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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	155	338

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S-4	LAYOUT PLAN & LONGITUDINAL SECTION (PIERS (11) TO (16))
S-5	LAYOUT PLAN & LONGITUDINAL SECTION (PIERS (16) TO (24))
S-6	LAYOUT PLAN & LONGITUDINAL SECTION (PIERS (24) TO (29))
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S-8	TYPICAL SECTIONS (H-1 WB ℄ STA. 229+29.33 & STA. 230+72.66)
S-9	TYPICAL SECTIONS (H-1 WB ℄ STA. 232+93.88 & STA. 235+67.28)
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S-11	DECK FINISH GRADE PLAN (PIERS (16) TO (29))
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MAUKA FRONTAGE ROAD — H-1 VIADUCT (WB)

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

KEEHI INTERCHANGE PREL'Y. & F. D. CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 710 — STATE OF HAWAII — U.S.A.

REGISTERED PROFESSIONAL ENGINEER No. 2074 — PAUL MATSUDA — HAWAII U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX TO DRAWINGS

KEEHI INTERCHANGE
F.A.I. PROJ. I-HI-1 (147):17

No Scale — Date: April 6, 1979

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T-3	SUGGESTED DETAIL FOR RESISTING 50 KIPS HORIZONTAL FORCE AT TOP OF COLUMN
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SD-6	DECK EXPANSION JOINT
SD-7	DECK EXPANSION JOINT
SD-8	STRUCTURE DRAINAGE DETAILS
SD-9	STRUCTURE DRAINAGE DETAILS
SD-10	PRESTRESSED CONCRETE PILES (PILE TYPES A & B)
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TEMPORARY RAMP III

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

ESTIMATED QUANTITIES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	156	338

ITEM NO.	ITEM	UNIT	QUANTITIES H-1 (WB.) VIADUCT	NIMITZ CONNECTOR	MAUKA FRONTAGE RD.	TEMPORARY RAMP III
202.0441	REMOVAL OF RAMP I STRUCTURE	L.S.	1			
202.0442	REMOVAL OF RAMP II STRUCTURE	L.S.	1			
206.6000	STRUCTURE EXCAVATION FOR BRIDGES	C.Y.	9941 C.Y.	827 C.Y.	2249 C.Y.	
206.7000	STRUCTURE BACKFILL	C.Y.			202 C.Y.	
206.8000	FILTER MATERIAL	C.Y.			14 C.Y.	
206.8500	CRUSHER SCREENINGS	C.Y.			14 C.Y.	
411.1300	CONCRETE IN APPROACH SLABS	C.Y.			193 C.Y.	
503.1900	CONCRETE IN BRIDGES (EXCEPT FOOTINGS); H-1 (WB) VIADUCT	L.S.	14995 C.Y.			
503.1910	CONCRETE IN BRIDGES (EXCEPT FOOTINGS); NC (WB) VIADUCT	L.S.		1469 C.Y.		
503.1920	CONCRETE IN BRIDGES (EXCEPT FOOTINGS); MAUKA FRONTAGE ROAD	L.S.			4570 C.Y.	
503.1940	CONCRETE IN BRIDGE FOOTINGS (INCLUDING PEDESTALS); H-1 (WB) VIADUCT	L.S.	4423 C.Y.			
503.1950	CONCRETE IN BRIDGE FOOTINGS (INCLUDING PEDESTALS); NC (WB) VIADUCT	L.S.		489 C.Y.		
503.1960	CONCRETE IN BRIDGE FOOTINGS; MAUKA FRONTAGE ROAD	L.S.			34 C.Y.	
504.1300	KEEHI TYPE IF PRESTRESSED CONCRETE GIRDERS	L.F.			2243 L.F.	
504.4500	KEEHI TYPE IV PRESTRESSED CONCRETE GIRDERS	L.F.	17334 L.F.	2720 L.F.		
504.4510	KEEHI TYPE IV F PRESTRESSED CONCRETE GIRDERS	L.F.	3978 L.F.	907 L.F.		
504.7310	PRESTRESSED CONCRETE TEE GIRDERS	L.F.			13998 L.F.	
505.0010	PILE LOAD TEST	EA.	5 EA.			
505.0430	PRECAST, PRESTRESSED CONCRETE PILES, TYPE A, FURNISHED	L.F.	80576 L.F.	14038 L.F.	80241 L.F.	
505.0431	PRECAST, PRESTRESSED CONCRETE PILES, TYPE A, IN 25' SEGMENTS, FURNISHED	L.F.	750 L.F.			
505.0432	PRECAST, PRESTRESSED CONCRETE PILES, TYPE A, IN 50' SEGMENTS, FURNISHED	L.F.	750 L.F.			
505.0440	PRECAST, PRESTRESSED CONCRETE PILES, TYPE C, FURNISHED	L.F.	5773 L.F.			
505.4300	PRECAST, PRESTRESSED CONCRETE PILES, TYPE A, DRIVEN	L.F.	77257 L.F.	13273 L.F.	74473 L.F.	
505.4400	PRECAST, PRESTRESSED CONCRETE PILES, TYPE C, DRIVEN	L.F.	5119 L.F.			
505.6100	SLEEVED HOLE, 28 INCH DIAMETER	L.F.	1361 L.F.	479 L.F.	3806 L.F.	
505.8100	PILE DRIVING SHOE	EA.	467 EA.	66 EA.	436 EA.	
505.9100	PILE DRIVING EQUIPMENT EXPENSE	L.S.				
505.9200	"BUILD-UPS" OF PILES	F.A.				
507.7100	STANDARD PARAPET	L.F.	4328 L.F.	910 L.F.	1226 L.F.	
507.7200	STANDARD SIDEWALK PARAPET (INCLUDING END POSTS)	L.F.			1291 L.F.	
511.0100	DECK EXPANSION JOINT	L.F.	2945 L.F.	305 L.F.	2676 L.F.	
512.0100	COLUMN HINGE	EA.	40 EA.			
516.1000	RAMP III STRUCTURE	L.S.	1			
602.1300	REINFORCING STEEL IN BRIDGES; H-1 (WB) VIADUCT	L.S.	6,268,800 LBS			
602.1310	REINFORCING STEEL IN BRIDGES; NC (WB) VIADUCT	L.S.		528584 LBS		
602.1320	REINFORCING STEEL IN BRIDGES; MAUKA FRONTAGE ROAD	L.S.			1,113,200 LBS.	
604.4900	FURNISHING & INSTALLING DUCTILE IRON FRAME & COVER FOR DECK DRAIN CLEANOUT	EA.	23 EA.			
604.5000	FURNISHING & INSTALLING TYPE A-12 FRAME & GRATE FOR DECK DRAINAGE	EA.	42 EA.	7 EA.	13 EA.	
660.0100	BITUMEN COATING	L.F.	41957 L.F.	8430 L.F.	50252 L.F.	

TEMPORARY RAMP III

STRUCTURE EXCAVATION FOR BRIDGES (RAMP & RETAINING WALLS)	L.S.	663 C.Y.
STRUCTURE BACKFILL FOR BRIDGES (RAMP & RETAINING WALLS)	L.S.	824 C.Y.
FILTER MATERIAL	L.S.	56 C.Y.
CONCRETE IN RAMP III FOOTINGS (INCLUDES PEDESTALS & TIE BEAMS)	L.S.	107 C.Y.
CONCRETE IN ABUTMENT & RETAINING WALLS (INCLUDES P.I.P. PARAPETS AT RETAINING WALLS)	L.S.	299 C.Y.
REINF. STEEL IN ABUTMENT & RETAINING WALLS (INCLUDES P.I.P. PARAPETS AT RETAINING WALLS)	L.S.	50,648 LBS.
REINFORCING STEEL IN RAMP III	L.S.	17,504 LBS.
STRUCTURAL STEEL FOR RAMP III	L.S.	316,442 LBS.
PRECAST CONCRETE DECK SLAB FOR RAMP III	L.S.	260 C.Y.
PRECAST CONCRETE PARAPET FOR RAMP III	L.S.	810 C.Y.
ASPHALT CONCRETE PAVEMENT, MIX NO. III	L.S.	104 TON
SS-1 EMULSIFIED ASPHALT FOR BITUMINOUS TACK COAT	L.S.	170 GAL.

STATE HIGHWAY STANDARDS

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
DB100	NOTES & MISCELLANEOUS DETAILS
DB101-3	CONCRETE BOX GIRDER
DB207-2	RETAINING WALL TYPE T-1

[illegible] CONSULTANTS
c/o [illegible], Shimabuku[illegible] Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

Michael Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX TO DRAWINGS
ESTIMATED QUANTITIES

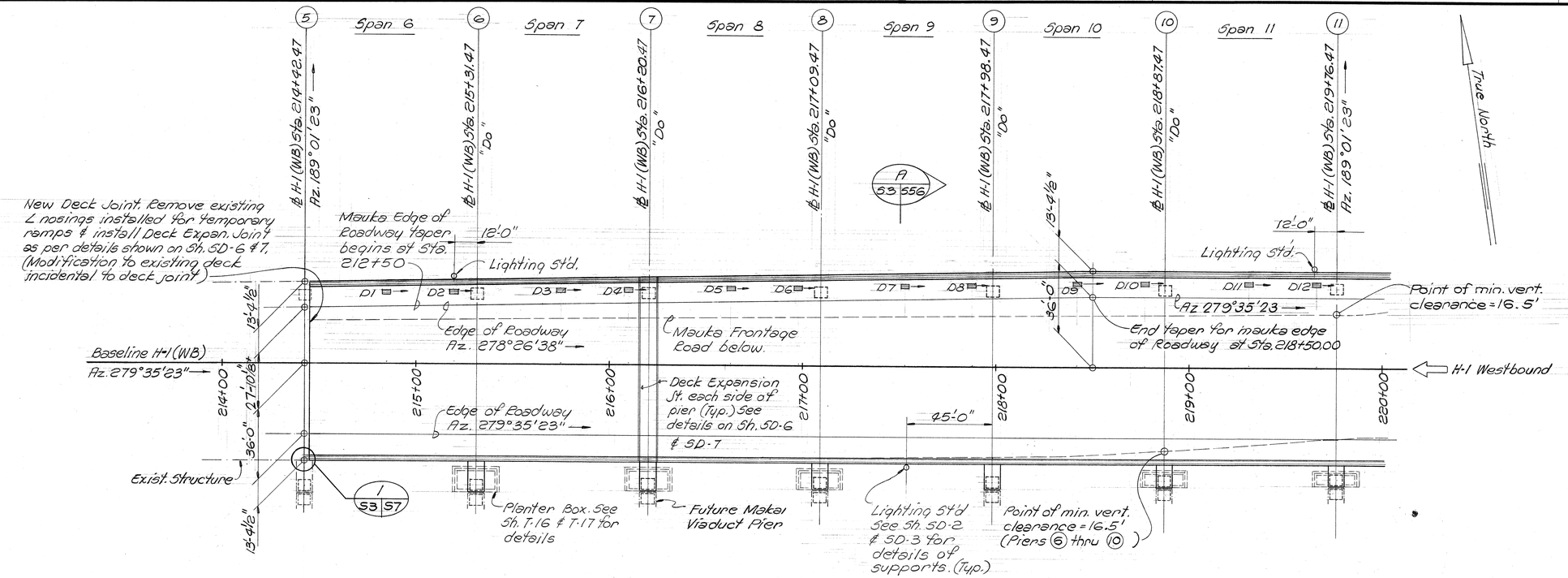
KEEHI INTERCHANGE
F.A.I. PROJ. I-HI-1(147):17

NO SCALE

DATE: APRIL 2, 1979

SHEET No. S-2 OF 60 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	157	338



PARTIAL VIADUCT LAYOUT PLAN

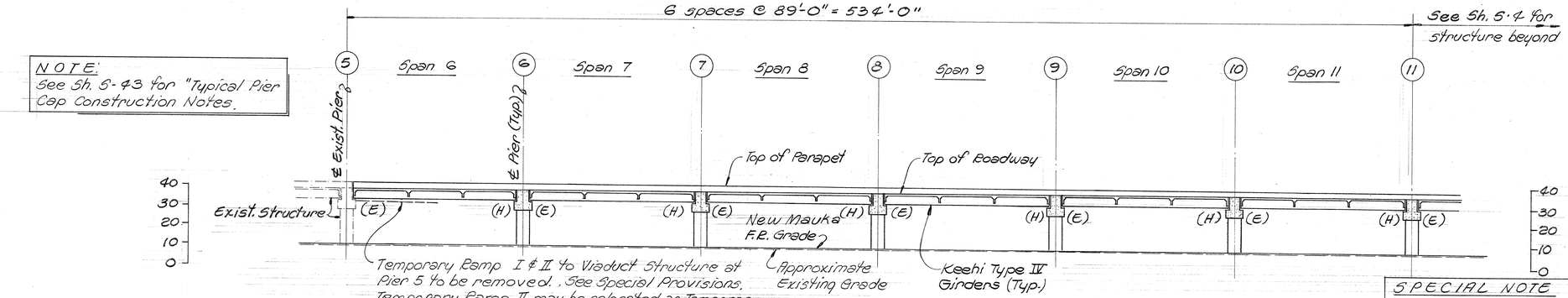
Scale: 1" = 30'-0"

DECK DRAIN LOCATION SCHEDULE

Deck Drain	Location (℄ H-1 (WB) Sta.)
D1	214+85.00
D2	215+20.00
D3	215+75.00
D4	216+10.00
D5	216+63.00
D6	216+98.00
D7	217+53.00
D8	217+88.00
D9	218+42.00
D10	218+77.00
D11	219+31.00
D12	219+66.00

Deck Drain Notes

1. Stations are to ℄ of Deck Drains.
2. For details see Shs. 5D-8 & 5D-9
3. All drain scuppers on this sheet are Type "A".



NOTE:
See Sh. 5-43 for "Typical Pier Cap Construction Notes.

PARTIAL LONGITUDINAL SECTION ALONG BASELINE H-1 (WB)

Scale: 1" = 30'-0"

SPECIAL NOTES

1. Unless shown otherwise all transverse dimensions are perpendicular to Baseline H-1 (WB) & all longitudinal dimensions are on Baseline H-1 (WB).
2. See Civil Drawings for all horizontal & vertical controls
3. For Hinge Restrainer details at hinge end of girder, see Sh. T-10.
4. See Sh. 5-43 for Typical Pier Cap Construction Notes.

LEGEND

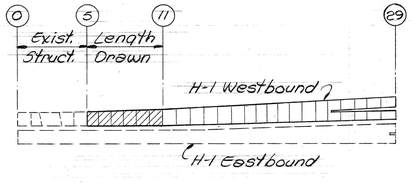
(H) = Hinge end of girders
(E) = Expansion end of girders
D2 = Deck Drain #2

SPECIAL NOTE

For location of strength of cast-in-place concrete other than Classes A & BD & grade of reinforcing steel other than Grade 40, see Sh. T-18

REFERENCE DRAWINGS

1. Pier Elevations - - - - Sh. 5-18, 19 & 20.
2. Typical Viaduct & Frontage Road Sections - - Sh. 5-7, 8 & 9.
3. Girder Length Schedule - - Sh. 5-51 to 54
4. Deck Finish Grades - - - - - Sh. 5-10 & 11



KEY PLAN

DESIGN CRITERIA

1. See Sh. 5D-1 for General Notes.
2. Cast-in-place concrete for the various parts of the viaduct structures are:
   - Class A = Beams, footings, pile caps, tie beams & parapets. (Except pile caps at Piers 22 & 23)
   - Class BD = Concrete Deck Slab.
   - 5,000 p.s.i. = All others (Columns & Pier Caps) = Pile Caps at Piers 22 & 23
   - Class A-1 = Mauka Front. Rd. pile pier cap Nos. N1 thru N35 (Field Change Order No. 5)
3. Reinforcing steel for cast-in-place concrete are as follows:
   - Grade 40 = Concrete deck slab, beams & parapets
   - Grade 60 = Pier cap, column, footing, pile cap, pedestal, tie beam reinforcing & others not specified.

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 2074 HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL LAYOUT PLAN & LONGITUDINAL SECTION
STA. 214+42.47 TO 219+76.47

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

SHEET NO. 5-3 OF 60 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

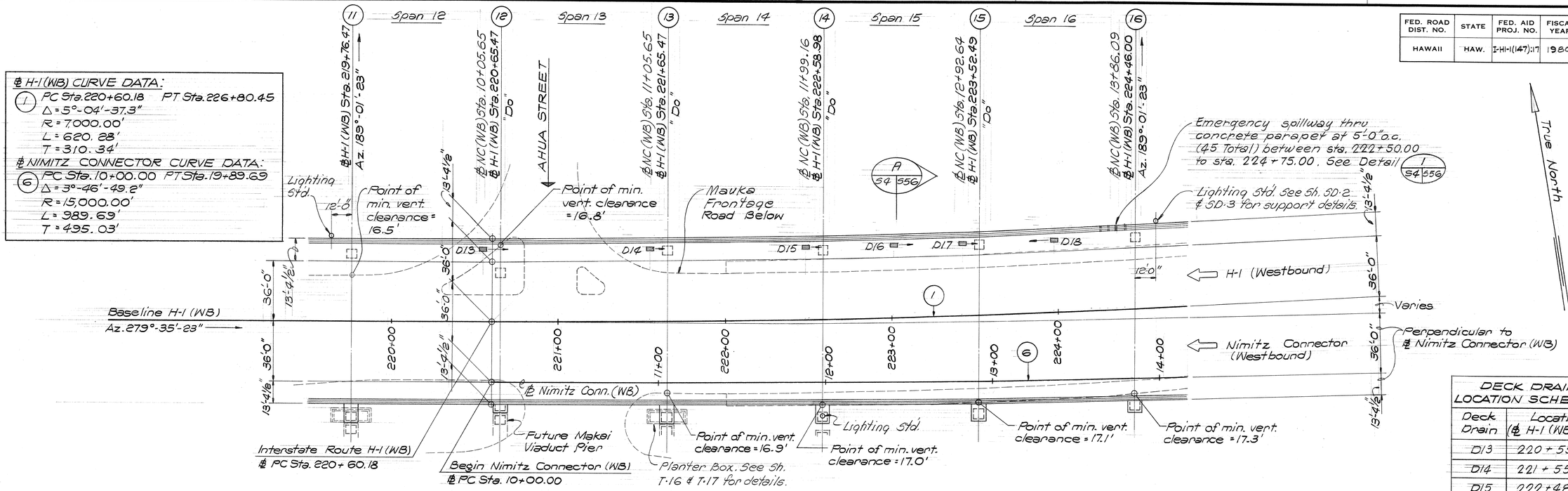
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	158	338

℄ H-1 (WB) CURVE DATA:

(1) PC Sta. 220+60.18 PT Sta. 226+80.45
Δ = 5°-04'-37.3"
R = 7000.00'
L = 620.28'
T = 310.34'

℄ NIMITZ CONNECTOR CURVE DATA:

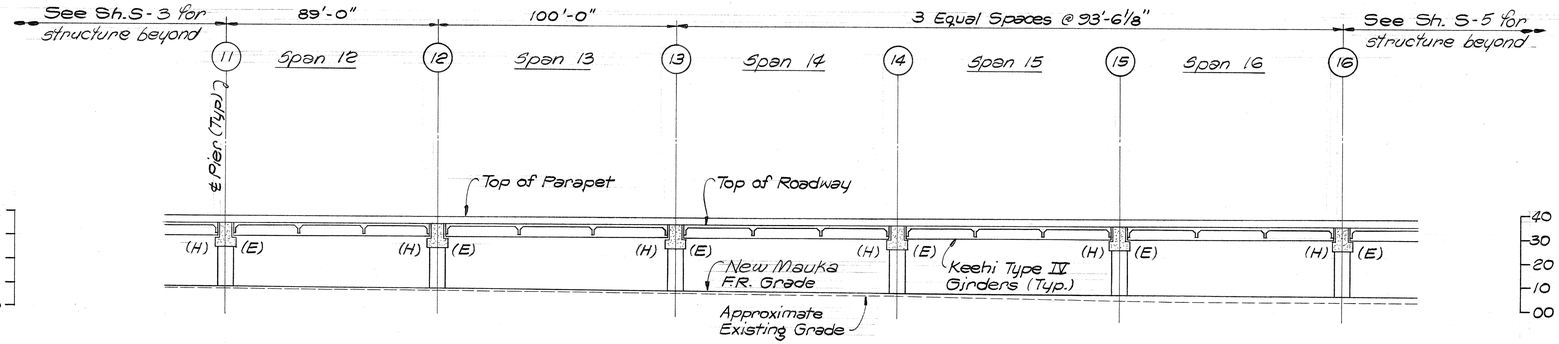
(6) PC Sta. 10+00.00 PT Sta. 19+89.69
Δ = 3°-46'-49.2"
R = 15,000.00'
L = 989.69'
T = 495.03'



PARTIAL VIADUCT LAYOUT PLAN

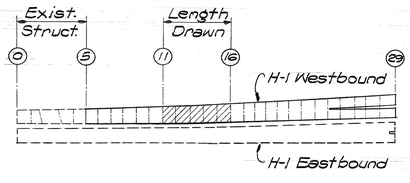
Scale: 1" = 30'-0"

DECK DRAIN LOCATION SCHEDULE	
Deck Drain	Location (℄ H-1 (WB) Sta.)
D13	220 + 55.00
D14	221 + 55.00
D15	222 + 48.00
D16	223 + 07.00
D17	223 + 42.00
D18	223 + 97.00



PARTIAL LONGITUDINAL SECTION ALONG BASELINE H-1 (WB)

Scale: 1" = 30'-0"



KEY PLAN

SPECIAL NOTE

See Sh. S-3 for Special Notes & Design Criteria.

Deck Drain Notes

1. Stations are to ℄ of Deck Drains
2. For details see Shs. SD-8 & SD-9
3. All drain scuppers on this sheet are Type "A".

LEGEND

(H) = Hinge end of girders
(E) = Expansion end of girders
D2 = Deck Drain #2

REFERENCE DRAWINGS

1. Pier Elevations ——— Sh. S-18, 19 & 20
2. Typical Viaduct & Frontage Road Sections — Sh. S-7, 8 & 9
3. Girder Length Schedule — Sh. S-51 to 54
4. Finish Deck Elevations — Sh. S-10 & 11

KEEHI INTERCHANGE AREA I & H CONSULTANTS
c/o Shimizu, Shinabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

RICHARD PAUL MATSUMOTO REGISTERED PROFESSIONAL ENGINEER No. 2076 HAWAII, U.S.A.

This work was prepared by me or under my supervision.

Richard Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL LAYOUT PLAN & LONGITUDINAL SECTION
STA. 219+76.47 TO 224+46.00

KEEHI INTERCHANGE
F.A.-I. PROJ. No. I-HI-1 (147):17

Scale: As Shown Date: April 2, 1979

SHEET No. S-4 OF 60 SHEETS

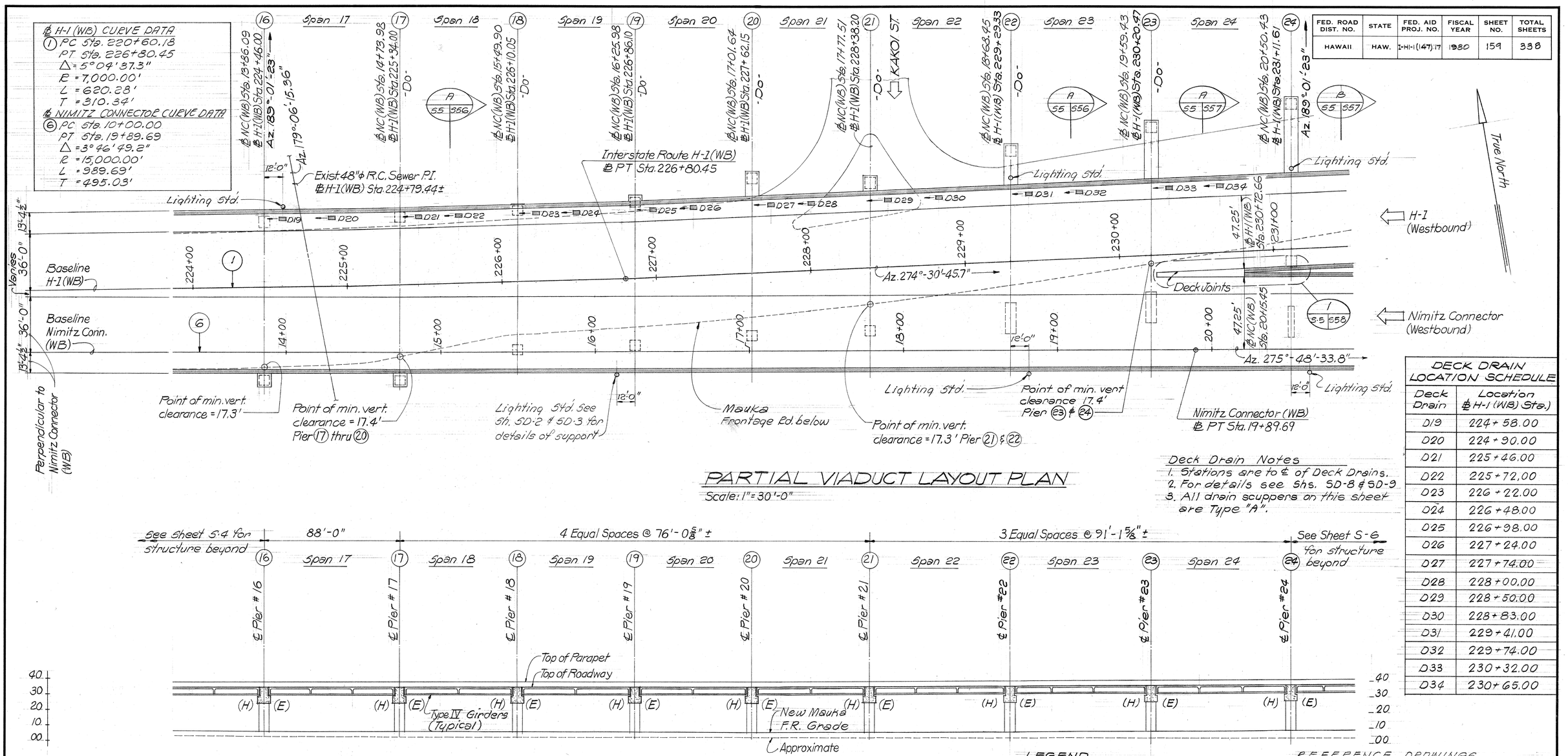
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE
NOTE BOOK | No.

PRINTED ON NO. 1000N CLEARPRINT

158

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	159	338

℄ H-1 (WB) CURVE DATA
(1) PC Sta. 220+60.18
PT Sta. 226+80.45
Δ = 5°09'37.3"
R = 7,000.00'
L = 620.28'
T = 310.34'
℄ NIMITZ CONNECTOR CURVE DATA
(6) PC Sta. 10+00.00
PT Sta. 19+89.69
Δ = 3°46'49.2"
R = 15,000.00'
L = 989.69'
T = 495.03'



PARTIAL VIADUCT LAYOUT PLAN

Scale: 1" = 30'-0"

DECK DRAIN LOCATION SCHEDULE	
Deck Drain	Location ℄ H-1 (WB) Sta.
D19	224+58.00
D20	224+90.00
D21	225+46.00
D22	225+72.00
D23	226+22.00
D24	226+48.00
D25	226+98.00
D26	227+24.00
D27	227+74.00
D28	228+00.00
D29	228+50.00
D30	228+83.00
D31	229+41.00
D32	229+74.00
D33	230+32.00
D34	230+65.00

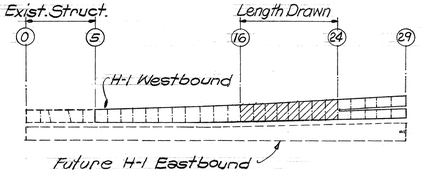
Deck Drain Notes
1. Stations are to ℄ of Deck Drains.
2. For details see Shs. SD-8 & SD-9
3. All drain scuppers on this sheet are Type "A".

PARTIAL LONGITUDINAL SECTION ALONG BASE LINE H-1 (WB)

Scale: 1" = 30'-0"

LEGEND
(H) = Hinge end of girders
(E) = Expansion end of girders
D2 = Deck Drain #2

REFERENCE DRAWINGS
1. Pier Elevations ------ Sh. S-18, 19 & 20
2. Typical Viaduct & Frontage Road Sections ---- Sh. S-7, 8 & 9
3. Girder Length Schedule --- Sh. S-51 to 54
4. Deck Finish Grades ----- Sh. S-10 & 11



KEY PLAN

SPECIAL NOTE
See Sh. S-3 for Special Notes & Design Criteria.

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL LAYOUT PLAN & LONGITUDINAL SECTION AT STA. 224+46.00 TO 231+11.61

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

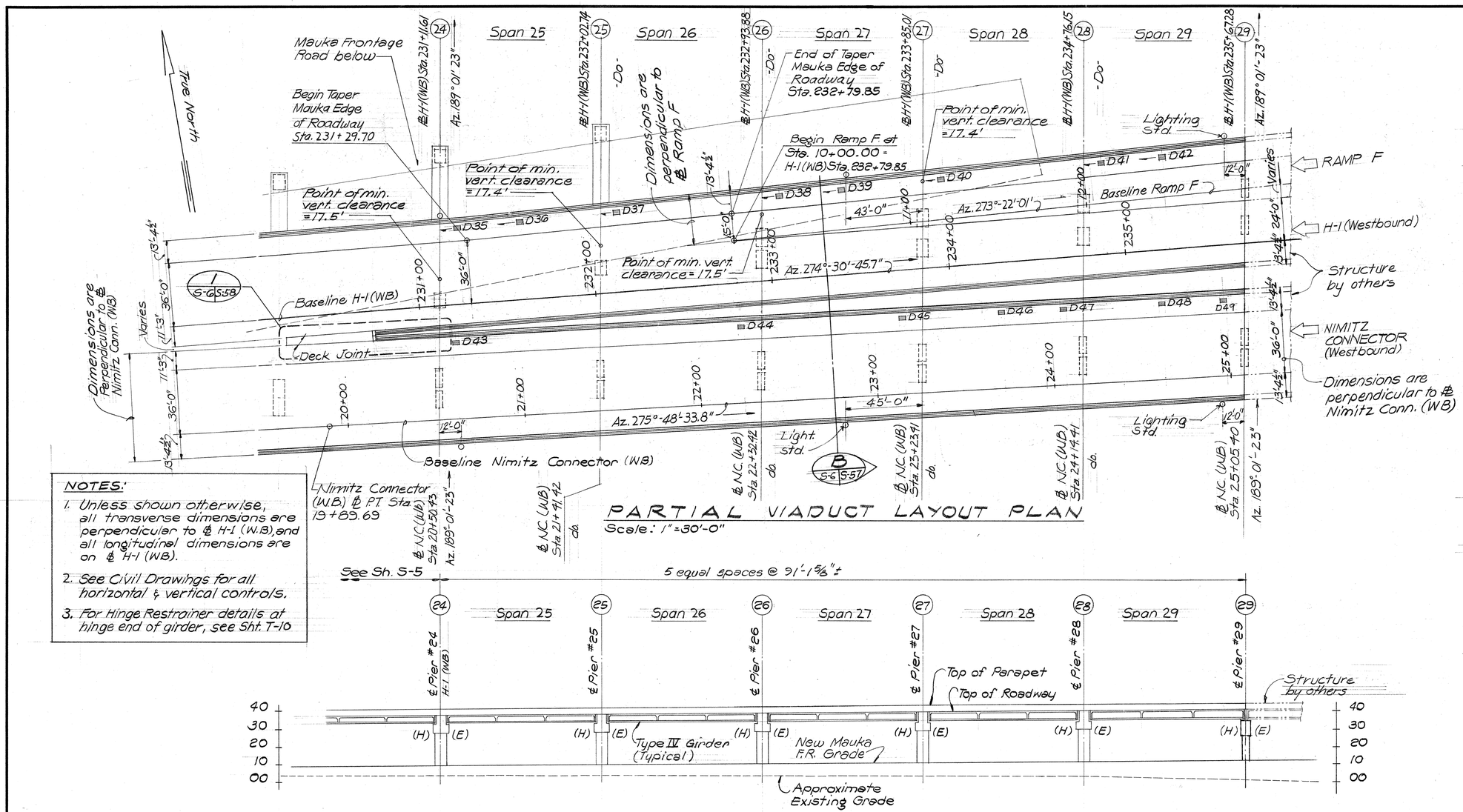
Scale: As Shown Date: 4/2/79

SHEET NO. S-5 OF 60 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	160	338

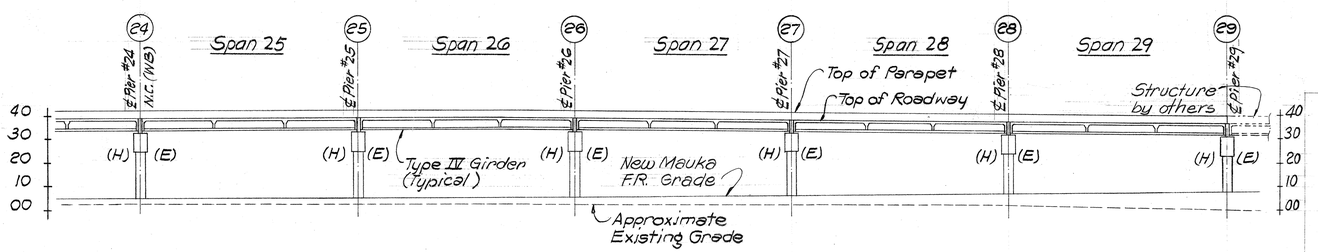


PARTIAL VIADUCT LAYOUT PLAN

Scale: 1"=30'-0"

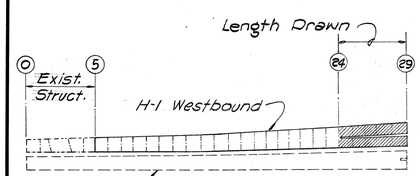
PARTIAL LONGITUDINAL SECTION ALONG BASELINE H-1 (WB)

Scale: 1"=30'-0"



PARTIAL LONGITUDINAL SECTION ALONG BASELINE NIMITZ CONNECTOR (WB)

Scale: 1" =30'-0"



KEY PLAN

NOTES:

1. Unless shown otherwise, all transverse dimensions are perpendicular to ℄ H-1 (W.B), and all longitudinal dimensions are on ℄ H-1 (WB).
2. See Civil Drawings for all horizontal & vertical controls.
3. For Hinge Restrainer details at hinge end of girder, see Sht. T-10

DECK DRAIN LOCATION SCHEDULE

DECK DRAIN	SCUPPER TYPE	OUTFALL TYPE	LOCATION
D35	A	2	H-1 (WB) 231+25
D36	A	2	H-1 (WB) 231+61
D37	A	2	H-1 (WB) 232+16
D38	A	2	H-1 (WB) 233+08
D39	A	2	H-1 (WB) 233+43
D40	A	2	H-1 (WB) 233+99
D41	A	2	H-1 (WB) 234+90
D42	A	2	H-1 (WB) 235+25
D43	C		NC (WB) 20+63
D44	C		NC (WB) 22+25
D45	C		NC (WB) 23+16
D46	C		NC (WB) 23+72
D47	C		NC (WB) 24+07
D48	C		NC (WB) 24+63
D49	C		NC (WB) 24+98

DECK DRAIN NOTES:

1. Stations are to ℄ of Deck Drain.
2. For details, see Sht. SD-8 & SD-9.
3. Provide temporary plugs at deck drains D43 to D47.

LEGEND:

(H) = Hinged end of Girder
(E) = Expansion end of Girder
D40 = Deck Drain #40.

REFERENCE DRAWINGS:

1. Pier Elevations ------ Sh. S-18, 19 & 20.
2. Typical Viaduct & Frontage Rd. Sections ---- Sht. S-7, 8 & 9.
3. Girder Schedule ------ Sht. S-51 to 54
4. Deck Finish Grades ---- Sht. S-10 & 11

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

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1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 868 REUBEN Y. F. YAH HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

PARTIAL LAYOUT PLAN & LONGITUDINAL SECTION AT STA. 231+11.61 TO 235+67.28

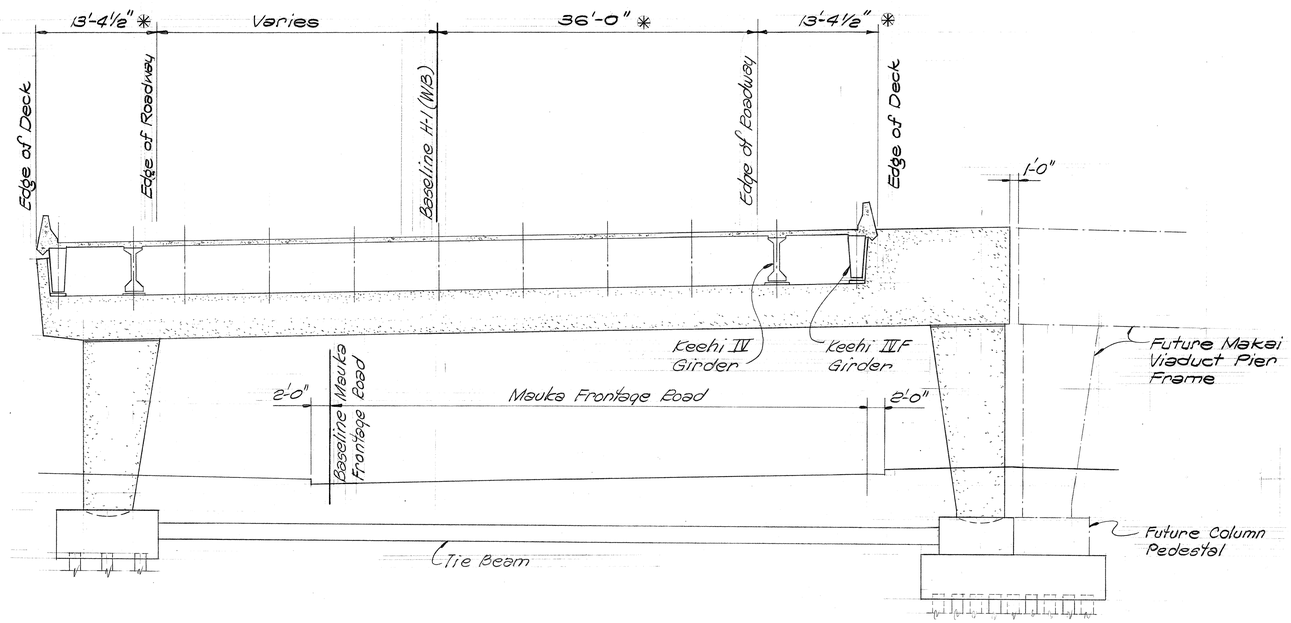
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET NO. S-6 OF 60 SHEETS

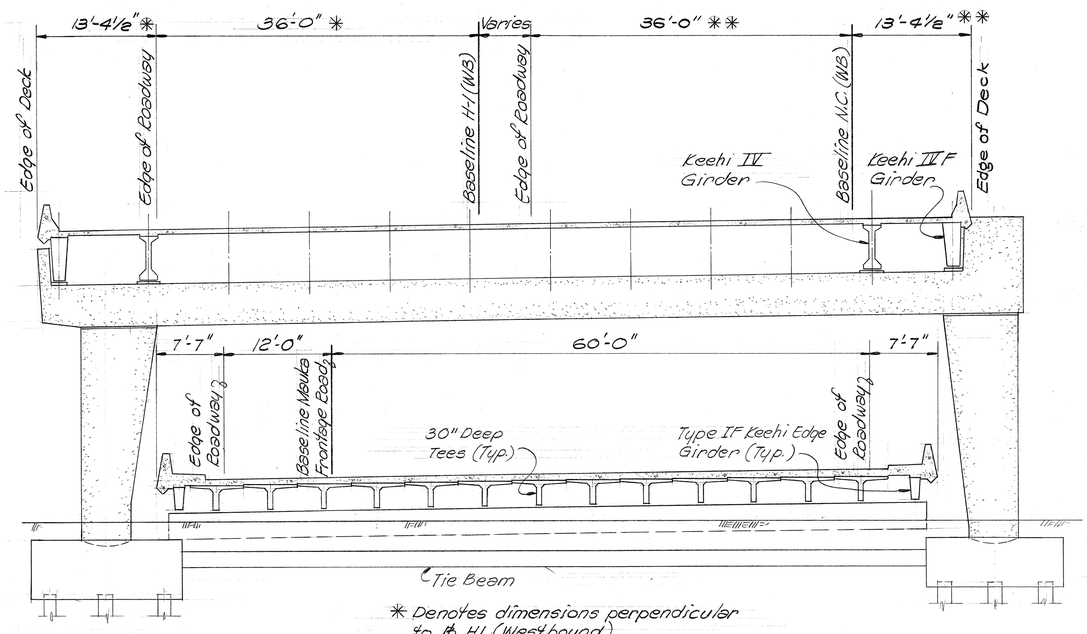
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	161	338



SECTION @ H-1 (WB) BASELINE STA. 216 + 20.47

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

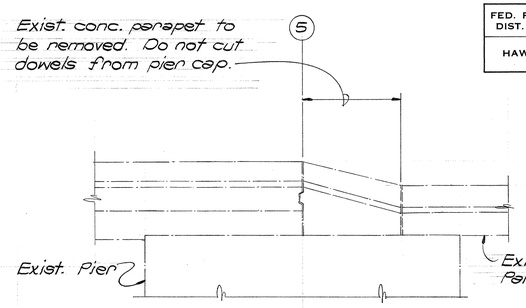


* Denotes dimensions perpendicular to ℄ H1 (Westbound)

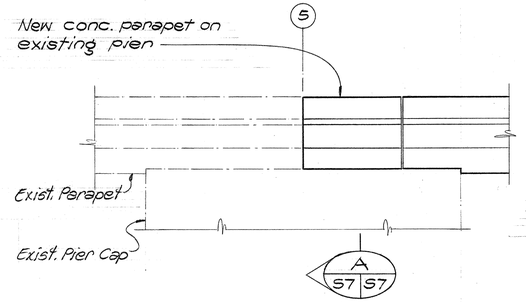
** Denotes dimensions perpendicular to ℄ NC (Westbound)

SECTION @ H-1 (WB) BASELINE STA. 224 + 46.00

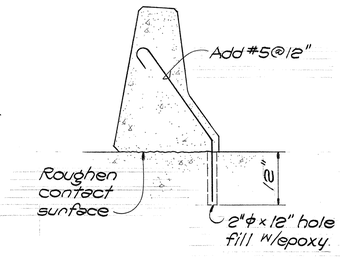
Scale: 1/8" = 1'-0"



EXISTING PLAN



NEW PLAN

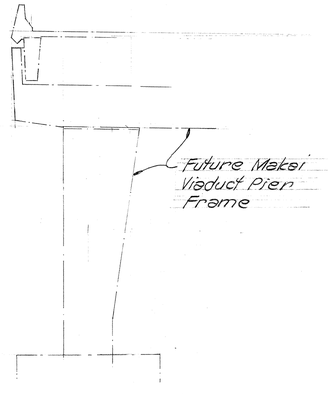


SECTION (A S7 | S7)
Scale: 3/4"=1'-0"

NEW CONCRETE PARAPET ON EXISTING PIER (5) DETAIL (1 | S3 | S7)

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

SPECIAL NOTE:
See Sh. 5-43 for "Typical Pier Cap Construction Notes"



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

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1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL M. TSUNEISHI REGISTERED PROFESSIONAL ENGINEER No. 2974 HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
TYPICAL SECTIONS

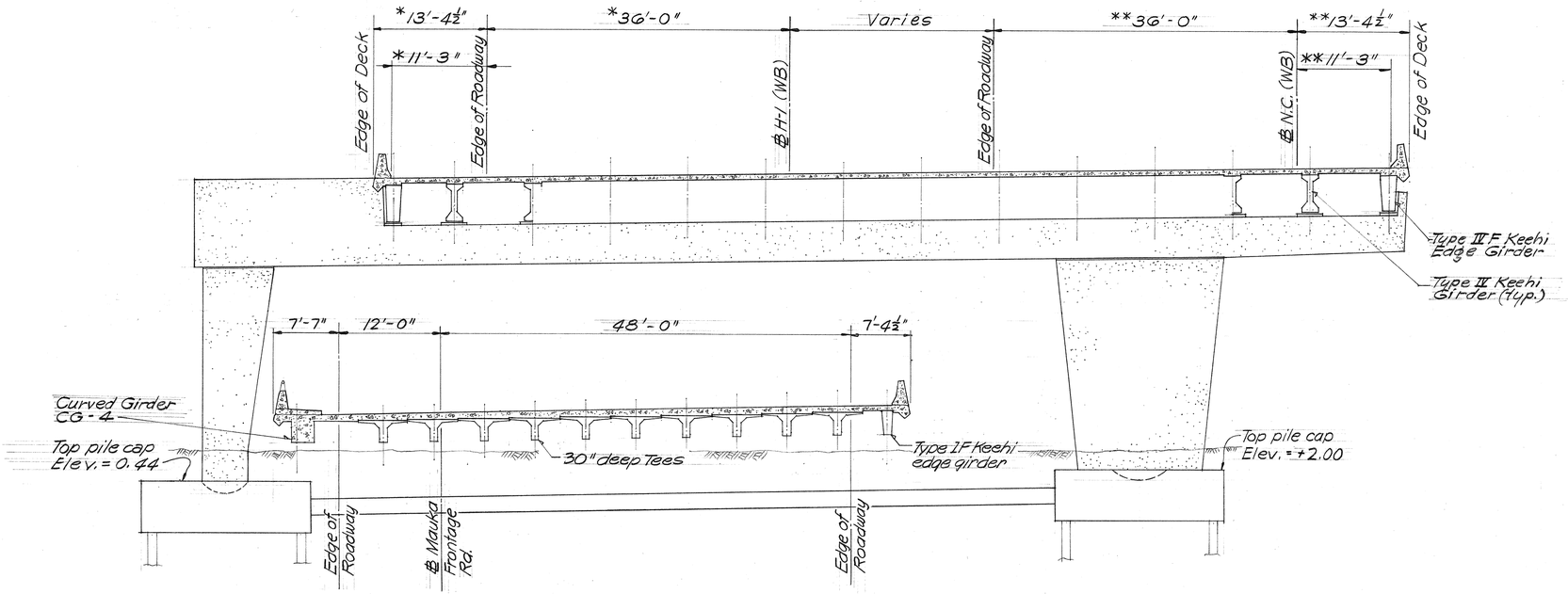
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

SHEET NO. 5.7 OF 60 SHEETS

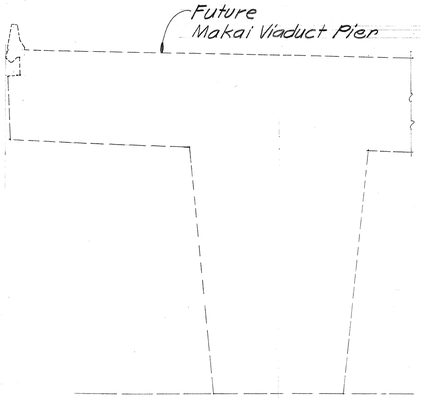
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	162	338



SECTION @ H-1 (WB) BASELINE STA. 229+29.33

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

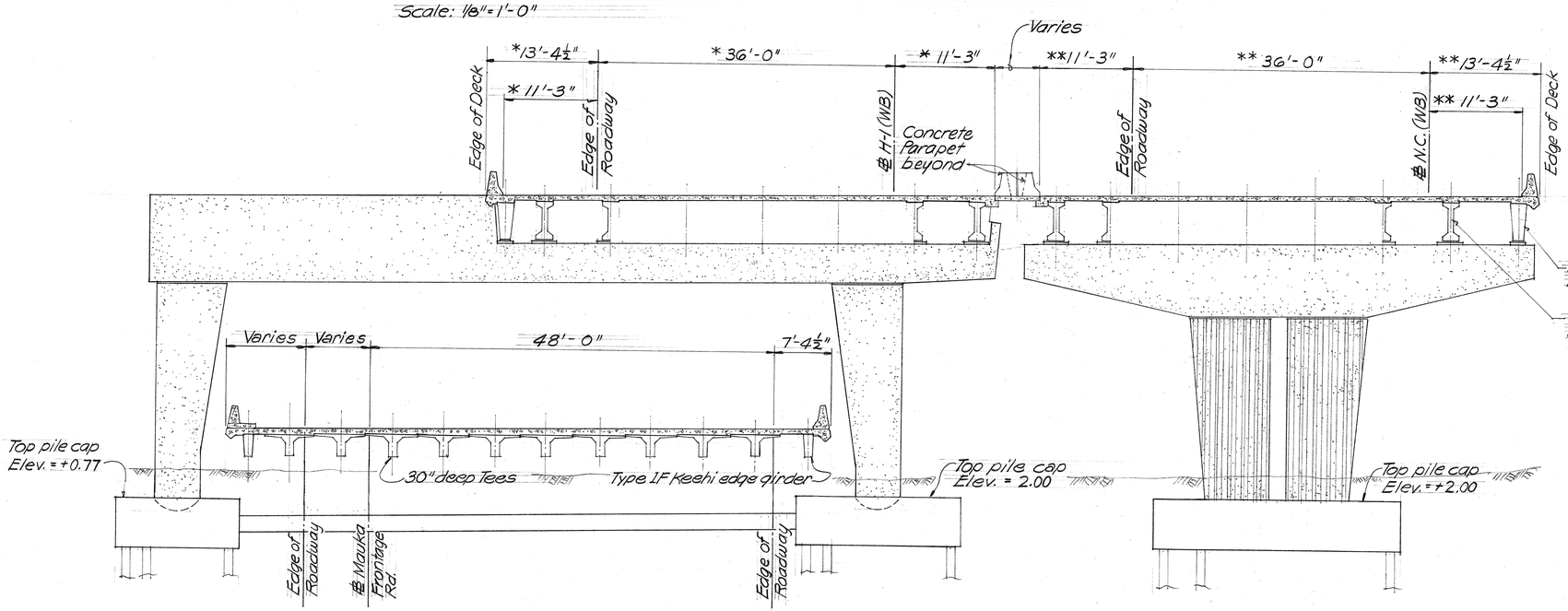


NOTE

* Denotes dimensions are perpendicular to ℄ H-1 (WB).

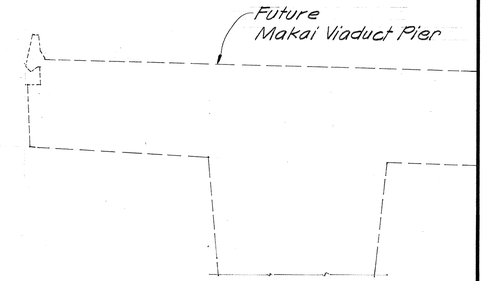
** Denotes dimensions are perpendicular to ℄ Nimitz Connector (WB).

SPECIAL NOTE:
See Sht. S-43 for "Typical Pier Cap Construction Notes".



