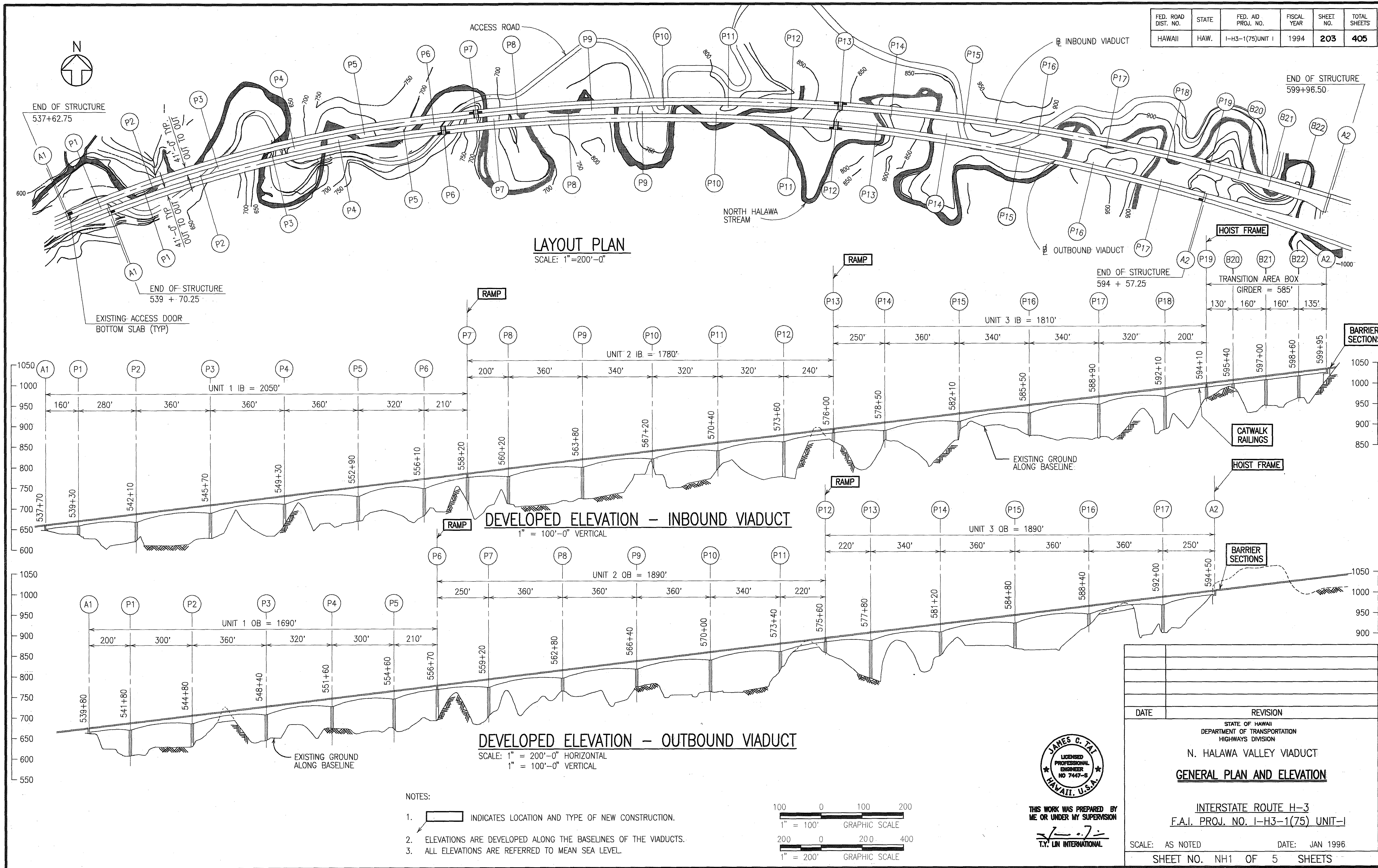


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT 1	1994	203	405



FILE F:\PROJECT\73500\GEN\DLIST1
PLOT (I=1)
12-20-1995
<< BY : JOE >>

INDEX OF DRAWINGS

SHT. NO.		DRAWING TITLE
NH1	—	GENERAL PLAN AND ELEVATION
NH2	—	GENERAL NOTES AND DRAWING LIST
NH3	—	HOIST FRAME DETAILS
NH4	—	RAMP AND BARRIER DETAILS
NH5	—	CATWALK DETAILS

GENERAL NOTES

DESIGN CRITERIA

- DESIGN SPECIFICATIONS ARE:
 - AASHTO 1992 "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES," 15TH EDITION AND ITS SUBSEQUENT INTERIM SPECIFICATIONS WITH MODIFICATIONS BY THE HIGHWAYS DIVISION, DEPARTMENT OF TRANSPORTATION, STATE OF HAWAII.
 - AASHTO "GUIDE SPECIFICATIONS FOR DESIGN AND CONSTRUCTION OF SEGMENTAL CONCRETE BRIDGES," 1989.
 - AASHTO "GUIDE SPECIFICATIONS FOR SEISMIC DESIGN OF HIGHWAY BRIDGES," 1983, (EXCEPT THAT THE ACCELERATION COEFFICIENT MAPS HAVE BEEN SUPERSEDED, SEE 2E. BELOW).
- DESIGN LOADS ARE:
 - DEAD LOADS: REINFORCED CONCRETE — 160 PCF.
PLAIN CONCRETE — 150 PCF.
 - LIVE LOADS: 450 PSF.
 - DESIGN SPEED: 5 MPH.
 - THERMAL LOADS: 87° F MAXIMUM TEMPERATURE.
77° F MEAN TEMPERATURE.
57° F MINIMUM TEMPERATURE.
 - SEISMIC LOADS: ACCELERATION COEFFICIENT — 0.17G.
DESIGN SEISMIC PERFORMANCE CATEGORY—B
- MATERIALS ARE:
 - CONCRETE: RAMP — f'c=3750 psi, CLASS BD.
LEAN CONCRETE — f'c=1500 psi, CLASS D.
RAILING — f'c=4000 psi, CLASS G.

THESE ARE 28 DAY STRENGTHS.
 - REINFORCING STEEL: PER ASTM A615, GRADE 60.
 - MISCELLANEOUS STEEL: PER ASTM A36, HOT DIPPED GALVANIZED PER ASTM A123, UNLESS NOTED OTHERWISE.
- DESIGN METHODS AND ALLOWABLE STRESSES ARE:
 - REINFORCED CONCRETE: SERVICE LOAD DESIGN

REINFORCING NOTES

- REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL UNLESS OTHERWISE NOTED.
- BAR SPACINGS ARE GIVEN IN INCHES, CENTER TO CENTER OF BARS UNLESS NOTED OTHERWISE.
- EXCEPT AS NOTED ON THE PLANS, CONCRETE COVER TO REINFORCEMENT (MAIN BARS) SHALL BE:

RAMP, ALL FACES	—	1 IN.,
OTHER	—	2 IN.,

CONSTRUCTION NOTES

- CONSTRUCTION SPECIFICATIONS ARE THE "HAWAII DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," 1994, TOGETHER WITH SPECIAL PROVISIONS PREPARED FOR THIS CONTRACT.
- ALL EXPOSED EDGES OF CONCRETE, SHOWN OR NOT SHOWN, SHALL BE CHAMFERED 3/4 x 3/4 IN. UNLESS NOTED OTHERWISE.

- CONSTRUCTION JOINTS SHALL BE LOCATED ONLY AT THOSE LOCATIONS SHOWN ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND NOT RELY UPON THESE PLANS FOR ACCESS ROAD OR STREAM LOCATION, ETC. CONDITIONS MAY DIFFER FROM THOSE SHOWN DUE TO WORK PERFORMED UNDER OTHER CONTRACTS. CONDITIONS NEAR THE TRANSITION AREA BOX GIRDER, IN PARTICULAR, MAY DIFFER FROM THOSE SHOWN DUE TO WORK PERFORMED UNDER THE HALAWA APPROACH AND TUNNELS CONTRACT.
- THE CONTRACTOR MUST ALLOW FOR THE UNOBSTRUCTED USE OF THE HALAWA ACCESS ROAD BY ALL AUTHORIZED PARTIES. THE STATE WILL RESOLVE DISPUTES CONCERNING USE OF THE ROAD.
- THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT PERFORMED CONCURRENTLY ON ADJACENT SITES, IN PARTICULAR WORK PERFORMED UNDER THE HALAWA APPROACH AND TUNNELS CONTRACT.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL UTILITIES AND AVOID DAMAGE THERETO.
- EXISTING ACCESS DOORS ARE 4'-0"±x2'-6"±.

OTHER NOTES

- ALL STATIONS AND LONGITUDINAL DIMENSIONS ARE MEASURED ALONG THE BASELINES OF THE VIADUCTS UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL UNLESS NOTED OTHERWISE. ALL SECTIONS ARE CUT HORIZONTALLY OR VERTICALLY UNLESS NOTED OTHERWISE.
- ALL VIEWS ARE LOOKING UPSTATION OR NORTHERLY UNLESS NOTED OTHERWISE.
- ALL ELEVATIONS ARE REFERRED TO MEAN SEA LEVEL.

ABBREVIATIONS

ABUT.	ABUTMENT	L	LENGTH
ADD.	ADDITIONAL	L.F.	LINEAL FEET
ALT.	ALTERNATE	L.S.	LUMP SUM
B.F.	BOTH FACES	MH	MANHOLE
BOT.	BOTTOM	MAX.	MAXIMUM
CIP	CAST IN PLACE		
C.C.	CENTER TO CENTER	MIN.	MINIMUM
CLR.	CLEARANCE	MISC.	MISCELLANEOUS
COL.	COLUMN	MPH	MILES PER HOUR
CONC.	CONCRETE		
CONN.	CONNECTION	NIC	NOT IN CONTRACT
CONST.	CONSTRUCTION	NTS	NOT TO SCALE
CONT.	CONTINUOUS	NO.	NUMBER
C.F.	CUBIC FEET	O.C.	ON CENTER
C.Y.	CUBIC YARD	OPN'G.	OPENING
DIM.	DIMENSION		
DIST.	DISTANCE	OD	OUTSIDE DIAMETER
DWG., DWGS.	DRAWING, DRAWINGS		
E.F.	EACH FACE	PCF	POUNDS PER CUBIC FOOT
E.W.	EACH WAY	PSF	POUNDS PER SQUARE FOOT
EL.	ELEVATION	PSI	POUNDS PER SQUARE INCH
EQ.	EQUAL	PL	PLATE
EST.	ESTIMATED	PLF	POUNDS PER LINEAR FOOT
EXIST.	EXISTING	LB., LBS.	POUND, POUNDS
EXP.	EXPANSION	REINF.	REINFORCEMENT
EXT.	EXTERIOR	REQ'D.	REQUIRED
F'C	SPECIFIED STRENGTH OF CONCRETE		
FT.	FEET, FOOT	SHT.	SHEET
FIG.	FIGURE	SPEC.	SPECIFICATION
F	FIXED	S.F.	SQUARE FEET
F.A.	FORCE ACCOUNT	S.Y.	SQUARE YARD
H	HEIGHT	STD.	STANDARD
HOR.	HORIZONTAL	STA.	STATION
IN.	INCH	TEMP.	TEMPORARY
INT.	INTERIOR	T & B	TOP AND BOTTOM
K	KIPS	TRANSV.	TRANSVERSE
KF	KIP FOOT	TYP.	TYPICAL
KSI	KIPS PER SQUARE INCH	VAR.	VARIES
		VERT.	VERTICAL

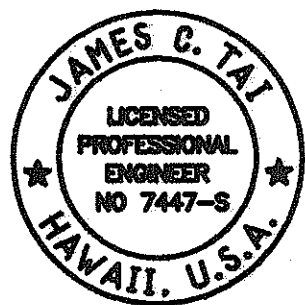
SYMBOLS

A1, A2	ABUTMENT 1, ABUTMENT 2
&	AND
@	AT
⎓	BASELINE
⎓	CENTERLINE
— 600 —	CONTOUR
° F	DEGREE FAHRENHEIT
∅	DIAMETER
#	NUMBER
%	PERCENTAGE
←	DIRECTION OF TRAFFIC
Y Y Y	EXISTING FILL SECTION
△	OFFSET
B20,..., B22	BENT 20,..., BENT 22
P1,..., P22	PIER 1,..., PIER 22
S1,..., S23	SPAN 1,..., SPAN 23
W/	WITH

IN ADDITION TO THE SYMBOLS SHOWN, SYMBOLS CONTAINED IN THE FOLLOWING MANUALS ARE ALSO USED:
AISC "STEEL CONSTRUCTION MANUAL",
AMERICAN WELDING SOCIETY "STANDARD WELDING SYMBOLS".

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	CONTRACT ITEM	QUANTITY	UNIT
501.0230	STRUCTURAL STEEL—HOIST FRAME AT N. HALAWA VALLEY VIADUCT PIER 19,1B	(300 LB)	L.S.
501.0231	STRUCTURAL STEEL—HOIST FRAME AT N. HALAWA VALLEY VIADUCT ABUT. 2,0B	(300 LB)	L.S.
501.0232	STRUCTURAL STEEL—CATWALK AT N. HALAWA VALLEY VIADUCT	(150 LB)	L.S.
503.1600	CONCRETE AT N. HALAWA VALLEY VIADUCT	(SEE BELOW)	L.S.
— —	CONCRETE IN RAMPS	(5 C.Y.)	—
— —	CONCRETE IN BARRIER SECTIONS	(2 C.Y.)	—
— —	REINFORCING STEEL IN RAMPS	(850 LB)	—



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T.Y. LIN INTERNATIONAL

ACRONYMS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
NCHRP	NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

DATE REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

N. HALAWA VALLEY VIADUCT

GENERAL NOTES AND DRAWING LIST

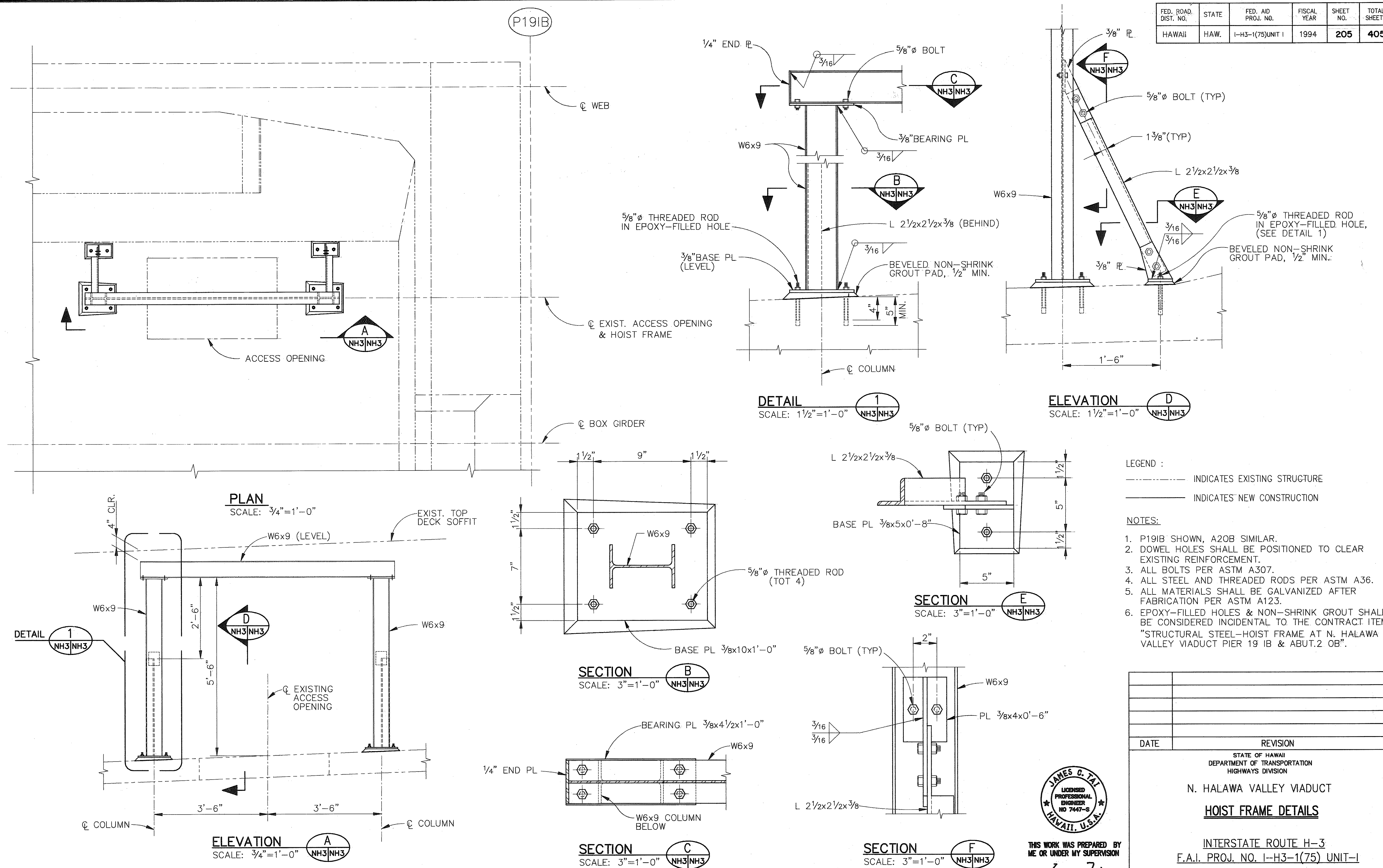
INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(75) UNIT-I

SCALE: NONE DATE: JAN 1996

SHEET NO. NH2 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT I	1994	205	405



LEGEND :

----- INDICATES EXISTING STRUCTURE

————— INDICATES NEW CONSTRUCTION

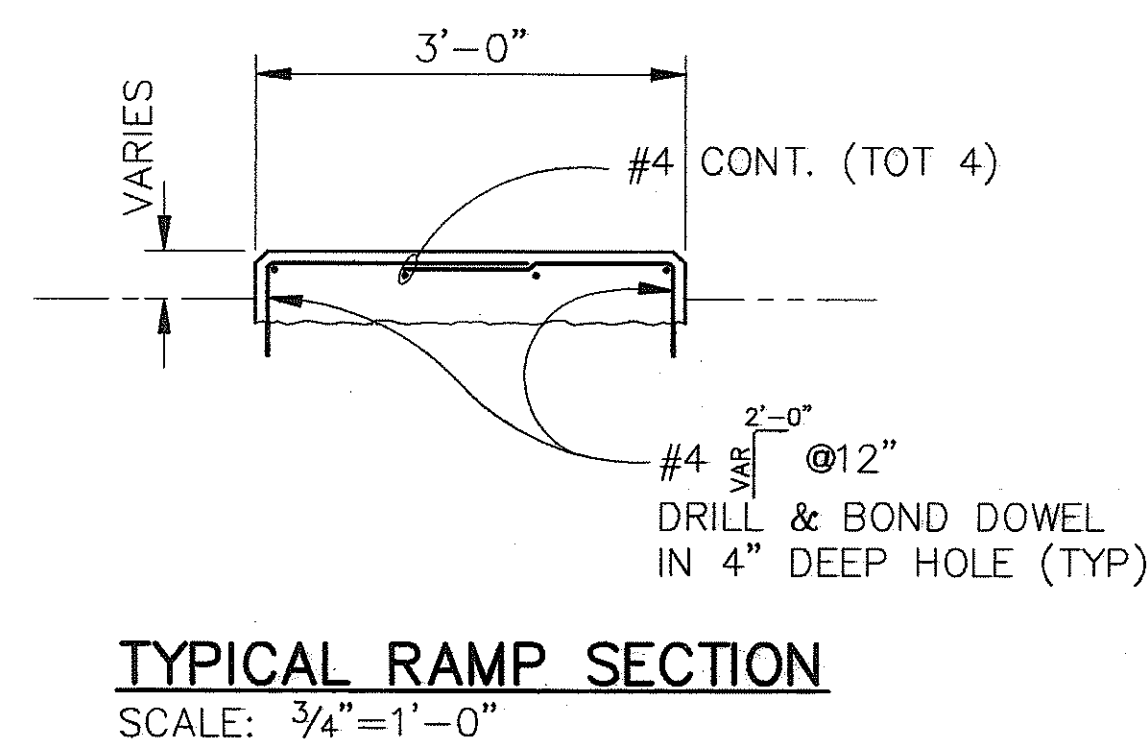
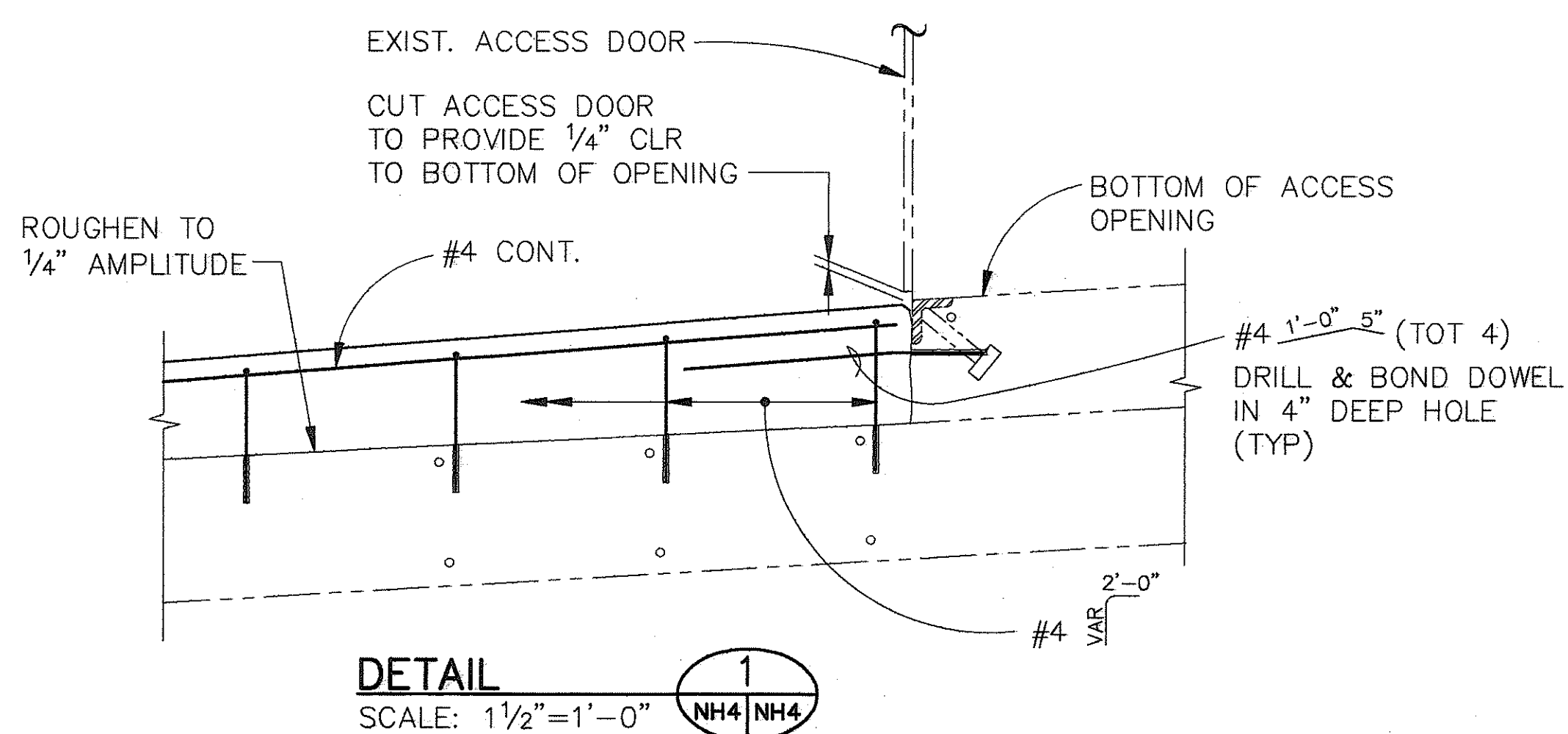
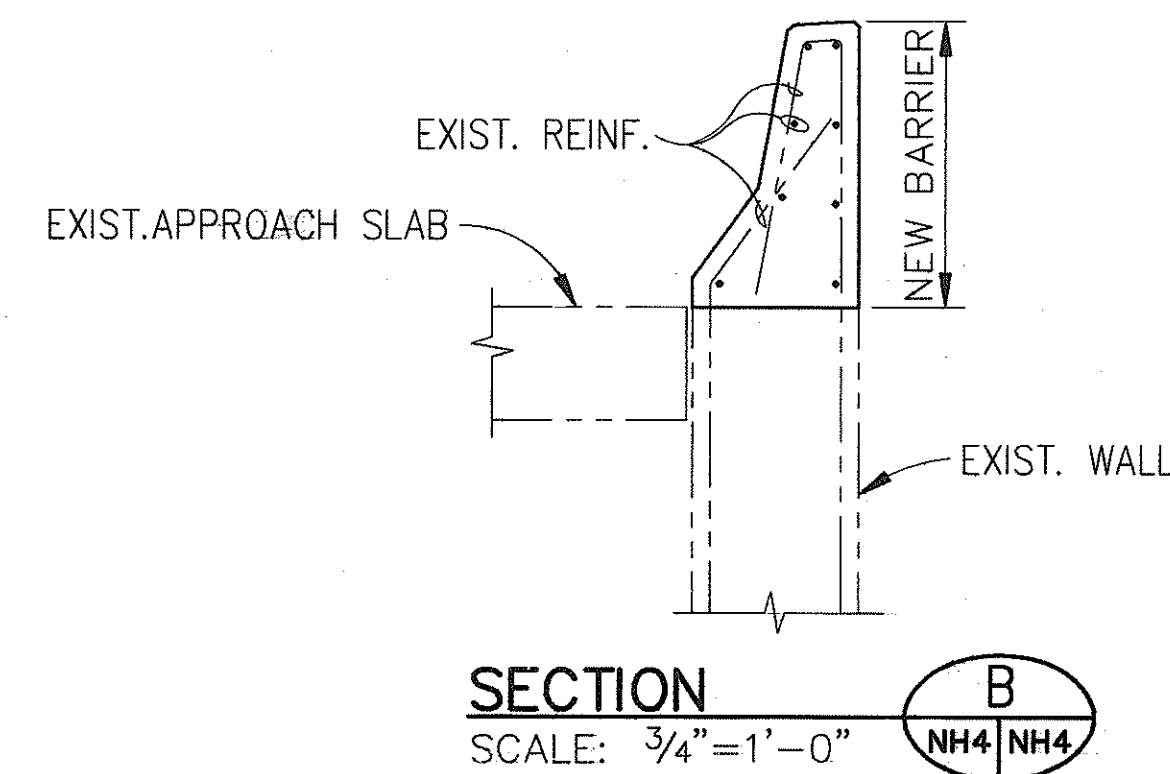
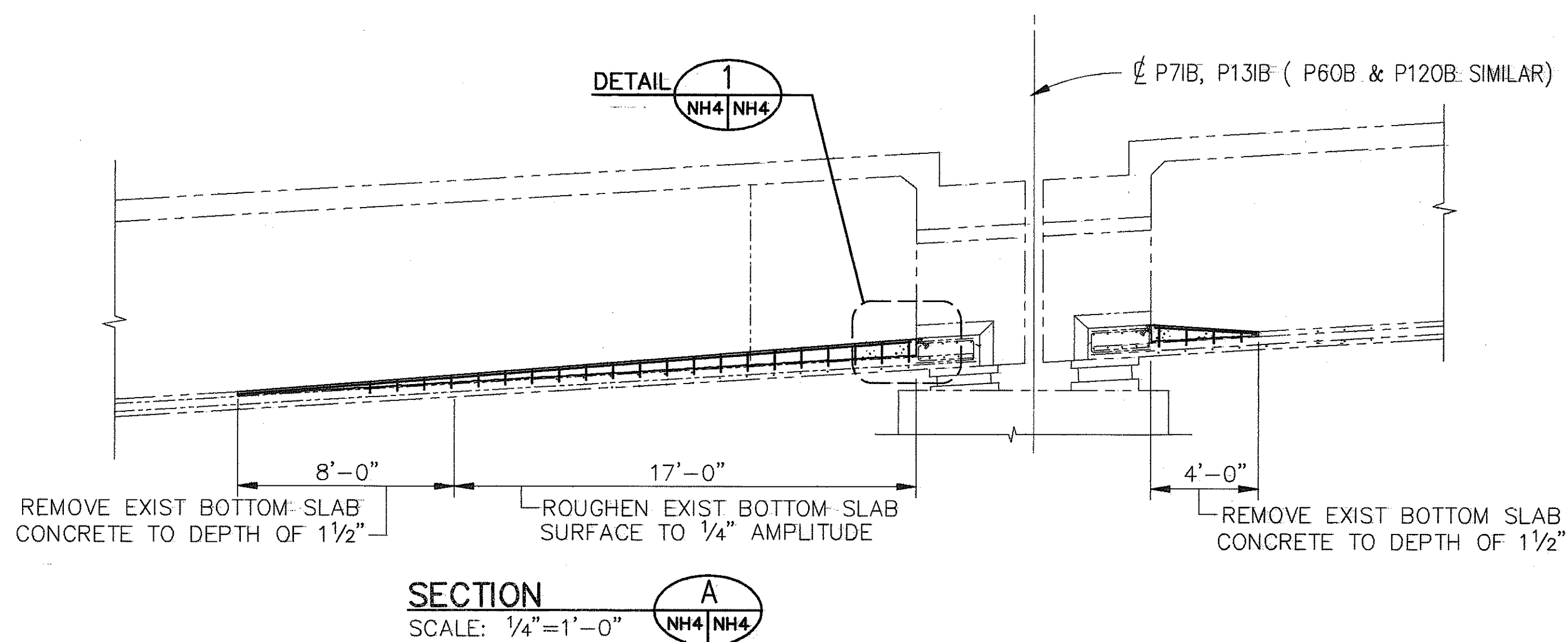
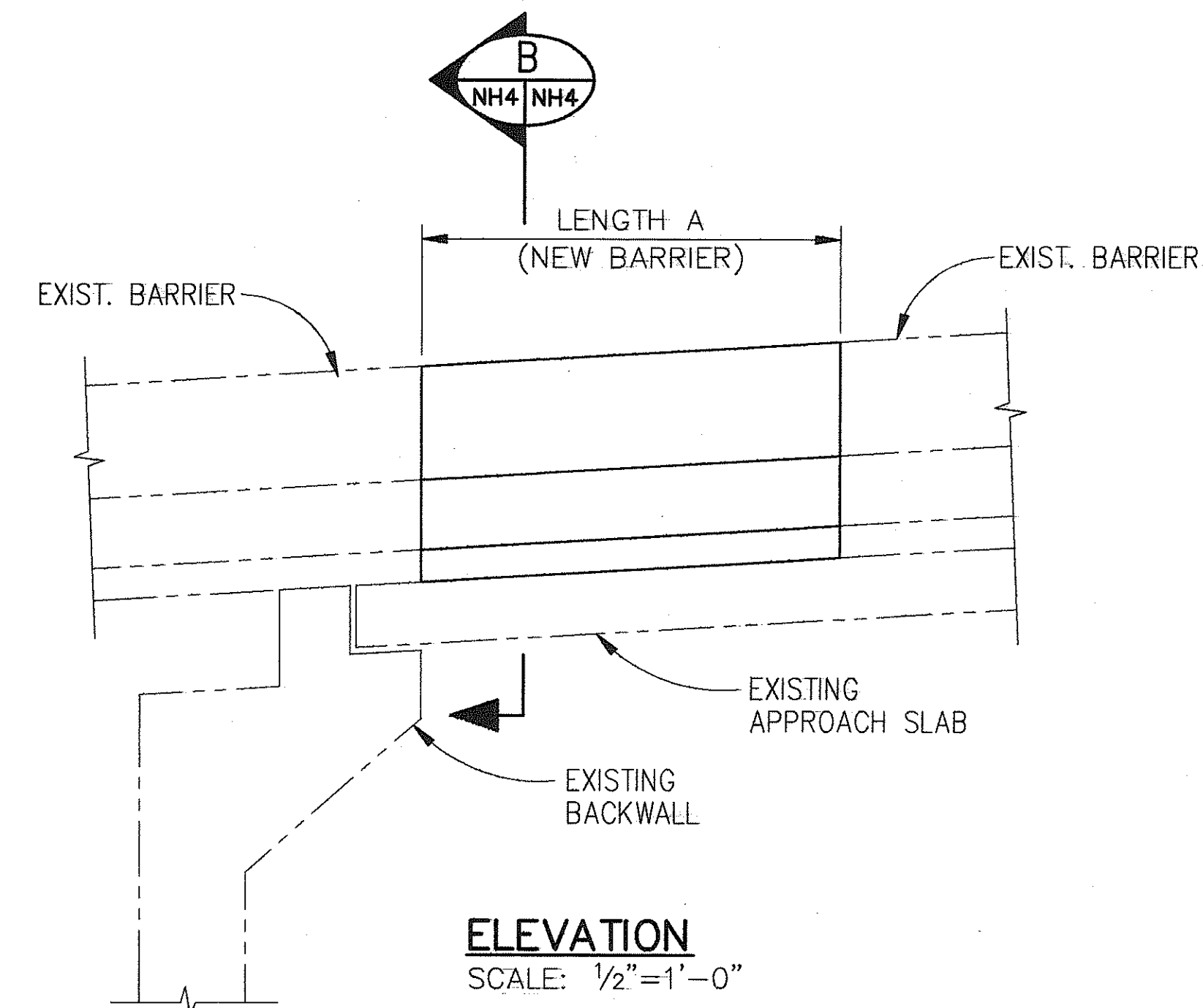
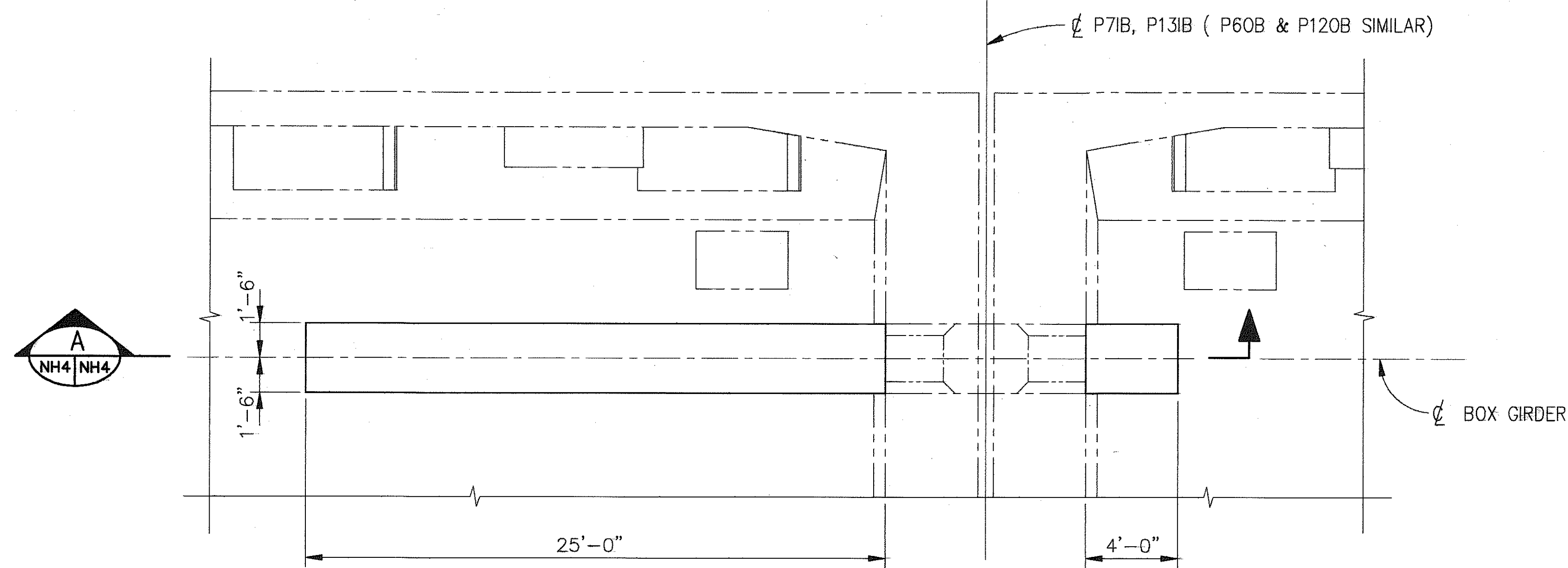
NOTES:

1. P191B SHOWN, A20B SIMILAR.
2. DOWEL HOLES SHALL BE POSITIONED TO CLEAR EXISTING REINFORCEMENT.
3. ALL BOLTS PER ASTM A307.
4. ALL STEEL AND THREADED RODS PER ASTM A36.
5. ALL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION PER ASTM A123.
6. EPOXY-FILLED HOLES & NON-SHRINK GROUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT ITEMS "STRUCTURAL STEEL-HOIST FRAME AT N. HALAWA VALLEY VIADUCT PIER 19 1B & ABUT.2 0B".

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION N. HALAWA VALLEY VIADUCT <u>HOIST FRAME DETAILS</u> INTERSTATE ROUTE H-3 <u>F.A.I. PROJ. NO. 1-H3-1(75) UNIT-1</u> SCALE: AS NOTED DATE: JAN 1996 SHEET NO. NH3 OF 5 SHEETS	

FILE F:\PROJECT\75300\GEN\HOISTFRM
PLOT (1=16)

FILE F:\PROJECT\73500\GEN\RAMPDET
PLOT (1=16)
06-26-1995
BY : JT >>
<<



NOTE:
DETAILS FOR DOWNSTATION RAMP SHOWN; UPSTATION RAMP SIMILAR

NOTES:

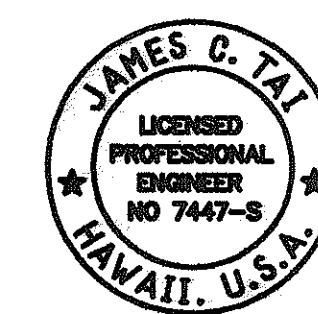
1. THE CONTRACTOR SHALL VERIFY HEIGHT OF EXISTING BARRIERS AND LENGTH OF NEW BARRIER SECTIONS TO BE CAST.
2. EXISTING REINFORCEMENT AND CONCRETE SURFACES THAT WILL COME IN CONTACT WITH NEW CONCRETE SHALL BE CLEANED BY SANDBLASTING PRIOR TO PLACING NEW CONCRETE.

LOCATION	BARRIER*	LENGTH A
APPROACH SLAB AT ABUT 2 INBOUND	LEFT	3'-0"±
	RIGHT	3'-7"±
APPROACH SLAB AT ABUT 2 OUTBOUND	LEFT	1'-6"±
	RIGHT	4'-0"±

* LOOKING AHEAD STATION

LEGEND :

- INDICATES EXISTING STRUCTURE
— INDICATES NEW CONSTRUCTION

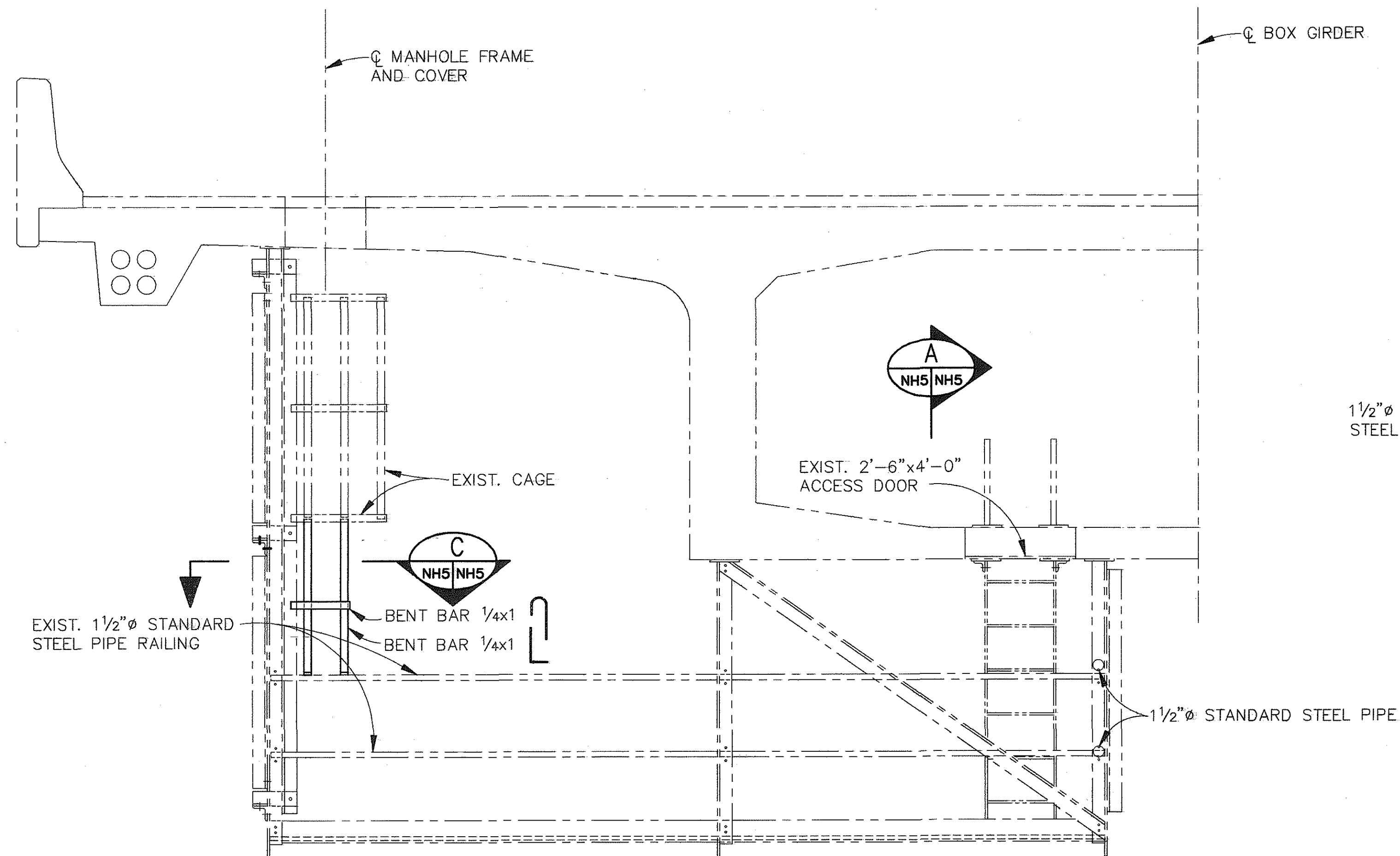


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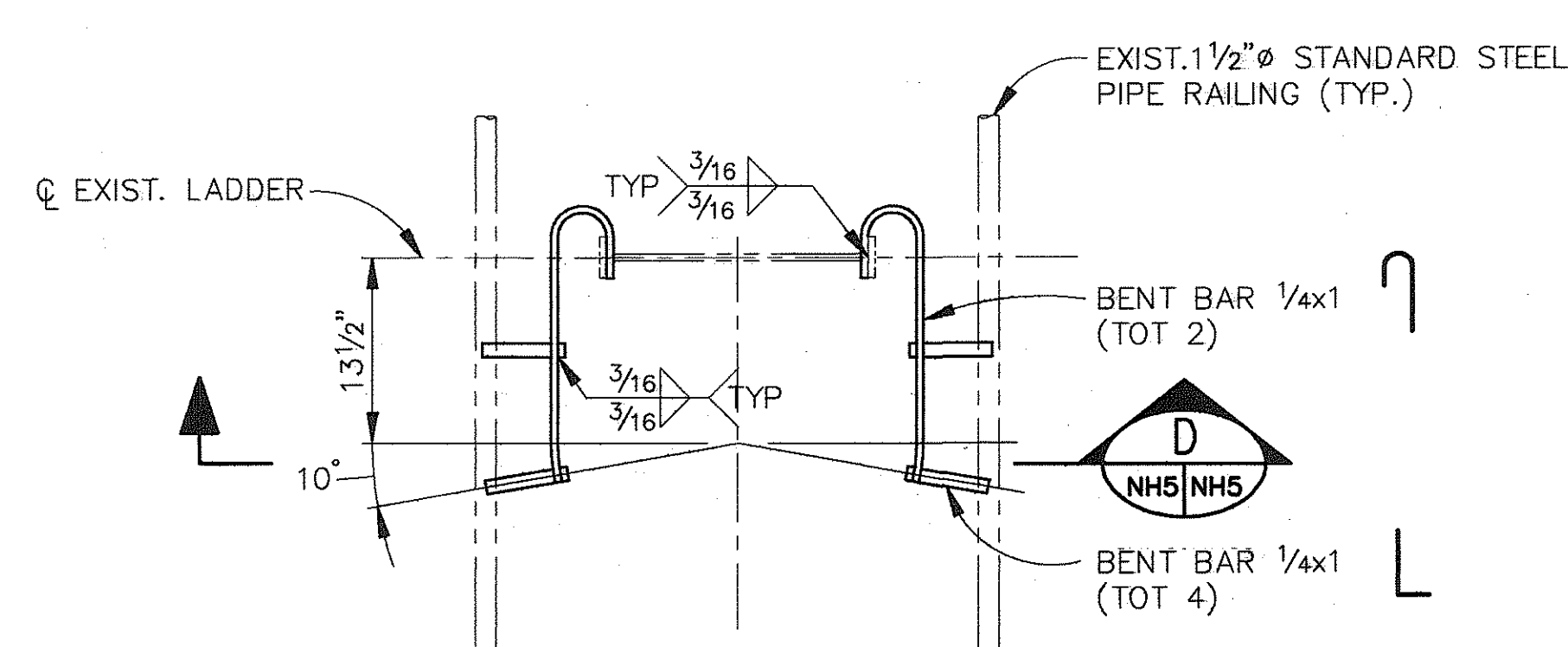
DATE	REVISION
	STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION N. HALAWA VALLEY VIADUCT RAMP AND BARRIER DETAILS INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1(75) UNIT-1 SCALE: AS NOTED DATE: JAN 1996 SHEET NO. NH4 OF 5 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT 1	1994	207	450

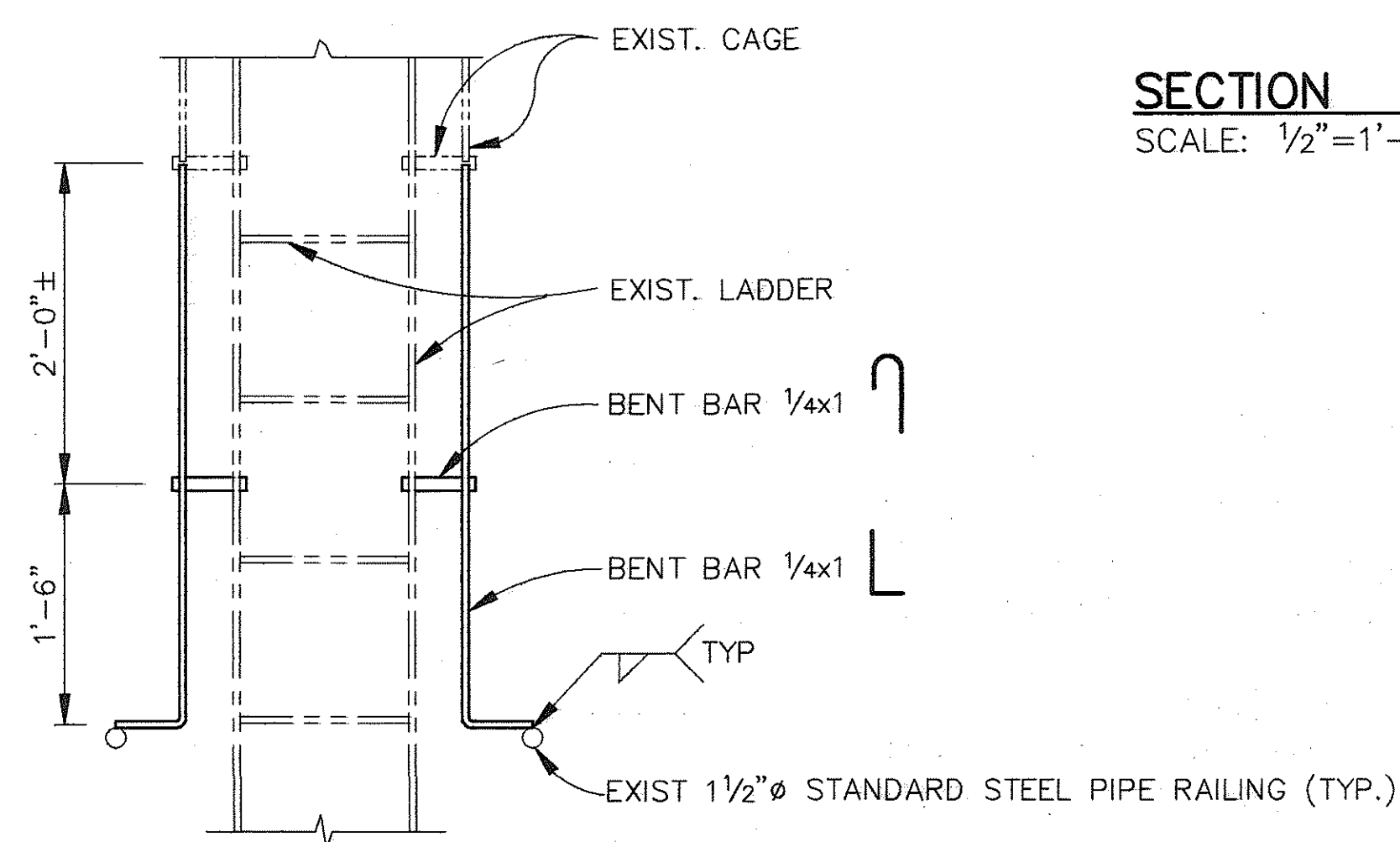


NOTE: SUPERELEVATION NOT SHOWN

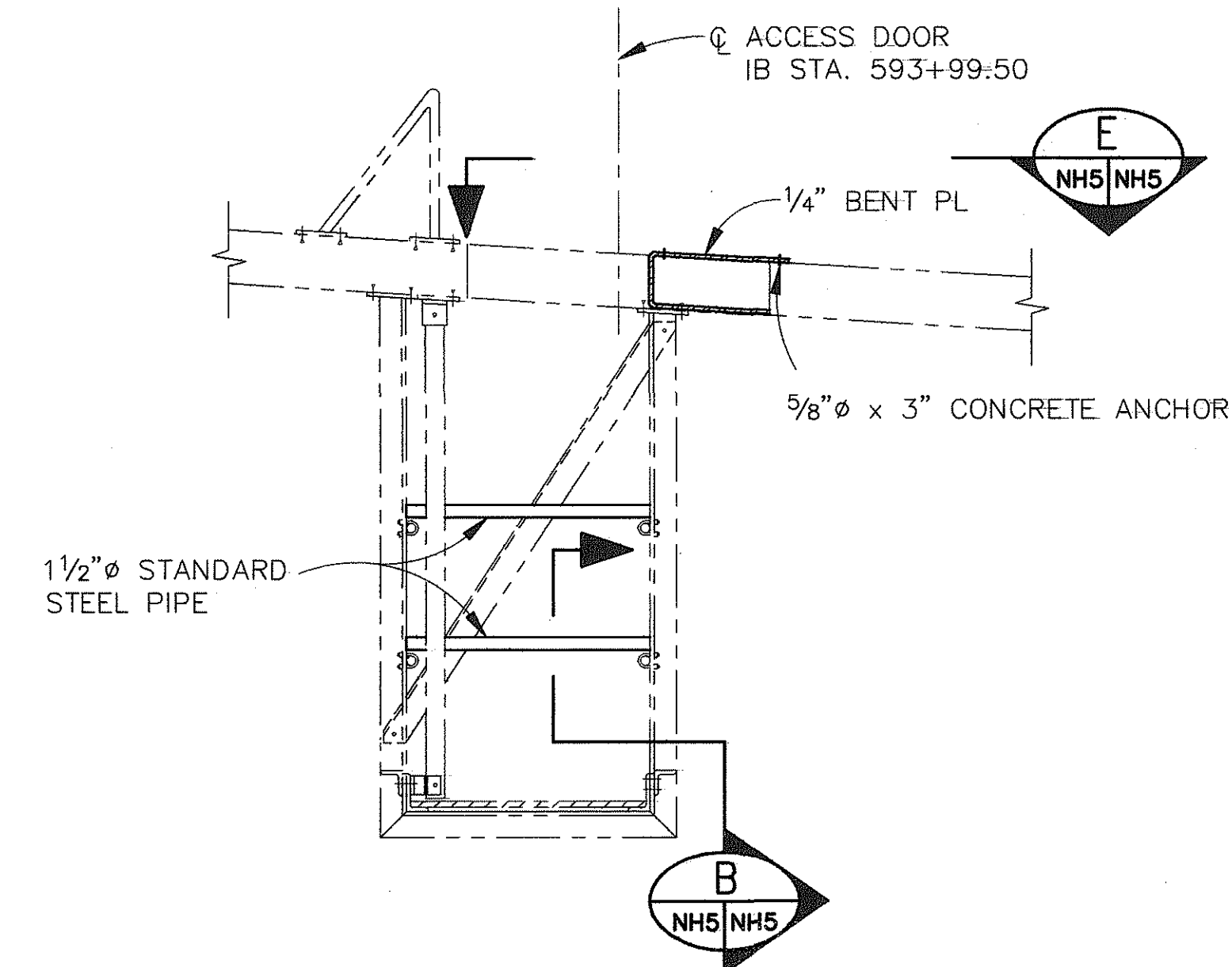
CATWALK ELEVATION
SCALE: 1/2"=1'-0"



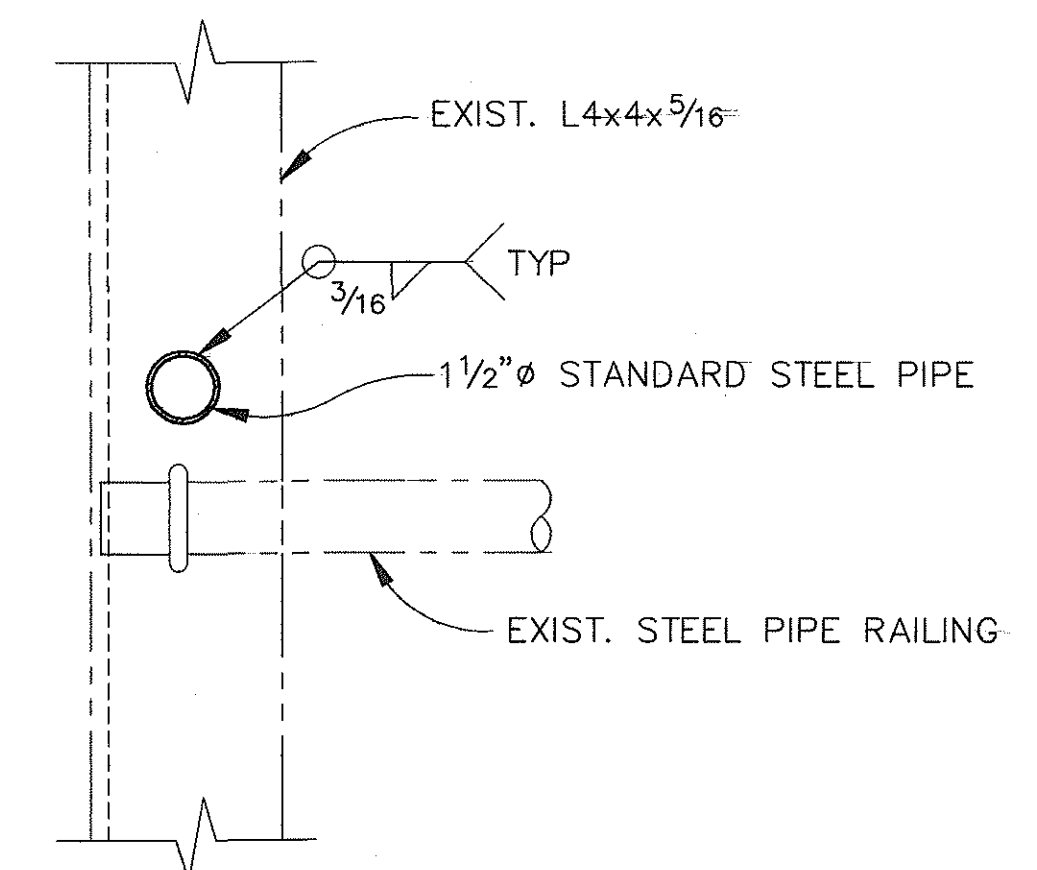
SECTION C
SCALE: 1"=1'-0" NH5 NH5



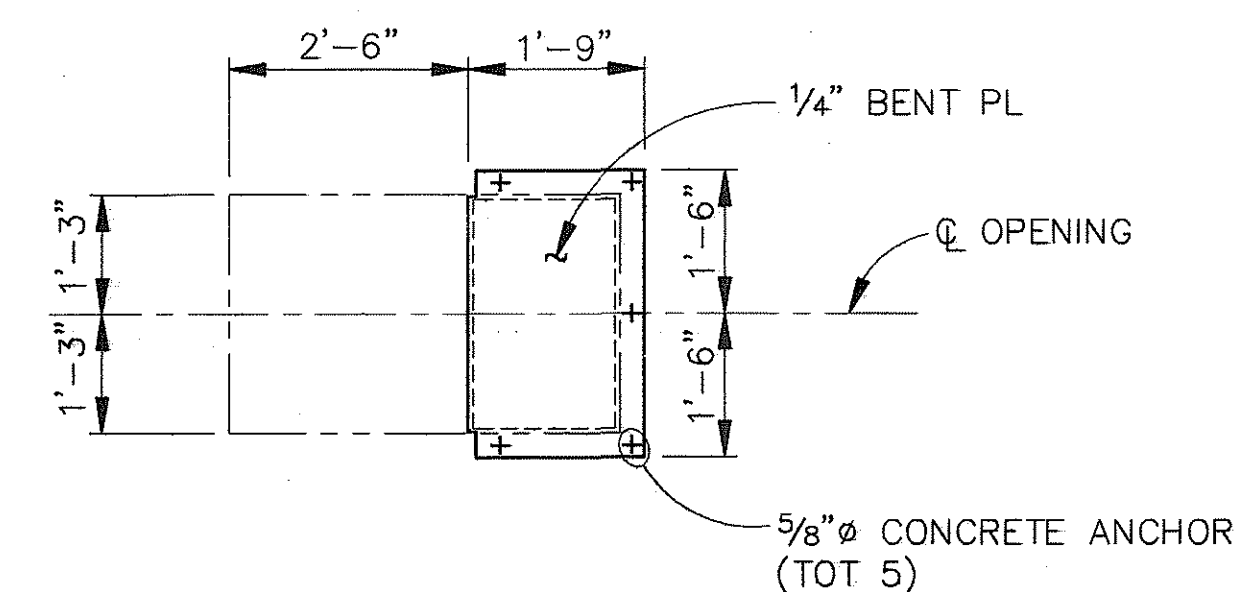
SECTION D
SCALE: 1"=1'-0" NH5|NH5



SECTION A
SCALE: 1/2"=1'-0" NH5 | NH5



SECTION B
SCALE: 3"=1'-0" NH5|NH5



SECTION _____ E
SCALE: 1/2"=1'-0" NH5|NH5

LEGEND :

- INDICATES EXISTING STRUCTURE
 _____ INDICATES NEW CONSTRUCTION

NOTES:

1. CONTRACTOR SHALL ROTATE EXISTING ACCESS DOOR 180°.
2. STEEL SHALL BE PER ASTM A36.
3. GALVANIZE ALL ASSEMBLIES AFTER FABRICATION PER ASTM A123.
4. ~~CONTRACTOR SHALL REFER TO THE FOLLOWING SHOP DRAWINGS:~~

~~ACCESS DOOR~~ - ~~LOT 3763 186D~~

~~GATWALK~~ — ~~LOT 3763 829A~~

The contractor shall field verify all necessary dimensions before the start of any new construction.

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
N. HALAWA VALLEY VIADUCT <u>CATWALK DETAILS</u> INTERSTATE ROUTE H-3 F.A.I. PROJ. NO. I-H3-1(75) UNIT-I	
SCALE: AS NOTED	DATE: JAN. 1996
SHEET NO. NH5 OF 5 SHEETS	



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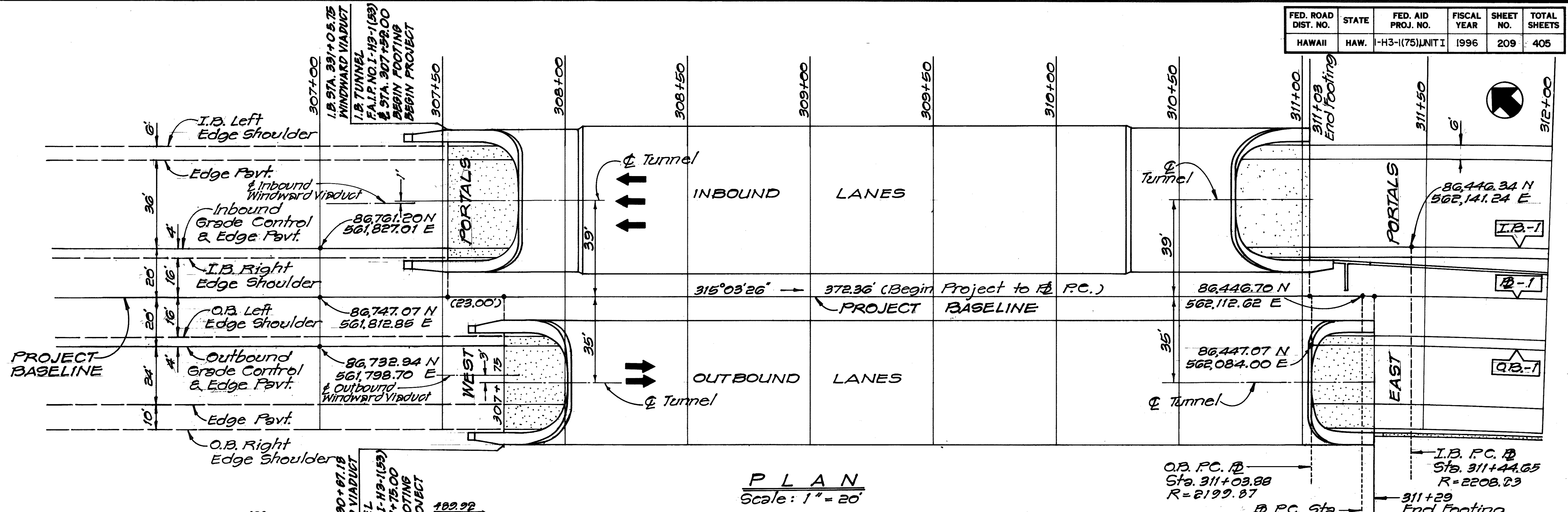
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T.Y. LIN INTERNATIONAL

"AS-BUILT"

207

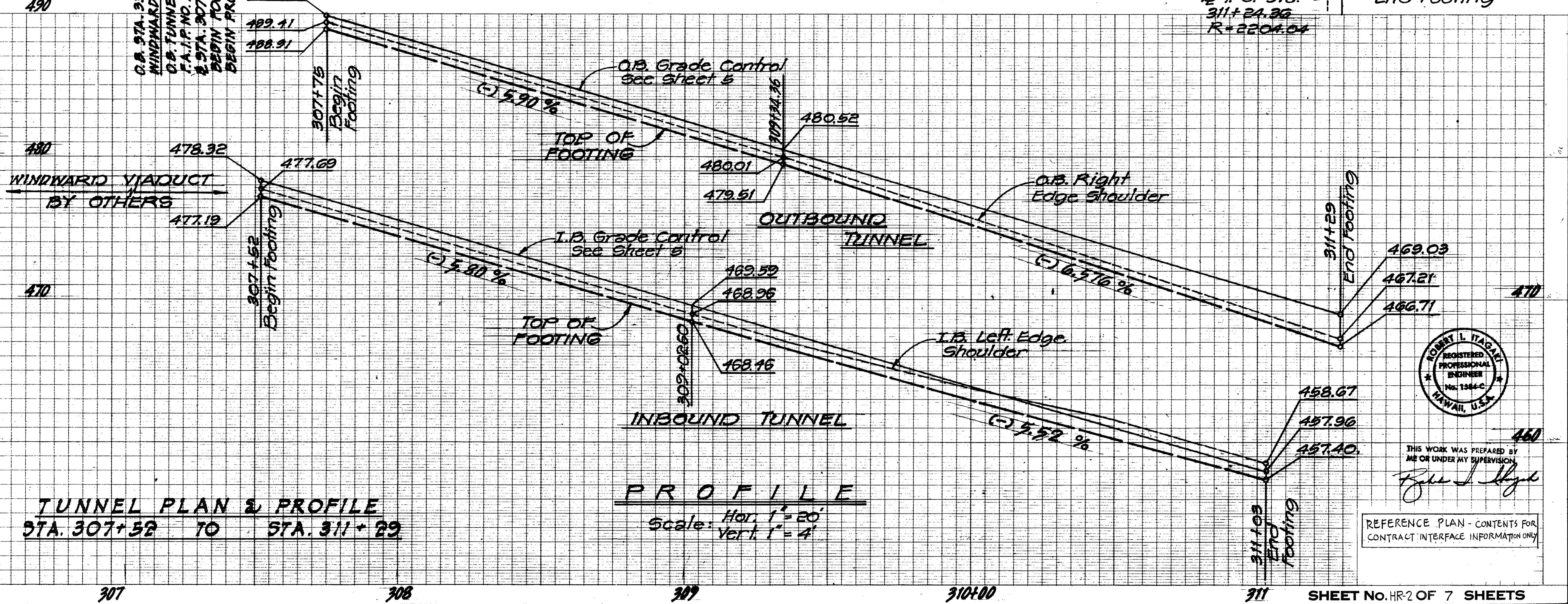
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(PLOT 1=24) << BY : JOE >>
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H-3-(175)UNIT I	1996	209	405



CURVE DATA

	Q.B.-1	Q.B.-1	I.B.-1
Δ	48°36'17"	48°36'17"	48°36'17"
Δ/2	24°18'08.5"	24°18'08.5"	24°18'08.5"
R	2204.04	2199.87	2208.23
T	995.27	993.39	997.10
C	1814.15	1810.72	1817.60
LC	1869.71	1866.18	1873.27



TUNNEL PLAN & PROFILE
STA. 307+52 TO STA. 311+29



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Robert L. Taggart
REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY

NOTE:

Profile lines for basalt, highly weathered rock and clayey silt shown are approximate only. The determination of the exact limits of the tunnel type to be constructed shall be made solely by the Engineer.

TABLE I

The following tunnel types shall bear on corresponding soil:

Basalt Rock

IR1, IR1A, IR2, OR1, OR1A, OR2, & OR2A

Highly Weathered Rock

IW1A, OW1, OW1A, IR1BW & IR2AW

Clayey Silt

IS1, IS1A, IP1, IP2, IP3, IP1A, IP2A, IP3A, OS1A, OP1, OP2, OP3, OP1A, OP2A & OP3A

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT I	1996	210	405
DATE		REVISION			
7/24/89		Added Revised Tunnel Sections			

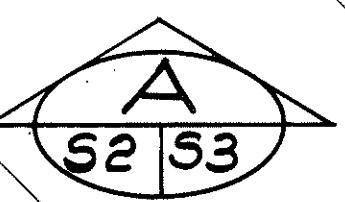
REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY

ABBREVIATIONS

Approx.	Approximate	I.B.	Inbound
Bal.	Balance	Jt.	Joint
Bot.	Bottom	Longit.	Longitudinal
(C)	Contraction	Lt.	Left
c.c.	Center to center	Max.	Maximum
¢	Center line	Min.	Minimum
c/r.	Clear	N.I.C.	Not in contract
Conc.	Concrete	OB	Outbound
Cont.	Continuous	o.c.	on center
Det.	Detail	Pavt.	Pavement
dia.	Diameter	P.	Plate
dwg.	Drawings	P.V.C.	Polyvinylchloride
E.F.	Each Face	Ref.	Refference
El.	Elevation	Reinf.	Reinforcement
Eq.	Equal	Ret.	Retaining
E.W.	Each Way	Rt.	Right
Exist	Existing	Sect.	Section
Ftg.	Footing	Sht.	Sheet
Galv.	Galvanized	Sp.	Spacing
H	Height	Symm.	Symmetrical
H.S.	High Strength	T	Top
Horiz.	Horizontal	Typ.	Typical
		vert.	Vertical

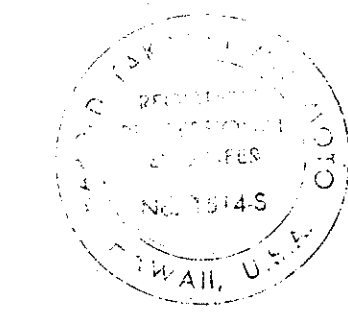
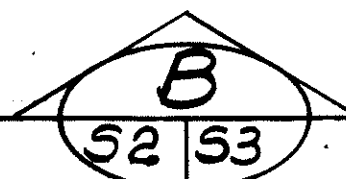
LONGITUDINAL SECTION ALONG & INBOUND TUNNEL

Scale: 1" = 20'-0"



LONGITUDINAL SECTION ALONG & OUTBOUND TUNNEL

Scale: 1" = 20'-0"



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James W. Williams

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

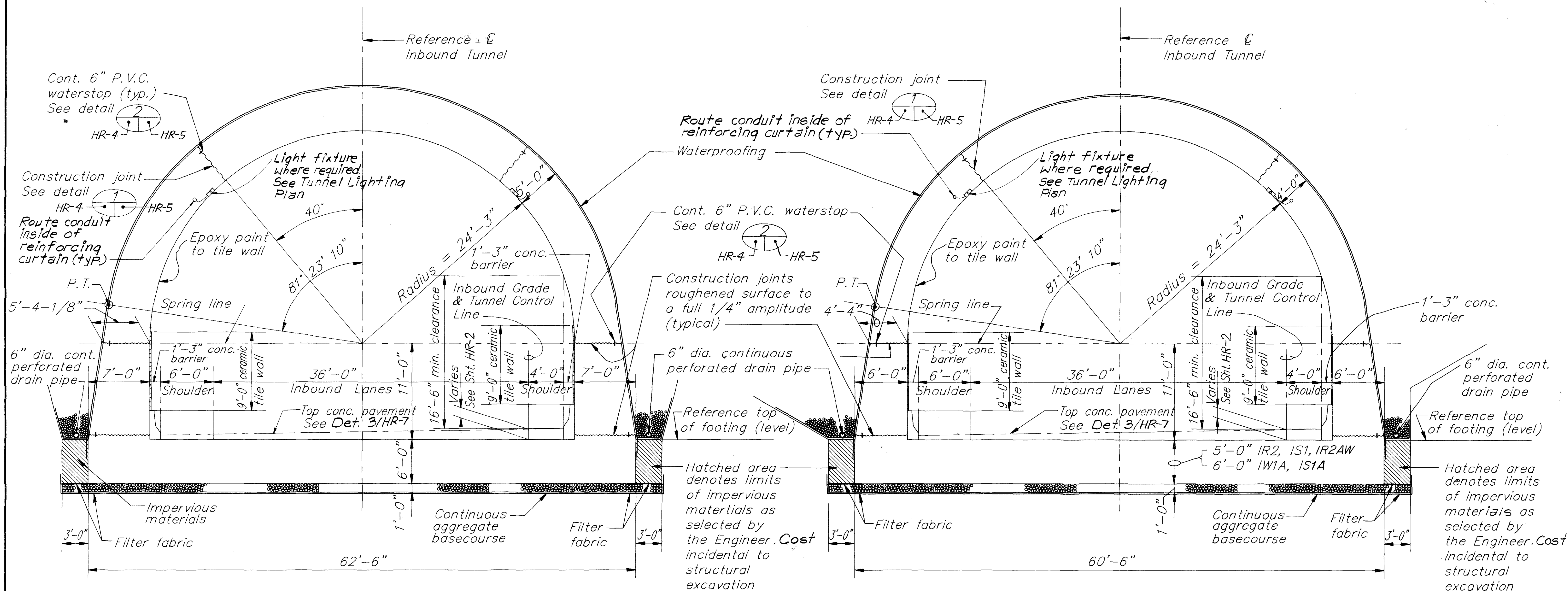
LONGITUDINAL SECTIONS
ALONG TUNNELS

INTERSTATE ROUTE H-3
F.A.I. PROJ NO. I-H3-1(75)UNIT I

SCALE: AS NOTED DATE: JAN 1996

SHEET No. HR3 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HH3-1(75)UNIT I	1996	211	405



TYPE "IR1", "IR1A", "IR1BW"
SCALE: 3/16" = 1'-0"

TYPE "IR2", "IW1A", "IS1" & "IS1A", "IR2AW"
("IP1", "IP2", "IP3" SIMILAR TO "IS1")
("IR1A", "IR2A", "IR3A", SIMILAR TO "IS1A")
SCALE: 3/16" = 1'-0"

TYPICAL TUNNEL CROSS SECTIONS

INBOUND TUNNEL SECTIONS

REFERENCE PLAN - CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY

7/24/89	Added Revised Tunnel Sections
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INBOUND TUNNEL
TYPICAL CROSS SECTIONS

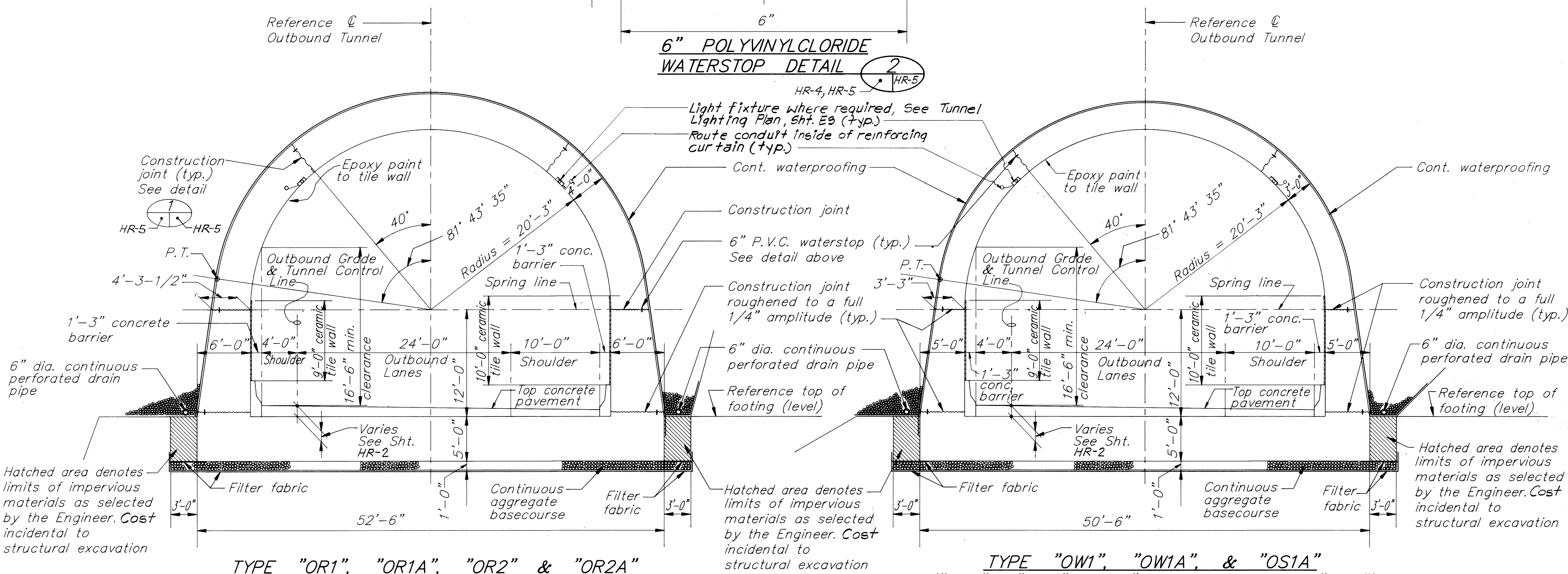
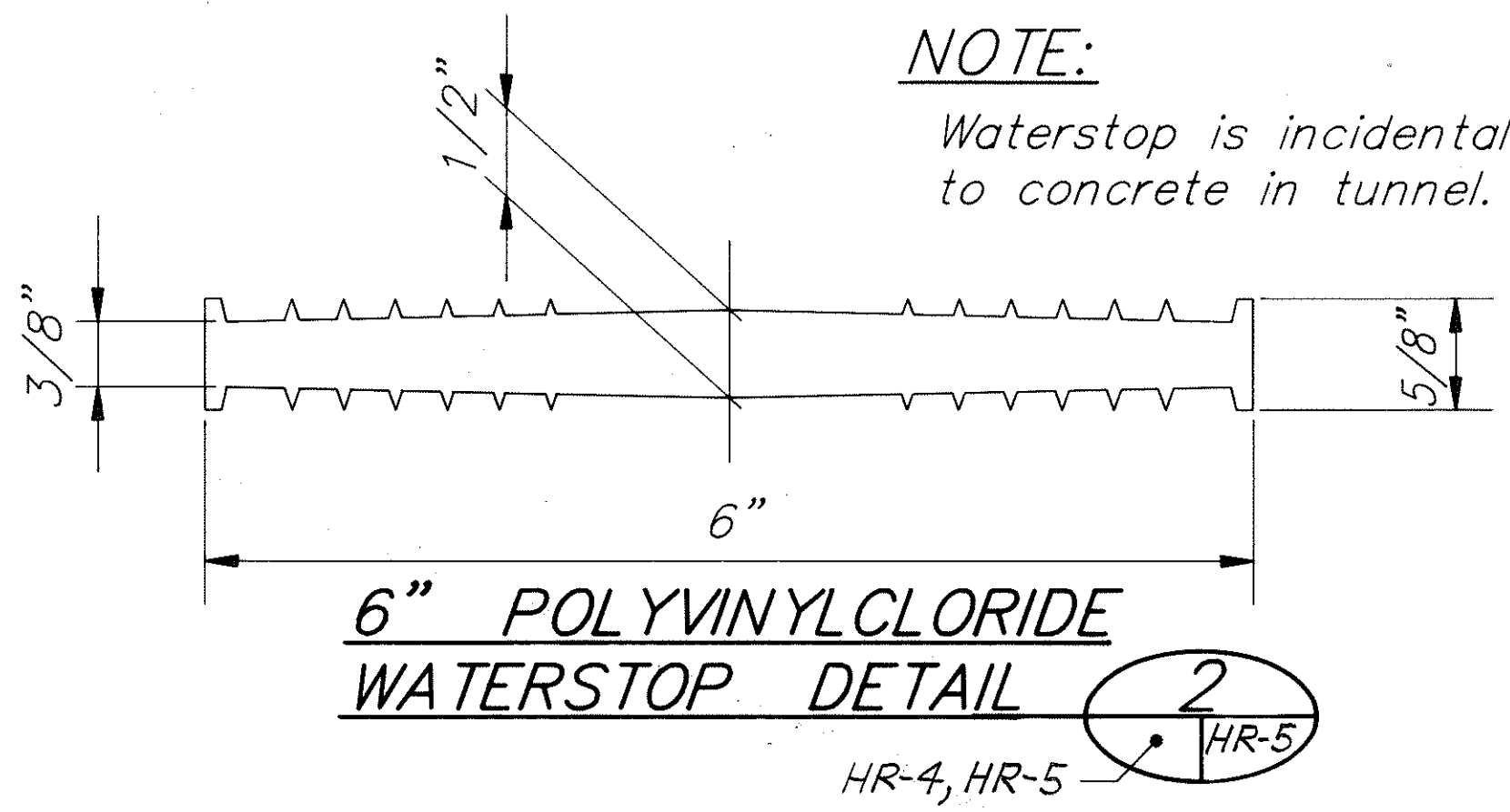
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75)UNIT I

SCALE: AS NOTED DATE: JAN. 1996

SHEET No. HR-4 OF 7 SHEETS

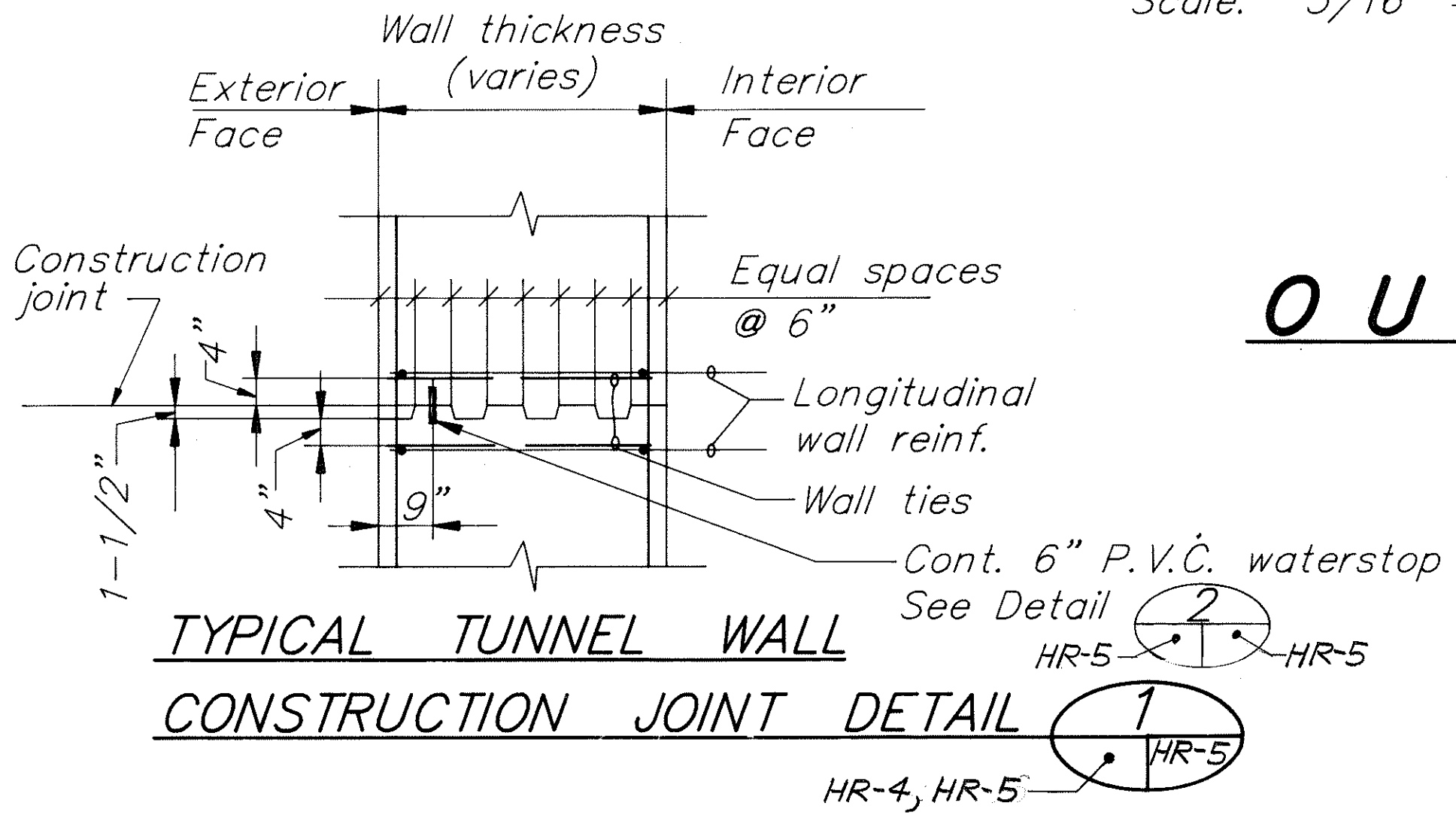
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HAWAII	HAW.	H3-1(75)UNIT I	1996	212	405

NOTE:
Waterstop is incidental to concrete in tunnel.



TYPICAL TUNNEL CROSS SECTIONS

OUTBOUND TUNNEL SECTIONS



TYPICAL TUNNEL WALL CONSTRUCTION JOINT DETAIL

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY

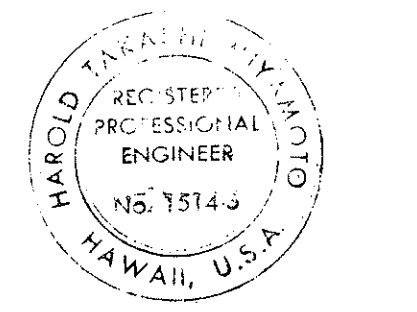
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**OUTBOUND TUNNEL
TYPICAL CROSS SECTIONS**

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75)UNIT I

SCALE: AS NOTED DATE: JAN 1996

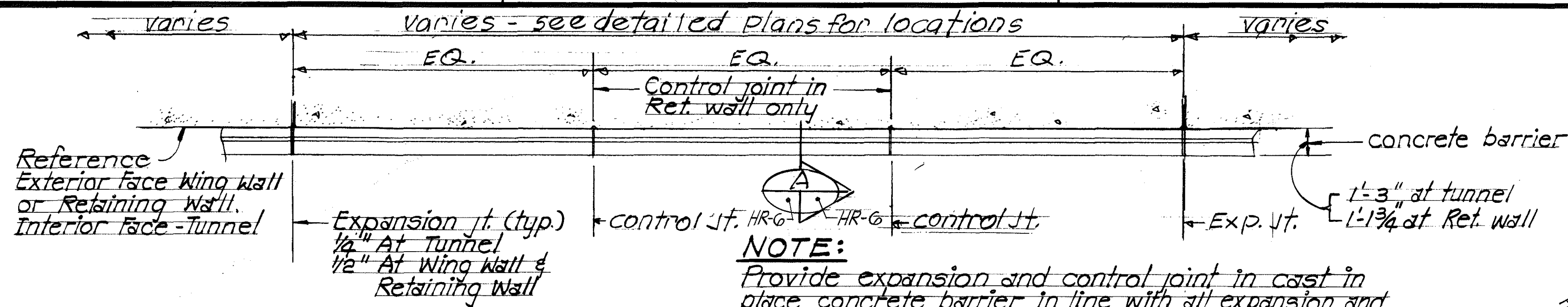
SHEET No HR-5 OF 7 SHEETS



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Harold T. Hume

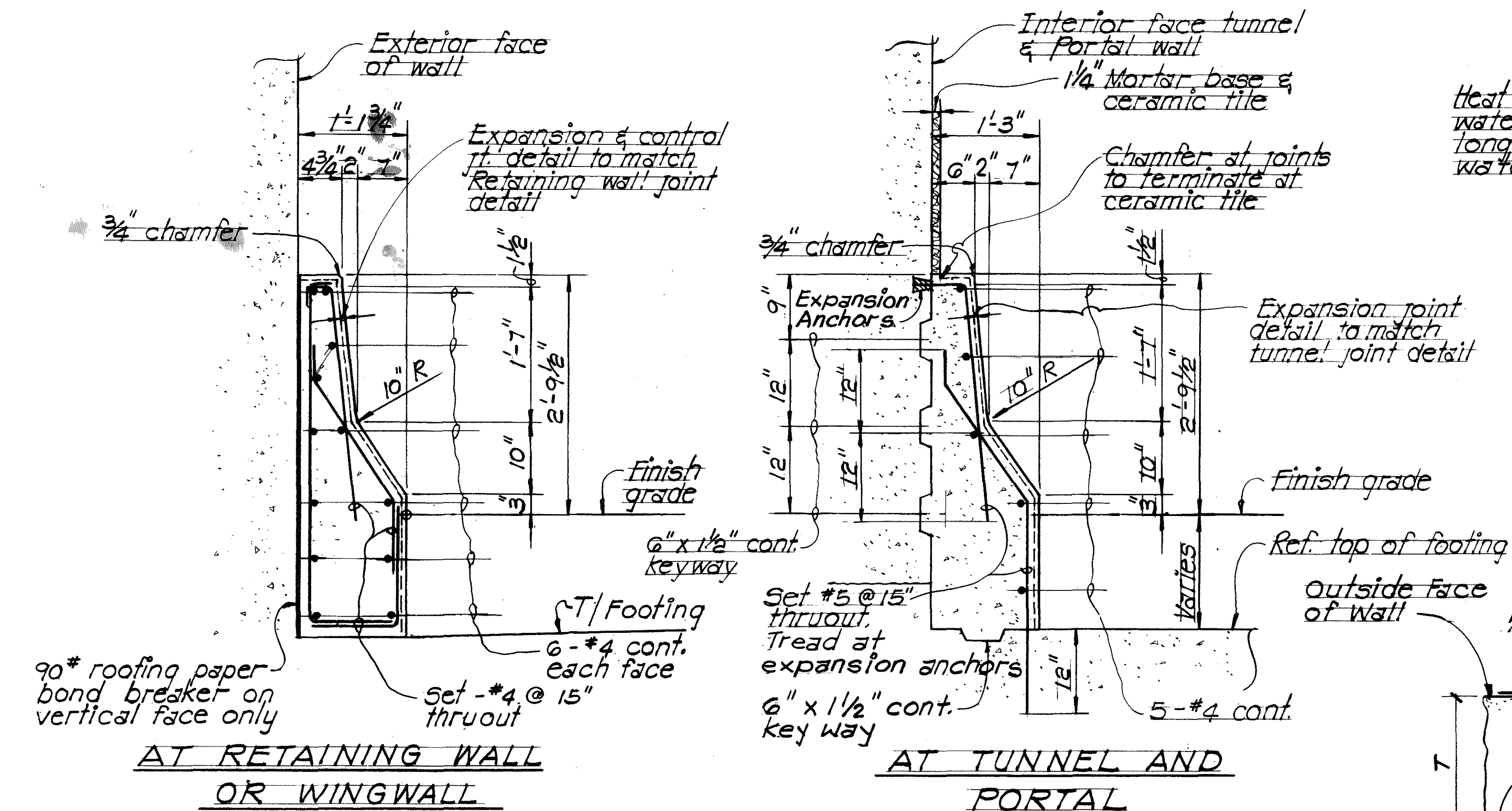
ORIGINAL SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	H-3-1(75), UNIT I	1996	213	405



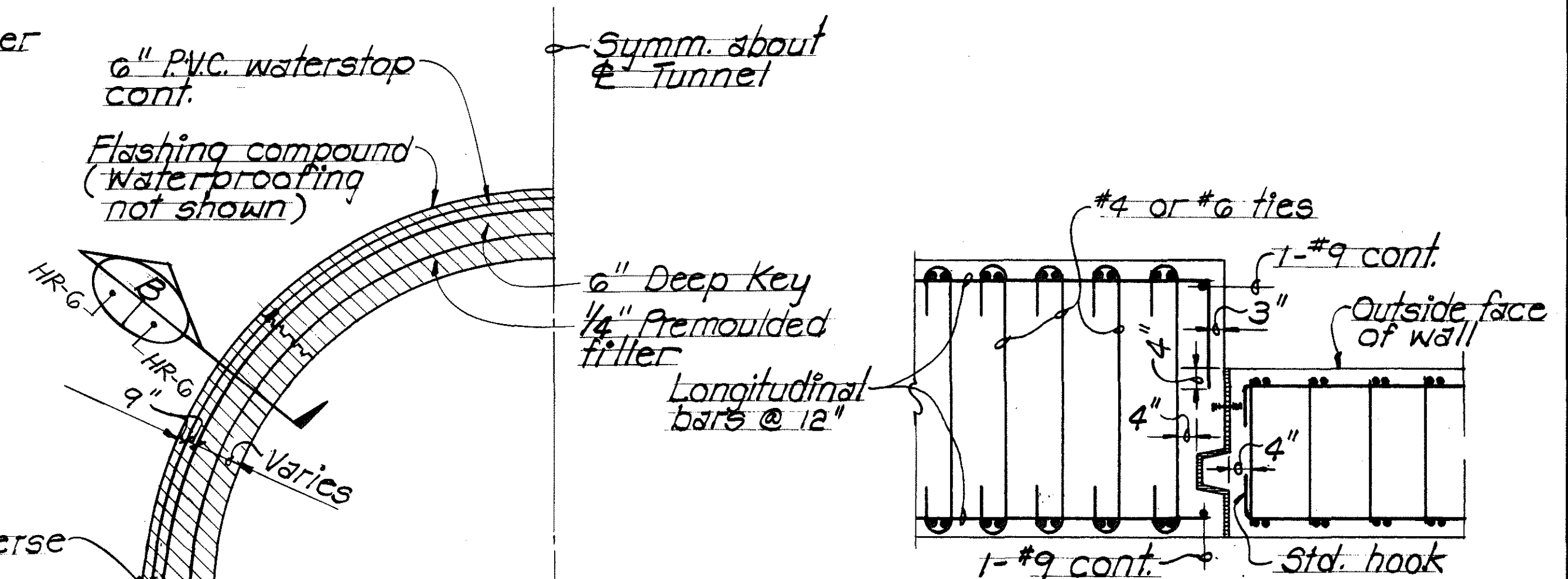
PLAN - TYPICAL CAST IN PLACE CONCRETE BARRIER

Not to scale

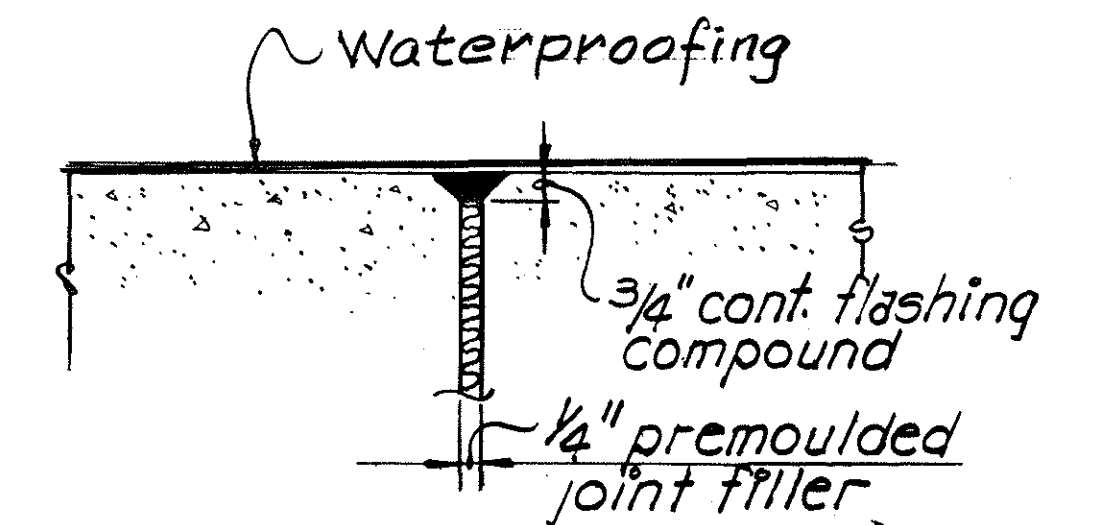


TYPICAL SECTION

Scale: 1" = 1'-0"

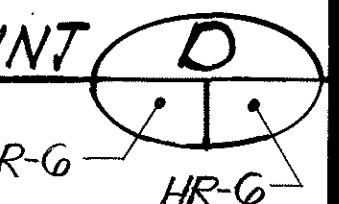


CONNECTION BETWEEN TUNNEL WALLS OF DIFFERENT THICKNESS.



