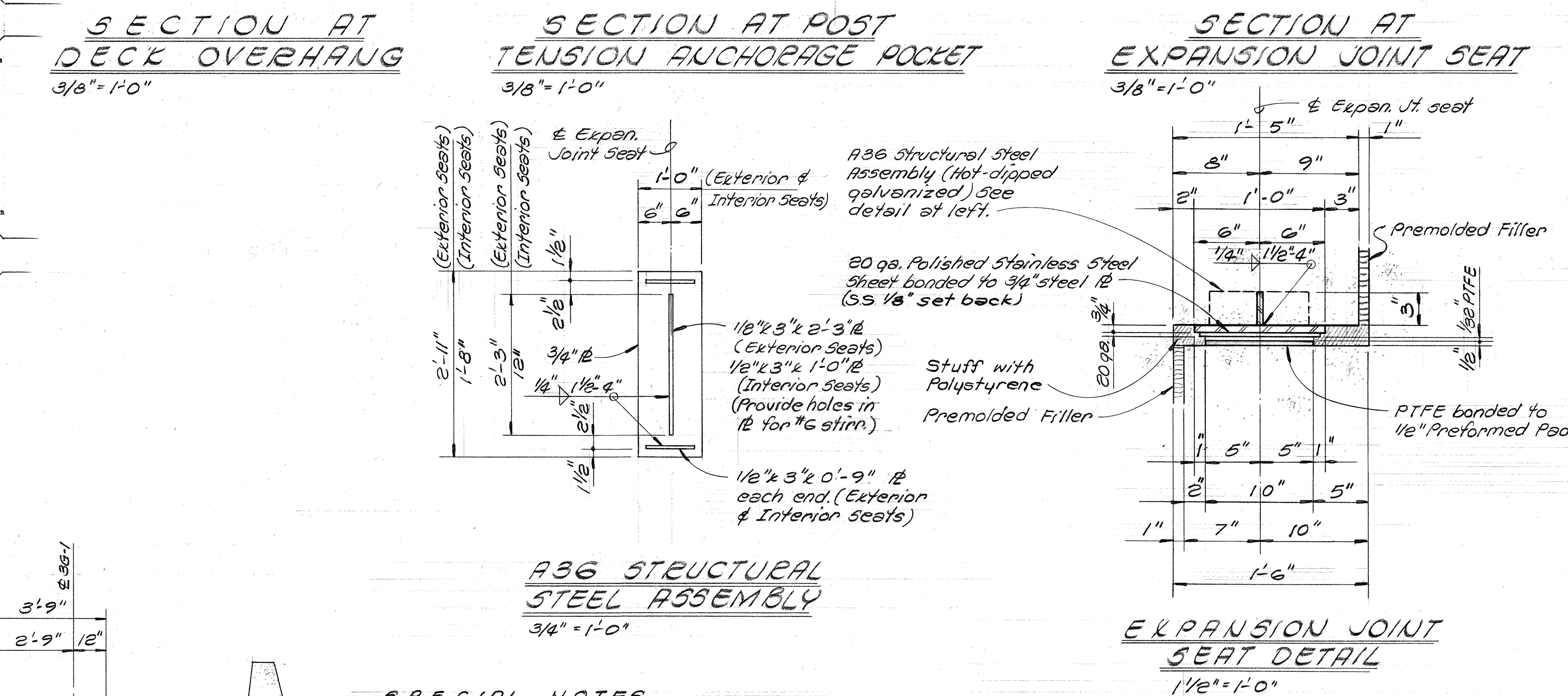
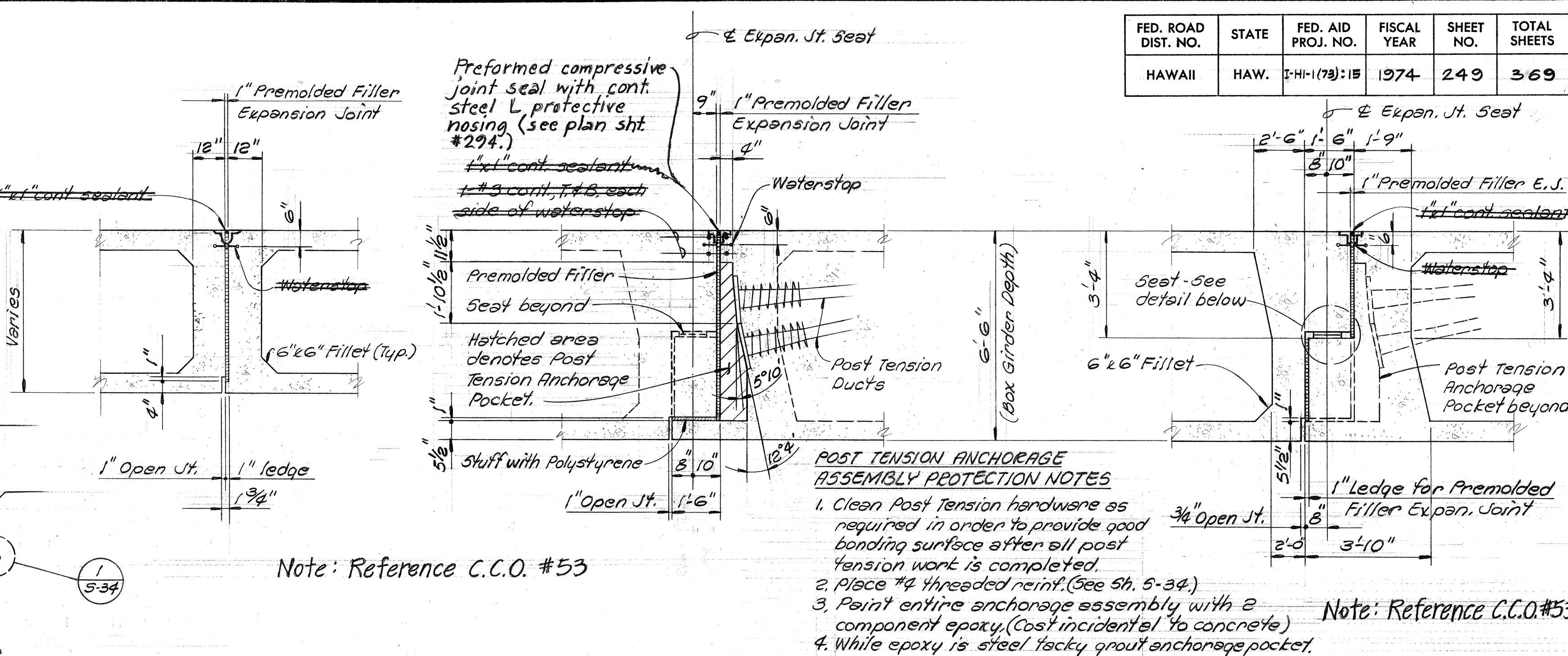
