

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	363	405

ITEM NO. 682.1000 - ASSEMBLY AND/OR INSTALLATION OF STATE-FURNISHED FARADAY SHIELD WIRES AND
FARADAY SHIELD SUPPORT STRUCTURES AT HAIKU APPROACH (103 EACH)

INBOUND LOCATION	SUPPORT STRUCTURE TYPE	VERTICAL POSTS	HORIZONTAL STRUT	BOX TRUSS	LCD HORIZONTAL STRUT	REMARKS
		INSTALL ONLY	INSTALL ONLY	INSTALL ONLY		
656+52.67	FARADAY	o	N/A	N/A	N/A	HAIKU IB PORTAL BLDG.
257+51.00	FARADAY	o	o	N/A	N/A	
258+66.00	FARADAY	FAIP NO. I-H3-1(66)	o	N/A	FAIP NO. I-H3-1(66)	
259+70.00	FARADAY	o	o	N/A	N/A	
260+70.00	FARADAY	o	o	N/A	N/A	
261+70.00	FARADAY	o	o	N/A	N/A	
262+58.75	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
263+49.50	FARADAY	o	N/A	o *	N/A	* SEE NOTE 5.
264+49.10	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
265+34.70	FARADAY	o	o	N/A	N/A	
266+26.05	FARADAY	o	o	N/A	N/A	
267+19.55	FARADAY	o	o	N/A	N/A	
268+09.70	FARADAY	o	o	N/A	N/A	
269+07.04	FARADAY	o	o	N/A	N/A	
270+04.70	FARADAY	o	o	N/A	N/A	
271+05.50	FARADAY	o	o	N/A	N/A	
271+97.04	FARADAY	o	o	N/A	N/A	
272+84.70	FARADAY	o	o	N/A	N/A	
273+73.70	FARADAY	FAIP NO. I-H3-1(66)	o	N/A	N/A	
274+77.04	FARADAY	o	o	N/A	N/A	
275+74.70	FARADAY	o	o	N/A	N/A	
276+65.77	FARADAY	o	o	N/A	N/A	
277+57.34	FARADAY	o	o	N/A	N/A	
278+54.70	FARADAY	o	o	N/A	N/A	
279+45.53	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
280+37.04	FARADAY	o	o	N/A	N/A	
281+34.70	FARADAY	o	o	N/A	N/A	
282+25.53	FARADAY	o	o	N/A	N/A	
283+17.04	FARADAY	o	o	N/A	N/A	
284+14.70	FARADAY	o	o	N/A	N/A	
285+05.53	FARADAY	o	o	N/A	N/A	
285+97.07	FARADAY	o	o	N/A	N/A	
286+94.70	FARADAY	o	o	N/A	N/A	
287+85.53	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
288+87.11	FARADAY	o	o	N/A	N/A	
289+84.70	FARADAY	o	o	N/A	N/A	
290+75.53	FARADAY	FAIP NO. I-H3-1(66)	o	N/A	N/A	
291+67.15	FARADAY	o	o	N/A	N/A	
292+63.70	FARADAY	o	o	N/A	N/A	
293+63.70	FARADAY	o	o	N/A	N/A	
294+57.19	FARADAY	o	o	N/A	N/A	
295+53.70	FARADAY	o	o	N/A	N/A	
296+53.70	FARADAY	o	o	N/A	N/A	
297+57.20	FARADAY	o	o	N/A	N/A	
298+54.70	FARADAY	o	o	N/A	N/A	
299+45.53	FARADAY	o	o	N/A	N/A	
300+37.20	FARADAY	o	o	N/A	N/A	
301+34.70	FARADAY	o	o	N/A	N/A	
302+35.53	FARADAY	o	o	N/A	N/A	
303+37.20	FARADAY	o	o	N/A	N/A	
304+34.70	FARADAY	o	o	N/A	N/A	
305+35.53	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	N.I.C. (FUTURE)	N/A	END OF FARADAY SHIELD
TOTAL 52 SUPPORT STRUCTURES						

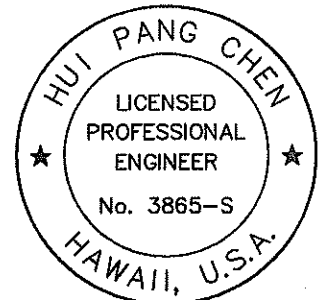
OUTBOUND LOCATION	SUPPORT STRUCTURE TYPE	VERTICAL POSTS	HORIZONTAL STRUT	BOX TRUSS	LCD HORIZONTAL STRUT	REMARKS
		INSTALL ONLY	INSTALL ONLY	INSTALL ONLY		
657+42.67	FARADAY	o	N/A	N/A	N/A	HAIKU OB PORTAL BLDG.
258+40.00	FARADAY	o	o	N/A	N/A	
259+40.00	FARADAY	FAIP NO. I-H3-1(66)	o	N/A	N/A	
260+40.00	FARADAY	o	o	N/A	N/A	
261+40.00	FARADAY	o *	o (2) NOTE 7	N/A	FAIP NO. I-H3-1(66)	* SEE NOTE 6.
262+41.99	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
263+28.50	FARADAY	o	N/A	o *	N/A	* SEE NOTE 5 AND 9
264+25.61	FARADAY	o	o (2) NOTE 8	N/A	N/A	
265+13.11	FARADAY	o	o	N/A	N/A	
266+07.62	FARADAY	o	o	N/A	N/A	
266+97.62	FARADAY	o	o	N/A	N/A	
267+91.28	FARADAY	o	o	N/A	N/A	
268+87.62	FARADAY	o	o	N/A	N/A	
269+83.28	FARADAY	o	o	N/A	N/A	
270+83.58	FARADAY	o	o	N/A	N/A	
271+76.62	FARADAY	o	o	N/A	N/A	
272+69.28	FARADAY	o	o	N/A	N/A	
273+70.11	SIGN/FARADAY	FAIP NO. I-H3-1(66)	o	FAIP NO. I-H3-1(66)	N/A	
274+61.54	FARADAY	o	o	N/A	N/A	
275+59.28	FARADAY	o	o	N/A	N/A	
276+48.28	FARADAY	o	o	N/A	N/A	
277+41.50	FARADAY	o	o	N/A	N/A	
278+27.50	FARADAY	o	o	N/A	N/A	
278+22.28	FARADAY	o	o	N/A	N/A	
280+21.49	FARADAY	o	o	N/A	N/A	
281+17.28	FARADAY	o	o	N/A	N/A	
282+04.28	FARADAY	o	o	N/A	N/A	
282+92.49	FARADAY	o	o	N/A	N/A	
283+84.49	FARADAY	o	o	N/A	N/A	
284+78.28	FARADAY	o	o	N/A	N/A	
285+74.49	FARADAY	o	o	N/A	N/A	
286+63.49	FARADAY	o	o	N/A	N/A	
287+59.28	FARADAY	o	o	N/A	N/A	
288+48.54	FARADAY	o	o	N/A	N/A	
289+42.54	FARADAY	o	o	N/A	N/A	
290+34.28	FARADAY	o	o	N/A	N/A	
291+27.62	FARADAY	o	o	N/A	N/A	
292+16.62	FARADAY	o	o	N/A	N/A	
293+14.28	FARADAY	o	o	N/A	N/A	
294+03.28	FARADAY	o	o	N/A	N/A	
294+96.71	FARADAY	o	o	N/A	N/A	
295+93.28	FARADAY	o	o	N/A	N/A	
296+85.28	FARADAY	o	o	N/A	N/A	
297+66.79	FARADAY	o	o	N/A	N/A	
298+62.28	FARADAY	o	o	N/A	N/A	
299+57.28	FARADAY	o	o	N/A	N/A	
300+56.82	FARADAY	o	o	N/A	N/A	
301+53.28	FARADAY	o	o	N/A	N/A	
302+45.28	FARADAY	o	o	N/A	N/A	
303+36.82	FARADAY	o	o	N/A	N/A	
304+39.28	FARADAY	o	o	N/A	N/A	
305+40.11	FARADAY	o	o	N/A	N/A	END OF FARADAY SHIELD
TOTAL 51 SUPPORT STRUCTURES*						
*SEE NOTE 9						

NOTES:

- "FAIP NO. I-H3-1(66)" DENOTES ITEM IS COMPLETE AND IN PLACE.
"o" DENOTES ITEM TO BE FURNISHED AND/OR INSTALLED BY THIS CONTRACT.
"N/A" DENOTES ITEM IS NOT APPLICABLE.
"N.I.C." DENOTES ITEM IS NOT IN THIS CONTRACT.
- FAIP NO. I-H3-1(66) PLANS (EB AND SS SHEETS) INCLUDED ARE INTENDED FOR THE CONTRACTOR'S REFERENCE AND ARE FOR INSTALLATION PURPOSES ONLY. THE CONTRACTOR SHALL VERIFY NECESSARY DIMENSIONS AND CONDITIONS IN THE FIELD AND NOTIFY THE ENGINEER OF DEFECIENCIES OR PROBLEMS PRIOR TO COMMENCEMENT OF WORK.
- FOR INSTALLATION OF FARADAY SHIELD STRUCTURES, SEE SPECIAL PROVISIONS, SECTION 682-FARADAY SHIELD INSTALLATION.

- FOR INSTALLATION OF FARADAY SHIELD WIRES, SEE SPECIAL PROVISIONS SECTION 682-FARADAY SHIELD INSTALLATION.
- STATE-FURNISHED BOX TRUSS AT STATION IB 263+49.50/OB 263+28.50 MUST BE ASSEMBLED PRIOR TO INSTALLATION; SEE SPECIAL PROVISIONS SECTION 682-FARADAY SHIELD INSTALLATION.
- INSTALL ONE VERTICAL POST AT SERVICE ROAD AT O.B. STA. 261+40.00. TWO VERTICAL POSTS ARE COMPLETE AND IN PLACE.
- INSTALL ONE HORIZONTAL STRUT OVER ROADWAY AND ONE OVER SERVICE ROAD AT O.B. STA. 261+40.00.

- INSTALL ONE HORIZONTAL STRUT OVER ROADWAY AND ONE BETWEEN I.B. AND O.B. FRAMES AT O.B. STA. 264+25.61.
- THE BOX TRUSS SPANS FROM I.B. STATION 263+49.50 TO O.B. STATION 263+28.50.
- AT EACH TYPICAL FARADAY SHIELD LOCATION, INSTALL TWO VERTICAL POSTS AND ONE HORIZONTAL STRUT, UNLESS NOTED OTHERWISE.
- FOR DETAILS OR DESCRIPTIONS OF THE VARIOUS VERTICAL POST BASE CONNECTIONS AND HORIZONTAL SPLICES, SEE SPECIAL PROVISIONS AND SUPPORT STRUCTURES REFERENCE PLANS.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Hui Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**FARADAY SHIELD SUPPORT
STRUCTURES AT
HAIKU APPROACH**

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: NONE DATE: JANUARY 1996
SHEET NO. FH1 OF 5 SHEETS

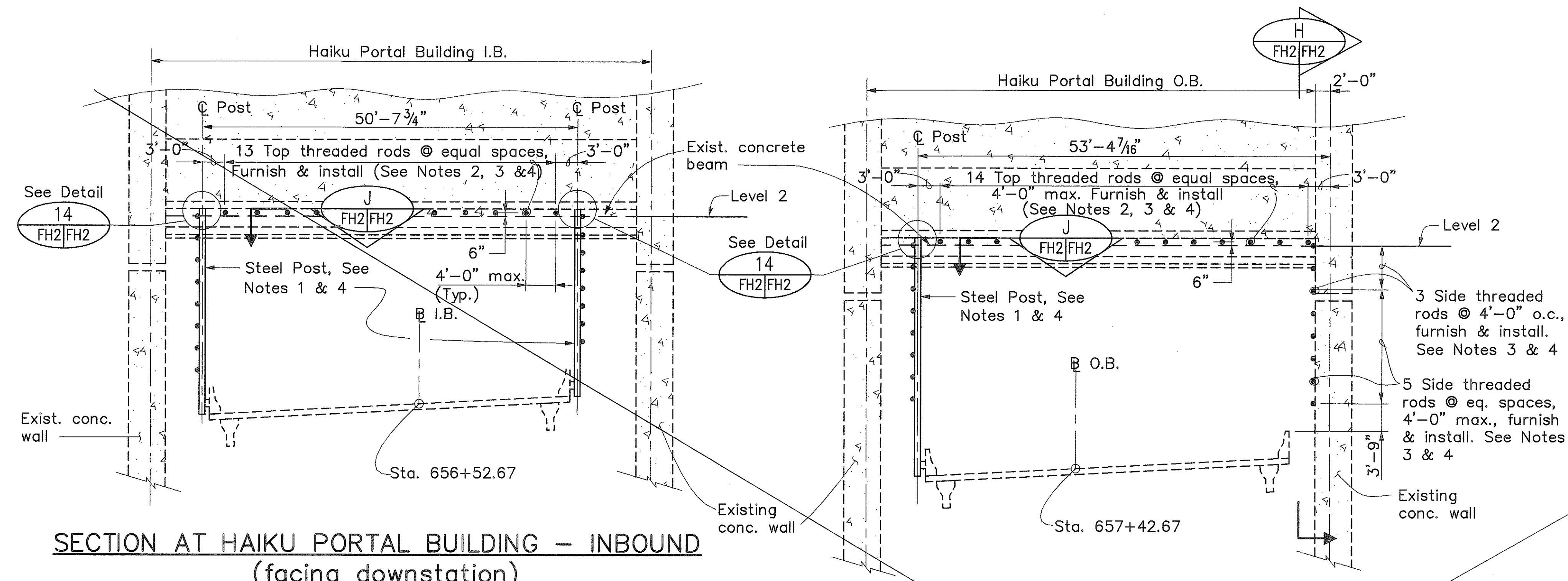
"AS-BUILT"

363

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

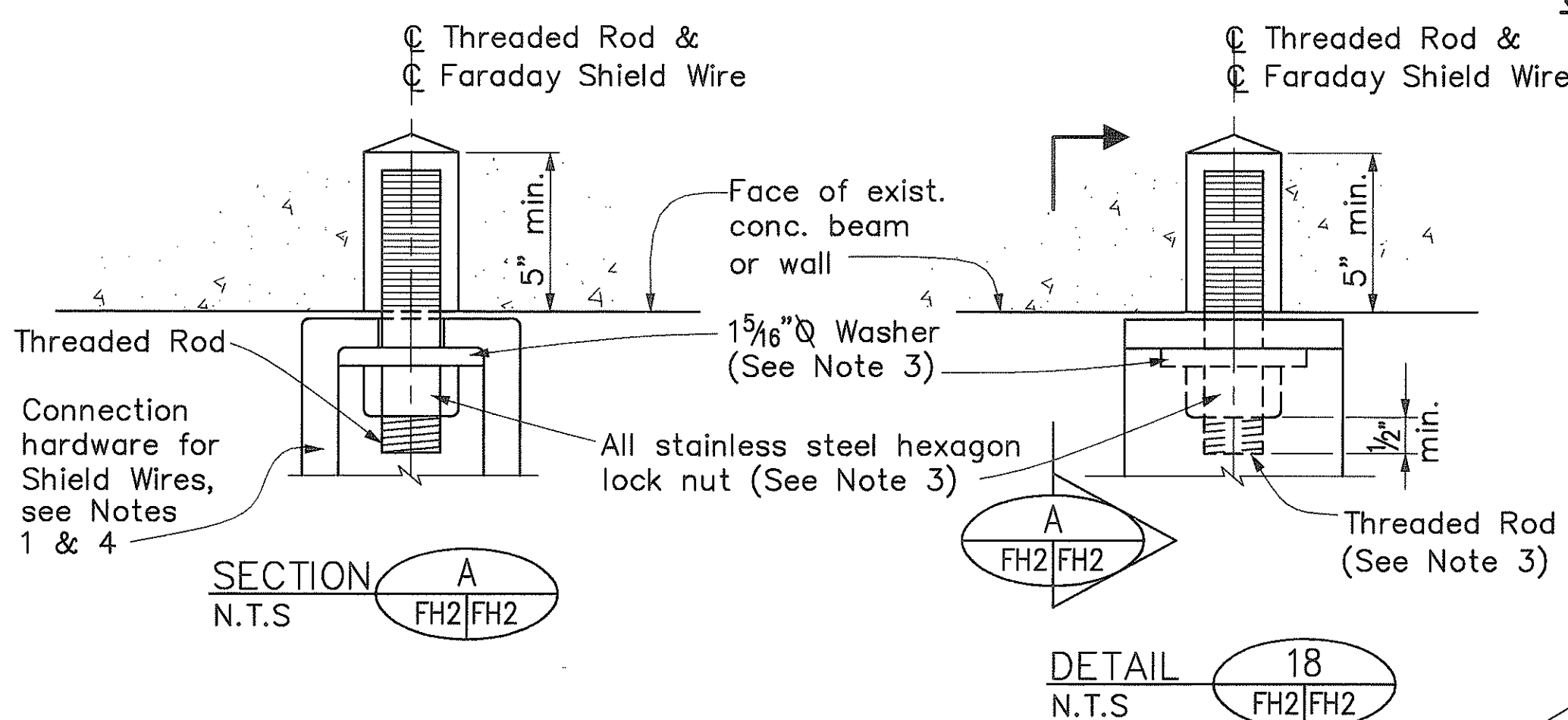
CAD by J. Minura, 95-92

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	364	405



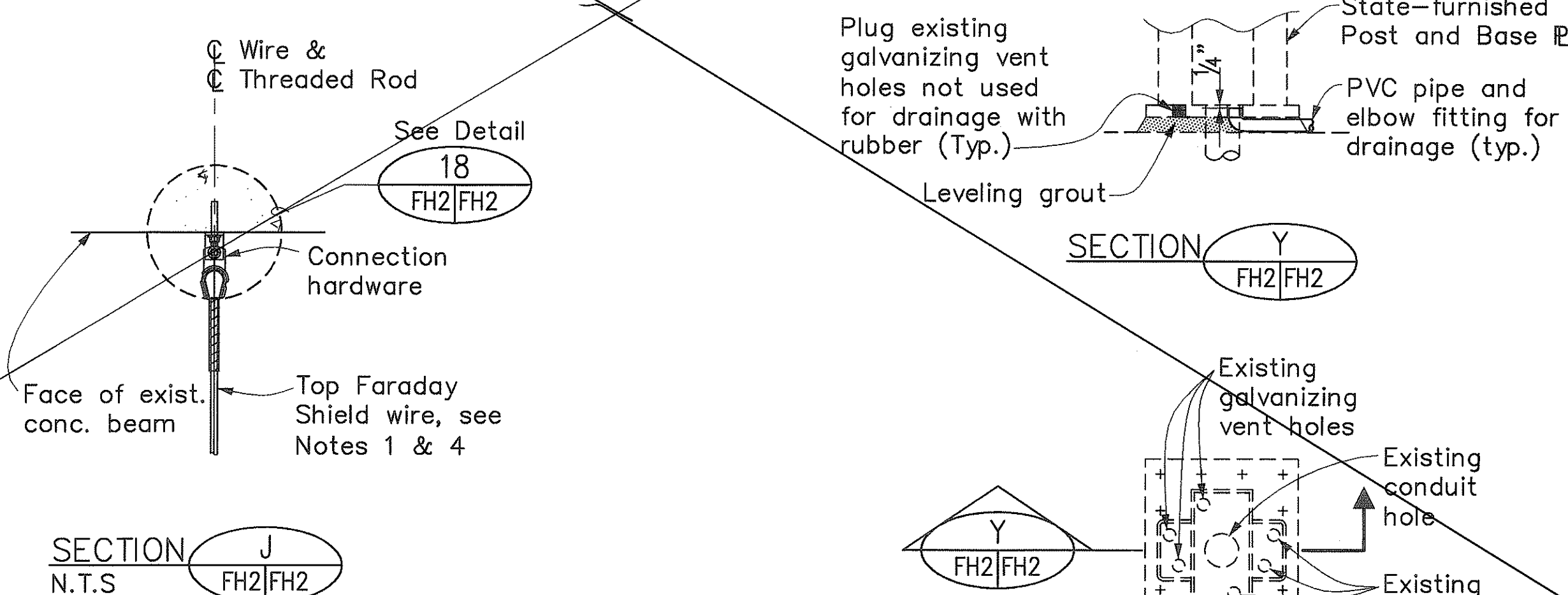
TOP CONNECTION DETAIL FOR TUBING
POST AT TUNNEL PORTAL FACE

SCALE: $1 \frac{1}{2}'' = 1'-0''$

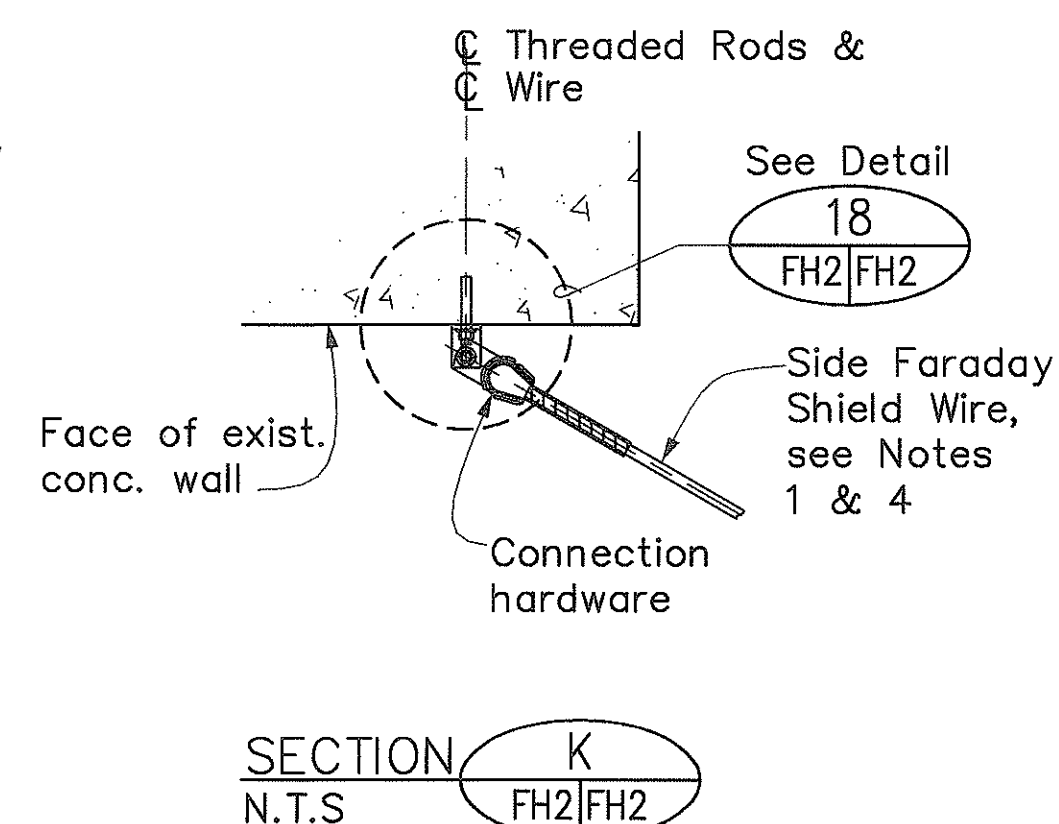
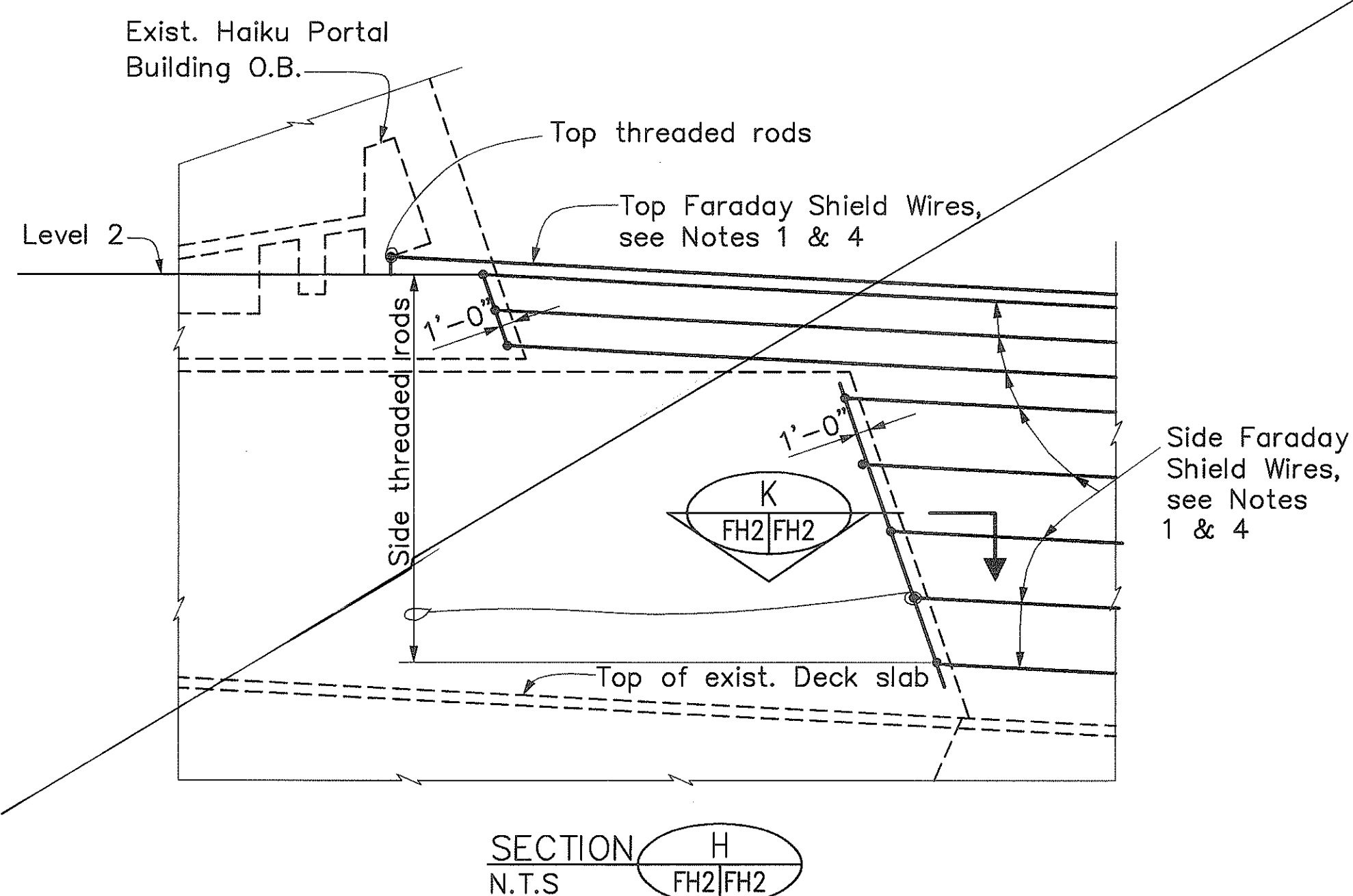


SECTION AT HAIKU PORTAL BUILDING – OUTBOUND
(facing downstation)

~~SCALE: 1" = 10'-0"~~



DETAIL—DRAINAGE PVC PIPE FROM POST
AT I.B. STA. 263+49.50/O.B. STA. 263+28.50
AND O.B. STA. 305+40.11
N.T.S.



- ### NOTES:
1. All Steel Posts, Steel Straps, Faraday Shield Wires and wire connection hardware shown on this Sheet will be furnished by the State and are for installation only unless specified otherwise.
 2. Abandon existing concrete inserts in the Haiku Portal Building concrete beams at Level 2. Install threaded rods at the locations as shown.
 3. Furnish and install $\frac{5}{8}$ " Diameter stainless steel threaded rod (adhesive anchor) with hex lock nut and washer as per Manufacturer's requirements. Furnishing and installation of stainless steel threaded rods (adhesive anchors), hex nuts, and washers shall be incidental to "Assembly and/or Installation of State-Furnished Faraday Shield Wires and Faraday Shield Support Structures at Haiku Approach" and will not be paid for separately.
 4. For additional installation information for steel post and Faraday Shield wires, see Support Structures Reference Plan Sheet Nos. SS12, SS31, and SS33.

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

CAD by J. Mimura, 55-52

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OR UNDER MY SUPERVISION

Shi Pang Chen

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FARADAY SHIELD INSTALLATION AT HAIKU PORTAL BUILDING

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: AS SHOWN DATE: JANUARY 1996
SHEET NO. FH2 OF 5 SHEETS

"AS-BUILT"

364

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	365	405

ITEM NO. 683.2000 ROADWAY LIGHTING ON FARADAY SHIELD SUPPORT STRUCTURES, HAIKU APPROACH (97 EACH)

INBOUND LOCATION	SUPPORT STRUCTURE TYPE	LUMINAIRE	MAST ARM	REMARKS
		FURNISH & INSTALL	FURNISH & INSTALL	
257+51.00	FARADAY	o	o	
258+66.00	FARADAY	o	o	
259+70.00	FARADAY	o	o	
260+70.00	FARADAY	o	o	
261+70.00	FARADAY	o	o	
263+49.50	FARADAY	o *	N/A	* SEE NOTE 5 ON SHT. NO. FH4
265+34.70	FARADAY	o	o	
266+26.05	FARADAY	o	o	
267+19.55	FARADAY	o	o	
268+09.70	FARADAY	o	o	
269+07.04	FARADAY	o	o	
270+04.70	FARADAY	o	o	
271+05.50	FARADAY	o	o	
271+97.04	FARADAY	o	o	
272+84.70	FARADAY	o	o	
273+73.70	FARADAY	o	o	
274+77.04	FARADAY	o	o	
275+74.70	FARADAY	o	o	
276+65.77	FARADAY	o	o	
277+57.34	FARADAY	o	o	
278+54.70	FARADAY	o	o	
280+37.04	FARADAY	o	o	
281+34.70	FARADAY	o	o	
282+25.53	FARADAY	o	o	
283+17.04	FARADAY	o	o	
284+14.70	FARADAY	o	o	
285+05.53	FARADAY	o	o	
285+97.07	FARADAY	o	o	
286+94.70	FARADAY	o	o	
288+87.11	FARADAY	o	o	
289+84.70	FARADAY	o	o	
290+75.53	FARADAY	o	o	
291+67.15	FARADAY	o	o	
292+63.70	FARADAY	o	o	
293+63.70	FARADAY	o	o	
294+57.19	FARADAY	o	o	
295+53.70	FARADAY	o	o	
296+53.70	FARADAY	o	o	
297+57.20	FARADAY	o	o	
298+54.70	FARADAY	o	o	
299+45.53	FARADAY	o	o	
300+37.20	FARADAY	o	o	
301+34.70	FARADAY	o	o	
302+35.53	FARADAY	o	o	
303+37.20	FARADAY	o	o	
304+34.70	FARADAY	o	o	
305+35.53	SIGN /FARADAY	o	o	END OF FARADAY SHIELD
311+05.53	LCD *	o	o	* SEE NOTE 3
319+95.00	CAMERA *	o	o	* SEE NOTE 3
TOTAL 49 SUPPORT STRUCTURES				

OUTBOUND LOCATION	SUPPORT STRUCTURE TYPE	LUMINAIRE	MAST ARM	REMARKS
		FURNISH & INSTALL	FURNISH & INSTALL	
258+40.00	FARADAY	o	o	
259+40.00	FARADAY	o	o	
260+40.00	FARADAY	o	o	
261+40.00	FARADAY	o	o	
263+28.50	FARADAY	o *	N/A	* SEE NOTE 5 ON SHEET NO. FH4 AND NOTE 2 ON THIS SHEET
264+25.61	FARADAY	o	o (2)*	* SEE NOTE 5 THIS SHEET.
265+13.11	FARADAY	o	o	
266+07.62	FARADAY	o	o	
266+97.62	FARADAY	o	o	
267+91.28	FARADAY	o	o	
268+87.62	FARADAY	o	o	
269+83.28	FARADAY	o	o	
270+83.58	FARADAY	o	o	
271+76.62	FARADAY	o	o	
272+69.28	FARADAY	o	o	
274+61.54	FARADAY	o	o	
275+59.28	FARADAY	o	o	
276+48.28	FARADAY	o	o	
277+41.50	FARADAY	o	o	
278+27.50	FARADAY	o	o	
278+22.28	FARADAY	o	o	
280+21.49	FARADAY	o	o	
281+17.28	FARADAY	o	o	
282+04.28	FARADAY	o	o	
282+92.49	FARADAY	o	o	
283+84.49	FARADAY	o	o	
284+78.28	FARADAY	o	o	
285+74.49	FARADAY	o	o	
286+63.49	FARADAY	o	o	
287+59.28	FARADAY	o	o	
288+48.54	FARADAY	o	o	
289+42.54	FARADAY	o	o	
290+34.28	FARADAY	o	o	
291+27.62	FARADAY	o	o	
292+16.62	FARADAY	o	o	
293+14.28	FARADAY	o	o	
294+03.28	FARADAY	o	o	
294+96.71	FARADAY	o	o	
295+93.28	FARADAY	o	o	
296+85.28	FARADAY	o	o	
297+66.79	FARADAY	o	o	
298+62.28	FARADAY	o	o	
299+57.28	FARADAY	o	o	
300+56.82	FARADAY	o	o	
301+53.28	FARADAY	o	o	
302+45.28	FARADAY	o	o	
303+36.82	FARADAY	o	o	
304+39.28	FARADAY	o	o	
305+40.11	FARADAY	o	o	END OF FARADAY SHIELD
TOTAL 48 SUPPORT STRUCTURES*				SEE NOTE 2

NOTES:

1. SEE NOTES AND DETAILS ON SHEET NO. FH4.
2. THE BOX TRUSS SPANS FROM IB STATION 263+49.50 TO OB STATION 263+28.50.
3. LCD AND CAMERA SUPPORT STRUCTURES ARE COMPLETE, AND IN PLACE. SEE SHEET NO. FH1 FOR FARADAY SHIELD SUPPORT STRUCTURES TO BE INSTALLED IN THIS CONTRACT.
4. " o " DENOTES ITEM TO BE FURNISHED & INSTALLED BY THIS CONTRACT.

"N/A" DENOTES ITEM IS NOT APPLICABLE.
5. AT OB STATION 264+25.61, FURNISH AND INSTALL ONE-20 FOOT LONG MAST ARM TO LEFT VERTICAL POST AND ONE-15 FOOT LONG MAST ARM TO RIGHT VERTICAL POST (LOOKING UPSTATION).

ORIGINAL PLAN

NO. _____

SURVEY PLOTTED BY _____

DATE _____

DRAWN BY _____

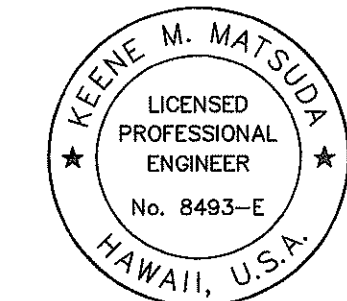
DESIGNED BY _____

QUANTITIES BY _____

CHECKED BY _____

CAD by J. Minura, 05-02

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Keene Matsuda

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY LIGHTING ON FARADAY
SHIELD SUPPORT STRUCTURES
HAIKU APPROACH-1

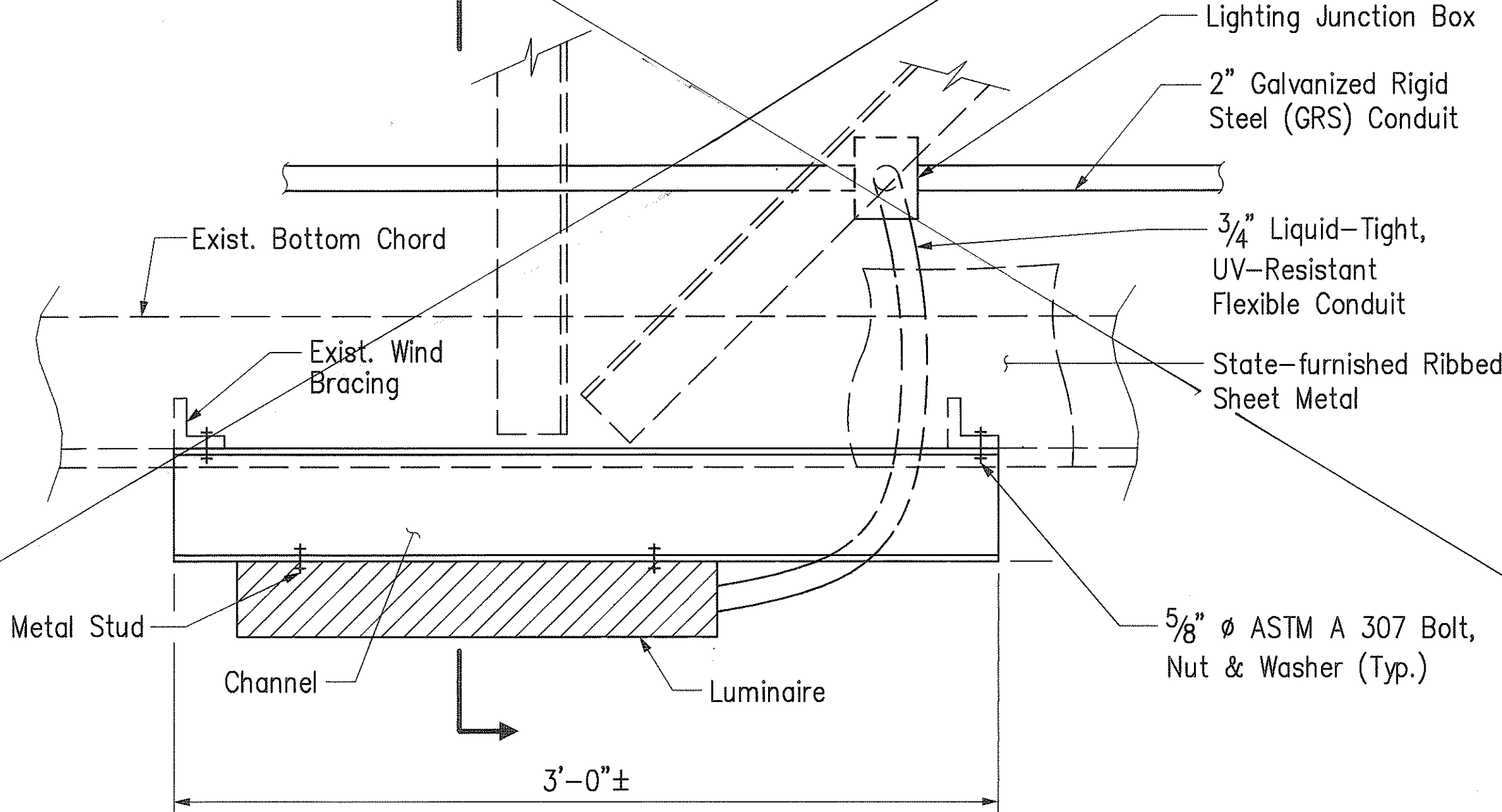
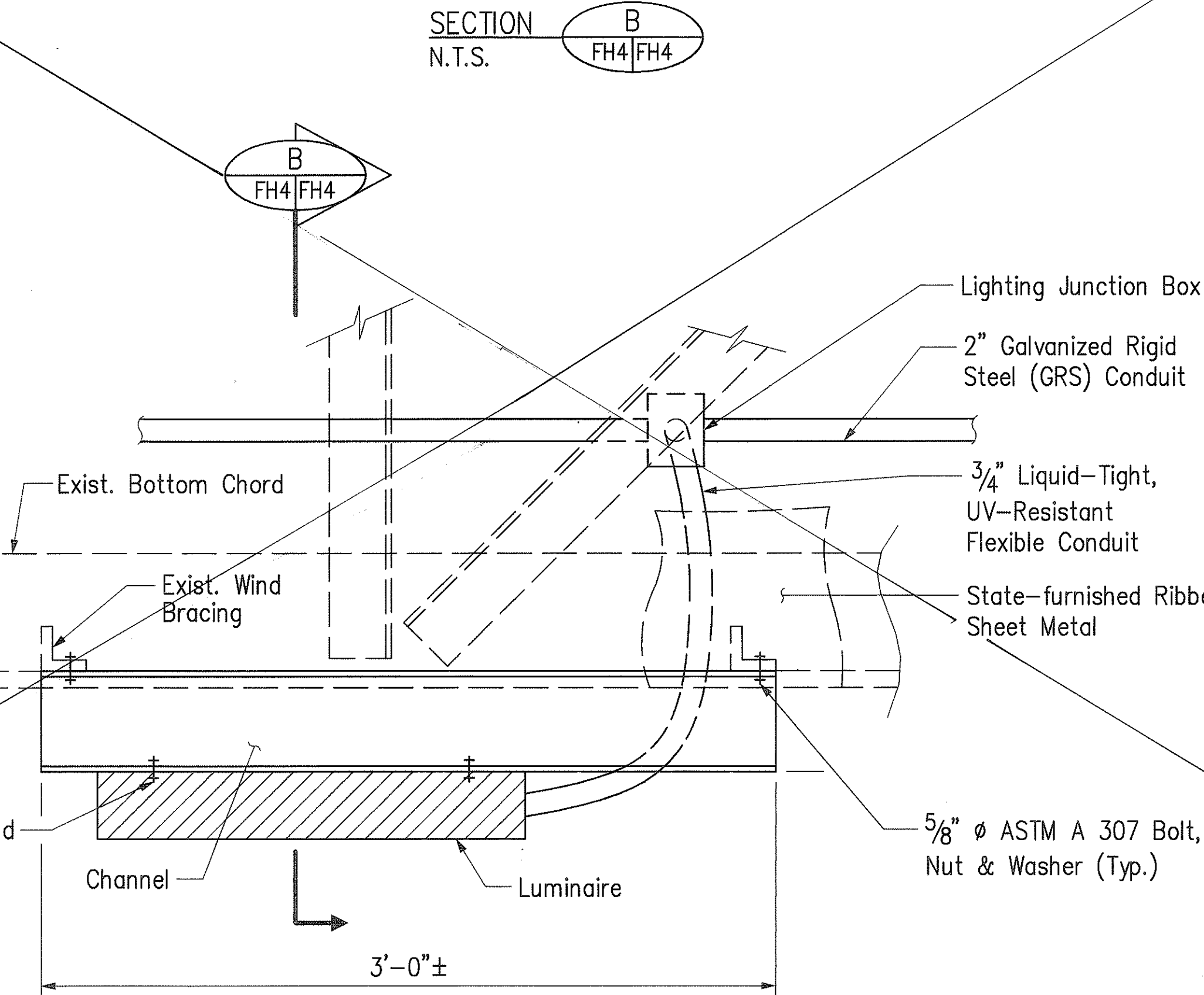
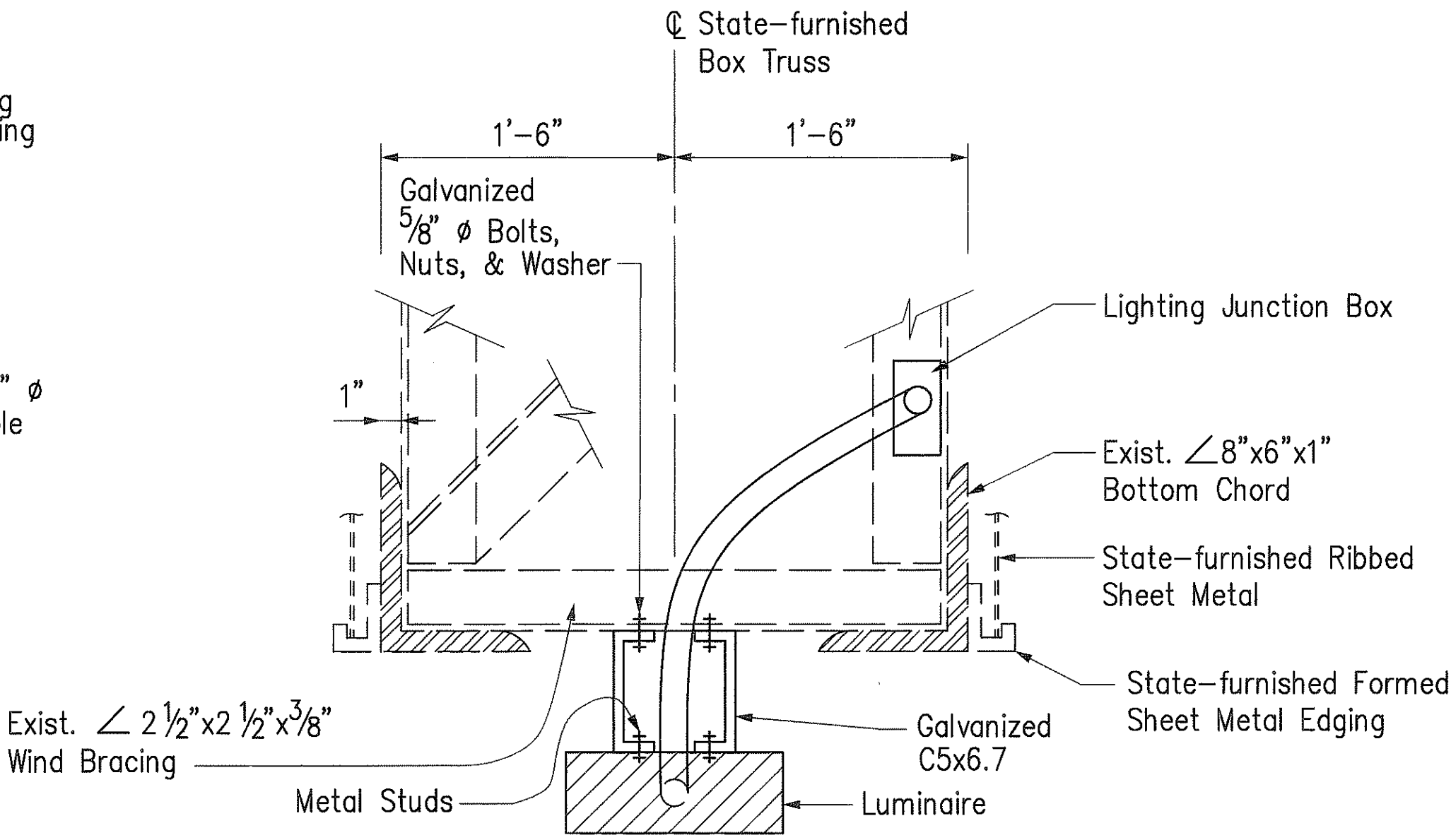
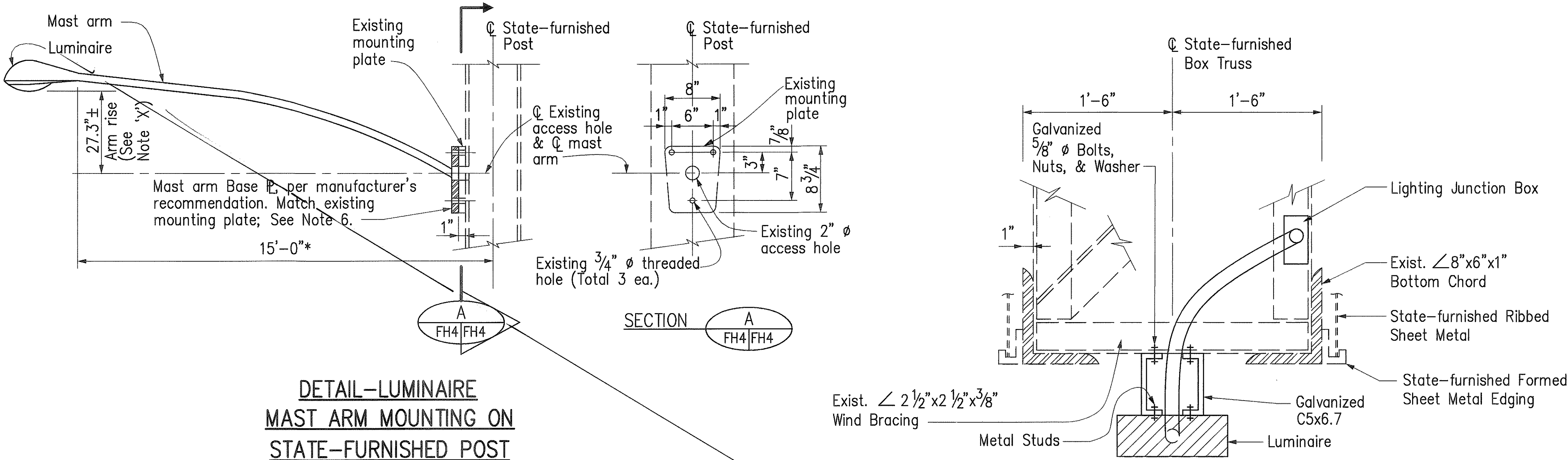
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: NONE DATE: JANUARY 1996

SHEET NO. FH3 OF 5 SHEETS

"AS-BUILT"

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	366	405



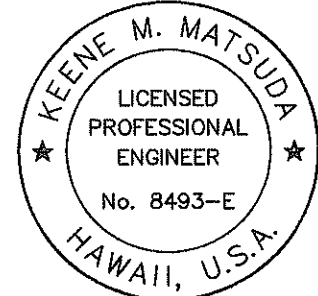
NOTES:

- FAIP No. I-H3-1(66) Plans (EB and SS Sheets) included are intended for the Contractor's reference and are for installation purposes only. The Contractor shall verify necessary dimensions and conditions in the field and notify the Engineer of deficiencies or problems prior to commencement of work.
- For furnishing and installation of Roadway Lighting on Faraday Shield Support Structure, (including Lane Control Display Support Structure and Camera Support Structure), Haiku Approach, see Special Provisions Section 683 - Roadway Lighting at Haiku Approach.
- For wiring of lighting system, see Special Provisions Section 683 - Roadway Lighting at Haiku Approach.
- Furnish and install one roadway luminaire and luminaire mast arm onto each State-furnished Faraday Shield Support Structure at the locations indicated in the table on Sheet No. FH3, unless noted otherwise.
- Furnish and install six (total) luminaires onto the State-furnished box truss at IB Station 263+49.50 / OB Station 263+28.50 as shown. Luminaires shall be spaced as indicated on the Support Structures Reference Drawings Sheet No. SS11. All conduits, junction boxes, channels, and fasteners for box truss mounting shall be considered incidental to "Roadway Lighting on Faraday Shield Support Structures, Haiku Approach" and will not be paid for separately.
- Luminaire mast arm connection shall be galvanized steel and shall be fabricated to match the existing mounting plate that is welded to the State-furnished Faraday Shield post. Connection bolts shall conform to ASTM A 307. The Contractor shall verify in the field the spacing, sizes, and threads of holes in the existing mounting plates prior to fabrication of the matching connection.
- Luminaires, luminaire mast arms and connections, and luminaire box truss mounting hardware shall be painted with two coats of dark gray paint. Galvanized surfaces shall be prepared for painting according to Subsection 501.03(F) - Painting. Contact surfaces in connections shall not be painted. The galvanizing on these surfaces shall be lightly scored by wire brushing prior to assembly.