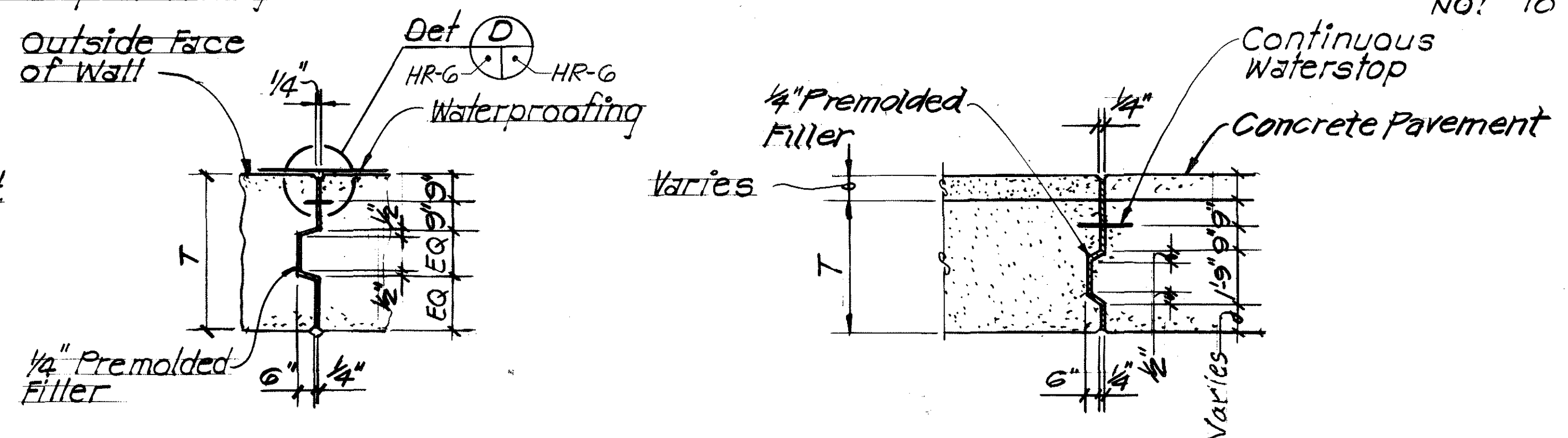
DETAIL AT EXPANSION JOINT

NOT TO SCALE



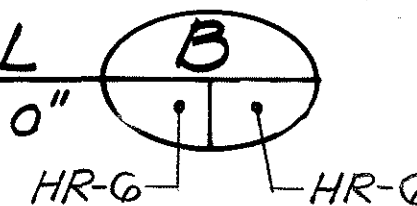
TYPICAL SECTION

Scale: $\frac{1}{8}" = 1'-0"$



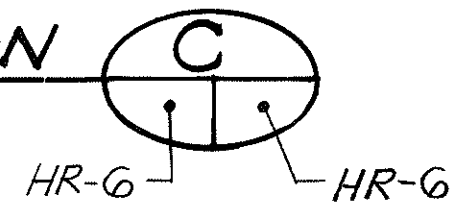
AT WALL

Scale: $\frac{3}{4}" = 1'-0"$



AT FOUNDATION

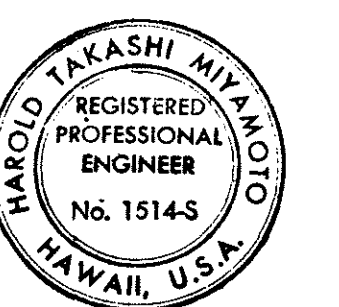
Scale: $\frac{3}{4}" = 1'-0"$



EXPANSION JOINT DETAIL



REFERENCE PLAN-CONTENTS FOR
CONTRACT INTERFACE INFORMATION ONLY



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Henry Myrland

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

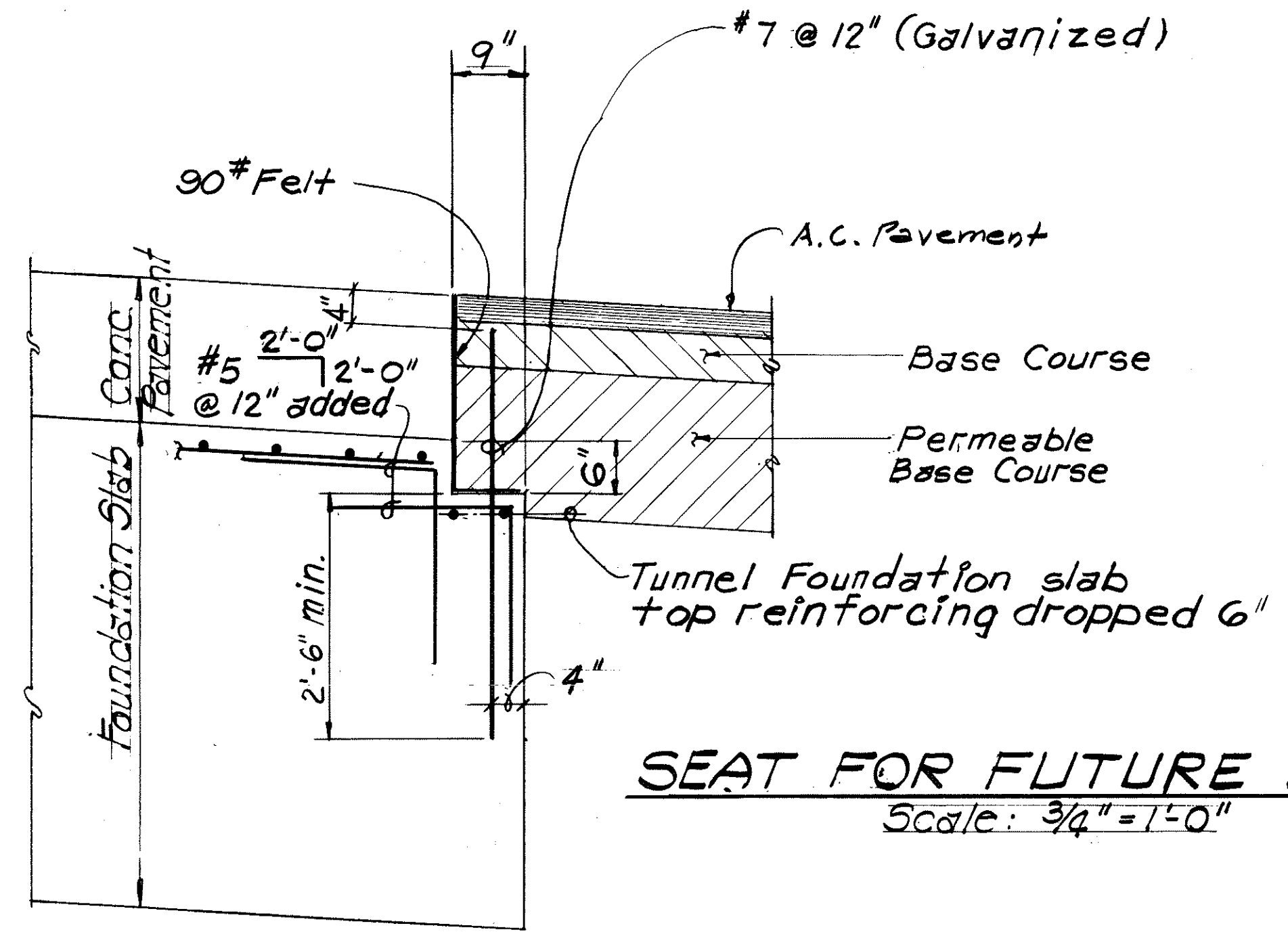
CAST IN PLACE CONC. BARRIER AND EXPANSION JOINT DETAIL

INTERSTATE ROUTE H-3
E.A.I. PROJ. NO. I-H3-1(75)UNIT I

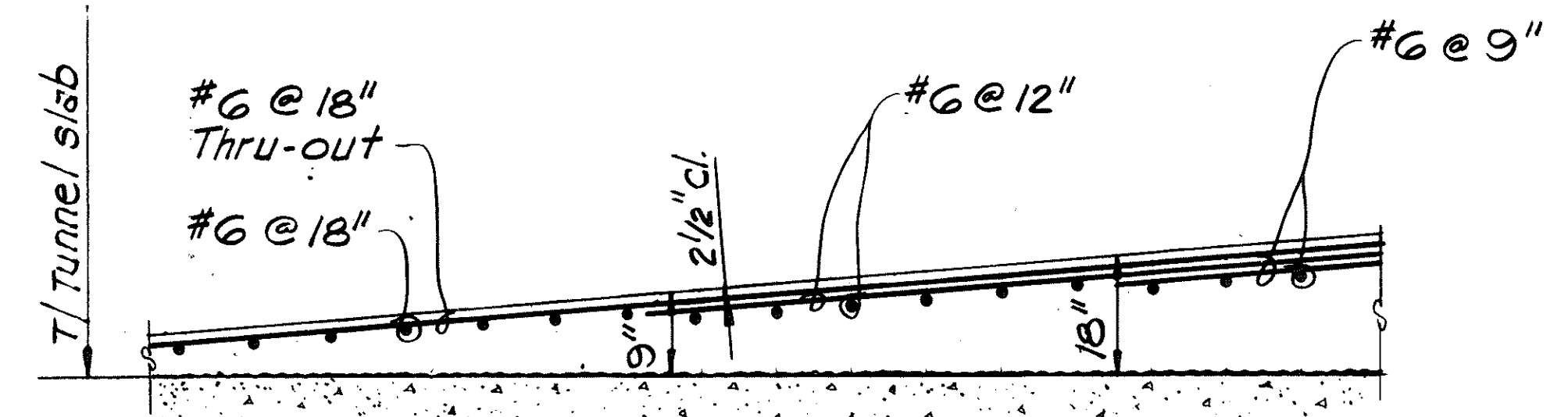
SCALE: AS NOTED DATE: JAN 1996

SHEET NO. HR-6 OF 7 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75)UNIT I	1996	214	405

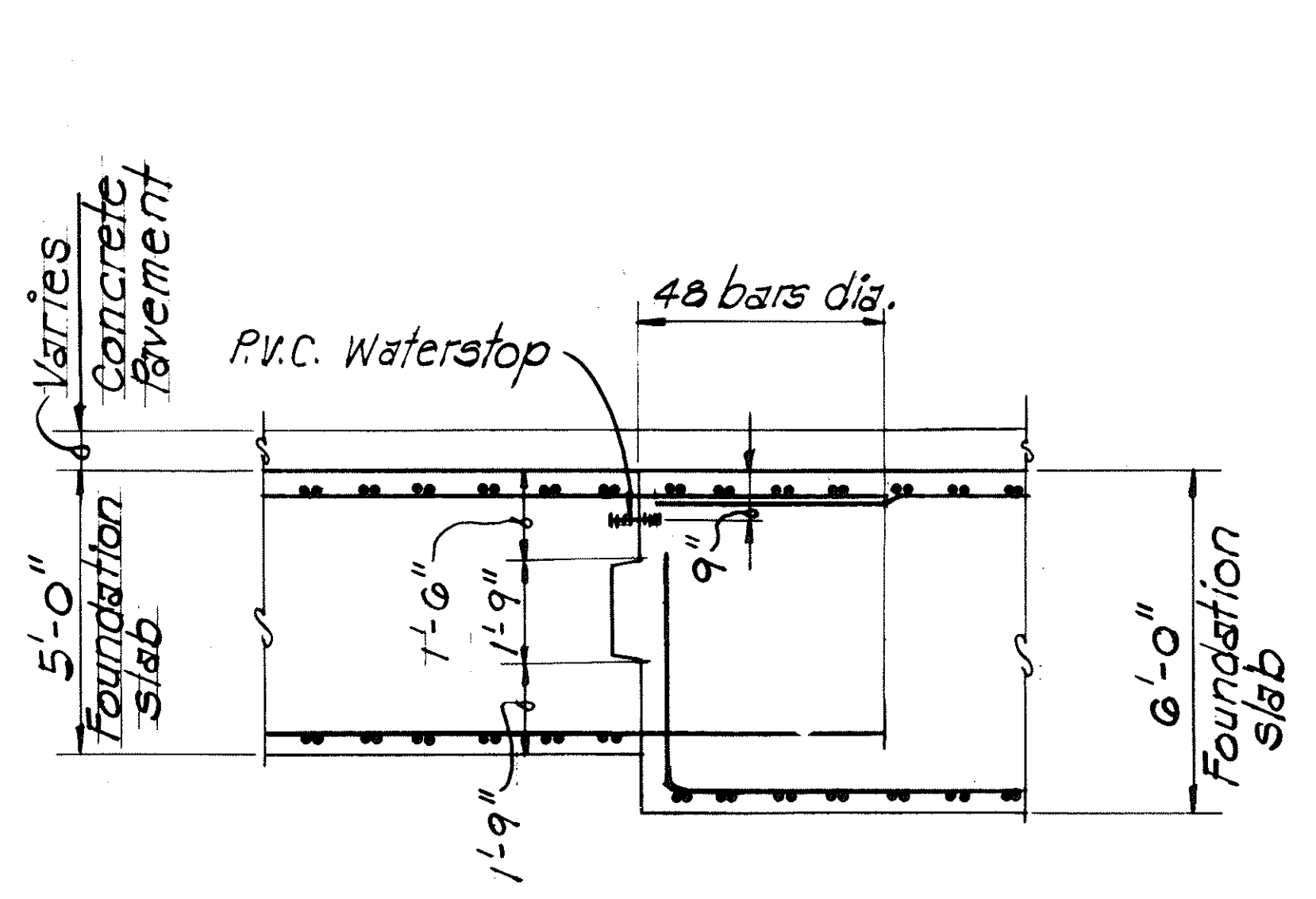


SEAT FOR FUTURE APPROACH SLAB - DETAIL 1
Scale: 3/4" = 1'-0" HR-7

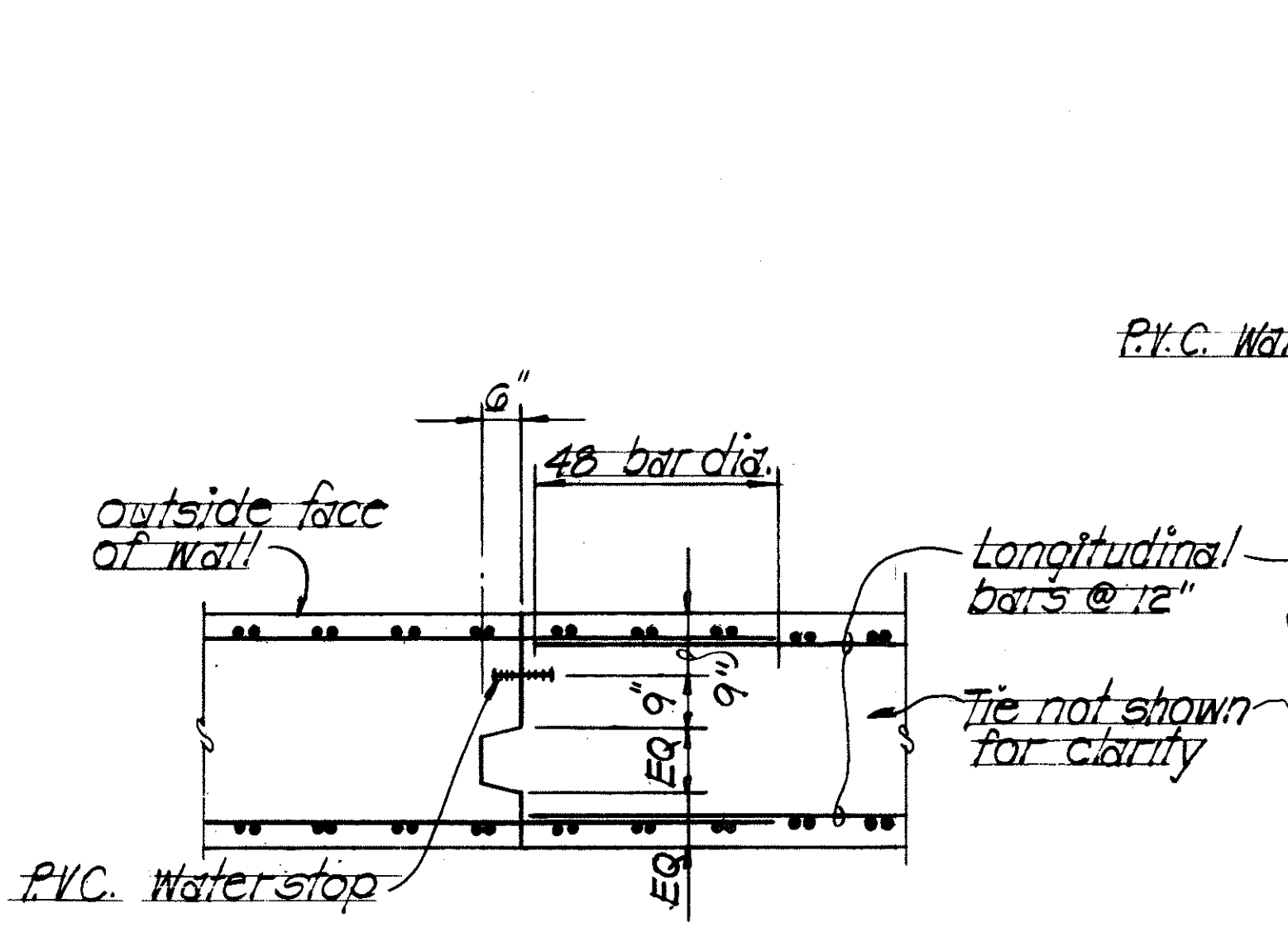


Actual pavement thickness determined from:
1. Superelevation diagrams
2. Tunnel profile, sht. HR-2

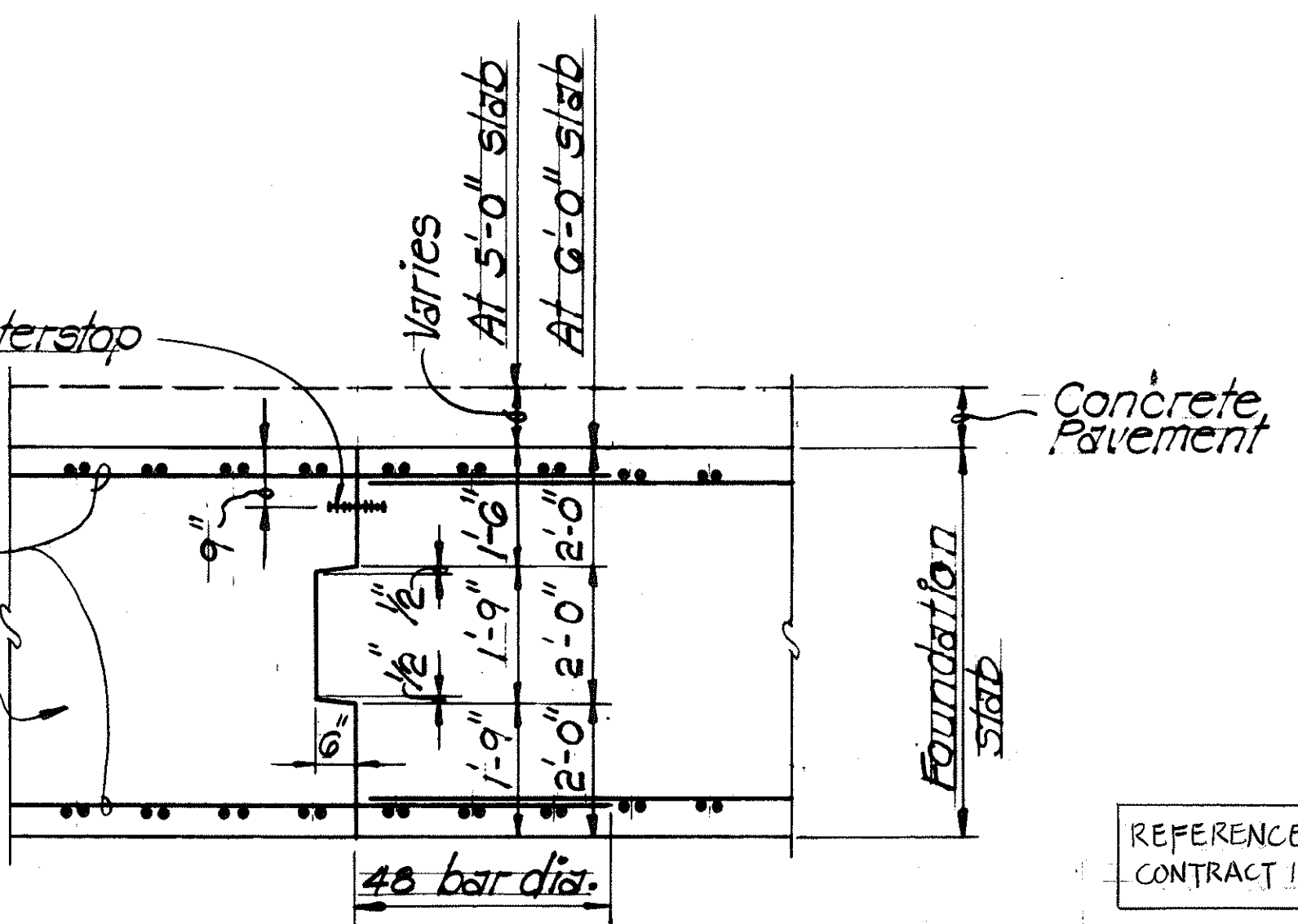
SCHEMATIC SECTION OF REINFORCED CONCRETE PAVEMENT IN TUNNEL 3
Not to scale HR-4, HR-5



AT FOUNDATION TRANSITION



AT WALL



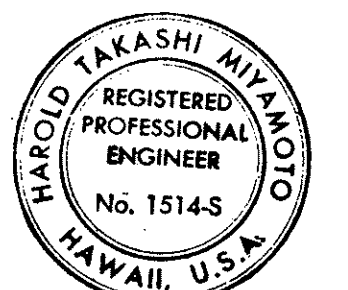
AT FOUNDATION

TYPICAL CONSTRUCTION JOINT DETAIL 2
Not to scale HR-7 HR-7

REFERENCE PLAN - CONTENTS FOR CONTRACT INTERFACE INFORMATION ONLY

10-28-88 Clarified Base Course and Permeable Base Course Det. 1/2"

DATE REVISION



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Harold Takashi Miyamoto

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

APPROACH SLAB DETAILS AND TYPICAL CONSTRUCTION JOINT DETAIL

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75)UNIT I

SCALE: AS NOTED DATE: JAN 1996

SHEET NO. HR-7 OF 7 SHEETS

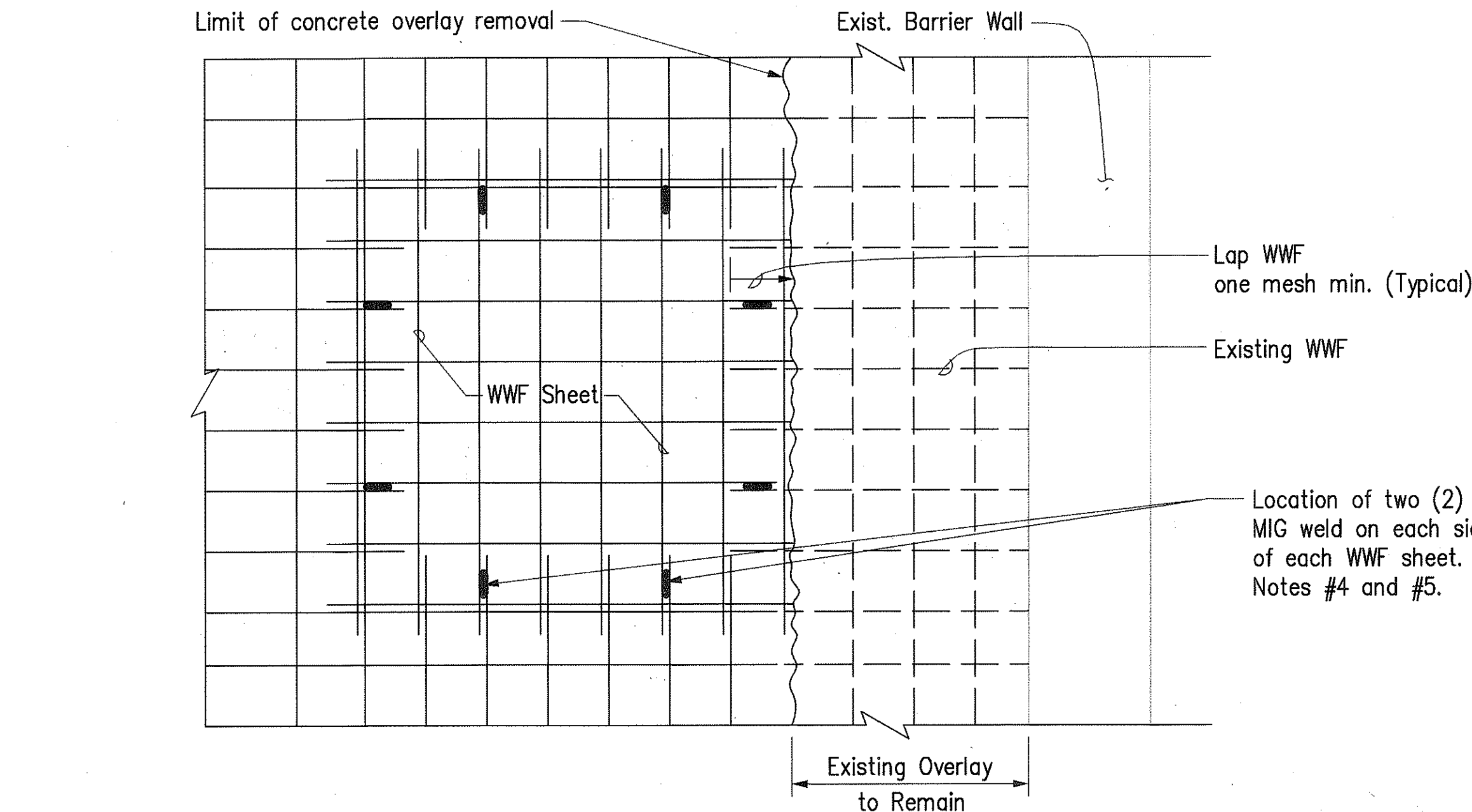
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	215	405

GENERAL NOTES:

- The portion of the existing Windward Viaduct overlay to be removed and replaced shall be as shown on these plans, and according to Section 510 of the Special Provisions of the contract.
- Areas of suspected delamination based on surveys conducted in April, 1993 are shown approximately. The actual locations and extent of delamination may differ at the time of removal.
- The thickness and profile of the replacement overlay shall match the existing adjacent overlay to provide a smooth transition at the joint.
- The existing welded wire fabric (WWF) is required to provide part of the Faraday Shield for the Omega Transmitter station, and to provide steel reinforcement for the overlay. The replacement WWF shall be overlapped one mesh min. with the adjacent WWF. ~~Each sheet shall be welded to adjoining sheets at two locations per side and as specified in Section 510 of the Special Provisions.~~ The new WWF shall be placed at mid depth, except where it meets the existing WWF which is placed approximately 1/2-inch above the substrate deck.
- ~~Welding of mesh for Faraday Shield is required only between Station 264+24.00 and Station 283+00 on the Outbound Viaduct, and between Station 264+64.53 and Station 285+00 on the Inbound Viaduct.~~
- Existing barrier walls, light standards, sign supports and other appurtenances on the viaduct, including materials stored on the viaduct, shall be protected from concrete splatter and marring.
- See sheets FH1 and FH2 for locations of existing and proposed Faraday Shield and sign support structures.
- All concrete overlay on the Windward Viaduct newly placed under this contract and the full width of the existing lightly tined overlay at Station 305+38 to Station 306+00 Outbound (existing overlay replacement test section) shall be mechanically grooved. Contractor shall also groove and area adjacent to the Windward Viaduct near the Trans-Koolau Tunnel Portal, 24 feet wide from Station 261+90 to Station 264+00 Outbound.

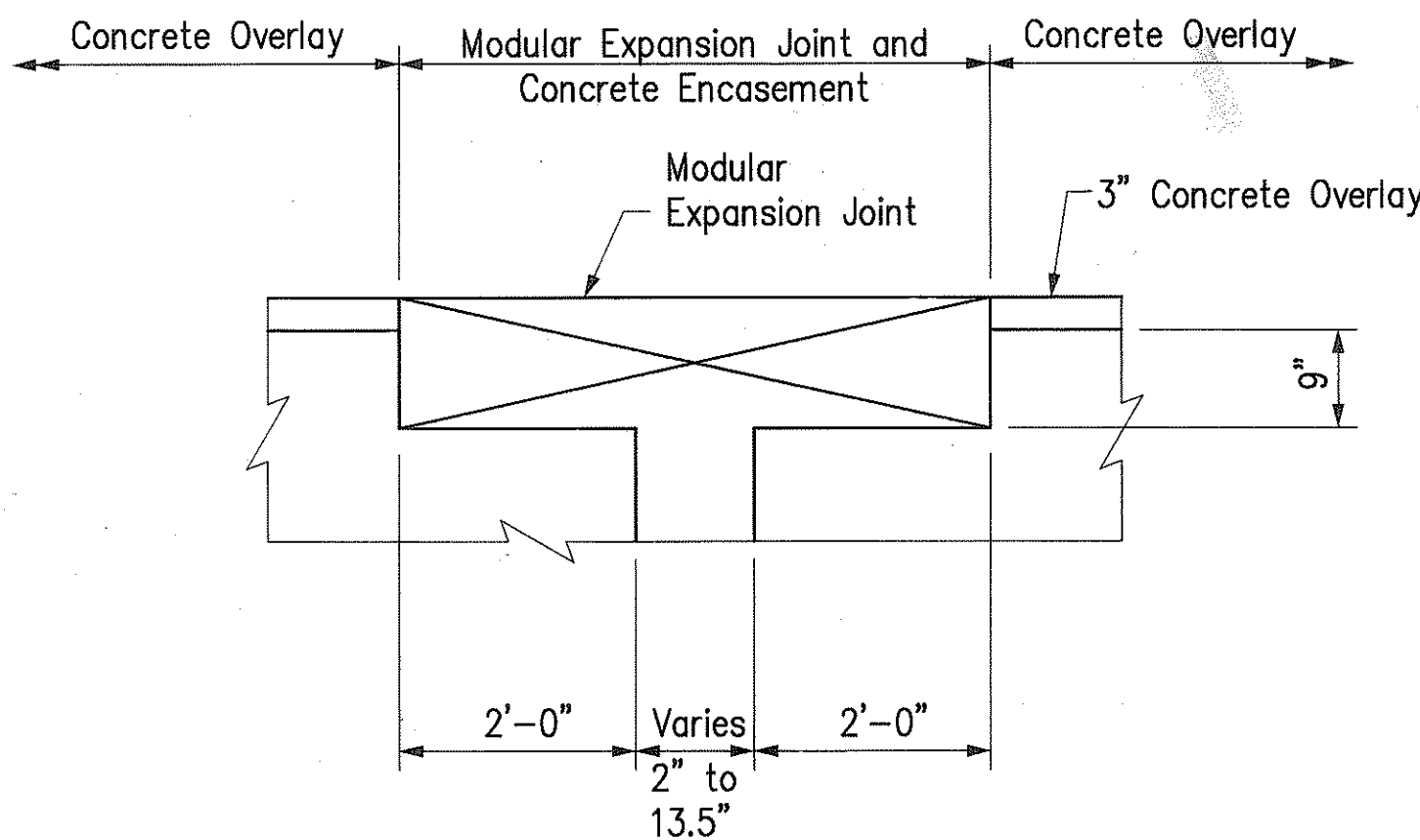
LEGEND:

-  Approximate Existing Areas of Delamination
-  Existing Deck Drains
-  Faraday Shield Supports / Light Poles / Sign Structure Supports



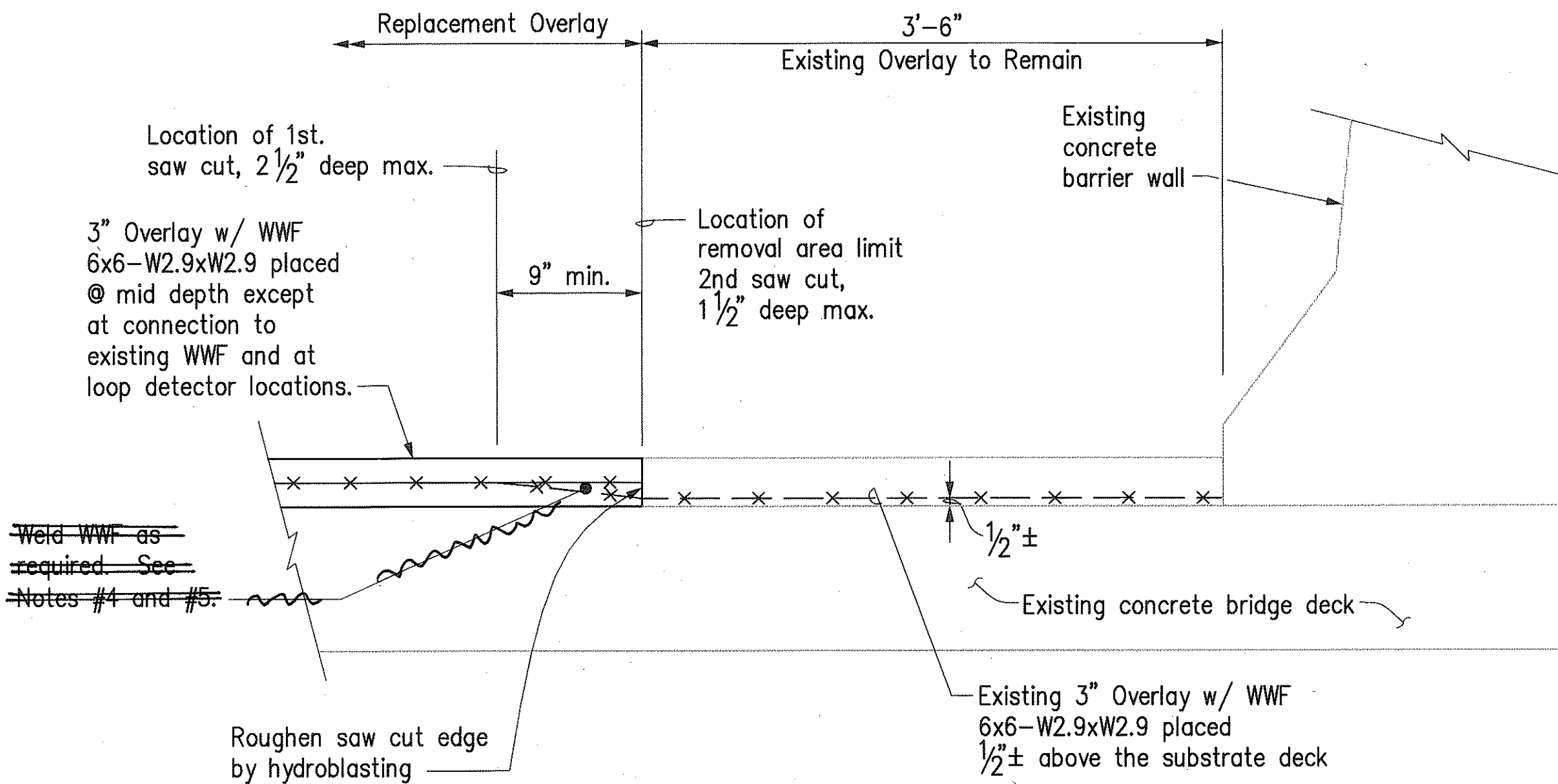
WWF 6X6-W2.9XW2.9 SPLICE PLAN

Not To Scale



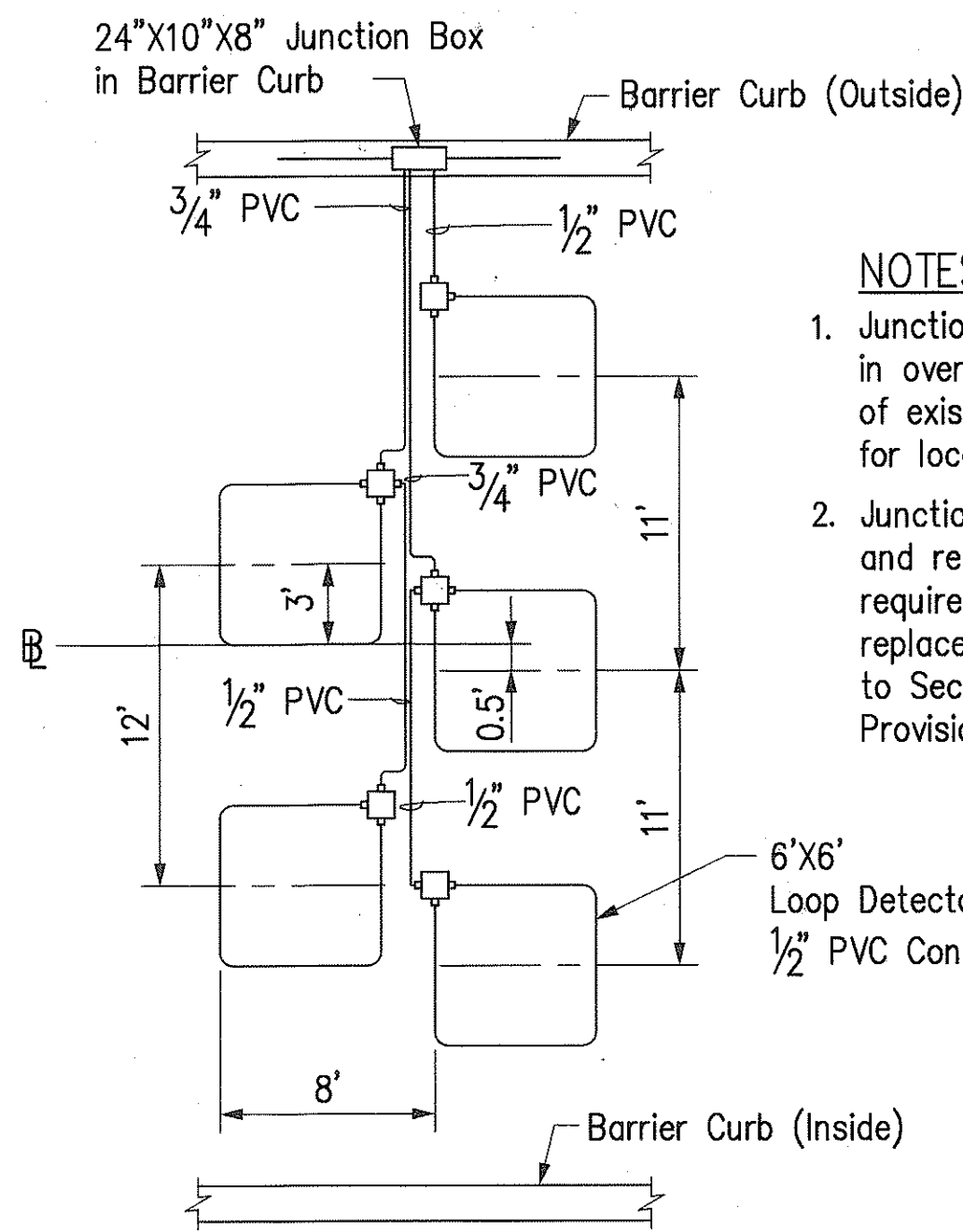
EXPANSION JOINT

Not To Scale



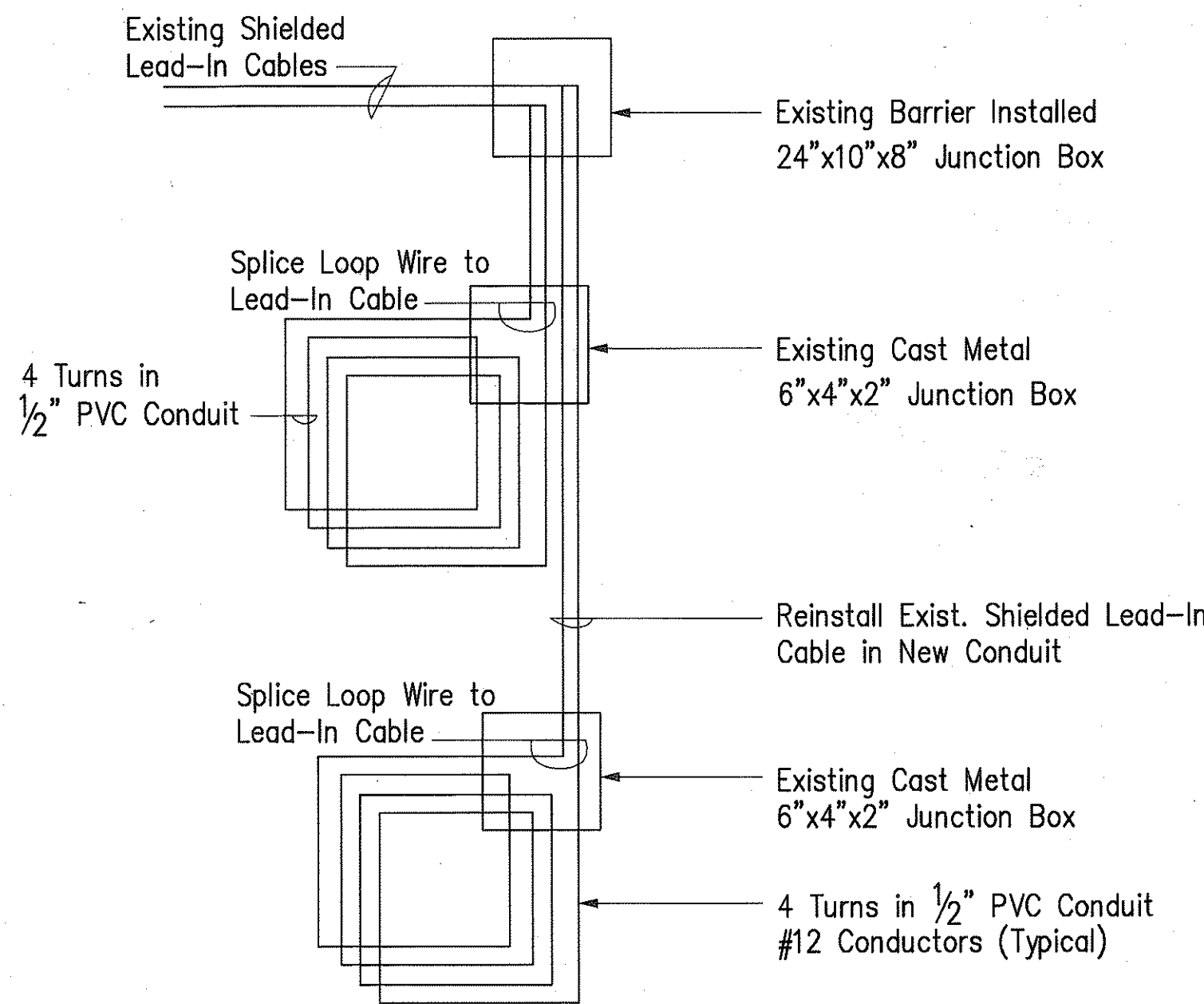
TYPICAL OVERLAY REPLACEMENT DETAIL

Not to Scale



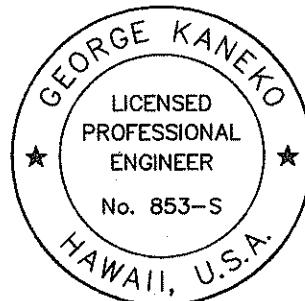
TYPICAL EXISTING LOOP DETECTOR SYSTEM DETAIL

Not To Scale



TYPICAL LOOP DETECTOR WIRE INSTALLATION DETAIL

Not To Scale



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George Kaneko

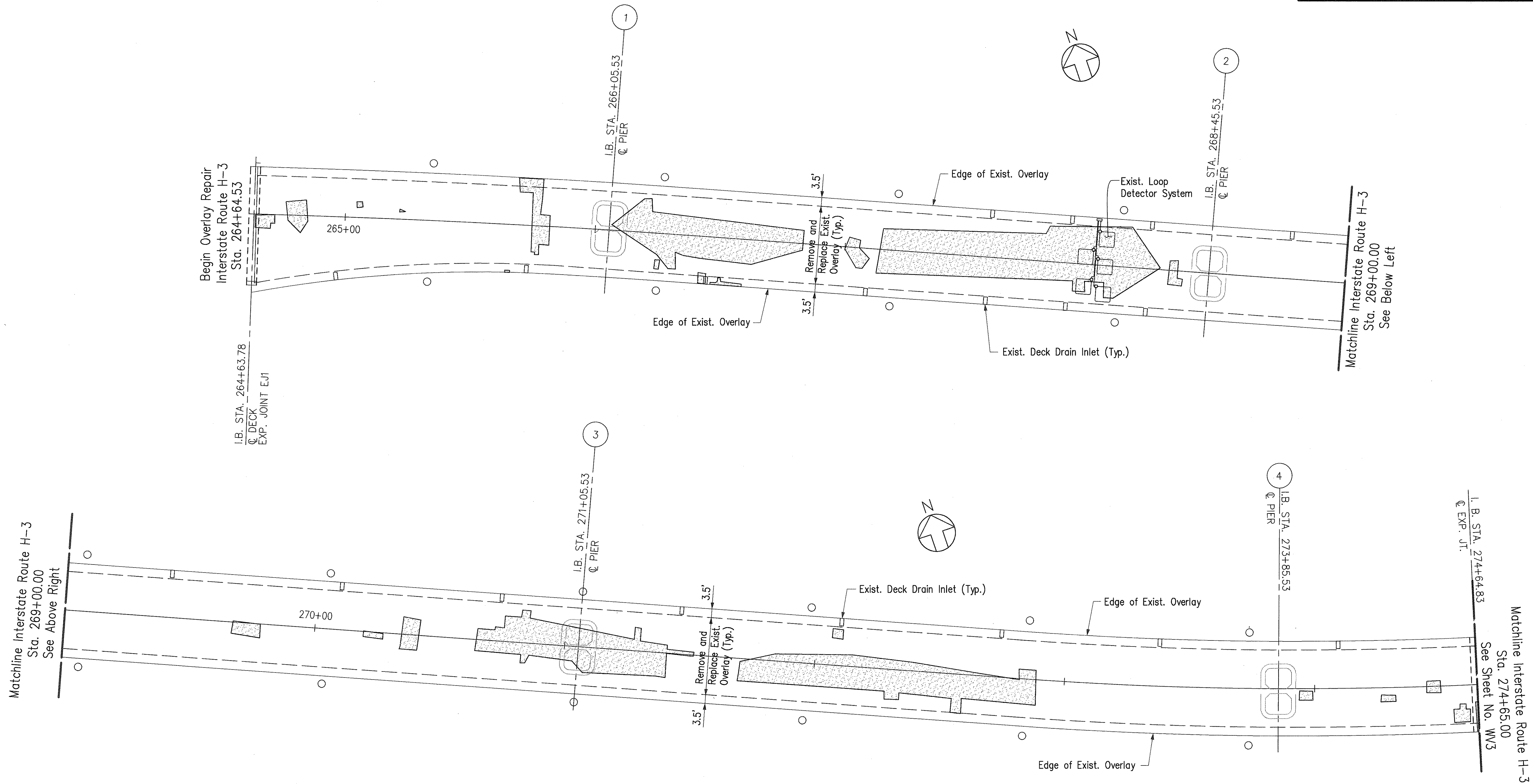
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**OVERLAY REPLACEMENT
WINDWARD VIADUCT
NOTES & DETAILS**

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: AS SHOWN
SHEET NO. WV1 OF 17 SHEETS

DATE: JANUARY 1996

"AS-BUILT"

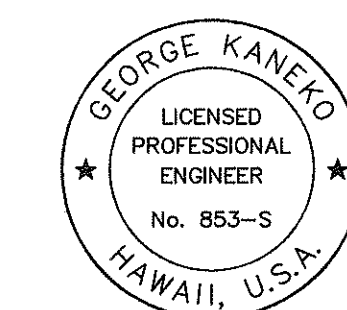
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	216	405



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

CAD by J. Minura, 55-52

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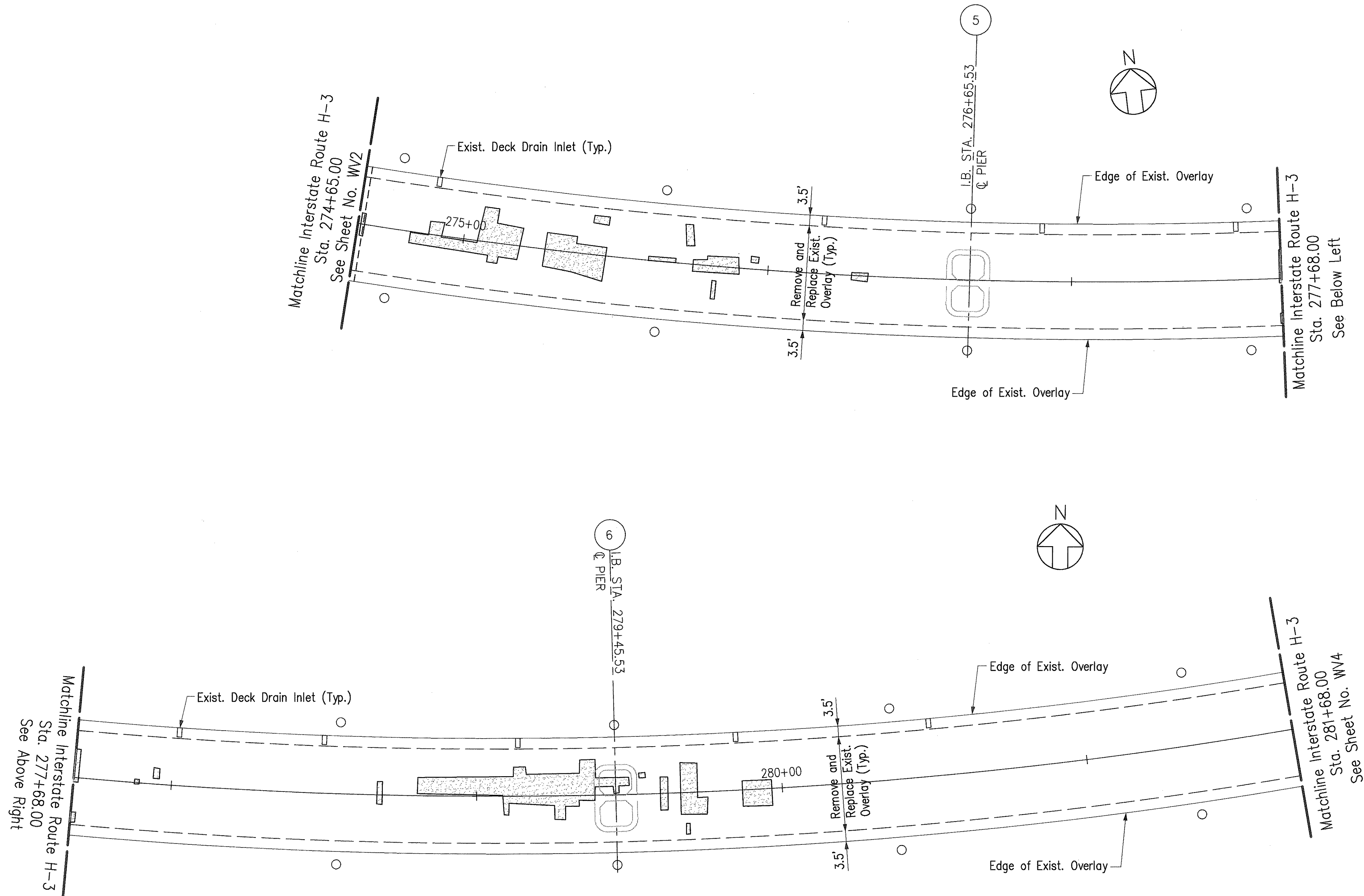
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT - INBOUND
Sta. 264+64.53 to Sta. 274+65.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV2 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	217	405



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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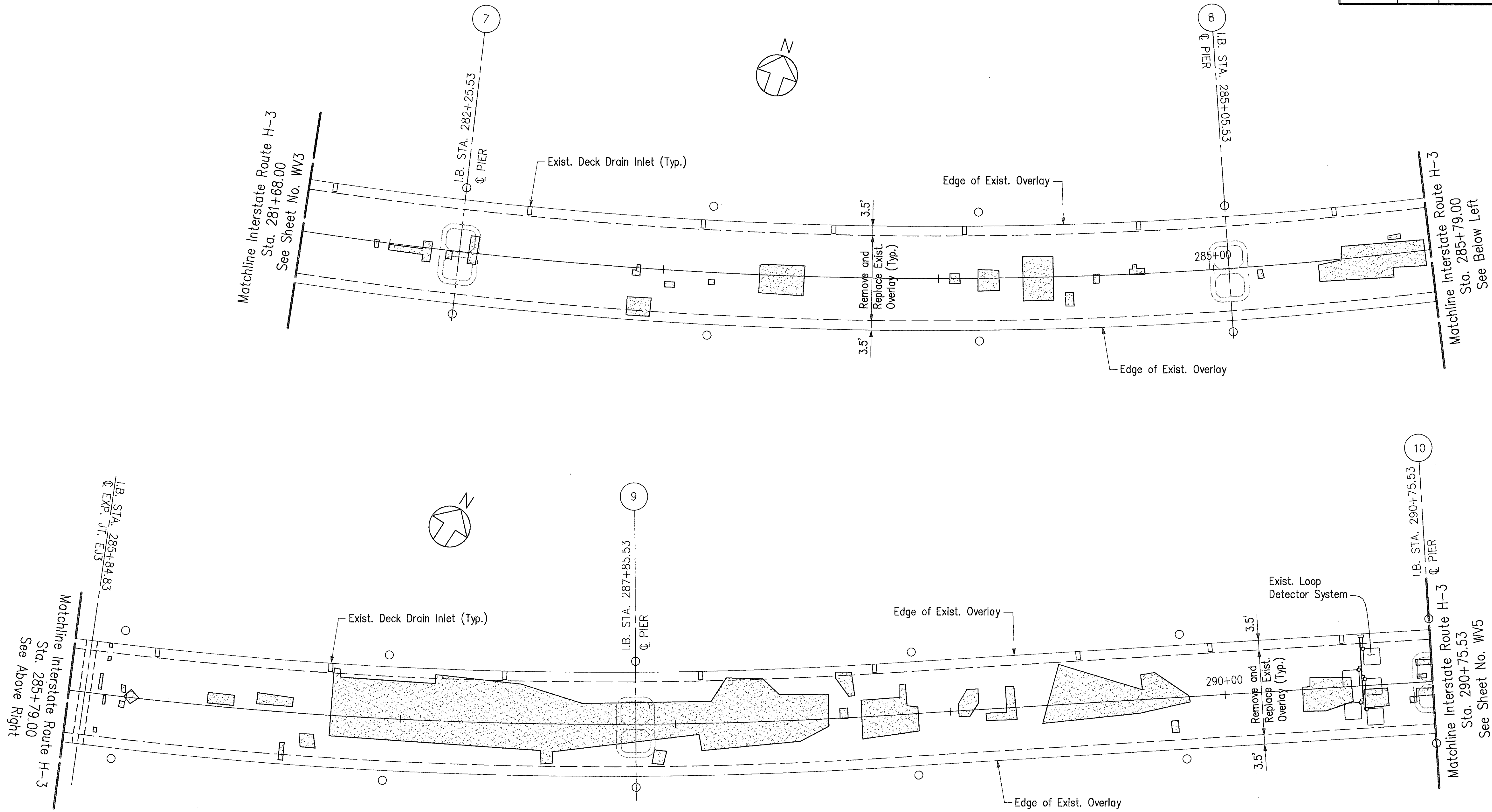
George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERLAY REPLACEMENT
WINDWARD VIADUCT — INBOUND
Sta. 274+65.00 to Sta. 281+68.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV3 OF 17 SHEETS

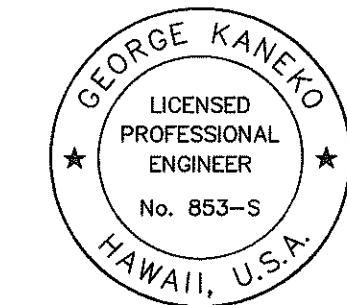
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HAWAII	HAW.	I-H3-1(75), UNIT I	1996	218	405



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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HIGHWAYS DIVISION

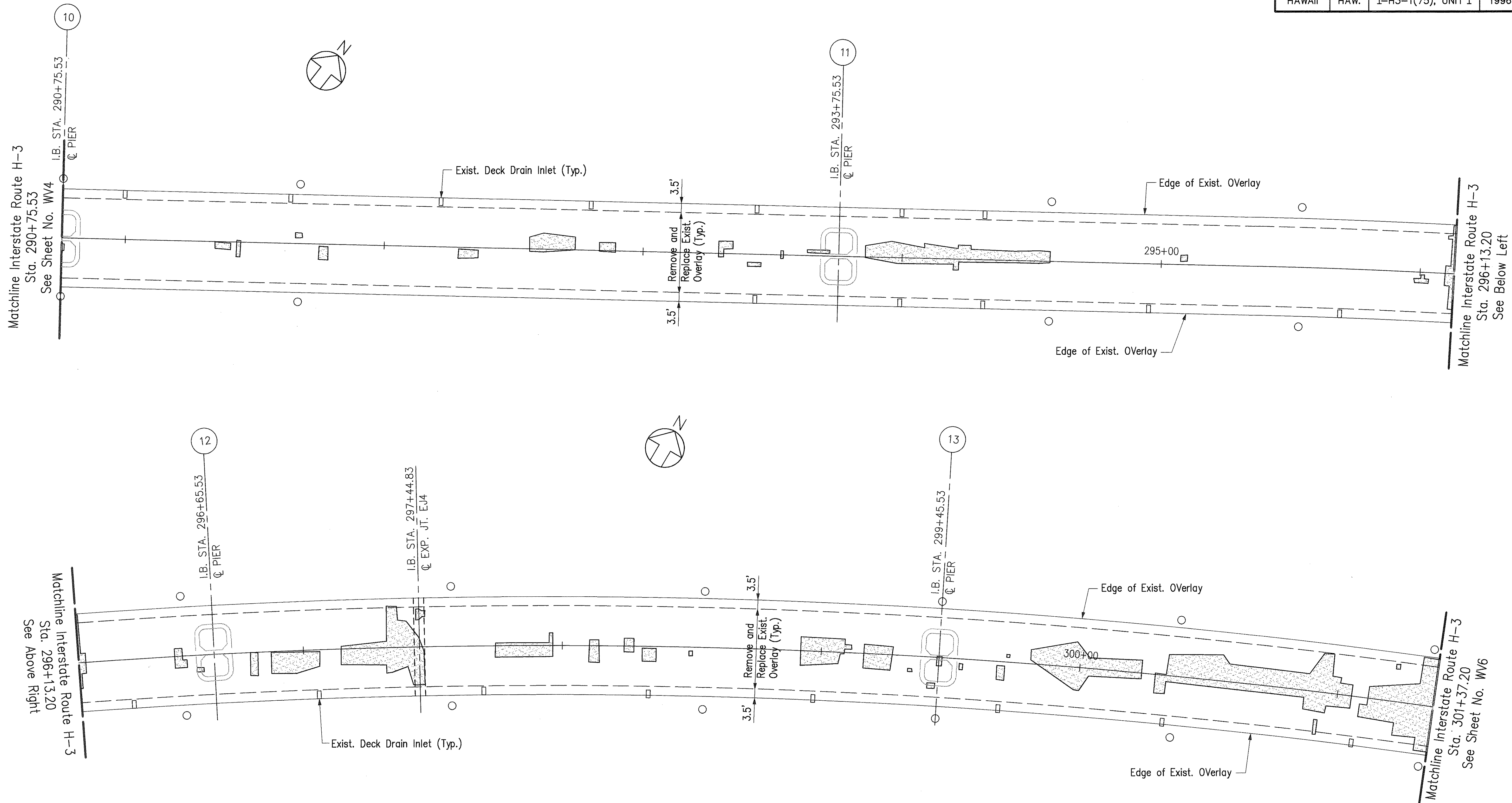
OVERLAY REPLACEMENT
WINDWARD VIADUCT - INBOUND
Sta. 281+68.00 to Sta. 290+75.53

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

SCALE: 1" = 20' DATE: JANUARY 1996

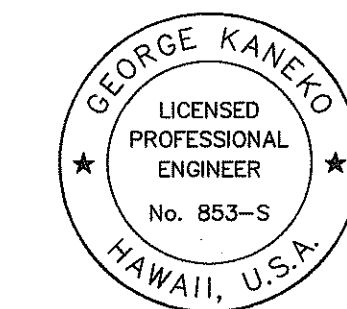
SHEET NO. WV4 OF 17 SHEETS

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HAWAII	HAW.	I-H3-1(75), UNIT I	1996	219	405



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PLAN	DRAWN BY	
NOTE BOOK	DESIGNED BY	
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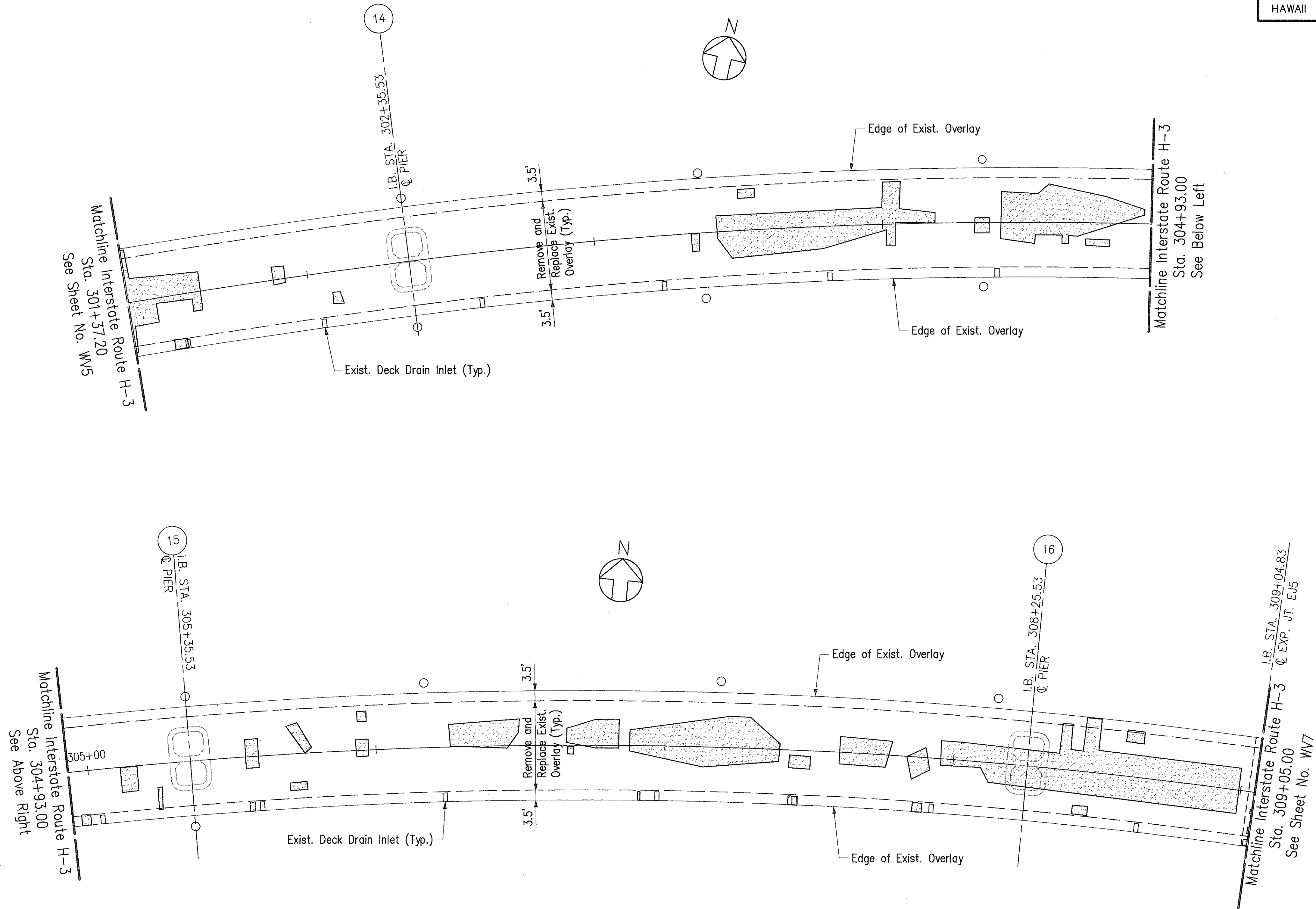
George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERLAY REPLACEMENT
WINDWARD VIADUCT - INBOUND
Sta. 290+75.53 to Sta. 301+37.20

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV5 OF 17 SHEETS

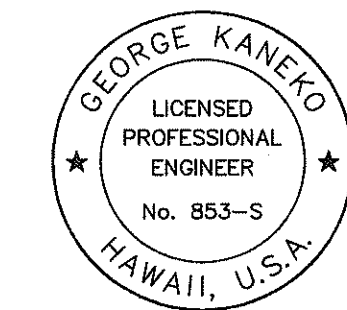
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	220	405



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

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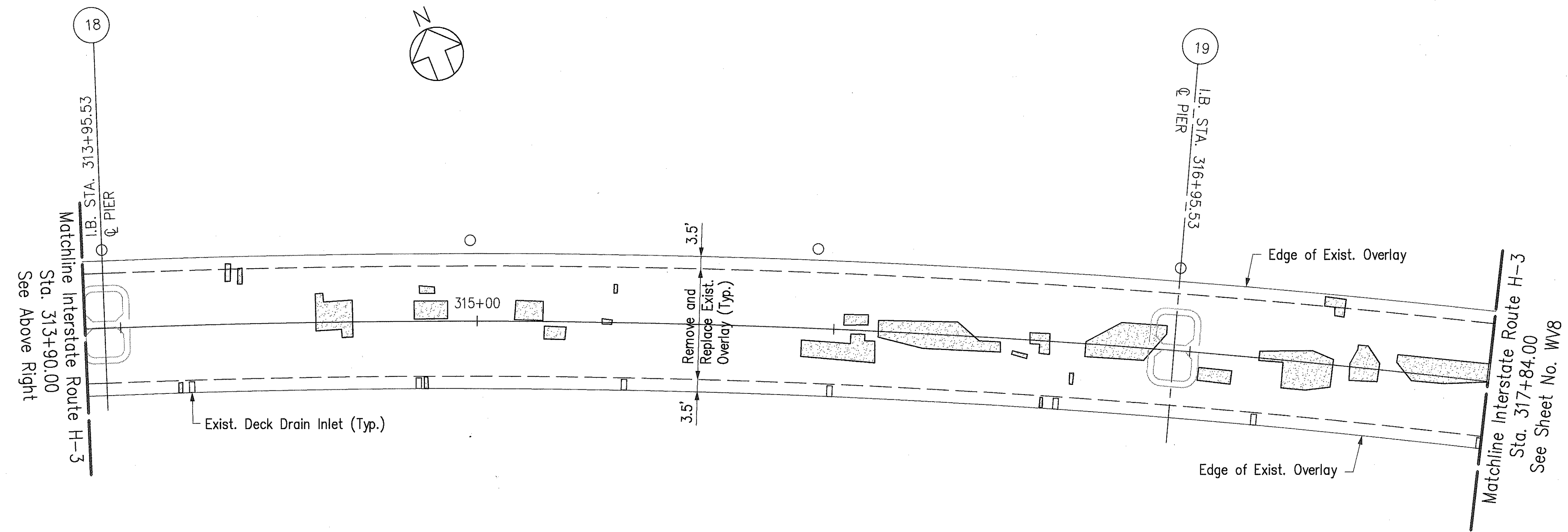
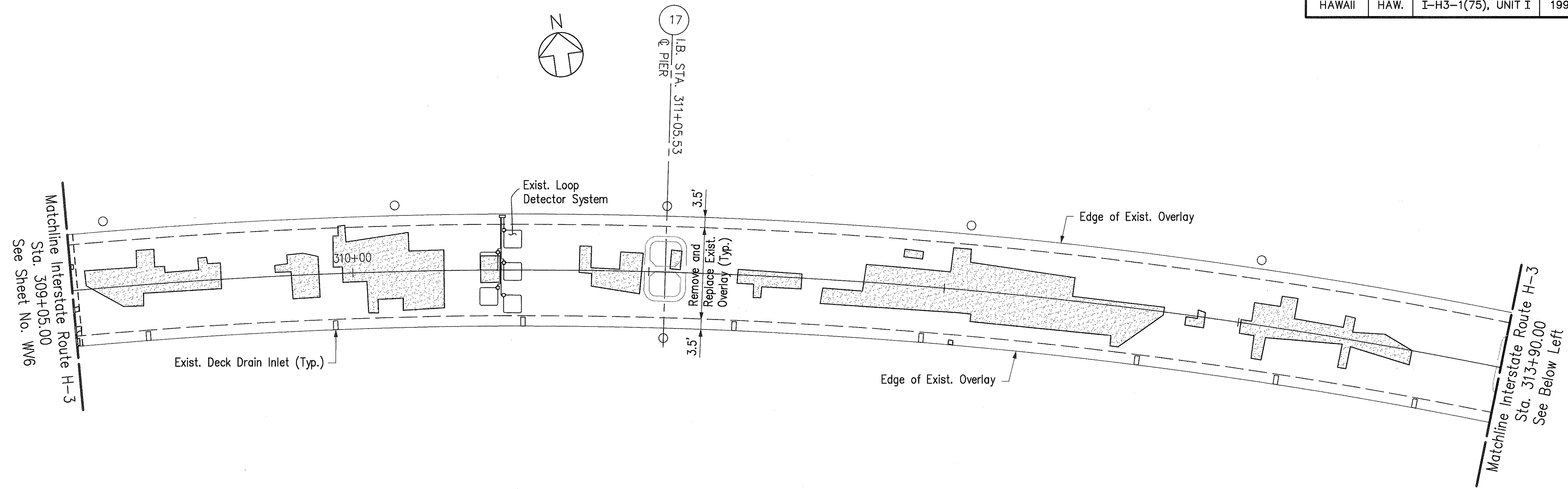
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT - INBOUND
Sta. 301+37.20 to Sta. 309+05.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV6 OF 17 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	221	405



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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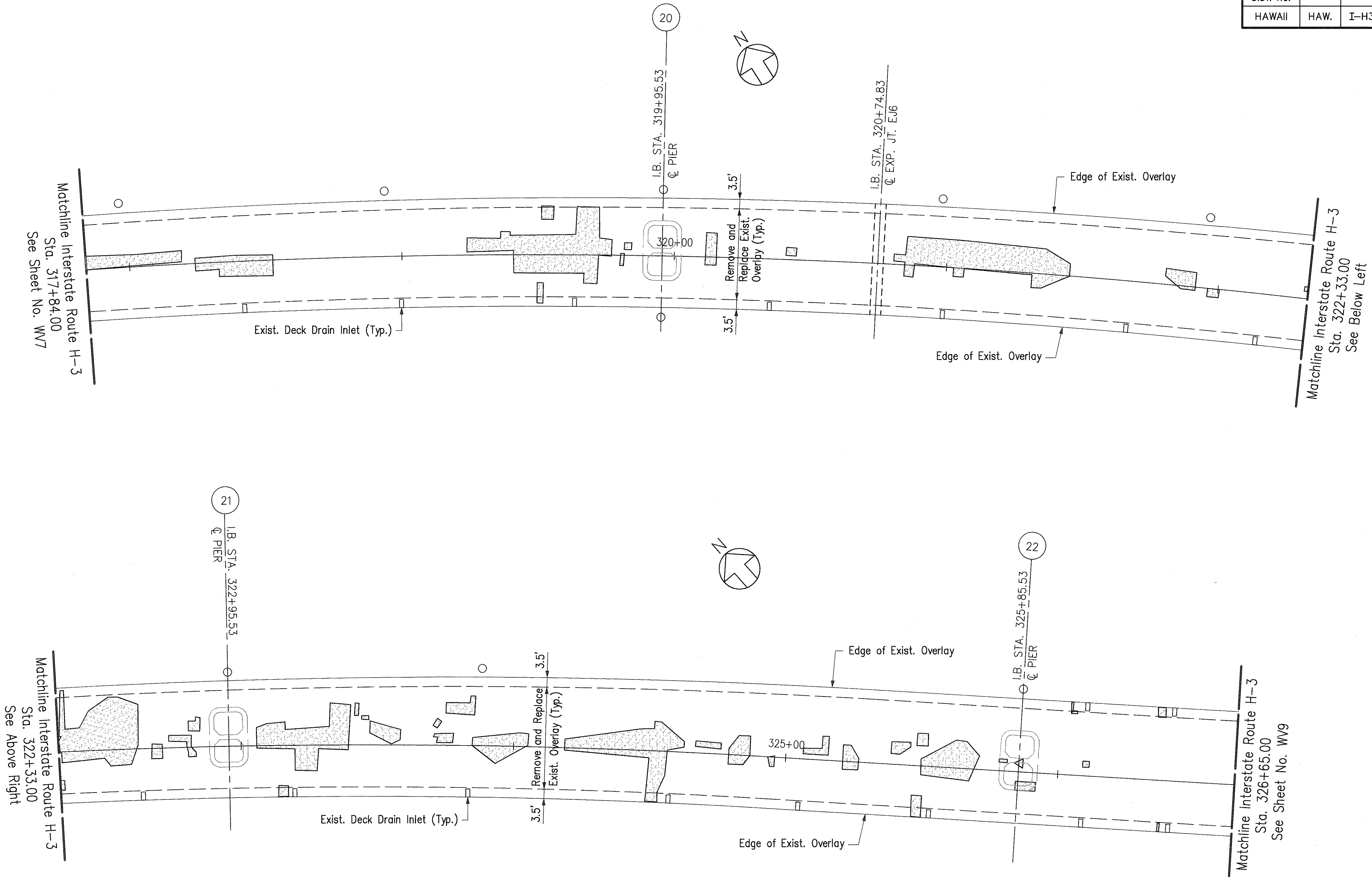


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George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT – INBOUND
Sta. 309+05.00 to Sta. 317+84.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV7 OF 17 SHEETS

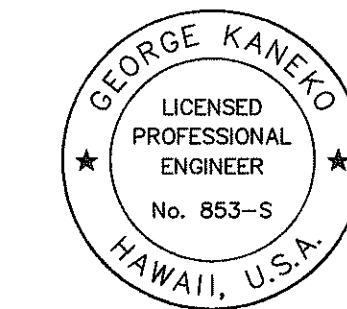
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	222	405



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

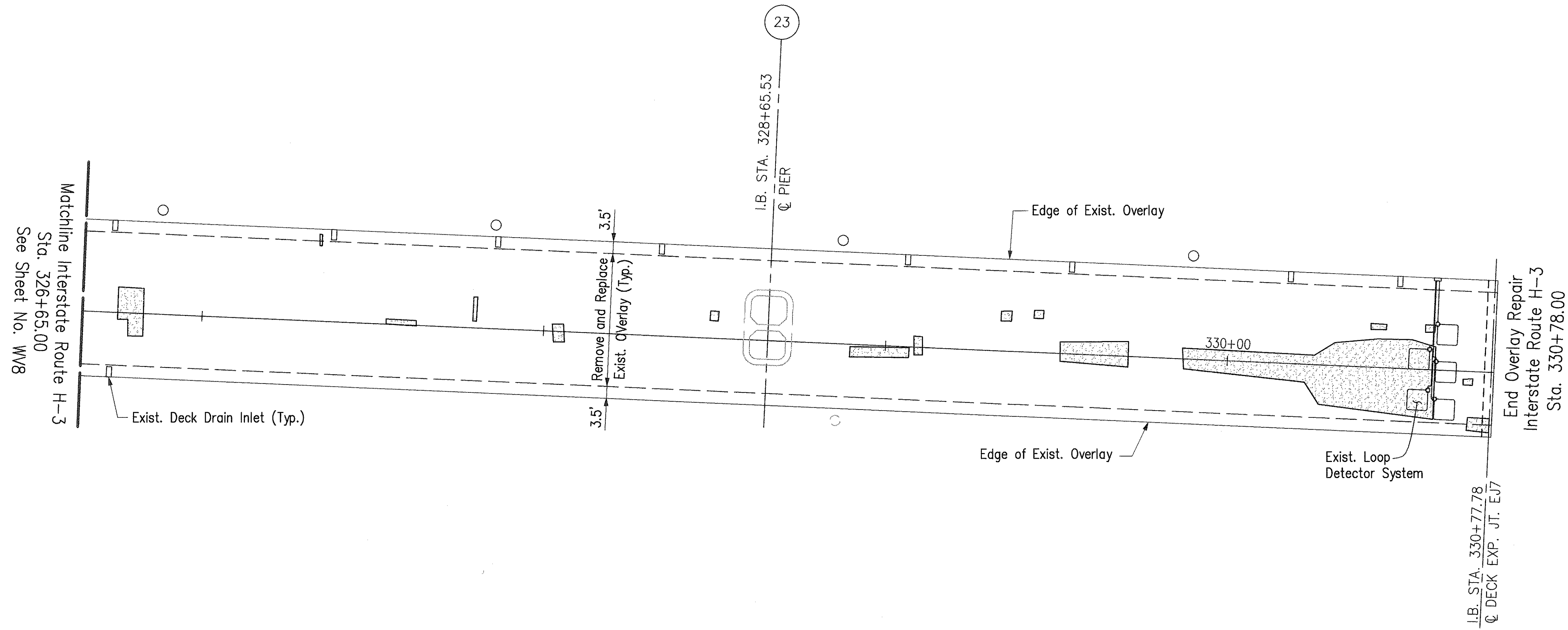
OVERLAY REPLACEMENT
WINDWARD VIADUCT - INBOUND
Sta. 317+84.00 to Sta. 326+65.00

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

SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. WV8 OF 17 SHEETS

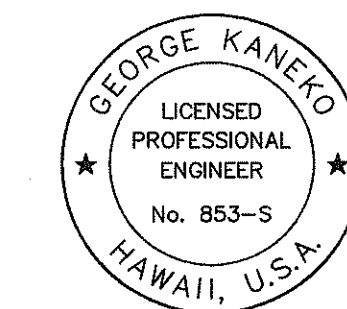
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	223	405



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

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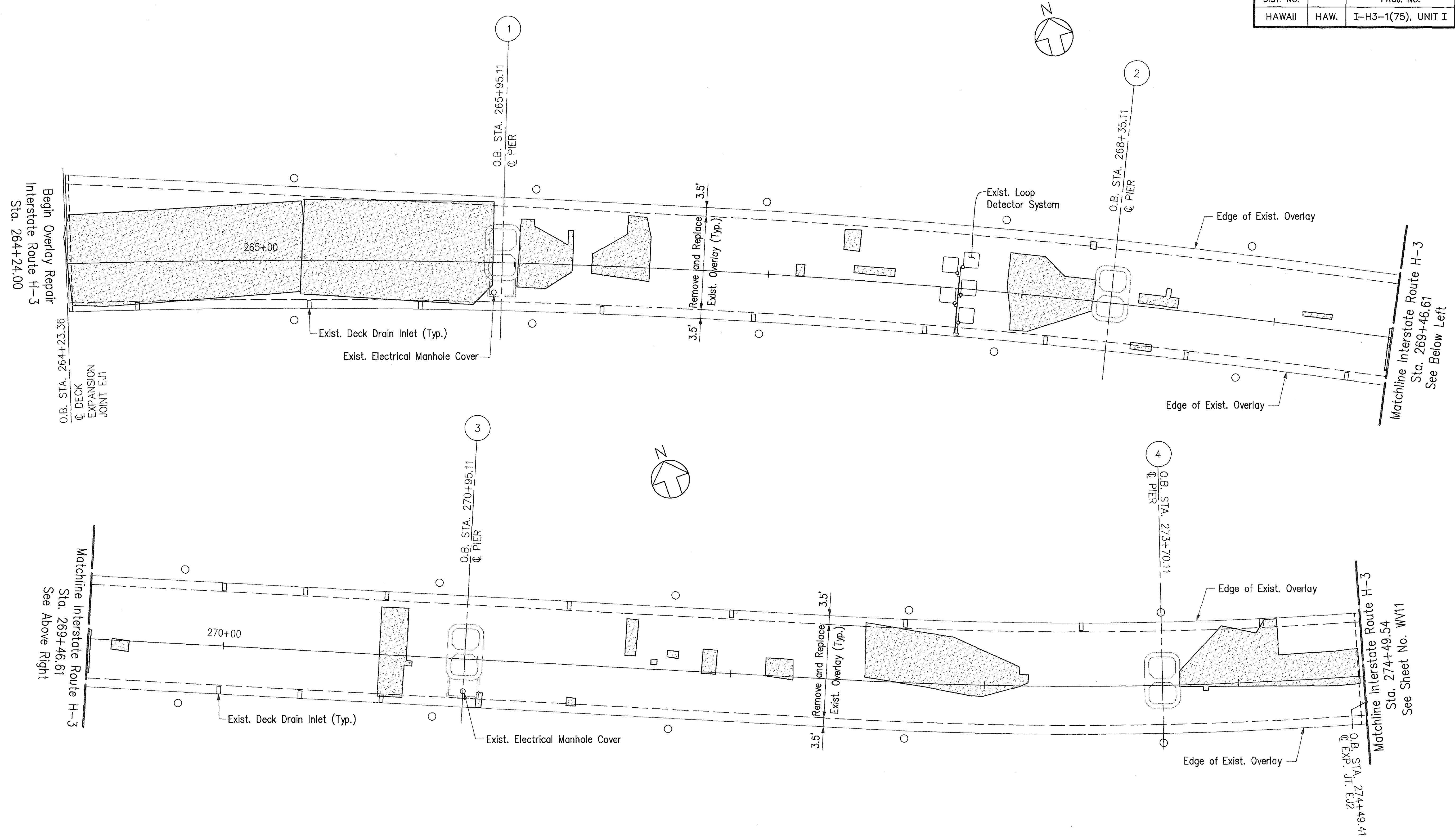
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George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDARD VIADUCT - INBOUND
Sta. 326+65.00 to Sta. 330+78.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV9 OF 17 SHEETS

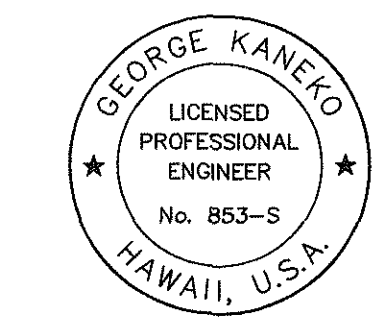
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	224	405



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

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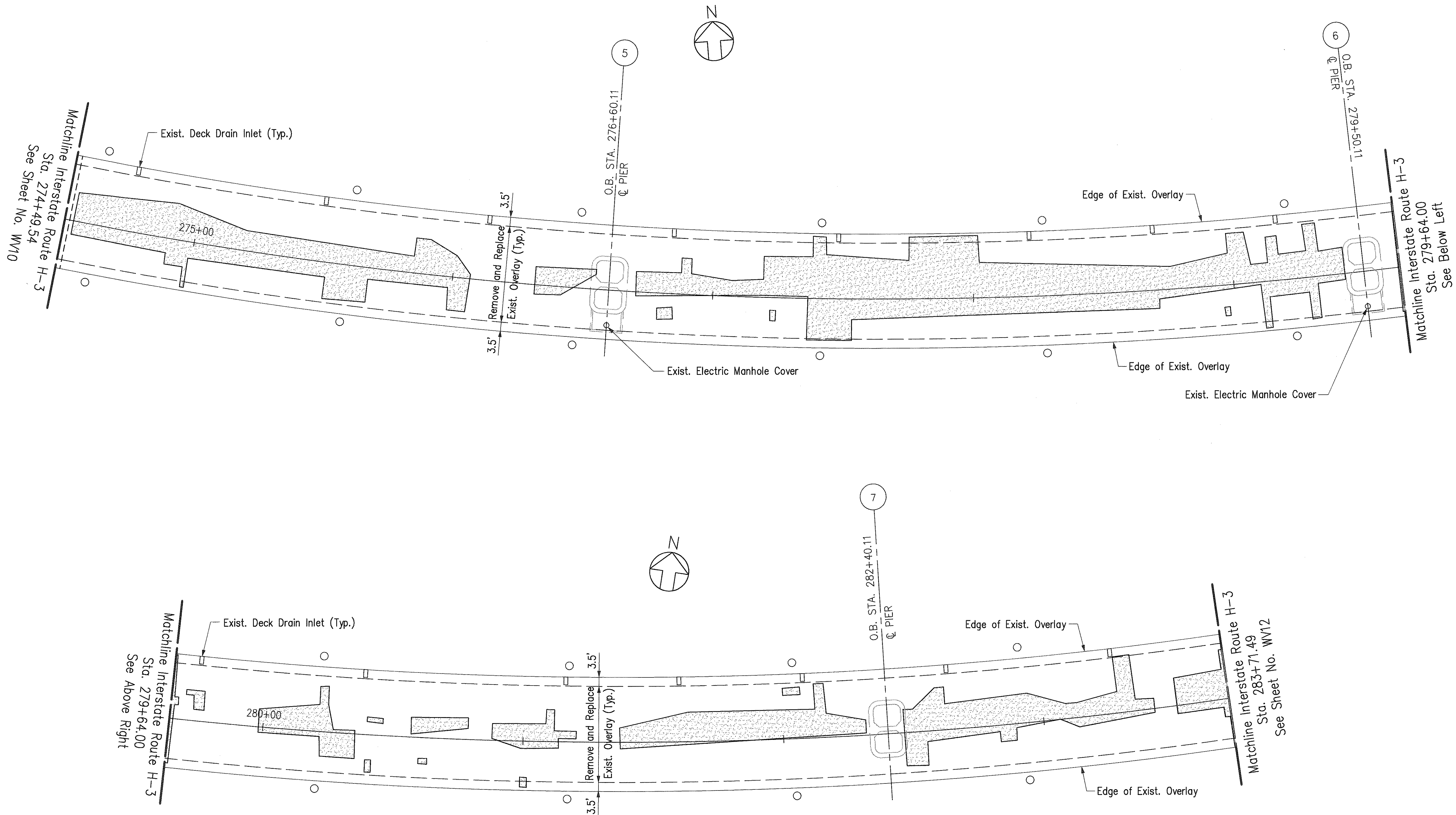


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George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT - OUTBOUND
Sta. 264+24.00 to Sta. 274+49.54

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV10 OF 17 SHEETS

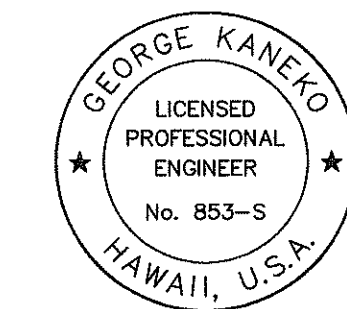
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	225	405



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NO. _____	DRAWN BY	_____
	TRACED BY	_____
	REVIEWED BY	_____
	QUANTITIES BY	_____
	CHECKED BY	_____

CAD By J. Minura, 5/5/96

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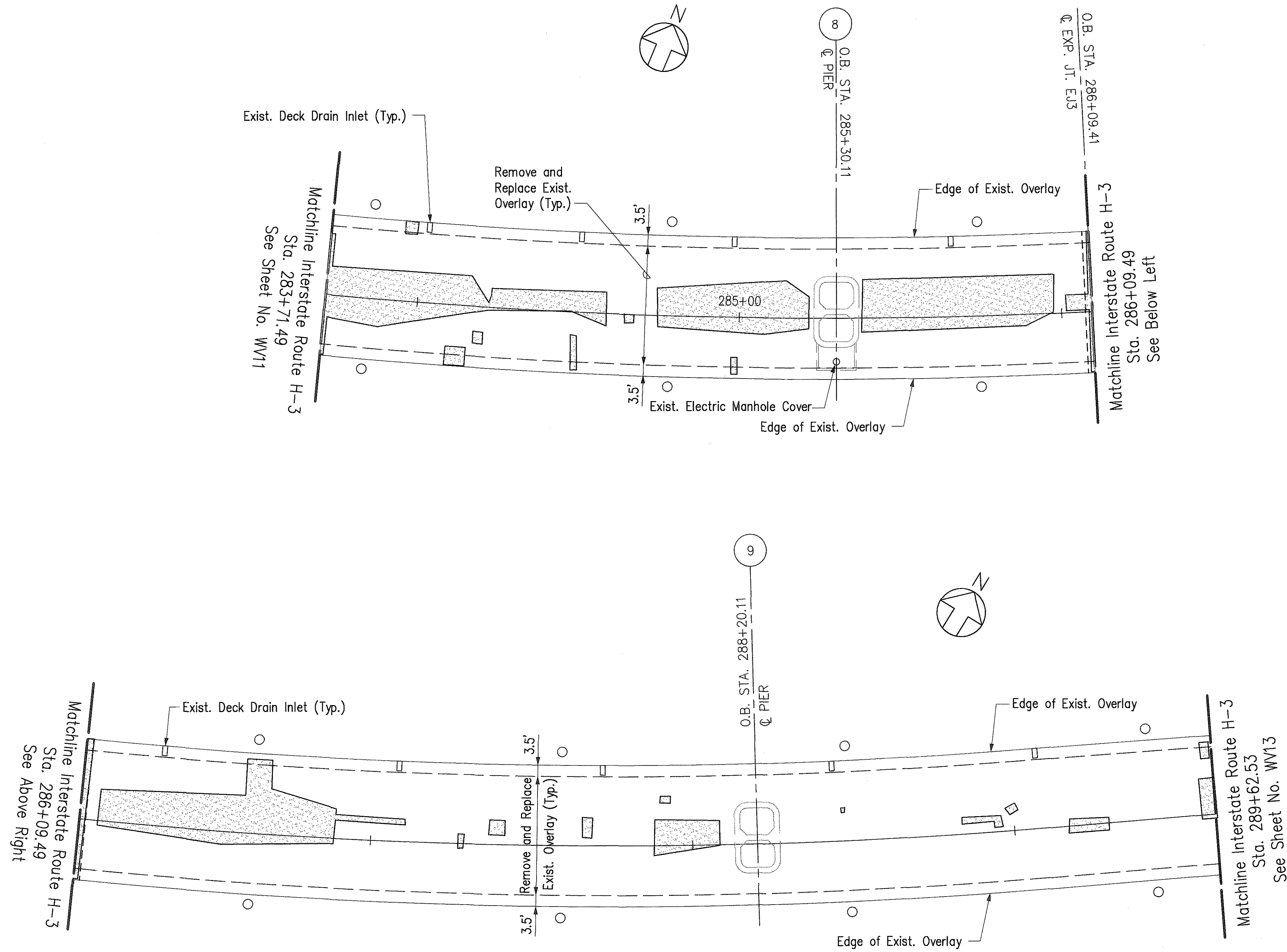


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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
OVERLAY REPLACEMENT	
WINDWARD VIADUCT - OUTBOUND	
Sta. 274+49.54 to Sta. 283+71.49	
INTERSTATE ROUTE H-3 FAIP NO. I-H3-1(75), UNIT I	
SCALE: 1" = 20'	DATE: JANUARY 1996
SHEET NO. WV11 OF 17 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	226	405



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

CAD by G.D. TRUONG, TS11



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OR UNDER MY SUPERVISION.