SECTION @ H-1 (WB) BASELINE STA. 230+72.66

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



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

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1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
TYPICAL SECTIONS

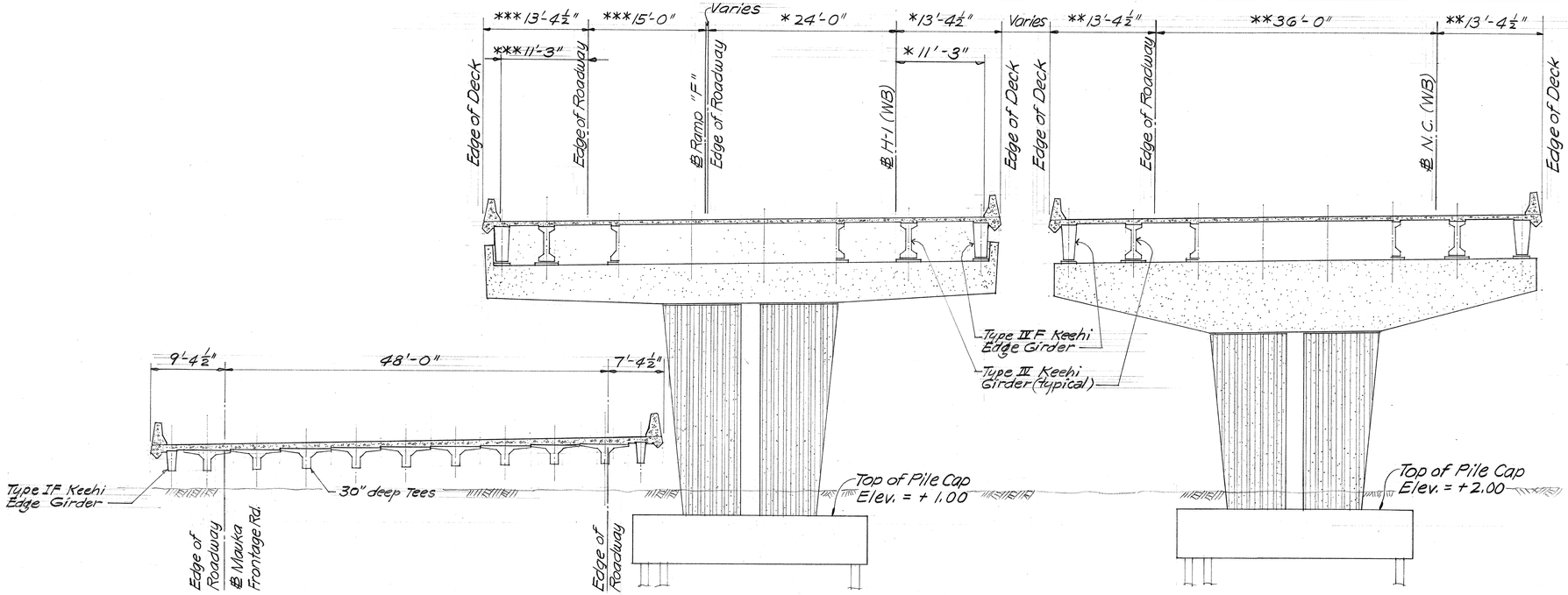
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-8 OF 60 SHEETS

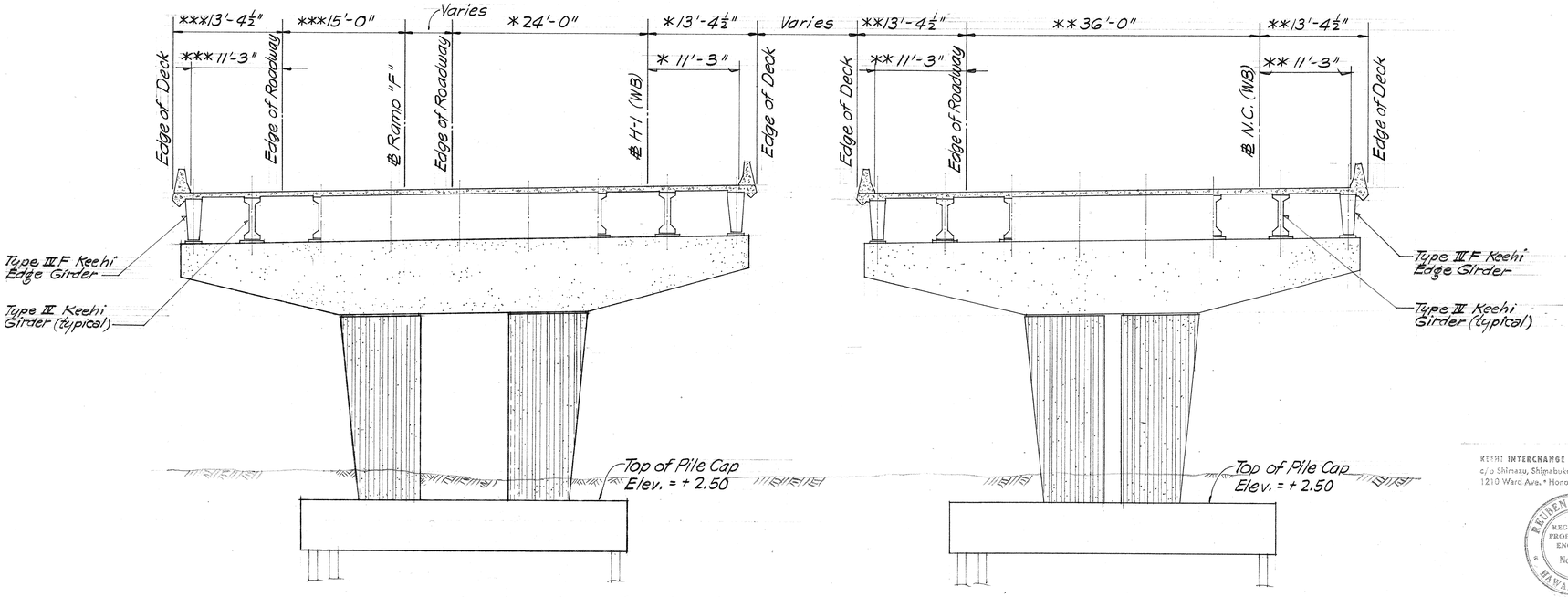
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	163	338



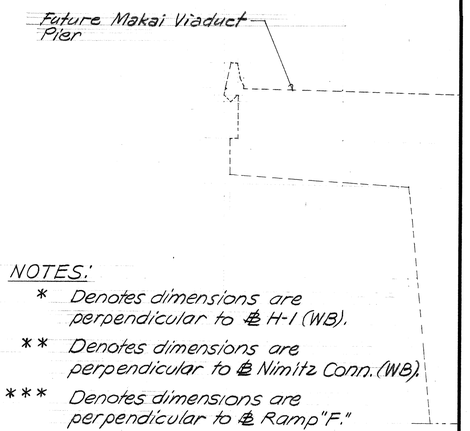
SECTION @ H-1 (WB) BASELINE STA. 232 + 93.88

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



SECTION @ H-1 (WB) BASELINE STA. 235 + 67.28

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



NOTES:

* Denotes dimensions are perpendicular to ℄ H-1 (WB).

** Denotes dimensions are perpendicular to ℄ Nimitz Conn. (WB).

*** Denotes dimensions are perpendicular to ℄ Ramp "F."

SPECIAL NOTE:

See Sht. S-43 for "Typical Pier Cap Construction Notes"

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
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REUBEN Y. F. TSAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

TYPICAL SECTIONS

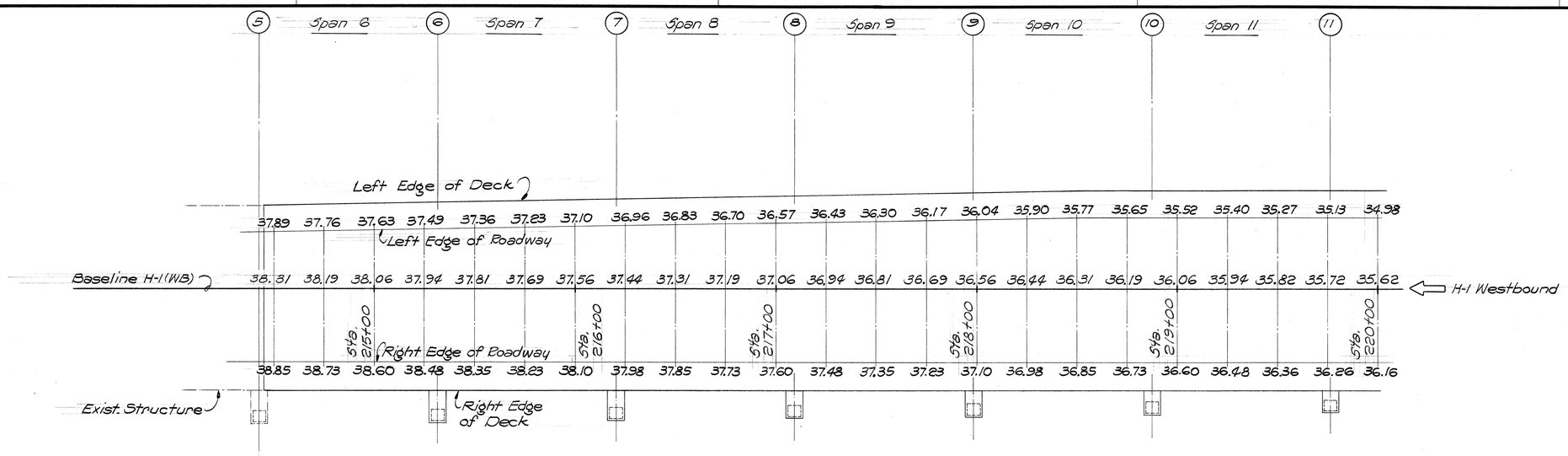
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

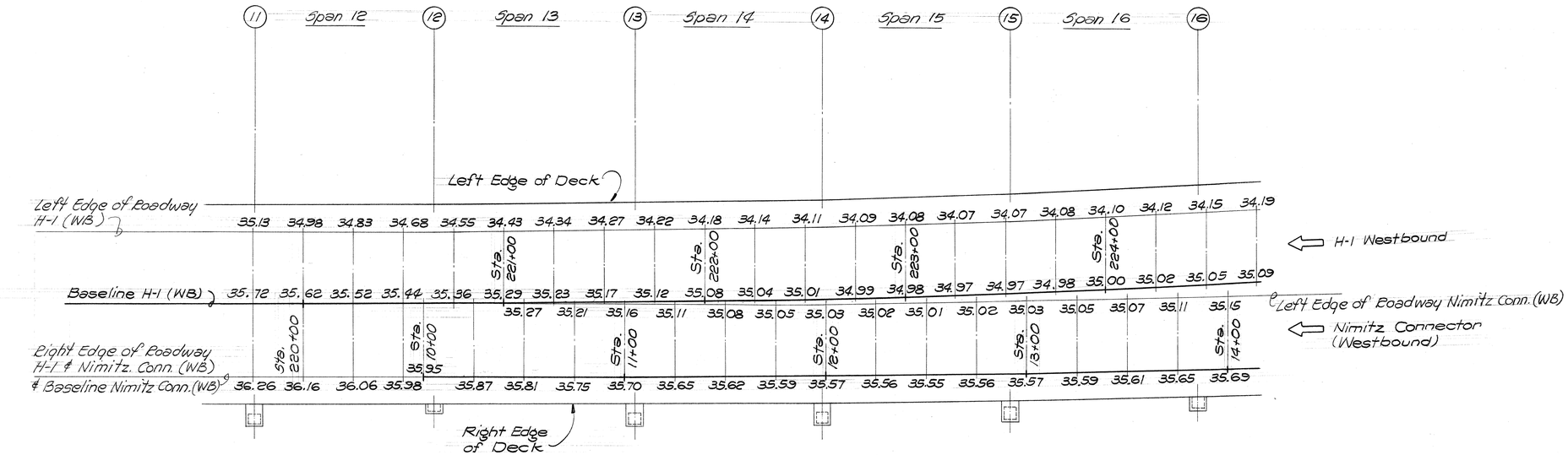
Scale: As shown Date: 4/2/79

SHEET No. S-9 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

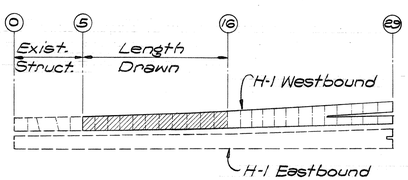
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	164	338





DECK PLAN WITH FINISH DECK ELEVATIONS

Scale: 1"=30'-0"



KEY PLAN

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

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1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 2974 — PAUL M. FUKUDA — HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL DECK FINISH GRADE
AT STA. 214+42.47 TO 224+46.00

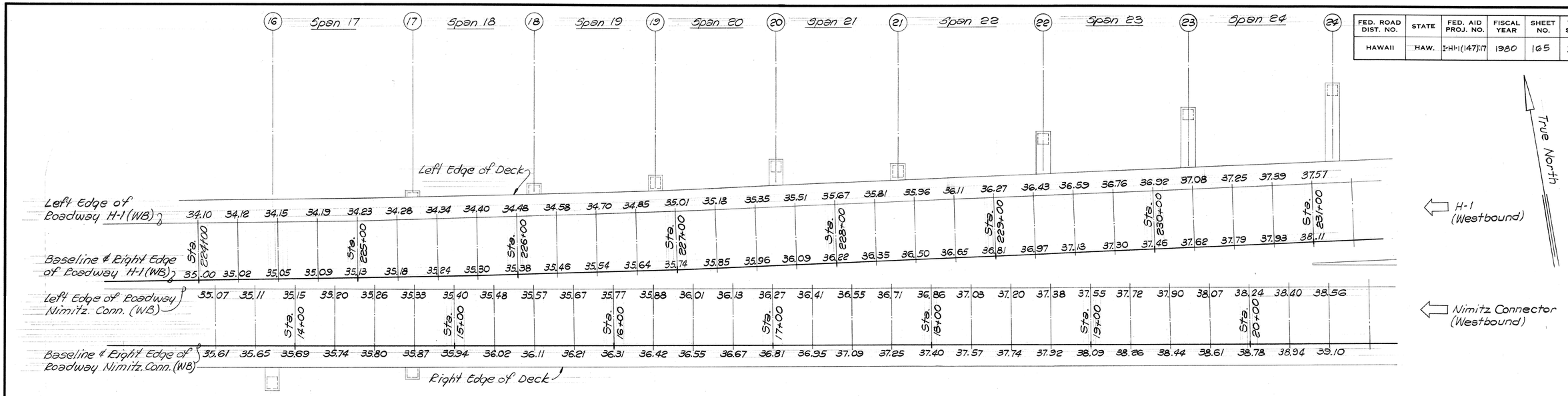
KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

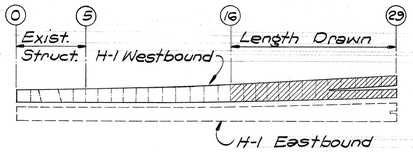
Scale: As Shown. Date: April 2, 1979

SHEET NO. S-100F 60 SHEETS

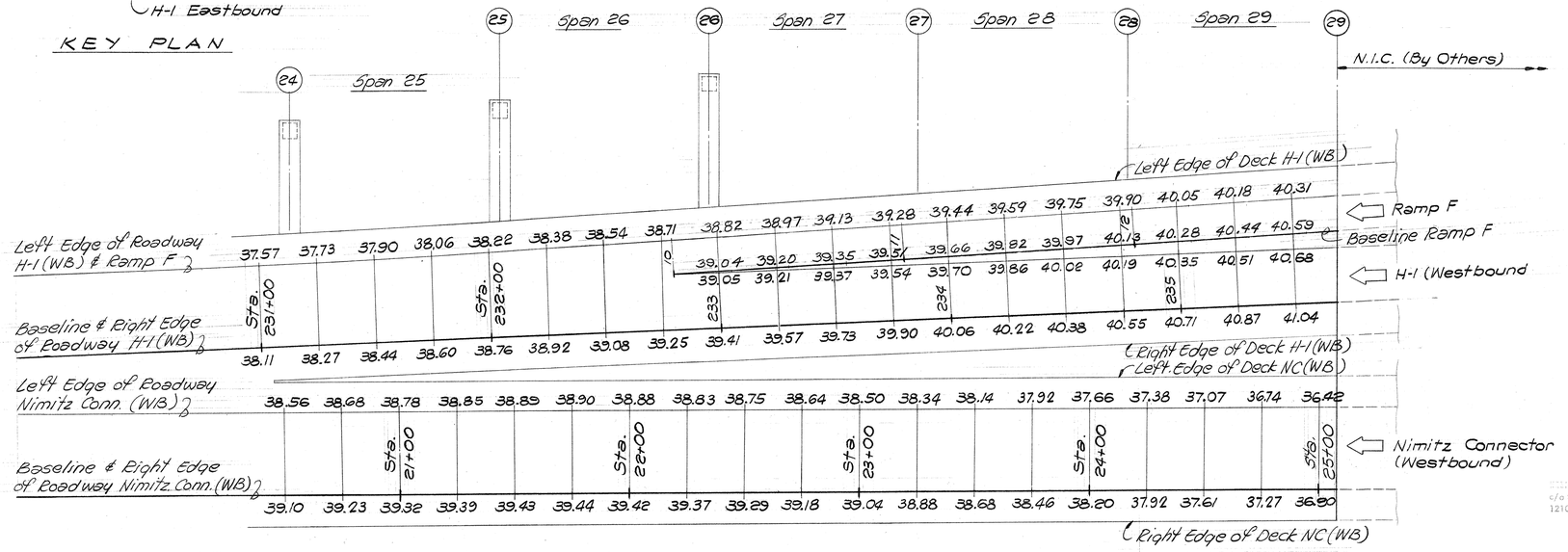
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147)17	1980	165	338





KEY PLAN



DECK PLAN WITH FINISH DECK ELEVATIONS

Scale: 1" = 30'-0"

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 2074 — MICHAEL PAUL NELSON — STATE OF HAWAII

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL DECK FINISH GRADE AT STA. 224 + 46.00 TO 235 + 67.28

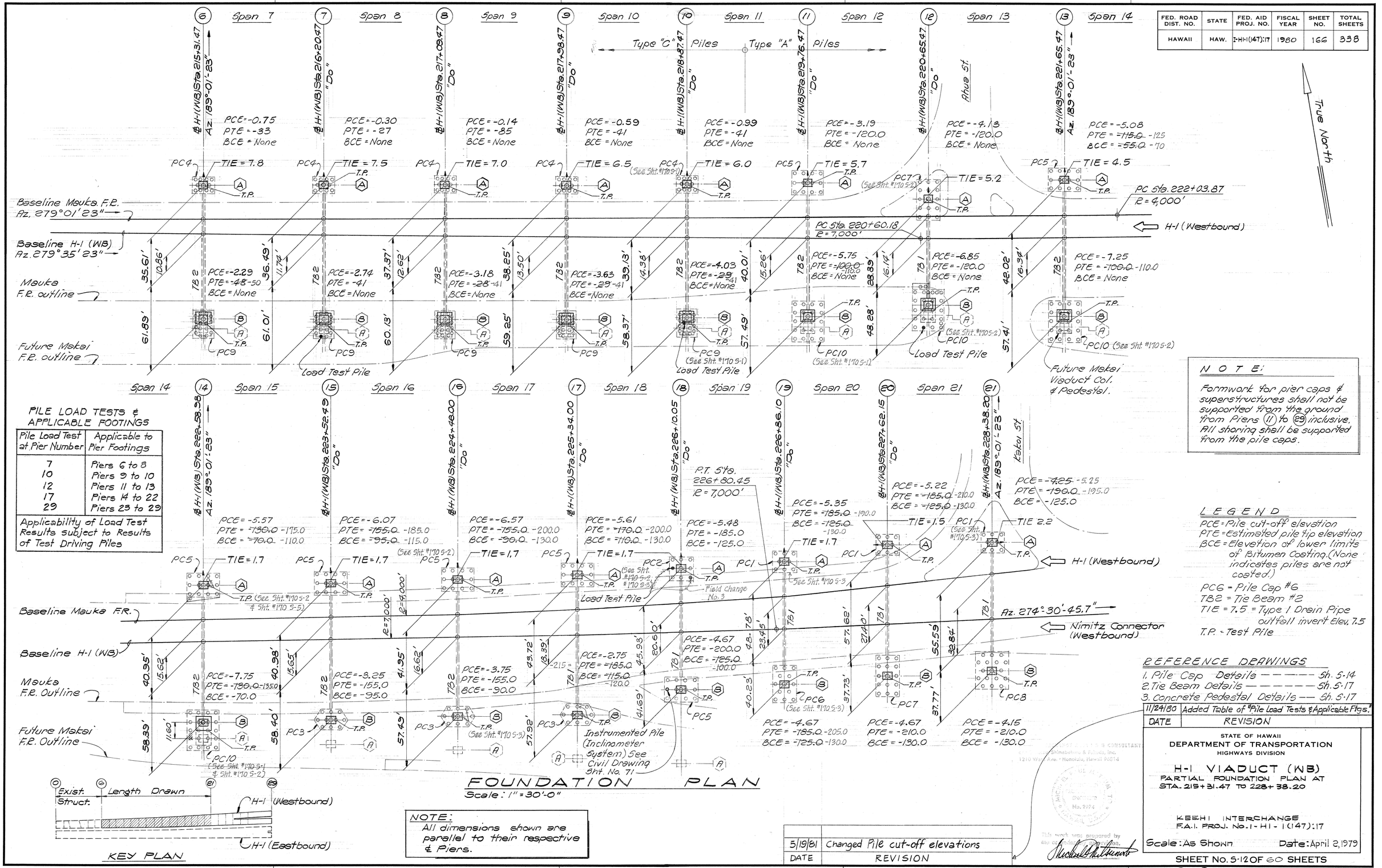
KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET No. S-11 OF 60 SHEETS

PRINTED ON NO. 1000N CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(147):17	1980	166	338



FOUNDATION PLAN

Scale: 1" = 30'-0"

KEY PLAN

PILE LOAD TESTS & APPLICABLE FOOTINGS

Pile Load Test at Pier Number	Applicable to Pier Footings
7	Piers 6 to 8
10	Piers 9 to 10
12	Piers 11 to 13
17	Piers 14 to 22
29	Piers 23 to 29

Applicability of Load Test Results subject to Results of Test Driving Piles

NOTE:
All dimensions shown are parallel to their respective ℄ Piers.

NOTE:
Formwork for pier caps & superstructures shall not be supported from the ground from Piers (11) to (29) inclusive. All shoring shall be supported from the pile caps.

LEGEND

PCE = Pile cut-off elevation
PTE = Estimated pile tip elevation
BCE = Elevation of lower limits of Bitumen Coating. (None indicates piles are not coated.)
PC6 = Pile Cap #6
TB2 = Tie Beam #2
TIE = 7.5 = Type 1 Drain Pipe outfall invert Elev. 7.5
T.P. = Test Pile

REFERENCE DRAWINGS

1. Pile Cap Details ——— Sh. S-14
2. Tie Beam Details ——— Sh. S-17
3. Concrete Pedestal Details —— Sh. S-17

DATE	REVISION
11/24/80	Added Table of "Pile Load Tests & Applicable Ftgs."
5/19/81	Changed Pile cut-off elevations

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL FOUNDATION PLAN AT STA. 215+31.47 TO 228+38.20

KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

SHEET No. S-12 OF 60 SHEETS

This work was prepared by me or under my supervision.

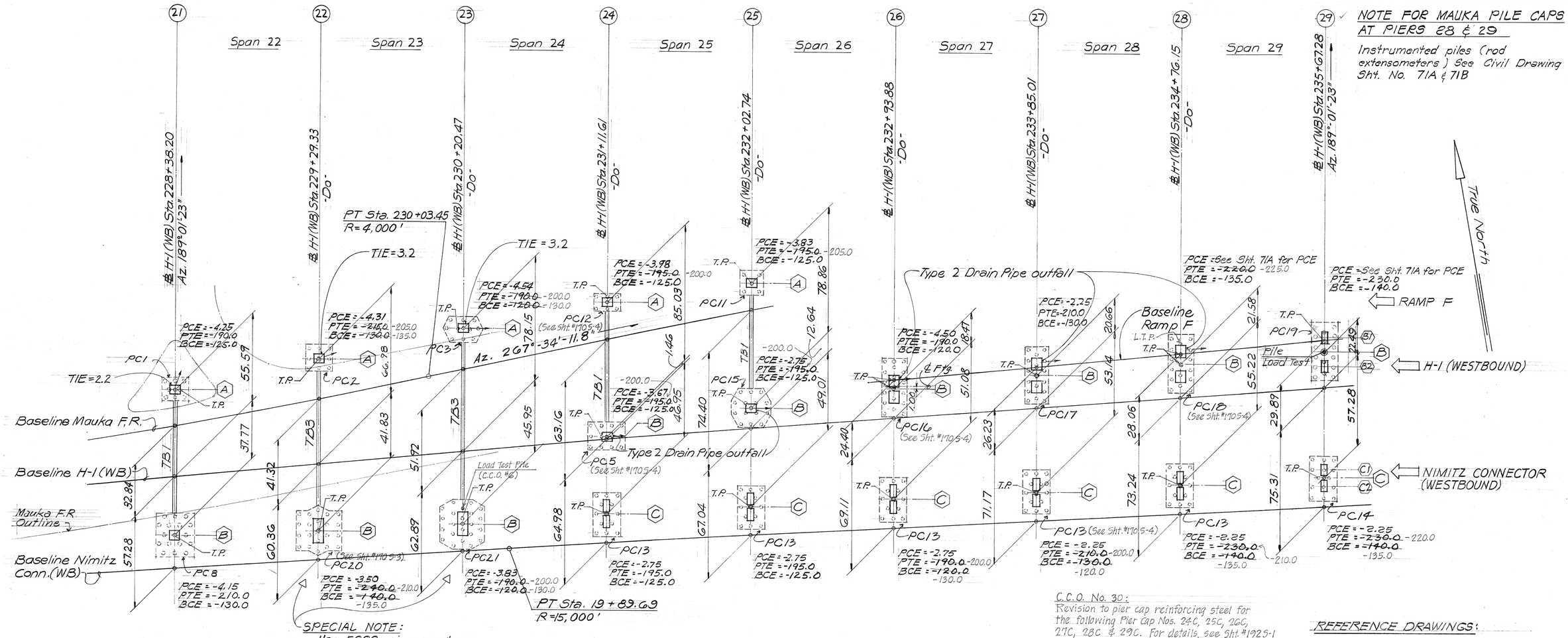
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

PRINTED ON NO. 1000N CLEARPRINT

C.O. ADD. 166

Col. Location ✓ on 11/30/76

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	167	338



SPECIAL NOTE:
Use 5,000 psi. concrete for pile caps at Piers 22 & 23

NOTE FOR MAUKA PILE CAPS AT PIERS 28 & 29

Instrumented piles (rod extensometers) See Civil Drawing Sht. No. 71A & 71B

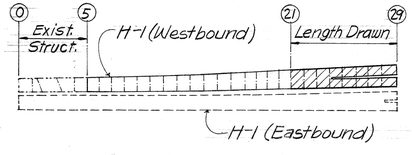
C.C.O. No. 30:
Revision to pier cap reinforcing steel for the following Pier Cap Nos. 24C, 25C, 26C, 27C, 28C & 29C. For details, see Sht. #1925-1

PARTIAL FOUNDATION PLAN

NOTE:
All dimensions shown are parallel to their respective ℄ Piers.

REFERENCE DRAWINGS:
1. Pile Cap Details ——— Sht. S-14, 15 & 16
2. Tie Beam Details ——— Sht. S-17

LEGEND:
- PCE = Pile cut-off elevation
- PTE = Estimated pile tip elevation
- BCE = Elevation of lower limits of Bitumen coating. (None indicates piles are not coated)
- PC13 = Pile Cap #13
- TB2 = Tie Beam #2
- TIE = 3.2 --- Type 1 Drain pipe Outfall invert elev. = 3.2
- T.P. = Test Pile



KEY PLAN

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. · Honolulu, Hawaii 96814

REUBEN Y. F. TAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

PARTIAL FOUNDATION PLAN
STA. 228+38.20 TO 235+67.28

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1" = 30'-0" Date: 4/2/79

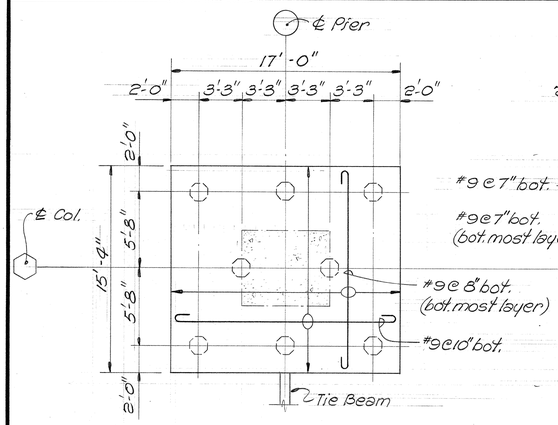
SHEET NO. S-13 OF 60 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

167

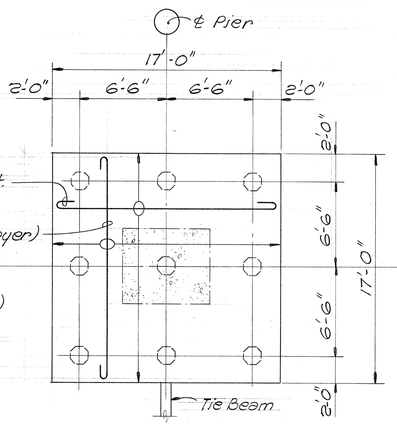
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147)17	1980	168	338



"D" = 5'-9"

PC1 (8 Piles)

(Pile Type A)

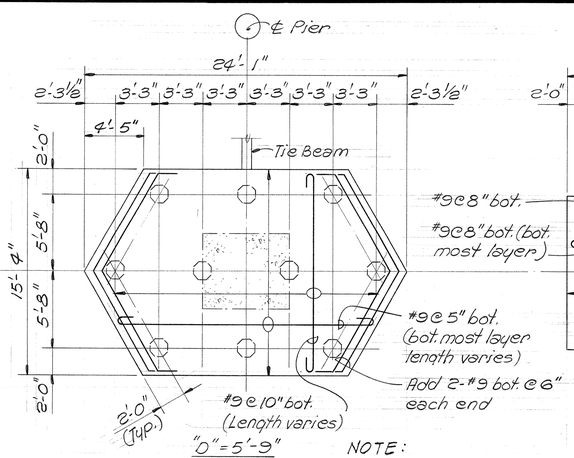


"D" = 5'-9"

PC2 (9 Piles)

(Pile Type A)

NOTE:
At Pier 22
f'c = 5,000 psi.

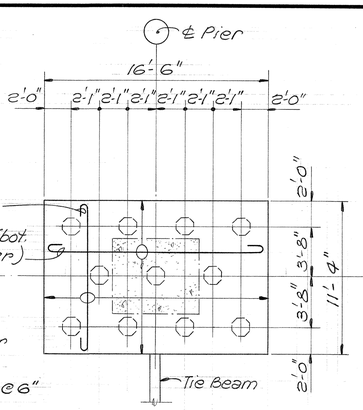


"D" = 5'-9"

PC3 (10 Piles)

(Pile Type A)

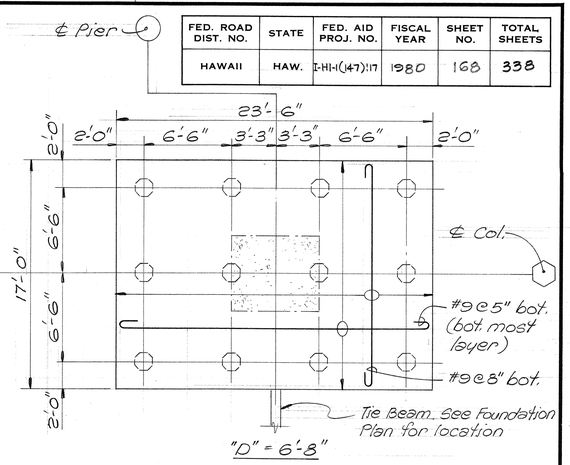
NOTE:
At Pier 23
f'c = 5,000 psi.



"D" = 5'-6"

PC4 (11 Piles)

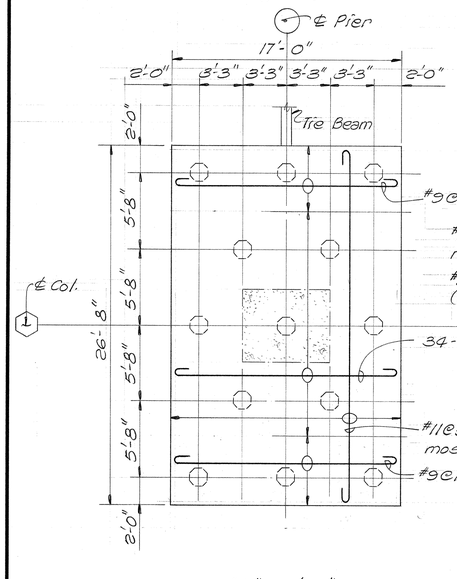
(Pile Type C)



"D" = 6'-8"

PC5 (12 Piles)

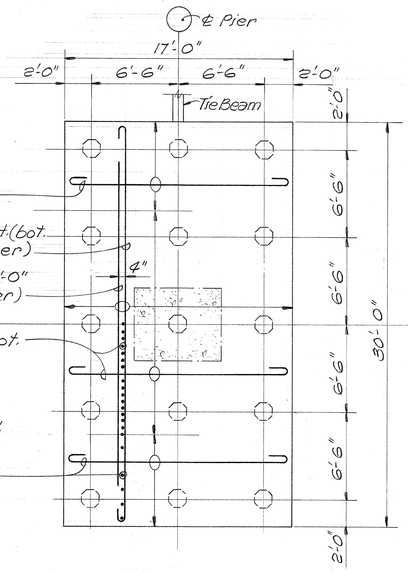
(Pile Type A)



"D" = 6'-8"

PC6 (13 Piles)

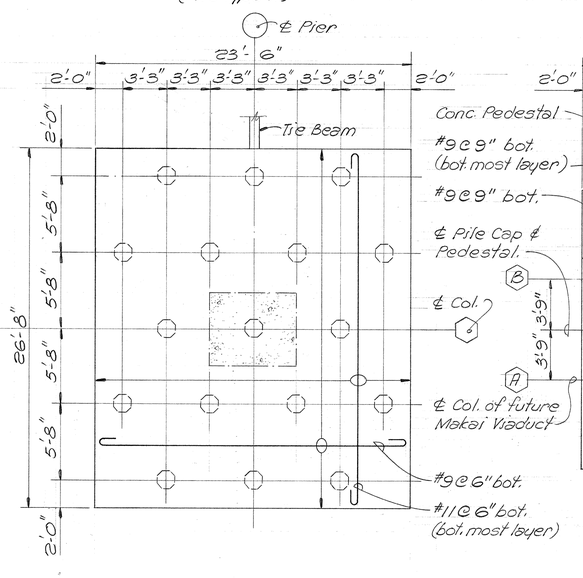
(Pile Type A)



"D" = 6'-8"

PC7 (15 Piles)

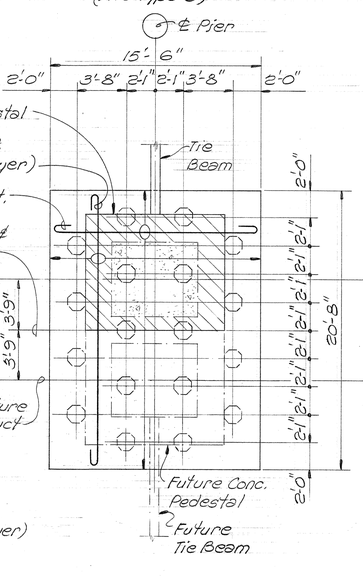
(Pile Type A)



"D" = 7'-0"

PC8 (17 Piles)

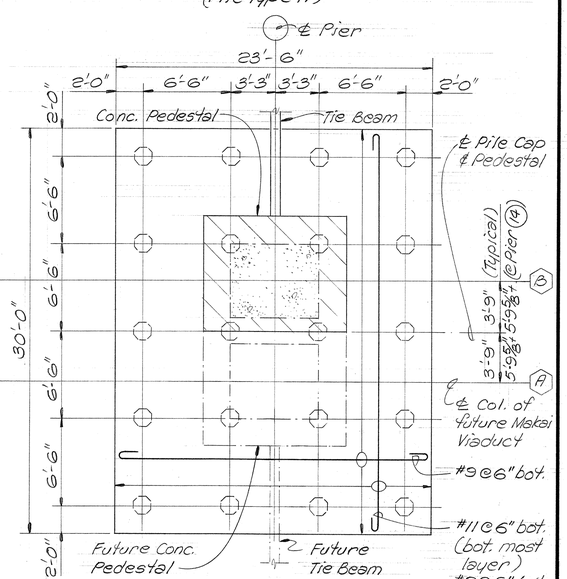
(Pile Type A)



"D" = 5'-0"

PC9 (18 Piles)

(Pile Type C)



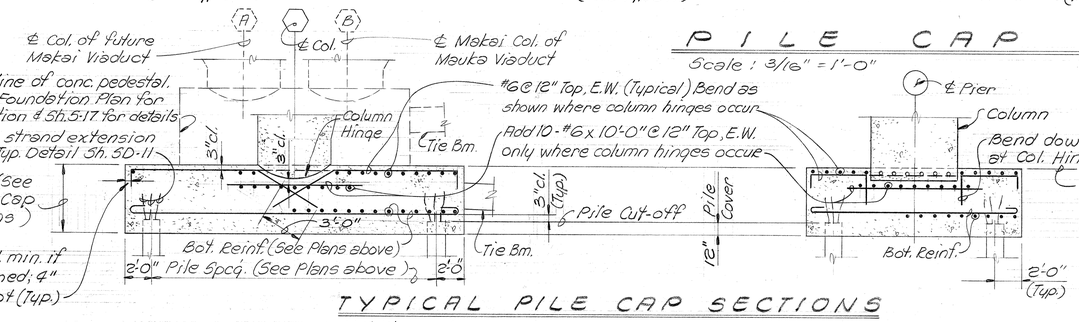
"D" = 5'-9"

PC10 (20 Piles)

(Pile Type A)

PILE CAP PLANS

Scale: 3/16" = 1'-0"



TYPICAL PILE CAP SECTIONS

Not to scale

NOTE

See Tie Beam elevation Sh. S-17 for Limits of Structural Excavation for Pile Caps.

REFERENCE DRAWINGS

1. Tie Beam Details ---- Sh. S-17
2. Column Hinge Details --- Sh. T-1 & 2.

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

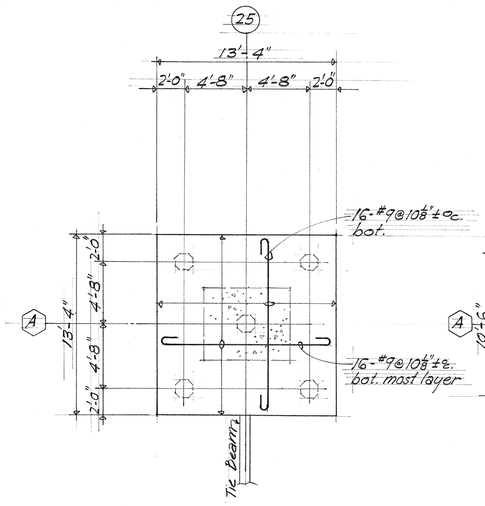
PILE CAP DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147)17

Scale: As Shown
Date: April 2, 1979

SHEET NO. S-14 OF 60 SHEETS

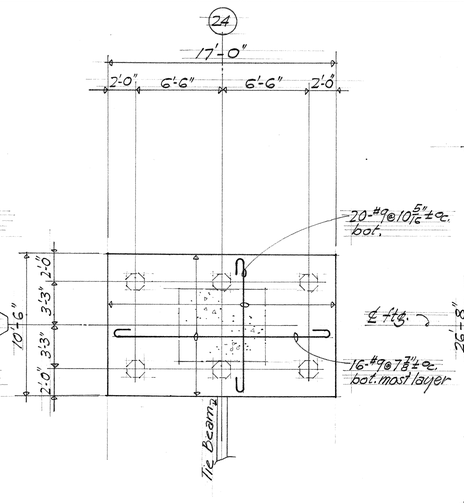
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	169	338



"D" = 5'-9"

PC11 (5 piles)

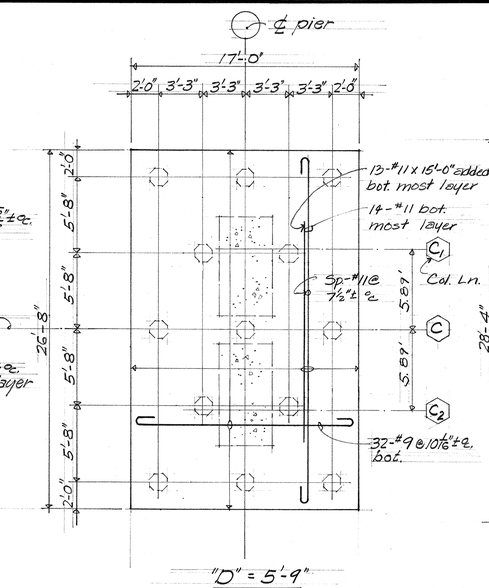
Pile Type A



"D" = 5'-9"

PC12 (6 piles)

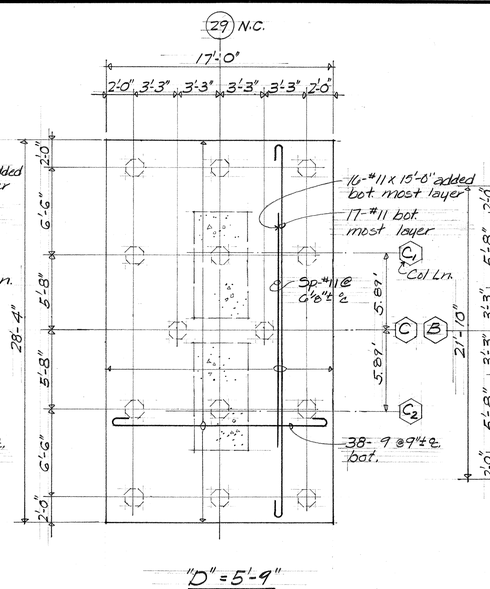
Pile Type A



"D" = 5'-9"

PC13 (13 piles)

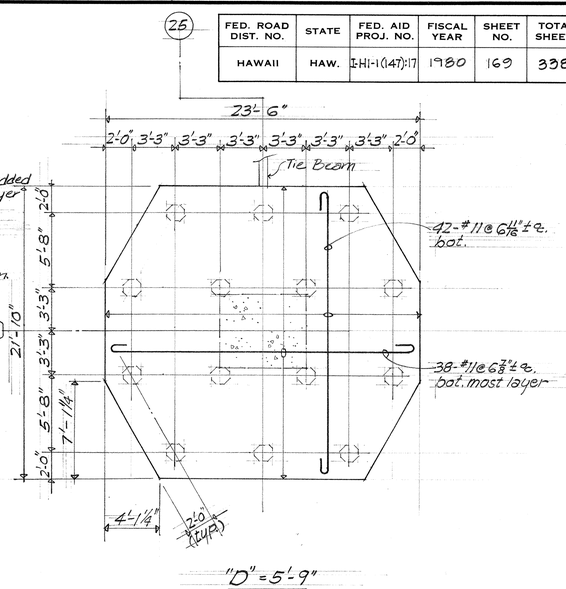
Pile Type A



"D" = 5'-9"

PC14 (14 piles)

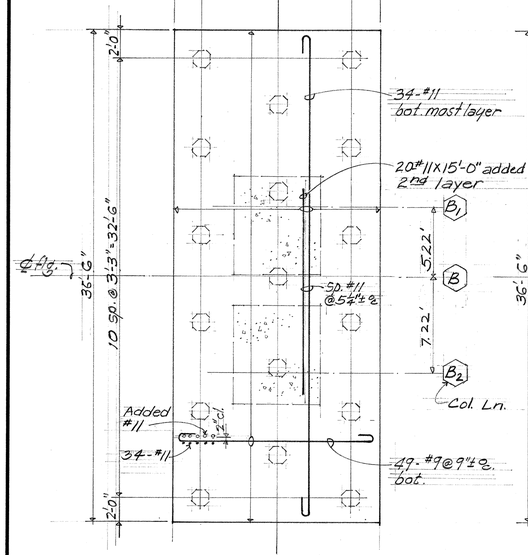
Pile Type A



"D" = 5'-9"

PC15 (14 piles)

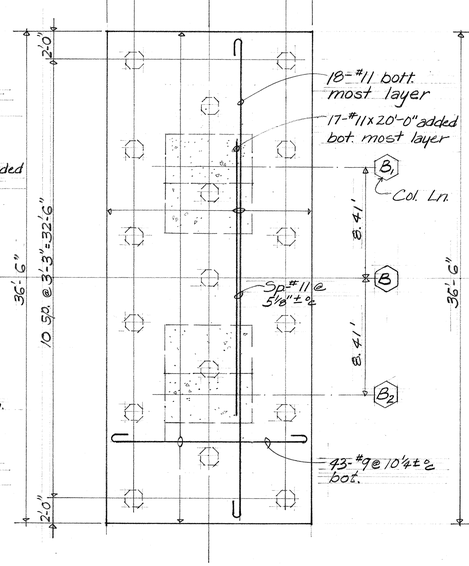
Pile Type A



"D" = 6'-6"

PC16 (17 Piles)

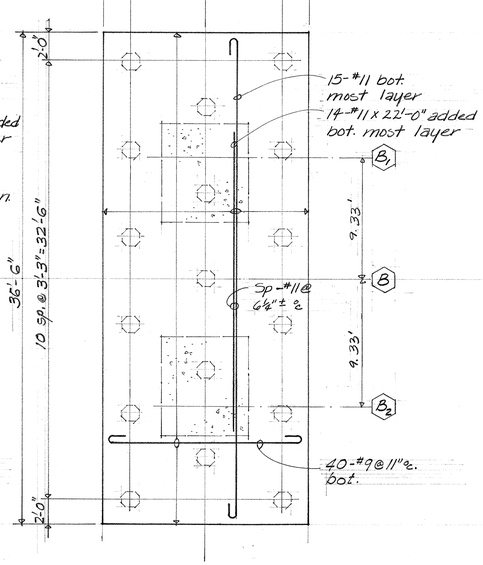
Pile Type A



"D" = 5'-9"

PC17 (17 Piles)

Pile Type A



"D" = 5'-9"

PC18 (17 Piles)

Pile Type A

PILE CAP PLANS

Scale: 3/16" = 1'-0"

REFERENCE DRAWINGS

1. Tie Beam Details _____ Sh. S-17
2. Column Hinge Details _____ Sh. T-1, 2 & 4
3. a) PC.11, 12, 15 Typical Pile Cap Sections ___ Sh. S-14
   b) PC.13, 14, 16, 17, 18 Pile Cap Sections ___ Sh. S-16

ORIGINAL PLANS | SURVEY PLOTTED BY | SURVEY NO. | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

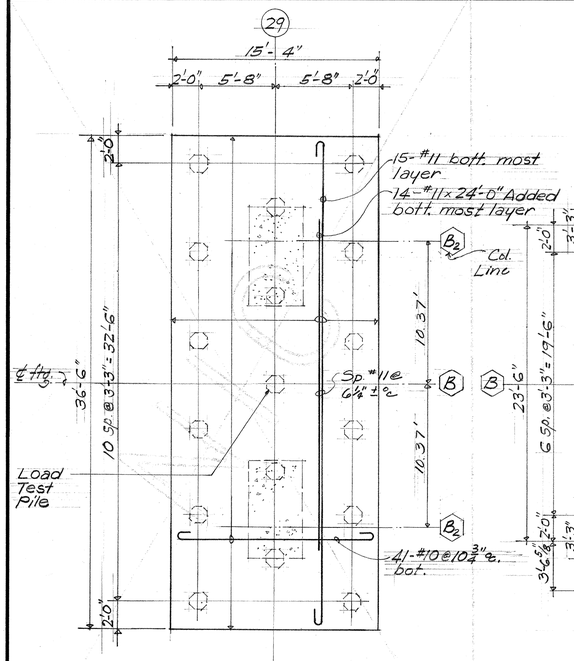
PILE CAP DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-15 OF 60 SHEETS

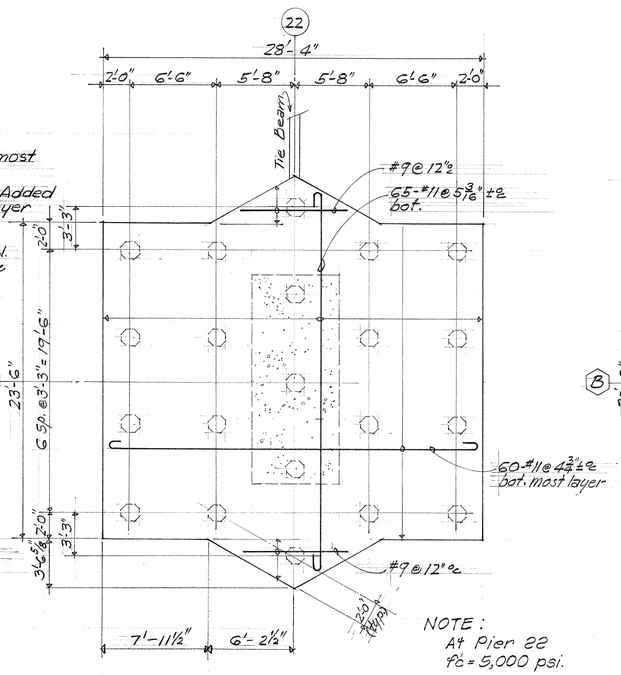
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	170	338



"D" = 5'-9"

PC 19 (17 Piles)

Pile Type A

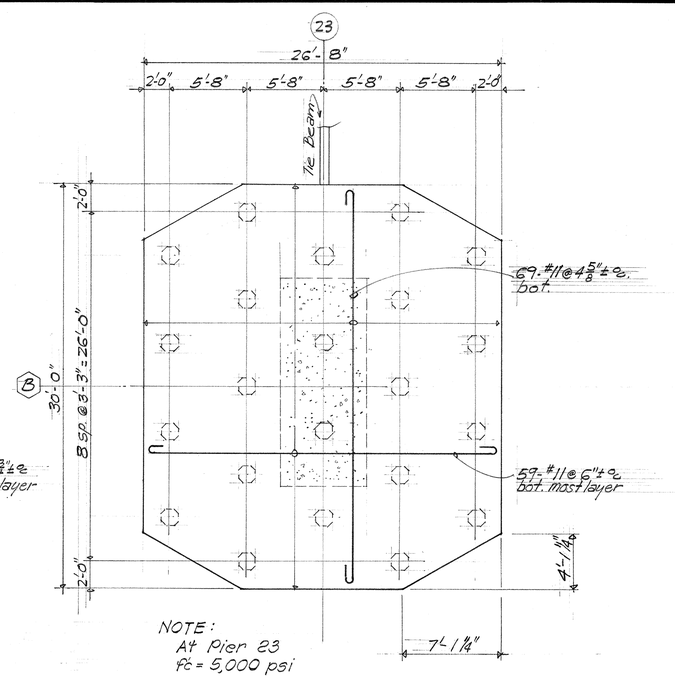


"D" = 6'-6"

NOTE:
At Pier 22
f'c = 5,000 psi.

