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2	INDEX TO DRAWINGS AND ESTIMATED QUANTITIES
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CONTINUED ON NEXT SHEET

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX OF DRAWINGS
RAMP "EA" & "IW"

AIRPORT INTERCHANGE
F. A. I. PROJ. NO. I-HI-1 (145) 16

SCALE: DATE JULY 1976

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PRINTED ON NO. 1000H CLEARPRINT

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ESTIMATED QUANTITIES RAMP "IW"

ITEM NO.	ITEM	UNIT	QUANTITIES
206.60	STRUCTURAL EXCAVATION FOR BRIDGES	CU. YD.	2,706 C.Y.
503.070	CONCRETE IN BRIDGES (EXCEPT FOOTINGS)	LUMP SUM	(4,783 C.Y.)
503.072	CONCRETE IN BRIDGE FOOTINGS	LUMP SUM	(505 C.Y.)
507.50	CONCRETE BRIDGE RAILING	LIN. FT.	2,503 L.F.
602.010	REINFORCING STEEL IN BRIDGE	LUMP SUM	(1,866,700 Lbs.)
634.01	EXPLORATORY DRILLING AT STRUCTURE FOOTINGS	LIN. FT.	30 L.F.
634.02	EXPLORATORY EXCAVATION AT STRUCTURE FTGS.	FA	

ESTIMATED QUANTITIES RAMP "EA"

ITEM NO.	ITEM	UNIT	QUANTITIES
206.60	STRUCTURAL EXCAVATION FOR BRIDGES	CU. YD.	3,240 C.Y.
503.070	CONCRETE IN BRIDGES (EXCEPT FOOTINGS)	LUMP SUM	(7740 C.Y.)
503.072	CONCRETE IN BRIDGE FOOTINGS	LUMP SUM	(1,560 C.Y.)
507.50	CONCRETE BRIDGE RAILING	LIN. FT.	4,890 L.F.
602.010	REINFORCING STEEL IN BRIDGE	LUMP SUM	(2,772,000 Lbs.)
634.01	EXPLORATORY DRILLING AT STRUCTURE FOOTING	LIN. FT.	30 L.F.
634.02	EXPLORATORY EXCAVATION AT STRUCTURE FTGS.	FA	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	14	136

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INDEX OF DRAWINGS AND ESTIMATED QUANTITIES RAMP "EA" & "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16

SCALE: DATE JULY 1976

SHEET NO. 2 OF 124 SHEETS

ORIGINAL PLAN
NOTE BOOK
No.

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

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	15	136

GENERAL NOTES

DESIGN SPECIFICATION AASHTO
Standard specification for Highway bridges (11th Edition)

DESIGN LOADS: HS-20-44 or Interstate loading

DESIGN STRESSES:
Reinforced concrete beams and slabs. See AASHTO specs. and special provisions unless otherwise noted

Class A	Other concrete - see standard provisions
f'c = 3,000 psi	f'c = 4,000 psi
fc = 1,200 psi	fc = 1,600 psi
n = 10	n = 8

fs = ASTM A615 - See Standard Specifications.

MATERIALS:

1. All column concrete - shall be 4,000 psi see plans. for location
2. All other concrete shall be class A unless otherwise noted on plans
3. Concrete clear cover for reinforcing bars shall be as follows, unless otherwise noted.
   a. 1½" for stirrups on side of beams
   b. 2½" to main reinforcing of pier caps
   c. for column main reinforcing - see column sections
   d. 2" for formed walls
   e. 3" for footings.
   f. 1½" for slabs.
4. All reinforcing steel to be ASTM. designation A615 grade 40 & grade 60. See plans for location of grade 60 steel
5. All elastomeric bearing pad shall be 60 hardness pads
6. All structural steel shall be ASTM A36 steel and galvanized unless noted otherwise

CONSTRUCTION METHODS:

1. See Standard Specification 1976, and Special Provisions
2. Column footings shall be excavated & poured neat against undisturbed ground. In case of over excavation, space between footing and ground shall be filled with concrete at the contractors expense and as directed by the Engineer. The minimum quality of the fill concrete shall be class D
3. In general, top of concrete deck of structure shall be constructed to follow the finish roadway vertical and horizontal curves & grades.
4. Obtain camber by forming and shoring concrete surfaces above profile grades amount shown in camber diagram and as indicated on detailed drawings.
5. Except as otherwise noted, all vertical dimensions are measured plumb.
6. For concrete finish - See Standard Specifications
7. For location of rail lighting - see highway lighting drawings. Rail light mounting shall be as per manufacture's recommendation. Exact method shall be approved by the Engineer.

CONSTRUCTION METHODS (Cont.)

GENERAL:

1. All items noted incidental will not be paid for separately
2. The contractor shall verify the locations of all existing utility lines and notify the respective owners before commencing with work
3. The following items shall be considered as incidental to concrete.
   a. Anchor bolts, nuts & PTs for rail lighting
   b. Expansion Hinged Bearing assembly
   c. 2- angle rolled sections deck expansion joint protective nosing
   d. Deck drain grate & frame assemblage, drain pipes & downspout
4. Exact location of bars shall be arranged so that no interference will occur between vertical column reinforcement and bottom pier cap horizontal reinforcement.
5. Refer to utility plans for various additional conduits in deck and pier caps.
6. The contractor shall furnish shop placement and detail drawings for all structural steel work including frame & grating assemblage of each drain

REFERENCE:

1. Refer to Standard Detailed Drawing for additional box girder details not covered by drawings.

SYMBOLS AND ABBREVIATION

- (A/8) Detail or section designation / Sht. no. detail as draw.
- (1A) Pier number
- F-1 Footing type
- G-1 Girder numbers
- Boring location & designation
- Deck drain
- ○ Box girder drain & vents.
- "pd" Proof drill
- TH-#69 Boring Mark

A.

Approx.	Approximate
Adj	Adjacent
Alt.	Alternate
Az	Azimuth

B.

Bott., Bot.	Bottom
Bal.	Balance
Brg.	Bearing
Bm.	Beam
℄	Baseline
B.F.	Back Face.

C.

Cont.	Continuous
Cant.	Cantilever
C.J.	Construction Joint
Col.	Column
Cl., Clr.	Clear
℄	Center line

D.

d, dia.	Diameter
Dwg	Drawing
Det.	Detail

E.

Exist.	Existing
El., Elev.	Elevation
Exp.	Expansion
Ext.	Exterior
Eq	Equal
E.F.	Each Face
Ea.	Each
E.W.	Each way

F.

Ftg.	Footing
F.F.	Far Face

H.

Horiz.	Horizontal
Hwy	Highway

G.

I.

Int.	Interior

J.

Jt.	Joint

L.

Lt.	Left

M.

Min.	Minimum
Max.	Maximum

N.

Nos., No., #	Number
N.F.	Near Face

O.

o.c., ℄	On center
Opn'g	Opening

P.

P.I.	Point of intersection
Pt.	Point
Part.	Partial

Q.

R.

Reinf.	Reinforcing
Ref.	Reference
Req, Req'd.	Required
R:	Radius
Rt.	Right

S.

Symm.	Symmetrical
Sect.	Section
Stirr.	Stirrup
Sht.	Sheet
Std.	Standard
Spc.	Spacing
Sta.	Station

K.

T.

Typ.	Typical

U.

V.

Vert.	Vertical

W.

W.P.	Working point

X.

Y.

Z.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES, SYMBOLS & ABBREVIATIONS

AIRPORT INTERCHANGE
F.A.I PROJ. NO. I-HI-1 (145) 16

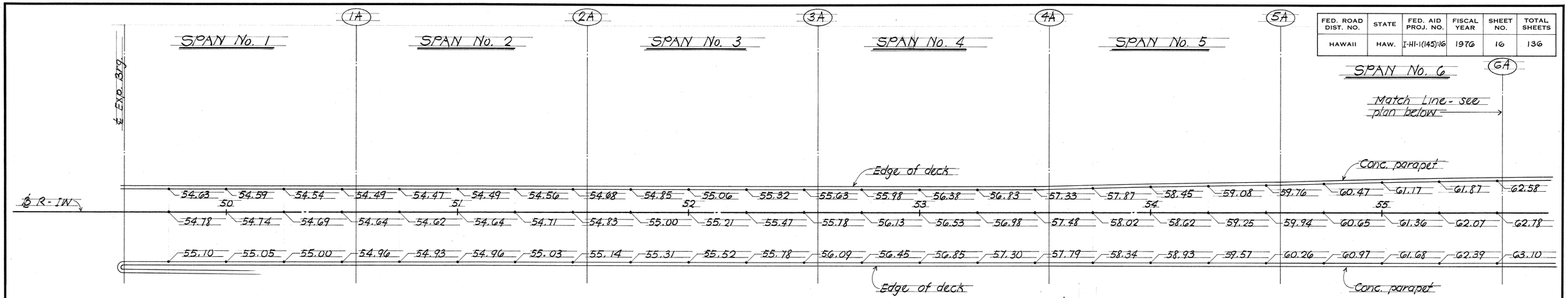
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SHEET No. 3 OF 124 SHEETS

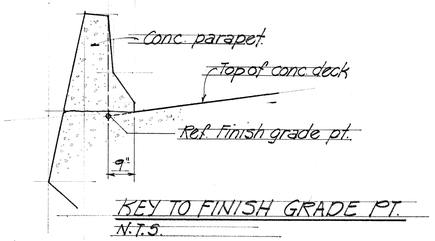
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PRINTED ON NO. 1000H CLEARPRINT

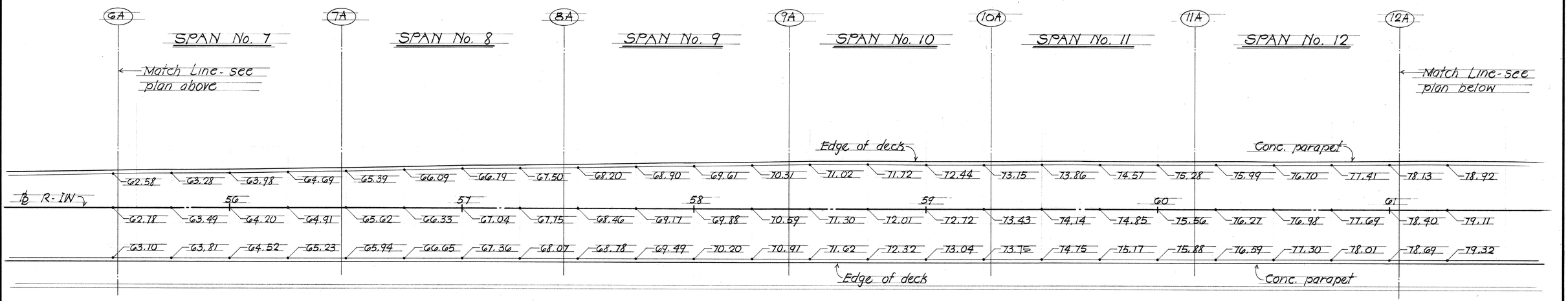
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HAWAII	HAW.	I-HI-1(145)16	1976	16	136

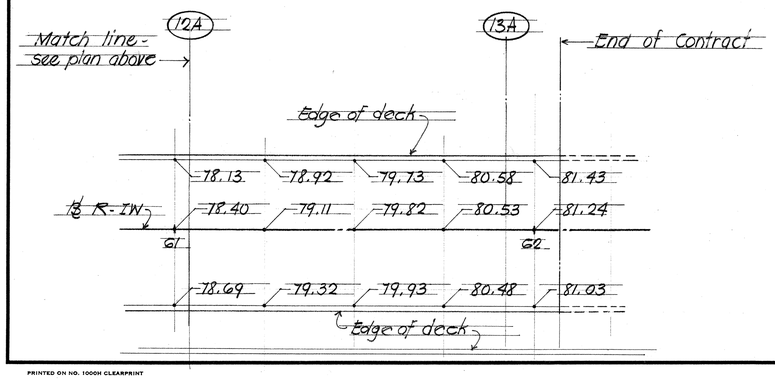


NOTE: Finish deck grades are given at 25'-0" increments, and normal to Baseline



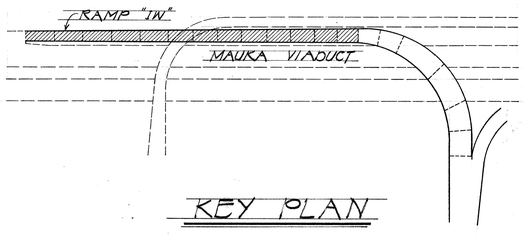
KEY TO FINISH GRADE PT.
N.T.S.





DECK FINISH GRADE PLAN

Scale: 1" = 20'-0"



KEY PLAN

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK FINISH GRADE PLAN R-IW
STA: 49+56.5 TO STA: 62+08

RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

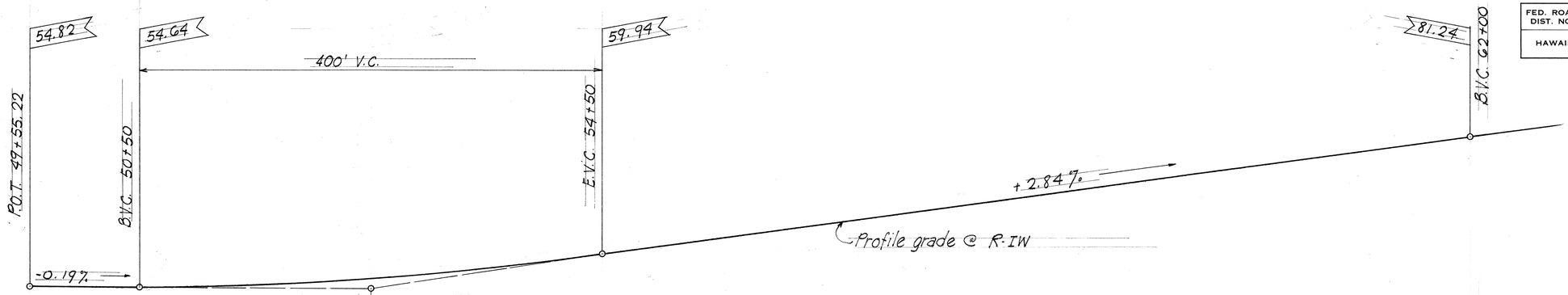
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SHEET No. I-1 OF 124 SHEETS

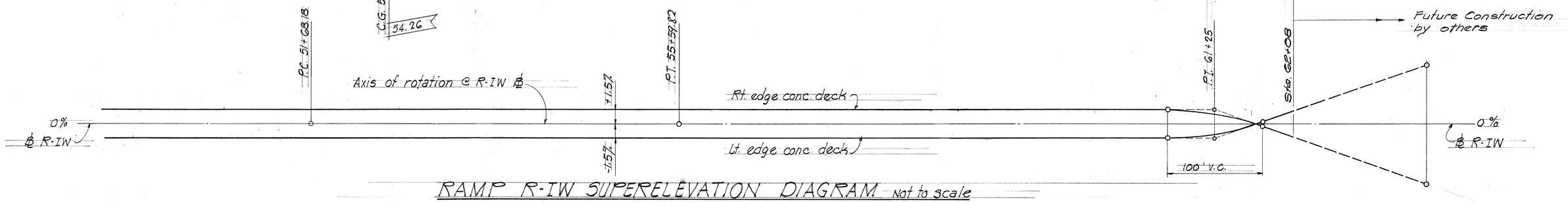
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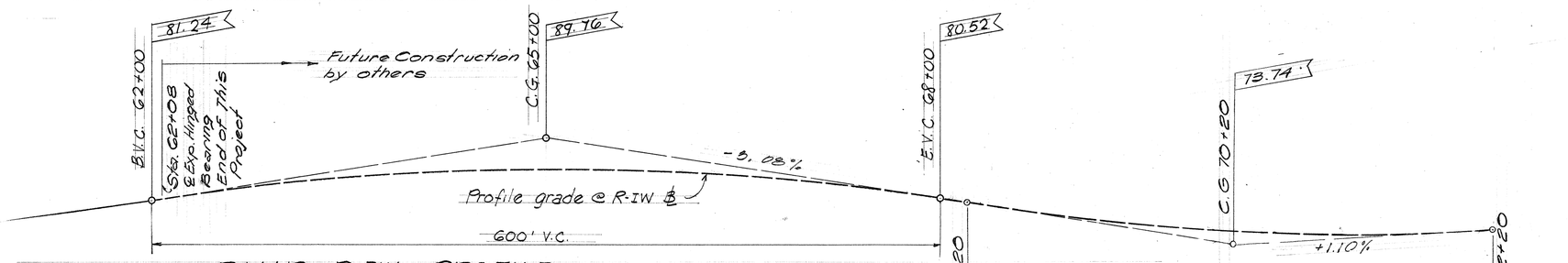
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
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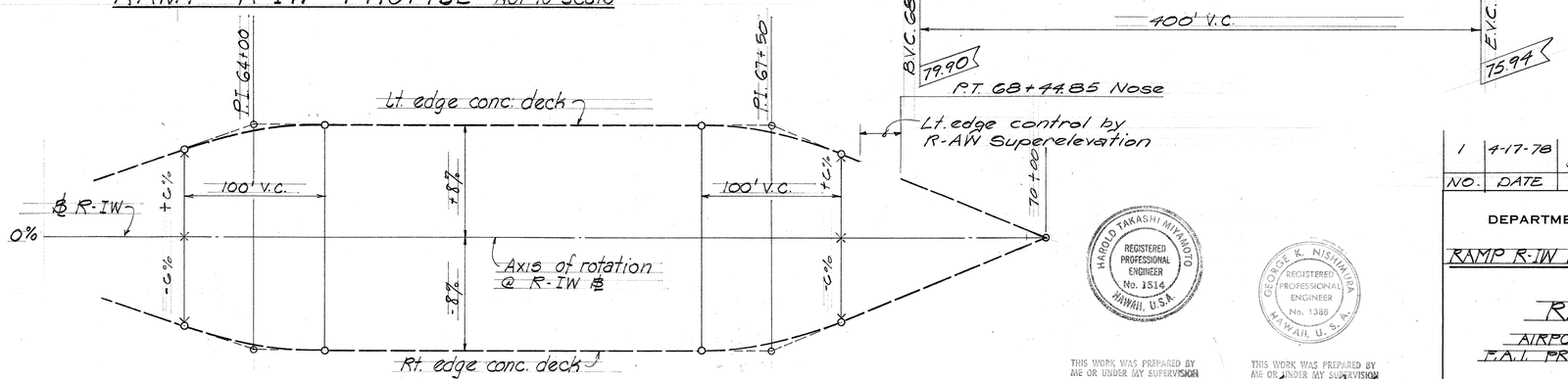
RAMP R-IW PROFILE Not to scale



RAMP R-IW SUPERELEVATION DIAGRAM Not to scale



RAMP R-IW PROFILE Not to scale



RAMP R-IW SUPERELEVATION DIAGRAM Not to scale

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NO.	DATE	REVISION
1	4-17-78	Revised Profile and Superelevation Diagram

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RAMP R-IW PROFILE & SUPERELEVATION

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE: JULY, 1976

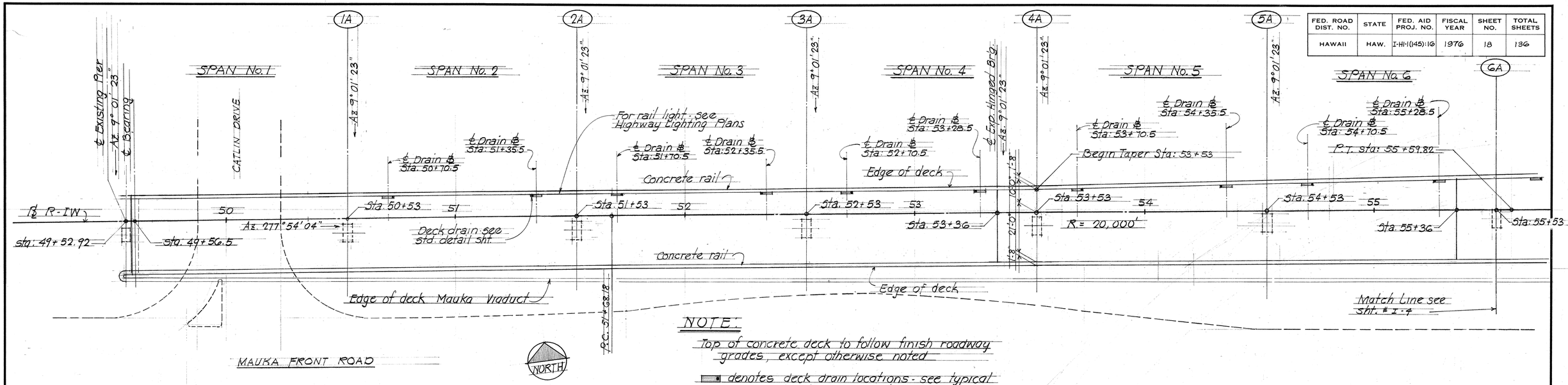
SHEET NO. I-2 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

C017

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(145):16	1976	18	136

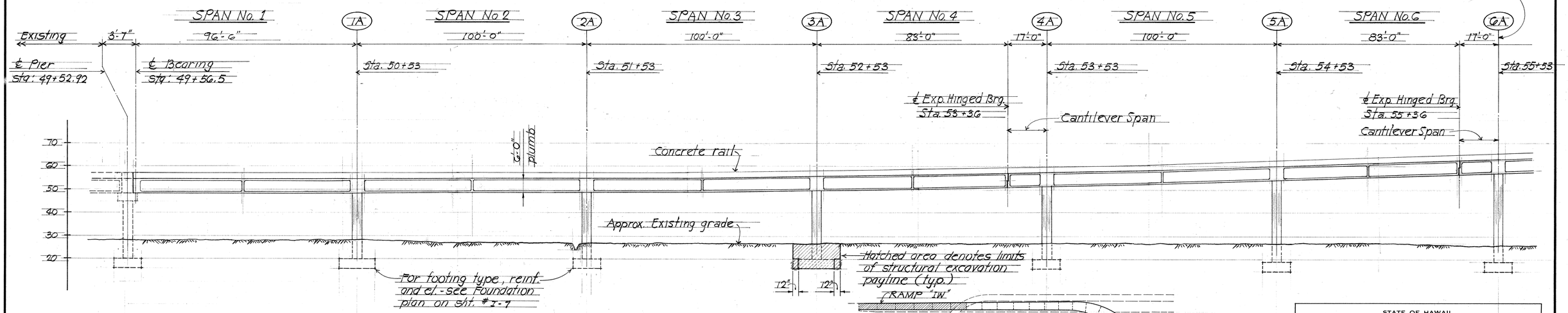


NOTE:

Top of concrete deck to follow finish roadway grades, except otherwise noted

▬ denotes deck drain locations - see typical detail on shts. #I-4 and #I-41

PART DECK PLAN RAMP R-IW Scale 1" = 20'-0"



PART LONGITUDINAL SECTION ALONG ℄ RAMP R-IW Scale 1" = 20'-0"

KEY PLAN

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART GENERAL LAYOUT PLAN AND LONGIT. SECTION RAMP R-IW - STA. 49+56.5 TO STA. 55+53

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

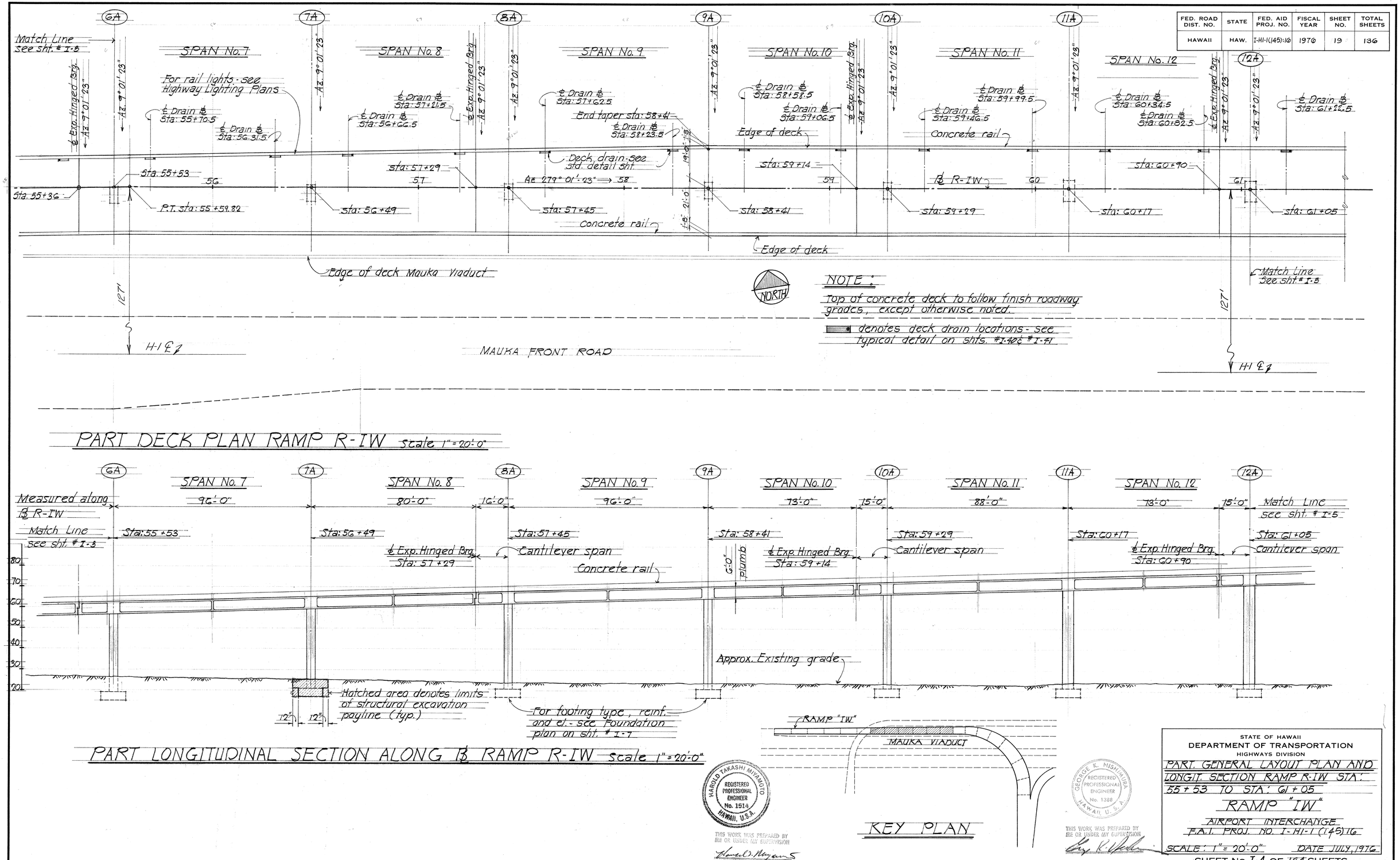
SCALE: 1" = 20'-0" DATE JULY, 1976

SHEET No. I-3 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145):16	1976	19	136



PART DECK PLAN RAMP R-IW Scale 1" = 20'-0"

PART LONGITUDINAL SECTION ALONG ℄ RAMP R-IW Scale 1" = 20'-0"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART GENERAL LAYOUT PLAN AND LONGIT. SECTION RAMP R-IW STA: 55+53 TO STA: 61+05

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

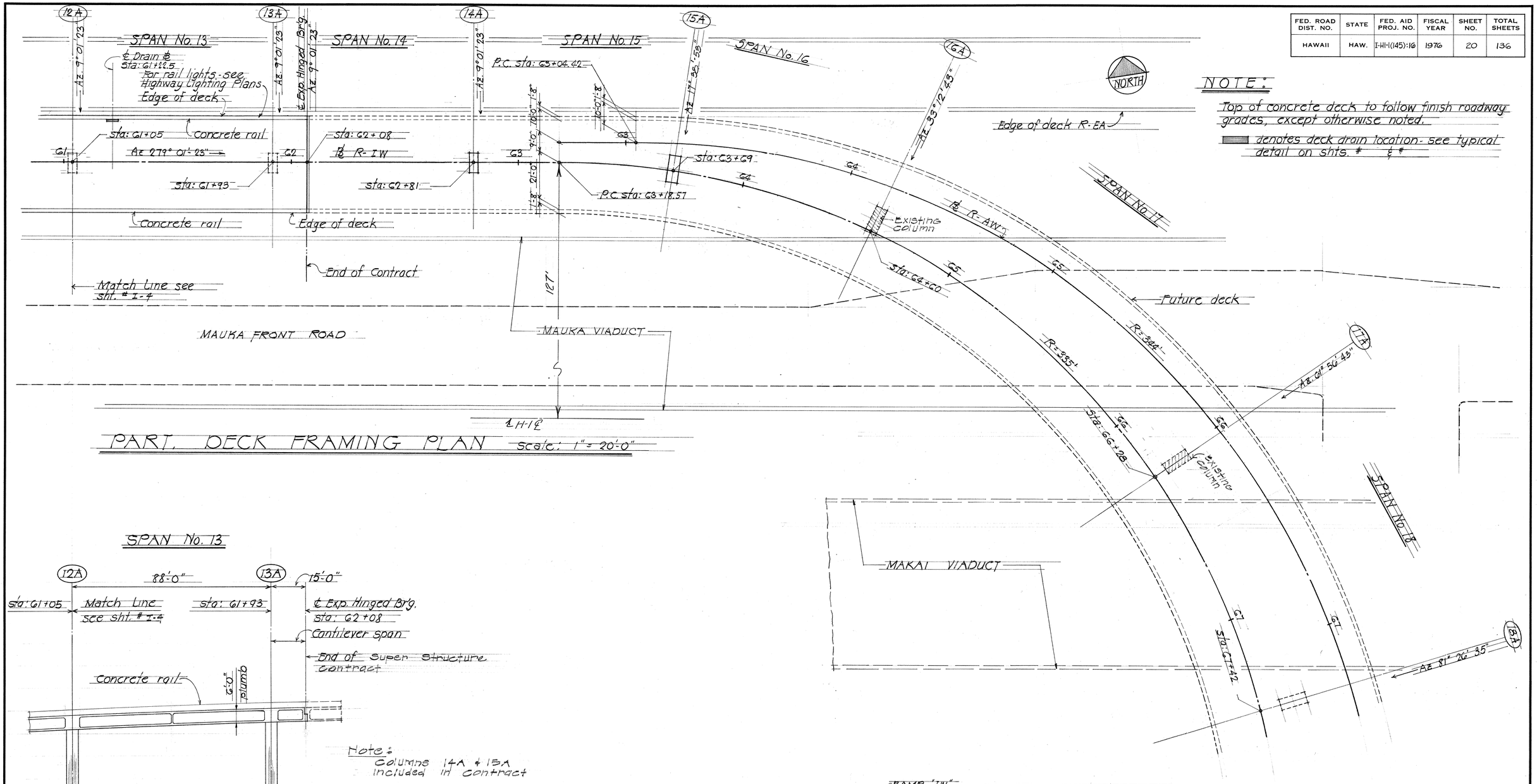
SCALE: 1" = 20'-0" DATE JULY, 1976

SHEET No. I-4 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

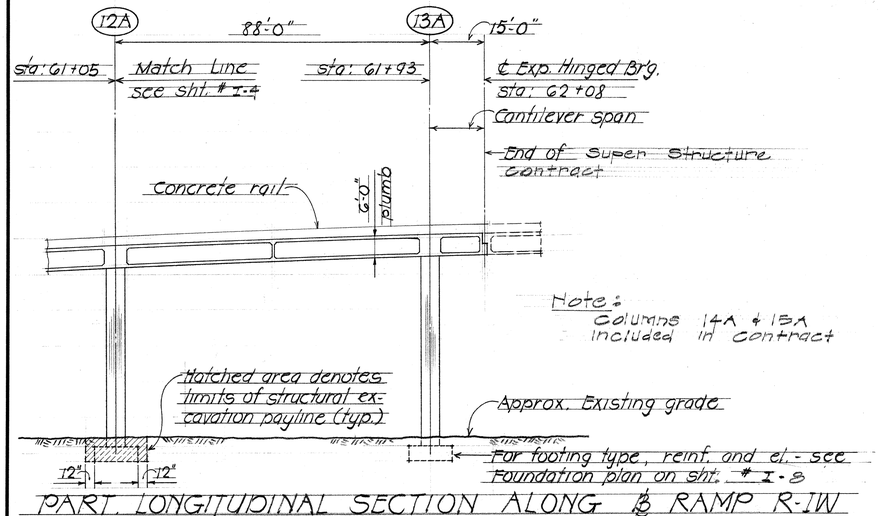
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(145):16	1976	20	136



PART. DECK FRAMING PLAN

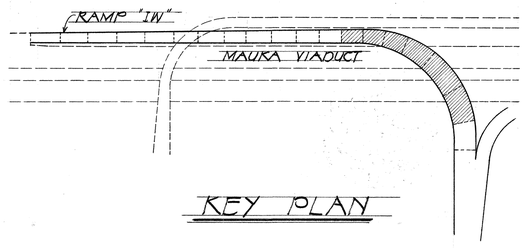
Scale: 1" = 20'-0"

SPAN No. 13



PART. LONGITUDINAL SECTION ALONG ℄ RAMP R-IW

Scale: 1" = 20'-0"



KEY PLAN

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ORIGINAL PLAN

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. GENERAL LAYOUT PLAN AND LONGIT. SECTIONS RAMP R-IW STA: G1+05 TO STA: G2+08

RAMP "IW"

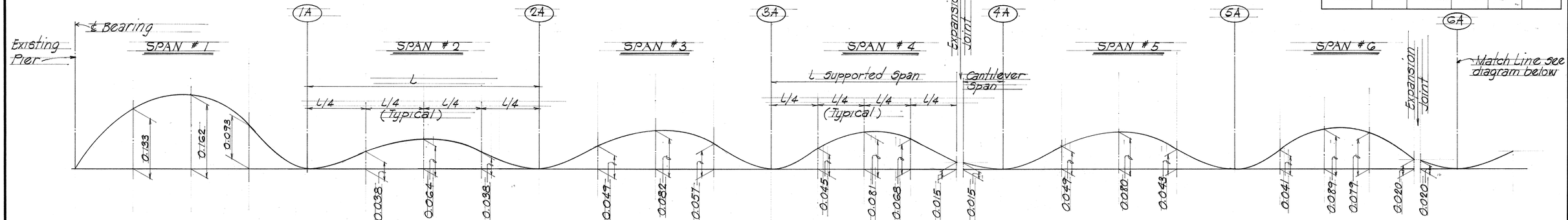
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

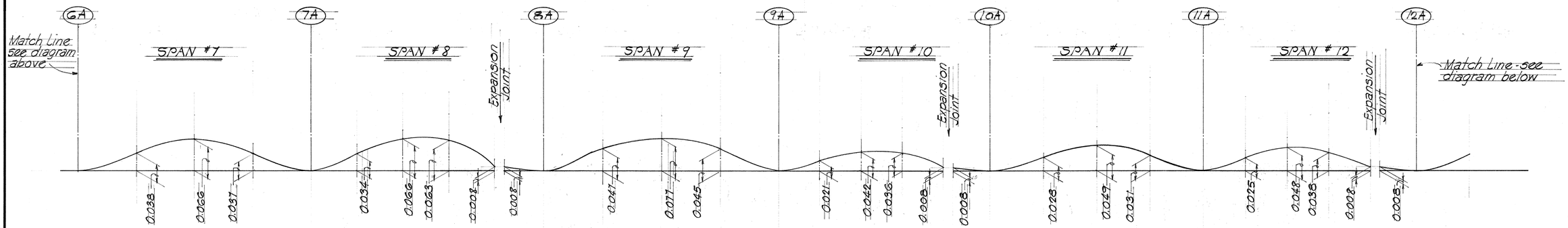
SCALE: 1" = 20'-0" DATE JULY, 1976

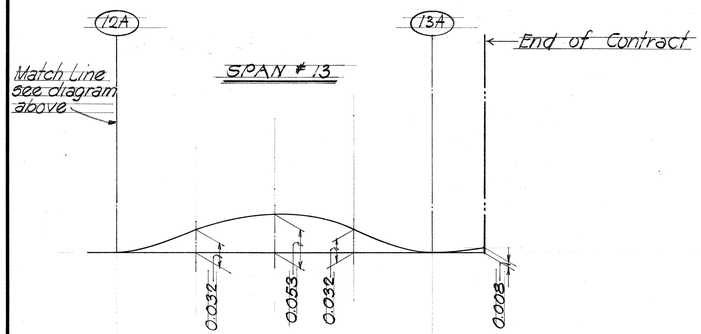
SHEET No. I-5 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	21	136







DECK CAMBER DIAGRAM FOR RAMP "IW"

Not to scale

NOTE:
Numbers indicate camber in feet.

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

HAROLD TAKASHI MIYAMOTO
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

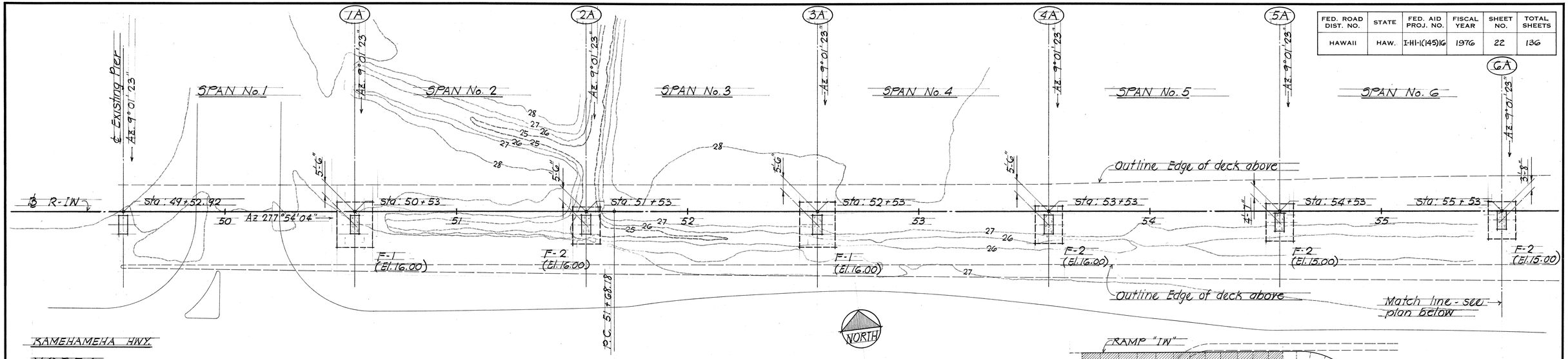
DECK CAMBER DIAGRAM
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE: JULY, 1976

SHEET No. I-6 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	22	136



KAMEHAMEHA HWY.

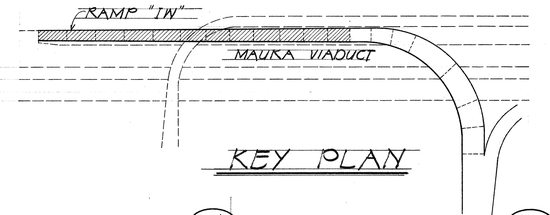
NOTE:

(El = 00.00) denotes bottom of footing elevation.

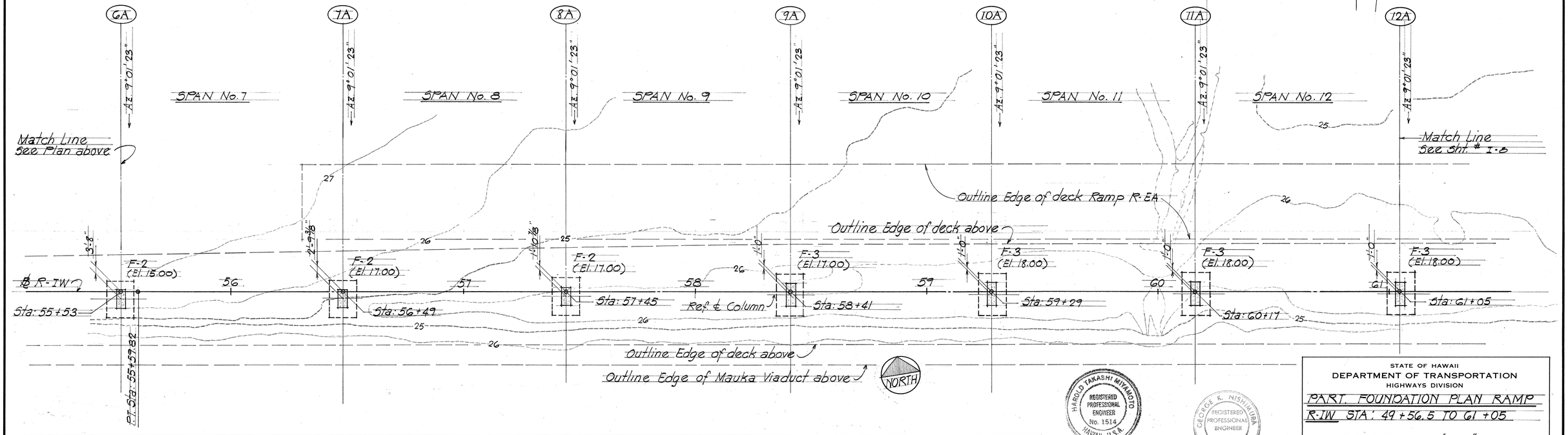
For boring logs - See Ramp EA Plans

All contours shown are existing grade contours.

PART FOUNDATION PLAN - RAMP R-IW Scale : 1" = 20'-0"



KEY PLAN



KAMEHAMEHA HWY.

PART FOUNDATION PLAN - RAMP R-IW Scale 1" = 20'-0"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART FOUNDATION PLAN RAMP R-IW STA: 49+56.5 TO 61+05

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

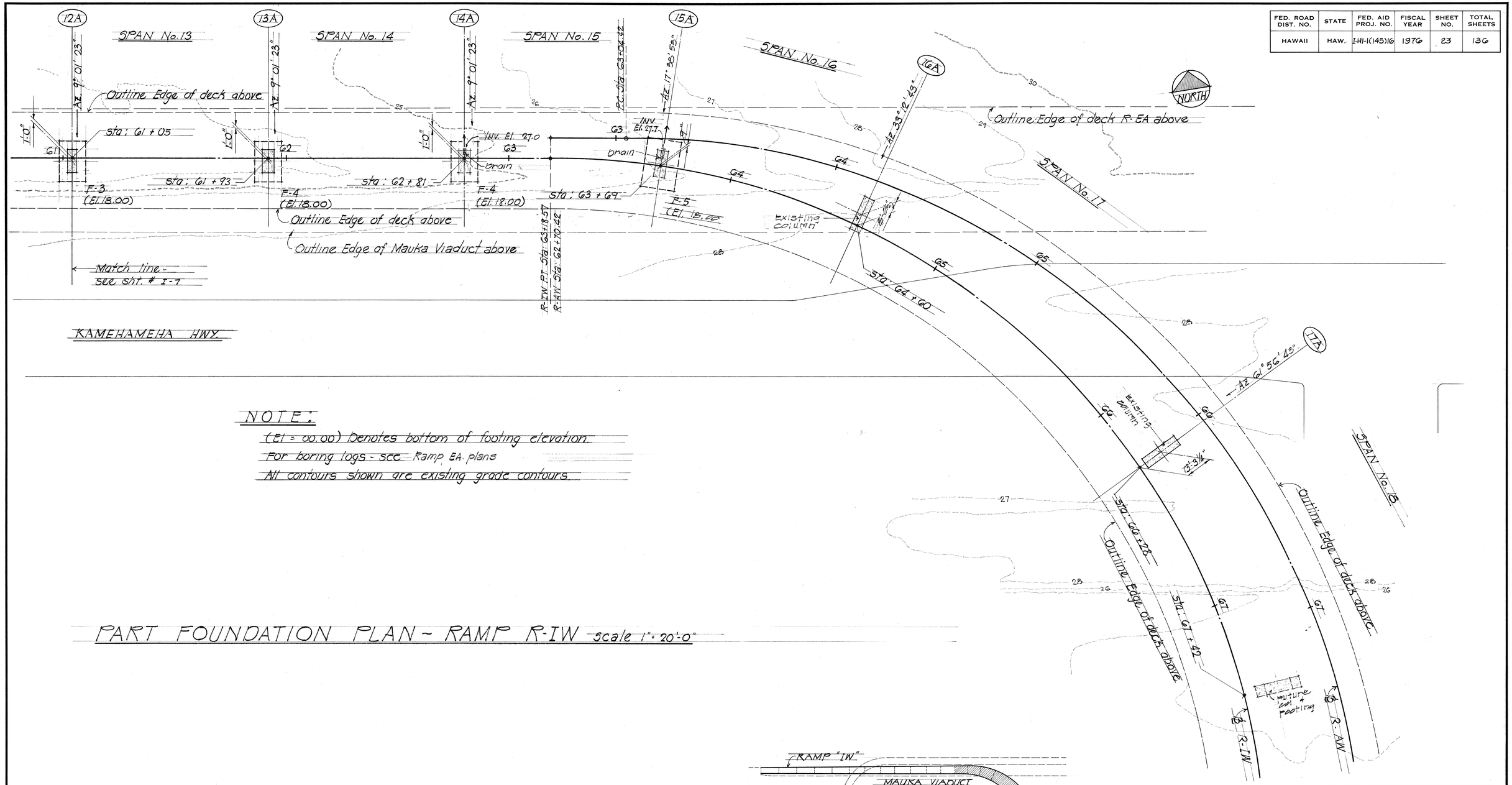
SCALE: 1" = 20'-0" DATE JULY, 1976

SHEET No. I-7 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

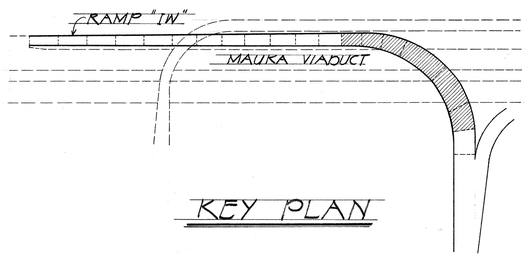
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(145)16	1976	23	136



NOTE:

(El = 00.00) Denotes bottom of footing elevation.
For boring logs - see Ramp EA plans
All contours shown are existing grade contours.

PART FOUNDATION PLAN - RAMP R-IW scale 1" = 20'-0"



KEY PLAN

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. FOUNDATION PLAN RAMP R-IW STA. 61 + 05 TO STA. 63 + 69

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-I (145)16

SCALE: 1" = 20'-0" DATE JULY, 1976

SHEET No. I-8 OF 124 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY
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PIER COLUMN SCHEDULE

LOCATION / COLUMN Nos.	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12A	13A	14A	15A
TOP OF COLUMN ELEVATION	El. 48.72	El. 48.93	El. 49.90	El. 51.62	El. 54.10	El. 56.92	El. 59.63	El. 62.35	El. 65.06	El. 67.56	El. 70.06	El. 72.55	El. 75.03	El. 77.21	El. 78.68
TOP OF PIER CAP ↑															
TOP OF COLUMN ELEVATION ↑															
Column size, Type, Reinforcing and Concrete Strength @ 28 days.	52 - #14 (H.S.) Vert. Type I, 4'-0" x 8'-0" (4,000 psi.)	32 - #14 (H.S.) Vert. Type II, 4'-0" x 8'-0" (4,000 psi.)	52 - #14 (H.S.) Vert. Type I, 4'-0" x 8'-0" (4,000 psi.)	32 - #14 (H.S.) Vert. Type II, 4'-0" x 8'-0" (4,000 psi.)	DO.	DO.	DO.	DO.	40 - #14 (H.S.) Vert. Type III, 4'-0" x 10'-0" (4,000 psi.)	DO.	DO.	DO.	50 - #14 (H.S.) Vert. Type III, 5'-0" x 10'-0" (4,000 psi.)	DO.	60 - #14 (H.S.) Vert. Type II, 5'-0" x 12'-0" (4,000 psi.)
DOWELS	52-#14(H.S.)	32-#14(H.S.)	52-#14(H.S.)	32-#14(H.S.)	DO.	DO.	DO.	DO.	40-#14(H.S.)	DO.	DO.	DO.	50-#14(H.S.)	D.O.	60-#14(H.S.)
FOOTING TYPE	F-1	F-2	F-1	F-2	F-2	F-2	F-2	F-2	F-3	F-3	F-3	F-3	F-4	F-4	F-5
TOP OF FOOTING ELEVATION	20.00	20.00	20.00	20.00	19.00	19.00	21.00	21.00	21.00	22.00	~~22.00~~ 15.70	22.00	22.00	22.00	22.50
GROUP LOADING	IV (c)	VI (a)	IV (c)	VI (a)	VI (a)	VI (a)	VI (a)	VI (a)	V (a)	V (a)	V (a)	V (a)	VI (a)	VI (a)	VI (b)
SOIL PRESSURE Kips / Ft.^{2}	19.58	19.51	19.58	19.51	19.51	19.51	19.51	19.51	16.84	16.84	16.84	16.84	20.29	20.29	20.29
*PROOF DRILLED- "pd"	———	———	———	———	———	———	———	———	———	"Pd"	"Pd"	"Pd"	———	———	———

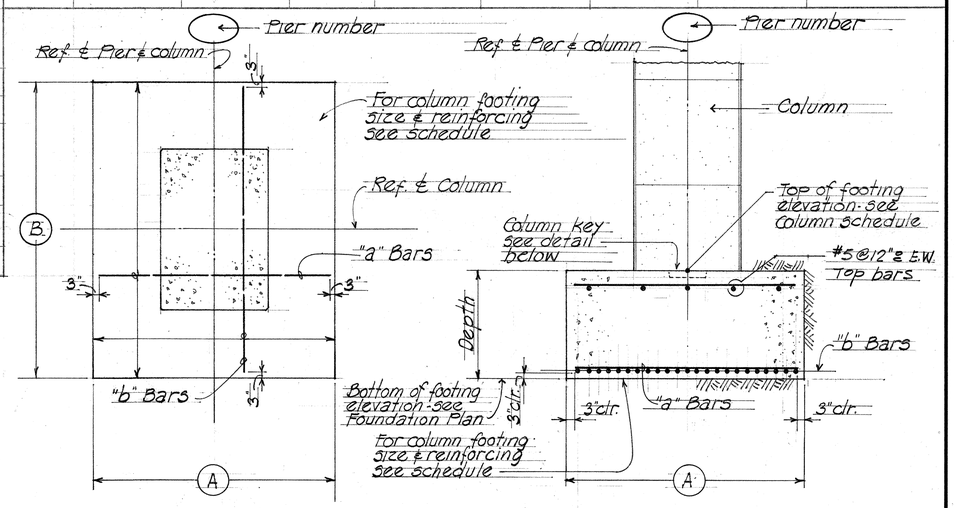
NOTE:

1. * Where noted "pd" in column schedule, underlying soil below the corresponding bottom footing elevation shall be proof drill to a minimum of 10'-0" below such elevation to confirm applicable bearing value. See Special Provisions.
2. All reinforcing bars marked (H.S.) denotes ASTM A-615 Grade 60 bars.
3. Unless noted on plans all other column & footing reinforcing shall be ASTM A-615 Grade 40 bars.
4. All #14 or larger bars to be continuous from footing unless approved by the Engineer. If splices are required. They shall be mechanical butt splices of the sleeve-filler motar type (see standard specification) and shall be staggered 3'-0" apart minimum. Contractor to submit shop drawing of all splice locations for approval by the Engineer before fabrication.
5. For pier columns detail & section refer to shts. #I-10 and #I-11

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	24	136

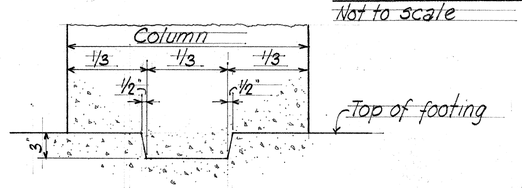
PIER COLUMN FOOTING SCHEDULE

TYPE	FOOTING SIZE (A)	FOOTING SIZE (B)	DEPTH	TOP REINFORCING "a" Bars	TOP REINFORCING "b" Bars	BOTTOM REINFORCING "a" Bars	BOTTOM REINFORCING "b" Bars	REMARKS
F-1	15'-6"	19'-6"	4'-0"	See Sect.	See Sect.	42-#10 (H.S.)	36-#10 (H.S.)	
F-2	12'-0"	16'-0"	4'-0"	D.O.	D.O.	36-#10 (H.S.)	28-#10 (H.S.)	
F-3	12'-0"	18'-0"	4'-0"	D.O.	D.O.	35-#10 (H.S.)	24-#10 (H.S.)	
F-4	12'-0"	18'-0"	4'-0"	D.O.	D.O.	37-#10 (H.S.)	29-#10 (H.S.)	
F-5	15'-0"	22'-0"	4'-6"			41-#10 (H.S.)	28-#10 (H.S.)	



FOOTING PLAN — FOOTING SECTION

TYPICAL FOOTING DIAGRAM ~ SHOWING FOOTING DIMENSIONS AND REINFORCEMENT LOCATIONS.
Not to scale



TYPICAL COLUMN KEY DETAIL
Not to scale
(COLUMN KEY @ TOP OF COLUMN SIMILAR)

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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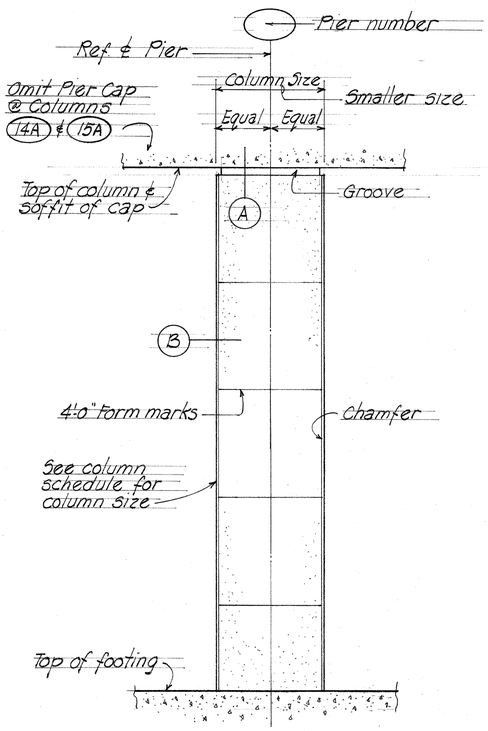
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

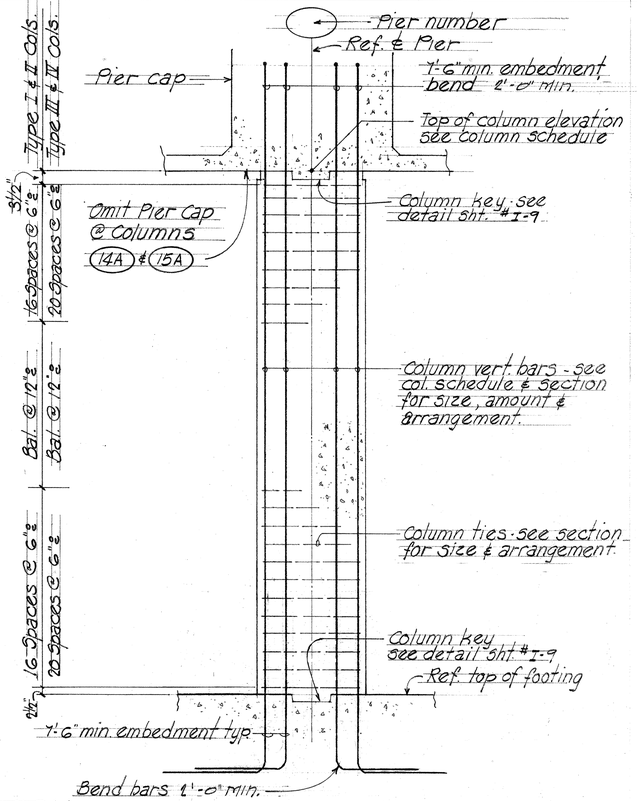
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
COLUMN AND FOOTING SCHEDULE AND DETAILS
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16
SCALE: AS NOTED DATE JULY, 1976
SHEET No. I-9 OF 124 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	25	136



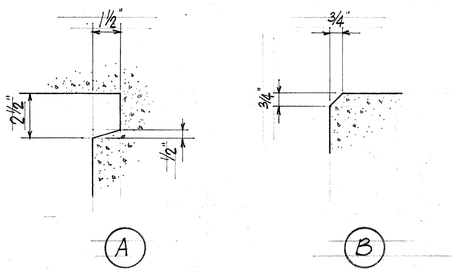


TYPE I, II, III, IV, & V COLUMN ELEVATION SHOWING DIMENSIONS & DETAILS

Not to scale

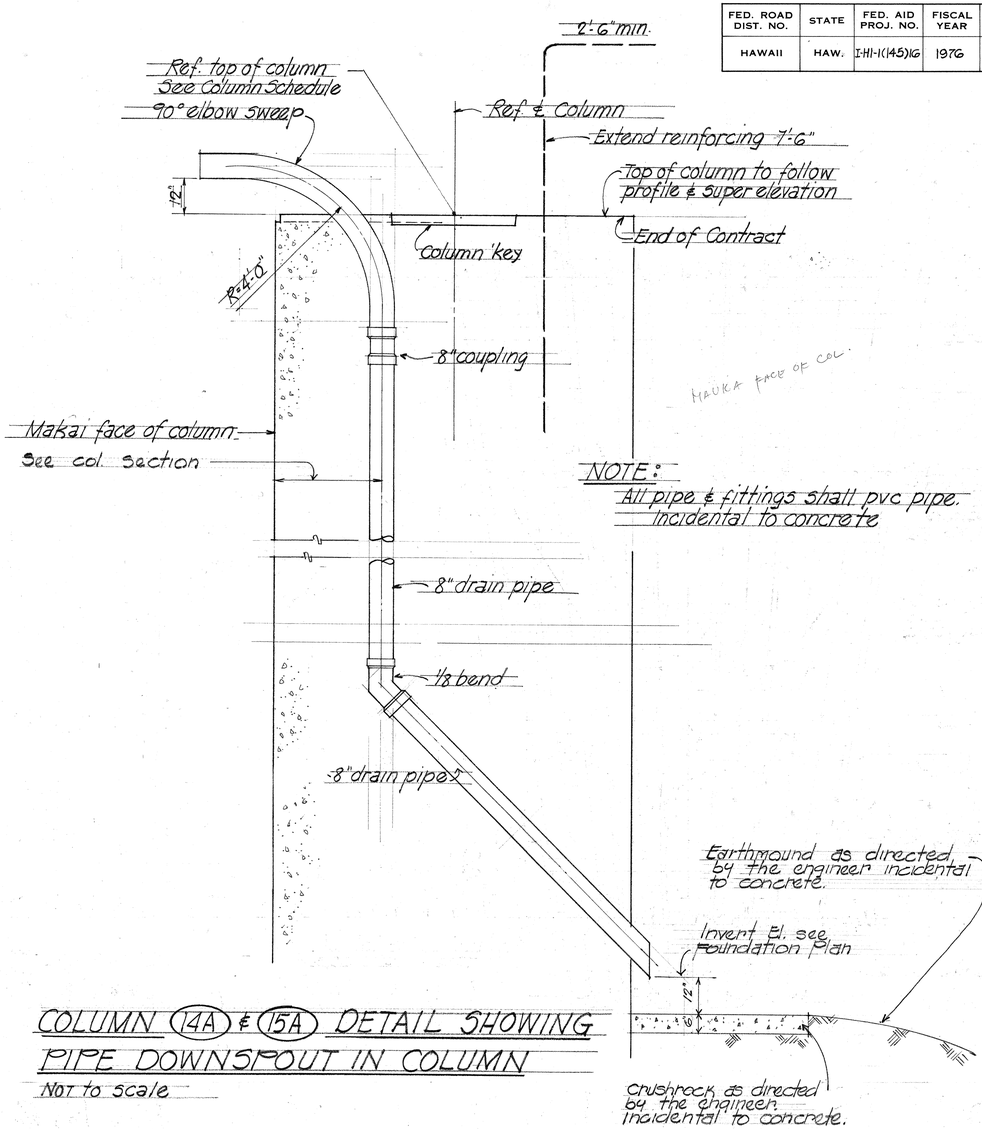
TYPE I, II, III, IV, & V COLUMN ELEVATION SHOWING REINFORCEMENT

Not to scale



GROOVE AND CHAMFER DETAIL

Scale 3"=1'-0"



COLUMN (14A) & (15A) DETAIL SHOWING PIPE DOWNSPOUT IN COLUMN

Not to scale

ORIGINAL PLAN
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
NOTE BOOK
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

COLUMN ELEVATION AND DETAILS

RAMP "IW"

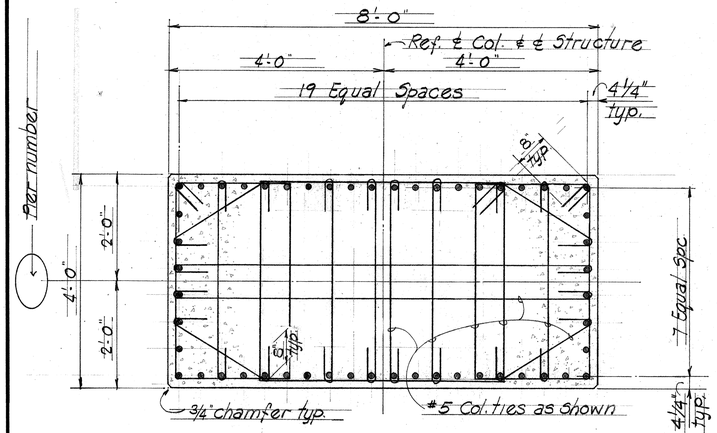
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-10 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

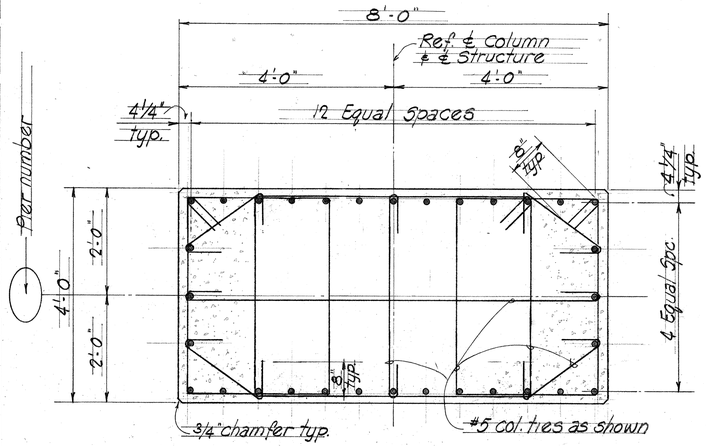
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	26	136



52 - #14 (H.S.) Vert.

TYPE I COLUMN SECTION

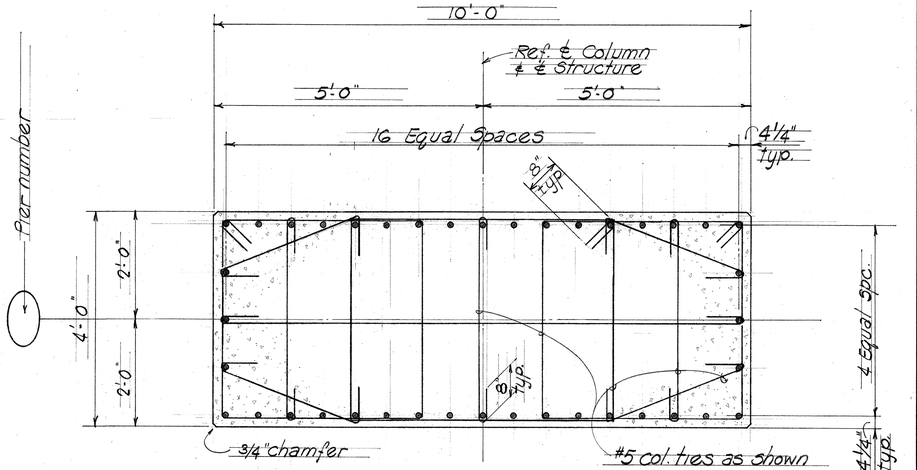
Scale ¾"=1'-0"



32 - #14 (H.S.) Vert.

TYPE II COLUMN SECTION

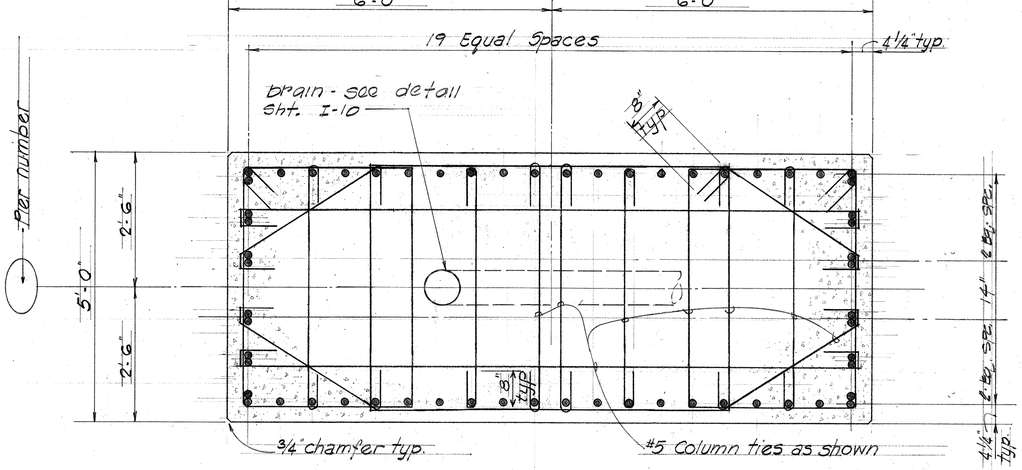
Scale ¾"=1'-0"



40 - #14 (H.S.) Vert.

TYPE III COLUMN SECTION

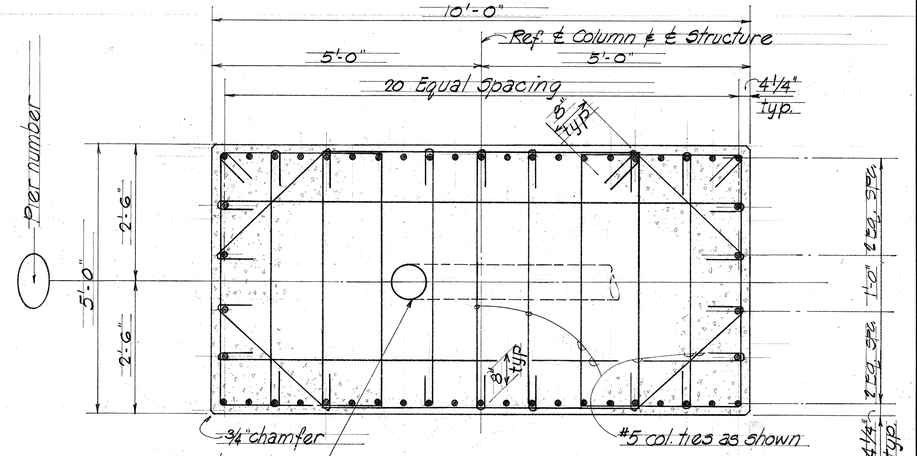
Scale ¾"=1'-0"



60 - #14 (H.S.) Vert.

TYPE V COLUMN SECTION

Scale ¾"=1'-0"



50 - #14 (H.S.) Vert.

TYPE IV COLUMN SECTION

Scale ¾"=1'-0"

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

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIKAWA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

COLUMN SECTIONS

RAMP "IW"

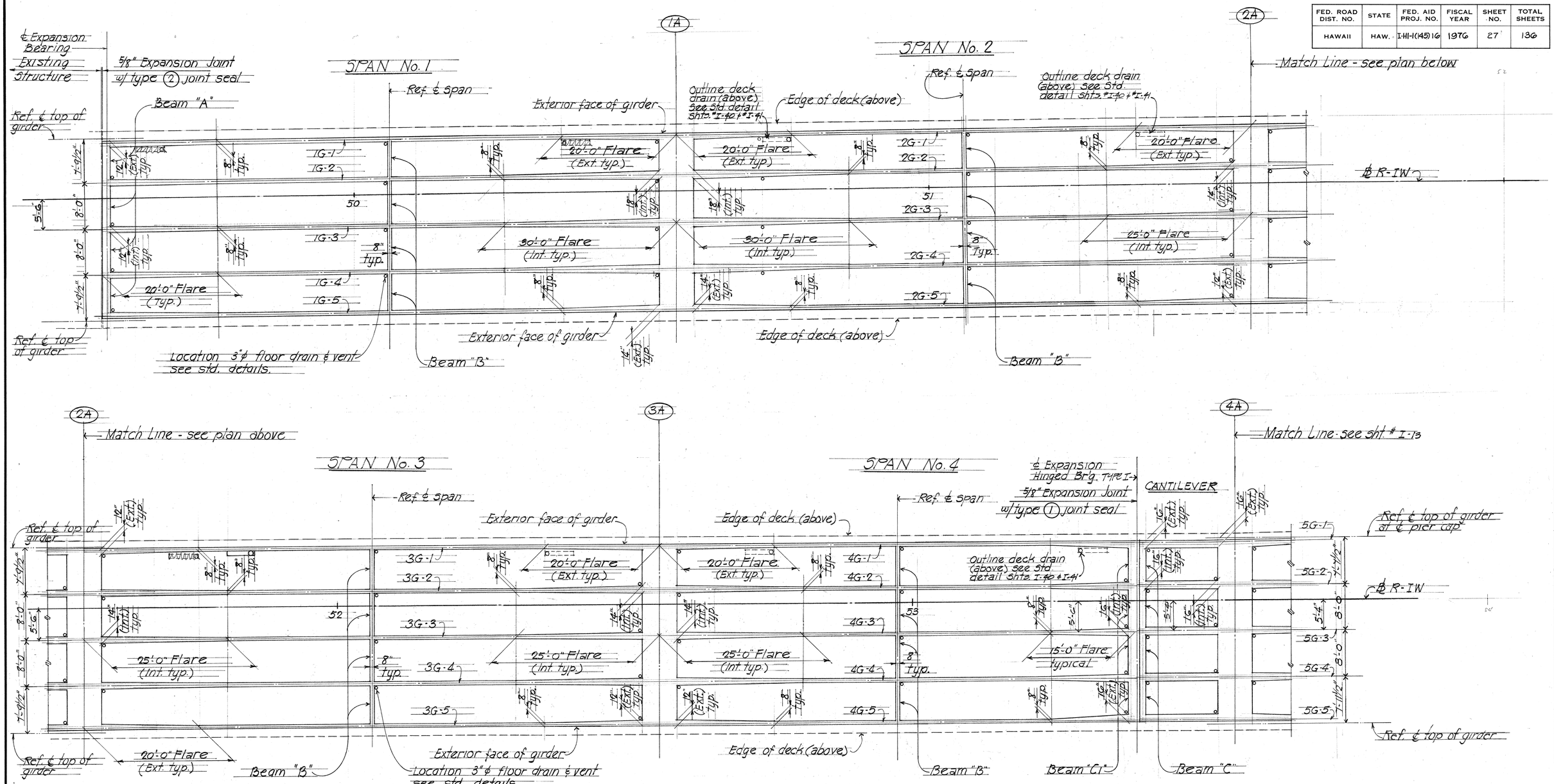
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-11 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	27	136



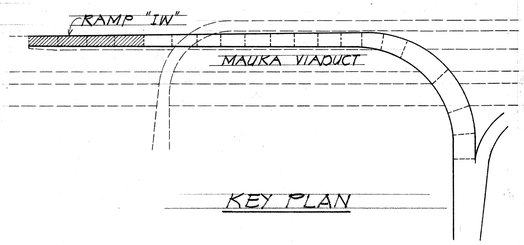
PART DECK FRAMING PLAN scale 1/8"=1'-0"

NOTE:

All deck transverse reinforcing shall be placed normal to ℄ R-IW- see normal section sht. # I-12.

For girder stirrup spacing see shts. # I-21 thru # I-28

(1A) denotes ℄ pier and pier cap marks.



KEY PLAN

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK FRAMING PLAN SPAN 1 THRU 4 INCLUSIVE

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

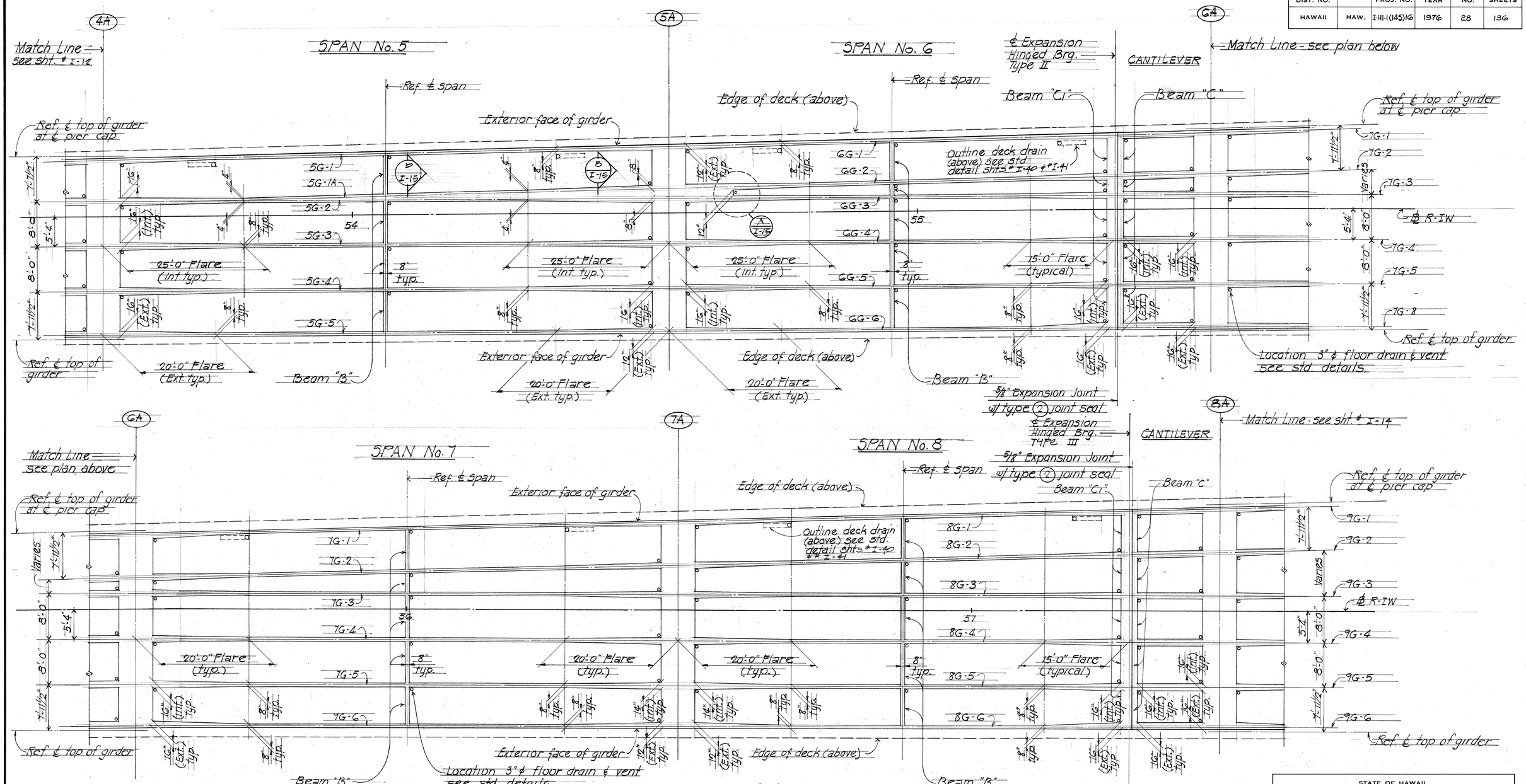
SCALE: AS NOTED DATE JULY, 1976

SHEET NO. I-12 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	28	136



PART DECK FRAMING PLAN scale 1/8"=1'-0"

NOTE:

All deck transverse reinforcing shall be placed normal to ℄ R-IW - see normal section sht. # I-12

For girder stirrup spacing see shts # I-21 thru # I-28

(1A) denotes ℄ pier and pier cap marks.

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

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

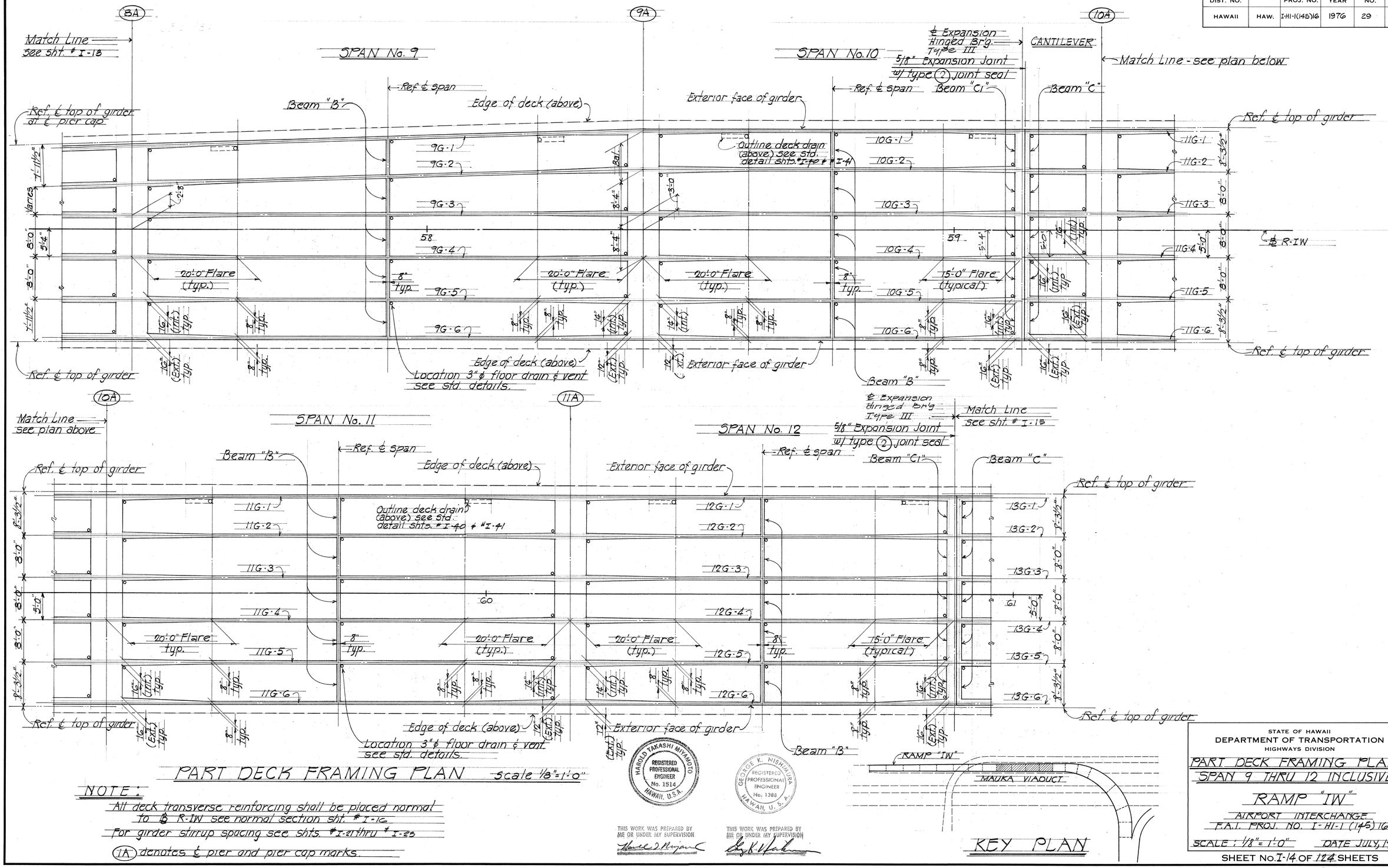
PART DECK FRAMING PLAN
SPAN 5 THRU 8 INCLUSIVE
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: 1/8"=1'-0" DATE JULY, 1976

SHEET No. I-13 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	29	136



PART DECK FRAMING PLAN scale 1/8"=1'-0"

NOTE:

All deck transverse reinforcing shall be placed normal to ℄ R-IW see normal section sht. # I-16

For girder stirrup spacing see shts. # I-21 thru # I-25

(1A) denotes ℄ pier and pier cap marks.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 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.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPAN 9 THRU 12 INCLUSIVE

RAMP "IW"

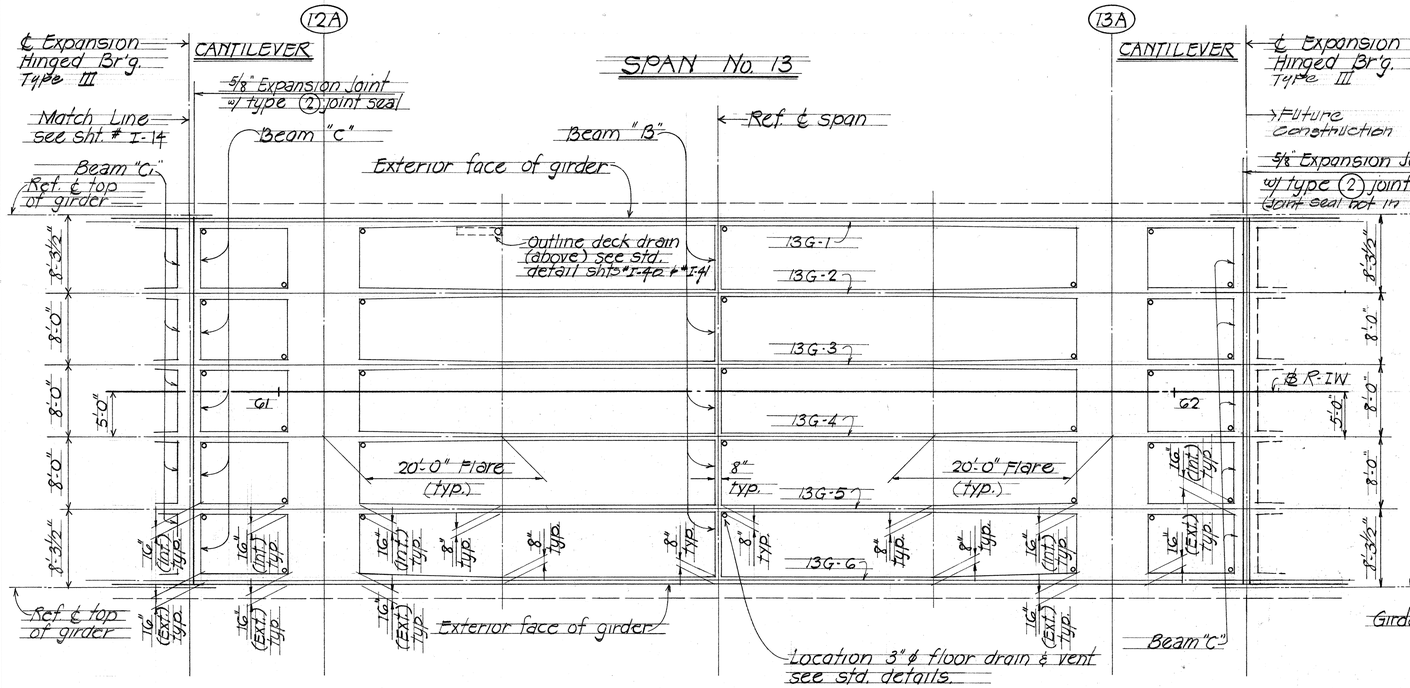
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16

SCALE : 1/8" = 1'-0" DATE JULY, 1976

SHEET NO. I-14 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	30	136



SPAN No. 13

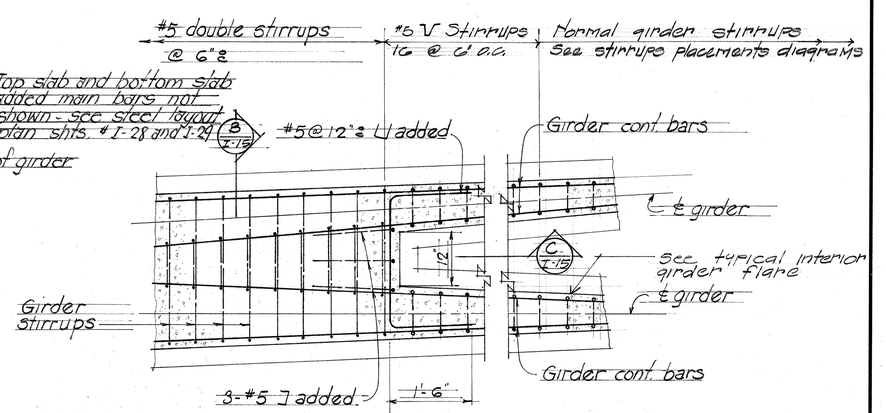
PART DECK FRAMING PLAN SCALE: 1/8" = 1'-0"

NOTE:

All deck transverse reinforcing shall be placed normal to ℄ R-IW see normal section sht. # I-16

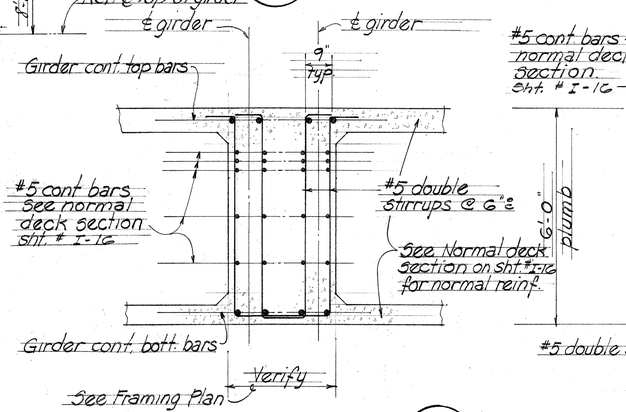
For girder stirrup spacing see sht. # I-21 thru # I-23

(1A) denotes ℄ pier and pier cap marks.



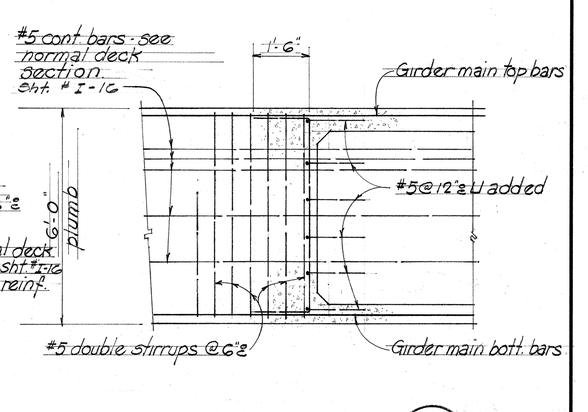
A / I-15 PLAN - SHOWING GIRDER SPECIAL REINFORCING

Scale 3/4" = 1'-0"



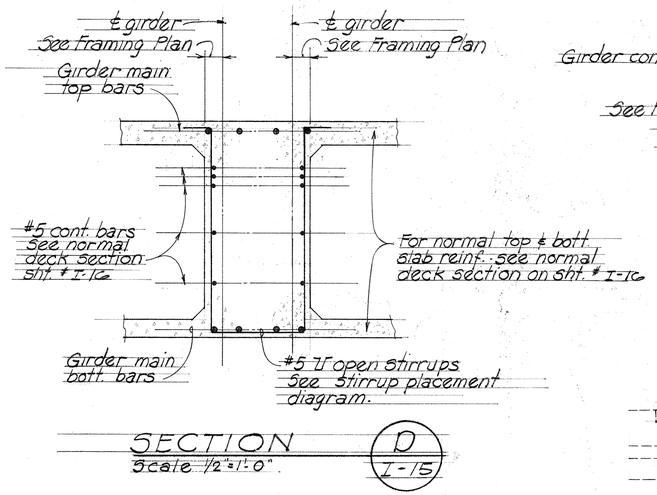
SECTION B / I-15

Scale 1/2" = 1'-0"



SECTION C / I-15

Scale 1/2" = 1'-0"



SECTION D / I-15

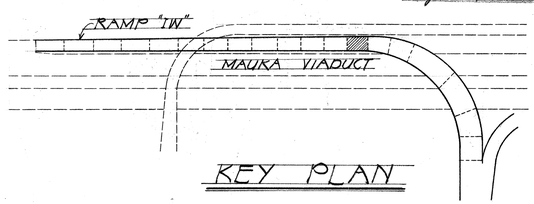
Scale 1/2" = 1'-0"

HAROLD TAKASHI HAYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK FRAMING PLAN
SPAN NO. 13
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145)16

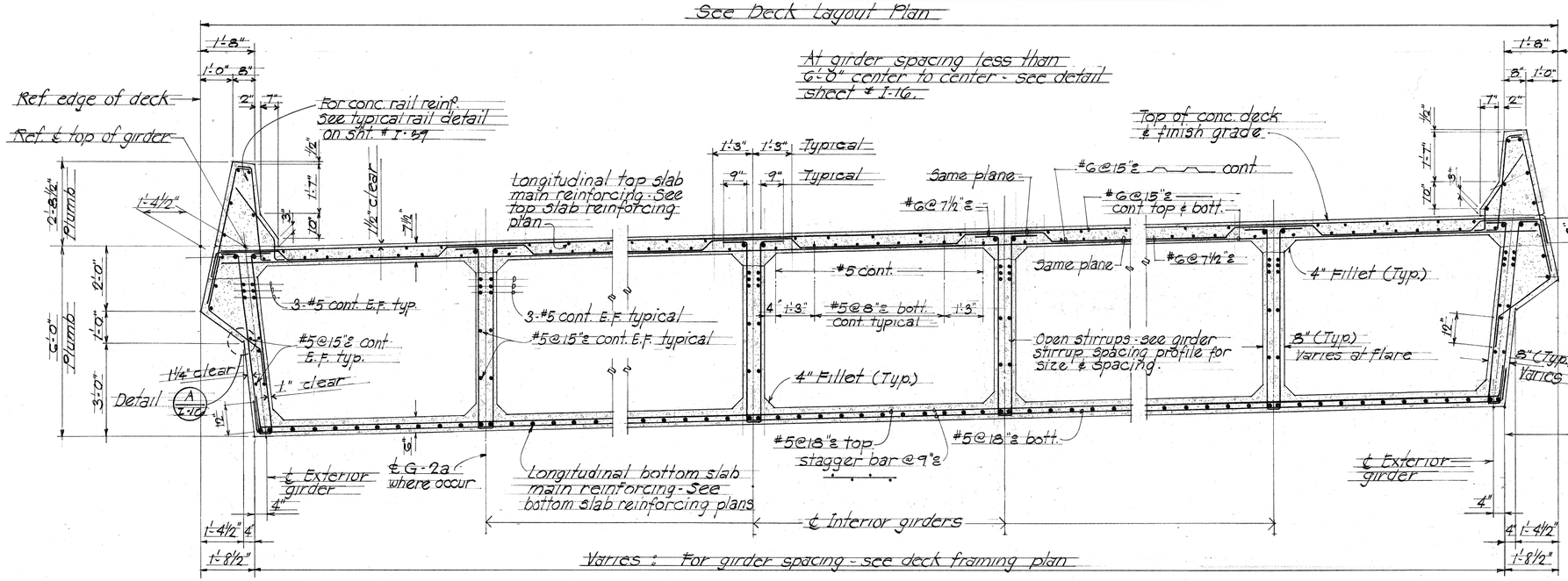
SCALE: 1/8" = 1'-0" DATE JULY, 1976

SHEET No. I-15 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-(145)16	1976	31	136



NOTE:

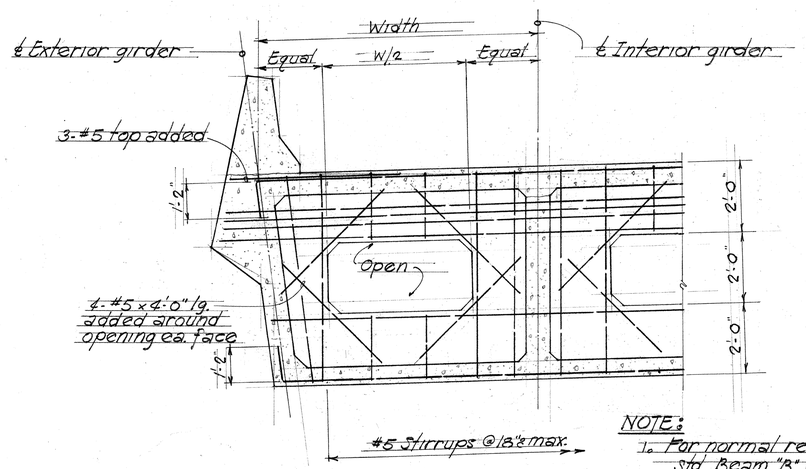
For additional box girder details refer to Standard Detail Drawings

In general all deck transverse bars shall be placed either radially or normal to the Baseline as noted on Deck Framing Plans sht. # I-12 thru sht. # I-15 inclusive. All transverse bars that are placed radially to the Baseline shall be spaced as indicated on plans, measured along the edge of deck with the maximum curve length.