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

CAD by J. Mims, 55-52

Last Saved: J:\H3RF\01\STRUCT\F-SHLD-4.dwg 02/07/96 at 13:23



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

Keene Matsuda

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY LIGHTING ON FARADAY
SHIELD SUPPORT STRUCTURES
HAIKU APPROACH-2

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: AS SHOWN DATE: JANUARY 1996
SHEET NO. FH4 OF 5 SHEETS

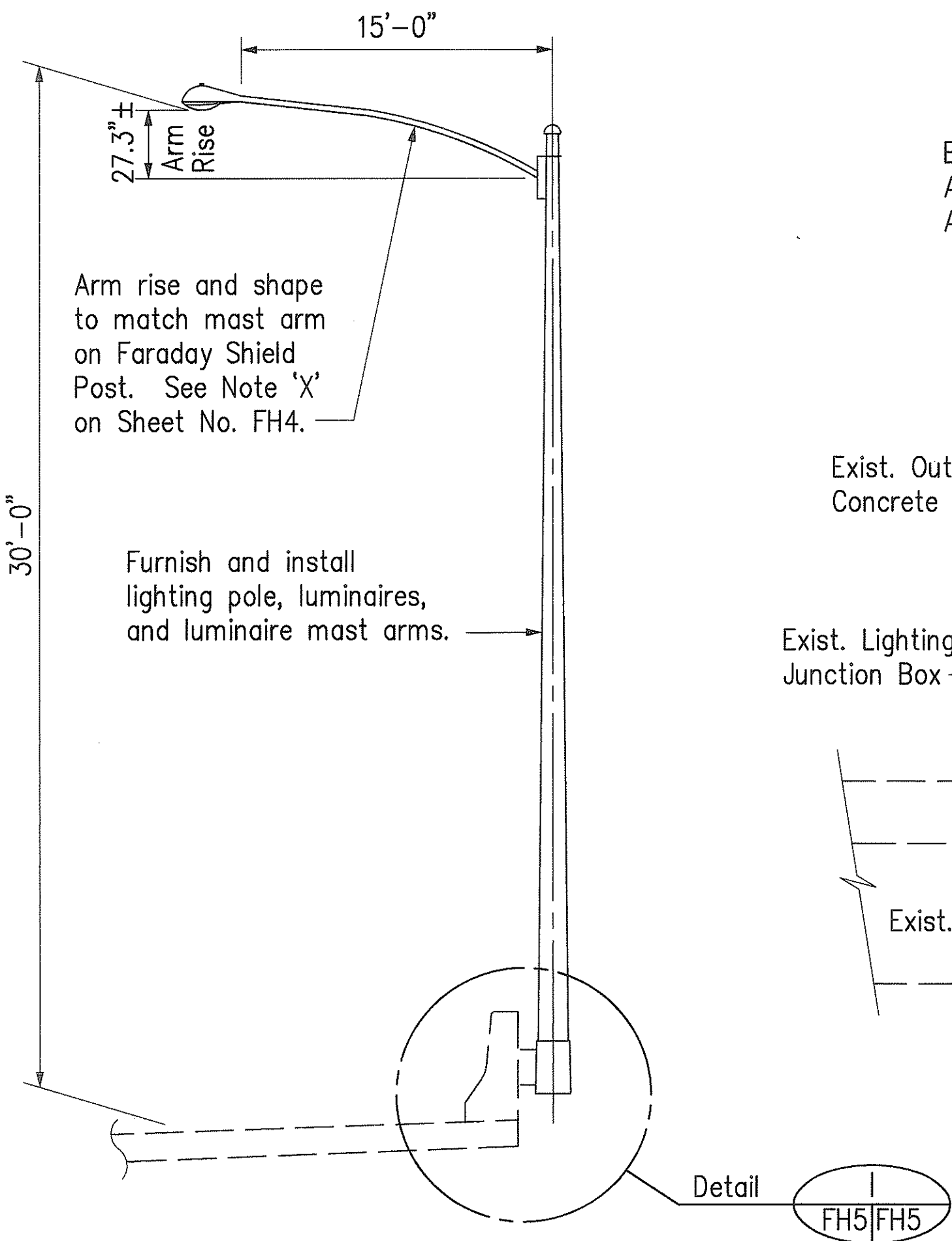
"AS-BUILT"

366

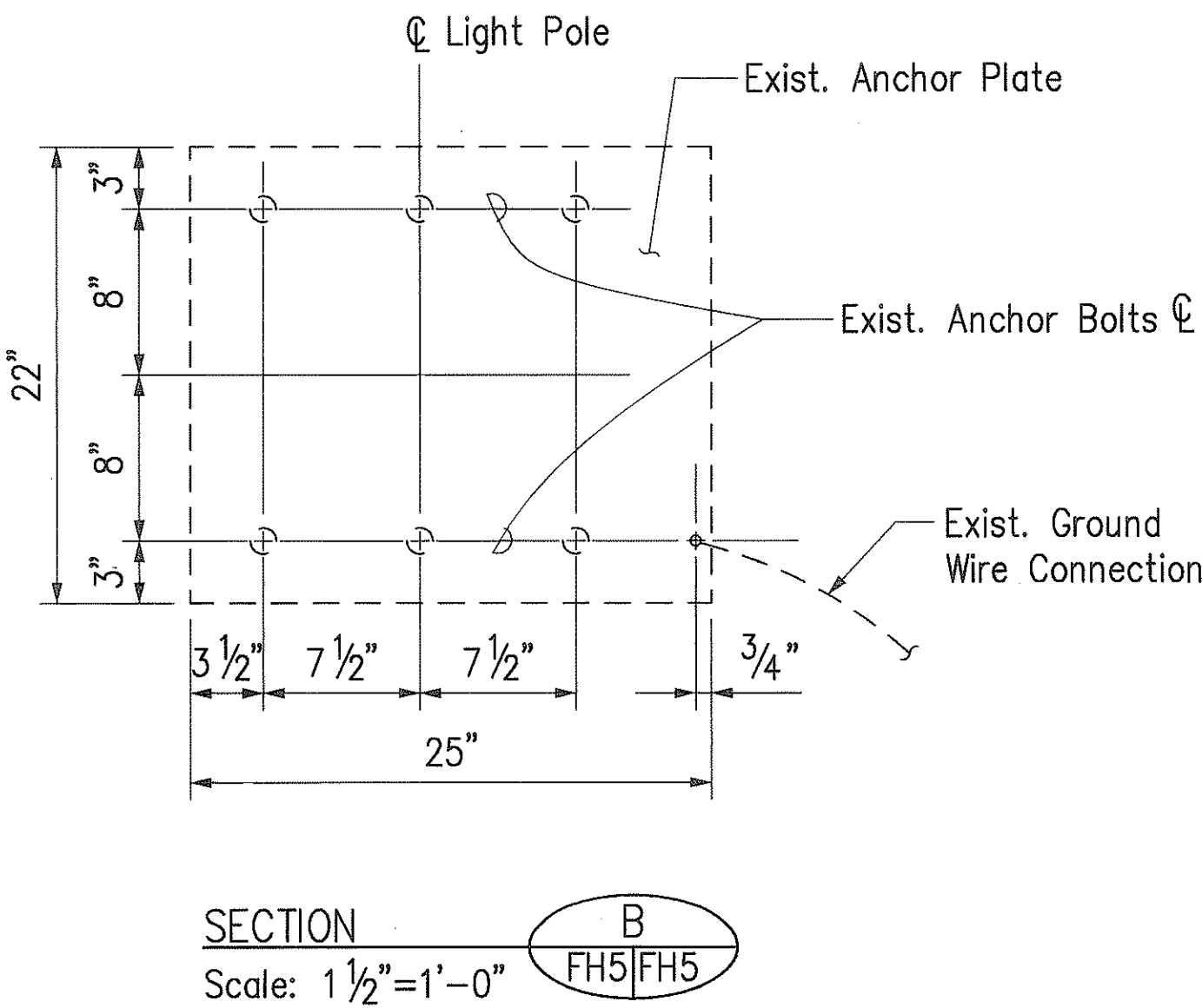
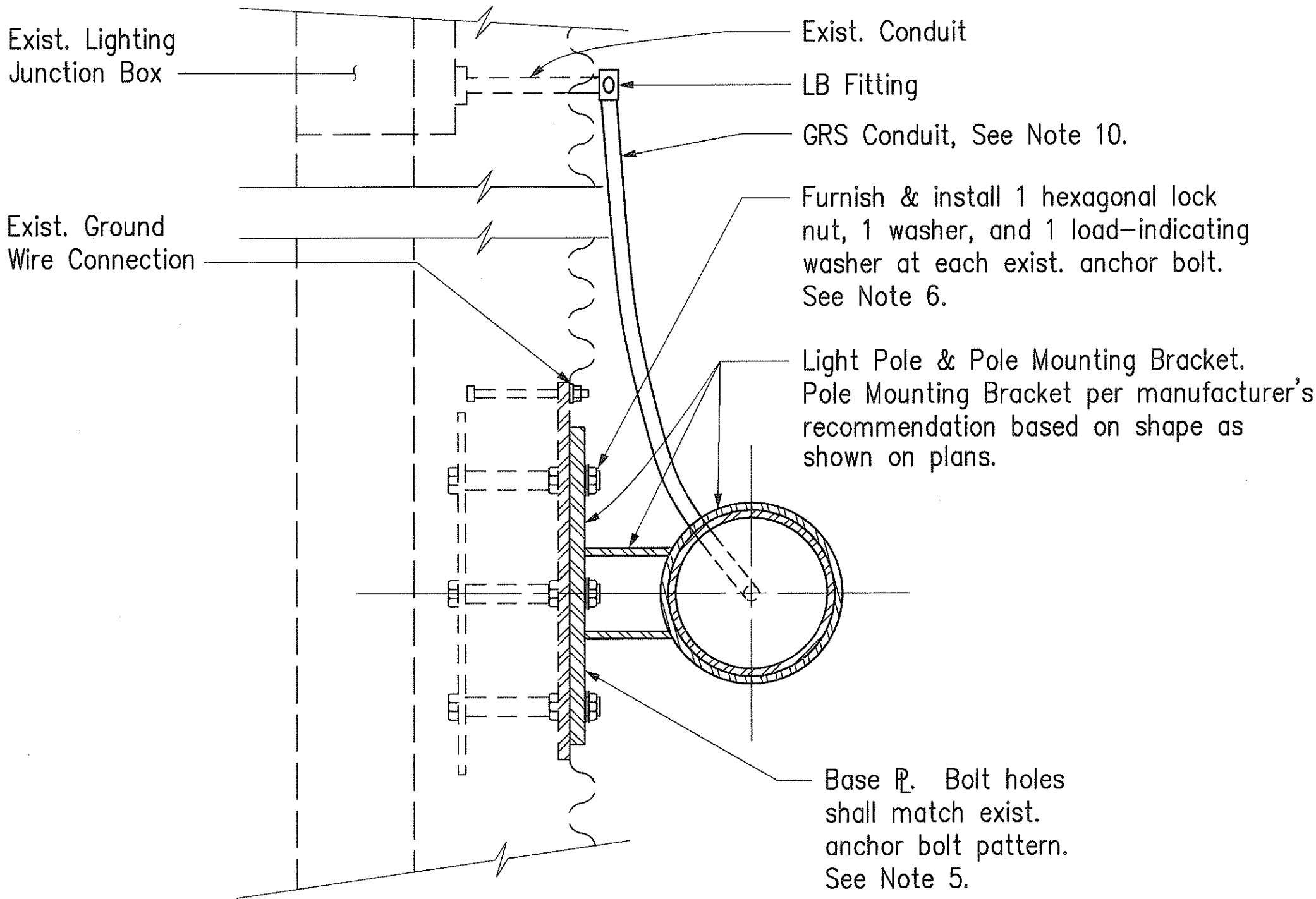
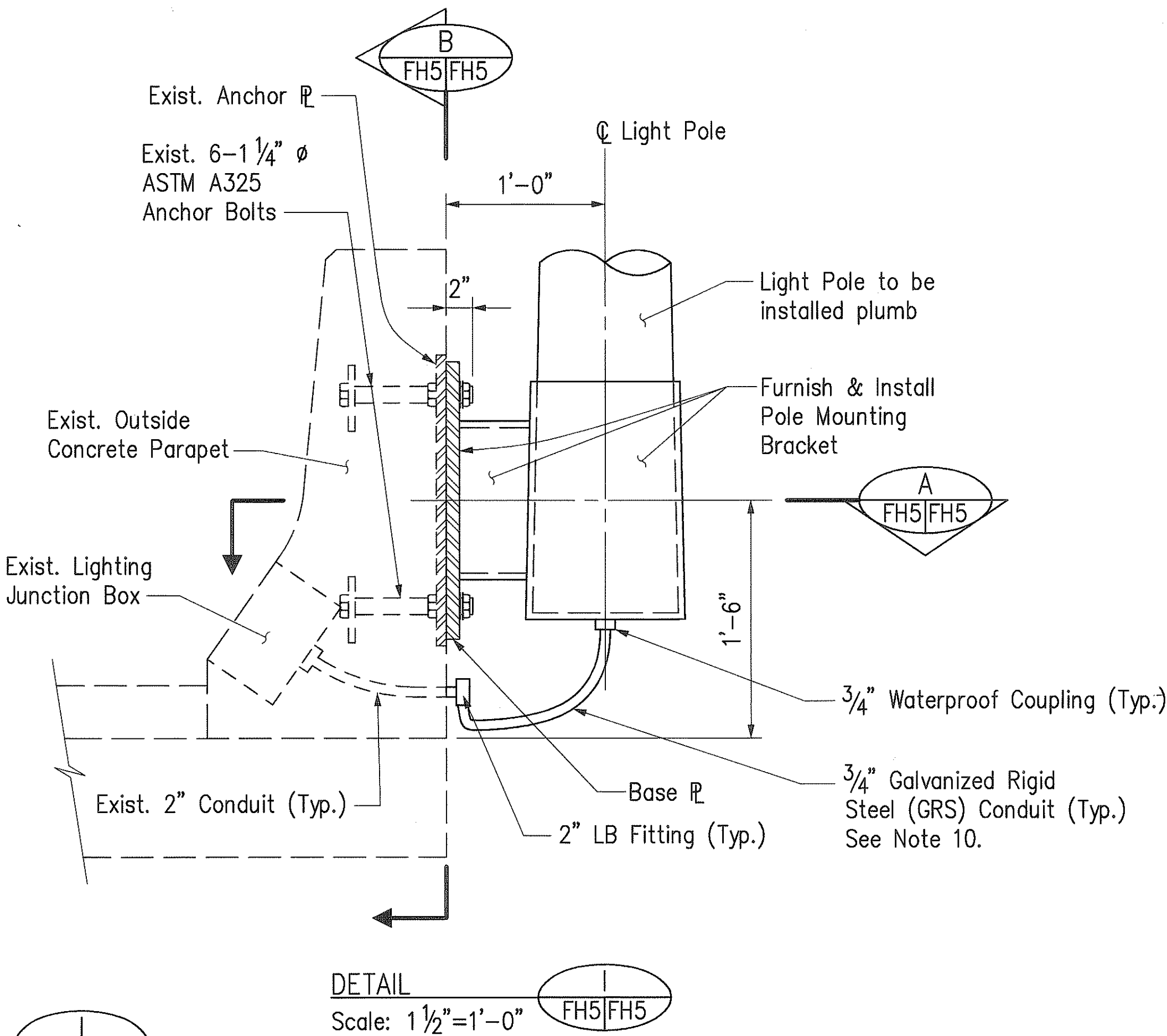
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	367	405

ITEM NO. 683.1000
PARAPET MOUNTED ROADWAY LIGHTING,
HAIKU APPROACH (48 EACH)

INBOUND LOCATION	OUTBOUND LOCATION
306+22.20	306+17.39
307+18.86	307+10.93
308+15.53	308+04.48
309+22.20	309+07.02
310+11.36	309+91.57
312+04.00	311+86.00
313+02.00	312+88.00
314+00.00	313+88.00
314+98.00	314+89.00
315+97.00	315+90.00
316+95.53	316+91.00
317+95.00	317+92.00
318+94.00	318+92.00
320+95.00	319+93.00
321+91.00	320+95.00
322+89.00	321+96.00
323+88.00	322+96.00
324+87.00	323+97.00
325+85.53	324+95.00
326+85.53	325+95.00
327+80.53	326+95.00
328+85.83	327+95.00
329+85.53	328+95.00
330+85.53	329+95.00



PARAPET-MOUNTED ROADWAY LIGHTING POLES
N.T.S.

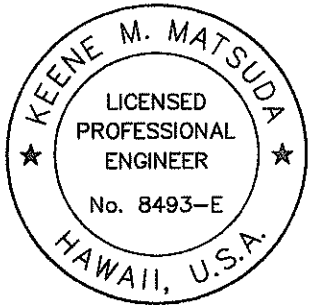


NOTES:

- FAIP NO. I-H3-1(66) Plans (EB and SS Sheets) included are intended for the Contractor's reference and are for installation purposes only. The Contractor shall verify necessary dimensions and conditions in the field and notify the Engineer of deficiencies or problems prior to commencement of work.
- For furnishing and installation of Parapet-Mounted Roadway Lighting, Haiku Approach, see Special Provisions Section 683 - Roadway Lighting at Haiku Approach.
- For wiring of lighting system, see Special Provisions Section 683 - Roadway Lighting at Haiku Approach.
- Furnish and install Parapet-Mounted Roadway Lighting, Haiku Approach, one each at each location indicated in the table on this sheet.
- Pole mounting bracket connection shall be galvanized steel. Base plate shall be fabricated to match the existing anchor bolt pattern in the parapet. The Contractor shall verify in the field the dimensions and orientation of each existing anchor bolt pattern prior to fabrication of pole mounting bracket connection. Field verification data shall be submitted to the Engineer for review with shop drawings.
- The Contractor shall verify the threads and sizes of existing anchor bolts prior to ordering nuts and washers. Nuts and washers shall conform to Subsection 713.04 - High Strength Bolts. Existing nuts and washers shall be removed and not be reused. The removed nuts and washers shall be stored as directed by the Engineer.
- Lighting poles and pole mounting bracket connection, luminaires, and luminaire mast arms and connections shall be painted with two coats of dark gray paint. Galvanized surfaces shall be prepared for painting according to subsection 501.03(F) - Painting. Prime coat shall conform to subsection 708.02 - Zinc Paints.

Contact surfaces in connections shall not be painted. The galvanizing on these surfaces shall be lightly scored by wire brushing prior to assembly.
- Installation of light poles shall not interfere with the deck overlay repair.
- Existing anchor bolts and base plates in the parapet shall be cleaned prior to the installation of the light poles to remove existing concrete, grout, dirt, grease, etc. Damage to the galvanizing shall be repaired according to Subsection 501.03(C)(3) - Zinc Coating.

Installation of high-strength bolts shall conform to Subsection 713.04 - High-Strength Bolts.
- Contractor shall verify in field each raceway installation between existing 2" lighting conduit stub-out and connection to bottom of pole mounting bracket. Distance between conduit stub-out and bracket varies. Contractor to make adjustments as necessary.



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OR UNDER MY SUPERVISION.

Keene Matsuda

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PARAPET-MOUNTED ROADWAY
LIGHTING, HAIKU APPROACH

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I

SCALE: AS SHOWN DATE: JANUARY 1996

SHEET NO. FH5 OF 5 SHEETS

ELECTRICAL SCHEMATIC AND ONE-LINE DIAGRAM SYMBOLS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	369	405

SYMBOL	REPRESENTS	SYMBOL	REPRESENTS	SYMBOL	REPRESENTS	SYMBOL	REPRESENTS
	TRANSFORMER		CONDUCTOR CABLE WITH SHIELD GROUNDED	2	TIME DELAY STARTING RELAY	MCC	MOTOR CONTROL CENTER
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, N.C.		COAXIAL CABLE	3	CHECKING OR INTERLOCKING RELAY	MH	MOTOR SPACE HEATER
	PUSHBUTTON SWITCH, MOMENTARY CONTACT, N.O.		DISCONNECTING DEVICE	4	MASTER CONTACTOR	MCP	MOTOR CIRCUIT PROTECTOR
	MECHANICAL CONNECTION		CONDUCTORS, CONNECTED	5	STOPPING RELAY	N	NEUTRAL
	CIRCUIT BREAKER, SIZE AS NOTED		CONDUCTORS, NOT CONNECTED	26	TEMPERATURE RELAY	NA	NON AUTOMATIC
	NORMALLY OPEN CONTACT		CURRENT TRANSFORMER	27	UNDERVOLTAGE RELAY	PF	POWER FACTOR
	TDC - TIME DELAY TO CLOSE		VOLTAGE TRANSFORMER	32	DIRECTIONAL POWER RELAY	Q	OIL
	NORMALLY CLOSED CONTACT		OUTLINE OF EQUIPMENT	33	LIMIT OR POSITION SWITCH	SI	NEMA STARTER SIZE 1
	TDO - TIME DELAY TO OPEN		BATTERY	38	BEARING PROTECTIVE RELAY	SF	SUPPLY FAN
	COIL, 42 - STARTER OR CONTACTOR		AUDIBLE SIGNAL	39	VIBRATION DETECTOR	SS	SELECTOR SWITCH
	OTHER NO. - RELAY PER IEEE DEVICE NO.		WIRE DESIGNATED SUFFIX	43	SELECTOR SWITCH	SWGR	SWITCHGEAR
	OVERLOAD RELAY CONTACTS		RECTIFIER, FULL WAVE	44	UNIT SEQUENCE STARTING RELAY	T	TRANSFORMER
	OVERLOAD RELAY		TRANSDUCER, E/I - VOLTAGE TO CURRENT	45	FIRE DETECTOR	TS	TEST SWITCH
	FUSE WITH RATING		I/E - CURRENT TO VOLTAGE	46	REVERSE-PHASE RELAY	V	VOLTMETER
	GROUND CONNECTION		POWER CIRCUIT BREAKER, ABOVE 600V, DRAW-OUT TYPE	49	THERMAL OVERLOAD DEVICE	VS	VOLTMETER SWITCH
	PILOT LIGHT, R=RED, G=GREEN, A=AMBER, W=WHITE, C=CLEAR, B=BLUE		POWER CIRCUIT BREAKER, 480V, DRAW-OUT TYPE	50	AC INSTANTANEOUS OVERCURRENT RELAY	varh	VARHOUR METER
	SOLENOID COIL		MOLDED CASE CIRCUIT BREAKER	51	AC TIME OVERCURRENT RELAY	W	WATTMETER
	LIMIT SWITCH, NORMALLY OPEN		AUTOMATIC TRANSFER SWITCH	52	AC CIRCUIT BREAKER	Wh	WATTHOUR METER
	LIMIT SWITCH, NORMALLY CLOSED		FUSED SWITCH (15kv)	62	TIME DELAY RELAY	X,Y	AUXILIARY RELAY
	PRESSURE SWITCH, NORMALLY OPEN, CLOSSES ON RISING PRESSURE		TERMINAL IN ITC	63	GAS PRESSURE RELAY	XDC	TRANSDUCER
	PRESSURE SWITCH, NORMALLY CLOSED, OPENS ON RISING PRESSURE		TERMINAL IN SWITCHGEAR	67	AC DIRECTIONAL OVERCURRENT RELAY	a	CIRCUIT BREAKER AUXILIARY CONTACT N.O.
	FLOW SWITCH, NORMALLY OPEN, CLOSSES WITH FLOW		TERMINAL IN OTHER EQUIPMENT	74	ALARM RELAY	b	CIRCUIT BREAKER AUXILIARY CONTACT N.C.
	FLOW SWITCH, NORMALLY CLOSED, OPENS WITH FLOW			86	LOCK-OUT RELAY		
	TEMPERATURE SWITCH, NORMALLY OPEN, CLOSSES ON RISING TEMPERATURE (COOLING THERMOSTAT)			89T	TRANSFORMER DISCONNECT AUXILIARY SWITCH		
	TEMPERATURE SWITCH, NORMALLY CLOSED, OPENS ON RISING TEMPERATURE (HEATING THERMOSTAT)			A	AMMETER		
	LEVEL SWITCH NORMALLY OPEN, CLOSSES ON RISING LEVEL			AS	AMMETER SWITCH		
	LEVEL SWITCH NORMALLY CLOSED, OPENS ON RISING LEVEL			AFC	ADJUSTABLE FREQUENCY CONTROLLER		
	SELECTOR SWITCH, HAND-OFF-AUTOMATIC, OR AS NOTED: K = KEY OPERATED			ATS	AUTOMATIC TRANSFER SWITCH		
	SINGLE POLE SINGLE THROW SWITCH			BP	BYPASS		
	SINGLE POLE DOUBLE THROW SWITCH			BT	BUS TIE		
	MANUAL MOTOR STARTER			CB	CIRCUIT BREAKER		
	GREEN INDICATING LIGHT			CD	CONTROL DAMPER		
	RED INDICATING LIGHT			CF	COOLING FAN		
	WHITE INDICATING LIGHT			CL	CURRENT LIMITING		
	AMBER INDICATING LIGHT			CLB	CURRENT LIMITING BREAKER SWITCH		
				CS	CONTROL SWITCH		
				DM	DEMAND METER		
				EF	EXHAUST FAN		
				EI	ELECTRICAL INTERLOCKING		
				EO	ELECTRICALLY OPERATED		
				ETM	ELAPSED TIME METER		
				F	FREQUENCY METER		
				FTS	FAST TRANSFER SWITCH		
				FVNR	FULL VOLTAGE NON REVERSING		
				FVR	FULL VOLTAGE REVERSING		
				FCLB	FUSELESS CURRENT LIMITING BREAKER		
				G	GROUND, GENERATOR		
				H	HIGH		
				HR	HAND RESET		
				HL	HALAWA		
				HK	HAIKU		
				I	INSTANTANEOUS		
				ITC	INTERFACE TERMINAL CABINET		
				KI	KEY INTERLOCK		
				L	LOW		
				LR	LOCAL/REMOTE SWITCH		
				LSG	LONG TIME/SHORT TIME/GROUND FAULT CIRCUIT BREAKER TRIPS		

EQUIPMENT MOUNTING HEIGHT

1. ALL PANELBOARDS (WALL-MOUNTED)

6'-0" TOP OF HIGHEST CIRCUIT BREAKER
2. WALL-MOUNTED TRANSFORMERS

8'-0" BOTTOM OF XFMR.
3. WALL-MOUNTED LOCAL CONTROL STATIONS OR LOCAL CONTROL PANELS

2'-0" BOTTOM OF EQPT.
6'-0" MAX. AT TOP OF HIGHEST PUSH BUTTON
4. LOCAL MOTOR STARTERS, DISCONNECT SWITCH AND CIRCUIT BREAKERS

5'-0" AT HANDLE
5. POWER RECEPTACLES

4'-6" CENTER

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

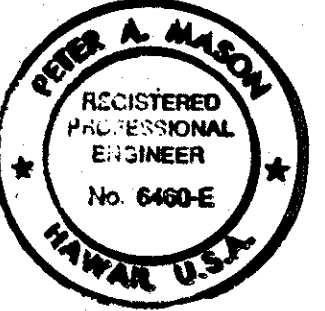
DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ELECTRICAL LEGEND-2

STANDARDS
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)

SCALE: NONE DATE: APR 1992
SHEET NO. E2 OF 4 SHEETS



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Peter A. Mason

DATE	10/4/92
DESIGNED BY	CADD
DRAWN BY	F. JIMENEZ
CHECKED BY	J. J. SASSANI
NO.	

DATE: 5/24/92
DRAWN BY: CADD
CHECKED BY: J. J. SASSANI
DESIGNED BY: R. JAMES T. SANCHEZ
NOTE BOOK NO. 101

LIGHTING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	LAMP	INPUT WATT	INPUT VOLTAGE
F1 2-40	TOILET LIGHTING FIXTURE SUSPENDED MOUNTED	LITHONIA COLUMBIA THOMAS INDUSTRIES	2-F40T12LW RS/ES	100VA	277V
F2 1-40	STAIR LIGHTING FIXTURE WALL MOUNTED	PARAMOUNT LITHONIA THOMAS INDUSTRIES	F40T12LW RS/ES	50VA	277V
F3 2-40	TRANSFORMER AND MECHANICAL ROOM LIGHTING FIXTURE WALL MOUNTED	PARAMOUNT LITHONIA THOMAS INDUSTRIES	2-F40T12LW RS/ES	100VA	277V
F4 2-40	LOBBY AREA LIGHTING FIXTURE SUSPENDED	COLUMBIA LITHONIA SYLVANIA	2-F40T12LW RS/ES	100VA	277V
F5 2-40	ELEVATOR MACHINE ROOM LIGHTING FIXTURE SUSPENDED AND SURFACE MOUNTED	PARAMOUNT LITHONIA THOMAS INDUSTRIES	2-F40T12LW RS/ES	100VA	277V
F6 2-40	SWGR / MCC / PANEL ROOM LIGHTING FIXTURE SUSPENDED	LITHONIA COLUMBIA THOMAS INDUSTRIES	2-F40T12LW RS/ES	100VA	277V
F7 2-40	PUMP ROOM LIGHTING FIXTURE WALL MOUNTED	LITHONIA PARAMOUNT COLUMBIA	2-F40T12LW RS/ES	100VA	277V
F18 2-40	PARABOLIC U-LAMP LIGHTING FIXTURES HEAT REMOVAL TROFFER, RECESSED	KEENE MODULINE/HR LITHONIA OPTIMAX HUBBEL PARABOLITE	2-F40CW/U/6	100VA	277V
F9 2-40	WRAPAROUND LIGHTING FIXTURE, SURFACE MOUNTED	DAY-BRITE LITHONIA KEYSTONE	2-F40T12 CW/RS	100VA	277V
F10 2-40	SURFACE MOUNTED/PENDANT LIGHTING FIXTURE, ENCLOSED & GASKETED	PARAMOUNT NU-ART LIGHTING PRUDENTIAL	2-F40T12 CW/RS	100VA	277V
F11 4-40	PARABOLIC MODULAR LIGHTING FIXTURE, SURFACE MOUNTED	DAY-BRITE THOMAS INDUSTRIES KEYSTONE	4-F40T12 CW/RS	200VA	277V
F12 2-40	STATIC TROFFER LIGHTING FIXTURE, RECESSED	DAY-BRITE LITHONIA THOMAS INDUSTRIES	2-F40T12 CW/RS	100VA	277V
F13 4-40	PARABOLIC LIGHTING FIXTURES, HEAT REMOVAL TROFFER, RECESSED	KEENE MODULINE/HR LITHONIA OPTIMAX HUBBEL PARABOLITE	4-F40T12 CW/RS	200VA	277V
F14 1-40	STRIP LIGHTING FIXTURE	LITHONIA HUBBEL GUTH LIGHTING	1-F40T12 CW/RS	50VA	277V
F15 2-40	STANDARD INDUSTRIAL LIGHTING FIXTURE, SUSPENDED MOUNTED	LITHONIA HUBBEL CROUSE-HINDS LTG.	2-F40T12 CW/RS	100VA	277V
F16 2-40	FLOURESCENT FIXTURE PENDANT MOUNTED, CONTINUOUS ROW	KEENE DIR240 ALCKO	2-F40T12 CW/RS	100VA	277V
F17 2-13	8" DOWNLIGHT, RECESSED COMPACT FLOURESCENT ALZAK REFLECTOR	PRESCOLITE LITHONIA STAFF	2-13W PL LAMPS	30VA	277V
E1 2-5	EXIT SIGN FIXTURE, WALL MOUNTED	LITHONIA SYLVANIA GENERAL ELECTRIC	2-F5	12VA	277V
E2 2-5	EXIT SIGN WATERTIGHT	LITHONIA SYLVANIA GENERAL ELECTRIC	2-F5	12VA	277V
H12a 100	SURFACE SQUARE DOWNLIGHT SURFACE MOUNTED, ALZAK REFLECTOR, BRONZE FINISH	GUTH LIGHTING HS4-12100F-1C731-277	100W MH	145VA	277V
F19 2-40	PARABOLIC U-LAMP LIGHT FIXTURES HEAT REMOVAL TROFFER, RECESSED	LIGHTOLIER PARALYTE 2424	2-F40 U/6	100VA	277V

LIGHTING FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	MANUFACTURER	LAMP	INPUT WATT	INPUT VOLTAGE
H1 150	ROOF LEVEL LIGHTING FIXTURE WALL MOUNTED	LITHONIA-TWH150S EMCO GENERAL ELECTRIC	150WHPS	200VA	277V
H2 250	PARKING LOT LIGHTING FIXTURE WALL MOUNTED	LITHONIA-TWH250 EMCO GENERAL ELECTRIC	250WHPS	310VA	277V
H3 150	STORAGE & VAULT ROOM LIGHTING FIXTURE CEILING MOUNTED	LITHONIA-THS150 EMCO GENERAL ELECTRIC	150WHPS	200VA	277V
H4 250	MECHANICAL (FAN) ROOM LIGHTING FIXTURE CEILING MOUNTED	G.E. DGS254HI6M3 LITHONIA HOLOPHANE	250WHPS	310VA	277V
H5 250	HAIKU CROSSOVER AREA LUMINAIRE ON SIGN BRIDGE STRUCTURE	MWC HOLOPHANE KIM	250WHPS	310VA	480V
H6 150	ROADWAY LUMINAIRE WITH 15' BRACKET ARM LENGTH MOUNTED ON FARADAY SHIELD SUPPORT	G.E.M2RC15S5H26M3 EMCO GUARDCO	150WHPS	200VA	480V
H7 150	SAME AS H6 EXCEPT W/ITS OWN STEEL POLE 30' POLE				
H8 400	HIGH MAST LUMINAIRE ON 100FT STEEL TAPERED POLE W/COMPLETE SERVICE HOIST EQUIPMENT	G.E. HMOTS100SHPPA HOLOPHANE	400WHPS	520VA	480V
H9 250	ROADWAY LUMINAIRE WITH BRACKET ARM LENGTH AS SHOWN ON STEEL POLE.	G.E. MA250 HPS- CUTOFF OR EQUAL EMCO GUARDCO	250WHPS	310VA	480V
H10 100	HID LIGHTING FIXTURE, WALL MOUNTED	LITHONIA WALL-PAK DEVINE WALLPAK HOLOPHANE WALLPAK	175W MH	145VA	277V
H11 175	GARAGE LIGHTING FIXTURE	MWC SDII SERIES DAY-BRITE HOLOPHANE	175W MH	225VA	277V
H12 100	10"CYLINDER DOWNLIGHT SURFACE MTD, ALZAK REFLECTOR, BRONZE FINISH	PRESCOLITE HIDC-3 STAFF LITHONIA	100W MH	145VA	277V
H13 100	HID LIGHTING FIXTURE, WALL MOUNTED	MWC NW IV SERIES LITHONIA DEVINE	100W MH	145VA	277V
H15 175	SIGN LUMINAIRE MOUNTED ON SIGN STRUCTURE	G.E. VERSAFLOOD EMCO	175W MH	225VA	480V
T1 100	2'x2' ASYMMETRICAL TUNNEL LIGHTING FIXTURE CEILING MOUNTED	GE TUNIO ** EMCO DEVOE	100WHPS	145VA	480V 277V NOTE 2
T2 250	2'x2' SYMMETRICAL TUNNEL LIGHTING FIXTURE CEILING MOUNTED	GE TUN25 *** EMCO DEVOE	250WHPS	335VA	480V
T3 400	2'x2' SYMMETRICAL TUNNEL LIGHTING FIXTURE CEILING MOUNTED	GE TUN40 **** EMCO DEVOE	400WHPS	520VA	480V
T4 100	2'x2' SYMMETRICAL TUNNEL LIGHTING FIXTURE CEILING MOUNTED	GE TUNIO * EMCO DEVOE	100WHPS	145VA	480V
T5 100	2'x2' ASYMMETRICAL TUNNEL LIGHTING FIXTURE WALL MOUNTED	GE TUNIO * EMCO DEVOE	100WHPS	145VA	480V
T6 100	PLENUM & SUBSTATION AREA LTG. FIXTURE WALL MOUNTED ENCLOSED AND GASKETED	LITHONIA-204705R EMCO GENERAL ELECTRIC	100WHPS	145VA	277V
PI 100	ELEVATOR PIT LTG. FIXTURE WALL MOUNTED	PRESCOLITE WB-2 LITHONIA COLUMBIA	100W	145VA	120V

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75) UNIT I	1996	370	405

NOTES:

1. ALL TYPE H6, H7, H9 AND H15 FIXTURES SHALL BE EQUIPPED WITH A PHOTOELECTRIC CELL FOR ON/OFF NIGHT/DAY CONTROL, UNLESS OTHERWISE NOTED.
2. VOLTAGE OF TUNNEL LIGHTING FIXTURE TYPE T1 USED FOR EMERGENCY LIGHTING SHALL BE 277V
3. SEE SHEET NO. EC5 FOR CONTINUATION OF LIGHTING FIXTURE SCHEDULE.

* GE TUN10S4A2CBM09CGF
** GE TUN10S4A2SYM09CGF
*** GE TUN25S4A2SYM09CGF
**** GE TUN40S4A2SYM09CGF
***** MWC SJ - /1250HPS480CGSXII
AL-6XN

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
11/23/94	REV. PER DCN 66-054
7/27/94	ADDED H12a FIXTURE PER DCN 66-050
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-06
DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION LIGHTING FIXTURE SCHEDULE STANDARDS INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. 1-H3-1(66)	
SCALE: NONE DATE: APR 1992	
SHEET NO. E3 OF 4 SHEETS	



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Peter A. Mason

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	371	405

- NOTES:
- SEE PANEL SCHEDULES FOR WIRING SIZE & NUMBER OF CONNECTORS
 - PANEL HKCHP SHALL BE NEMA TYPE 4X, BOTTOM ENTRY & SPLIT BUS TYPE. ALLOW SPACE FOR 100AF/80AT RDWY LTG. MAIN BREAKER, 100A RATED LIGHTING CONTACTOR WITH TERMINAL BLOCK & CONTROL TRANSFORMER (SEE LIGHTING CONTACTOR SCHEMATIC FOR DETAILS).
 - LIGHTING CONTACTOR SHALL BE 480V 3PH ELECTRICALLY OPERATED & MECHANICALLY HELD.
 - MINIMUM SIZE OF CONDUCTORS FOR CONTROL WIRING SHALL BE NO. 12AWG.
 - I/O CONTACTS PROVIDED BY SYSTEMS SHALL BE DRY, MOMENTARY AND CAPABLE OF CARRYING CONTACTOR CLOSING COIL. SEE SHEET NO. ED18 FOR I/O SCHEDULE.

SYSTEM: 480Y/277V 3Ø 4W
MAINS: 225AF/150AT
SHORT CIRCUIT RATING: 14kAIC

PANEL - HKCHP

PANEL LOCATION: HAIKU X-OVER VAULT
SUPPLY LOCATION: XFMR T3-HK

SERVICE	CIRCUIT NO.	LOAD kVA			CB			WIRE AWG	A	B	C	WIRE AWG	CB			LOAD kVA	CIRCUIT NO.	SERVICE	
		A	B	C	FRAME	POLES	TRIP						FRAME	POLES	TRIP	A	B		C
INBOUND TRAFFIC CONTROL EQUIPMENT	1	6.0			100	3	30	2				2	100	3	30	2.0	2	OUTBOUND TRAFFIC CONTROL EQUIPMENT	
	3		9.0													2.0	4		
	5			7.0												1.0	6		
CROSSOVER LTG. VIA CONTACTOR 'ci'	7	1.1			100	3	20	10					100	3	30		8	SPARE	
	9		1.0														10		
	11			1.0													12		
SYSTEM XFMR 15kVA	13	7.5			100	2	30	6				6	100	2	20	5	14	MINILOAD CENTER T4HK	
	15		7.5													5	16		
SPARE	17				100	2	20						100	2	20		18	SPARE	
	19																20		
SPARE	21				100	3	30						100	3	30		22	SPARE	
	23																24		
	25																26		
100AF 80AT																			
VIADUCT LIGHTING	1	2.6			100	3	20	2				2	100	3	20	2.6	2	VIADUCT LIGHTING	
	3		2.6													2.6	4		
	5			2.4												2.4	6		
VIADUCT LIGHTING	7	2.6			100	3	20	2				2	100	3	20	2.6	8	VIADUCT LIGHTING	
	9		2.6													2.6	10		
SPARE	11			2.4												2.4	12	SPARE	
	13																14		
	15																16		
	17																18		
SUBTOTAL		19.8	22.7	11.8										12.2 12.2 5.8					
TOTAL CONNECTED:		84.5 kVA																	
ESTIMATED MAXIMUM DEMAND:		84.5 kVA																	

A

B

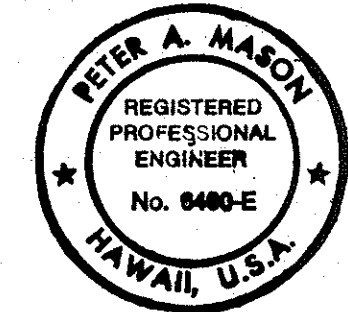
C

32.0

34.9

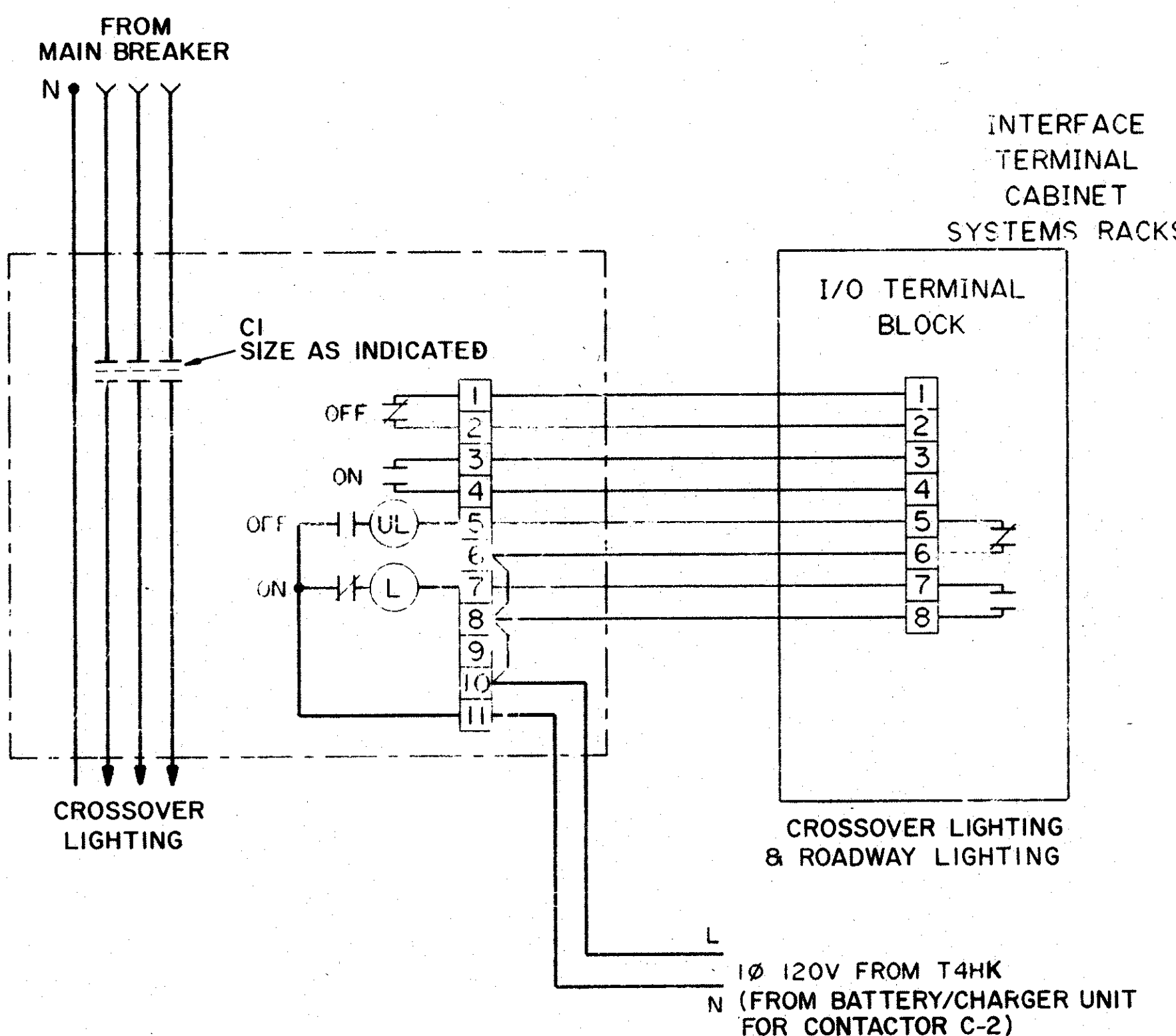
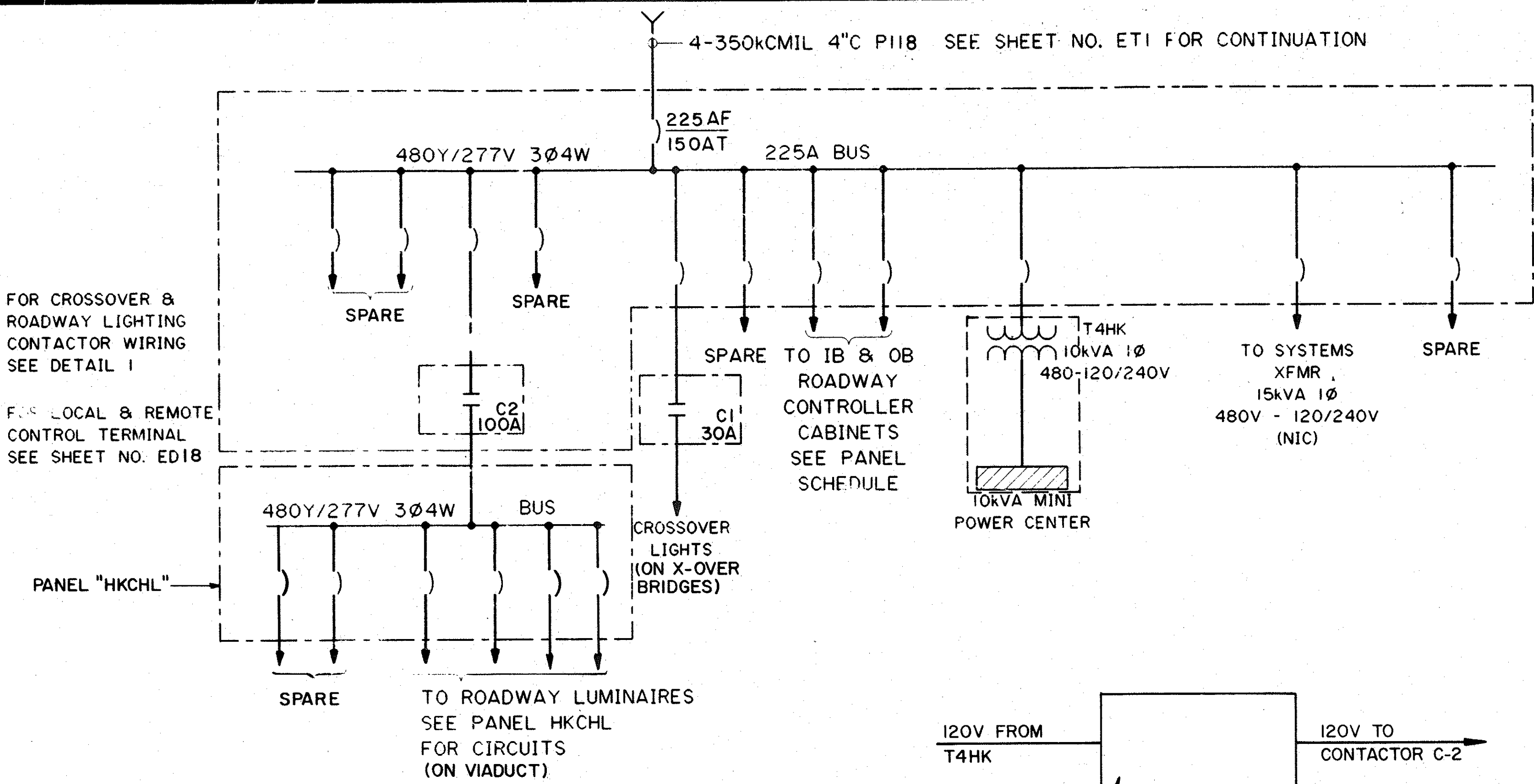
17.6

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



1/12/95	REVISED PER DCN 66-059
6/7/94	REVISED PER DCN 66-044
1/24/94	REVISED PER DCN 66-033
8/19/93	REVISED SCHEDULES PER DCN 66-017
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
ONE LINE DIAGRAM
AND PANEL SCHEDULE
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)
SCALE: NONE
DATE: APR 1992
SHEET NO. EBI OF 19 SHEETS

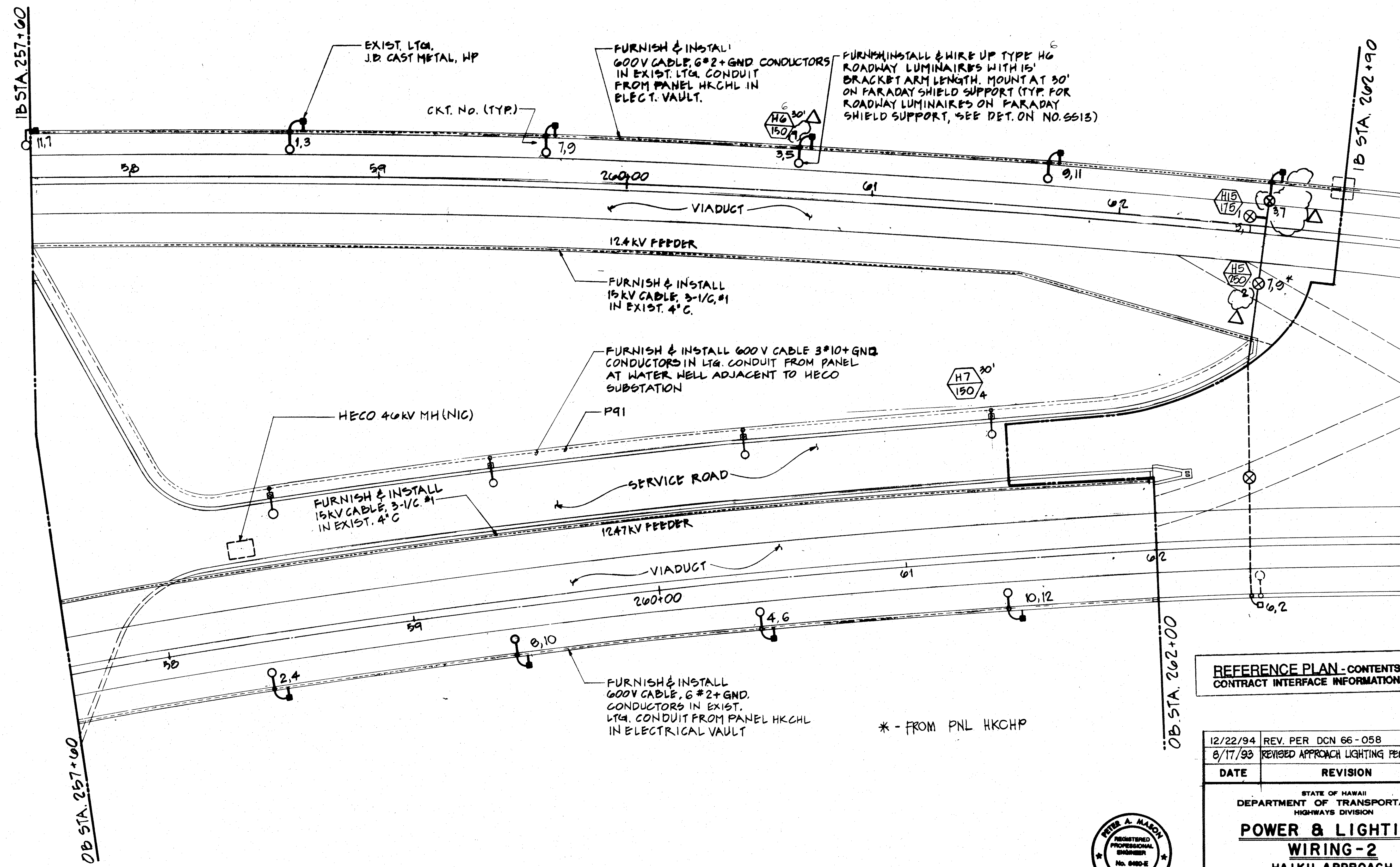


CROSSOVER LIGHTING & ROADWAY LIGHTING CONTACTOR SCHEMATIC

DETAIL I

ORIGINAL PLAN	DATE	2-20-90
SURVEY PLOTTED BY	DATE	2-20-90
DRAWN BY	DATE	2-20-90
DESIGNED BY	DATE	2-20-90
CHECKED BY	DATE	2-20-90
NO.		

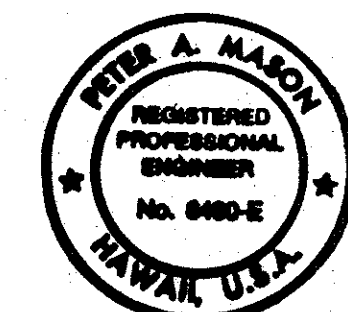
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	372	405



ORIGINAL PLAN	DATE
DESIGNED BY	7/10/96
CHECKED BY	7/10/96
NOTED BY	7/10/96
NO.	

