FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

STATE OF HAWAII

VECP #2

PLANS FOR

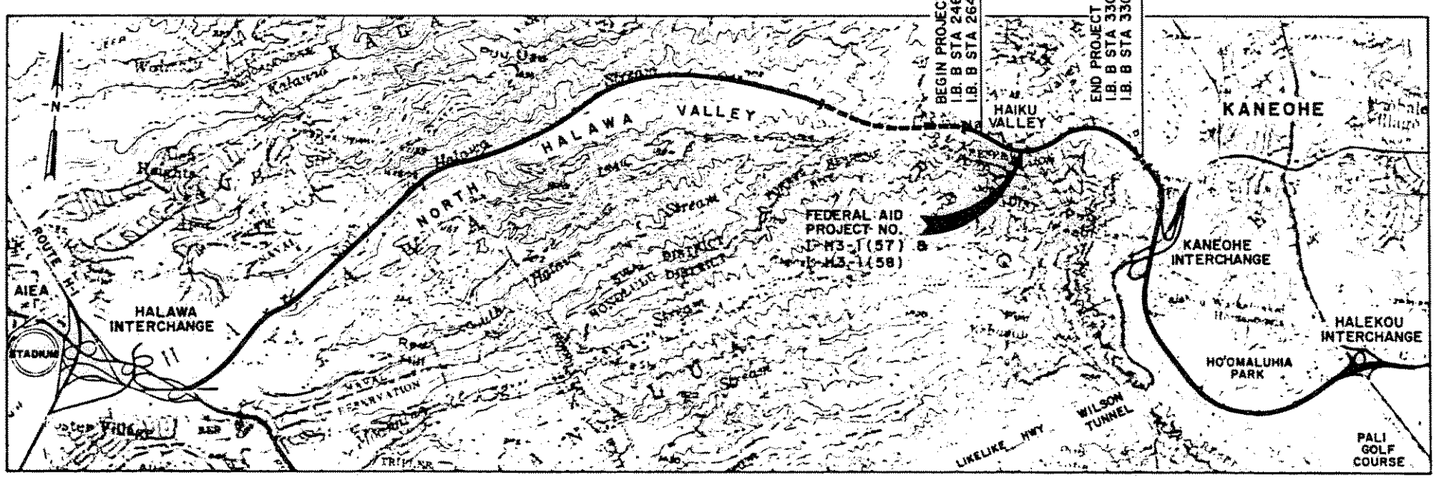
CONSTRUCTION OF A PORTION OF

INTERSTATE ROUTE H-3

WINDWARD VIADUCT

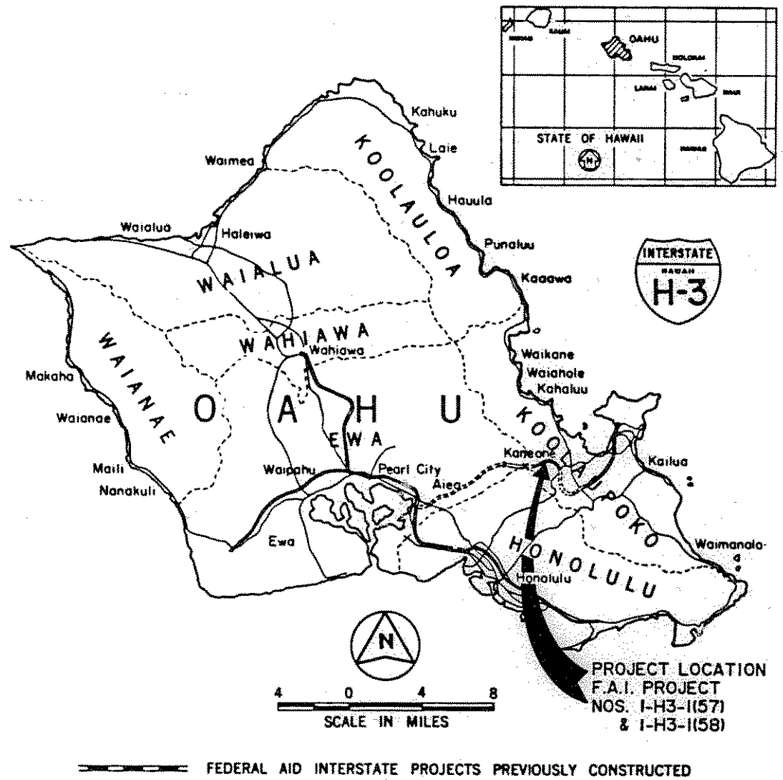
FEDERAL AID INTERSTATE PROJECT NO. I-H3-1(57)
AND
FEDERAL AID INTERSTATE PROJECT NO. I-H3-1(58)

DISTRICT OF KOOLAUPOKO
ISLAND OF OAHU



LAYOUT PLAN

GROSS LENGTH OF PROJECT ..... 1.35 MI.
BRIDGES OVER 20.00' SPAN ..... 1.25 MI.
NET LENGTH OF ROADWAY ..... 0.10 MI.



FEDERAL AID INTERSTATE PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. OF 280 SHEETS

INDEX TO BRIDGE DRAWINGS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

SHT. NO.	DWG. NO.	SHEET TITLE
1	N1	Index to Bridge Drawings
42	N2	Structural General Notes
43 *	GP1	Partial General Plan
44 *	GP2	Partial General Plan
45	A1	Partial Deck Layout and Elevation I
46	A2	Partial Deck Layout and Elevation II
47	A3	Partial Deck Layout and Elevation III
48	A4	Partial Deck Layout and Elevation IV
49	A5	Partial Deck Layout and Elevation V
50	A6	Partial Deck Layout and Elevation VI
51	A7	Partial Deck Layout and Elevation VII
52	A8	Partial Deck Layout and Elevation VIII
53	A9	Partial Deck Layout and Elevation IX
54	A10	Partial Deck Layout and Elevation X
55	A11	Partial Deck Layout and Elevation XI
56	A12	Partial Deck Layout and Elevation XII
57	A13	Partial Deck Layout and Elevation XIII
58	A14	Partial Deck Layout and Elevation XIV
59	A15	Partial Deck Layout and Elevation XV
60	A16	Partial Deck Layout and Elevation XVI
61	A17	Partial Deck Layout and Elevation XVII
62	A18	Partial Deck Layout and Elevation XVIII
63	A19	Partial Deck Layout and Elevation XIX
64	A20	Partial Deck Layout and Elevation XX
65	A21	Partial Deck Layout and Elevation XXI
66	A22	Partial Deck Layout and Elevation XXII
67	A23	Partial Deck Layout and Elevation XXIII
68	A24	Partial Deck Layout and Elevation XXIV
69 *	FP1	Partial Foundation Plan I
70 *	FP2	Partial Foundation Plan II
71 *	FP3	Partial Foundation Plan III
72 *	FP4	Partial Foundation Plan IV
73 *	FP5	Partial Foundation Plan V
74 *	FP6	Partial Foundation Plan VI
75	FT1	Footing Layout & Schedule
76	FT2	Pile Cap Reinforcing Type I
77	FT3	Pile Cap Reinforcing Type II
78	FT4	Pile Cap Reinforcing Type III
79	FT5	Pile Cap Reinforcing Type IV
80	FT6	Pile Cap Reinforcing Type V
81	P1	5'-0" Pile Details
82	P2	6'-0" Pile Details
83	PS1	Pier Schedule
84	PS2	Pier Cross Sections
85	PS3	Pier Cap Reinforcing
86	PS4	Pier Control Elevations
87 *	AB1	Abutment Location Plans
88 *	AB2	Plans & Elevations: Inbound Abutment No. 1
89 *	AB3	Plans & Elevations: Outbound Abutment No. 1
90 *	AB4	Abutment No. 1 Sections I.B. & O.B. Structures
91 *	AB5	Wing Wall Sections
92 *	AB6	Retaining Wall Sections & Footing Details
93	AB7	Plans & Elevations: Inbound Abutment No. 2
94	AB8	Plans & Elevations: Outbound Abutment No. 2
95	AB9	Abutment Elevations
96	AB10A	Abutment Sections: Abutment No. 2 Inbound Structure
97	AB10B	Abutment Sections: Abutment No. 2 Outbound Structure
98	AB11	Wing Wall Sections
99	AB12	Abutment No. 1 Sections Inbound Structure
100 *	SB1	Slab Bridge Details
101 *	SB2	Details
102	CS1	Cross Sections Inbound Girder
103	CS2	Cross Sections Outbound Girder
104	G1	Treatment of Horizontal Curvature
105	S1	Segment Layout I I.B. Sta. 264+63.78 to 296+65.53
106	S2	Segment Layout II I.B. Sta. 296+65.53 to 330+77.29
107	S3	Segment Layout III O.B. Sta. 264+23.36 to 297+05.1
108	S4	Segment Layout IV O.B. Sta. 297+05.11 to 330+41.86
109	PB1	Box Girder Segment Dimensions
110	PB2	Box Girder Segment Reinforcing I
111	PB3	Box Girder Segment Reinforcing II
112	PB4A	Box Girder Segment Reinforcing III
113	PB4B	Box Girder Segment Reinforcing IV
114	PB4C	Box Girder Segment Reinforcing V
115	PB4D	Box Girder Segment Reinforcing VI
116	PB4E	Box Girder Segment Reinforcing VII
117	PB4F	Box Girder Segment Reinforcing VIII
118	PB5	Closure Joint Reinforcing
119 *	BG3	Deck Overlay Reinforcing
120	DP1A	Fixed Pier Segment Dimensions Type I
121	DP1B	Fixed Pier Segment Dimensions Type II
122	DP2A	Fixed Pier Segment P.T. Details Type I
123	DP2B	Fixed Pier Segment P.T. Details Type II
124	DP3A	Fixed Pier Segment Reinforcing Type I
125	DP3B	Fixed Pier Segment Reinforcing Type II
126	DP4	Fixed and Sliding Pier Segment Top Slab Reinforcing
127	DP5A	Sliding Pier Segment Dimensions Type I
128	DP5B	Sliding Pier Segment Dimensions Type II
129	DP6A	Sliding Pier Segment P.T. Details Type I
130	DP6B	Sliding Pier Segment P.T. Details Type II
131	DP7A	Sliding Pier Segment Reinforcing I Type I
132	DP7B	Sliding Pier Segment Reinforcing I Type II
133	DP8	Sliding Pier Segment Reinforcing II Type I
134	DP9	Fixed and Sliding Pier Segment Sign Support Reinforcing
135	DP10	Abutment 1 Segment Dimensions Inbound Structure
136	DP11	Abutment 1 Segment P.T. Details Inbound Structure
137	DP12	Abutment 1 Segment Reinforcing I Inbound Structure
138	DP13	Abutment 1 Segment Reinforcing II Inbound Structure
139	DP14	Abutment 1 Segment Dimensions Outbound Structure
140	DP15	Abutment 1 Segment P.T. Details Outbound Structure
141	DP16	Abutment 1 Segment Reinforcing I Outbound Structure
142	DP17	Abutment 1 Segment Reinforcing II Outbound Structure
143	DP18	Abutment 2 Segment Dimensions
144	DP19	Abutment 2 Segment P.T. Details
145	DP20	Abutment 2 Segment Reinforcing
146	DP21	Abutment 2 Segment Reinforcing II
147	HD1	Hinge Segment Dimensions I
148	HD2	Hinge Segment Dimensions II
149	HD3	Hinge Segment A P.T. Details
150	HD4	Hinge Segment A Reinforcing I
151	HD5	Hinge Segment A Reinforcing II
152	HD6	Hinge Segment B P.T. Details
153	HD7	Hinge Segment B Reinforcing I
154	HD8	Hinge Segment B Reinforcing II
155	HD9	Hinge Segment Temporary Blocking
156	SF1	Bulkhead Dimensions
157	TL1	P.T. Layout I Inbound A1 thru Pier 3
158	TL2	P.T. Layout II Inbound Pier 3 thru Pier 5
159	TL3	P.T. Layout III Outbound A1 thru Pier 3
160	TL4	P.T. Layout IV Outbound Pier 3 thru Pier 5
161	TL5	P. T. Layout V Inbound Pier 5 thru Pier 7
162	TL6	P. T. Layout VI Inbound Pier 7 thru Pier 9
163	TL7	P. T. Layout VII Outbound Pier 5 thru Pier 7
164	TL8	P. T. Layout VIII Outbound Pier 7 thru Pier 9
165	TL9	P. T. Layout IX Inbound Pier 9 thru Pier 11
166	TL10	P. T. Layout X Inbound Pier 11 thru Pier 13
167	TL11	P. T. Layout XI Outbound Pier 9 thru Pier 11
168	TL12	P. T. Layout XII Outbound Pier 11 thru Pier 13
169	TL13	P. T. Layout XIII Inbound Pier 13 thru Pier 15
170	TL14	P. T. Layout XIV Inbound Pier 15 thru Pier 17
171	TL15	P. T. Layout XV Outbound Pier 13 thru Pier 15
172	TL16	P. T. Layout XVI Outbound Pier 15 thru Pier 17
173	TL17	P. T. Layout XVII Inbound Pier 17 thru Pier 19
174	TL18	P. T. Layout XVIII Inbound Pier 19 thru Pier 21
175	TL19	P. T. Layout XIX Outbound Pier 17 thru Pier 19
176	TL20	P. T. Layout XX Outbound Pier 19 thru Pier 21
177	TL21	P. T. Layout XXI Inbound Pier 21 thru Pier 23
178	TL22	P. T. Layout XXII Inbound Pier 23 thru A2
179	TL23	P. T. Layout XXIII Outbound Pier 21 thru Pier 23
180	TL24	P. T. Layout XXIV Outbound Pier 23 thru A2
181	TA1	P.T. Details I Bottom Blocks
182	TA2A	P.T. Details IIA Top Blocks
183	TA2B	P.T. Details IIB Anchorage Details
184	TA3A	P.T. Details IIIA Typical Deviations
185	TA3B	P.T. Details IIIB Typical Deviations
186	TA4	P.T. Details IV Reinforcing I Bottom Blocks
187	TA5	P.T. Details V Reinforcing II Bottom Blocks
188	TA6	P.T. Details VI Reinforcing Top Blocks
189	TA7	P.T. Details VII Abutment Spans
190	TT1	Transverse Post Tensioning Details
191	BD1	Bearing Schedule
192	EJ1	Expansion Joint Schedule
193 *	EJ2	Expansion Joint Details Condition at Concrete Railing
194	SK1	Shear Key Schedule
195 *	CR1	Concrete Railing Details
196 *	CR2	Concrete Railing Details Faraday Shield Support
197 *	DD1	Deck Drain Details
198 *	ED1	Electric Manhole Details
199	PT1A	Contingency Tendon, Temp. P.T. Bars Layout I
200	PT1B	Contingency Tendon, Temp. P.T. Bars Layout II
201	PT1C	Contingency Tendon, Temp. P.T. Bars Layout III
202	PT1D	Contingency Tendon, Temp. P.T. Bars Layout IV
203	PT1E	Contingency Tendon, Temp. P.T. Bars Layout V
204	PT1F	Contingency Tendon, Temp. P.T. Bars Layout VI
205	PT2	Contingency Tendon Details Bottom Blocks
206	PT3	Contingency Tendon Details Top Blocks
207	CM1	Erection Schematic I
208	CM2	Erection Schematic II
209	CM3	Erection Schematic III
210		Not Used
211		Not Used
212		Not Used
213		Not Used
214		Not Used
215		Not Used
216		Not Used
217		Not Used
218		Not Used
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222		Not Used
223		Not Used
224		Not Used
225		Not Used
226		Not Used
227		Not Used
228		Not Used
229		Not Used
230		Not Used

NOTE: * INDICATES THAT DRAWINGS ARE UNCHANGED FROM ORIGINAL DESIGN.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED AND ADDED SHEETS.
01/04/91	UPDATED SHEETS AND ADDED SHEET TA3B.
10/08/90	UPDATED SHEET.
09/21/90	MOD. TO TA4A, PB1A . ADDED TA4B, PB1B AND TL5 THRU TL8.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX TO BRIDGE DRAWINGS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. N1 OF SHEETS

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
GRADE
NOTE BASE
SHEET PLAN

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

A. SPECIFICATIONS:

1. GENERAL SPECIFICATIONS: STATE OF HAWAII, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1985 AND SPECIAL PROVISIONS WITH ADDENDUMS PREPARED FOR THIS CONTRACT.

2. DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, THIRTEENTH EDITION, 1983 AND INTERIM SUPPLEMENTS OF 1984 THROUGH 1987 AND MODIFICATIONS BY THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION.

B. DESIGN LOADS:

1. DEAD LOADS:

- UNIT WEIGHT OF CONCRETE: 160 PCF (150 PCF FOR COMPUTATION OF MODULUS OF ELASTICITY)
- 3" THICK OVERLAY: 40 PSF
- BRIDGE RAILING 500 PLF EACH
- ELECTRICAL LINE (OUTBOUND ONLY): 525 PLF
- STEEL POLES FOR ELECTROMAGNETIC PROTECTION: 2 KIPS EACH

2. LIVE LOADS:

ASSHTO HS 20-44 AND INTERSTATE HIGHWAY LOADING WITH IMPACT.

3. WIND LOADS:

DESIGN WIND VELOCITY: 100 MPH.

4. SEISMIC LOAD:

SEISMIC PERFORMANCE CATEGORY B IN ACCORDANCE WITH AASHTO GUIDE SPECIFICATION FOR SEISMIC DESIGN OF HIGHWAY BRIDGES, 1983. MINIMUM COMBINED RESPONSE COEFFICIENT SHALL BE EQUAL TO 0.06 OF THE DEAD LOAD.

5. THERMAL FORCES:

- COEFFICIENT OF THERMAL EXPANSION: 0.000006 PER DEGREE F
- TEMPERATURE RISE: 10°F
  TEMPERATURE FALL: 20°F
  ASSUMED TEMPERATURE AT THE TIME OF ERECTION: 75°F
- THERMAL GRADIENT IN THE LONGITUDINAL DIRECTION: ACCORDING TO NATIONAL COOPERATIVE RESEARCH PROGRAM REPORT 276: "THERMAL EFFECTS ON CONCRETE BRIDGE STRUCTURES."
- THERMAL GRADIENT IN THE TRANSVERSE DIRECTION: TEMPERATURE DIFFERENTIAL OF ± 10°F BETWEEN OUTSIDE AND INSIDE SURFACES OF THE BOX GIRDER.
- ONE-HALF MAXIMUM GRADIENT IS USED IN COMBINATION WITH LIVE LOADS.

6. CREEP AND SHRINKAGE:

STRAINS CALCULATED IN ACCORDANCE WITH CEB-FIP MODEL CODE FOR STRUCTURES. RELATIVE HUMIDITY: 75%

7. CONSTRUCTION LOADS:

- LAUNCHING GANTRY REACTIONS (ONE TRUSS):

  REAR SUPPORT DEAD LOAD: 77 K
  CENTRAL SUPPORT DEAD LOAD: 300 K
  GANTRY CRANE DEAD LOAD: 50 K
  GANTRY CRANE LIFTING TROLLEY AND SEGMENT: 190 K
  GANTRY LOAD ON CANTILEVER DURING LAUNCHING: 390 K

- TOTAL WEIGHT OF SEGMENT AND SEGMENT CARRIER: 200 K
- DISTRIBUTED CONSTRUCTION LIVE LOAD: 10 PSF
- LOADS ASSUMED TO COMPUTE MAXIMUM UNBALANCED MOMENT (SERVICE LOAD DESIGN)
  - UNBALANCED SEGMENT
  - CONSTRUCTION LIVE LOAD: 10 PSF ON ONE CANTILEVER ARM, 5 PSF ON THE OTHER
  - WIND UPLIFT: 5 PSF ON ONE CANTILEVER ARM
  - UNBALANCED DEAD LOAD: 2% OF THE DEAD LOAD APPLIED TO ONE CANTILEVER
- MAXIMUM UNBALANCED MOMENT (LOAD FACTOR DESIGN)

THE ACCIDENTAL RELEASE OR APPLICATION OF A PRECAST SEGMENT LOAD WILL BE TAKEN INTO ACCOUNT BY APPLYING AN IMPACT FACTOR OF 2.

LOAD COMBINATIONS:

1.1 (DL + DIFF) + 1.3 CE + 2 A

DL + CE + 2 A

DIFF = DIFFERENTIAL DEAD LOAD
CE = CONSTRUCTION EQUIPMENT
A = UNBALANCED SEGMENT

C. MATERIALS

1. CONCRETE:

- CAST IN PLACE PIERS AND FOOTINGS, CAST IN PLACE PILES: F'c = 4500 PSI
- ABUTMENTS, ABUTMENTS FOOTINGS, RAILINGS: CLASS A (F'c = 3000 PSI)
- 3" CONCRETE OVERLAY: CLASS BD (F'c = 3750 PSI)
- PRECAST DECK SEGMENTS AND CAST-IN-PLACE DECK ELEMENTS: F'c = 5500 PSI

2. REINFORCING STEEL:

- ASTM 615 GRADE 60 UNLESS OTHERWISE NOTED.
- THE MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS OTHERWISE SPECIFIED ON THE PLANS:
  - BOX GIRDER TOP SLAB: TOP BARS: 1½"; BOTTOM BARS: 1¼"
  - BOX GIRDER BOTTOM SLAB: TOP BARS: 1¼"; BOTTOM BARS: 1½"
  - BOX GIRDER WEBS: STIRRUPS AT OUTSIDE FACE: 1¼"; STIRRUP AT INSIDE FACE: 1"
  - ABUTMENTS, RETAINING WALLS: 2"
  - BRIDGE PIERS: 2½" TO TIES
  - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- REINFORCING STEEL DETAILED IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY-FOURTH EDITION BY CONCRETE REINFORCING STEEL INSTITUTE.
- ALL DIMENSIONS RELATING TO REINFORCING BARS (I.E. SPACING OF BARS, ETC.) ARE TO CENTERS OF BARS UNLESS NOTED OTHERWISE..
- END HOOPS FOR REINFORCING STEEL TO BE STANDARD HOOK UNLESS NOTED OTHERWISE.

3. POST-TENSIONING STEEL:

- STRAND: ASTM A416 GRADE 270 STRESS RELIEVED - LOW RELAXATION
- HIGH STRENGTH BARS: ASTM A722 - GRADE 150
- PRESTRESSING PARAMETERS:
  - FRICTION COEFFICIENT: 0.25 (STRANDS); 0.30 (BARS)
  - WOBBLE COEFFICIENT: 0.0002
  - MAXIMUM JACKING STRESS: 0.8 Fsu
  - MAXIMUM STRESS AFTER ANCHORING: 0.7 Fsu
  - ASSUMED ANCHOR SET: 3/8" (STRAND TENDONS); 1/16" (BARS)

D. ALLOWABLE STRESSES

1. REINFORCED CONCRETE: AS PER AASHTO
2. PRESTRESSED CONCRETE:

A) LONGITUDINAL CONCRETE STRESSES:

- F'ci = CONCRETE COMPRESSIVE STRENGTH AT THE TIME OF INITIAL PRESTRESS - F'ci > 0.7 F'c
- Fci = 0.55 F'ci MAXIMUM COMPRESSIVE STRESS AT THE TIME OF INITIAL PRESTRESS (OR OTHER CONSTRUCTION STAGES)
- Fc = 0.40 F'c MAXIMUM COMPRESSIVE STRESS AT SERVICE LOADS AFTER PRESTRESS LOSSES.
- MINIMUM COMPRESSIVE STRESS ACROSS THE JOINTS UNDER THE EFFECTS OF ALL LOADINGS: 200 PSI
- MAXIMUM TENSION ACROSS THE JOINTS DURING CONSTRUCTION STAGES: 0

B) TRANSVERSE CONCRETE STRESSES

- Fci = 0.55 F'ci MAXIMUM COMPRESSIVE STRESS AT THE TIME OF INITIAL PRESTRESS
- Fci = 0.40 F'c MAXIMUM COMPRESSIVE STRESS AT SERVICE LOADS AFTER PRESTRESS LOSSES
- MAXIMUM TENSION IN THE PRECOMPRESSED TENSILE ZONE: 0

C) BEARING STRESSES UNDER ANCHORAGES: ACCORDING TO AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES SECTION 9.2.3.

E. SEGMENTS CASTING AND ERECTION

1. REMOVAL OF FORMS:

MINIMUM CONCRETE STRENGTH: 2500 PSI

2. TRANSVERSE POST-TENSIONING:

INITIAL POST-TENSIONING FORCE UP TO 60% OF THE FINAL VALUE
MINIMUM CONCRETE STRENGTH: 2750 PSI

FULL POST-TENSIONING FORCE:
MINIMUM CONCRETE STRENGTH: 0.7 F'ci

COMPRESSION BEHIND ANCHORAGES NOT TO EXCEED VALUES GIVEN IN AASHTO GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES SECTION 9.2.3.

3. SEGMENT HANDLING:

MINIMUM CONCRETE STRENGTH: 3000 PSI

4. SEGMENT ERECTION - LONGITUDINAL POST-TENSIONING:

MINIMUM CURING TIME: 28 DAYS

MINIMUM CONCRETE STRENGTH: 5500 PSI

5. CAST IN PLACE CLOSURE JOINTS:

MINIMUM COMPRESSIVE STRENGTH BEFORE POST-TENSIONING: 2750 PSI

6. TEMPORARY STRESSES ON EPOXY JOINTS:

MINIMUM COMPRESSIVE STRESS: 40 PSI.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	REVISED LAUNCHING GANTRY REACTIONS.
01/04/91	REVISED NOTES D.2.C AND E.2.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

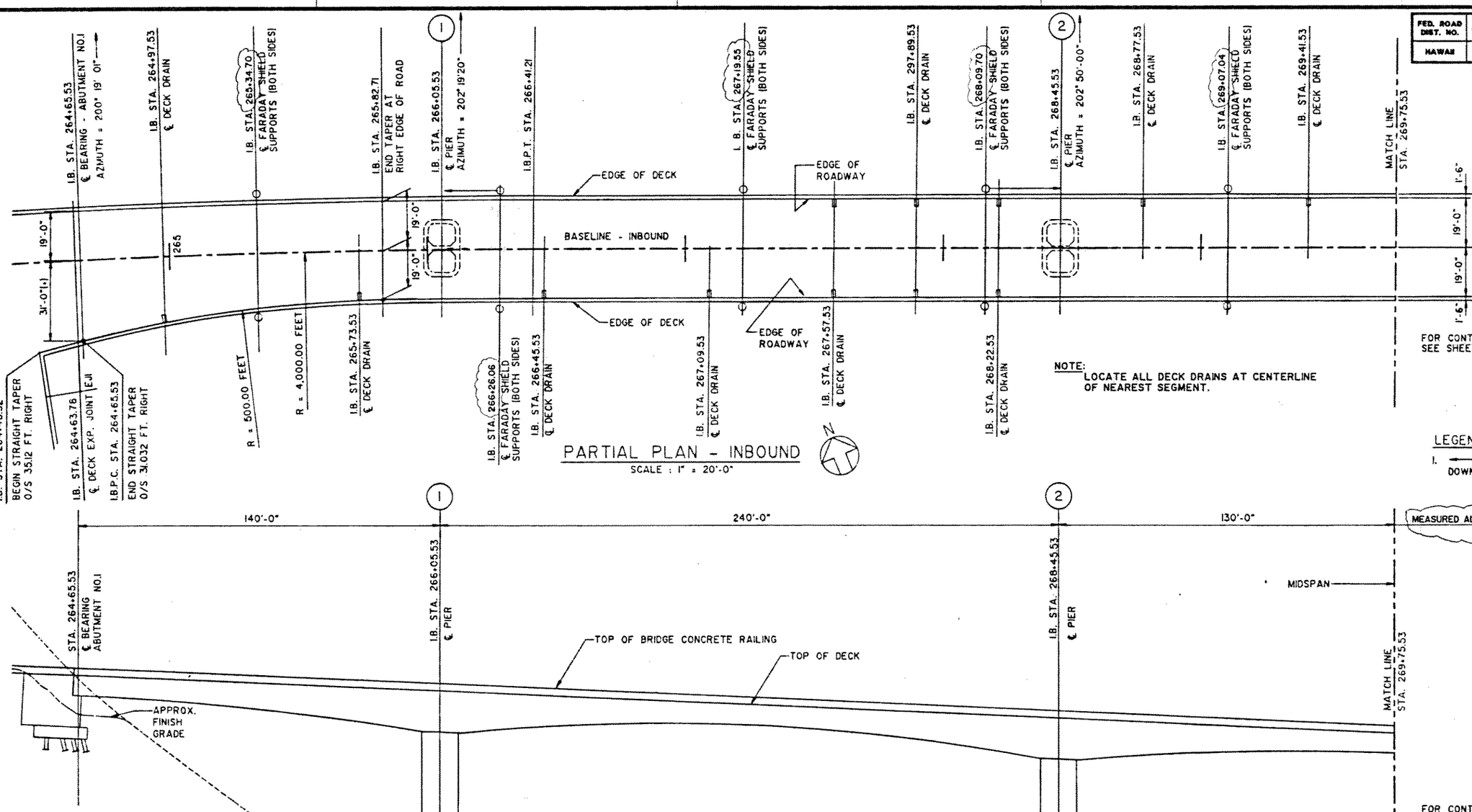
STRUCTURAL GENERAL NOTES

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. N2 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		

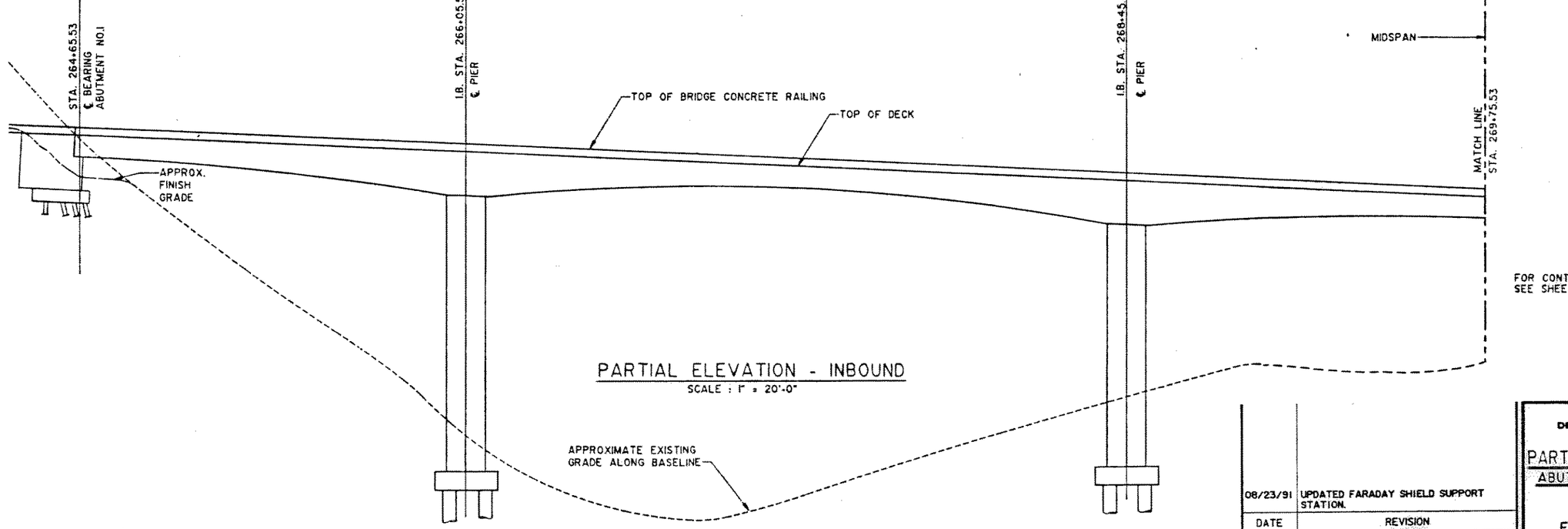


PARTIAL PLAN - INBOUND
SCALE : 1" = 20'-0"

NOTE: FARADAY SHIELD SUPPORT SHALL BE LOCATED RADIALLY TO THE BASELINE.

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:
1. ⟵ INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 7375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

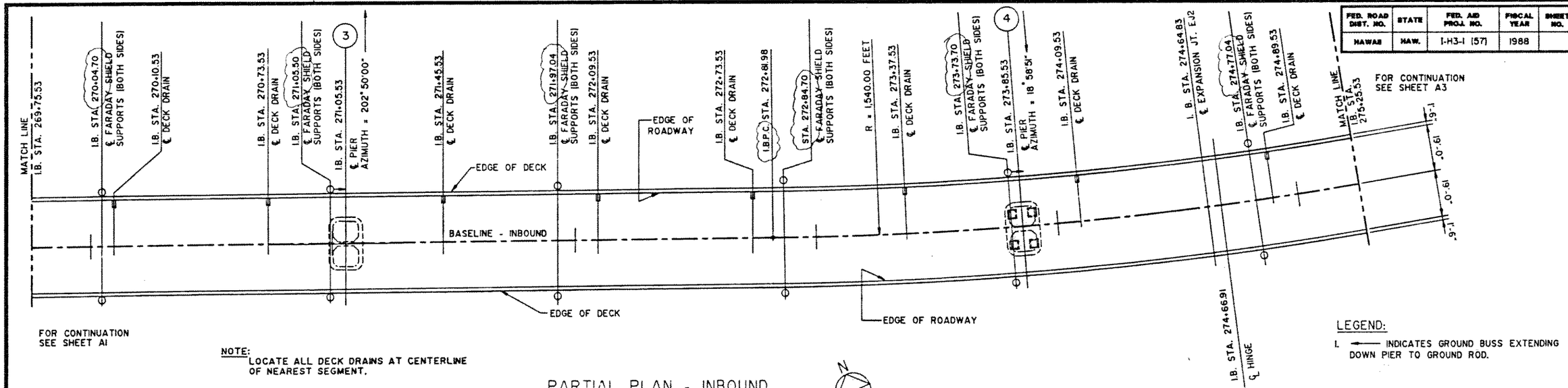
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
ABUTMENT NO. 1 TO STA. 269+75.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A1 OF 24 SHEETS

ORIGINAL PLATE BY — DATE 2/90
DRAWN BY EAL : 2/90
TRACED BY : 2/90
CHECKED BY JR : 2/90
QUANTITIES BY : 2/90
CHECKED BY : 2/90
ORIGINAL SCALE: 1" = 20'-0"
NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



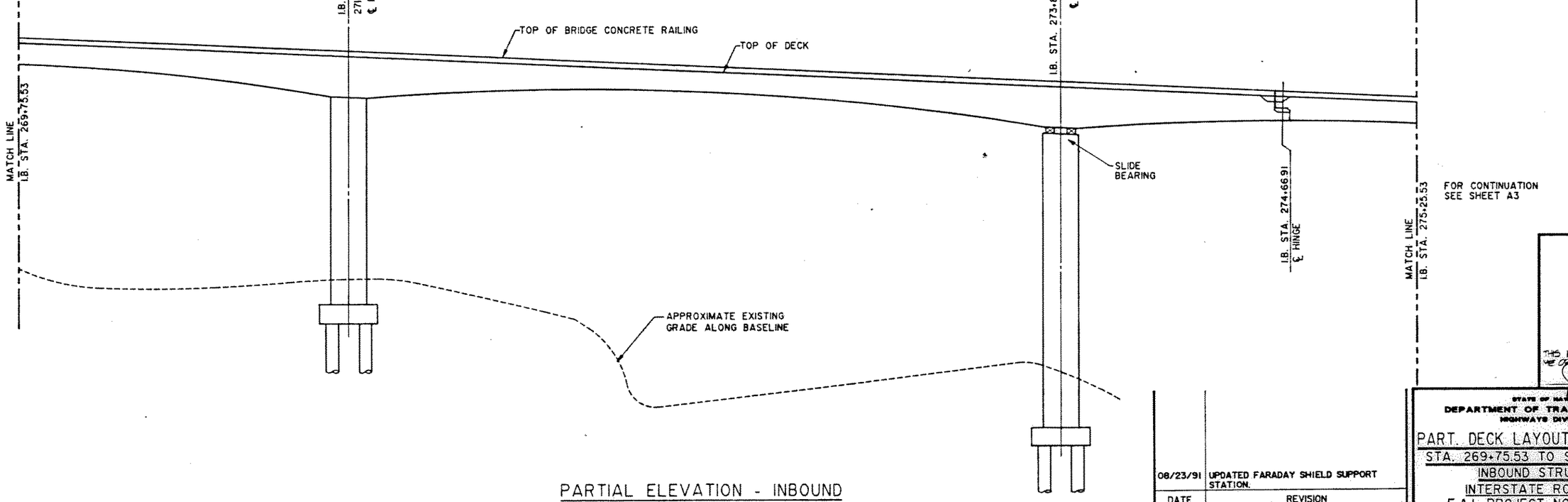
NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE 2/90
	DRAWN BY	2/90
NOTEBOOK	TRACED BY	
	DESIGNED BY	2
No.	QUANTITIES BY	
	CHECKED BY	2/90

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2575 HAWAII, U.S.A.

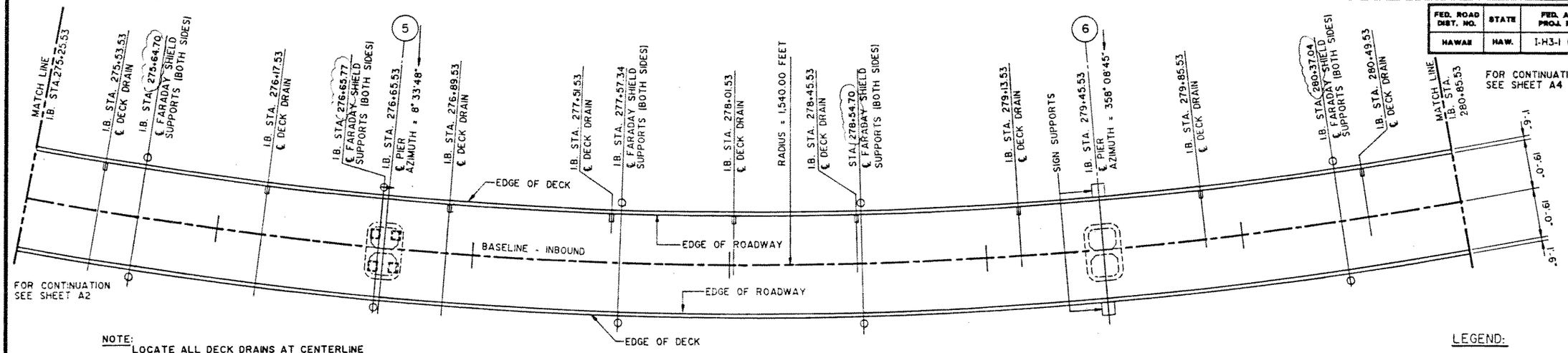
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 269+75.53 TO STA. 275+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A2 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

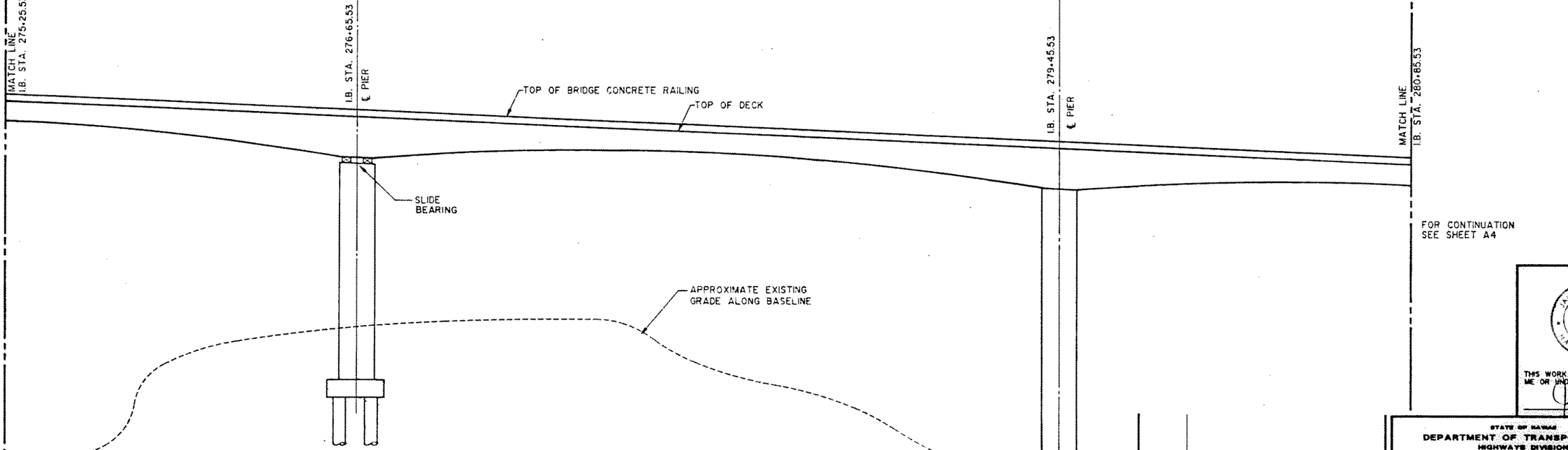
LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL PLAN – INBOUND

SCALE: 1" = 20'-0"

N



PARTIAL ELEVATION – INBOUND

SCALE: 1" = 20'-0"

SURVEY PLOTTED BY ____ DATE ____
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
ORIGINAL PLAN
NOTEBOOK ____ No. ____

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A. No. 7276

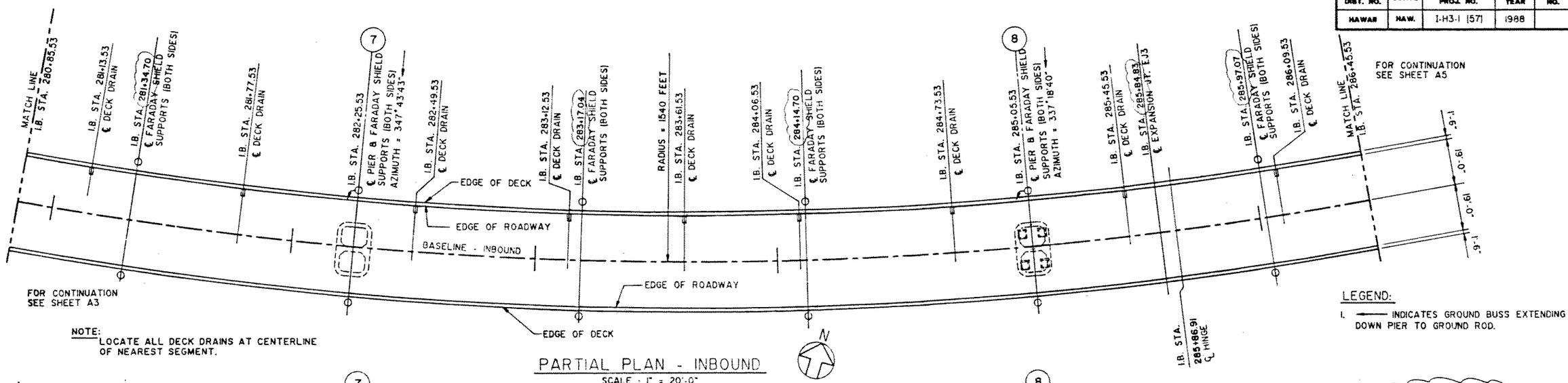
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 275+25.53 TO STA. 280+85.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A3 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



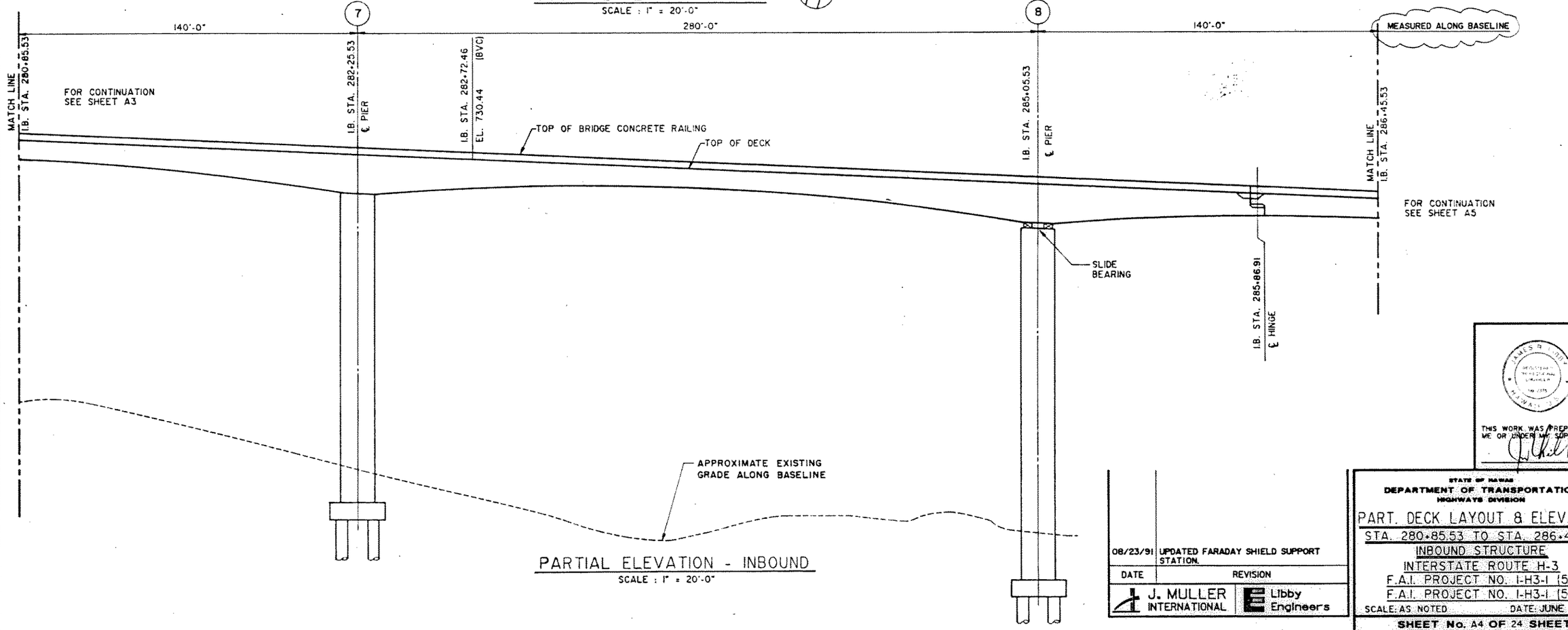
NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
NOTEBOOK No. ____

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7375 HAWAII, U.S.A.

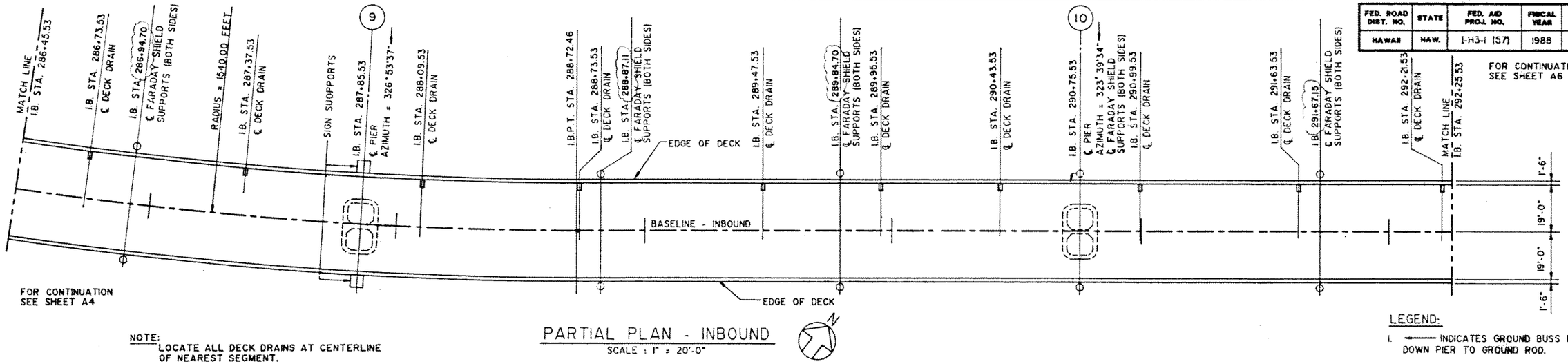
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 280+85.53 TO STA. 286+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A4 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



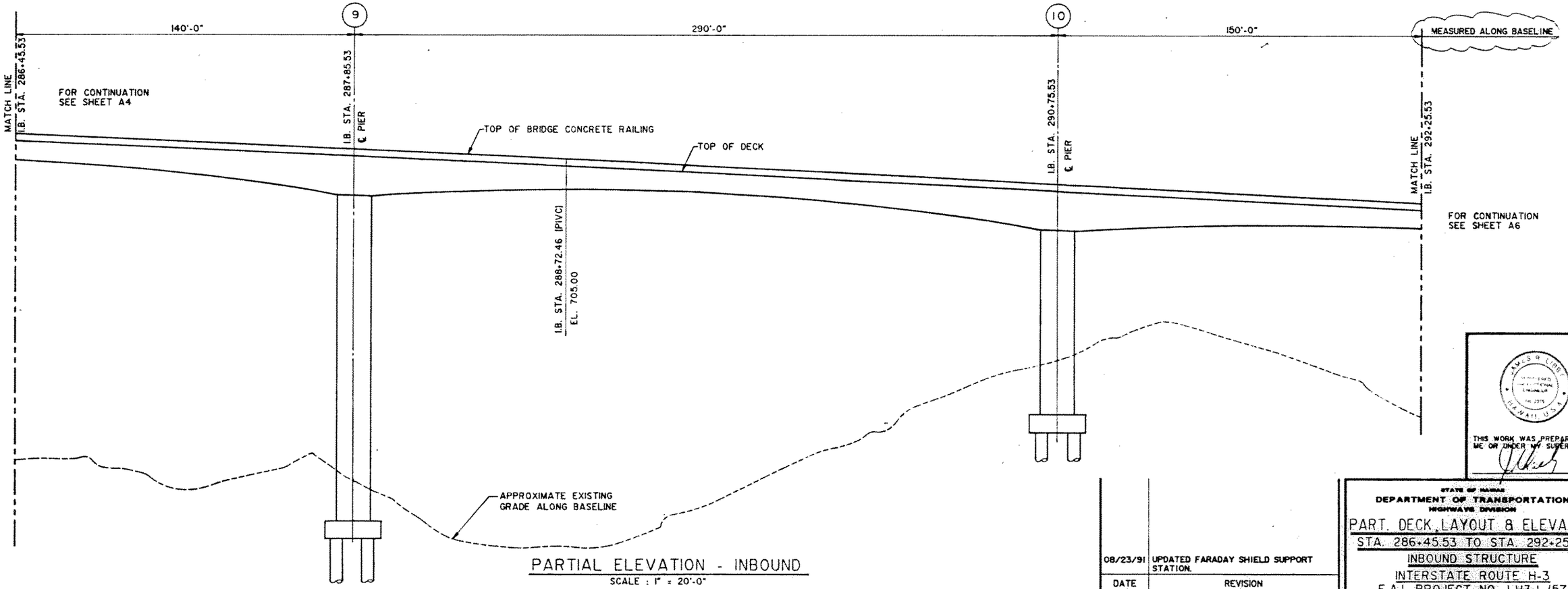
PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

I. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN
SURVEY PLOTTED BY ____ DATE
DRAWN BY ____ : :
TRACED BY ____ : :
DESIGNED BY ____ : :
QUANTITIES BY ____ : :
CHECKED BY ____ : :
NOTEBOOK ____
No. ____

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES S. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A.

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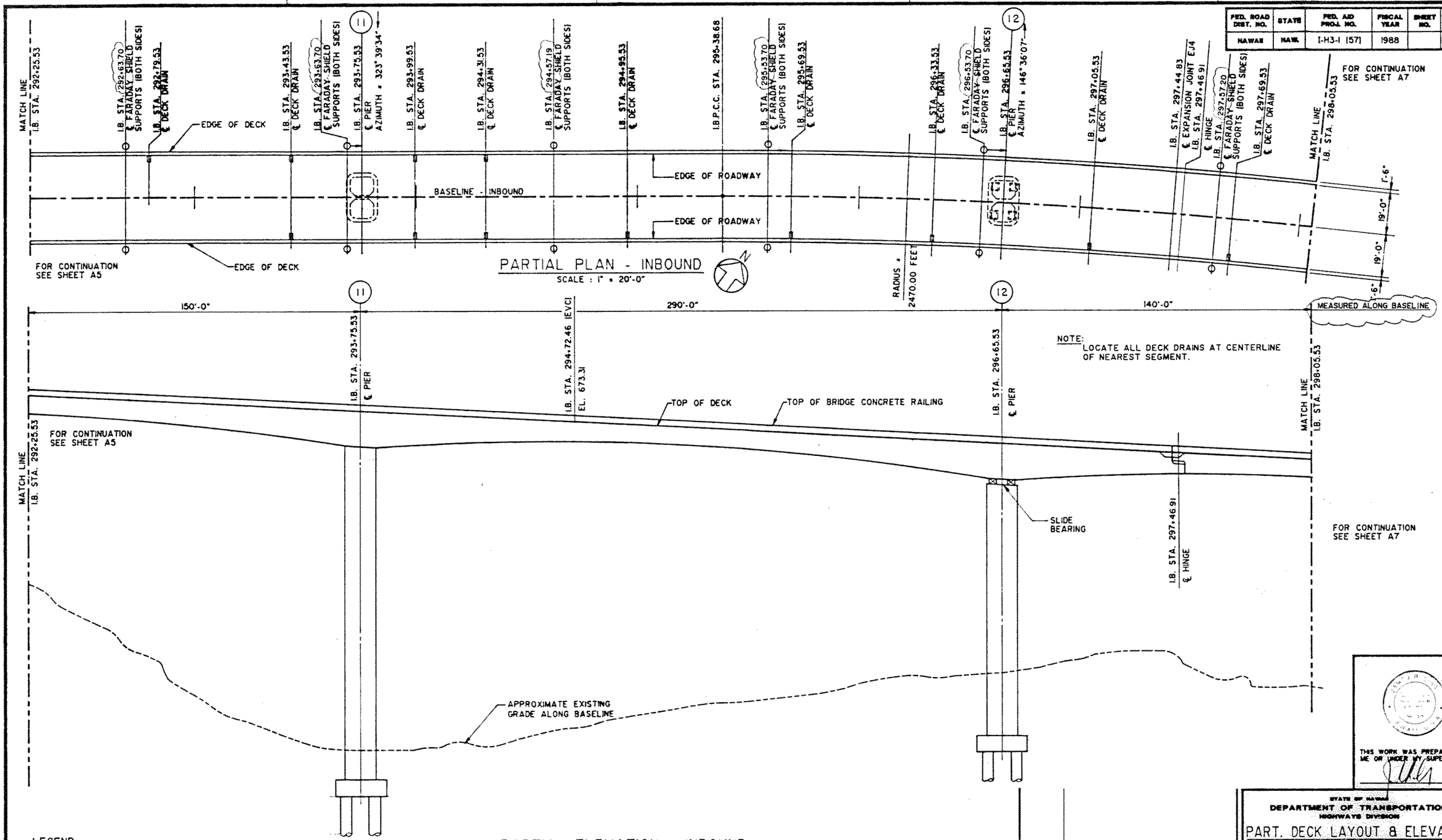
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 286+45.53 TO STA. 292+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A5 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

L ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STATION.

J. MULLER INTERNATIONAL

Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

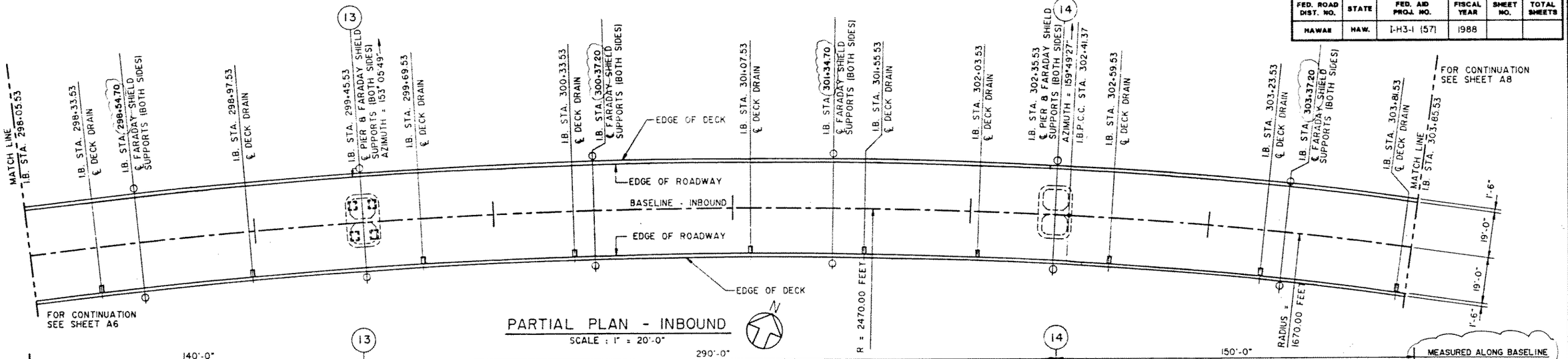
INBOUND STRUCTURE
STA. 292+25.53 TO STA. 298+05.53
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

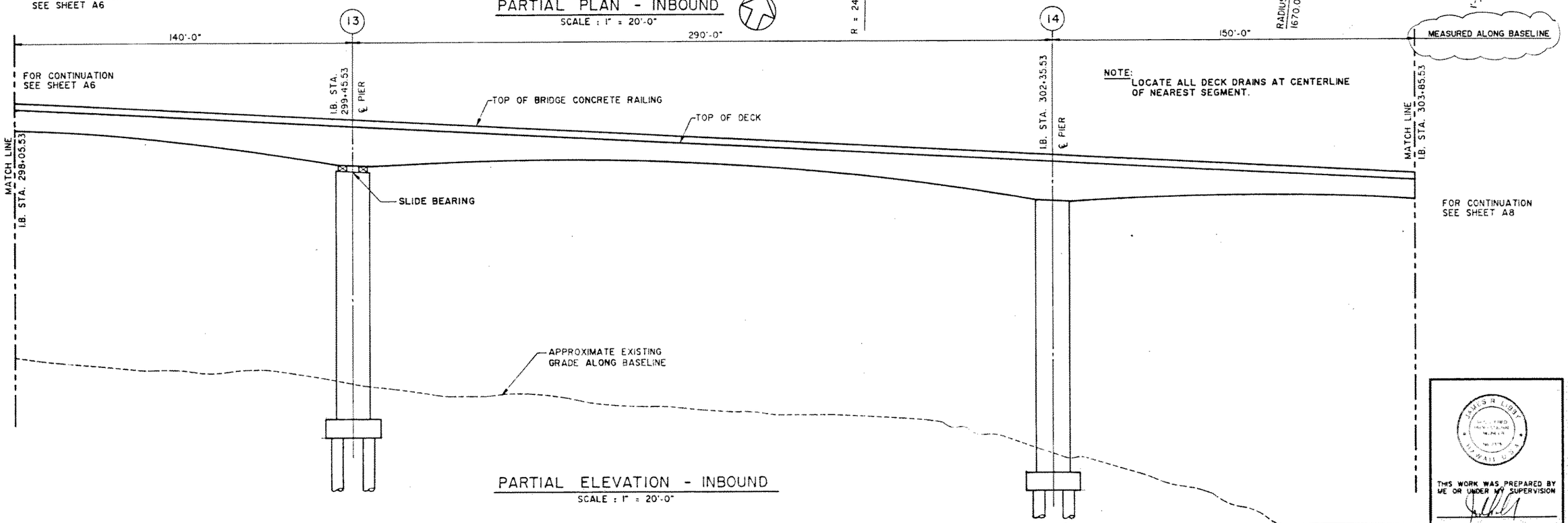
SHEET No. A6 OF 24 SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTEBOOK | pg.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - INBOUND
SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND REMOVED SIGN SUPPORT IP-14.

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JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — HAWAII

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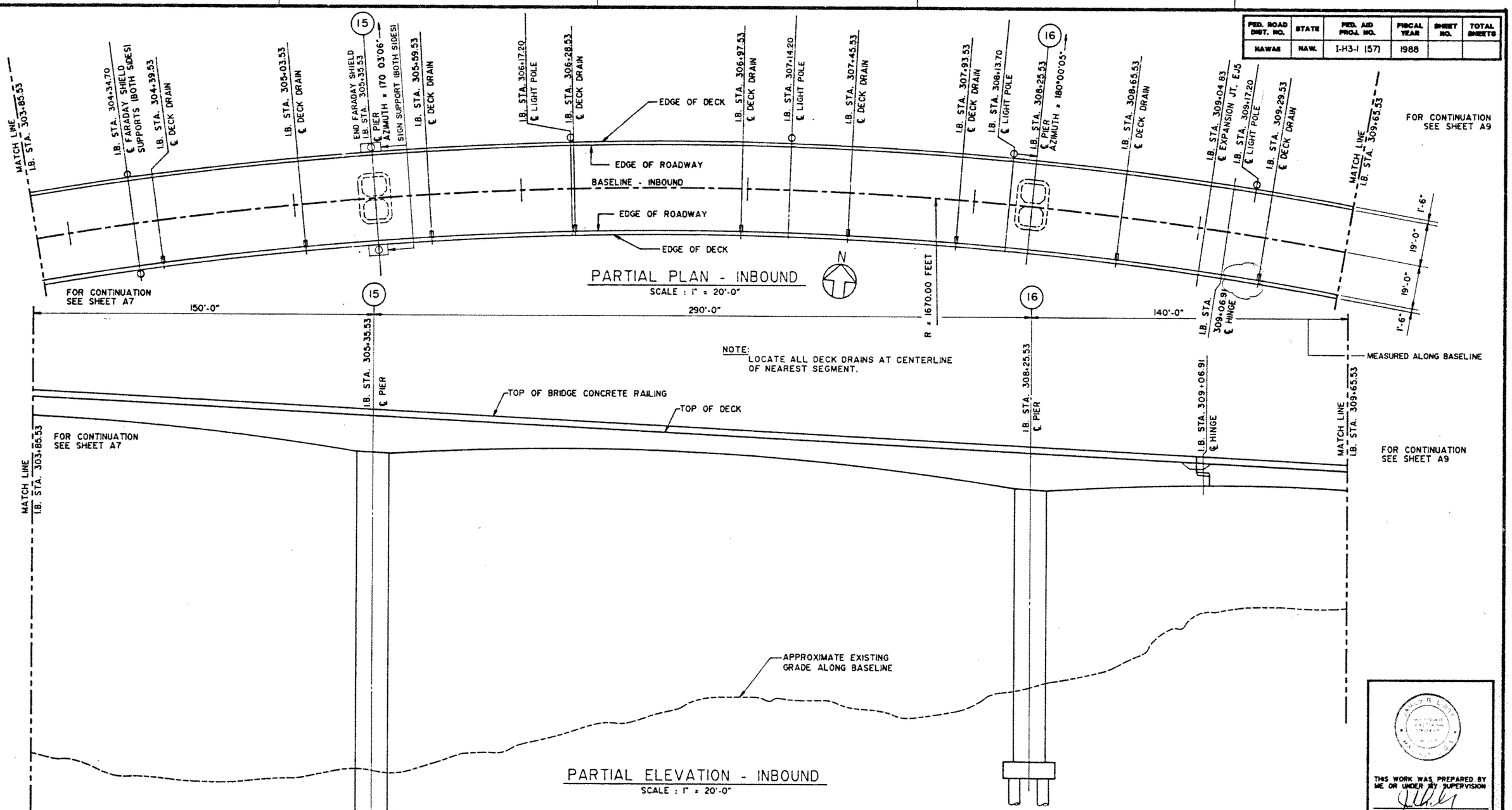
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 298+05.53 TO STA. 303+85.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A7 OF 24 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - INBOUND
SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

LEGEND:

I. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND ADDED SIGN SUPPORT IP-15.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

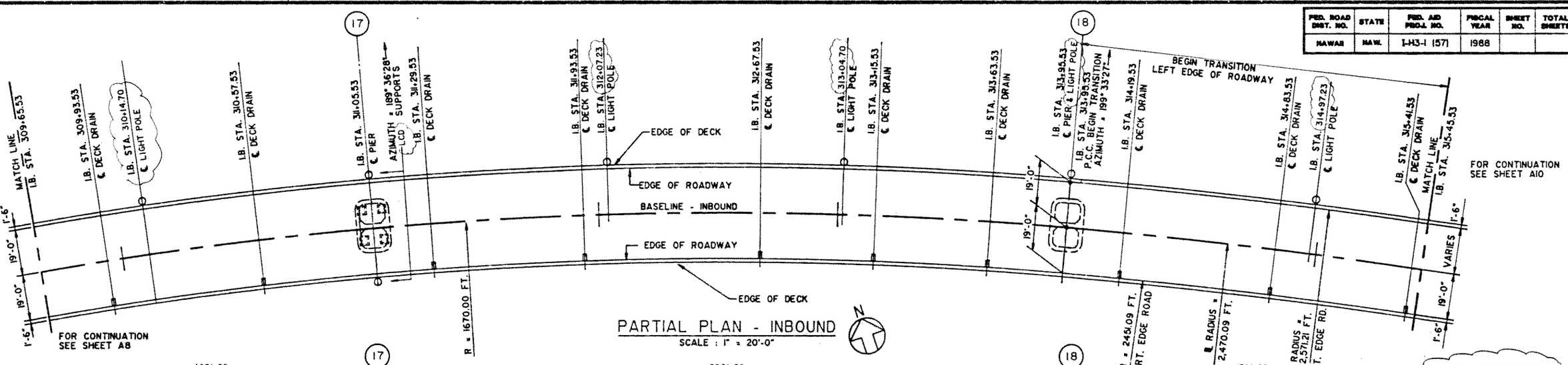
INBOUND STRUCTURE
STA. 303+85.53 TO STA. 309+65.53
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A8 OF 24 SHEETS

SURVEY PLOTTED BY ____ AS CHECKED BY ____
DESIGNED BY ____ AS DRAWN BY ____
QUANTITIES BY ____ AS CHECKED BY ____
HORIZONTAL SCALE ____
VERTICAL SCALE ____

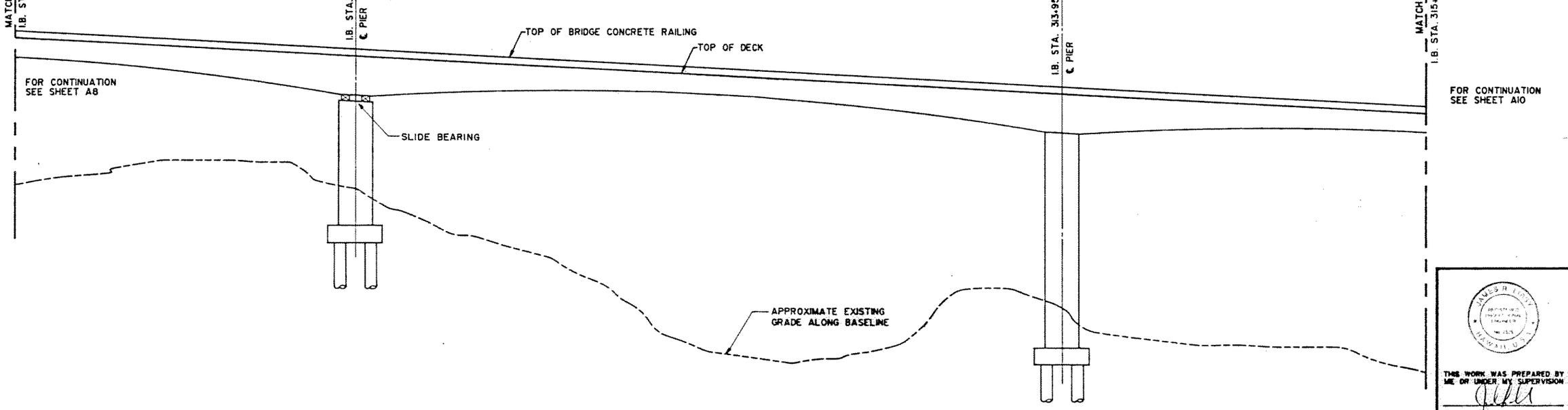
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - INBOUND
SCALE : 1" = 20'-0"

140'-0" 290'-0" 150'-0" MEASURED ALONG BASELINE

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS

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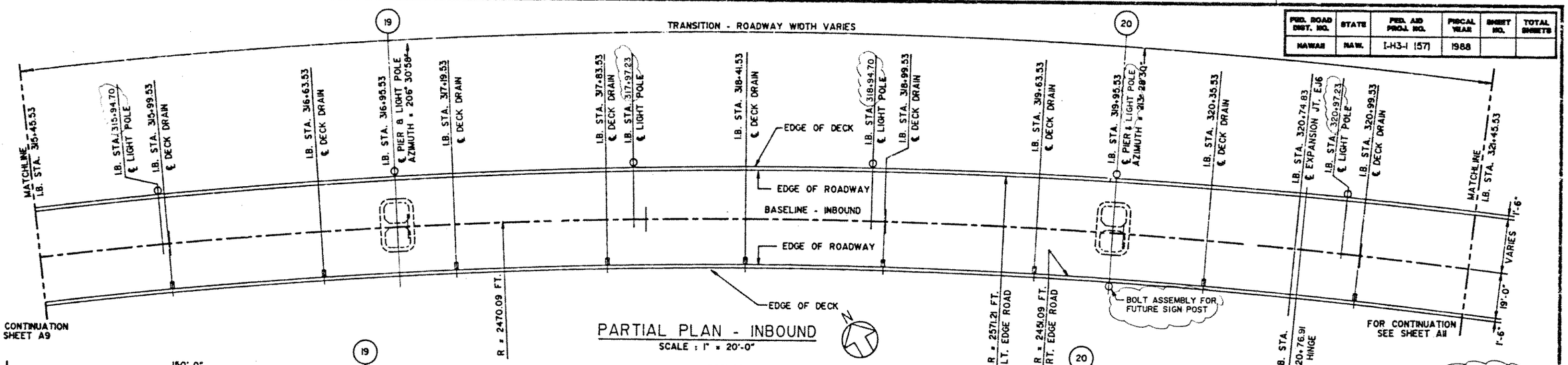
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 309+65.53 TO STA. 315+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A9 OF 24 SHEETS

ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		

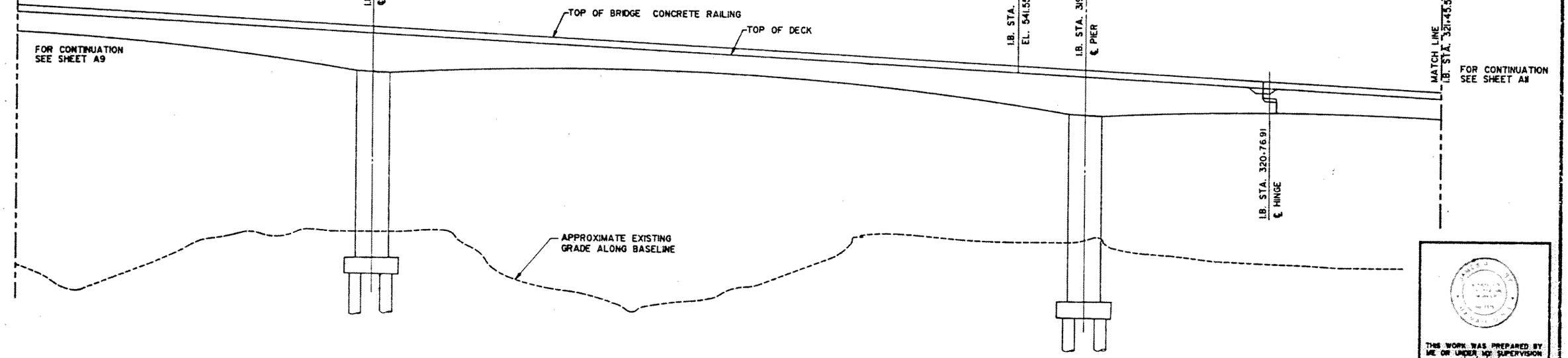


PARTIAL PLAN - INBOUND
SCALE : 1" = 20'-0"

150'-0" 300'-0" 150'-0"

MEASURED ALONG BASELINE

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS & FUTURE SIGN POST.

J. MULLER INTERNATIONAL | Libby Engineers

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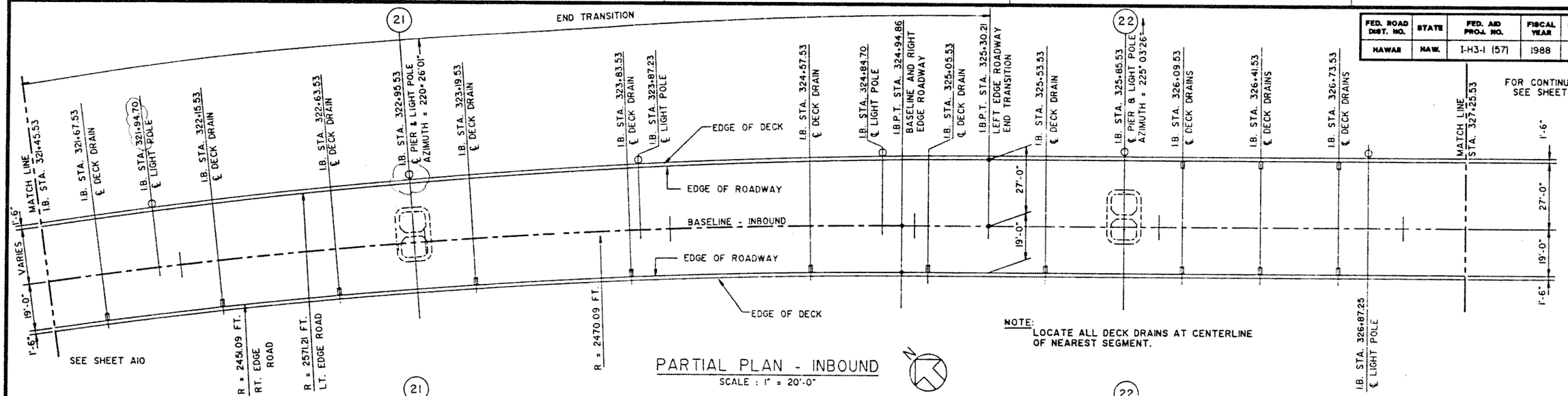
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 315+45.53 TO STA. 321+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A10 OF 24 SHEETS

56

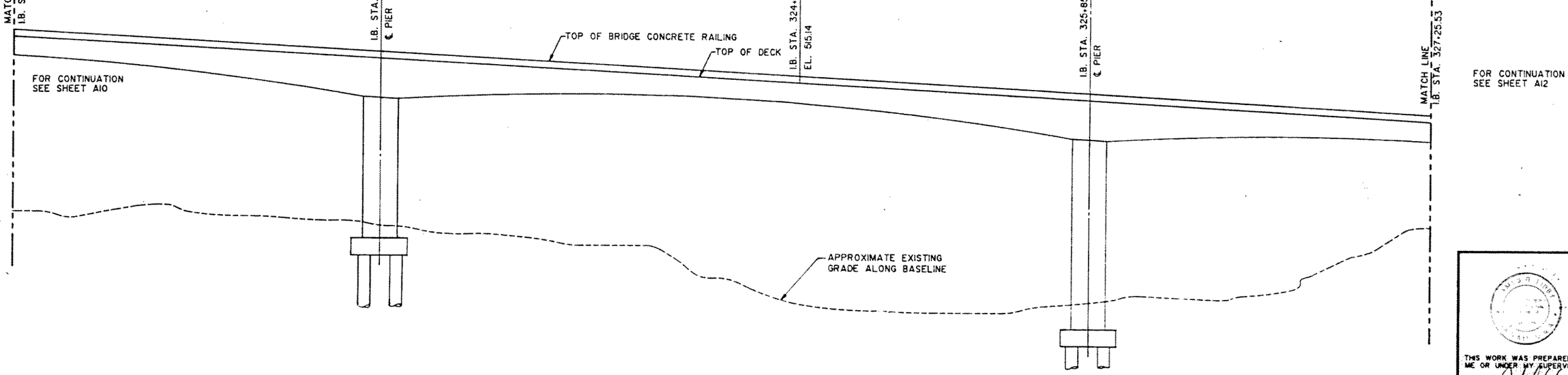
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

SURVEY PLOTTED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLAN
NOTEBOOK
No.

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED LIGHT POLE STATIONS.

J. MULLER INTERNATIONAL | Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 321+45.53 TO STA. 327+25.53

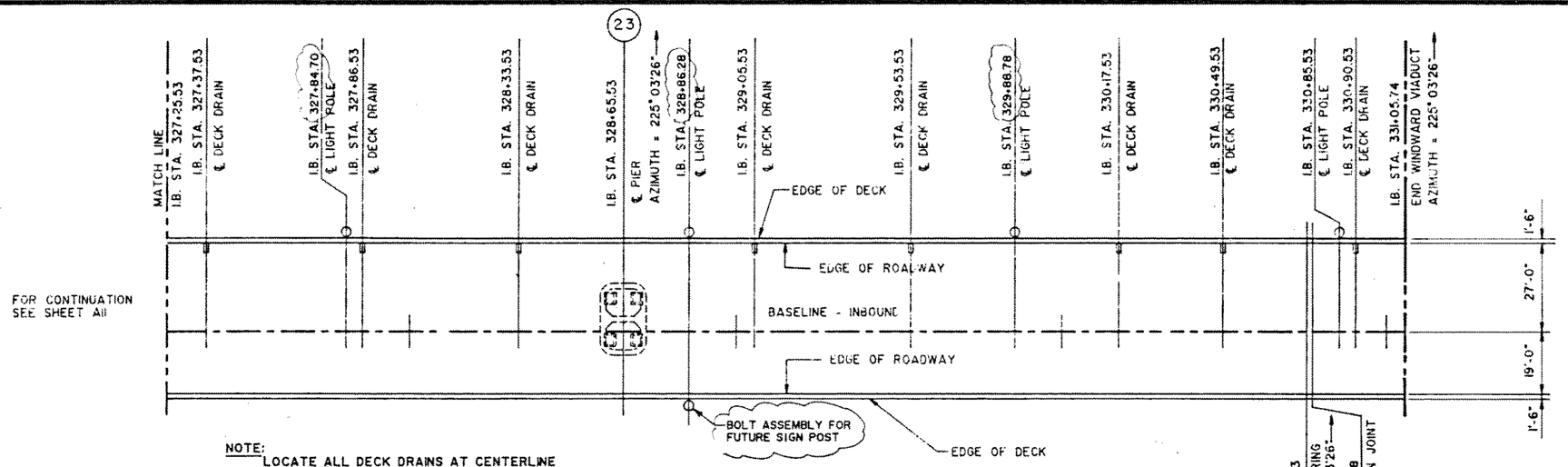
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

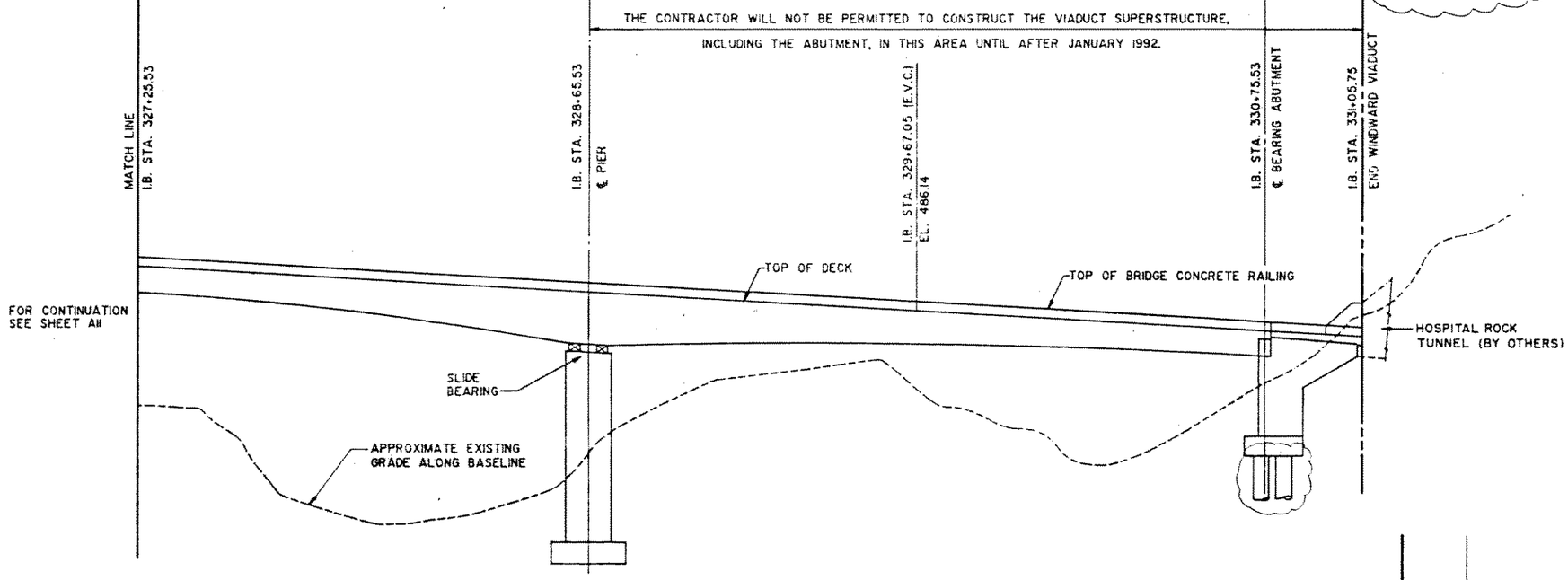
SHEET No. A11 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED LIGHT POLE STATIONS AND FUTURE SIGN POST.
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 327+25.53 TO STA. 331+05.75
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A12 OF 24 SHEETS

SURVEY PLOTTED BY — DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLAN
SUBMITTED
APPROVED
NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		

O.B. STA. 264+25.11 ℄ BEARING - O.B. ABUTMENT NO. 1
AZIMUTH = 193°23'03"
BEGIN TAPER
O.B. STA. 264+51.11 ℄ DECK DRAIN
O.B. STA. 265+13.11 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)
O.B. STA. 265+19.11 ℄ DECK DRAIN
O.B. STA. 265+63.11 ℄ DECK DRAIN
O.B. STA. 265+95.11 ℄ PIER
AZIMUTH = 196°37'52"
O.B. STA. 266+07.62 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)
O.B. STA. 266+35.11 ℄ DECK DRAIN
O.B. STA. 266+68.71 END TAPER ℄ LEFT EDGE OF ROAD
O.B. STA. 266+95.11 ℄ DECK DRAIN
O.B. STA. 266+97.62 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)
O.B. STA. 267+63.11 ℄ DECK DRAIN
O.B. STA. 267+91.28 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)
O.B. STA. 268+11.11 ℄ DECK DRAIN
O.B. STA. 268+35.11 ℄ PIER
AZIMUTH = 201°12'53"
O.B. STA. 268+67.11 ℄ DECK DRAIN
O.B. STA. 268+87.62 ℄ FARADAY SHIELD SUPPORTS (BOTH SIDES)
O.B. P.T. STA. 269+19.86
O.B. STA. 269+31.11 ℄ DECK DRAIN
MATCH LINE O.B. STA. 269+65.11
STRAIGHT TAPER
EDGE OF DECK
EDGE OF ROADWAY
BASELINE - OUTBOUND
EDGE OF ROADWAY
EDGE OF DECK
35'-0"
19'-0"
1'-6"
25'-0"
19'-0"
1'-6"
R = 3000.00 FT.
ELECTRIC MANHOLE SEE SHT. ED1
FOR CONTINUATION SEE SHEET A14

NOTE: FARADAY SHIELD SUPPORTS SHALL BE LOCATED RADIALLY TO THE BASELINE.

NOTE: LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND
SCALE : 1" = 20'-0"

O.B. STA. 264+23.36 ℄ DECK EXPANSION JOINT EJ1
170'-0"
240'-0"
130'-0"
MEASURED ALONG BASELINE
O.B. STA. 264+25.11 ℄ BEARING O.B. ABUTMENT NO.1
O.B. STA. 265+95.11 ℄ PIER
O.B. STA. 268+35.11 ℄ PIER
O.B. STA. 267+47.56 (BVC) EL. 793.23
MATCHLINE O.B. STA. 269+65.11
TOP OF BRIDGE CONCRETE RAILING
TOP OF DECK
ELECTRIC MANHOLE
APPROXIMATE EXISTING GRADE ALONG BASELINE
FOR CONTINUATION SEE SHEET A14

PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:
1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

ORIGINAL PLANS
SURVEY PLOTTED BY ____ DATE
TRACED BY ____
DESIGNED BY ____
NOTEBOOK ____ DESIGNED BY ____
No. ____ QUANTITIES BY ____
CHECKED BY ____

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7519 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

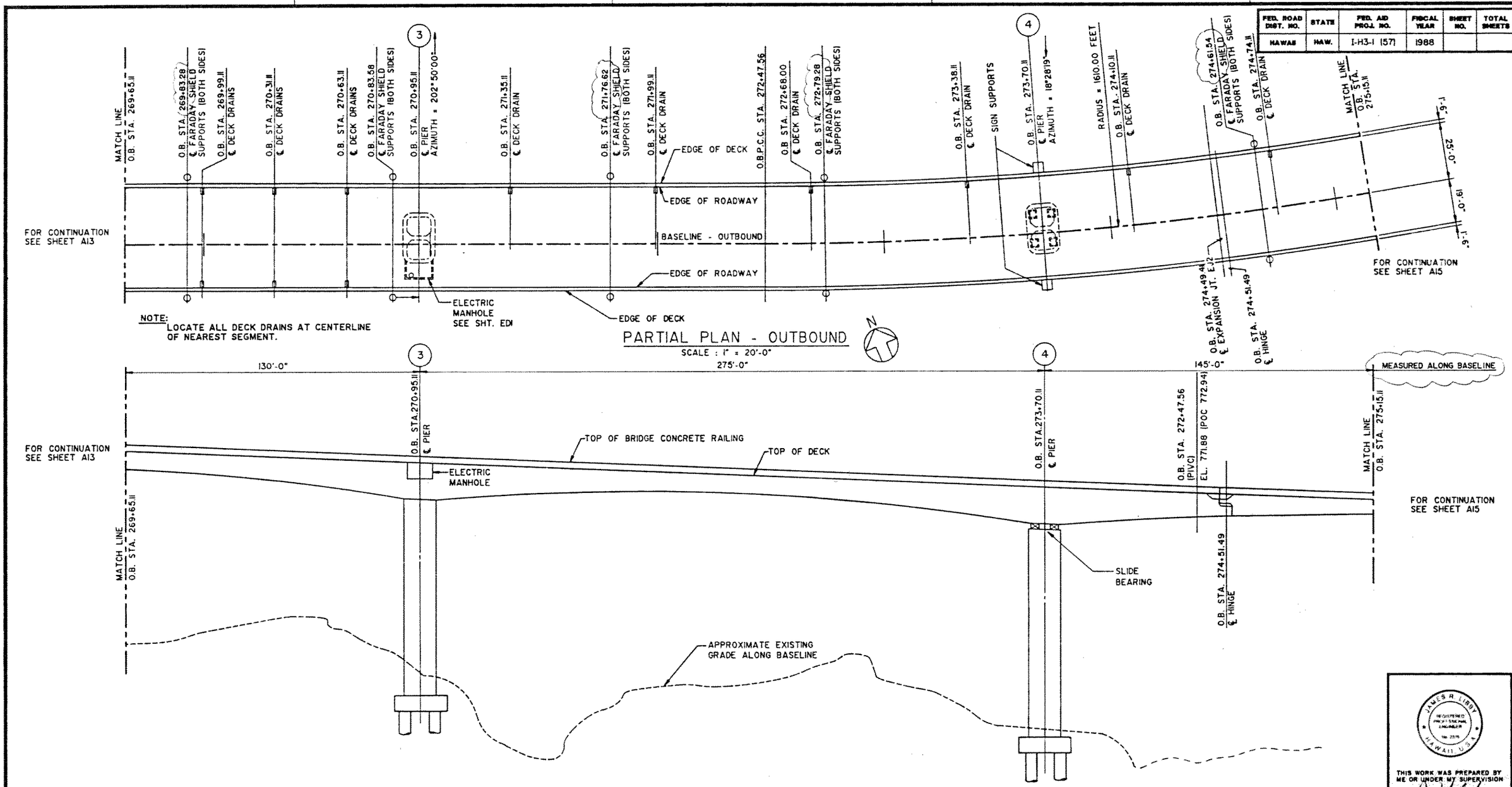
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 264+25.11 TO STA. 269+65.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A13 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7570 HAWAII, U.S.A.

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DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

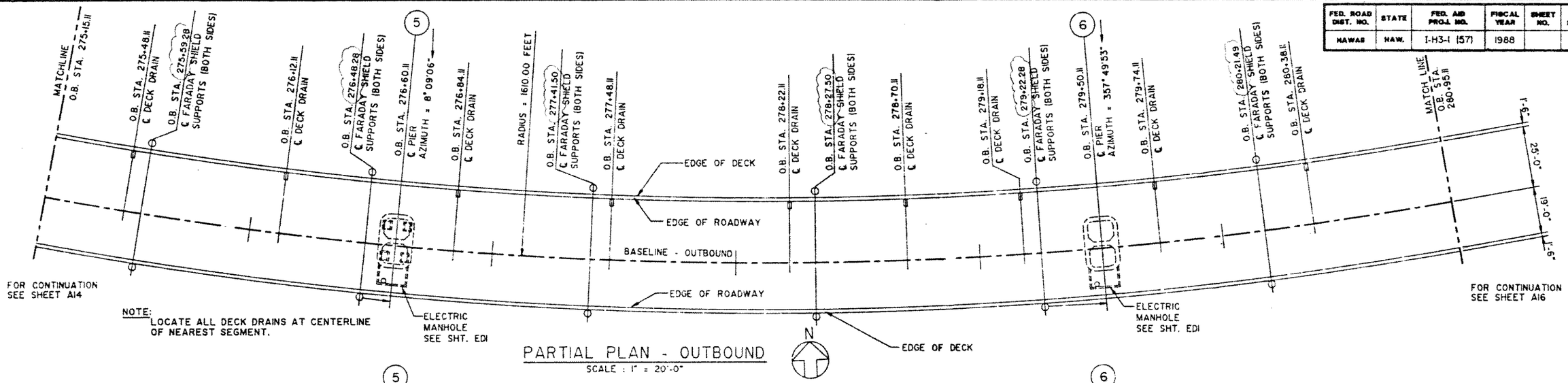
PART. DECK LAYOUT & ELEVATION

STA. 269+65.11 TO STA. 275+15.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

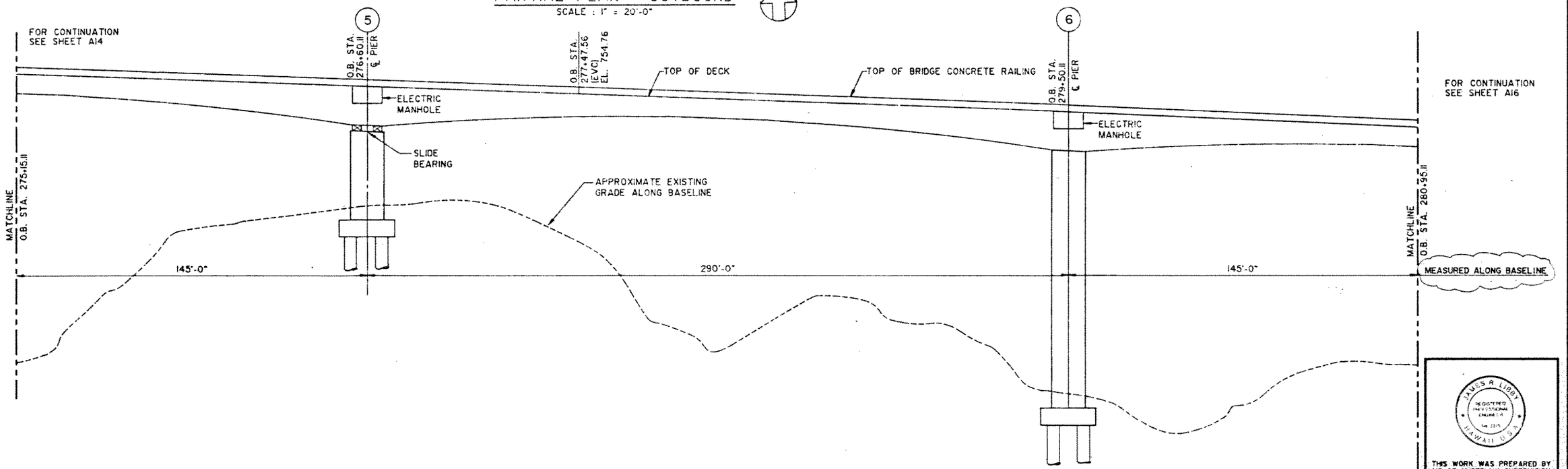
SHEET No. A14 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 275+15.11 TO STA. 280+95.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

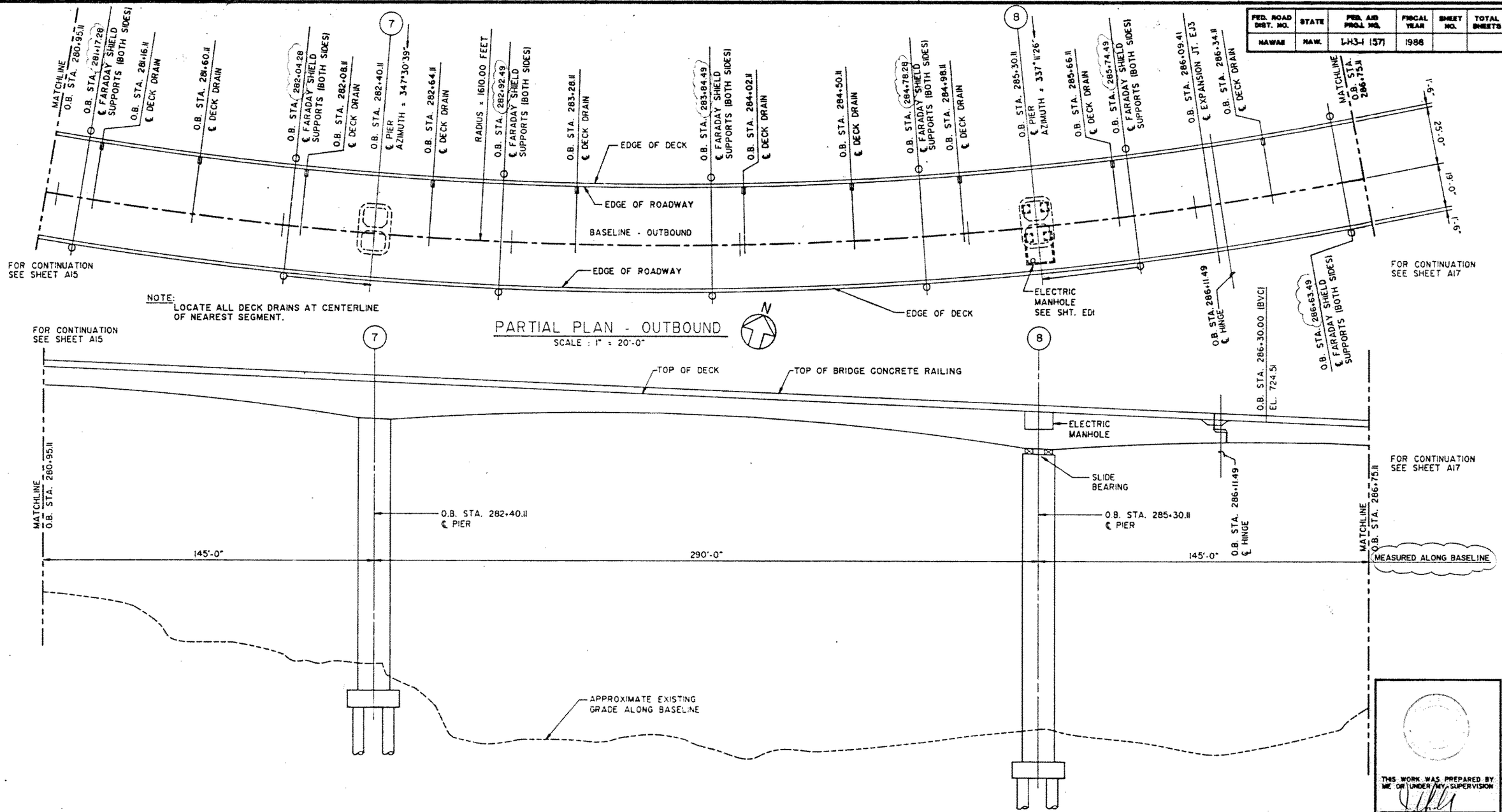
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A15 OF 24 SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY ____ DATE | DRAWN BY ____ | TRACED BY ____ | DESIGNED BY ____ | QUANTITIES BY ____ | CHECKED BY ____ | NO. | REVISIONS | DATE | APPROVED

6

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1986		



NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
NOTEBOOK QUANTITIES BY ____
CHECKED BY ____
ORIGINAL PLAN

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL
Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

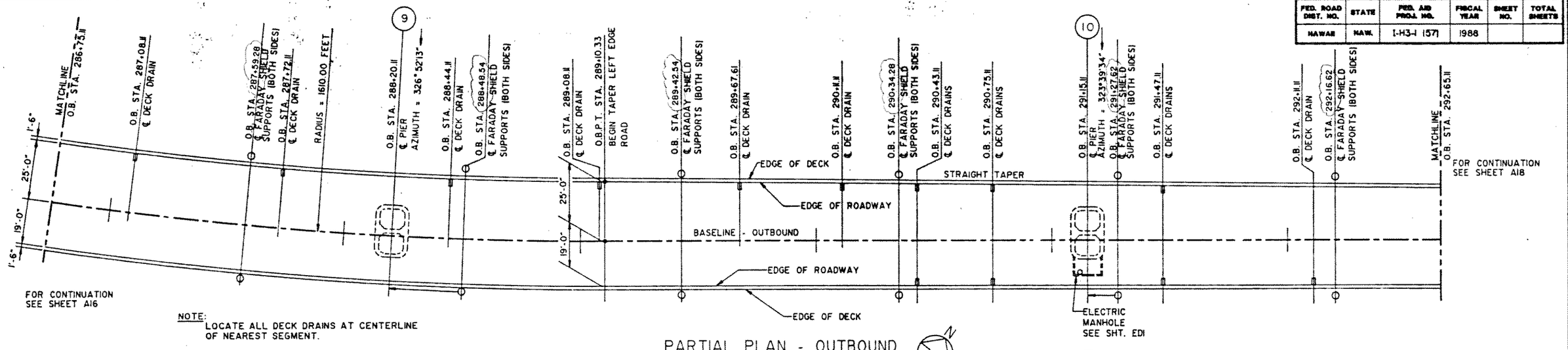
PART. DECK LAYOUT & ELEVATION

STA. 280+95.11 TO STA. 286+75.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

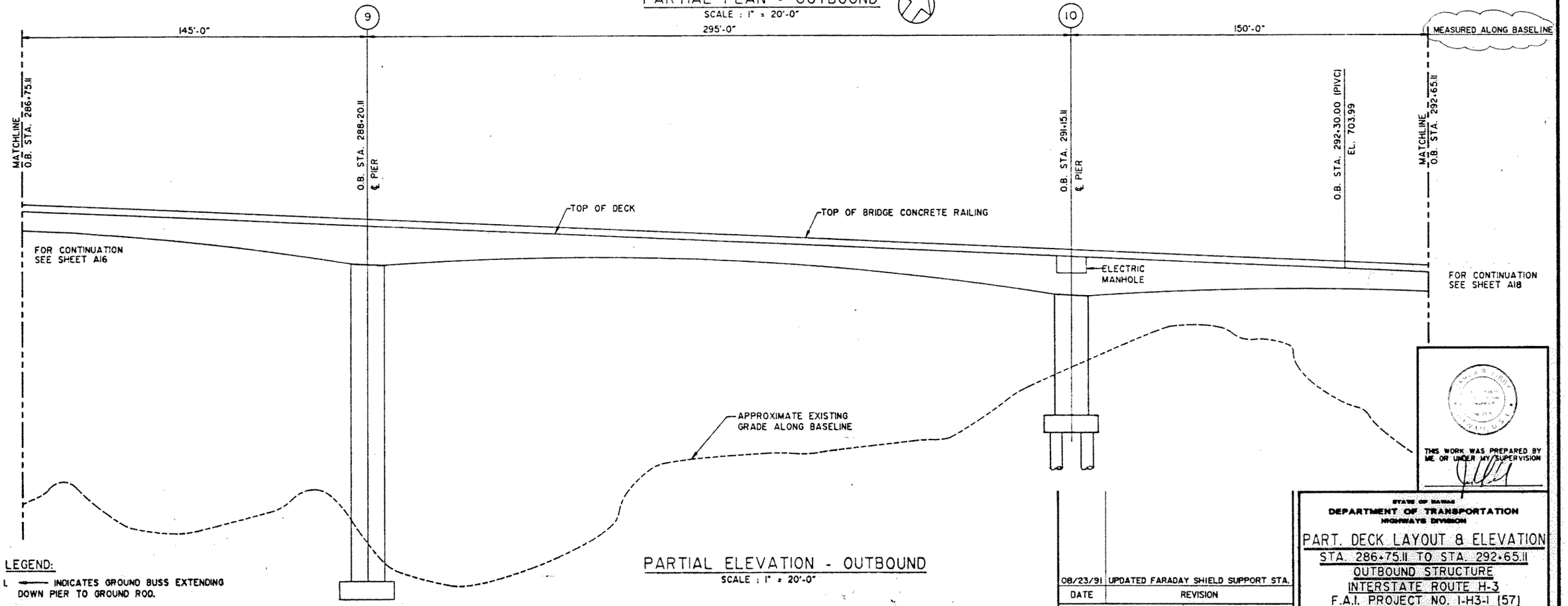
SHEET No. A16 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



LEGEND:

L —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

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

No.	REVISIONS
	ORIGINAL PLANS

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

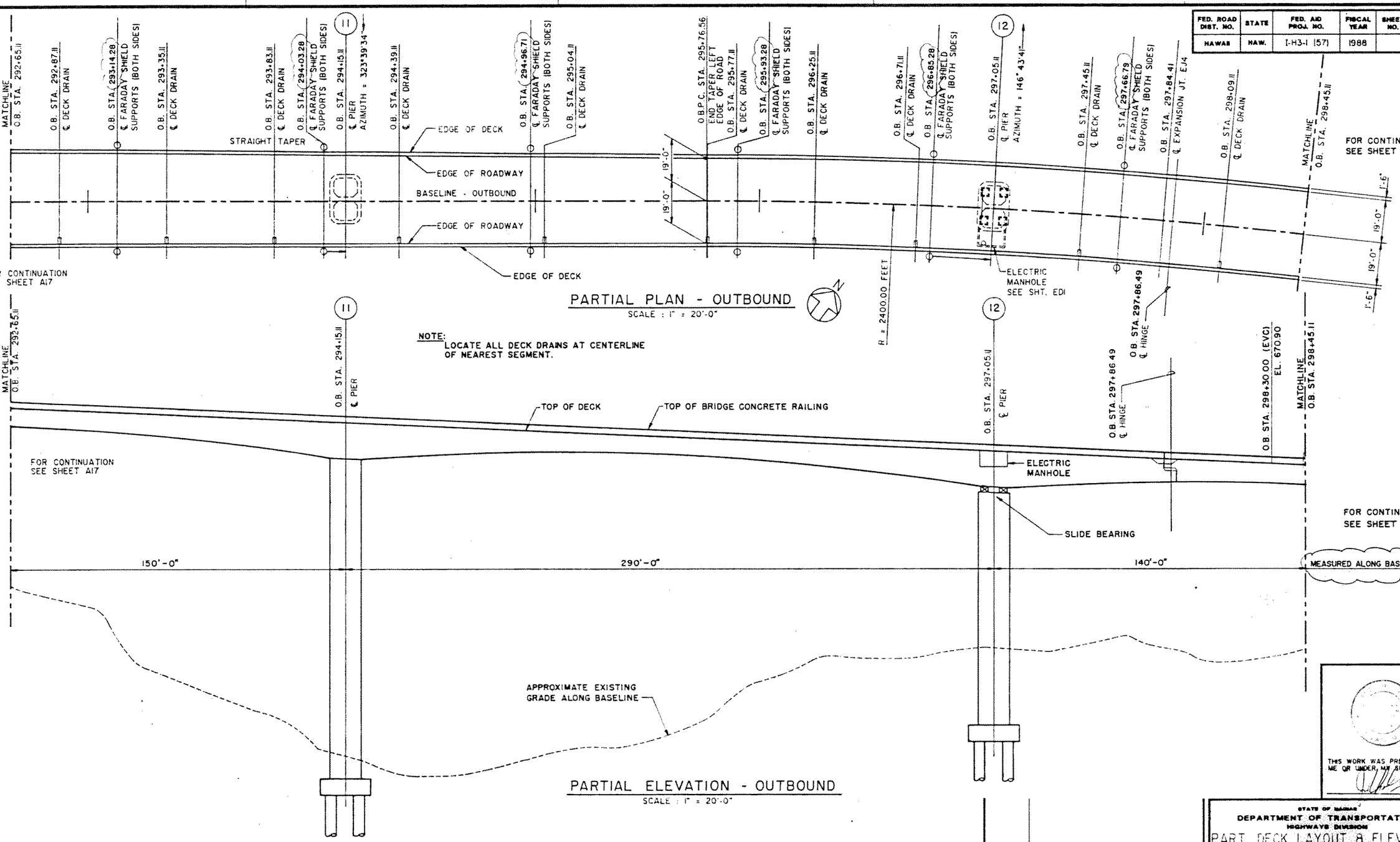
PART. DECK LAYOUT & ELEVATION

STA. 286+75.11 TO STA. 292+65.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A17 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

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

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

J. MULLER INTERNATIONAL | Libby Engineers

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 292+65.11 TO STA. 298+45.11
OUTBOUND STRUCTURE

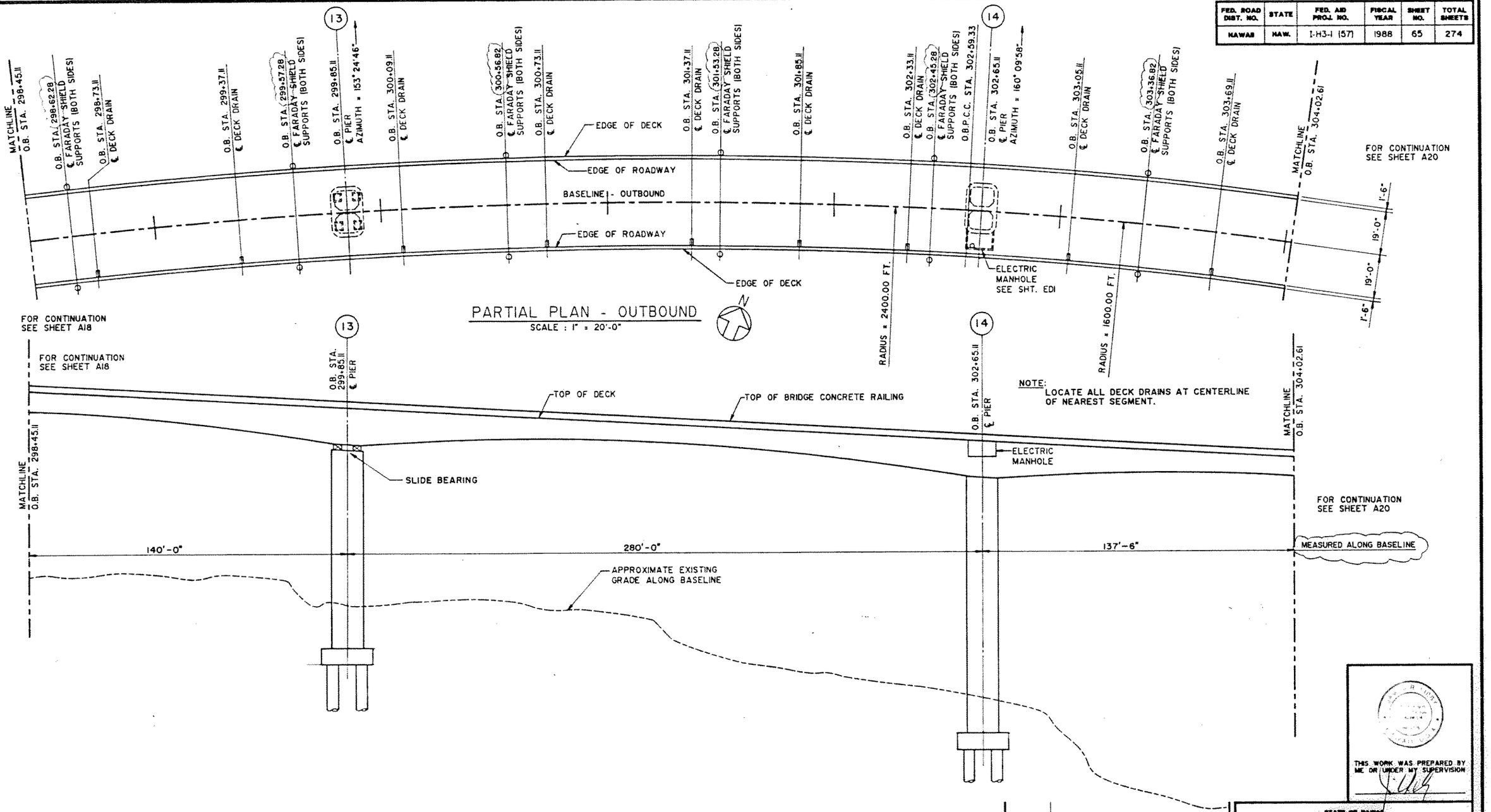
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A18 OF 24 SHEETS

64

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988	65	274



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.

PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA.

