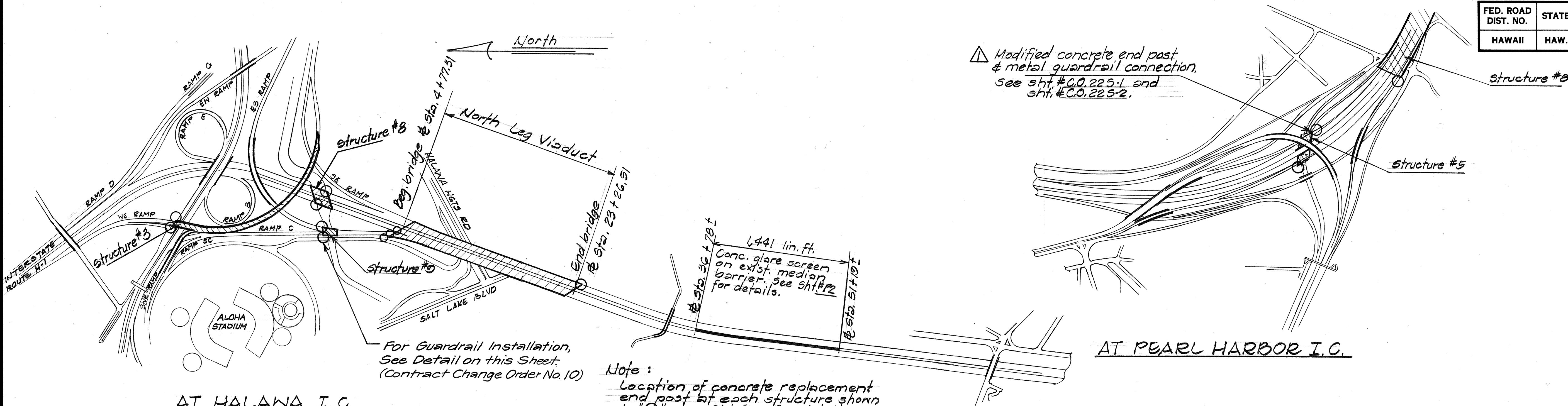


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(207)	1988	60,20	46



AT HALAWA I.C.

AT PEARL HARBOR I.C.

Note :
Location of concrete replacement end post at each structure shown by "O". See sheet #P2 for details. Except at Pearl Harbor I.C. Structure #5 N.E. end post, see sheet #C.O. 225-1 and #C.O. 225-2 for details.

WORK SITE LOCATION PLAN

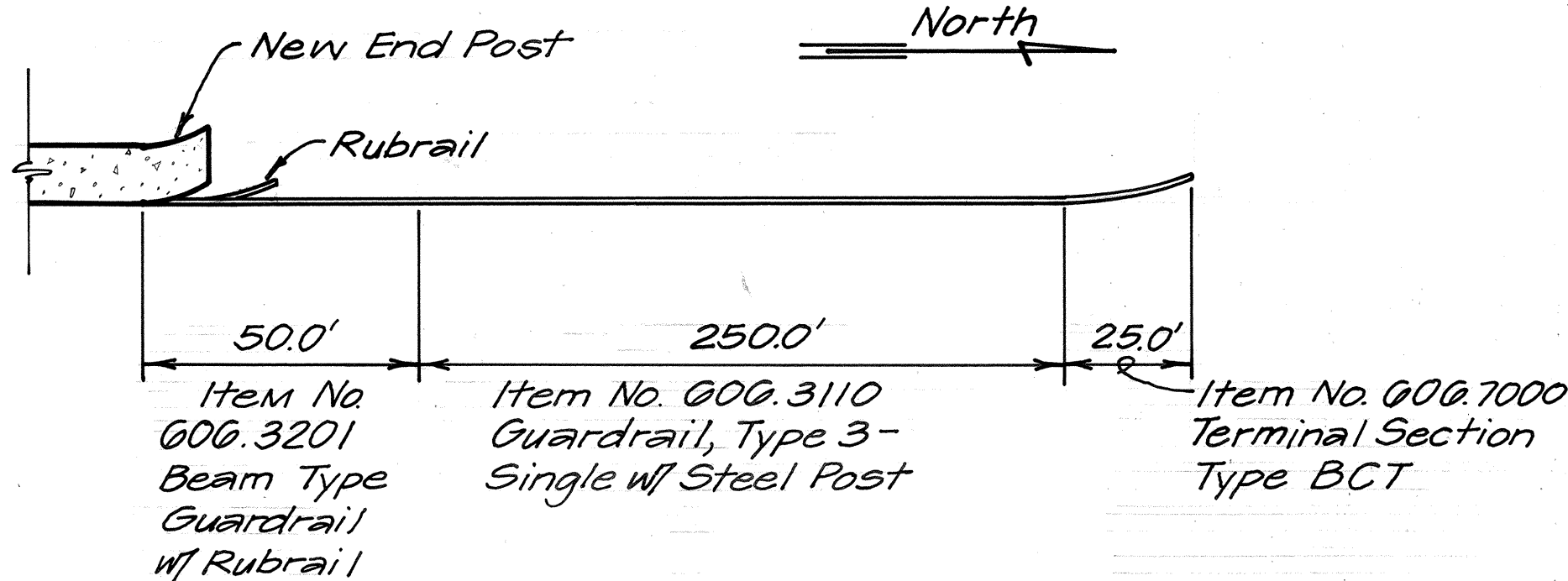
Not to scale

GENERAL NOTES

- See Standard Specifications for Road and Bridge Construction (Hawaii 1985) and special Provisions.
- See State of Hawaii, D.O.T. standard Plans, sheet #P-01, T&E-50 & T&E-51 for lettering details, metal guardrail and "terminal connector" details.
- All anchor bolts shall be high strength bolts conforming to the requirements of ASTM A325.
- "Terminal Connector" shall be fabricated from 10 gauge steel conforming to the requirements of AASHTO M180.
- All anchor bolts, cap te, nuts and washers shall be hot-dip galvanized.
- Anchor bolt length shall be such that a snug fit of the elements and full thread engagement plus 1/8" (max.) is attained.
- First 25'-0" of guardrail adjoining "terminal connector" shall be of galvanized steel and supports spaced at 1'-6 3/4" for the first 6'-3" and at 3'-1 1/2" for the balance.
- Large impacting or vibratory type of equipment will not be permitted in the removal operation of the designated items nor for drilling of holes.
- Any damage to the existing structures due to the Contractor's operation shall be repaired at his expense, to the satisfaction of the Engineer.
- The Contractor shall verify all the dimensions in the field before commencing with work.
- The Contractor shall verify the location of all existing utility lines near structures and notify their respective owners before commencing with work.
- Contract items will be paid for in units indicated in the Estimated Quantities.

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
202.0410	Partial removal of concrete end post.	EA.	13 ea.
501.0100	Structural steel (Include A.B. & Cap te).	L.B.	1,450 lbs
507.3600	Metal tube sleeve installation @ intermediate joints.	EA.	169 ea.
507.3601	Metal tube sleeve installation @ existing concrete end post.	EA.	16 ea.
507.7101	Concrete glare screen on existing concrete median barrier.	L.F.	1,441 lin.ft.
507.7500	Replacement concrete end post.	EA.	12 ea.
606.3105	Removal & disposal of existing metal guardrail with post.	L.F.	358 lin.ft.
606.3201	Beam type guardrail with rubrail.	L.F.	650 lin.ft.
507.7501	Modified concrete end post & metal guardrail connection.	L.S.	1 ea.



DETAIL
BEAM TYPE GUARDRAIL/BCT
Not to Scale

Revised Plan, Note, and Estimated Quantities in Item #507.7500 and added 3-28-89 Item #507.7501.

DATE REVISION

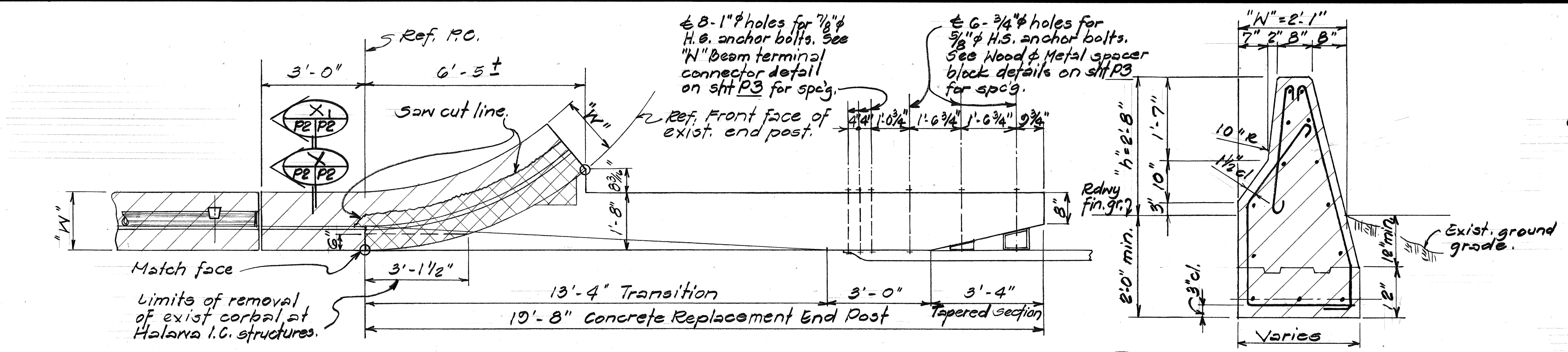
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
LOCATION PLAN, GENERAL NOTES
AND ESTIMATED QUANTITIES
INTERSTATE ROUTE H-1: RESURFACING
KAIMAKANI STREET TO AIRPORT VIADUCT
F.A.I. Proj. No. IR-HI-1(207)