PC 20 (21 Piles)

Pile Type A

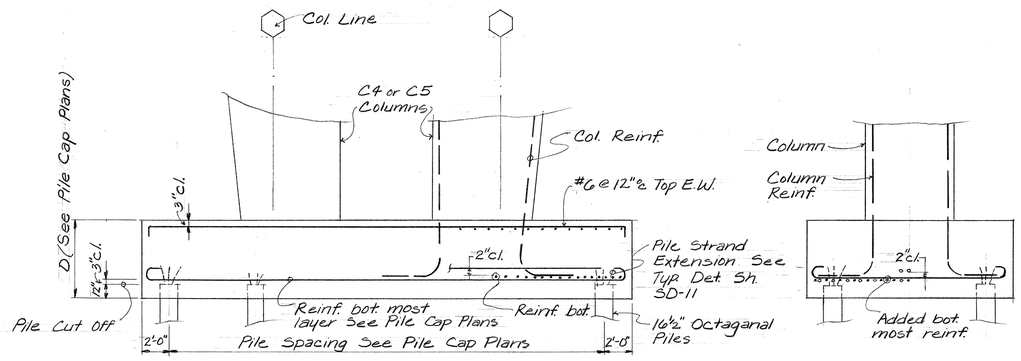


"D" = 6'-10"

NOTE:
At Pier 23
f'c = 5,000 psi

PC 21 (22 Piles)

Pile Type A



TYPICAL PILE CAP SECTION AT C4, C5 COLUMNS

No Scale

REFERENCE DRAWINGS

1. Tie Beam Details _____ Sh. S-17
2. Column Hinge Details _____ Sh. T-1 & 2
3. a) PC 20, 21 Typical Pile Cap Sections ___ Sh. S-14
   b) PC 19 Pile Cap Sections _____ Sh. S-16

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
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REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

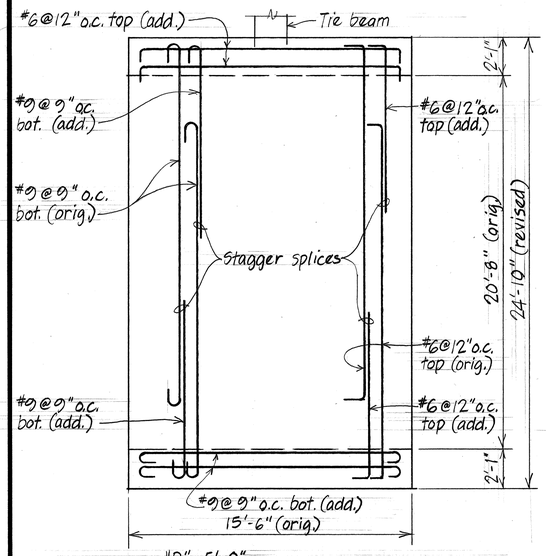
PILE CAP DETAILS

KEEHI INTERCHANGE
F. A. I. PROJ. NO. I-HI-1 (147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-16 OF 60 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1984	170 S-1	338

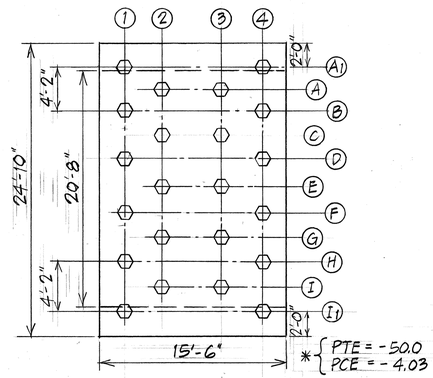


"D" = 5'-0"

Note: Ref. C.C.O. #24 & see Sht. #ADD 166

MODIFIED PILE CAP FOOTING 10B

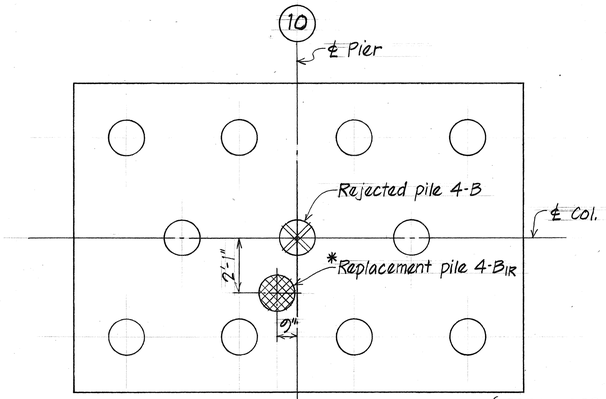
N.T.S.



PILE CAP FOOTING 10B N.T.S.

*(Added piles are 1-A, 1-I, 4-A_1, and 4-I_1)

Note: Ref. C.C.O. #21 & see Sht. # ADD 166.



1. Cut off rejected pile below footing.
2. No added reinforcing steel or footing revisions req'd.

Note: Ref. C.C.O. #84 & see Sht. # ADD 166

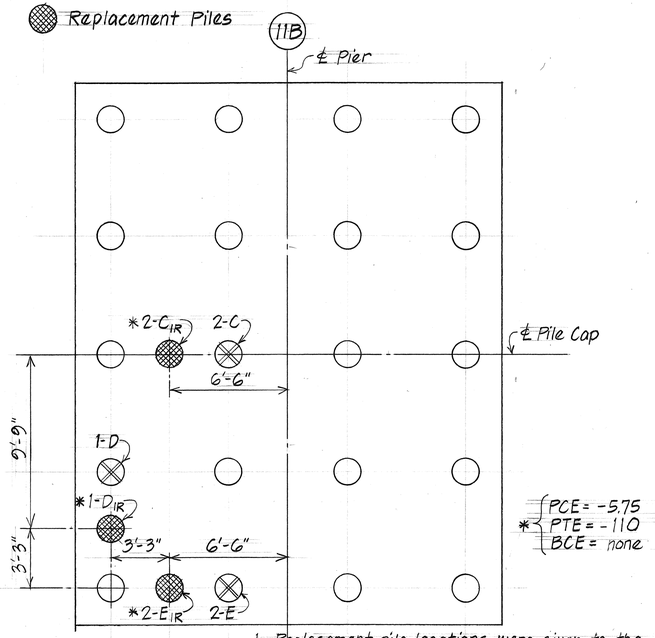
PILE CAP FOOTING 10A

N.T.S.

Accepted Piles

Rejected Piles

Replacement Piles

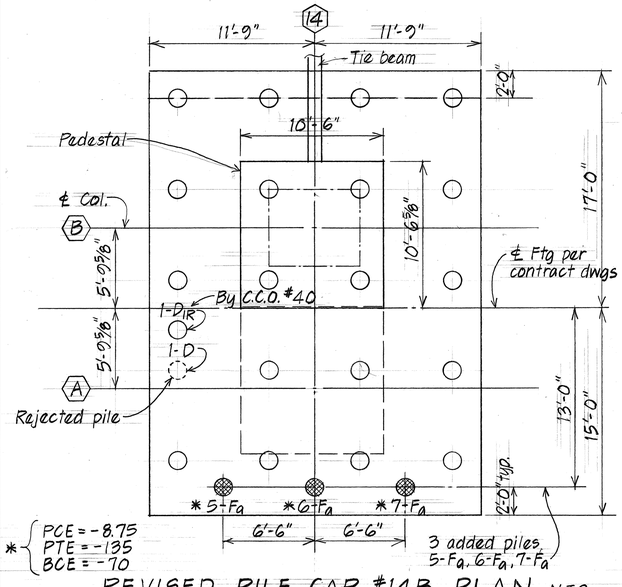


1. Replacement pile locations were given to the Contractor on Dec. 16, 1981.
2. No changes to pile cap footing dimensions and reinforcing steel were made.
3. Cut off rejected piles below pile cap footing.

Note: Ref. C.C.O. #46 & see Sht. #ADD 166

PILE CAP FOOTING 11B

N.T.S.



REVISED PILE CAP #14B PLAN N.T.S.

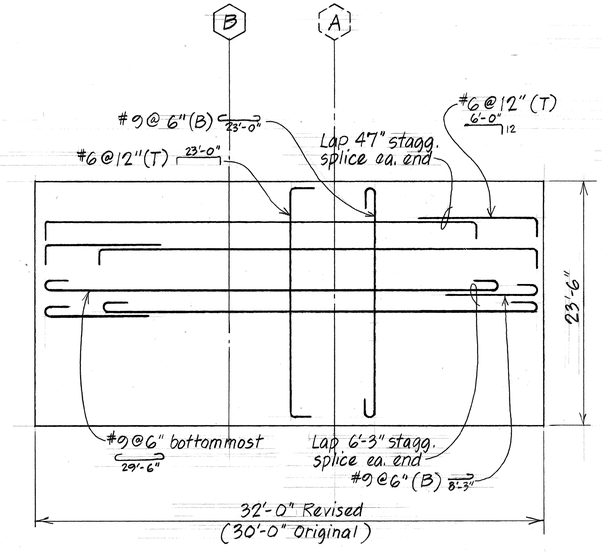
Pile cap depth = "D" = 5'-0"

New top of pile cap elev. = -4.00'

Top of pedestal elev. remains 2.00'

H-1 (WB) ℄ Sta. 222 + 58.98, Rt.

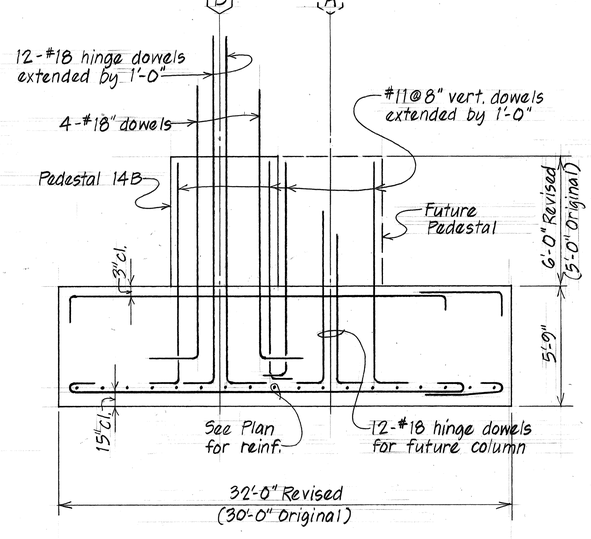
Note: Ref. C.C.O. #47 & sht. # ADD 166



Note: Ref. C.C.O. #47 & see sht. # ADD 166

PILE CAP PLAN @ LINE 14B

N.T.S.



Note: Ref. C.C.O. #47 & see sht. # ADD 166

PILE CAP SECTION @ LINE 14B

N.T.S.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

H-1 VIADUCT (WB)
REVISED PILE CAP DETAILS

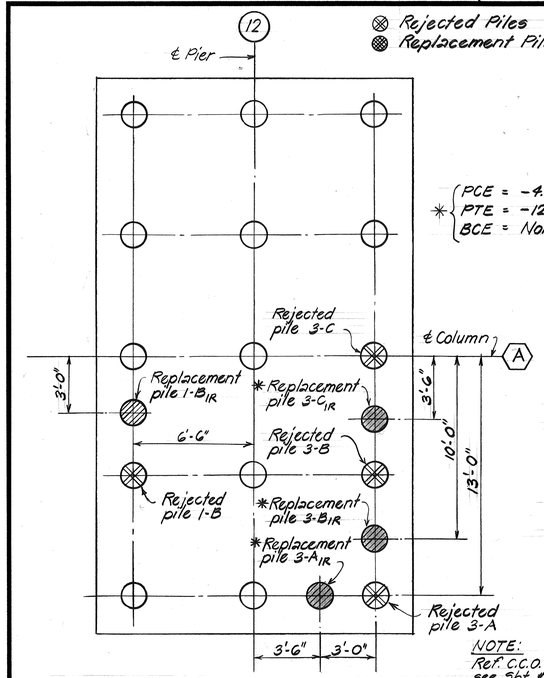
Keehi Interchange
F.A.I. Proj. No. I-HI-1(147):17
Scale: As Noted Date:

SHEET NO. S-16A OF 60 SHEETS

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

170S-1

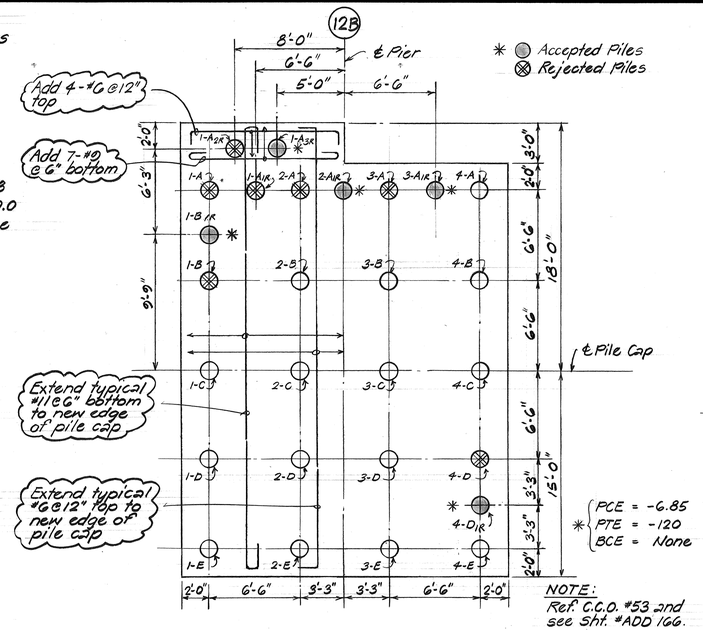
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1984	170S-2	338



NOTE:
Ref. C.C.O. #86 and see Sht. #ADD 166

PILE CAP FOOTING 12A

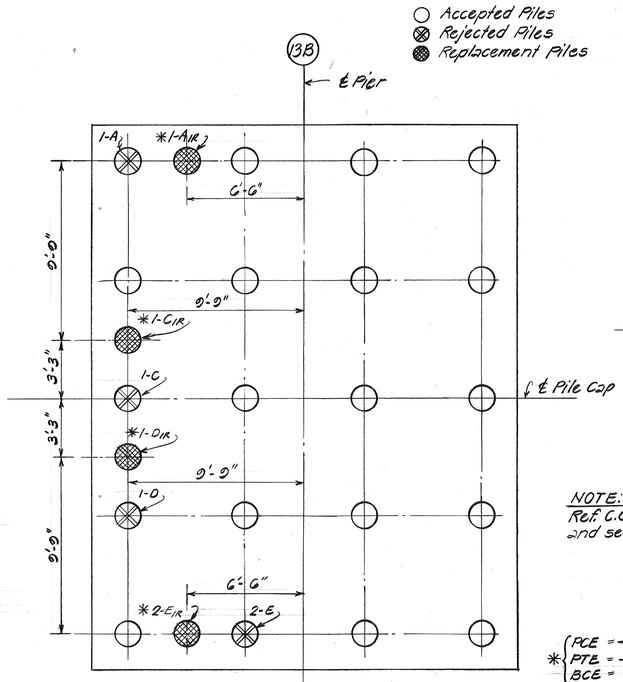
N.T.S.



NOTE:
Ref. C.C.O. #53 and see Sht. #ADD 166.

PILE CAP FOOTING 12B

N.T.S.



NOTE:
Ref. C.C.O. #46 and see Sht. #ADD 166

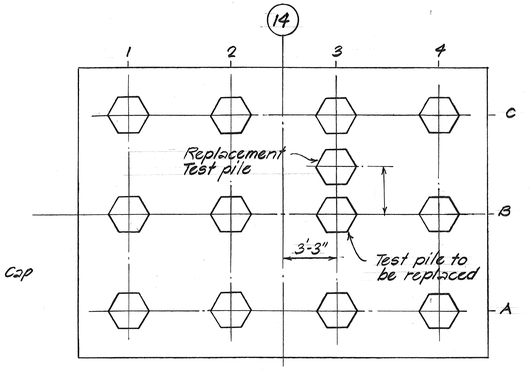
Replacement pile locations were given to the Contractor on Dec. 16, 1981.

No changes to pile cap footing dimensions and reinforcing steel were made.

Cut off rejected piles below pile cap footing.

PILE CAP FOOTING 13B

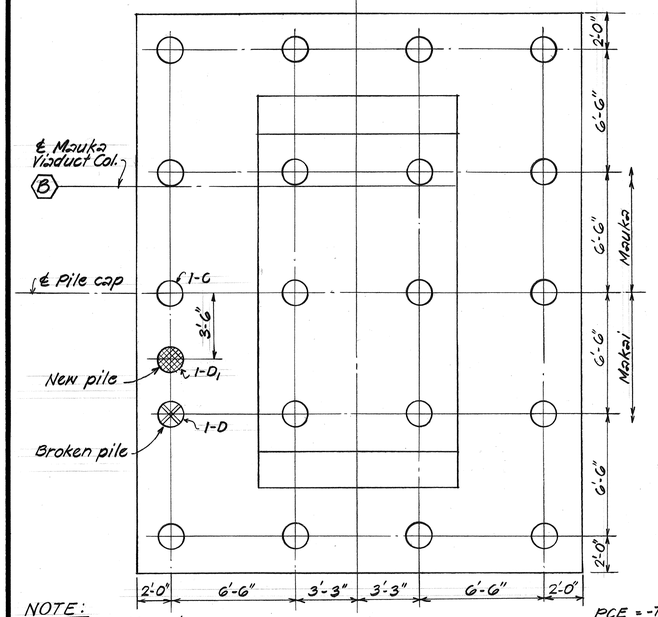
N.T.S.



NOTE:
Ref. C.C.O. #39 and see Sht. #ADD 166

PIER CAP FOOTING 14A

N.T.S.

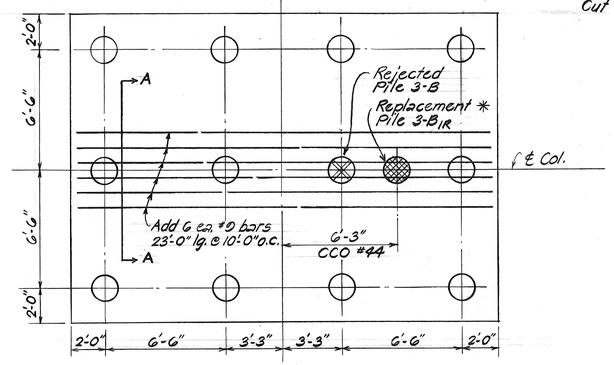


NOTE:
Ref. C.C.O. #40 and see Sht. #ADD 166

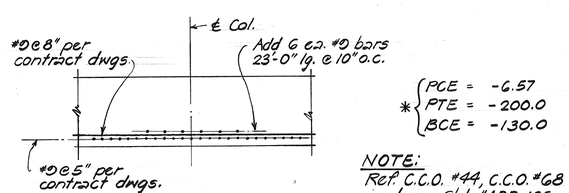
PCE = -7.75
PTE = -135
BCE = -70

PILE CAP FOOTING 14B

N.T.S.



PLAN

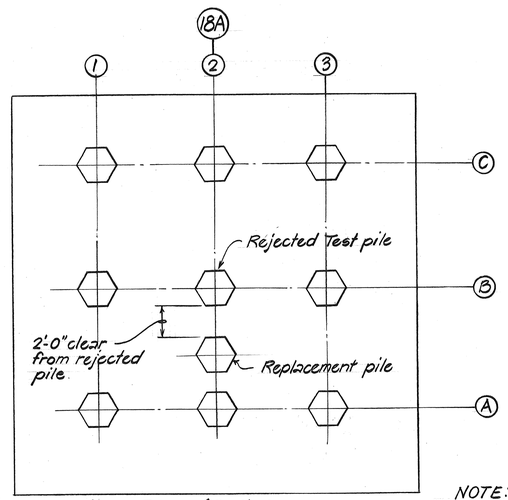


NOTE:
Ref. C.C.O. #44, C.C.O. #68 and see Sht. #ADD 166

SECTION A-A

PILE CAP FOOTING 16A

N.T.S.



PC 2 (9 piles)
(Type A)

NOTE:
Ref. C.C.O. #16 and see Sht. #ADD 166

PILE CAP FOOTING 18A

N.T.S.

Note: This tracing prepared during "AS-BUILT" postings.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

H-1 VIADUCT (WB)
REVISED PILE CAP DETAILS

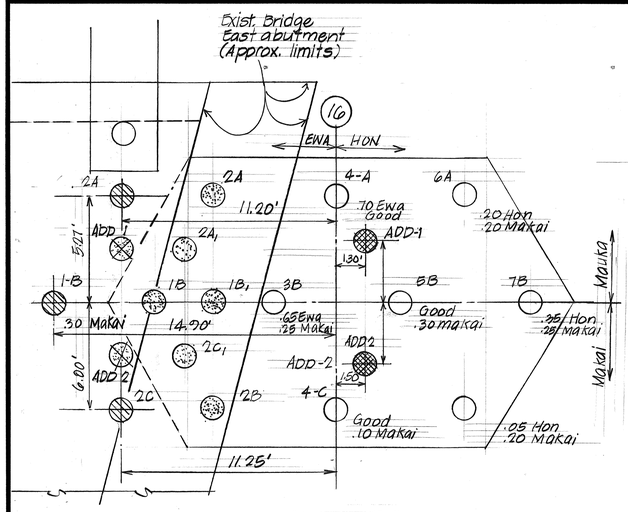
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17
Scale: As Shown Date:

SHEET No. 5-16D OF 60 SHEETS

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

170S-2

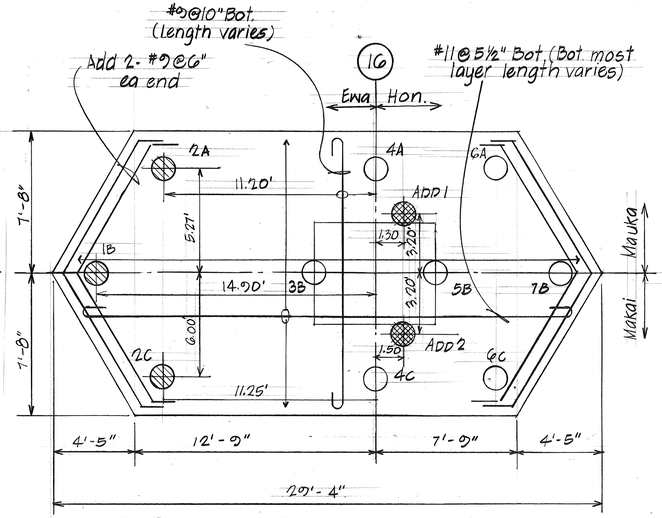
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1984	170 S-3	338



PILE CAP FOOTING 16B

NOTE: Ref. C.C.O #78 and See Sht #ADD 166

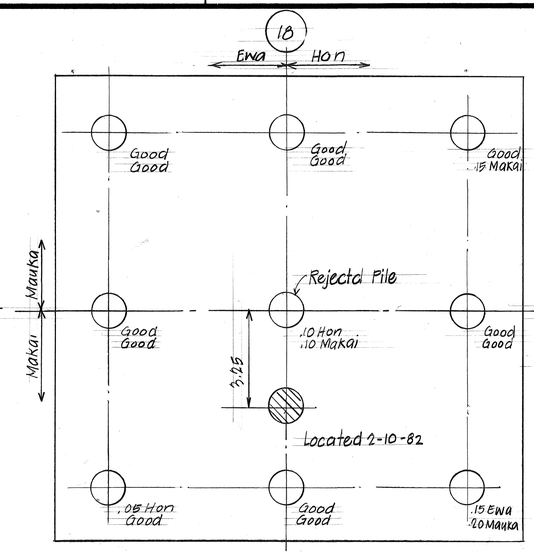
N.T.S.



PILE CAP FOOTING 16B

NOTE: Ref. C.C.O #78 and See Sht #ADD 166

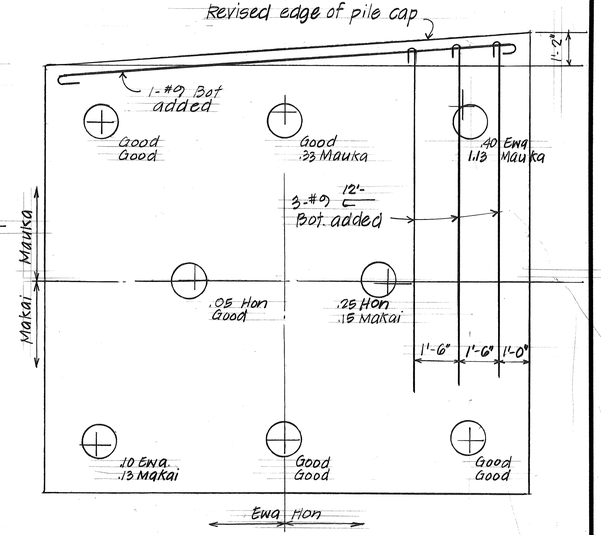
N.T.S.



PILE CAP FOOTING 18A

NOTE: Ref. C.C.O #84 and See Sht # ADD 166

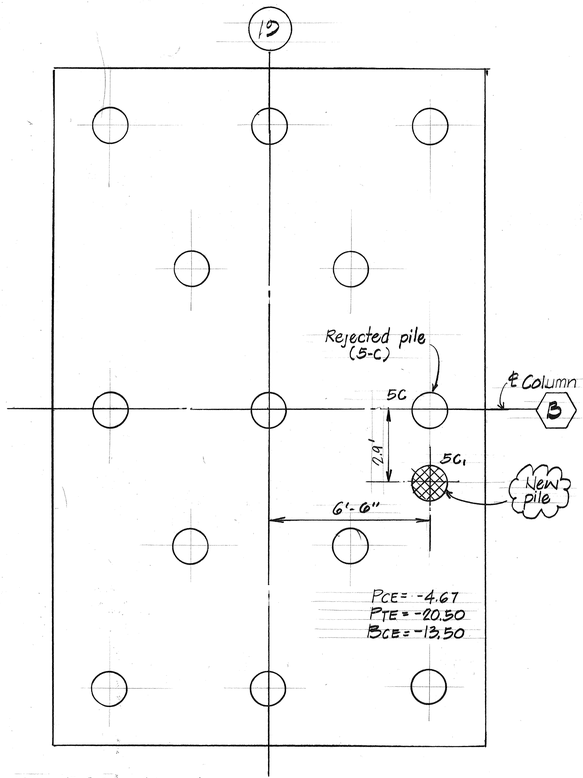
N.T.S.



PILE CAP FOOTING 19A

NOTE: Ref. C.C.O #27 and See Sht # ADD 166

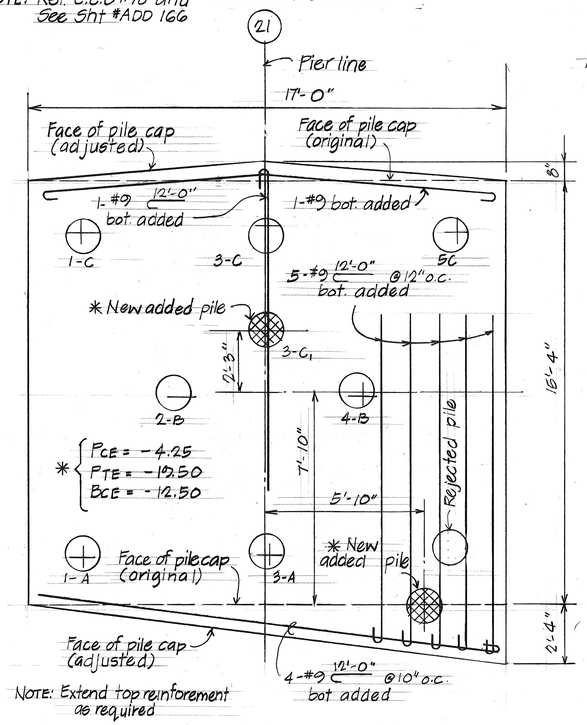
N.T.S.



NOTE: Ref. C.C.O. #41 and See Sht #ADD 166

PILE CAP FOOTING 19B

N.T.S.

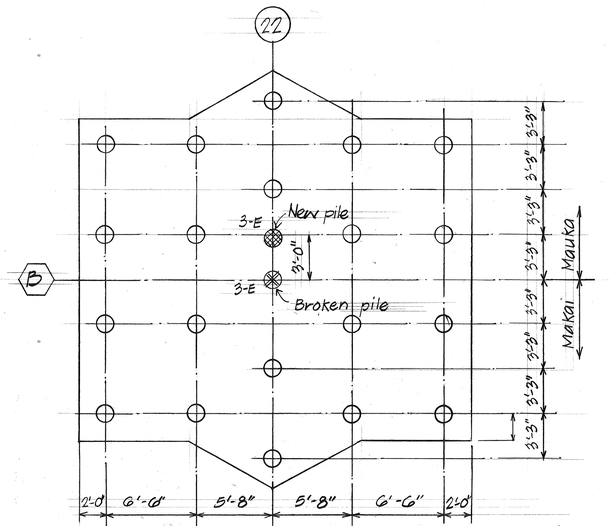


Note: Extend top reinforement as required

PILE CAP FOOTING 21A

NOTE: Ref. C.C.O #32 and See Sht. #ADD 166

N.T.S.



PLAN

PILE CAP FOOTING 22B

NEW TEST PILE LOCATION

N.T.S.

NOTE: Ref. C.C.O. #40 and See Sht # 167

LEGEND

- ◯ = Plan location
- ⊘ = Revised location
- ⊗ = Added piles
- ⊗ = Predrilling failed, piles cannot be driven
- + Piles as driven location

Note: This tracing prepared during "AS-BUILT" postings.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

H-1 VIADUCT (WB)
REVISED PILE CAP DETAILS

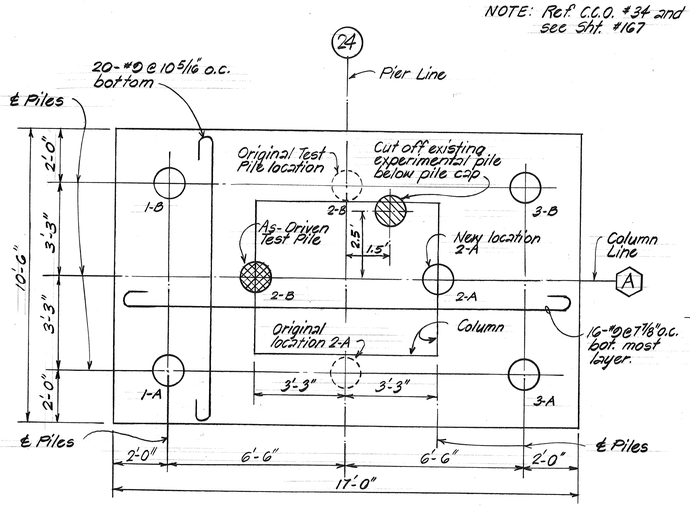
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17
Scale: As Shown Date:

SHEET NO. S-166 OF 60 SHEETS

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

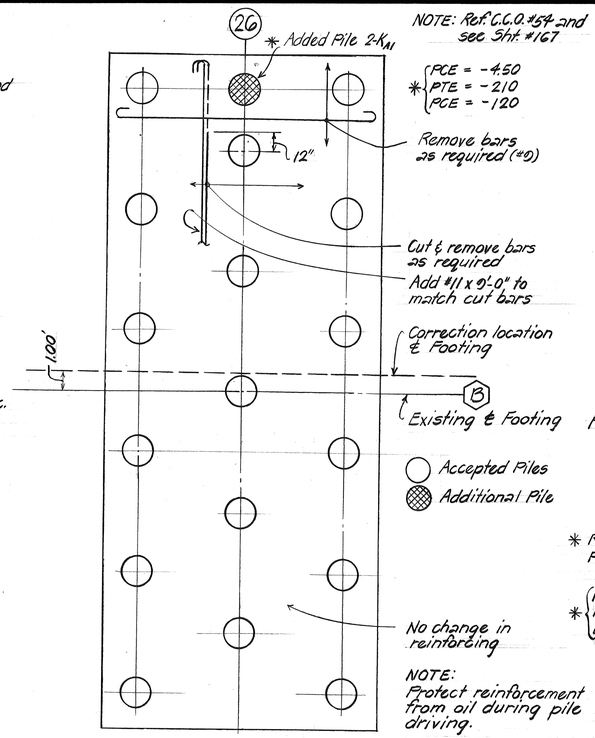
170 S-3

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1984	170S-4	338



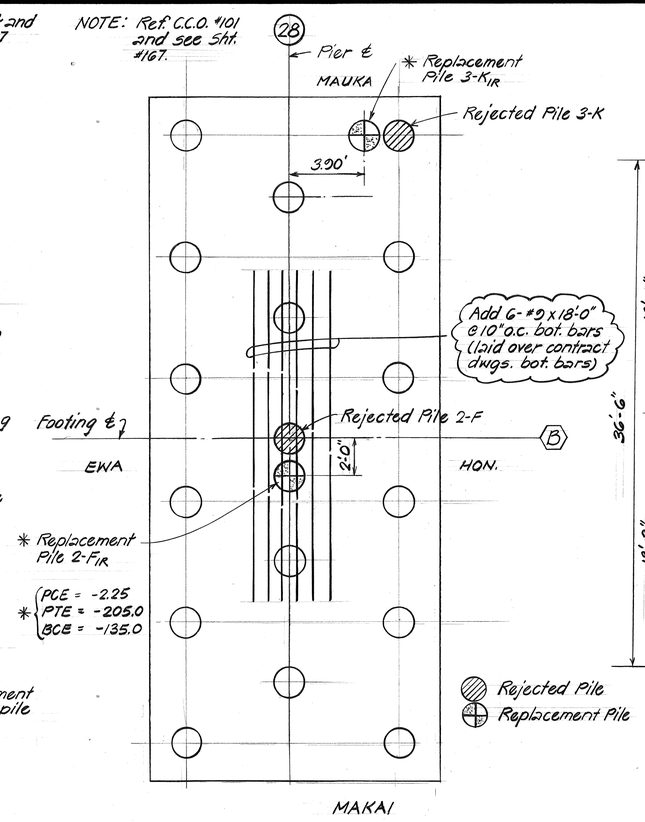
PILE CAP FOOTING 24A

N.T.S.



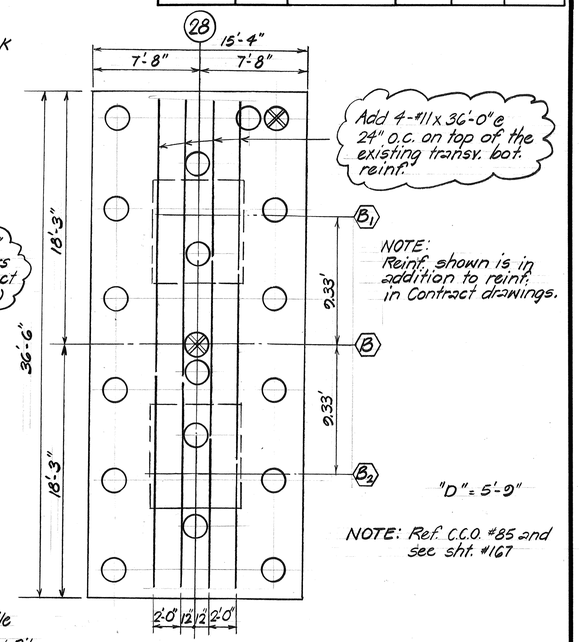
PILE CAP FOOTING 26B

N.T.S.



PILE CAP FOOTING 28B

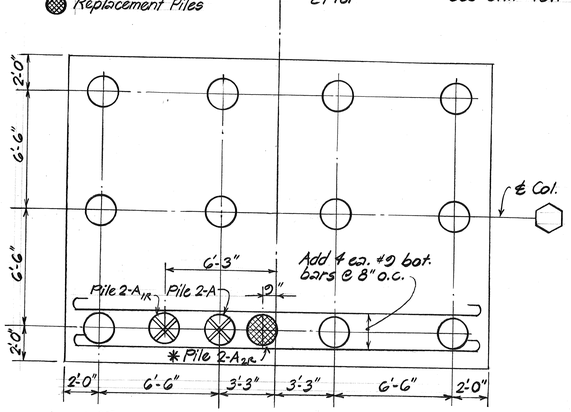
N.T.S.



NOTE: Ref. C.C.O. #85 and see sht. #167

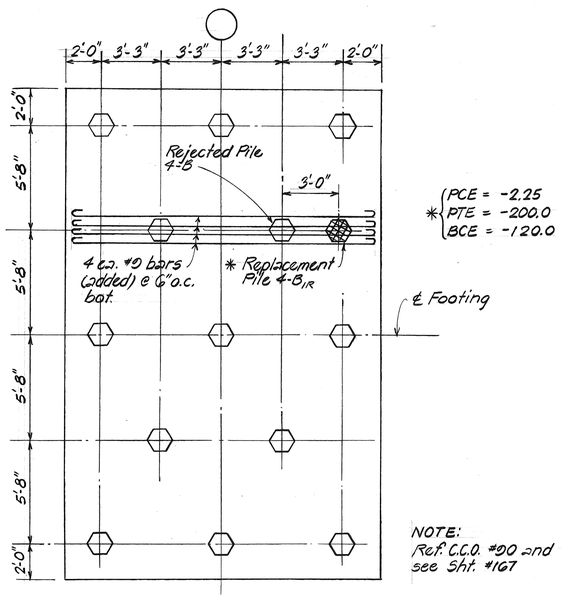
PILECAP 28B SKETCH Nº 1

N.T.S.



PILE CAP FOOTING 24B

N.T.S.

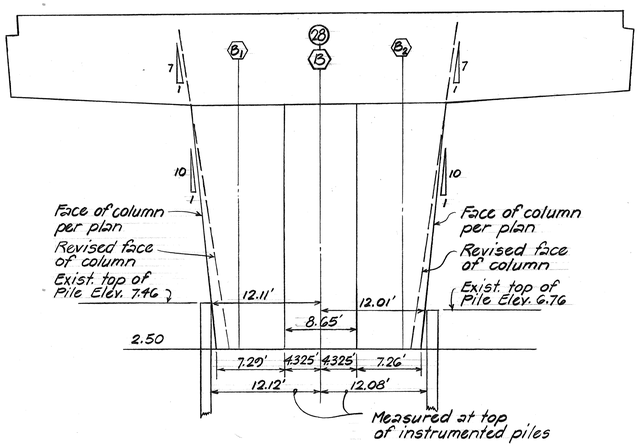


NIMITZ CONNECTOR (WB)

PIER 27C

N.T.S.

NOTE: Ref. C.C.O. #85 and see Sht. #167



H-1 (WB) VIADUCT PIER 28B SKETCH Nº 2 N.T.S.

Note: This tracing prepared during "AS-BUILT" postings.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

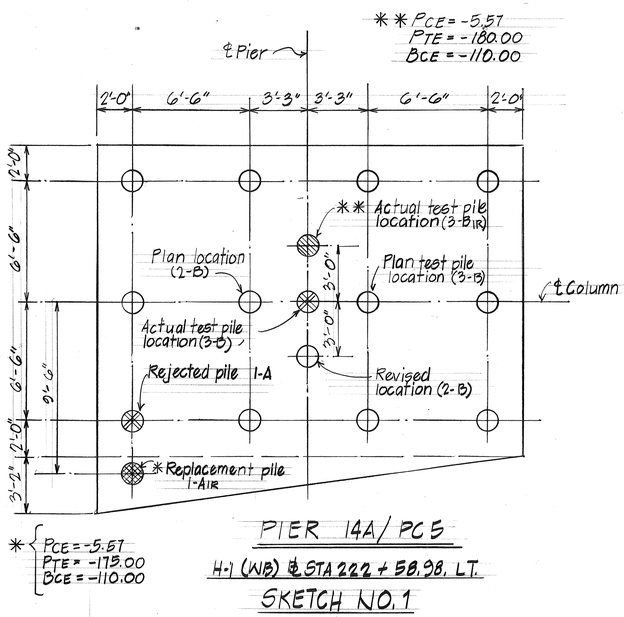
H-1 VIADUCT (WB)
REVISED PILE CAP DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17
Scale: As Shown Date:

SHEET No. 5-16 OF 60 SHEETS

170S-4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1984	170 S-5	338



PIER 14A/PC5

H-1 (WB) ℄ STA 222 + 58.98, LT.

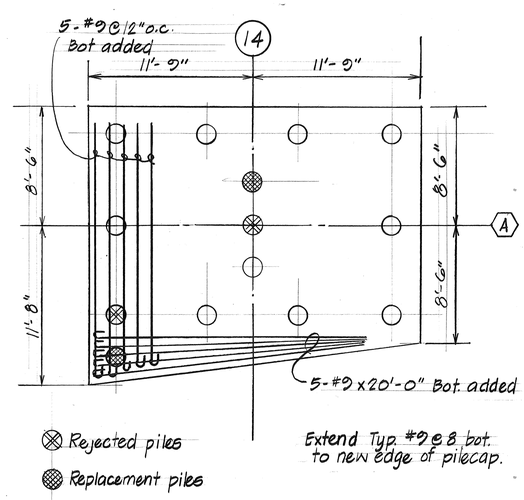
SKETCH NO. 1

N.T.S.

⊗ Rejected piles

⊗ Replacement piles

NOTE: Ref C.C.O #99 and see sht # ADD 166



⊗ Rejected piles

⊗ Replacement piles

Extend Typ. #9 @ 8 bot. to new edge of pilecap.

1- Only added reinforcement shown. See contract plans for typical pile cap reinforcement.
2- Cut off rejected piles below footing.

PIER 14A/PC5

H-1 (NB) ℄ STA 222 + 58.98, LT

SKETCH NO 2

N.T.S.

NOTE: Ref. C.C.O #99 and see sht # ADD 166

SURVEY PLOTTED BY: DATE:
DRAWN BY:
TRACED BY:
DESIGNED BY:
QUANTITIES BY:
CHECKED BY:

ORIGINAL PLAN
NOTE BOOK
No.

Note: This tracing prepared during "AS-BUILT" postings.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

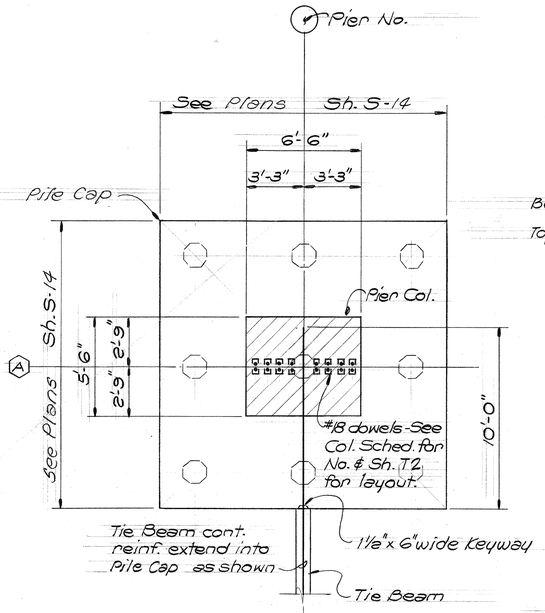
H-1 VIADUCT (WB)
REVISED PILE CAP DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17
Scale: As Shown Date:

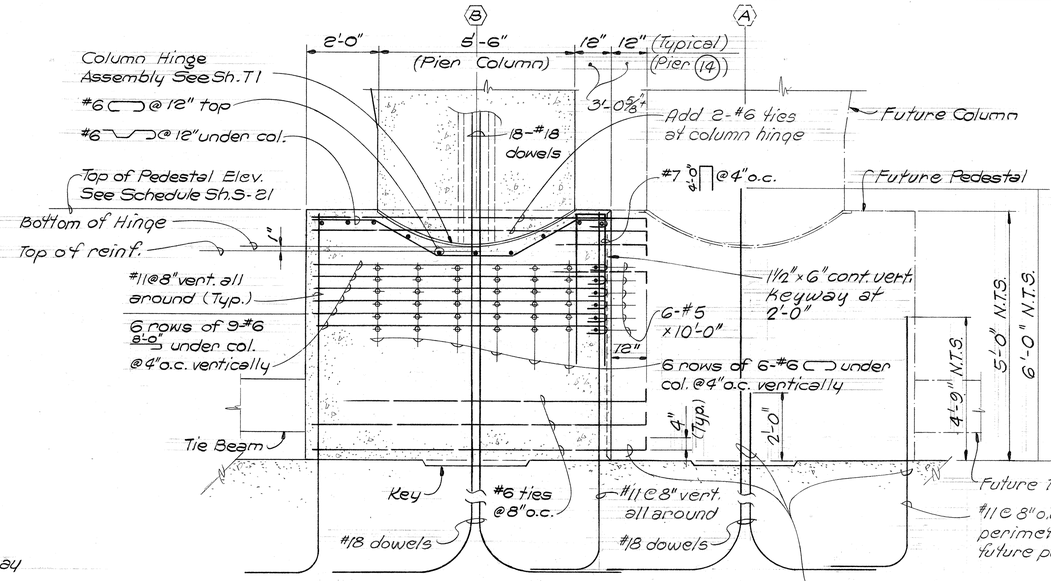
SHEET No. S-166 OF 60 SHEETS

170S-5

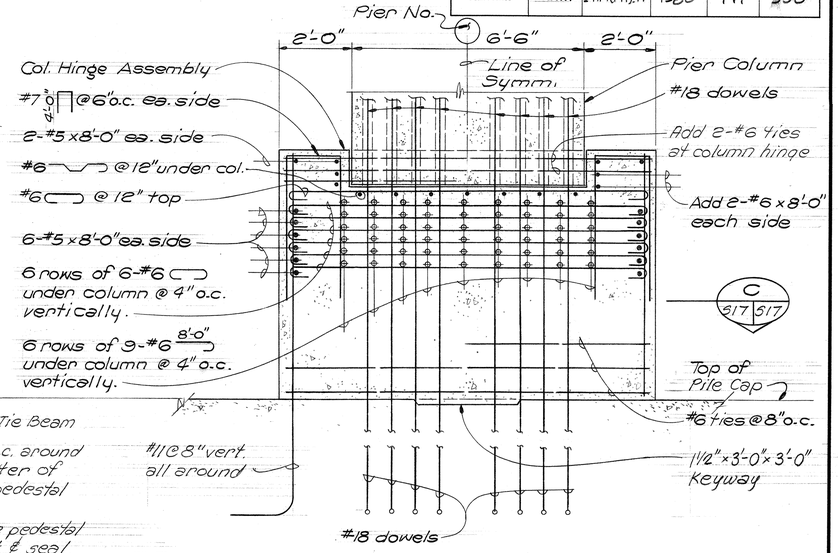
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	171	338



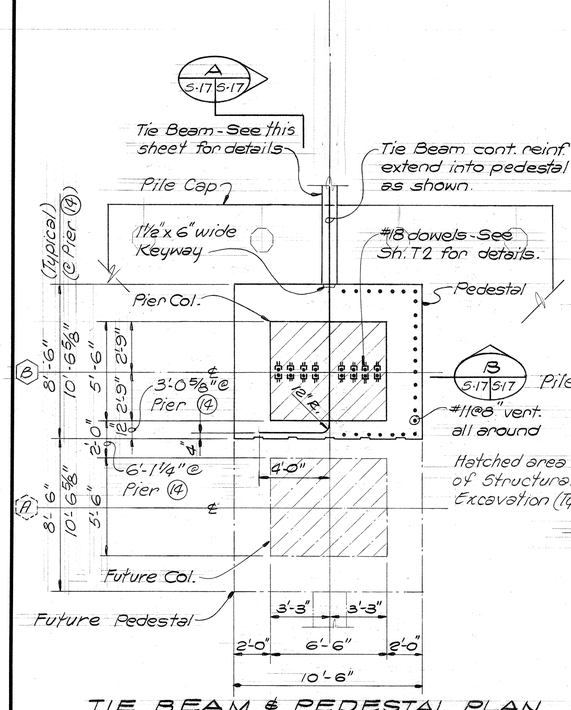
TIE BEAM & PILE CAP PLAN



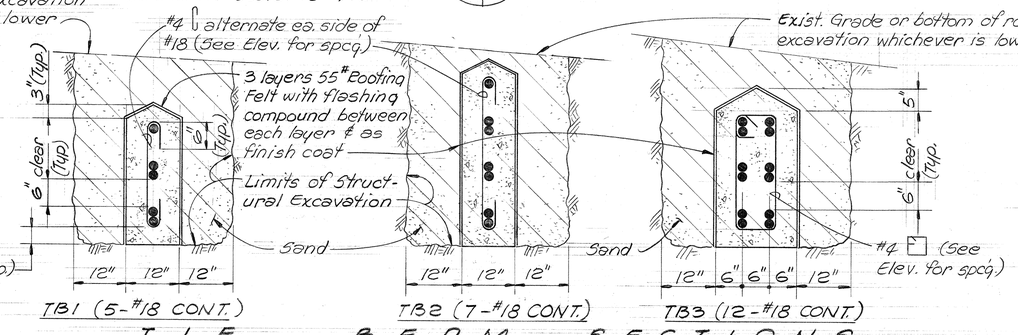
SECTION Ⓐ S17|S17
Scale: 1/2"=1'-0"



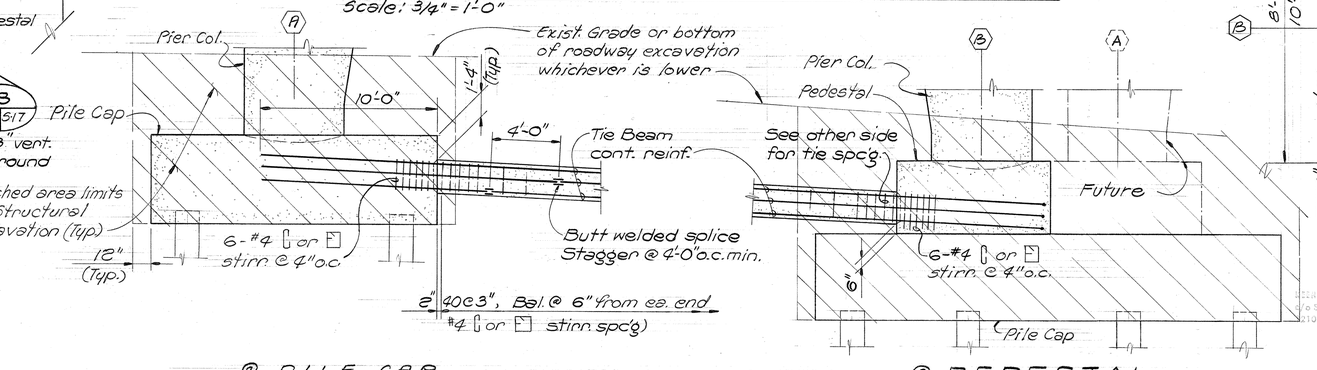
SECTION Ⓑ S17|S17
Scale: 1/2"=1'-0"



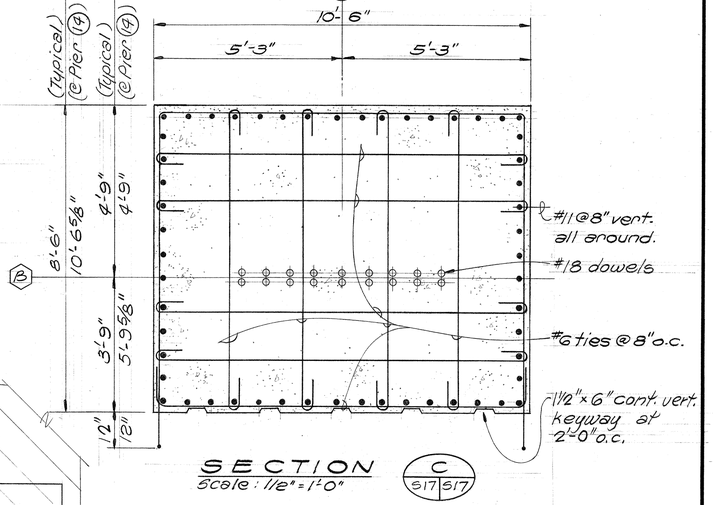
TIE BEAM & PEDESTAL PLAN
Scale: 1/4"=1'-0"



TIE BEAM SECTIONS
Scale: 3/4"=1'-0"



TIE BEAM ELEVATION
Not to scale



SECTION Ⓒ S17|S17
Scale: 1/2"=1'-0"

PEDESTAL & TIE BEAM DETAILS

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimizu, Shimabukuro & Fukuda, Inc.
810 Ward Ave. · Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