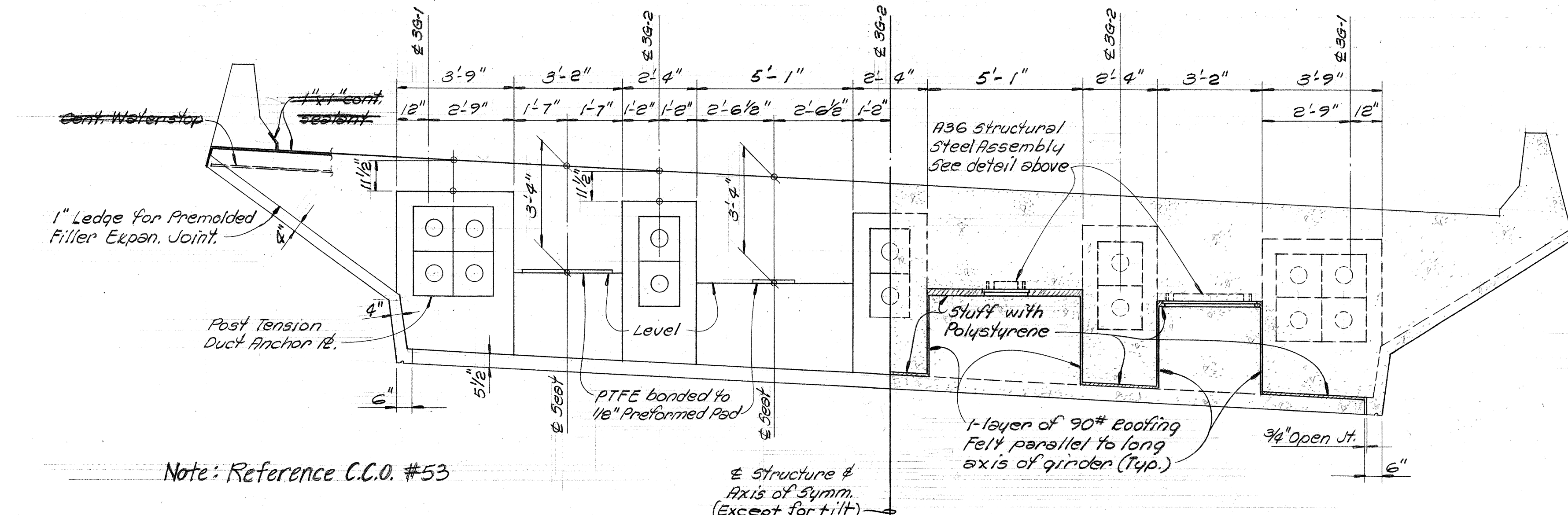
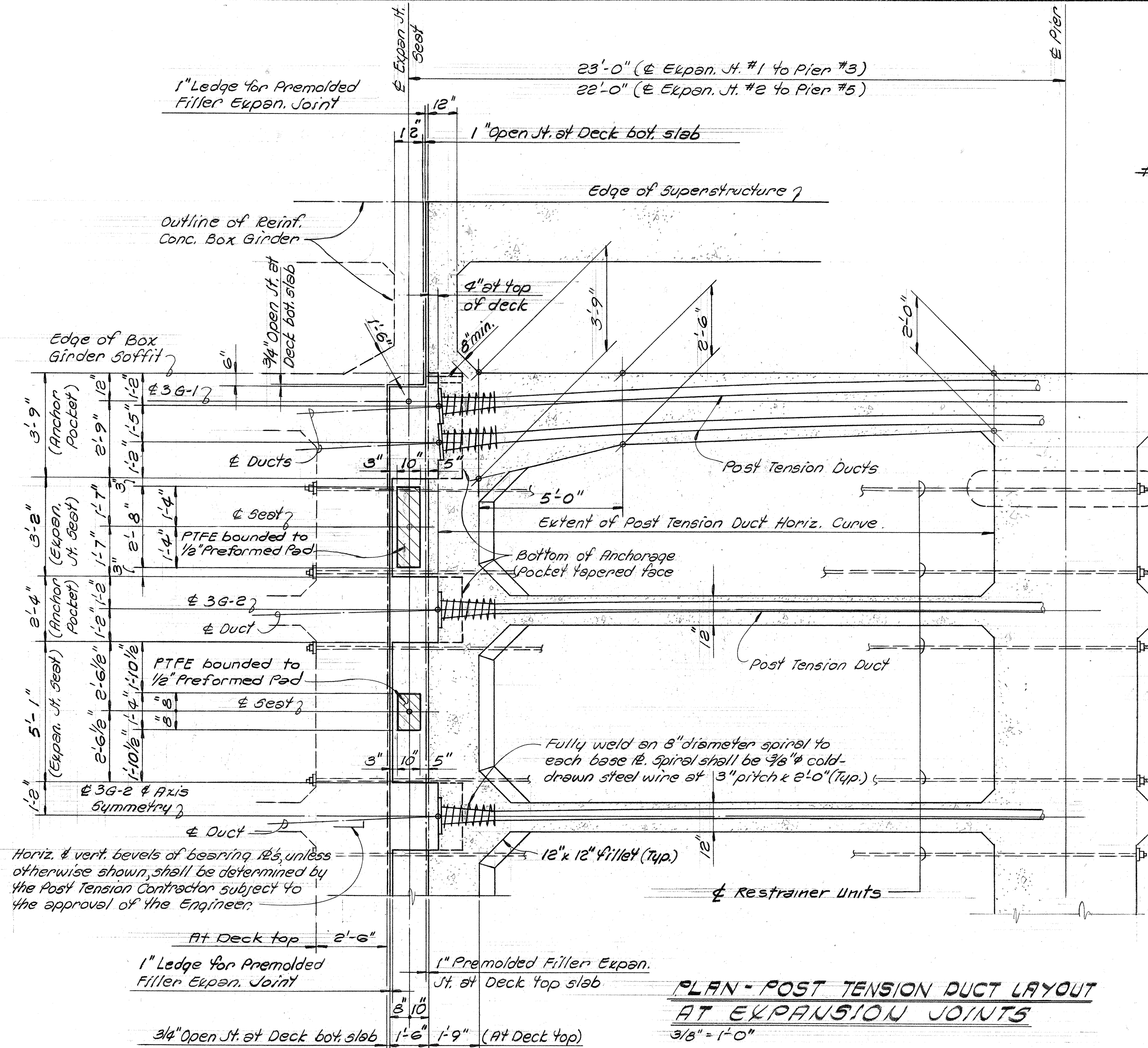
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 6
TYPICAL REINFORCED CONC.
BOX GIRDER SECTION