Scale: As Noted Date: May 1988

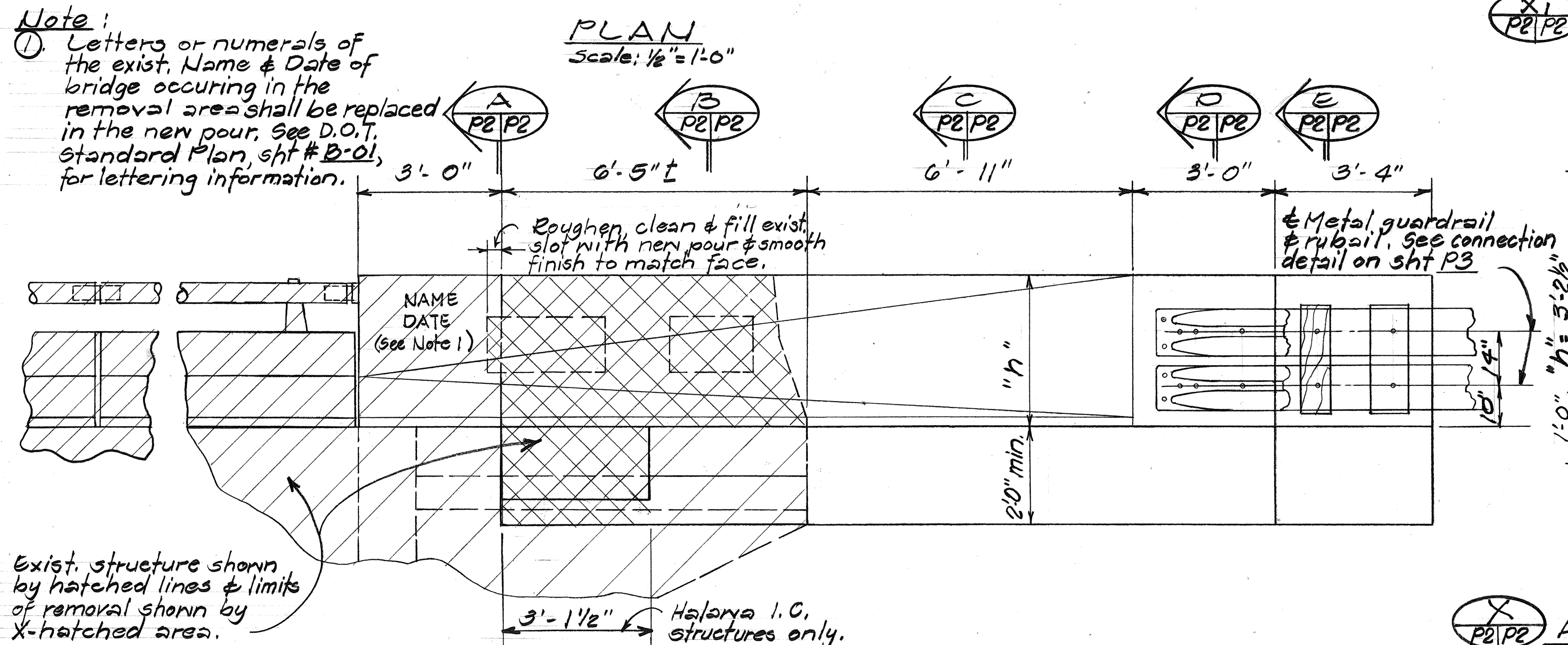
SHEET No. P1 OF 4 SHEETS

C.O. 20

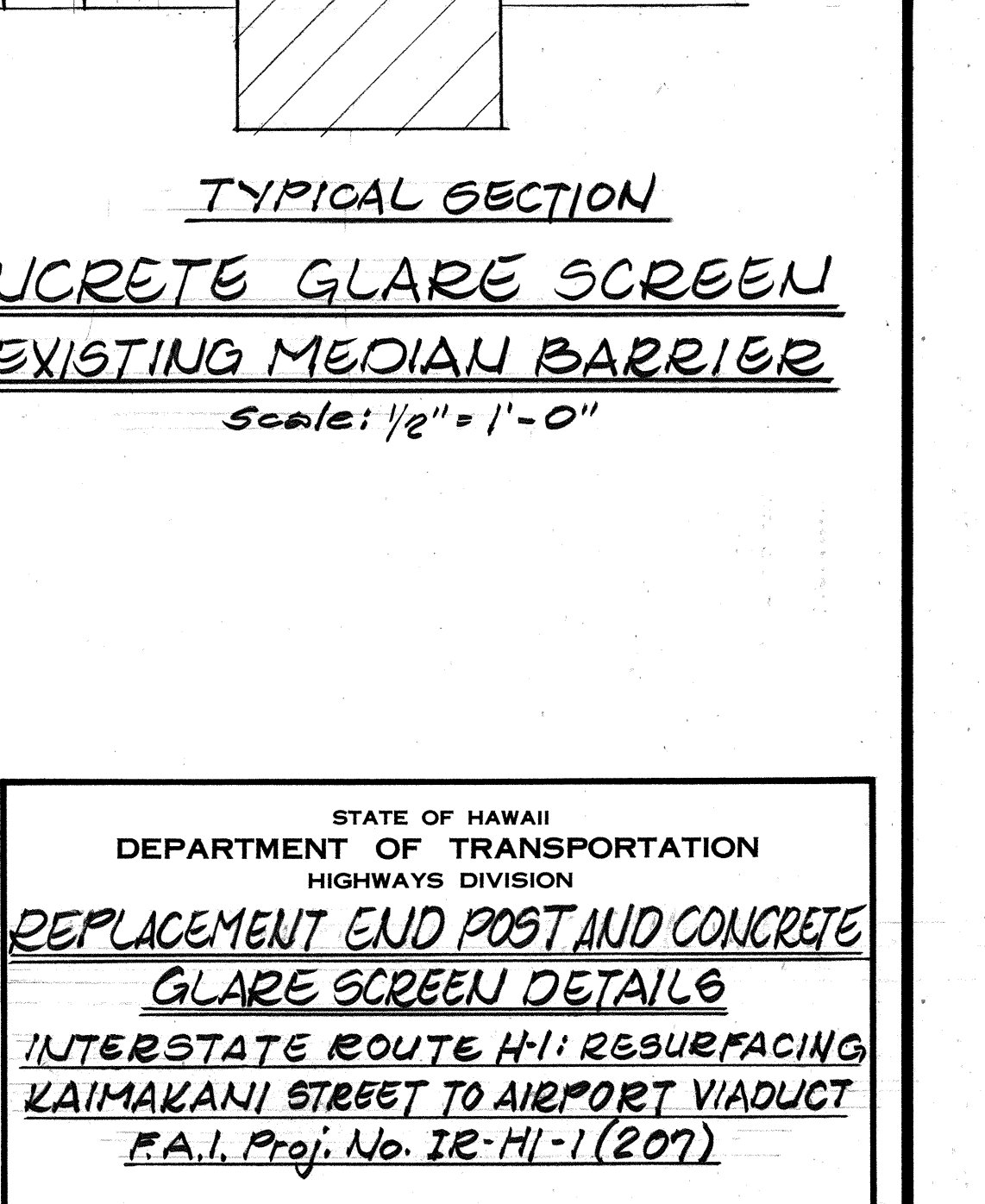
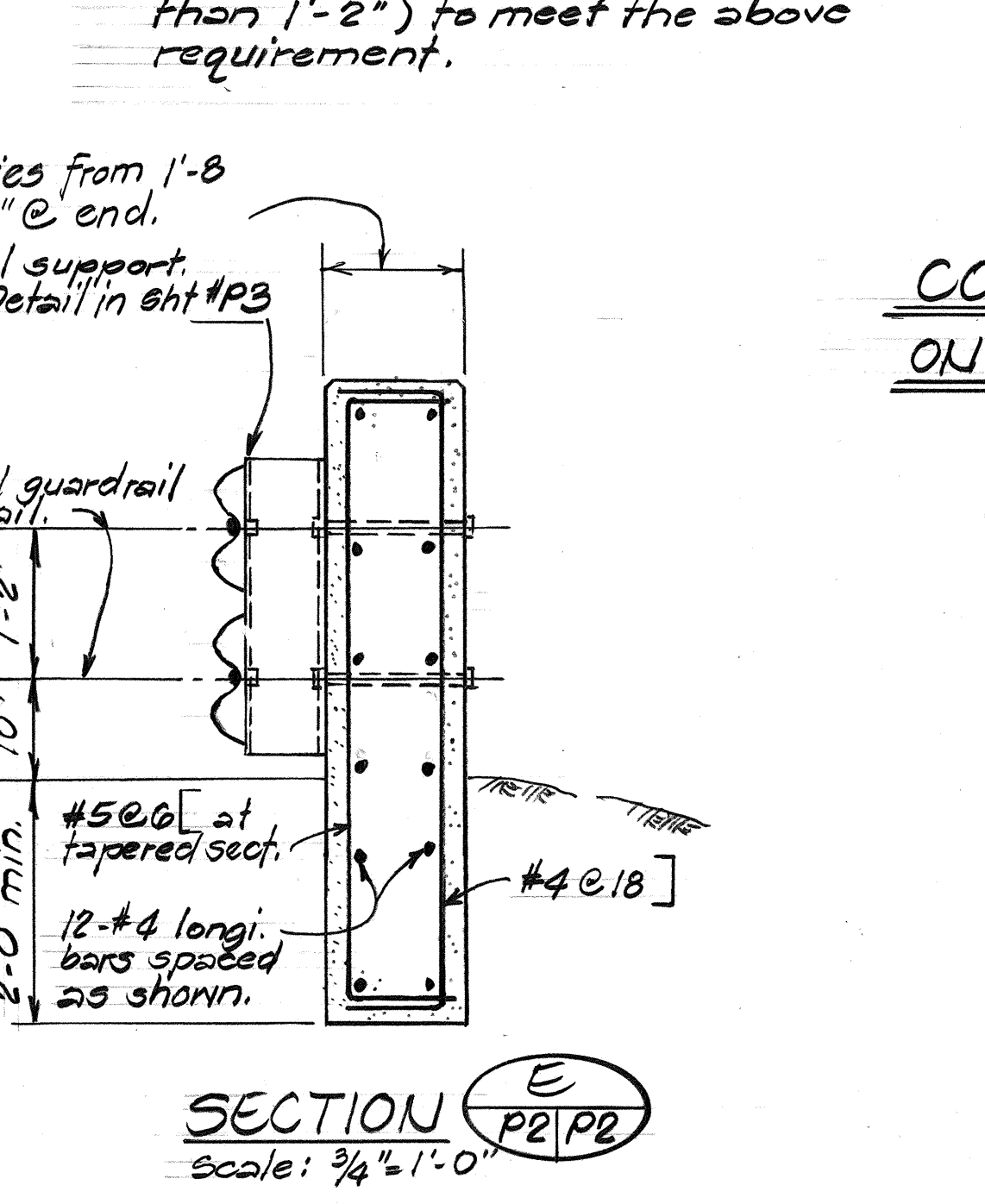
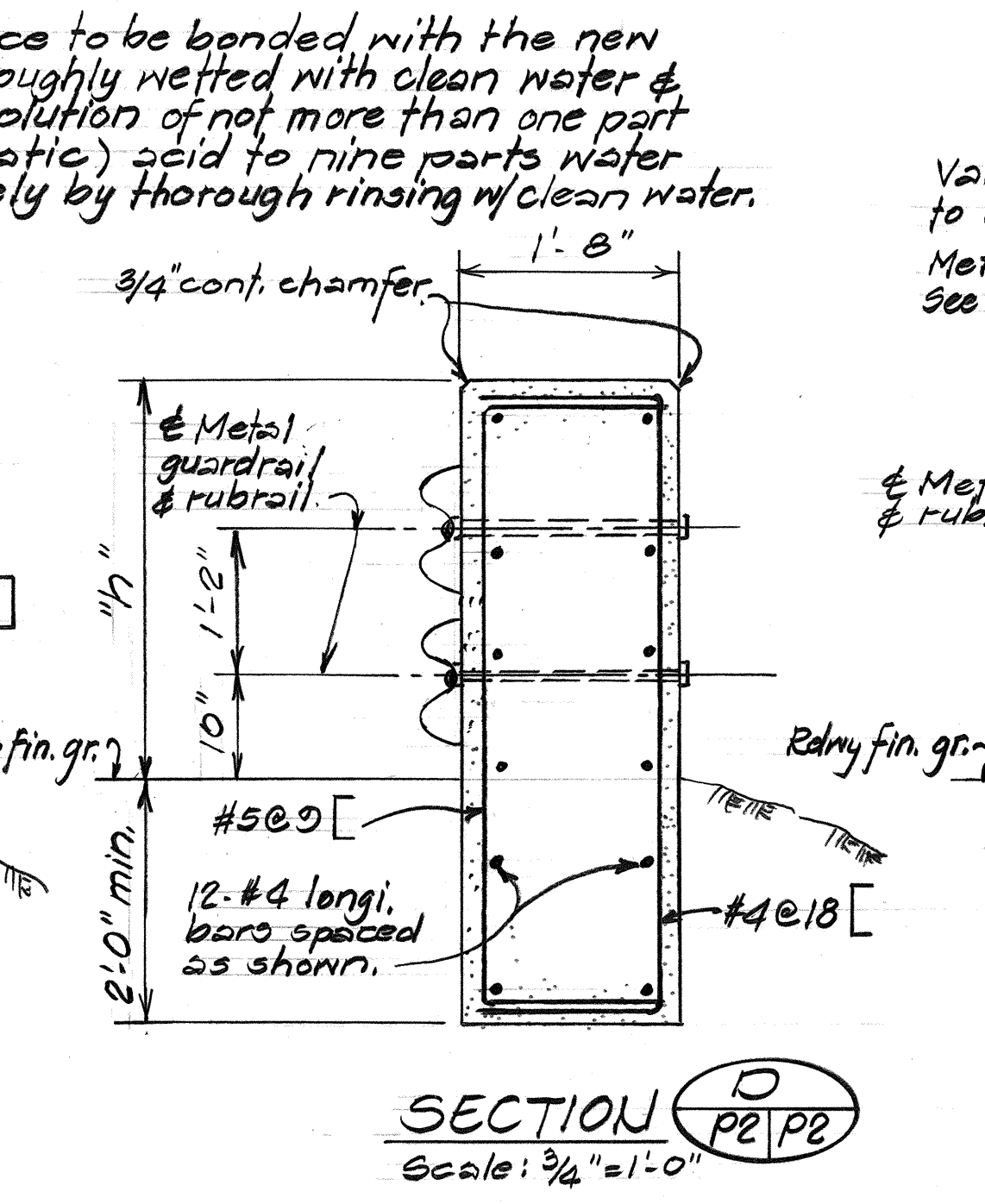
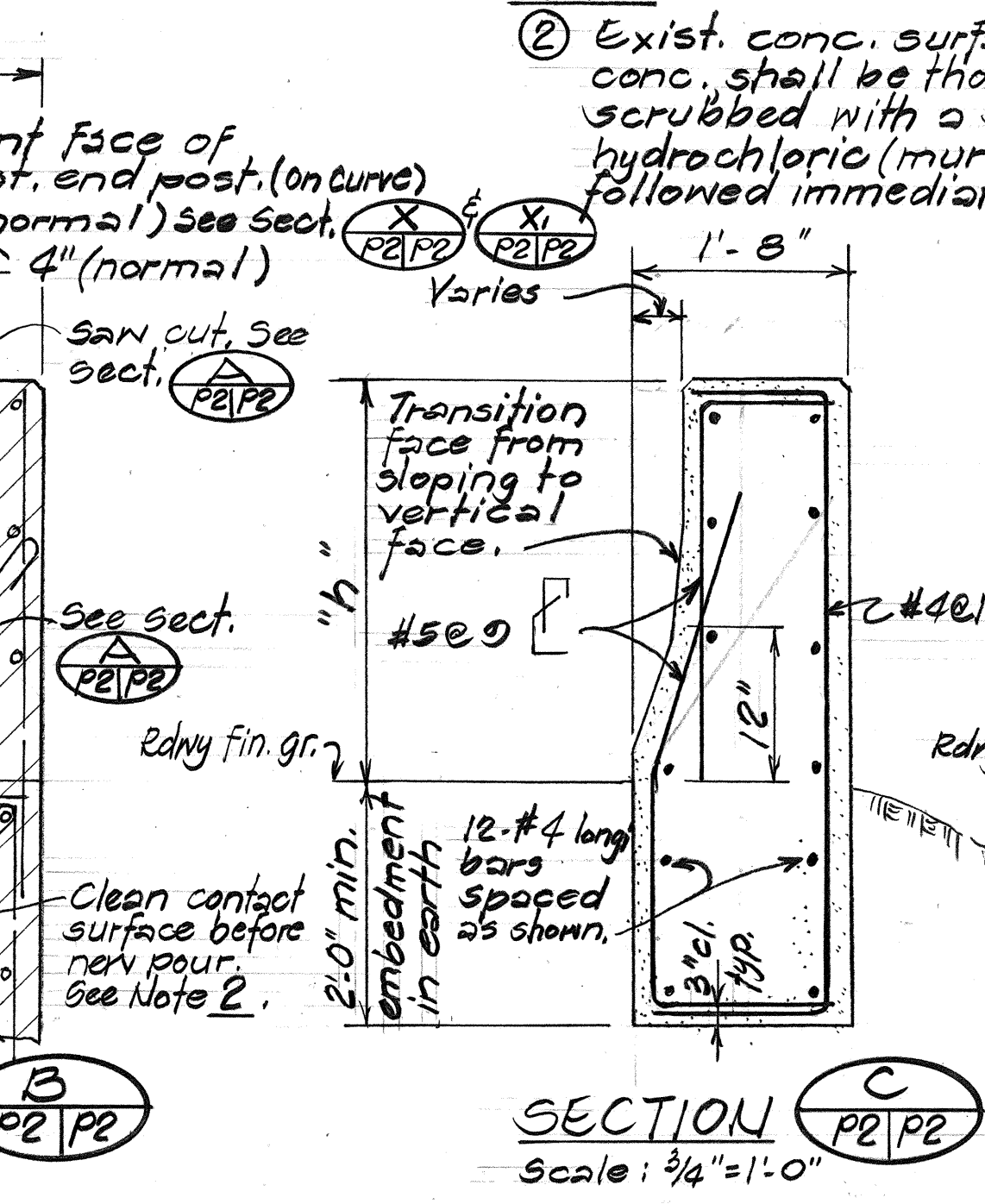
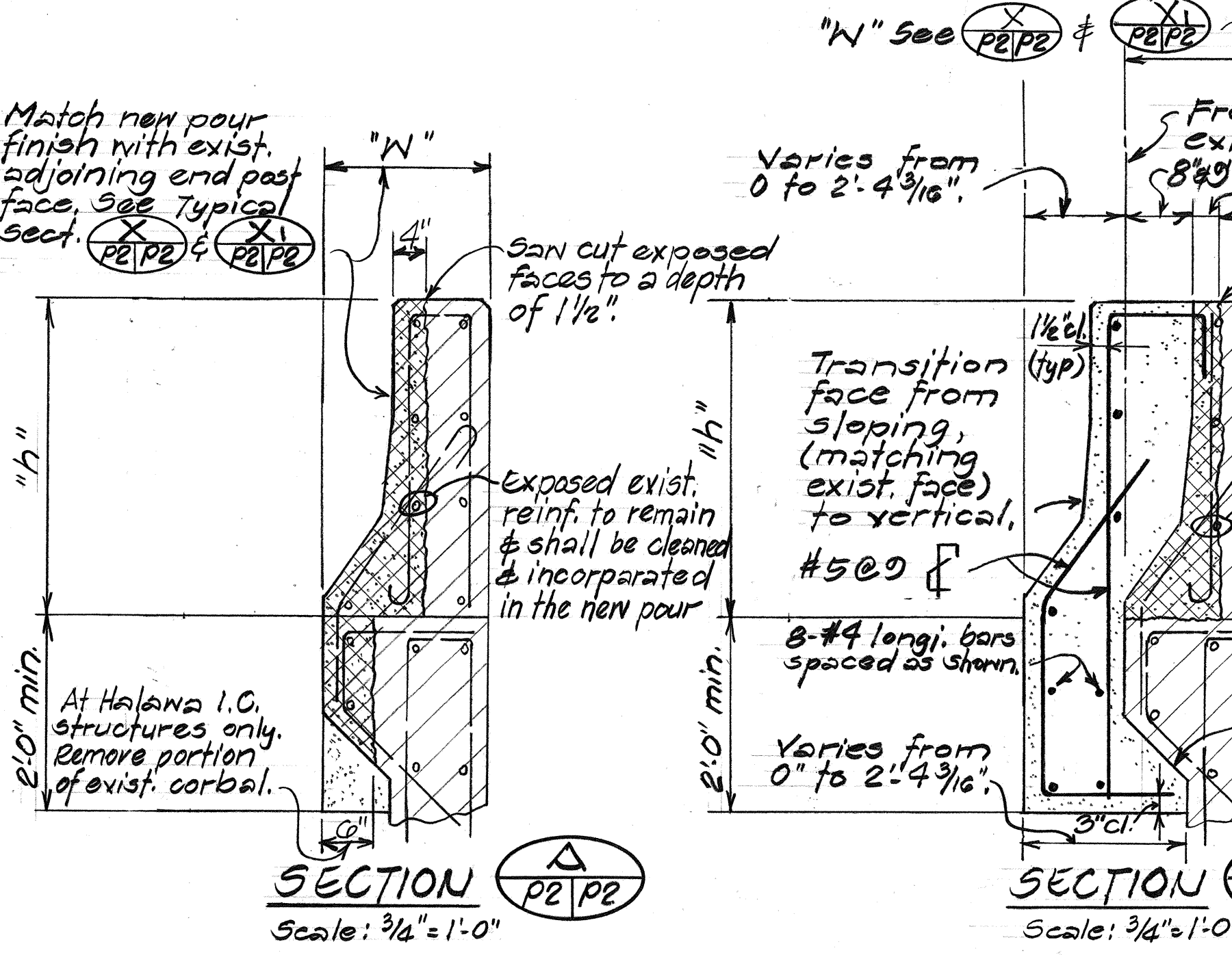
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(207)	1988	21	46