For additional reinforcing at deck drains - see details on sht. # I-40

NORMAL DECK SECTION

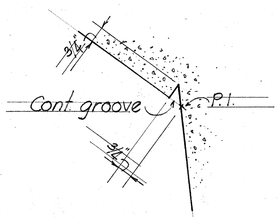
Scale: ½" = 1'-0"



NOTE:
1. For normal reinf. see Std. Beam "B" details Sht. S-2
2. Form removal to be at contractor's option. Opening required only if form to be removed

TYPICAL BEAM "B" DETAIL SHOWING END CONDITION ONLY

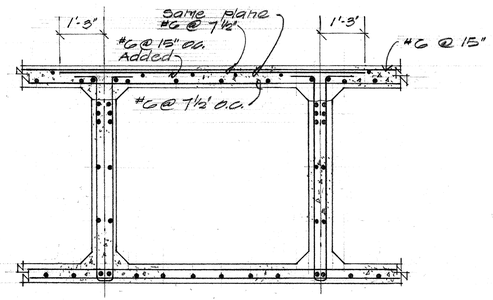
Scale: ½" = 1'-0"



GROOVE DETAIL A

Scale 3" = 1'-0"

I-16



DECK SECTION AT GIRDER SPACING 6'-0" OR LESS

B I-16

Scale: ½" = 1'-0"

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NORMAL DECK SECTION AND BEAM "B" DETAILS
RAMP "IW"

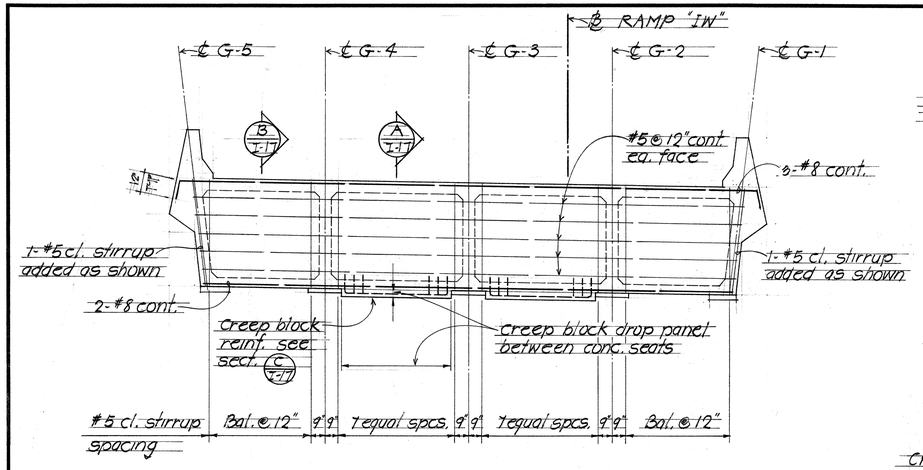
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16
Scale: As noted DATE: JULY, 1976

SHEET NO. I-16 OF 124 SHEETS

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

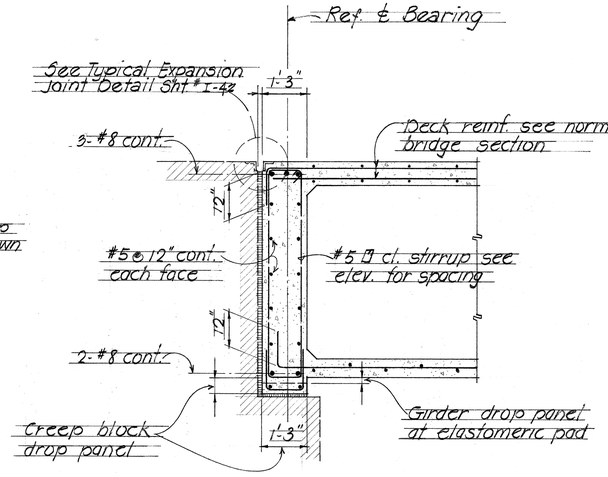
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	32	136



ELEVATION BEAM "A"

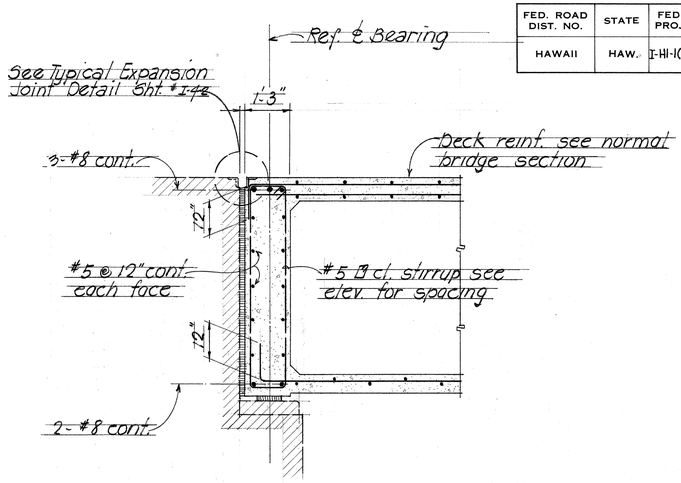
Scale: 1/4" = 1'-0"



SECTION

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

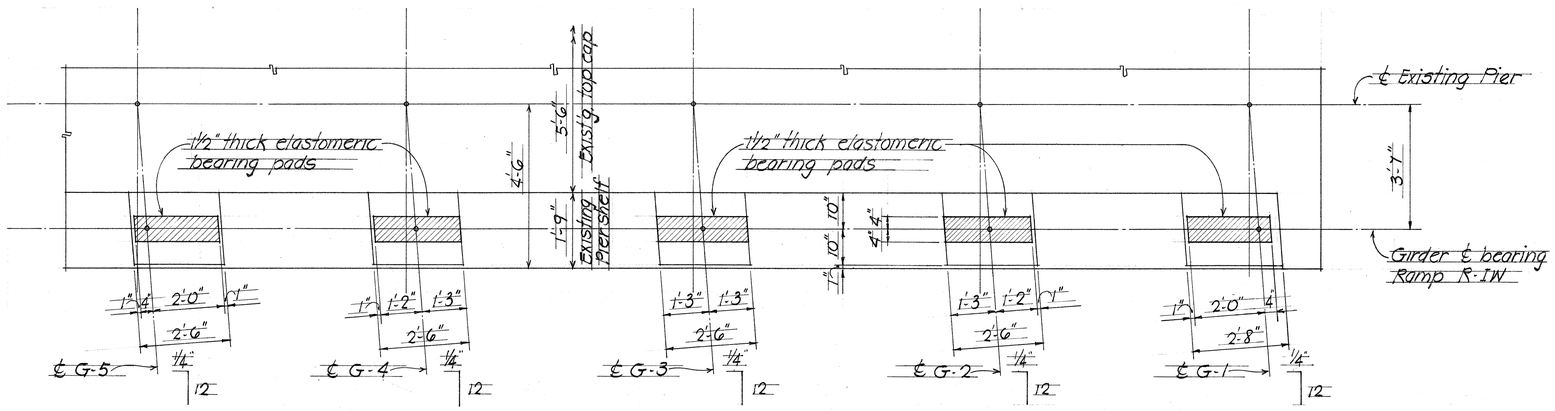
A I-17



SECTION

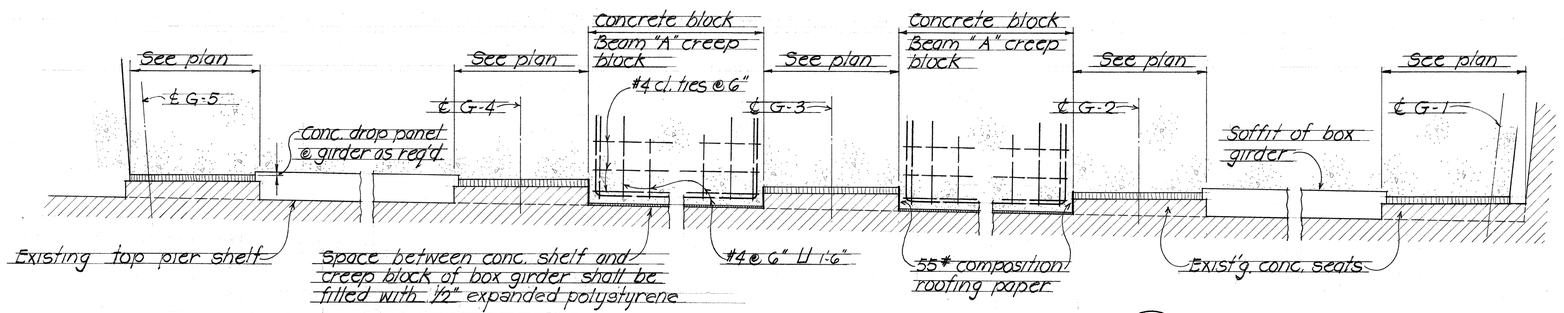
Scale: 1/2" = 1'-0"

B I-17



PART PLAN - RAMP CONCRETE SEAT

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



TYPICAL SECTIONS

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

C I-17

NOTE:

1. Elastomeric bearing pad - See Special Provisions.
2. Elastomeric bearing pads shall be incidental to concrete.
3. Contractor to verify that new deck grade meet existing grade.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

BEAM "A" DETAILS
RAMP "IW"
AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1 (145) 16

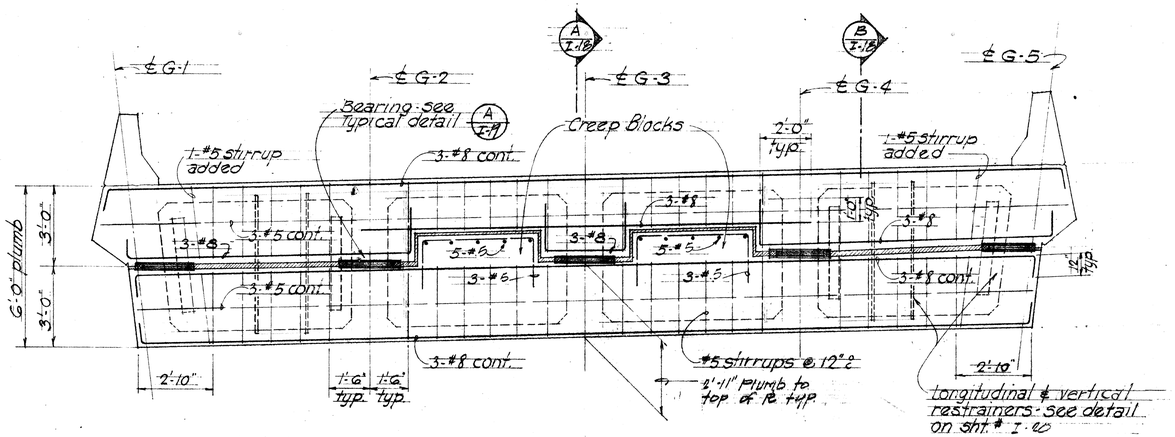
SCALE AS NOTE DATE JULY, 1976

SHEET No. I-17 OF 124 SHEETS

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

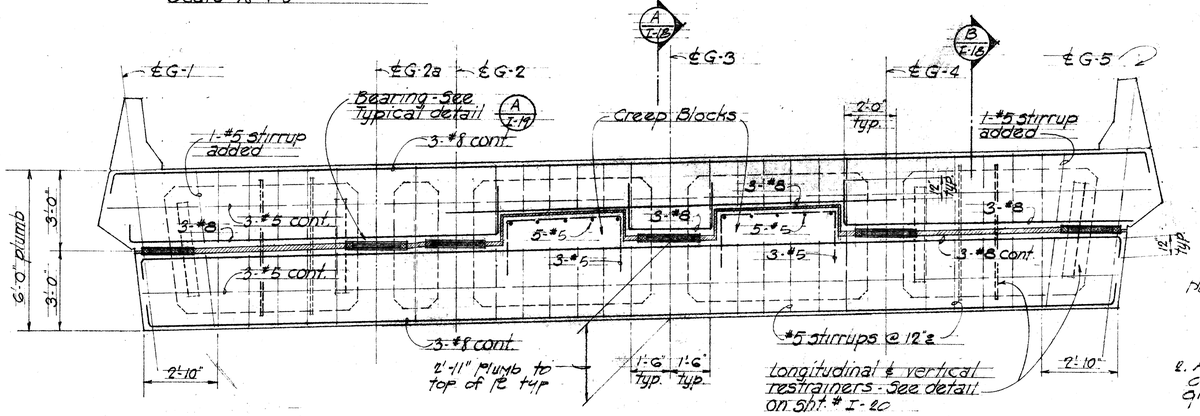
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	33	136



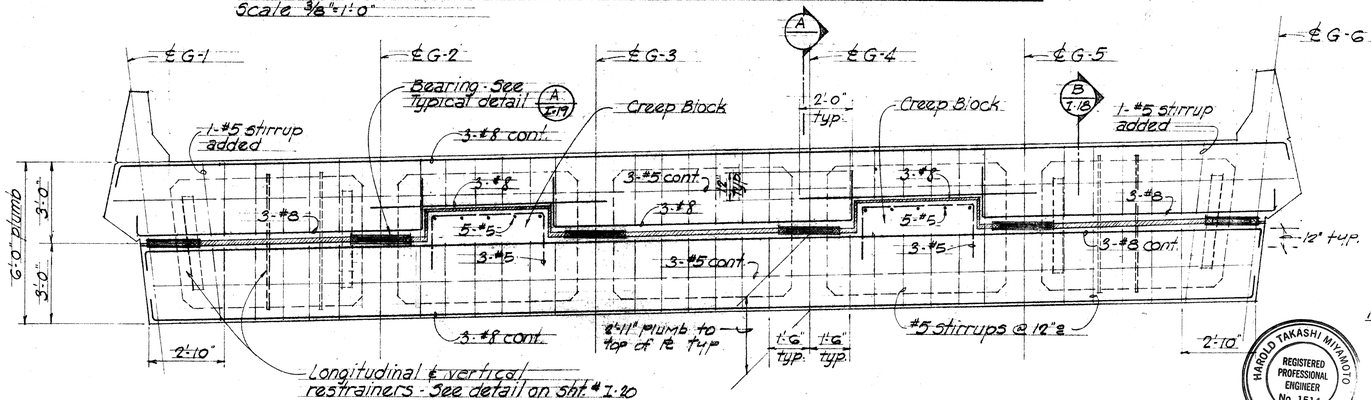
NORMAL SECTION THRU HINGED BEARING TYPE I

Scale 3/8"=1'-0"



NORMAL SECTION THRU HINGED BEARING TYPE II

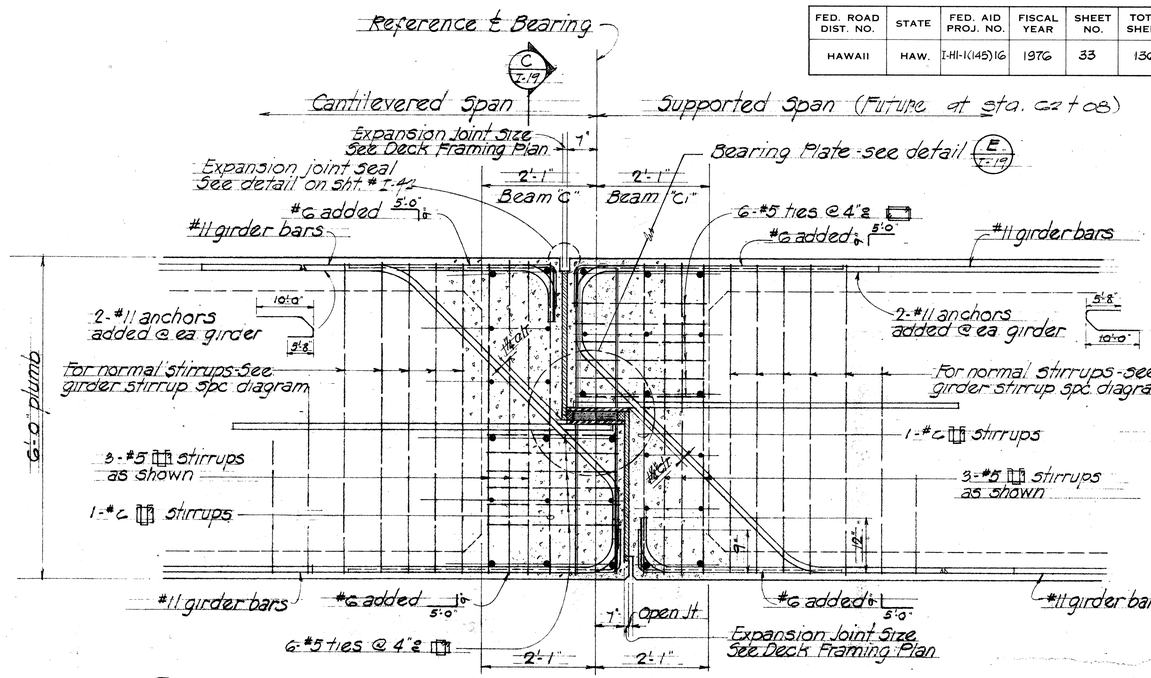
Scale 3/8"=1'-0"



NORMAL SECTION THRU HINGED BEARING TYPE III

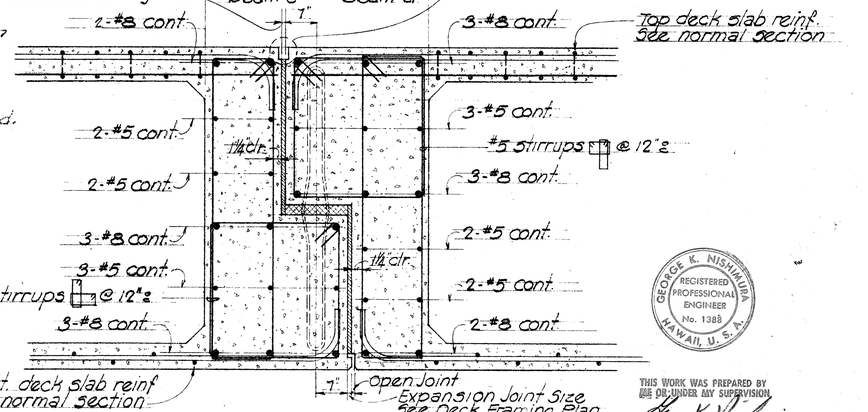
Scale = 3/8"=1'-0"

NOTE:
1. Girder shown on section thru hinged bearing are girders on the supported span.
2. All bearing pads shall be centered on supported span girder unless otherwise noted.



A I-18 TYPICAL SECTION AT EACH GIRDER

Scale 3/4"=1'-0"



B I-18 TYPICAL SECTION BETWEEN GIRDERS

Scale 3/4"=1'-0"

NOTE: Expansion Joint at station c2+08

A. Item in Contract:
1. Bottom 14"x 26½"x 5/8" steel plate.
2. All Concrete work on the Cantilevered span.
3. All item required for restrainers including 5"x1" plate and other connections items.
4. Vertical restrainer.

B. Item not in Contract:
1. Elastomeric pads
2. Expansion Joint Seal
3. Expanded polystyrene.

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL HINGED BEARING DETAILS

RAMP "IW"

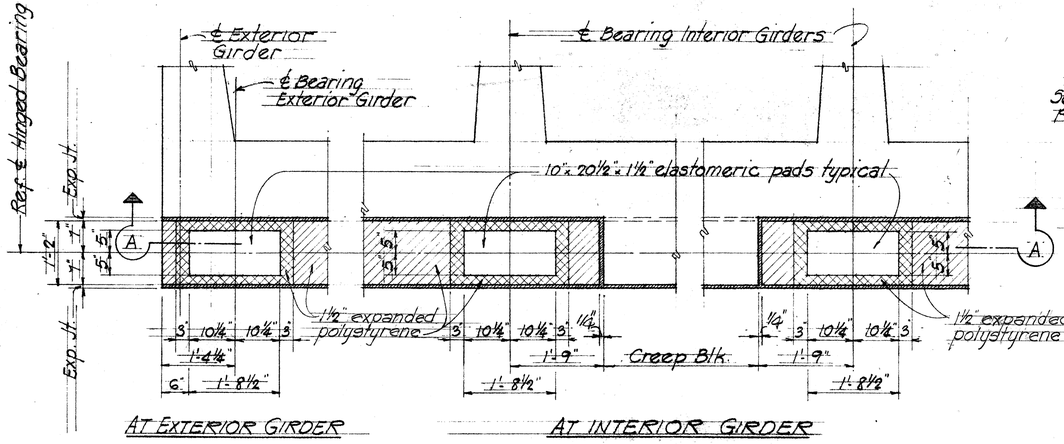
AIRPORT INTERCHANGE
F.A.I. PROJ. NO I-HI-1(145) 16
SCALE AS NOTED DATE: JULY, 1976

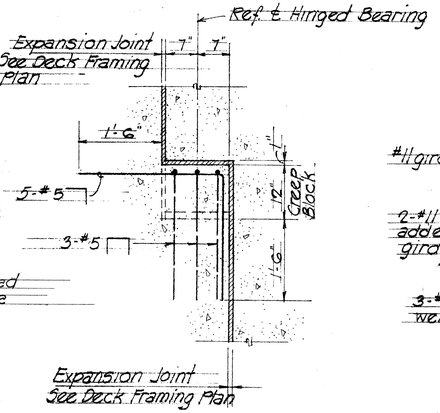
SHEET No. I-18 OF 124 SHEETS

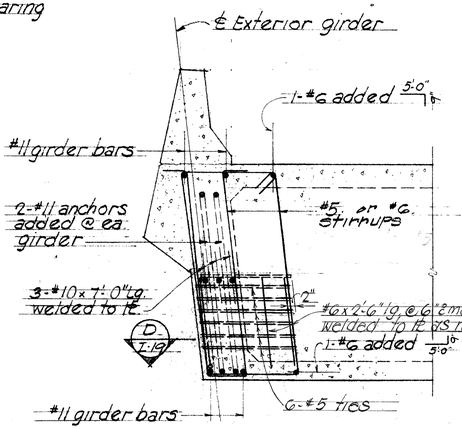
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
ORIGINAL PLAN
NOTE BOOK
No.

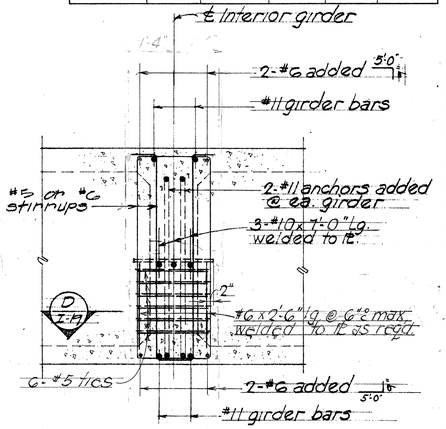
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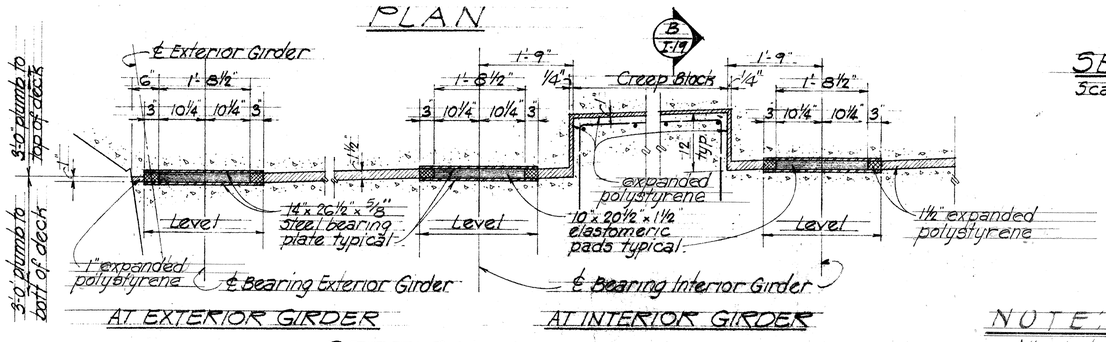
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HH(145)16	1976	34	136

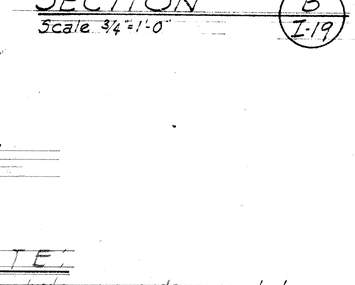


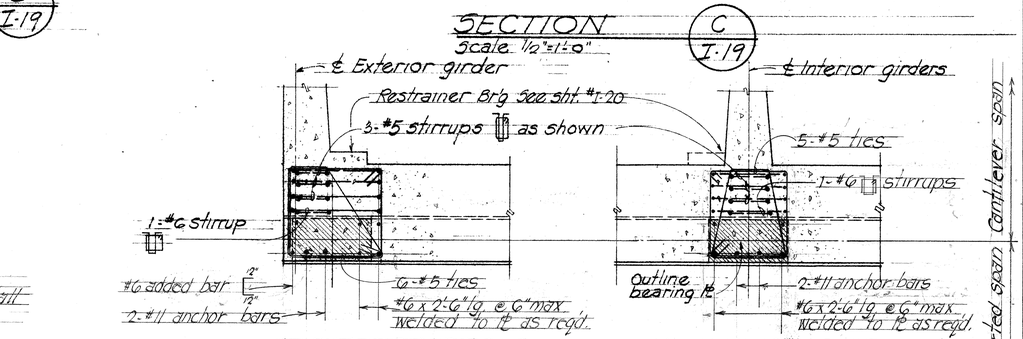


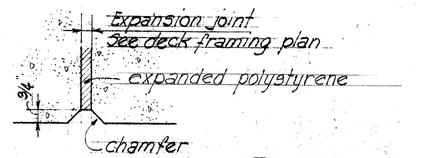


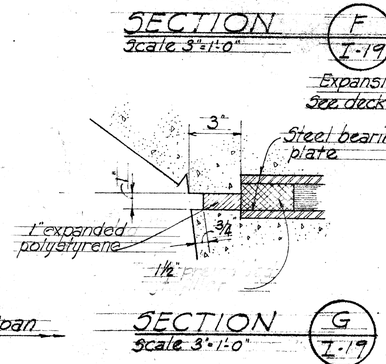


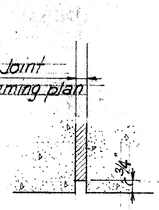






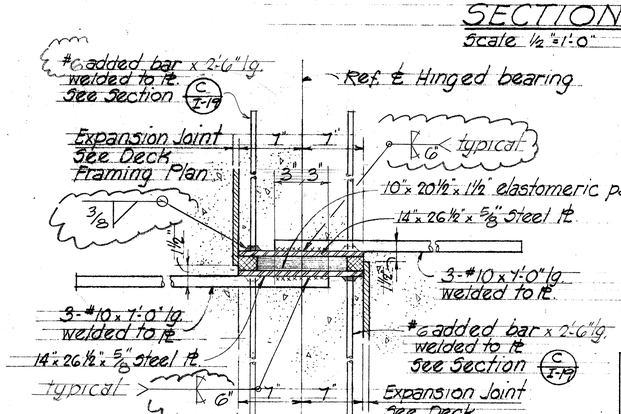






NOTE

All elastomeric pads, expanded polystyrene and bearing plate shall be incidental to concrete.



℄ ℄ Denotes Change

DATE	REVISION
1/25/78	E/I-19 BEARING ℄ DET. CHANGED WELD LENGTHS

HAROLD TAKASHI MIYAMOTO — REGISTERED PROFESSIONAL ENGINEER No. 1514 — HAWAII, U.S.A.

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GEORGE K. NISHIMURA — REGISTERED PROFESSIONAL ENGINEER No. 1388 — HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL HINGED BEARING DETAILS

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16
SCALE AS NOTED DATE: JULY, 1976

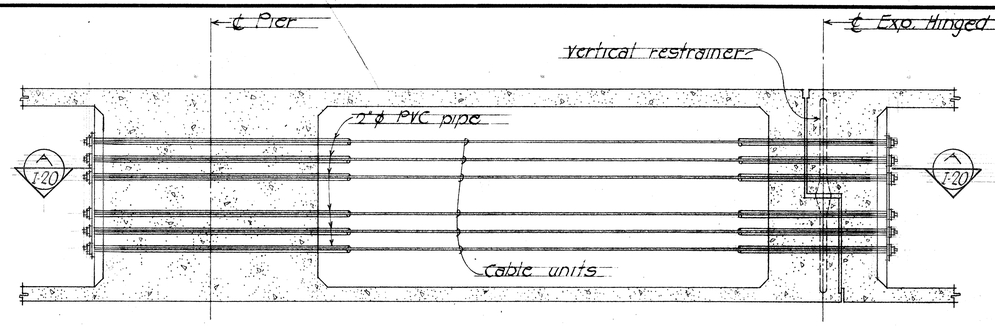
SHEET No. I-19 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

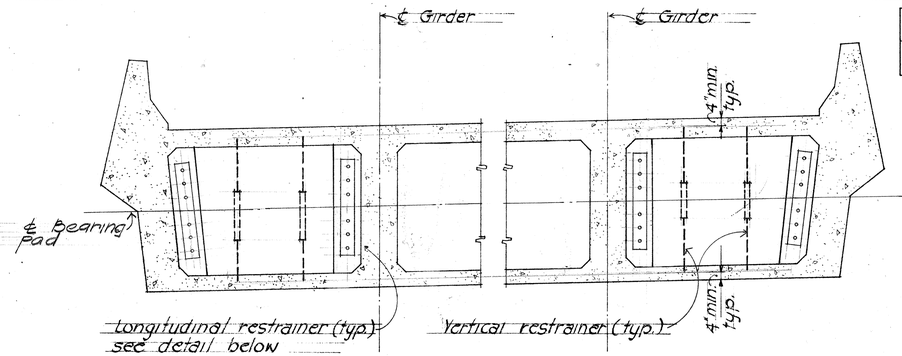
C034

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	35	136



LONGITUDINAL HINGE RESTRAINER PROFILE

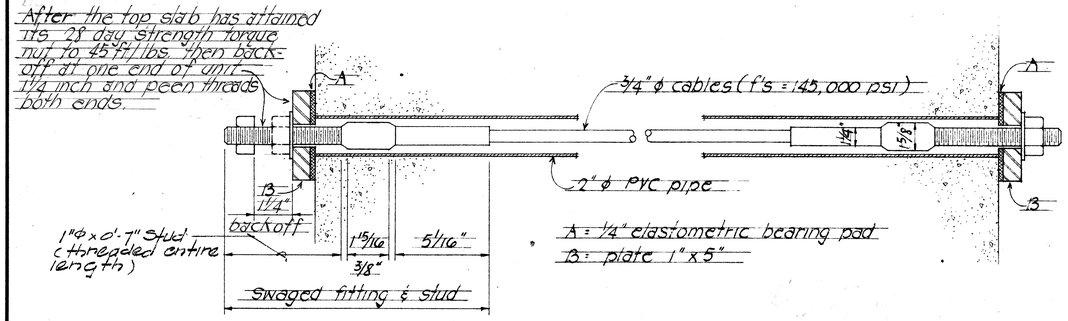
Scale: 1/2" = 1'-0"



PROFILE SHOWING RESTRAINER LOCATIONS

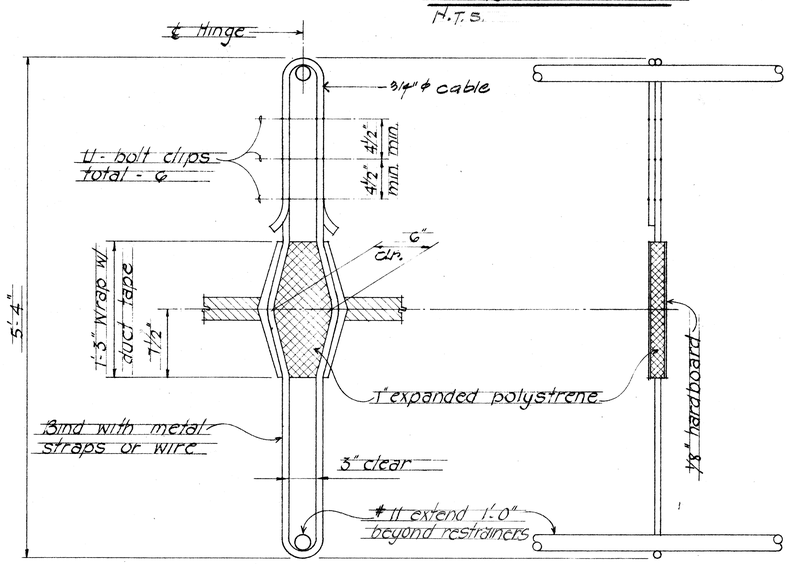
Scale: 3/8" = 1'-0"

After the top slab has attained its 28 day strength torque nut to 45 ft/lbs. then back-off at one end of unit 1/4 inch and peen threads both ends.



CABLE UNIT

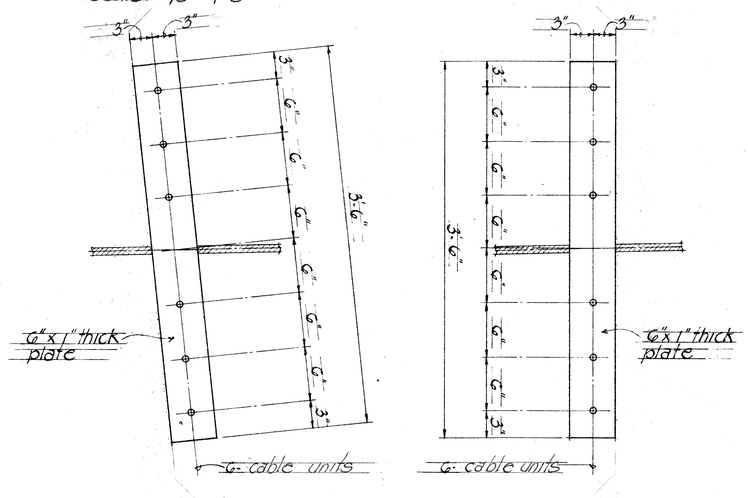
N.T.S.



ELEVATION SECTION

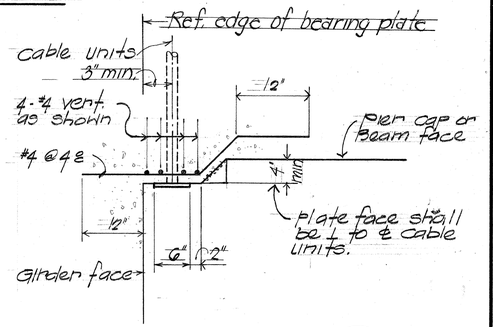
VERTICAL RESTRAINER

N.T.S.



RESTRAINER PLATE DETAIL

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



SECTION A-A

Scale: 1" = 1'-0"

I-20

NOTE:

All cable units shall be placed so that all cables are in straight line

Provide opening thru top slab at all cable units see form removal opening on standard detail sht. #5.4.

NOTE:

Grease (heavy duty) horizontal restrainer cables and encase grease cables with 2-inch P.V.C. ducts. All joints in PVC. ducts shall be sealed water tight as approved by the Engineer.

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

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIOKA REGISTERED PROFESSIONAL ENGINEER No. 1308 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL RESTRAINER DETAILS

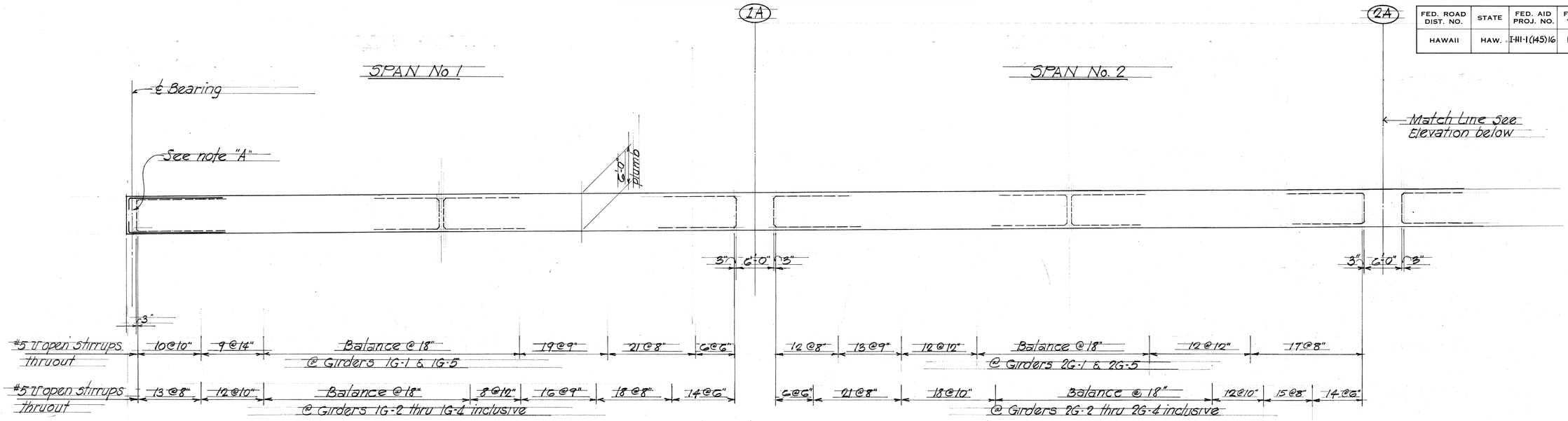
RAMP "IW"

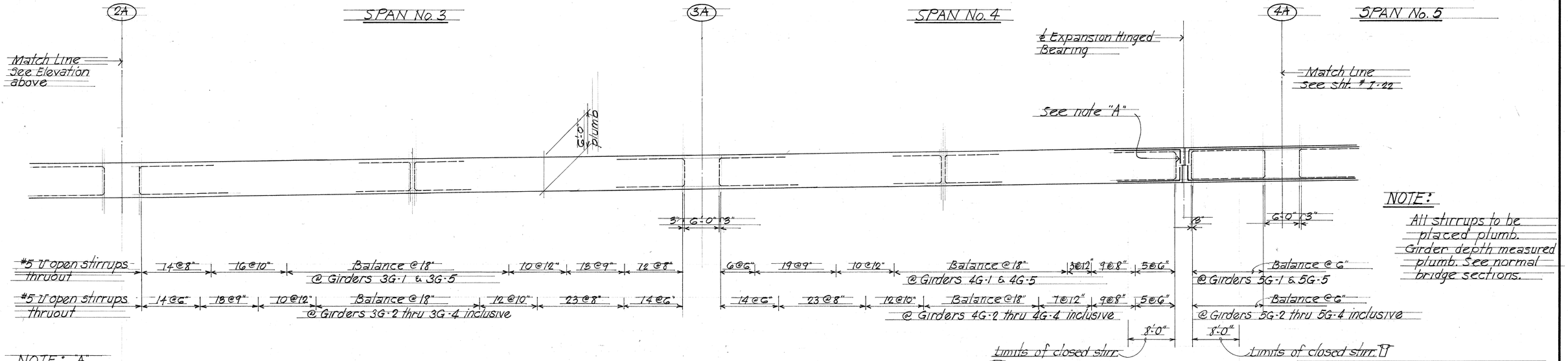
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F.A.I. PROJ. NO I-HI-1 (145) 16
SCALE AS NOTED DATE: JULY, 1976

SHEET No. I-20 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	36	136





NOTE:
All stirrups to be placed plumb. Girder depth measured plumb. See normal bridge sections.

NOTE: A
Bend ends of all top & bottom slab main reinforcing at beams where occurs. See standard details sht. # S-8

TYPICAL GIRDER STIRRUP PLACEMENT DIAGRAM

Not to scale

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

REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A. HAROLD TAKASHI MIYAMOTO

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

REGISTERED PROFESSIONAL ENGINEER No. 1368 HAWAII, U.S.A. GEORGE K. NISHIMURA

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GIRDER STIRRUP PLACEMENT DIAGRAM SPAN No. 1 THRU 4

RAMP "IW"

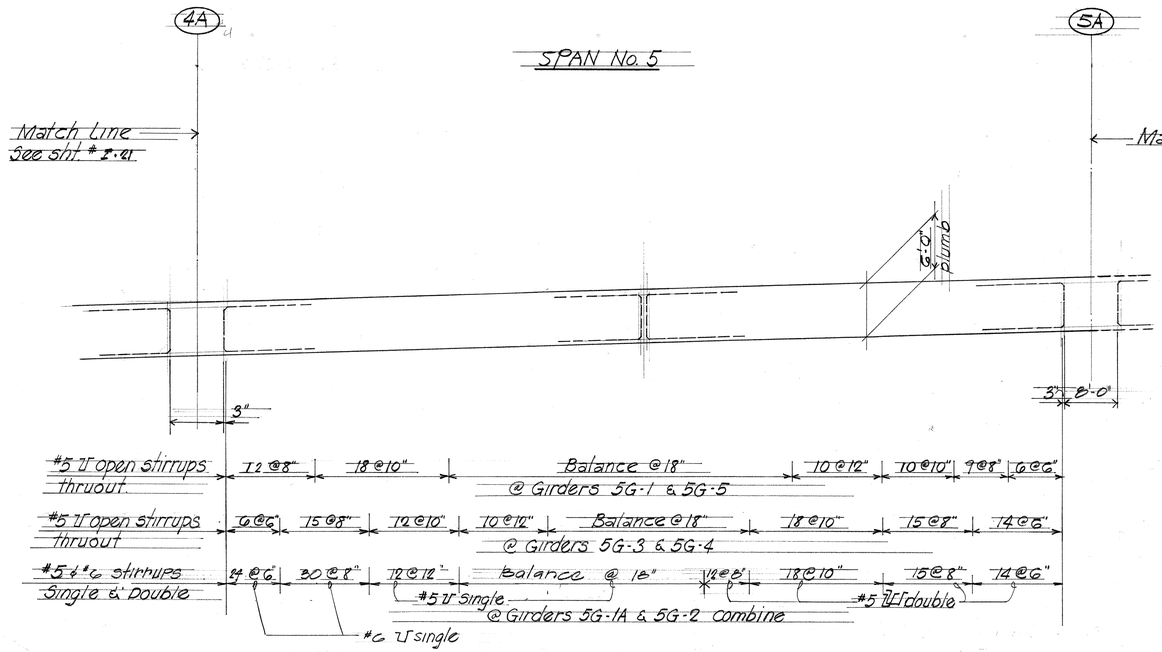
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F.A.I. PROJ. NO. I-HI-1(145)16

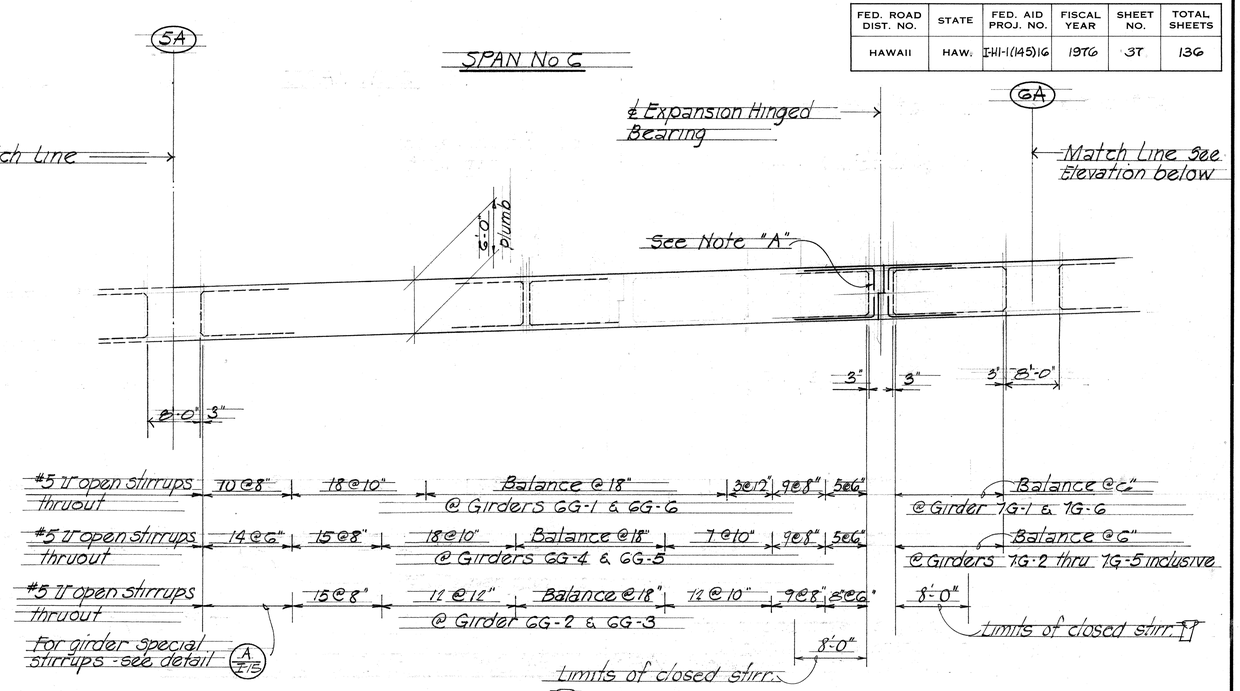
SCALE AS NOTED DATE: JULY, 1976

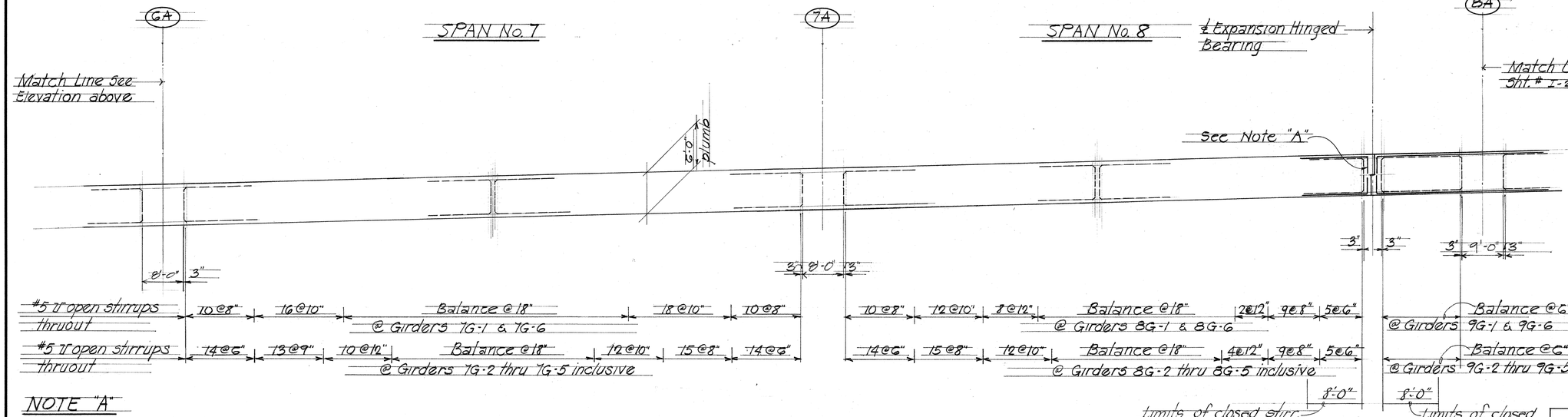
SHEET No. I-21 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	37	136







NOTE:
All stirrups to be placed plumb. Girder depth measured plumb. See normal bridge sections

NOTE "A"
Bend ends of all top & bottom slab main reinforcing at beams where occurs.

TYPICAL GIRDER STIRRUP PLACEMENT DIAGRAM
Not to scale

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

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1389 HAWAII, U.S.A.

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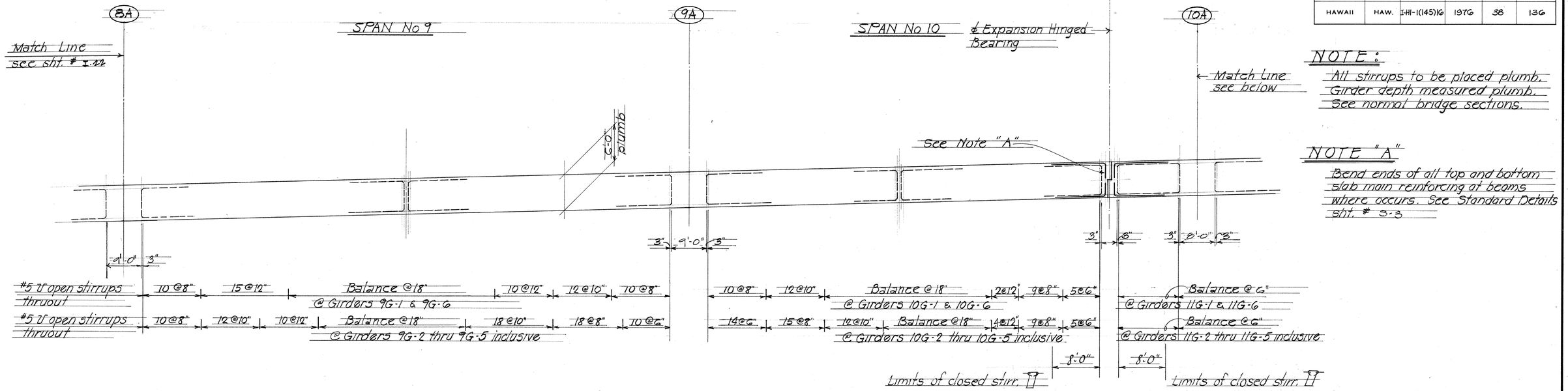
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GIRDER STIRRUP PLACEMENT DIAGRAM SPAN No. 5 THRU 8
RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16
SCALE AS NOTED DATE JULY, 1976
SHEET No. I-22 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	38	136

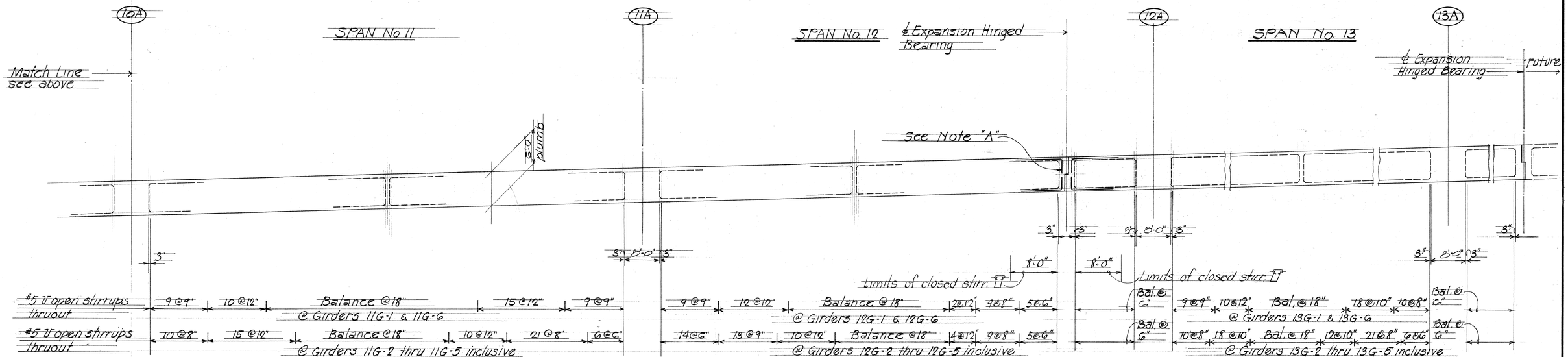


NOTE:

All stirrups to be placed plumb. Girder depth measured plumb. See normal bridge sections.

NOTE "A"

Bend ends of all top and bottom slab main reinforcing at beams where occurs. See Standard Details sht. # S-3



TYPICAL GIRDER STIRRUP PLACEMENT DIAGRAM

Not to scale

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GIRDER STIRRUP PLACEMENT DIAGRAM SPAN #9 THRU 13

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

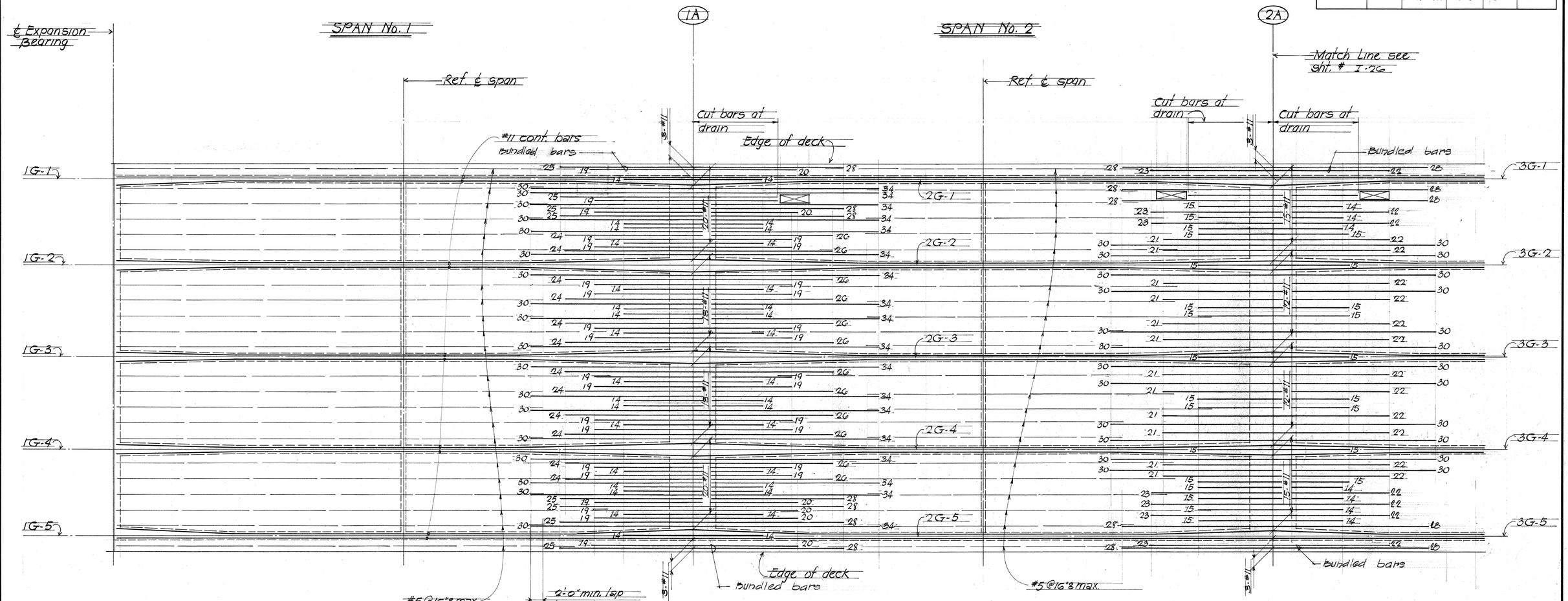
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-23 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(145)16	1976	39	136



TOP SLAB MAIN REINFORCING PLAN

Scale: Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

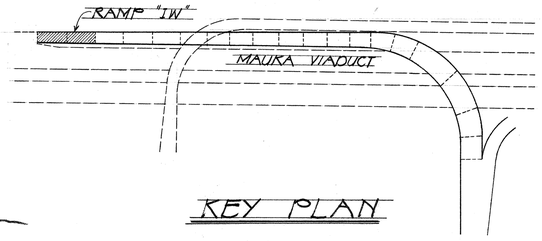
1- Unless otherwise noted on plans, all reinforcement #11 bars.
2- Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for all top reinforcement.
3- All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4- For additional slab reinforcement and details see sht. # I-16 and standard details shts. # S-1 thru # S-4 inclusive.
5- All #11 bars shown in deck shall be grade 60.

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KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 1 AND 2

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-I(145)16

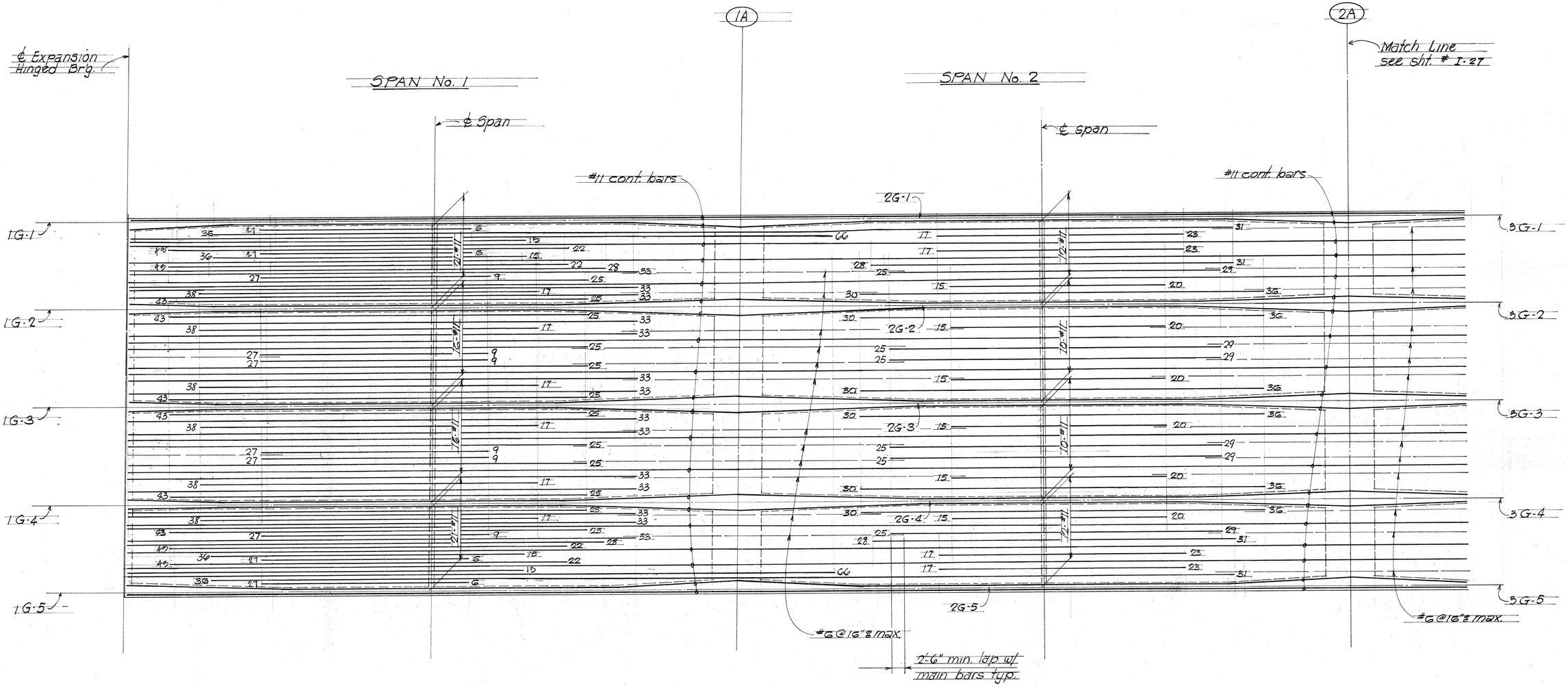
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-24 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	40	136



BOTTOM SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4"=1'-0"
Horiz. 1/8"=1'-0"

NOTE:

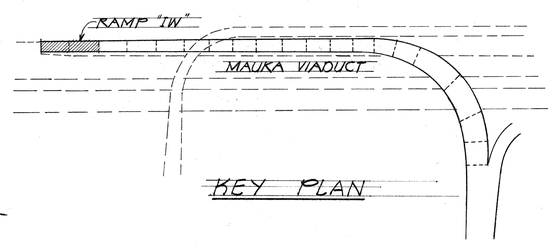
1- Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2- Numbers at ends of bars indicate distance in feet from ℄ span for all bottom slab reinforcement.
3- All #6@16" max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4- For additional slab reinforcement and details - see sht. #1-1C and standard details shts. #5-2 thru #5-7 inclusive.
5- All #11 bars shown in deck shall be grade 60.

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

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REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

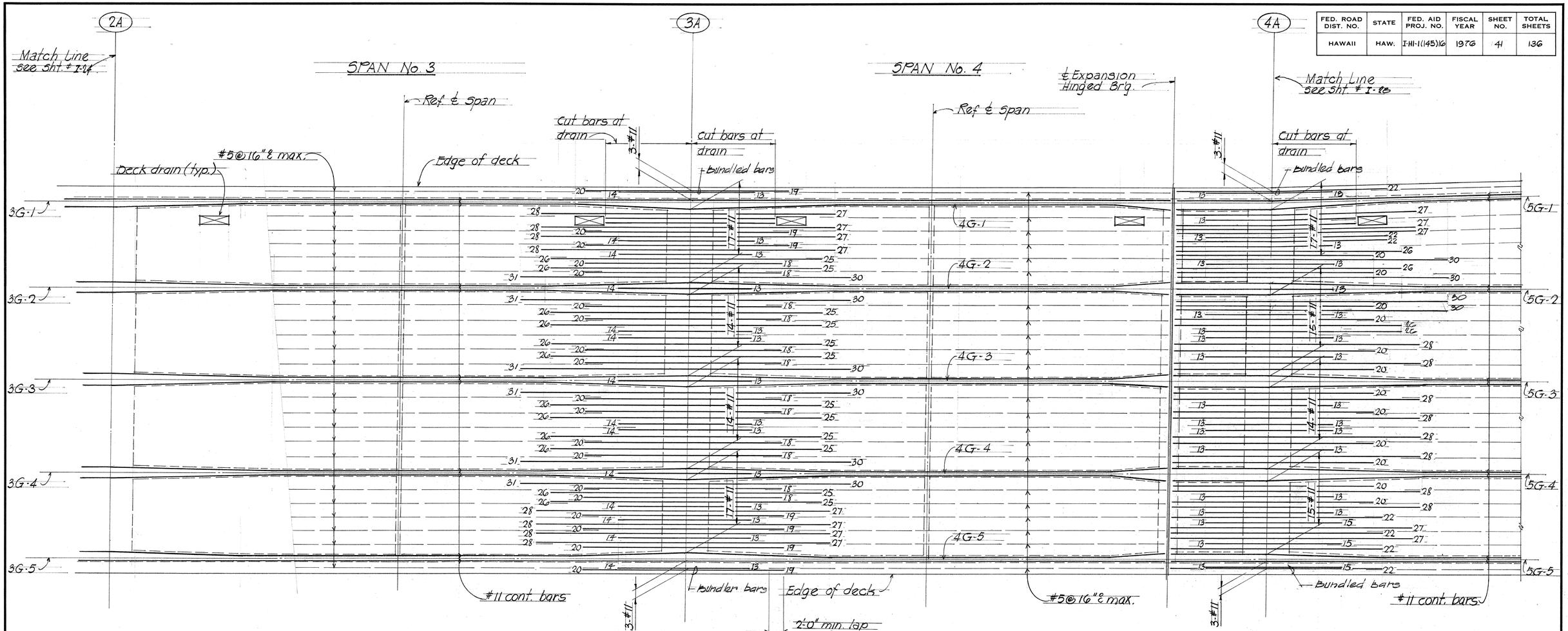
DECK STEEL PLACEMENT DIAGRAM
SPAN NO. 1 & 2
RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16
SCALE AS NOTED DATE JULY, 1976

SHEET NO. I-25 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	41	136



TOP SLAB MAIN REINFORCING PLAN

Scale = Vert. 1/4"=1'-0"
Horiz 1/8"=1'-0"

NOTE:

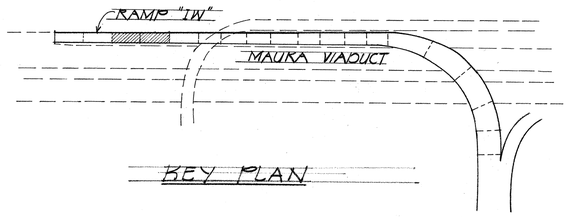
1. Unless otherwise noted on plans, all reinforcement # 11 bars.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for all top reinforcement.
3. All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details see sht. # I-16 and standard details shts. # S-2 thru # S-4 inclusive.
5. All #11 bars shown in deck shall be grade 60.

HAROLD TAKASHI MIYAMOTO
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No. 1514
HAWAII, U.S.A.

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REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

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KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN #3 AND #4

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE JULY, 1976

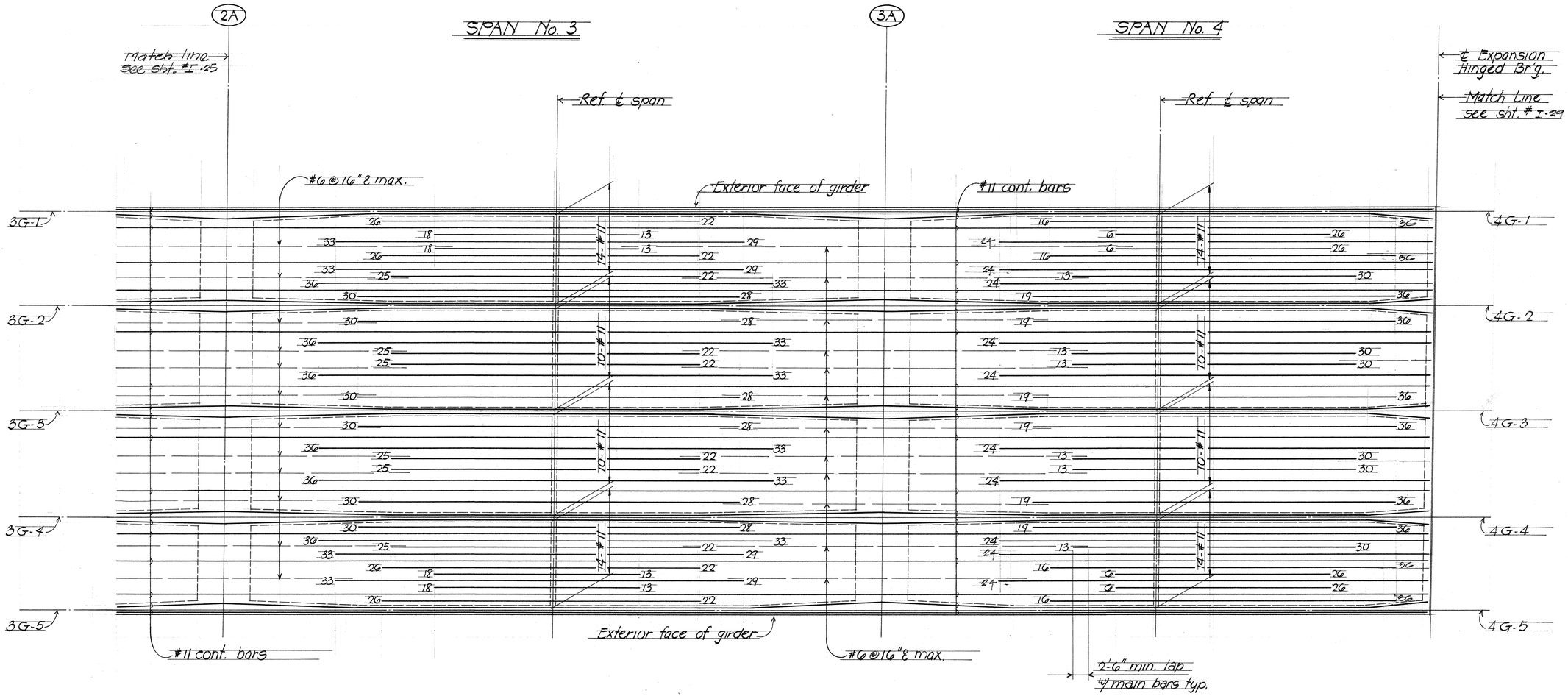
SHEET No. I-26 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

41

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	42	136



BOTTOM SLAB MAIN REINFORCING PLAN

Scale: Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

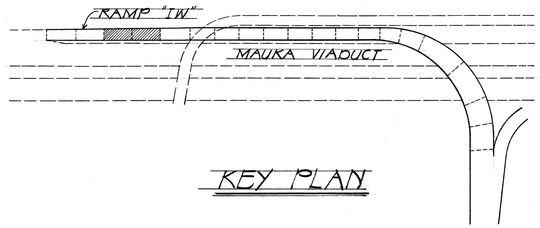
1. Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2. Numbers at ends of bars indicate distance in feet from ℄ span for all bottom slab reinforcement.
3. All #6 @ 16" max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details - see sht. # I-16 and standard details shts. # 5.2 thru # 5.4 inclusive.
5. All #11 bars shown in deck shall be grade 60

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1516
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 3 AND # 4

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

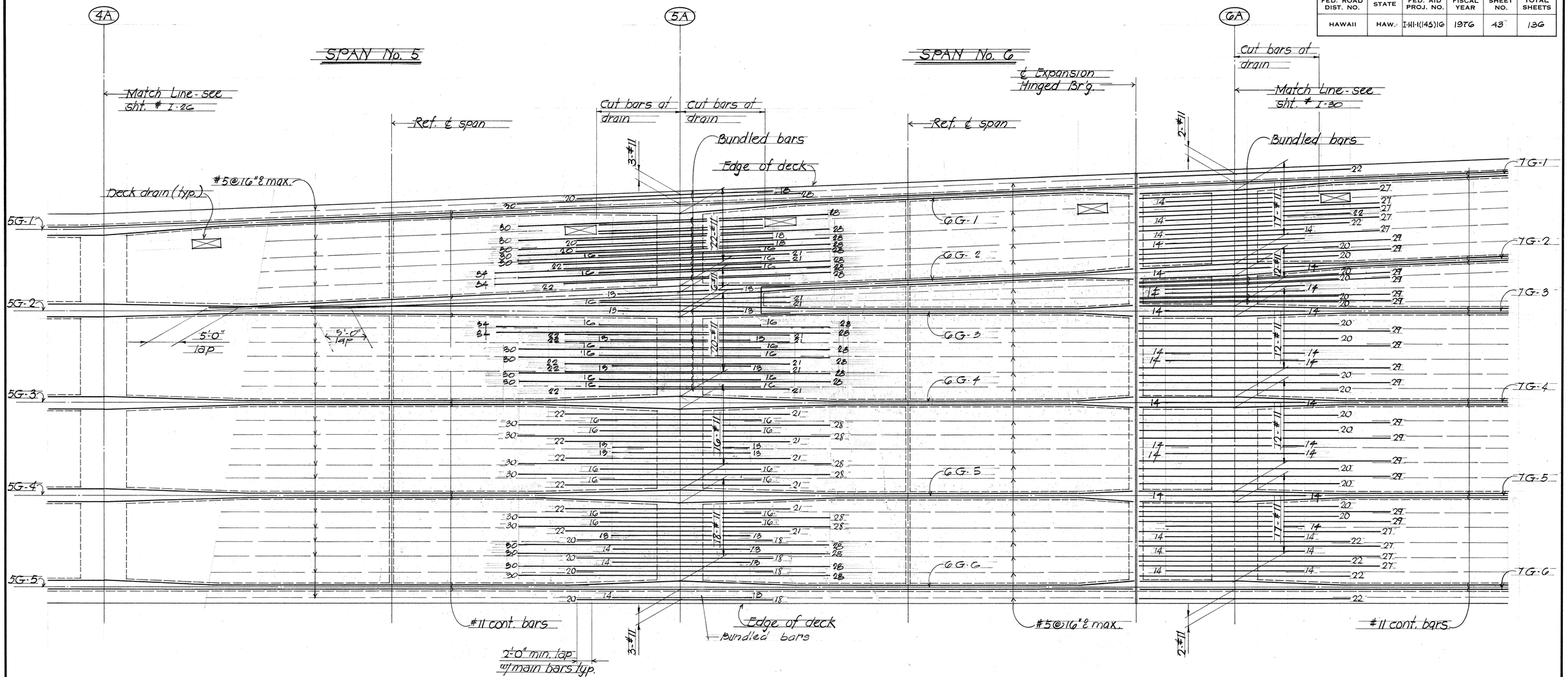
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-27 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	43	136



TOP SLAB MAIN REINFORCING PLAN

Scale: Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

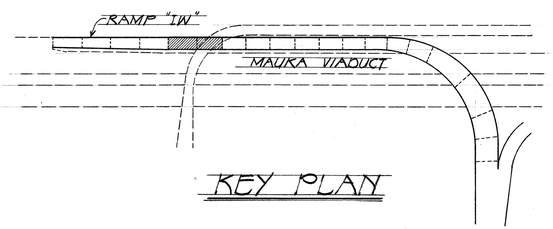
1. Unless otherwise noted on plans, all reinforcement #11 bars.
2. Numbers at ends of bars indicate in feet from adjacent ℄ pier for all top reinforcement.
3. All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details see sht. # I-16 and standard details shts. # 5.2 thru # 5.4 inclusive.
5. All #11 bars shown in deck shall be grade 60

HAROLD TAKASHI MIYAMOTO
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GEORGE K. NISHIMURA
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HAWAII, U.S.A.

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KEY PLAN

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN #5 AND #6

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

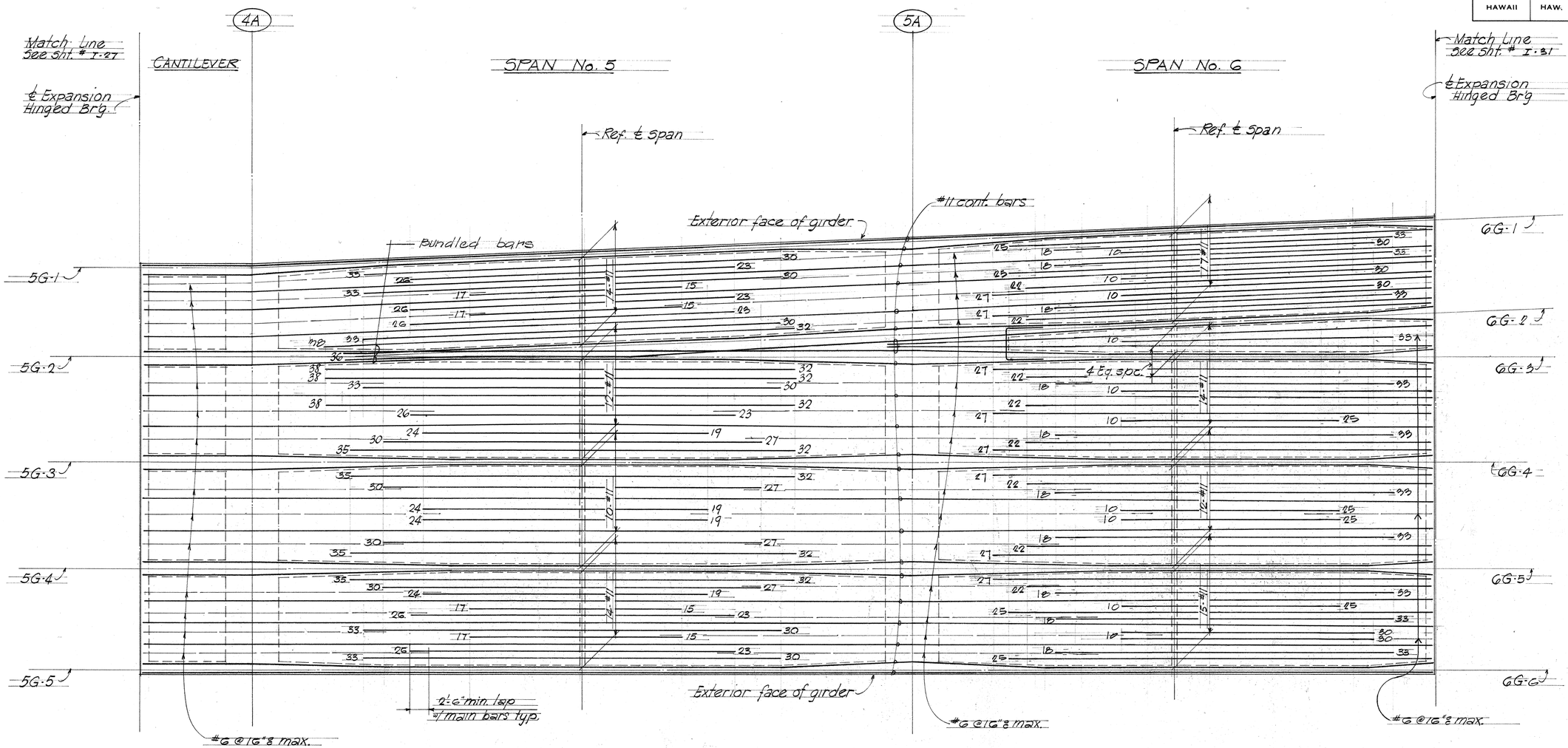
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-28 OF 124 SHEETS

43

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	44	136



BOTTOM SLAB MAIN REINFORCING PLAN

Scale = Vert. 1/4"=1'-0"
Horiz. 1/8"=1'-0"

NOTE:

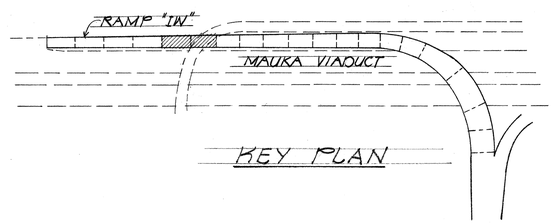
1. Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2. Numbers at ends of bars indicate distance in feet from ℄ span for all bottom slab reinforcement.
3. All #6 @16" max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details - see sht. # I-16 and standard details shts. # S-2 thru # S-4 inclusive.
5. All #11 bars shown in deck shall be grade 60

HAROLD TAKASHI MIYAMOTO
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GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

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KEY PLAN

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN #5 AND #6

RAMP "IW"

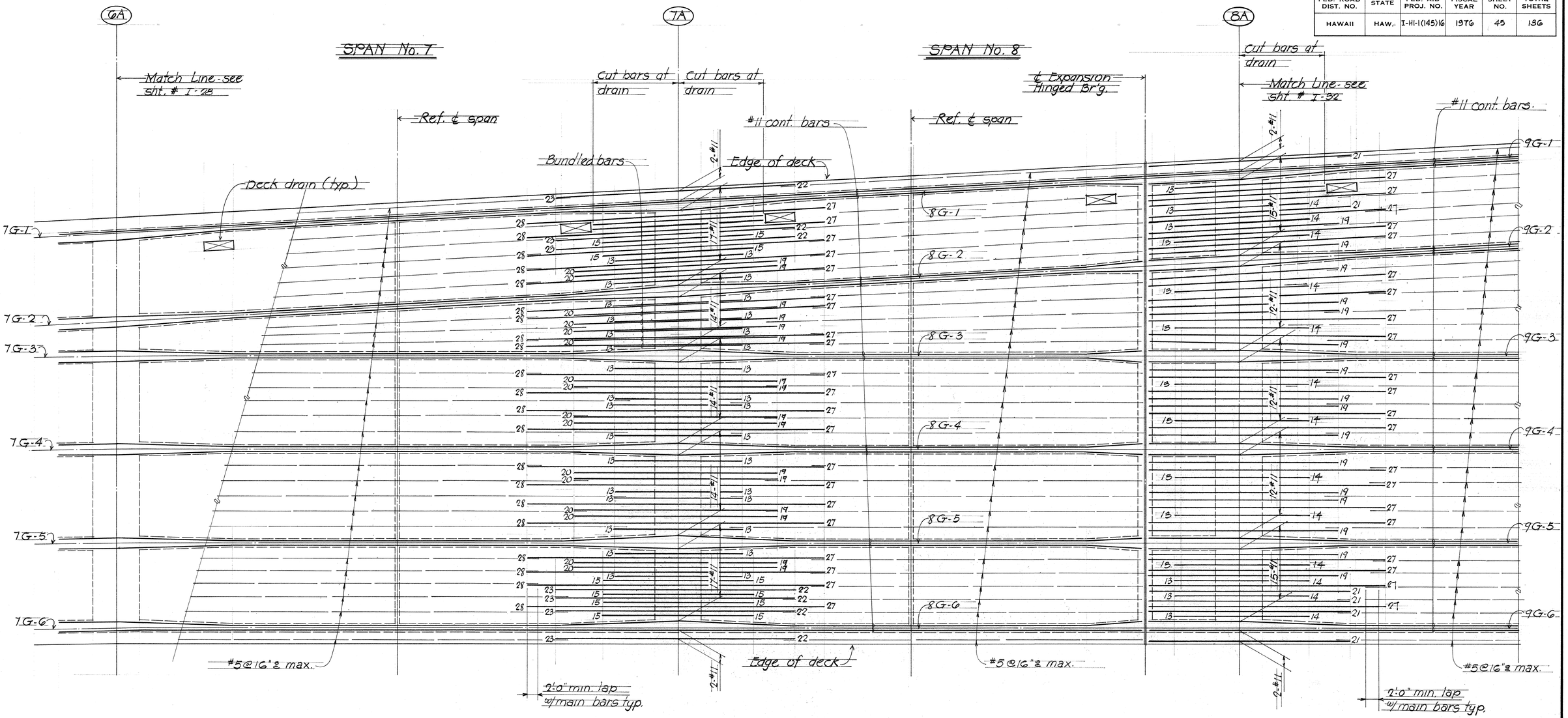
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-29 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	45	136



TOP SLAB MAIN REINFORCING PLAN

Scale: Vert. 1/4"=1'-0"
Horiz 1/8"=1'-0"

NOTE:

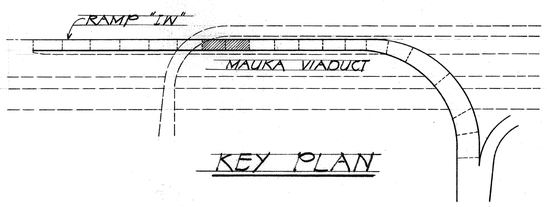
1- Unless otherwise noted on plans, all reinforcement #11 bars.
2- Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for all top reinforcement.
3- All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4- For additional slab reinforcement and details see sht. # I-16 and standard details shts. # S-2 thru # S-4 inclusive.
5- All #11 bars shown in deck shall be grade 60

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1398 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 7 AND # 8

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

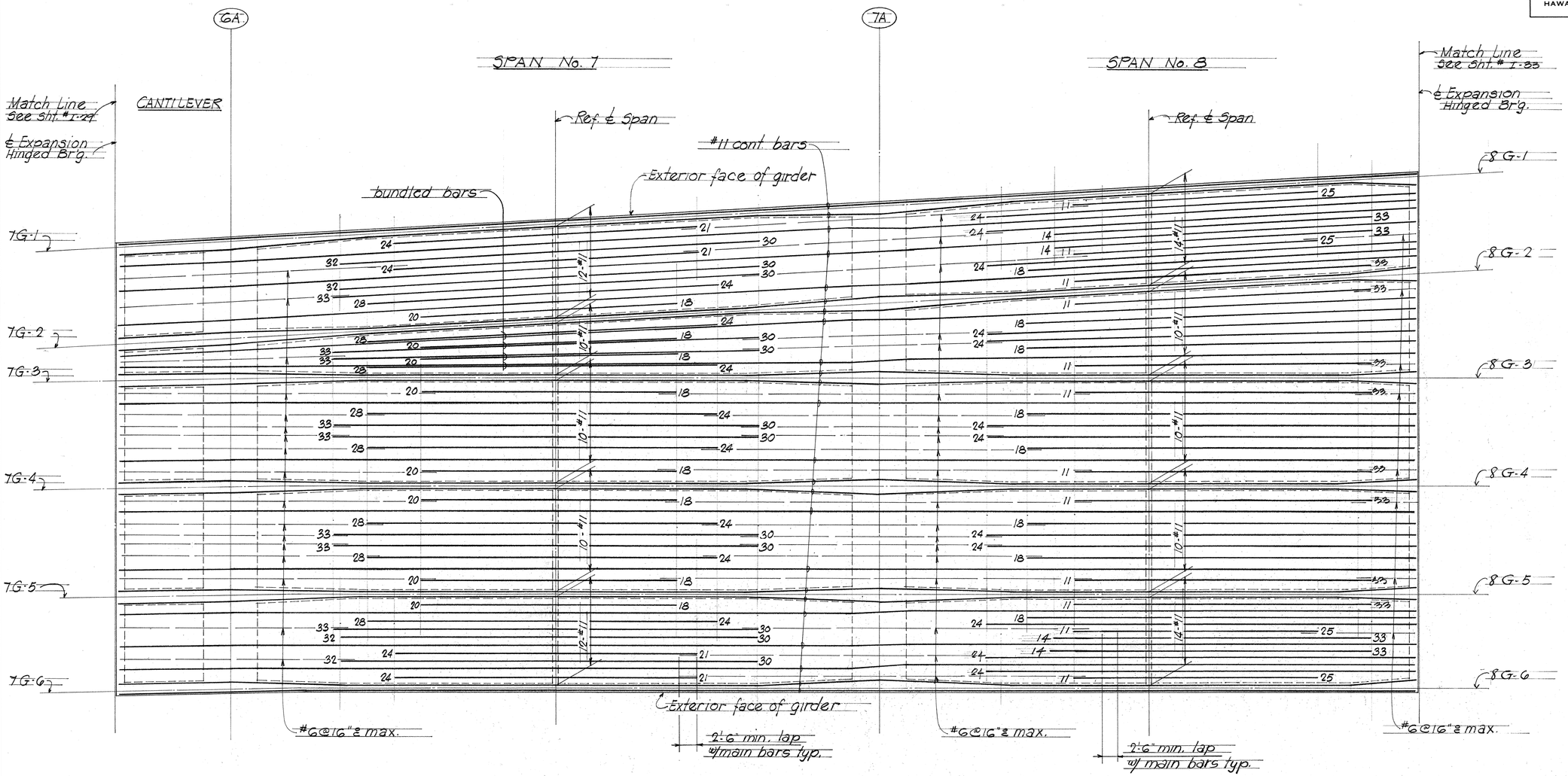
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-30 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	46	136



BOTTOM SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4"=1'-0"
Horiz 1/8"=1'-0"

NOTE:

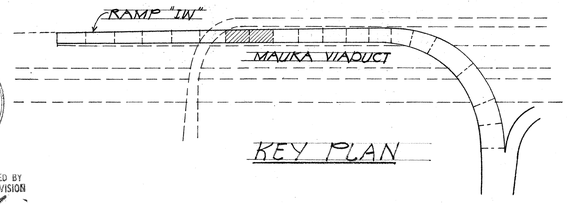
1- Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2- Numbers at ends of bars indicate in feet from ℄ span for all bottom slab reinforcement.
3- All #6@16" max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4- For additional slab reinforcement and details - see sht. # I-12 and standard details shts. # 5-2 thru # 5-7 inclusive.
5- All #11 bars shown in deck shall be grade 60.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 7 AND # 8
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

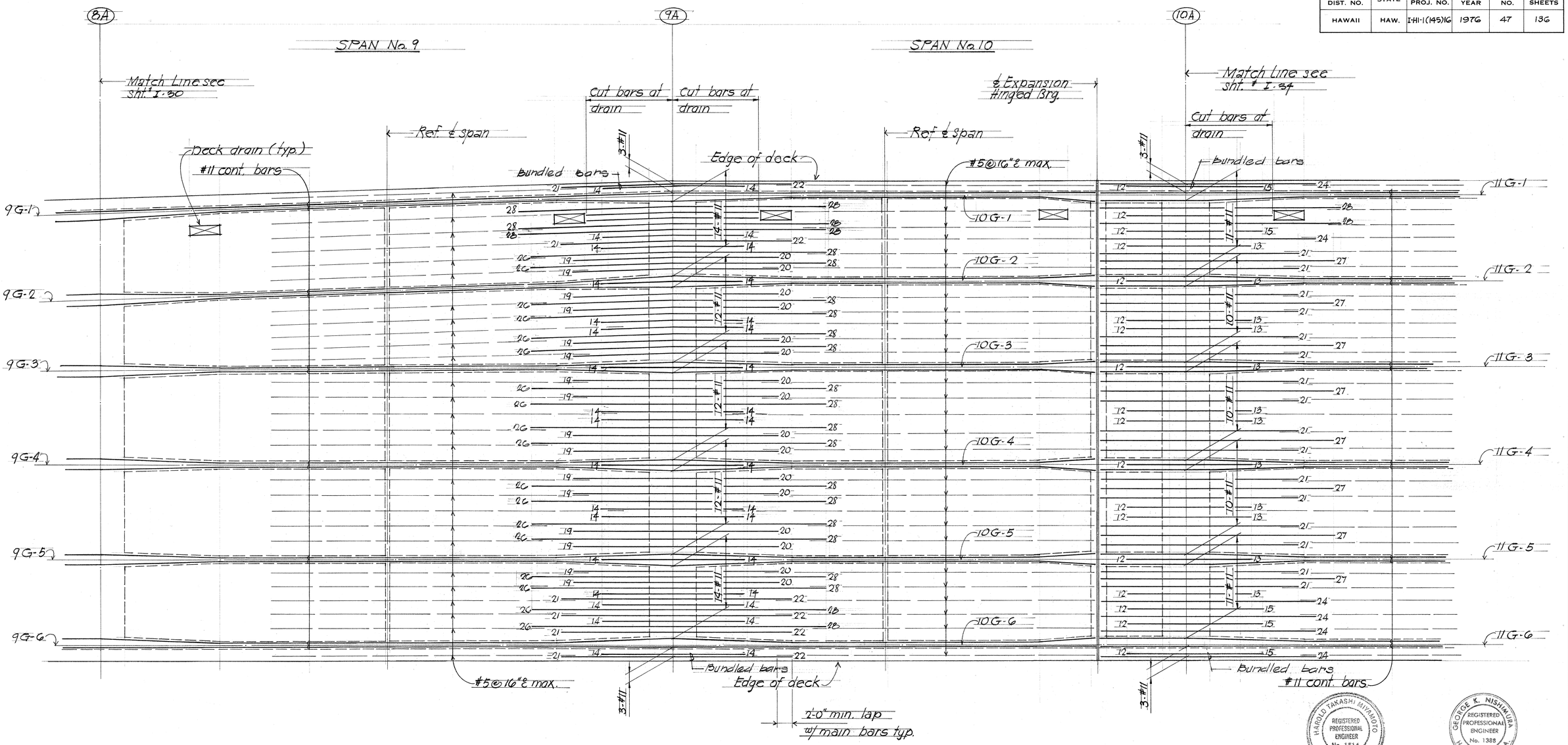
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-31 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	47	136

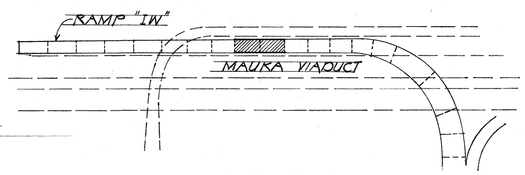


TOP SLAB MAIN REINFORCING PLAN

scale Vert. 1/4" = 1'-0"
Horiz 1/8" = 1'-0"

NOTE:

1- Unless otherwise noted on plans, all reinforcement shall be #11 bars
2- Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for all top of reinforcement.
3- All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4- For additional slab reinforcement and details - see sht #I-16 and standard details shts. # S-2 thru # S-4 inclusive.
5. All #11 bars shown in deck shall be grade 60



KEY PLAN

HAROLD TAKASHI NAYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIKAWA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 9 AND # 10
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

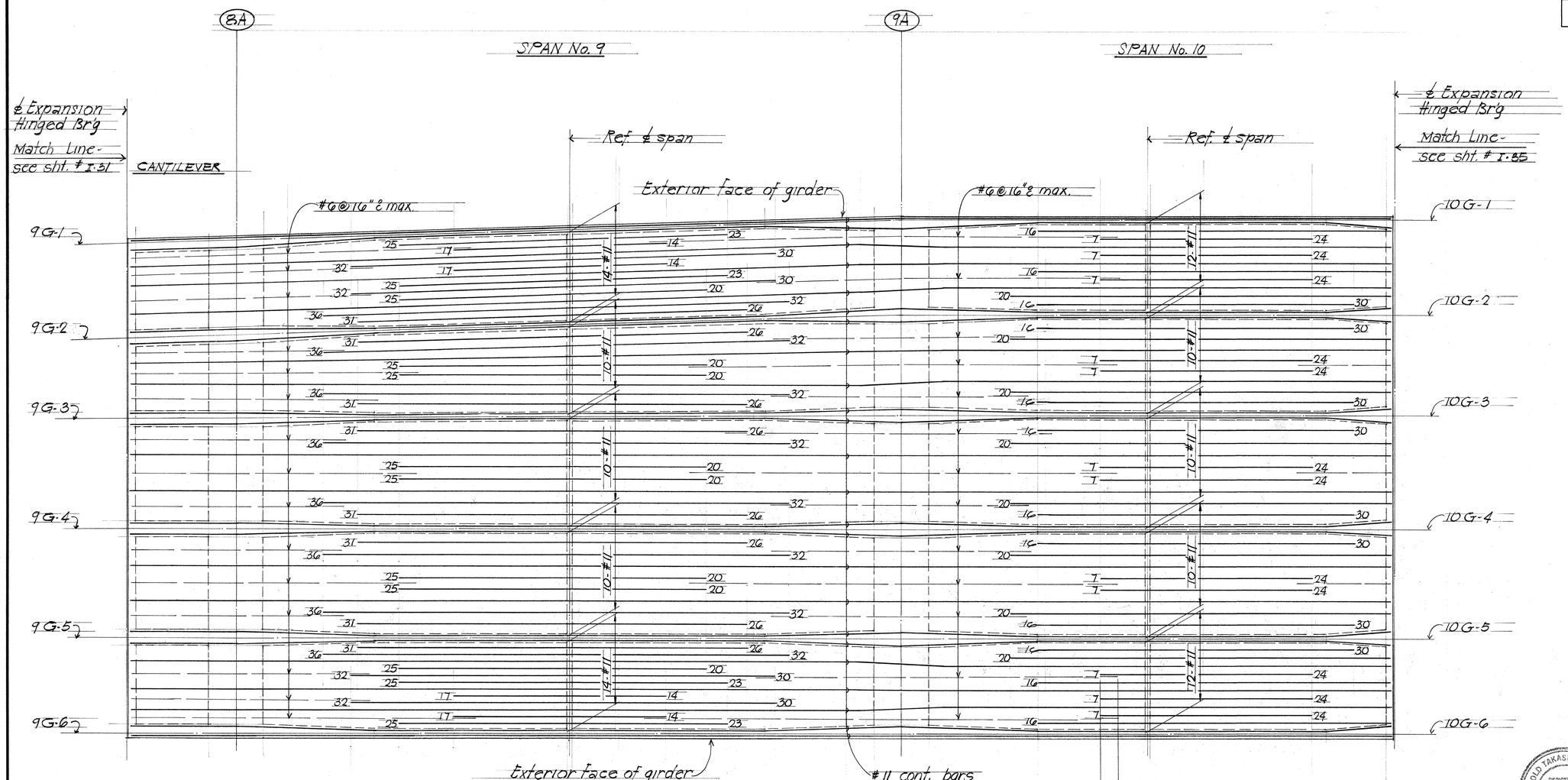
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-32 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	48	136

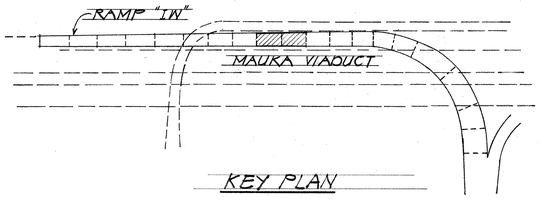


BOTTOM SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

1. Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2. Numbers at ends of bars indicate distance in feet from ℄ span for all bottom slab reinforcement.
3. All #6@16" max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details - see sht #I-16 and standard details shts. #5.2 thru #5.4 inclusive.
5. All #11 bars shown in deck shall be grade 60.