CONCRETE PEDESTAL DETAILS & TIE BEAM DETAILS

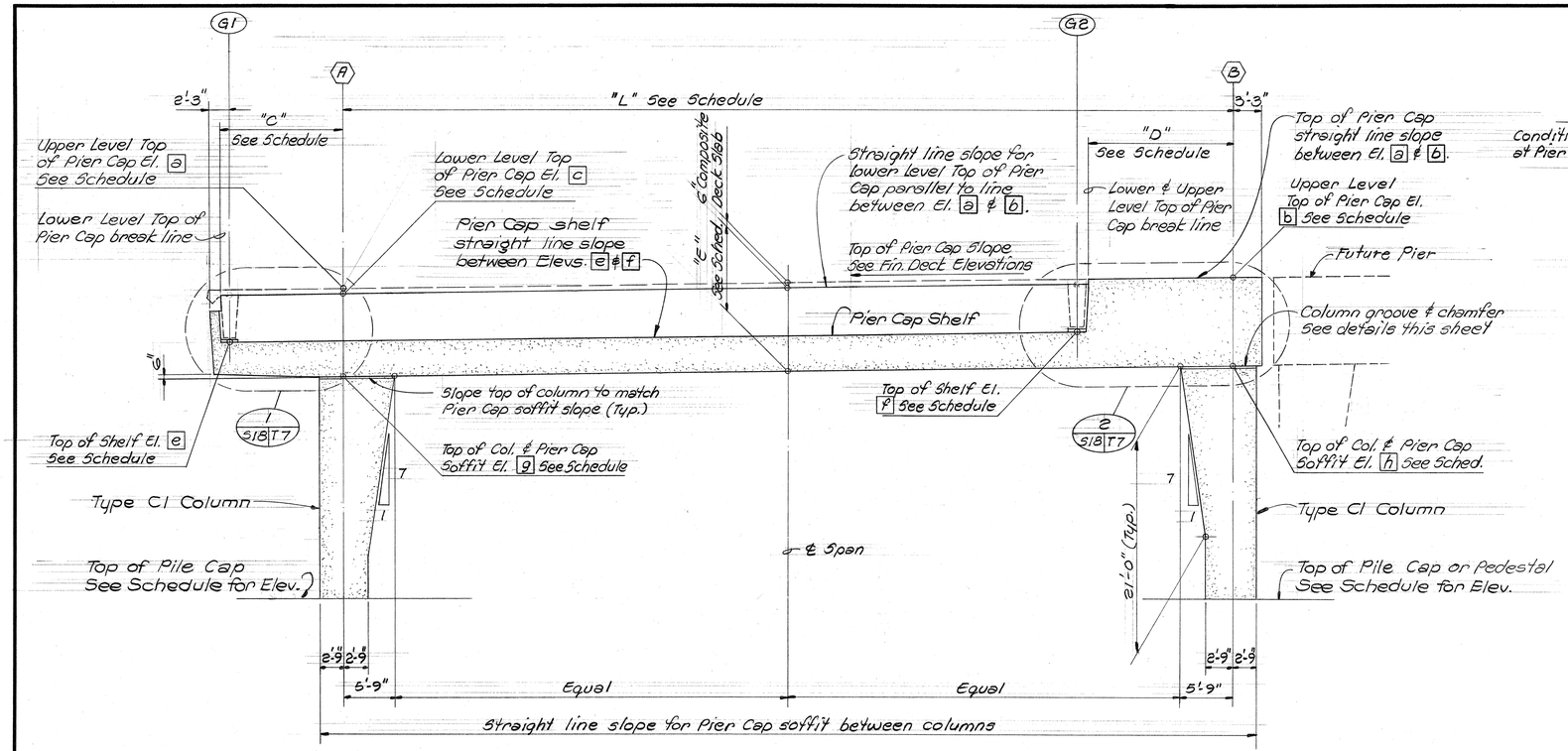
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

SHEET NO. S-17 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

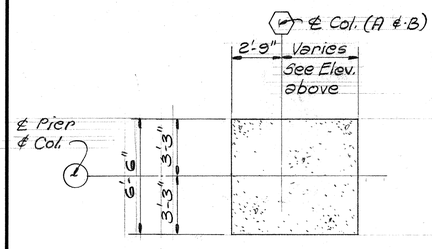
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	172	338



TYPE I PIER ELEVATION (H-1 WESTBOUND Piers ⑥ thru ⑰)

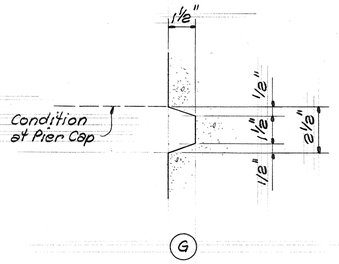
Scale: 1/8" = 1'-0"

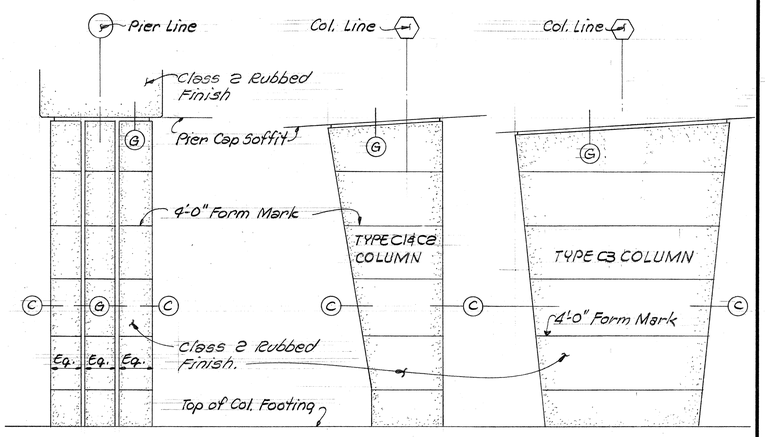
SPECIAL NOTE:
See Sh. S-43 for "Typical Pier Cap Construction Notes"



TYPE C1 PIER COL. SECTION

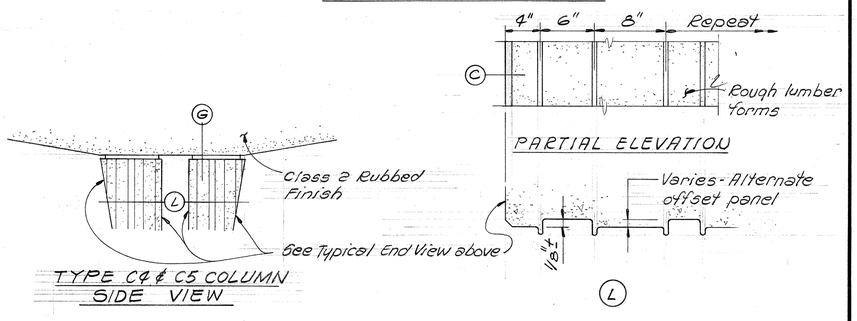
Scale: 1/4" = 1'-0"





TYPICAL END VIEW | TYPE C1 & C2 COL. SIDE VIEW | TYPE C3 COL. SIDE VIEW

ELEVATION



TYPE C4 & C5 COLUMN SIDE VIEW

TYPICAL PIER COLUMN GROOVE & CHAMFER DETAILS

Not to scale

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimizu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL P. UU REGISTERED PROFESSIONAL ENGINEER No. 2974 HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER ELEVATION, COLUMN GROOVE AND CHAMFER DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

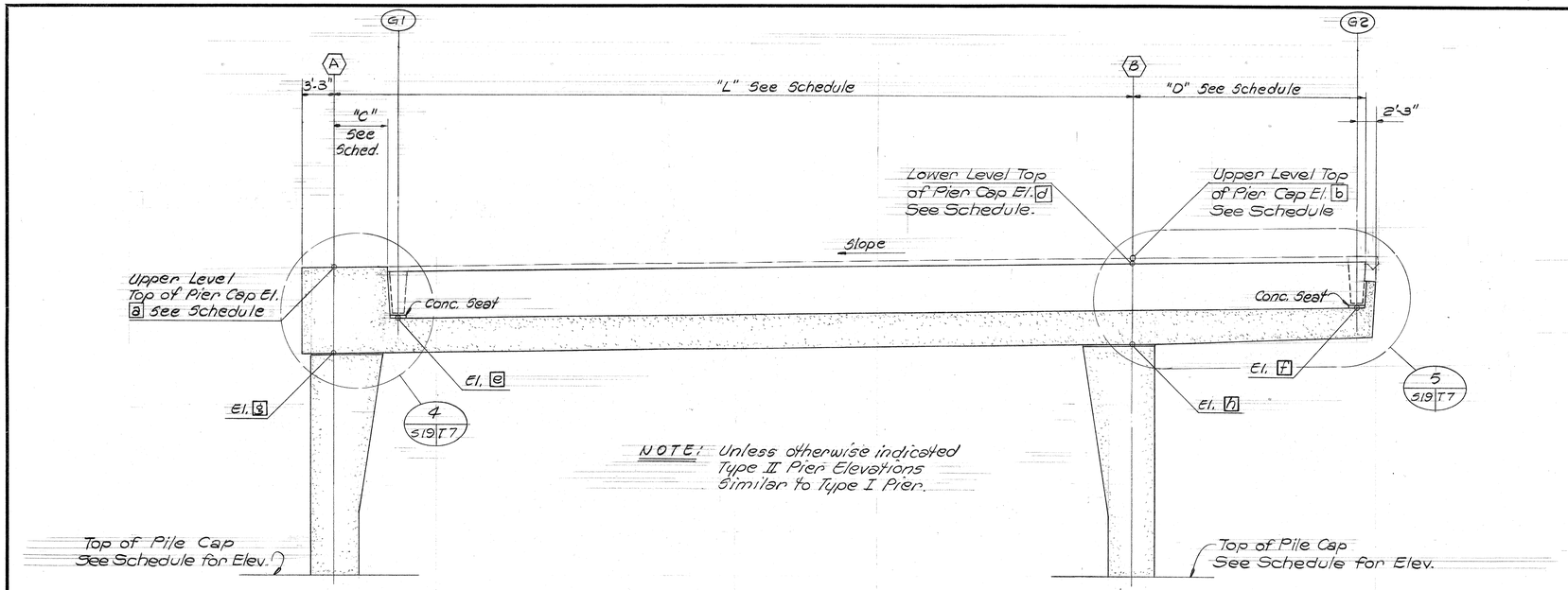
Scale: As Shown Date: April 2, 1979

SHEET NO. S-18 OF 60 SHEETS

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

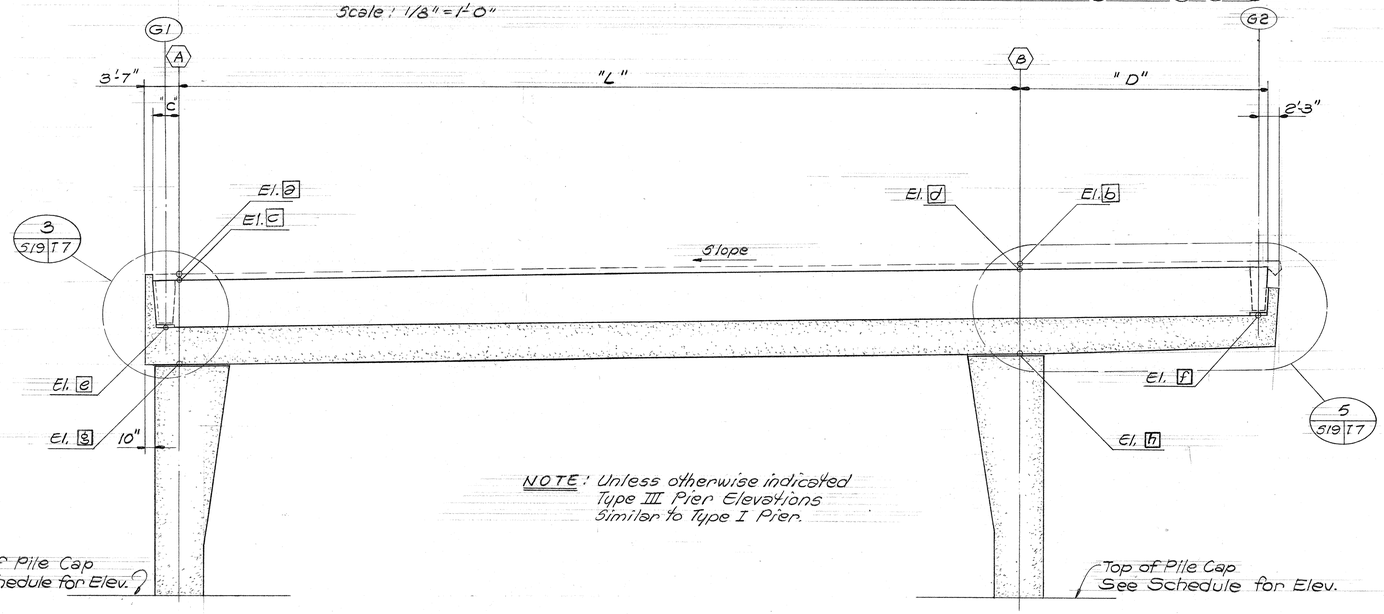
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	173	338



TYPE II PIER ELEVATION (H-1 WESTBOUND Piers (19) thru (21), (24) & (25))

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



TYPE III PIER ELEVATION (H-1 WESTBOUND Pier (18))

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

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

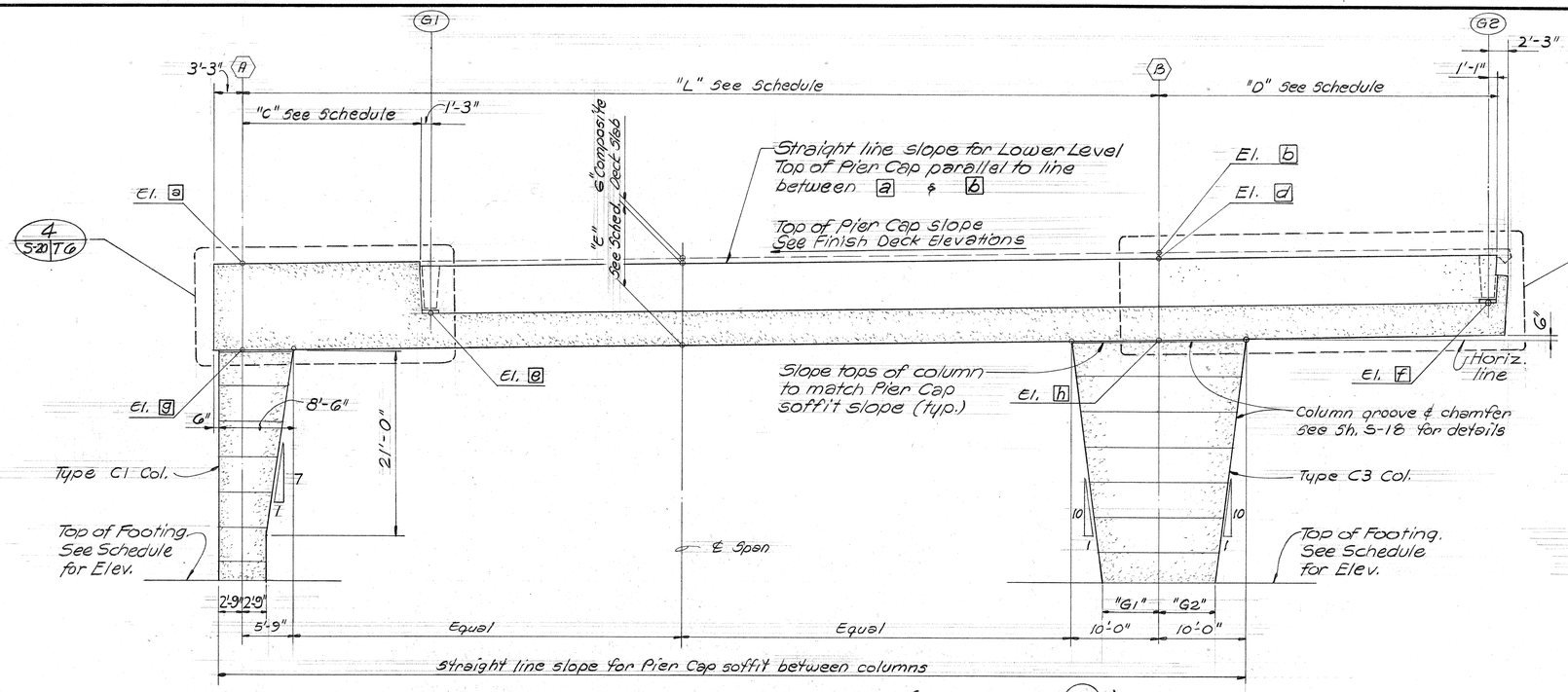
PIER ELEVATIONS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

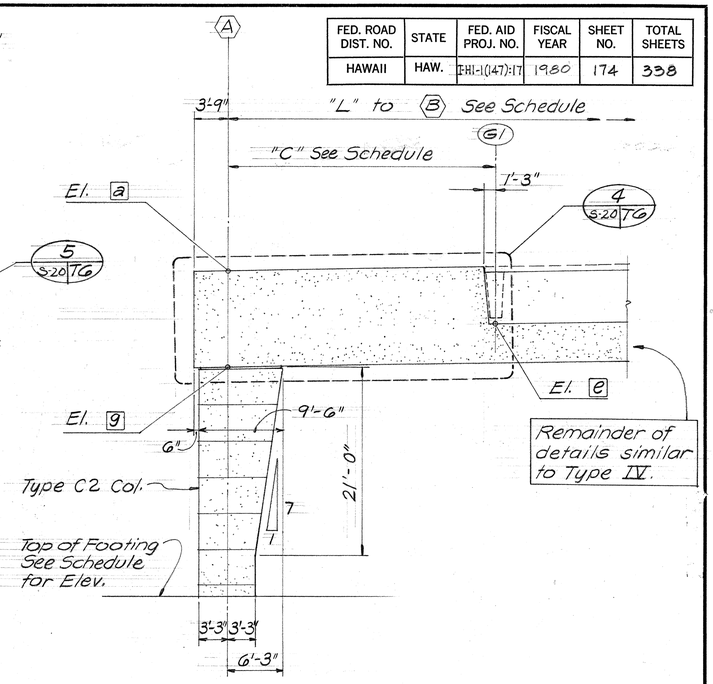
SHEET NO. 519 OF 60 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	174	338



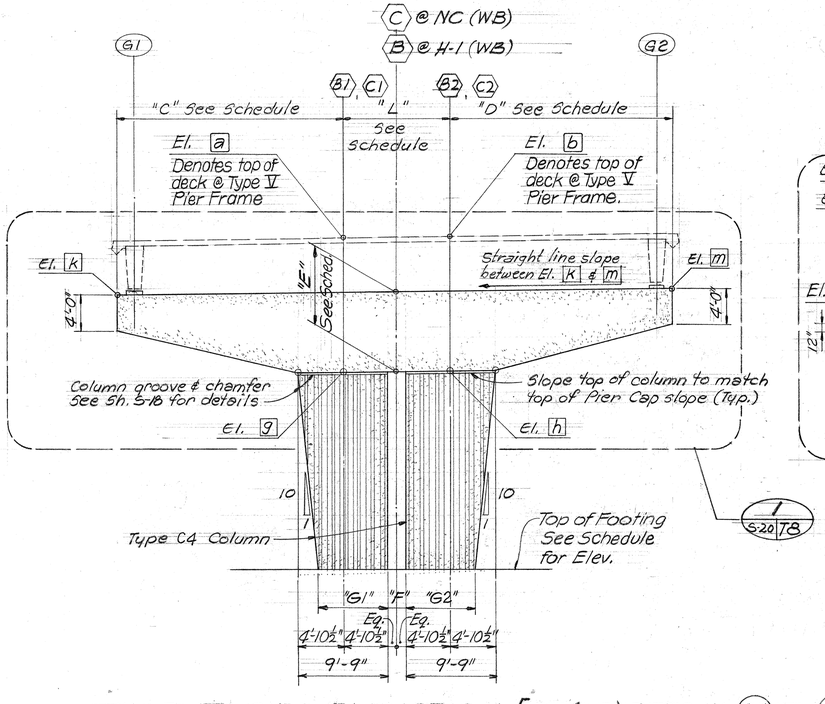
TYPE IV PIER ELEVATION (PIER NO. 22)

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



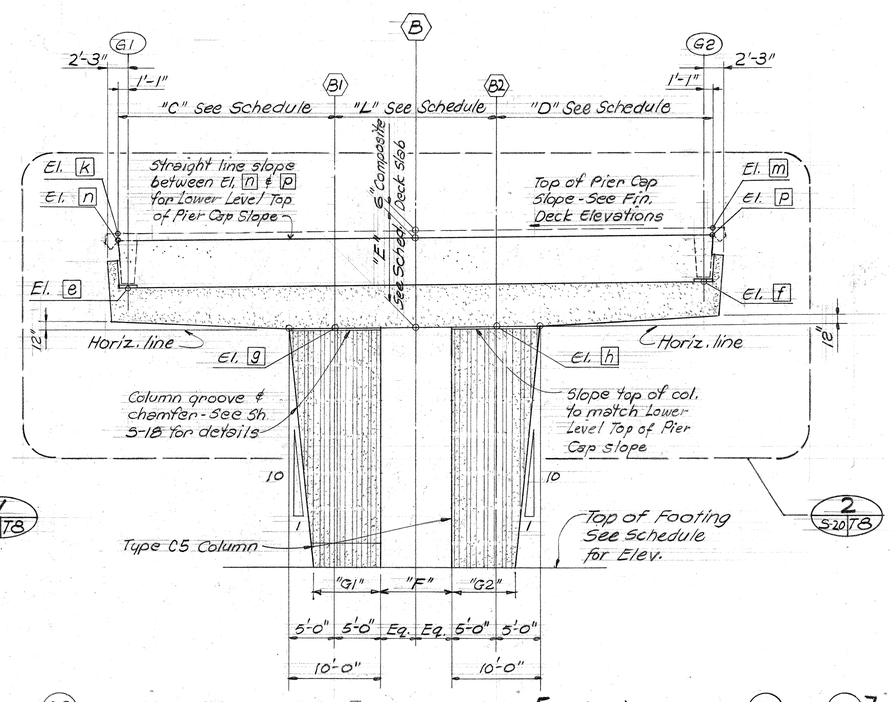
TYPE IV-A PARTIAL PIER ELEV. (PIER NO. 23)

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



TYPE V PIER ELEVATION [N.C. (WB) PIERS NO. 24 TO 29 & H-1 (WB) PIER NO. 29]

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



TYPE VI PIER ELEVATION [HI (WB) PIERS NO. 26 TO 28]

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

REFERENCE DRAWINGS

1. Typical Pier Column Groove & Chamfer Details _____ Sh. S-18

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 868 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

PIER ELEVATIONS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET NO. S-20 OF 60 SHEETS

PIER FRAME SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(147):17	1980	175	338

PIER LINE																															

PIER FRAME SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	176	338

PIER LINE				22	23	24		25		26		27		28		29	
				W		E		S	T	B		O	U	N		D	
				H-1-N.C.	H-1-N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.
PIER CAPS	TYPE			IV	IV A	II	V	II	V	VI	V	VI	V	VI	V	V	V
	"L" (Length between Col. lines ⬡ & ⬡)			108.81	124.10	85.03	11.77	78.86	11.77	12.44	11.77	16.82	11.77	18.65	11.77	20.73	11.77
	"C"			18.70	29.87	38.20	24.92	41.67	24.92	26.81	24.92	24.26	24.92	24.26	24.92	24.96	24.92
	"D"			30.51	28.92	13.47	24.92	24.65	24.92	24.26	24.92	24.26	24.92	24.26	24.92	24.94	24.92
	"E" (Depth of Pier Cap)			10.00	10.50	10.00	9.00	10.00	9.00	10.00	9.00	10.00	9.00	10.00	9.00	9.00	9.00
	"F" (Distance between Columns)						2.02		2.02	2.44	2.02	6.82	2.02	8.65	2.02	10.98	2.02
	"G" (Column dimension @ top of Footing)		"G1"	7.49	7.42		7.58		7.55	7.25	7.56	7.35	7.66	7.29	7.74	7.44	7.86
			"G2"	7.49	7.42		7.58		7.55	7.23	7.56	7.32	7.66	7.26	7.74	7.44	7.86
	ELEVATIONS: TOP OF CAP (Along Pier Lines at intersections of Column Lines) ☐ Elevation	Upper Level	a	36.04	36.46	36.93	38.75	37.52	39.06		38.98		38.52		37.67	40.61	36.49
			b	37.60	38.26	38.16	38.92	38.61	39.23		39.16		38.69		37.85	40.95	36.64
		Lower Level	c														
			d	37.10	37.76	37.66		38.11									
	TOP OF CAP (Along Pier Line @ Type V & VI Piers) ☐ Elevation	Upper Level	K				32.17		32.48	38.63	32.40	39.19	31.93	39.75	31.07	33.99	29.94
			m				33.00		33.39	39.54	33.32	40.13	32.06	40.74	32.03	35.15	30.77
		Lower Level	n							38.13		38.69		39.25			
			p							39.04		39.63		40.24			
	TOP OF SHELF (Along Girder Seat Lines @ Intersections of Girder Lines) ⬭ Girder line ⬡ Girder Seat line ☐ Elevation	G1	1	e	30.07	30.69	31.30		31.93		32.47		33.02		33.60			
			2		30.18	30.77	31.36		31.97		32.51		33.06		33.62			
		G2	1	f	31.79	32.44	32.11		32.75		33.34		33.93		34.55			
			2		31.90	32.52	32.20		32.79		33.38		33.97		34.57			
	SOFFIT OF CAP (Along Pier Lines @ Col. Line Intersections) ☐ Elev.		g		25.54	25.46	26.43	23.62	27.02	23.93	28.52	23.85	29.04	23.39	29.61	22.54	25.48	21.36
			h		27.10	27.26	27.66	23.79	28.11	24.10	28.69	24.03	29.28	23.56	29.88	22.72	25.82	21.51
COLUMN FOOTING	COLUMN LINE																
		A	Pile Cap Type		PC2	PC3	PC12		PC11								
			Group Loading		I	I	I		I								
			Top of Pile Cap Elev.		0.44	0.21	0.77		0.92								
		B	Pile Cap Type		PC20	PC21	PC5	PC13	PC15	PC13	PC16	PC13	PC17	PC13	PC18	PC13	PC19	PC14
		C	Group Loading		I	I	I	I	I	I	I	I	IV	I	IV	I	IV	I
			Top of Pile Cap Elev.		2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	2.50	2.50	2.50	2.50	2.50	2.50

NOTE:

1. See Sht. S-19,20 for schematic representation of all information shown on this sheet.
2. All dimensions and elevations shown on this sheet are in feet.

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TIAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER FRAME SCHEDULE

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: None Date: 4/2/79

SHEET NO. S-22 OF 60 SHEETS

176

PIER FRAME COLUMN REINFORCING SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	177	338

PIER	⑥ thru ⑪		⑫		⑬ & ⑭		⑮,⑯ & ⑰		⑱		⑲,⑳ & ㉑	
COLUMN	Ⓐ	Ⓑ	Ⓐ	Ⓑ	Ⓐ	Ⓑ	Ⓐ	Ⓑ	Ⓐ	Ⓑ	Ⓐ	Ⓑ
Reference Top of Pier Cap												
Reference Top of Column												
COLUMN VERT. REINF. & TIE SPACING.	36-#18 (13-"a" bars & 23-"c" bars) 18'-6" 34-#18 (5-"b" bars & 29-"d" bars) 2", 30 @ 6", Bal. @ 9" (#5 tie spacing) 6@6", 2"	30-#18 (11-"a" bars & 19-"c" bars) 18'-6" 30-#18 (5-"b" bars & 25-"d" bars) 2", 30 @ 6", Bal. @ 9" (#5 tie spacing) 6@6", 2"	20-#18 (8-"a" bars & 12-"c" bars) 19'-6" 10-#18 (2-"b" bars & 8-"d" bars) 2", 6@4", 6@6" Bal. @ 12" (#5 tie spacing) 6@6", 6@4", 2"	20-#18 (8-"a" bars & 12-"c" bars) 19'-6" 10-#18 (2-"b" bars & 8-"d" bars) 2", 6@4", 6@6" Bal. @ 12" (#5 tie spacing) 6@6", 6@4", 2"	43-#18 (18-"a" bars & 25-"c" bars) 19'-6" 37-#18 ("d" bars) 2", 39@4½" Bal. @ 6" (#5 tie spacing) 6@6", 2"	60-#18 (20-"a" bars & 40-"c" bars) 19'-6" 32-#18 ("d" bars) 2", 39@4½" Bal. @ 6" (#5 tie spacing) 6@6", 2"	43-#18 (18-"a" bars & 25-"c" bars) 19'-6" 37-#18 ("d" bars) 2", 30@6", Bal. @ 9" (#5 tie spacing) 6@6", 2"	43-#18 (18-"a" bars & 25-"c" bars) 19'-6" 37-#18 ("d" bars) 2", 30 @ 6", Bal. @ 9" (#5 tie spacing) 6@6", 2"	30-#18 (10-"a" bars & 20-"c" bars) 22'-6" 14-#18 (4-"b" bars & 10-"d" bars) 2", 6@4", 6@6" Bal. @ 8" (#5 tie spacing) 6@6", 6@4", 2"	30-#18 (10-"a" bars & 20-"c" bars) 22'-6" 14-#18 (4-"b" bars & 10-"d" bars) 2", 6@4", 6@6" Bal. @ 8" (#5 tie spacing) 6@6", 6@4", 2"	Same as Pier ⑱, Col. Ⓐ	20-#18 (8-"a" bars & 12-"c" bars) 22'-6" 10-#18 (2-"b" bars & 8-"d" bars) 2", 6@4", 6@6" Bal. @ 8" (#5 tie spacing) 6@6", 6@4", 2"
Reference Top of Footing or Pedestal												
TOTAL NO. OF #18 VERT. REINF.	70	60	30	30	80	92	80	80	44	44	44	30
NO. OF #18 DOWELS @ COLUMN BASE	12	12	12	12	12	12	12	12	12	12	12	12

SPECIAL NOTES

1. Continue Column ties into pier cap. Column Line Ⓑ at Piers ⑥ thru ⑰ & at Col. Line Ⓐ at Piers ⑱, ⑲, ⑳ & ㉑. See Schedule above.
2. All columns for Piers ⑥ thru ㉑ are Type C1 columns.

REFERENCE DRAWINGS

1. Pier Schedule (Col. & Ftg. El.)---Sh. S-21
2. Column Sections------Sh. S-27 & 28
3. #18 dowels at Column Base----Sh. T-2
4. Reinforcing Designation----Sh. S-23

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

INTERCHANGE ... & E CONSULTANTS
..., Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL MATSUMOTO — REGISTERED PROFESSIONAL ENGINEER — No. 2974 — HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER FRAME
COLUMN REINFORCING SCHEDULE

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

No Scale: Date: April 2, 1979

SHEET No. S23 OF 60 SHEETS

177

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	178	338

PIER FRAME COLUMN REINFORCING SCHEDULE

PIER	22			23		24				
COLUMN	A	B		A	B	A	B	C1	C	C2
COLUMN TYPE	C1	C3		C2	C3	C1	C1	C4		C4
Reference Top of Pier Cap										
Reference Top of Column										
COLUMN VERT. REINF. & TIE SPACING	43-#18 ("a" bars & 25 "c" bars) 20'-0" 37-#18 ("d" bars) Bal. @ 9" , 6 @ 6", 2" @ 8" (#5 tie spacing) 2'-6"	38-#18 ("a" bars & 29 "c" bars) 20'-0" 8-#18 ("d" bars) 2-#18 ("e" bars) Bal. @ 12" 6 @ 6", 6 @ 4", 2" (#5 tie spacing)		62-#18 ("a" bars & 38 "c" bars) 18'-6" 30-#18 ("d" bars) 4-#18 ("e" bars) Bal. @ 8" 6 @ 4", 2" @ 12" (#5 tie spacing) 3'-0"	Same as Column 22 (B)	20-#18 (8 "a" bars & 12 "c" bars) 18'-6" 10-#18 (2 "b" bars & 8 "d" bars) Bal. @ 12" , 6 @ 6", 6 @ 4", 2" @ 12" (#5 tie spacing) 2'-6"	Same as Column 24 (A) Except stop #5 ties @ top of column	18-#18 (5 "f" bars & 12 "g" bars) Bal. @ 12" 6 @ 6", 6 @ 4", 2" (#5 tie spacing) 8-#18 Added dowels 8'-0"		Same as Column 24 (C1)
Reference Top of Footing or Pedestal	2", 30 @ 6",	2", 6 @ 4", 6 @ 6",		2", 40 @ 4",		2", 6 @ 4", 6 @ 6"		2", 6 @ 4", 6 @ 6",		
TOTAL NO. OF #18 VERT. REINF.	80	48		96	48	30	30	18		18
NO. OF #18 DOWELS @ COLUMN BASE	12	16		12	18	12	12	8		8

REFERENCE DRAWINGS

1. Pier Schedule (Col. & Ftg El.) _____ Sh. S-22
2. Column Sections _____ Sh. S-27 to 33
3. #18 Dowels at Column Base _____ Sh. T-2 & 4

NOTE:

See Sht. S-23 for Special Notes

Column Nos. 22B and 23B.
Field Change No. 12 - Type C3 Column Reinforcing Steel Revision

(Reference : Plan Sht. Nos. 178, 185, 193, 197, 198 and 192 S-1.

1. Lowering the nine (9) each "a" bent #18 reinforcing steel bars in the two Type C3 columns 6½", since there is not enough space for the column bars in the pier cap third top layer of reinforcing steel.

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGN BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

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1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER FRAME COLUMN REINFORCING SCHEDULE

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: None: Date: 4/2/79

SHEET NO. S-24 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

PIER FRAME COLUMN REINFORCING SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	F-HI-1(147)17	1980	179	338

PIER	25				26				27			
COLUMN	A	B	C1	C	C2	B1	B	B2	C1	C	C2	B1	B	B2	C1	C	C2
COL. TYPE	C1	C1	C4		C4	C5		C5	C4		C4	C5		C5	C4		C4
Reference Top of Pier Cap																	
Reference Top of Column																	
COLUMN VERT. REINF. & TIE SPACING	16-#18 ("G" bars & 10 "C" bars) 18'-6"; 4-#18 ("G" bars) Bal. @ 12" (#5 tie spacing); 6@6", 6@4", 2"@12"; 2'-6"; 2", 6@4", 6@6"	Same as Column 25 (A) Except stop #5 ties at top of Column	18-#18 (5 "F" bars & 13 "G" bars) 8-#18 added dowels 8'-0"; Bal. @ 12" (#5 tie spacing); 6@6", 6@4", 2"; 2", 6@4", 6@6"		Same as Column 25 (C1)	24-#18 ("F" bars & 17 "G" bars) Bal. @ 12" (#5 tie spacing); 6@6", 6@4", 2"; 2", 6@4", 6@6"	Same as Column 26 (B1)		Same as Column 25 (C1)		Same as Column 25 (C1)	Same as Column 26 (B1)	Same as Column 26 (B1)		Same as Column 25 (C1)		Same as Column 25 (C1)
TOTAL NO. OF #18 VERT. REINF.	20	20	18	18	18	24	24		18	18	18	24	24		18	18	18
NO. OF #18 DOWELS @ COLUMN BASE	12	18	8	8	8				8	8	8				8	8	8

NOTE:

See Sht. S-23 for Special Notes & Sht. S-24 for Reference Details

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TIAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER FRAME COLUMN REINFORCING SCHEDULE

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: None: Date: 4/2/79

SHEET No. S-25 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	180	338

PIER FRAME COLUMN REINFORCING SCHEDULE

PIER	28						29					
COLUMN	B1	B	B2	C1	C	C2	B1	B	B2	C1	C	C2
COL. TYPE	C5		C5	C4		C4	C4		C4	C4		C4
Reference Top of Pier Cap												
Reference Top of Column												
COLUMN VERT. REINF. & TIE SPACING	24-#18 (7'4" bars & 17 "g" bars) Bal. @ 12" (#5 tie spacing)		Same as Column 28 B1	18-#18 (5'1" bars & 13 "g" bars) Bal. @ 12" (#5 tie spacing)		Same as Column 28 C1	Same as Column 28 C1	Same as Column 28 C1	Same as Column 28 C1	Same as Column 28 C1	Same as Column 28 C1	Same as Column 28 C1
Reference Top of Footing or Pedestal	2", 6@4", 6@6", 6@6", 2", 6@4", 6@6",			8-#18 added dowels 8'-0" 2", 6@4", 6@6",								
TOTAL NO. OF #18 VERT. REINF.	24	24		18	18		18	18	18	18	18	18
NO. OF #18 DOWELS @ COLUMN BASE				8	8		8	8	8	8	8	8

NOTE:
See Sht. S-23 for Special Notes
& Sht. S-24 for Reference Drawings

ORIGINAL PLAN | NOTE BOOK | No. | DATE
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KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER FRAME COLUMN REINFORCING SCHEDULE

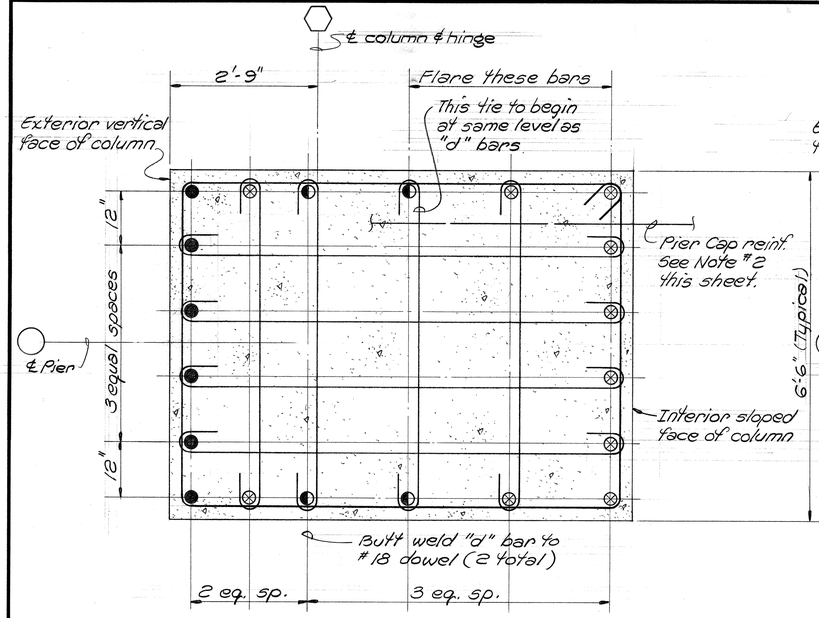
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: None: Date: 4/2/79

SHEET NO. S-26 OF 60 SHEETS

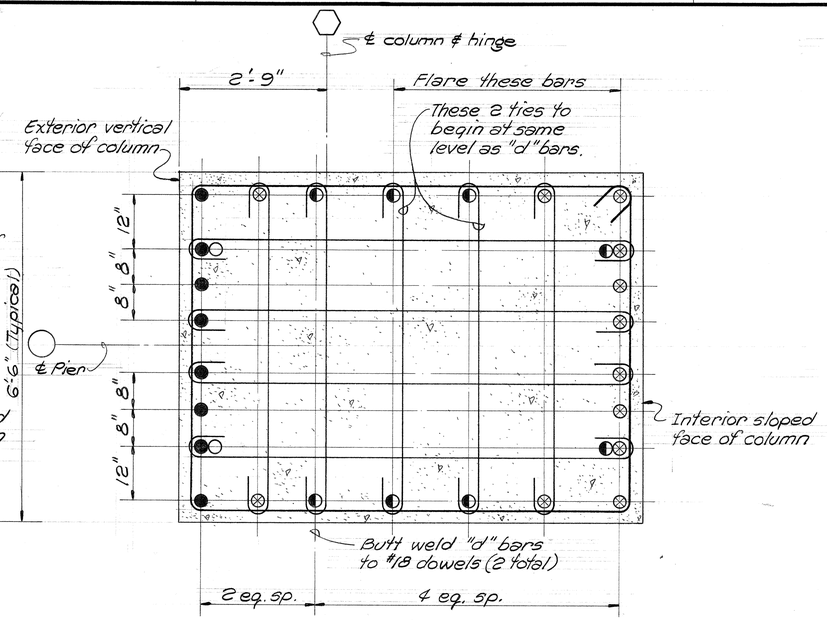
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	181	338



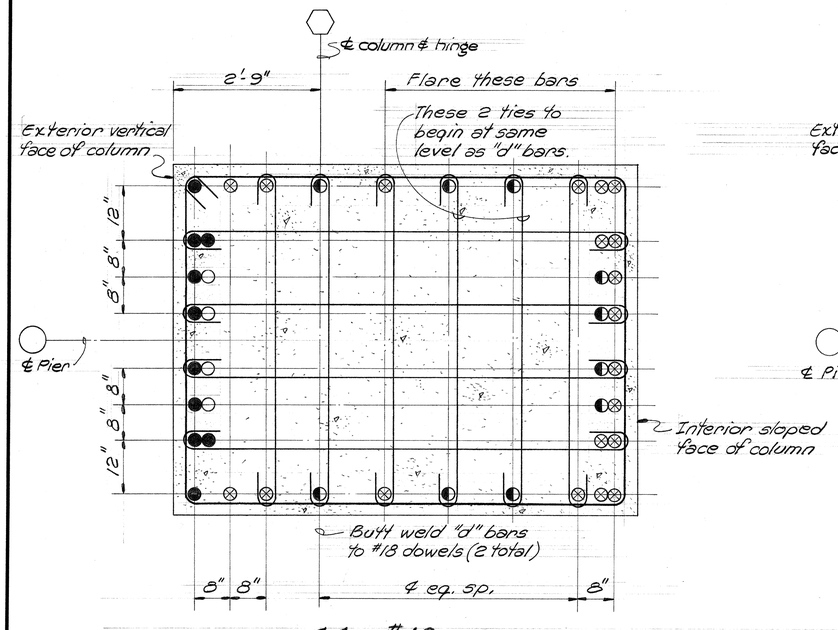
20 - #18

6 - "a" bars
10 - "c" bars
4 - "d" bars



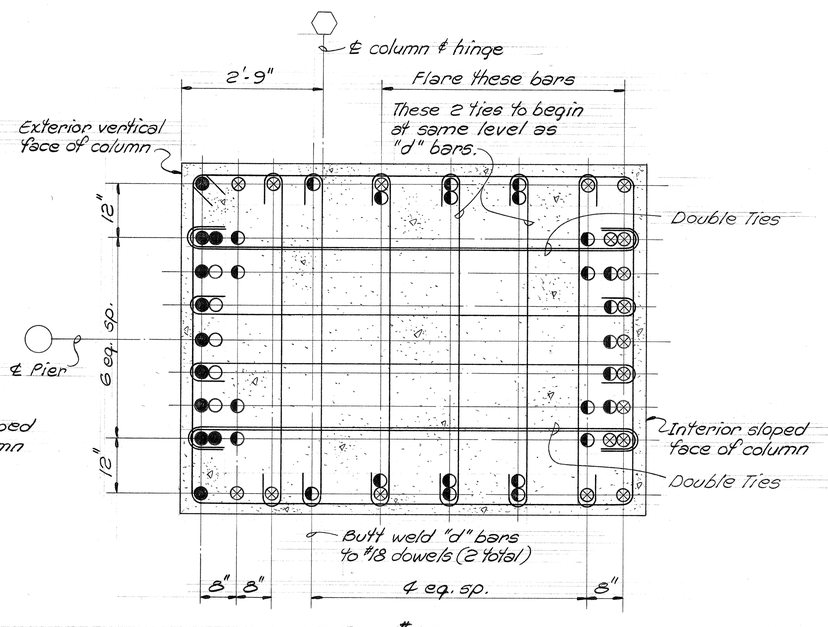
30 - #18

8 - "a" bars
2 - "b" bars
12 - "c" bars
8 - "d" bars



44 - #18

10 - "a" bars
4 - "b" bars
20 - "c" bars
10 - "d" bars

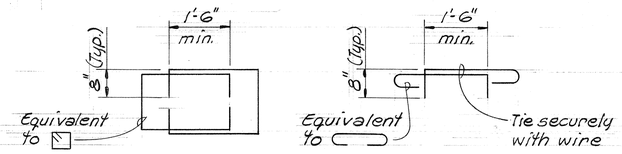


60 - #18

11 - "a" bars
5 - "b" bars
19 - "c" bars
25 - "d" bars

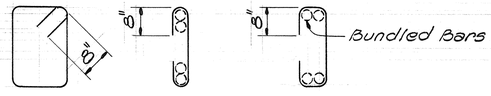
SPECIAL NOTE

At his option the contractor may substitute non-continuous for continuous column ties. Continuous column ties are shown in the column sections. Non-continuous ties are as follows:



NOTES

1. "d" & "e" bars designated as butt welded to #18 dowels are full tension splices.
2. Exact location of bars shall be arranged so that no interference will occur between vertical column reinf., pier cap horizontal reinf. & deck drain assembly.
3. Materials: a.) 28 day concrete compressive strength = 5,000 p.s.i.
   b.) Column #18 bars & #5 ties - A.S.T.M. A-165, Grade 60.
4. In general, cut maximum 2 exterior vertical bars on exterior vertical face of column at deck drain downspout outlet at base of column where occurs.
5. All column ties shall be #5 bars. See column schedule for spacing.
6. Column tie details shall be as follows:



LEGEND (TYPE C1 COLUMN)

- "a" bars
- "b" bars
- "c" bars
- "d" bars

ORIGINAL PLAN
NOTE BOOK
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KEEHI INTERCHANGE A... & H CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL MATSUMOTO REGISTERED PROFESSIONAL ENGINEER No. 2074 HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
TYPE C1
COLUMN SECTIONS

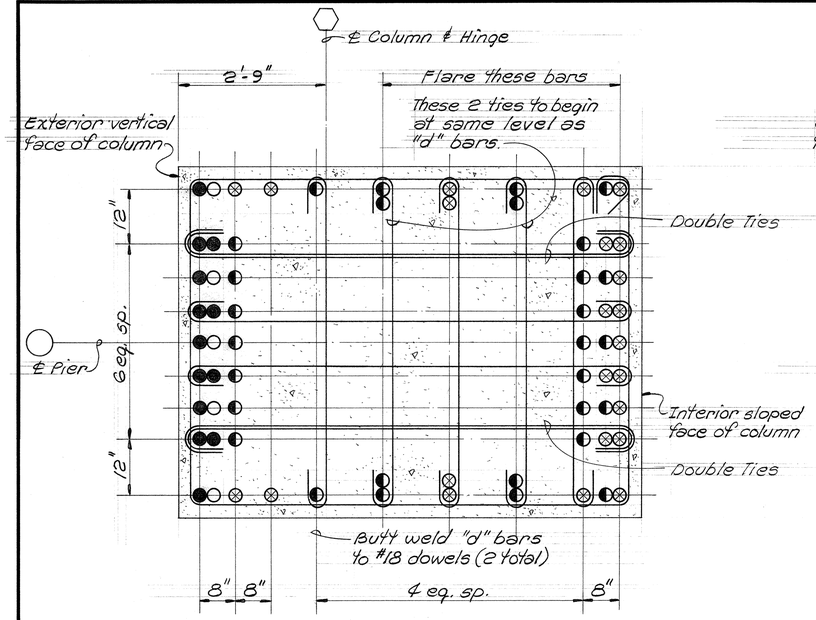
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (147):17

Scale: 3/4" = 1'-0" Date: April 2, 1979

SHEET No. 527 OF 60 SHEETS

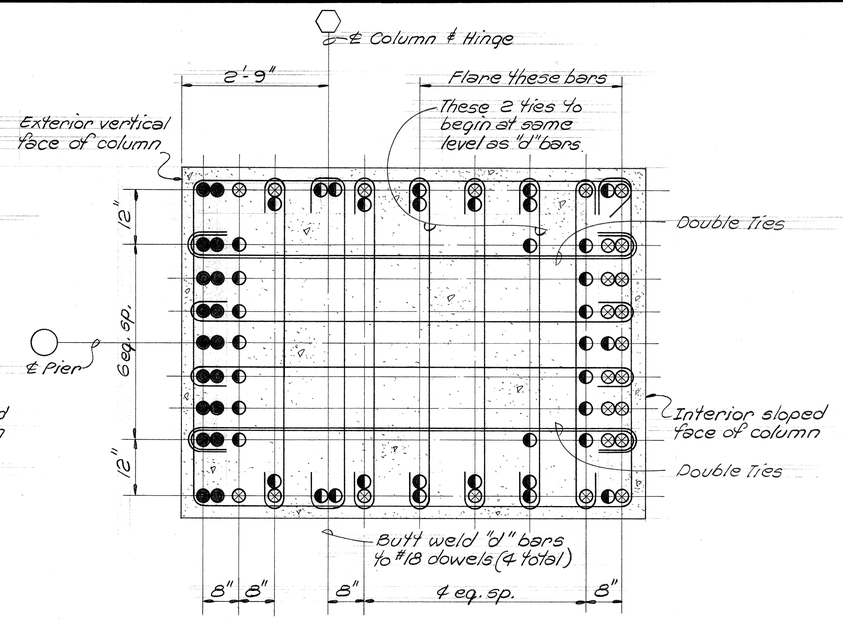
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	182	338



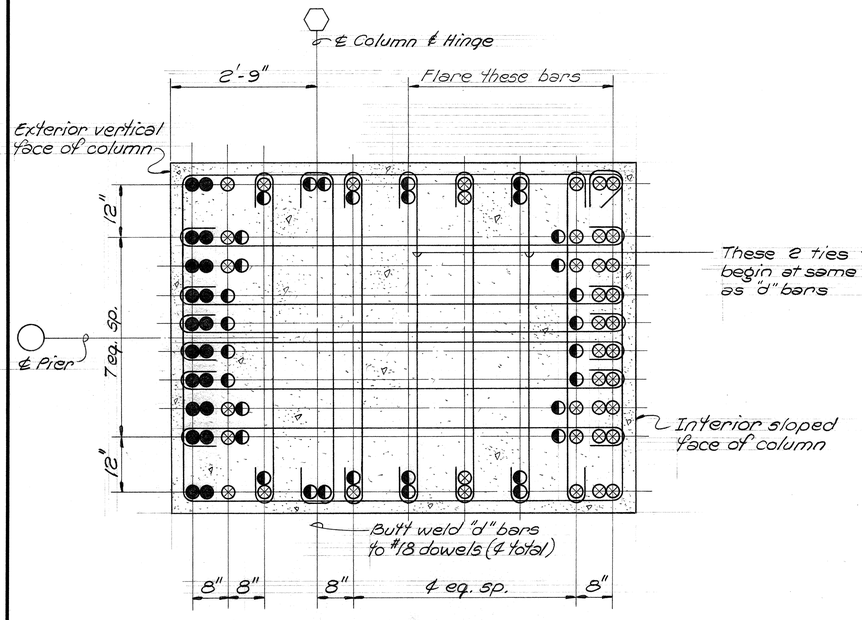
70 - #18

13 - "a" bars
5 - "b" bars
23 - "c" bars
29 - "d" bars



80 - #18

18 - "a" bars
25 - "c" bars
37 - "d" bars



92 - #18

20 - "a" bars
40 - "c" bars
32 - "d" bars

See Sh. 5-27 for "Notes" & "Legend"

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

KEEHI INTERCHANGE A.I.A. JOB CONSULTANTS
c/o Shimazu, Shimabukuro & Fujioka, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

TYPE C1 COLUMN SECTIONS

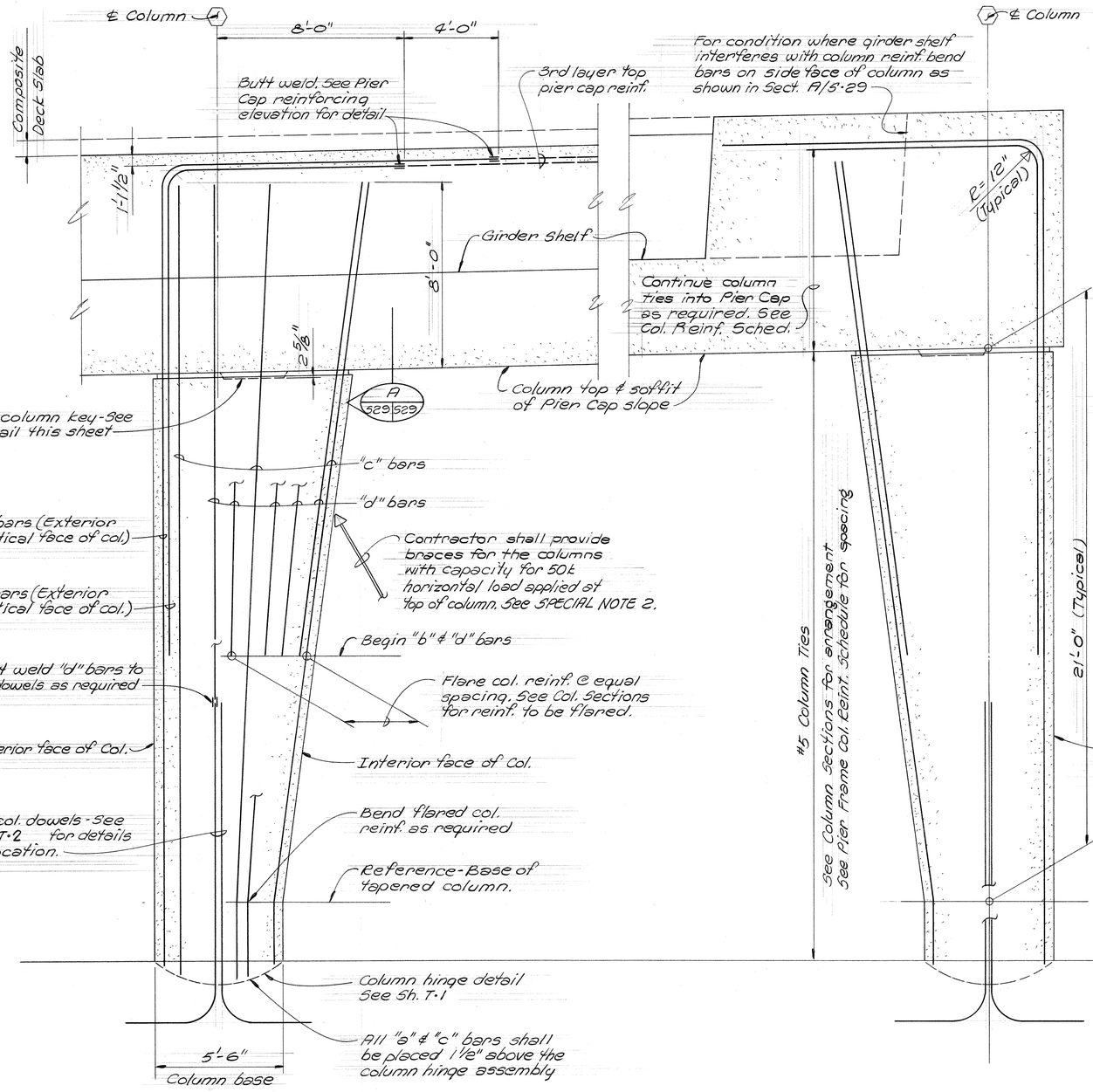
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 3/4"=1'-0" Date: April 2, 1979

SHEET No. 528 OF 60 SHEETS

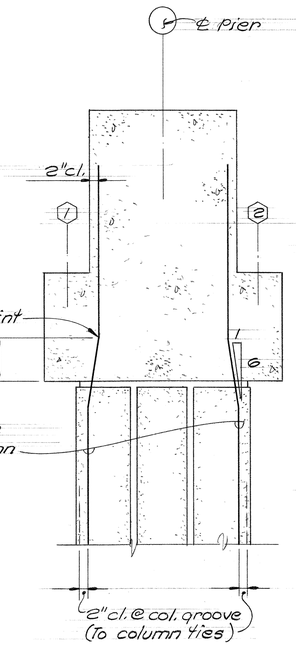
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147);17	1980	183	338

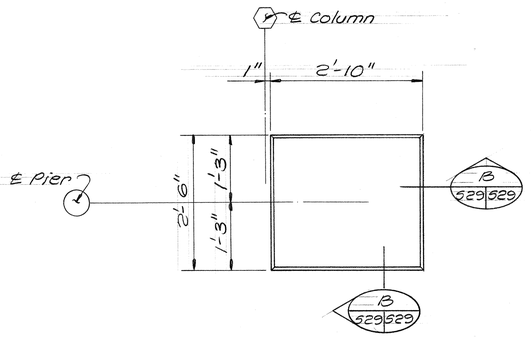


GIRDER SHELF OVER COLUMN

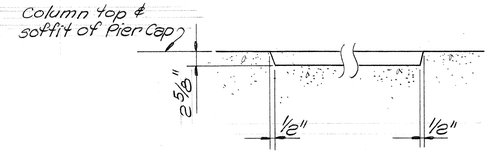
GIRDER SHELF AWAY FROM COLUMN



SECTION A 529 529
Not to scale



PLAN
3/4" = 1'-0"



SECTION B 529 529
1" = 1'-0"

TOP COLUMN KEY DETAIL 1 529 529

SPECIAL NOTES

1. All column reinforcing shall be supported by the column forms. No column reinforcing shall be bearing on the column hinge assembly
2. Columns are hinged & unstable until the pier caps are completed. Contractor shall brace columns as required until pier caps are poured & cured. See Sh. T-3 for suggested method of bracing columns.