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

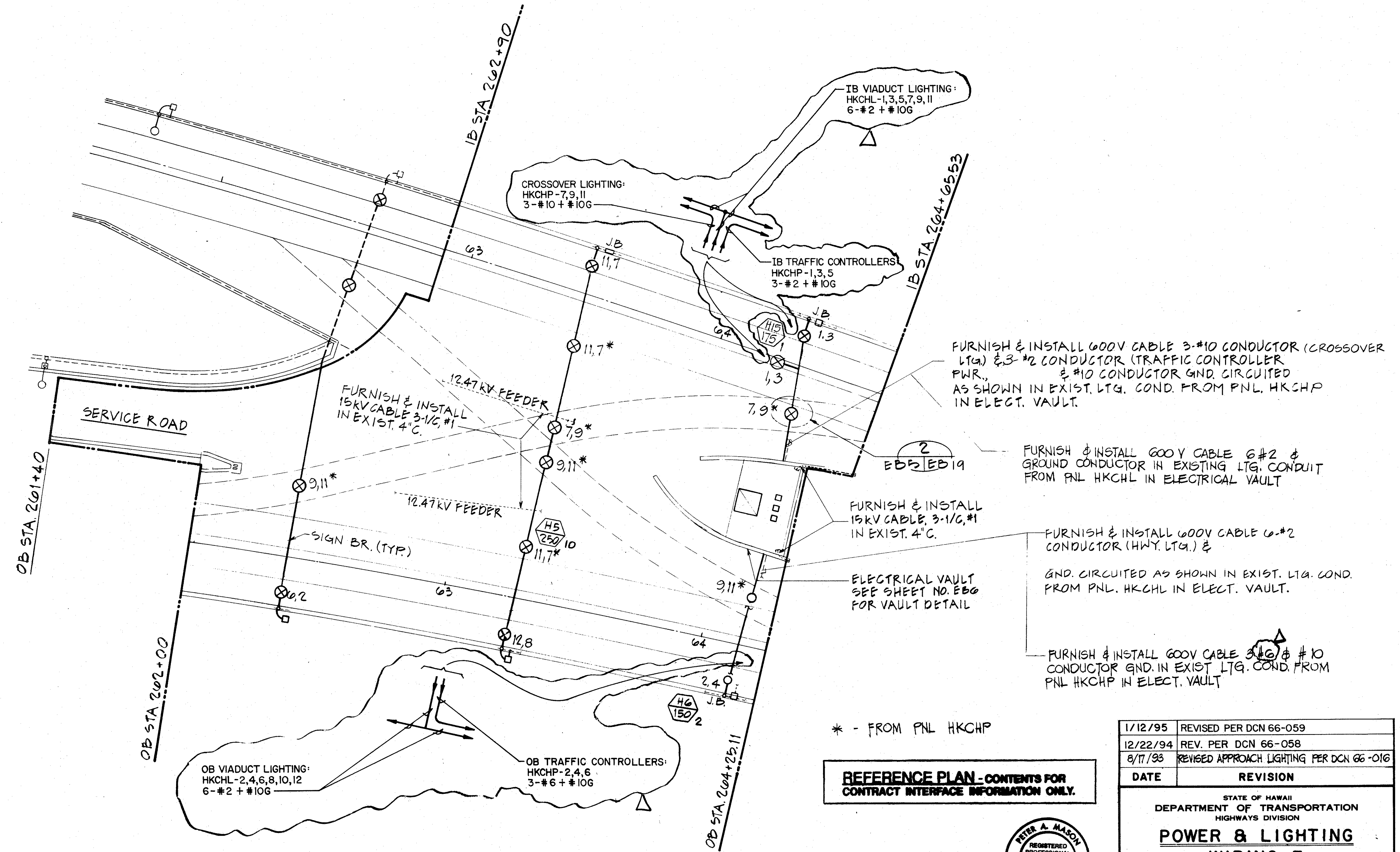
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
POWER & LIGHTING	
WIRING-2	
HAIKU APPROACH	
INTERSTATE ROUTE H-3	
F.A.I. PROJ. NO. I-H3-1(66)	
SCALE: 1"=20'	DATE: APR 1992
SHEET No. EB4 OF 19 SHEETS	



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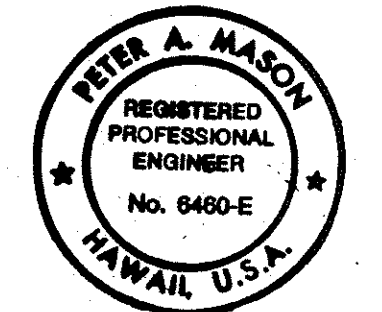


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	373	405



ORIGINAL PLAN	DATE
NO. 1	2/20/94
DESIGNED BY	DATE
QUANTITIES BY	DATE
CHECKED BY	DATE

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



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Peter A. Mason

1/12/95	REVISED PER DCN 66-059
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
DATE	REVISION

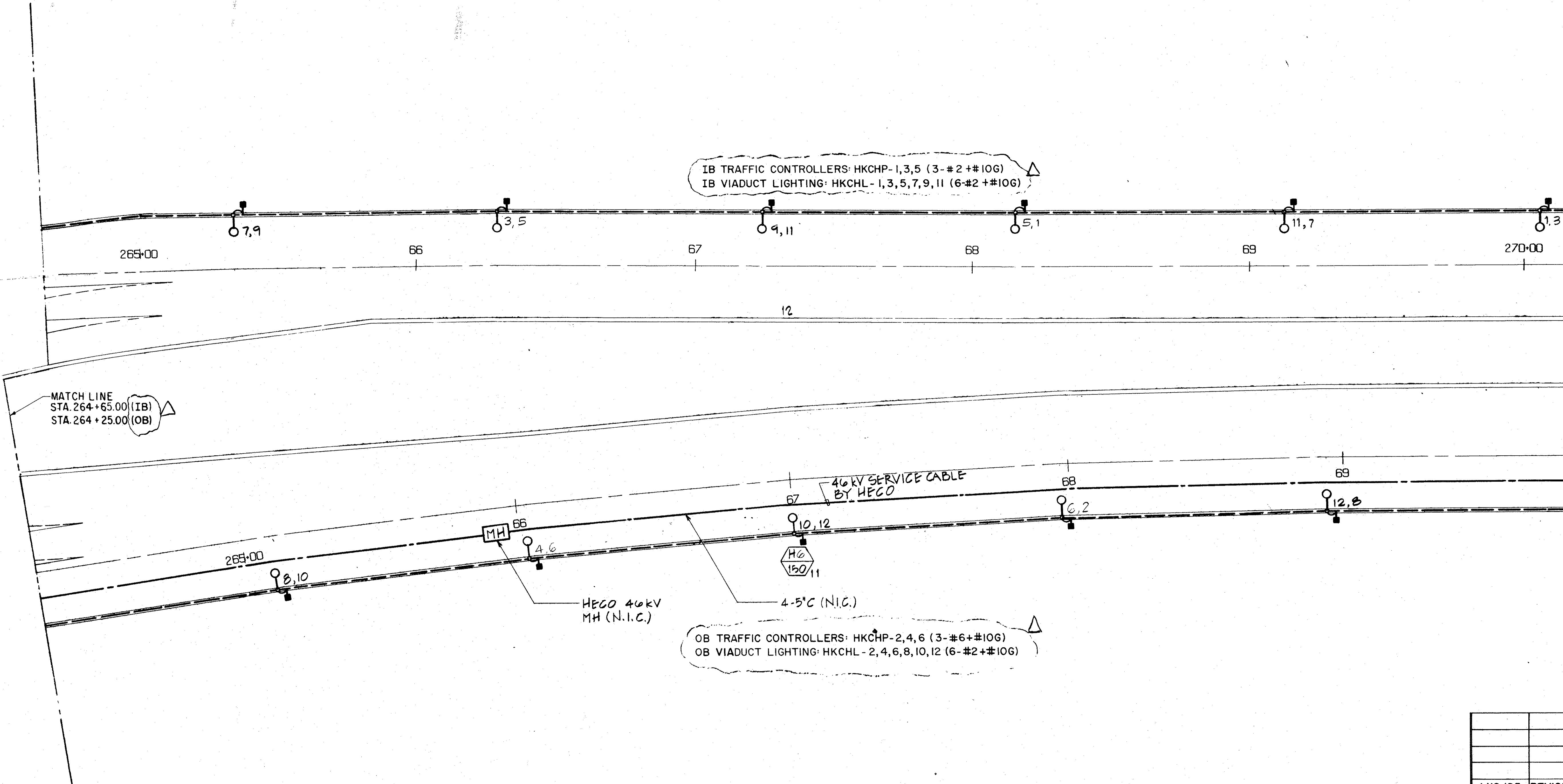
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POWER & LIGHTING
WIRING-3
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)

SCALE: 1" = 20' DATE: APRIL 1992

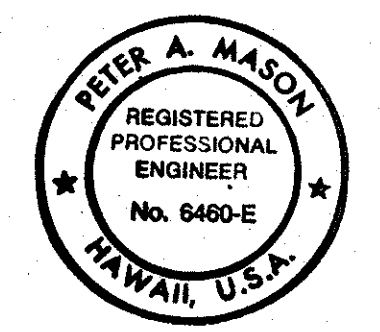
SHEET NO. E65 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	374	405

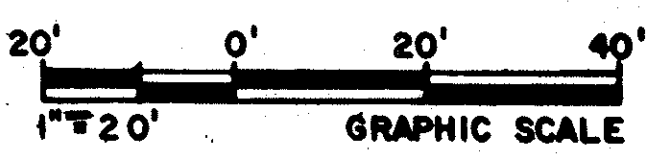


STA 270+15 (OB)
MATCH LINE
STA 269+81 (OB)

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.



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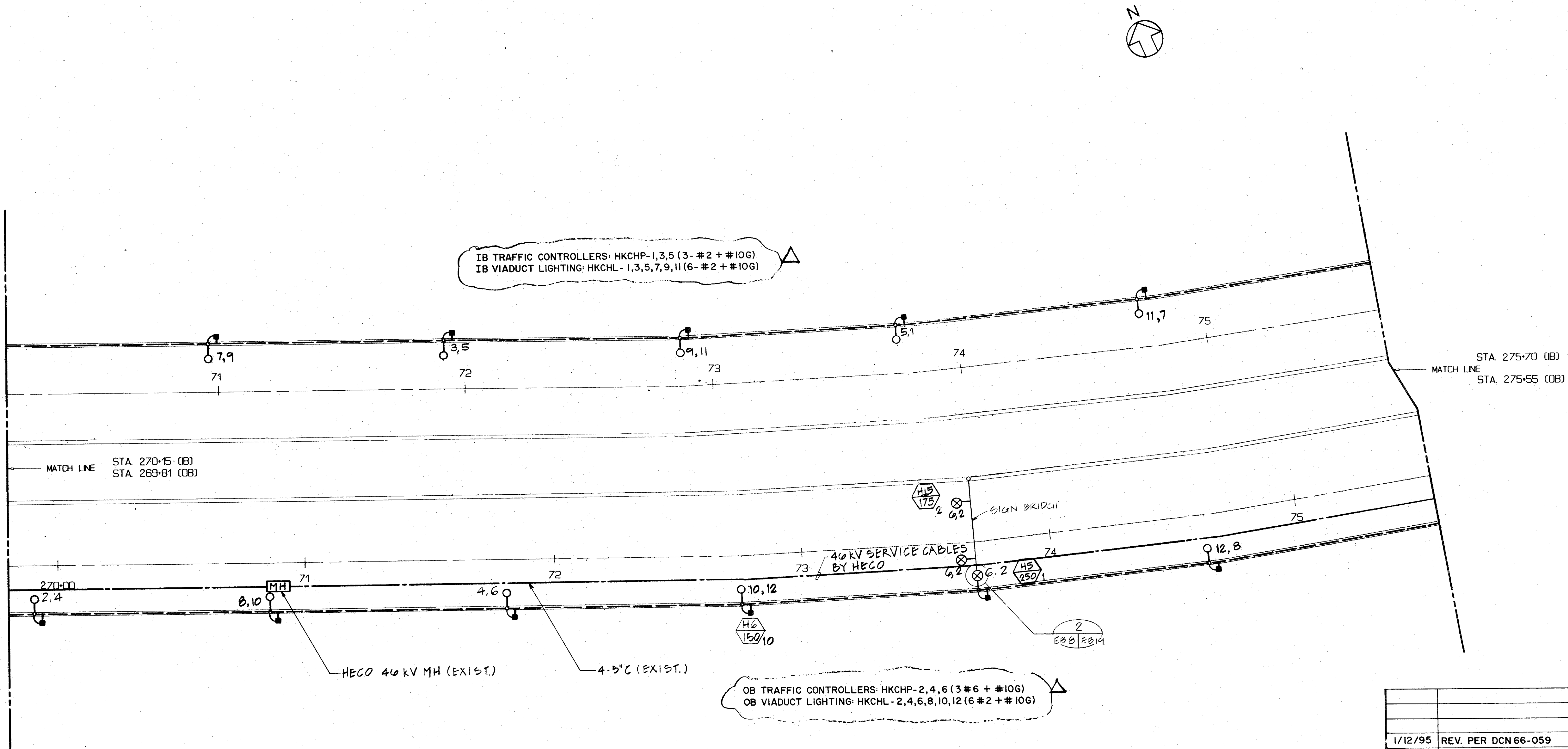


1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
VIADUCT POWER & LIGHTING
WIRING-1
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. 1-H3-1(66)
SCALE: 1" = 20' DATE: APR 1992
SHEET No. **E87** OF 19 SHEETS

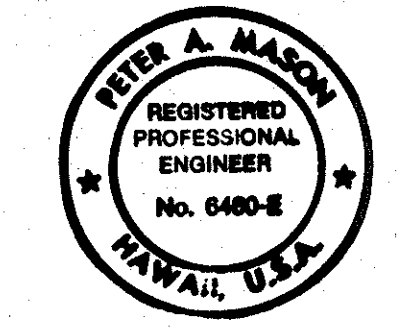
ORIGINAL PLAN	DATE
NOTE BOOK	2-14-90
NO.	115-90
	2-26-90
SURVEY PLOTTED BY	DATE
DRAWN BY	2-14-90
DESIGNED BY	1-15-90
QUANTITIES BY	1-15-90
CHECKED BY	2-26-90

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	375	405

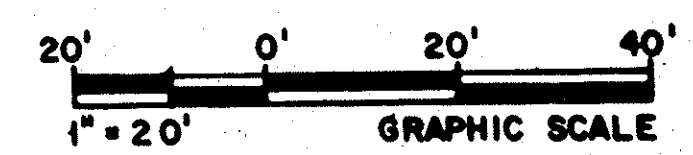


DESIGNED BY	DATE
TRACED BY	2-14-90
QUANTITIES BY	1-15-90
CHECKED BY	2-24-90
INCHES	
FEET	

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



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 Peter A. Mason



DATE	REVISION
1/12/95	REV. PER DCN 66-059
12/22/94	REV. PER DCN 66-058
3/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003
DATE	REVISION

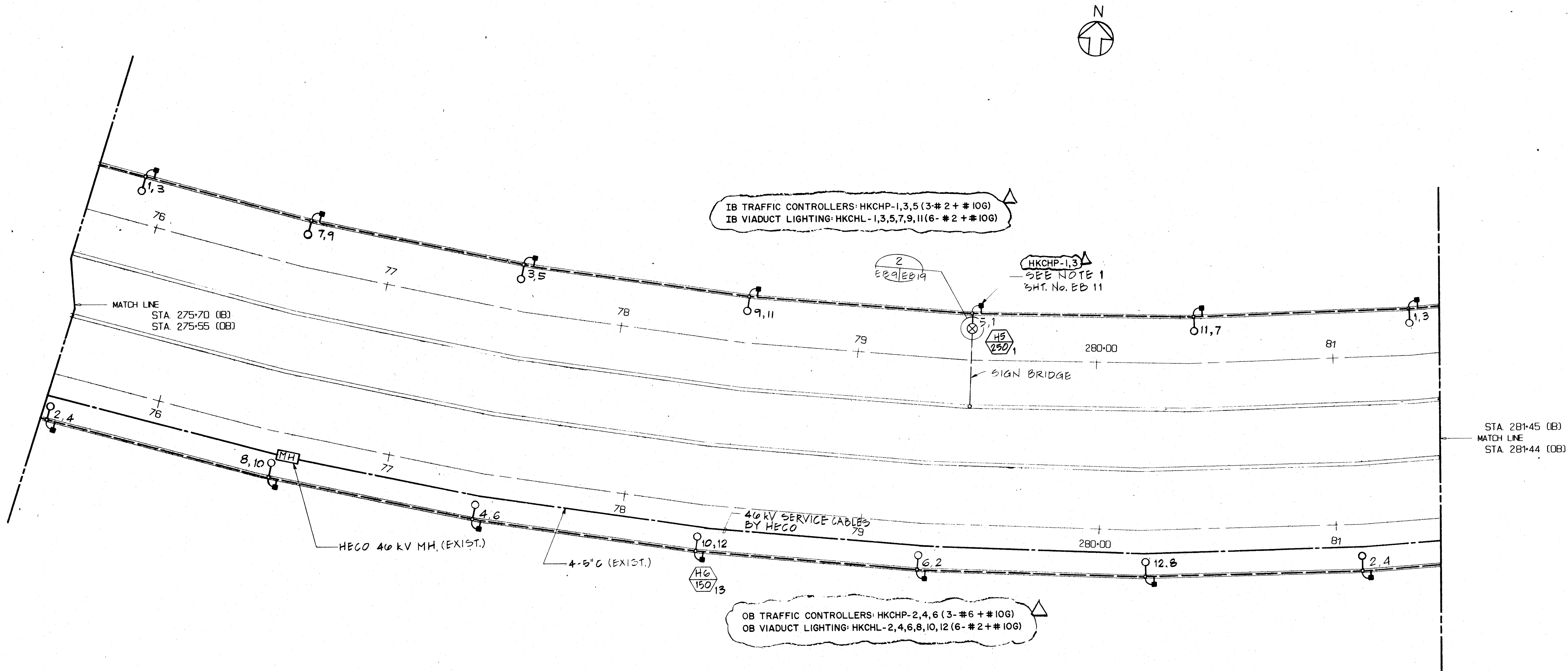
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING
WIRING-2
HAIKU APPROACH
INTERSTATE ROUTE H-3
 F. A. I. PROJ. NO. I-H3-1(66)

SCALE: 1"=20' DATE: APR 1992

SHEET No. E88 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	376	405



SURVEY PLOTTED BY	DATE
DR. G. W. SANG	2-14-90
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.



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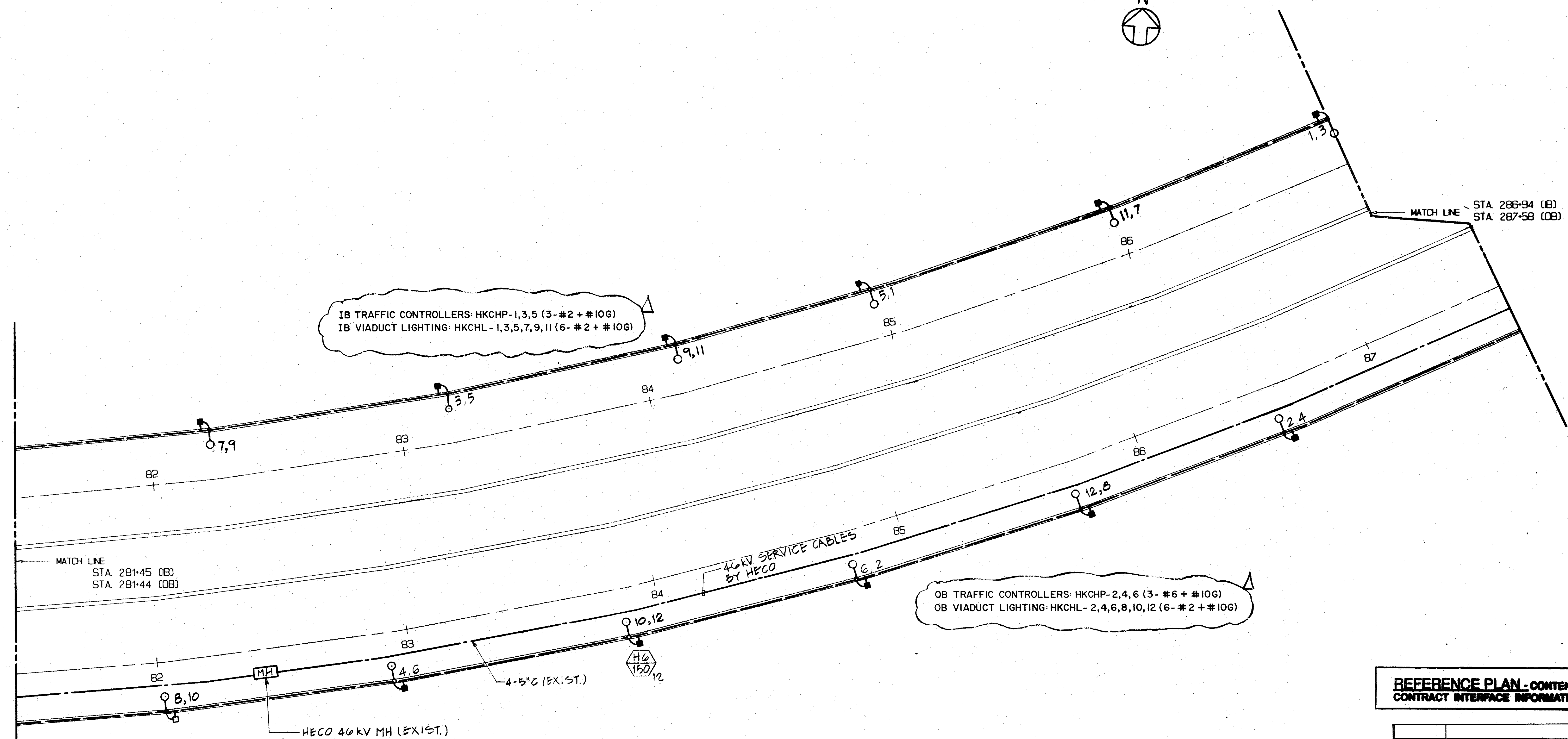
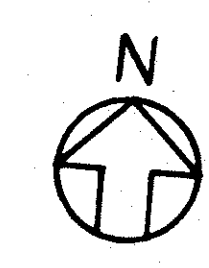


1/12/95	REV. PER DCN 66-059
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-010
4/29/93	DELETED 15KV CABLE AND REVISED NOTE REFERENCE PER DCN 66-003
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING
WIRING-3
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66):
SCALE: 1"=20' **DATE: APR 1992**
SHEET No. EB9 OF 19 SHEETS

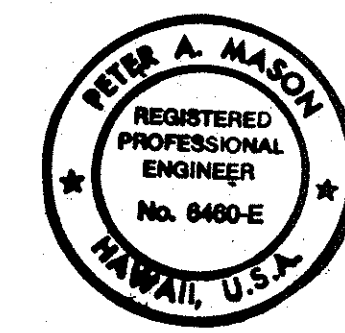
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	377	405



SURVEY PLOTTED BY	DATE
DESIGNED BY	2/1/90
NOTED BY	1/15/90
QUANTITIES BY	6/26/90
CHECKED BY	

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-010
4/29/93	DELETED 15KV CABLE PER DCN 66-003



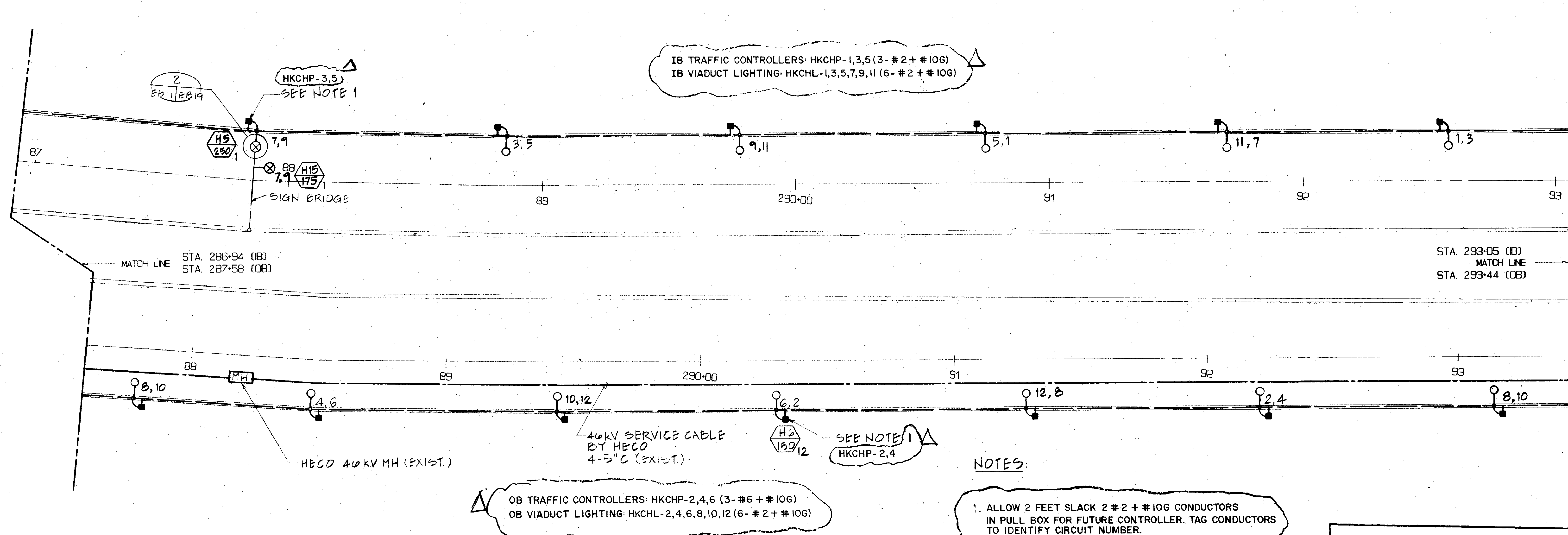
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Peter A. Mason



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HAIKU APPROACH

VIADUCT POWER & LIGHTING
WIRING-4
HAIKU APPROACH
INTERSTATE ROUTE H-3
F. A. L. PROJ. NO. I-H3-1(66):
SCALE: 1"=20' DATE: APR 1992

FED. ROAD DIST. NO.	STATE	FED AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75) UNIT 1	1996	378	405



NOTES:

1. ALLOW 2 FEET SLACK 2 # 2 + # 10G CONDUCTORS IN PULL BOX FOR FUTURE CONTROLLER. TAG CONDUCTORS TO IDENTIFY CIRCUIT NUMBER.

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
1/12/95	REV. PER DCN 66-059
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE AND REVISED NOTE REFERENCES PER DCN 66-003

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING

WIRING-5

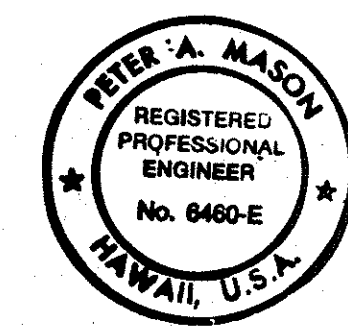
HAIKU APPROACH

INTERSTATE ROUTE H-3

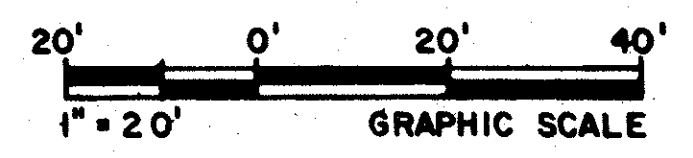
F.A.I. PROJ. NO. 1-H3-1(66):

SCALE: 1" = 20' DATE: APR 1992

SHEET No. EB11 OF 19 SHEETS

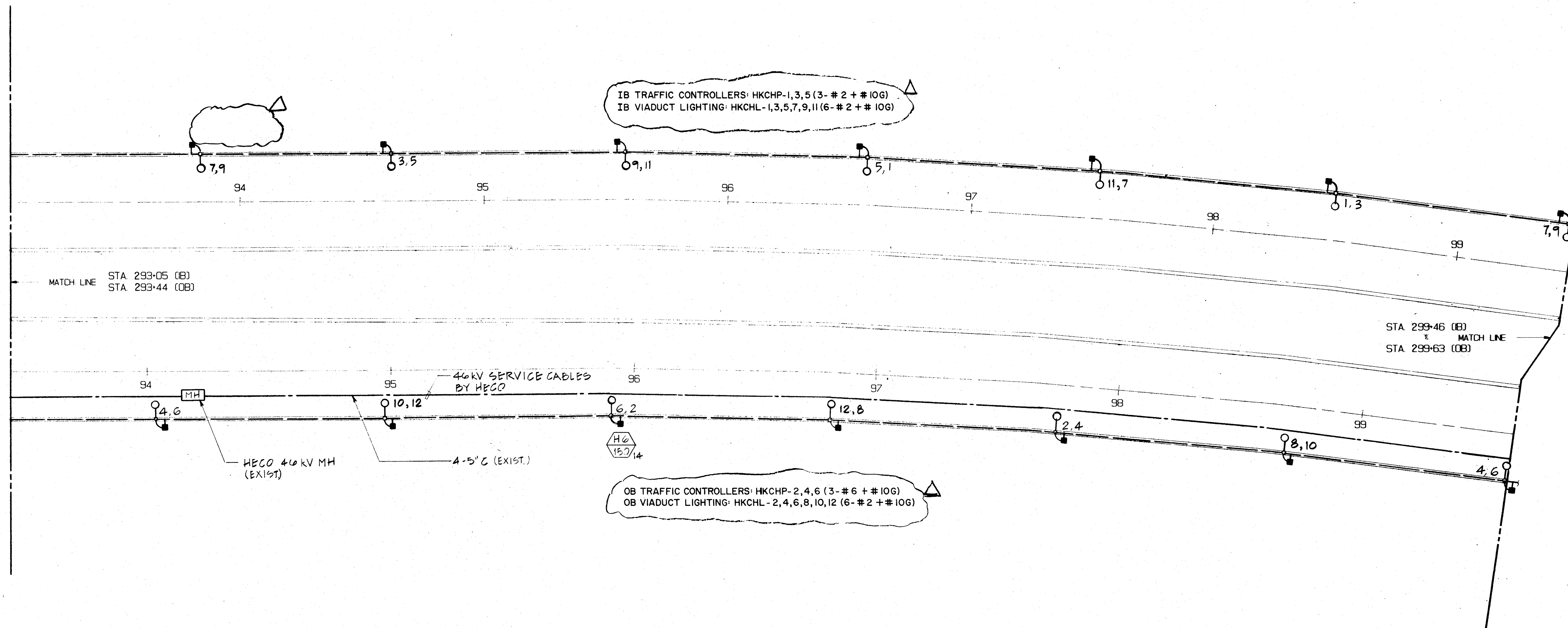
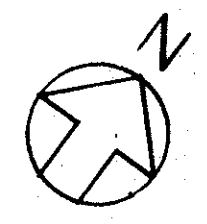


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ORIGINAL PLAN	DATE
NO.	2-14-90
SURVEY PLOTTED BY	G. OW-YANG
DRAWN BY	T. SANCHEZ
CHECKED BY	J.J. SASSANI
DATE	9-16-90

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(175) UNIT I	1996	379	405



REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
1/12/95	REV. PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING

WIRING-6

HAIKU APPROACH

INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(66)

SCALE: 1" = 20' DATE: APR 1992

SHEET No. EB12 OF 19 SHEETS

SURVEY PLOTTED BY	DATE
DRAWN BY	2-14-90
TRACED BY	G. ON-YANG
CHECKED BY	T. SANCHEZ
NOTE BOOK	1-15-90
CHECKED BY	J. J. SASSANI
NO.	9-24-90

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	380	405



HKCHP-1,3
SEE NOTE 1
SHT. NO. EB11

IB TRAFFIC CONTROLLERS: HKCHP-1,3,5 (3- #2 + #10G)
IB VIADUCT LIGHTING: HKCHL-1,3,5,7,9,11 (6- #2 + #10G)

SIGN BRIDGEZ

STA 305+28 (IB)
MATCH LINE
STA 305+29 (OB)

OB TRAFFIC CONTROLLERS: HKCHP-2,4,6 (3- #6 + #10G)
OB VIADUCT LIGHTING: HKCHL-2,4,6,8,10,12 (6- #2 + #10G)

40KV SERVICE CABLES
BY HECO

STA 299+46 (IB)
STA 299+63 (OB)
MATCH LINE

HECO 40KV MH (EXIST)

4-5" C (EXIST)

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

1/12/95	REV. PER DCN 66-059
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003
DATE	REVISION



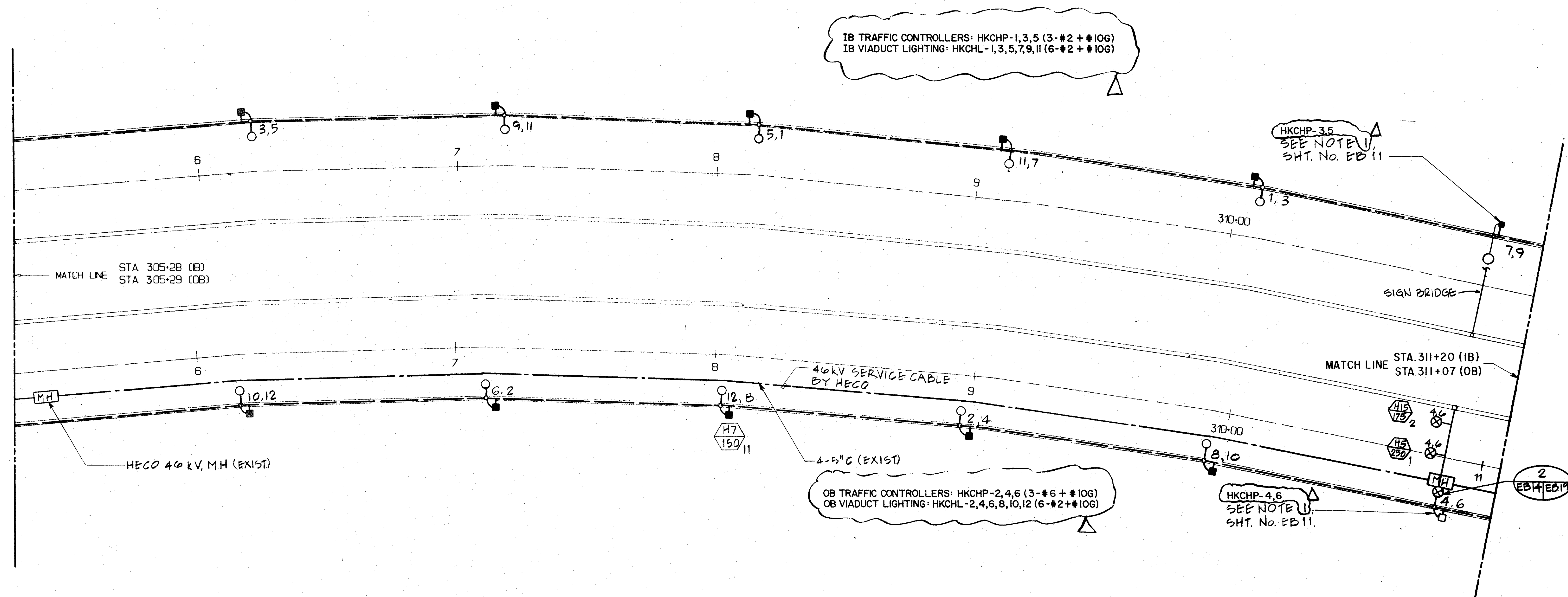
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION
Peter A. Mason

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
VIADUCT POWER & LIGHTING
WIRING-7
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)
SCALE: 1" = 20' DATE: APR 1992
SHEET No. EB13 OF 19 SHEETS



SURVEY PLOTTED BY	DATE
DRAWN BY	2/14/90
DESIGNED BY	1/15/90
CHECKED BY	2/26/90
NOTE BOOK	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	381	405



REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



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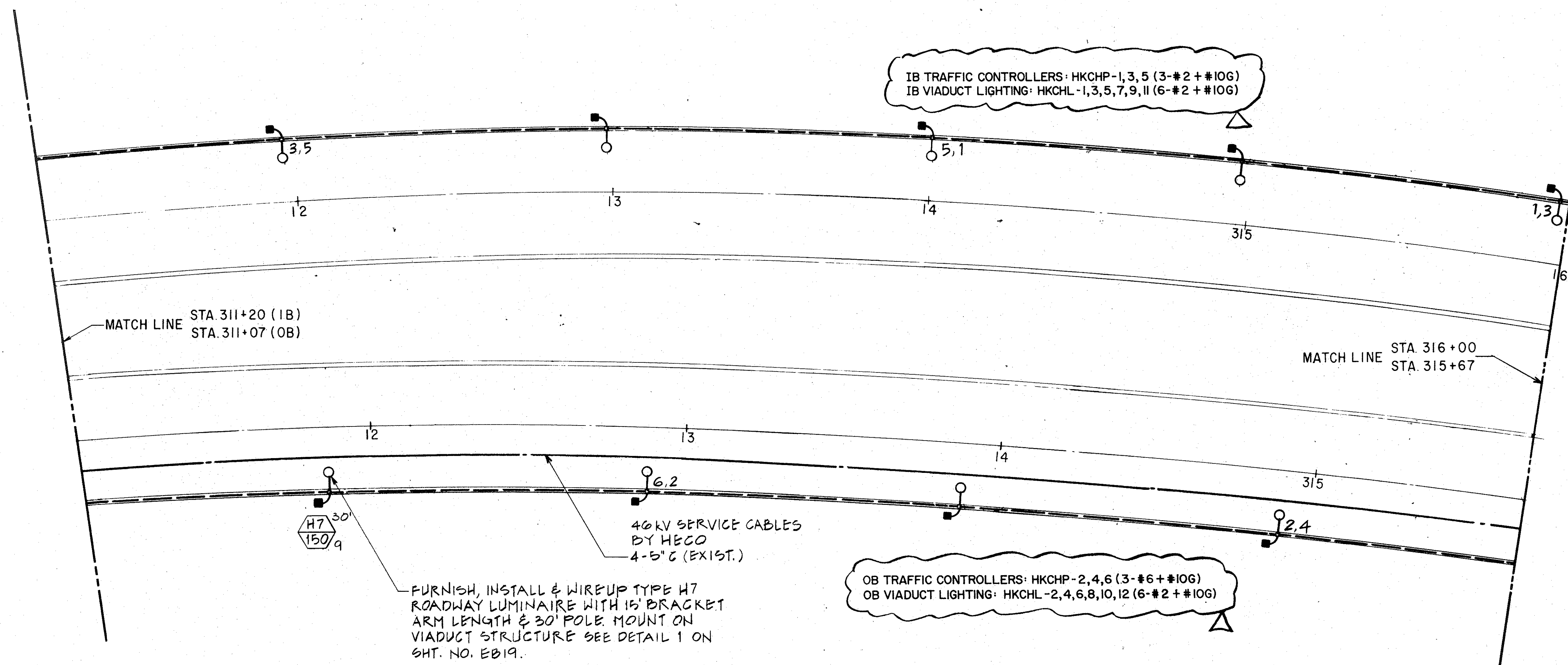


1/12/95	REVISED PER DCN 66-059
12/22/94	REV. PER DCN 66-058
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE, INDICATED CORRECT SIGN BRIDGE LOCATION PER DCN 66-003
DATE	REVISION

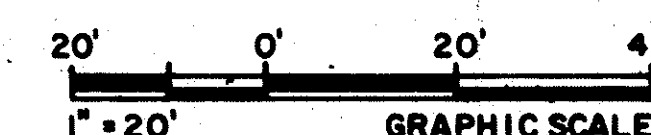
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
VIADUCT POWER & LIGHTING	
WIRING-8	
HAIKU APPROACH	
INTERSTATE ROUTE H-3	
F.A.I. PROJ. NO. I-H3-1(66):	
SCALE: 1"=20'	DATE: APR 1992
SHEET No. EB/4 OF 19 SHEETS	

DATE	2-14-90
DESIGNED BY	G. ON-YANG
CHECKED BY	J.J. SASSARI
DATE	2-14-90
DESIGNED BY	T. SANCHEZ
CHECKED BY	J.J. SASSARI
DATE	2-14-90
DESIGNED BY	J.J. SASSARI
CHECKED BY	J.J. SASSARI

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	382	405



SURVEY PLOTTED BY	G. ON-YANG	DATE	2-14-90
DRAWN BY	T. SANCHEZ	DESIGNED BY	1-15-90
NOTE BOOK	J.J. SASSANI	CHECKED BY	6-16-90



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Peter A. Mason

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003

DATE	REVISION
------	----------

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING

WIRING-9

HAIKU APPROACH

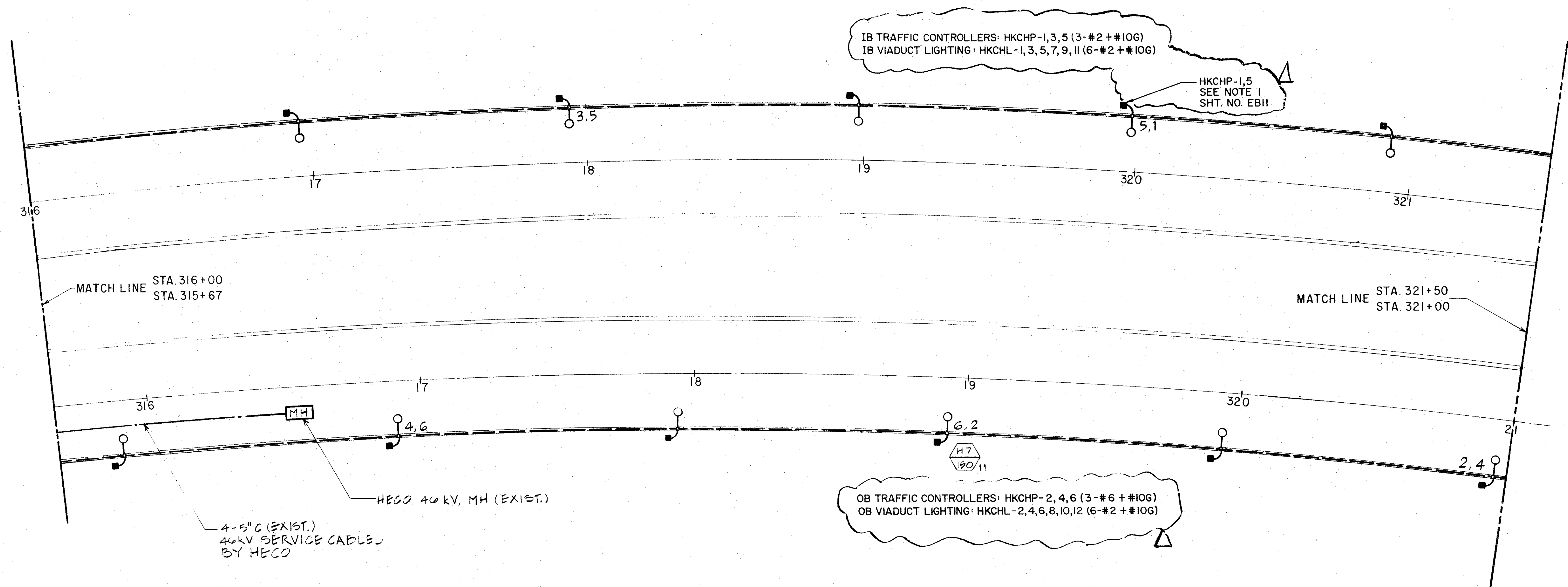
INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(66):

SCALE: 1"=20' DATE: APR 1992

SHEET No. EB15 OF 19 SHEETS

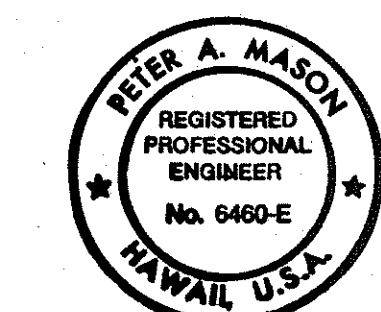
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	383	405



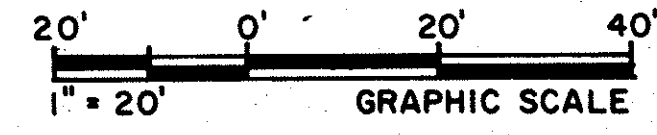
ORIGINAL PLANS	DATE
DESIGNED BY	2-14-90
NOTED BY	1-15-90
CHECKED BY	9-26-90
QUANTITIES BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003
DATE	REVISION



THIS PLAN WAS PREPARED BY ME
UNDER MY SUPERVISION
Peter A. Mason



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING

WIRING-10

HAIKU APPROACH

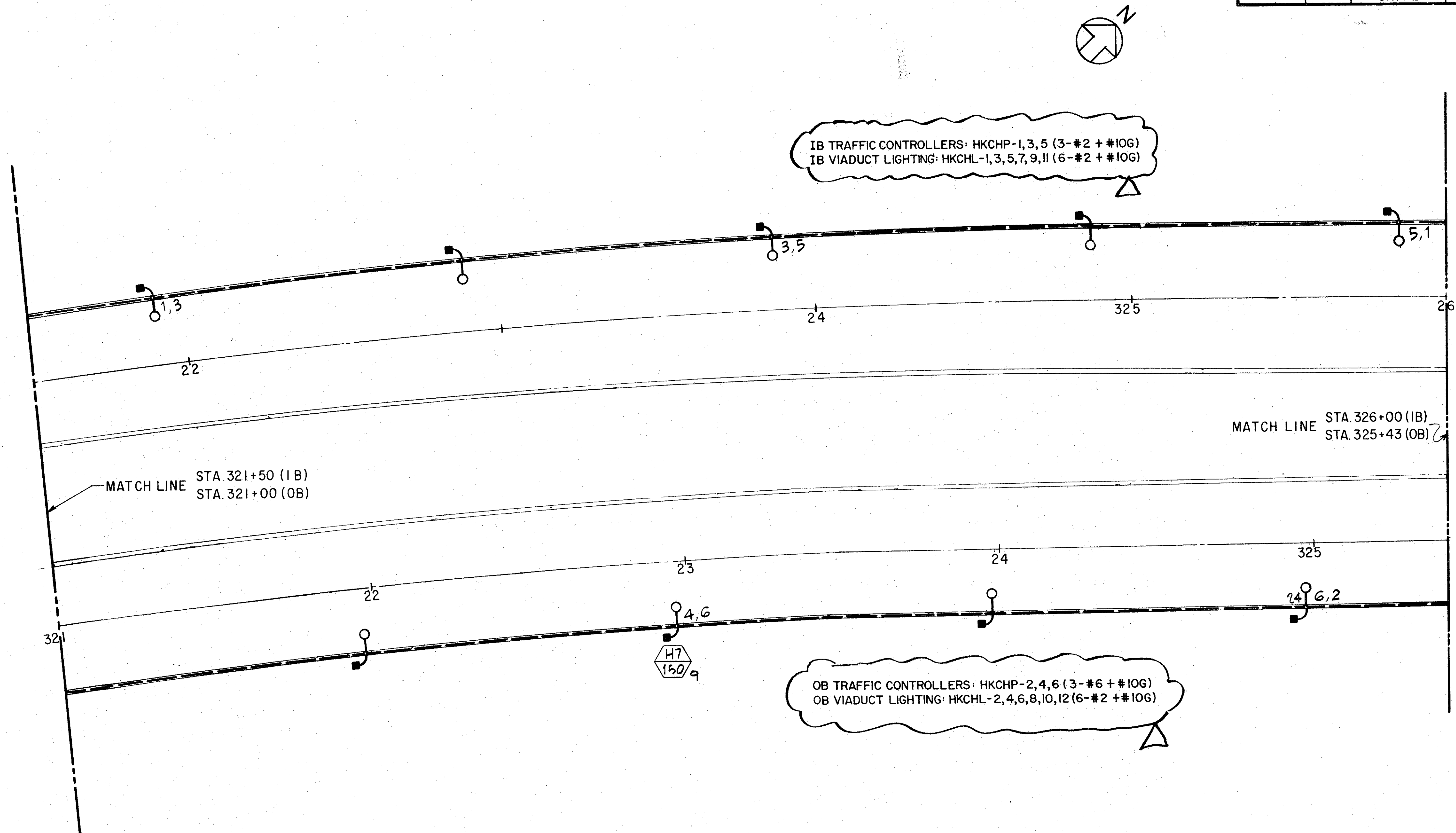
INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(66)

SCALE: 1" = 20' DATE: APR 1992

SHEET No. EB16 OF 19 SHEETS

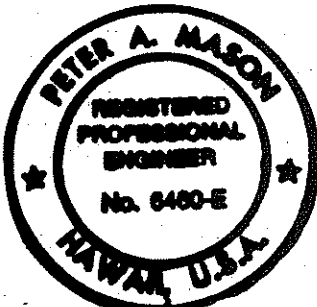
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT 1	1996	384	405



ORIGINAL PLAN	DATE
NO. 1	2-14-92
NO. 2	1-15-90
NO. 3	9-22-90

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE PER DCN 66-003



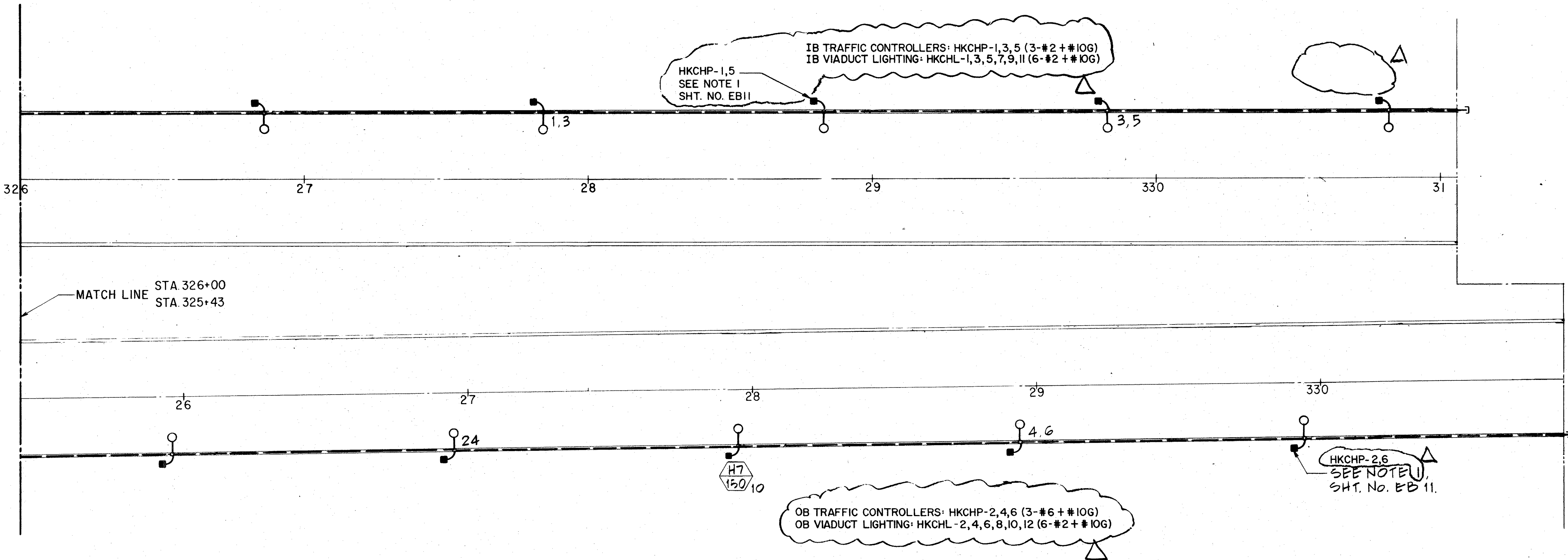
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Peter A. Mason



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

VIADUCT POWER & LIGHTING
WIRING-II
HAIKU APPROACH
INTERSTATE ROUTE H-3
F. A. I. PROJ. NO. I-H3-I(66):
SCALE: 1" = 20' DATE: APR 1992
SHEET No. EBI7 OF 19 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	385	405



SURVEY PLOTTED BY	DATE
DRAWN BY	2/14/90
DESIGNED BY	1/15/90
QUANTITIES BY	6/24/90
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

1/12/95	REVISED PER DCN 66-059
8/17/93	REVISED APPROACH LIGHTING PER DCN 66-016
4/29/93	DELETED 15KV CABLE AND REVISED NOTE REFERENCE PER DCN 66-003
DATE	REVISION



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Peter A. Mason

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
VIADUCT POWER & LIGHTING
WIRING-12
HAIKU APPROACH
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66):
SCALE: 1" = 20' DATE: APR 1992
SHEET No. EB 18 OF 19 SHEETS



GENERAL NOTES FOR SIGN STRUCTURES AND FARADAY SHIELD SUPPORTS

7. SYMBOLS AND ABBREVIATIONS:

ABUT.	— ABUTMENT
&	— AND
@	— AT
Ⓡ	— BASELINE
BRG.	— BEARING
CL.,CLR.	— CLEAR
CONN.	— CONNECTION
CONT.	— CONTINUOUS
DIAG.	— DIAGONAL
DO.	— DITTO
EQ. SPS.	— EQUAL SPACES
EXIST.	— EXISTING
FLEX.	— FLEXIBLE
FM	— FIXED MESSAGE

GRS	— GALVANIZED RIGID STEEL
HEX.	— HEXAGONAL
H.S.	— HIGH STRENGTH
JB	— JUNCTION BOX
JT.	— JOINT
LTG.	— LIGHTING
N.H.	— NORTH HALAWA
PT	— POINT OF TANGENT
RECT.	— RECTANGULAR
STIFF.	— STIFFENER
t., thk.	— THICK
ULT.	— ULTIMATE
VM	— VARIABLE MESSAGE
WP	— WEATHERPROOF
W/	— WITH

WIND LOADING: DESIGN WIND SPEED = 80 MPH. FOR WIND LOAD NORMAL
TO FACE OF SIGN AND TRANSVERSE TO FACE OF SIGN,
SEE DESIGN SPECIFICATIONS.

WALKWAYS: SEE NOTES ON SHEET NO. SS28.

STRUCTURAL STEEL: ASTM A36

HIGH STRENGTH BOLTS: ASTM A325 (FRICTION - TYPE CONNECTION)

STRUCTURAL TUBING: ASTM A500 GRADE B

STEEL PIPE: ASTM A53 TYPE E GRADE B

ALL WELDING TO BE CONTINUOUS WELDS AND AS NOTED ON THE PLANS.
ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AASHTO/AWS D1.5-88
"BRIDGE WELDING CODE".

- A. SIGN SUPPORT BOX TRUSS MEMBERS AND SUPPORTING POSTS; SHEET METAL SIDING AND EDGINGS; CONNECTION BOLTS; NUT AND WASHERS; TO BE STRUCTURAL STEEL. TUBULAR SECTION SUPPORTING FARADAY SHIELD SHALL BE STRUCTURAL TUBING. ALL SURFACES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PRIOR TO PAINTING. SEE SPECIFICATIONS AND "RIBBED SHEET METAL NOTES" ON SHEET NO. SS29.
- B. GALVANIZED SURFACES OF SUPPORT STRUCTURES FOR OVERHEAD SIGNS, LANE CONTROL DISPLAY SIGNALS AND FARADAY SHIELDS (NOTE A. ABOVE) SHALL BE PAINTED TO WARM GRAY COLOR. SEE SPECIFICATIONS.
- C. CONTACT SURFACES IN HIGH STRENGTH (H.S.) BOLT CONNECTIONS SHALL NOT BE PAINTED. THE GALVANIZING ON THESE SURFACES SHALL BE LIGHTLY SCORED BY WIRE BRUSHING PRIOR TO ASSEMBLY.
- D. HIGH STRENGTH BOLTS SHALL BE GALVANIZED, FURNISHED AND INSTALLED IN CONFORMANCE WITH CURRENT ASTM A325 WITH LUBRICATED NUTS.
- E. LEVELING GROUT SHALL BE NON-SHRINK AND NON-METALLIC.