KEY PLAN

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 9 AND # 10
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

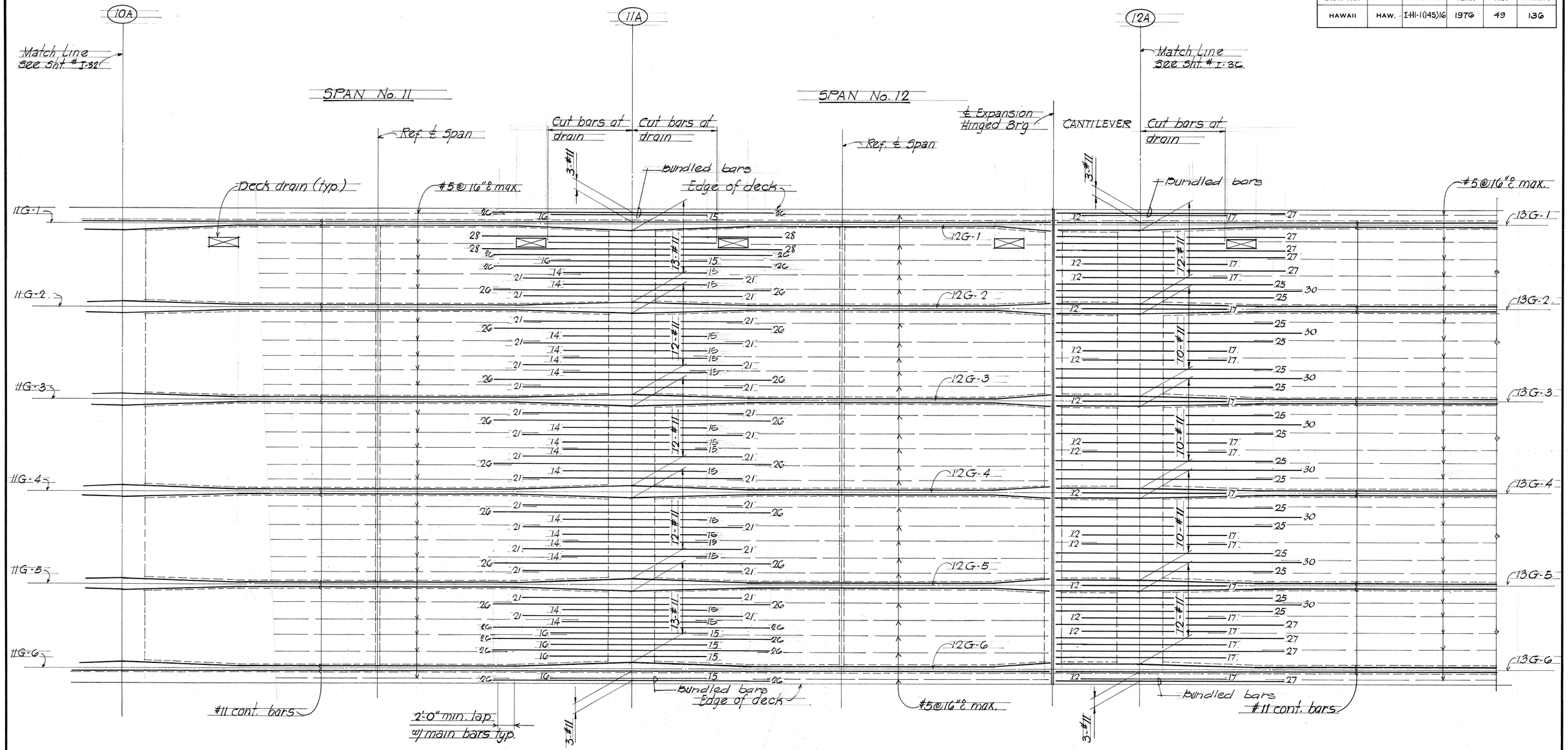
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-33 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	49	136



TOP SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

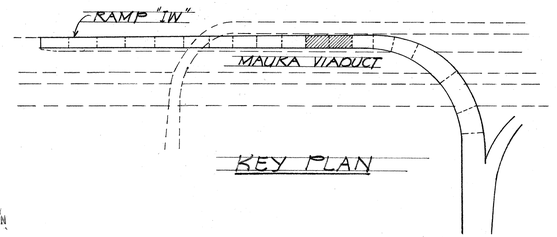
1. Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for all top reinforcement.
3. All #5@16" max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details - see sht. # I-15 and standard details shts. # 5.2 thru # 5.7 inclusive.
5. All #11 bars shown in deck shall be grade 60.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 11 AND # 12
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

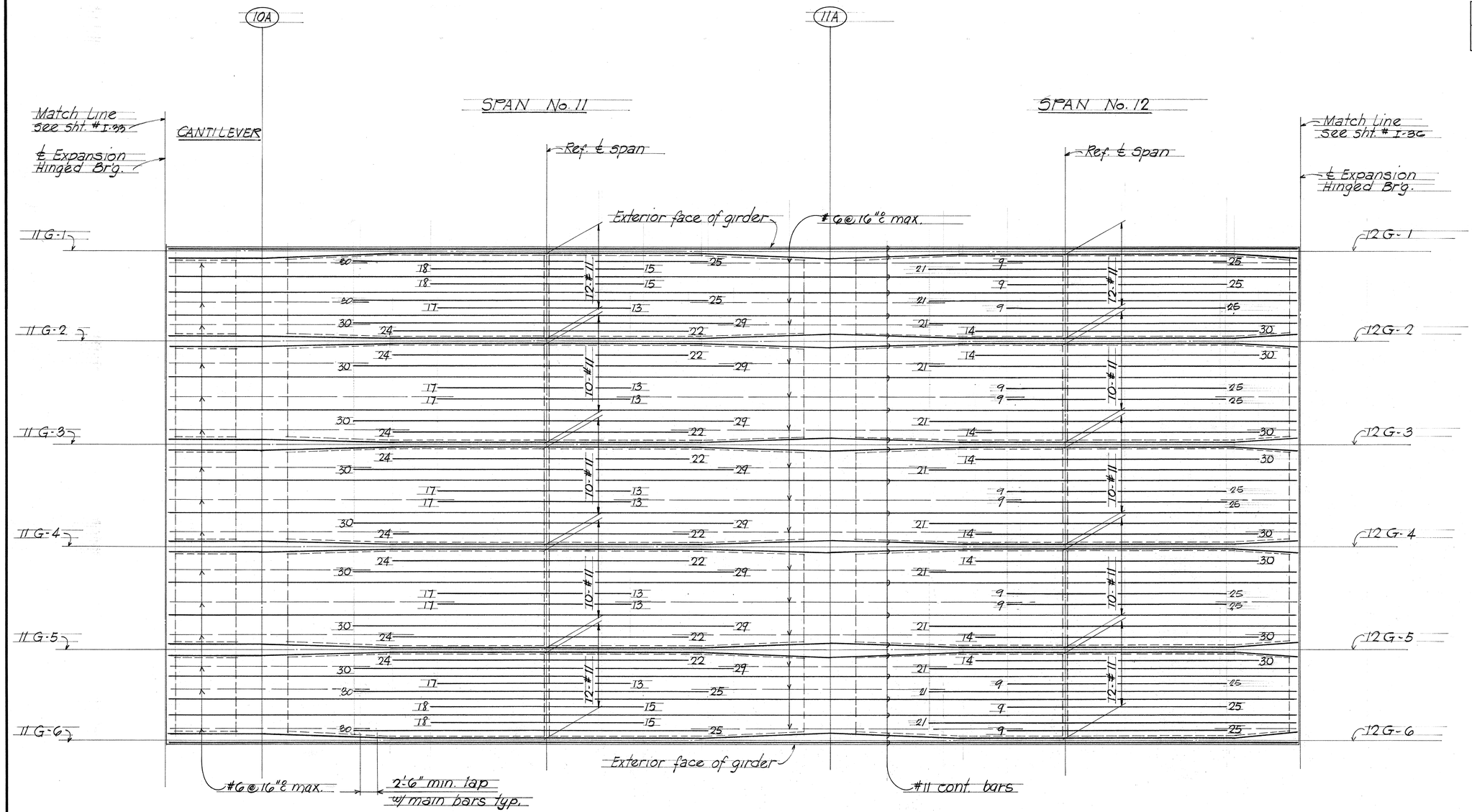
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-34 OF 174 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	50	136



BOTTOM SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4" = 1'-0"
Horiz. 1/8" = 1'-0"

NOTE:

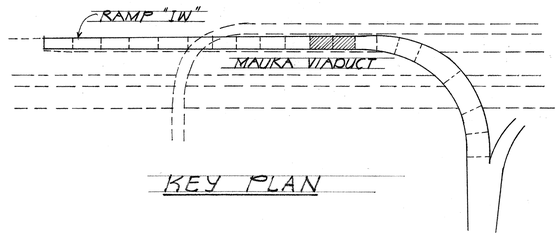
1. Unless otherwise noted on plans, all reinforcement shall be # 11 bars.
2. Numbers at ends of bars indicate distance in feet from ℄ span for all bottom slab reinforcement.
3. All #6 @ 16" max. bars shall be extended and lapped 2'-6" min. with adjacent # 11 bars as shown.
4. For additional slab reinforcement and details - see sht. # I-16 and standard details shts. # 9.2 thru # 9.4 inclusive.
5. All #11 bars shown in deck shall be grade 60

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 11 AND # 12
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

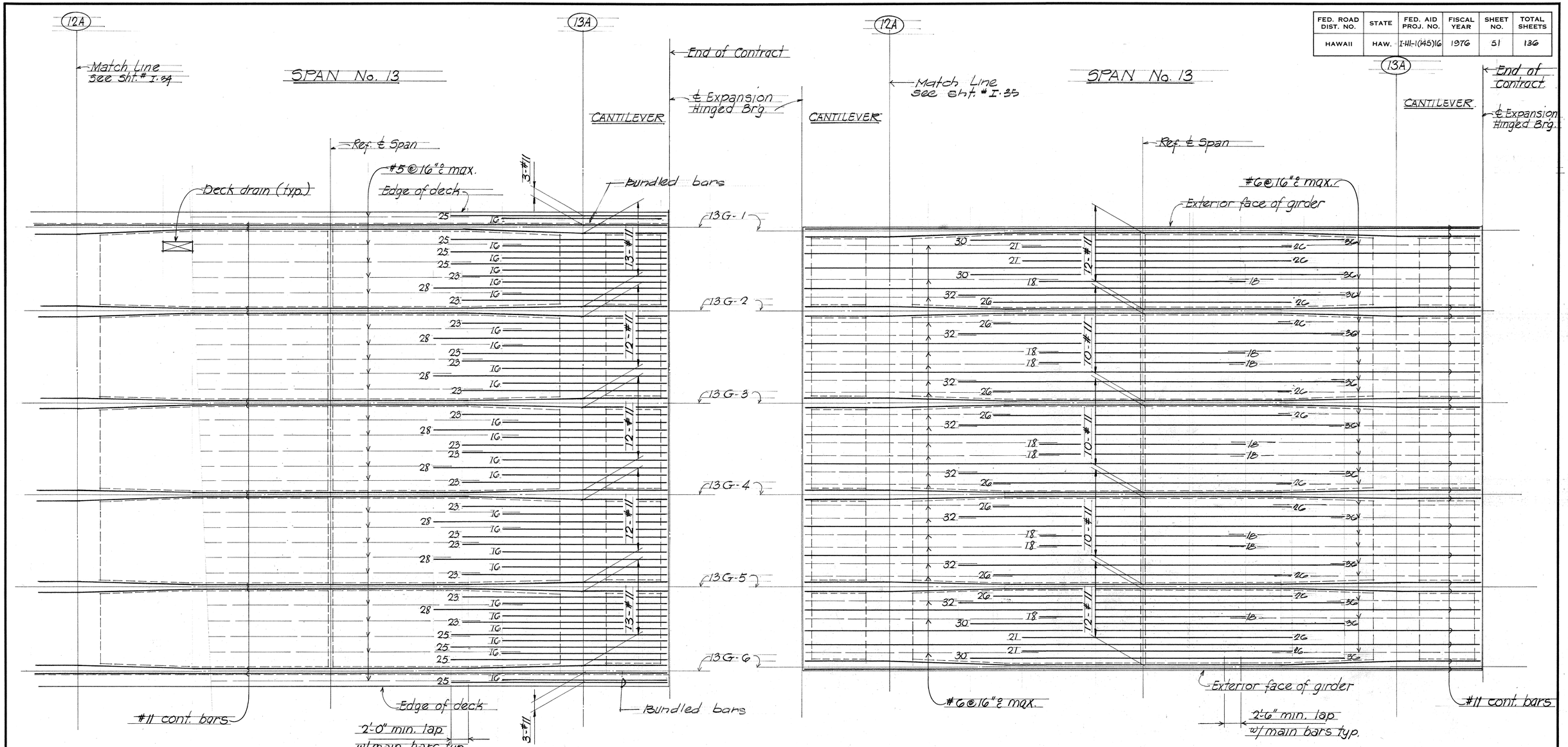
SCALE: AS NOTED DATE July, 1976

SHEET No. I-35 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	51	136



TOP SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4"=1'-0"
Horiz. 1/8"=1'-0"

BOTTOM SLAB MAIN REINFORCING PLAN

Scale Vert. 1/4"=1'-0"
Horiz. 1/8"=1'-0"

NOTE:

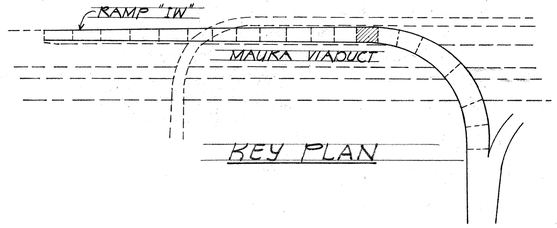
1. Unless otherwise noted on plans, all reinforcement shall be #11 bars.
2. Numbers at ends of bars indicates distance in feet, from adjacent ℄ pier for all top reinforcement, from ℄ span for all bottom reinforcement.
3. All #5 @ 16" (top slab) max. bars shall be extended and lapped 2'-0" min. with adjacent #11 bars as shown and all #6 @ 16" (bottom slab) max. bars shall be extended and lapped 2'-6" min. with adjacent #11 bars as shown.
4. For additional slab reinforcement and details - see sht. # I-6 and standard details shts. # 5-2 thru # 5-7 inclusive.
5. All #11 bars shown in deck shall be grade 60.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN # 13
RAMP "IW"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

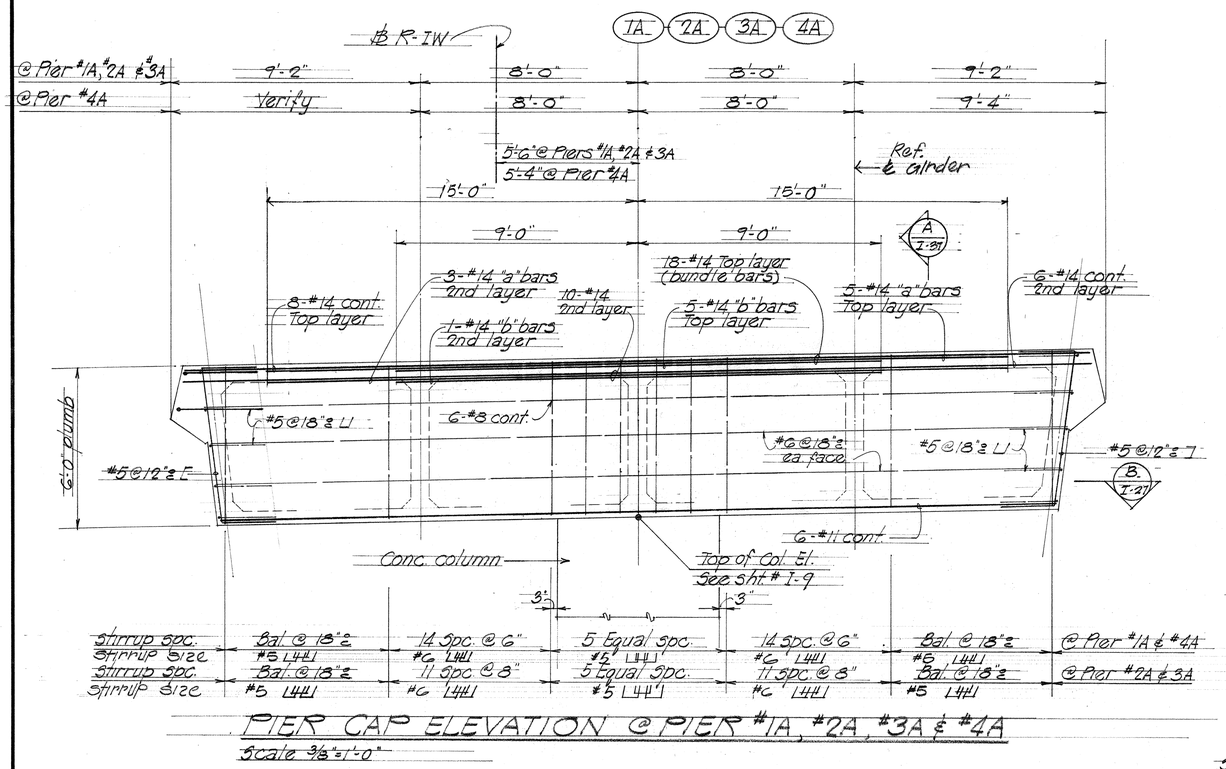
SCALE: AS NOTED DATE JULY, 1976

SHEET No. I-36 OF 124 SHEETS

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

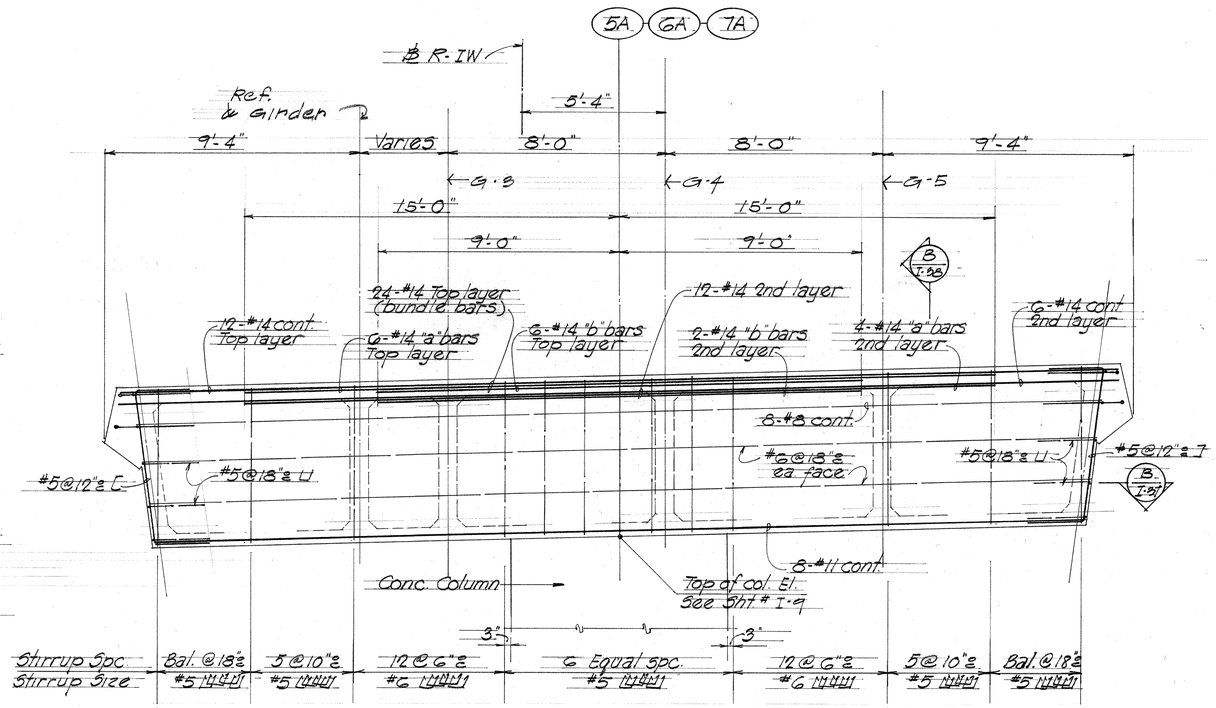
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	52	136



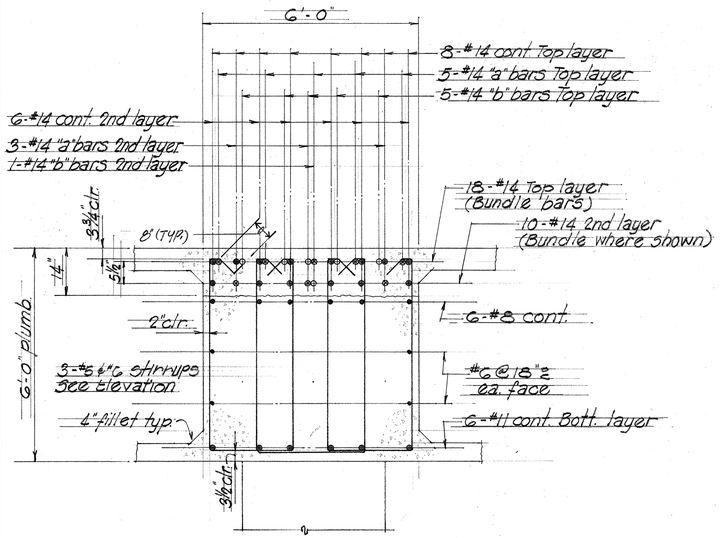
PIER CAP ELEVATION @ PIER #1A, #2A, #3A & #4A

Scale 3/8"=1'-0"



PIER CAP ELEVATION @ PIER #5A, #6A & #7A

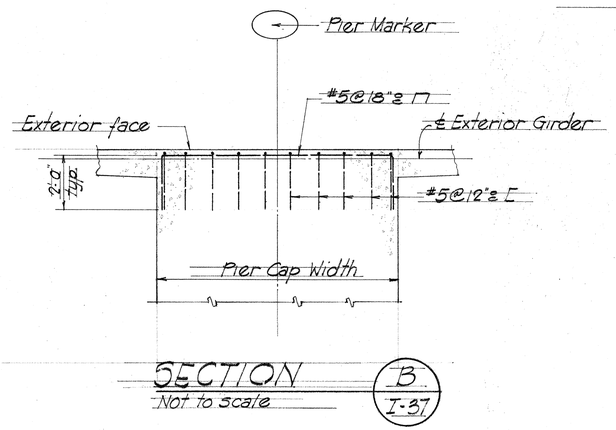
Scale 3/8"=1'-0"



SECTION A

Scale 1/2"=1'-0"

I-37



SECTION B

Not to scale

I-37

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP 1A THRU 7A
ELEVATION & SECTION

RAMP "1N"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 1C
SCALE: AS NOTED DATE: JULY, 1976

SHEET No. I-37 OF 124 SHEETS

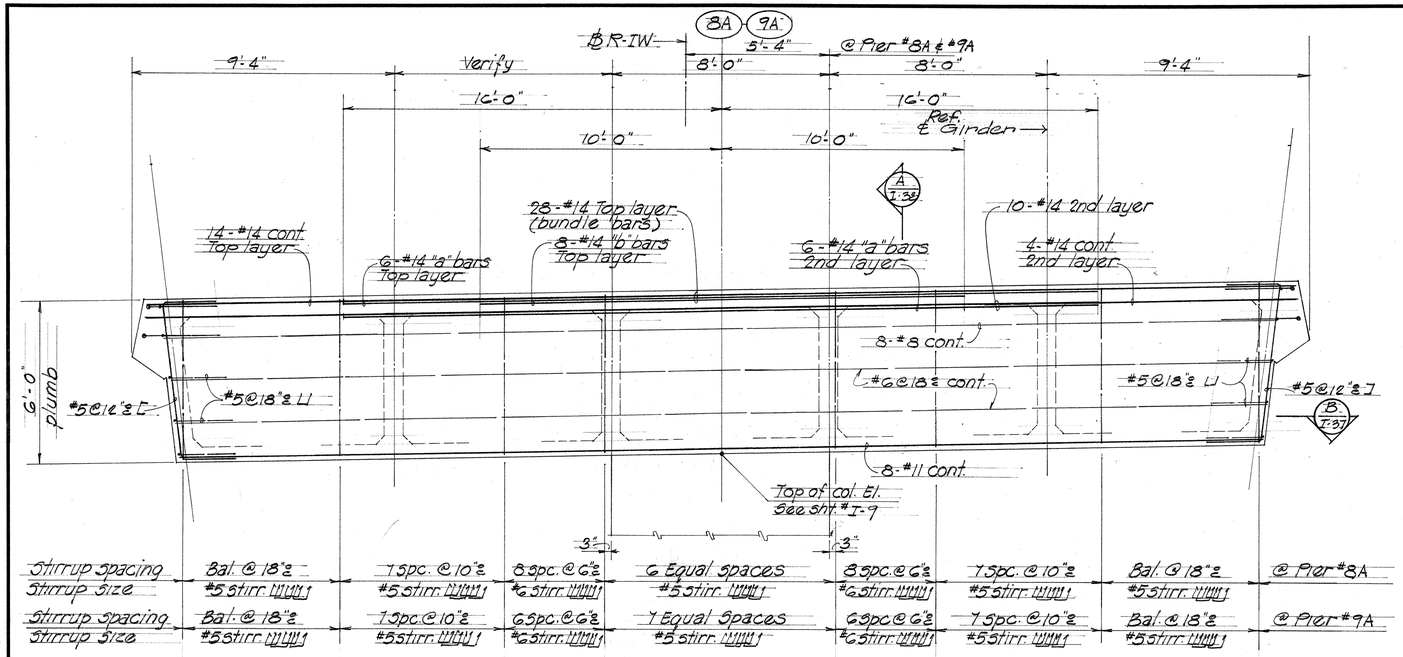
52

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

ORIGINAL MAP
NOTE BOOK
No.

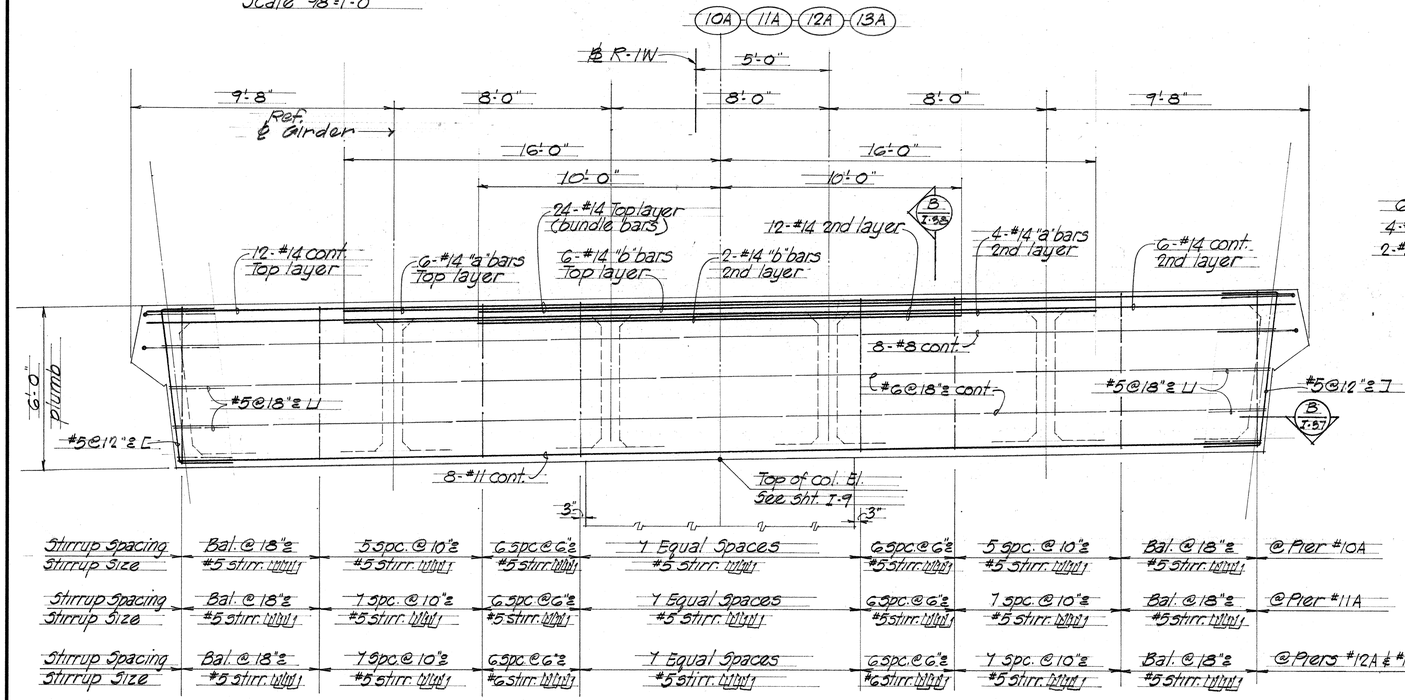
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	53	136



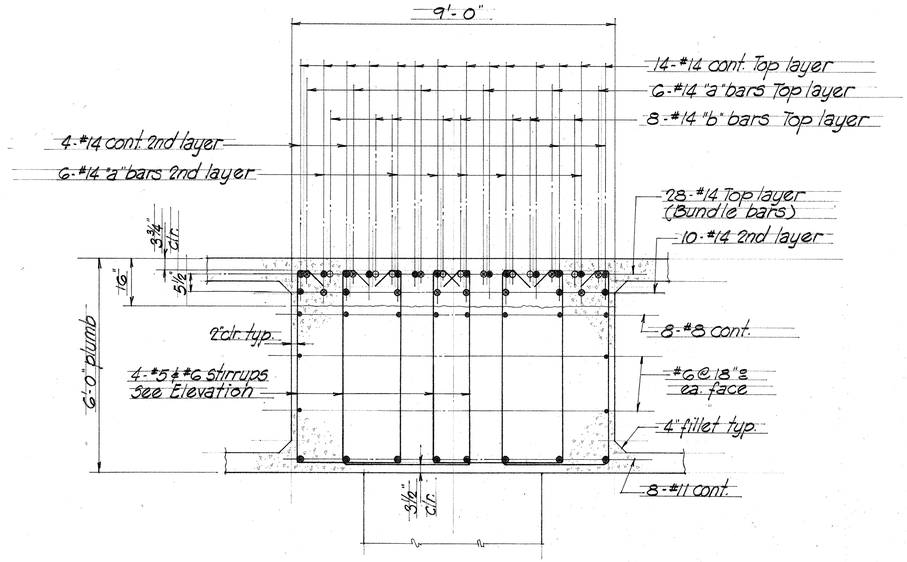
PIER CAP ELEVATION @ PIER #8A & #9A

Scale 3/8"=1'-0"



PIER CAP ELEVATION @ PIER #10A, #11A, #12A & #13A

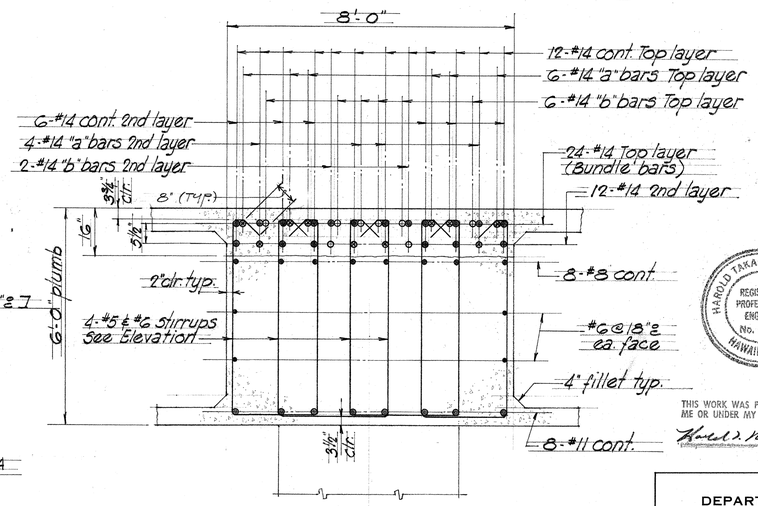
Scale 3/8"=1'-0"



SECTION A

Scale 1/2"=1'-0"

I-38



SECTION B

Scale 1/2"=1'-0"

I-38

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP 8A THRU 13A
ELEVATION & SECTION

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO I-HI-1(145)16
SCALE: AS NOTED DATE: JULY, 1976

SHEET NO. I-38 OF 124 SHEETS

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

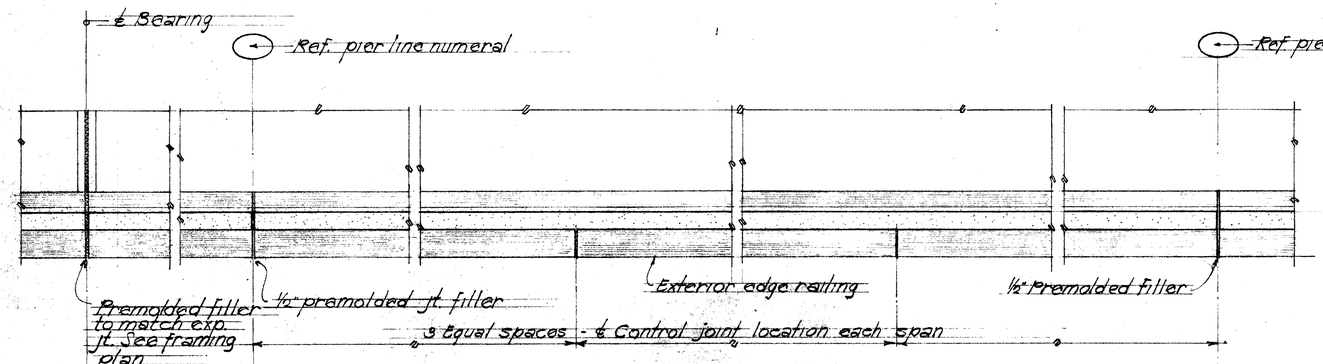
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	54	136

AT DECK EXPANSION JOINTS

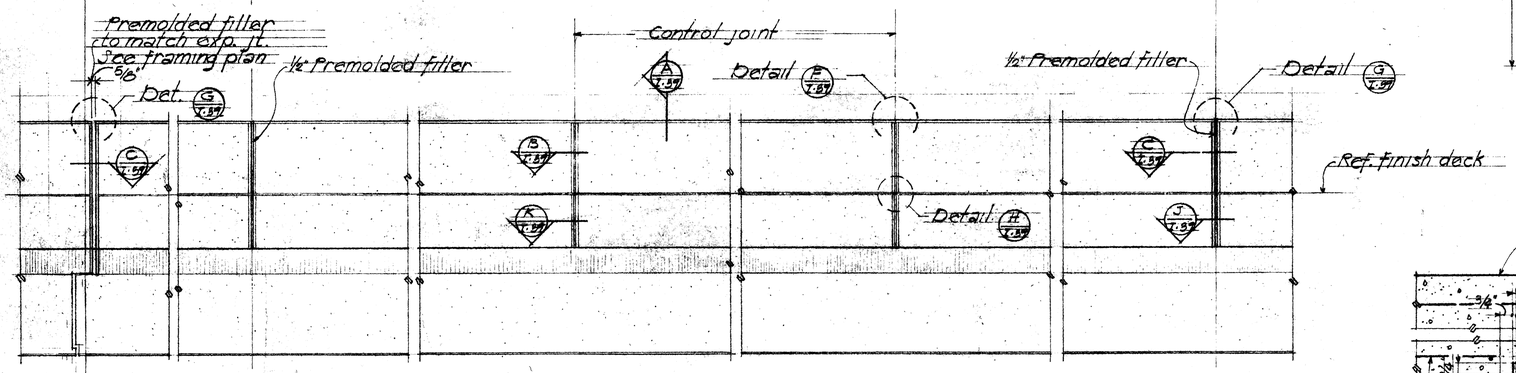
INTERMEDIATE CONTROL JOINTS

CONTINUOUS DECK OVER PIER



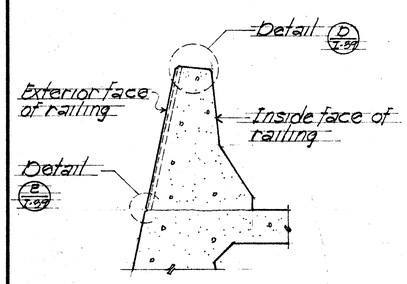
PART PLAN - TYPICAL RAILING

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



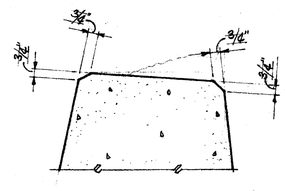
PART EXTERIOR ELEVATION - TYPICAL RAILING

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



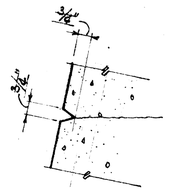
TYPICAL RAILING SECTION

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



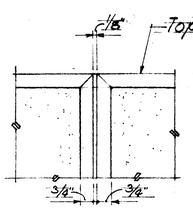
DETAIL D

Scale: 3" = 1'-0" T.89



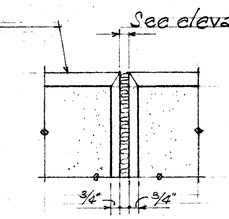
DETAIL E

Scale: 3" = 1'-0" T.89



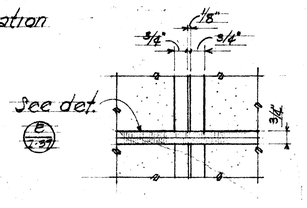
DETAIL F

Scale: 3" = 1'-0" T.89



DETAIL G

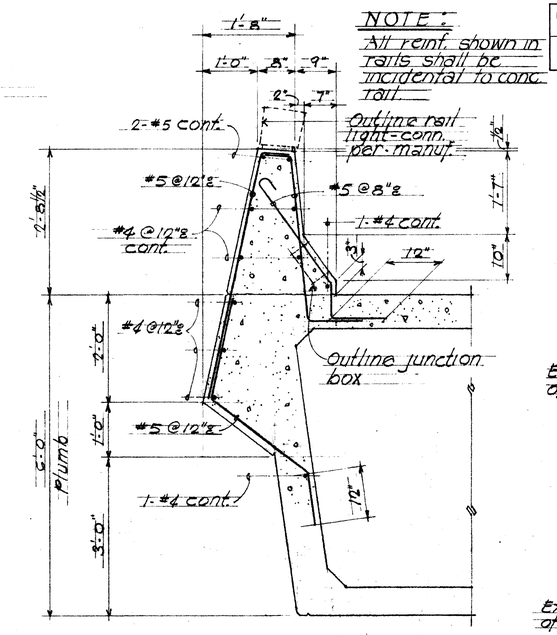
Scale: 3" = 1'-0" T.89



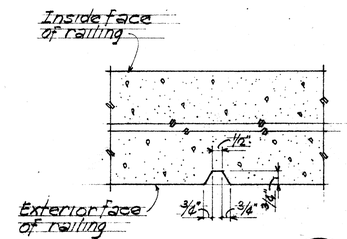
DETAIL H

Scale: 3" = 1'-0" T.89

TYPICAL CONCRETE RAILING FASCIA DETAILS & FINISH

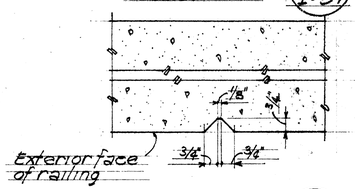


NOTE: All reinf. shown in rails shall be incidental to conc. rail.



SECTION J

Scale: 3" = 1'-0" T.89

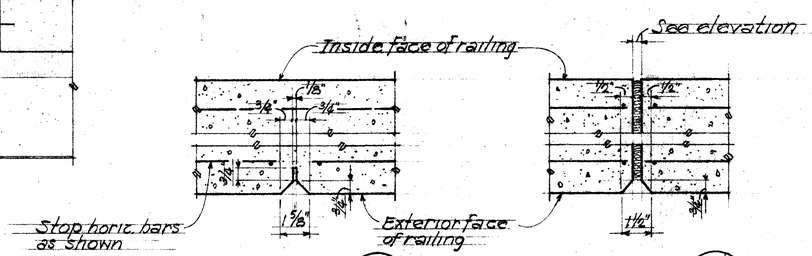


SECTION K

Scale: 3" = 1'-0" T.89

TYPICAL SECTION A

Scale 3/8" = 1'-0" T.89



SECTION B

Scale: 3" = 1'-0" T.89

SECTION C

Scale 3" = 1'-0" T.89

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL CONCRETE RAIL DETAILS

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

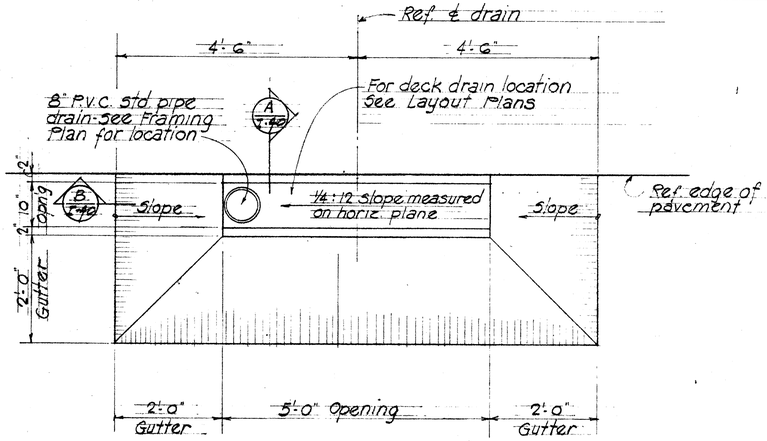
SCALE: AS NOTED DATE July, 1976

SHEET NO. I-89 OF 124 SHEETS

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

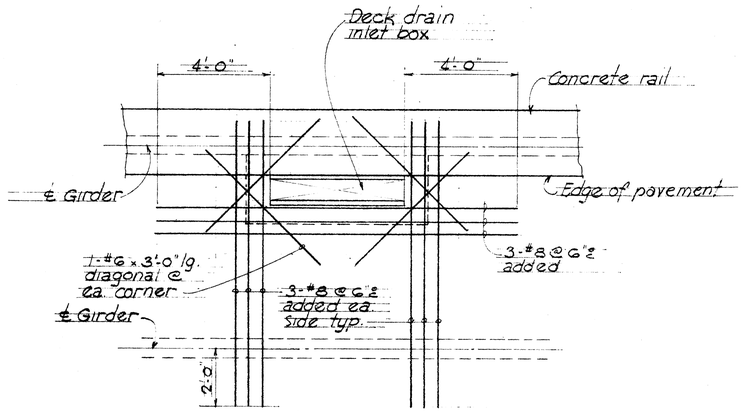
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	55	136



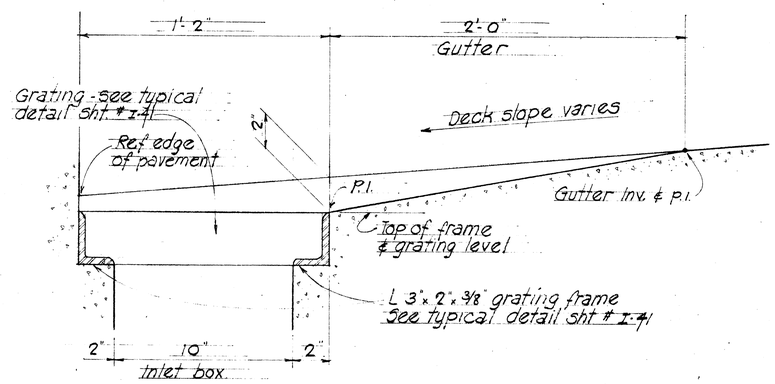
PLAN ~ INLET BOX & DRAIN PIPE TYPE D1

Scale 3/4" = 1'-0"



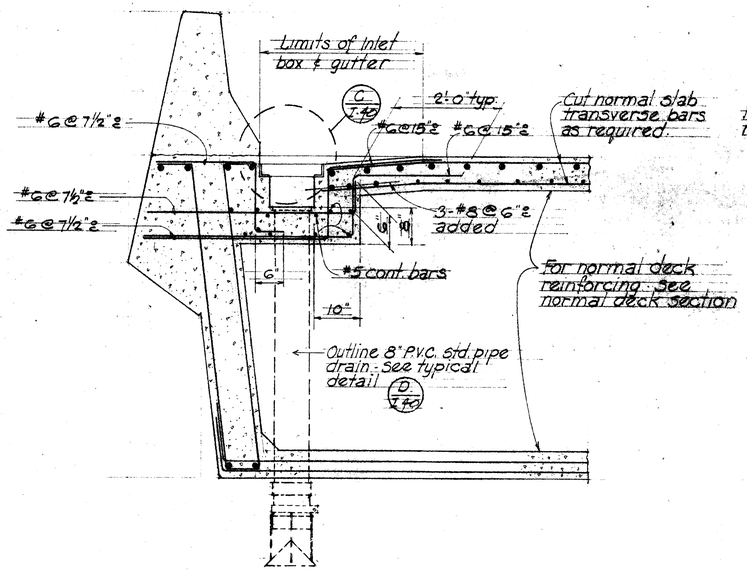
PLAN ~ SHOWING ADDED REINFORCING @ DECK DRAIN INLET BOX

Scale 3/8" = 1'-0"



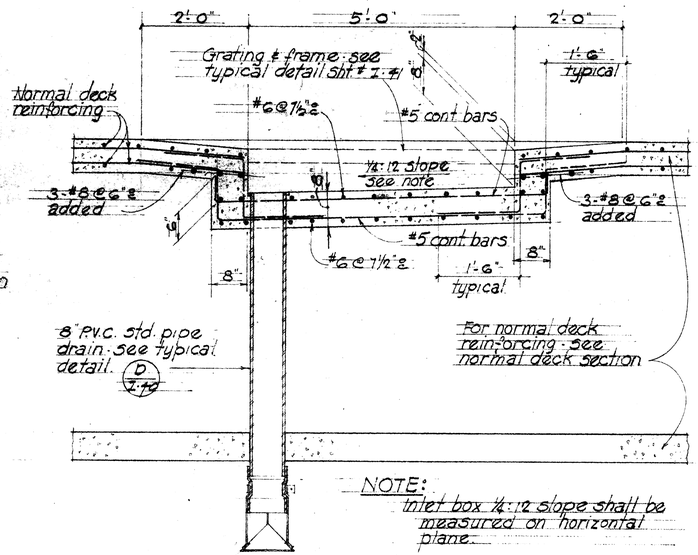
C I-40 TYPICAL INLET BOX & GUTTER DETAIL

Scale 3" = 1'-0"



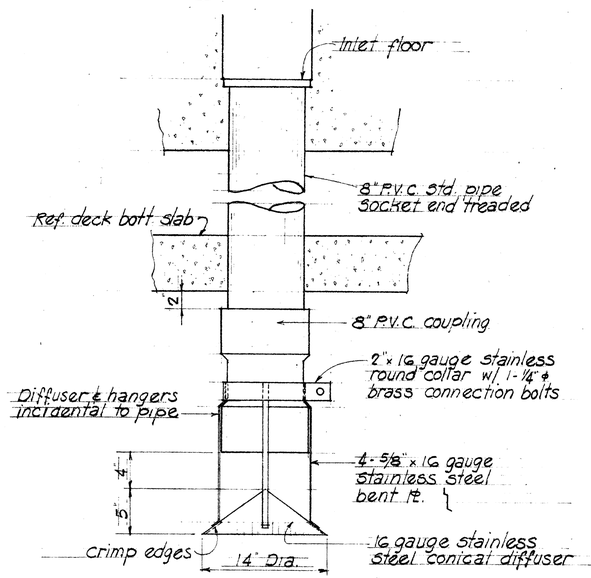
SECTION A I-40

Scale 3/4" = 1'-0"



SECTION B I-40

Scale 3/4" = 1'-0"



D I-40 TYPICAL DRAIN PIPE & DIFFUSER DETAIL

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

NOTE:

1. For deck drain location - see Deck Layout Plans.
2. For Grating and frame details - see Sht # I-41
3. All drain pipe, diffuser, hangers, grating & frame shall be incedental to concrete.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DECK DRAIN DETAIL

RAMP "LW"

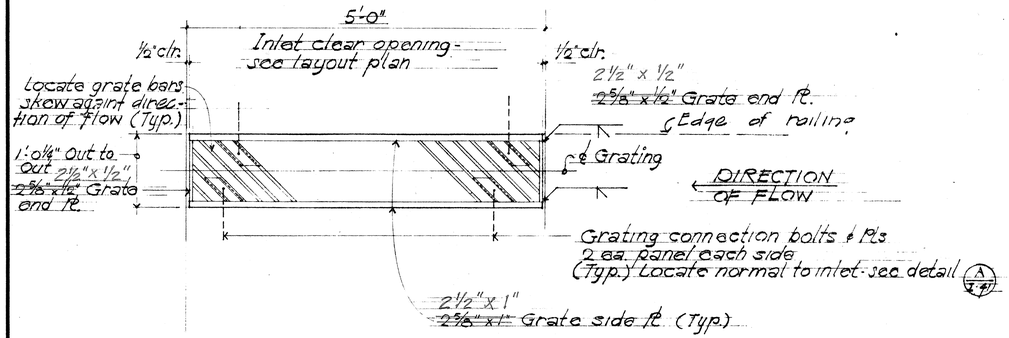
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145) 16
SCALE AS NOTED DATE JULY, 1976

SHEET No. I-40 OF 124 SHEETS

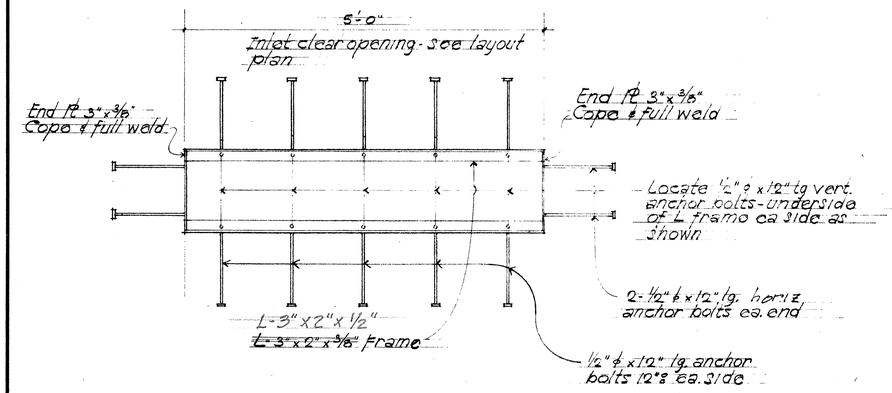
ORIGINAL PLAN | NOTE BOOK | NO. | DATE
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY

PRINTED ON NO. 1000H CLEARPRINT

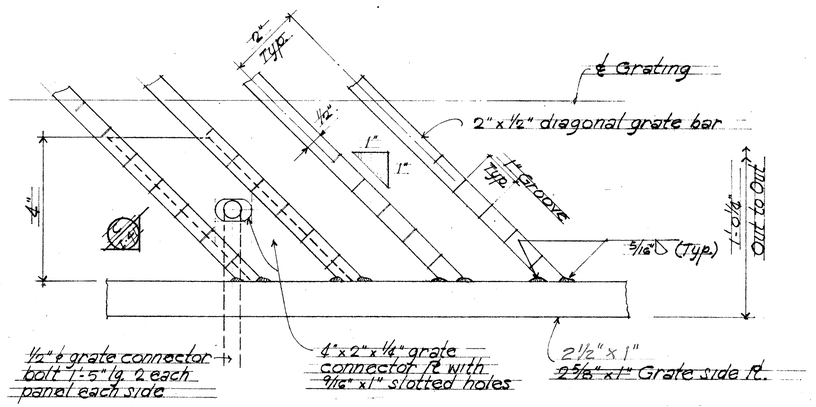
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	56	136



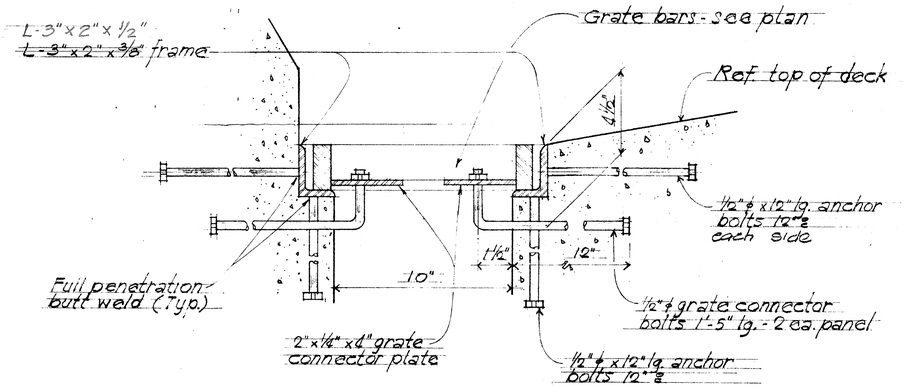
PLAN - GRATE
Scale: 1" = 1'-0"



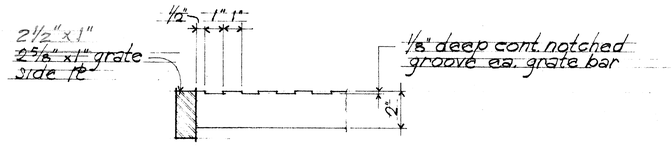
PLAN - GRATE FRAME
Scale: 1" = 1'-0"



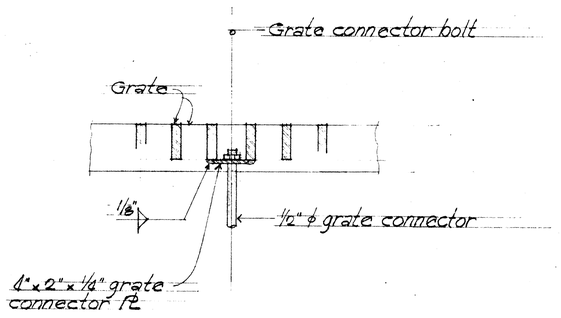
A / I-41 TYPICAL GRATE CONNECTION DETAIL
Scale: Half scale



B / I-41 TYPICAL SECTION (Grate & Frame Assemblage)
Scale 3" = 1'-0"



GRATE BAR DETAIL
Scale: 3" = 1'-0"



C / I-41 SECTION
Scale: 3" = 1'-0"

NOTES:
1. Grate frames, bolts etc. shall be hot dipped galvanized after fabrication. See special provisions
2. Grating and frame shall be incidental to concrete.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYP. GRATING & FRAME DETAILS

RAMP "IW"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145) 16

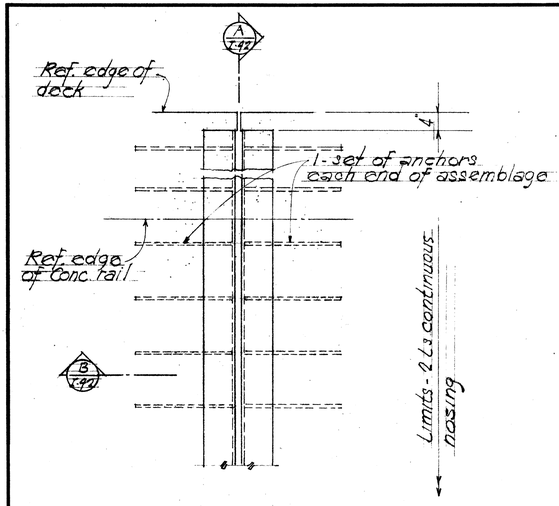
SCALE: AS NOTED DATE JULY, 1976

SHEET NO. 141 OF 142 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

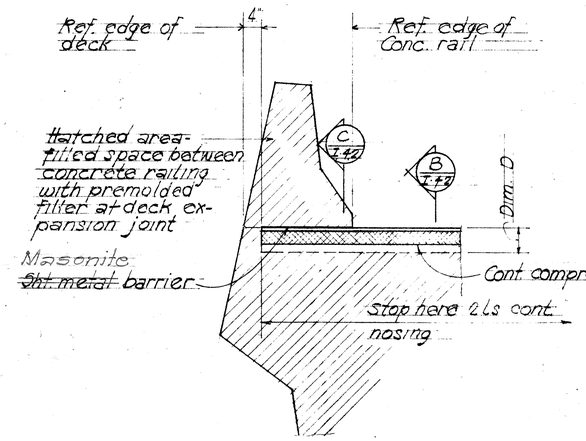
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	57	136



RADIAL OR NORMAL

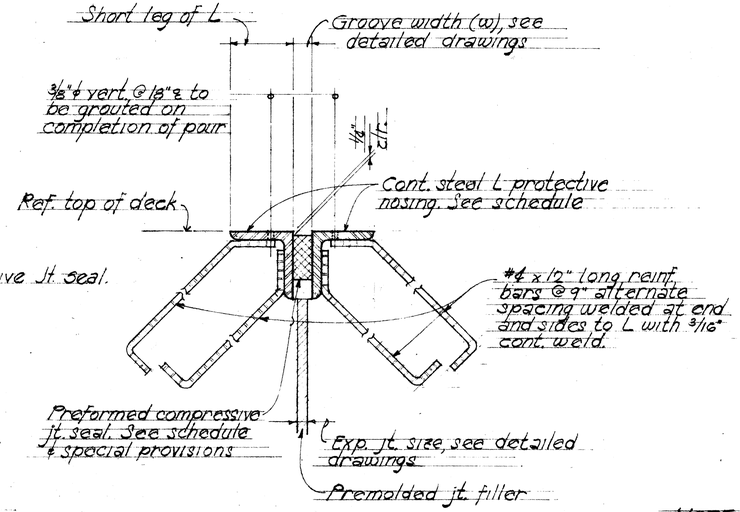
PLAN TRANSVERSE DECK EXPANSION JOINT

Scale: 1" = 1'-0"



TYPICAL ELEVATION (A / T-42)

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



AT STEEL ANGLE PROTECTIVE NOSING

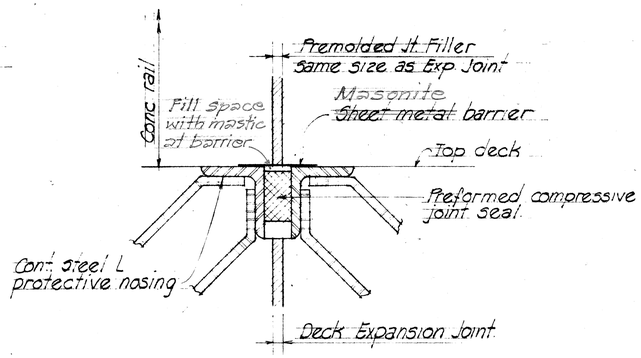
TYPICAL SECTION (B / T-42)

Scale: 3" = 1'-0"

NOTE:

Steel angles protective nosing assembly shall be hot dipped galvanized after fabrication.

Steel angle protective nosing assembly and joint sealer incidental to concrete.

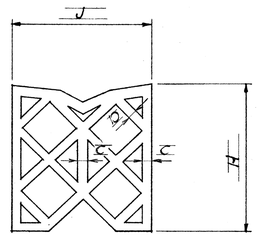


SECTION (C / T-42)

Scale 3" = 1'-0"

Joint seal type	Exp. Jt. Size	Steel angle protective nosing	Groove size during construction ± 1/8" W	Groove size during construction ± 1/8" D	Minimum Groove size during installation W	Minimum Groove size during installation D	Joint seal dimensions and tolerances type	J	H	Total Movement
1	~~5/8"~~ 3/4"	4"x3½"x½"	1½"	5"	2"	5"	A	3"	3 3/32"	0. 219
2	~~5/8"~~ 3/4"	4"x3½"x½"	1¼"	4"	1 3/4"	4"	A	2½"	2 3/4"	0. 982

Joint seal type	Joint seal dimensions C	Joint seal dimensions D
1	3/16"	1/8"
2	3/16"	3/32"



TYPE A

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL EXPANSION JOINT DETAILS

RAMP "IW"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

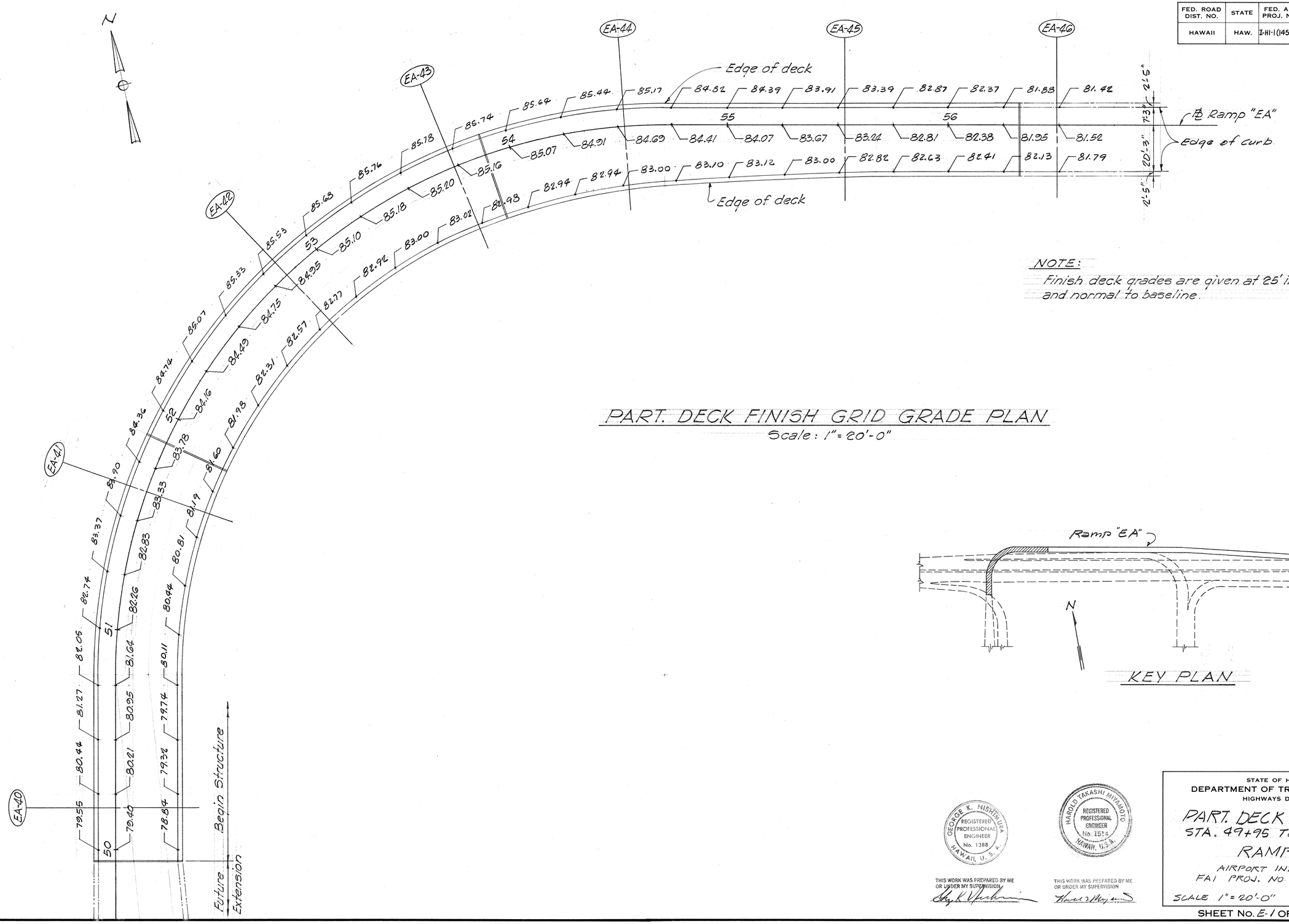
SCALE: AS NOTED DATE JULY, 1976

SHEET NO. T-42 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

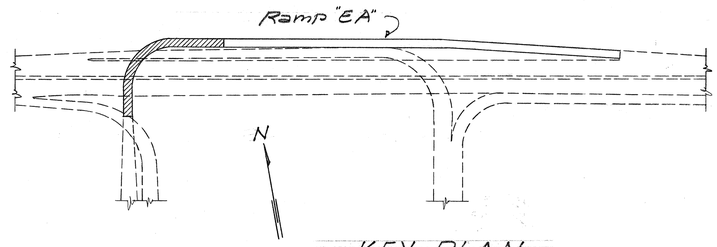
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	58	136



NOTE:
Finish deck grades are given at 25' increments and normal to baseline.

PART. DECK FINISH GRID GRADE PLAN

Scale: 1" = 20'-0"



KEY PLAN

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1614 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

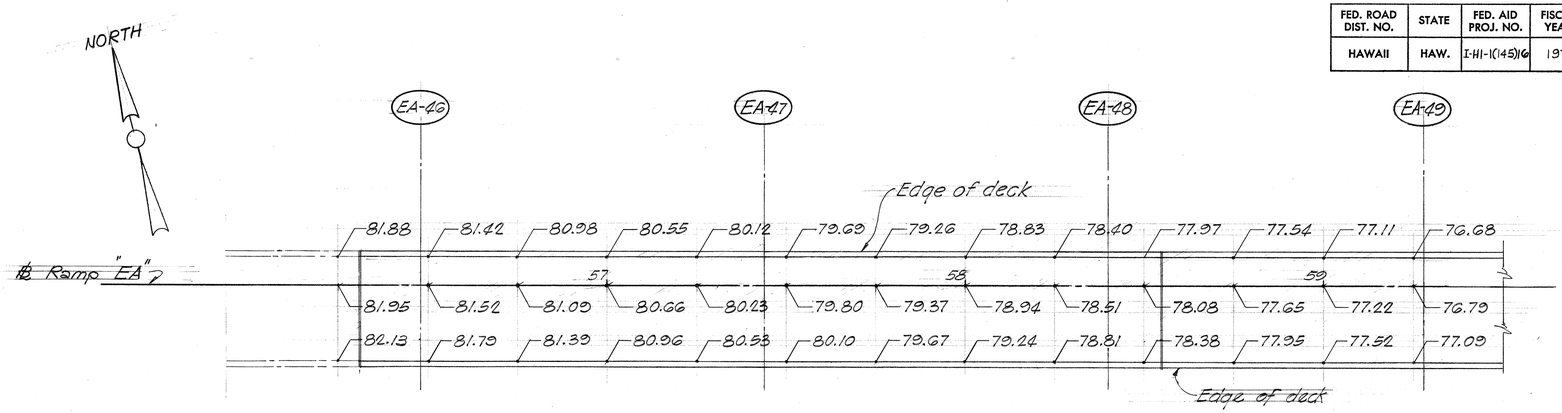
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. DECK GRADE PLAN
STA. 49+95 TO STA. 56+32
RAMP "EA"
AIRPORT INTERCHANGE
FAI PROJ. NO. I-HI-1(145)16
SCALE 1" = 20'-0" DATE July 1976

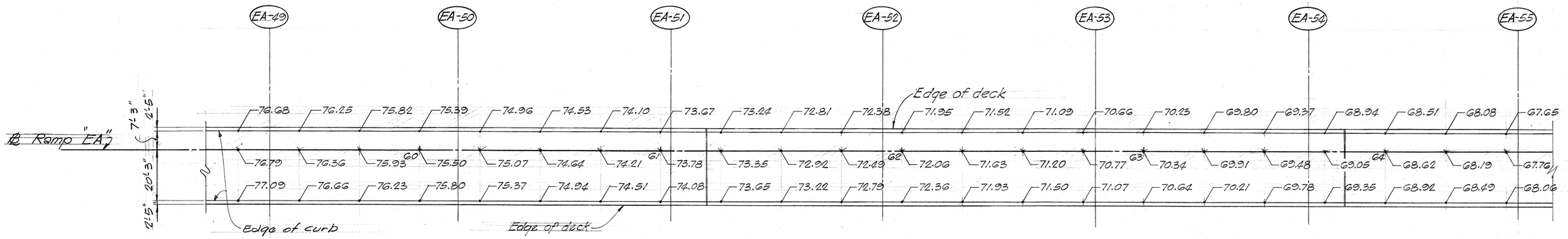
SHEET No. E-1 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	59	136

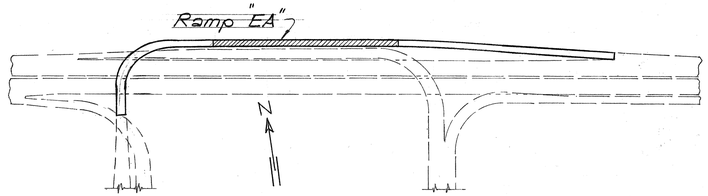


NOTE:
Finish deck grades are given at 25' increments and normal to baseline.



PART DECK FINISH GRID GRADE PLAN

Scale: 1" = 20'-0"



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK GRADE PLAN
STA. 56+32 TO STA. 64+57
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

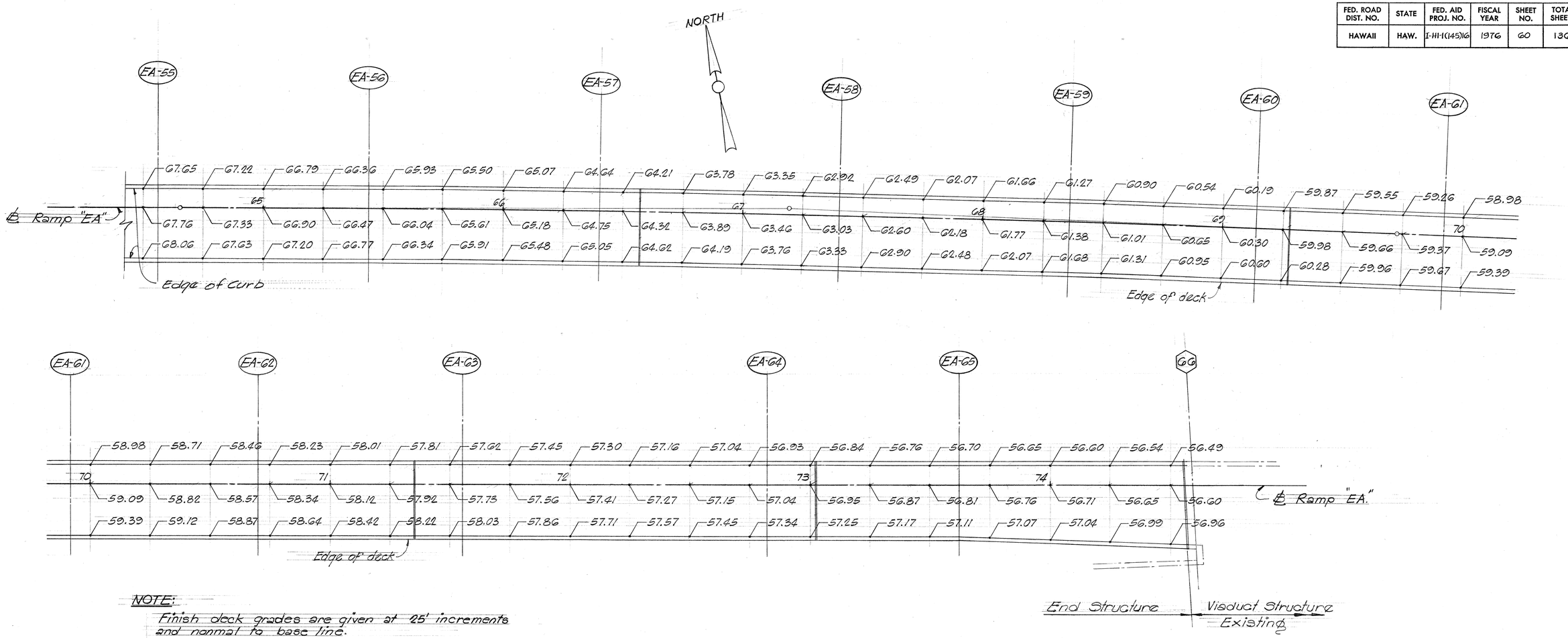
SCALE: AS SHOWN DATE: July 1976

SHEET No. E-2 OF 124 SHEETS

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

K+E CRYSTALENE TRACING PAPER

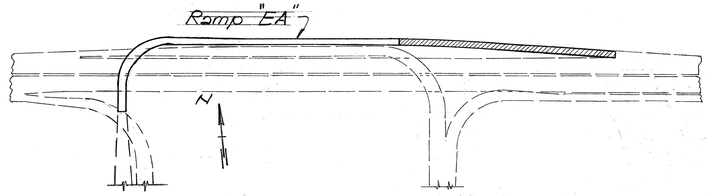
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	60	136



NOTE:
Finish deck grades are given at 25' increments and normal to base line.

PART DECK FINISH GRID GRADE PLAN

Scale: 1" = 20'-0"



KEY PLAN

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK GRADE PLAN
STA. 64+57.70 TO STA. 74+56
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1(145)16

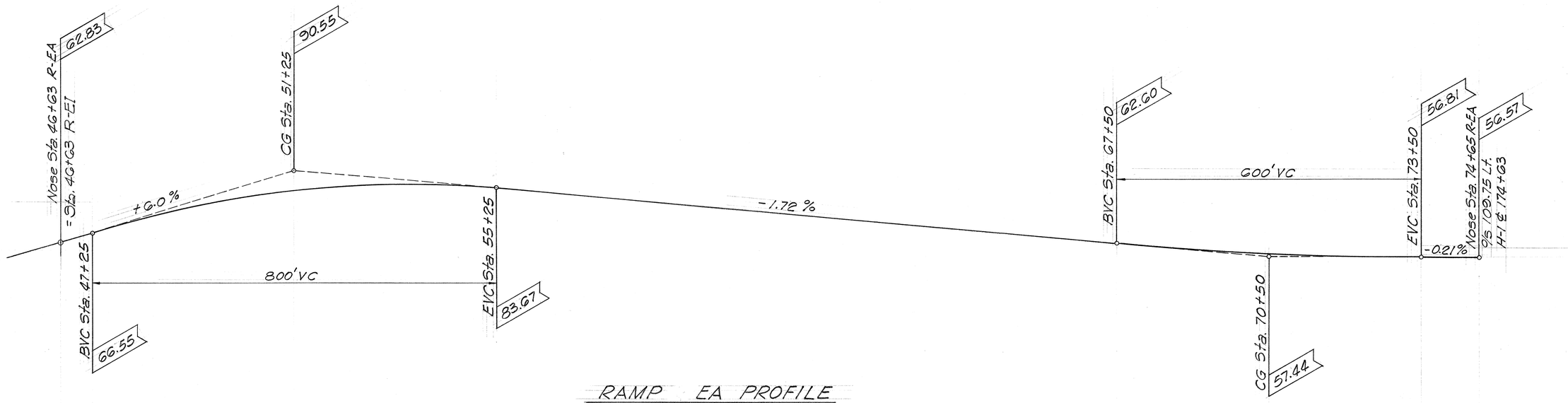
SCALE: As shown DATE: July 1976

SHEET No. E-3 OF 124 SHEETS

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

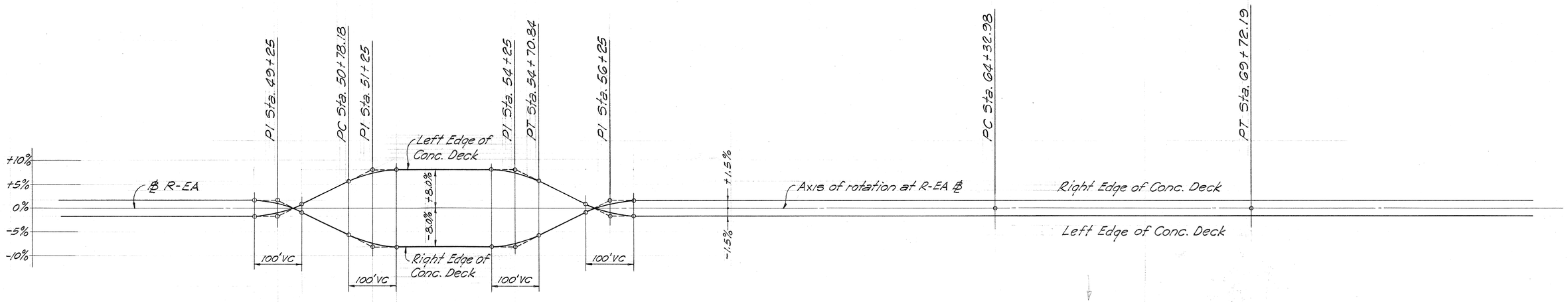
K-E CRYSTALENE TRACING PAPER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	61	136



RAMP EA PROFILE

SCALE: HORIZ. 1"=100'
VERT. 1"=20'



RAMP EA SUPERELEVATION DIAGRAM

SCALE: HORIZ. 1"=100'
VERT. 1"=10%

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROFILE AND SUPERELEVATION DIAGRAM RAMP "EA"

AIRPORT INTERCHANGE
FAI PROJ. NO. I-HI-1 (145)16

SCALE: AS NOTED DATE: July 1976

SHEET NO. E-4 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

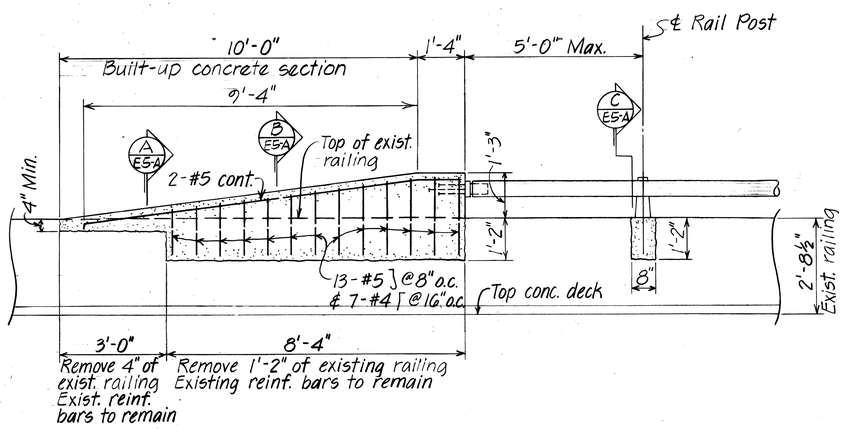
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	62	136

(1) $\Delta = 89^\circ 59' 23''$
$\Delta/2 = 44^\circ 59' 41.5''$
$R = 250'$
$T = 249.96'$
$C_h = 353.52'$
$L_c = 392.66'$

(2) $\theta_s = 25^\circ 0' 31.7''$
$L_s = 193.80'$
$L.T. = 130.51'$
$S.T. = 65.80'$
(See Table on Sheet E-6 for intermediate offset distances)

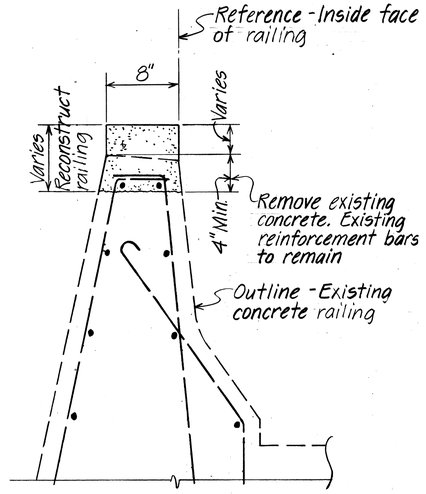
SPAN NO. 44
℄ Expansion Hinge Bearing
SPAN NO 45
P.T. Sta. 54+70.84 R-EA ℄
Sta. 154+70.84 H-1 ℄
O/S 171.33'
SPAN NO 46
℄ Expansion Hinge Bearing
SPAN NO. 43
SPAN NO. 42
SPAN NO. 41
SPAN NO. 40
Sta. 53+73
Sta. 53+88
Sta. 54+58
Sta. 55+53
Sta. 56+32
Sta. 56+49
Az 170° 02' 15.03"
Az 184° 56' 33.4"
Az 180° 01' 23"
Az 180° 01' 23"
Az 180° 01' 23"
Az 145° 46' 39.57"
Az 124° 12' 39.25"
Az 118° 42' 18.8"
Az 99° 02' 00"
Az 99° 02' 00"
Az 9° 02' 00"
Sta. 52+82.11
Sta. 51+88
Sta. 51+64
Sta. 50+19
Sta. 49+95
Edge of deck
Existing Column
Existing column
℄ Drain Sta. 54+35.5
℄ Drain Sta. 55+35.5
℄ Drain Sta. 55+70.5
℄ Drain Sta. 51+46.5
℄ Drain Sta. 50+36.5
℄ Ramp "1W"
℄ Ramp "EA"
Begin Spiral Curve 28' Rt. of EA ℄ Sta. 53+61.72
End Spiral Curve 21' Rt. of EA ℄ Sta. 55+67.13
Sta. 53+17.30 EA ℄
Sta 53+26.75 1W ℄
Sta. 51+58.17 R-EA ℄
Sta. 152+33.53 H-1 ℄
℄ H-1 VIADUCT
Future Extension Begin Structure
Future Extension Begin Structure
℄ Expansion Hinge Brg.
℄ Expansion Hinge Brg.
℄ Expansion Hinge Brg.
℄ Expansion Hinge Brg.
℄ Expansion Hinge Bearing
℄ Expansion Hinge Bearing
℄ Expansion Hinge Bearing

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.				

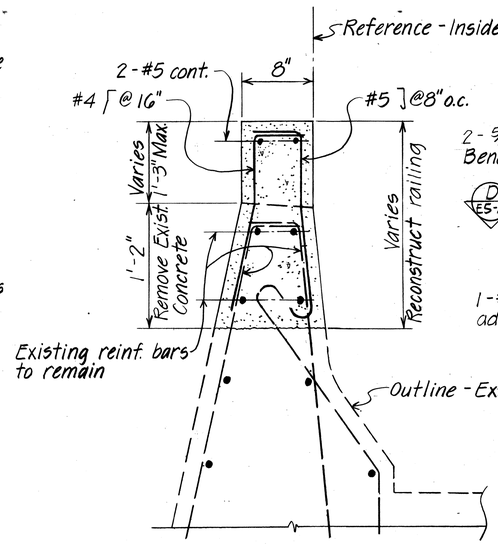


TYPICAL ELEVATION AT RAILING ENDS

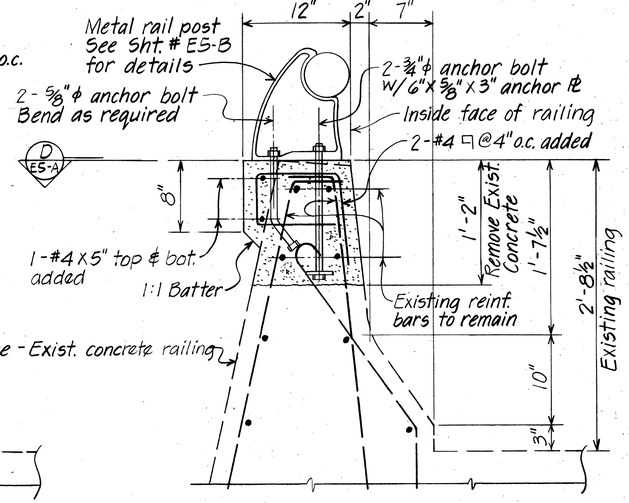
Scale: ½" = 1'-0"



SECTION A E5-A Scale: 1½" = 1'-0"



SECTION B E5-A Scale: 1½" = 1'-0"



SECTION C E5-A Scale: 1½" = 1'-0"

STRUCTURAL NOTES

MATERIALS:

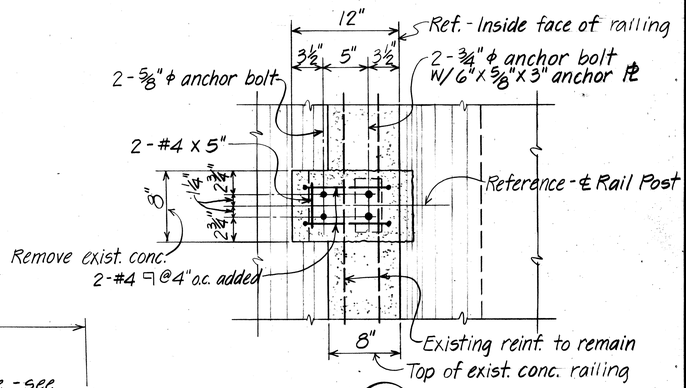
1. All concrete shall be Class A.
2. Reinforcing bars shall conform to ASTM A615 Grade 40.
3. Steel plates shall conform to ASTM A36.

CONSTRUCTION REQUIREMENTS

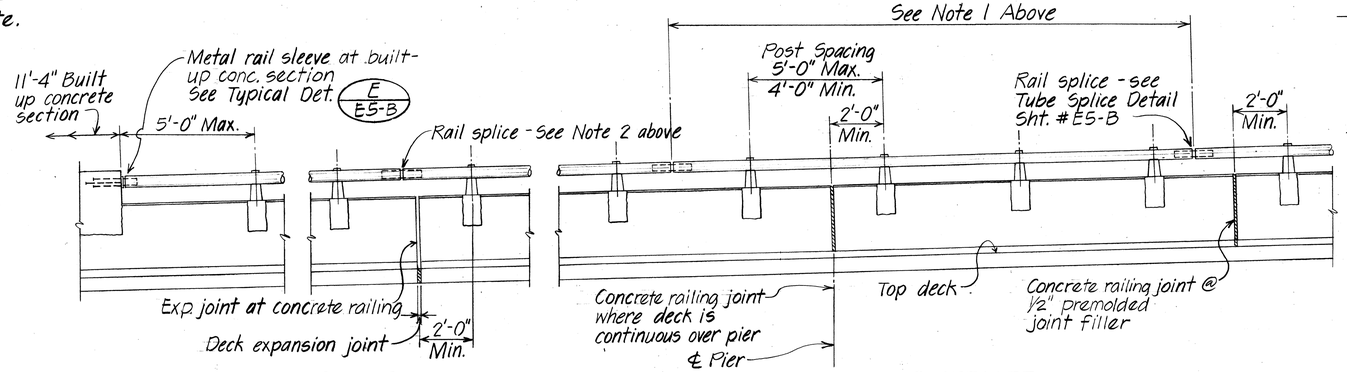
1. The surface of all concrete areas to be removed shall be saw cut to a depth of 1 inch before commencing with the removal of the concrete.
2. All concrete and laitance shall be removed from the existing reinforcing that is to remain.
3. The surfaces to receive new concrete shall be free of all loose concrete and shall be dampened to prevent the absorption of water from the concrete. A bond coat of neat Portland cement and water shall be mixed to the consistency of a thick cream and shall be brushed well into the surface of the existing concrete surface immediately prior to the placement of the concrete.

RAILING NOTES

1. Tubing shall be continuous over not less than 4 post unless noted otherwise.
2. Rail splice shall be located in the tube spanning deck joints. Increase joint width in tube to 1½" and increase sleeve length accordingly.
3. Rail post shall be normal to grade.
4. Anchor bolts shall be embedded such that the threads are excluded from the shear plane and approximately 2 threads are exposed above the nut.



PLAN D E5-A Scale: 1½" = 1'-0"



AT DECK EXPANSION JOINT — INTERMEDIATE

TYPICAL INTERIOR RAILING ELEVATION

Scale: ⅜" = 1'-0"

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

DATE	REVISION
9/12/79	Sheet added to Contract Plan set for additional details required on sht. no. C.O. 62

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

TYPICAL DETAILS

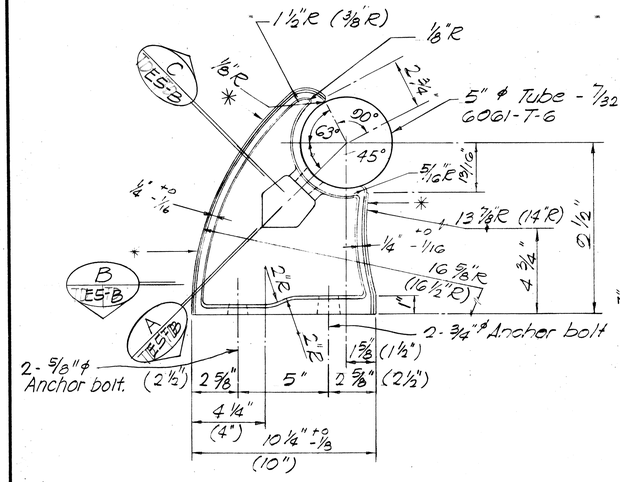
ALUMINUM RAILING (ONE RAIL TYPE) ON CURVE CONCRETE RAILING

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145):16

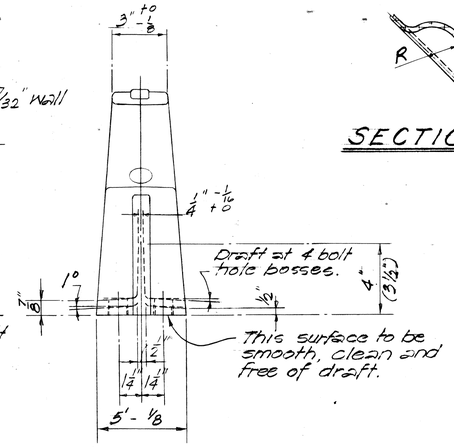
Scale: As Noted Date: Sept. 1979

SHEET No. E5-A OF SHEETS

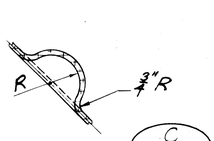
C.O. 62 S-1



SIDE ELEVATION



END ELEVATION



SECTION

NOTE:

* Casting to be supplied with a standard scratch brush finish on entire gating rib surface and as indicated by an asterisk (*). Finish shall be approved by the Engineer.

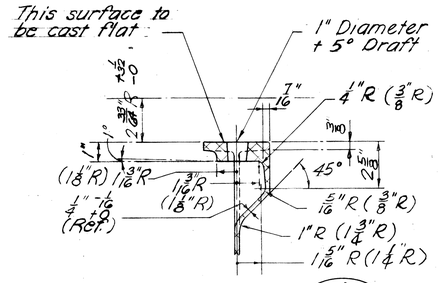
Casting to be neatly trimmed and any protruding flash to be broken off.

Unless otherwise specified, draft angles to be 3° corner radii to be 3/32"R, fillet radii to be ⅜"R, casting tol. to be ±1/16", wall thickness to be ±3/32".

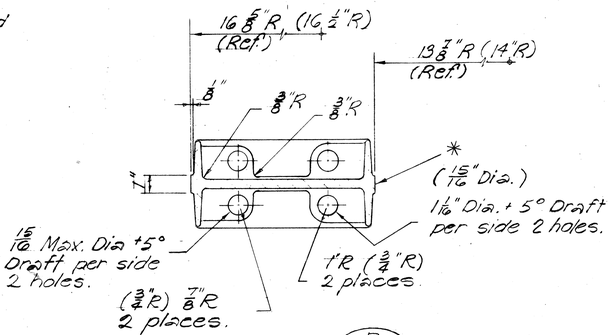
Dimensions may be as shown or as shown in parenthesis ( ).

TYPICAL RAIL POST DETAILS

Scale: 3"=1'-0"



SECTION

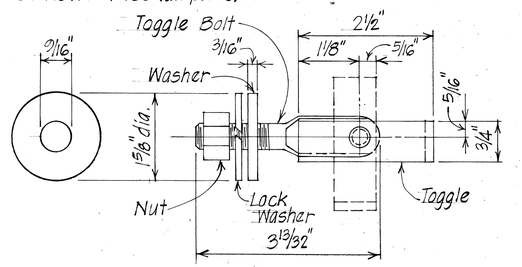


SECTION

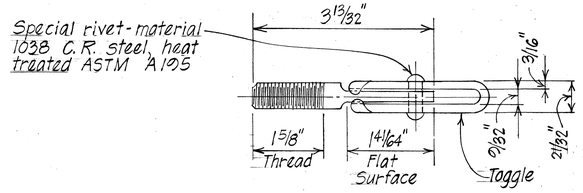
NOTE:

Toggle Bolt - Cadmium plating on steel - Type "N" 0.0005" thick ASTM - A165 (all parts).

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	19G-02-72	1978		

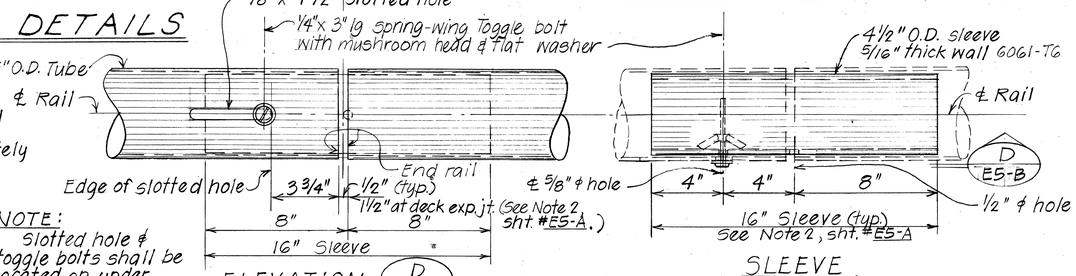


WASHER SIDE ELEVATION ASSEMBLAGE



TOP PLAN

½" ϕ STEEL TOGGLE BOLT DETAIL



ELEVATION

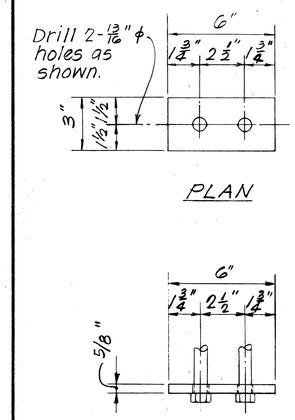
SLEEVE (FRONT VIEW)

NOTE:

Slotted hole & toggle bolts shall be located on under side of tube.

TUBE SPLICE DETAIL

Scale: 3"=1'-0"

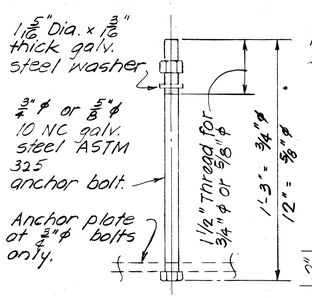


PLAN

NOTE:

Anchor bolts shall be embedded such that the thread are excluded from the shear plane & approximately 2 threads are exposed above the nut.