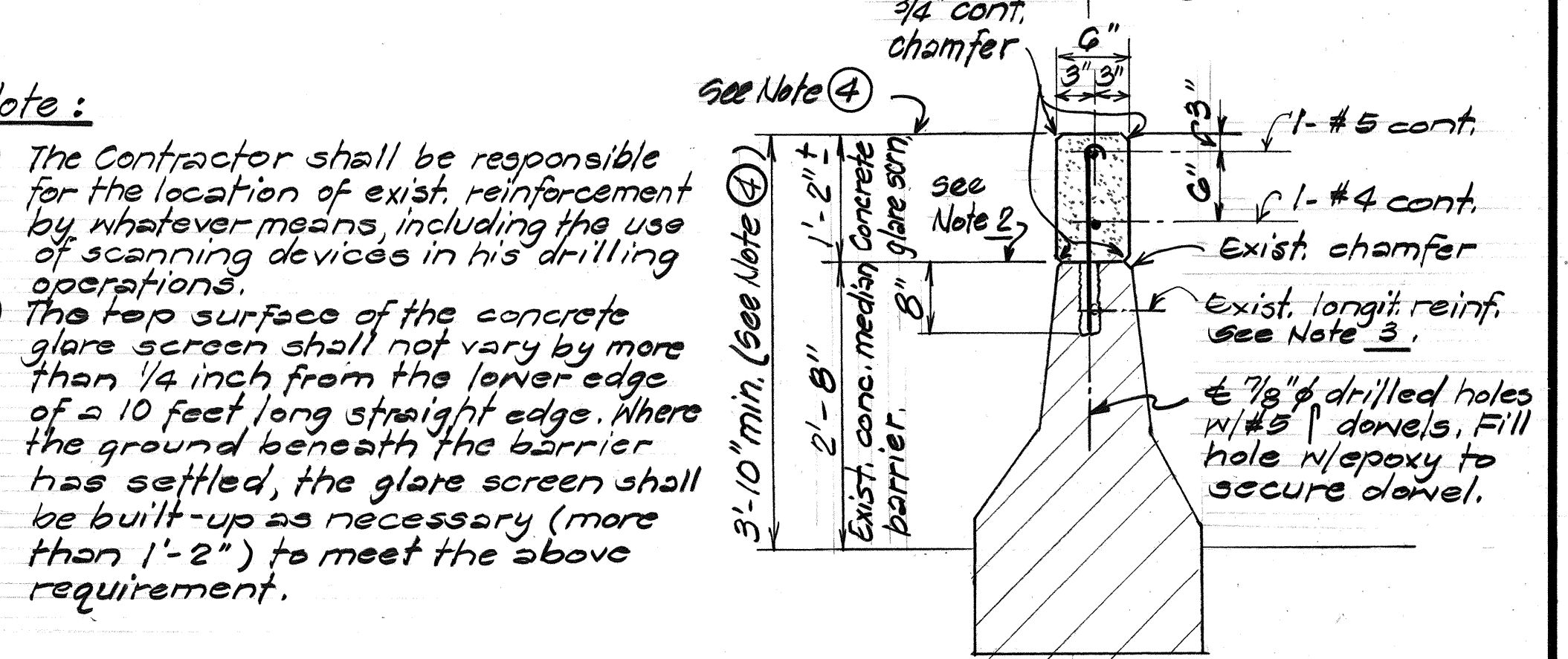
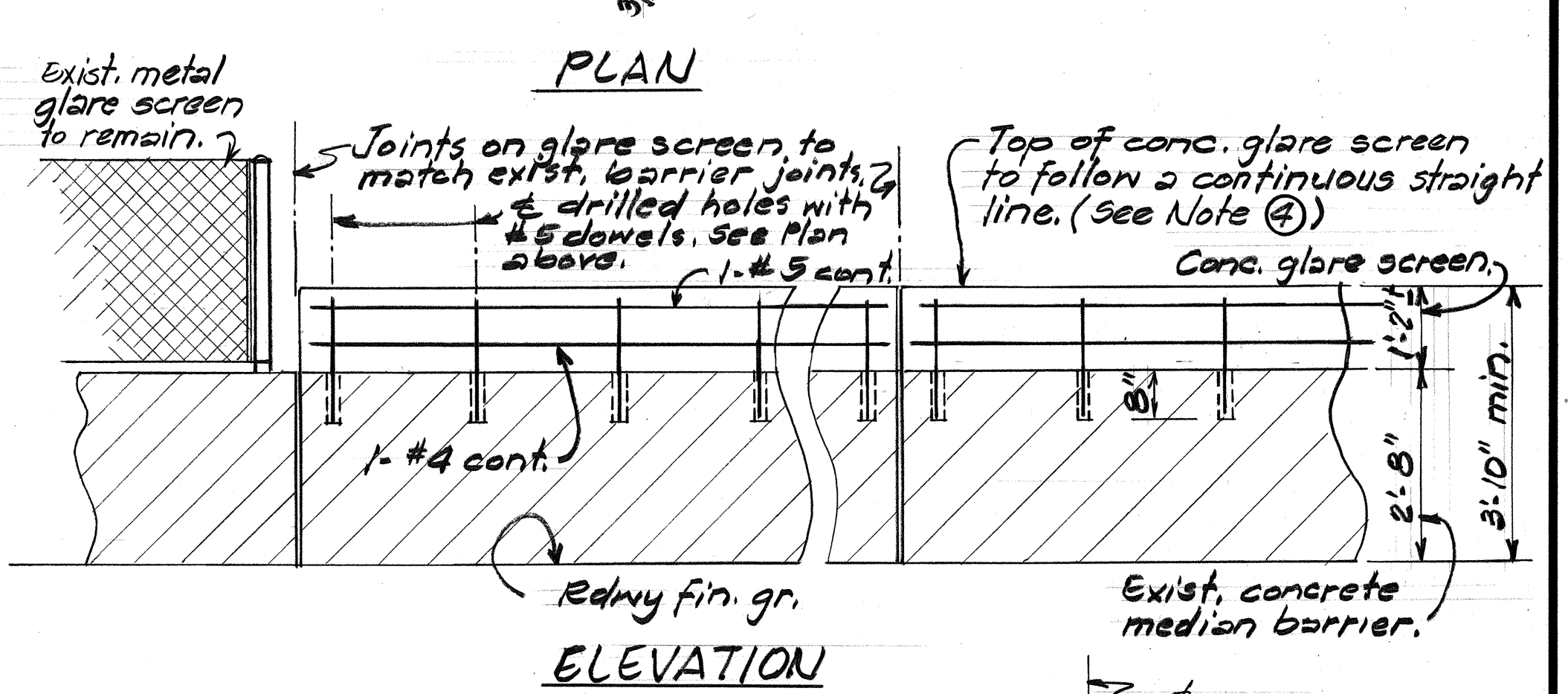
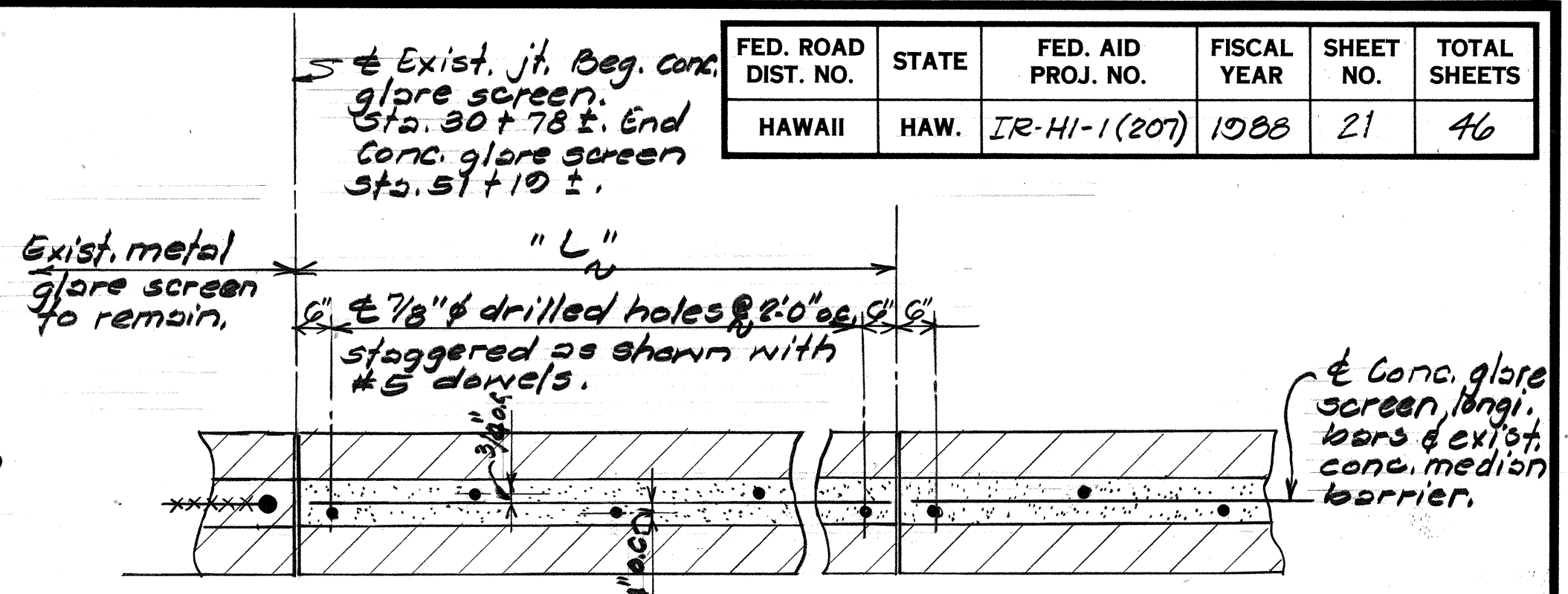
Note:
 Letters or numerals of the exist. Name & Date of bridge occurring in the removal area shall be replaced in the new pour. See D.O.T. Standard Plan, sht # B-01, for lettering information.