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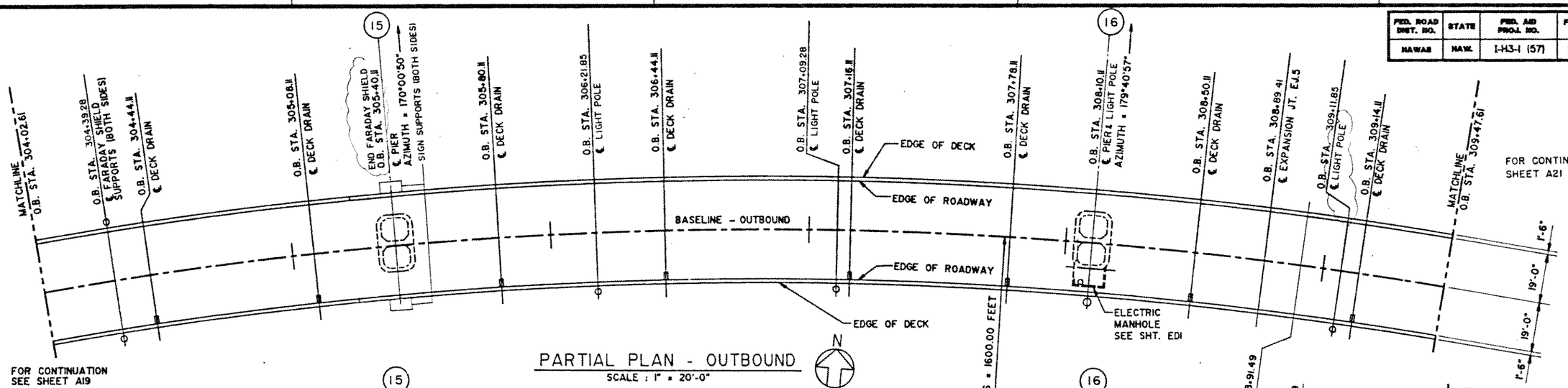
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION
STA. 298+45.11 TO STA. 304+02.61
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A19 OF 24 SHEETS

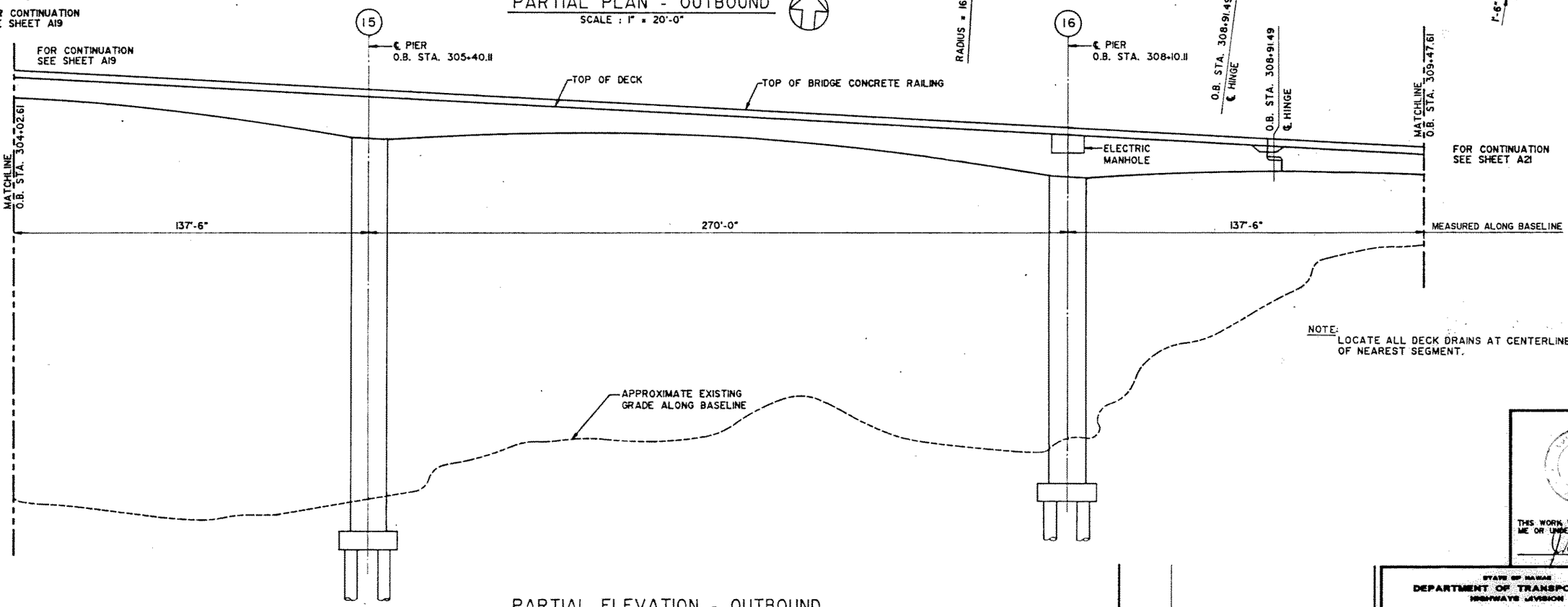
SURVEY PLOTTED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
NOTEBOOK
PAGE NO.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. L ——— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

DATE	REVISION
09/30/91	UPDATED DRAWING.
08/23/91	UPDATED FARADAY SHIELD SUPPORT STA. AND SIGN SUPPORT.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 304+02.61 TO STA. 309+47.61

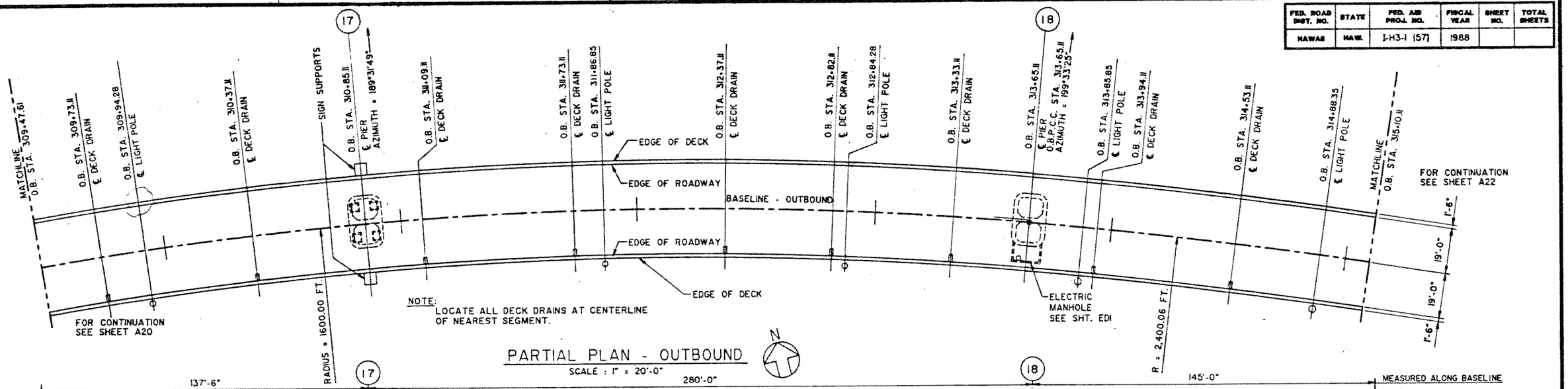
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A20 OF 24 SHEETS

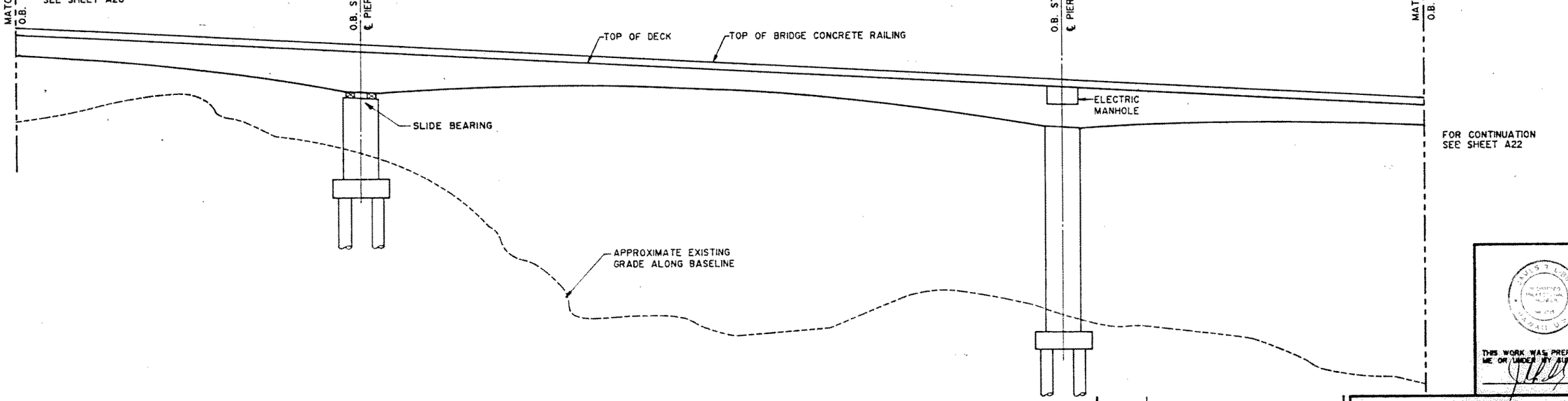
66

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

DATE	REVISION
09/30/91	UPDATED LIGHT POLE STATION.
08/23/91	UPDATED LIGHT POLE STATIONS.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 309+47.61 TO STA. 315+10.11

OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

F.A.I. PROJECT NO. I-H3-1 (57)

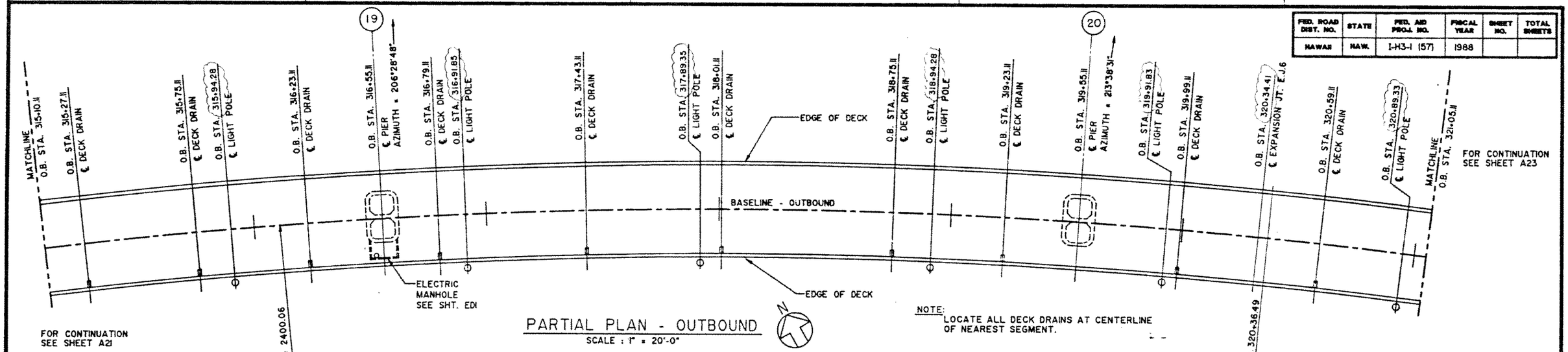
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A3 OF 24 SHEETS

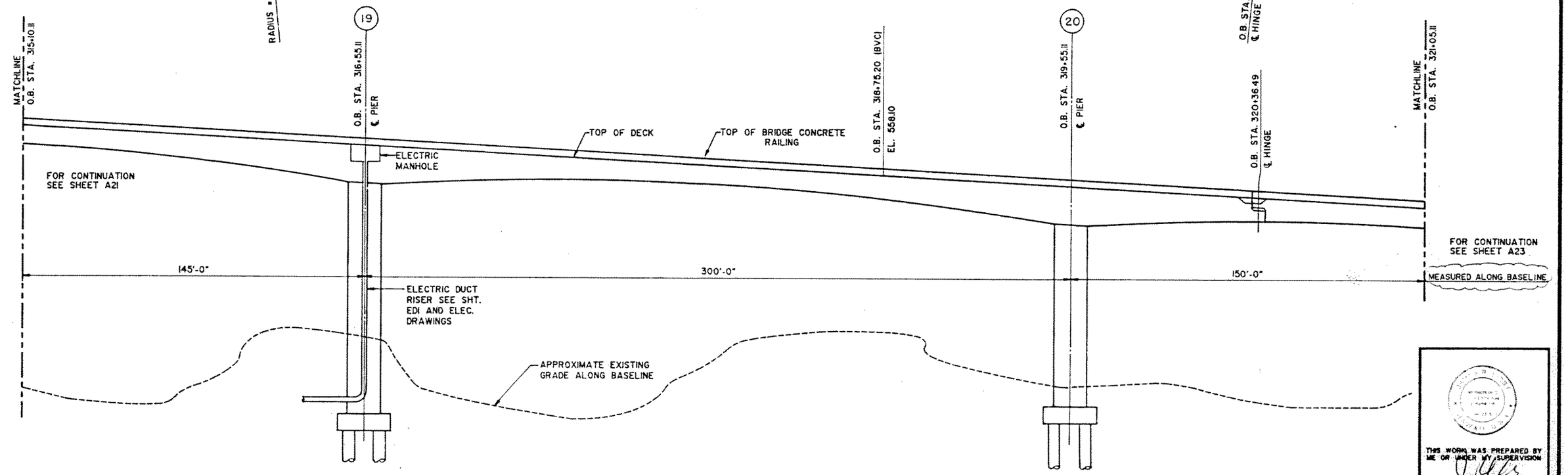
FINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | REMARKS | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND
SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:

1. —— INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.
2. O/R INDICATES OFFSET RIGHT OF BASELINE.
3. O/L INDICATES OFFSET LEFT OF BASELINE.

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

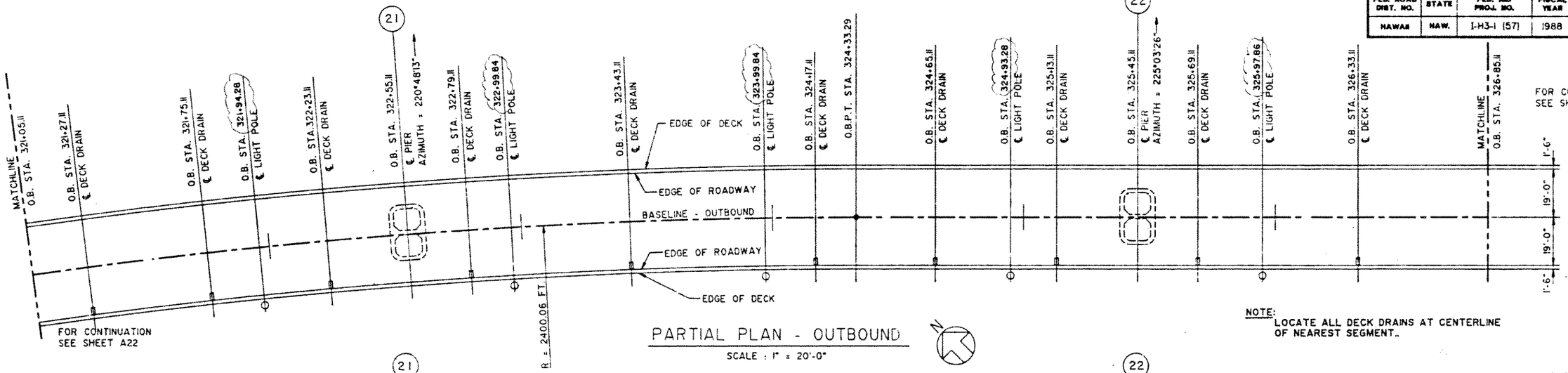
STA. 315+10.11 TO STA. 321+05.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

SHEET No. A22 OF 24 SHEETS

ORIGINAL PLAN — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — QUALITY CHECKED BY — DATE

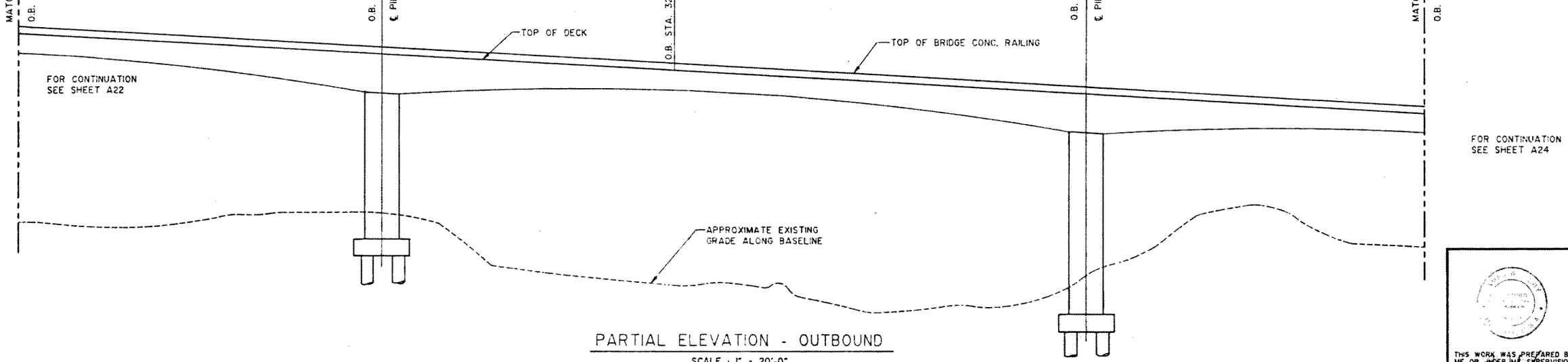
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

ORIGINAL PLAN

SURVEY PLOTTED BY ____ DATE
DRAWN BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
NOTEBOOK No. ____

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

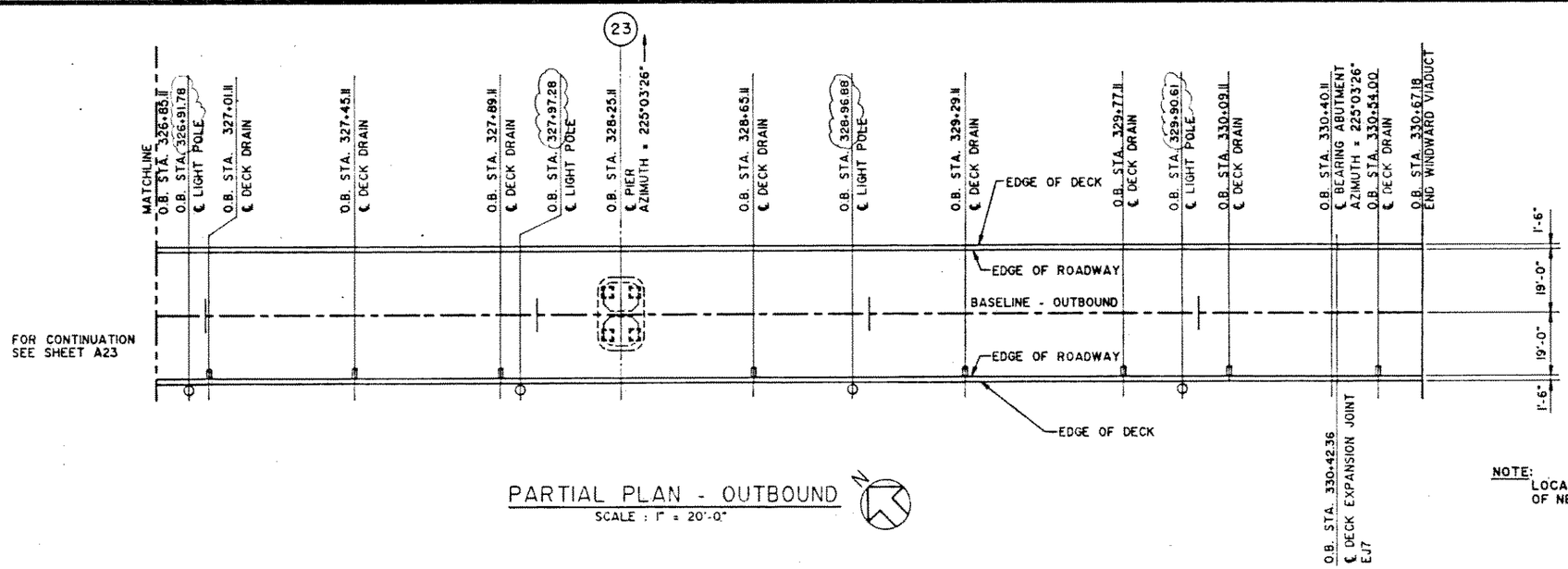
PART. DECK LAYOUT & ELEVATION

STA. 322+55.11 TO STA. 326+85.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: JUNE 1990

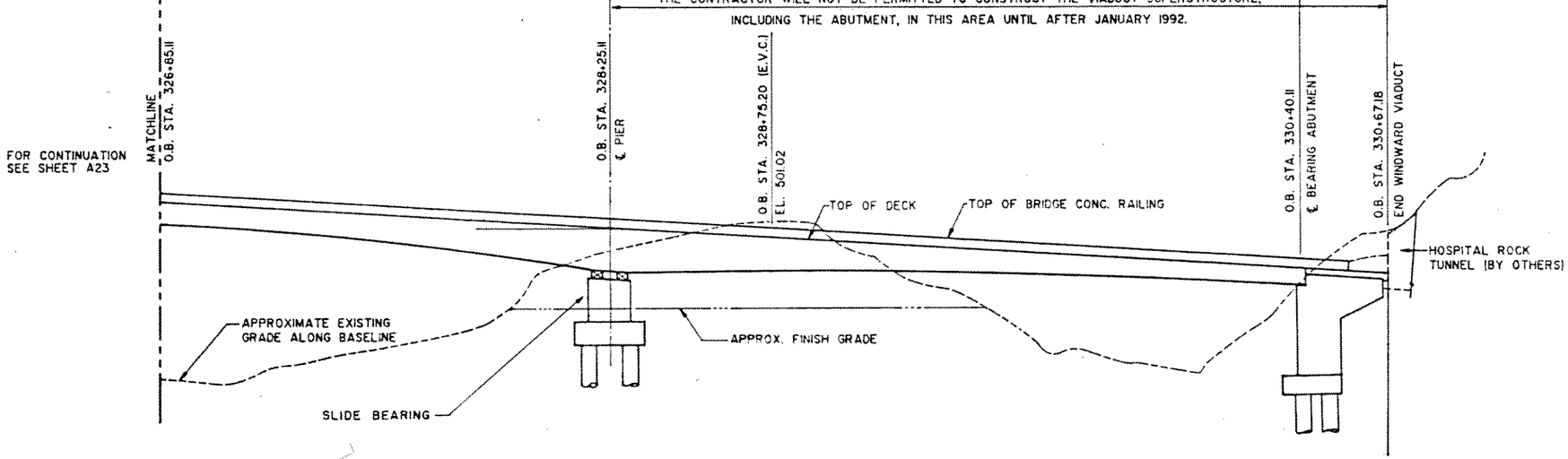
SHEET No. A23 OF 24 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		



PARTIAL PLAN - OUTBOUND
SCALE : 1" = 20'-0"

NOTE:
LOCATE ALL DECK DRAINS AT CENTERLINE OF NEAREST SEGMENT.



PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

DATE	REVISION
08/23/91	UPDATED LIGHT POLES & E.J. STA.
07/02/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK LAYOUT & ELEVATION

STA. 326+85.11 TO STA. 330+67.18
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)
SCALE: AS NOTED DATE: JUNE 1990
SHEET NO. A24 OF 24 SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTEBOOK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

FOOTING SCHEDULE

	PIER NO.	TYPE	DIMENSIONS LONGIT. FOOTING	DIMENSIONS TRANS. FOOTING	DIMENSIONS THK. FOOTING	TOP OF FOOTING ELEVATION	BOTTOM OF FOOTING ELEVATION	PILE DATA SERVICE LOAD IN KIPS	PILE DATA PILE TIP ELEVATION	REINFORCING TOP BARS LONGITUDINAL	REINFORCING TOP BARS TRANSVERSE	REINFORCING BOTTOM BARS LONGITUDINAL 'A'	REINFORCING BOTTOM BARS LONGITUDINAL 'B'	REINFORCING BOTTOM BARS TRANSVERSE
INBOUND STRUCTURE	1	I	20'-0"	32'-0"	7'-9"	695.00	687.25	2000	562.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	2	I	20'-0"	32'-0"	7'-9"	687.00	679.25	1600	594.25	44-#6@9"±	20-#6@1'-0"±	11-#10@9"±	22-#10@9"±	20x2-#14@1'-0"±
	3	I	20'-0"	32'-0"	7'-9"	677.00	669.25	1800	574.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	4	I	20'-0"	32'-0"	7'-9"	636.00	628.25	2000	508.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24x2-#14@10"±
	5	I	20'-0"	32'-0"	7'-9"	656.00	648.25	1800	579.00	38-#6@10"±	21-#6@1'-0"±	9-#11@10"±	20-#11@10"±	21x2-#14@1'-0"±
	6	I	20'-0"	32'-0"	7'-9"	606.00	598.25	2200	509.00	28-#7@1'-2"±	28-#9@9"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	28x2-#14@9"±
	7	I	20'-0"	32'-0"	7'-9"	588.00	580.25	2100	486.00	44-#7@9"±	37-#10@6±	11-#14@9"±	22-#14@9"±	19x2-#18@1'-1"±
	8	I	20'-0"	32'-0"	7'-9"	557.00	549.25	2100	460.00	28-#7@1'-2"±	19-#10@1'-1"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	19x2-#18@1'-1"±
	9	I	20'-0"	32'-0"	7'-9"	559.00	551.25	2000	456.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	10	II	35'-0"	32'-0"	12'-9"	600.00	587.25	2000	536.00	44-#6@9"±	36-#6@1'-0"	11-#11&#18@9"±	22-#11&#18@9"±	36x2-#11@1'-0"±
	11	I	20'-0"	32'-0"	7'-9"	516.00	508.25	2200	418.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	12	I	20'-0"	32'-0"	7'-9"	532.00	524.25	2000	439.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	13	I	20'-0"	32'-0"	7'-9"	530.00	522.25	2000	448.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	14	I	20'-0"	32'-0"	7'-9"	502.00	494.25	2300	406.00	31-#7@1'-0"±	23-#10@10"±	10-#14@9"±	20-#14@9"±	17x2-#18@1'-2"±
	15	I	20'-0"	32'-0"	7'-9"	442.00	434.25	2000	357.00	44-#6@9"±	28-#6@9"±	9-#14@10"±	18-#14@10"±	28x2-#14@9"±
	16	IV	SEE SHEET FT5			461.00	444.25	2900	407.00	SEE SHEET FT5 FOR PIER 16 I.B. FOOTING REINFORCING				
	17	I	20'-0"	32'-0"	7'-9"	519.00	511.25	1600	451.25	44-#6@9"±	28-#6@9"±	11-#10@9"±	22-#10@9"±	28x2-#11@9"±
	18	I	20'-0"	32'-0"	7'-9"	471.00	463.25	2100	373.25	33-#7@1'-0"±	28-#7@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#18@9"±
	19	I	20'-0"	32'-0"	7'-9"	461.00	453.25	1700	368.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#11&#14@9"±
	20	I	20'-0"	32'-0"	7'-9"	444.00	436.25	1900	346.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"	17-#14@1'0"±	28-#11&#14@9"±
	21	I	20'-0"	32'-0"	7'-9"	437.00	429.25	1800	360.25	33-#7@1'-0"±	26-#6@9"±	8-#14@1'-0"±	17-#14@1'0"±	26x2-#14@9"±
	22	I	20'-0"	32'-0"	7'-9"	406.00	398.25	1700	330.25	44-#6@9"±	26-#6@9"±	11-#11@9"±	22-#11@9"±	26-#11&#14@9"±
	23	V	36'-0"	34'-0"	7'-0"	407.00	400.00	——	——	SEE SHEET FT6 FOR PIER 23 I.B. FOUNDATION REINFORCING				
OUTBOUND STRUCTURE	1	I	20'-0"	32'-0"	7'-9"	688.00	680.25	1700	580.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	2	I	20'-0"	32'-0"	7'-9"	713.00	705.25	1900	605.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	3	I	20'-0"	32'-0"	7'-9"	675.00	667.25	2300	552.25	44-#6@9"±	28-#7@9"±	8-#14@1'-0"±	16-#14@1'-0"±	26X2-#14@9"±
	4	I	20'-0"	32'-0"	7'-9"	661.00	653.25	2100	503.25	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	5	I	20'-0"	32'-0"	7'-9"	705.00	697.25	1600	623.00	44-#6@9"±	20-#6@1'-0"±	11-#10@9"±	22-#10@9"±	20X2-#14@1'-0"±
	6	I	20'-0"	32'-0"	7'-9"	628.00	620.25	2300	556.00	36-#6@11"±	28-#6@9"±	9-#14@11"±	18-#14@11"±	28X2-#14@9"±
	7	I	20'-0"	32'-0"	7'-9"	606.00	598.25	2000	524.00	28-#7@1'-2"±	19-#10@1'-1"±	7x2-#11@1'-2"±	14x2-#11@1'-2"±	19X2-#18@1'-1"±
	8	I	20'-0"	32'-0"	7'-9"	569.00	561.25	2100	512.00	44-#7@9"±	38-#9@6"±	11-#14@9"±	22-#14@9"±	19X2-#18@1'-1"±
	9	I	20'-0"	32'-0"	7'-9"	570.00	562.25	1900	488.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	10	III	44'-9"	32'-0"	14'-9"	642.00	627.25	2100	587.00	SEE SHEET FT4 FOR PIER 10 O.B. FOOTING REINFORCING				
	11	I	20'-0"	32'-0"	7'-9"	536.00	528.25	2300	444.00	33-#6@11"±	28-#6@9"±	8-#14@11"±	17-#14@1'-1"±	28-#18@9"±
	12	I	20'-0"	32'-0"	7'-9"	555.00	547.25	1900	463.00	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#10&#14@9"±
	13	I	20'-0"	32'-0"	7'-9"	558.00	550.25	2250	465.25	44-#6@9"±	24-#7@10"±	8-#14@1'-0"±	16-#14@1'-0"±	28X2-#14@9"±
	14	I	20'-0"	32'-0"	7'-9"	520.00	512.25	2100	432.25	44-#6@9"±	20-#10@1'-0"±	10-#14@9 1/2"±	20-#14@9 1/2"±	20x3-#14@1'-0"±
	15	I	20'-0"	32'-0"	7'-9"	463.00	455.25	1600	395.25	44-#6@9"±	24-#7@10"±	8-#14@11"±	19-#14@11"±	24X3-#14@10"±
	16	I	20'-0"	32'-0"	7'-9"	489.00	481.25	2000	441.25	44-#6@9"±	24-#7@10"±	8-#14@11"±	19-#14@11"±	24X3-#14@10"±
	17	I	20'-0"	32'-0"	7'-9"	551.00	543.25	2000	463.25	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	18	I	20'-0"	32'-0"	7'-9"	490.00	482.25	2000	397.25	44-#6@9"±	28-#6@9"±	11-#11@9"±	22-#11@9"±	28-#11&#14@9"±
	19	I	20'-0"	32'-0"	7'-9"	476.00	468.25	1600	388.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"±	17-#14@1'-0"±	28-#18@9"±
	20	I	20'-0"	32'-0"	7'-9"	458.00	450.25	2000	370.25	33-#7@1'-0"±	28-#6@9"±	8-#14@1'-0"±	17-#14@1'-0"±	28x2-#14@9"±
	21	I	20'-0"	32'-0"	7'-9"	460.00	452.25	1800	360.00	44-#6@9"±	24-#7@10"±	11-#11@9"±	22-#11@9"±	24X2-#14@10"±
	22	I	20'-0"	32'-0"	7'-9"	432.00	424.25	1700	352.00	38-#7@10"±	20-#7@1'-0"±	10-#11@10"±	18-#11@10"±	20X2-#14@1'-0"±
	23	I	20'-0"	32'-0"	7'-9"	475.00	467.25	1700	424.00	38-#7@10"±	20-#7@1'-0"±	10-#11@10"±	18-#11@10"±	20X2-#14@1'-0"±

NOTES:

1. ALL EXCAVATION AND DRILLING OPERATIONS FOR FOUNDATIONS SCHEDULED ON THIS SHEET SHALL BE MONITORED BY THE ENGINEER.
2. EXCEPT AS NOTED, THESE NOTES PERTAIN ONLY TO THE PILES AND FOOTINGS SCHEDULED ON THIS SHEET.
3. BOTTOM OF EXCAVATIONS AND HOLES FOR CAST-IN-DRILLED-HOLE PILES SHALL BE CLEARED OF DEBRIS AND LOOSE MATERIAL PRIOR TO PLACING REINFORCING STEEL OR CONCRETE.
4. BOTTOM OF EXCAVATIONS AND HOLES FOR CAST-IN-DRILLED-HOLE PILES SHALL BE FREE OF WATER PRIOR TO PLACING REINFORCING STEEL OR CONCRETE.
5. BOTTOM OF FOOTING AND PILE TIP ELEVATIONS SHALL BE VERIFIED BY THE ENGINEER PRIOR TO PLACING CONCRETE.
6. EACH PIER LOCATION SHALL BE EXPLORED BY DRILLING AT LEAST ONE BORING TO VERIFY SOIL/ROCK CONDITIONS AND TO DETERMINE THE TYPE OF PILE (FRICTION OR END BEARING IN ROCK) APPLICABLE FOR THAT LOCATION.
7. CONCRETE SHALL NOT BE PLACED WITHOUT APPROVAL OF THE ENGINEER.
8. PILE LOAD TESTS SHALL BE PERFORMED AT PIERS IP2, OP3, IP7, OP11, IP19 AND IP14. REACTION PILES ARE LOCATED AS SHOWN ON SHEET FT2.
9. THE FOUR CORNERS AND THE CENTER OF EACH SPREAD FOOTING SHALL BE PROBED TO A DEPTH OF 10 FEET MINIMUM BELOW THE BOTTOM OF FOOTING ELEVATION. LIMITS OF CAVITIES ENCOUNTERED SHALL BE FULLY IDENTIFIED AND FILLED WITH CLASS 'D' CONCRETE.
10. SEE SPECIAL PROVISIONS SECTION 206 - EXCAVATION AND BACKFILL FOR CONDUITS AND STRUCTURES. SEE SPECIAL PROVISIONS SECTION 209 - MECHANICALLY STABILIZED SLOPES.
11. PILE TIP ELEVATIONS SHOWN ON THIS SCHEDULE OR ON THE ABUTMENT SHEET ARE ESTIMATED ELEVATIONS. THE ACTUAL PILE TIP ELEVATIONS WILL BE DETERMINED BY THE ENGINEER, BASED ON THE RESULTS OF THE BORING PROGRAM AND THE LOAD TEST PROGRAM.
12. END BEARING PILES IN ROCK:
    A. END BEARING PILES SHALL EXTEND A MINIMUM OF FIVE FEET INTO BEDROCK. THE DEPTH OF ROCK MATERIAL SHALL BE CONFIRMED AT END BEARING PILE LOCATIONS.
    B. THE ROCK SHALL BE EXPLORED AT EACH PILE LOCATION TO A DEPTH EQUAL TO THE SCHEDULED DEPTH PLUS THREE PILE DIAMETERS, OR AS DIRECTED BY THE ENGINEER.
    C. IF TEST RESULTS INDICATE THE BEARING STRATUM IS NOT ADEQUATE, THE ENGINEER SHALL BE NOTIFIED.
13. CONSTRUCTION OF CAST-IN-DRILLED-HOLE PILES SHALL COMPLY WITH THE "STANDARDS AND SPECIFICATIONS FOR THE FOUNDATION DRILLING INDUSTRY", REVISED NOV. 1988, BY ADSC: THE INTERNATIONAL ASSOCIATION OF FOUNDATION DRILLING.
14. SHAFTS WITHIN THREE DIAMETERS OF AN ADJACENT SHAFT SHALL NOT BE DRILLED WITHIN 8 HOURS OF COMPLETION OF CONCRETING OF THE ADJACENT SHAFT.
15. TOLERANCES:
    A. PLAN DIMENSION: THE TOP OF CAST-IN-DRILLED-HOLE PILES SHALL NOT BE MORE THAN THREE INCHES FROM THE LOCATION SHOWN IN PLAN.
    B. PLUMB: VERTICAL ALIGNMENT SHALL NOT VARY BY MORE THAN 2 PERCENT FROM THE ALIGNMENT SHOWN.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 2376 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
9/06/91	REVISED PIER 14 O.B.
1/16/91	REVISE PIER 22 I.B.
12/13/90	ADD PIERS 21-23 I.B.
12/10/90	ADD PIERS 17-20I.B.&O.B.
12/05/90	ADD PIERS 17-23 O.B.
10/25/90	REVISED PIERS 13-16 I.B. & 11,13-16 O.B.
10/17/90	REVISED PIERS 14,15 AND 16.
9/26/90	ADD PIERS 9-16 O.B. & CHANGE PIER 10 I.B. & PIER 6 I.B.
9/14/90	ADD PIERS 9,10&12 I.B.
8/30/90	ADD PILES-PIER 11 O.B. AND I.B.
6/29/90	ADD PIERS 5 & 6, ADD REINFORCING PIERS 5,6,7 & 8.
6/22/90	ADD PIERS 7,8 I.B.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

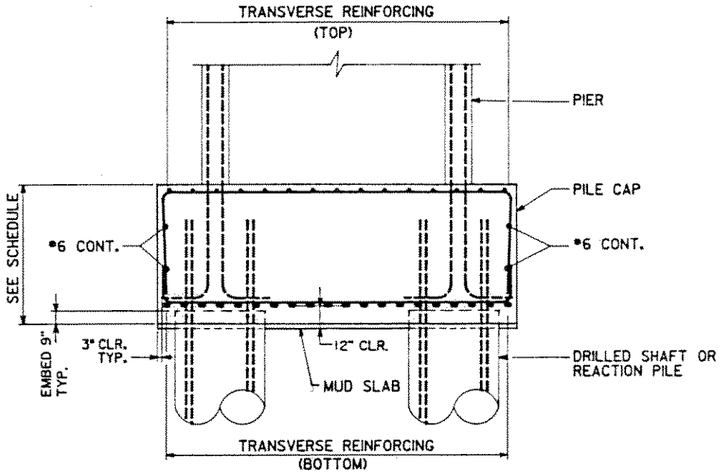
FOOTING SCHEDULE & NOTES

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

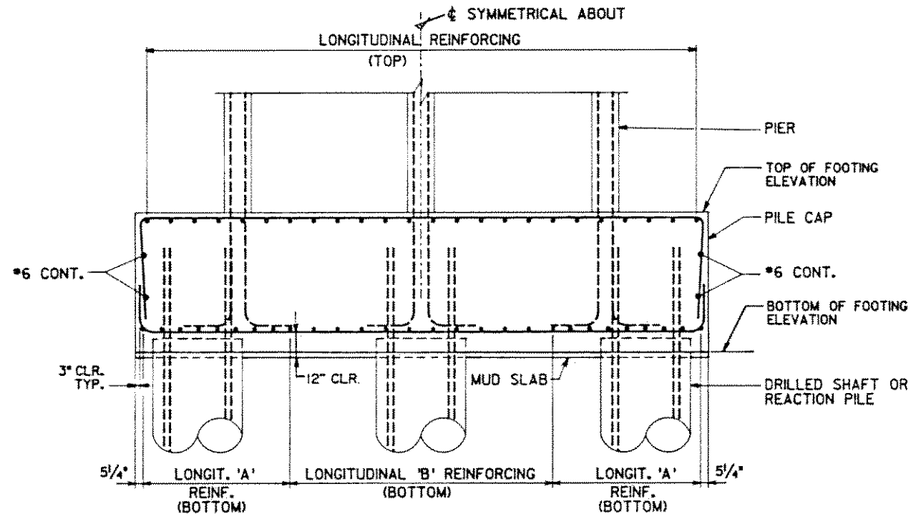
SHEET No. FT1 OF SHEETS

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

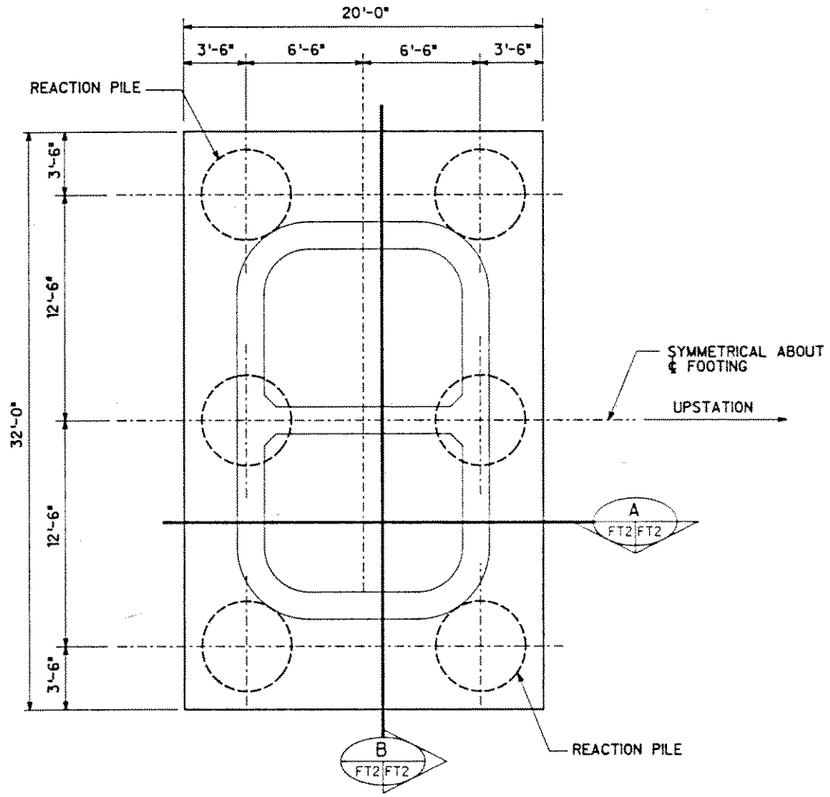
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 1/4" = 1'-0"



SECTION B
SCALE : 1/4" = 1'-0"



PILE CAP TYPE I
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAP REINFORCING SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. SPLICES IN PILE CAP REINFORCEMENT SHALL NOT BE PERMITTED.

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2275 — HAWAII, U.S.A.

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DATE | REVISION

J. MULLER INTERNATIONAL | Libby Engineers

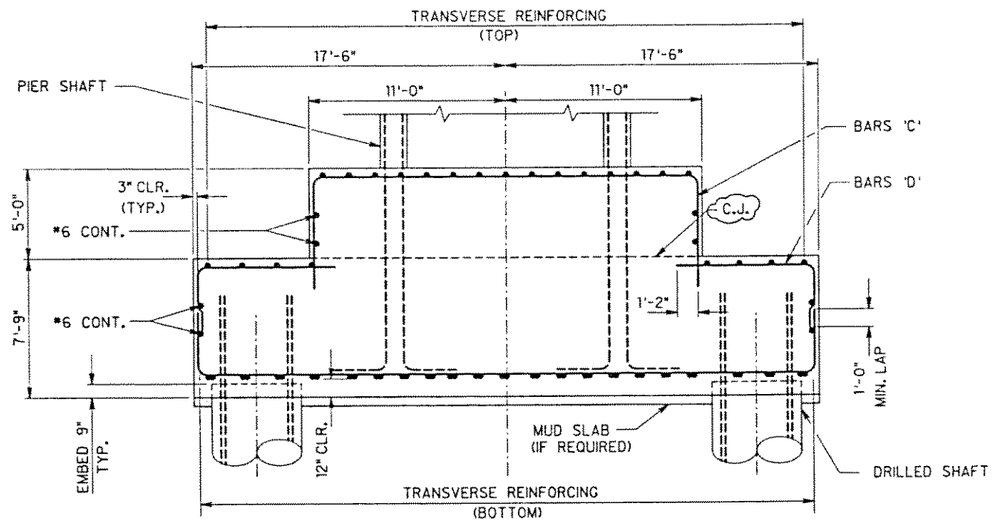
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PILE CAP REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

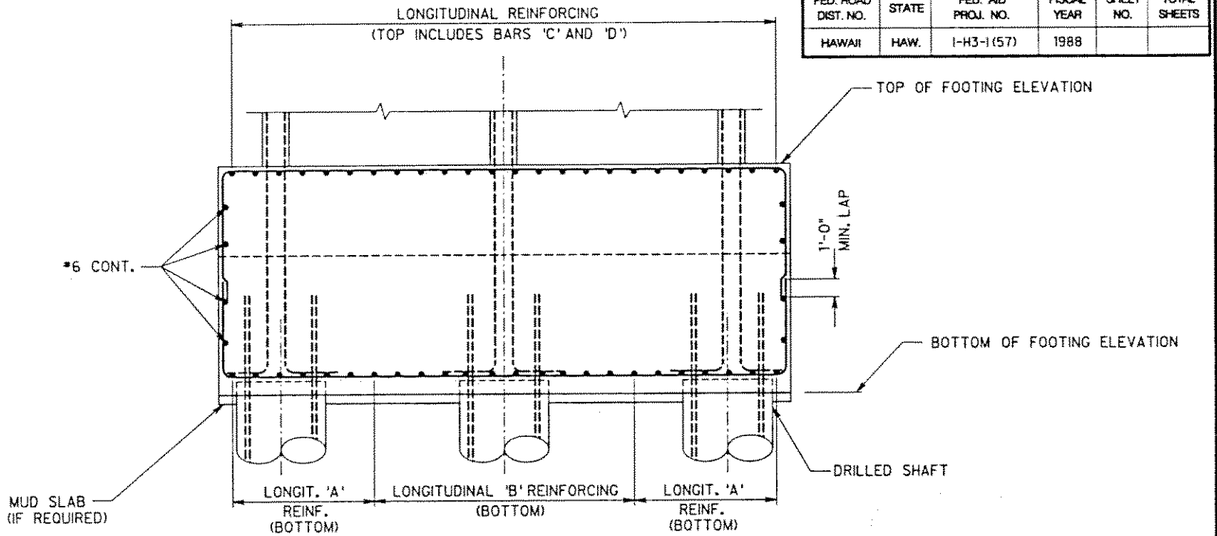
SHEET No. FT2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



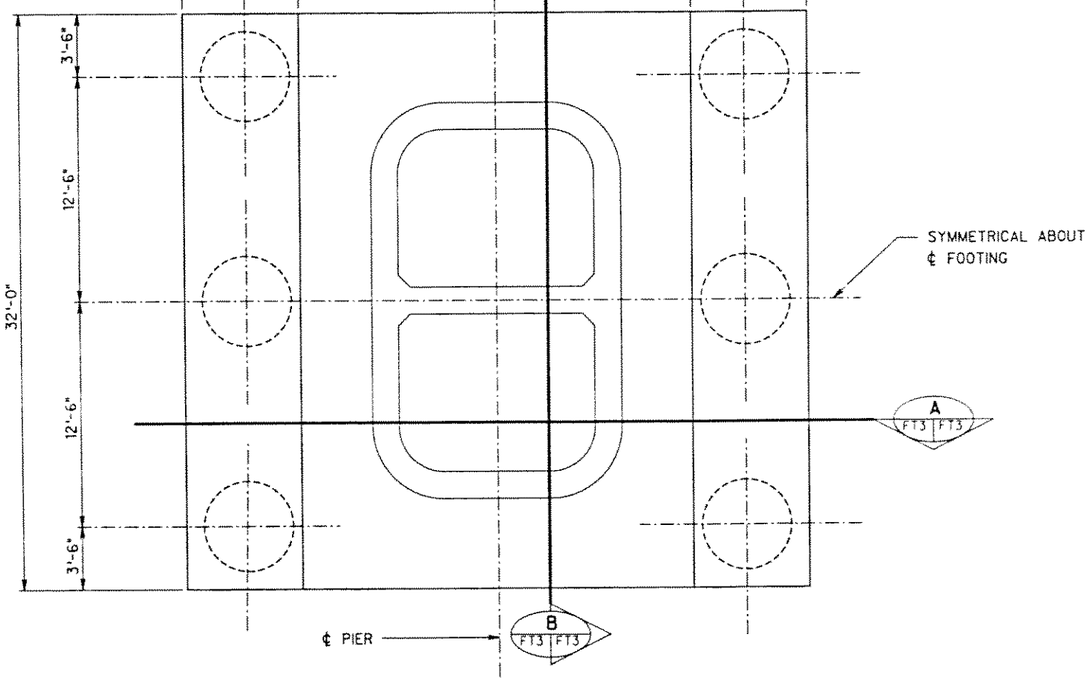
SECTION A (FT3 | FT3)

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



SECTION B (FT3 | FT3)

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



PILE CAP TYPE II

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

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAP REINFORCING SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT INBOUND PIER 10 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS PLACED MOISTURE CONTENT.
9. CONSTRUCTION JOINT (C.J.) SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4".

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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

DATE	REVISION
12/10/90	UPDATED DRAWING.
10/03/90	UPDATED DRAWING.

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STATE OF HAWAII
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HIGHWAYS DIVISION

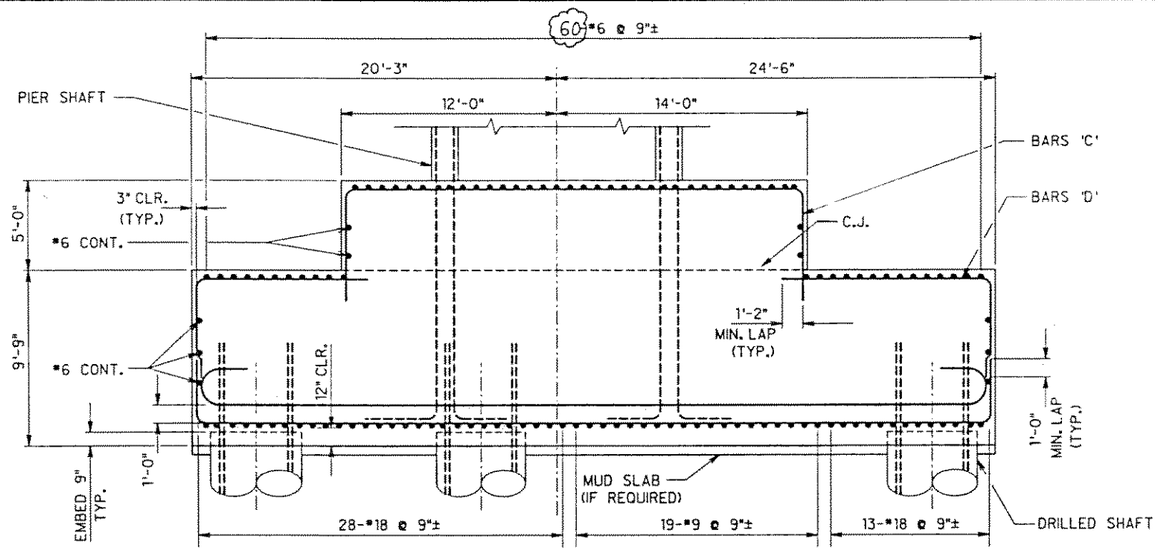
PILE CAP REINFORCING
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : SEP. 1990

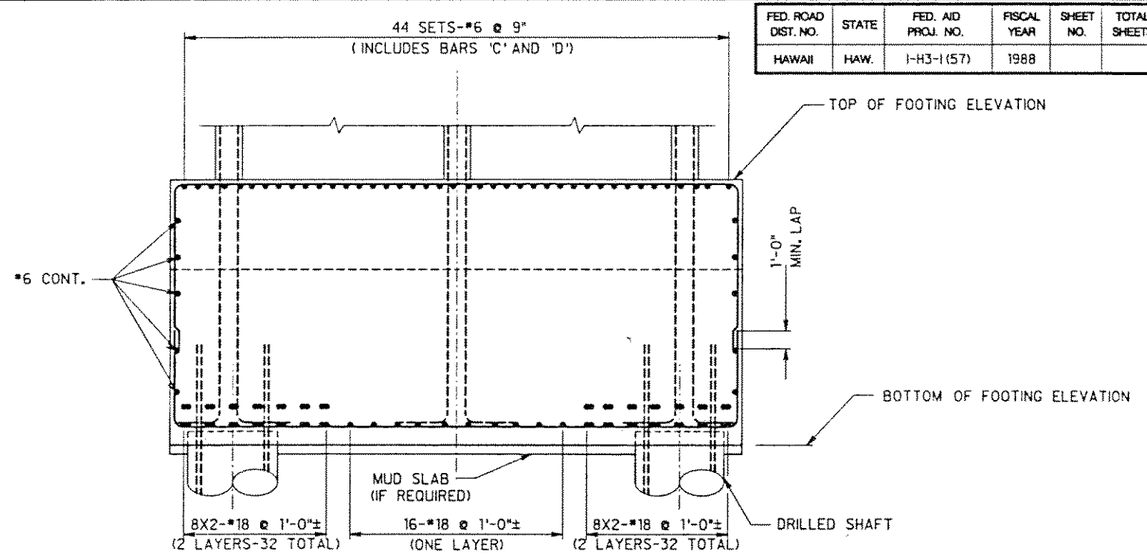
SHEET No. FT3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



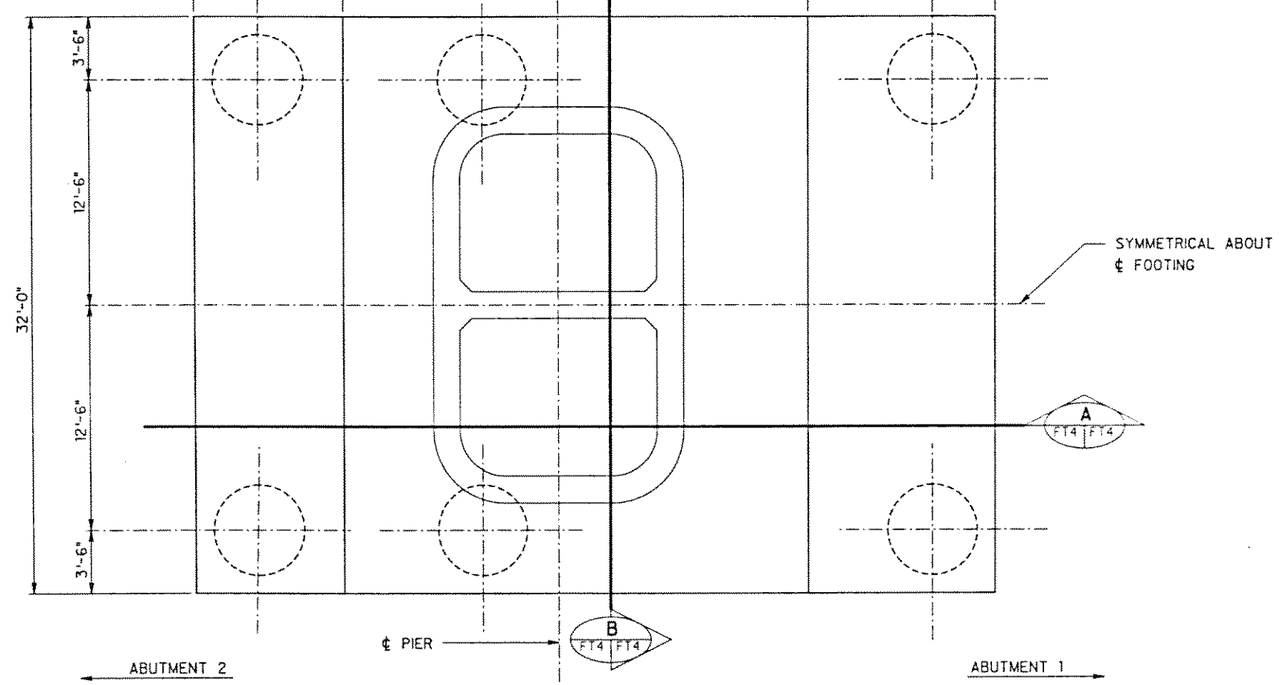
SECTION A (FT4 | FT4)

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



SECTION B (FT4 | FT4)

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



PILE CAP TYPE III

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

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 5'-0" PILE REINFORCING AND DETAILS SEE SHEET P1.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEET PS1 AND PS2.
6. FOR PILE CAPACITIES AND FOOTING ELEVATIIONS SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT OUTBOUND PIER 10 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS PLACED MOISTURE CONTENT.
9. CONSTRUCTION JOINT (C.J.) SHALL BE ROUGHENED TO A FULL AMPLITUDE OF 1/4".

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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DATE	REVISION
12/10/90	UPDATED DRAWING.
10/03/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

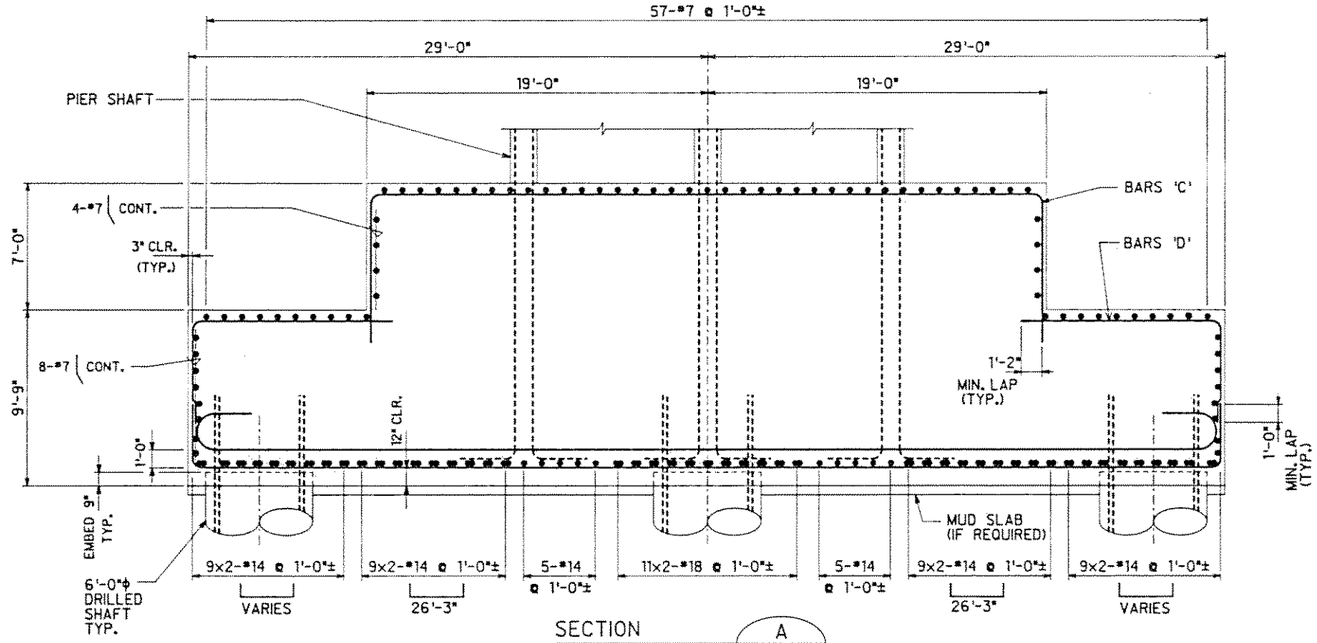
PILE CAP REINFORCING
TYPE III

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

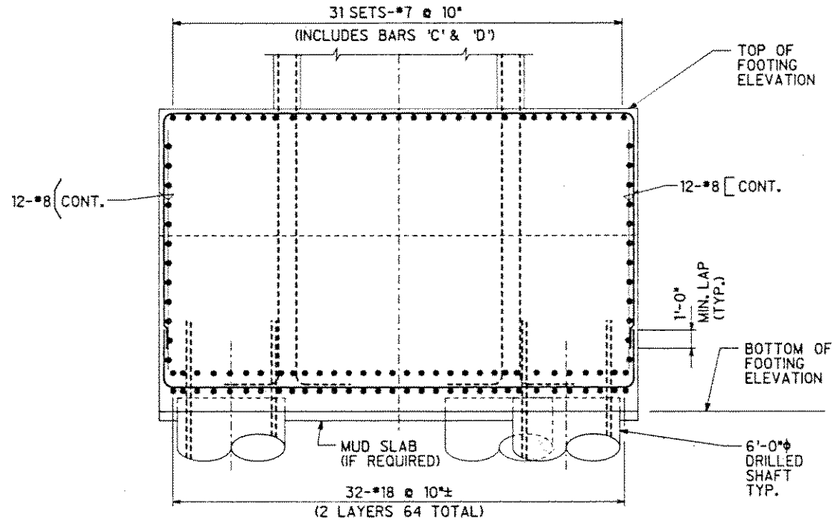
SHEET No. FT4 OF SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

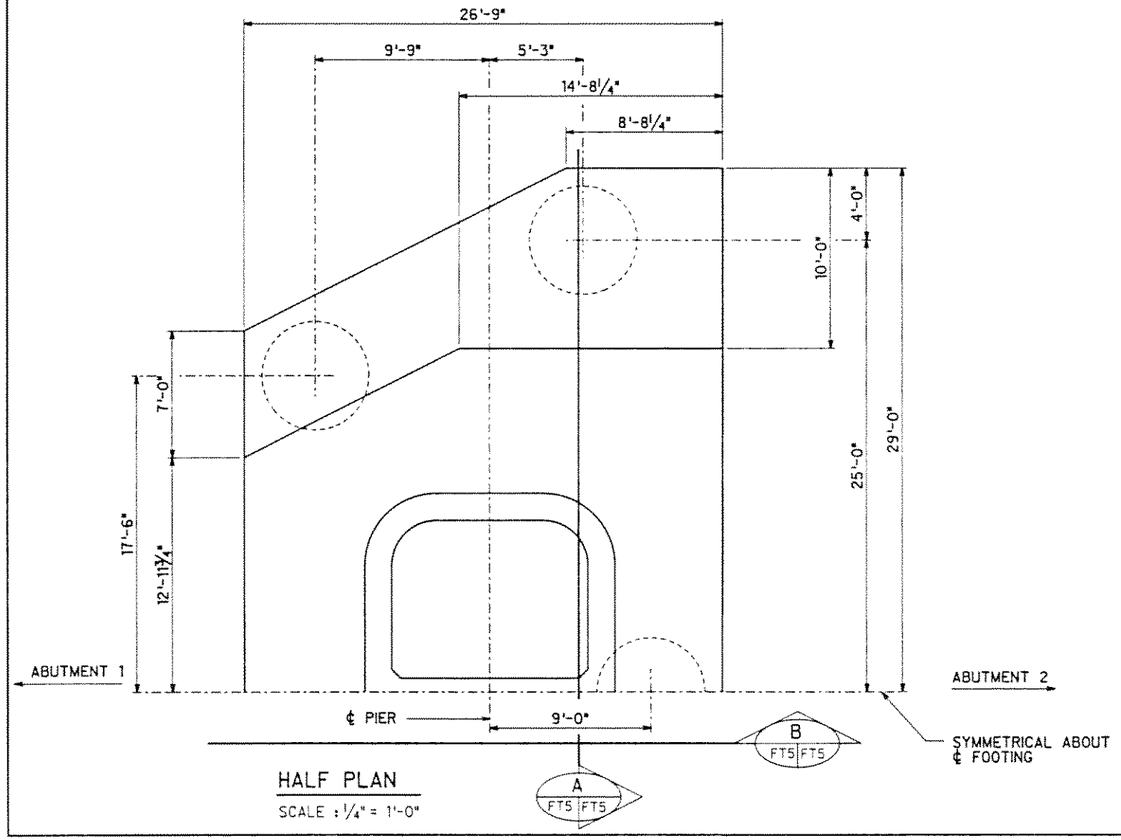
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 1/4" = 1'-0"
FT5 | FT5



SECTION B
SCALE : 1/4" = 1'-0"
FT5 | FT5



HALF PLAN
SCALE : 1/4" = 1'-0"

NOTES:

1. PILE CAP CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE PILE, PILE CAP AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR 6'-0" PILE REINFORCING AND DETAILS SEE SHEET P2.
5. FOR PIER SHAFT REINFORCING (INCLUDING PILE CAP DOWELS) SEE SHEETS PS1 AND PS2.
6. FOR PILE CAPACITIES AND FOOTING ELEVATIONS SEE SHEET FT1.
7. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
8. THE HARD ROCK DIKE AT INBOUND PIER 16 SHALL BE EXCAVATED TO A DEPTH OF AT LEAST ONE FOOT BELOW BOTTOM OF PILE CAP. THE EXCAVATION SHALL BE BACKFILLED WITH ON-SITE SOIL PLACED AT A MOISTURE CONTENT OF UP TO 65 PERCENT. THE SOIL SHOULD BE COMPACTED TO 95 PERCENT OF THE MODIFIED PROCTOR DRY DENSITY AT THE AS-PLACED MOISTURE CONTENT.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
NO. 7375
HAWAII, U.S.A.

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DATE	REVISION
11/29/90	GENERAL

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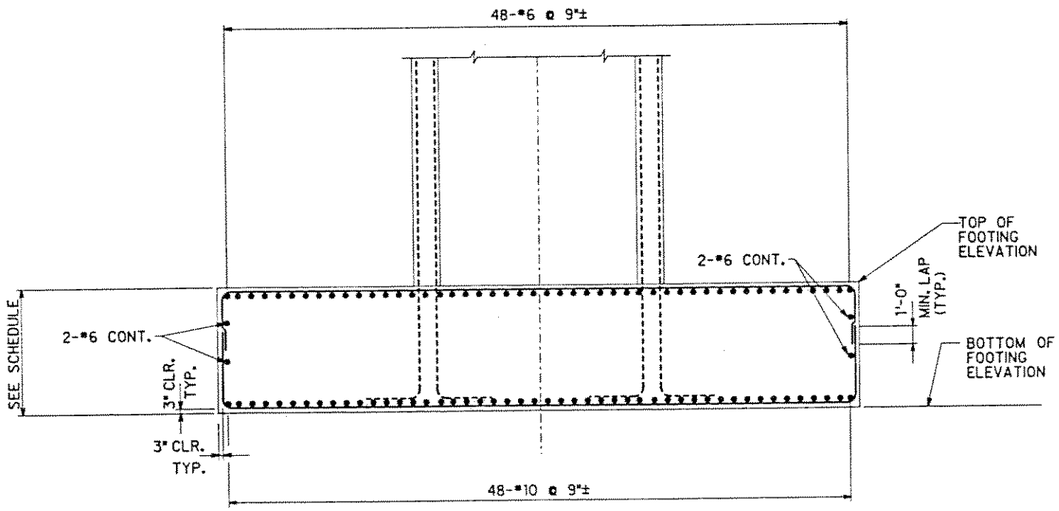
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PILE CAP REINFORCING
TYPE IV

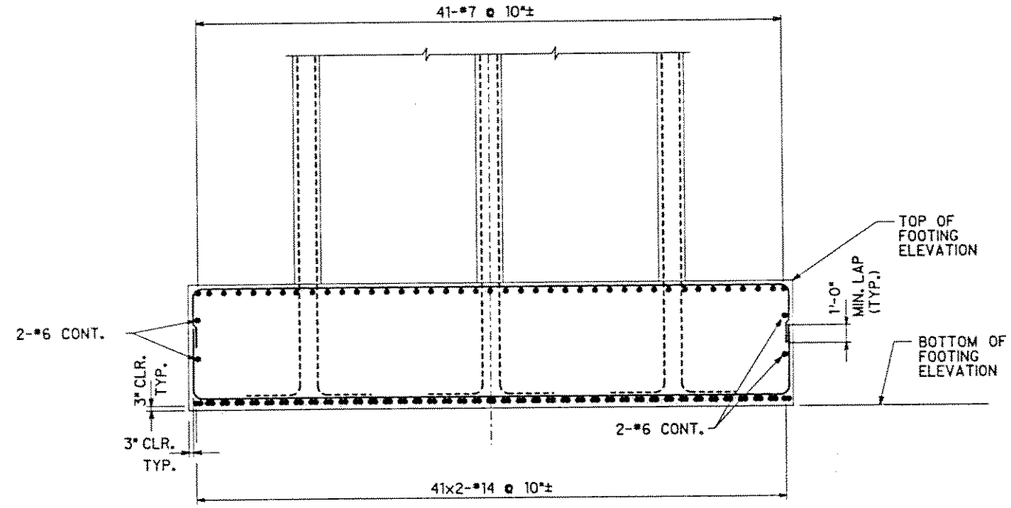
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : OCT. 1990

FT5

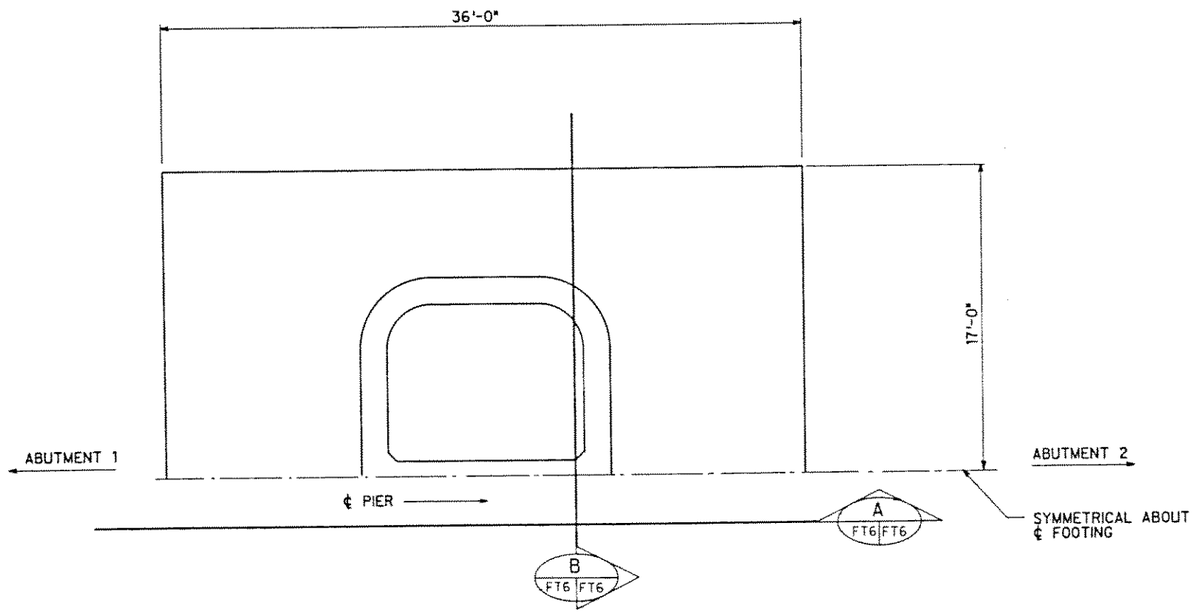
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 1/4" = 1'-0"
FT6 | FT6



SECTION B
SCALE : 1/4" = 1'-0"
FT6 | FT6



HALF PLAN
SCALE : 1/4" = 1'-0"

NOTES:

1. FOUNDATION CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
2. REINFORCING SHALL BE ASTM A615, GRADE 60.
3. THE CONTRACTOR SHALL COORDINATE FOUNDATION AND PIER SHAFT REINFORCING STEEL TO AVOID CONFLICTS.
4. FOR PIER SHAFT REINFORCING (INCLUDING FOUNDATION DOWELS) SEE SHEETS PS1 AND PS2.
5. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
6. SPLICES IN FOUNDATION REINFORCEMENT SHALL NOT BE PERMITTED.

JAMES A. LIBBY
REGISTERED PROFESSIONAL ENGINEER
NO. 2375
HAWAII, U.S.A.

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DATE	REVISION

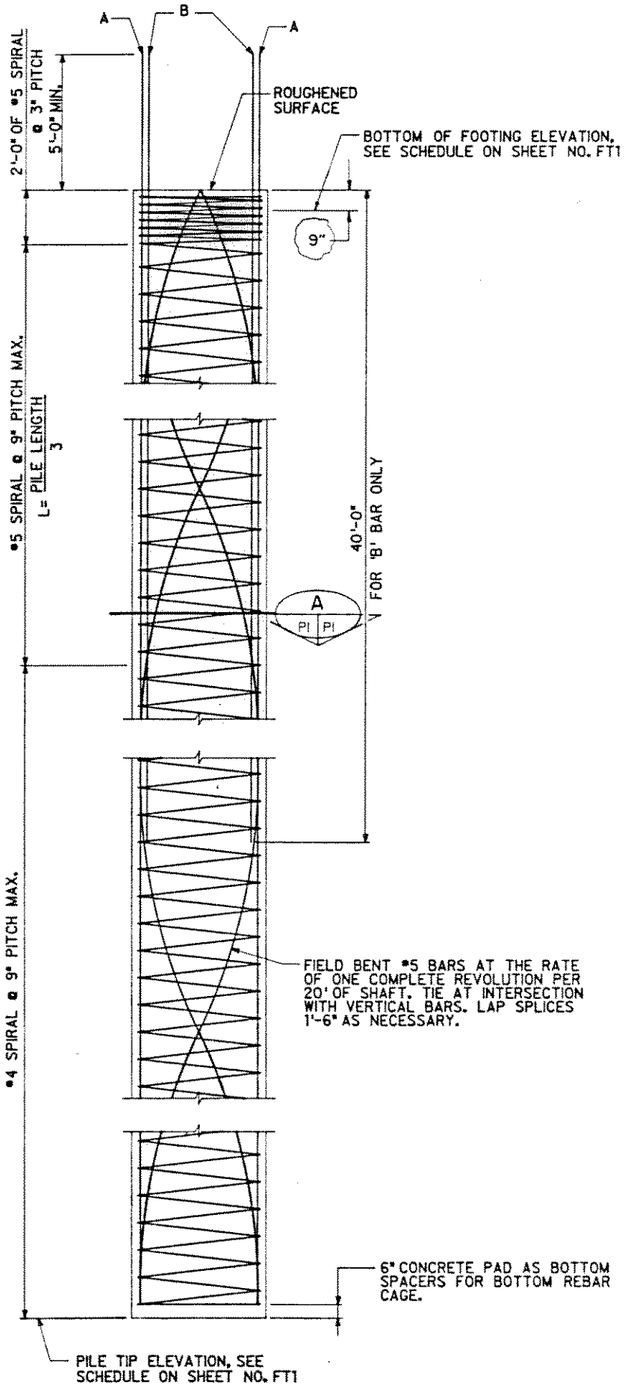
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FOUNDATION REINFORCING
TYPE V

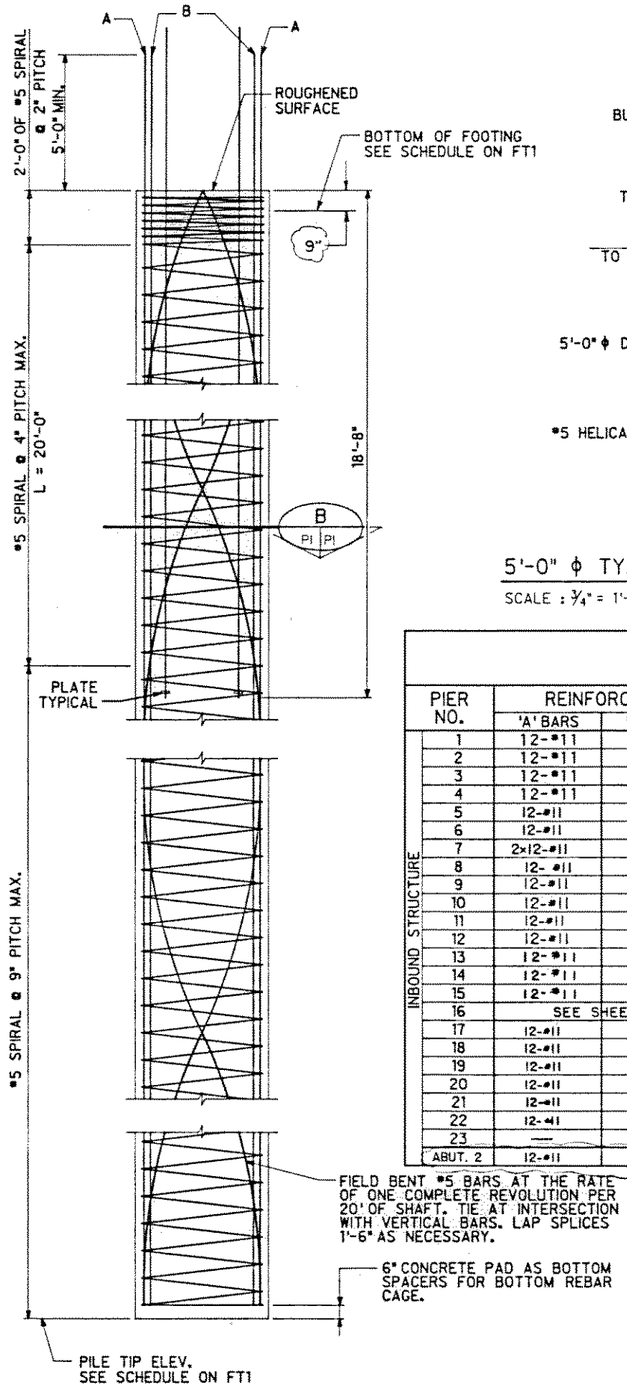
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : DEC. 1990
SHEET NO. FT6 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



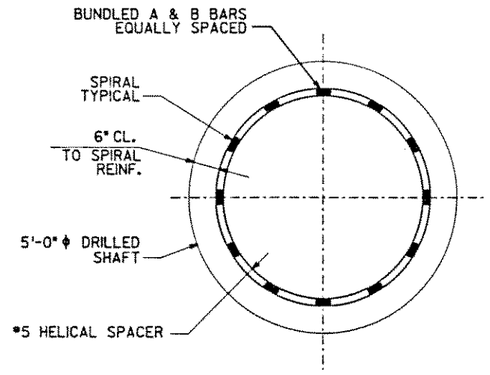
5'-0" ϕ TYPICAL PILE ELEVATION

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



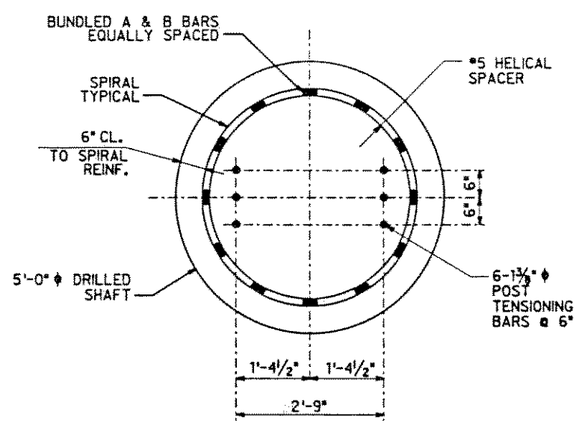
5'-0" ϕ REACTION PILE ELEVATION

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



5'-0" ϕ TYPICAL PILE SHAFT REINFORCING (A, P1 | P1)

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



5'-0" ϕ TYPICAL REACTION PILE REINFORCING (B, P1 | P1)

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

PILE SCHEDULE

	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS
INBOUND STRUCTURE	1	12-#11	12-#11	1	12-#11	12-#11
	2	12-#11	12-#11	2	12-#11	12-#11
	3	12-#11	12-#11	3	12-#11	12-#11
	4	12-#11	12-#11	4	12-#11	12-#11
	5	12-#11	12-#11	5	12 - #11	12 - #11
	6	12-#11	12-#14	6	12 - #11	12 - #11
	7	2×12-#11	12-#11	7	12 - #11	12 - #11
	8	12- #11	12- #11	8	12 - #11	12 - #14
	9	12-#11	—	9	12 - #11	—
	10	12-#11	—	10	12 - #11	12 - #11
	11	12-#11	12-#11	11	12 - #11	12 - #11
	12	12-#11	—	12	12 - #11	—
	13	12-#11	12-#11	13	12-#11	12-#11
	14	12-#11	12-#11	14	12-#11	12-#11
	15	12-#11	12-#11	15	12-#11	12-#11
	16	SEE SHEET P2		16	12-#11	12-#11
	17	12-#11	12-#11	17	12-#11	—
	18	12-#11	2×12-#11	18	12-#11	12-#14
	19	12-#11	12-#14	19	12-#11	12-#11
	20	12-#11	12-#14	20	12-#11	12-#11
	21	12-#11	12-#11	21	12-#11	12-#14
	22	12-#11	12-#11	22	12-#11	12-#14
	23	—	—	23	12-#11	12-#11
	ABUT. 2	12-#11	12-#11	ABUT. 2	12-#11	12-#11

NOTES:

1. BARS SHALL NOT BE SPLICED WITHIN 30 FEET OF THE BOTTOM OF THE PILE CAP.
2. NOT MORE THAN ONE HALF OF THE BARS SHALL BE SPLICED WITHIN ONE SPLICE LENGTH. SPLICED BARS SHALL ALTERNATE WITH CONTINUOUS BARS.
3. LAP LENGTH FOR LONGITUDINAL BARS SHALL BE 6'-1" MINIMUM.
4. LAP LENGTH FOR TRANSVERSE REINFORCEMENT SHALL BE 48 BAR DIAMETERS OR 12 INCHES MINIMUM.
5. CONCRETE SPACER BLOCKS SHALL BE USED TO MAINTAIN PROPER POSITION AND CLEARANCES TO THE REINFORCING BARS.
6. PILE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS OF AGE.
7. REINFORCING SHALL BE ASTM A615, GRADE 60.
8. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
9. BAR SIZE #14 SHALL NOT BE LAP SPLICED. IF MECHANICAL SPLICES ARE USED, THEY SHALL DEVELOP NOT LESS THAN 90% OF THE SPECIFIED ULTIMATE TENSILE STRENGTH OF THE REINFORCING.
10. 2×12 #XX INDICATES 12 2-BAR BUNDLES.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — NO. 2378 — HAWAII, U.S.A.

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DATE	REVISION
07/02/91	ADDED ABUTMENT 2.
12/13/90	ADD PIERS 21 & 22 I.B.
12/10/90	ADD PIERS 17,18,19 & 20 I.B.& O.B.
12/05/90	ADD PIERS 21,22&23 O.B.
10/25/90	ADD PIER 16 I.B.
9/26/90	ADD PIERS 9,10&12 O.B.
9/14/90	ADD PIERS 9,10&12 I.B.
8/30/90	ADD PIER 11 O.B. AND I.B.
06/29/90	ADD PIERS 5 & 6
06/22/90	ADD PIERS 7,8 I.B.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

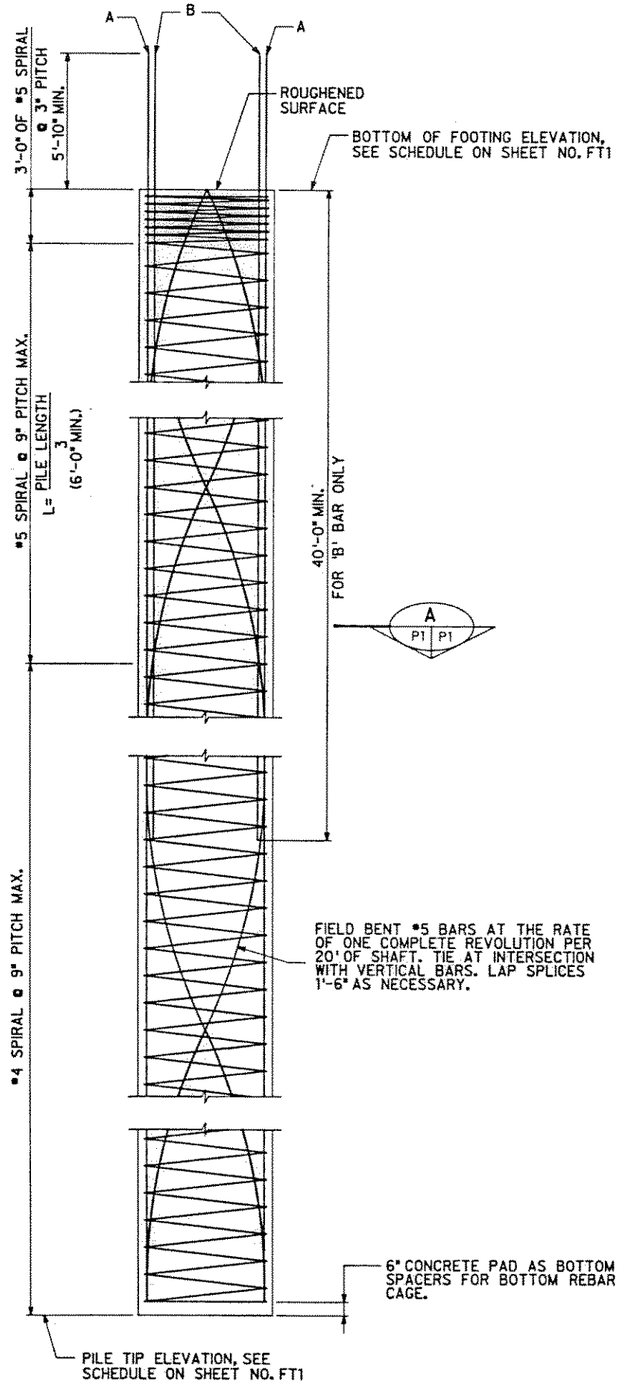
5'-0" PILE DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

SHEET No. P1 OF SHEETS

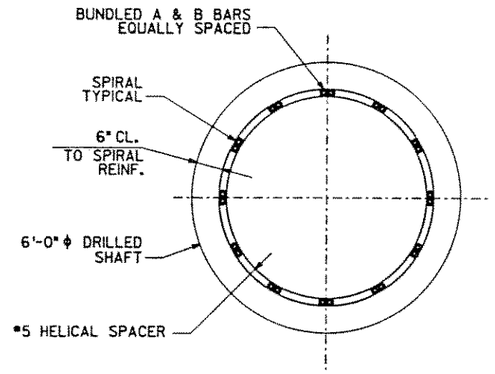
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



6'-0" ϕ TYPICAL PILE ELEVATION

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



6'-0" ϕ TYPICAL PILE SHAFT REINFORCING

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

A
P1 P1

PILE SCHEDULE

	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS	PIER NO.	REINFORCING 'A' BARS	REINFORCING 'B' BARS
INBOUND STRUCTURE	16	12-#11	2x12-#11	OUTBOUND STRUCTURE		

NOTES:
FOR PILE NOTES SEE SHEET P1

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7375 HAWAII, U.S.A.

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DATE	REVISION
11/29/90	GENERAL

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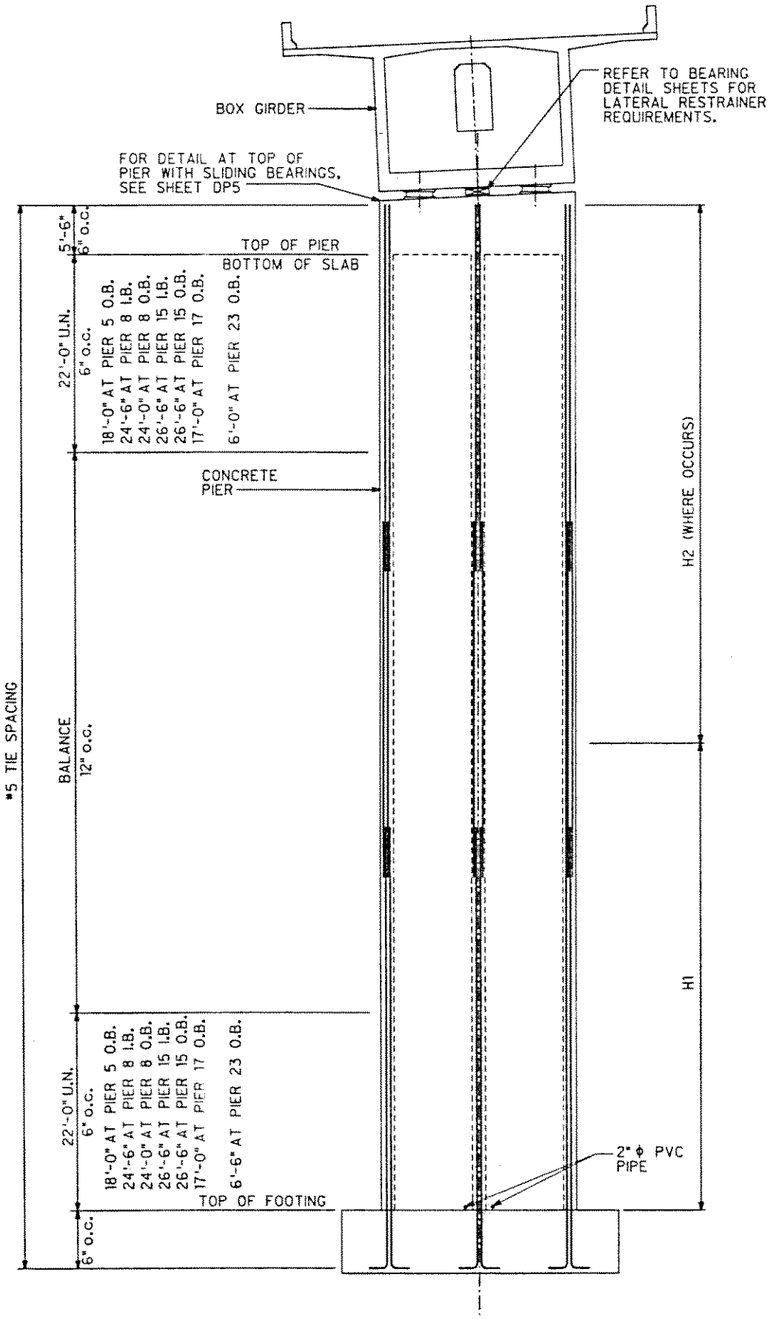
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

6'-0" PILE DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : OCT. 1990

SHEET NO. P2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

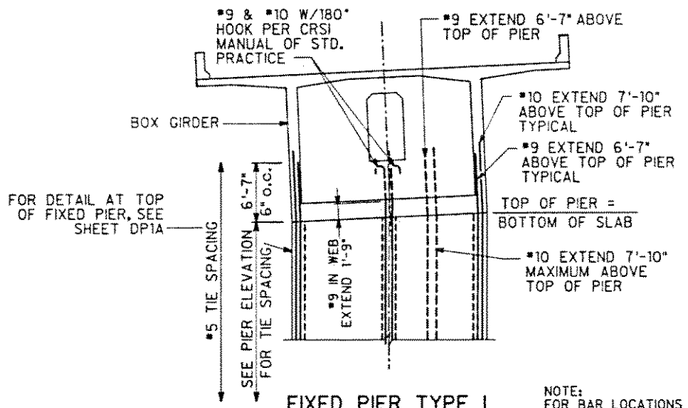


PIER ELEVATION

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

PIER NO. INBOUND	H1	REFERENCE SECTION	H2	REFERENCE SECTION	CONNECTION CONDITION	PIER SEGMENT TYPE
1	FULL HT.	A/PS2	N/A		FIXED	I
2	FULL HT.	A/PS2	N/A		FIXED	I
3	FULL HT.	A/PS2	N/A		FIXED	I
4	FULL HT.	A/PS2	N/A		SLIDING	I
5	FULL HT.	A/PS2	N/A		SLIDING	I
6	FULL HT.	A/PS2	N/A		FIXED	II
7	110'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
8	FULL HT.	A/PS2	N/A		SLIDING	II
9	FULL HT.	A/PS2	N/A		FIXED	II
10	FULL HT.	A/PS2	N/A		FIXED	II
11	FULL HT.	A/PS2	N/A		FIXED	II
12	FULL HT.	A/PS2	N/A		SLIDING	II
13	FULL HT.	A/PS2	N/A		SLIDING	II
14	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
15	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
16	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
17	FULL HT.	A/PS2	N/A		SLIDING	II
18	FULL HT.	A/PS2	N/A		FIXED	II
19	FULL HT.	A/PS2	N/A		FIXED	II
20	FULL HT.	A/PS2	N/A		FIXED	II
21	FULL HT.	A/PS2	N/A		FIXED	II
22	65'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
23	FULL HT.	A/PS2	N/A		SLIDING	II

PIER NO. OUTBOUND	H1	REFERENCE SECTION	H2	REFERENCE SECTION	CONNECTION CONDITION	PIER SEGMENT TYPE
1	FULL HT.	A/PS2	N/A		FIXED	I
2	FULL HT.	A/PS2	N/A		FIXED	I
3	FULL HT.	A/PS2	N/A		FIXED	I
4	FULL HT.	A/PS2	N/A		SLIDING	I
5	FULL HT.	A/PS2	N/A		SLIDING	I
6	FULL HT.	A/PS2	N/A		FIXED	II
7	90'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
8	FULL HT.	A/PS2	N/A		SLIDING	II
9	FULL HT.	A/PS2	N/A		FIXED	II
10	28'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
11	FULL HT.	A/PS2	N/A		FIXED	II
12	FULL HT.	A/PS2	N/A		SLIDING	II
13	FULL HT.	A/PS2	N/A		SLIDING	II
14	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
15	FULL HT.	A/PS2	N/A		FIXED	II
16	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
17	FULL HT.	A/PS2	N/A		SLIDING	II
18	FULL HT.	A/PS2	N/A		FIXED	II
19	FULL HT.	A/PS2	N/A		FIXED	II
20	FULL HT.	A/PS2	N/A		FIXED	II
21	40'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
22	50'	A/PS2	BALANCE OF PIER HT.	B/PS2	FIXED	II
23	FULL HT.	A/PS2	N/A		SLIDING	II



FIXED PIER TYPE I

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

NOTE:
FOR BAR LOCATIONS SEE SHEET PS2

DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/05/91	UPDATED SCHEDULE.
12/13/90	ADD PIERS 21-23 I.B.
12/10/90	ADD PIERS 17-20 I.B. & O.B.
12/05/90	ADD PIERS 21-23 O.B.
10/25/90	ADD PIERS 13-16 I.B.
10/04/90	UPDATED DRAWING
9/26/90	ADD PIERS 9-16 O.B.
9/14/90	ADD PIERS 9,10, & 12 I.B.
7/16/90	SHOW REINFORCING ON FIXED PIER
6/29/90	ADD PIERS 5 & 6

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 8379-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

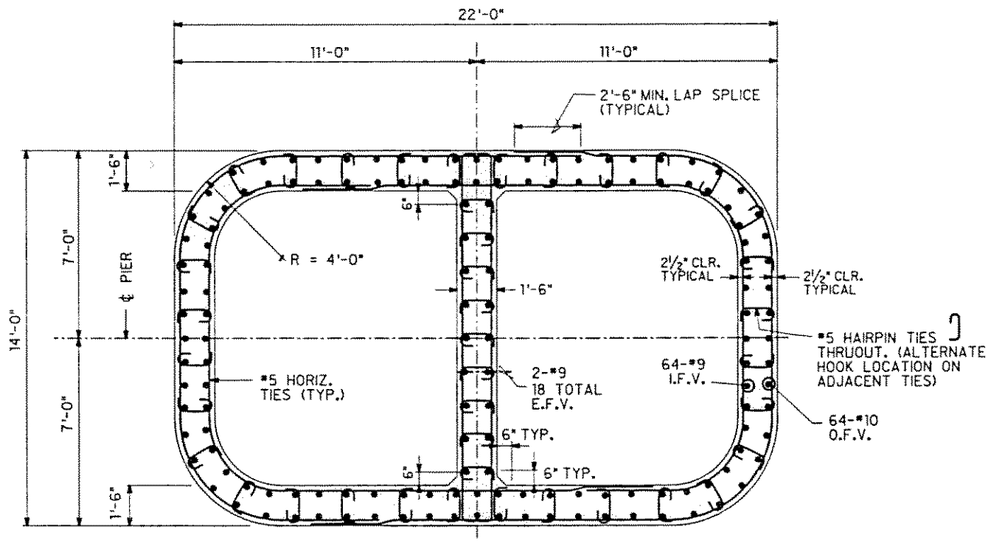
PIER SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUNE 1990

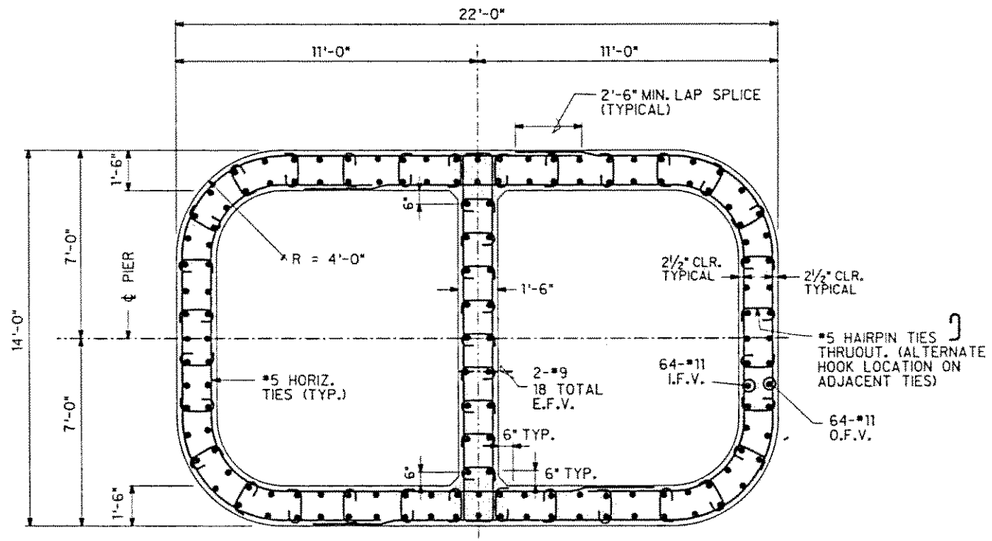
SHEET NO. PS1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



PIER PLAN - SECTION A (PS1 | PS2)

SCALE : ⅜" = 1'-0"

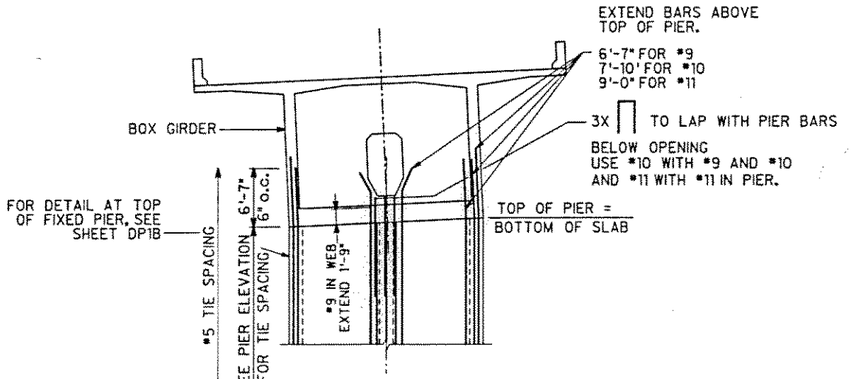


PIER PLAN - SECTION B (PS1 | PS2)

SCALE : ⅜" = 1'-0"

NOTES:

1. PIER SHAFT CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI.
2. PIER SHAFT REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
3. REINFORCING STEEL FABRICATION SHALL BE IN CONFORMANCE WITH THE "MANUAL OF STANDARD PRACTICE" TWENTY FOURTH EDITION, BY CONCRETE REINFORCING STEEL INSTITUTE.
4. NOT MORE THAN ONE HALF OF THE LONGITUDINAL BARS SHALL BE SPLICED WITHIN ONE SPLICE LENGTH. SPLICED BARS SHALL ALTERNATE WITH CONTINUOUS BARS.
5. LAP LENGTH FOR LONGITUDINAL BARS SHALL BE 3'-11" FOR A #9 BAR, 5'-0" FOR A #10 BAR AND 6'-1" FOR A # 11 BAR.



FIXED PIER TYPE II

SCALE : ⅛" = 1'-0"

NOTE:
FOR PIER BAR LOCATIONS SEE SHEET PS2

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379-S HAWAII, U.S.A.

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DATE	REVISION
04/05/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CROSS SECTIONS

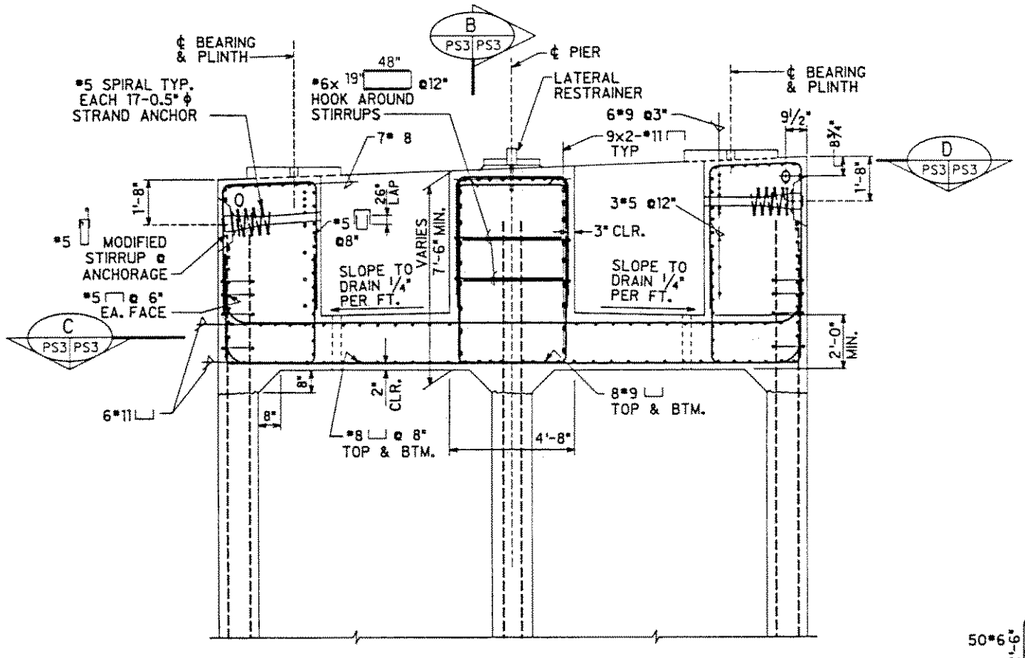
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUNE 1990

SHEET NO. PS2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

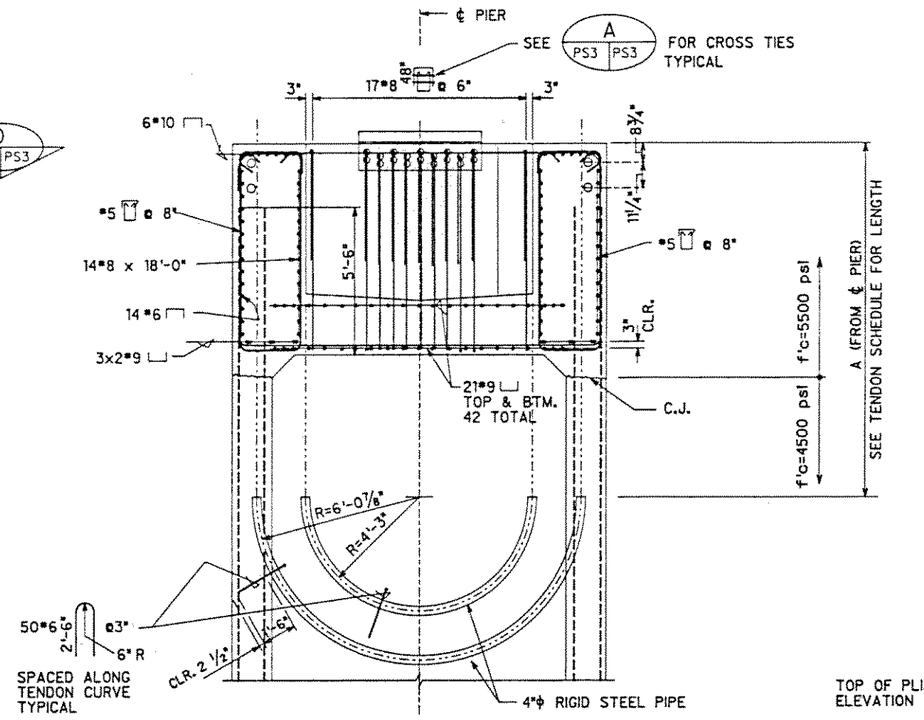
SLIDING PIER TENDON SCHEDULE

	PIER NO.	A		PIER NO.	A
INBOUND	4	14'-0"	OUTBOUND	4	14'-0"
	5	8'-0"		5	8'-0"
	8	14'-0"		8	14'-0"
	12	14'-0"		12	14'-0"
	13	14'-0"		13	14'-0"
	17	14'-0"		17	14'-0"
	23	14'-0"		23	14'-0"



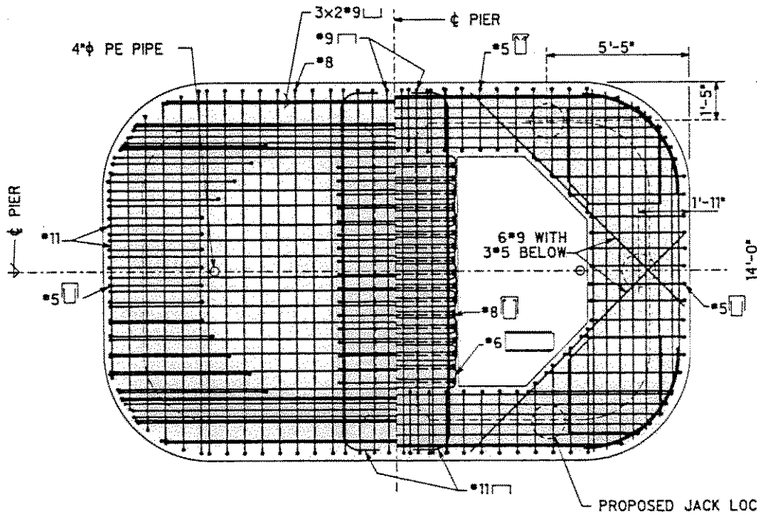
TYPICAL PIER CAP ELEVATION-
DETAIL FOR SLIDE BEARING — A PS3 PS3

SCALE : ⅜" = 1'-0"



SECTION — B PS3 PS3

SCALE : ⅜" = 1'-0"

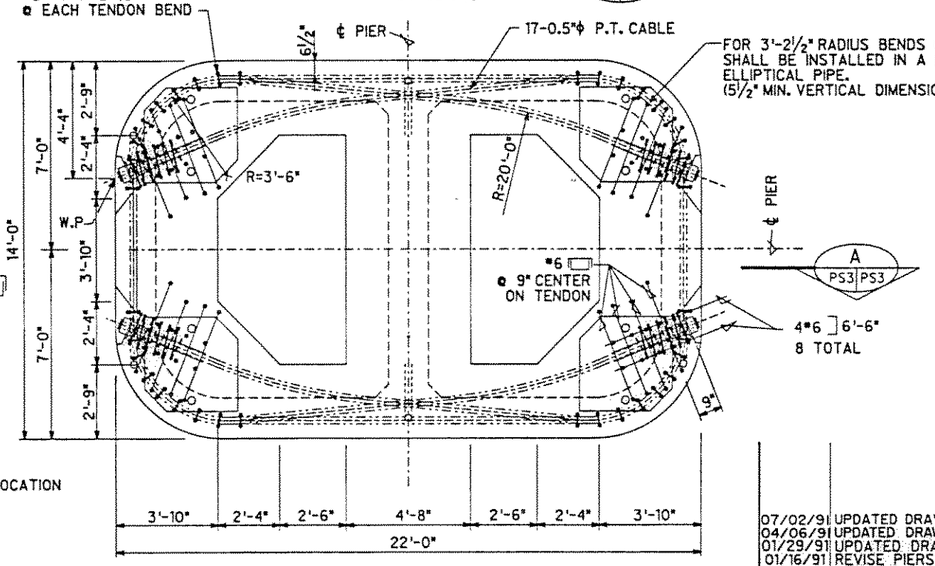


HALF SECTION — C PS3 PS3

SCALE : ⅜" = 1'-0"

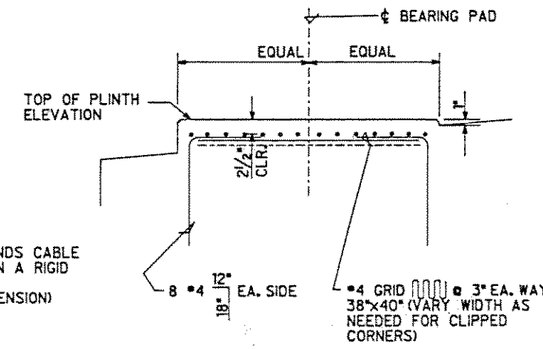
HALF SECTION — D PS3 PS3

SCALE : ⅜" = 1'-0"



TENDON LAYOUT

SCALE : ⅜" = 1'-0"



PLINTH DETAIL AT PIERS — 1 PS3 PS3

SCALE : 1" = 1'-0"

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DATE	REVISION
07/02/91	UPDATED DRAWING.
04/06/91	UPDATED DRAWING
01/29/91	UPDATED DRAWING
01/16/91	REVISE PIERS 4,5,8 & 12 I.B. & O.B.
10/25/90	UPDATED DRAWING

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

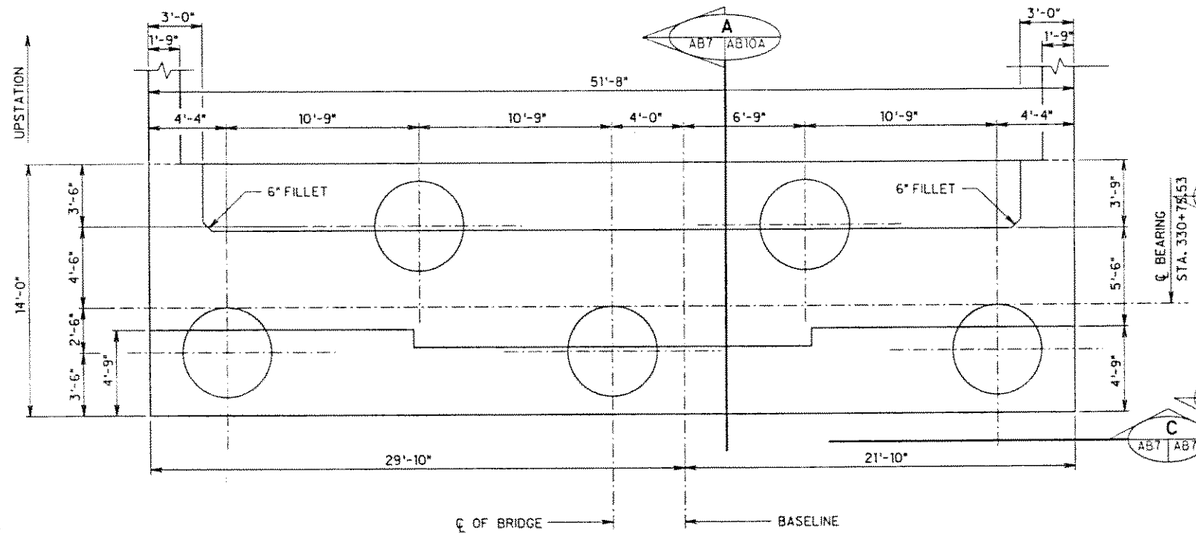
PIER CAP REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUNE 1990

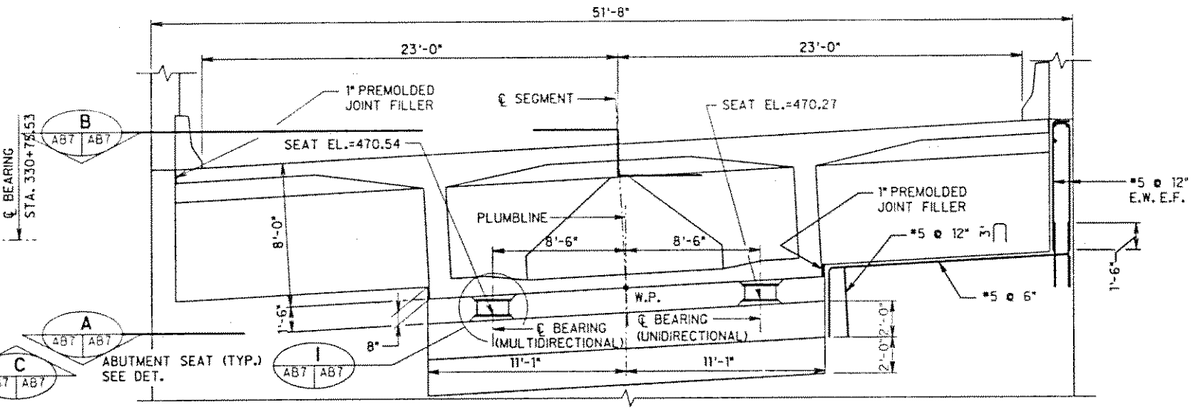
SHEET NO. PS3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



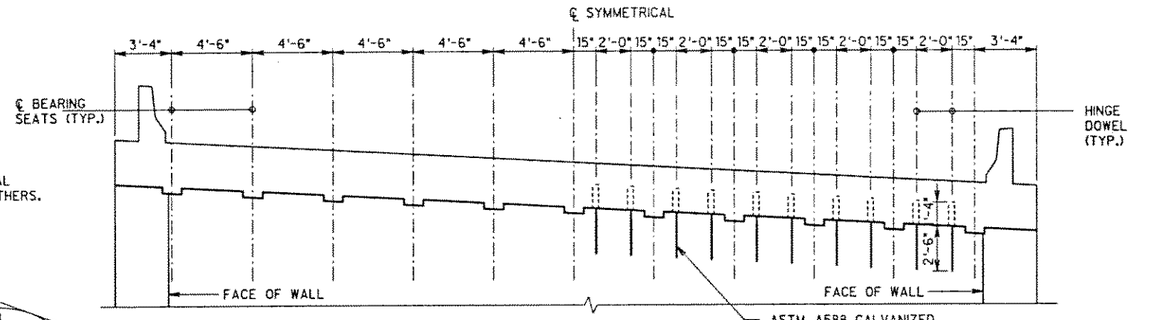
PLAN SECTION A

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



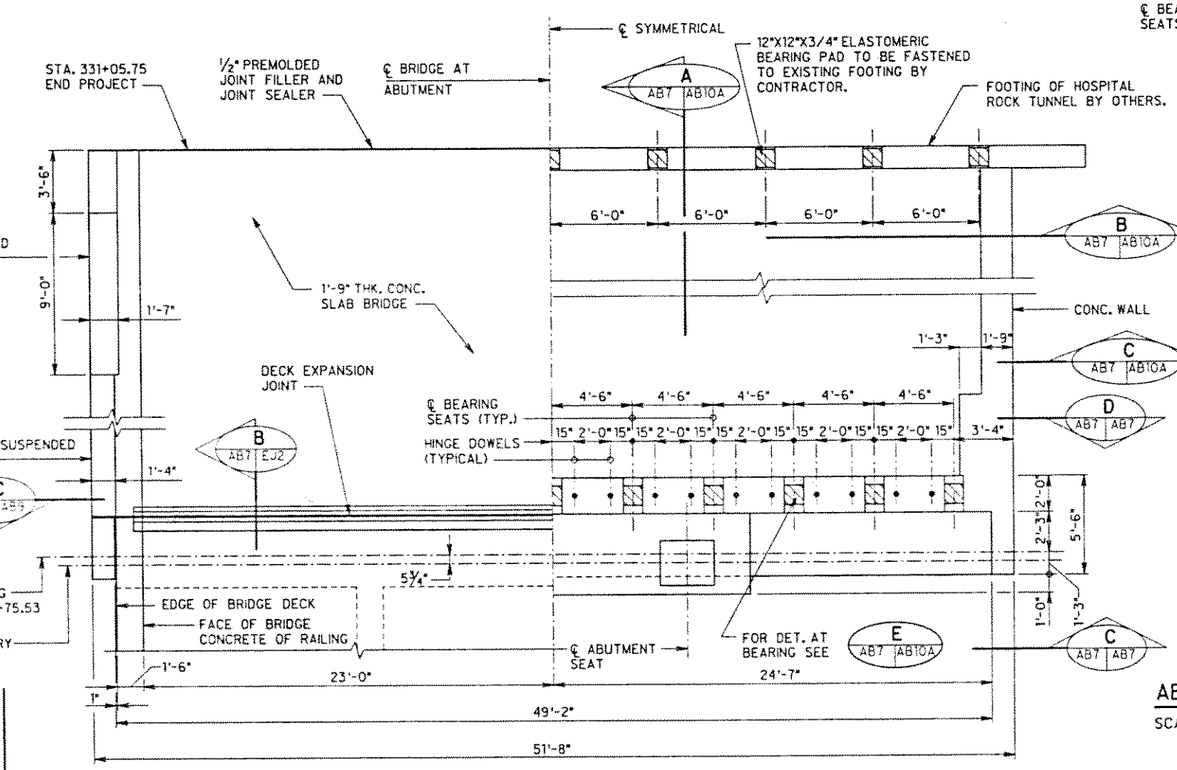
PARTIAL ELEVATION C

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



PARTIAL ELEVATION D

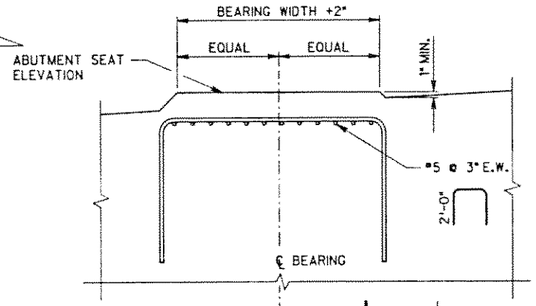
SCALE :1/4" = 1'-0"



PLAN SECTION B

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

BRIDGE SUPERSTRUCTURE NOT SHOWN FOR CLARITY.