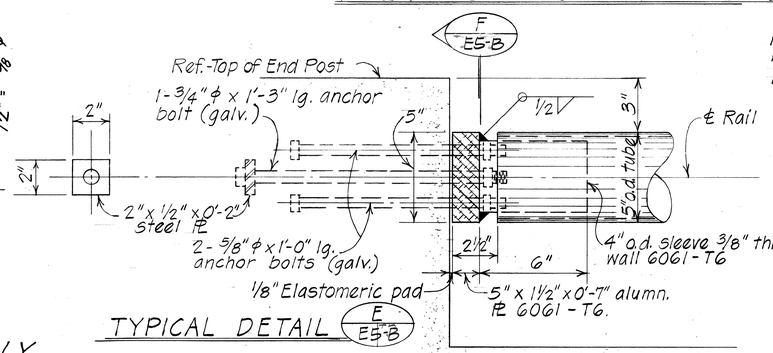
ELEVATION



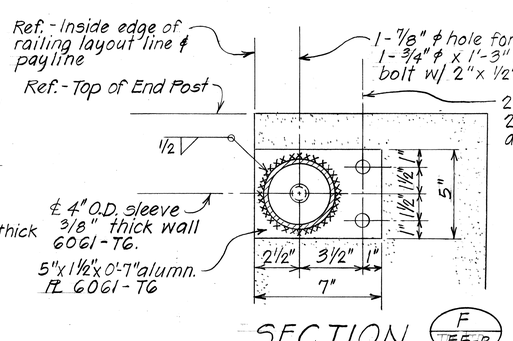
ANCHOR PL DETAIL ANCHOR BOLT

TYPICAL RAIL POST STEEL ANCHOR BOLT ASSEMBLY

Scale: 3"=1'-0"



TYPICAL DETAIL



SECTION

F E5-B

METAL RAIL SLEEVE AT END POST

Scale: 3"=1'-0"

DATE	REVISION
9/12/79	Sheet added to Contract Plan set for additional details required on sht. no. C.O. 62

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS

ALUMINUM BRIDGE RAILING

ONE RAIL COMBINATION TYPE ON CONCRETE RAILING

AIRPORT INTERCHANGE F.A.I. PROJ. NO. I-HI-1(145):16

Scale as noted Date: Sept. 1979

SHEET No. E5-B OF 10 SHEETS

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

PRINTED ON NO 1000H CLEARPRINT

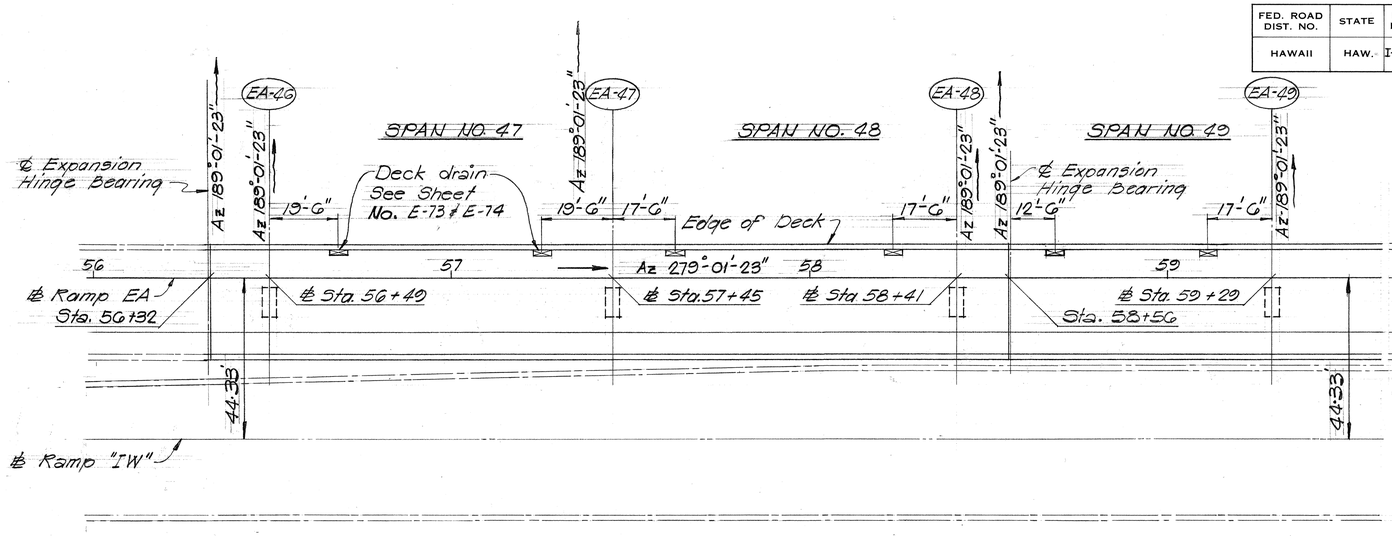
C.O. 62 S-2

MASTER COPY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)1G	1976	G3	136

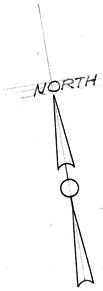
SPIRAL CURVE OFFSETS

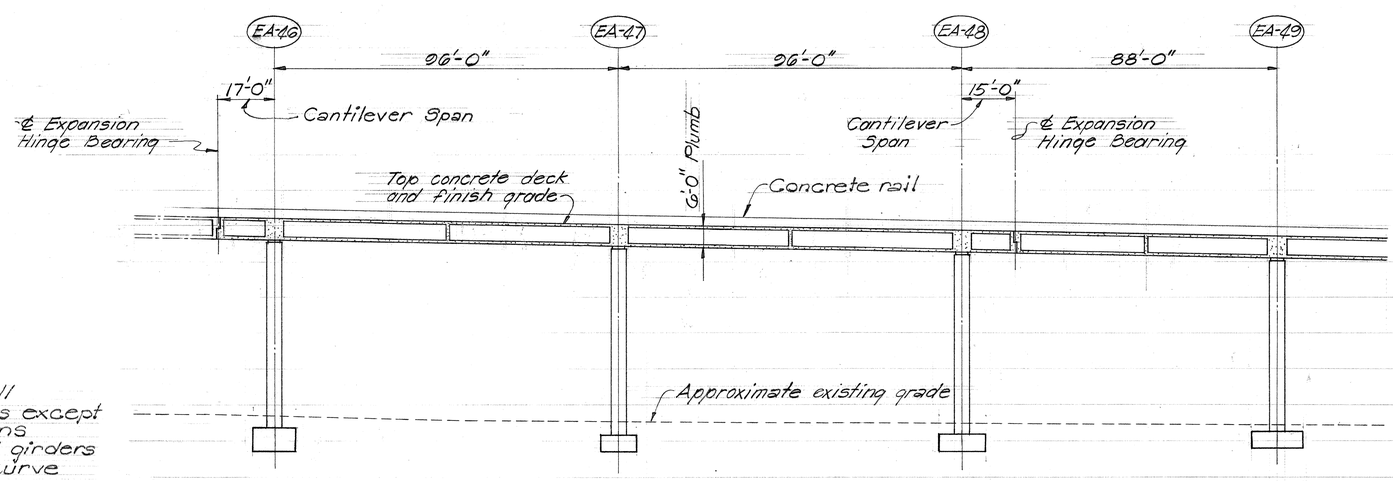
R-EA ℄ Station		o/s Rt
P.O.C. Sta.	53+61.72	28.00
	53+80	27.99
	53+85	27.97
	53+90	27.94
	53+95	27.90
Sta.	54+00	27.85
	54+05	27.78
	54+10	27.70
	54+15	27.59
	54+20	27.47
	54+25	27.31
	54+30	27.14
	54+35	26.93
	54+40	26.70
	54+45	26.44
	54+50	26.14
	54+55	25.80
	54+60	25.42
	54+65	25.01
P.T. Sta.	54+70.84	24.47
	54+75	24.04
	54+80	23.57
	54+85	23.15
	54+90	22.78
Sta.	55+00	22.17
	55+05	21.93
	55+10	21.72
	55+15	21.55
	55+20	21.41
	55+25	21.29
	55+30	21.20
	55+35	21.13
	55+40	21.08
	55+45	21.02
	55+50	21.01
P.T. Sta.	55+67.13	21.00



PARTIAL LAYOUT PLAN

Scale: 1"=20'

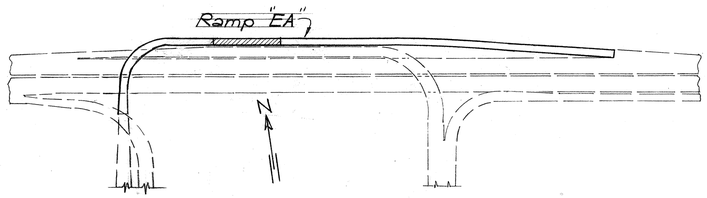




NOTES:

Top of concrete deck shall follow finish roadway grades except as otherwise noted on plans.

Superstructure slab and girders shall be constructed on curve where occurs.



KEY PLAN

LONGITUDINAL SECTION ALONG ℄

Scale: 1" = 20'

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. LAYOUT PLAN
57A 56+32 TO 57A. 59+29
"
RAMP EA"

AIRPORT INTERCHANGE
FAI. PROJ NO I-HI-1 (145)1G

Scale: As Shown Date: July 1976

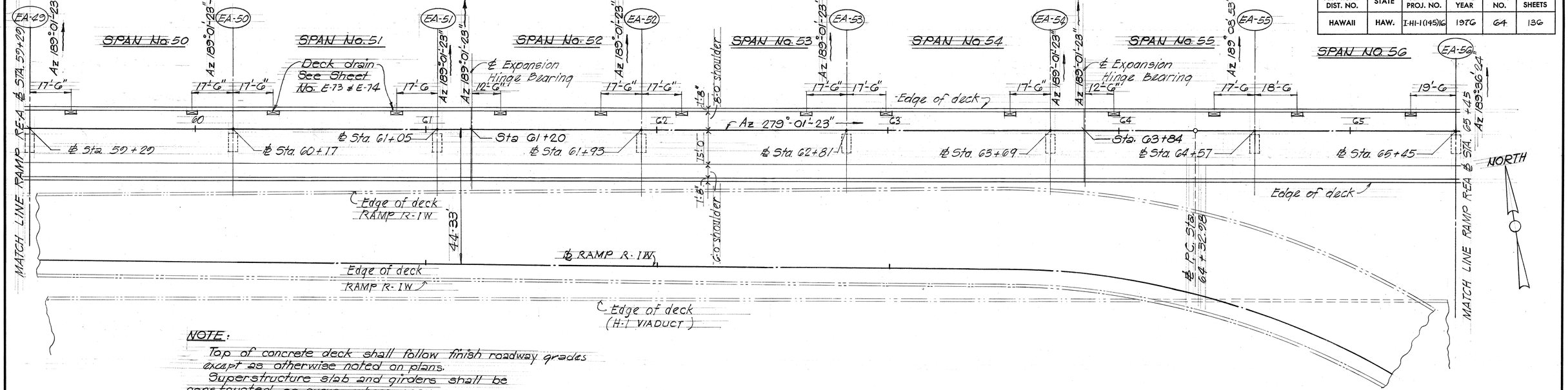
SHEET NO. E-6 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

63

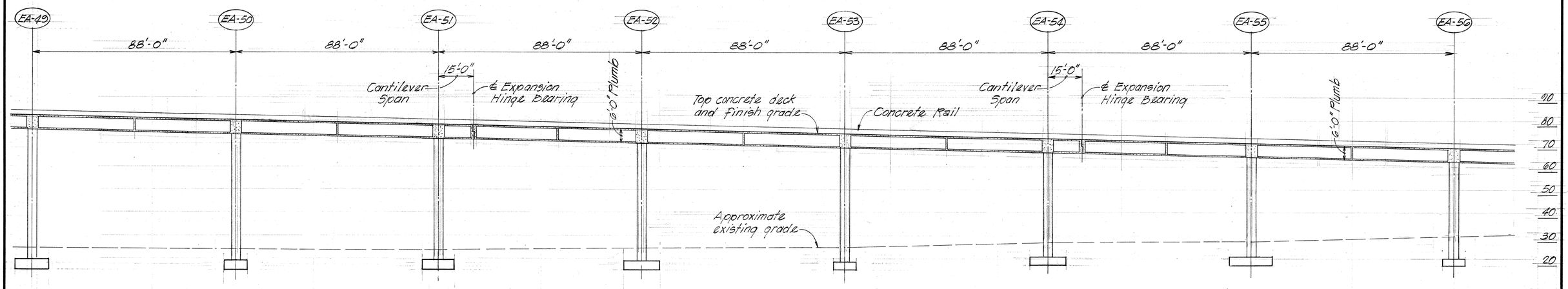
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	64	136



NOTE:
Top of concrete deck shall follow finish roadway grades except as otherwise noted on plans.
Superstructure slab and girders shall be constructed on curve where occurs.

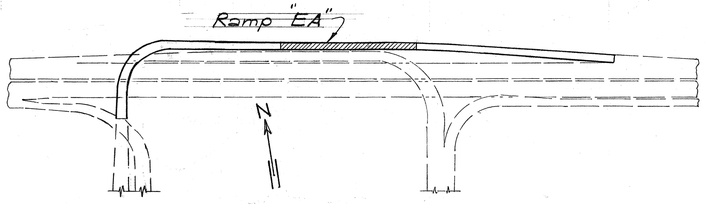
PARTIAL LAYOUT PLAN

Scale 1"= 20'-0"



LONGITUDINAL SECTION ALONG ℄

Scale 1"= 20'-0"



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. LAYOUT PLAN
STA. 59+29 TO STA. 65+45

RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ NO. I-HI-1(145)16

Scale: As Shown Date: July 1976

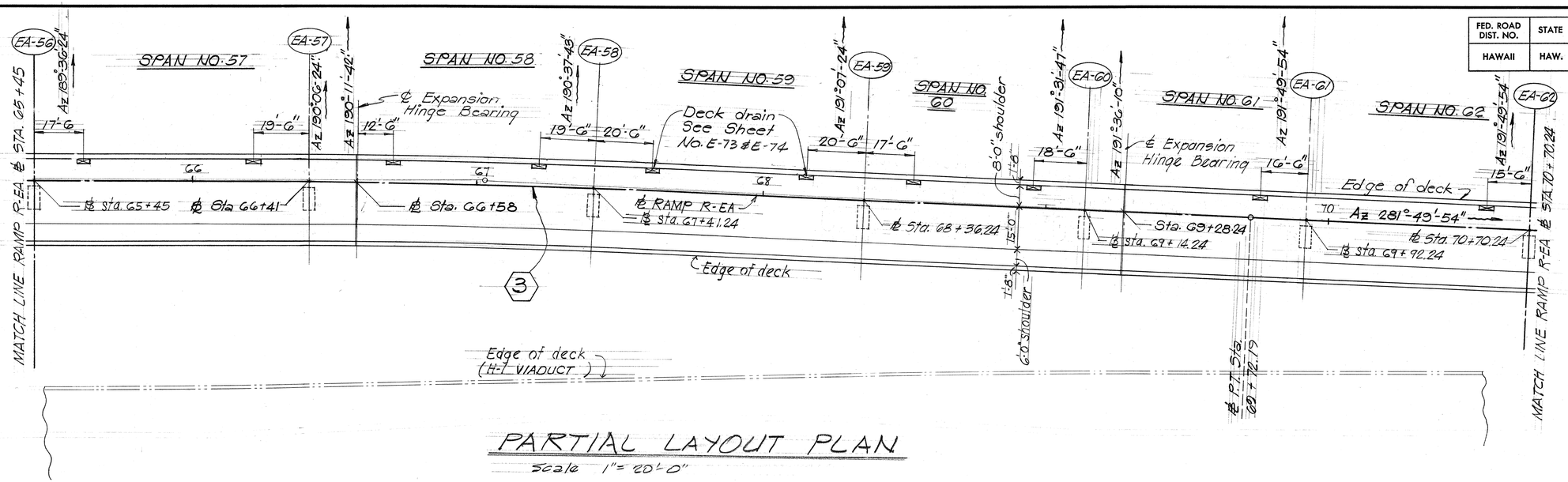
SHEET No. E-7 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

64

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	65	136

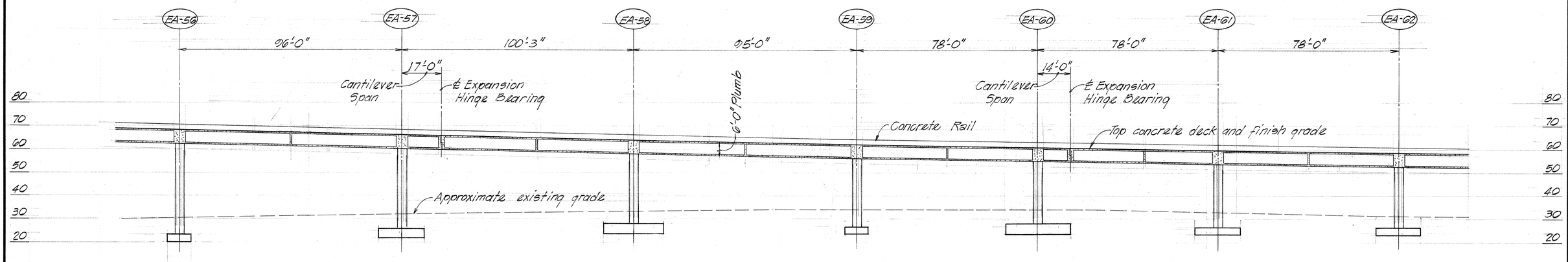


PARTIAL LAYOUT PLAN

Scale 1"= 20'-0"

3

Δ = 2°48' 31"
Δ/2 = 1°24' 15.5"
R = 11,000.00'
T = 269.66'
Ch = 539.16
L.C. = 539.21



LONGITUDINAL SECTION ALONG ℄

Scale 1"= 20'-0"

NOTE:

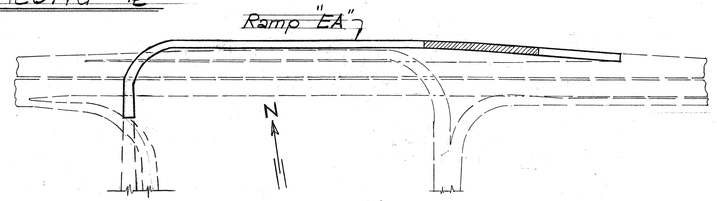
Top of concrete deck shall follow finish roadway grades except as otherwise noted on plans.
Superstructure slab & girders shall be constructed on curve where occurs.

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION



KEY PLAN

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART. LAYOUT PLAN
STA. 65+45 TO STA 70+70.24
"
RAMP EA"

AIRPORT INTERCHANGE
FA.I. PROJ NO. I-HI-1(145)16

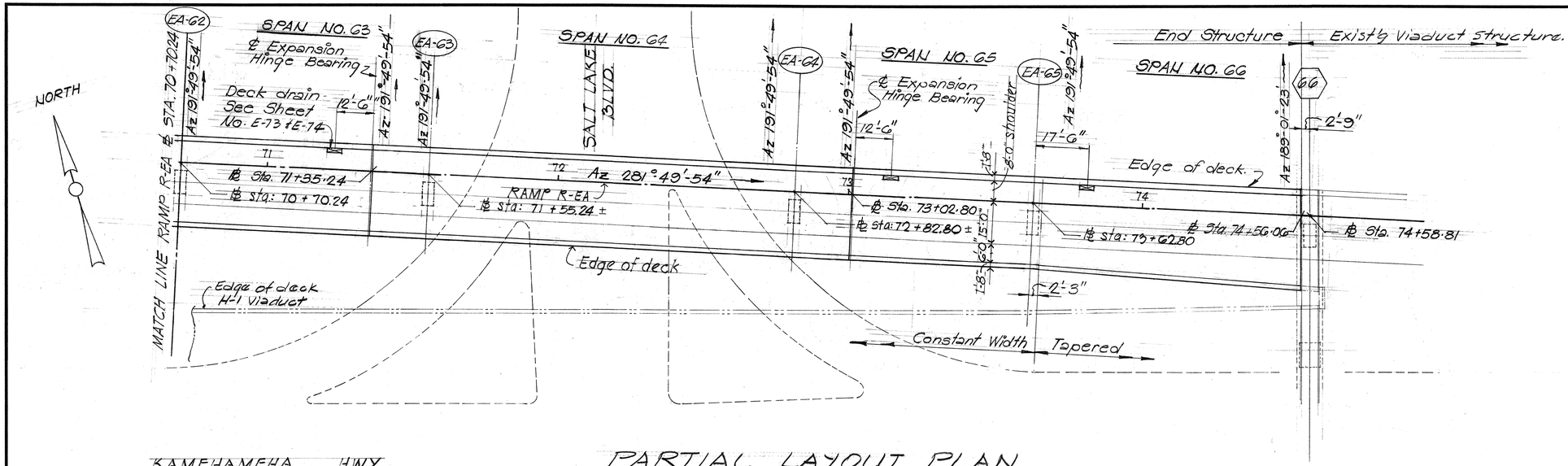
Scale: As Shown Date: July 1976

SHEET No. E-8 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

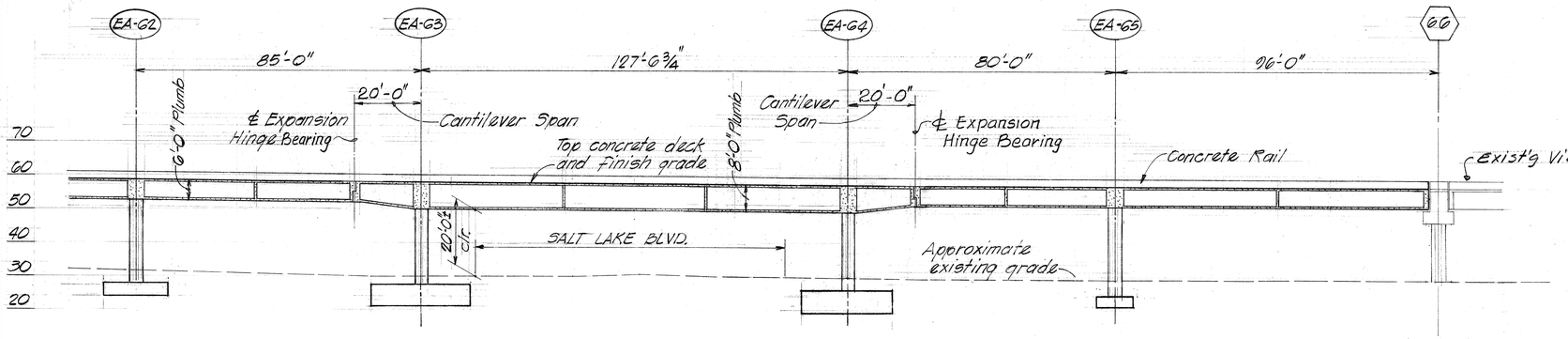
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	66	136



KAMEHAMEHA HWY.
EWA-BOUND LANES

PARTIAL LAYOUT PLAN

Scale: 1" = 20'-0"



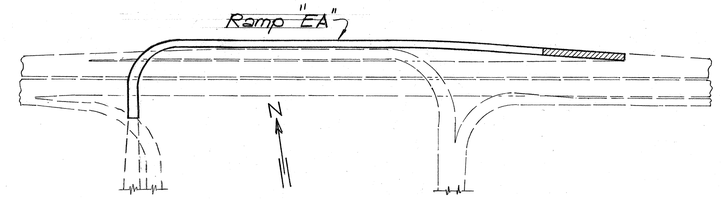
NOTE:

Top of concrete deck shall follow finish roadway grades except as otherwise noted on plans

Superstructure slab & girders shall be constructed on curve where occurs.

LONGITUDINAL SECTION ALONG ℄

Scale 1" = 20'-0"



KEY PLAN

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

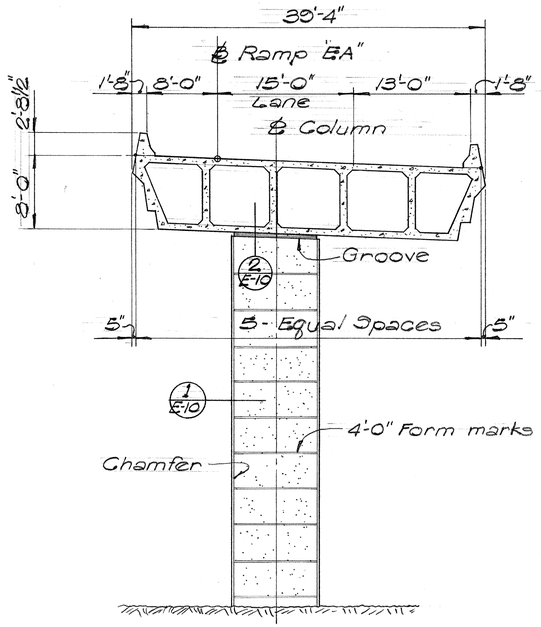
PART LAYOUT PLAN
STA 70+70.24 TO STA 74+56.06
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ. NO I-HI-1 (145) 16

Scale: As Shown Date: July 1976

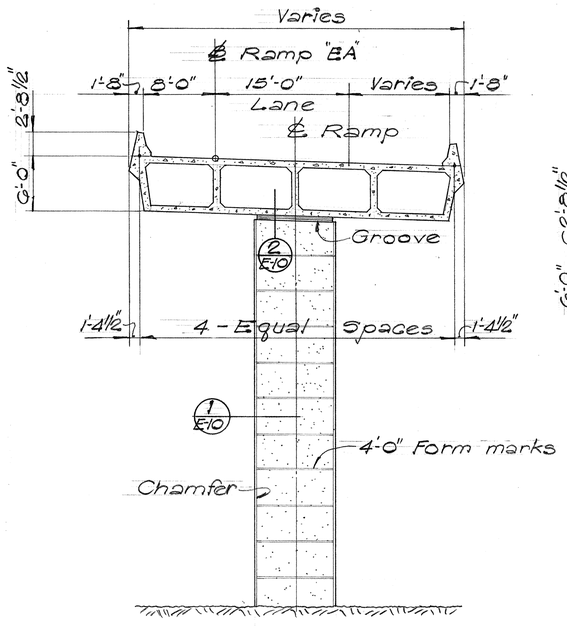
SHEET No. E-9 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

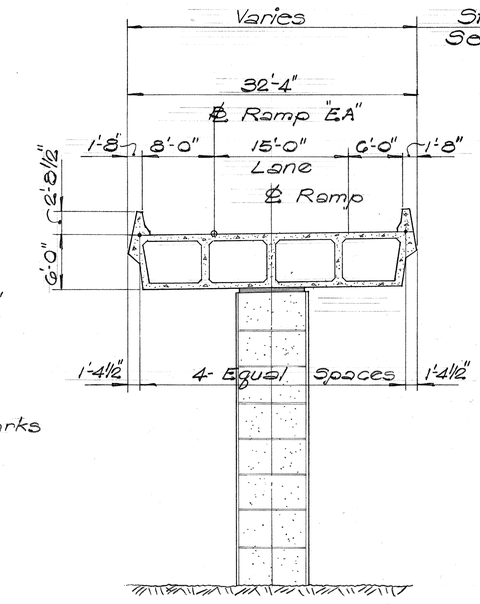
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	67	136



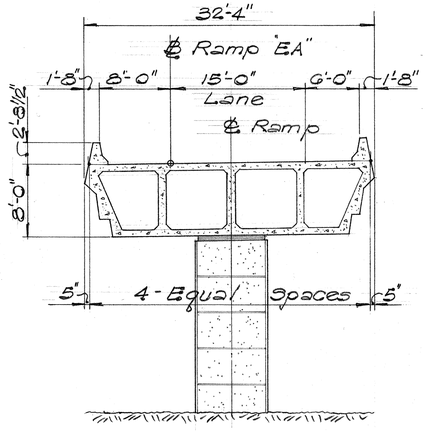
TYP. SEC. (Sta. 50+19 TO Sta. 53+73)
Scale: 1/8"=1'-0"



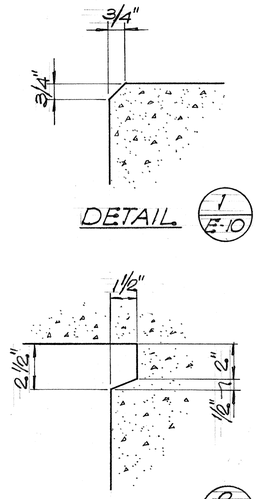
TYP. SEC. (Sta. 53+88 To Sta. 56+32)
Scale: 1/8"=1'-0"

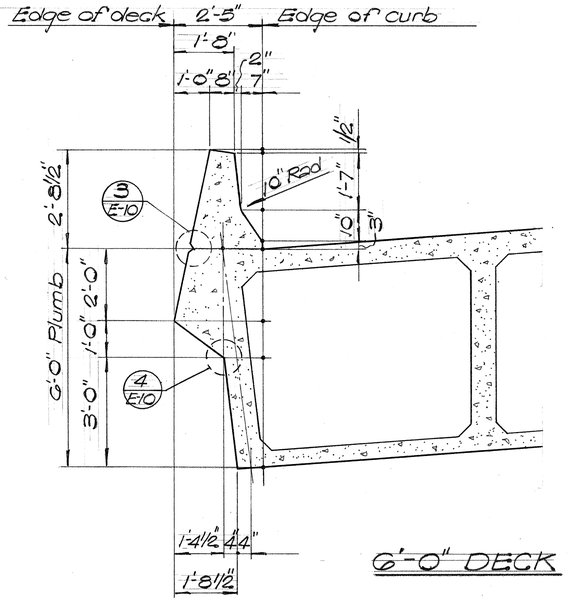


TYP. SEC. (Sta. 56+32 To Sta. 71+35)
Sta. 73+02 to Sta. 73+63
Scale: 1/8"=1'-0"

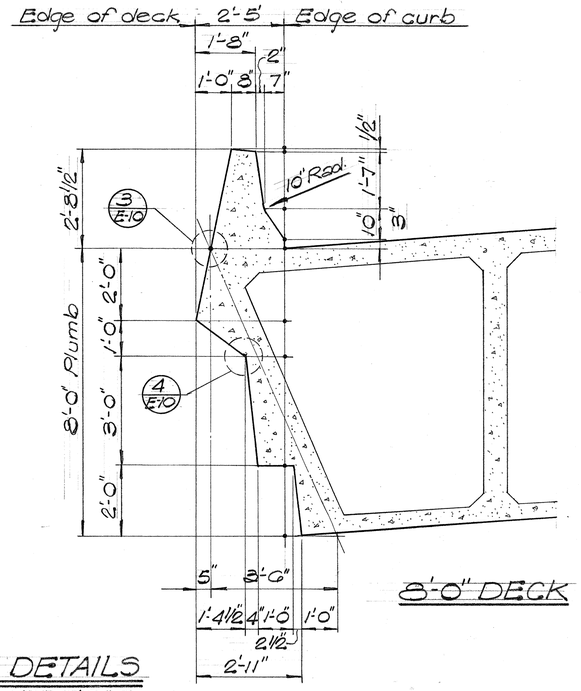


TYP. SEC. (Sta. 71+55 To Sta. 72+82)
Scale: 1/8"=1'-0"



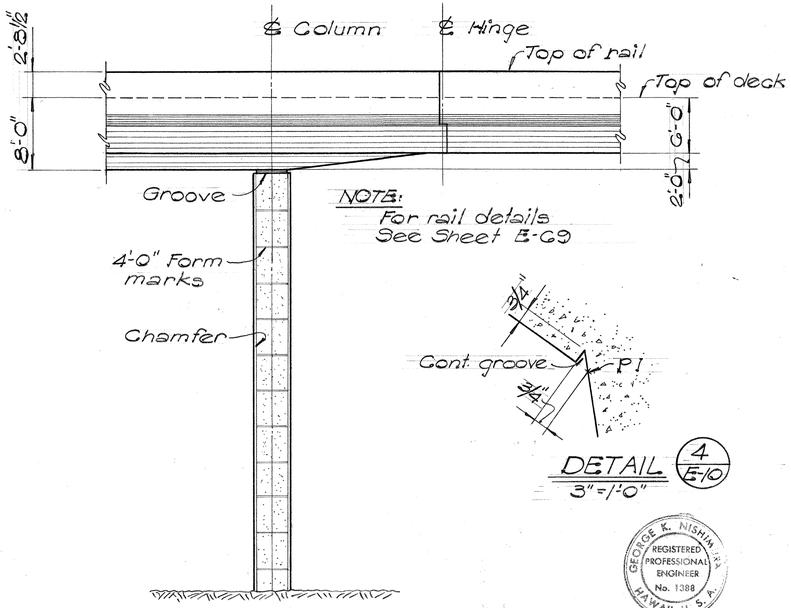


6'-0" DECK



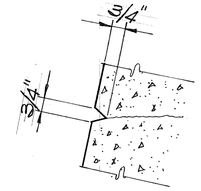
8'-0" DECK

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



PARTIAL ELEVATION AT DECK TRANSITION
Scale: 1/8"=1'-0"

DETAIL 4/E-10
3"=1'-0"



DETAIL 3/E-10

GROOVE AND CHAMFER DETAILS
Scale: 3"=1'-0"

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 3514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL RAMP SECTIONS AND DETAILS RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ NO I-HI-1 (145)16

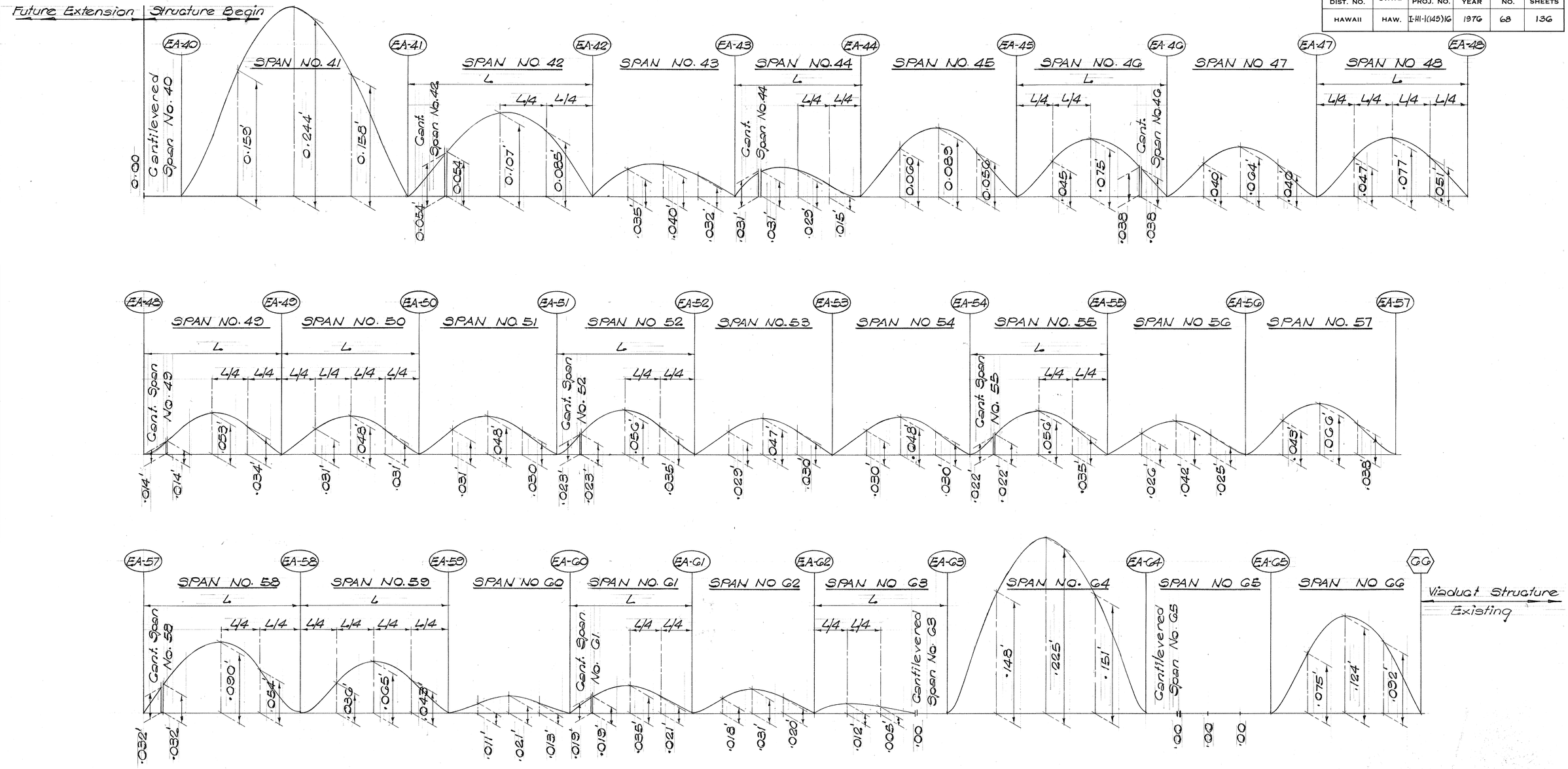
SCALE: AS SHOWN DATE: JULY 1976

SHEET NO. E-100F / 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	68	136



DECK CAMBER DIAGRAM

Not to scale.

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

GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK CAMBER DIAGRAM

RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1 (145)16

SCALE: AS NOTED DATE JULY 1976

SHEET No. E-11 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	69	136

NORTH

EA-44 Az 184°-56'-39.94" Sta. 54+53 Outside edge of deck

EA-45 Az 183°-01'-23" Sta. 55+53

EA-46 Az 183°-01'-23" Sta. 56+49

Az 279°-01'-23"

℄ Ramp "EA"

℄ Column & Footing

℄ Ramp "IW" (See Sht. I-7)

44'-4"

6'-6"

3'-1"

8"Col. Drain Pipe Outlet Inv. El.=28.00

(15.00)

(17.00)

(10.00)

P.T. Sta. 54+70.84

Spiral Begin Sta. 53+61.72

Spiral End Sta. 55+67.13

T.H. #67

EA-42 Az 185°-26'-31" Sta. 52+82.11

EA-43 Az 186°-35'-59.21" Sta. 53+73

Existing column & Footing

℄ Col. & Ftg.

T.H. #16

Sta. 51+62

Outside edge of deck

EA-41 Az 118°-42'-18"

Existing columns & Footing.

P.C. Sta. 50+78.18

Az 9°-02'-00"

Sta. 50+19

EA-40 Az 99°-02'-00"

10'-0"

8"Column drain pipe Outlet Inv. El.=26.00

EA-40 Az 189°-01'-23" Sta. 56+49

EA-47 Az 189°-01'-23" Sta. 57+45

EA-48 Az 189°-01'-23" Sta. 58+41

EA-49 Az 189°-01'-23" Sta. 59+29

EA-50 Az 189°-01'-23" Sta. 60+17

Outside edge of deck

(18.00)"pd"

T.H. #68

1- (00.00) indicates bottom of footing elevation.
2- Where noted by "pd" after the bottom of footing elevation, the underlying soils should be proof drilled to at least 10 feet below bearing elevation to confirm applicable bearing values. See special provision.

PARTIAL FOUNDATION PLAN

Scale: 1" = 20'-0"

Ramp "EA"

N

KEY PLAN

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART FOUNDATION PLAN

RAMP "EA"

AIRPORT INTERCHANGE
FA.I. PROJ NO I-HI-1(145)16

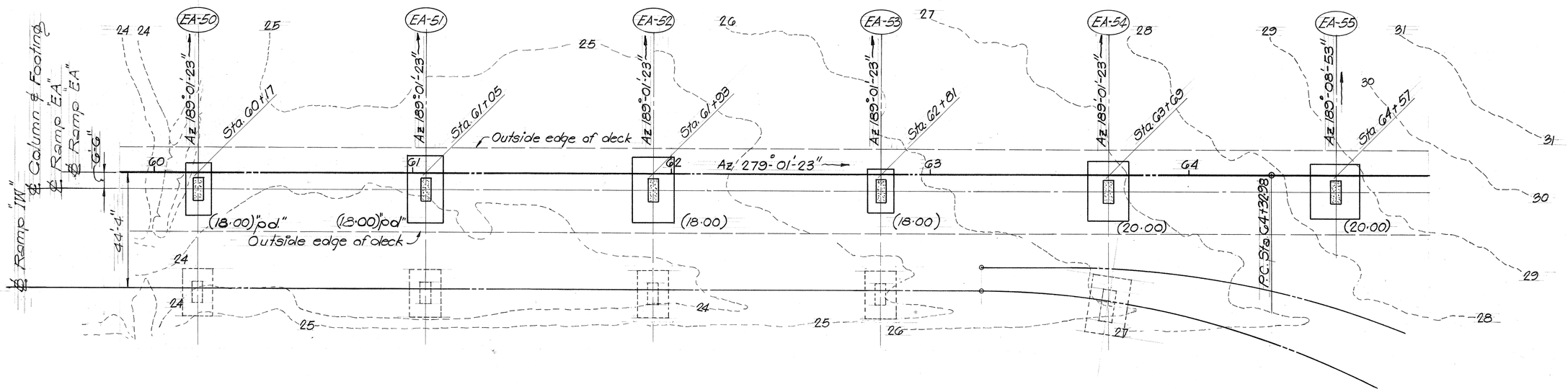
Scale: As Shown Date: JULY 1976

SHEET No. E-12 OF 124 SHEETS

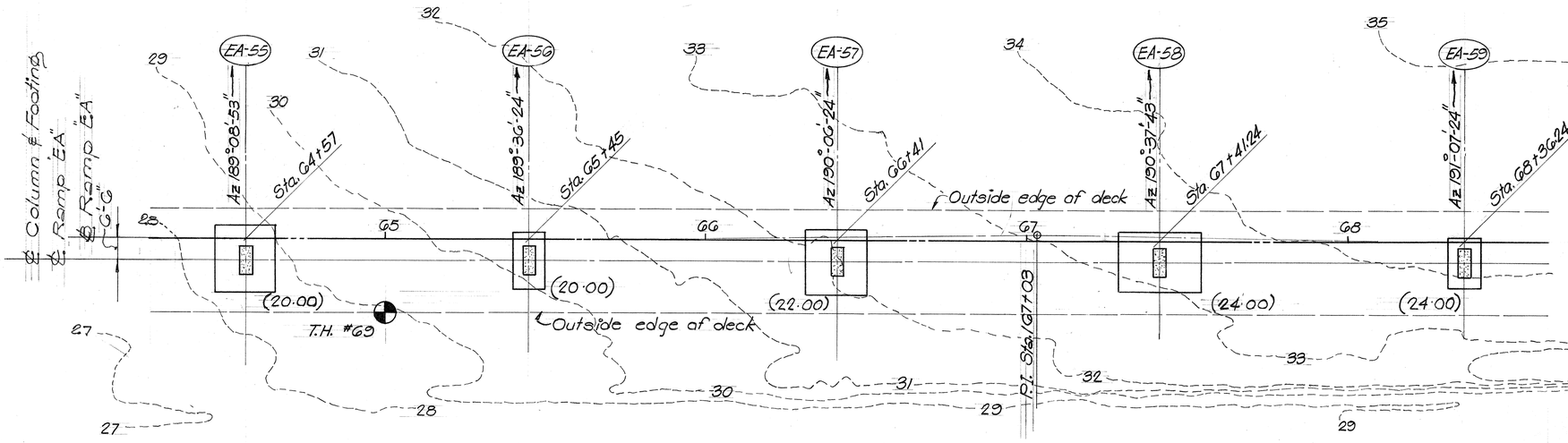
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
No.	CHECKED BY	

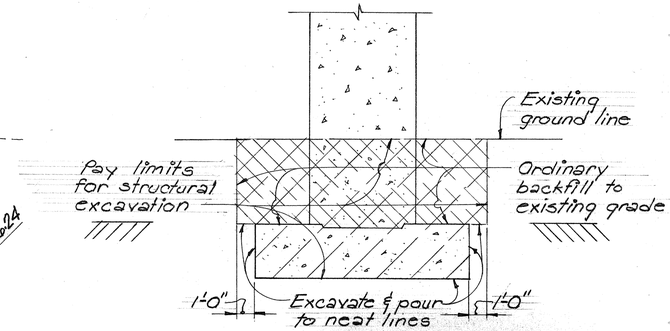
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	70	136



NORTH



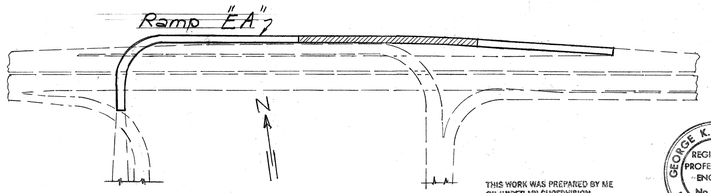


TYPICAL LIMITS OF STRUCTURAL EXCAVATION
PAYLINE AND BACKFILL
Not to scale

NOTES:

1. (00.00) Indicates bottom of footing elevation
2. Where noted by "Pd" after bottom of footing elevation, the underlying soils should be proof drilled to at least 10 feet below bearing elevation to confirm applicable bearing values. See Special provision.

PARTIAL FOUNDATION PLAN
Scale 1"=20'



KEY PLAN

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART FOUNDATION PLAN AND EXCAVATION „PAYLINE LIMITS
RAMP EA

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I HI-1 (145) 16

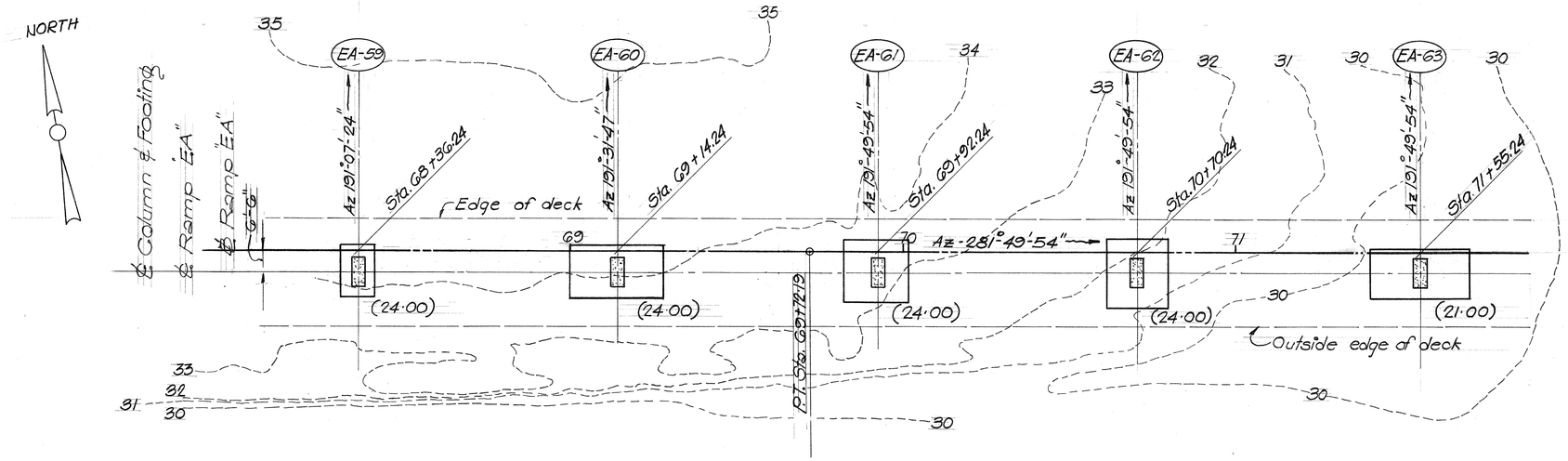
Scale: As shown Date: JULY 1976

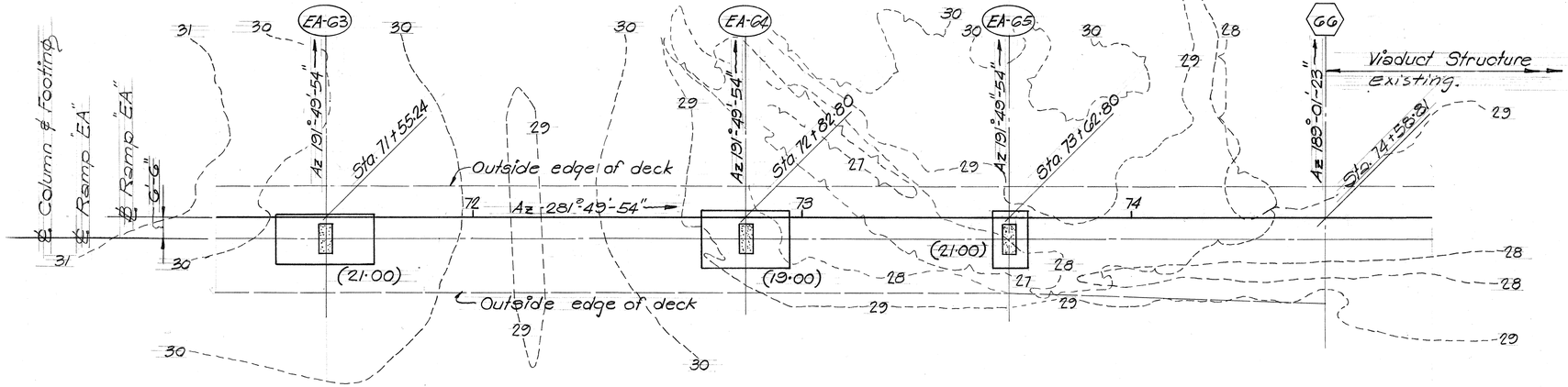
SHEET No. E-13 OF 124 SHEETS

ORIGINAL PLAN
SURVEY PLOTTED BY
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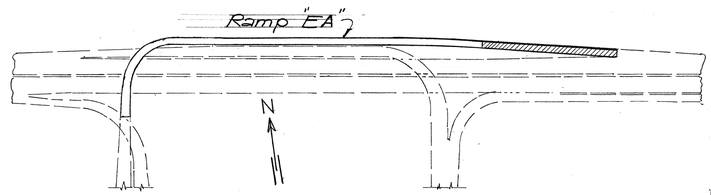
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	71	136





PARTIAL FOUNDATION PLAN
Scale: 1"=20'

NOTE: (00.00) Indicates bottom of footing elevation



KEY PLAN

T.H. #16
ELEV. 27.00

4-5-6, GM
REC. = 10%
11-11-13, MH
REC. = 43%
50/3"
REC. = 92%, RQD. = 40%
REC. = 92%, RQD. = 75%
50/2½"
12-21-72
REC. = 83%, RQD. = 10%
C = 1850 PSF
Ø = 0°
Dd = 88.8, Mc = 33
MH, REC. = 13%
8-8-9, MH/CORAL
CORAL
REC. = 10%
5-5-5
REC. = 8%

T.H. #67
ELEV. 20.00

TOPSOIL
TUFF
50/3"
50/2"

T.H. #68
ELEV. 25.00

SC
REC. = 100%
REC. = 100%, RQD. = 53%
50/6"
REC. = 100%, RQD. = 65%
50/1¼"
REC = 98%, RQD. = 27%
TUFF, REC. = 25%, RQD. = 7%
50/0"
REC. = 97%, RQD. = 17%
50/0"
MH
REC. = 35%

T.H. #69
ELEV. 29.00

TUFF
REC. = 38%, RQD. = 35%
18-22-32
REC. = 100%, RQD. = 47%
50/5"
REC. = 100%, Qu = 105 TSF; Dd = 108.1, Mc = 24
RQD = 70%, Qu = 116 TSF; Dd = 95.2, Mc = 29
50/4"
REC = 80%, RQD. 67%
REC = 95%
MH
REC = 97%

SOIL BORING LOGS
Scale: 1"=10'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART FOUNDATION PLAN AND SOIL BORING LOGS RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO I-HI-1 (145)16

Scale: As Shown Date: JULY 1976

SHEET NO. E-14 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	72	136

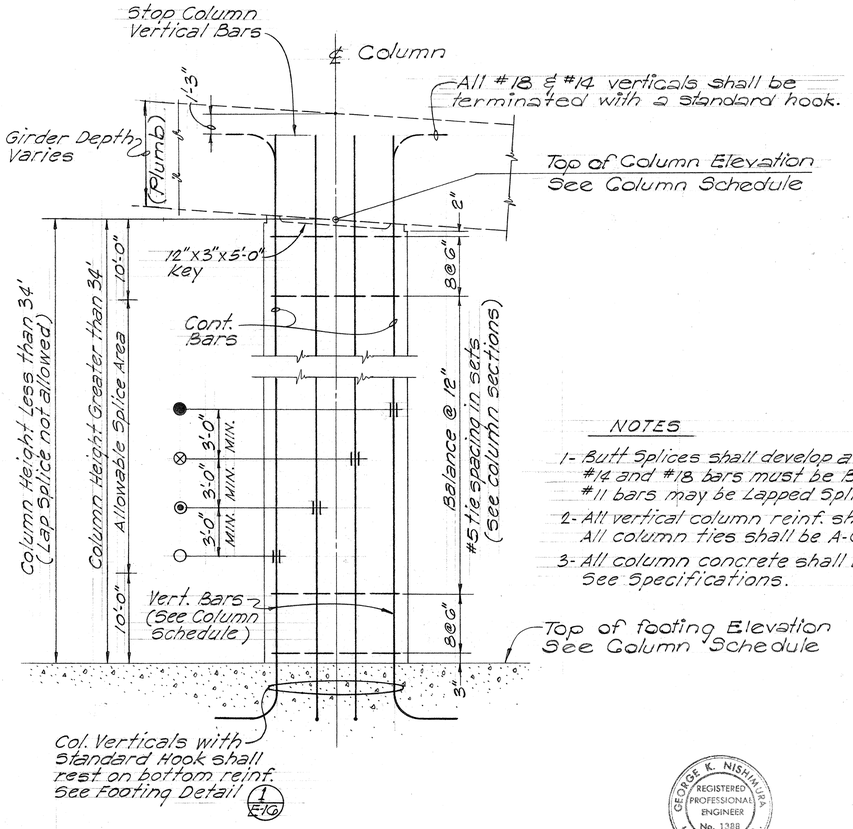
COLUMN SCHEDULE

PIER MARK	EA-40	EA-41	EA-42	EA-43	EA-44	EA-45	EA-46	EA-47	EA-48	EA-49	EA-50	EA-51	EA-52	EA-53	EA-54	EA-55	EA-56	EA-57	EA-58	EA-59	EA-60	EA-61	EA-62	EA-63	EA-64	EA-65
TOP OF COLUMN ELEVATION	71.72			70.61	78.07	77.06	75.62	73.98	72.33	70.82	69.31	67.79	66.28	64.76	63.25	61.74	60.22	58.57	56.85	55.31	54.21	53.27	52.45	49.79	49.11	50.83
COLUMN SIZE A X B / VERTICAL REINFORCING	5'-0" x 10'-0" 48 - #18	EXISTING	EXISTING	4'-0" x 10'-0" 44 - #18	4'-0" x 9'-0" 40 - #18	4'-0" x 8'-0" 40 - #14	4'-0" x 8'-0" 36 - #14	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #14	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #14	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #11	4'-0" x 8'-0" 36 - #18	4'-0" x 8'-0" 36 - #18	4'-0" x 8'-0" 36 - #11
TOP OF FOOTING ELEVATION	22.00			23.00	20.00	20.00	22.00	22.00	22.00	22.75	~~22.00~~ 22.33	22.50	22.00	21.50	24.00	24.00	23.50	25.83	28.67	27.00	29.00	27.50	27.50	28.00	26.00	24.50
GROUP LOADING	V			II	II	II	V	II	V	V	II	V	V	II	V	V	II	V	V	II	V	V	V	I	I	I
SOIL PRES. KSF	11.85			7.04	7.35	8.87	7.50	8.62	6.85	5.59	~~4.39~~ 4.92	6.74	6.12	13.10	6.73	6.04	12.64	6.46	5.61	13.12	5.18	5.79	5.13	6.98	6.23	11.74
*PROOF DRILLED "pd"	—			—	—	—	—	—	—	"pd"	"pd"	"pd"	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Where noted "pd" underlying soil below the corresponding footing shall be proof drilled to at least 10 feet below bearing elevation to confirm applicable bearing values. See Special Provision

FOOTING SCHEDULE (See footing detail 1/E-40)

FOOTING MARK	SIZE			BOTTOM REINFORCING		TOP REINFORCING	
	X	Y	t	X-BARS	Y-BARS	X-BARS	Y-BARS
EA-40	13'-0"	28'-0"	7'-0"	29-#9 @ 12"	20-#14 @ 8"	18-#6 @ 18"	14-#6 @ 11½"
EA-41	COMBINED		FOOTING - EXISTING				
EA-42				EXISTING			
EA-43	13'-0"	40'-0"	7'-0"	32-#9 @ 15"	15-#18 @ 10½"	27-#6 @ 18"	15-#10 @ 10½"
EA-44	14'-0"	30'-0"	5'-0"	25-#11 @ 14½"	13-#18 @ 13½"	21-#6 @ 17½"	15-#9 @ 11½"
EA-45	13'-0"	26'-0"	5'-0"	25-#10 @ 13"	18-#14 @ 9"	18-#6 @ 18"	12-#8 @ 13½"
EA-46	14'-0"	27'-0"	5'-0"	21-#11 @ 10"	19-#14 @ 9"	19-#6 @ 17½"	13-#8 @ 13½"
EA-47	10'-0"	26'-0"	5'-0"	20-#8 @ 16"	15-#14 @ 10"	18-#6 @ 18"	12-#6 @ 10½"
EA-48	13'-0"	28'-0"	5'-0"	29-#9 @ 12"	19-#14 @ 8½"	20-#6 @ 18"	19-#6 @ 8½"
EA-49	14'-6"	29'-6"	4'-9"	37-#9 @ 9½"	21-#14 @ 8½"	21-#6 @ 18"	21-#6 @ 8½"
EA-50	~~10'-0"~~	~~20'-6"~~	~~4'-0"~~	~~24-#8 @ 10½"~~	~~17-#11 @ 7"~~	~~14-#6 @ 18"~~	~~11-#6 @ 12"~~
EA-51	14'-0"	26'-0"	4'-6"	29-#10 @ 11"	19-#14 @ 9"	18-#6 @ 18"	19-#6 @ 9"
EA-52	16'-0"	25'-0"	4'-0"	28-#11 @ 11"	21-#14 @ 9½"	17-#6 @ 18"	21-#6 @ 9½"
EA-53	10'-0"	17'-0"	3'-6"	26-#8 @ 8"	15-#10 @ 8"	12-#6 @ 18"	7-#6 @ 18"
EA-54	16'-0"	23'-0"	4'-0"	26-#11 @ 11"	18-#14 @ 11"	18-#6 @ 16"	18-#6 @ 11"
EA-55	19'-6"	22'-0"	4'-0"	23-#14 @ 12"	20-#14 @ 12"	30-#6 @ 9"	20-#6 @ 12"
EA-56	10'-0"	18'-0"	3'-6"	26-#8 @ 8½"	14-#11 @ 9"	13-#6 @ 18"	8-#6 @ 16"
EA-57	19'-6"	21'-0"	3'-10"	25-#14 @ 10½"	20-#14 @ 12"	28-#6 @ 9"	20-#6 @ 12"
EA-58	26'-0"	19'-0"	4'-8"	29-#14 @ 8"	25-#11 @ 13"	23-#8 @ 10"	18-#6 @ 18"
EA-59	10'-0"	15'-6"	3'-0"	28-#8 @ 6½"	13-#10 @ 9½"	11-#6 @ 18"	7-#6 @ 18"
EA-60	29'-0"	16'-0"	5'-0"	24-#14 @ 8"	20-#9 @ 18"	24-#8 @ 8"	20-#6 @ 18"
EA-61	19'-6"	18'-6"	3'-6"	21-#14 @ 11"	20-#11 @ 12"	19-#7 @ 12"	14-#6 @ 18"
EA-62	19'-0"	21'-0"	3'-6"	21-#14 @ 11"	22-#11 @ 12"	21-#6 @ 11"	22-#6 @ 12"
EA-63	30'-0"	15'-0"	7'-0"	23-#14 @ 8"	21-#8 @ 18"	23-#7 @ 8"	21-#6 @ 18"
EA-64	27'-0"	17'-6"	7'-0"	25-#14 @ 8½"	19-#9 @ 18"	18-#6 @ 12"	19-#6 @ 18"
EA-65	11'-0"	17'-6"	3'-6"	25-#9 @ 8"	14-#11 @ 9½"	12-#6 @ 18"	8-#6 @ 18"
EA-50	15'-0"	30'-0"	4'-4"	25-#11 @ 14½"	21-#14 @ 8½"	21-#6 @ 17½"	17-#8 @ 11"



TYPICAL COLUMN DETAIL
(See Column Schedule)
Not to Scale

NOTES

1- Butt Splices shall develop a minimum strength of 125% fy
#14 and #18 bars must be Butt Spliced.
#11 bars may be Lapped Spliced (7'-0" min. lap)

2- All vertical column reinf. shall be A-615 Grade 60
All column ties shall be A-615 Grade 40.

3- All column concrete shall be f'_c = 4000 p.s.i.
See Specifications.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

COLUMN AND FOOTING SCHEDULES
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: DATE JULY 1976

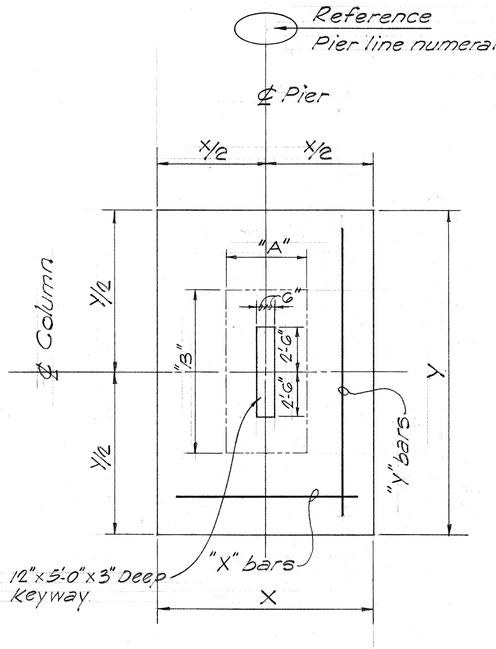
SHEET No. E-15 OF 124 SHEETS

72

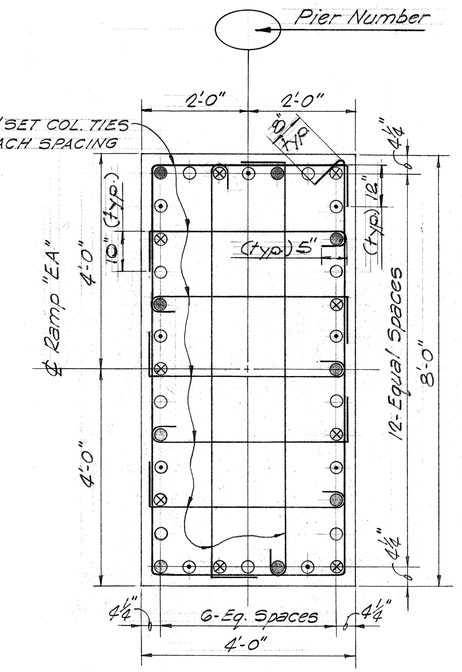
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	73	136

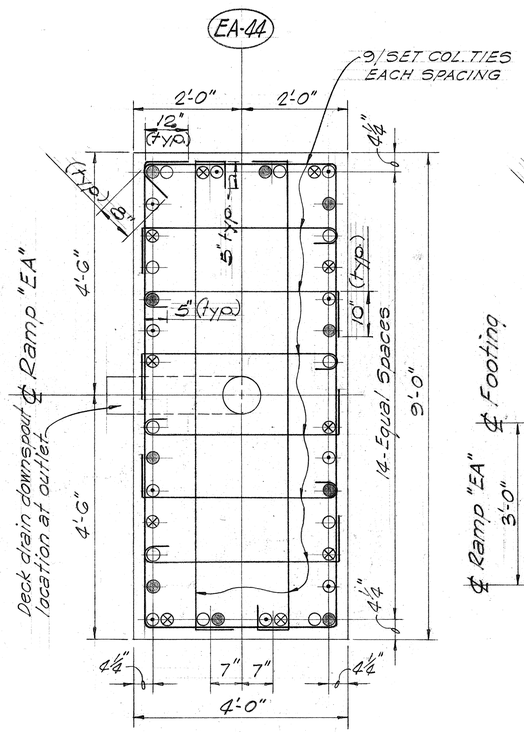


PLAN



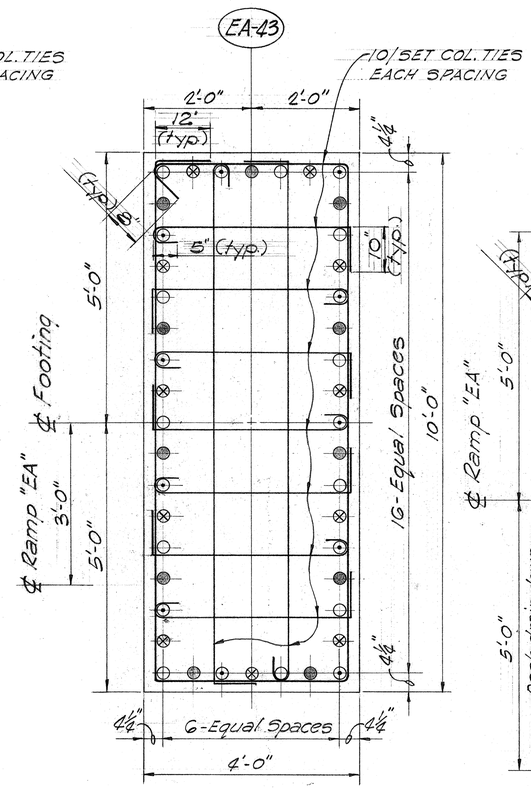
36-VERTICALS
(SEE COL. SCHED. FOR SIZE)

PIERS (EA-46) THRU (EA-63) INCLUSIVE



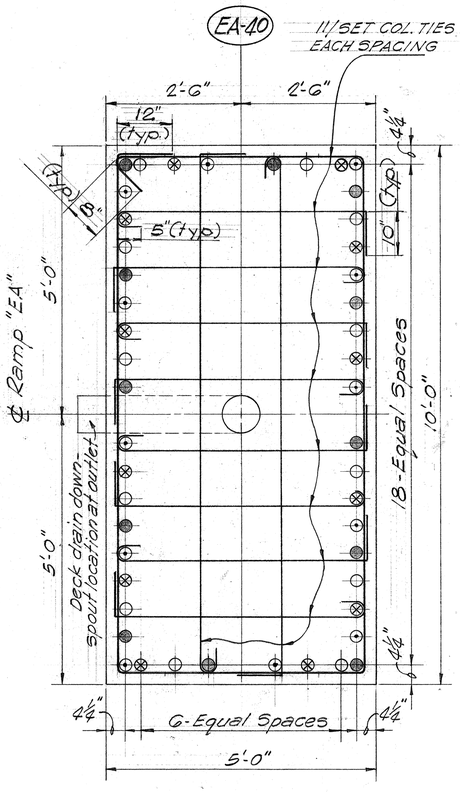
40-#18 VERTICALS

PIER (EA-44)



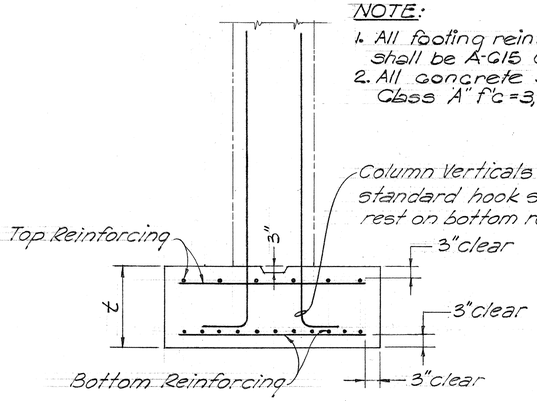
44-#18 VERTICALS

PIER (EA-43)



48-#18 VERTICALS

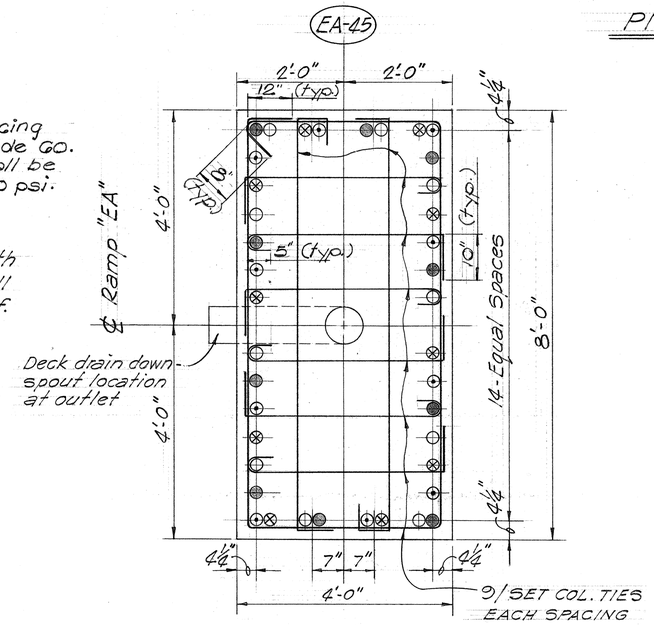
PIER (EA-40)



ELEVATION

TYPICAL FOOTING DETAIL (1/E-16)

(See Footing Schedule)
Not to Scale



40-#14 VERTICALS

PIER (EA-45)

TYPICAL PIER SECTIONS

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

NOTES:

1. All column ties shall be #5 Grade 40 Alternate position of hooks in placing successive set of ties
2. Minimum concrete cover for all ties shall be 1½".
3. Vertical column bars adjacent to pipe at outlet shall have a minimum 8⅝" clear space between bars.
4. For pipe invert elevation & locations, See foundation plans & Deck drain details.

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HIGHWAYS DIVISION

COLUMN AND FOOTING DETAILS
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

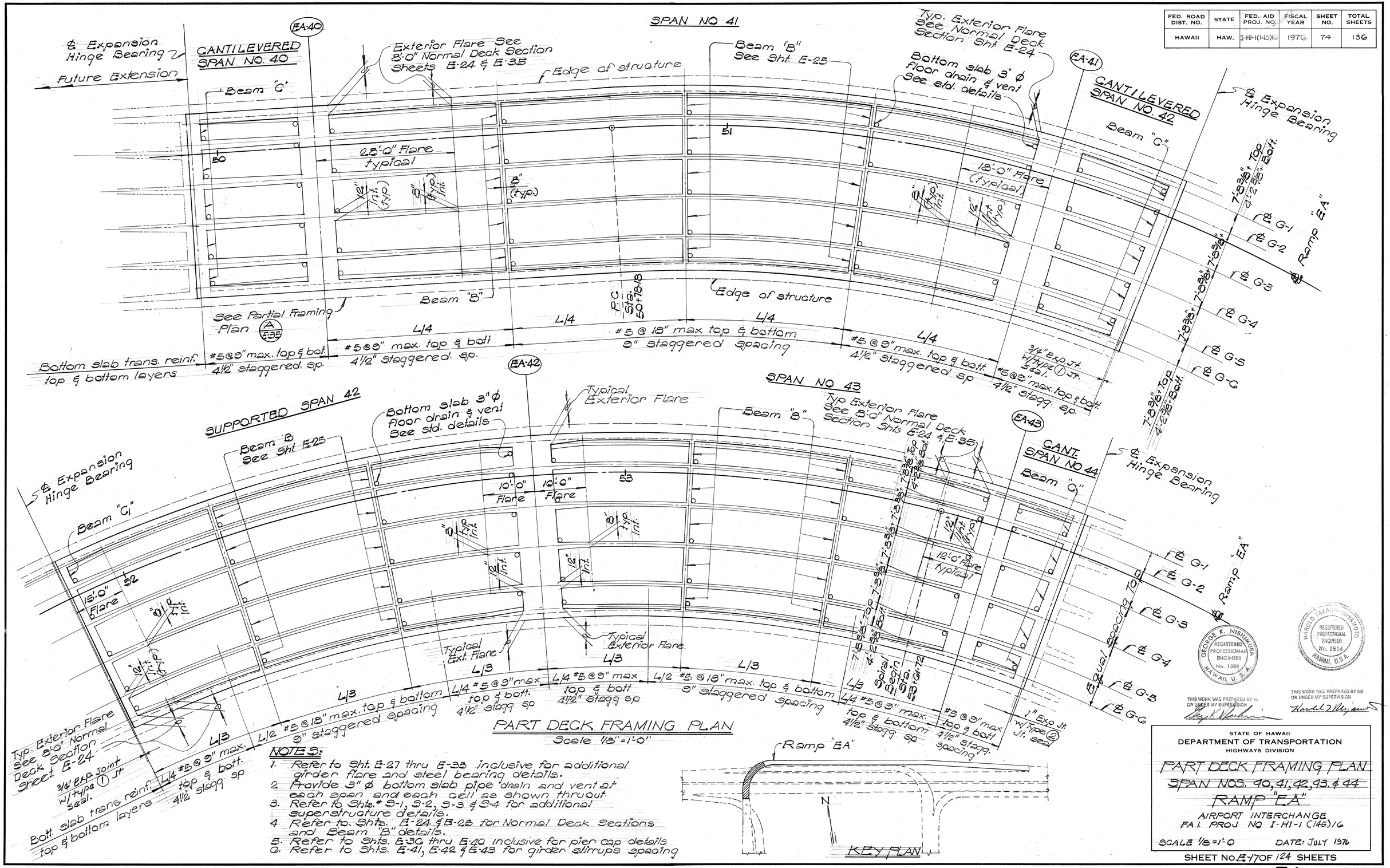
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SHEET No. E-16 OF 124 SHEETS

ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	74	136



PART DECK FRAMING PLAN
Scale 1/8"=1'-0"

NOTES:

1. Refer to Sht. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3" ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts.* S-1, S-2, S-3 & S-4 for additional superstructure details.
4. Refer to Shts. E-24 & E-25 for Normal Deck Sections and Beam "B" details.
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrups spacing

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

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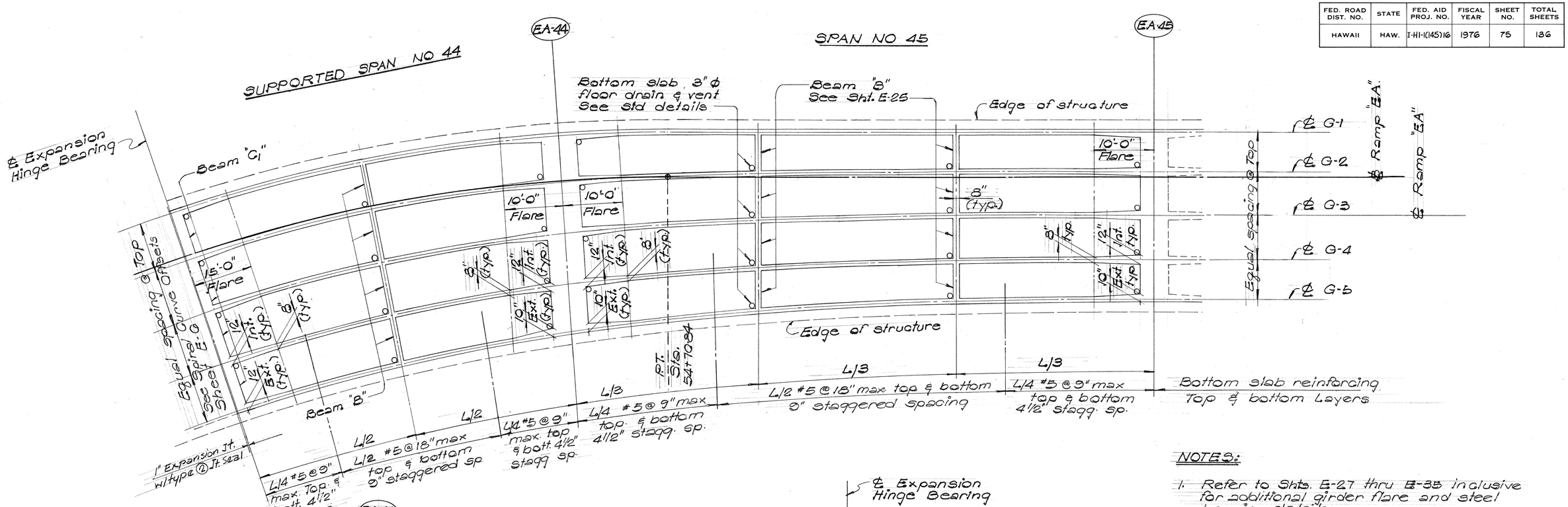
PART DECK FRAMING PLAN
SPAN NOS. 40, 41, 42, 43 & 44
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ NO I-HI-1 (145)16

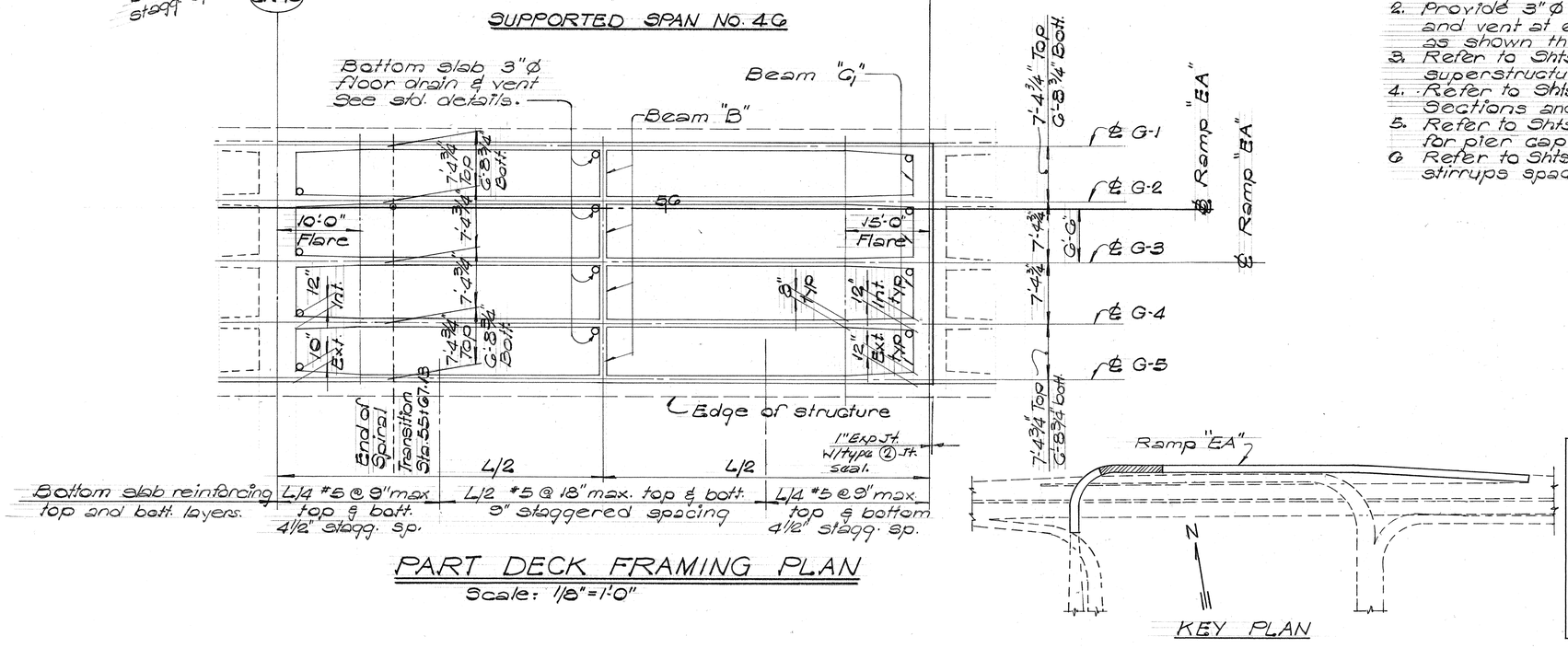
SCALE 1/8=1'-0 DATE: JULY 1976

SHEET NO E-170 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	75	136





PART DECK FRAMING PLAN
Scale: 1/8"=1'-0"

NOTES:

1. Refer to Shts. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3"ø bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts. # S-1, S-2, S-3, & S-4 for additional superstructure details.
4. Refer to Shts. E-24 & E-25 for Normal Deck Sections and Beam "A" & Beam "B" details
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrups spacing.

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HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPANS NO. 44, 45, 46
RAMP "EA"

AIRPORT INTERCHANGE
FAI PROJ NO I-HI-1 (145) 16

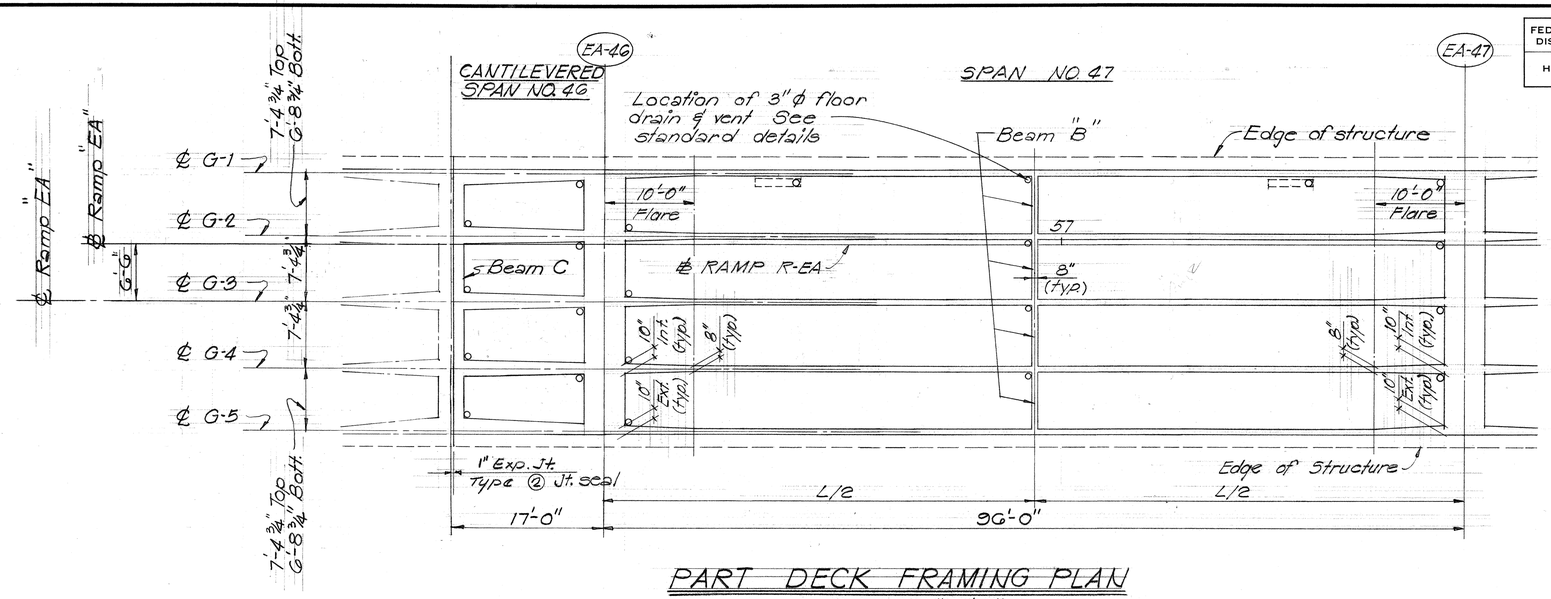
SCALE 1/8"=1'-0" DATE: JULY 1976

SHEET No. E-18 OF 124 SHEETS

ORIGINAL PLANS	SURVEY PLOTTED BY	DATE
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	TRACED BY	
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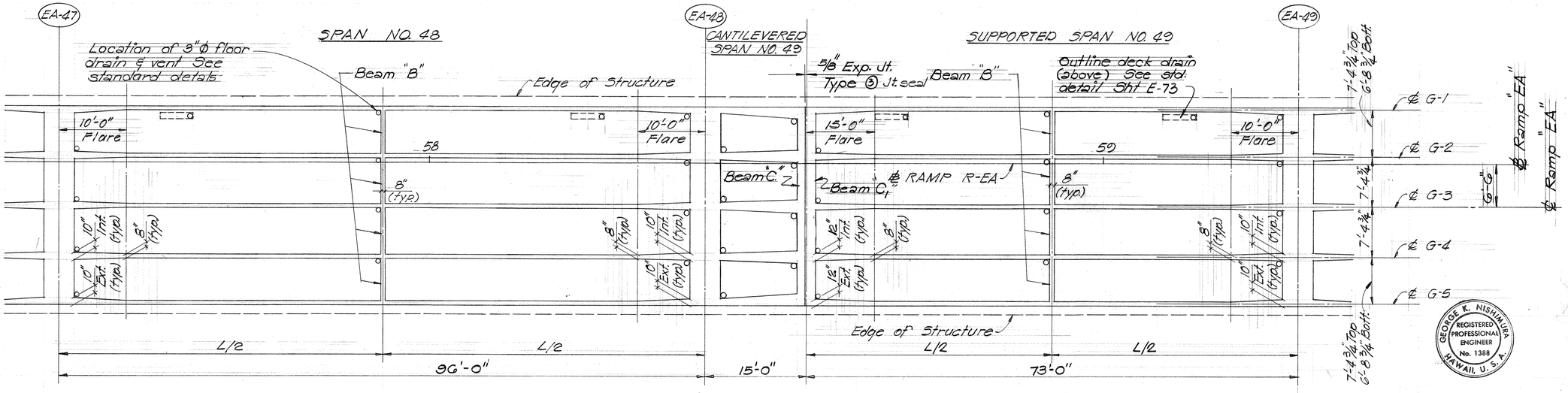
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	76	136



PART DECK FRAMING PLAN

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

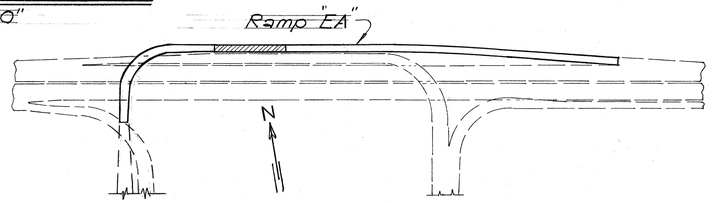


PART DECK FRAMING PLAN

Scale 1/8" = 1'-0"

NOTES:

1. Refer to Shts. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3"ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts. E-1, E-2, E-3 & E-4 for additional superstructure details.
4. Refer to Sht. E-25 for Normal Deck Sections and Beam "B" details.
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrup spacing.



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAIKA REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPAN NOS. 46, 47, 48 & 49
RAMP "EA"
AIRPORT INTERCHANGE
FA.I PROJ. NO. I-HI-1(145)16

SCALE: 1/8" = 1'-0" DATE: July 1976

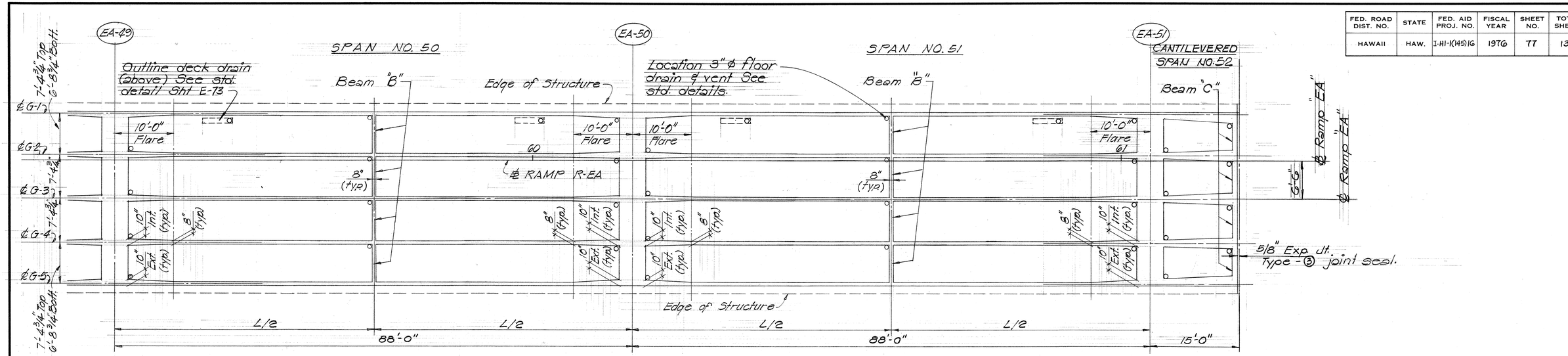
SHEET NO. E-19 OF 124 SHEETS

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

PRINTED ON NO. 100H CLEARPRINT

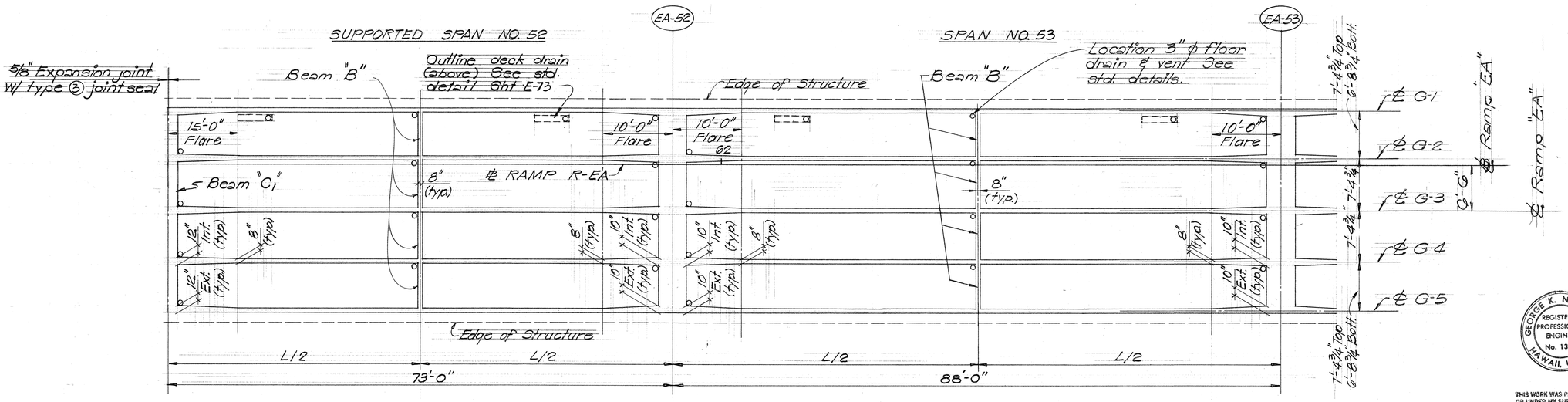
76

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	77	136



PART DECK FRAMING PLAN

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

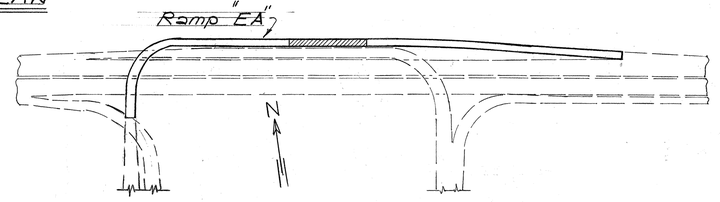


PART DECK FRAMING PLAN

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

NOTE:

1. Refer to Shts. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3" ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts. S-1, S-2, S-3 & S-4 for additional superstructure details.
4. Refer to Sht E-25 for Normal Deck Section and Beam "B" details
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrups spacing.



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPAN NOS. 50, 51, 52 & 53
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16

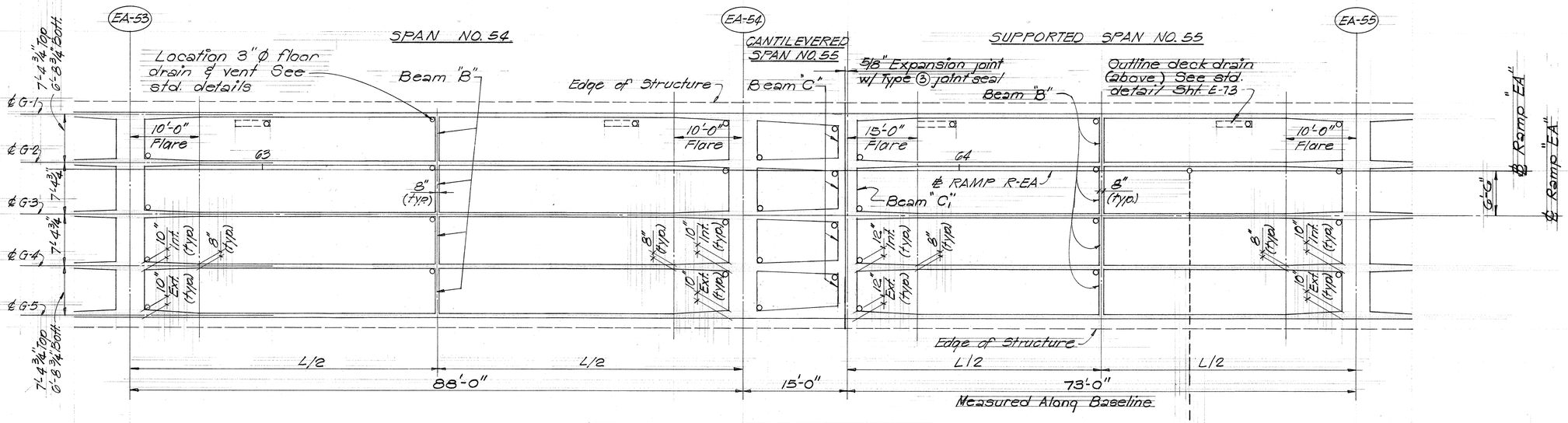
SCALE: 1/8"=1'-0" DATE: July 1976

SHEET NO. E-20 OF 124 SHEETS

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

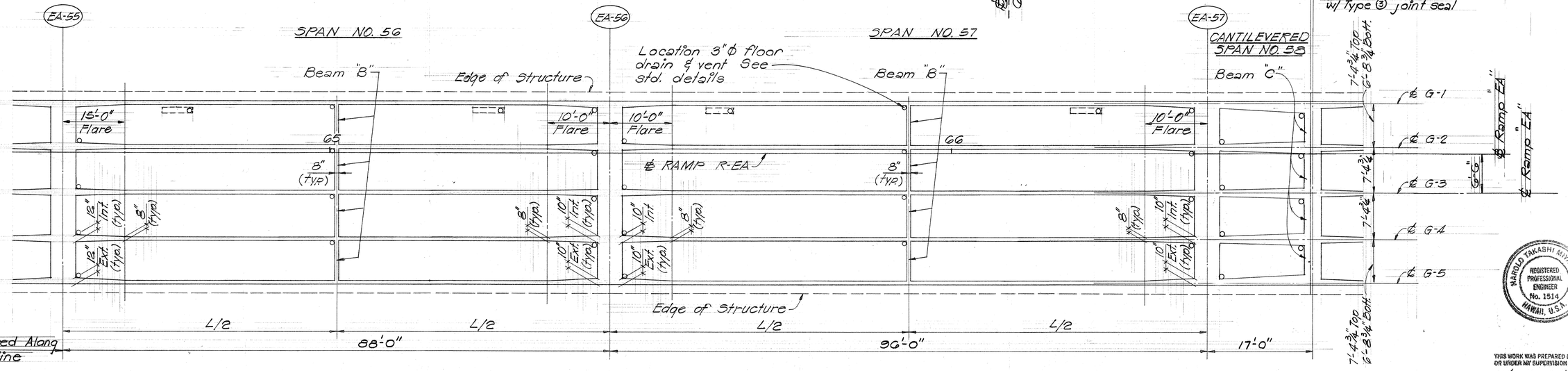
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	78	136



PART DECK FRAMING PLAN

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

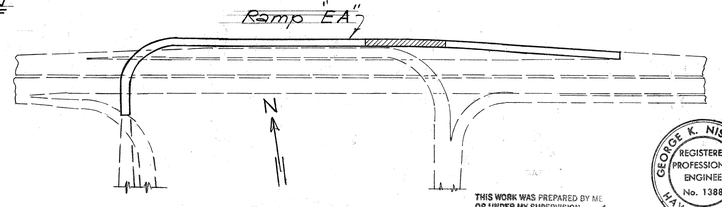


PART DECK FRAMING PLAN

Scale 1/8"=1'-0"

NOTES:

1. Refer to Sht. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3" ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts. S-1, S-2, S-3 & S-4 and additional superstructure details.
4. Refer to Sht. E-25 for Normal Deck Sections and Beam "B" details.
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrup spacing.