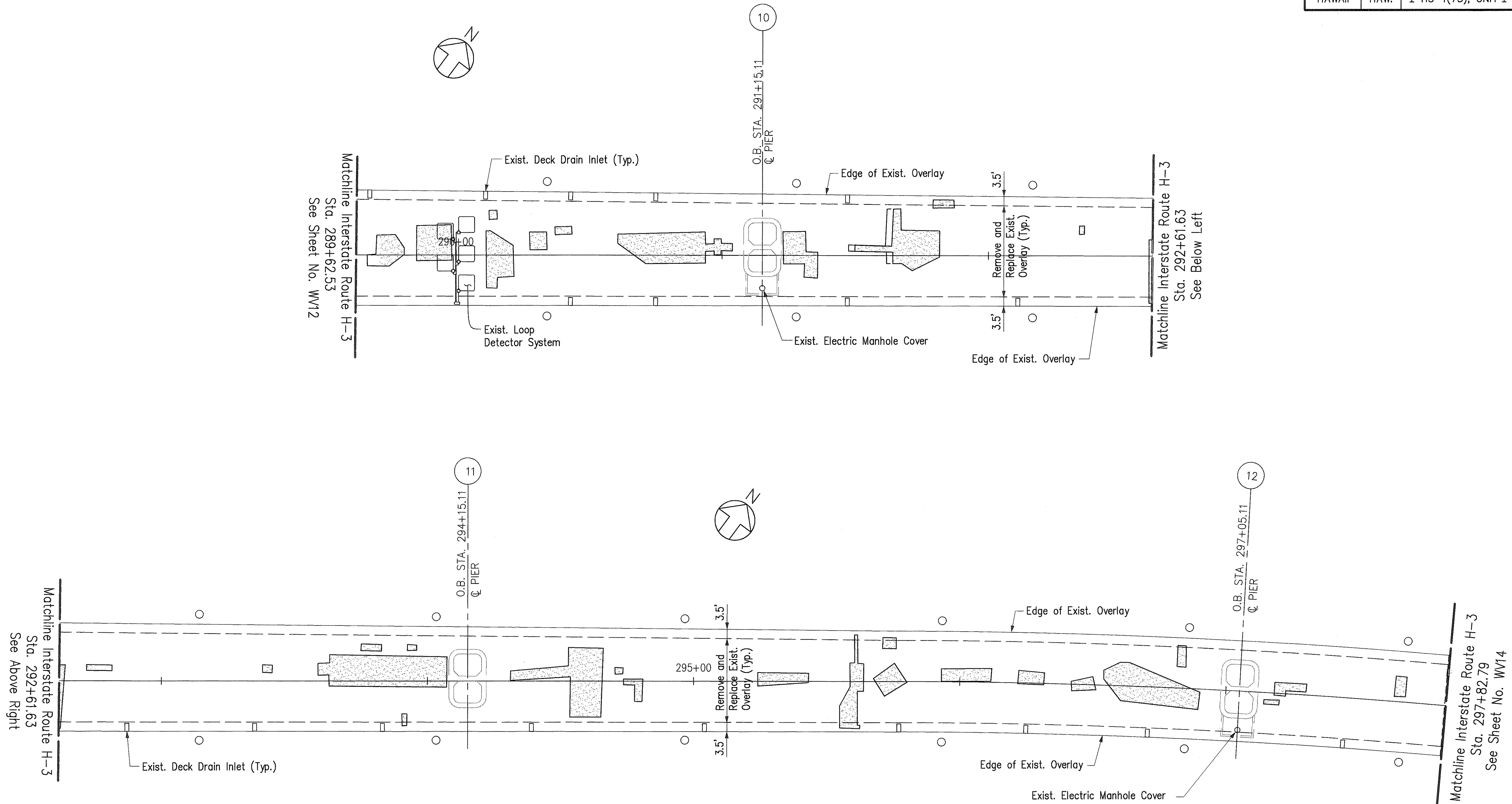
George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERLAY REPLACEMENT
WINDWARD VIADUCT - OUTBOUND
Sta. 283+71.49 to Sta. 289+62.53

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. W12 OF 17 SHEETS

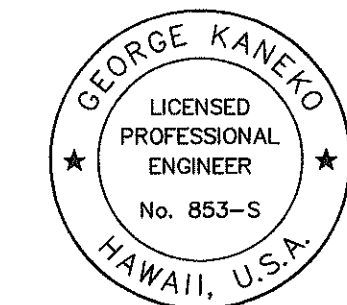
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	227	405



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

CAD by G.D. THONG, 55-52

Last Saved: J:\H3RF\U1\DELAN\STATE\OB-DELO4.dwg 03/01/96 at 14:26

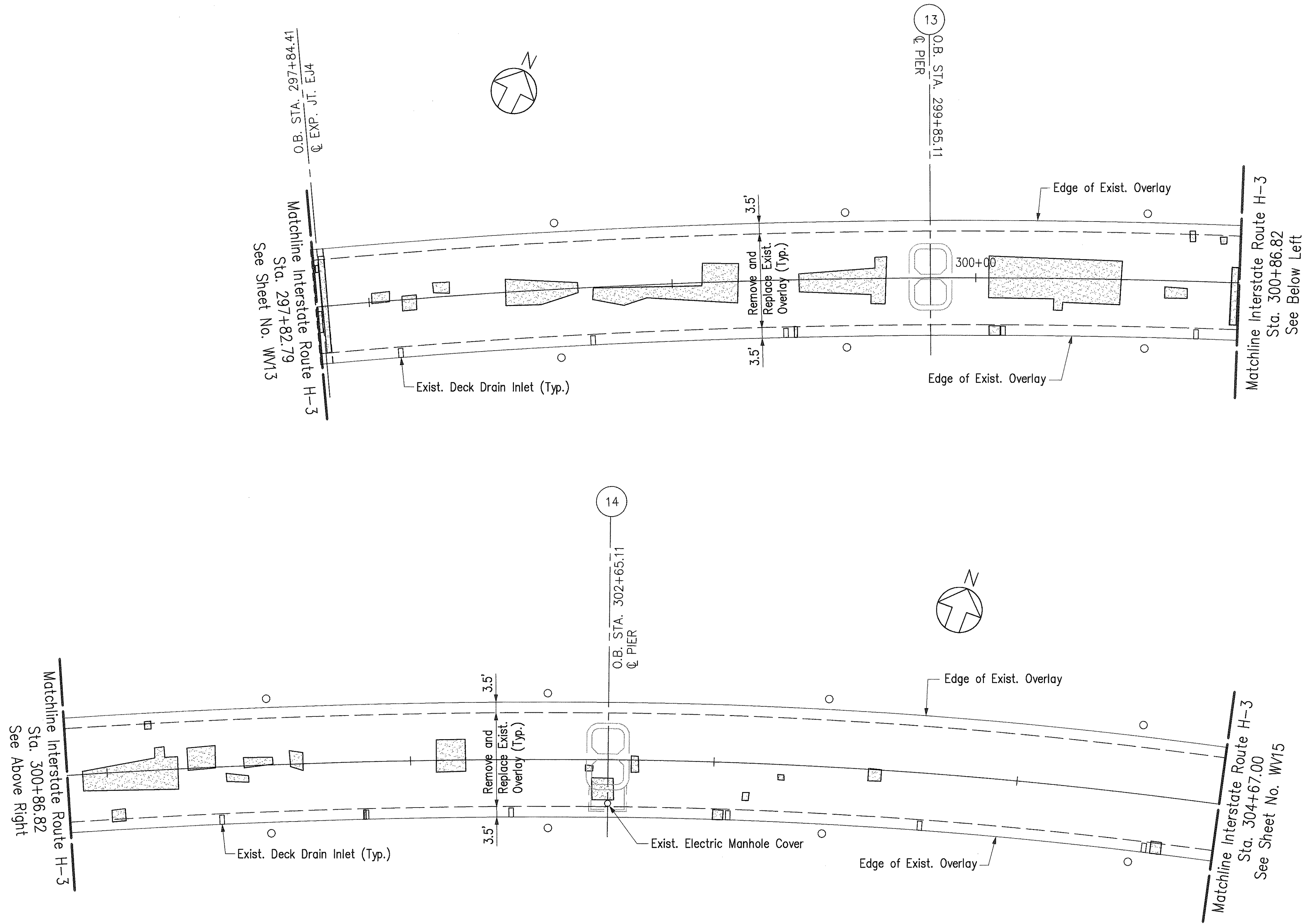


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George Kaneko

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
OVERLAY REPLACEMENT	
WINDWARD VIADUCT - OUTBOUND	
Sta. 289+62.53 to Sta. 297+82.79	
INTERSTATE ROUTE H-3 FAIP NO. I-H3-1(75), UNIT I	
SCALE: 1" = 20'	DATE: JANUARY 1996
SHEET NO. WV13 OF 17 SHEETS	

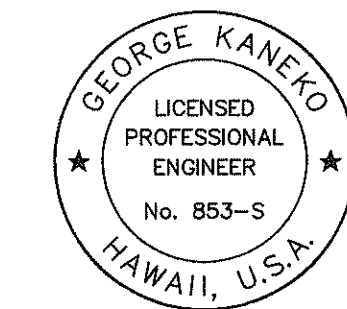
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	228	405



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

CAD by J. Mervin, 65-52

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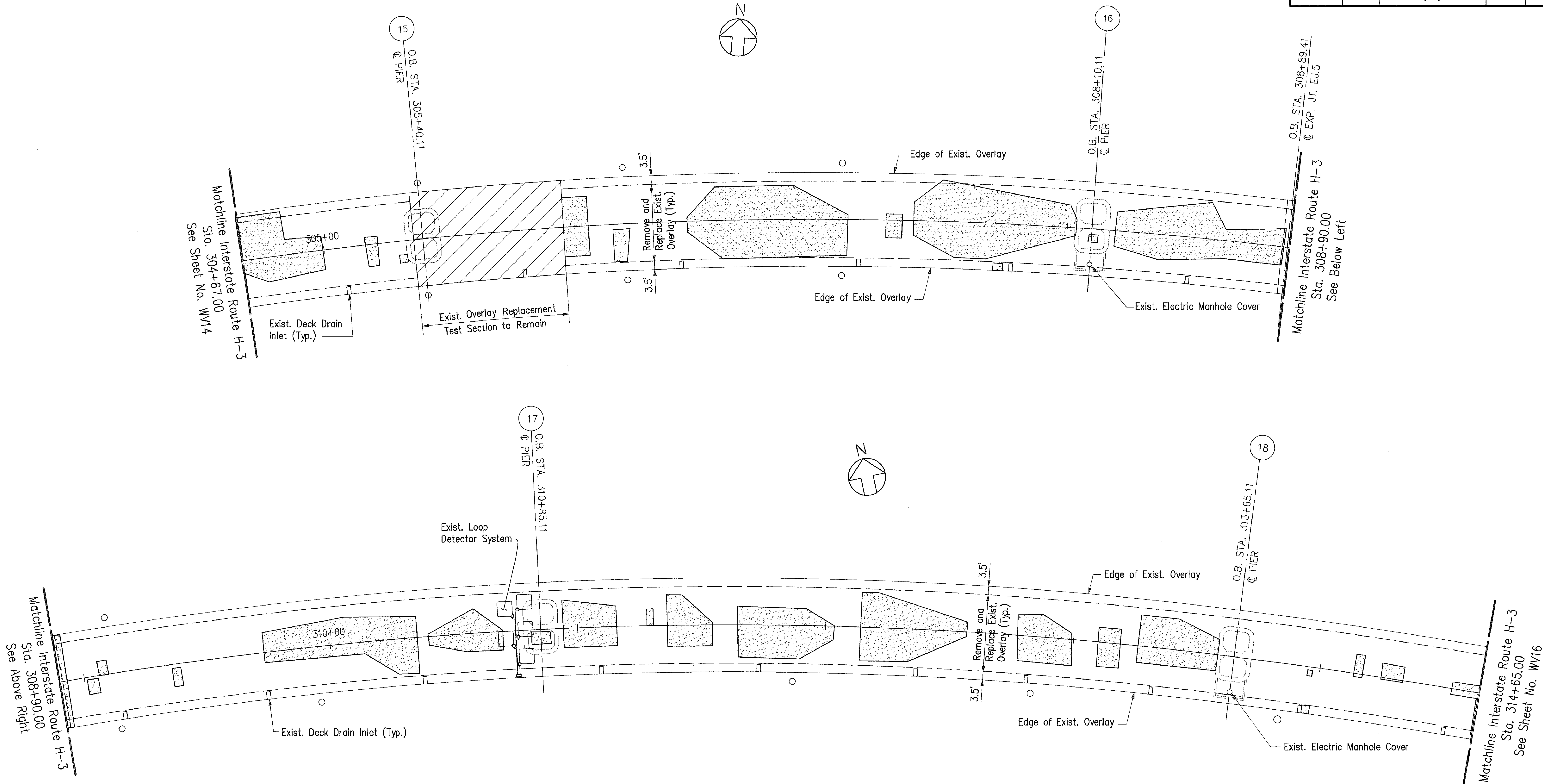
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George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT - OUTBOUND
Sta. 297+82.79 to Sta. 304+67.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV14 OF 17 SHEETS

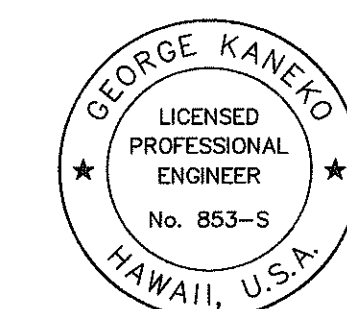
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	229	405



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

CAD by G.D. THUONG, 55-52

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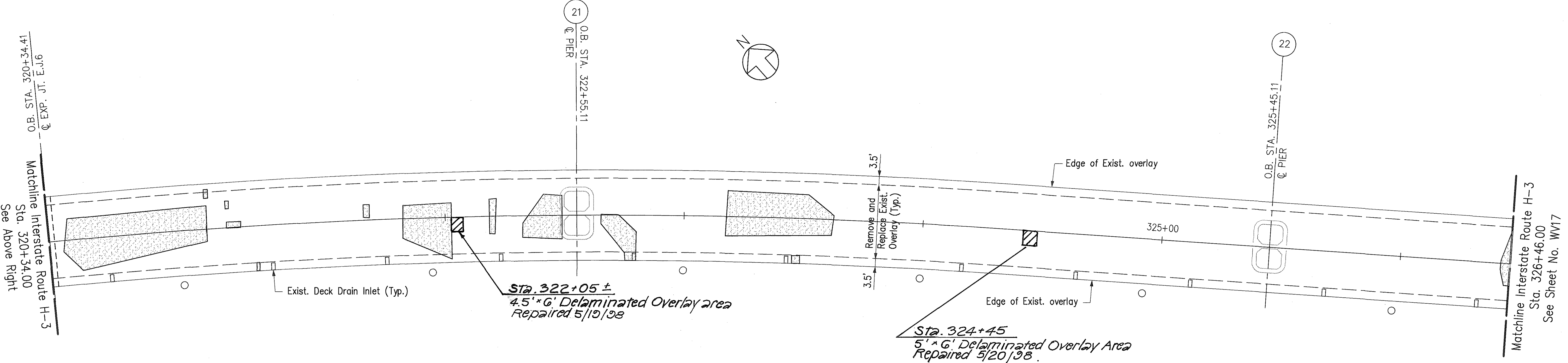
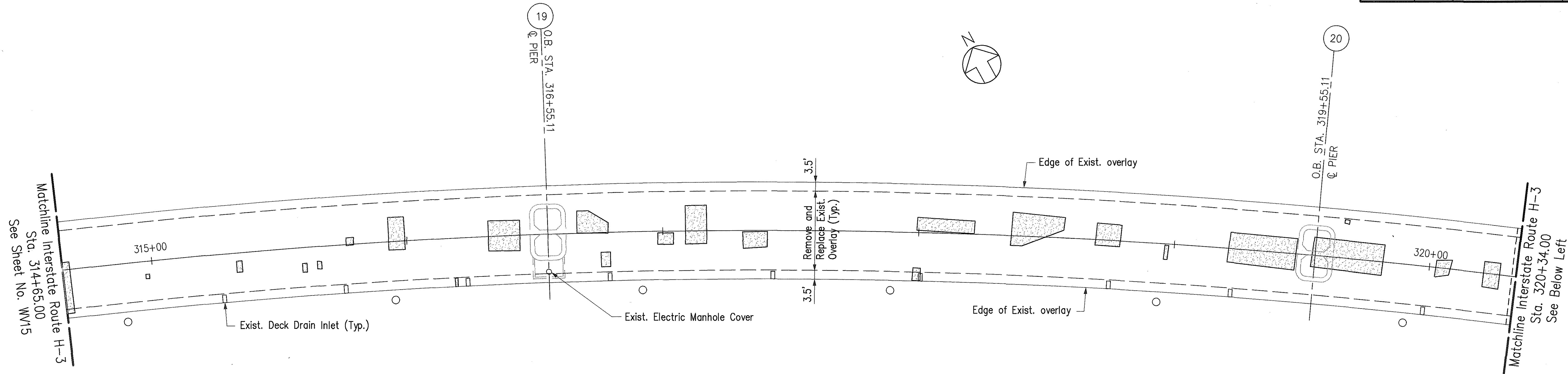
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT - OUTBOUND
Sta. 304+67.00 to Sta. 314+65.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV15 OF 17 SHEETS

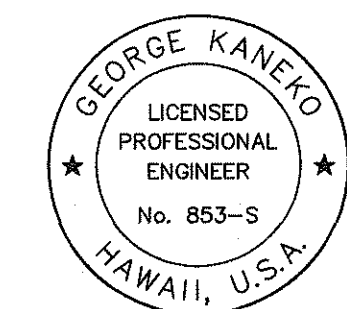
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	230	405



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

GAO by J. Minura 58-52

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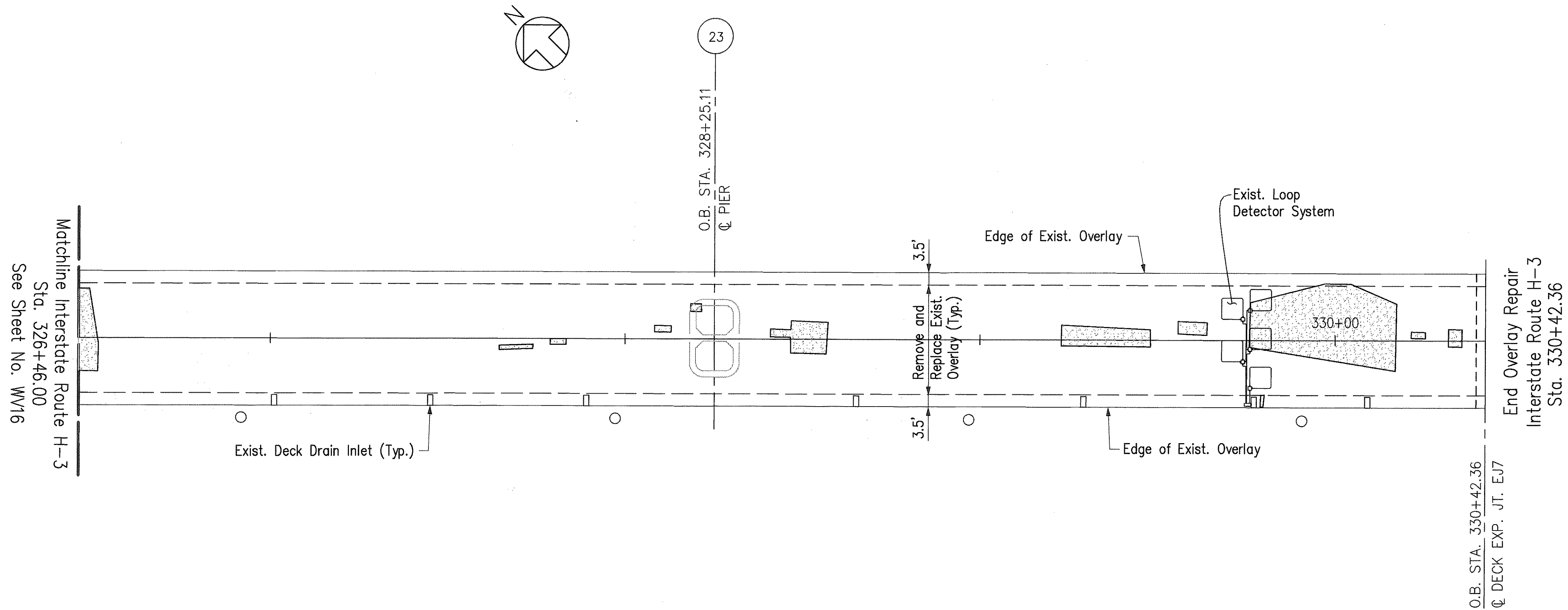


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George Kaneko

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
OVERLAY REPLACEMENT
WINDWARD VIADUCT – OUTBOUND
Sta. 314+65.00 to Sta. 326+46.00

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996
SHEET NO. WV16 OF 17 SHEETS

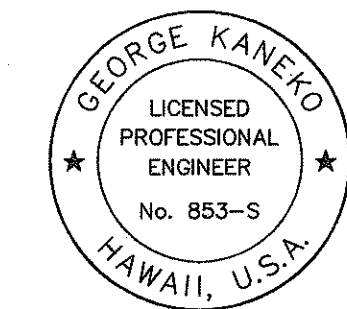
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT I	1996	231	405



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

CAD by J. Minura, SS-52

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Handwritten signature

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

OVERLAY REPLACEMENT
WINDWARD VIADUCT - OUTBOUND
Sta. 326+46.00 to Sta. 330+42.36

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT I
SCALE: 1" = 20' DATE: JANUARY 1996

SHEET NO. WW17 OF 17 SHEETS

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

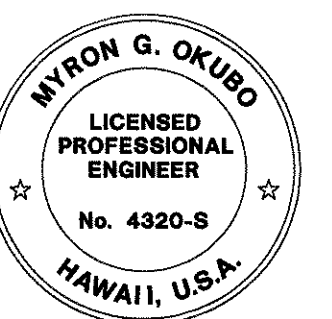
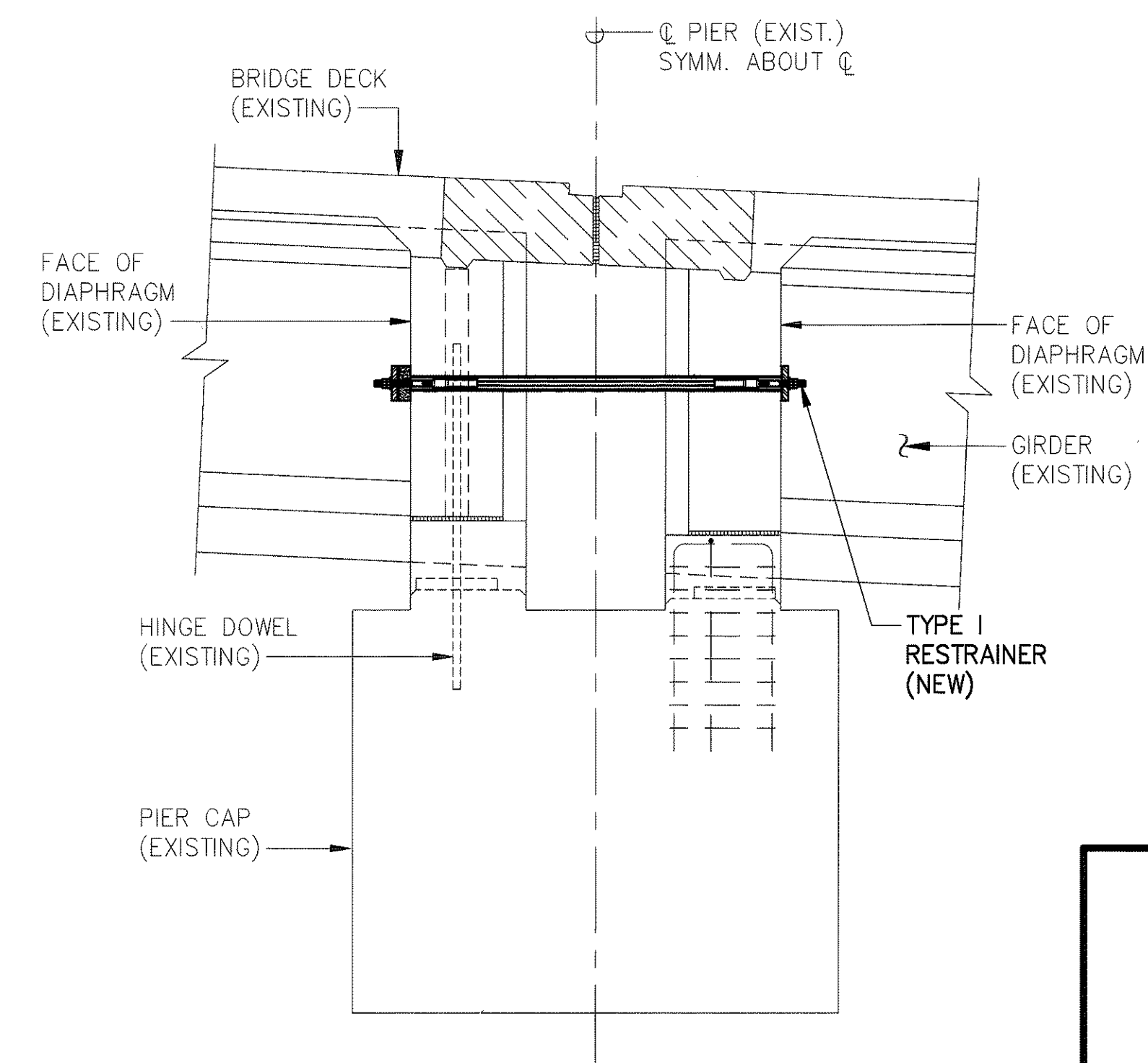
- | ABBR. | DESCRIPTION | ABBR. | DESCRIPTION |
|----------|---|----------|---|
| A | ABUT.
ABBR.
ALT.
&
APPROX.
A.C.
⊙
AZ. | L | L.F.
LONGIT.
L.S. |
| | ABUTMENT
ABBREVIATE, ABBREVIATION
ALTERNATE
AND
APPROXIMATE
ASPHALT CONCRETE
AT
AZIMUTH | M | MH
MAX.
MECH.
MIN.
MISC.
M.P.H. |
| B | BAL.
B
BM.
BRG., BRGS.
BET.
B.F.
B., BOT., BOTT.
BR. | N | N.F.
N
N.T.S.
NO., # |
| | BALANCE
BASELINE
BEAM
BEARING, BEARINGS
BETWEEN
BOTH FACES
BOTTOM
BRIDGE | O | O/S
O.C.
OPN'G.
O.B.
O.D. |
| C | C.I.P.
C
C.C.
CL.
CLR.
COL.
CONC.
CONN.
CONST.
C.J.
CONT.
C.F.
C.Y. | P | PERF.
PL
P.C.F.
P.S.F.
P.S.I.
P.L.F.
PVC
LB., LBS.
PRESTR.
P/S
P.B. |
| | CAST IN PLACE
CENTERLINE
CENTER TO CENTER
CLASS
CLEARANCE
COLUMN
CONCRETE
CONNECTION
CONSTRUCTION
CONSTRUCTION JOINT
CONTINUOUS
CUBIC FEET
CUBIC YARD | | PERFORATED
PLATE
POUNDS PER CUBIC FOOT
POUNDS PER SQUARE FOOT
POUNDS PER SQUARE INCH
POUNDS PER LINEAR FOOT
POLYVINYL CHLORIDE
POUND, POUNDS
PRESTRESSED
PRESTRESSED STRANDS
PULL BOX |
| D | DET.
DIA., Ø
DIM.
DIST.
DWLS.
D.I.
DWG., DWGS. | R | R
R.F.
REF.
REINF.
REQ'D.
RWLOL |
| | DETAIL
DIAMETER
DIMENSION
DISTANCE
DOWELS
DRAIN INLET
DRAWING, DRAWINGS | | RADIUS
REAR FACE
REFERENCE
REINFORCEMENT
REQUIRED
RETAINING WALL LAYOUT LINE |
| E | E.A.
E.F.
E.F.H.
E.F.V.
E.W.
E.P.
ELEC.
EL., ELEV.
EQ.
EST.
EXC.
EXIST.
EXP., E
EXT. | S | SECT.
SHT.
S
SPC., SP.
SPEC.
S.F.
S.Y.
S.S.
STD.
STA.
STIRR.
STR.
SYMM. |
| | EACH
EACH FACE
EACH FACE HORIZONTAL
EACH FACE VERTICAL
EACH WAY
EDGE OF PAVEMENT
ELECTRICAL
ELEVATION
EQUAL
ESTIMATED
EXCAVATION
EXISTING
EXPANSION
EXTERIOR | | SECTION
SHEET
SOUTH
SPACES
SPECIFICATION
SQUARE FEET
SQUARE YARD
STAINLESS STEEL
STANDARD
STATION
STIRRUP
STRAIGHT
SYMMETRICAL |
| F | F.F.
F'c
F'cl

FT.
FIG.
FIN. GR.
F
FTG. | I | TEMP.
THK.
T
T&B
T.O.D.
TOT.
TRANSV.
TYP. |
| | FAR FACE
SPECIFIED STRENGTH OF CONCRETE
STRENGTH OF CONCRETE AT TIME
OF INITIAL PRESTRESS
FEET, FOOT
FIGURE
FINISHED GRADE
FIXED
FOOTING | | TEMPORARY
THICK
TOP
TOP AND BOTTOM
TOP OF DECK
TOTAL
TRANSVERSE
TYPICAL |
| G | GA.
GALV.
GIR. | V | VAR.
VERT. |
| | GAUGE, GAGE
GALVANIZED
GIRDER | | VARIES
VERTICAL |
| H | H., HT.
H
HORIZ. | W | W.W.F.
W.W.
W.P. |
| | HEIGHT
HINGE
HORIZONTAL | | WELDED WIRE FABRIC
WING WALL
WORK POINT |
| I | I.B.
IN.
I.D.
I.F.
INT.
INV. | Y | YR. |
| | INBOUND
INCH
INSIDE DIAMETER
INSIDE FACE
INTERIOR
INVERT | | YEAR |
| J | JT. | | |
| | JOINT | | |
| K | K
KFT.
KSI | | |
| | KIPS
KIP FOOT
KIPS PER SQUARE INCH | | |

LEGEND—EXIST. STRUCTURE & NEW WORK

[illegible]

— SHEET NO. SECTION
OR DETAIL IS DRAWN



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INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I

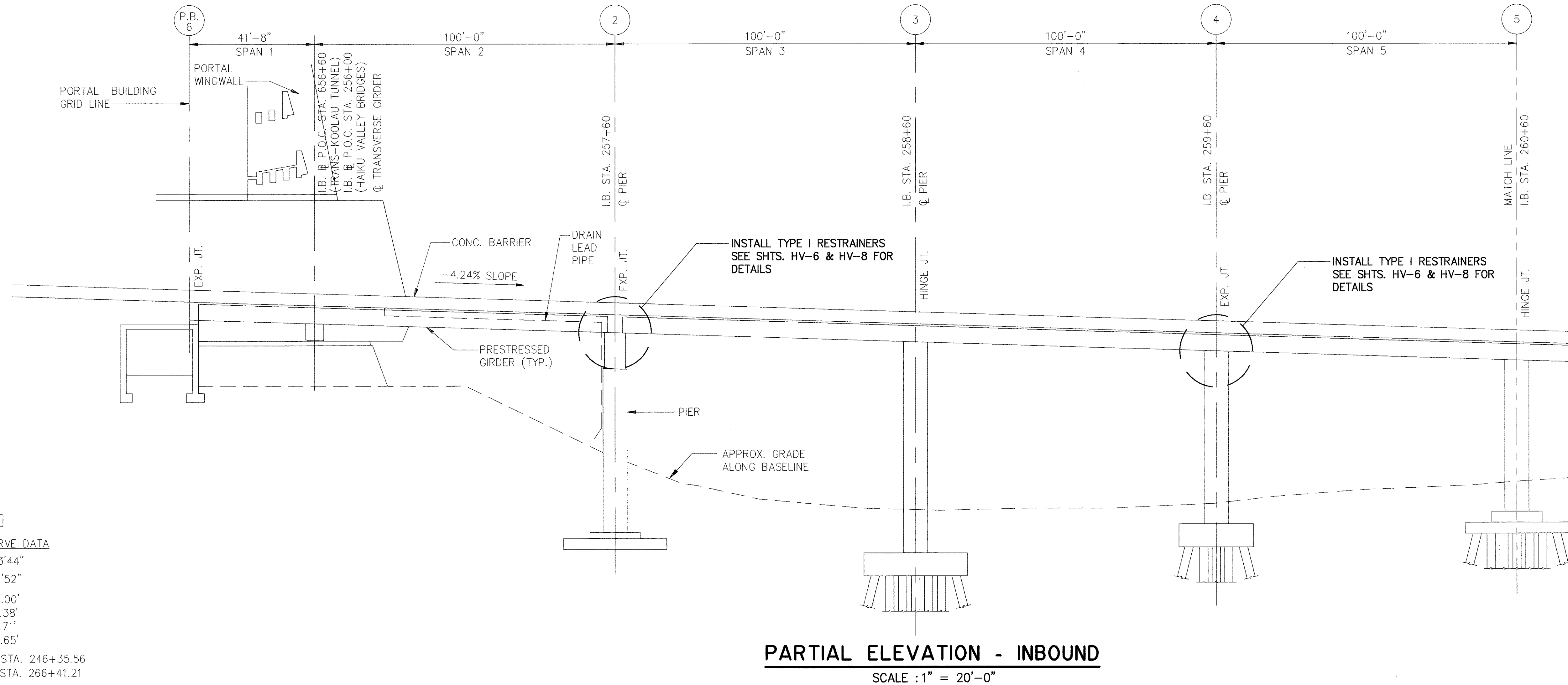
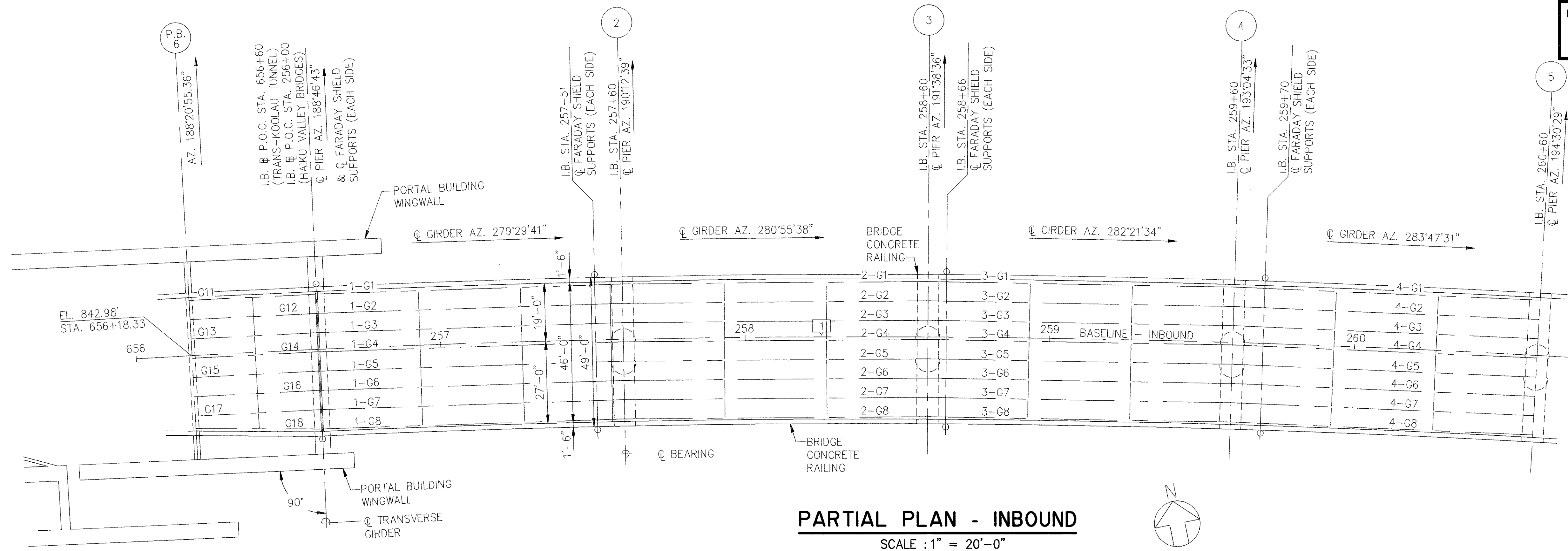
SCALE: AS NOTED DATE: JAN. 1996

SHEET No. HV1 OF 8 SHEETS

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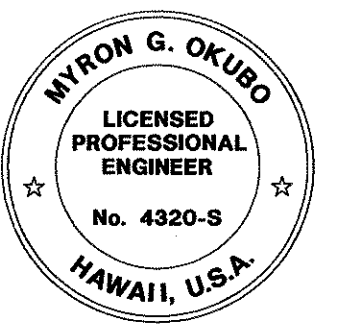
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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	233	405



NOTE:

1. INFORMATION SHOWN ON THE DRAWINGS, HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES

PARTIAL DECK LAYOUT & ELEVATION
STA. 656+18.33 TO STA. 260+60
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. HV2 OF 8 SHEETS

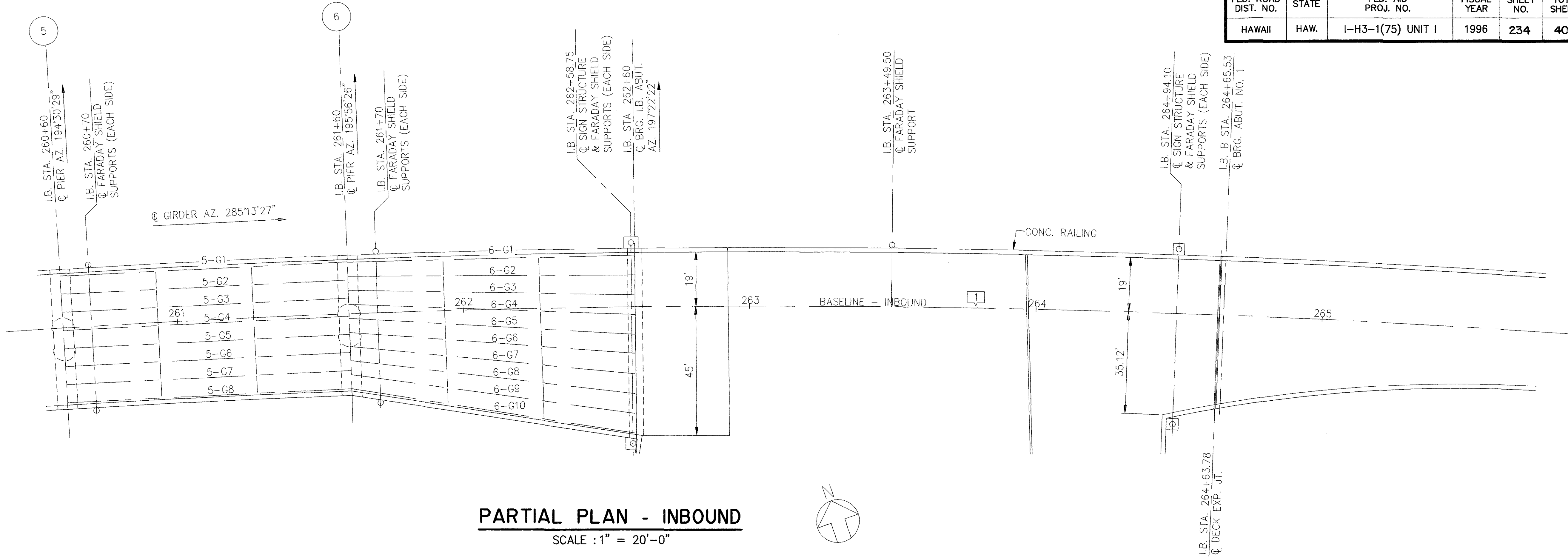
1
© O.B. CURVE DATA

Δ = 28°43'44"
Δ/2 = 14°21'52"
R = 4000.00'
T = 1024.38'
CH = 1984.71'
LC = 2005.65'

P.C. STA. 246+35.56
P.T. STA. 266+41.21

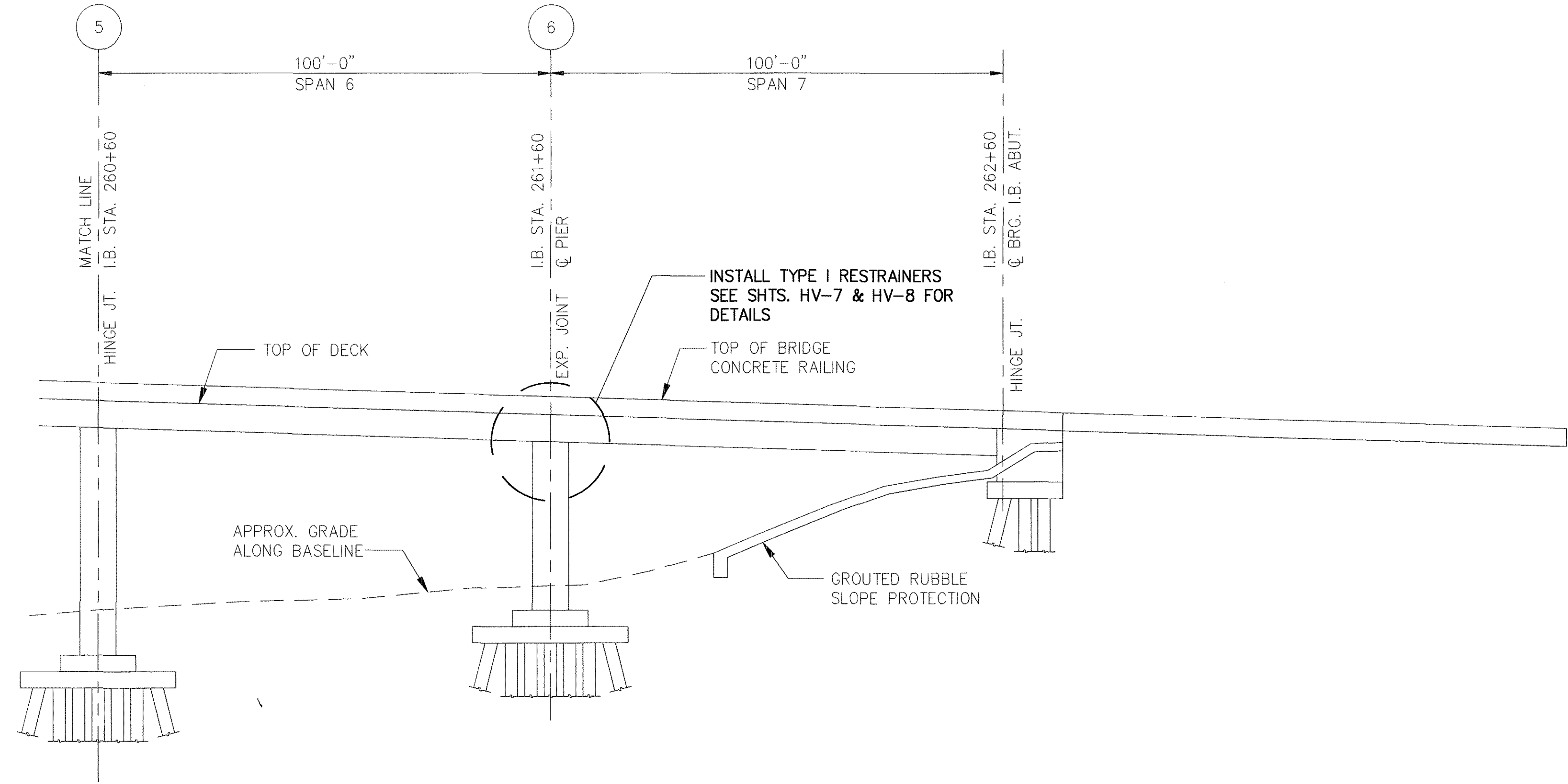
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	234	405



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

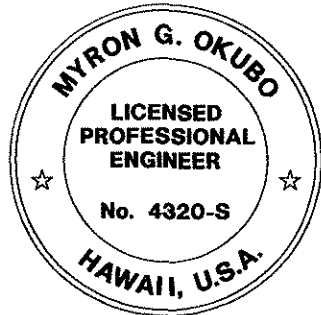
GIRDER AZ. SCHEDULE INBOUND SPAN 6	
GIRDER	AZIMUTH
6-G1	286° 39' 24"
6-G2	287° 47' 56"
6-G3	288° 56' 37"
6-G4	290° 05' 23"
6-G5	291° 14' 12"
6-G6	292° 23' 00"
6-G7	293° 31' 43"
6-G8	294° 40' 19"
6-G9	295° 48' 44"
6-G10	296° 56' 55"



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

1
O.B. CURVE DATA
Δ = 28°43'44"
Δ/2 = 14°21'52"
R = 4000.00'
T = 1024.38'
CH = 1984.71'
LC = 2005.65'

P.C. STA. 246+35.56
P.T. STA. 266+41.21

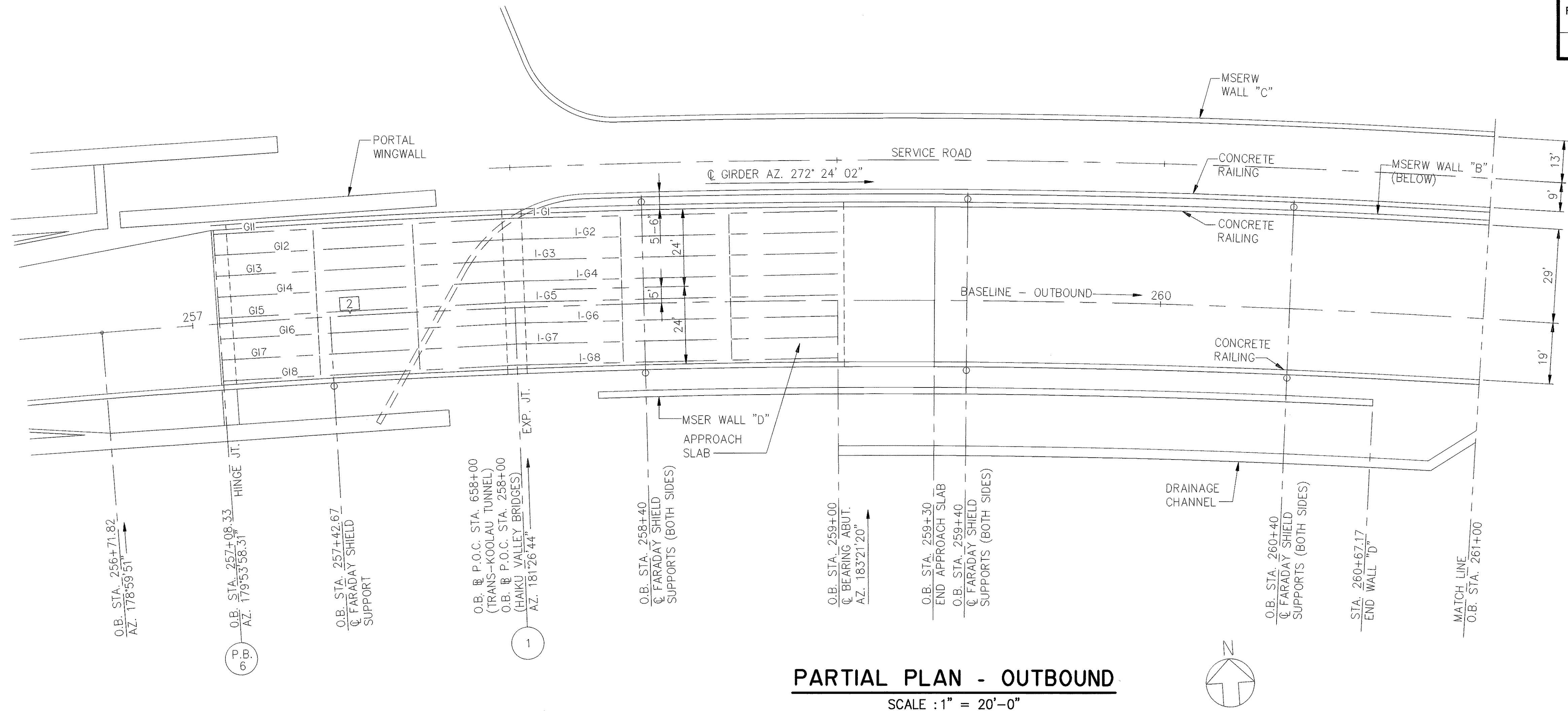


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Myron Okubo

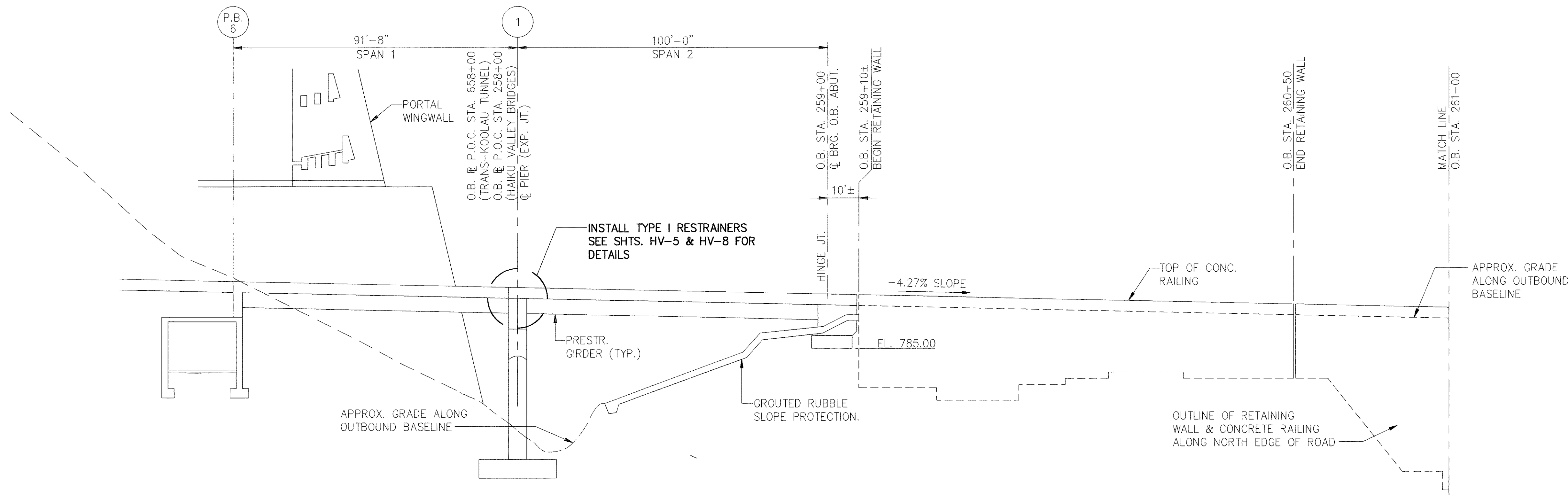
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES
PARTIAL DECK LAYOUT & ELEVATION
STA. 260+60 TO STA. 264+65.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. HV3 OF 8 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	235	405



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



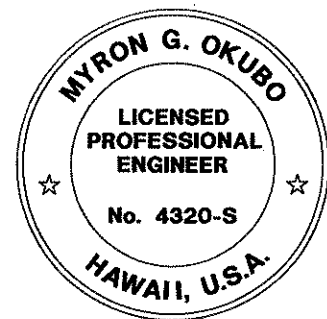
PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

② O.B. CURVE DATA

Δ = 23°50'09"
 Δ/2 = 11°55'04.5"
 R = 3000.00'
 T = 633.18'
 CH = 1239.06'
 LC = 1248.04'

P.C. STA. 256+71.82
 P.T. STA. 269+19.86

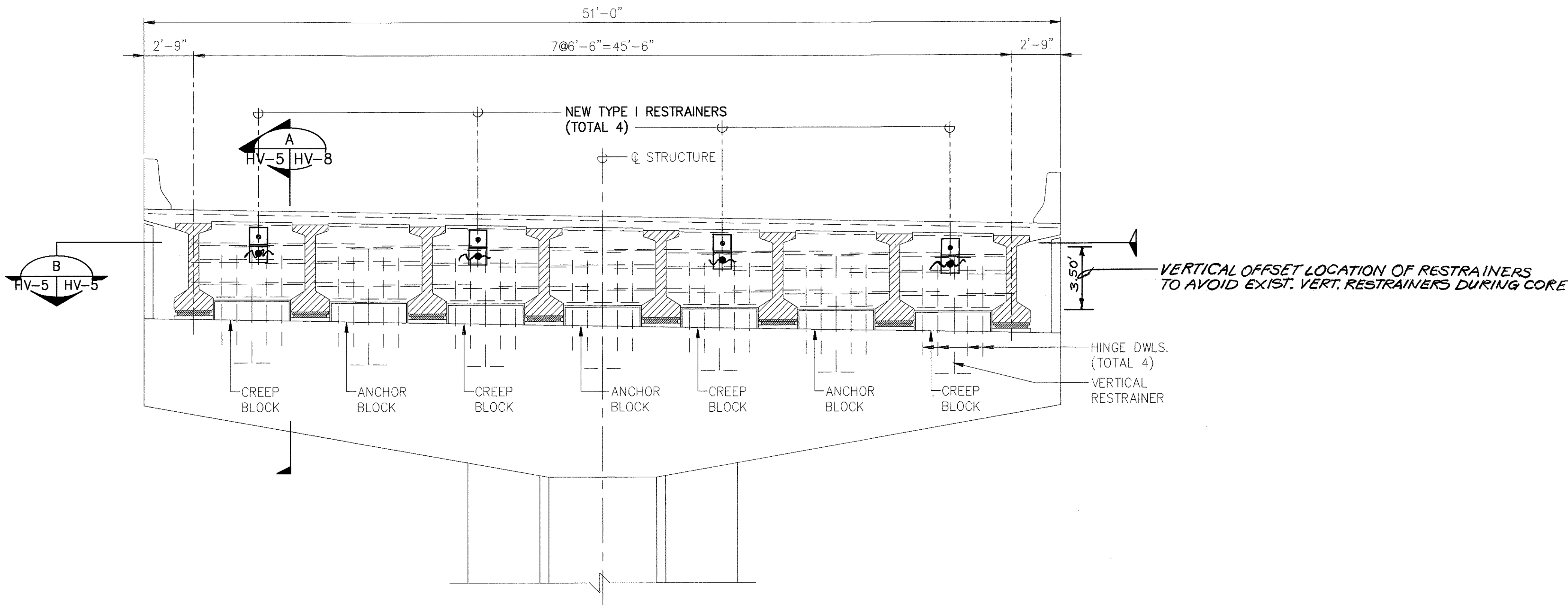


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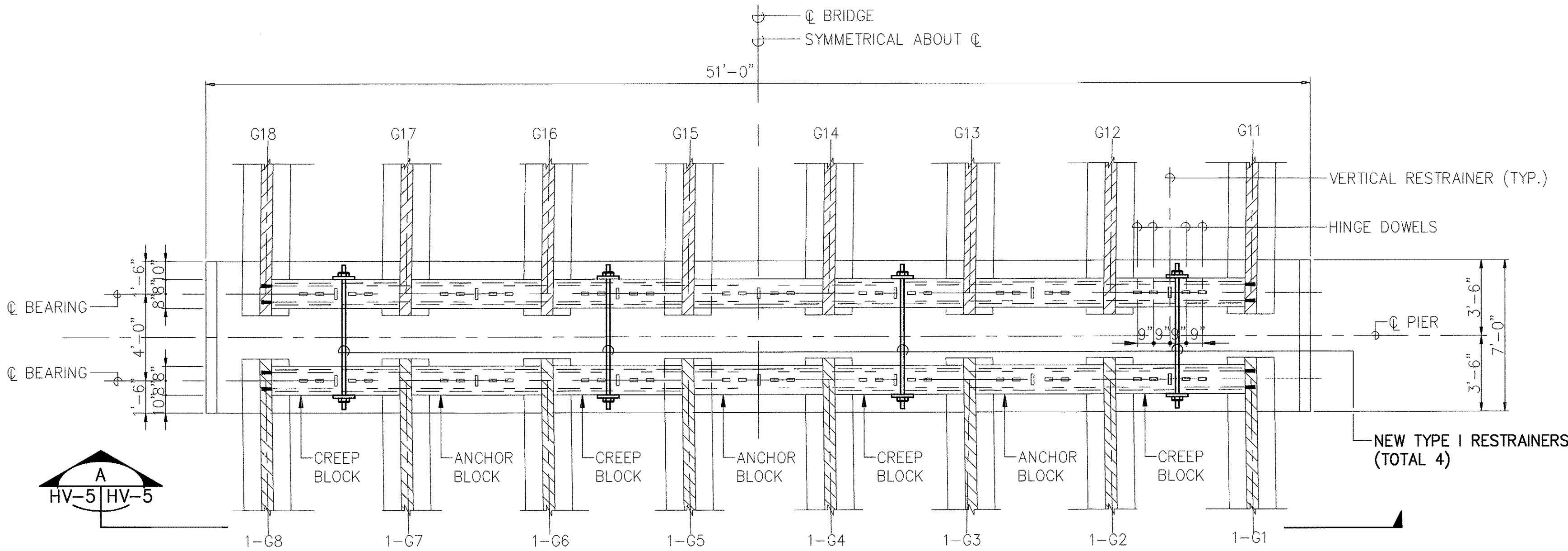
Myron Okubo

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HAIKU VALLEY BRIDGES
PARTIAL DECK LAYOUT & ELEVATION
STA. 657+08.33 TO STA. 261+00
OUTBOUND - STRUCTURE
 INTERSTATE ROUTE H-3
 F.A.I. PROJ. NO. I-H3-1(75) UNIT I
 SCALE: AS NOTED DATE: JAN. 1996
SHEET No. HV4 OF 8 SHEETS

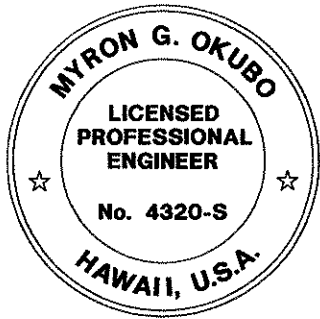
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	236	405



TYPICAL O.B. BRIDGE SECTION
SCALE : 1/4"=1'-0'



TYPICAL O.B. BRIDGE PLAN - SECTION
SCALE : 1/4"=1'-0'



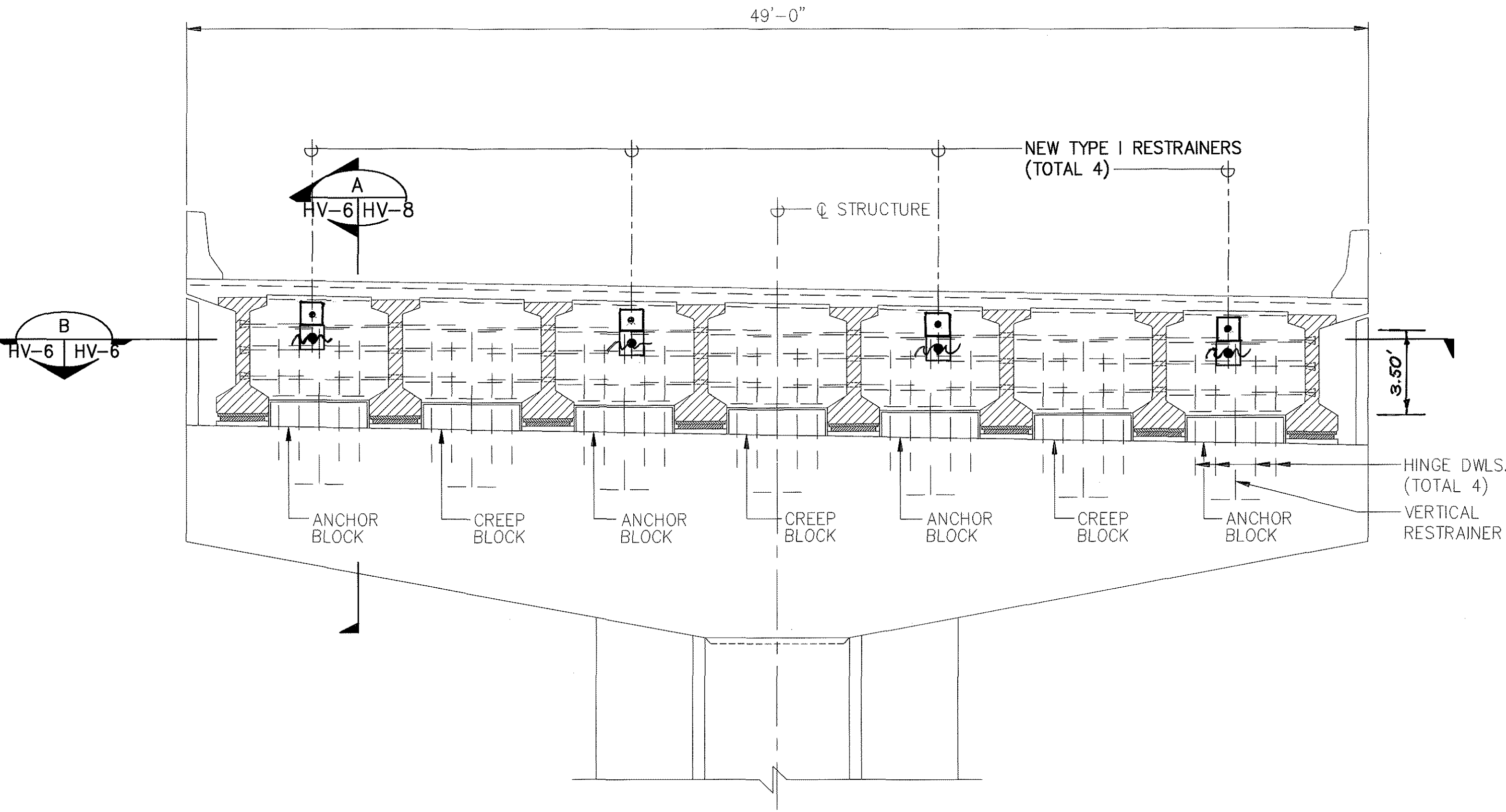
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Myron Okubo

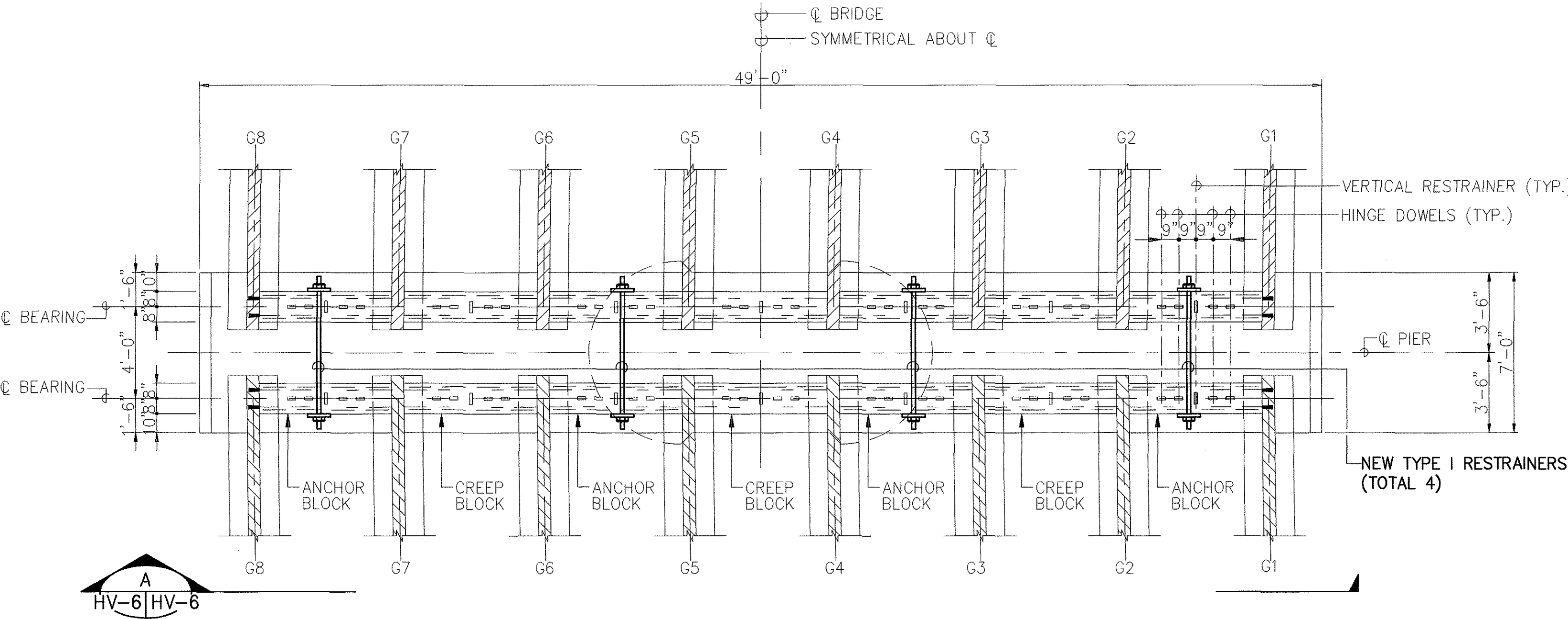
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES
OB BRIDGE
SECTIONS

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED
DATE: JAN. 1996
SHEET NO. HV5 OF 8 SHEETS

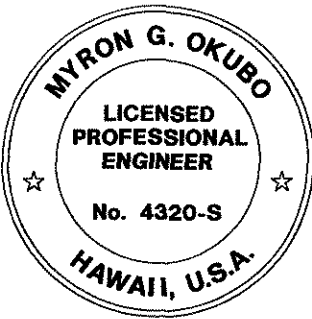
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	237	405



TYPICAL I.B. BRIDGE SECTION (EXISTING)
SCALE : 1/4"=1'-0"



TYPICAL I.B. BRIDGE PLAN-SECTION (EXISTING)
SCALE : 1/4"=1'-0"



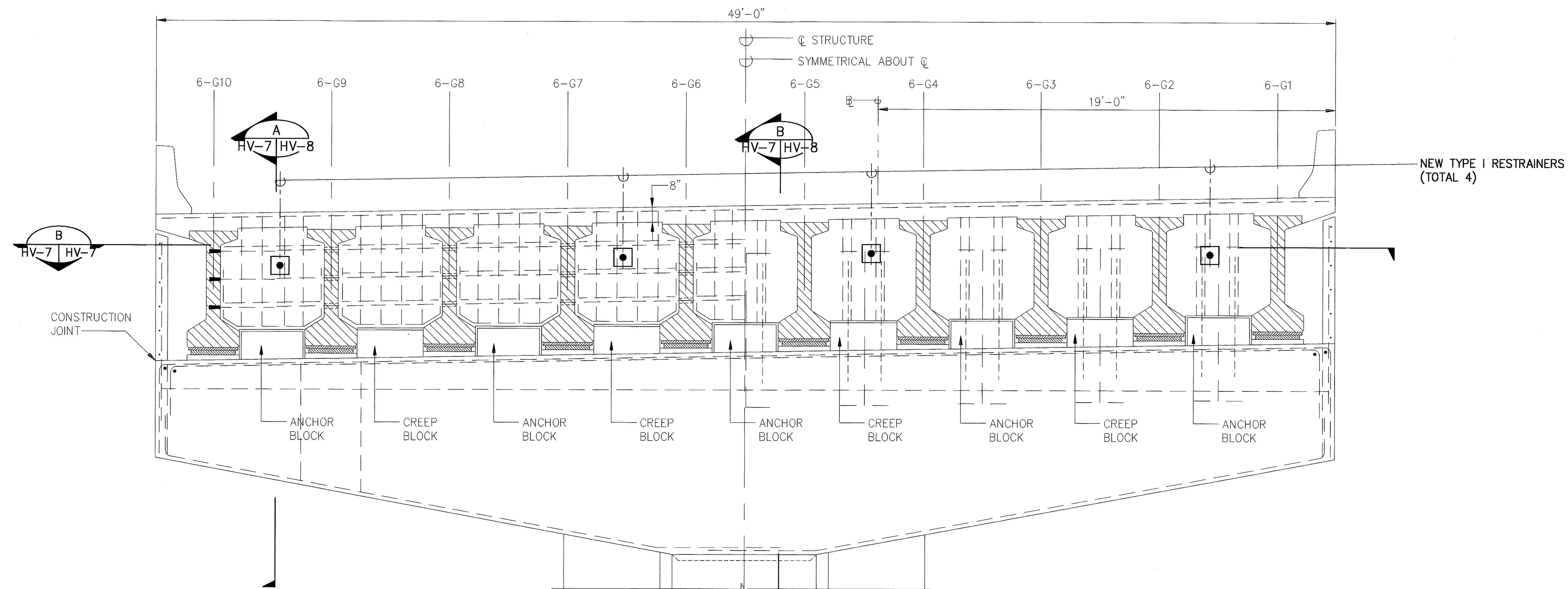
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

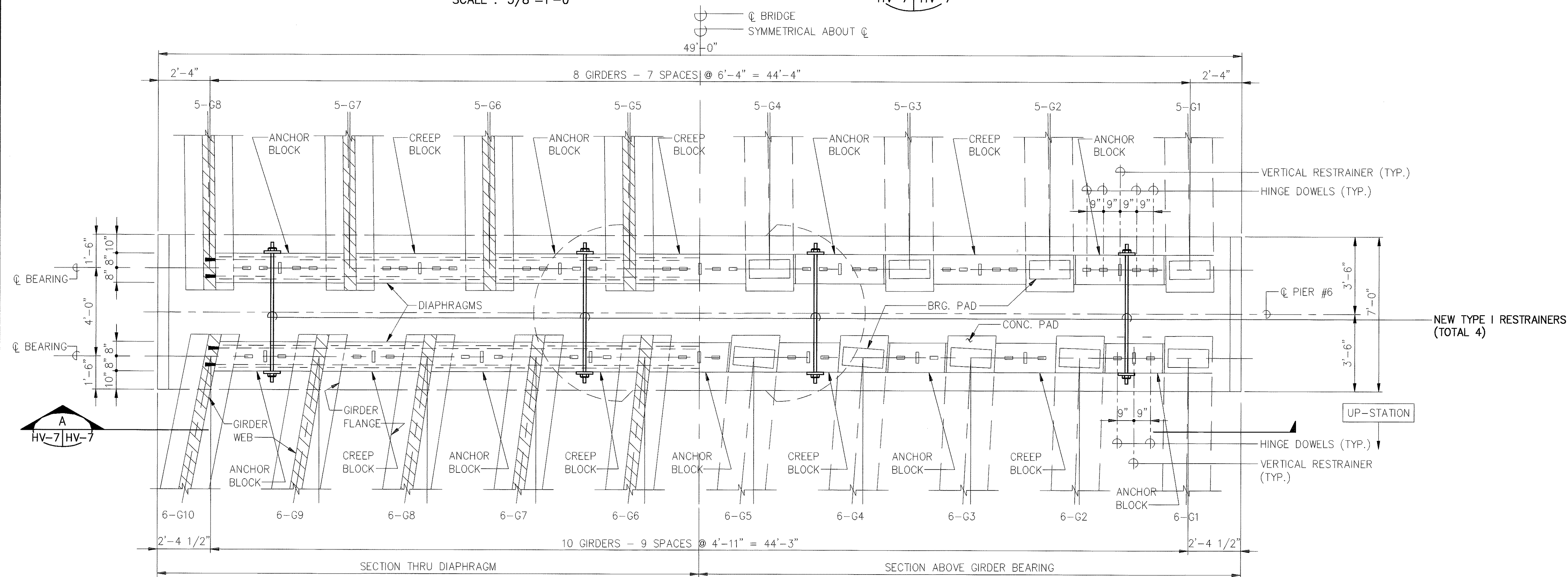
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES
**IB BRIDGE
SECTIONS**

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. HV6 OF 8 SHEETS

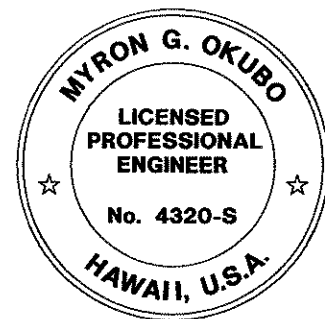
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	238	405



PIER 6 INBOUND ELEVATION - SECTION A
SCALE : 3/8"=1'-0"



PIER 6 INBOUND PLAN - SECTION B
SCALE : 3/8"=1'-0"



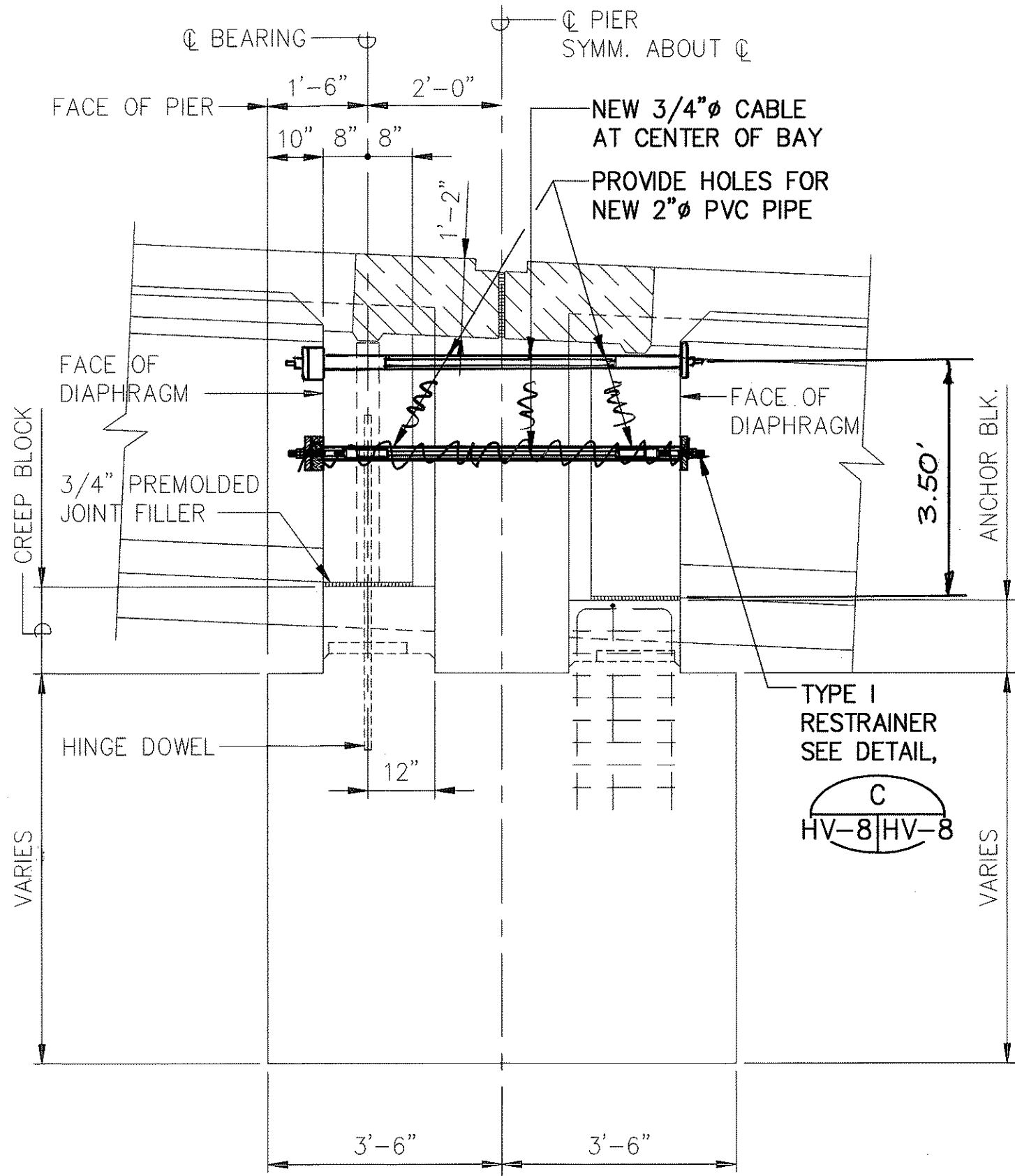
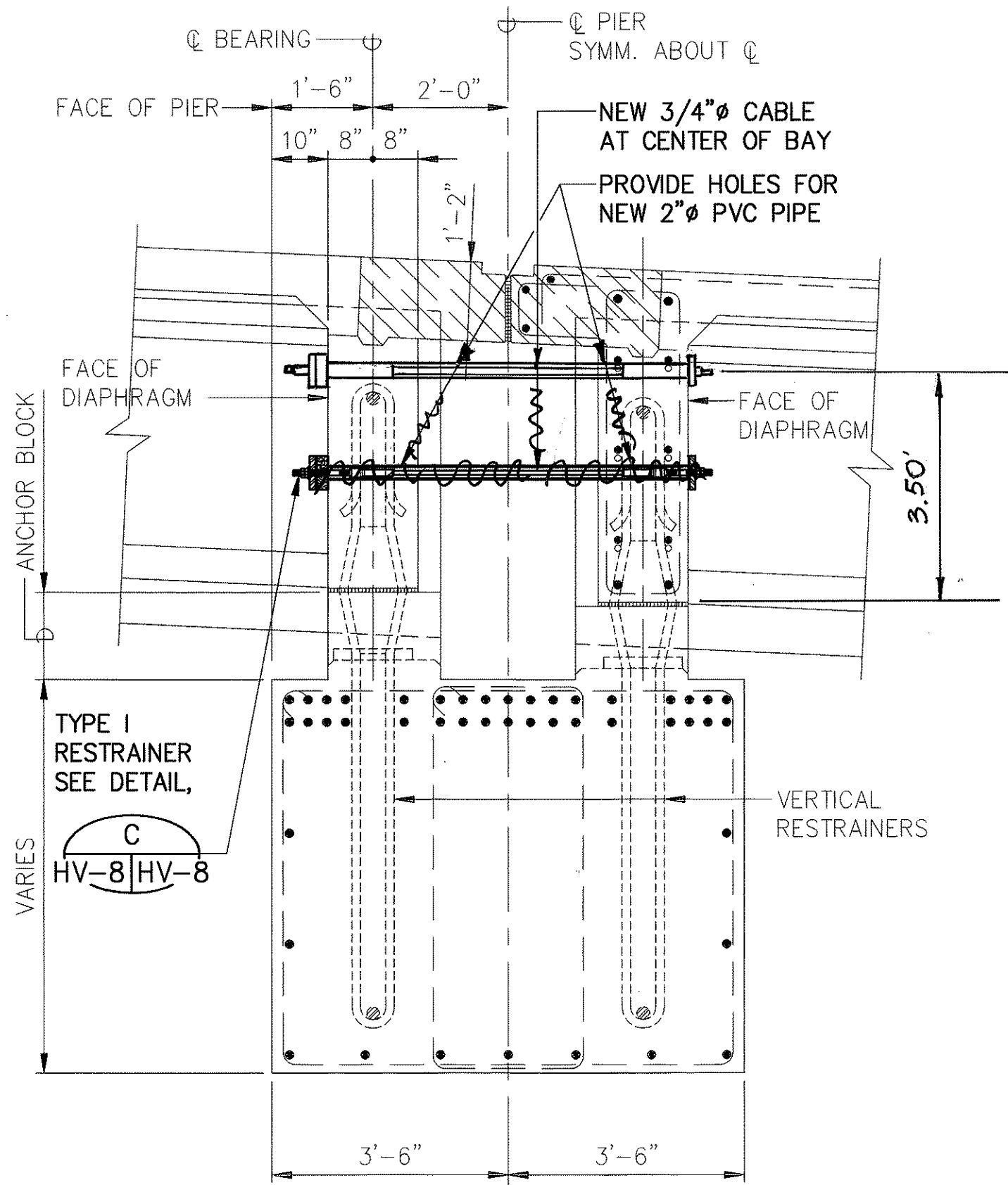
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

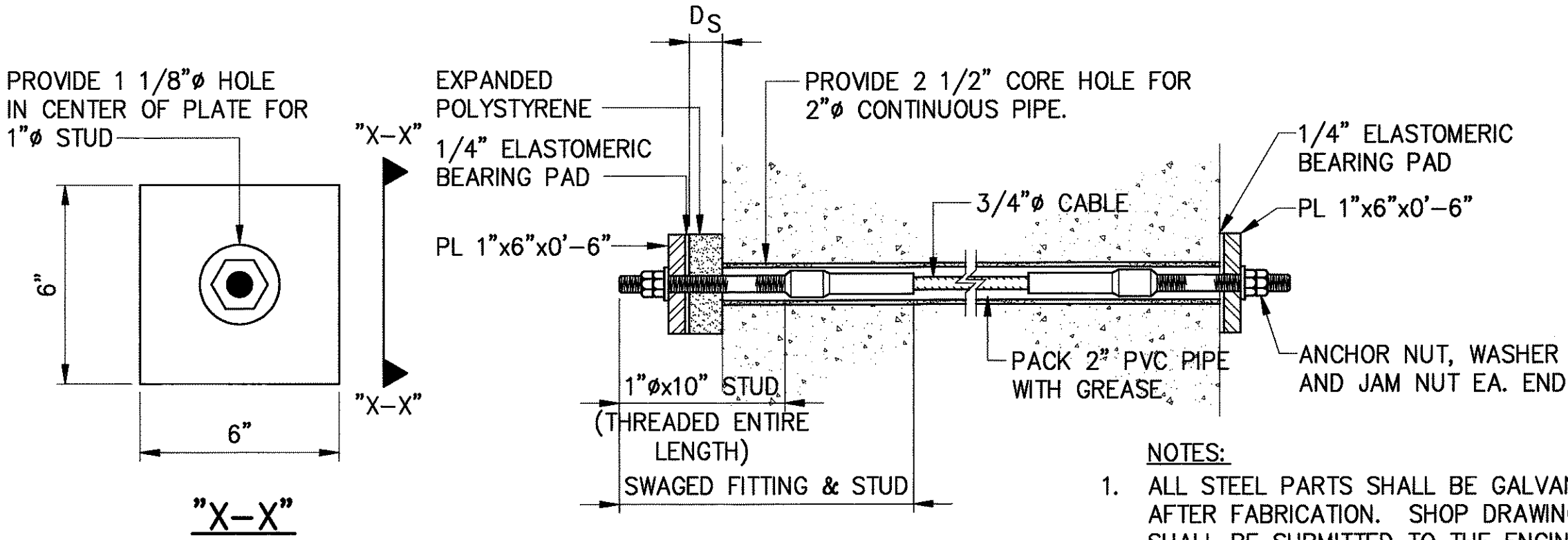
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES
PIER 6 INBOUND DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. HV7 OF 8 SHEETS

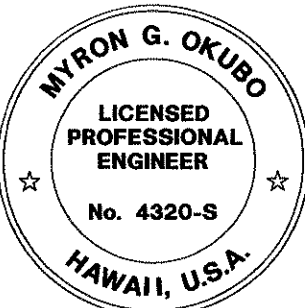
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	239	405



PIER EXPANSION BEARINGS	NUMBER OF HORIZONTAL RESTRAINERS REQUIRED	D _S (INCHES)
I.B. 2	4	1
I.B. 4	4	1
I.B. 6	4	1
O.B. 1	4	1



- NOTES:
- ALL STEEL PARTS SHALL BE GALVANIZED AFTER FABRICATION. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 - NUTS SHALL BE TIGHTENED ONLY ENOUGH TO ALLOW THE POLYSTYRENE TO BE IN CONTACT WITH THE WASHER AND FACE OF CONCRETE. THE POLYSTYRENE SHALL NOT BE COMPRESSED TO LESS THAN THE THICKNESS SHOWN.



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Myron G. Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAIKU VALLEY BRIDGES
PIER SECTIONS

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED
DATE: JAN. 1996
SHEET No. HV8 OF 8 SHEETS

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

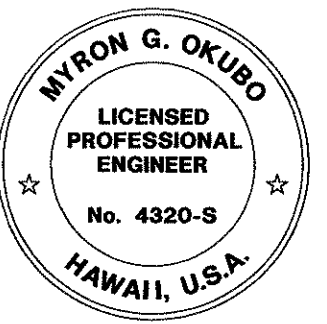
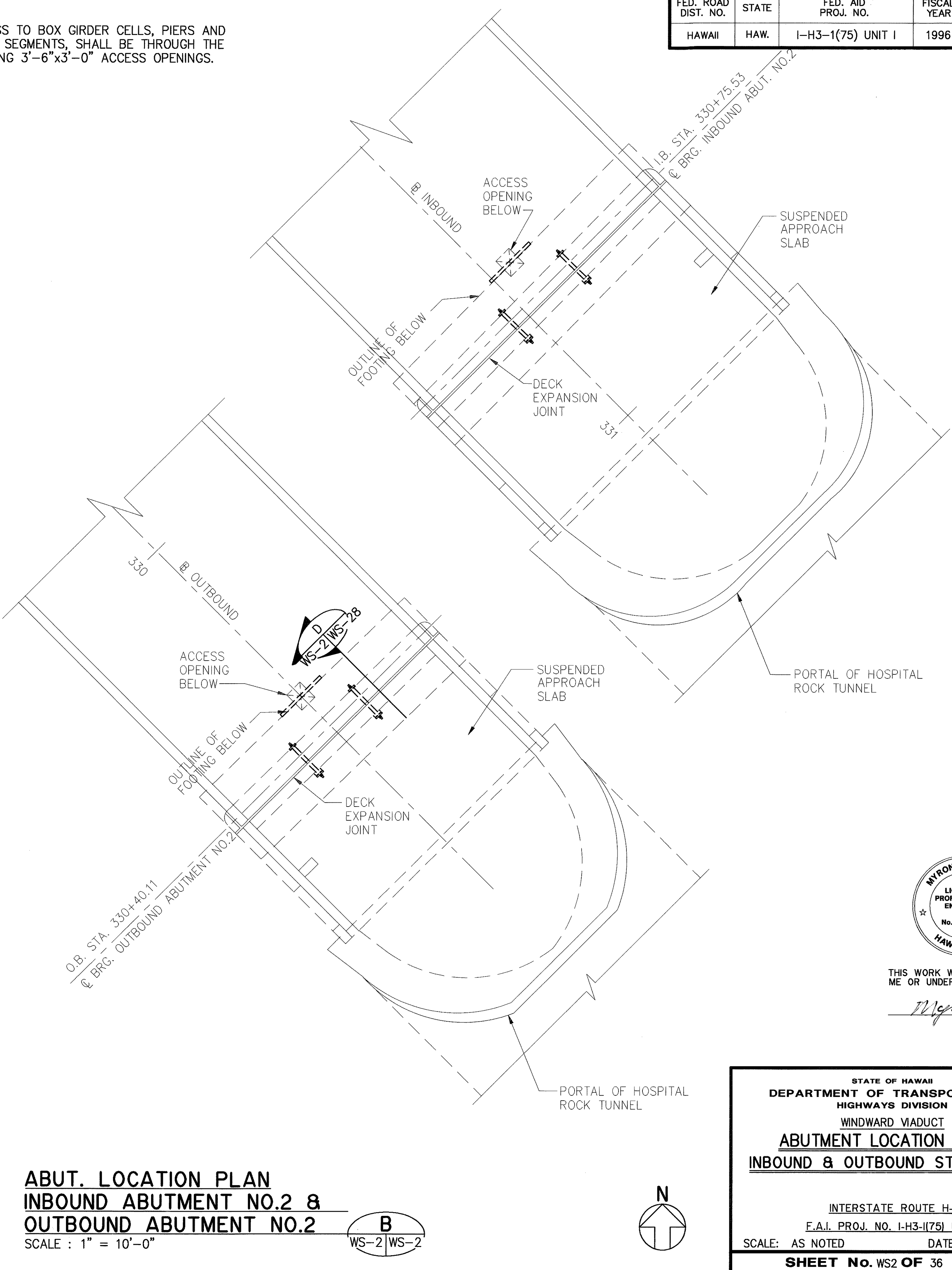
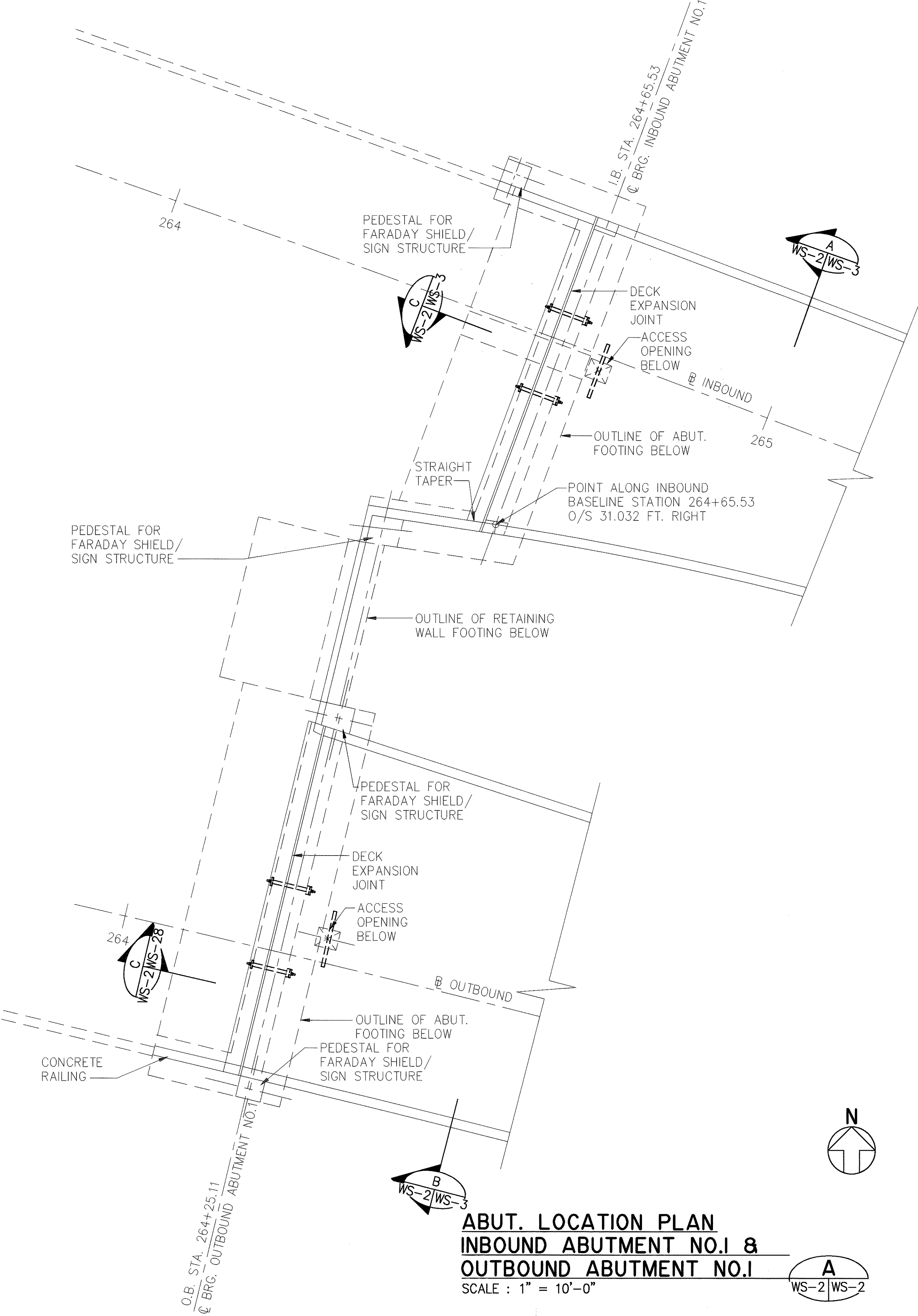
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	240	405

- 240

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	241	405

NOTE:
ACCESS TO BOX GIRDER CELLS, PIERS AND HINGE SEGMENTS, SHALL BE THROUGH THE EXISTING 3'-6"x3'-0" ACCESS OPENINGS.



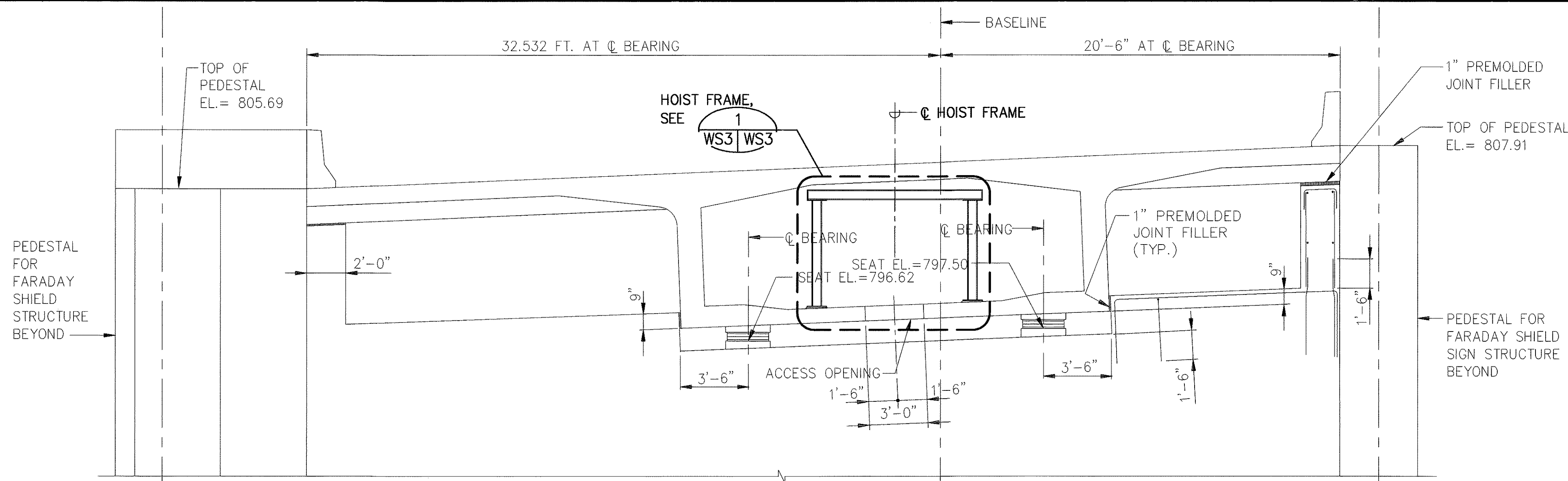
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
ABUTMENT LOCATION PLANS
INBOUND & OUTBOUND STRUCTURES

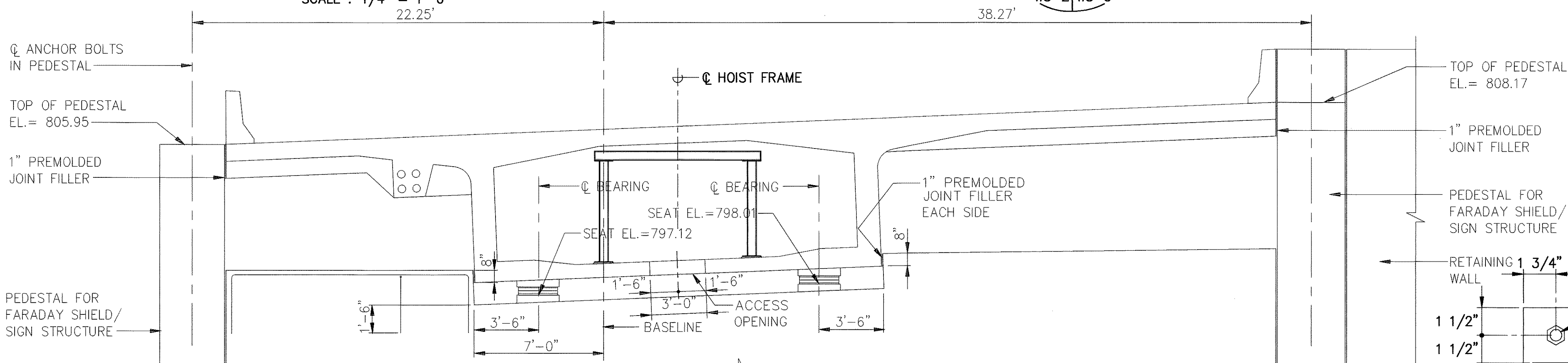
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS2 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	242	405



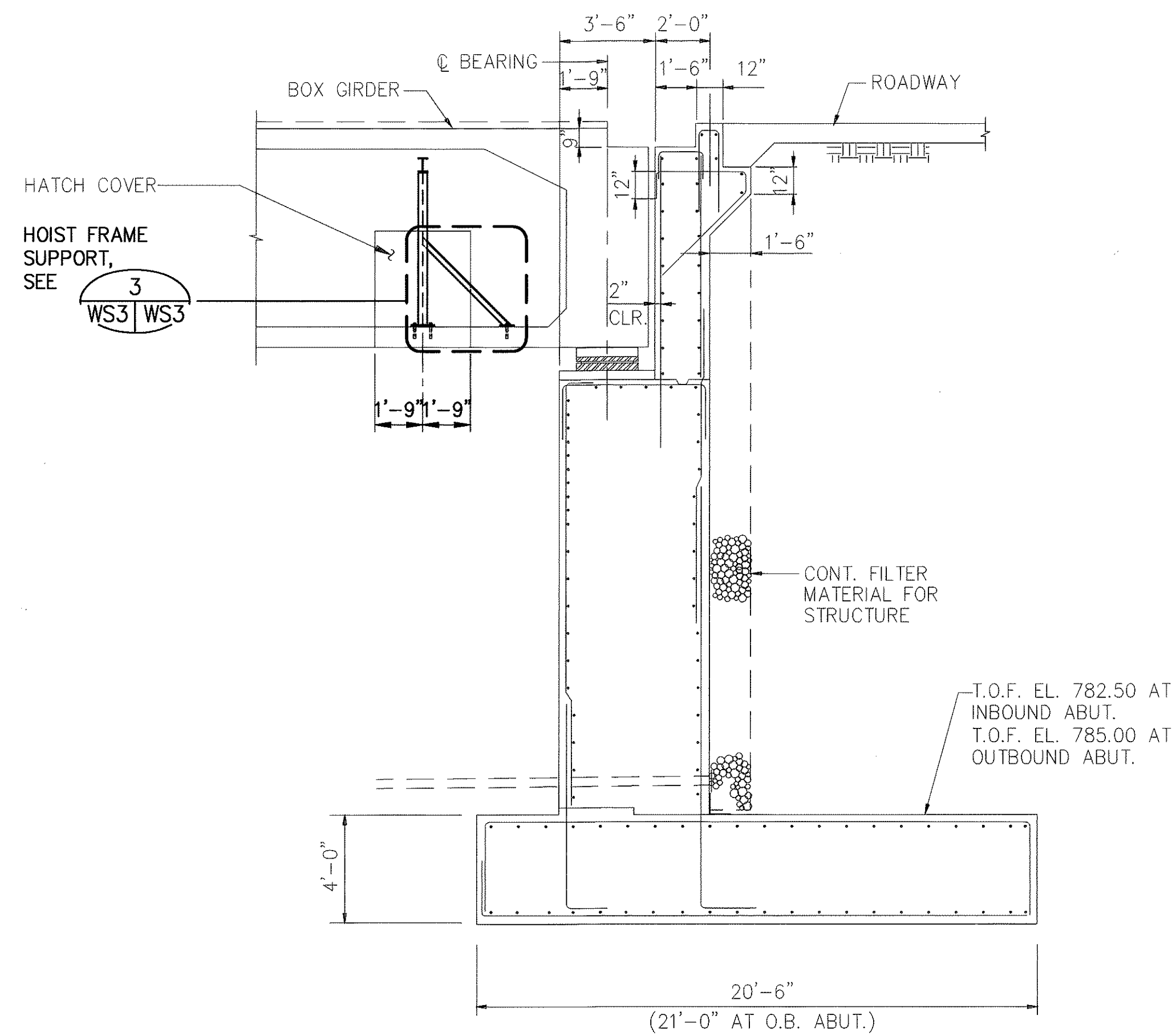
PARTIAL ELEVATION – EXIST. INBOUND ABUTMENT NO. 1
(SHOWN) INBOUND ABUTMENT NO. 2 SIMILAR

SCALE : 1/4" = 1'-0"
22.25'



PARTIAL ELEVATION – EXIST. OUTBOUND ABUTMENT NO. 1
(SHOWN) OUTBOUND ABUTMENT NO. 2 SIMILAR

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

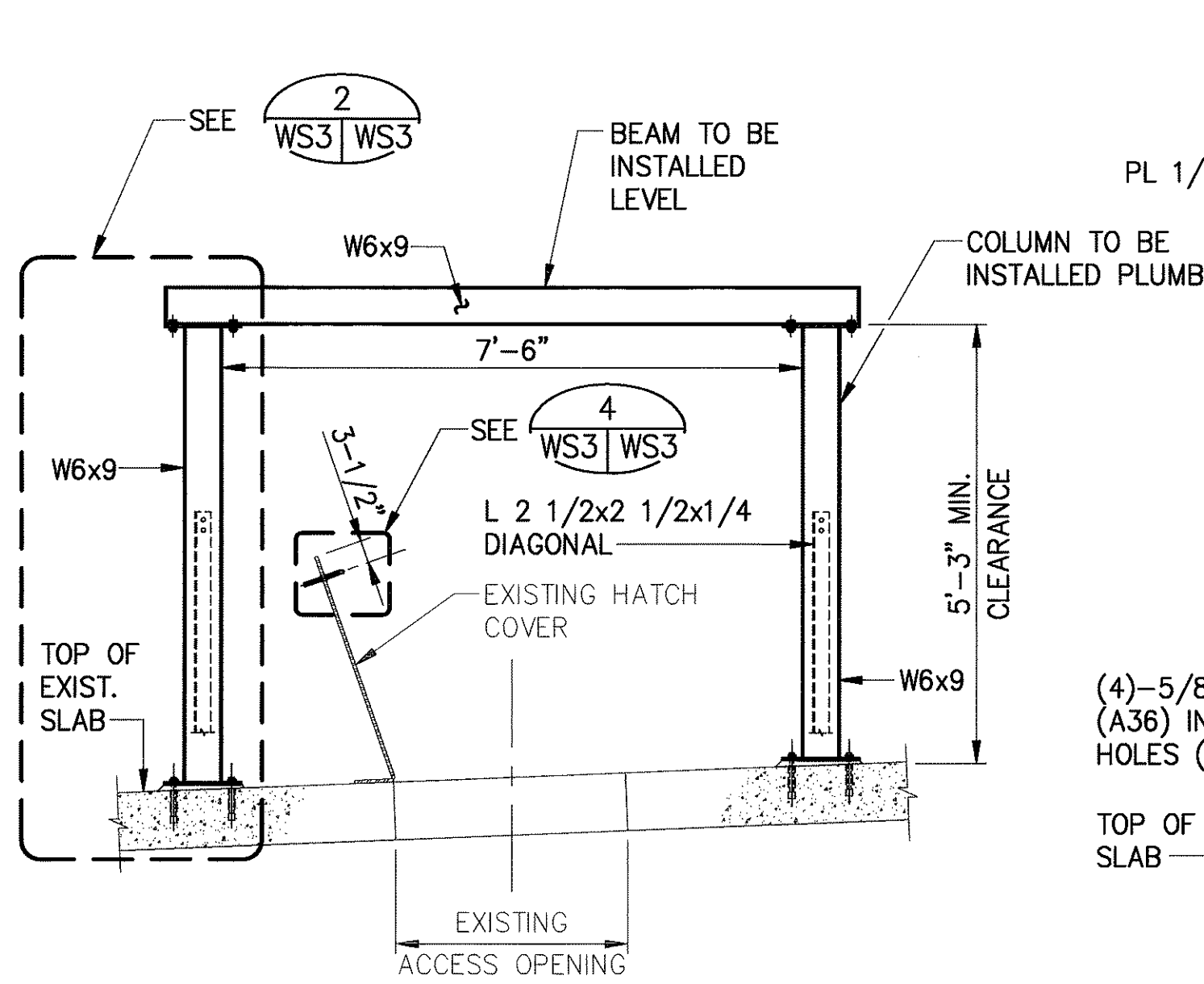


SECTION AT EXIST. ABUTMENT NO. 1
INBOUND & OUTBOUND STRUCTURE

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

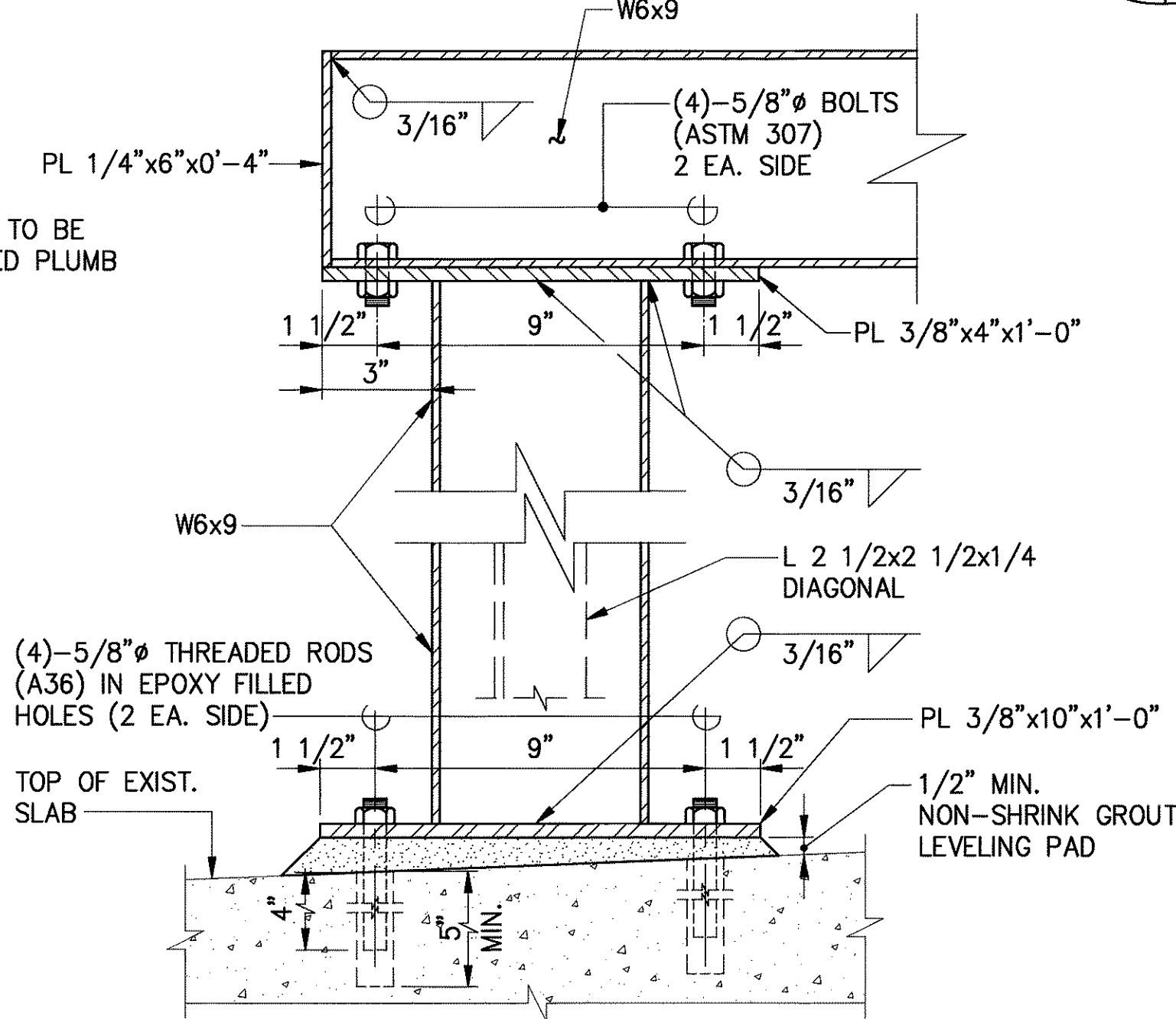
NOTE:

ACCESS TO BOX GIRDER CELLS, PIERS AND HINGE SEGMENTS, SHALL BE THROUGH THE 3'-6"x3'-0" ACCESS OPENINGS.