ABUTMENT SEAT DETAIL I

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

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANS AND ELEVATIONS
INBOUND ABUTMENT 2

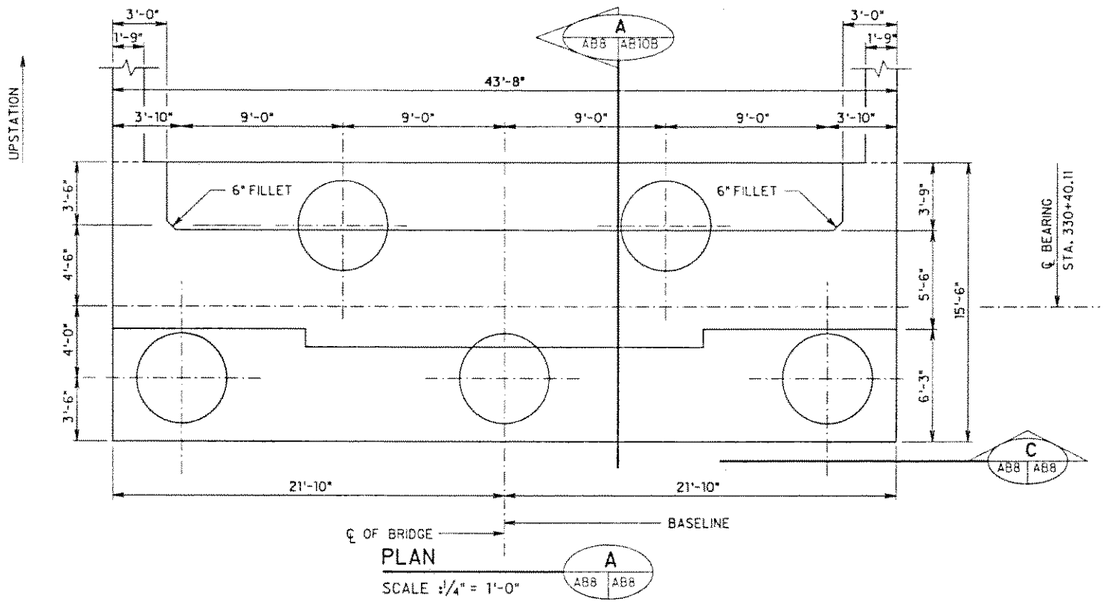
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1991

SHEET No. AB7 OF SHEETS

DATE	REVISION

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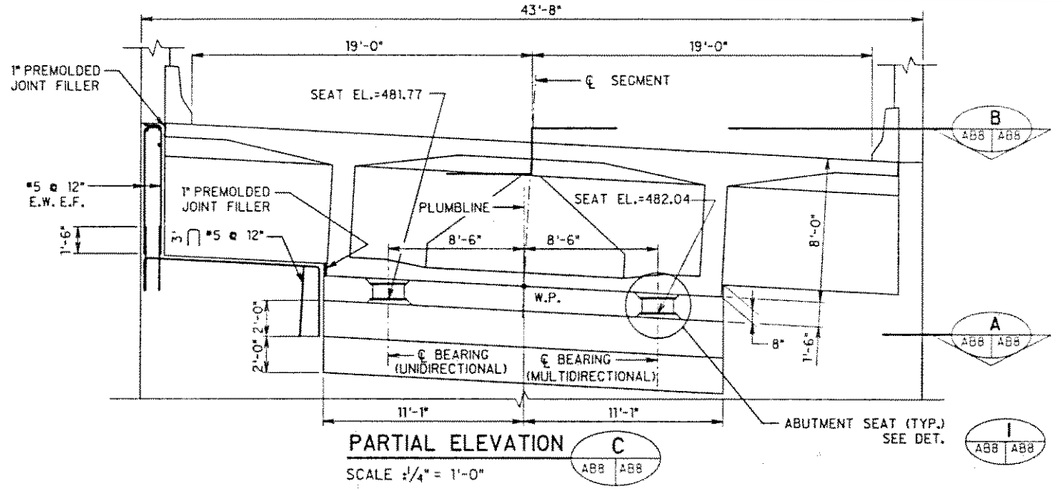
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



PLAN

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

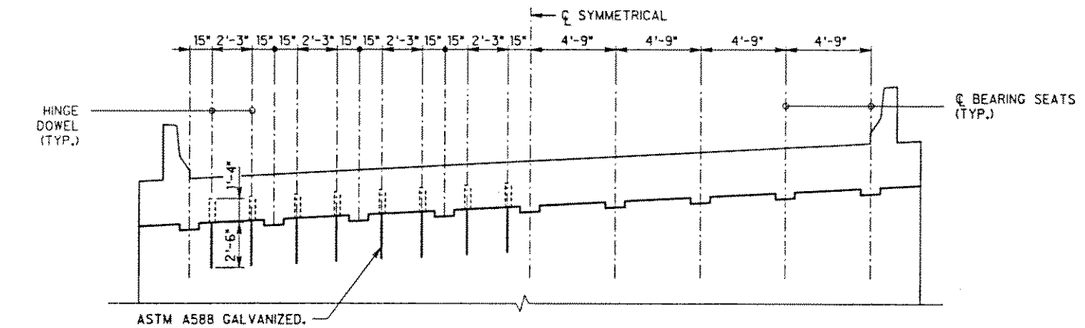
A AB8 AB8



PARTIAL ELEVATION

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

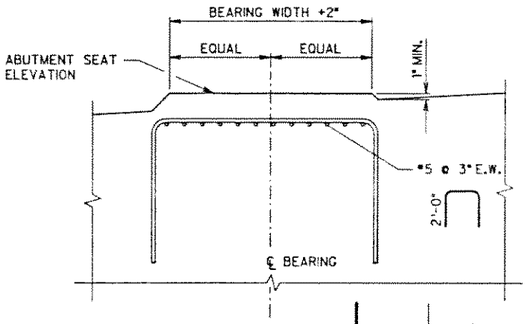
C AB8 AB8



PARTIAL ELEVATION

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

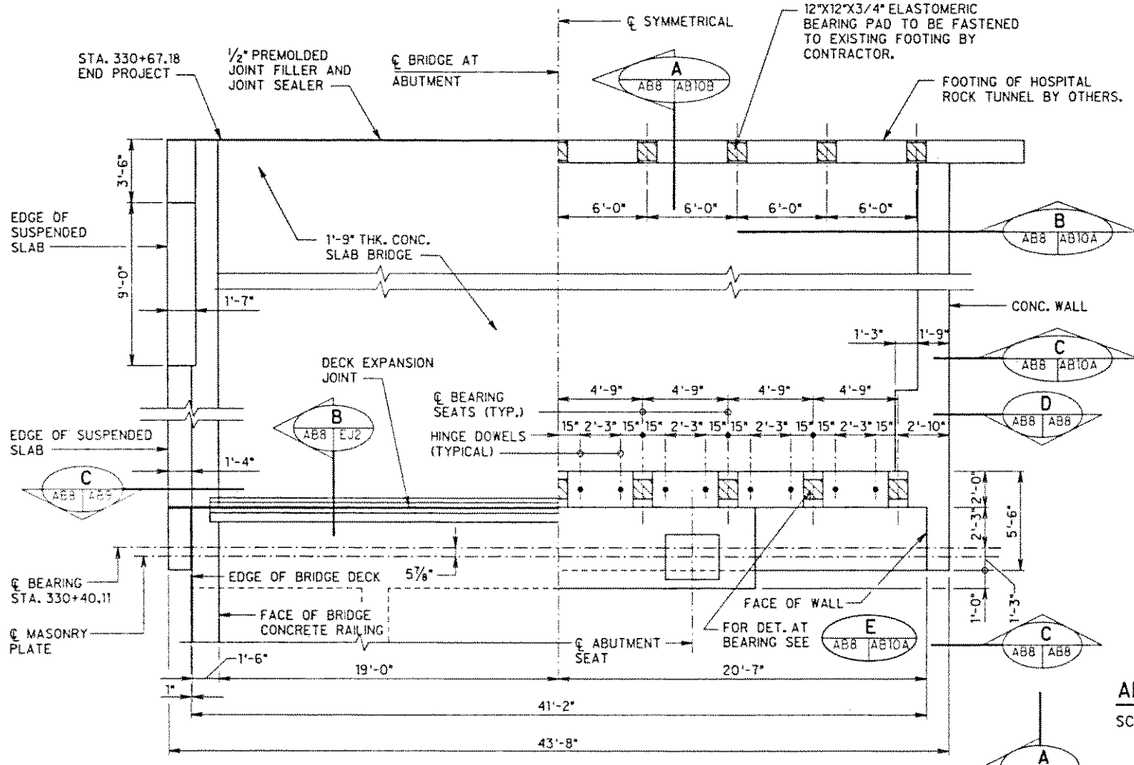
D AB8 AB8



ABUTMENT SEAT DETAIL

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

I AB8 AB8



PLAN

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

B AB8 AB8

BRIDGE SUPERSTRUCTURE NOT SHOWN FOR CLARITY.

ORIGINAL PLAN

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

DATE	REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

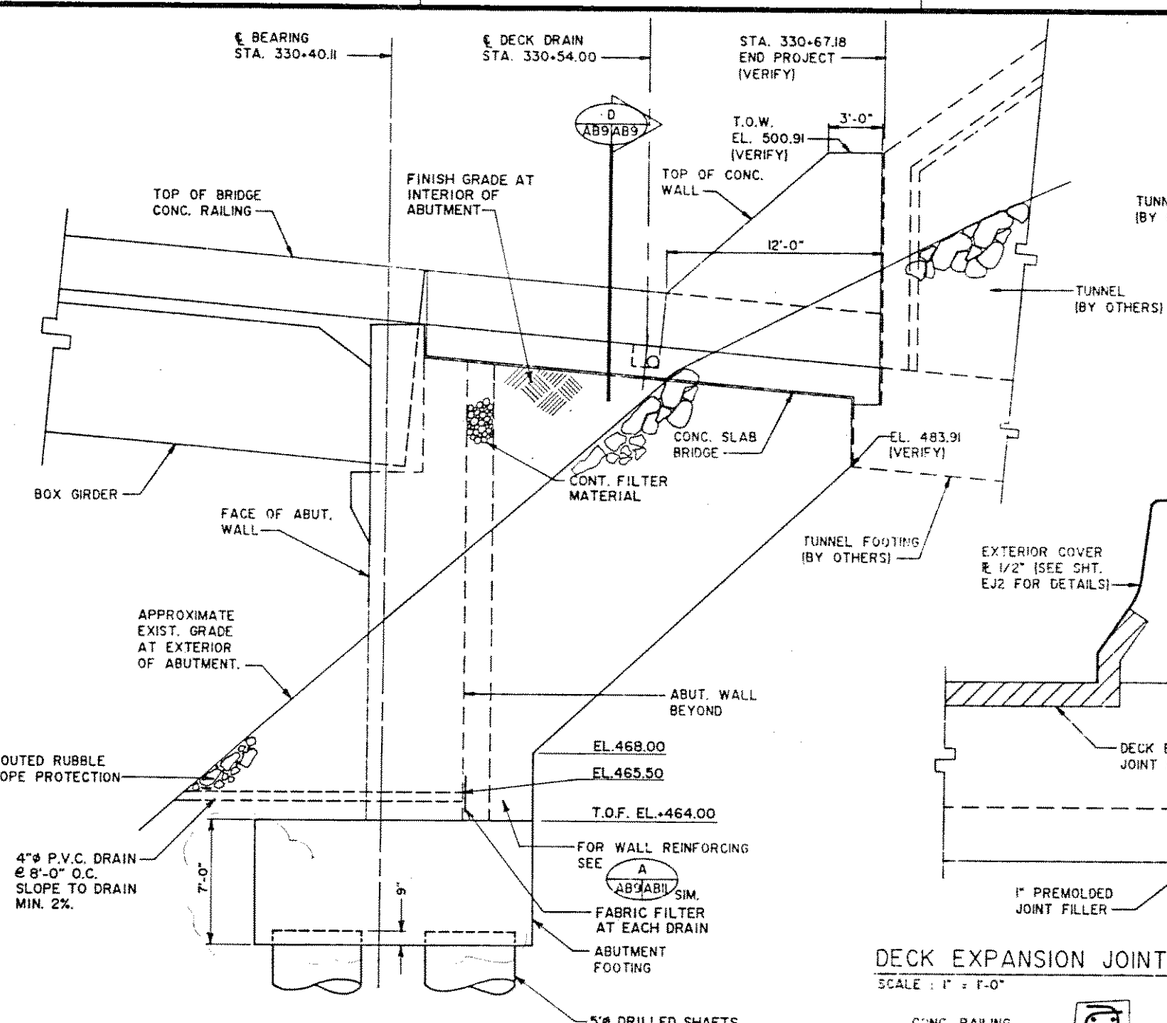
PLANS AND ELEVATIONS
OUTBOUND ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN 1991

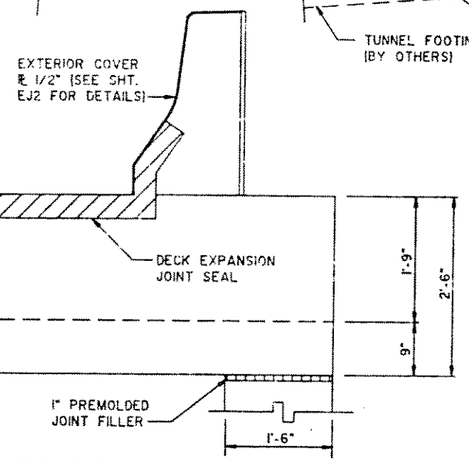
SHEET No. AB8 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1 (57)	1988		

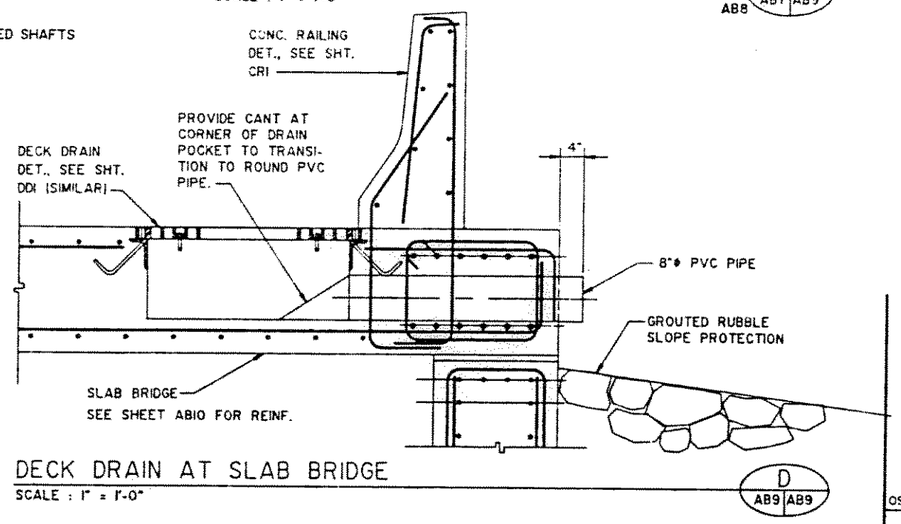


WALL ELEVATION - OUTBOUND A AB9 AB9
SCALE : 1/4" = 1'-0"
AB1, AB8

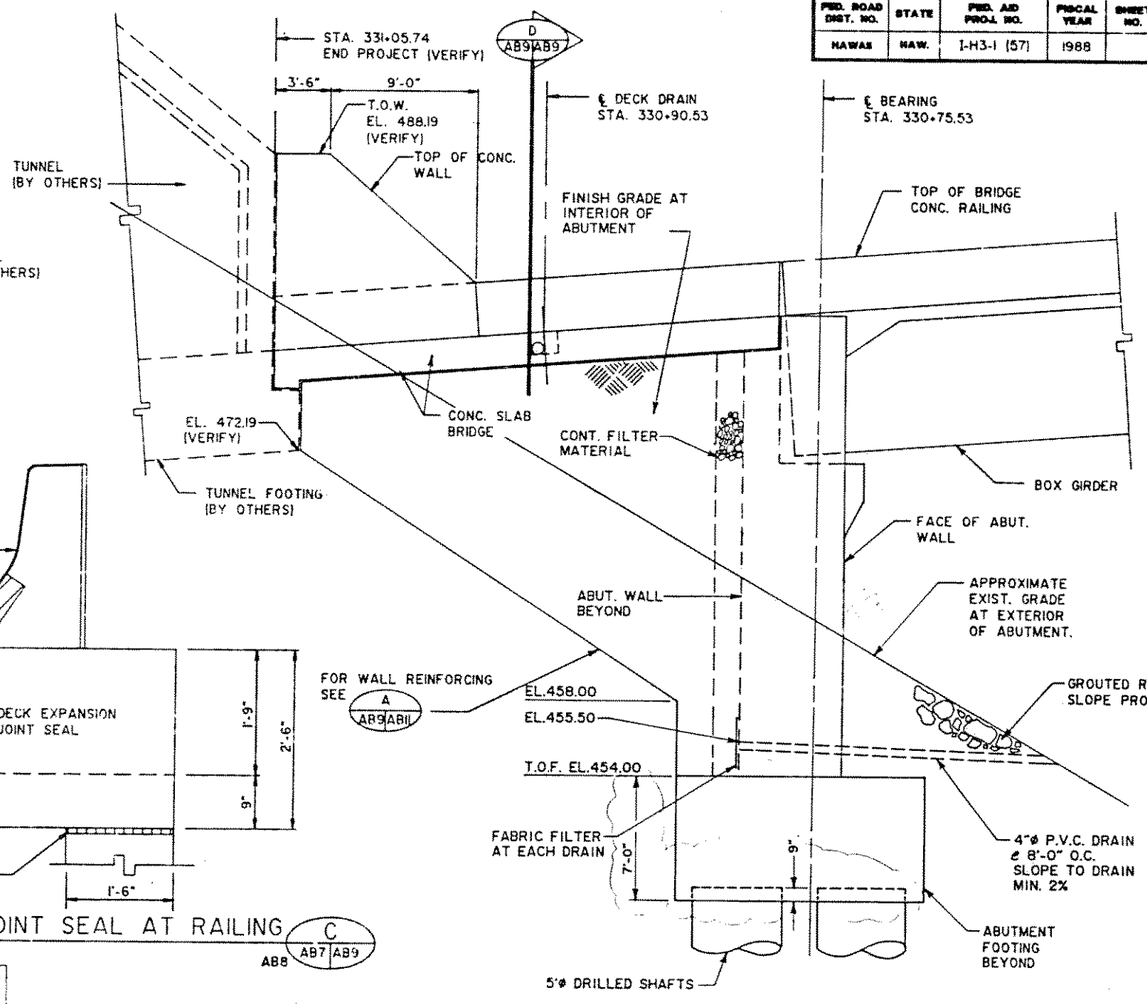
CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS TO AVOID DISTURBING EXISTING HOSPITAL ROCK TUNNEL.



DECK EXPANSION JOINT SEAL AT RAILING C AB7 AB9
SCALE : 1" = 1'-0"
AB8



DECK DRAIN AT SLAB BRIDGE D AB9 AB9
SCALE : 1" = 1'-0"



WALL ELEVATION - INBOUND B AB9 AB9
SCALE : 1/4" = 1'-0"
AB1, AB7

DATE	REVISION
09/30/91	UPDATED DRAWING.

JAMES R. LIGHT REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

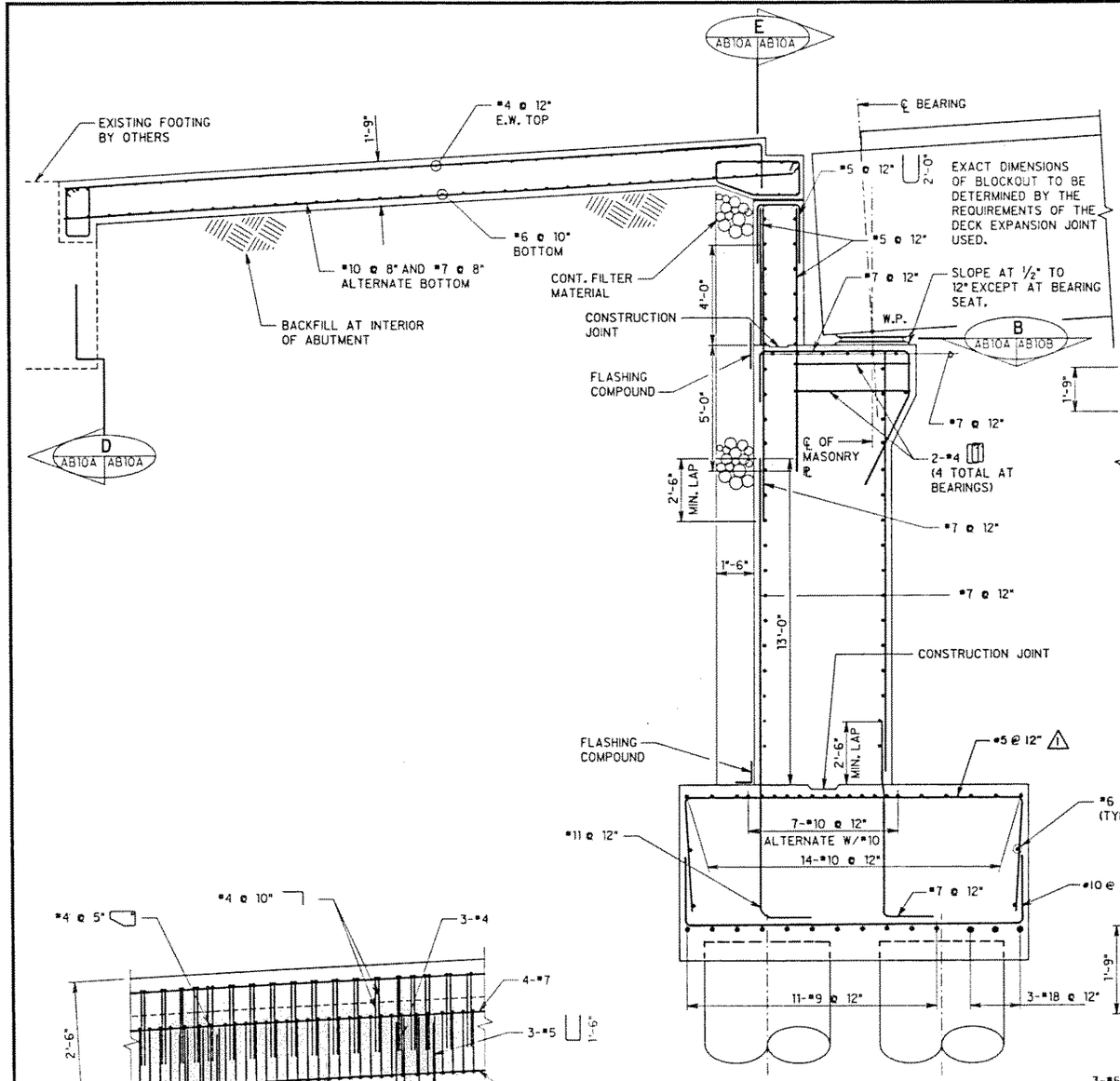
ABUTMENT ELEVATIONS

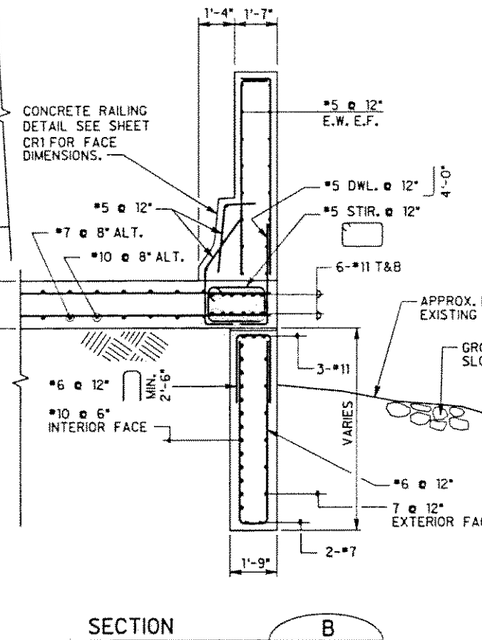
INBOUND - STA. 330+75.53
OUTBOUND - STA. 330+40.11
INTERSTATE ROUTE H-3
F.A.I. PROJECT NO. I-H3-1 (57)
F.A.I. PROJECT NO. I-H3-1 (58)

SCALE: AS NOTED DATE: SEPT. 1988

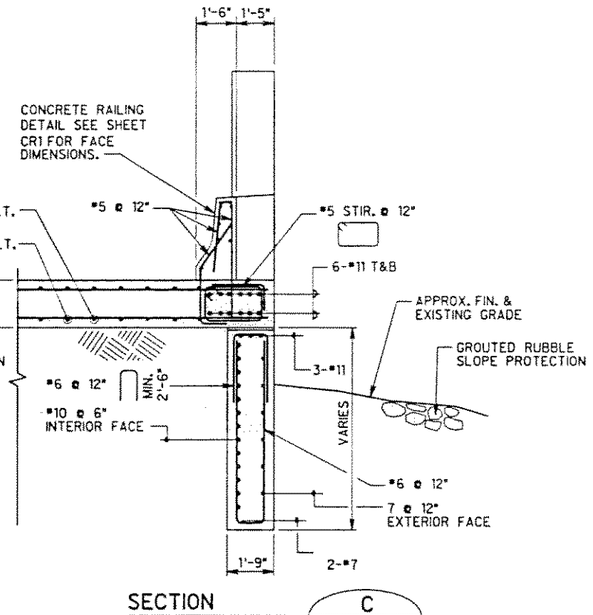
SHEET NO. AB9 OF 1 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

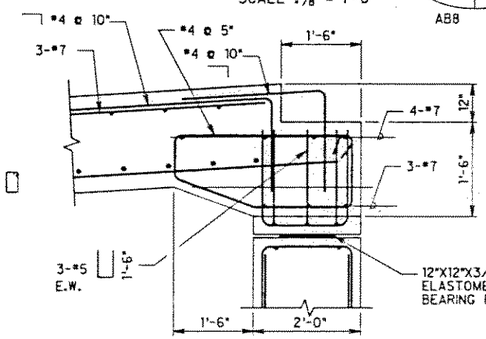




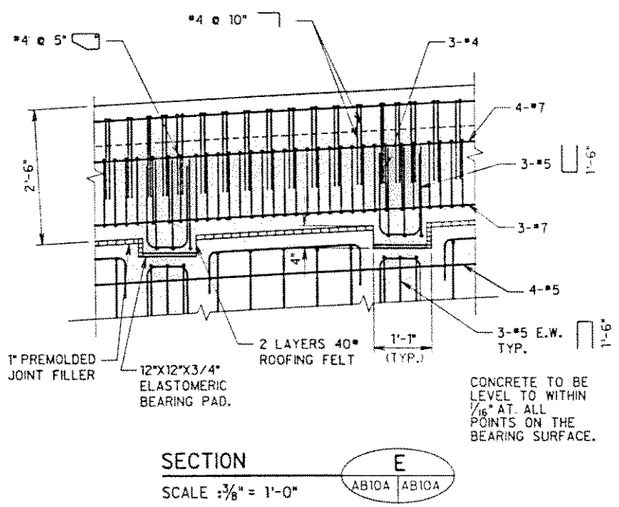
SECTION B
SCALE :3/8" = 1'-0"
AB7 AB10A
AB8



SECTION C
SCALE :3/8" = 1'-0"
AB7 AB10A
AB8

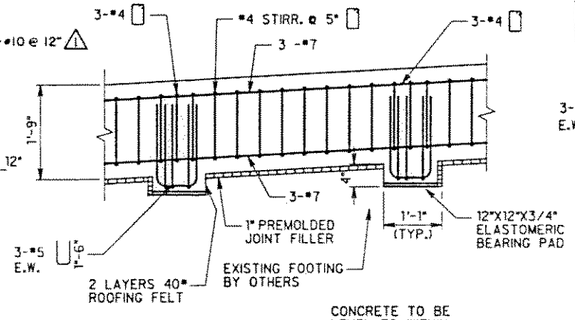


SECTION F
SCALE :3/4" = 1'-0"
AB10A AB10A



SECTION E
SCALE :3/8" = 1'-0"
AB10A AB10A

SECTION A
SCALE :3/8" = 1'-0"
AB7 AB10A



SECTION D
SCALE :3/8" = 1'-0"
AB10A AB10A

DATE	REVISION
11/21/91	⚠ ADDED REBAR CALLOUTS.
09/30/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT SECTIONS
ABUTMENT NO.2
INBOUND STRUCTURES

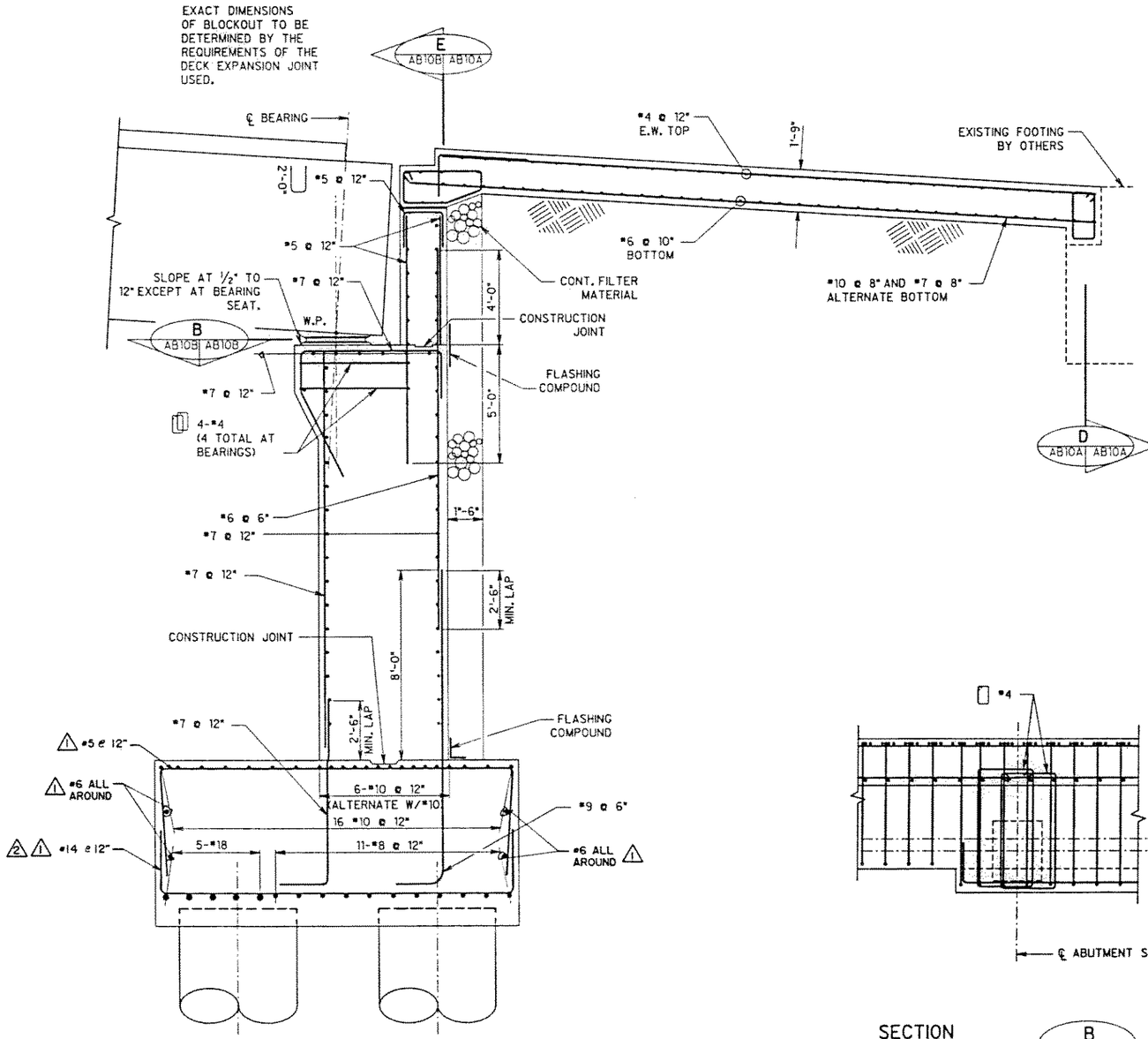
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE :JUN 1990

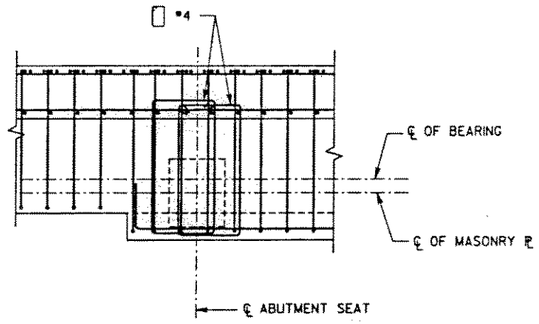
SHEET No. AB10A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 3/8" = 1'-0"
AB8 | AB10B



SECTION B
SCALE : 3/8" = 1'-0"
AB10A | AB10B
AB10B

DATE	REVISION
12/03/91	2 BAR #14 WAS #4.
11/21/91	1 ADDED REBAR CALLOUTS.
09/30/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT SECTIONS
ABUTMENT NO.2
OUTBOUND STRUCTURES

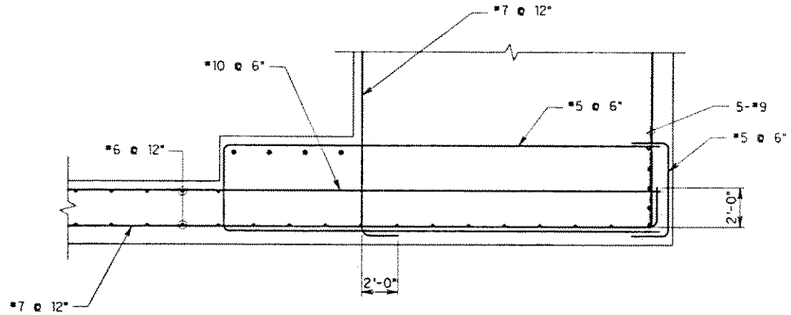
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1990

SHEET No. AB10B OF SHEETS

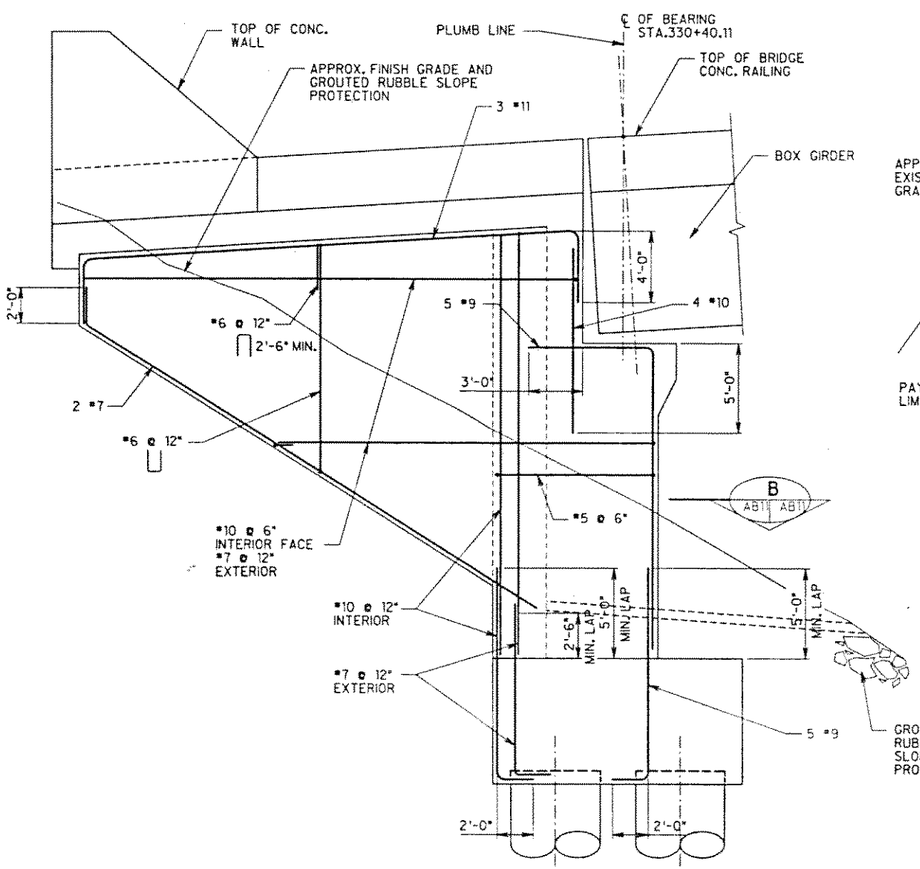
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK

99A

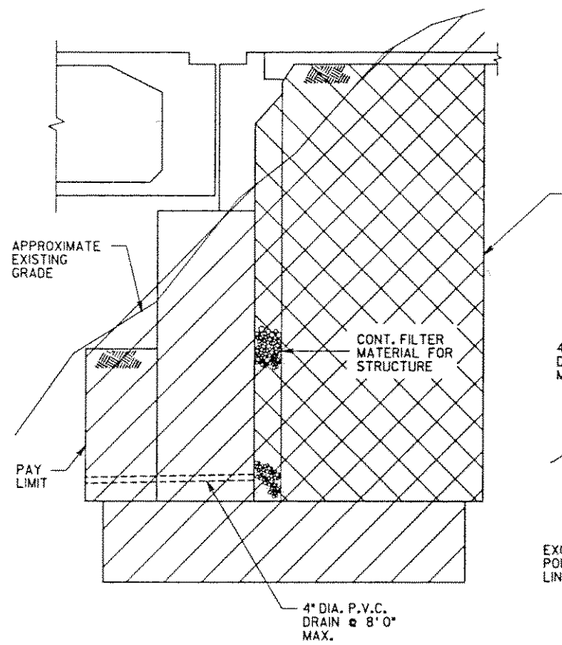
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION B (AB11 | AB11)
SCALE 1/2" = 1'-0"

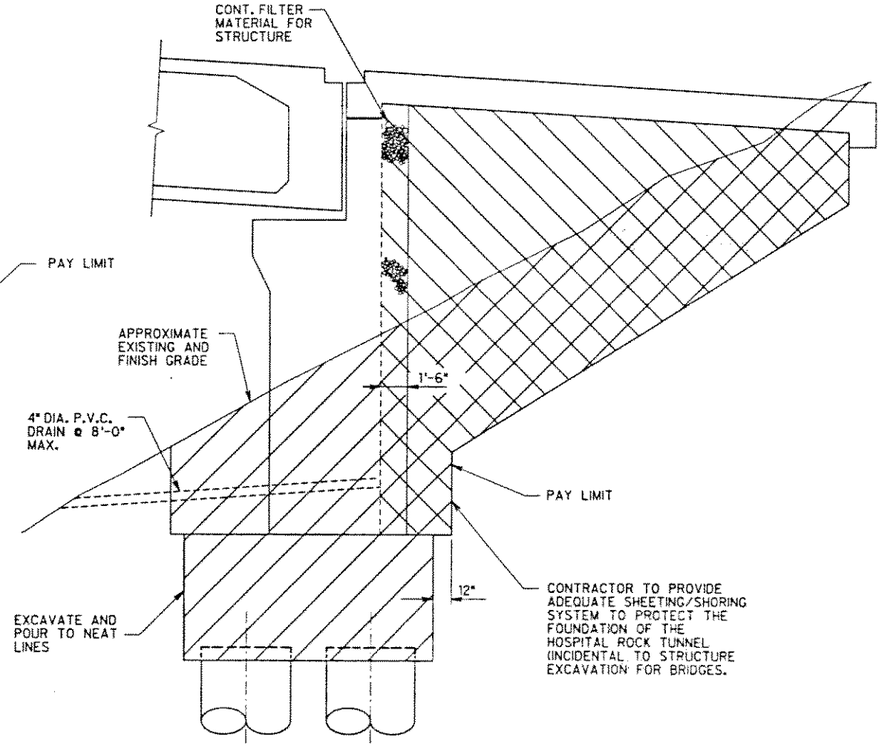


WALL ELEVATION ABUTMENT NO. 2 (A AB11 | AB11)
SCALE :1/4" = 1'-0"



STRUCTURE EXCAVATION
STRUCTURE BACKFILL

PAYLIMITS AT ABUTMENTS NO. 1 AND RETAINING WALL (C AB11 | AB11)
NOT TO SCALE



STRUCTURE EXCAVATION
STRUCTURE BACKFILL

PAYLIMITS AT ABUTMENTS NO. 2 (D AB11 | AB11)
NOT TO SCALE

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2575-S HAWAII, U.S.A.

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DATE	REVISION
09/30/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

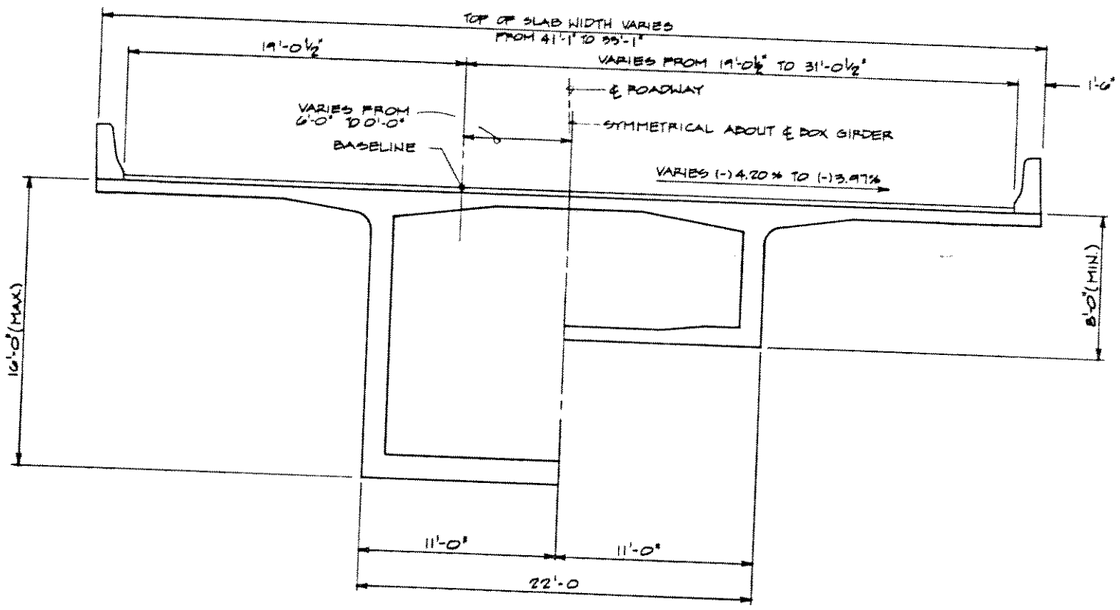
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WING WALL SECTIONS AND PAYLIMITS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUL 1990

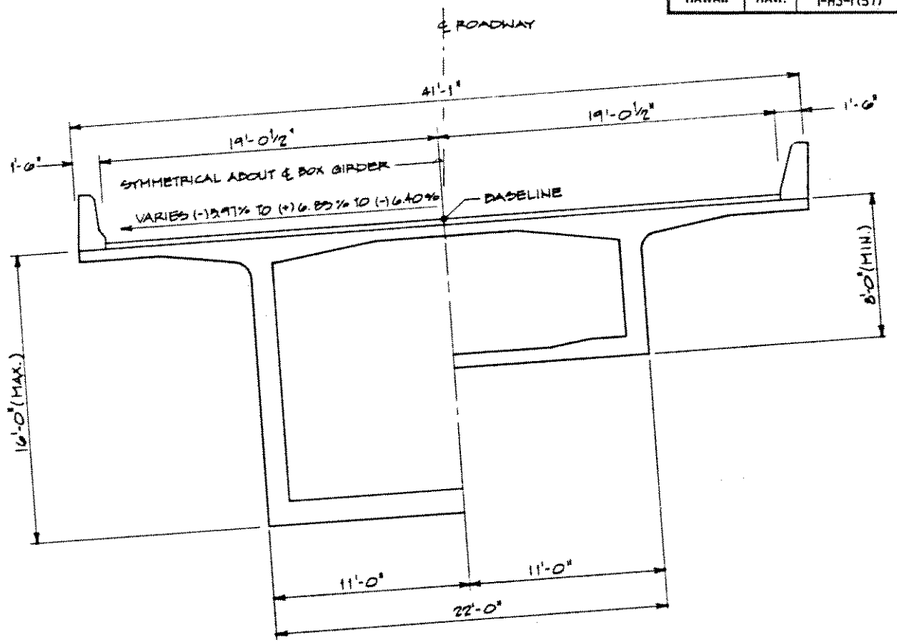
SHEET No. AB11 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



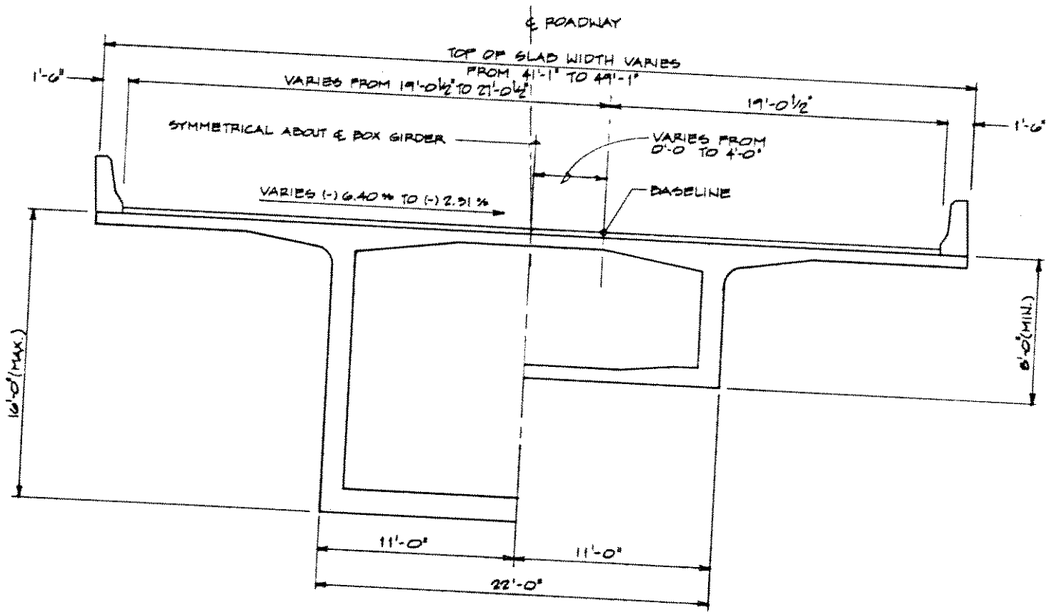
CROSS SECTION FROM STA. 264+65.53 TO STA. 265+82.71

LOOKING UPSTATION



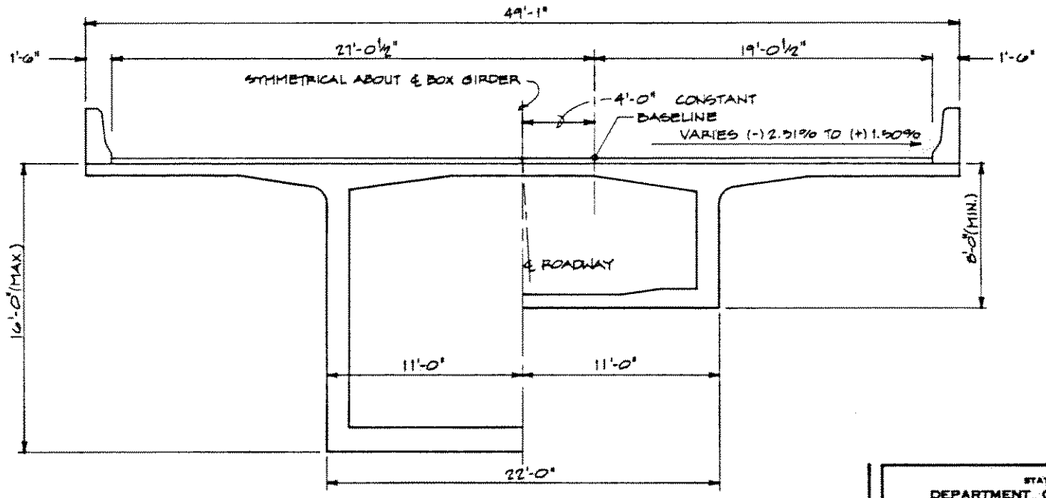
CROSS SECTION FROM STA. 265+82.71 TO STA. 313+95.53

LOOKING UPSTATION



CROSS SECTION FROM STA. 313+95.53 TO STA. 325+30.21

LOOKING UPSTATION



CROSS SECTION FROM STA. 325+30.21 TO STA. 330+75.53

LOOKING UPSTATION

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

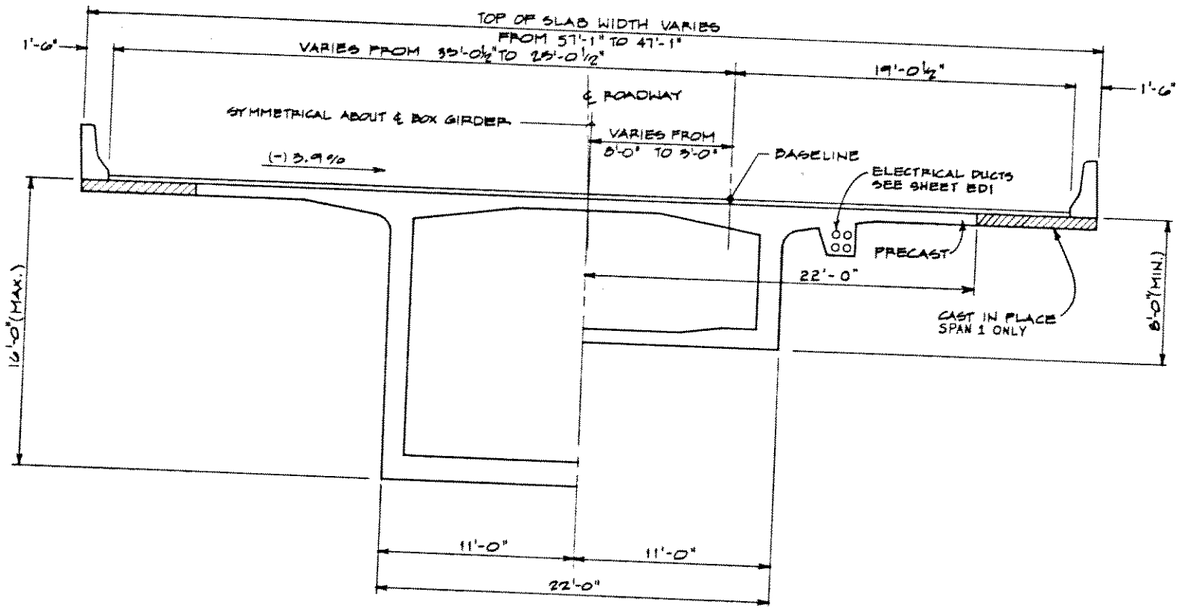
DECK CROSS SECTIONS
INBOUND

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : 1/4"=1'-0" DATE : JUN. 1990

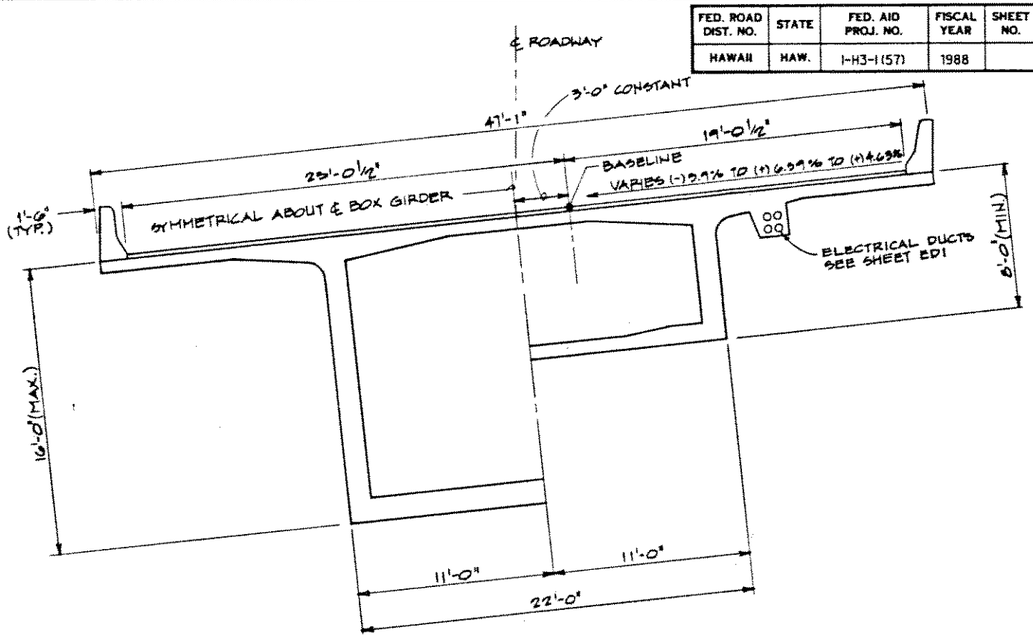
SHEET No. CSI OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



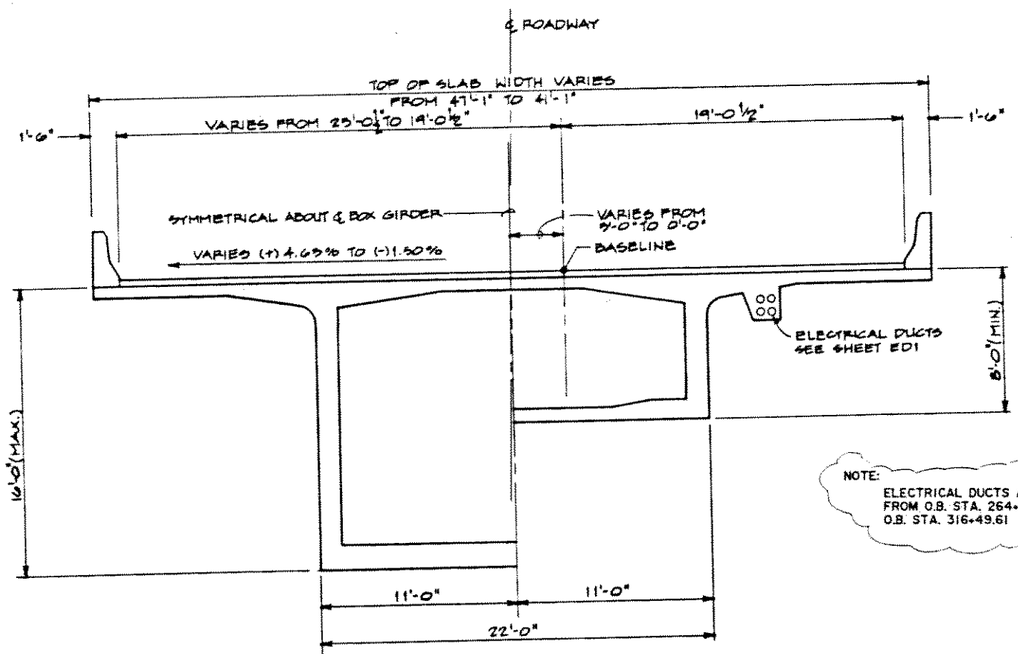
CROSS SECTION FROM STA. 264+25.11 TO STA. 266+68.71

LOOKING UPSTATION



CROSS SECTION FROM STA. 266+68.71 TO STA. 289+10.33

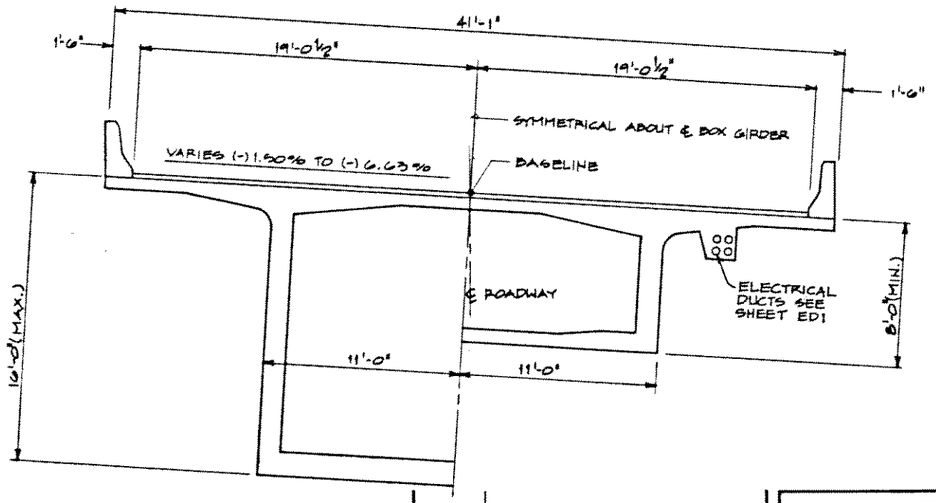
LOOKING UPSTATION



NOTE:
ELECTRICAL DUCTS ARE LOCATED FROM O.B. STA. 264+23.36 TO O.B. STA. 316+49.61

CROSS SECTION FROM STA. 289+10.33 TO STA. 295+76.56

LOOKING UPSTATION.



CROSS SECTION FROM STA. 295+76.56 TO STA. 331+05.74

LOOKING UPSTATION

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY J.K. 8-8-90	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

DATE	REVISION
08/23/91	ADDED NOTE.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY INCORPORATED PROFESSIONAL ENGINEER LTD. No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

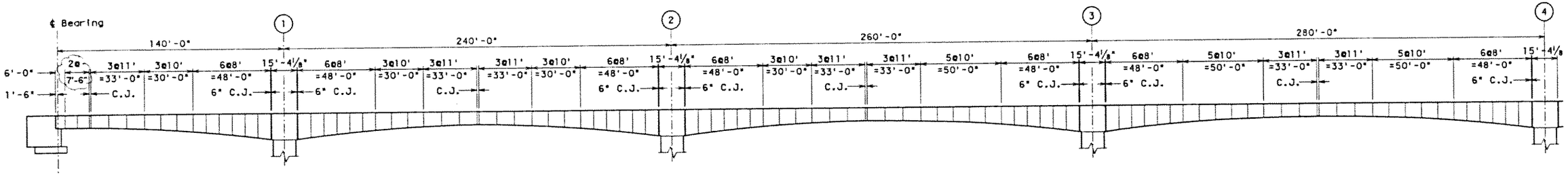
DECK CROSS SECTIONS
OUTBOUND

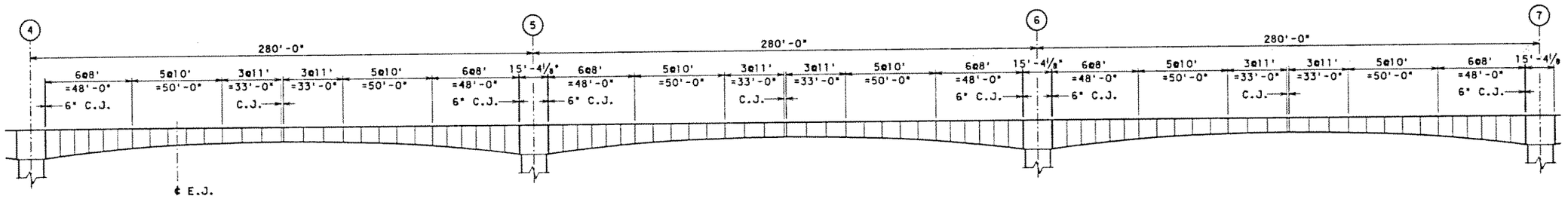
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

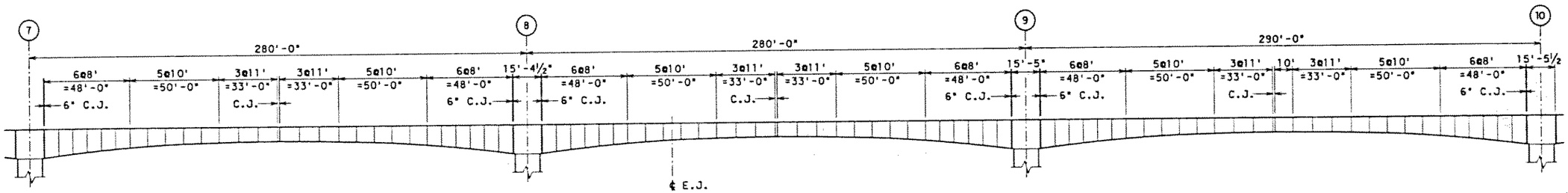
SCALE : 1/4"=1'-0" DATE : JUN. 1990

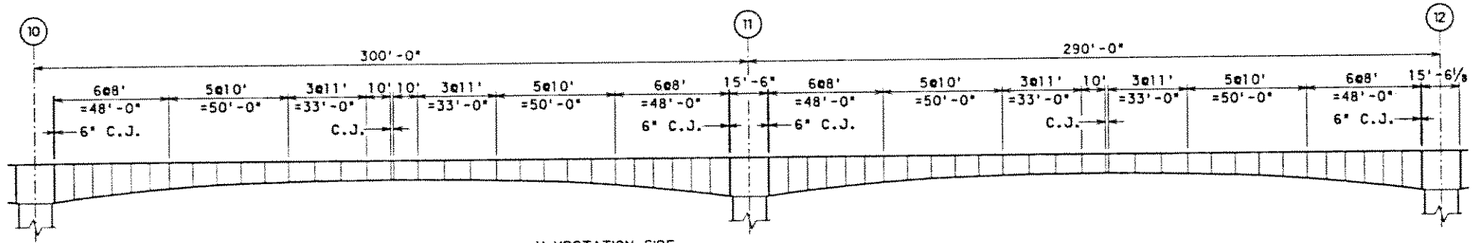
SHEET No. CS2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		









I=INBOUND (0=OUTBOUND) — U=UPSTATION SIDE (D=DOWNSTATION SIDE)

13-12U

PIER No. — SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (0=OUTBOUND)

1A1-2

ABUTMENT No. — SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT

SEGMENT DESIGNATION

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2379 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED IAI SEGMENT LENGTHS.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT I

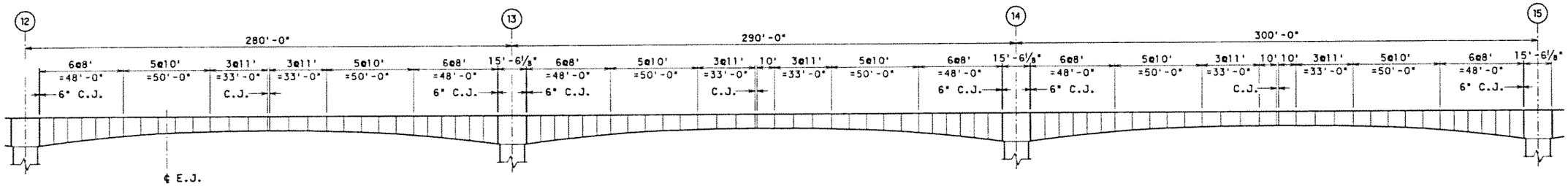
I.B. STA. 264+63.78 TO
I.B. STA. 296+65.53

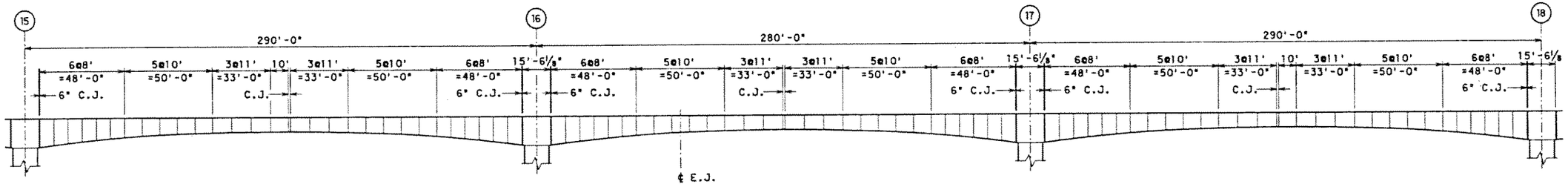
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

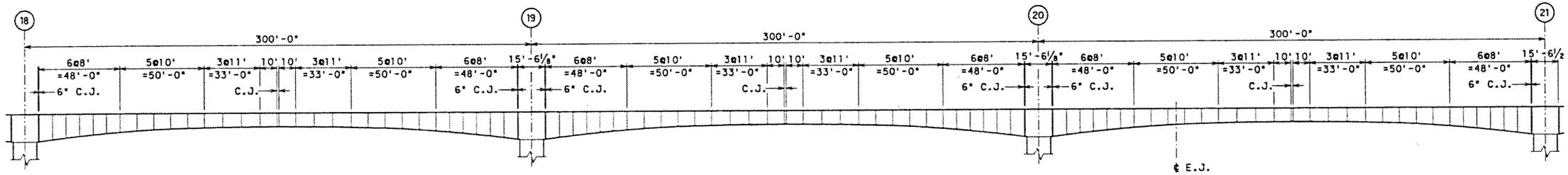
SCALE : AS NOTED — DATE : JUN.1990

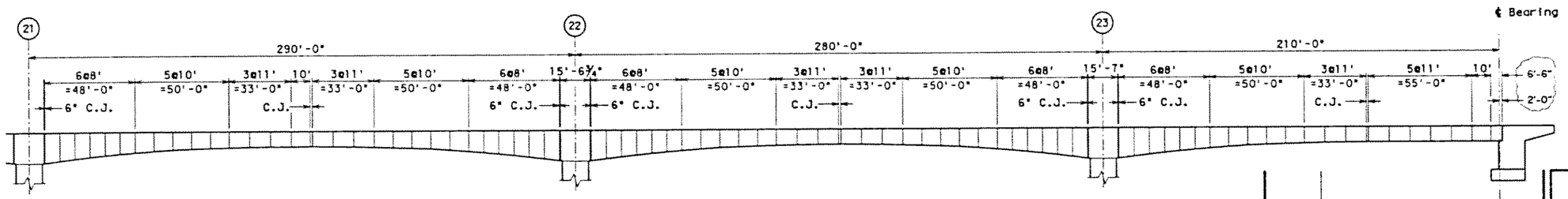
SHEET No. S1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		









I=INBOUND (O=OUTBOUND) — U=UPSTATION SIDE (D=DOWNSTATION SIDE)
13-12U
PIER No. — SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (O=OUTBOUND)
1A1-2
ABUTMENT No. — SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT

SEGMENT DESIGNATION

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

DATE	REVISION
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375 — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT II

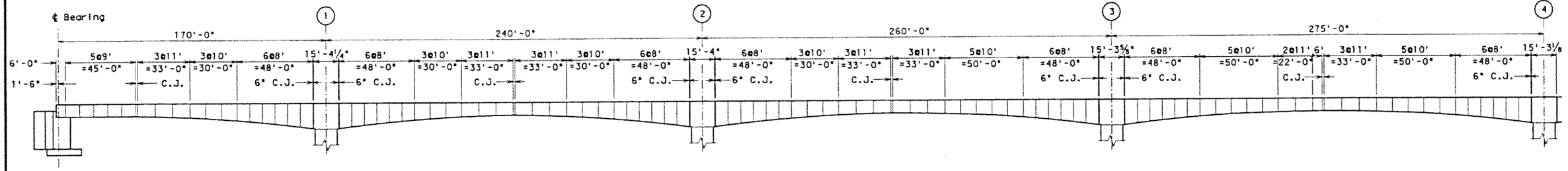
I.B. STA. 296+65.53 TO
I.B. STA. 330+77.29

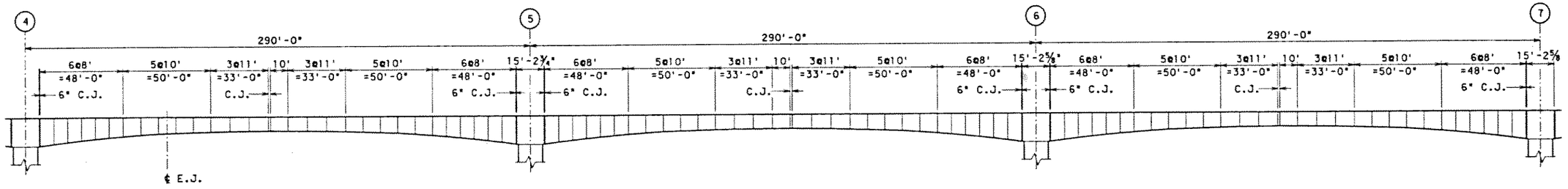
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

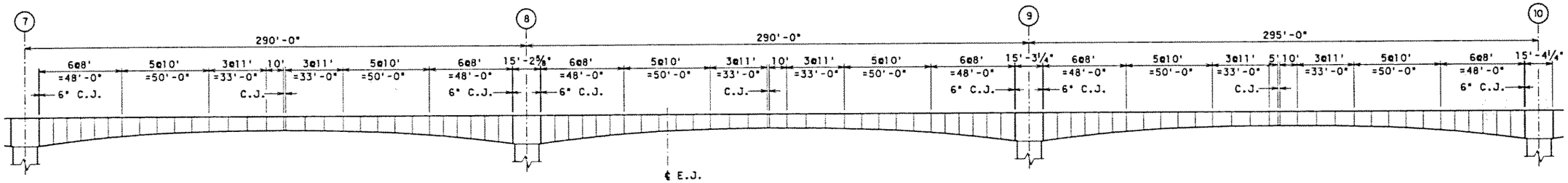
SCALE : AS NOTED DATE : JUN.1990

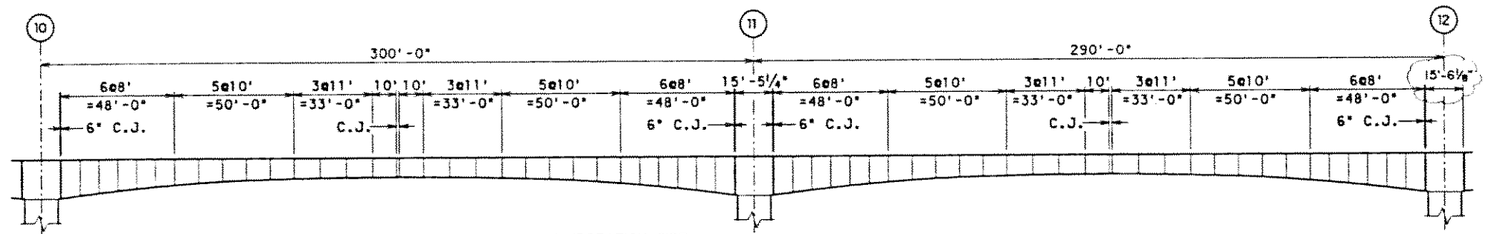
SHEET No. S2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		









SEGMENT DESIGNATION

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2378 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED PIER SEGMENT LENGTH.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT III

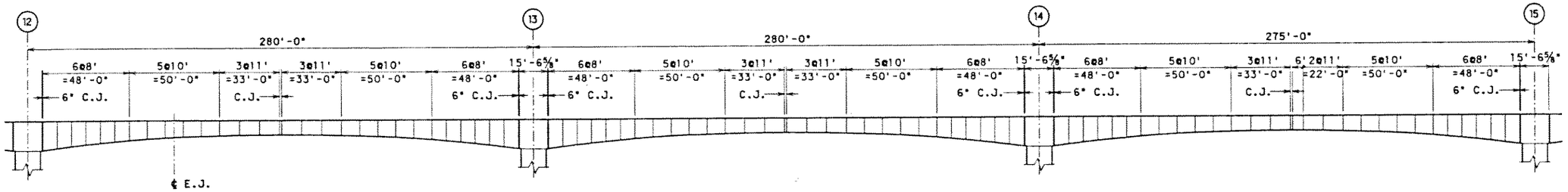
O.B. STA. 264+23.36 TO
O.B. STA. 297+05.11

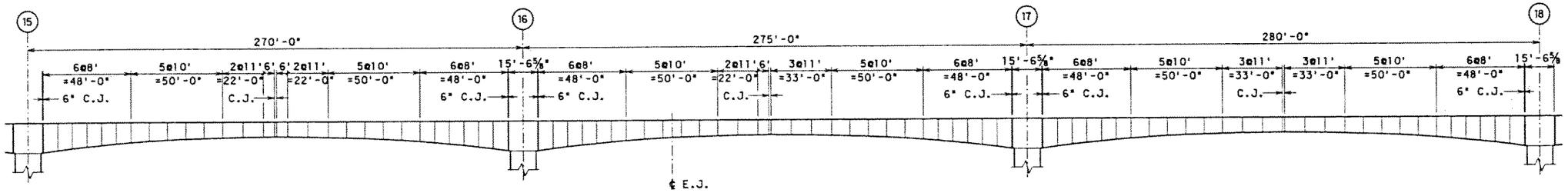
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

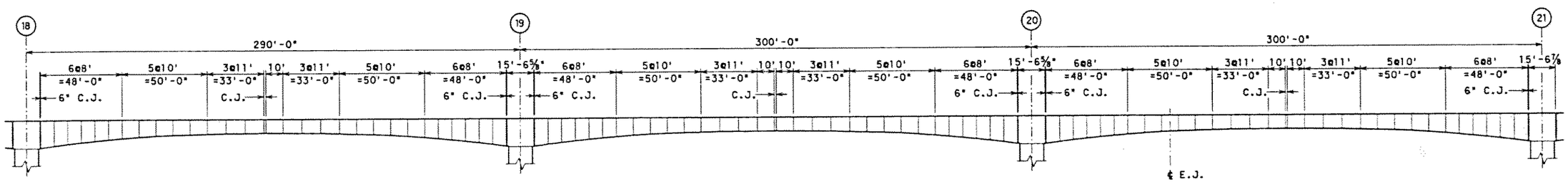
SCALE : AS NOTED DATE : JUN.1990

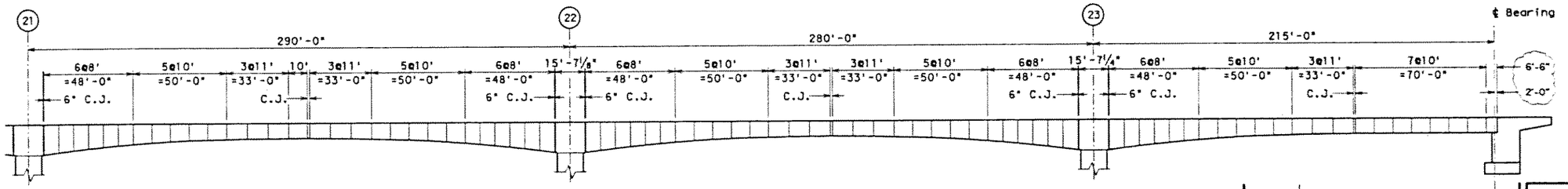
SHEET No. S3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		









I=INBOUND (O=OUTBOUND) → 13-12U ← U=UPSTATION SIDE (D=DOWNSTATION SIDE)
PIER No. → 13-12U ← SEGMENT RANGE No. IN THE CANTILEVER FROM THE PIER

I=INBOUND (O=OUTBOUND) → I A1-2 ← SEGMENT RANGE No. IN THE SPAN FROM THE ABUTMENT
ABUTMENT No. → I A1-2

SEGMENT DESIGNATION

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

DATE	REVISION
07/02/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL — Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375 — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SEGMENT LAYOUT IV

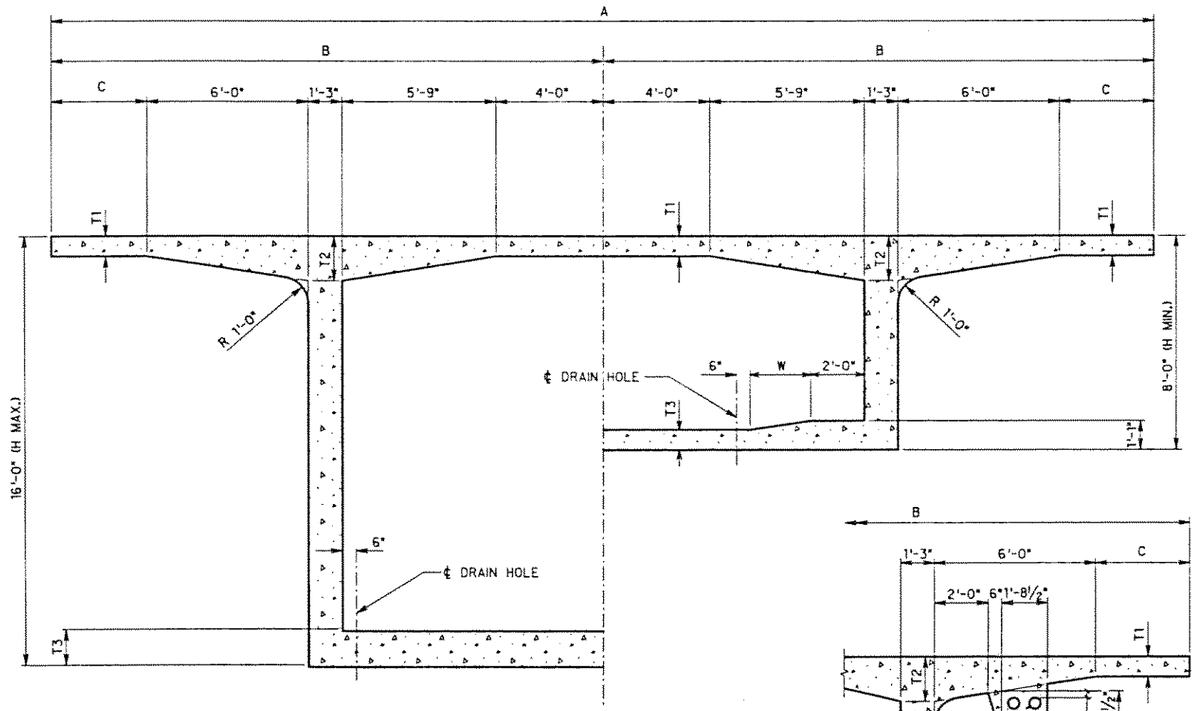
O.B. STA. 297+05.11 TO
O.B. STA. 330+41.86

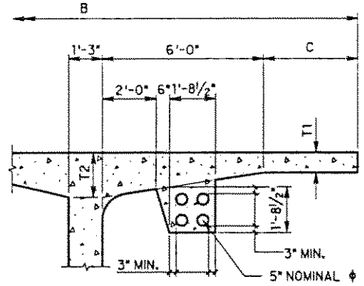
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN.1990

SHEET No. S4 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





		FROM	TO	FROM	TO
INBOUND	A	51'-11⅜"	49'-1"	49'-1"	41'-1"
	B	25'-11 11/16"	24'-6"	24'-6"	20'-6½"
	C	8'-11 11/16"	7'-6"	7'-6"	3'-6½"
OUTBOUND	A	56'-7¾"	49'-1"	49'-1"	47'-1"
	B	28'-3⅜"	24'-6"	24'-6"	23'-6½"
	C	11'-3⅜"	7'-6"	7'-6"	6'-6½"
T1		11"		9"	
T2		1'-10"		1'-8"	

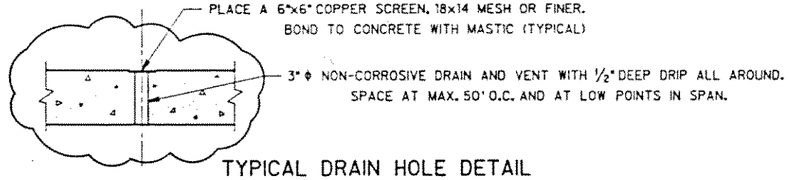
NOTE : T1 AND T2 VARIATIONS ARE MADE IN SEGMENTS IA1-2 AND 0-P1

CROSS SECTION

SCALE : ⅜" = 1'-0"

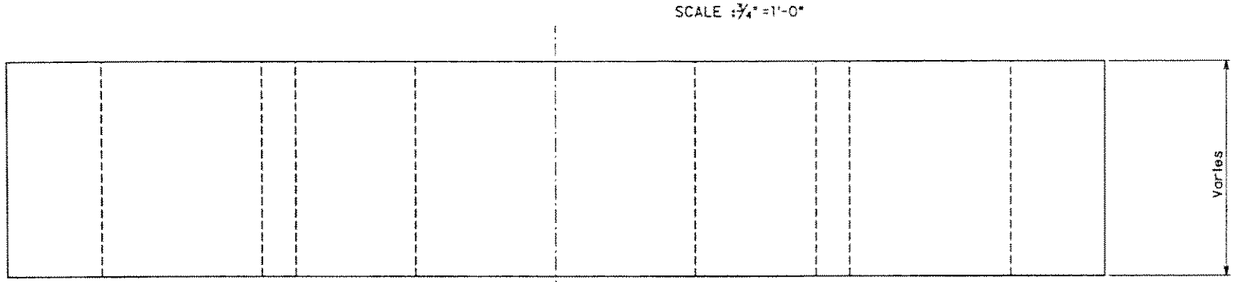
OUTBOUND WING DETAIL

SCALE : ⅜" = 1'-0"



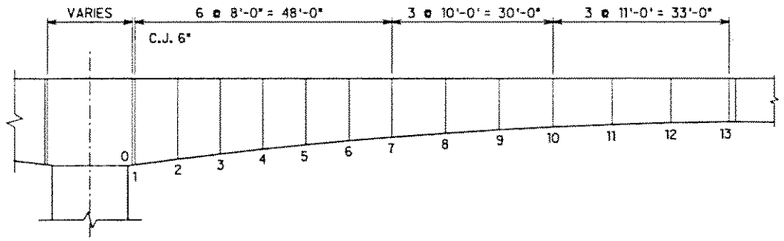
TYPICAL DRAIN HOLE DETAIL

SCALE : ¾" = 1'-0"



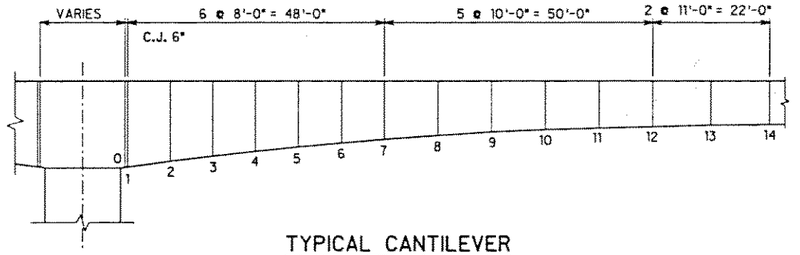
PLAN VIEW

SCALE : ⅜" = 1'-0"



SHORT CANTILEVER

(INBOUND, OUTBOUND PIERS 1 AND 2)



TYPICAL CANTILEVER

TYPICAL CANTILEVER			
JOINT No.	H	T3	W
1	16'-0"	1'-4"	0
2	14'-11⅝"	1'-2¾"	0
3	14'-0⅛"	1'-1⅝"	0
4	13'-1 7/16"	1'-0½"	3⅜"
5	12'-3⅝"	11⅜"	11⅜"
6	11'-6 11/16"	10¼"	1'-7"
7	10'-10 9/16"	9"	2'-3"
8	10'-1⅝"		
9	9'-6"		
10	8'-11¾"		
11	8'-6 5/16"		
12	8'-3¼"		
13	8'-0 13/16"		
14	8'-0"	9"	2'-3"

SHORT CANTILEVER			
JOINT No.	H	T3	W
1	16'-0"	1'-4"	0
2	14'-11⅝"	1'-2¾"	0
3	14'-0⅛"	1'-1⅝"	0
4	13'-1 7/16"	1'-0½"	3⅜"
5	12'-3⅝"	11⅜"	11⅜"
6	11'-6 11/16"	10¼"	1'-7"
7	10'-10 9/16"	9"	2'-3"
8	10'-1⅝"		
9	9'-6"		
10	8'-11¾"		
11	8'-6 7/16"		
12	8'-2 11/16"		
13	*	9"	2'-3"

* H = 8'-0" FOR SEGMENTS No. 1-12D AND 2-12U
H = 8'-1½" FOR SEGMENTS No. 1-12U AND 2-12D

NOTE : SEGMENT LENGTH ARE MEASURED ALONG BASE LINE

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
10/15/90	REPLACED DRAIN HOLE DETAIL.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT DIMENSIONS

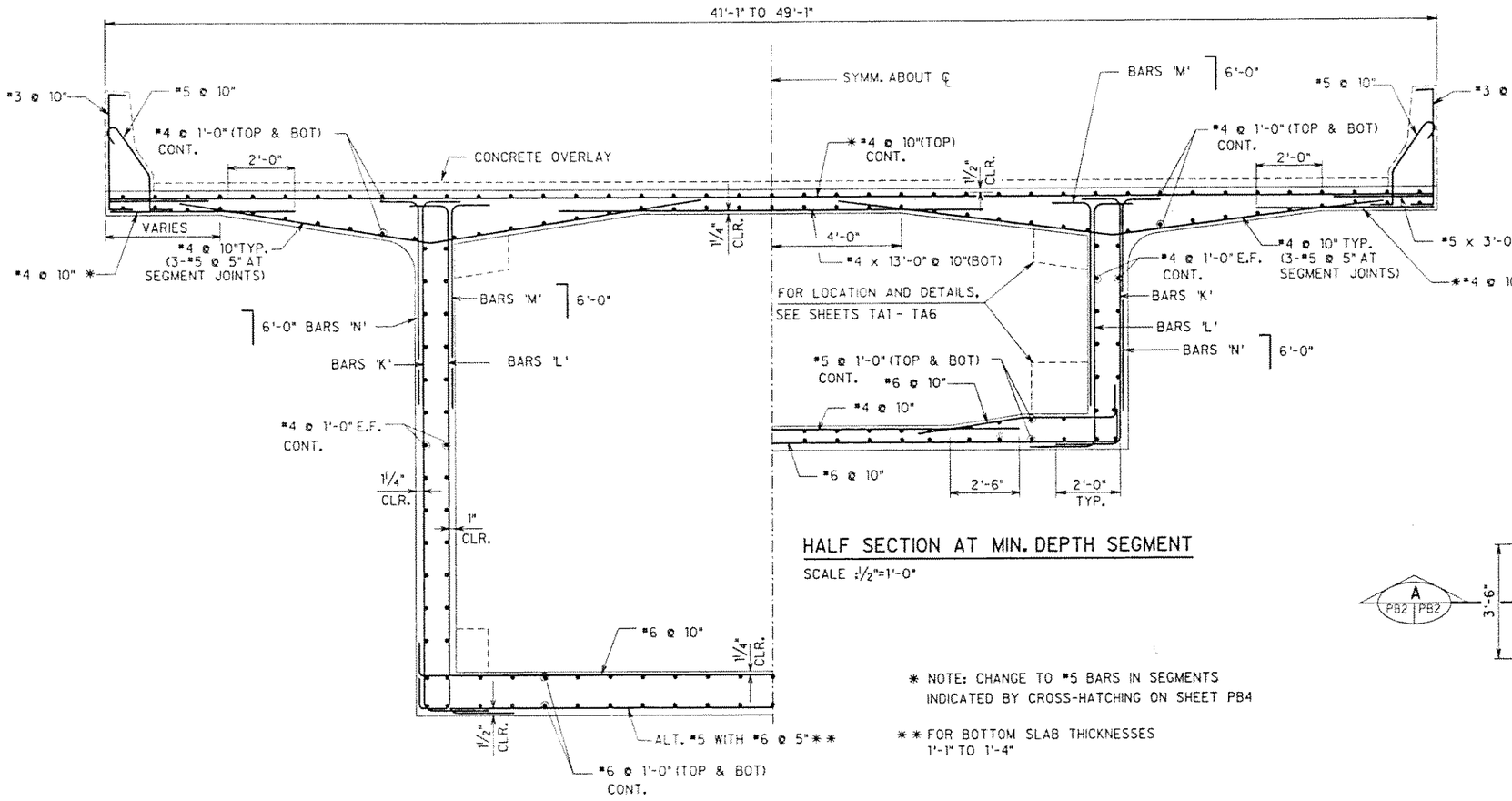
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB1 OF SHEETS

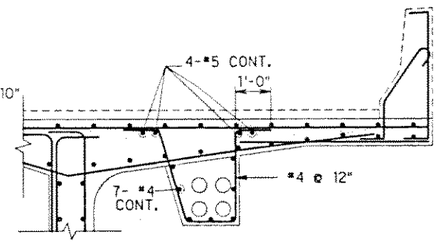
ORIGINAL PLAN | NOTE BOOK | PLOTTED BY | DRAFT BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF SECTION AT MIN. DEPTH SEGMENT

SCALE : ½"=1'-0"



SECTION AT OUTBOUND STRUCTURE

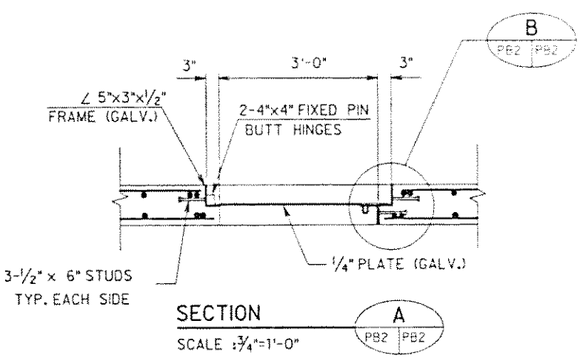
SCALE : ½"=1'-0"

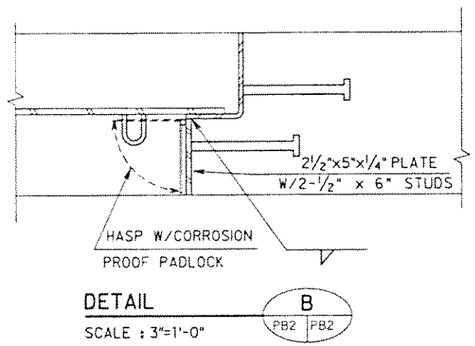
* NOTE: CHANGE TO *5 BARS IN SEGMENTS INDICATED BY CROSS-HATCHING ON SHEET PB4

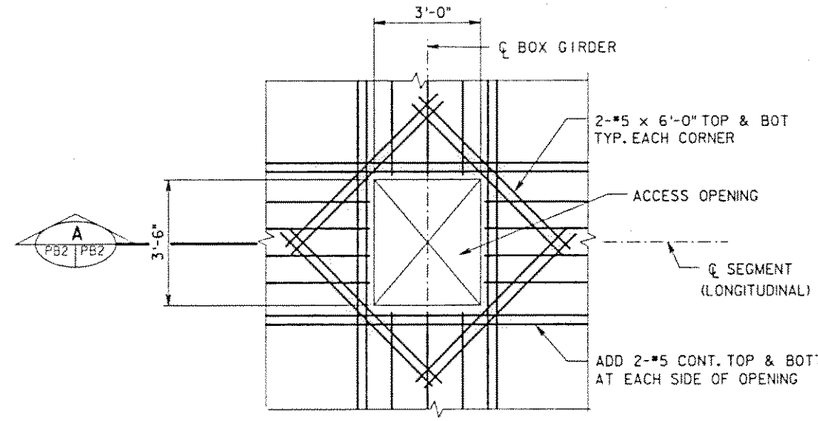
** FOR BOTTOM SLAB THICKNESSES 1'-1" TO 1'-4"

HALF SECTION AT MAX. DEPTH SEGMENT

SCALE : ½"=1'-0"







ACCESS OPENING PLAN

SCALE : ½"=1'-0"
(LOCATED IN SEGMENT ADJACENT TO ABUTMENT SEGMENT)

NOTES:

1. FOR POST-TENSIONING DETAILS, SEE SHEETS TA1 - TA6
2. WORK THIS SHEET WITH SHEET NO PB4
3. FOR ADDITIONAL REINFORCING AROUND ANCHORAGES, SEE SHEET NO. TT1
4. FOR REINFORCING IN CONCRETE OVERLAY, SEE SHEET NO. BG3

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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DATE	REVISION
04/05/91	UPDATED DRAWING.
09/14/90	UPDATED DRAWING.

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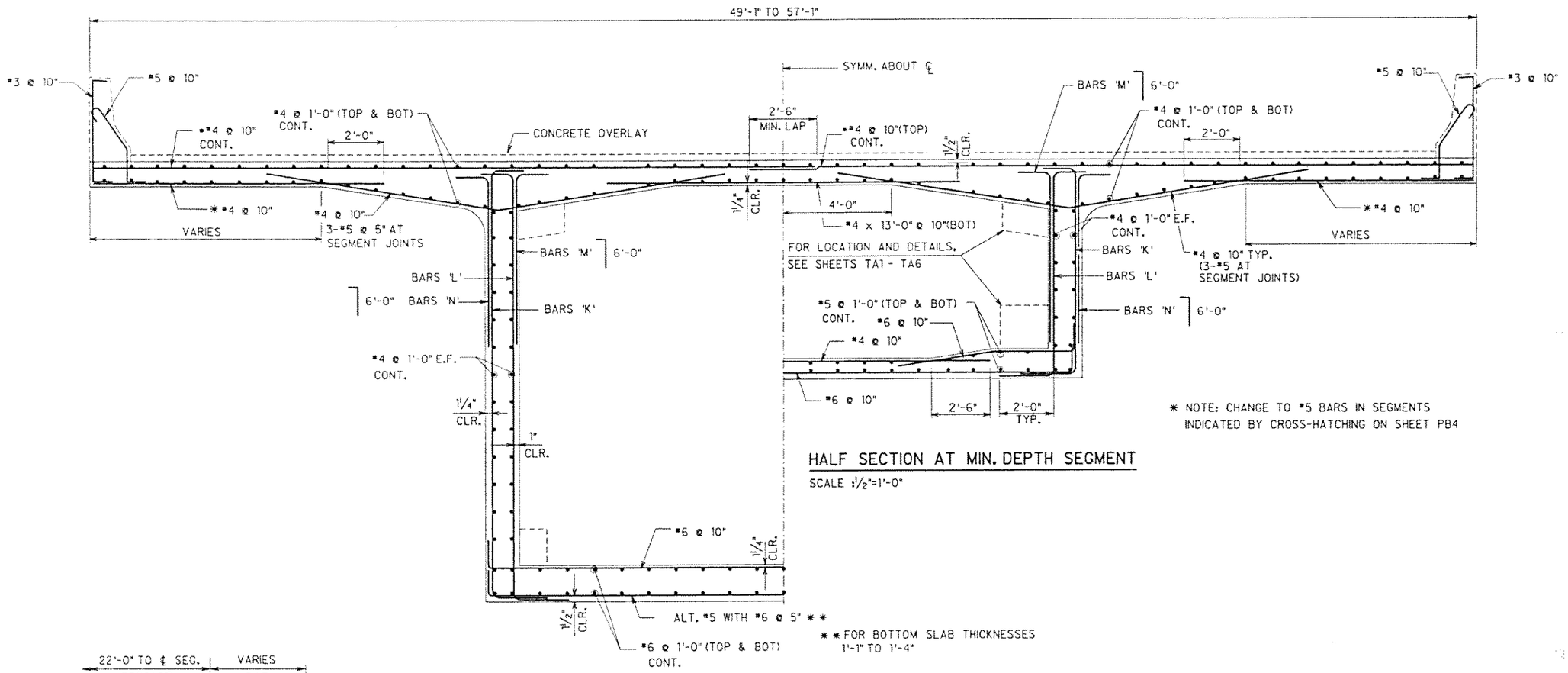
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB2 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



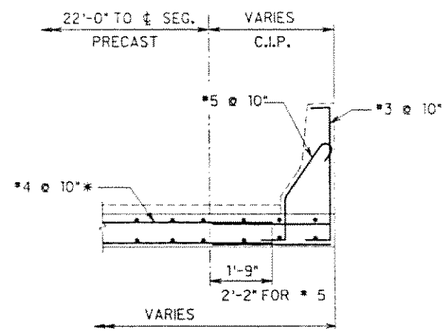
* NOTE: CHANGE TO #5 BARS IN SEGMENTS INDICATED BY CROSS-HATCHING ON SHEET PB4

HALF SECTION AT MIN. DEPTH SEGMENT

SCALE :½"=1'-0"

HALF SECTION AT MAX. DEPTH SEGMENT

SCALE :½"=1'-0"



DETAIL FOR C.I.P. WING

SCALE :½"=1'-0"

NOTES:

1. FOR POST-TENSIONING DETAILS, SEE SHEETS TA1 - TA6
2. WORK THIS SHEET WITH SHEET NO PB4
3. FOR ADDITONAL REINFORCING AROUND ANCHORAGES, SEE SHEET NOS. TT1
4. FOR REINFORCING IN CONCRETE OVERLAY SEE DRAWING BG3.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 2375-S HAWAII, U.S.A.

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DATE	REVISION
04/05/91	UPDATED DRAWING.
09/14/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

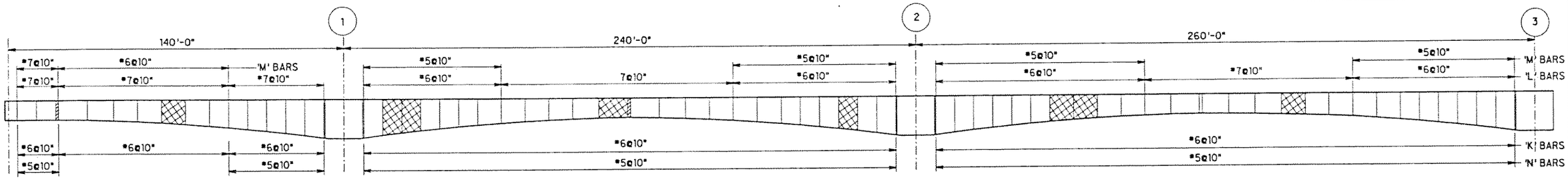
BOX GIRDER SEGMENT
REINFORCING II

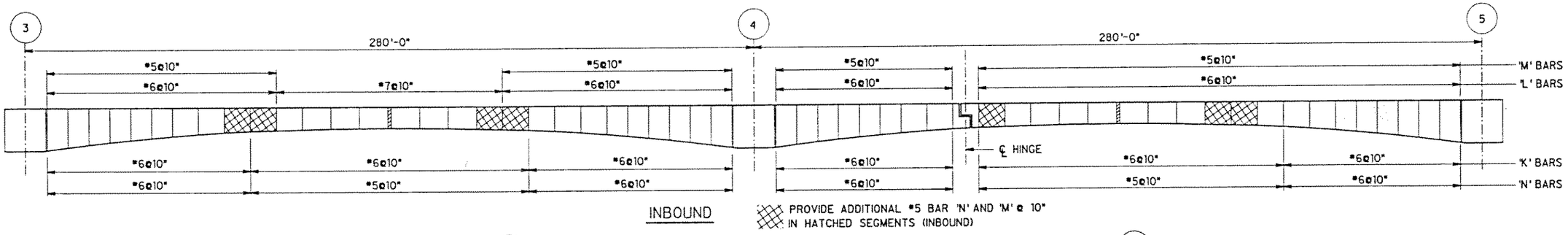
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PB3 OF SHEETS

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

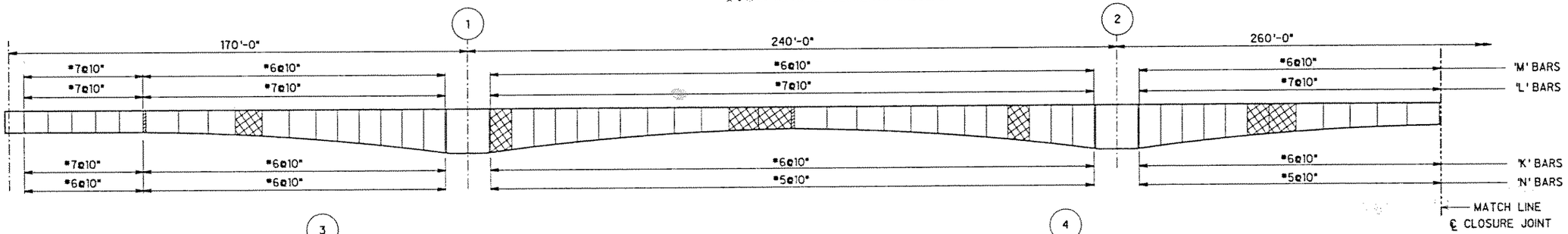
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

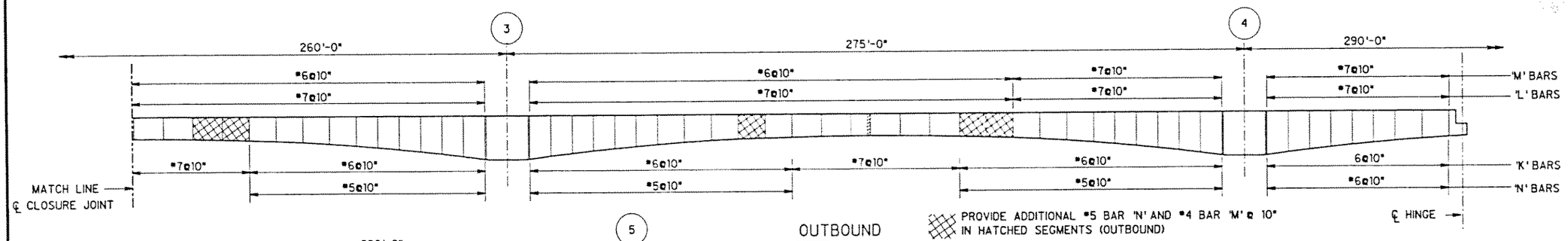




INBOUND

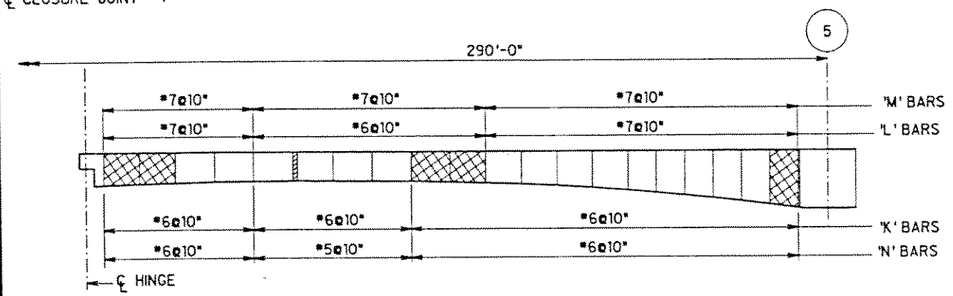
PROVIDE ADDITIONAL *5 BAR 'N' AND 'M' @ 10" IN HATCHED SEGMENTS (INBOUND)





OUTBOUND

PROVIDE ADDITIONAL *5 BAR 'N' AND *4 BAR 'M' @ 10" IN HATCHED SEGMENTS (OUTBOUND)



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

DATE	REVISION
09/17/90	MOD. DRAWING No. TO PB4A AND GENERAL REVISIONS.

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JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

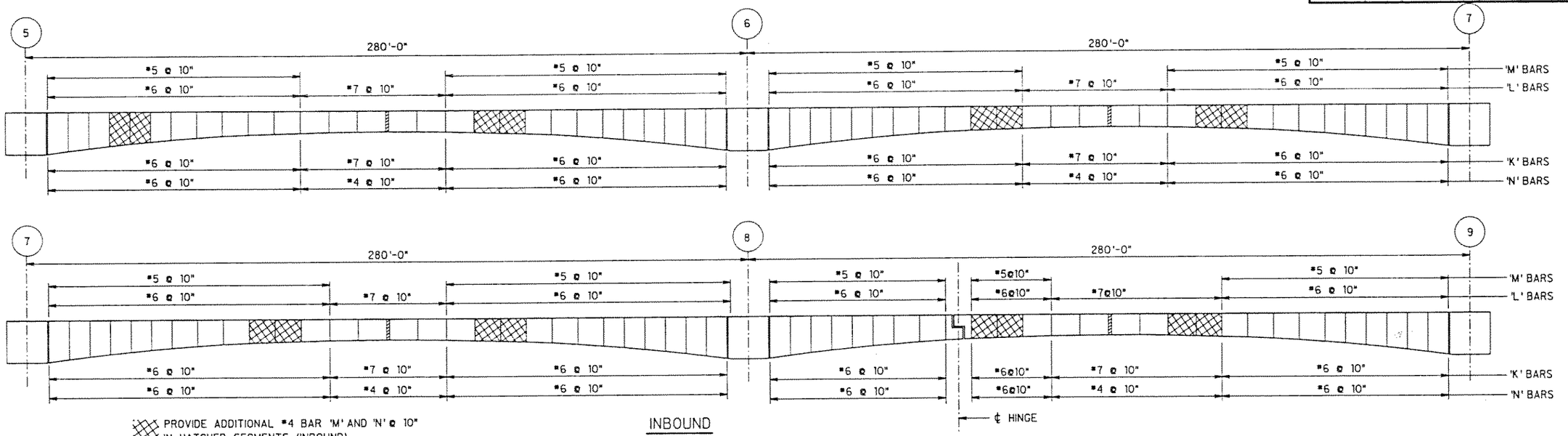
BOX GIRDER SEGMENT
REINFORCING III

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1990

SHEET No. PB4A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION

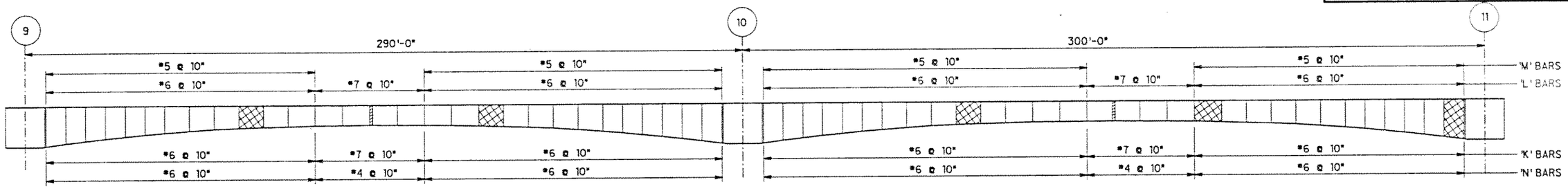
J. MULLER INTERNATIONAL
Libby Engineers

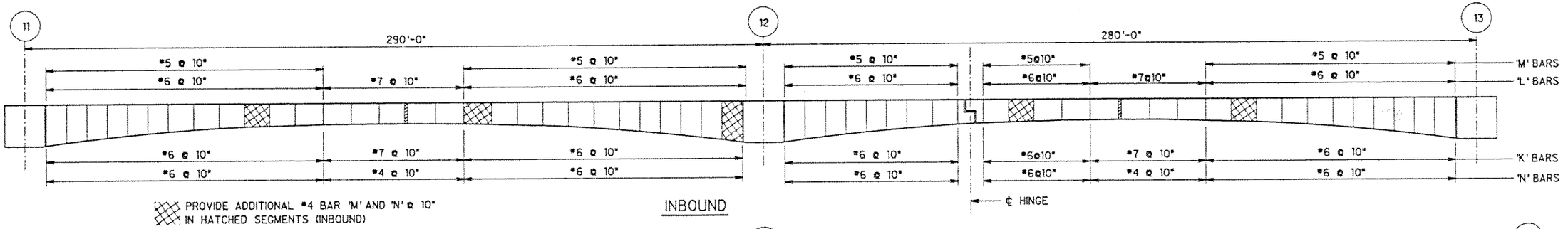
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BOX GIRDER SEGMENT
REINFORCING IV

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. PB4 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





PROVIDE ADDITIONAL #4 BAR 'M' AND 'N' @ 10" IN HATCHED SEGMENTS (INBOUND)

INBOUND

PROVIDE ADDITIONAL #4 BAR 'M' AND #4 BAR 'N' @ 10" IN HATCHED SEGMENTS (OUTBOUND)

OUTBOUND

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE
3. HATCHED SEGMENTS INDICATE FARADAY SHIELD SUPPORT LOCATIONS.