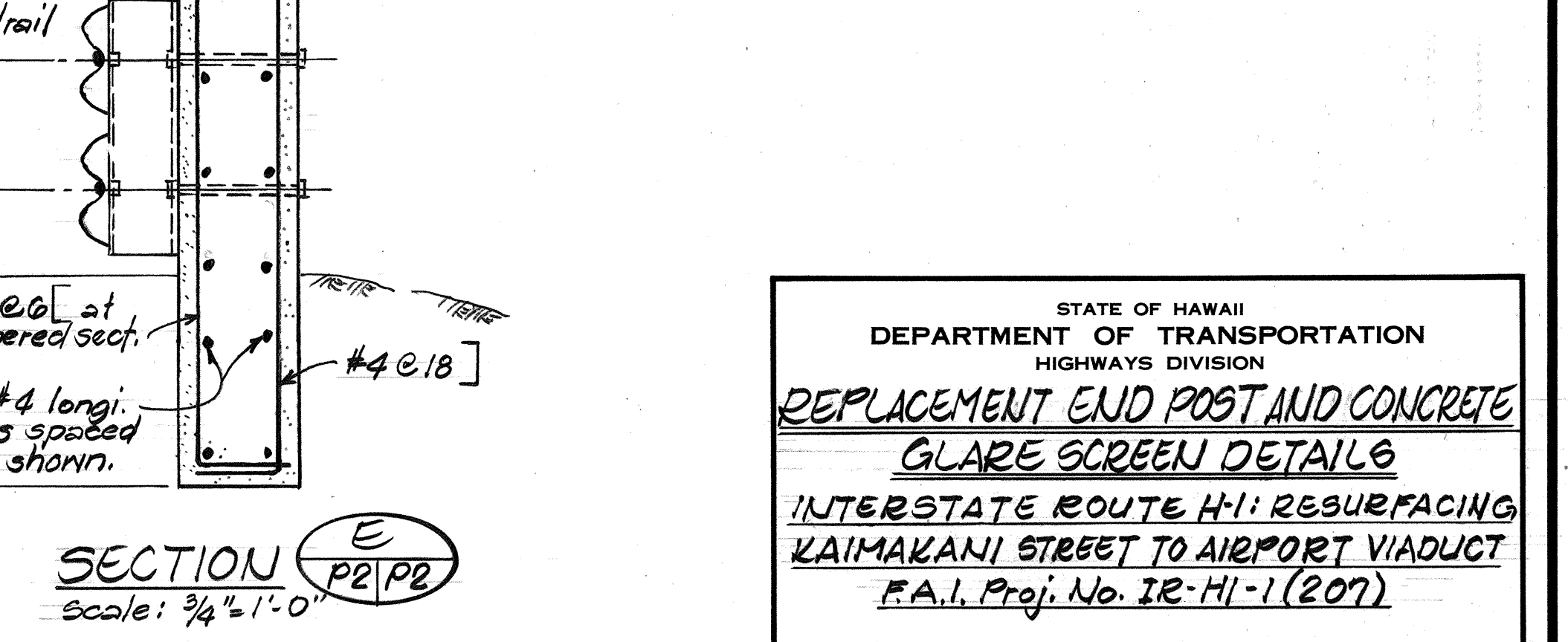
ELEVATION
 Scale: 1/2" = 1'-0"



TYPICAL CONCRETE REPLACEMENT END POST DETAILS
 Scale: As Shown



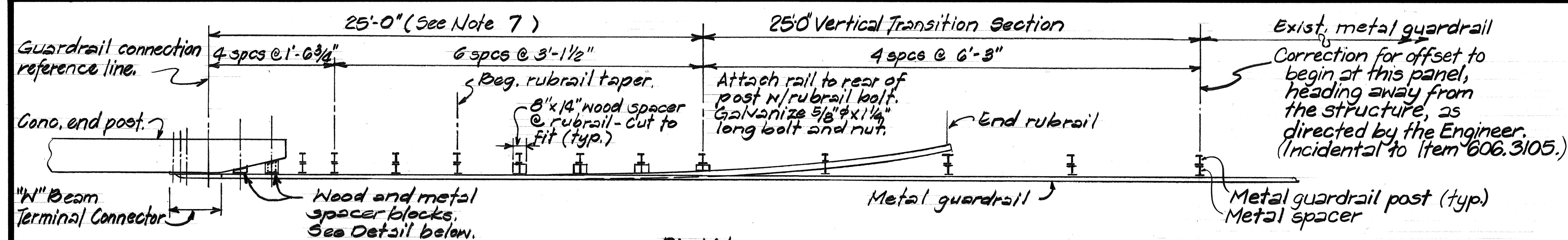
CONCRETE GLARE SCREEN ON EXISTING MEDIAN BARRIER
 Scale: 1/2" = 1'-0"



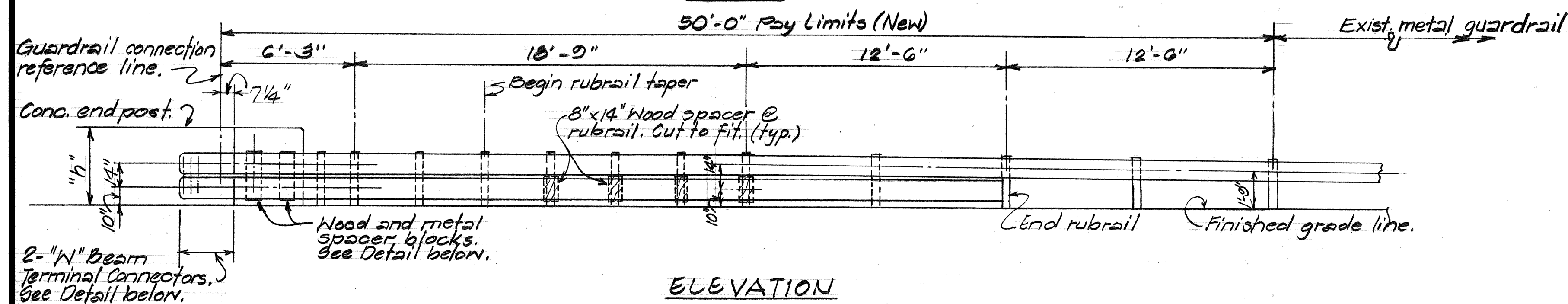
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
REPLACEMENT END POST AND CONCRETE GLARE SCREEN DETAILS
 INTERSTATE ROUTE HI-1 RESURFACING
 KAIMAKANI STREET TO AIRPORT VIADUCT
 F.A.I. Proj. No. IR-HI-1(207)
 Scale: As Noted Date: May 1988
 SHEET No. P2 OF 4 SHEETS

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

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(207)	1988	22	46

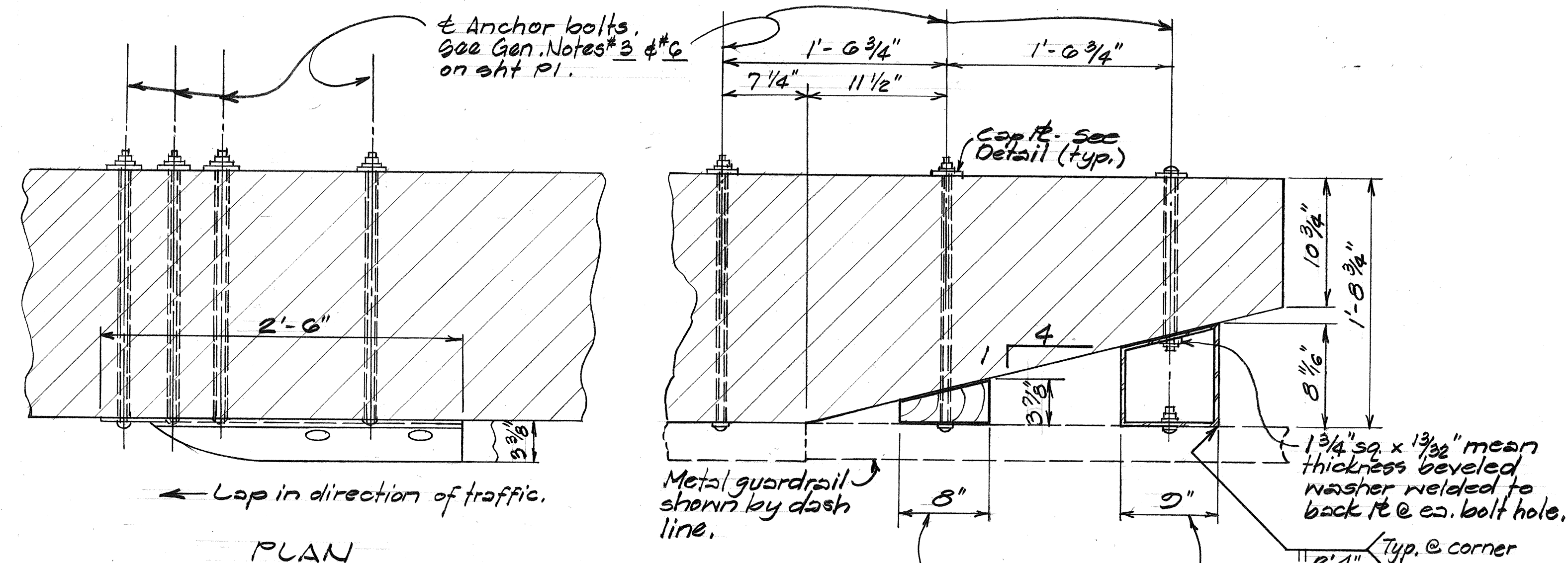


PLAN

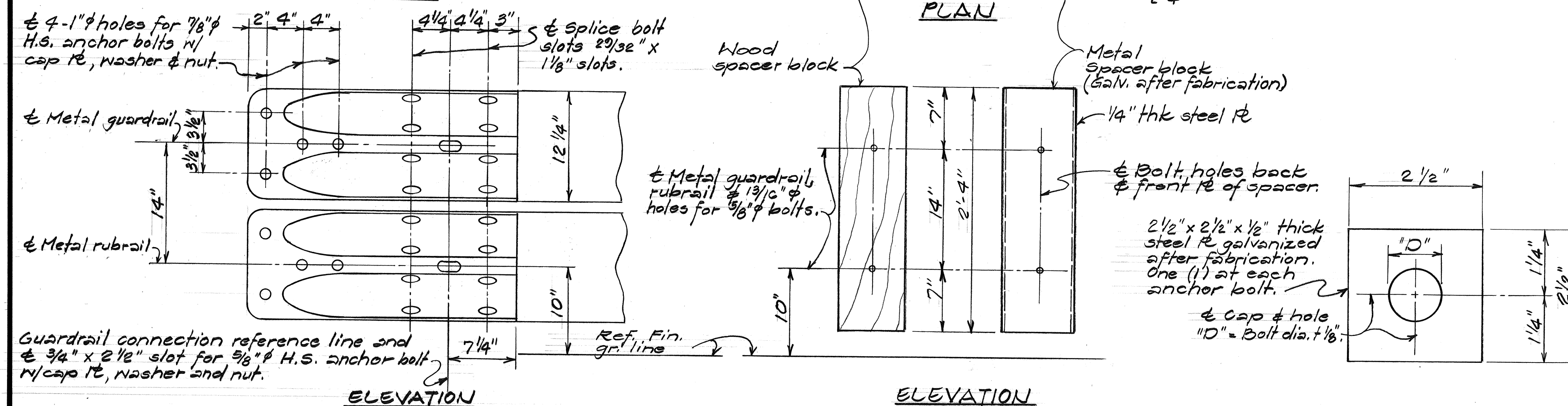
ELEVATION

BEAM TYPE GUARDRAIL WITH RUBRAIL CONNECTION AT APPROACH END POST

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



PLAN



"N" BEAM TERMINAL CONNECTOR

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

WOOD & METAL SPACER BLOCK DETAIL

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

CAP & DETAIL

N.T.S.