TYPE CI COLUMN REINFORCING DETAILS
Not to scale

ORIGINAL PLAN
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KEEHI INTERCHANGE AREA I & H CONSULTANTS
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1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

TYPE CI COLUMN REINFORCING DETAILS

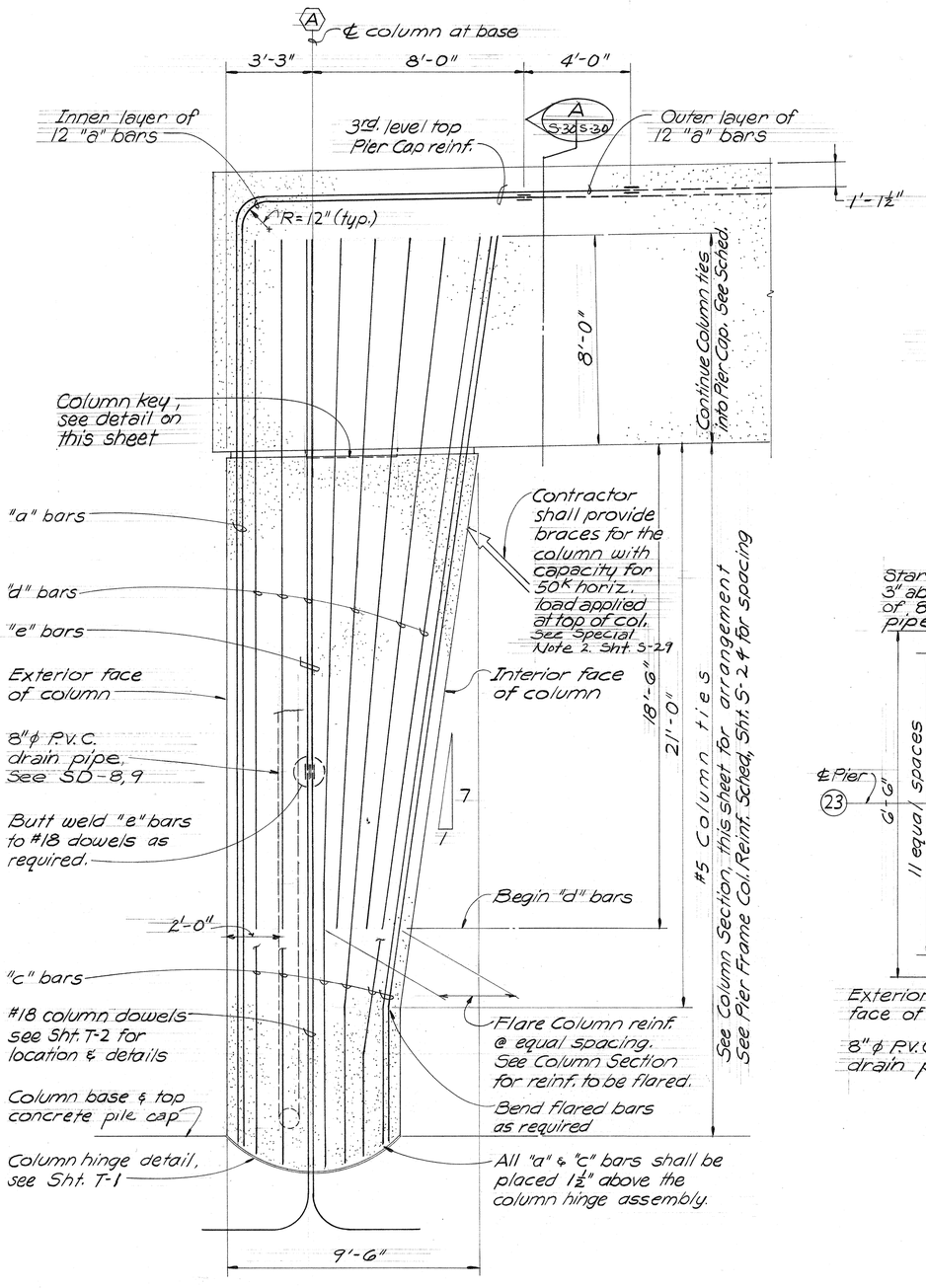
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (147):17

Scale: As Shown Date: April 2, 1979

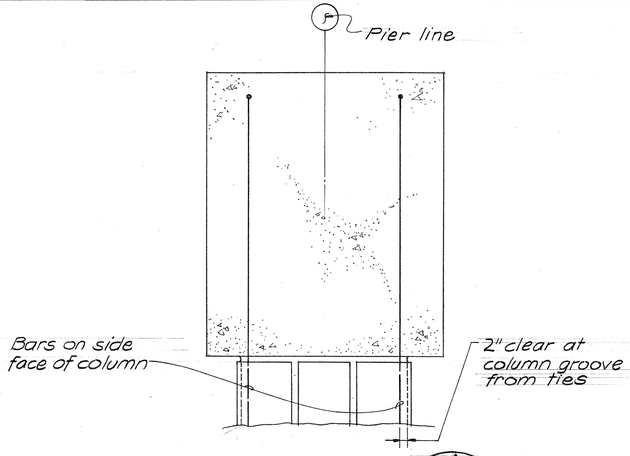
SHEET NO. 529 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

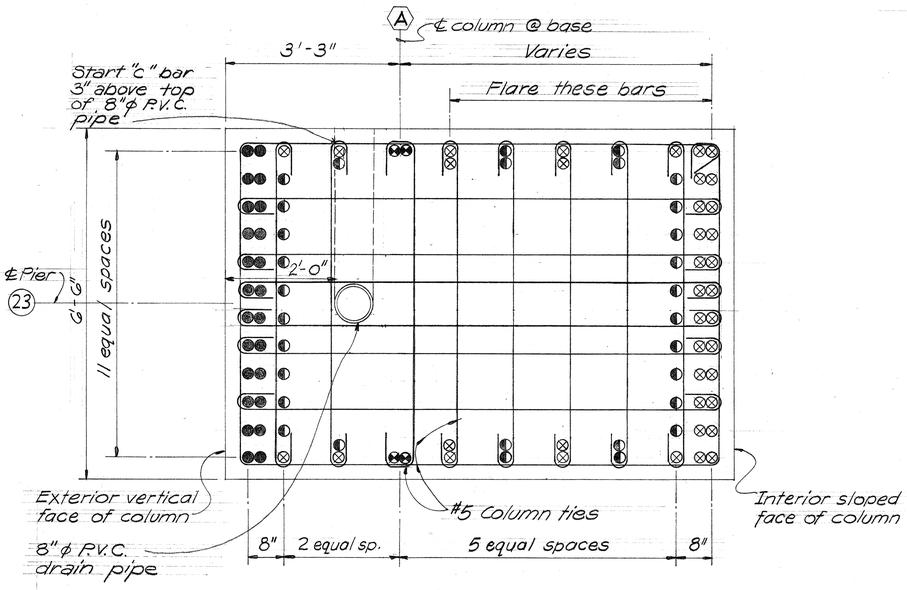
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	184	338



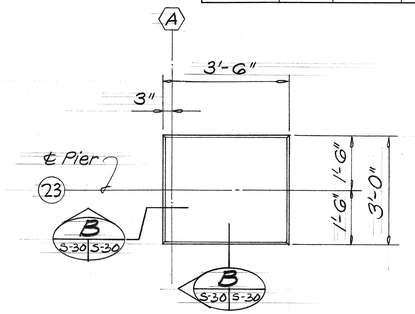
COLUMN ELEVATION
Scale: 3/8"=1'-0"



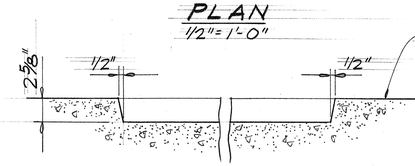
SECTION
Scale: 3/8"=1'-0"



COLUMN SECTION - 96 #18
Scale: 3/4"=1'-0"



PLAN
1/2"=1'-0"



SECTION B S-30 S-30
1½"=1'-0"

TOP COLUMN KEY DETAIL
Scale as shown

NOTE:
See Sht. S-27 for Special Note & Notes.
See Sht. S-29 for Special Notes

LEGEND
- ● "a" bars --(24-#18)
- ⊗ "c" bars ---(38-#18)
- ◐ "d" bars ---(30-#18)
- ⊗ "e" bars ---(4-#18)

ORIGINAL PLAN
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1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
COLUMN REINFORCING DETAILS
TYPE C 2

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

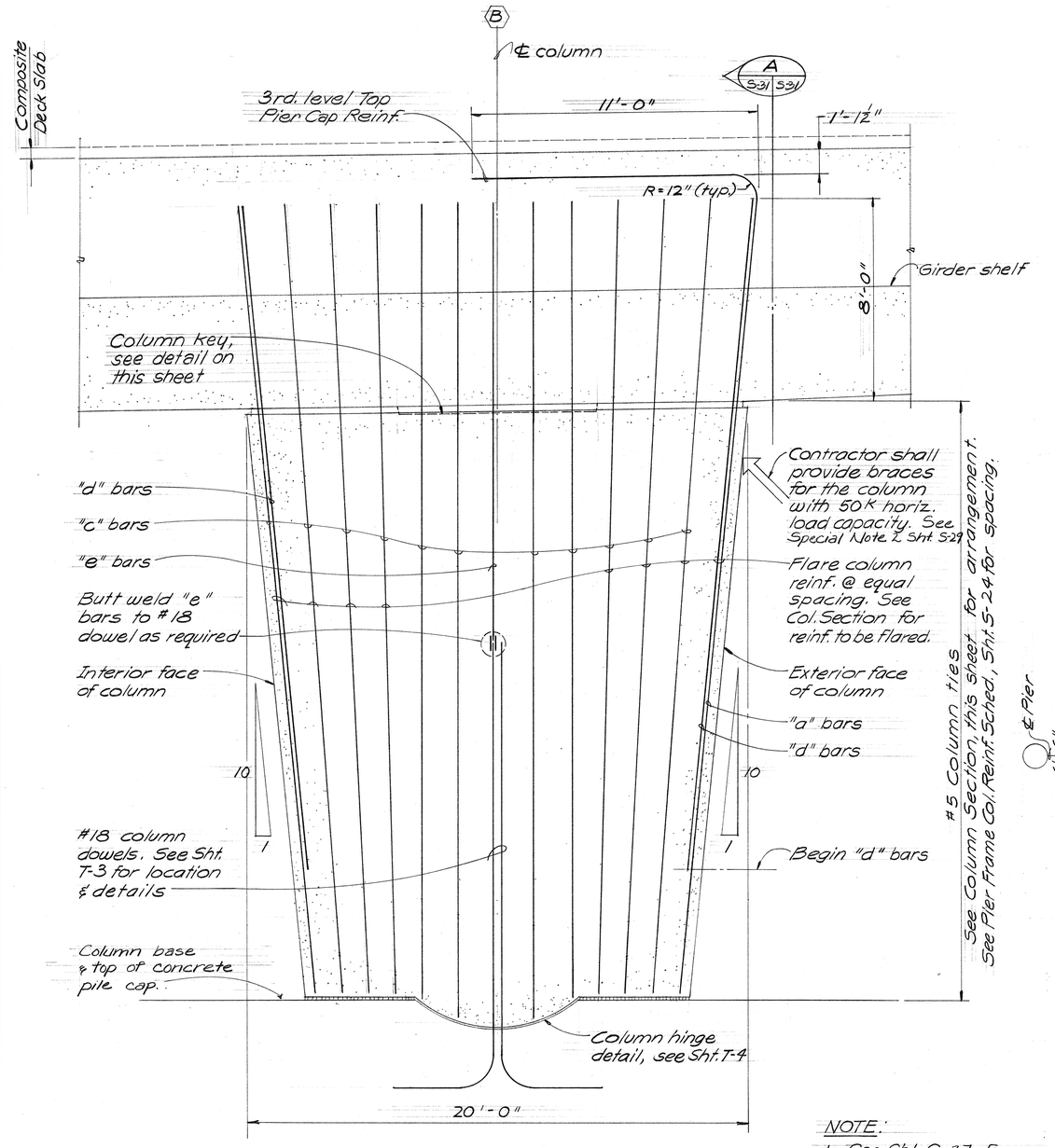
Scale: As shown Date: 4/2/79

SHEET NO. S-30 OF 60 SHEETS

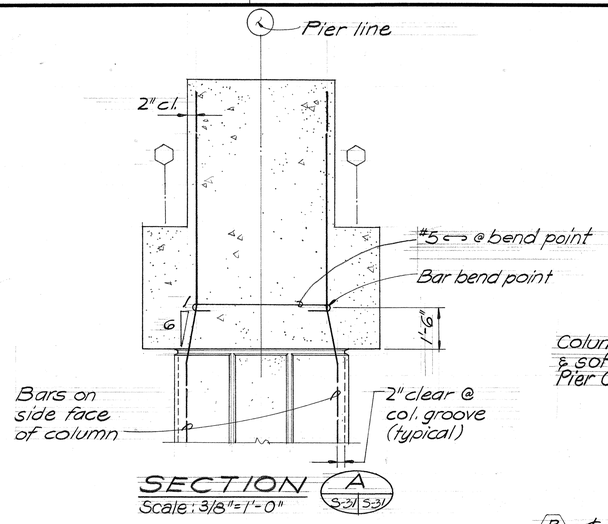
TYPE C 2 COLUMN REINFORCING DETAILS

PRINTED ON NO. 1000H CLEARPRINT

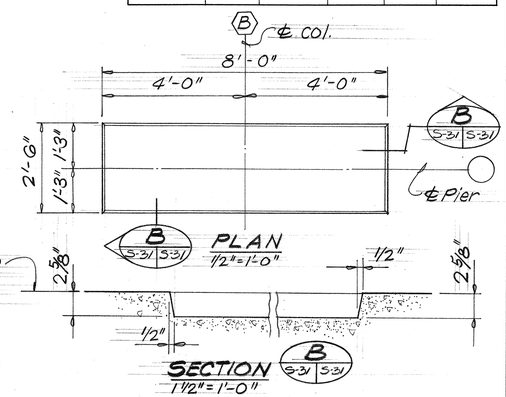
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	185	338



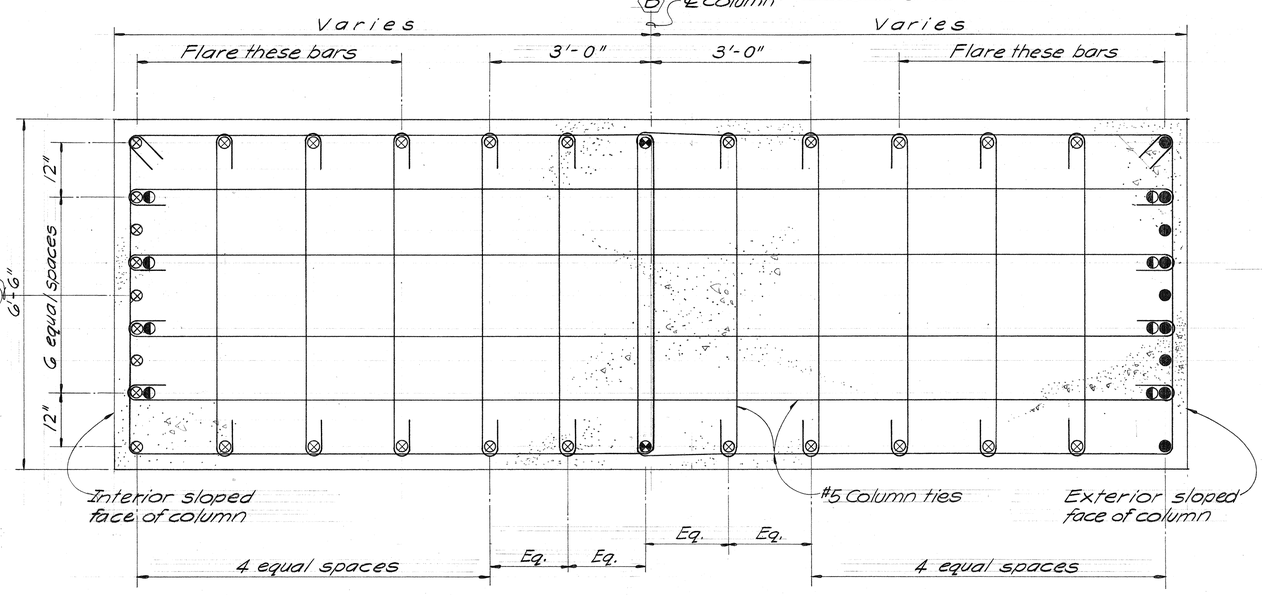
COLUMN ELEVATION
Scale: 3/8"=1'-0"



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



TOP COLUMN KEY DETAIL
Scale as shown



COLUMN SECTION - 48 #18
Scale: 9/4"=1'-0"

NOTE: Field Change #12, See Sht. #178

NOTE:
1. See Sht S-27 for Special Notes & Notes. & Sht. 29 for Special Notes
2. Column reinf. shall be placed 1½" above bottom of column & shall not bear on column hinge assembly or premoulded joint filler

LEGEND:
- "a" bars --- (9 -#18)
- "c" bars --- (29 -#18)
- "d" bars --- (8 -#18)
- "e" bars --- (2 -#18)

TYPE C3 COLUMN REINFORCING DETAILS

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. YAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
COLUMN REINFORCING DETAILS
TYPE C3

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-31 OF 60 SHEETS

ORIGINAL PLAN
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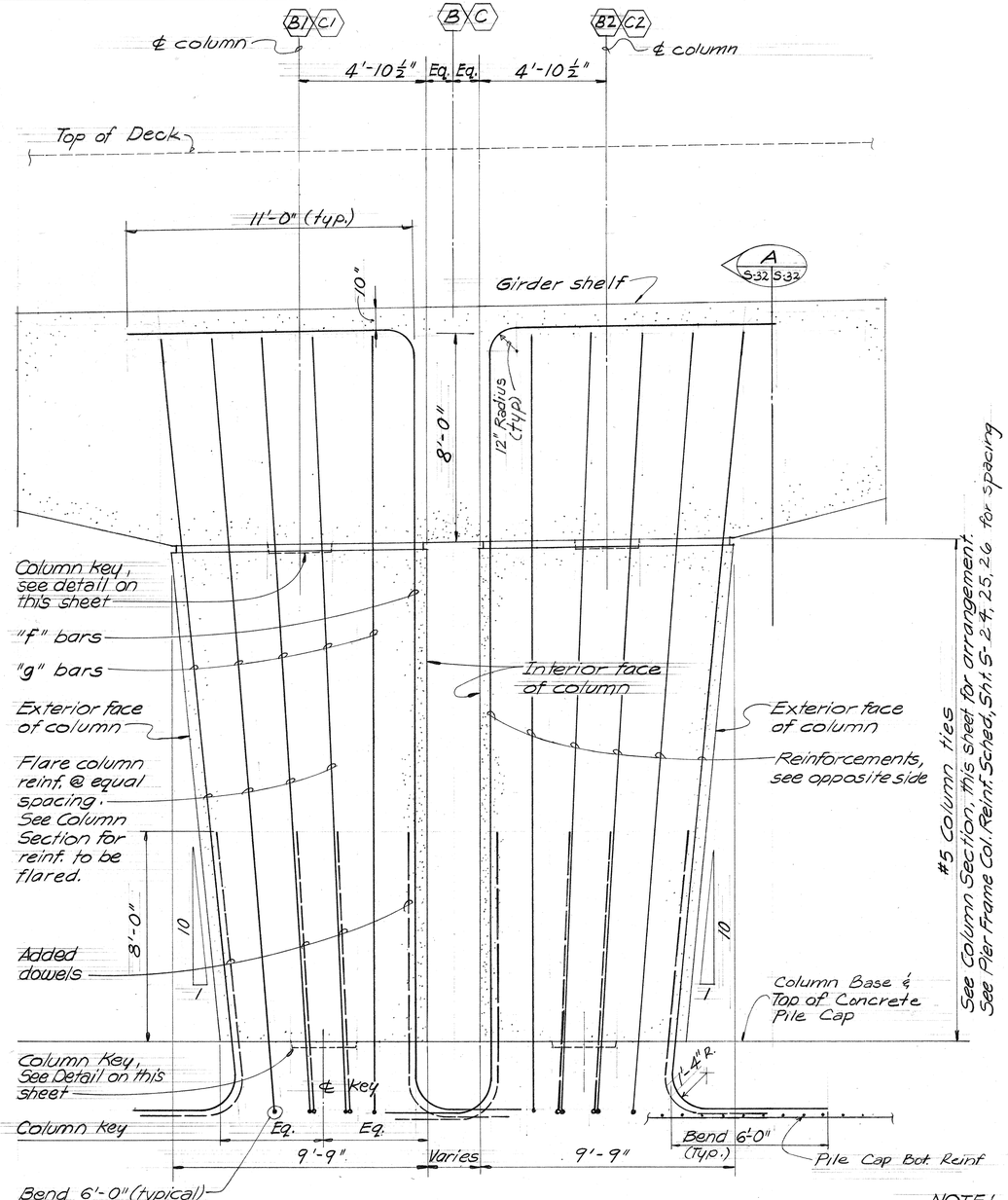
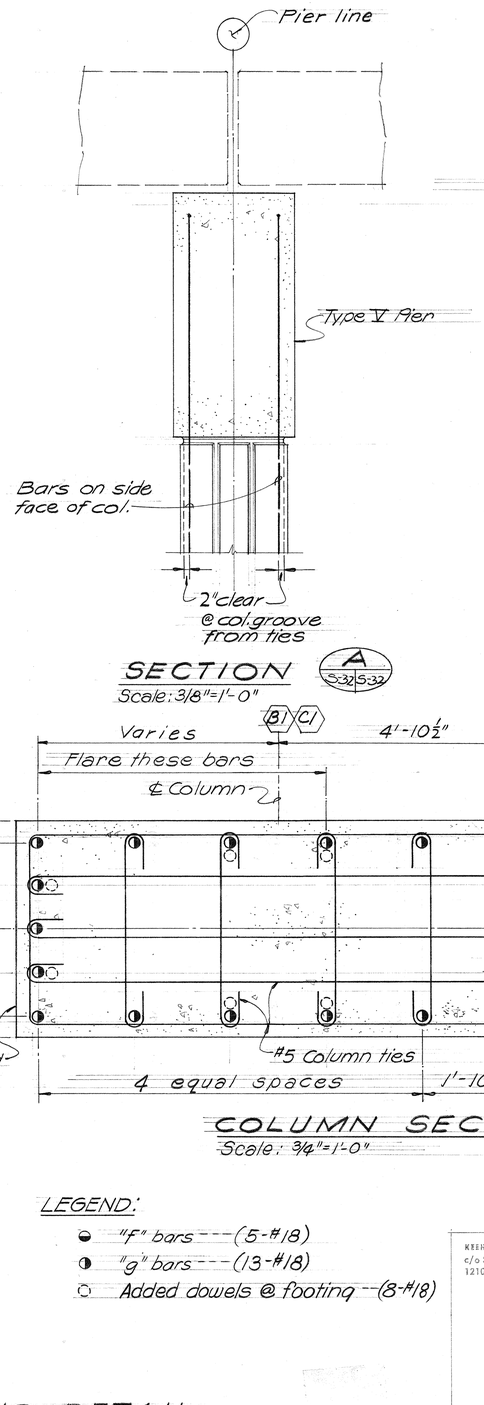
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	186	338



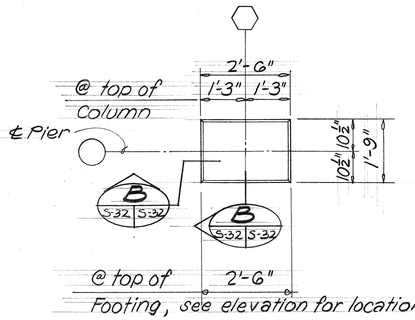
COLUMN ELEVATION

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



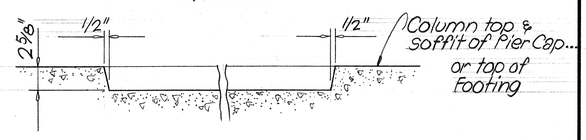
SECTION A S-32 S-32

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



PLAN

1/2"=1'-0"

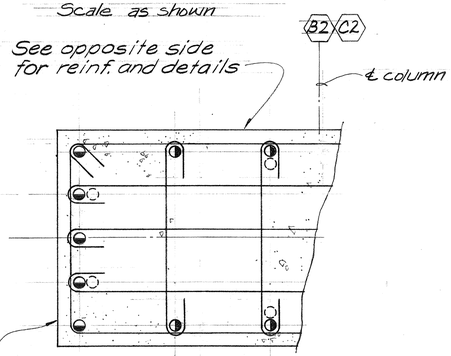


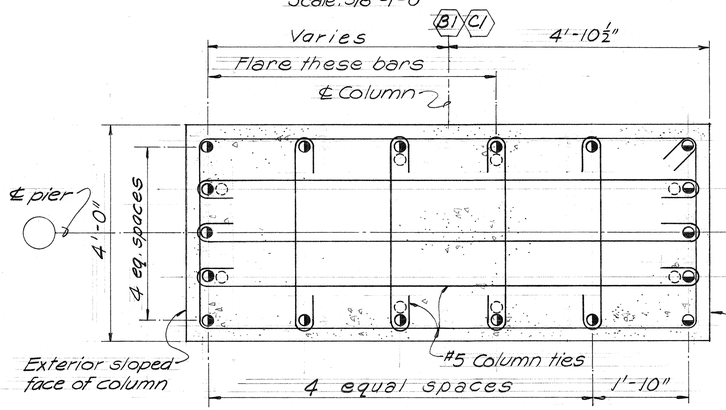
SECTION B S-32 S-32

1½"=1'-0"

COLUMN KEY DETAIL

Scale as shown





COLUMN SECTION - 18 #18

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

NOTE!

See Sht. S-27 for Special Notes & Notes.

LEGEND:

- "f" bars ---(5-#18)
- "g" bars ---(13-#18)
- Added dowels @ footing --(8-#18)

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

COLUMN REINFORCING DETAILS
TYPE C4

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET No. S-32 OF 60 SHEETS

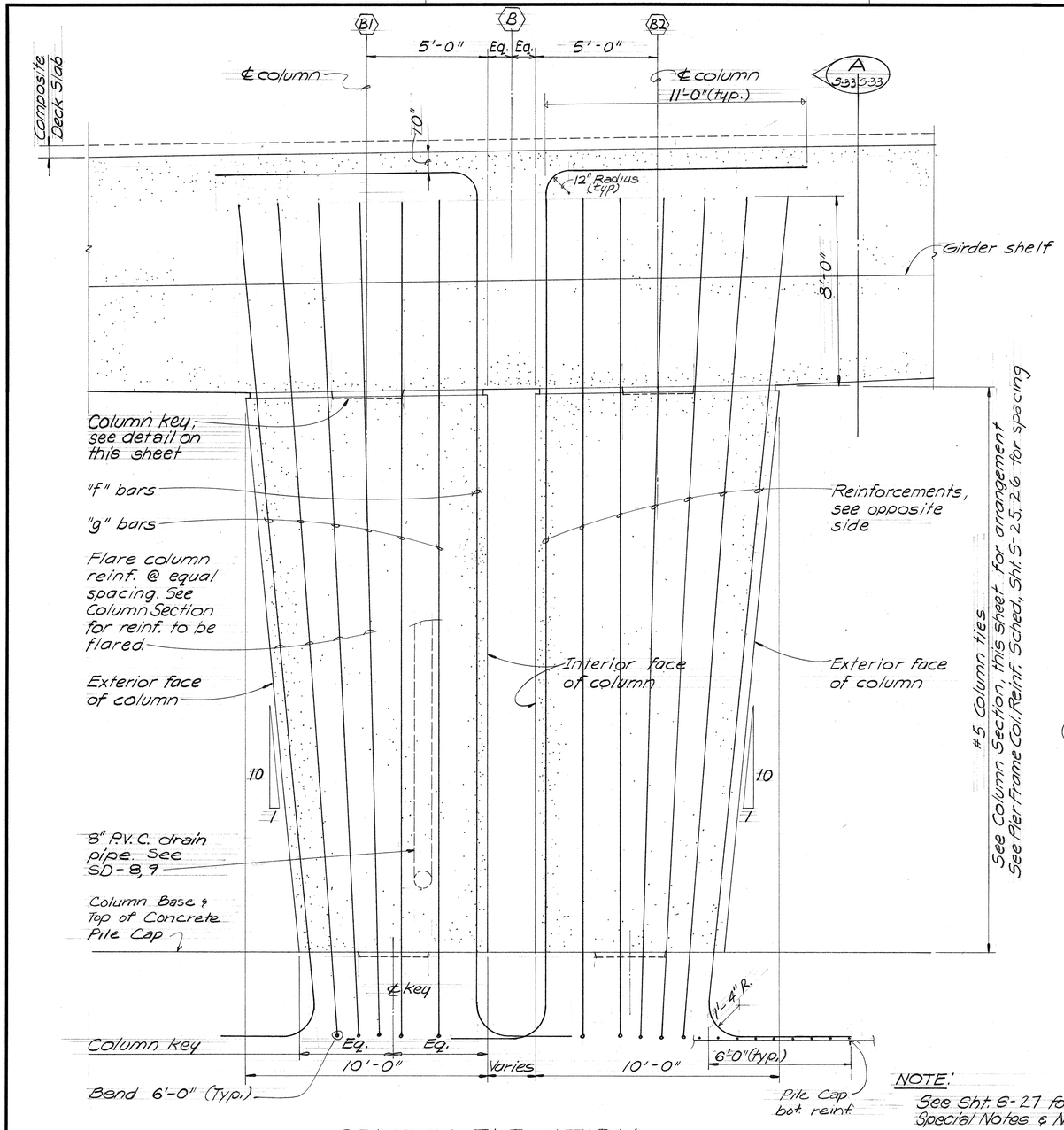
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

TYPE C4 COLUMN REINFORCING DETAIL

Scale as shown

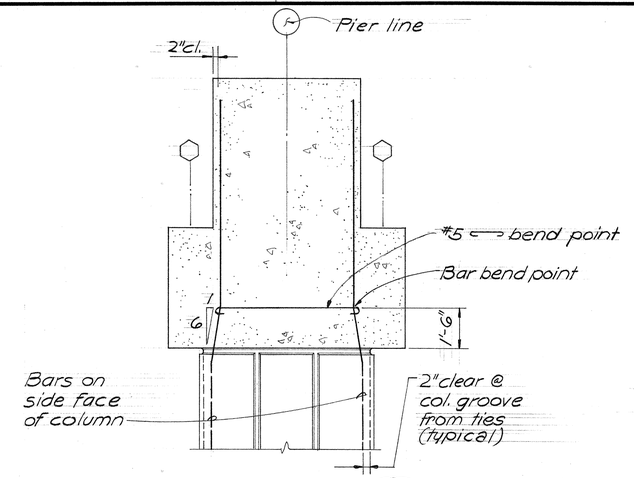
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	187	338



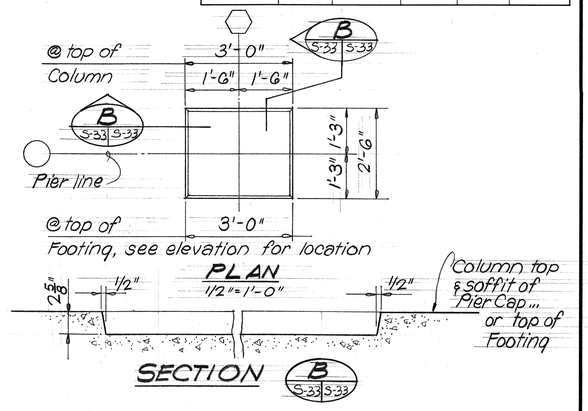
COLUMN ELEVATION

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



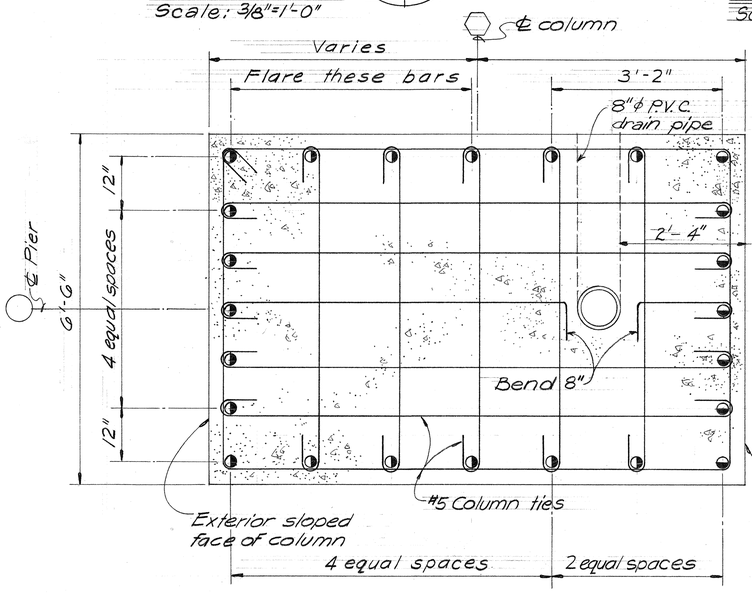
SECTION A S-33 S-33

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



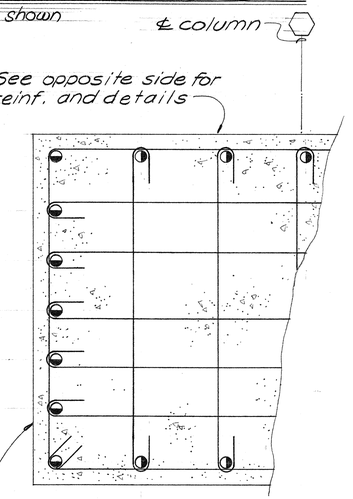
COLUMN KEY DETAIL

Scale as shown



COLUMN SECTION - 24 #18

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



NOTE:
See Sht. S-27 for Special Notes & Notes.

LEGEND:
- "f" bars --- (7-#18)
- "g" bars --- (17-#18)

TYPE C5 COLUMN REINFORCING DETAILS

Scale: As shown

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
COLUMN REIFORCING DETAILS
TYPE C5

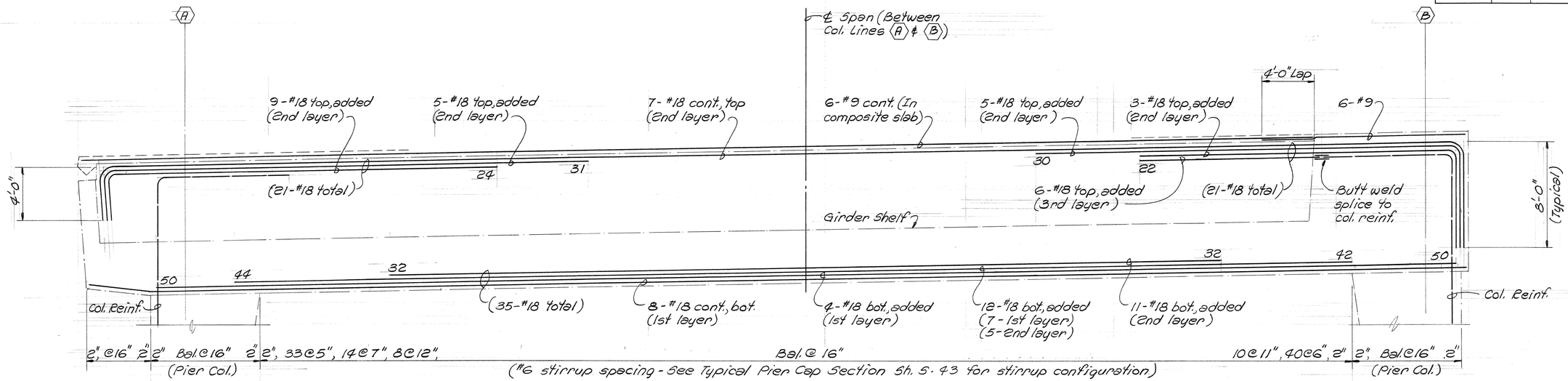
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-33 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(47):17	1980	188	338



PIER No. 7 (TYPE I PIER)
(PIER 6 SIMILAR)

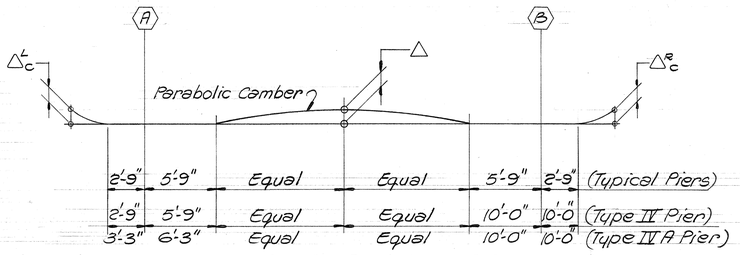
NOTES:

1. Numbers at ends of bars indicate distance in feet. Top bars measured from column line alphabet ((A) & (B)) & bottom bars from ℄ span.
2. For additional pier cap reinforcement location & details, see Sh. S-43 & T-10
3. Bend #18 bars with 12 inch radius (minimum).
4. Refer to Sh. S-18 to S-21 for pier cap dimensions & elevation schedule & also Sh. S-43.
5. Allowable splices:
   #9 bars = 4'-0" lap (Stagger 4'-0" o.c.)
   #18 bars = ~~Full butt weld~~ (Not more than 25% shall be spliced at any one point. Stagger splices 4'-0" o.c.)

Mechanical butt splicing (C.C.O. #103)

CAMBER NOTES:

1. Cambers shown are for Type I, II, III, IV, & IVA Piers.
2. See respective Pier cap reinf. elevations for Type V & VI Pier cap cambers
3. Cambers shown are for dead load multiplied by 2.



PIER CAP CAMBER SCHEDULE

Hi (WB) Pier	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
△	1¼"	←	←	←	←	1¼"	½"	1½"	1⅛"	1⅛"	⅜"	1⅛"	⅝"	⅝"	¾"	¾"	1⅜"	1⅝"	⅝"	⅜"
$\triangle^{L}_{c}$	0	←	←	←	←	←	←	←	←	←	←	←	0	—	—	0	—	—	—	—
$\triangle^{R}_{c}$	—	—	—	—	—	—	—	—	—	—	—	—	0	0	0	0	0	0	¼"	¼"

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL MATSUMOTO — REGISTERED PROFESSIONAL ENGINEER — No. 2974 — HAWAII, U.S.A.

This work was prepared by me or under my supervision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4" = 1'-0" Date: April 2, 1979

SHEET NO. 534 OF 60 SHEETS

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

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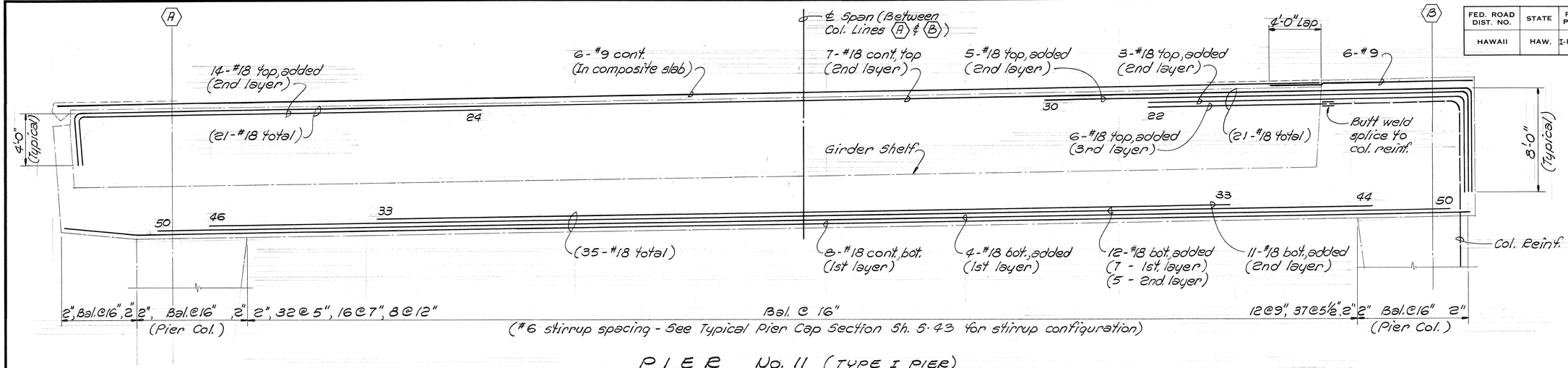
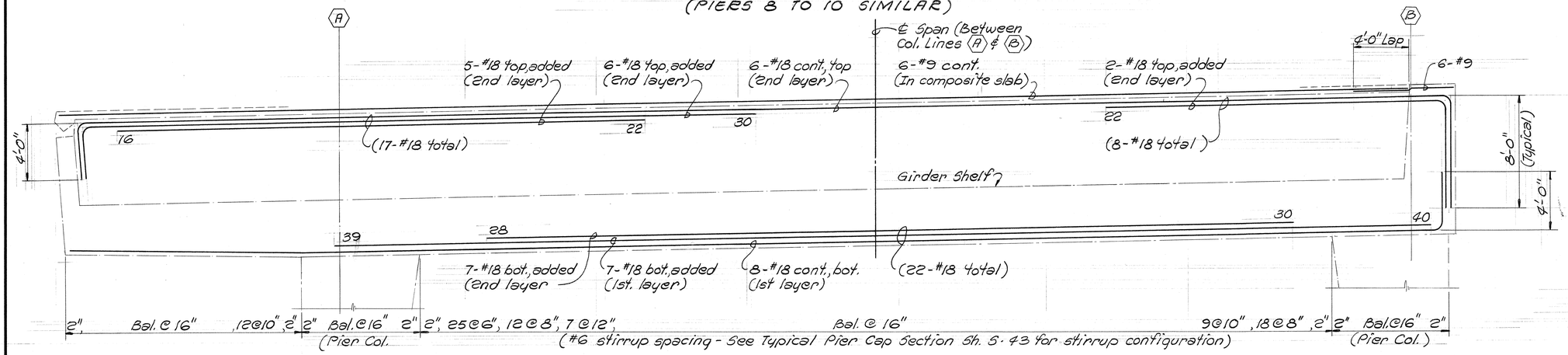
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	189	338



(#6 stirrup spacing - See Typical Pier Cap Section Sh. S-43 for stirrup configuration)

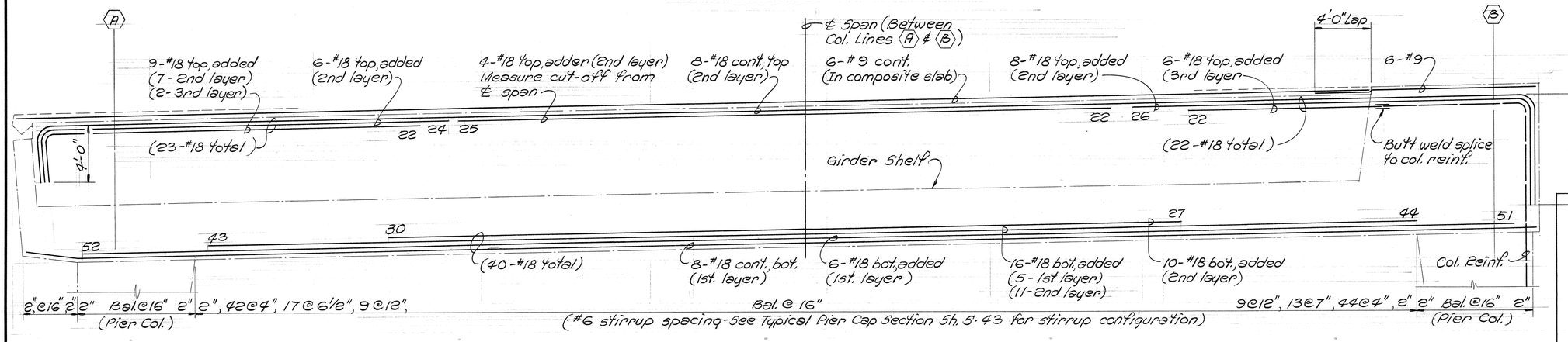
PIER No. 11 (TYPE I PIER)
(PIERS 8 TO 10 SIMILAR)



(#6 stirrup spacing - See Typical Pier Cap Section Sh. S-43 for stirrup configuration)

NOTE!
See notes & camber diagram on Sh. S-34

PIER No. 12 (TYPE I PIER)



(#6 stirrup spacing - See Typical Pier Cap Section Sh. S-43 for stirrup configuration)

PIER No. 13 (TYPE I PIER)
(PIER 14 SIMILAR)

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

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1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL ARAKAKI REGISTERED PROFESSIONAL ENGINEER No. 2074 HAWAII, U.S.A.