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

DATE	REVISION

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JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2379 — HAWAII, U.S.A.

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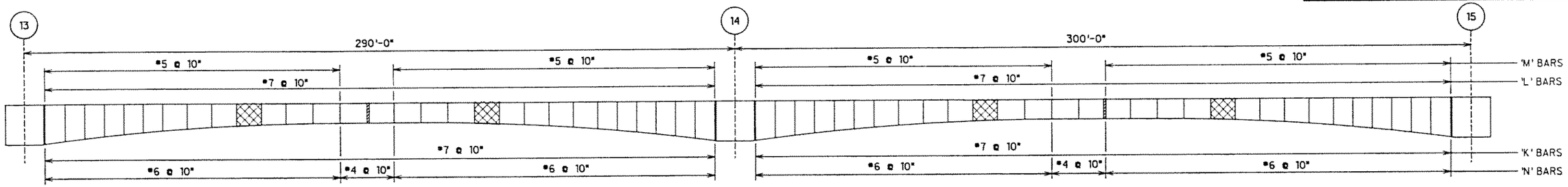
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

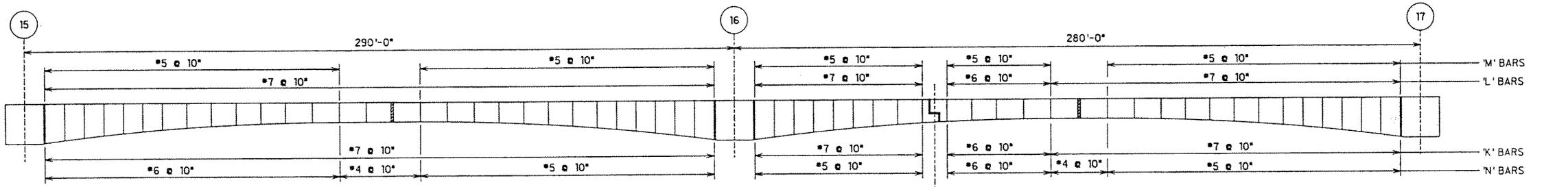
BOX GIRDER SEGMENT
REINFORCING V

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. PB4COF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

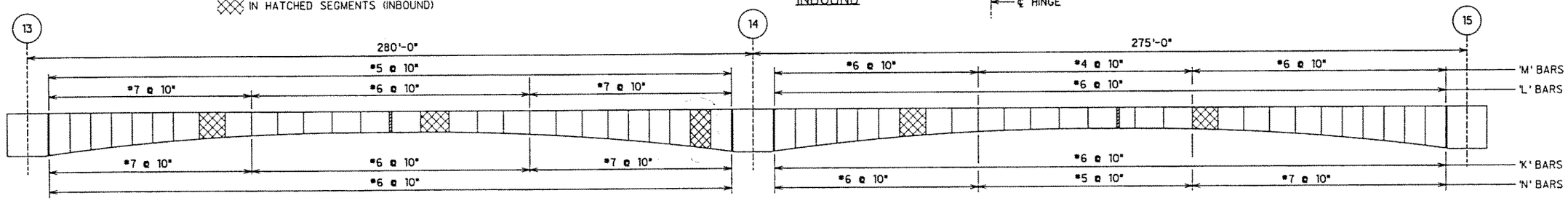


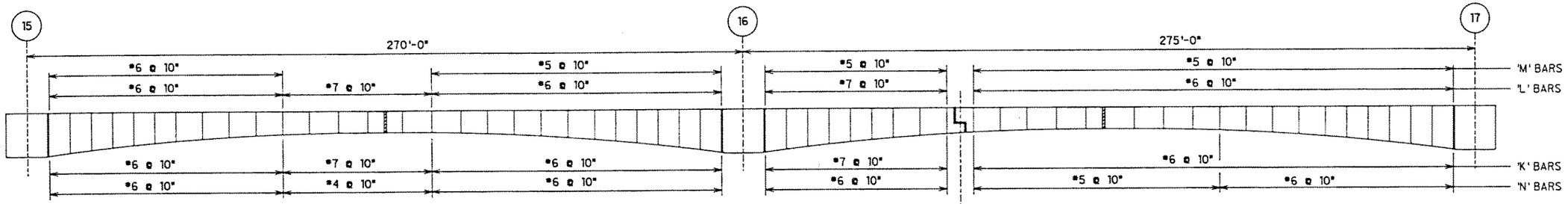


PROVIDE ADDITIONAL #4 BAR 'M' AND #4 BAR 'N' @ 10" IN HATCHED SEGMENTS (INBOUND)

INBOUND

℄ HINGE





PROVIDE ADDITIONAL #4 BAR 'M' AND #4 BAR 'N' @ 10" IN HATCHED SEGMENTS (OUTBOUND)

OUTBOUND

℄ HINGE

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3.
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE.
3. HATCHED SEGMENTS INDICATE FARADAY SHIELD SUPPORT LOCATIONS.

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
no. 2375-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

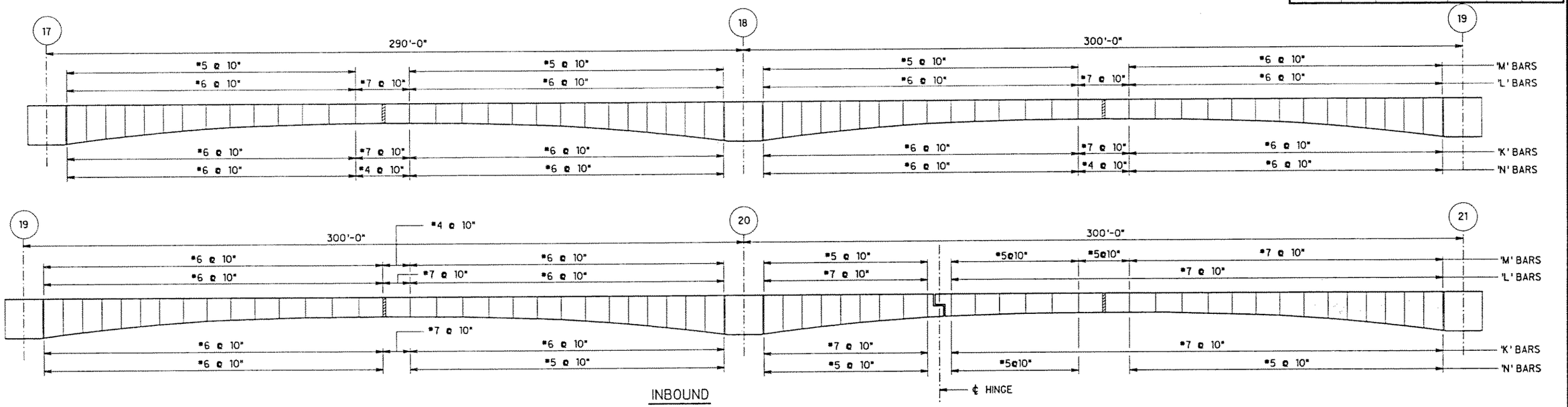
BOX GIRDER SEGMENT REINFORCING VI

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

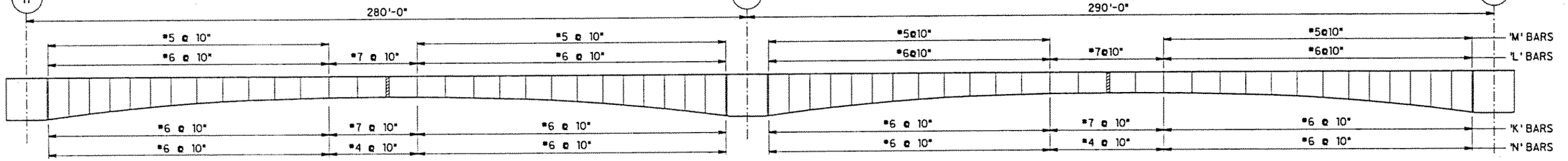
SCALE : AS NOTED DATE : APRIL 1991

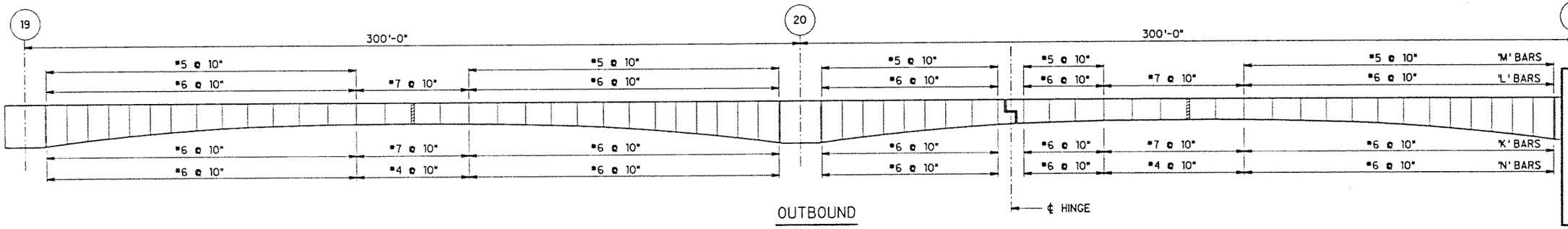
SHEET NO. PB4D OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



INBOUND





OUTBOUND

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

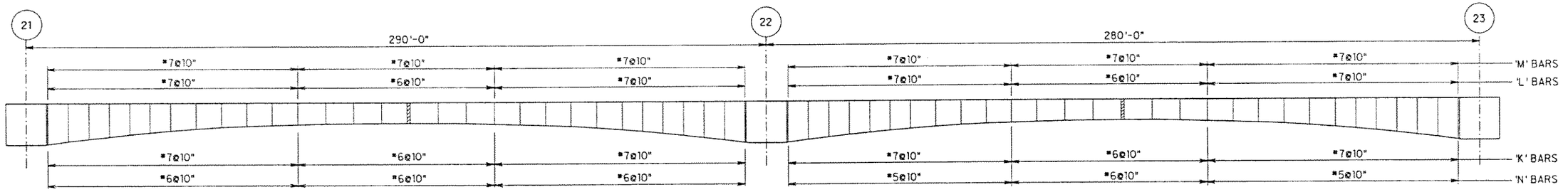
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

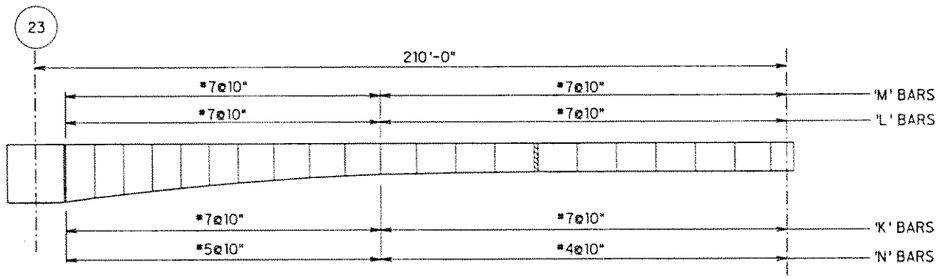
BOX GIRDER SEGMENT REINFORCING VII

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

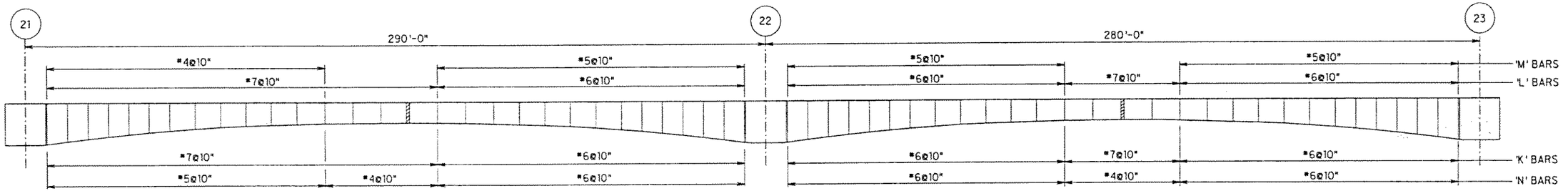
SHEET No. PB4EOF SHEETS

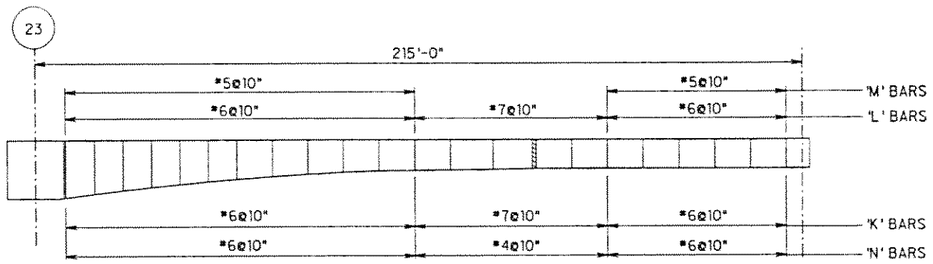
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





INBOUND





OUTBOUND

NOTE:
1. WORK THIS SHEET WITH SHEETS PB2 AND PB3
2. ALL SPAN LENGTHS ARE MEASURED ALONG THE BASELINE

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

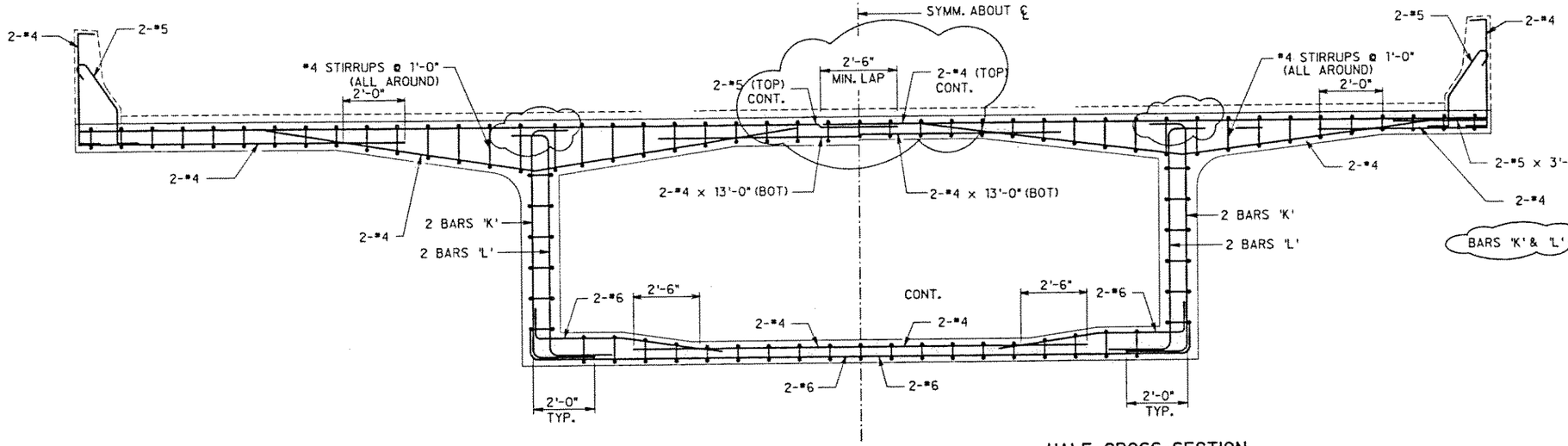
BOX GIRDER SEGMENT
REINFORCING VIII

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN 1991

SHEET No. PB4F OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



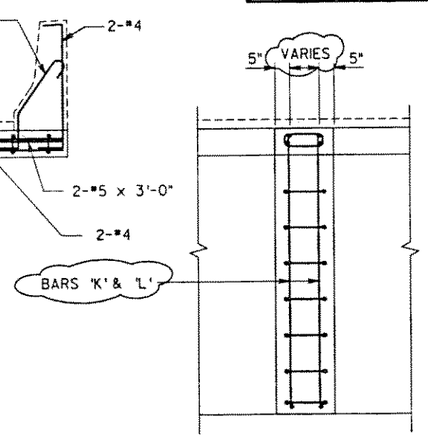
HALF CROSS-SECTION

FOR WIDTHS GREATER THAN 49'-1"
SCALE :½"=1'-0"

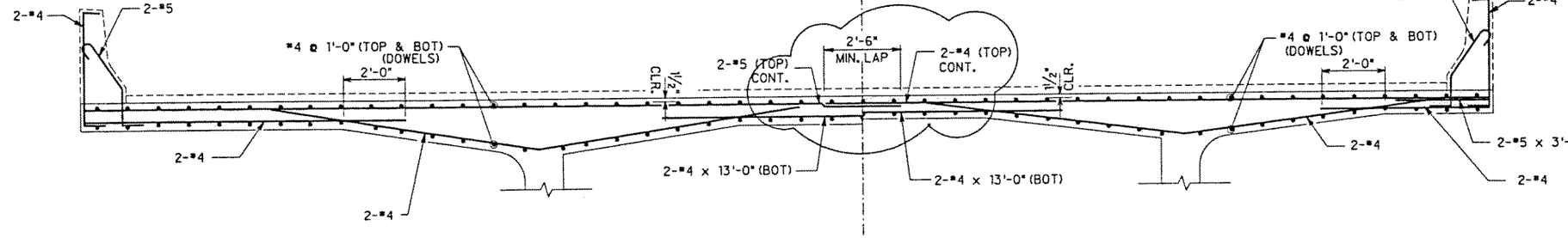
MIDSPAN CLOSURE JOINT

HALF CROSS-SECTION

FOR WIDTHS OF 49'-1" OR LESS
SCALE :½"=1'-0"



LONGITUDINAL ELEVATION



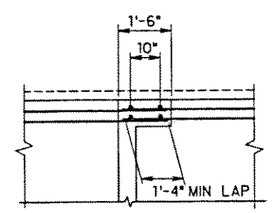
HALF CROSS-SECTION

FOR WIDTHS GREATER THAN 49'-1"
SCALE :½"=1'-0"

CLOSURE JOINT AT PIER

HALF CROSS-SECTION

FOR WIDTHS OF 49'-1" OR LESS
SCALE :½"=1'-0"



LONGITUDINAL ELEVATION

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2376-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

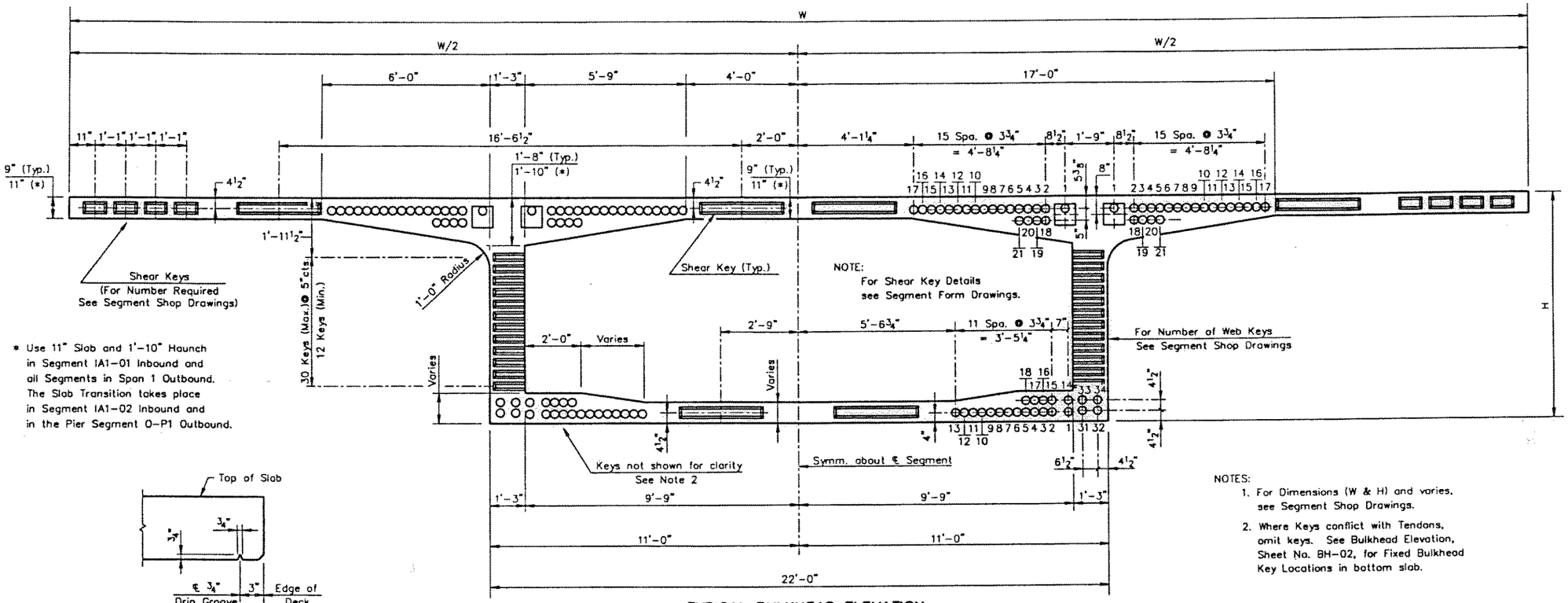
DATE	REVISION
09/14/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CLOSURE JOINT REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. PB5 OF SHEETS

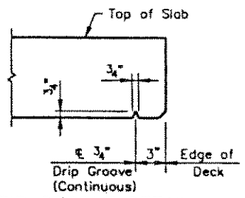


TYPICAL BULKHEAD ELEVATION

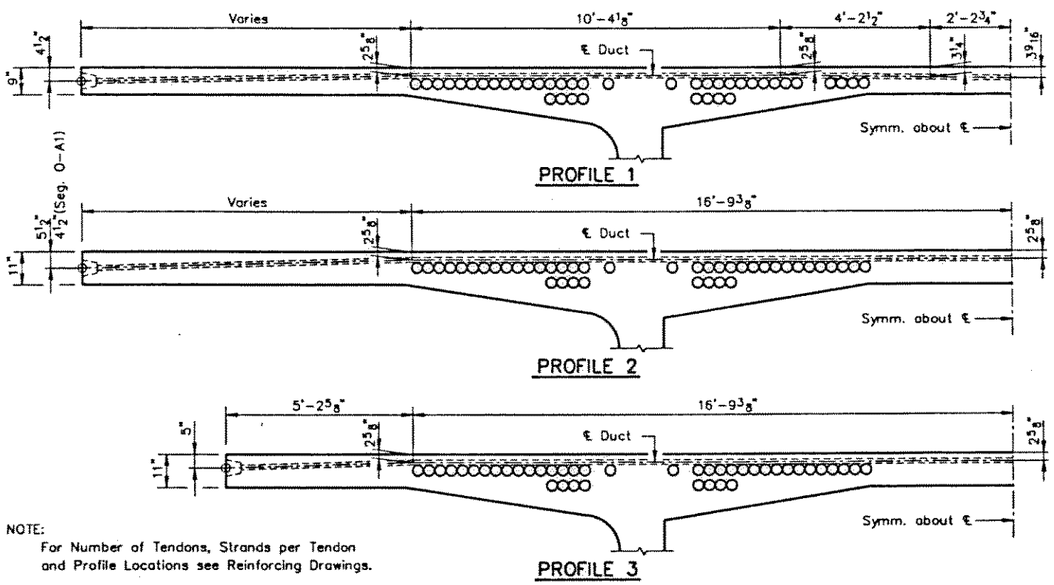
MINIMUM DEPTH

NOTES:

1. For Dimensions (W & H) and varies, see Segment Shop Drawings.
2. Where Keys conflict with Tendons, omit keys. See Bulkhead Elevation, Sheet No. BH-02, for Fixed Bulkhead Key Locations in bottom slab.

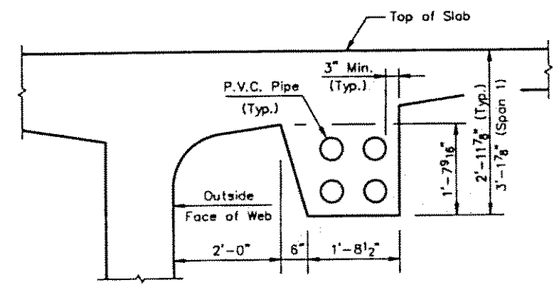


DRIP GROOVE DETAIL

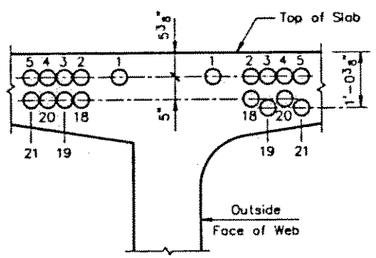


NOTE:
For Number of Tendons, Strands per Tendon and Profile Locations see Reinforcing Drawings.

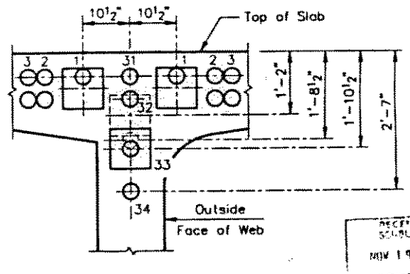
TRANSVERSE P.T. PROFILES



OUTBOUND WING DETAIL



PARTIAL DETAIL AT PIERS



PARTIAL DETAIL AT HINGE CANTILEVER

RECEIVED SCI/BLACK NOV 19 1990

PROJECT: H-3 WINDWARD VIADUCT

Rev. 2

NO.	DATE	REVISION	BY	CKD
2	11/90	General Update	M.W.R.	J.A.L.
1	10/24/90	General Update	M.W.R.	J.A.L.

DESIGNED BY —
DRAWN BY M.W.R. 8/90
CKD BY G.M.R. 8/90
APPVD BY —
DATE

CLIENT: SCI/E.E. BLACK JOINT VENTURE

J. MULLER INTERNATIONAL, SAN DIEGO, CALIFORNIA

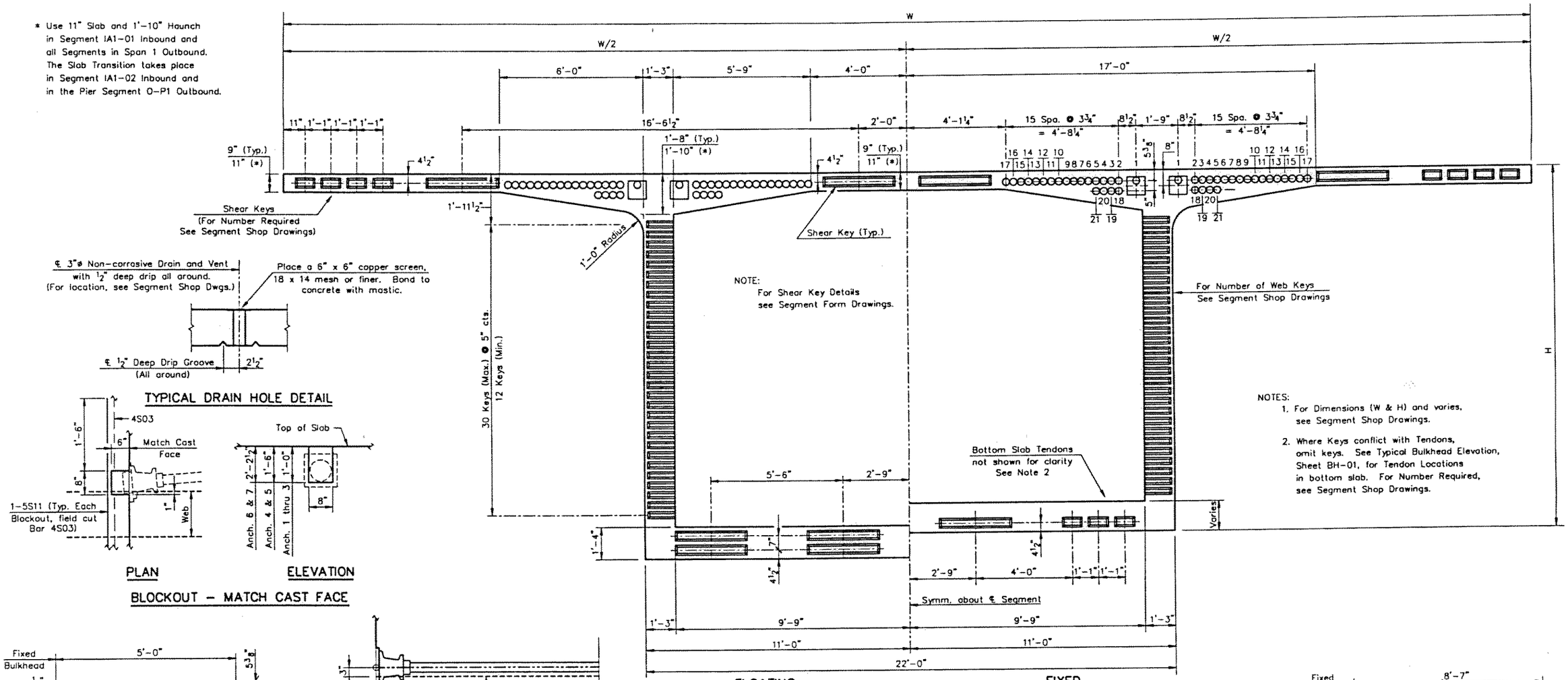
LoBuono, Armstrong & Associates, A DIVISION OF FREDERIC R. HARRIS, INC. San Pedro, California Tallahassee, Florida

SHEET TITLE: TYPICAL SEGMENT DIMENSIONS AND TENDON DUCT LOCATIONS 1 OF 2

SHEET BH-01 OF 2

FILE: C:\CAD\PROJECTS\6621902\BH-0001 DATE: 11-16-1990 TIME: 23:22:12 CPU: HAL 2000

* Use 11" Slab and 1'-10" Haunch in Segment IA1-01 Inbound and all Segments in Span 1 Outbound. The Slab Transition takes place in Segment IA1-02 Inbound and in the Pier Segment O-P1 Outbound.



FLOATING

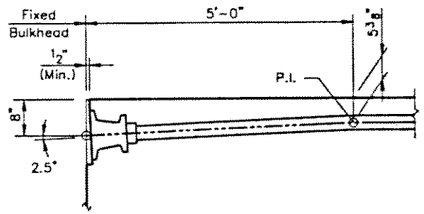
TYPICAL DRAIN HOLE DETAIL

PLAN ELEVATION

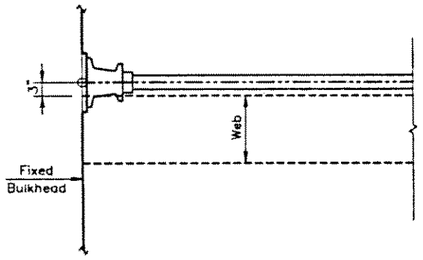
BLOCKOUT – MATCH CAST FACE

BULKHEAD ELEVATION

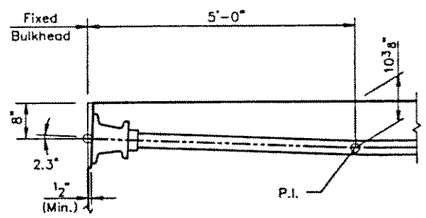
FIXED



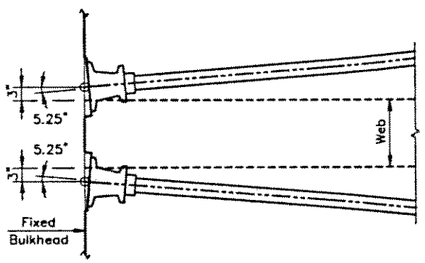
SECTION – ANCHORAGES 1 & 2



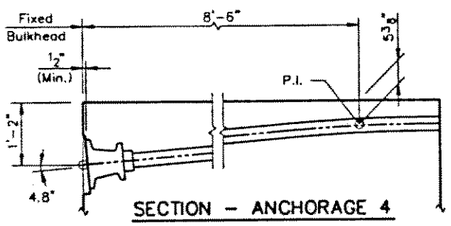
PLAN – ANCHORAGE 1



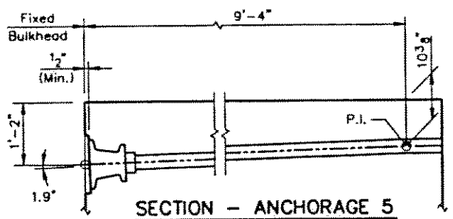
SECTION – ANCHORAGE 3



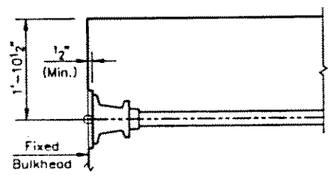
PLAN – ANCHORAGES 2 & 3



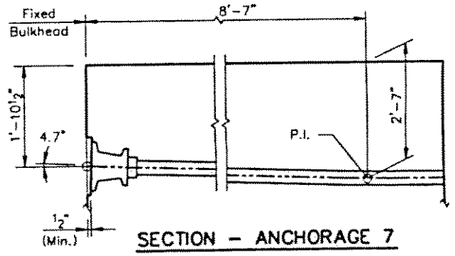
SECTION – ANCHORAGE 4



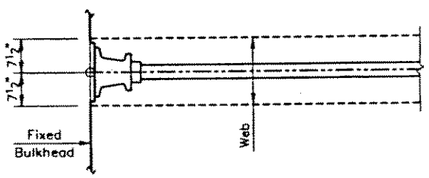
SECTION – ANCHORAGE 5



SECTION – ANCHORAGE 6



SECTION – ANCHORAGE 7



PLAN – ANCHORAGES 4 THRU 7

NOTE:
Use 30'-0" Minimum Tendon Radius, unless otherwise noted. (Typ.)

For Anchorage Type required, See Segment Shop Drawings.

RECEIVED SCI/E.E. BLACK NOV 19 H-3 WINDWARD VIADUCT J.V. YARD

PROJECT: H-3 WINDWARD VIADUCT Rev. 2

NO.	DATE	REVISION	BY	CKD
2	11/90	General Update	M.W.R.	J.A.L.
1	10/24/90	General Update	M.W.R.	J.A.L.

DESIGNED BY M.W.R. 8/90
DRAWN BY G.M.R. 8/90
CKD BY
APPVD BY
DATE

CLIENT: SCI/E.E. BLACK JOINT VENTURE

J. MULLER INTERNATIONAL SAN DIEGO, CALIFORNIA

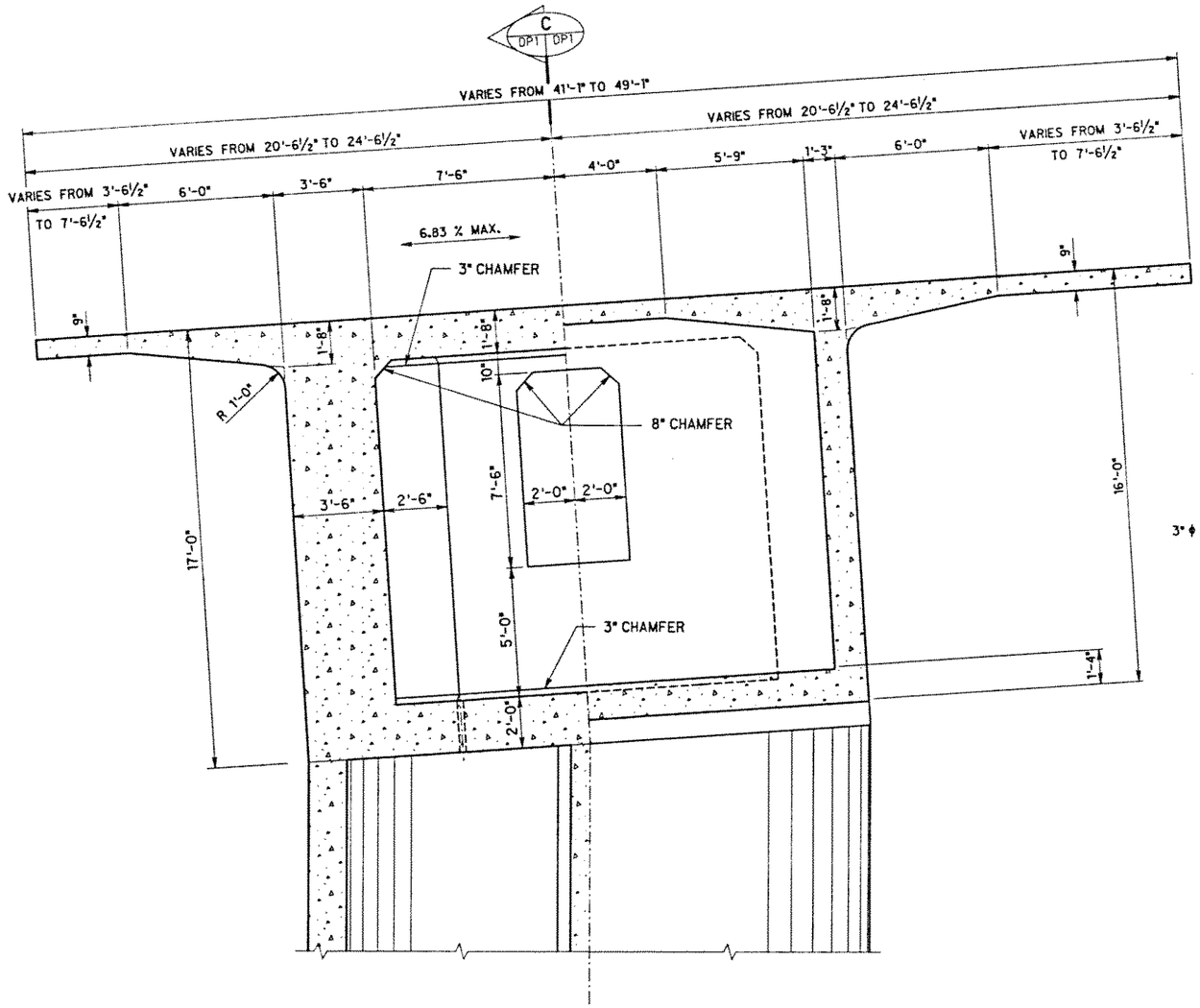
LoBuono, Armstrong & Associates A DIVISION OF FREDERIC R. HARRIS, INC. San Pedro, California Tallahassee, Florida

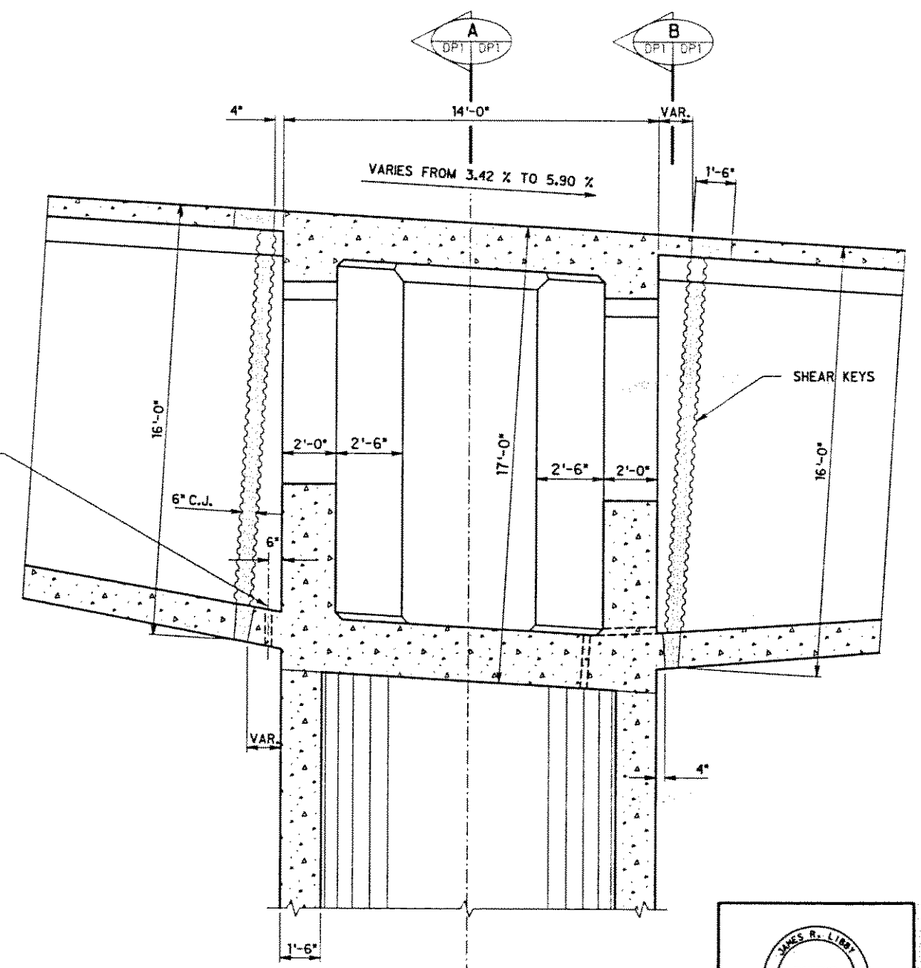
SHEET TITLE: TYPICAL SEGMENT DIMENSIONS AND TENDON DUCT LOCATIONS 2 OF 2

SHEET BH-02 OF 2

FILE: C:\CAD\PROJECTS\06223902\BH-0002 DATE: 11-16-1990 TIME: 23:41:18 CPU: HAL 2000

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





HALF SECTION A
SCALE : ⅜" = 1'-0"
SHOWING 20'-6½"

HALF SECTION B
SCALE : ⅜" = 1'-0"
SHOWING 24'-6½"

SECTION C
SCALE : ⅜" = 1'-0"

NOTE : TOP SLAB THICKNESS VARIES FROM 9" TO 11" AT OUTBOUND PIER 1 (SEE SHEET No. PB1)
FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

ORIGINAL RECORD
SURVEY PLOTTED BY ____ DATE
SURVEY CHECKED BY ____
TRACED BY ____
DESIGNED BY ____
QUANTITIES BY ____
CHECKED BY ____
NOTE BOOK
No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.

J. MULLER INTERNATIONAL
Libby Engineers

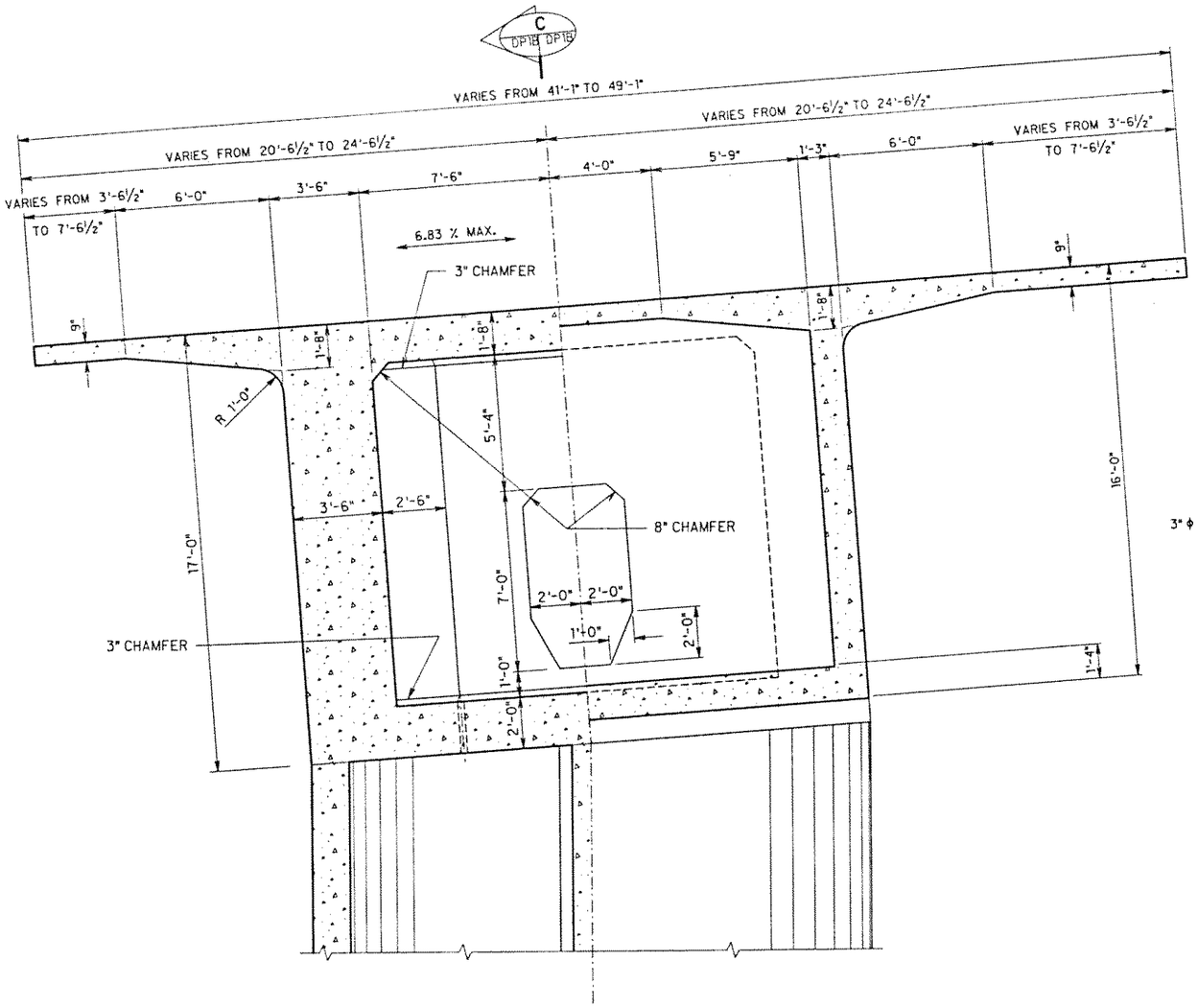
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

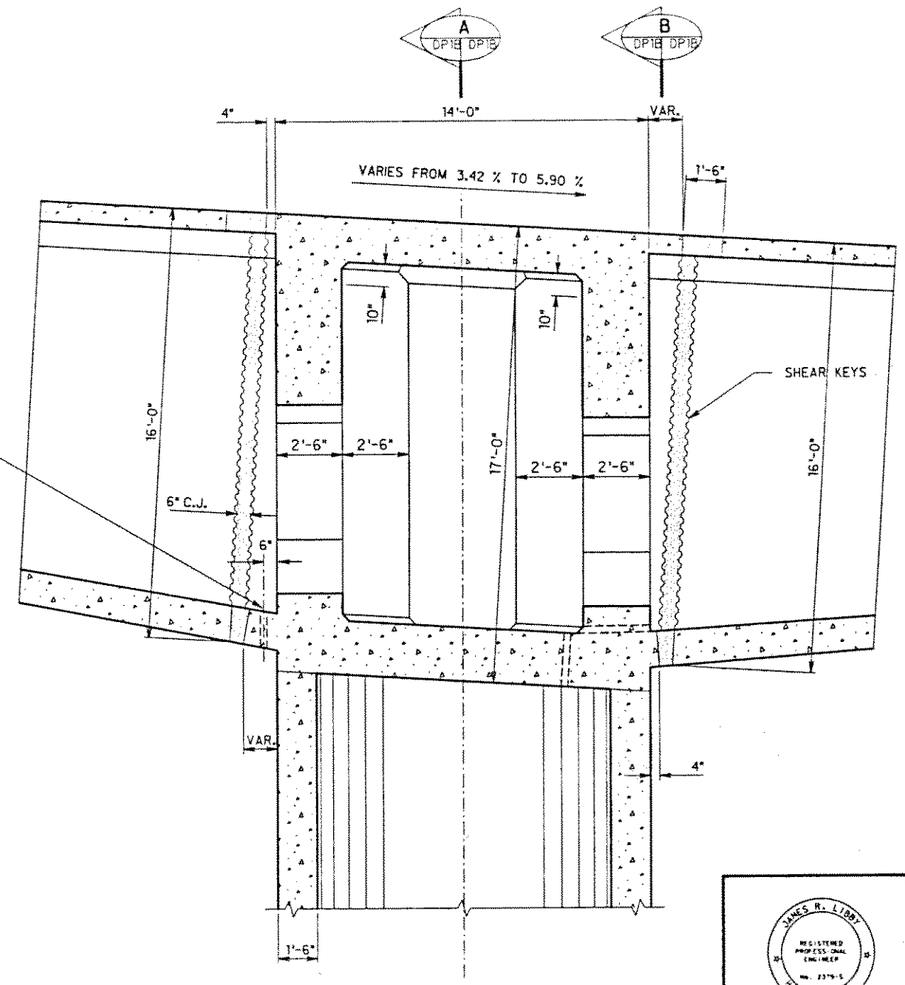
FIXED PIER SEGMENT
DIMENSIONS
(TYPE I)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP1A OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





HALF SECTION A (DP1B | DP1B)
⅜" = 1'-0"
SHOWING 20'-6½"

HALF SECTION B (DP1B | DP1B)
⅜" = 1'-0"
SHOWING 24'-6½"

SECTION C (DP1B | DP1B)
⅜" = 1'-0"

SEE SHEET PS1 FOR LOCATION OF TYPE II PIER SEGMENTS
FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

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DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

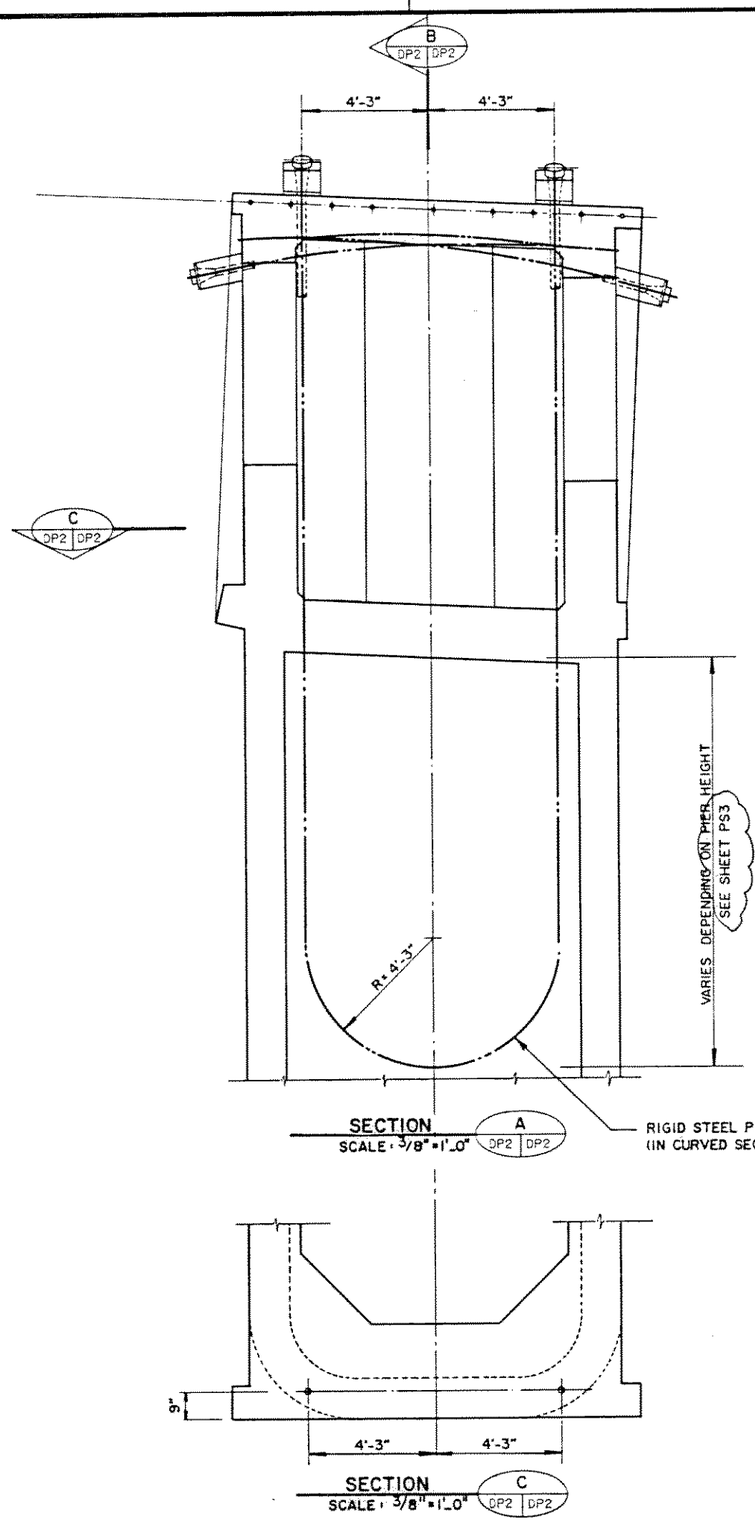
FIXED PIER SEGMENT DIMENSIONS TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : MARCH 1991

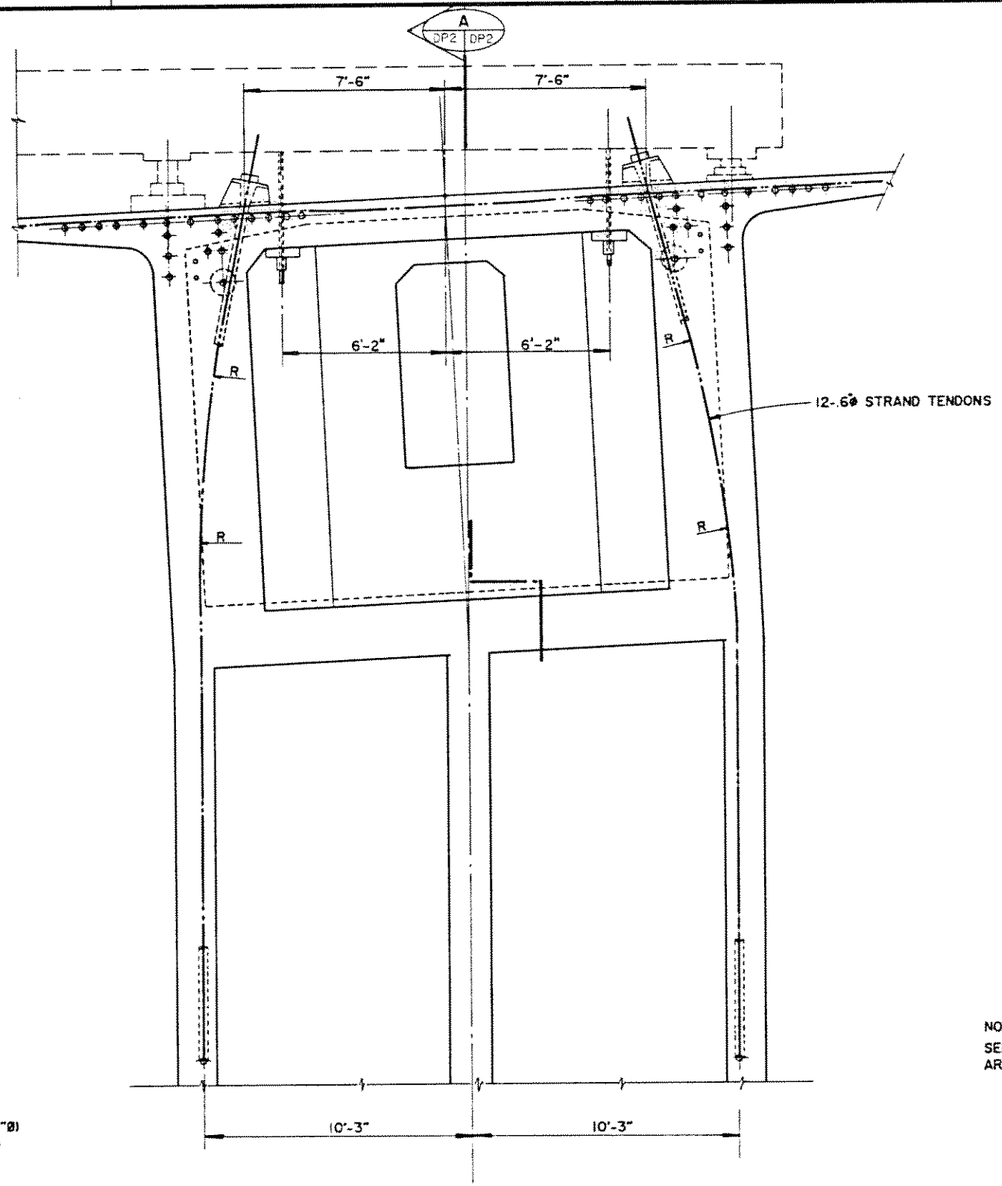
SHEET No. DP1B OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 3/8"=1'-0" DP2 DP2

SECTION C
SCALE : 3/8"=1'-0" DP2 DP2



SECTION B
SCALE : 3/8"=1'-0" DP2 DP2

NOTE:
SEE SHEET NO. PS3 FOR REINFORCING AROUND CURVED TENDON

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

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DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT
P.T. DETAILS
(TYPE 1)
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

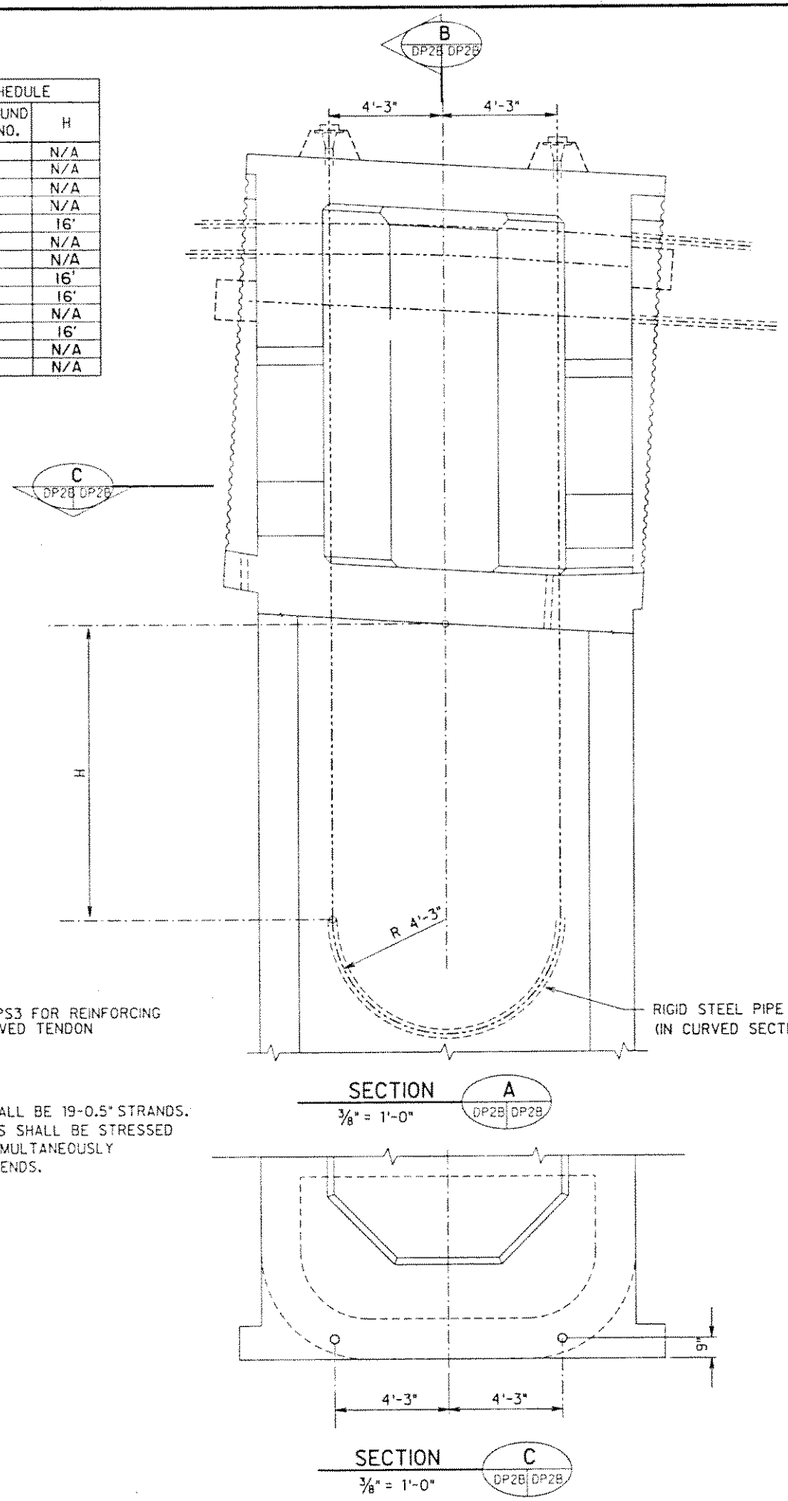
SCALE : AS NOTED DATE : JUN. 1990

SHEET NO. DP2A OF SHEETS

SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
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(57)	1988		

FIXED PIER TENDON SCHEDULE			
INBOUND PIER NO.	H	OUTBOUND PIER NO.	H
6	N/A	6	N/A
7	N/A	7	N/A
9	16'	9	N/A
10	N/A	10	N/A
11	16'	11	16'
14	N/A	14	N/A
15	N/A	15	N/A
16	N/A	16	16'
18	16'	18	16'
19	16'	19	N/A
20	16'	20	16'
21	N/A	21	N/A
22	N/A	22	N/A

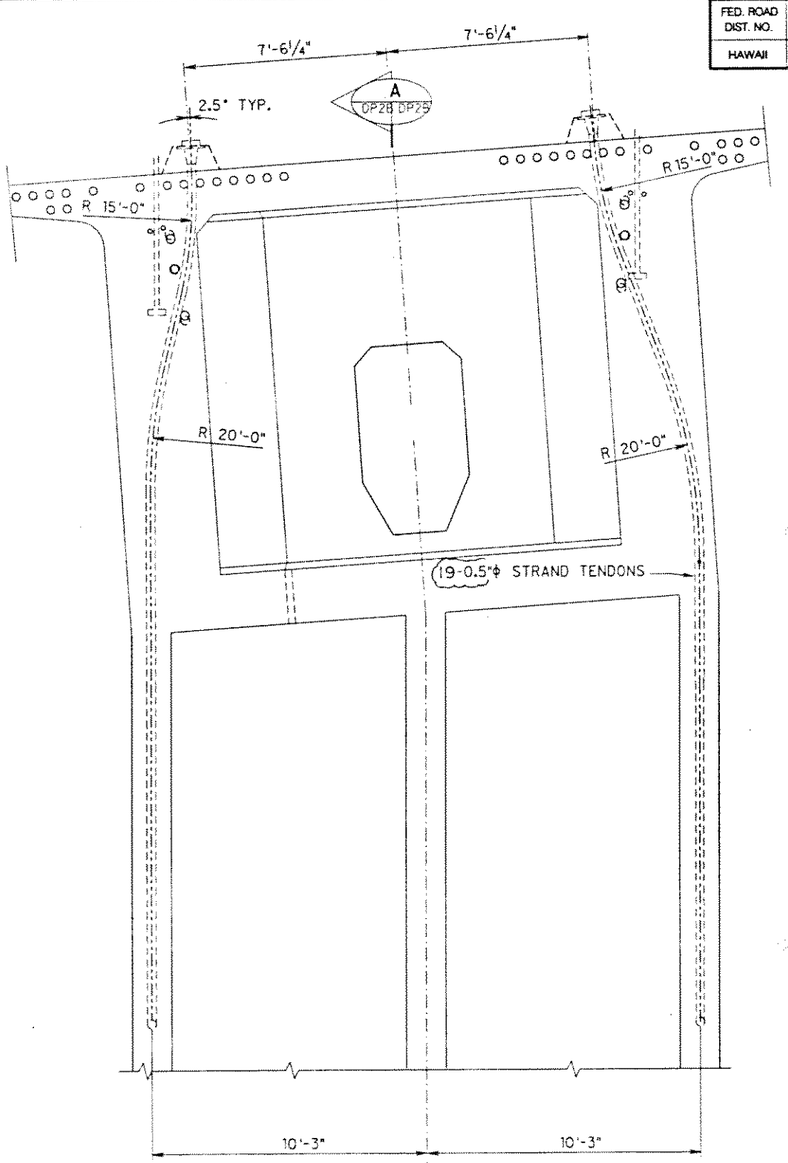


NOTE:
SEE SHEET PS3 FOR REINFORCING AROUND CURVED TENDON

TENDONS SHALL BE 19-0.5" STRANDS. THE TENDONS SHALL BE STRESSED TO 628 K SIMULTANEOUSLY FROM BOTH ENDS.

SECTION A DP2B DP2B
3/8" = 1'-0"

SECTION C DP2B DP2B
3/8" = 1'-0"



SECTION B DP2B DP2B
3/8" = 1'-0"

DATE	REVISION
07/02/91	UPDATED DRAWING.
05/03/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

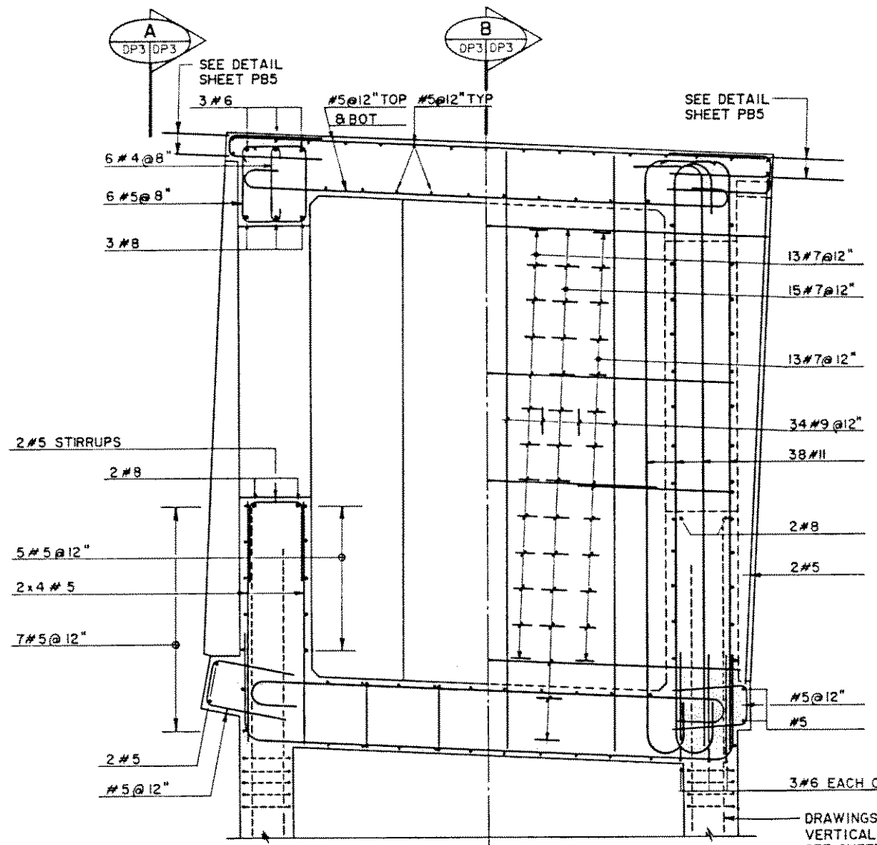
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

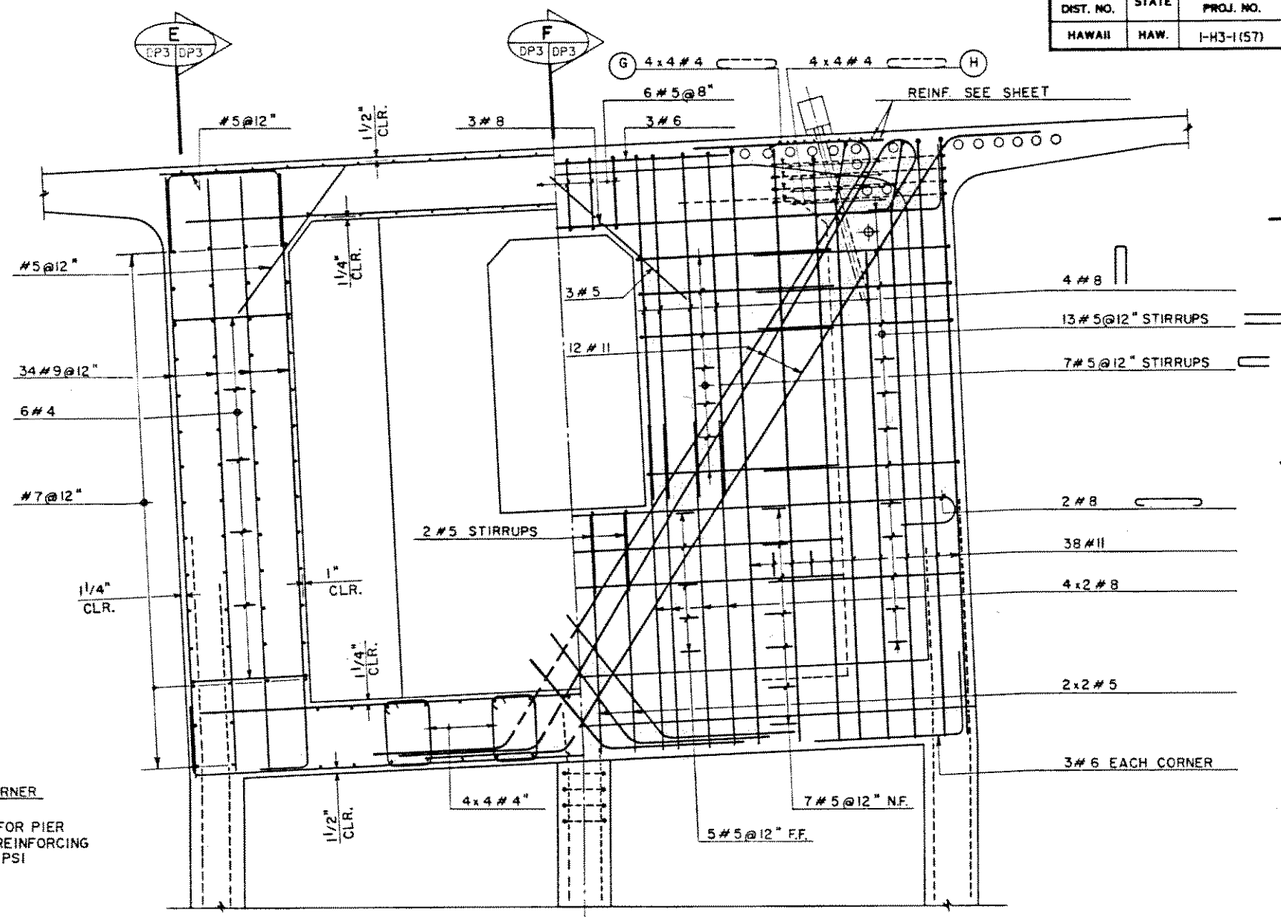
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

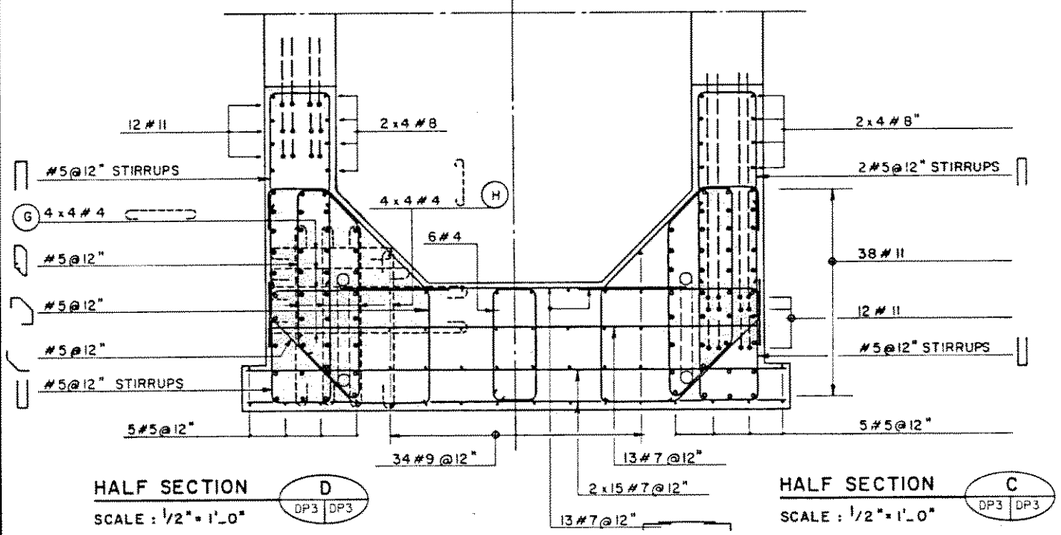
FIXED PIER SEGMENT
P.T. DETAILS
TYPE II
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR 1991
SHEET No. DP2B OF SHEETS

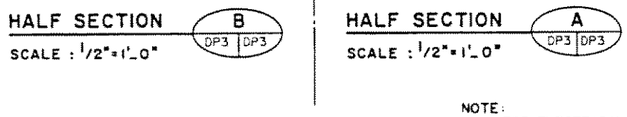
ORIGINAL PLAN | NOTE MADE | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		









NOTE:
FOR ELECTRICAL MANHOLE DETAILS SEE SHEET EDI

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/05/91	UPDATED TITLE AND SHEET NO.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

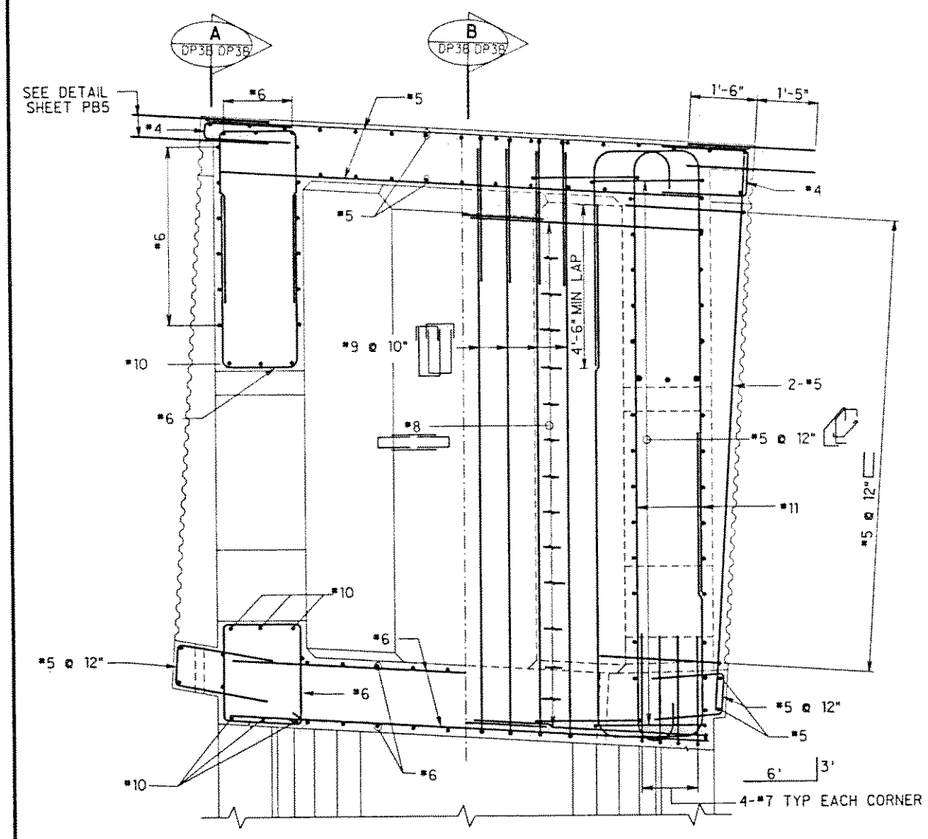
FIXED PIER SEGMENT REINFORCING
(TYPE 1)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

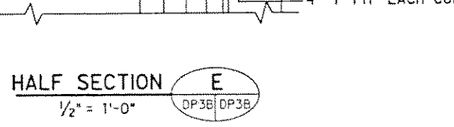
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP3ADF SHEETS

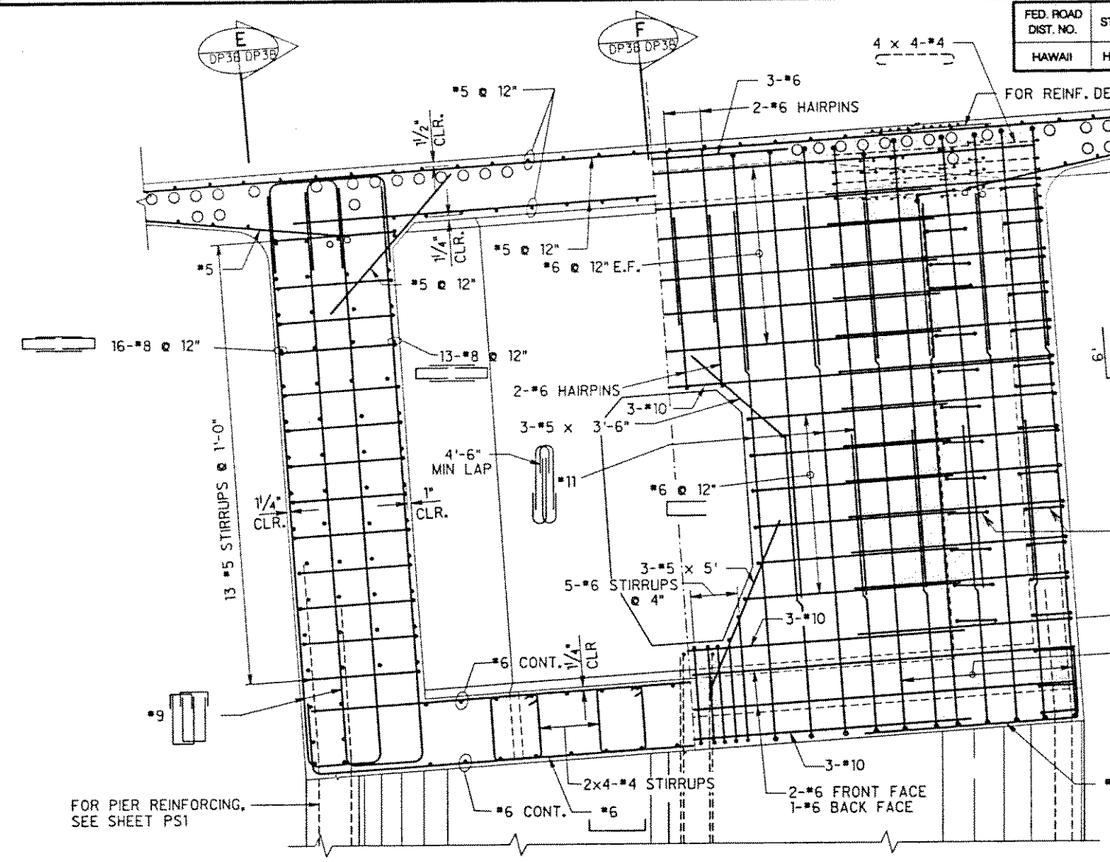
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF SECTION F DP3B DP3B
½" = 1'-0"

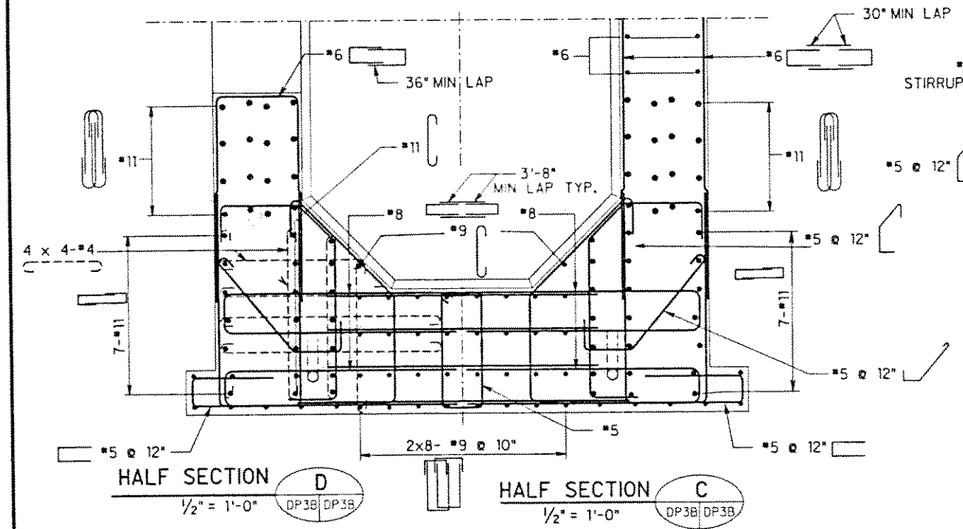


HALF SECTION E DP3B DP3B
½" = 1'-0"



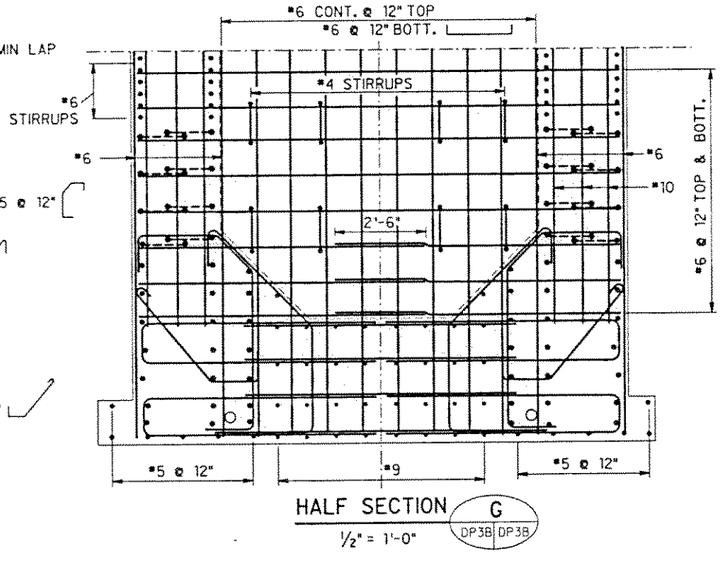
HALF SECTION B DP3B DP3B
½" = 1'-0"

HALF SECTION A DP3B DP3B
½" = 1'-0"



HALF SECTION D DP3B DP3B
½" = 1'-0"

HALF SECTION C DP3B DP3B
½" = 1'-0"



HALF SECTION G DP3B DP3B
½" = 1'-0"

NOTE: FOR ELECTRICAL MANHOLE DETAILS, SEE SHEET ED1

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2575-S HAWAII, U.S.A.

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DATE	REVISION
08/23/91	UPDATED DRAWING.

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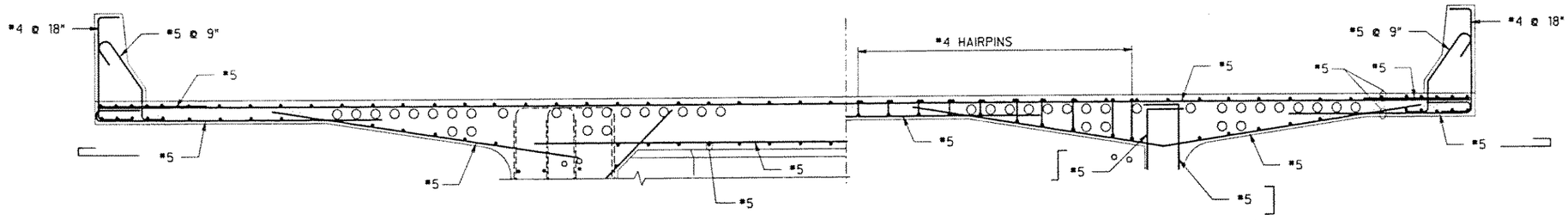
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED PIER SEGMENT
REINFORCING
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR 1991
SHEET No. DP3B OF SHEETS

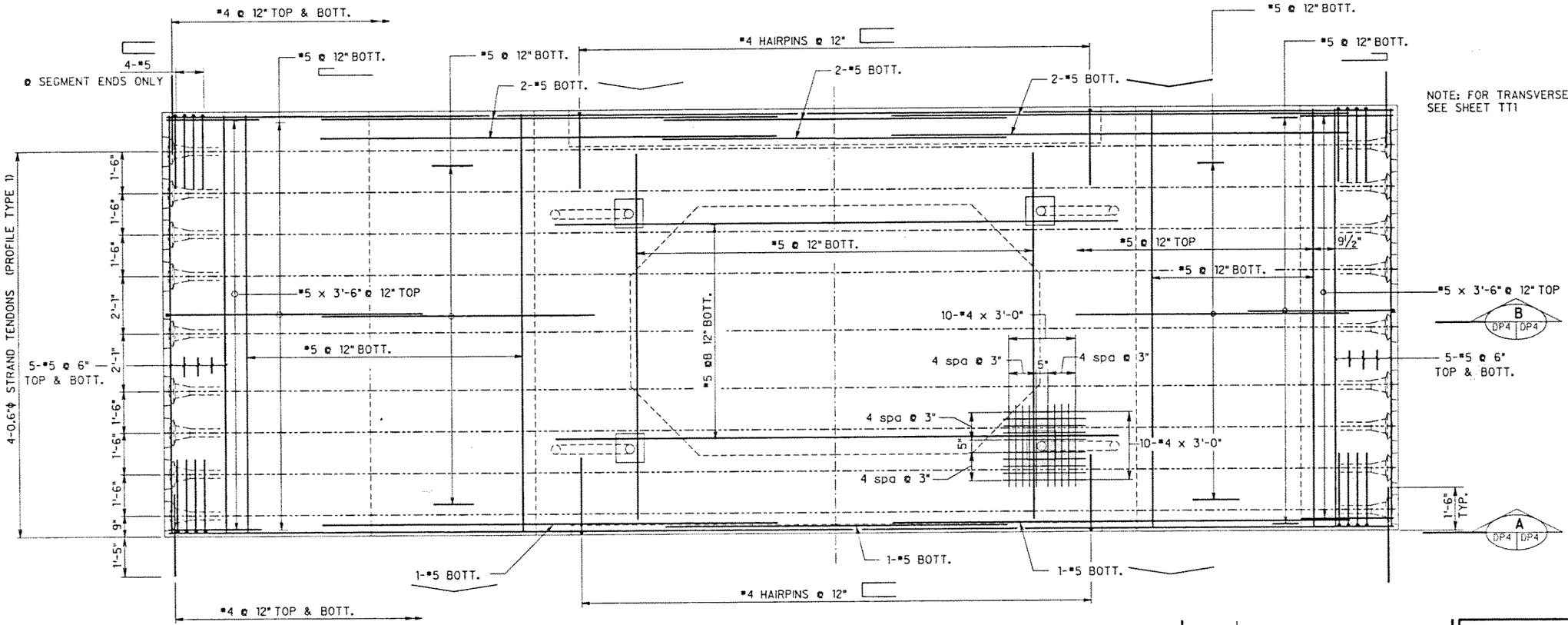
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF SECTION B
1/2" = 1'-0"
DP4 | DP4

HALF SECTION A
1/2" = 1'-0"
DP4 | DP4



PLAN
1/2" = 1'-0"

NOTE: FOR TRANSVERSE TENDON PROFILES SEE SHEET TT1

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
MAR 1991	REVISED DRAWING

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TOP SLAB PIER SEGMENTS
REINFORCING

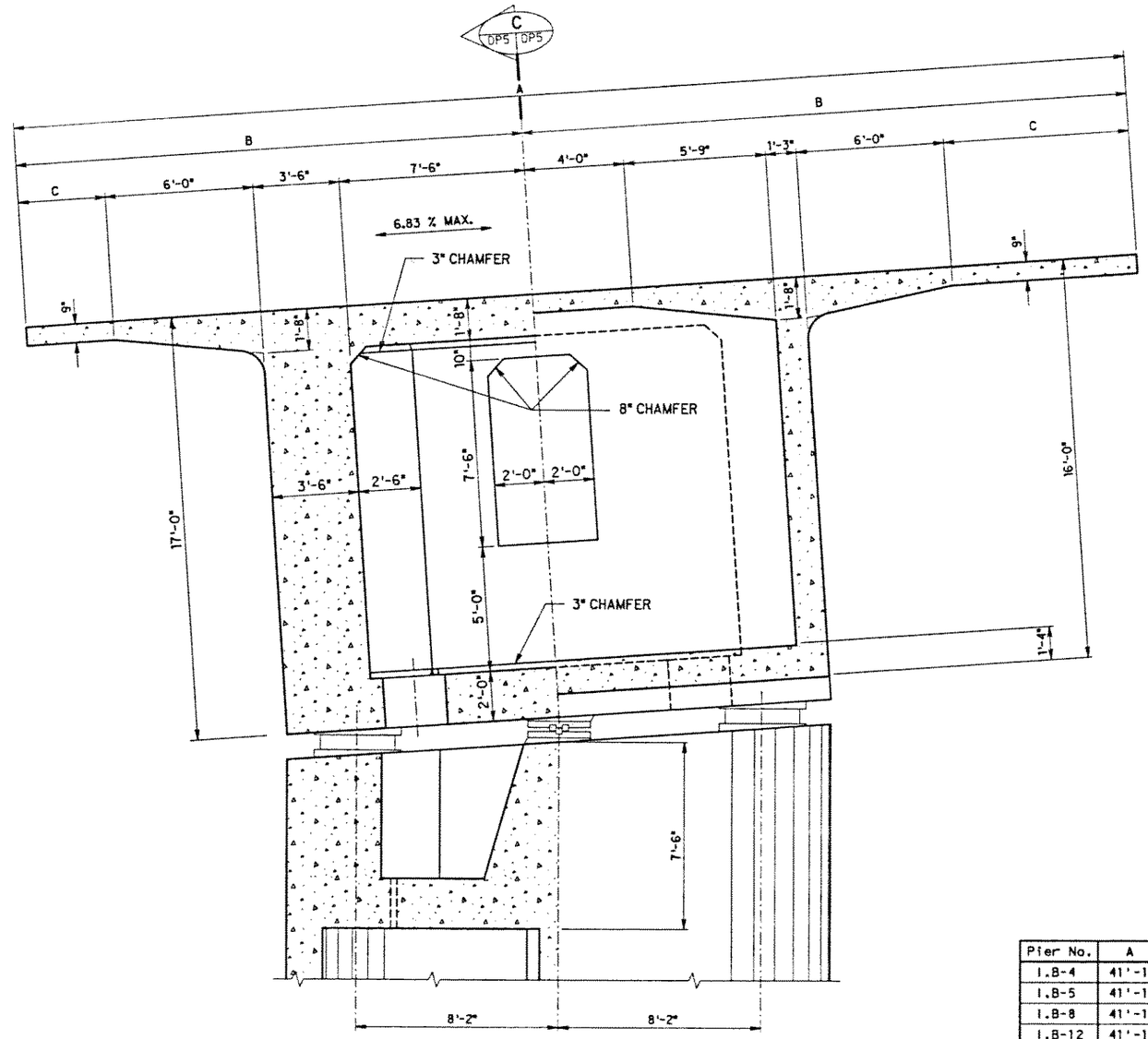
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP4 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

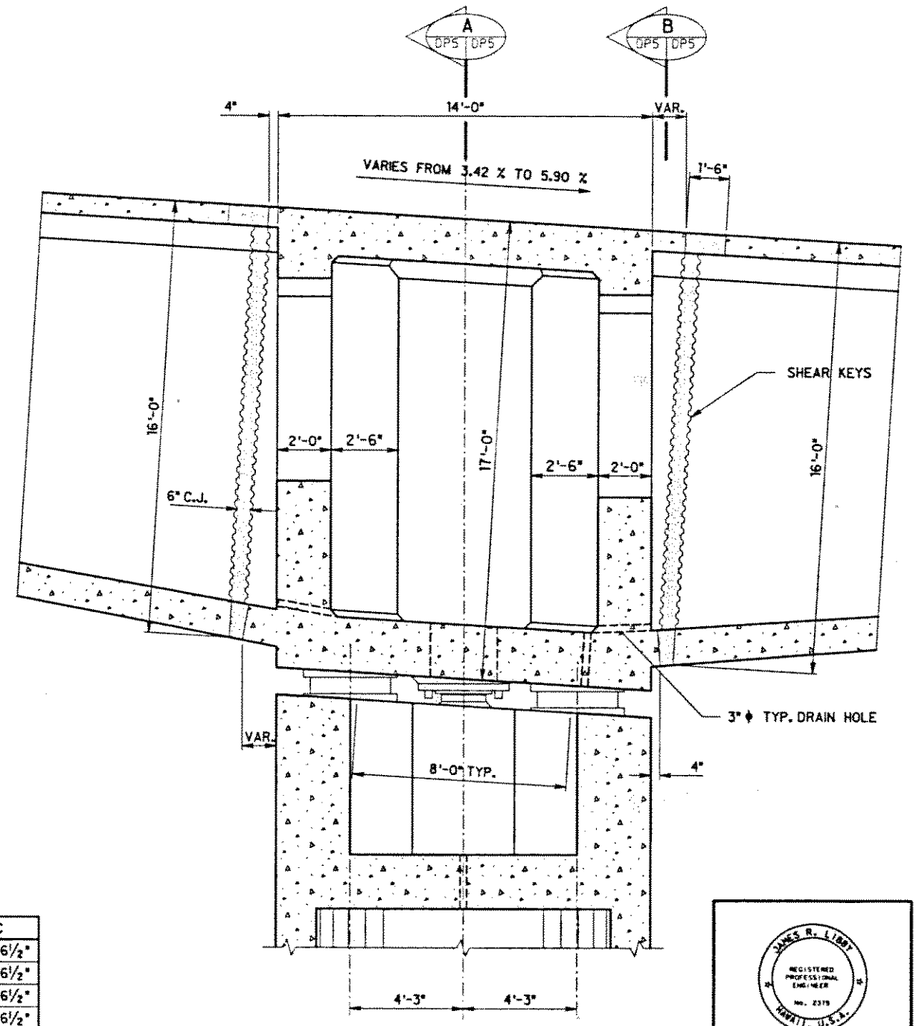


HALF SECTION A
SCALE : 3/8" = 1'-0"

HALF SECTION B
SCALE : 3/8" = 1'-0"

NOTE : FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

Pier No.	A	B	C
I.B-4	41'-1"	20'-6½"	3'-6½"
I.B-5	41'-1"	20'-6½"	3'-6½"
I.B-8	41'-1"	20'-6½"	3'-6½"
I.B-12	41'-1"	20'-6½"	3'-6½"
I.B-13	41'-1"	20'-6½"	3'-6½"
I.B-17	41'-1"	20'-6½"	3'-6½"
I.B-23	49'-1"	24'-6½"	7'-6½"
0.B-4	47'-1"	23'-6½"	6'-6½"
0.B-5	47'-1"	23'-6½"	6'-6½"
0.B-8	47'-1"	23'-6½"	6'-6½"
0.B-12	41'-1"	20'-6½"	3'-6½"
0.B-13	41'-1"	20'-6½"	3'-6½"
0.B-17	41'-1"	20'-6½"	3'-6½"
0.B-23	41'-1"	20'-6½"	3'-6½"



SECTION C
SCALE : 3/8" = 1'-0"

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379
HAWAII, U.S.A.

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DATE	REVISION
4/29/91	UPDATED DRAWING.

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Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT DIMENSIONS (TYPE I)

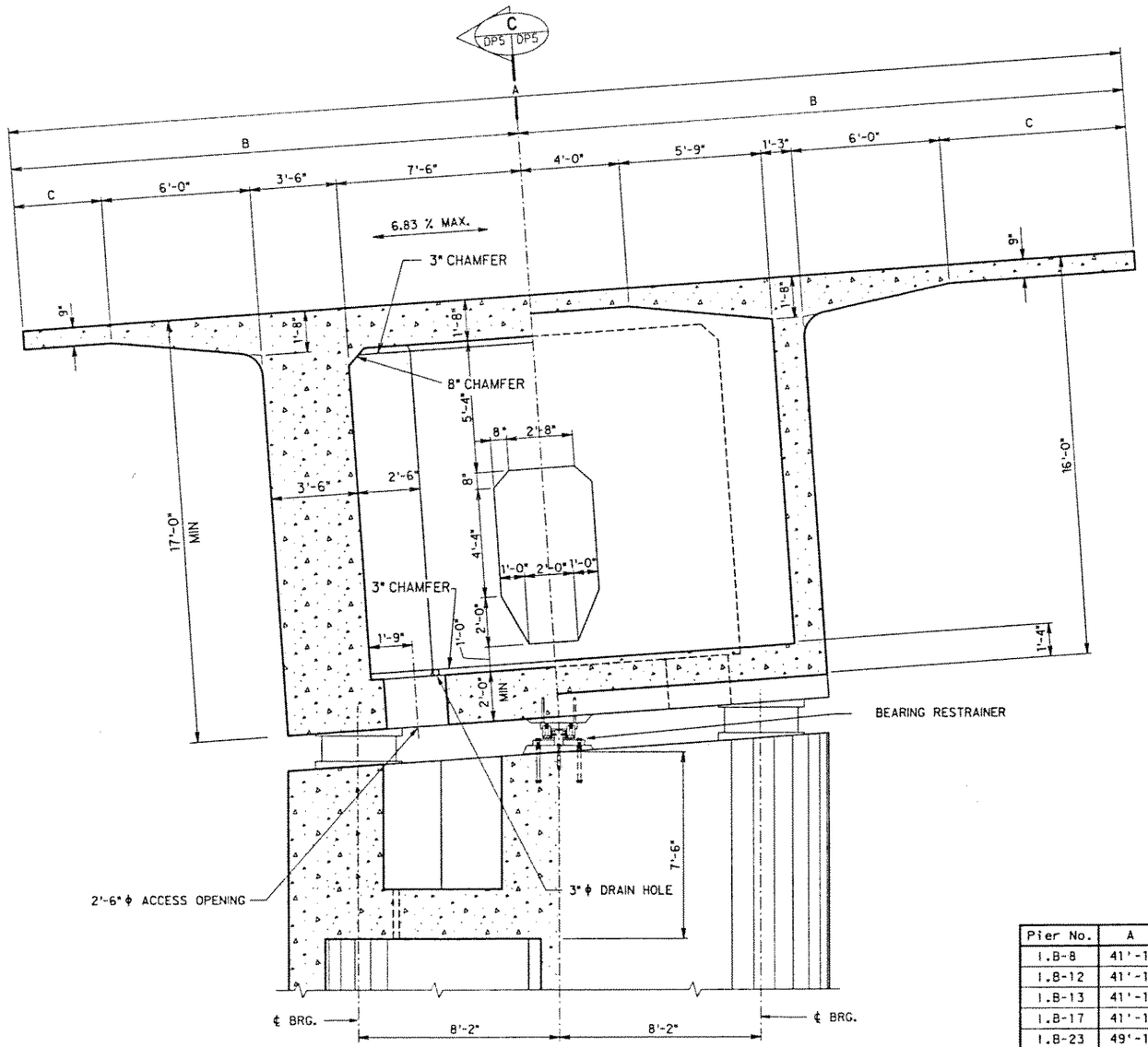
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

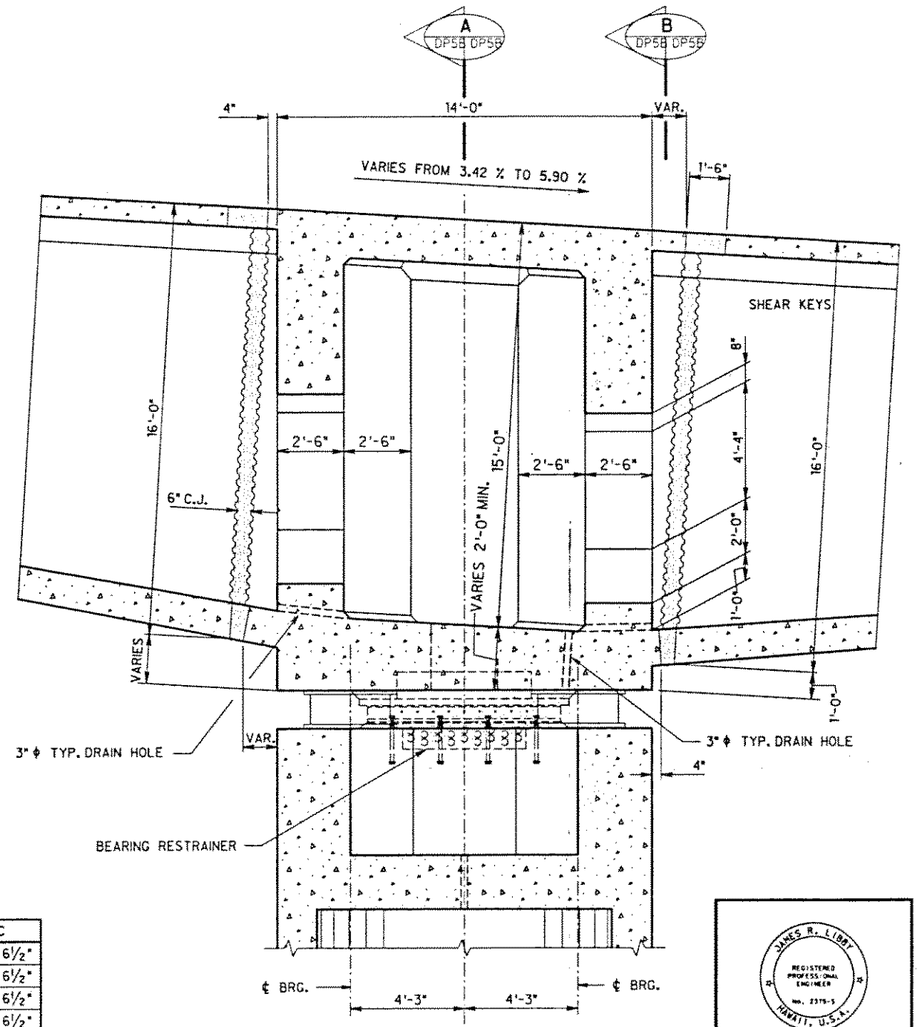
SHEET No. DP5ADF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF SECTION A (DP5B | DP5B)
SCALE : 3/8" = 1'-0"



SECTION C (DP5B | DP5B)
SCALE : 3/8" = 1'-0"

Pier No.	A	B	C
I.B-8	41'-1"	20'-6½"	3'-6½"
I.B-12	41'-1"	20'-6½"	3'-6½"
I.B-13	41'-1"	20'-6½"	3'-6½"
I.B-17	41'-1"	20'-6½"	3'-6½"
I.B-23	49'-1"	24'-6½"	7'-6½"
O.B-8	47'-1"	23'-6½"	6'-6½"
O.B-12	41'-1"	20'-6½"	3'-6½"
O.B-13	41'-1"	20'-6½"	3'-6½"
O.B-17	41'-1"	20'-6½"	3'-6½"
O.B-23	41'-1"	20'-6½"	3'-6½"

HALF SECTION B (DP5B | DP5B)
SCALE : 3/8" = 1'-0"

NOTE : FOR DRAIN HOLE DETAIL SEE SHEET PB1
FOR DETAILS OF CONNECTION AT CLOSURE JOINT SEE SHEET PB5

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

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DATE	REVISION

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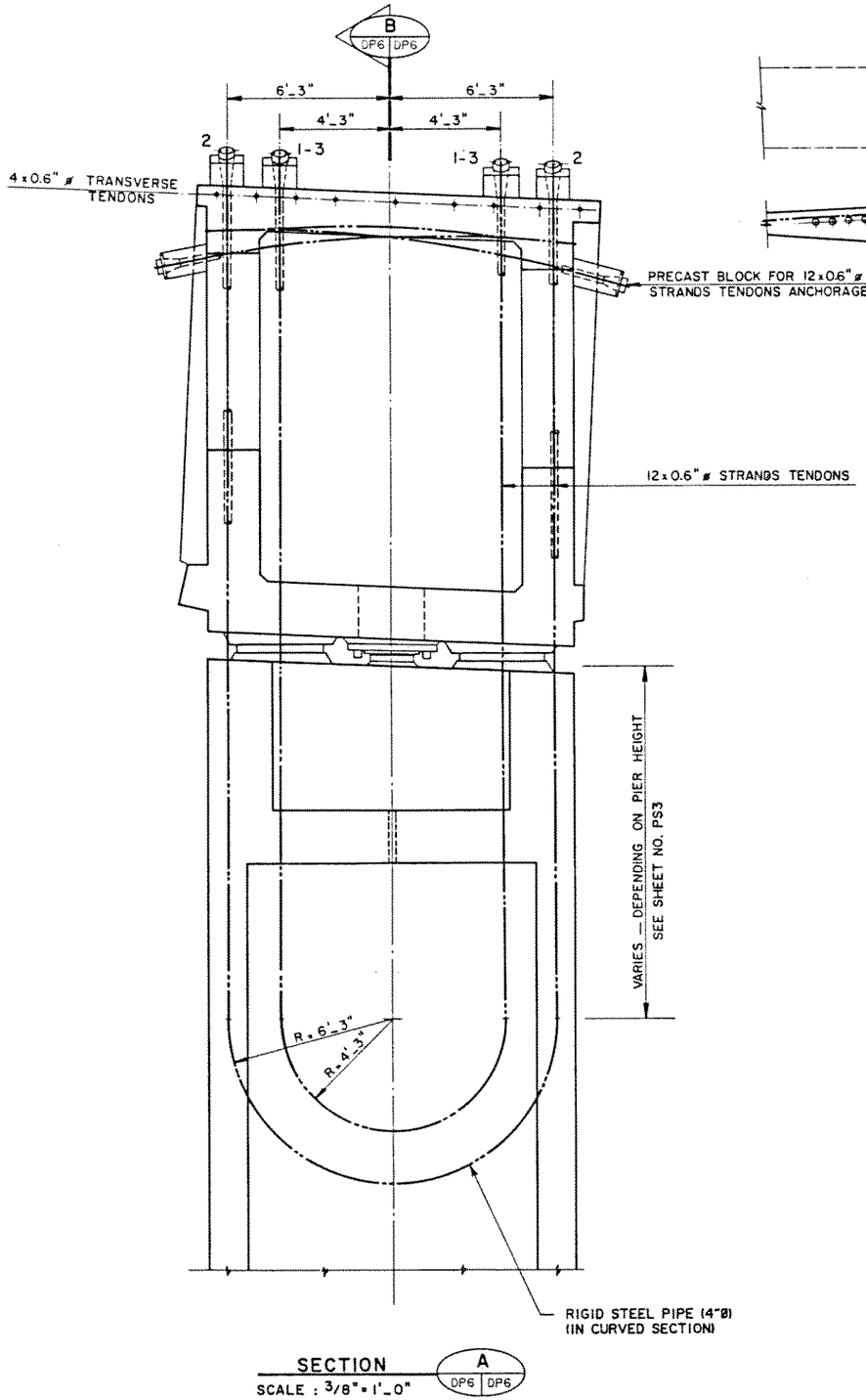
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT
DIMENSIONS
TYPE II

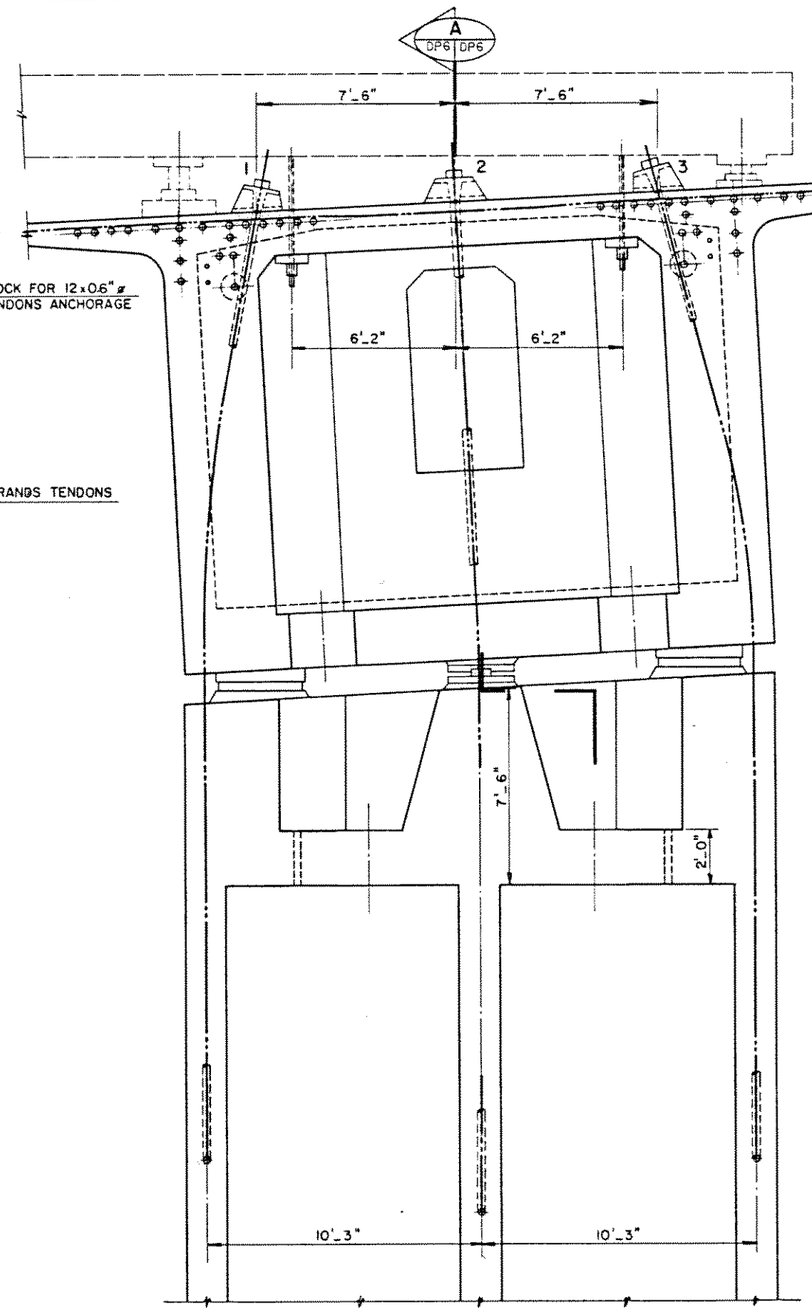
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APR. 1991

SHEET No. DP5B OF SHEETS

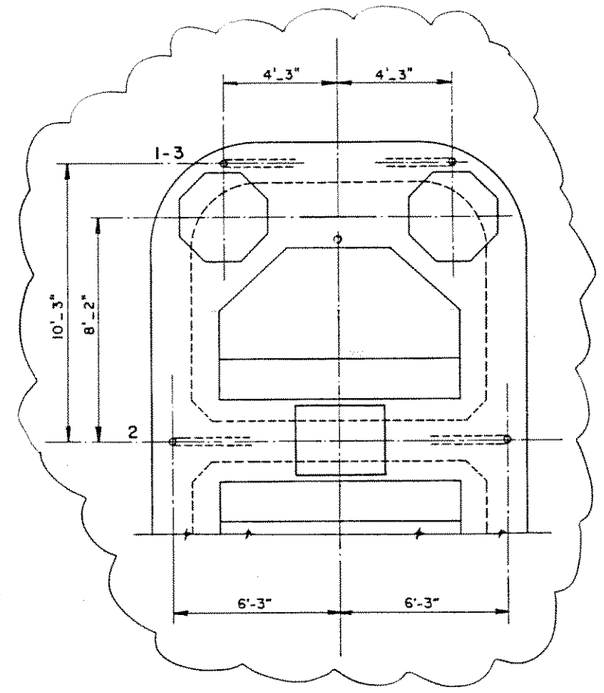
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION A
SCALE : 3/8" = 1'_0"



SECTION B
SCALE : 3/8" = 1'_0"



TOP OF PIER
SCALE : 3/8" = 1'_0"

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

DATE	REVISION
4/29/91	UPDATED DRAWING.
9/17/90	UPDATED DRAWING.