SEE HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1985 EDITION, AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, CURRENT EDITION AND SPECIAL PROVISIONS.

- A. PRIOR TO FABRICATION OF FRAMES OF SUPPORT STRUCTURES FOR OVERHEAD SIGNS, LANE CONTROL DISPLAY SIGNALS AND FARADAY SHIELDS, THE CONTRACTOR SHALL VERIFY IN THE FIELD THE EXACT LOCATION OF EACH OF THE ANCHOR BOLTS, THE POST ELEVATION AT THE TOP OF THE SUPPORTING CONCRETE AND SPAN LENGTH OF FRAME.
- B. PAYMENT FOR SUPPORT STRUCTURES FOR THE OVERHEAD SIGNS, LANE CONTROL DISPLAY SIGNALS AND FARADAY SHIELDS SHALL BE MADE AS DESCRIBED IN THE SPECIAL PROVISIONS.
- C. FARADAY SHIELD WIRES IN LONGITUDINAL DIRECTION SHALL BE INSTALLED SYMMETRICALLY ON EACH FARADAY SHIELD SUPPORT WITH A MAXIMUM OF 5 UNBALANCED OF 500' SPAN LENGTH. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACINGS FOR FARADAY SHIELD SUPPORT WHEN THE UNBALANCED WIRES EXCEED THE MAXIMUM DURING INSTALLATION.

**REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.**



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Hipang Chen

GENERAL NOTES

SUPPORT STRUCTURES
INTERSTATE ROUTE H - 3
F.A.I. PROJ. NO. I-H3-1 (66)

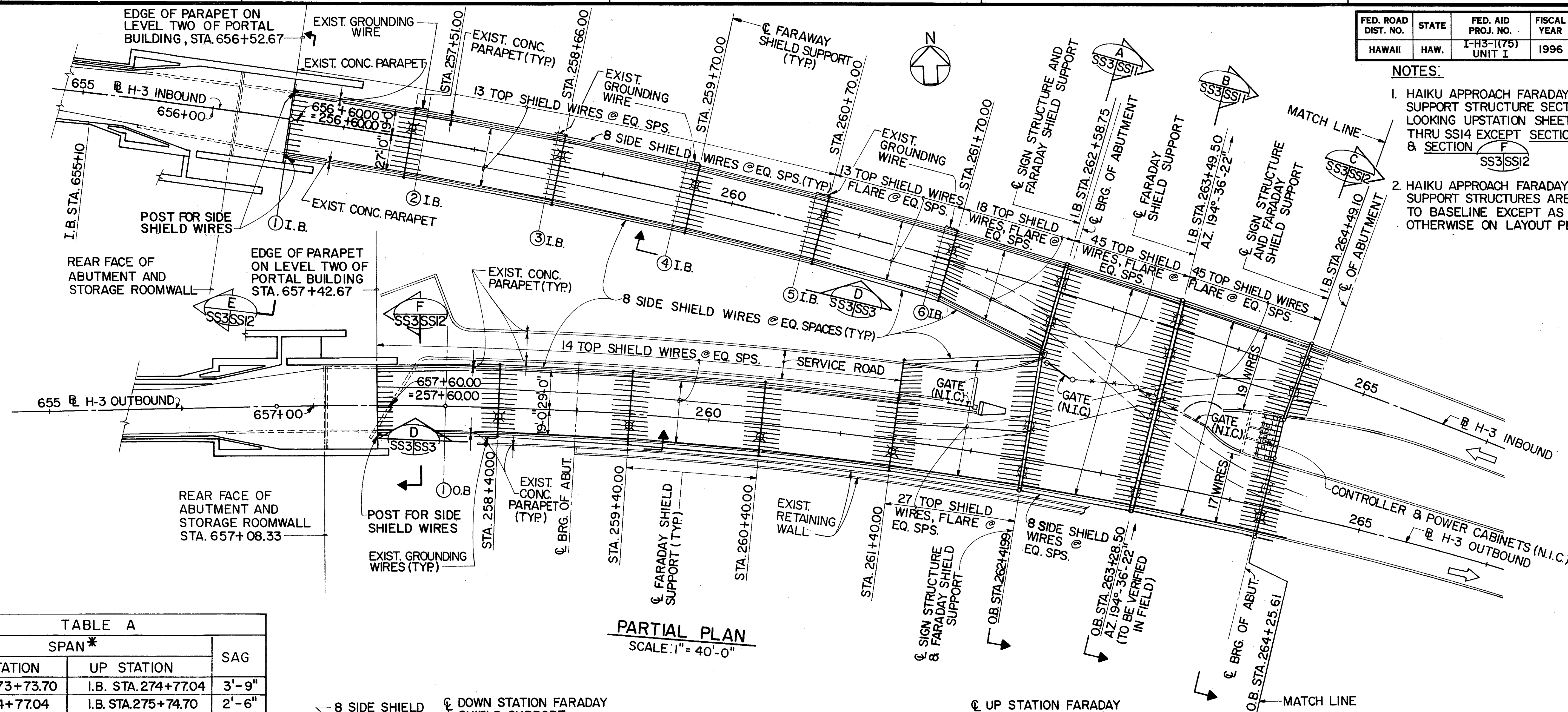
SCALE: NO SCALE DATE: APR. 1992

SHEET No.55 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	387	405

NOTES:

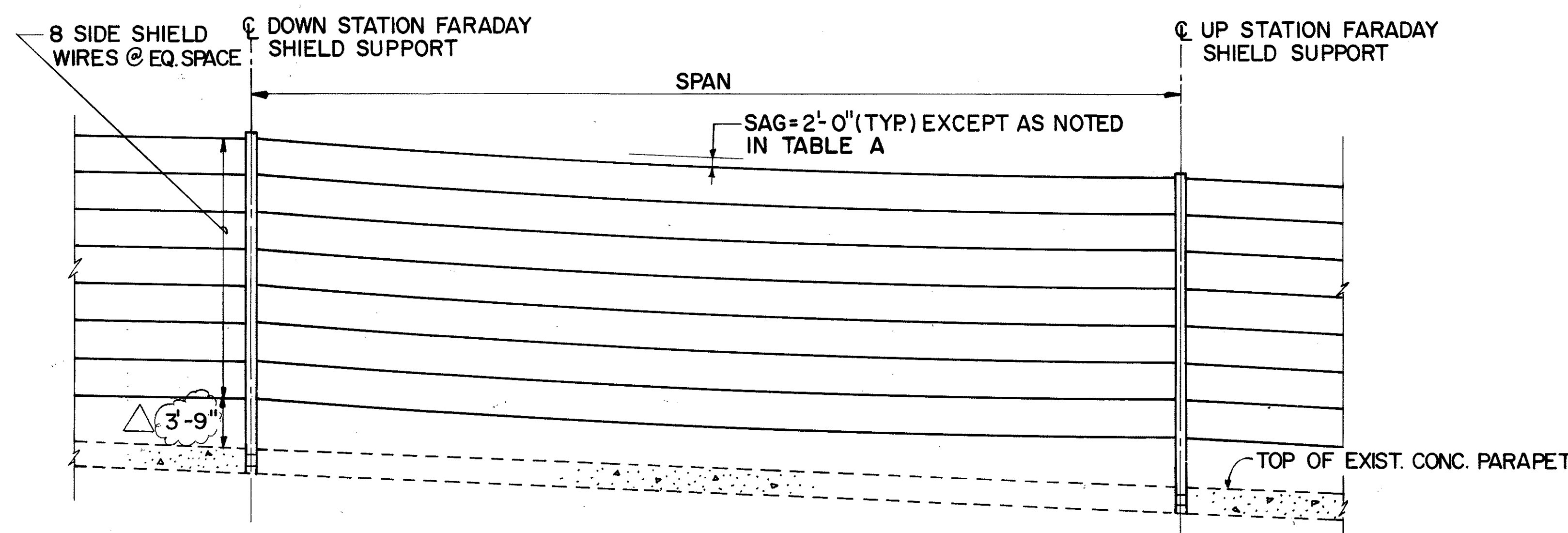
1. HAIKU APPROACH FARADAY SHIELD/SIGN SUPPORT STRUCTURE SECTIONS SHOWN LOOKING UPSTATION SHEET NOS. SS9 THRU SS14 EXCEPT SECTION E & SECTION F SS3/SS2
2. HAIKU APPROACH FARADAY SHIELD SUPPORT STRUCTURES ARE RADIAL TO BASELINE EXCEPT AS SHOWN OTHERWISE ON LAYOUT PLAN.



PARTIAL PLAN
SCALE: 1" = 40'-0"

TABLE A		
SPAN*		SAG
DOWN STATION	UP STATION	
I.B. STA. 273+73.70	I.B. STA. 274+77.04	3'-9"
I.B. STA. 274+77.04	I.B. STA. 275+74.70	2'-6"
I.B. STA. 284+14.70	I.B. STA. 285+05.53	2'-6"
I.B. STA. 285+05.53	I.B. STA. 285+97.07	3'-9"
I.B. STA. 285+97.07	I.B. STA. 286+94.70	2'-9"
I.B. STA. 295+53.70	I.B. STA. 296+53.70	2'-6"
I.B. STA. 296+53.70	I.B. STA. 297+57.20	3'-9"
O.B. STA. 273+70.11	O.B. STA. 274+61.54	3'-9"
O.B. STA. 274+61.54	O.B. STA. 275+59.28	2'-9"
O.B. STA. 276+48.28	O.B. STA. 277+41.50	2'-6"
O.B. STA. 284+78.28	O.B. STA. 285+74.49	2'-9"
O.B. STA. 285+74.49	O.B. STA. 286+63.49	3'-9"
O.B. STA. 286+63.49	O.B. STA. 287+59.28	2'-9"
O.B. STA. 297+66.79	O.B. STA. 298+62.28	3'-9"
O.B. STA. 298+62.28	O.B. STA. 299+57.28	2'-6"

* REQUIRES SPACER, SEE SHEET NO. SS32 FOR DETAIL



VIEW D
SS3/SS3
TYPICAL PARTIAL ELEVATION FOR FARADAY SHIELD
N.T.S.

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

LEGEND

- DENOTES LOCATION OF FUTURE LUMINAIRE.

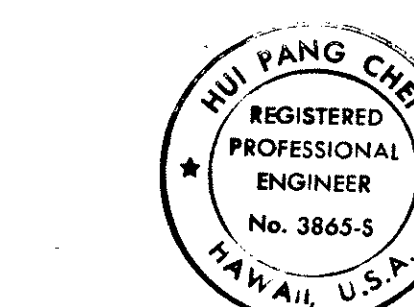
12/29/93	REV. DISTANCE FROM SIDE SHIELD WIRE TO TOP OF PARAPET (VIEW 'D') PER DCN 66-027
10/26/93	REVISED TABLE 'A' PER DCN 66-023
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

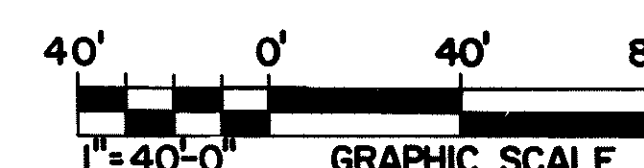
HAIKU APPROACH - LAYOUT PLAN 1 SUPPORT STRUCTURES

INTERSTATE ROUTE H-3
FAI PROJ. NO. I-H3-1 (66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET NO. SS3 OF 36 SHEETS

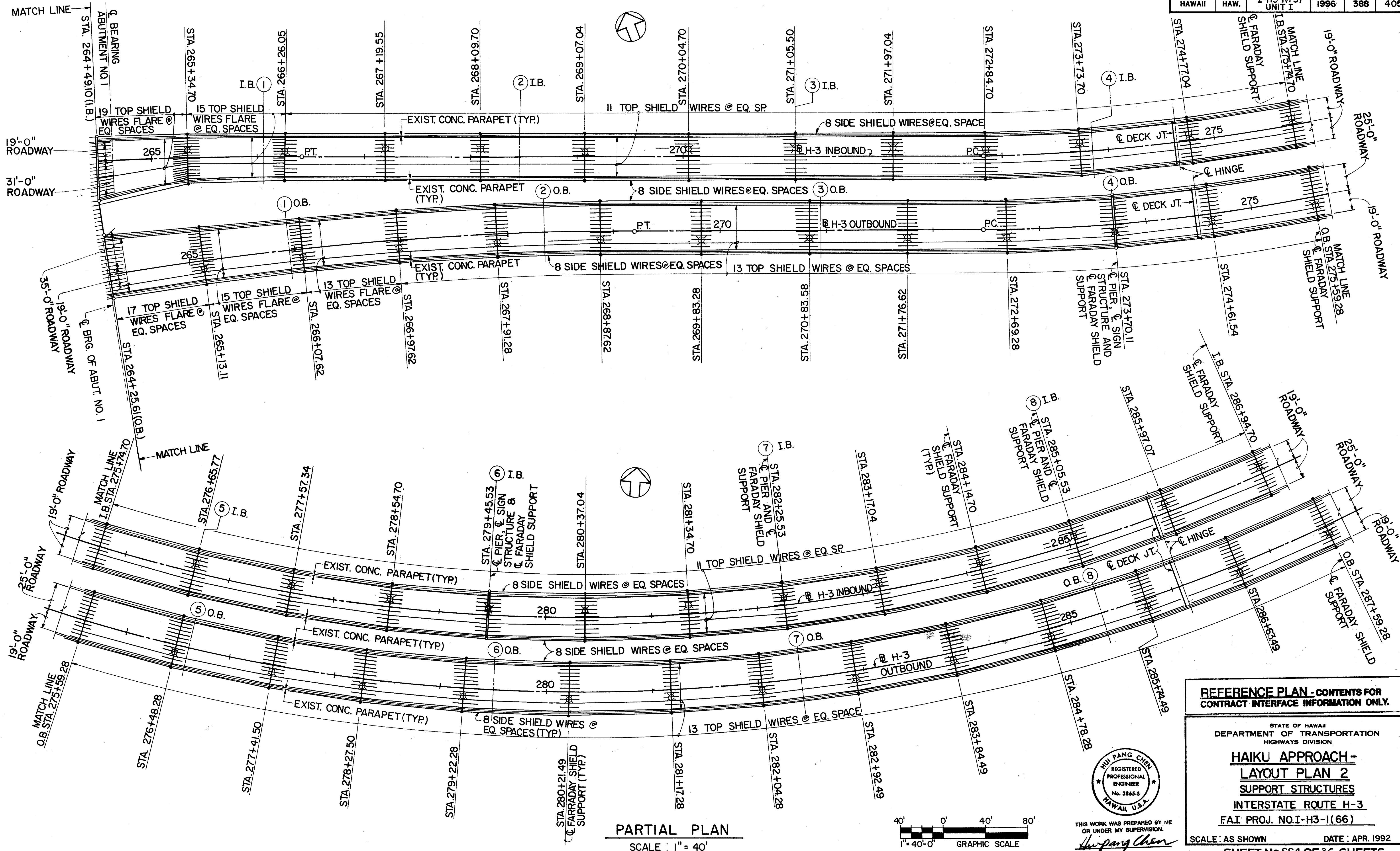


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OR UNDER MY SUPERVISION
Hui Pang Chen



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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	388	405



PARTIAL PLAN
SCALE: 1" = 40'

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

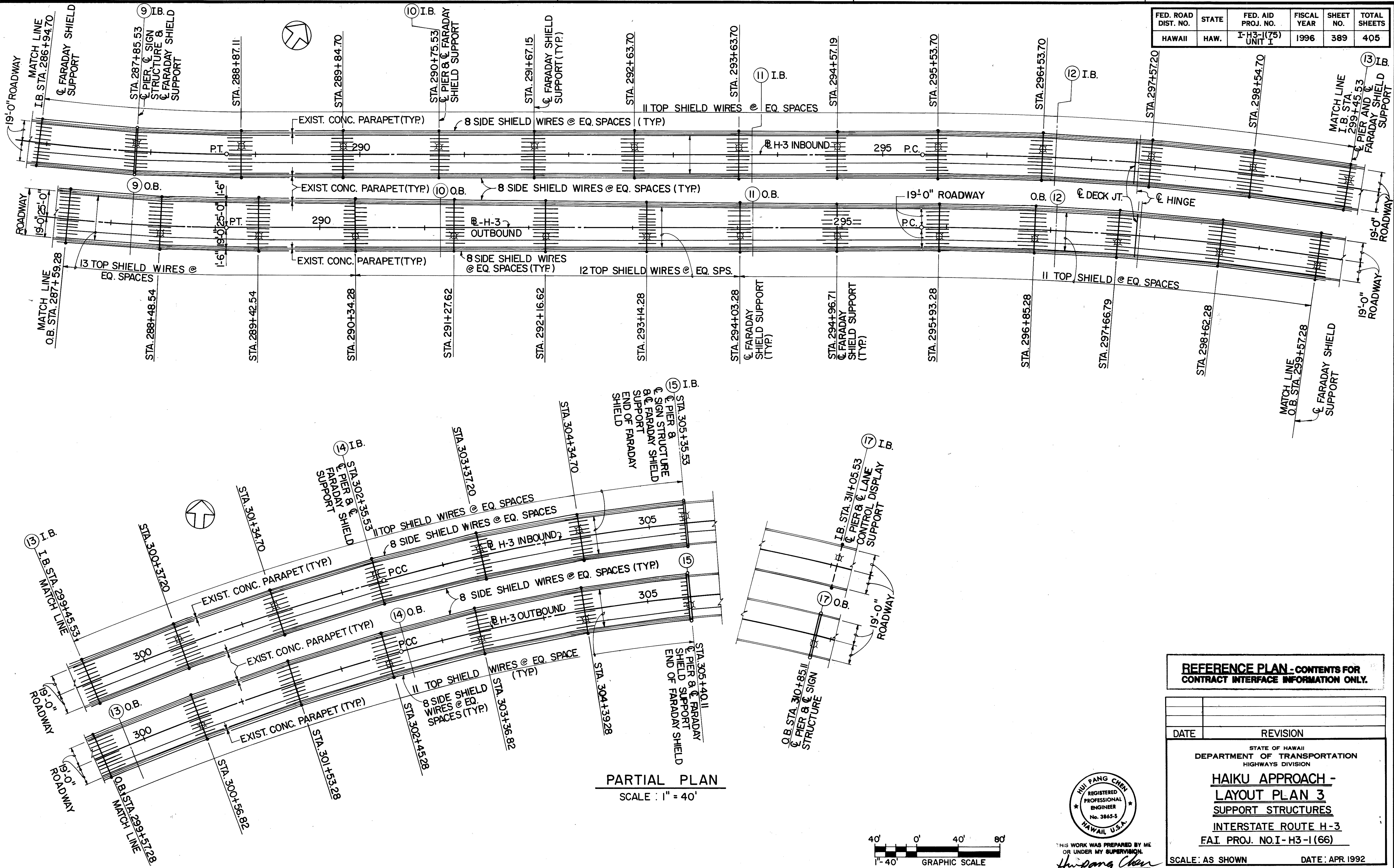
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HAIKU APPROACH -
LAYOUT PLAN 2
SUPPORT STRUCTURES

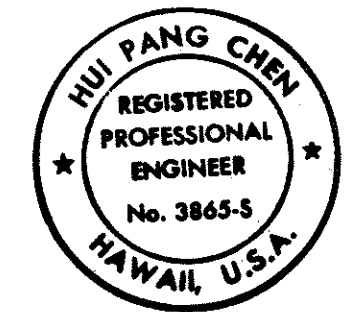
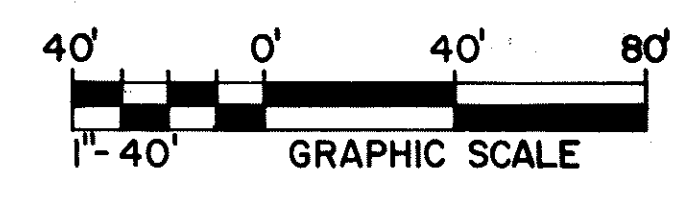
INTERSTATE ROUTE H-3
FAI PROJ. NO. I-H3-1(66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET NO. 388 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	389	405



PARTIAL PLAN
SCALE: 1" = 40'



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Hui Tang Chen

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

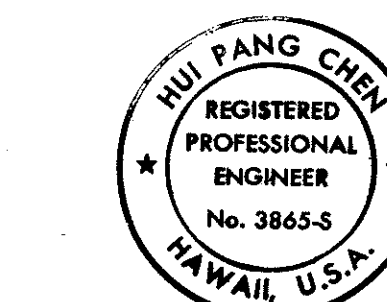
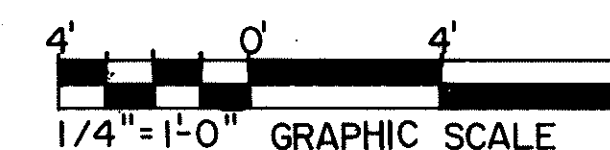
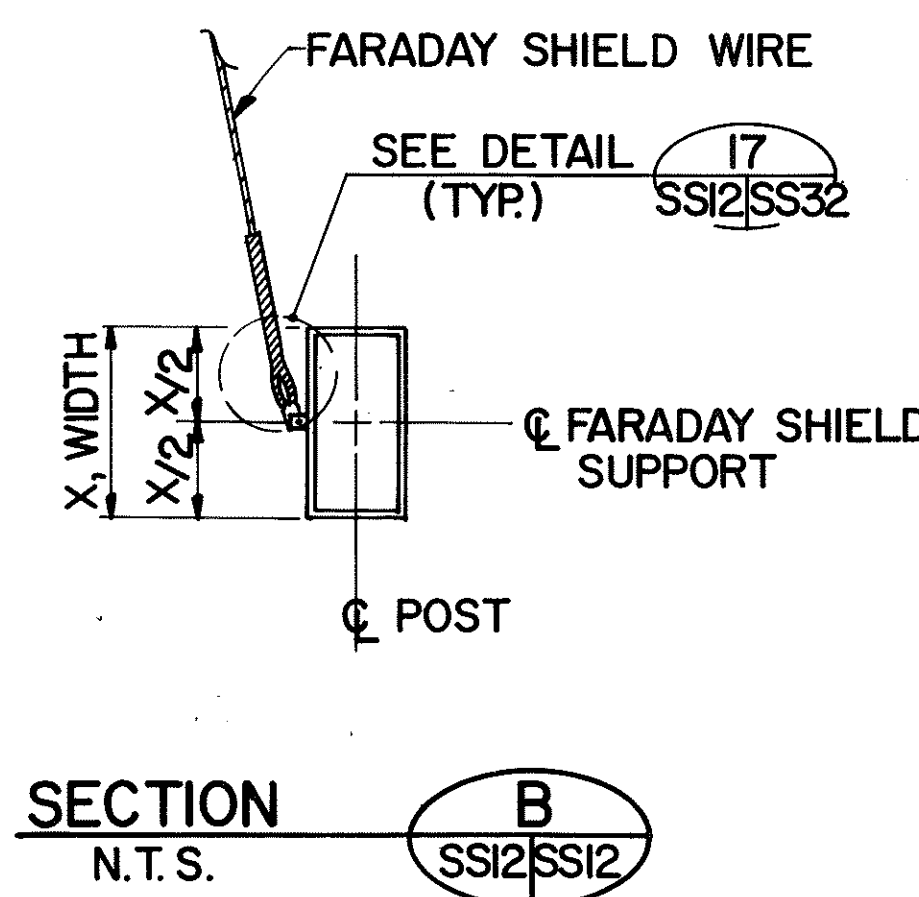
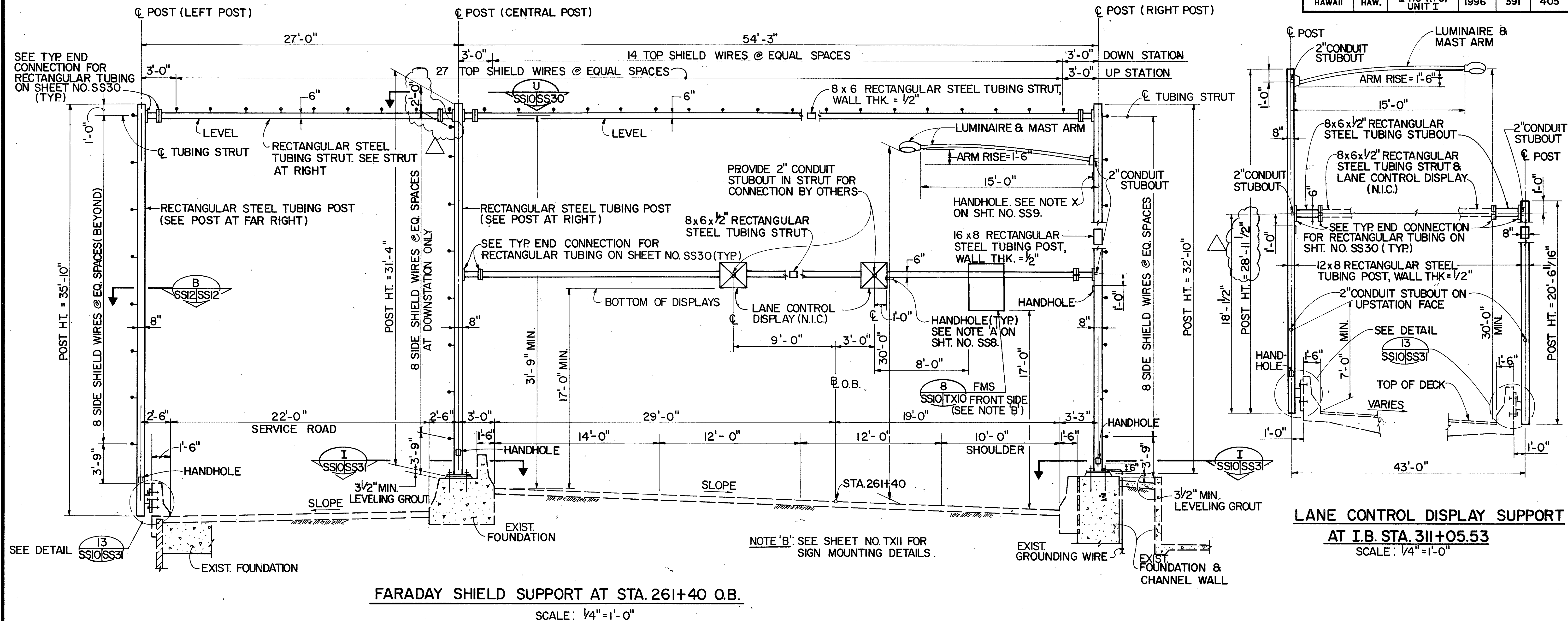
**HAIKU APPROACH -
LAYOUT PLAN 3
SUPPORT STRUCTURES**

INTERSTATE ROUTE H-3
FAI PROJ. NO. I-H3-1(66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET No. SS OF 36 SHEETS

ORIGINAL PLAN	DATE
NO.	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
CHECKED BY	

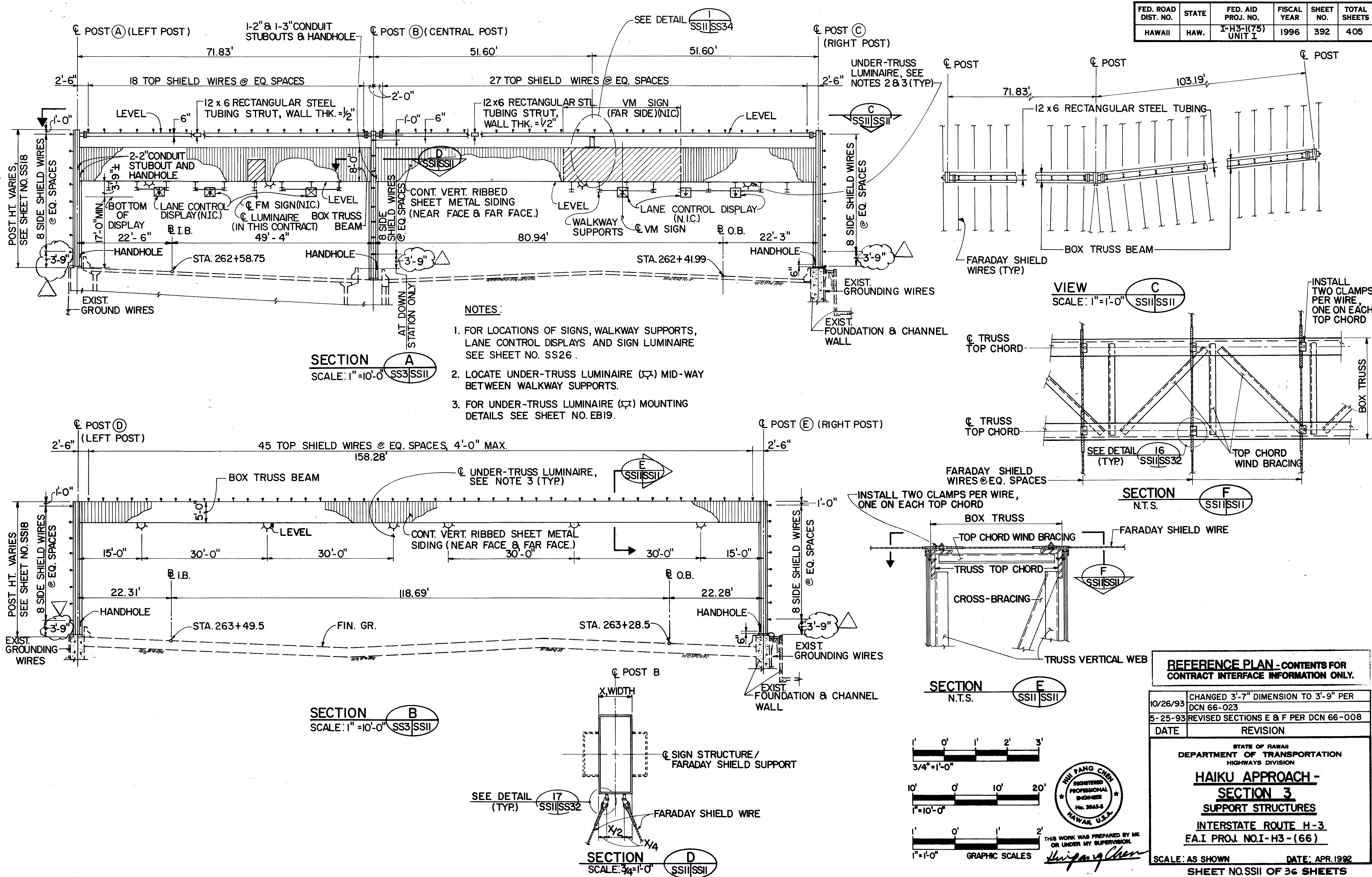
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	391	405



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Hui Pang Chen

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.	
12/29/93	REV. POST HEIGHT PER DCN 66-027
10/26/93	CHANGED 3'-7" DIMENSION TO 3'-9" PER DCN 66-023
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
HAIKU APPROACH -	
SECTION 2	
SUPPORT STRUCTURES	
INTERSTATE ROUTE H-3	
F.A.I. PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS10 OF 36 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(75) UNIT 1	1996	392	405



ORIGINAL PLAN
DATE: 1/94
DRAWN BY: A. MALAN
CHECKED BY: S. CHIN
NOTED BY: S. CHIN
NO.

1"=0' 1' 2' 3'
3/4"=1'-0"

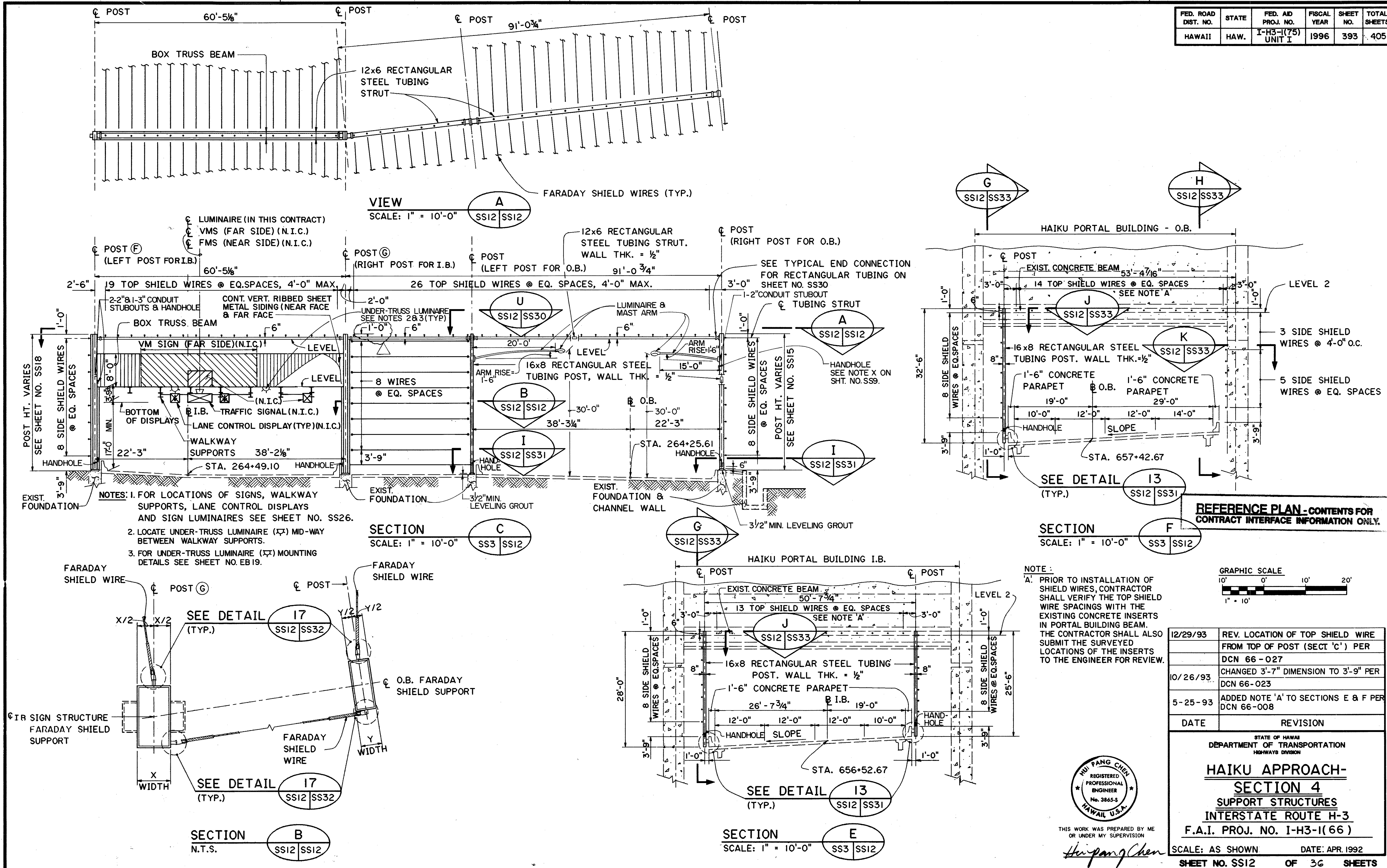
10' 0' 10' 20'
1"=10'-0"

1"=0' 1' 2'
1"=1'-0" GRAPHIC SCALES

HUI YANG CHEN
REGISTERED PROFESSIONAL ENGINEER
No. 3645-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Hui Yang Chen

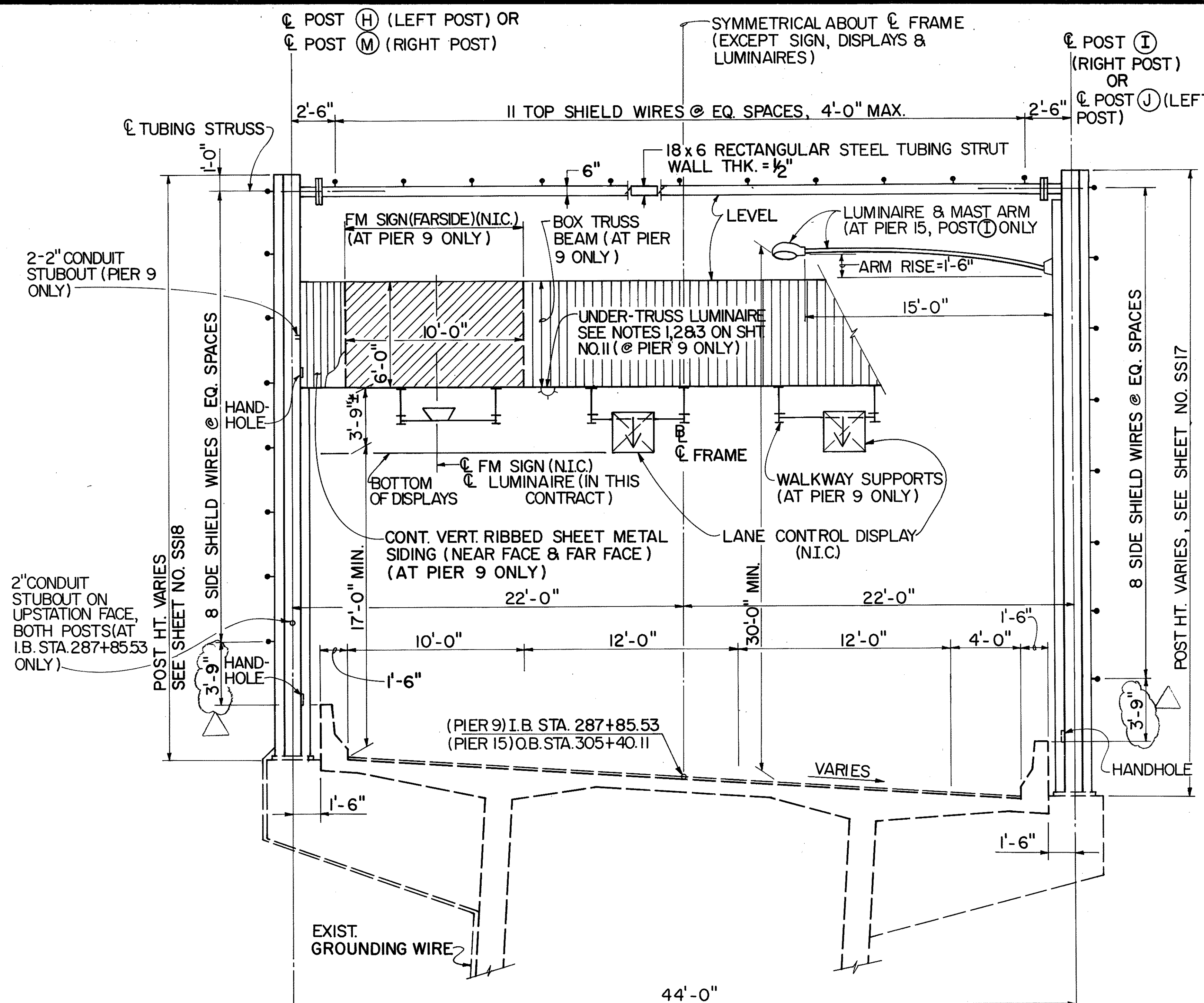
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175) UNIT I	1996	393	405



12/29/93	REV. LOCATION OF TOP SHIELD WIRE
	FROM TOP OF POST (SECT 'C') PER
	DCN 66 - 027
10/26/93	CHANGED 3'-7" DIMENSION TO 3'-9" PER
	DCN 66-023
5-25-93	ADDED NOTE 'A' TO SECTIONS E & F PER
	DCN 66-008

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>HAIKU APPROACH-</u> <u>SECTION 4</u> <u>SUPPORT STRUCTURES</u> <u>INTERSTATE ROUTE H-3</u> <u>F.A.I. PROJ. NO. I-H3-I(66)</u>	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS12	OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	394	405

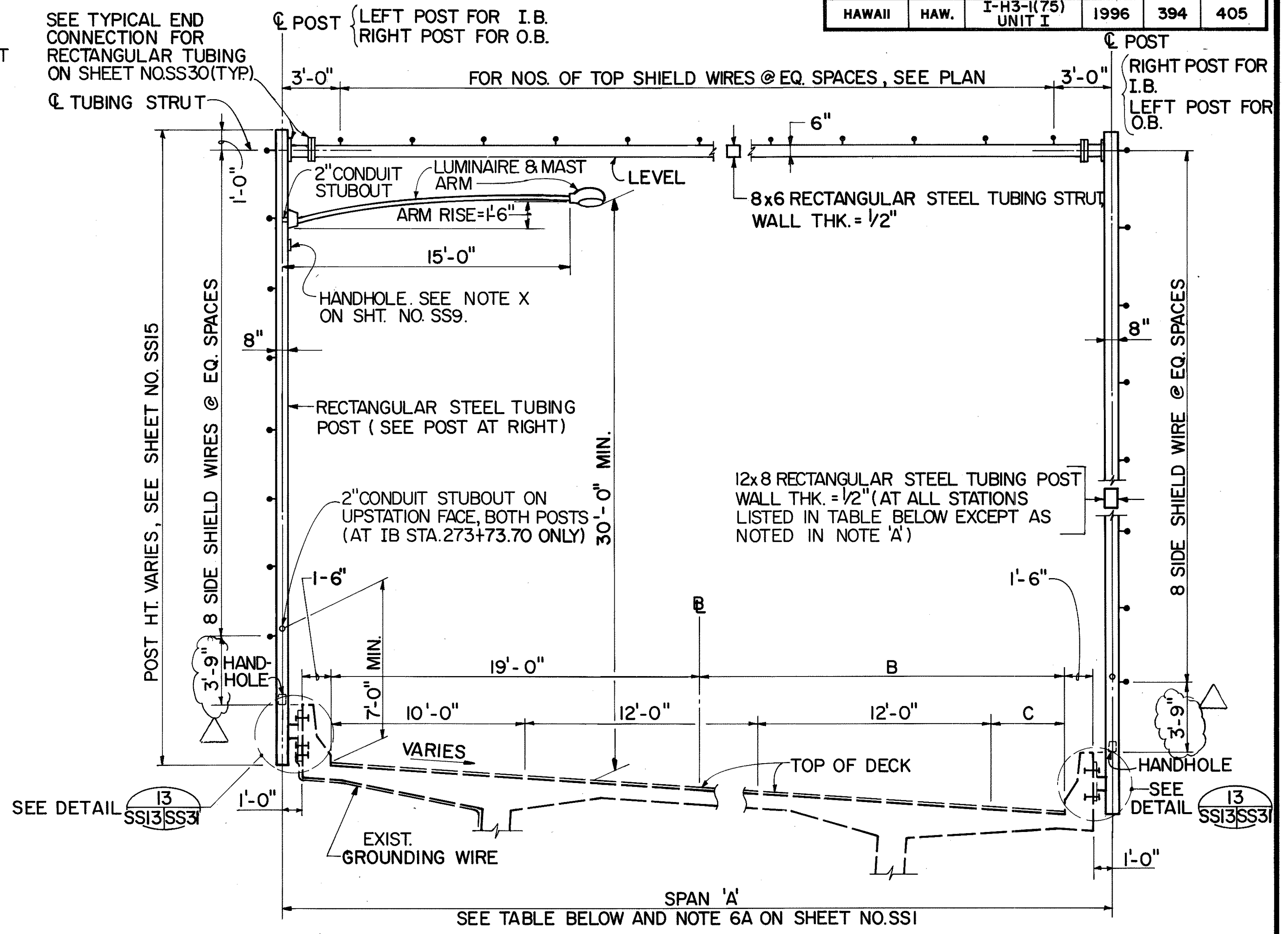


TYPICAL FOR I.B. STA. 287+85.53 (PIER 9)
(LEFT POST (H) AS SHOWN, RIGHT POST (M) SIMILAR EXCEPT OPPOSITE HAND.)

TYPICAL FOR O.B. STA. 305+40.11 (PIER 15)
(RIGHT POST (I) AS SHOWN, LEFT POST (J) SIMILAR EXCEPT OPPOSITE HAND.)

SIGN STRUCTURE / FARADAY SHIELD SUPPORT
@ I.B. STA. 287+85.53 & O.B. STA. 305+40.11
SCALE: 1/4" = 1'-0"

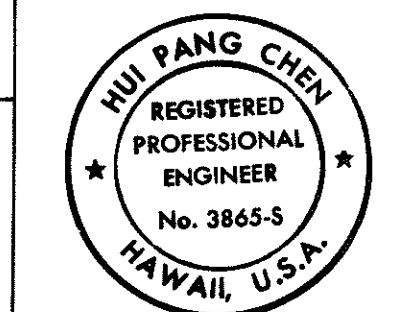
NOTE: FOR LOCATIONS OF SIGNS, WALKWAY SUPPORTS, LANE CONTROL DISPLAYS & SIGN LUMINAIRES, SEE SHEET NO. SS26.



TYPICAL PARAPET MOUNTED FARADAY SHIELD SUPPORT ON WINDWARD VIADUCT
SCALE: 1/4" = 1'-0"

FARADAY SHIELD SUPPORT LOCATIONS	A	B	C
O.B. STA. 265+13.11	57.41'	33.41'	18.41'
O.B. STA. 266+07.62	52.94'	28.94'	13.94'
O.B. STA. 266+97.62 TO O.B. STA. 294+96.71*	49'	25'	10'
O.B. STA. 295+93.28 TO O.B. STA. 304+39.28 AND I.B. STA. 266+26.05 TO I.B. STA. 304+34.70*	43'	19'	4'
I.B. STA. 265+34.70	46'	22'	7'

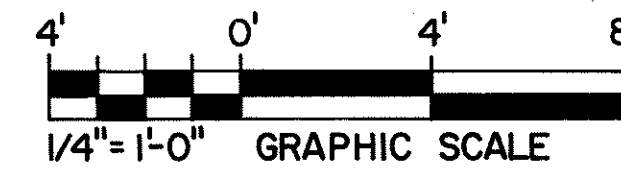
NOTE: TYPICAL I.B. FARADAY SHIELD SUPPORT SHOWN. TYPICAL O.B. FARADAY SHIELD SUPPORT IS OPPOSITE-HAND OF I.B. SUPPORT.



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Hui Fang Chen

*EXCLUDE FARADAY SHIELD SUPPORT LOCATIONS WITH SIGN STRUCTURES (O.B. STA. 273+70.11, O.B. STA. 305+40.11, I.B. STA. 279+45.53, I.B. STA. 287+85.53, & I.B. STA. 305+35.53)

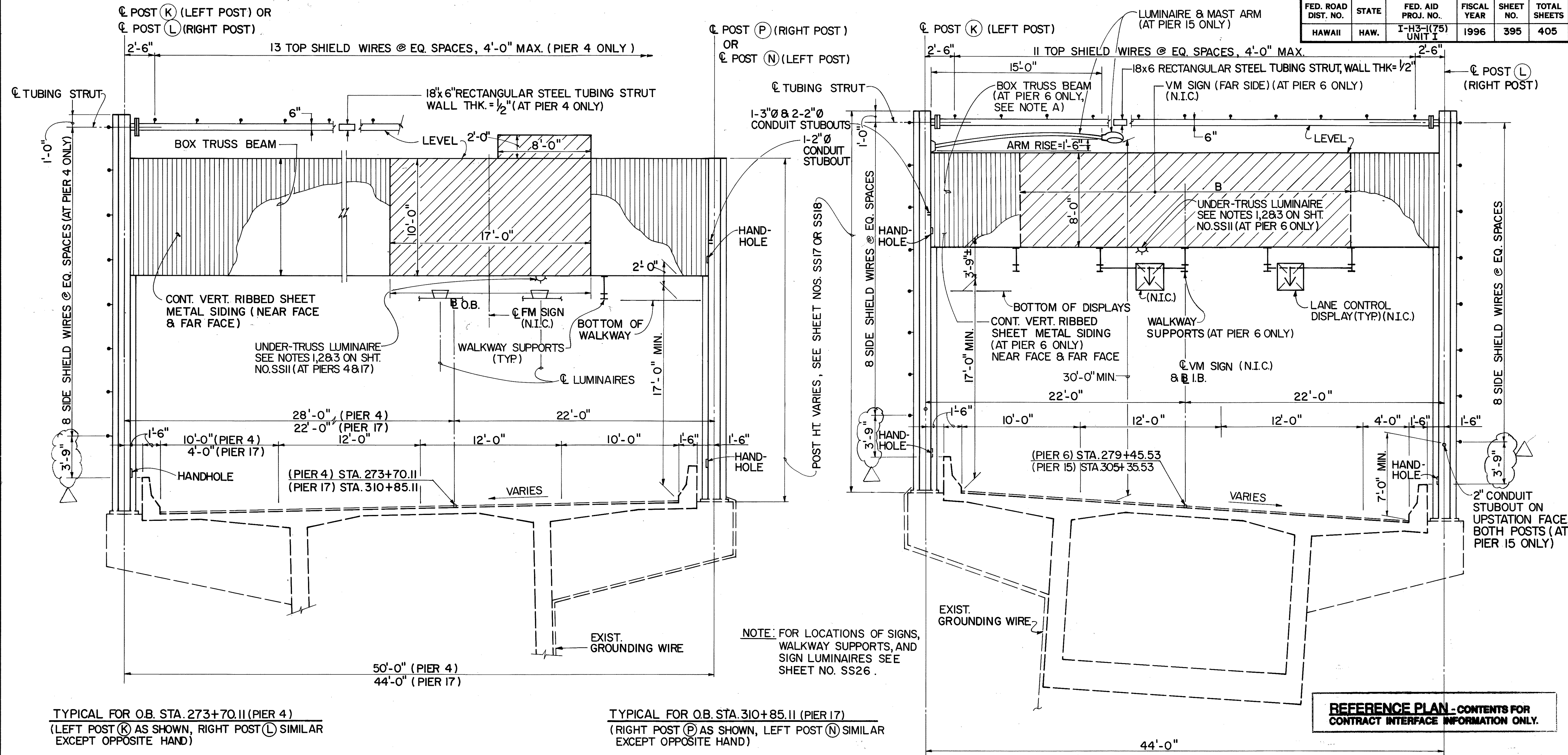
NOTE 'A': PROVIDE 16x8 RECTANGULAR STEEL TUBING POST WALL THK. = 1/2" AT O.B. STA. 297+66.79, O.B. STA. 304+39.28, I.B. STA. 273+73.70 & I.B. STA. 297+57.20



REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

10/26/93	CHANGED 3'-7" DIMENSION TO 3'-9" PER DCN 66-023
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
HAIKU APPROACH - SECTION 5	
SUPPORT STRUCTURES	
INTERSTATE ROUTE H-3	
FAI PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS3 OF 36 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	395	405



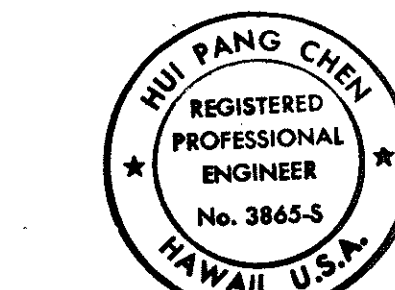
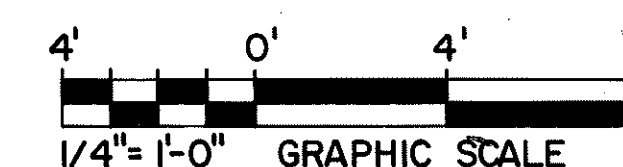
TYPICAL FOR O.B. STA. 273+70.11 (PIER 4)
(LEFT POST (K) AS SHOWN, RIGHT POST (L) SIMILAR EXCEPT OPPOSITE HAND)

TYPICAL FOR O.B. STA. 310+85.11 (PIER 17)
(RIGHT POST (P) AS SHOWN, LEFT POST (N) SIMILAR EXCEPT OPPOSITE HAND)

**SIGN STRUCTURE / FARADAY SHIELD SUPPORT @ O.B. STA. 273+70.11
& SIGN STRUCTURE @ O.B. STA. 310+85.11**
SCALE: 1/4" = 1'-0"

**SIGN STRUCTURE / FARADAY SHIELD SUPPORT
@ I.B. STA. 279+45.53 (PIER 6)
& @ I.B. STA. 305+35.53 (PIER 15)**
SCALE: 1/4" = 1'-0"

NOTE 'A':
AT PIER 15, PROVIDE TOP & BOTTOM HINGE CONNECTIONS AT POSTS FOR FUTURE INSTALLATION OF BOX TRUSS BEAM SIMILAR TO PIER 6.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Rui Pang Chen

10/26/93	CHANGED 3'-7" DIMENSION TO 3'-9" PER DCN 66-023
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
HAIKU APPROACH - SECTION 6 SUPPORT STRUCTURES	
INTERSTATE ROUTE H-3 FAI. PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS14 OF 36 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT I	1996	ADD 395 S-1	405

I.B. FARADAY SHIELD SUPPORT LOCATIONS	POST HEIGHT "B"	
	LEFT POST	RIGHT POST
656 + 52.67	SEE SHEET NO. SS12	
257 + 51.00	32' - 9"	34' - 8"
258 + 66.00		34' - 8"
259 + 70.00		34' - 9"
260 + 70.00		34' - 8"
261 + 70.00		34' - 9"
265 + 34.70		34' - 5"
266 + 26.05		33' - 11"
267 + 19.55	32' - 9"	33' - 3"
268 + 09.70	32' - 11"	32' - 9"
269 + 07.04	33' - 4"	
270 + 04.70	33' - 4"	
271 + 05.50	33' - 4"	
271 + 97.04	33' - 7"	
272 + 84.70	35' - 3"	
273 + 73.70	34' - 6"	
274 + 77.04	35' - 4"	
275 + 74.70		
276 + 65.77		
277 + 57.34		
278 + 54.70		
280 + 37.04		
281 + 34.70		
282 + 25.53		
283 + 17.04		
284 + 14.70		
285 + 05.53		
285 + 97.07		
286 + 94.70	35' - 4"	
288 + 87.11	34' - 4"	
289 + 84.70	33' - 6"	
290 + 75.53	33' - 4"	
291 + 67.15	33' - 4"	
292 + 63.70	33' - 4"	
293 + 63.70	33' - 0"	32' - 9"
294 + 57.19	32' - 9"	33' - 3"
295 + 53.70		34' - 1"
296 + 53.70		34' - 6"
297 + 57.20		34' - 6"
298 + 54.70		34' - 6"
299 + 45.53		34' - 6"
300 + 37.20		34' - 6"
301 + 34.70		34' - 9"
302 + 35.53		35' - 1"
303 + 37.20		35' - 2"
304 + 34.70	32' - 9"	35' - 2"

O.B. FARADAY SHIELD SUPPORT LOCATIONS	POST HEIGHT "B"	
	LEFT POST	RIGHT POST
657 + 42.67	SEE SHEET NO. SS12	
258 + 40.00	32' - 9"	34' - 7"
259 + 40.00	32' - 9"	31' - 6"
260 + 40.00	32' - 9"	31' - 6"
261 + 40.00	SEE SHEET NO. SS10	
264 + 25.61	32' - 7"	31' - 7"
265 + 13.11	32' - 9"	34' - 7"
266 + 07.62		34' - 6"
266 + 97.62		34' - 6"
267 + 91.28		34' - 6"
268 + 87.62		34' - 0"
269 + 83.28	32' - 9"	33' - 2"
270 + 83.58	33' - 3"	32' - 9"
271 + 76.62	34' - 2"	
272 + 69.28	35' - 1"	
274 + 61.54	35' - 8"	
275 + 59.28		
276 + 48.28		
277 + 41.50		
278 + 27.50		
279 + 22.28		
280 + 21.49		
281 + 17.28		
282 + 04.28		
282 + 92.49		
283 + 84.49	35' - 8"	
284 + 78.28	35' - 0"	
285 + 74.49	35' - 8"	
286 + 63.49	35' - 8"	
287 + 59.28	35' - 8"	
288 + 48.54	35' - 4"	
289 + 42.54	34' - 4"	
290 + 34.28	33' - 2"	32' - 9"
291 + 27.62	32' - 9"	33' - 3"
292 + 16.62		33' - 4"
293 + 14.28		33' - 4"
294 + 03.28		33' - 4"
294 + 96.71		33' - 5"
295 + 93.28		34' - 1"
296 + 85.28		34' - 6"
297 + 66.79		34' - 6"
298 + 62.28		34' - 7"
299 + 57.28		34' - 7"
300 + 56.82		34' - 7"
301 + 53.28		34' - 10"
302 + 45.28		35' - 2"
303 + 36.82		35' - 3"
304 + 39.28	32' - 9"	35' - 3"

DATE	2/1/92
DESIGNED BY	SS12
QUANTITIES BY	SS12
CHECKED BY	SS12
ORIGINAL PLAN	
NOTE BOOK	
No.	