This work was prepared by me or under my supervision.
Michael P. Arakaki

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

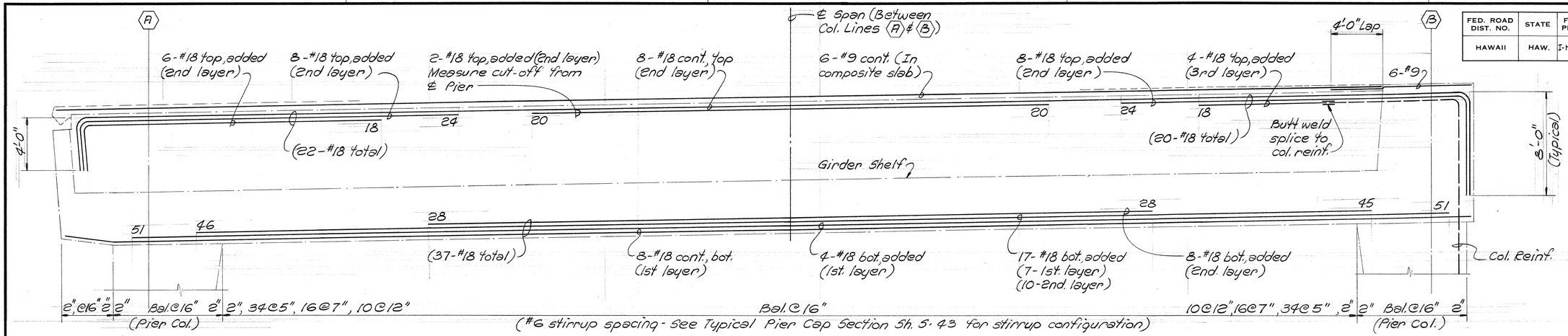
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4" = 1'-0" Date: April 2, 1979

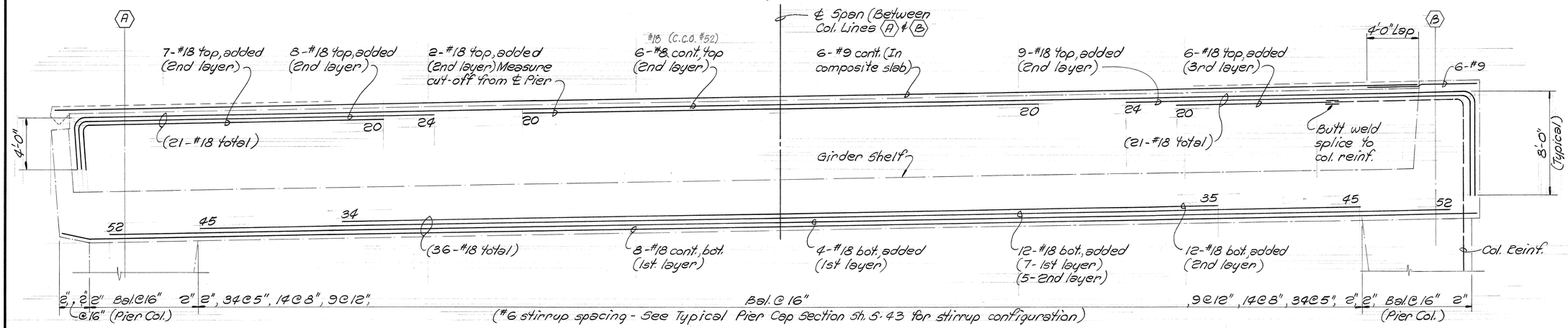
SHEET No. 535 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

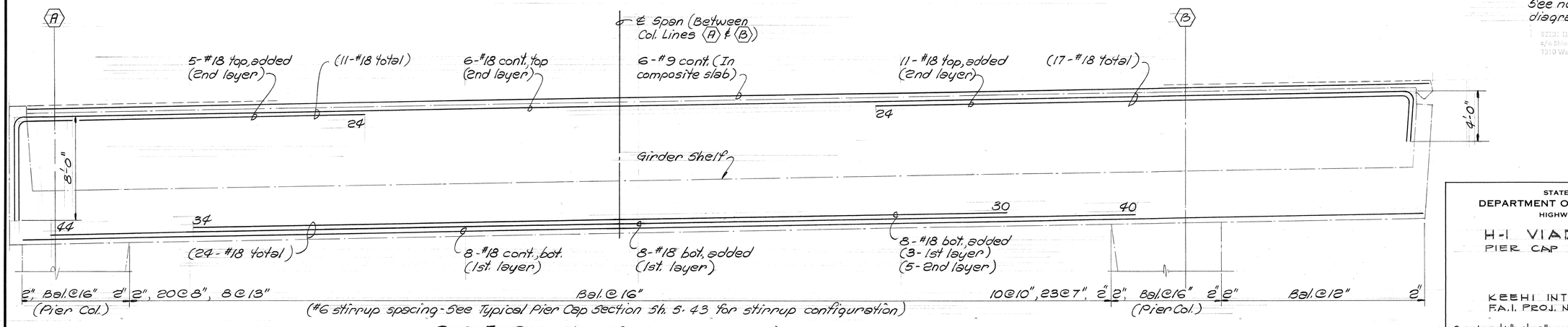
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147);17	1980	190	338



PIER No. 16 (TYPE I PIER)
(PIER 15 SIMILAR)



PIER No. 17 (TYPE I PIER)



PIER No. 18 (TYPE III PIER)

NOTE:
See notes & camber diagram see Sh. 5.34

KEEHI INTERCHANGE JOINT VENTURE
c/o Shimizu, Shimabukuro & Fukuda, Inc.
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MICHAEL PAUL MATSUMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

This work was prepared by me or under my supervision

Michael P. Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147)17

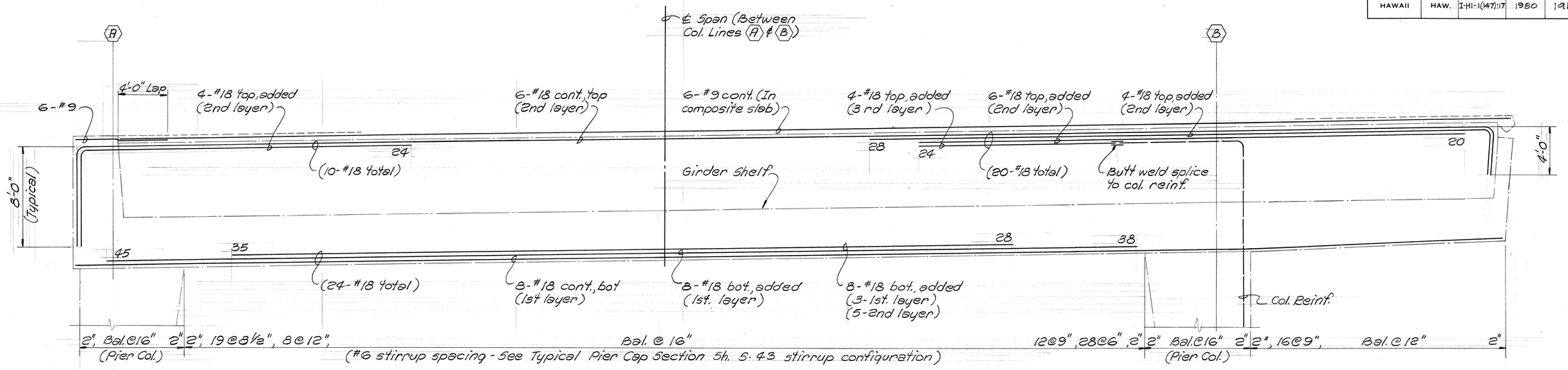
Scale: 1/4"=1'-0" Date: April 2, 1979

SHEET NO. 536 OF 60 SHEETS

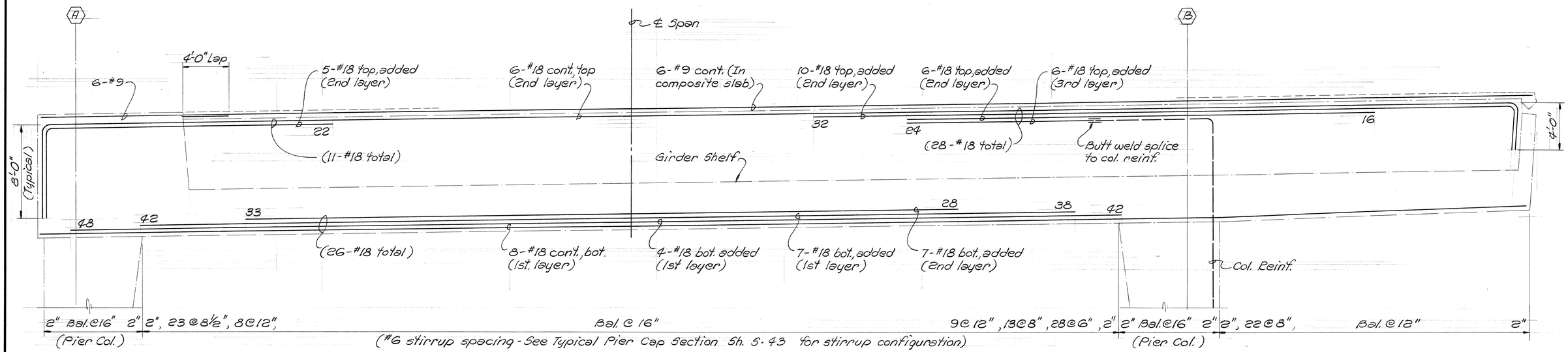
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147)17	1980	191	338



PIER No. 19 (TYPE II PIER)



PIER No. 20 (TYPE II PIER)

NOTE!

See notes & camber diagram see Sh. S-34

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
No.	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
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MICHAEL PAUL ANN * REGISTERED PROFESSIONAL ENGINEER No. 2974 * HAWAII, U.S.A. * O.I.C.N.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

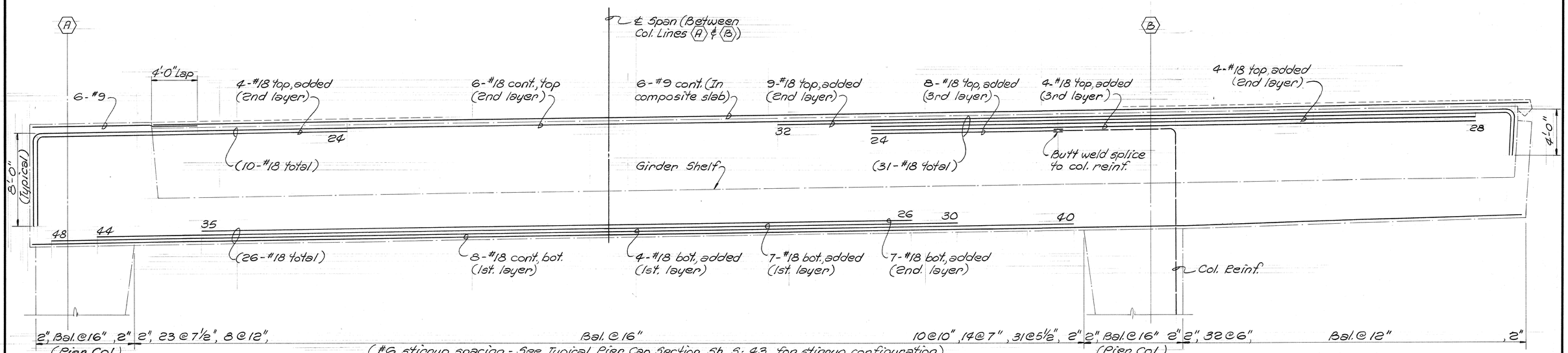
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4"=1'-0" Date: April 2, 1979

SHEET NO. S37 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	192	388



PIER No. 21 (TYPE II PIER)

NOTE!
See notes & camber diagram, see Sh. S-34.

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
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MICHAEL PAUL MATSUMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 2974
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

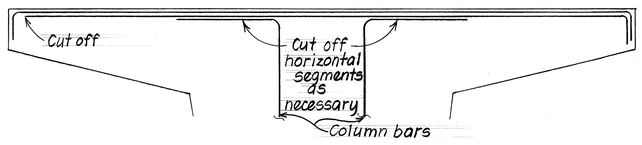
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4"=1'-0" Date: April 2, 1979

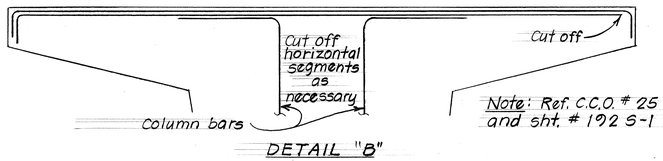
SHEET NO. S38 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(47):17	1984	192 S-1	338



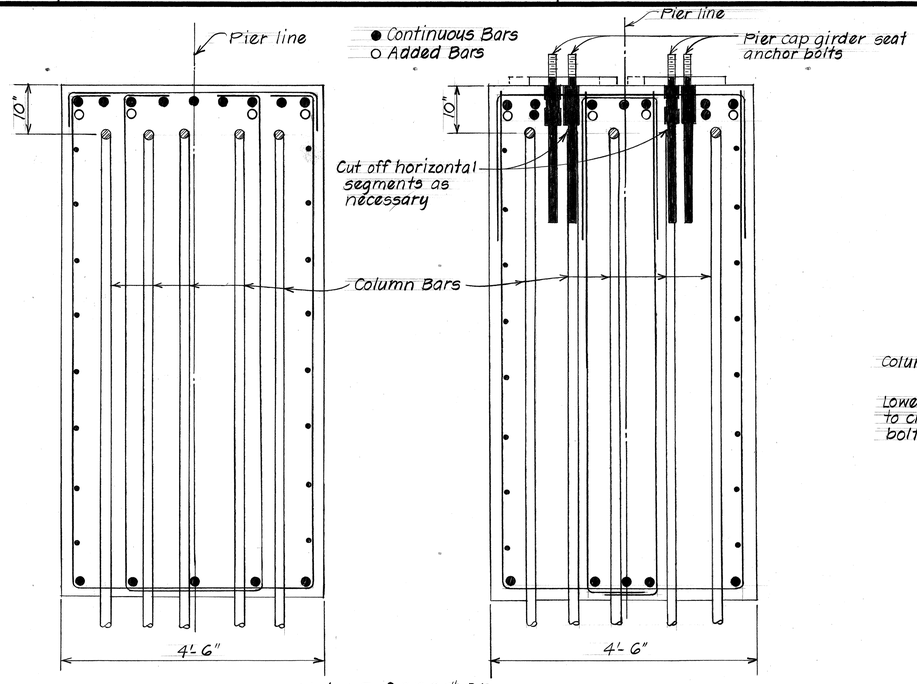
DETAIL "A"



DETAIL "B"

Note: Ref. C.C.O. # 25 and sht. # 192 S-1

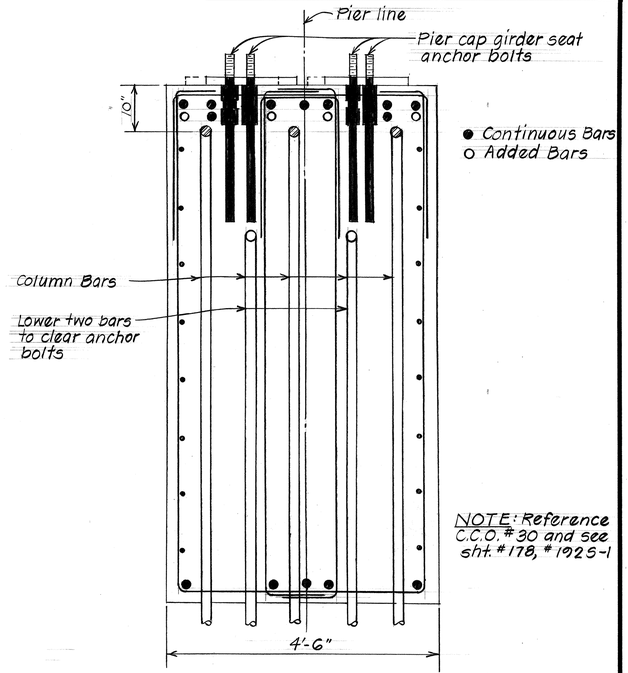
PIER CAP NO. 29B
N.T.S.



Note: Ref. C.C.O # 25 and see sheet # 192 S-1

ORIG. ARRANGEMENT OF REINF. STEEL IN TYPE V PIER CAP
N.T.S.

NEW ARRANGEMENT OF REINF. STEEL IN TYPE V PIER CAP
N.T.S.

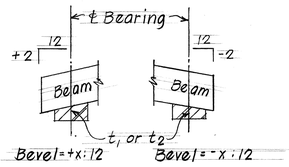


NOTE: Reference C.C.O. # 30 and see sht. # 178, # 192 S-1

NEW ARRANGEMENT OF REINF. STEEL IN TYPE V PIER CAP
NTS

BEARING AND ANCHOR BOLT TABLE

BEARING TYPE	ELASTOMERIC BEARING PAD			STEEL DIMENSIONS					STUD SPACING		ANCHOR BOLT HOLES		ANCHOR BOLT			ANCHOR PLATES		
	A	B	T	C	D	E	F	t	H	I	HINGED BRGS.	EXP. BRGS.	ϕ	L	M	N	Q	P
E2H	24"	8"	1 5/16"	32"	3 1/4"	6"	8"	See beam table on sht # T-13	12"	6"	1 3/4" ϕ	—	1 1/2"	33"	9"	8"	4"	5/8"
E2E											—	1 3/4" = 4"						
E3H	19"	12"	1 5/8"	27"	3 3/4"	6"	8"		8"	6"	2" ϕ	—	1 3/4"	39"	9"	8"	4 1/2"	5/8"
E3E											—	2" = 4"						
E6H	16"	8"	1"	24"	3 3/4"	6"	7"		8"	6"	1 1/2" ϕ	—	1 1/4"	32"	8"	6"	3"	1/2"
E6E											—	1 1/2" = 3"						
E1H	24"	14"	2 1/4"	33"	4 1/4"	7"	10"		12"	9"	2 1/4" ϕ	—	2"	45"	10"	9"	5"	3/4"
E1E											—	2 1/4" = 5"						

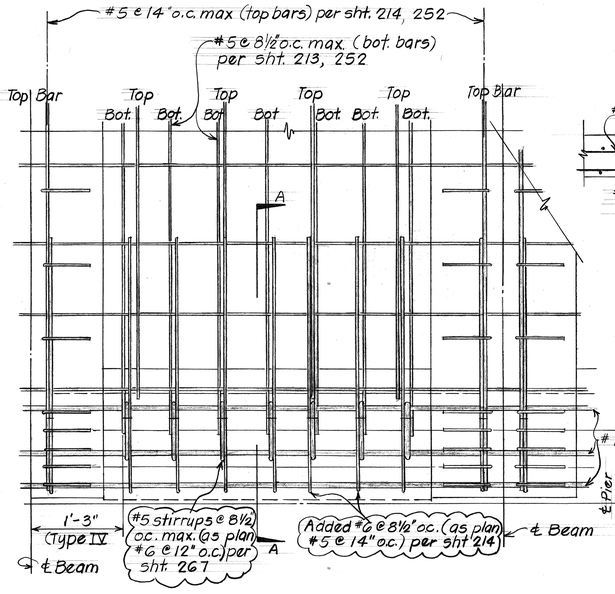


BEARING PLATE BEVEL
N.T.S.

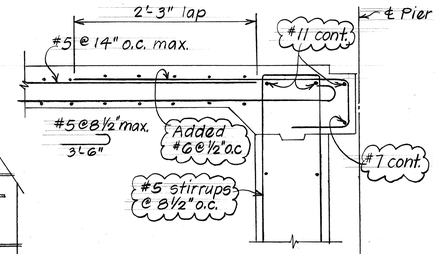
NOTE:
1. t_1 is the bearing plate thickness at the downstation bearing. t_2 is the bearing plate thickness at the upstation bearing.
2. For bearing types, see sheets no. T-10 & T-11.
3. For bearing details, see sht. no. T-14.
4. Beam lengths have been determined along level lines.
5. For the conditions where bevels are 1/4" : 12" or less, the Contractor has the option to use bearing plates of uniform thickness of "t_1" or "t_2" specified in Table this sheet. In these instances, the concrete seats shall be beveled to compensate for the bearing plates being of uniform thickness.

BEAM MARK	LGTH ℄ TO ℄ BRG.	t_1	t_2	BEVEL	BEAM TYPE
INW 1	98.32	1 1/4"	1 1/4"	-1/8 : 12	IVF-A
2				-1/8 : 12	IV-A
3				-1/8 : 12	
4				-3/16 : 12	
5					
6					
7					
8				-3/16 : 12	
9				-1/4 : 12	IV-A
INW 10	98.32	1 1/4"	1 1/4"	-1/4 : 12	IVF-A

NOTE: Ref. C.C.O. #66 and see sheet # 208.



PLAN-DECK REINFORCING @ EXP. JT.
Scale: 1" = 1'-0"



SECTION A-A
Scale: 1" = 1'-0"

Denotes changes

NOTE: Ref. C.C.O # 127 and see sht # 277.

C.C.O. NO. 30, FOR THE FOLLOWING TYPE V PIER CAPS AT NIMITZ CONN. (W.B.):

24C, H-1 (W.B.) @ Sta. 231+11.61, rt.
25C, " " " " 232+02.74, rt.
26C, " " " " 232+93.88, rt.
27C, " " " " 233+85.01, rt.
28C, " " " " 234+76.15, rt.
29C, " " " " 235+67.28, rt.

NOTE: This tracing prepared during "As-Built" posting

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

H-1 VIADUCT (WB) REVISED PILE CAP, DECK & BEARING DETAILS

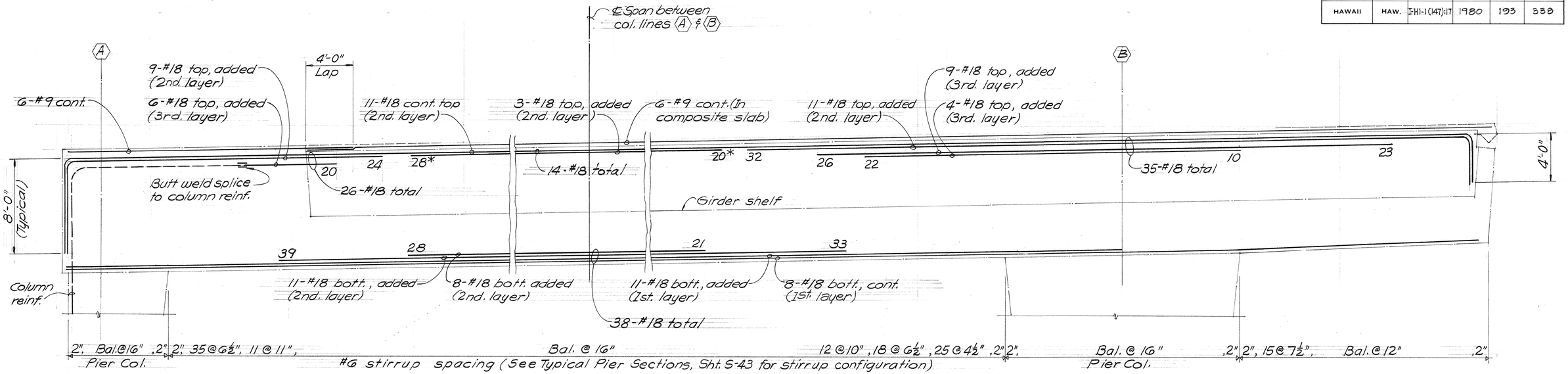
Keehi Interchange
F.A.I. Proj. No. I-HI-1(147):17
Scale: As Noted Date:

SHEET No. 5-38A OF 60 SHEETS

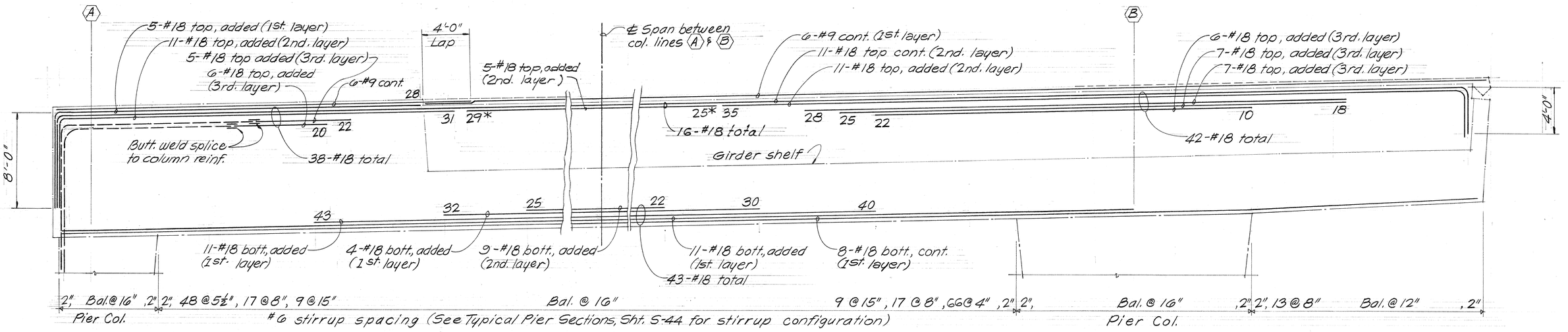
192 S-1

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	193	338



H-1 (WB) PIER NO. 22 (TYPE IV PIER)



H-1 (WB) PIER NO. 23 (TYPE IV-A PIER)

Note: Field Change #12, see Sht. #178.

NOTES:

1. See Notes and Camber Diagram on Sht. S-34
2. * indicates length measured from ℄ span between Column lines (A) & (B).

ORIGINAL PLAN | NOTE BOOK | NO.

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

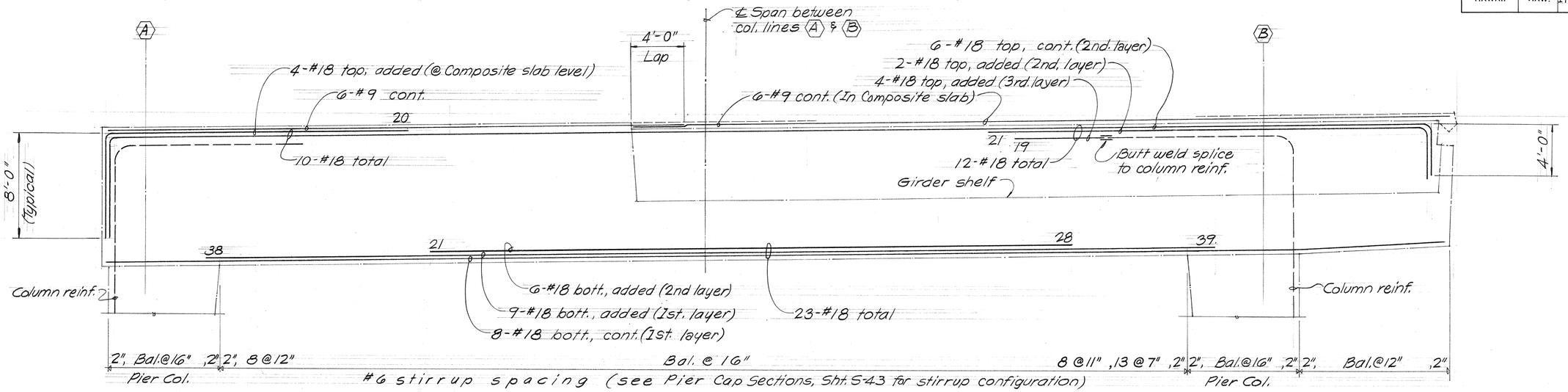
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4"=1'-0" Date: 4/2/79

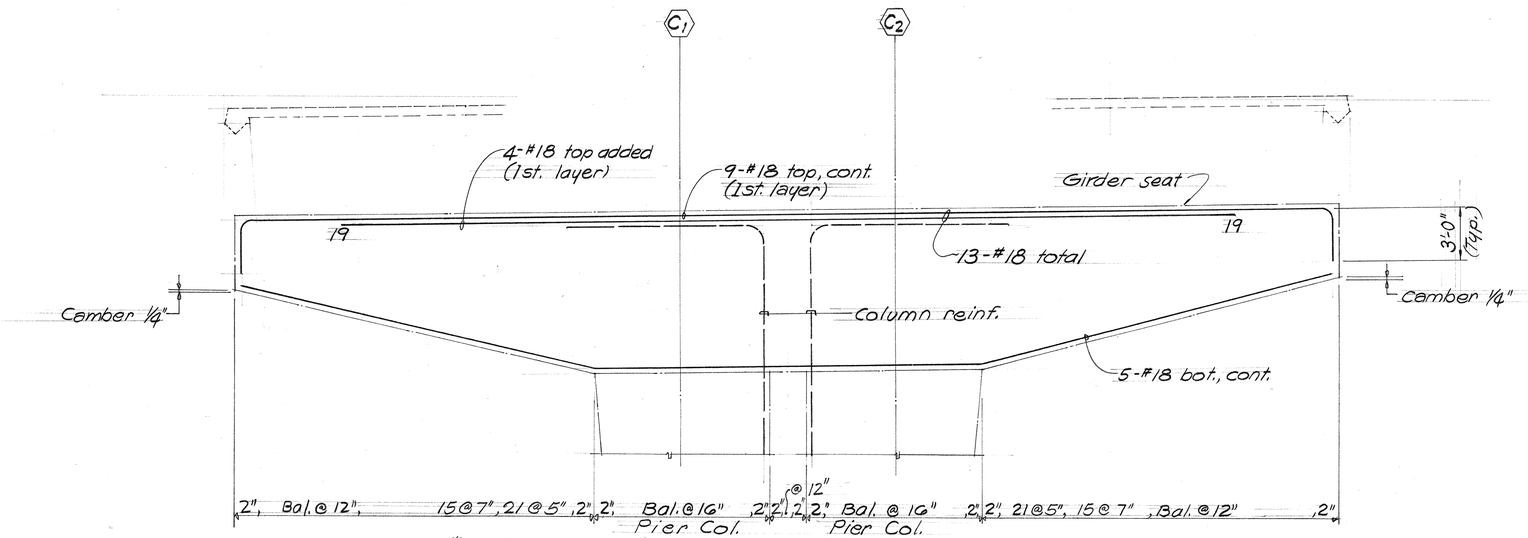
SHEET NO. S-39 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147)17	1980	194	338



H-1 (WB) PIER NO. 24 (TYPE II PIER)



NC (WB) PIER NO. 24, 25, 26, 27, 28 & 29 (TYPE V PIER)

NOTE:
See Notes and Camber Notes on Sht. S-34

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TSAO
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

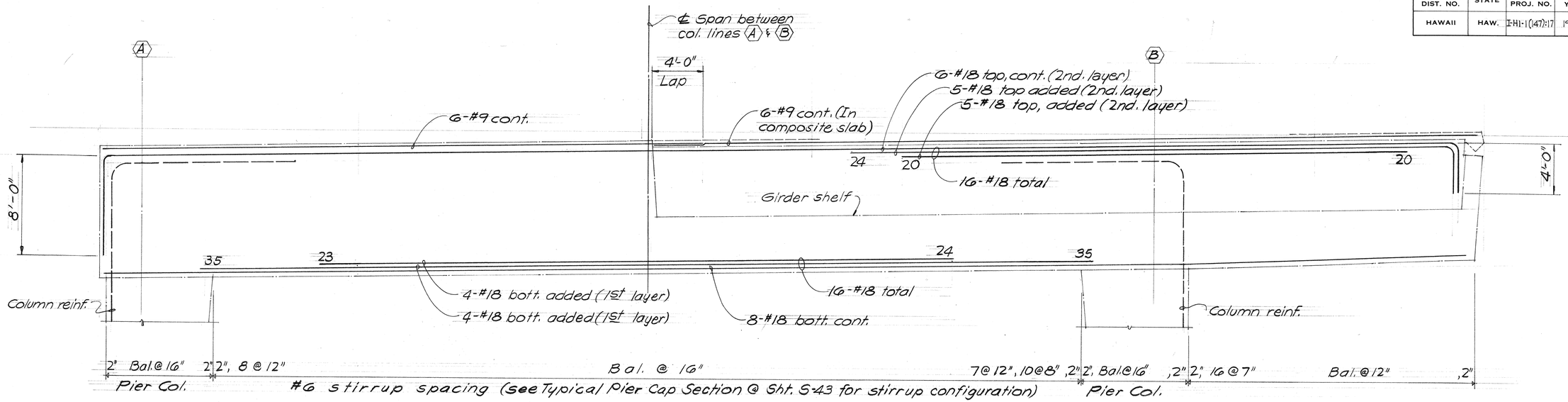
KEEHI INTERCHANGE
F.A.I. PROJ. NO. HHI-1(147):17

Scale: 1/2"=1'-0" Date: 4/2/79

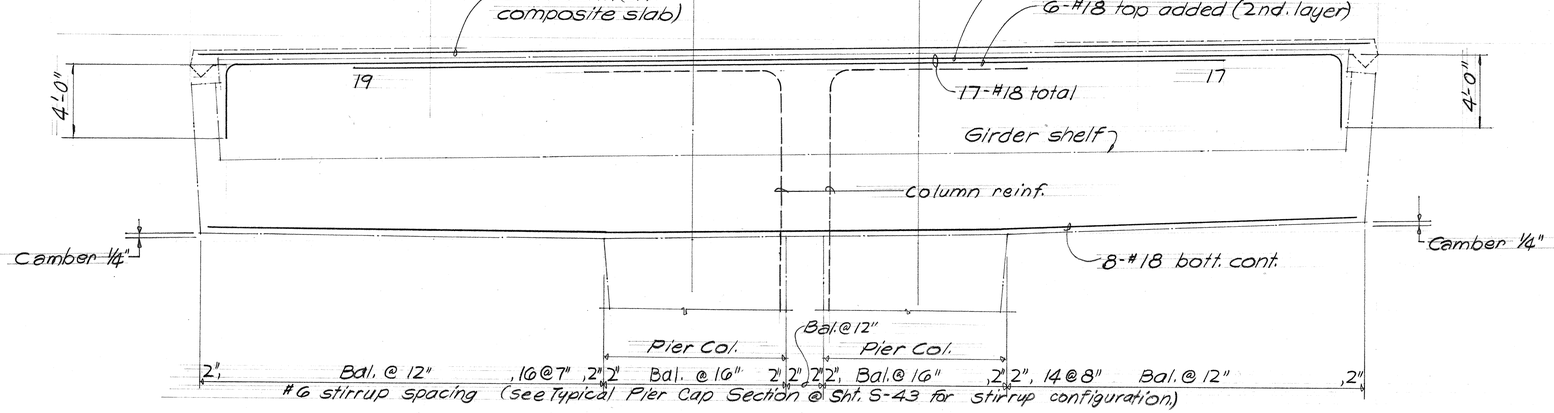
SHEET No. S-40 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	195	338



H-1 (WB) PIER NO. 25 (TYPE II PIER)



H-1 (WB) PIER NO. 26 (TYPE VI PIER)

NOTE:
See Notes and Camber Notes on Sht. S-34

ORIGINAL PLANS

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TJAI
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

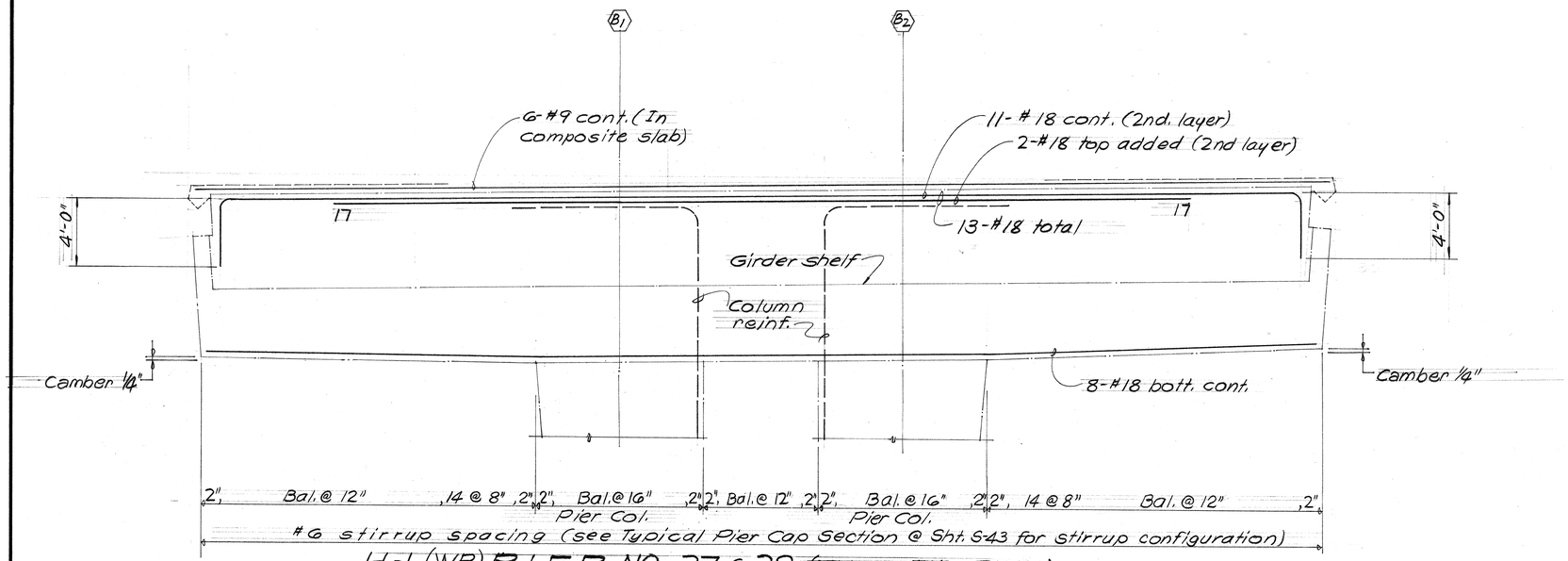
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4"=1'-0" Date: 4/2/79

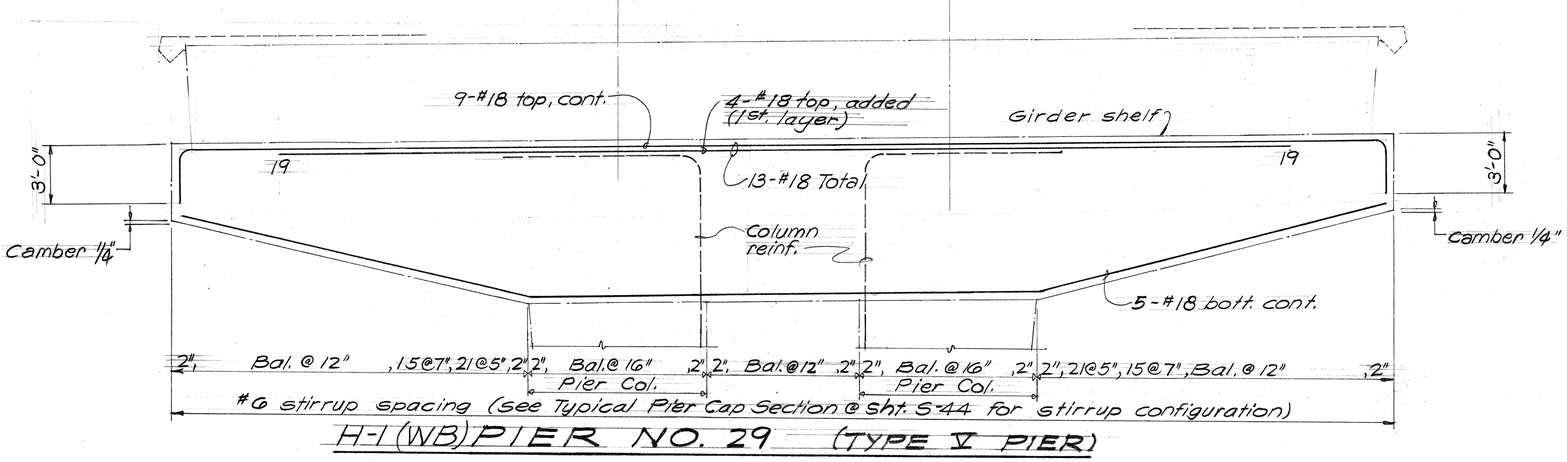
SHEET No. S-41 OF 60 SHEETS

PRINTED ON NO. 1000N CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	196	338



H-1 (WB) PIER NO. 27 & 28 (TYPE VI PIER)



H-1 (WB) PIER NO. 29 (TYPE V PIER)

NOTE: See revised detail for Pier No. 29B on Sht. No. 1925-1 (C.C.O. #25)

NOTE:
See Notes and Camber Notes on Sht. S-34

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

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PIER CAP REINFORCING

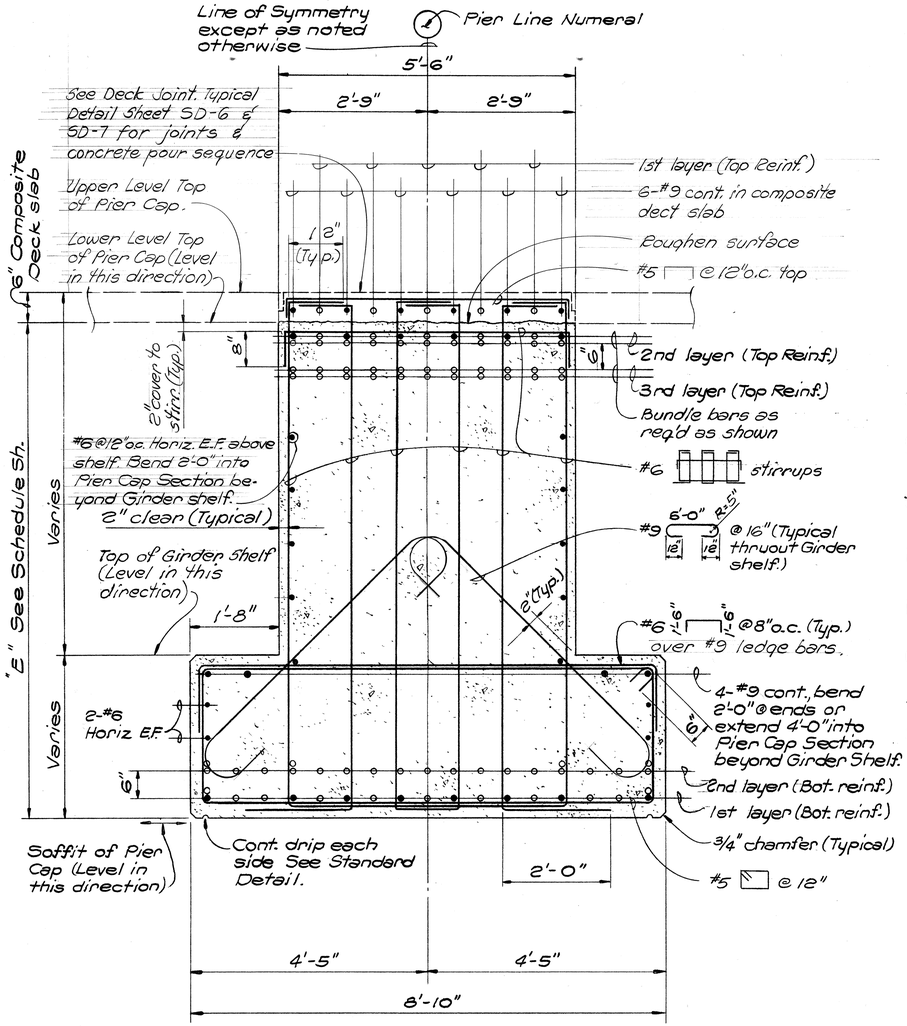
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/4"=1'-0" Date: 4/2/79

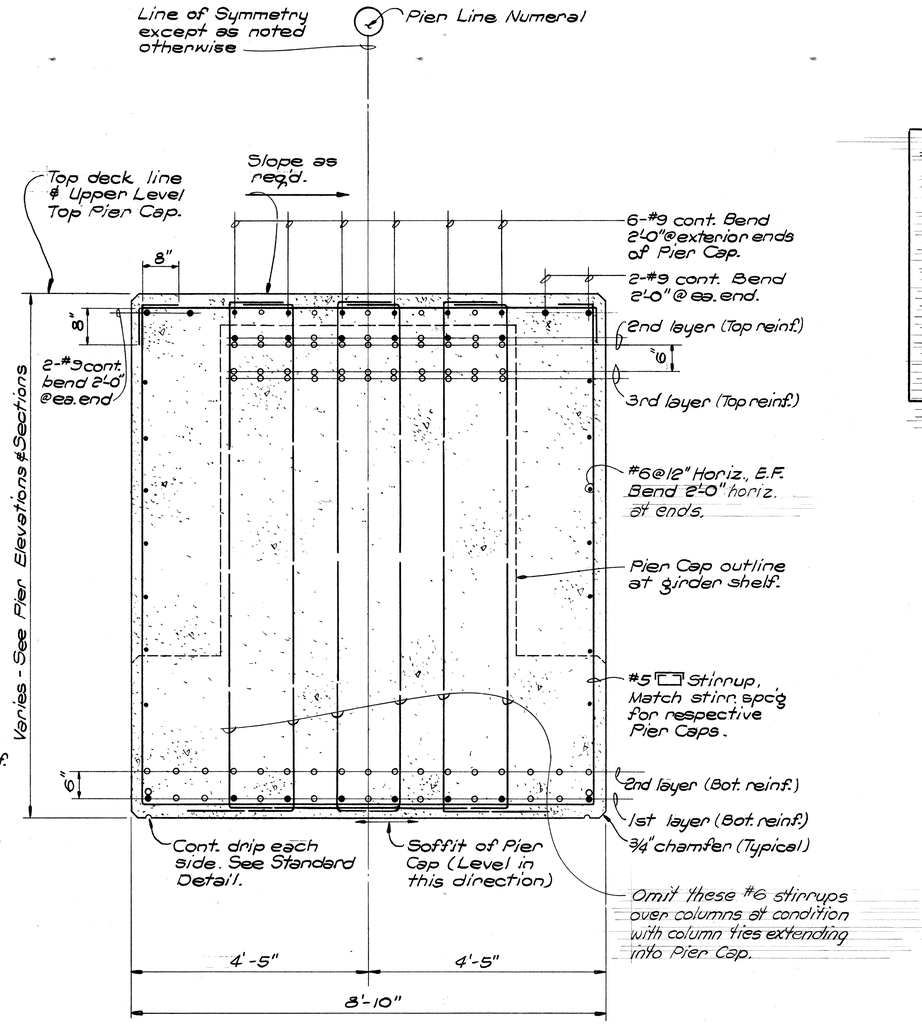
SHEET NO. S-42 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	197	338



SECTION @ GIRDER SHELF



SECTION BEYOND GIRDER SHELF

TYPICAL PIER CAP CONSTRUCTION NOTES

1. All formwork supports for pier caps (11) thru (23) shall be supported by pile caps supporting viaduct columns only. In no instance shall formwork supports be carried to mudsill, etc. on grade.
2. All costs for formwork supports spanning between pile caps and in cantilever conditions shall be incidental to concrete cost.
3. Formwork for piers caps shall be removed before prestressed girders can be placed on them.

TYPES I, II, III, IV, & VI PIER CAP SECTIONS

NTS

SYMBOLS

- • = Continuous bar location
- o = Add bar location

REINFORCING NOTES

1. For Pier Cap reinforcing at ends, girder seats & creep block, see Sh. T-10.
2. See Pier Cap Reinforcing Elevation sheet for longitudinal top & bottom reinforcing & stirrup spacing.