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 3379-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

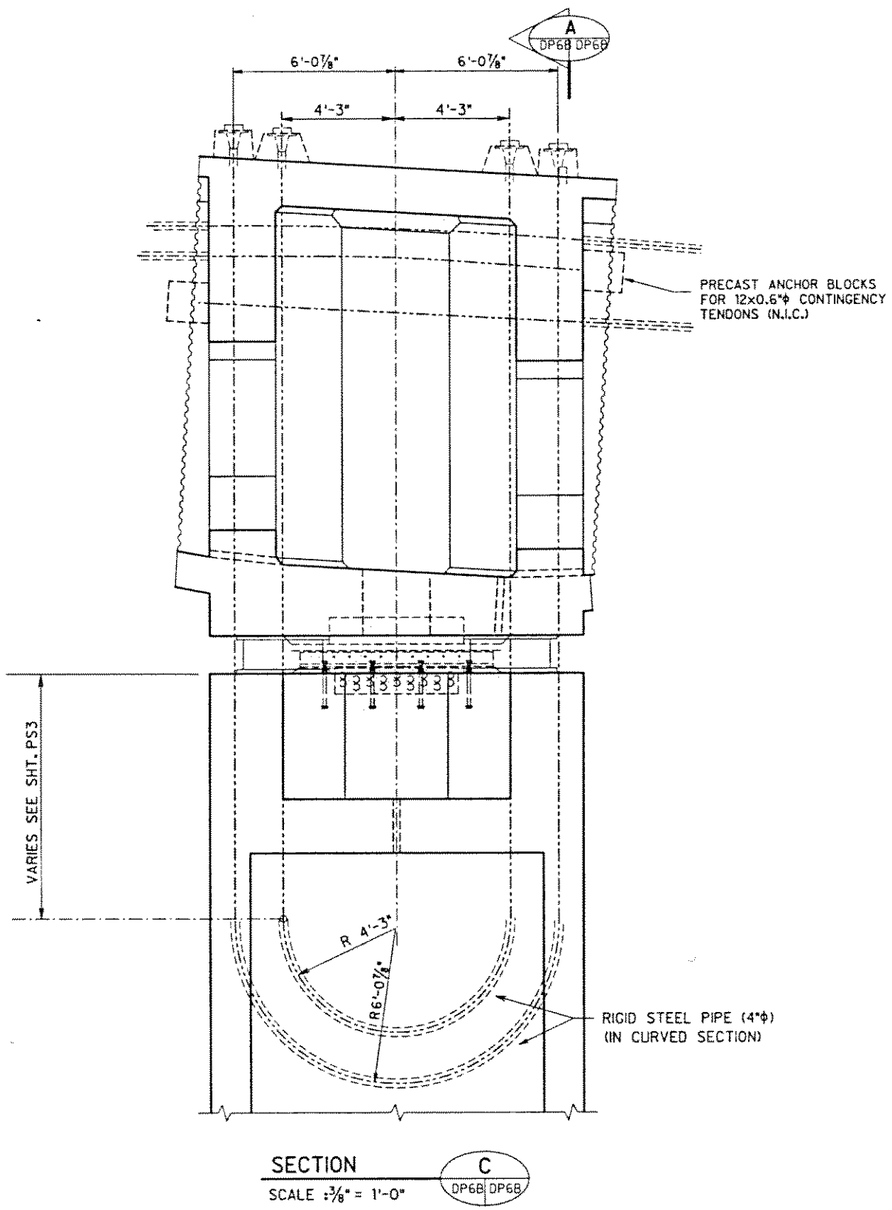
SLIDING PIER SEGMENT
P.T. DETAILS
TYPE 1

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

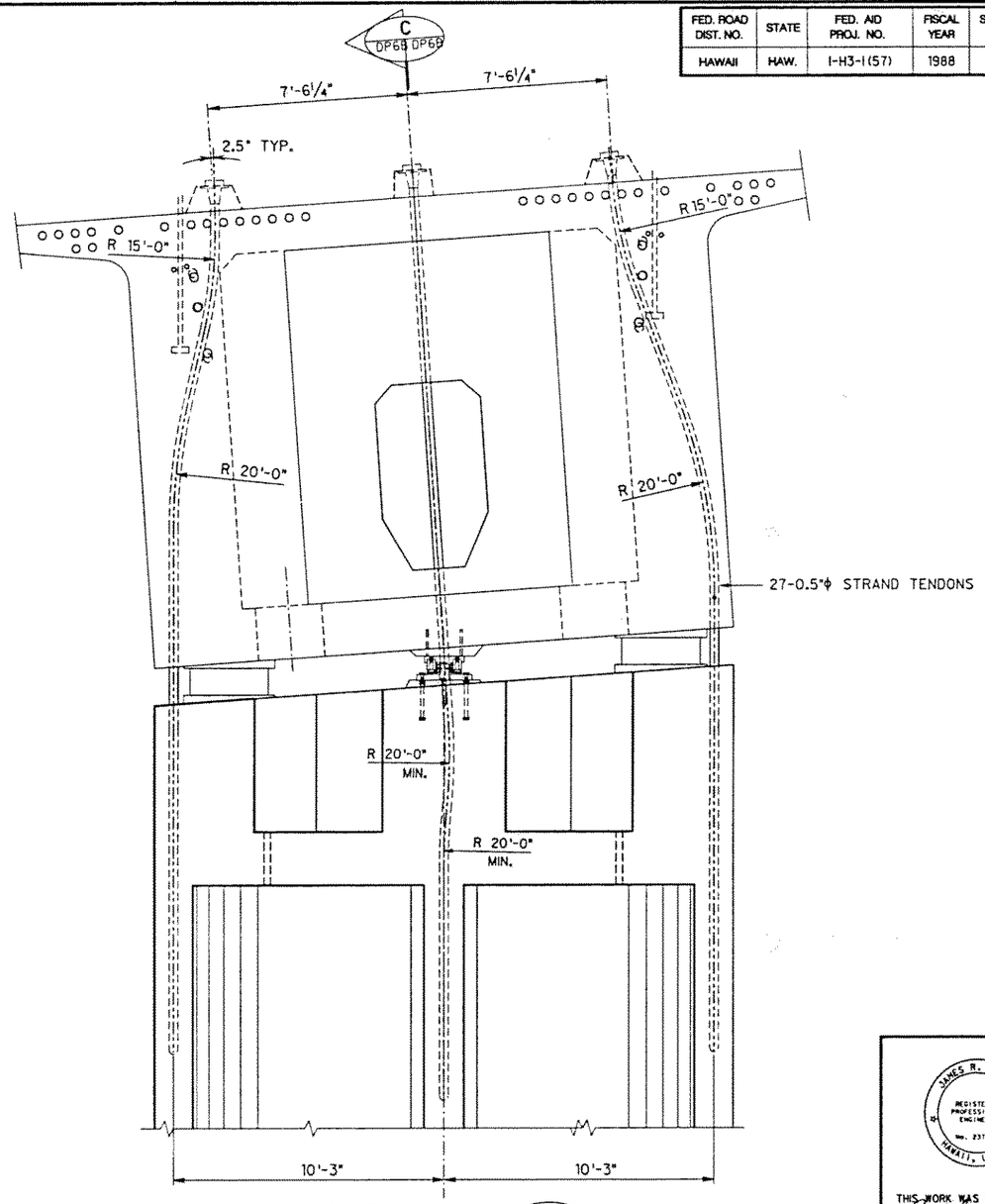
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP6 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION C
SCALE : ⅜" = 1'-0"



SECTION A
SCALE : ⅜" = 1'-0"

DATE	REVISION

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

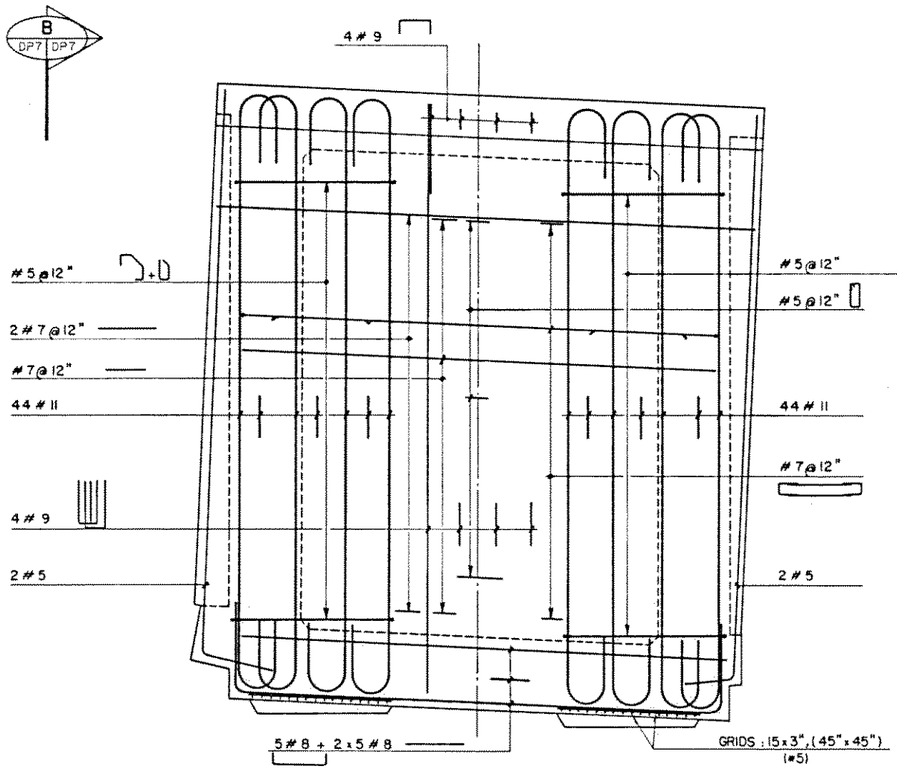
SLIDING PIER SEGMENT
P.T. DETAILS
TYPE II

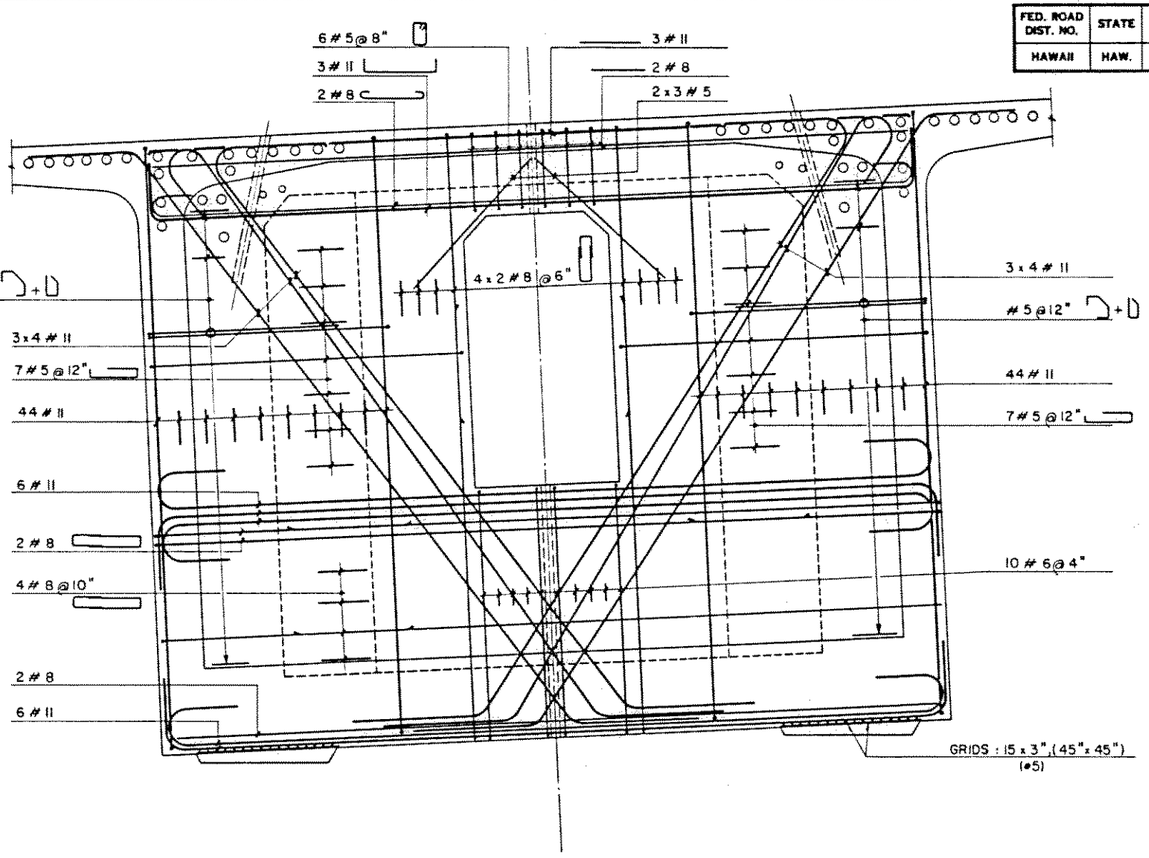
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APR. 1991

SHEET No. DP6B OF SHEETS

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

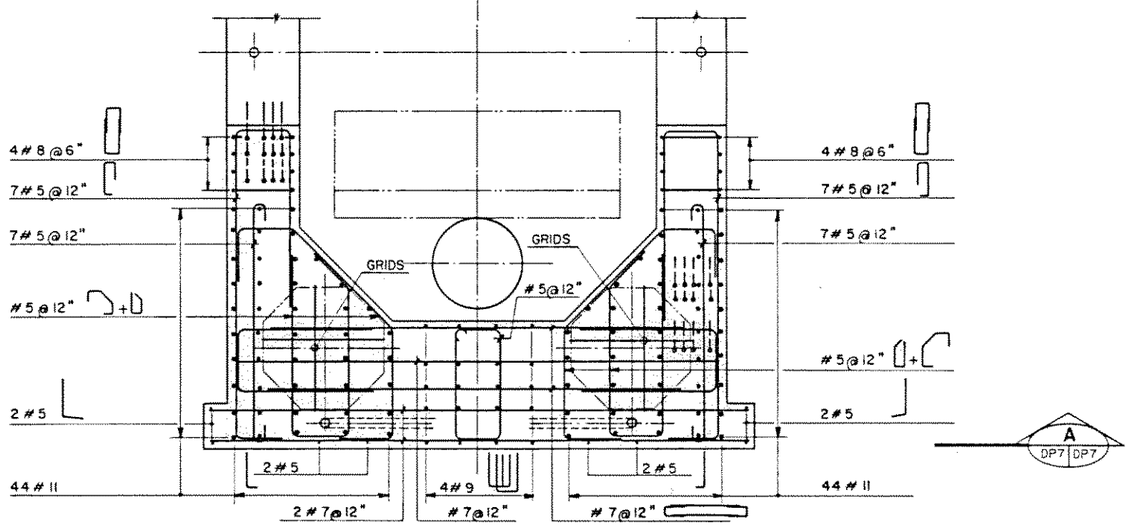
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		





SECTION B
SCALE : 1/2" = 1'-0"
DP7 DP7

SECTION A
SCALE : 1/2" = 1'-0"
DP7 DP7



HALF SECTION C
SCALE : 1/2" = 1'-0"
DP7 DP7

HALF SECTION D
SCALE : 1/2" = 1'-0"
DP7 DP7

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

JAMES R. LIBBY
HAWAII U.S.A.
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DATE	REVISION
4/29/91	UPDATED DRAWING.

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Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

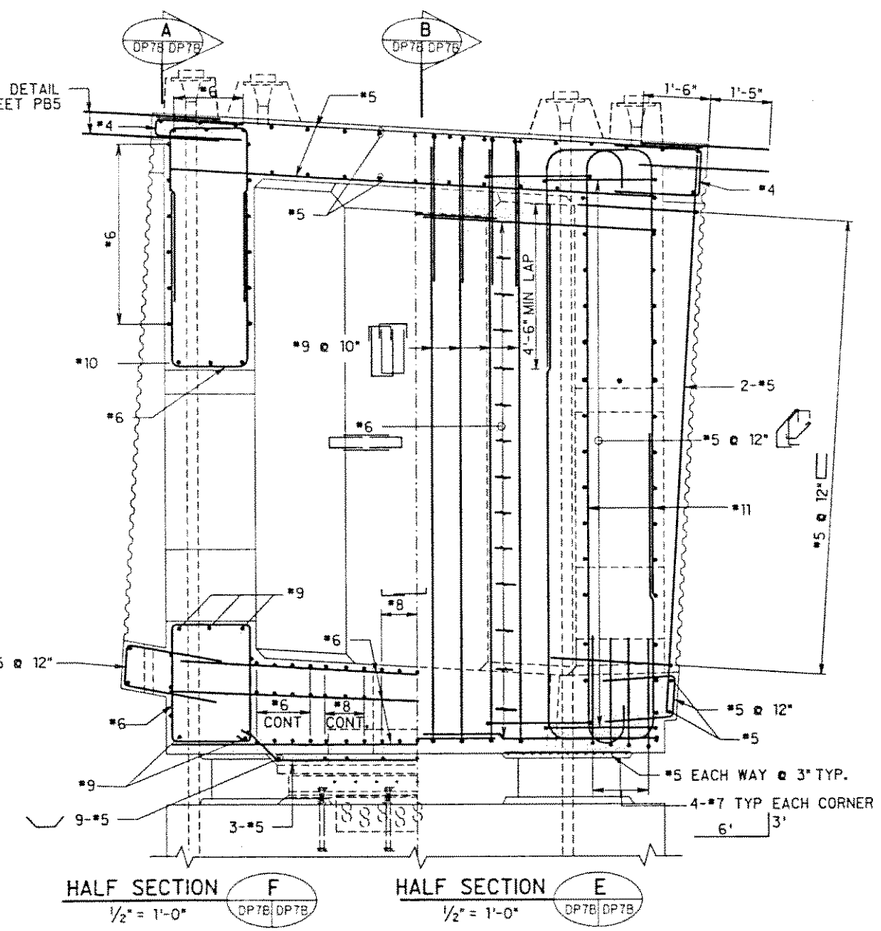
SLIDING PIER SEGMENT REINFORCING I
(TYPE I)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

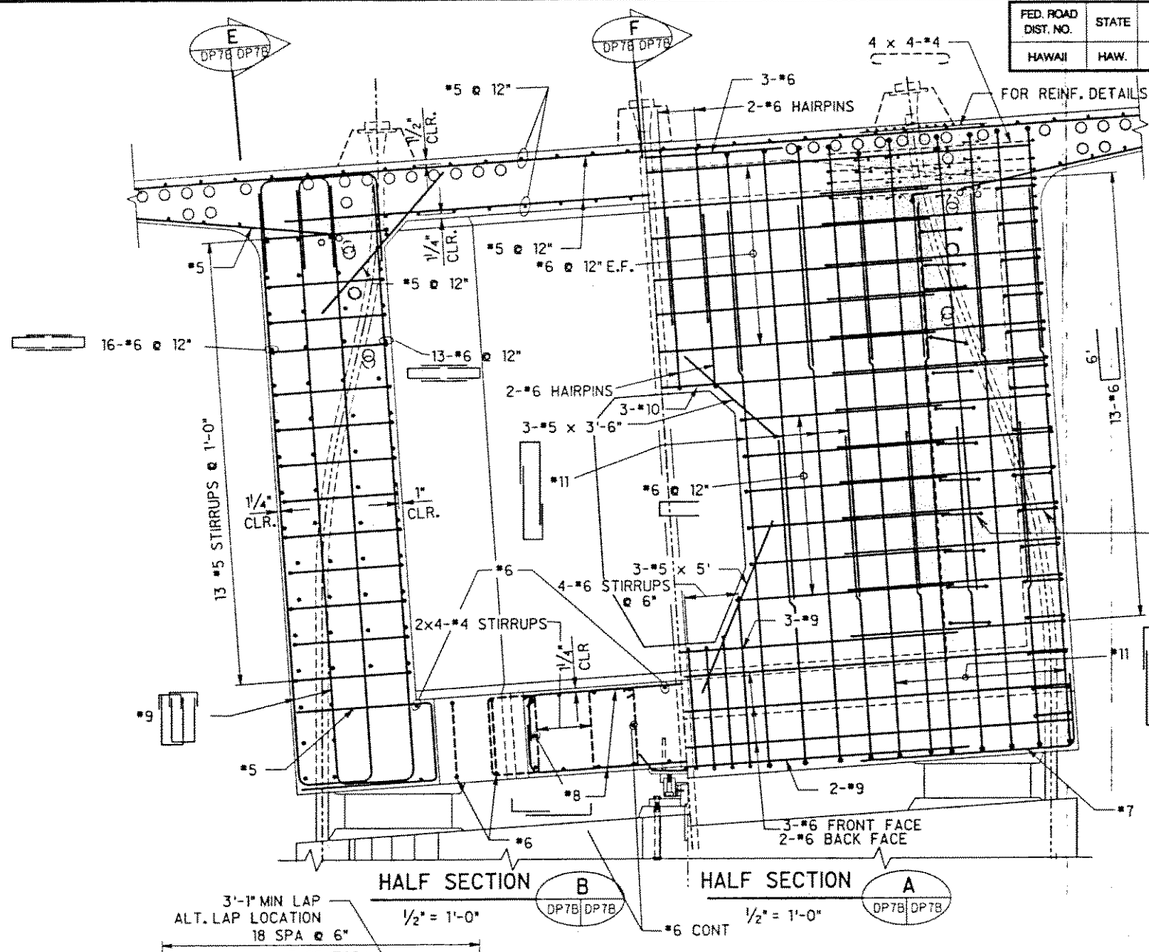
SHEET NO. DP7 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



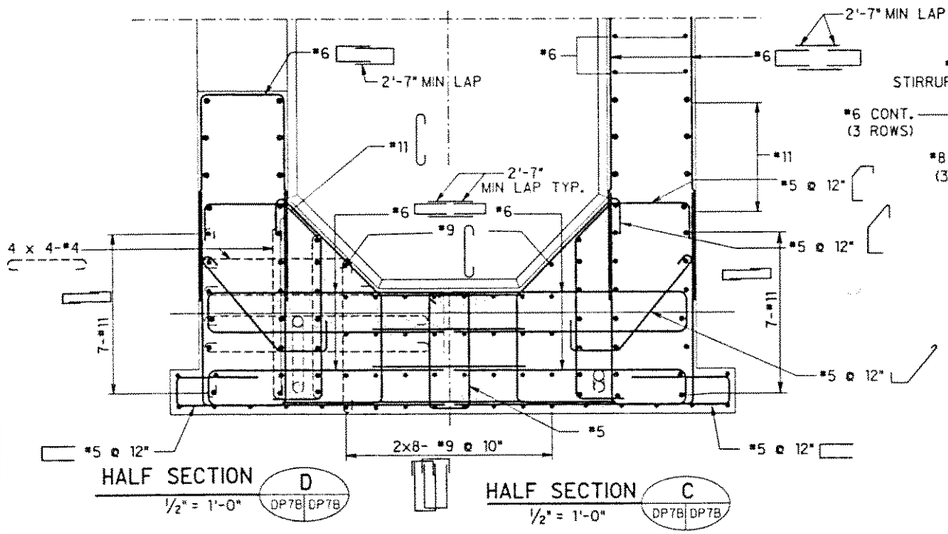
HALF SECTION F DP7B DP7B
1/2" = 1'-0"

HALF SECTION E DP7B DP7B
1/2" = 1'-0"



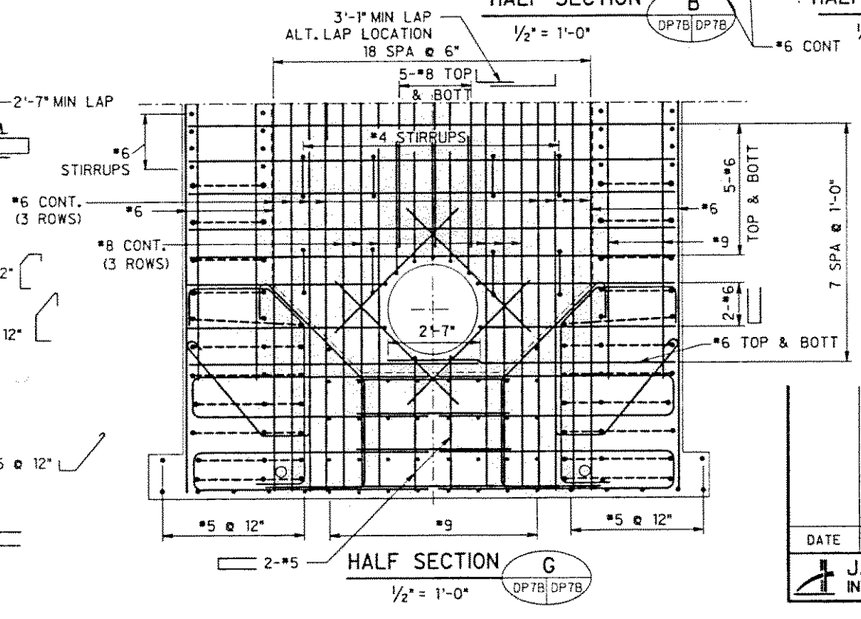
HALF SECTION B DP7B DP7B
1/2" = 1'-0"

HALF SECTION A DP7B DP7B
1/2" = 1'-0"



HALF SECTION D DP7B DP7B
1/2" = 1'-0"

HALF SECTION C DP7B DP7B
1/2" = 1'-0"



HALF SECTION G DP7B DP7B
1/2" = 1'-0"

NOTE: FOR ELECTRICAL MANHOLE DETAILS, SEE SHEET ED1

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379-S HAWAII, U.S.A.

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

DATE	REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

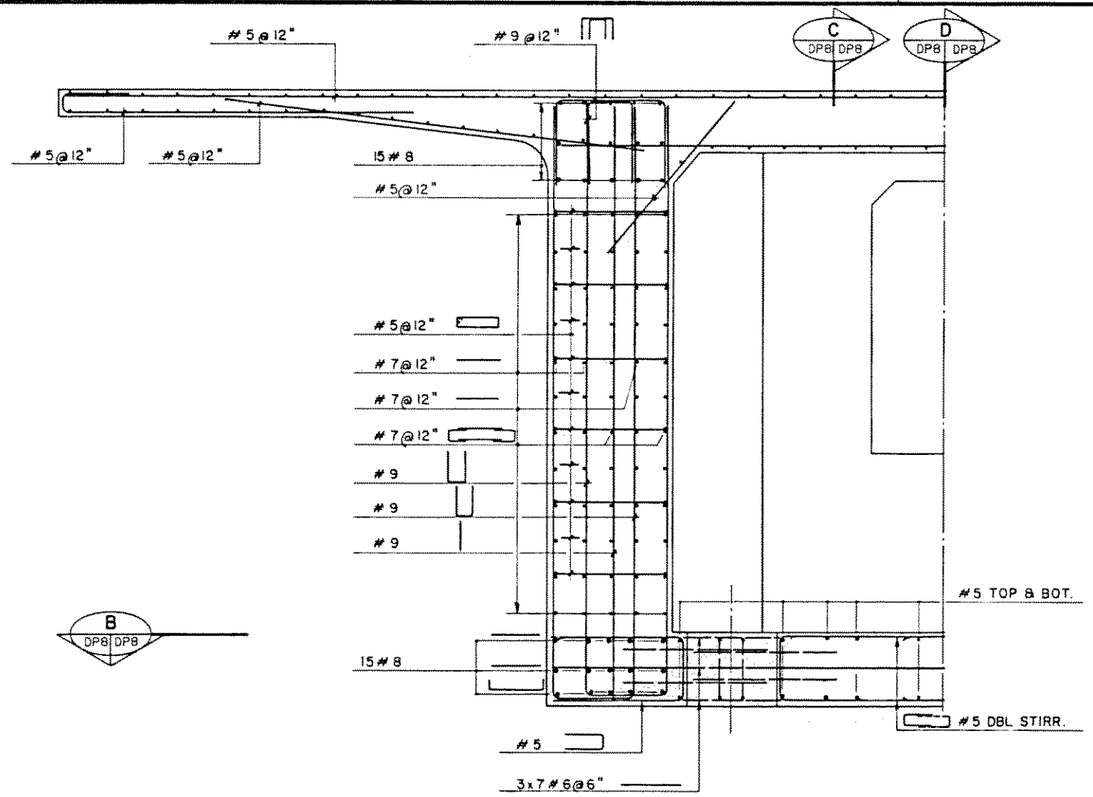
SLIDING PIER SEGMENT
REINFORCING
TYPE II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

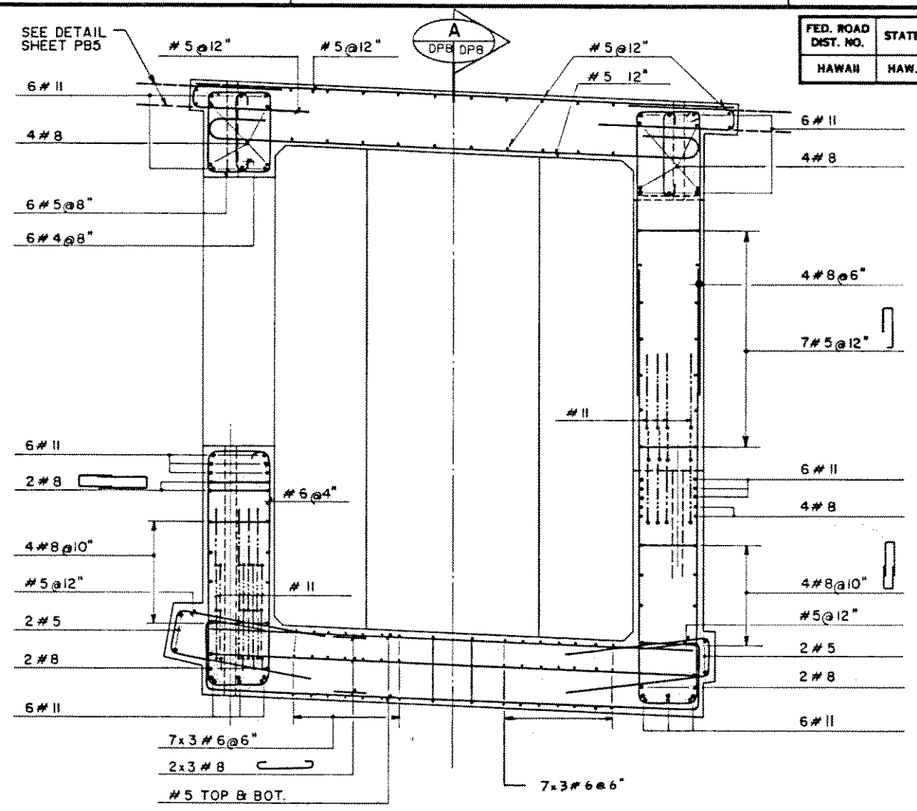
SCALE : AS NOTED DATE : APR 1991

SHEET No. DP7B OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

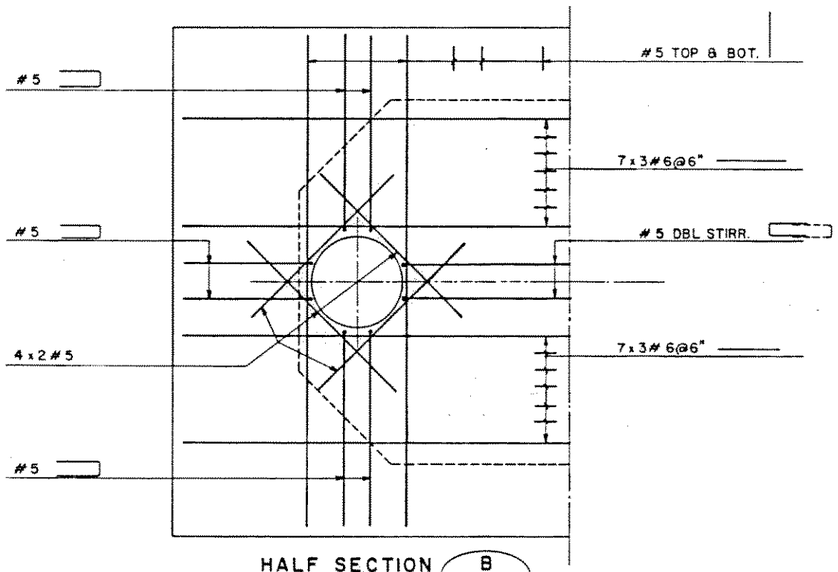


HALF SECTION A DP8 DP8
SCALE : 1/2" = 1'-0"



HALF SECTION D DP8 DP8
SCALE : 1/2" = 1'-0"

HALF SECTION C DP8 DP8
SCALE : 1/2" = 1'-0"



HALF SECTION B DP8 DP8
SCALE : 1/2" = 1'-0"

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

DATE	REVISION
9/06/91	REVISED SHEET NO.
4/29/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SLIDING PIER SEGMENT REINFORCING II

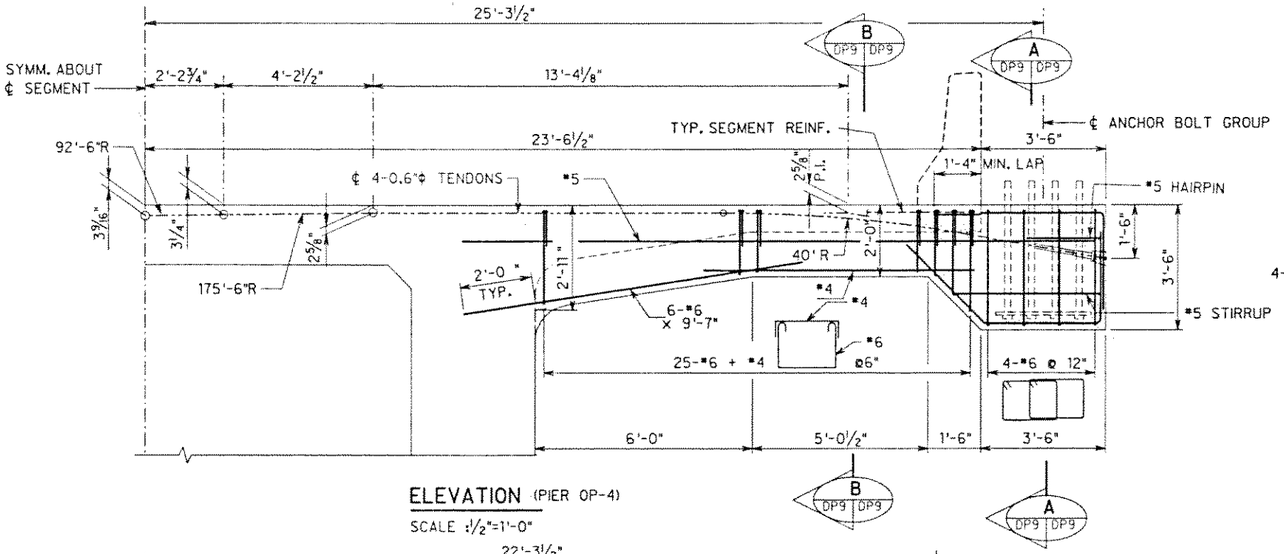
(TYPE I)

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

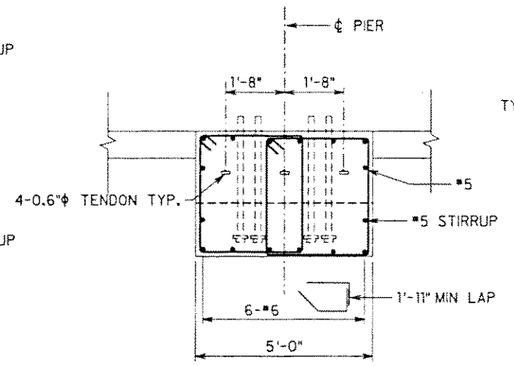
SHEET No. DP8 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



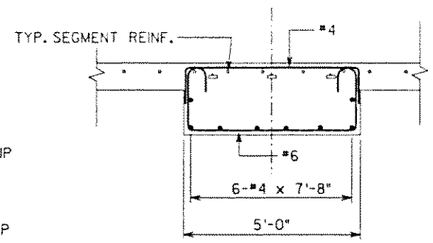
ELEVATION (PIER OP-4)

SCALE :½"=1'-0"



SECTION A

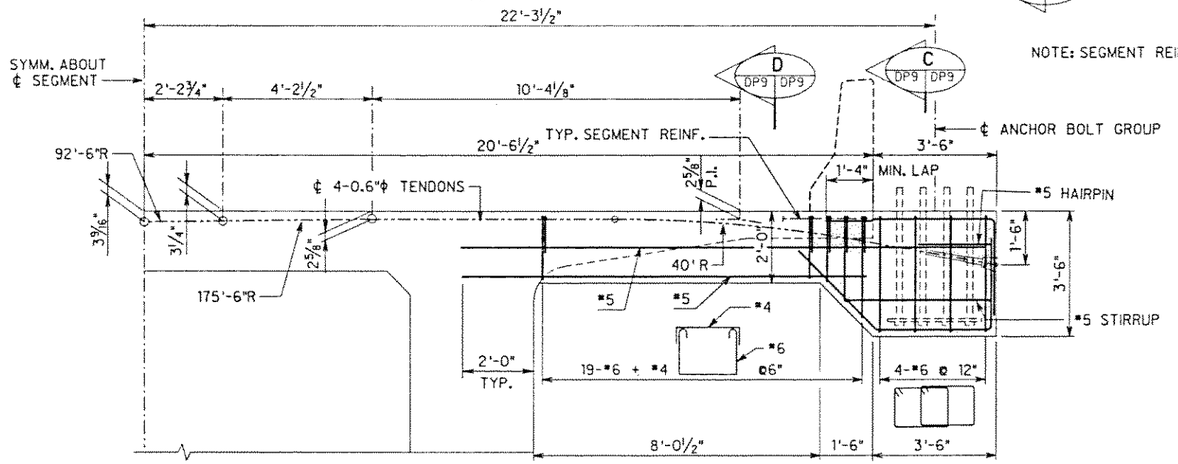
SCALE :½"=1'-0"



SECTION B

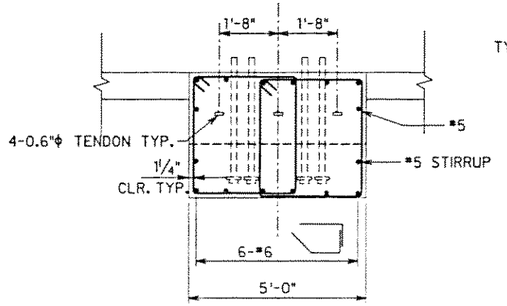
SCALE :½"=1'-0"

NOTE: SEGMENT REINFORCING NOT SHOWN FOR CLARITY



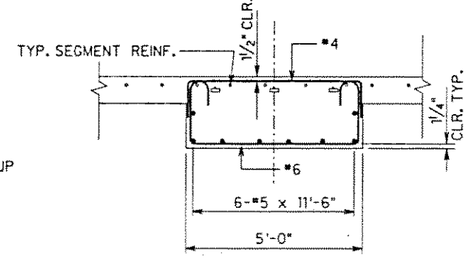
ELEVATION (PIERS IP-6, IP-9, IP-15 OP-15, OP-17)

SCALE :½"=1'-0"



SECTION C

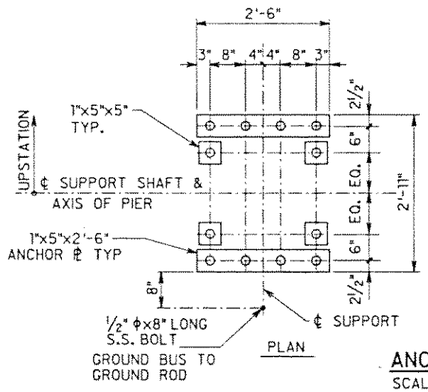
SCALE :½"=1'-0"

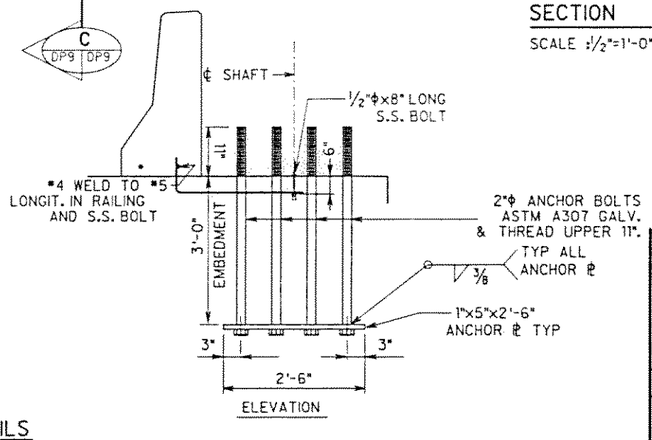


SECTION D

SCALE :½"=1'-0"

NOTE:
SEE DETAIL C/CR2 FOR CONNECTION OF WWF IN DECK OVERLAY AND PARAPET REINFORCING.





ANCHOR BOLT DETAILS

SCALE :¾"=1'-0"

ORIGINAL PLAN	DATE
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	G. SHAFER 5/91
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
No.	

DATE	REVISION
05/22/91	GENERAL REVISION.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2515-S HAWAII, U.S.A.

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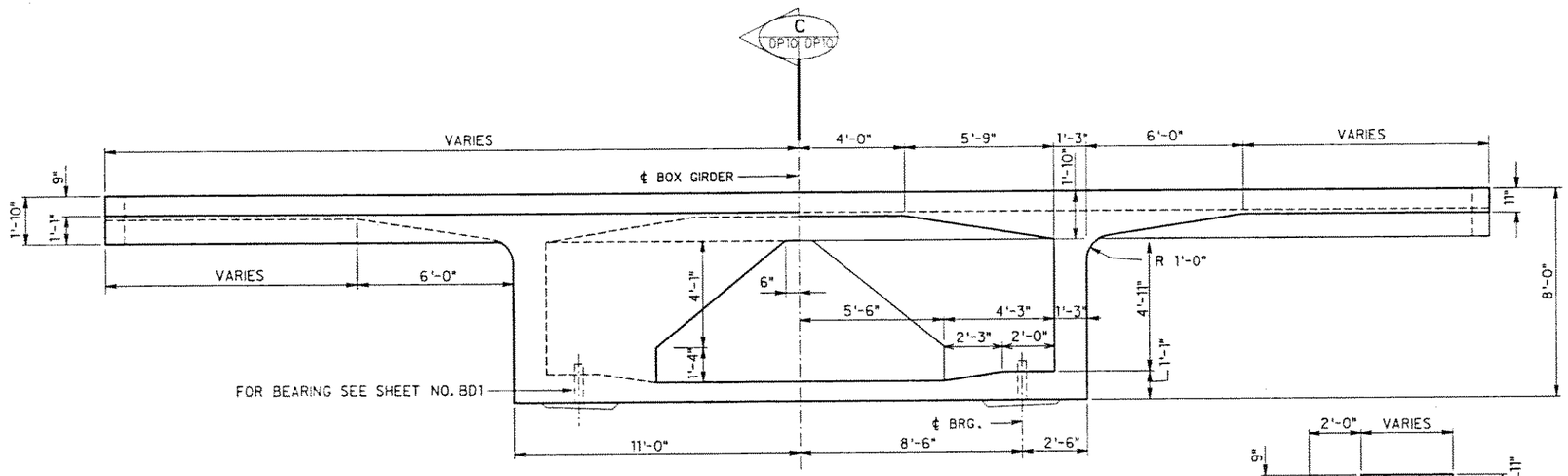
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIXED AND SLIDING PIER SEGMENT
SIGN SUPPORT REINFORCING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAY 1991

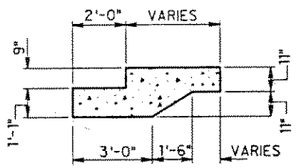
SHEET No. DP9 OF SHEETS

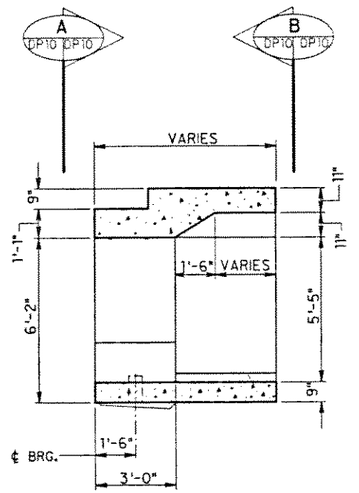
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF VIEW (A) DP10 DP10
SCALE : 3/8" = 1'-0"

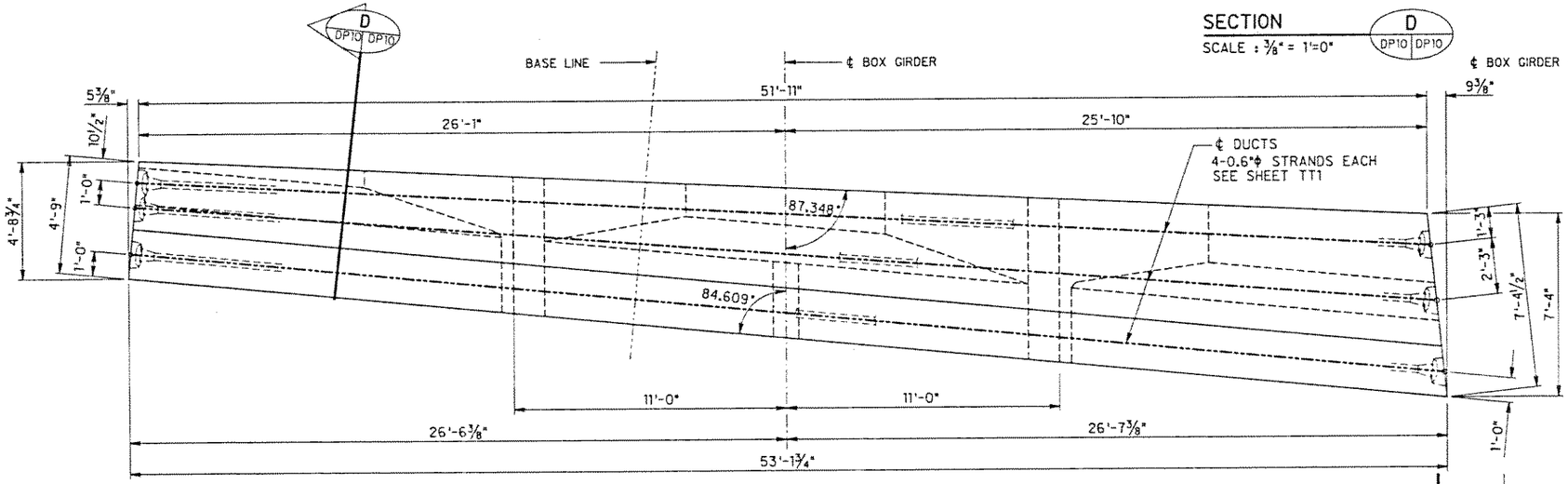
HALF VIEW (B) DP10 DP10
SCALE : 3/8" = 1'-0"



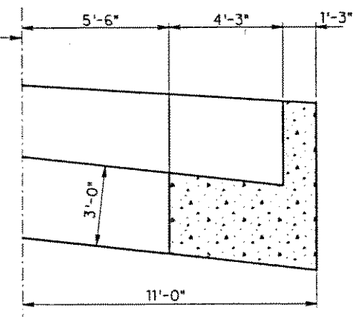


SECTION (C) DP10 DP10
SCALE : 3/8" = 1'-0"

SECTION (D) DP10 DP10
SCALE : 3/8" = 1'-0"



PLAN VIEW
SCALE : 3/8" = 1'-0"



HALF PLAN BOTTOM
SCALE : 3/8" = 1'-0"

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP11.
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 7375-S — HAWAII, U.S.A.

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DATE	REVISION
08/23/91	UPDATED NOTES.
10/04/90	MOD. PLAN VIEW & E.J. BEAM THICKNESS

J. MULLER INTERNATIONAL | Libby Engineers

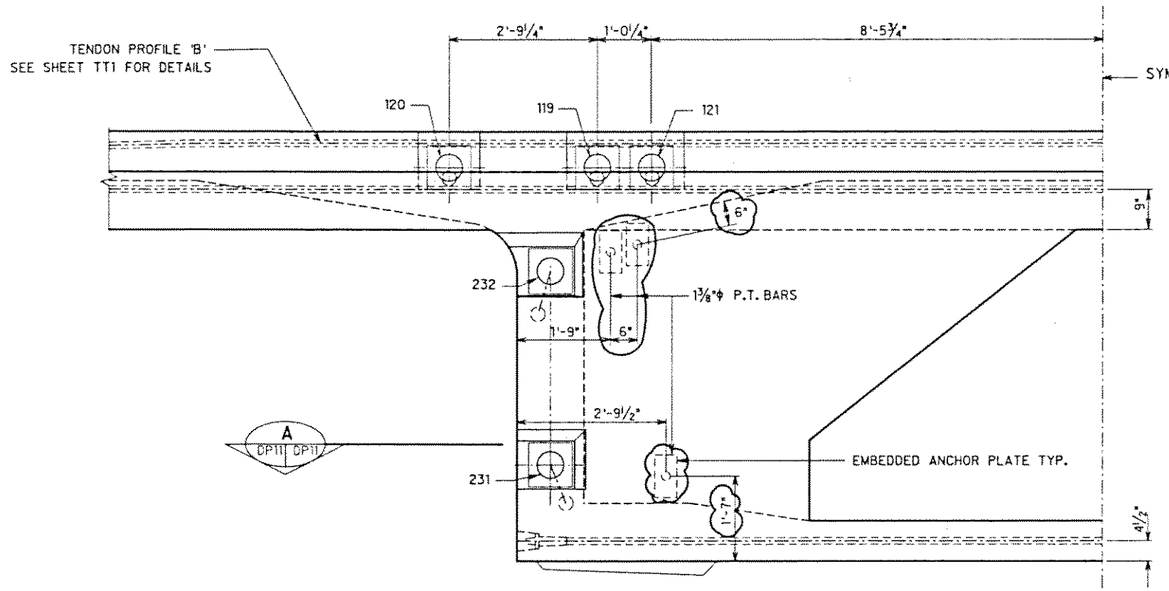
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 1 SEGMENT DIMENSIONS INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

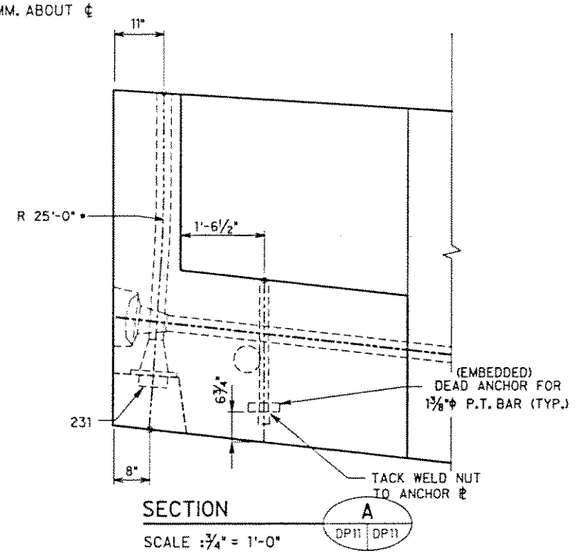
SHEET No. DP10 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF CROSS SECTION

SCALE : ¾" = 1'-0"

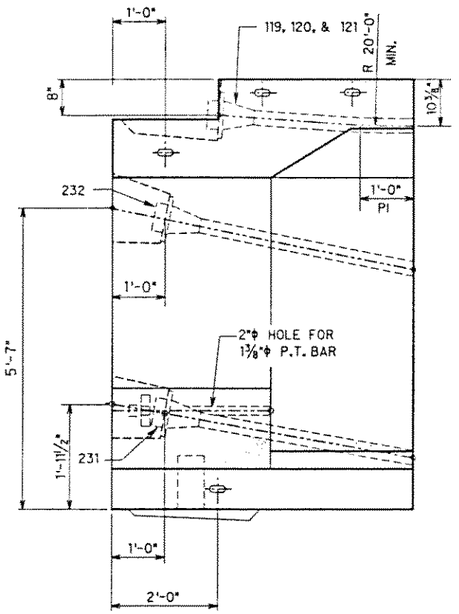


SECTION A

DP11 DP11

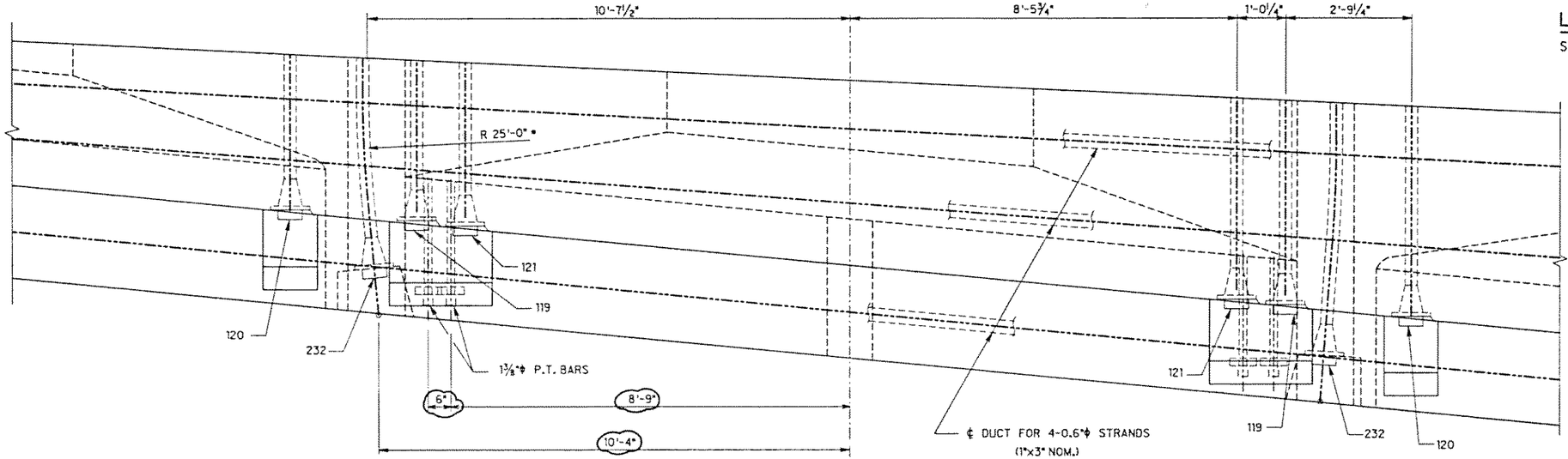
SCALE : ¾" = 1'-0"

• MINIMUM RADIUS IN PLANE OF TENDON AXIS



LONGITUDINAL SECTION

SCALE : ¾" = 1'-0"



PLAN VIEW

SCALE : ¾" = 1'-0"

NOTES:

1. ALL LONGITUDINAL TENDONS ARE 12-0.6"ϕ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"ϕ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM TENDON RADIUS IS 20' FOR 12-0.6"ϕ STRAND TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 216 ksi.
6. SEE SHEET DP10 FOR PLAN LOCATION OF TOP SLAB TRANSVERSE TENDONS.

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

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 7375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

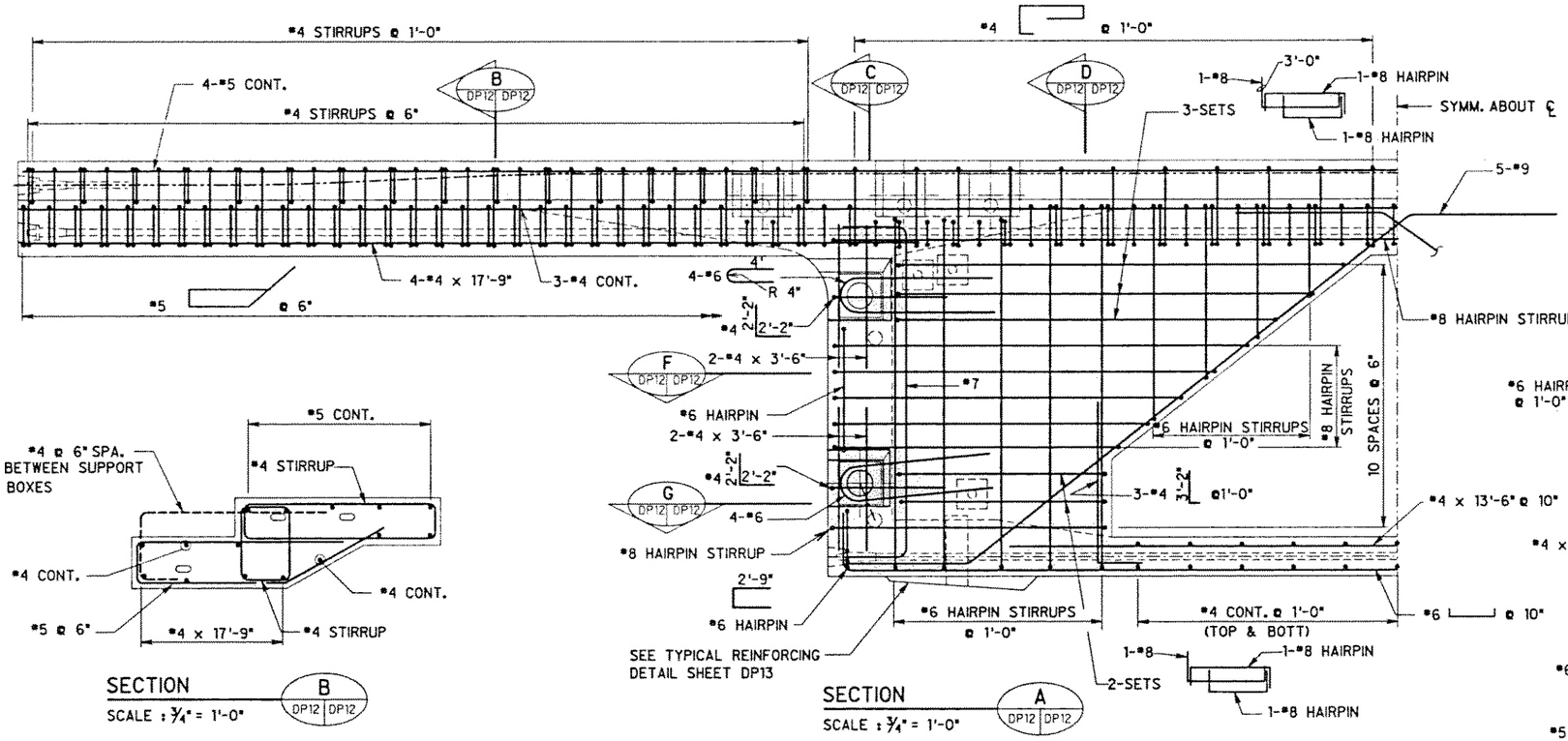
ABUTMENT 1 SEGMENT
P.T. DETAILS
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP11 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION B DP12 DP12
SCALE : ¾" = 1'-0"

SECTION A DP12 DP12
SCALE : ¾" = 1'-0"

SECTION D DP12 DP12
SCALE : ¾" = 1'-0"

SECTION C DP12 DP12
SCALE : ¾" = 1'-0"

NOTE:
FOR ADDITIONAL REINFORCING AROUND TENDON ANCHORAGES, SEE SHEET TT1

SECTION G DP12 DP12
SCALE : ¾" = 1'-0"

SECTION F DP12 DP12
SCALE : ¾" = 1'-0"

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

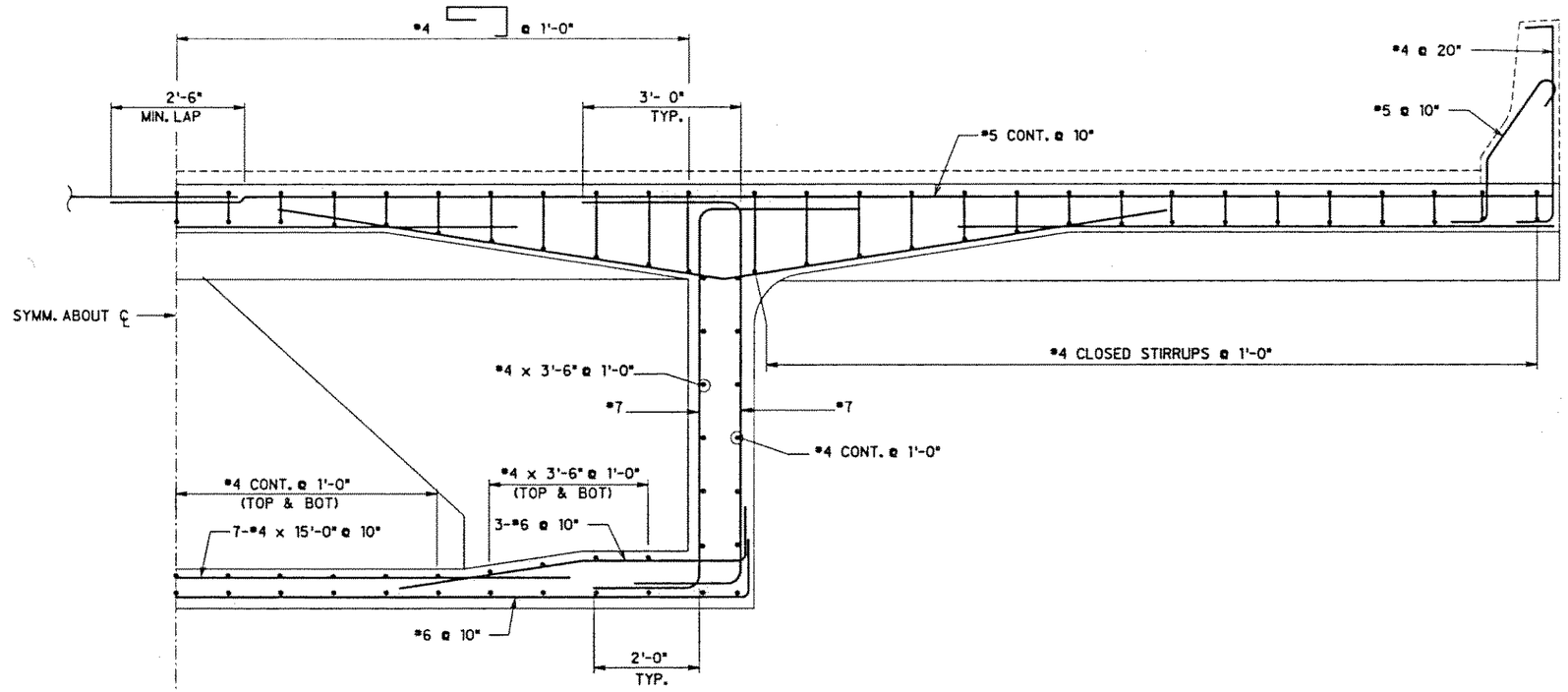
J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

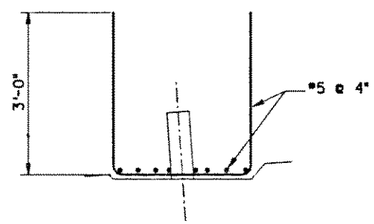
ABUTMENT 1 SEGMENT REINFORCING I INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. DP12 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



VIEW H (DP12 | DP13)
SCALE : 3/4" = 1'-0"



TYPICAL CONCRETE BEARING PAD REINFORCING
SCALE : 3/4" = 1'-0"

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2379 HAWAII, U.S.A.
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

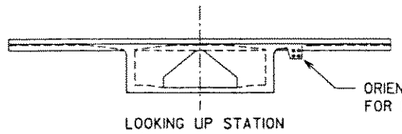
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

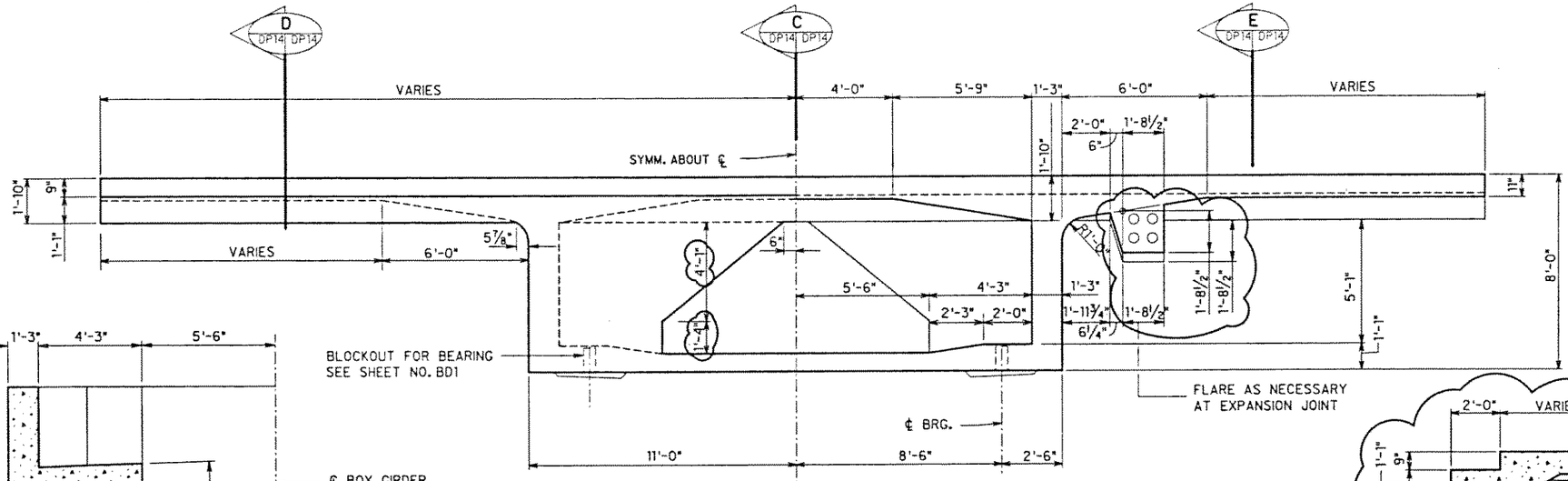
ABUTMENT SEGMENT 1
REINFORCING II
INBOUND STRUCTURE

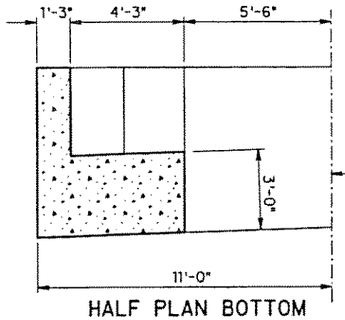
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. DP13 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP15 & TT1
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1.



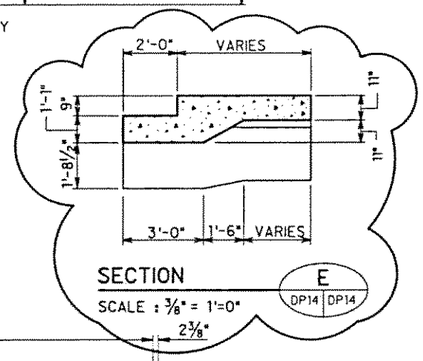




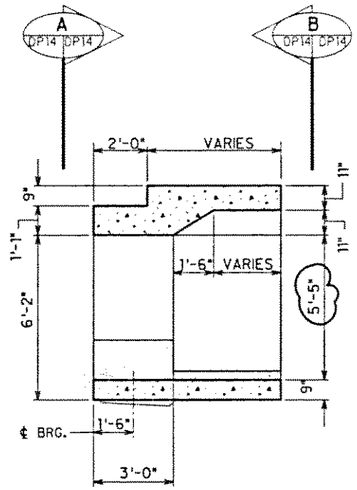
HALF PLAN BOTTOM
SCALE : ⅜" = 1'-0"

HALF VIEW A DP14 DP14
SCALE : ⅜" = 1'-0"

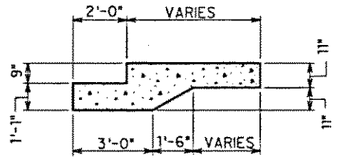
HALF VIEW B DP14 DP14
SCALE : ⅜" = 1'-0"



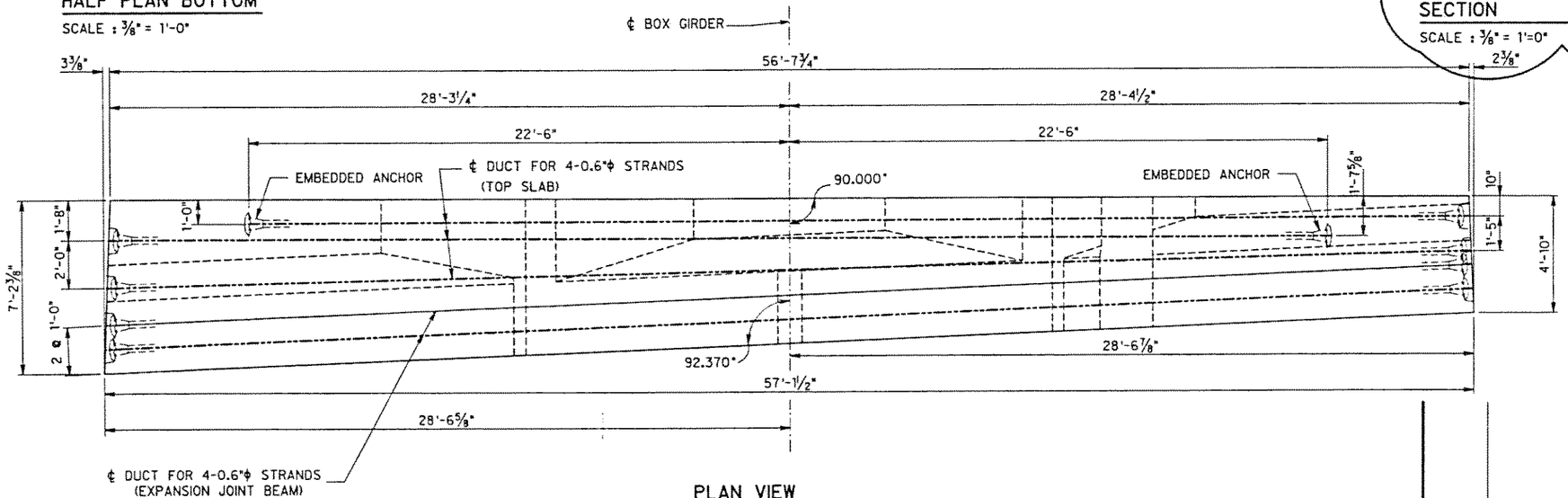
SECTION E DP14 DP14
SCALE : ⅜" = 1'-0"



SECTION C DP14 DP14
SCALE : ⅜" = 1'-0"



SECTION D DP14 DP14
SCALE : ⅜" = 1'-0"



PLAN VIEW
SCALE : ⅜" = 1'-0"

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2275-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
10/04/90	UPDATED DRAWING & MOD. PLAN VIEW.

J. MULLER INTERNATIONAL | Libby Engineers

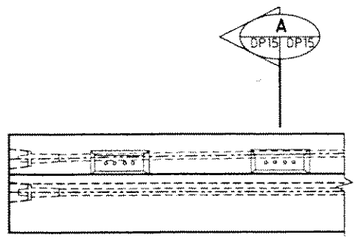
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

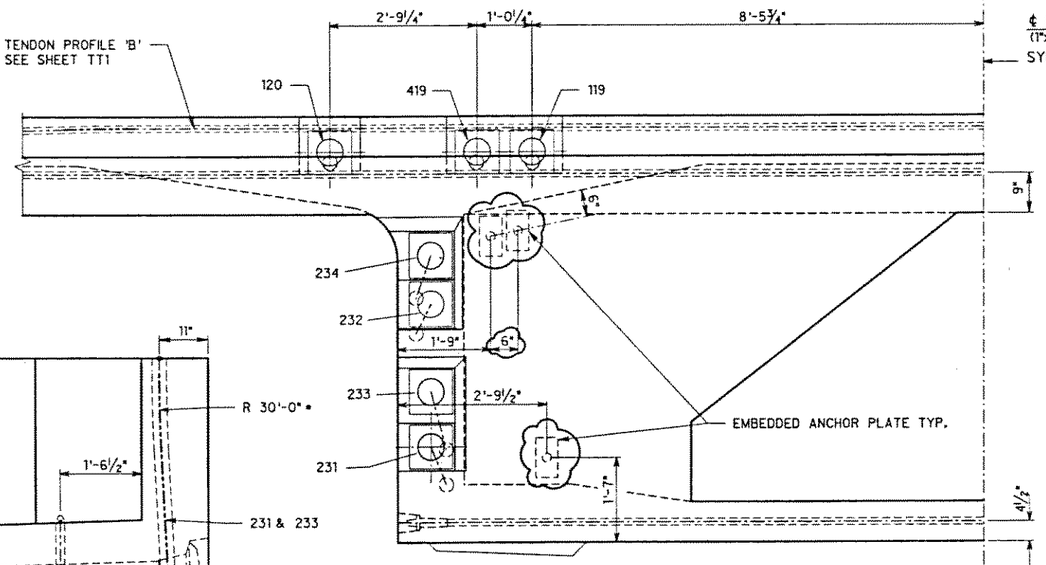
ABUTMENT 1 SEGMENT
DIMENSIONS
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

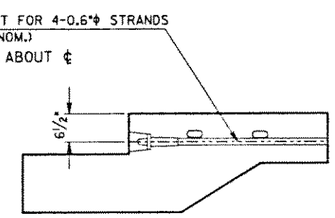
SHEET No. DP14 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

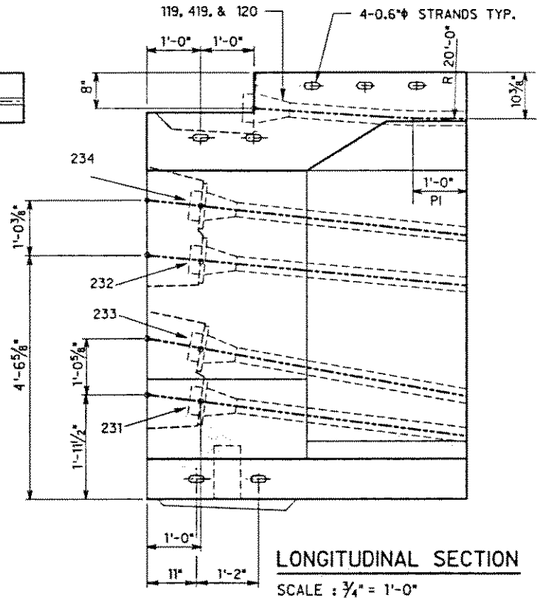




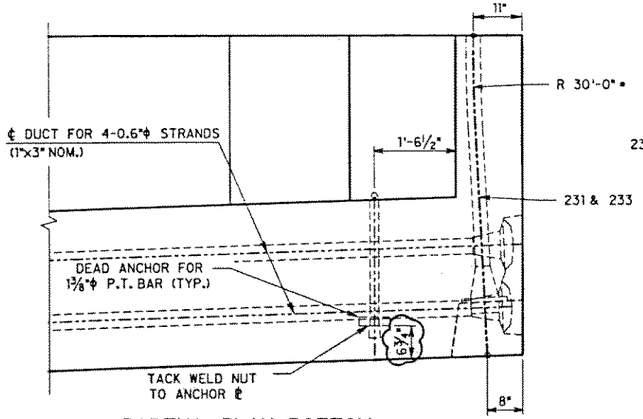
HALF CROSS SECTION
SCALE : ¾" = 1'-0"



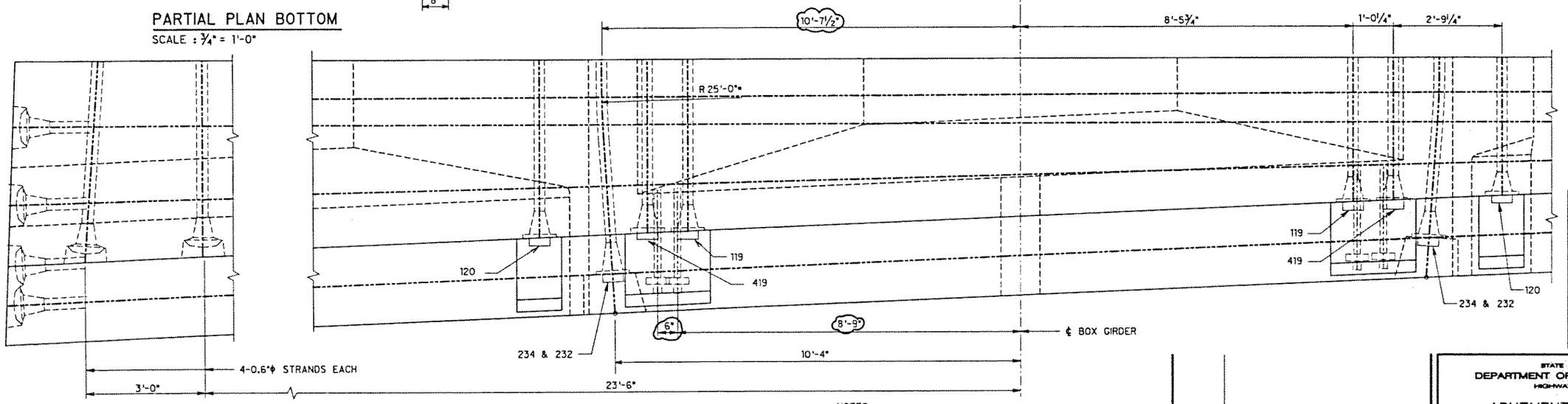
SECTION A
DP15 DP15
SCALE : ¾" = 1'-0"



LONGITUDINAL SECTION
SCALE : ¾" = 1'-0"



PARTIAL PLAN BOTTOM
SCALE : ¾" = 1'-0"



PLAN VIEW
SCALE : ¾" = 1'-0"

NOTES:
1. ALL LONGITUDINAL TENDONS ARE 12-0.6"ϕ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"ϕ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM RADIUS IS 20' FOR 12-0.6"ϕ TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 216 ksi.
6. SEE SHEET DP14 FOR PLAN LOCATION OF TOP SLAB TRANSVERSE TENDONS.

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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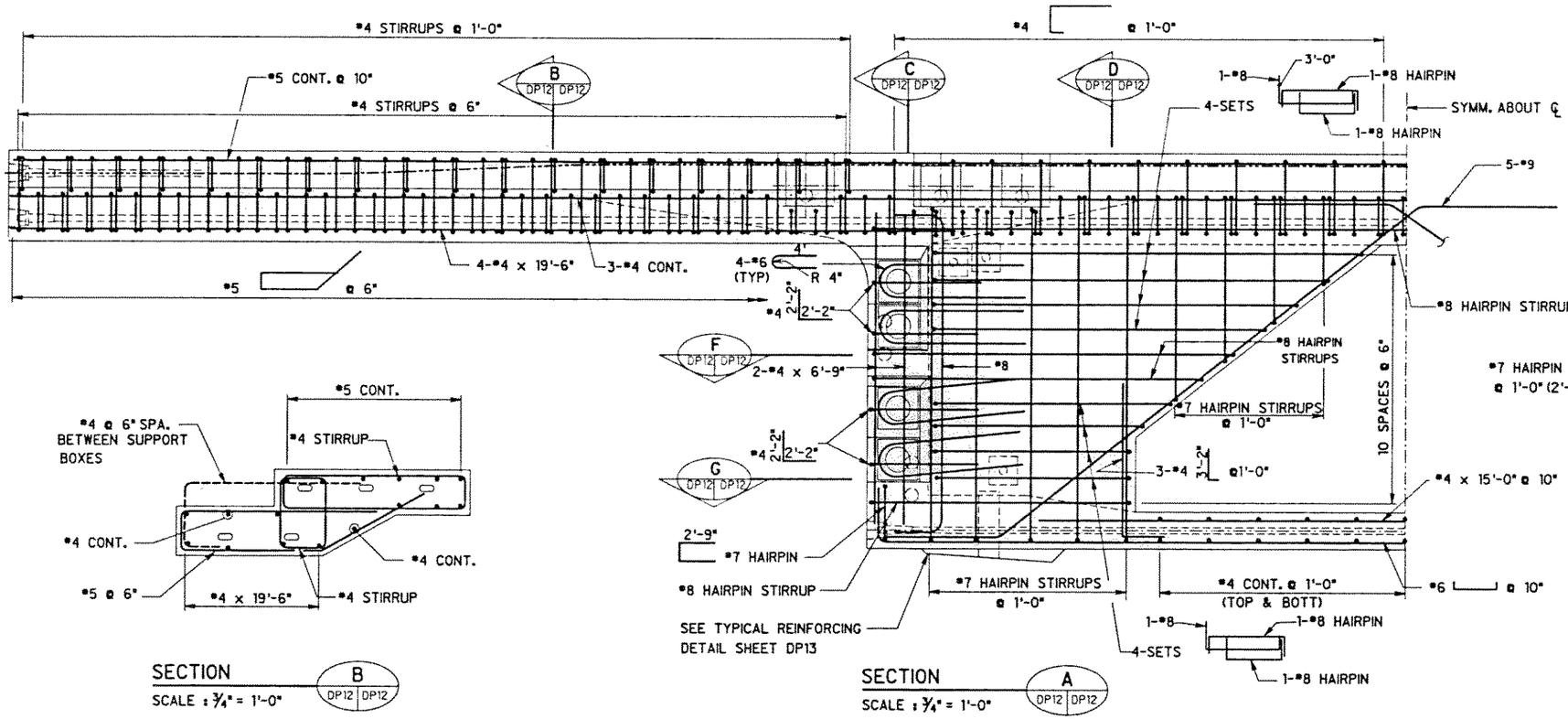
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 1 SEGMENT
P.T. DETAILS
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. DP15 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

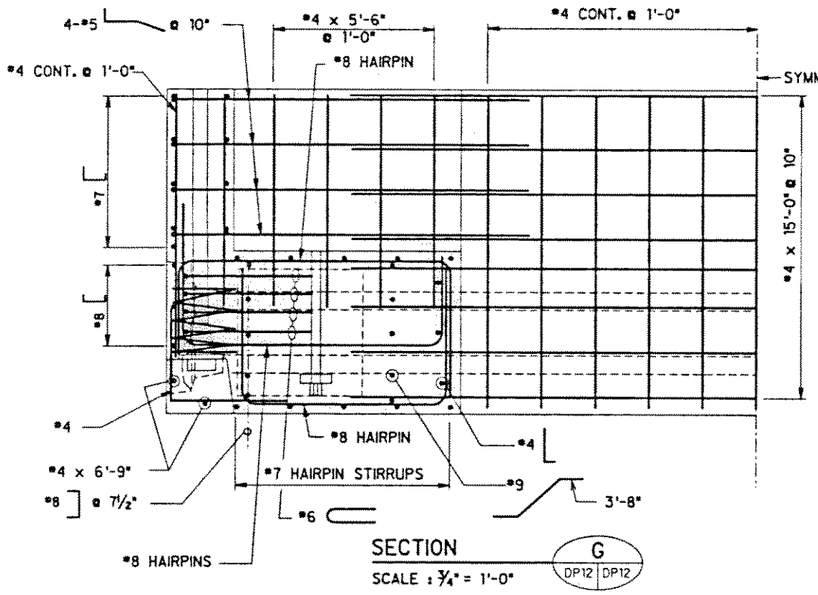


SECTION B
SCALE : 3/4" = 1'-0"
DP12 DP12

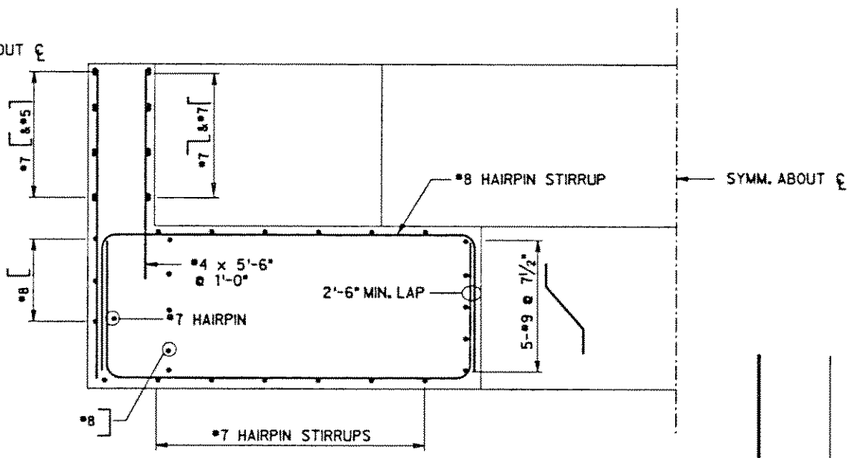
SECTION A
SCALE : 3/4" = 1'-0"
DP12 DP12

SECTION D
SCALE : 3/4" = 1'-0"
DP12 DP12

NOTE:
1. FOR ADDITIONAL REINFORCING AROUND TENDON ANCHORAGES, SEE SHEET TT1
2. SKEW OF SEGMENT HAS NOT BEEN SHOWN FOR CLARITY



SECTION G
SCALE : 3/4" = 1'-0"
DP12 DP12



SECTION F
SCALE : 3/4" = 1'-0"
DP12 DP12

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379
HAWAII, U.S.A.

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DATE	REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 1 SEGMENT REINFORCING I OUTBOUND STRUCTURE

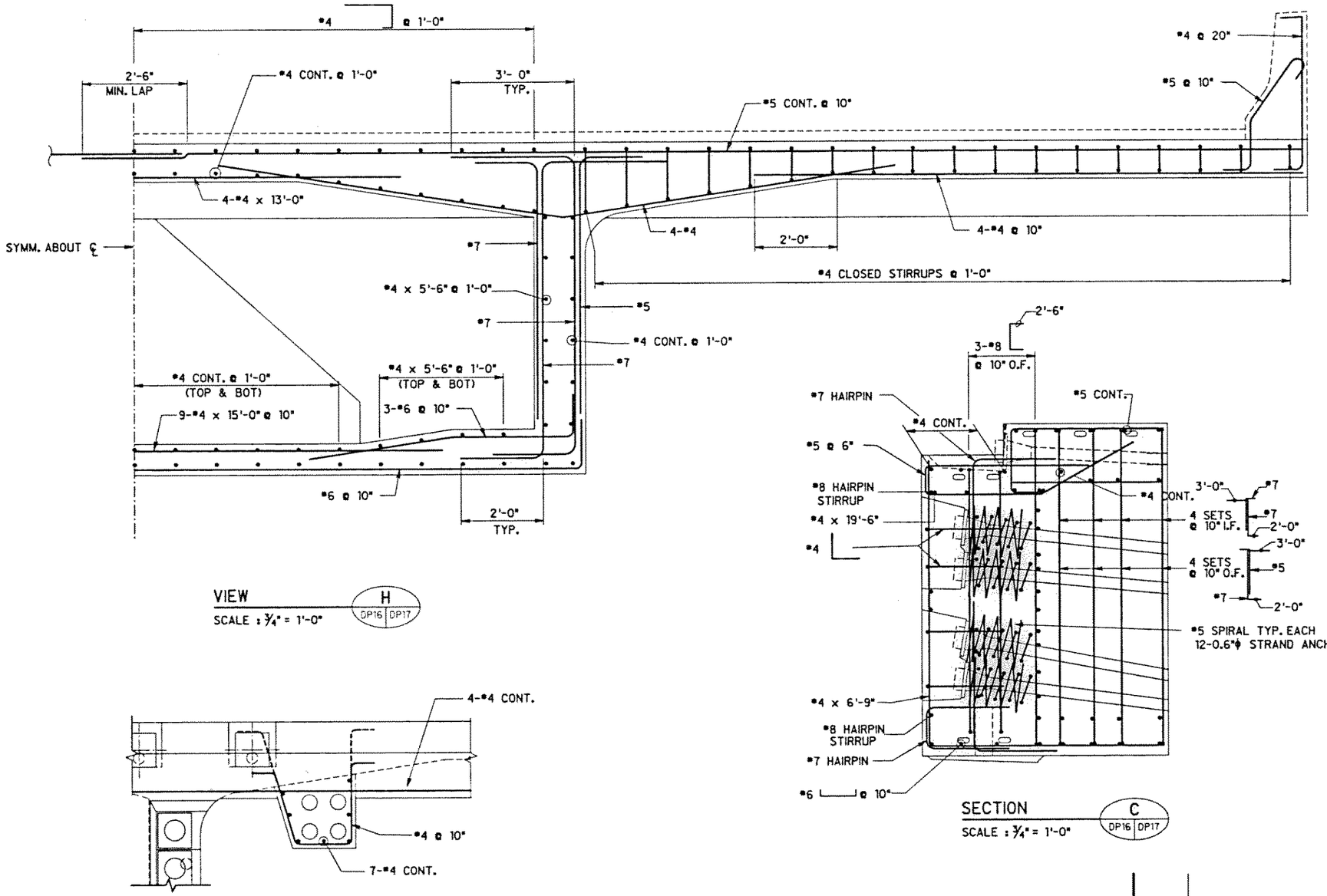
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. DP16 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



VIEW H (DP16 | DP17)
SCALE : 3/4" = 1'-0"

ELECTRICAL DUCT REINFORCING DETAIL
SCALE : 3/4" = 1'-0"

SECTION C (DP16 | DP17)
SCALE : 3/4" = 1'-0"

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375 — HAWAII, U.S.A.

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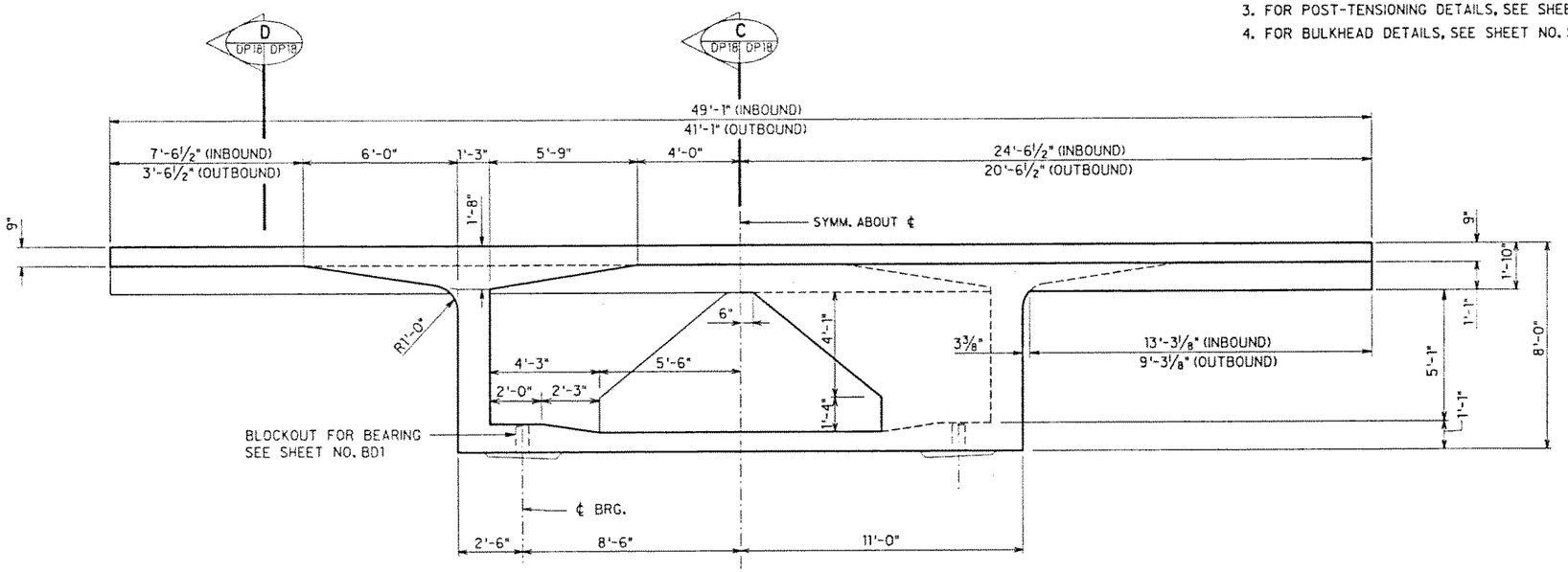
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT SEGMENT 1
REINFORCING II
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. DP17 OF SHEETS

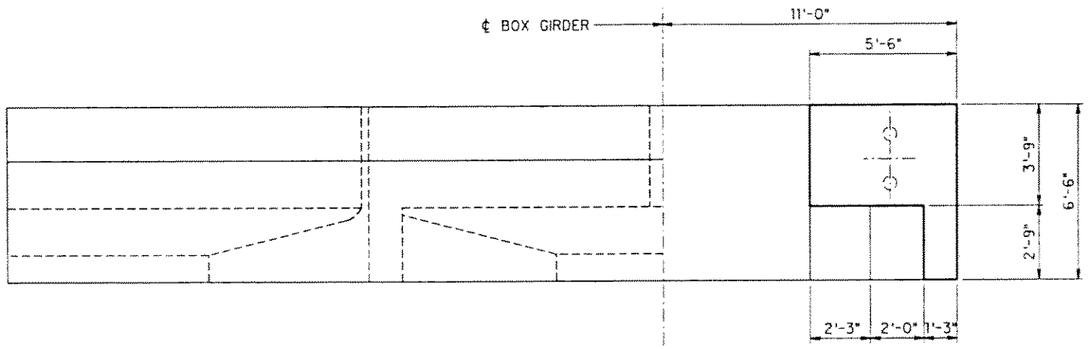
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

NOTES:
1. FOR BEARING DETAILS, SEE SHEET NO. BD1
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NO. DP19 & TT1
4. FOR BULKHEAD DETAILS, SEE SHEET NO. SF1.



HALF VIEW A DP18 DP18
SCALE : ⅜" = 1'-0"

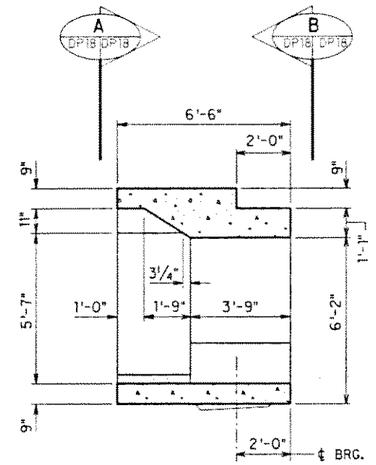
HALF VIEW B DP18 DP18
SCALE : ⅜" = 1'-0"



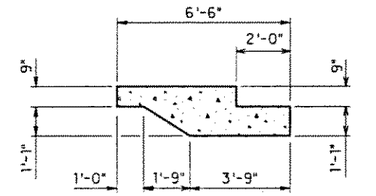
HALF TOP VIEW

HALF BOTTOM VIEW

PLAN VIEW
SCALE : ⅜" = 1'-0"



SECTION C DP18 DP18
SCALE : ⅜" = 1'-0"



SECTION D DP18 DP18
SCALE : ⅜" = 1'-0"

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

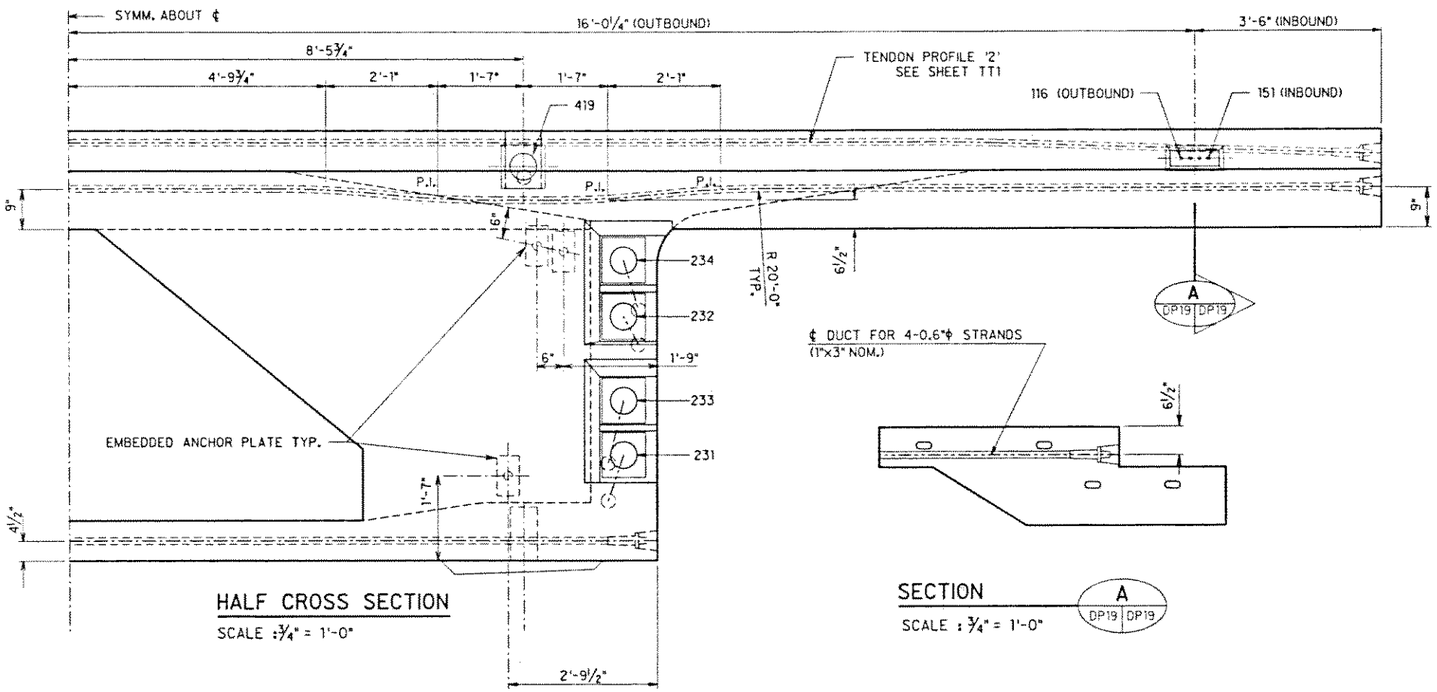
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 2 SEGMENT
DIMENSIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. DP18 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

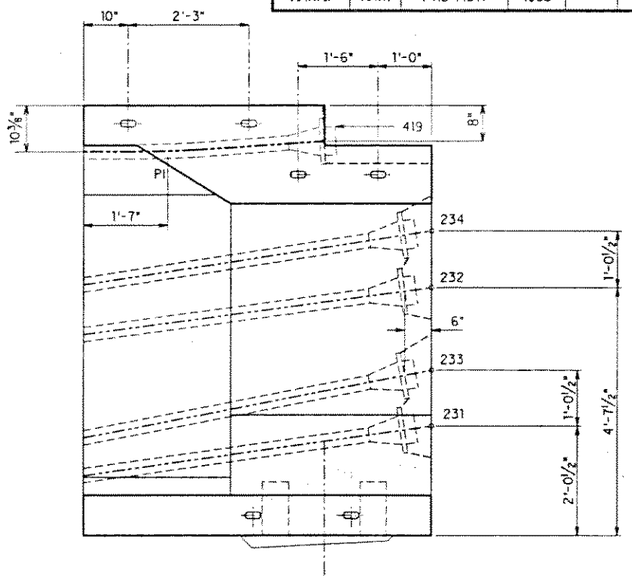


HALF CROSS SECTION

SCALE : ¾" = 1'-0"

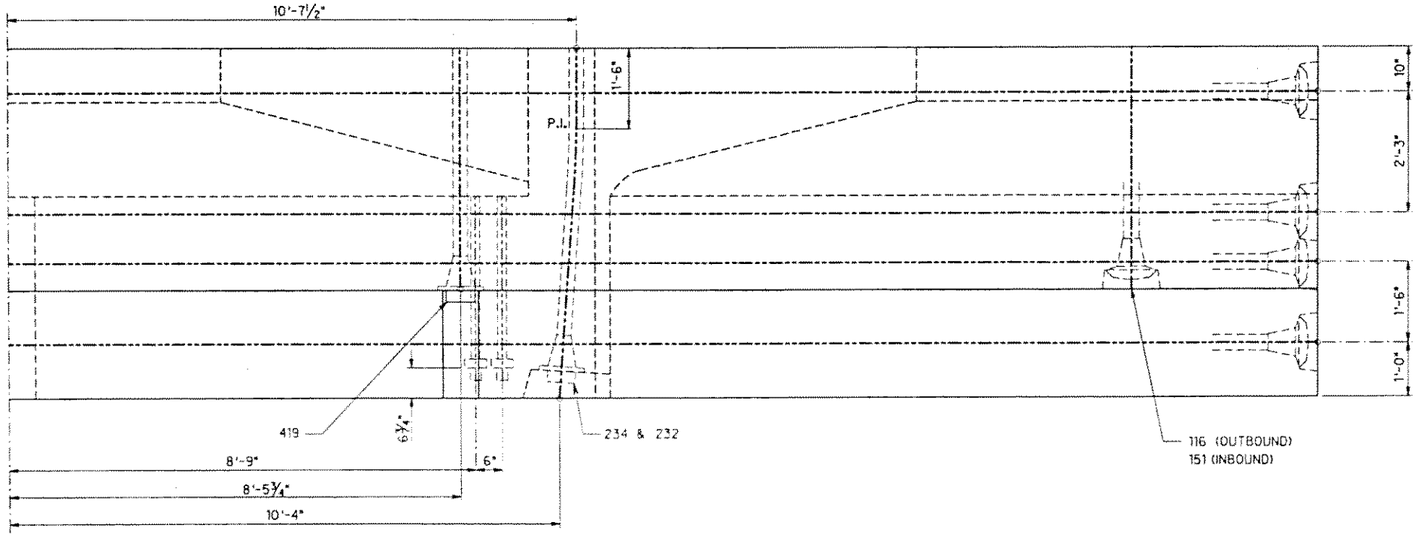
SECTION A DP19 DP19

SCALE : ¾" = 1'-0"



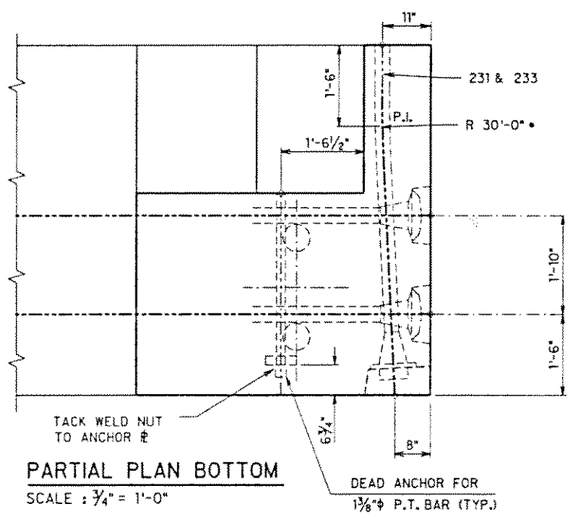
LONGITUDINAL SECTION

SCALE : ¾" = 1'-0"



HALF TOP VIEW

SCALE : ¾" = 1'-0"



PARTIAL PLAN BOTTOM

SCALE : ¾" = 1'-0"

NOTES:
1. ALL LONGITUDINAL TENDONS ARE 19-0.5"℄ STRANDS EACH.
2. ALL TRANSVERSE TENDONS ARE 4-0.6"℄ STRANDS EACH.
3. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
4. MINIMUM RADIUS IS 20' FOR 19-0.5"℄ TENDONS UNLESS SHOWN OTHERWISE
5. STRESS TRANSVERSE TENDONS TO 205 ksi EXCEPT BOTTOM SLAB TENDONS WHICH SHALL BE STRESSED TO 216 ksi.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

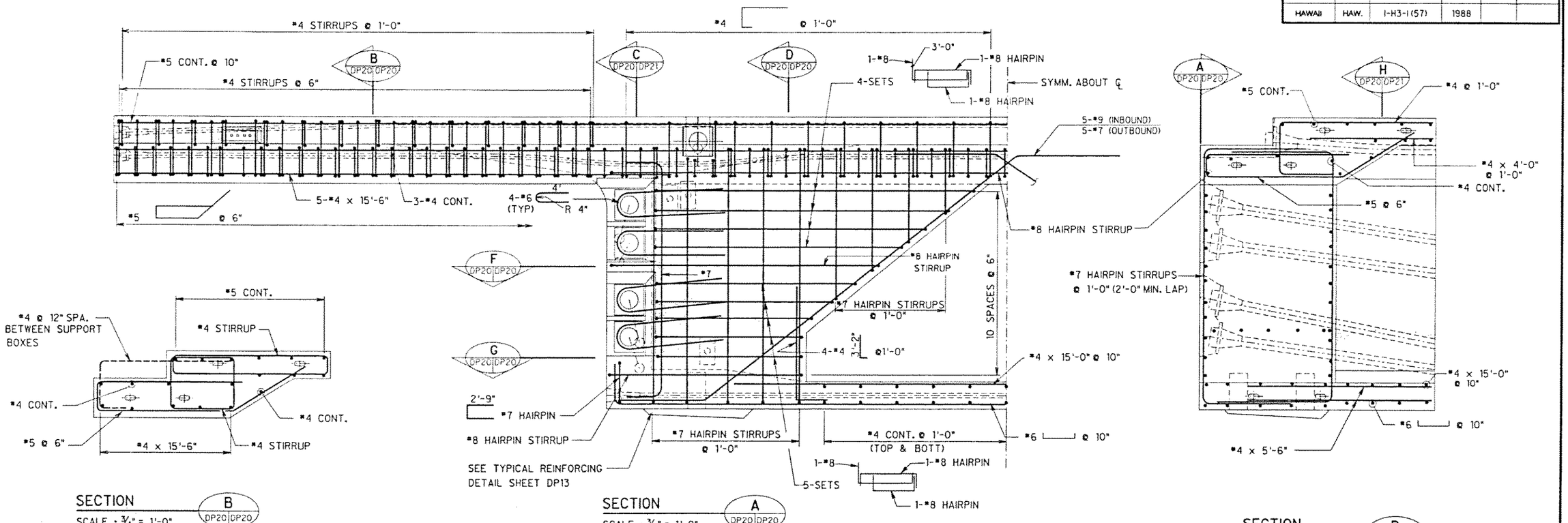
ABUTMENT 2 SEGMENT
P.T. DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1991

SHEET No. DP19 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

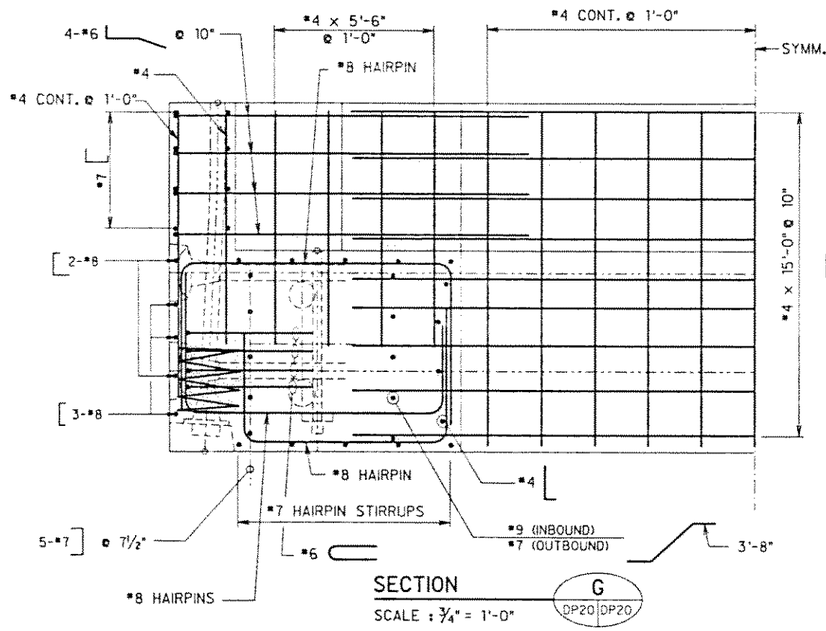


SECTION B
SCALE : 3/4" = 1'-0"
DP20 DP20

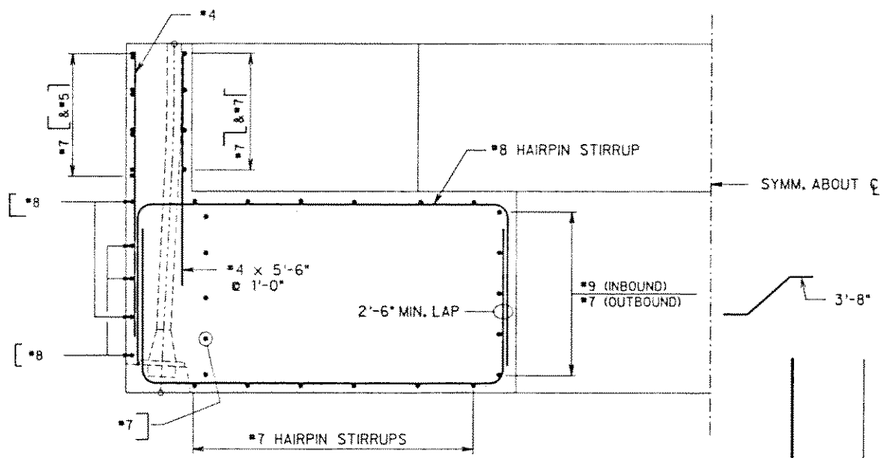
SECTION A
SCALE : 3/4" = 1'-0"
DP20 DP20

SECTION D
SCALE : 3/4" = 1'-0"
DP20 DP20

NOTE:
1. FOR ADDITIONAL REINFORCING AROUND TENDON ANCHORAGES, SEE SHEET TT1



SECTION G
SCALE : 3/4" = 1'-0"
DP20 DP20



SECTION F
SCALE : 3/4" = 1'-0"
DP20 DP20

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

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

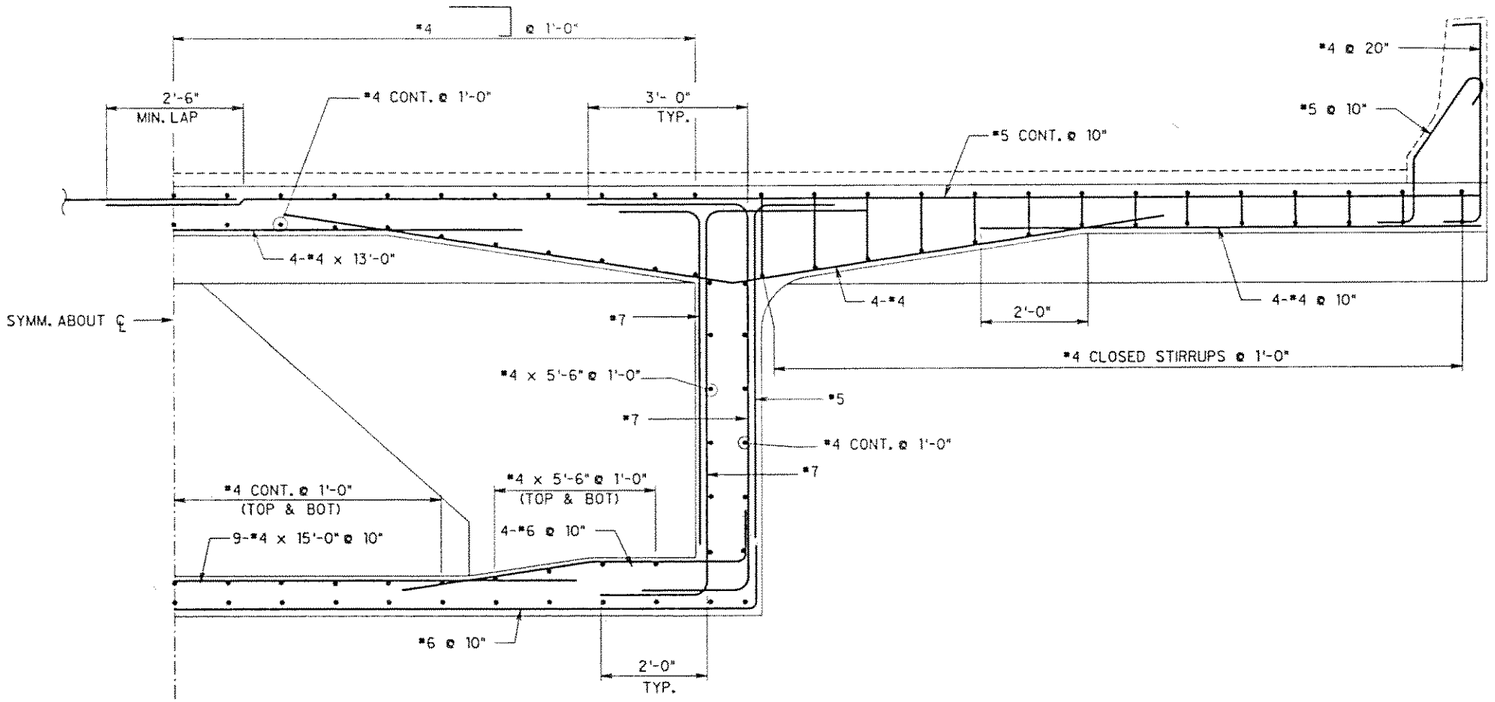
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

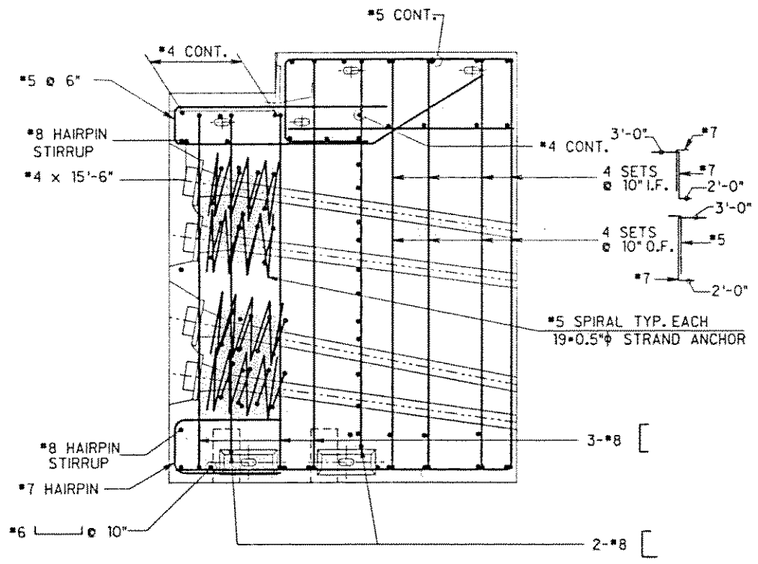
ABUTMENT 2 SEGMENT REINFORCING 1

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN.1991
SHEET No. DP20 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



VIEW H
SCALE : 3/4" = 1'-0"
DP20 DP21



SECTION C
SCALE : 3/4" = 1'-0"
DP20 DP21

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2315 HAWAII, U.S.A.