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

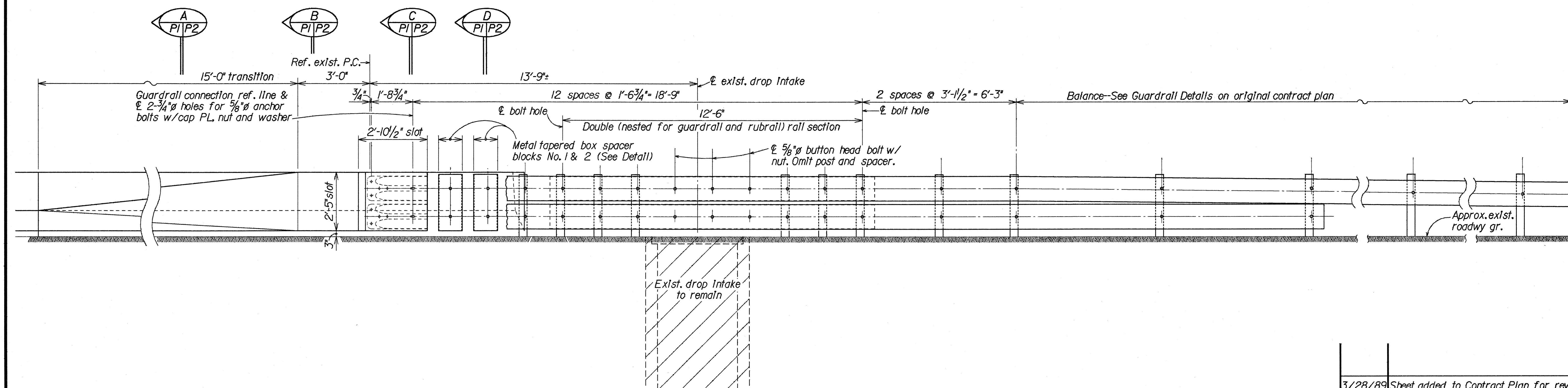
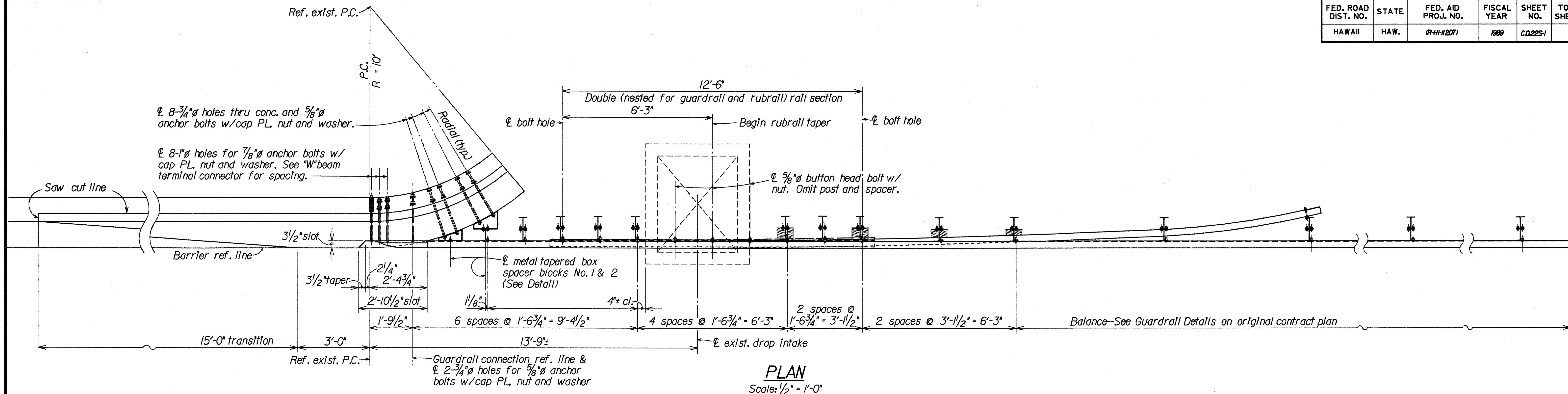
GUARDRAIL CONNECTION DETAILS

INTERSTATE ROUTE H-1: RESURFACING
KAIMAKANI STREET TO AIRPORT VIADUCT
F.A.I. Proj. No. 3E-H1-1(207)

Scale: As Noted Date: May 1988

SHEET NO. 03 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1207	1989	C.O. 22 S-1	46



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

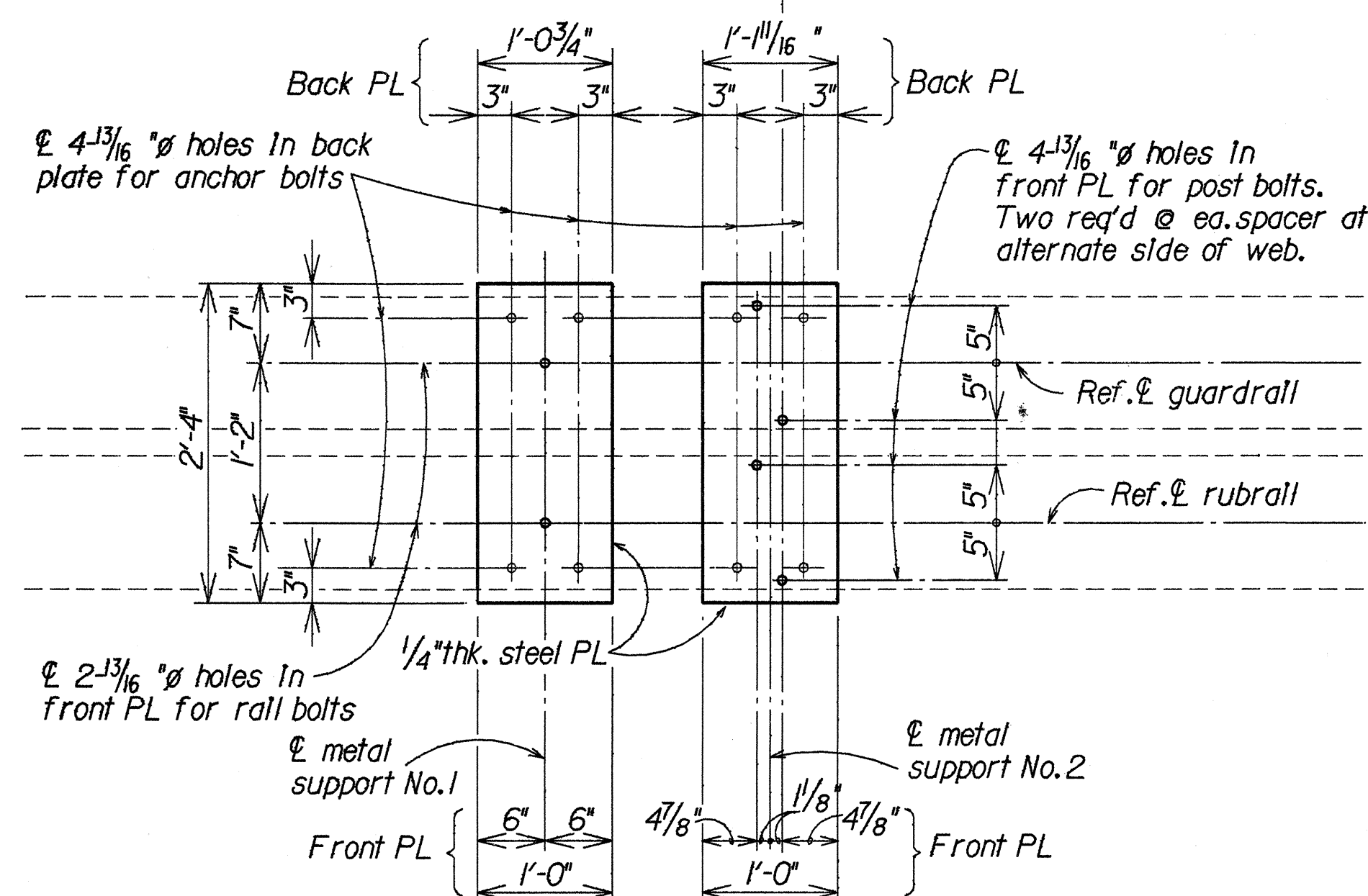
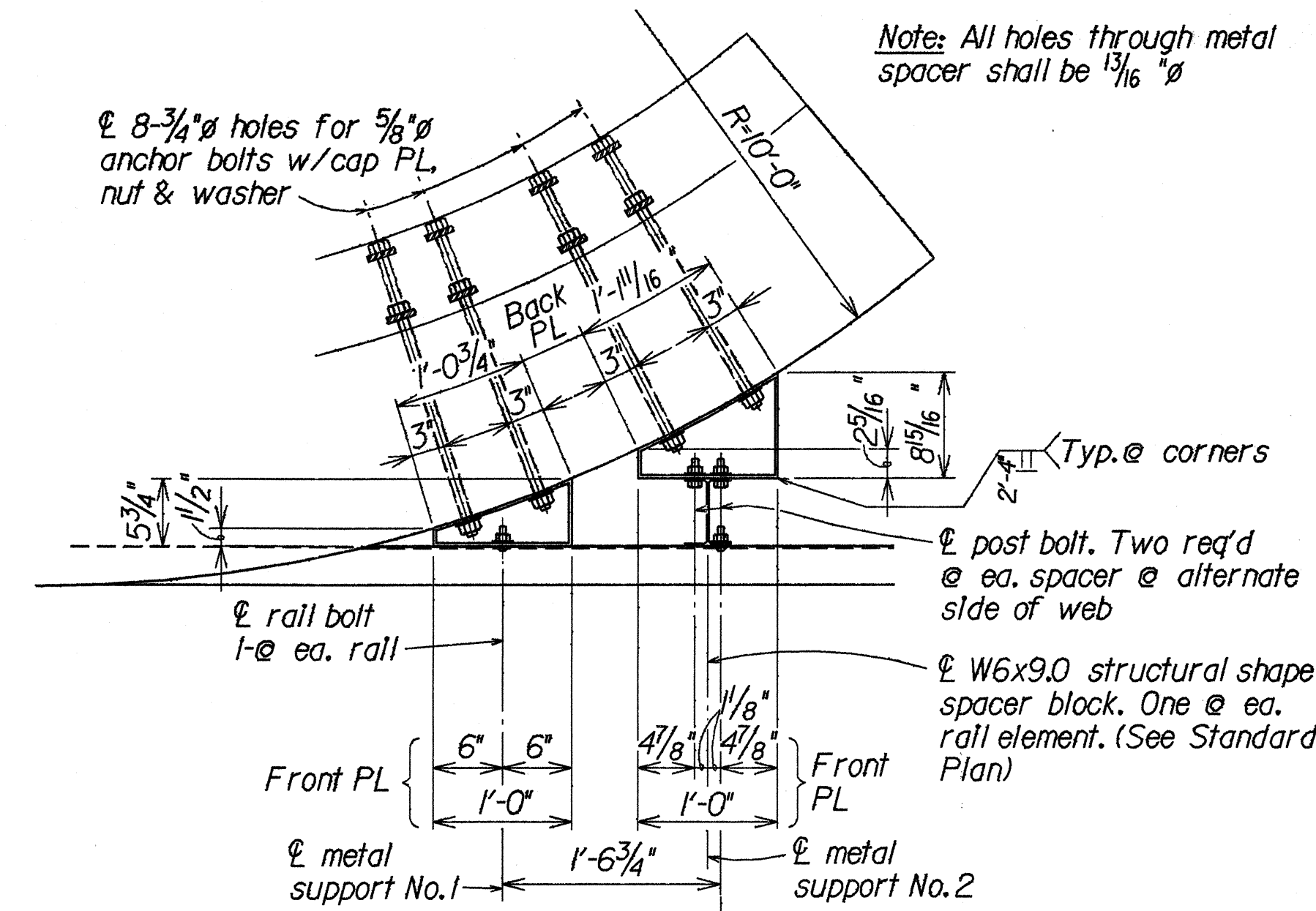
MODIFIED EXISTING CONCRETE END POST GUARDRAIL AND RUBRAIL CONNECTION DETAILS