PEARL HARBOR INTERCHANGE
P.A.I. Proj. No. 1-H-1(73)-15
Scale: As Shown Date: DEC. 7, 1973
SHEET No. 248 OF 106 SHEETS

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(73):15	1974	249	369

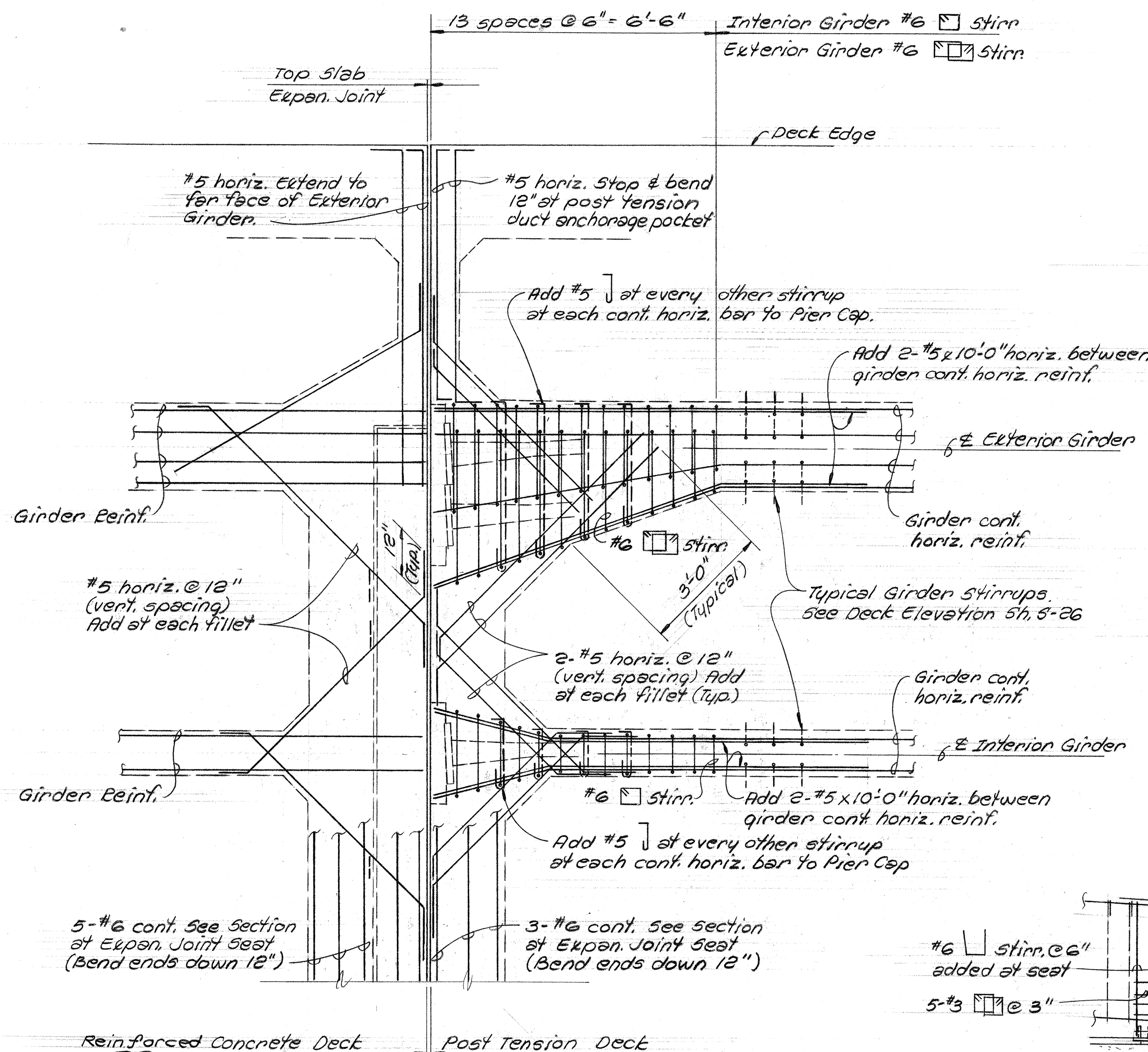


- SPECIAL NOTES**
- To provide for free movement of the completed hinge, abutting surfaces shall be separated with expanded polystyrene.
 - Caulk & tape the joints between bridge seats & all remaining openings to prevent grout or concrete seepage between abutting surfaces of hinge.
 - Bars may be bundled vertically with hooks horizontal if required for clearance.