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DATE	REVISION

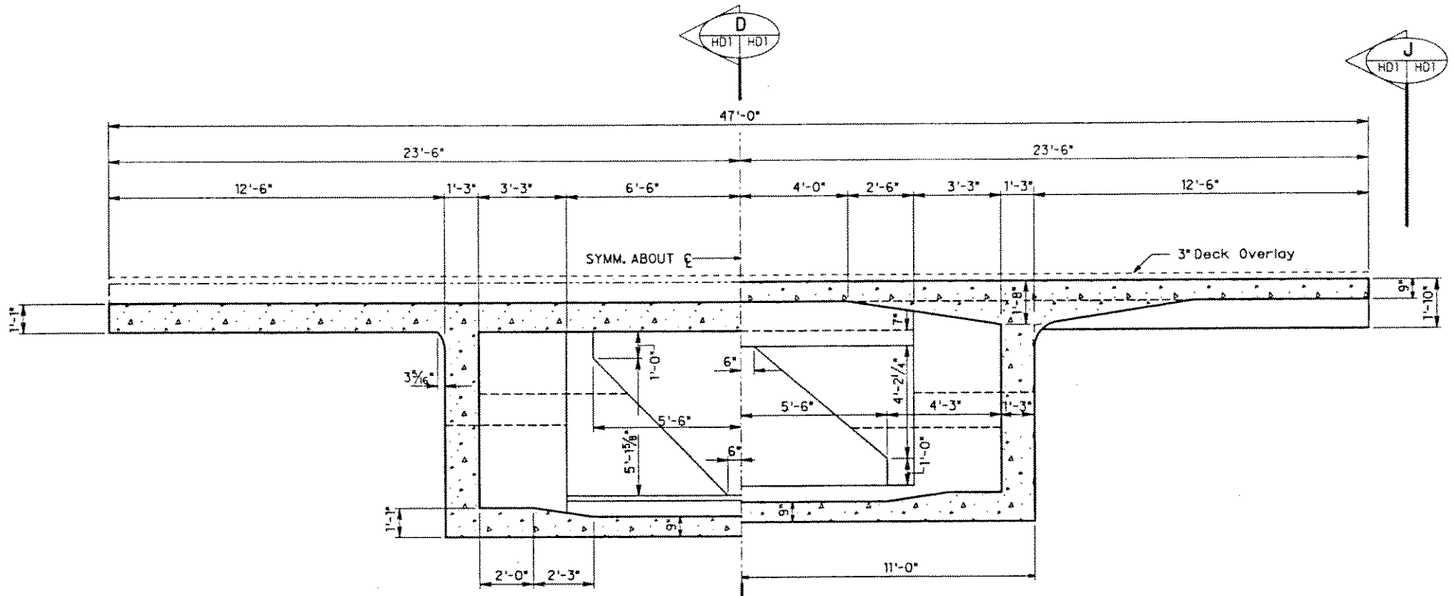
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ABUTMENT 2 SEGMENT
REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN.1991
SHEET No. DP21 OF SHEETS

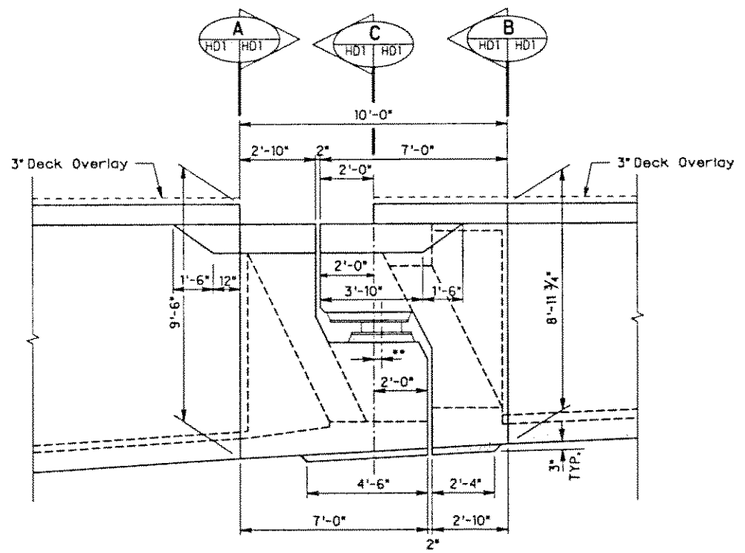
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SEGMENT 'A' SEGMENT 'B'

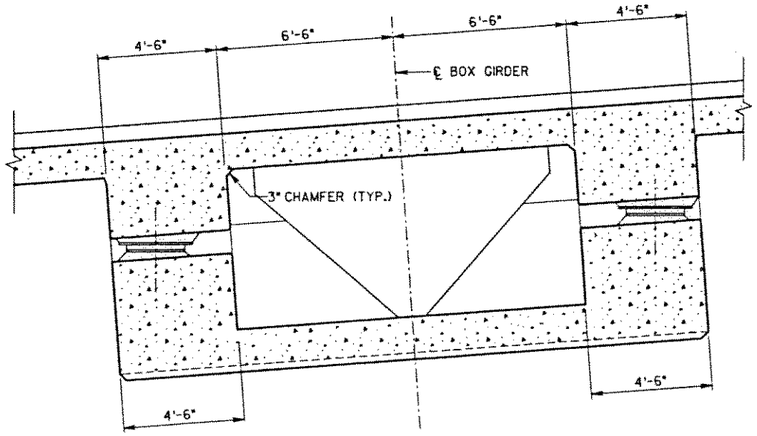
HALF SECTION A — SCALE : 3/8"=1'-0"

HALF SECTION B — SCALE : 3/8"=1'-0"

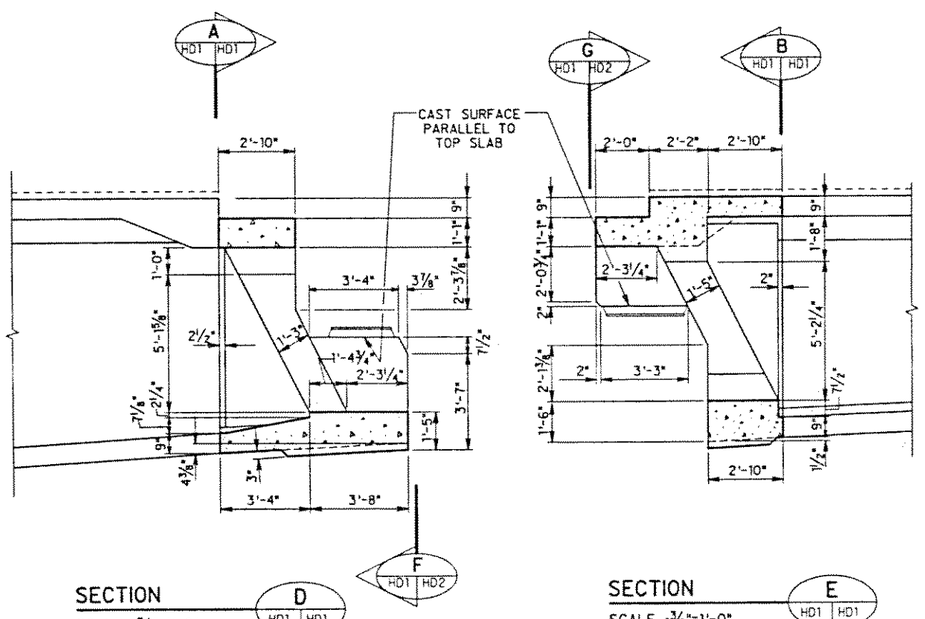


SEGMENT 'A' SEGMENT 'B'

VIEW J — SCALE : 3/8"=1'-0"



SECTION C — SCALE : 3/8"=1'-0" (SHOWING MAX. SUPERELEVATION)



SECTION D — SCALE : 3/8"=1'-0"

SECTION E — SCALE : 3/8"=1'-0"

NOTES:

1. FOR BEARING DETAILS, SEE SHEET NO. BD1.
2. FOR EXPANSION JOINT DETAILS, SEE SHEET NO. EJ1.
3. FOR POST-TENSIONING DETAILS, SEE SHEET NOS. HD3 AND HD4.
4. FOR ADDITIONAL SEGMENT DIMENSIONS, SEE SHEET No. PB1.
5. LONGITUDINAL GRADE NOT SHOWN..
6. FOR BULKHEAD DETAILS, SEE SHEET SF1
- **7. SEE DIMENSION "e" SHEET No. BD1.

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT DIMENSIONS I

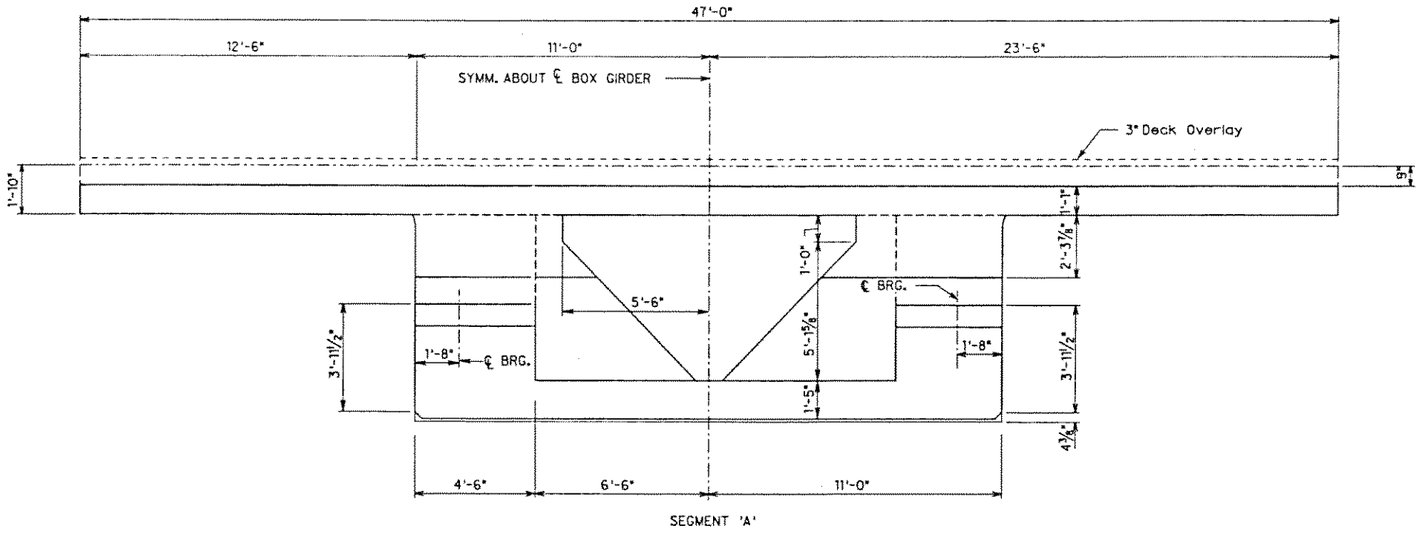
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD1 OF SHEETS

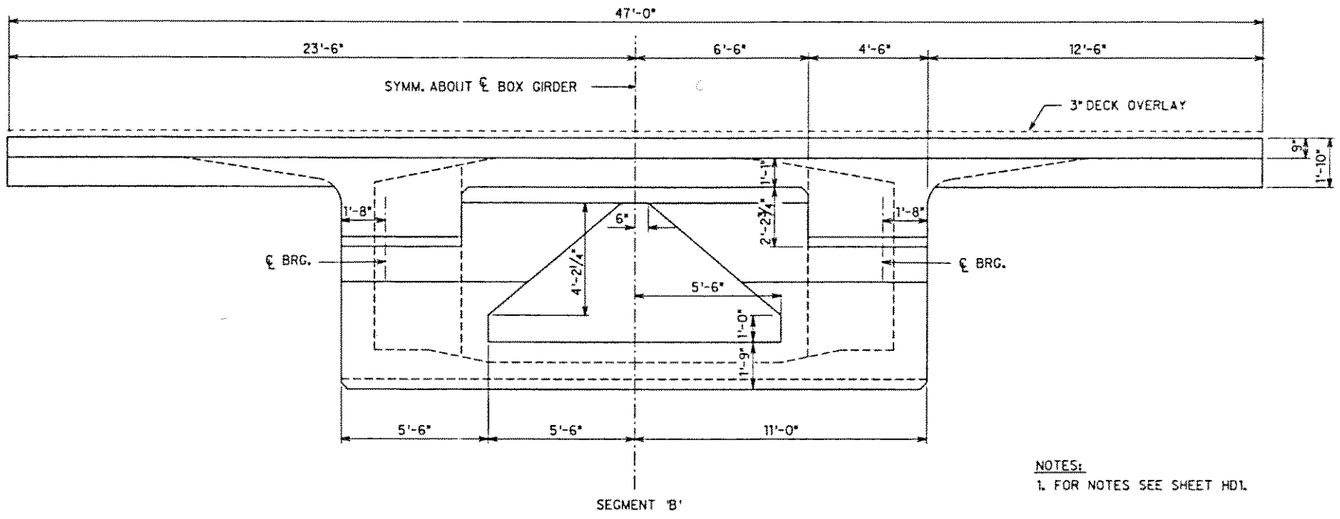
ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION F (HD1 | HD2)

SCALE :⅜"=1'-0"



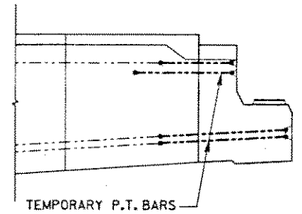
SECTION G (HD1 | HD2)

SCALE :⅜"=1'-0"

NOTES:

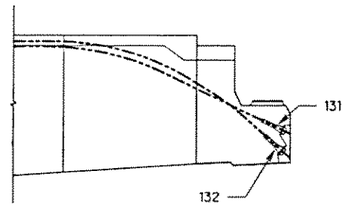
1. FOR NOTES SEE SHEET HD1.

ERECTION SEQUENCE



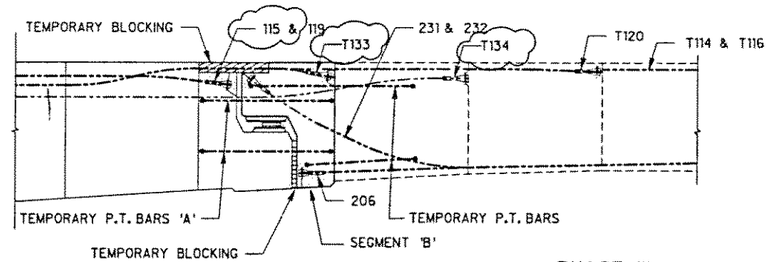
PHASE 1

PLACE SEGMENT 'A' AND STRESS TEMPORARY P.T. BARS



PHASE II

1. PLACE CORRESPONDING CANTILEVER SEGMENTS AND STRESS TENDONS 132 & 131 RESPECTIVELY
2. INSTALL BEARINGS



PHASE III

1. ERECT AND ADJUST SEGMENT 'B'
2. PLACE TEMPORARY SHIMS IN THE EXPANSION JOINT GAP AND STRESS TEMPORARY P.T. BARS 'A'
3. INSTALL TEMPORARY BLOCKING ACCORDING TO DETAILS SHOWN ON SHEET HD9
4. ERECT SEGMENT AT OPPOSITE END OF CANTILEVER
5. INSTALL AND STRESS TENDONS T134 AND 119
6. ERECT REMAINING PAIRS OF CANTILEVER SEGMENTS, STARTING WITH THE DOWNSTATION SEGMENT. STRESS TENDONS T133, T120, 115, T114, & T116.
7. FOLLOWING CLOSURE AND STRESSING OF CONTINUITY TENDONS IN THE SPAN UPSTATION OF THE HINGED SPAN AND AFTER THE ERECTION GANTRY CENTER LEGS HAS BEEN MOVED TO THE THIRD PIER AFTER THE HINGE, THE HINGE WILL BE RELEASED AS FOLLOWS:
   a. RELEASE TEMPORARY P.T. BARS 'A' THROUGH THE HINGE SEGMENT.
   b. RELEASE TEMPORARY TENDONS IN THE FOLLOWING ORDER: T133, T120, T114, T116
   c. REMOVE TEMPORARY BLOCKING

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2373-S HAWAII, U.S.A.

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DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

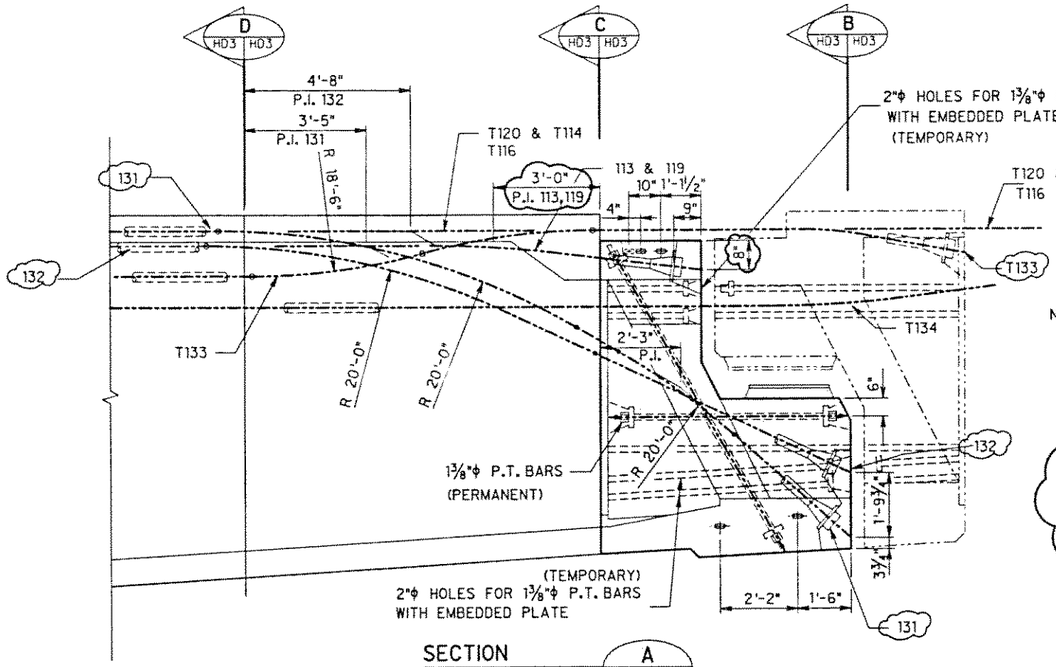
HINGE SEGMENT
DIMENSIONS II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD2 OF SHEETS

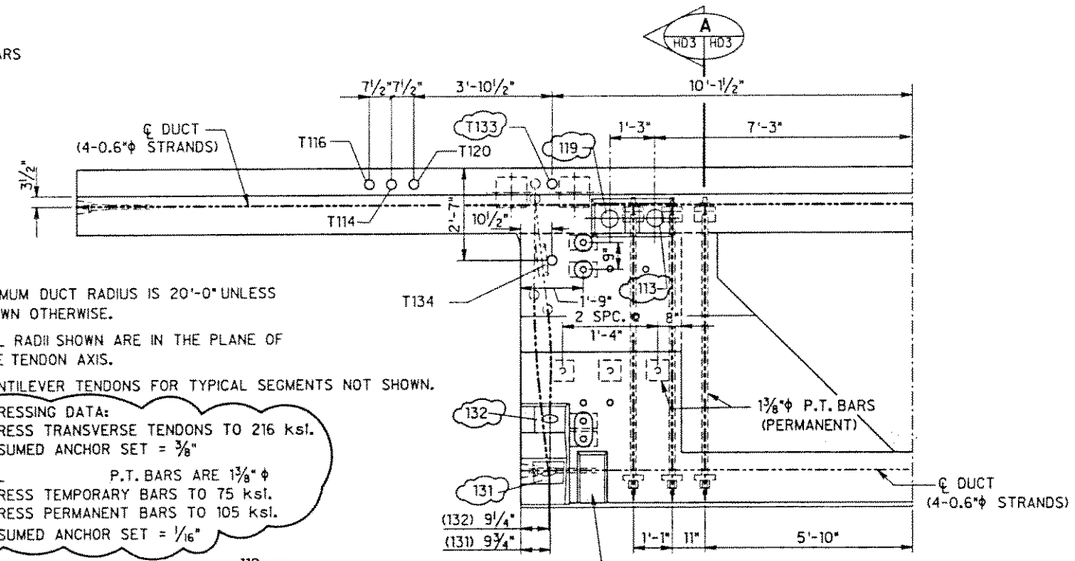
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NO. | NOTE BOOK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



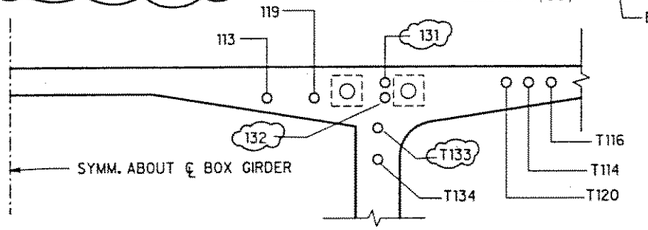
SECTION A HD3 HD3
SCALE : ½" = 1'-0"

NOTES:
1. MINIMUM DUCT RADIUS IS 20'-0" UNLESS SHOWN OTHERWISE.
2. ALL RADII SHOWN ARE IN THE PLANE OF THE TENDON AXIS.
3. CANTILEVER TENDONS FOR TYPICAL SEGMENTS NOT SHOWN.
4. STRESSING DATA:
   STRESS TRANSVERSE TENDONS TO 216 ksi.
   ASSUMED ANCHOR SET = ⅜"
5. ALL P.T. BARS ARE 1⅜"ϕ
   STRESS TEMPORARY BARS TO 75 ksi.
   STRESS PERMANENT BARS TO 105 ksi.
   ASSUMED ANCHOR SET = 1/16"

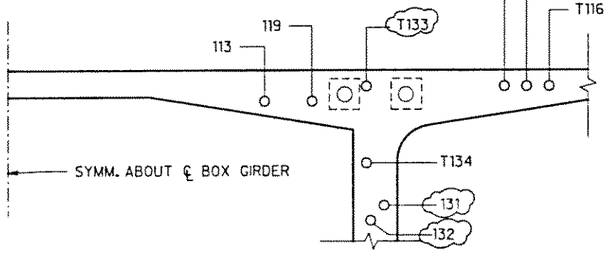


BLOCKOUT FOR TENDON ACCESS, SEE SHEET HD6

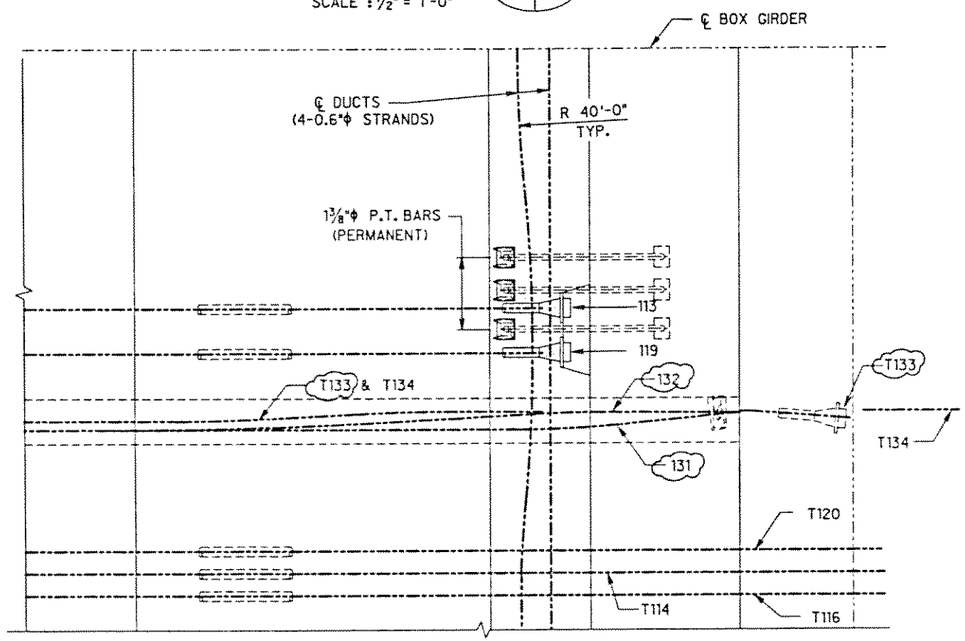
SECTION B HD3 HD3
SCALE : ½" = 1'-0"



SECTION D HD3 HD3
SCALE : ½" = 1'-0"



SECTION C HD3 HD3
SCALE : ½" = 1'-0"



PLAN VIEW
SCALE : ½" = 1'-0"

DATE	REVISION
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2276-S
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

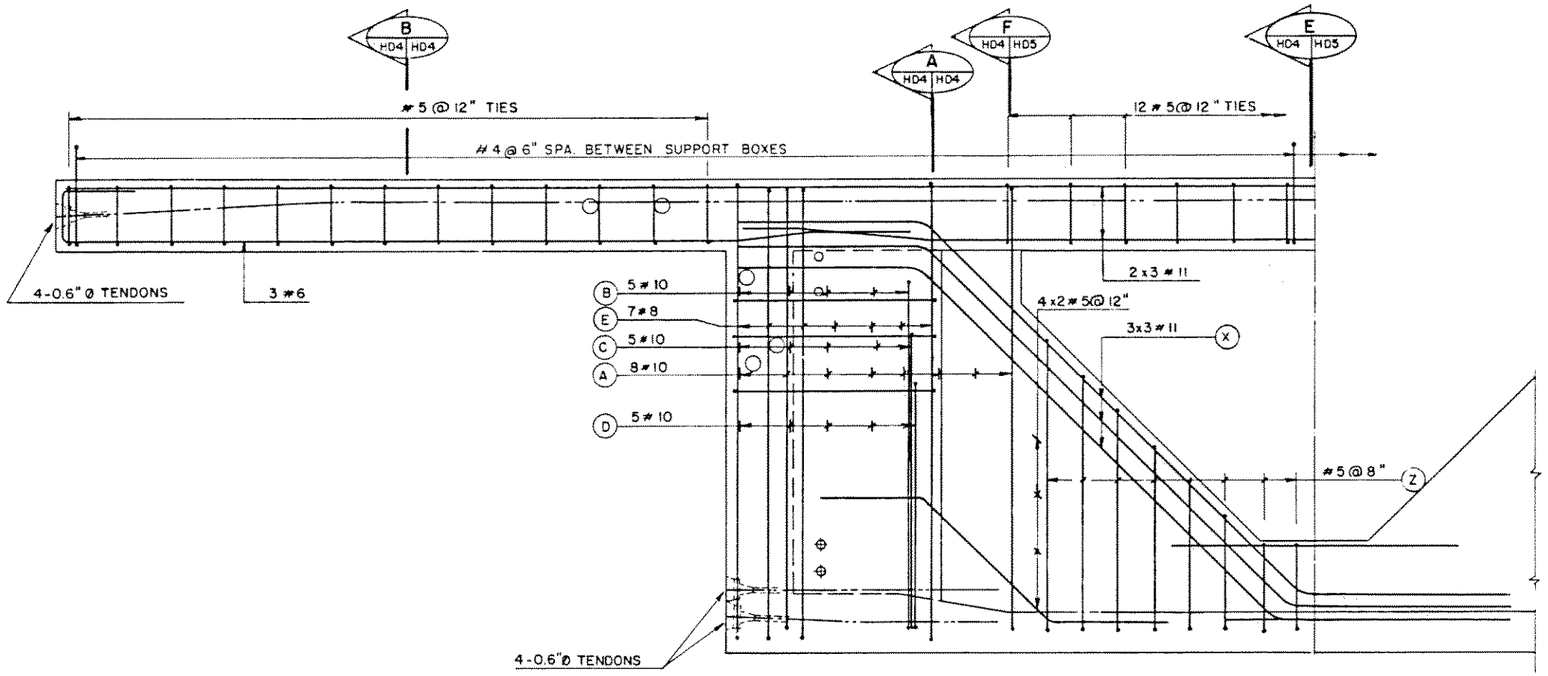
HINGE SEGMENT A
POST-TENSIONING DETAILS

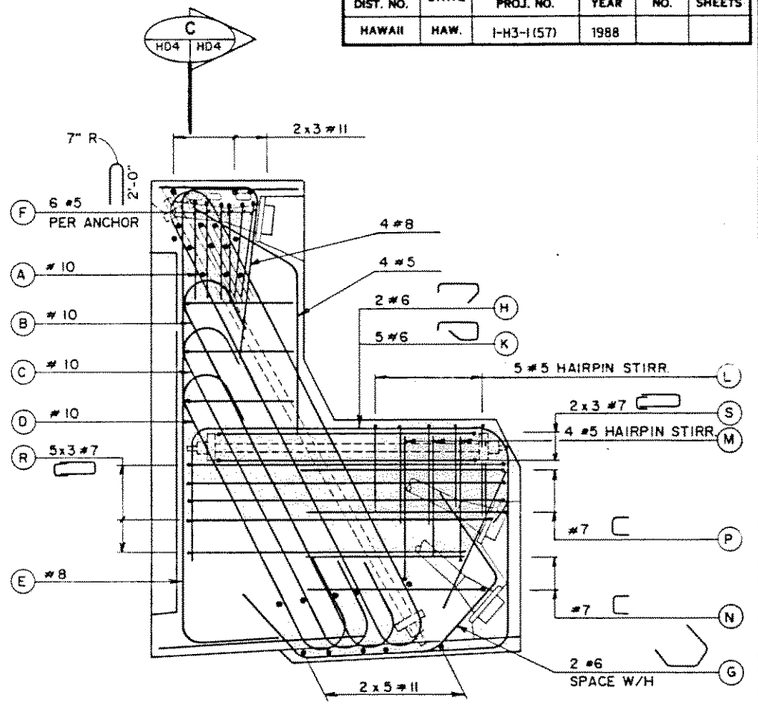
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD3 OF SHEETS

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

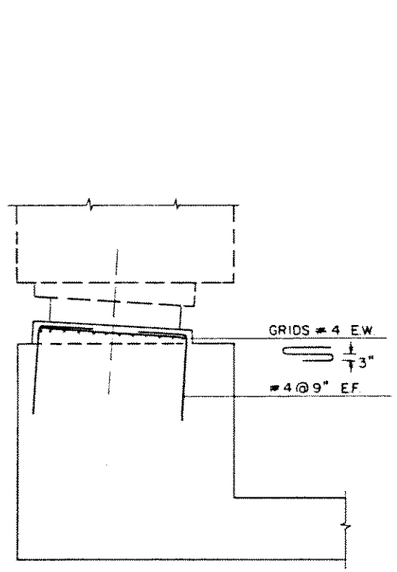
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



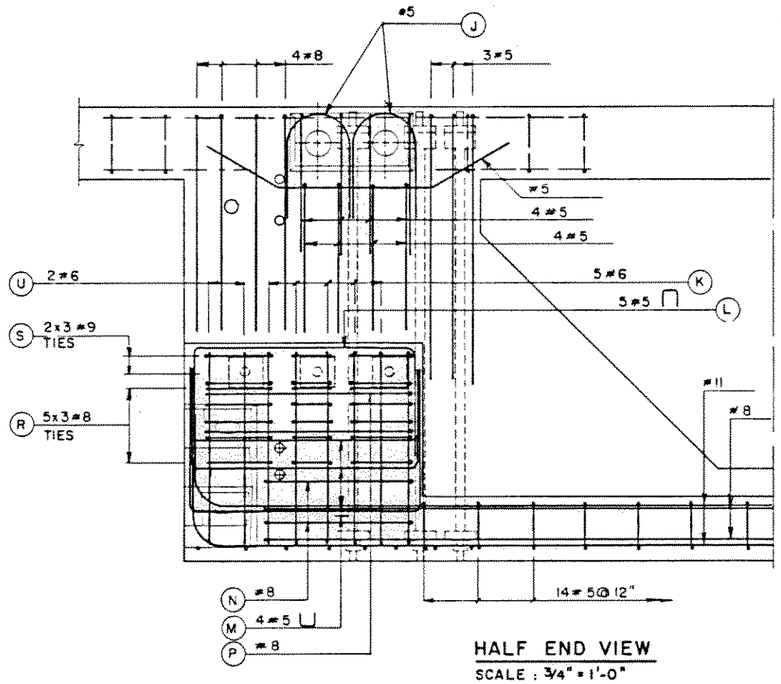


SECTION C HD4 HD4
SCALE : 3/4" = 1'-0"

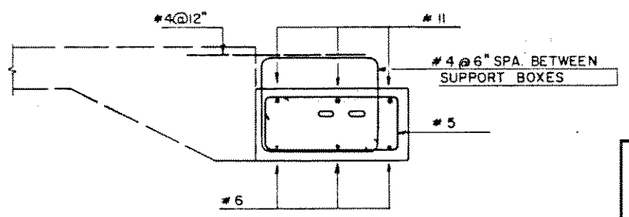
SECTION A HD4 HD4
SCALE : 3/4" = 1'-0"



BEARING PLINTH
SCALE : 3/4" = 1'-0"



HALF END VIEW
SCALE : 3/4" = 1'-0"



SECTION B HD4 HD4
SCALE : 3/4" = 1'-0"

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7579 HAWAII, U.S.A.

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DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

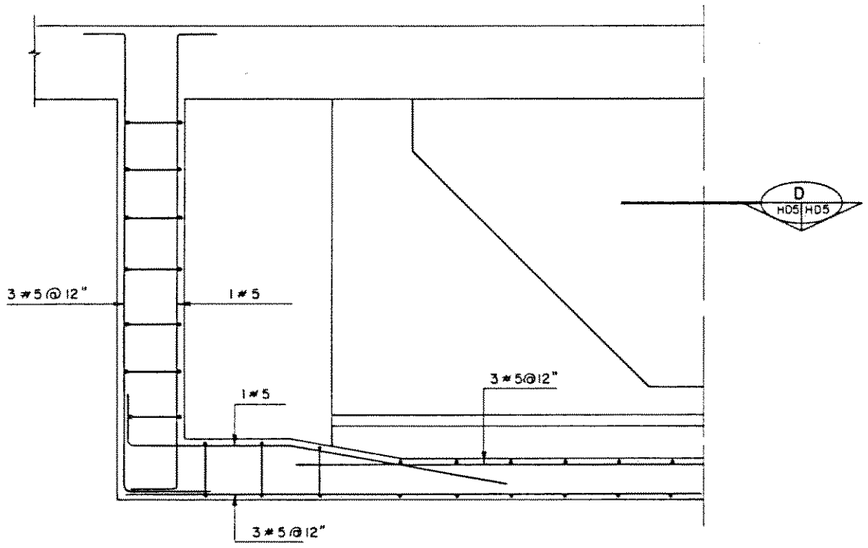
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT A
REINFORCING I

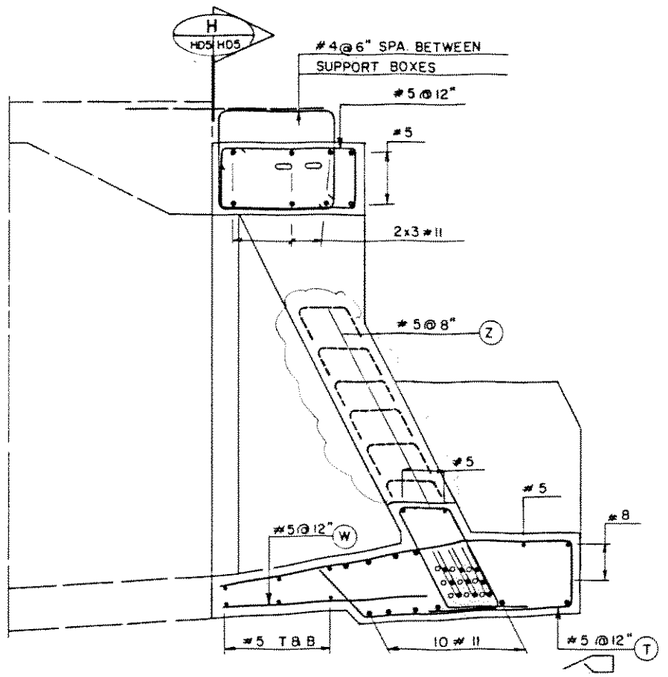
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. H04 OF SHEETS

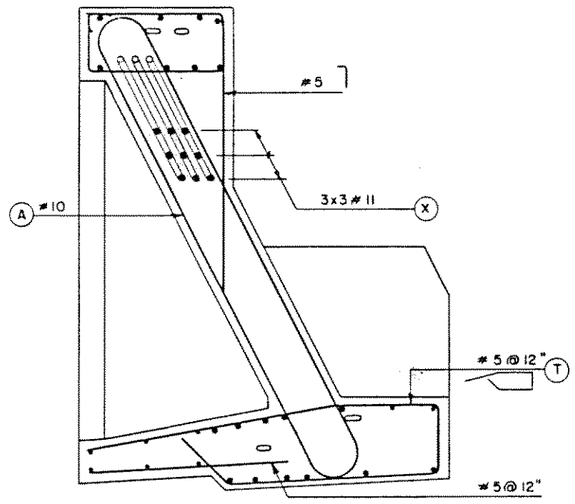
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



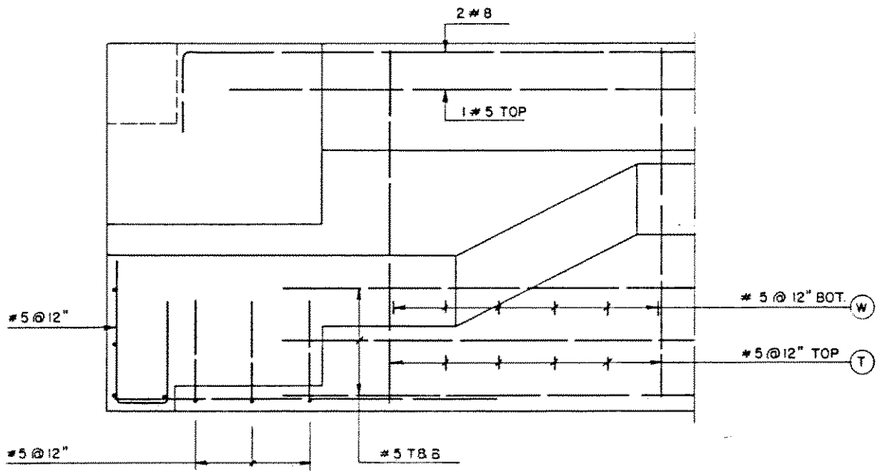
VIEW H
SCALE: 3/4" = 1'-0" HD5 HD5



SECTION E
SCALE: 3/4" = 1'-0" HD4 HD5



SECTION F
SCALE: 3/4" = 1'-0" HD4 HD5



SECTION D
SCALE: 3/4" = 1'-0" HD5 HD5

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL
Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

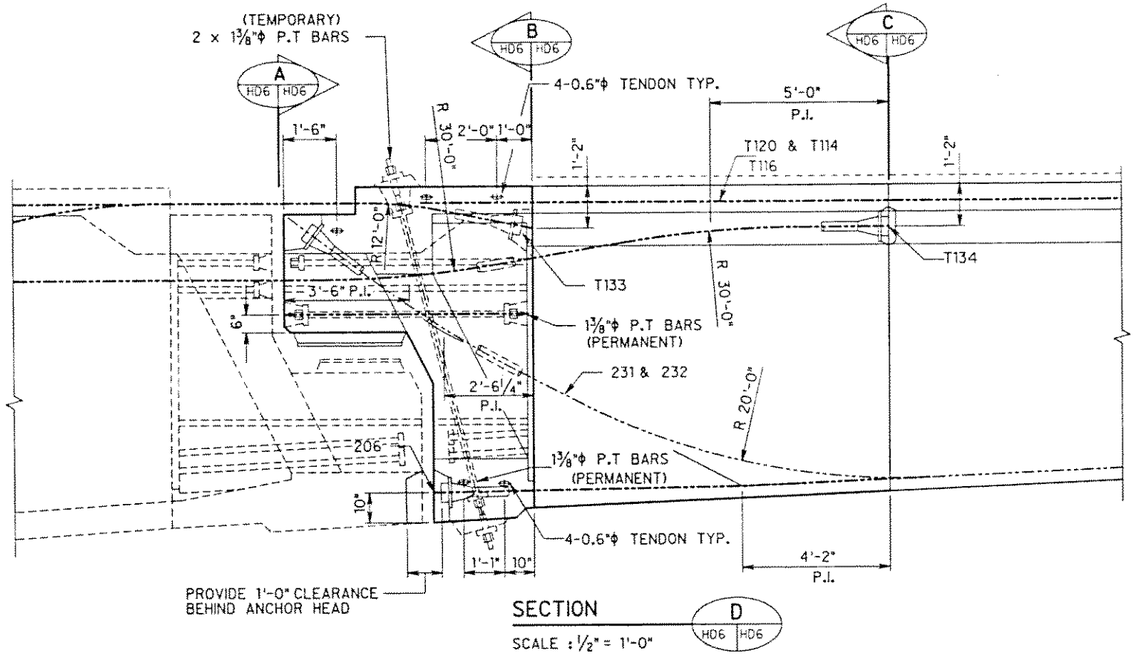
HINGE SEGMENT A
REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

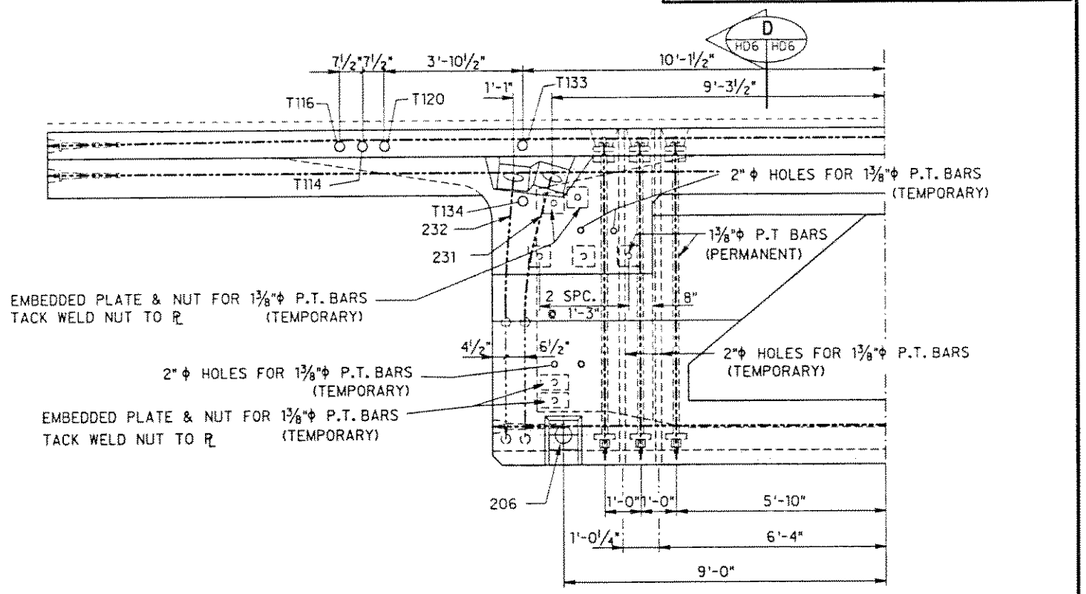
SHEET No. HD5 OF SHEETS

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

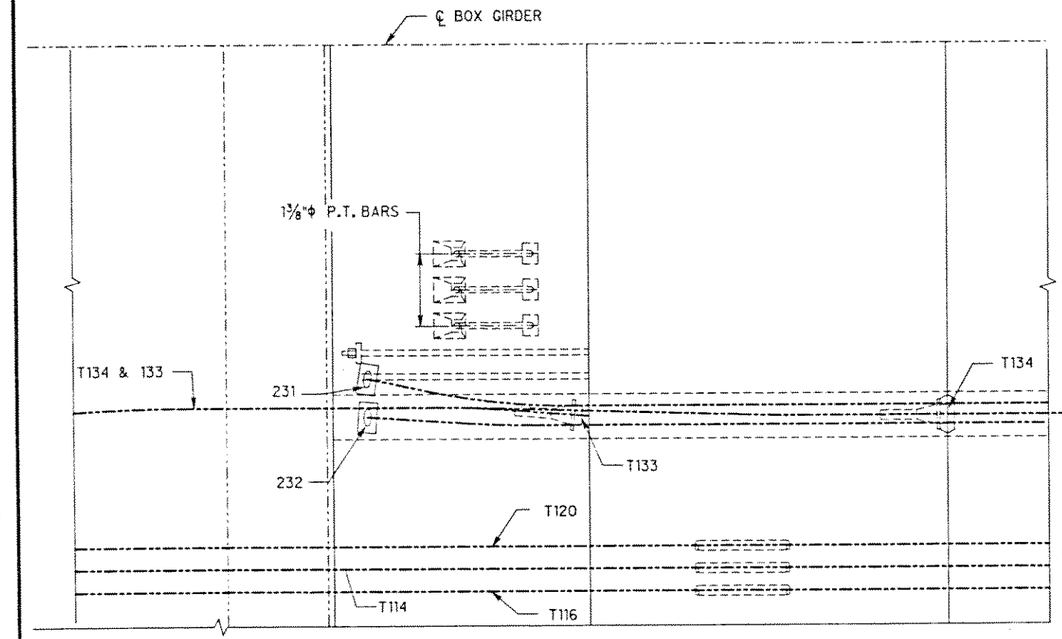
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



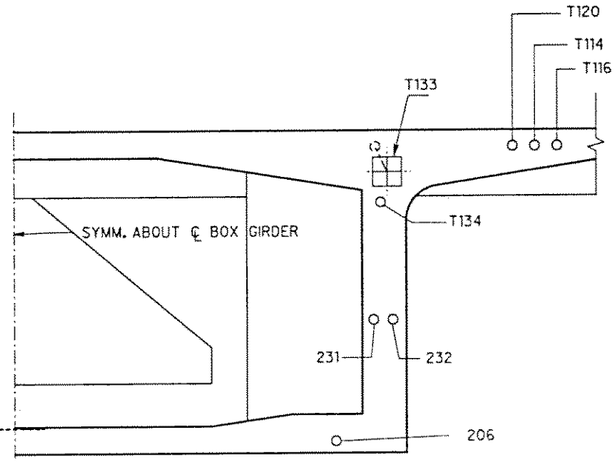
SECTION D HD6 HD6
SCALE : ½" = 1'-0"



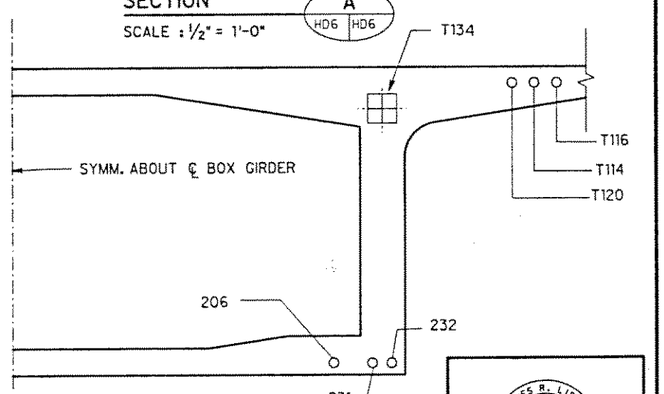
SECTION A HD6 HD6
SCALE : ½" = 1'-0"



PLAN VIEW
SCALE : ½" = 1'-0"



SECTION B HD6 HD6
SCALE : ½" = 1'-0"



SECTION C HD6 HD6
SCALE : ½" = 1'-0"

NOTES:
1. MINIMUM DUCT RADIUS IS 20'-0" UNLESS SHOWN OTHERWISE.
2. ALL RADII SHOWN ARE IN PLANE OF THE TENDON AXIS.
3. CANTILEVER TENDONS FOR TYPICAL SEGMENTS NOT SHOWN.
4. TRANSVERSE TENDONS:
   STRESS TENDONS TO 216ksi.
   ASSUMED ANCHOR SET= ⅜"
5. ALL P.T. BAPS ARE 1⅜"
   STRESS ALL PERMANENT AND VERTICAL TEMPORARY BARS TO 105ksi.
   STRESS ALL HORIZONTAL TEMPORARY BARS TO 75ksi.

DATE	REVISION
05/13/91	REVISED NOTE 5.
10/04/90	UPDATED DRAWING.

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JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 7375-S HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

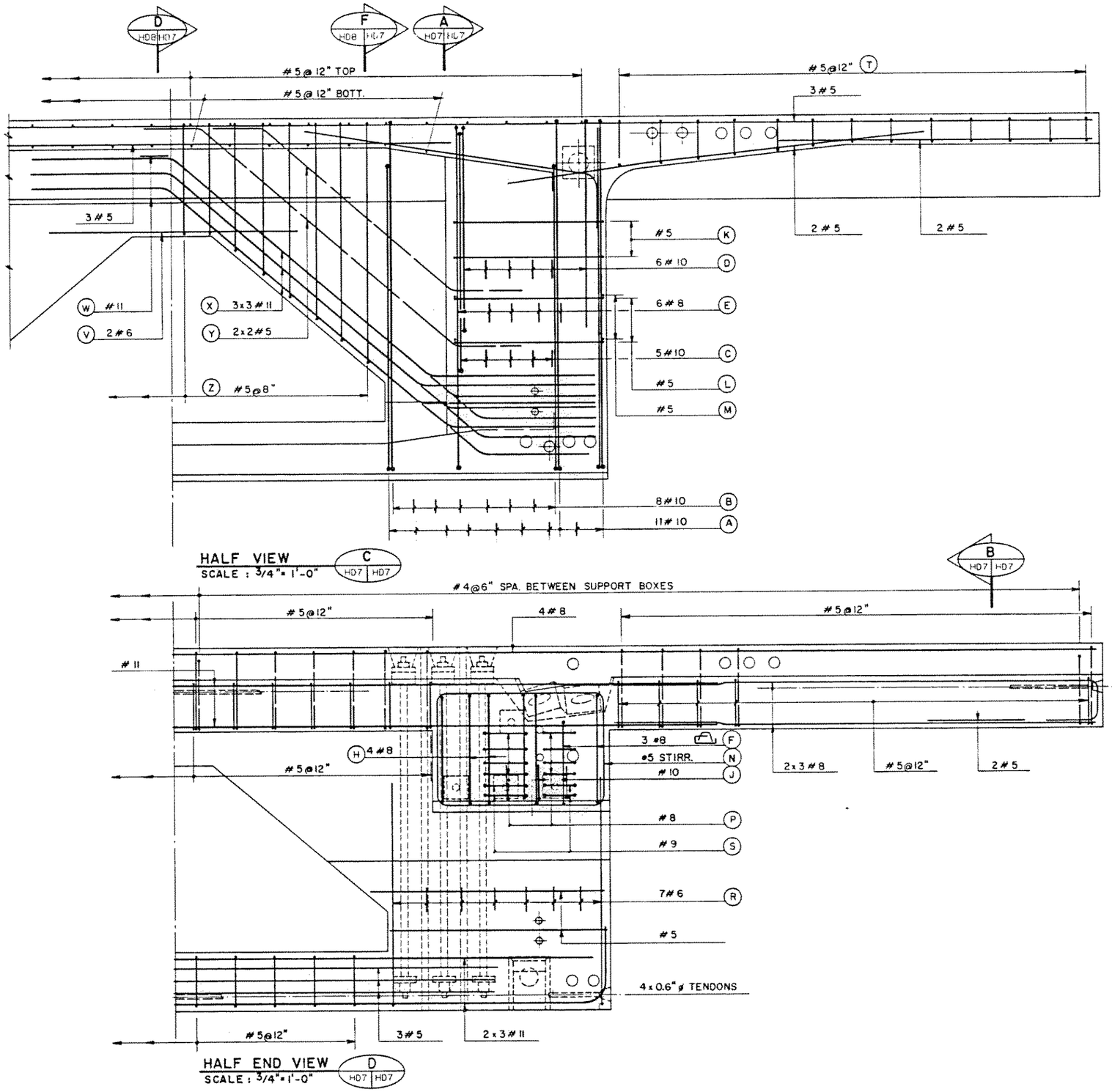
HINGE SEGMENT B
POST-TENSIONING DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. HD6 OF SHEETS

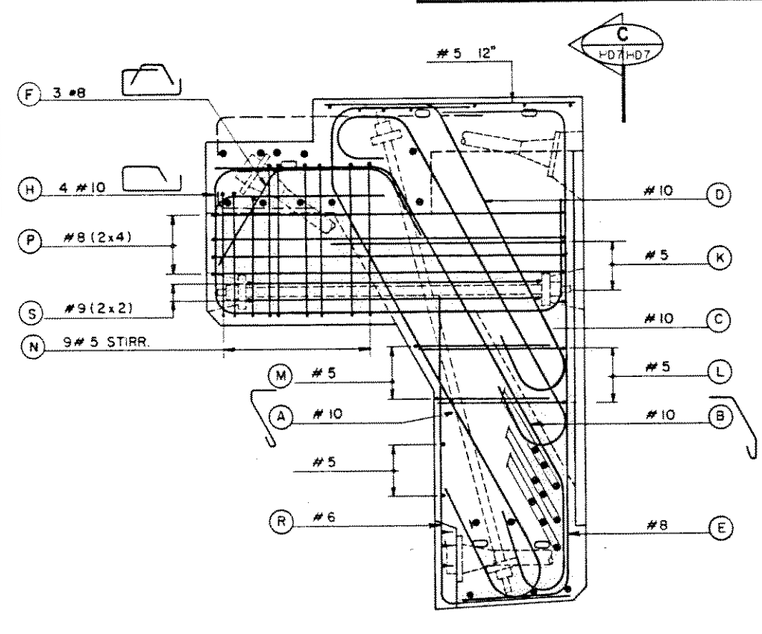
ORIGINAL PLAN | NOTE BOOK | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

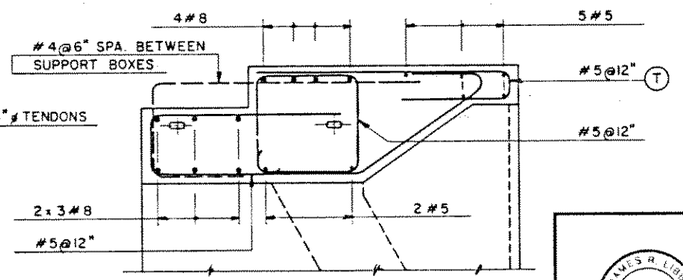


HALF VIEW (C HD7|HD7)
SCALE : 3/4"=1'-0"

HALF END VIEW (D HD7|HD7)
SCALE : 3/4"=1'-0"



SECTION (A HD7|HD7)
SCALE : 3/4"=1'-0"



SECTION (B HD7|HD7)
SCALE : 3/4"=1'-0"

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER NO. 2379 HAWAII, U.S.A.

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DATE	REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT B
REINFORCING I

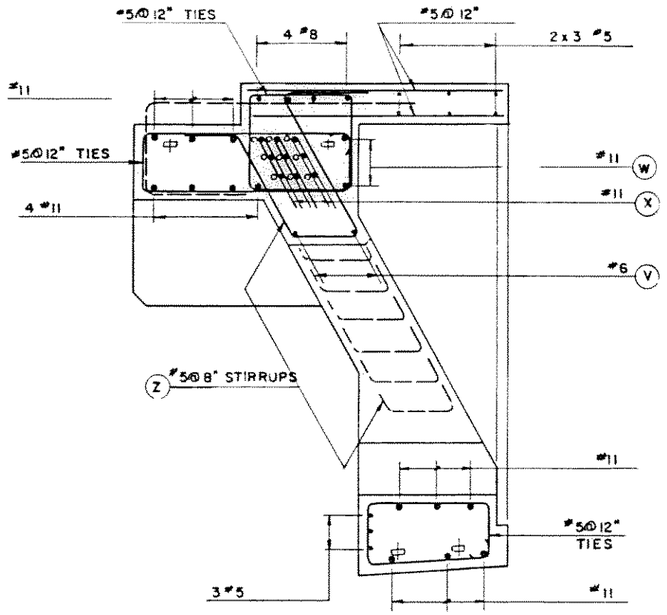
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

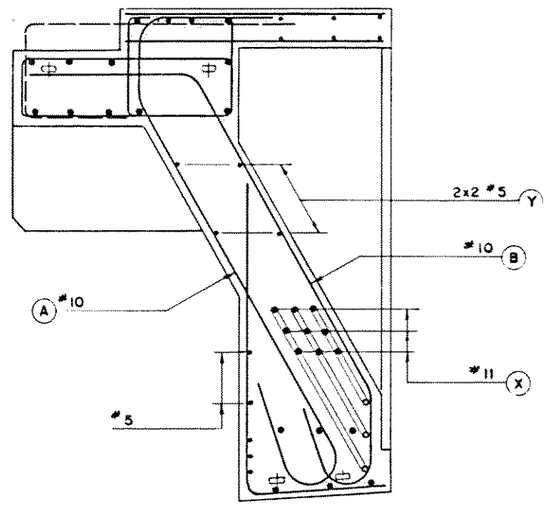
SHEET No. HD7 OF SHEETS

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

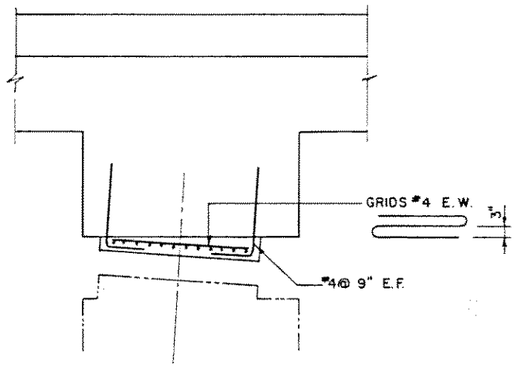
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SECTION D
SCALE : 3/4" = 1'-0"
HD7 | HD8



SECTION F
SCALE : 3/4" = 1'-0"
HD7 | HD8



BEARING PLINTH
SCALE : 3/4" = 1'-0"

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379
HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL
Libby Engineers

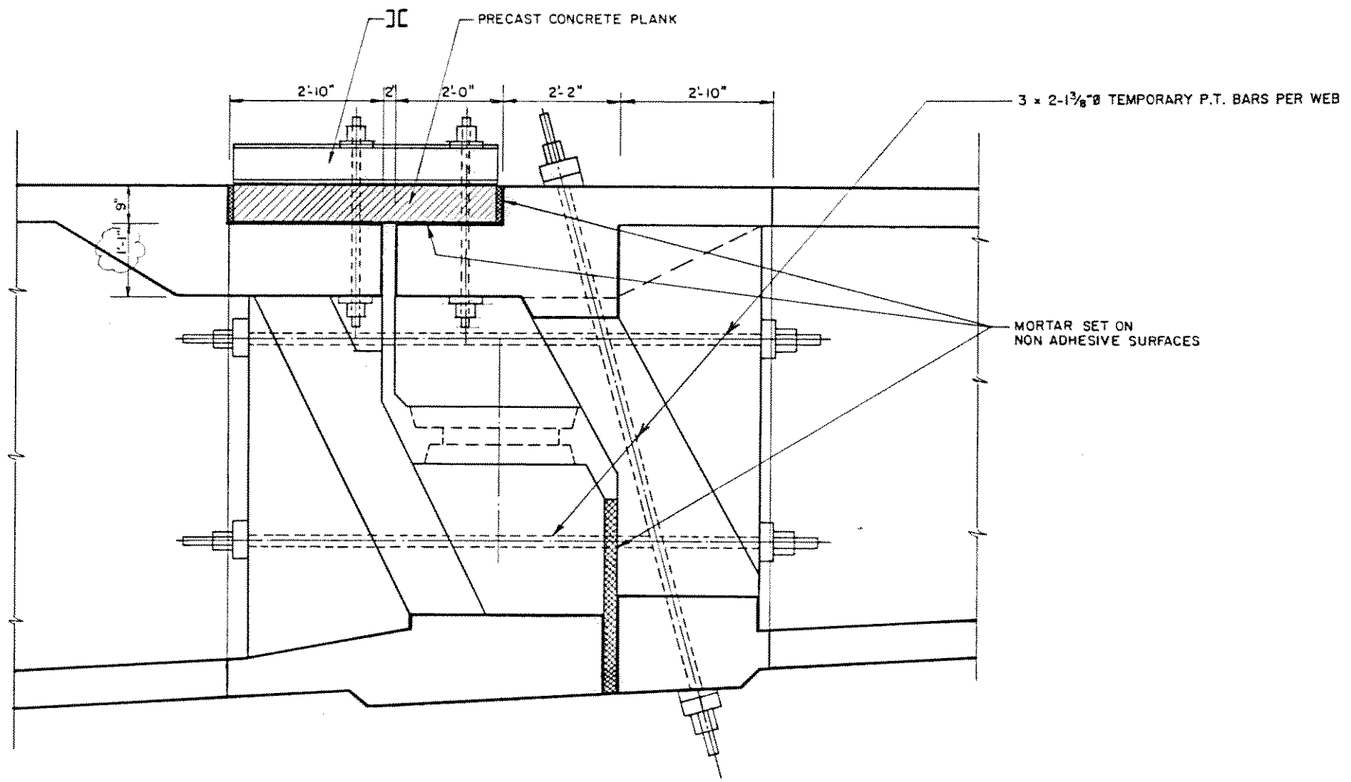
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGE SEGMENT B REINFORCING II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. HD8 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



SCHEME OF PRINCIPLE
SCALE: 3/4"=1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY J.V.L.	
	TRACED BY	
NOTE BOOK	DESIGNED BY M.M.	
	QUANTITIES BY	
No.	CHECKED BY	

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2378-S HAWAII U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

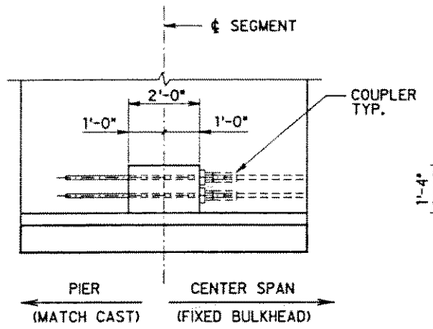
HINGE SEGMENTS TEMPORARY BLOCKING

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

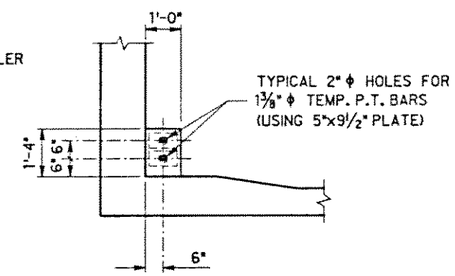
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. HD9 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



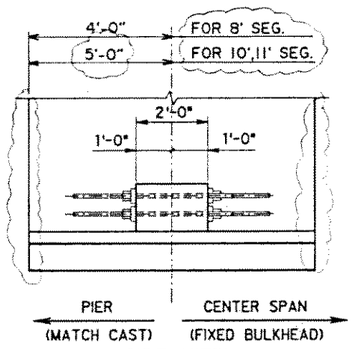
SIDE VIEW



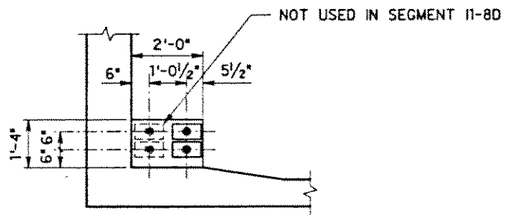
FRONT VIEW

BLOCK A

SCALE : ½" = 1'-0"



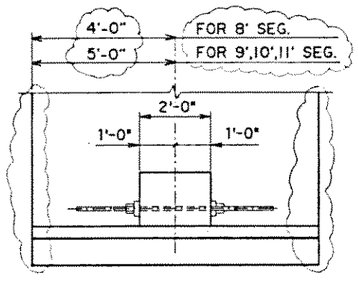
SIDE VIEW



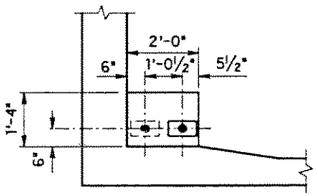
FRONT VIEW

BLOCK B1

SCALE : ½" = 1'-0"



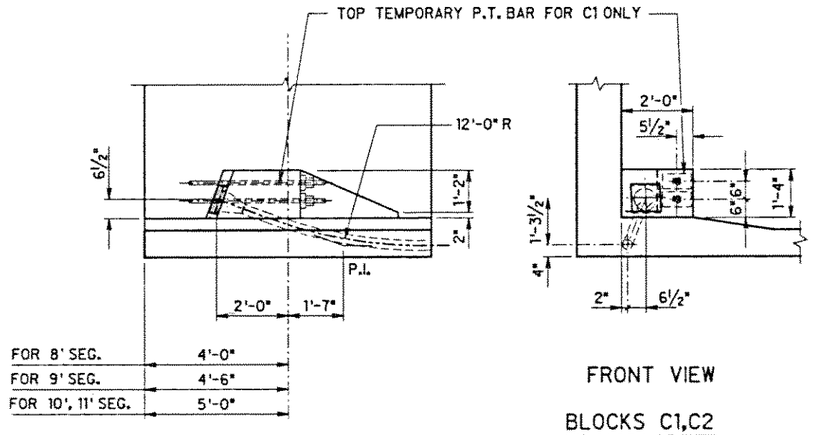
SIDE VIEW



FRONT VIEW

BLOCK B2

SCALE : ½" = 1'-0"

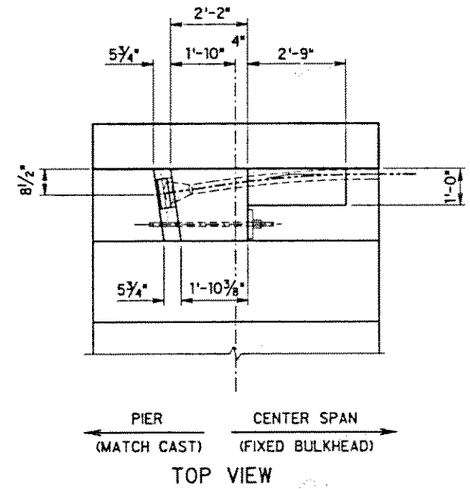


SIDE VIEW

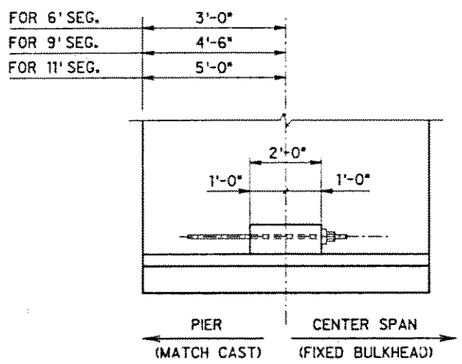
FRONT VIEW

BLOCKS C1,C2

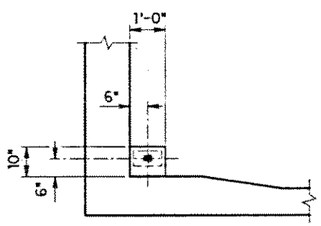
SCALE : ½" = 1'-0"



TOP VIEW



SIDE VIEW



FRONT VIEW

BLOCK D

SCALE : ½" = 1'-0"

NOTE : FOR BLOCKS B3 THRU B5, C3, C4, E1, E2 SEE SHEET No. PT2

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

JAMES R. LIBBY
REGISTERED EXPERT IN CIVIL ENGINEERING
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/25/91	UPDATED DRAWING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL

Libby Engineers

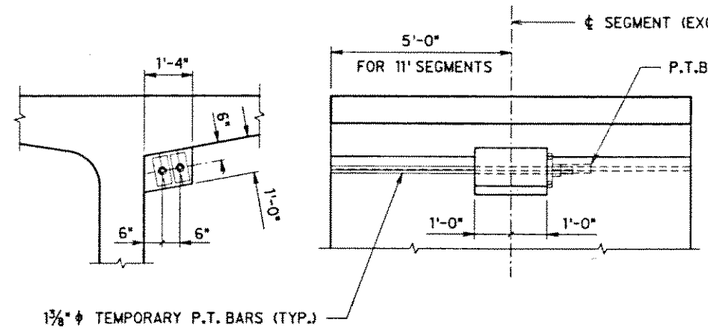
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS I
BOTTOM BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA1 OF SHEETS

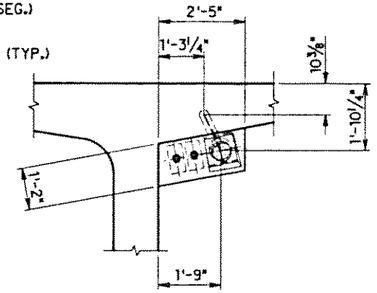
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



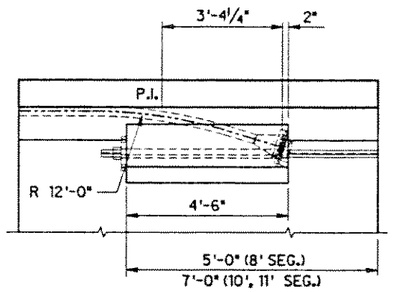
FRONT VIEW
TYPICAL P.T. BARS LOCATION

SIDE VIEW
PIER (MATCH CAST) ← → CENTER SPAN (FIXED BULKHEAD)

BLOCK 1
SCALE : ½" = 1'-0"

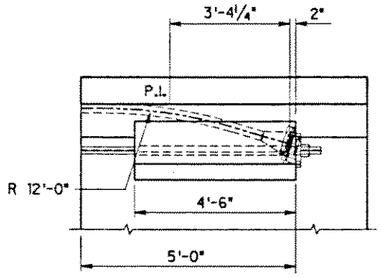


FRONT VIEW

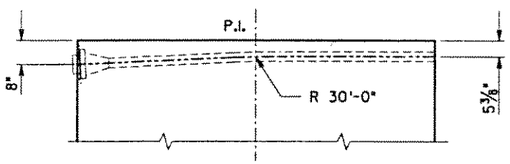


SIDE VIEW
CENTER SPAN (FIXED BULKHEAD) ← → PIER (MATCH CAST)

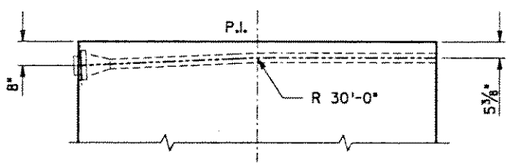
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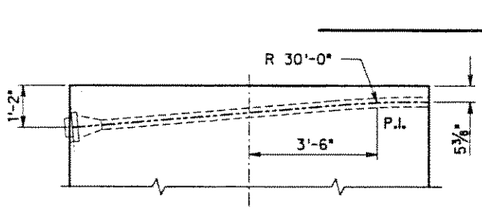
SIDE VIEW AT SEG. 01-2U
PIER (MATCH CAST) ← → CENTER SPAN (FIXED BULKHEAD)



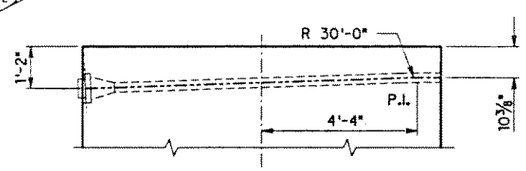
SECTION A TA2 | TA2



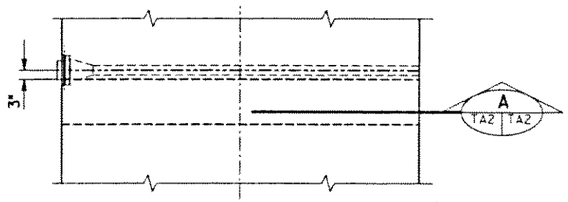
SECTION B TA2 | TA2



ANCHORAGE 4 D TA2 | TA2
SCALE : ½" = 1'-0"

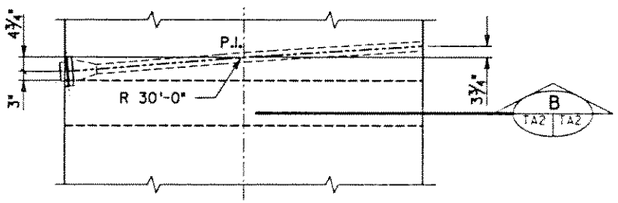


ANCHORAGE 5 D TA2 | TA2
SCALE : ½" = 1'-0"



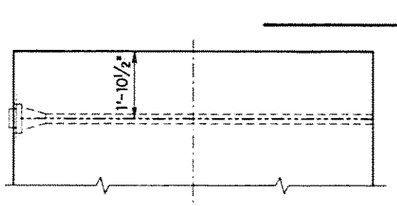
TOP VIEW

ANCHORAGE 1
SCALE : ½" = 1'-0"

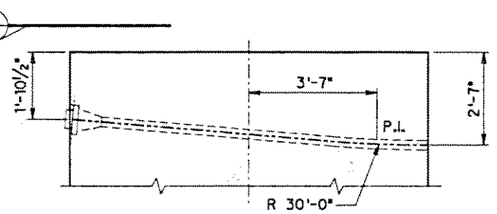


TOP VIEW

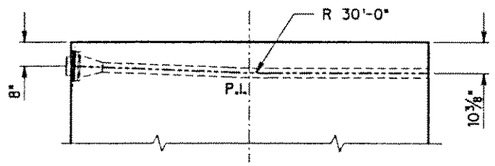
ANCHORAGE 2, 3
SCALE : ½" = 1'-0"



ANCHORAGE 6 D TA2 | TA2
SCALE : ½" = 1'-0"

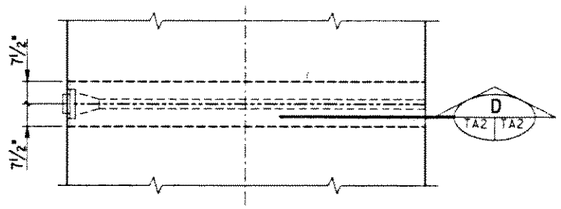


ANCHORAGE 7 D TA2 | TA2
SCALE : ½" = 1'-0"



SECTION B TA2 | TA2

ANCHORAGE 3
SCALE : ½" = 1'-0"



TOP VIEW
SCALE : ½" = 1'-0"
C TA2 | TA2

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/06/91	REVISED SHEET NO. AND TITLE.
07/25/90	REV. BLOCKS 1,2 ANCHORAGES 6, 7

J. MULLER INTERNATIONAL | Libby Engineers

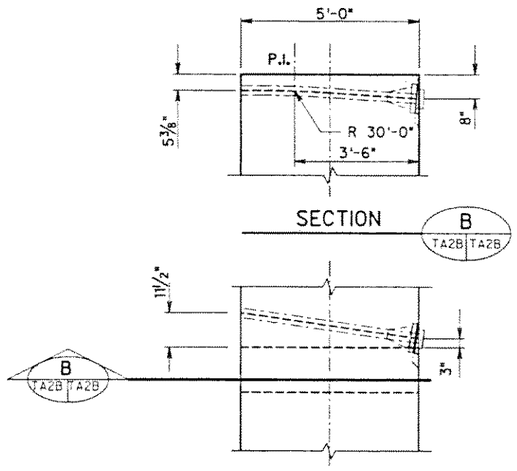
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IIA
TOP BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990
SHEET No. TA2A OF SHEETS

ORIGINAL PLAN | NOTE BOOK | PLANT PLOTTED BY | DRAFN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

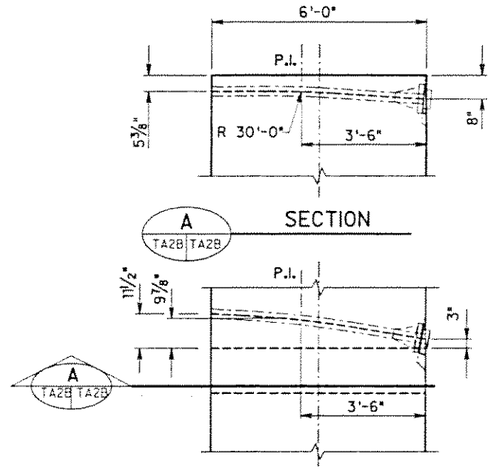
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



TOP VIEW

ANCHORAGE 8

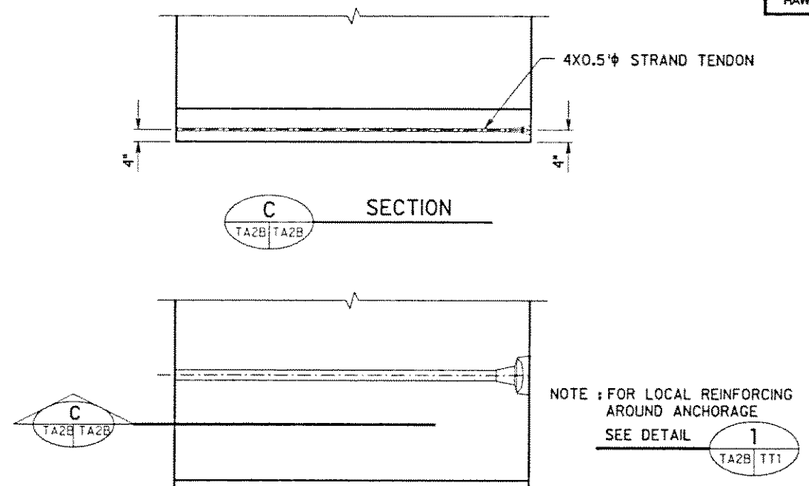
SCALE : 1/2" = 1'-0"



TOP VIEW

ANCHORAGE 9

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



TOP VIEW

ACHORAGE 10

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

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
04/01/91	ADDED ANCHORAGE 9 AND 10.

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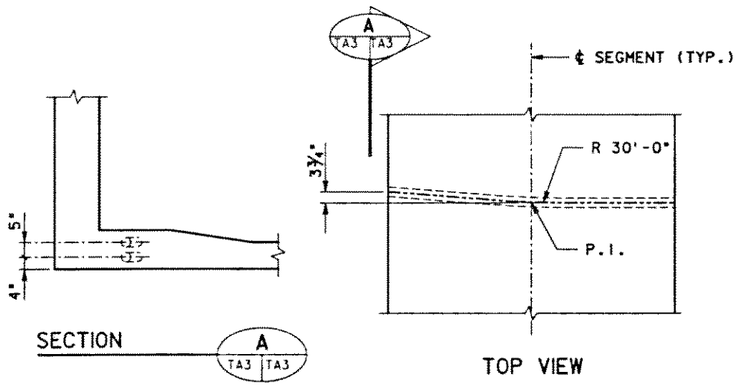
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IIB
ANCHORAGE DETAILS

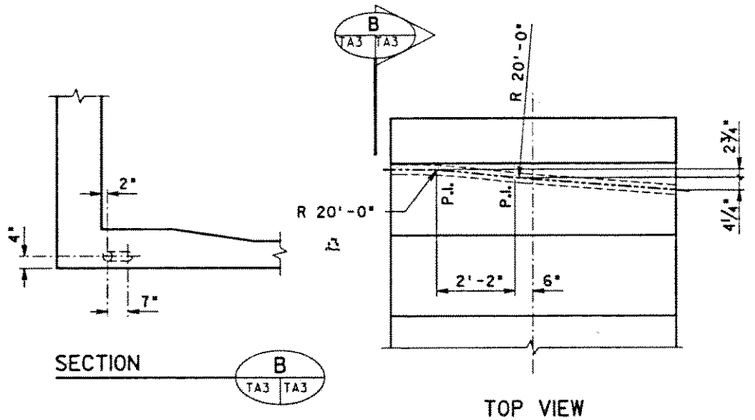
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : FEB. 1991

SHEET No. TA2B OF SHEETS

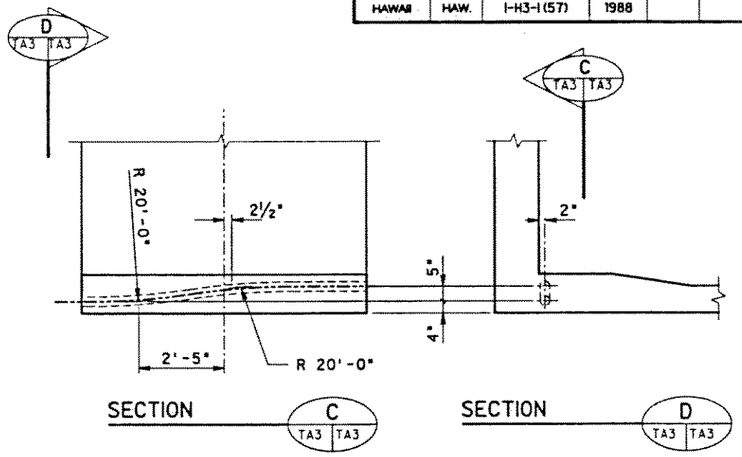
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



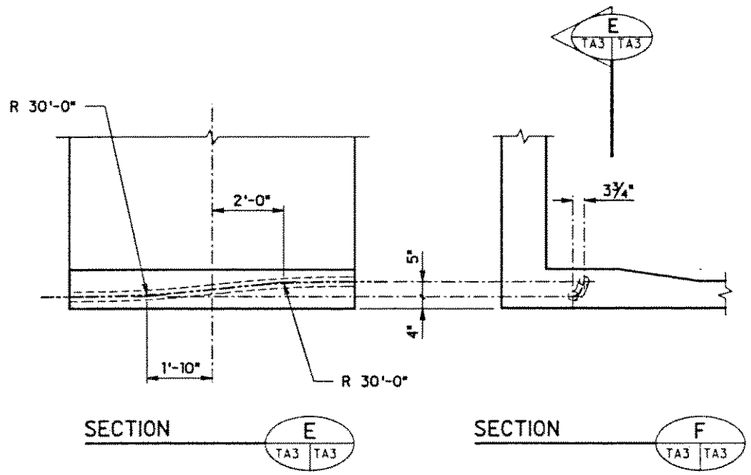
DEVIATION 1
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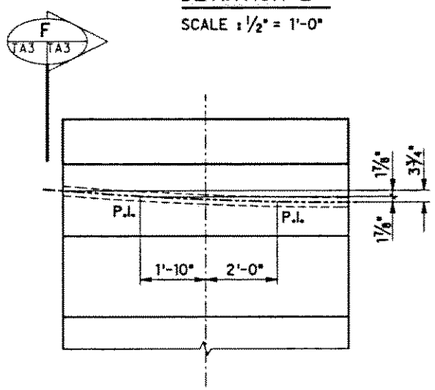


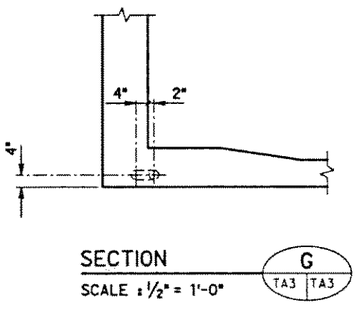
DEVIATION 2
SCALE : ½" = 1'-0"



DEVIATION 3
SCALE : ½" = 1'-0"

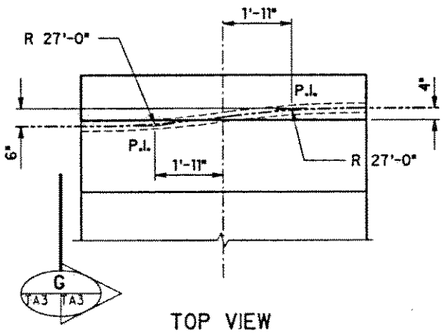




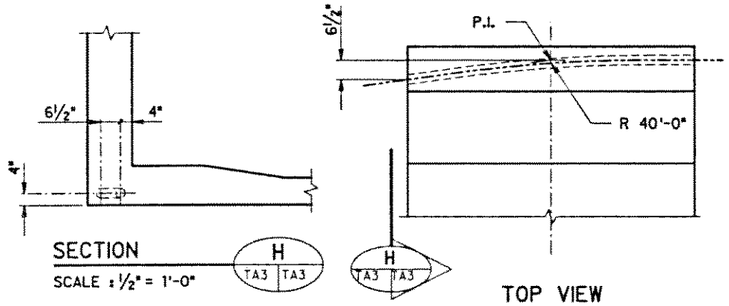


SECTION
F
TA3 TA3

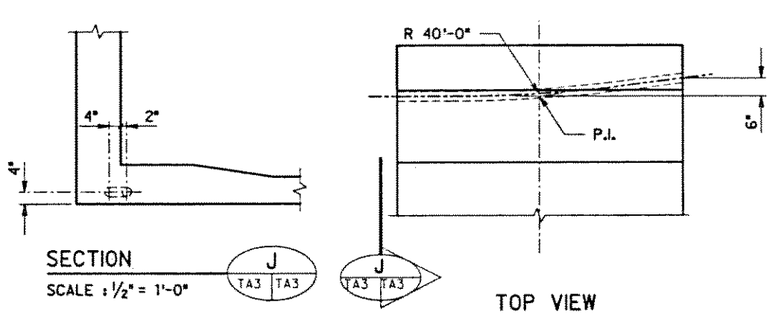
DEVIATION 4
SCALE : ½" = 1'-0"



DEVIATION 5
SCALE : ½" = 1'-0"



DEVIATION 6
SCALE : ½" = 1'-0"



DEVIATION 7
SCALE : ½" = 1'-0"

NOTE : DEVIATIONS SHOWN MAY APPLY TO BOTH TOP AND BOTTOM SLAB TENDONS

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
01/04/91	TA3A WAS TA3.

J. MULLER INTERNATIONAL
Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

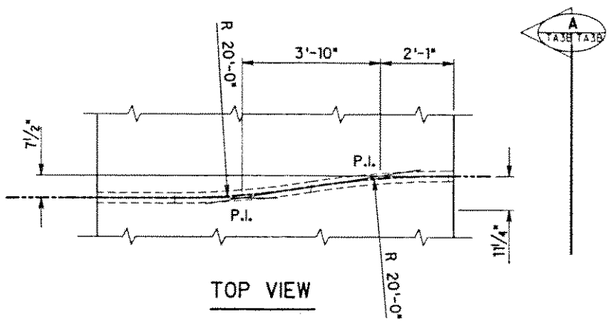
POST-TENSIONING DETAILS III
TYPICAL DEVIATIONS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

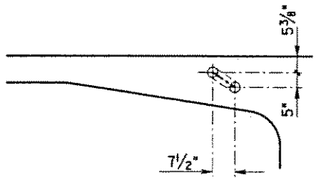
SHEET No. TA3A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

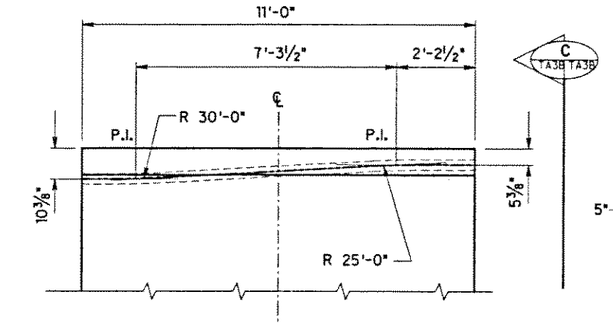


TOP VIEW

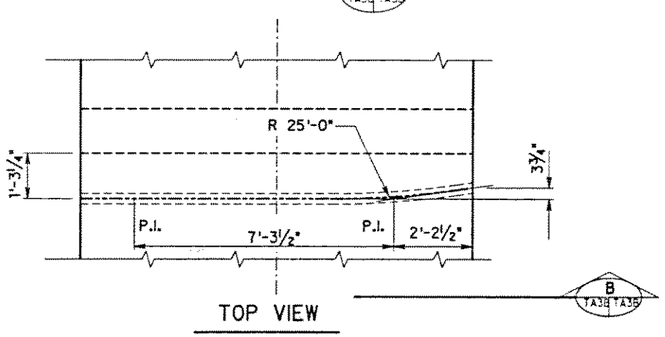


SECTION A TA3B TA3B

TYPICAL DEVIATION 8

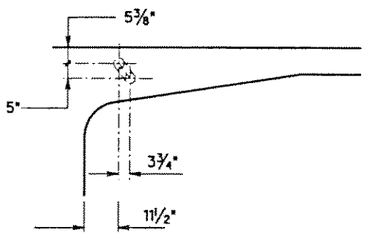


SECTION B TA3B TA3B

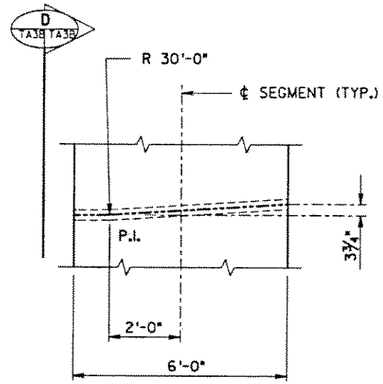


TOP VIEW

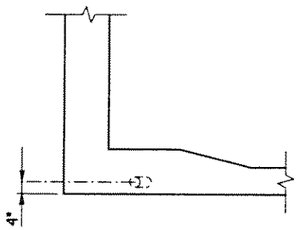
TYPICAL DEVIATION 9



SECTION C TA3B TA3B

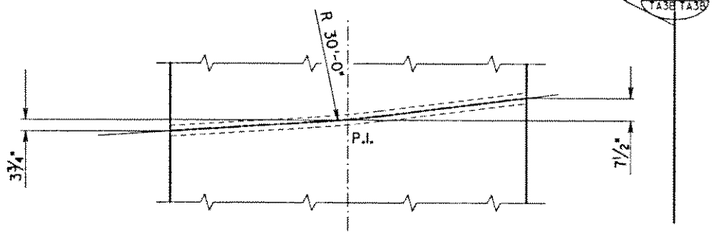


TOP VIEW

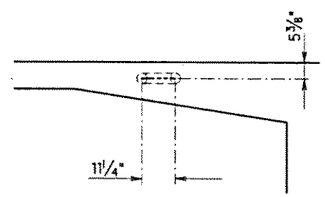


SECTION D TA3B TA3B

DEVIATION 10

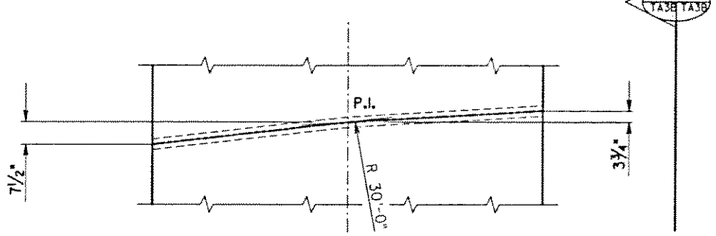


TOP VIEW

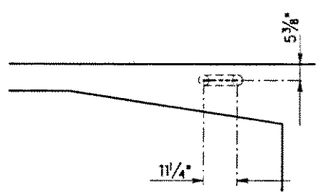


SECTION E TA3B TA3B

TYPICAL DEVIATION 11



TOP VIEW



SECTION F TA3B TA3B

TYPICAL DEVIATION 12

DATE	REVISION
04/01/91	ADDED DEVIATIONS 10, 11 AND 12.
02/05/91	ADDED DEVIATION.

J. MULLER INTERNATIONAL — Libby Engineers

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IV
TYPICAL DEVIATIONS

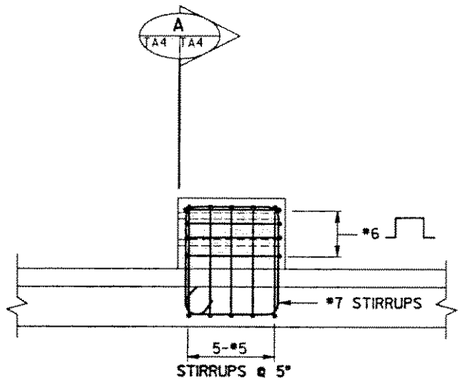
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE :

SHEET No. TA3B OF SHEETS

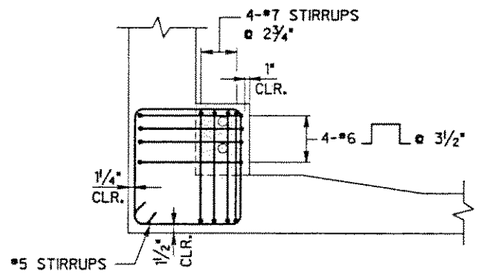
ORIGINAL PLAN — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



ELEVATION

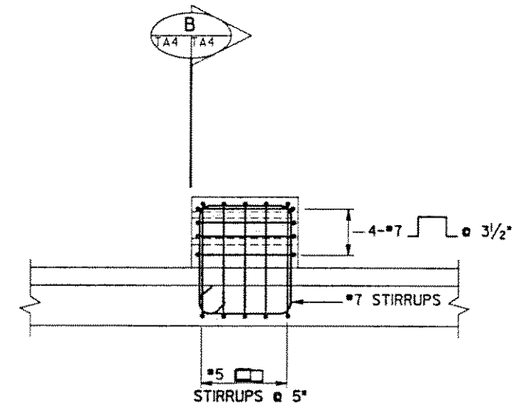
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SECTION A TA4 TA4

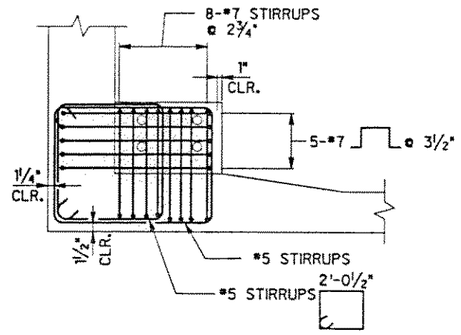
SCALE : 3/4" = 1'-0"

BLOCK A



ELEVATION

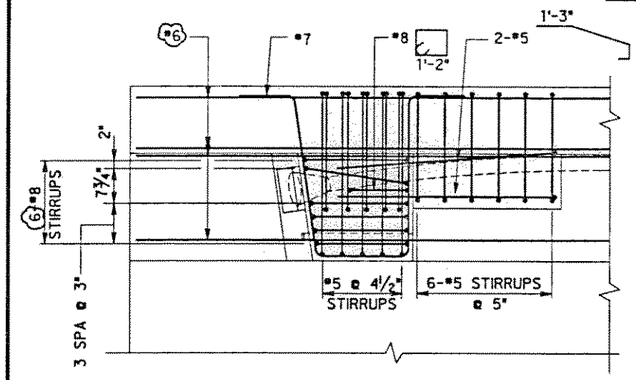
SCALE : 3/4" = 1'-0"



SECTION B TA4 TA4

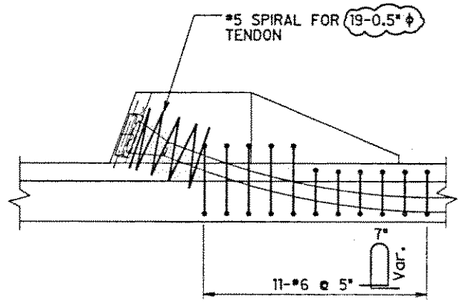
SCALE : 3/4" = 1'-0"

BLOCK B



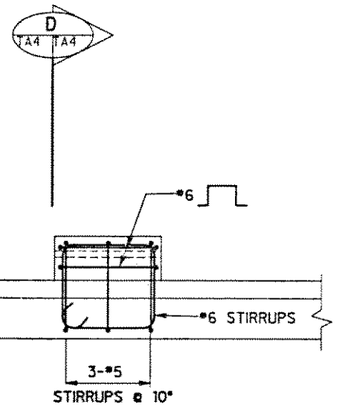
PLAN E TA4 TA4

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



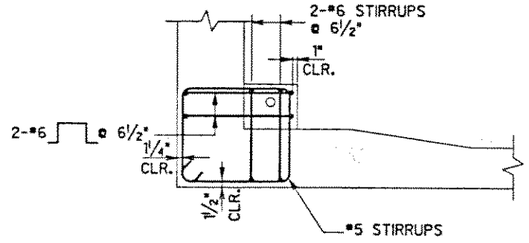
REINFORCING AT ANCHORAGE AND TENDON

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



ELEVATION

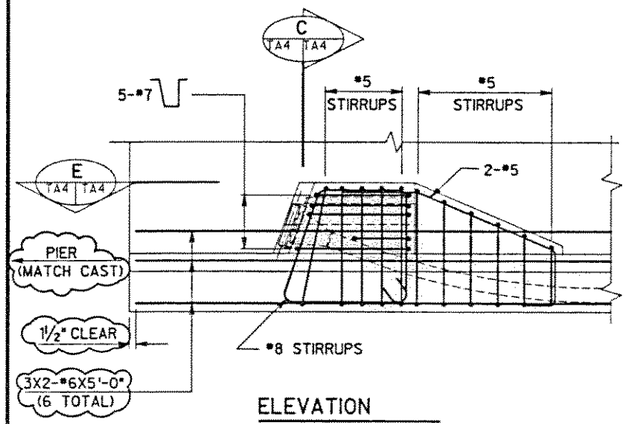
SCALE : 3/4" = 1'-0"



SECTION D TA4 TA4

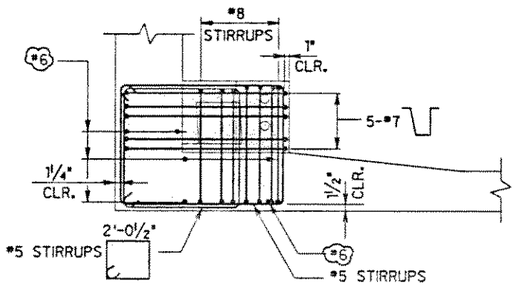
SCALE : 3/4" = 1'-0"

BLOCK D



ELEVATION

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



SECTION C TA4 TA4

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

BLOCK C

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

DATE	REVISION
01/21/91	REVISED REINFORCING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS IV

REINFORCING I

BOTTOM BLOCKS

INTERSTATE ROUTE H-3

F.A.I. PROJECT No. I-H3-1(57)

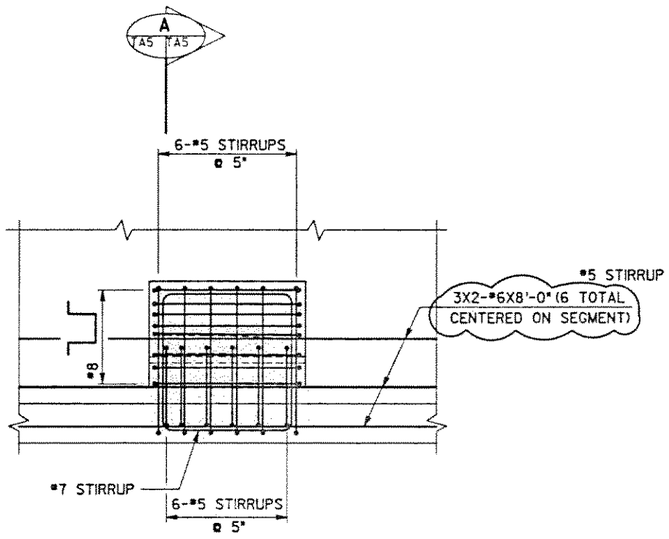
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA4 OF SHEETS

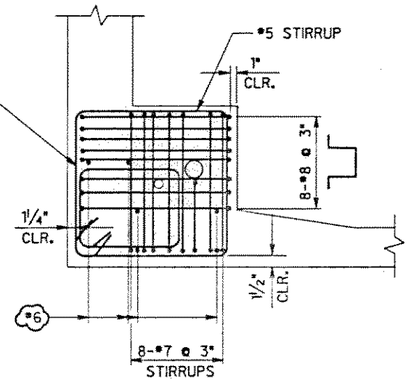
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NO. | HOTE BOOK

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



ELEVATION

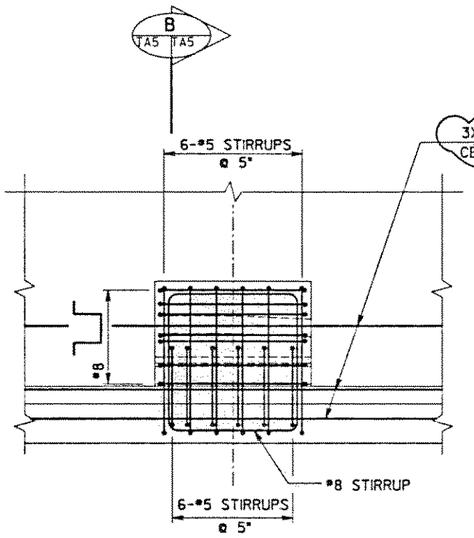
SCALE : 3/4" = 1'-0"



SECTION A (TA5 | TA5)

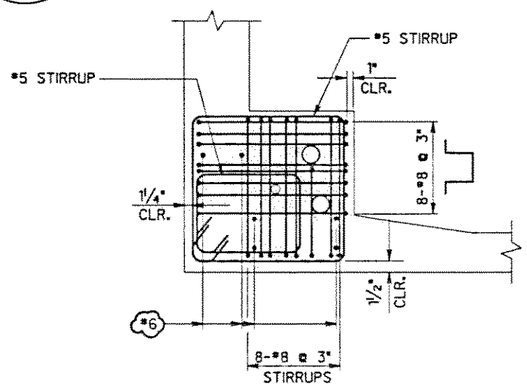
SCALE : 3/4" = 1'-0"

BLOCK E1



ELEVATION

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



SECTION B (TA5 | TA5)

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

BLOCK E2

DATE	REVISION
01/21/91	REVISED REINFORCING.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS V

REINFORCING II

BOTTOM BLOCKS

INTERSTATE ROUTE H-3

F.A.I. PROJECT No. I-H3-1(57)

F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA5 OF SHEETS

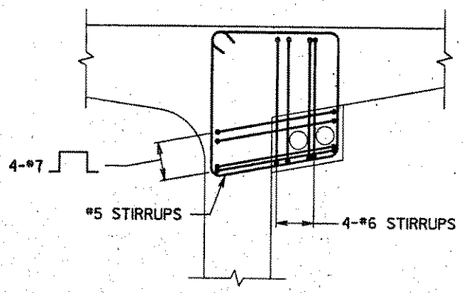
ORIGINAL PLAN

NEWLY PLOTTED BY ____ DATE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

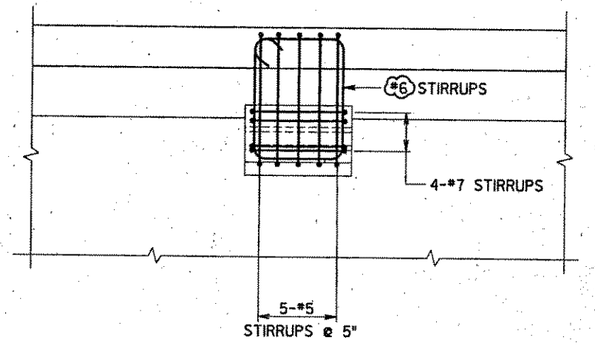
NOTE BOOK

No.

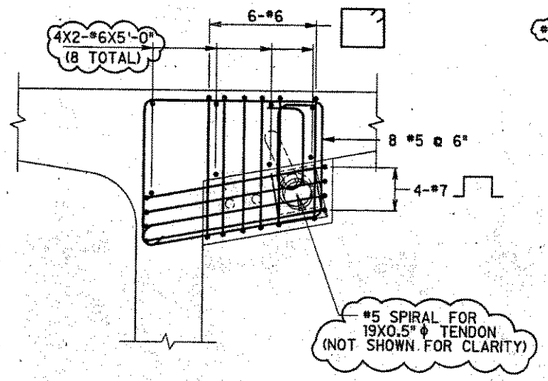
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



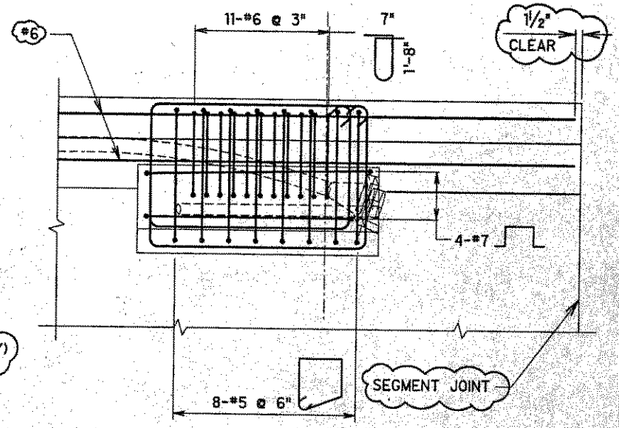
FRONT VIEW



SIDE VIEW



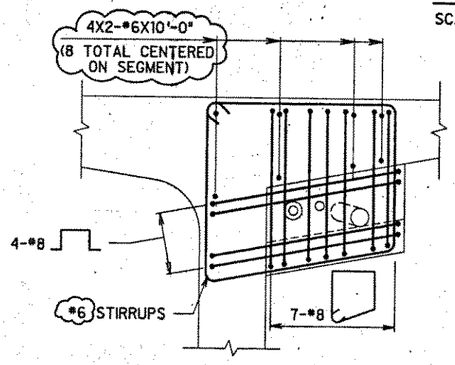
FRONT VIEW



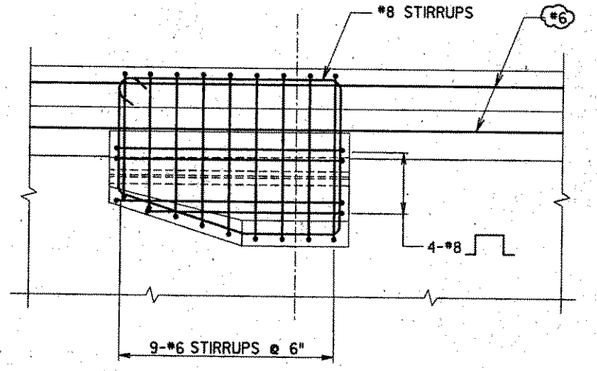
SIDE VIEW

TOP BLOCK 1 & 3

SCALE : ¾" = 1'-0"



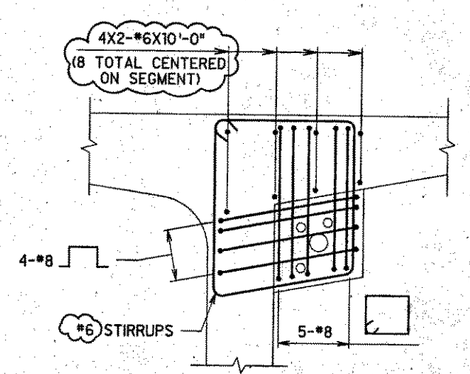
FRONT VIEW



SIDE VIEW

TOP BLOCK 4

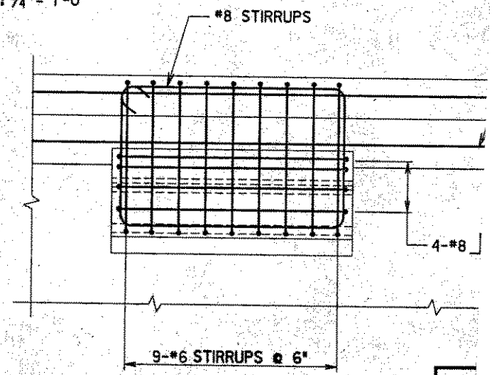
SCALE : ¾" = 1'-0"



FRONT VIEW

TOP BLOCK 2

SCALE : ¾" = 1'-0"



SIDE VIEW

TOP BLOCK 5

SCALE : ¾" = 1'-0"

DATE	REVISION
01/21/91	REVISED REINFORCING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

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H-3 WIKINIWAHO VIADUCT
SITE

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VI
REINFORCING
TOP BLOCK

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

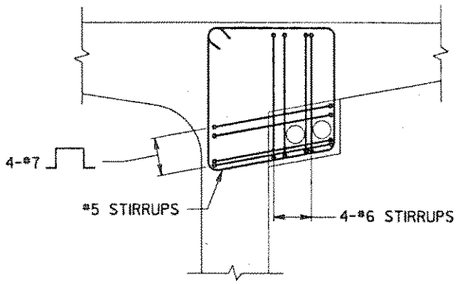
SHEET No. TA6 OF SHEETS

NO.	DATE	REVISIONS	BY

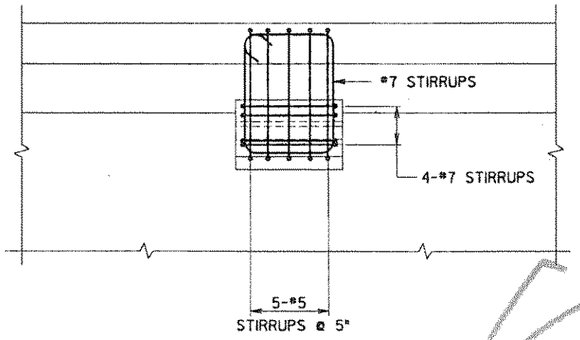
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

TA4
NEED 1/2 SIZE
1/FILM

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



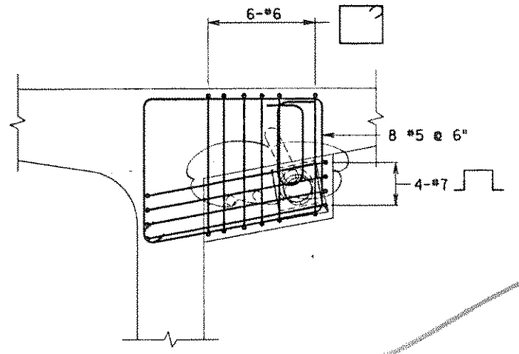
FRONT VIEW



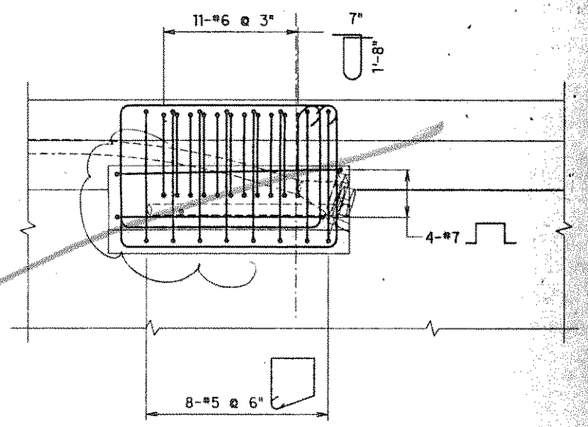
SIDE VIEW

TOP BLOCK 1 & 3

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



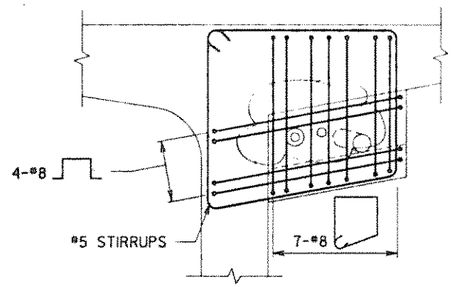
FRONT VIEW



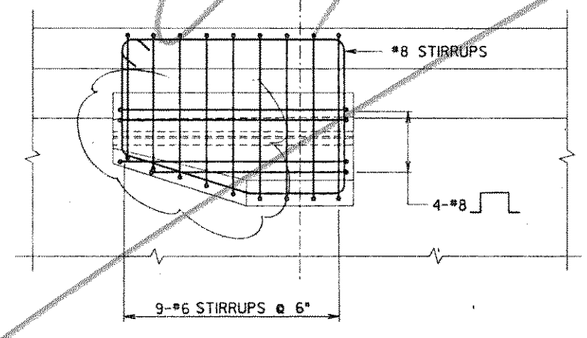
SIDE VIEW

TOP BLOCK 2

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



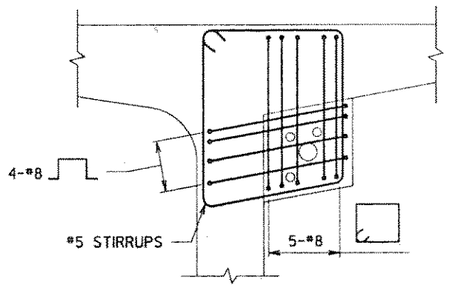
FRONT VIEW



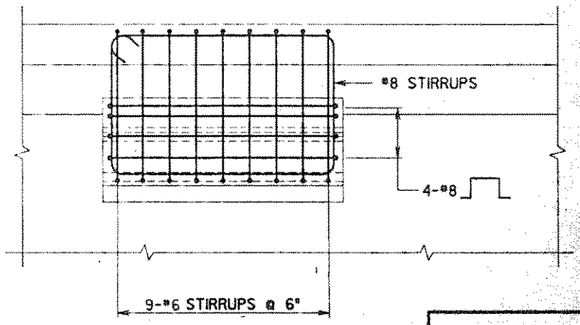
SIDE VIEW

TOP BLOCK 4

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



FRONT VIEW



SIDE VIEW

TOP BLOCK 5

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

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OCT 10 1990

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2378
HAWAII, U.S.A.