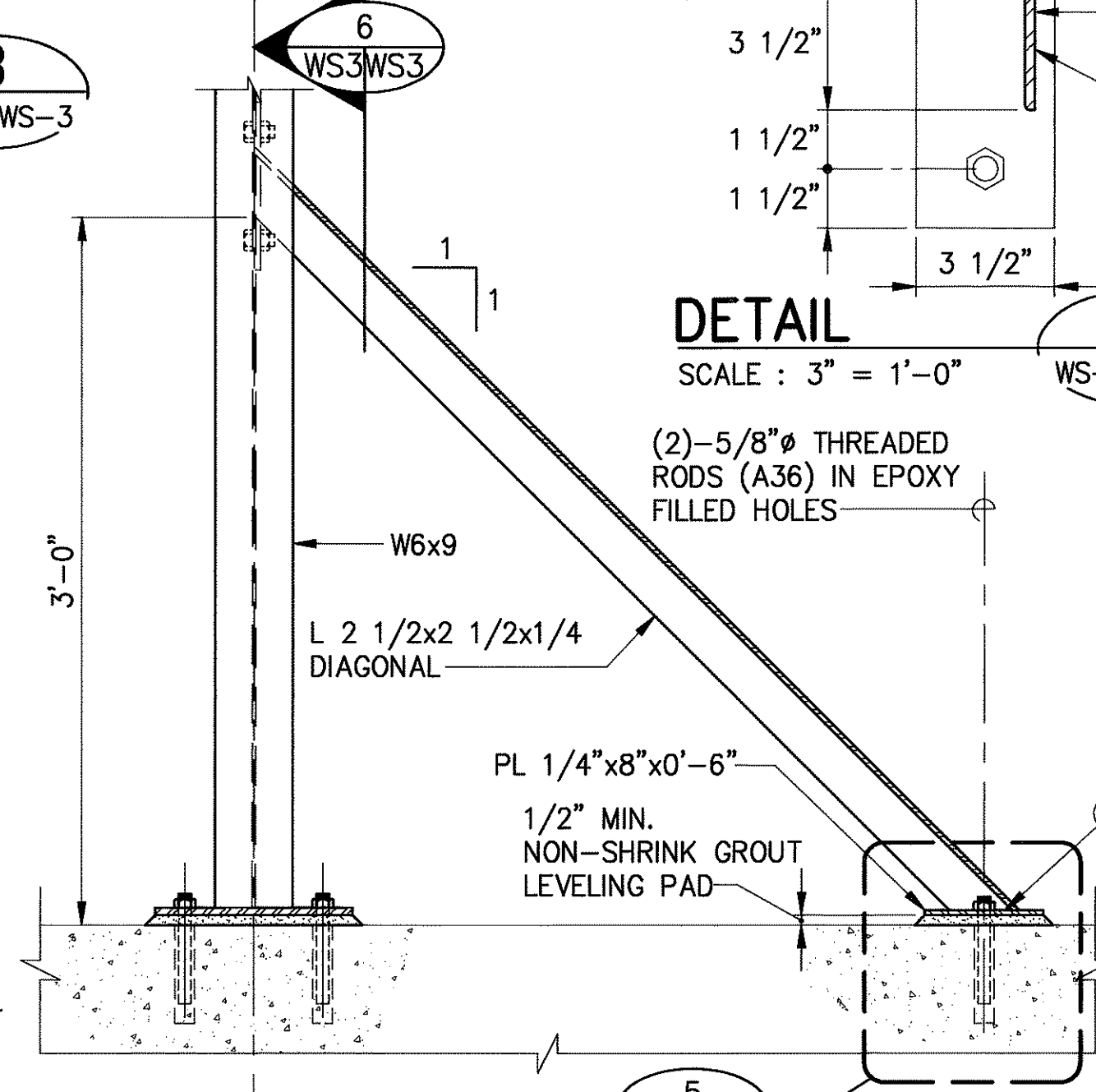
DETAIL – HOIST FRAME

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



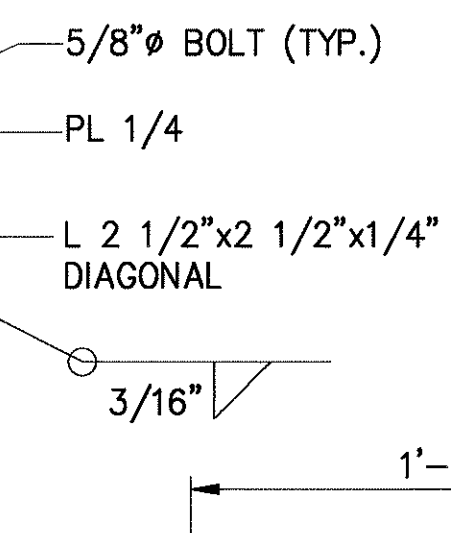
DETAIL – HOIST FRAME

SCALE : 3" = 1'-0"



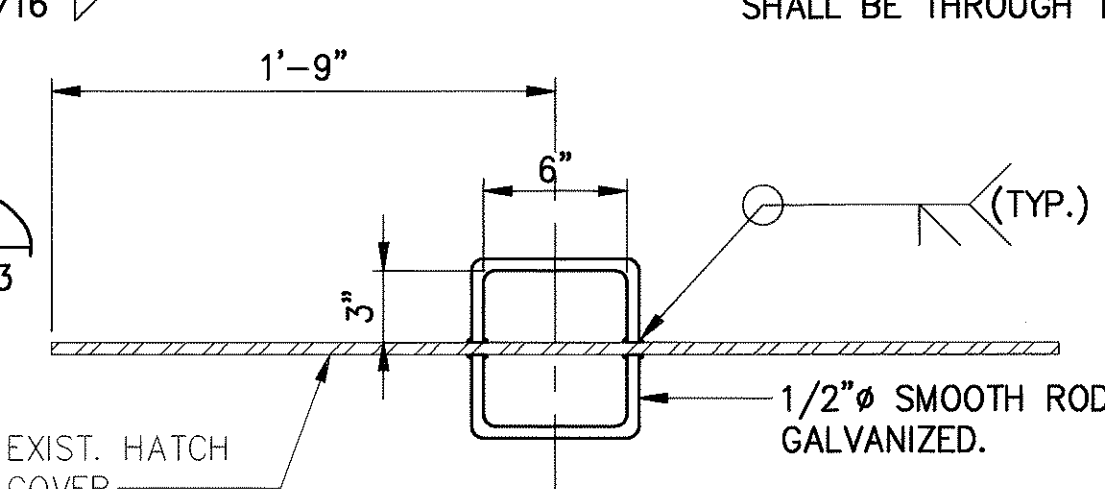
DETAIL – HOIST FRAME SUPPORT

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



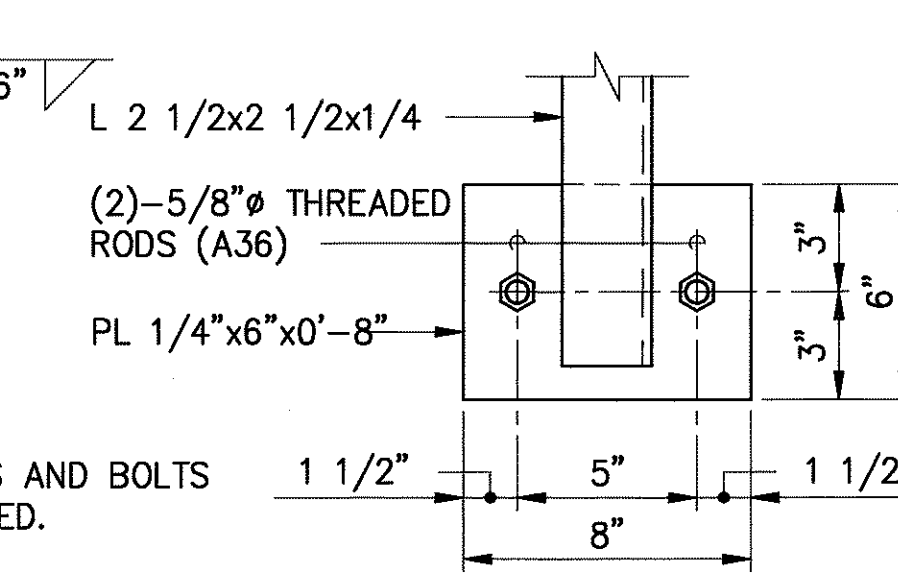
DETAIL

SCALE : 3" = 1'-0"



DETAIL

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



DETAIL

SCALE : N.T.S.

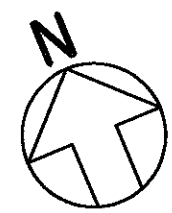
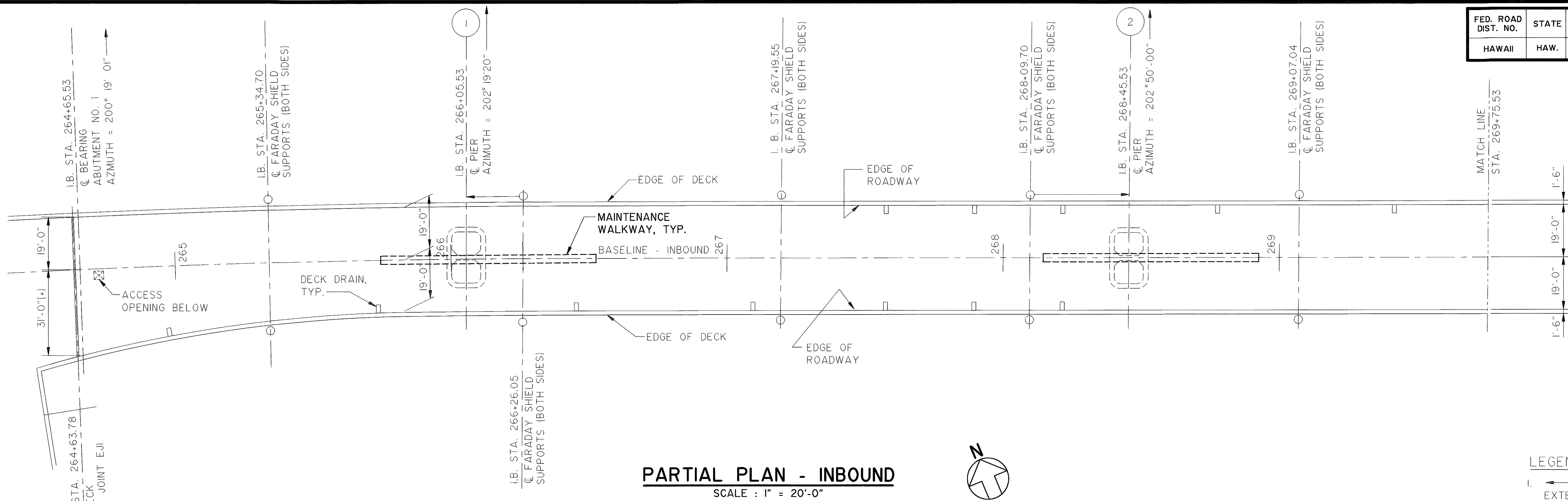


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Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
ELEVATIONS & SECTION
INBOUND & OUTBOUND STRUCTURES
ABUTMENT NO. 1
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS3 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175) UNIT 1	1996	243	405

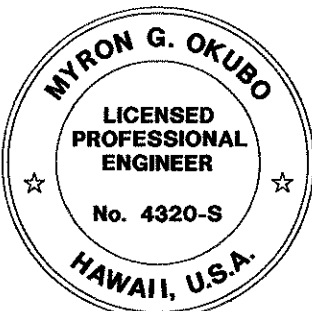


LEGEND:

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

NOTE:

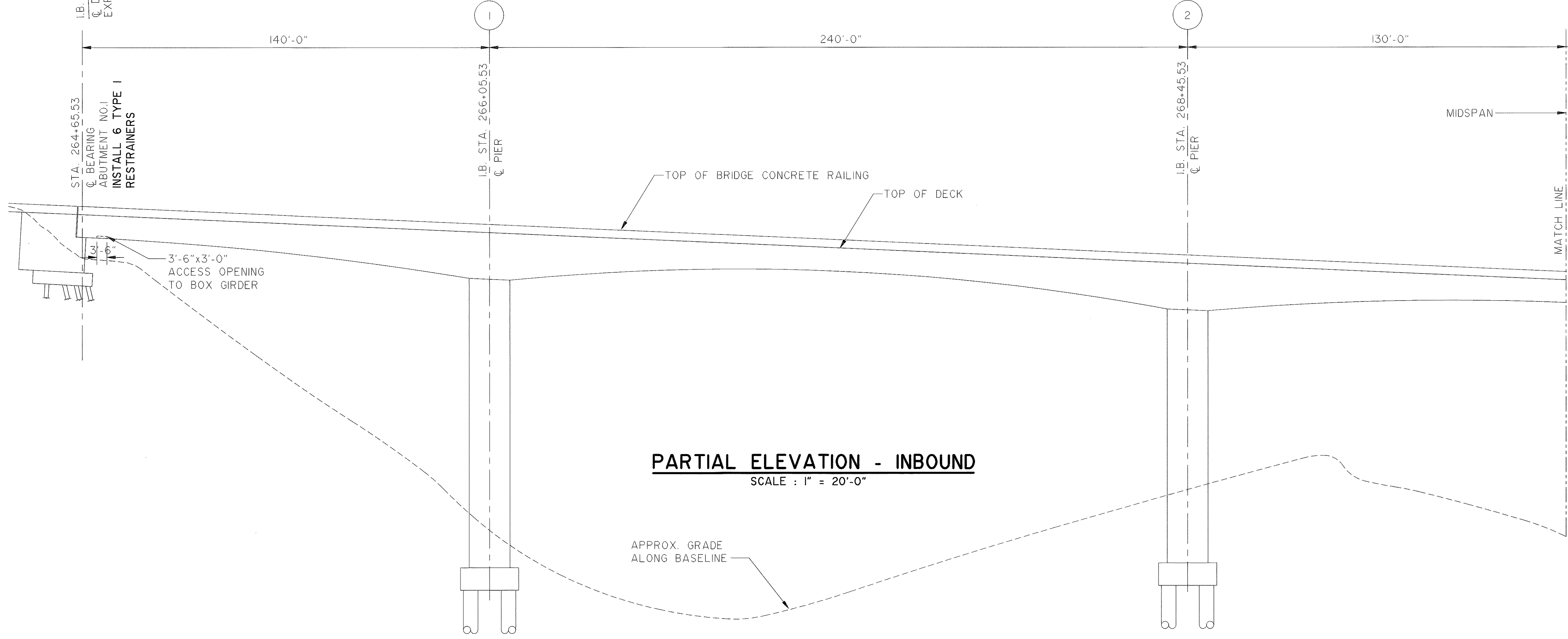
- I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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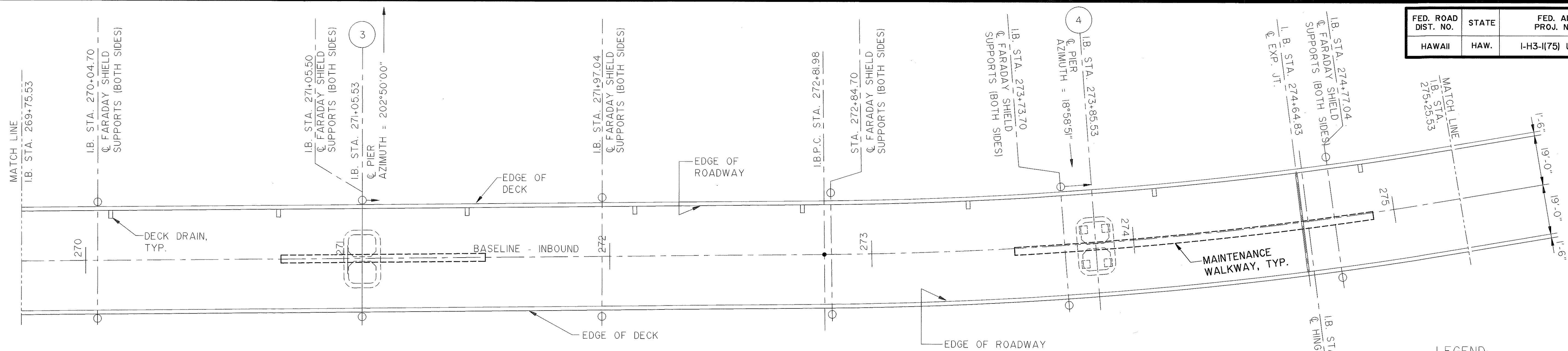
PARTIAL ELEVATION - INBOUND
SCALE : 1" = 20'-0"



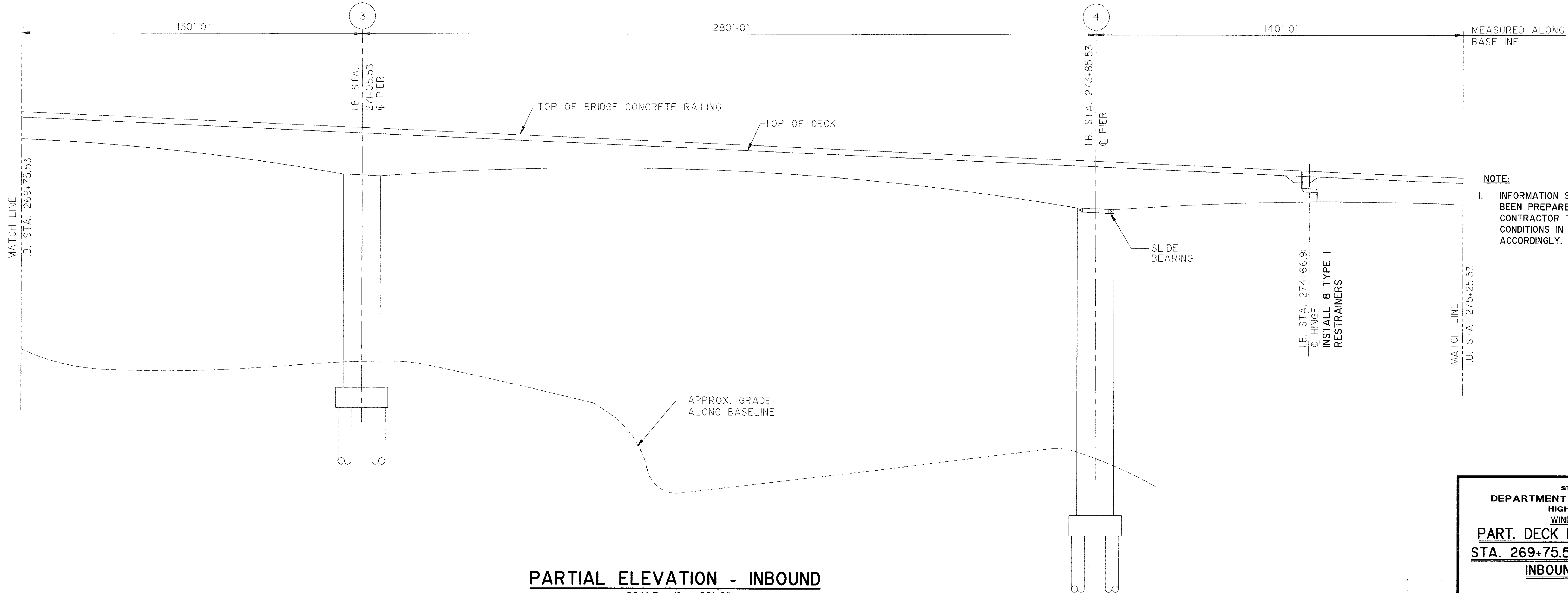
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
ABUTMENT NO. 1 TO STA. 269+75.53
INBOUND STRUCTURE
 INTERSTATE ROUTE H-3
 F.A.J. PROJ. NO. I-H3-(175) UNIT 1
 SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS4 OF 36 SHEETS

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

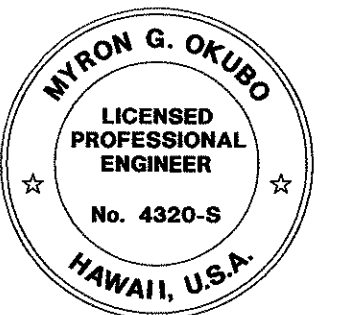
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	244	405



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



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

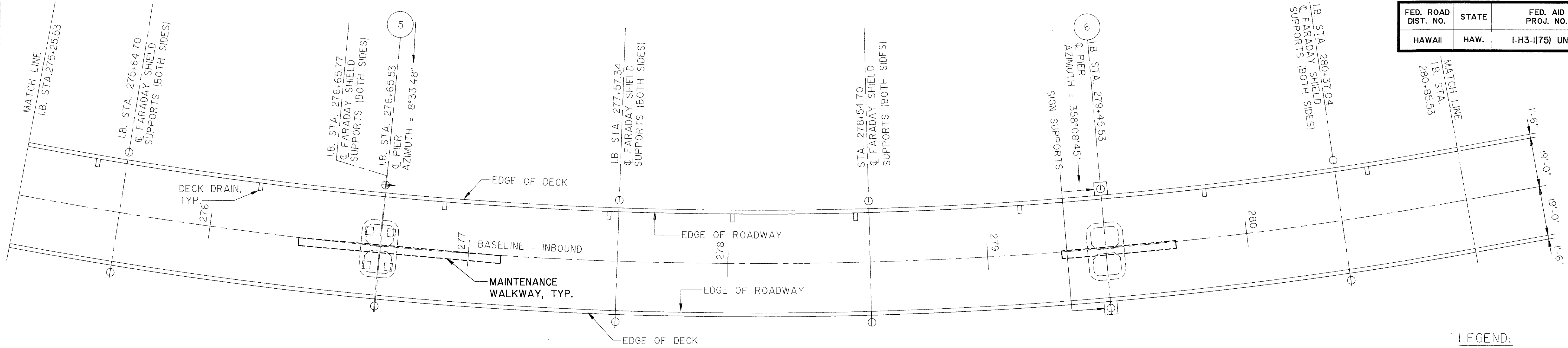


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ME OR UNDER MY SUPERVISION

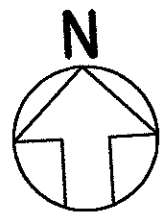
Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 269+75.53 TO STA. 275+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS5 OF 36 SHEETS

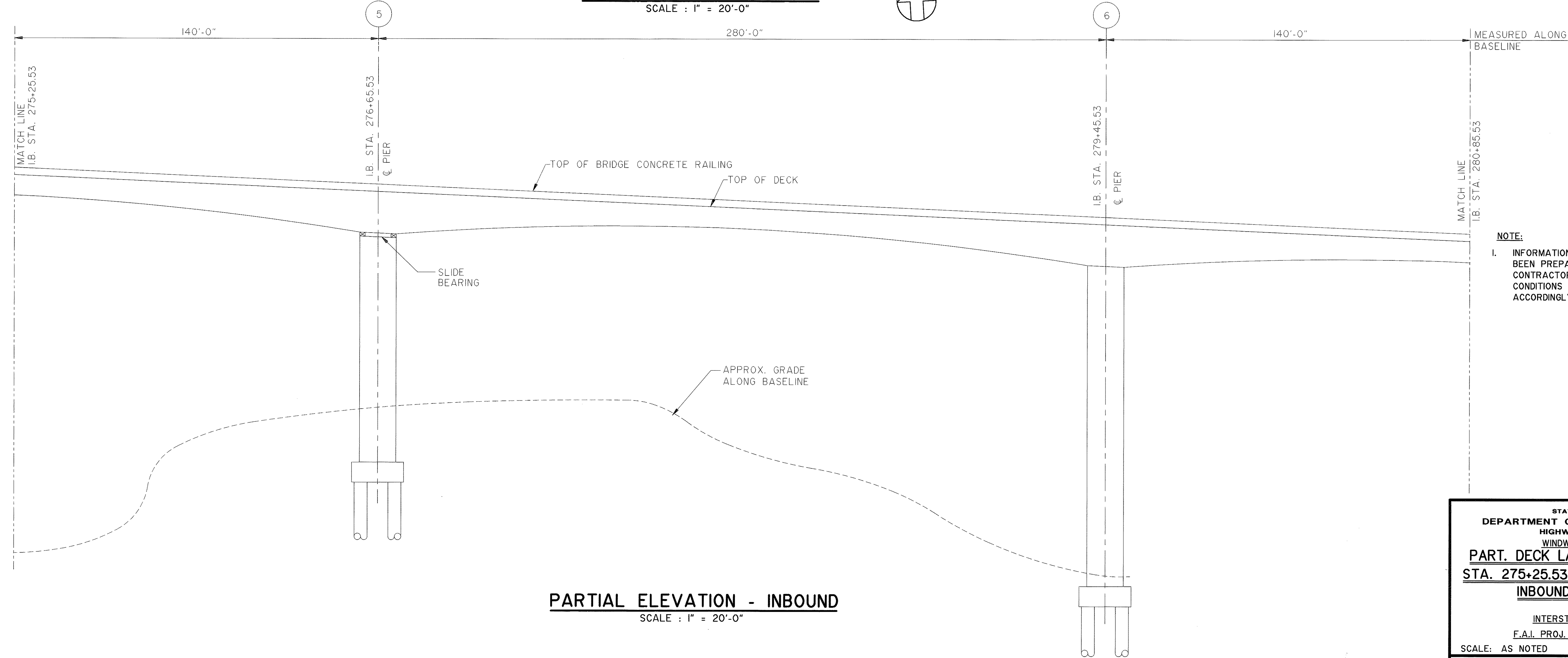
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	245	405



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

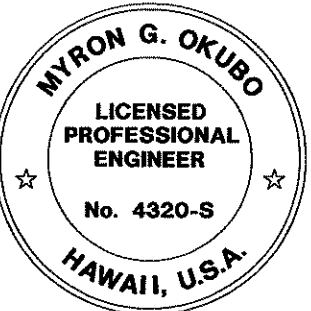


LEGEND:
 I. ——— INDICATES EXISTING GROUND BUSS
 EXTENDING DOWN PIER TO GROUND ROD.



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

NOTE:
 I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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Myron Okuro

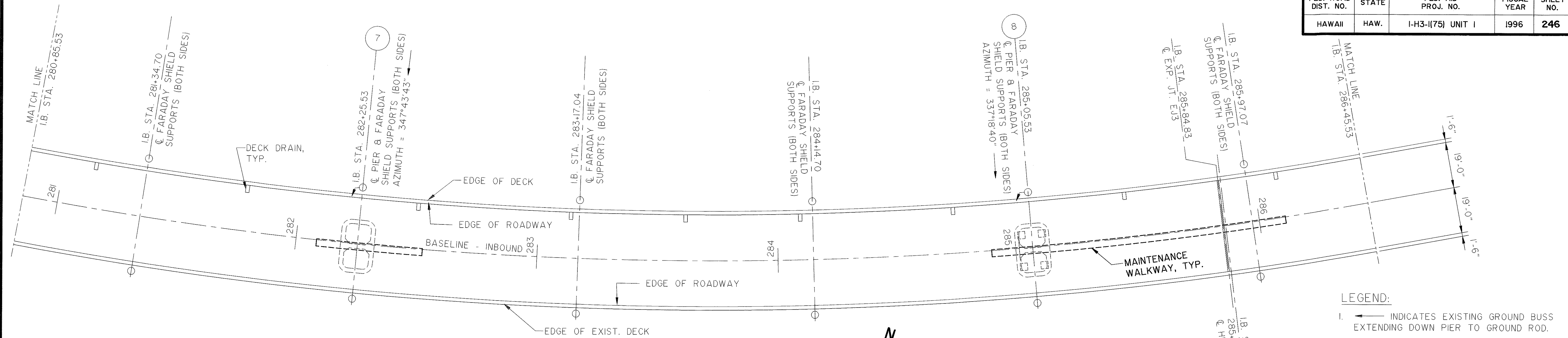
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT

PART. DECK LAYOUT & ELEVATION
STA. 275+25.53 TO STA. 280+85.53
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS6 OF 36 SHEETS

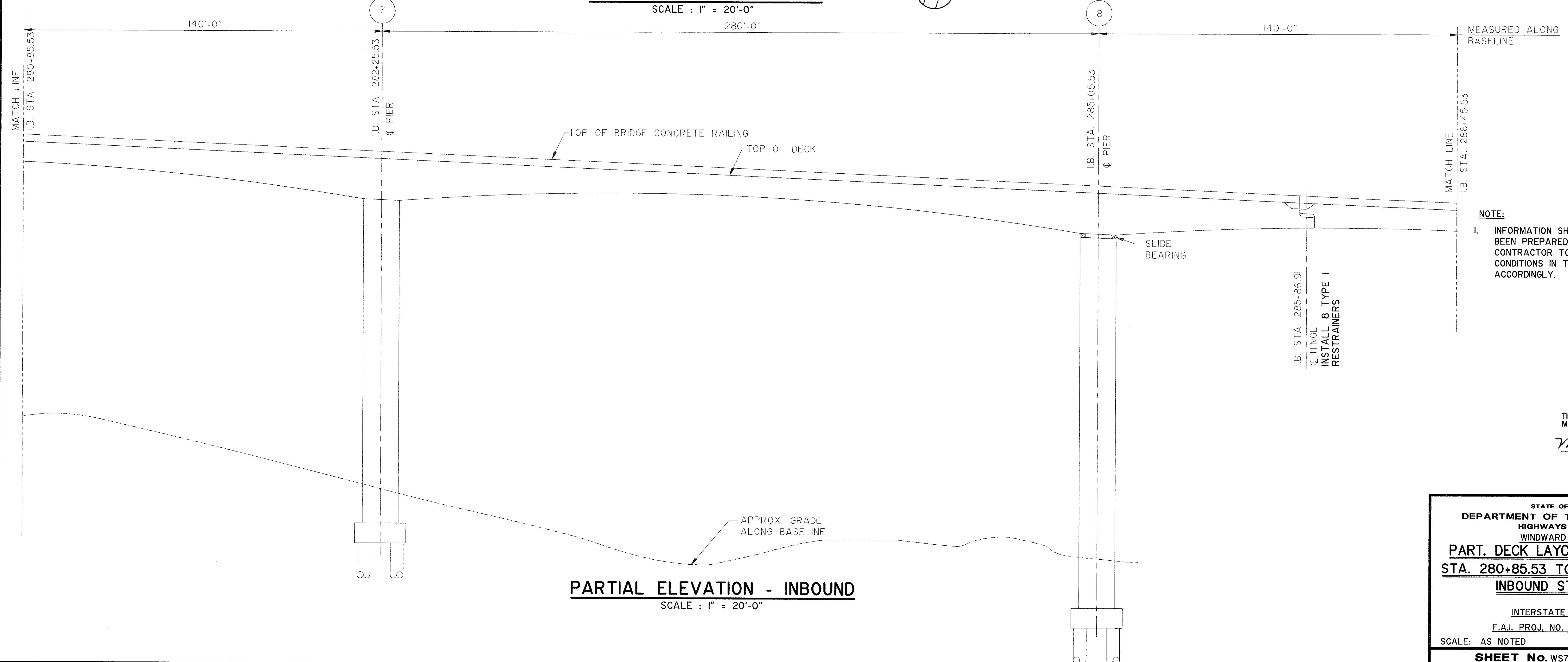
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
CHECKED BY	TRACED BY	
	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	246	405



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

LEGEND:

- I. INDICATES EXISTING GROUND BUSS
EXTENDING DOWN PIER TO GROUND ROD.

NOTE:

- I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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ME OR UNDER MY SUPERVISION

Myron Chubb

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 280+85.53 TO STA. 286+45.53
INBOUND STRUCTURE

INTERSTATE ROUTE H-3

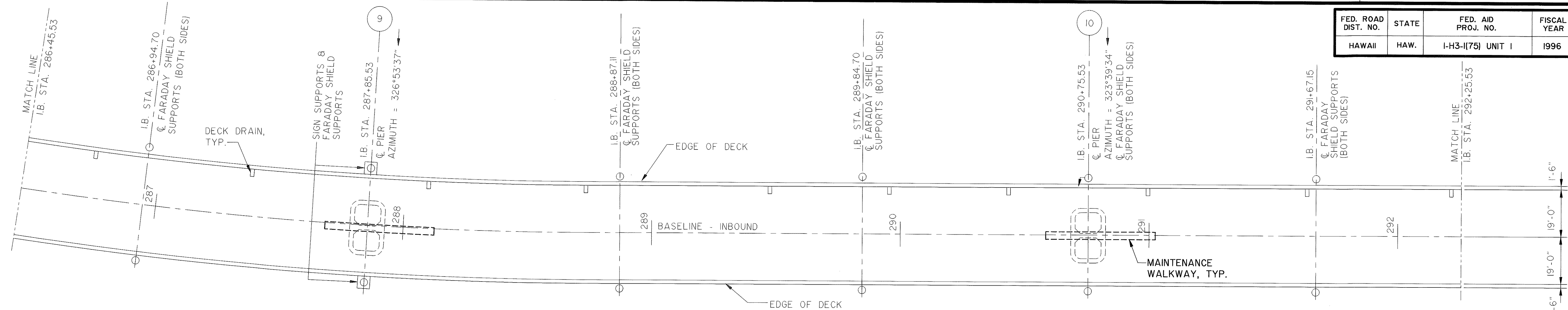
F.A.I. PROJ. NO. I-H3-I(75) UNIT I

SCALE: AS NOTED DATE: JAN. 1996

SHEET No. WS7 OF 36 SHEETS

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

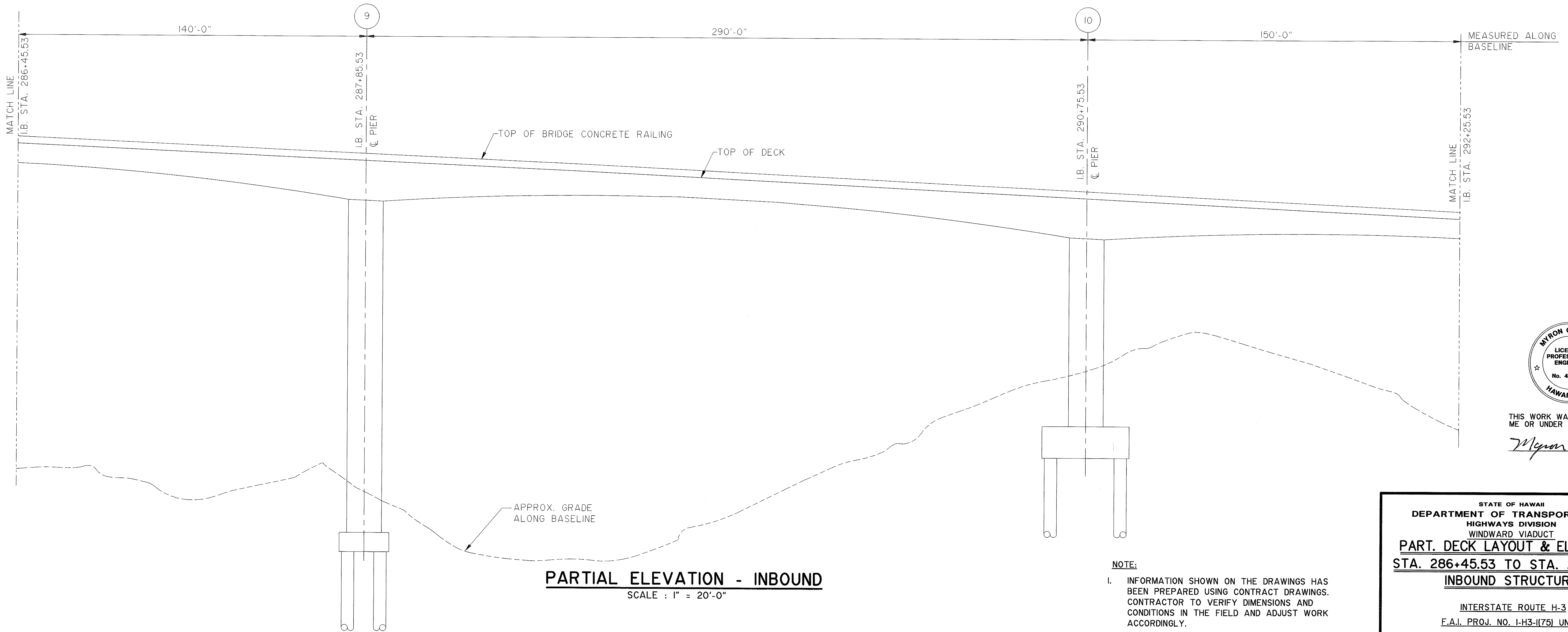
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT 1	1996	247	405



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

LEGEND:

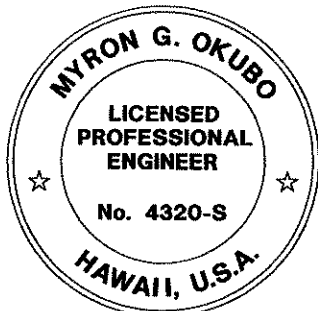
- I. ——— INDICATES EXISTING GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.



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

NOTE:

- I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

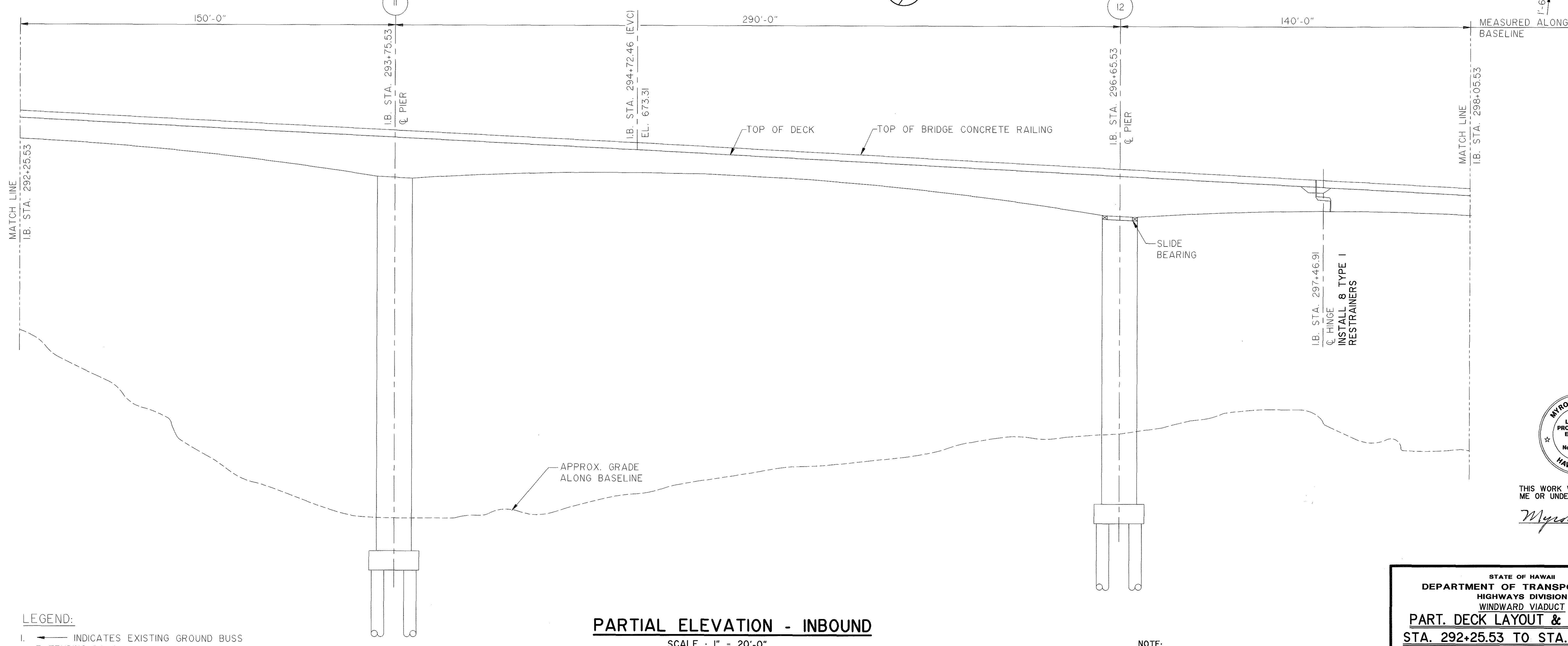
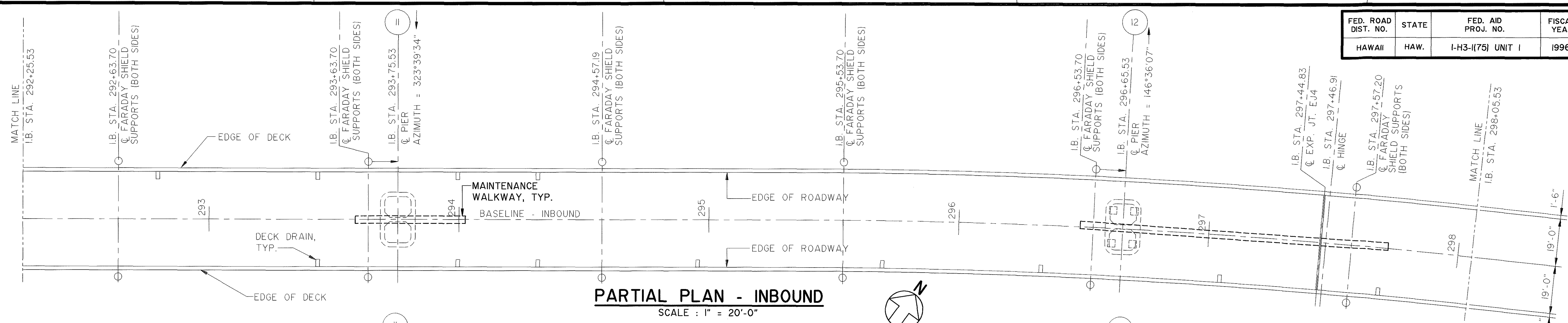


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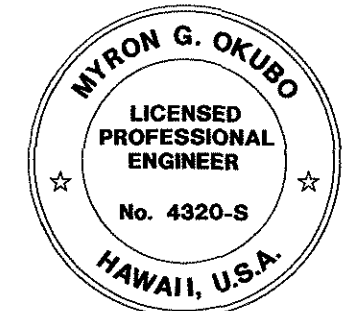
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 286+45.53 TO STA. 292+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT 1
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS8 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175) UNIT 1	1996	248	405



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

NOTE:
 1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT

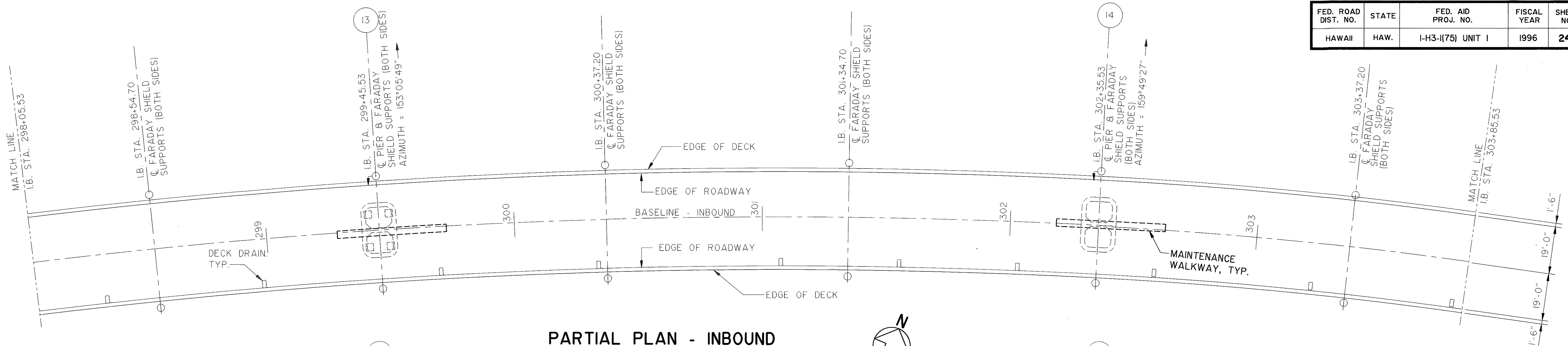
PART. DECK LAYOUT & ELEVATION
STA. 292+25.53 TO STA. 298+05.53
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-(175), UNIT 1

SCALE: AS NOTED DATE: JAN. 1996

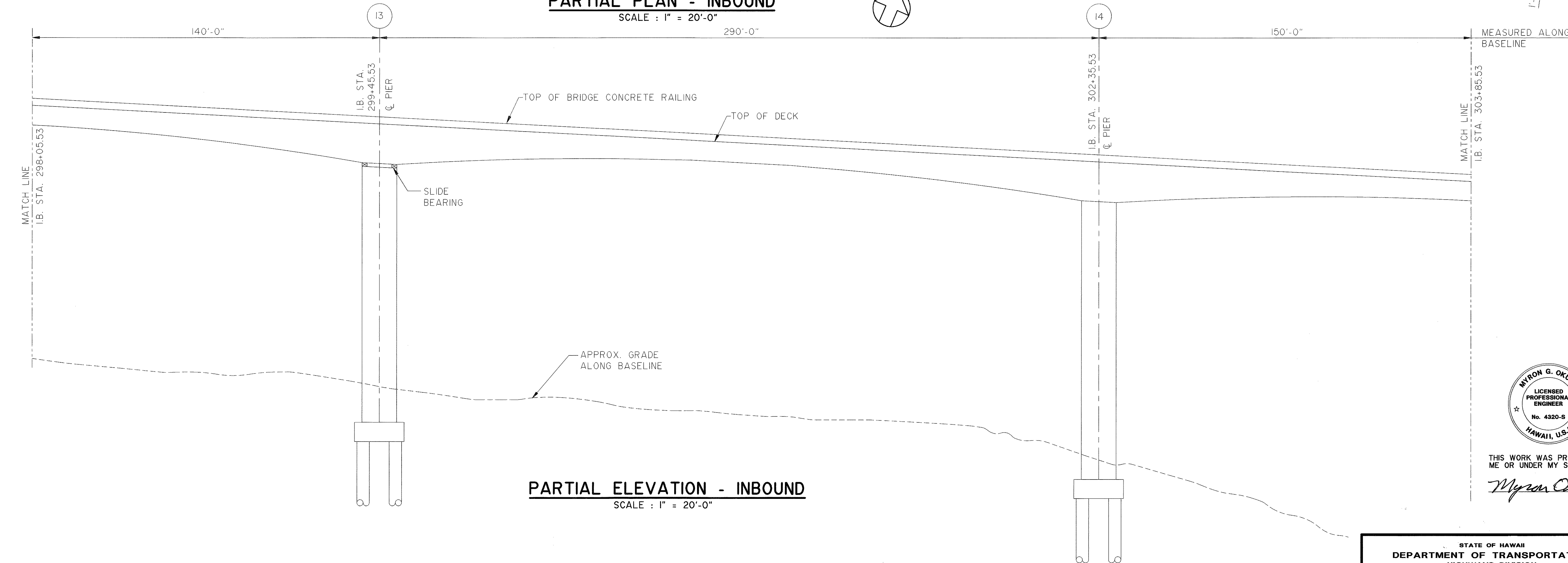
SHEET No. W59 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	249	405



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - INBOUND

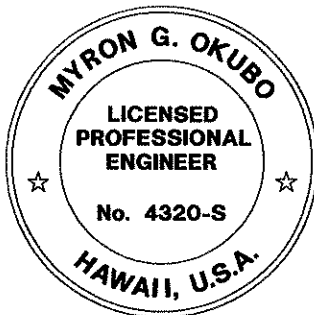
SCALE : 1" = 20'-0"

LEGEND:

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

NOTE:

1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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ME OR UNDER MY SUPERVISION

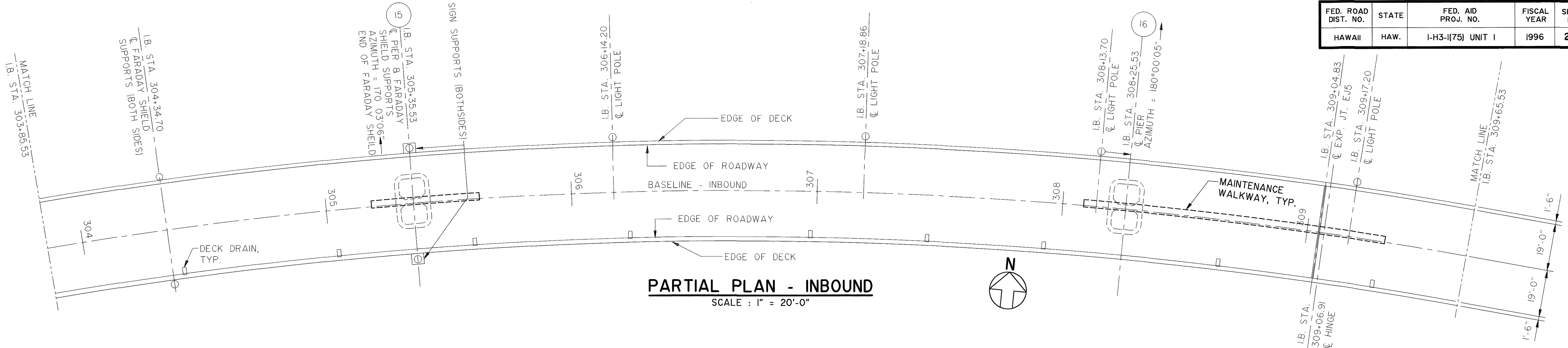
Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 298+05.53 TO STA. 303+85.53
INBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996

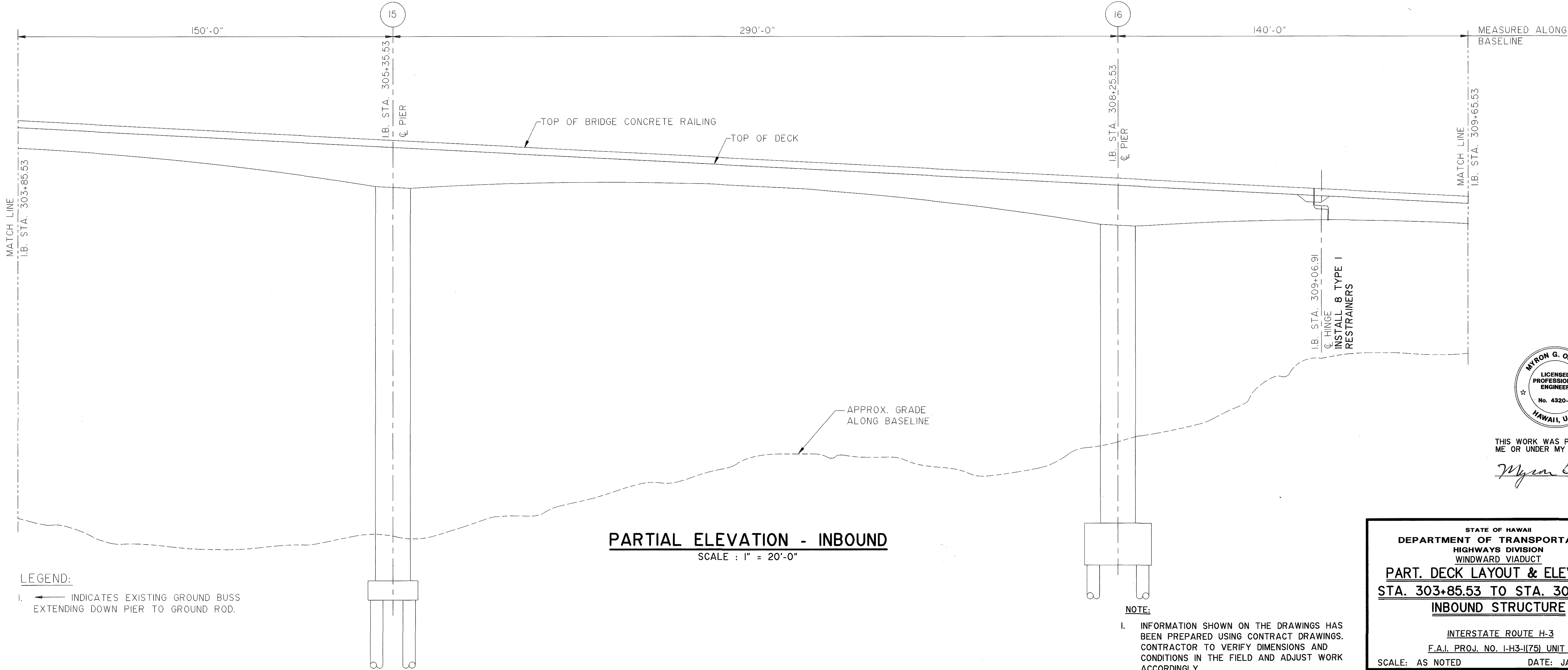
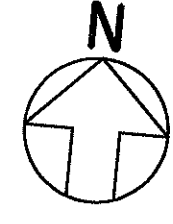
SHEET No. WS10 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	250	405



PARTIAL PLAN - INBOUND

SCALE : 1" = 20'-0"

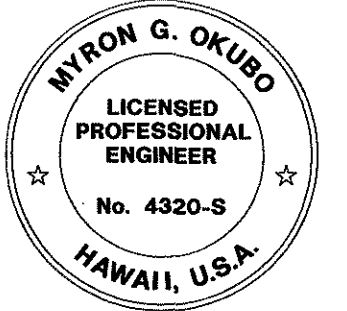


PARTIAL ELEVATION - INBOUND

SCALE : 1" = 20'-0"

LEGEND:

- INDICATES EXISTING GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.



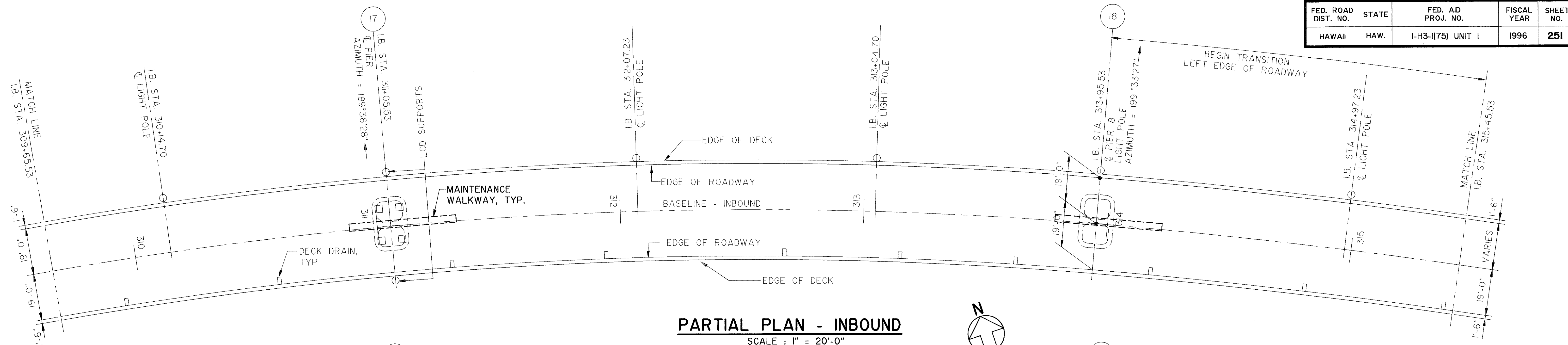
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

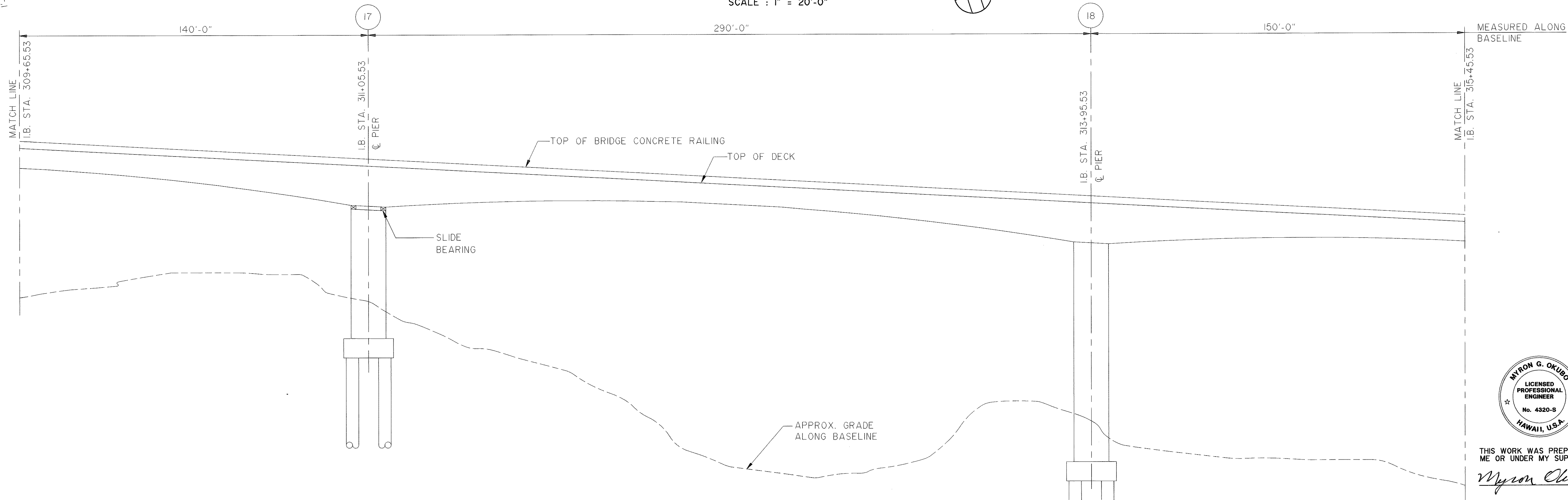
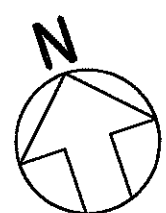
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 303+85.53 TO STA. 309+65.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. 250 OF 36 SHEETS

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

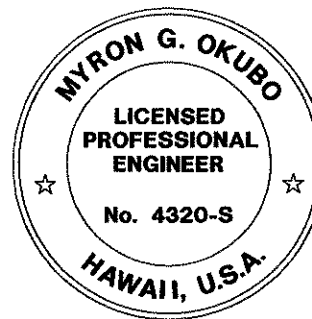
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	251	405



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



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



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

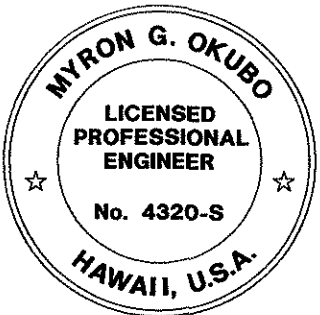
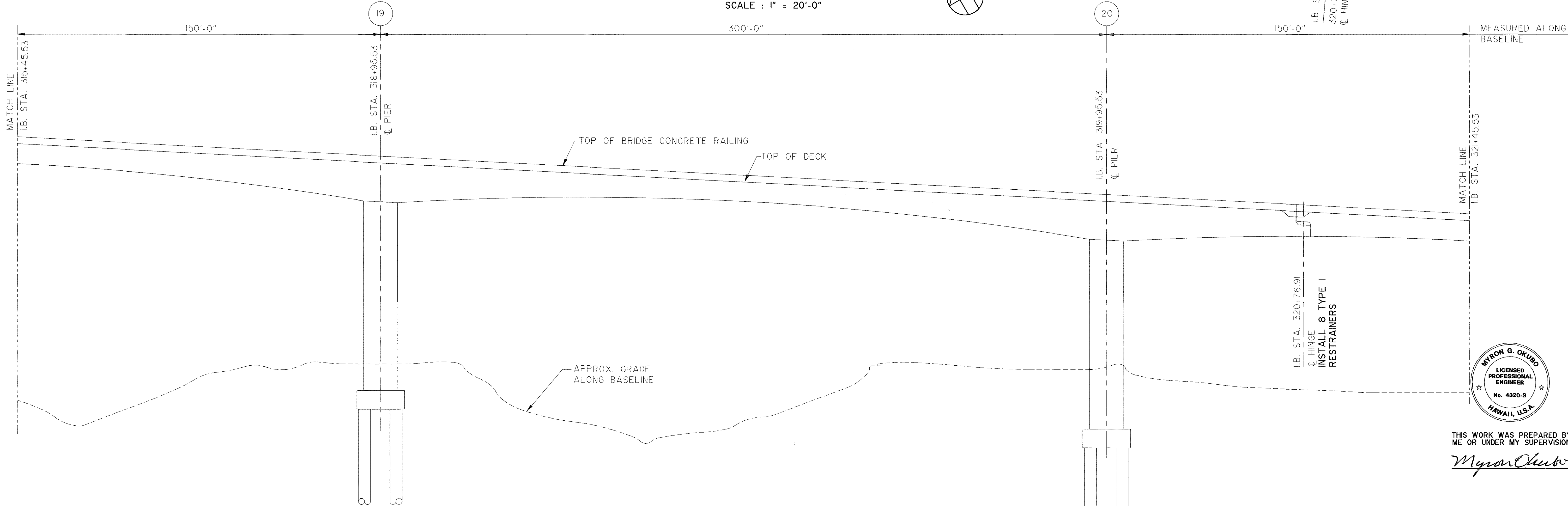
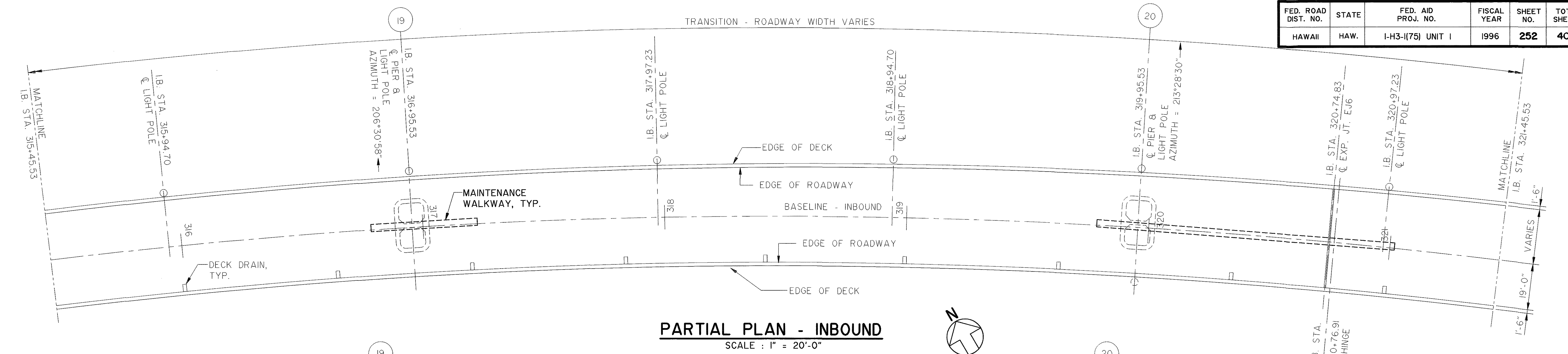
Myron Okubo

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 309+65.53 TO STA. 315+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS12 OF 36 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	252	405



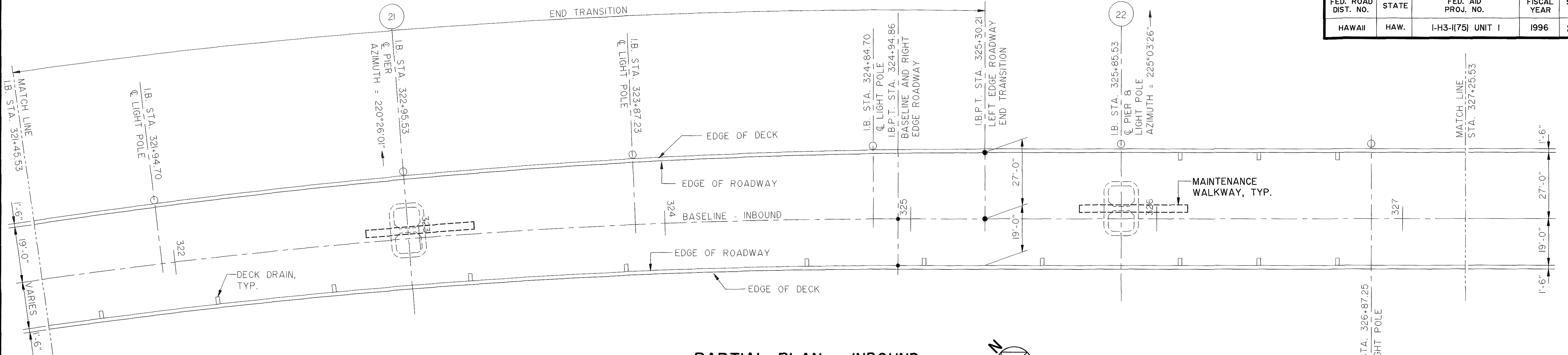
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

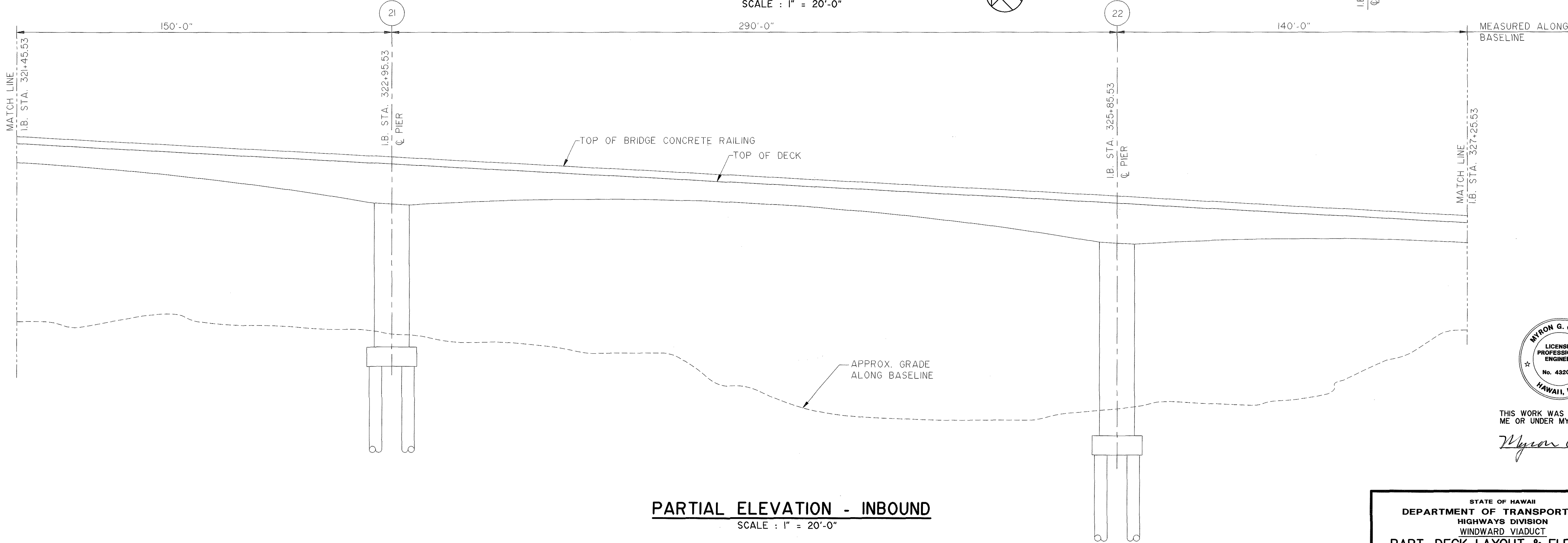
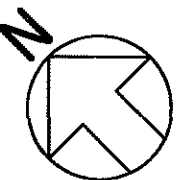
NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 315+45.53 TO STA. 321+45.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS13 OF 36 SHEETS

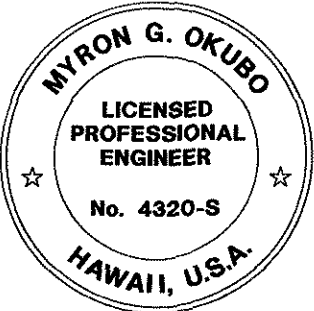
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	253	405



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



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



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

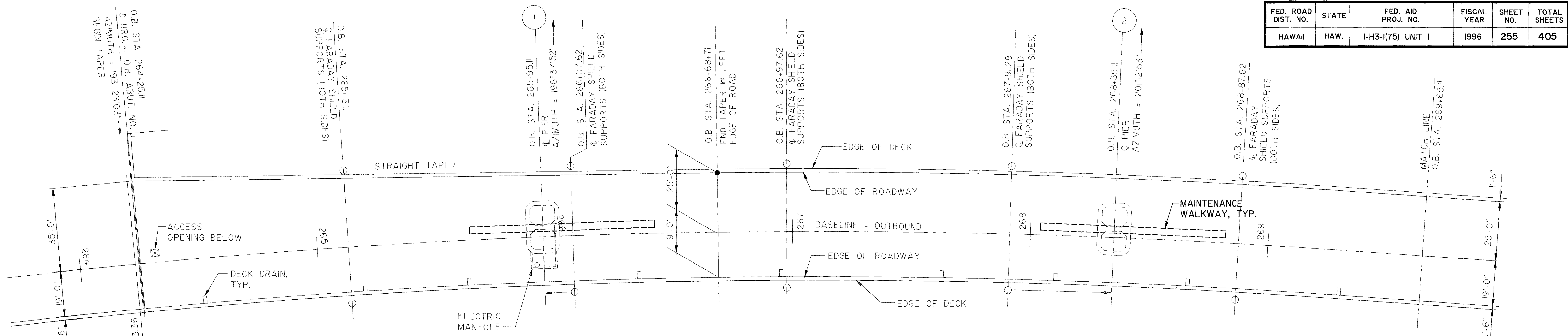
Myron Okuro

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

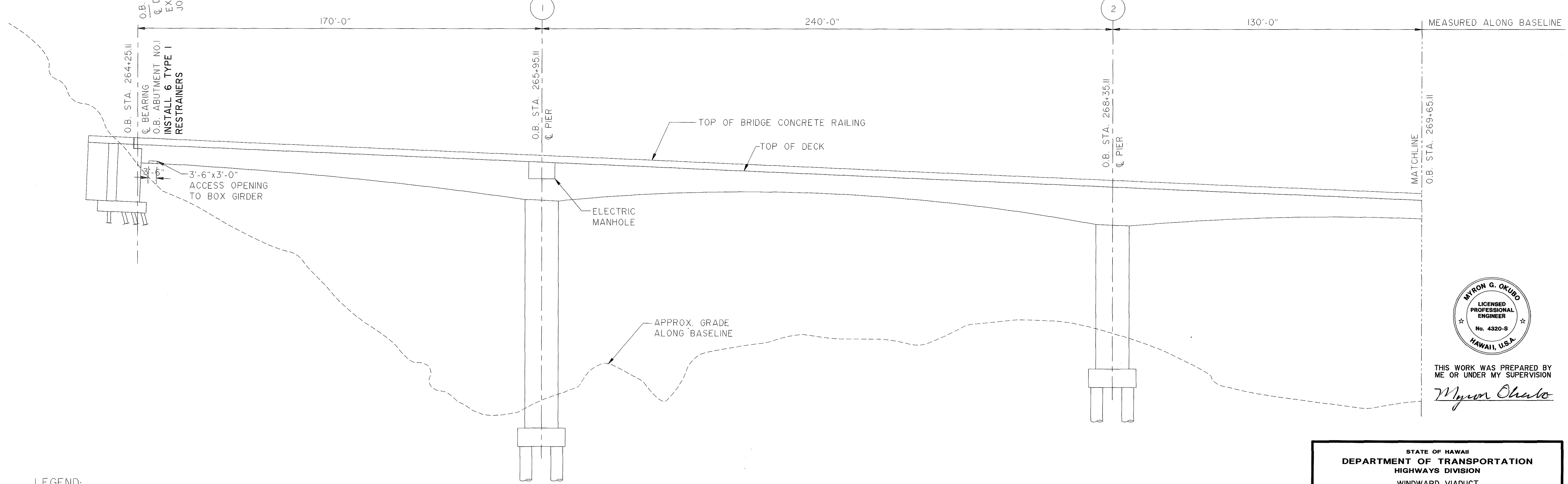
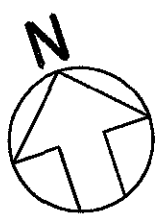
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 321+45.33 TO STA. 327+25.53
INBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WSI4 OF 36 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	255	405



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



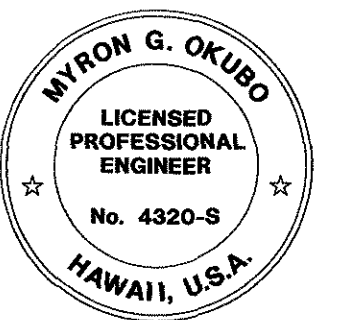
PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:

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

NOTE:

1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



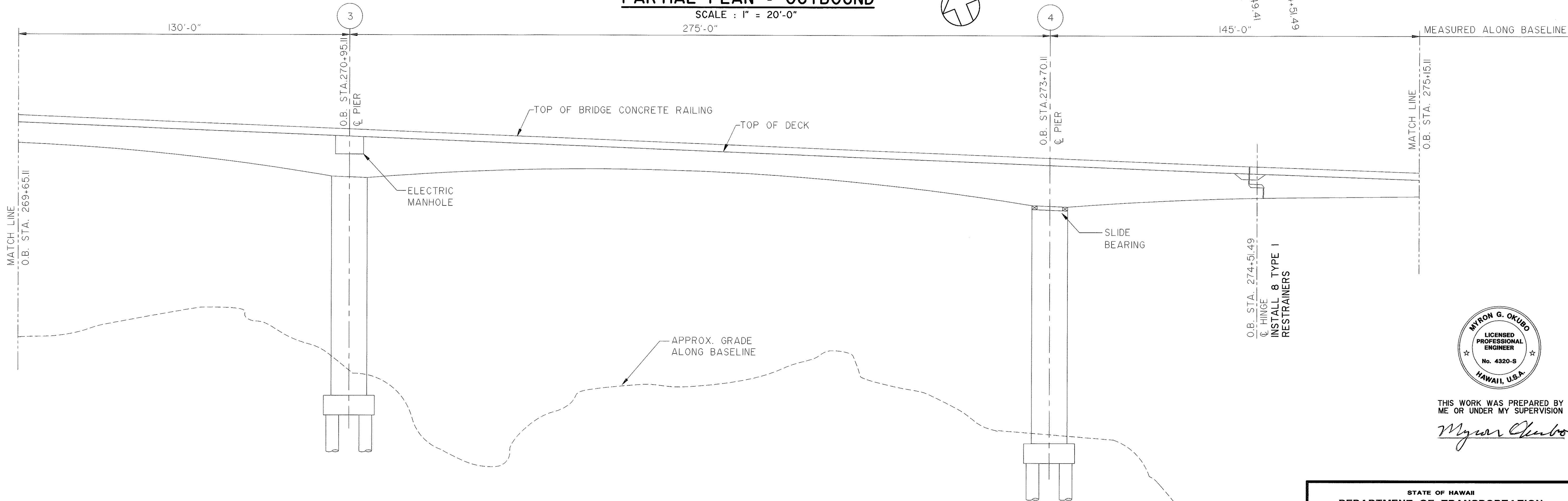
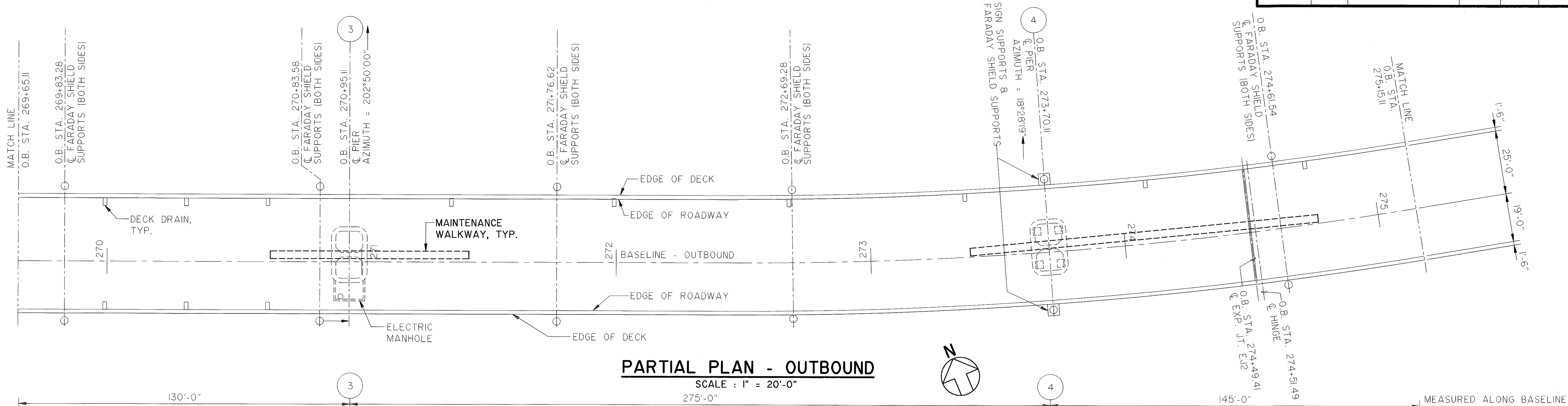
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 264+25.11 TO STA. 269+65.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS16 OF 36 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NO.	DRAWN BY	
	TRACED BY	
	NOTED BY	
	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	256	405

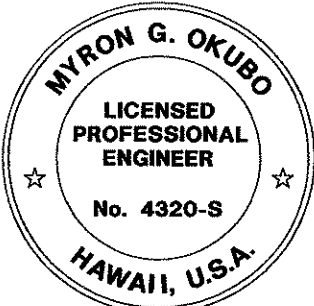


LEGEND:

- INDICATES GROUND BUSS EXTENDING DOWN PIER TO GROUND ROD.

NOTE:

- 1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



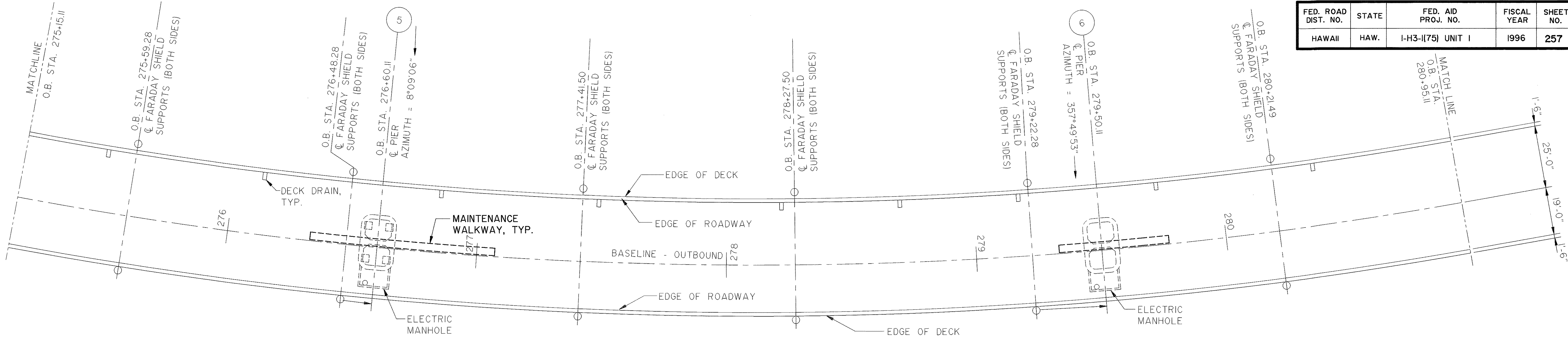
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

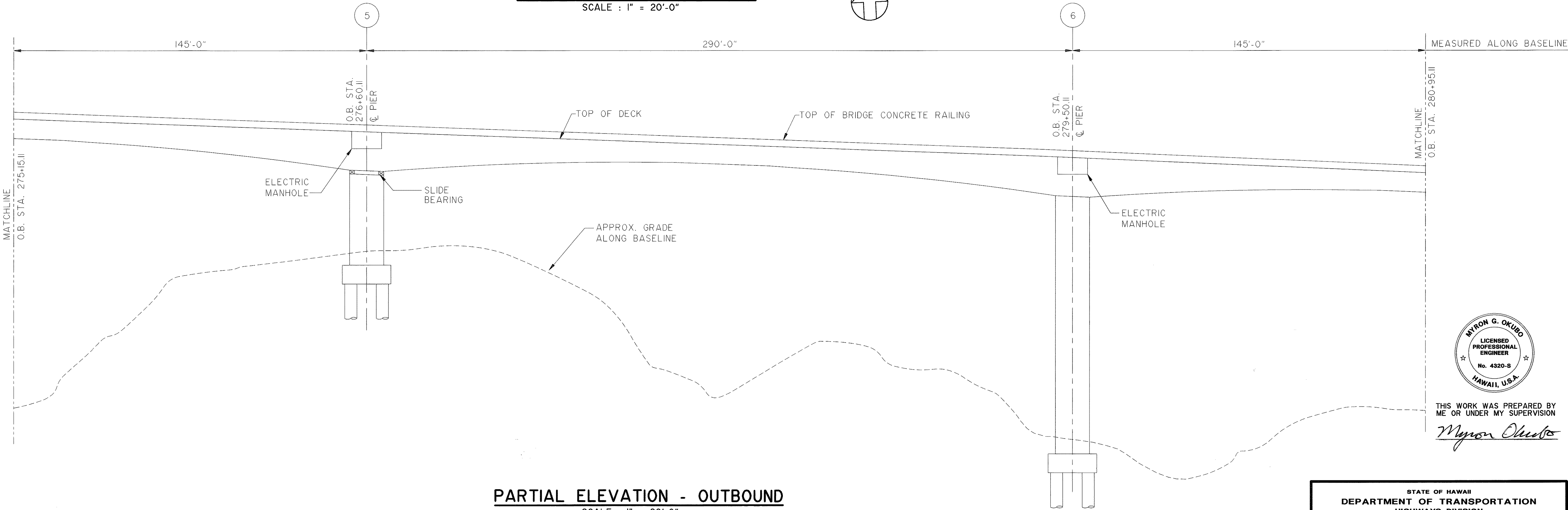
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT

PART. DECK LAYOUT & ELEVATION
STA. 269+65.11 TO STA. 275+15.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WSI7 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	257	405



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



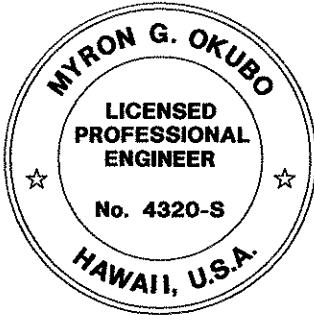
PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:

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

NOTE:

- I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



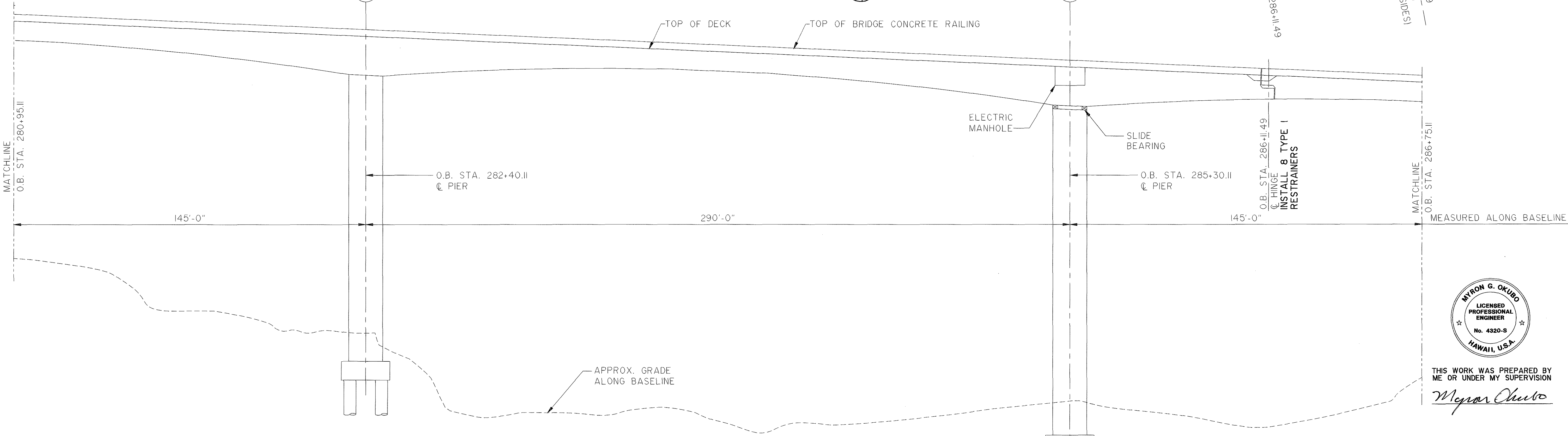
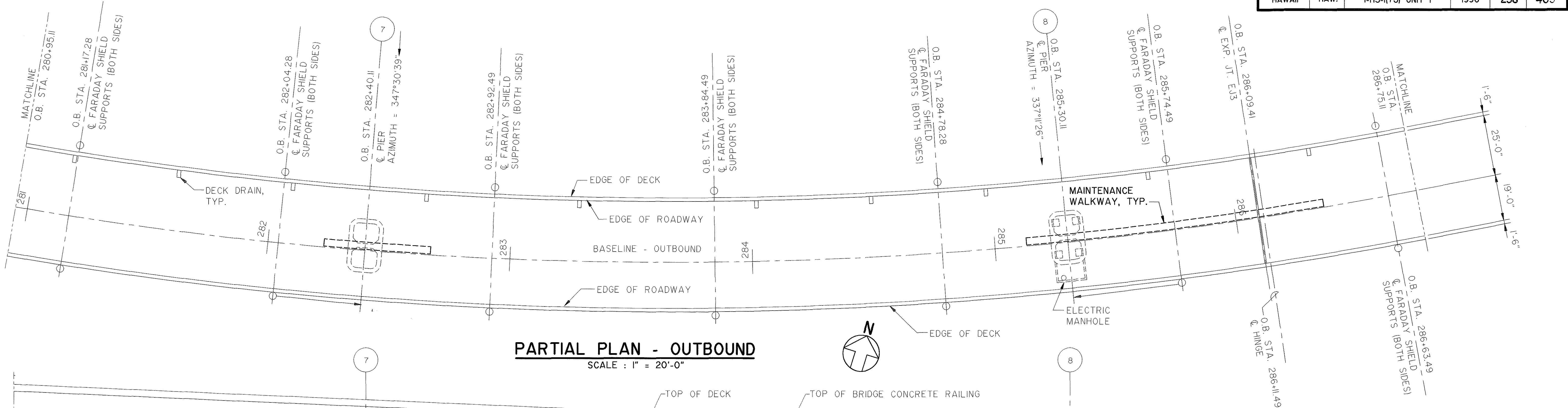
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 275+15.11 TO STA. 280+95.11
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS18 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	258	405

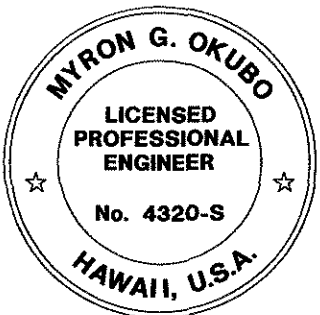


LEGEND:

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

NOTE:

- 1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



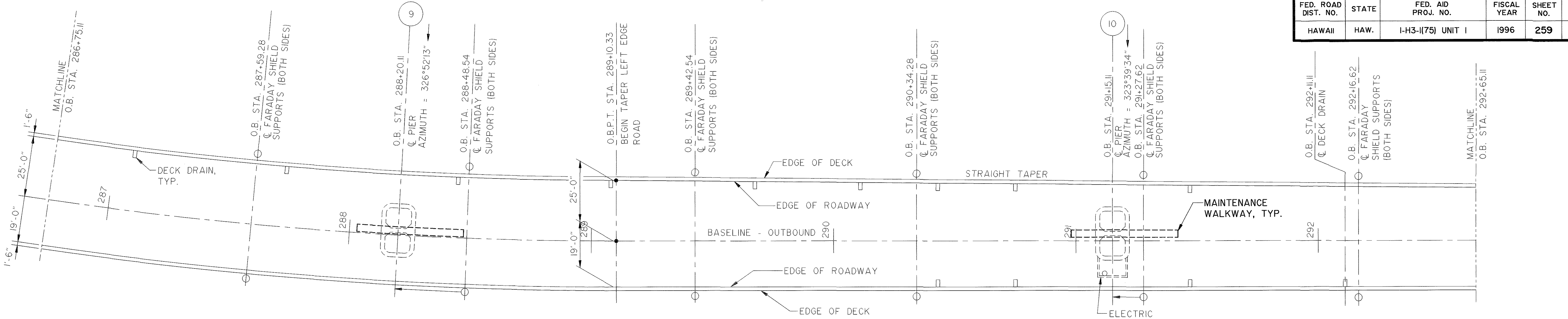
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

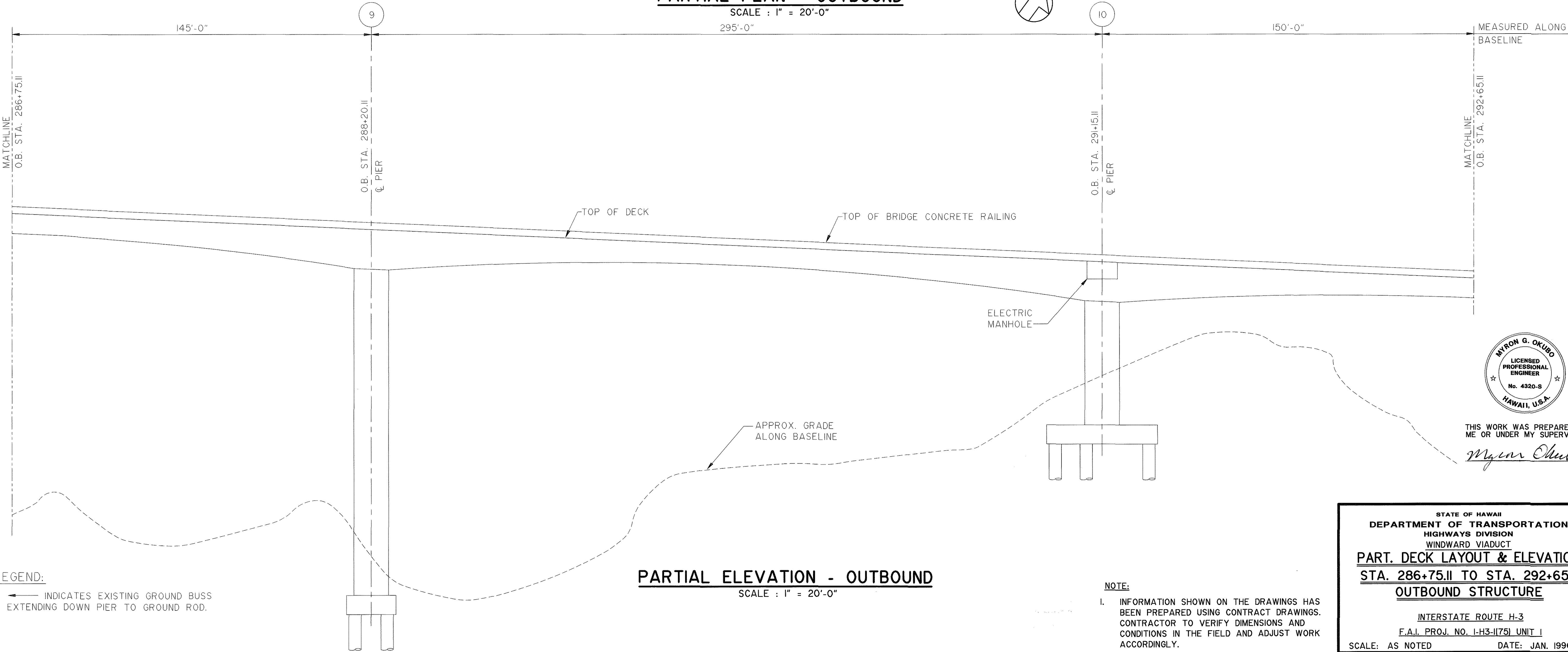
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 280+95.11 TO STA. 286+75.11
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS19 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	259	405



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

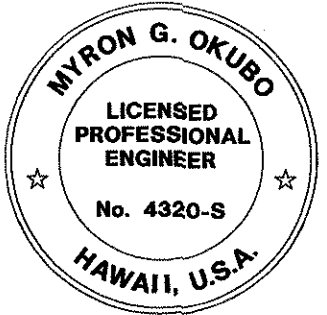


PARTIAL ELEVATION - OUTBOUND
 SCALE : 1" = 20'-0"

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

NOTE:

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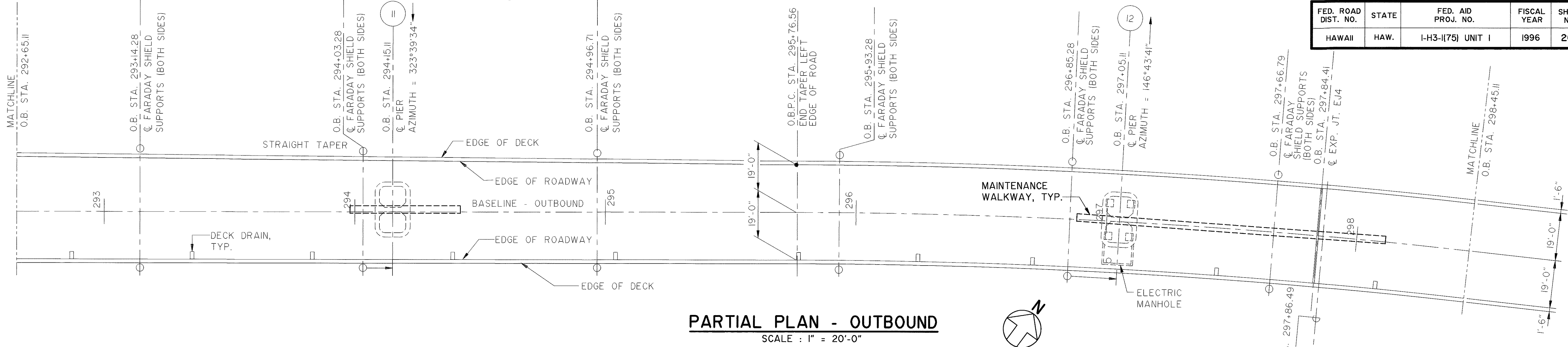
Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT