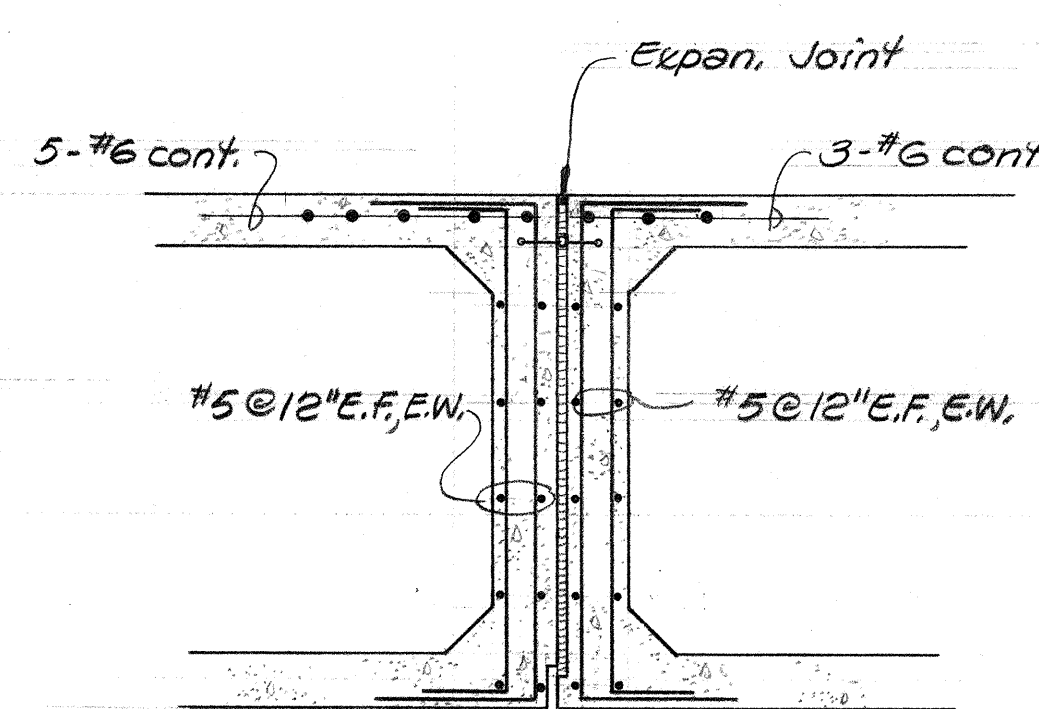


4/26/74	CHANGE "C" CABLE UNITS TO READ "C" RESTRAINER UNITS"
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STRUCTURE No. G EXPANSION JOINT DETAILS	
PEARL HARBOR INTERCHANGE F.A.I. Proj. No. I-HI-1 (73):15	
Scale: As Shown	Date: DEC. 7, 1973
SHEET No. 533 OF 106 SHEETS	