3/28/89	Sheet added to Contract Plan for revised concrete end post and metal guardrail to accommodate existing drop intake.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GUARDRAIL CONNECTION DETAILS	
INTERSTATE ROUTE HI-1: RESURFACING	
KAIKAKANI STREET TO AIRPORT VIADUCT	
F.A.I. Project No. IR-HI-1207	
Scale: As Noted	Date: March 1989
SHEET No. P1 OF 2 SHEETS	

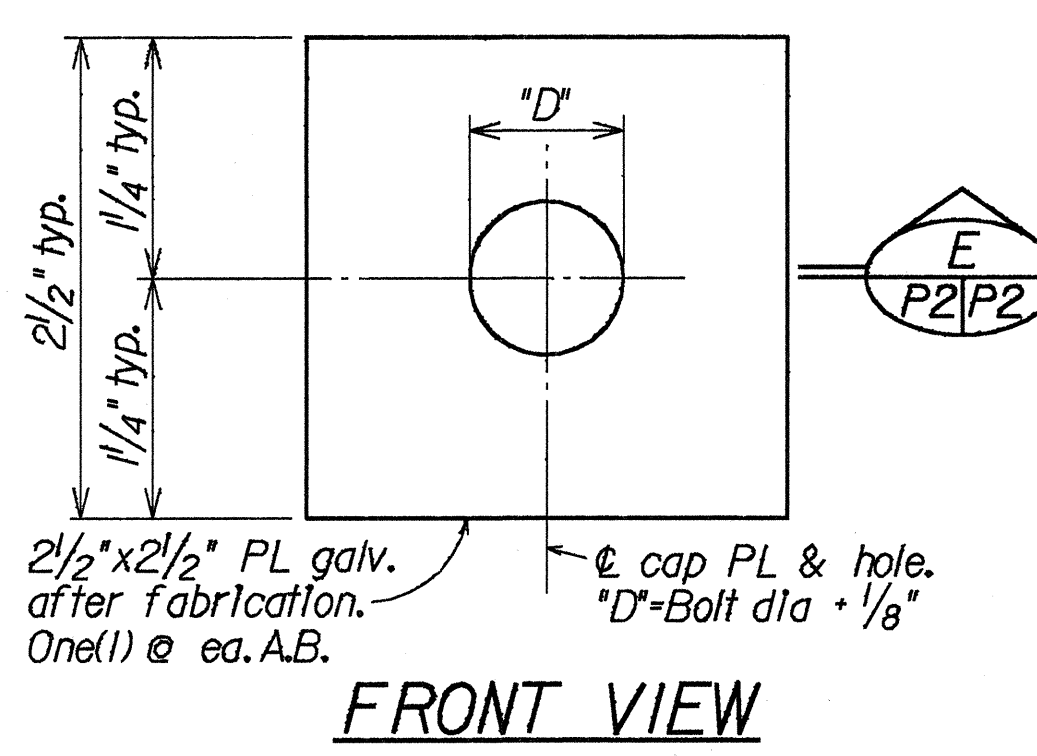
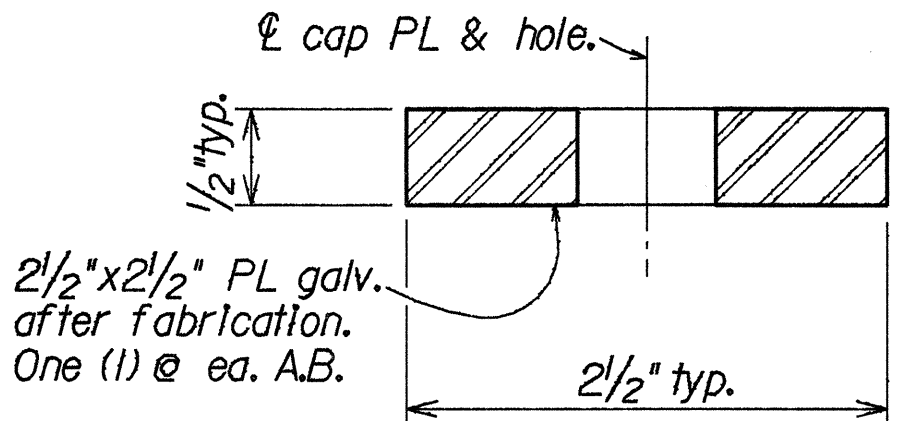
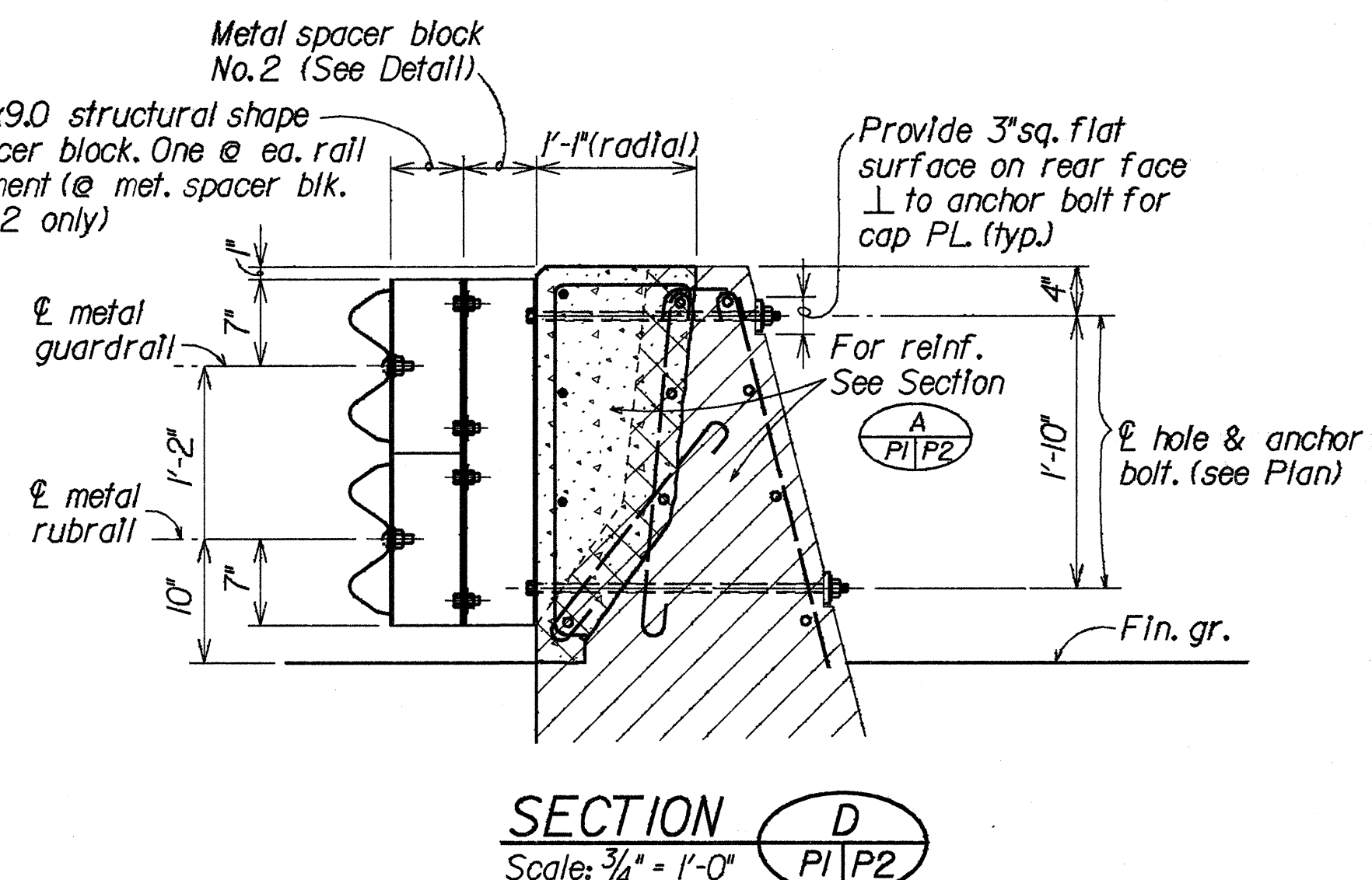
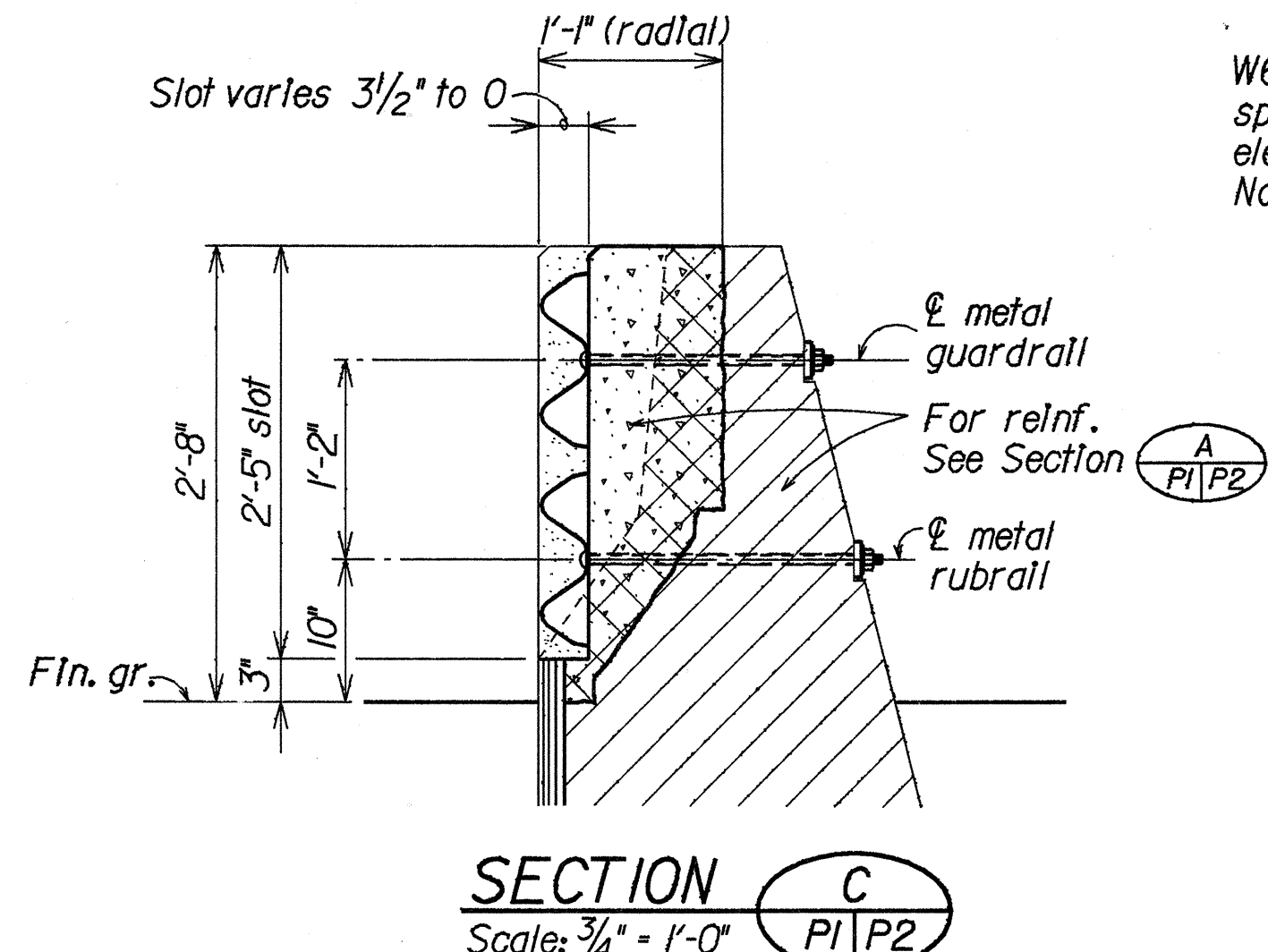
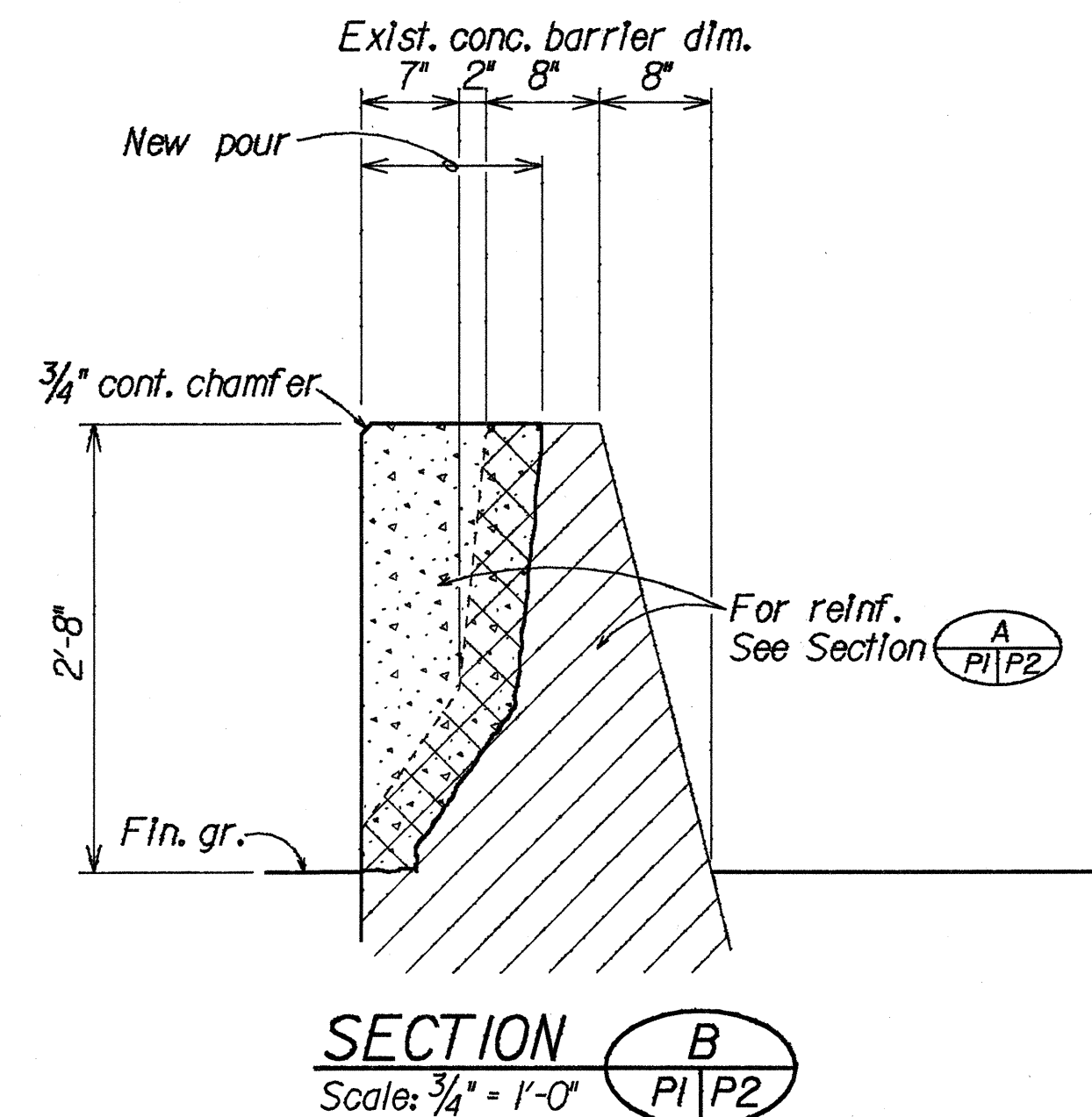
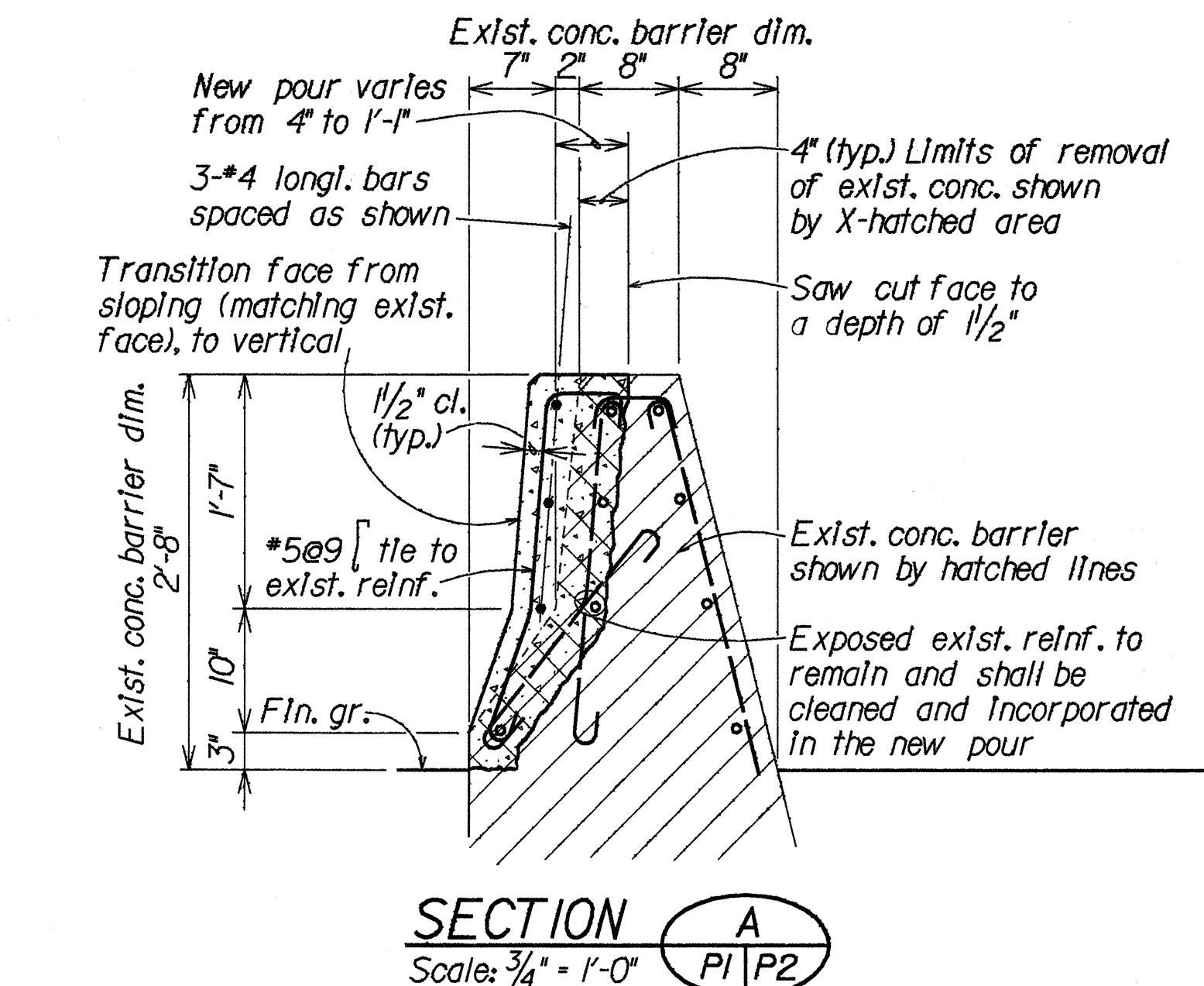
C.O. 22 S-1