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY.

DATE REVISION

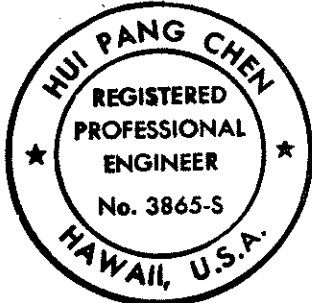
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SUPPORT POST SCHEDULE

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)

SCALE: NO SCALE DATE: APR. 1992

SHEET No.SS15 OF 36 SHEETS



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ADD. 395S-1

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	396	405

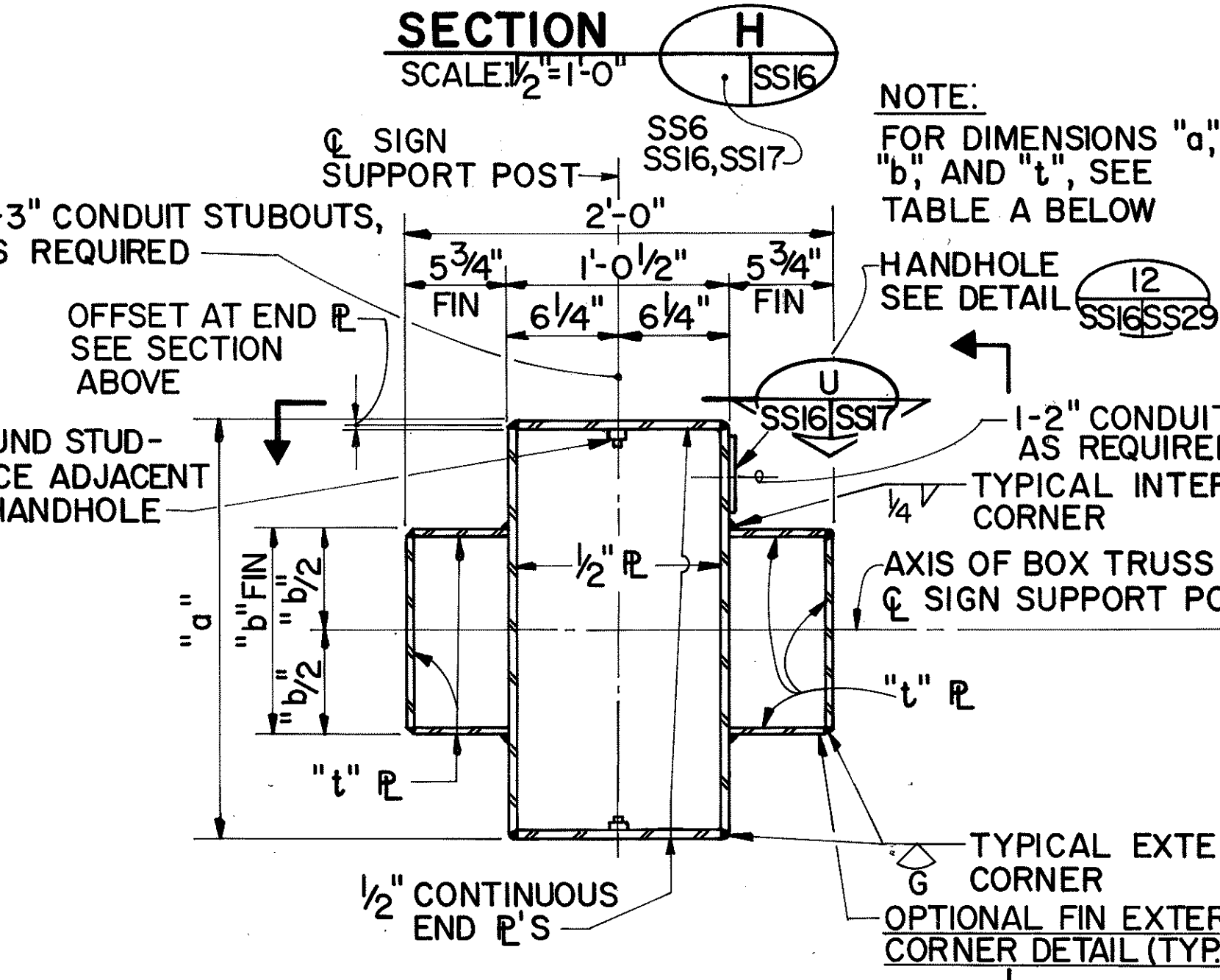
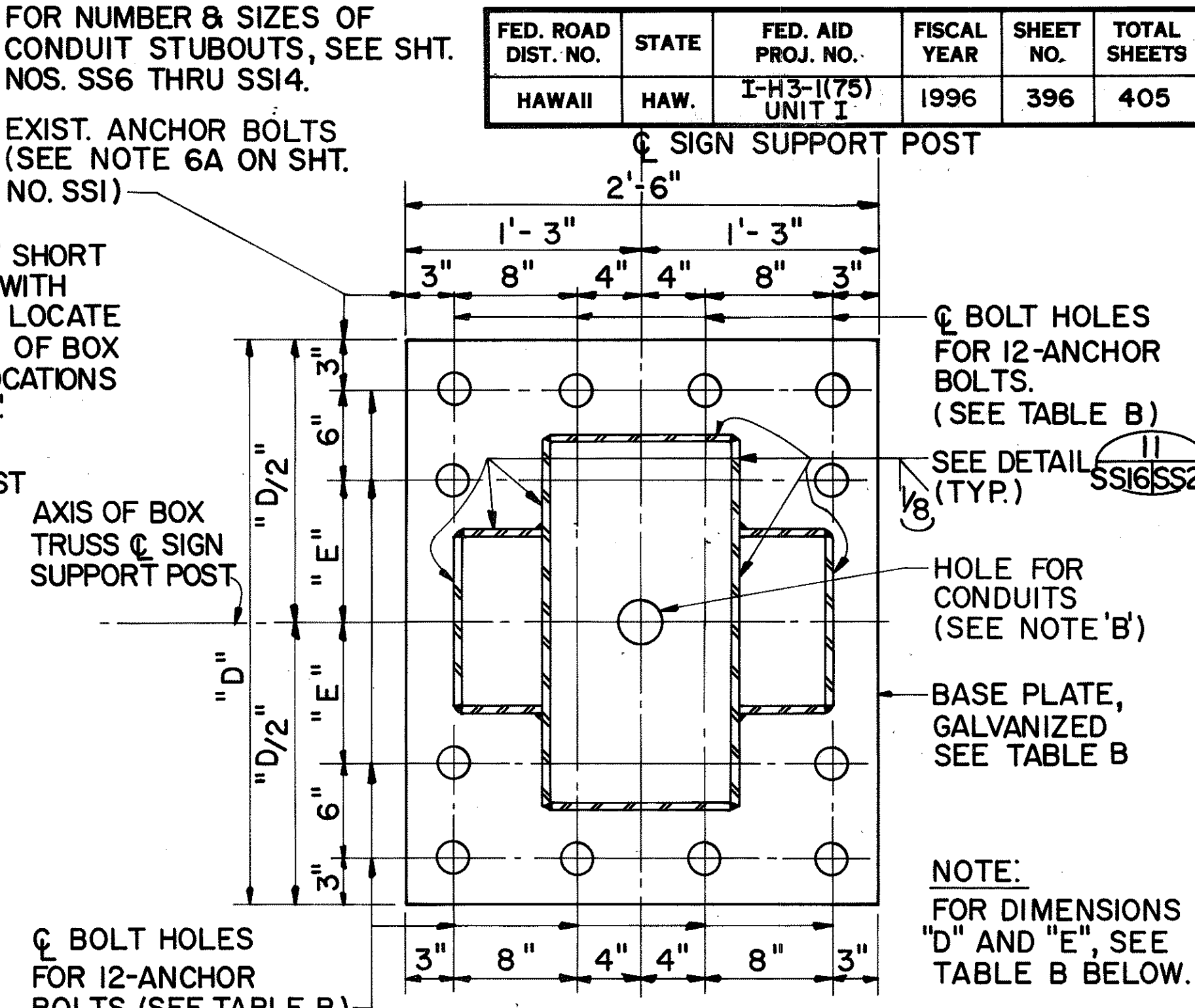
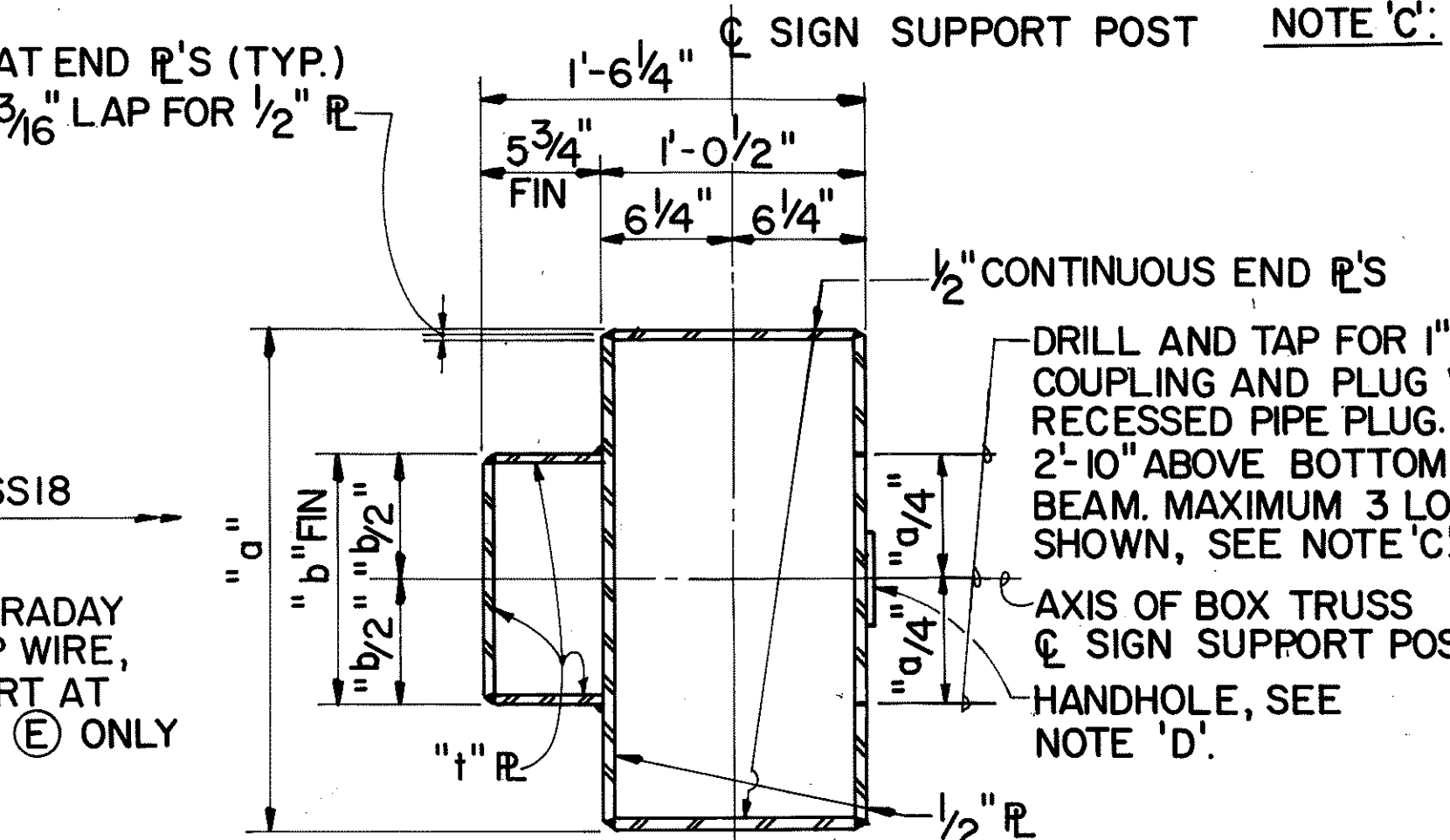
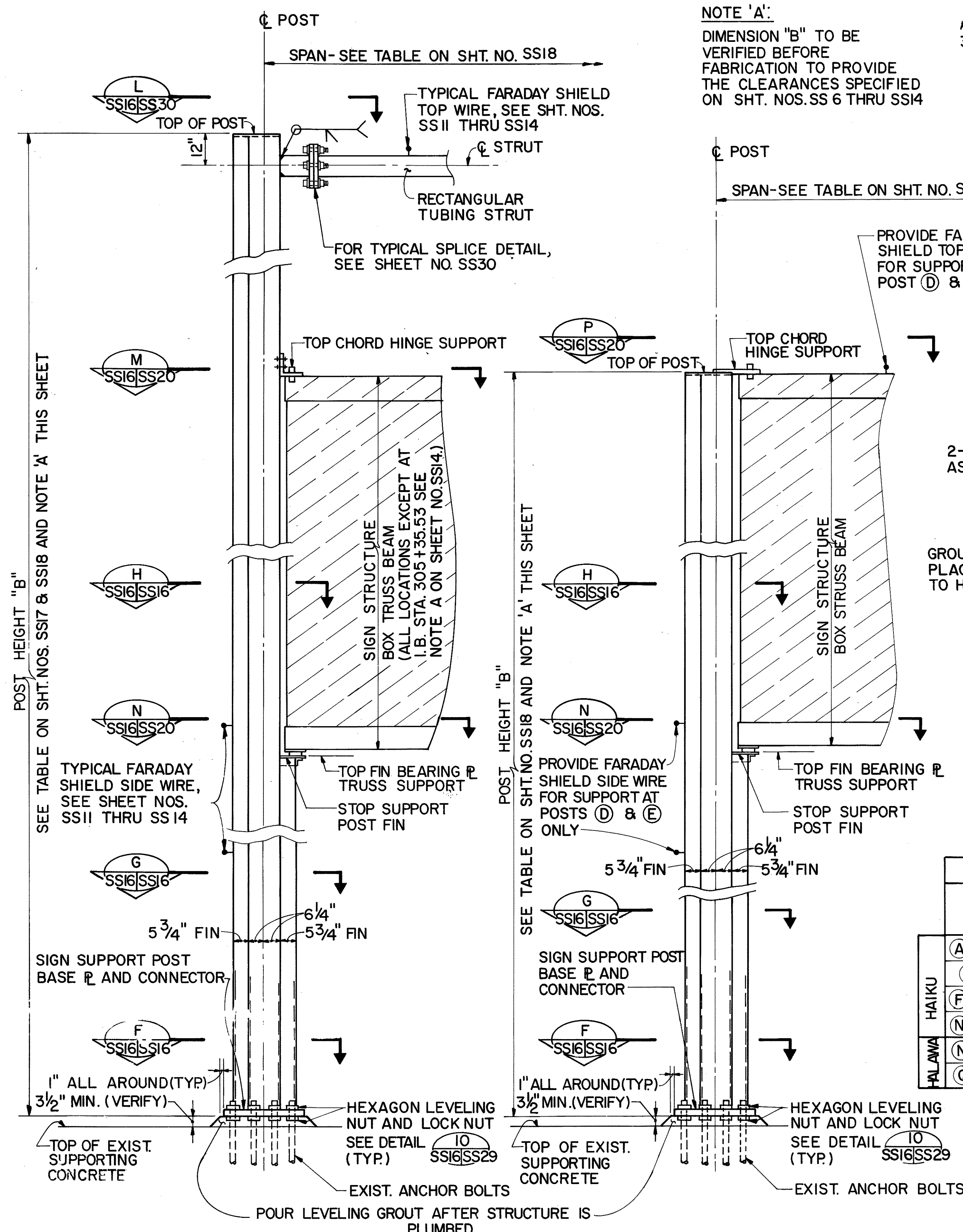
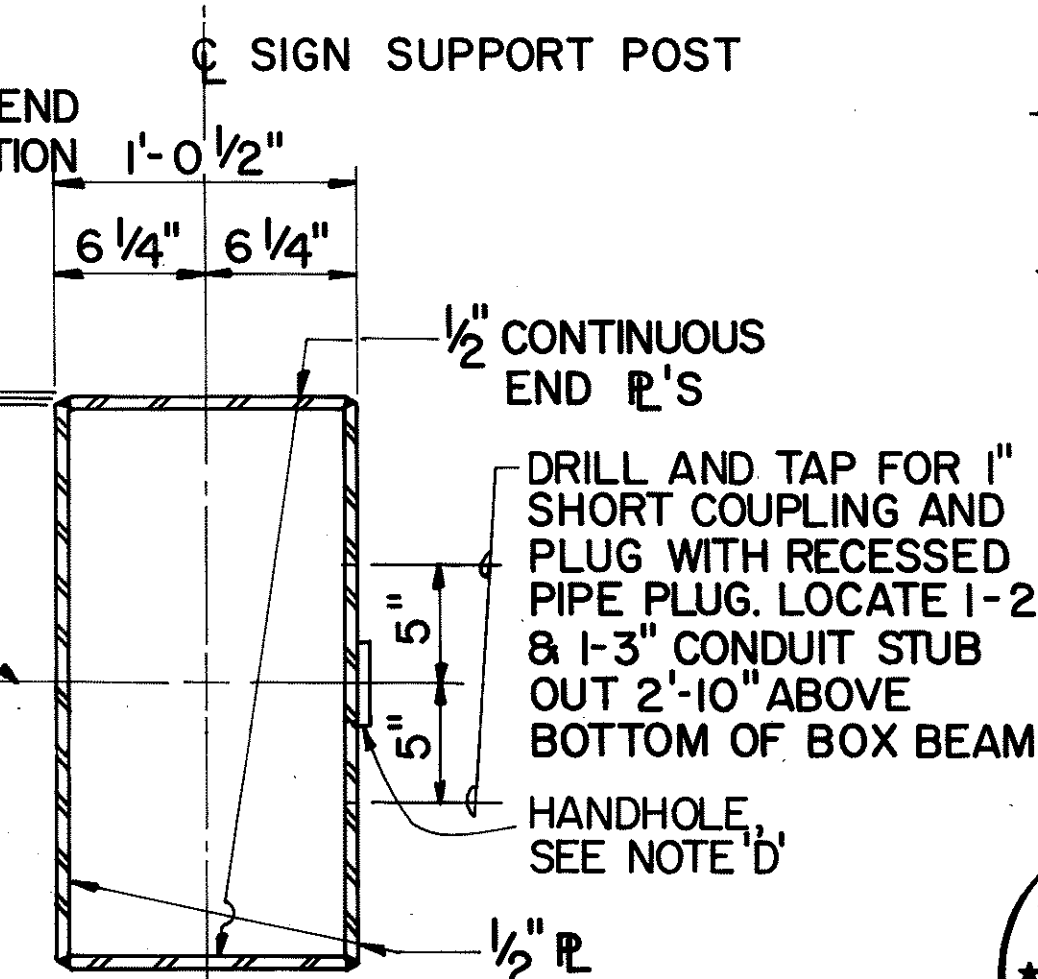
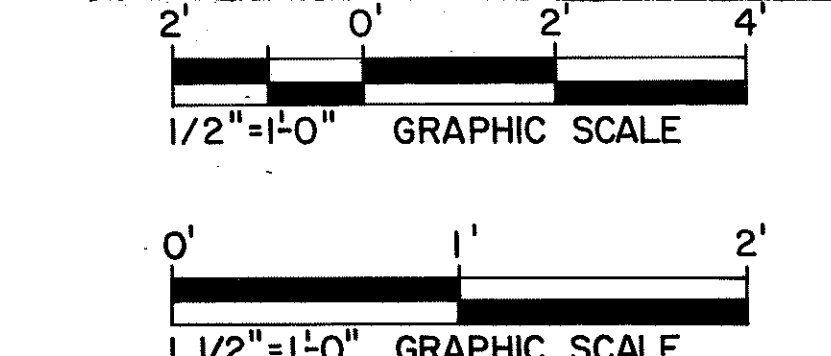


TABLE B				
	POST	BASE PLATE		BOLT HOLE SIZE
		"D"	THICKNESS	
HAIKU	(A, B) & (C)	3'-6"	3"	1'-0"
	(D) & (E)	4'-0"	3 1/4"	1'-3"
	(F) & (G)	3'-0"	2 1/2"	0'-9"
	(H) THRU (M)	3'-0"	2 3/4"	0'-9"
	(N) & (P)	3'-0"	2 1/2"	0'-9"
HALAWA	(N) & (P)	3'-0"	2 1/2"	0'-9"
	(Q)	4'-0"	3"	1'-3"

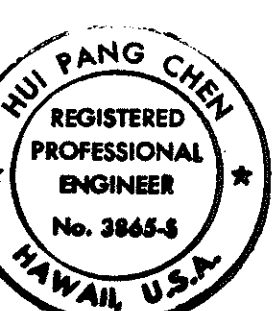
TABLE A			
	POST	"a"	"b"
HAIKU	(A, B) & (C)	2'-6"	1'-5 3/4"
	(D) & (E)	3'-0"	1'-11 3/4"
	(F) THRU (M)	2'-0"	1'-3 1/4"
	(N) & (P)	2'-0"	1'-3 1/4"
	(N) & (P)	2'-0"	1'-3 1/4"
HALAWA	(Q)	3'-0"	1'-11 3/4"

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



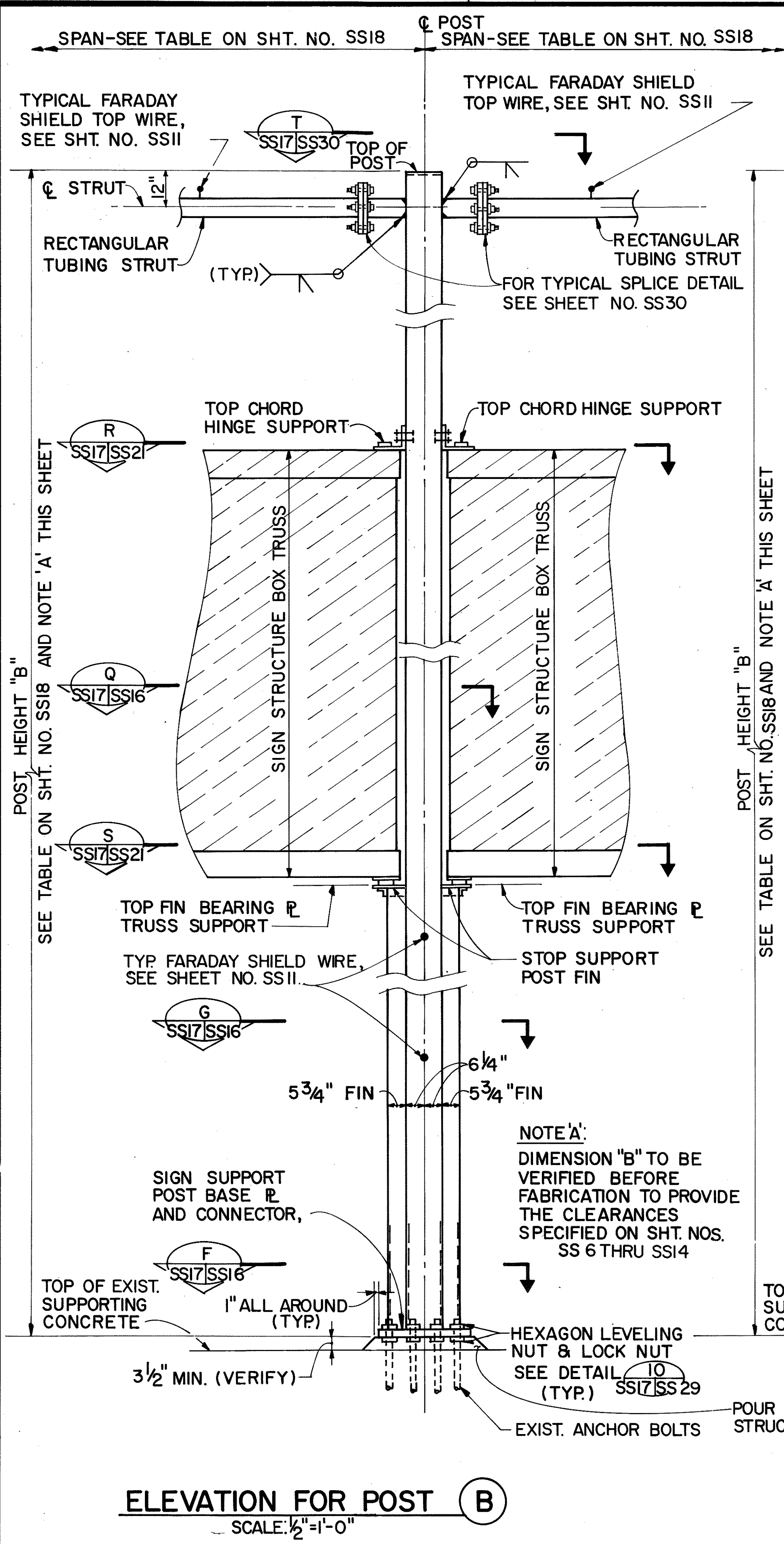
NOTE 'B': THE CONTRACTOR SHALL VERIFY THE NUMBER & SIZES OF CONDUITS IN THE FIELD PRIOR TO FABRICATION.

NOTE 'D': PLACE HANDHOLE IN SUPPORT POSTS WHERE CONDUIT STUBOUTS ARE PROVIDED. LOCATE HANDHOLE SO THAT BOTTOM OF HANDHOLE COVER IS 1'-2" ABOVE BOTTOM OF BOX BEAM & CENTERED ABOUT C SUPPORT POST.

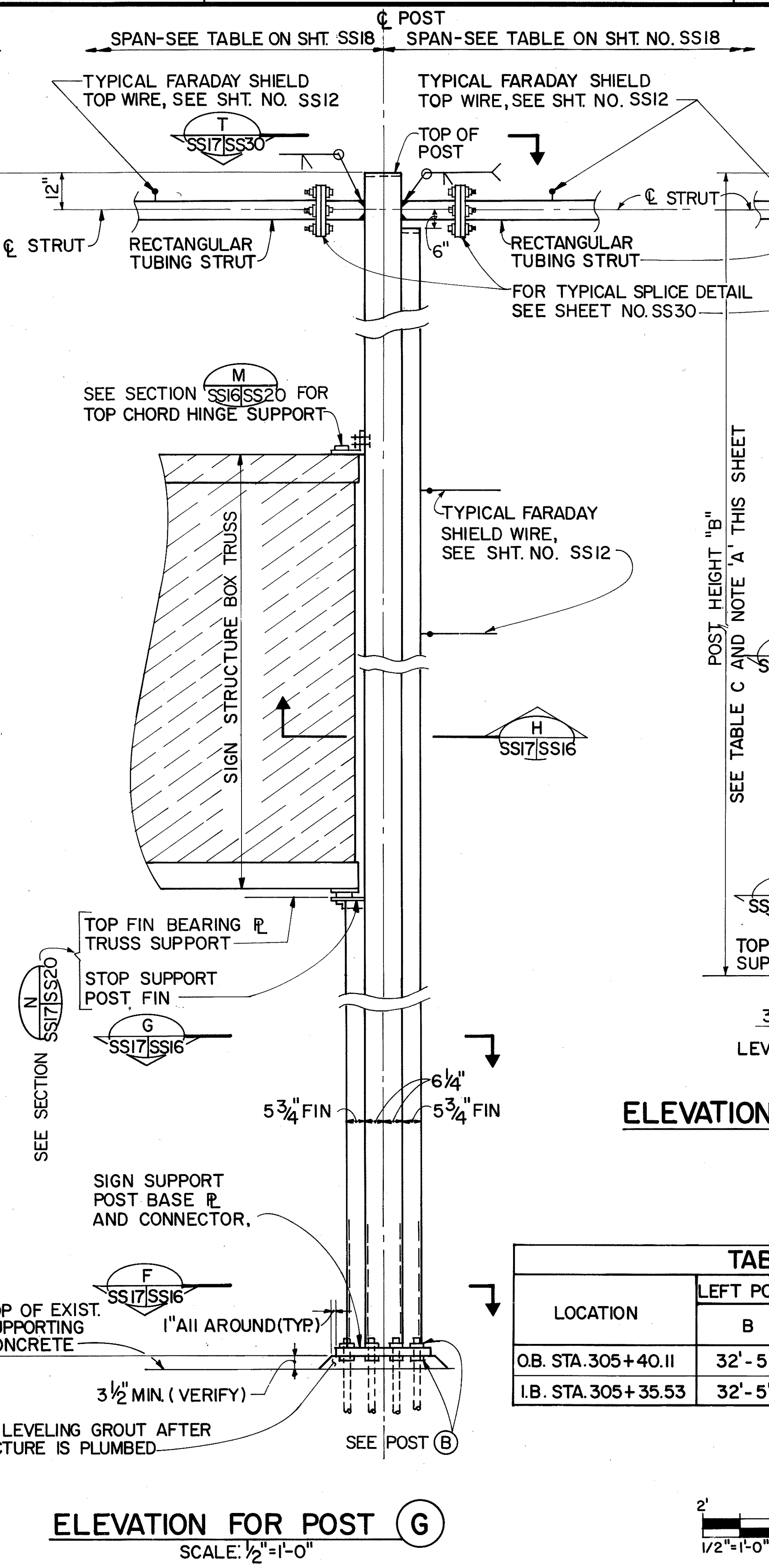


1/7/94	REV. BOLT HOLE SIZE PER DCN 66-031
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SUPPORT POST DETAILS-1	
SUPPORT STRUCTURES	
INTERSTATE ROUTE H-3	
FAI PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS16 OF 36 SHEETS	

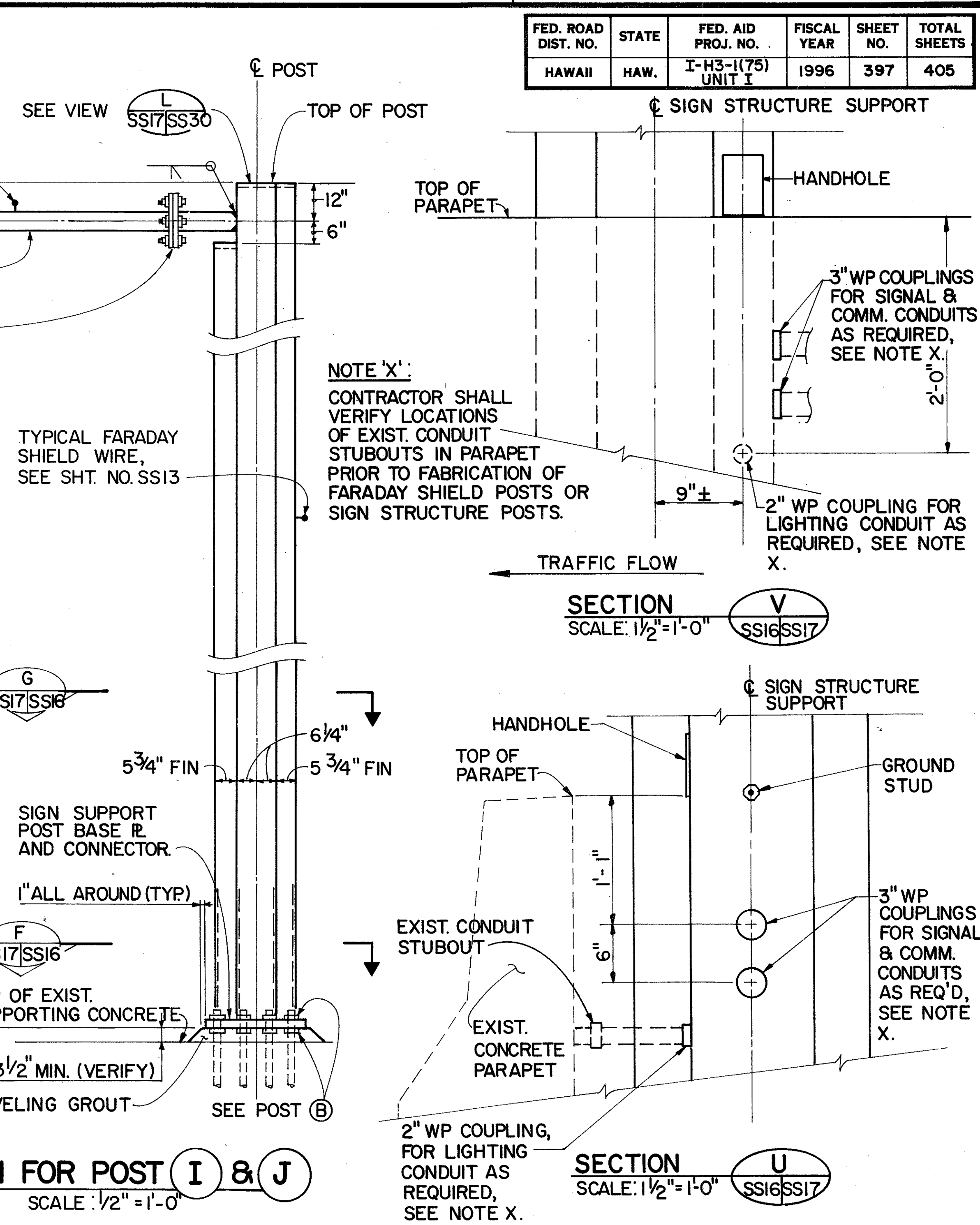
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	397	405



ELEVATION FOR POST (B)
SCALE: 1/2"=1'-0"



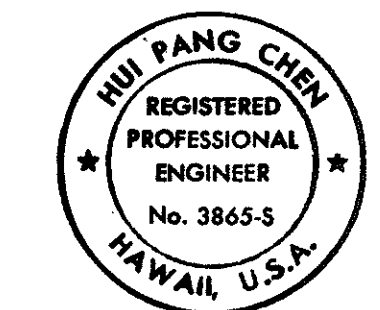
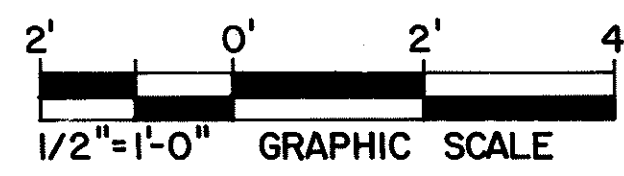
ELEVATION FOR POST (G)
SCALE: 1/2"=1'-0"



ELEVATION FOR POST (I & J)
SCALE: 1/2"=1'-0"

TABLE C

LOCATION	LEFT POST	RIGHT POST	ELEV. BOT. OF BASE PLATE (VERIFY IN FIELD)	
	B	B	LEFT POST	RIGHT POST
O.B. STA. 305+40.11	32'-5"	34'-11 1/4"	633.07	630.55
I.B. STA. 305+35.53	32'-5"	34'-10 1/4"	618.46	616.02



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REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION

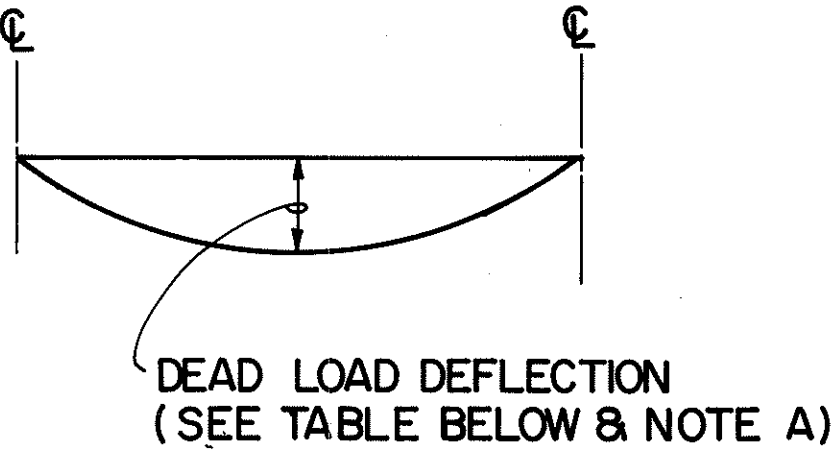
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SUPPORT POST DETAILS-2

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1 (66)

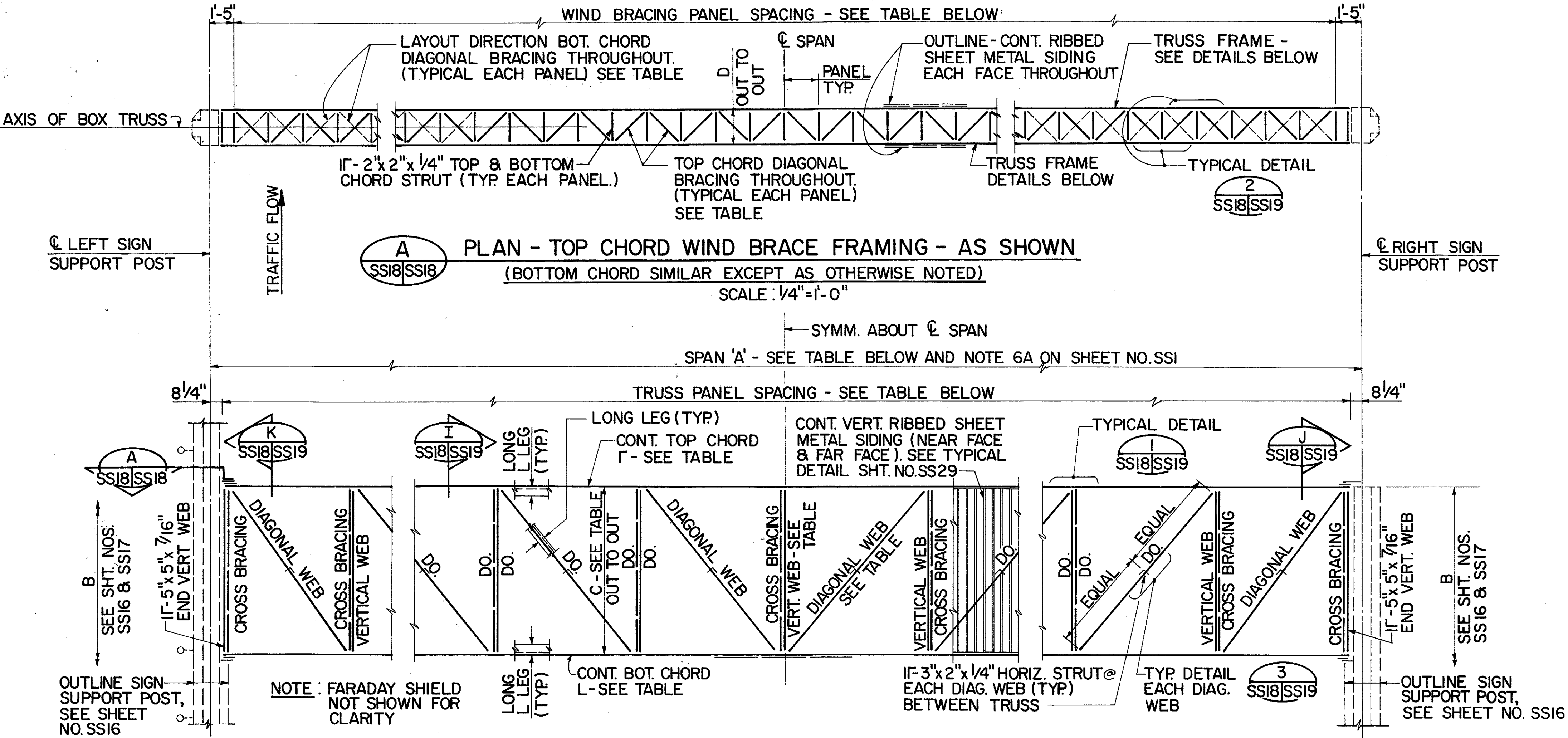
SCALE: AS SHOWN DATE: APR. 1992
SHEET No. SS17 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3(75)UNIT I	1996	ADD.397 S-1	405



DEAD LOAD DEFLECTION
N.T.S.

NOTE 'A':
THE DEAD LOAD DEFLECTION INCLUDES THE EFFECT OF THE WEIGHT OF THE TRUSS. A CAMBER SHALL BE PROVIDED TO ACCOMMODATE THIS DEFLECTION.



ELEVATION - TYP. TRUSS FRAMING DETAIL FOR BOX TRUSS BEAM
SCALE: 1/4"=1'-0"

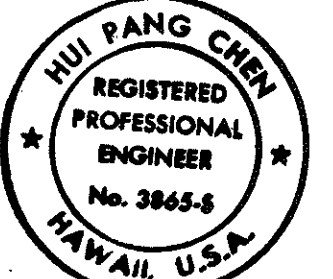
TYPICAL POST FOR SUPPORT OF SIGN STRUCTURE ALONE & FOR SUPPORT AT I.B. STA. 263+49.5 / O.B. STA. 263+28.5

* NOTE: FOR ADDITIONAL DETAILS FOR MID-SPAN SUPPORT AT O.B. STA. 262+41.99, SEE SHEET NO. SS34.
** CENTRAL POST B = 35'-1 1/4", SEE LAYOUT ON SHEET NO. SS11

LOCATION	SPAN A	LEFT POST	RIGHT POST	TRUSS DEPTH C	TRUSS WIDTH D	TRUSS PANELS SPACING	TRUSS			WIND BRACING PANEL SPACING	DIAG. BRACING TOP & BOT. CHORDS	ELEV. BOT. OF BASE R. (VERIFY IN FIELD)		DEAD LOAD DEFLECTION
		B	B				TOP & BOT. CHORD SIZE	VERT. WEB SIZE	DIAG. WEB SIZE			LEFT POST	RIGHT POST	
I.B. STA. 262+58.75	71'-10"±	32'-5"	**	8'-0"	2'-6"	10 EQUAL PANELS @ 7'-0 1/2"± = 70'-5"±	25x3 1/2x5/8	23/2x3 1/2x5/16	24x3 1/2x5/16	28 EQUAL PANELS @ 2'-5 9/16"± = 69'-0"±	2x2x5/16	816.90	814.21	1/8"
* O.B. STA. 262+41.99	103'-2 3/8"±	**	32'-1 1/16"	8'-0"	2'-6"	16 EQUAL PANELS @ 6'-4 3/8"± = 101'-10"±	26x4x3/4	23/2x3 1/2x5/16	24x3 1/2x5/16	42 EQUAL PANELS @ 2'-4 1/16"± = 100'-4 7/8"±	2 1/2x2 1/2x3/8	814.21	817.23	3/8"
I.B. STA. 263+49.50 / O.B. STA. 263+28.50	163'-3 3/8"±	32'-5"	31'-11 1/2"	5'-0"	3'-0"	38 EQUAL PANELS @ 4'-3 1/8"± = 161'-10 3/4"±	28x6x1	23/2x3 1/2x5/16	24x3 1/2x5/16	54 EQUAL PANELS @ 2'-11 5/8"± = 160'-3 3/4"±	2 1/2x2 1/2x3/8	813.08	813.55	3/4"
I.B. STA. 264+49.10	60'-5 1/8"±	32'-5"	33'-7 7/8"	8'-0"	2'-0"	8 EQUAL PANELS @ 7'-4 9/16"± = 59'-0 1/2"±	25x3 1/2x5/8	23/2x3 1/2x5/16	24x3 1/2x5/16	28 EQUAL PANELS @ 2'-0 1/16"± = 57'-7 1/4"±	2x2x1/4	808.85	807.61	1/16"
O.B. STA. 273+70.11	50'-0"	35'-3 1/2"	32'-5"	10'-0"	2'-0"	6 EQUAL PANELS @ 8'-1 1/4"± = 48'-7 1/2"±	25x3 1/2x5/8	23/2x3 1/2x5/16	24x3 1/2x5/16	24 EQUAL PANELS @ 1'-11 9/16"± = 47'-1 1/2"±	2x2x5/16	766.98	769.86	1/16"
I.B. STA. 279+45.53	44'-0"	34'-11 9/16"	32'-5"	8'-0"	2'-0"	6 EQUAL PANELS @ 7'-1 1/4"± = 42'-7 1/2"±	25x3 1/2x3/8	23/2x3 1/2x5/16	24x3 1/2x5/16	22 EQUAL PANELS @ 1'-10 7/16"± = 41'-15 5/8"±	2x2x1/4	743.36	745.91	1/16"
I.B. STA. 287+85.53	44'-0"	34'-10 3/4"	32'-5"	6'-0"	2'-0"	8 EQUAL PANELS @ 5'-3 5/16"± = 42'-7 1/2"±	25x3 1/2x3/8	23/2x3 1/2x5/16	24x3 1/2x5/16	22 EQUAL PANELS @ 1'-10 7/16"± = 41'-15 5/8"±	2x2x1/4	706.61	709.09	1/16"
O.B. STA. 310+85.11	44'-0"	27'-0"	29'-6 1/4"	10'-0"	2'-0"	6 EQUAL PANELS @ 7'-1 1/4"± = 42'-7 1/2"±	25x3 1/2x3/8	23/2x3 1/2x5/16	24x3 1/2x5/16	22 EQUAL PANELS @ 1'-10 7/16"± = 41'-15 5/8"±	2x2x1/4	603.27	600.75	1/16"
O.B. STA. 573+40	44'-0"	26'-5"	27'-2 1/8"	6'-0"	2'-0"	8 EQUAL PANELS @ 5'-3 5/16"± = 42'-7 1/2"±	25x3 1/2x3/8	23/2x3 1/2x5/16	24x3 1/2x5/16	22 EQUAL PANELS @ 1'-10 7/16"± = 41'-15 5/8"±	2x2x1/4	854.88	854.12	1/16"
O.B. STA. 577+80	44'-0"	28'-5"	29'-2 1/8"	8'-0"	2'-0"	6 EQUAL PANELS @ 7'-1 1/4"± = 42'-7 1/2"±	25x3 1/2x3/8	23/2x3 1/2x5/16	24x3 1/2x5/16	22 EQUAL PANELS @ 1'-10 7/16"± = 41'-15 5/8"±	2x2x1/4	888.48	887.72	1/16"
O.B. STA. 594+50	56'-4"	28'-5"	29'-2"	8'-0"	2'-0"	8 EQUAL PANELS @ 6'-10 1/16"± = 54'-11 1/2"±	25x3 1/2x5/8	23/2x3 1/2x5/16	24x3 1/2x5/16	26 EQUAL PANELS @ 2'-0 5/8"± = 53'-4 1/4"±	2x2x1/4	1001.29	1000.21	1/16"

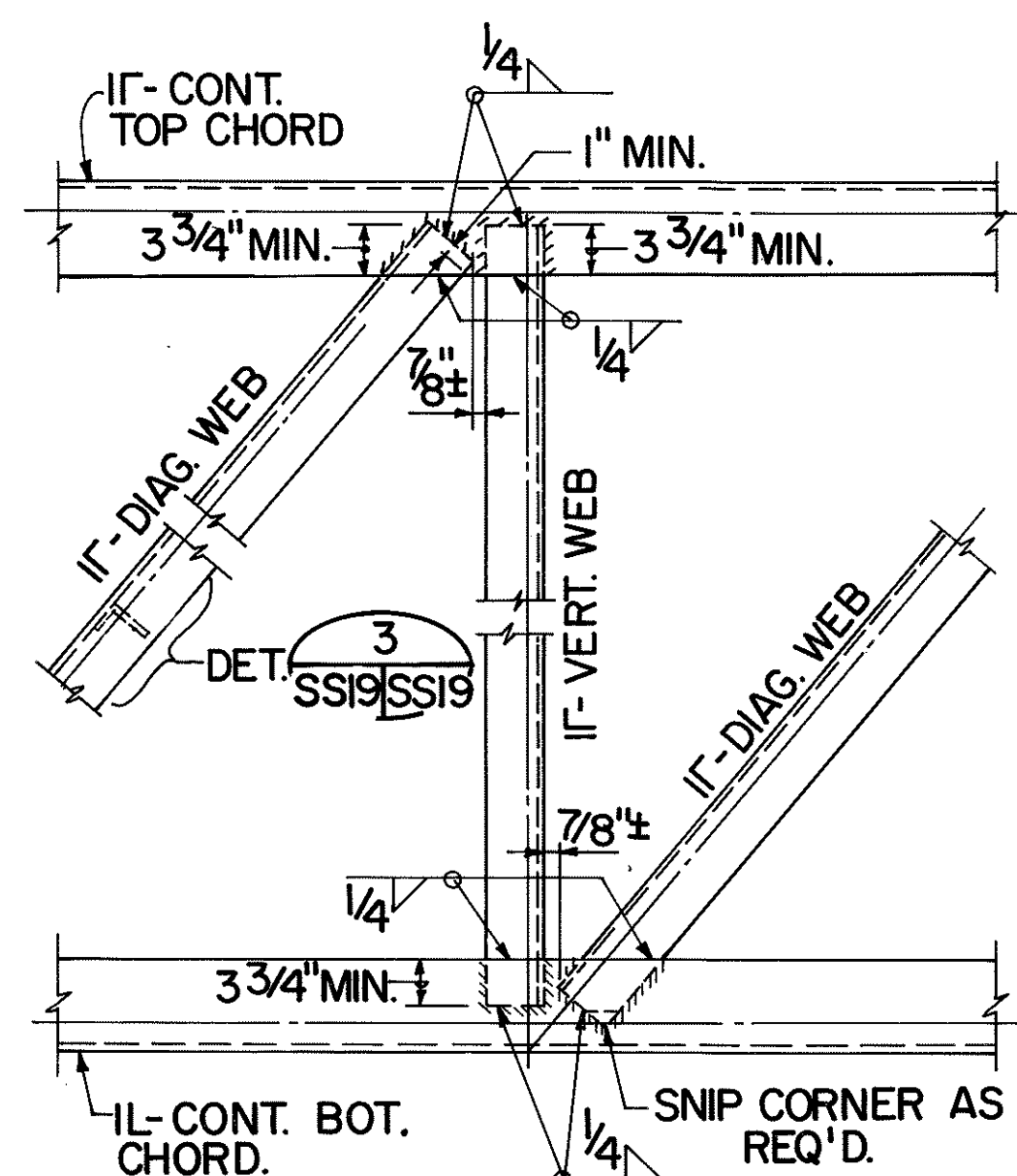
REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

2/24/94	CLARIFY DIMENSIONS PER DCN 66-036
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
TRUSS FRAMING DETAILS	
SUPPORT STRUCTURES INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET No. SS18 OF 36 SHEETS	



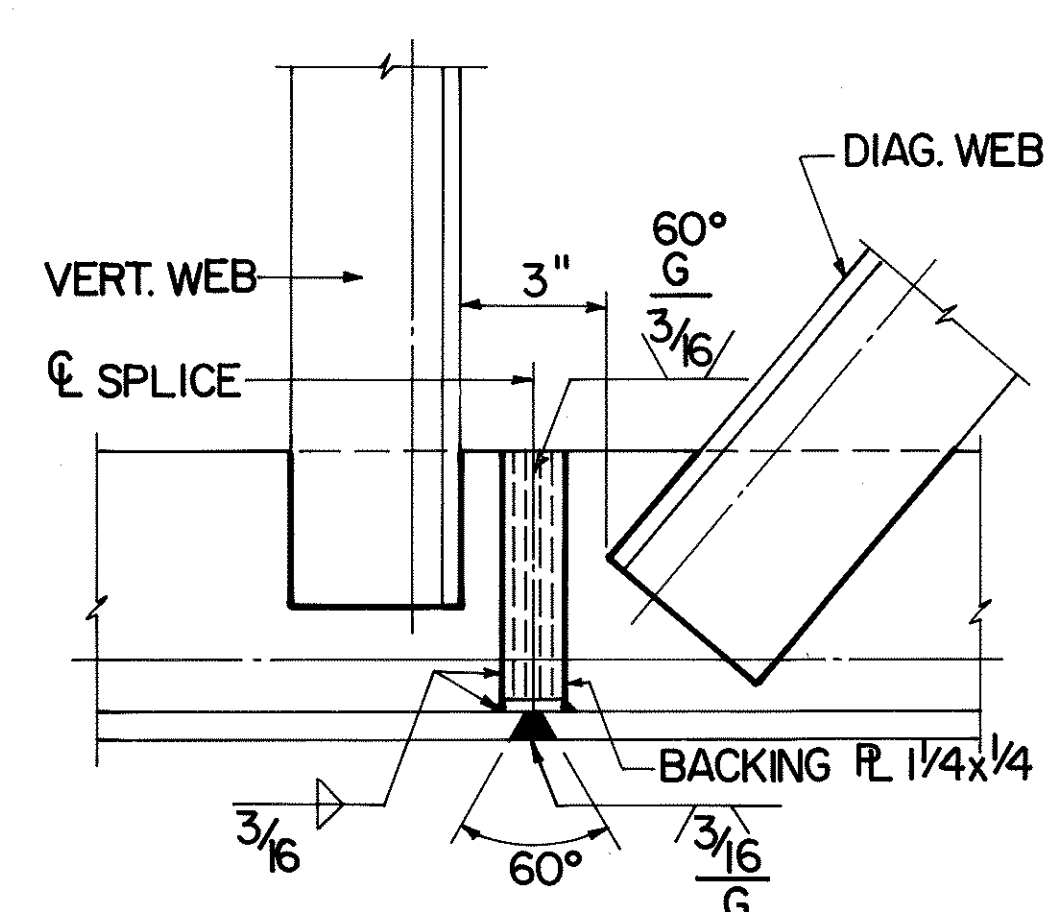
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1/4"=1'-0" GRAPHIC SCALE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(75)UNIT I	1996	ADD 397 S-2	405



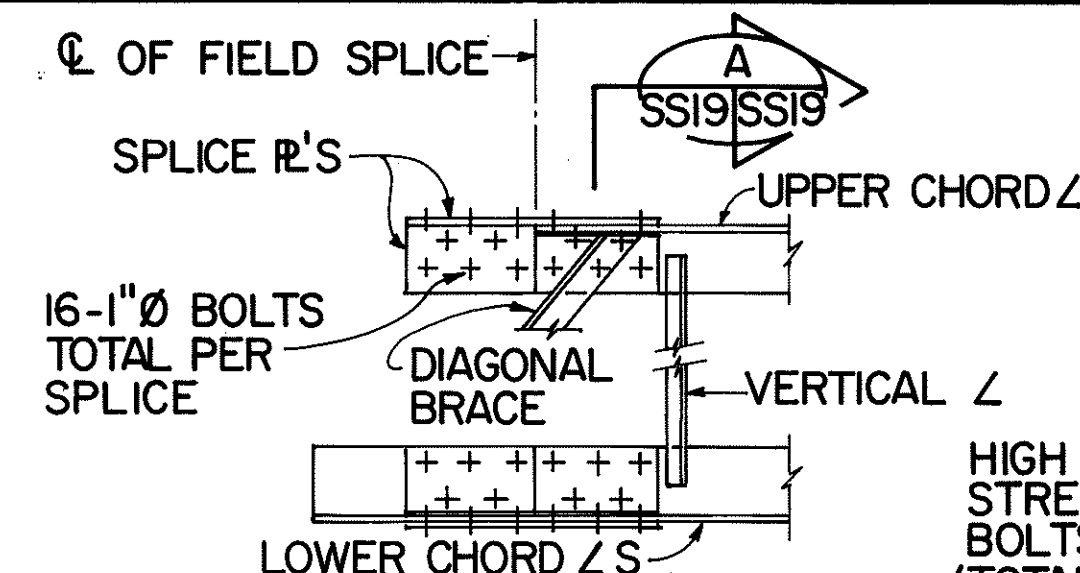
TYPICAL DETAIL 

SCALE: 1" = 1'-0" SS6, SS18 | SS19



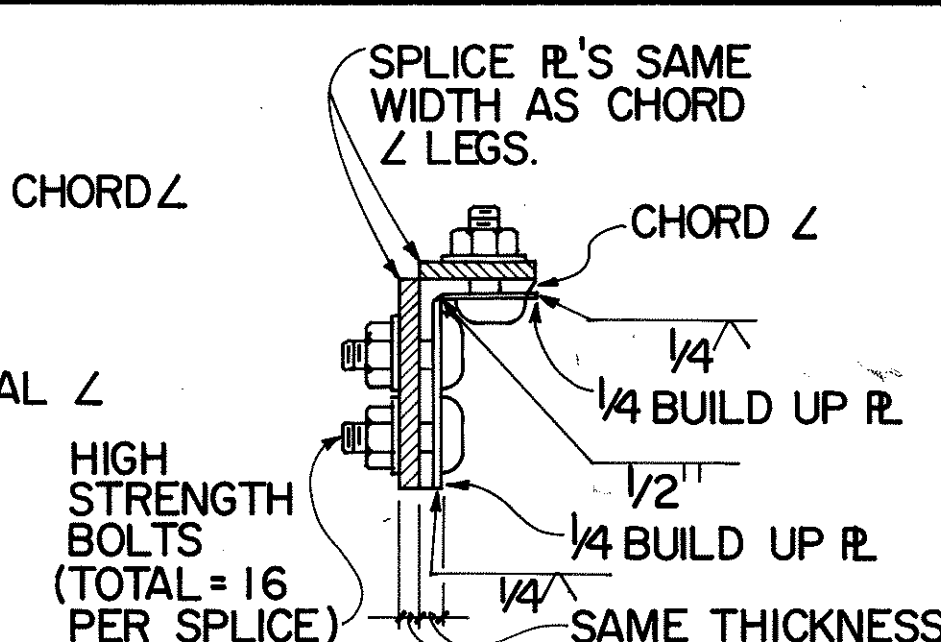
INTERIOR ELEVATION
TYPICAL TOP OR BOTTOM
TRUSS CHORD SHOP SPLICE DETAILS
SCALE: 3"=1'-0"

NOTE: SHOP OR FIELD SPLICE LOCATIONS OF TOP & BOTTOM CHORDS AT EACH TRUSS SHALL BE STAGGERED & AT ALTERNATE LOCATIONS. INDICATE SPLICE LOCATIONS ON SHOP FABRICATION DRAWINGS FOR APPROVAL. IN NO CASE SHALL SPLICES BE LOCATED AT MIDSPAN OF TRUSS. THE SPLICE SHALL BE LOCATED SO AS NOT TO INTERFERE WITH THE MOUNTING OF THE WALKWAY BRACKETS.