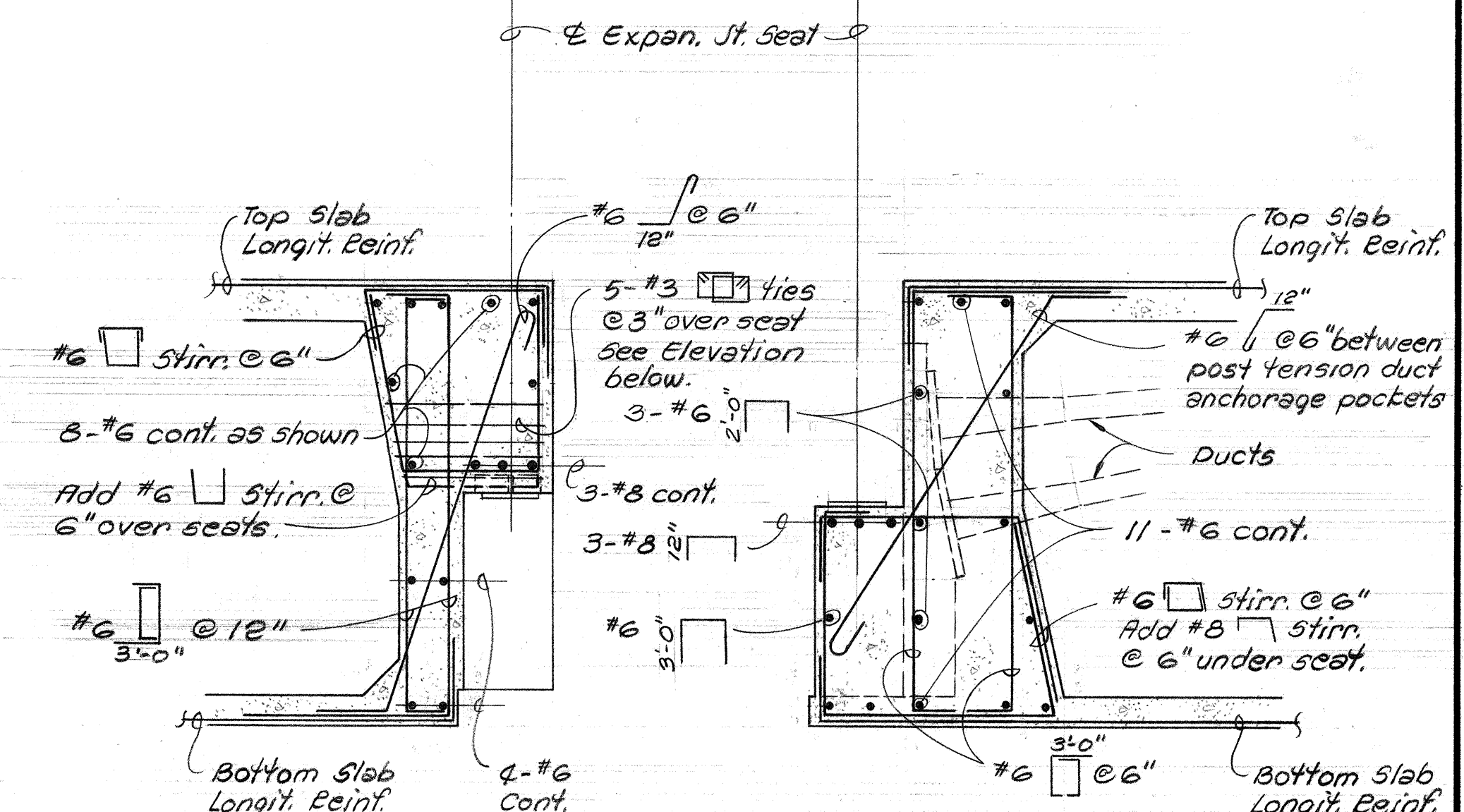
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(73):15	1974	250	369



PARTIAL DECK PLAN AT EXPANSION JOINT
1/2" = 1'-0"