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
-TYPICAL DETAILS-
TYPES I, II, III, IV & VI PIER CAP SECTIONS

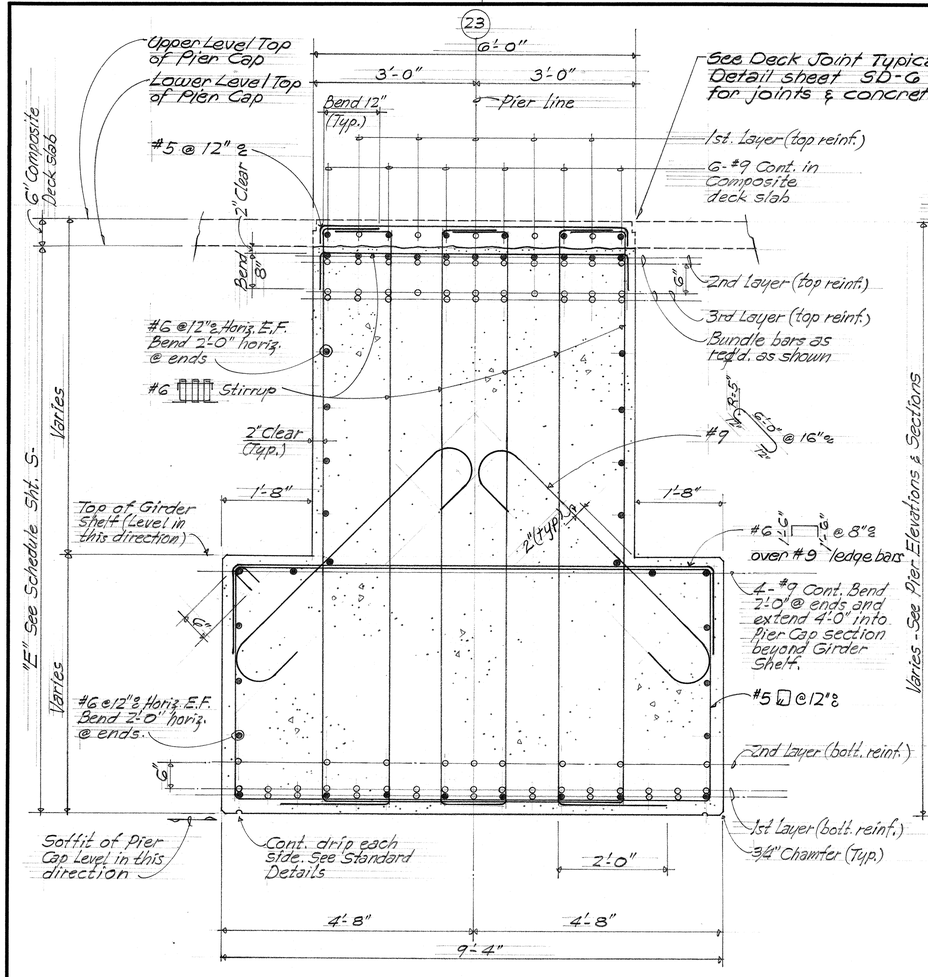
KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

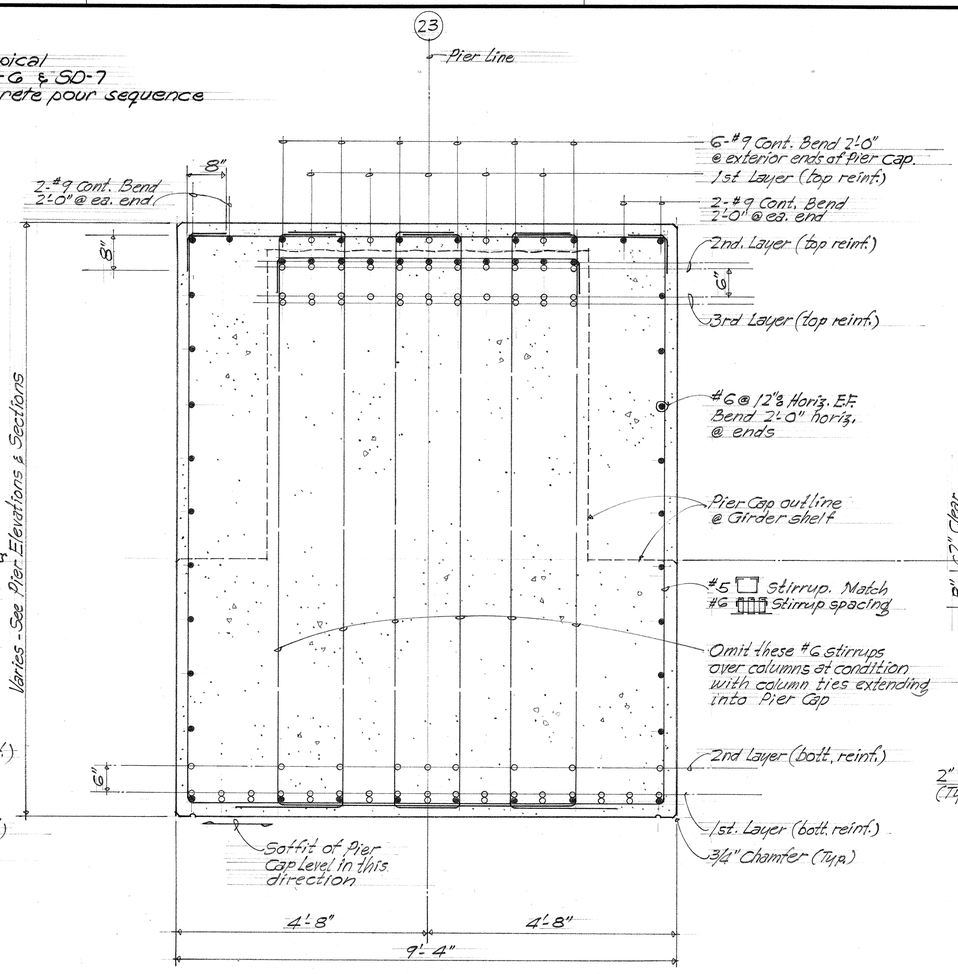
SHEET No. S43 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	198	338



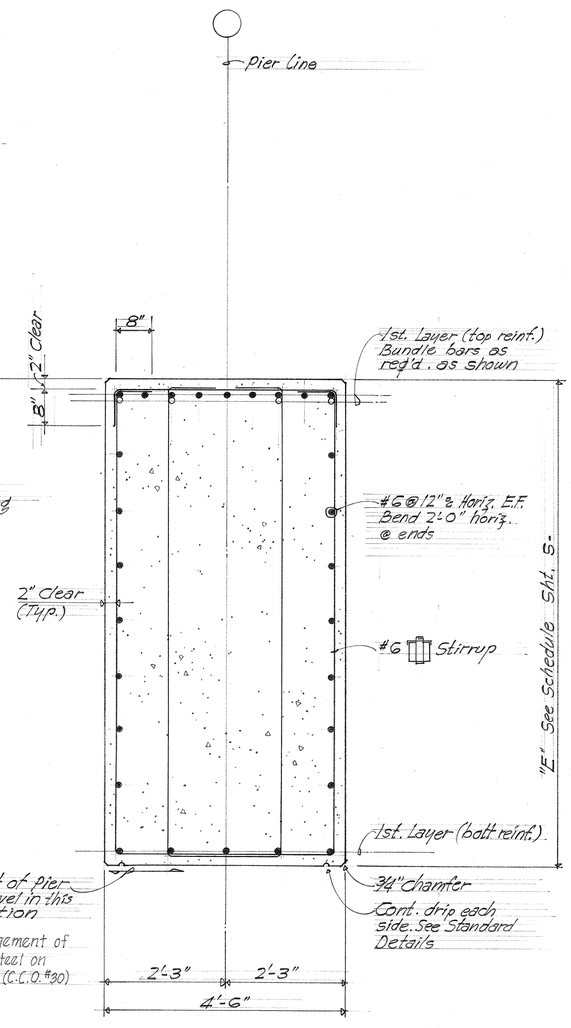
SECTION @ GIRDER SHELF



SECTION BEYOND GIRDER SHELF

TYPE IV A PIER CAP SECTIONS

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



NOTE: See new arrangement of reinforcement steel on Plan Sht. #1925-1 (C.C.O. #30)

TYPE V PIER CAP SECTION

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

NOTE: Field Change No. 12. See Sht. #178

SYMBOLS

- ● - Denotes continuous bars
- ○ - Denotes added bars

REINFORCING NOTES

1. See Sht. T-10 for Pier Cap reinforcing at ends, Girder Seats & Creep block.
2. See Pier Cap Elevation sheet for longitudinal reinforcing & stirrup spacing.
3. See "Typical Pier Cap Construction Notes" on Sht. S-43

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

KEEHI INTERCHANGE AREA I & H CONSULTANTS
c/o Shimazu Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TAM
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U. S. A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

PIER CAP DETAILS
TYPE IV A & V PIERS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET NO. S-44 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

198

PIER CAP CONCRETE GIRDER SEAT LOCATIONS, ELEVATIONS, SKEWS, & BEVELS SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	199	338

PIER LINE	⑤										⑥										⑦									
BEARING	①					②					①					②					①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1						-38.756	37.75	31.83	-⅛":12	+1/16":12	-40.46	37.32	31.40	-⅛":12	+1/16":12	-40.54	37.28	31.36	-⅛":12	+1/16":12	-42.24	36.84	30.92	-⅛":12	+1/16":12	-42.31	36.81	30.89	-⅛":12	+1/16":12
T1						-35.090	37.80	31.88	+⅛":12		-35.16	37.40	31.48	+⅛":12		-35.09	37.36	31.44	+⅛":12		-35.16	36.95	31.03	+⅛":12		-38.59	36.86	30.94	+⅛":12	
T2						-29.090	37.89	31.97			-29.16	37.49	31.57			-29.09	37.45	31.53			-29.16	37.04	31.12			-29.09	37.00	31.08		
T3						-19.589	38.04	32.12			-19.66	37.63	31.71			-19.59	37.59	31.67			-19.66	37.18	31.26			-19.59	37.14	31.22		
T4						-10.089	38.18	32.26			-10.16	37.77	31.85			-10.09	37.73	31.81			-10.16	37.32	31.40			-10.09	37.29	31.37		
T5						-0.588	38.32	32.40			-0.66	37.91	31.99			-0.59	37.87	31.95			-0.66	37.47	31.55			-0.59	37.43	31.51		
T6						8.912	38.46	32.54			8.84	38.05	32.13			8.91	38.02	32.10			8.84	37.61	31.69			8.91	37.57	31.65		
T7						18.413	38.61	32.69			18.34	38.20	32.28			18.41	38.16	32.24			18.34	37.75	31.83			18.41	37.71	31.79		
T8						27.913	38.75	32.83			27.84	38.34	32.42			27.91	38.30	32.38			27.84	37.89	31.97			27.91	37.86	31.94		
T9						37.414	38.89	32.97	▽	▽	37.34	38.48	32.56	▽	▽	37.41	38.44	32.52	▽	▽	37.34	38.03	32.11	▽	▽	37.41	38.00	32.08	▽	▽
G2						46.914	39.03	33.11	+⅛":12	+1/16":12	46.84	38.62	32.70	+⅛":12	+1/16":12	46.91	38.58	32.66	+⅛":12	+1/16":12	46.84	38.18	32.26	+⅛":12	+1/16":12	46.91	38.14	32.22	+⅛":12	+1/16":12

Contractor shall verify seat geometrics for existing Pier ⑤ Bearing ②

PIER LINE	⑧										⑨										⑩									
BEARING	①					②					①					②					①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-44.02	36.37	30.45	-⅛":12	+1/16":12	-44.09	36.33	30.41	-⅛":12	+1/16":12	-45.80	35.90	29.98	-⅛":12	+1/16":12	-45.87	35.86	29.94	0	+1/16":12	-46.91	35.44	29.52	0	+1/16":12	-46.84	35.40	29.41	+⅛":12	+1/16":12
T1	-38.66	36.45	30.53	+⅛":12		-38.59	36.42	30.50	+⅛":12		-38.66	36.01	30.09	+⅛":12		-38.59	35.97	30.05	+⅛":12		-38.66	35.56	29.64	+⅛":12		-38.59	35.53	29.54		
T2	-29.16	36.59	30.67			-29.09	36.56	30.64			-29.16	36.15	30.23			-29.09	36.11	30.19			-29.16	35.70	29.78			-29.09	35.67	29.68		
T3	-19.66	36.74	30.82			-19.59	36.70	30.78			-19.66	36.29	30.37			-19.59	36.25	30.33			-19.66	35.85	29.93			-19.59	35.81	29.82		
T4	-10.16	36.88	30.96			-10.09	36.84	30.92			-10.16	36.43	30.51			-10.09	36.40	30.48			-10.16	35.99	30.07			-10.09	35.95	29.96		
T5	-0.66	37.02	31.10			-0.59	36.98	31.06			-0.66	36.58	30.66			-0.59	36.54	30.62			-0.66	36.13	30.21			-0.59	36.09	30.10		
T6	8.84	37.16	31.24			8.91	37.13	31.21			8.84	36.72	30.80			8.91	36.68	30.76			8.84	36.27	30.35			8.91	36.24	30.25		
T7	18.34	37.31	31.39			18.41	37.27	31.35			18.34	36.86	30.94			18.41	36.82	30.90			18.34	36.41	30.49			18.41	36.38	30.39		
T8	27.84	37.45	31.53			27.91	37.41	31.49			27.84	37.00	31.08			27.91	36.97	31.05			27.84	36.56	30.64			27.91	36.52	30.53		
T9	37.34	37.59	31.67	▽	▽	37.41	37.55	31.63	▽	▽	37.34	37.14	31.22	▽	▽	37.41	37.11	31.19	▽	▽	37.34	36.70	30.78	▽	▽	37.41	36.66	30.67	▽	▽
G2	46.84	37.73	31.81	+⅛":12	+1/16":12	46.91	37.69	31.77	+⅛":12	+1/16":12	46.84	37.29	31.37	+⅛":12	+1/16":12	46.91	37.25	31.33	+⅛":12	+1/16":12	46.84	36.84	30.92	+⅛":12	+1/16":12	46.91	36.80	30.81	+⅛":12	+1/16":12

PIER LINE	⑪										⑫									
BEARING	①					②					①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-46.91	34.98	28.99	+⅛":12	+1/16":12	-46.84	34.90	28.91	+⅛":12	+1/16":12	-46.91	34.37	28.38	+⅛":12	+1/16":12	-46.69	34.35	28.33	0	+1/16":12
T1	-38.66	35.11	29.12			-38.59	35.04	29.05			-38.66	34.55	28.56			-41.09	34.47	28.45	+1/16":12	
T2	-29.16	35.26	29.27			-29.09	35.20	29.21			-29.16	34.76	28.77			-33.09	34.65	28.63		
T3	-19.66	35.41	29.42			-19.59	35.36	29.37			-19.66	34.97	28.98			-25.09	34.83	28.81		
T4	-10.16	35.56	29.57			-10.09	35.52	29.53			-10.16	35.18	29.19			-17.09	35.00	28.98		
T5	-0.66	35.72	29.73			-0.59	35.69	29.70			-0.66	35.39	29.40			-9.09	35.18	29.16		
T6	8.84	35.86	29.89			8.91	35.83	29.84			8.84	35.53	29.54			-1.09	35.35	29.33		
T7	18.34	36.00	30.01			18.41	35.97	29.98			18.34	35.68	29.69			6.91	35.48	29.46		
T8	27.84	36.14	30.15			27.91	36.11	30.12			27.84	35.82	29.84			14.91	35.60	29.58		
T9	37.34	36.29	30.30	▽	▽	37.41	36.25	30.26	▽	▽	37.34	35.96	29.97	▽	▽	22.91	35.72	29.70		
T10																30.91	35.84	29.82		
T11																38.91	35.96	29.94	▽	▽
G2	46.84	36.43	30.44	+⅛":12	+1/16":12	46.91	36.40	30.41	+⅛":12	+1/16":12	46.84	36.10	30.11	+⅛":12	+1/16":12	46.91	36.08	30.06	+1/16":12	+1/16":12

LEGEND

"D" = Distance of ℄ girder intersection with bearing line (Measured along ℄ Pier) from Baseline.
TR = Top of Roadway Elevation (Intersection of ℄ girder ∔ ℄ bearing line)
TS = Top of Seat Elevation (Intersection of ℄ girder ∔ ℄ bearing line)
Skew = Seat skew
Bevel = Seat bevel

NOTES

1. See Sh. S-49 & S-50 for schematic representation of all information shown on this sheet.
2. Dimension "D" & Elevations TR & TS are given in feet. (See Sh. S-49 & S-50 for Dimension "D")

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.
Michael Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

GIRDER SEAT GEOMETRICS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: No Scale Date: April 2, 1979

SHEET NO. S-45 OF 60 SHEETS

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

PRINTED ON NO. 1000H CLEARPRINT

199

PIER CAP CONCRETE GIRDER SEAT LOCATIONS, ELEVATIONS, SKEWS, & BEVELS SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	200	338

PIER LINE	(13)										(14)										(15)									
BEARING	(1)					(2)					(1)					(2)					(1)					(2)				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-46.70	33.98	27.96	0	+1/16 : 12	-46.76	33.96	27.95	-1/8 : 12	0	-46.68	33.84	27.83	-1/8 : 12	0	-46.82	33.83	27.82	-5/16 : 12	0	-46.65	33.80	27.70	-5/16 : 12	0	-46.88	33.81	27.80	-7/16 : 12	0
T1	-40.72	34.13	28.11	+1/16 : 12		-42.69	34.06	28.05	0		-41.61	33.97	27.96	0		-41.64	33.96	27.95	-1/16 : 12		-39.84	33.97	27.96	-1/16 : 12		-39.92	33.98	27.97	-1/8 : 12	
T2	-32.72	34.33	28.31			-33.69	34.29	28.28			-32.61	34.19	28.18			-32.64	34.19	28.18			-30.84	34.20	28.19			-30.92	34.21	28.20		
T3	-24.72	34.53	28.51			-24.69	34.51	28.50			-23.61	34.42	28.41			-23.64	34.41	28.40			-21.84	34.42	28.41			-21.92	34.43	28.42		
T4	-16.72	34.73	28.71			-15.69	34.74	28.73			-14.61	34.64	28.63			-14.64	34.64	28.63			-12.84	34.65	28.63			-12.92	34.66	28.65		
T5	-8.72	34.93	28.91			-6.69	34.96	28.95			-5.61	34.87	28.86			-5.64	34.86	28.85			-3.84	34.87	28.86			-3.91	34.88	28.87		
T6	-0.72	35.13	29.11			2.31	35.16	29.15			3.39	35.06	29.05			3.36	35.05	29.04			5.16	35.05	29.04			5.09	35.05	29.04		
T7	7.29	35.25	29.23			11.31	35.30	29.29			12.39	35.19	29.18			12.36	35.19	29.18			14.16	35.18	29.17			14.09	35.19	29.18		
T8	15.29	35.37	29.35			20.31	35.43	29.42			21.39	35.33	29.32			21.36	35.32	29.31			23.16	35.32	29.31			23.09	35.32	29.31		
T9	23.29	35.49	29.47			29.31	35.57	29.56			30.39	35.46	29.45			30.37	35.46	29.45			32.16	35.45	29.44			32.09	35.46	29.45		
T10	31.29	35.61	29.59			38.31	35.70	29.69			39.39	35.60	29.59			39.37	35.59	29.58			41.16	35.59	29.58			41.09	35.59	29.58		
T11	39.29	35.73	29.71																											
G2	47.29	35.85	29.83	+1/16 : 12	+1/16 : 12	47.31	35.84	29.83	0	0	48.39	35.73	29.72	0	0	48.37	35.73	29.72	-1/16 : 12	0	50.16	35.72	29.71	-1/16 : 12	0	50.09	35.73	29.72	-1/8 : 12	0

PIER LINE	(16)										(17)										(18)									
BEARING	(1)					(2)					(1)					(2)					(1)					(2)				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-46.63	33.87	27.86	-7/16 : 12	0	-46.97	33.88	27.89	-5/8 : 12	0	-46.63	34.03	28.04	-5/8 : 12	0	-47.08	34.05	28.14	-3/4 : 12	-1/16 : 12	-46.65	34.24	28.33	-3/4 : 12	-1/16 : 12	-47.15	34.26	28.35	-7/8 : 12	-1/16 : 12
T1	-37.41	34.10	28.09	-1/8 : 12		-42.54	33.99	28.00	-1/4 : 12		-39.52	34.21	28.22	-1/4 : 12		-43.69	34.13	28.22	-5/16 : 12		-40.54	34.39	28.48	-5/16 : 12		-40.75	34.42	28.51	-3/8 : 12	
T2	-28.41	34.33	28.32			-33.03	34.23	28.24			-30.02	34.44	28.45			-32.68	34.40	28.49			-29.54	34.66	28.75			-29.75	34.69	28.78		
T3	-19.41	34.55	28.54			-23.53	34.47	28.48			-20.51	34.68	28.69			-21.68	34.68	28.77			-18.54	34.93	29.02			-18.74	34.96	29.05		
T4	-10.41	34.78	28.77			-14.03	34.70	28.71			-11.01	34.91	28.92			-10.68	34.95	29.04			-7.53	35.21	29.30			-7.74	35.23	29.32		
T5	-1.41	35.00	28.99			-4.53	34.94	28.95			-1.51	35.15	29.16			0.33	35.22	29.31			3.47	35.44	29.53			3.27	35.47	29.56		
T6	7.59	35.15	29.14			4.97	35.13	29.14			7.99	35.31	29.32			11.33	35.38	29.47			14.47	35.61	29.70			14.27	35.63	29.72		
T7	16.59	35.28	29.27			14.48	35.27	29.28			17.49	35.45	29.46			22.33	35.54	29.63			25.48	35.77	29.86			25.28	35.80	29.89		
T8	25.60	35.42	29.41			23.98	35.41	29.42			27.00	35.59	29.60			33.34	35.71	29.80			36.48	35.93	30.02			36.28	35.96	30.05		
T9	34.60	35.55	29.54			33.48	35.55	29.56			36.50	35.73	29.74			44.34	35.87	29.96			47.48	36.09	30.18			47.29	36.12	30.21		
T10	43.60	35.69	29.68			42.98	35.69	29.70			46.00	35.87	29.88																	
G2	52.60	35.82	29.86	-1/8 : 12	0	52.48	35.83	29.84	-1/4 : 12	0	55.50	36.01	30.02	-1/4 : 12	0	55.34	36.03	30.12	-5/16 : 12	-1/16 : 12	58.49	36.26	30.35	-5/16 : 12	-1/16 : 12	58.29	36.28	30.37	-3/8 : 12	-1/16 : 12

PIER LINE	(19)										(20)									
BEARING	(1)					(2)					(1)					(2)				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-46.65	34.70	28.79	-7/8 : 12	-1/16 : 12	-47.31	34.73	28.82	-15/16 : 12	-1/16 : 12	-46.74	35.23	29.32	-15/16 : 12	-1/16 : 12	-47.31	35.31	29.40	-15/16 : 12	-1/16 : 12
T1	-37.13	34.90	28.99	-3/8 : 12		-43.38	34.81	28.90	-7/16 : 12		-39.76	35.34	29.43	-7/16 : 12		-40.04	35.42	29.51	-1/2 : 12	
T2	-26.13	35.12	29.21			-37.38	34.93	29.02			-33.75	35.44	29.53			-34.04	35.51	29.60		
T3	-15.12	35.35	29.44			-26.37	35.16	29.25			-22.75	35.62	29.71			-23.03	35.69	29.78		
T4	-4.12	35.58	29.67			-15.37	35.39	29.48			-11.74	35.81	29.90			-12.02	35.86	29.95		
T5	6.89	35.76	29.85			-4.36	35.61	29.70			-0.73	35.99	30.08			-1.01	36.03	30.12		
T6	17.89	35.93	30.02			6.65	35.80	29.89			10.27	36.15	30.24			10.00	36.19	30.28		
T7	28.90	36.09	30.18			17.65	35.96	30.05			21.28	36.31	30.40			21.00	36.35	30.44		
T8	39.90	36.25	30.34			28.66	36.12	30.21			32.29	36.47	30.56			32.01	36.51	30.60		
T9	50.91	36.41	30.50			39.67	36.28	30.37			43.29	36.63	30.72			43.02	36.67	30.76		
T10						50.67	36.44	30.53			54.30	36.79	30.88			54.03	36.83	30.92		
G2	61.91	36.57	30.66	-3/8 : 12	-1/16 : 12	61.68	36.60	30.69	-7/16 : 12	-1/16 : 12	65.31	36.95	31.04	-7/16 : 12	-1/16 : 12	65.04	36.99	31.08	-1/2 : 12	-1/16 : 12

NOTE

See notes on Sh. 5·45

SURVEY PLOTTED BY
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ORIGINAL PLAN
NOTE BOOK
No.

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1210 Ward Ave. • Honolulu, Hawaii 96814

MICHAEL PAUL MATSUMOTO
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This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

GIRDER SEAT GEOMETRICS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (147):17

Scale: No Scale Date: April 2, 1979

SHEET NO. 54 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

PIER CAP CONCRETE GIRDER SEAT LOCATIONS, ELEVATIONS, SKEWS, & BEVELS SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	201	338

PIER LINE	21					22										23									
BEARING	1					2					1					2					1					2				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-46.74	35.73	29.82	-15/16:12	-1/16:12	-47.32	35.77	29.77	-15/16:12	-1/16:12	-46.74	36.29	30.23	-15/16:12	-1/16:12	-47.32	36.34	30.34	-15/16:12	-1/16:12	-46.72	36.89	30.85	-15/16:12	-1/16:12	-47.34	36.93	30.93	-15/16:12	-1/16:12
T1	-36.77	35.87	29.96	-1/2:12		-42.99	35.83	29.83	-9/16:12		-39.59	36.40	30.34	-9/16:12		-39.94	36.45	30.45	-5/8:12		-37.02	37.03	30.94	-5/8:12		-43.64	36.99	30.99		
T2	-30.76	35.96	30.05			-33.74	35.97	29.97			-30.34	36.53	30.47			-30.69	36.58	30.58			-27.77	37.17	31.13			-35.64	37.10	31.10		
T3	-19.75	36.12	30.21			-24.49	36.10	30.10			-21.09	36.67	30.61			-21.44	36.71	30.71			-18.52	37.30	31.26			-26.39	37.23	31.23		
T4	-8.74	36.28	30.37			-15.24	36.23	30.23			-11.84	36.80	30.74			-12.19	36.85	30.85			-9.27	37.43	31.39			-17.14	37.37	31.37		
T5	2.27	36.44	30.53			-5.99	36.37	30.37			-2.59	36.94	30.88			-2.94	36.98	30.98			-0.02	37.57	31.53			-7.89	37.50	31.50		
T6	13.27	36.60	30.69			3.26	36.50	30.50			6.66	37.07	31.01			6.32	37.11	31.11			9.23	37.70	31.66			1.36	37.63	31.63		
T7	24.28	36.76	30.85			12.51	36.63	30.63			15.91	37.20	31.14			15.57	37.25	31.25			18.48	37.83	31.79			8.99	37.74	31.74		
T8	35.29	36.92	31.01			21.76	36.77	30.77			25.16	37.33	31.27			24.82	37.38	31.38			27.73	37.96	31.92			17.34	37.87	31.87	-1/16:12	
T9	46.30	37.08	31.17			31.01	36.91	30.91			34.41	37.47	31.41			34.07	37.52	31.52			36.98	38.10	32.06			23.98	37.97	31.97		
T10	57.31	37.24	31.33			40.26	37.05	31.05			43.66	37.60	31.54			43.32	37.65	31.65			46.23	38.23	32.19			32.24	38.08	32.08		
T11						49.51	37.19	31.19			52.91	37.74	31.66			52.57	37.79	31.78			55.48	38.37	32.33			40.51	38.20	32.20		
T12						58.76	37.32	31.32			62.16	37.87	31.81			61.82	37.92	31.92			64.73	38.50	32.46			48.77	38.32	32.32		
T13																										57.04	38.44	32.44		
T14																										65.30	38.56	32.56		
G2	68.32	37.40	31.49	-1/2:12	-1/16:12	68.01	37.46	31.46	-9/16:12	-1/16:12	71.41	38.01	31.95	-9/16:12	-1/16:12	71.07	38.06	32.06	-5/8:12	-1/16:12	73.98	38.64	32.60	-5/8:12	-1/16:12	73.56	38.68	32.68		

H-1 VIADUCT WESTBOUND

PIER LINE	24						24				
BEARING	1						2				
GIRDER	"D"	TR	TS	SKEW	BEVEL	GIRDER	"D"	TR	TS	SKEW	BEVEL
G1	-46.74	37.48	31.46	-15/16:12	-1/16:12	G1	-47.39	37.52	31.52	-13/16:12	-1/16:12
T1	-43.04	37.54	31.52			T1	-43.62	37.58	31.58	-15/16:12	
T2	-35.04	37.65	31.63			T2	-35.62	37.69	31.69		
T3	-25.79	37.78	31.76			T3	-26.37	37.82	31.82		
T4	-16.54	37.92	31.90			T4	-17.12	37.96	31.96		
T5	-7.29	38.05	32.03			T5	-7.87	38.09	32.09		
T6	1.96	38.18	32.16			T6	1.38	38.22	32.22		
T7	9.58	38.29	32.27			G2	10.63	38.36	32.36		

NIMITZ CONNECTOR WESTBOUND

PIER LINE	24							24					
BEARING	1							2					
GIRDER	"D"	TR	TS	SKEW	BEVEL	BEARING TR BEVEL See T-13	GIRDER	"D"	TR	TS	SKEW	BEVEL	BEARING TR BEVEL See T-13
T8	-45.28	38.42	32.41	-1/16:12	0:12	-1/16:12	G1	-47.00	38.42	32.37	-1/16:12	0:12	-1/16:12
T9	-38.63	38.52	32.51				T1	-38.73	38.54	32.49			
T10	-30.37	38.64	32.63				T2	-30.47	38.66	32.61			
T11	-22.11	38.76	32.75				T3	-22.21	38.78	32.73			
T12	-13.84	38.89	32.88				T4	-13.94	38.91	32.86			
T13	-5.58	39.01	33.00				T5	-5.68	39.03	32.98			
T14	2.69	39.13	33.12				T6	2.59	39.15	33.10			
G2	10.95	39.25	33.24				G2	10.85	39.27	33.22			

H-1 VIADUCT WESTBOUND

PIER LINE	25						25				
BEARING	1						2				
GIRDER	"D"	TR	TS	SKEW	BEVEL	GIRDER	"D"	TR	TS	SKEW	BEVEL
G1	-48.21	38.09	32.09	-1 3/16:12	-1/16:12	-48.93	38.13	32.13	-13/16:12	-1/16:12
T1	-43.04	38.16	32.16	-15/16:12		-44.87	38.18	32.18	-15/16:12	
T2	-35.04	38.27	32.27			-35.62	38.31	32.31		
T3	-25.79	38.40	32.40			-26.37	38.44	32.44		
T4	-16.54	38.53	32.53			-17.12	38.57	32.57		
T5	-7.29	38.66	32.66			-7.87	38.70	32.70		
T6	1.96	38.78	32.77			1.38	38.82	32.82		
G2	11.21	38.91	32.91			10.63	38.95	32.95		

NIMITZ CONNECTOR WESTBOUND

PIER LINE	25							25					
BEARING	1							2					
"D"	TR	TS	SKEW	BEVEL	BEARING TR BEVEL See T-13	"D"	TR	TS	SKEW	BEVEL	BEARING TR BEVEL See T-13
-46.90	38.71	32.71	-1/16:12	0:12	0:12	-47.00	38.72	32.67	-1/16:12	0:12	0:12
-38.64	38.83	32.83				-38.73	38.84	32.79			
-30.37	38.95	32.95				-30.47	38.96	32.91			
-22.11	39.08	33.08				-22.21	39.09	33.04			
-13.84	39.20	33.20				-13.94	39.21	33.16			
-5.58	39.33	33.33				-5.68	39.34	33.29			
2.69	39.45	33.45				2.59	39.46	33.41			
10.95	39.57	33.57				10.85	39.58	33.53			

NOTE:
See notes on Sht. S-45

SURVEY PLOTTED BY
DRAWN BY
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ORIGINAL PLAN
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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

GIRDER SEAT GEOMETRICS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: No Scale Date: 4/2/79

SHEET NO. S-47 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

PIER CAP CONCRETE GIRDER SEAT LOCATIONS, ELEVATIONS, SKEWS & BEVELS SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	202	338

NOTE:
See notes on Sht. S-45

PIER LINE 26 — H-1 VIADUCT WESTBOUND

BEARING	①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-50.05	38.63	32.63	-3/16 : 12	-1/16 : 12	-50.77	38.67	32.67	-3/16 : 12	-1/16 : 12
T1	-44.29	38.71	32.71	-15/16 : 12		-44.87	38.75	32.75	-15/16 : 12	
T2	-35.04	38.84	32.84			-35.62	38.88	32.88		
T3	-25.79	38.97	32.97			-26.37	39.01	33.01		
T4	-16.54	39.10	33.10			-17.12	39.14	33.14		
T5	- 7.29	39.24	33.24			- 7.87	39.28	33.28		
T6	1.96	39.37	33.37			1.38	39.41	33.41		
G2	11.21	39.50	33.50			10.63	39.54	33.54		

NIMITZ CONNECTOR WESTBOUND

	①						②					
"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13
-46.90	38.63	32.63	-1/16 : 12	0:12	0:12	-47.00	38.62	32.57	-1/16 : 12	0:12	+1/16 : 12
-38.64	38.76	32.76				-38.73	38.75	32.70			
-30.37	38.89	32.89				-30.47	38.88	32.83			
-22.11	39.01	33.01				-22.21	39.00	32.95			
-13.84	39.14	33.14				-13.94	39.13	33.08			
- 5.58	39.26	33.26				- 5.68	39.25	33.20			
2.69	39.39	33.39				2.59	39.38	33.33			
10.95	39.52	33.52				10.85	39.51	33.46			

PIER LINE 27 — H-1 VIADUCT WESTBOUND

BEARING	①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-51.88	39.18	33.18	-3/16 : 12	-1/16 : 12	-52.60	39.22	33.22	-3/16 : 12	-1/16 : 12
T1	-44.29	39.29	33.29	-15/16 : 12		-44.87	39.33	33.33	-15/16 : 12	
T2	-35.04	39.43	33.43			-35.62	39.47	33.47		
T3	-25.79	39.56	33.56			-26.37	39.60	33.60		
T4	-16.54	39.70	33.70			-17.12	39.74	33.74		
T5	- 7.29	39.83	33.83			- 7.87	39.87	33.87		
T6	1.96	39.96	33.96			1.38	40.00	34.00		
G2	11.21	40.09	34.09			10.63	40.13	34.13		

NIMITZ CONNECTOR WESTBOUND

	①						②					
"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13
-46.90	38.17	32.17	-1/16 : 12	0:12	+1/16 : 12	-47.00	38.15	32.10	-1/16 : 12	0:12	+1/8 : 12
-38.64	38.30	32.30				-38.73	38.28	32.23			
-30.37	38.43	32.43				-30.47	38.41	32.36			
-22.11	38.55	32.55				-22.21	38.53	32.48			
-13.84	38.68	32.68				-13.94	38.66	32.61			
- 5.58	38.80	32.80				- 5.68	38.78	32.73			
2.69	38.93	32.93				2.59	38.91	32.86			
10.95	39.06	33.06				10.85	39.04	32.99			

PIER LINE 28 — H-1 VIADUCT WESTBOUND

BEARING	①					②				
GIRDER	"D"	TR	TS	SKEW	BEVEL	"D"	TR	TS	SKEW	BEVEL
G1	-53.71	39.76	33.76	-3/16 : 12	-1/16 : 12	-54.43	39.78	33.78	-3/16 : 12	-1/16 : 12
T1	-44.29	39.90	33.90	-15/16 : 12		-48.87	39.86	33.86	-15/16 : 12	
T2	- 35.04	40.03	34.03			-40.37	39.98	33.98		
T3	- 25.79	40.17	34.17			-31.87	40.11	34.11		
T4	- 16.54	40.31	34.31			-23.37	40.23	34.23		
T5	- 7.29	40.44	34.44			-14.87	40.36	34.36		
T6	1.96	40.57	34.57			- 6.37	40.48	34.48		
T7						2.13	40.61	34.61		
G2	11.21	40.71	34.71	-15/16 : 12	-1/16 : 12	10.63	40.73	34.73		

NIMITZ CONNECTOR WESTBOUND

	①						②					
"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13
-46.90	37.32	31.32	-1/16 : 12	0:12	+1/8 : 12	-47.00	37.29	31.24	-1/16 : 12	0:12	+1/8 : 12
-38.64	37.45	31.45				-38.73	37.42	31.37			
-30.37	37.58	31.58				-30.47	37.55	31.50			
-22.11	37.71	31.71				-22.21	37.68	31.63			+3/16 : 12
-13.84	37.84	31.84				-13.94	37.80	31.75			
- 5.58	37.97	31.97				- 5.68	37.93	31.88			
2.69	38.10	32.10				2.59	38.06	32.01			
10.95	38.23	32.23	-1/16 : 12	0:12	+1/8 : 12	10.85	38.19	32.14	-1/16 : 12	0:12	+3/16 : 12

PIER LINE 29 — H-1 VIADUCT WESTBOUND

BEARING	①						②						
GIRDER	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13	GIRDER	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13
G1	-55.81	40.17	34.17	-3/16 : 12	0:12	-1/16 : 12	1H1	-55.90	Future: by others	34.18	-1/16 : 12	0:12	Future: by others
T1	-48.51	40.33	34.33	-15/16 : 12			1H2	-49.84		34.30	-1/16 : 12		
T2	-40.01	40.50	34.50				1H3	-43.78		34.42	1/16 : 12		
T3	-31.51	40.68	34.68				1H4	-37.72		34.54			
T4	-23.01	40.80	34.80				1H5	-31.66		34.66			
T5	-14.51	40.93	34.93				1H6	-25.60		34.78	-1/16 : 12		
T6	- 6.01	41.05	35.05				1H7	-19.55		34.86			
T7	2.49	41.18	35.18				1H8	-13.49		34.95			
T8							1H9	- 7.43		35.04	-1 : 12		
T9							1H10	-1.37		35.12	-1 : 12		
T10							1H11	4.69		35.21	-15/16 : 12		
G2	10.99	41.30	35.30	-15/16 : 12	0:12	1/16 : 12	1H12	10.75		35.30	-15/16 : 12		

NIMITZ CONNECTOR WESTBOUND

	①						②						
"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13	GIRDER	"D"	TR	TS	SKEW	BEVEL	BEARING @ BEVEL See T-13
-46.90	36.19	30.19	-1/16 : 12	0:12	+1/8 : 12	INW1	-47.00	Future: by others	30.22	-1/16 : 12	0:12	Future: by others
-38.64	36.30	30.30				INW2	-40.57		30.30			
-30.37	36.42	30.42				INW3	-34.15		30.39			
-22.11	36.53	30.53			+3/16 : 12	INW4	-27.72		30.48			
-13.84	36.64	30.64				INW5	-21.30		30.56			
- 5.58	36.75	30.75				INW6	-14.87		30.65			
2.69	36.87	30.87				INW7	- 8.44		30.74			
						INW8	-2.02		30.82			
						INW9	4.41		30.91			
						INW10	10.84		31.00			
10.95	36.98	30.98	-1/16 : 12	0:12	+3/16 : 12							

SURVEY PLOTTED BY
DRAWN BY
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DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

ORIGINAL PLAN
NOTE BOOK
No.

PRINTED ON NO. 1000H CLEARPRINT

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
GIRDER SEAT GEOMETRICS

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

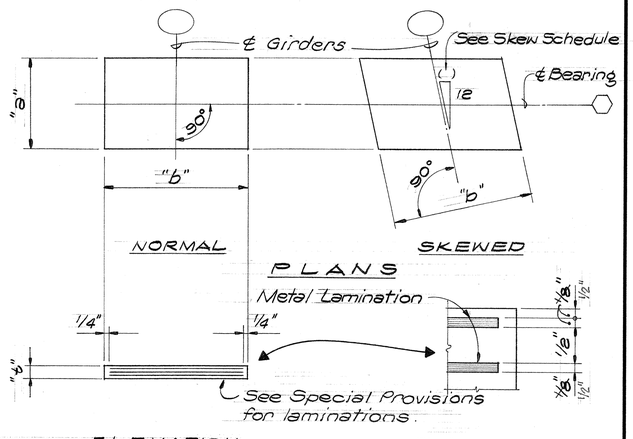
Scale: No Scale Date: 4/2/79

SHEET NO. S-48 OF 60 SHEETS

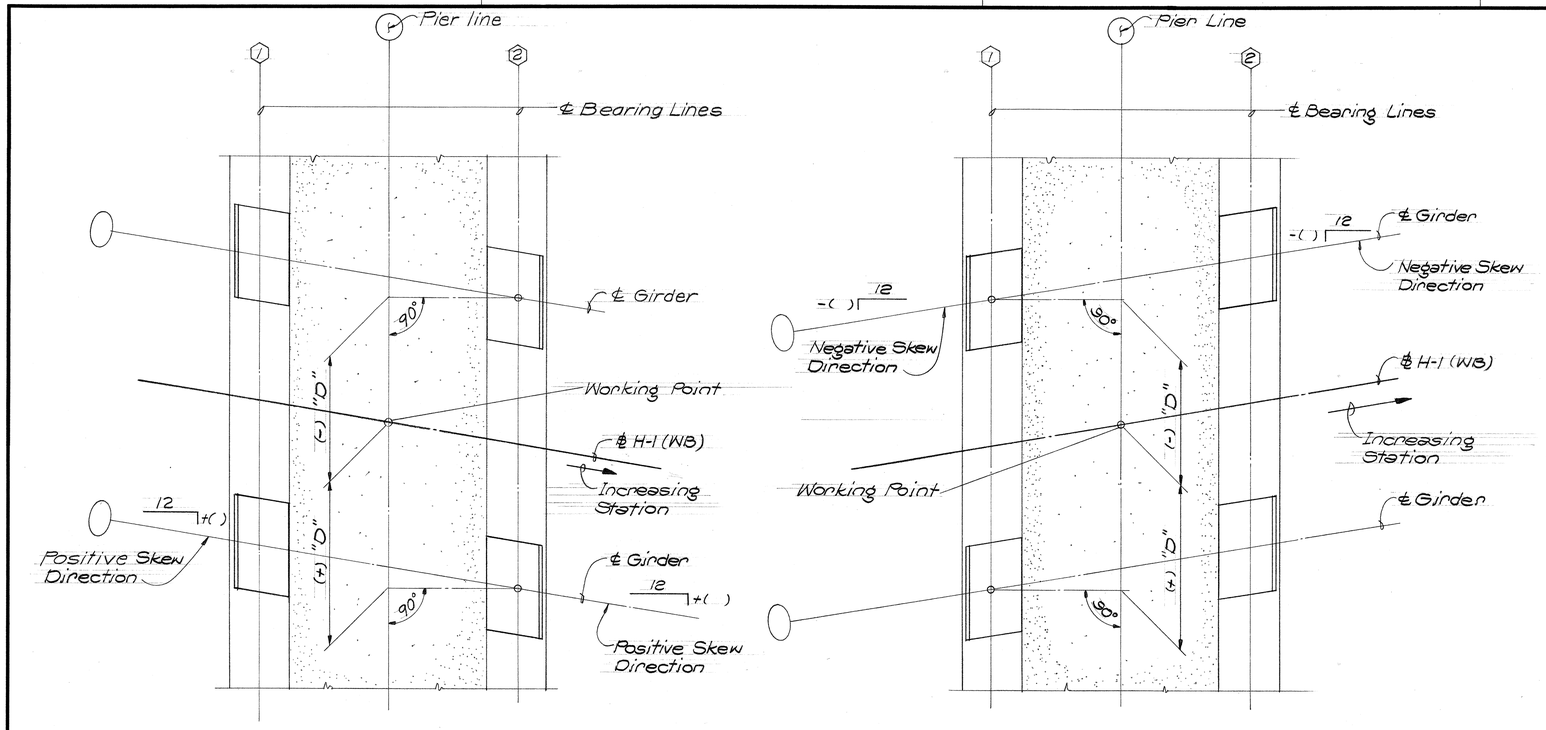
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	203	338

ELASTOMERIC BEARING PAD NOTES

1. Fiberglass reinforced elastomeric pads may be used in lieu of pads with metal lamination as shown.
2. Minimum total thickness of fiberglass reinforced elastomeric pads shall be equal to the sum of the 1/2" pads between metal laminations + 1/4". (Revise dimension "t" in Schedule accordingly.)
3. Any revision to elastomeric bearing pad thicknesses shall be reflected in concrete seat and girder shelf elevations.
4. Cost of bearing pads incidental to concrete.

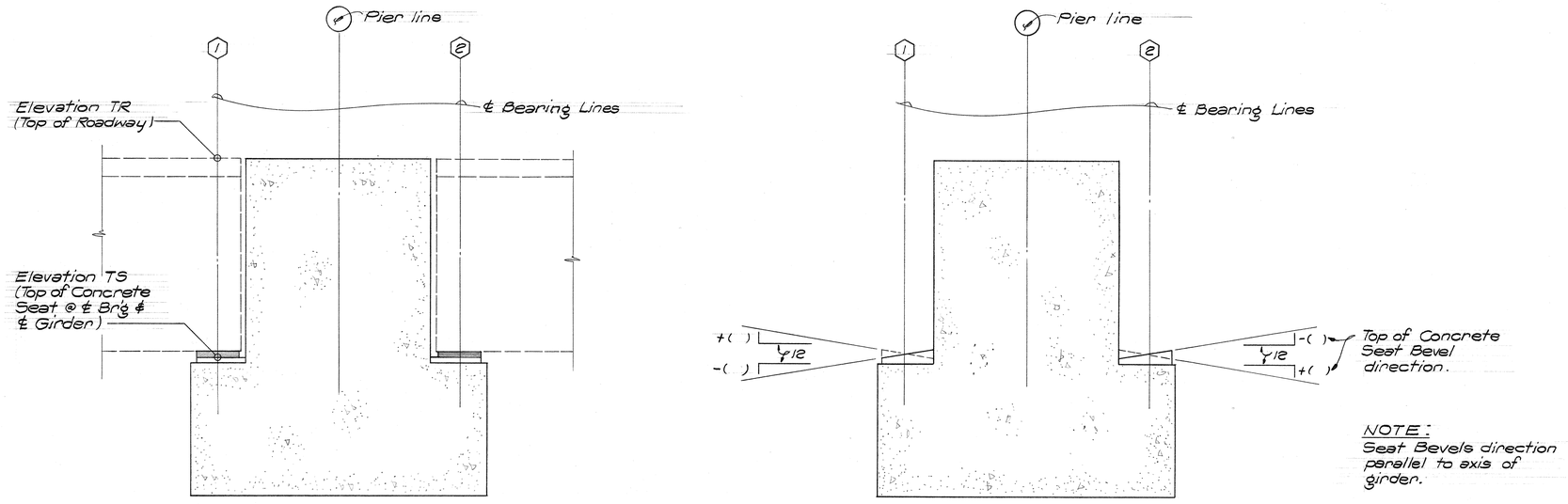


ELASTOMERIC BEARING PAD DETAILS



GIRDER SEAT LOCATION & SKEW

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



GIRDER SEAT ELEVATIONS

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

GIRDER CONCRETE SEAT BEVEL DIRECTION

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

NOTE:
Seat Bevels direction parallel to axis of girder.

H-1 VIADUCT & NIMITZ CONN. ELASTOMERIC BEARING PAD SCHED.

Pier Line		Bearing Line	G1 & G2 Girders Dimensions "a"	"b"	"t"	T1 to T14 Girders Dimensions "a"	"b"	"t"
H-1 Viaduct	⑤ to ⑨, ⑱ to ⑳	1 & 2	13"	15 1/2"	2 1/4"	8 1/2"	24 1/2"	2 1/4"
	⑩	1			2 1/4"			2 1/4"
		2			2 7/8"			2 7/8"
	⑪ to ⑯, ㉒ to ㉘	1 & 2			2 7/8"			2 7/8"
	⑰	1			2 7/8"			2 7/8"
		2			2 1/4"			2 1/4"
	㉑	1			2 1/4"			2 1/4"
		2	▽	▽	2 7/8"	▽	▽	2 7/8"
	㉙	1	13"	15 1/2"	2 7/8"	8 1/2"	24 1/2"	2 7/8"
		2	See Sh. T-13					
Nimitz Conn.	㉔ to ㉙	1 & 2	See Sh. T-13					

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. - Honolulu, Hawaii 96814

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

GIRDER SEAT GEOMETRIC DETAILS
ELASTOMERIC BEARING PAD SCHED. & DETAILS

KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

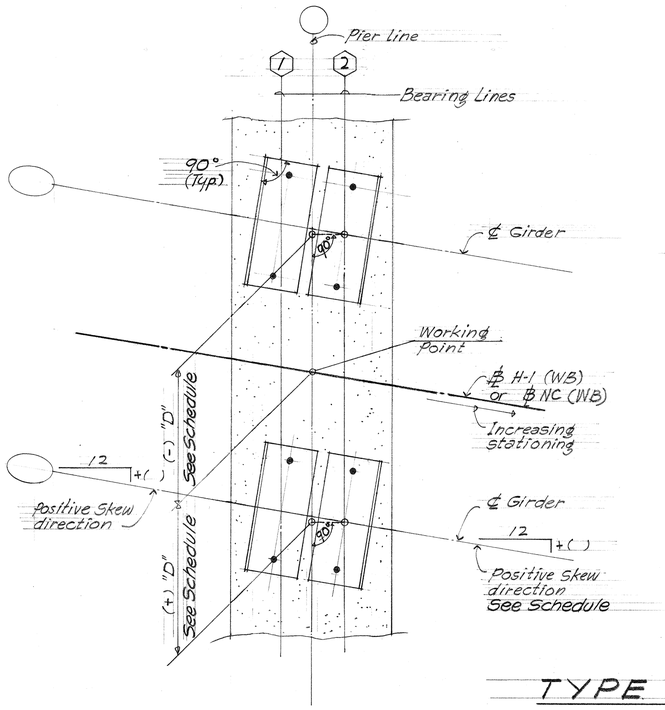
Scale: As Shown Date: April 2, 1979

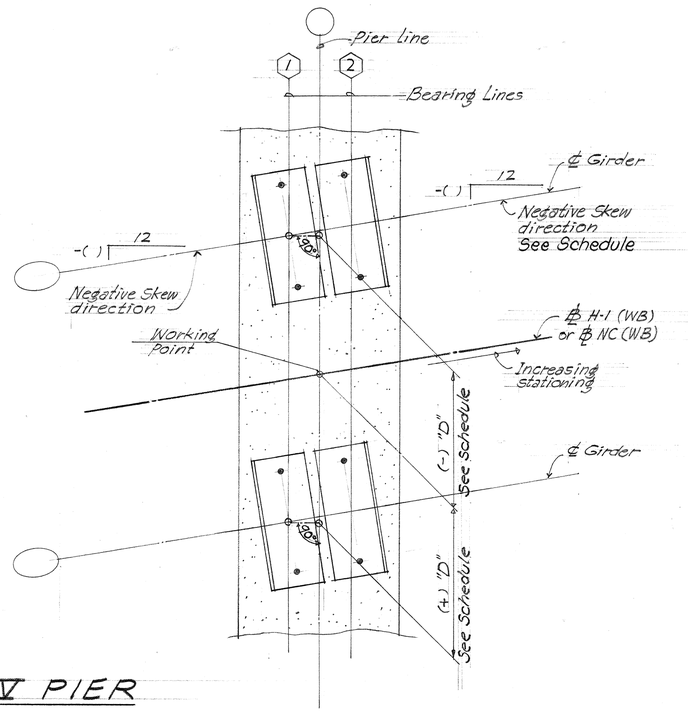
SHEET No. 549 OF 60 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY: DATE
PLANS BY
TRACED BY
NOTE BOOK DESIGNED BY
No. QUANTITIES BY
CHECKED BY

PRINTED ON NO. 1000H CLEARPRINT

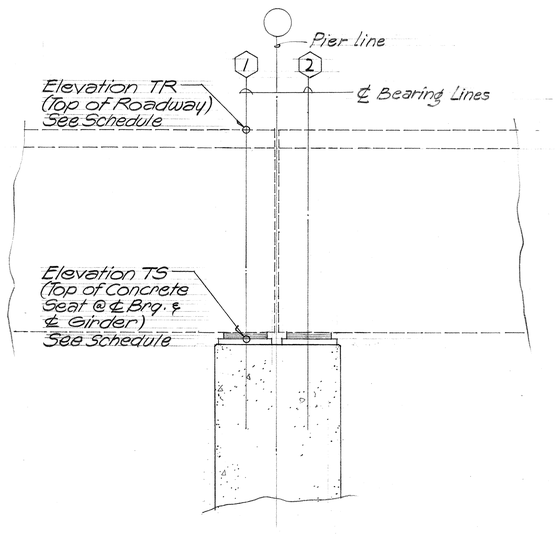
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	204	338



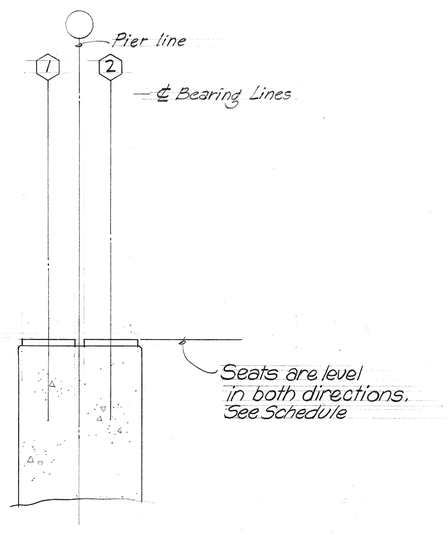


NOTE:
See Sht. T-13 for Bearing Details.

TYPE V PIER
GIRDER SEAT LOCATION & SKEW DIRECTION
Scale: 1/2" = 1'-0"



TYPE V PIER
GIRDER SEAT ELEVATIONS
Scale: 1/2" = 1'-0"



TYPE V PIER
GIRDER CONCRETE SEAT BEVEL DIRECTION
Scale: 1/2" = 1'-0"

ORIGINAL PLANS — SURVEY PLOTTED BY: DRAWN BY: TRACED BY: DESIGNED BY: QUANTITIES BY: CHECKED BY: DATE:
NOTE BOOK — No.

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU — REGISTERED PROFESSIONAL ENGINEER No. 868 — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

GIRDER SEAT GEOMETRIC DETAILS
TYPE V PIER

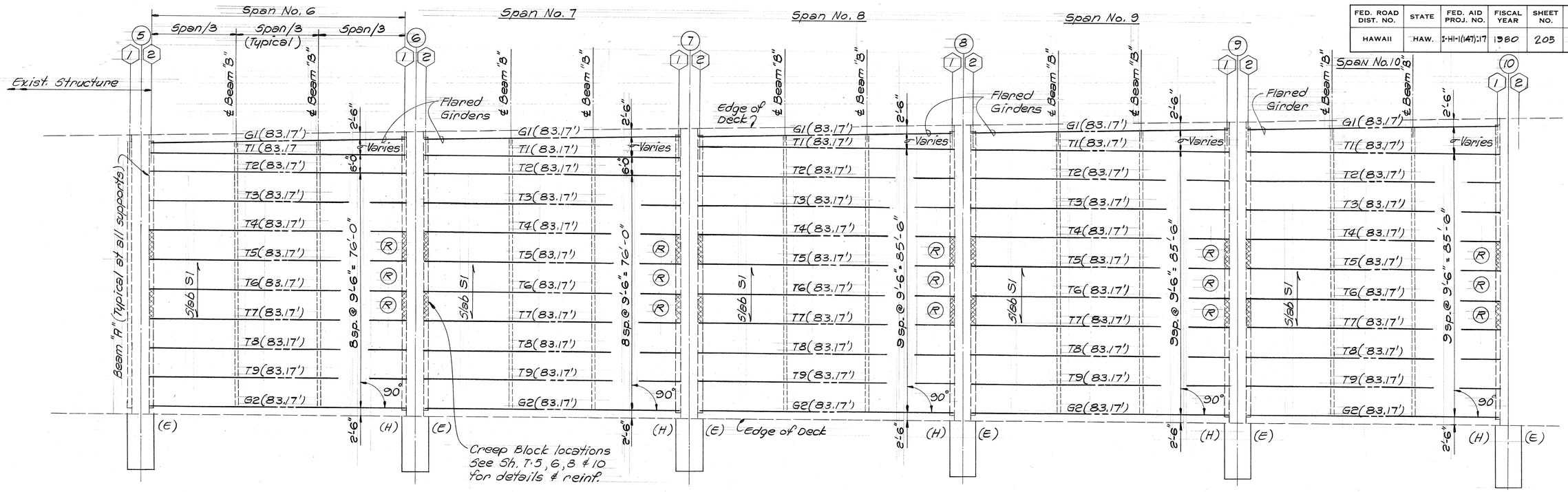
KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET No. S-50 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

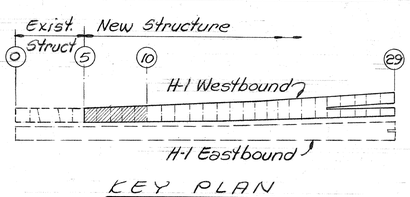
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	205	338



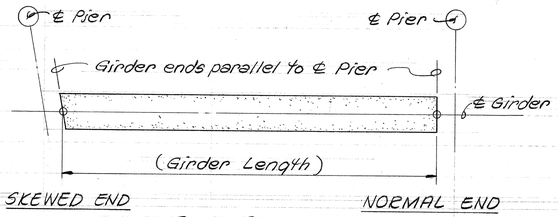
PARTIAL DECK FRAMING PLAN

Scale: 1/16" = 1'-0"

HI (WB) PRESTRESSED GIRDER SCHEDULE			NC (WB) PREST'D GIRDER SCHEDULE	
Span No.	Girder Mark No.	Girder Type	Girder Mark No.	Girder Type
6 to 12	G1 & G2 T1 to T9	EP2 P2a		
13	G1 & G2 T1 to T11	EP6 P3a		
14 to 16	G1 & G2 T1 to T10	EP5 P2b		
17	G1 & G2 T1 to T10	EP2 P2a		
18 to 21	G1 & G2 T1 to T10	EP1 P1		
22 & 23	G1 & G2 T1 to T12	EP3 P2c		
24	G1 G2 T1 to T7 T8 T9 to T14	EP3 EP4a P2c P2d P3b		
25 to 28	G1 & G2 T1 to T6	EP3 P2c	G1 & G2 T1 to T6	EP4b P-3b
29	G1 & G2 T1 to T7	EP4a P2d	G1 & G2 T1 to T6	EP4b P-3b



KEY PLAN



PLAN

GIRDER LENGTH & END CONDITION

Not to scale

Notes:

1. See Deck Framing Plans for Girder Mark Nos.
2. See Sh. T-11 & T-12 for Girder Types & Details.

LEGEND

(E) = Expansion end of girder
(H) = Hinge end of girder
(R) = One set of Hinge restrainers locations

NOTES

1. Girder lengths are measured along ℄ of girders out to out in plan. Lengths shown in ( )
2. All girders are parallel unless designated as flared.