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DATE	REVISION
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

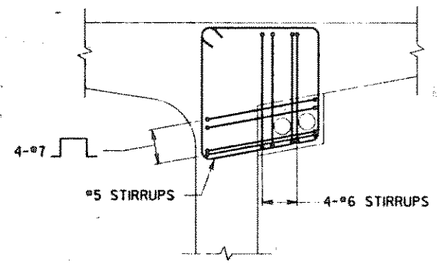
POST-TENSIONING DETAILS VI
REINFORCING
TOP BLOCK

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

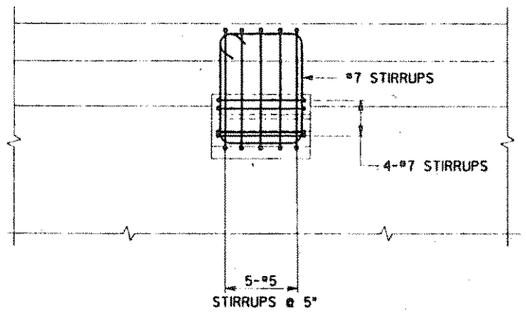
SHEET No. TA6 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988	-	

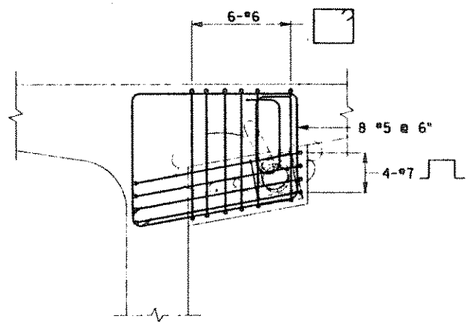


FRONT VIEW

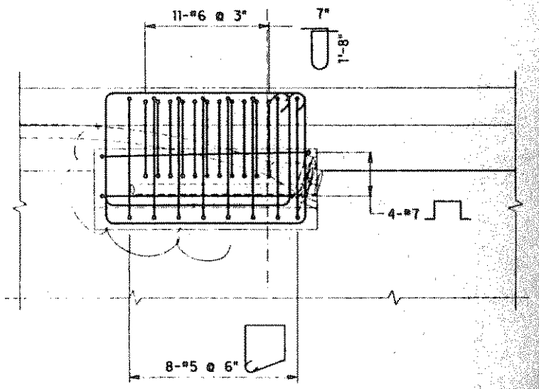


SIDE VIEW

TOP BLOCK 1 & 3
SCALE : ¾" = 1'-0"

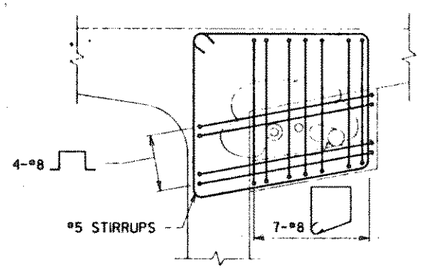


FRONT VIEW

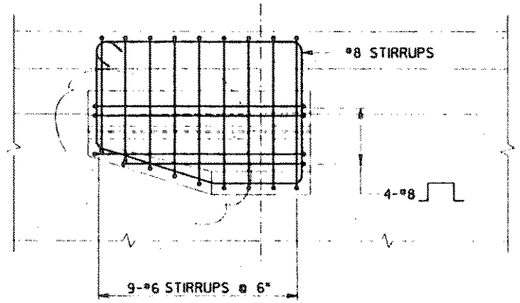


SIDE VIEW

TOP BLOCK 2
SCALE : ¾" = 1'-0"

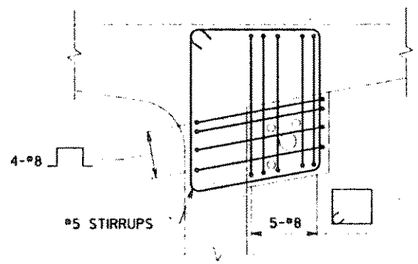


FRONT VIEW

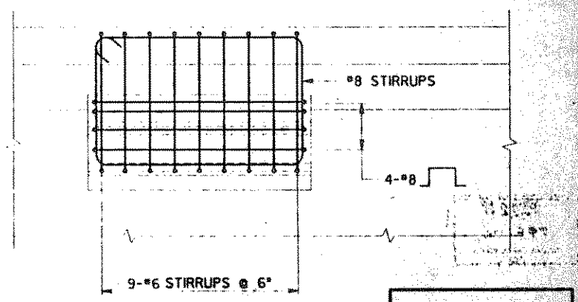


SIDE VIEW

TOP BLOCK 4
SCALE : ¾" = 1'-0"



FRONT VIEW



SIDE VIEW

TOP BLOCK 5
SCALE : ¾" = 1'-0"

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JUL 2 7 1990

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2316
HAWAII, U.S.A.

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07/25/90 UPDATED DRAWING
DATE REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VI

REINFORCING
TOP BLOCK

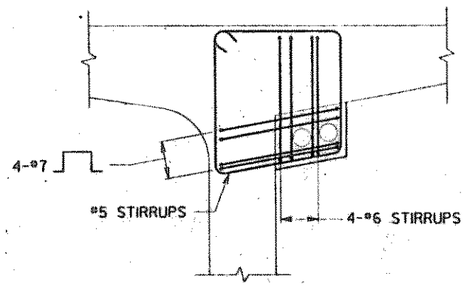
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

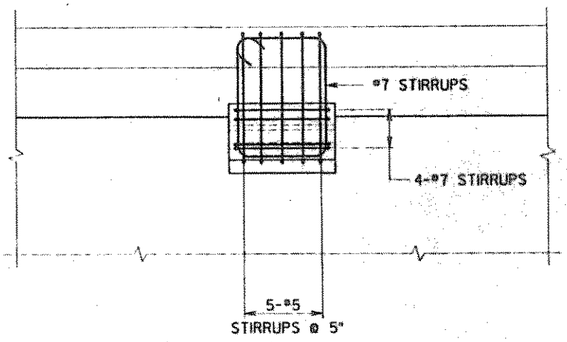
SHEET No. TA6 OF SHEETS

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



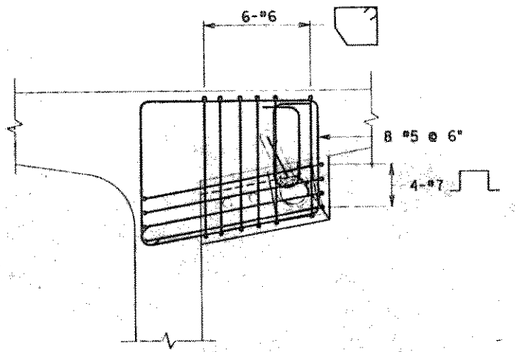
FRONT VIEW



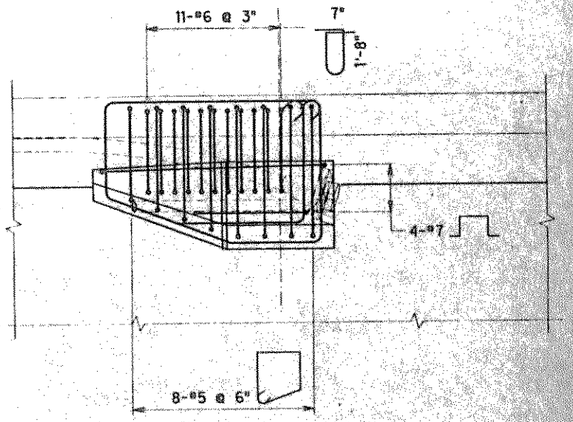
SIDE VIEW

TOP BLOCK 1 & 3

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



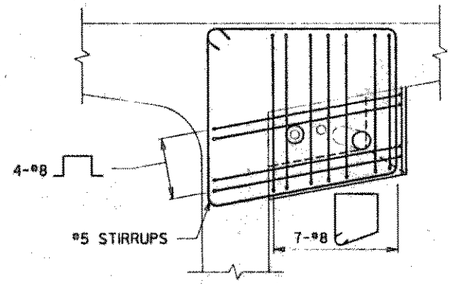
FRONT VIEW



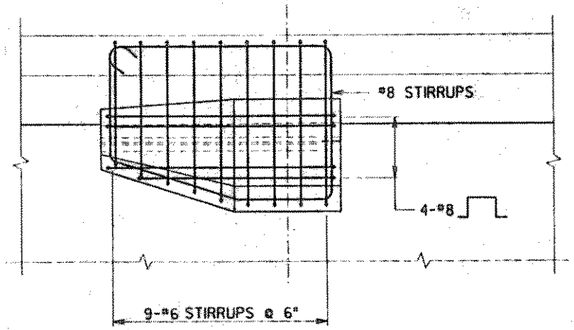
SIDE VIEW

TOP BLOCK 2

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



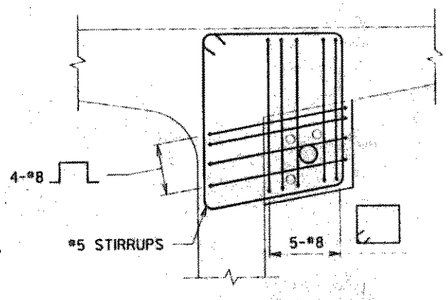
FRONT VIEW



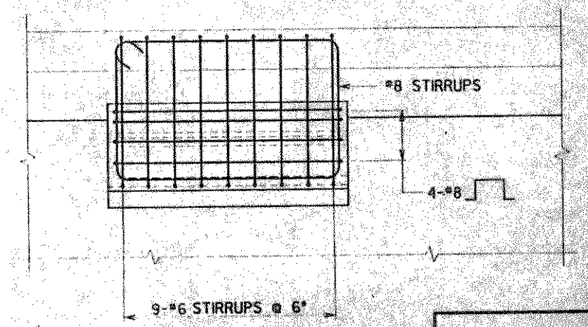
SIDE VIEW

TOP BLOCK 4

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



FRONT VIEW



SIDE VIEW

TOP BLOCK 5

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

RECEIVED
SCI-BLACK
JUN 15 1990
H-3 HALAWA VIADUCT
SITE

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 5539
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VI
REINFORCING TOP BLOCK

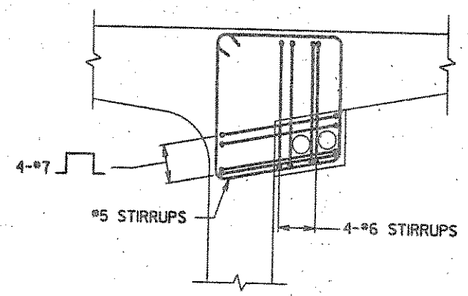
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS-NOTED DATE : JUN. 1990
SHEET No. TAG OF SHEETS

DATE | REVISION

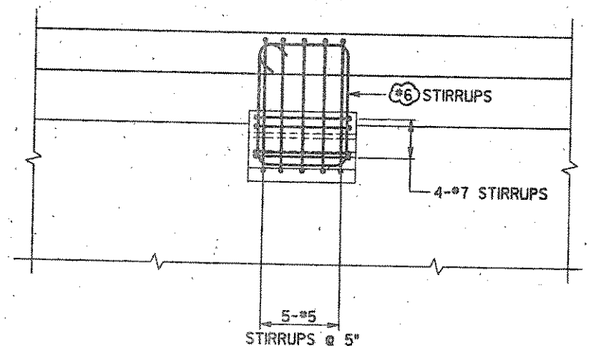
J. MULLER INTERNATIONAL | Libby Engineers

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

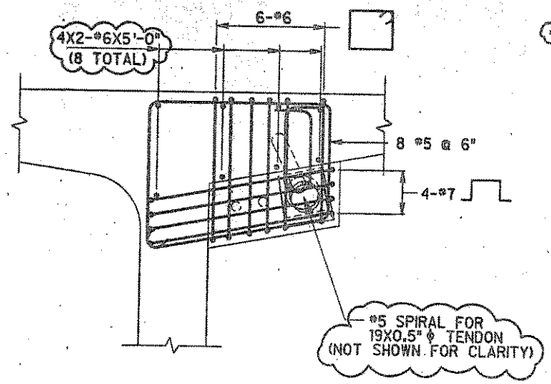
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



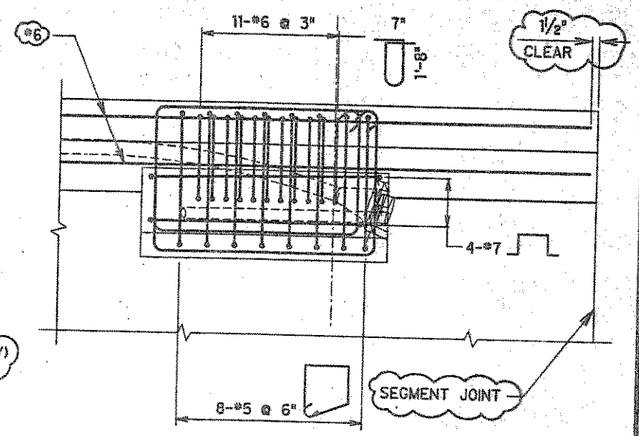
FRONT VIEW



SIDE VIEW



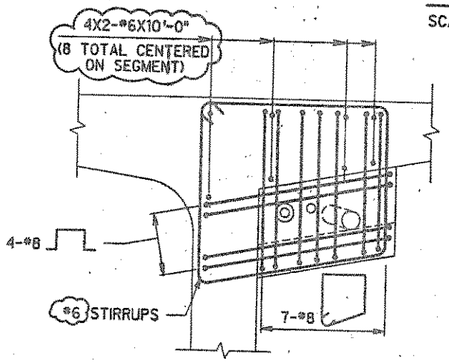
FRONT VIEW



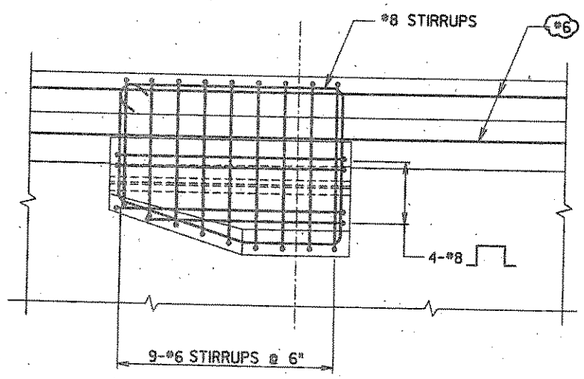
SIDE VIEW

TOP BLOCK 1 & 3

SCALE : ¾" = 1'-0"



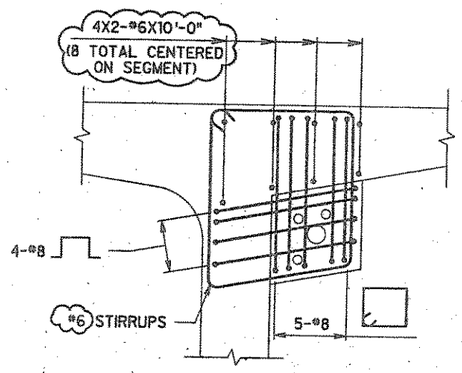
FRONT VIEW



SIDE VIEW

TOP BLOCK 4

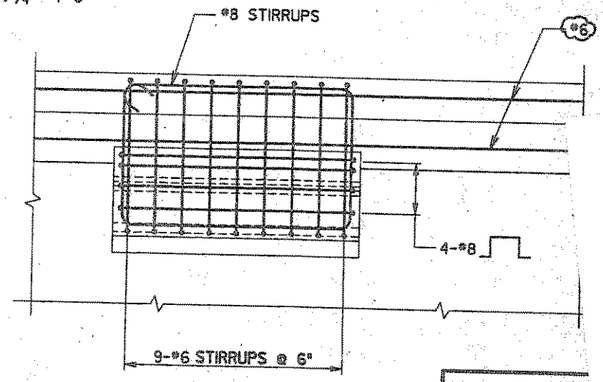
SCALE : ¾" = 1'-0"



FRONT VIEW

TOP BLOCK 2

SCALE : ¾" = 1'-0"



SIDE VIEW

TOP BLOCK 5

SCALE : ¾" = 1'-0"

DATE	REVISION
01/21/91	REVISED REINFORCING.
07/25/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

RECEIVED
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FEB 11 1991
H-3 WAIAWA VIADUCT SITE

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VI

REINFORCING
TOP BLOCK

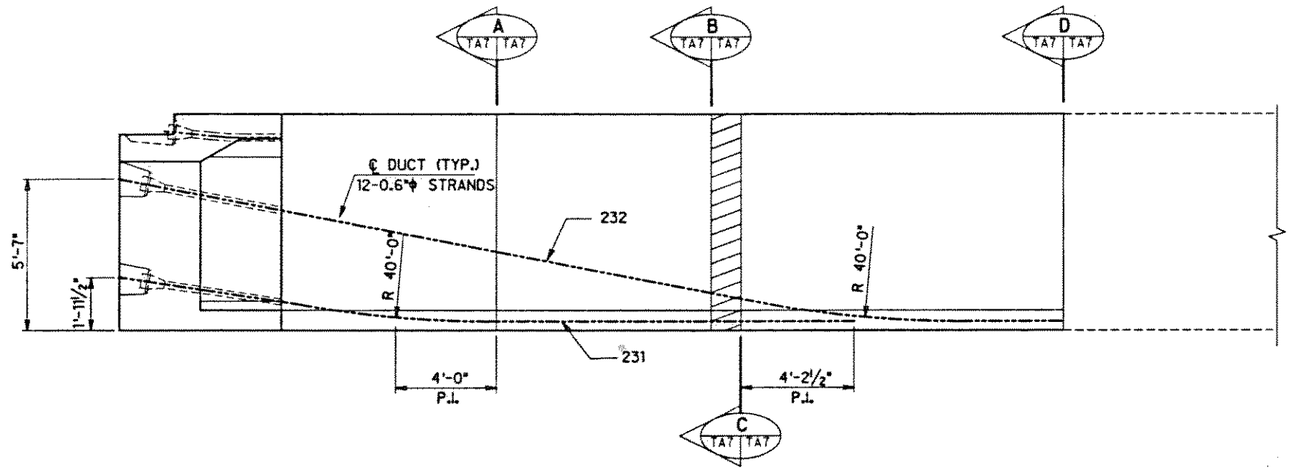
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. TA6 OF SHEETS

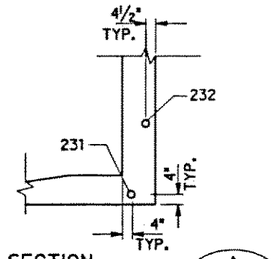
DESIGNED BY
DRAWN BY
TRACED BY
CHECKED BY
QUANTITIES BY
NOTED DOCS
DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



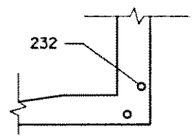
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0" (INBOUND)



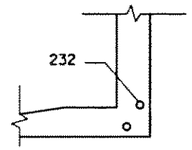
SECTION A TA7 TA7

SCALE : ⅜"=1'-0"



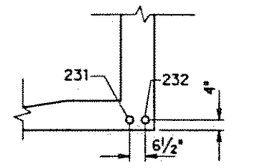
SECTION B TA7 TA7

SCALE : ⅜"=1'-0"



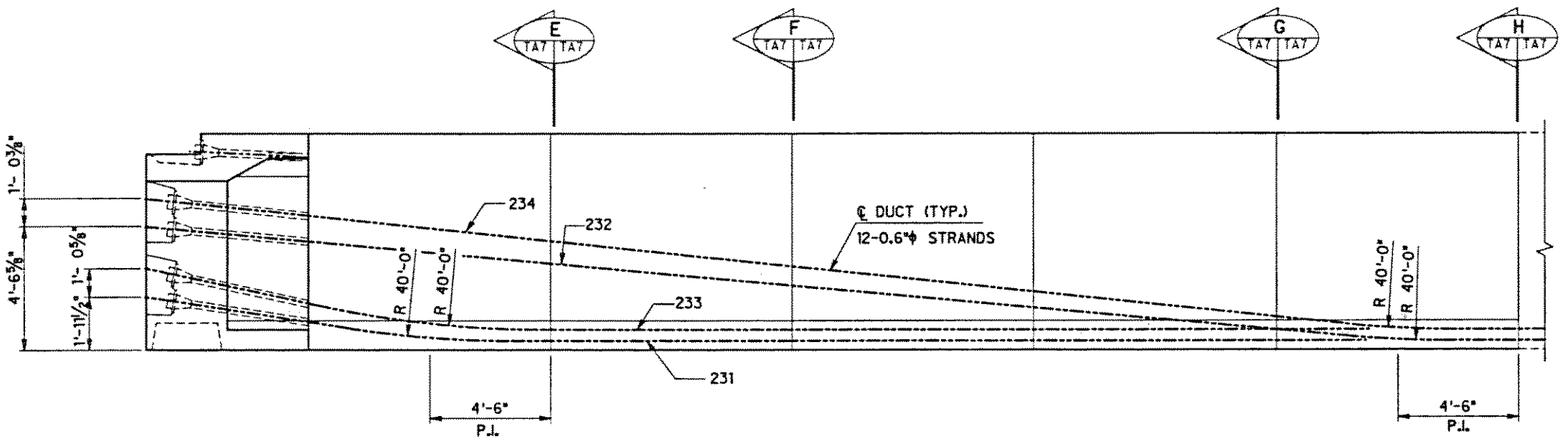
SECTION C TA7 TA7

SCALE : ⅜"=1'-0"



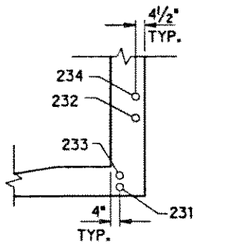
SECTION D TA7 TA7

SCALE : ⅜"=1'-0"



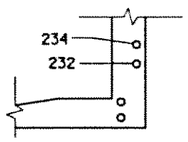
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0" (OUTBOUND)



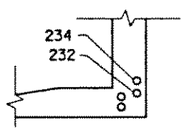
SECTION E TA7 TA7

SCALE : ⅜"=1'-0"



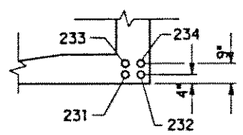
SECTION F TA7 TA7

SCALE : ⅜"=1'-0"



SECTION G TA7 TA7

SCALE : ⅜"=1'-0"



SECTION H TA7 TA7

SCALE : ⅜"=1'-0"

NOTE:

1. VARIATIONS (IF ANY) DUE TO HORIZONTAL CURVATURE NOT SHOWN
2. ALL TENDONS SHOWN ARE 12-0.6"ϕ STRANDS EACH.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

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DATE | REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING DETAILS VII
ABUTMENT SPANS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

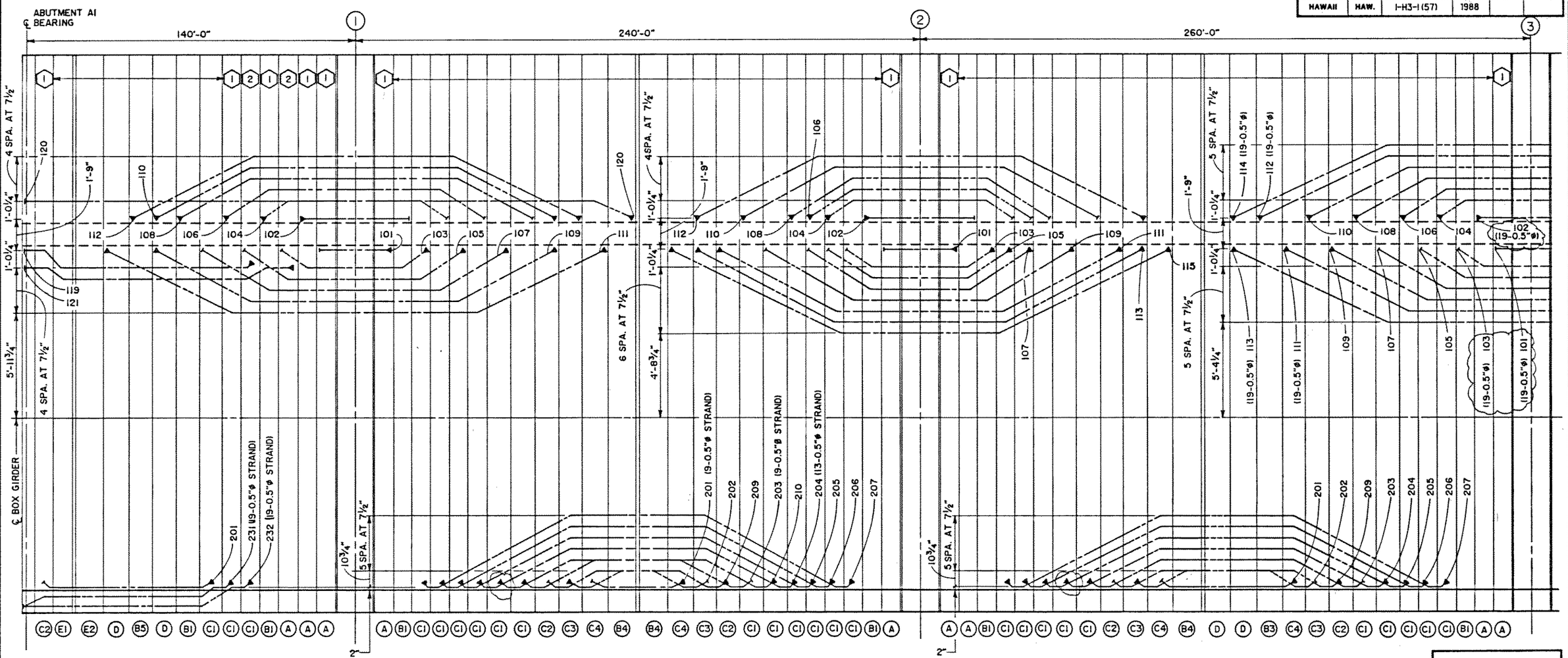
SCALE : AS NOTED DATE : JUN 1990

SHEET No. TA7 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES. FOR DETAILS SEE SHEETS TA1 AND PT2
3. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
4. ▶——— DENOTES STRESSING END
5. |——— DENOTES NON-STRESSING END
6. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 7575

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
03/07/91	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/08/90	UPDATED DRAWING.
08/27/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT I

INBOUND A1 THRU PIER 3

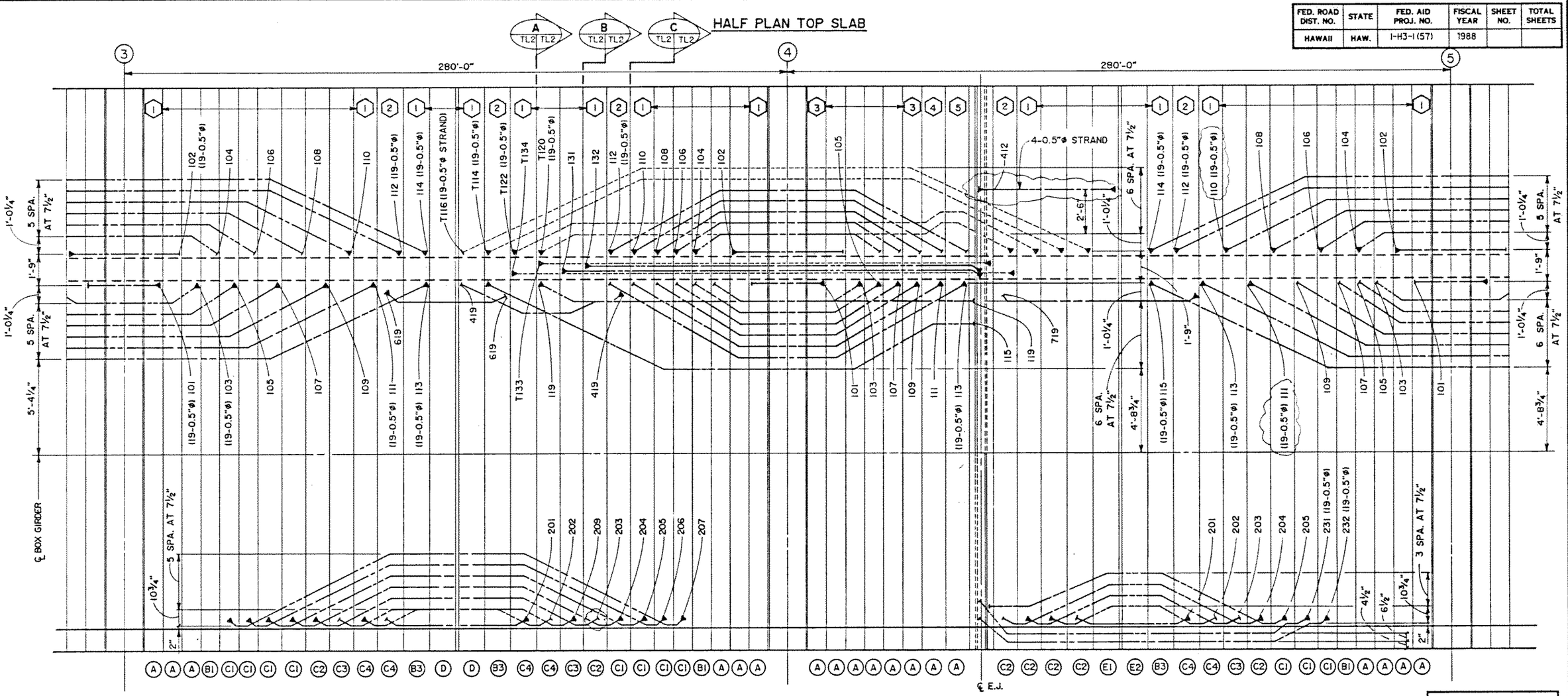
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

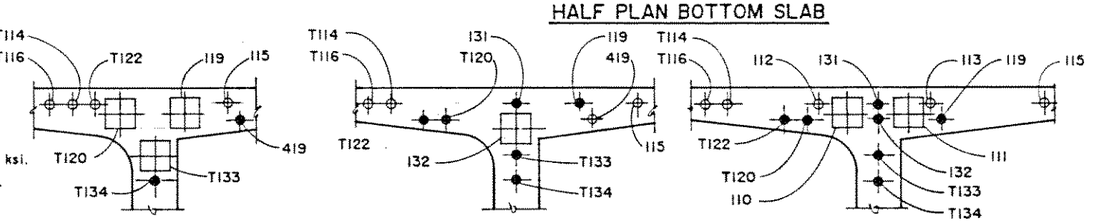
HALF PLAN TOP SLAB



NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ø STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
5. ▶——— DENOTES STRESSING END
6. |——— DENOTES NON-STRESSING END
7. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
8. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

HALF PLAN BOTTOM SLAB



SECTION A TL2 TL2

SECTION B TL2 TL2

SECTION C TL2 TL2

DATE	REVISION
08/23/91	REV. TENDON 110 & 111 CANTILEVER 5.
04/23/91	REVISED TENDON 412.
03/07/91	UPDATED DRAWING.
02/15/91	UPDATED TENDON 203.
12/28/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT II
INBOUND PIER 3 THRU PIER 5

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

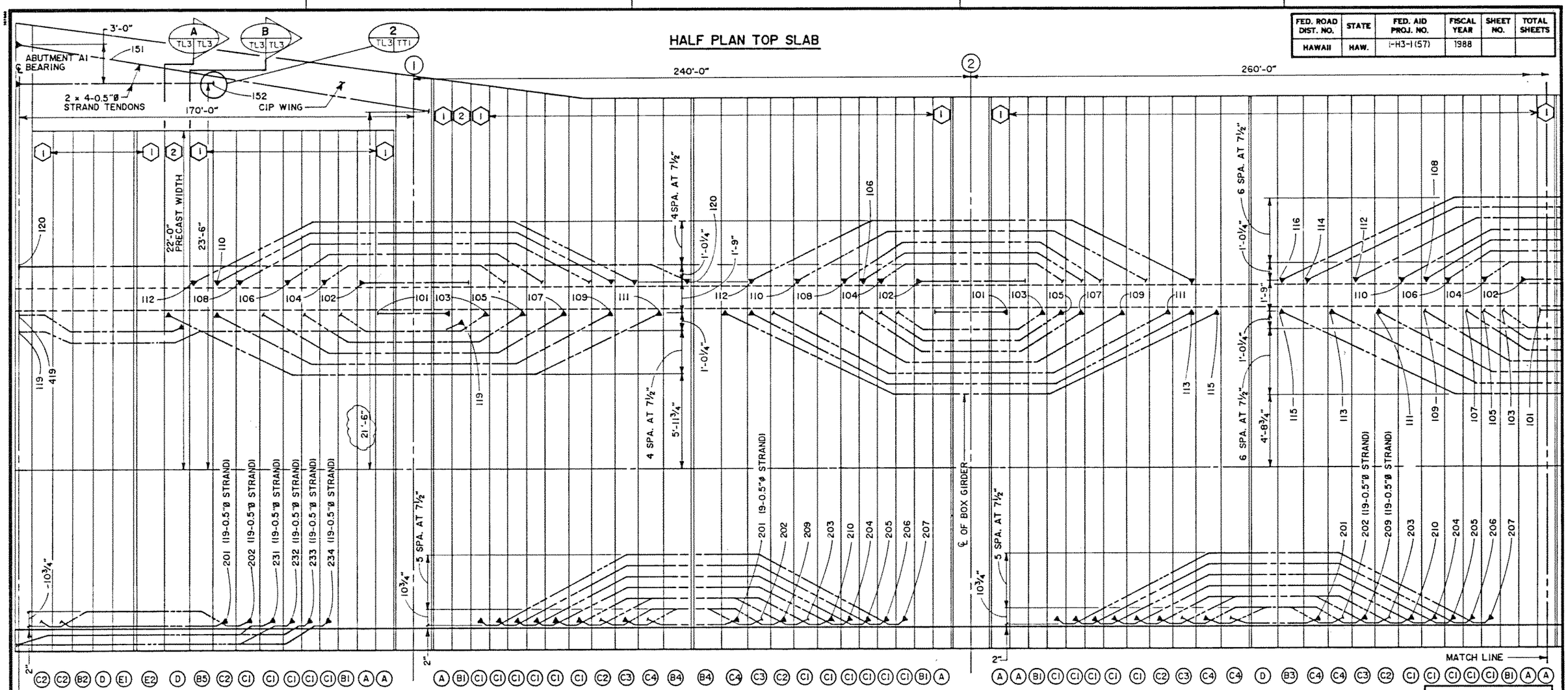
SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL2 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

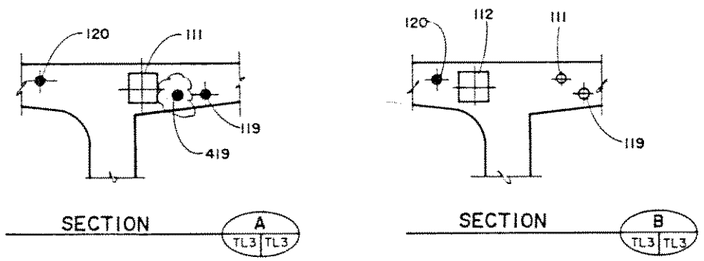
HALF PLAN TOP SLAB



NOTES

1. ALL TENDONS SHOWN ARE 17-0.5 ø STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
4. ▶—— DENOTES STRESSING END
5. |—— DENOTES NON-STRESSING END
6. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ● DENOTES STRAIGHT TENDON LOCATION
9. ○ DENOTES DEVIATED TENDON LOCATION

HALF PLAN BOTTOM SLAB



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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
12/03/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/23/90	UPDATED DRAWING
10/08/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

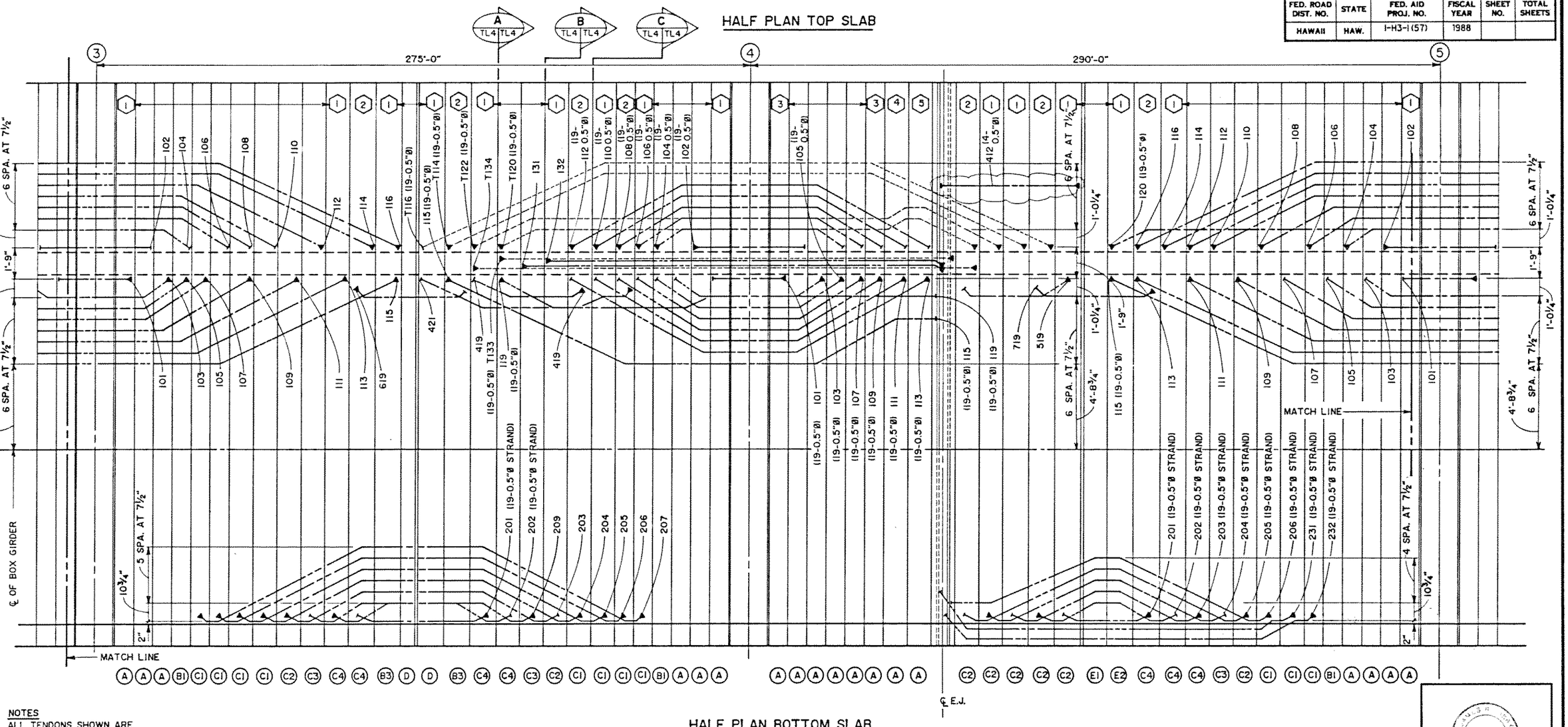
POST-TENSIONING LAYOUT III
OUTBOUND A1 THRU PIER 3

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : NO SCALE DATE : JUN. 1990

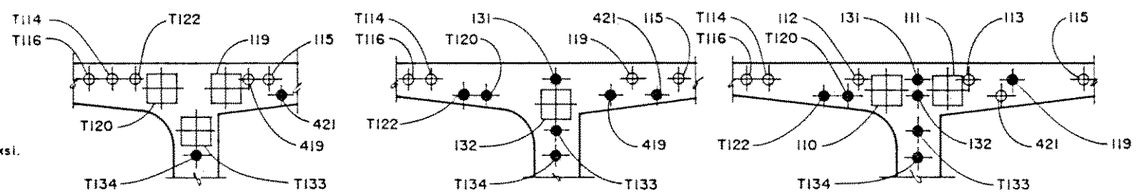
SHEET No. TL3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL4 TL4

SECTION B TL4 TL4

SECTION C TL4 TL4

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ø STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2
3. "T" DENOTES TEMPORARY TENDONS
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3
5. ▶—— DENOTES STRESSING END
6. |—— DENOTES NON-STRESSING END
7. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
8. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.

DATE	REVISION
04/23/91	REVISED TENDON 412.
12/28/90	UPDATED DRAWING.
12/03/90	UPDATED DRAWING.
11/16/90	UPDATED DRAWING.
10/23/90	UPDATED DRAWING
10/04/90	UPDATED DRAWING.
08/28/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT IV
OUTBOUND PIER 3 THRU PIER 5

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

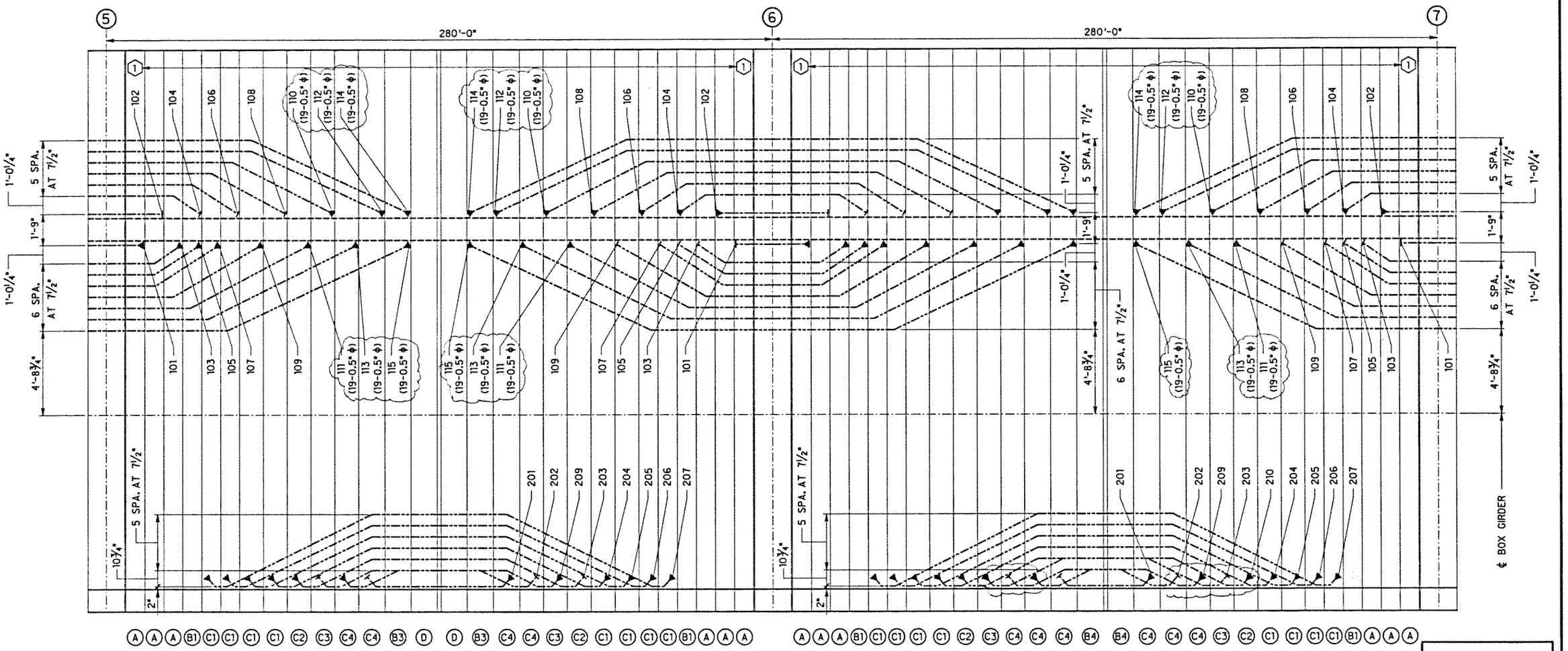
SCALE : NO SCALE DATE : JUN. 1990

SHEET No. TL4 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶-------- DENOTES STRESSING END.
6. ⊢-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
02/14/91	UPDATED DRAWING.
01/04/91	UPDATED DRAWING.

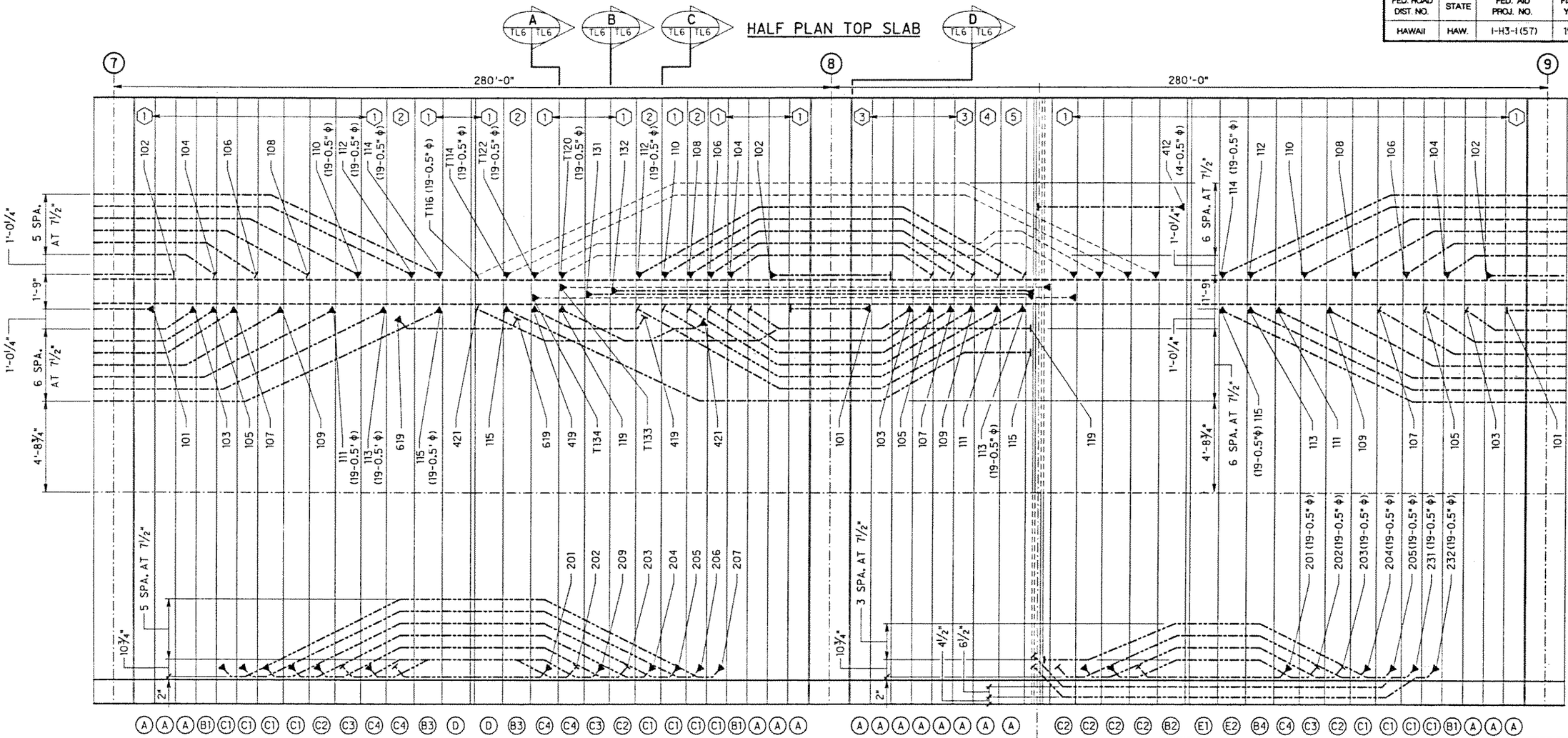
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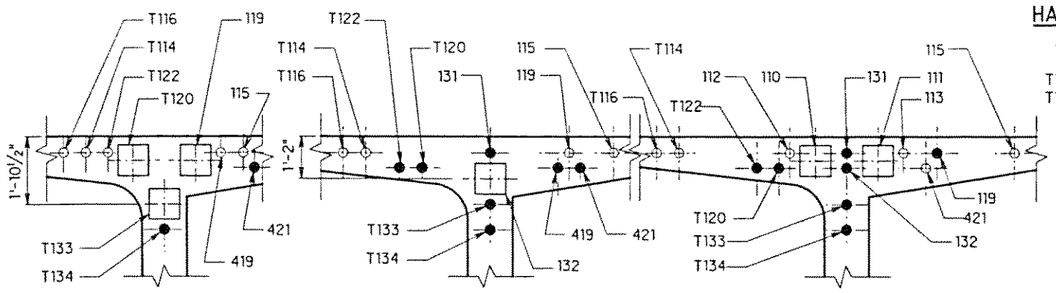
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT V
INBOUND PIER 5 THRU PIER 7

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. TL5 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



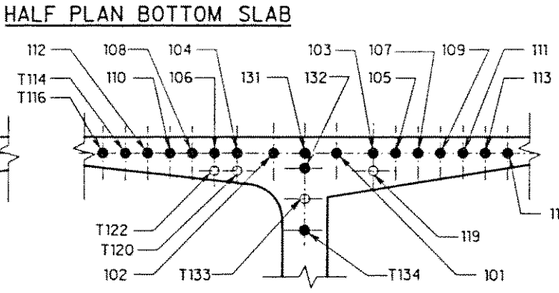


SECTION A (TL6 | TL6)
SCALE : N.T.S.

SECTION B (TL6 | TL6)
SCALE : N.T.S.

SECTION C (TL6 | TL6)
SCALE : N.T.S.

HALF PLAN BOTTOM SLAB



SECTION D (TL6 | TL6)
SCALE : N.T.S.

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ├------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

DATE	REVISION
04/22/91	REVISED TENDON 412.
02/14/91	UPDATED DRAWING.
02/02/91	UPDATED LAYOUT ON CANTILEVER 9 AND SECTIONS.
01/04/91	UPDATED LAYOUT AND SECTIONS ON CANTILEVER 8.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

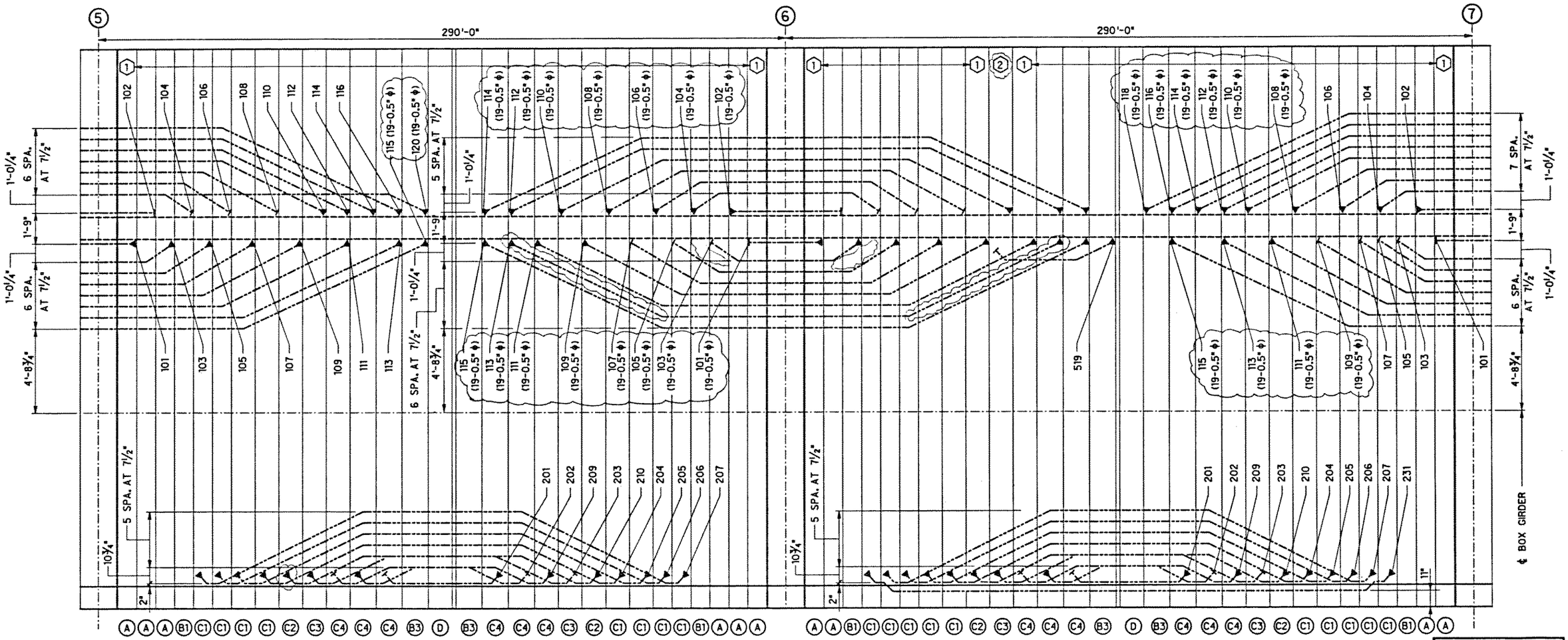
POST-TENSIONING LAYOUT VI
INBOUND PIER 7 THRU PIER 9

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. TL6 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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

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DATE	REVISION
02/14/91	UPDATED DRAWING.
01/04/91	REVISED LAYOUT ON CANTILEVER 5.

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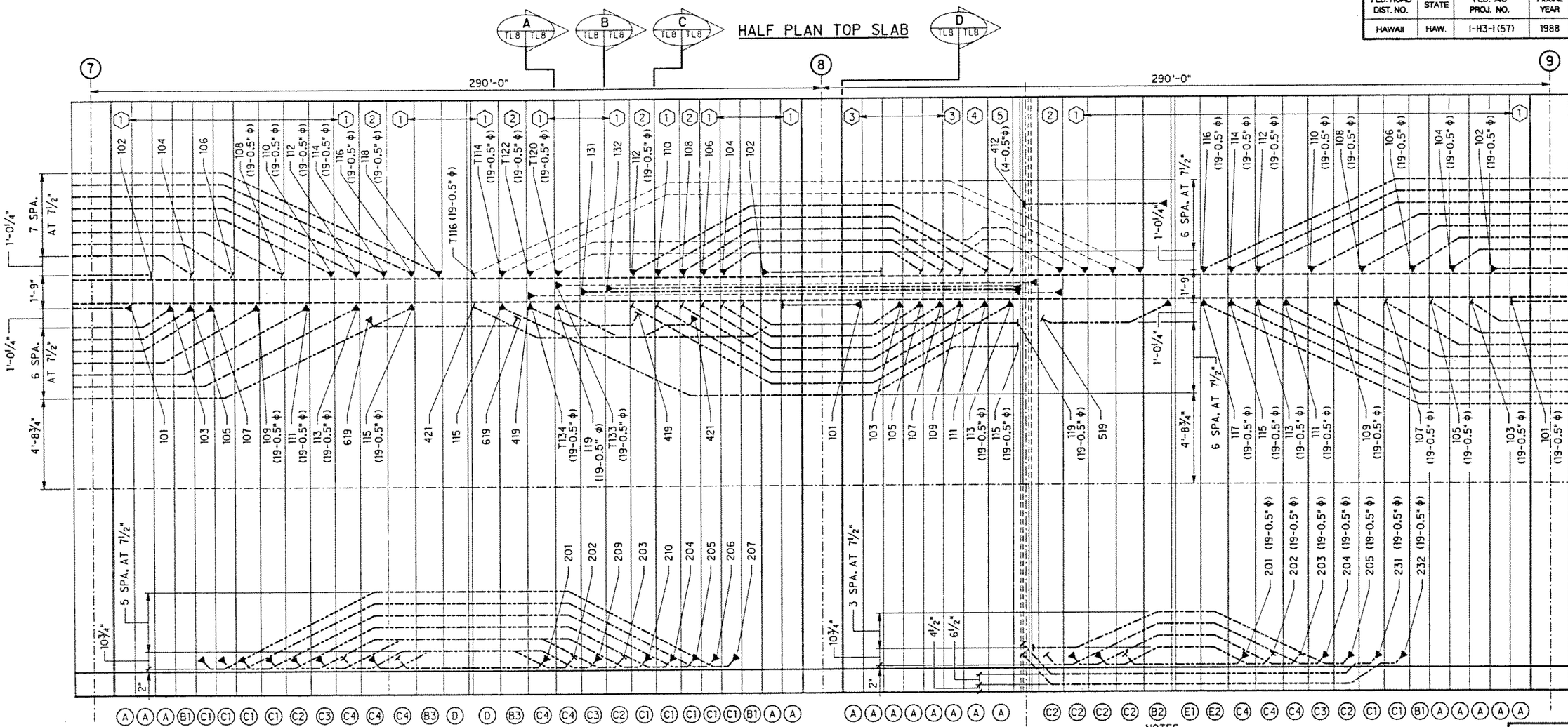
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT VII
OUTBOUND PIER 5 THRU PIER 7

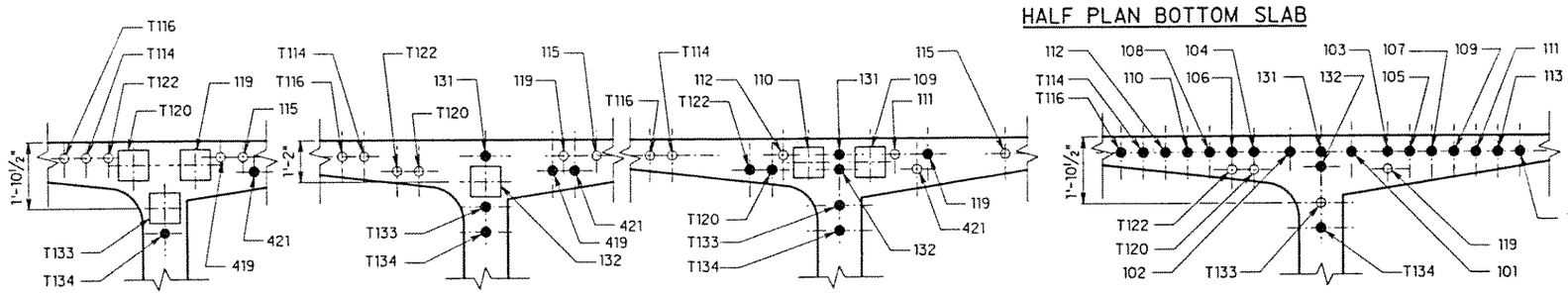
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990
SHEET No. TL7 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL8 TL8
SCALE : N.T.S.

SECTION B TL8 TL8
SCALE : N.T.S.

SECTION C TL8 TL8
SCALE : N.T.S.

SECTION D TL8 TL8
SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
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6. ├------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

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DATE	REVISION
01/15/92	REVISED TENDON 119 CANTILEVER 8.
04/22/91	REVISED TENDON 412.
02/14/91	UPDATED DRAWING.
01/04/91	UPDATED LAYOUT AND SECTIONS ON CANTILEVER 8.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT VIII
OUTBOUND PIER 7 THRU PIER 9

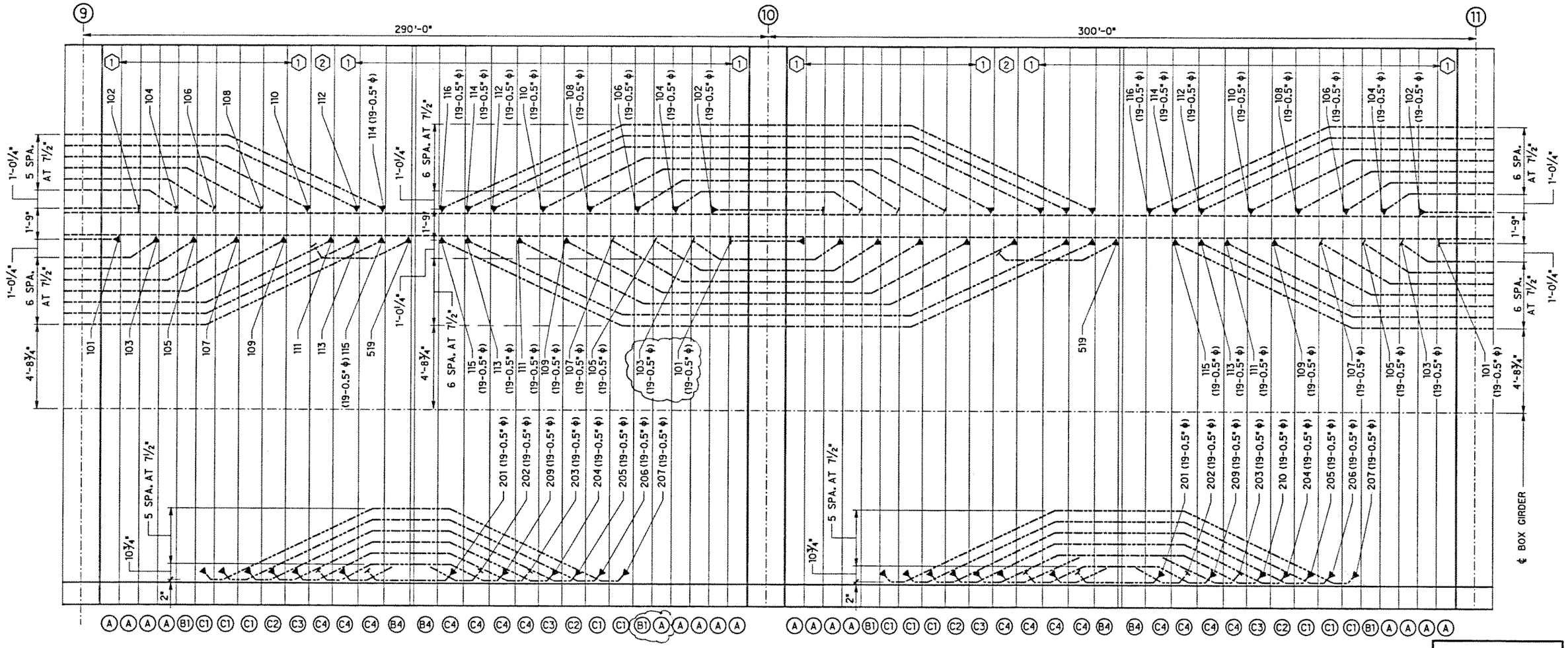
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. TL8 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
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6. ⊢-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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

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DATE	REVISION
04/02/91	UPDATED DRAWING.

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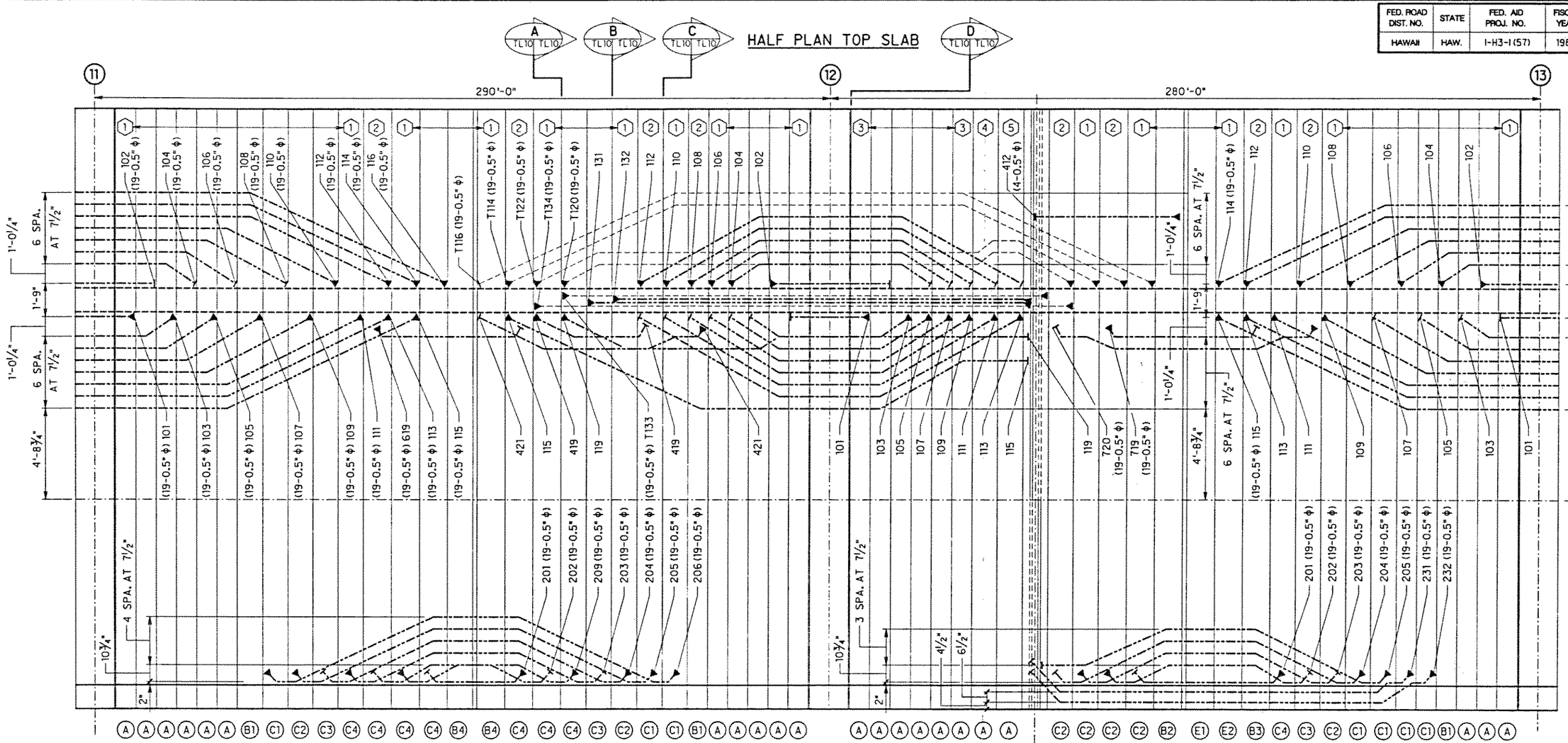
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT IX
INBOUND PIER 9 THRU PIER 11

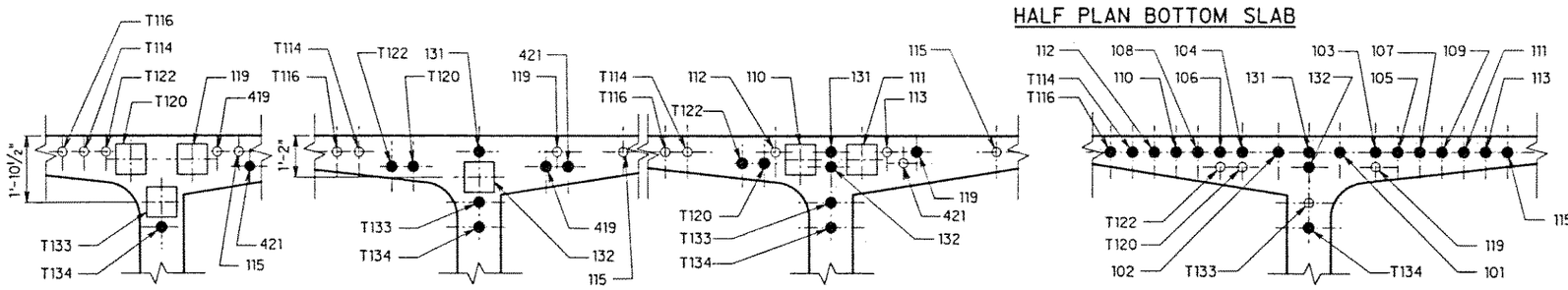
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991
SHEET No. TL9 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A (TL10 TL10) — SCALE : N.T.S.

SECTION B (TL10 TL10) — SCALE : N.T.S.

SECTION C (TL10 TL10) — SCALE : N.T.S.

SECTION D (TL10 TL10) — SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. |------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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DATE	REVISION
04/22/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT X
INBOUND PIER 11 THRU PIER 13

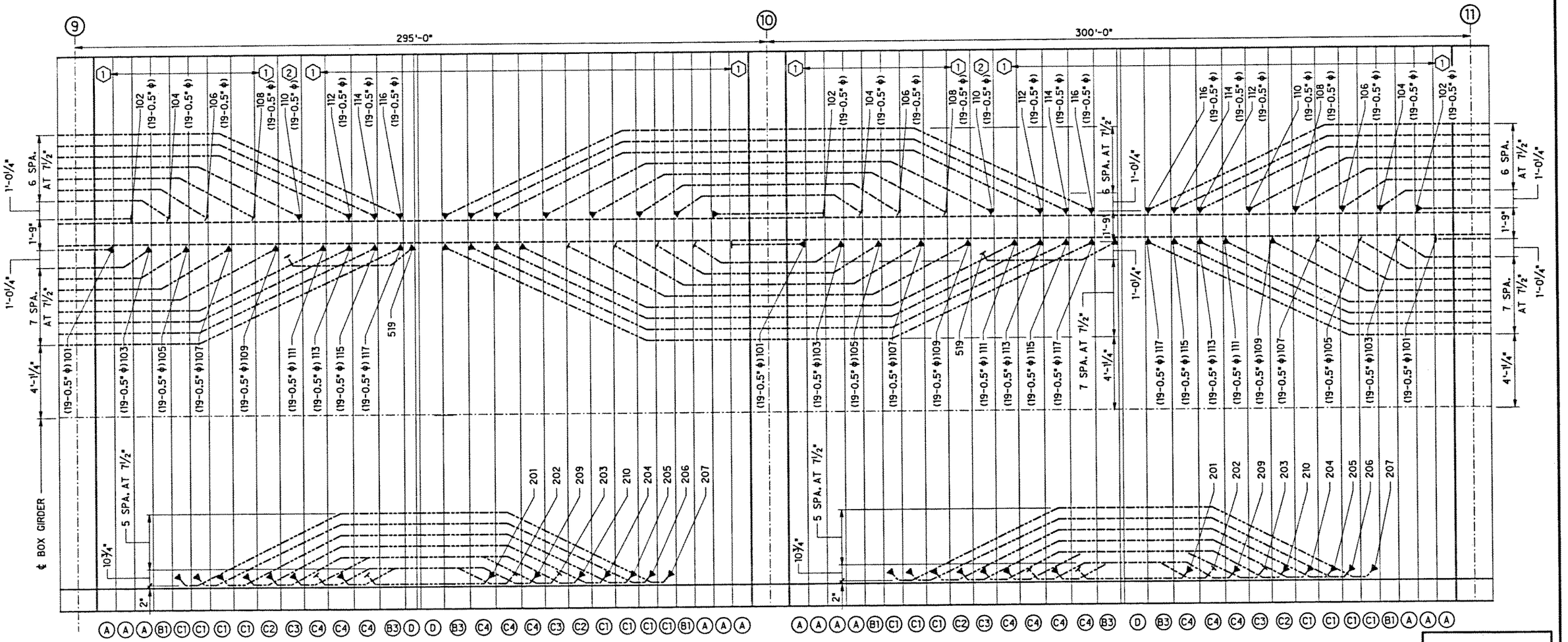
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

SHEET No. TL10 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLAN
NOTE BOOK No. ____
SURVEY PLOTTED BY ____ DATE
DATA KEYED BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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DATE	REVISION

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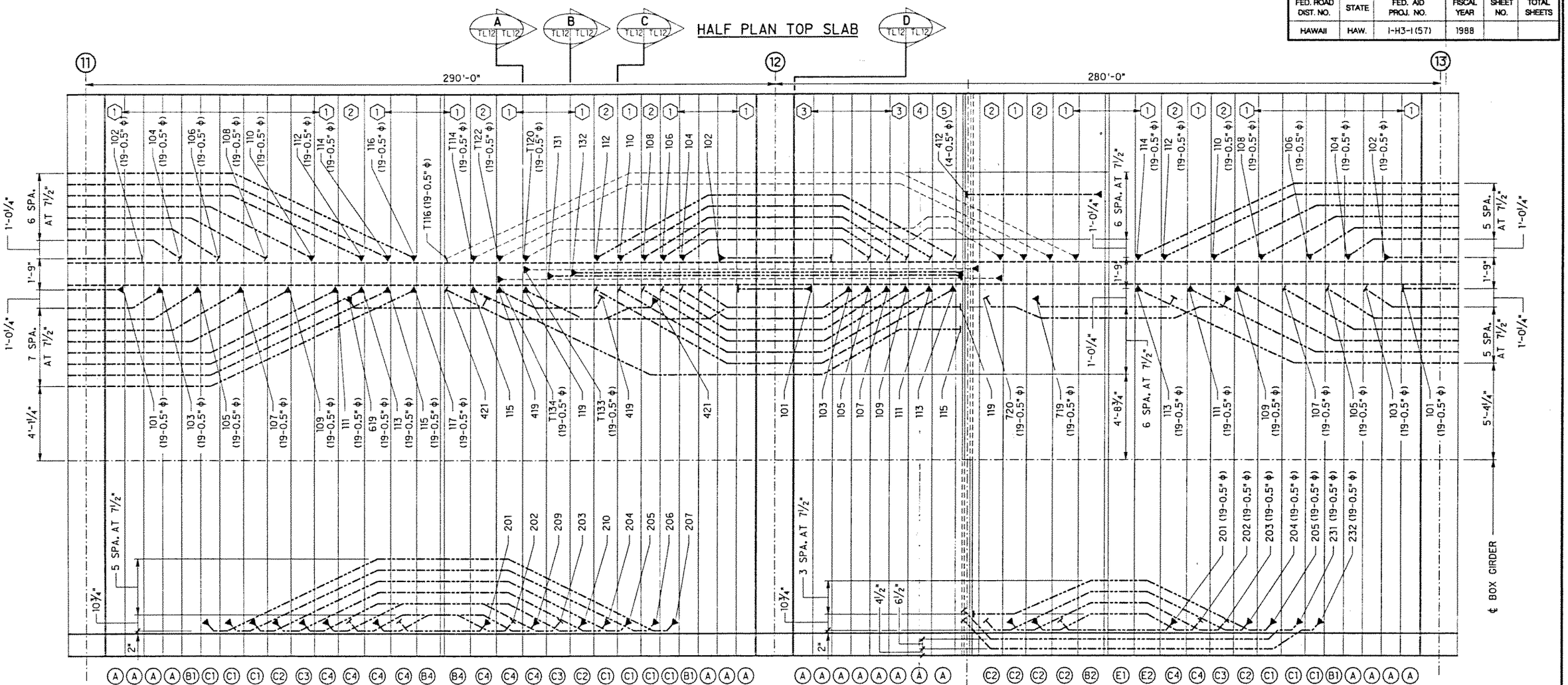
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XI
OUTBOUND PIER 9 THRU PIER 11

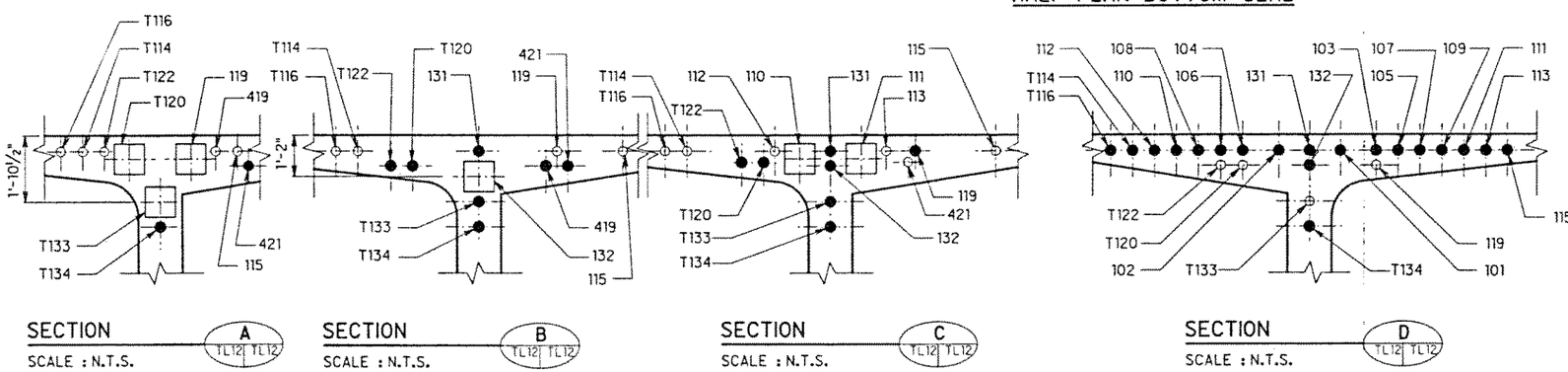
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991
SHEET No. TL11 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A — SCALE : N.T.S.

SECTION B — SCALE : N.T.S.

SECTION C — SCALE : N.T.S.

SECTION D — SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. ○ DENOTES DEVIATED TENDON LOCATION.

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

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DATE	REVISION
04/22/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

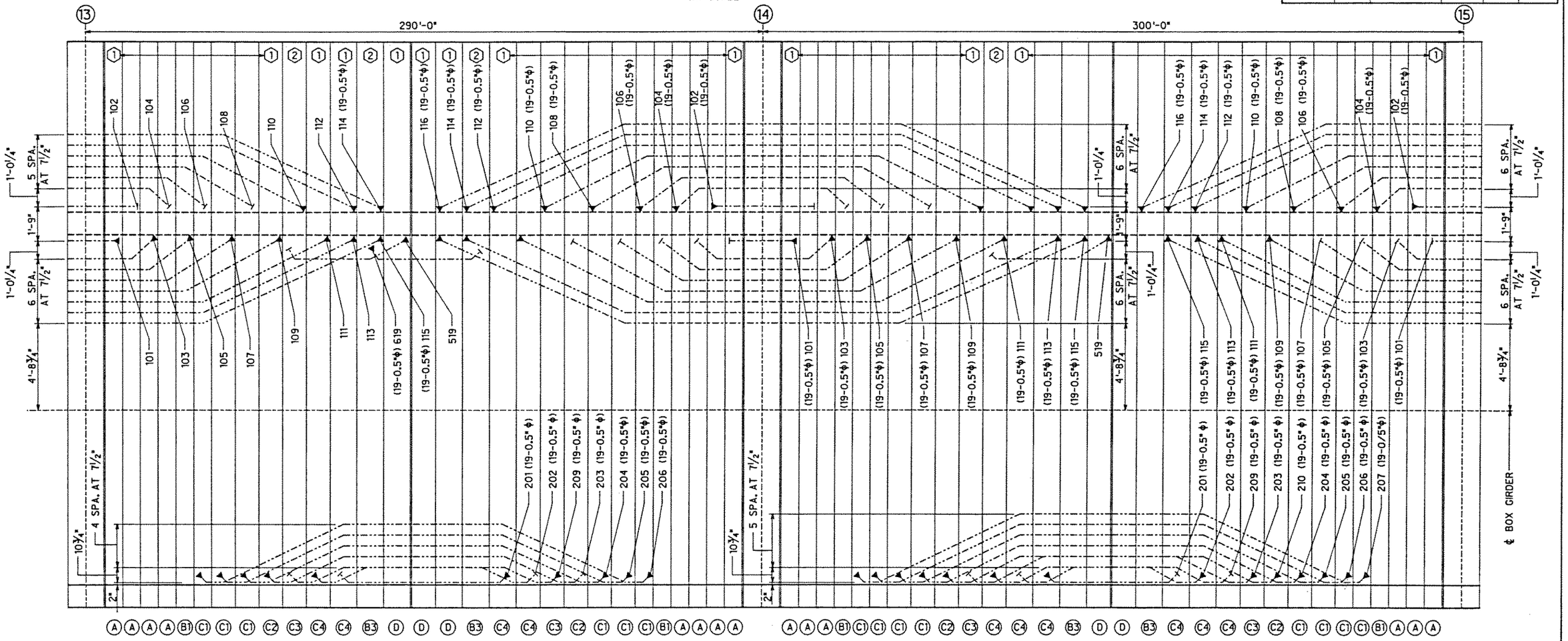
POST-TENSIONING LAYOUT XII
OUTBOUND PIER 11 THRU PIER 13

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991

SHEET No. TL12 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB
NO SCALE



HALF PLAN BOTTOM SLAB
NO SCALE

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶-------- DENOTES STRESSING END.
6. |-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2379-S
HAWAII, U.S.A.

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DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

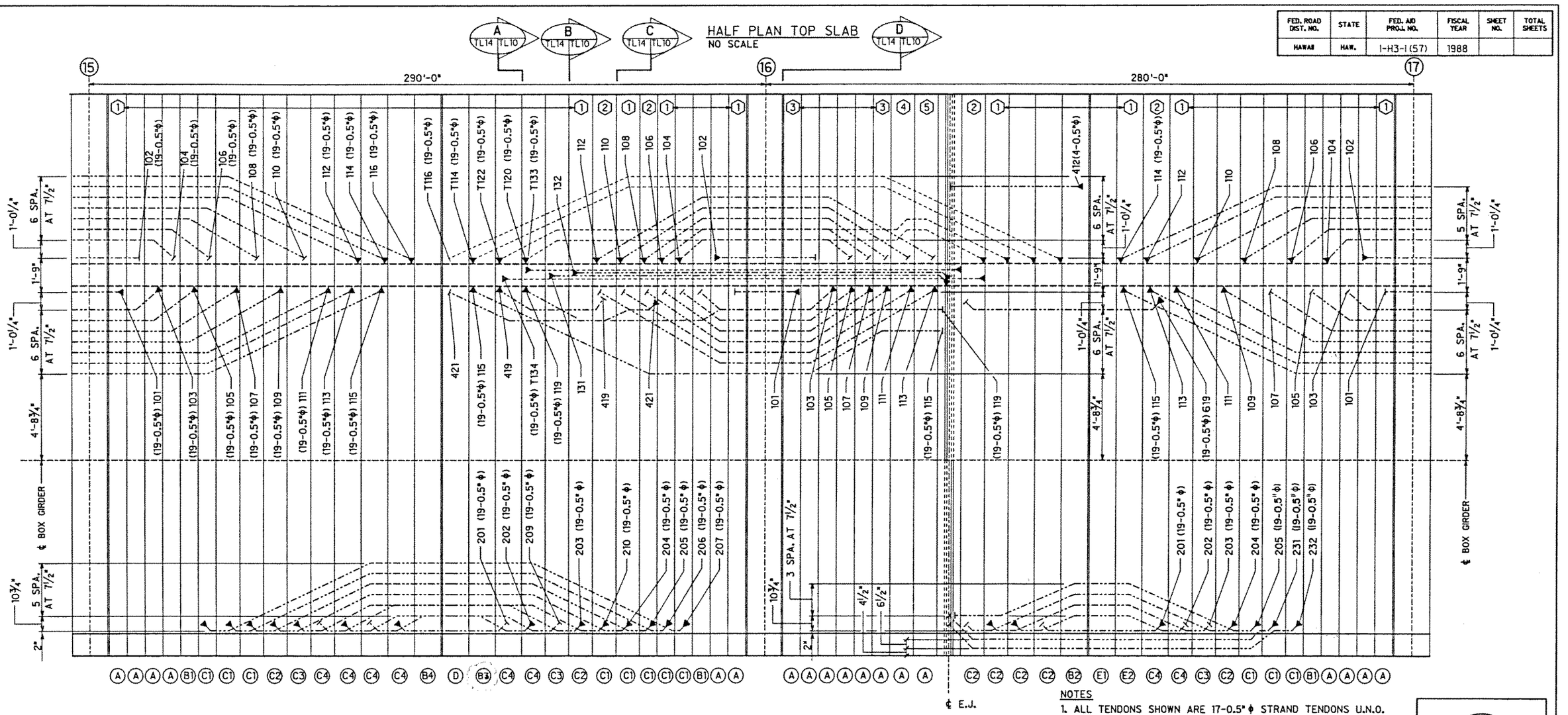
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
INBOUND PIER 13 THRU PIER 15

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. TL13 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF PLAN BOTTOM SLAB
NO SCALE

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶-------- DENOTES STRESSING END.
6. |-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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DATE	REVISION
08/23/91	UPDATED DRAWING.
5/29/91	TENDON LAYOUT

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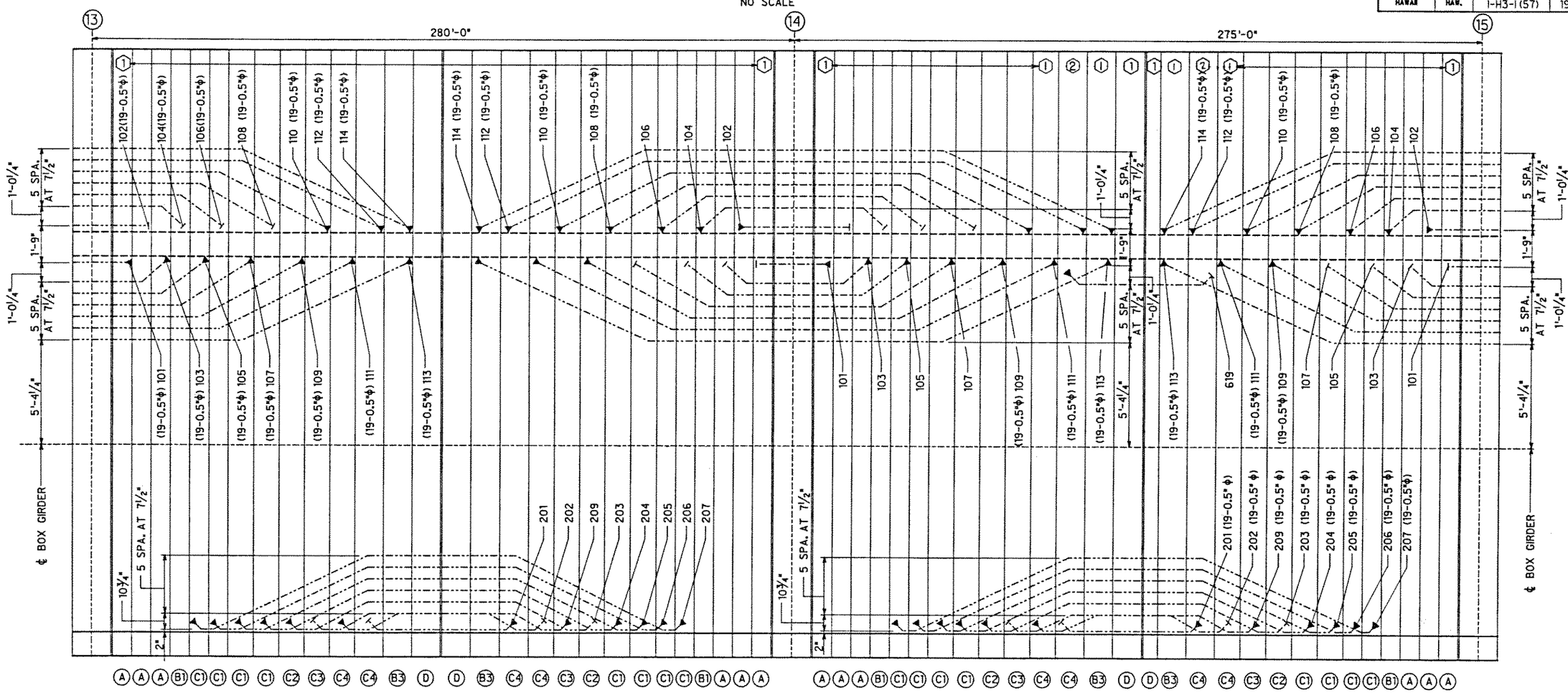
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
INBOUND PIER 15 THRU PIER 17

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991
SHEET NO. TL14 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB
NO SCALE



HALF PLAN TOP SLAB
NO SCALE

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
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8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 7375-S HAWAII, U.S.A.

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DATE	REVISION

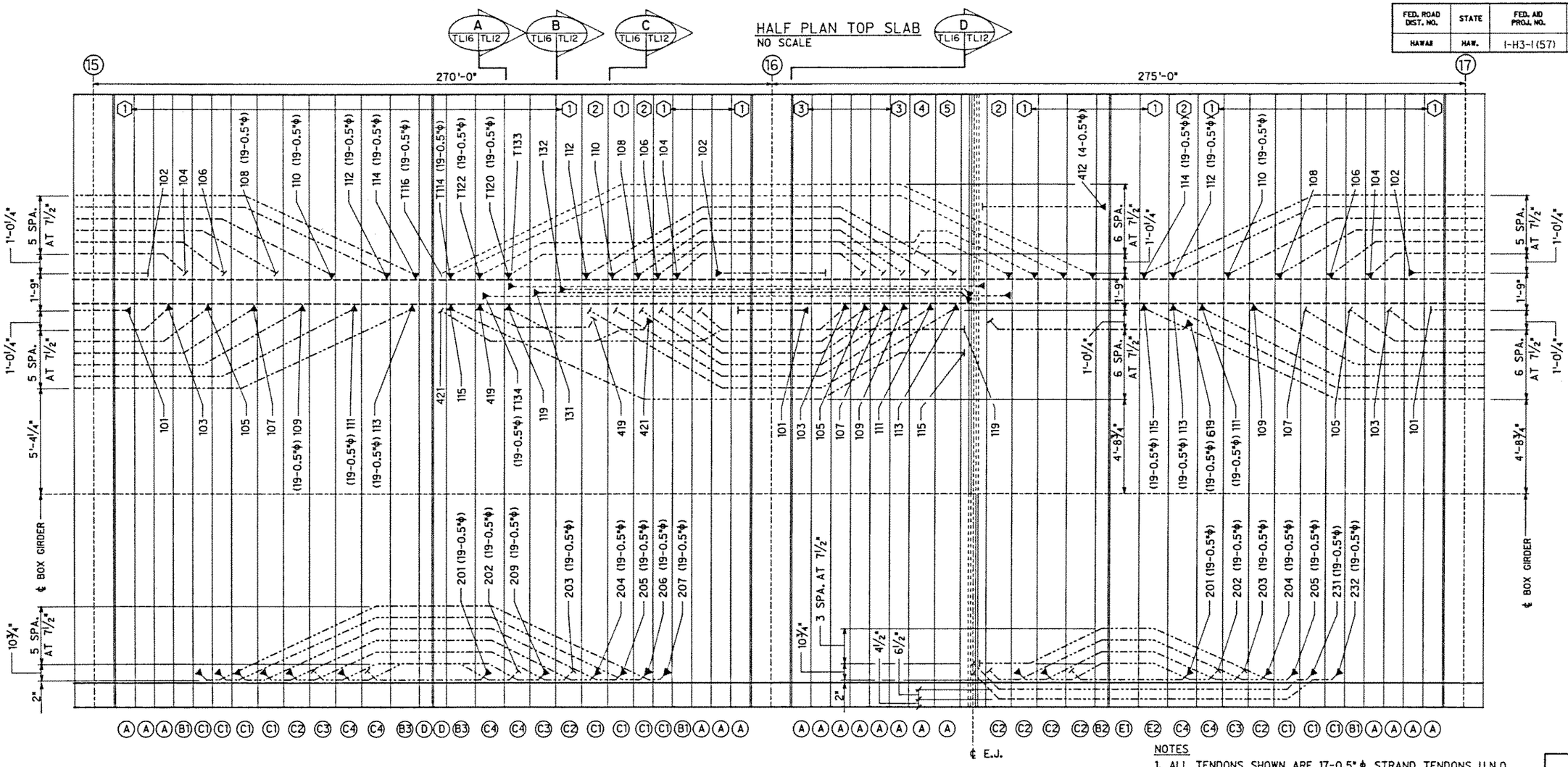
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT
OUTBOUND PIER 13 THRU PIER 15

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991
SHEET NO. TL15 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



HALF PLAN TOP SLAB
NO SCALE

HALF PLAN BOTTOM SLAB
NO SCALE

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶-------- DENOTES STRESSING END.
6. |-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2275-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

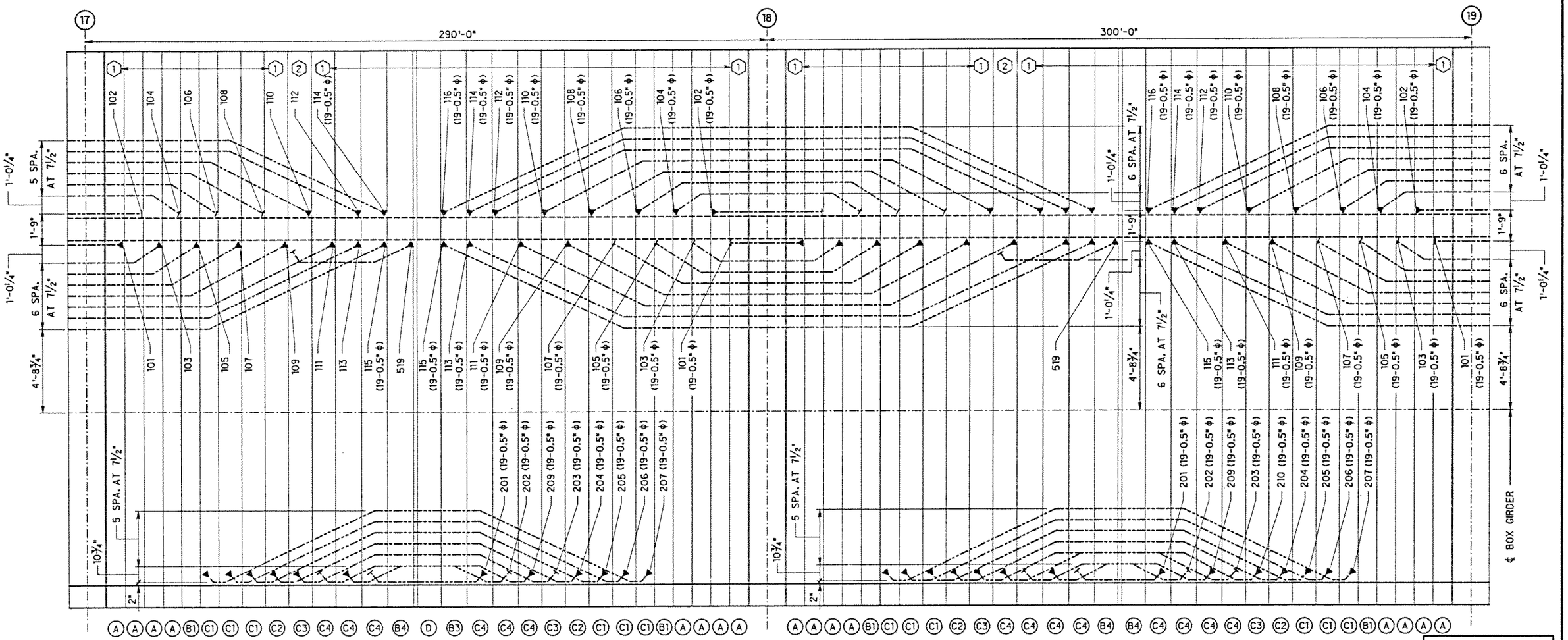
POST-TENSIONING LAYOUT
OUTBOUND PIER 15 THRU PIER 17

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991

SHEET NO. TL16 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLANS — NOTE SIDE — SHEET PLOTTED BY ____ DATE ____ PLANS BY ____ TRACED BY ____ DESIGNED BY ____ QUANTITIES BY ____ CHECKED BY ____ No. ____

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

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DATE	REVISION
04/12/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL — Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

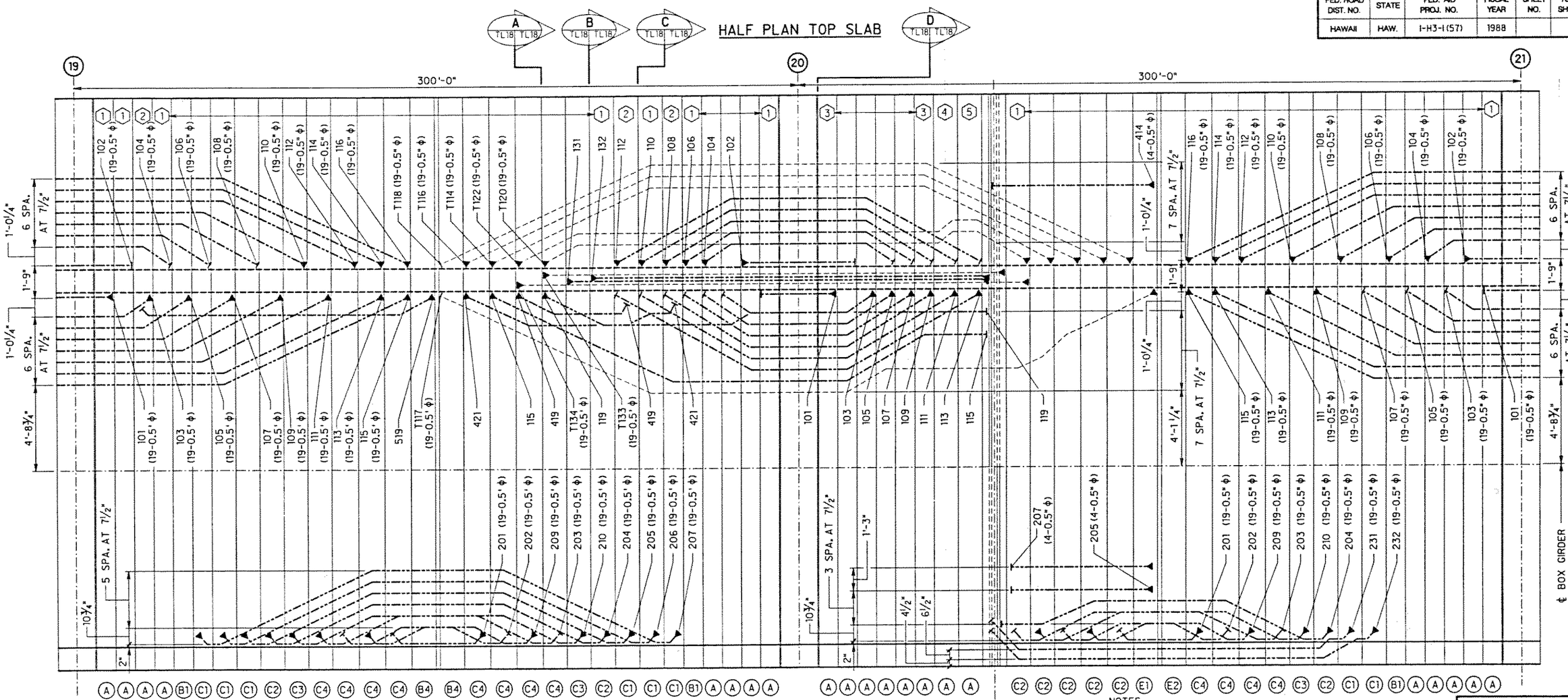
POST-TENSIONING LAYOUT XVII
INBOUND PIER 17 THRU PIER 19

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

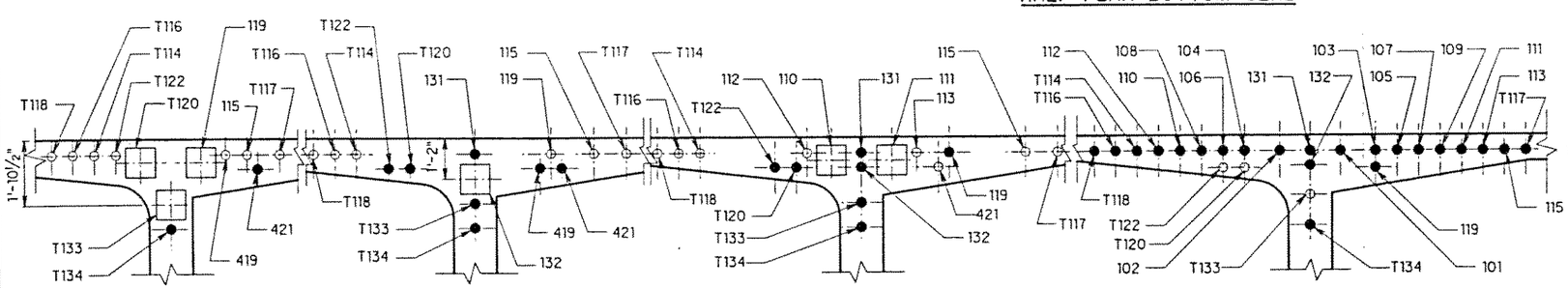
SHEET No. TL17 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A — SCALE : N.T.S.

SECTION B — SCALE : N.T.S.

SECTION C — SCALE : N.T.S.

SECTION D — SCALE : N.T.S.

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. |------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2375-S — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
05/06/91	TENDON 414 WAS 412.
04/22/91	REVISED TENDON 412.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XVIII

INBOUND PIER 19 THRU PIER 21

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

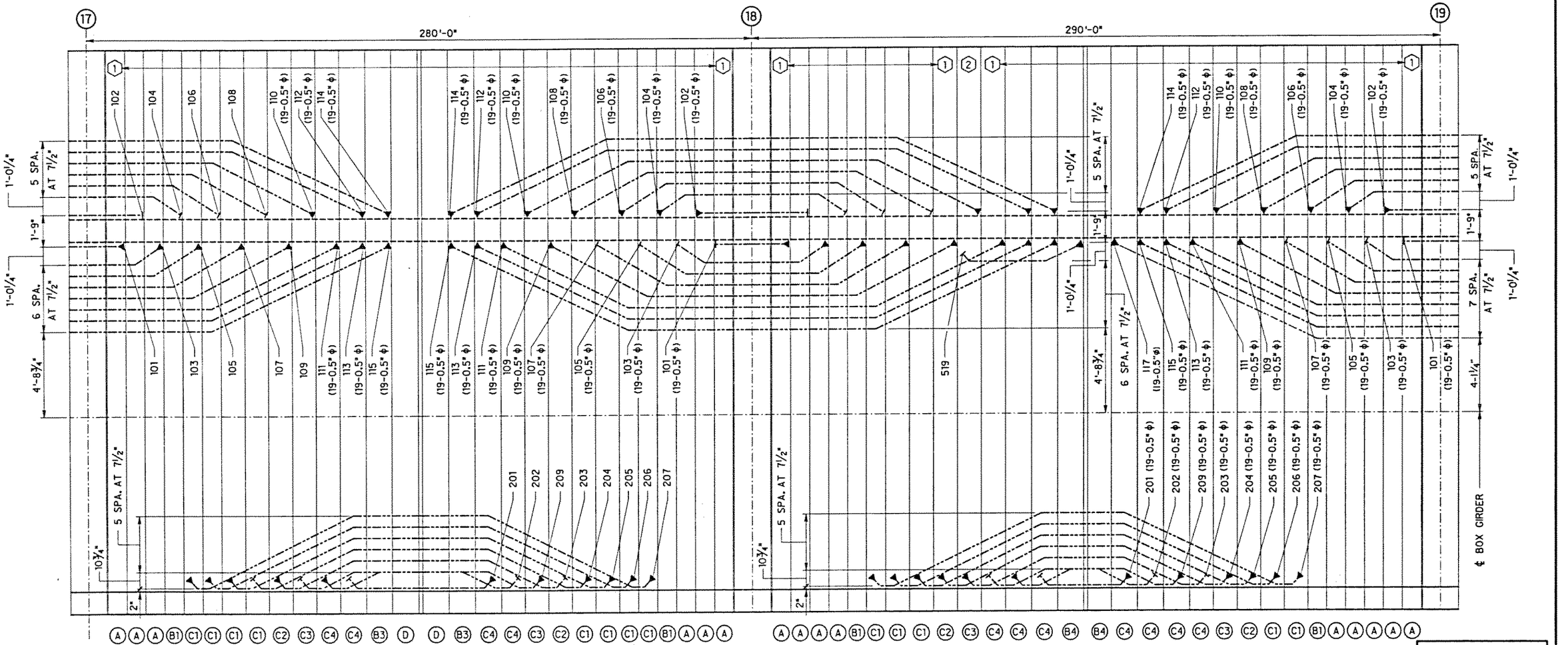
SCALE : AS NOTED DATE : MAR. 1991

SHEET No. TL18 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶-------- DENOTES STRESSING END.
6. ⊢-------- DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLANS — REVISIT PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NOTE BOOK — PG.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	DELETED TENDON 116 AND ADDED TENDON 117 FOR CANTILEVER 19.

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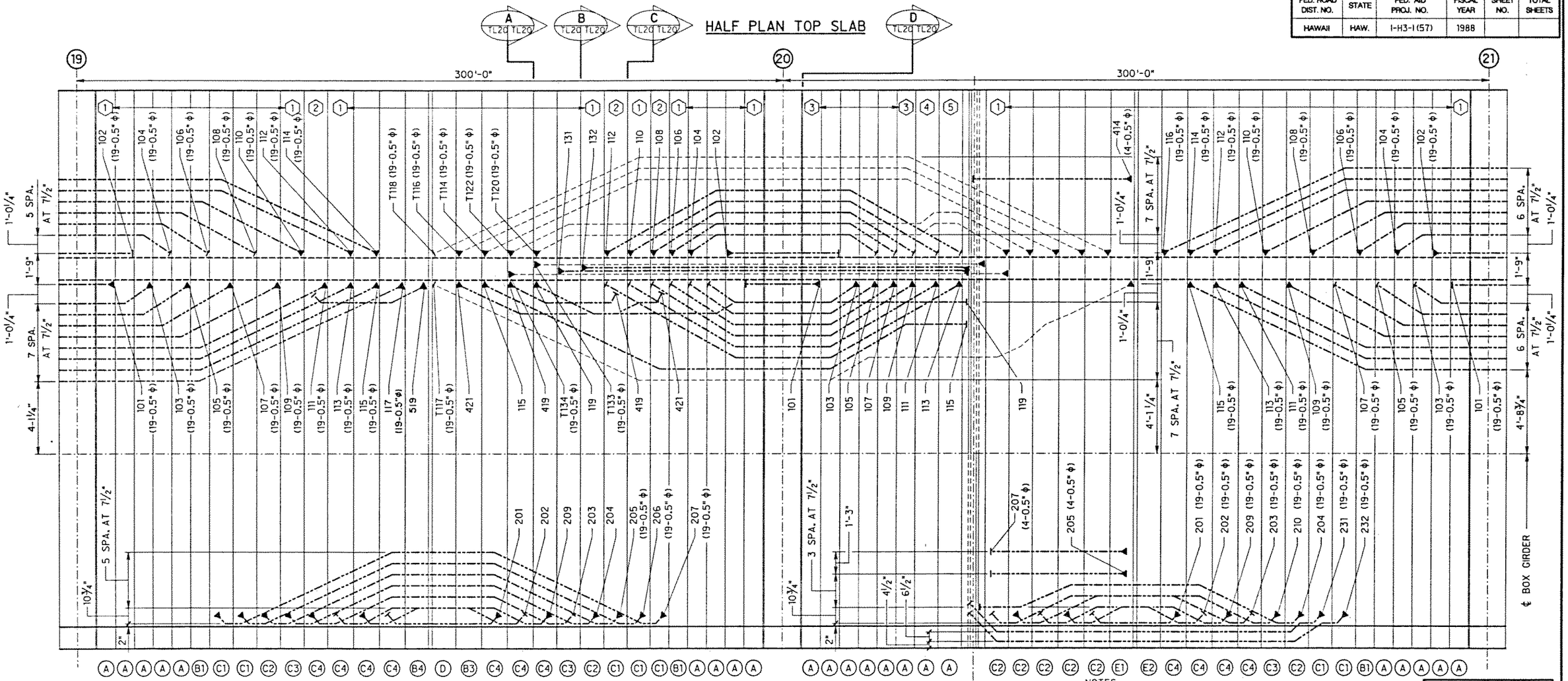
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XIX
OUTBOUND PIER 17 THRU PIER 19

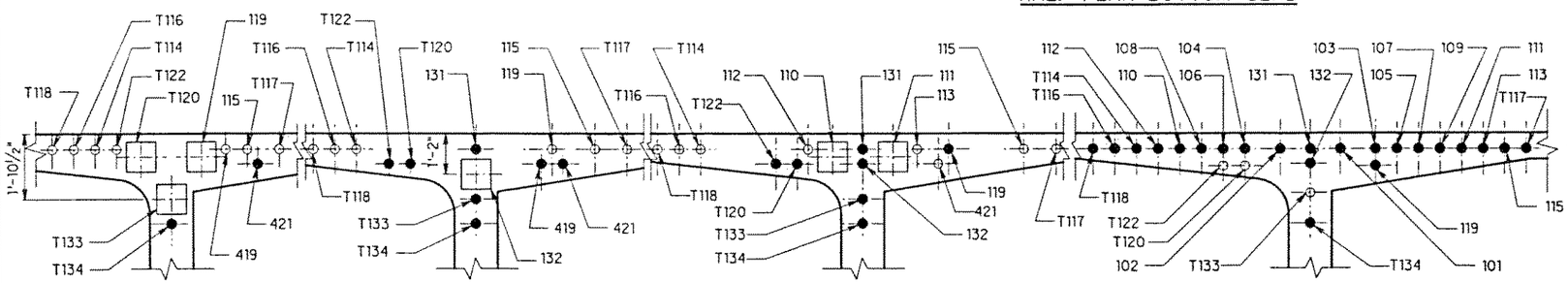
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991
SHEET No. TL19 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB



SECTION A TL20 TL20
SCALE : N.T.S.

SECTION B TL20 TL20
SCALE : N.T.S.

SECTION C TL20 TL20
SCALE : N.T.S.

SECTION D TL20 TL20
SCALE : N.T.S.