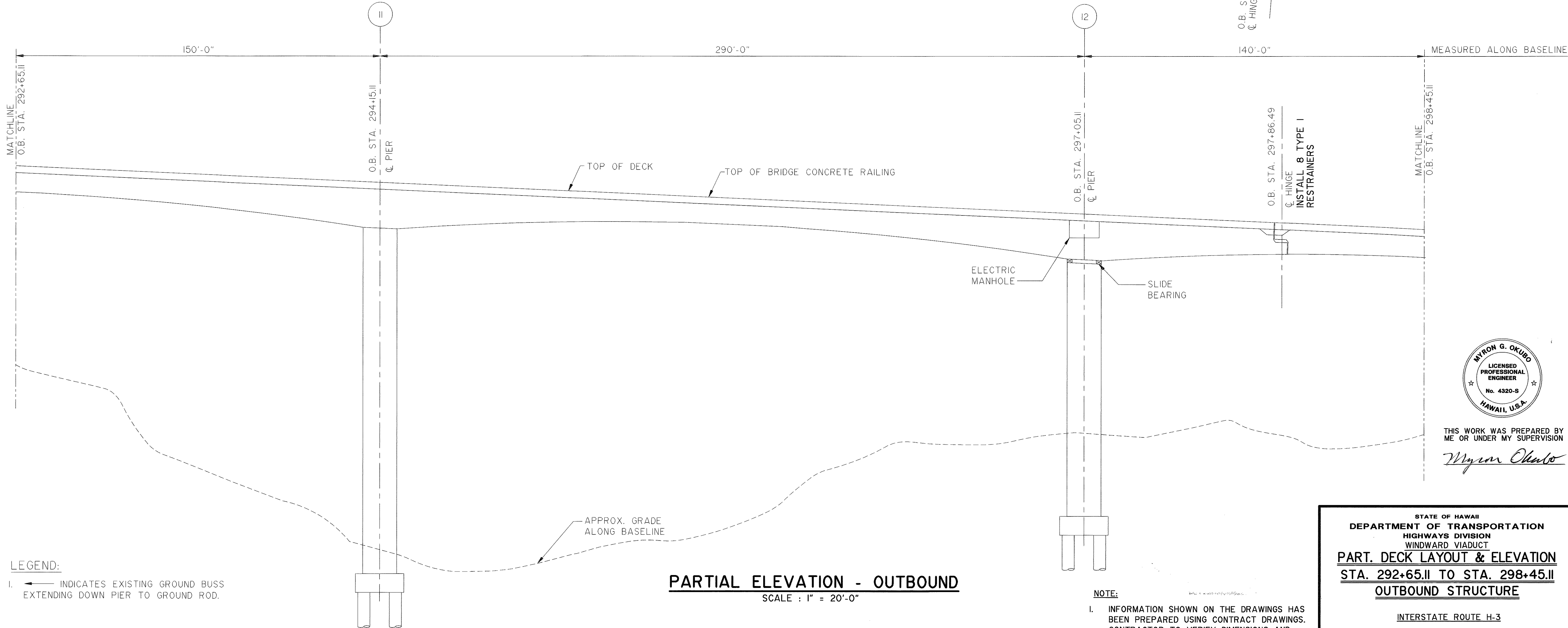
PART. DECK LAYOUT & ELEVATION
STA. 286+75.11 TO STA. 292+65.11
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No.WS20OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	260	405



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

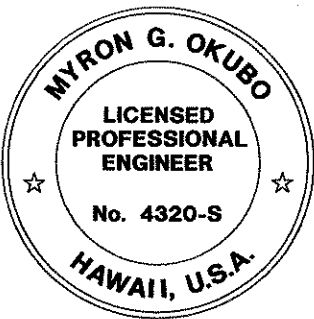


PARTIAL ELEVATION - OUTBOUND
SCALE : 1" = 20'-0"

LEGEND:

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

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



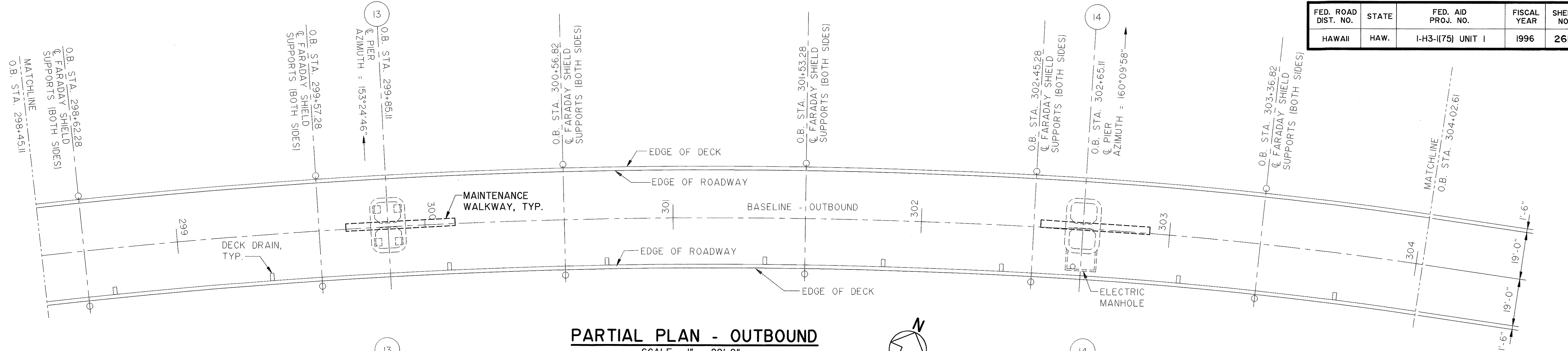
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 292+65.11 TO STA. 298+45.11
OUTBOUND STRUCTURE

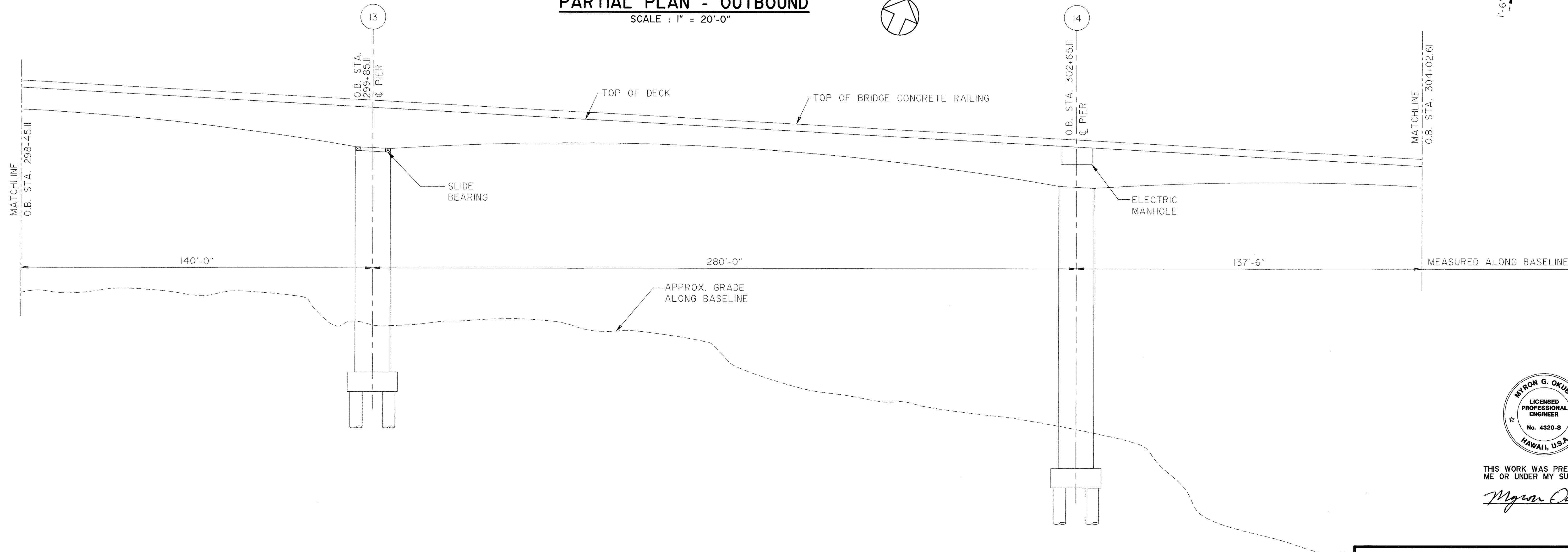
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. W521 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175) UNIT 1	1996	261	405



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

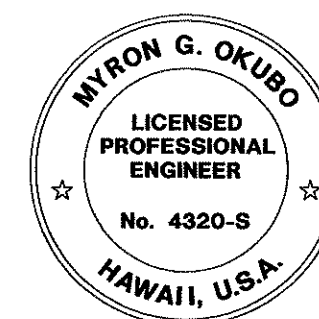
SCALE : 1" = 20'-0"

LEGEND:

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

NOTE:

1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



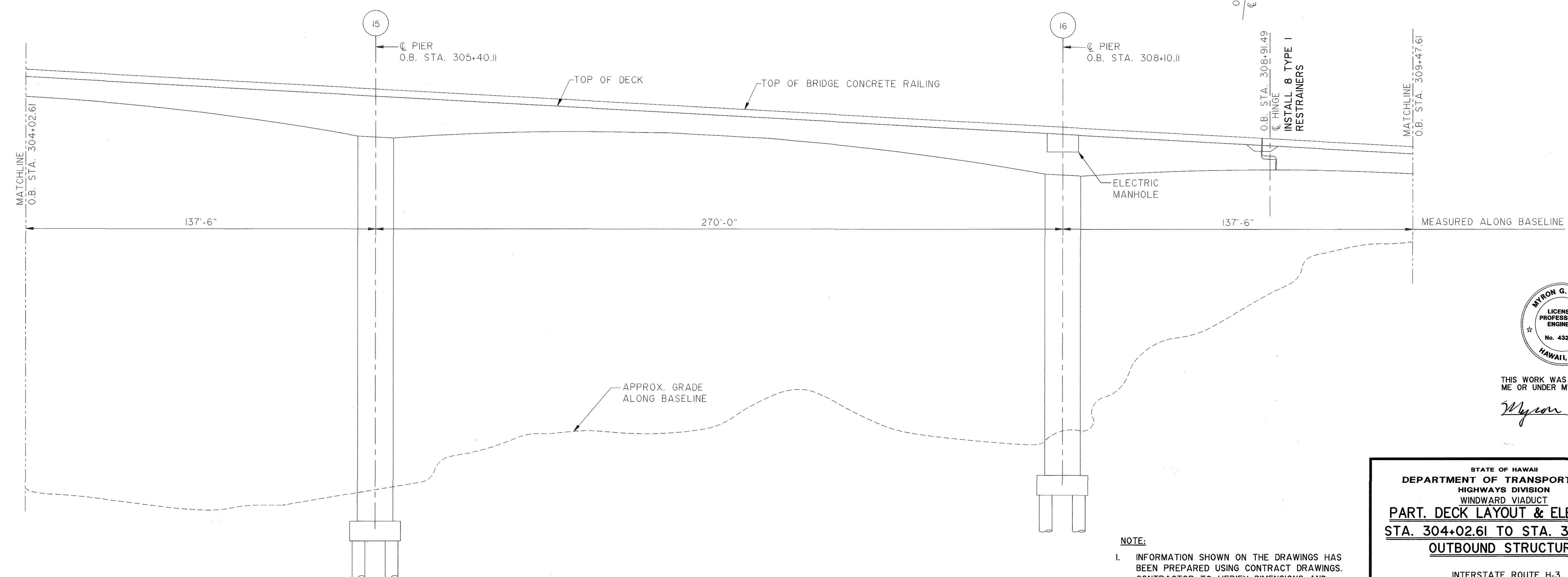
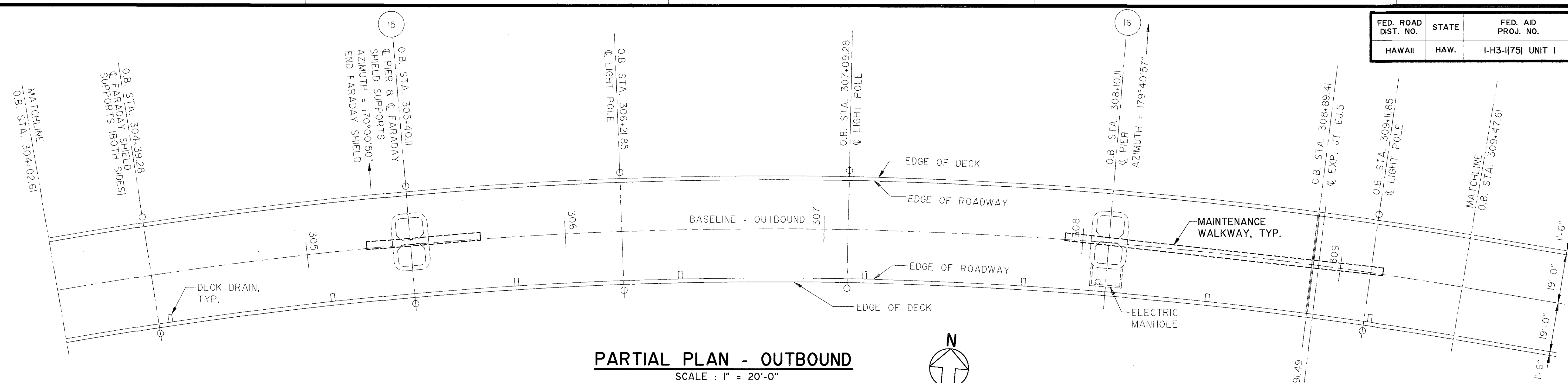
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 298+45.11 TO STA. 304+02.61
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-(175) UNIT 1
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS22 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	262	405



NOTE:
 I. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

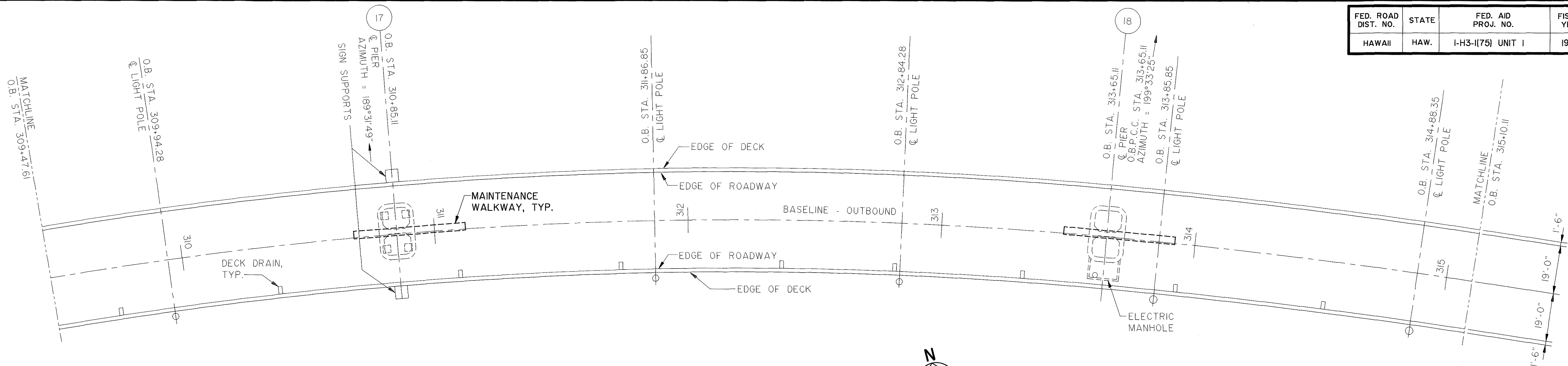


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Myron Okubo

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 304+02.61 TO STA. 309+47.61
OUTBOUND STRUCTURE
 INTERSTATE ROUTE H-3
 F.A.I. PROJ. NO. I-H3-I(75) UNIT I
 SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS23OF 36 SHEETS

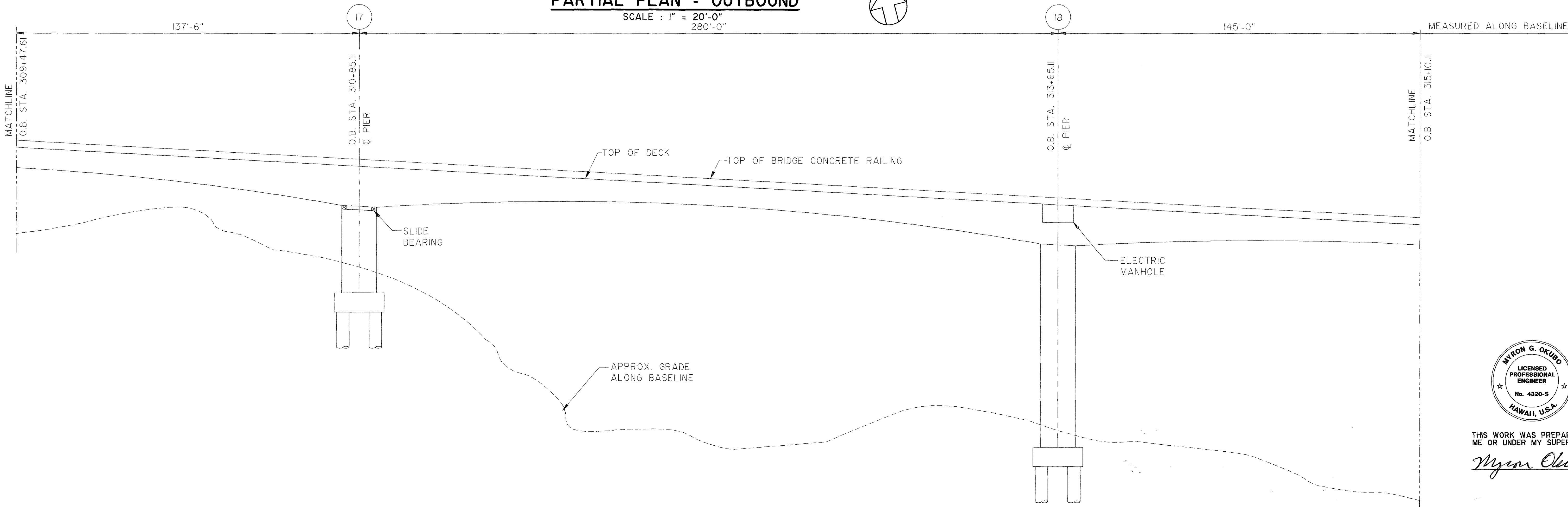
SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
CHECKED BY	
QUANTITIES BY	
NO.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	263	405



PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"
280'-0"

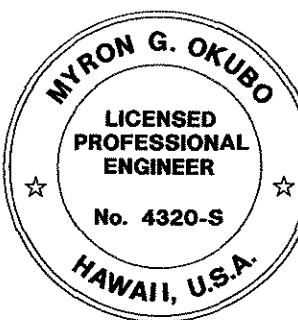


PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:

1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 309+47.61 TO STA. 315+10.11
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3

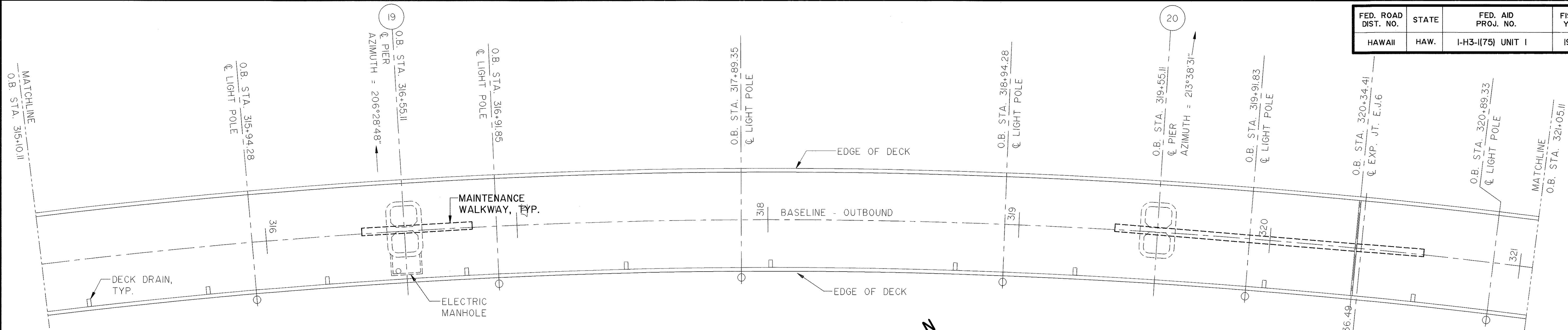
F.A.I. PROJ. NO. I-H3-I(75) UNIT I

SCALE: AS NOTED DATE: JAN. 1996

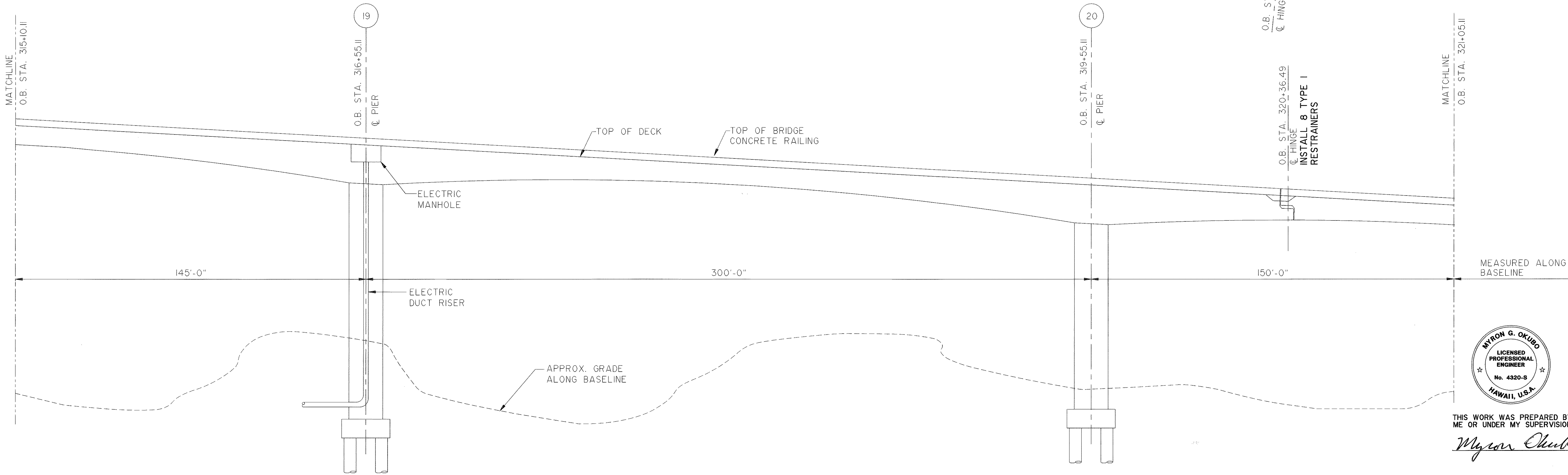
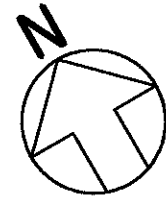
SHEET No.WS24OF 36 SHEETS

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

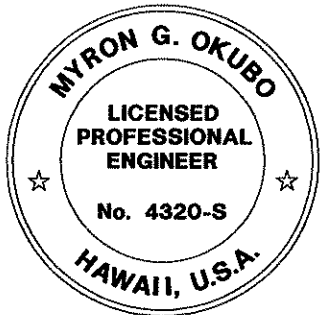
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-(175) UNIT I	1996	264	405



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



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



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

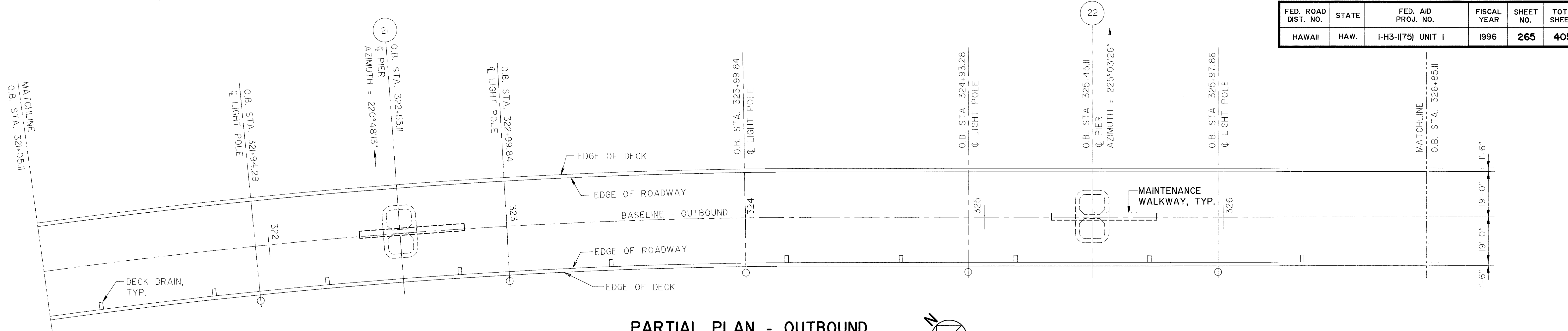
Myron Okubo

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 315+10.11 TO STA. 321+05.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-(175) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No.WS25OF 36 SHEETS

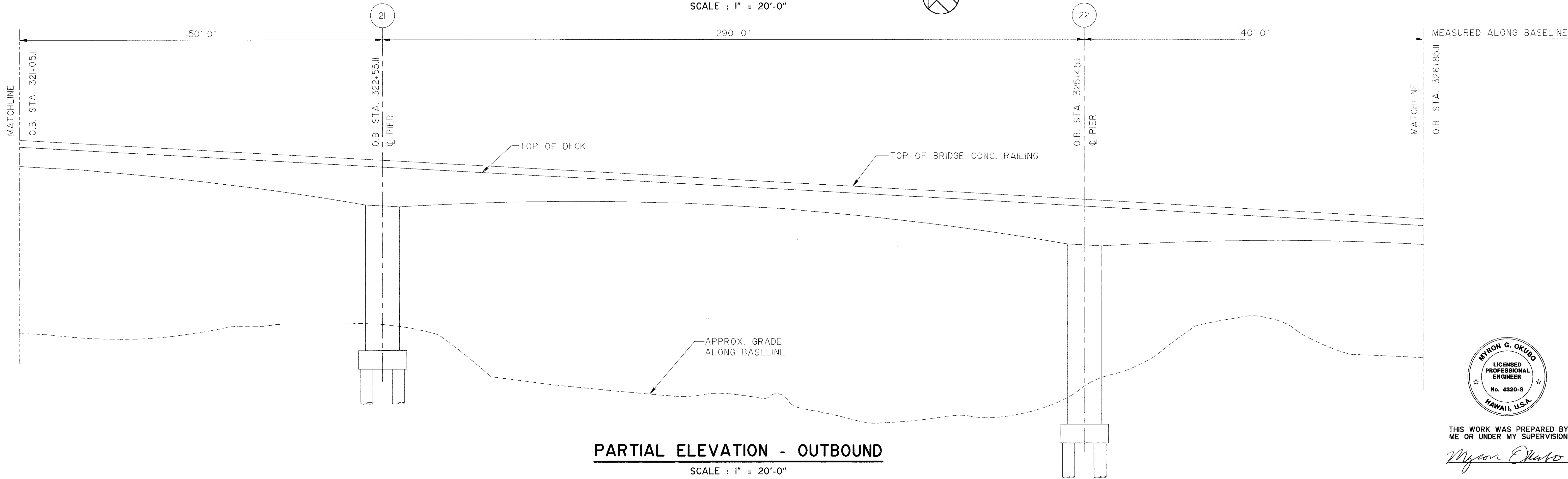
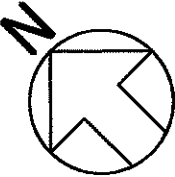
SURVEY PLOTTED BY	DATE
DRAWN BY	
DESIGNED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
No.	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	265	405



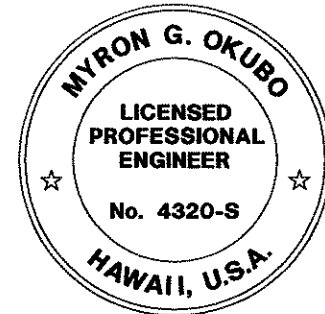
PARTIAL PLAN - OUTBOUND

SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

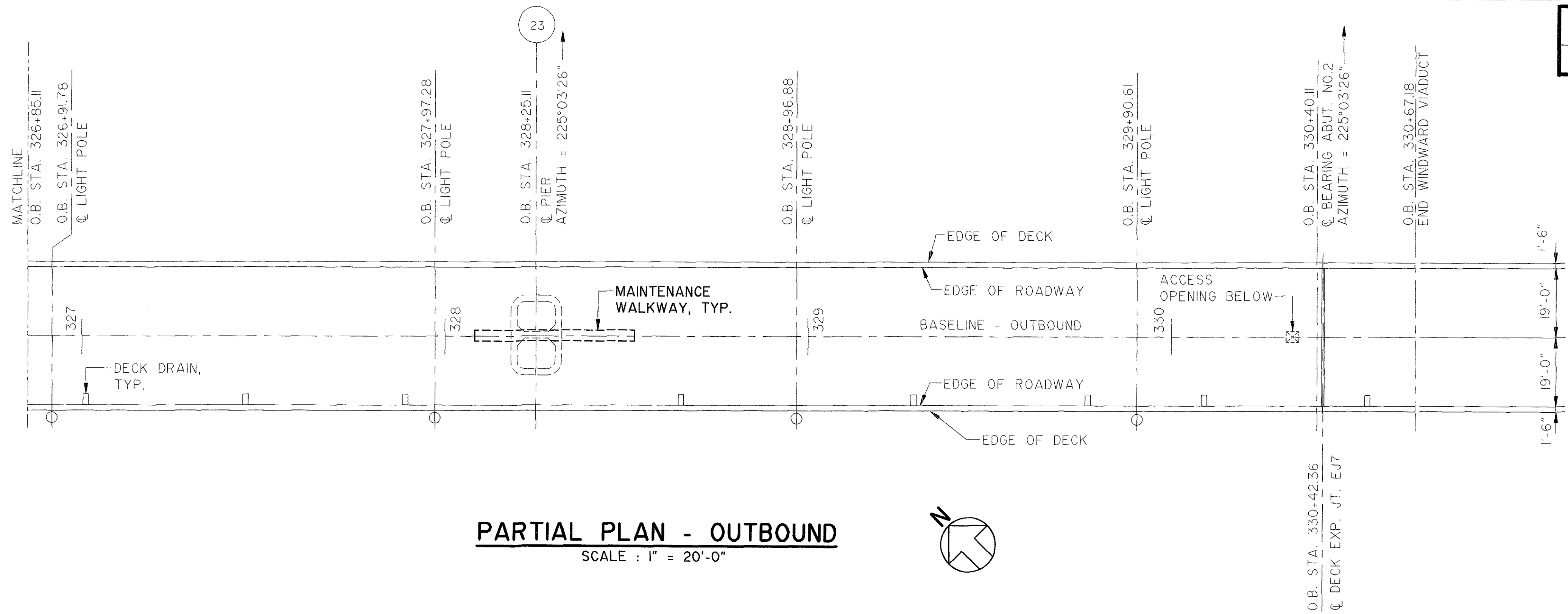
Myron Okubo

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 321+05.11 TO STA. 326+85.11
OUTBOUND STRUCTURE
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS26 OF 36 SHEETS

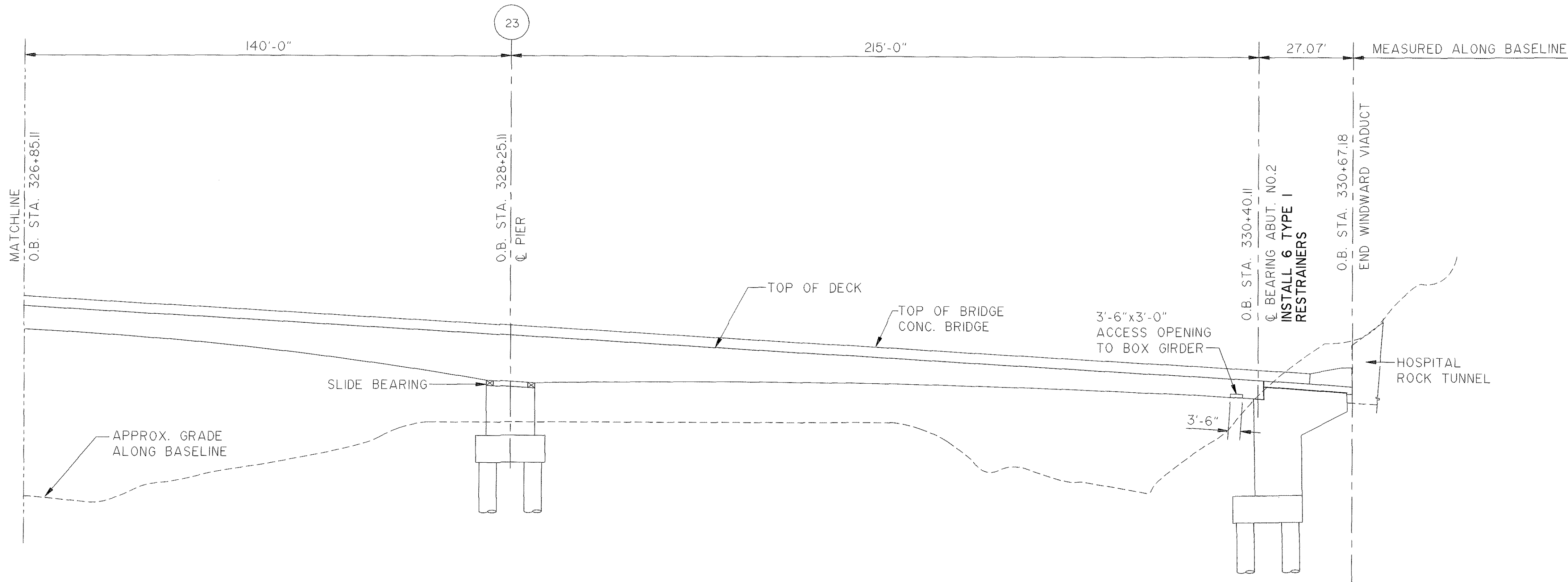
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTEBOOK	DRAWN BY	
No.	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-I(75) UNIT I	1996	266	405



PARTIAL PLAN - OUTBOUND

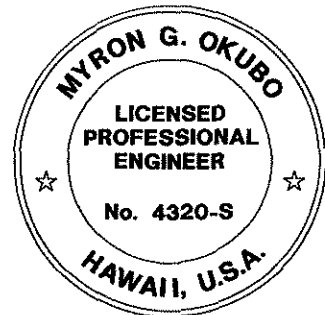
SCALE : 1" = 20'-0"



PARTIAL ELEVATION - OUTBOUND

SCALE : 1" = 20'-0"

NOTE:
1. INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PREPARED USING CONTRACT DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



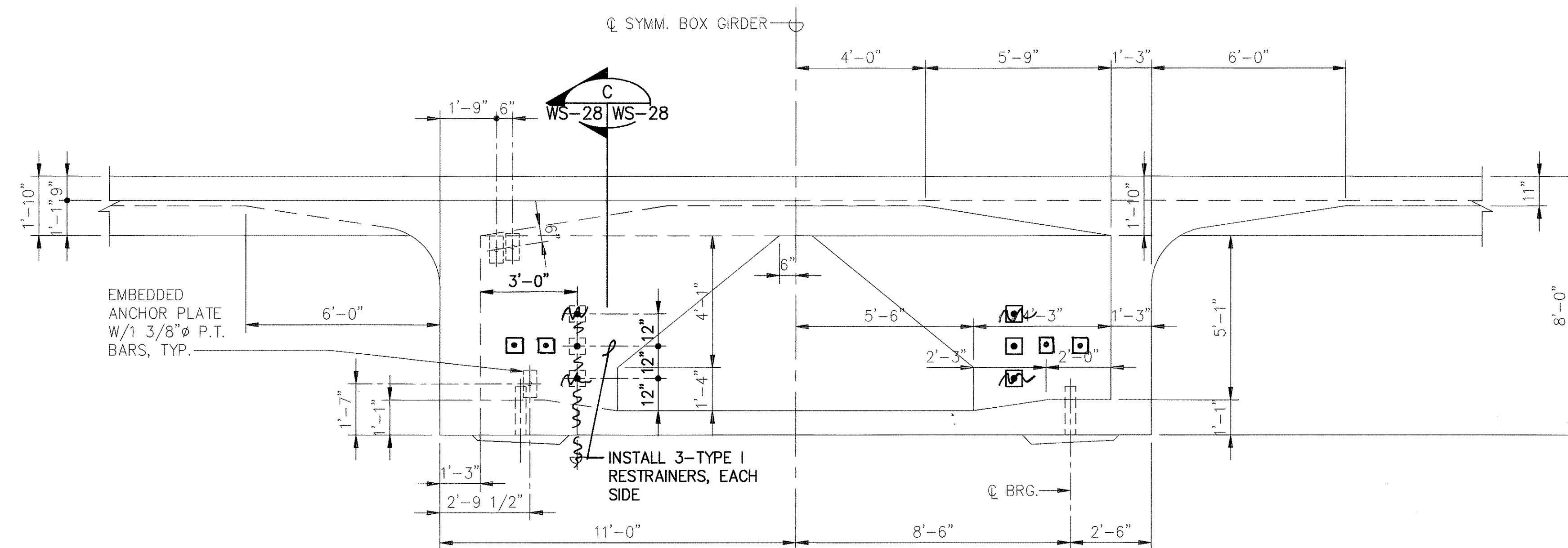
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
PART. DECK LAYOUT & ELEVATION
STA. 326+85.11 TO STA. 330+67.18
OUTBOUND STRUCTURE

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No.WS27OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	267	405



(LOOKING UP STATION)

HALF VIEW

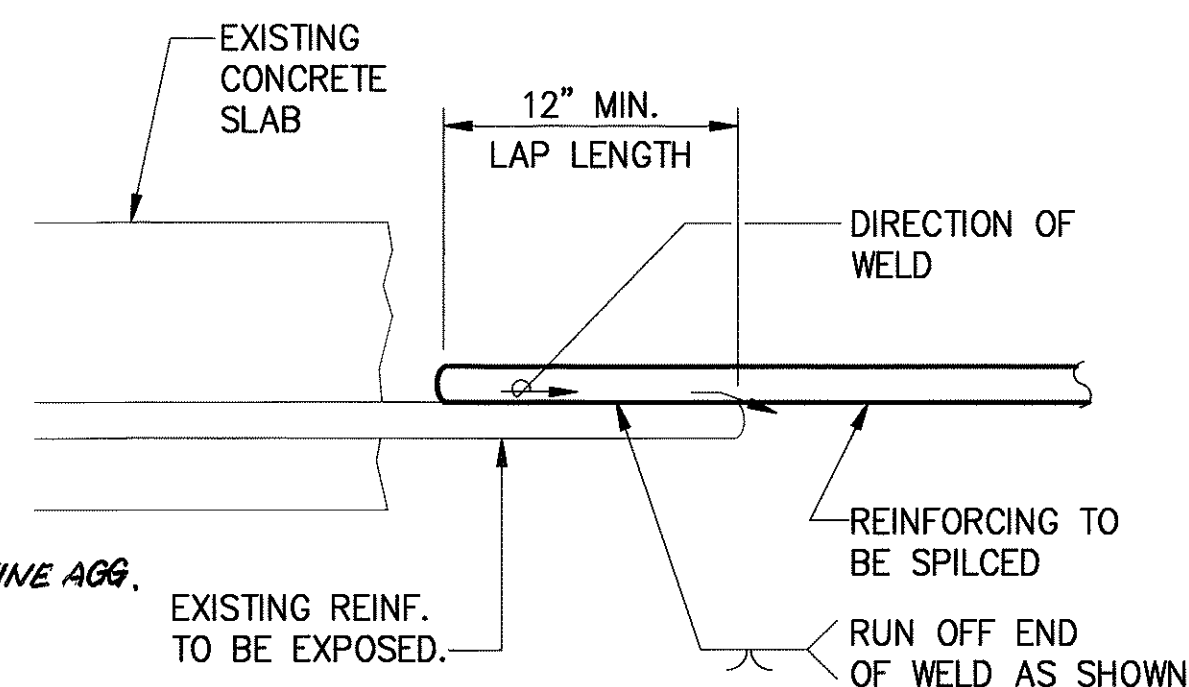
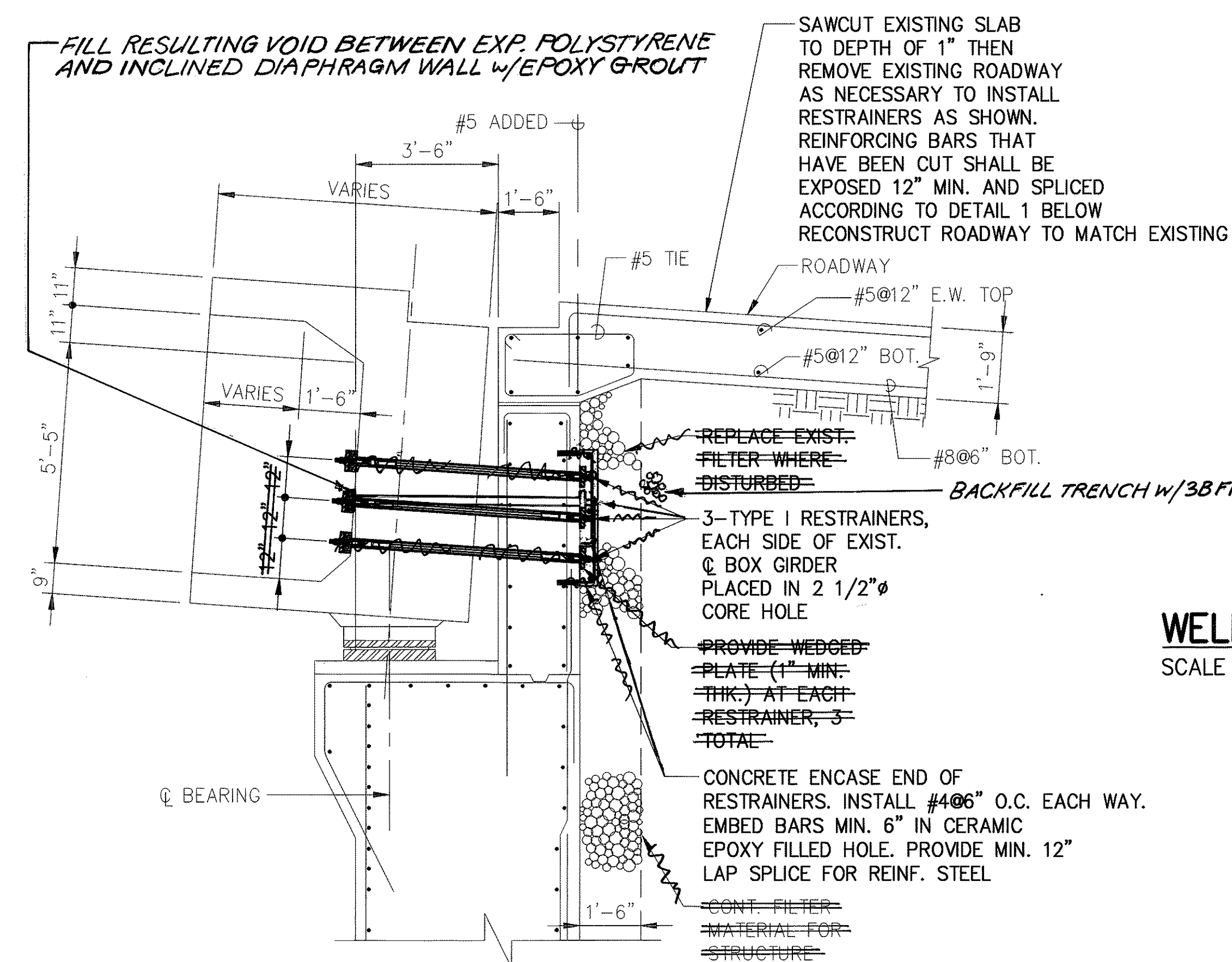
SCALE : $3/8"=1'-0"$

Diagram A shows a semi-circular arch. The base is a horizontal line divided into two equal segments by a vertical line. Each segment is labeled "WS-28". The arch is labeled "A" at its peak.

(LOOKING DOWN STATION)

HALF VIEW

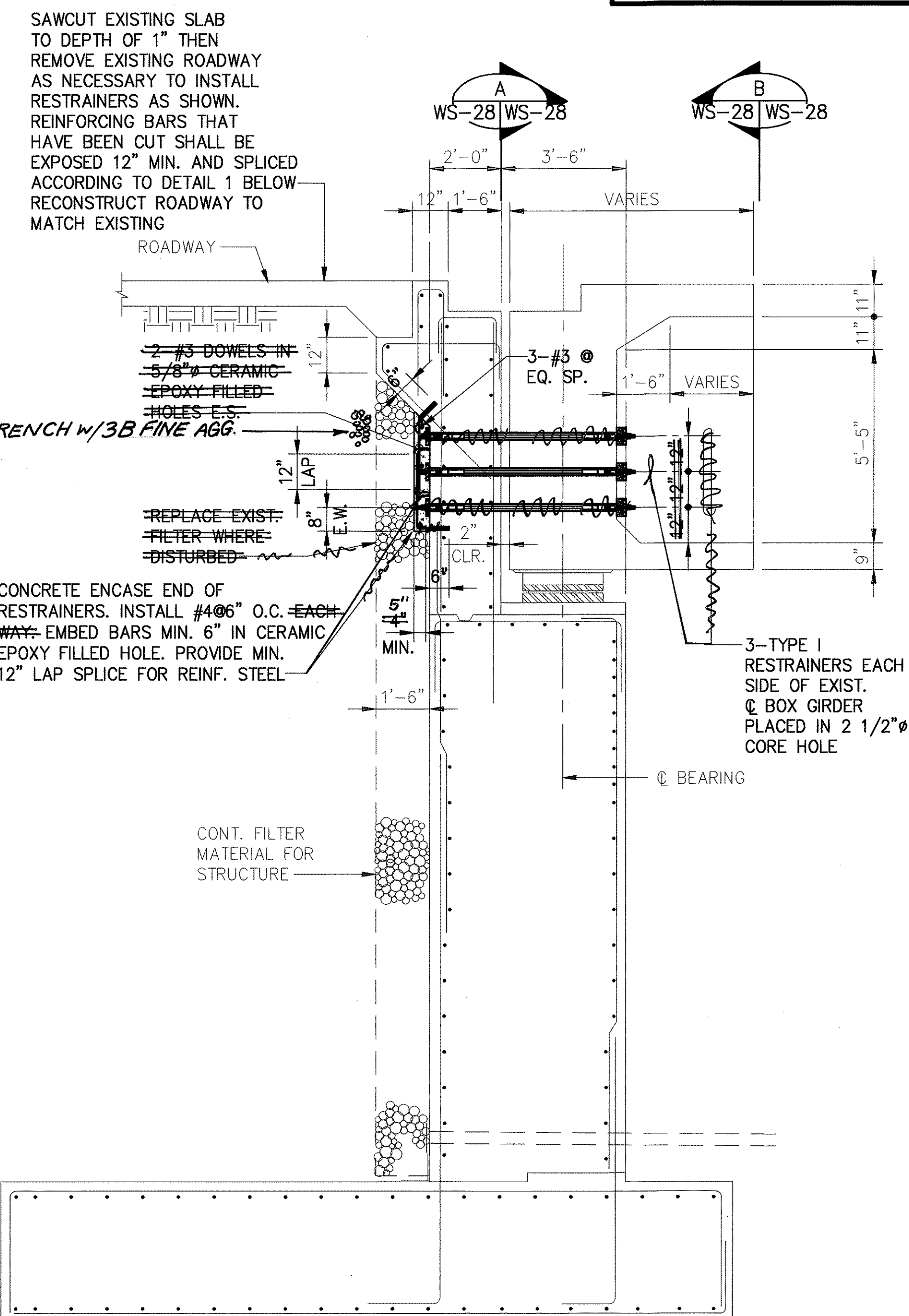
SCALE : $3/8"=1'-0"$



WELDED LAP SPLICE DETAIL

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

Diagram of a single arch bridge with a central pier labeled '1' and two spans labeled 'WS-28'.



SECTION—EXIST. ABUT. 1 INBOUND & OUTBOUND

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



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ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
ABUTMENT 1 & 2
SECTIONS

INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(75) UNIT I

SCALE: AS NOTED DATE: JAN. 1996

SHEET No.WS28OF 36 SHEETS

SECTION-EXIST. ABUT. 2 INBOUND & OUTBOUND

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

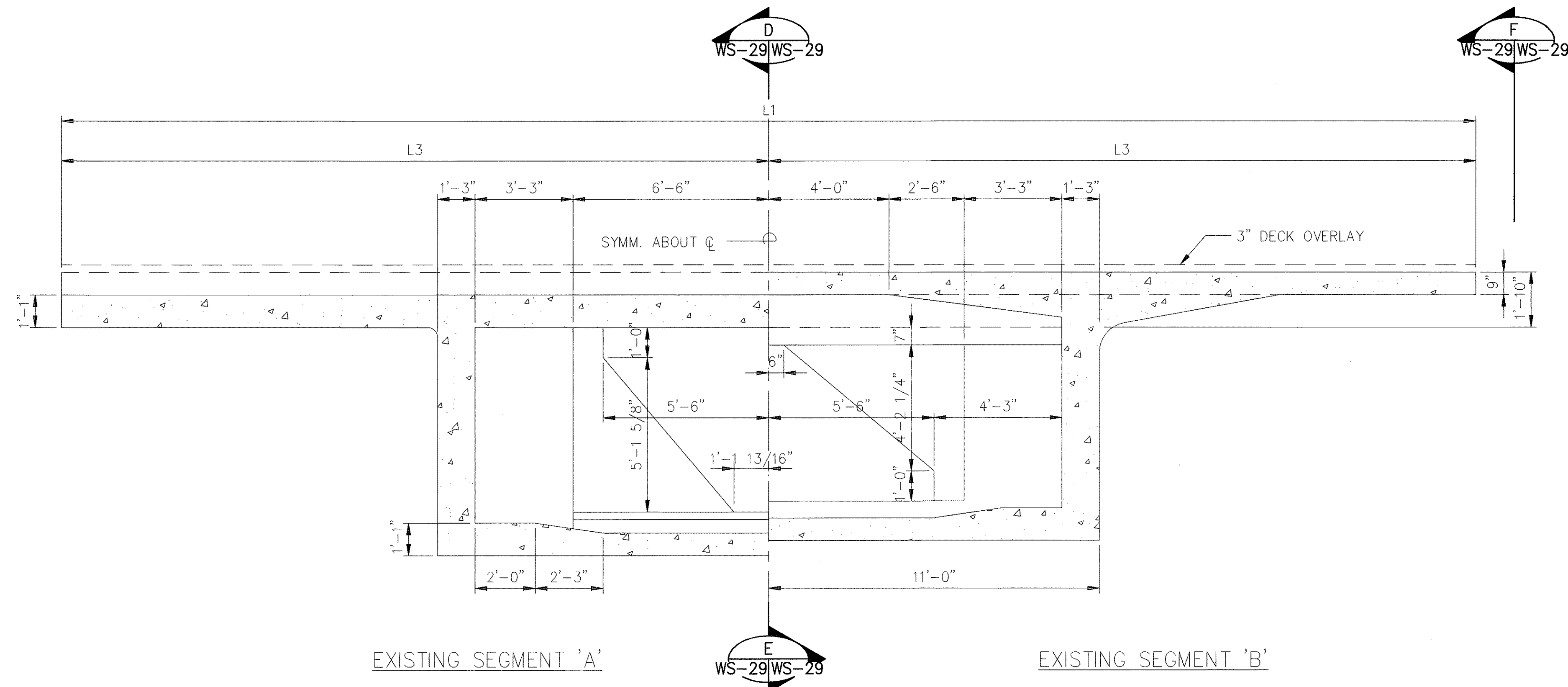
A diagram of a semi-circular arch. The arch is represented by a curved line above a horizontal line. The horizontal line has two points labeled 'WS-2' and 'WS-28' at the ends. A vertical line segment connects the midpoint of the horizontal line to the center of the arch, with the label 'D' placed above it.

"AS-BUILT"

267

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75) UNIT 1	1996	268	405



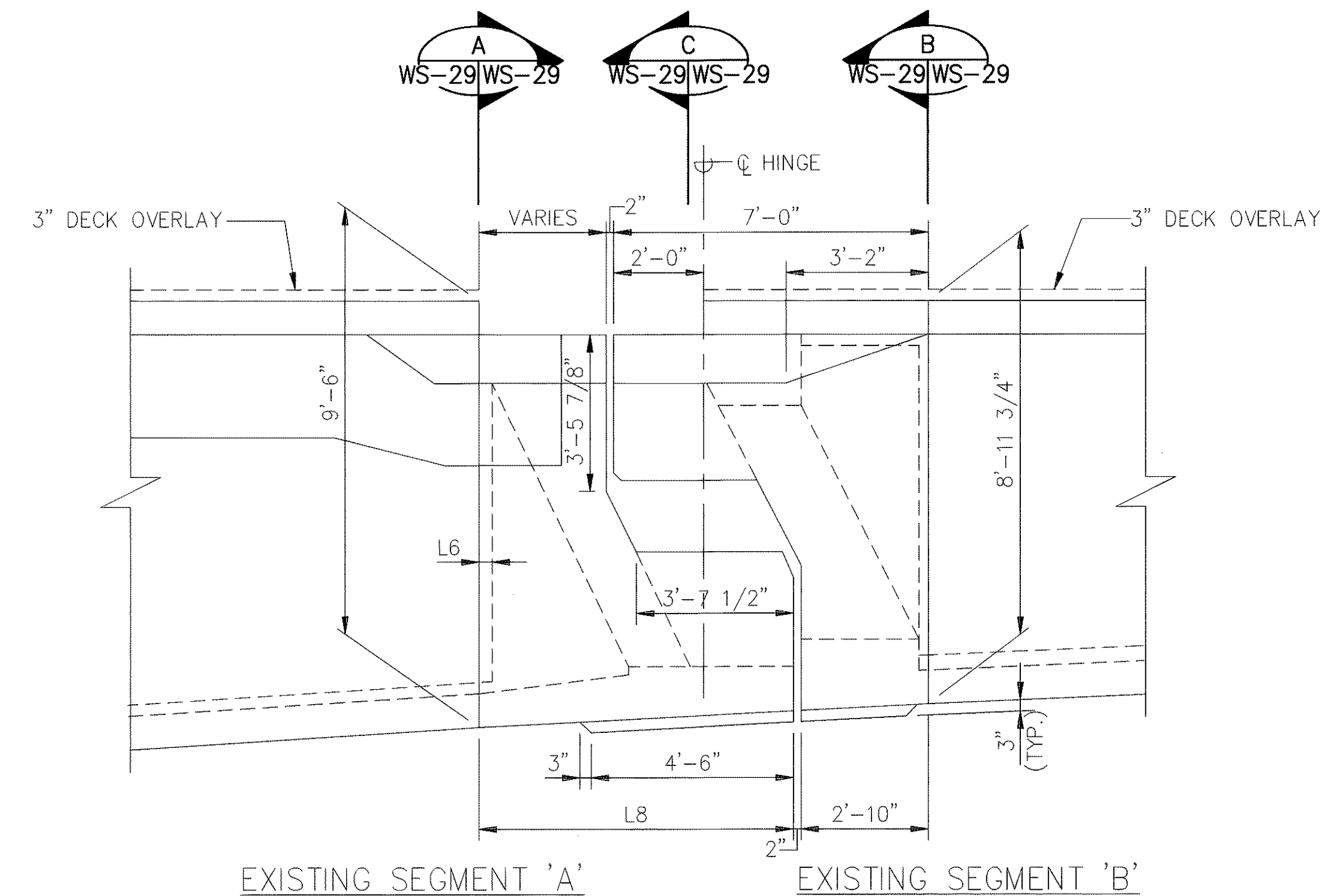
HALF SECTION

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

A

WS-29 | WS-29

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

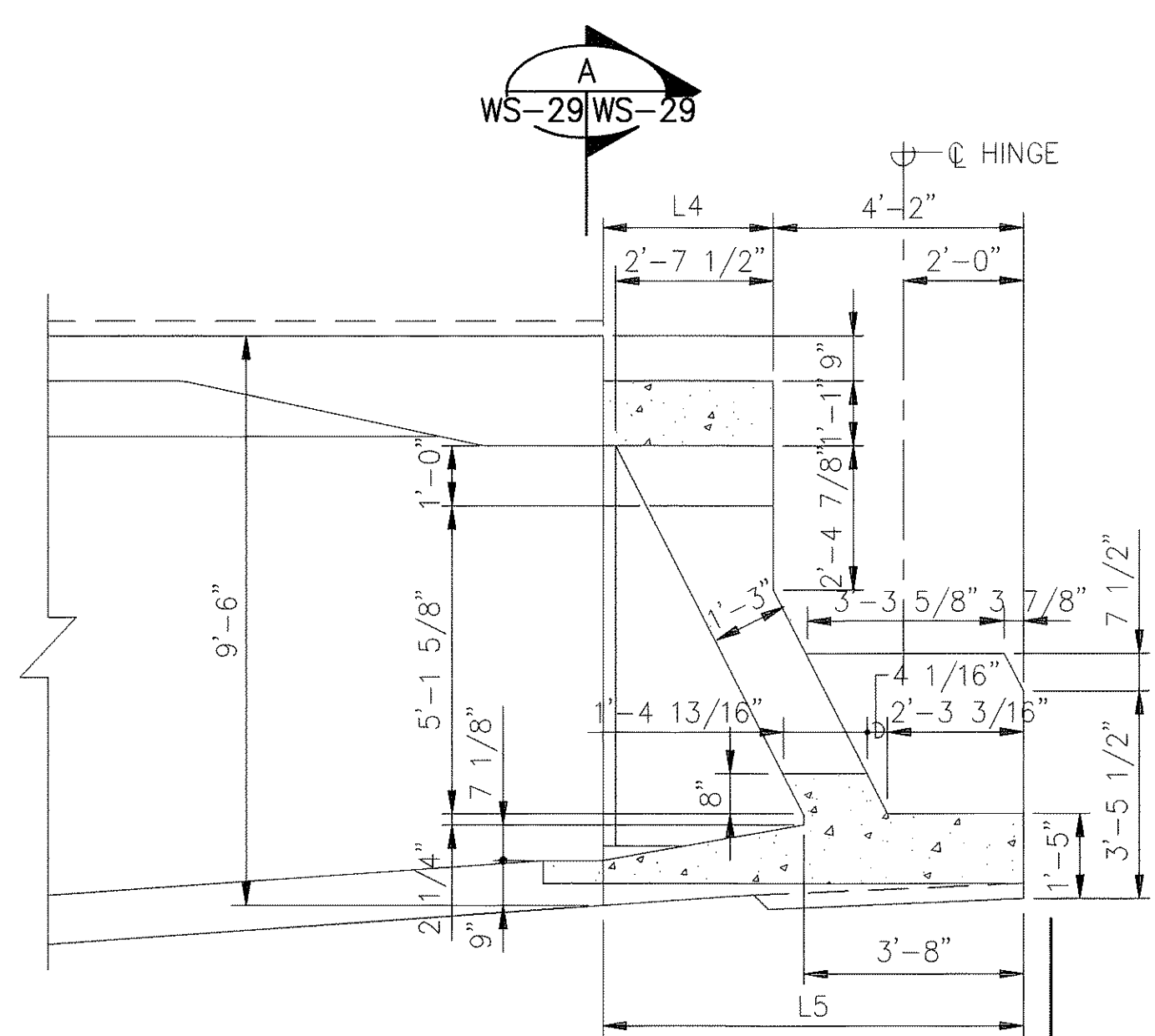


VIEW

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

F

WS-29 | WS-29

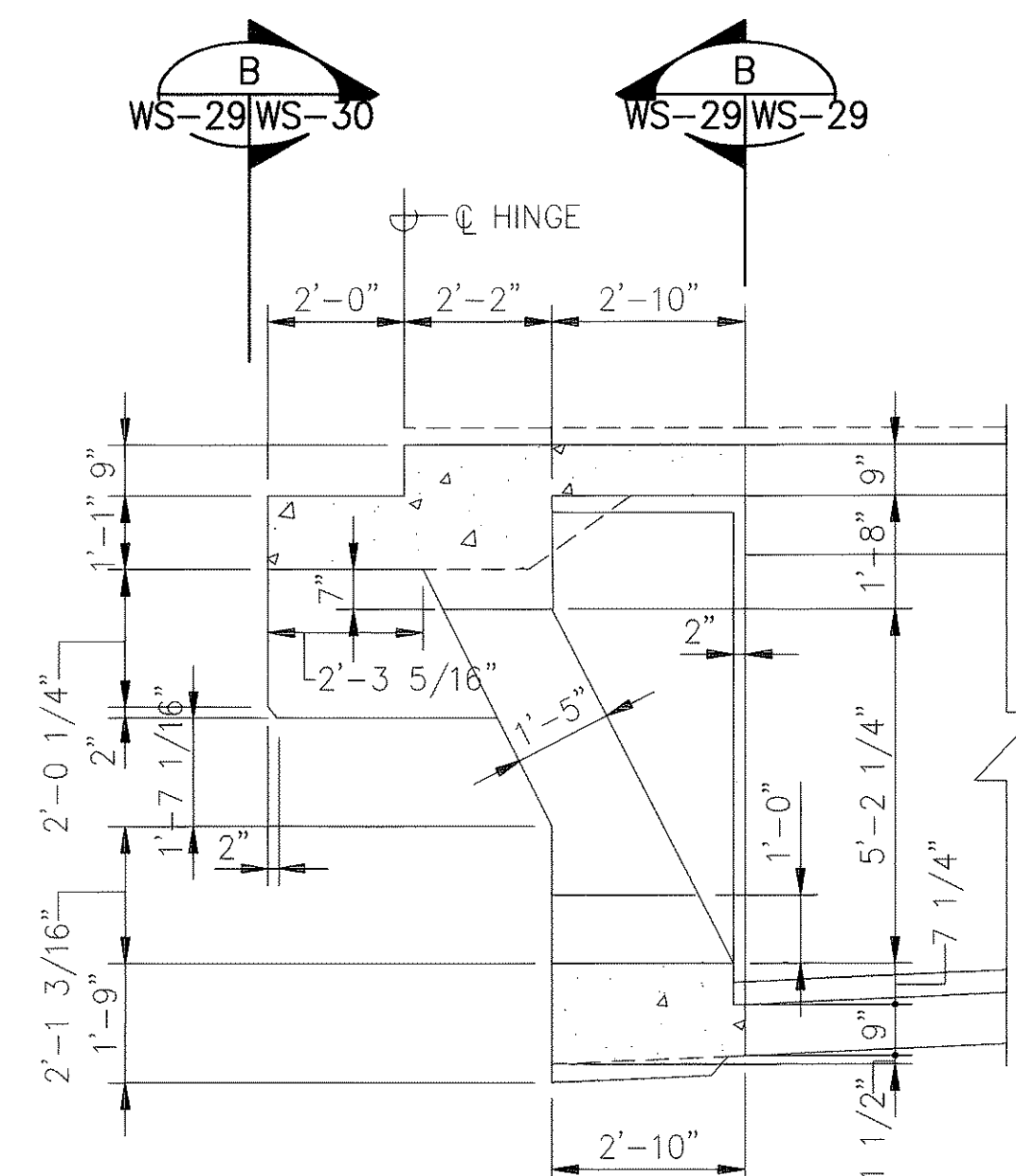


SECTION

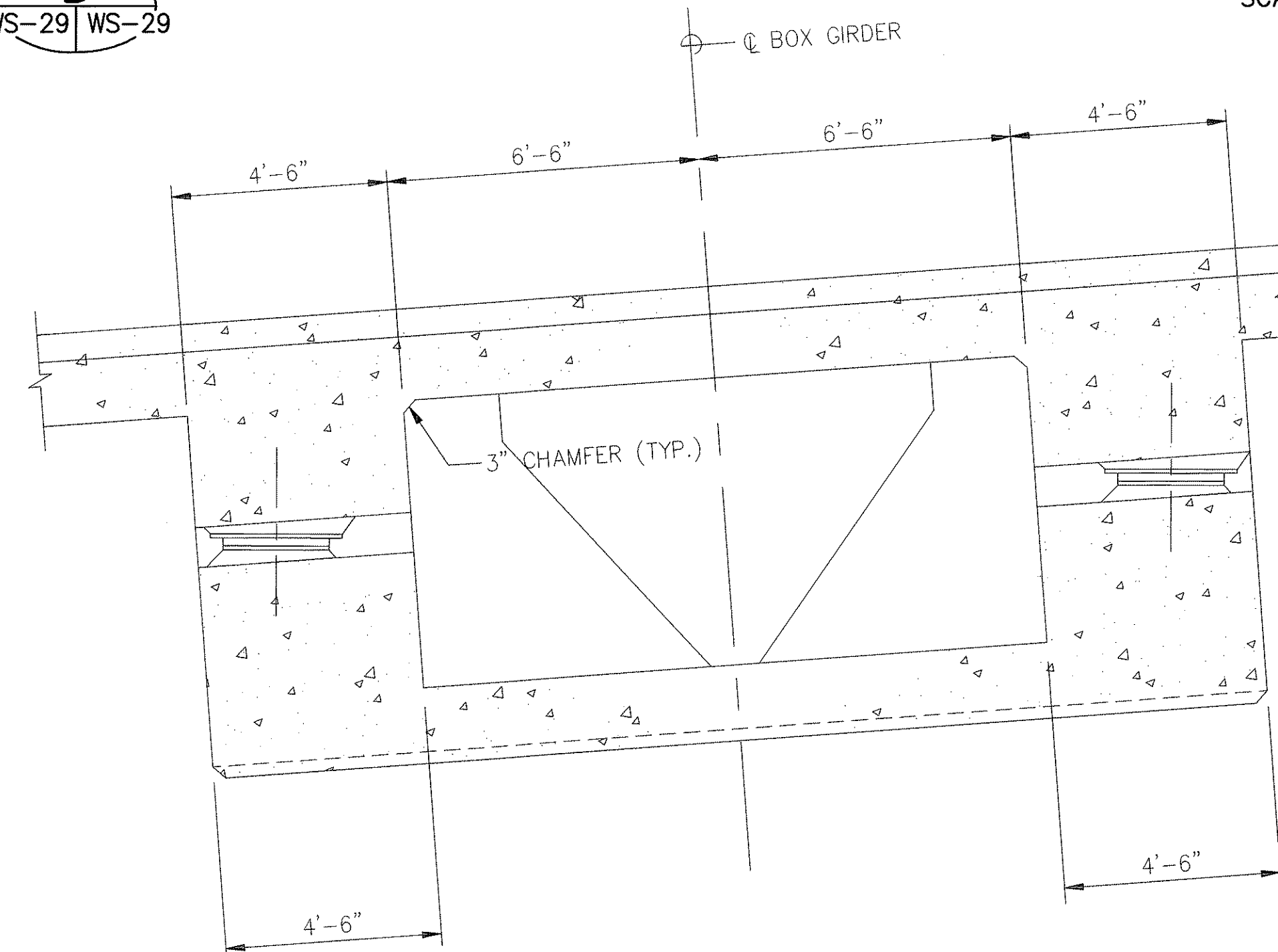
SCALE : 3/8"=1'-0"

WS-29 | WS-29

D



SECTION E
SCALE : 3/8"=1'-0" WS-29 | WS-29



SECTION C
SCALE : 3/8"=1'-0" WS-29 | WS-29
(SHOWING MAX. SUPERELEVATION)

- NOTES:**
1. FOR DIMENSIONS, SEE HINGE SEGMENT DIMENSIONS II, SHEET WS-30.
 2. INFORMATION SHOWN ON DRAWINGS HAS BEEN PREPARED USING RECORD DRAWINGS. CONTRACTOR TO VERIFY DIMENSIONS AND CONDITIONS IN THE FIELD AND ADJUST WORK ACCORDINGLY.



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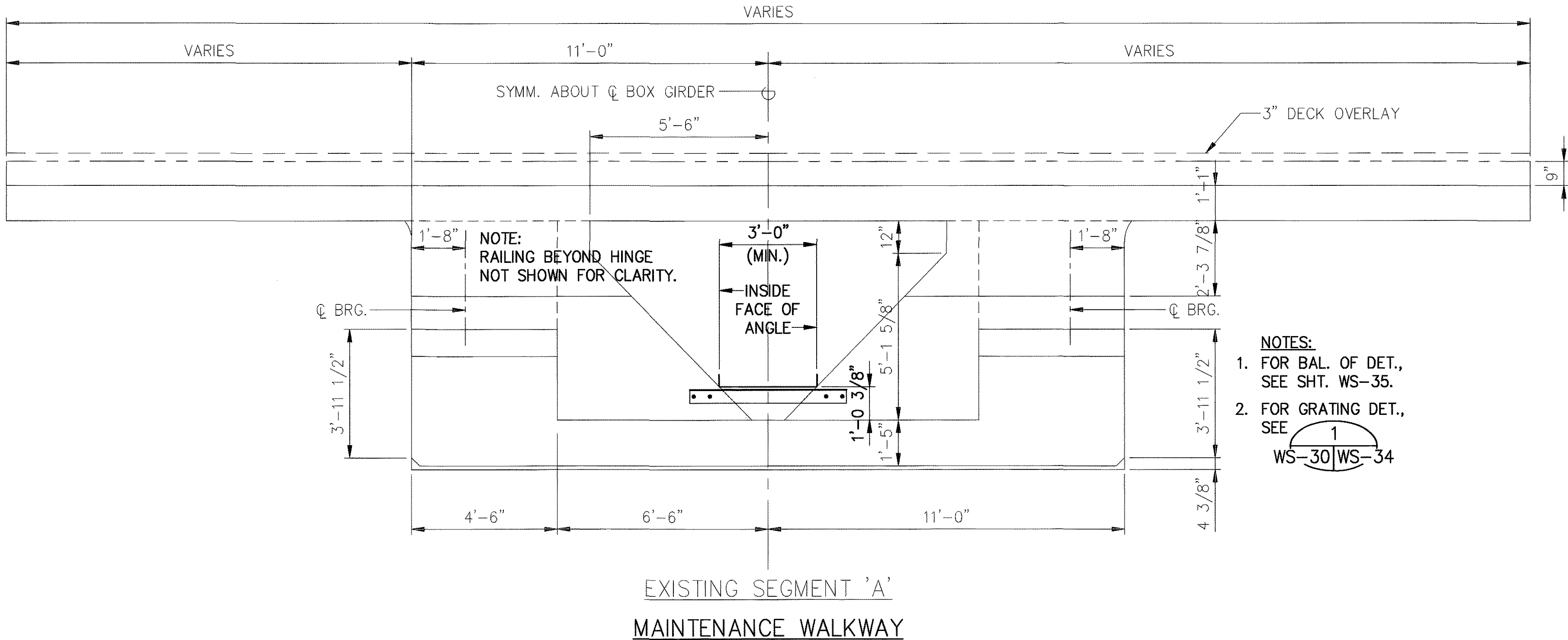
Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
HINGE SEGMENT
DIMENSIONS I

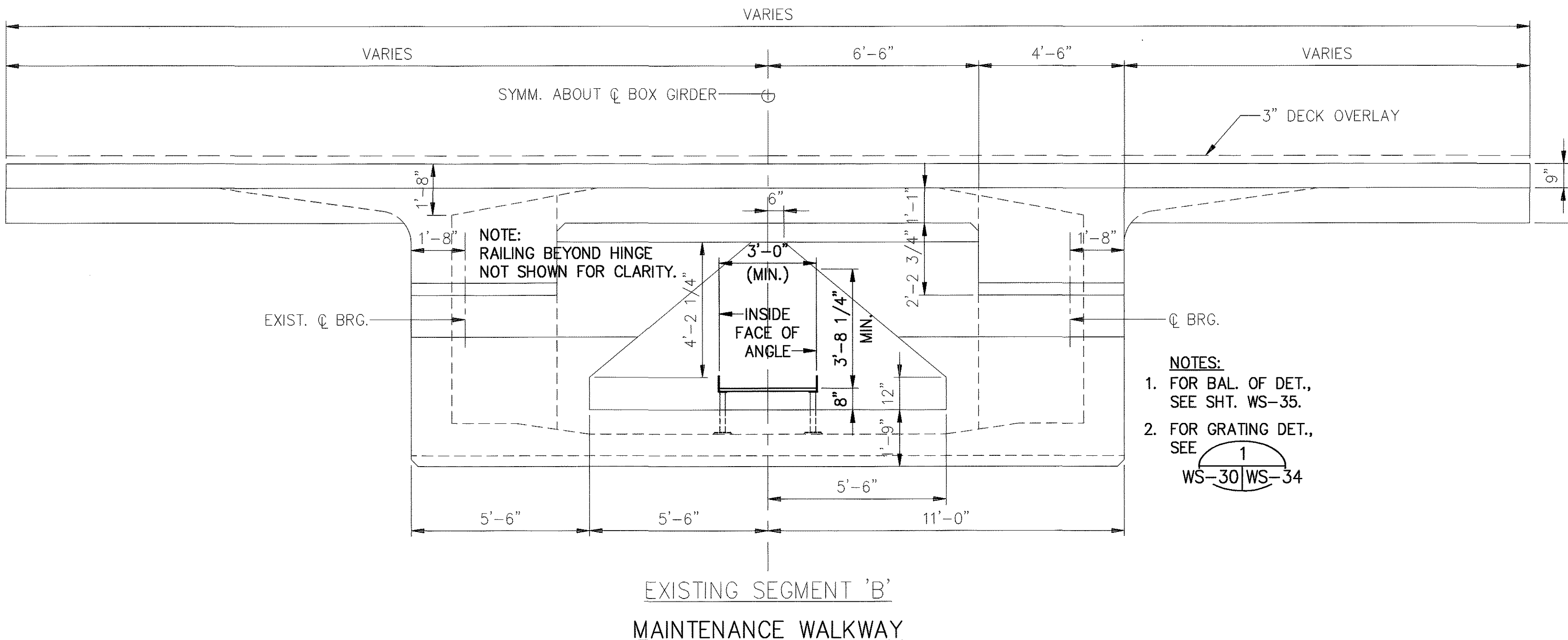
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-I(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No.WS29OF 36 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	269	405



SECTION A
SCALE : 3/8"=1'-0" WS-29WS-30



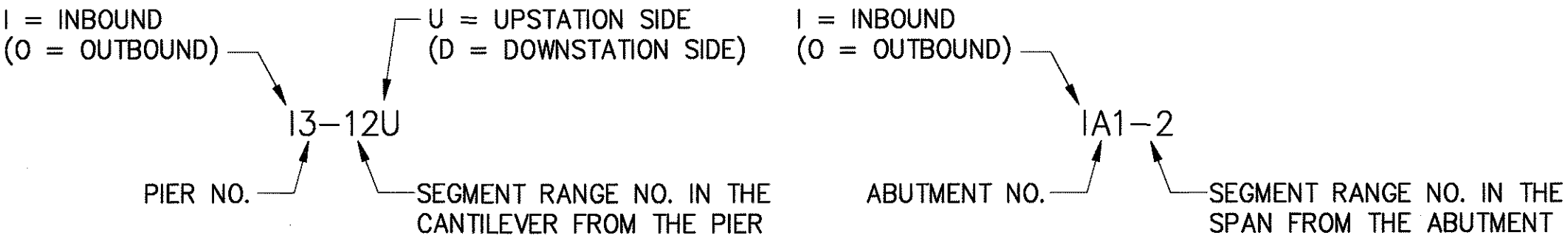
SECTION B
SCALE : 3/8"=1'-0" WS-29WS-30

INBOUND : SEGMENT A					
	I4-9UA	I8-9UA	I12-9UA	I16-9UA	I20-9UA
"A"	89.630"	89.630"	90.230"	90.341"	90.230"
L1	41'-1 1/8"	41'-1 1/8"	41'-0 1/2"	41'-1"	44'-0 5/8"
L2	20'-6 9/16"	20'-6 9/16"	20'-6 1/4"	20'-6 1/2"	22'-0 13/16"
L3	20'-6 9/16"	20'-6 9/16"	20'-6 1/4"	20'-6 1/2"	22'-0 13/16"
L4	2'-10 1/8"	2'-10 1/8"	2'-10 1/8"	2'-10 1/8"	2'-10 1/4"
L5	7'-0 1/8"	7'-0 1/8"	7'-0 1/8"	7'-0 1/8"	7'-0 1/4"
L6	3 3/8"	3 3/8"	2 1/4"	2"	2 1/4"
L7	1 7/8"	1 7/8"	3 1/8"	3 3/8"	3 1/4"
L8	7'-1"	7'-1"	6'-11 5/8"	6'-11 3/8"	6'-11 3/4"
L9	6'-11 3/4"	6'-11 3/4"	7'-0 5/8"	7'-0 7/8"	7'-0 3/4"
L10	2'-11 3/4"	2'-11 5/8"	2'-9 1/8"	2'-8 3/4"	2'-9 1/4"
L11	2'-8 1/2"	2'-8 1/2"	2'-11 1/8"	2'-11 5/8"	2'-11 1/4"
L12L	1'-11"	1'-10 1/2"	1'-11"	1'-10 1/2"	1'-10 1/2"
L12R	1'-11"	1'-11 1/2"	1'-11"	1'-11 1/2"	1'-11 1/2"
L13L	1'-1"	1'-1"	1'-1"	1'-1"	1'-1"
L13R	1'-1"	1'-0 1/2"	1'-1"	1'-1"	1'-1"
L14L	1'-0"	1'-0"	1'-1 1/2"	1'-2"	1'-1"
L14R	1'-0"	1'-0 1/2"	1'-1"	1'-1 1/2"	1'-0"
L15L	2'-9"	2'-9 1/2"	2'-9 1/2"	2'-10"	2'-10"
L15R	2'-10"	2'-9 1/2"	2'-9 1/2"	2'-9"	2'-10"
L16L	1'-11"	1'-11"	1'-11 1/2"	1'-11 1/2"	1'-11"
L16R	2'-0"	1'-11 1/2"	1'-11 1/2"	1'-11 1/2"	1'-11"
L17L	3'-9 1/2"	3'-9 1/2"	3'-9"	3'-9"	3'-9"
L17R	3'-9 1/2"	3'-9 1/2"	3'-9"	3'-9 1/2"	3'-11"

OUTBOUND : SEGMENT A					
	O4-9UA	O8-9UA	O12-9UA	O16-9UA	O20-9UA
"A"	89.646"	89.646"	90.238"	90.355"	90.238"
L1	47'-1 1/4"	47'-1 1/4"	41'-0 1/2"	41'-1 1/8"	41'-0 1/2"
L2	23'-6 5/8"	23'-6 5/8"	20'-6 1/4"	20'-6 9/16"	20'-6 1/4"
L3	23'-6 5/8"	23'-6 5/8"	20'-6 1/4"	20'-6 9/16"	20'-6 1/4"
L4	2'-9 7/8"	2'-9 7/8"	2'-10 1/8"	2'-10 1/8"	2'-10 1/8"
L5	6'-11 7/8"	6'-11 7/8"	2'-10 1/8"	2'-10 1/8"	2'-10 1/8"
L6	3 1/8"	3 1/8"	2 1/4"	2"	2 1/4"
L7	1 5/8"	1 5/8"	3 1/8"	3 3/8"	3 1/8"
L8	7'-0 3/4"	7'-0 3/4"	6'-11 5/8"	6'-11 3/8"	6'-11 5/8"
L9	6'-11"	6'-11"	7'-0 3/4"	7'-1"	7'-0 3/4"
L10	2'-11 5/8"	2'-11 5/8"	2'-9 1/8"	2'-8 5/8"	2'-9 1/8"
L11	2'-8 1/8"	2'-8 1/8"	2'-11 1/4"	2'-11 3/4"	2'-11 1/4"
L12L	1'-11"	1'-11"	1'-10"	1'-10 1/2"	1'-10"
L12R	1'-11"	2'-0"	1'-11 1/2"	2'-0"	1'-11"
L13L	1'-1"	1'-1"	1'-1"	1'-1"	1'-1"
L13R	1'-1"	1'-1"	1'-1 1/2"	1'-1"	1'-1"
L14L	1'-0"	1'-0"	1'-0 1/2"	1'-0 1/2"	1'-0 1/2"
L14R	1'-0"	1'-0"	1'-0 1/2"	1'-0"	1'-0 1/2"
L15L	2'-10"	2'-10"	2'-9"	2'-9 1/2"	2'-9"
L15R	2'-9 1/2"	2'-9"	2'-9 1/2"	2'-10"	2'-9 1/2"
L16L	1'-11 1/2"	2'-0"	1'-11"	2'-0"	2'-0"
L16R	2'-0"	1'-11 1/2"	1'-11 1/2"	2'-0"	2'-0"
L17L	3'-10"	3'-10"	3'-9 1/2"	3'-9 1/2"	3'-9 1/2"
L17R	3'-10"	3'-9"	3'-9"	3'-10 1/2"	3'-9 1/2"

INBOUND : SEGMENT B					
	I4-9UB	I8-9UB	I12-9UB	I16-9UB	I20-9UB
L1	41'-1 1/8"	41'-1 1/8"	41'-0 1/2"	41'-1"	44'-1 5/8"
L2	20'-6 9/16"	20'-6 9/16"	20'-6 1/4"	20'-6 1/2"	22'-0 13/16"
L3	20'-6 9/16"	20'-6 9/16"	20'-6 1/4"	20'-6 1/2"	22'-0 13/16"
L4L	1'-10"	1'-10"	1'-10"	1'-10"	1'-10"
L4R	2'-1"	2'-1"	2'-1"	2'-1"	2'-1"
L5L	1'-1"	1'-1"	1'-1"	1'-1"	1'-0 1/2"
L5R	1'-1"	1'-3 1/2"	1'-3 1/2"	1'-3"	1'-4"
L6L	1'-1"	1'-1 1/2"	1'-1"	1'-1"	1'-2"
L6R	1'-1 1/2"	1'-1"	1'-1"	1'-1"	1'-1"
L7L	2'-8 1/2"	2'-9"	2'-9"	2'-9"	2'-8 1/2"
L7R	2'-10"	2'-10"	2'-10 1/2"	2'-10"	2'-10"
L8L	1'-10"	1'-10"	1'-10 1/2"	1'-10"	1'-10"
L8R	1'-11 1/2"	2'-0 1/2"	2'-0 1/2"	2'-0 1/2"	2'-0 1/2"
L9L	3'-11"	3'-10 1/2"	3'-11 1/2"	3'-11 1/2"	3'-11"
L9R	3'-10 1/2"	4'-0 1/2"	3'-11"	3'-11 1/2"	3'-11"

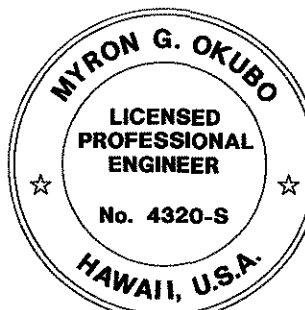
OUTBOUND : SEGMENT B					
	O4-9UB	O8-9UB	O12-9UB	O16-9UB	O20-9UB
L1	47'-1 1/4"	47'-1 1/4"	41'-0 1/2"	41'-1 1/8"	41'-0 1/2"
L2	23'-6 5/8"	23'-6 5/8"	20'-6 1/4"	20'-6 9/16"	20'-6 1/4"
L3	23'-6 5/8"	23'-6 5/8"	20'-6 1/4"	20'-6 9/16"	20'-6 1/4"
L4L	1'-10"	1'-10"	1'-9 1/2"	1'-10 1/2"	1'-10"
L4R	2'-1 1/2"	2'-1"	2'-1"	1'-11"	2'-1 1/2"
L5L	1'-1"	1'-1"	1'-1"	1'-1"	1'-0 1/2"
L5R	1'-4"	1'-4"	1'-3 1/2"	1'-3"	1'-4"
L6L	1'-0"	1'-1 1/2"	1'-0"	1'-1"	1'-0 1/2"
L6R	1'-0"	1'-0"	1'-0"	1'-1"	1'-0 1/2"
L7L	2'-8"	2'-8"	2'-8 1/2"	2'-8 1/2"	2'-8"
L7R	2'-10 1/2"	2'-10"	2'-10 1/2"	2'-10"	2'-10"
L8L	1'-10"	1'-10"	1'-9 1/2"	1'-9 1/2"	1'-10 1/2"
L8R	2'-0 1/2"	2'-1"	2'-0 1/2"	2'-1"	2'-0 1/2"
L9L	3'-11 1/2"	3'-9"	3'-11"	3'-10"	3'-11"
L9R	4'-1 1/2"	4'-0"	3'-11 1/2"	3'-10 1/2"	4'-1 1/2"



SEGMENT DESIGNATION

LENGTH DESIGNATION

NOTE:
SEE SHEETS WS31 & WS32 FOR LOCATIONS.



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
HINGE SEGMENT
DIMENSIONS II

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS30 OF 36 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT 1	1996	270	405

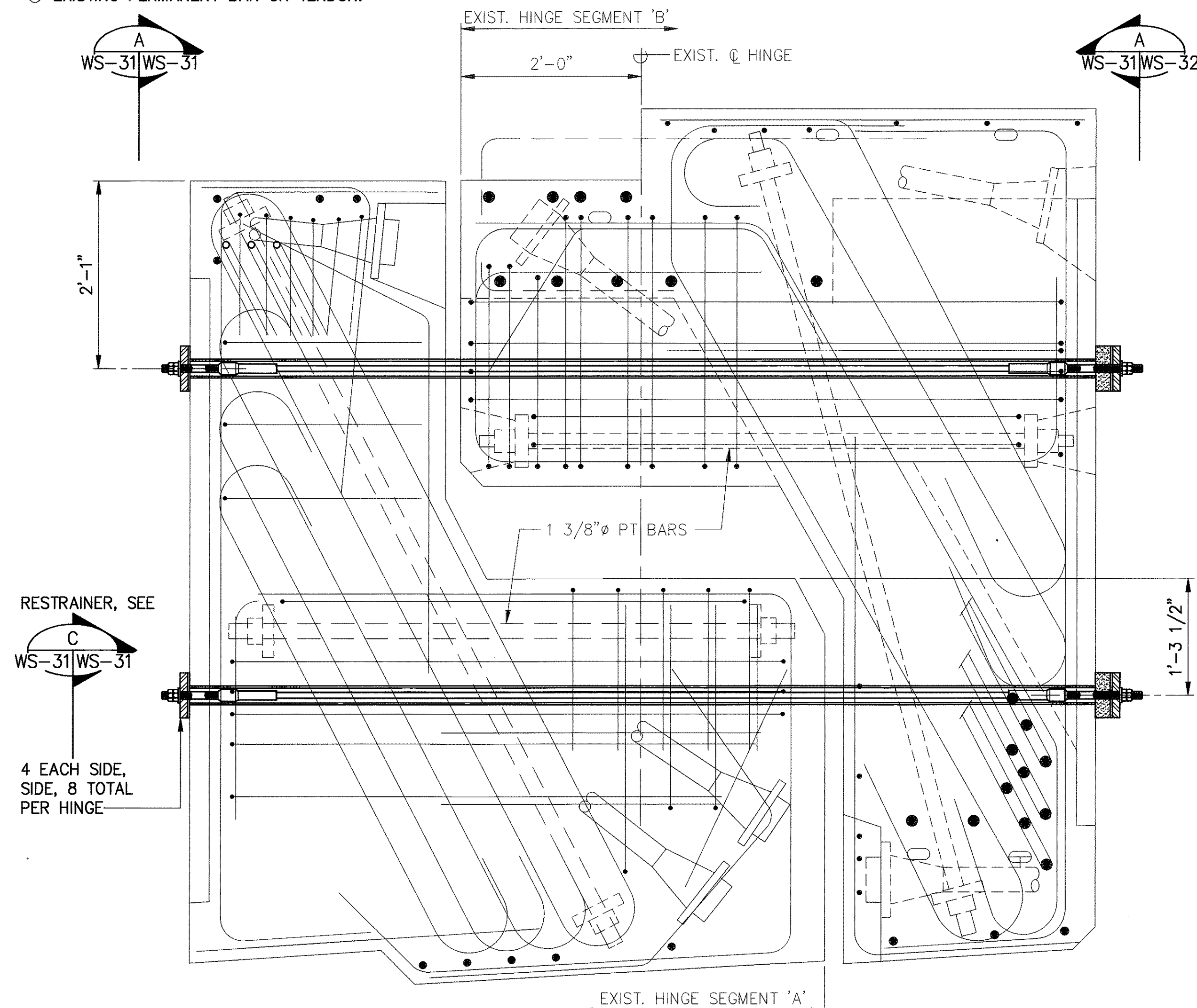
NOTES:

1. LOCATIONS OF EXISTING TEMPORARY ERECTION BOLT HOLES SHALL BE VERIFIED IN THE FIELD.
2. CONTRACTOR SHALL CAREFULLY REMOVE EXISTING GROUT FROM THESE HOLES BEFORE INSERTING PVC PIPE. EXISTING HOLES SHALL BE CLEARED TO ALLOW FOR PLACEMENT OF PVC PIPE.
3. CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE EXISTING BARS OR TENDONS.

LEGEND

- EXISTING GROUT FILLED HOLES FOR TEMPORARY BARS OR TENDONS USED FOR CONSTRUCTION.
- ⊗ TYPE I RESTRAINER, INSTALLED IN EXIST. 2" ϕ GROUT FILLED HOLE FOR TEMPORARY BARS OR TENDONS USED FOR CONSTRUCTION. GROUT TO BE REMOVED FROM EXIST. 2" ϕ HOLE. CORE HOLES SHALL BE 2 1/2" ϕ .
- ⊗ EXISTING PERMANENT BAR OR TENDON.

⊗ EXISTING PERMANENT BAR OR TENDON.

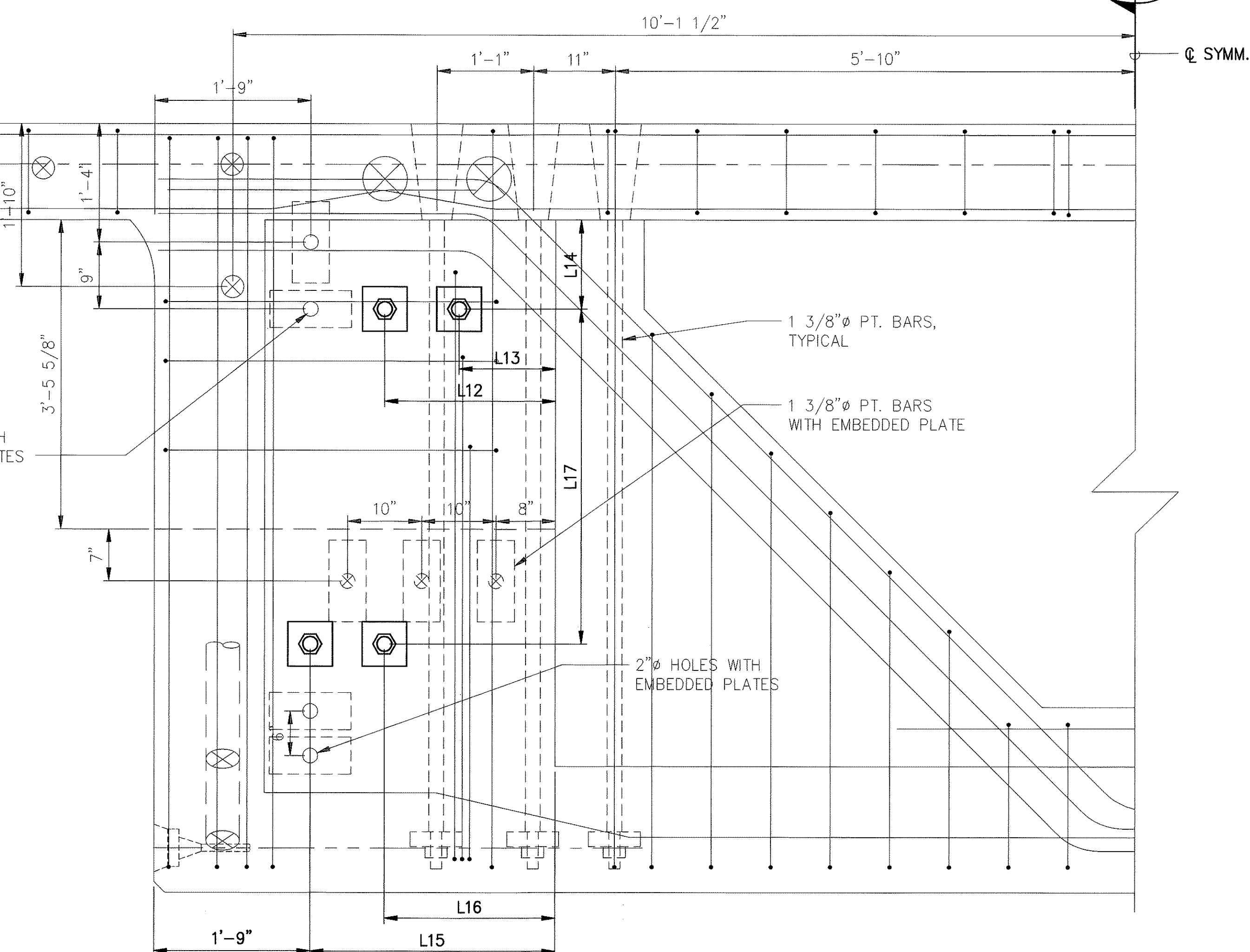


SECTION

SCALE : 1"=1'-0"

B

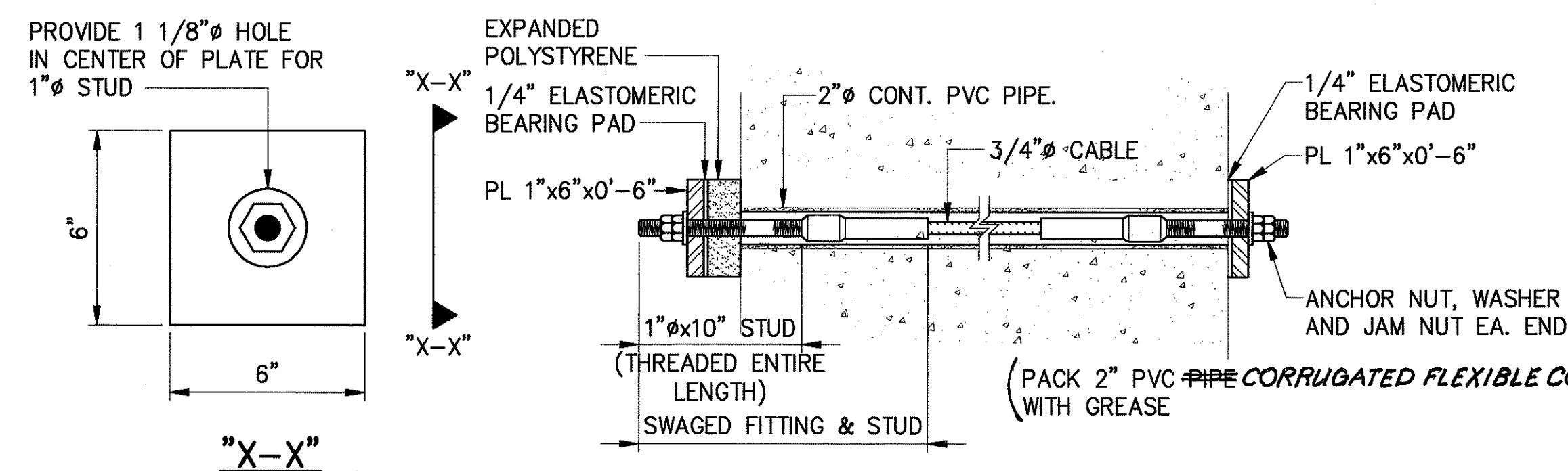
WS-32



EXISTING HINGE SEGMENT 'A'

SCALE : 1"=1'-0"

WS-31 | WS-33



- NOTES:

- NOTES:**
1. ALL STEEL PARTS SHALL BE GALVANIZED AFTER FABRICATION. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
 2. NUTS SHALL BE TIGHTENED ONLY ENOUGH TO ALLOW THE POLYSTYRENE TO BE IN CONTACT WITH THE WASHER AND FACE OF CONCRETE AND THE POLYSTYRENE SHALL NOT BE COMPRESSED TO LESS THAN A 3" INITIAL THICKNESS.
 3. END OF RESTRAINER WITH POLYSTYRENE SHALL NOT BE LOCATED BEHIND ABUTMENT WALL.
 4. FOR DIMENSIONS SEE SHEET WS30.
 5. PROVIDE 2 1/2"Ø HOLE FOR NEW 2"Ø PVC PIPE.