REFERENCE DRAWINGS

1. Prestressed Girder Details - Sh. T-11 & 12
2. Beams "A" & "B" ---------- Sh. T-12
3. Hinge Restrainers -------- Sh. T-10
4. Deck Drain Details ------- Sh. SD-8 & 9
5. Deck Drain Locations ------ Sh. S-3 to 6
6. Slab Reinforcing Schedule ---- Sh. S-59
7. Deck Slab Camber Schedule --- Sh. S-55

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

Michael Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

PARTIAL DECK FRAMING PLAN

KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

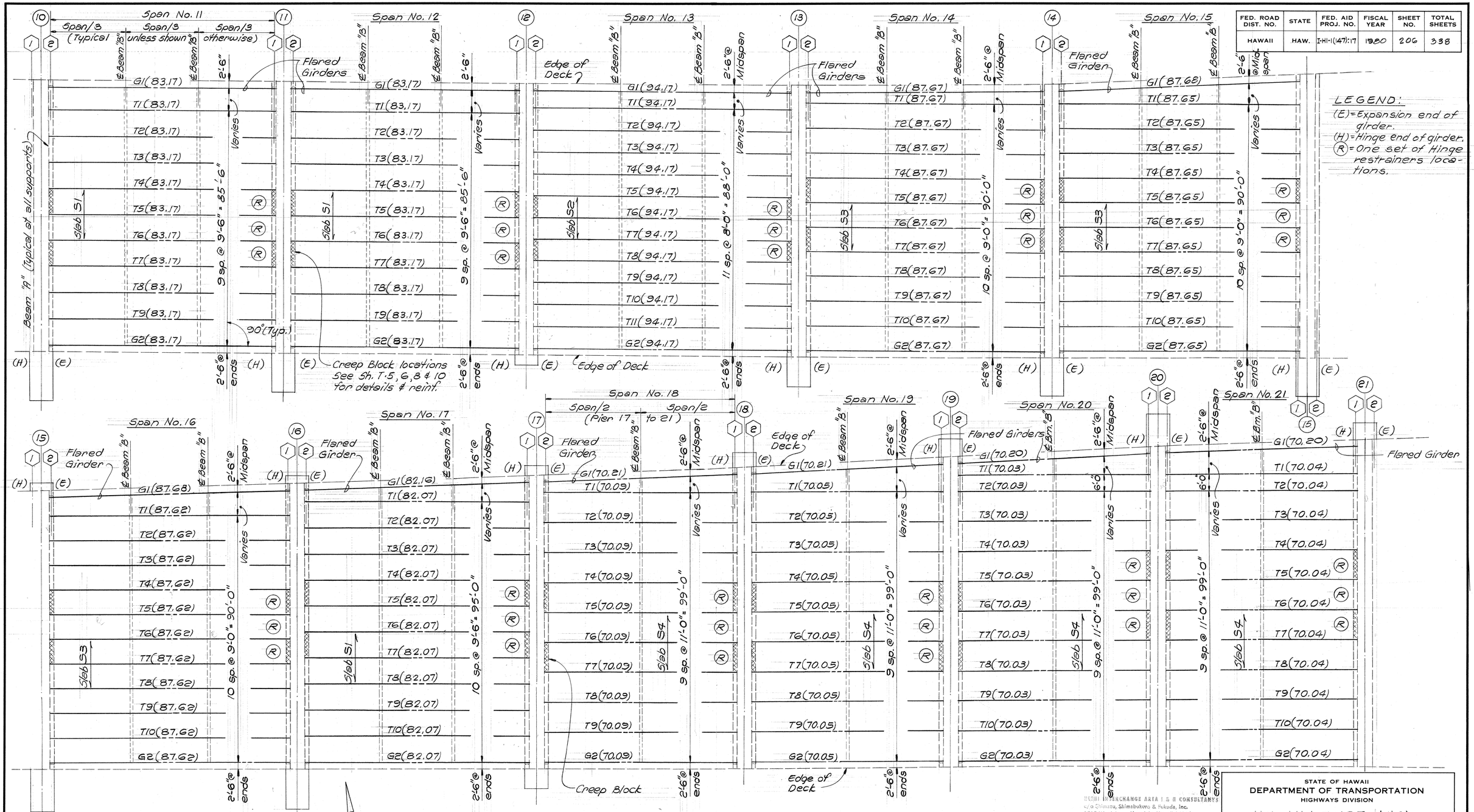
Scale: 1/16" = 1'-0" Date: April 2, 1979

SHEET No. 651 OF 60 SHEETS

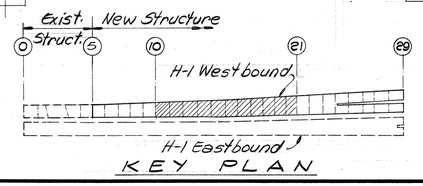
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

PRINTED ON NO. 1000N CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	206	338



LEGEND:
(E)=Expansion end of girder.
(H)=Hinge end of girder.
(R)=One set of Hinge restrainers locations.



KEY PLAN

PARTIAL DECK FRAMING PLAN

Scale: 1/16" = 1'-0"

NOTE: See notes on Sh. S-51

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

KEEHI INTERCHANGE AREA I, II & III CONSULTANTS
c/o Ohmatsu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL DECK FRAMING PLAN
PIER 10 TO PIER 21

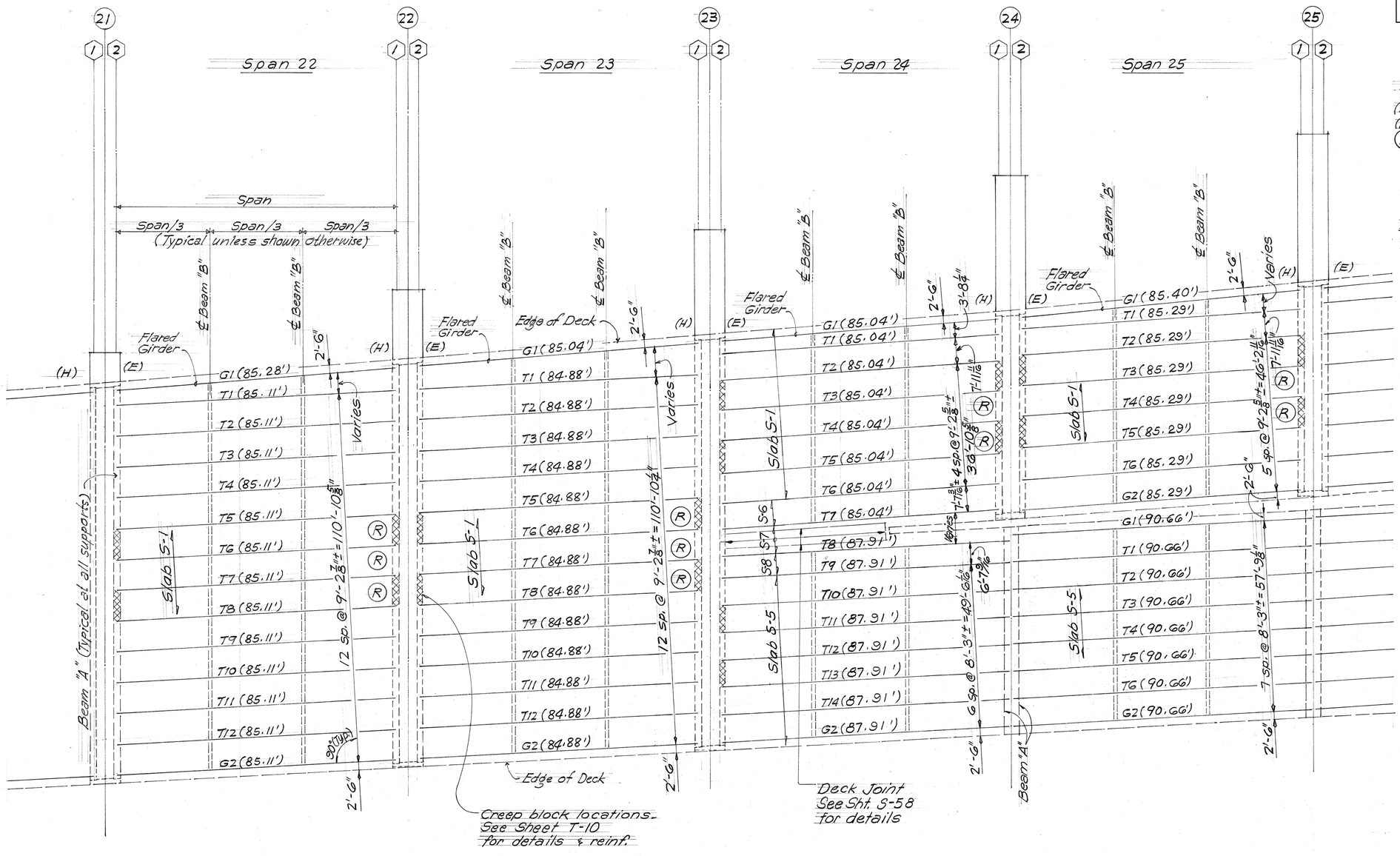
KEEHI INTERCHANGE
F.A.I. PROJ. No. I-HI-1(147):17

Scale: 1/16" = 1'-0" Date: April 2, 1979

SHEET No. 552 OF 60 SHEETS

PRINTED ON NO. 100H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	207	338

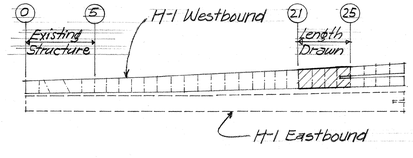


LEGEND:

(E) = Expansion end of Girder
(H) = Hinge end of Girder
(R) = One set of Hinge Restrainer location.

NOTES:

See Sht. S-51 for Notes.



KEY PLAN

True North

PARTIAL DECK FRAMING PLAN

Scale: 1/16" = 1'-0"

ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
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NOTE BOOK
No.
DATE

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. THAI
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL DECK FRAMING PLAN
PIER 21 TO 25

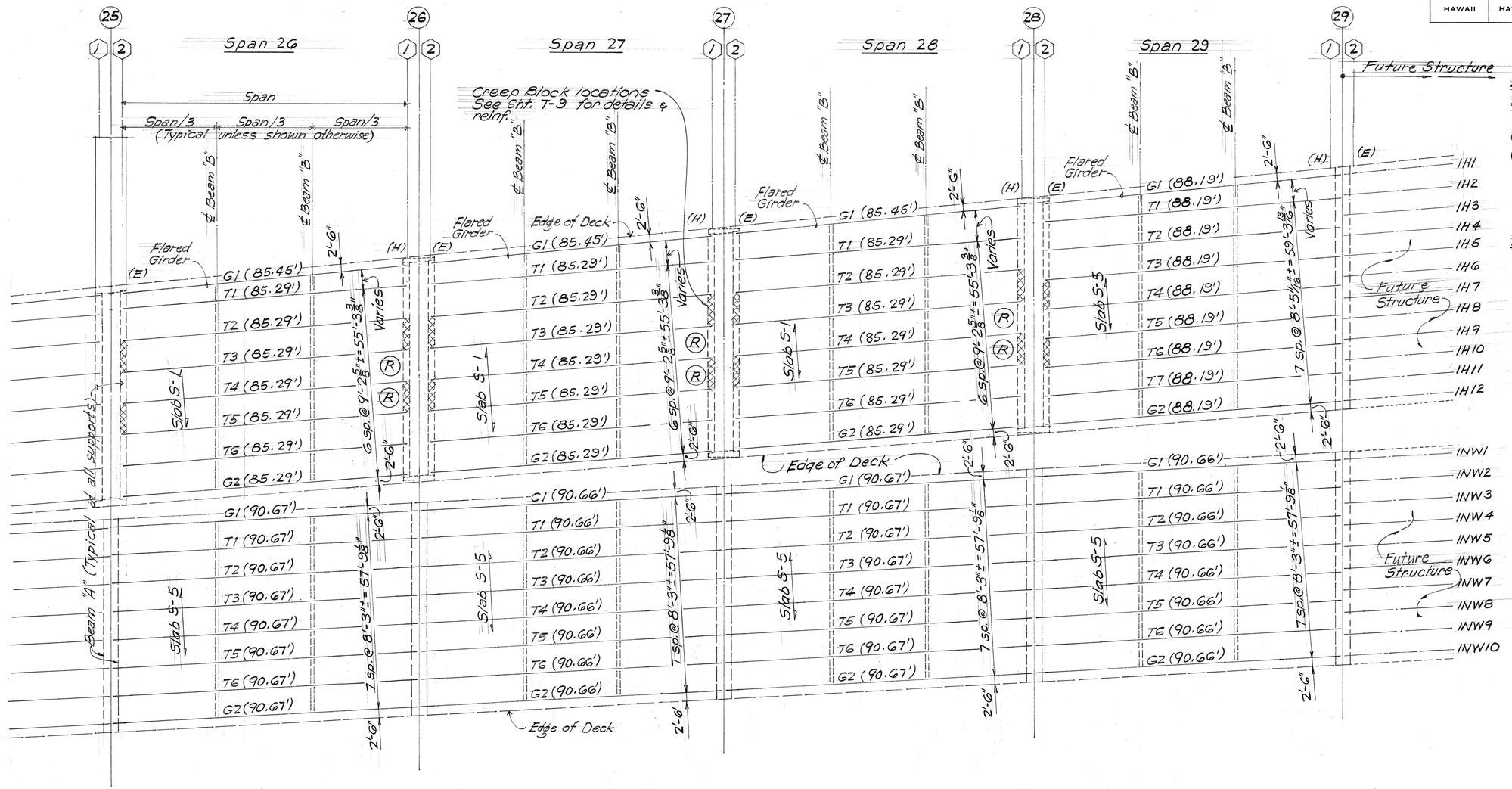
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/16"=1'-0" Date: 4/2/79

SHEET No. S-53 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	208	338



LEGEND:

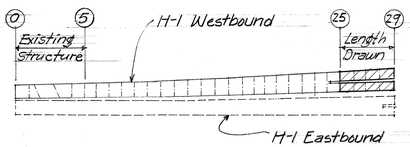
(E) = Expansion end of girder

(H) = Hinge end of girder

Ⓡ = One set of Hinge Restrainer location.

NOTES:

See Sht. S-51 for Notes.



KEY PLAN

True North

PARTIAL DECK FRAMING PLAN

Scale: 1/16" = 1'-0"

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1210 Ward Ave. • Honolulu, Hawaii 96814

REGISTERED PROFESSIONAL ENGINEER No. 868 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
PARTIAL DECK FRAMING PLAN
PIER 25 TO 29

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: 1/16"=1'-0". Date: 4/2/79

SHEET NO. S-54 OF 60 SHEETS

ORIGINAL PLAN
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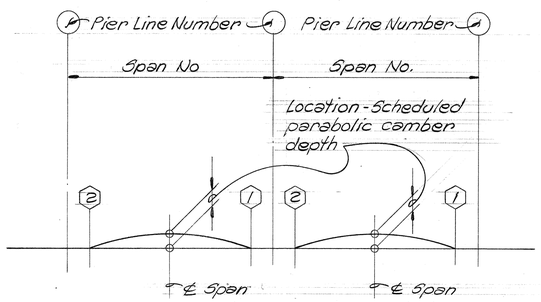
DECK SLAB CAMBER SCHEDULE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	209	338

LOCATION / GIRDERS	(5) SPAN NO. 6	(6) SPAN NO. 7	(7) SPAN NO. 8	(8) SPAN NO. 9	(9) SPAN NO. 10	(10) SPAN NO. 11	(11) SPAN NO. 12	(12) SPAN NO. 13	(13) SPAN NO. 14	(14) SPAN NO. 15	(15) SPAN NO. 16	(16) SPAN NO. 17	(17) SPAN NO. 18	(18) SPAN NO. 19	(19) SPAN NO. 20	(20) SPAN NO. 21	(21) SPAN NO. 22	(22) SPAN NO. 23	(23) SPAN NO. 24		(24) SPAN NO. 25		(25) SPAN NO. 26		(26) SPAN NO. 27		(27) SPAN NO. 28		(28) SPAN NO. 29	
	H-1 WESTBOUND							H-1 WESTBOUND - NIMITZ CONN. WESTBOUND											WESTBOUND		WESTBOUND		WESTBOUND		WESTBOUND		WESTBOUND		WESTBOUND	
																			H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.	H-1	N.C.
G1	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	3/8"	3/8"	3/8"	3/8"	5/8"	3/4"	1/2"		1/2"	7/8"	5/8"	7/8"	5/8"	7/8"	3/4"	7/8"	3/4"	7/8"
T1	1"	1"	7/8"	1"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	3/4"	1"	1"	1"	1/2"	1/2"	3/8"	1/2"	3/4"	7/8"	5/8"		5/8"	1"	3/4"	1"	7/8"	1"	7/8"	1"	7/8"	1"
T2	1 1/8"	1 1/8"	1 1/8"	1 1/8"					1"			1 1/8"			1/2"		1"	1"	1"		1"		1"		1"		1"		1"	
T3																														
T4																														
T5																			1"											
T6																			7/8"		1"	1"	1"	1"	1"	1"	1"	1"		1"
T7																			7/8"										1"	
T8																			7/8"											
T9	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"	1 1/8"						1/2"	1/2"					7/8"											
T10									1"	1"	1"	1 1/8"			1/2"	1/2"														
T11								1 1/8"																						
T12																	1"	1"												
T13																			7/8"											
T14																														
G2	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1"	7/8"	7/8"	7/8"	7/8"	3/8"	3/8"	3/8"	3/8"	3/4"	3/4"	3/4"		3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"



TYPICAL DECK SLAB CAMBER DIAGRAM

(Compensation for deflection of girder due to wet weight of concrete slab.)

ORIGINAL PLAN
SURVEY PLOTTED BY
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KEEHI INTERCHANGE AREA I & H CONSULTANTS
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1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

DECK SLAB CAMBER SCHEDULE

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

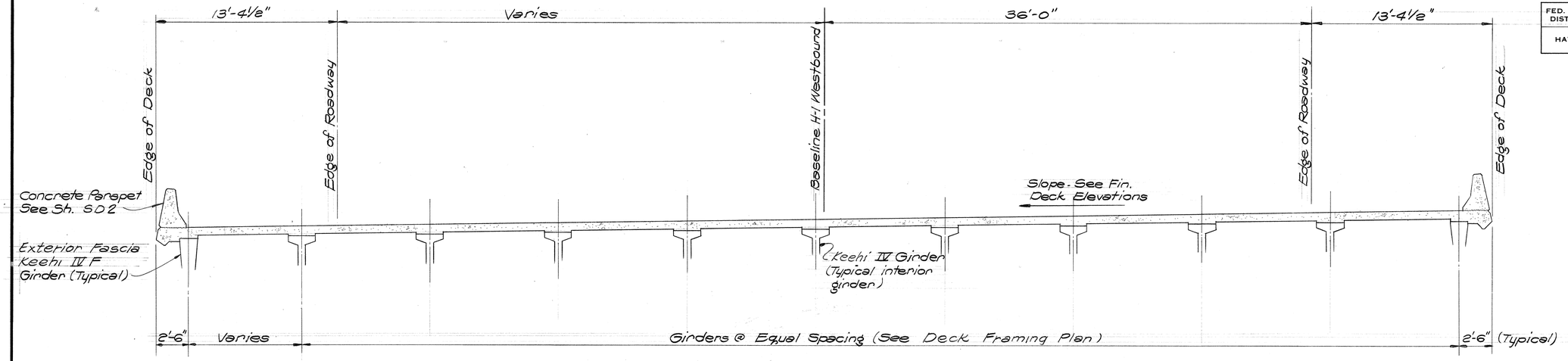
Scale: No Scale Date: April 2, 1979

SHEET NO. 555 OF 60 SHEETS

209

PRINTED ON NO. 1000H CLEARPRINT

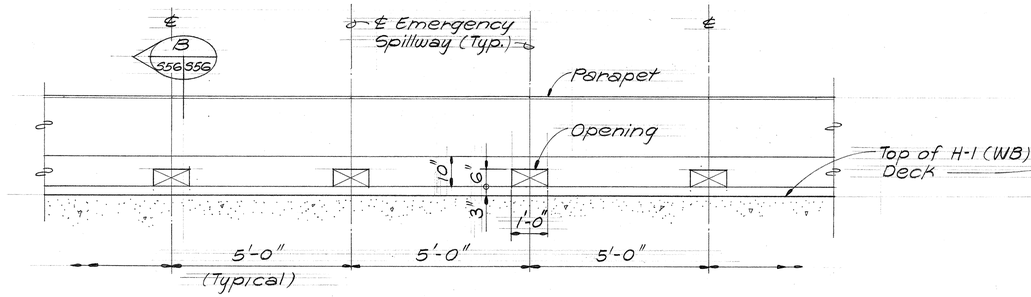
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	210	338



H-1 VIADUCT DECK SECTION

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

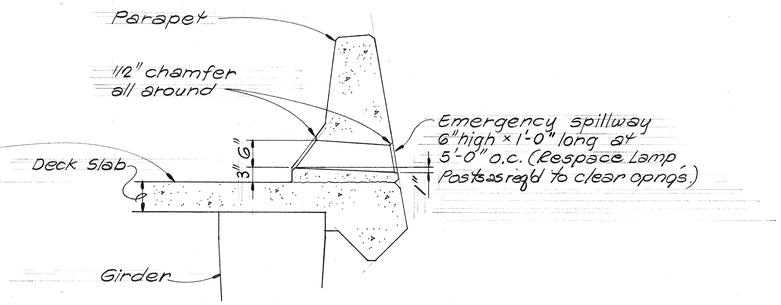
(℄ H-1 WESTBOUND STA. 214+42.47 TO STA. 230+20.47)



LOW POINT EMERGENCY SPILLWAY DETAIL

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

1 / 54 556



SECTION

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

B / 556 556

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ORIGINAL PLAN
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1210 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

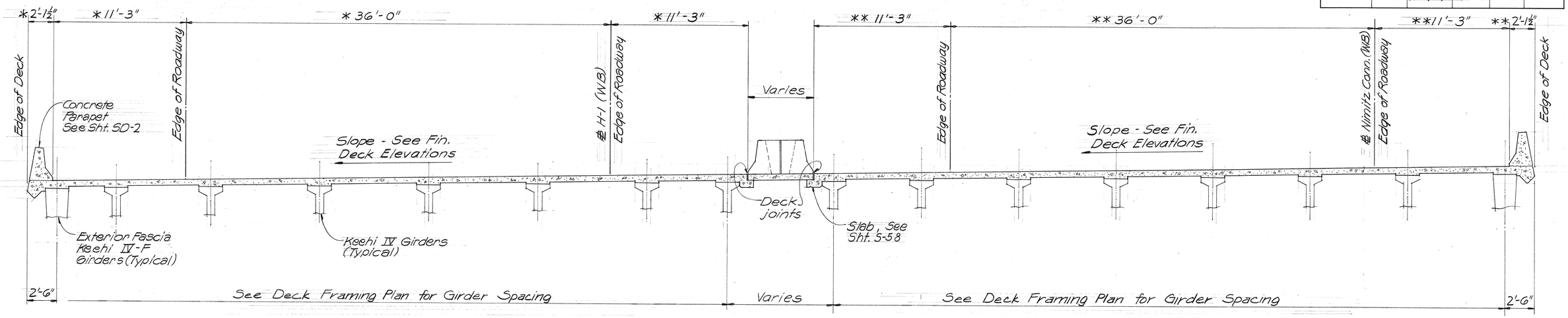
TYPICAL DECK CROSS SECTION

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: April 2, 1979

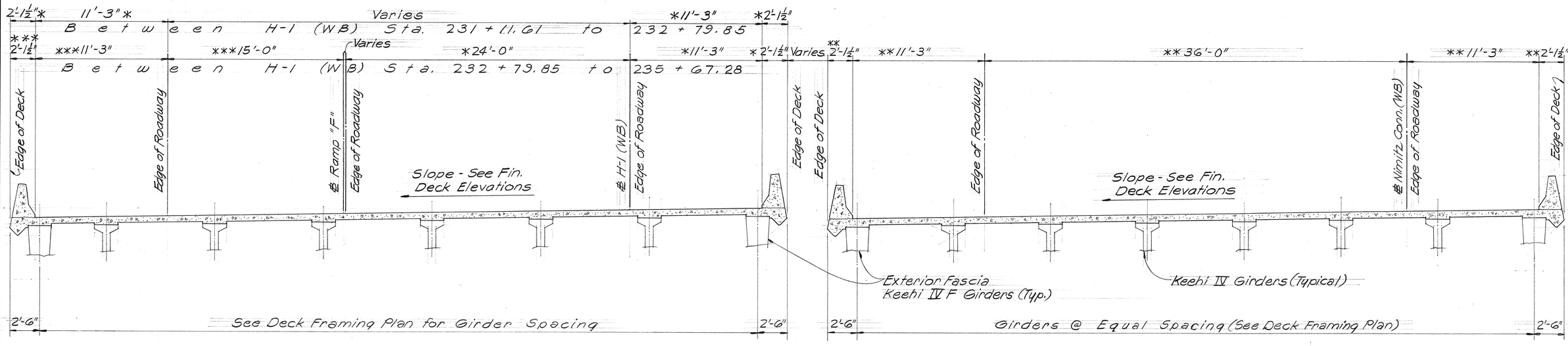
SHEET NO. 556 OF 60 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	211	338



H-1 VIADUCT DECK SECTION (A S-5 S-57) (℄ H-1 WEST BOUND STA. 230+24.89 TO 230+72.66)

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



H-1 VIADUCT DECK SECTION (B S-5 S-57 5-6) (℄ H-1 WEST BOUND STA. 231+11.61 TO 235+67.28)

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

NOTES:

* Denotes dimensions are perpendicular to ℄ H-1 (WB).
** Denotes dimensions are perpendicular to ℄ Nimitz Conn. (WB).
*** Denotes dimensions are perpendicular to ℄ Ramp "F".

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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NOTE BOOK	TRACED BY	
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1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

This work was prepared by me or under my supervision

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)
DECK SECTIONS

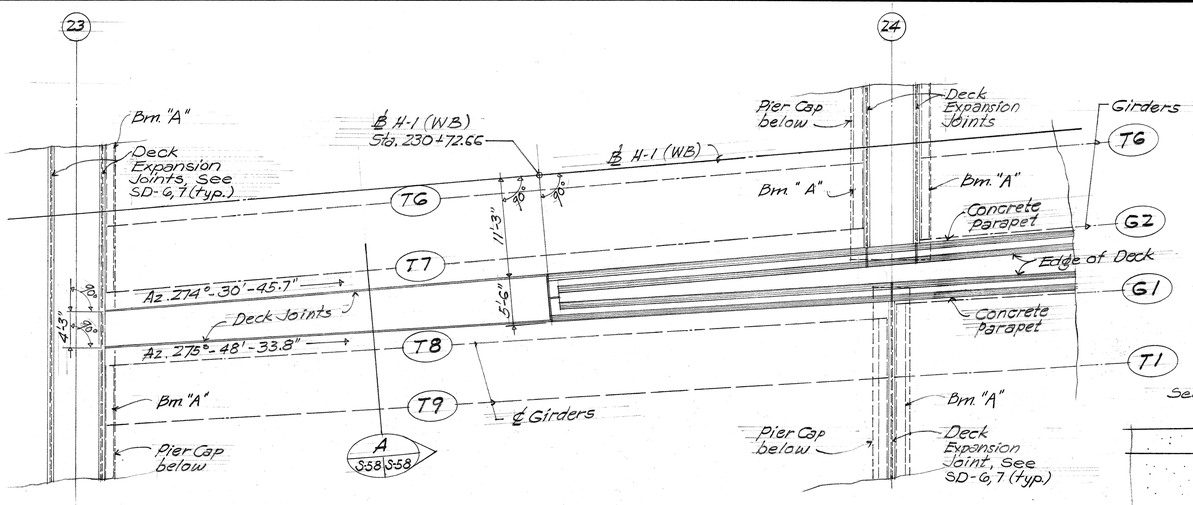
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As shown Date: 4/2/79

SHEET NO. S-57 OF 60 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

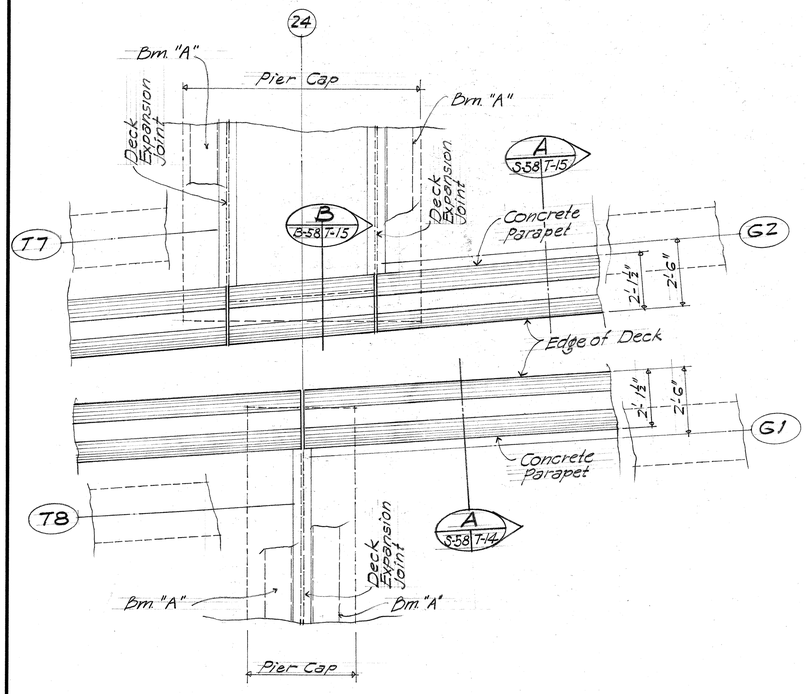
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147)17	1980	212	338



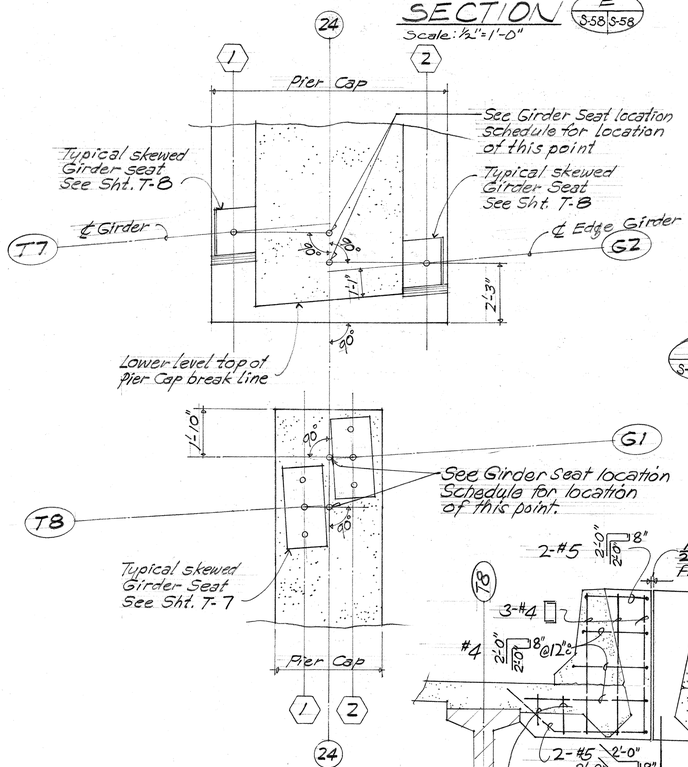
PARTIAL DECK PLAN BETWEEN PIERS 23 & 24

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

1 S-5 S-58 — S-6



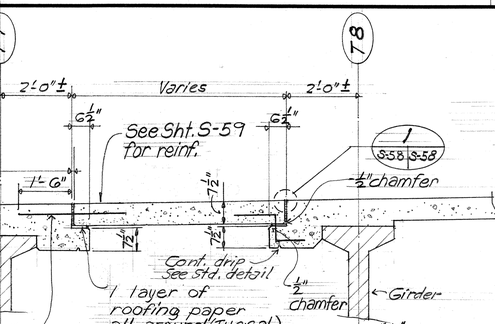
AT CONCRETE PARAPET



AT PIER SHELF

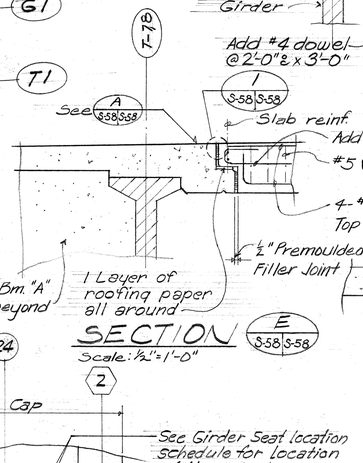
EDGE OF STRUCTURE PLANS @ PIER 24

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



SECTION

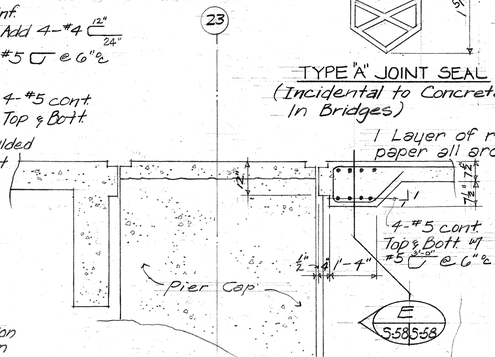
Scale: 1/2" = 1'-0"



SECTION

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

E S-58 S-58



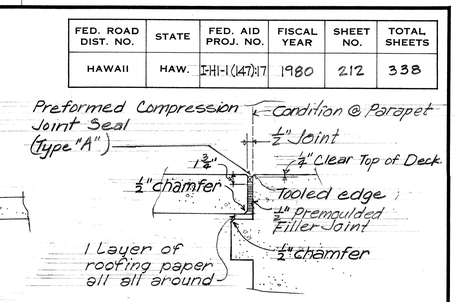
SECTION

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

B S-58 S-58

DECK JOINT PLAN

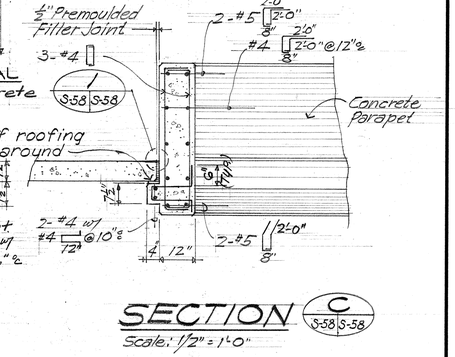
Scale: 3/8" = 1'-0"



DETAIL

No Scale

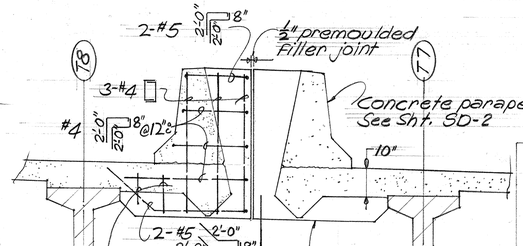
1 S-58 S-58



SECTION

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

C S-58 S-58



SECTION

Scale: 1½" = 1'-0"

D S-58 S-58

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c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. • Honolulu, Hawaii 96814

REUBEN Y. F. TYAU
REGISTERED PROFESSIONAL ENGINEER
No. 868
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

EDGE OF STRUCTURE DETAILS BETWEEN PIERS 23 & 24

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147)17

Scale: As shown Date: 4/2/79

SHEET NO. S-58 OF 60 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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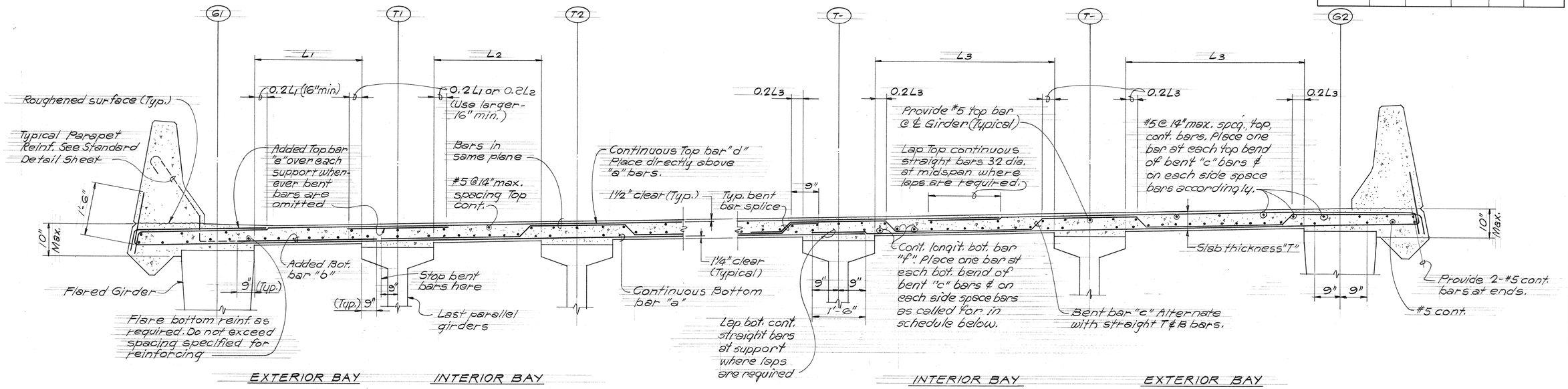
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	213	338



EXTERIOR BAY INTERIOR BAY

AT FLARED GIRDERS

(Left side only where occurs)

INTERIOR BAY EXTERIOR BAY

AT PARALLEL GIRDERS

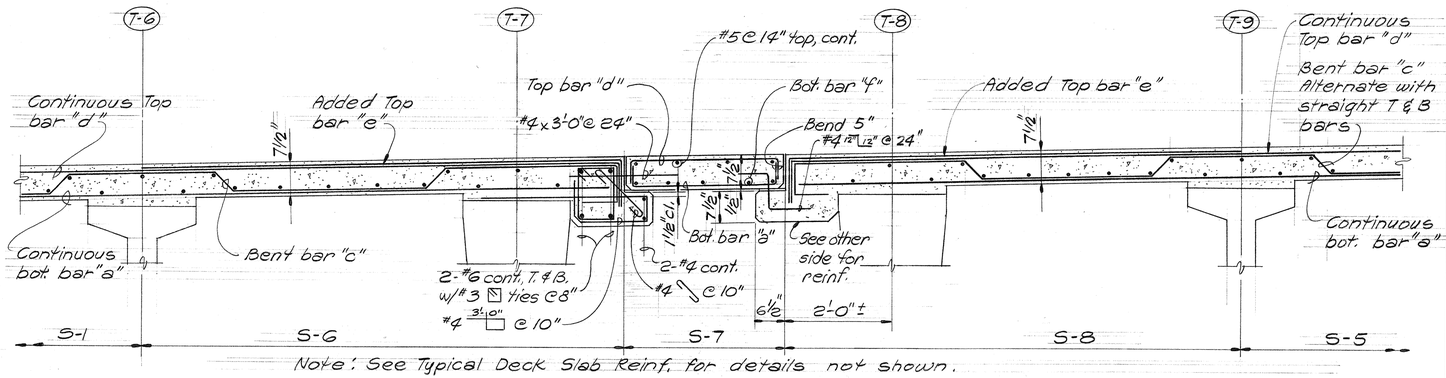
(L_3 = Slab span for typical equal girder spacing, See Deck Framing Plan for locations.)

PARTIAL DECK SECTION SHOWING TYPICAL DECK SLAB REINFORCING

Not to Scale

SLAB REINFORCING SCHEDULE

Slab Mark NO.	Slab Thickness "T"	Main Transverse Reinf. Bottom Bar "a"	Add Bot. Bar "b"	Bent Bar "c"	Top Bar "d"	Add Top Bar "e"	Longi. Reinf. Bot. Distribution bar "f"	Remarks
S-1	7 1/4"	#5 @ 10"	#5 @ 10"	#5 @ 10"	#5 @ 10"	#5 @ 10"	#5 @ 8"	
S-2	6 3/4"	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 8 1/2"	
S-3	7 1/4"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 8 1/2"	
S-4	7 3/4"	#5 @ 9"	#5 @ 9"	#5 @ 9	#5 @ 9"	#5 @ 9"	#5 @ 7"	
S-5	7"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 8 1/2"	
S-6	7 1/2"	#5 @ 10"		#5 @ 10"	#5 @ 10"	#5 @ 10"	#5 @ 8"	
S-7	7 1/2"	#5 @ 5 1/2"			#5 @ 12"		#5 @ 8"	
S-8	7 1/2"	#5 @ 11"		#5 @ 11"	#5 @ 11"	#5 @ 11"	#5 @ 8 1/2"	



Note: See Typical Deck Slab Reinf. for details not shown.

PARTIAL DECK SECTION AT DECK JOINTS BETWEEN PIERS #23 & #24

Not to Scale

NOTES:

1. Splices
   a.) Splice top & bottom bars as required at interior bays only.
   b.) Alternate bars shall be spliced at the same location.
2. Top & bottom main transverse deck slab reinforcing shall be placed normal to girders, See Plan - Girders Skewed to Piers for condition at skewed areas.
3. See Deck Framing Plans for deck slab mark numbers.
4. See Sh. S-60 for deck reinforcing details not shown on this sheet.
5. All deck slab concrete, except diaphragm & parapet, shall be Class BD.

INTERCHANGE AREA 1 & H CONSULTANTS
Parsons, Shimabukuro & Fukuda, Inc.
1164 Ward Ave. • Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision

Michael Matsumoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

SLAB REINFORCING SCHEDULE

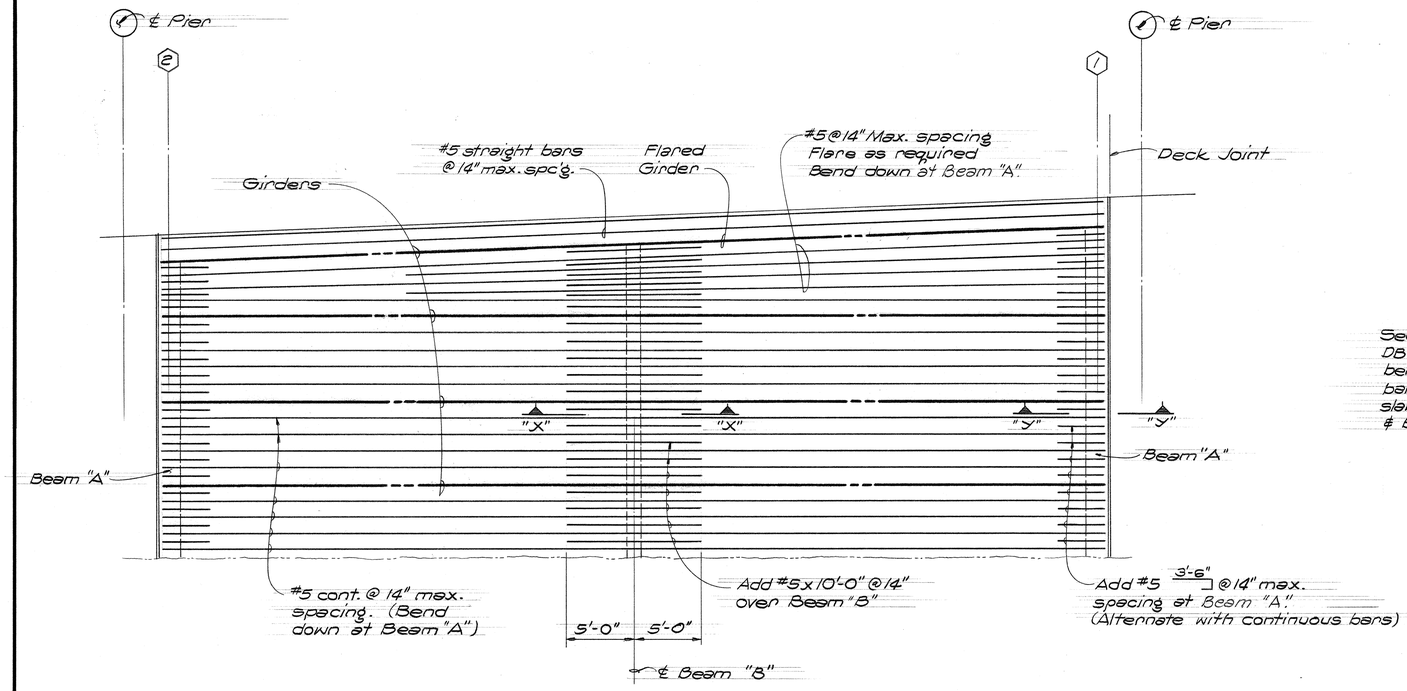
KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

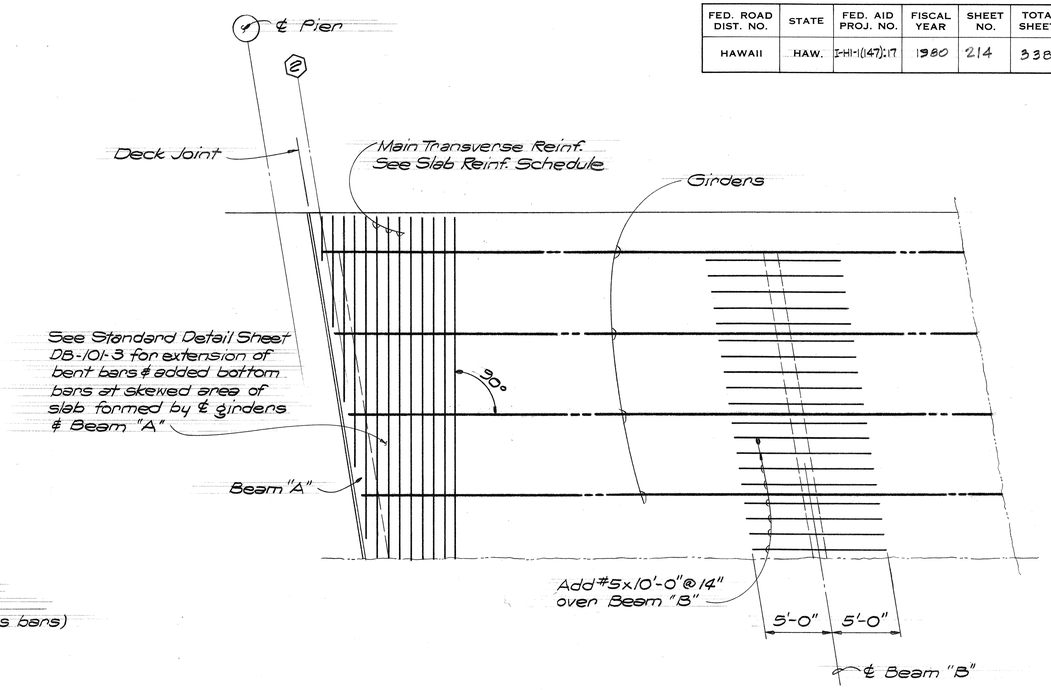
SHEET NO. 559 OF 60 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT



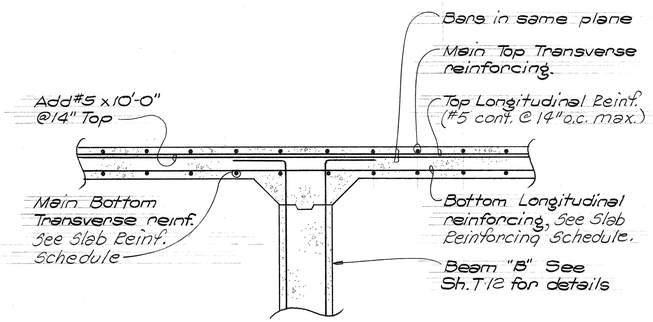
PLAN ~ GIRDERS PERPENDICULAR TO PIERS
(Showing Top Longitudinal reinf. only.)



PLAN ~ GIRDERS SKEWED TO PIERS
(Showing Main Transverse reinf. only. See plan at left for Top Longitudinal reinf.)

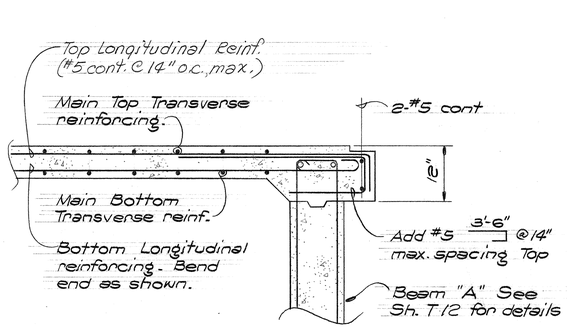
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(147):17	1980	214	338

TYPICAL ARRANGEMENT FOR DECK SLAB REINFORCEMENT
Not to scale



AT BEAM "B"
(Interior Diaphragms)

SECTION "X"-"X"
Not to scale



AT BEAM "A"
(End Beam)

SECTION "Y"-"Y"
Not to scale

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

KEEHI INTERCHANGE AREA I & II CONSULTANTS
c/o Shimazu, Shimabukuro & Fukuda, Inc.
1210 Ward Ave. · Honolulu, Hawaii 96814

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

This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

H-1 VIADUCT (WB)

TYPICAL DECK SLAB REINF. ARRANGEMENT

KEEHI INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(147):17

Scale: As Shown Date: 4/2/79

SHEET NO. 560 OF 60 SHEETS

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