NOTES
1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ○ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. |------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.
9. ● DENOTES STRAIGHT TENDON LOCATION.
10. O DENOTES DEVIATED TENDON LOCATION.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	DELETED TENDON 116 AND ADDED TENDON 117 FOR CANTILEVER 19.
05/06/91	TENDON 414 WAS 412.
04/22/91	REVISED TENDON 412.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XX
OUTBOUND PIER 19 THRU PIER 21

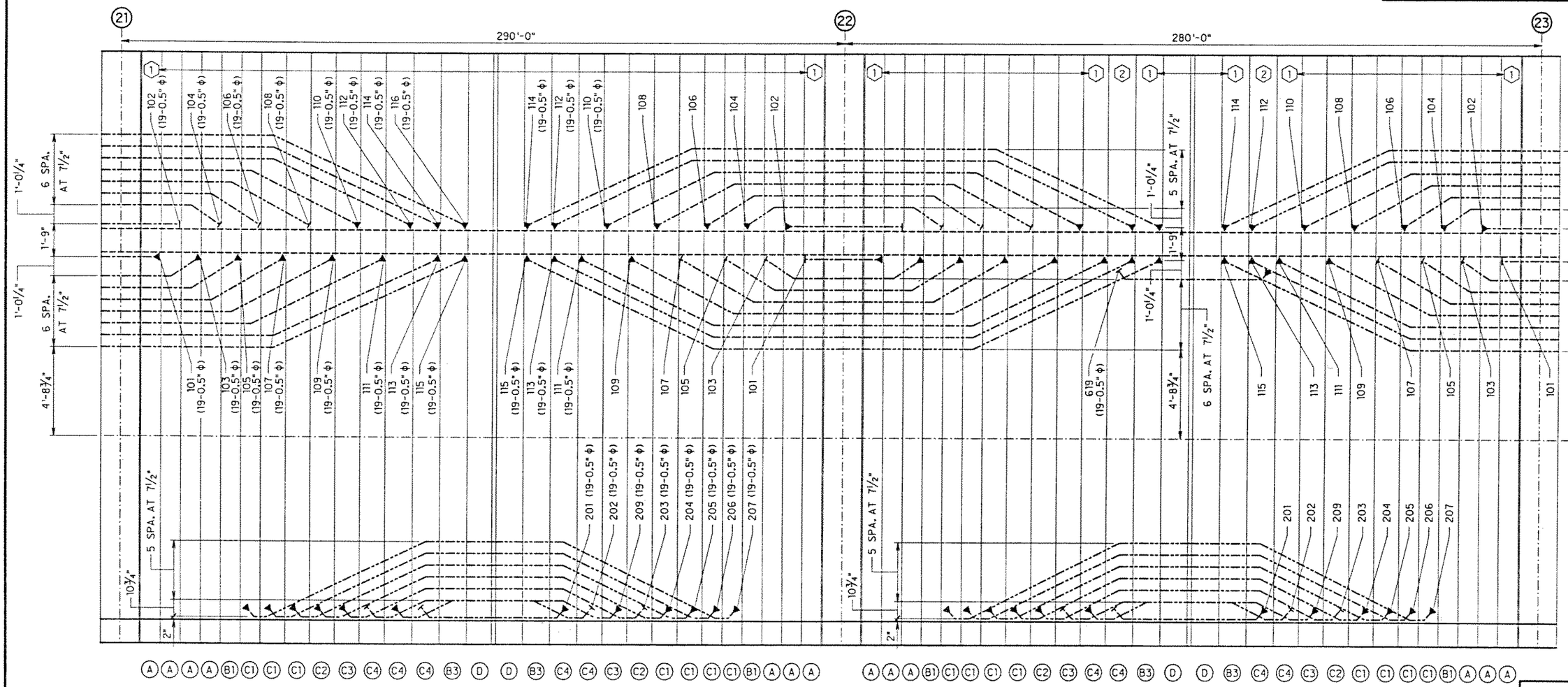
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : MAR. 1991

SHEET No. TL20 OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ⊢------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | Pg.

JAMES R. LIBBY — REGISTERED PROFESSIONAL ENGINEER — No. 2575-S — HAWAII, U.S.A.

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DATE	REVISION

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

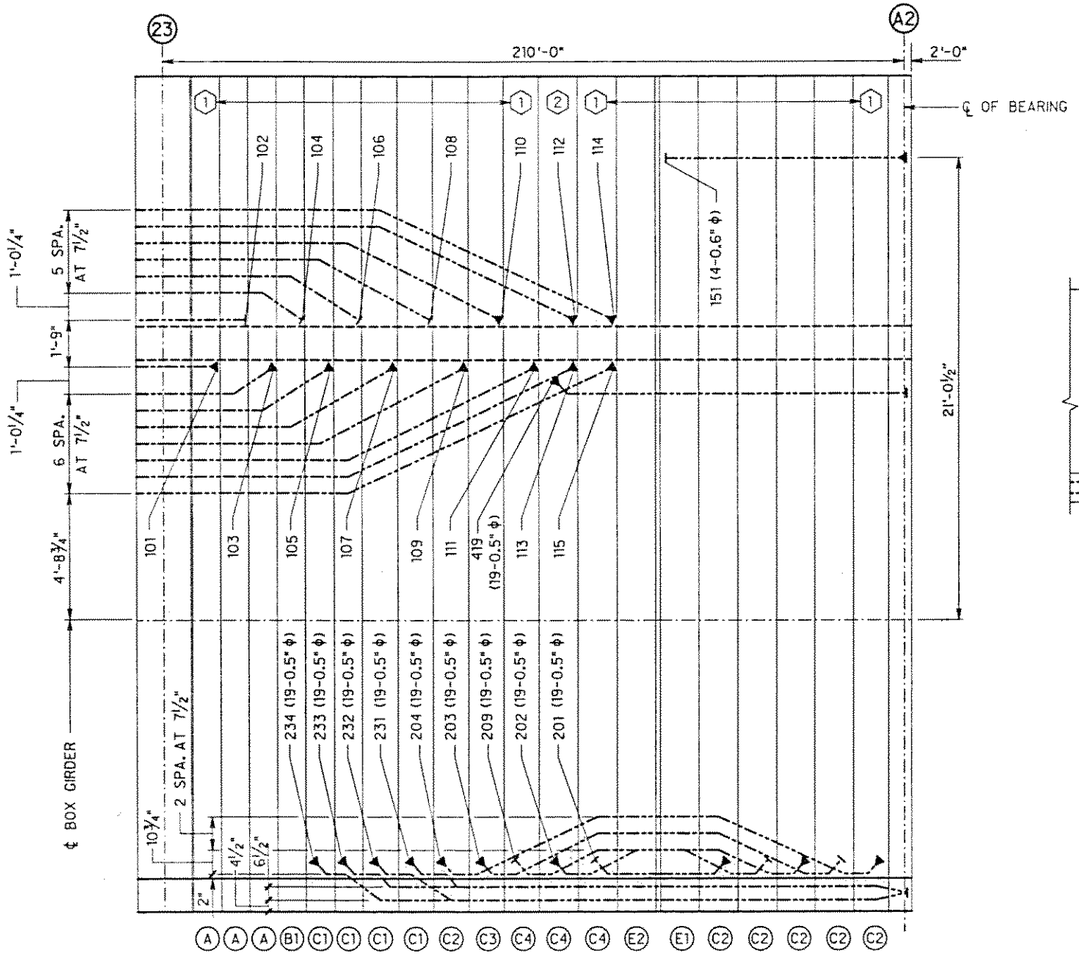
POST-TENSIONING LAYOUT XXI
INBOUND PIER 21 THRU PIER 23

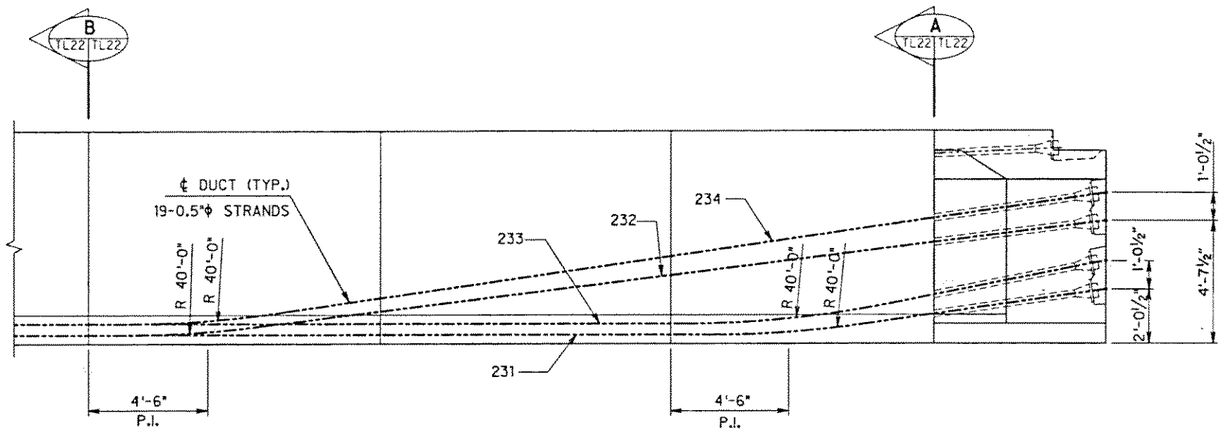
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL21 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

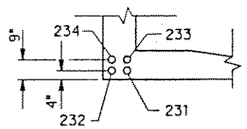
HALF PLAN TOP SLAB





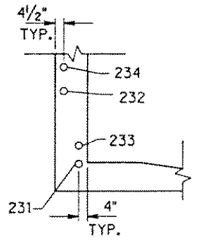
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0"



B TL22 TL22 **SECTION**

SCALE : ⅜"=1'-0"



A TL22 TL22 **SECTION**

SCALE : ⅜"=1'-0"

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶------ DENOTES STRESSING END.
6. ├------ DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLANS — SURVEY PLOTTED BY — DRAWN BY — TRACED BY — DESIGNED BY — QUANTITIES BY — CHECKED BY — DATE — NO. — NOTE MADE

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2575-S HAWAII, U.S.A.

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DATE | REVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

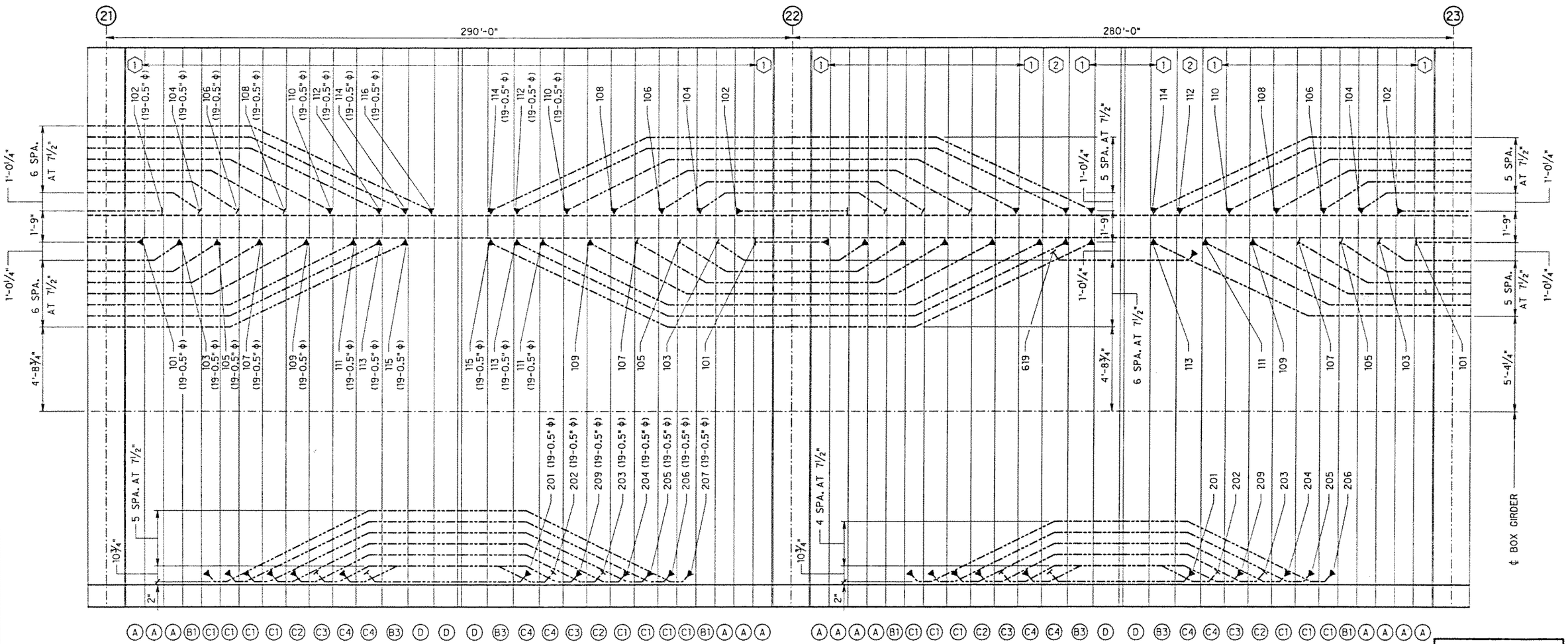
POST-TENSIONING LAYOUT XXII
INBOUND PIER 23 THRU ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL22 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

HALF PLAN TOP SLAB



HALF PLAN BOTTOM SLAB

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
4. ⬡ DENOTES TOP BLOCK TYPES FOR DETAILS SEE SHEETS TA2 AND PT3.
5. ▶——— DENOTES STRESSING END.
6. ⊢——— DENOTES NON-STRESSING END.
7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

ORIGINAL PLAN | NOTE BOOK | NO. | DATE | REVISED BY | QUANTITIES BY | TRACED BY | DRAWN BY | CHECKED BY

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2319-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

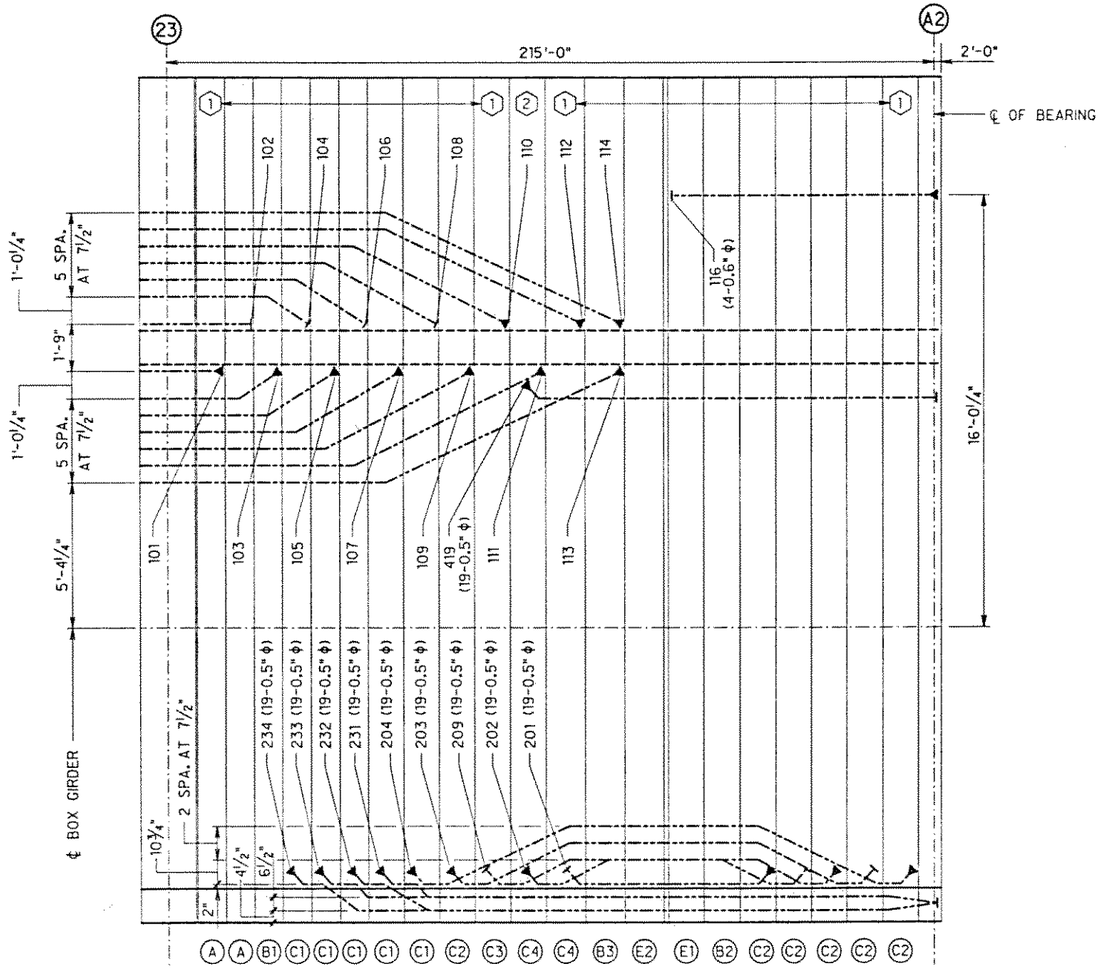
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

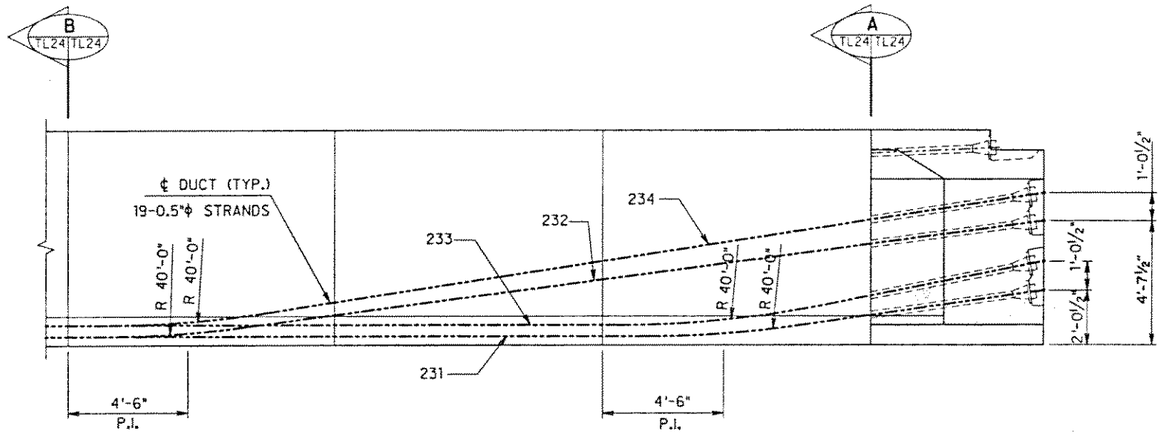
POST-TENSIONING LAYOUT XXIII
OUTBOUND PIER 21 THRU PIER 23

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991
SHEET No. TL23 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

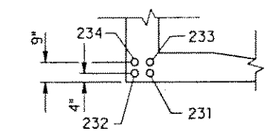
HALF PLAN TOP SLAB





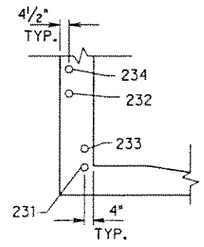
ELEVATION - ABUTMENT SPAN

SCALE : ⅜"=1'-0"



B TL24 TL24 SECTION

SCALE : ⅜"=1'-0"



A TL24 TL24 SECTION

SCALE : ⅜"=1'-0"

NOTES

1. ALL TENDONS SHOWN ARE 17-0.5" ϕ STRAND TENDONS U.N.O.
2. ◯ DENOTES BOTTOM BLOCK TYPES FOR DETAILS SEE SHEETS TA1 AND PT2.
3. "T" DENOTES TEMPORARY TENDONS.
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5. ▶------ DENOTES STRESSING END.
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7. ALL TOP SLAB TENDONS SHALL BE STRESSED AT 203 ksi.
8. ALL BOTTOM SLAB TENDONS SHALL BE STRESSED AT 216 ksi.

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

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

POST-TENSIONING LAYOUT XXIV

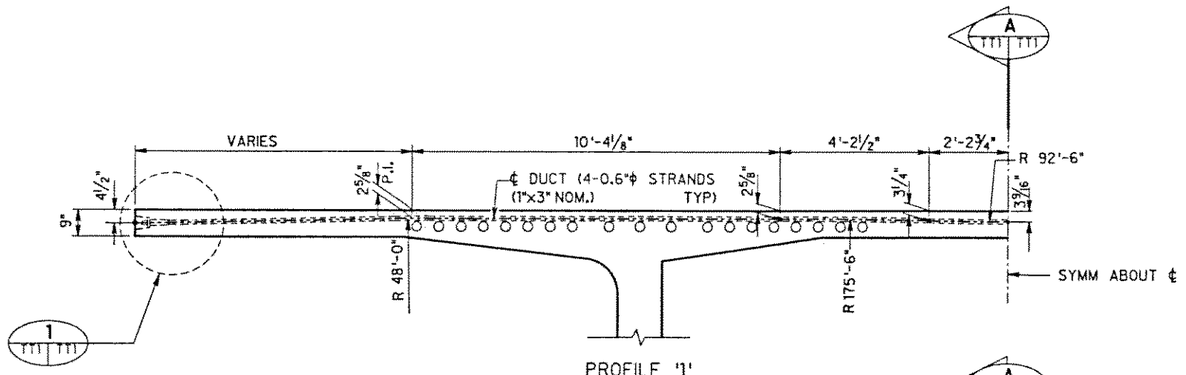
OUTBOUND PIER 23 THRU ABUTMENT 2

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1991

SHEET No. TL24 OF SHEETS

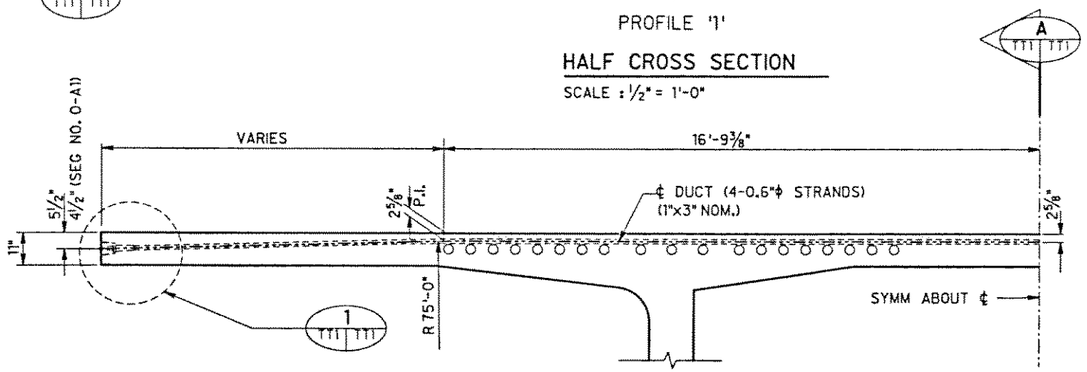
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



PROFILE '1'

HALF CROSS SECTION

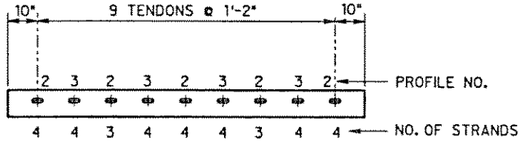
SCALE : ½" = 1'-0"



PROFILE '2'
OUTBOUND SPAN 1

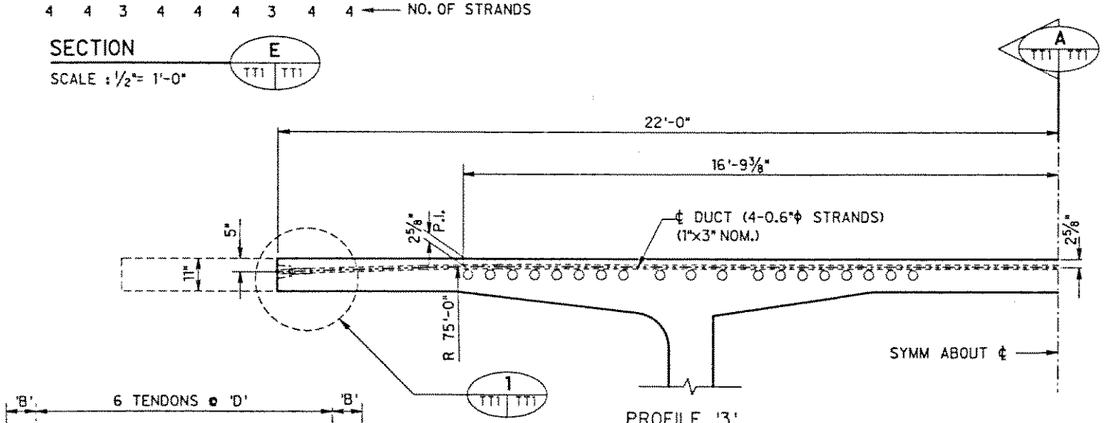
HALF CROSS SECTION

SCALE : ½" = 1'-0"



SECTION E

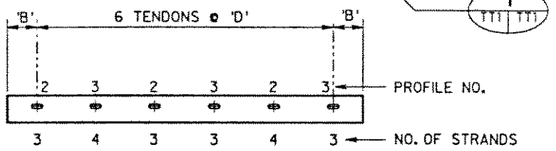
SCALE : ½"= 1'-0"



PROFILE '3'
OUTBOUND SPAN 1

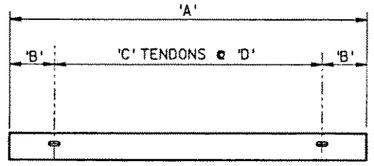
HALF CROSS SECTION

SCALE : ½" = 1'-0"



SECTION D

SCALE : ½"= 1'-0"

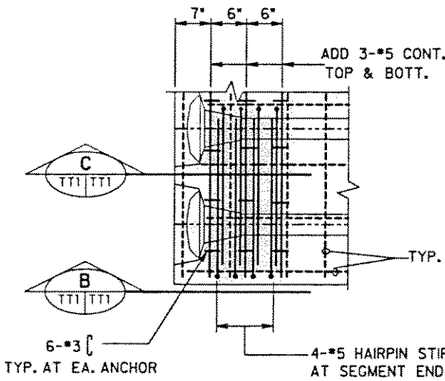


SECTION A

SCALE : ½" = 1'-0"

TENDON PROFILE	SEGMENT WIDTH	'A'	NO FARADAY SHIELD 'B'	NO FARADAY SHIELD 'C'	NO FARADAY SHIELD 'D'	FARADAY SHIELD 'B'	FARADAY SHIELD 'C'	FARADAY SHIELD 'D'
OUTBOUND '1'	TO 44'-1"	8'-0"	1'-4"	3	2'-8"	1'-0"	4	2'-0"
		10'-0"	1'-3"	4	2'-6"	1'-0"	5	2'-0"
		11'-0"	1'-4½"	4	2'-9"	1'-1"	5	2'-2½"
	TO 49'-1"	8'-0"	1'-0"	4	2'-0"	10"	5	1'-7"
		10'-0"	1'-0"	5	2'-0"	10"	6	1'-8"
		11'-0"	11"	6	1'-10"	9"	7	1'-7"
OUTBOUND '2' ALT W/'3'	TO 53'-0"	8'-0"	1'-0"	4	2'-0"			
		10'-0"	10"	*	1'-8"	10"	6	1'-8"
		11'-0"	11"	*	1'-10"			
	TO 57'-0"	8'-0"	10½"	6	1'-3"			
		10'-0"	11"	8	1'-2"			
		11'-0"	SEE SECTION E					

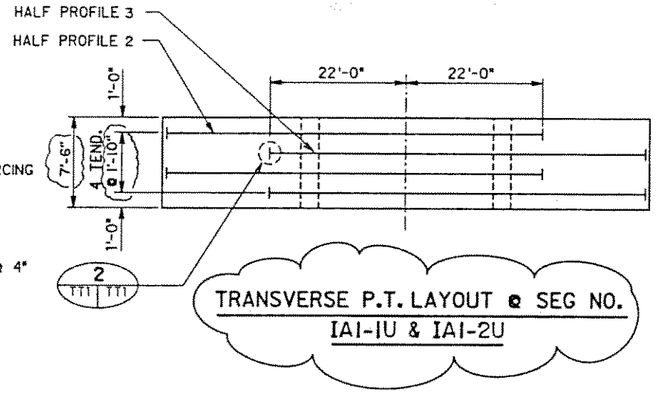
* SEE SECTION D

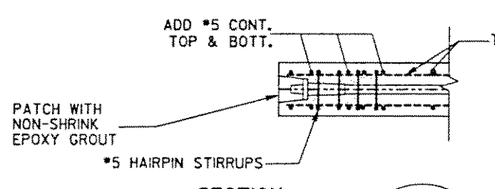


DETAIL 1

SCALE : 1" = 1'-0"

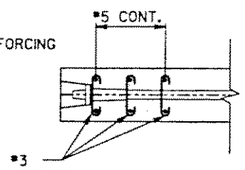
NOTE:
STRESS TENDONS TO 205 ksi.
ASSUMED ANCHOR SET = ⅜"





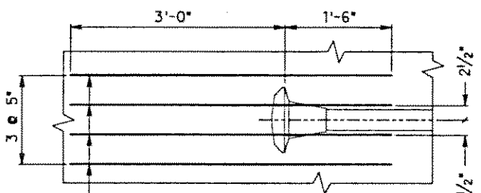
SECTION B

SCALE : 1" = 1'-0"



SECTION C

SCALE : 1" = 1'-0"



DETAIL 2

SCALE : 1" = 1'-0"

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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DATE	REVISION
8/23/91	UPDATED DRAWING.
9/17/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRANSVERSE POST-TENSIONING DETAILS

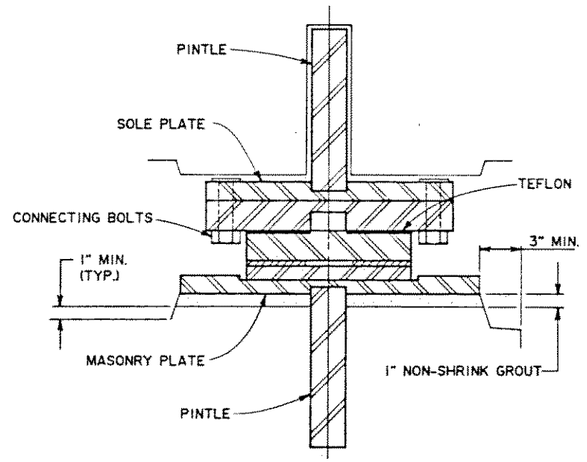
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : SEP. 1990

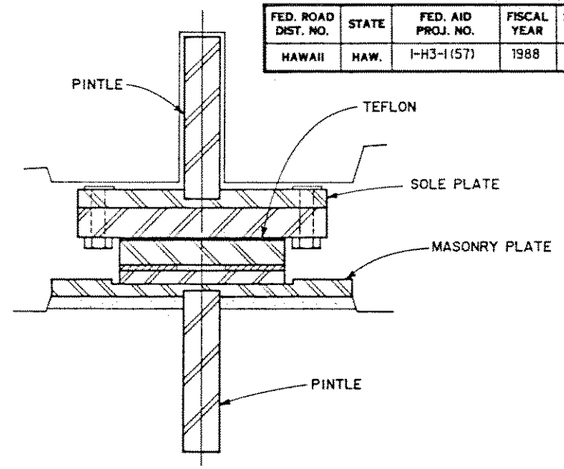
SHEET No. TT1 OF SHEETS

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

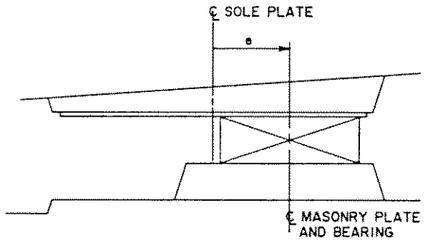
LOCATION	DEAD LOAD REACTION (kips)	LATERAL CAPACITY (kips)	VERTICAL CAPACITY (kips)	TOTAL MOVEMENT	INSTALLATION DISTANCE ("e")	BEARING HEIGHT	BEARING AZIMUTH
INBOUND STRUCTURE							
ABUTMENT 1	500	200	1000	7"	2"	11 3/8"	291° 22' 29"
PIER 4	1400	0	3000	7"	-2 1/2"	9 3/8"	288° 58' 51"
HINGE 1	700	200	1000	12"	+6"	10"	283° 12' 51"
PIER 5	1600	0	3000	7"	2 1/2"	9 3/8"	278° 33' 48"
PIER 8	2000	0	3000	7"	-3 1/2"	9 3/8"	247° 18' 40"
HINGE 2	550	200	1000	12"	+5 1/2"	10"	245° 17' 2"
PIER 12	1800	0	3000	7"	-3 1/2"	9 3/8"	236° 36' 07"
HINGE 3	600	200	1000	12"	+6	10"	241° 29' 36"
PIER 13	1600	0	3000	7"	2 1/2"	9 3/8"	250° 22' 48"
HINGE 4	650	200	1000	12"	5 1/2"	10"	278° 57' 10"
PIER 17	1700	0	3000	7"	+2"	9 3/8"	279° 36' 28"
HINGE 5	650	200	1000	12"	+5"	10"	304° 54' 34"
PIER 23	1700	0	3000	7"	-2"	9 3/8"	314° 26' 18"
ABUTMENT 2	600	200	1000	7"	-2 1/2"	11 3/8"	314° 36' 59"
OUTBOUND STRUCTURE							
ABUTMENT 1	500	200	1000	7"	2"	11 3/8"	287° 54' 43"
PIER 4	1600	0	3000	7"	-2 1/2"	9 3/8"	288° 28' 19"
HINGE 1	700	200	1000	12"	+6"	10"	282° 53' 54"
PIER 5	1700	0	3000	7"	2 1/2"	9 3/8"	278° 9' 6"
PIER 8	2000	0	3000	7"	-3 1/2"	9 3/8"	247° 11' 26"
HINGE 2	700	200	1000	12"	+5 1/2"	10"	245° 14' 33"
PIER 12	1700	0	3000	7"	-3 1/2"	9 3/8"	236° 43' 41"
HINGE 3	650	200	1000	12"	+6"	10"	241° 26' 48"
PIER 13	1600	0	3000	7"	2 1/2"	9 3/8"	250° 27' 16"
HINGE 4	650	200	1000	12"	5 1/2"	10"	278° 28' 01"
PIER 17	1500	0	3000	7"	+2"	9 3/8"	279° 31' 49"
HINGE 5	650	200	1000	12"	+5"	10"	305° 10' 23"
PIER 23	1400	0	3000	7"	-2"	9 3/8"	314° 58' 25"
ABUTMENT 2	600	200	1000	7"	-2 1/2"	11 3/8"	315° 01' 22"



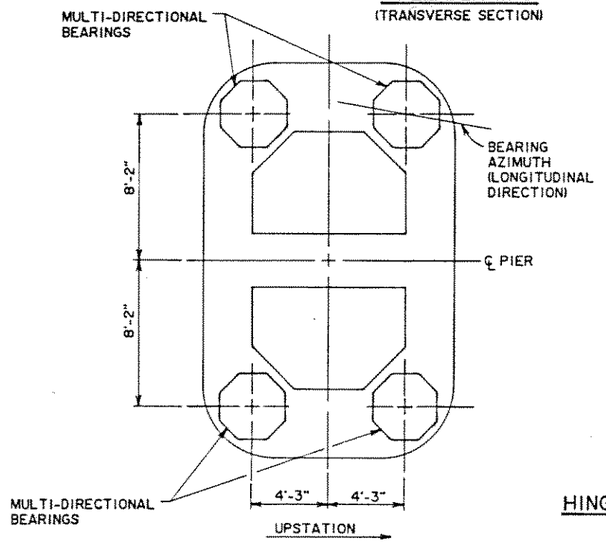
GUIDED BEARING
(TRANSVERSE SECTION)



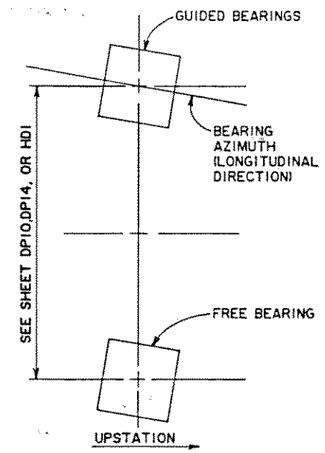
FREE BEARING
(TRANSVERSE SECTION)



INSTALLATION DISTANCE



PIER BEARINGS
(WHERE APPLICABLE)



HINGE AND ABUTMENT BEARINGS

NOTES:

1. ALL BEARINGS SHALL ALLOW A MINIMUM ROTATION OF 0.015 RADIANS.
2. THE HORIZONTAL AND VERTICAL CAPACITY GIVEN IN THE TABLE ARE FOR ONE BEARING AND THE ACTUAL CAPACITY OF THE BEARING PROVIDED SHALL BE EQUAL TO OR GREATER THAN THE VALUE GIVEN. THE LATERAL CAPACITY IS FOR THE TRANSVERSE DIRECTION ON THE UNIDIRECTIONAL GUIDED BEARINGS ONLY.
3. THE BEARINGS SHALL BE DESIGNED TO BE REPLACEABLE BY JACKING THE BRIDGE UP, REMOVING THE CONNECTING BOLTS AND EXTRACTING THE BEARING.
4. THE UPPER PINTLE SHALL BE CAST WITH THE SLIDING PIER SEGMENT OR GROUTED INTO THE PRECAST HINGE OR ABUTMENT SEGMENT AFTER THE SEGMENT HAS BEEN SET TO GRADE AND ELEVATION.
5. THE MASONRY PLATE SHALL BE GROUTED WITH NON-SHRINK GROUT TO THE BEARING SEAT AFTER THE BEARING HAS BEEN SET TO GRADE AND ELEVATION.
6. THE BEARING HEIGHTS GIVEN REPRESENT THE TOTAL HEIGHT FROM THE BASE OF THE MASONRY PLATE TO THE TOP OF THE SOLE PLATE AT THE CENTERLINE OF BEARING UNDER FULL DESIGN LOAD. THE CONTRACTOR WILL VERIFY THESE DIMENSIONS TO REFLECT THE HEIGHT OF THE BEARING ACTUALLY SUPPLIED. WHERE GUIDED AND MULTI-DIRECTIONAL BEARINGS ARE USED, THE HEIGHT IS GIVEN FOR THE GUIDED BEARING.
7. THE INSTALLATION DISTANCE, e, IS POSITIVE FOR THE CENTERLINE OF THE BEARING AND MASONRY PLATE UPSTATION OF THE CENTERLINE OF THE SOLE PLATE.
8. THE BEARING AZIMUTHS ARE GIVEN UPSTATION BASED FROM TRUE SOUTH.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

SURVEY PROFILE BY ____ DATE
DRAWN BY Z.AARAE
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
ORIGINAL PLAN
NOTE BOOK
No.

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2378 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION

DATE	REVISION
06/21/91	UPDATED DRAWING.
05/03/91	UPDATED DRAWING.
04/02/91	UPDATED DRAWING.
02/08/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

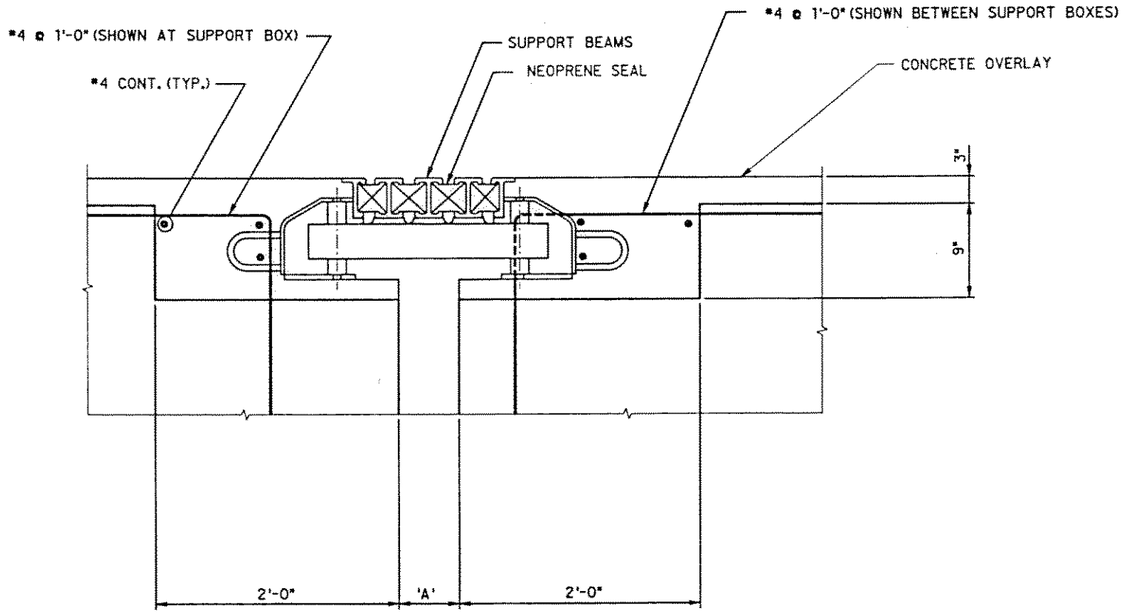
BEARING SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. BD1 OF SHEETS

202

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



CROSS SECTION

SCALE : NONE

		'A' MIN	'A' MAX	'A' @ 75°F	TOTAL MOVEMENT
INBOUND	ABUT. 1	6.3"	11.3"	7.3"	6.0"
	HINGE 1	3.0"	13.5"	4.1"	12.0"
	HINGE 2	2.0"	13.5"	3.1"	12.0"
	HINGE 3	3.3"	13.3"	3.7"	12.0"
	HINGE 4	3.9"	12.2"	4.7"	12.0"
	HINGE 5	2.8"	7.2"	3.3"	12.0"
	ABUT. 2	2.8"	7.2"	3.3"	6.0"
OUTBOUND	ABUT. 1	6.6"	11.6"	7.6"	6.0"
	HINGE 1	3.0"	13.5"	4.1"	12.0"
	HINGE 2	2.0"	13.5"	2.9"	12.0"
	HINGE 3	2.9"	12.9"	3.4"	12.0"
	HINGE 4	3.3"	11.7"	4.1"	12.0"
	HINGE 5	2.7"	7.1"	3.2"	12.0"
	ABUT. 2	2.9"	7.4"	3.3"	6.0"

NOTES:

1. THE DETAILS SHOWN INDICATE THE GENERAL DECK EXPANSION JOINT INSTALLATION REQUIREMENTS. THE EXACT DETAILS SHALL BE ADJUSTED TO SUIT THE RECOMMENDATIONS OF THE MANUFACTURER OF THE ACTUAL EXPANSION JOINT USED. THE CONTRACTOR SHALL VERIFY ALL INSTALLATION REQUIREMENTS AND SUBMIT SHOP DRAWINGS INDICATING THE ACTUAL INSTALLATION REQUIREMENTS TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. DECK EXPANSION JOINTS SHALL NOT BE INSTALLED UNTIL A MINIMUM OF 60 DAYS AFTER ALL POST-TENSIONING WORK HAS BEEN COMPLETED FOR ADJACENT FRAMES.
3. ASSUMED TEMPERATURE AT THE TIME OF JOINT INSTALLATION IS 75°F.
4. DECK EXPANSION JOINTS SHALL BE INSTALLED PERPENDICULAR TO SEGMENT CENTERLINE FOR HINGE LOCATIONS AND RADIAL TO THE BASELINE FOR ABUTMENT LOCATIONS. SEE SHEET EJ2 FOR CONDITION AT BRIDGE CONCRETE RAILING.
5. THE 'A' MINIMUM AND 'A' MAXIMUM VALUES ARE THE EXTREMES EXPECTED AFTER THE JOINT HAS BEEN SET.

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2575-S
HAWAII, U.S.A.

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DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/01/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

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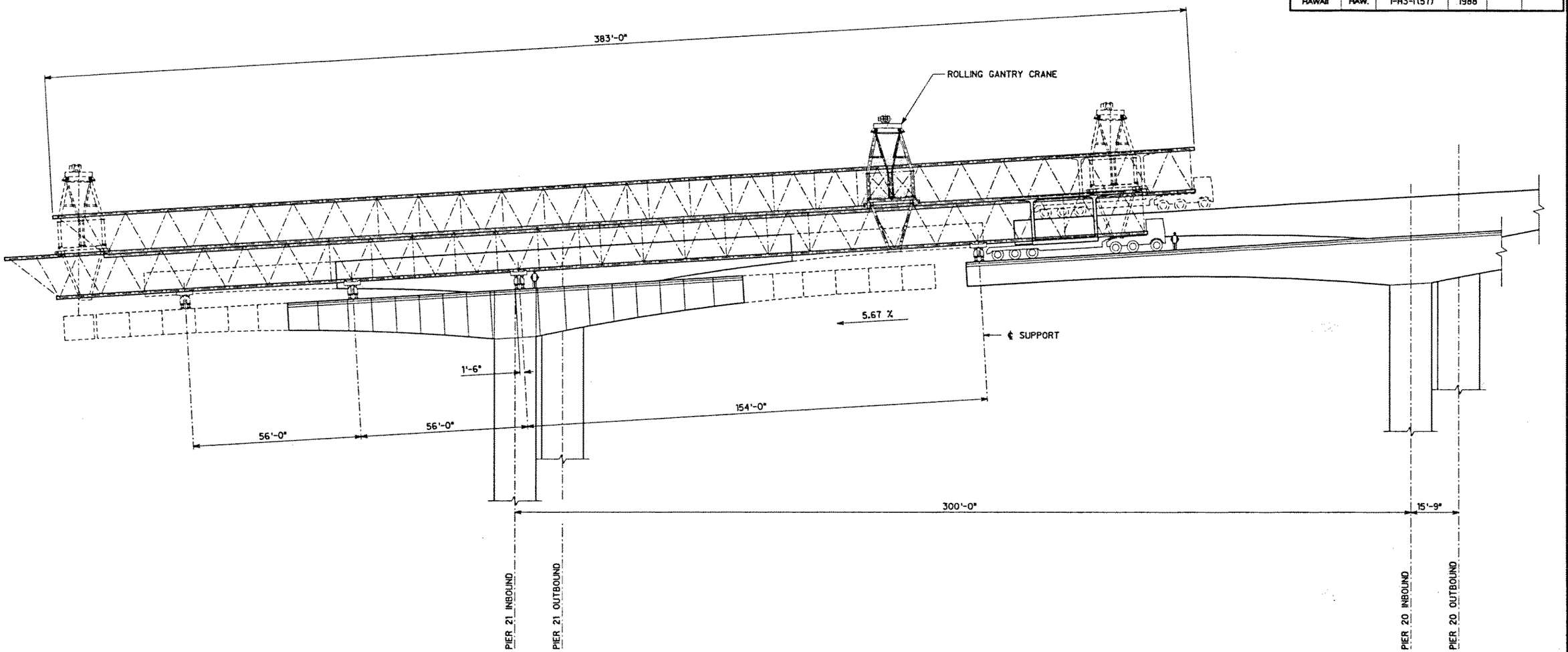
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXPANSION JOINT SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. EJ1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



ORIGINAL PLAN

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2378
HAWAII, U.S.A.

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DATE	REVISION

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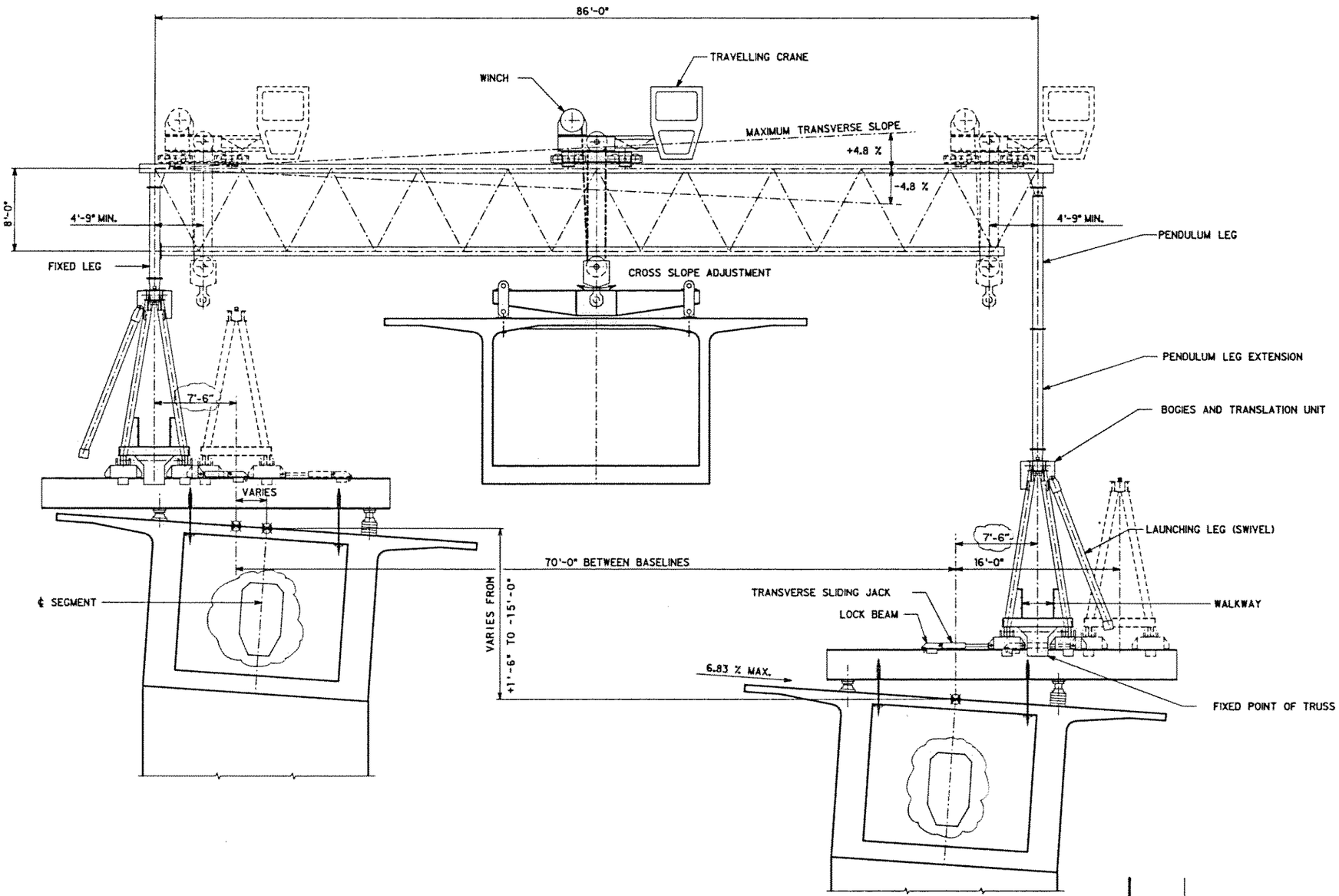
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ERECTION SCHEMATIC I

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. CM1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE SIDE | No.

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
08/23/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

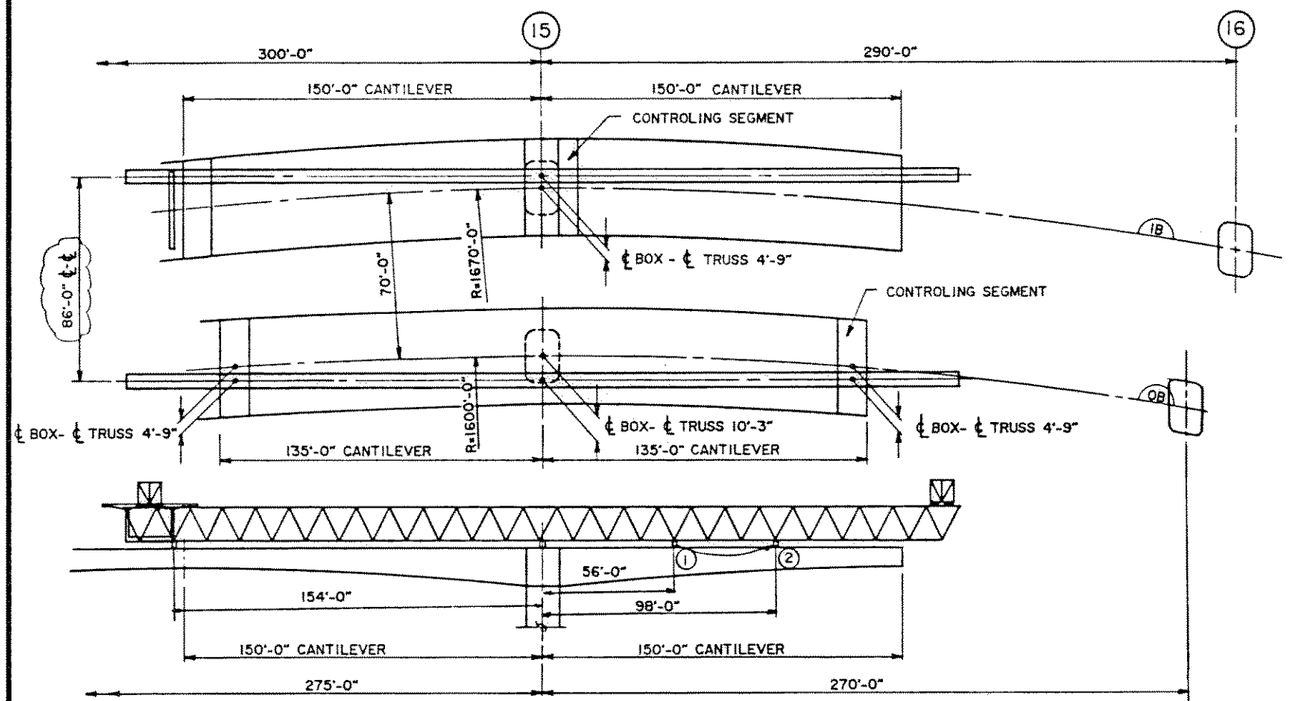
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ERECTION SCHEMATIC II

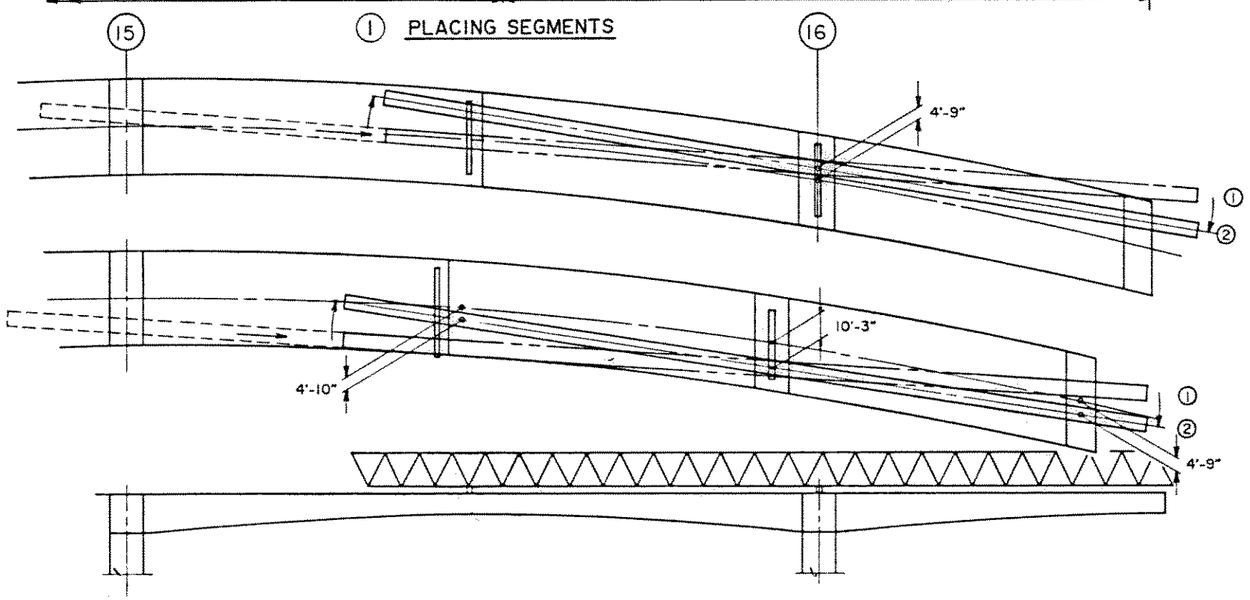
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. CM2 OF SHEETS

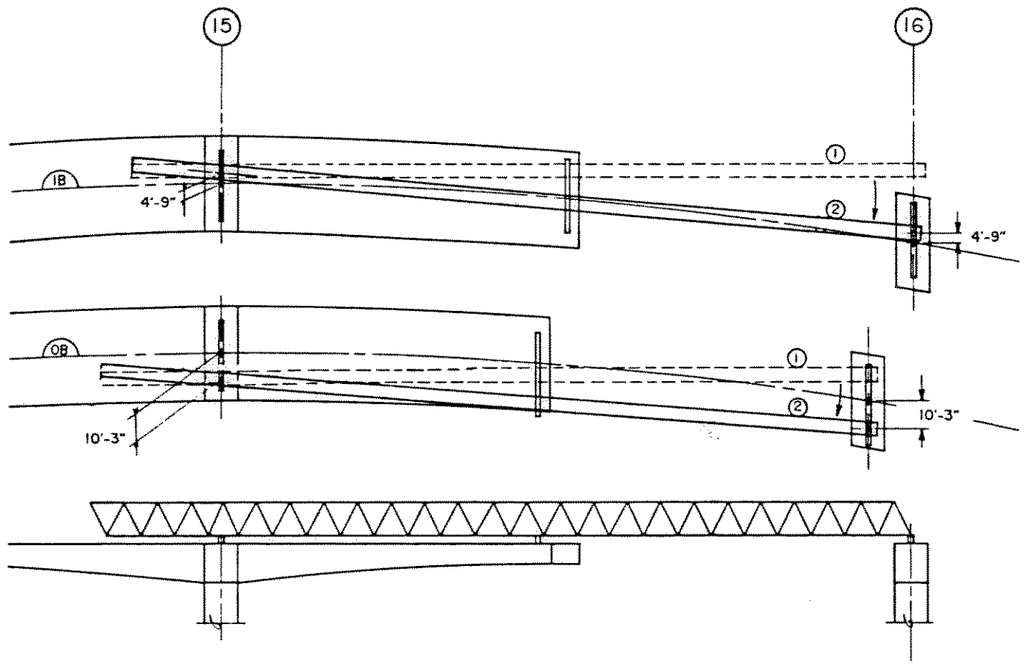
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



① PLACING SEGMENTS



③ LAUNCHING TRUSSES - PHASE II



② LAUNCHING TRUSSES - PHASE I

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

DATE 04/88

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DATE	REVISION
08/23/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

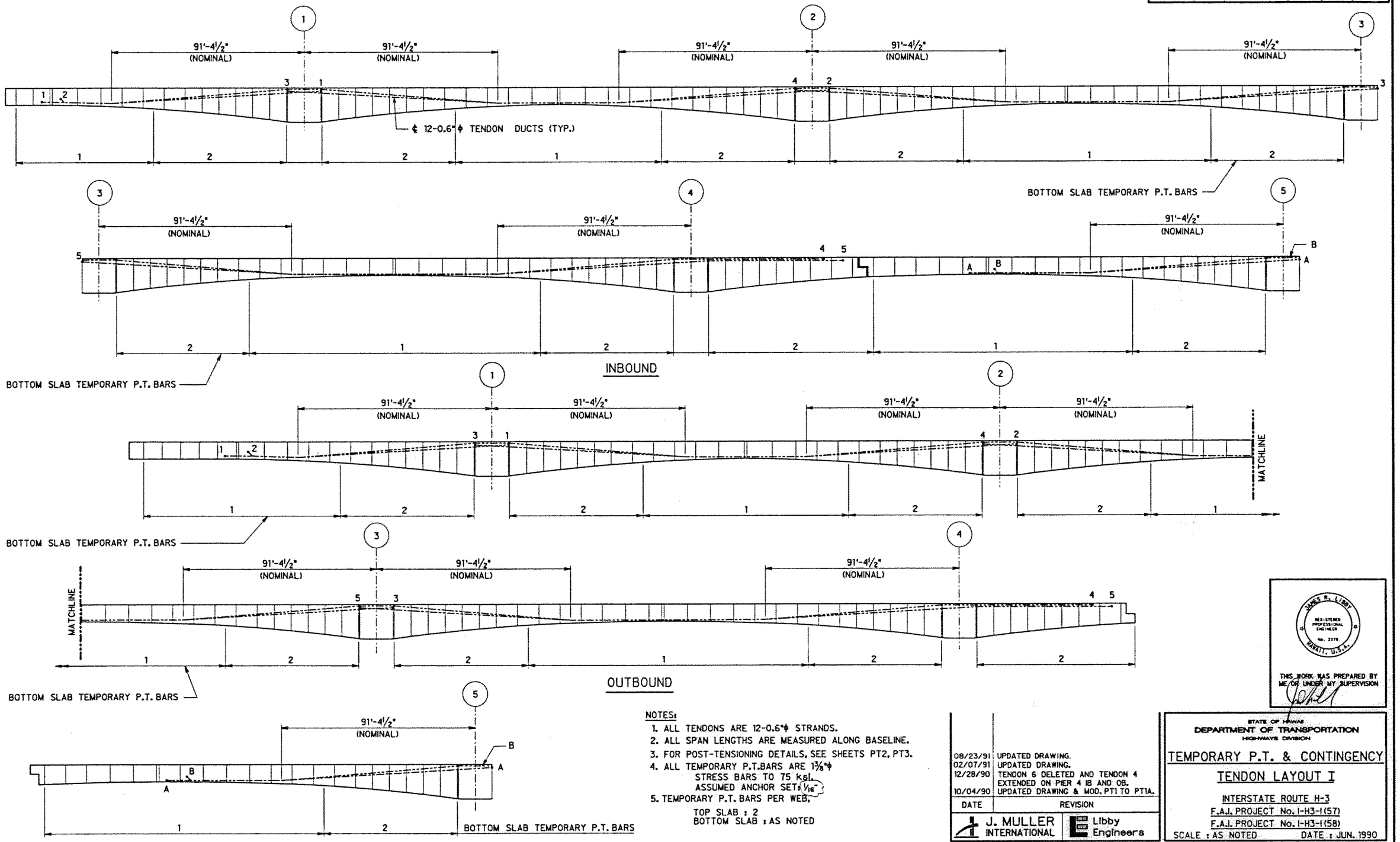
ERECTION SCHEMATIC III

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : NO SCALE DATE : APR. 1990

SHEET No. CM3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTES:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 Ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.
12/28/90	TENDON 6 DELETED AND TENDON 4 EXTENDED ON PIER 4 IB AND OB.
10/04/90	UPDATED DRAWING & MOD. PT1 TO PT1A.

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY, REGISTERED PROFESSIONAL ENGINEER, No. 2378, HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY

TENDON LAYOUT I

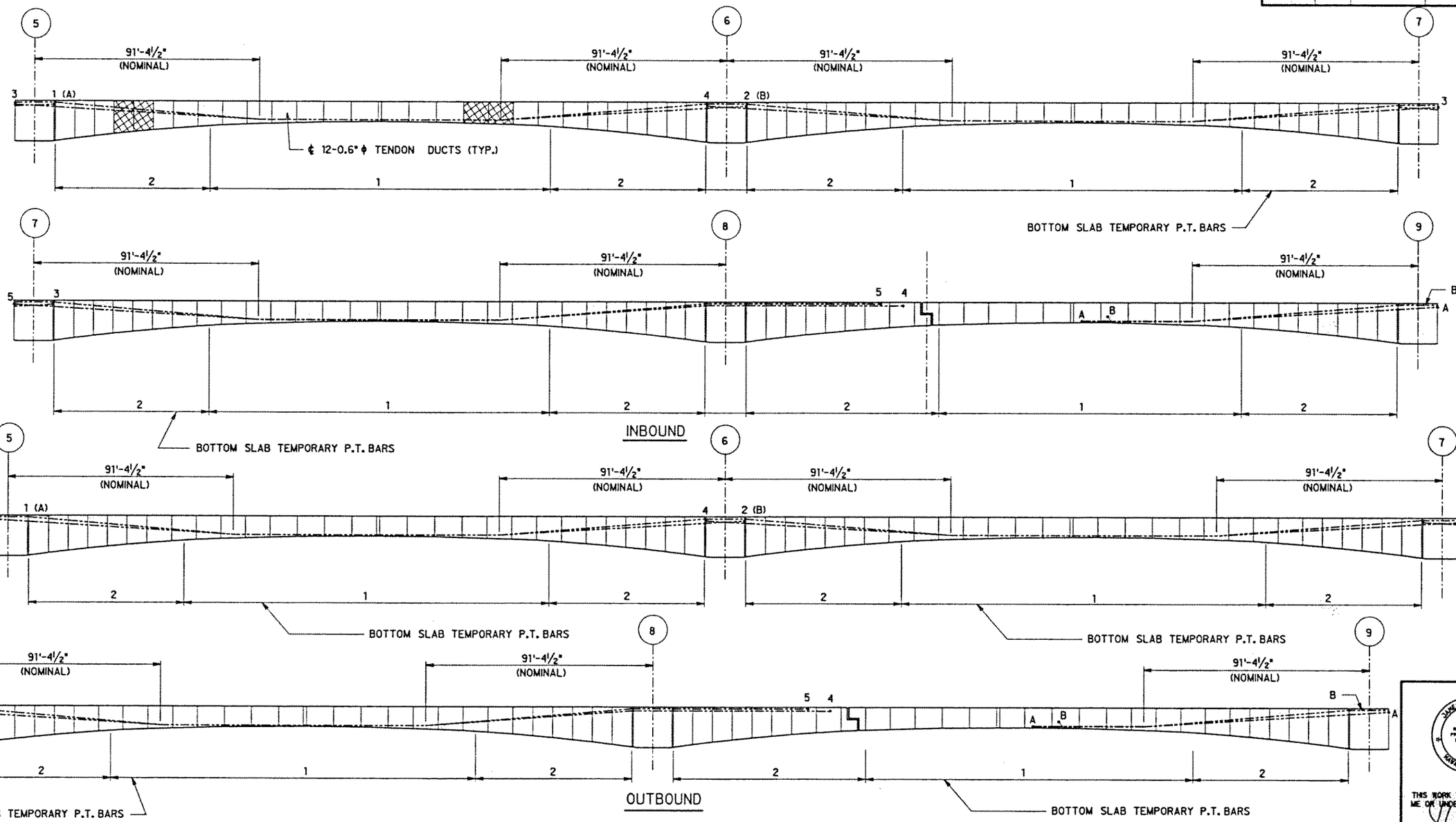
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PT1A OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTE:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
07/01/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.

J. MULLER INTERNATIONAL

Libby Engineers

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY

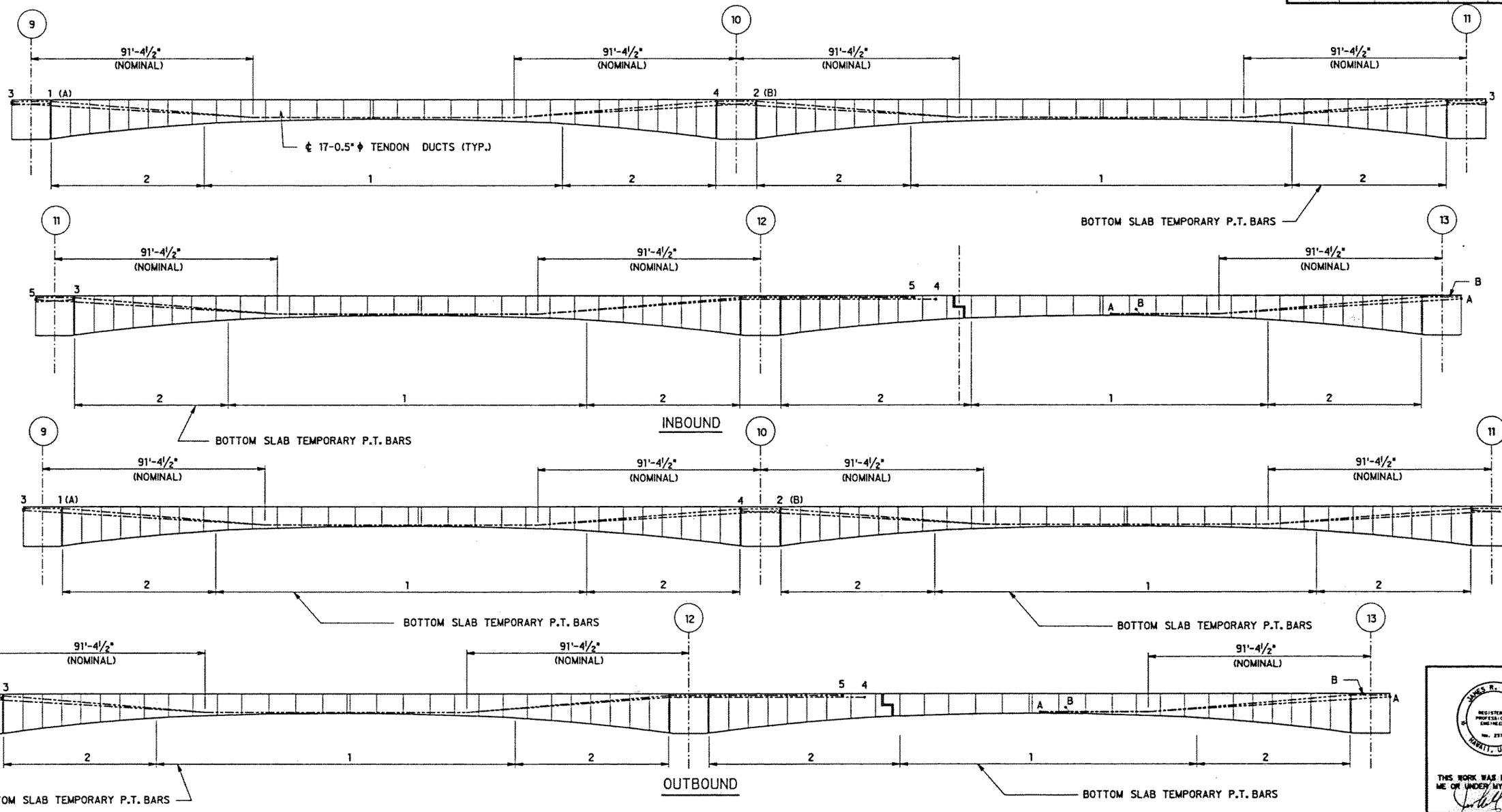
TENDON LAYOUT II

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : SEP. 1990

SHEET No. PT1B OF SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTE:

1. ALL TENDONS ARE 17-0.5"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

ORIGINAL PLAN

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

DATE	REVISION

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2575
HAWAII, U.S.A.

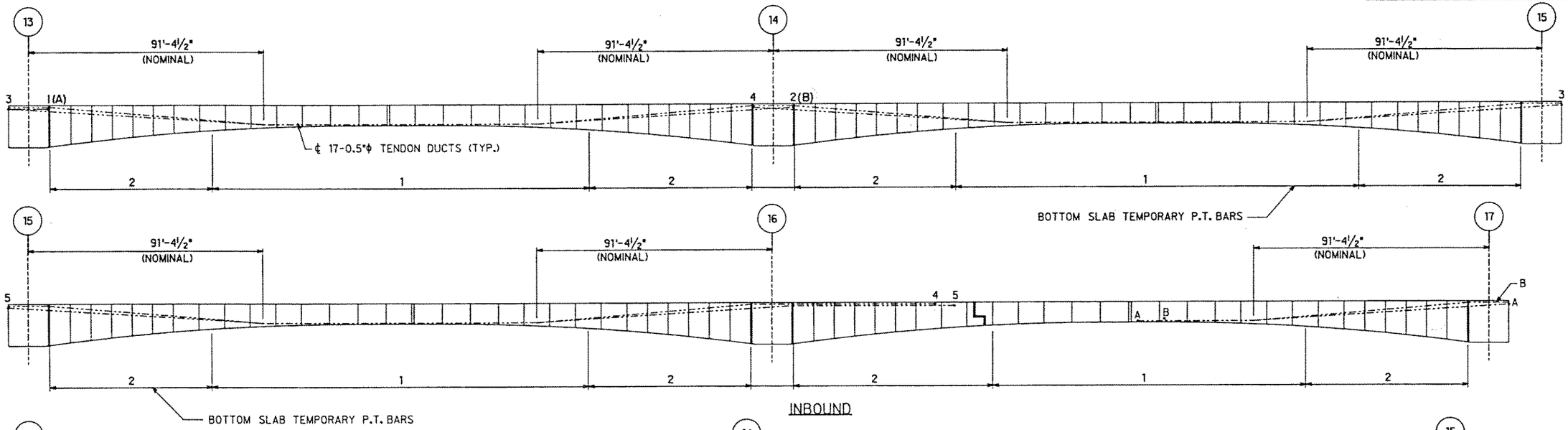
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

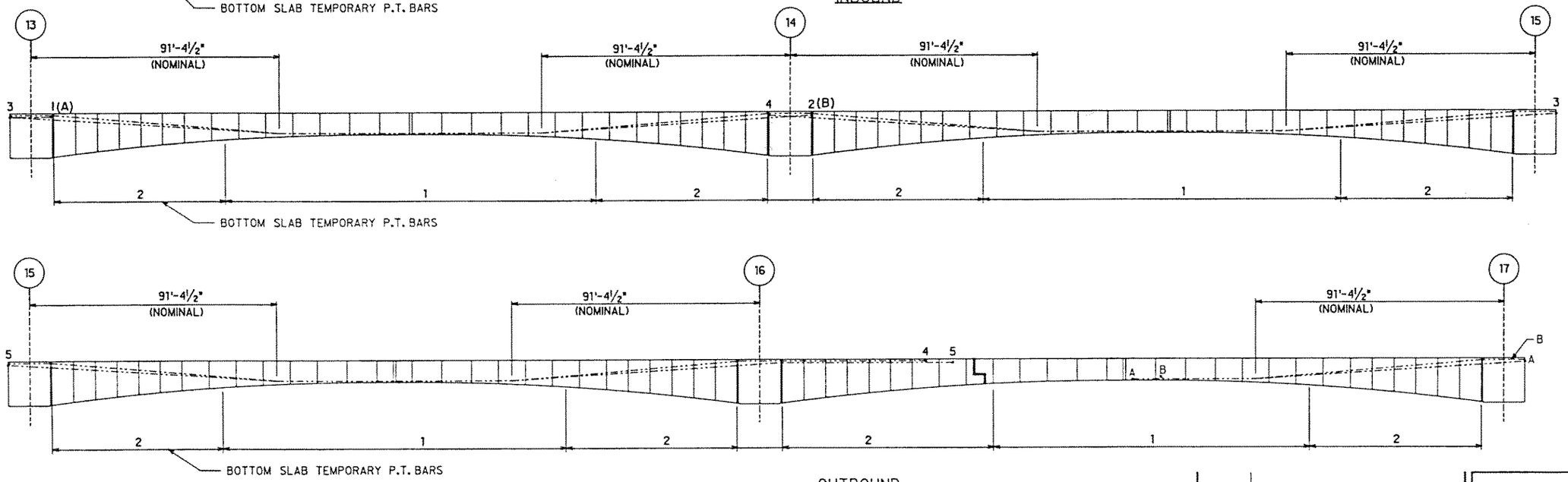
TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT III

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JAN. 1991
SHEET No. PT1C OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



INBOUND



OUTBOUND

NOTES:
1. ALL TENDONS ARE 17-0.5"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2 AND PT3.
4. ALL TEMPORARY P.T. BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 KSI
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB
   TOP SLAB: 2
   BOTTOM SLAB: AS NOTED

DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

JAMES R. LIBBY REGISTERED PROFESSIONAL ENGINEER No. 2375-S HAWAII, U.S.A.

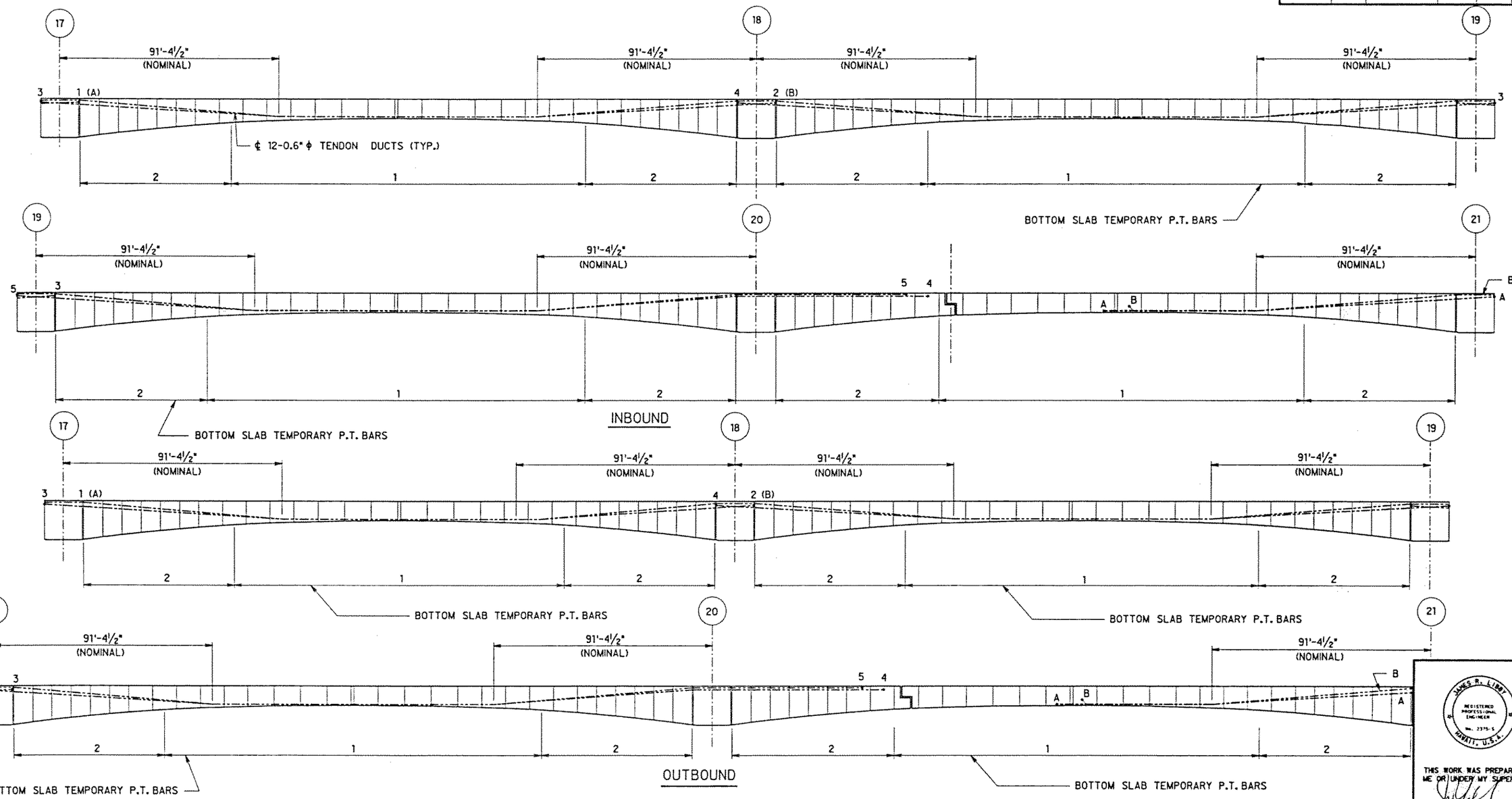
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT IV

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : APRIL 1991
SHEET NO. PT1D OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTE:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB,
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

DATE	REVISION
08/23/91	UPDATED DRAWING.
04/09/91	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT V

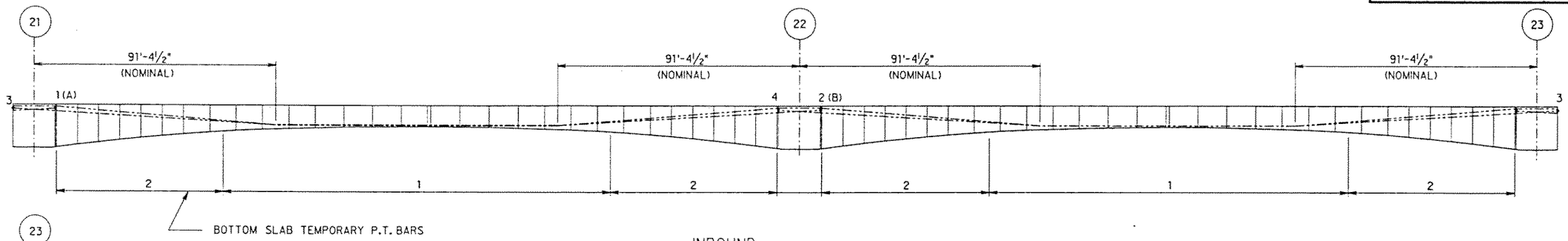
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : MAR. 1991

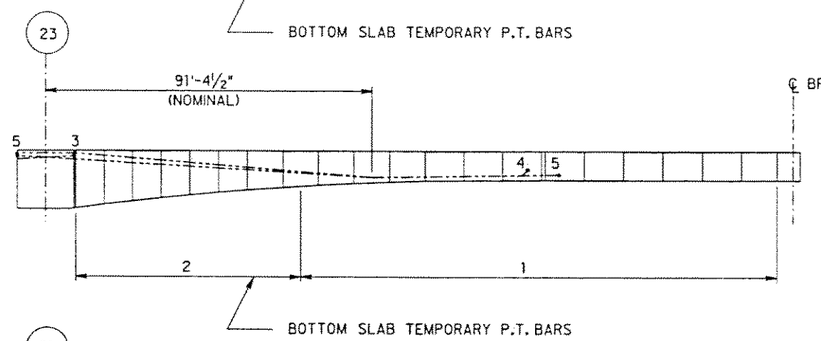
SHEET No. PT1E OF SHEETS

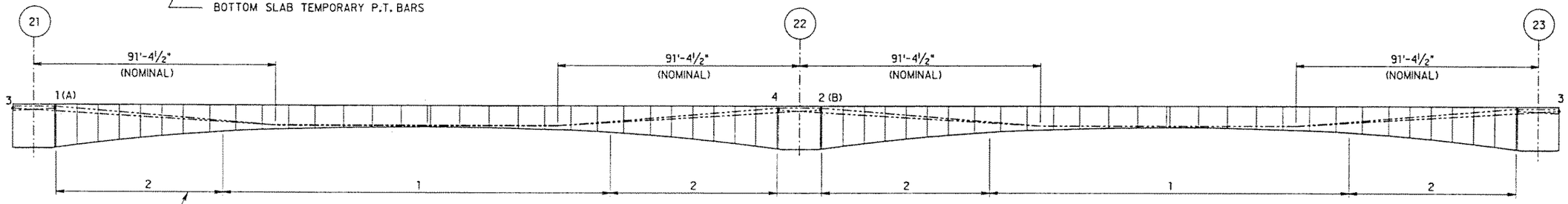
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

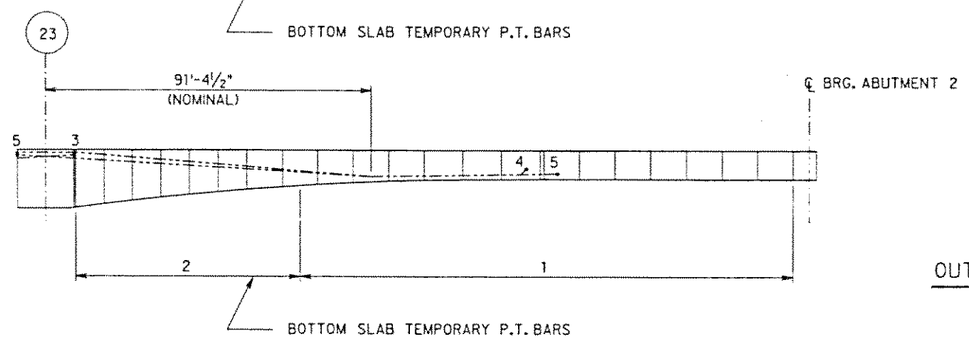
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



INBOUND







OUTBOUND

NOTES:

1. ALL TENDONS ARE 12-0.6"ϕ STRANDS.
2. ALL SPAN LENGTHS ARE MEASURED ALONG BASELINE.
3. FOR POST-TENSIONING DETAILS, SEE SHEETS PT2, PT3.
4. ALL TEMPORARY P.T.BARS ARE 1⅜"ϕ
   STRESS BARS TO 75 ksi.
   ASSUMED ANCHOR SET: 1/16"
5. TEMPORARY P.T. BARS PER WEB.
   TOP SLAB : 2
   BOTTOM SLAB : AS NOTED

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

ORIGINAL PLAN
NOTE BOX
NO.

DATE	REVISION

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JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

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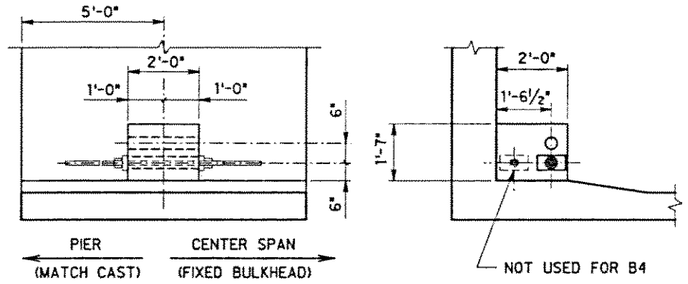
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY P.T. & CONTINGENCY TENDON LAYOUT VI

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1991

SHEET No. PT1F OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

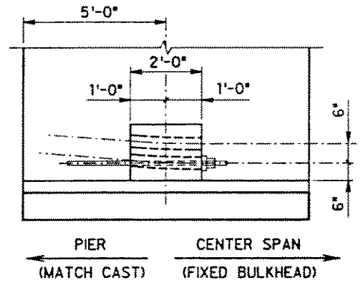


SIDE VIEW

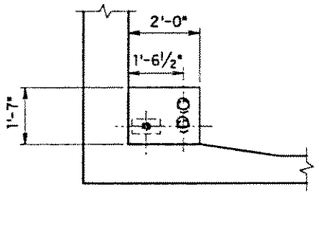
FRONT VIEW

BLOCK B3, B4

SCALE : ½" = 1'-0"



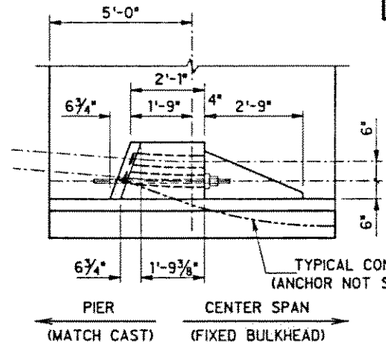
SIDE VIEW



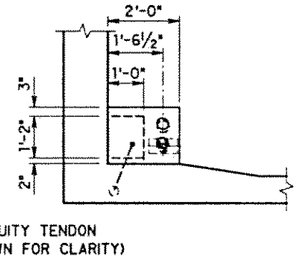
FRONT VIEW

BLOCK B5

SCALE : ½" = 1'-0"



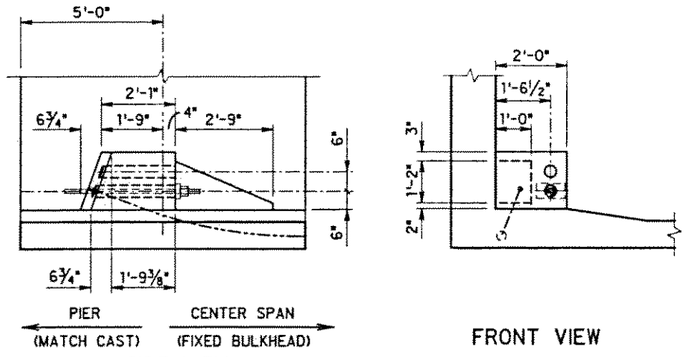
SIDE VIEW



FRONT VIEW

BLOCK C3

SCALE : ½" = 1'-0"

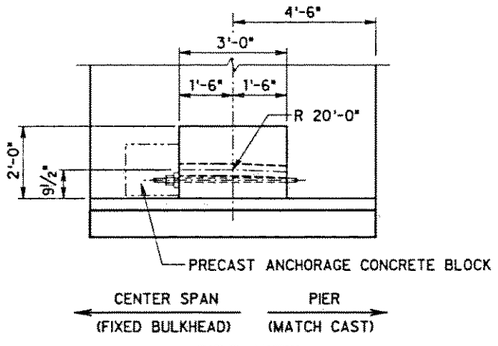


SIDE VIEW

FRONT VIEW

BLOCK C4

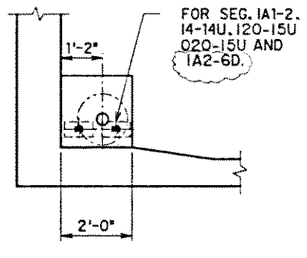
SCALE : ½" = 1'-0"



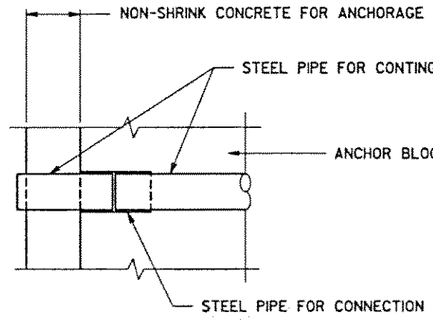
SIDE VIEW

BLOCK E1

SCALE : ½" = 1'-0"

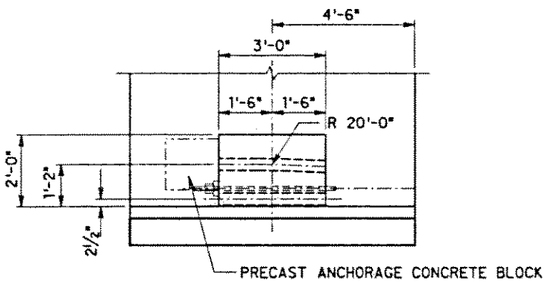


FRONT VIEW



DUCT CONNECTION DETAIL

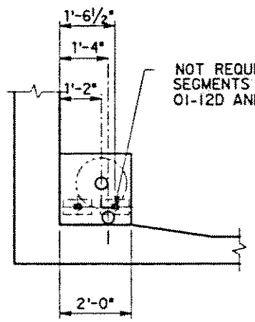
SCALE : 1½" = 1'-0"



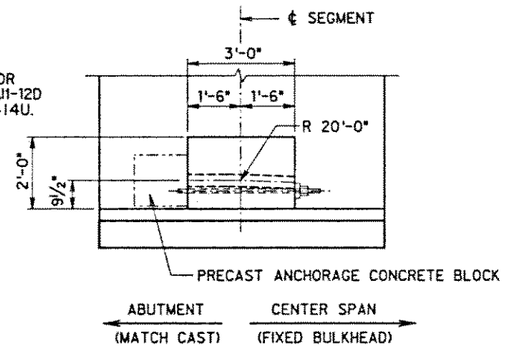
SIDE VIEW

BLOCK E2

SCALE : ½" = 1'-0"



FRONT VIEW



SIDE VIEW AT SEG. IA1-2, OA1-5

BLOCK E1

SCALE : ½" = 1'-0"

NOTE : FOR LOCATION OF TENDON ANCHORAGE AND P.T. BARS SEE SHEET No. TA1

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375
HAWAII, U.S.A.

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DATE	REVISION
08/23/91	UPDATED DRAWING.
07/02/91	UPDATED DRAWING.
04/09/91	UPDATED DRAWING.
04/02/91	UPDATED DRAWING.
02/07/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.
07/25/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONTINGENCY TENDON DETAILS
BOTTOM BLOCKS

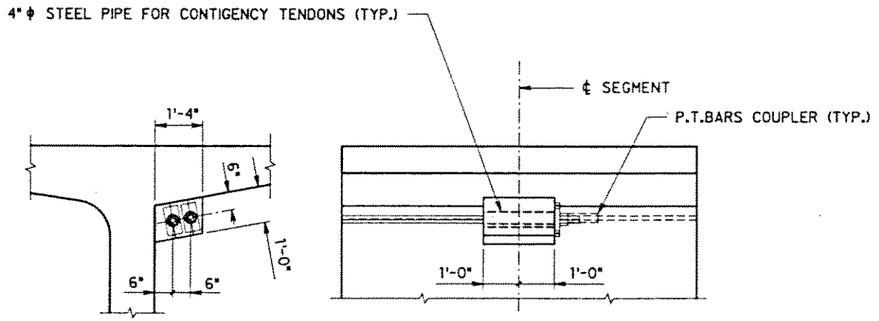
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PT2 OF SHEETS

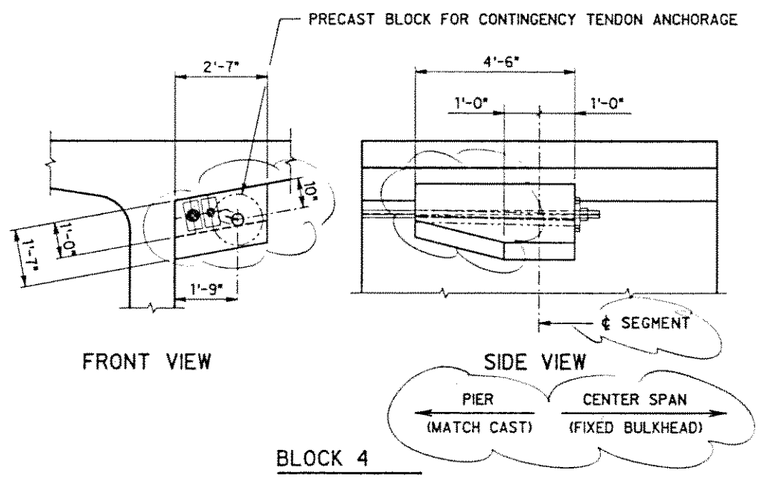
ORIGINAL PLAN | SURVEY PLOTTED BY ____ DATE | DRAWN BY ____ | TRACED BY ____ | DESIGNED BY ____ | QUANTITIES BY ____ | CHECKED BY ____ | NOTE BOOK ____ pg. ____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



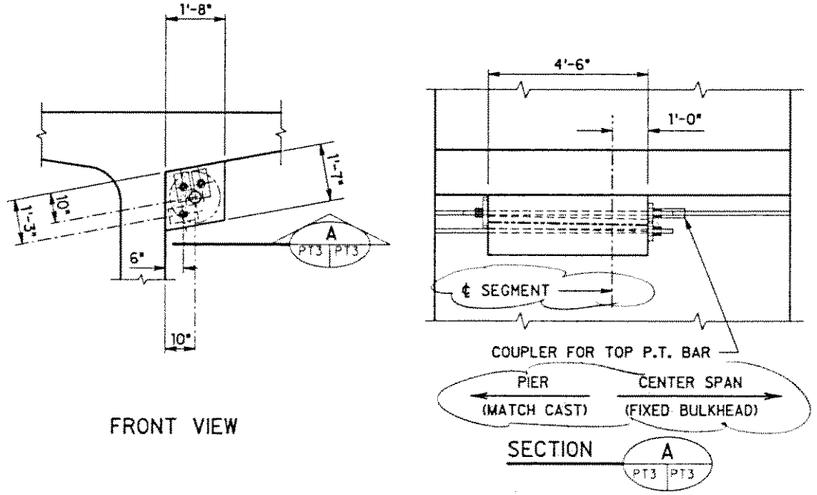
BLOCK 3

SCALE : ½" = 1'-0"



BLOCK 4

SCALE : ½" = 1'-0"



BLOCK 5

SCALE : ½" = 1'-0"

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

NOTE BOOK | No.

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DATE	REVISION
07/25/90	REV. BLOCKS 3, 4, 5

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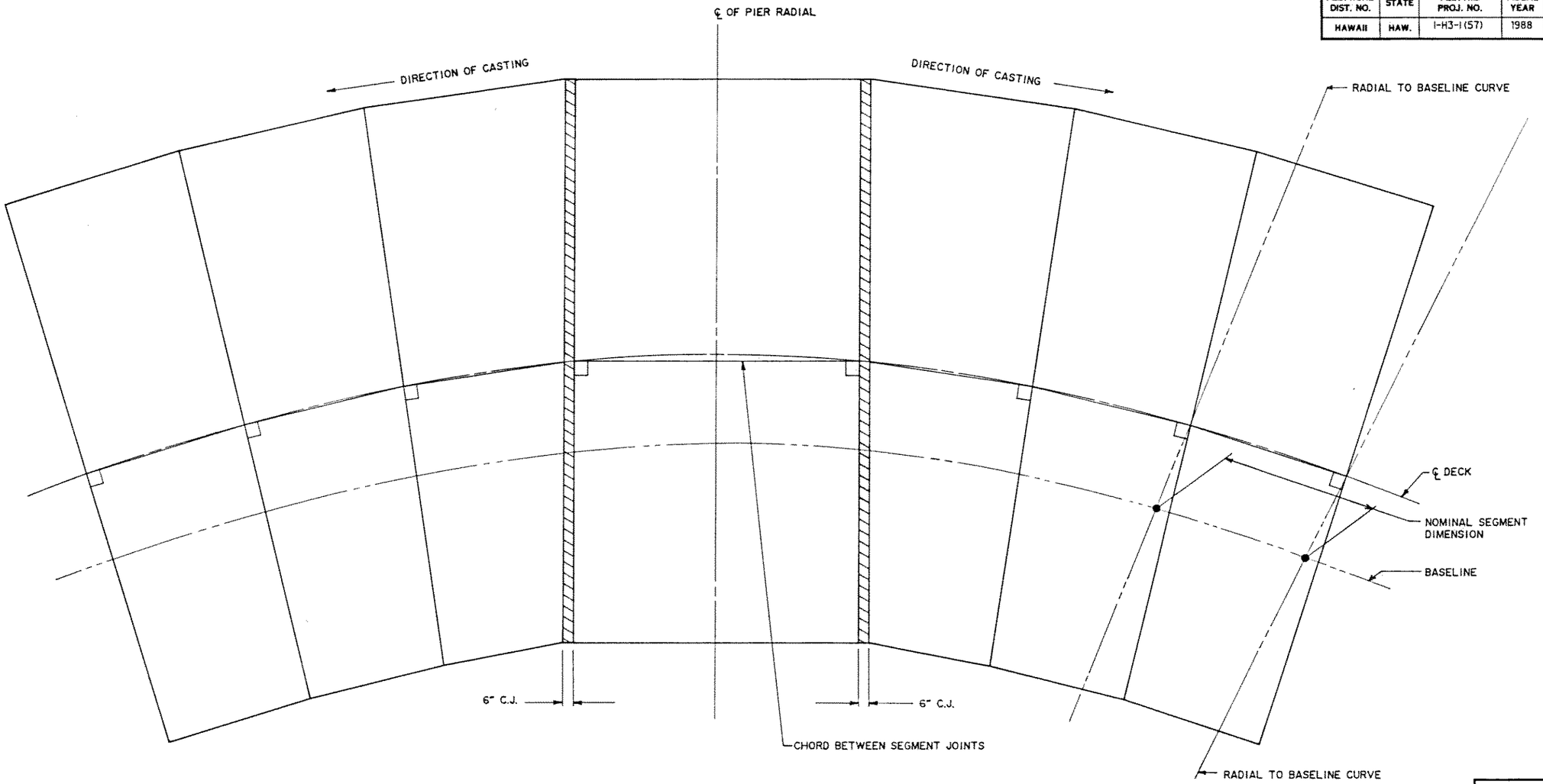
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONTINGENCY TENDON LAYOUT
TOP BLOCKS

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. PT3 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



NOTE:
BULKHEAD FACES ARE PERPENDICULAR TO THE CHORD

ORIGINAL PLAN

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

JAMES H. LIBBY REGISTERED PROFESSIONAL ENGINEER HAWAII U.S.A.

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DATE	REVISION

J. MULLER INTERNATIONAL | Libby Engineers

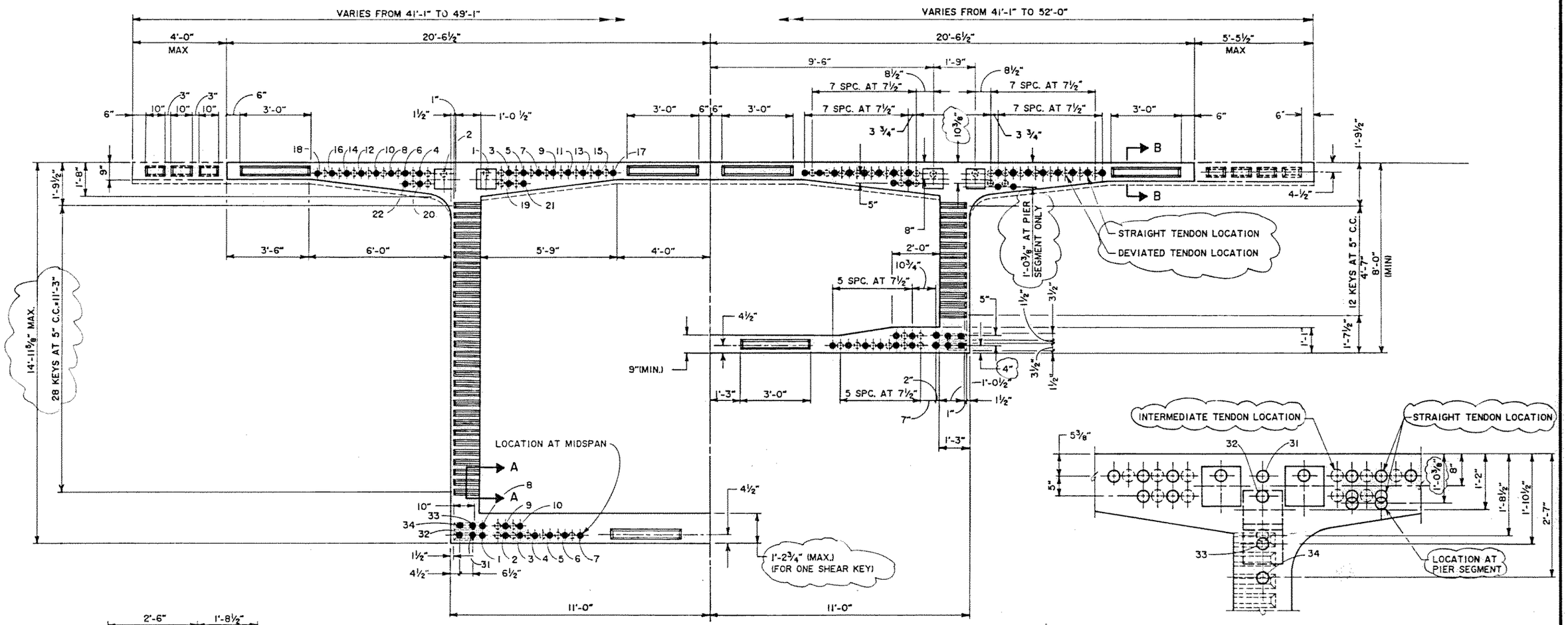
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

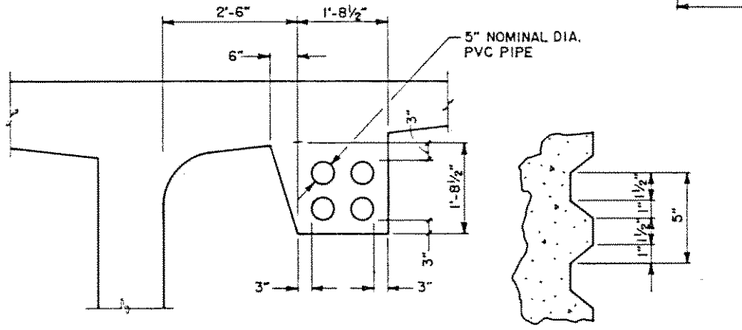
HORIZONTAL CURVE TREATMENT

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. G1 OF SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		

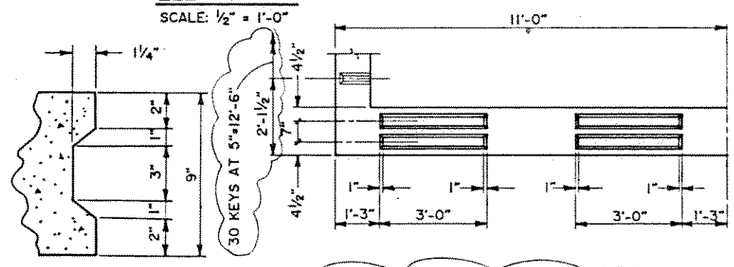




OUTBOUND WING DETAIL
SCALE: ¾" = 1'-0"

SECTION A
SCALE: 3'-0"= 1"

ELEVATION
SCALE: ½" = 1'-0"



SECTION B
SCALE: 3'-0"= 1"

BOTTOM SLAB DETAIL AT FLOATING BULKHEAD
SCALE: ½" = 1'-0"

PARTIAL DETAIL AT HINGE CANTILEVER
SCALE: 1"=1'-0"

NOTE: FOR DUCT HOLES IN WEB OF ABUTMENT AND EXPANSION JOINTS SPAN, SEE DETAIL SHEET TA7, HD3,6.

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DATE	REVISION
9/04/90	UPDATED DRAWING.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BULKHEAD DIMENSIONS

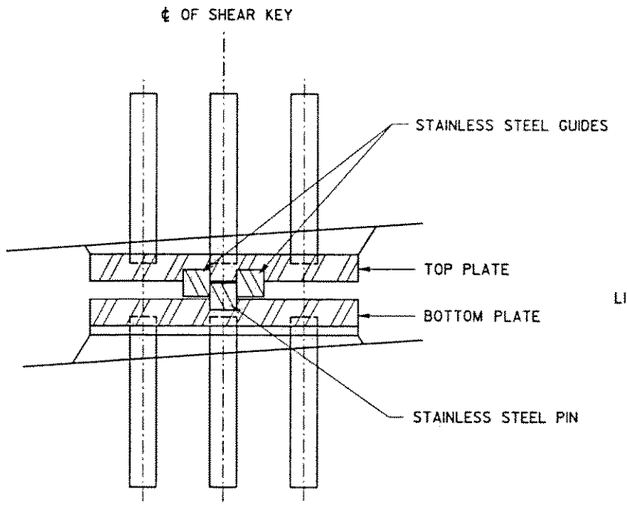
INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)

SCALE : AS NOTED DATE : JUN. 1990

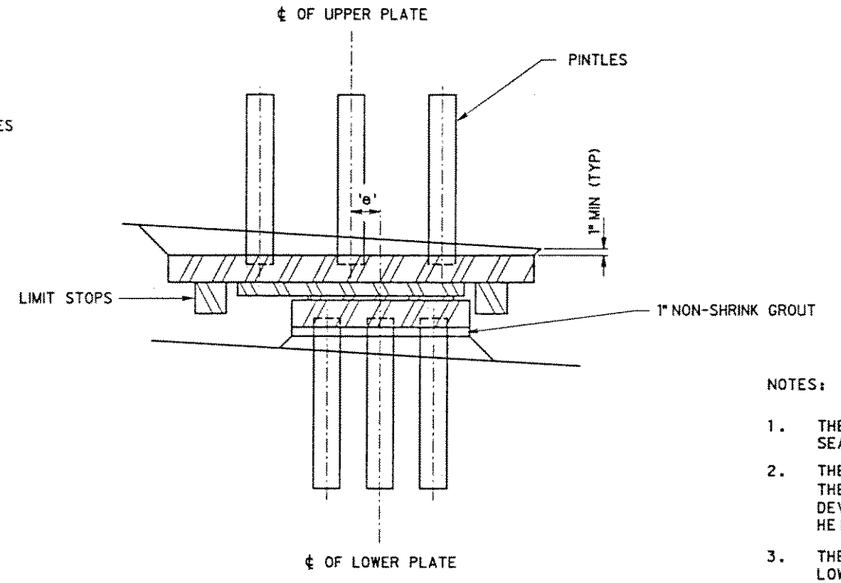
SHEET No. SF1 OF SHEETS

ORIGINAL DRAWING FOR | SURVEY PLOTTED BY | DRAWN BY D. BRANT | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE 01/90 | NOTE BOOK | No.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(57)	1988		



TRANSVERSE ELEVATION
SCALE: NONE



LONGITUDINAL ELEVATION
SCALE: NONE

	LOCATION	LATERAL CAPACITY	TOTAL MOVEMENT	HEIGHT	INSTALLATION DISTANCE 'e'	AZIMUTH
INBOUND	PIER 4	1000 KIPS	7"	8"	-2½"	292°-33'-36"
	PIER 5	1000 KIPS	7"	8"	+2½"	270°-36'-7"
	PIER 8	1000 KIPS	7"	8"	-3½"	255°-16'-22"
	PIER 12	1000 KIPS	7"	8"	-3½"	234°-03'-54"
	PIER 13	1000 KIPS	7"	8"	+2½"	250°-22'-48"
	PIER 17	1000 KIPS	7"	8"	+2"	288°-43'-41"
	PIER 23	1000 KIPS	7"	8"	-2"	314°-26'-18"
OUTBOUND	PIER 4	1000 KIPS	7"	8"	-2½"	292°-23'-5"
	PIER 5	1000 KIPS	7"	8"	+2½"	270°-39'-54"
	PIER 8	1000 KIPS	7"	8"	-3½"	254°-40'-40"
	PIER 12	1000 KIPS	7"	8"	-3½"	234°-0'-57"
	PIER 13	1000 KIPS	7"	8"	+2½"	250°-27'-16"
	PIER 17	1000 KIPS	7"	8"	+2"	288°-41'-54"
	PIER 23	1000 KIPS	7"	8"	-2"	314°-58'-25"

NOTES:

1. THE LOWER PLATE SHALL BE GROUTED WITH NON-SHRINK GROUT TO THE SHEAR KEY SEAT AFTER THE SHEAR KEY HAS BEEN SET TO GRADE AND ELEVATION.
2. THE BEARING HEIGHTS GIVEN REPRESENT THE TOTAL HEIGHT FROM THE BASE OF THE LOWER PLATE TO THE TOP OF THE UPPER PLATE AT THE CENTERLINE OF DEVICE. THE CONTRACTOR WILL VERIFY THESE DIMENSIONS TO REFLECT THE HEIGHT OF THE SHEAR KEY ACTUALLY SUPPLIED.
3. THE INSTALLATION DISTANCE, e, IS POSITIVE FOR THE CENTERLINE OF THE LOWER PLATE UP STATION OF THE CENTERLINE OF THE UPPER PLATE.
4. THE SHEAR KEY SHALL BE PLACED LEVEL AND ORIENTED AT THE GIVEN AZIMUTH. THE AZIMUTHS ARE GIVEN UP STATION BASED FROM TRUE SOUTH.
5. THE SHEAR KEY SHALL HAVE LONGITUDINAL LIMIT STOPS WITH A CAPACITY OF 20% OF THE TOTAL DEAD LOAD REACTION ON THE PIER.
6. THE SHEAR KEYS SHALL BE DESIGNED TO BE REPLACEABLE BY JACKING THE BRIDGE UP, PRYING THE UPPER AND LOWER PLATES FROM THE PINTLES AND EXTRACTING THE SHEAR KEY.

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

JAMES R. LIBBY
REGISTERED PROFESSIONAL ENGINEER
No. 2375-S
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

DATE	REVISION
06/21/91	UPDATED DRAWING
05/03/91	UPDATED DRAWING.
04/01/91	UPDATED DRAWING.
02/06/91	UPDATED DRAWING.
10/04/90	UPDATED DRAWING.

J. MULLER INTERNATIONAL | Libby Engineers

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SHEAR KEY SCHEDULE

INTERSTATE ROUTE H-3
F.A.I. PROJECT No. I-H3-1(57)
F.A.I. PROJECT No. I-H3-1(58)
SCALE : AS NOTED DATE : JUN. 1990

SHEET No. SK1 OF SHEETS