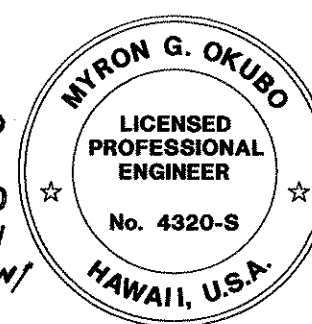
TYPE I RESTRAINER

SCALE : NOT TO SCALE

C

WS-31 | WS-31

2" PVC CONDUIT DELETED
DUE TO NON-ALIGNMENT
OF PRE-CAST HOLES. INSTEAD
RETAINER IS APPLIED WITH
GREASE, THEN WRAPPED w/
PLASTIC SHEET, THEN
DOUBLE-WRAPPED w/
DUCT TAPE. THIS
PROCEDURE APPLIES
TO HINGES ONLY. ALL
OTHER AREAS
REMAIN PER PLAN



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WINDWARD VIADUCT

TYPE 1 RESTRAINER

HINGE SEGMENT 'A'

INTERSTATE ROUTE H-3

F.A.I. PROJ. NO. I-H3-1(75) UNIT 1

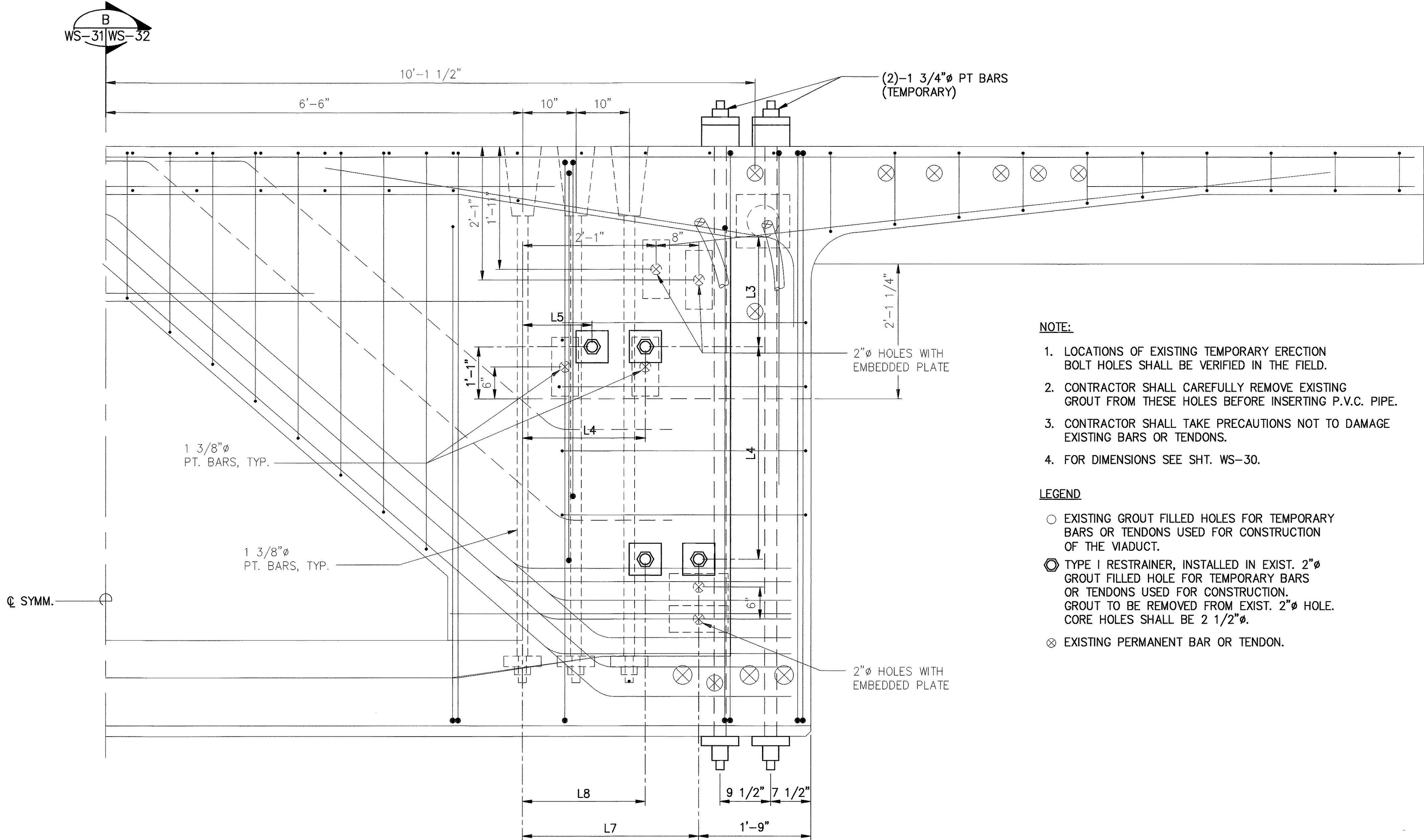
SCALE: AS NOTED DATE: JAN. 1996

SHEET No. WS31 OF 36 SHEETS

"AS-BUILT"	
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270

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	271	405



EXISTING HINGE SEGMENT 'B' SECTION

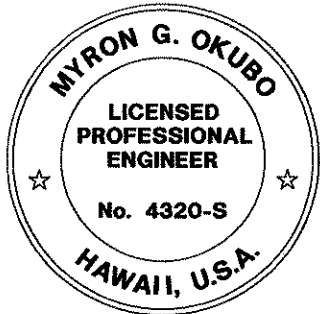
SCALE : 3/4" = 1'-0"

A

WS-31|WS-32

- NOTE:**
- LOCATIONS OF EXISTING TEMPORARY ERECTION BOLT HOLES SHALL BE VERIFIED IN THE FIELD.
 - CONTRACTOR SHALL CAREFULLY REMOVE EXISTING GROUT FROM THESE HOLES BEFORE INSERTING P.V.C. PIPE.
 - CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE EXISTING BARS OR TENDONS.
 - FOR DIMENSIONS SEE SHT. WS-30.

- LEGEND**
- EXISTING GROUT FILLED HOLES FOR TEMPORARY BARS OR TENDONS USED FOR CONSTRUCTION OF THE VIADUCT.
 - TYPE I RESTRAINER, INSTALLED IN EXIST. 2" GROUT FILLED HOLE FOR TEMPORARY BARS OR TENDONS USED FOR CONSTRUCTION. GROUT TO BE REMOVED FROM EXIST. 2" HOLE. CORE HOLES SHALL BE 2 1/2".
 - EXISTING PERMANENT BAR OR TENDON.



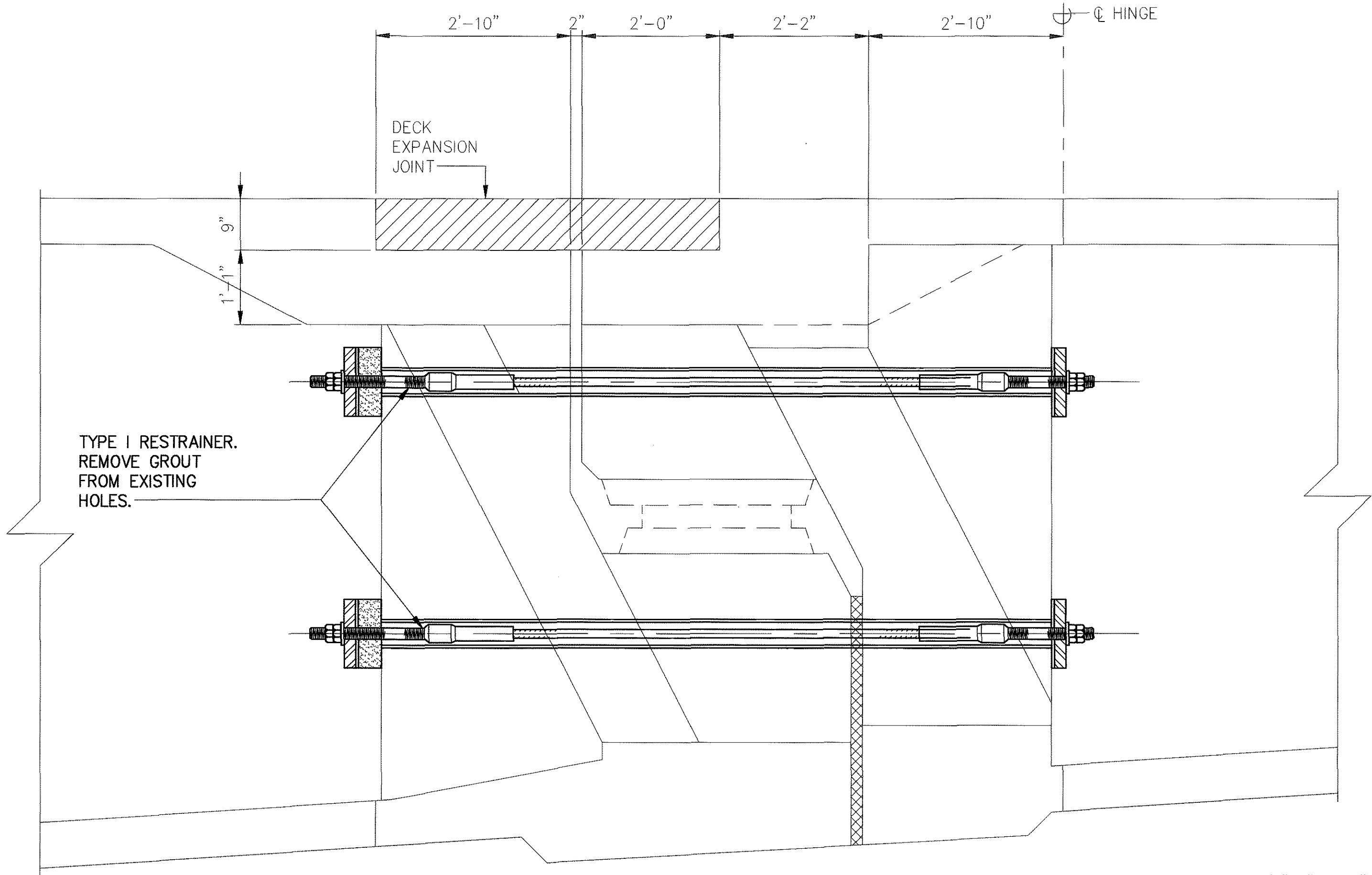
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Myron Okubo

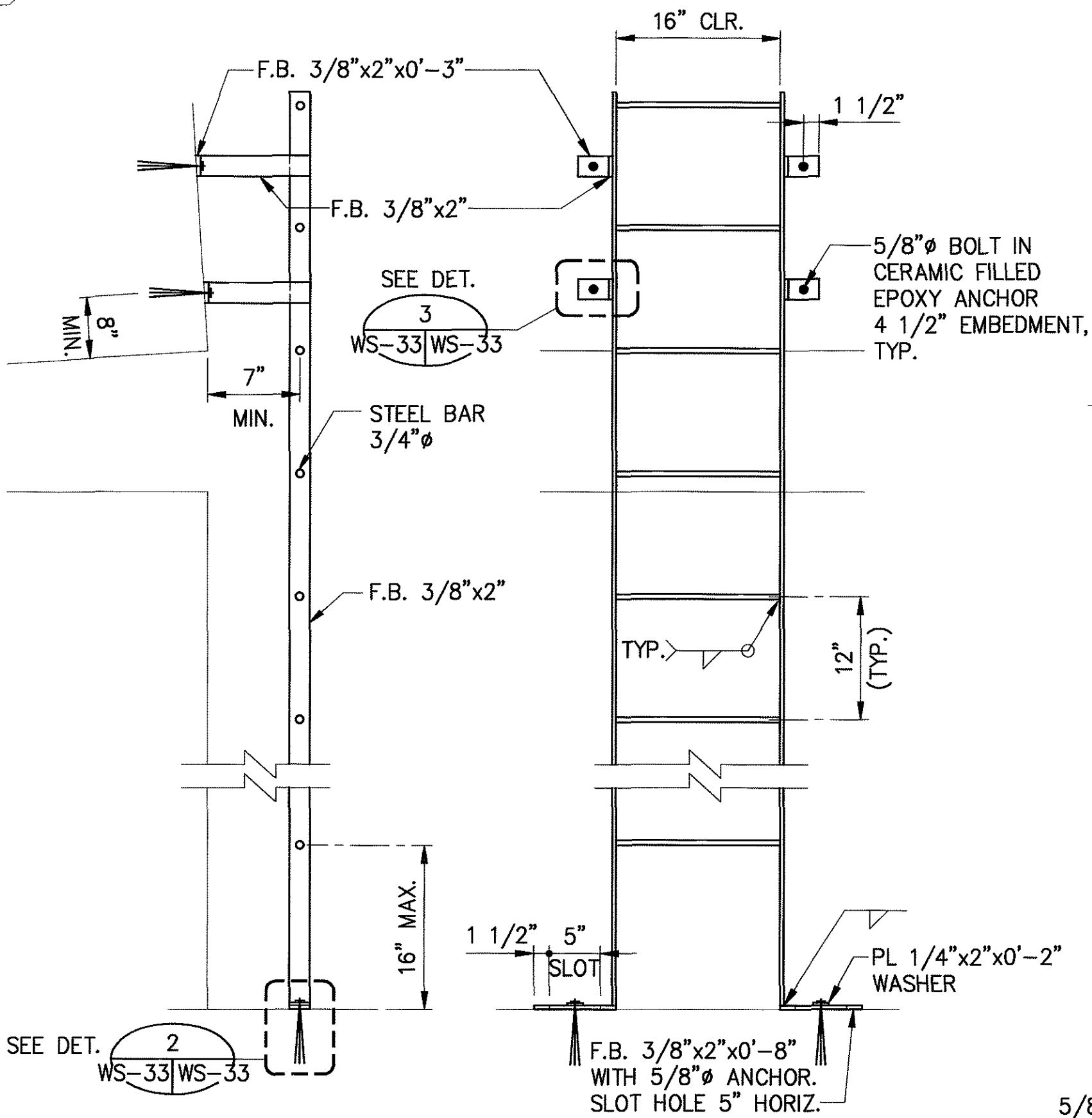
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
TYPE I RESTRAINER
HINGE SEGMENT 'B'

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS32 OF 36 SHEETS

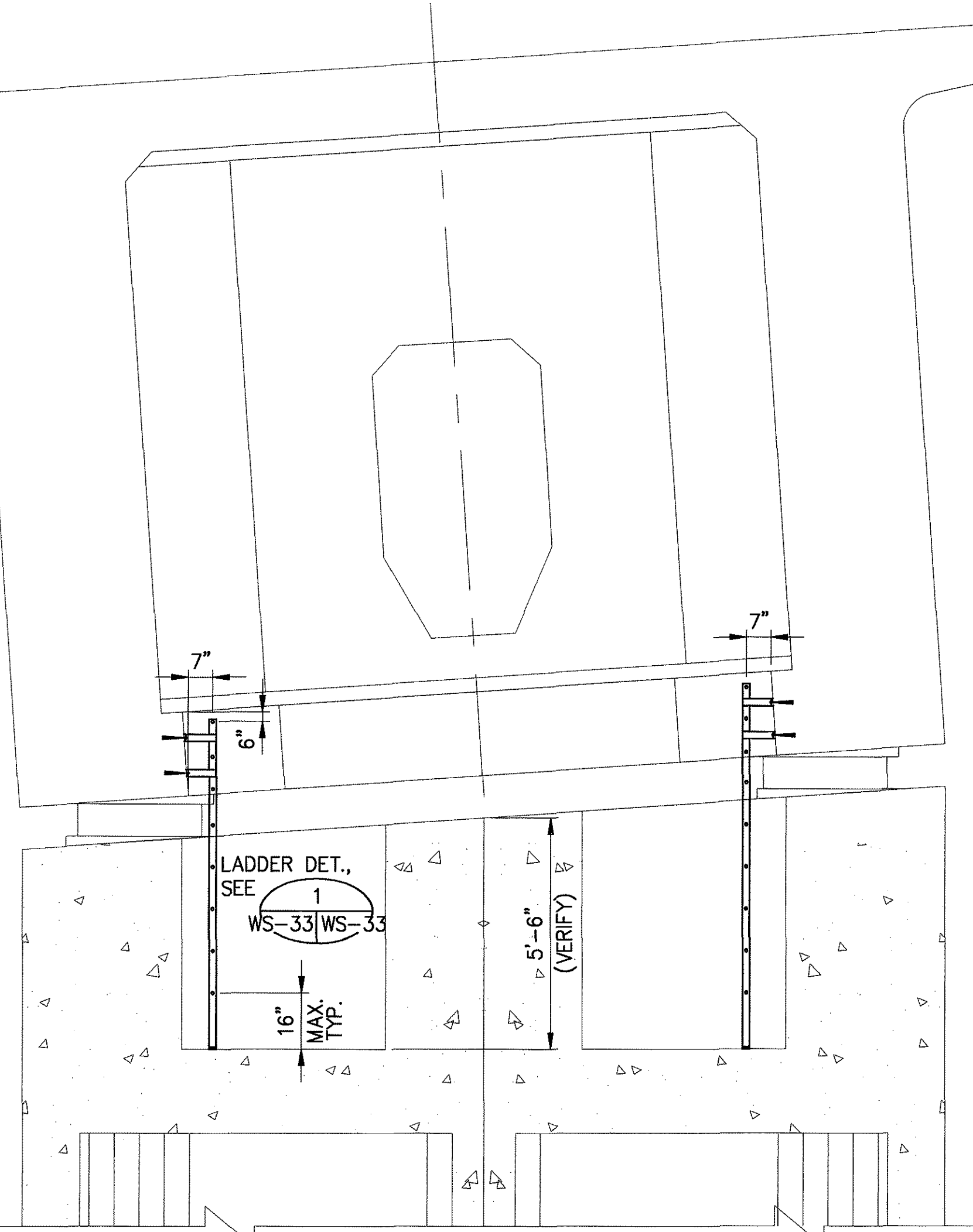
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	272	405



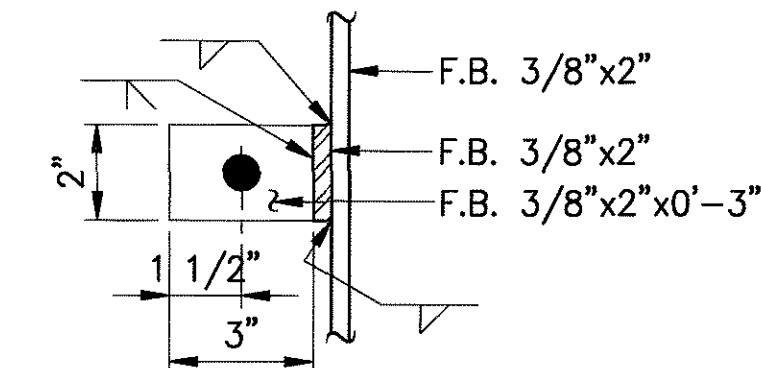
SECTION AT HINGE RESTRAINER
SCALE : 3/4"=1'-0"



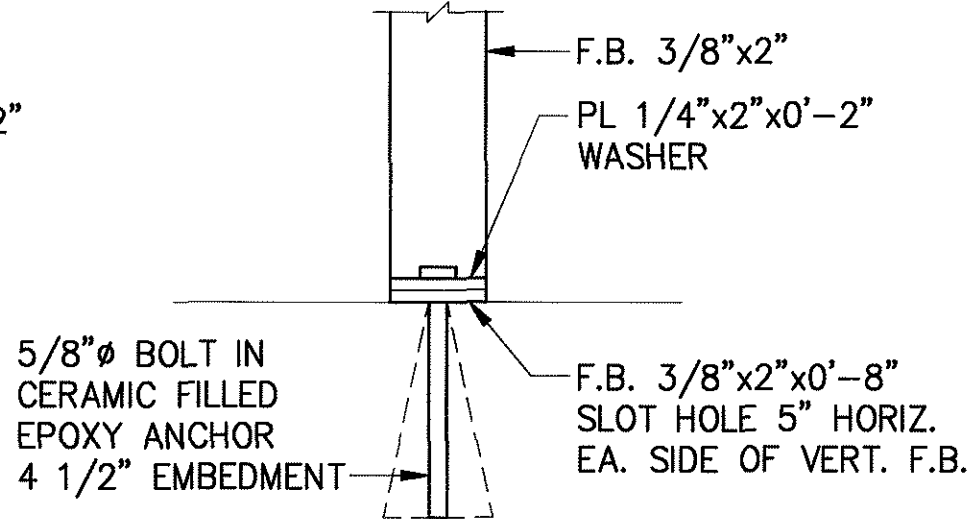
LADDER DETAIL 1
SCALE : 1"=1'-0"



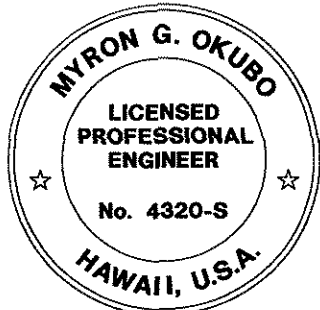
HALF SECTION
SCALE : 3/8"=1'-0"



DETAIL 3
SCALE : 3"=1'-0"



DETAIL 2
SCALE : 3"=1'-0"



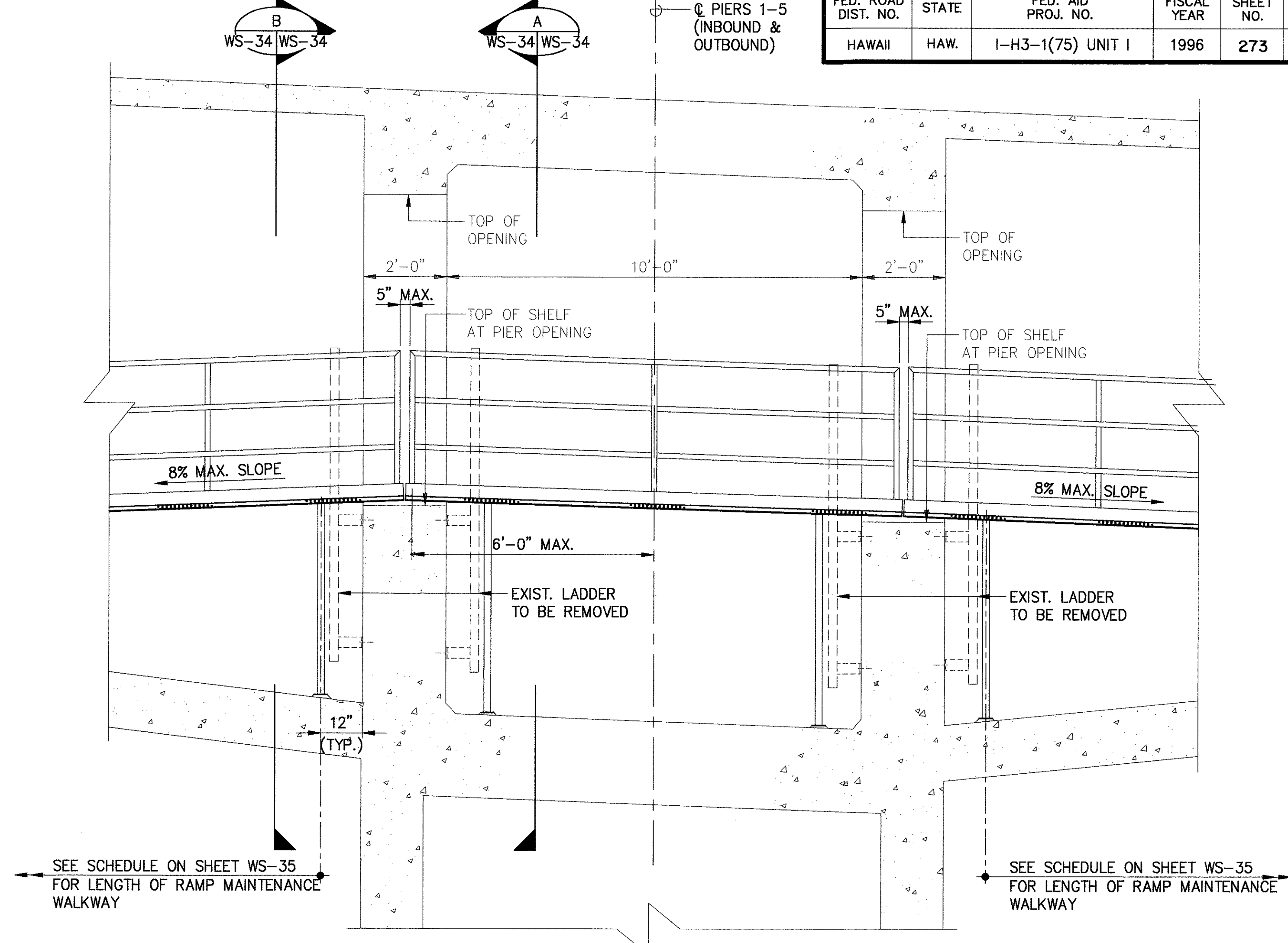
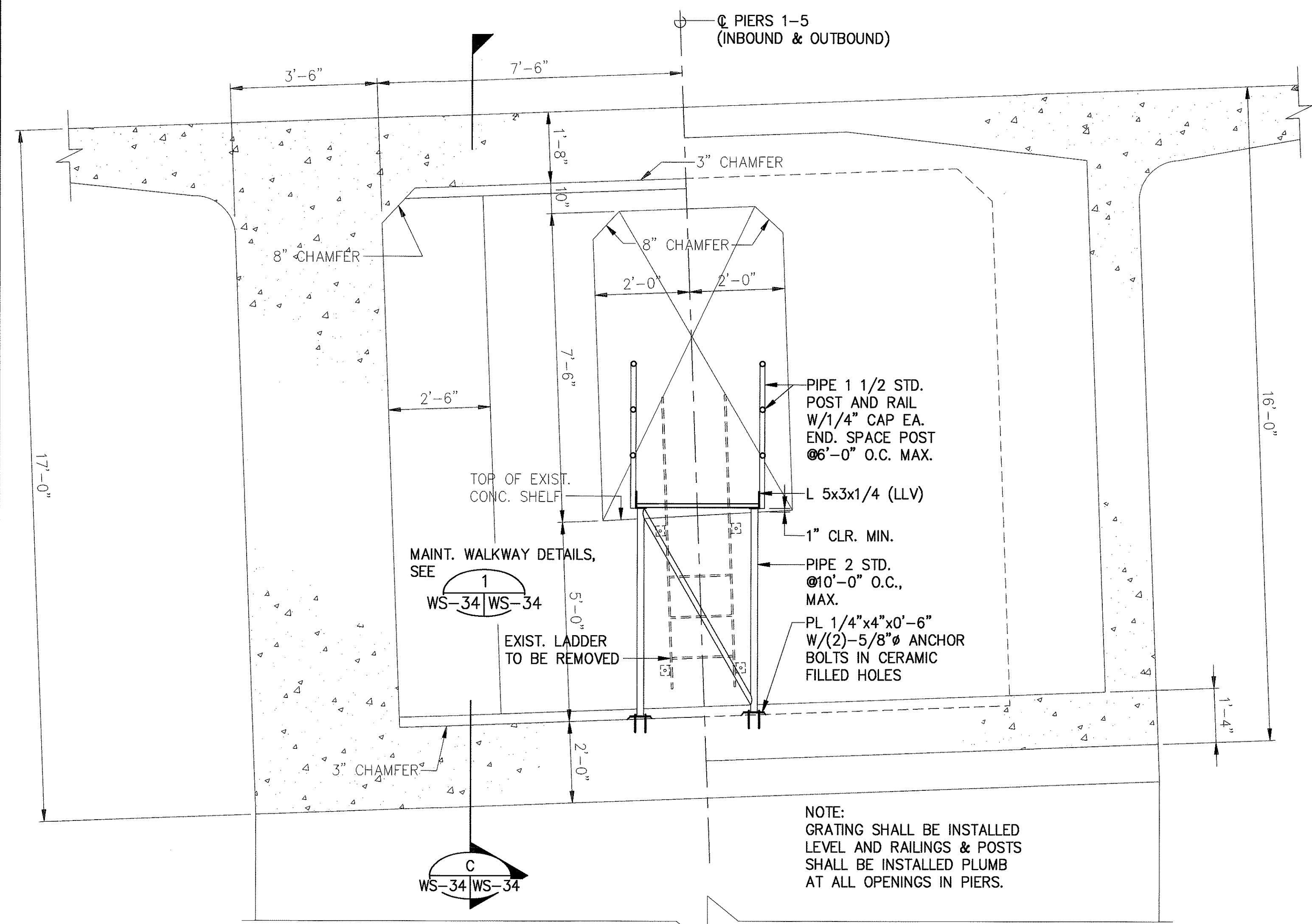
THIS WORK WAS PREPARED BY
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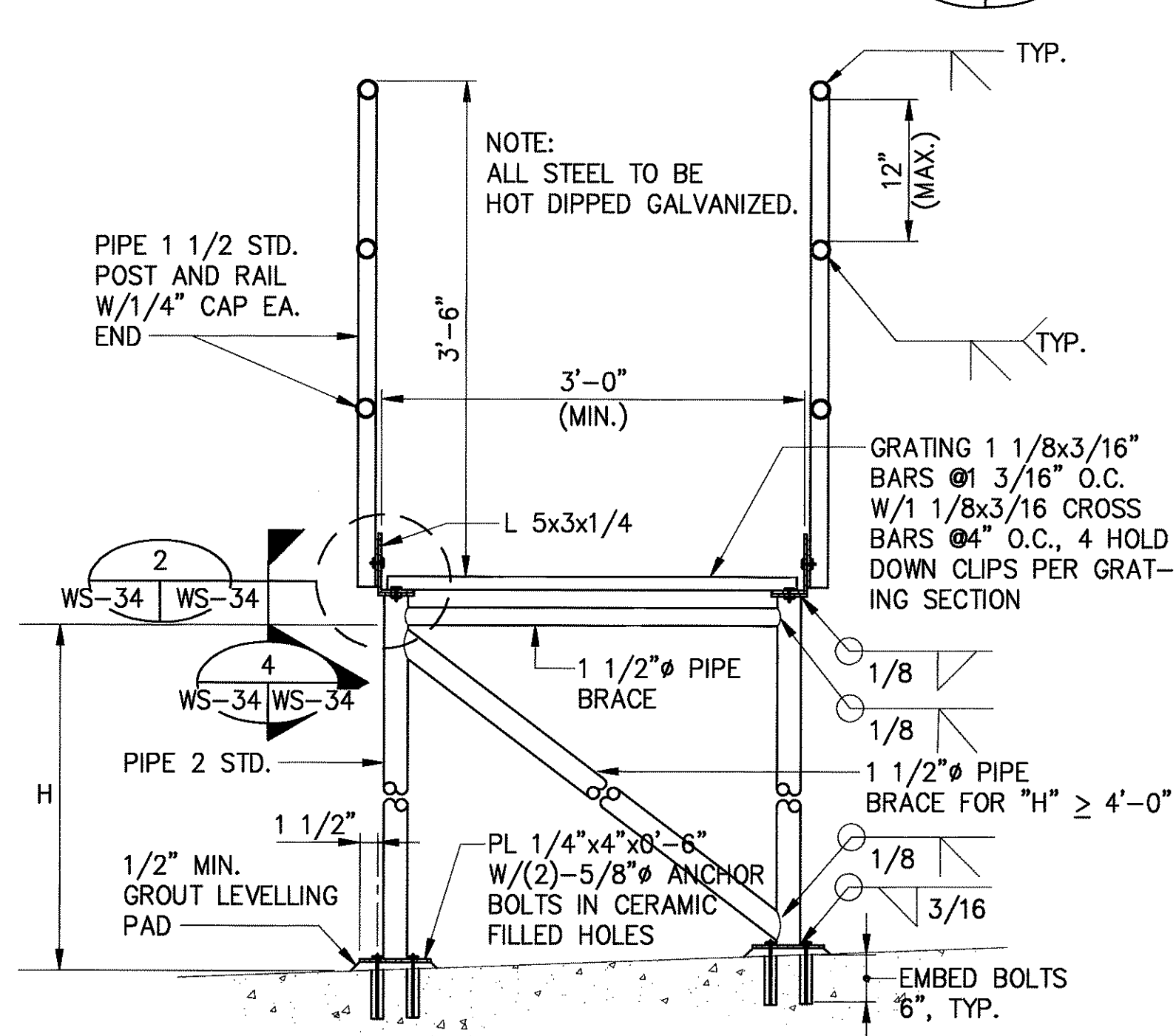
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
HINGE SEGMENT RESTRAINER
AND LADDER DETAILS

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No.WS33OF 36 SHEETS

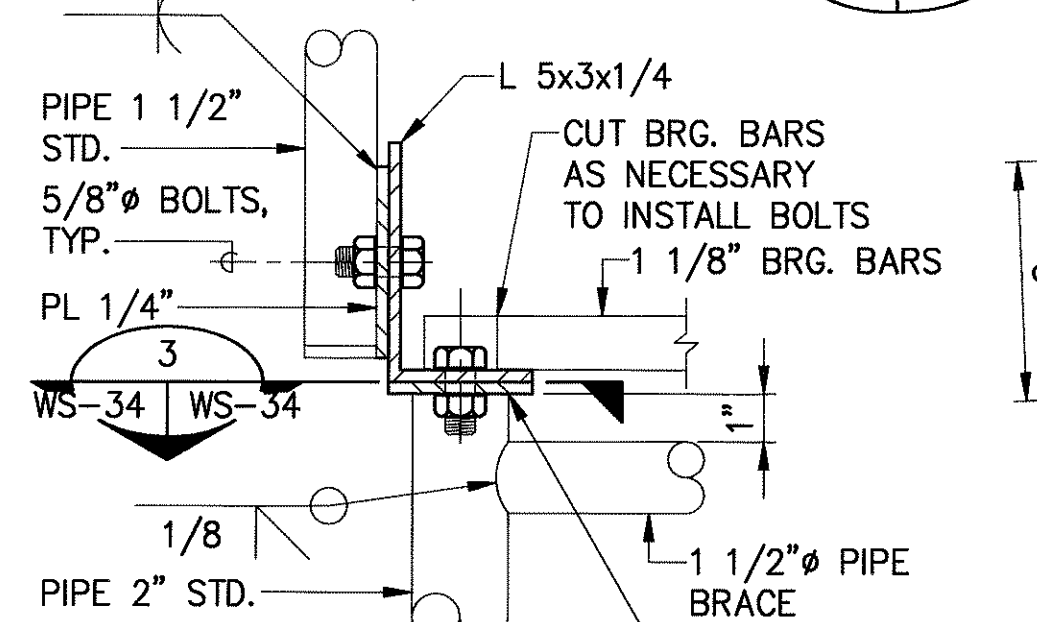
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HAWAII	HAW.	I-H3-1(75) UNIT I	1996	273	405



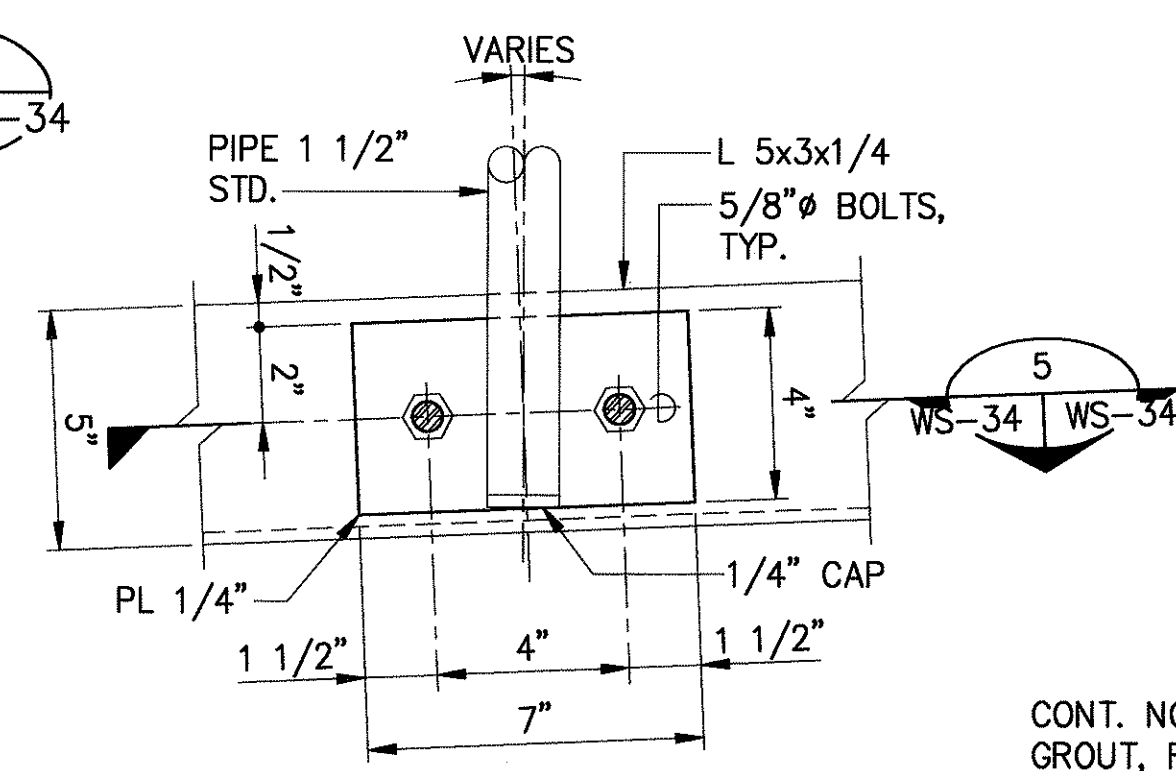
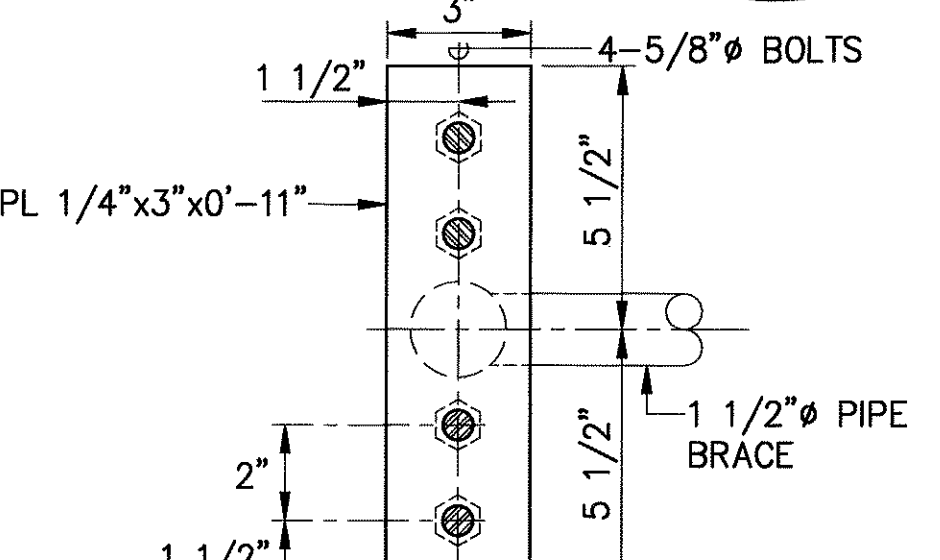
HALF SECTION A
SCALE: 1/2"=1'-0"



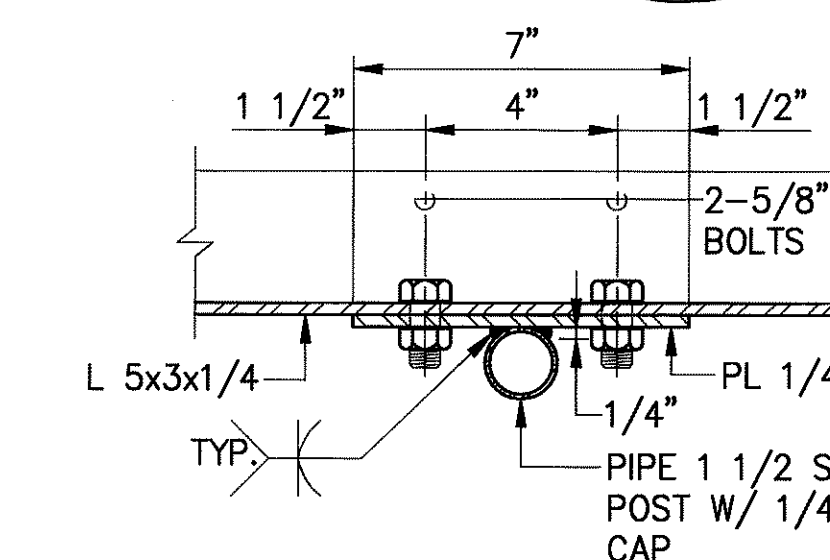
HALF SECTION B
SCALE: 1/2"=1'-0"



DETAIL 2
SCALE: 3"=1'-0"

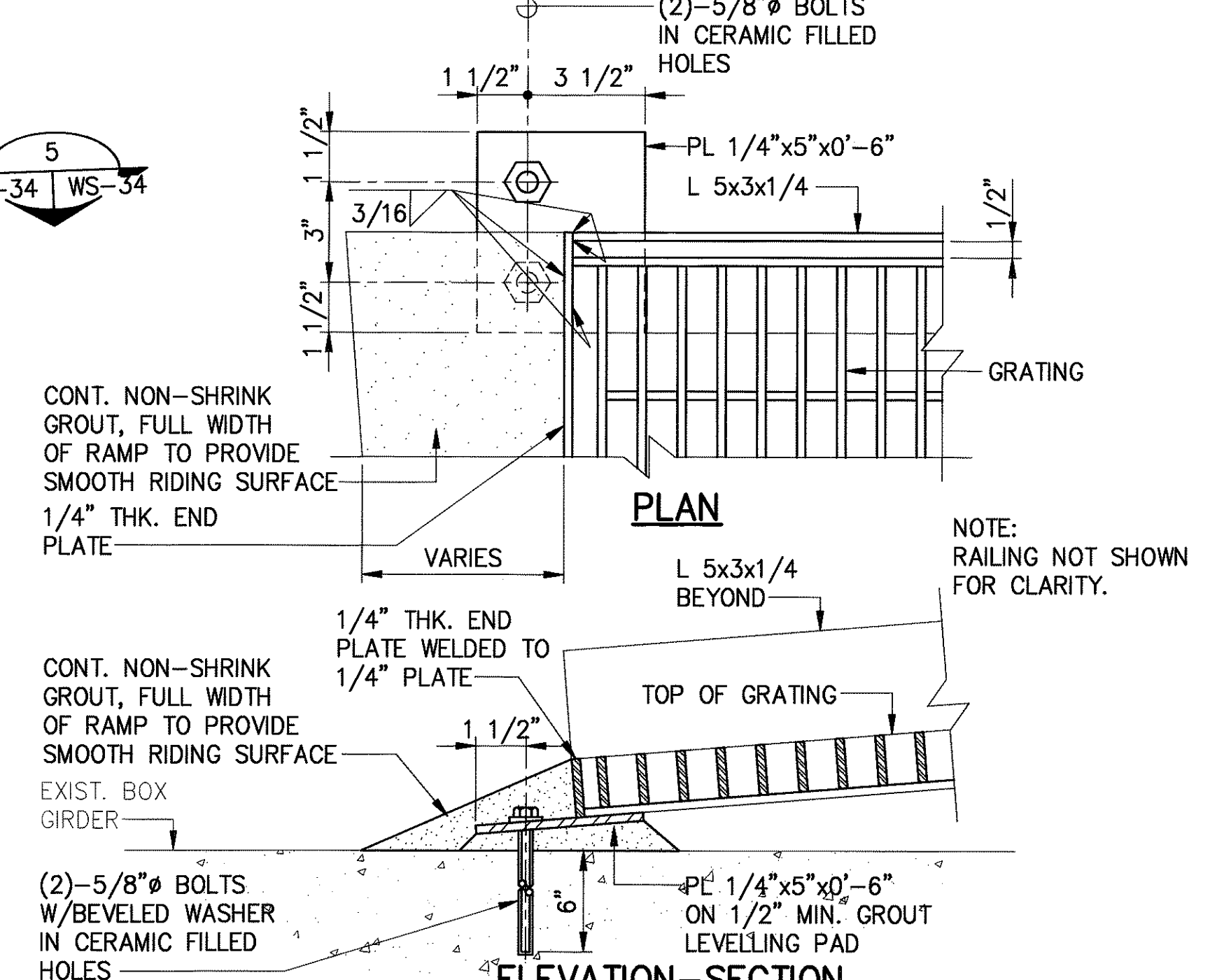


DETAIL 4
SCALE: 3"=1'-0"



PLAN-DETAIL 5
SCALE: 3"=1'-0"

SECTION THROUGH PIER OPENING C
SCALE: 1/2"=1'-0"



TYPICAL DETAIL AT END OF RAMP 6
SCALE: 3"=1'-0"

MAINTENANCE WALKWAY DETAIL AT PIERS 1
SCALE: 1"=1'-0"

WS-30, WS-35 WS-34 WS-34

PLAN-DETAIL 3
SCALE: 3"=1'-0"

WS-34 WS-34

PLAN-DETAIL 5
SCALE: 3"=1'-0"

WS-34 WS-34

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
MAINTENANCE WALKWAY
PIERS 1-5
INBOUND & OUTBOUND
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN 1996
SHEET No. WS34 OF 36 SHEETS



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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	274	405

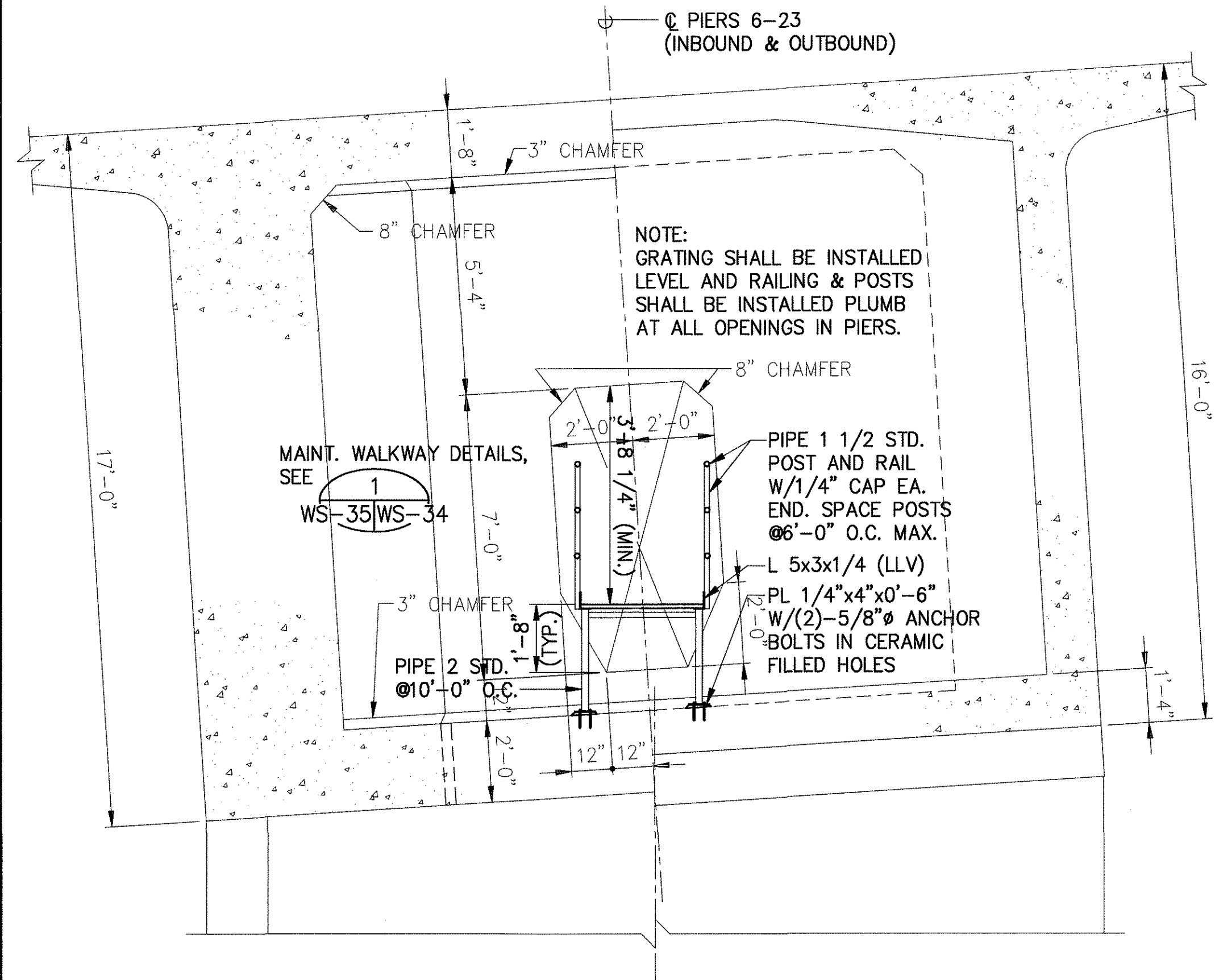
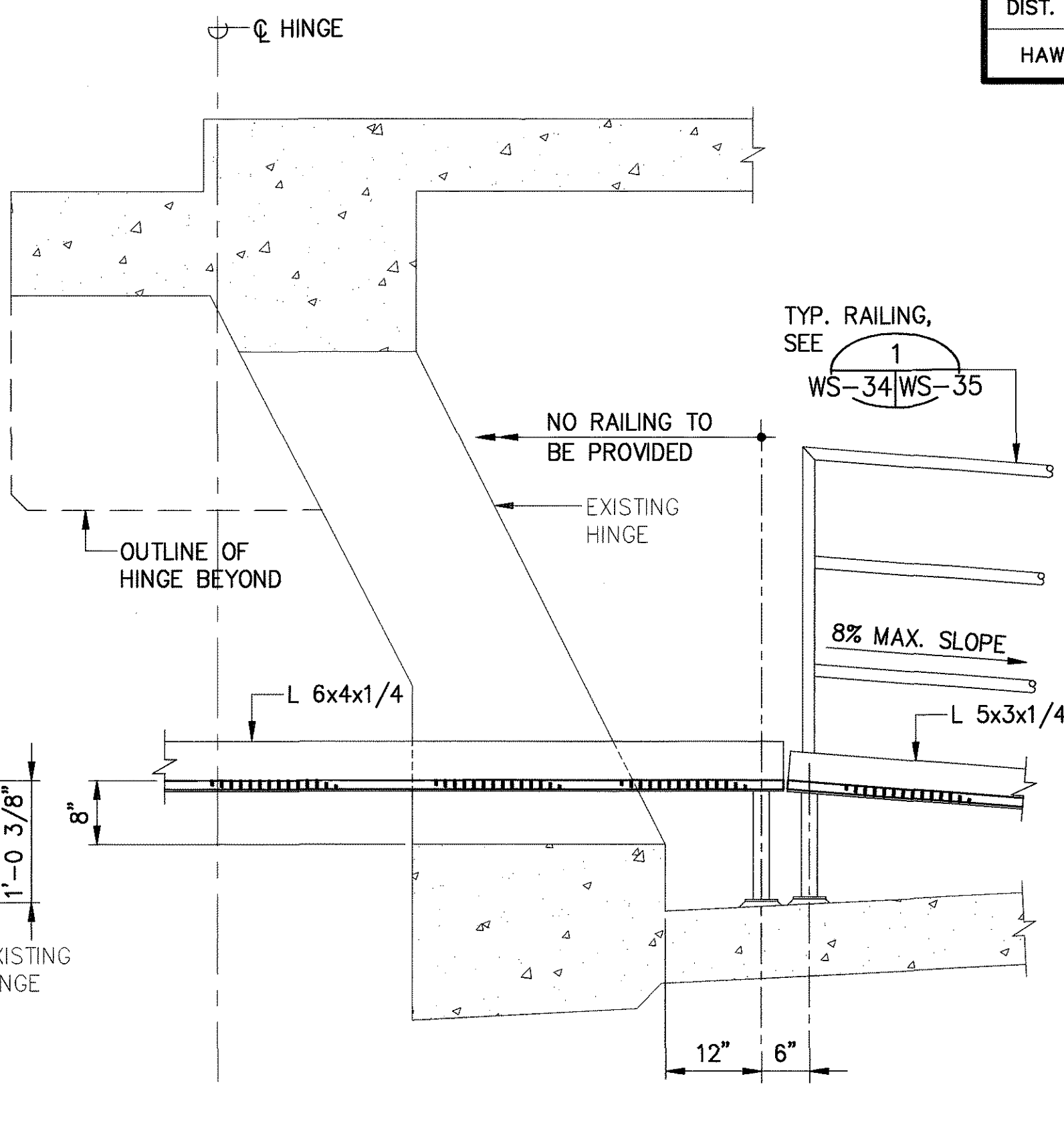
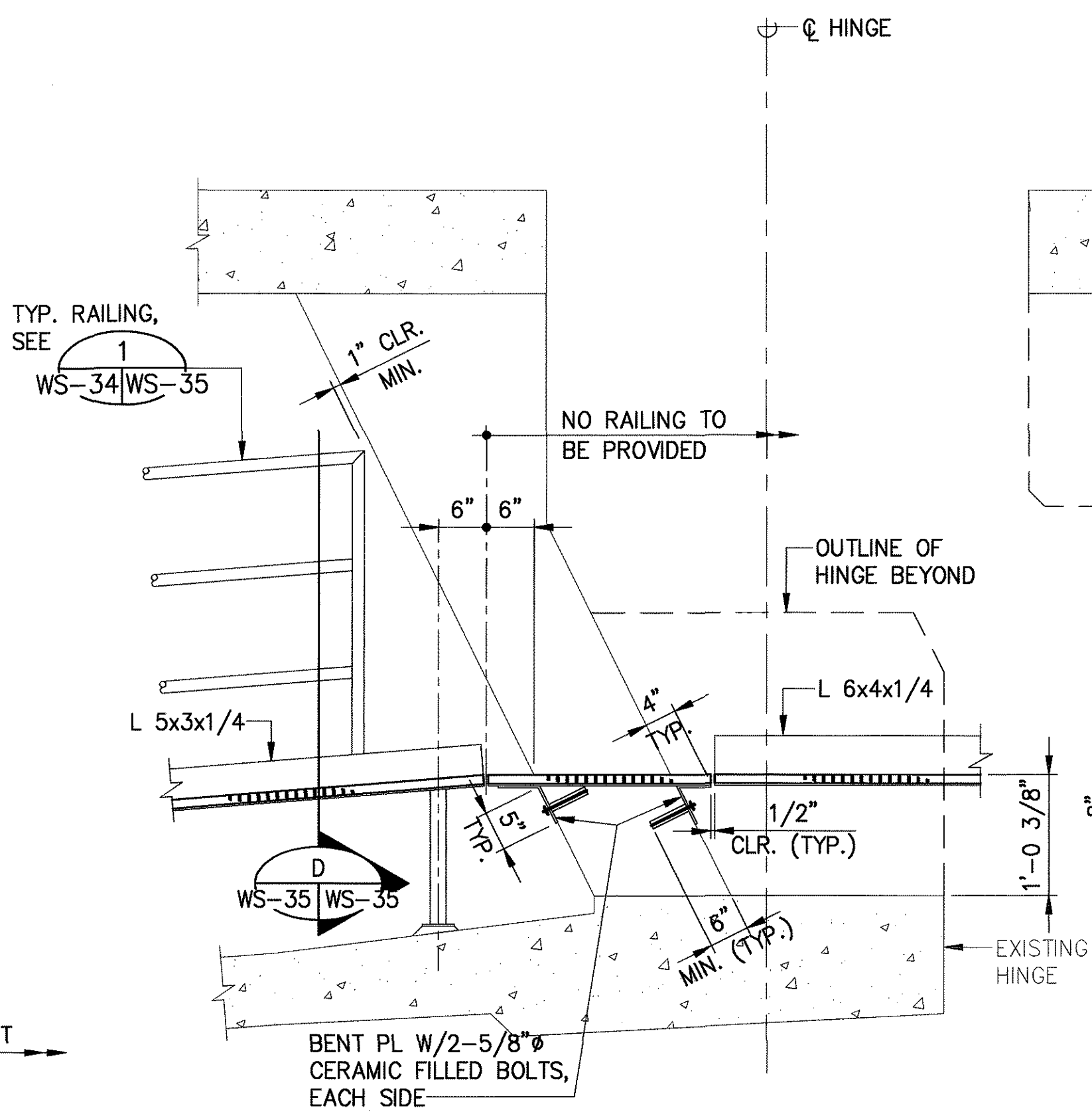
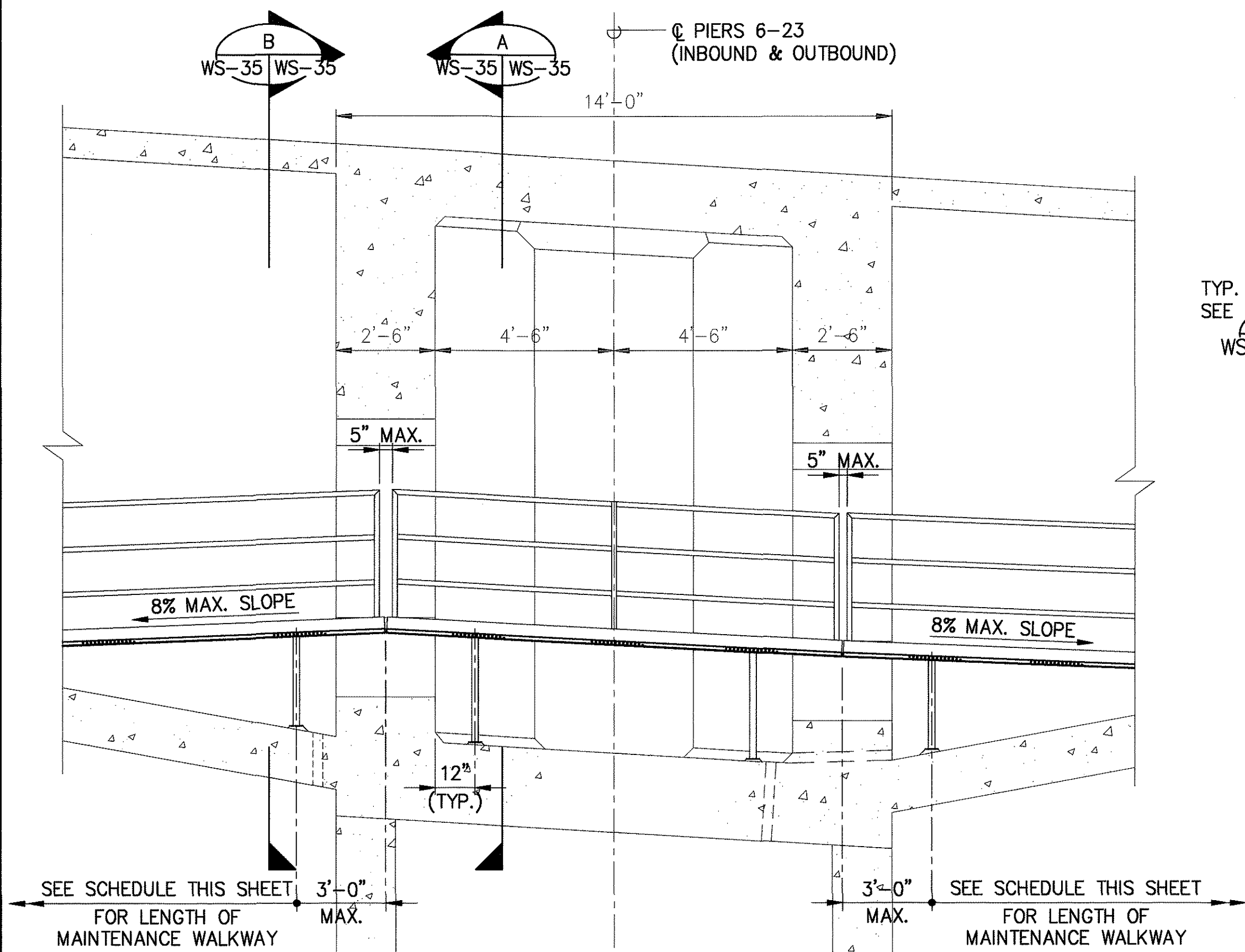
NOTES:

- ALL MAINTENANCE WALKWAY AT HINGES SHALL BE INSTALLED TO MATCH EXISTING SUPERELEVATION. RAILINGS AND POSTS SHALL BE INSTALLED PLUMB. (SUPERELEVATION VARIES FROM 4.62% TO 6.83%) GRATINGS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 8%.
- ENDS OF BEARING BARS SHALL BE NOTCHED TO FIT HINGE SEGMENT AT OPENING.
- FOR DIMENSIONS OF HINGE, SEE SHT. WS-29.
- ACCESS TO BOX GIRDER CELLS, PIERS, HINGE SEGMENTS AND OTHER WORK AREAS SHALL BE THROUGH 3'-6"x3'-0" ACCESS OPENINGS NEAR EACH ABUTMENT

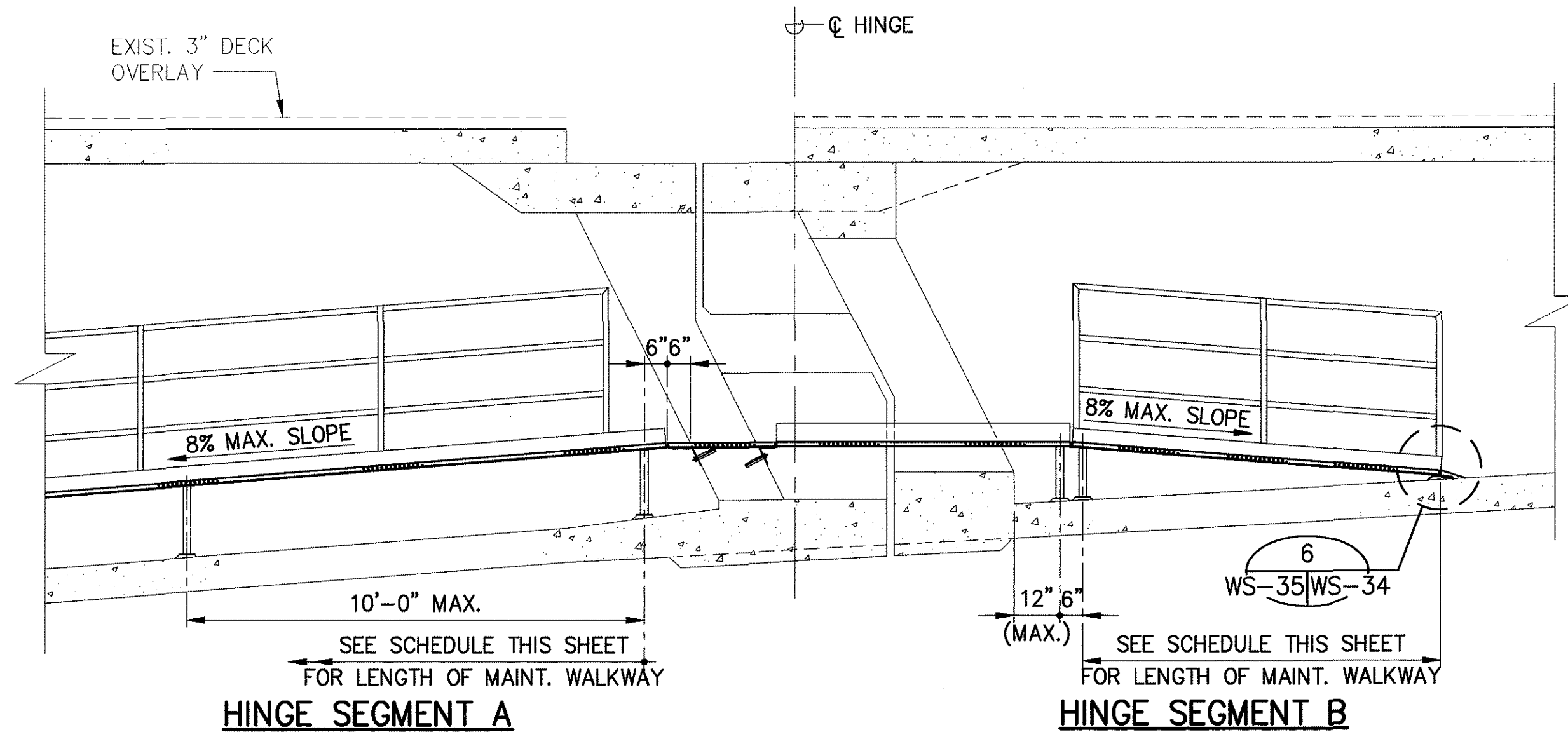
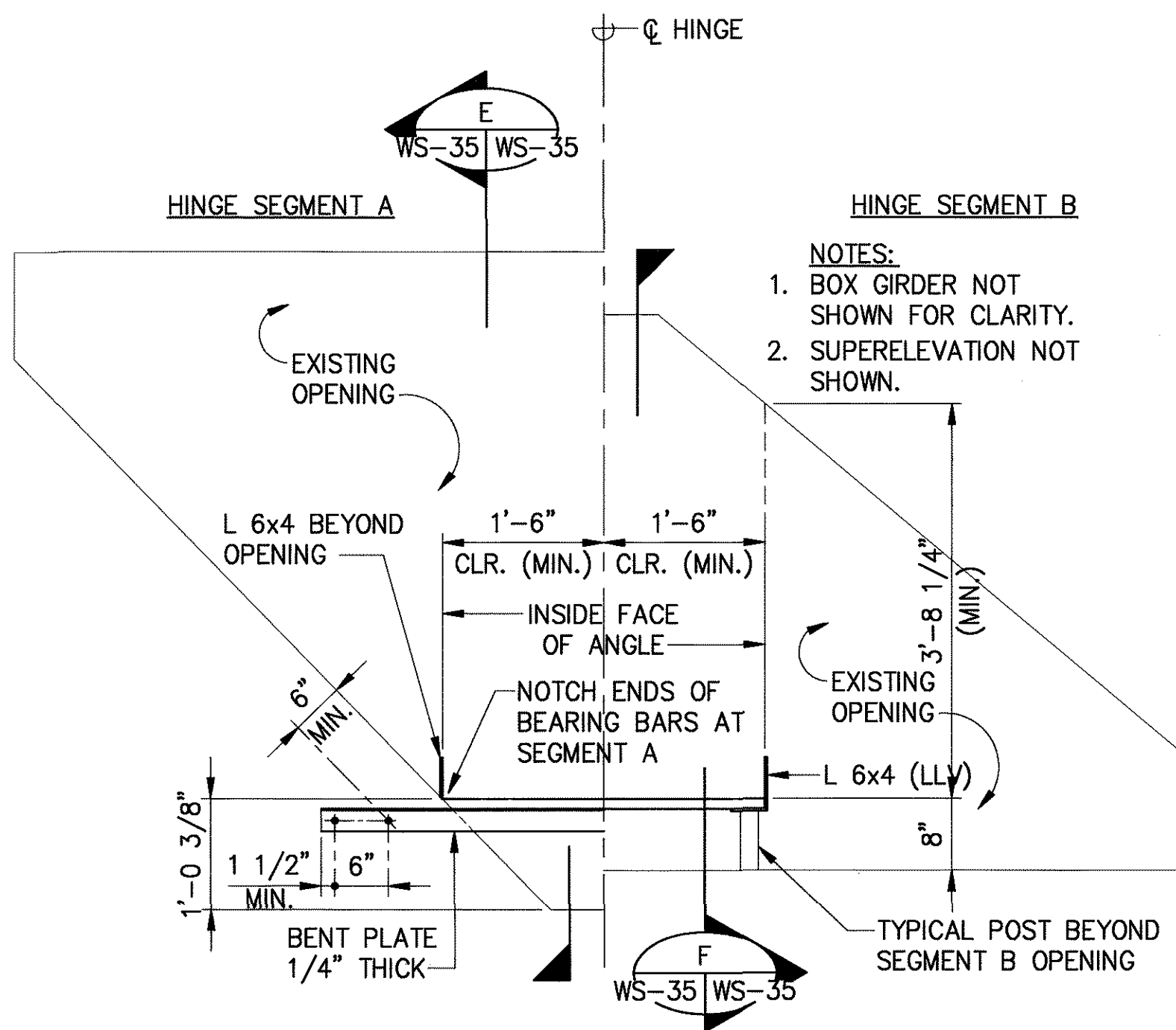
SCHEDULE OF MAINTENANCE WALKWAY LENGTHS (FT.)

LOCATION	DOWNSTATION	UPSTATION
PIERS 1-5	24'±	40'± *
PIERS 6-23	10'±	20'± *
HINGES	N/A	25'±

* NOT APPLICABLE FOR PIERS 4, 8, 12, 16, 20 (INBOUND AND OUTBOUND). SEE PARTIAL PLANS, SHEETS WS-4 TO WS-13.



NOTE: MAINTENANCE WALKWAY TO BE CONSTRUCTED ON CHORDS OF 20 FEET MAXIMUM LENGTH CONCENTRIC TO THE BASE-LINE. (TYPICAL THRUOUT)



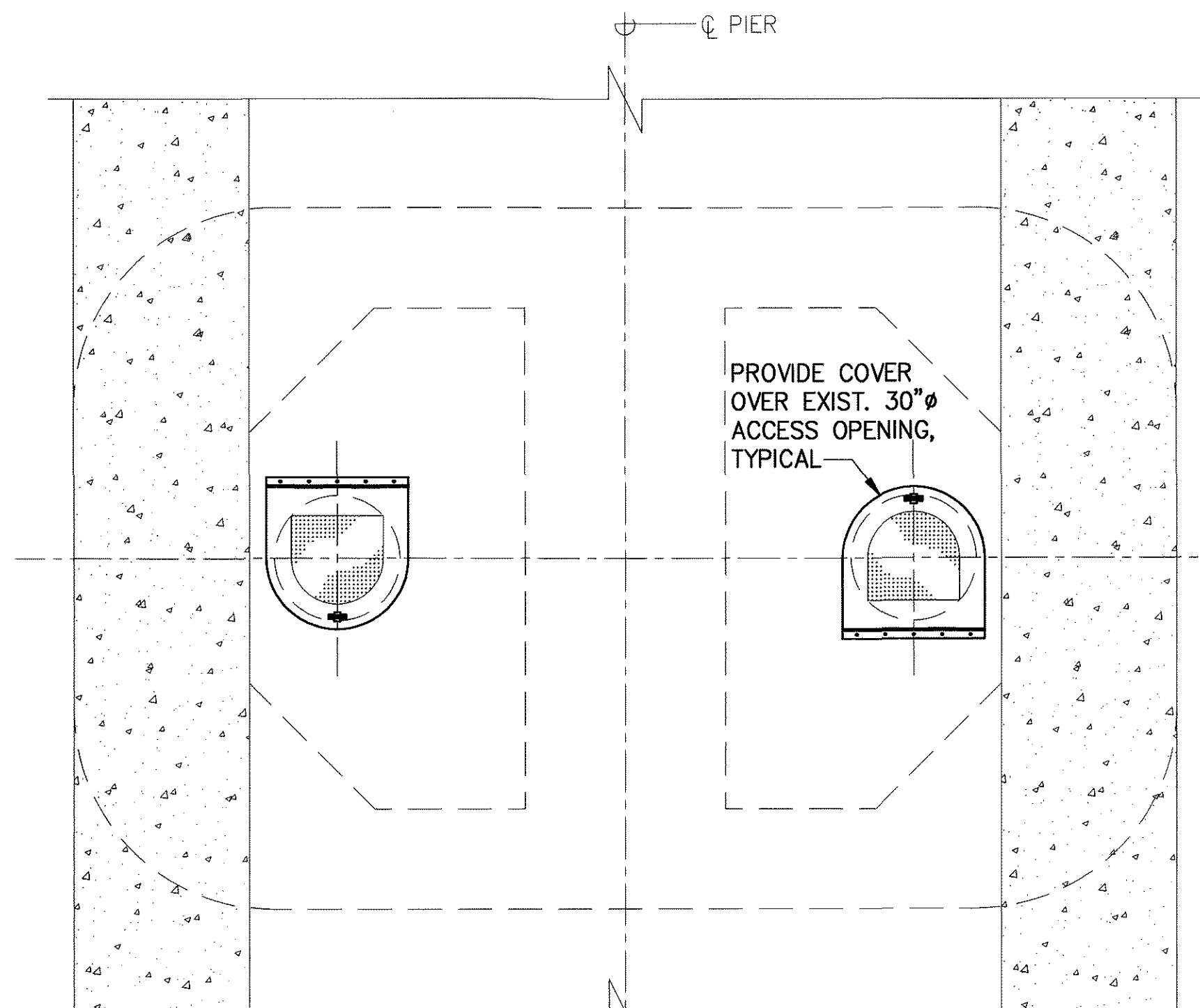
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Myron Okubo
DATE: JAN. 1996

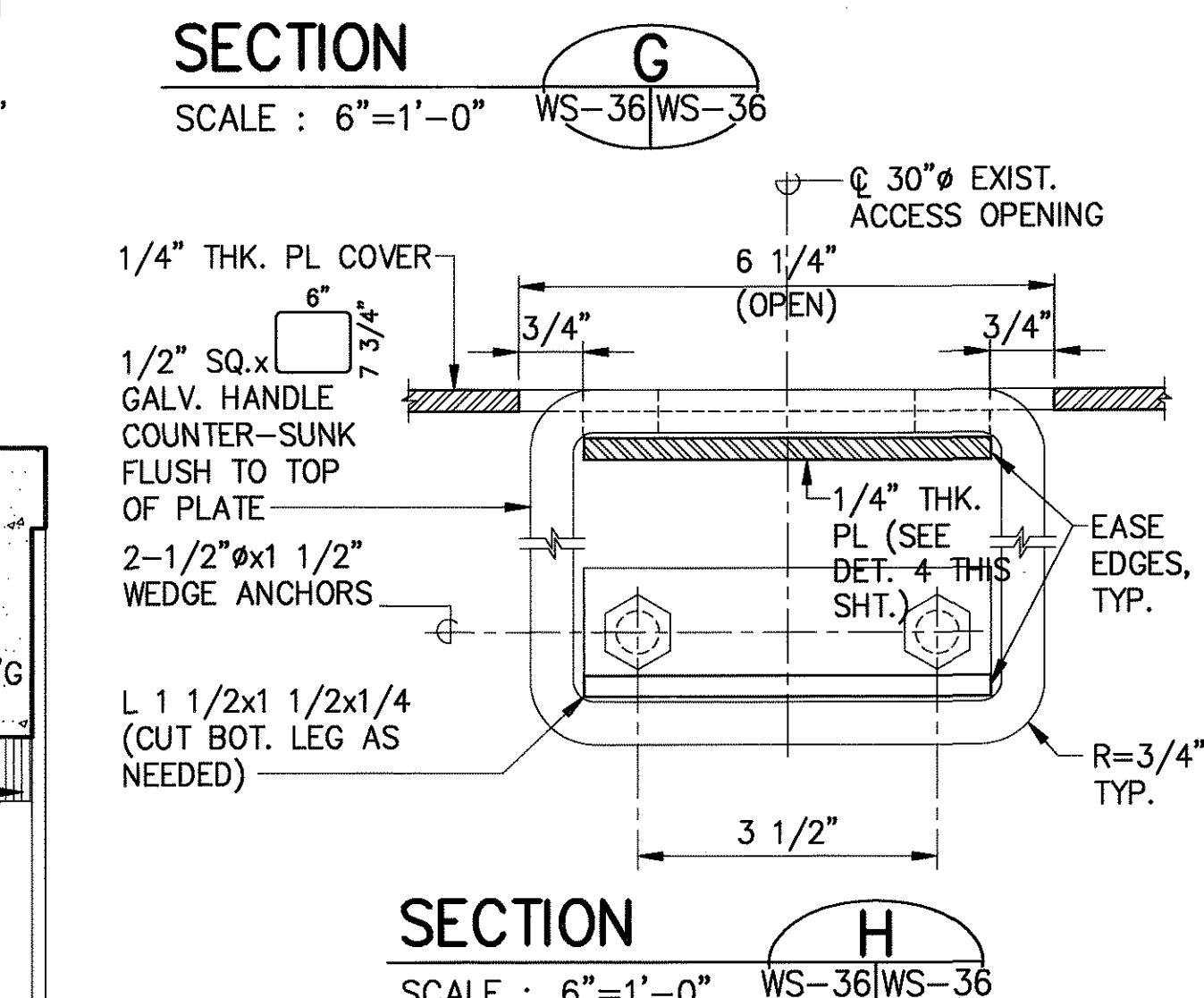
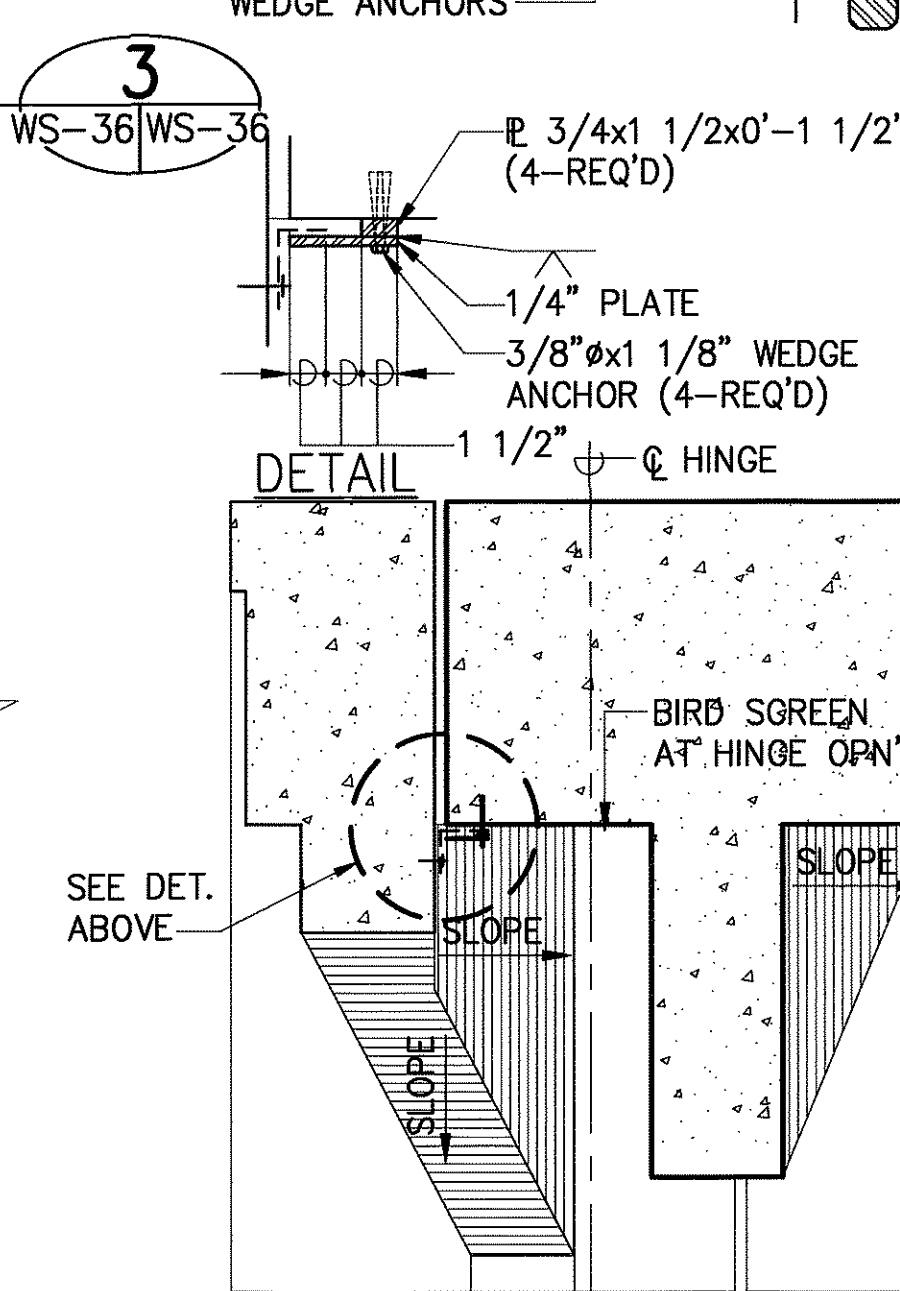
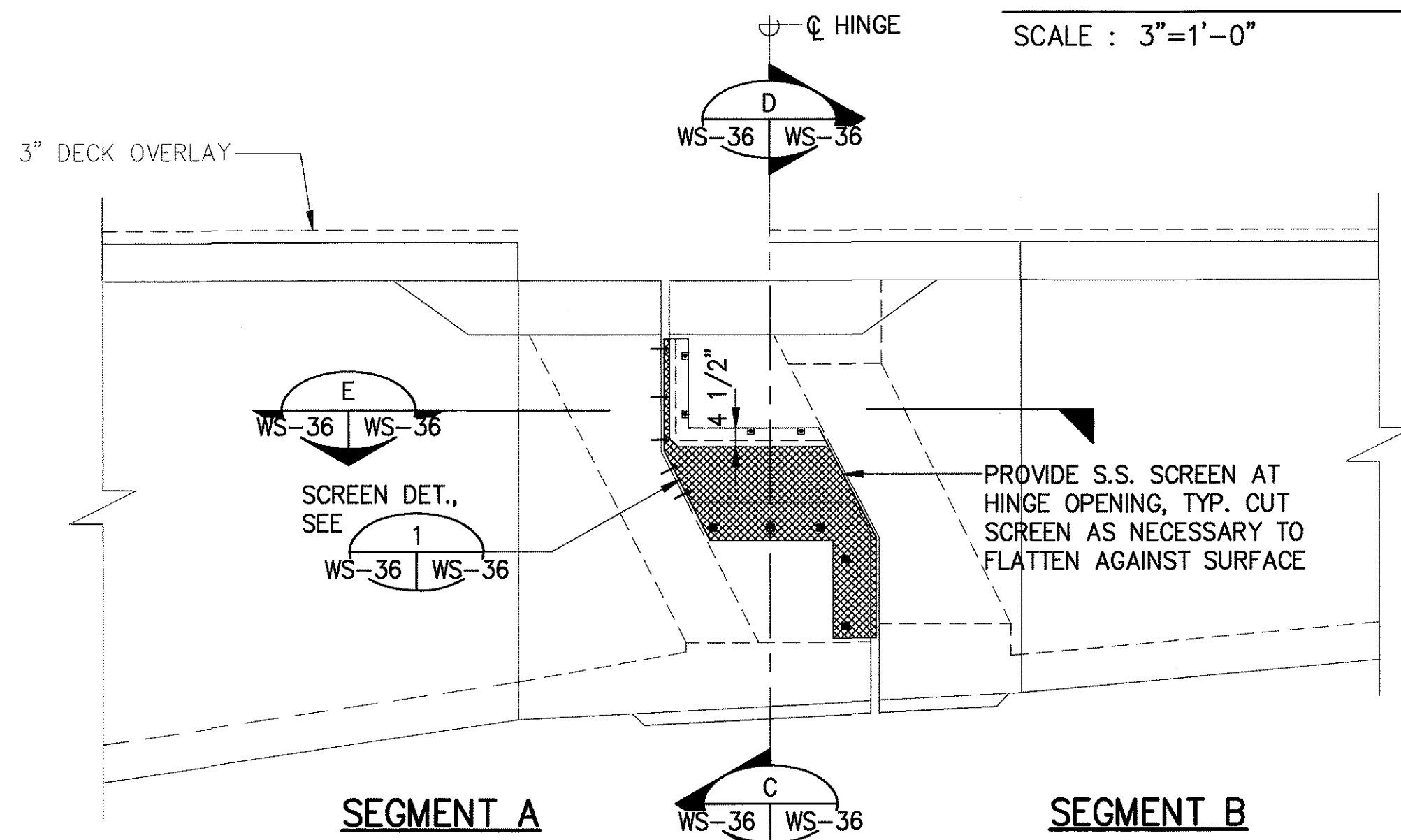
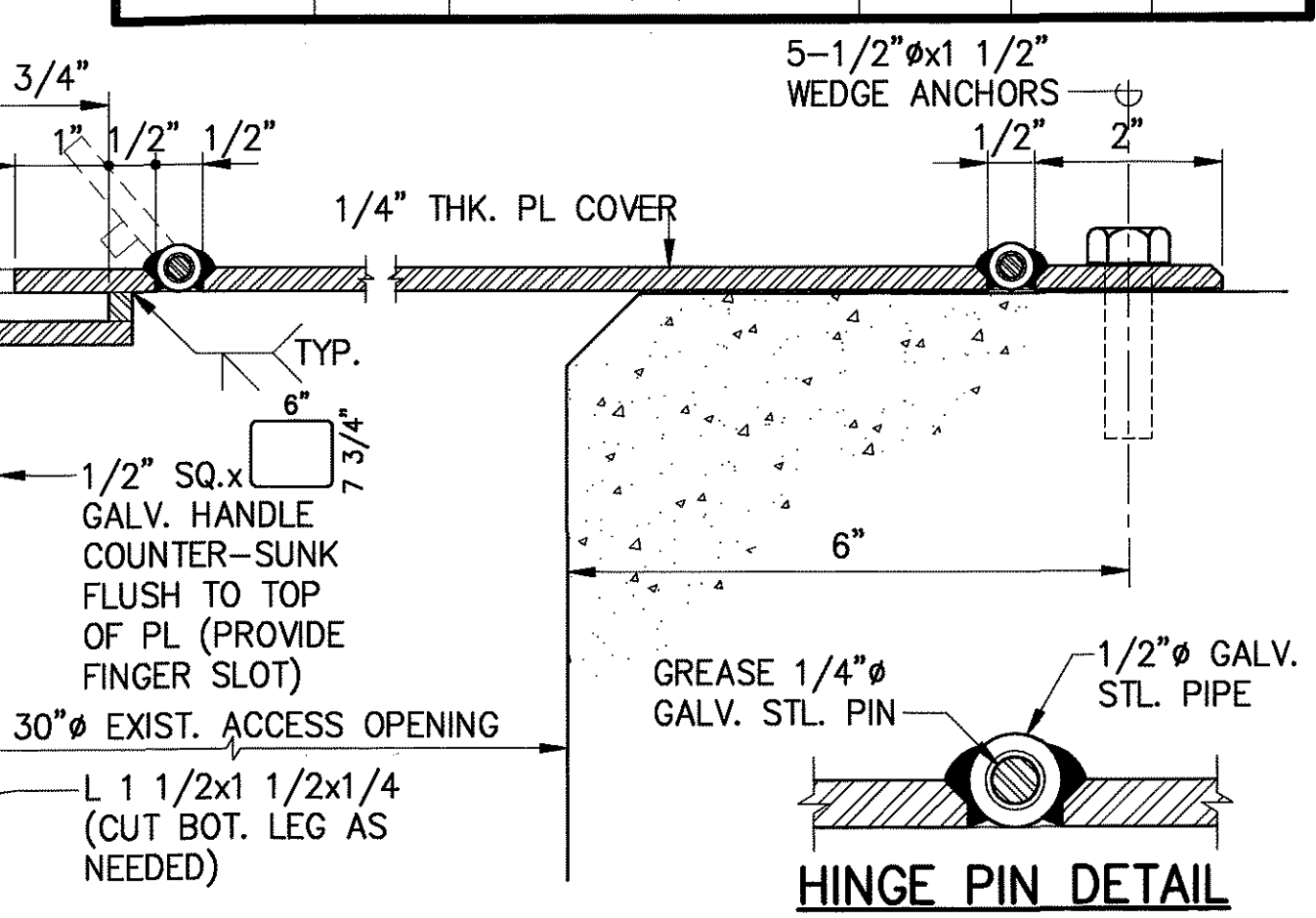
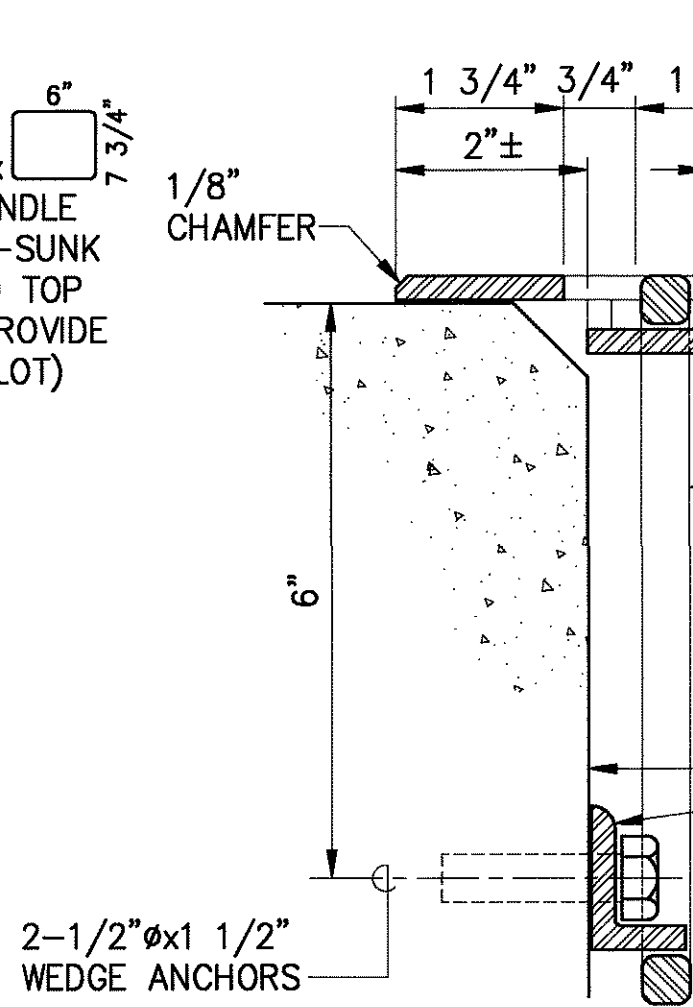
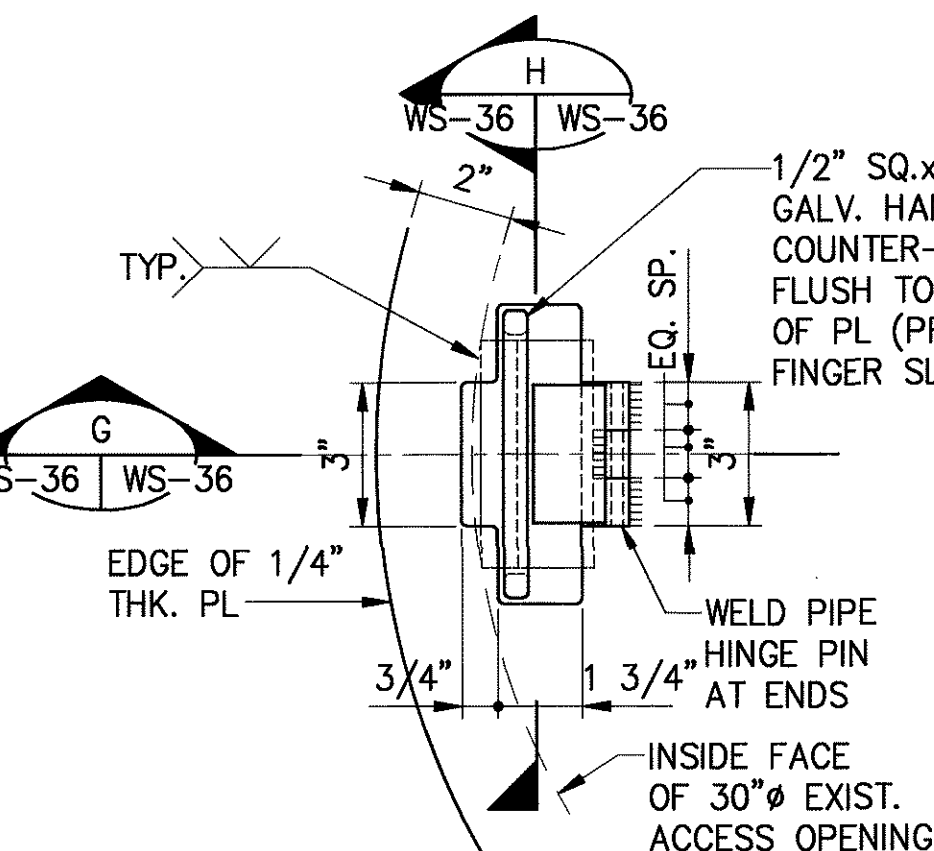
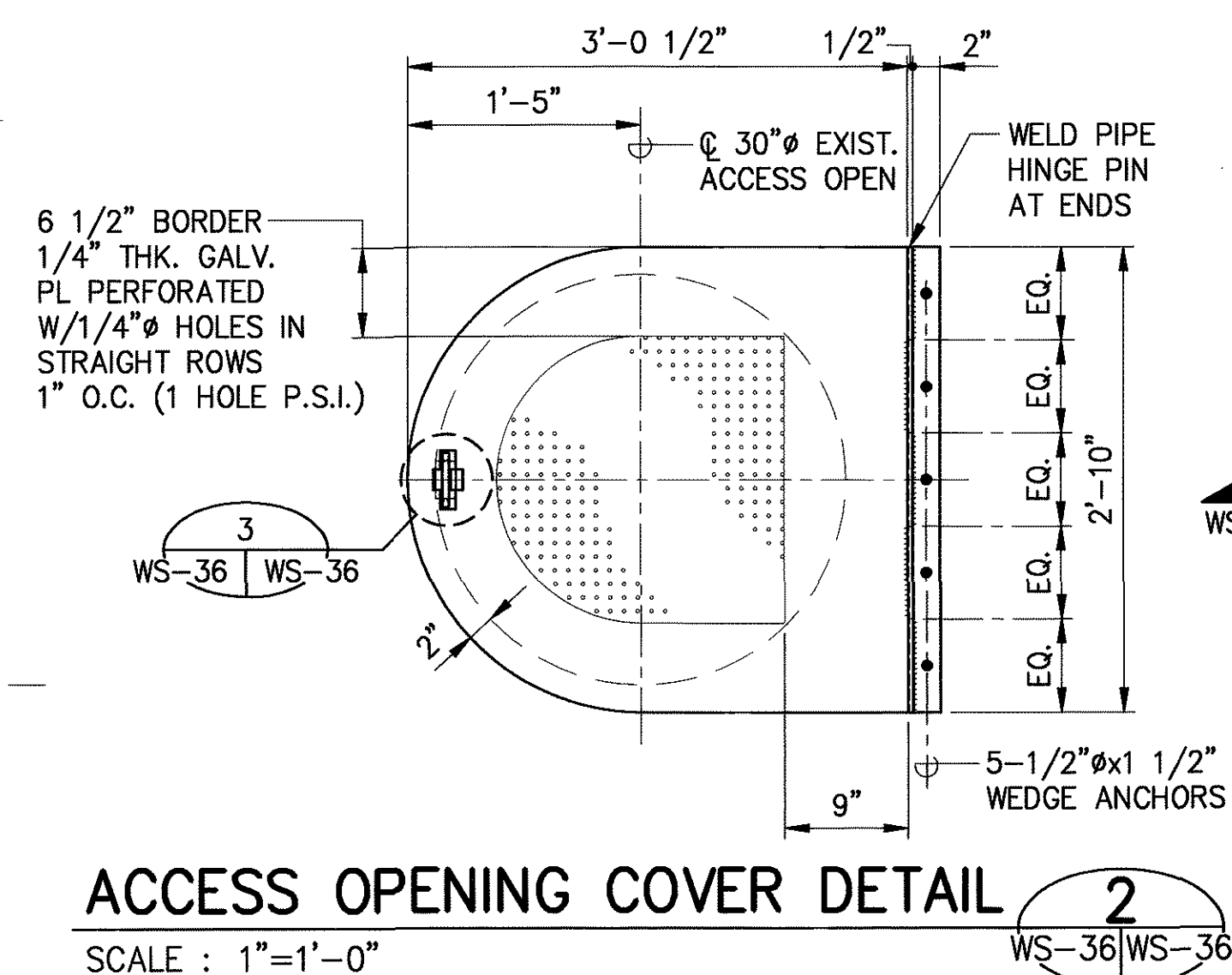
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
MAINTENANCE WALKWAY
PIERS 6-23 & HINGES
INBOUND & OUTBOUND

INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN. 1996
SHEET No. WS35 OF 36 SHEETS

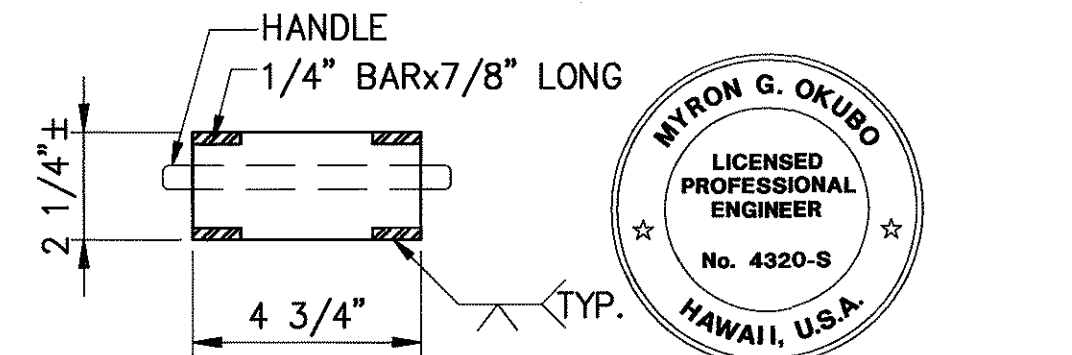
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75) UNIT I	1996	275	405



TYPICAL PART. PLAN ABOVE SLIDING PIER
SCALE : 3/8"=1'-0"
AT IB4, IB5, IB8, IB12, IB13, IB17, IB23, OB4, OB5, OB8, OB12, OB13, OB17, OB23

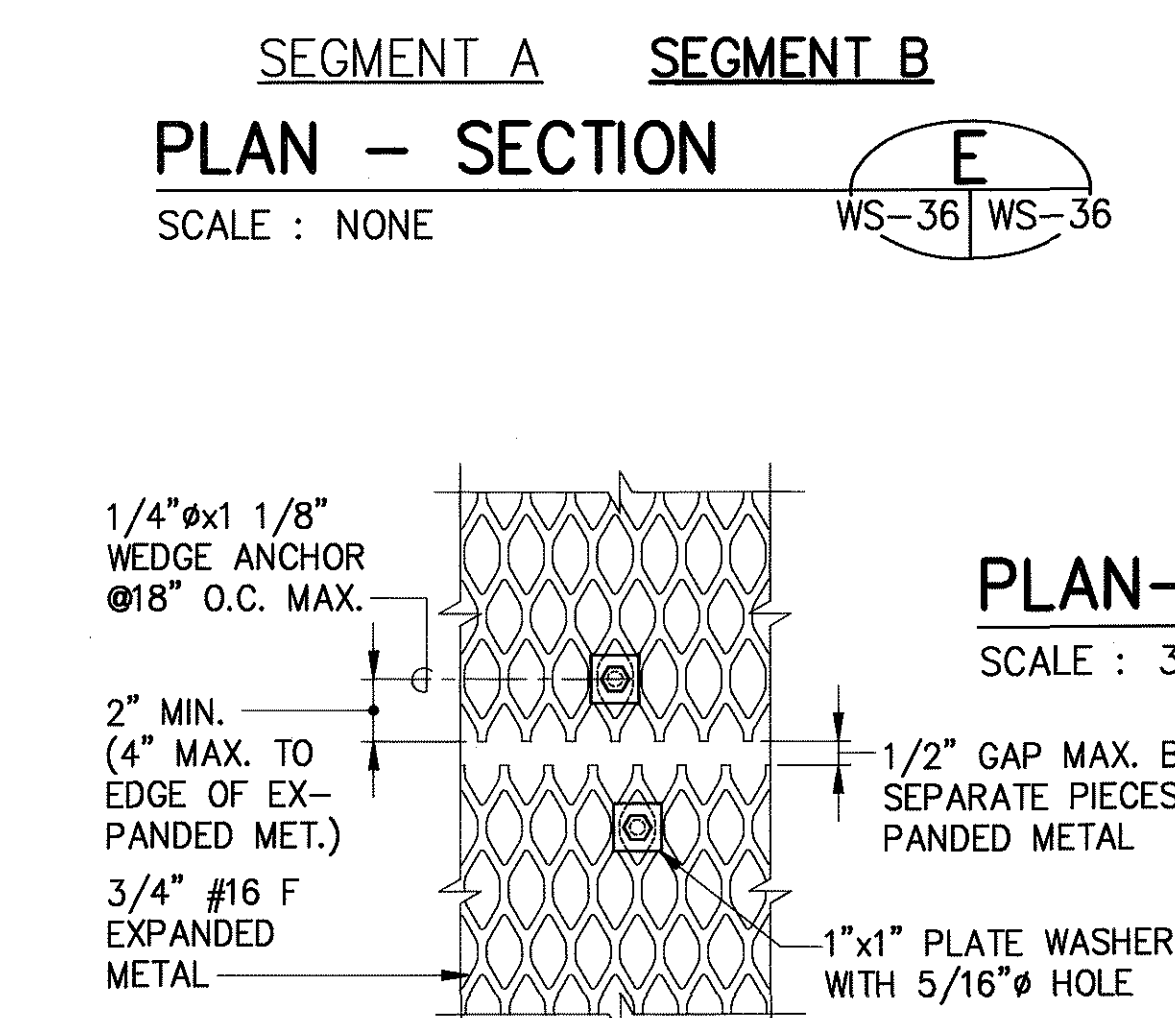
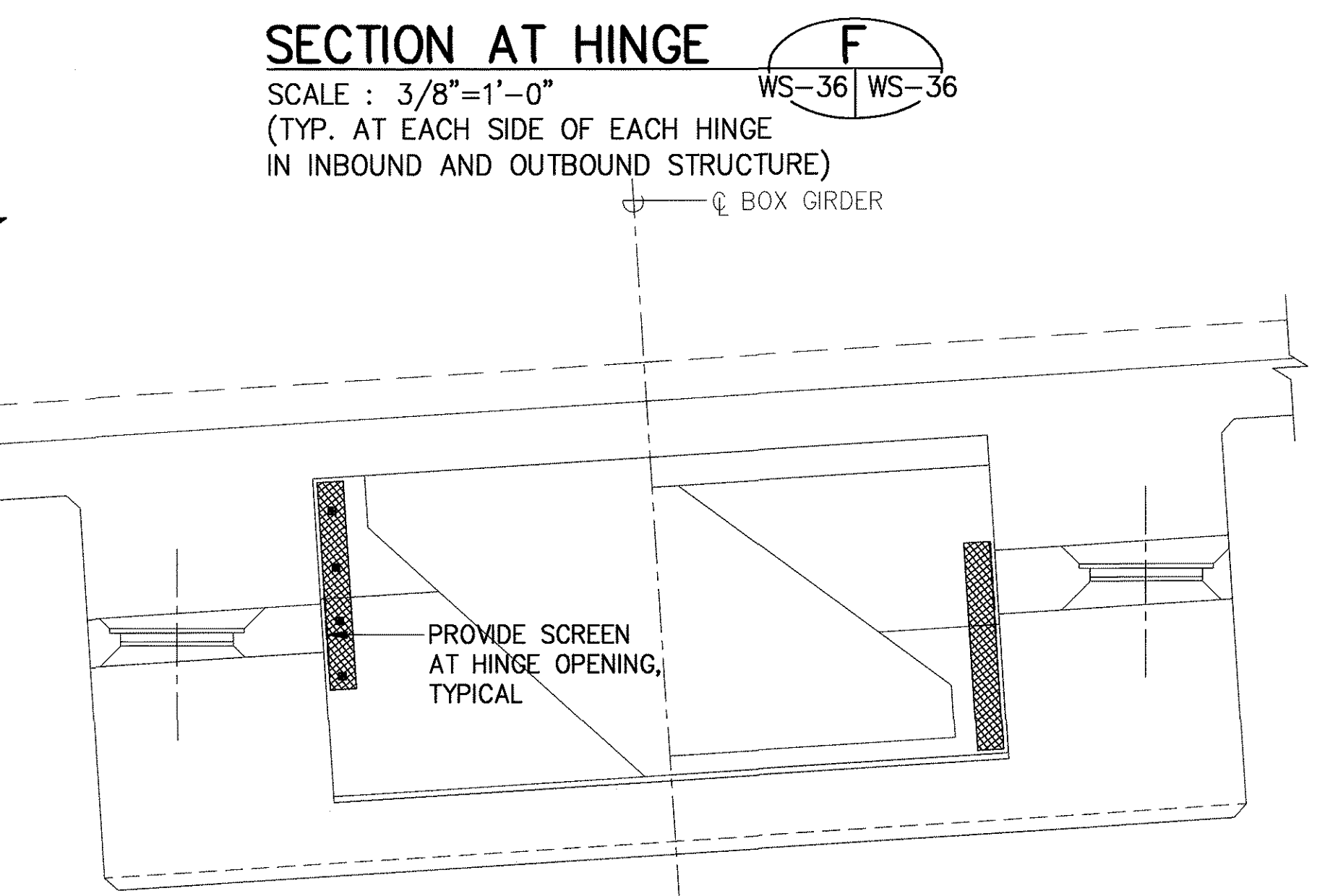
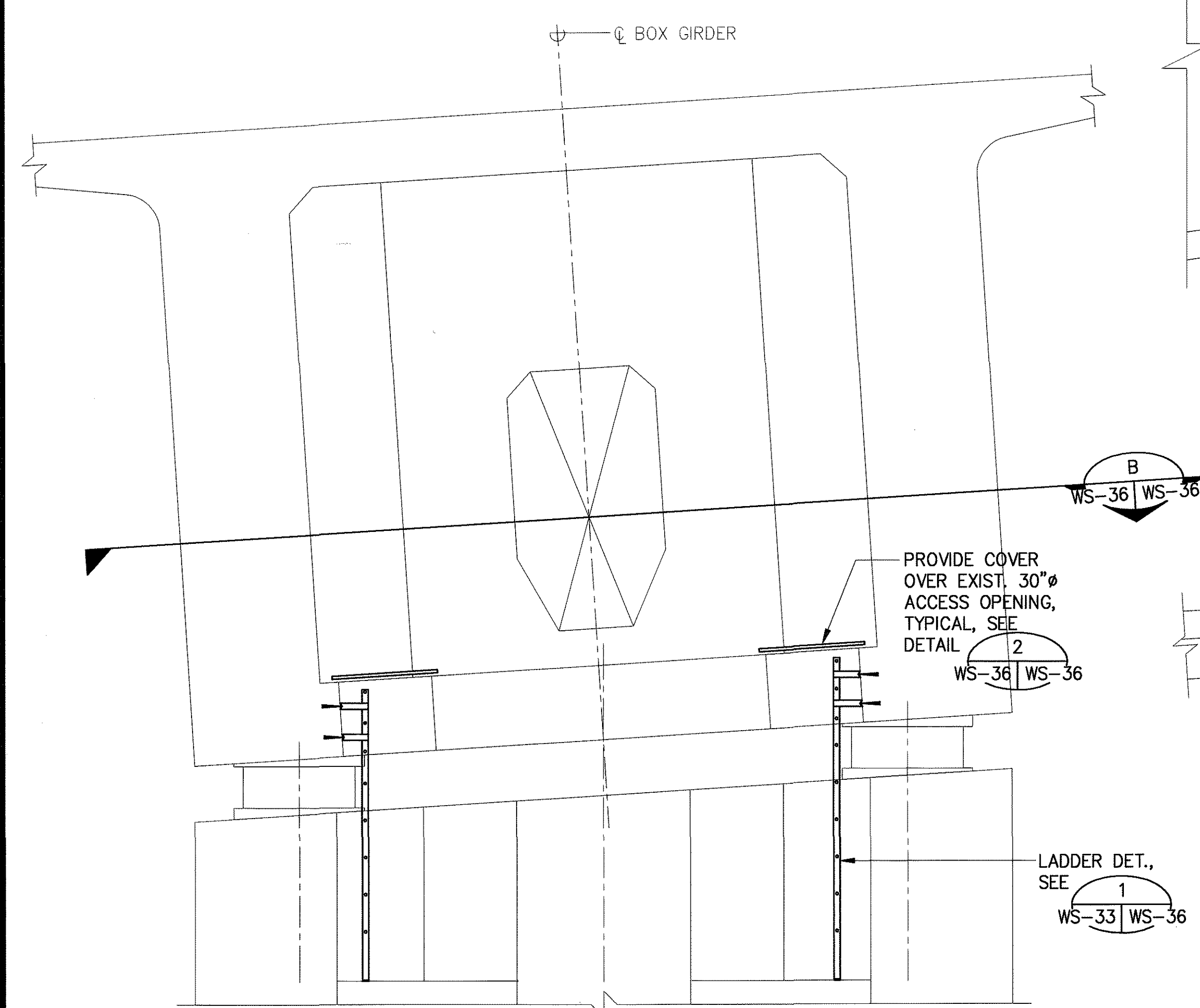


- GENERAL NOTES:**
1. FABRICATE STEEL ITEMS BEFORE HOT DIP GALVANIZING.
 2. DIMENSIONS ARE APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD PRIOR TO PROCEEDING WITH WORK.
 3. ACCESS TO BOX GIRDER CELLS, PIERS, HINGE SEGMENTS, AND OTHER WORK AREAS SHALL BE THROUGH 3'-6"x3'-0" ACCESS OPENINGS NEAR EACH ABUTMENT.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
WINDWARD VIADUCT
TYPICAL BIRD SCREEN AND ACCESS OPENING COVER DETAILS
INBOUND & OUTBOUND
INTERSTATE ROUTE H-3
F.A.I. PROJ. NO. I-H3-1(75) UNIT I
SCALE: AS NOTED DATE: JAN 1996
SHEET No. WS36 OF 36 SHEETS



- NOTES:**
1. EXPANDED METAL SCREEN SHALL BE BENT AND/OR CUT WHERE NECESSARY TO PROVIDE SMOOTH COVERING FOR EXISTING OPENINGS TO BOX GIRDER.
 2. EXPANDED METAL SCREEN SHALL BE STAINLESS STEEL.
 3. MINIMUM EDGE DISTANCE FOR WEDGE ANCHORS IS 6".