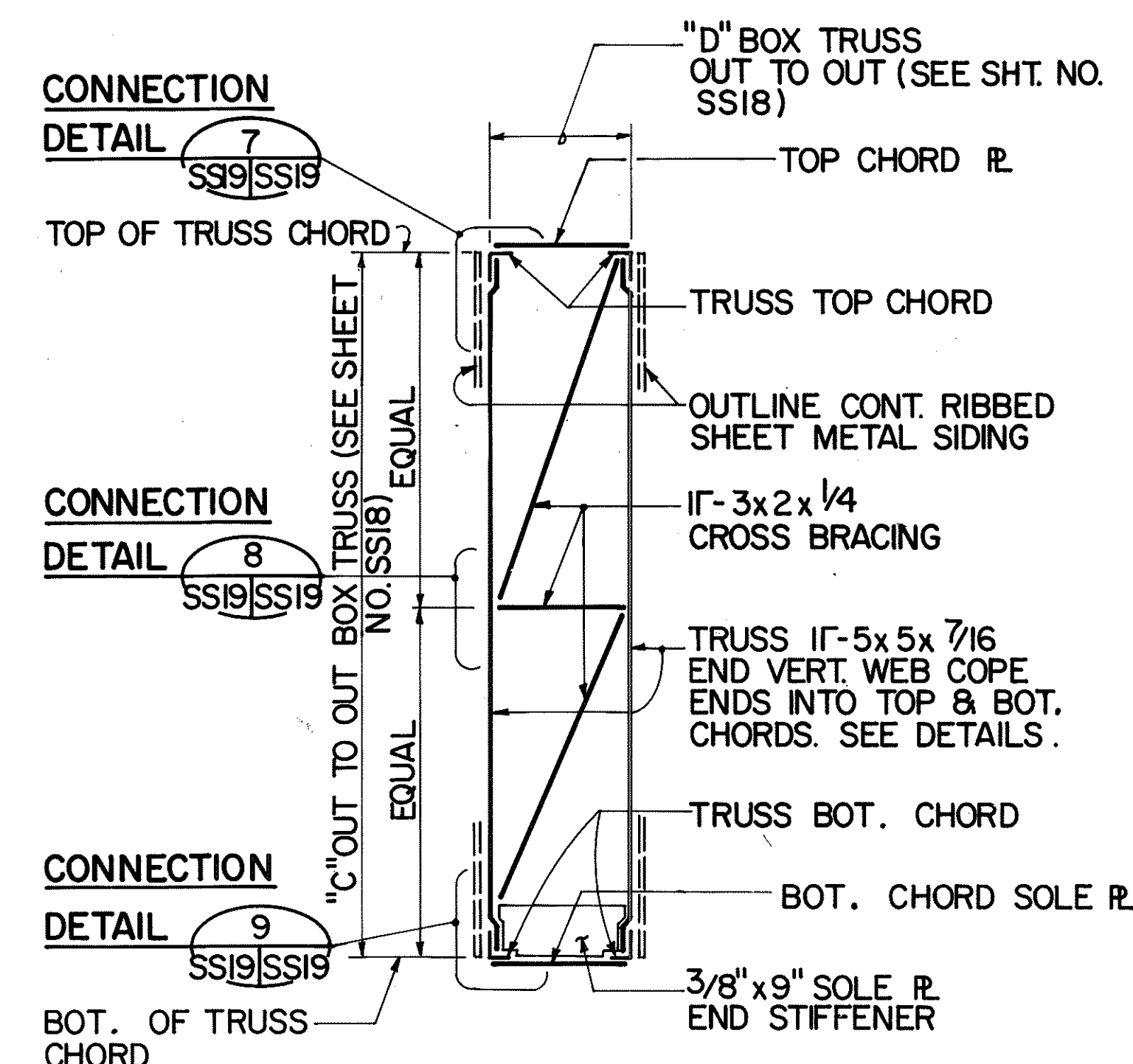


FIELD SPLICE DETAIL
N.T.S.

BUILD UP PLATE:
THE PLATES WELDED TO THE ANGLE LEGS ON THE INSIDE SHALL BE WELDED BEFORE PUNCHING THE BOLT HOLES. THEY SHALL BE THE SAME LENGTH AS THE SPLICE PLATES.

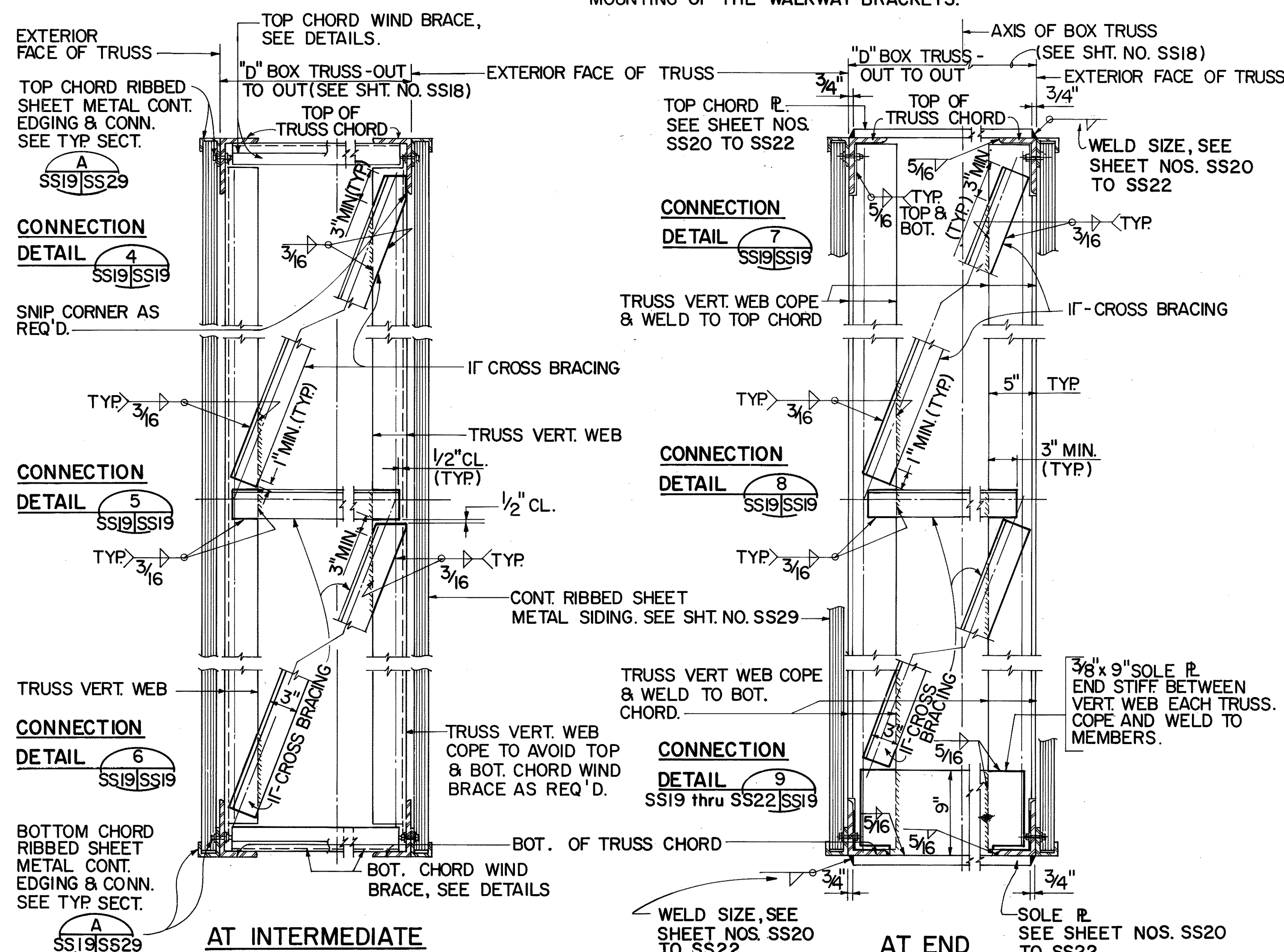


SECTION	A	
N.T.S.	SS 9	SS 9

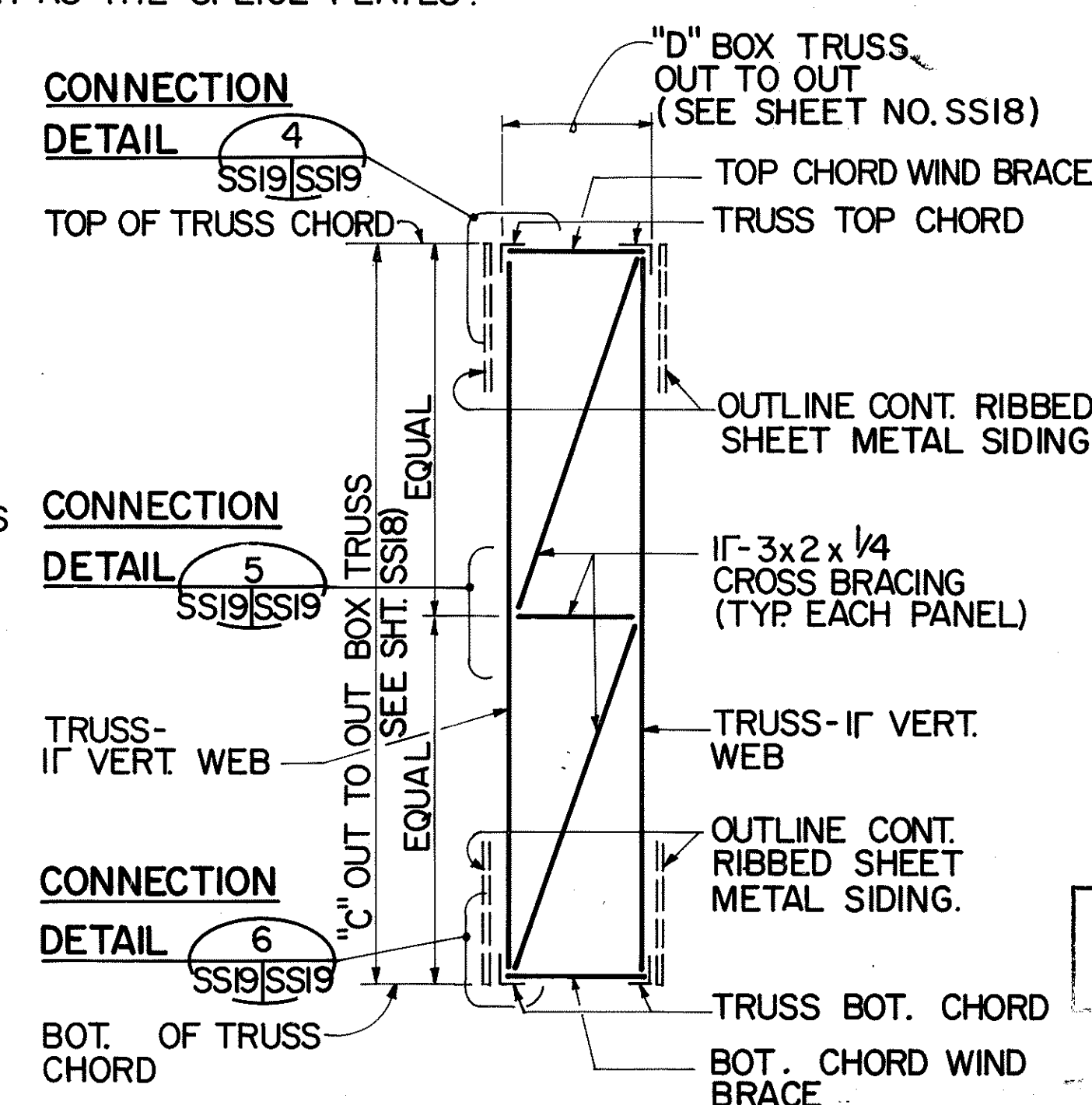


TYP. BOX TRUSS END SECTION J AS SHOWN
SS6.SS18SS9

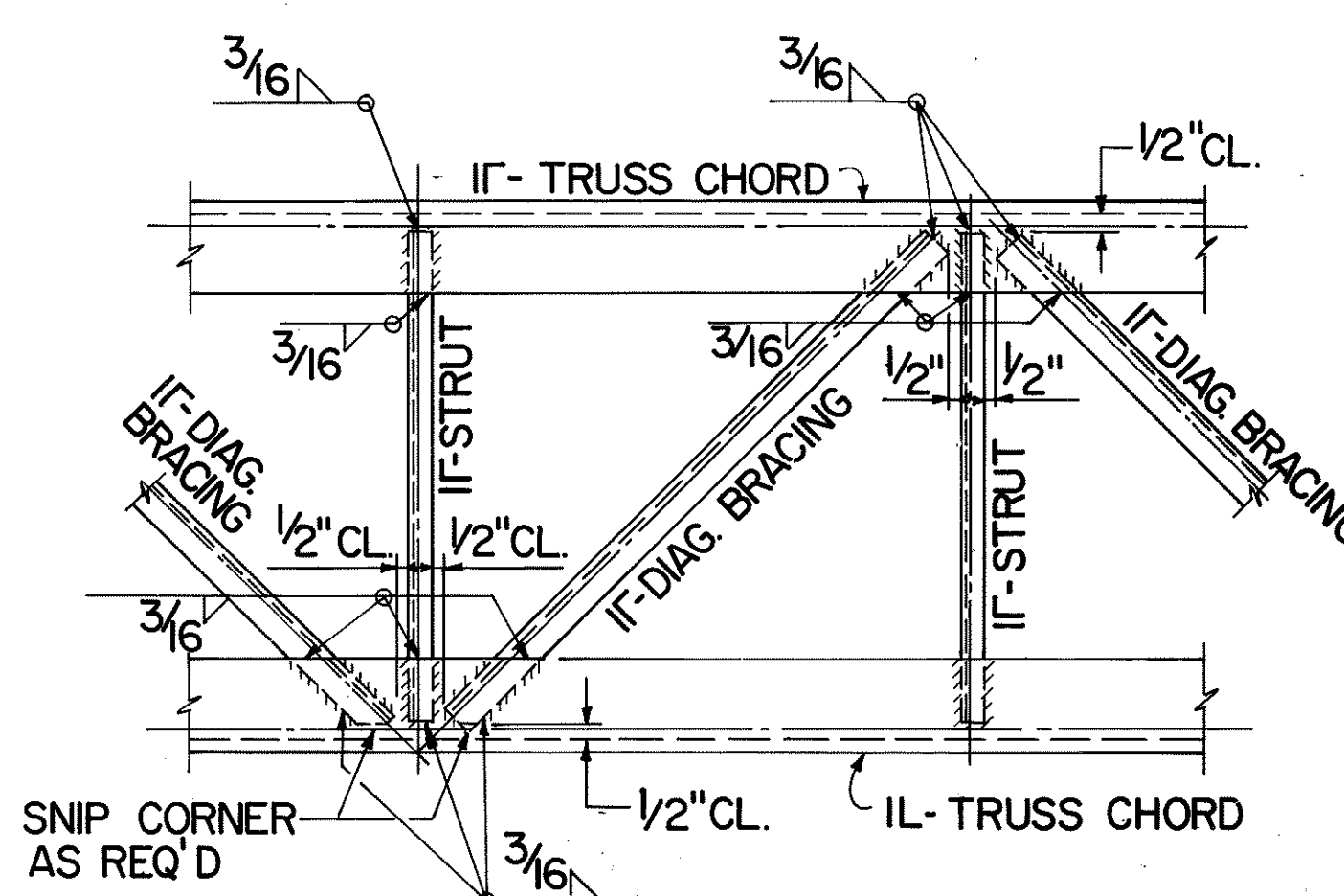
SECTION K SIMILAR EXCEPT OPPOSITE HAND
 SS18|SS19 (END CROSS BRACING DETAILS)
 SCALE: 1/2" = 1'-0"



10 SS22
TYPICAL BOX TRUSS DETAILS
SCALE: 1/2" = 1'-0"

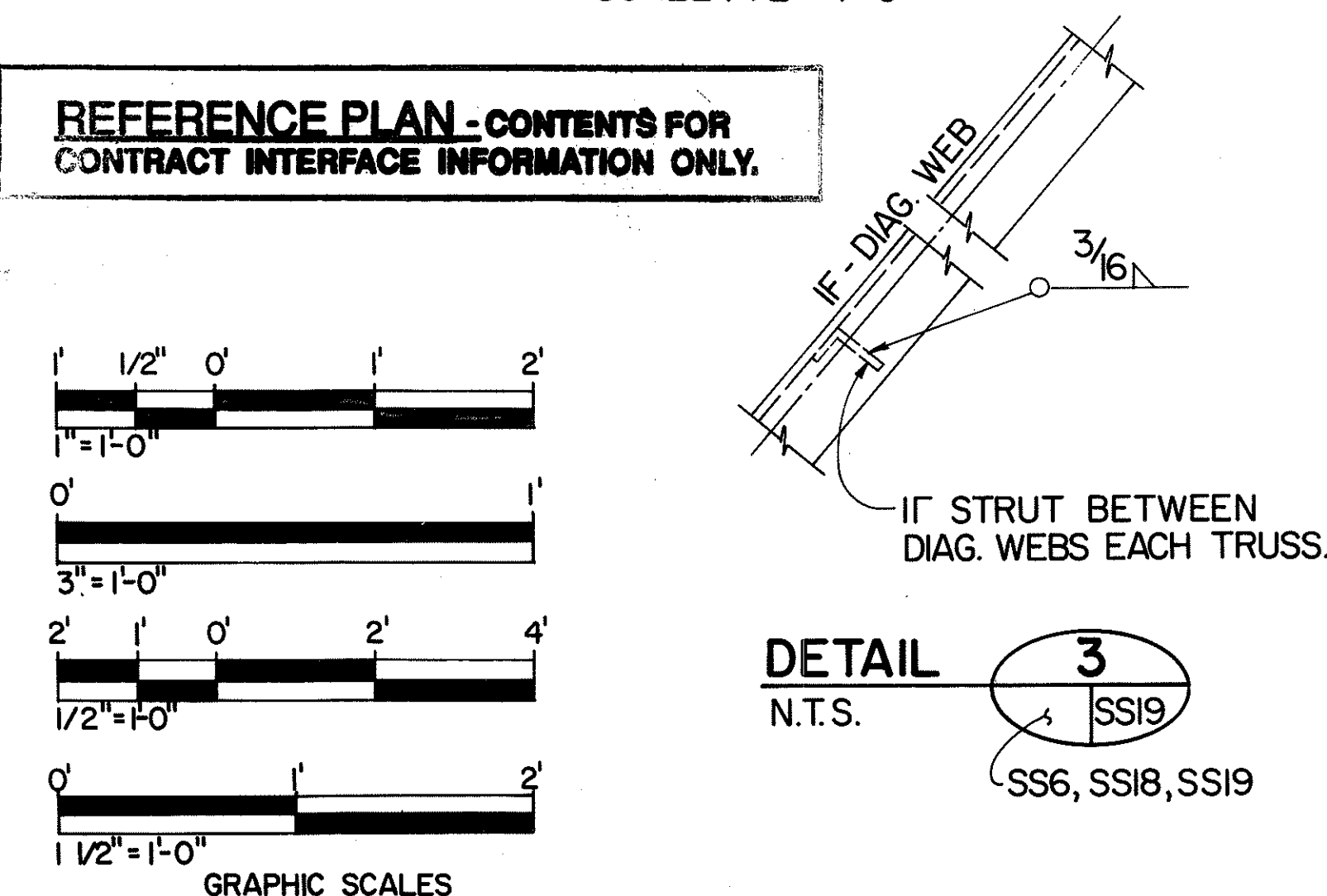


TYP. BOX TRUSS SECTION
(INTERMEDIATE CROSS BRACING DETAILS)
SCALE: 1/2" = 1'-0"



TYPICAL DETAIL 2
SS6, SS18, SS19

WIND BRACE CONNECTION
(TOP CHORD SHOWN - BOT. CHORD SIMILAR)
SCALE : 1/2" = 1'-0"



DETAIL 
N.T.S. SS6, SS18, SS19

DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRUSS CONNECTION DETAILS - I

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3 - I (66)

SCALE: AS SHOWN DATE : APR.1992

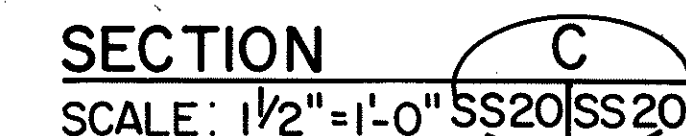
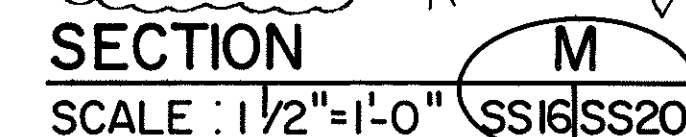
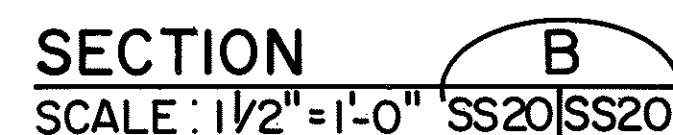
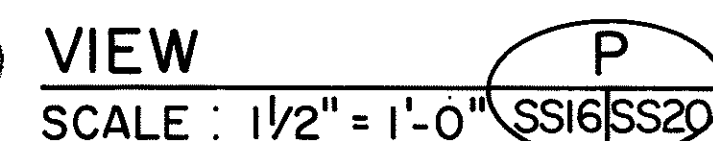
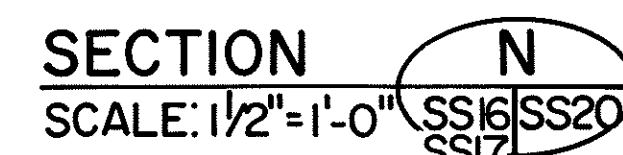
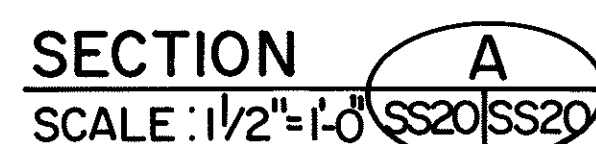
SHEET No. SS190F 36 SHEETS



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Shirong Chen

ADD. 397S-2

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY <i>D. R. K. N. G.</i>	<i>1/7/6</i>
NOTE BOOK	TRACED BY	
	DESIGNED BY <i>K. W. A. L. F.</i>	<i>1/3/0</i>
	QUANTITIES BY <i>S. C. H. I. N.</i>	<i>1/1/0</i>
No. _____	CHECKED BY <i>S. C. H. I. N.</i>	<i>1/9/6</i>



5/ 3 /94	REVISE NOTE (SECT. 'A', 'B' & 'C')
	REVISE WELDS (SECT. 'N', 'P' & 'M')
	REVISE ANGLE. ADD GUSSET PLATE
	(SECT. 'C' & 'M') PER DCN 66 -036
12/29/93	REV. DIM. OF TOP CHORD PLATE (SECT. 'M')
	DCN 66 -027

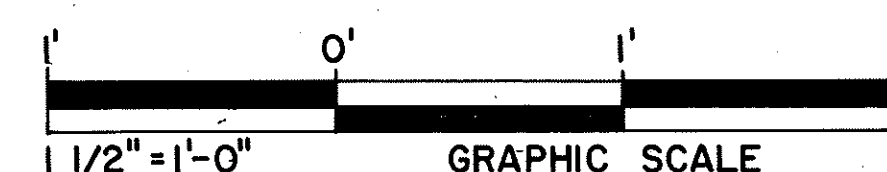
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRUSS CONNECTION DETAILS-2

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
FA.I PROJ. NO. I-H3-1(66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET NO. 20 OF 36 SHEETS

**REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY**



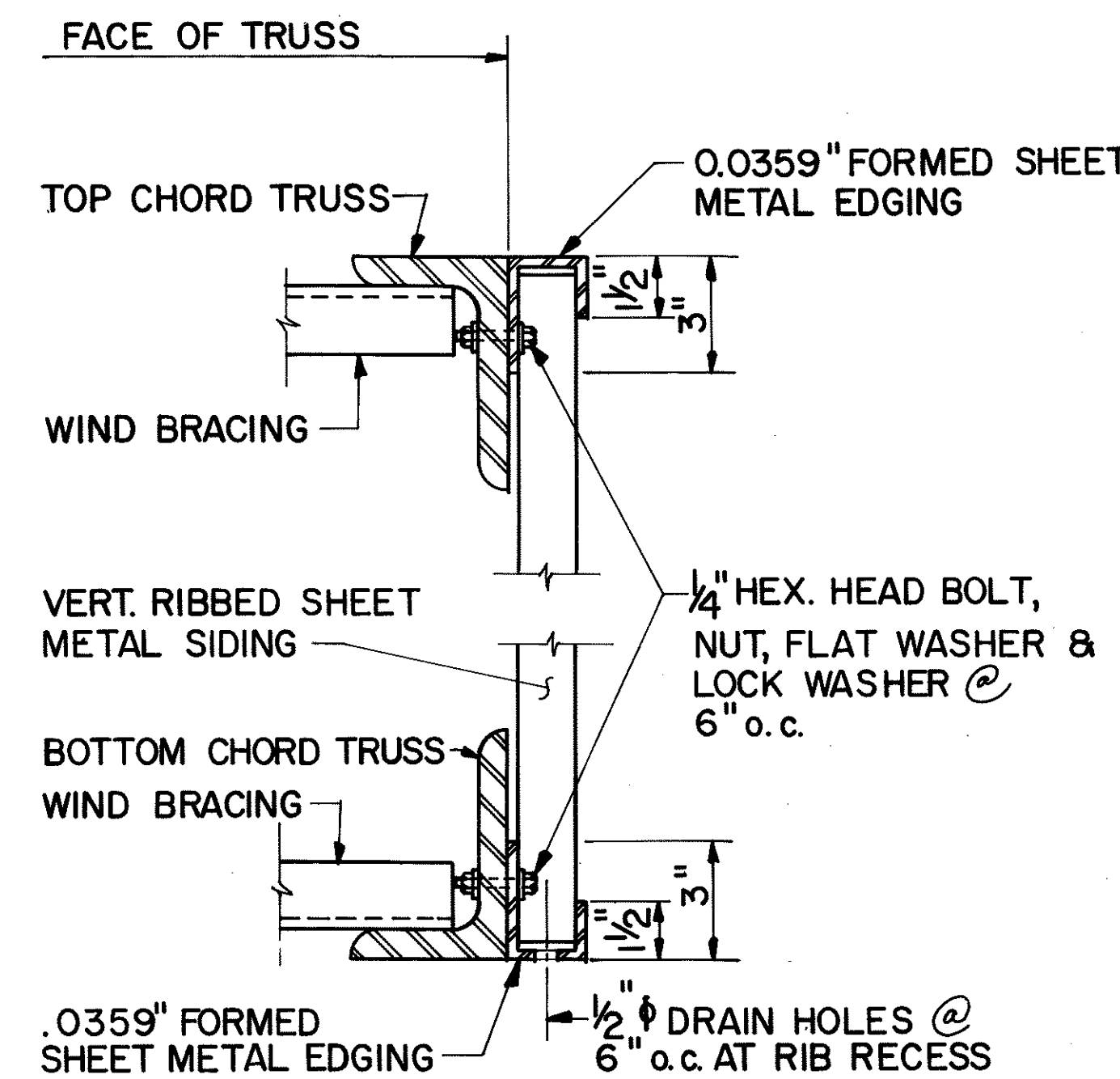
THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION

OR UNDER MY SUPERVISION:
H. J. C. Jones

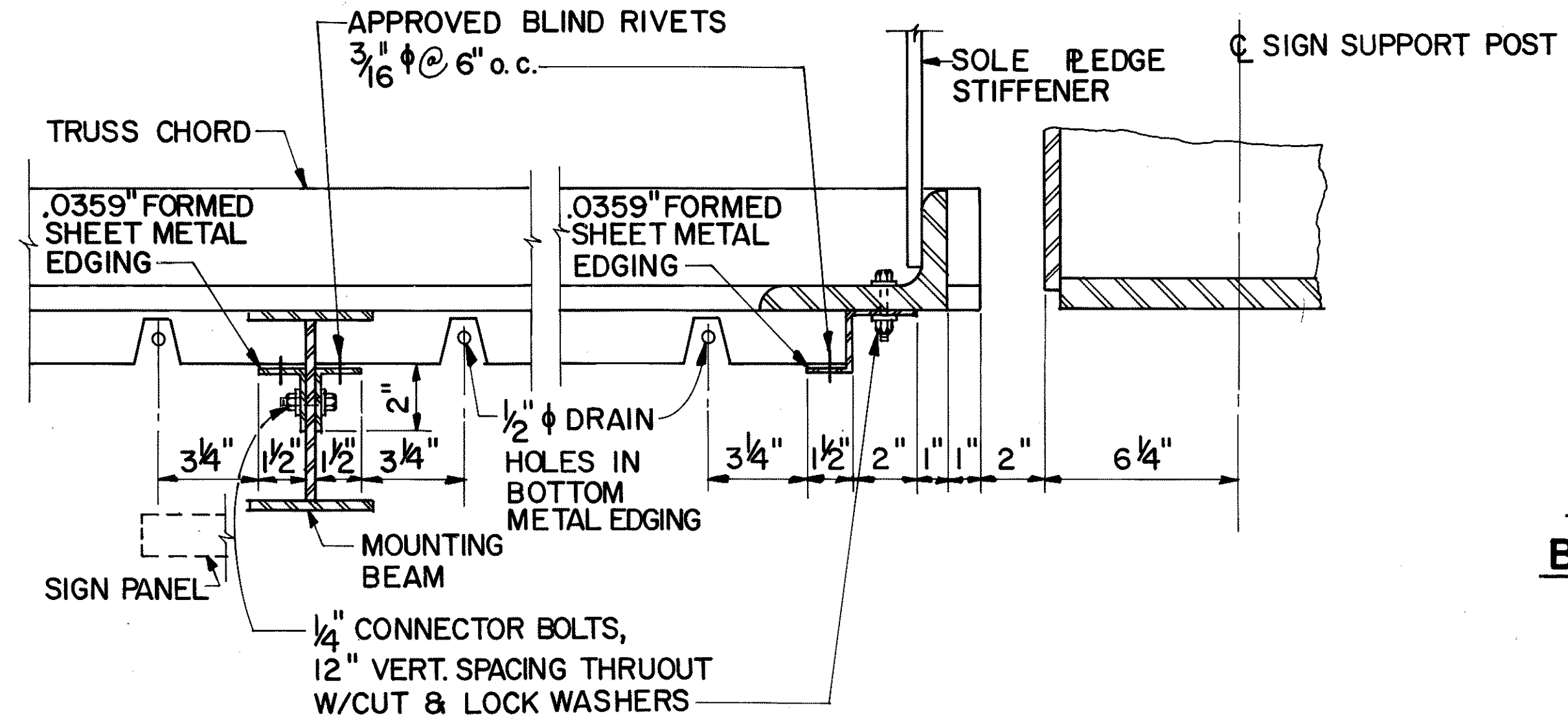
The young man

398

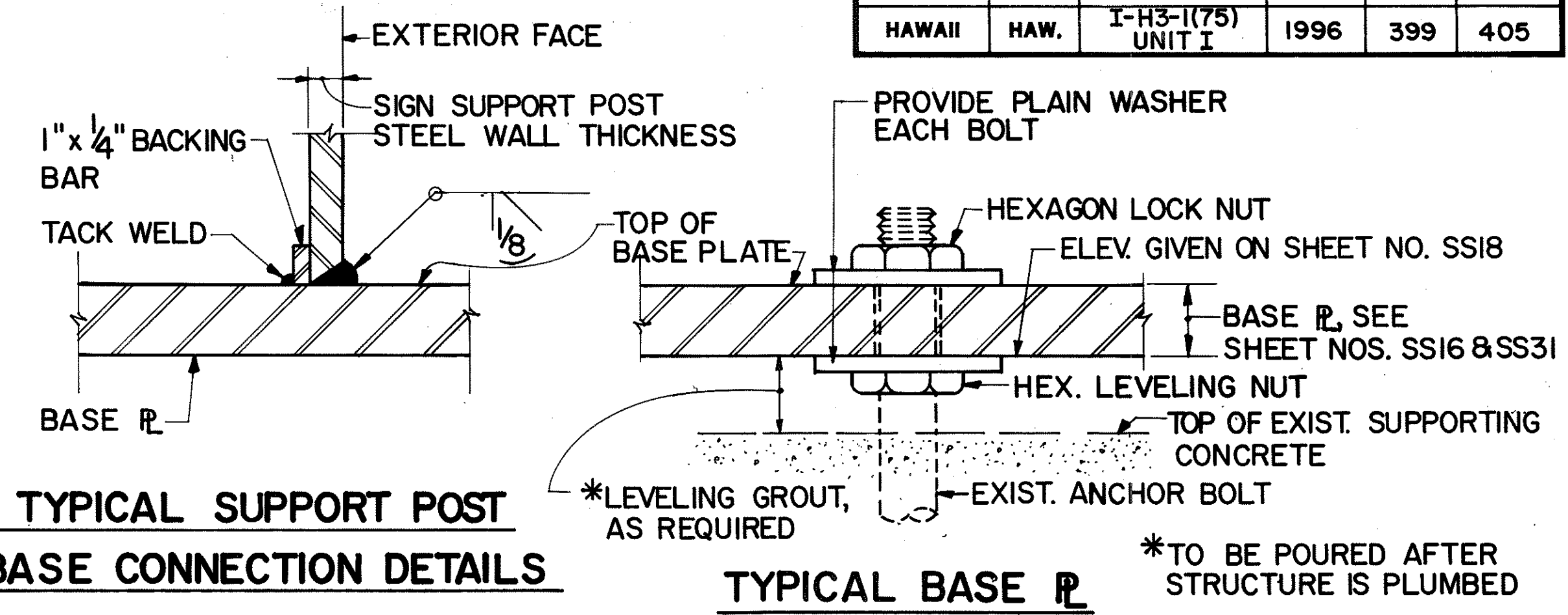
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	399	405



SECTION A
SCALE: 3"=1'-0"
SS29, SS29, SS19



SECTION B
SCALE: 3"=1'-0"
SS29, SS29, SS23



TYPICAL SUPPORT POST BASE CONNECTION DETAILS

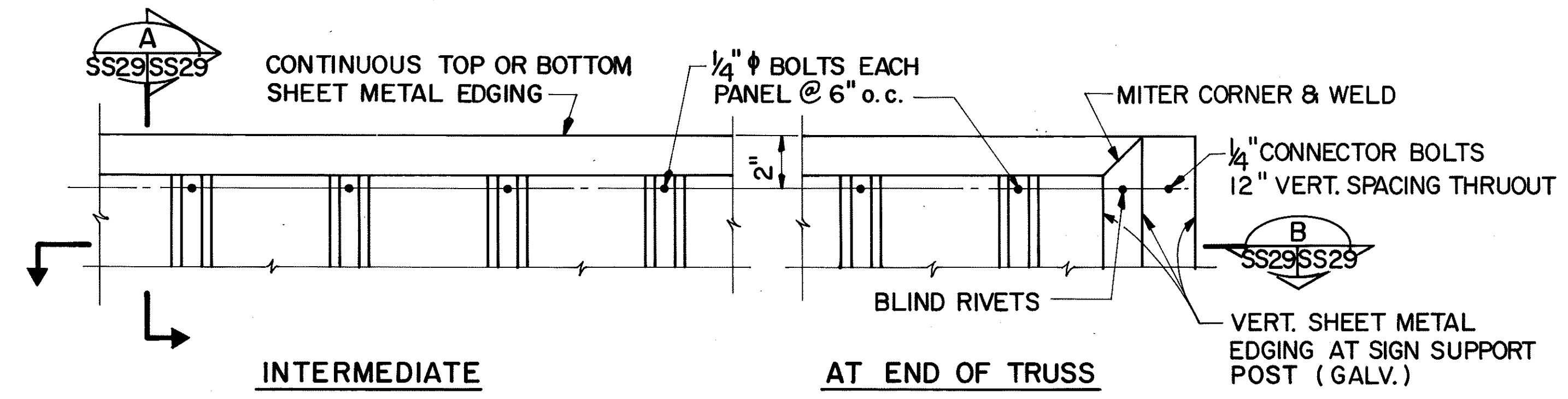
DETAIL 11
N.T.S. SS16, SS29, SS31

TYPICAL BASE PLATE ANCHOR BOLT CONNECTION DETAIL

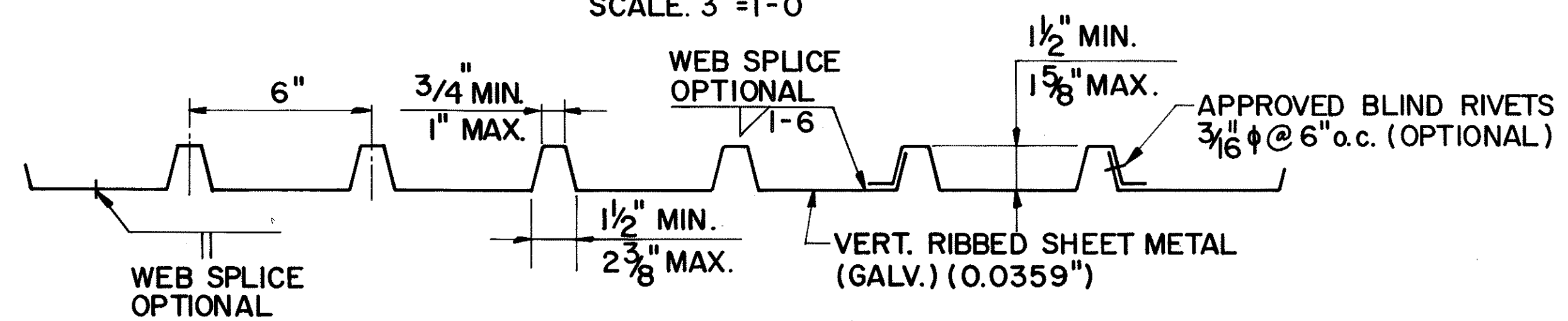
DETAIL 10
SCALE: 3"=1'-0"
SS16, SS17, SS29, SS6

NOTE: FOR ELEVATION AT BOTTOM OF BASE PLATES, SEE TABLE ON SHEET NO. SS18.

*TO BE POURED AFTER STRUCTURE IS PLUMBED



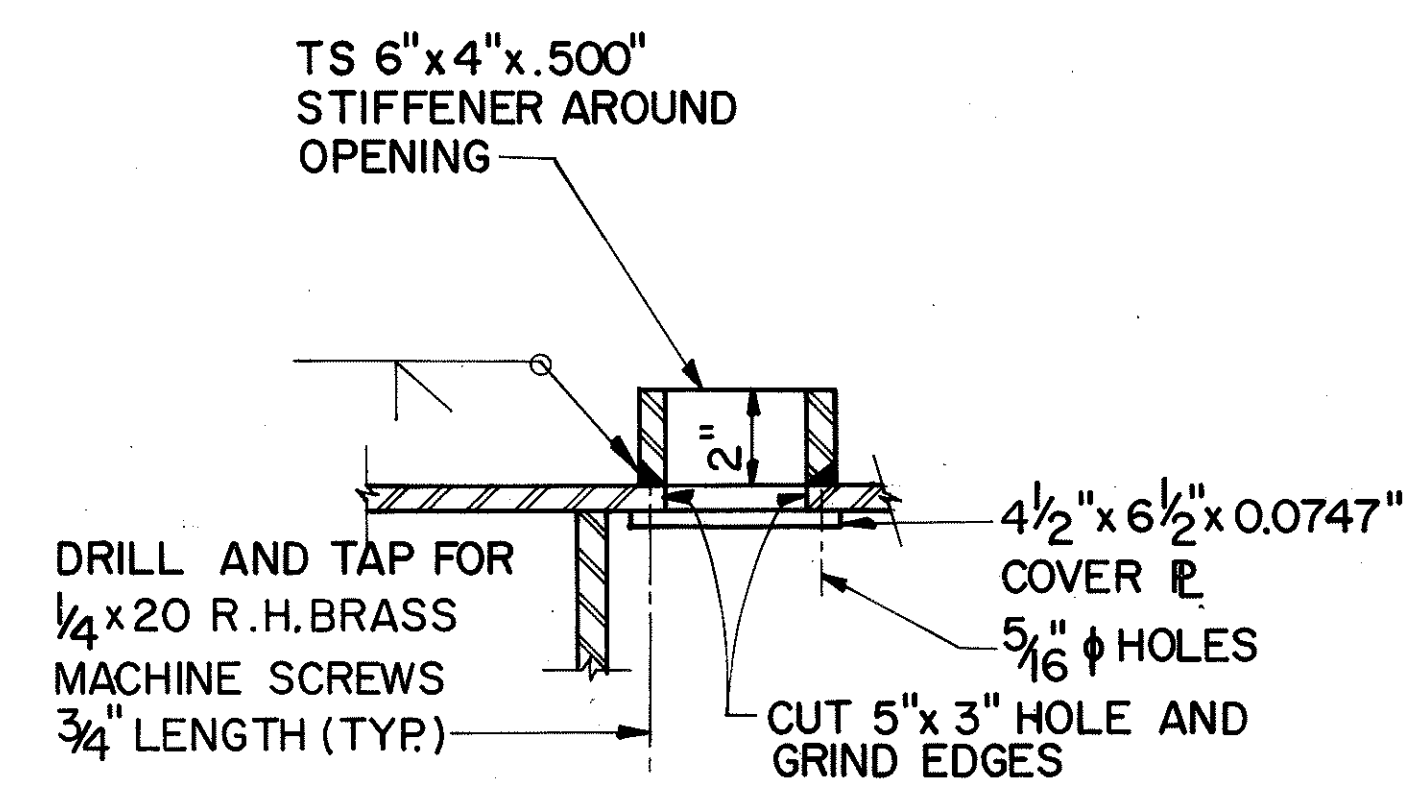
EXTERIOR ELEVATION
SCALE: 3"=1'-0"



TYPICAL RIBBED SHEET METAL SECTIONS
SCALE: 3"=1'-0"

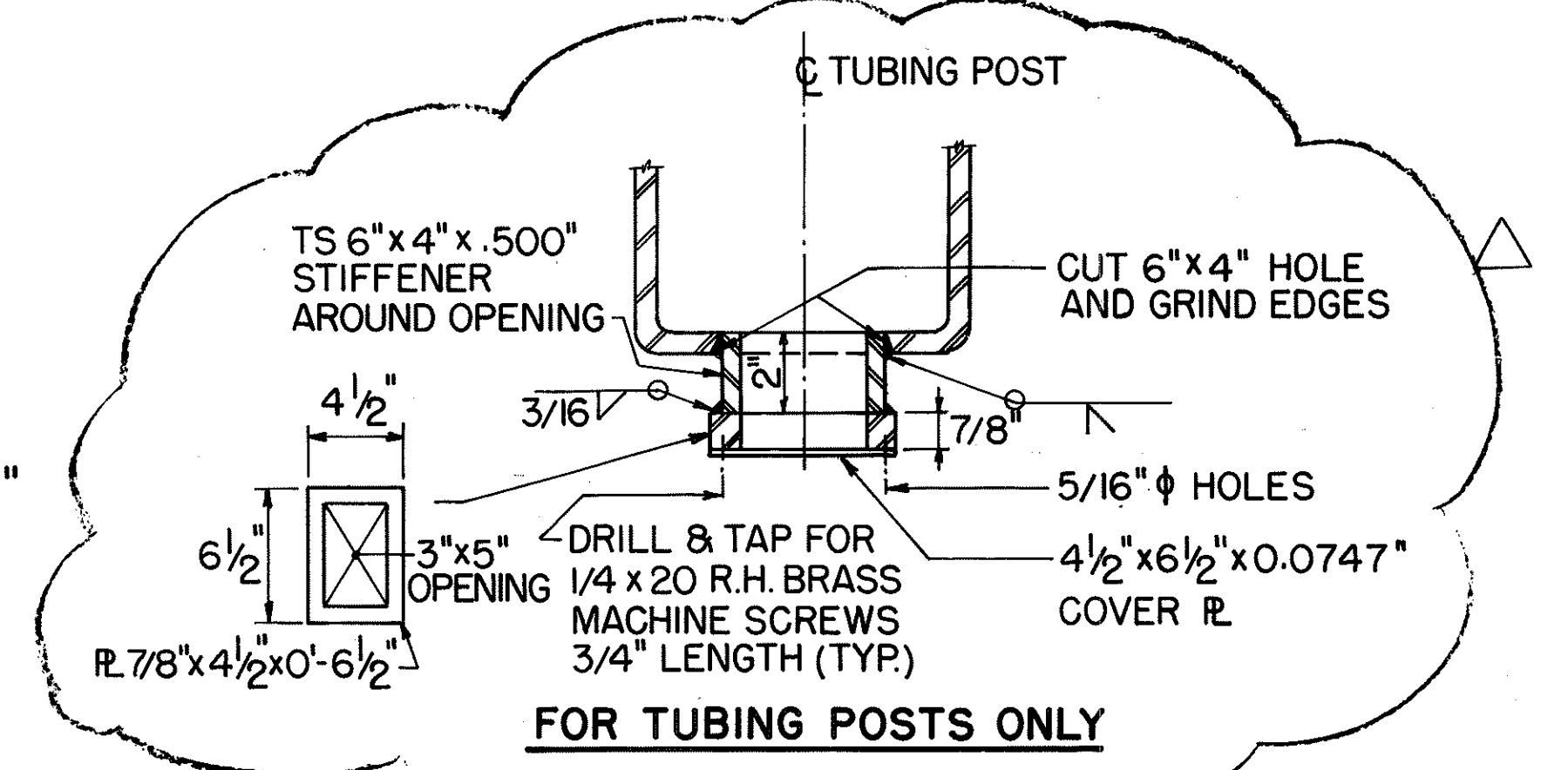
RIBBED SHEET METAL NOTES

- ALL RIBBED SHEET METAL AND FORMED EDGING SHALL BE GALVANIZED STEEL CONFORMING TO ASTM DESIGNATION: A446, GRADE A; G165 COATING DESIGNATION IN CONFORMANCE WITH ASTM DESIGNATION: A525.
- CONNECTION BOLTS, NUTS AND WASHERS TO BE GALVANIZED STEEL ASTM A307.