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HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPAN NOS. 54, 55, 56 & 57
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

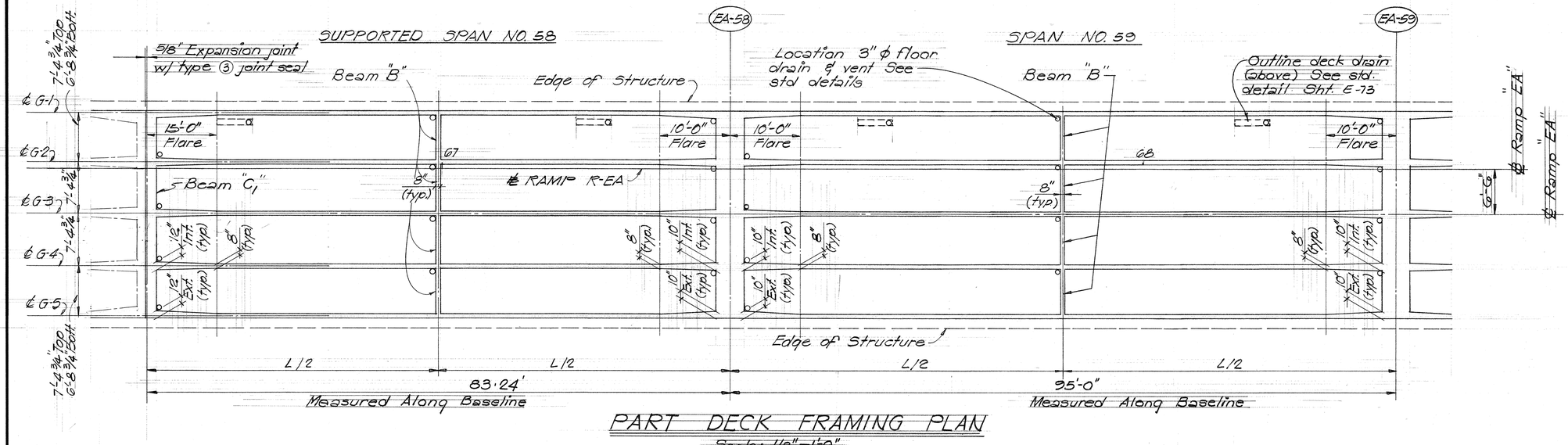
SCALE: 1/8"=1'-0" DATE: July 1976

SHEET No. E-21 OF 124 SHEETS

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

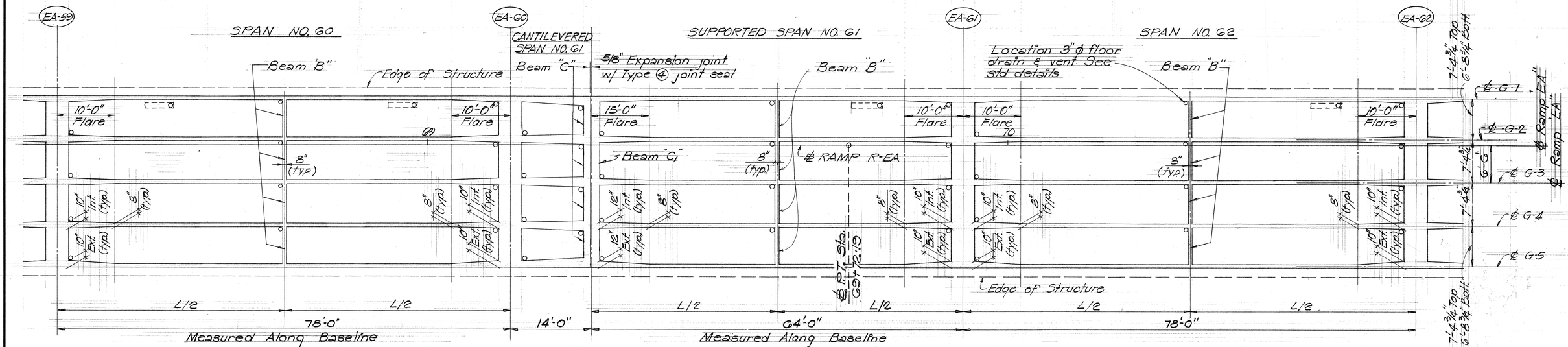
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	79	136



PART DECK FRAMING PLAN

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

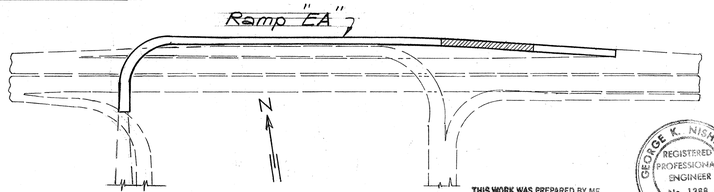


PART DECK FRAMING PLAN

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

NOTES:

1. Refer to Sht. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3"ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Shts. "S-1, S-2, S-3 & S-4 for additional superstructure details.
4. Refer to Sht. E-25 for Normal Deck Section and Beam B details.
5. Refer to Shts. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrup spacing.



KEY PLAN

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PART DECK FRAMING PLAN
SPAN NOS. 58, 59, 60, 61 & 62
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

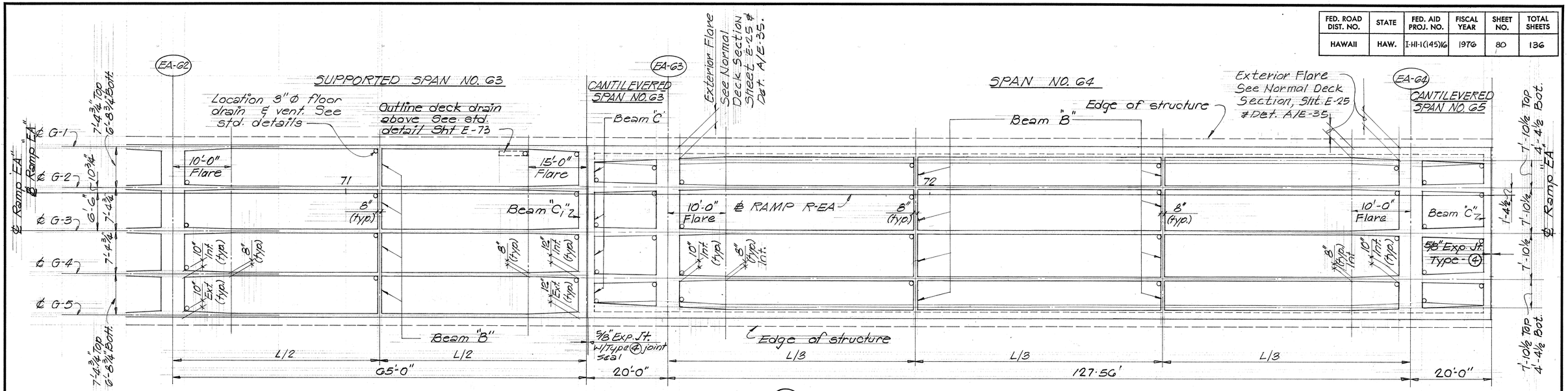
SCALE: 1/8"=1'-0" DATE: July 1976

SHEET NO. E-22 OF 124 SHEETS

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

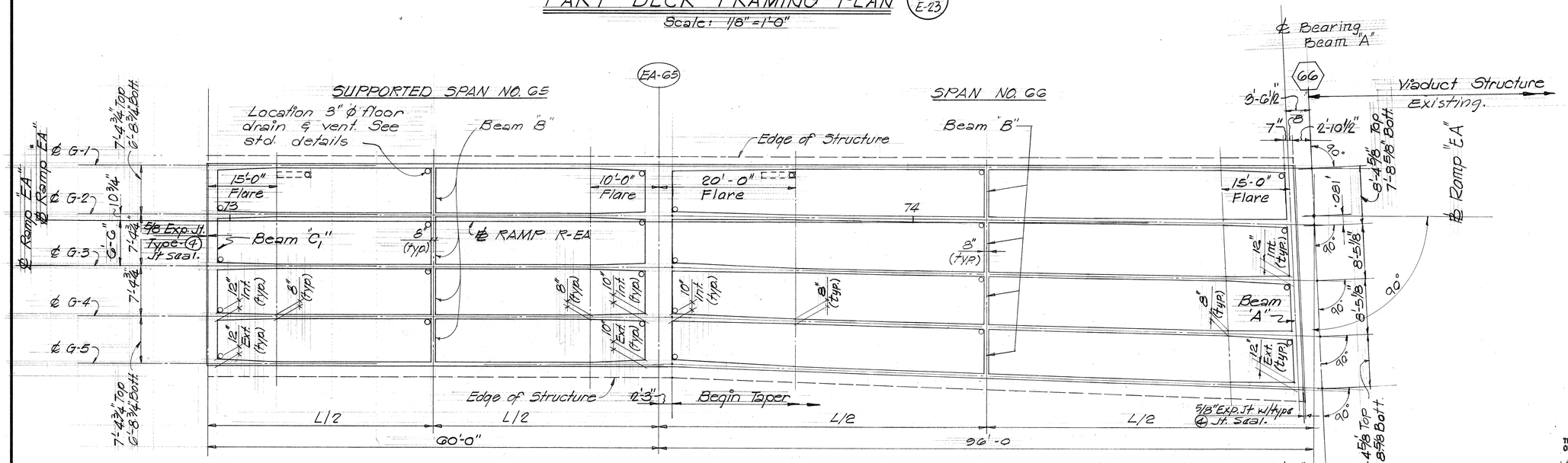
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	80	136



PART DECK FRAMING PLAN (A / E-23)

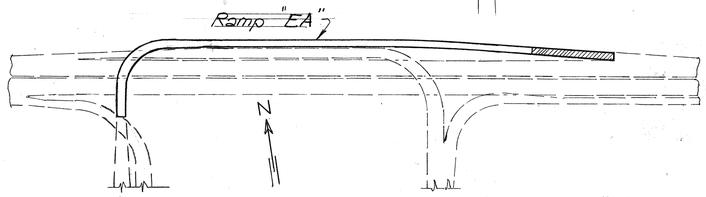
Scale: 1/8" = 1'-0"



PART DECK FRAMING PLAN

Scale 1/8" = 1'-0"

KEY PLAN



NOTES:

1. Refer to Sht. E-27 thru E-35 inclusive for additional girder flare and steel bearing details.
2. Provide 3" ϕ bottom slab pipe drain and vent at each span and each cell as shown thruout.
3. Refer to Sht. No. S-1, S-2, S-3 & S-4 for additional Superstructure details.
4. Refer to Sht. E-25 & E-26 for Normal Deck Sections and Beam "A" & Beam "B" details.
5. Refer to Sht. E-36 thru E-40 inclusive for pier cap details.
6. Refer to Shts. E-41, E-42 & E-43 for girder stirrup spacing.

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

GEORGE K. MISHIMA — REGISTERED PROFESSIONAL ENGINEER — No. 1388 — HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO — REGISTERED PROFESSIONAL ENGINEER — No. 1514 — HAWAII, U.S.A.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

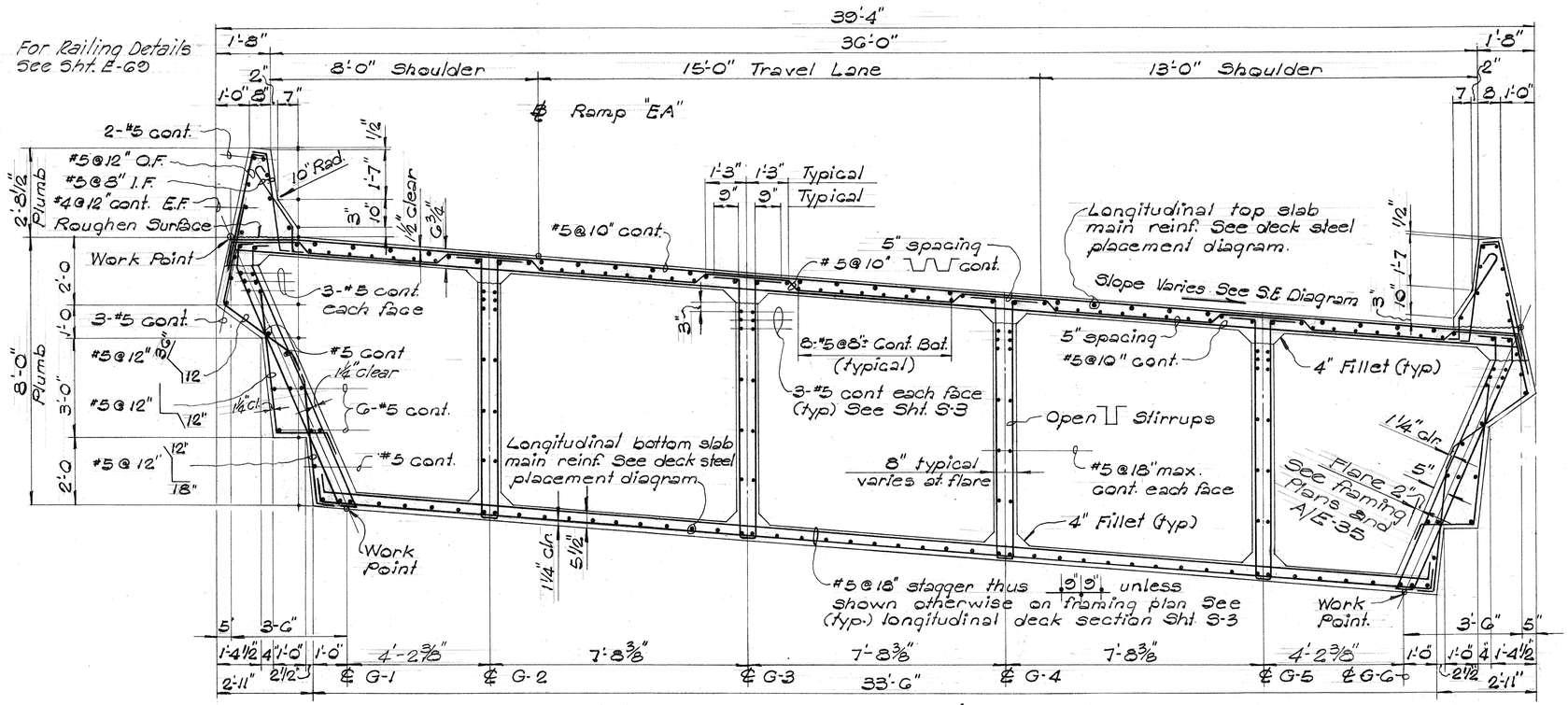
PART DECK FRAMING PLAN
SPAN NOS. G3, G4, G5 & G6
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: 1/8" = 1'-0" DATE: July 1976

SHEET No. E-23 OF 124 SHEETS

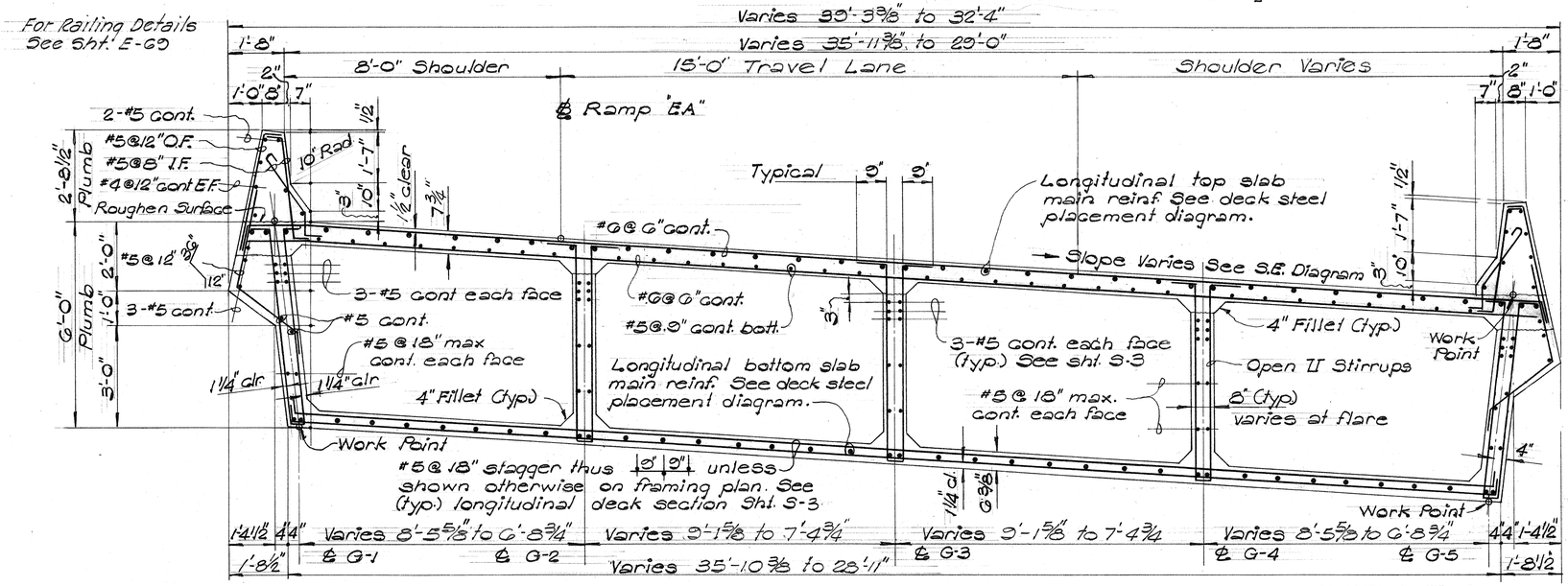
K&E CRYSTALENE® TRACING PAPER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	81	136



8'-0" NORMAL DECK SECTION (STA. 50+19 TO STA. 53+73)

LOOKING TOWARD INCREASING STATION Scale: ½"=1'-0"



6'-0" NORMAL DECK SECTION (STA. 53+88 TO STA. 56+32)

LOOKING TOWARDS INCREASING STATION Scale: ½"=1'-0"

NOTES:

1. Use Class "A" concrete thruout deck
   - f'_c = 3,000 psi
   - f_c = 1,200 psi
   - n = 10
   - f_s = 24,000 psi (Grade 60), Except 20,000 psi (Grade 40) for transverse reinforcing in deck slabs, railing and stirrups
2. Refer to standard detail drawing Sheets S-2, S-3, & S-4 for additional Box girder details.
3. In general, all deck transverse bars shall be placed normal to station line.
4. All vertical dimension are measured plumb.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

8'-0" DECK SEC. STA. 50+19 TO STA. 53+73
6'-0" DECK SEC. STA. 53+88 TO STA. 56+32
RAMP "EA"

AIRPORT INTERCHANGE
F. A. I. PROJ. NO. I-HI-1 (145) 16

SCALE: ½"=1'-0" DATE: JULY 1976

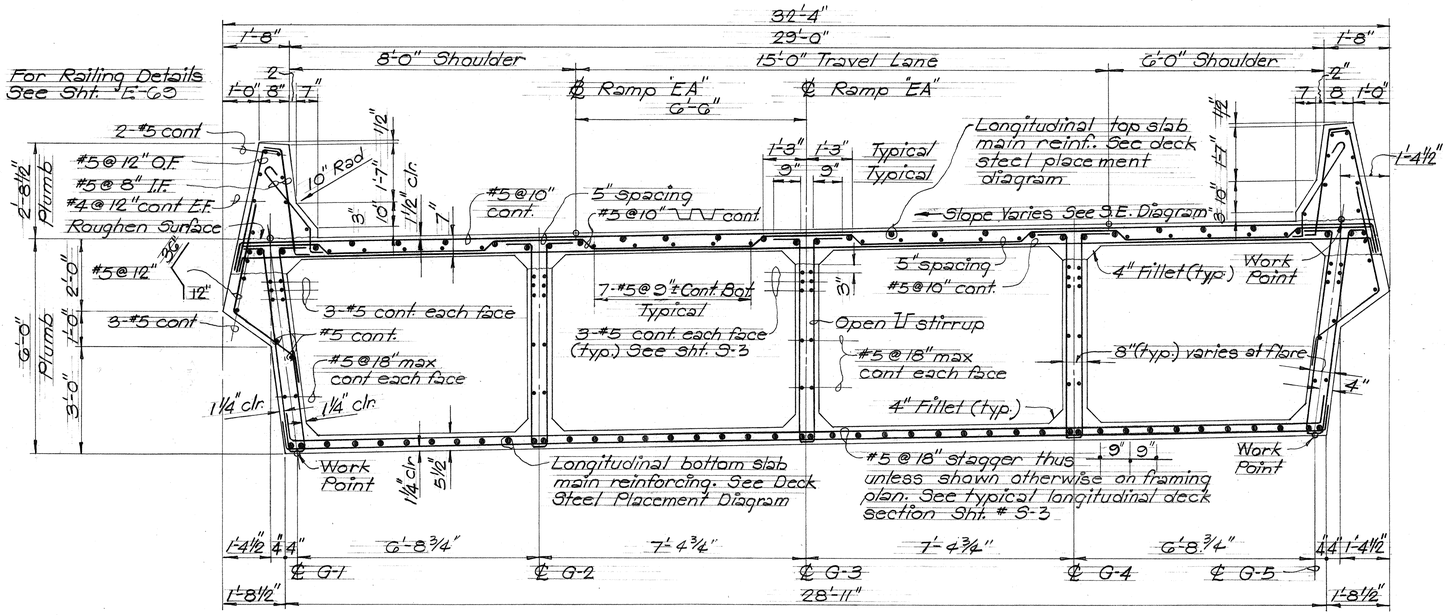
SHEET No. E-24 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

81

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	82	136

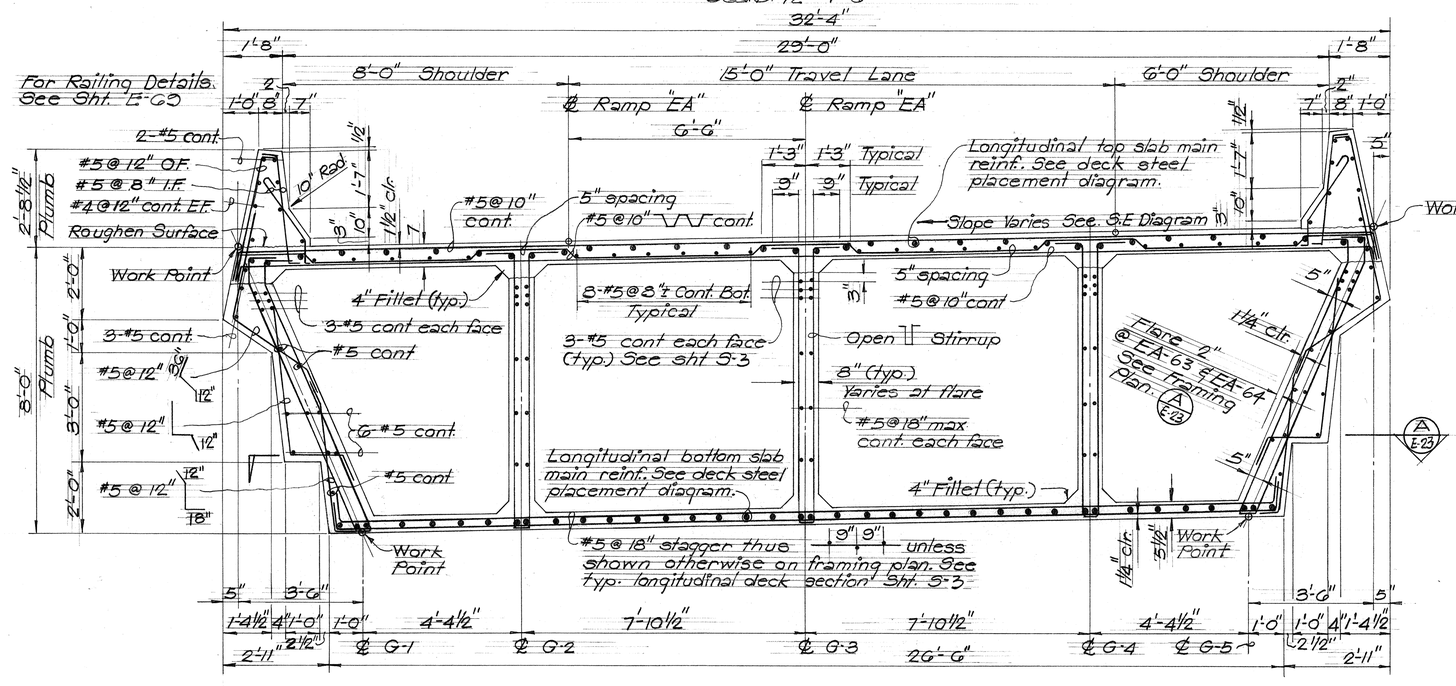


6'-0" NORMAL DECK SECTION

(Sta. 56+32.16 to Sta. 71+35.24 & Sta. 73+02.80 to Sta. 73+62.80)

LOOKING TOWARDS INCREASING STATION

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

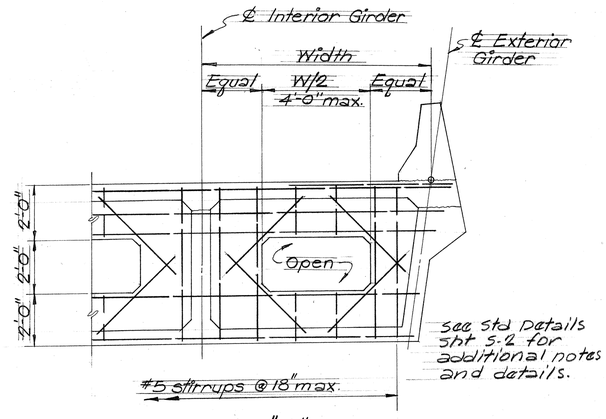


8'-0" NORMAL DECK SECTION

(Sta. 71+55.24 To Sta 72+82.80)

LOOKING TOWARDS INCREASING STATION

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

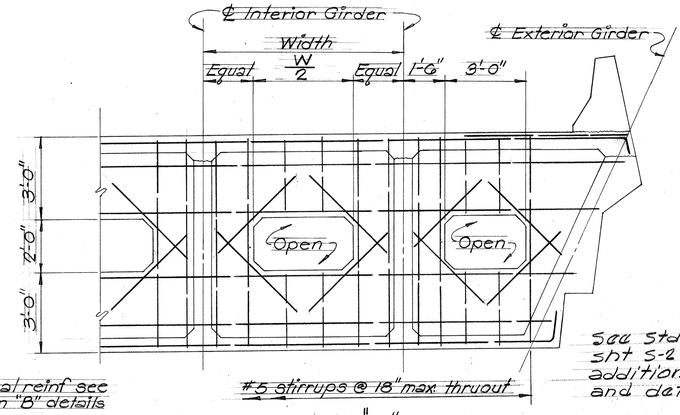


See Std Details Sht S-2 for additional notes and details.

TYPICAL BEAM "B" DETAILS

(6'-0" DECK SECTION)

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



See Std Details Sht S-2 for additional notes and details.

NOTE: For normal reinf see Std Beam "B" details Sht S-2

TYPICAL BEAM "B" DETAILS

(8'-0" DECK SECTION)

Scale 3/8" = 1'-0"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

6'-0 DECK SECT. - STA. 56+32 TO STA. 71+35
8'-0" DECK SECT. - STA. 71+55 TO STA. 72+83
AND BEAM "B" DETAILS

RAMP "EA"

AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1(145)16

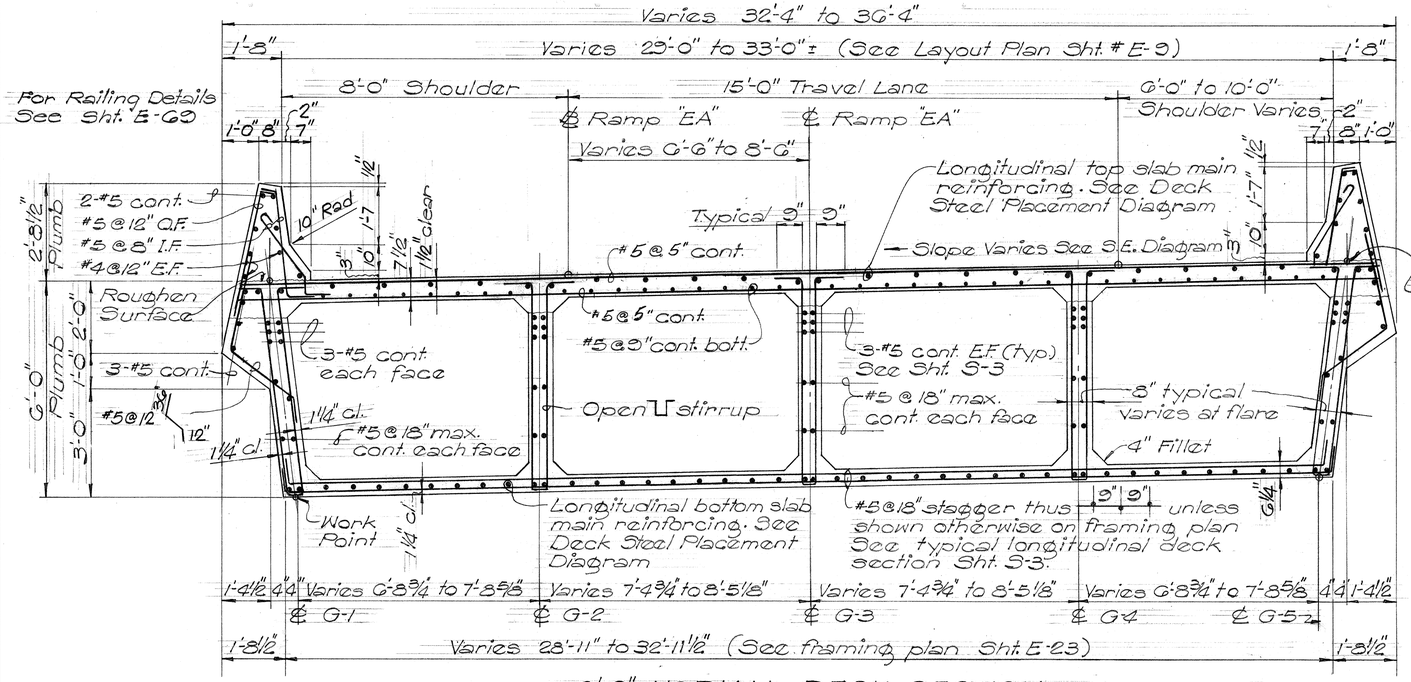
SCALE: As Shown DATE: JULY 1976

SHEET No. E-25 OF 124 SHEETS

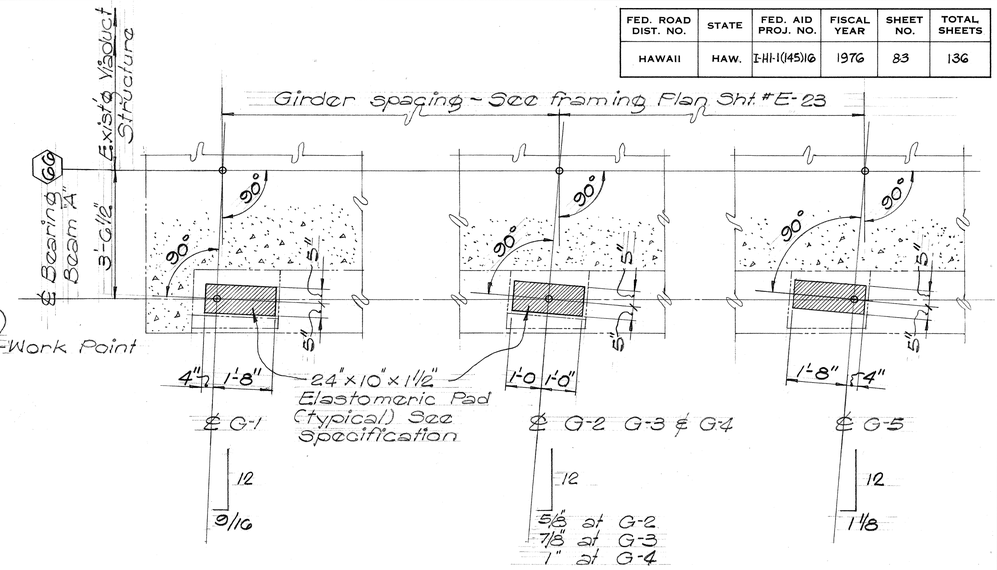
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

PRINTED ON NO. 1000H CLEARPRINT

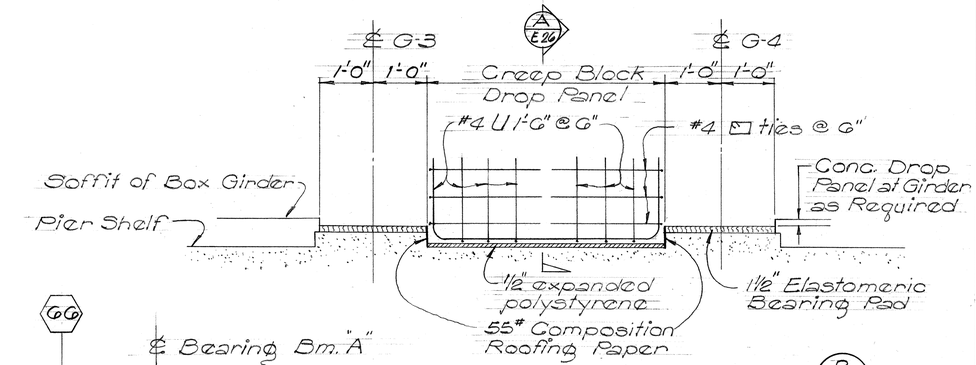
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	83	136



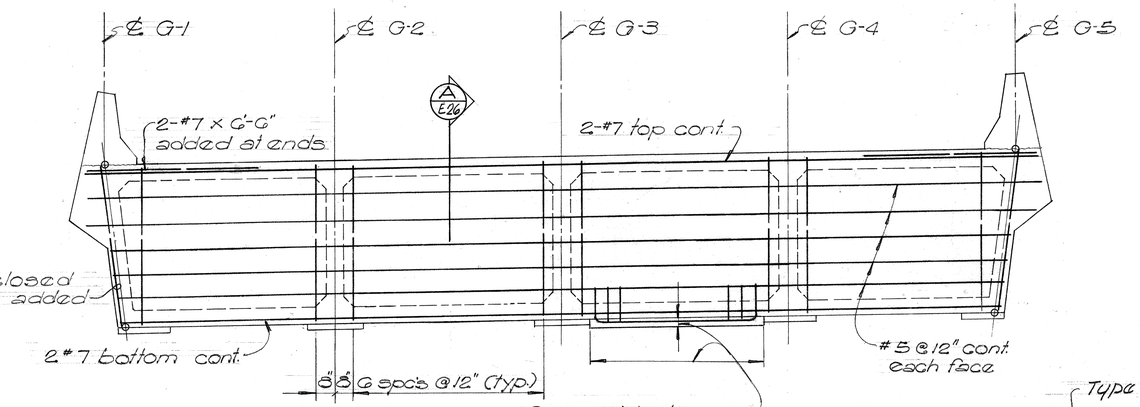
6'-0" NORMAL DECK SECTION
(Sta. 73+62.80 to Sta 74+56.06)
LOOKING TOWARDS INCREASING STATION
Scale: 1/2"=1'-0"



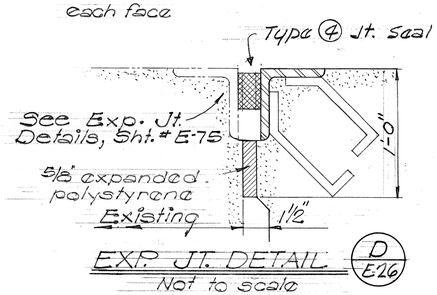
PLAN BEARING PAD AT PIER (GG)



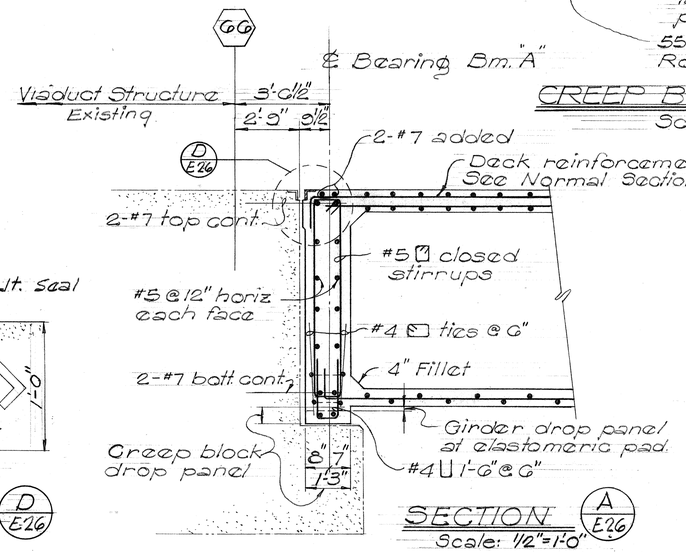
CREEP BLOCK DROP PANEL (B E-26)
Scale 3/4"=1'-0"



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



EXP. JT. DETAIL (D E-26)
Not to scale



SECTION (A E-26)
Scale: 1/2"=1'-0"

GEORGE K. NISHIMURA — REGISTERED PROFESSIONAL ENGINEER No. 1388 — HAWAII, U.S.A.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

6'-0" DECK SECT. STA. 73+62.80 TO STA. 74+56.06 AND BEAM A DETAILS
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

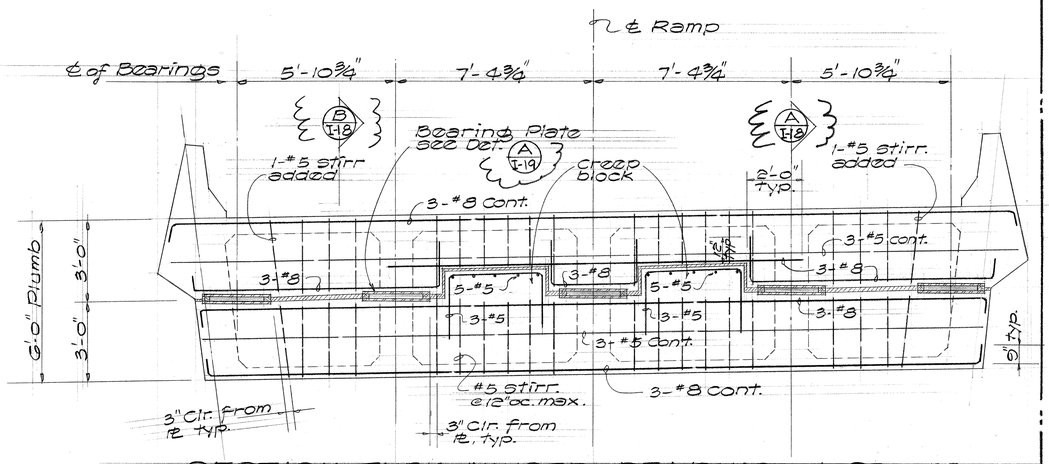
SCALE: As Shown DATE: JULY 1976

SHEET No. E-26 OF 124 SHEETS

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

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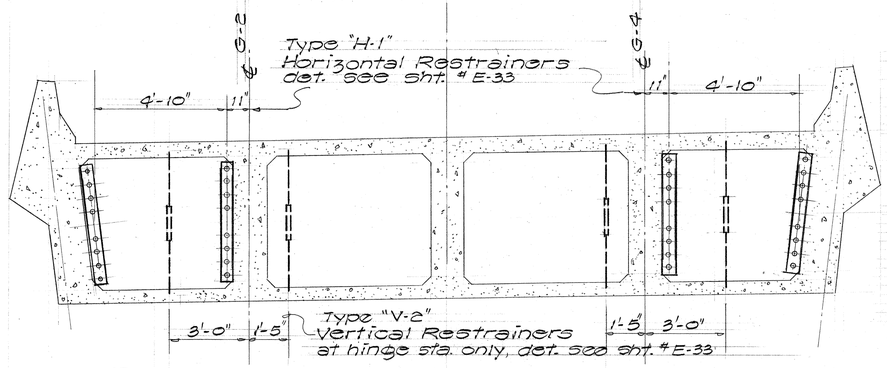
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	84	136



SECTION THRU HINGED BEARING at STA. 56+32,

Scale ⅜" = 1'-0"

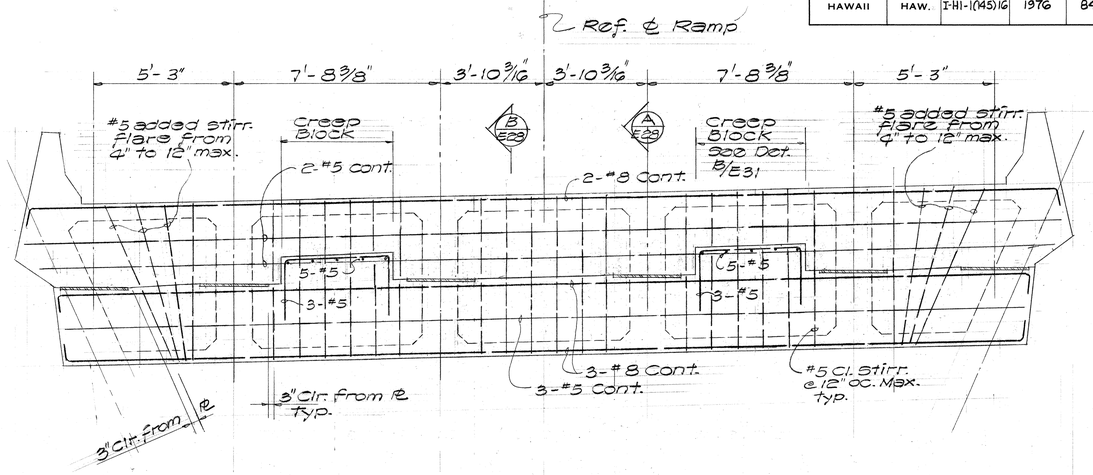
58+56, 61+20, 63+84, 66+58, & 69+28



RESTRAINER LOCATIONS at PIER EA-46,

Scale ⅜" = 1'-0"

EA-48, EA-51, EA-54, EA-57 & EA-60



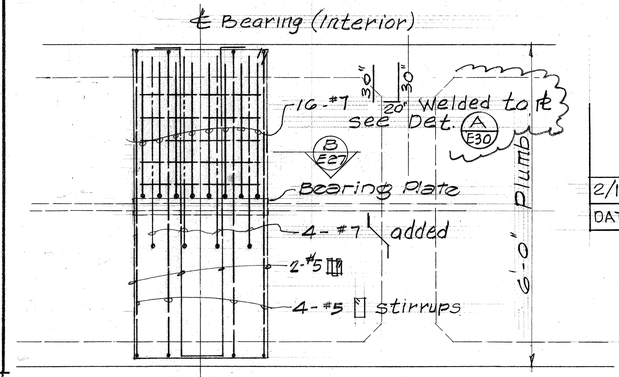
SECTION THRU HINGED BEARING at STA. 49+95

Scale ⅜" = 1'-0"

Expansion hinged bearing at sta. 49+95

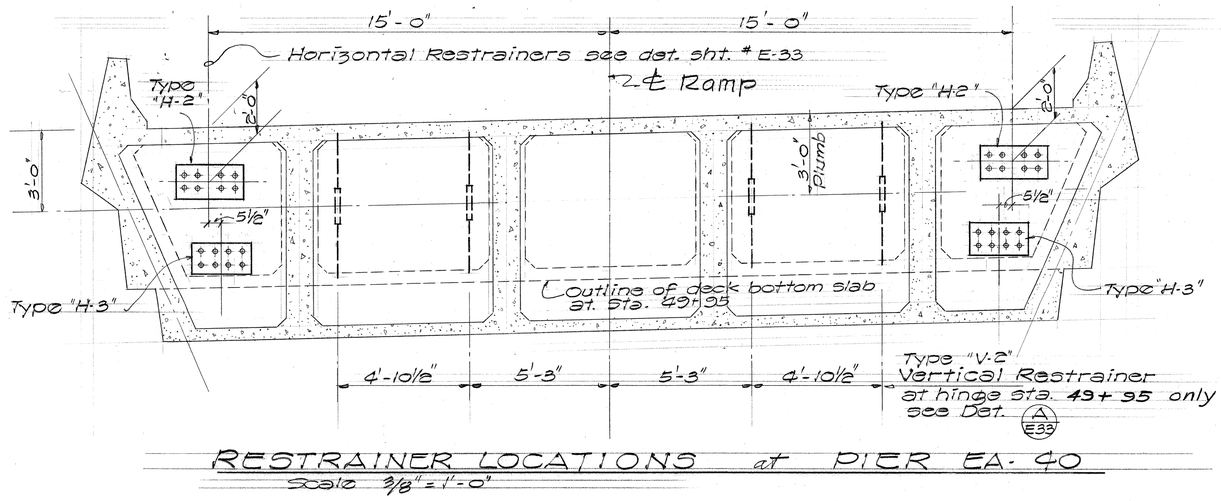
A. Items in contract:
1. ⅝" thick steel plate on cantilever span.
2. All items required for longitudinal restrainers including steel plates & all other connection items. all cable units shall be protected from corroeion.
3. All vertical restrainers.

B. Items not in contract:
1. Elastomeric bearing pads.
2. Expansion joint seal
3. Expanded polystyrene.



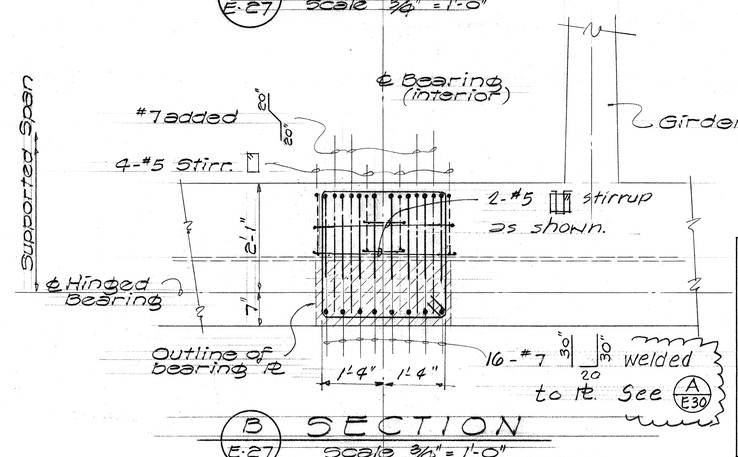
A E-27 SECTION (see Sect. B/E30)

Scale ¾" = 1'-0"



RESTRAINER LOCATIONS at PIER EA-40

Scale ⅜" = 1'-0"



B E-27 SECTION

Scale ¾" = 1'-0"

℄ Denotes Change ℄

DATE	REVISION
2/1/78	CHANGED SEC. MARKS AND WELDS

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS AT STA. 49+95 & 56+32

RAMP "EA"

AIRPORT INTERCHANGE

FAI PROJ. NO. I-HI-1(145)16

Scale As Shown Date: JULY 1976

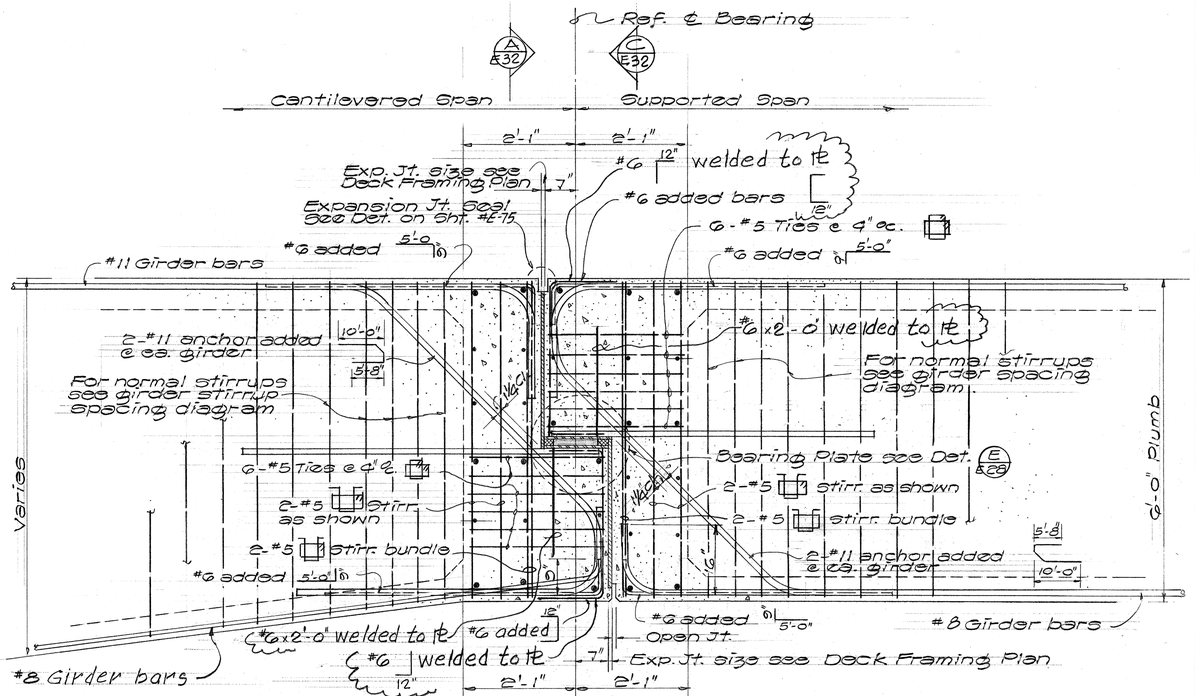
SHEET No. E-27 OF 124 SHEETS

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

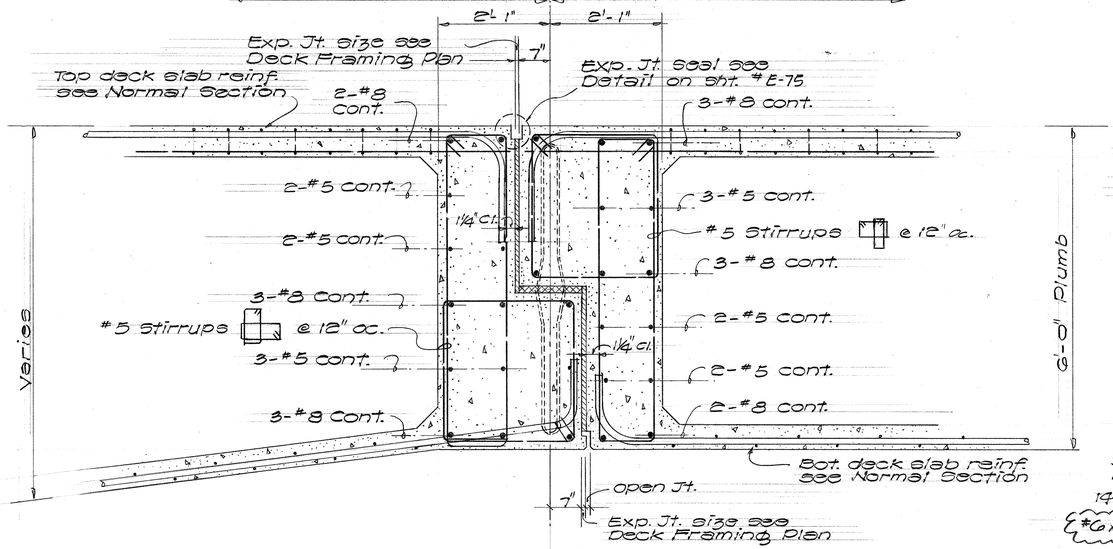
PRINTED ON NO. 1000H CLEARPRINT

C084

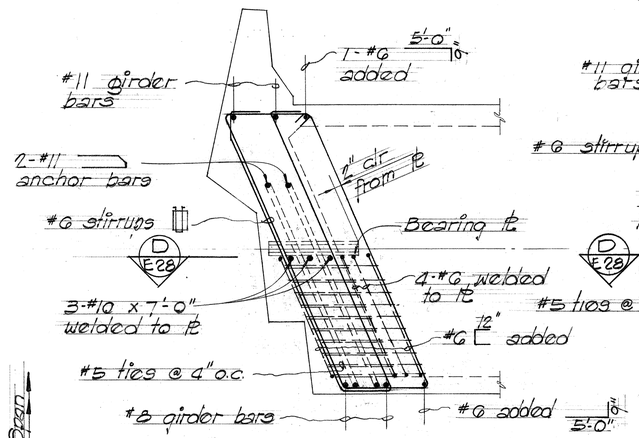
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	85	136



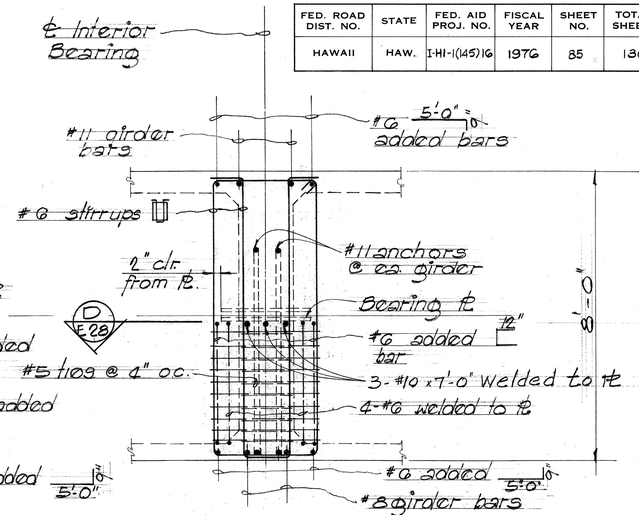
A E28 TYPICAL SECTION AT EACH GIRDER
Scale 3/4" = 1'-0"



B E28 TYPICAL SECTION BETWEEN GIRDERS
Scale 3/4" = 1'-0"

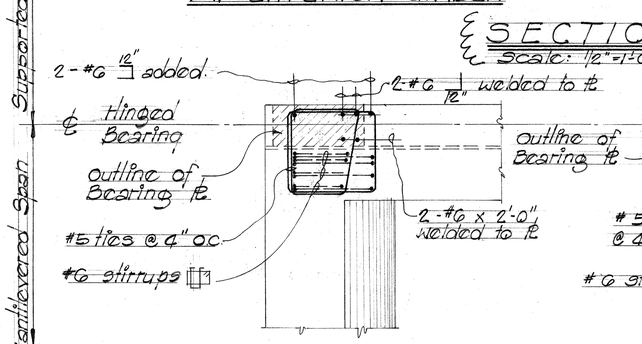


AT EXTERIOR GIRDER



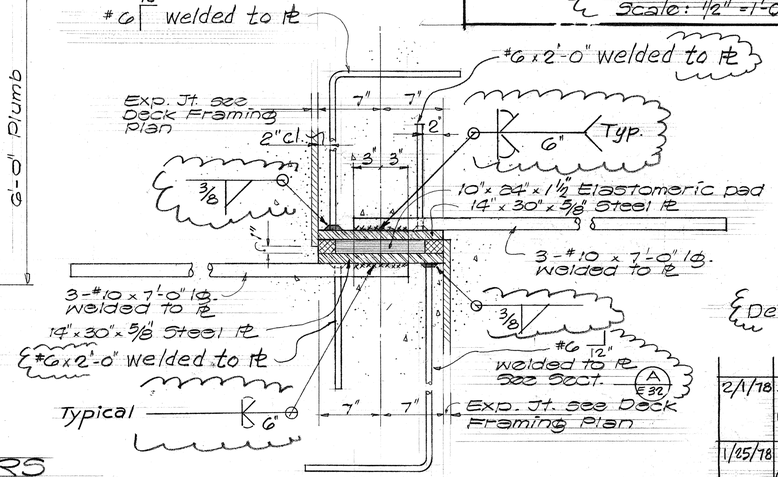
AT INTERIOR GIRDER

E SECTION C E-28
Scale: 1/2" = 1'-0"



AT EXTERIOR GIRDER AT INTERIOR GIRDER

E SECTION D E-28
Scale: 1/2" = 1'-0"



E E-28 BEARING PLATE DETAIL
Scale 1½" = 1'-0"

NOTE: PRECAUTION SHALL BE TAKEN TO KEEP THE STEEL PLATE FROM WARPING DURING AND AFTER WELDING OF REINFORCING BARS. (C.C.O. #2)

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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DATE	REVISION
2/1/78	SEC. C/E-28 & D/E-28 REPLACED 6'-0 HINGE WITH 8'-0 HINGE
1/25/78	E/E-28 BEARING ℄ CHANGED WELD LENGTH

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

Scale As Shown Date JULY 1976

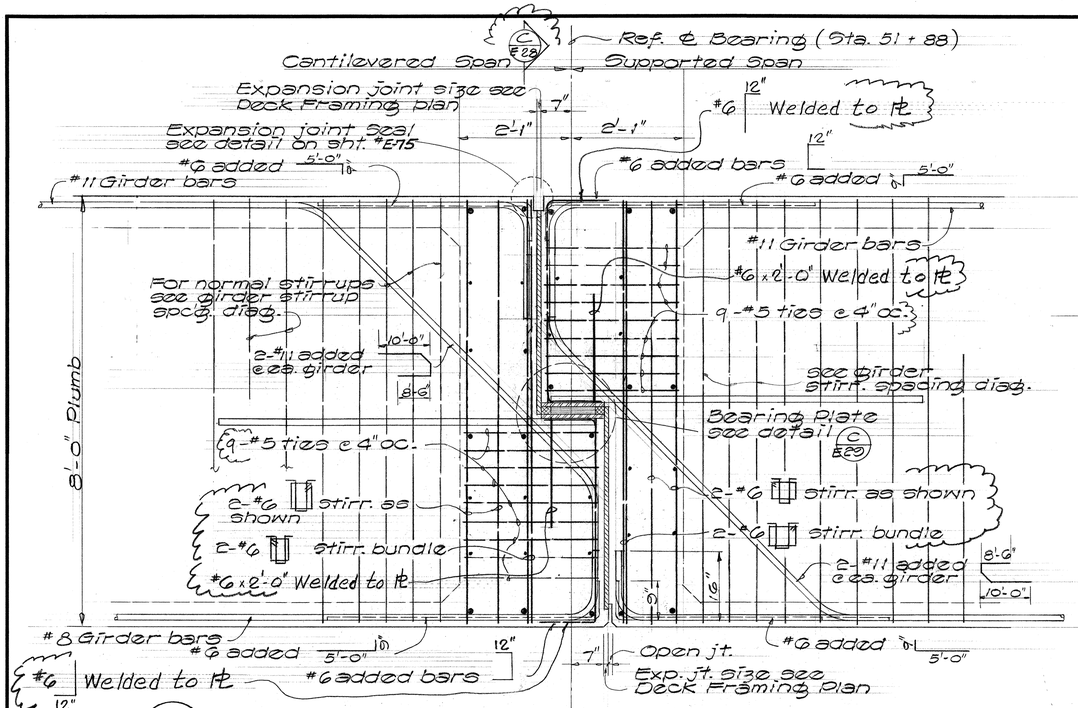
SHEET NO E28 OF 124 SHEETS

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

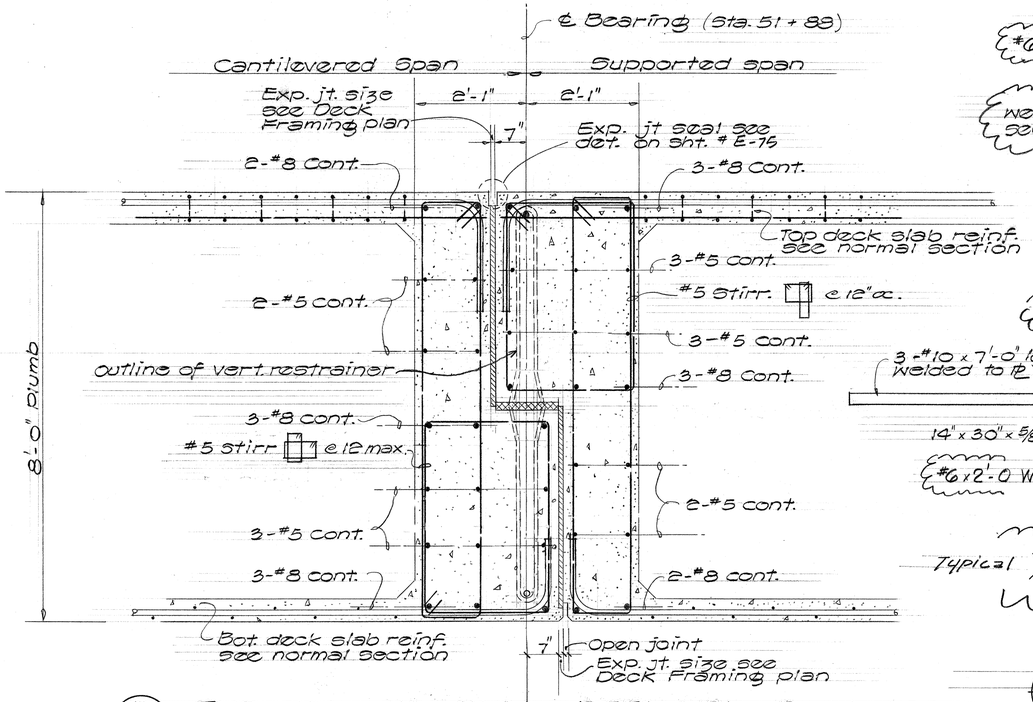
PRINTED ON NO. 1000H CLEARPRINT

CO 85

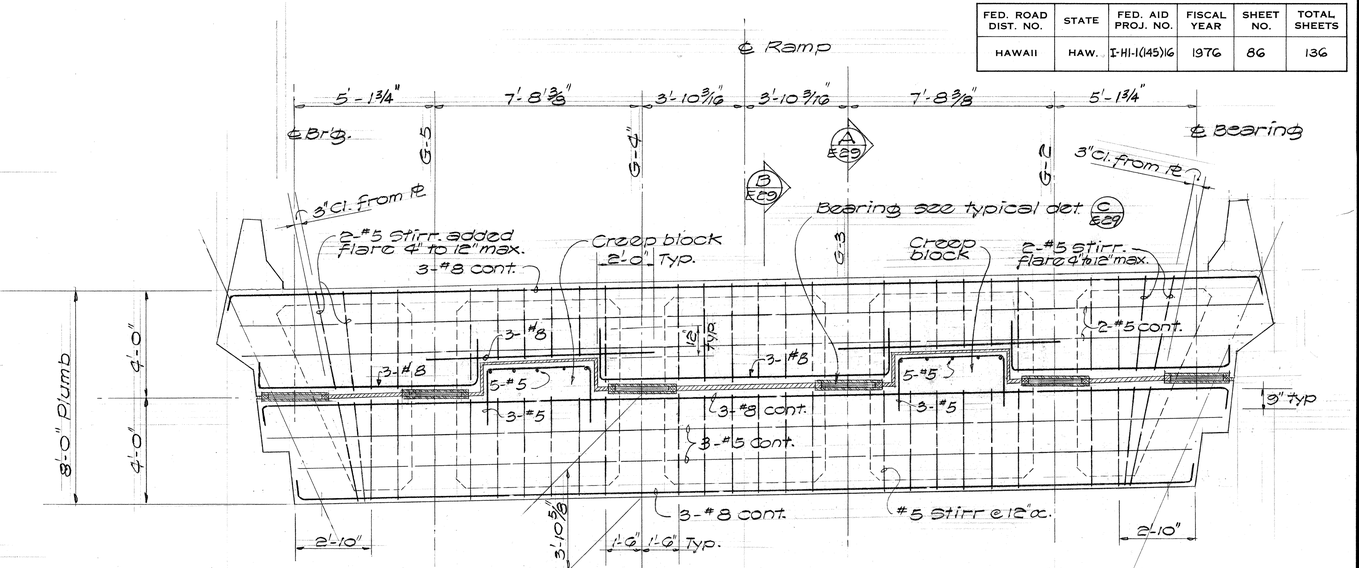
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	86	136



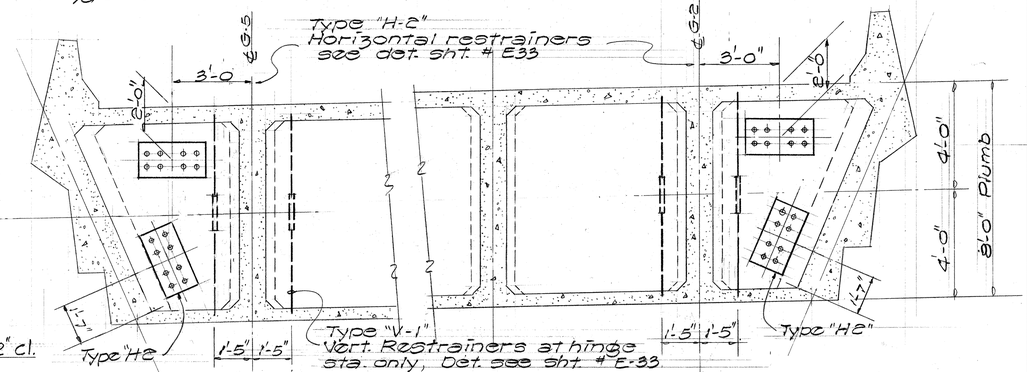
A E-29 TYPICAL SECTION AT EACH GIRDER
Scale 3/4" = 1'-0"



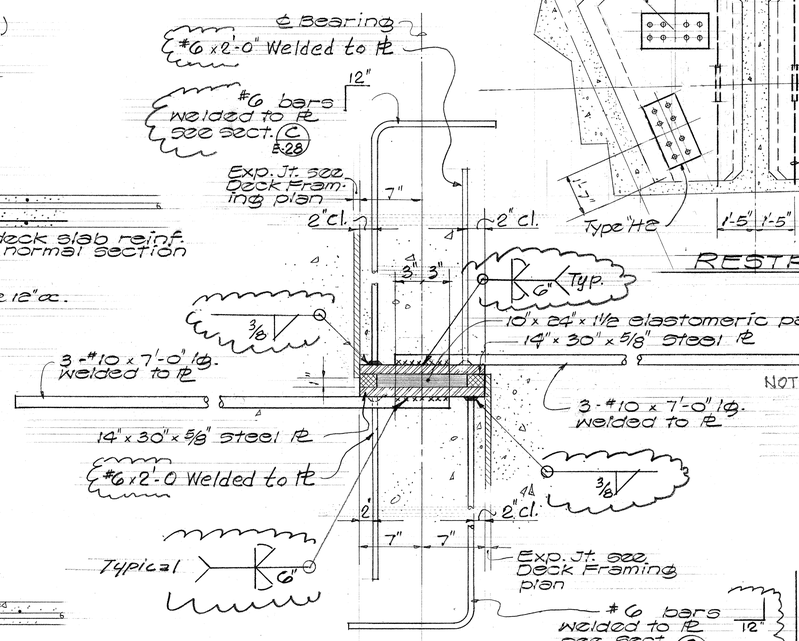
B E-29 TYPICAL SECTION BETWEEN GIRDERS
Scale 3/4" = 1'-0"



SECTION THRU HINGED BEARING AT STA. 51+88
Scale 3/8" = 1'-0"



RESTRAINER LOCATIONS AT PIER EA+41
Scale 3/8" = 1'-0"



C E-29 BEARING PLATE DETAIL
Scale 1 1/2" = 1'-0"

NOTE: PRECAUTION SHALL BE TAKEN TO KEEP THE STEEL PLATE FROM WARPING DURING AND AFTER WELDING OF THE REINFORCING BARS. (C.C.O. #2)

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

{ } Denotes Change

DATE	REVISIONS
2/1/78	A/E 29 TYP. SEC. CHANGED STIRR SIZE
1/25/78	C/E-29 BEARING Pt DET. CHANGED WELD LENGTH

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS AT STA. 51+88

RAMP "EA"

AIRPORT INTERCHANGE
FAI PROJ NO I-HI-1(145)16

Scale As Shown Date: JULY 1976

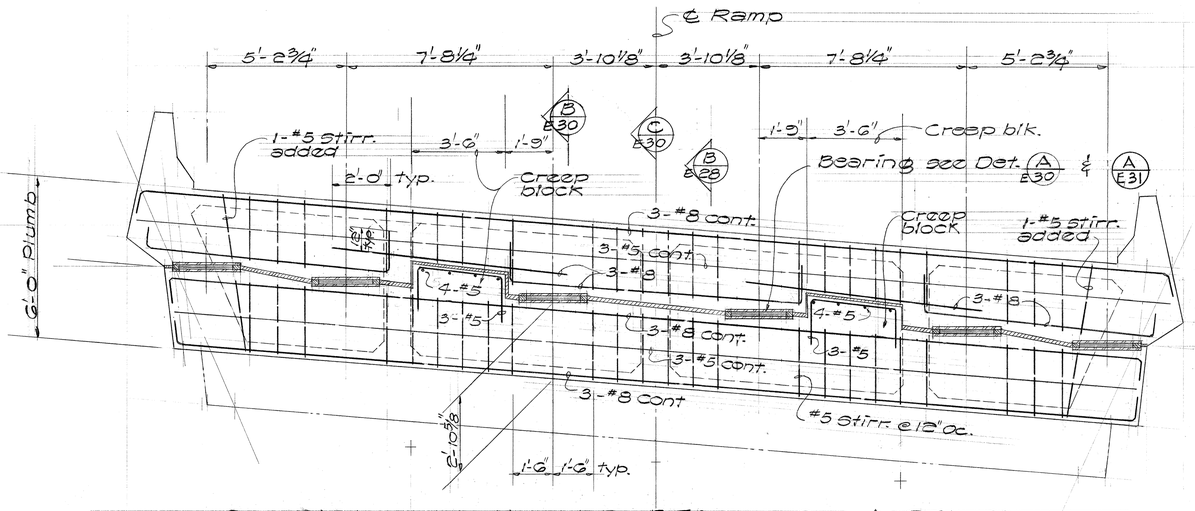
SHEET NO E29 OF 126 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

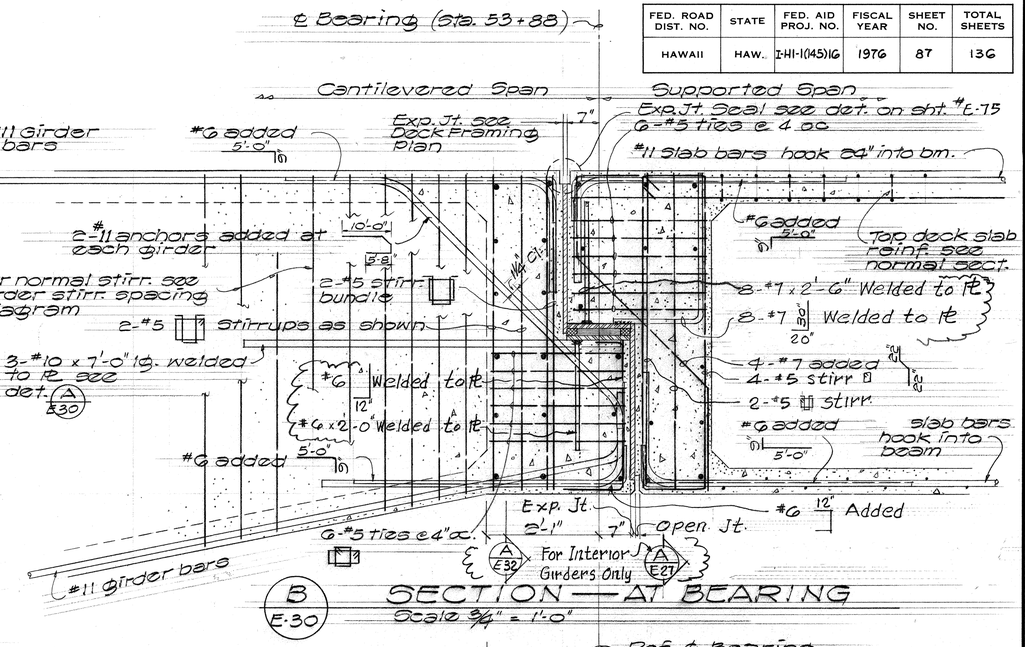
C086

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	87	136



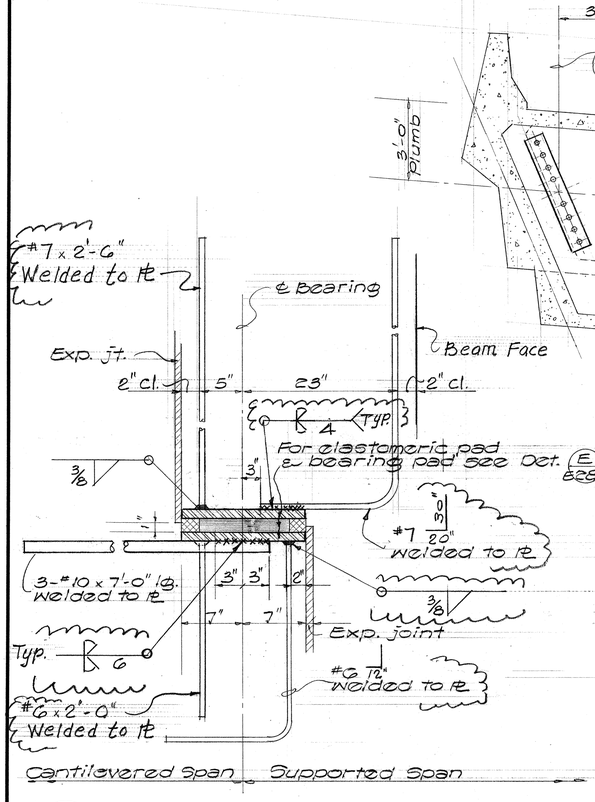
SECTION THRU HINGED BEARING at STA. 53+88

Scale 3/8" = 1'-0"



B E-30 SECTION — AT BEARING

Scale 3/4" = 1'-0"



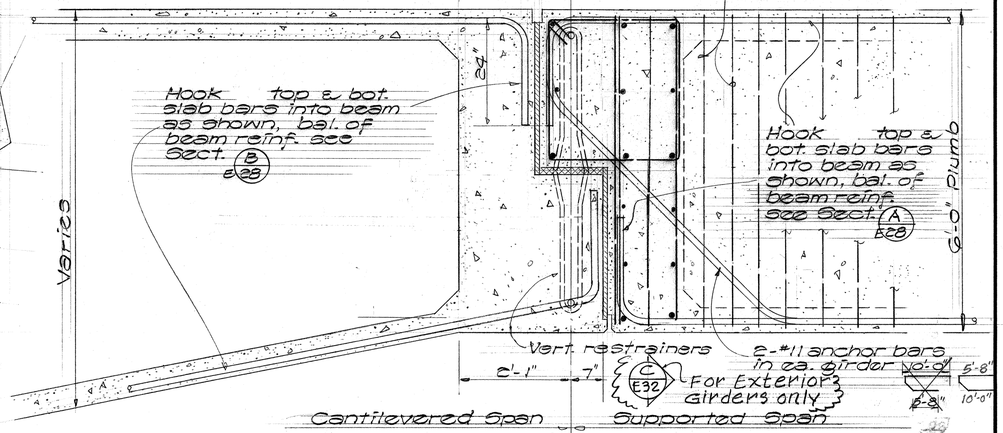
RESTRAINER LOCATION at PIER EA-43

Scale 3/8" = 1'-0"

NOTE: PRECAUTION SHALL BE TAKEN TO KEEP THE STEEL PLATE FROM WARPING DURING AND AFTER WELDING OF THE REINFORCING BARS. (C.C.O. #2)

A E30 DETAIL BEARING PLATE

Scale 1½" = 1'-0"



C E-30 SECTION

Scale 3/4" = 1'-0"

℄ ℄ Denotes Change

DATE	REVISION
2/1/78	B/E30 SEC. AT BEARING., CHANGED SEC. MARKS
1/25/78	A/E30 DET. BEARING PL. CHANGED WELD LENGTH

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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HAROLD TAKASHI HAYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS
AT STA. 53+88
RAMP "EA"
AIRPORT INTERCHANGE
FAI PROJ. NO. I-HI-1(145)16

Scale As Shown Date JULY 1976

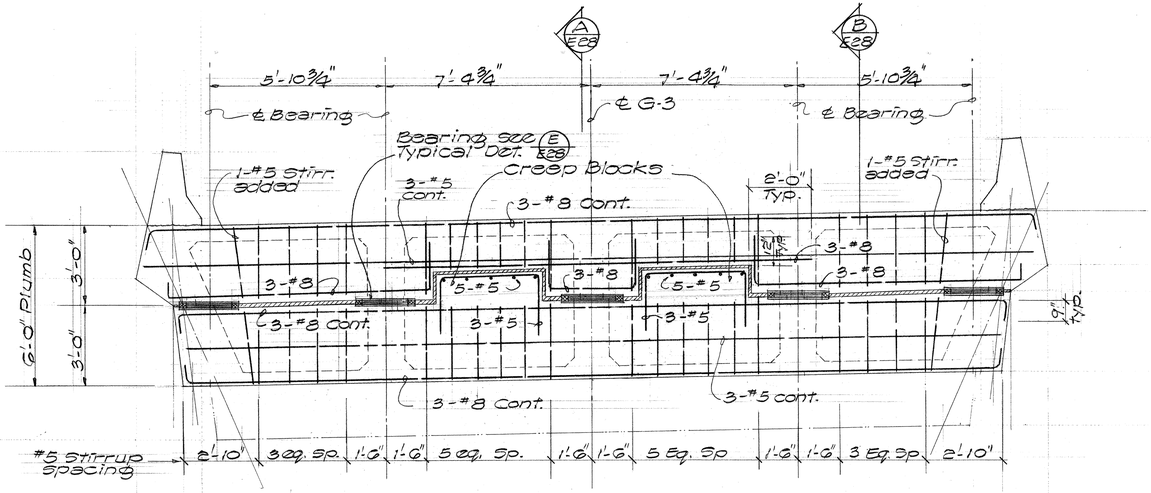
SHEET NO E30 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

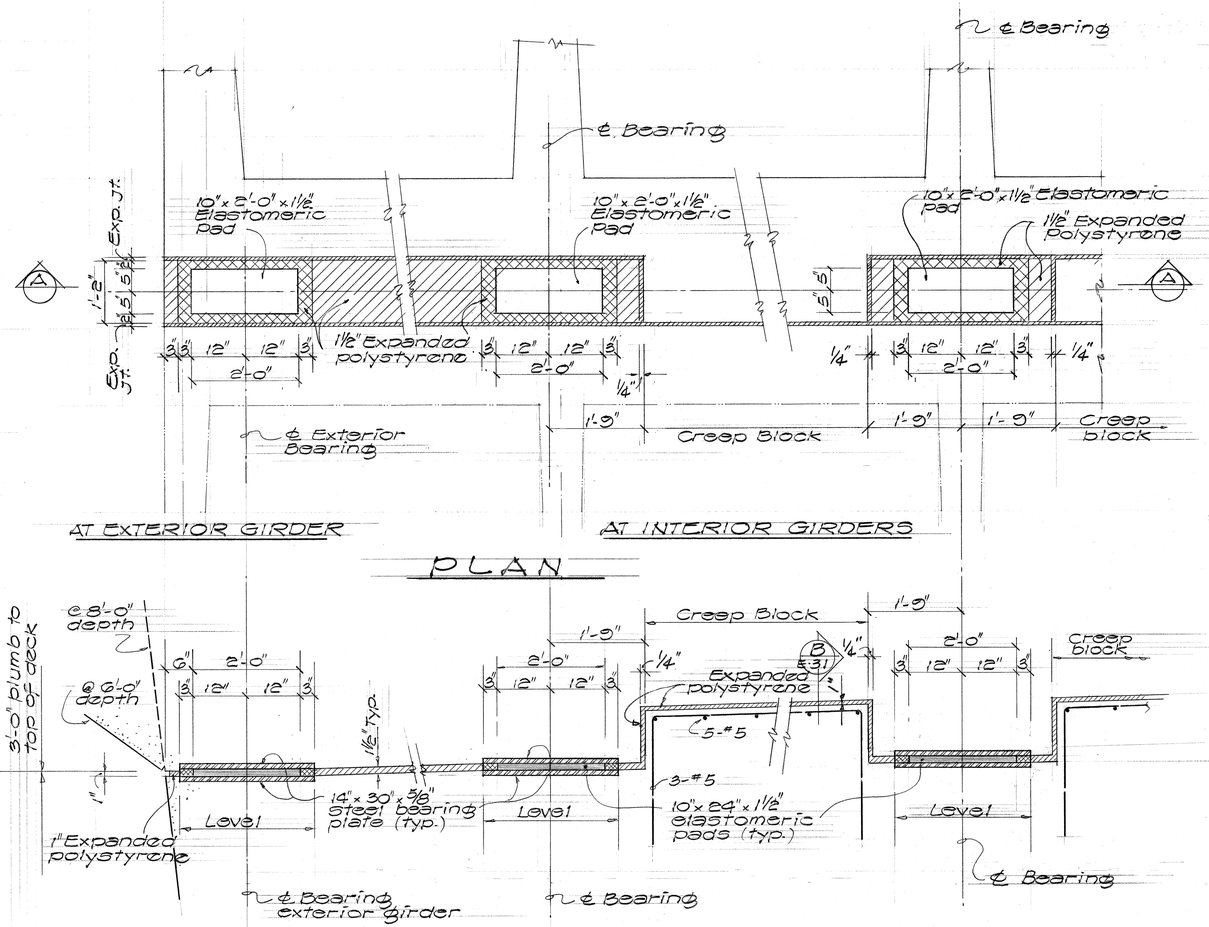
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	88	136



SECTION THRU HINGED BEARING at STA. 71+35 & 73+02

Scale 3/8" = 1'-0"



AT EXTERIOR GIRDER

AT INTERIOR GIRDERS

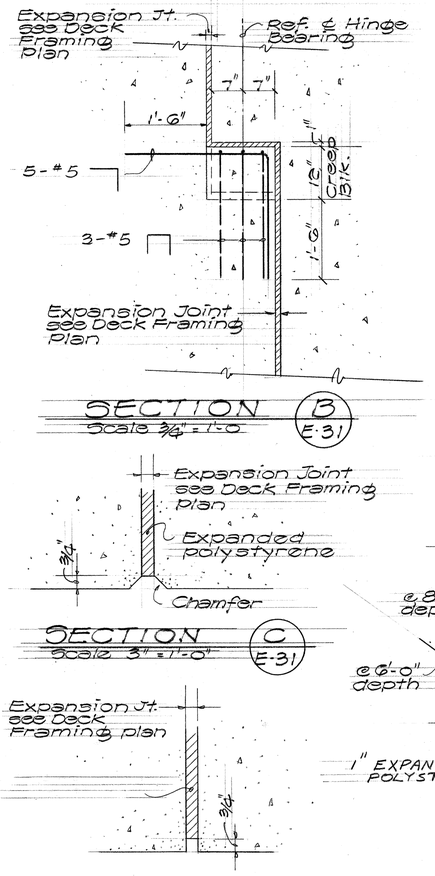
PLAN

SECTION A-A

TYPICAL BEARING DETAIL

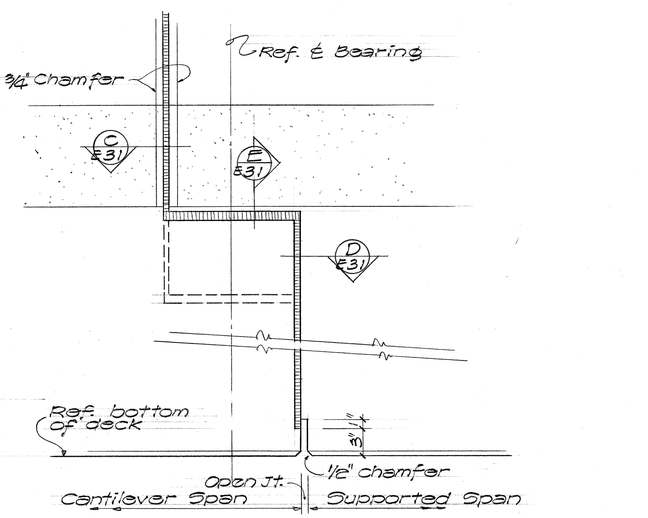
Scale 3/4" = 1'-0"

NOTE:
All elastomeric pads, bearing plates and expanded polystyrene shall be incidental to concrete.



SECTION B (E-31)

Scale 3/4" = 1'-0"



END ELEVATION AT HINGED BEARING

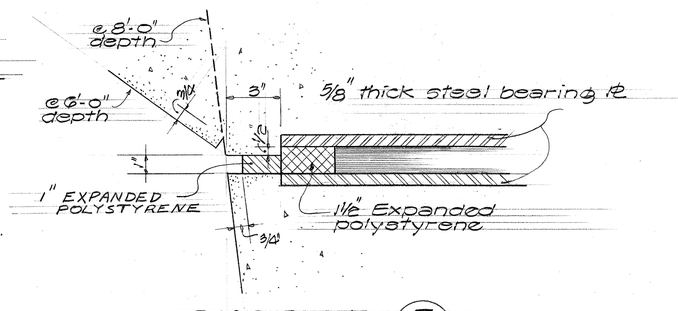
Scale 3/8" = 1'-0"

SECTION C (E-31)

Scale 3" = 1'-0"

SECTION D (E-31)

Scale 3" = 1'-0"



SECTION E (E-31)

Scale 3" = 1'-0"

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GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

ORIGINAL PLAN
NOTE BOOK No.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS
AT STA. 71+35 & 73+02

RAMP "EA"

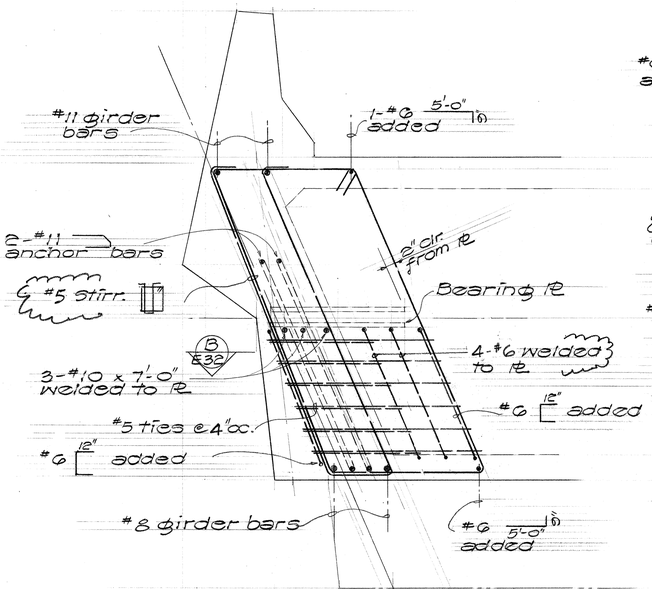
AIRPORT INTERCHANGE
FAI. PROJ. No. I-HI-1(145)16

Scale As Shown Date JULY 1976

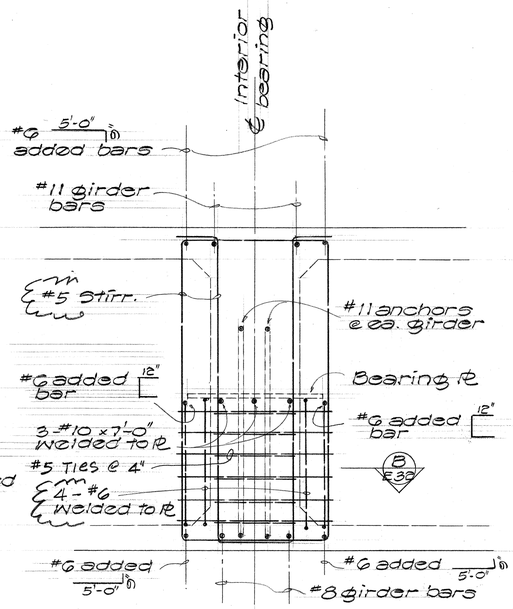
SHEET No E-31 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	89	136



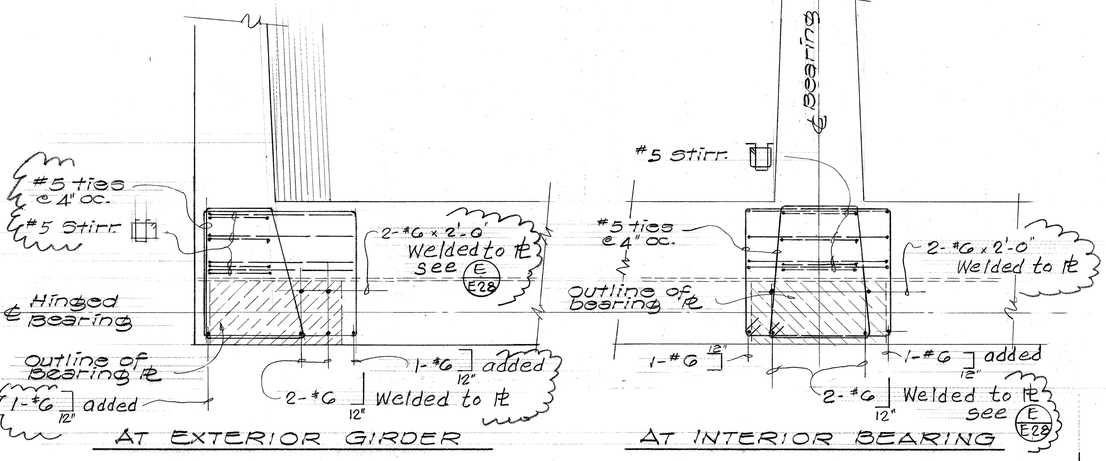
AT EXTERIOR GIRDER



AT INTERIOR BEARING

A E-32 SECTION at CANTILEVERED SPAN

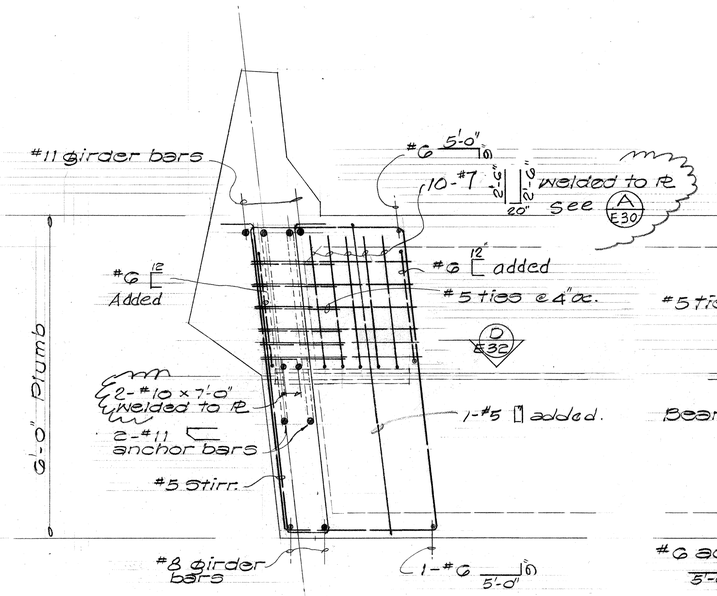
Scale 3/4" = 1'-0"



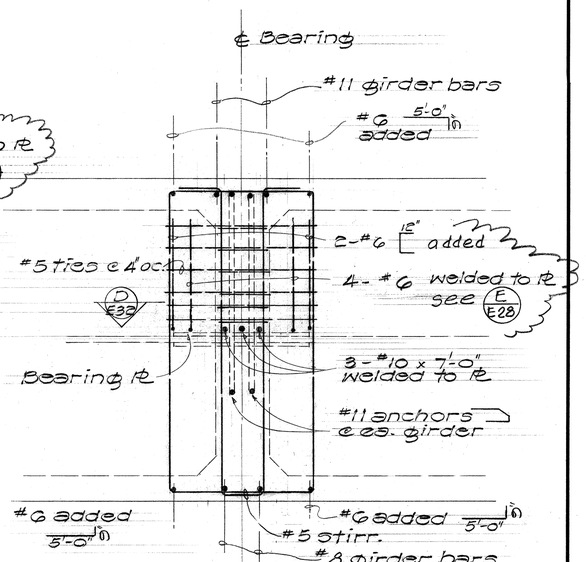
AT EXTERIOR GIRDER AT INTERIOR BEARING

B E-32 SECTION AT CANTILEVERED SPAN

Scale 3/4" = 1'-0"



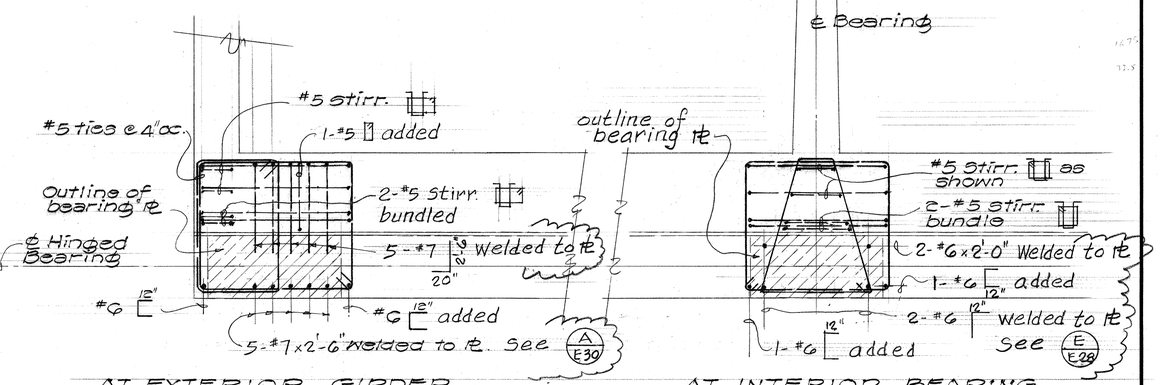
AT EXTERIOR GIRDER



AT INTERIOR BEARING

C E-32 SECTION at SUPPORTED SPAN

Scale 3/4" = 1'-0"



AT EXTERIOR GIRDER AT INTERIOR BEARING

D E-32 SECTION AT SUPPORTED SPAN

Scale 3/4" = 1'-0"

℄ Denotes Change

DATE	REVISION
2/1/78	CHANGED BAR SIZES & WELDS

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING DETAILS

AT STA. 49+95, 53+88, 71+35 & 73+02

RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

Scale As Shown Date: JULY 1976

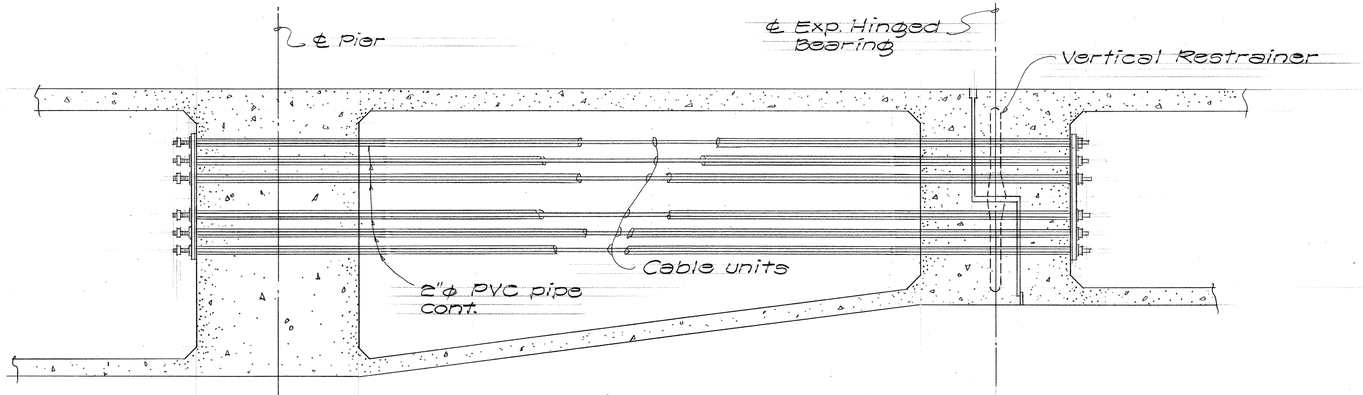
SHEET NO E 32 OF 124 SHEETS

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

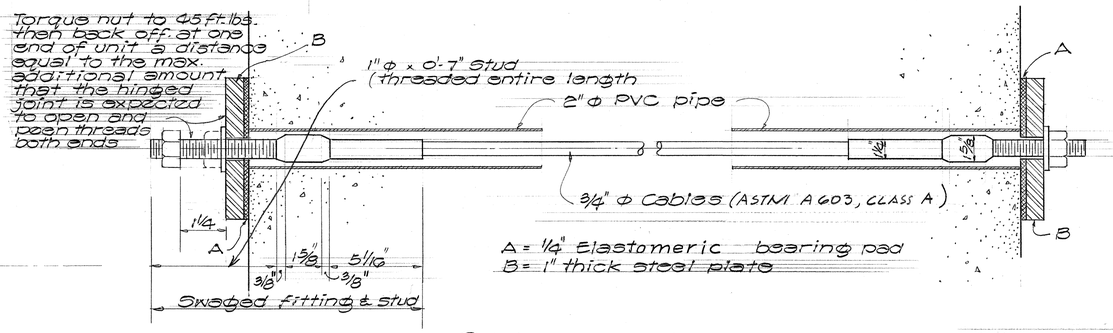
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C089

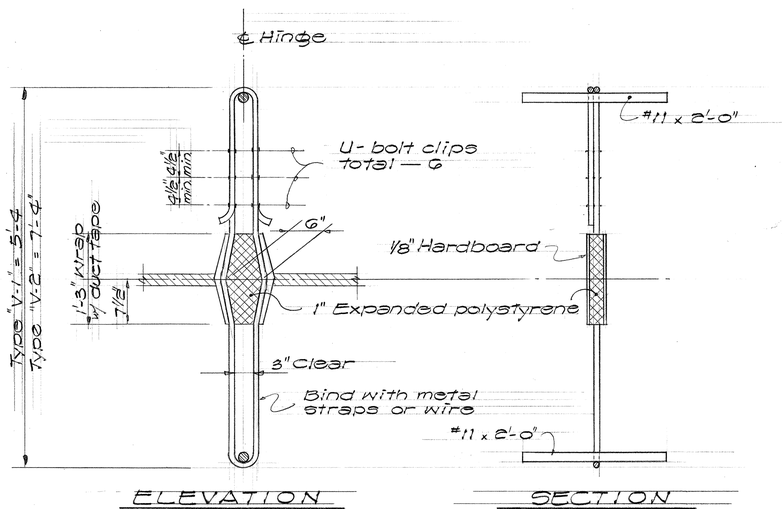
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	90	136



LONGITUDINAL HINGE RESTRAINER PROFILE

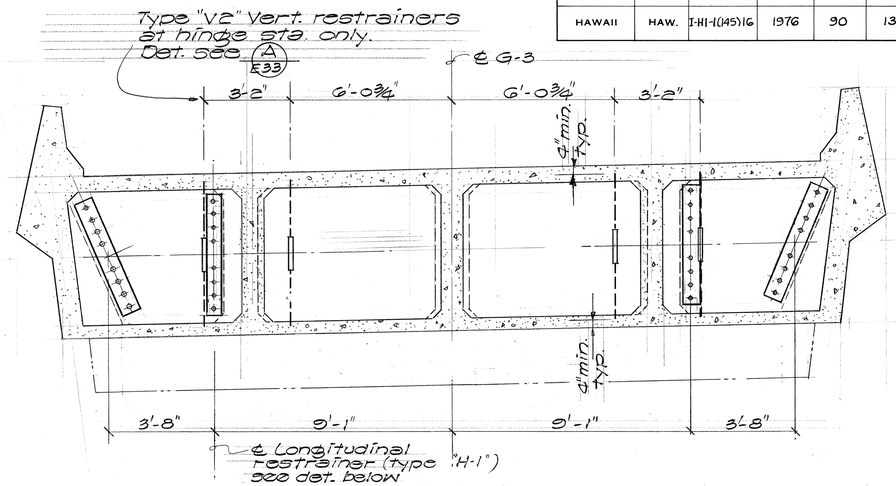


CABLE UNIT

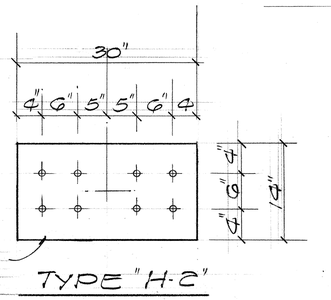


ELEVATION SECTION

A / E33 VERTICAL RESTRAINER

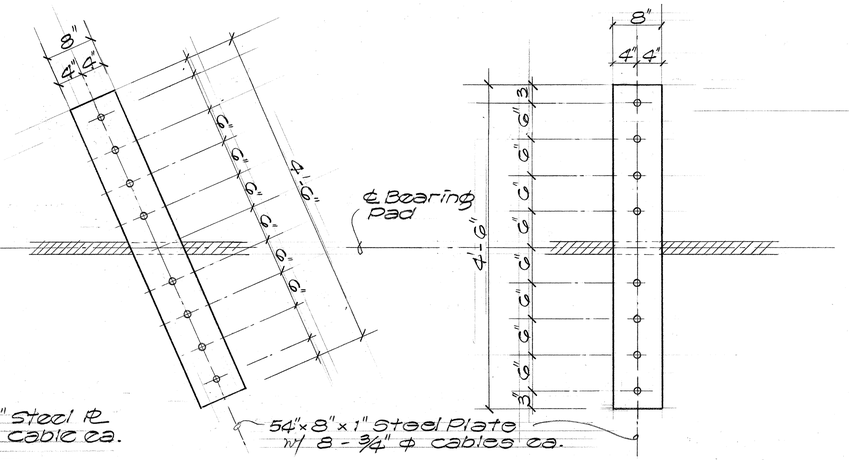


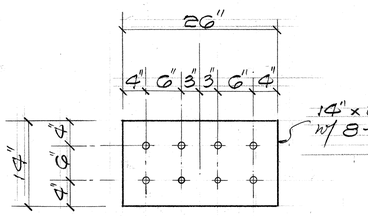
RESTRAINER LOCATIONS at PIER EA-63 & EA-64



14"x30"x1" Steel ℞ w/ 8-3/4" ϕ cables ea.