DESIGNED BY	DATE
DRAWN BY	1/8/89
CHECKED BY	1/8/89
NOTED BY	1/8/89
APPROVED BY	1/8/89
DATE	1/8/89

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-11(207)	1989	C.O.225-2	46



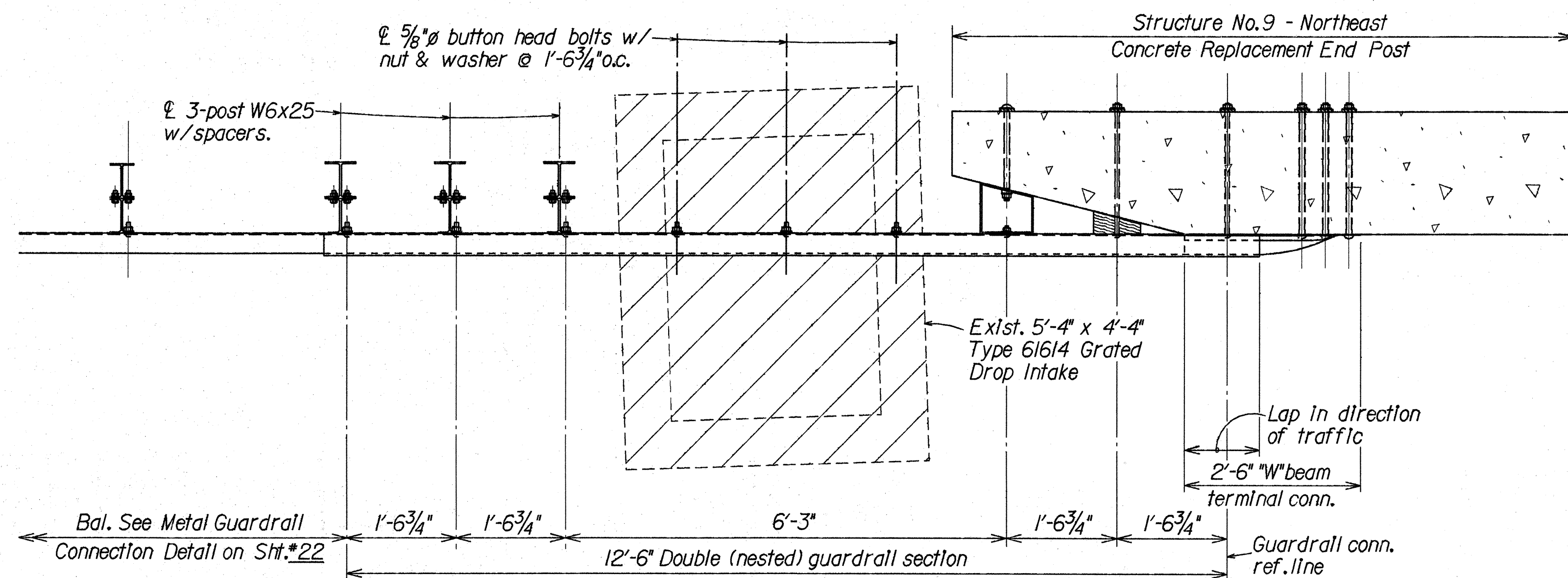
**DETAILS--METAL TAPERED BOX
SPACER BLOCKS NO. 1 & 2**
Scale: 1" = 1'-0"



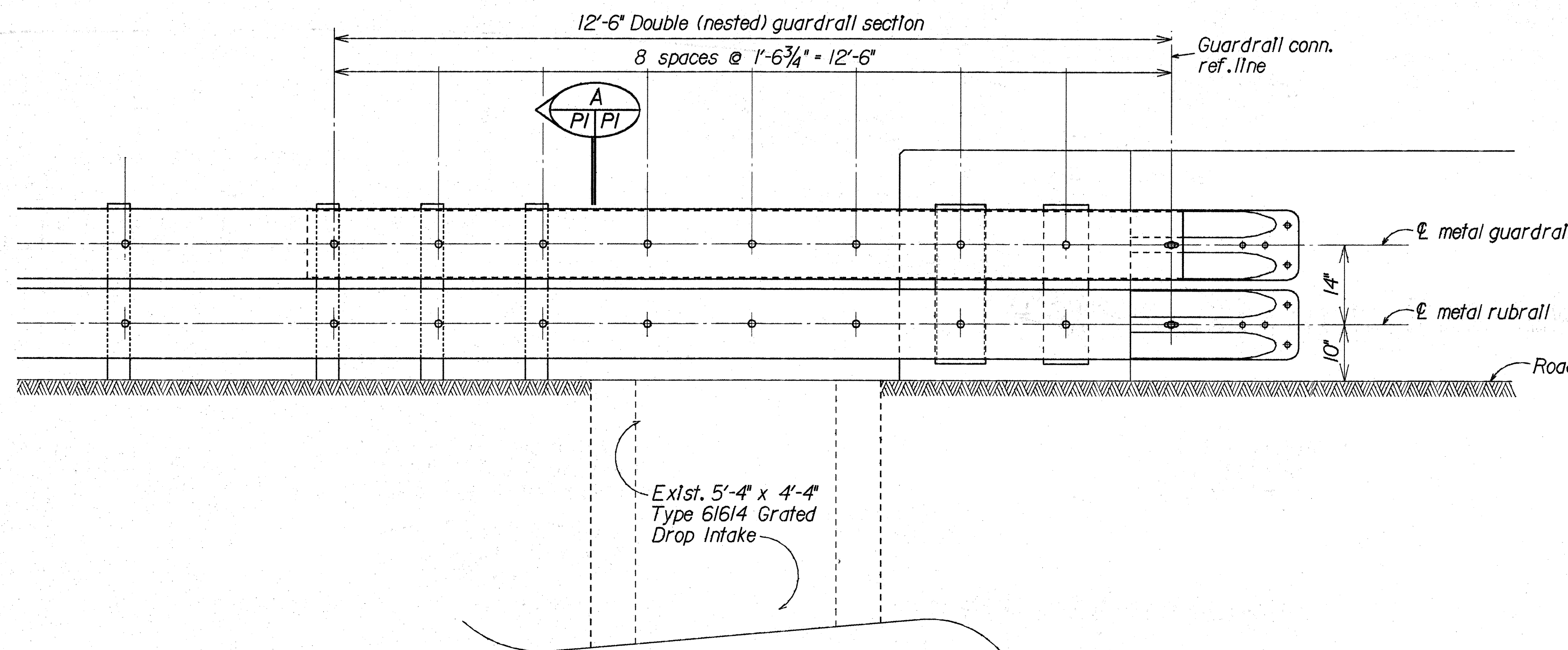
MODIFIED EXISTING CONCRETE END POST GUARDRAIL AND RUBRAIL CONNECTION DETAILS

3/28/89	Sheet added to Contract Plan for revised concrete end post and metal guardrail to accommodate existing drop intake.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GUARDRAIL CONNECTION DETAILS	
INTERSTATE ROUTE H-1; RESURFACING KAIMAKANI STREET TO AIRPORT VIADUCT	
F.A.J. Project No. IR-HI-11(207)	
Scale: As Noted	Date: March 1989