HAND HOLE & COVER PLATE DETAIL

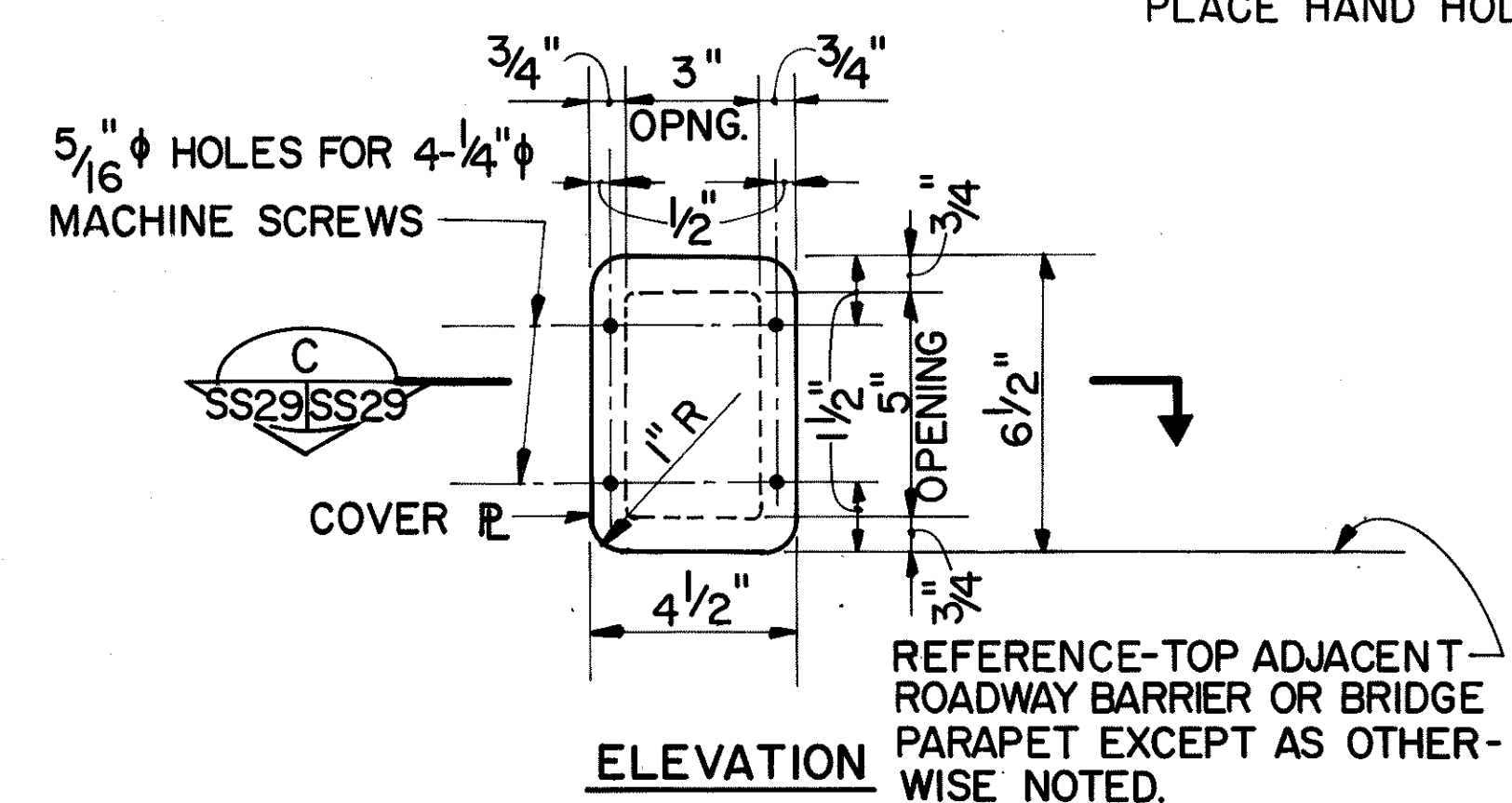
DETAIL 12
SCALE: 3"=1'-0"
SS16, SS29, SS30, SS31



FOR TUBING POSTS ONLY

SECTION C
SCALE: 3"=1'-0"
SS29, SS29

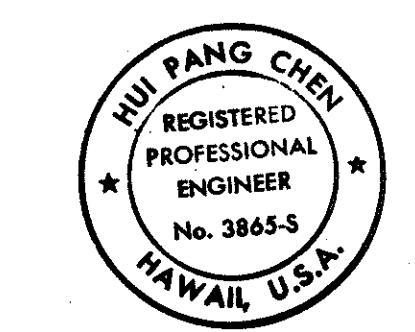
NOTE: PLACE HAND HOLES IN ALL POSTS.



ELEVATION

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

5-25-93	REVISED SECTION C PER DCN 66-008
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
MISCELLANEOUS DETAILS-1	
SUPPORT STRUCTURES INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1 (66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS29 OF 36 SHEETS	

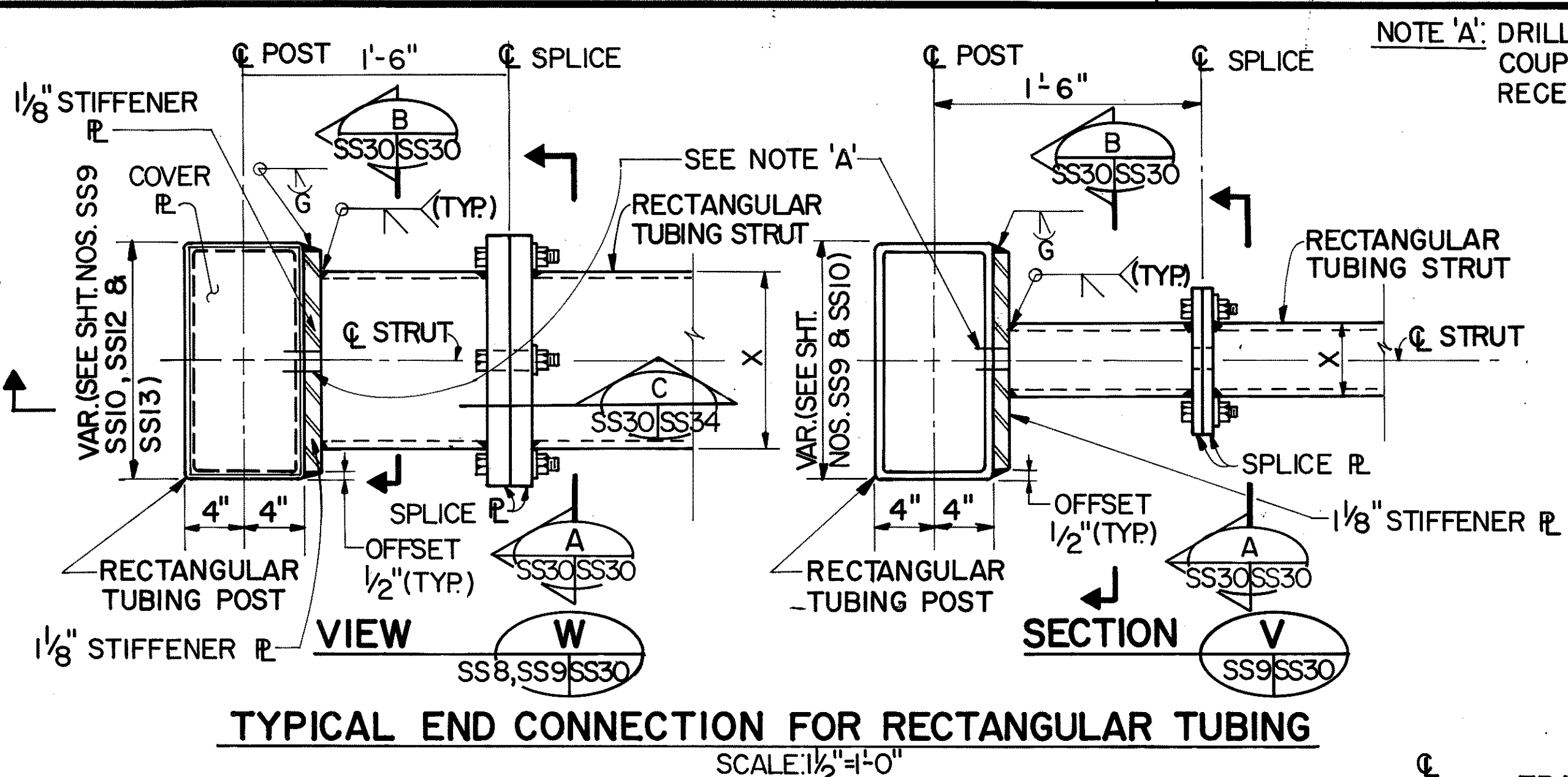
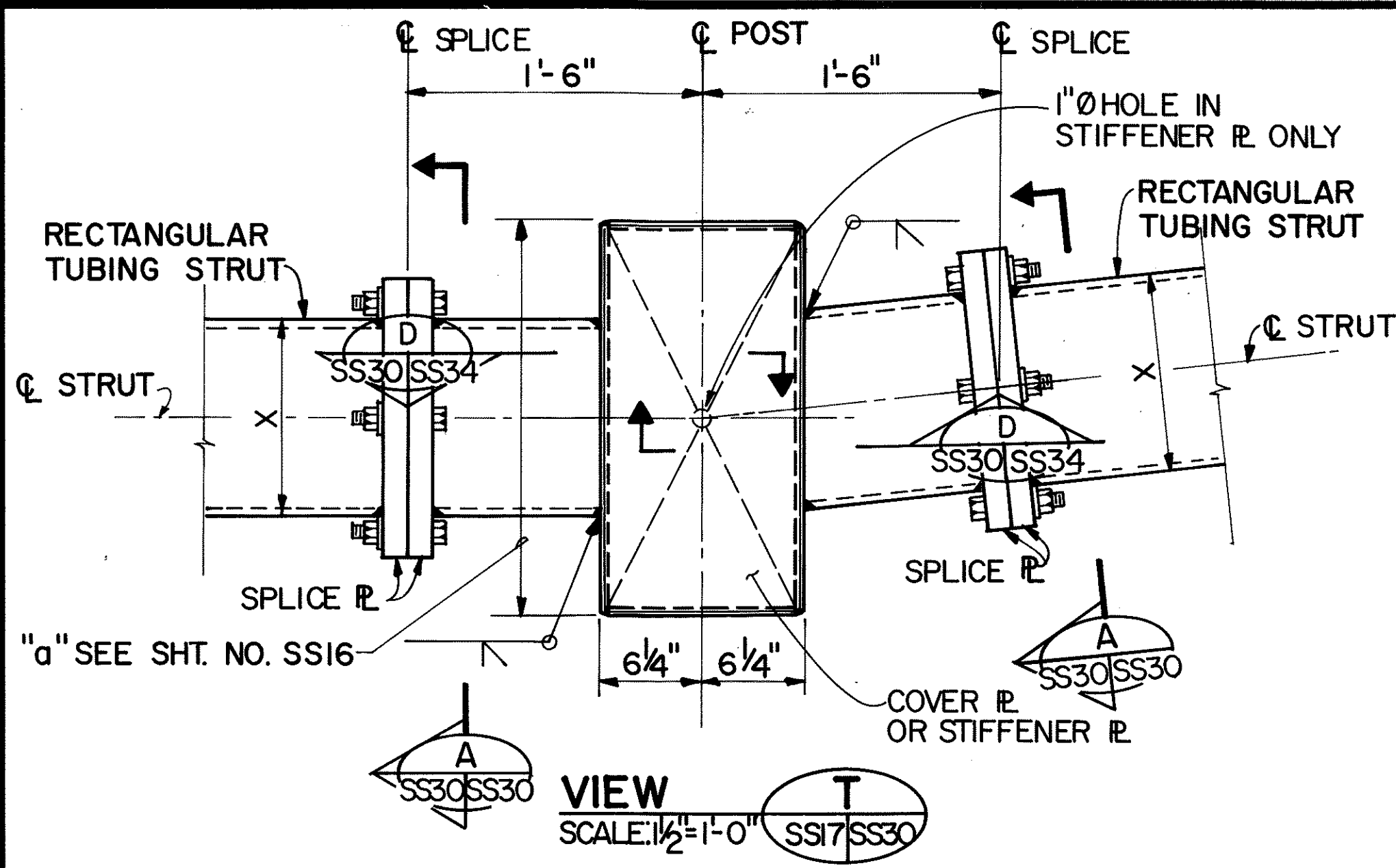


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Rui Pang Chen



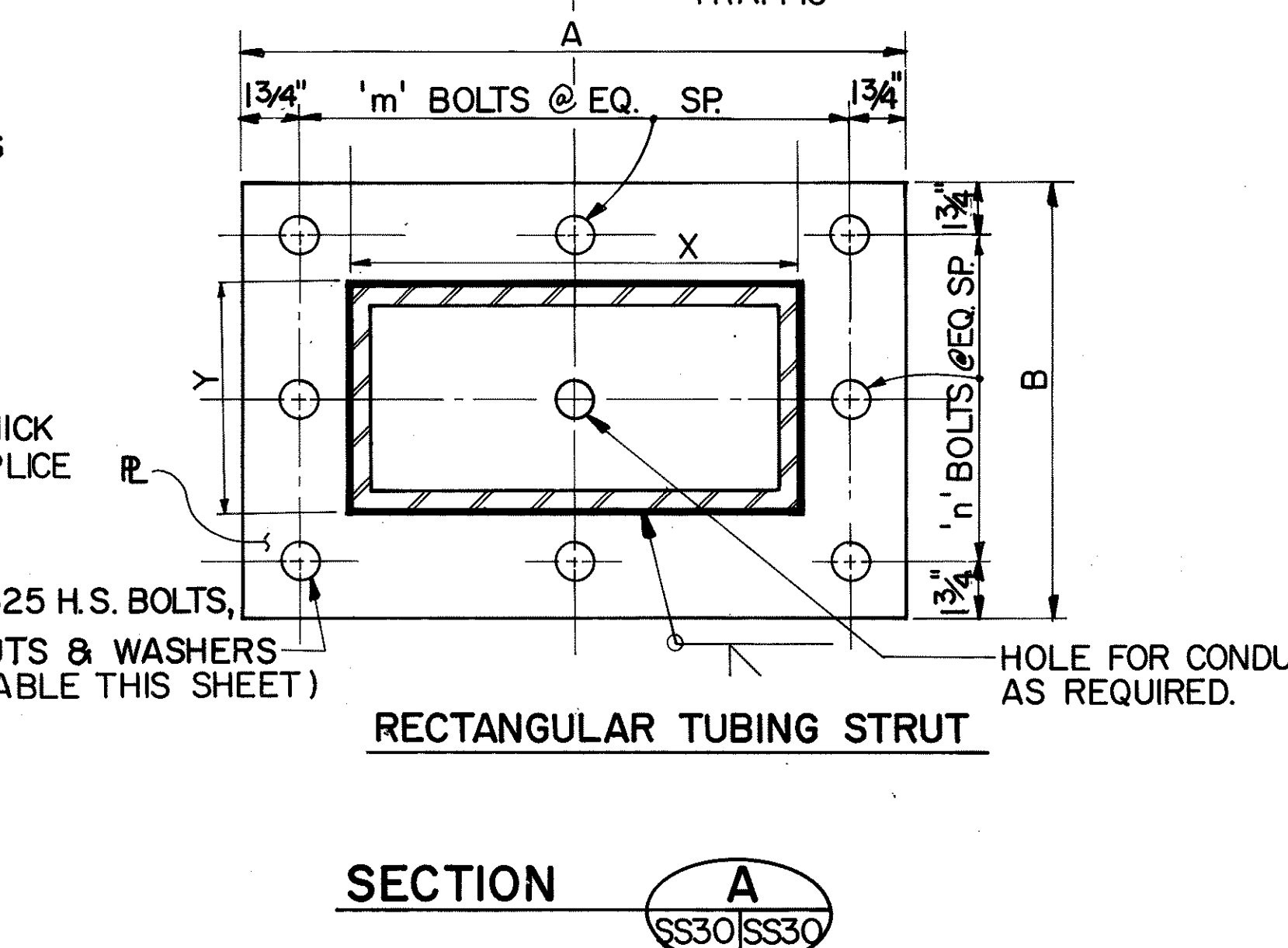
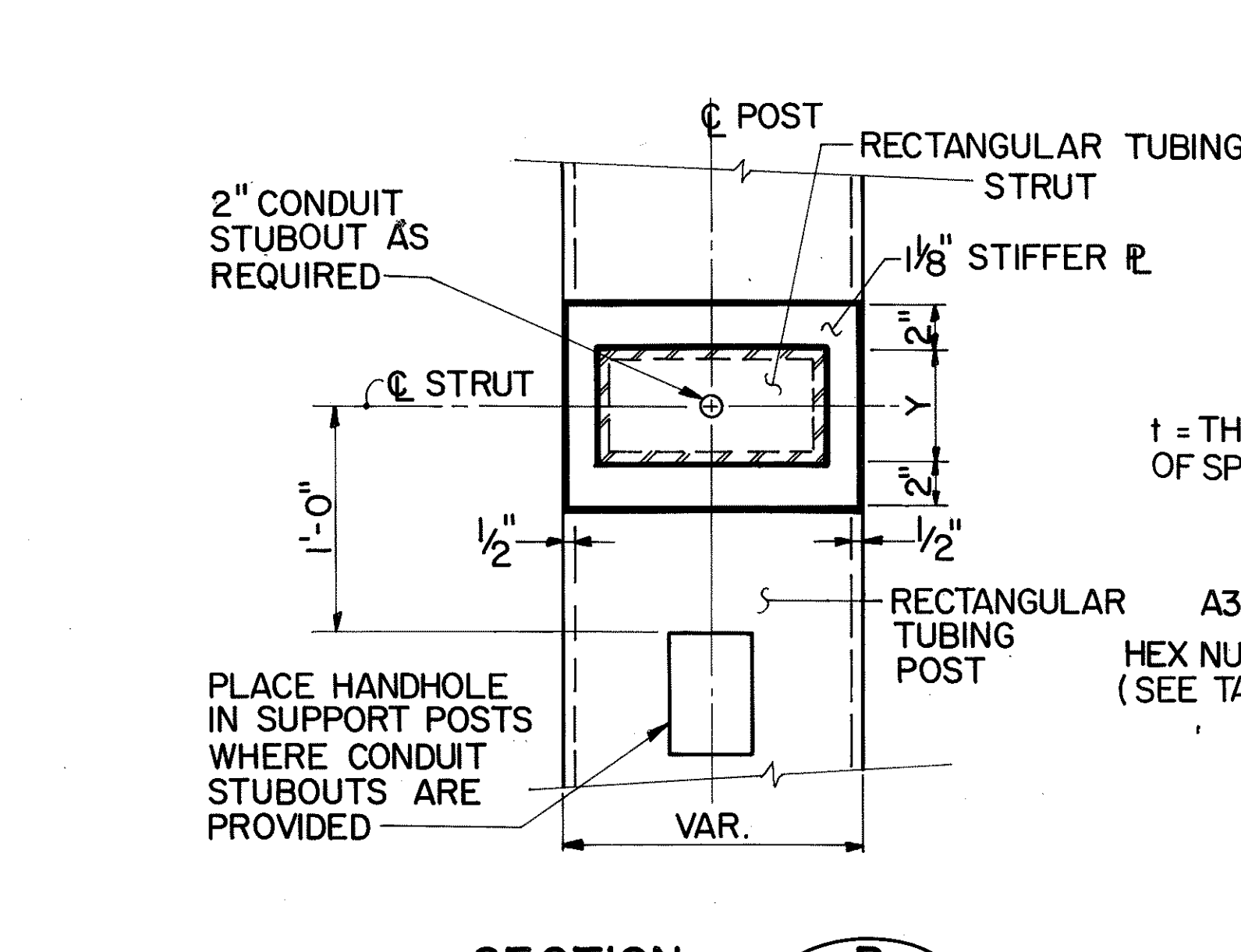
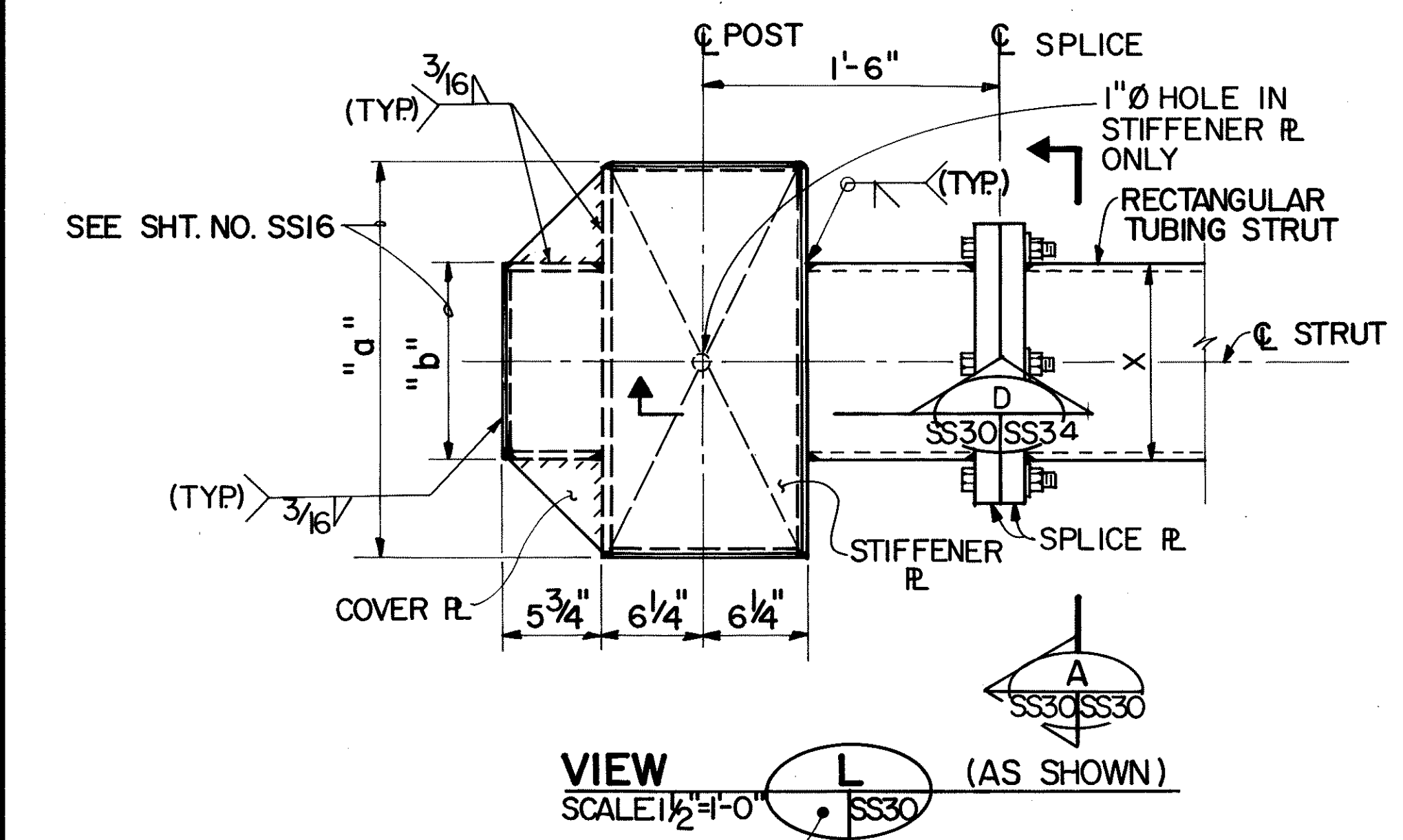
DATE	1/2/94
DESIGNED BY	H.P. CHEN
QUANTITIES BY	S. CHEN
CHECKED BY	K.W. LIA
ORIGINAL PLAN	
NOTE BOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	400	405



NOTE 'A': DRILL FOR 2" DIAMETER x 1" SHORT COUPLING AND PLUG WITH RECESSED PIPE AS REQUIRED.

NOTE:
THE CONTRACTOR SHALL PROVIDE SPLICE OF TUBING STRUT AT THE LOCATIONS AS SHOWN ON PLANS. IN CASE ADDITIONAL SPLICES OF TUBING STRUT ARE REQUIRED, THE SPLICES SHALL BE LOCATED AT ABOUT 1/4 SPAN FROM C OF SUPPORT AND INTERFERENCE WITH THE FARADAY SHIELD WIRE CONNECTIONS SHALL BE AVOIDED. IN NO CASE SHALL SPLICES BE LOCATED AT MIDSPAN OF THE STRUT. LOCATIONS OF SPLICES SHALL BE INDICATED ON SHOP FABRICATION DRAWINGS FOR APPROVAL. FOR STRUTS THROUGH WHICH WIRES WILL BE PULLED, PLACE HANDHOLE ON BOTTOM-SIDE OF STRUT WHERE ADDITIONAL SPLICES ARE PROVIDED. NEAREST EDGE OF HANDHOLE COVER R IS 1'-0" FROM C SPLICE & CENTERED ABOUT C STRUT. HANDHOLE NEEDED ONLY ON SIDE OF SPLICE NEAREST SUPPORT POSTS PROVIDING CONDUIT STUBOUTS FOR WIRE ACCESS. SEE DETAIL 12 FOR HANDHOLE DETAILS. SS30/SS29



RECTANGULAR TUBING STRUT	X	Y	A	B	NO. OF BOLTS		t	BOLT HOLE SIZE	BOLT SIZE
					m	n			
8" x 6" x 1/2"	8	6	1'-6 1/2"	1'-3 1/2"	4	3	1 5/8"	1 5/16"	3/4"
12" x 6" x 1/2"	12	6	1'-9 1/2"	1'-3 1/2"	4	3	1 3/4"	1 1/4"	1"
18" x 6" x 1/2"	18	6	2'-3 1/2"	1'-3 1/2"	5	3	2"	1 1/4"	1"
16" x 12" x 1/2"	12	16	1'-7 1/2"	2'-1 1/2"	4	5	2"	1 1/4"	1"

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

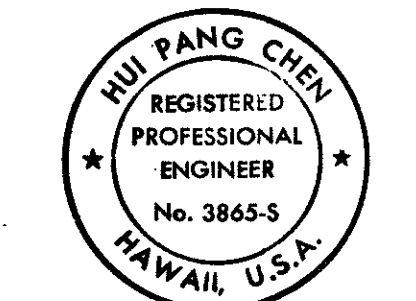
DATE	REVISION
12/29/93	REV. DIM. A & B IN TABLE PER DCN 66-027
7/20/93	REVISED SECTION 'A' AND TABLE PER DCN 66-015
5-25-93	REVISED NOTE 'A' PER DCN 66-008

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

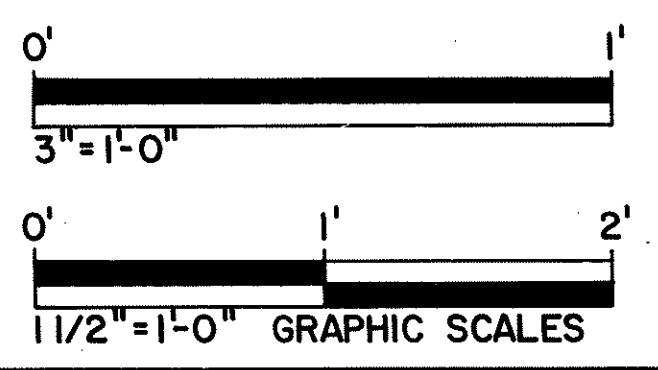
MISCELLANEOUS DETAILS-2

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET No. SS30 OF 36 SHEETS

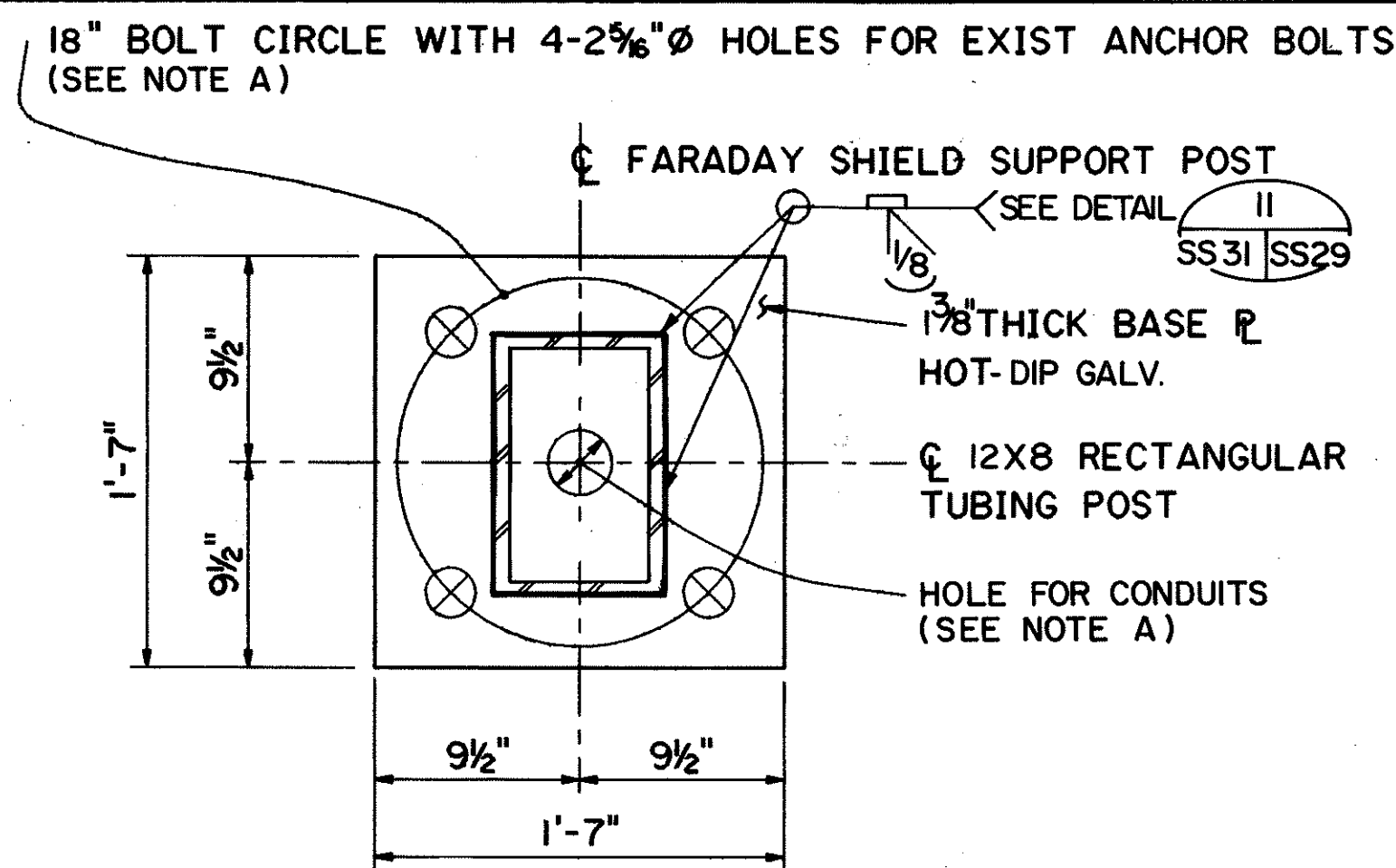


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Hui Pang Chen

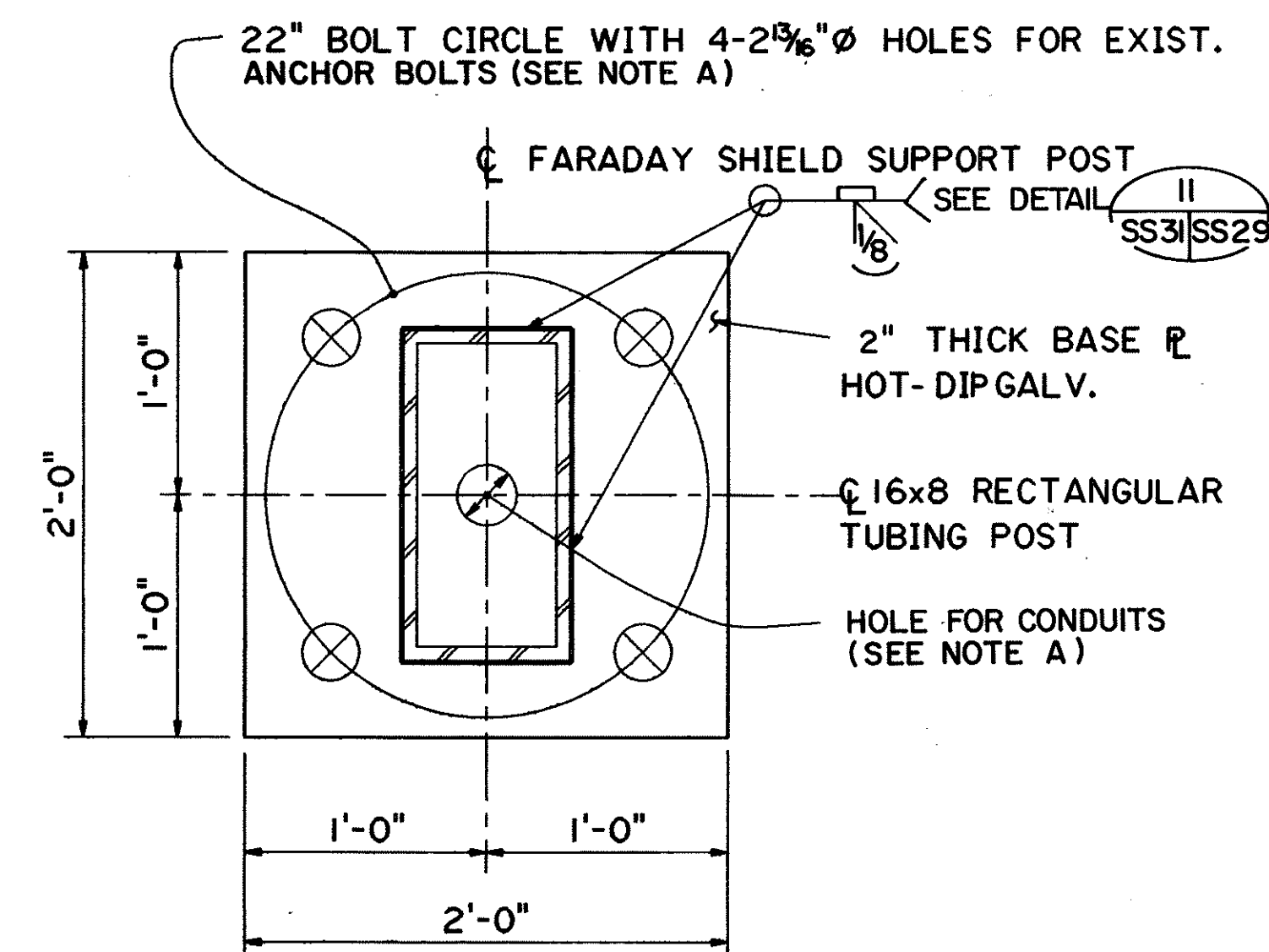


DATE	1/96
DESIGNED BY	K. WADA
TRACED BY	S. CHUN
CHECKED BY	S. CHUN
NO.	

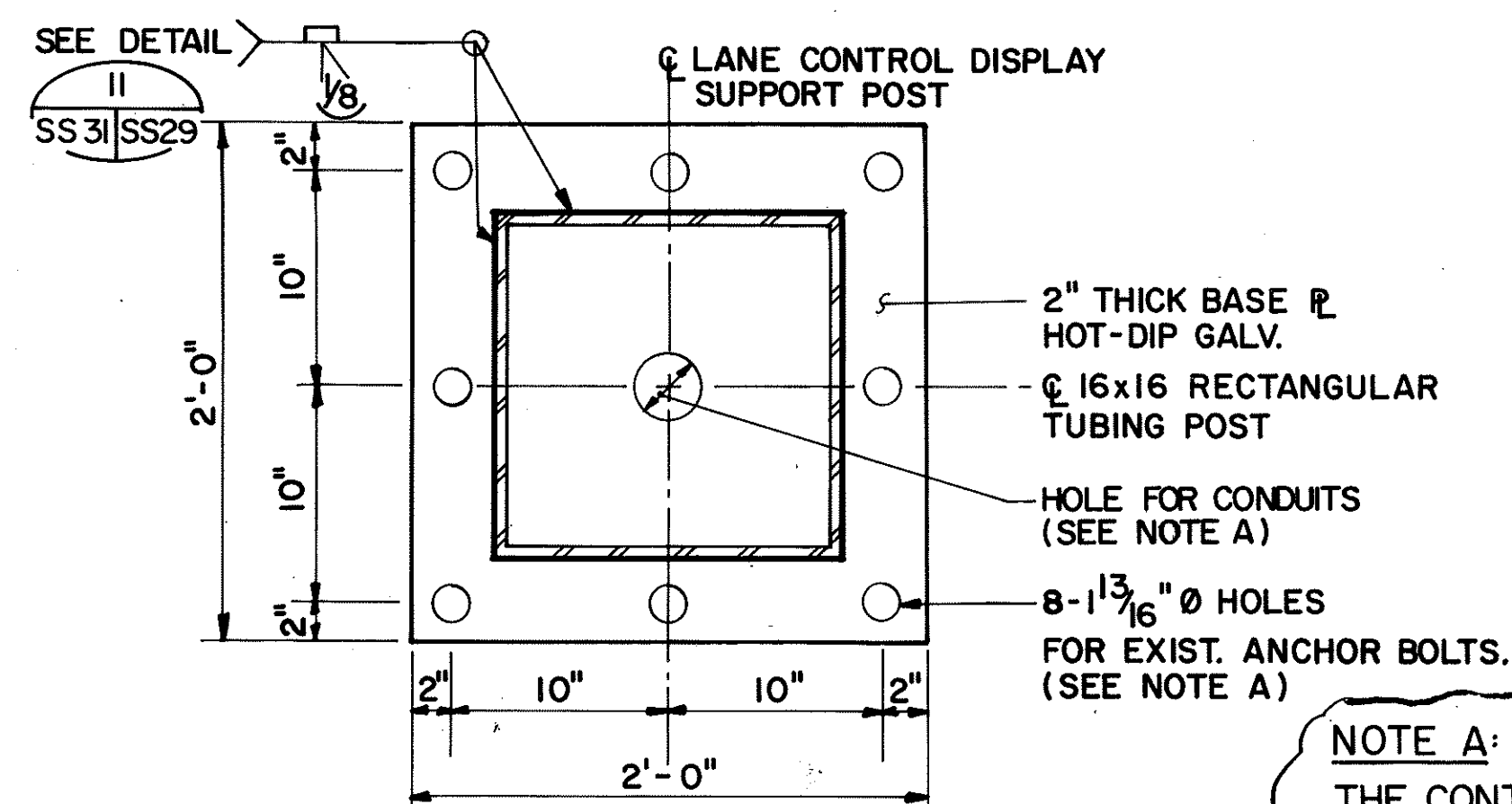
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	401	405



12x8 RECTANGULAR TUBING POST



16x8 RECTANGULAR TUBING POST

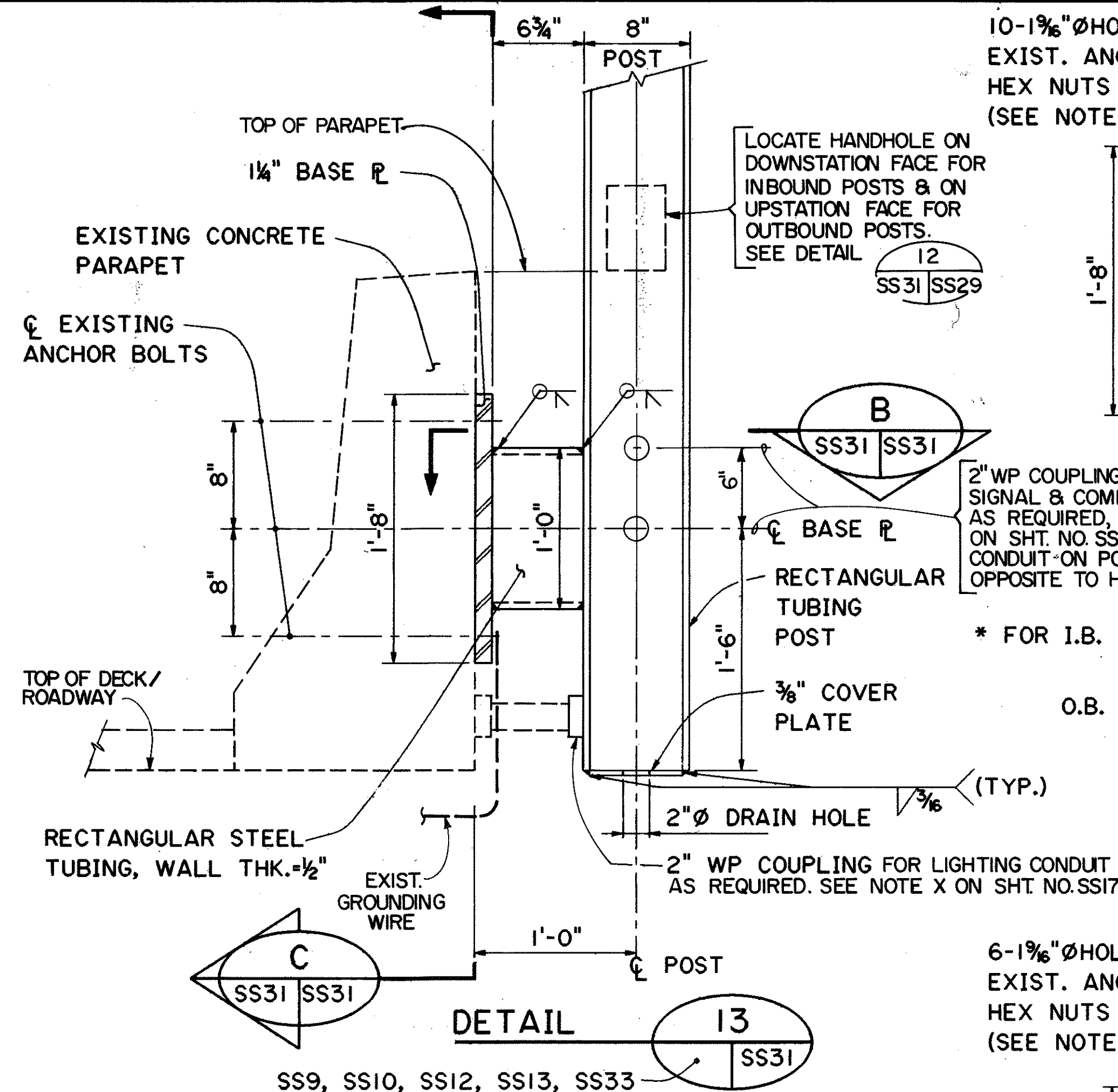


16x16 RECTANGULAR TUBING POST

SECTION I
SS8, SS9, SS10, SS12, SS31

TYPICAL BASE PLATE FOR GROUND-MOUNTED POST

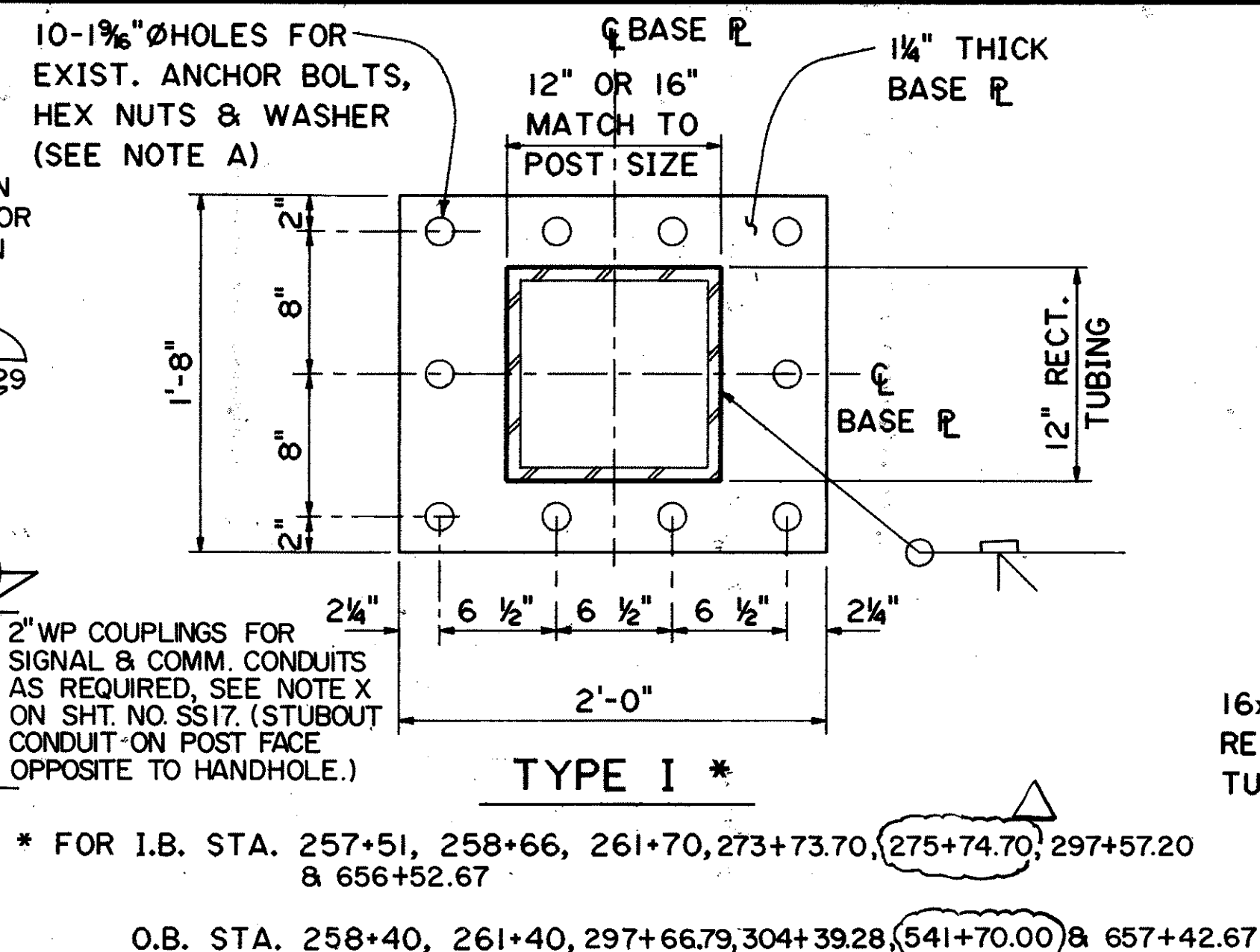
SCALE: 1 1/2" = 1'-0"



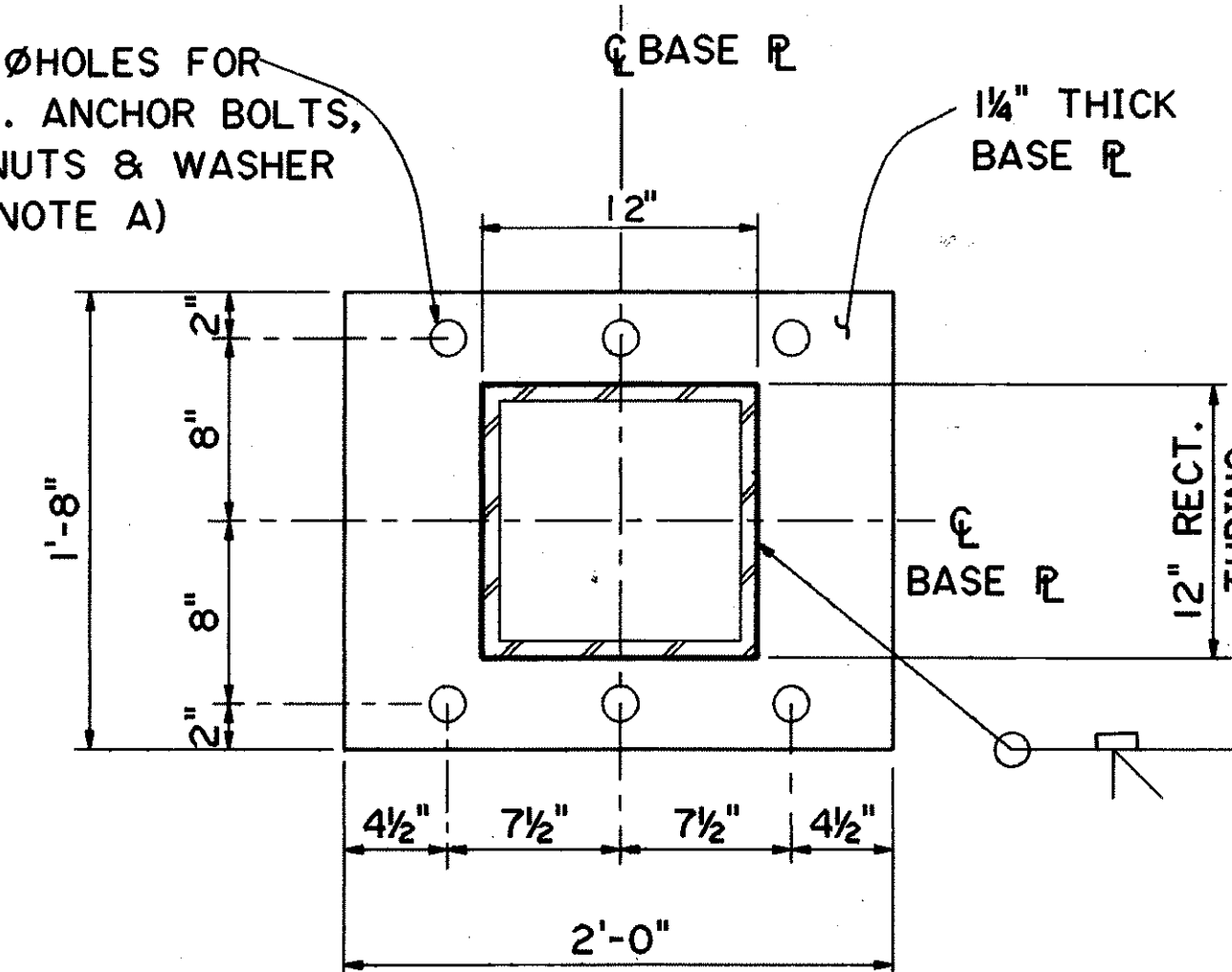
TYPICAL BASE CONNECTION DETAIL FOR PARAPET MOUNTED TUBING POST

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

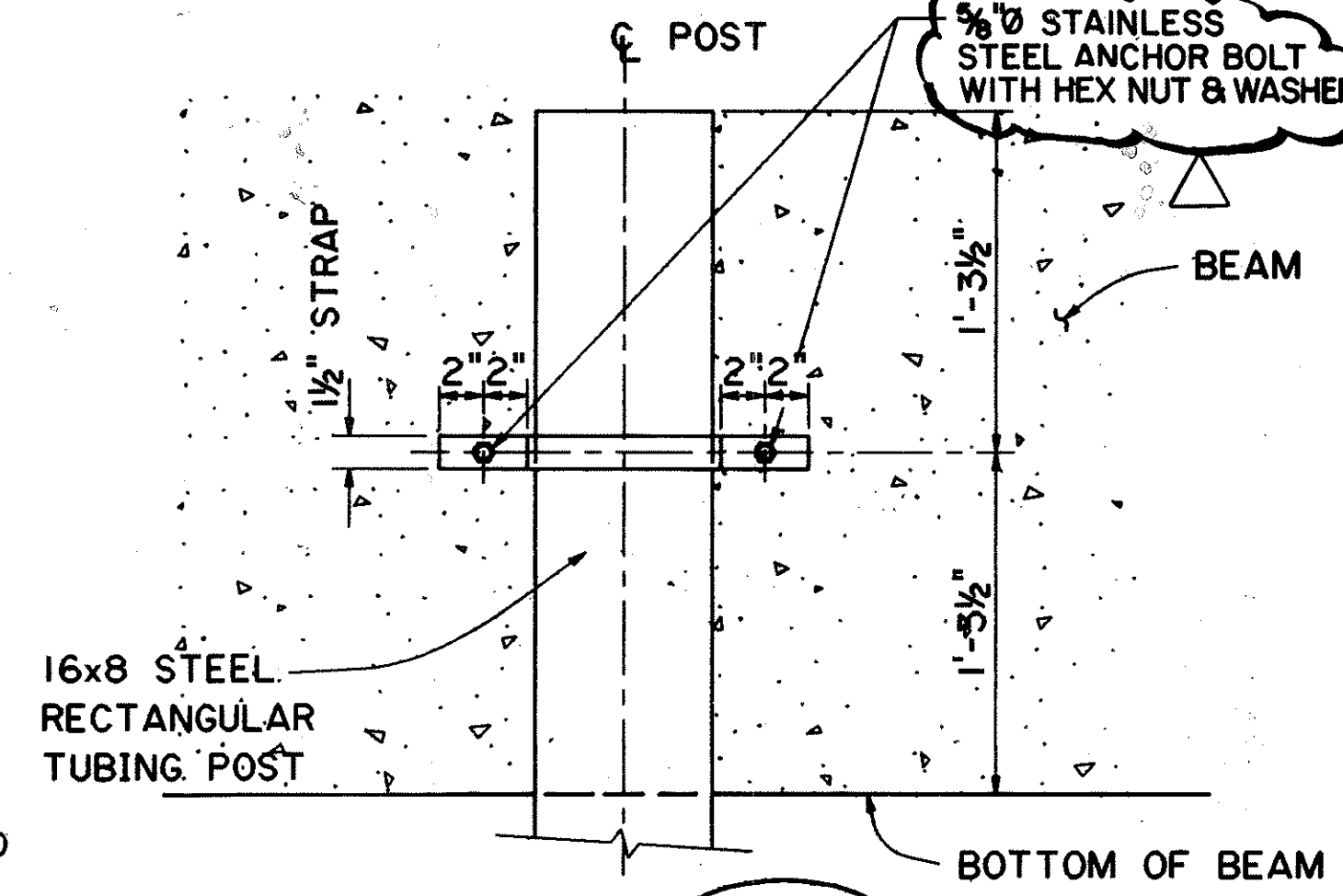
NOTE A:
THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF THE EXIST. ANCHOR BOLTS & THE NUMBER AND SIZES OF CONDUITS IN THE FIELD PRIOR TO FABRICATION OF BASE PLATE.
PROVIDE STANDARD-SIZE HOLES (1-5/16" Ø) IN BASE PLATE FOR EXIST. ANCHOR BOLTS AT TYPE II BASE CONNECTION FOR FARADAY SHIELD SUPPORT STRUCTURES ADJACENT TO EXPANSION JOINTS.
IB STA. 274+77.04, 285+05.53, 285+97.07 & 296+53.70
OB STA. 274+61.54, 285+74.49, 286+63.49 & 298+62.28
PROVIDE HOLES DIMENSIONED AS SHOWN AT ALL OTHER LOCATIONS.