TYPE "H-2"





14"x26"x1" Steel ℞ w/ 8-3/4" ϕ cable ea.

TYPE "H-3"

TYPE "H-1"

Notes:
All cable units shall be placed so that all cables are in straight line.
Provide opening thru top slab at all cable units See Form Removal Opening on Standard Details sht. # 94
3/4" Nominal diameter zinc-coated wire rope shall conform to ASTM A-603

HORIZONTAL RESTRAINER BEARING PLATE DETAILS

Note:
All vertical & longitudinal restrainer units and plates shall be incidental to concrete. Grease (heavy duty) horizontal restrainer cables and encase greased cables with 2" PVC ducts. All JOINTS IN P.V.C. DUCTS shall be sealed watertight as approved by the Engineer.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HINGED BEARING RESTRAINER DETAILS

RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

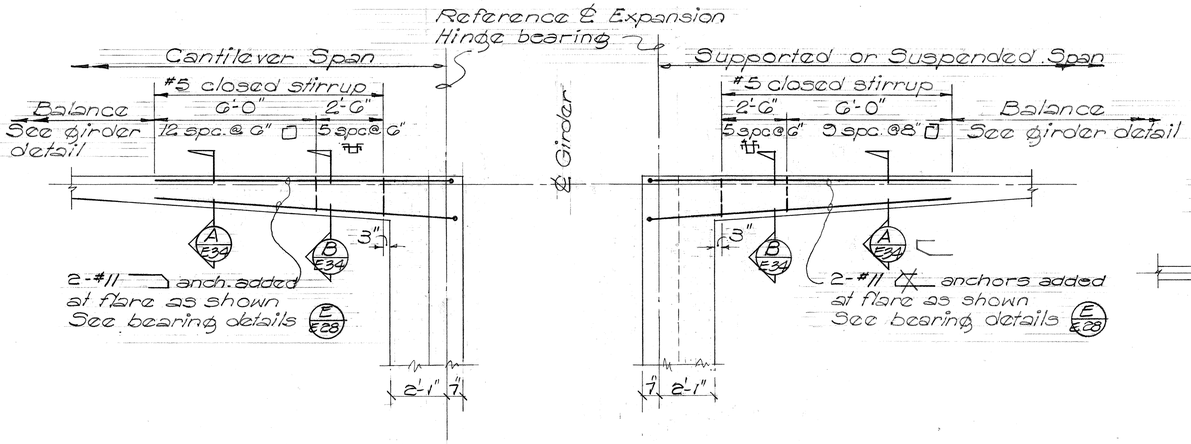
Scale As Shown Date JULY 1976

SHEET NO E33 OF 124 SHEETS

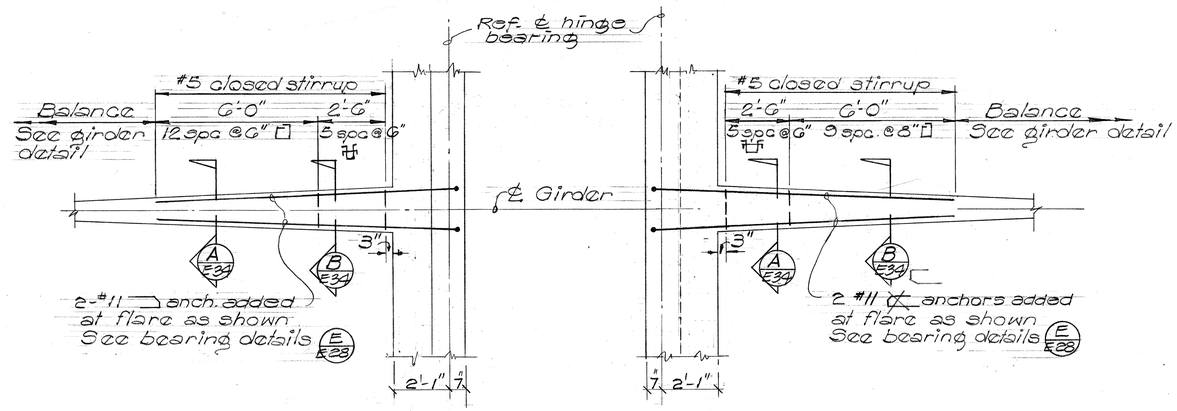
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
NOTE BOOK	TRACED BY	
	DESIGNED BY	
No.	QUANTITIES BY	
	CHECKED BY	

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	91	136



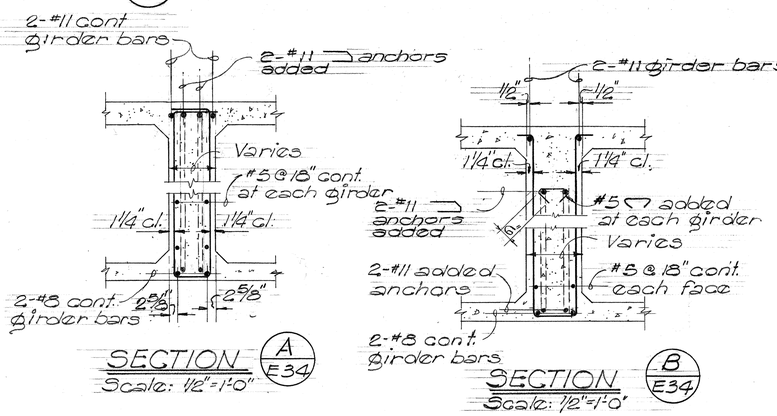
EXTERIOR GIRDER

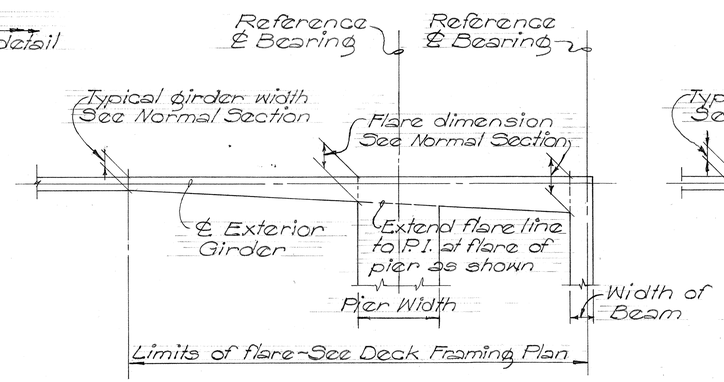


INTERIOR GIRDER

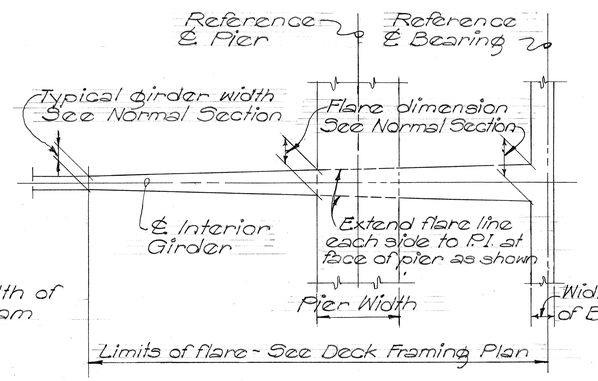
PLAN OF TYPICAL SUPERSTRUCTURE

C E34 GIRDER STIRRUPS DETAIL AT HINGED BEARING





EXTERIOR GIRDER



INTERIOR GIRDER

TYPICAL GIRDER FLARE LAYOUT AT CANTILEVER SPAN

NOT TO SCALE

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

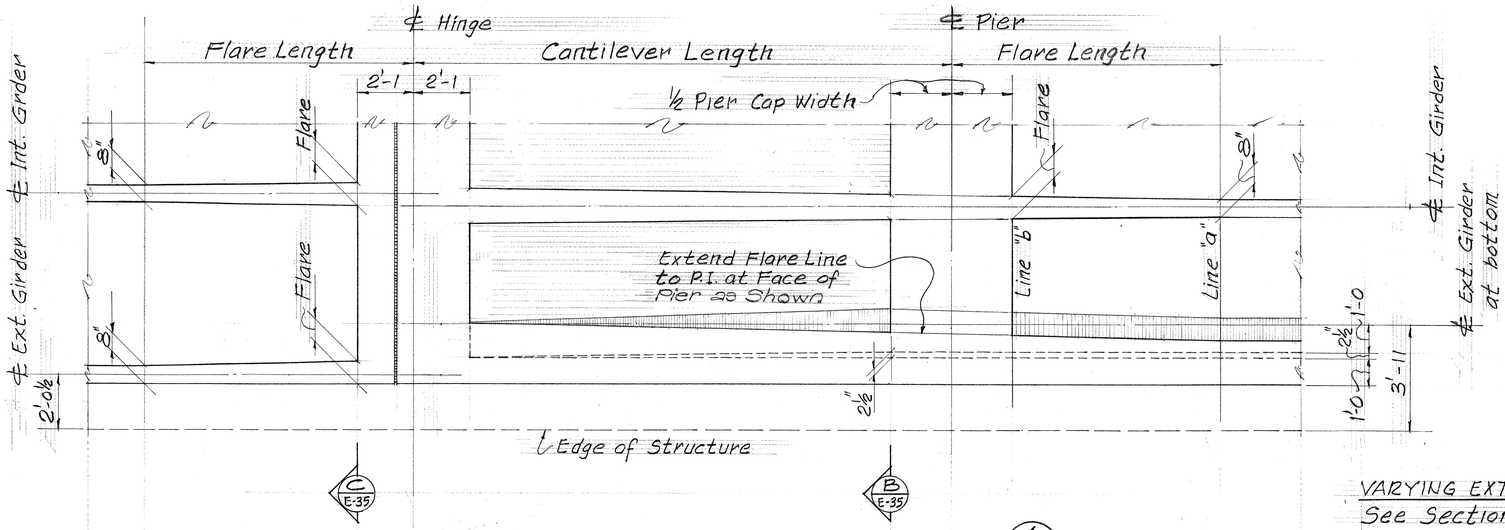
TYPICAL GIRDER FLARE LAYOUT
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16
SCALE: AS SHOWN DATE: JULY, 1976

SHEET NO E34 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

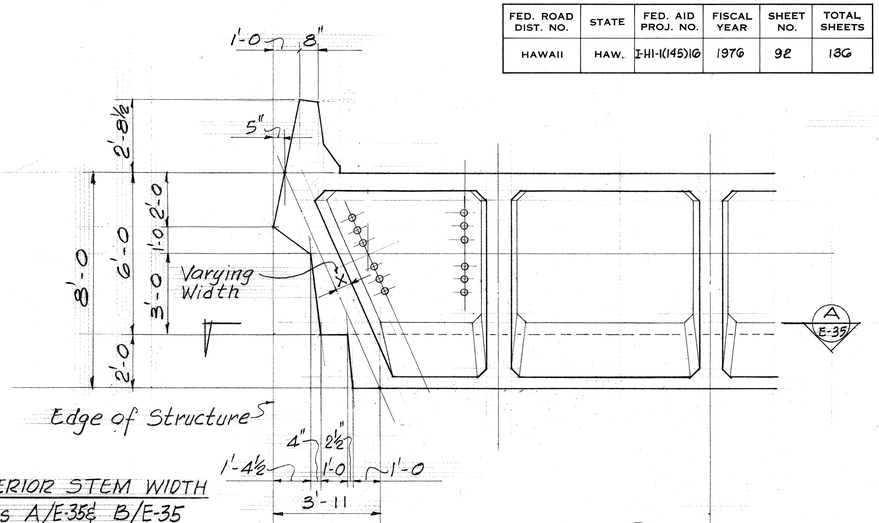
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	92	186



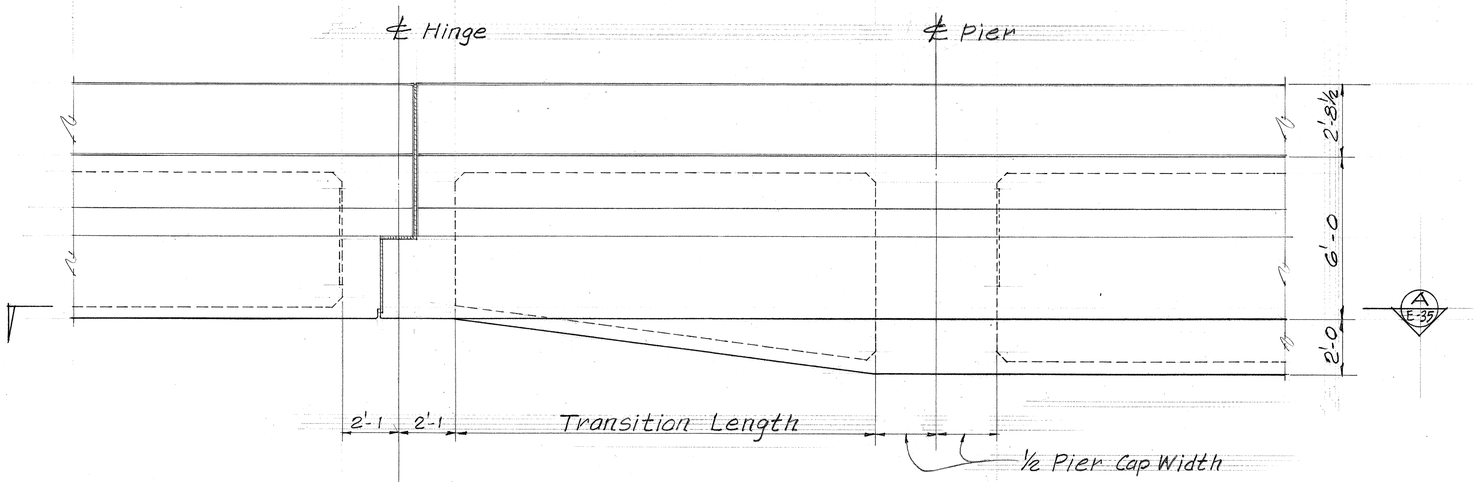
PARTIAL FRAMING PLAN (A E-35)
Scale: 3/8" = 1'-0

VARYING EXTERIOR STEM WIDTH
See Sections A/E-35 & B/E-35

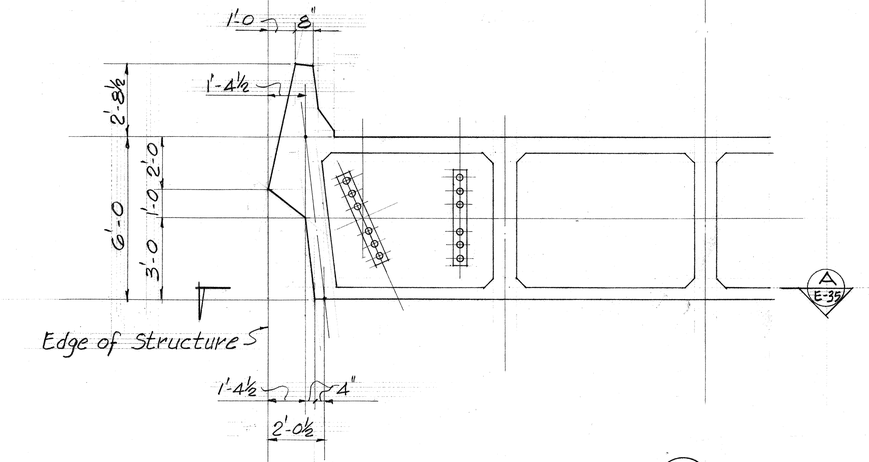
Along Line	a	b
Dimension "X"	5"	7"



8'-0 DECK SECTION (B E-35)
Scale: 3/8" = 1'-0



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



6'-0 DECK SECTION (C E-35)
Scale: 3/8" = 1'-0

TYPICAL GIRDER FLARE LAYOUT AT CANTILEVERED TRANSITION SPAN

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

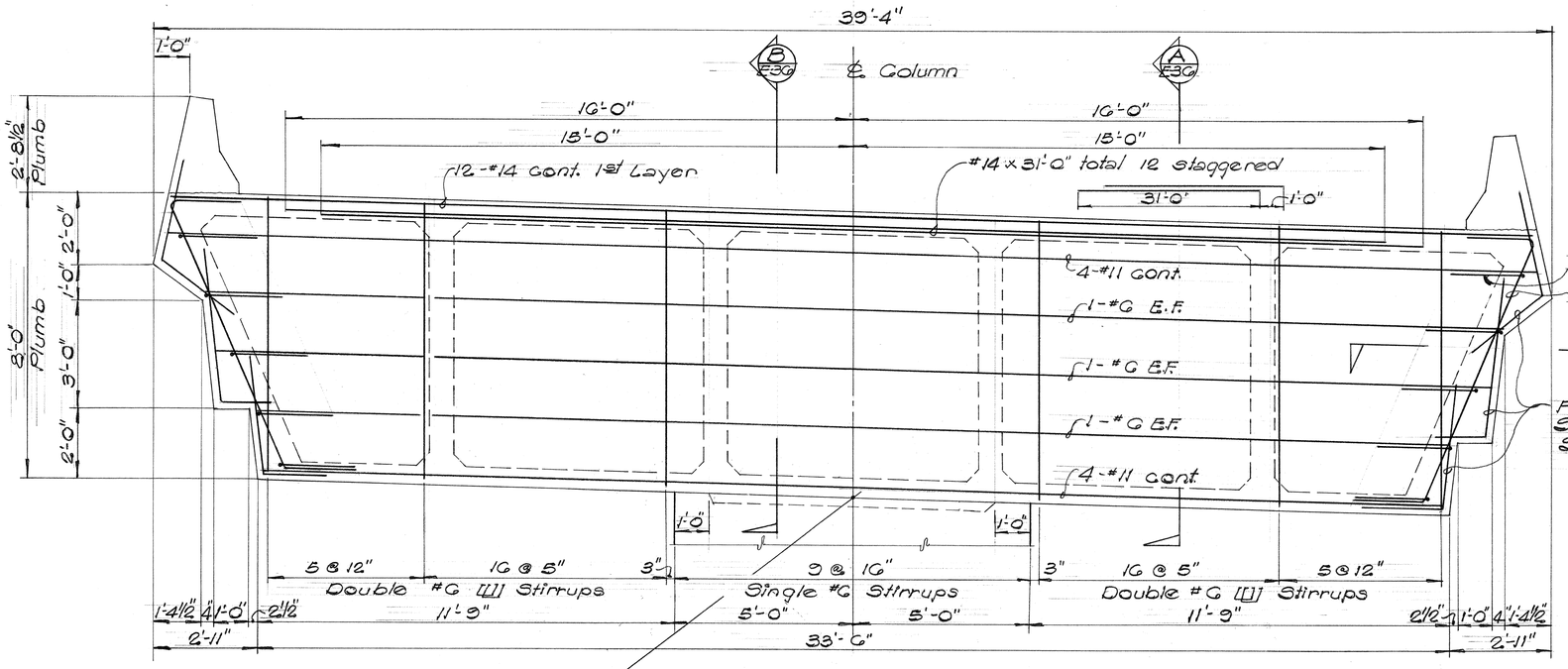
GIRDER FLARE LAYOUT AT CANTILEVERED TRANSITION SPAN
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO 1-HI-1(145)16
Scale: As Noted Date: JULY, 1976

SHEET NO. E-35 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

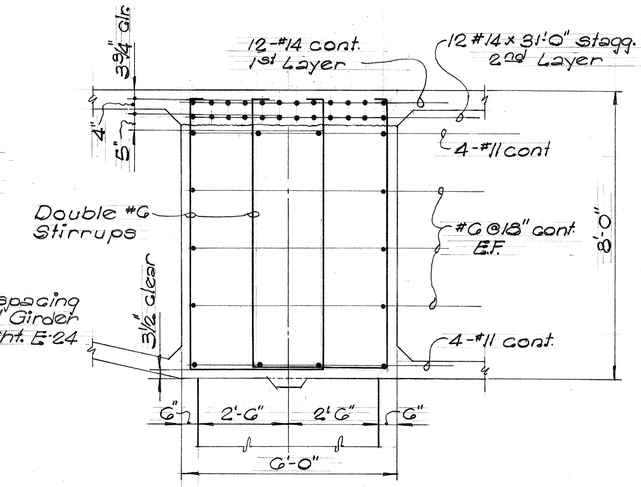
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	93	136



Top of Col. Elev.
See Sht. E-15

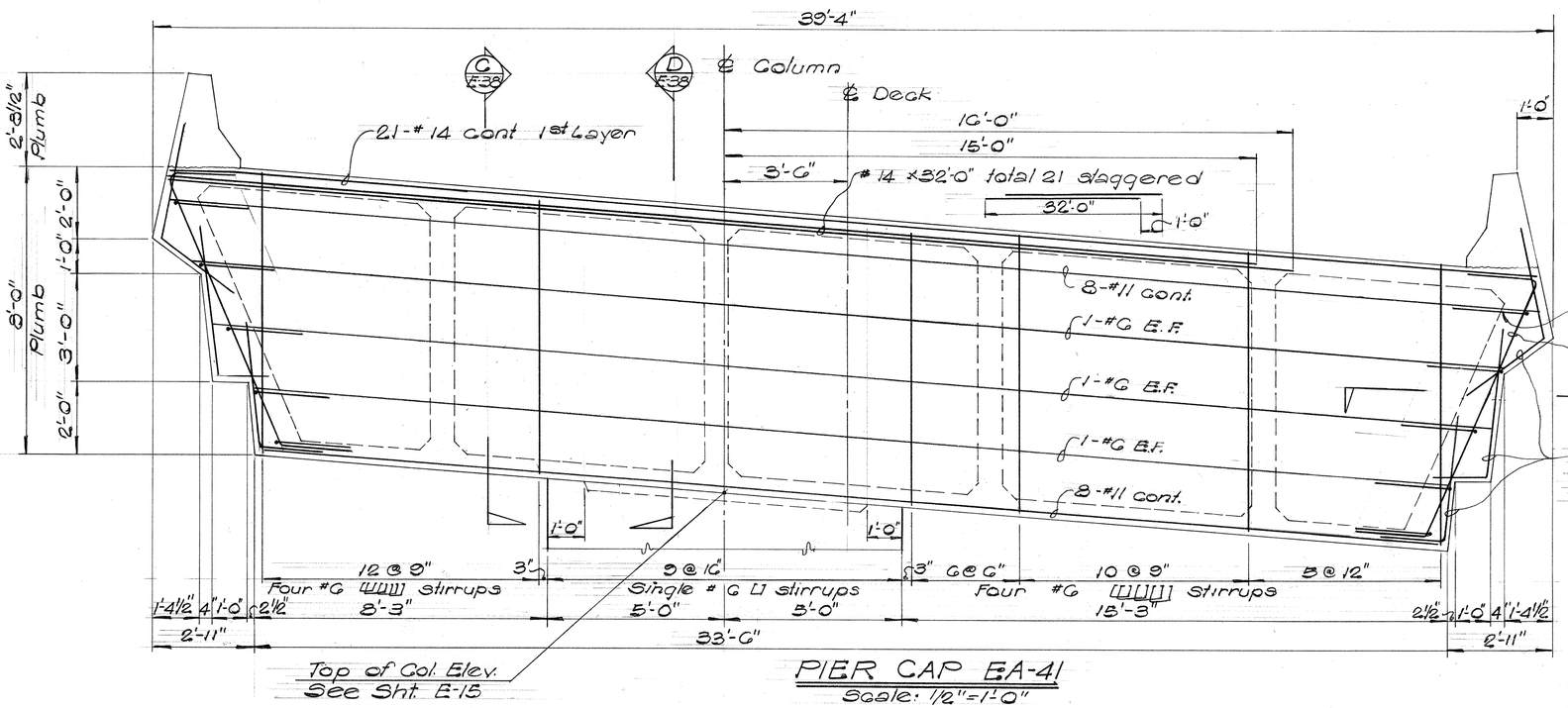
PIER CAP EA-40

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



SECTION A E-36

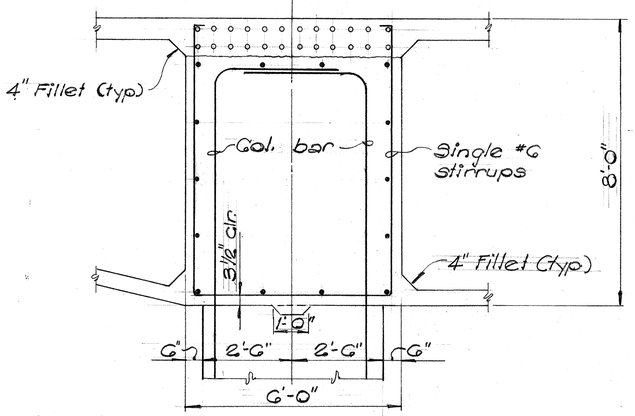
Scale: 1/2"=1'-0"



Top of Col. Elev.
See Sht. E-15

PIER CAP EA-41

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



SECTION B E-36

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

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

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP NOS. 40 & 41

RAMP "EA"

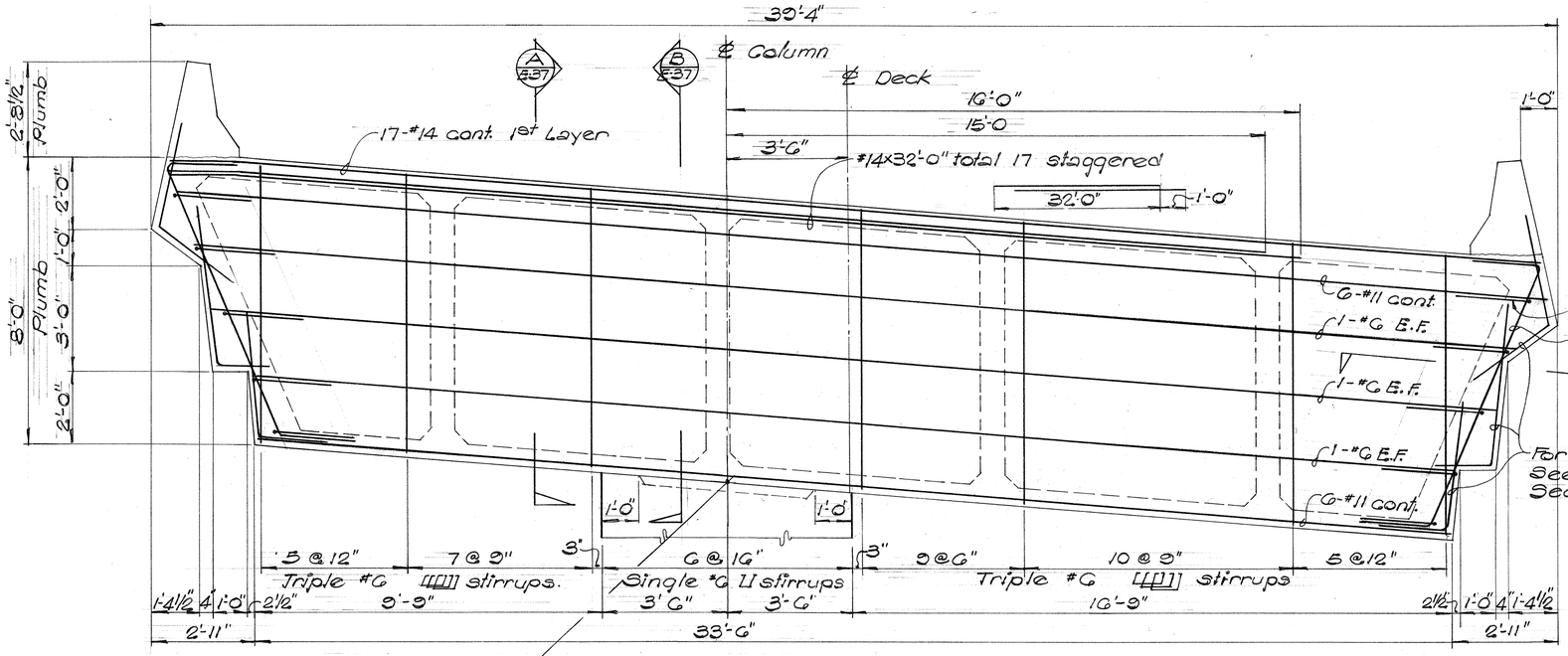
AIRPORT INTERCHANGE
FA-1 PROJ. NO I-HI-1 (145)16

SCALE: AS SHOWN DATE: JULY 1976

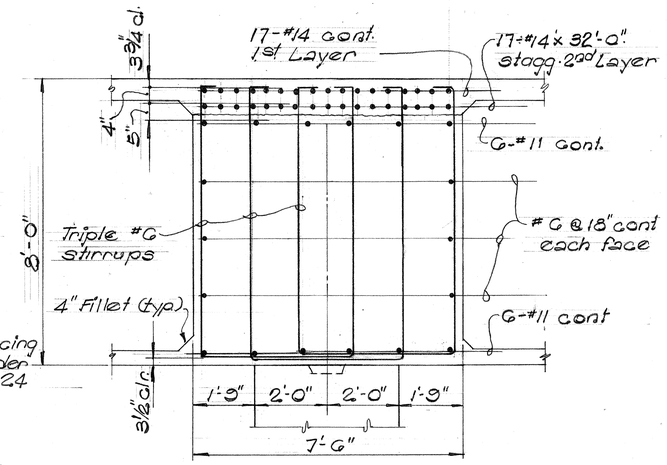
SHEET No. E-36 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

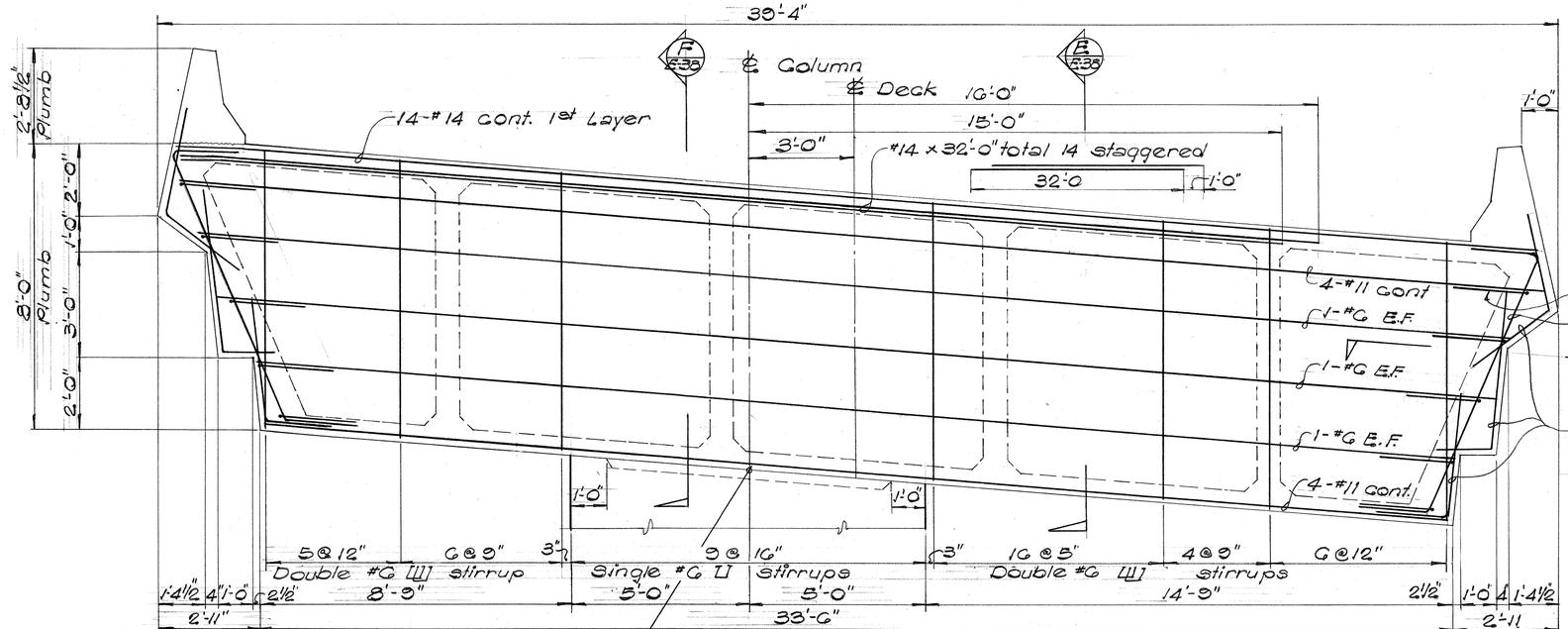
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	94	136



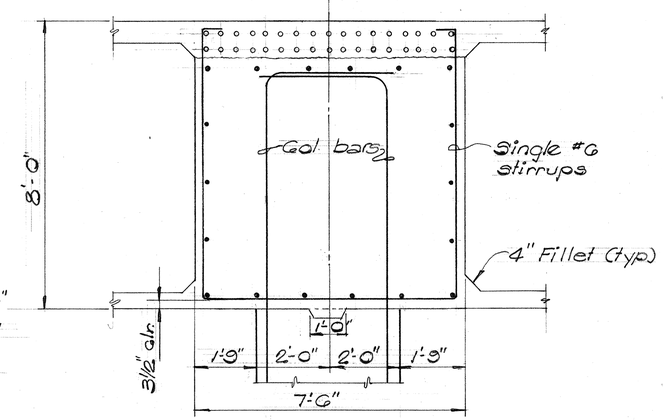
PIER CAP EA-42
Scale: 1/2"=1'-0"



SECTION A E-37
Scale: 1/2"=1'-0"



PIER CAP EA-43
Scale: 1/2"=1'-0"



SECTION B E-37
Scale: 1/2"=1'-0"

ORIGINAL FINAL
SURVEY PLOTTED BY
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DESIGNED BY
QUANTITIES BY
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP NOS. 40 & 41

RAMP "EA"

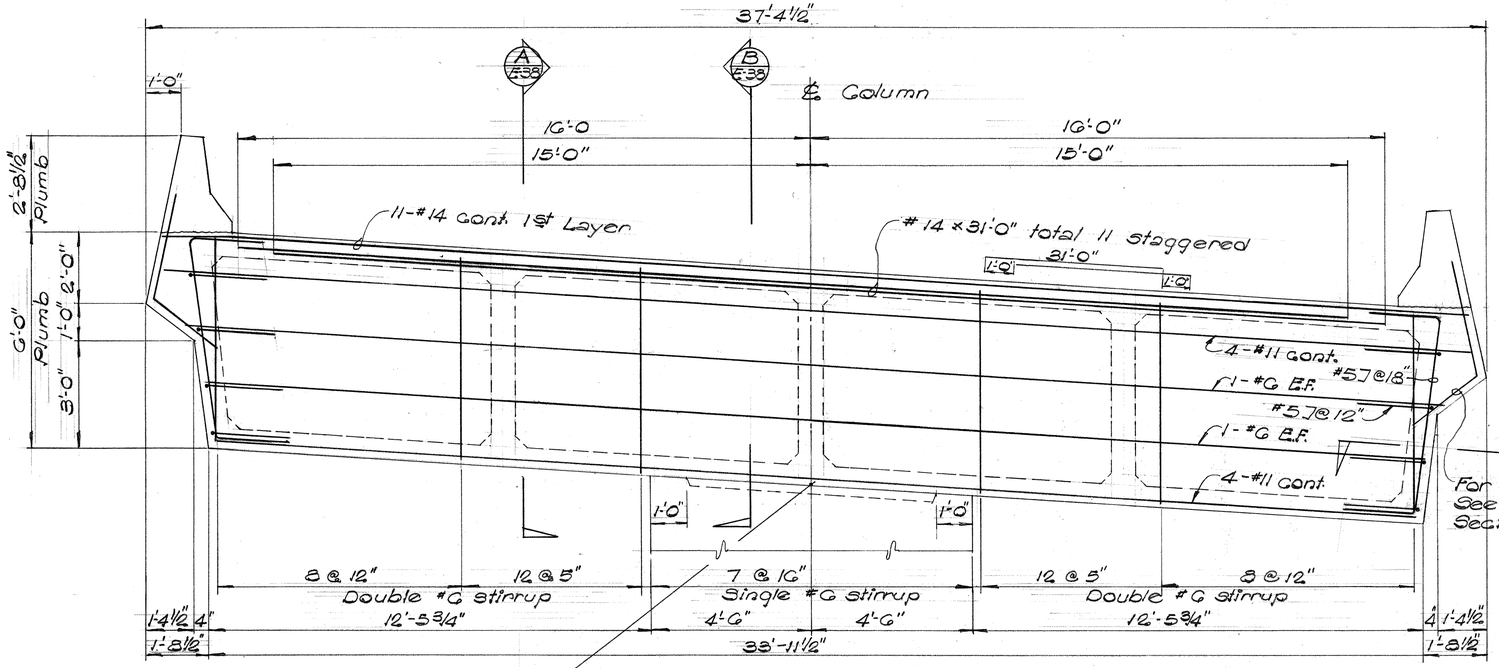
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS SHOWN DATE JULY 1976

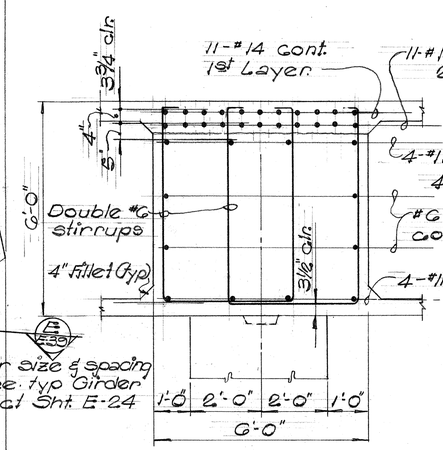
SHEET No. E-37 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

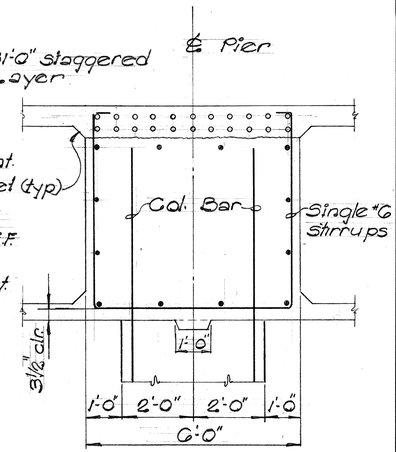
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	95	136



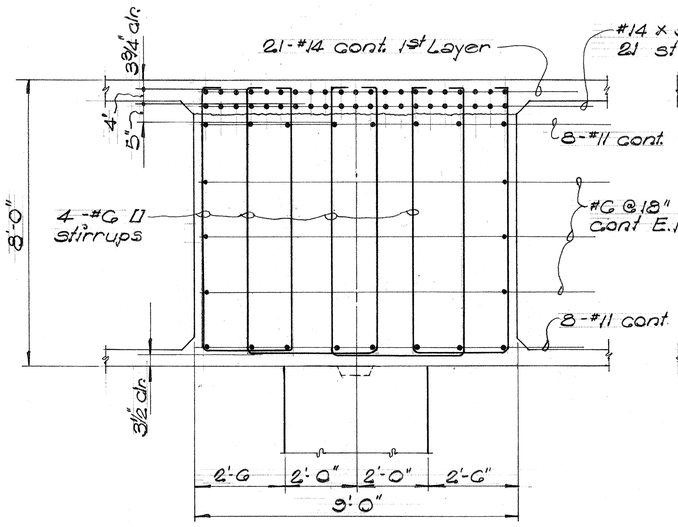
PIER CAP EA-44
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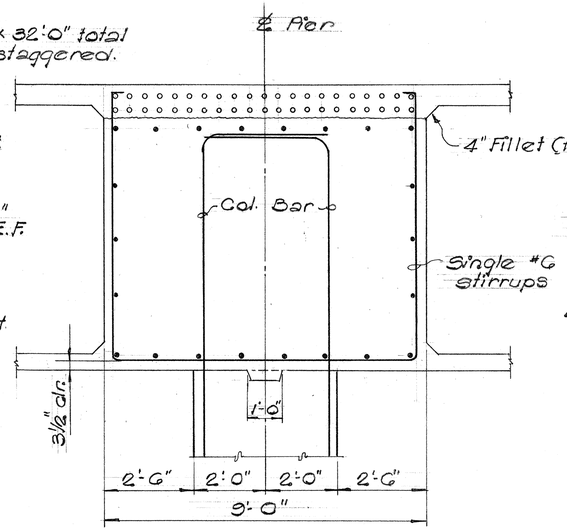
SECTION A E-38
Scale: 1/2"=1'-0"



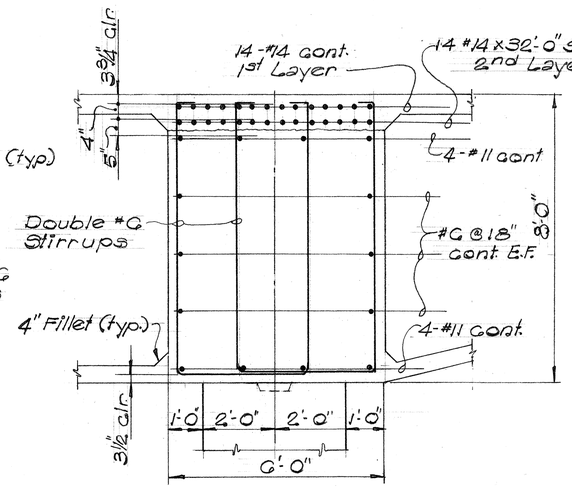
SECTION B E-38
Scale: 1/2"=1'-0"



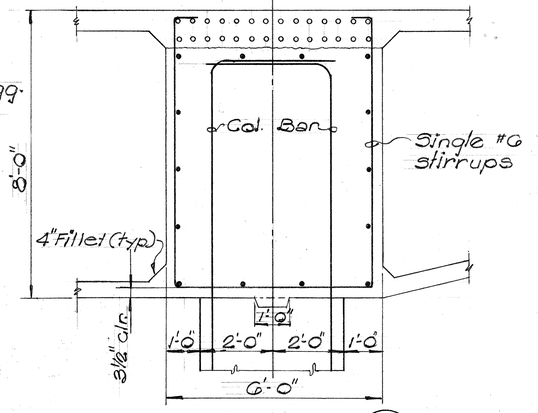
SECTION C E-38
Scale: 1/2"=1'-0"



SECTION D E-38
Scale: 1/2"=1'-0"



SECTION E E-38
Scale: 1/2"=1'-0"



SECTION F E-38
Scale: 1/2"=1'-0"

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PIER CAP NO. 44

RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

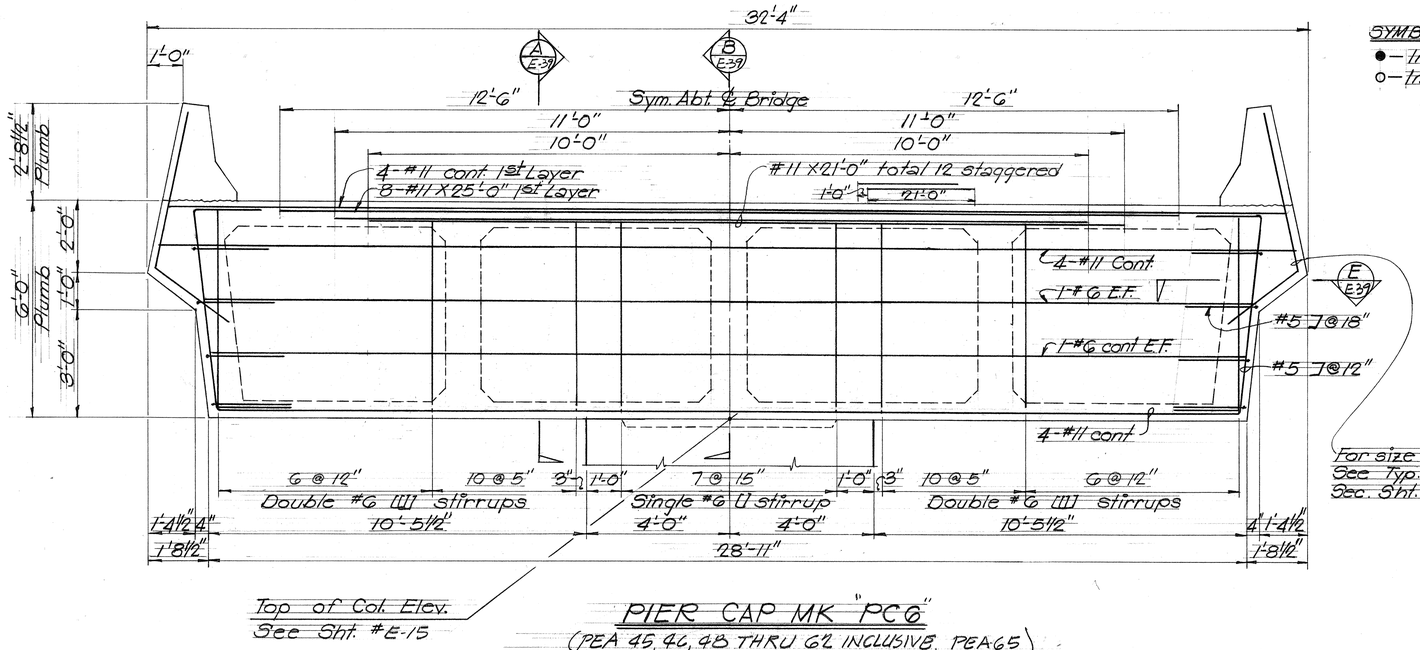
SCALE: AS SHOWN DATE: JULY 1976

SHEET No. E-38 OF 124 SHEETS

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

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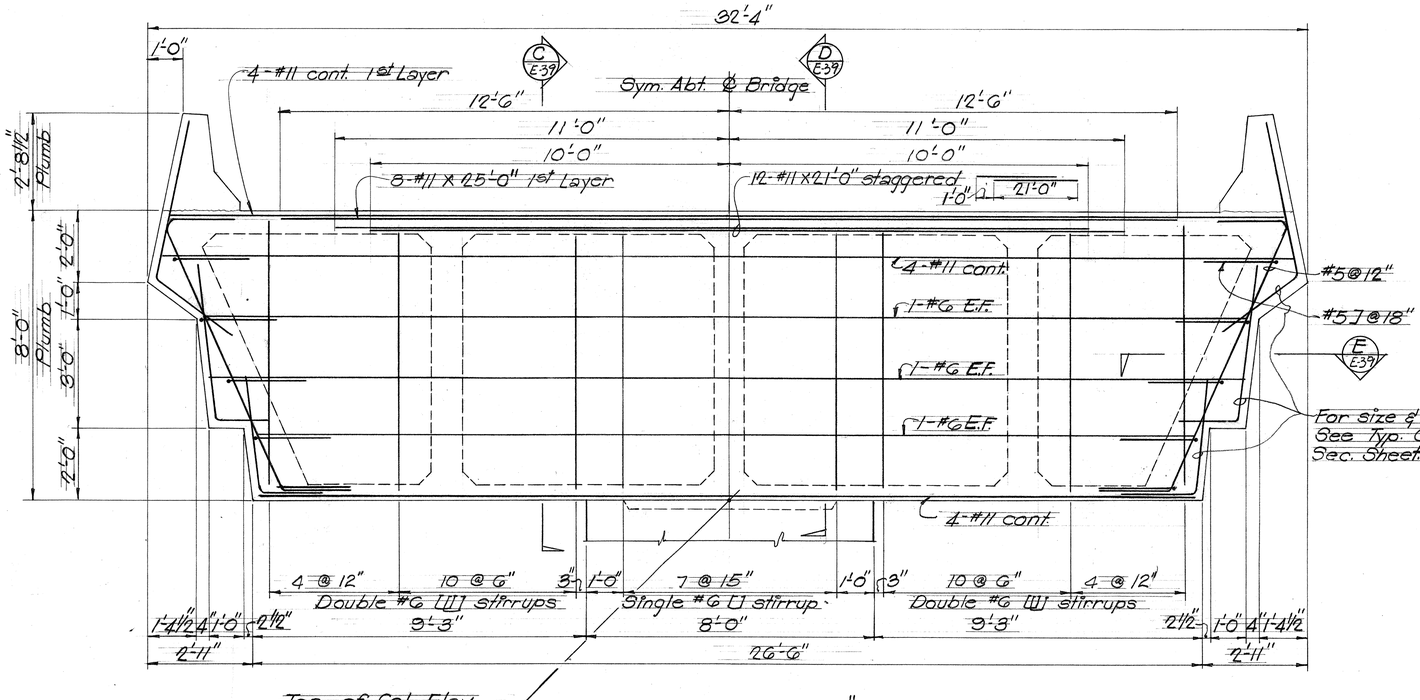
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	96	136



PIER CAP MK "PC6"

(PEA 45, 46, 48 THRU 62 INCLUSIVE, PEA65)

Scale 1/2"=1'-0"



PIER CAP MK "PC8"

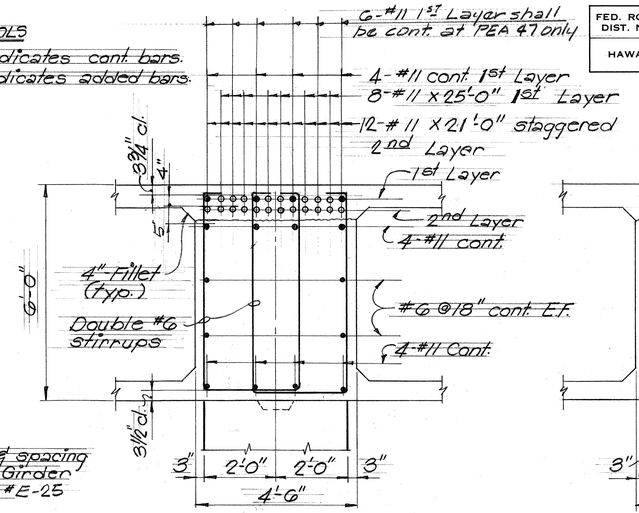
(PEA "63" & PEA "64")

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

SYMBOLS

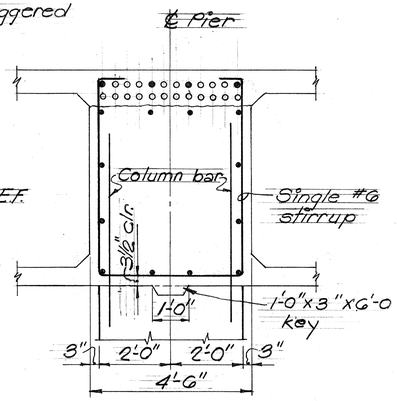
●— Indicates cont. bars.

○— Indicates added bars.



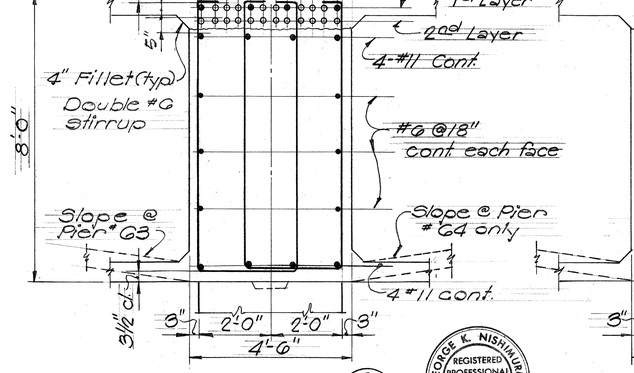
SECTION A E-39

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



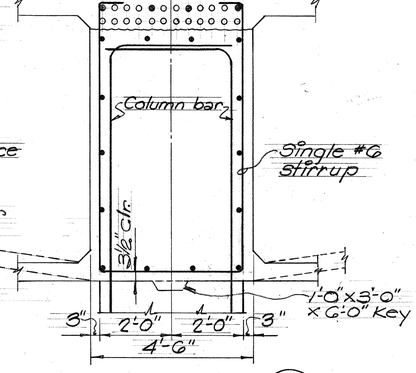
SECTION B E-39

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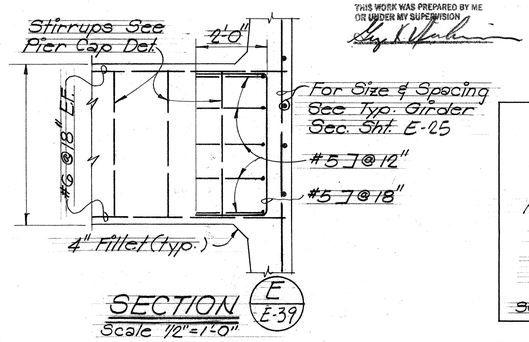
SECTION C E-39

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



SECTION D E-39

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



SECTION E E-39

Scale 1/2"=1'-0"

GEORGE K. NISHIKURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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HAROLD TAKASHI IWAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

PIER CAP DETAILS

PIER CAP NOS. 45, 46 & 48 THRU 65

RAMP "EA"

AIRPORT INTERCHANGE

F.A.I. PROJ. NO. I-HI-1(145)16

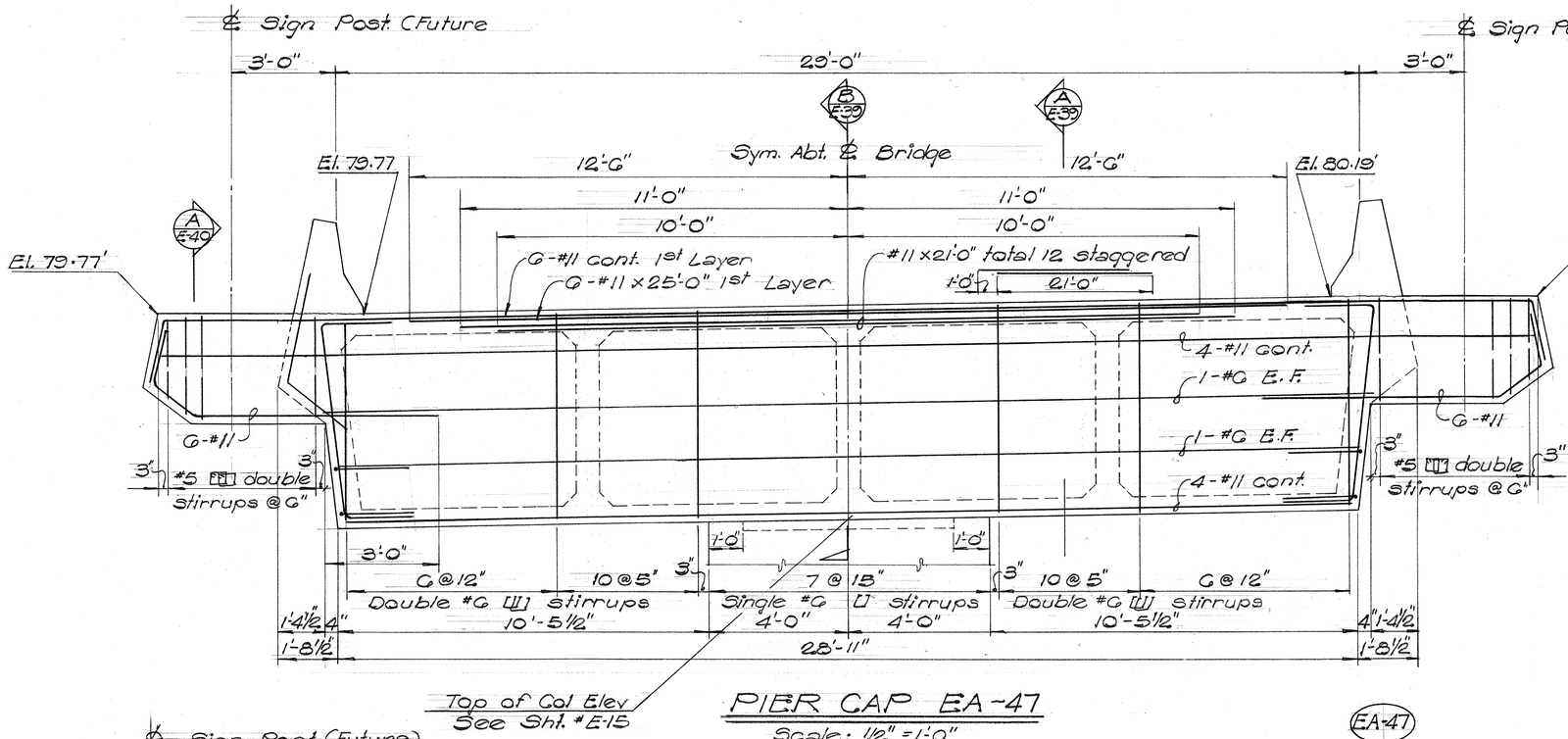
SCALE: AS SHOWN DATE: JULY 1976

SHEET No. E-39 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	97	136

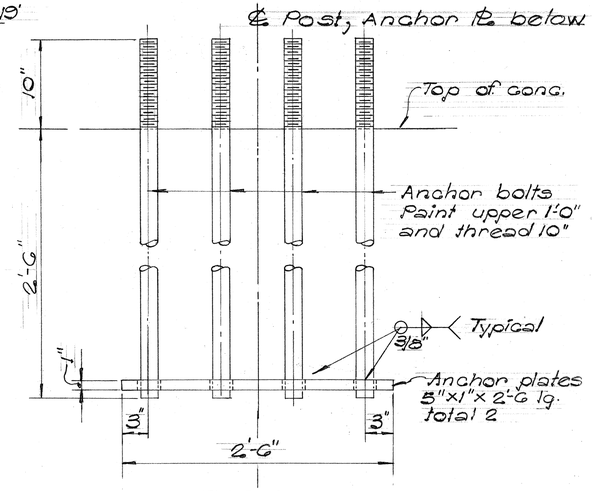


PIER CAP EA-47

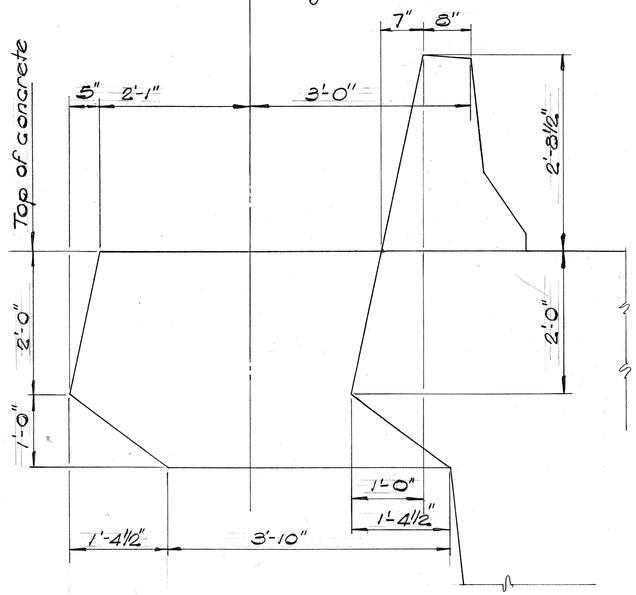
Scale: 1/2" = 1'-0"

NOTE:

Anchor bolt assembly shall be structural steel: ASTM A-36 F_y-36,000 psi and hot dipped galvanized after fabrication. Anchor bolt assembly shall be incidental to concrete

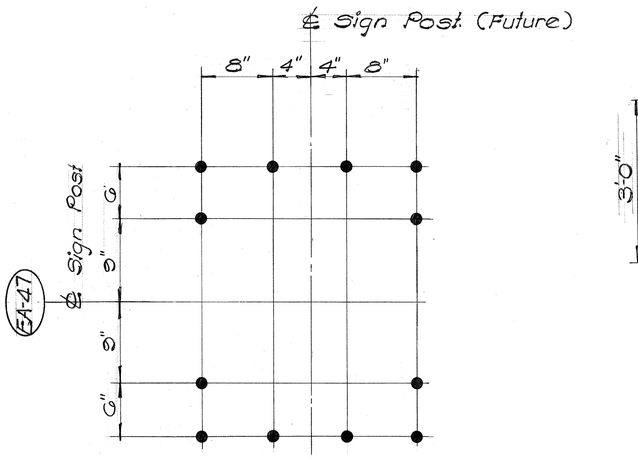


TYPICAL



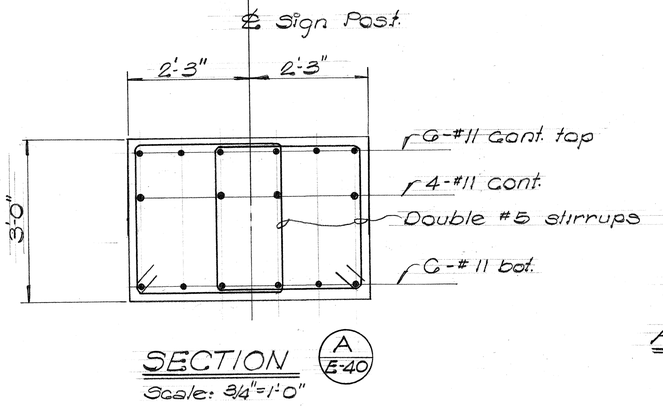
SIGN SUPPORT DETAIL

Scale: 1" = 1'-0"



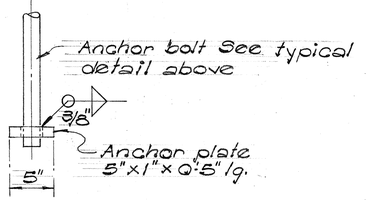
12-1 1/4" ϕ ANCHOR BOLTS REQUIRED

ANCHOR BOLT PLAN



SECTION

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



SINGLE SIDE BOLT ANCHORAGE DETAILS

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

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

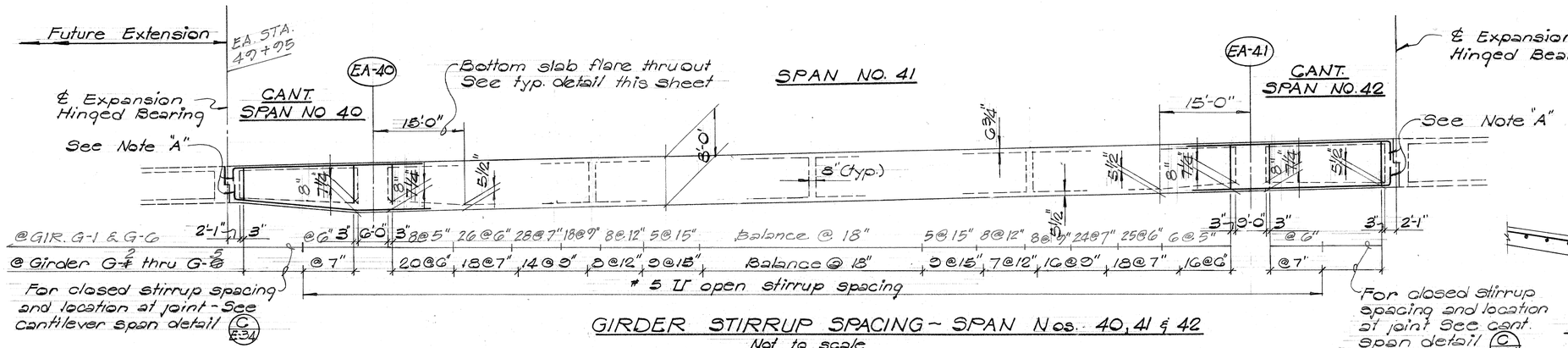
PIER CAP NO. 47 /W
SIGN POST ANCHOR BOLT ASSEMBLY
RAMP "EA"
AIRPORT INTERCHANGE
FAI: PROJ. NO. I-HI-1 (145)16

SCALE AS NOTED DATE: JULY. 1976

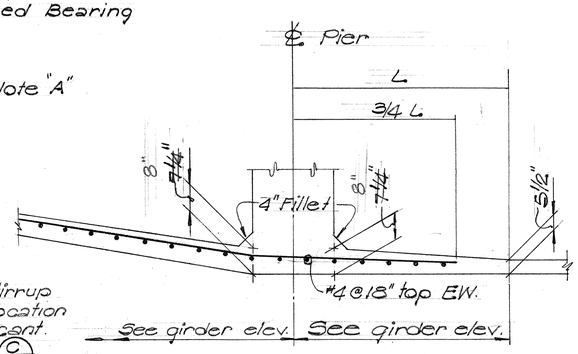
SHEET NO E-40 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

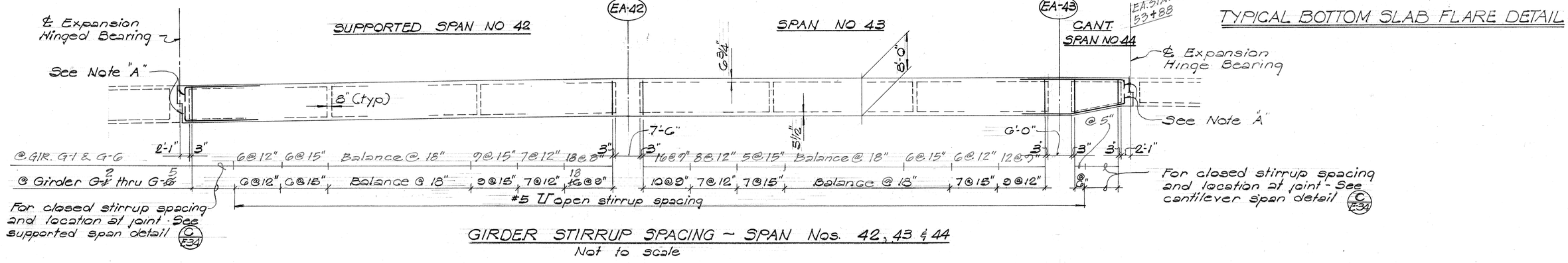
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IHI-1(145)16	1976	98	136



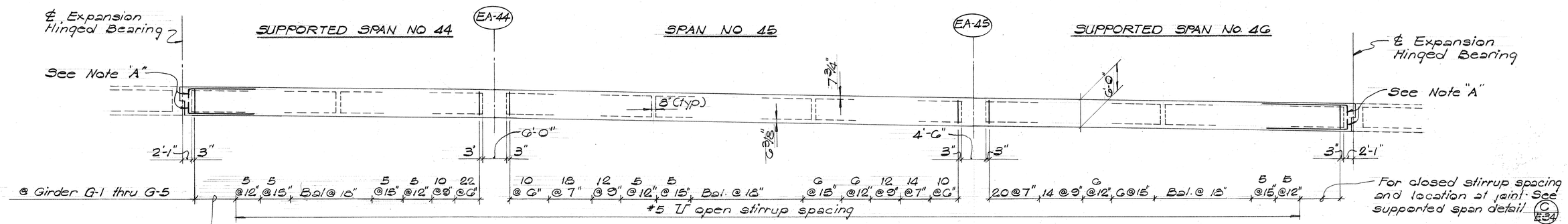
GIRDER STIRRUP SPACING - SPAN Nos. 40, 41 & 42
Not to scale



TYPICAL BOTTOM SLAB FLARE DETAIL



GIRDER STIRRUP SPACING - SPAN Nos. 42, 43 & 44
Not to scale



GIRDER STIRRUP SPACING - SPAN Nos. 44, 45 & 46
Not to scale

NOTE:
All stirrups to be placed plumb
Girder depth measured plumb
See Normal bridge Sections

NOTE "A"
Bend ends of all top and bottom slab main reinforcing at beams where occurs. See Standard details Shl. S-3

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GIRDER STIRRUP PLACEMENT DIAG.
SPAN NOS 40 THRU 46
RAMP "EA"
AIRPORT INTERCHANGE
FAI PROJ. NO I-HI-1 (145) 16

SCALE: AS NOTED DATE: July 1976

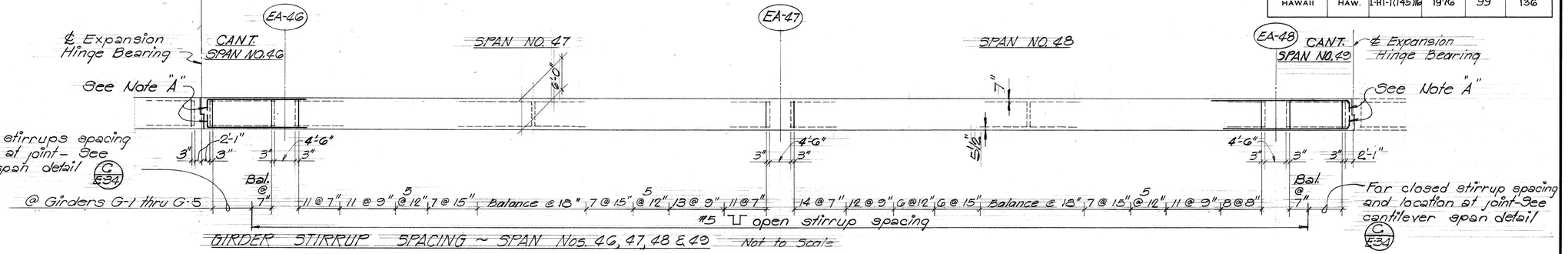
SHEET No. E-41 OF 124 SHEETS

98 (REV.)

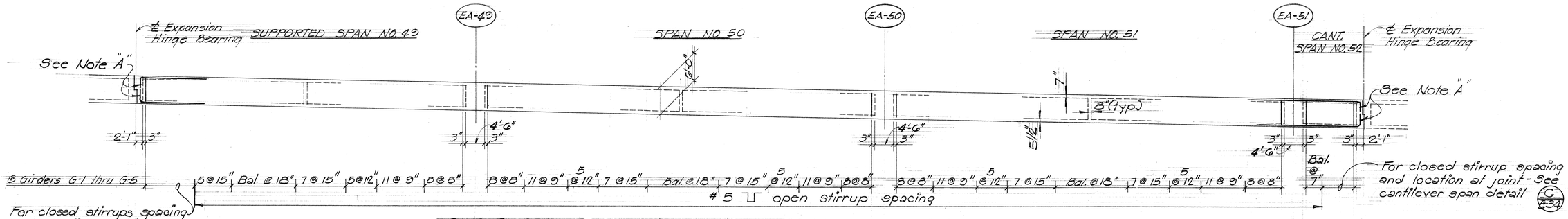
ORIGINAL PLAN | NOTE BOOK | No. | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

PRINTED ON NO. 1000H CLEARPRINT

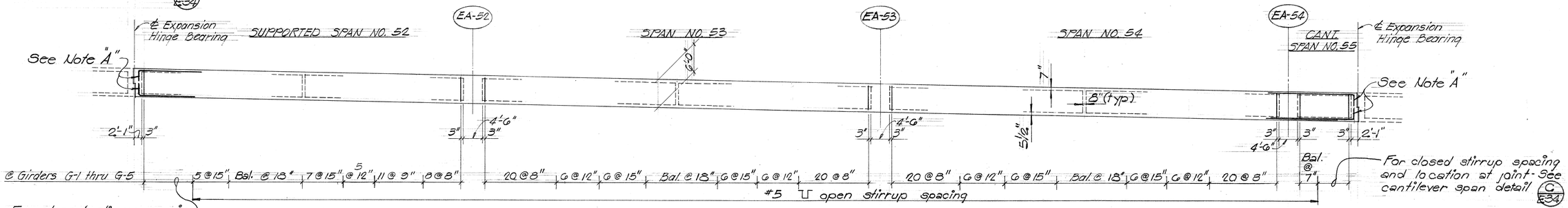
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	99	136



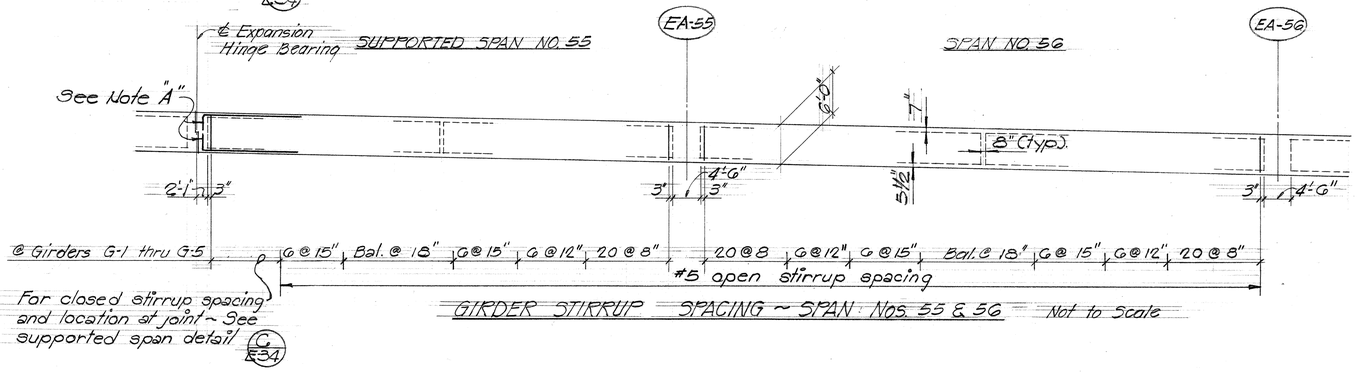
GIRDER STIRRUP SPACING ~ SPAN Nos. 46, 47, 48 & 49 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN Nos. 49, 50, 51 & 52 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN Nos. 52, 53, 54 & 55 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN Nos. 55 & 56 Not to Scale

NOTE:
All stirrup to be placed plumb
Girder depth measured plumb
See Normal Bridge Section

NOTE: "A"
Bend ends of all top and bottom slab main reinforcing at beams where occurs. See Standard details Sht # 9-3

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HIGHWAYS DIVISION

GIRDER STIRRUP PLACEMENT DIAG.
SPAN NO.S 46 THRU 56
RAMP "EA"
~~AIRPORT INTERCHANGE~~
~~F.A.I. PROJ. NO I-HI-1(145)16~~

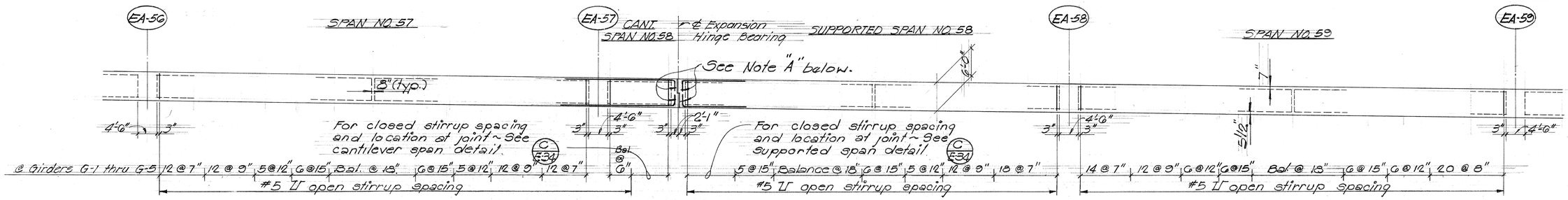
SCALE: AS NOTED DATE: July 1976

SHEET No. E-42 OF 124 SHEETS

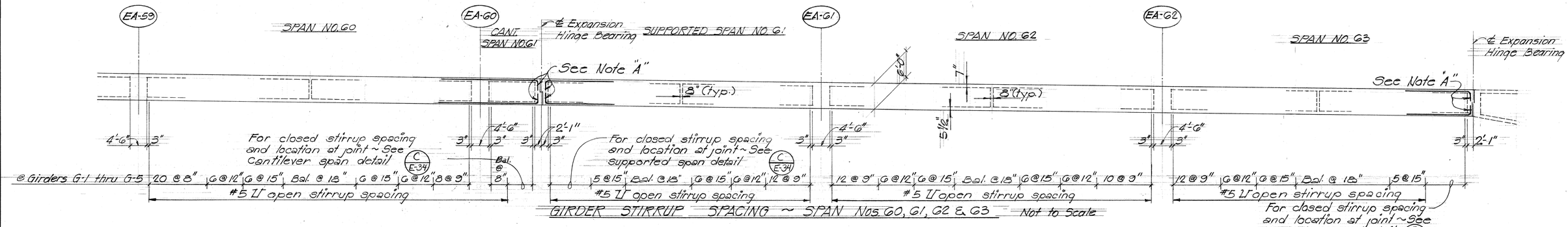
ORIGINAL PLAN | NOTE BOOK | SURVEY PLOTTED BY: | DRAWN BY: | TRACED BY: | DESIGNED BY: | QUANTITIES BY: | CHECKED BY: | DATE: | No.

PRINTED ON NO. 1000H CLEARPRINT

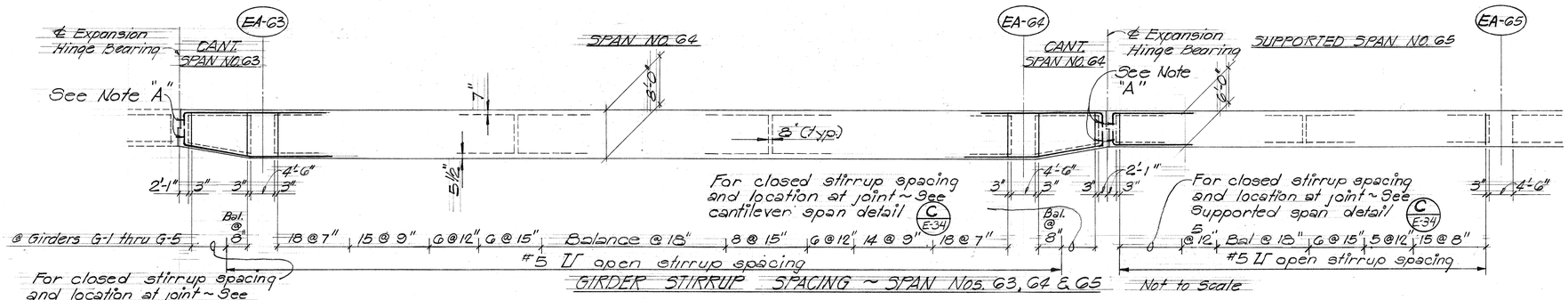
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	100	136



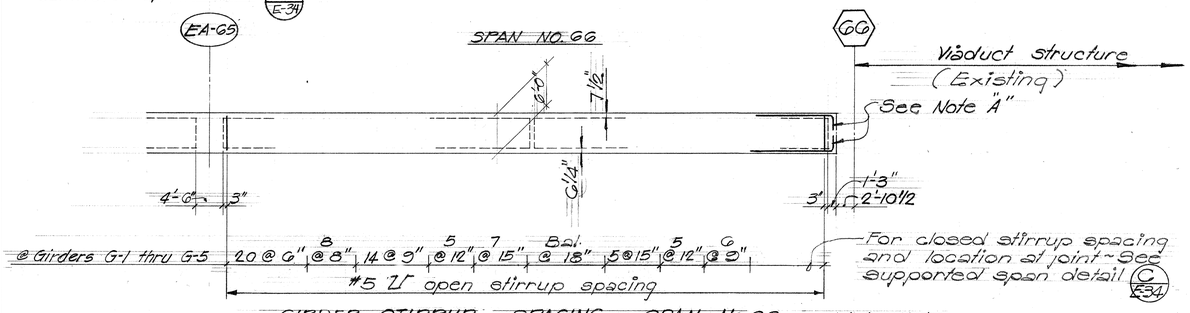
GIRDER STIRRUP SPACING ~ SPAN NOS. 57, 58 & 59 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN NOS. 60, 61, 62 & 63 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN NOS. 63, 64 & 65 Not to Scale



GIRDER STIRRUP SPACING ~ SPAN NO. 66 Not to Scale

NOTE:
All stirrup to be placed plumb
Girder depth measured plumb
See Normal Bridge Section

NOTE: "A"
Bend edns of all top and bottom slab main reinforcing at beams where occurs. See standard details Sht. #9-3

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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HIGHWAYS DIVISION

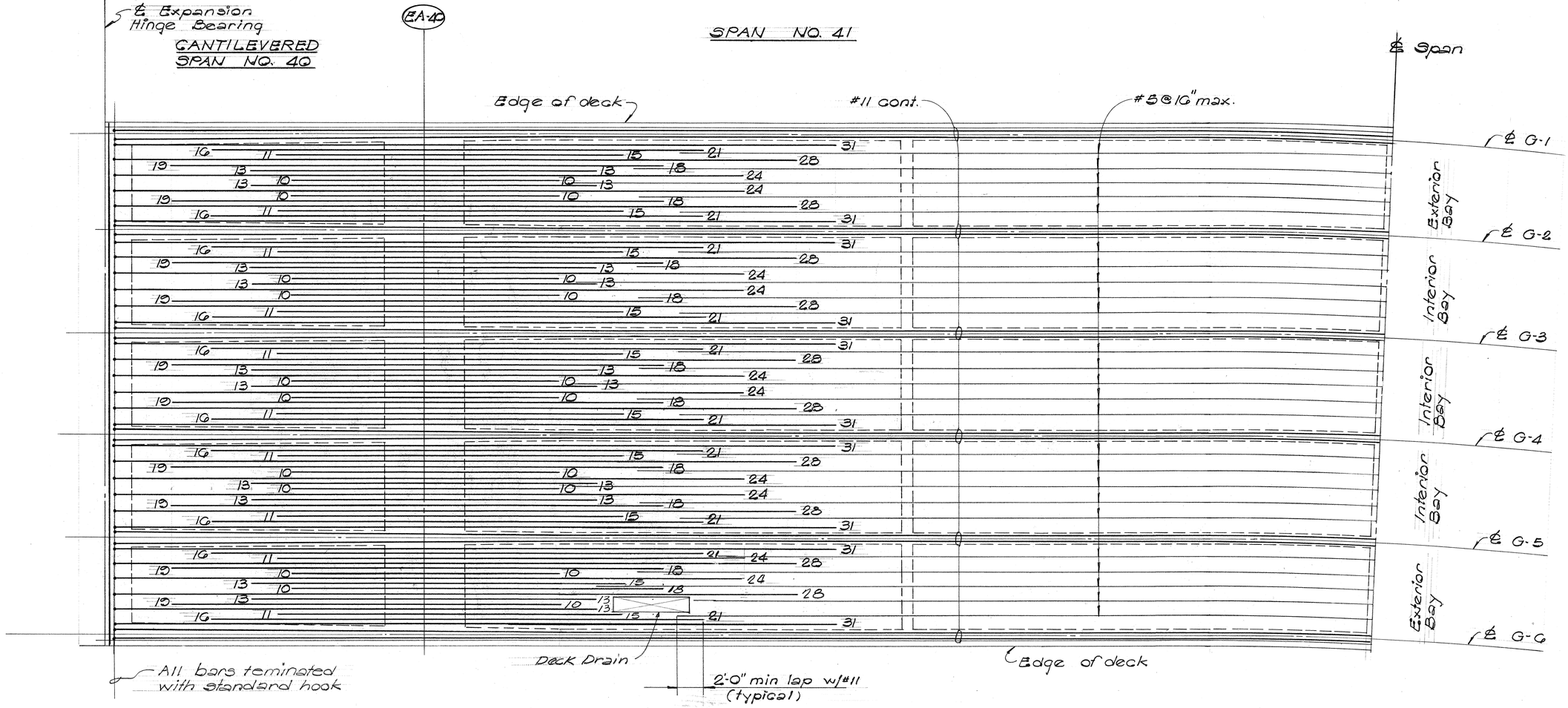
GIRDER STIRRUP PLACEMENT DIAG.
SPAN NOS. 57 THRU 66
"RAMP EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145)16
SCALE: AS NOTED DATE: July 1976

SHEET No. E-43 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	101	136

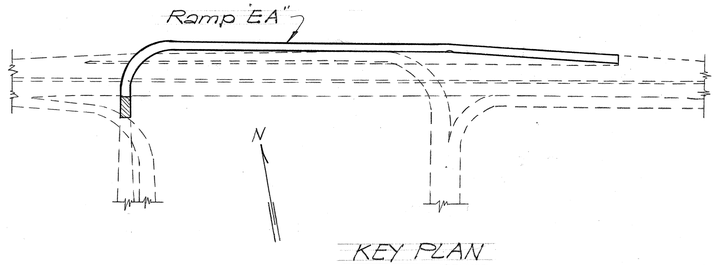


TOP SLAB MAIN REINFORCEMENT PLAN

Scale 1/4"=1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STELL PLACEMENT DIAGRAM
SPANS NO. 40, 41
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16

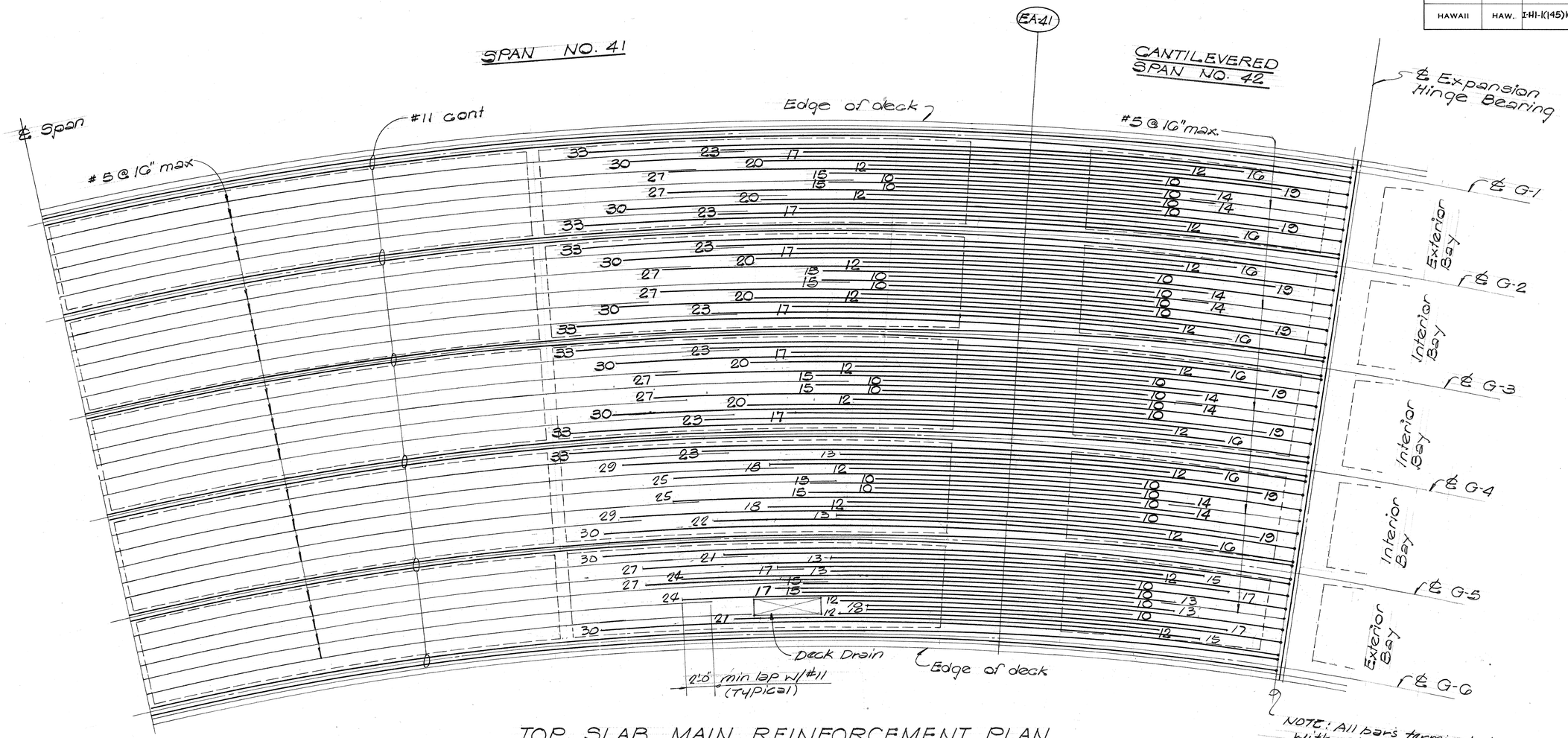
SCALE: 1/4"=1'-0" DATE: July 1976

SHEET No. E-44 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	102	136



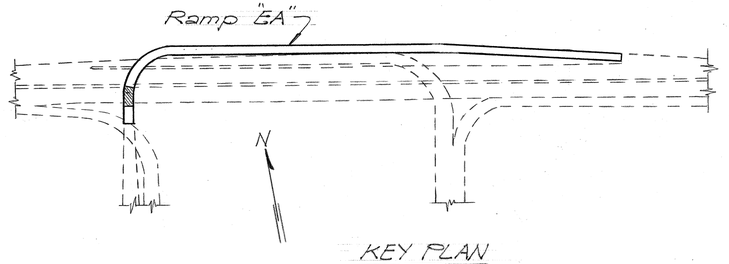
NOTE: All bars terminated with Std hooks.

TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom slab reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



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HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPANS NO. 41, 42
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145)16

SCALE: 1/4"=1'-0" DATE: July 1976

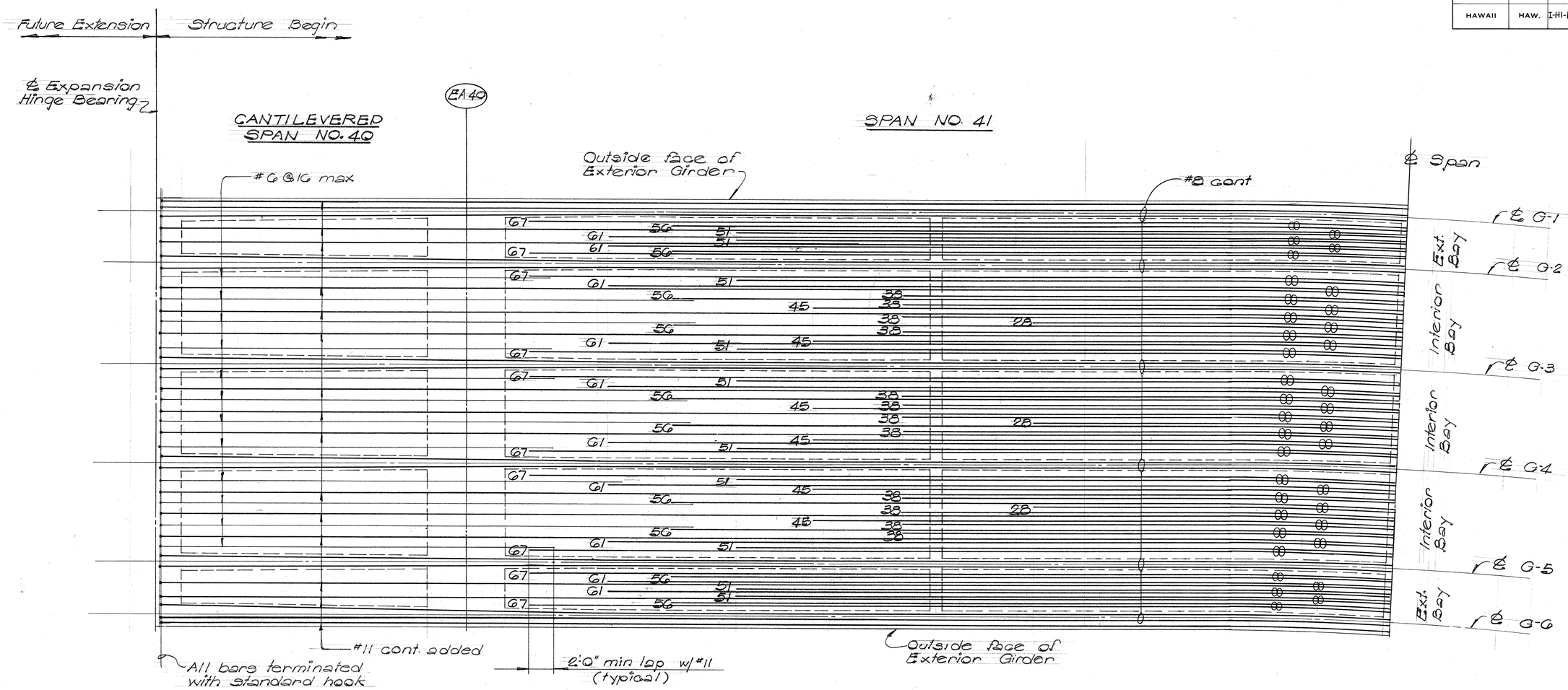
SHEET No. E-45 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

102

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	103	136

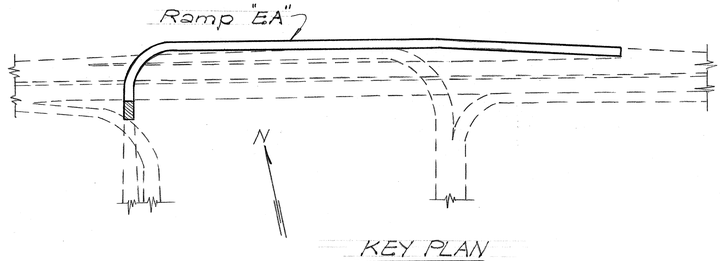


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, see Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown
6. All bars to follow curvature of Girders where occurs (See framing plan for true geometry of deck)



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPANS. NO. 40, 41
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1(145)16

SCALE: 1/4" = 1'-0" DATE: July 1976

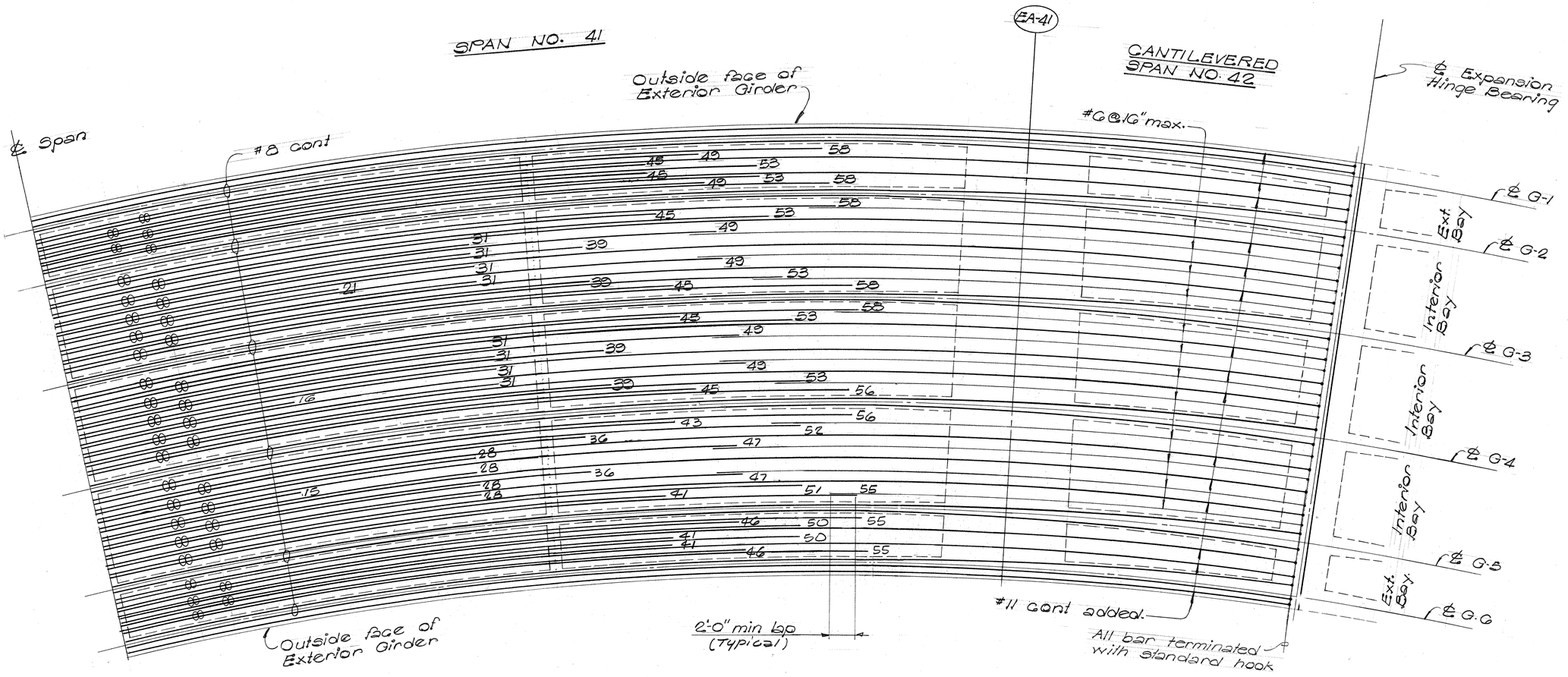
SHEET No. E-46 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

103

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	104	136

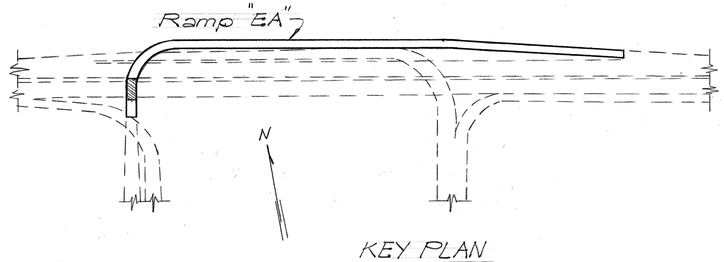


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs (See framing plan for true geometry of deck)



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPANS NO. 41, 42
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

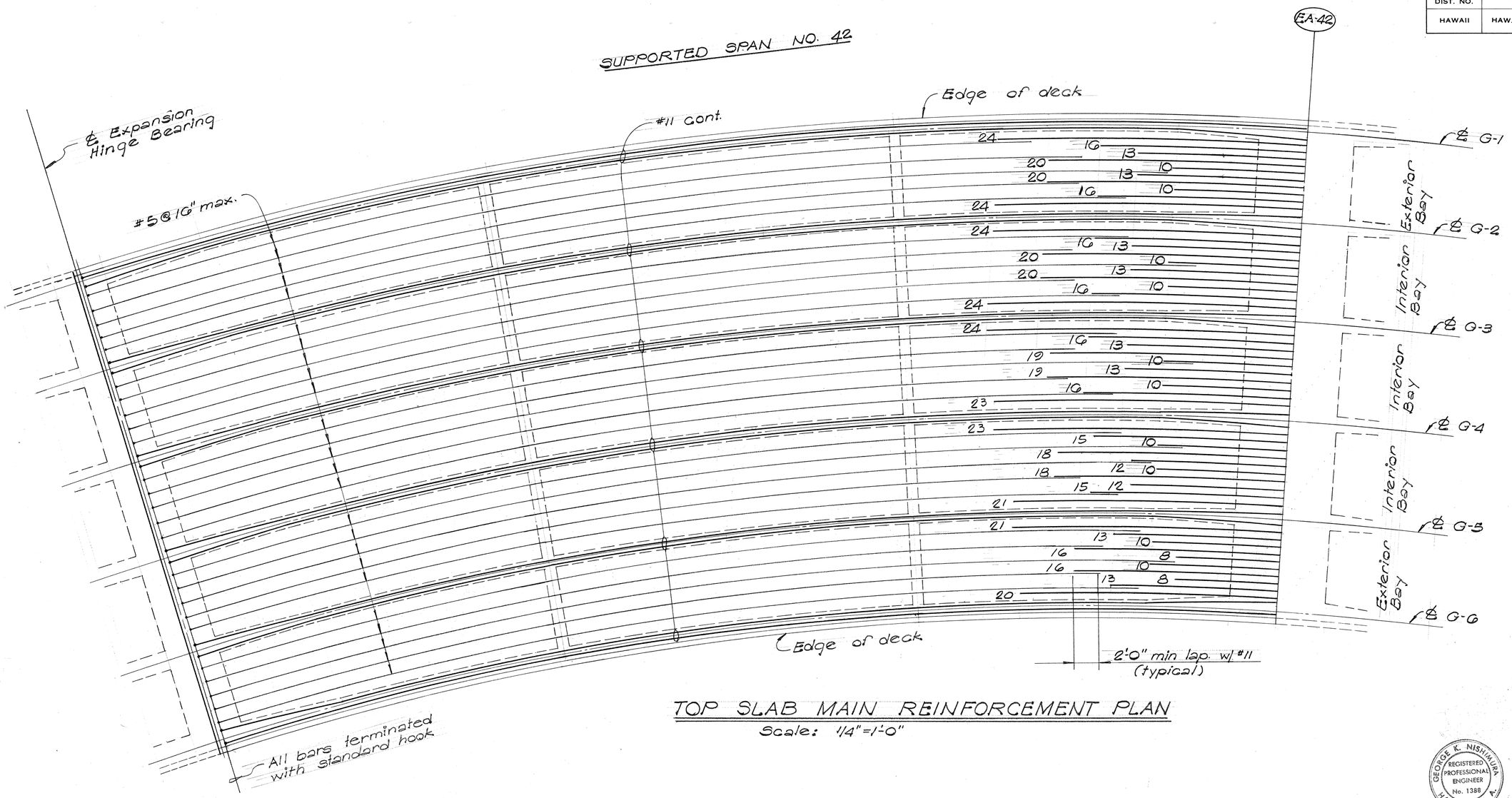
SCALE: 1/4"=1'-0" DATE: July 1976

SHEET NO. E-47 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	105	136

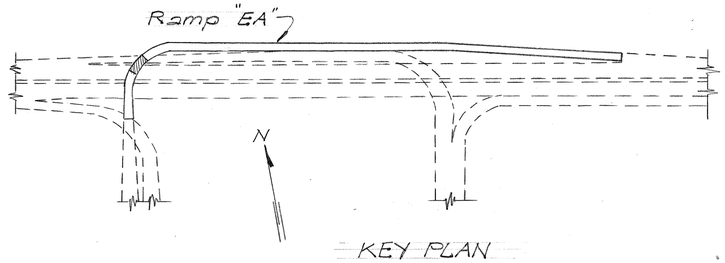


TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4.
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NO. 42
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

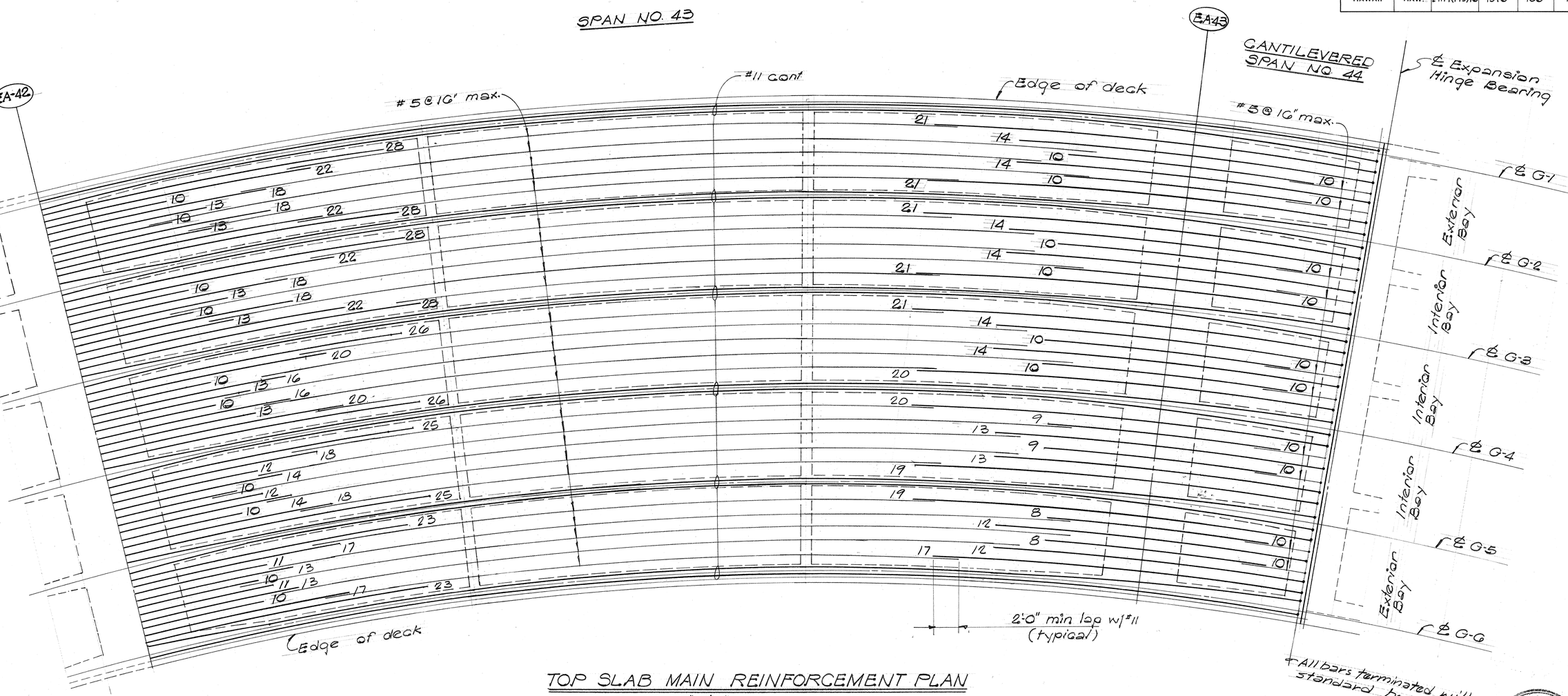
SCALE: 1/4"=1'0" DATE: July 1976

SHEET No. E-48 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	106	136

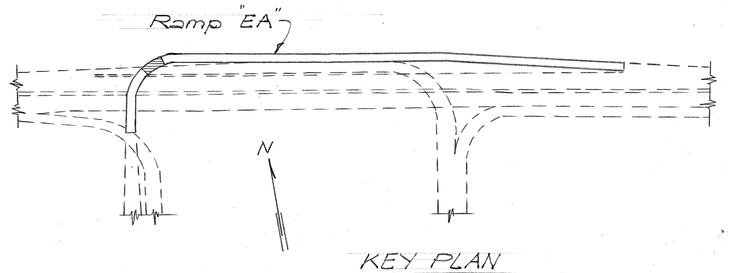


TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std. Details Shts 3-1, 3-2, 3-3 & 3-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



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HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 3514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NO. 43, 44
RAMP 'EA'

AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1 (45)16

SCALE: 1/4"=1'-0" DATE July 1976

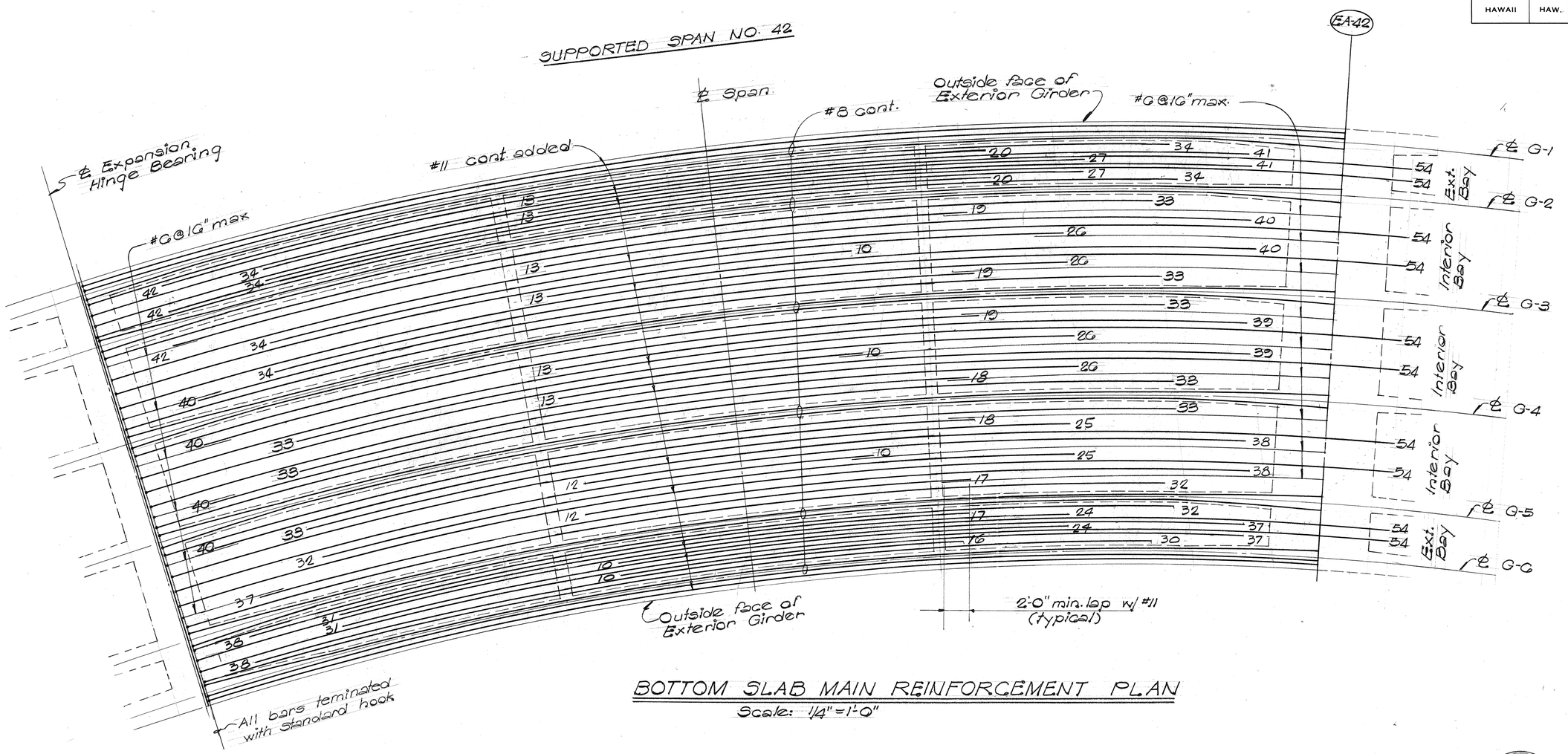
SHEET No. E-49 OF 124 SHEETS

106

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(145)16	1976	107	136

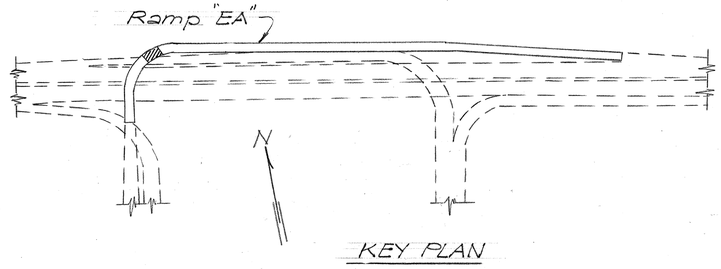


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NO. 42
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1(146)16

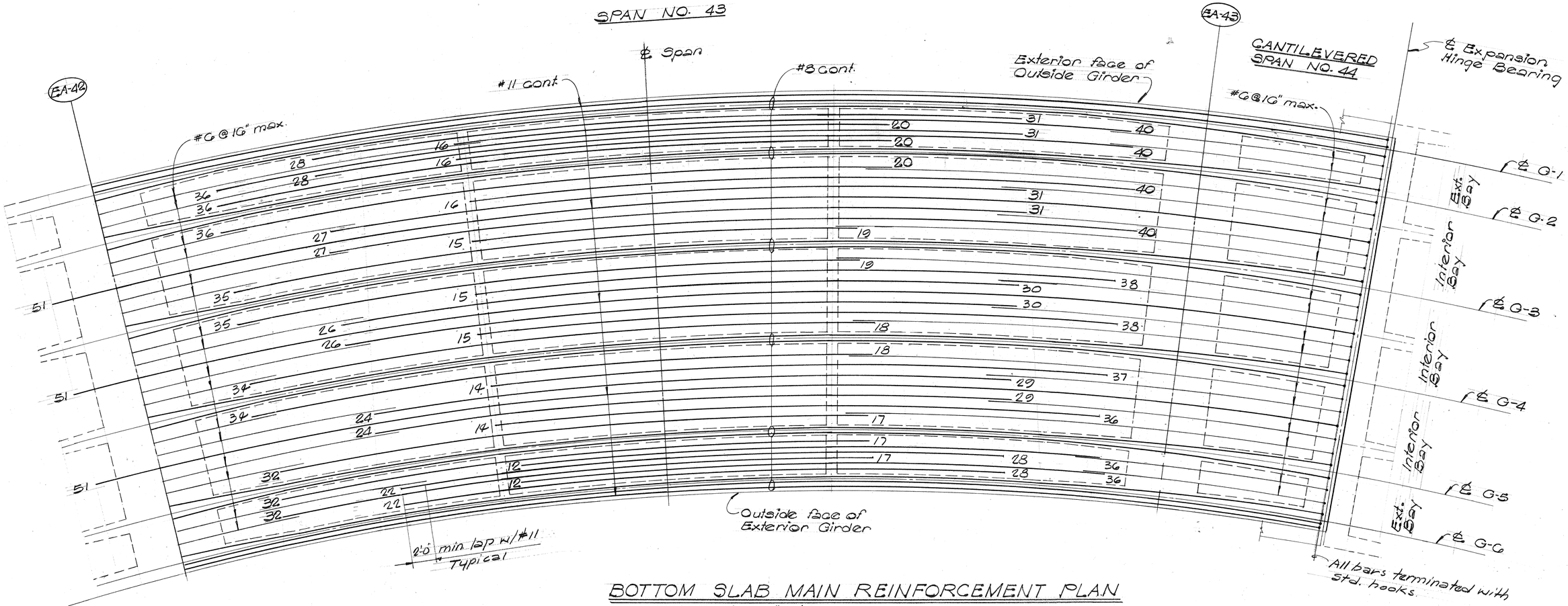
SCALE: 1/4"=1'-0" DATE: July 1976

SHEET No. E-50 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	108	136

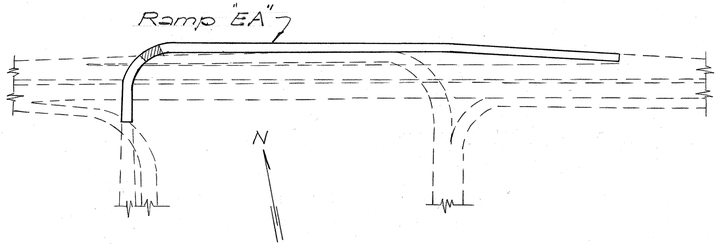


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: 1/4" = 1'-0

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPANS NO. 43, 44
RAMP "EA"
AIRPORT INTERCHANGE
FAJ. PROJ NO. I-HI-1(145)16

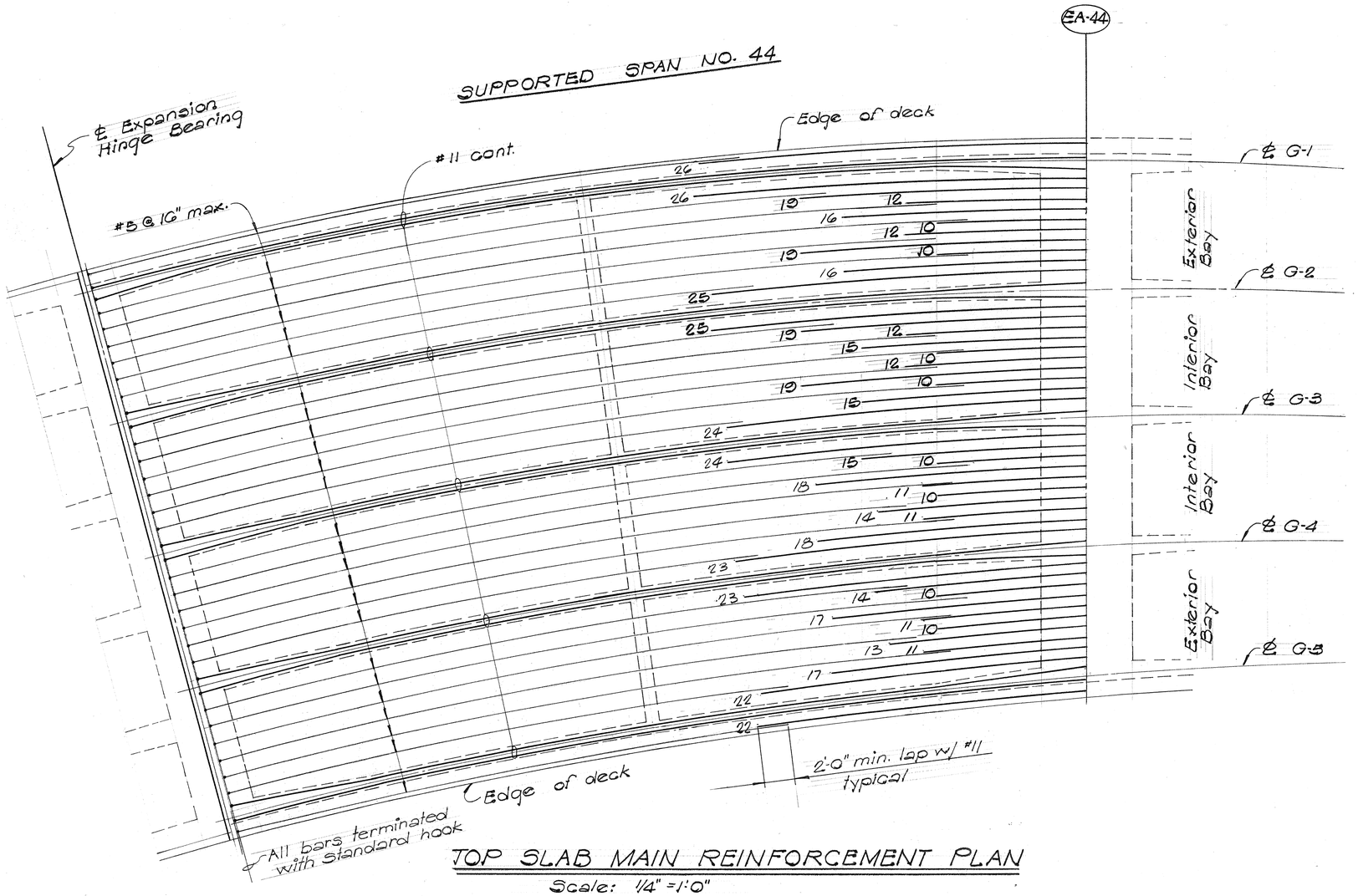
SCALE: 1/4" = 1'-0" DATE July 1976

SHEET NO. E-5 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	109	136

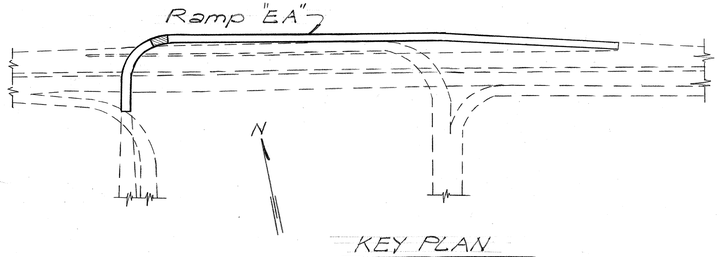


TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girder where occurs. (See framing plan for true geometry of deck)



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THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NO. 44
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145)16

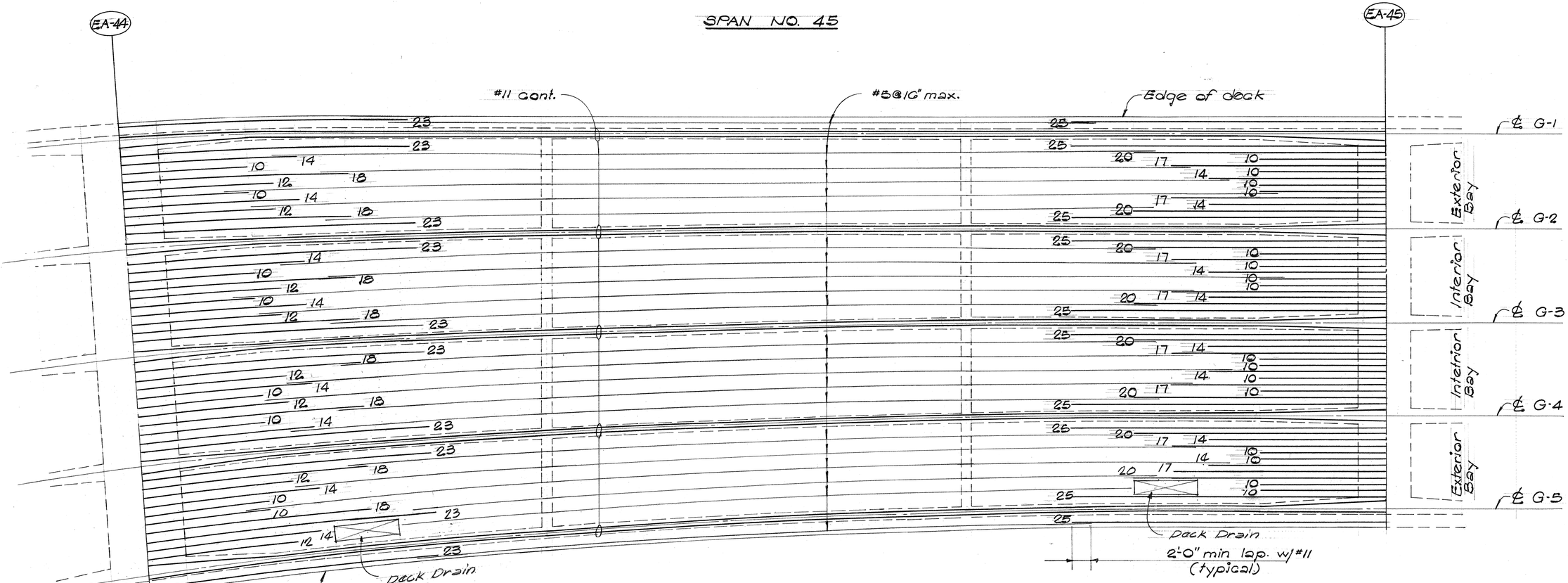
SCALE: 1/4" = 1'-0" DATE: July 1976

SHEET No. E-52 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	110	136

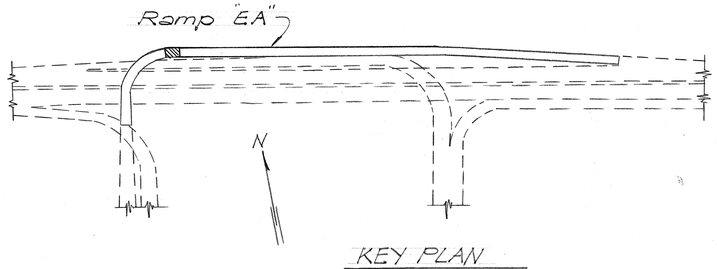


TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, see Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3, & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NO. 45
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

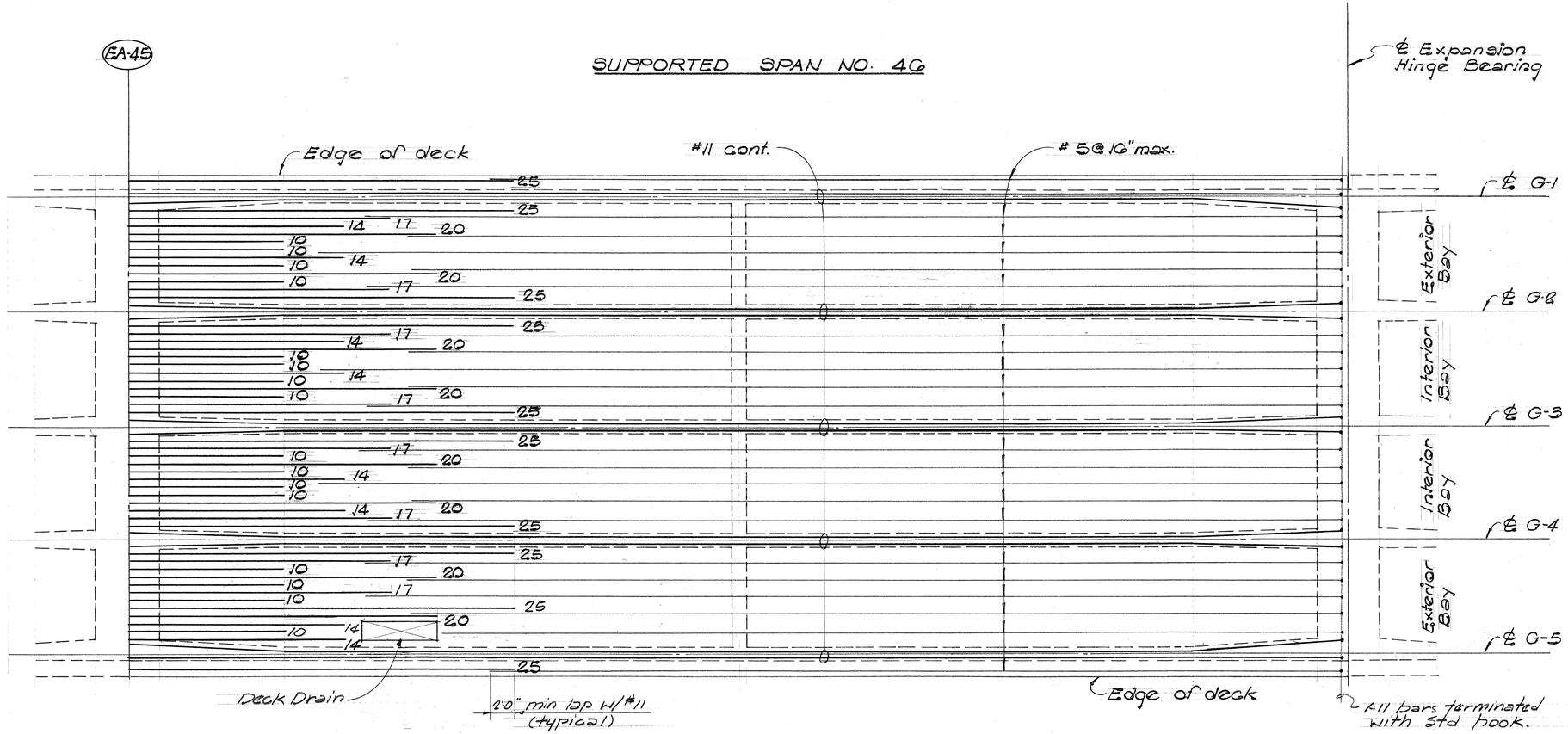
SCALE: 1/4"=1'-0" DATE: July 1976

SHEET No. E-53 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	111	136

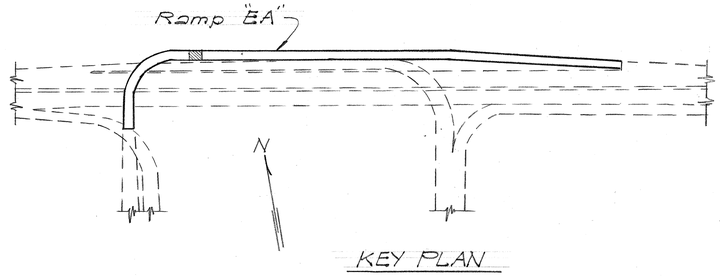


TOP SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans
4. For additional slab reinforcing details, See Normal Deck Section Sht E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for the true geometry of deck.)



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NO 4G
RAMP "EA"

AIRPORT INTERCHANGE
FAJ. PROJ. NO. I-HI-1 (145)16

SCALE: 1/4" = 1'-0" DATE: July 1976

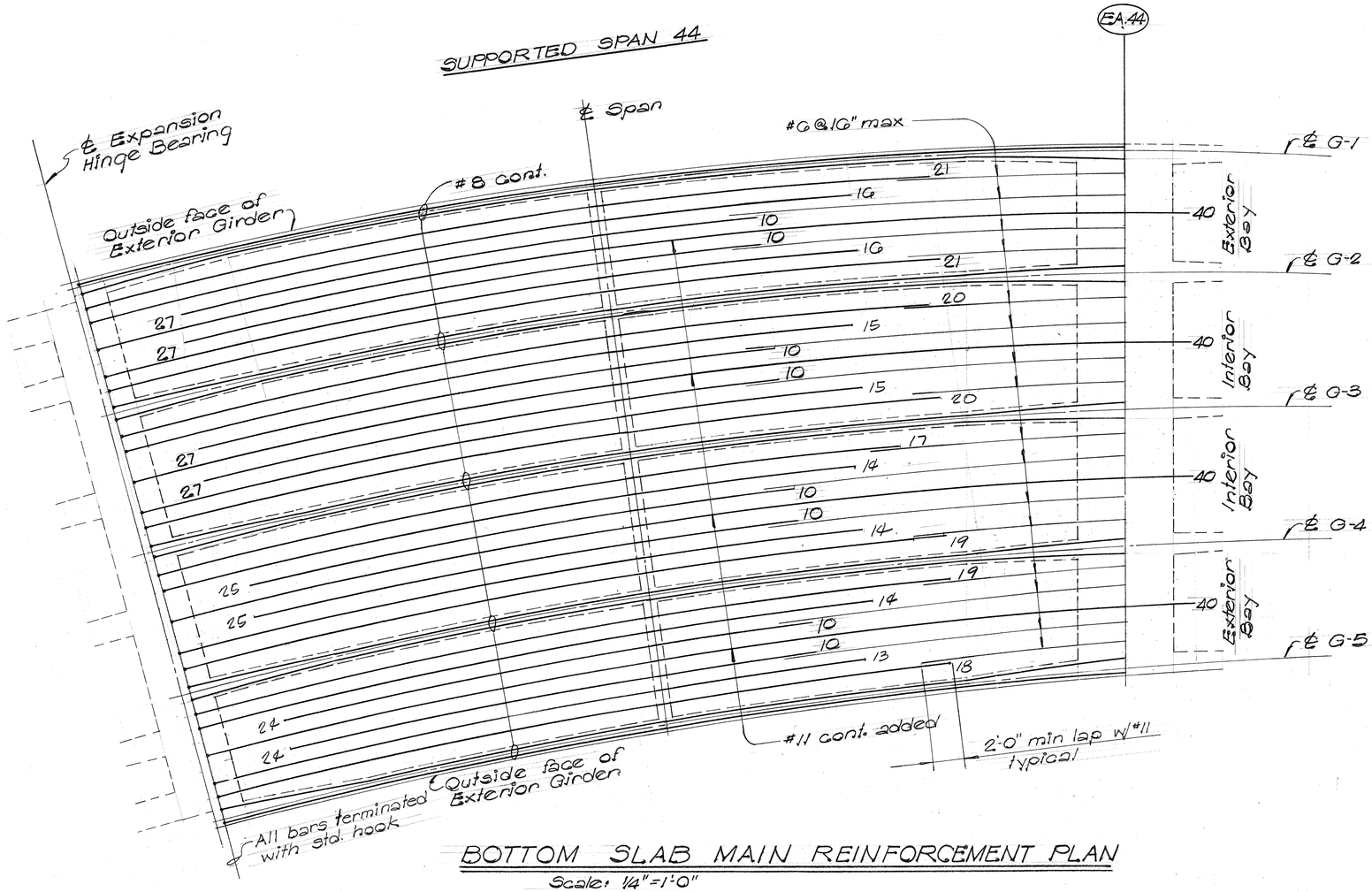
SHEET No. E-54 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

111

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	112	136

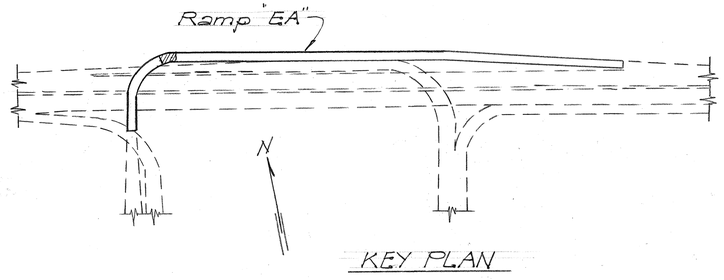


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-24 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



KEY PLAN

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HAROLD TAKASHI UYEHARA REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM.
SPAN NO. 44
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ. NO I-HI-1(145)16

SCALE: 1/4"=1'-0" DATE: July 1976

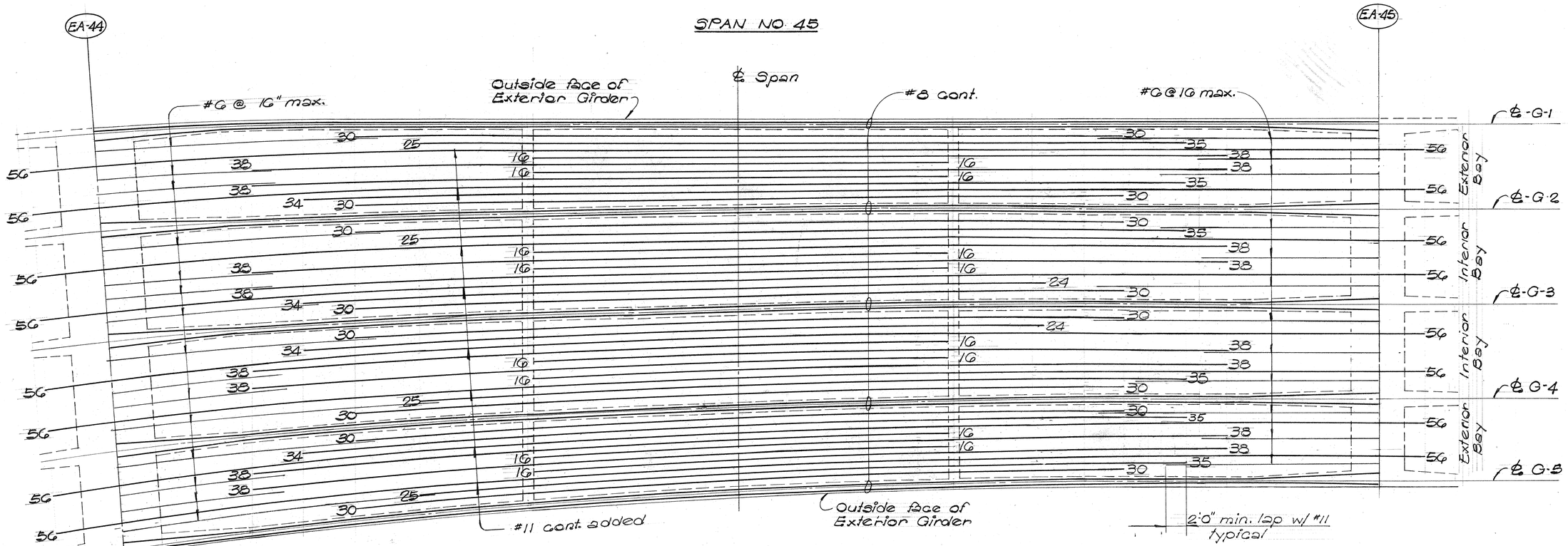
SHEET No. E-55 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	113	136

SPAN NO. 45

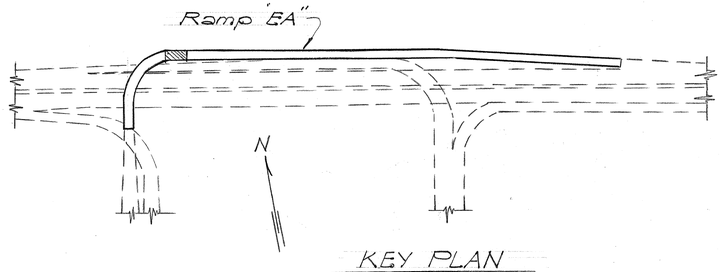


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans
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5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs (See framing plan for true geometry of deck)



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HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NO. 45
RAMP "EA"
AIRPORT INTERCHANGE
FA.I. PROJ NO. I-HI-1(145)16
SCALE: 1/4"=1'-0" DATE: July 1976

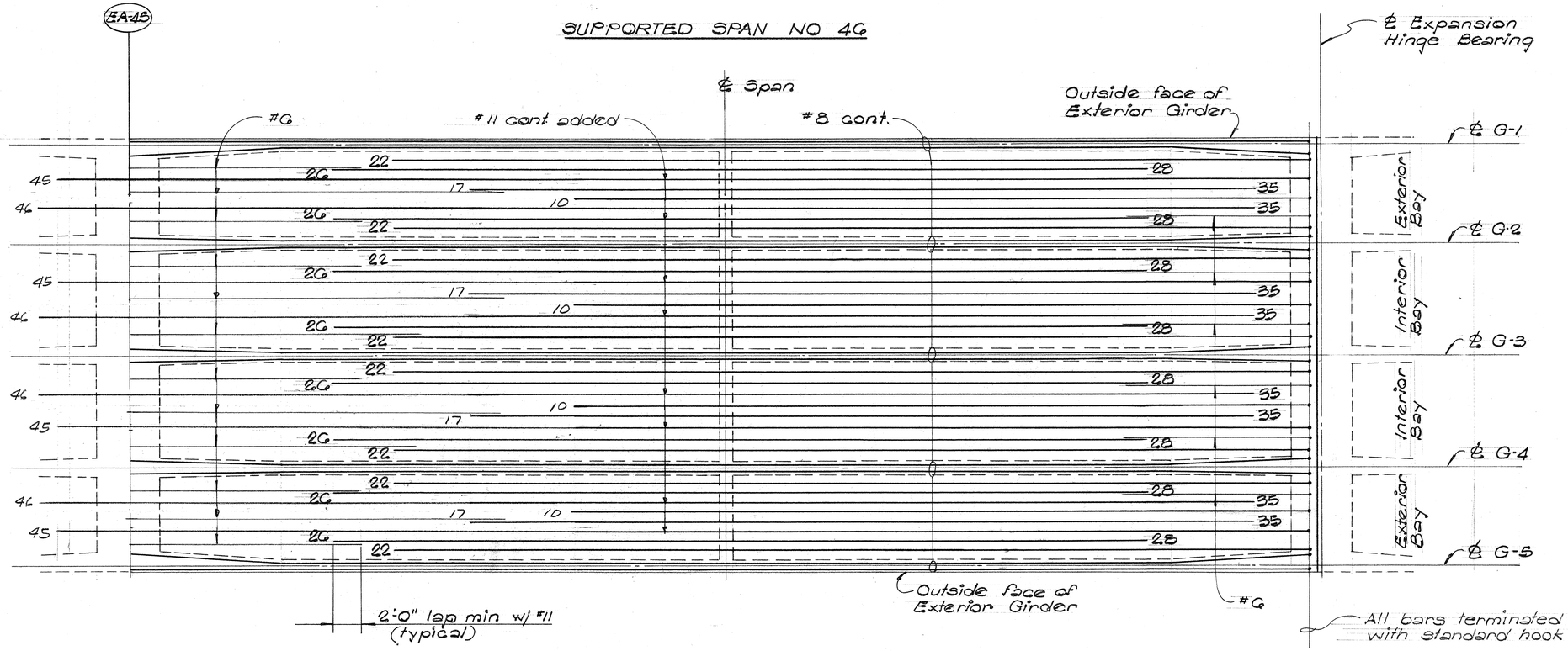
SHEET No. E-36 OF 124 SHEETS

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

PRINTED ON NO. 1000H CLEARPRINT

113

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	114	136

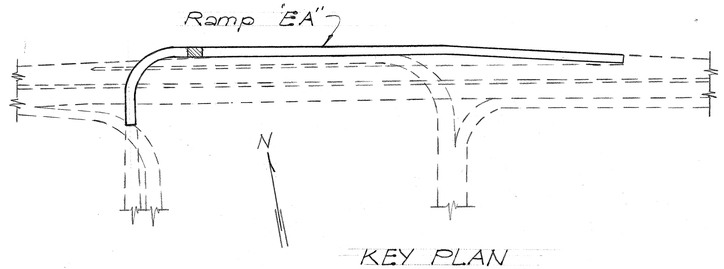


BOTTOM SLAB MAIN REINFORCEMENT PLAN

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

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
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5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck)



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NO 4G
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

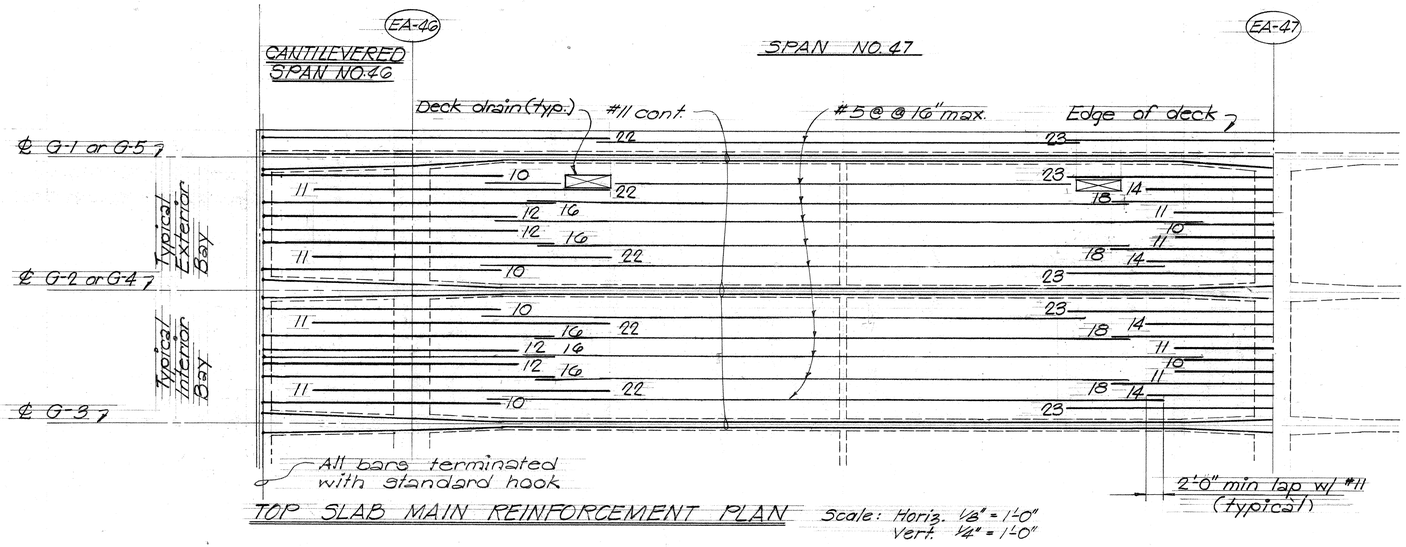
SCALE: 1/4"=1'-0" DATE: July 1976

SHEET No. E-57 OF 124 SHEETS

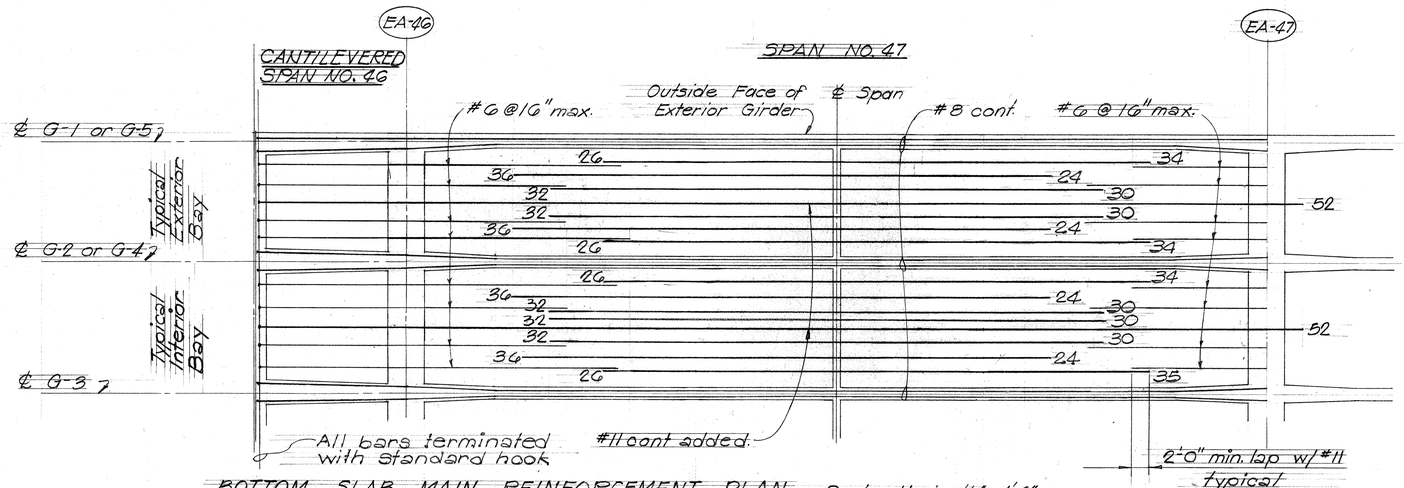
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | No.

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	115	136



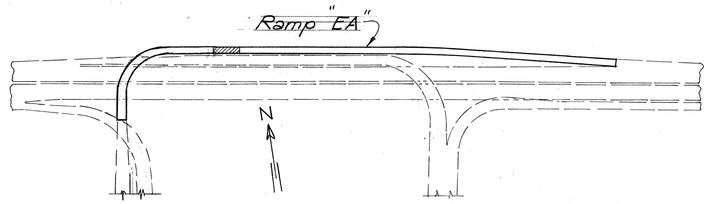
TOP SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/2" = 1'-0"



BOTTOM SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 46 & 47
RAMP "EA"
AIRPORT INTERCHANGE
FA-1 PROJ. NO. I-HI-1(145)16

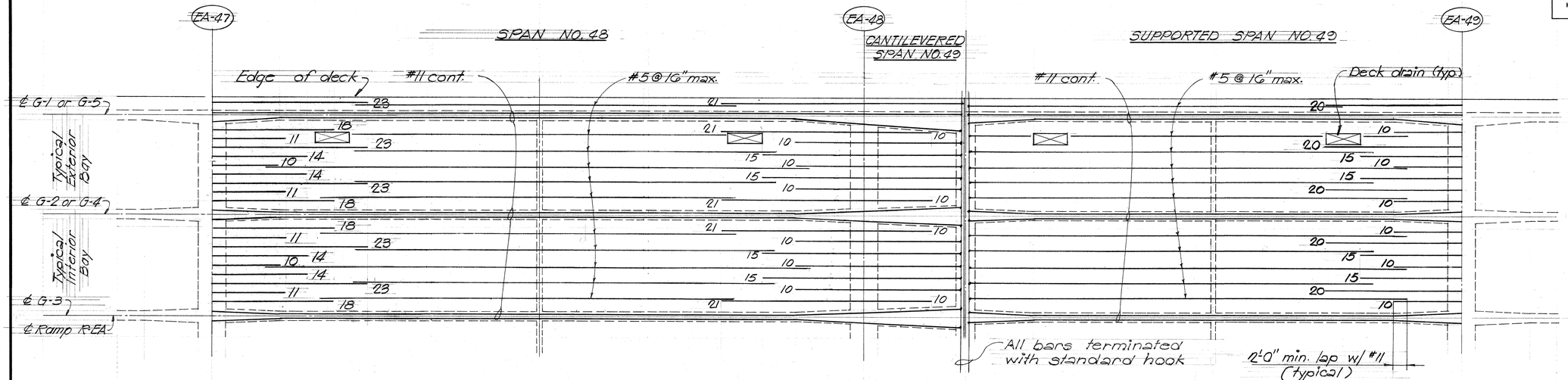
SCALE: As Noted DATE: July 1976

SHEET No. E-58 OF 124 SHEETS

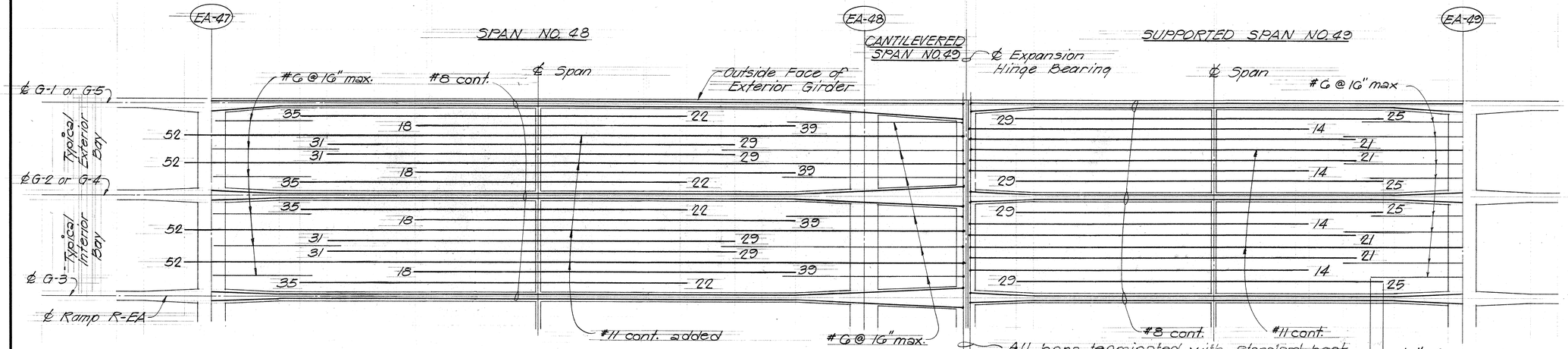
ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | NOTE BOOK | QUANTITIES BY | CHECKED BY | DATE | NO.

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	116	136



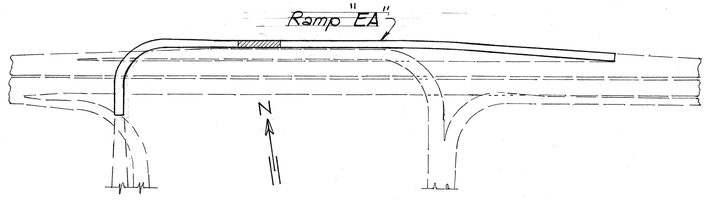
TOP SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"



BOTTOM SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at end of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 48 & 49
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

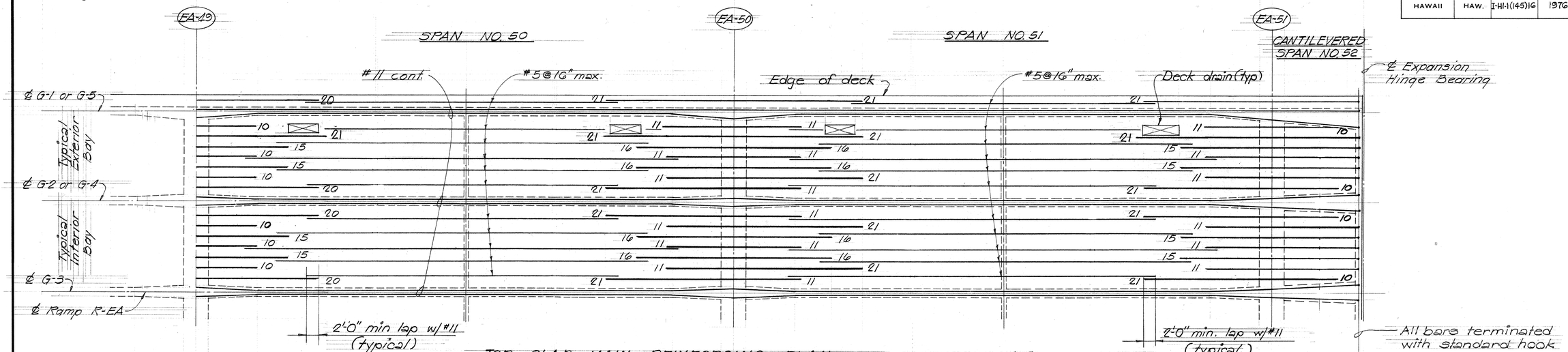
SCALE: AS NOTED DATE: July 1976

SHEET No. E-50 OF 124 SHEETS

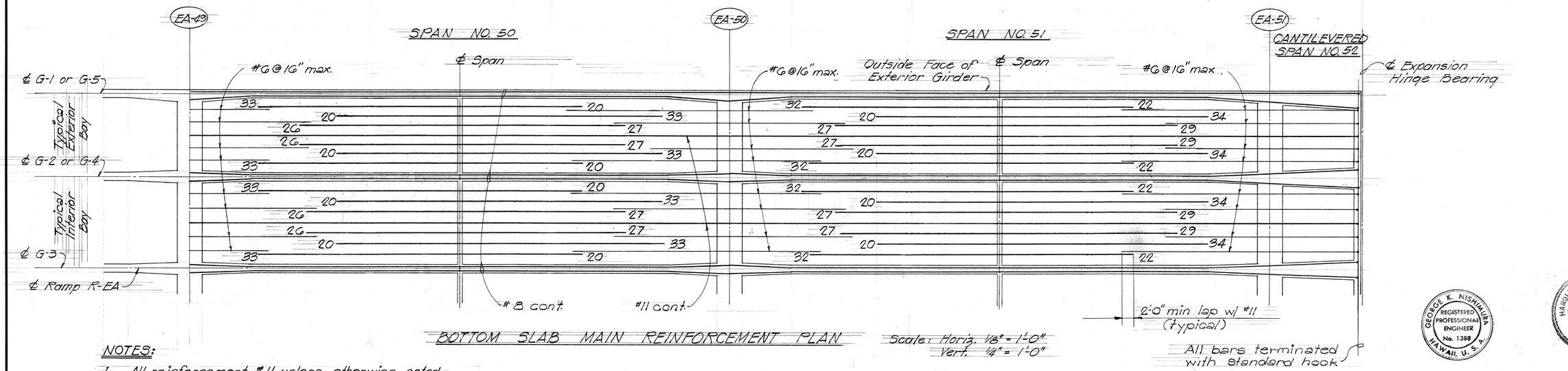
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	TRACED BY	
NO.	DESIGNED BY	
	CHECKED BY	

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	117	136



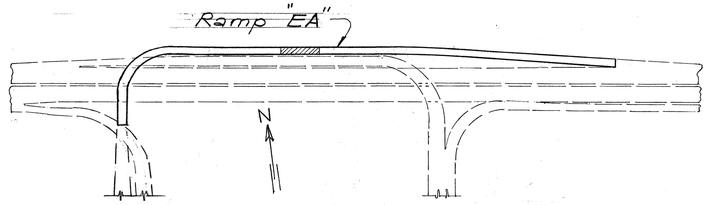
TOP SLAB MAIN REINFORCING PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"



BOTTOM SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKA MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 50, 51 & 52
RAMP "EA"

AIRPORT INTERCHANGE
FA-1 PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE: JULY 1976

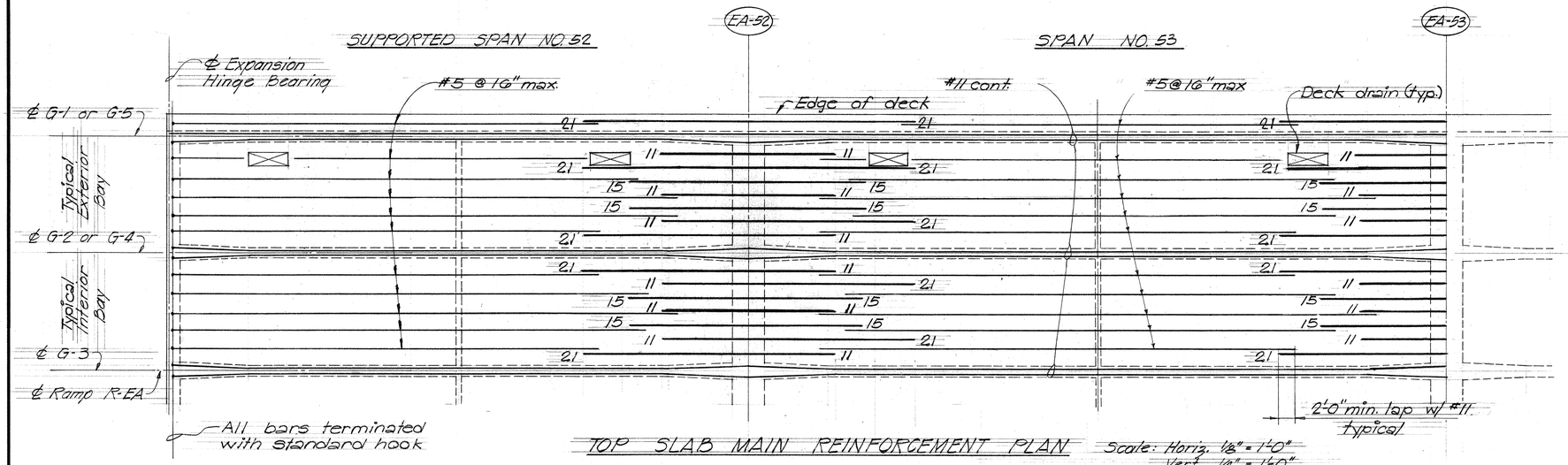
SHEET NO. E-60 OF 124 SHEETS

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

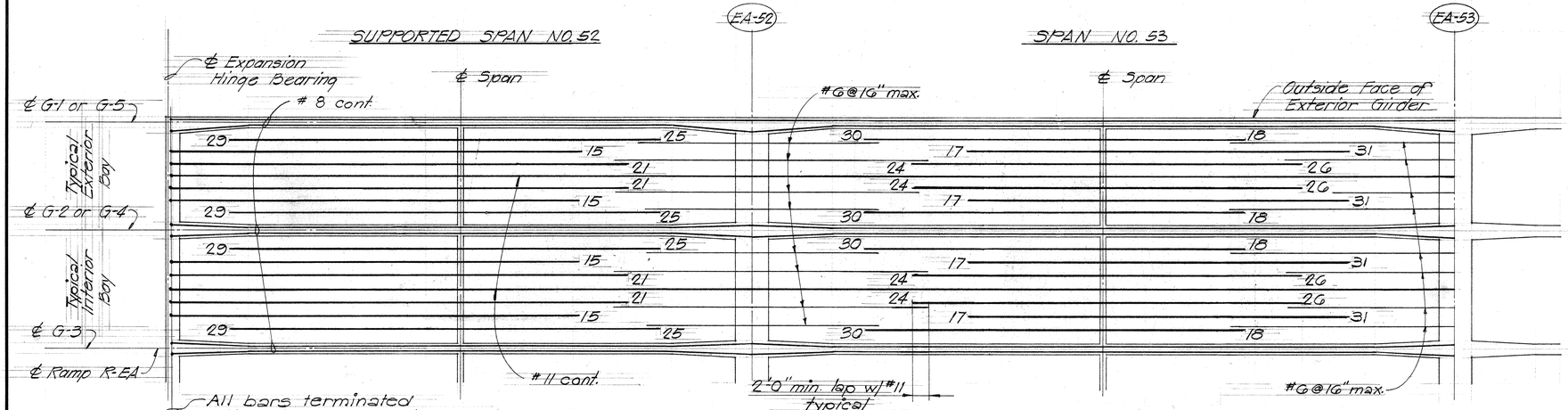
PRINTED ON NO. 1000H CLEARPRINT

117

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	118	136



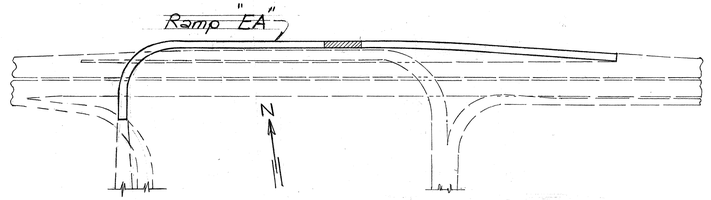
TOP SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"



BOTTOM SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet. from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span. extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NOS. 52 & 53
RAMP "EA"

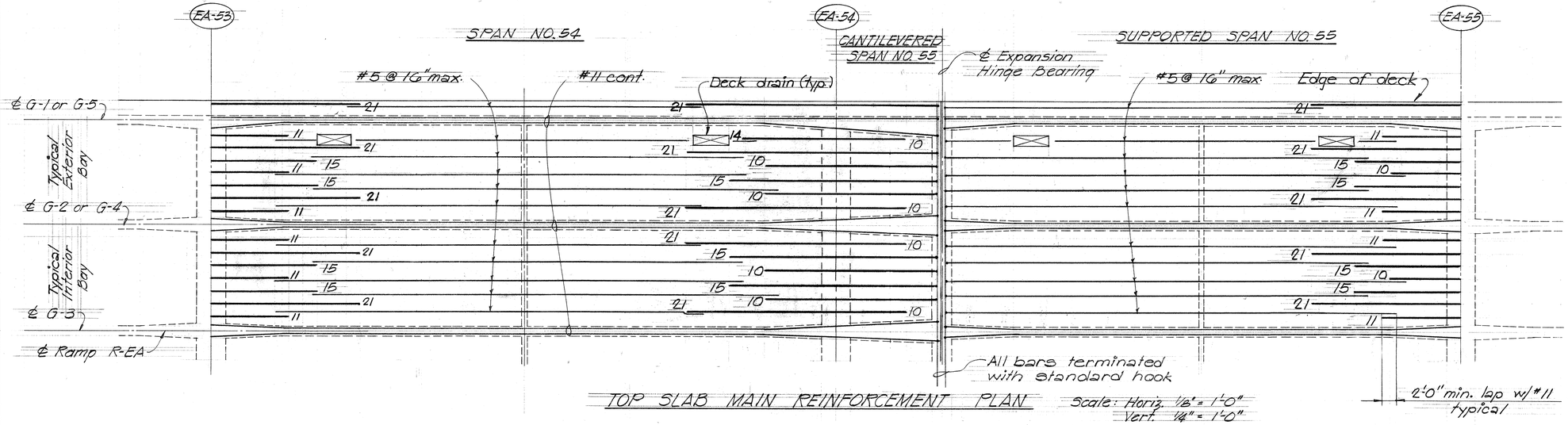
~~AIRPORT INTERCHANGE~~
~~F.A.I. PROJ. NO. I-HI-1-(145)16~~

~~SCALE: AS NOTED~~ ~~DATE: JULY 1976~~

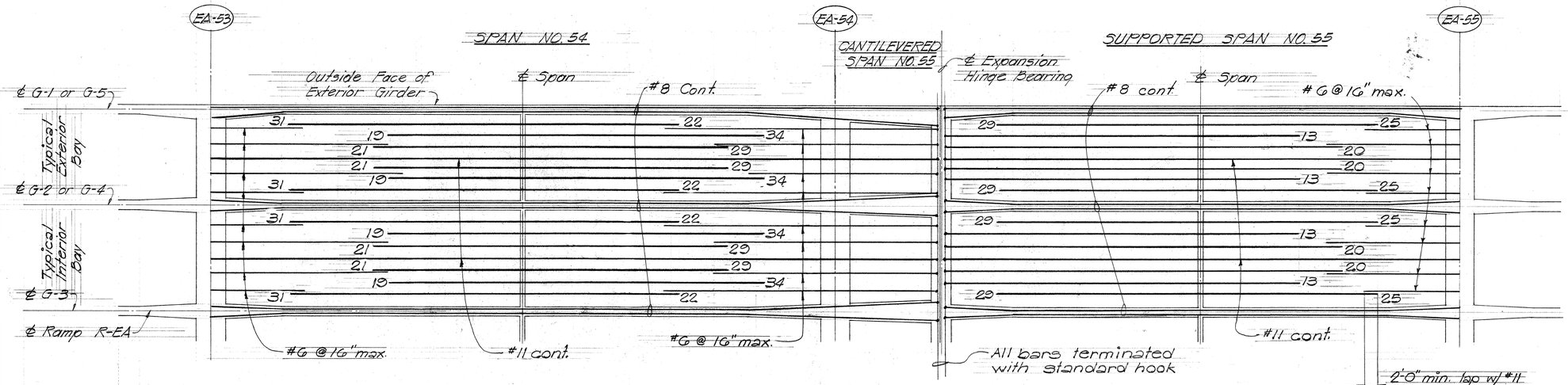
SHEET NO. ~~5~~ 61 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	119	136



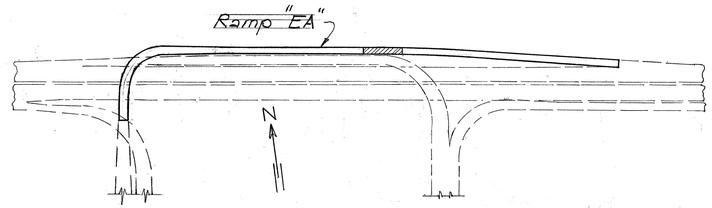
TOP SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"



BOTTOM SLAB MAIN REINFORCEMENT PLAN Scale: Horiz. 1/8" = 1'-0" Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 54 & 55
RAMP "EA"

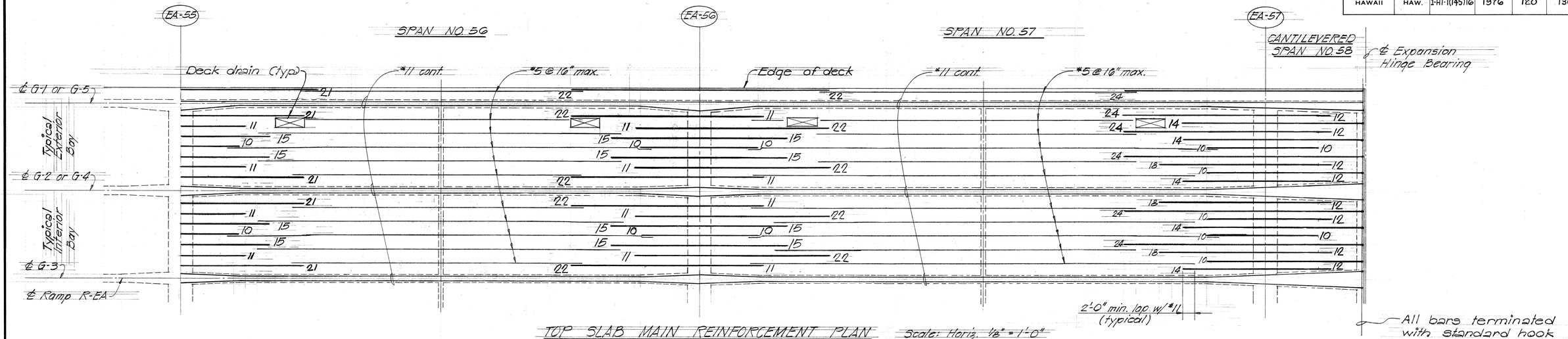
AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE: JULY 1976

SHEET NO. E-62 OF 124 SHEETS

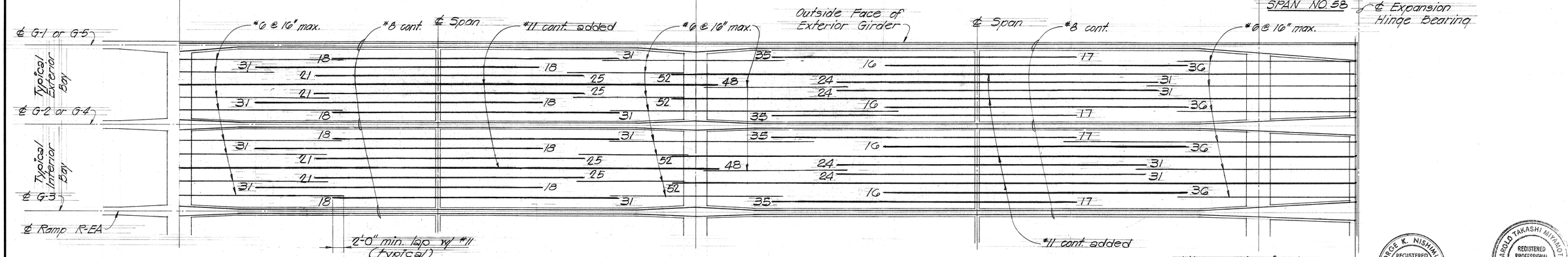
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	120	136



TOP SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

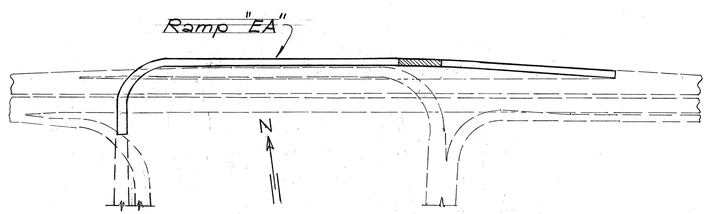


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz 1/8" = 1'-0"
Vert 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 and #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 56, 57 & 58
RAMP "EA"

AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1(145)16

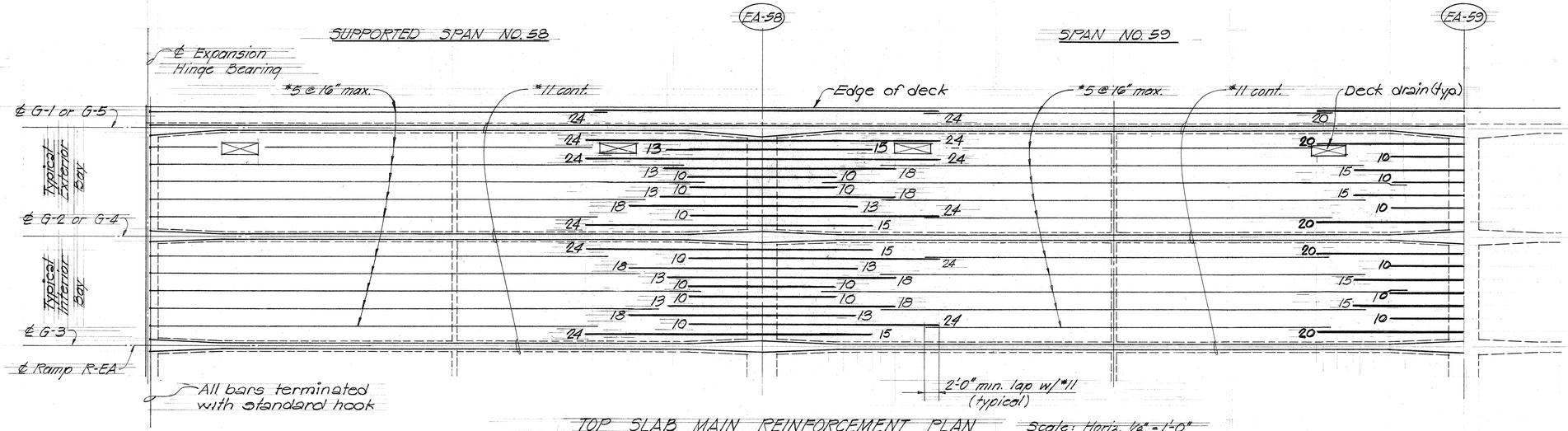
SCALE: As Noted. DATE: July 1976

SHEET NO. E-23 OF 124 SHEETS

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

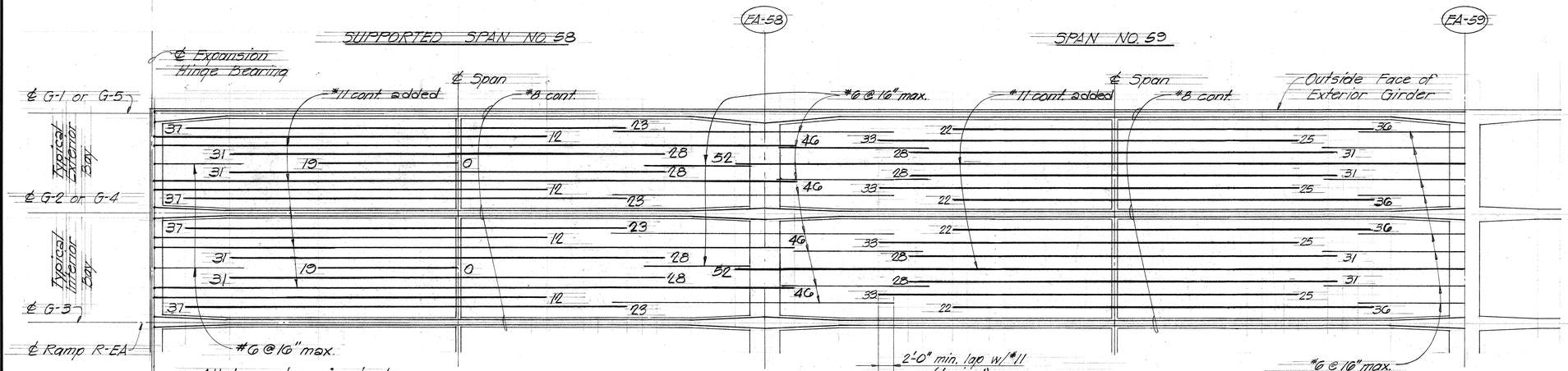
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	121	136



TOP SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

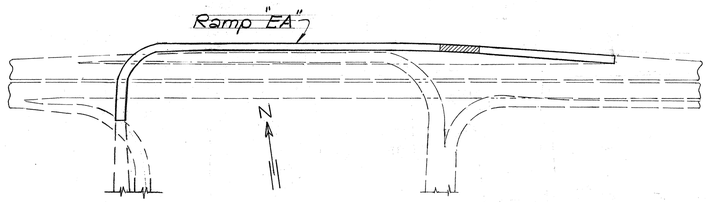


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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HAROLD TAKASHI HIRANDO REGISTERED PROFESSIONAL ENGINEER No. 1516 HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NOS. 58 & 59
RAMP "EA"
AIRPORT INTERCHANGE
FA-I PROJ. NO. I-HI-1(145)16

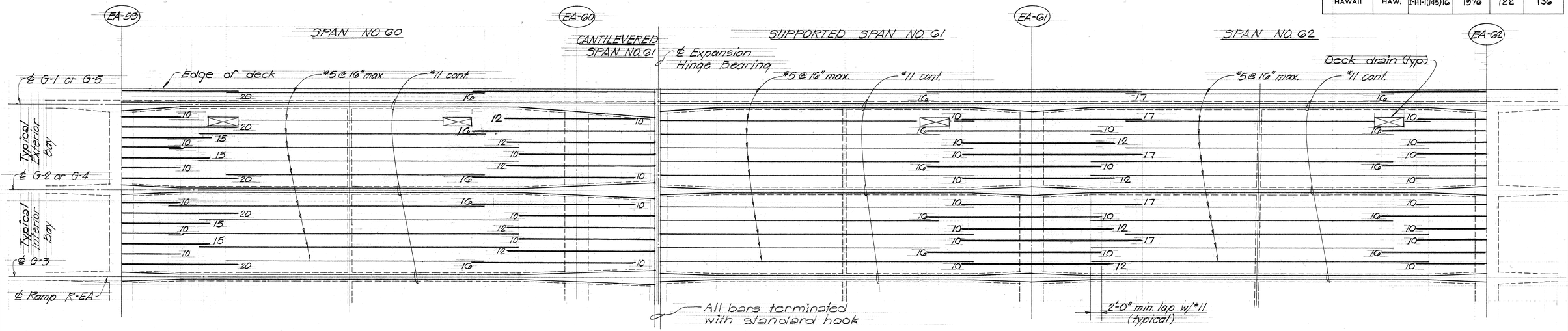
SCALE: AS SHOWN DATE: JULY 1976

SHEET NO. E-24 OF 124 SHEETS

121

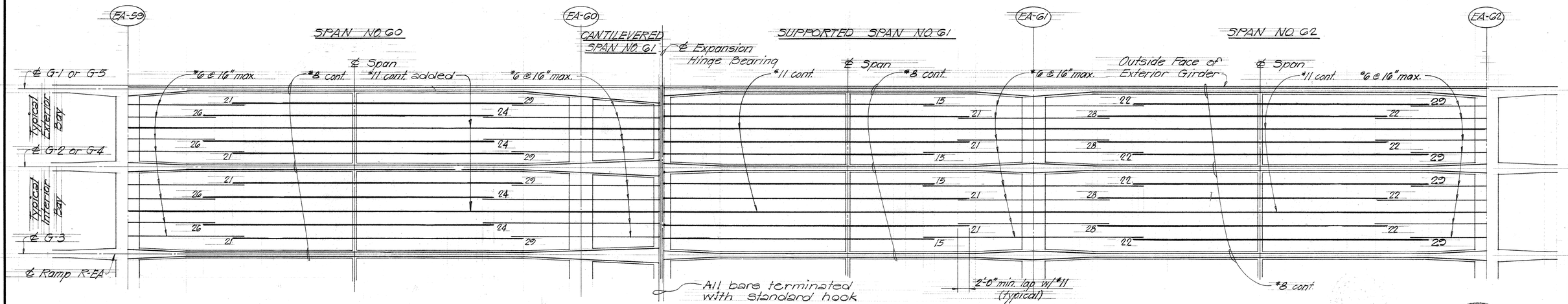
PRINTED ON NO. 1000H CLEARPRINT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-I(145)16	1976	122	136



TOP SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

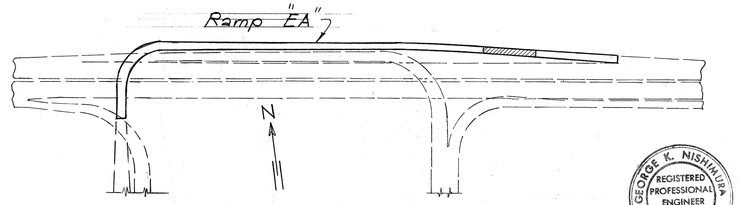


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement *11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
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5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

GEORGE K. NISHIKURA
REGISTERED PROFESSIONAL ENGINEER
No. 1386
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM

SPAN NOS. G0, G1 & G2

RAMP "EA"

AIRPORT INTERCHANGE

FAI. PROJ. NO. I-HI-1(145)16

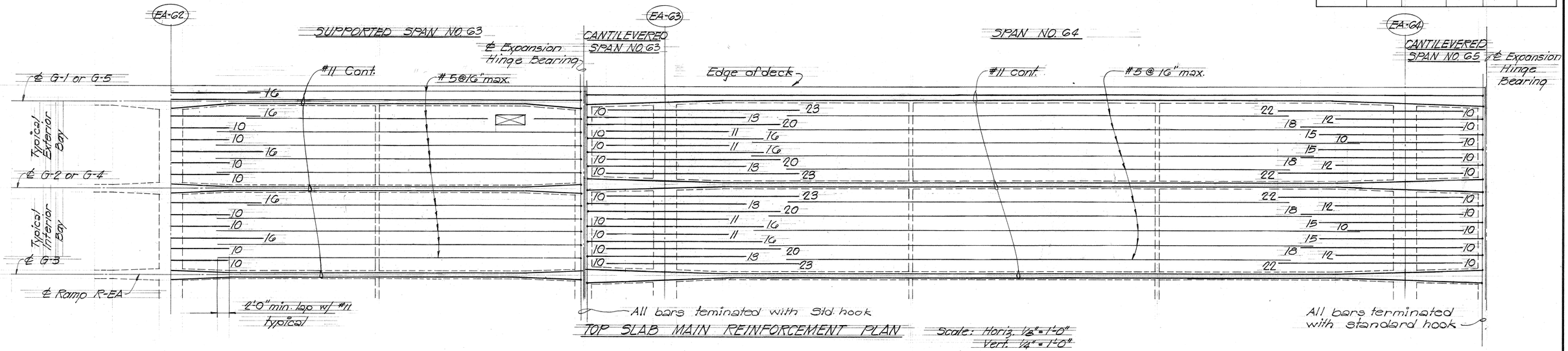
SCALE: AS NOTED DATE: JULY 1976

SHEET NO. E-G30 OF 124 SHEETS

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

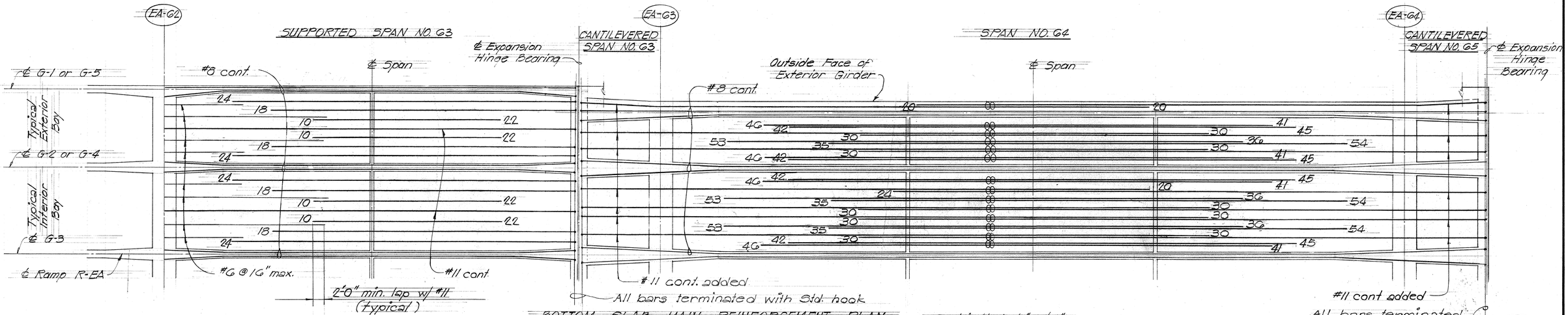
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	123	136



TOP SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8"=1'-0"
Vert. 1/4"=1'-0"

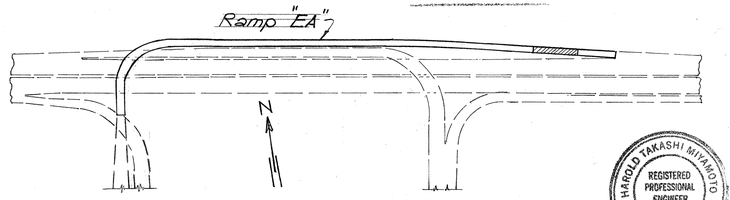


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8"=1'-0"
Vert. 1/4"=1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-25 and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
HAROLD TAKASHI MIYAMOTO
REGISTERED PROFESSIONAL ENGINEER
No. 1514
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
GEORGE K. NISHIMURA
REGISTERED PROFESSIONAL ENGINEER
No. 1388
HAWAII, U.S.A.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. G3, G4 & G5
RAMP "EA"

AIRPORT INTERCHANGE
FA.I. PROJ. NO. I-HI-1 (145) 16

SCALE AS NOTED DATE: JULY 1976

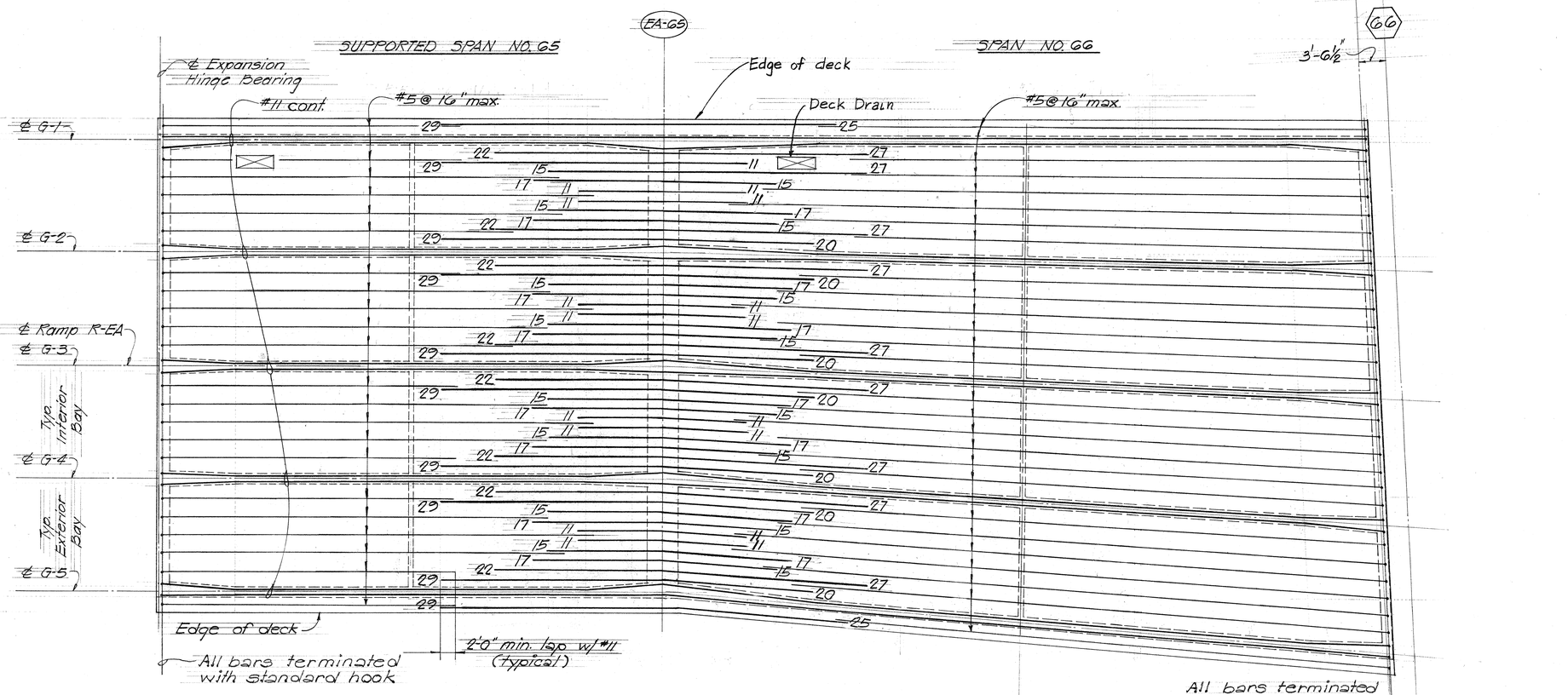
SHEET NO. E-66 OF 124 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	124	136

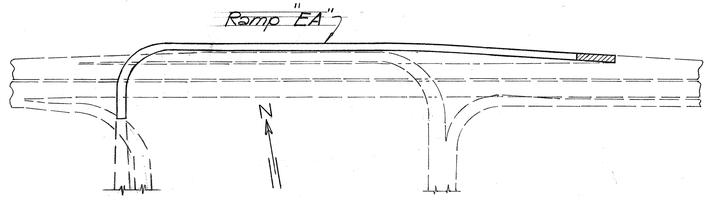


TOP SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. = 1/8" = 1'-0"
Vert. = 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans.
4. For additional slab reinforcing details, See Normal Deck Section Sht E-2C and Std. Details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 65 & 66
RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

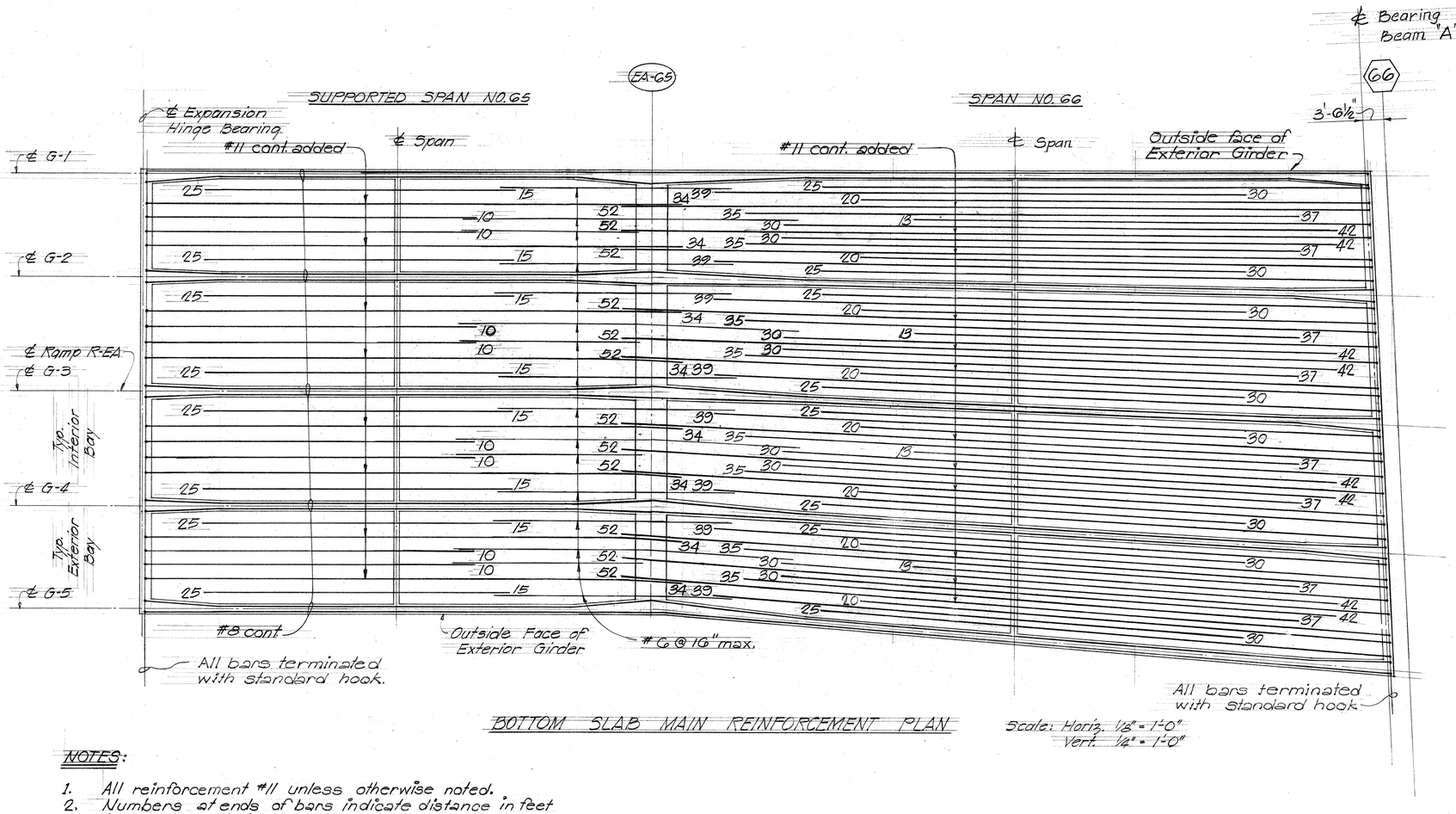
SCALE: As Noted DATE: JULY 1976

SHEET NO. E-67 OF 124 SHEETS

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

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	125	136

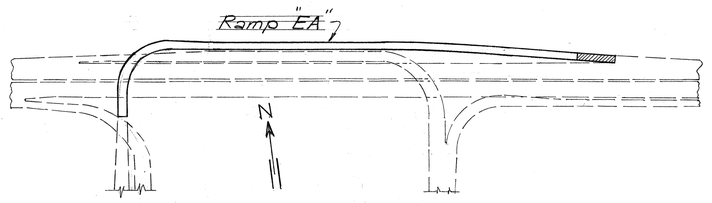


BOTTOM SLAB MAIN REINFORCEMENT PLAN

Scale: Horiz. 1/8" = 1'-0"
Vert. 1/4" = 1'-0"

NOTES:

1. All reinforcement #11 unless otherwise noted.
2. Numbers at ends of bars indicate distance in feet from adjacent ℄ pier for top reinforcement and ℄ span for bottom reinforcement.
3. Continuous added are continuous bars from one span extended partially into the adjacent span or spans
4. For additional slab reinforcing details, See Normal Deck Section Sht. E-26 and Std. details Shts. S-1, S-2, S-3 & S-4
5. All #5 & #6 bars shall be extended and lapped with the adjacent #11 bars as shown.
6. All bars to follow curvature of Girders where occurs. (See framing plan for true geometry of deck.)