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1175, UNIT 1	1996	276	405

GENERAL NOTES FOR BRIDGE RETROFIT

1. GENERAL SPECIFICATIONS:

Hawaii Department of Transportation, Standard Specifications for Road, Bridge and Public Works Construction, 1994, together with Special Provisions prepared for this contract.

2. DESIGN SPECIFICATIONS:

The 15th editions of AASHTO Standard Specifications for Highway Bridges, 1992, including interim specifications.

3. LOADS:

- A. **Dead Load:** An allowance of 18 P.S.F. for future wearing surfaces of asphalt concrete has been provided for in this design.
B. **Live Load:** HS-20-44 or Interstate loading.
C. **Traffic Railing Load:** See A.A.S.H.T.O. Section 2.7.
D. **Seismic Load:** Seismic performance category (SPC) B, Acceleration coefficient (A) = 0.17

4. MATERIALS:

- A. Concrete shall be Class A unless noted otherwise.
B. All reinforcing steel shall be ASTM A 615, grade 40 unless noted otherwise.
C. All structural steel shall be ASTM A 36 hot-dip galvanized, unless noted otherwise.
D. All anchor bolts, washers and nuts shall be ASTM A 325, hot-dip galvanized after fabrication, unless noted otherwise.

5. DESIGN STRESSES:

Shall follow A.A.S.H.T.O. Standard Specification for Highway Bridges in addition to those listed below

Concrete	Class A
f'c	3,000 psi
fc	1,200 psi
n	9

6. LEGEND:

- Indicates existing structure to remain.
 Indicates removal portion existing structure.
 Indicates existing structure.

6. CONSTRUCTION NOTES:

- A. The Contractor shall verify all existing conditions as specified on the plans prior to commencing with the work.
B. The Contractor shall verify the locations of all utility lines near the bridge and notify their respective owners before commencing with work.
C. Except as noted otherwise, all vertical dimensions are measured plumb.
D. All items noted incidental will not be paid for separately.
E. Existing structure shown by hatched lines. Limits of removal of existing structure shown by x-hatched lines. Saw cut 1" deep along cut line of existing structure. Removal shall be done in such a manner as to preclude any damage to the existing structures. Large vibratory type of equipment will not be permitted in the removal operation, nor for drilling holes. Only small vibratory hand tools approved by the Engineer will be allowed. Any damage to the existing structure due to the Contractor's operation or negligence shall be repaired at his expense with no additional cost to the State, and to the satisfaction of the Engineer.
F. All existing reinforcing and anchor bolts that can be incorporated in the new work shall be bent or cut as required and cleaned before being utilized in the new work.
G. All existing reinforcing or anchor bolts that cannot be incorporated in the new work shall be completely removed or removed to a minimum depth of 1 1/2 inches below finish grade and the area patched with mortar.
H. Existing concrete surface to be bonded with the new concrete, shall be thoroughly wetted with clean water and scrubbed with a solution of not more than one-part hydrochloric (muriatic) acid to nine-parts water followed immediately by thorough rinsing with clean water, unless indicated otherwise or as directed by the Engineer.
I. Drilling of thru holes shall be done in such a manner as to prevent cone puncturing of the daylighting end.
J. Anchor bolt embedment length shall be such that a snug fit of the elements and full thread engagement plus 1/4" (max.) is attained.

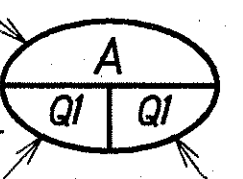
ABBREVIATIONS

Abut.	Abutment	Jt.	Joint
AB	Anchor Bolt	LC	Length of Curve
Alum.	Aluminum	Lg.	Long
Approx.	Approximate	Longit.	Longitudinal
Bal.	Balance	Max.	Maximum
Beg.	Begin, Beginning	Min.	Minimum
B	Baseline	No.	Number
Bm.	Beam		
Brgs.	Bearing, Bearings		
C	Center line	OD	Outside Dimension
Cl.	Clear		
Col.	Column	PL	Plate
Conc.	Concrete		
Cont.	Continuous	R	Radius
C.R.	Corrosion Resistant	Rdwy.	Roadway
Det.	Detail	Ref.	Reference
Dia.	Diameter	Reinf.	Reinforcing
		Req'd	Required
Ea.	Each	Sect.	Section
EF	Each Face	Shf.	Sheet
Exist.	Existing	Spcs.	Spaces
Exp.	Expansion	Spcg	Spacing
		Sta.	Station
Fin.	Finish	Std.	Standard
		Struct.	Structural
Galv.	Galvanized	T#B	Top and Bottom
		Thk.	Thick
HS	High Strength	TS	Tubular Steel
Horiz.	Horizontal	Typ.	Typical
		Vert.	Vertical
		w/	with

SYMBOLS

Detail or section designation

Sheet number section is cut or detail section



Sheet number detail is drawn on

SHT. NO.	INDEX TO DRAWING
Q1	Location Plan, General Notes, Estimated Quantities, Index to Drawings, Abbreviations and Symbols
Q2	Kamooalii Stream Bridge - Layout Plan and Sections
Q3	Kamooalii Stream Bridge - Type "C" and "CI" Upgrade End Post and Railing Plan
Q4	Kamooalii Stream Bridge - East & West Railing Elevations
Q5	Kamooalii Stream Bridge - End Post No. 1 & 4, Elevations & Sections
Q6	Kamooalii Stream Bridge - End Post No. 2, Elevations & Sections
Q7	Kamooalii Stream Bridge - End Post No. 3, Elevations & Sections
Q8	Kamooalii Stream Bridge - Aluminum Bridge Railing Details, Two Rail Combination Type
Q9	Kamooalii Stream Bridge - Aluminum Bridge Railing Details, Two Rail Combination Type
Q10	Kamooalii Stream Bridge - Type "D" Upgrade Median Barrier
Q11	Service Road Separation (Bridge No.3) - Plan, Normal Section and Typical Section
Q12	Service Road Separation (Bridge No.3) - Type "B", Upgrade Metal Bridge Railing
Q13	Service Road Separation (Bridge No.3) - Type "B" Upgrade Bridge End Post
Q14	Service Road Separation (Bridge No.3) - Abutment #1 & #2 Creep Block & Hinge Block Repair
Q15	Kuou Stream Bridge - Type "A" Upgrade Bridge End Post and Type "E" Median Barrier Upgrade
Q16	Typical Upgrade Details

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES			
			Service Road Separation	Kamooalii Stream Bridge	Kuou Stream Bridge	Total
202.0441*	Removal of Concrete Parapets, End Posts and Median Barrier	LS	-	(26 C.Y.)	-	(26 C.Y.)
507.7600	Type "D" Upgrade Median Barrier	LF	-	490.0	-	490.0
507.7605	Type "E" Upgrade Median Barrier	LF	-	-	335.0	335.0
507.7610	Type "A" Upgrade Bridge End Post	EACH	-	-	4	4
507.7620	Type "B" Upgrade Bridge Railing Including End Post	LF	700.0	-	-	700.0
507.7630	Type "C" Upgrade Bridge Railing Including End Post	LF	-	125.0	-	125.0
507.7640	Type "CI" Upgrade Bridge Railing Including End Post	LF	-	115.0	-	115.0
606.3112	Guardrail Type 3-Thrie Beam Transition to Bridge End Post	Each	4	3	-	7
676.J010	Creep Block Repair	Each	4	-	-	4
676.J020	Hinge Block Repair	Each	2	-	-	2
677.J010	Sealing Cracks	LF	4	-	-	4

* Metal railing to be salvaged. Removal of metal railing to be incidental to concrete removal.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

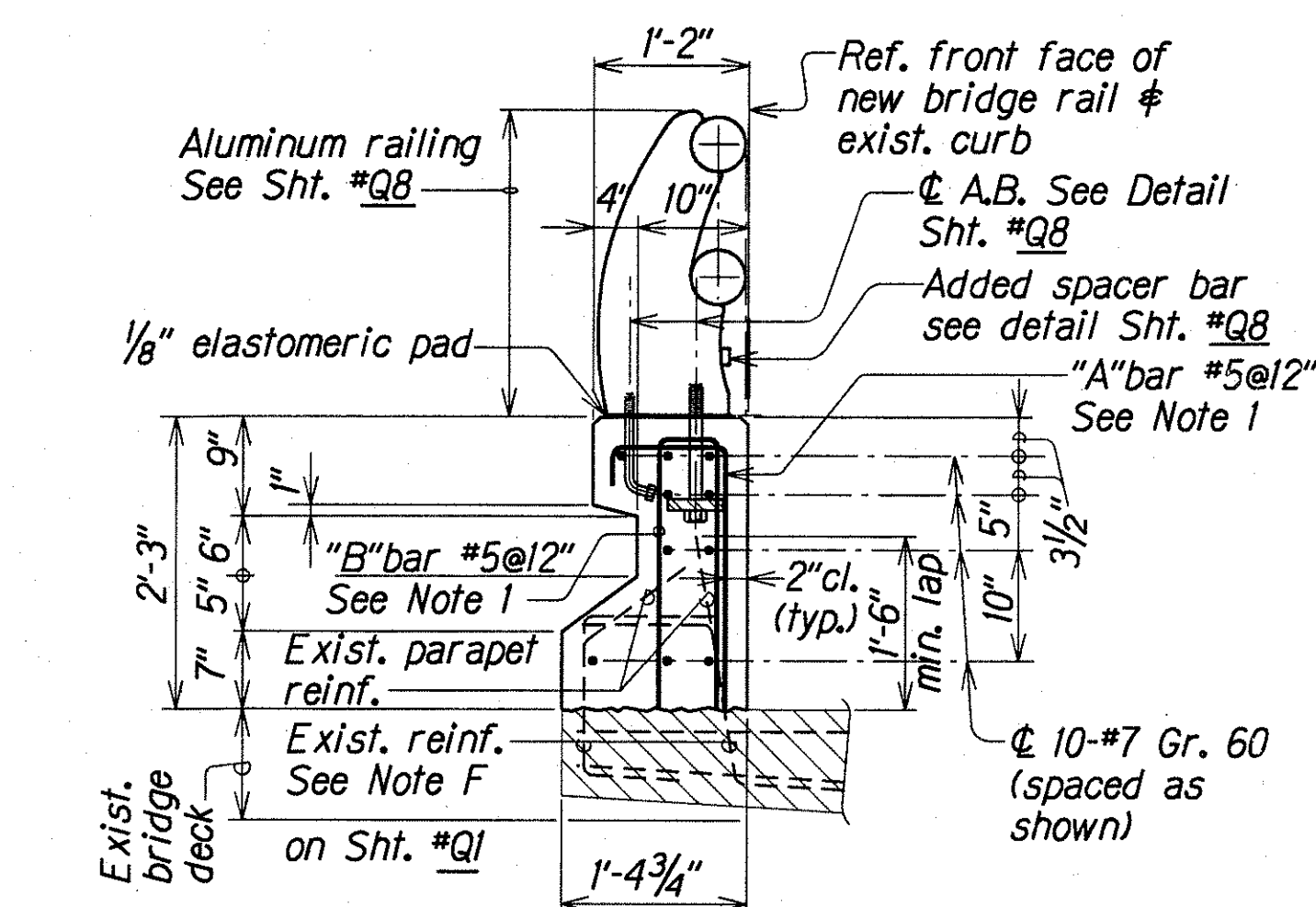
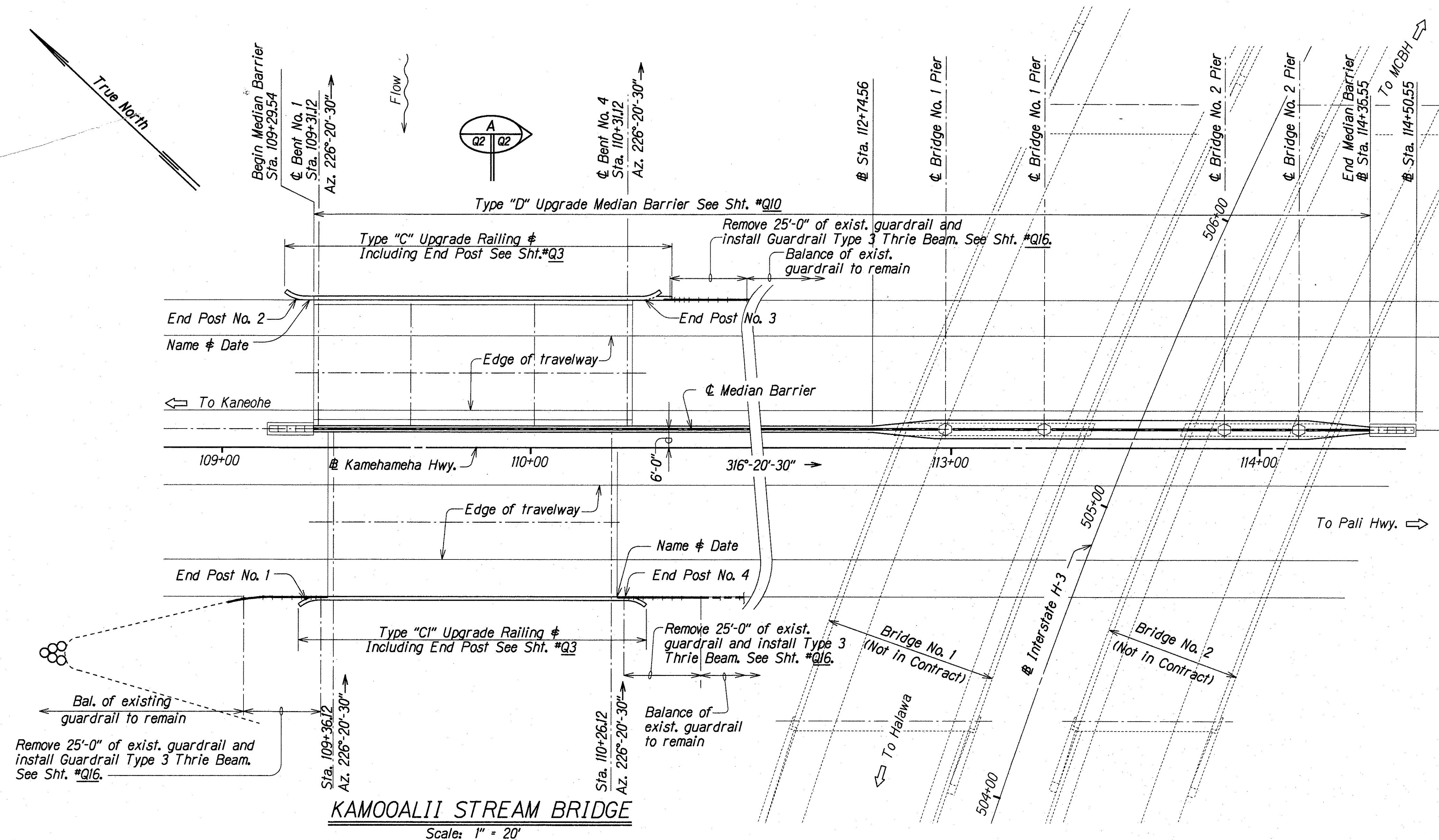
**LOCATION PLAN, GENERAL NOTES,
ESTIMATED QUANTITIES, INDEX TO
DRAWINGS, ABBREVIATIONS AND SYMBOLS**

INTERSTATE ROUTE H-3
FAIP NO. I-H3-1175, UNIT 1

Scale: As Noted Date: Dec. 1995

SHEET No. Q1 OF 16 SHEETS

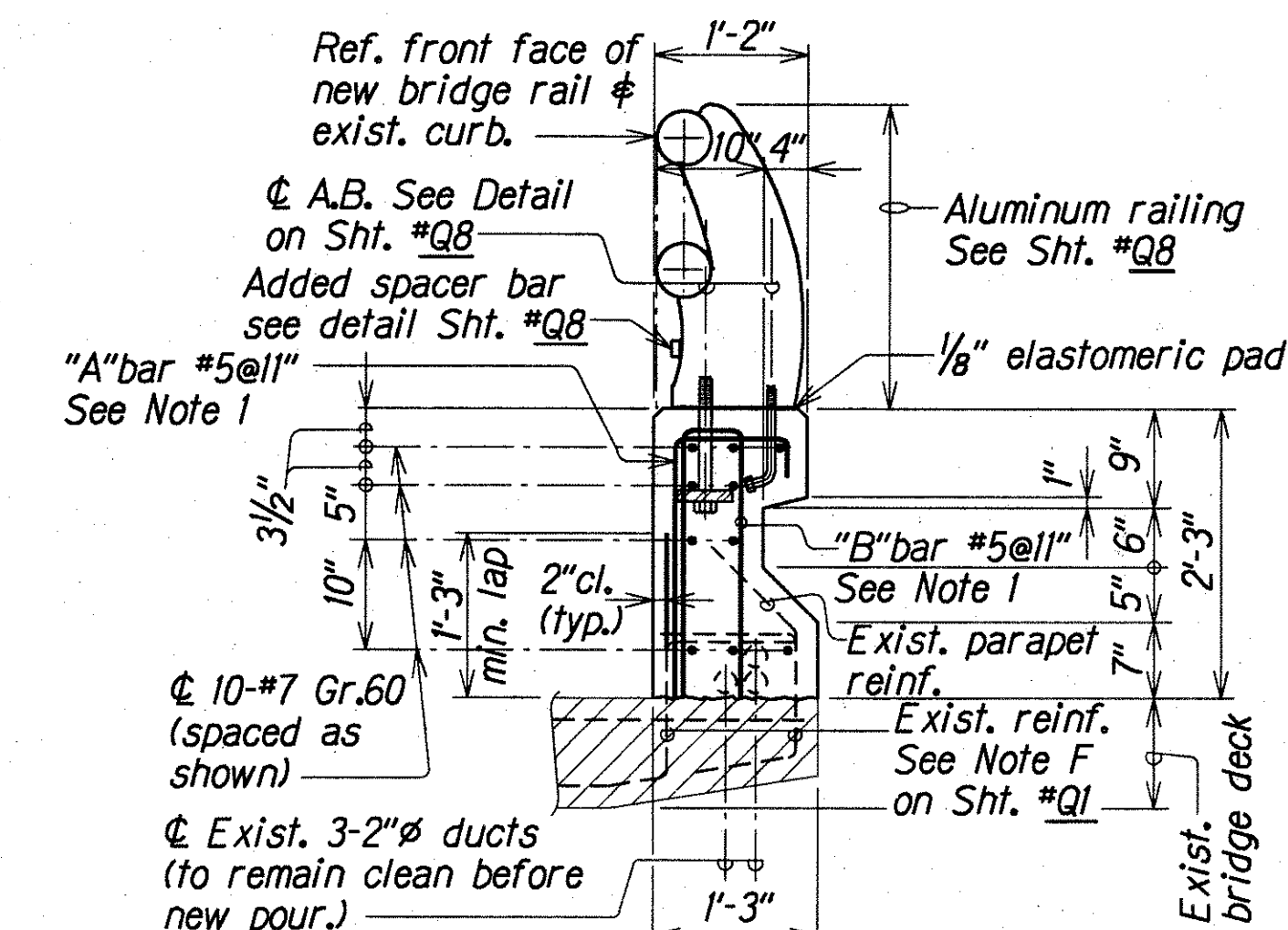
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	277	405



TYPICAL EAST RAIL SECTION

Scale: $\frac{3}{4}" = 1'-0"$



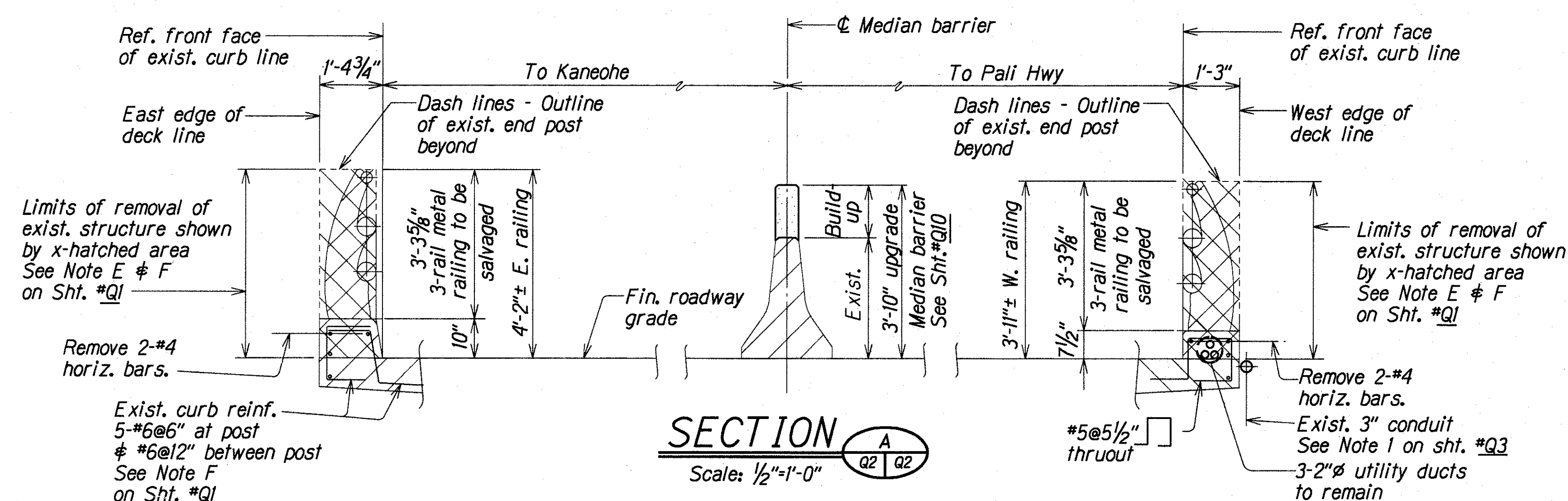


TYPICAL WEST RAIL SECTION C

Scale: $\frac{3}{4}" = 1'-0"$ Q4 | Q2

Note:

1. Alternate "A" $\sqcap$ and "B" $\sqcap$ bars. (Grade 60)
2. Exposed existing reinforcement shall be cleaned, straightened or bent as needed and lapped with new vert. reinf.
3. Except as noted otherwise on plans, all exposed exterior corners 90° or less shall be chamfered $\frac{3}{4}" \times \frac{3}{4}"$. All exposed exterior corners greater than 90° shall not be chamfered.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE

LAYOUT PLAN AND SECTIONS

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

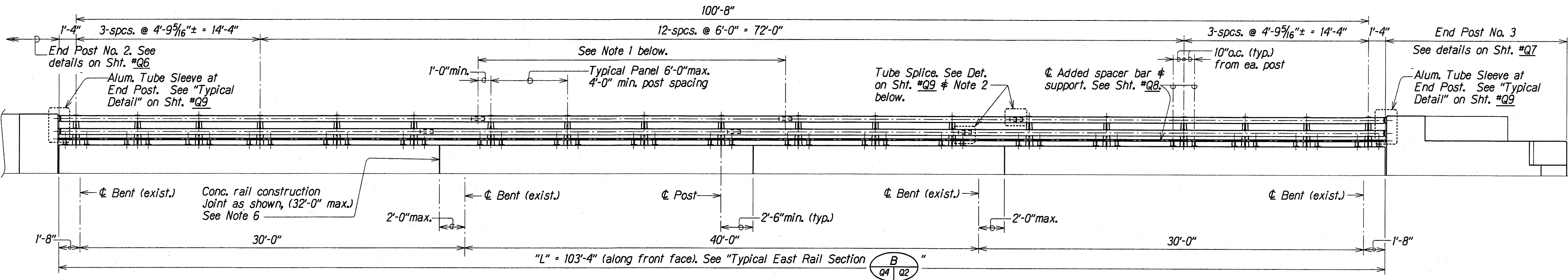
Scale: As Noted

Date: Dec. 1995

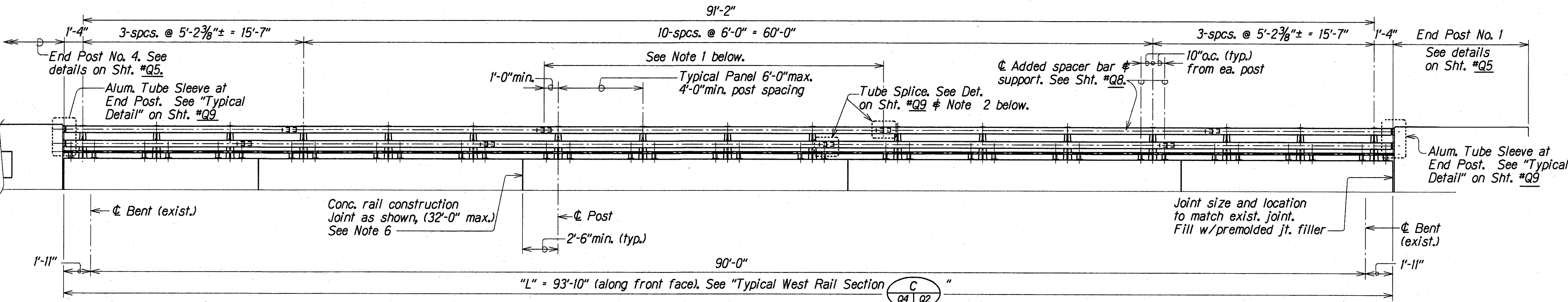
SHEET No. 02 OF 16 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY _____	• SEP 1994
	TRACED BY _____	• _____
	DESIGNED BY _____	• SEP 1994
	QUANTITIES BY _____	• _____
	CHECKED BY _____	• SEP 1994
		• _____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1175, UNIT 1	1996	279	405



EAST BRIDGE RAILING ELEVATION
Scale: 3/8" = 1'-0"



WEST BRIDGE RAILING ELEVATION
Scale: 3/8" = 1'-0"

BRIDGE RAILING UPGRADE

RAILING NOTES:

1. Tubing shall be continuous over not less than 4 posts unless noted otherwise. Single panel layout will not be permitted.
2. All tubes shall be spliced in the panel spanning concrete rail joints. See "Tube Splice Detail" on Sht. #Q9.
3. Rail post shall be normal to grade.
4. No more than one tube splice per panel shall be permitted except as noted otherwise.
5. 1/8" thick, full size elastomeric pads shall be placed between every post base and concrete surface.
6. Concrete rail contraction joints to be plumb with bond breaker in between. Stop longitudinal reinforcement at joint.

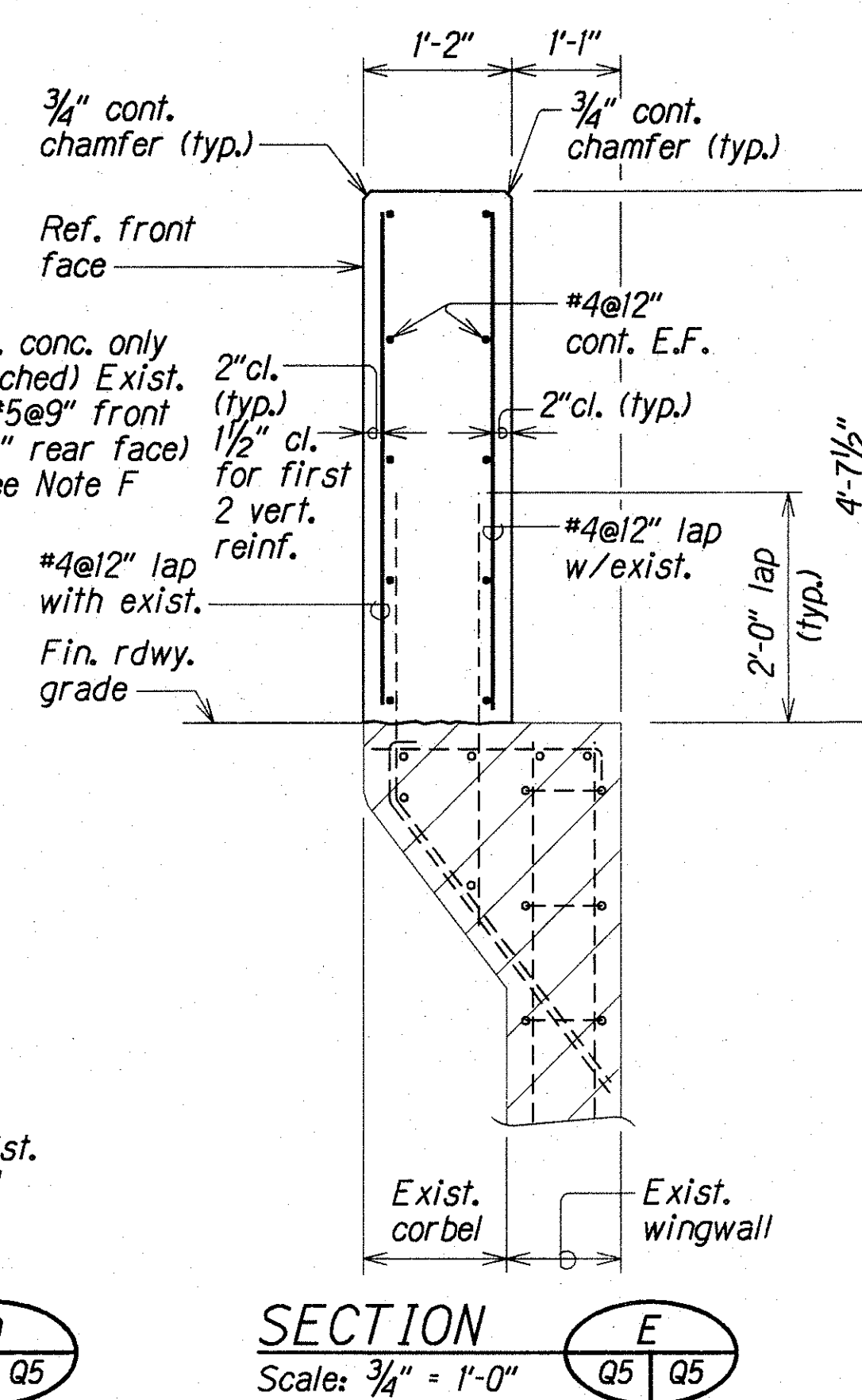
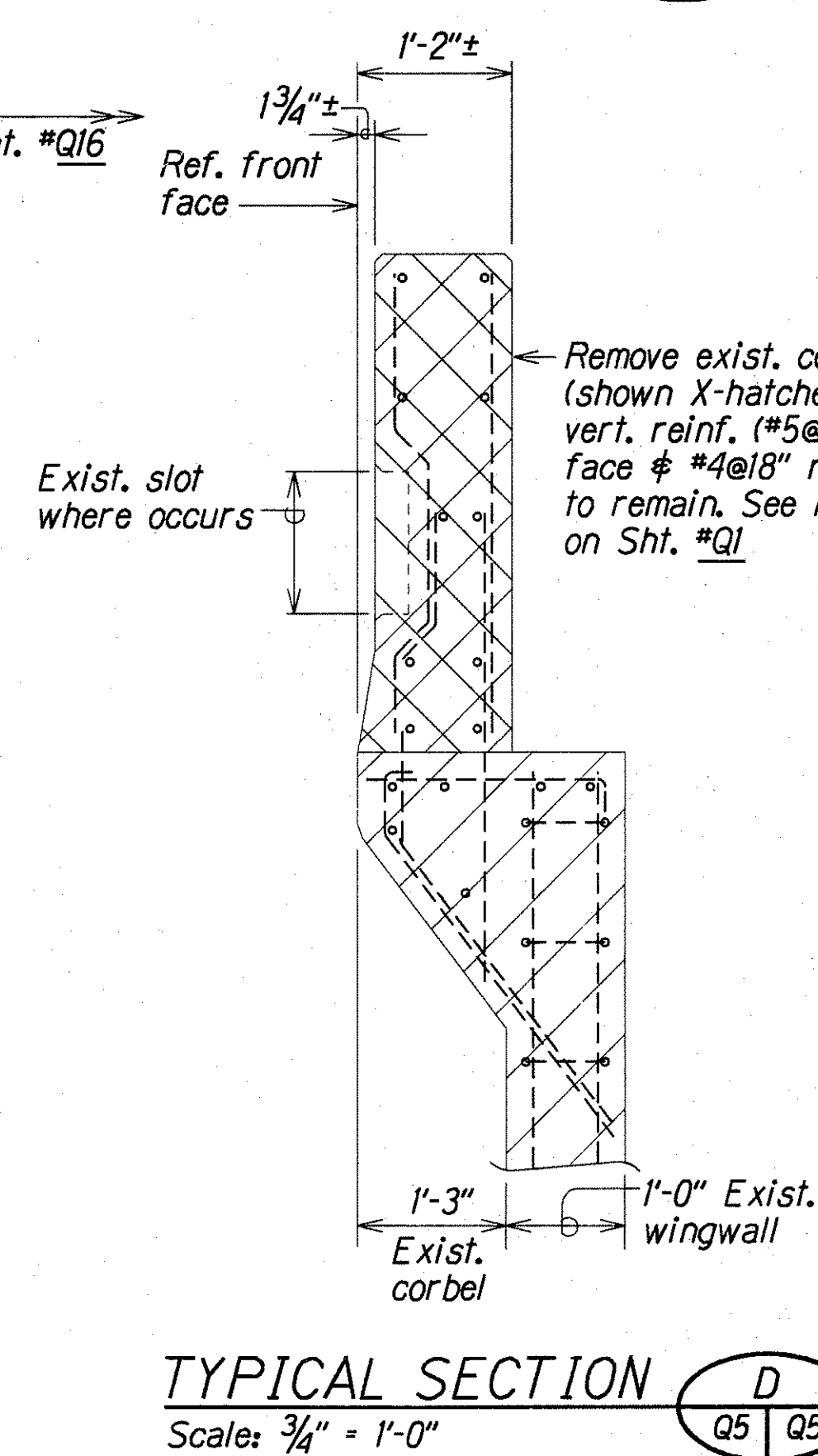
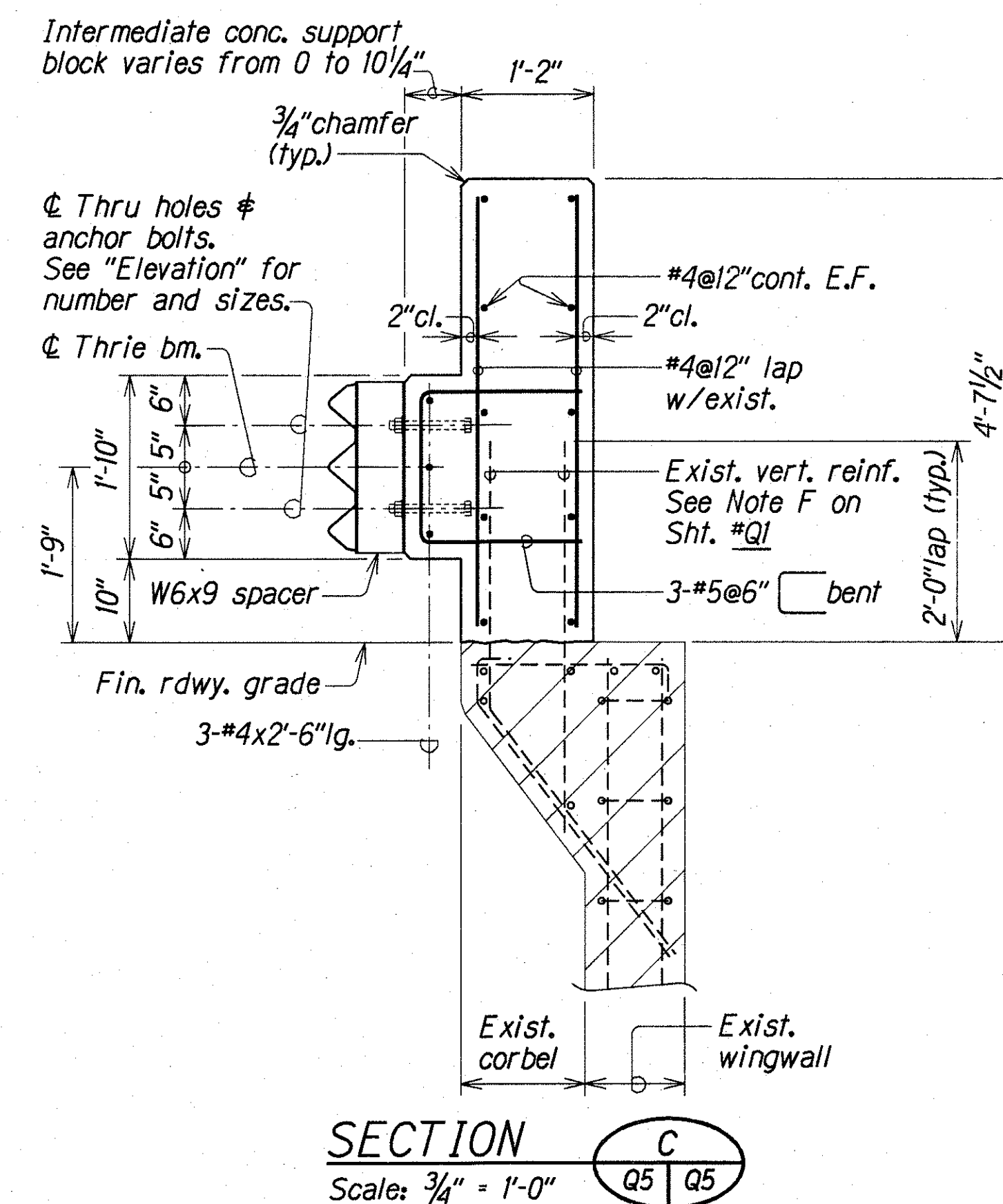
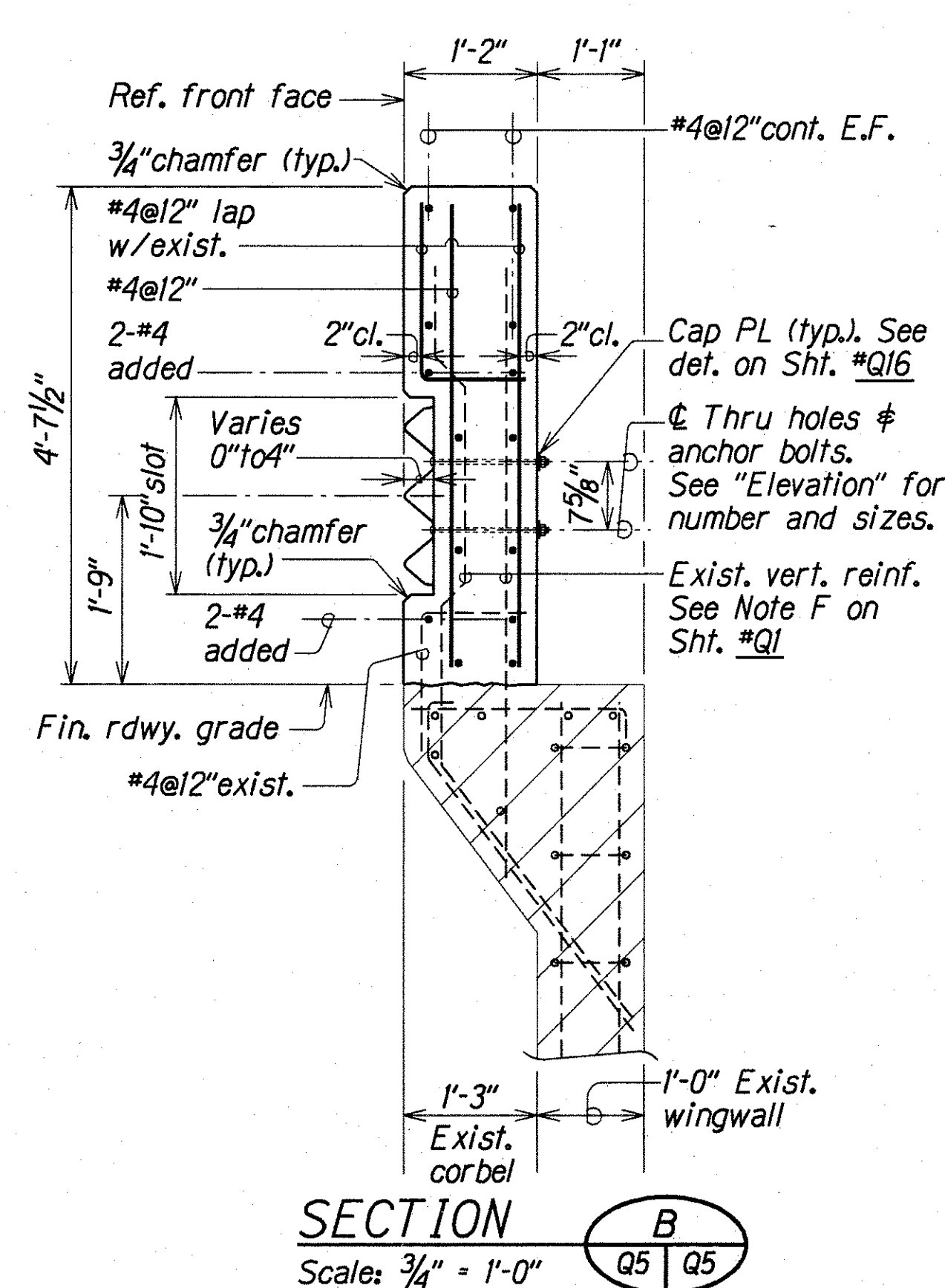
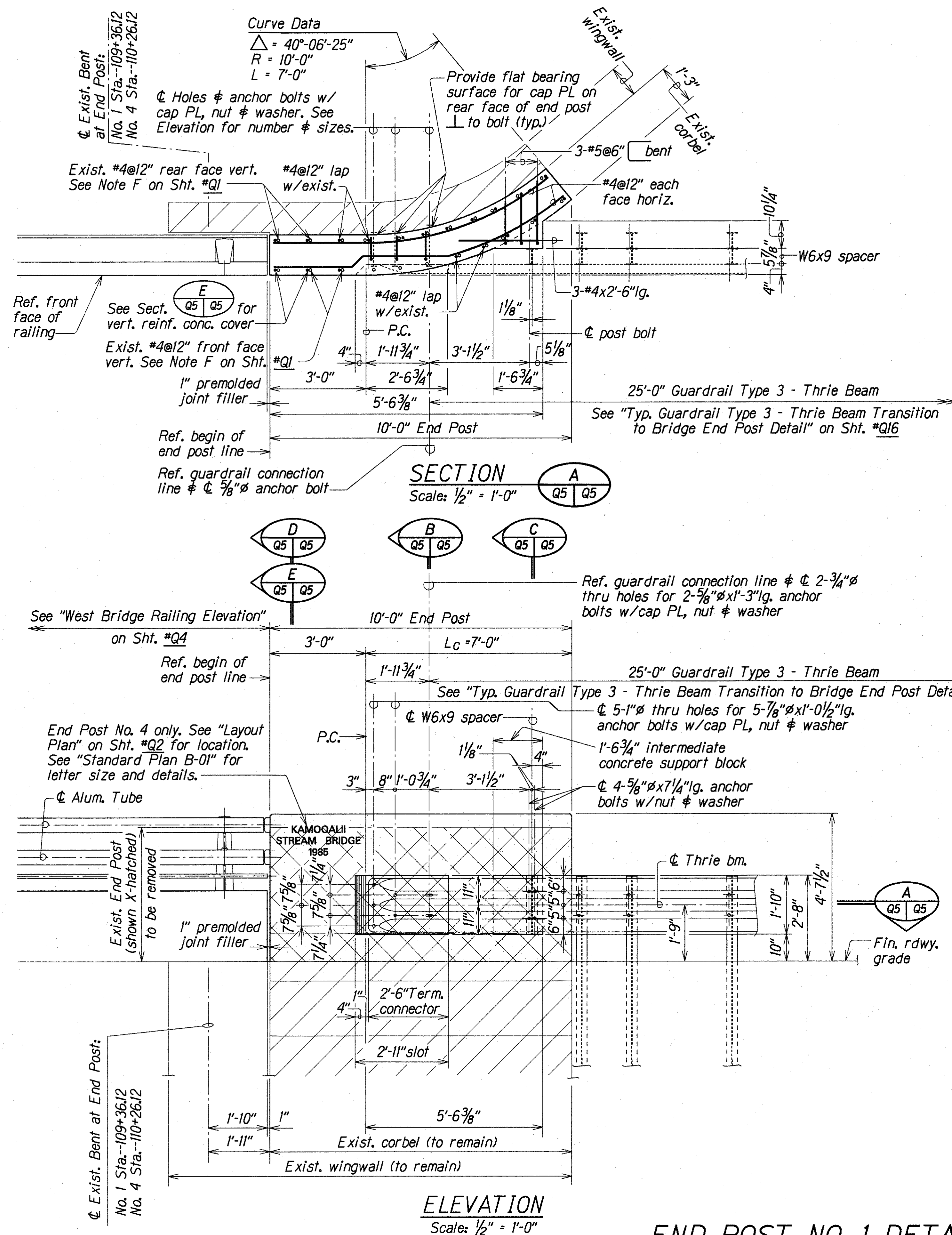
DESIGNED BY	DATE
DRAWN BY	SEP 1994
CHECKED BY	SEP 1994
NOTED BY	SEP 1994
INCHES	1/8"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE
EAST AND WEST RAILING ELEVATIONS
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1175, UNIT 1
Scale: As Noted Date: Dec. 1995

SHEET No. Q4 OF 16 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75), UNIT 1	1996	280	405

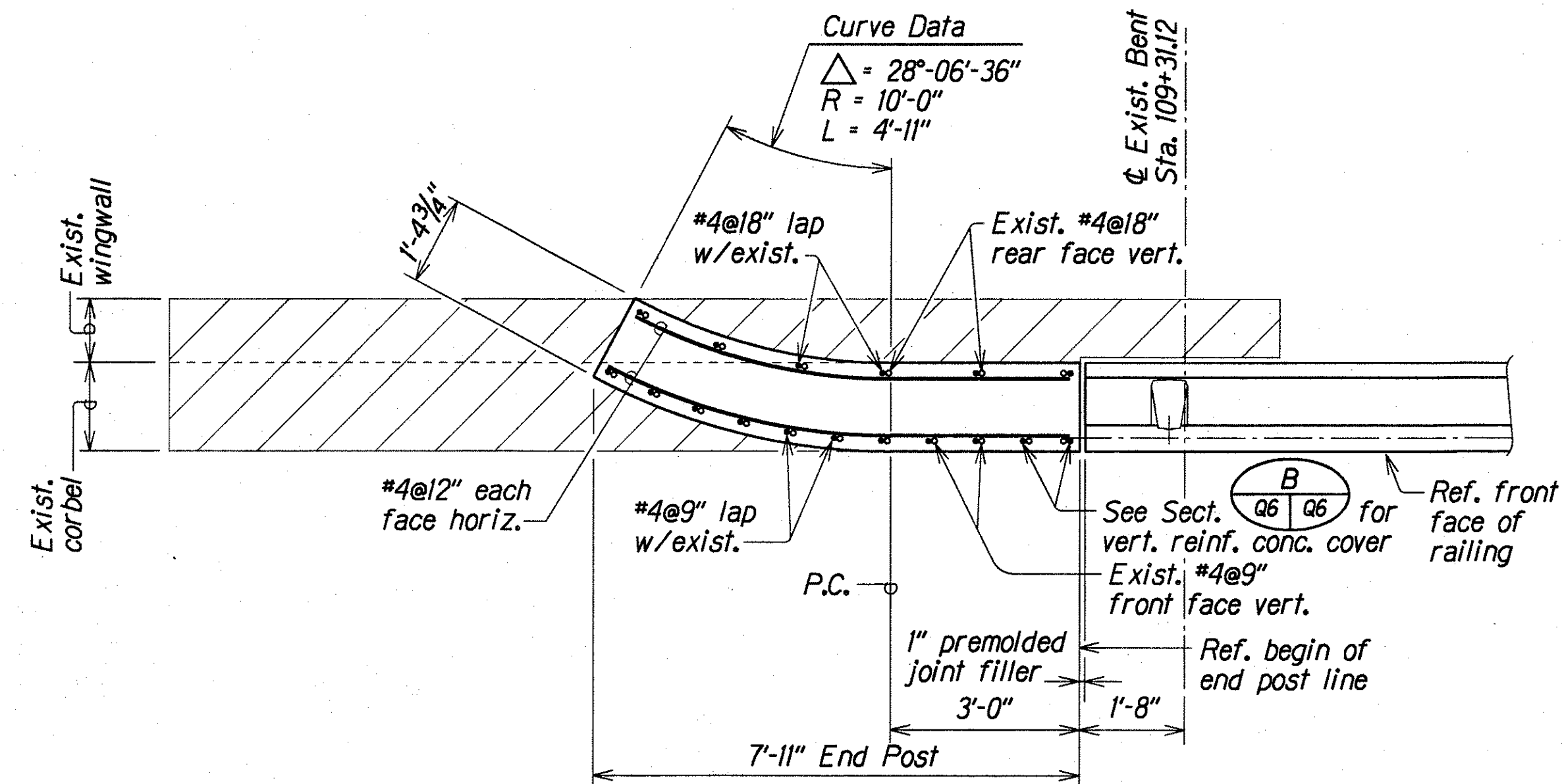


END POST NO. 1 DETAILS
END POST NO. 4 SIMILAR EXCEPT OPPOSITE HAND

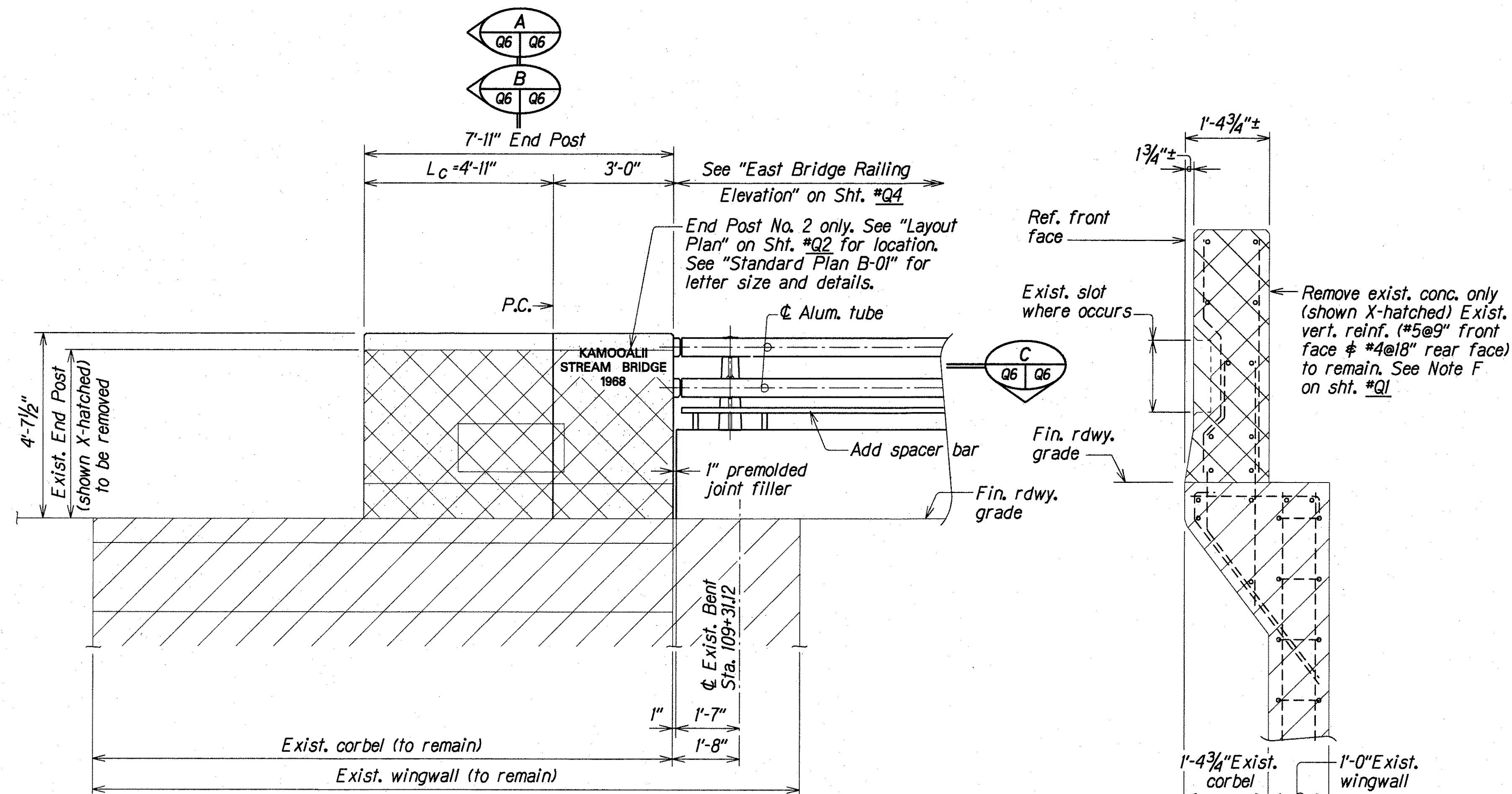
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOLII STREAM BRIDGE
END POST NO. 1 AND 4,
ELEVATIONS AND SECTIONS
INTERSTATE ROUTE H-3
FAIP NO. 1-H3-1(75), UNIT 1

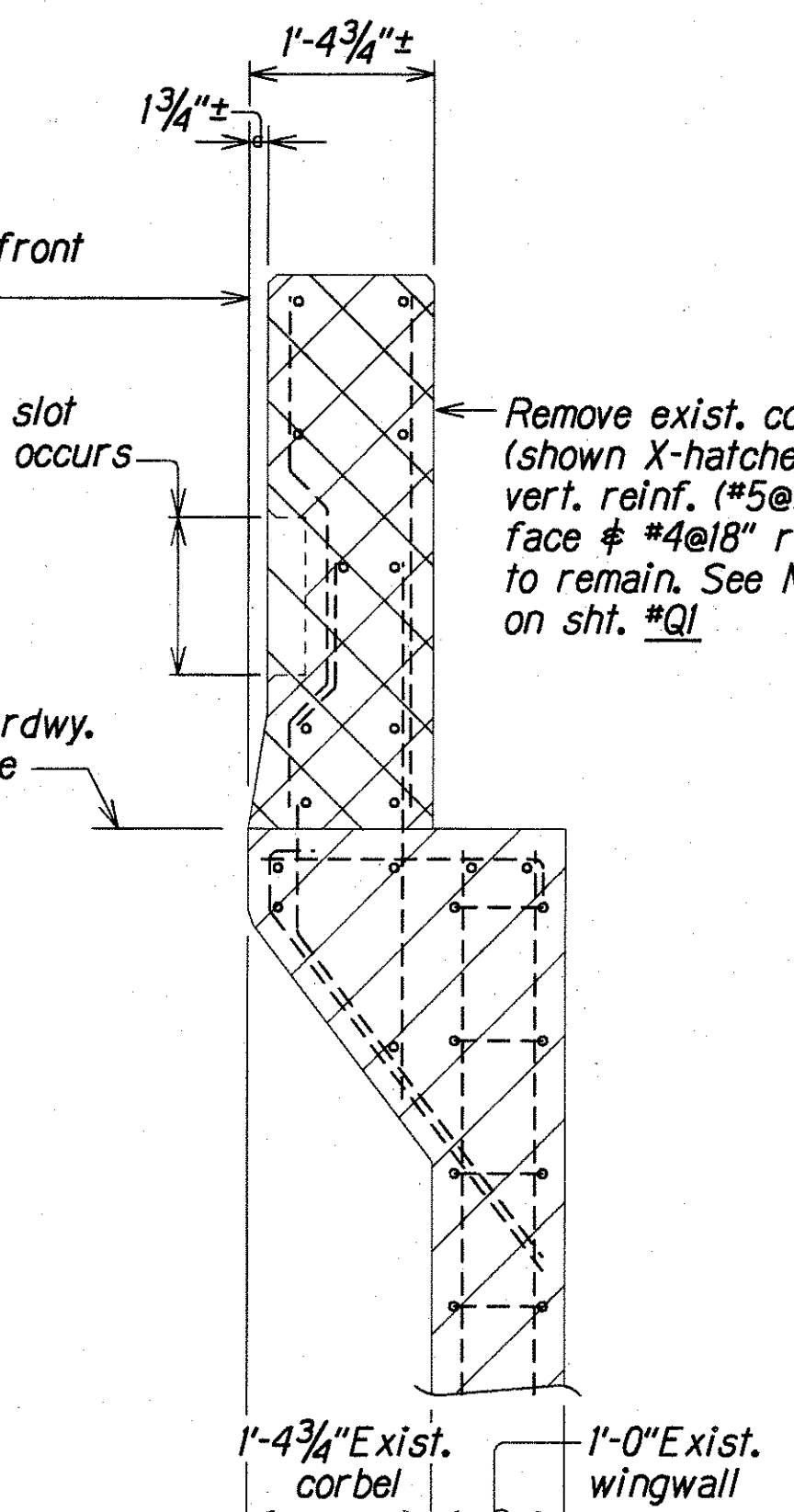
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1175, UNIT 1	1996	281	405



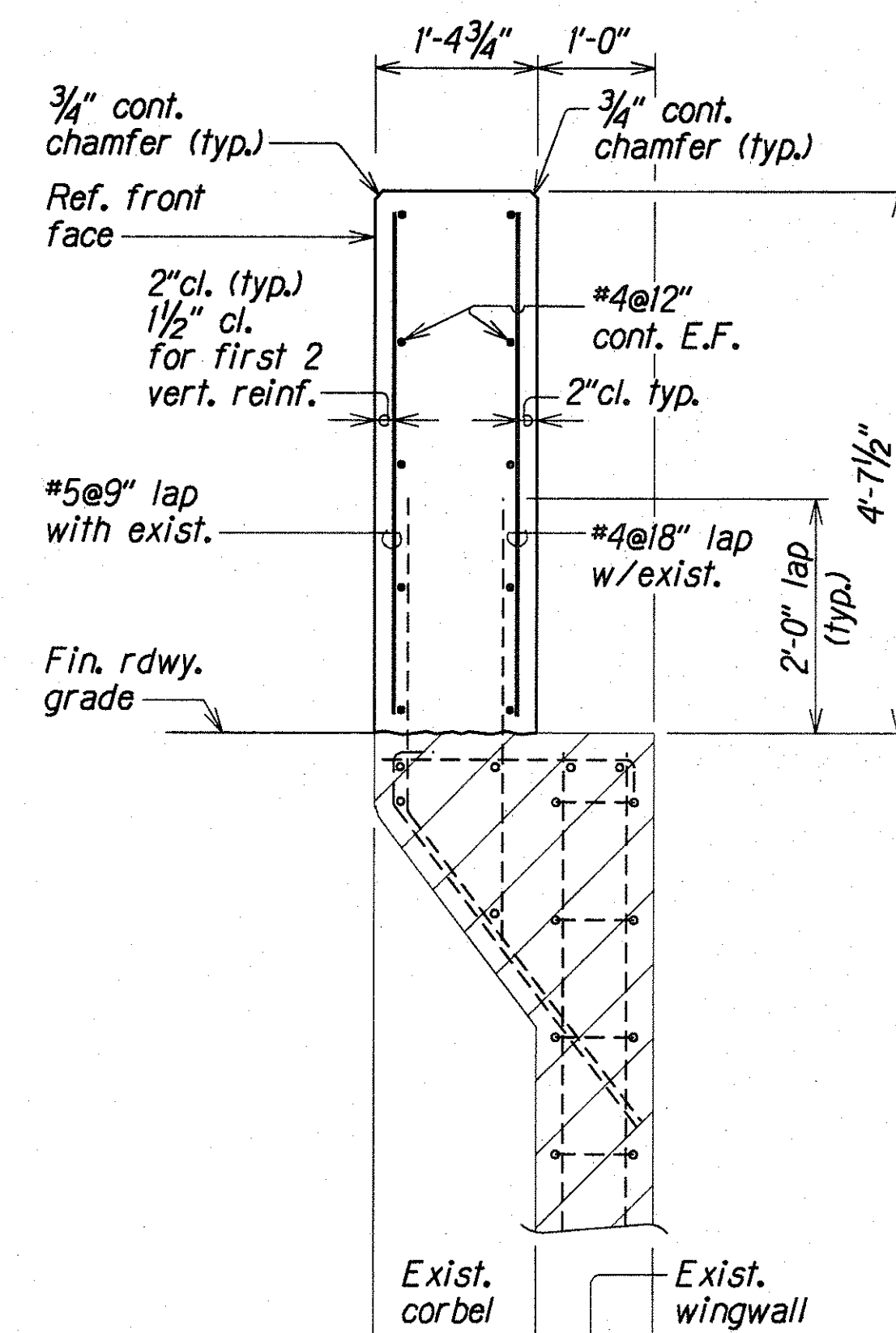
SECTION C
Scale: 1/2" = 1'-0"



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



TYPICAL SECTION A
Scale: 3/4" = 1'-0"



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

END POST NO. 2 DETAILS

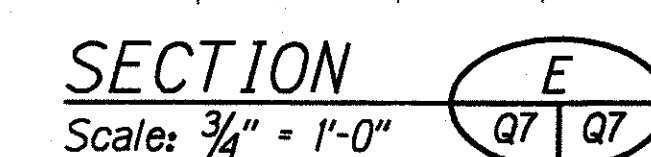
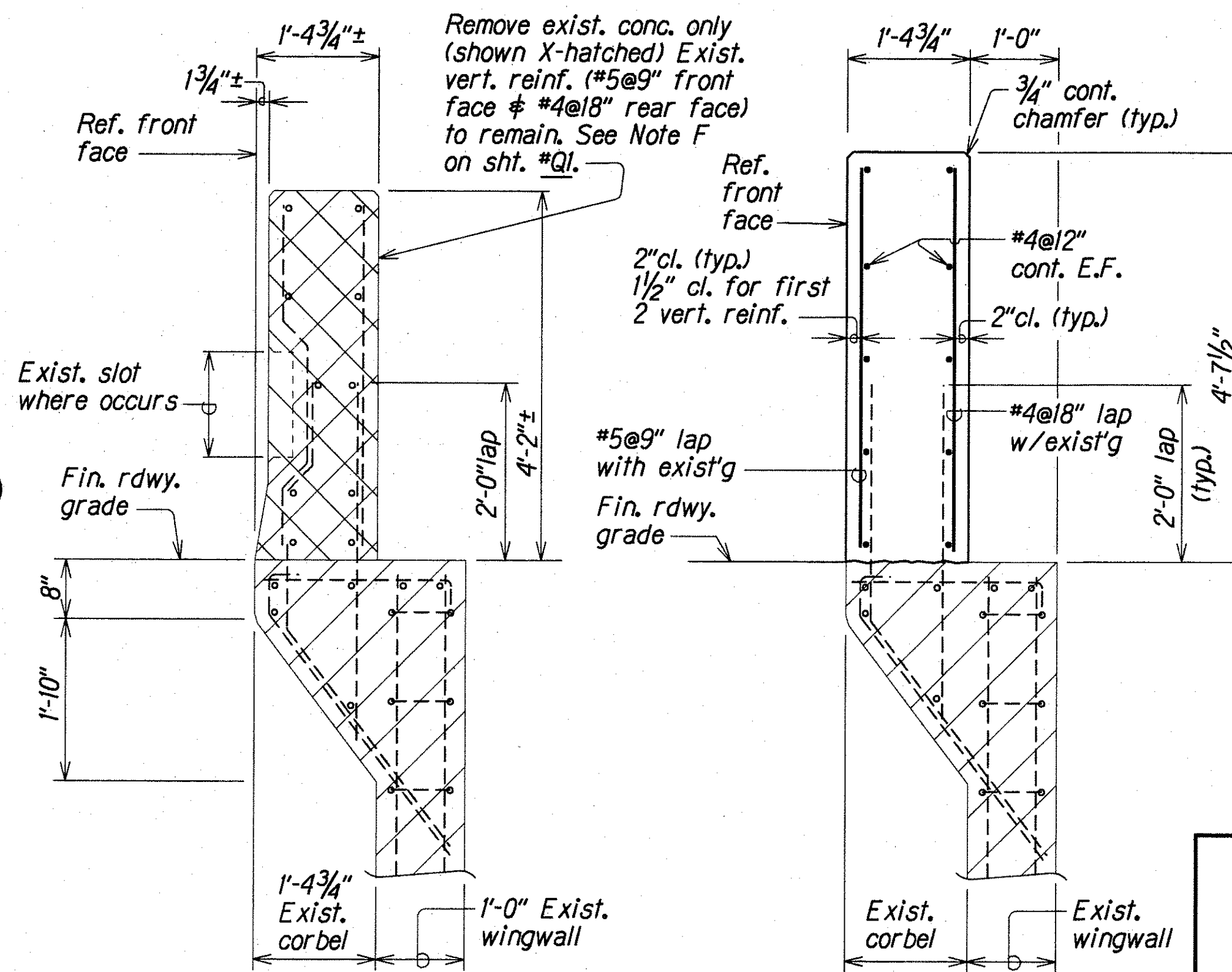
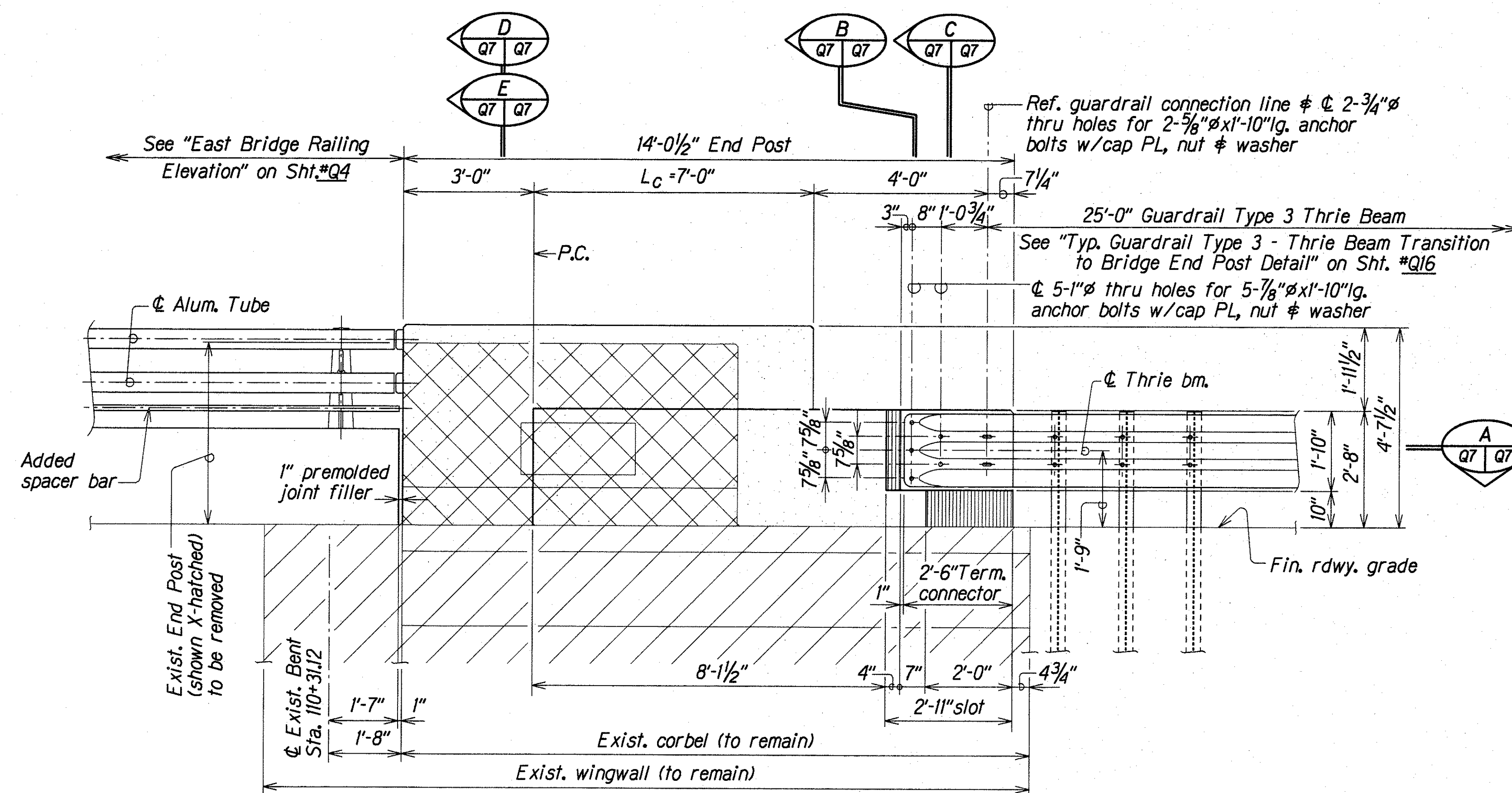
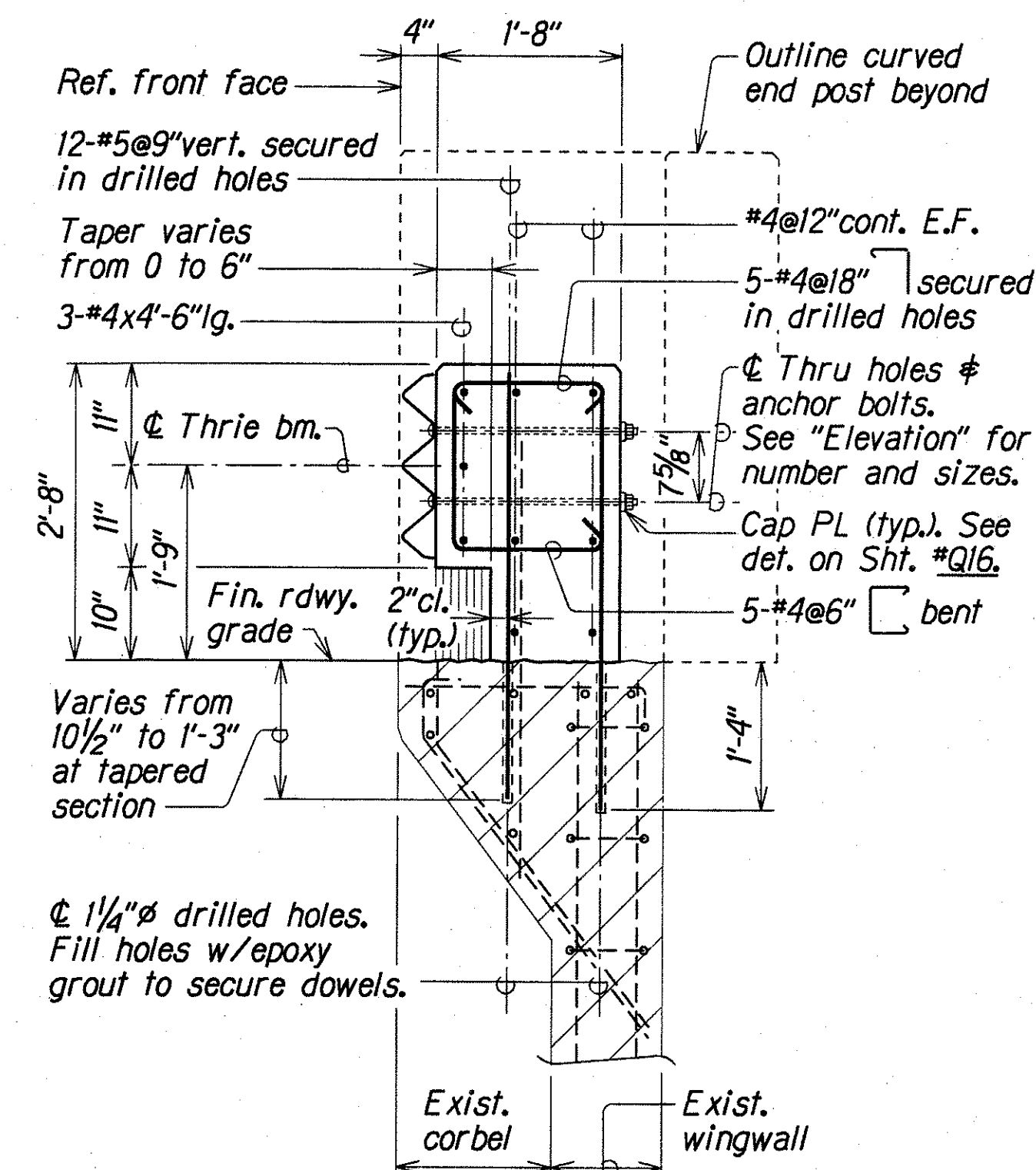
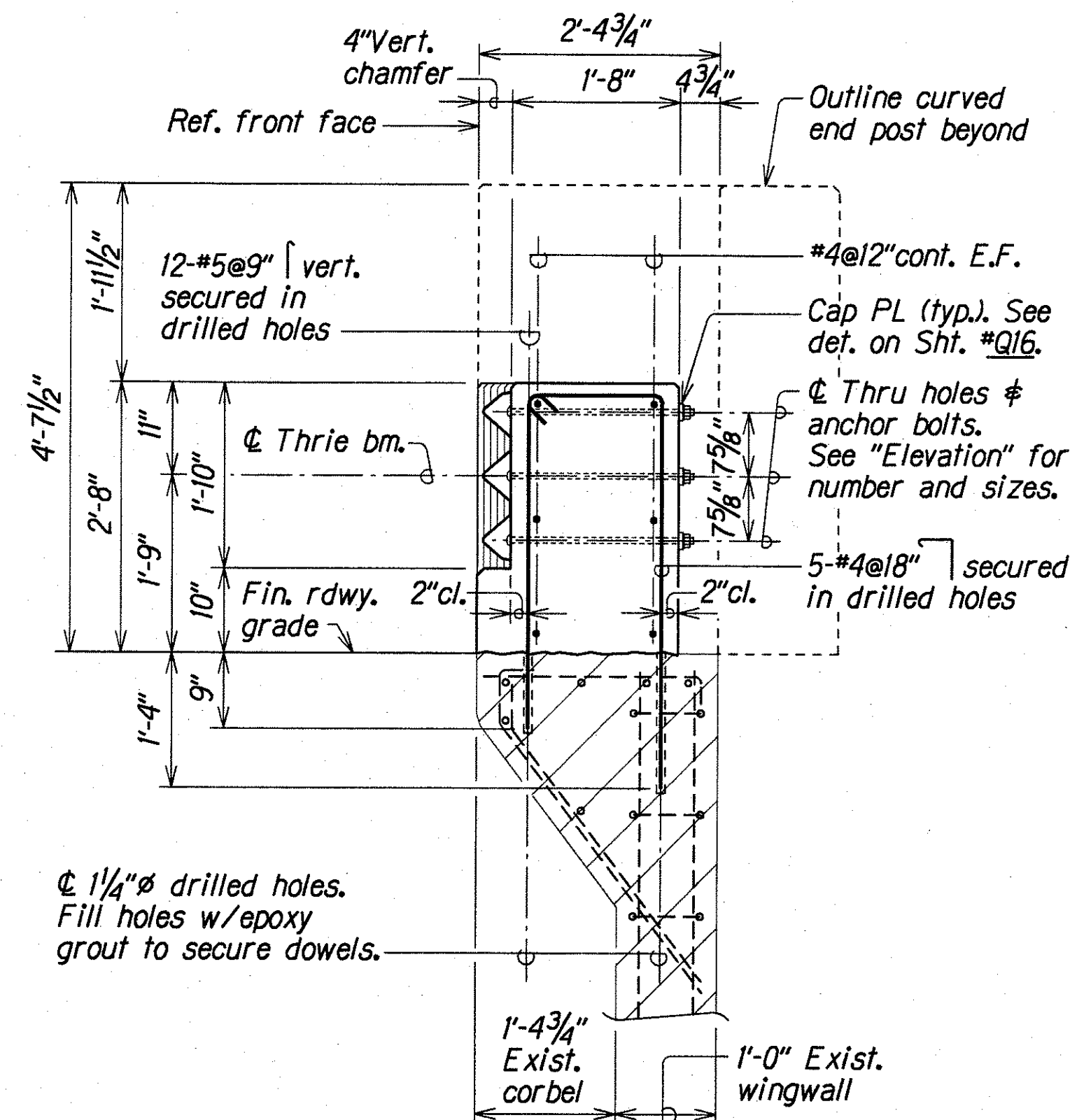
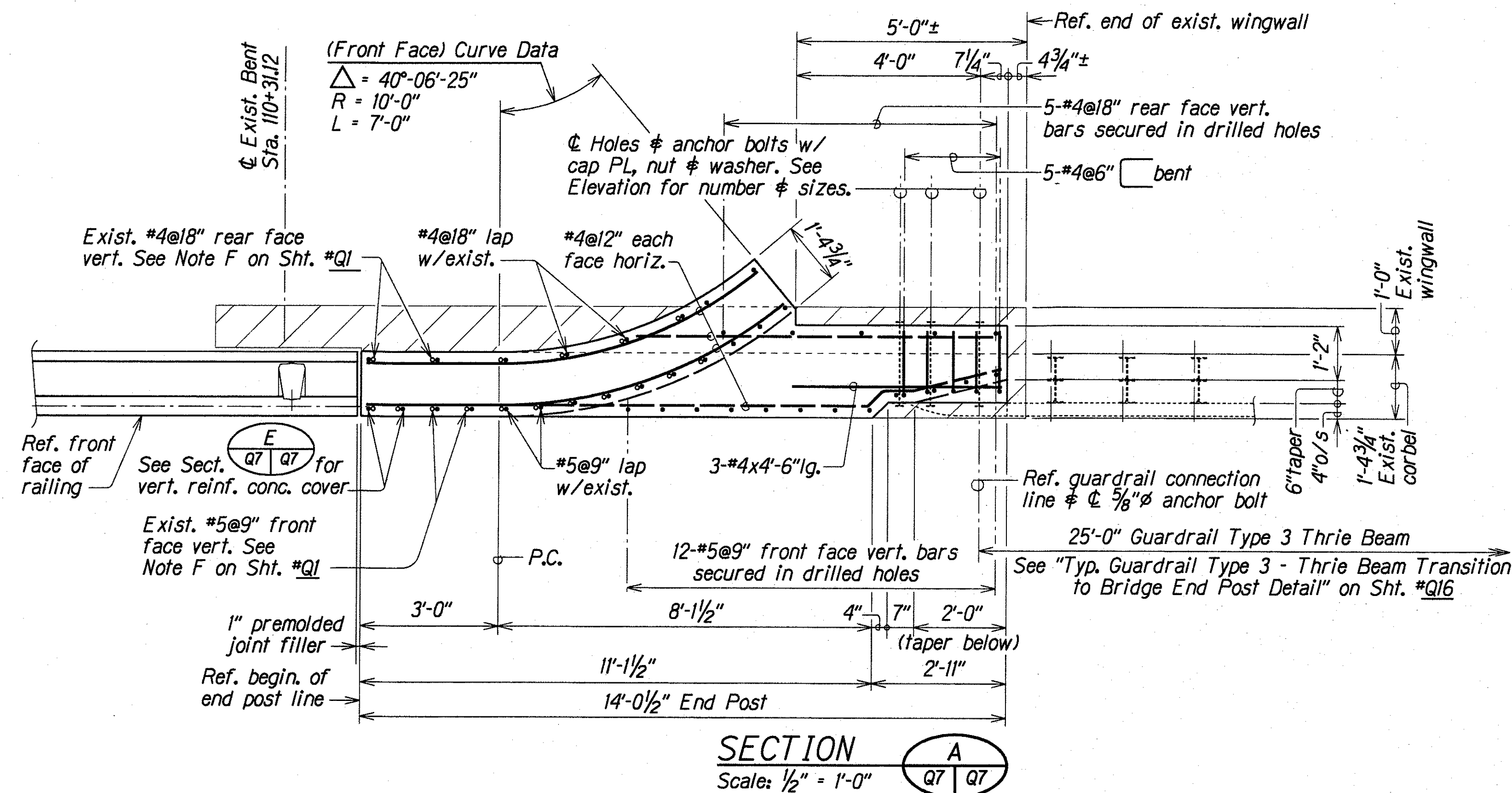
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE
END POST NO. 2
ELEVATIONS AND SECTIONS
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1175, UNIT 1

Scale: As Noted Date: Dec. 1995

SHEET No. Q6 OF 16 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-H3-1(75), UNIT 1	1996	282	405

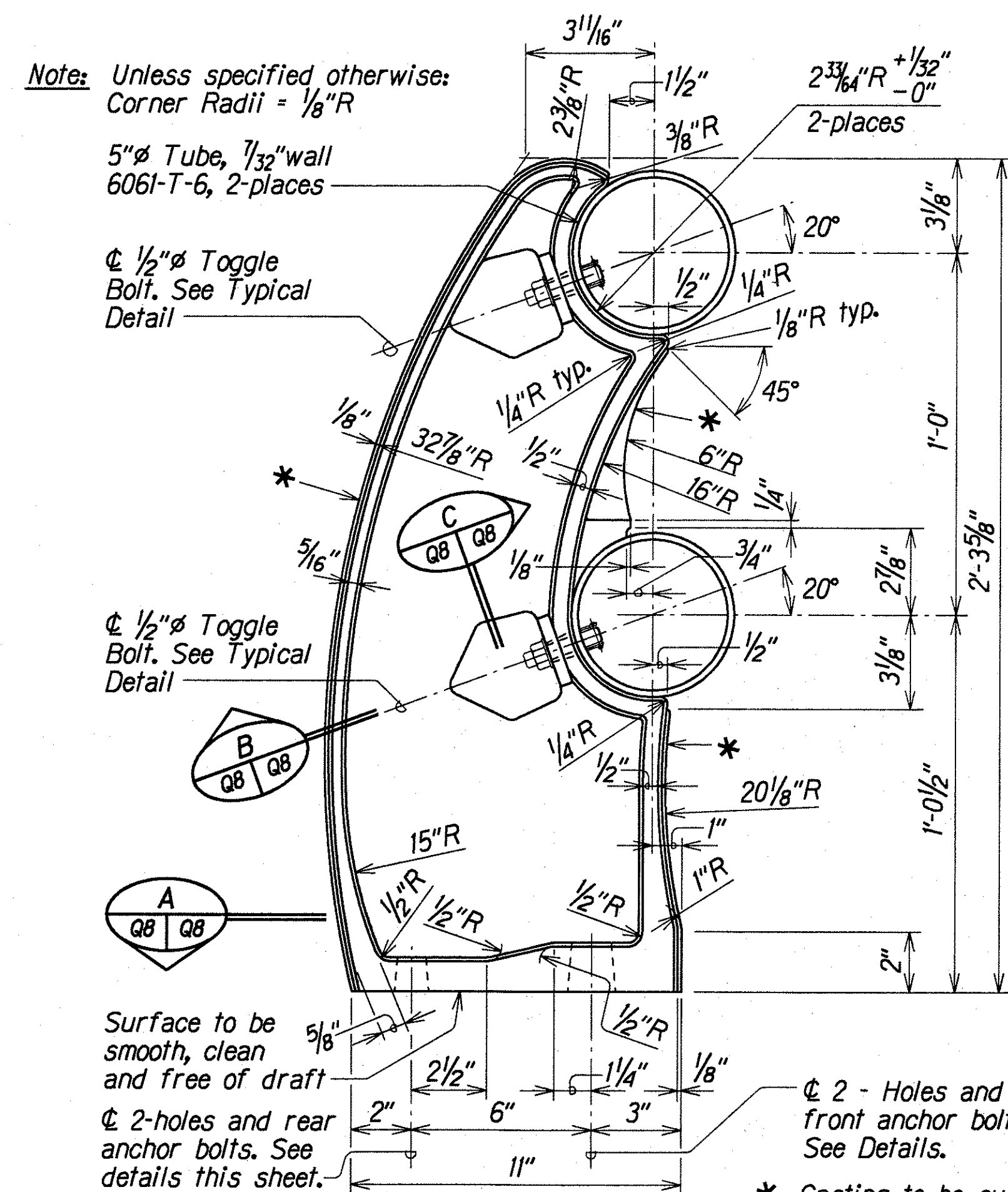


END POST NO. 3 DETAILS Scale: 1/2" = 1'-0"