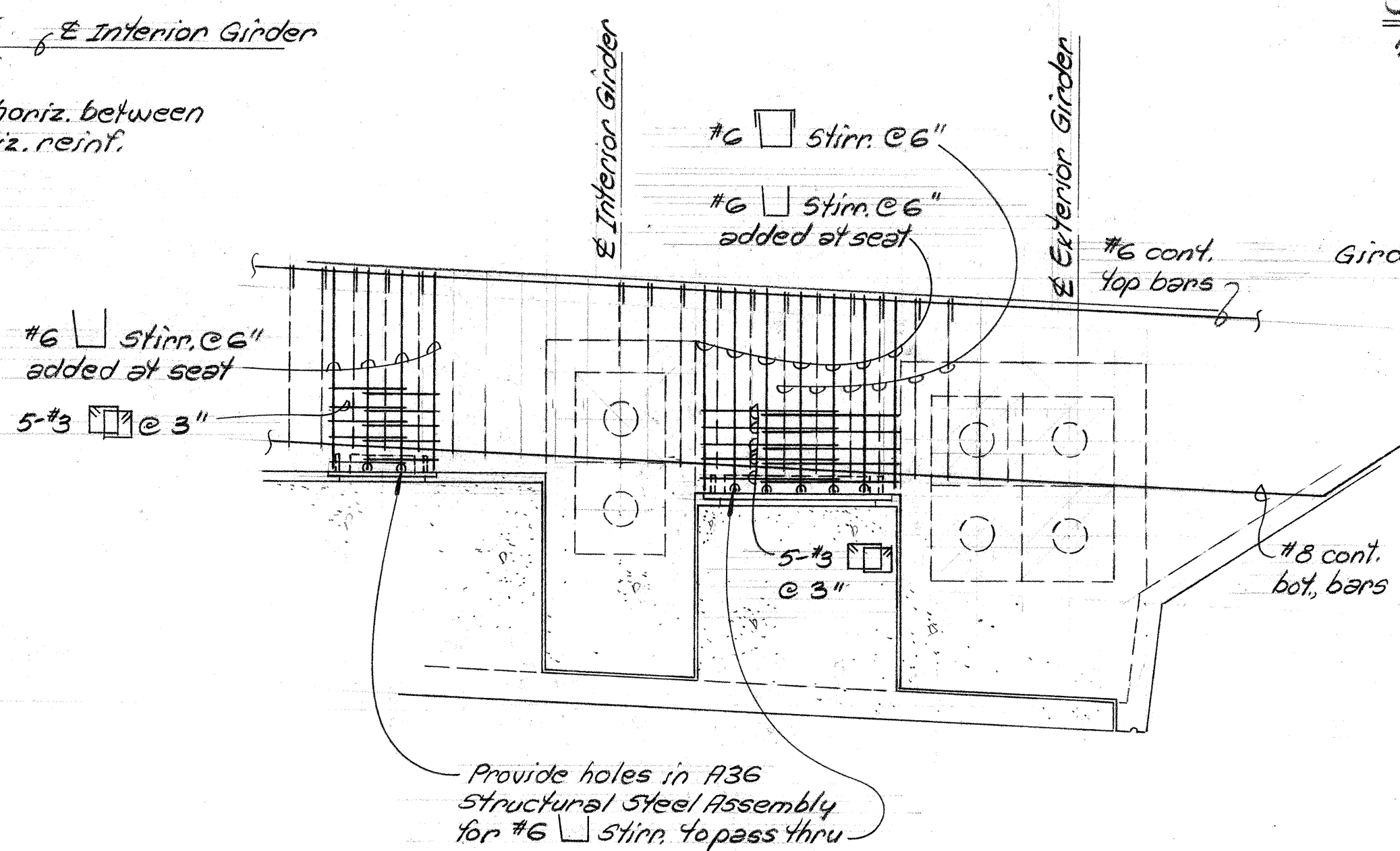


SECTION AT DECK OVERHANG
1/2" = 1'-0"