KEY PLAN

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DECK STEEL PLACEMENT DIAGRAM
SPAN NOS. 65 & 66
RAMP "EA"
AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: As Noted DATE: JULY 1976

SHEET NO. E-68 OF 124 SHEETS

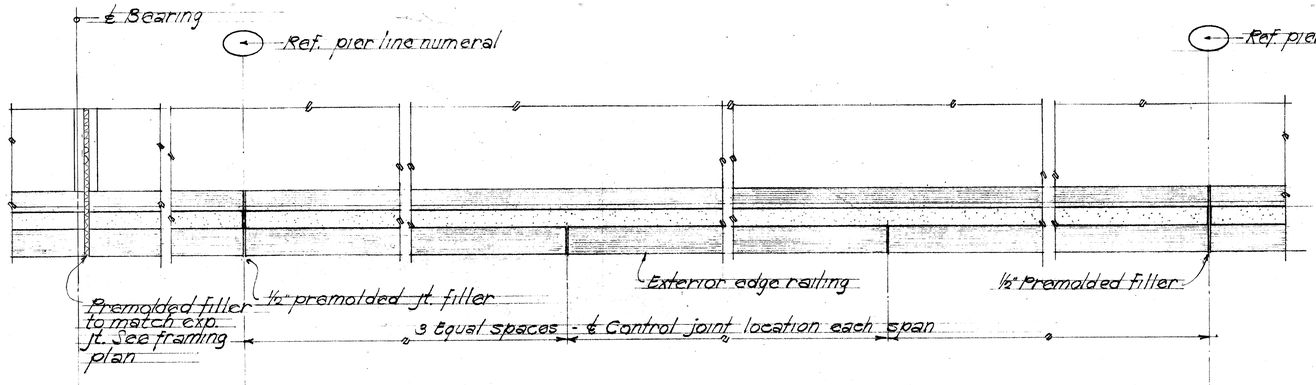
ORIGINAL PLAN
NOTE BOOK
SURVEY PLOTTED BY
DRAWN BY
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DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE
NO.

PRINTED ON NO. 1000H CLEARPRINT

125

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	126	136

AT DECK EXPANSION JOINTS

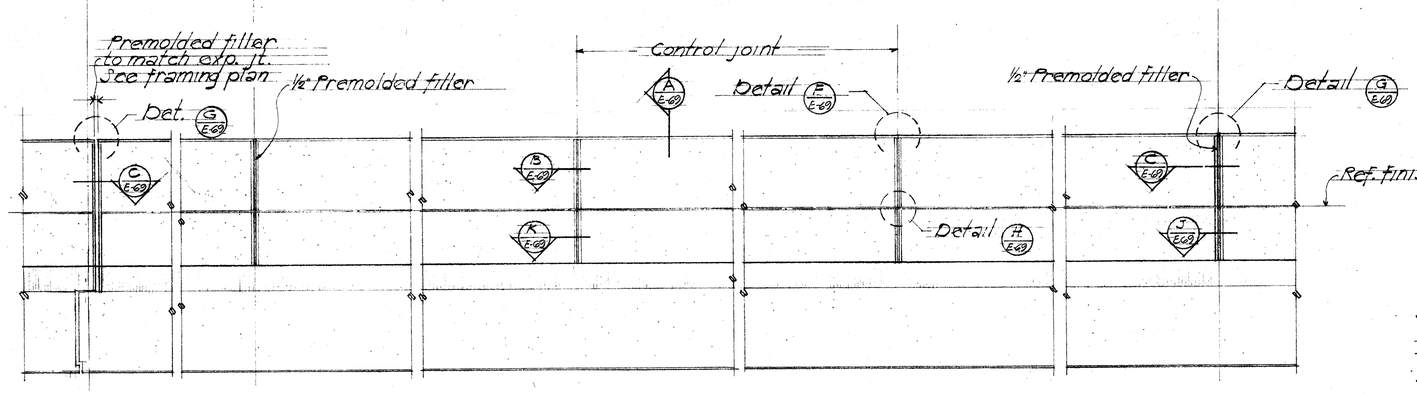


INTERMEDIATE CONTROL JOINTS

CONTINUOUS DECK OVER PIER

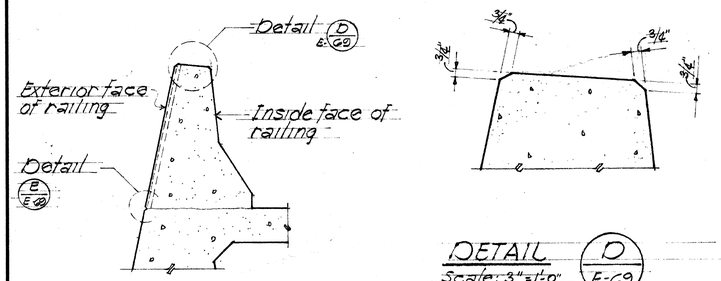
PART PLAN - TYPICAL RAILING

Scale: ⅜" = 1'-0"



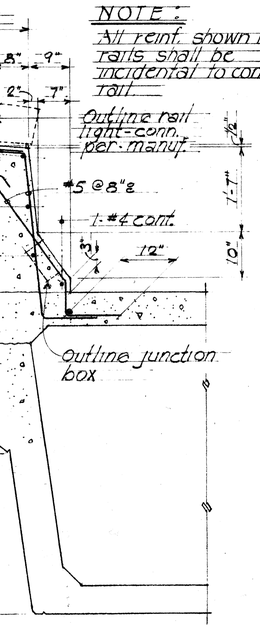
PART EXTERIOR ELEVATION - TYPICAL RAILING

Scale: ⅜" = 1'-0"



TYPICAL RAILING SECTION

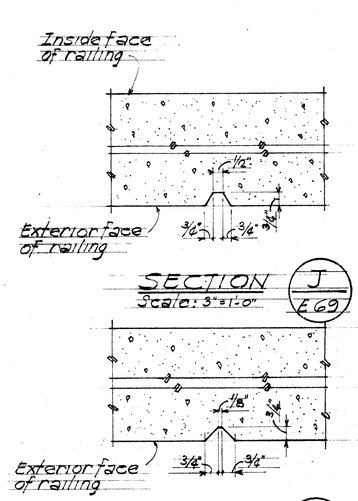
Scale: ¾" = 1'-0"



NOTE: All reinf. shown in rails shall be incidental to conc. rail.

TYPICAL SECTION A E-69

Scale ¾" = 1'-0"

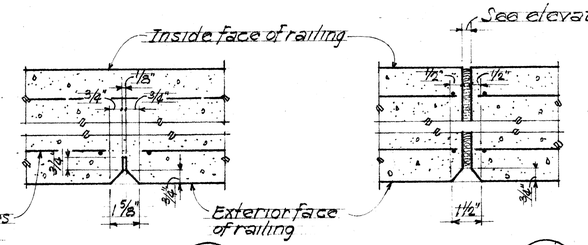


SECTION J E-69

Scale: 3" = 1'-0"

SECTION K E-69

Scale: 3" = 1'-0"

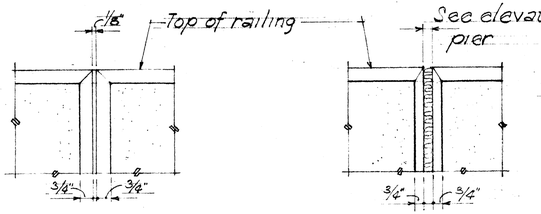


SECTION B E-69

Scale: 3" = 1'-0"

SECTION C E-69

Scale 3" = 1'-0"



DETAIL D E-69

Scale: 3" = 1'-0"

DETAIL E E-69

Scale: 3" = 1'-0"

DETAIL F E-69

Scale: 3" = 1'-0"

DETAIL G E-69

Scale: 3" = 1'-0"

DETAIL H E-69

Scale: 3" = 1'-0"

TYPICAL CONCRETE RAILING FASCIA DETAILS & FINISH

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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HAROLD TAKASHI MIYAMOTO REGISTERED PROFESSIONAL ENGINEER No. 1514 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL CONCRETE RAIL DETAILS

RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

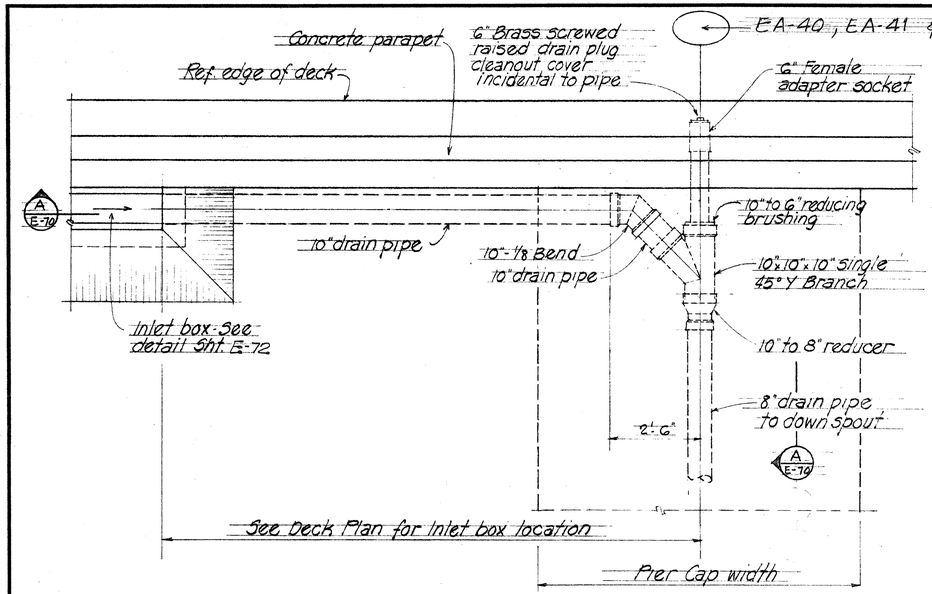
SCALE: AS NOTED DATE: JULY 1976

SHEET NO. E-69 OF 124 SHEETS

ORIGINAL PLAN		DATE
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	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
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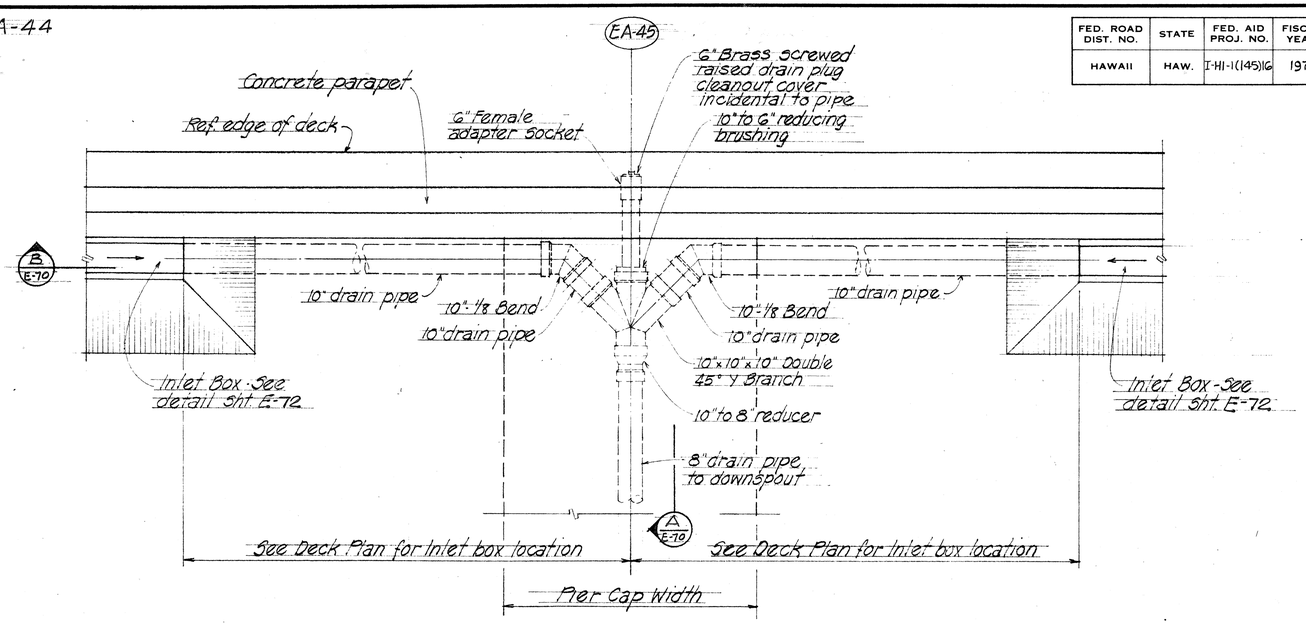
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	127	136



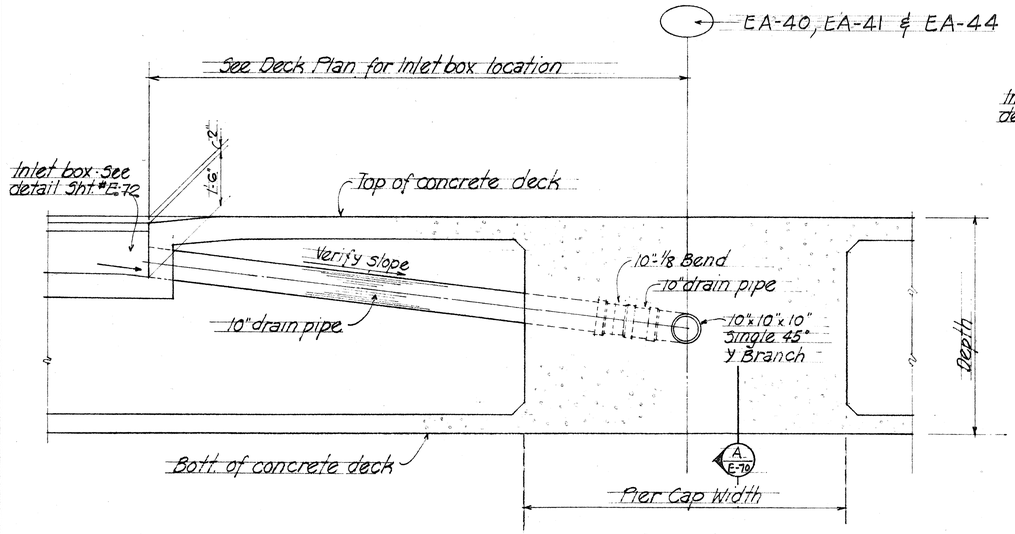
PLAN ~ SINGLE INLET BOX & DRAIN PIPE TYPE D_1

Scale 1/2"=1'-0"



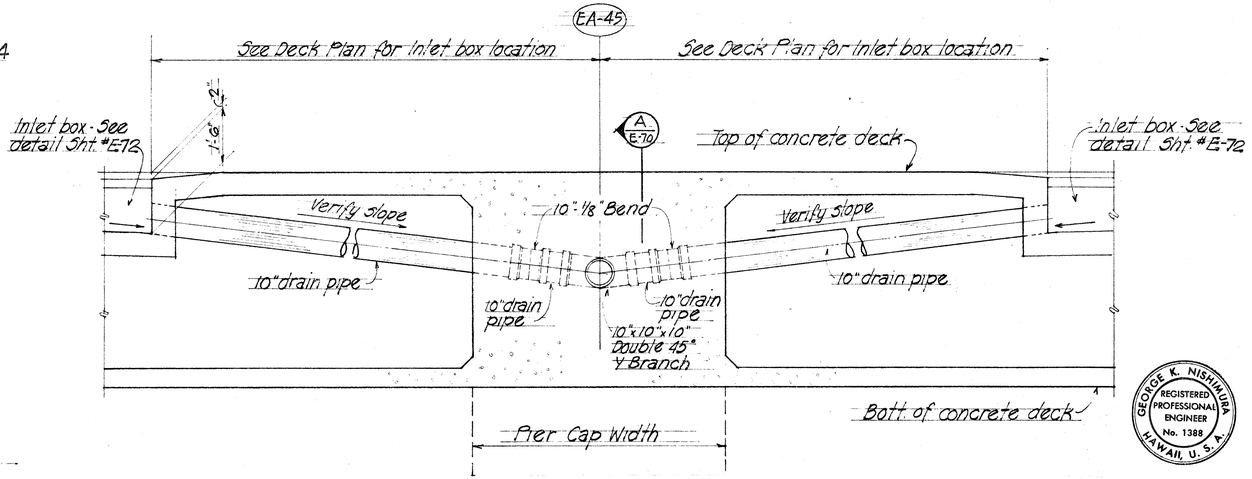
PLAN ~ DOUBLE INLET BOX & DRAIN PIPE TYPE D_2

Scale 1/2"=1'-0"



SECTION A E-70

Scale 1/2"=1'-0"



SECTION B E-70

Scale 1/2"=1'-0"

NOTE:

For drain pipe notes - see sht # E-71

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INLET BOX & DRAIN PIPE
AT PIERS EA-40, EA-41, EA-44 & EA-45
RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO I-HI-1 (145) 16
SCALE: AS NOTED DATE: JULY, 1976

SHEET NO. E-70 OF 124 SHEETS

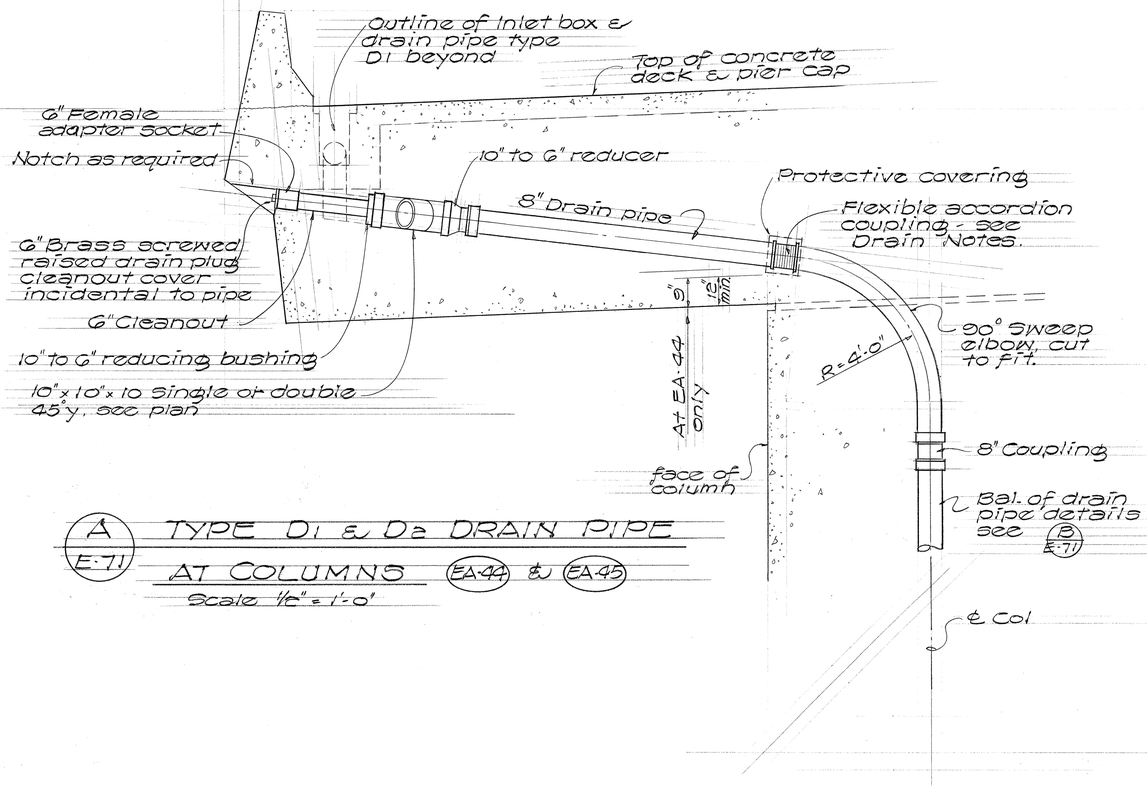
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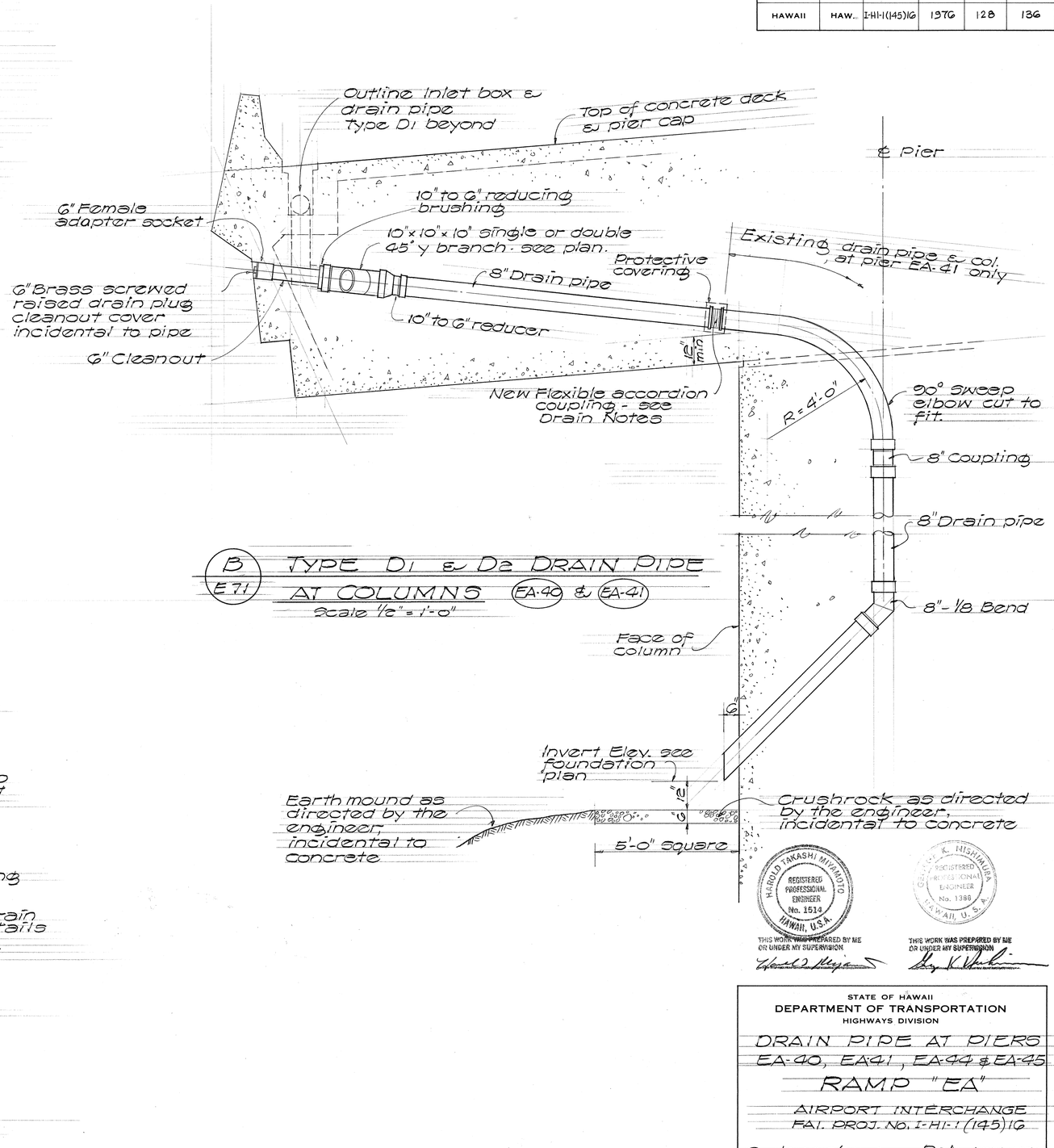
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	128	136

DRAIN PIPE NOTES :

1. All pipes & fittings to be PVC pipe. All fittings shall be fabricated from schedule 40 pipes. These may be non-pressure fittings suitable for intermittent service of 20 psi. Except otherwise noted for threaded ends, socket ends of fittings shall be fabricated for cement jointed
2. Refer to specification & special provisions for product specification.
3. Flexible accordion coupling shall be flexible accordion tube reinforced neoprene, expansion coupling with 1" wide stainless steel heavy duty "T" bolt clamps, incidental to pipe. Submit manufacturer's brochure to the engineer for approval.
4. All PVC drain pipes, downspouts, fitting and flexible accordion couplings shall be incidental to concrete and will not be paid for separately.
5. Provide pipe support @ 4'-0" max. o.c. Type of support shall be selected by the manufacturer with the approval of the engineer.
6. Drain pipes shall be placed to clear the exterior girders and the horizontal restrainer cables.
7. All slopes on drain pipes shall be measured from a horizontal plane.



A E-71 TYPE D1 & D2 DRAIN PIPE AT COLUMNS EA-44 & EA-45
Scale 1/2" = 1'-0"



B E-71 TYPE D1 & D2 DRAIN PIPE AT COLUMNS EA-40 & EA-41
Scale 1/2" = 1'-0"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAIN PIPE AT PIERS EA-40, EA41, EA-44 & EA-45 RAMP "EA"

AIRPORT INTERCHANGE
FAI. PROJ. NO. I-HI-1(145)16

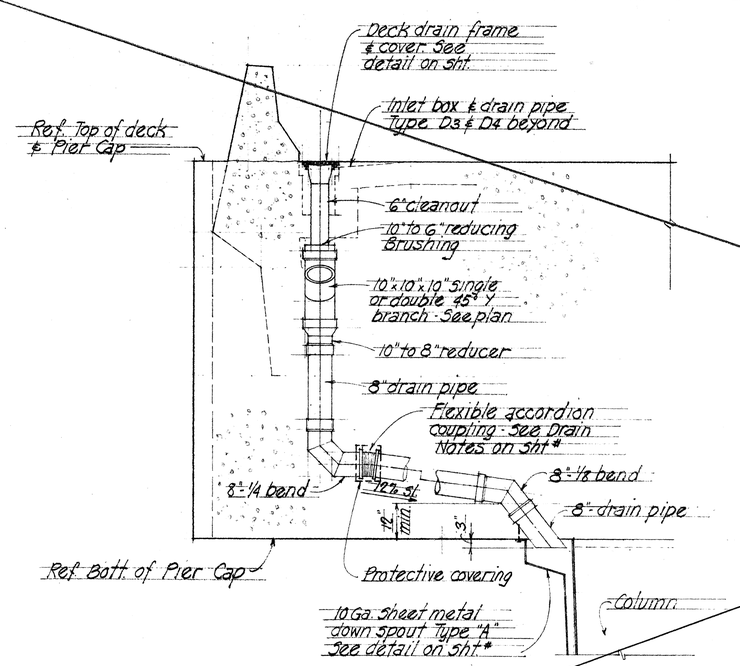
Scale as shown Date JULY, 1976

SHEET NO E-71 OF 124 SHEETS

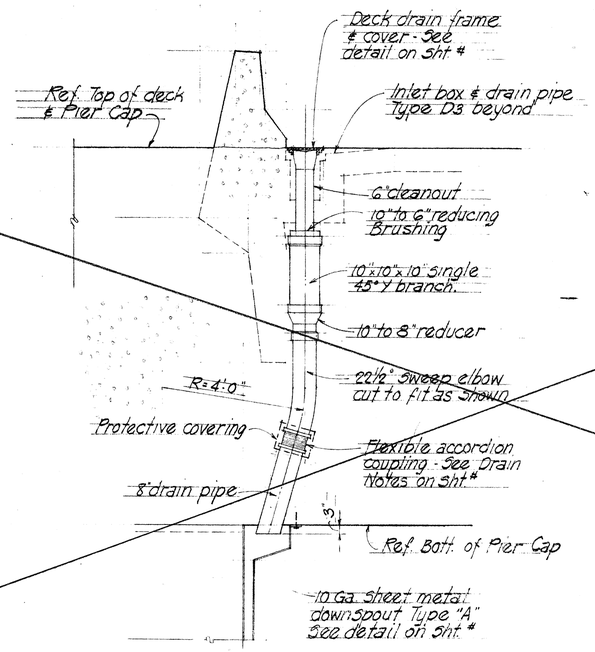
ORIGINAL PLAN | NOTE BOOK | No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

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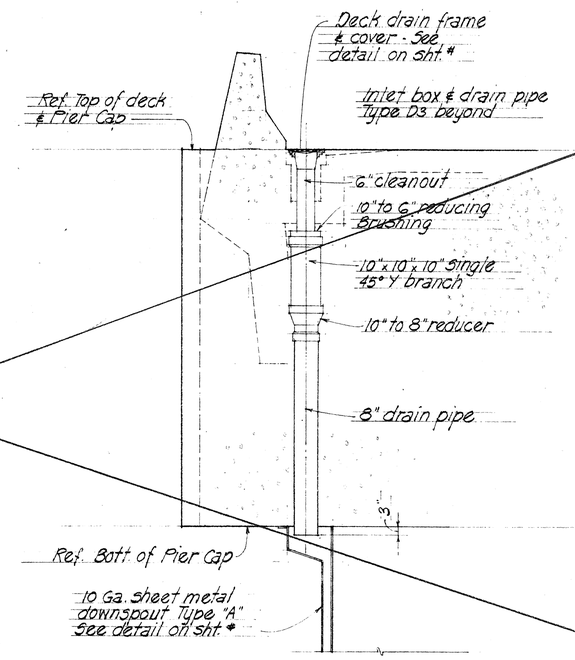
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	129	136



A TYPE D3 & D4 DRAIN PIPE @ COLUMNS (21A-2) (26A-2) & (29A-1)
Scale 1/2"=1'-0"



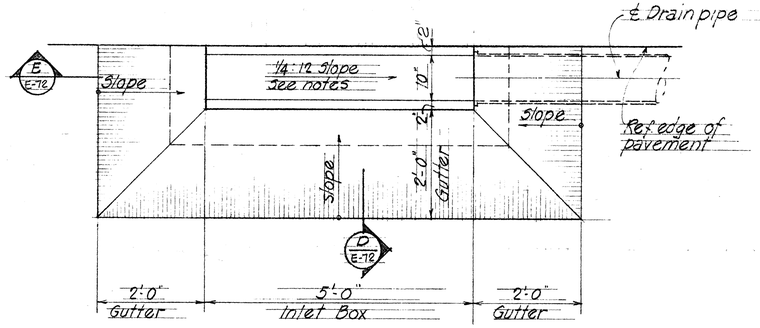
B TYPE D3 DRAIN PIPE @ COLUMN (28A-1)
Scale 1/2"=1'-0"



C TYPE D3 DRAIN PIPE @ COLUMN (30A-1)
Scale 1/2"=1'-0"

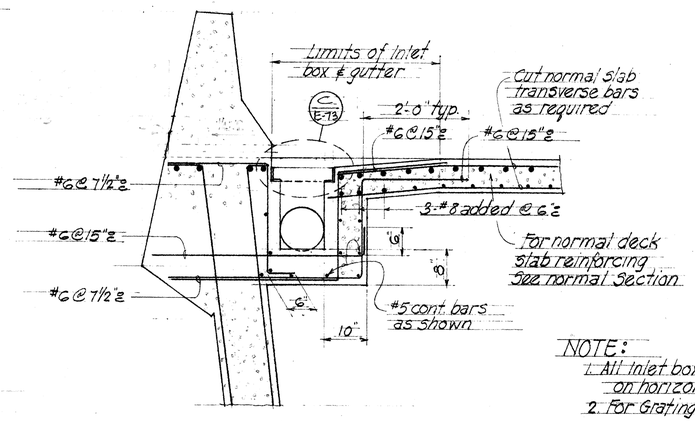
NOTE:
Bend Exterior girder reinforcing to clear drain pipe as required.
For drain pipe notes - see sht #

TYPICAL SECTIONS SHOWING DOWNSPOUT Scale as noted



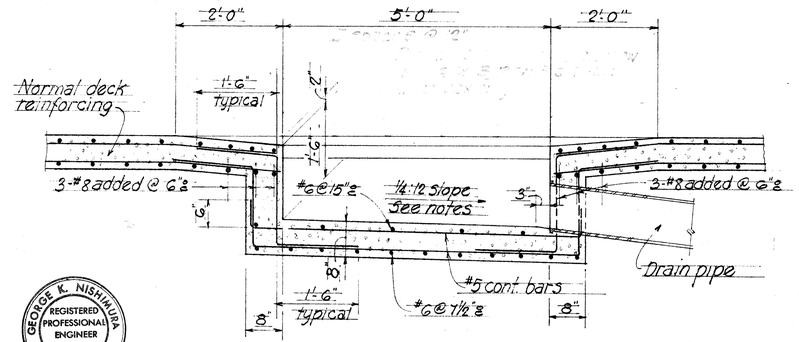
For Plan showing added reinforcing @ inlet box - see detail on sht # E-73

TYPICAL INLET BOX TYPE D1 & D2
Scale 3/4"=1'-0"



SECTION D
Scale 3/4"=1'-0"
E-72

NOTE:
1. All inlet box slope shall be measured on horizontal plane.
2. For Grating & Frame details - see sht # E-74



SECTION E
Scale 3/4"=1'-0"
E-72

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL INLET BOX ADJACENT TO PIERS EA-40, EA-41, EA-44 & EA-45

RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO I-HI-1 (145) 16
SCALE: AS NOTED DATE: JULY, 1976

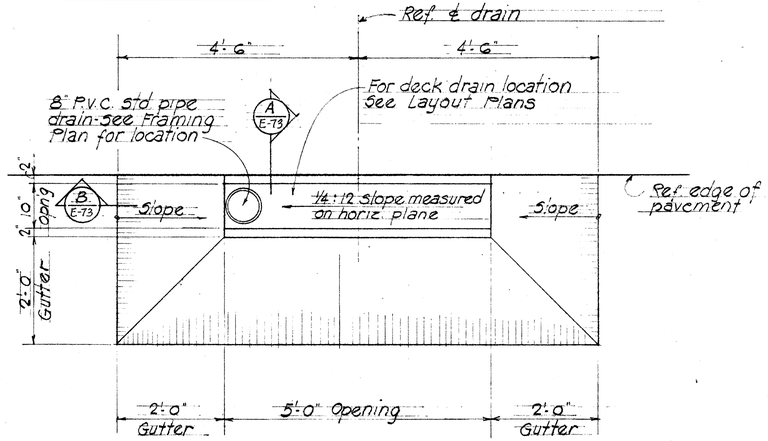
SHEET No. E-72 OF 124 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	
	TRACED BY	
NOTE BOOK	DESIGNED BY	
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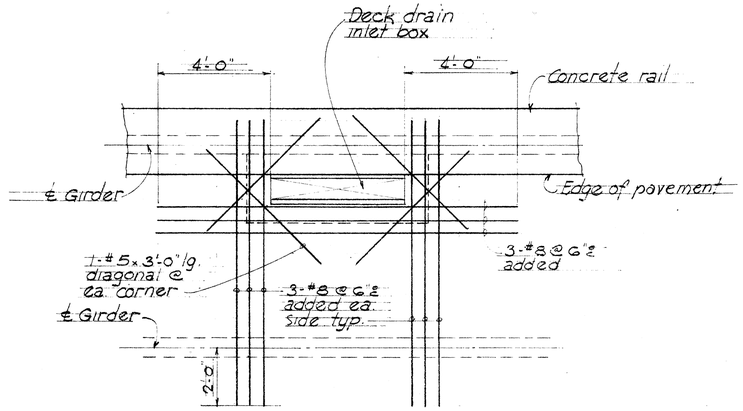
129

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	130	136



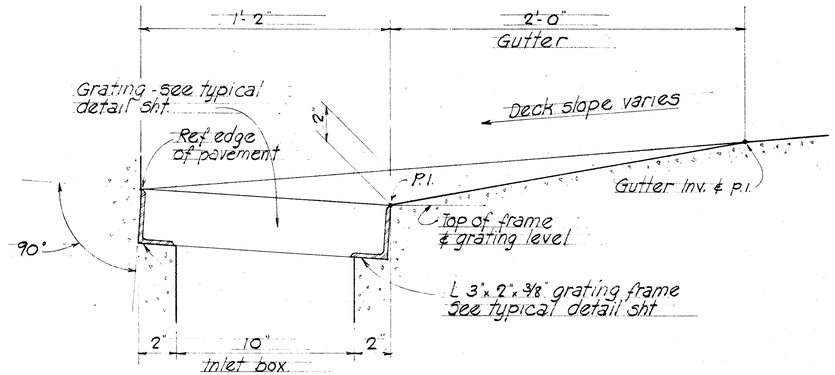
PLAN - TYPICAL DECK DRAIN INLET BOX

Scale 3/4"=1'-0"



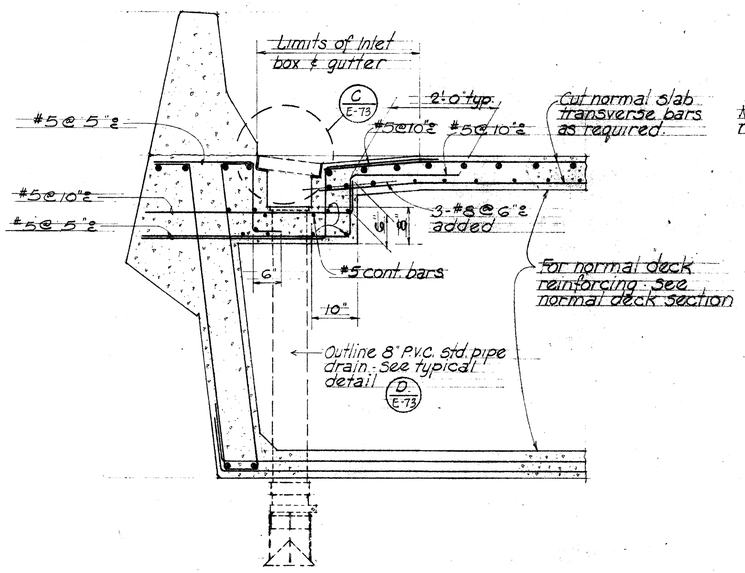
PLAN - SHOWING ADDED REINFORCING @ DECK DRAIN INLET BOX

Scale 3/4"=1'-0"



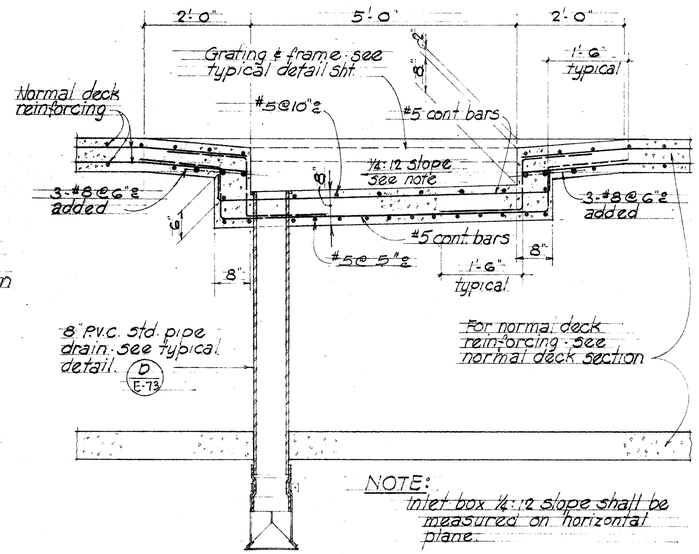
C E-73 TYPICAL INLET BOX & GUTTER DETAIL

Scale 3"=1'-0"



SECTION 6'-0" DECK A E-73

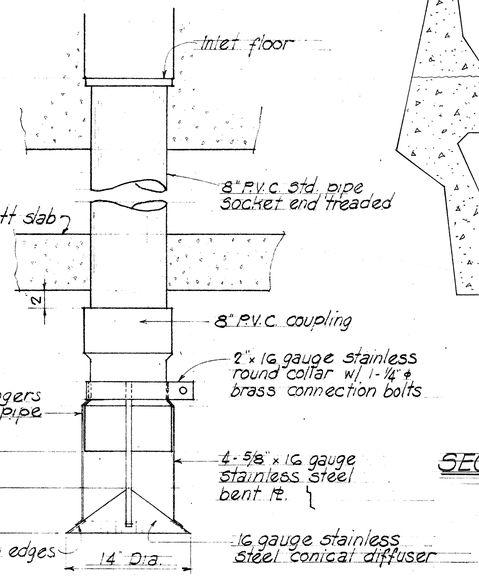
Scale 3/4"=1'-0"



NOTE:
Inlet box 1¼:12 slope shall be measured on horizontal plane.

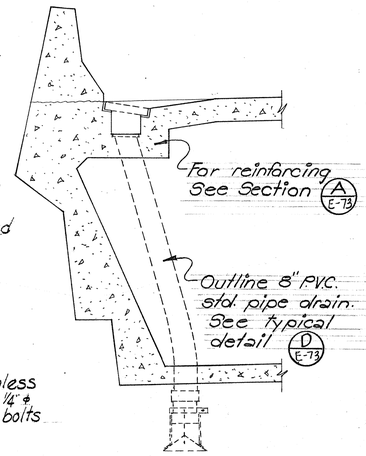
SECTION B E-73

Scale 3/4"=1'-0"



D E-73 TYPICAL DRAIN PIPE & DIFFUSER DETAIL

Scale 1½"=1'-0"



SECTION - 8'-0 DECK E E-73

Scale: 1½"=1'-0"

NOTE:
1. For deck drain location - see Deck Layout Plans.
2. For Grating and frame details - see sht. #E-74
3. All drain pipe, diffuser, hangers, grating & frame shall be incedental to concrete.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DECK DRAIN DETAIL

RAMP "EA"

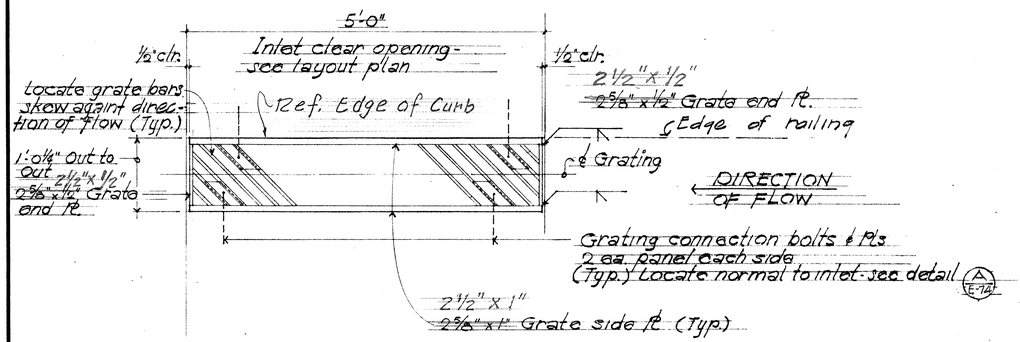
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F.A.I. PROJ. NO. I-HI-1(145)16
SCALE AS NOTED DATE JULY, 1976

SHEET NO. E-73 OF 124 SHEETS

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

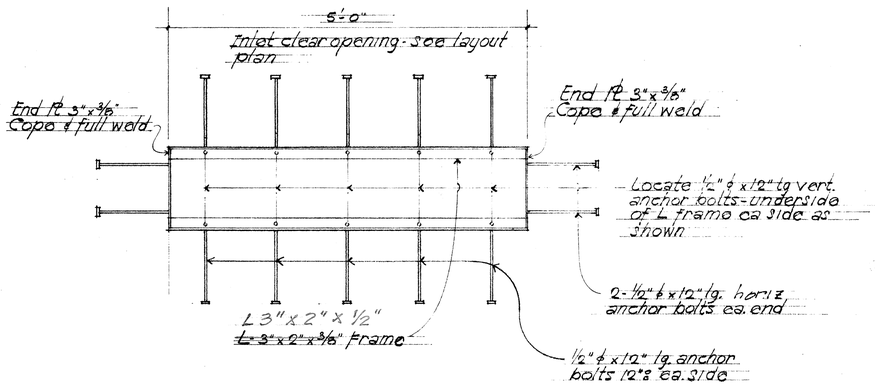
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	131	136



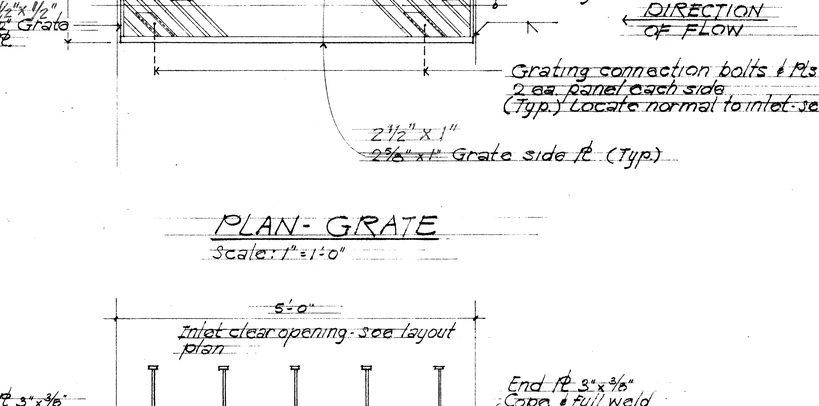
PLAN - GRATE

Scale: 1" = 1'-0"



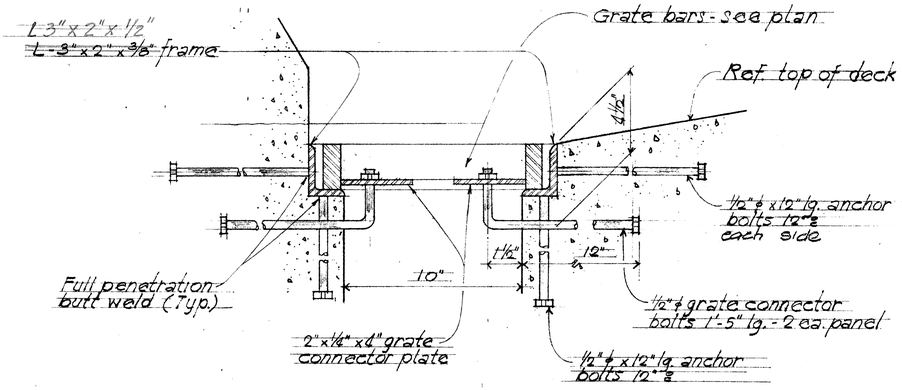
PLAN - GRATE FRAME

Scale: 1" = 1'-0"



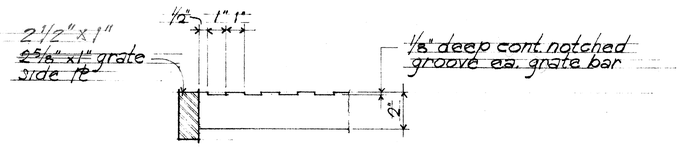
A / E-74 TYPICAL GRATE CONNECTION DETAIL

Scale: Half scale



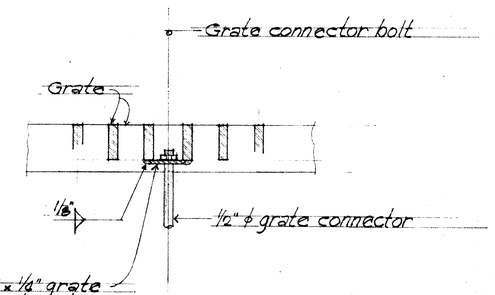
B / E-74 TYPICAL SECTION (Grate & Frame Assemblage)

Scale 3" = 1'-0"



GRATE BAR DETAIL

Scale: 3" = 1'-0"



C / E-74 SECTION

Scale: 3" = 1'-0"

NOTES:

1. Grate frames, bolts etc. shall be hot dipped galvanized after fabrication. See special provisions
2. Grating and frame shall be incidental to concrete.

GEORGE K. NISHIMURA REGISTERED PROFESSIONAL ENGINEER No. 1388 HAWAII, U.S.A.

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ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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No.	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYP. GRATING & FRAME DETAILS

RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1 (145) 16

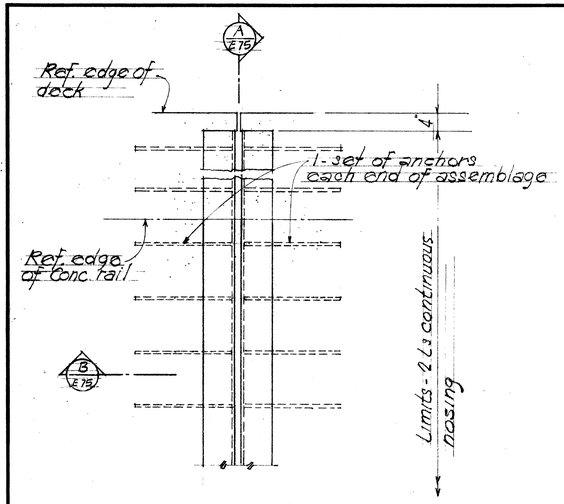
SCALE: AS NOTED DATE JULY, 1976

SHEET NO. E-74 OF 124 SHEETS

PRINTED ON NO. 1000H CLEARPRINT

131 (REV.)

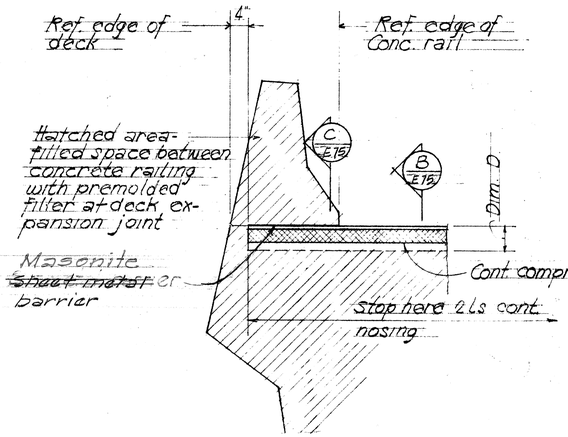
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HH-(145)16	1976	132	136



RADIAL OR NORMAL

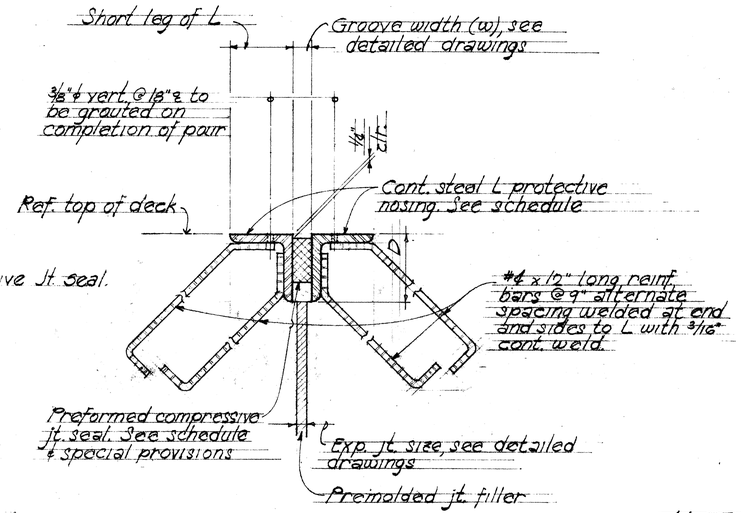
PLAN TRANSVERSE DECK EXPANSION JOINT

Scale: 1" = 1'-0"



TYPICAL ELEVATION (A / E-75)

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



AT STEEL ANGLE PROTECTIVE NOSING

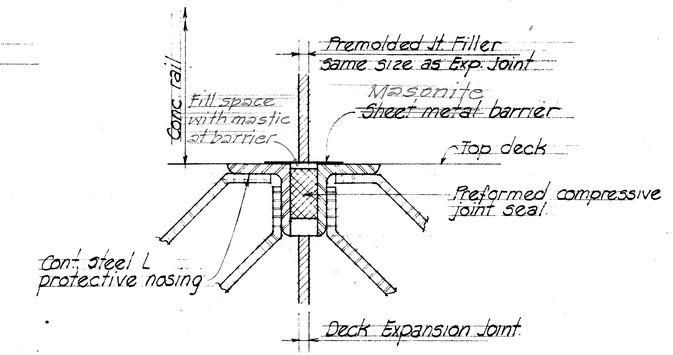
TYPICAL SECTION (B / E-75)

Scale: 3" = 1'-0"

NOTE:

Steel angles protective nosing assembly shall be hot dipped galvanized after fabrication.

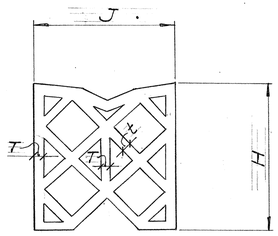
Steel angle protective nosing assembly and joint sealer incidental to concrete.



SECTION (C / E-75)

Scale 3" = 1'-0"

Joint seal type	Exp. joint size	Steel angle protective nosing	Groove size during construction @ 70°F W	Groove size during construction @ 70°F D	Minimum groove size during installation W	Minimum groove size during installation D	Joint seal dimensions and tolerances: type	J	H	T	t	105% movement
(1)	3/4"	5" x 3 1/2" x 1/2"	2"	5"	2.25	5"	A	3 1/2" +1/4" -0	3 1/2" ±3/16"	3 1/16" +3/64"	1 1/8" +3/64" -1/64"	1.649
(2)	1"	5" x 3 1/2" x 1/2"	2"	5"	2.25	5"	A	3 1/2" +1/4" -0	3 1/2" ±3/16"	3 1/16" +3/64" -1/64"	1 1/8" +3/64" -1/64"	1.649
(3)	3/4" ~~5/8"~~	5" x 3 1/2" x 1/2"	2"	5"	2.25	5"	A	3 1/2" +1/4" -0	3 1/2" ±3/16"	3 1/16" +3/64" -1/64"	1 1/8" +3/64" -1/64"	1.649
(4)	3/4" ~~5/8"~~	4" x 3 1/2" x 1/2"	7/8"	4"	1.00	4"	A	2" +3/16" -0	2 1/16" ±1/8"	1/8" +1/32" -1/64"	3/32" +1/32" -1/64"	1.072



TYPE "A"

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL EXPANSION JOINT DETAILS

RAMP "EA"

AIRPORT INTERCHANGE
F.A.I. PROJ. NO. I-HI-1(145)16

SCALE: AS NOTED DATE July 1976

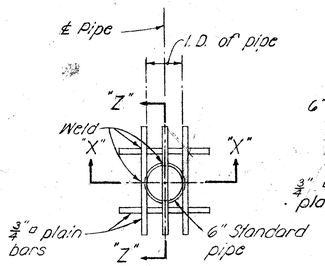
SHEET No. E-75 OF 124 SHEETS

ORIGINAL PLAN | NOTE BOOK | No.

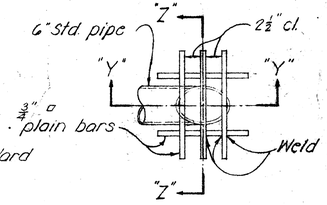
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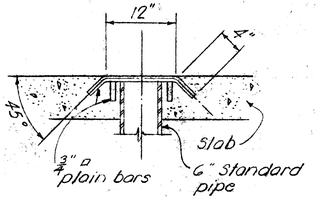
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HAWAII	HAW.	I-HI-1(45)16	1976	133	136



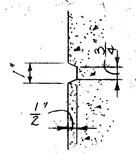
PLAN



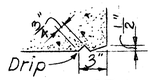
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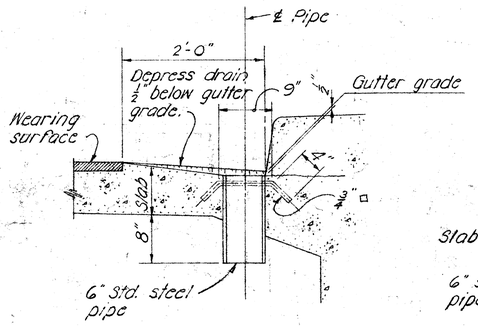
SECTION "Z-Z"



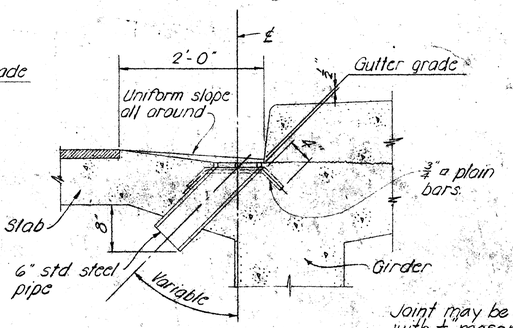
TYPICAL CONCRETE GROOVE DETAIL



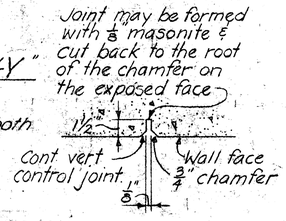
DRIP DETAIL



SECTION "X-X"



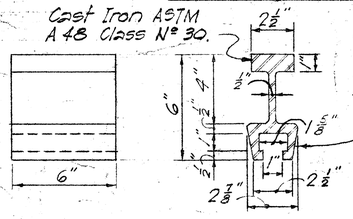
SECTION "Y-Y"



NOTE:

Metal drains shall be considered incidental to Class A Concrete in both concrete and steel bridges and will not be paid for separately.
Assemblage of grillage and pipe shall be hot-dip galvanized after all welding is completed.

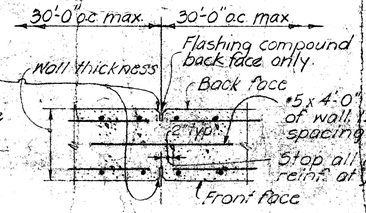
TYPICAL DRAINAGE DETAILS



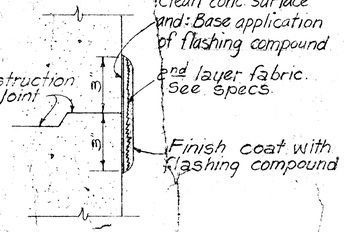
INSERT DETAIL

Contractor to take proper precautions to prevent the concrete from flowing into the opening of the inserts.

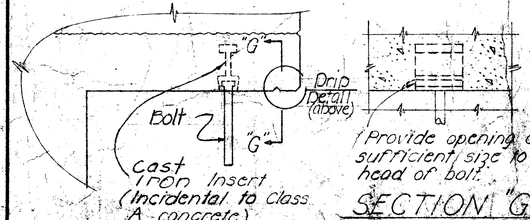
Vert. control joint on each face of wall to top of footing. See above detail and as directed by the Engineer



CONTROL JOINT DETAILS

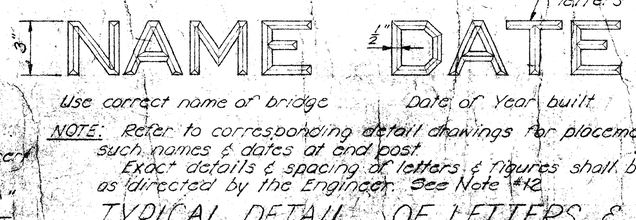


TYP. FLASHING COMPOUND WATERPROOFING DETAIL



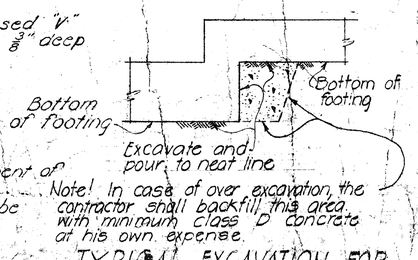
DETAIL of PIPE HANGERS & INSERTS

SECTION "G-G"



NOTE: Refer to corresponding detail drawings for placement of such names & dates at end post.
Exact details & spacing of letters & figures shall be as directed by the Engineer. See Note #12.

TYPICAL DETAIL OF LETTERS & FIGURES AT CONCRETE END POST



Note! In case of over excavation, the contractor shall backfill this area with minimum class D concrete at his own expense.

TYPICAL EXCAVATION FOR CONTINUOUS FOOTING STEP-UP

GENERAL NOTES

1 - All concrete shall be Class A unless otherwise noted.
2 - Reinforcing shall be detailed in accordance with A.C.I. Manual of Standard Practice for Detailing Reinforced Concrete Highway Structures unless otherwise noted.
3 - Clearance for reinforcing bars shall be as follows, unless otherwise noted.
a - 1½" For stirrups of beams & pier caps.
b - 2" For ties of columns.
c - 2" For formed walls.
d - 3" For footings.
4 - Minimum spacing between parallel bars shall be 2½ times the diameter of bars, but in no case shall the clear distance between the bars be less than 1½ times the maximum size of the coarse aggregate.
5 - All dimensions relating to reinforcing are to centers of bars unless otherwise noted.
6 - Reinforcing bars shall be securely tied at all intersections & lap splices & shall be held in place during pouring to maintain their proper locations as shown on plans.
7 - Vertical column bars shall be arranged in such a manner as to miss pier cap bars above as directed by the Engineer.
8 - Except as otherwise noted on drawings, all exterior corners & re-entrant angles in concrete work shall be chamfered ¾"x ¾".
9 - Concrete seats receiving steel plates, leadplates or neoprene pads shall be poured monolithically with supporting structures & top of concrete seats shall be finished with a steel trowel to a smooth level surface at the elevation shown on the plans.
10 - Elastomeric Pads: Bottom of bridge bearing pads shall be secured against displacement with adhesives approved by the Engineer. Pads shall be incidental to concrete and will not be paid for separately.
11 - Forms for all exposed surfaces of separation structures and surfaces of retaining walls visible from a traveled way or from a populated area shall be plywood except that metal forms may permitted provided a surface finish satisfactory to the Engineer can be obtained and the use of such forms is approved in writing by the Engineer. Forms for round columns shall be made of materials that will give a smooth finish and true dimensions as given in the plans. Forms for prestressed concrete members shall be either metal or plywood.
12 - Gothic letters and figures approximating dimensions shown will be acceptable if approved by the Engineer.
13 - The contractor shall verify the location of all existing utility lines and notify the respective owners before commencing work at excavation or driving of piles.
14 - Standard Detail Drawings refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.

APPROVAL RECOMMENDED:
Paul T. Yamashita — BRIDGE DESIGN ENGINEER — 1-23-76 DATE

APPROVED
Paul T. Yamashita — For ASSISTANT CHIEF, ENGINEERING — 1-28-76 DATE

NO.	REVISION	APPROVED BY	DATE

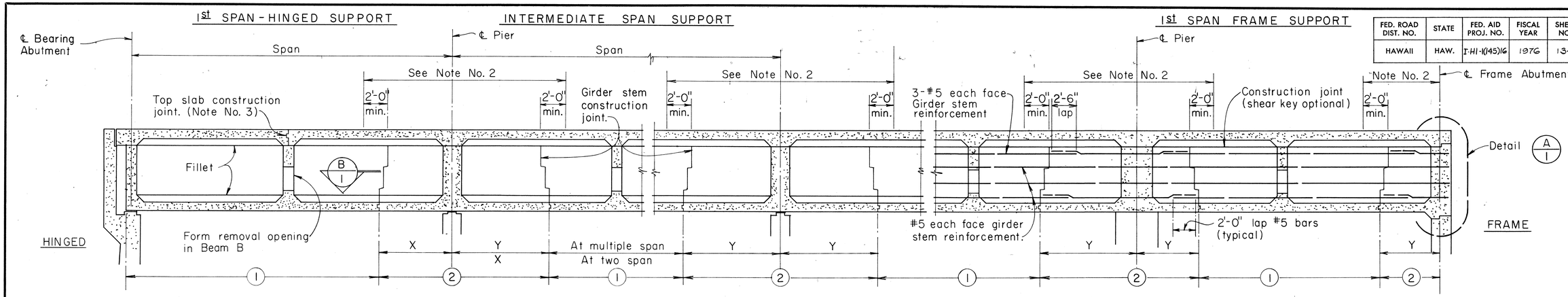
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
NOTES AND MISCELLANEOUS DETAILS

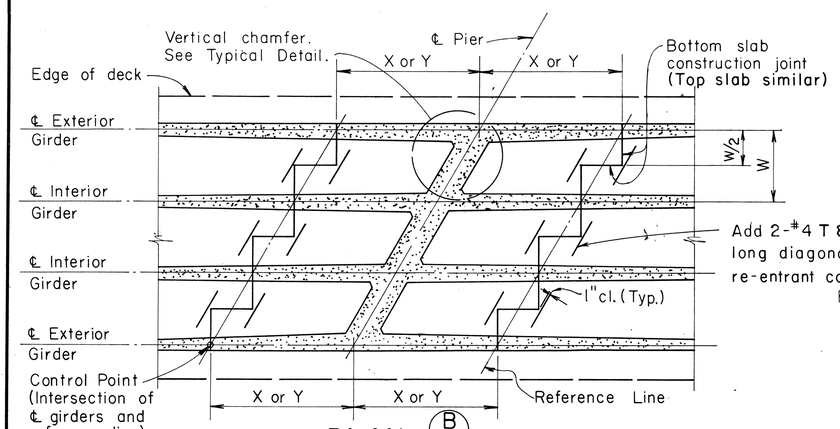
Date: October 1982
SHEET No. S-1 OF 124 SHEETS DB-100

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	134	136

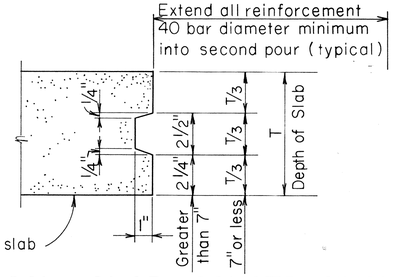


PLACING DIAGRAM

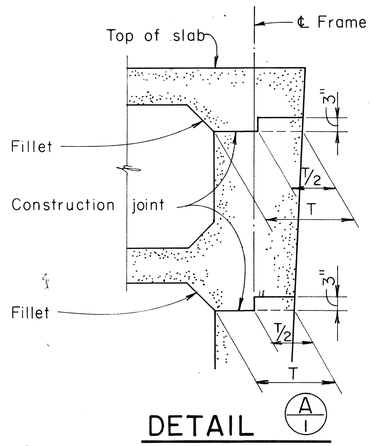


PLAN (B 1)

CONSTRUCTION JOINT - BRIDGES ON SKEW



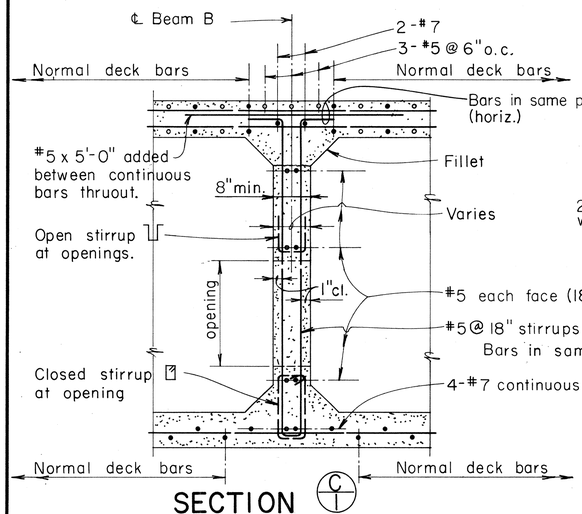
TYPICAL SLAB CONSTRUCTION JOINT DETAIL



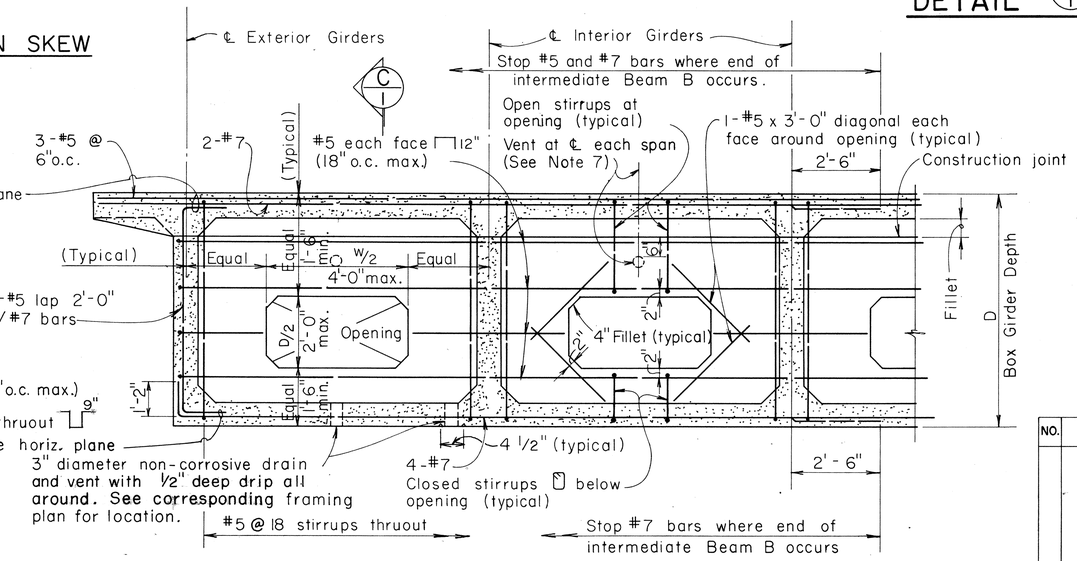
DETAIL (A 1)

NOTES:

1. Numbers ① and ② indicate sequence of placing bottom slab and girder stem concrete. ② may be placed with ① when approved by the Engineer provided that the ① sections adjoining the ② sections are placed in this pour. For any deviation from the above, the contractor shall submit a diagram to the Engineer for approval.
2. No top slab construction joint or form removal opening shall be located in the region over the piers as noted, nor in the supporting section of a hinged span.
3. When top slab is not poured continuously, and top slab forms are not removed, construction joint in top slab shall be located over an intermediate diaphragm.
4. Top slab concrete shall be placed separately from the stem. Top slab concrete may be placed continuously or in parts as approved by the Engineer, providing pour is not in conflict with the above notes.
5. Dimension X = 1/4 span. Y = 1/5 span.
6. No lapping of main bars shall be permitted at construction joints.
7. If the Contractor elects to leave top slab forms in place, form removal opening shall be omitted and replaced by 3" vent. Vertical shorings left in place for the top slab formwork, shall not be located within the center half of each top slab span.



SECTION (C 1)



EXTERIOR SPAN INTERIOR SPAN

TYPICAL BEAM B DETAILS

APPROVAL RECOMMENDED:
Warren K. Yamamoto — BRIDGE DESIGN ENGINEER — 6-1-76 DATE

APPROVED
Herbert Sakaida — ASSISTANT CHIEF, ENGINEERING — 6-2-76 DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CONCRETE BOX GIRDER

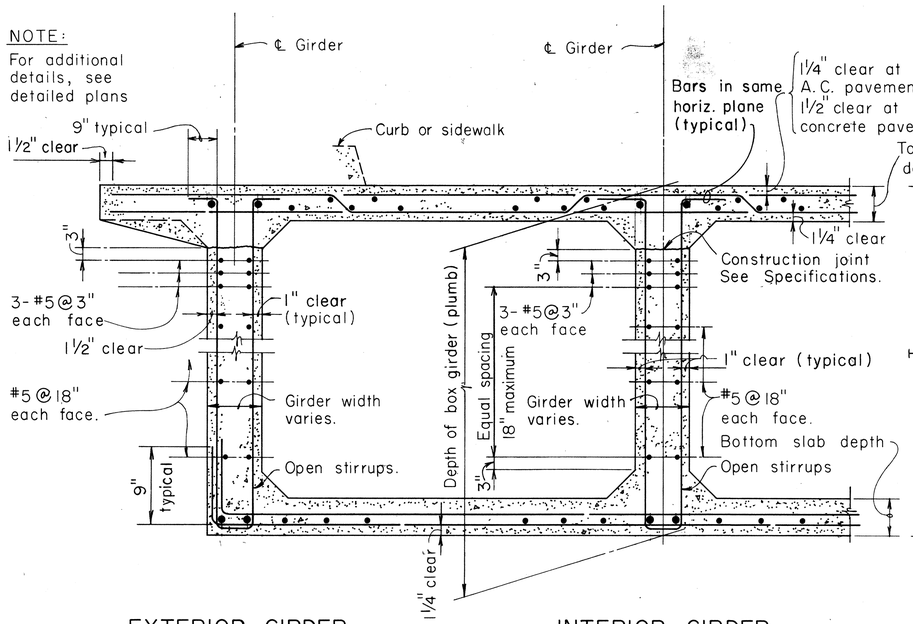
Not To Scale Date: May 1976

SHEET No. 32 OF 124 SHEETS DB-101-1

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(145)16	1976	135	136

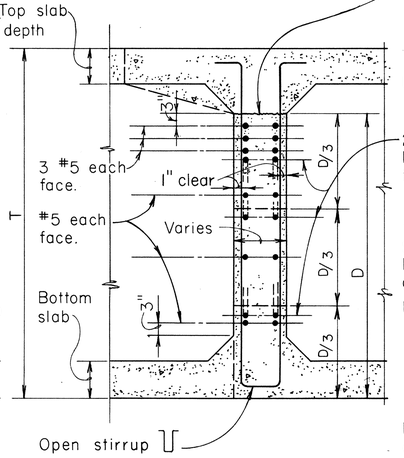
NOTE:
For additional details, see detailed plans



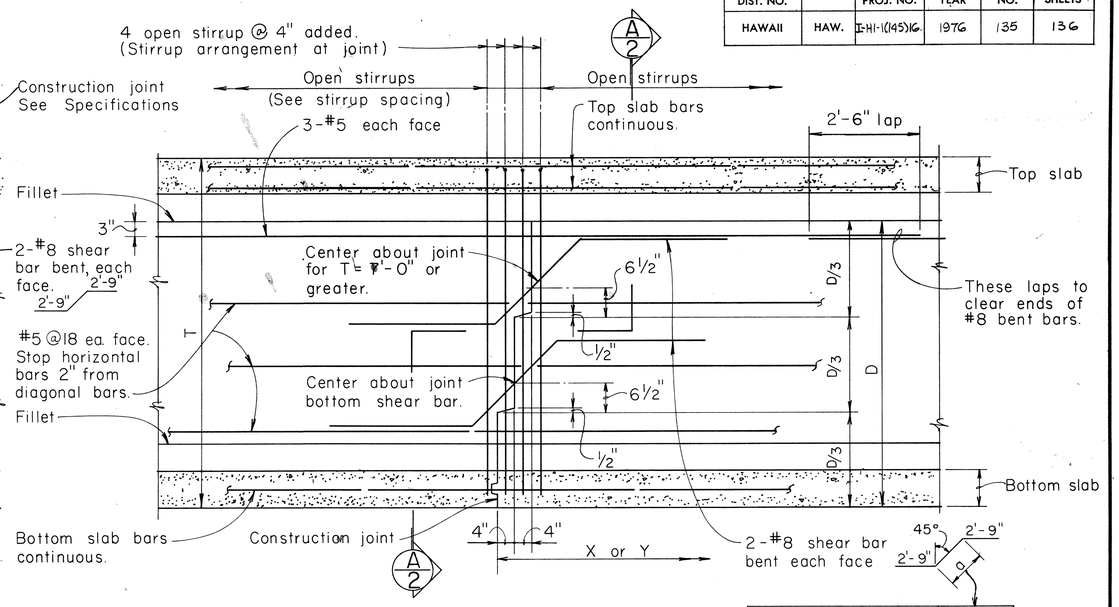
EXTERIOR GIRDER INTERIOR GIRDER

TYPICAL NORMAL BOX GIRDER SECTION

NOTE:
D = Depth of girder stem to bottom of slab.
For additional details see Normal Section of the Plans.

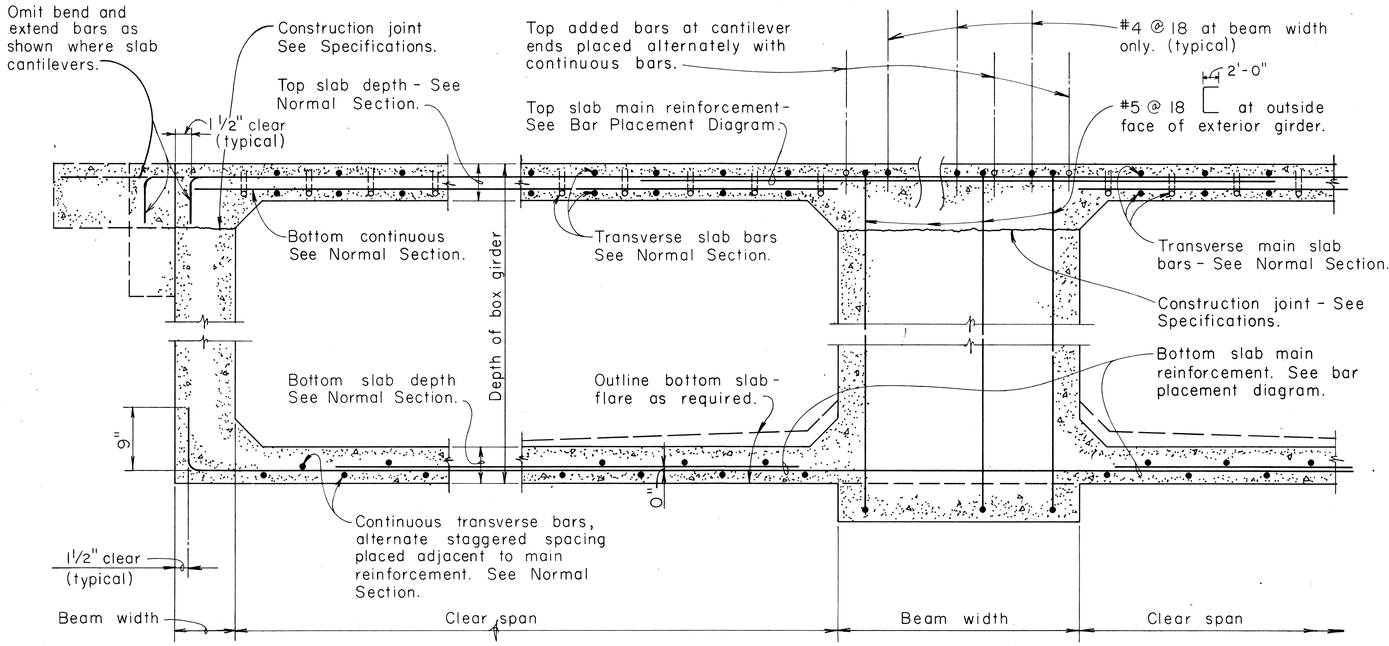


SECTION (A/2)



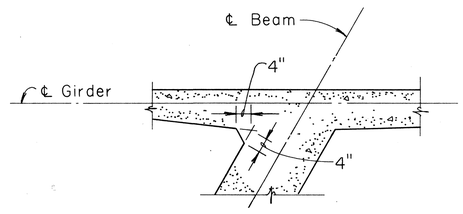
GIRDER STEM CONSTRUCTION JOINT

Depth T	a
4'-11" and smaller	1'-9"
5'-0" to 5'-11"	2'-0"
6'-0" to 6'-11"	2'-3"
7'-0" and greater	3'-0"



AT NON-CONTINUOUS END AT CONTINUOUS SUPPORT

TYPICAL LONGITUDINAL DECK SECTION ALONG GIRDER AT NORMAL OR RADIAL SUPPORTS



TYPICAL DETAIL OF VERTICAL CHAMFER AT ACUTE INTERSECTION OF SKEWED CONCRETE MEMBER

APPROVAL RECOMMENDED:
Clarence R. Yamamoto — BRIDGE DESIGN ENGINEER — 6-1-76 DATE

APPROVED
Herbert Takeishi — ASSISTANT CHIEF, ENGINEERING — 6-2-76 DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

CONCRETE BOX GIRDER

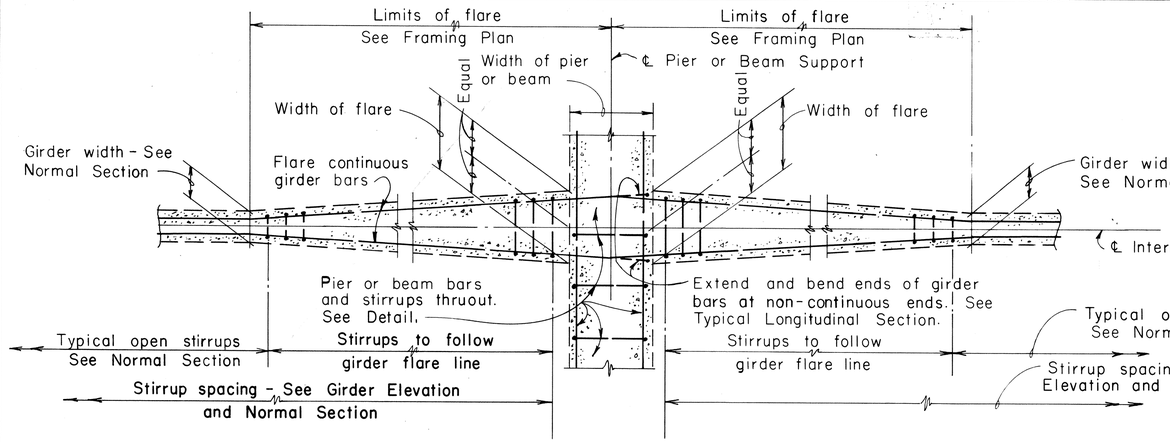
Not To Scale Date: May 1976

SHEET No. S-3 OF 124 SHEETS DB-101-2

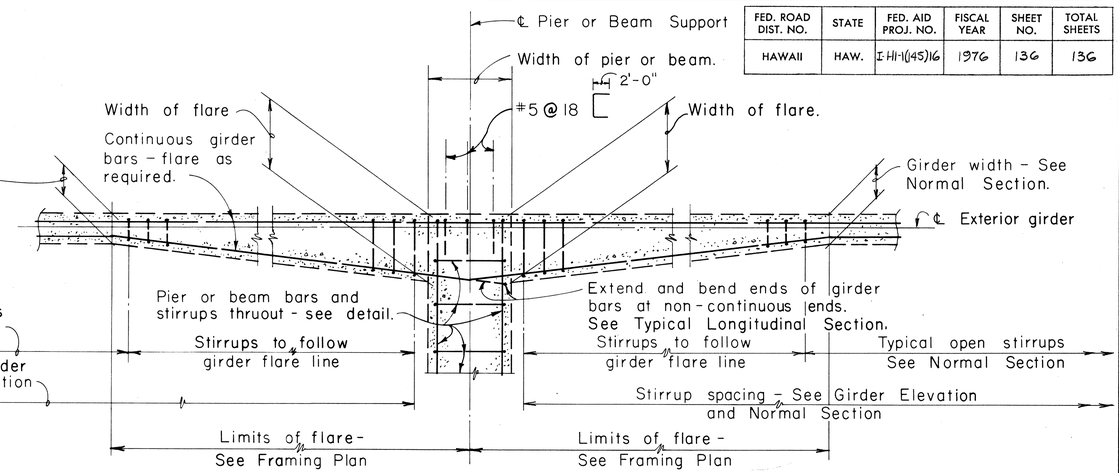
135

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(45)16	1976	136	136

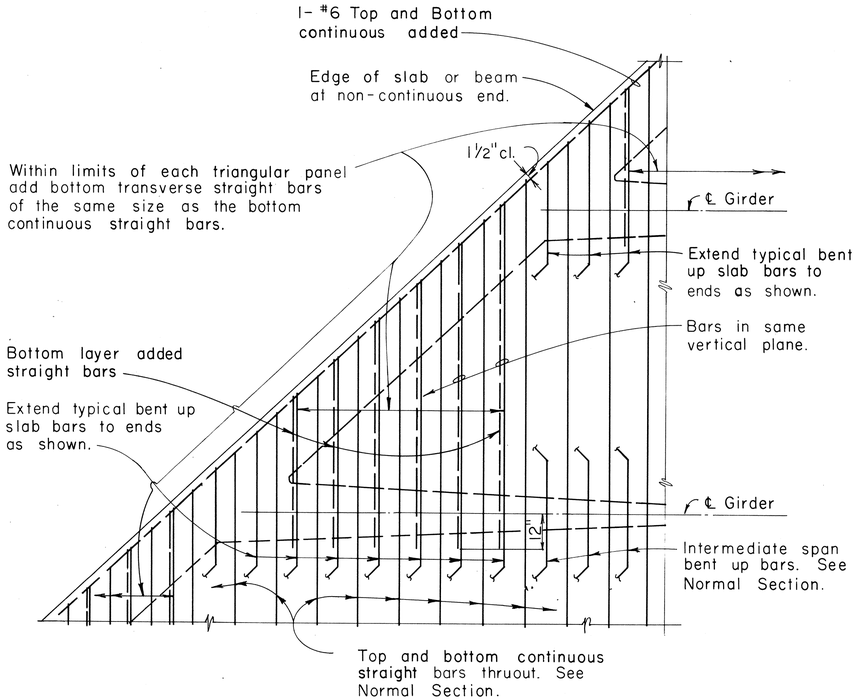


INTERIOR GIRDER

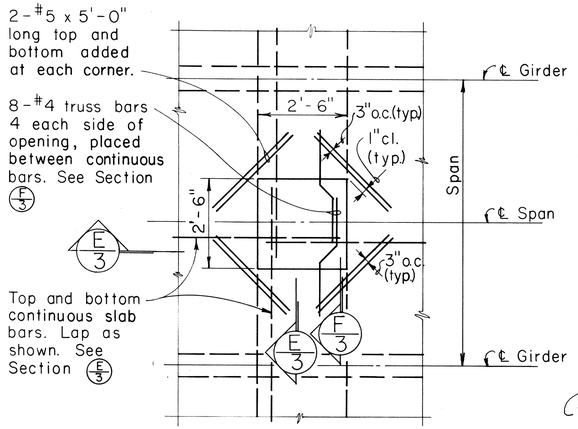


EXTERIOR GIRDER

TYPICAL DETAILS OF GIRDER FLARE AT NORMAL OR RADIAL SUPPORTS - CONTINUOUS ENDS AS SHOWN (NON-CONTINUOUS ENDS SIMILAR EXCEPT AS OTHERWISE NOTED)



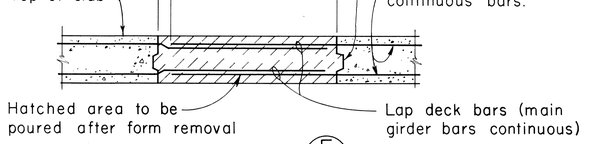
PART PLAN - TYPICAL ARRANGEMENT OF TOP SLAB REINFORCEMENT AT SKEWED ENDS



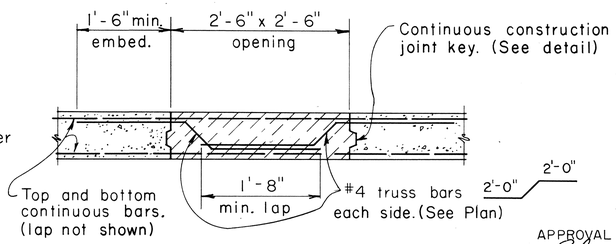
NOTES

1. Final location of opening shall be determined by the Engineer.
2. Form removal opening at top slab shall not be located where main girder bars occur.
3. Form removal opening may extend from edge of deck.

PART PLAN - DECK SHOWING FORM REMOVAL OPENING



SECTION E/3



SECTION F/3

APPROVAL RECOMMENDED
Clarence R. Yamauchi — BRIDGE DESIGN ENGINEER — 6-1-76 DATE

APPROVED
Herbert Sakahira — ASSISTANT CHIEF, ENGINEERING — 6-2-76 DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CONCRETE BOX GIRDER

Not To Scale: Date: May 1976

SHEET No. 54 OF 124 SHEETS DB-101-3

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

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