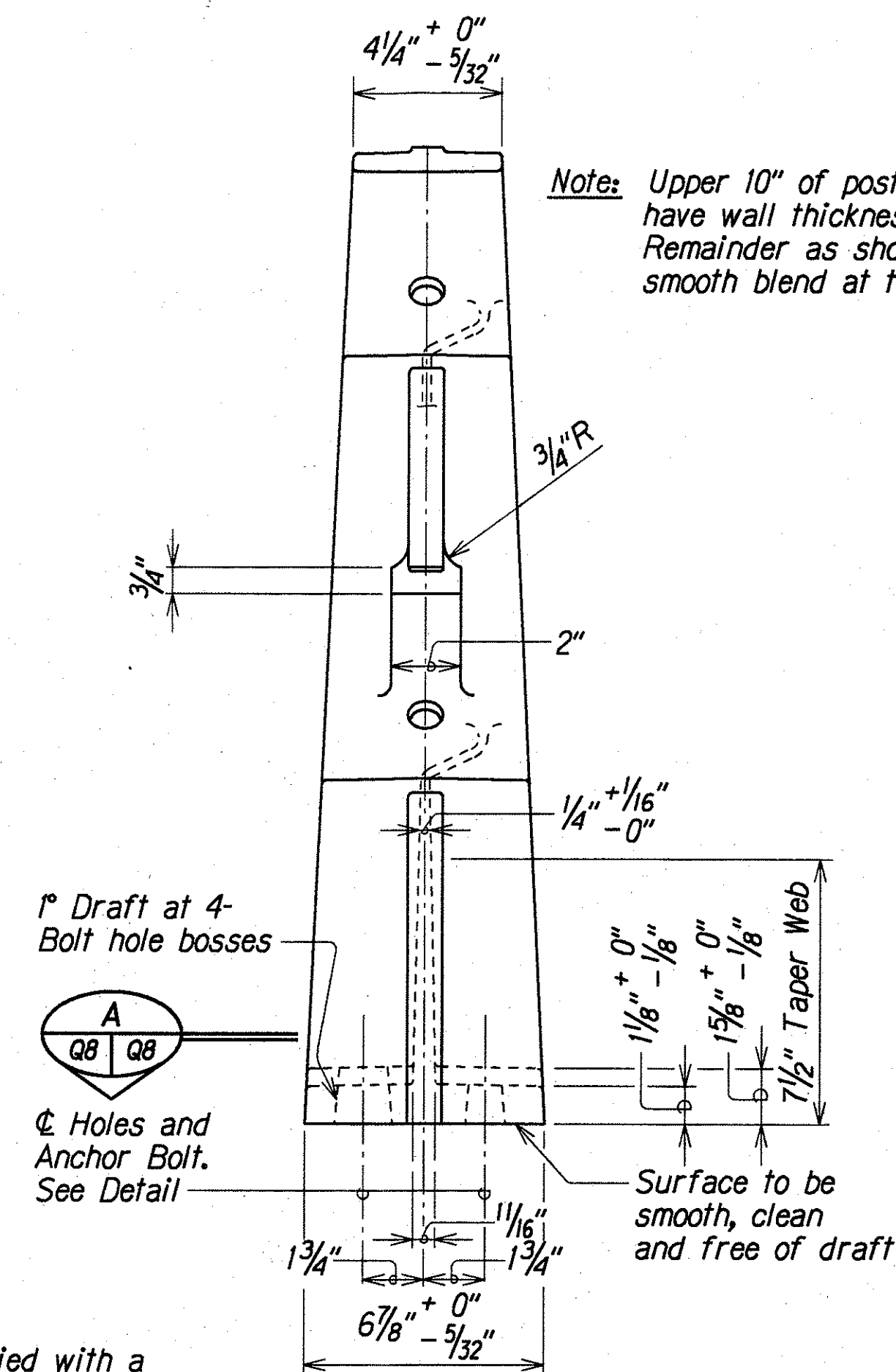
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE
END POST NO. 3
ELEVATIONS AND SECTIONS
INTERSTATE ROUTE H-3
FAIP NO. 1-H3-1(75), UNIT 1
Scale: As Noted
Date: Dec. 1995

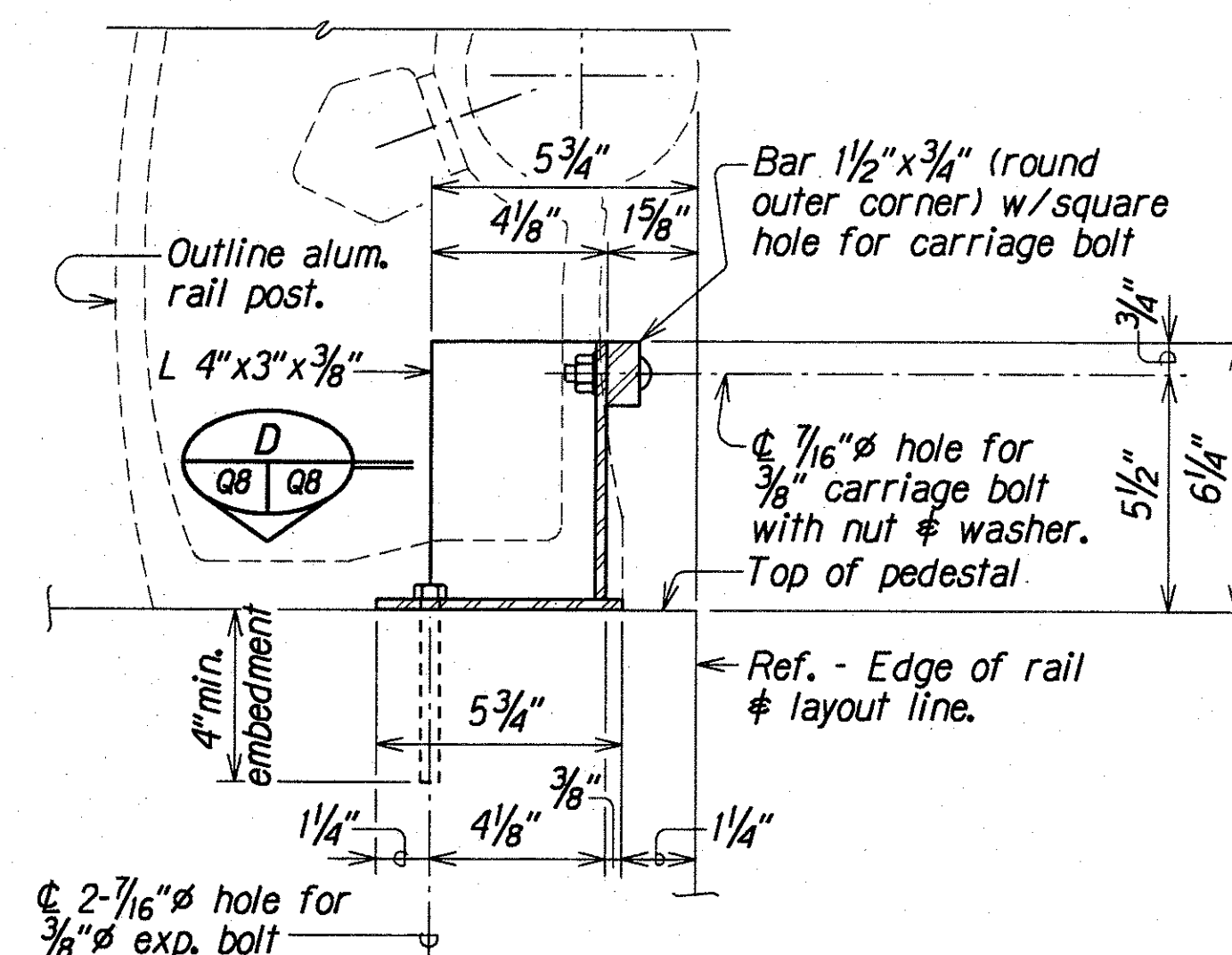
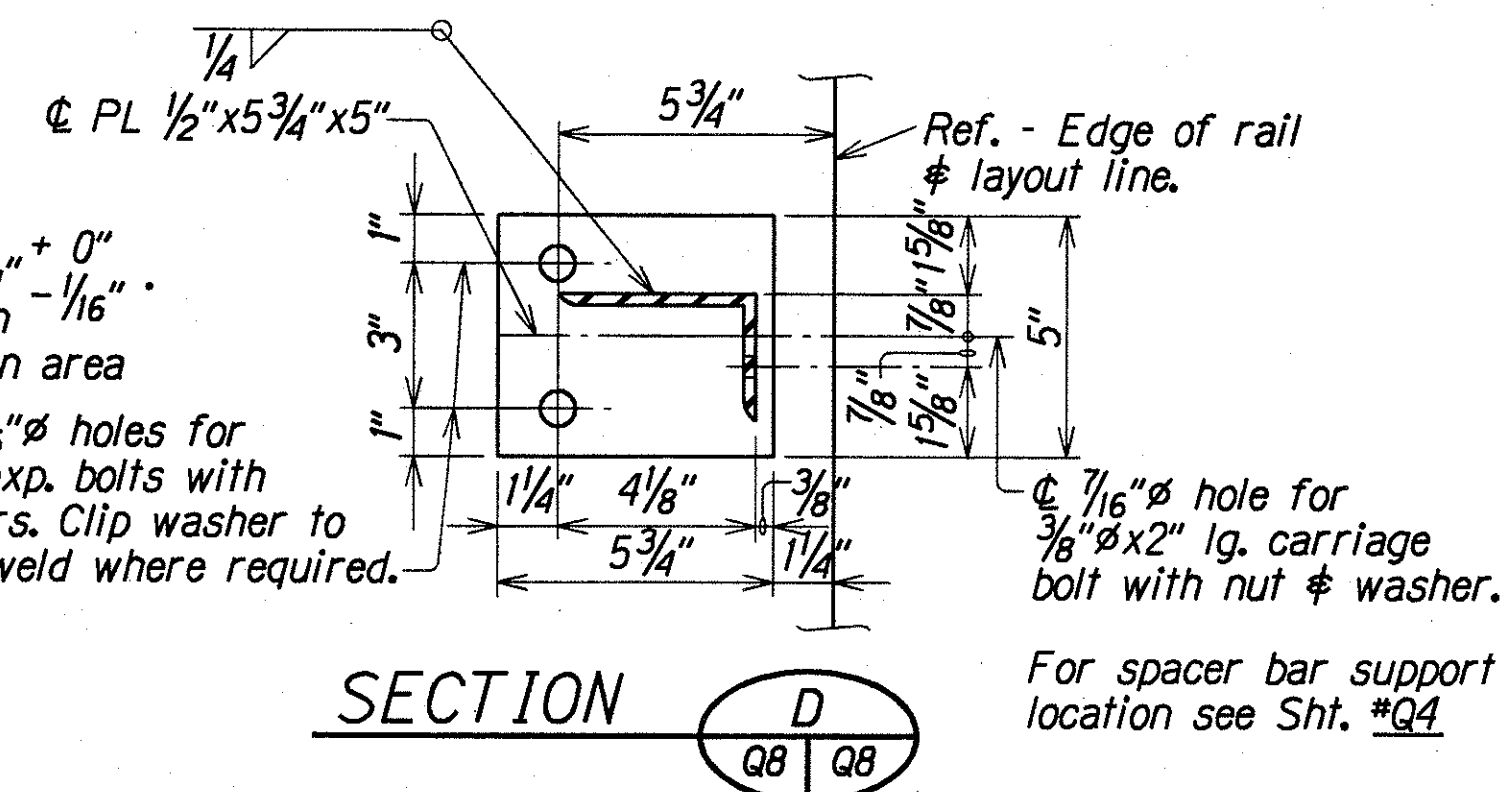
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1175), UNIT 1	1996	283	405



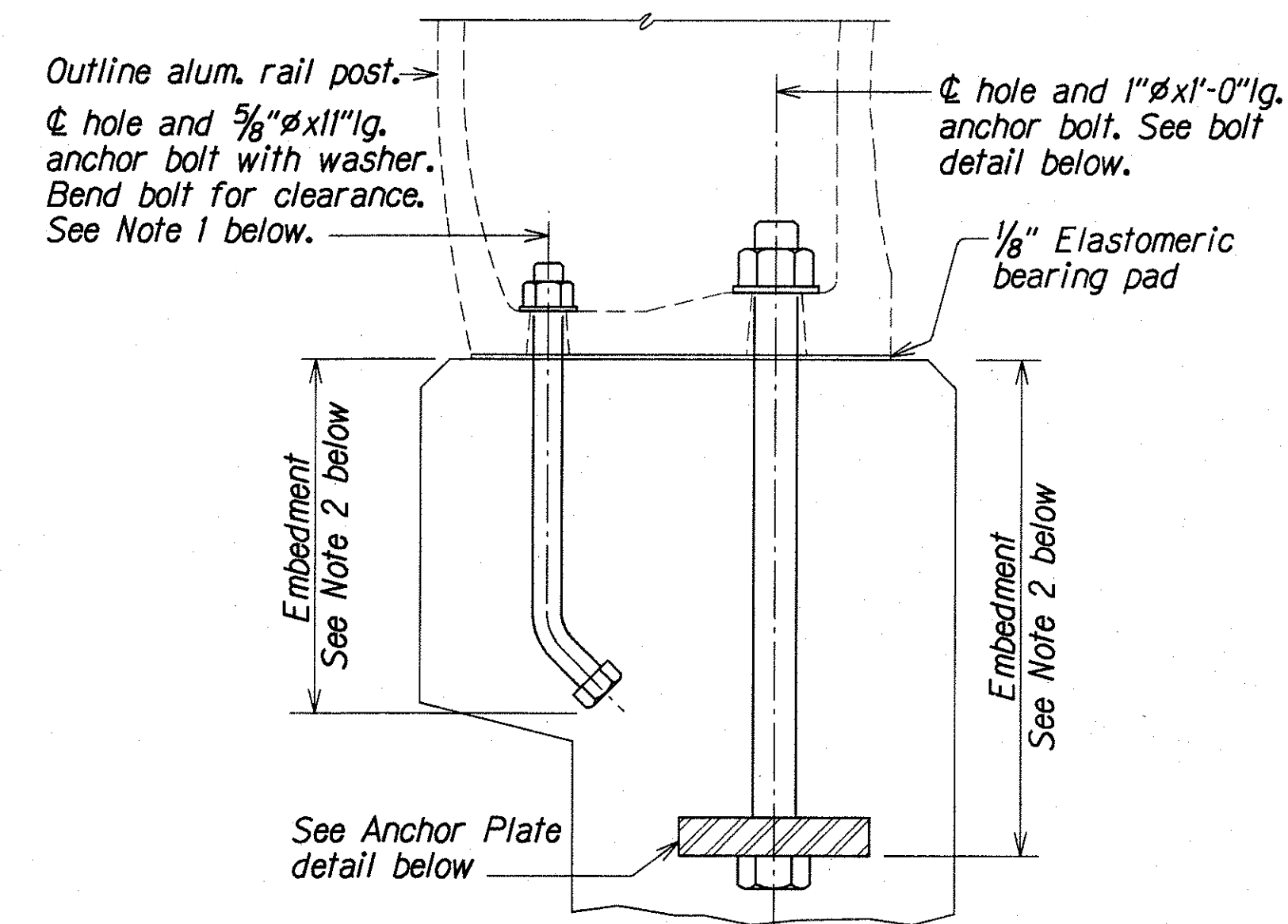
SIDE ELEVATION
Scale: 3"=1'-0"



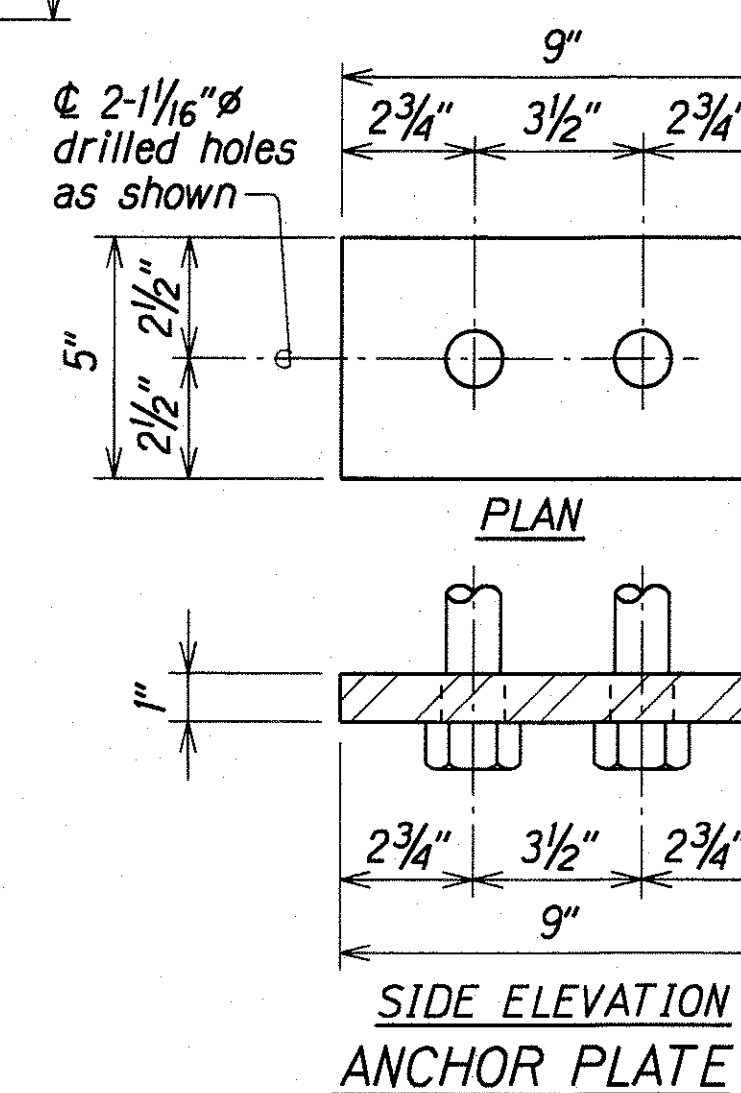
FRONT ELEVATION
Scale: 3"=1'-0"



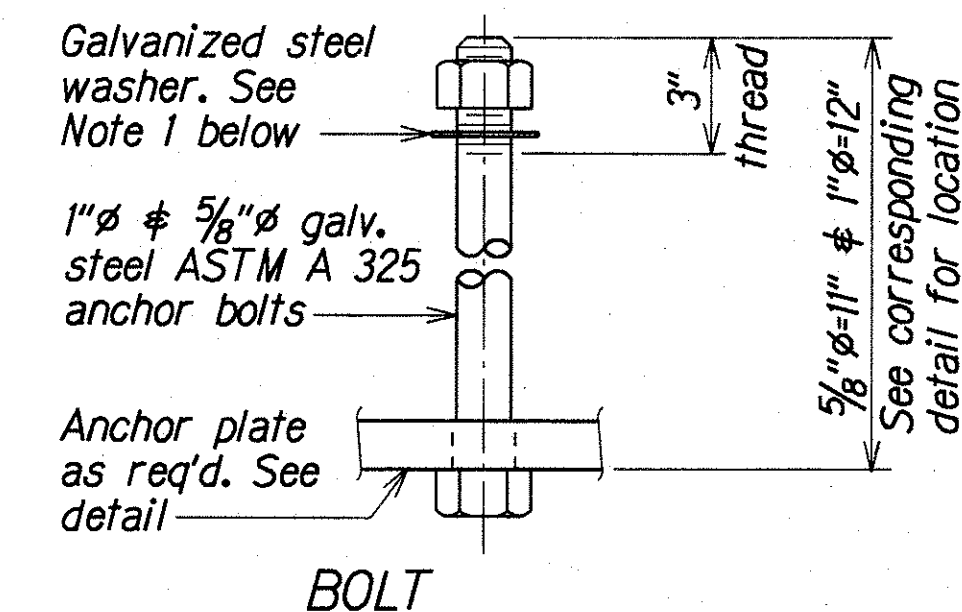
ELEVATION
ADDED SPACER BAR
SUPPORT DETAIL
Scale: 3'-1'-0"



ELEVATION

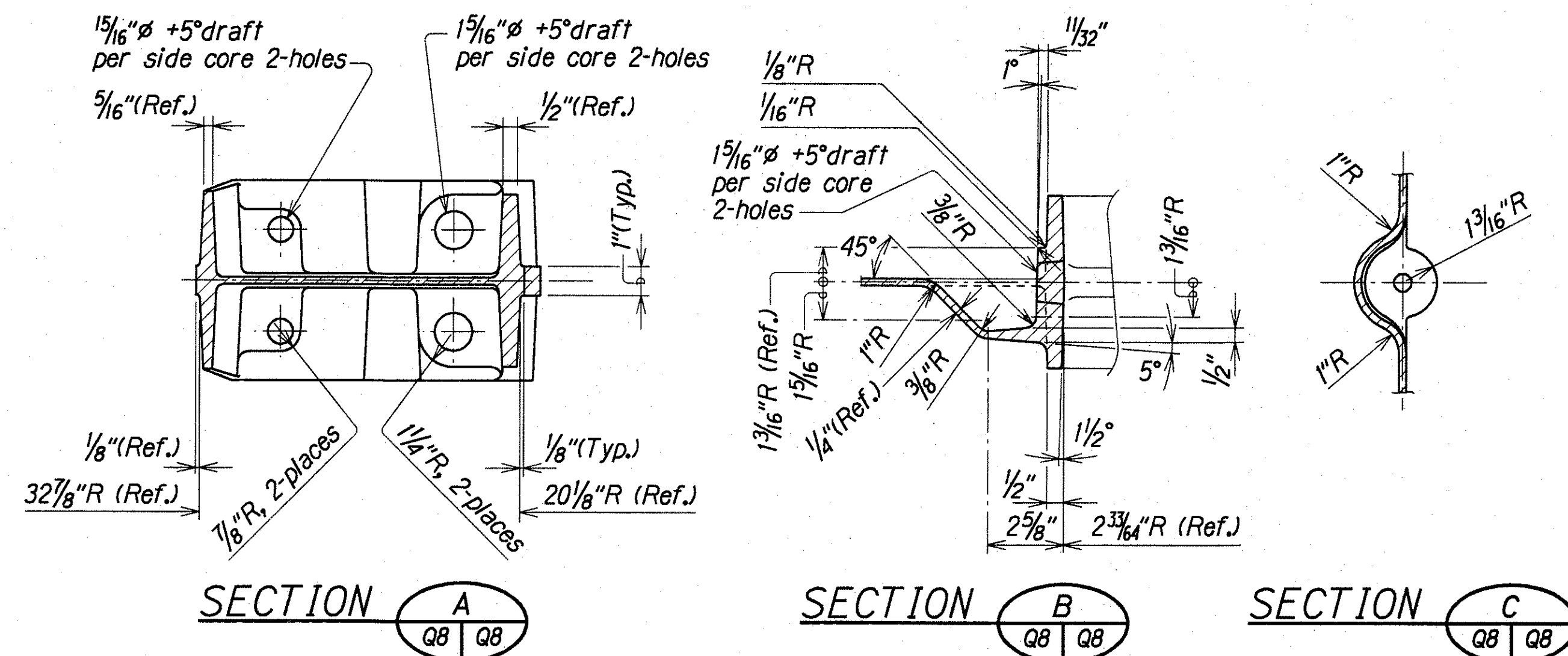


TYPICAL RAIL POST ANCHOR
BOLT ASSEMBLY
Scale: 3" = 1'-0"



NOTE:

1. 1" dia. bolt washer size $2\frac{1}{2}$ " OD x $1\frac{1}{16}$ " ID x $\frac{1}{64}$ " thk.
 $\frac{5}{8}$ " dia. bolt washer size $1\frac{3}{4}$ " OD x $1\frac{1}{16}$ " ID x $\frac{7}{64}$ " thick
2. Anchor bolts shall be embedded such that the threads are excluded from the shear plane and approximately 2 threads are exposed above the nut.



TYPICAL RAIL POST DETAILS
Scale: 3"=1'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____	
NOTE BOOK	DRAWN BY <u>KSG, CO</u>	• SEP 1994
	TRACED BY _____	• _____
	DESIGNED BY <u>TS</u>	• SEP 1994
	QUANTITIES BY <u>TS</u>	• SEP 1994
N. <u>holead</u>	CHECKED BY <u>MST</u>	• SEP 1994

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE
ALUMINUM BRIDGE RAILING DETAILS
TWO RAIL COMBINATION TYPE
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(K75), UNIT 1

Scale: As Noted Date: Dec. 1995

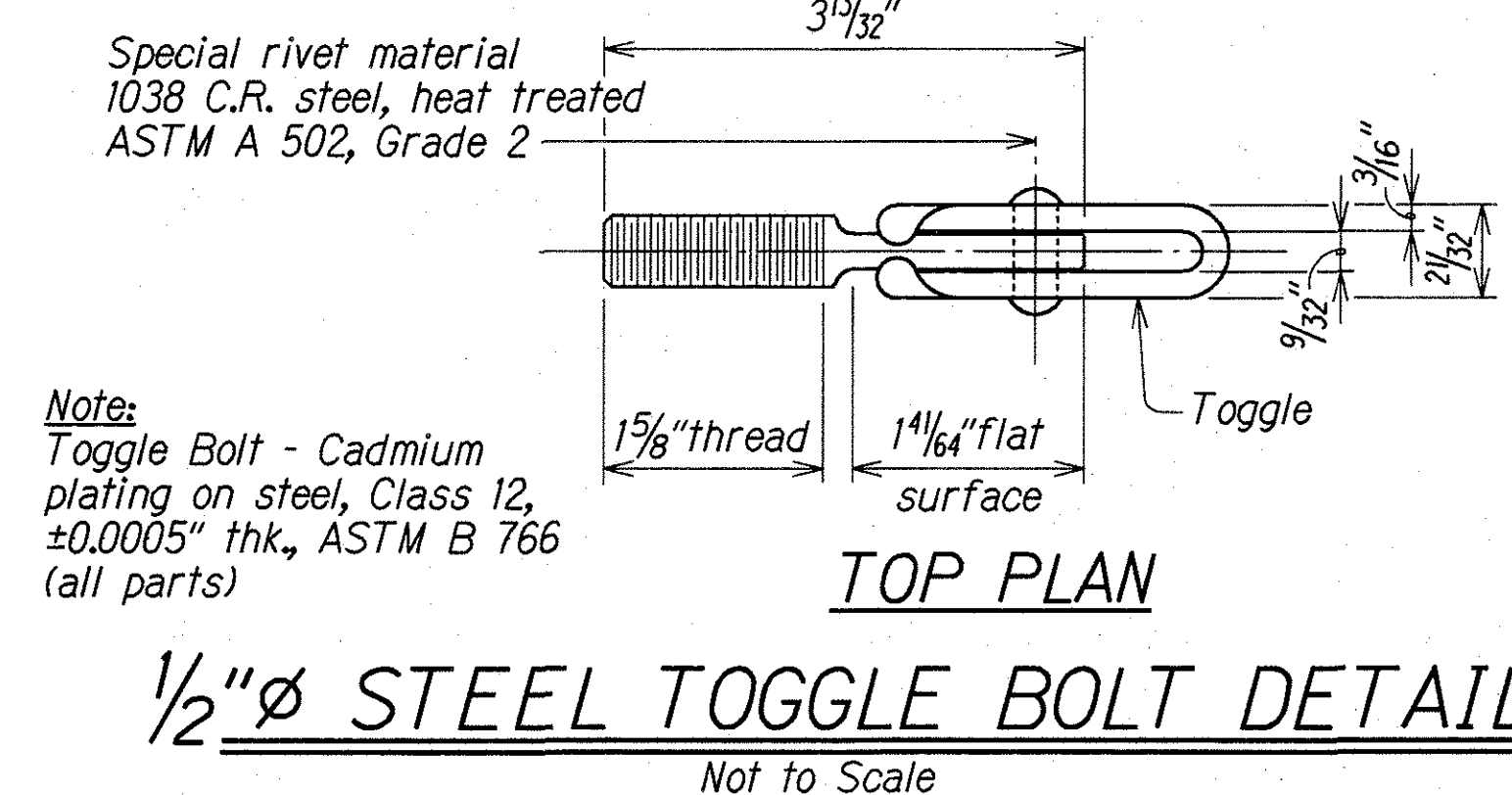
SHEET No. Q8 OF 16 SHEETS

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

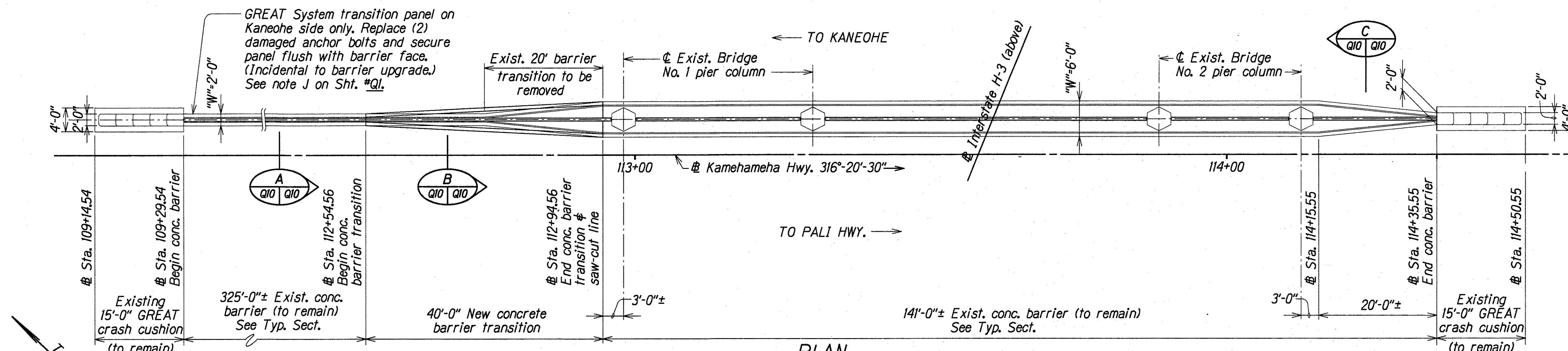
KAMOOLII STREAM BRIDGE
ALUMINUM BRIDGE RAILING DETAILS,
TWO RAIL COMBINATION TYPE
INTERSTATE ROUTE H-3
FAIP NO. I-H3-(K75), UNIT 1

Scale: As Noted Date: Dec. 1995

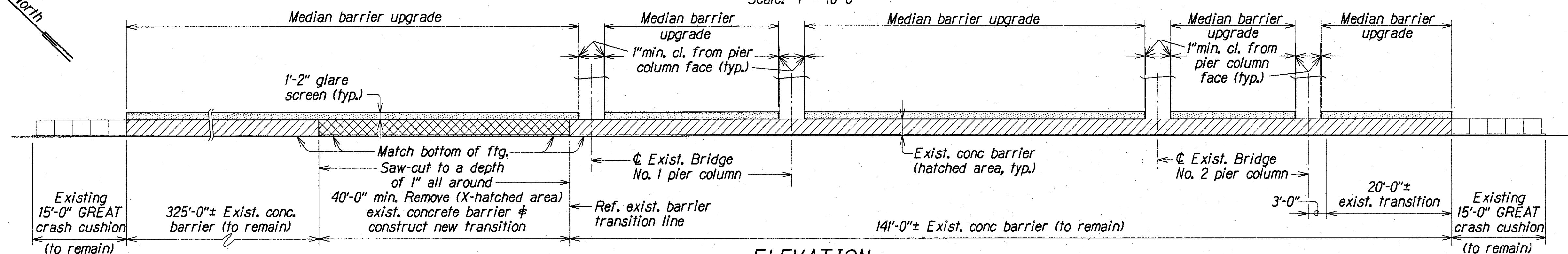
SHEET No. Q9 OF 16 SHEETS



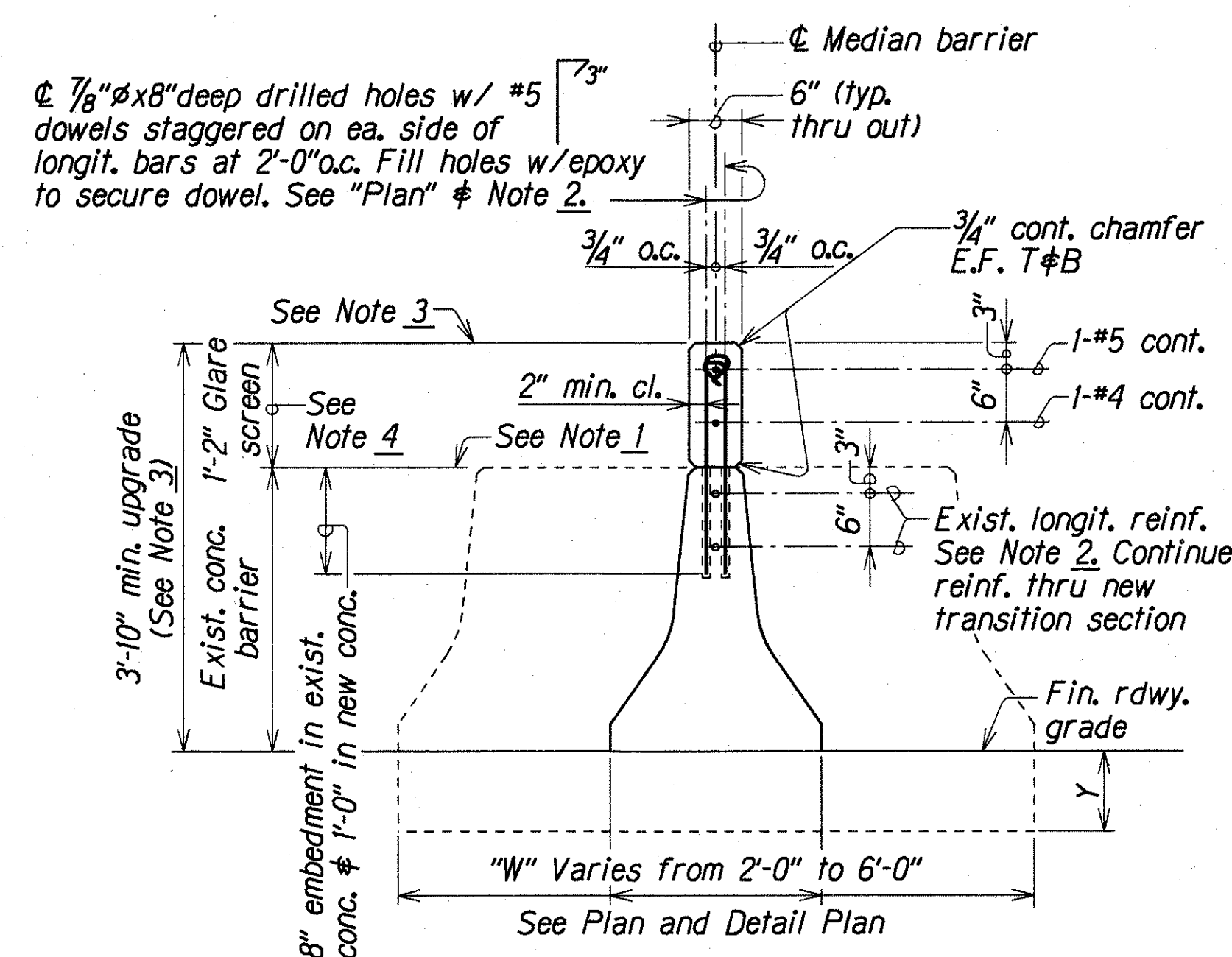
2. Existing concrete surface to be bonded with the new concrete, shall be thoroughly wetted with clean water and scrubbed with a solution of not more than one-part hydrochloric (muriatic) acid to nine-parts water followed immediately by thorough rinsing with clean water, unless indicated otherwise or as directed by the Engineer.
3. The Contractor shall be responsible for the location of existing reinforcement by whatever means including the use of scanning devices in his drilling operations.
4. The top surface of the concrete glare screen shall not vary by more than $\frac{1}{4}$ " from the lower edge of a 10 foot long straight edge. Where the ground beneath the barrier has settled, the glare screen shall be increased as necessary (more than 1'-2") to meet the above requirement.
5. Joints on glare screen to match existing barrier joints.



PLAN
Scale: 1" = 10'-0"



ELEVATION
Scale: 1" = 10'-0"



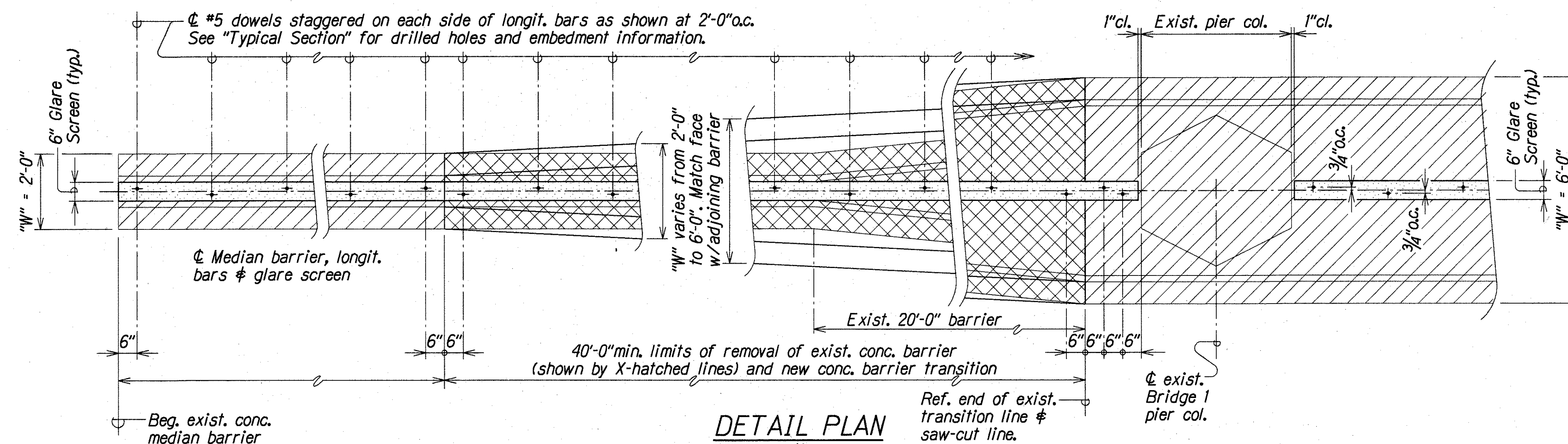
SECTION

A	
Q10	Q10

B	
Q10	Q10

C	
Q10	Q10

CONCRETE MEDIAN BARRIER BUILD-UP



DETAIL PLAN
Scale: $\frac{1}{2}" = 1'-0"$

LOCATION	Y
Sta. 109+29.54 to Sta. 110+32.70	0"
Sta. 110+32.70 to Sta. 112+74.56	9"
Sta. 112+74.56 to Sta. 114+74.56	9"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KAMOOALII STREAM BRIDGE

TYPE "D" UPGRADE MEDIAN BARRIER

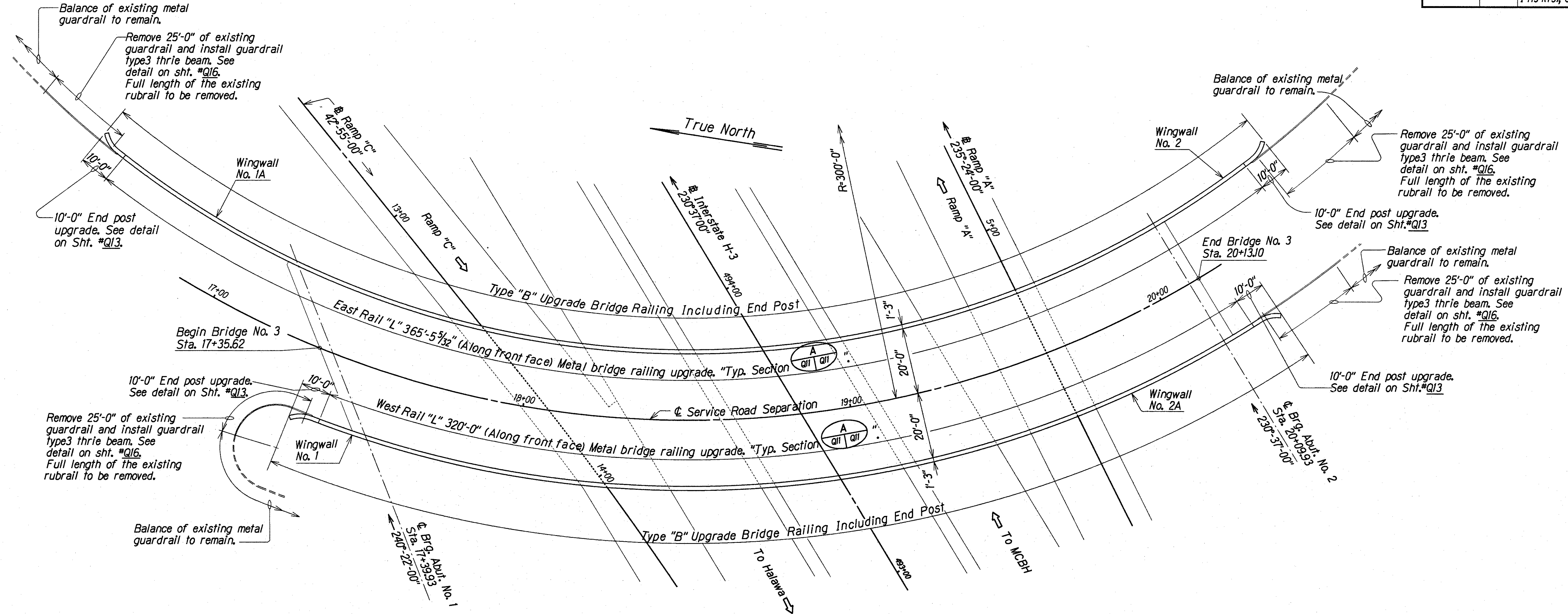
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT 1

Scale: As Noted

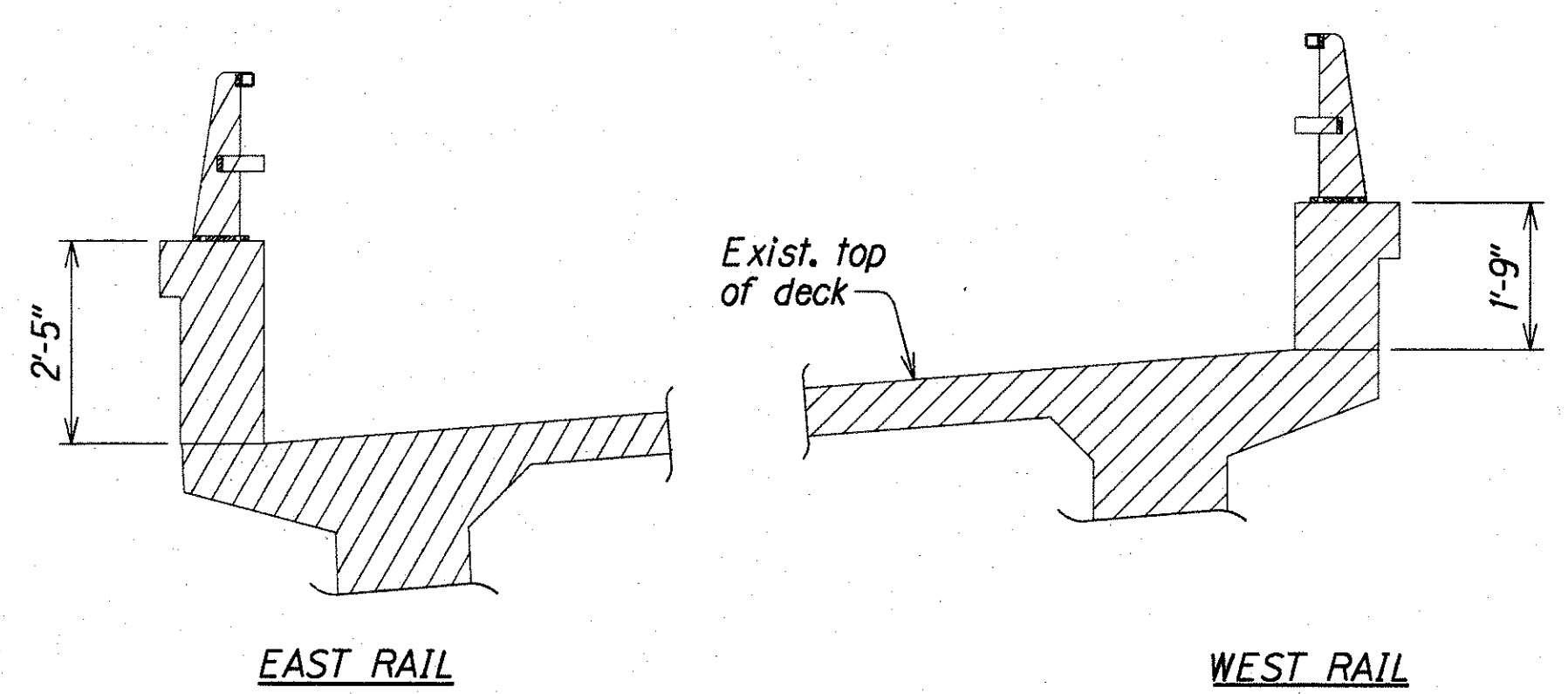
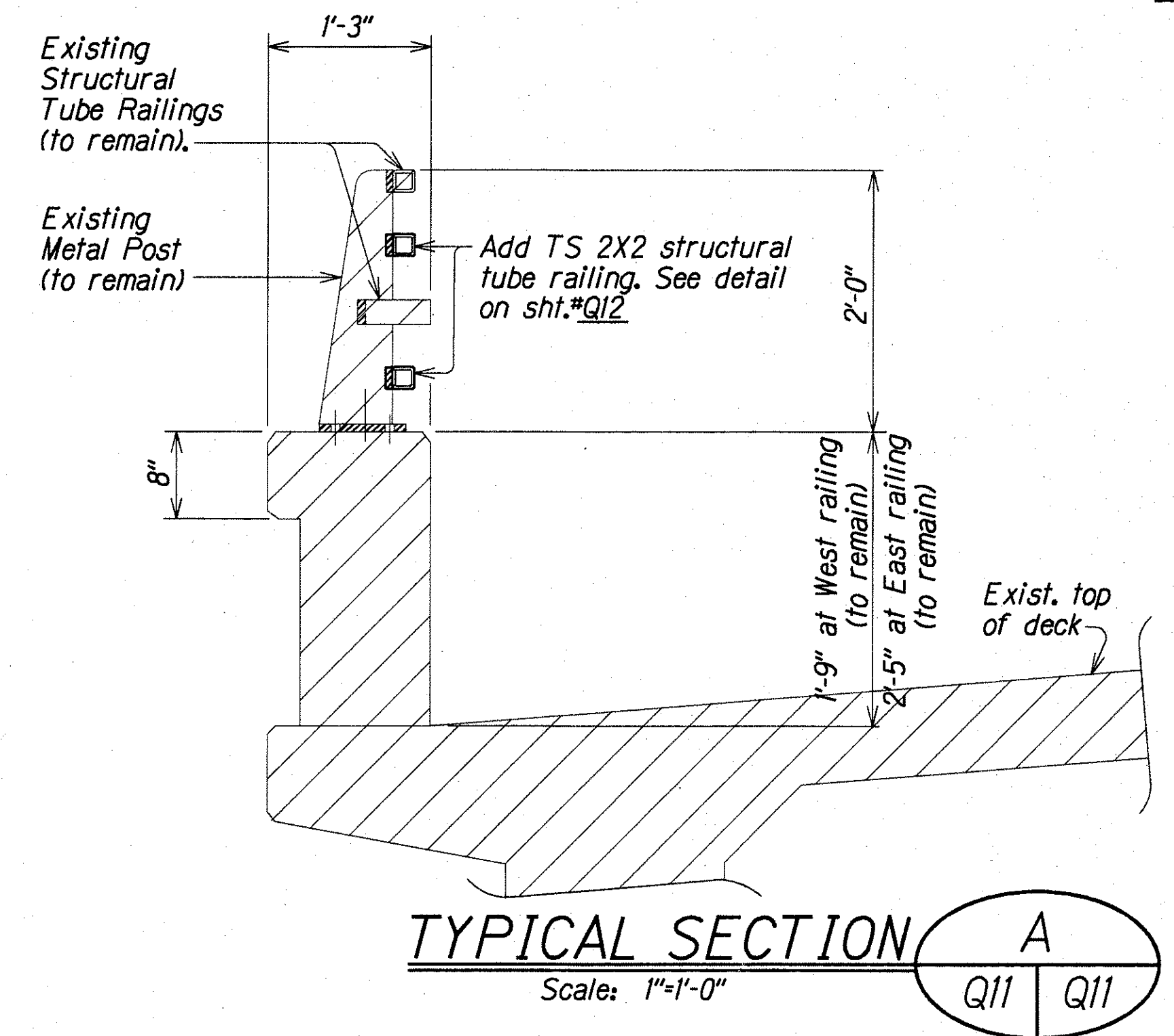
Date: Dec. 1995

SHEET No. 010 OF 16 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(75), UNIT 1	1996	286	405



LAYOUT PLAN - SERVICE ROAD SEPARATION (BRIDGE NO.3)
Not to Scale



NORMAL SECTION THRU EXISTING SERVICE ROAD SEPARATION (BRIDGE NO.3)
Scale: 1/2"=1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SERVICE ROAD SEPARATION (BRIDGE NO. 3)
PLAN, NORMAL SECTION
AND TYPICAL SECTION
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(75), UNIT 1

Scale: As Noted Date: Dec. 1995

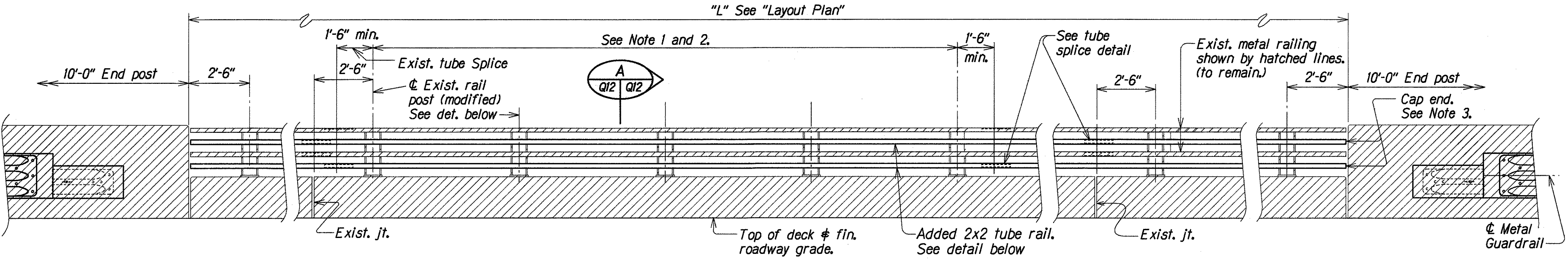
SHEET No. Q11 OF 16 SHEETS

ORIGINAL PLAN	DATE	SEP 1994
DRAWN BY	CHD	
DESIGNED BY	TS	SEP 1994
QUANTITIES BY	TS	SEP 1994
CHECKED BY	MST	SEP 1994
IN	Index	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-K75, UNIT 1	1996	287	405

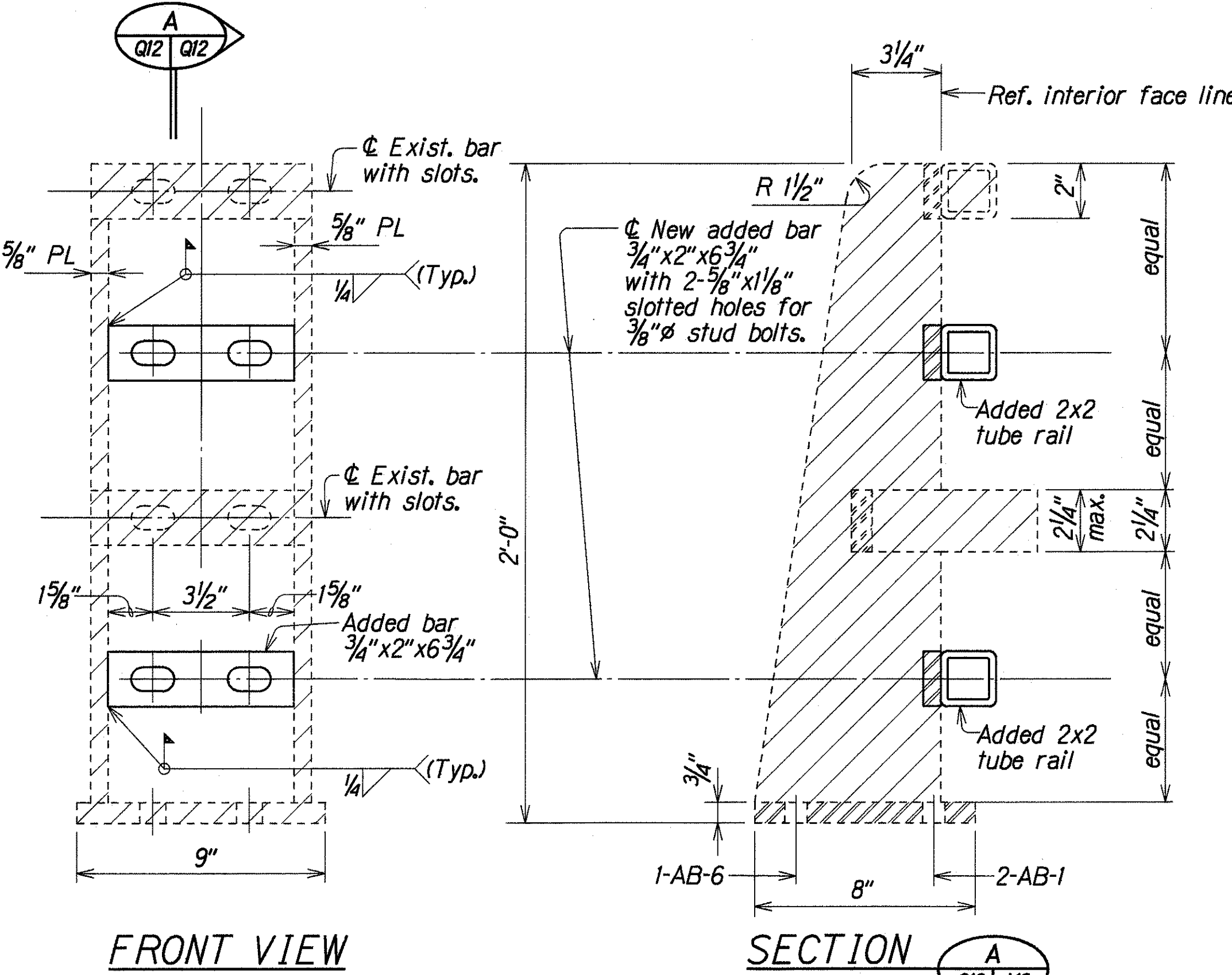
NOTES:

1. Tubing shall be shop bent to fit horizontal curve.
2. Added tubings shall be the same length and spliced at the same locations as the existing tubings. Increase sleeve length by 1" at splices in panel spanning deck expansion joints.
3. Cap end with $\frac{3}{16}$ " thick steel plate. Cut and weld all around to match end of tubing and grind to smooth finish.
4. All exposed corner of metal railing shall be ground smooth.
5. Rail assemblage shall be galvanized after fabrication.
6. All anchor bolts, bolts, nuts, plates, washers and field weld shall be galvanized.
7. Welding shall meet the requirement of Section 501 of the Standard Specification.
8. Material shall conform to the following requirements:
 - a. Tubular steel rails ASTM A 500 Grade B.
 - b. Sleeves for tubular rails ASTM A 36.
 - c. Stud bolts ASTM A 108 Grades 1015 to 1020.
 - d. Bolts, nuts and washers ASTM A 325.
 - e. Sleeve bolts and nuts ASTM A 108 Grades 1015 to 1020.
7. New welded surfaces shall be galvanized conforming to Section 712J0.



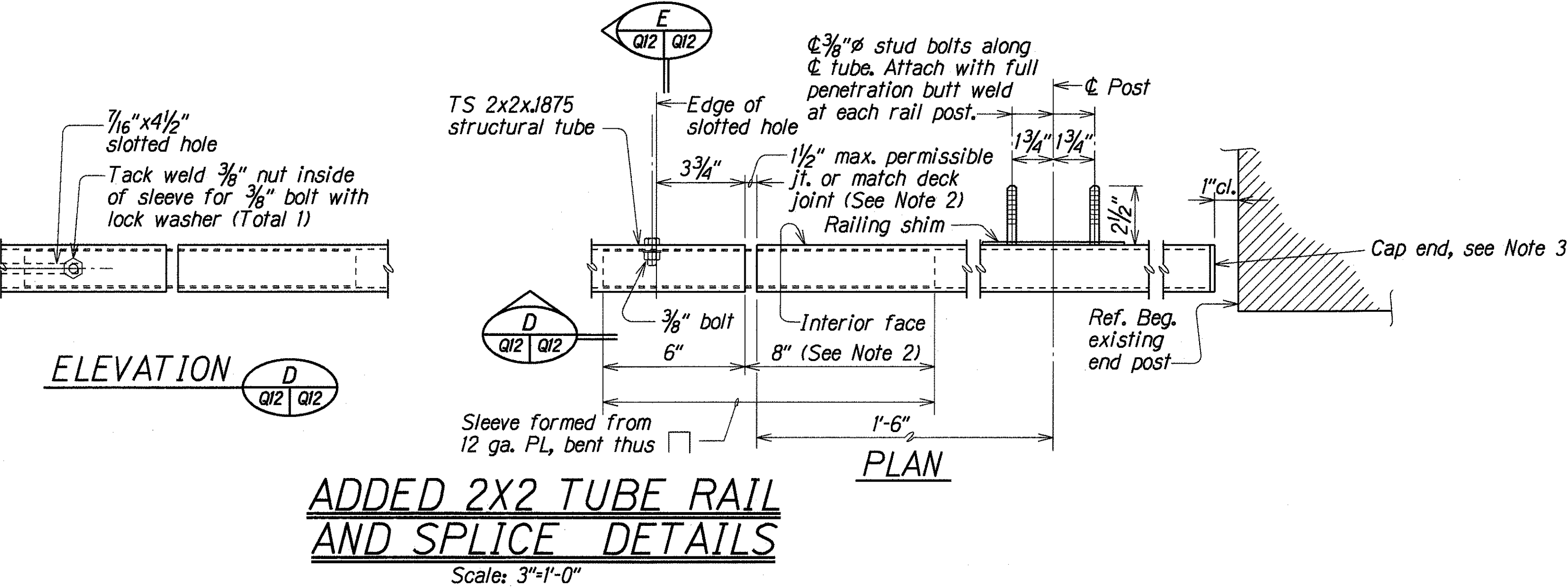
TYPICAL INTERIOR ELEVATION SERVICE ROAD SEPARATION

Scale: $\frac{3}{8}$ "=1'-0"



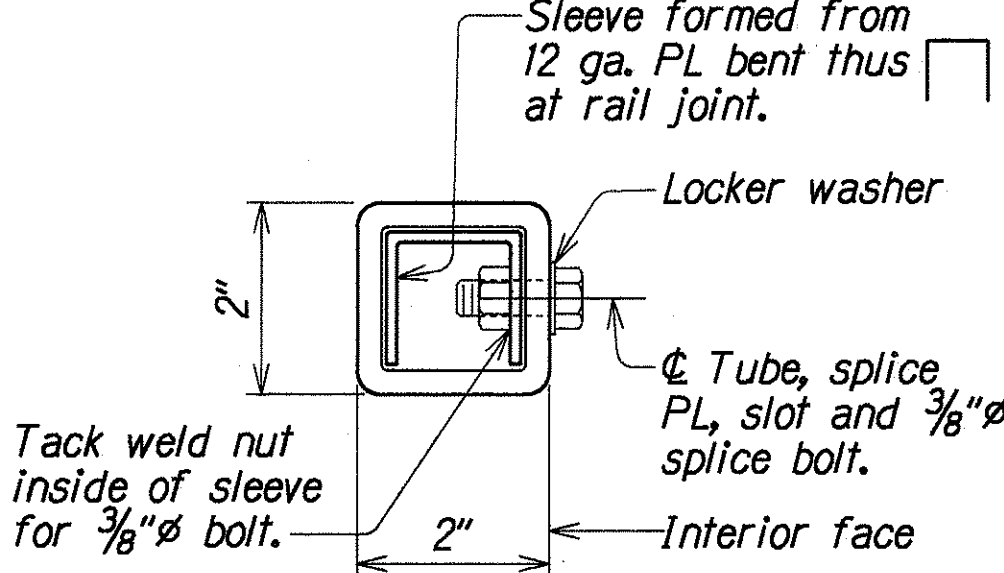
EXISTING METAL RAIL POST UPGRADE DETAILS

Scale: 3"=1'-0"



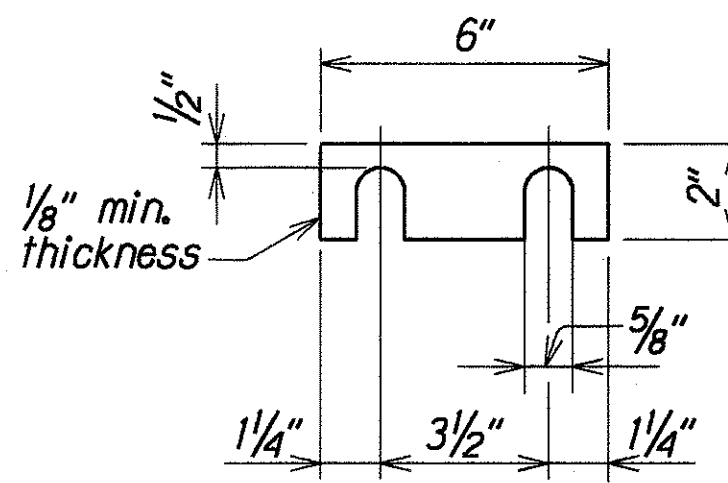
ADDED 2X2 TUBE RAIL AND SPLICE DETAILS

Scale: 3"=1'-0"



TYPICAL SECTION

Scale: 6" = 1'-0"



RAILING SHIM DETAIL

Scale: 3"=1'-0"

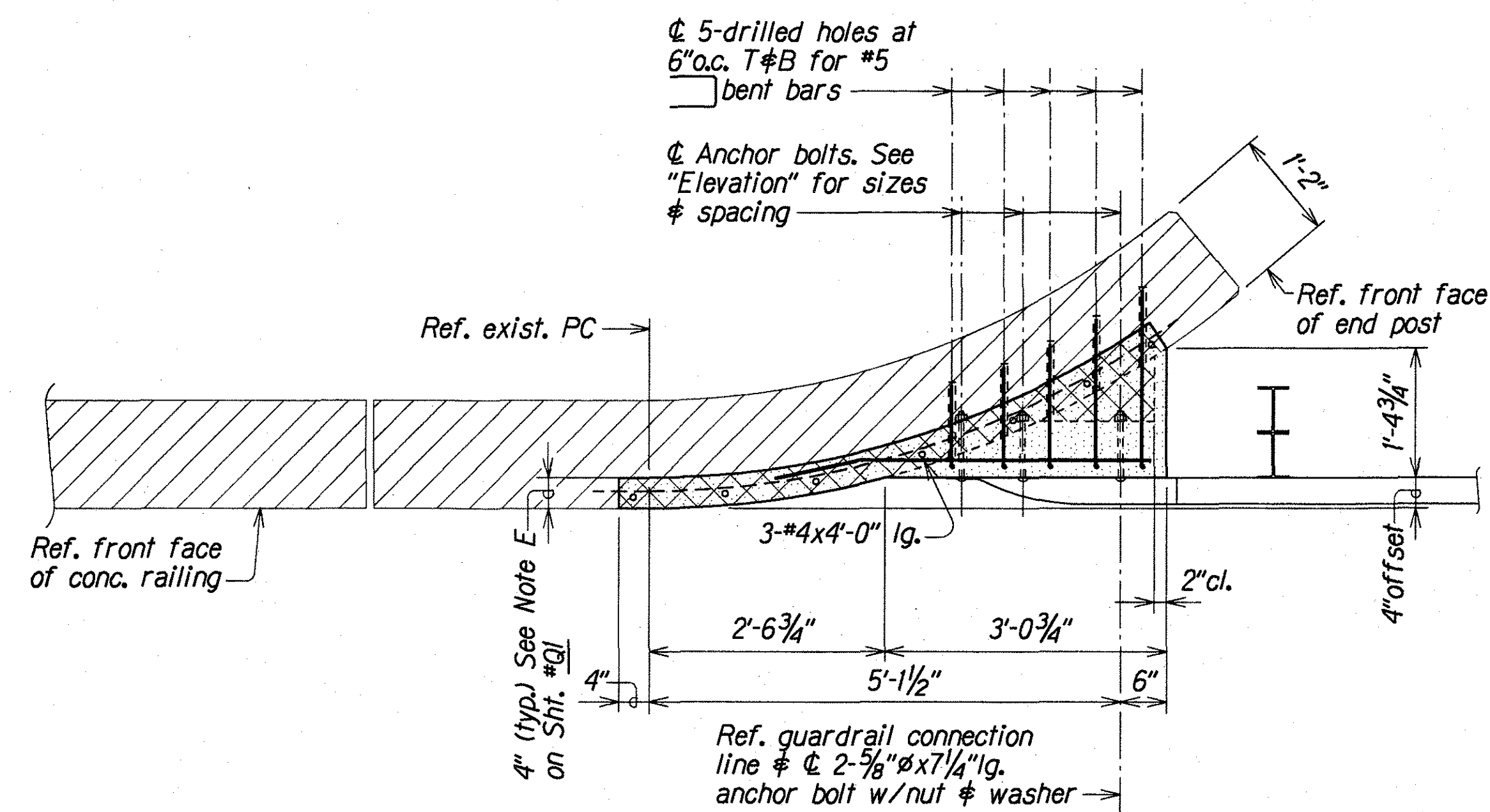
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SERVICE ROAD SEPARATION (BRIDGE NO. 3)
TYPE "B" UPGRADE
METAL BRIDGE RAILING
INTERSTATE ROUTE H-3
FAIP NO. I-H3-K75, UNIT 1

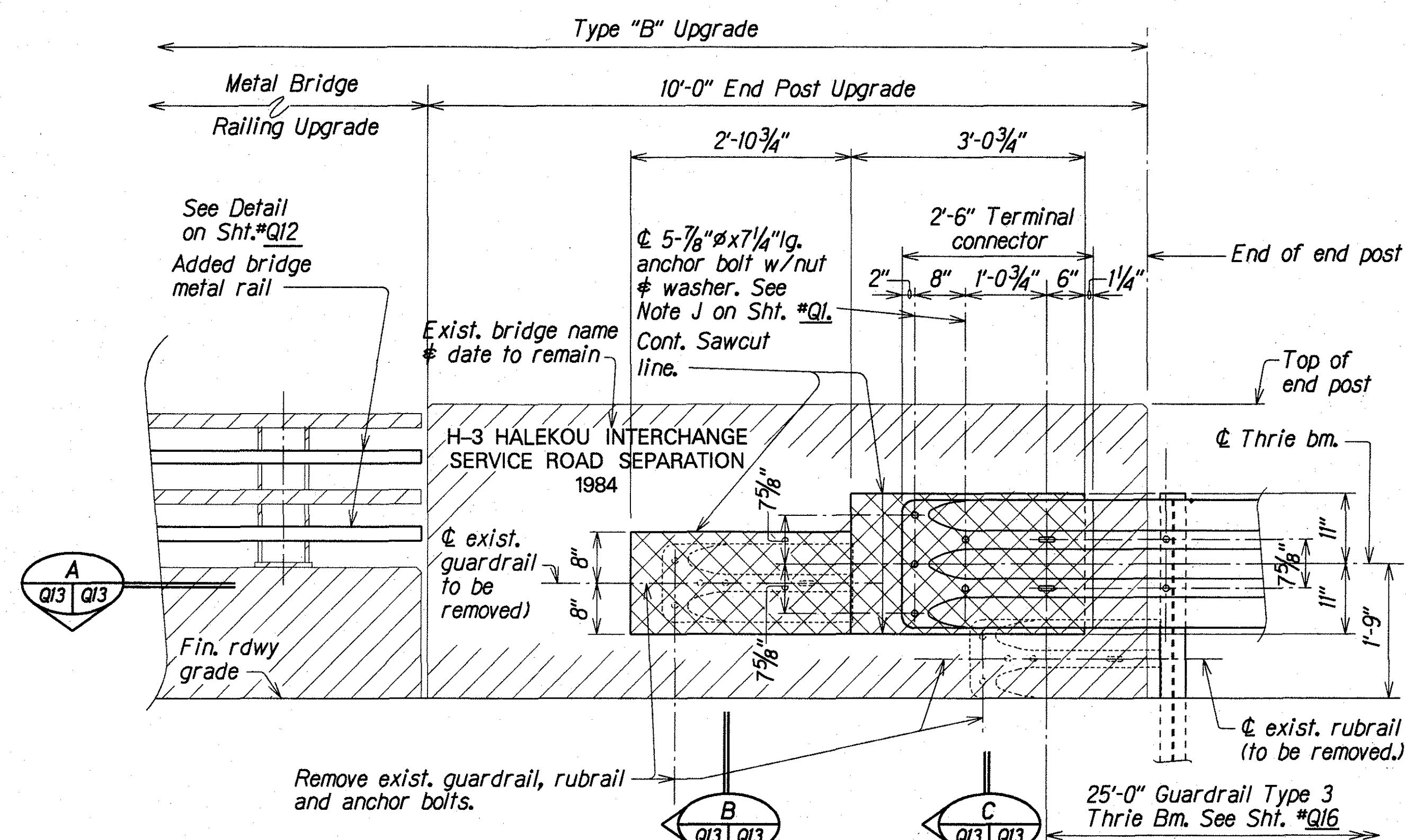
Scale: As Noted
Date: Dec. 1995

SHEET No. Q12 OF 16 SHEETS

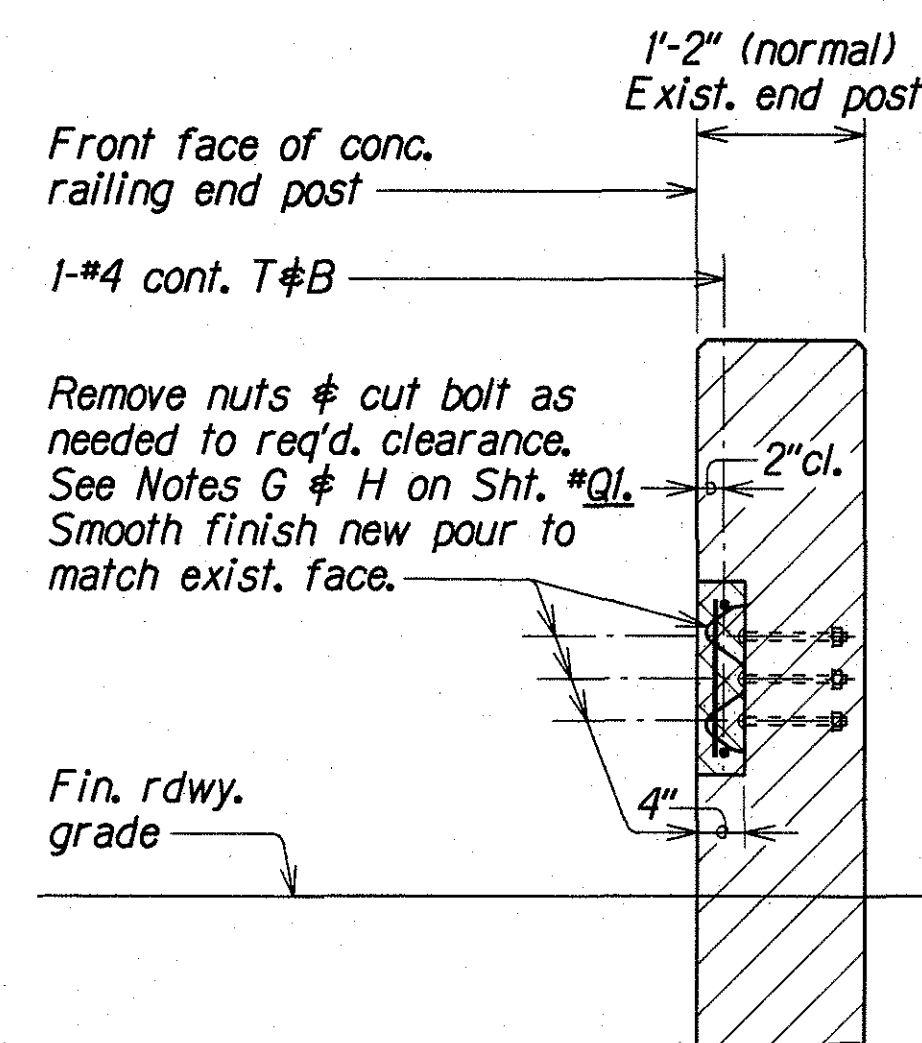
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-K75, UNIT 1	1996	288	405



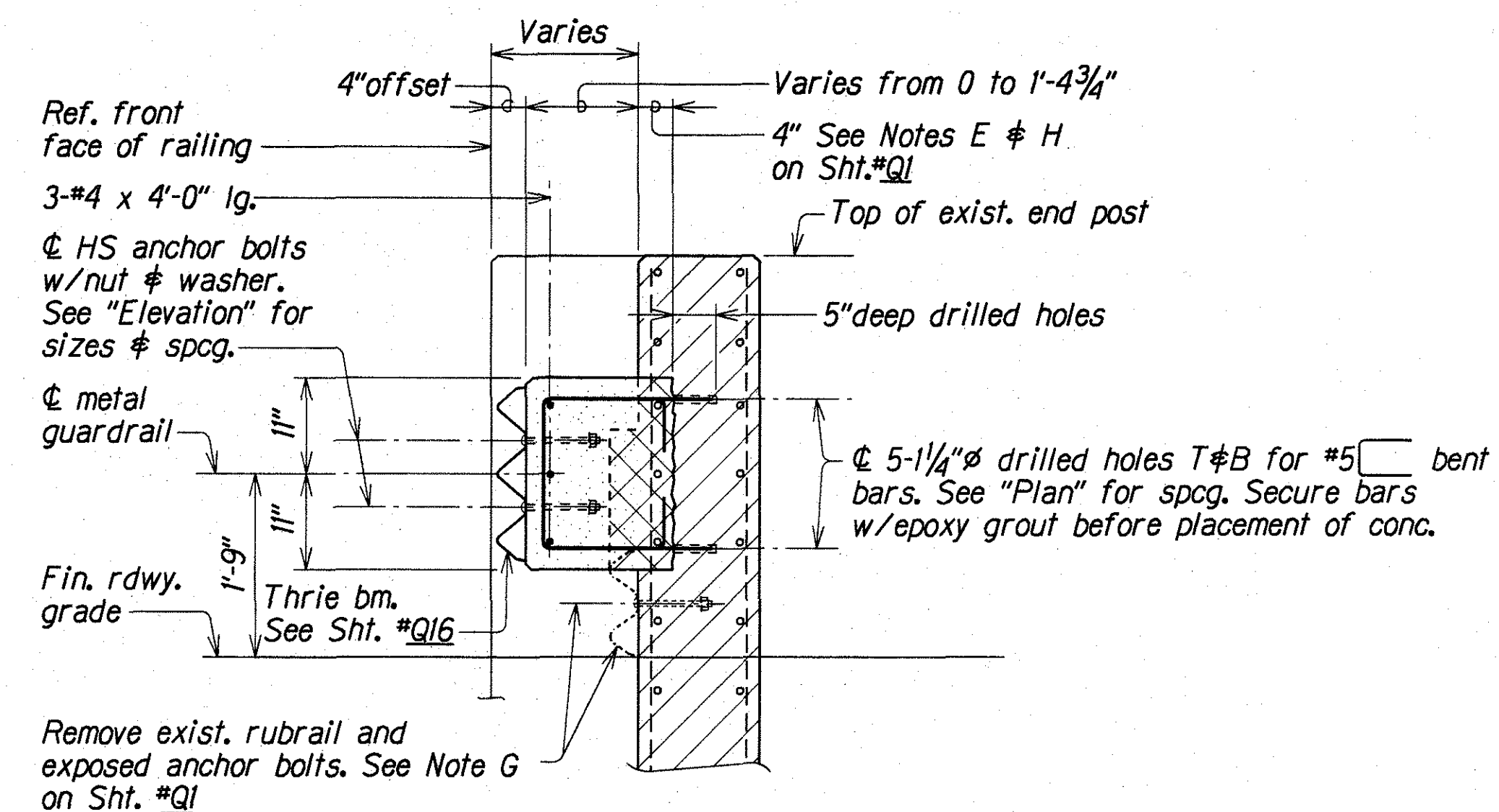
SECTION A
Scale: $\frac{3}{4}" = 1'-0"$ Q13 | Q13



ELEVATION
Scale: $\frac{3}{4}" = 1'-0"$



SECTION B
Scale: $\frac{3}{4}" = 1'-0"$ Q13 | Q13



SECTION C
Scale: $\frac{3}{4}" = 1'-0"$ Q13 | Q13

TYPICAL END POST UPGRADE DETAILS

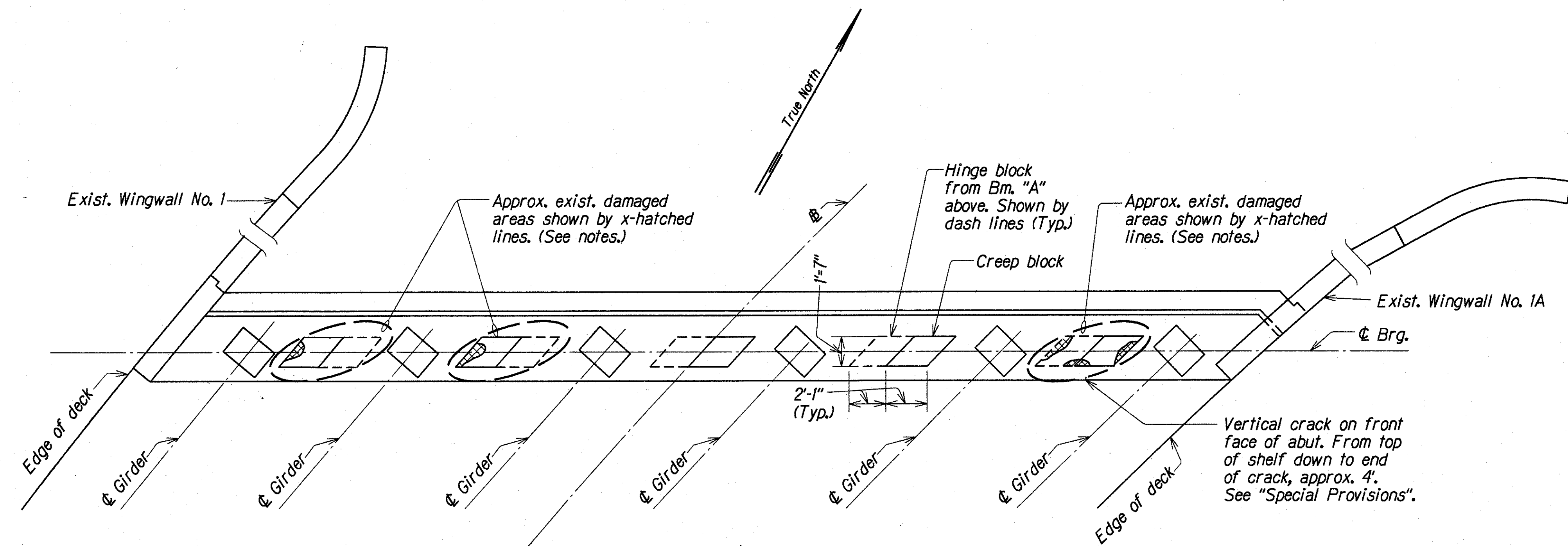
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

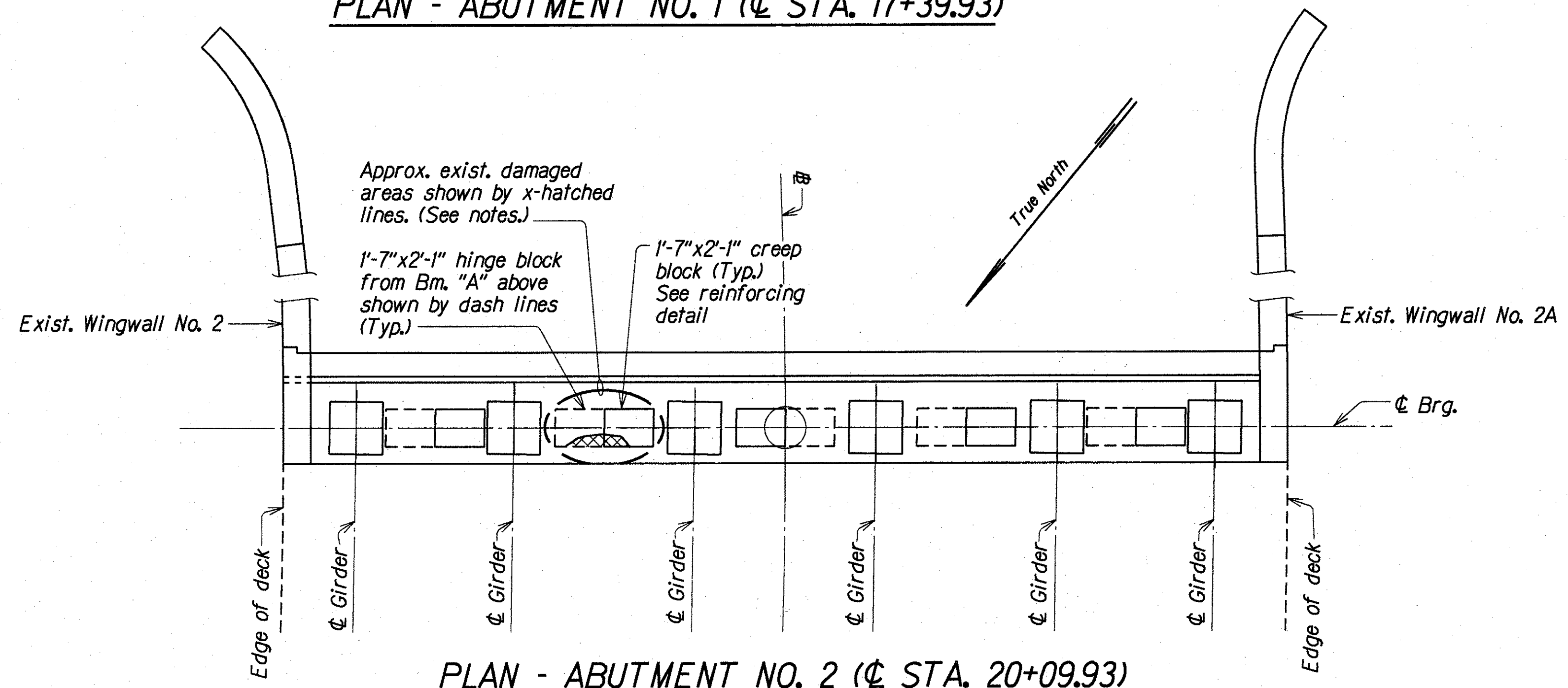
SERVICE ROAD SEPARATION (BRIDGE NO. 3)
TYPE "B" UPGRADE
BRIDGE END POST
INTERSTATE ROUTE H-3
FAIP NO. 1-H3-1(K75), UNIT 1

Scale: As Noted Date: Dec. 1995

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1175, UNIT 1	1996	289	405



PLAN - ABUTMENT NO. 1 (CL STA. 17+39.93)



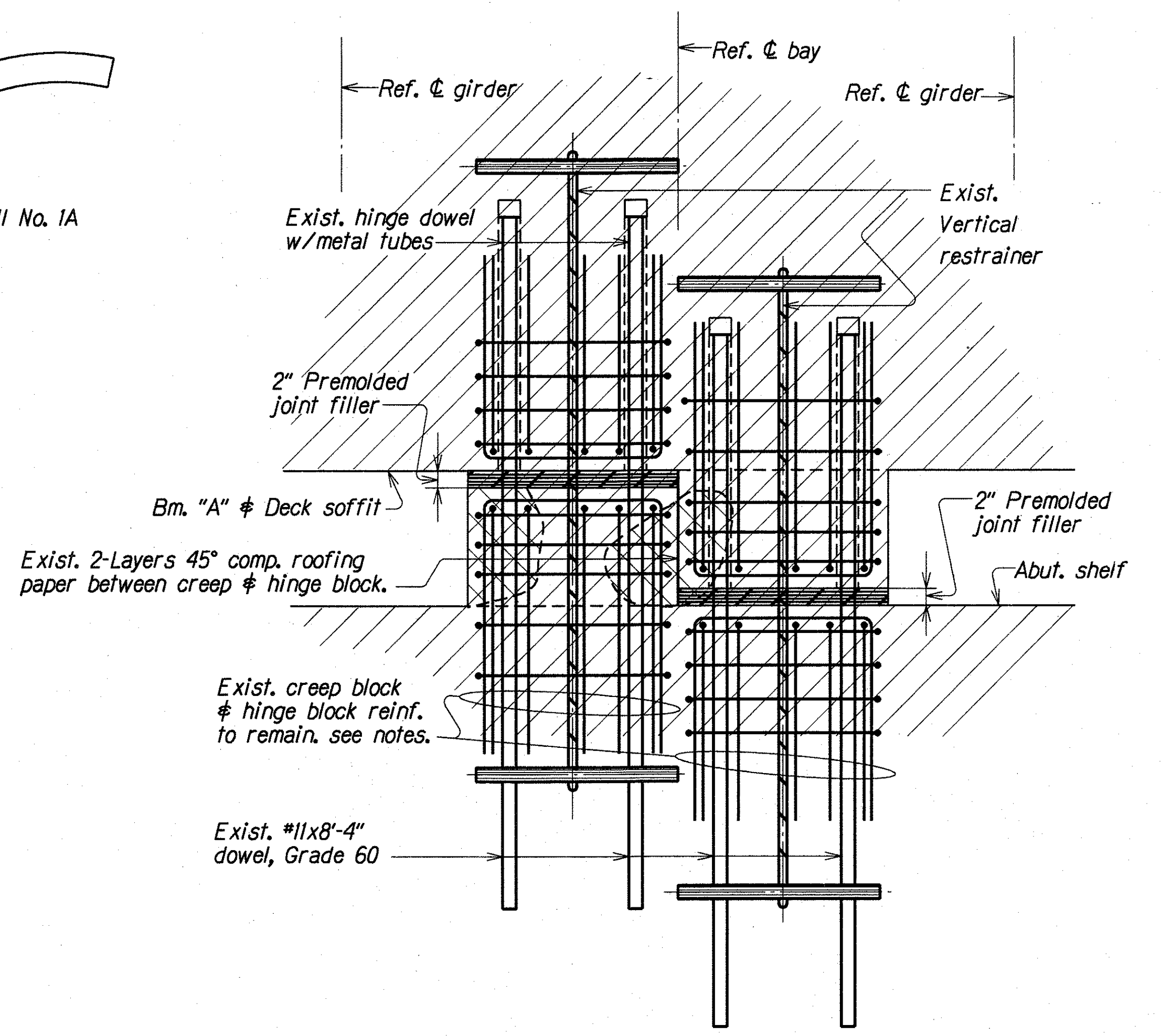
PLAN - ABUTMENT NO. 2 (CL STA. 20+09.93)

EXISTING CONCRETE SEAT, HINGE BLOCK & CREEP BLOCK LAYOUT PLAN

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

NOTES

1. The Contractor shall provide adequate traffic control plan to ensure safety and public accessibility to and from the structure.
2. Extent of cracks and damage area shown on "plans" are estimate only. Actual limits shall be determined in the field.
3. All deteriorated, damaged, cracked, spalled, honeycombed concrete shall be removed to sound concrete and all exposed reinforcing to be cleaned. If The Engineer, in the field, finds other damaged area and determine the need for its repair, it shall be paid at Contractor's contract unit price.
4. All damaged or worn out joint filler and bond breaker materials (45* comp. roofing paper) between creep and hinge blocks to be removed and replaced with new ones.
5. Surface area to be joined with fresh mortar cement shall be free from fine particles and cleaned thoroughly prior to applying epoxy bonding agent. Application of epoxy bonding agent shall be done in strict conformance with manufacturer's recommendation.
6. Mortar cement shall gain a minimum compressive strength of 3,000 psi at 28 days. During the inspection, if any defects are found, the Contractor shall bear all the costs necessary to correct the deficiencies.



EXISTING CREEP BLOCK & HINGE BLOCK REINFORCING DETAIL (FRONT VIEW)

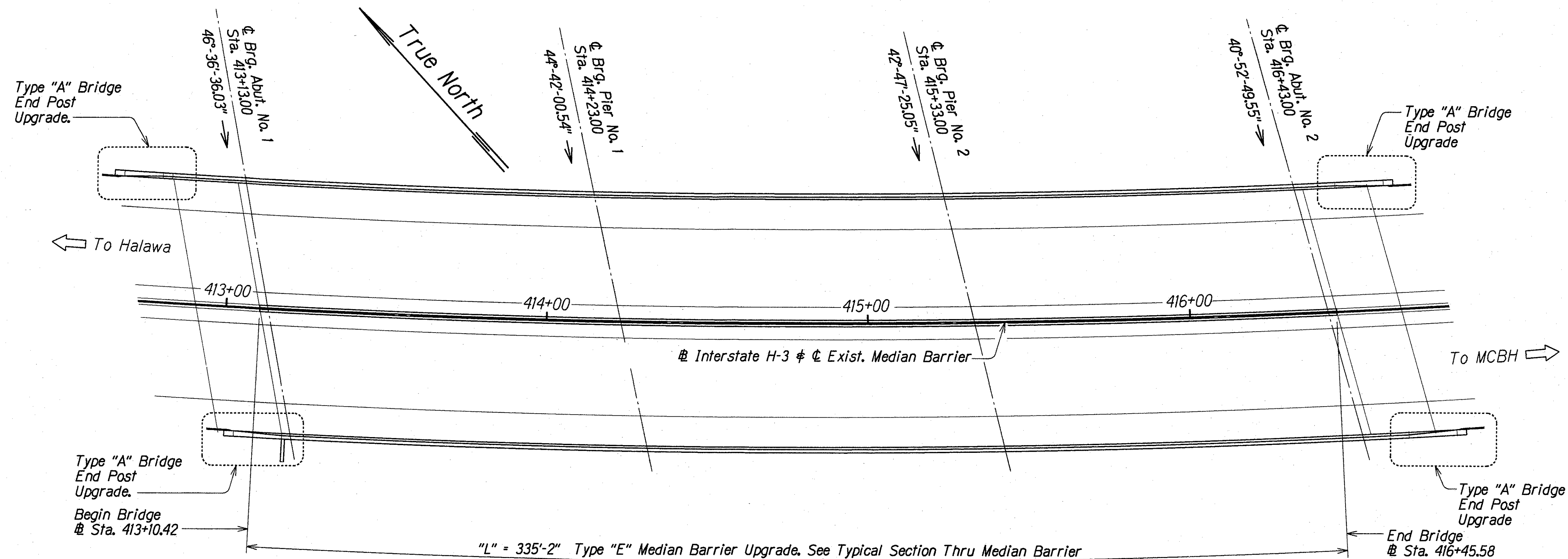
DATE	SEP 1994
SURVEY PLOTTED BY	LMA
DRAWN BY	TC
DESIGNED BY	TC
CHECKED BY	MS
ORIGINAL PLAN	
NOTE BOOK	
N.	11/10/94

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SERVICE ROAD SEPARATION (BRIDGE NO. 3)
ABUTMENT #1 & #2
CREEP BLOCK & HINGE BLOCK REPAIR
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1175, UNIT 1

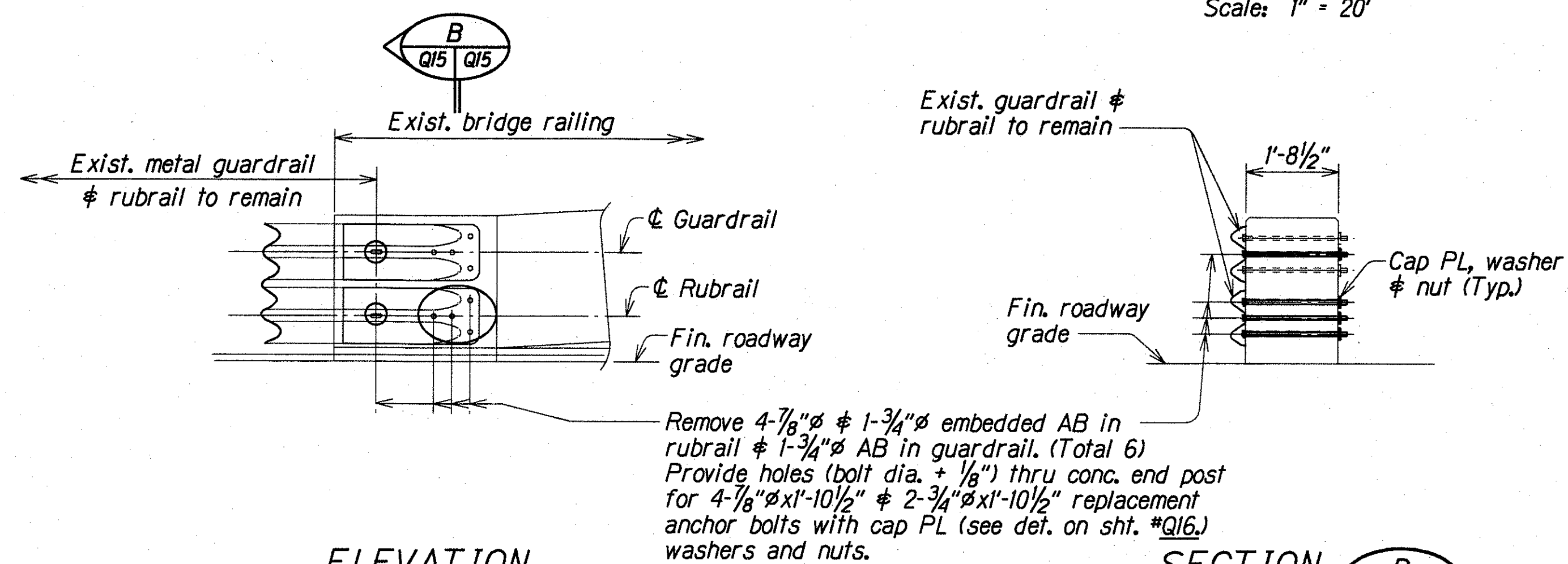
Scale: As Noted
Date: Dec. 1995

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-H3-1(K75), UNIT 1	1996	290	405



LAYOUT PLAN - KUOU STREAM BRIDGE

Scale: 1" = 20'

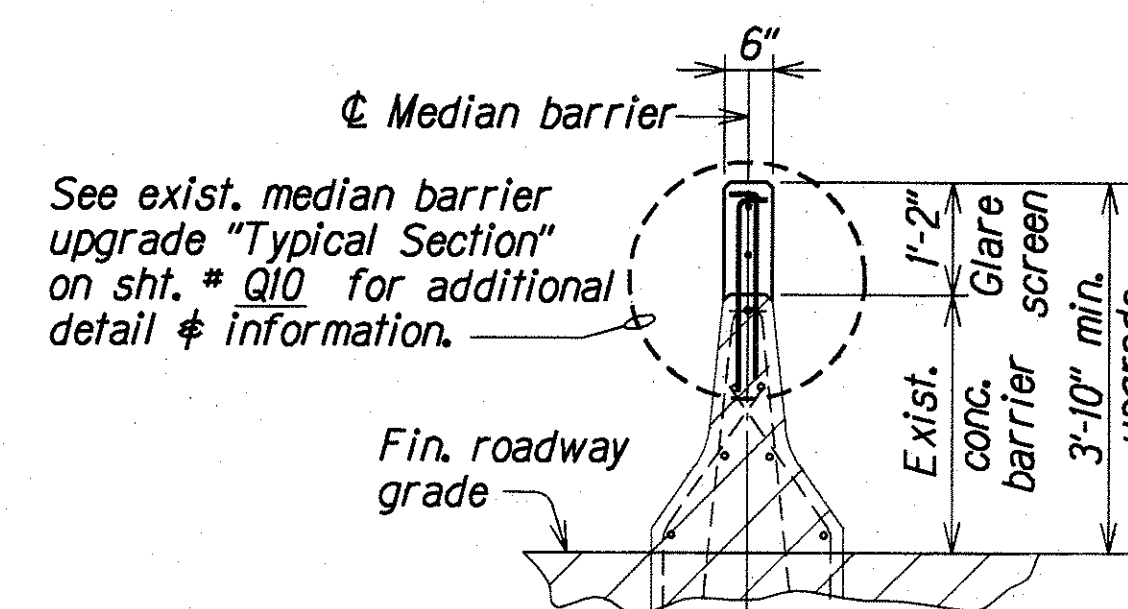


ELEVATION

SECTION

TYPICAL TYPE "A" UPGRADE BRIDGE END POST

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



TYPICAL SECTION THRU MEDIAN BARRIER

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

ORIGINAL PLAN	DATE
DESIGNED BY	SEP 1994
DRAWN BY	SEP 1994
CHECKED BY	SEP 1994
NOTED BY	SEP 1994
QUANTITIES BY	SEP 1994
CHECKED BY	SEP 1994
DATE	SEP 1994

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

KUOU STREAM BRIDGE
TYPE "A" UPGRADE BRIDGE END POST
AND TYPE "E" MEDIAN BARRIER UPGRADE
INTERSTATE ROUTE H-3
FAIP NO. I-H3-1(K75), UNIT 1

Scale: As Noted Date: Dec. 1995

SHEET NO. Q15 OF 16 SHEETS