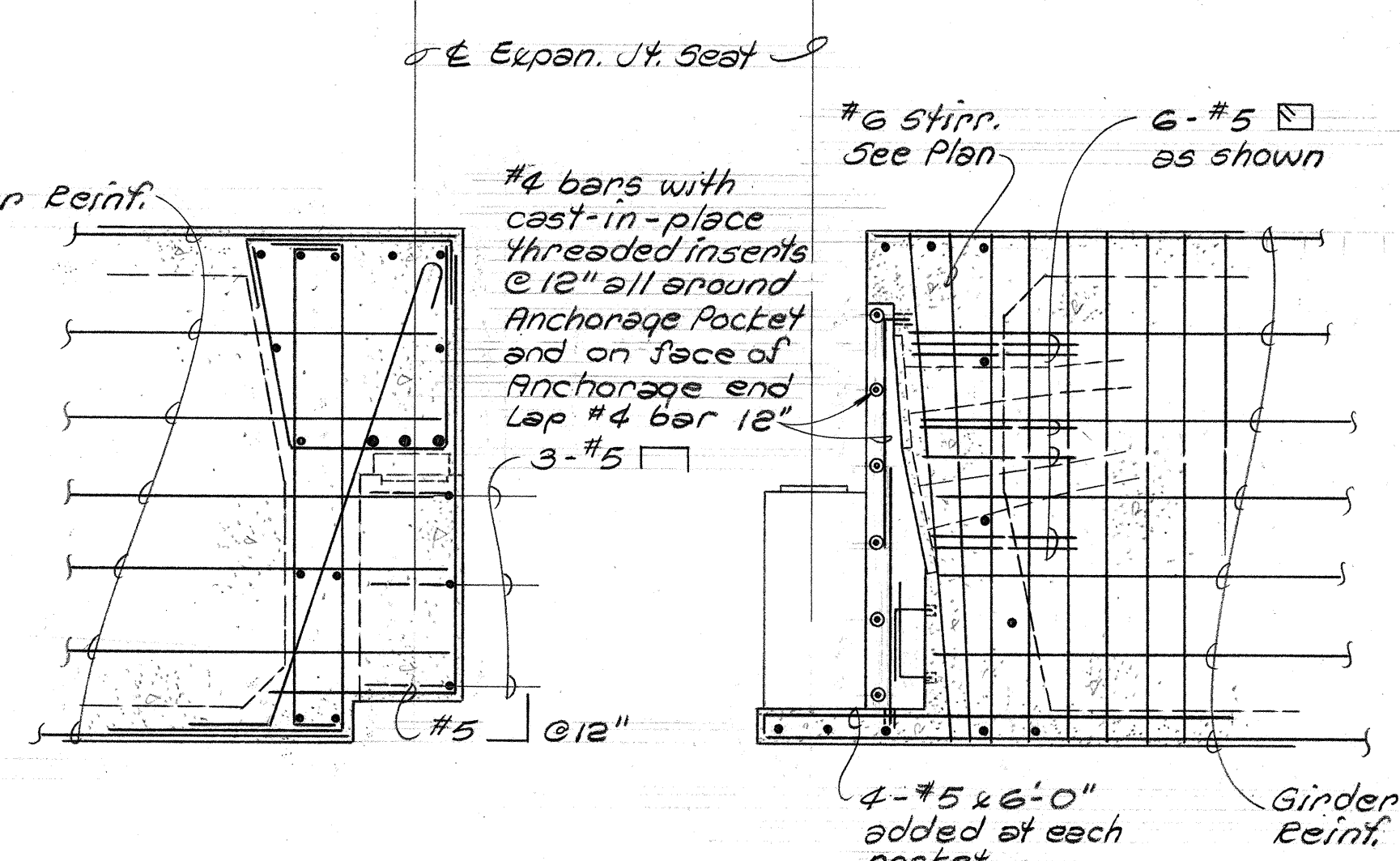


POURED CONC. SECTION POST TENSION SECTION

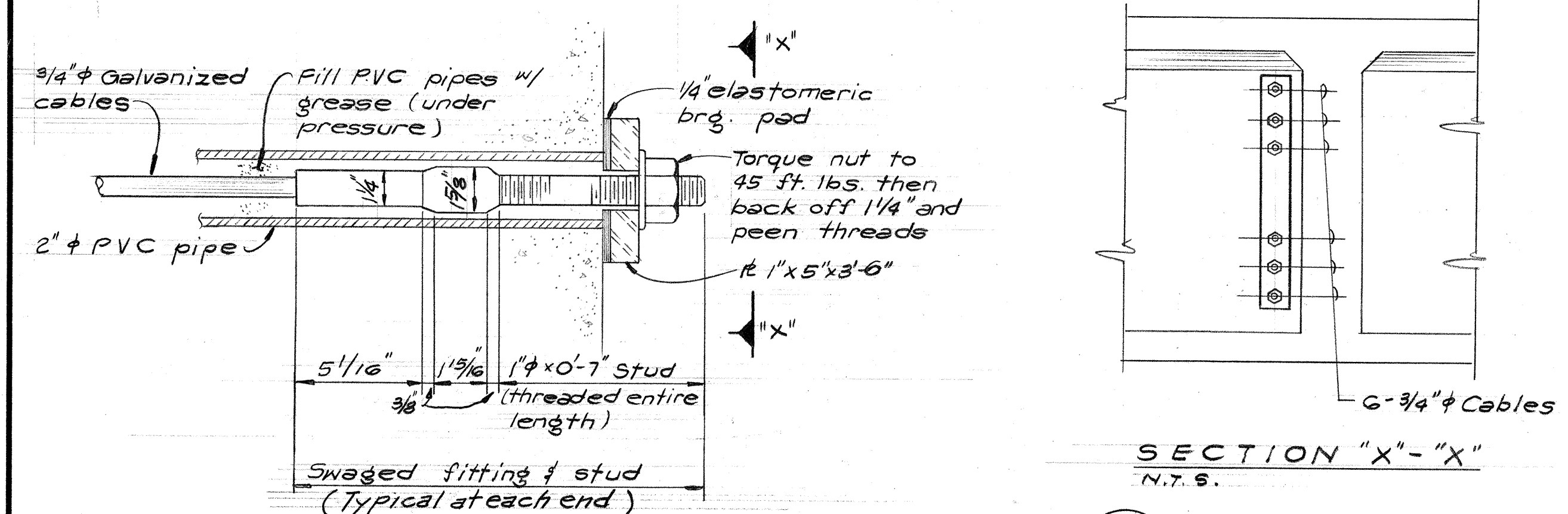
SECTION AT EXPANSION JOINT SEAT
1/2" = 1'-0"



SECTION ALONG E OF SEAT SHOWING ADDED REINF. AROUND A36 STRUCTURAL STEEL ASSEMBLY OVER SEAT
1/2" = 1'-0"



POURED CONC. SECTION POST TENSION SECTION
SECTION AT POST TENSION ANCHORAGE POCKET
1/2" = 1'-0"



DETAIL
3" = 1'-0"

4/26/74	ADD "TYPICAL AT EACH END" SWAGED FITTING & STUD
DATE	REVISION

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REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURE No. 6
REINFORCING
AT EXPANSION JOINT

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

Scale: As Shown Date: DEC. 7, 1973
SHEET No. 5-34 OF 106 SHEETS