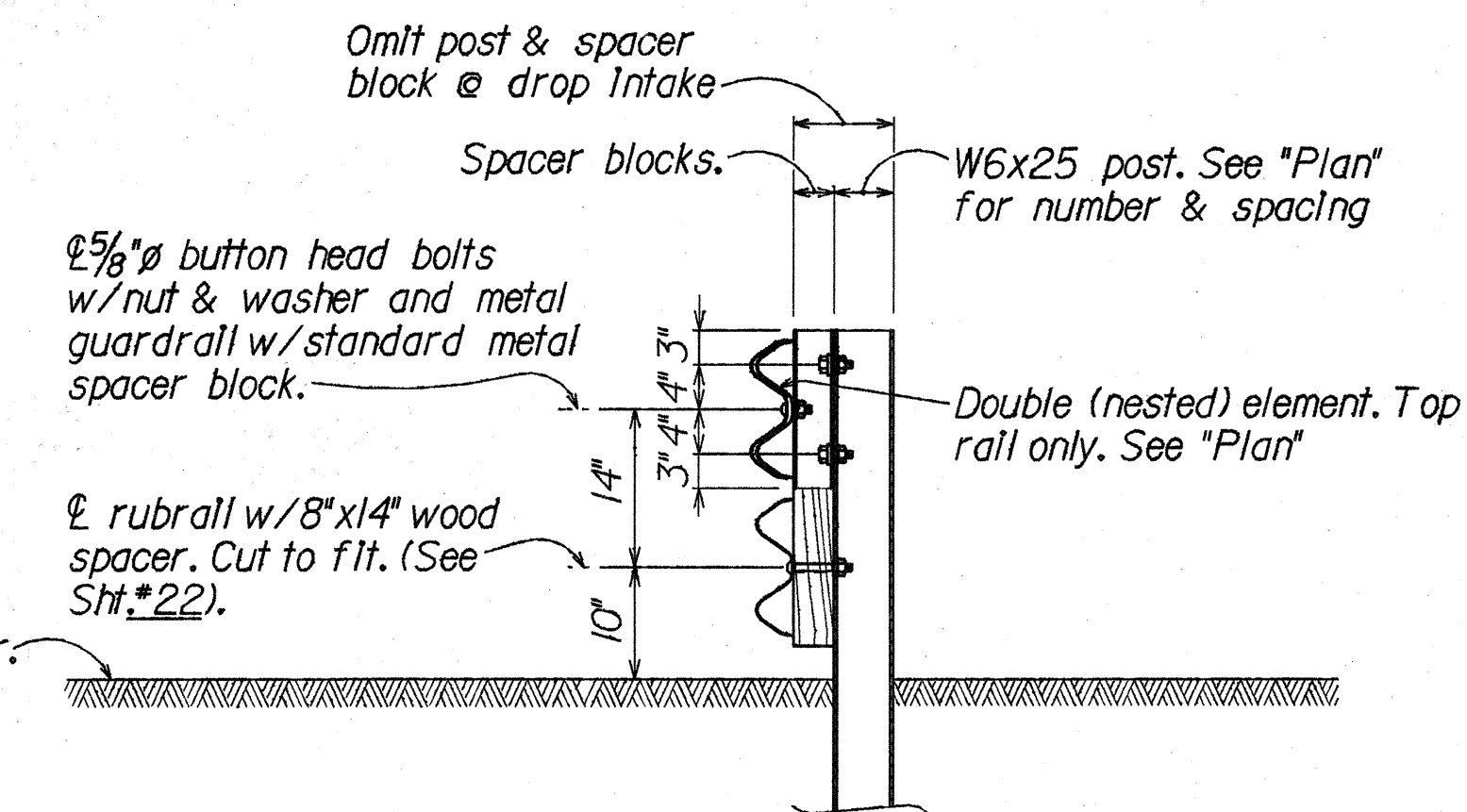
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(207)	1989	C022S-3	46



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



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



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

5/17/89 Top rail element doubled over intake, three post replaced with heavier section, and post spacing revised to accomodate existing drop intake.

DATE REVISION

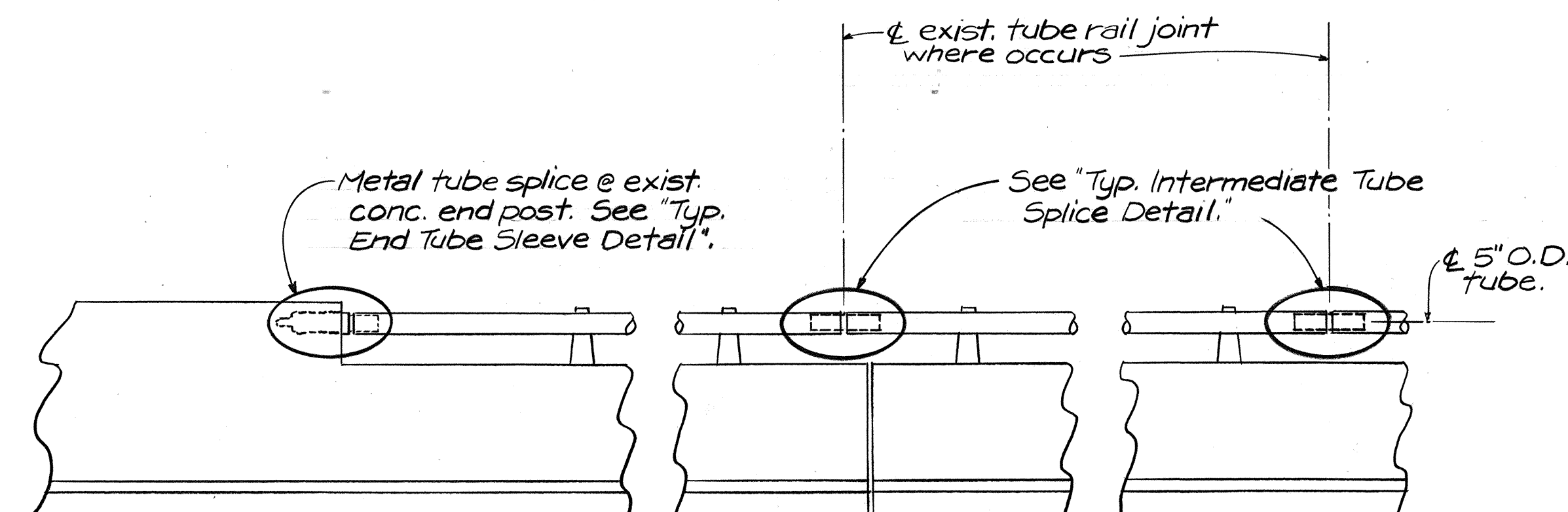
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**MODIFICATION OF GUARDRAIL OVER EXISTING
DROP INTAKE NEAR STR. NO. 9 N.E. END POST
INTERSTATE HI-1 KAIMAKANI STREET TO
AIRPORT VIADUCT**
F.A.J.P. No. IR-HI-1 (207)
Scale: As Noted Date: May 1989

SHEET No. PI OF 2 SHEETS

C.O.22S-3

DESIGNED BY	DATE
DRAWN BY	5/89
CHECKED BY	5/89
NOTED BY	5/89
QUANTITIES BY	5/89
NO. 578031	5/89

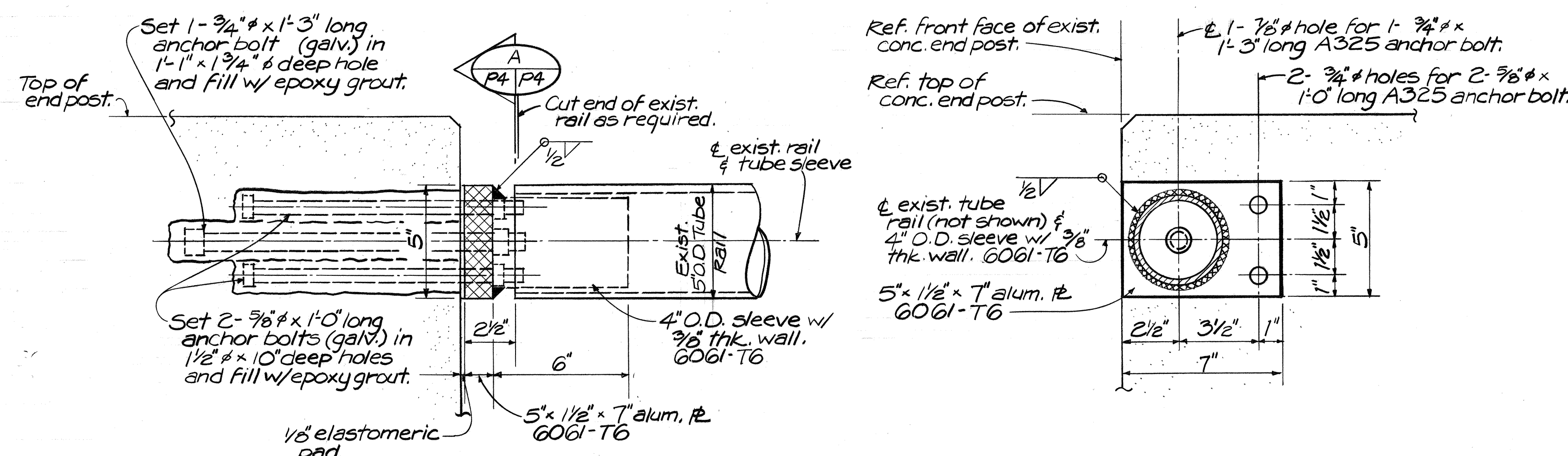
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(207)	1988	23	46



ELEVATION

METAL TUBE SLEEVE SCHEDULE		
LOCATION	INSTALLATION @ END POSTS	INSTALLATION @ INTERMEDIATE RAIL JOINTS
HALAWA I.C. STRUCTURE NO. 3	2	0
HALAWA I.C. STRUCTURE NO. 8	4	12
HALAWA I.C. STRUCTURE NO. 9	4	10
NORTH LEG VIADUCT	6	* 147
TOTAL	16	169

* INCLUDES INSTALLATION IN GORE AREA

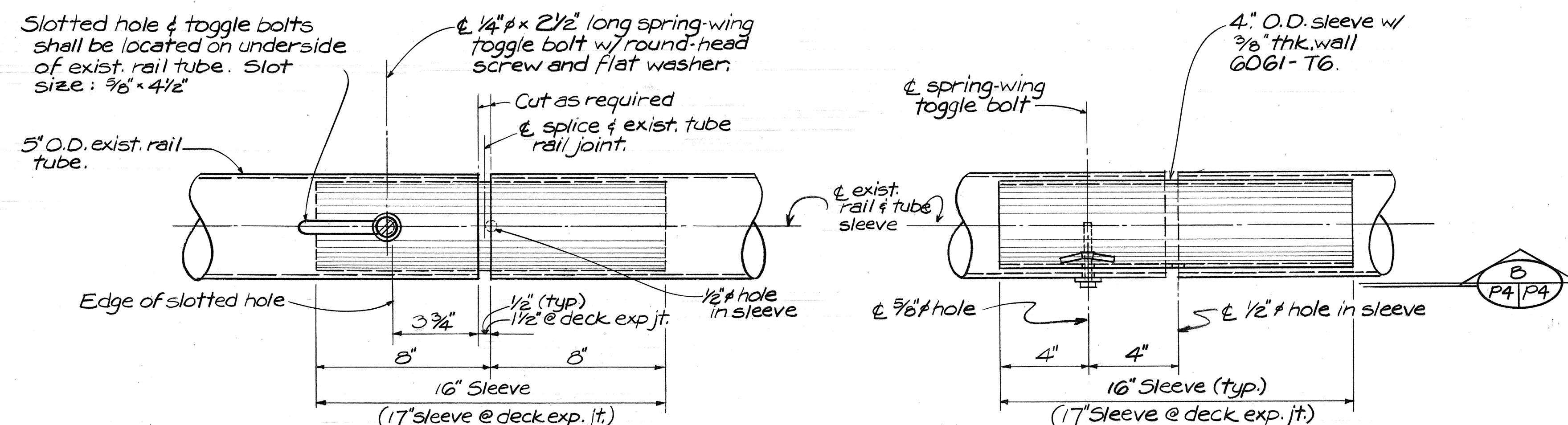


ELEVATION

SECTION

TYPICAL END TUBE SLEEVE DETAIL

Scale: 3" = 1'-0"



BOTTOM VIEW

SLEEVE - (FRONT VIEW)

TYPICAL INTERMEDIATE TUBE SPLICE DETAIL

Scale: 3" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**END AND INTERMEDIATE SLEEVE
INSTALLATION DETAILS**

INTERSTATE ROUTE H-1: RESURFACING
KAIMAKANI STREET TO AIRPORT VIADUCT
F.A.I. Proj. No. IR-HI-1(207)

Scale: As Noted Date: May 1988

SHEET No. P4 OF 4 SHEETS