TYPE II
(FOR ALL OTHER LOCATIONS)



SECTION C
SS31 SS31



TOP CONNECTION DETAIL FOR TUBING POST AT TUNNEL PORTAL FACE

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

OCCURS AT I.B. STA. 656+52.67 BOTH POSTS
O.B. STA. 657+42.67 LEFT POST (LOOKING DOWNSTATION)

DATE	REVISION
5-25-93	REVISED TYPE I BASE CONNECTION AND DETAIL 14 PER DCN 66-008

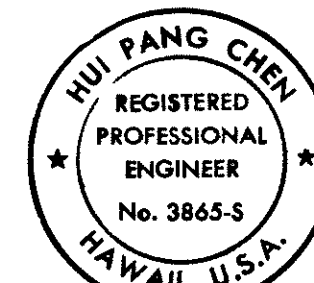
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS-3

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(66)

SCALE: AS SHOWN DATE: APR. 1992
SHEET NO. SS31 OF 36 SHEETS

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

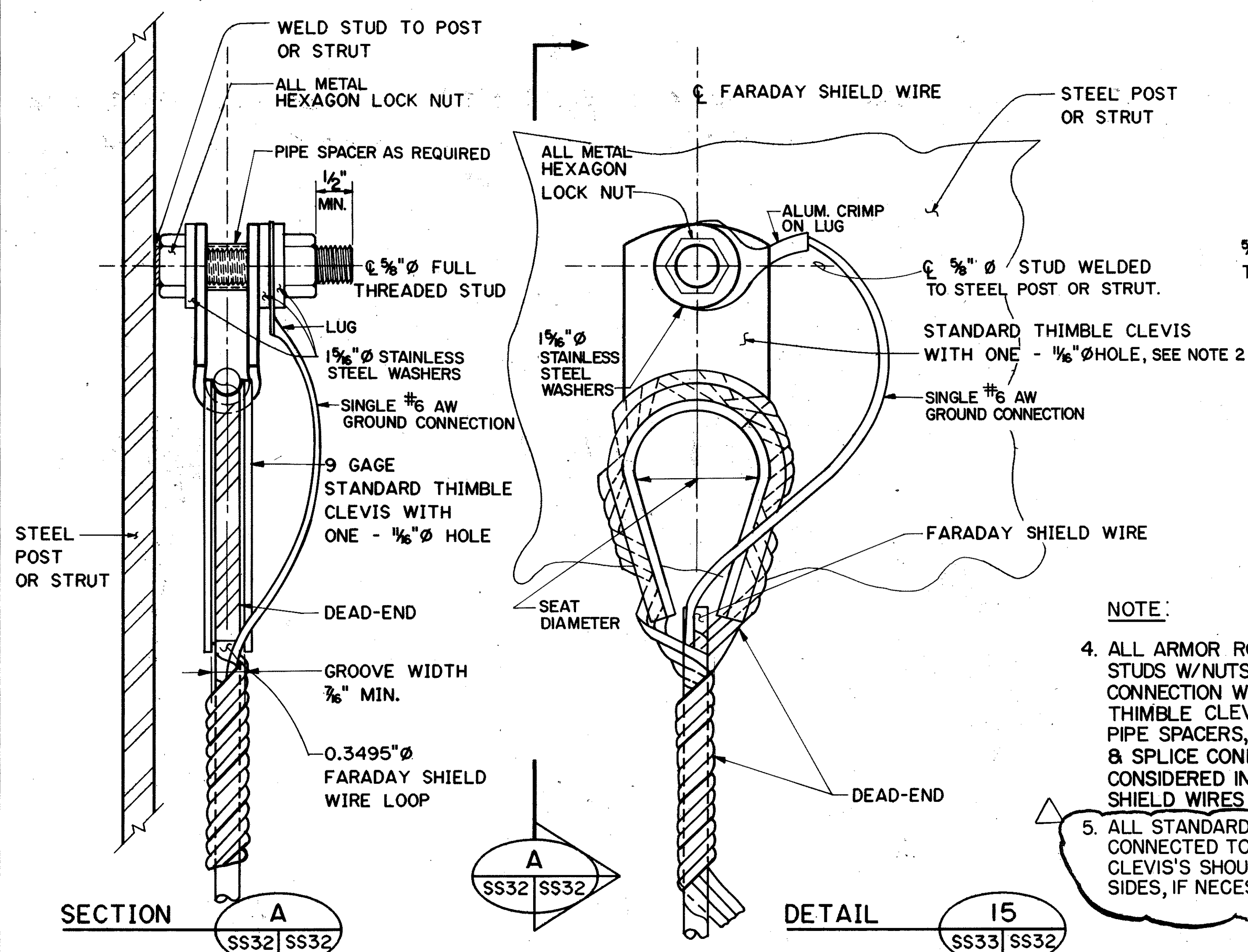


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Hui Pang Chen



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	402	405

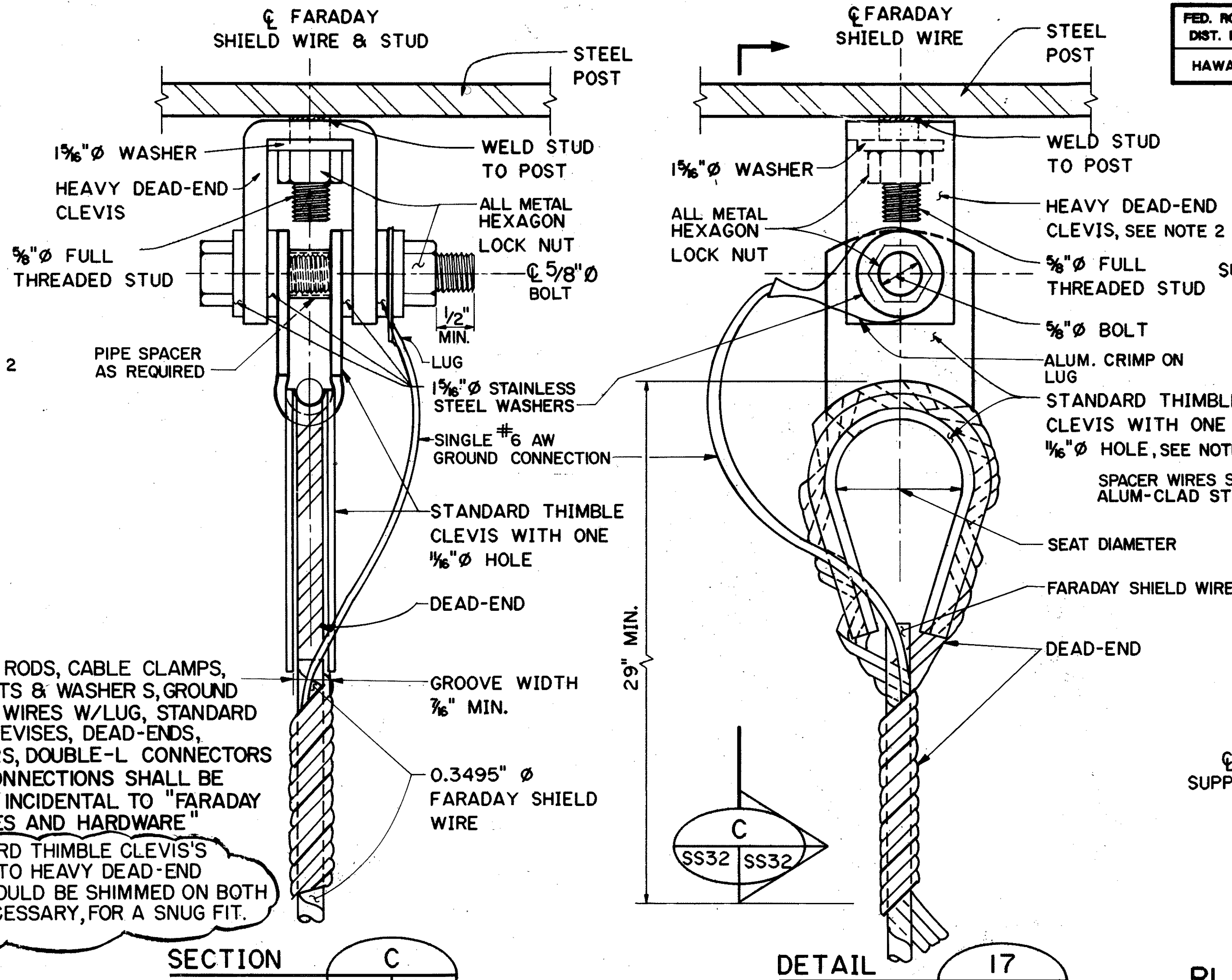


TYPICAL FARADAY SHIELD WIRE DEAD-END CONNECTION TO STEEL

N.T.S.

NOTE:

- ALL ARMOR RODS, CABLE CLAMPS, STUDS W/NUTS & WASHERS, GROUND CONNECTION WIRES W/LUG, STANDARD THIMBLE CLEVIS, DEAD-ENDS, PIPE SPACERS, DOUBLE-L CONNECTORS & SPLICE CONNECTIONS SHALL BE CONSIDERED INCIDENTAL TO "FARADAY SHIELD WIRES AND HARDWARE"
- ALL STANDARD THIMBLE CLEVIS'S CONNECTED TO HEAVY DEAD-END CLEVIS'S SHOULD BE SHIMMED ON BOTH SIDES, IF NECESSARY, FOR A SNUG FIT.



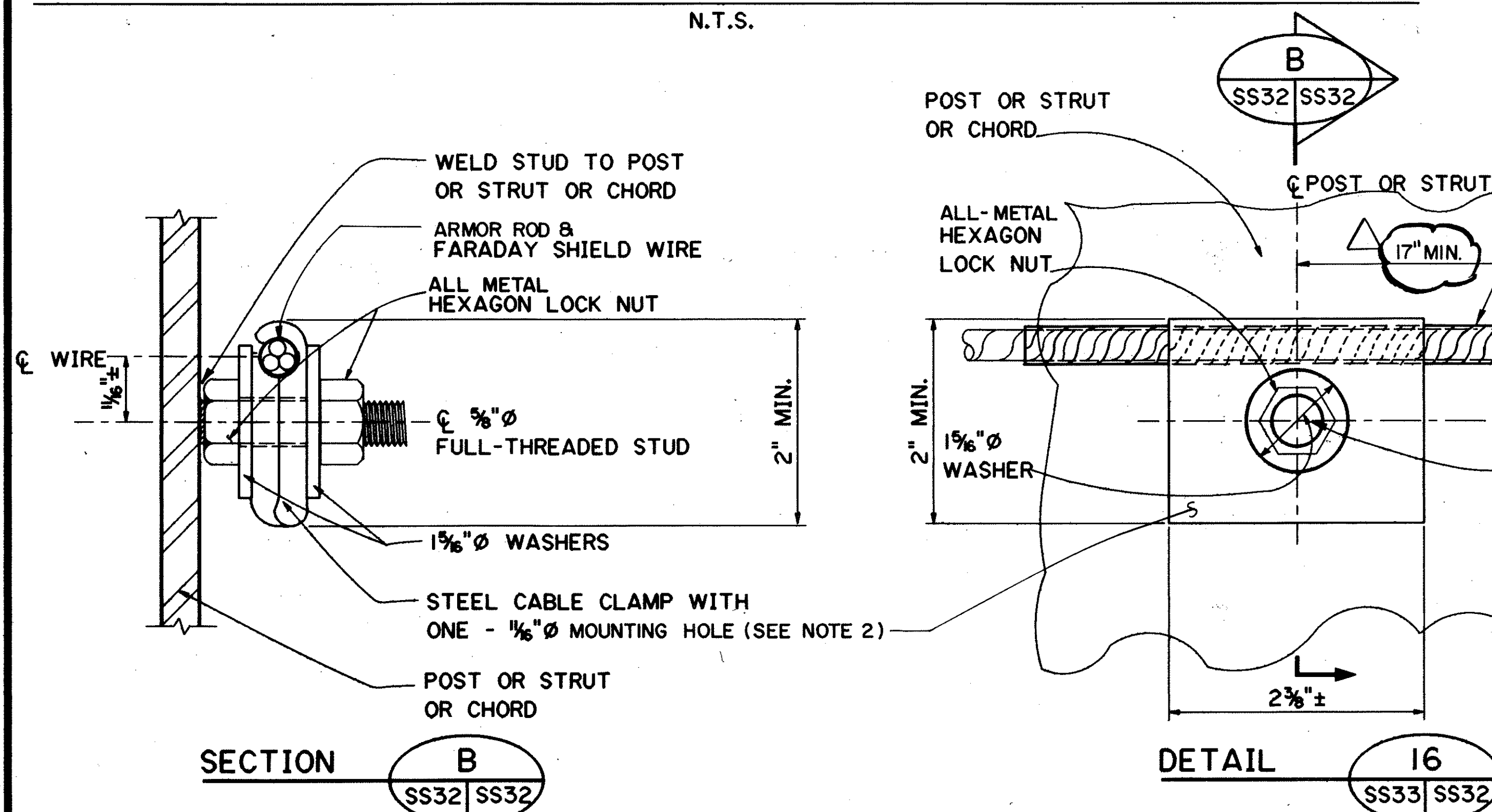
FARADAY SHIELD WIRE ANGLED DEAD-END CONNECTION TO STEEL

N.T.S.

PLAN-TYPICAL FARADAY SHIELD WIRE SPACER

N.T.S.

* OCCURS AT SPANS SHOWN IN TABLE A SHEET SS3.



TYPICAL THROUGH FARADAY SHIELD WIRE CONNECTION

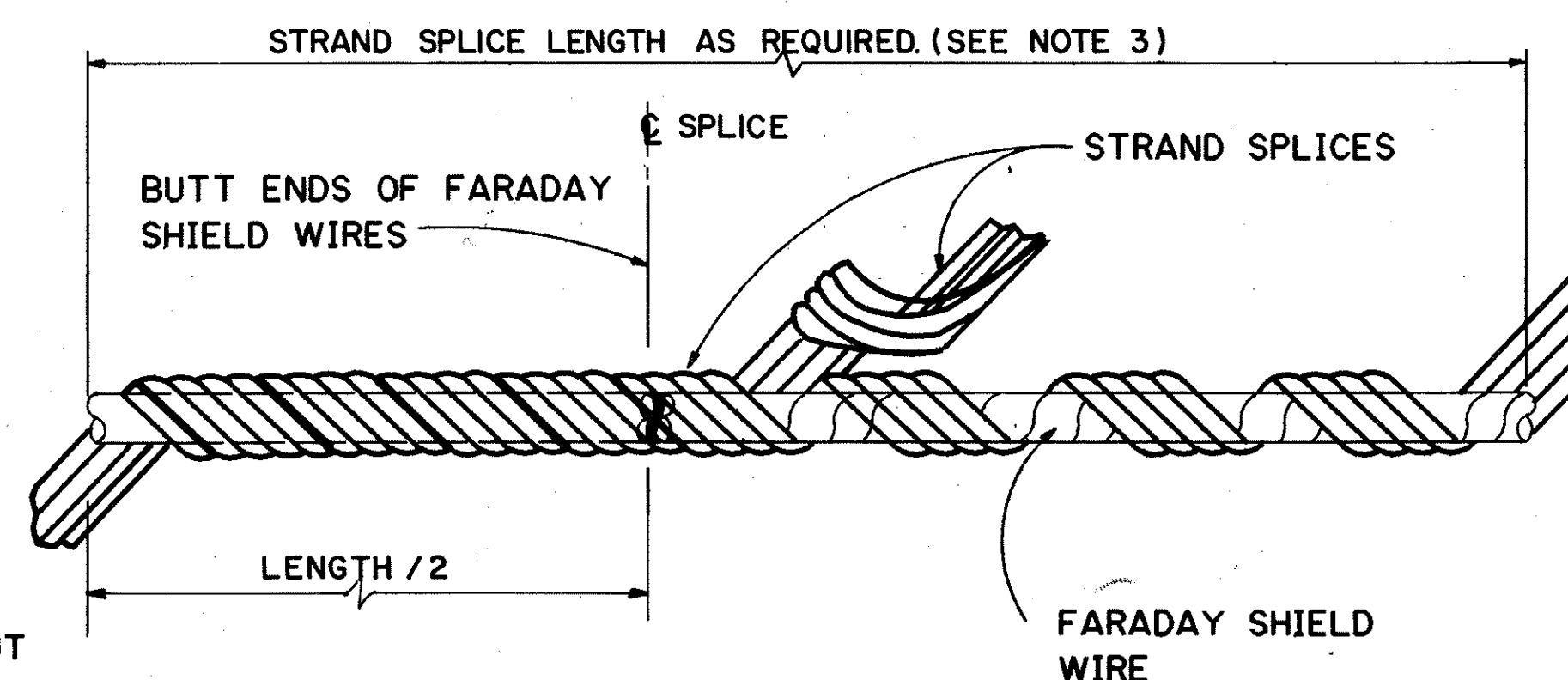
N.T.S.

NOTES:

- ALL FARADAY SHIELD WIRES, DEADENDS & STRAND SPLICES SHALL BE ALUMINUM-CLAD STEEL WIRES.
- ALL HARDWARES CONNECTING FARADAY SHIELD WIRES SHALL BE HOT-DIP GALVANIZED STEEL. ALL HARDWARE SHALL DEVELOP A MIN. BREAKING STRENGTH OF 5000 LBS.
- DEAD ENDS & STRAND SPLICES SHALL DEVELOP A MIN. ULT. HOLDING STRENGTH OF 10,280 LBS.

TYPICAL FARADAY SHIELD WIRE SPLICE CONNECTION

N.T.S.



REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.

DATE	REVISION
5-25-93	REVISED PLAN-TYPICAL FARADAY SHIELD WIRE SPACER & DETAIL 16; ADDED NOTE 5 PER DCN 66-008

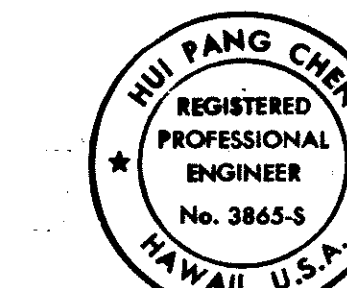
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS-4

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(66)

SCALE: AS SHOWN DATE: APR. 1992

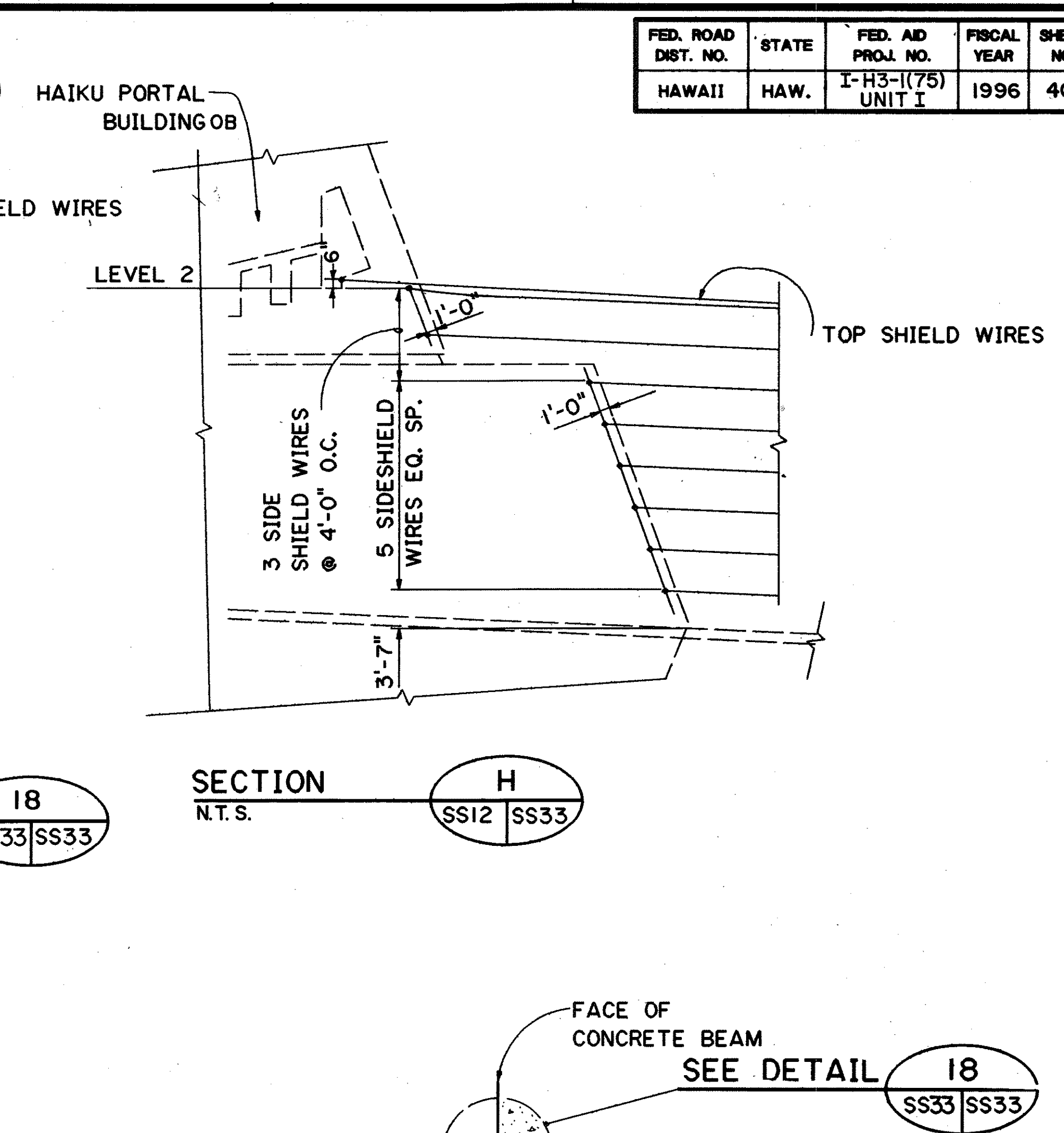
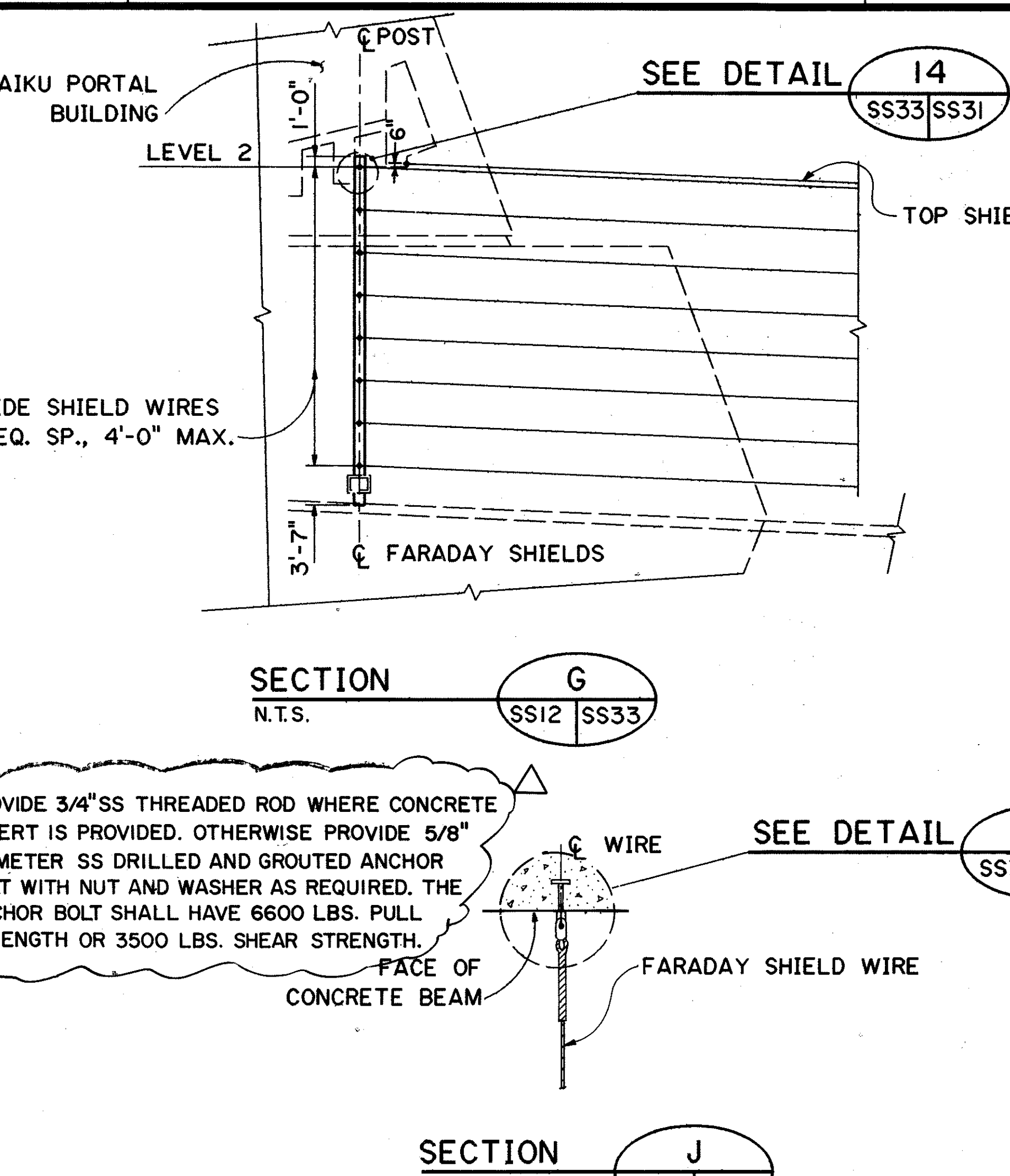
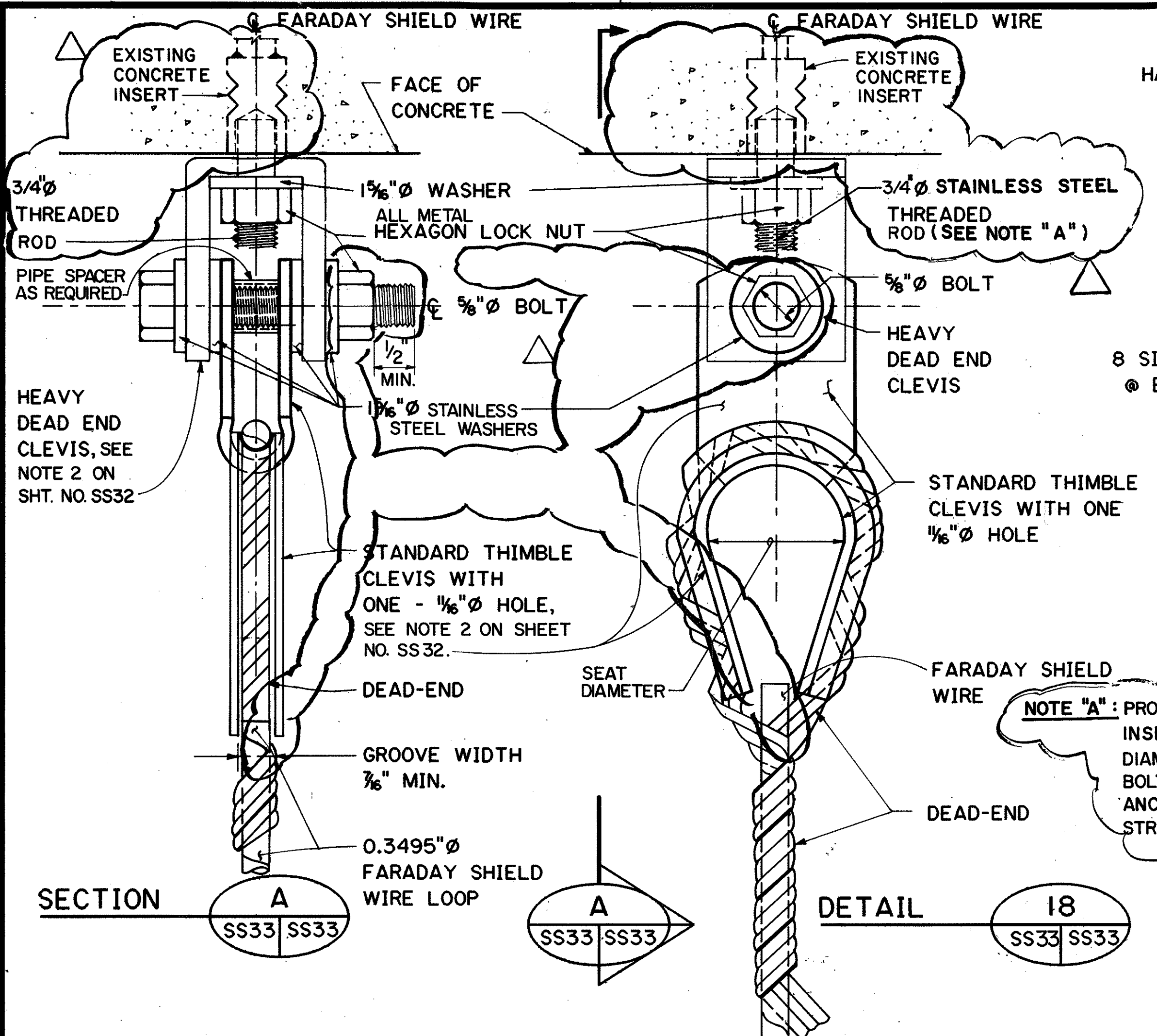
SHEET NO. SS32 OF 36 SHEETS



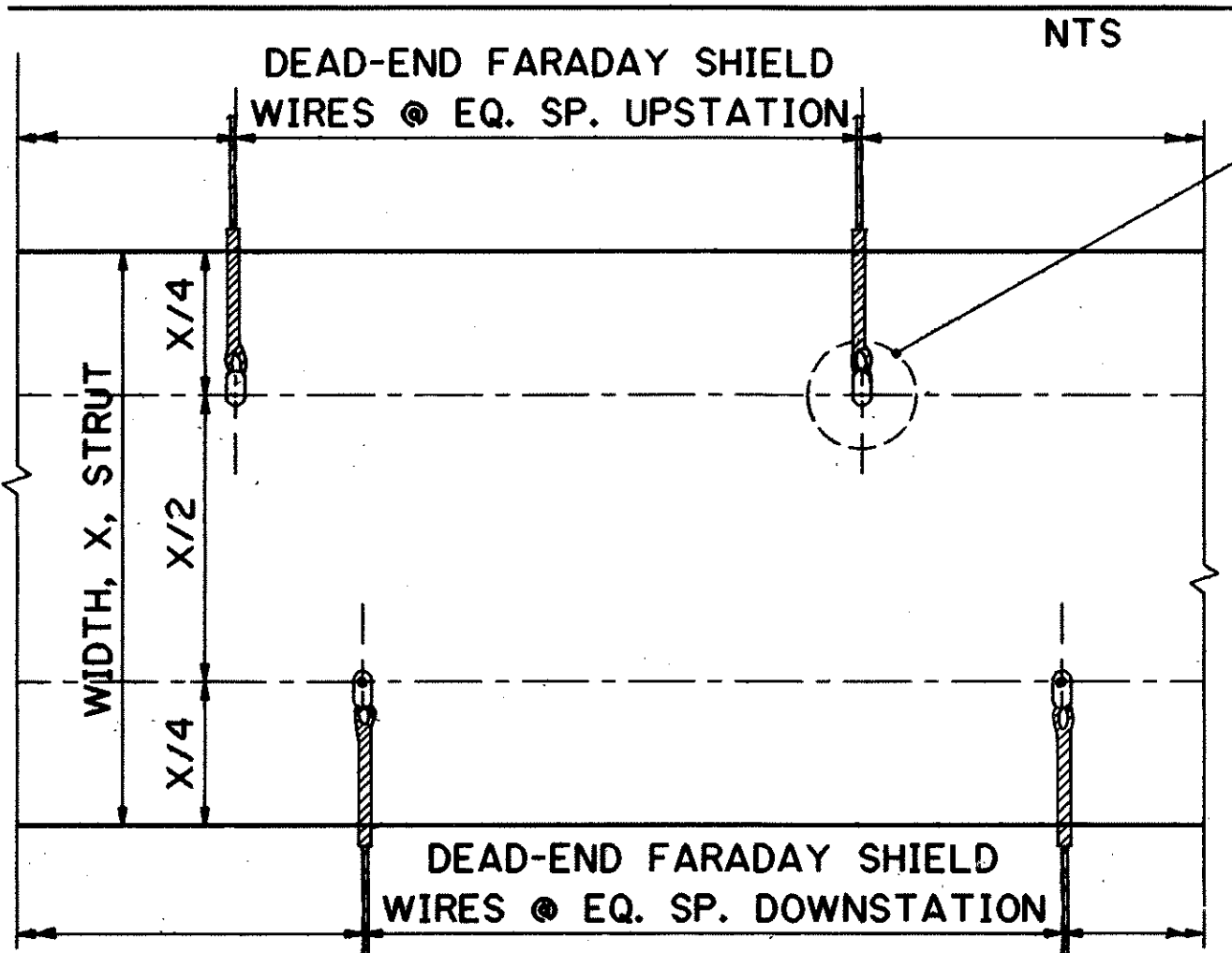
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	403	405

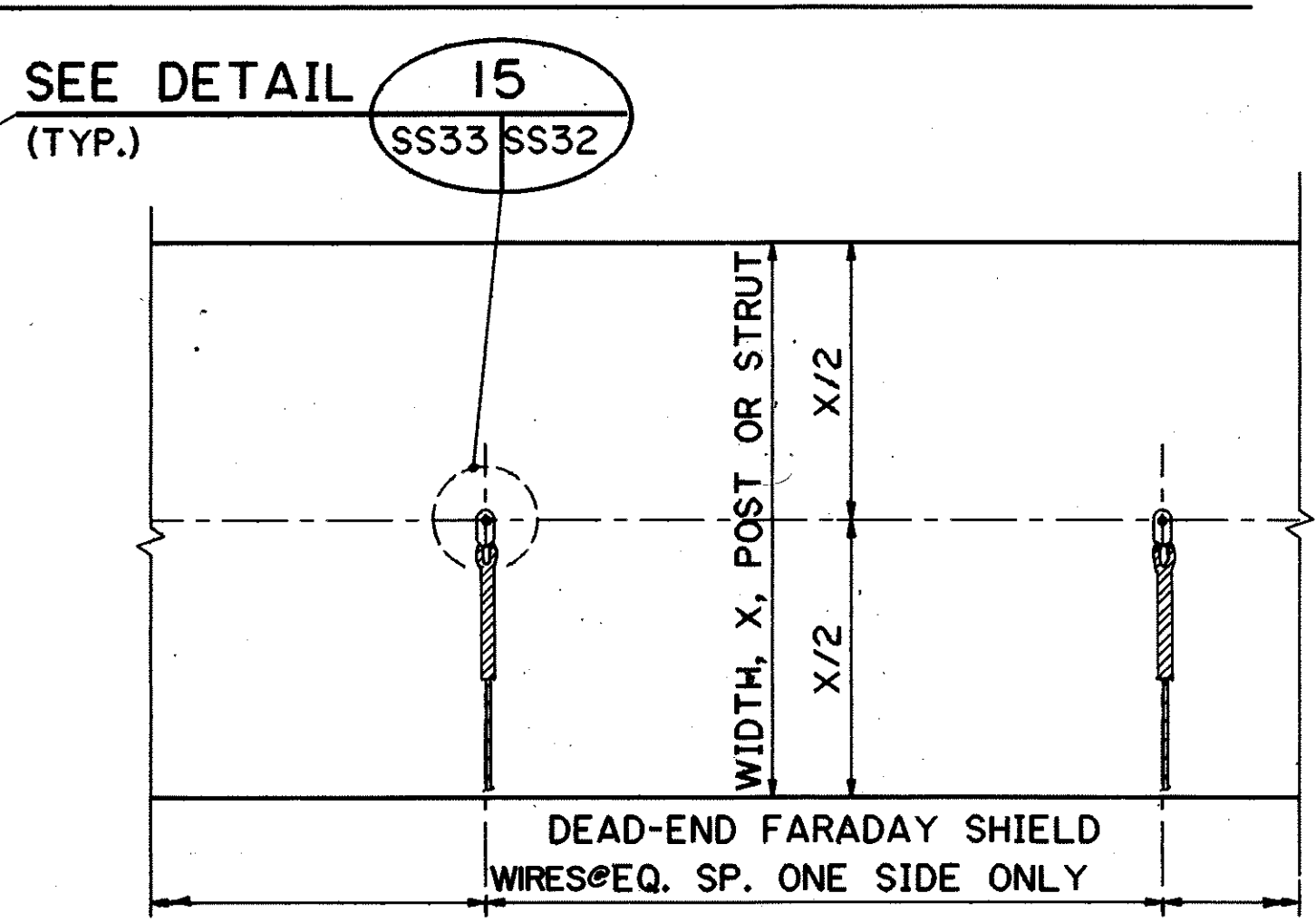


TYPICAL FARADAY SHIELD WIRE DEAD-END CONNECTION TO CONCRETE



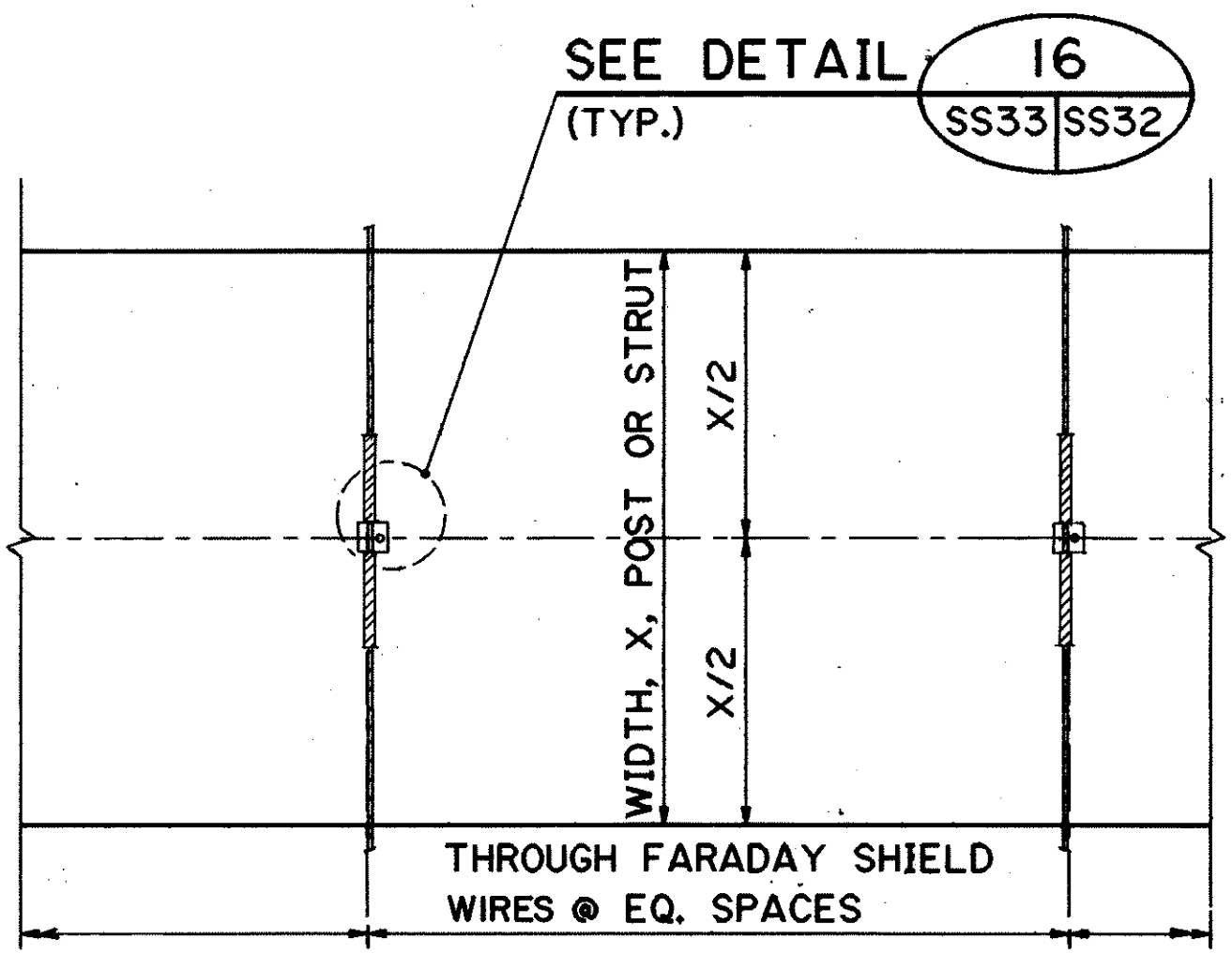
TYPE I UNBALANCED CONNECTION STRUT

OCCURS AT IB STA. 261+70.00, 262+58.75, 264+49.10, 265+34.70, 266+26.05
& OB. STA. 261+40.00 (OVER O.B. LANES), 262+41.99, 264+25.61, 265+13.11, 266+07.62, 290+34.28 & 294+03.28



TYPE II END CONNECTION-POST AND STRUT

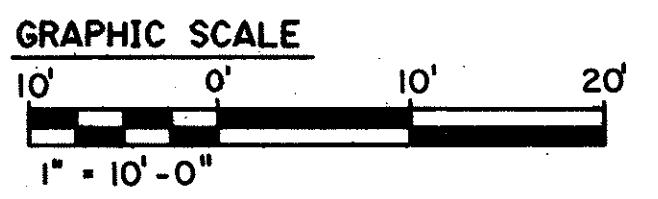
STRUT OCCURS AT OB. STA. 261+40.00 (OVER SERVICE RD), & 264+25.61
POST* OCCURS AT IB STA. 656+52.67 (LT&RT), 305+35.53 (LT&RT) & OB. STA. 657+42.67 (RT), 261+40.00 (MIDDLE), & 305+40.11 (LT&RT).



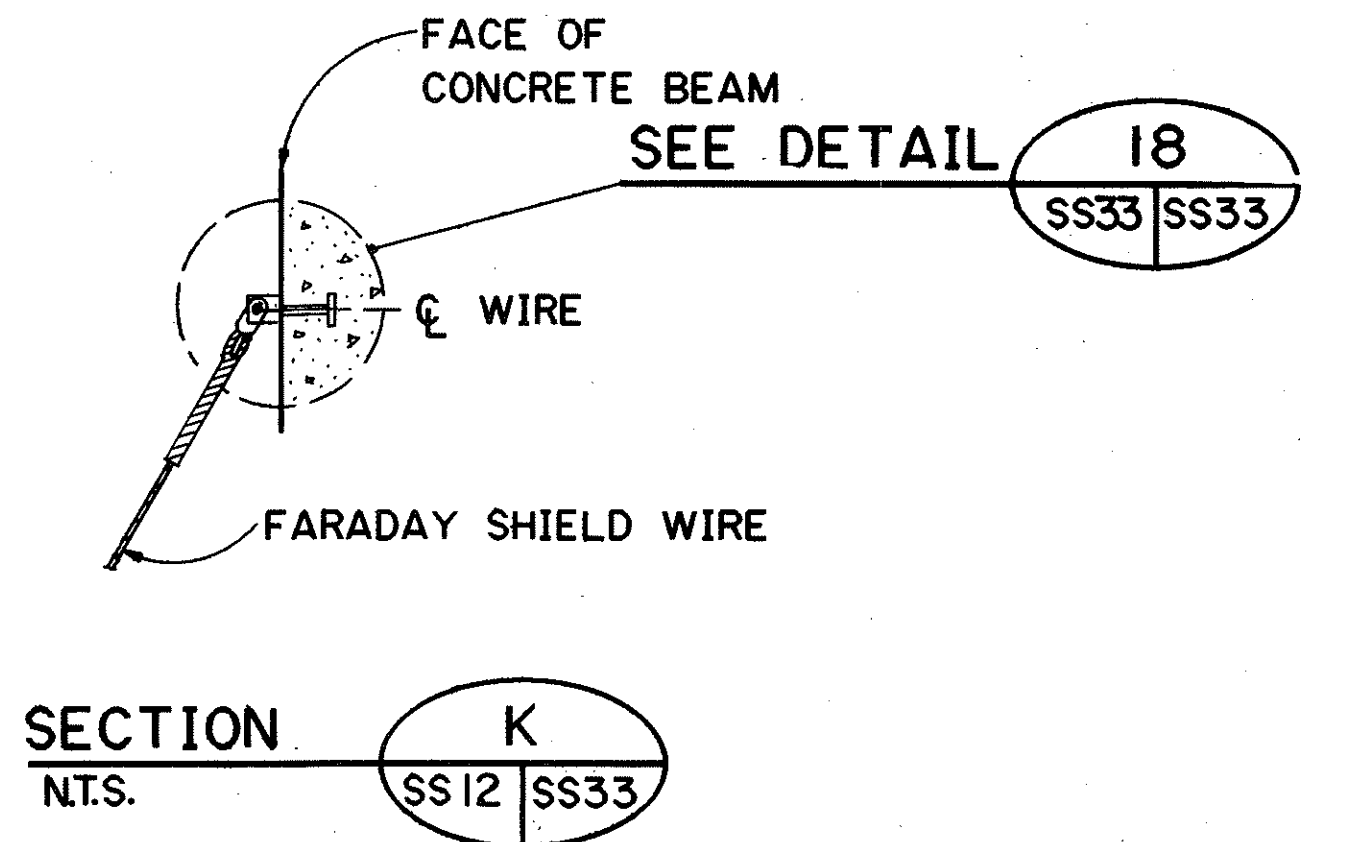
TYPE III THROUGH CONNECTION-POST AND STRUT

AT ALL OTHER STATIONS

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.



*LOOKING UPSTATION
FARADAY SHIELD WIRE CONNECTION LAY-OUT
N.T.S.
FOR TYPES IV & V
SEE SHEET NO. SS33A



NOTE: SEE NOTES 1 THROUGH 4 ON SHEET NO. SS32.

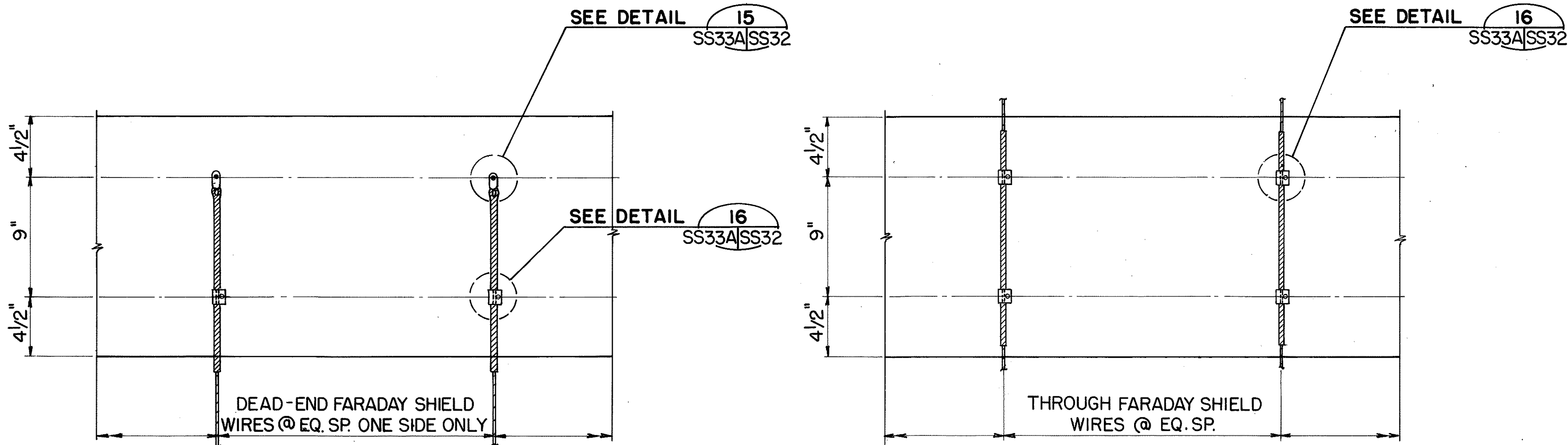
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
NO.	



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7-14-93	REVISED FARADAY SHIELD WIRE DEAD-END CONNECTION TO CONCRETE & TYPE II END CONN. FOR POST & STRUT PER DCN 66-008
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
MISCELLANEOUS DETAILS-5	
SUPPORT STRUCTURES	
INTERSTATE ROUTE H-3	
F.A.I. PROJ. NO. I-H3-1(66)	
SCALE: AS SHOWN	DATE: APR. 1992
SHEET NO. SS33	OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	404	405



**TYPE IV END CONNECTION -
STRUT**

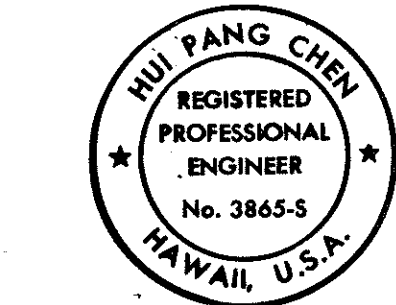
OCCURS AT IB STA. 305 + 35.53
& OB STA. 305 + 40.11

**TYPE V THROUGH CONNECTION -
STRUT**

OCCURS AT IB STA. 279 + 45.53 & 287 + 85.53
& OB STA. 273 + 70.11

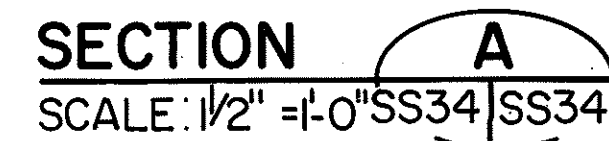
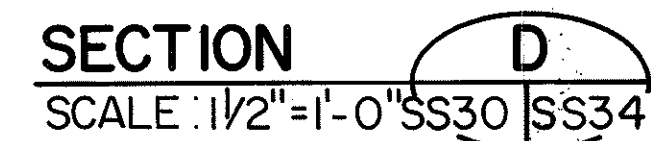
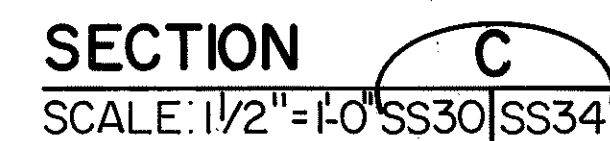
FARADAY SHIELD WIRE CONNECTION LAY-OUT
N. T. S.

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



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Hui Pang Chen

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY.	
5-25-93	ADDED FARADAY SHIELD WIRE CONNECTION TYPE IV & V PER DCN 66-008
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION MISCELLANEOUS DETAILS-5A SUPPORT STRUCTURES INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-I(66) SCALE: NONE DATE: MAY 1993 SHEET NO. SS33A OF 36 SHEETS	



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Shuping Chen

2/24/94	CLARIFY WELD PER DCN 66 - 036
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS-6

SUPPORT STRUCTURES
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3 - I (66)

SCALE: AS SHOWN DATE: APR. 1992

SHEET NO. 334 OF 36 SHEETS