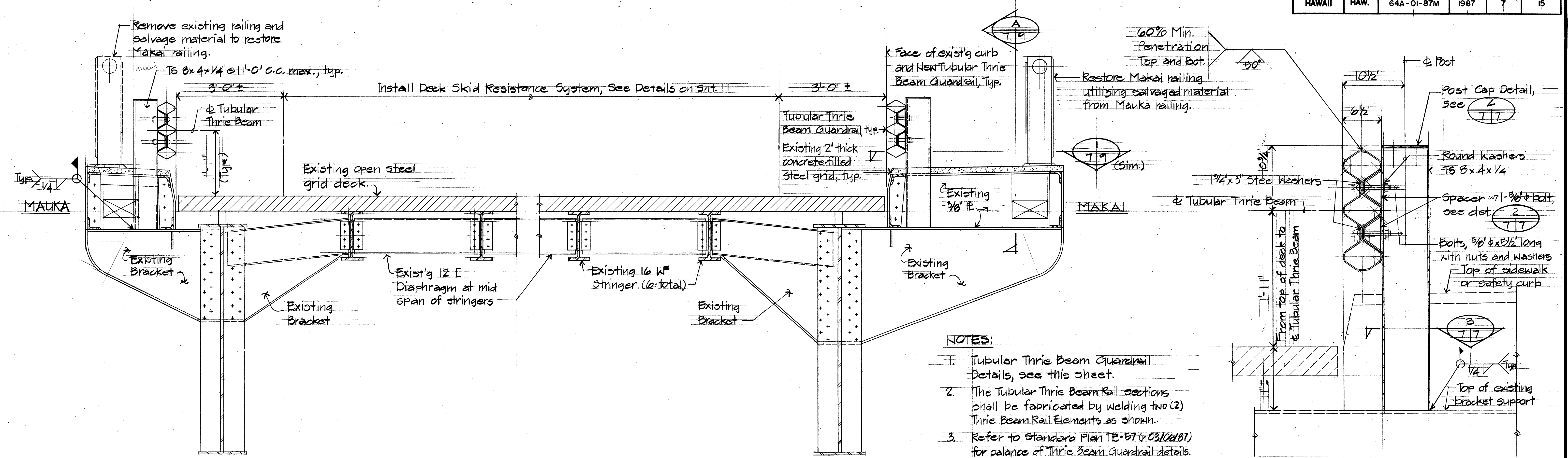


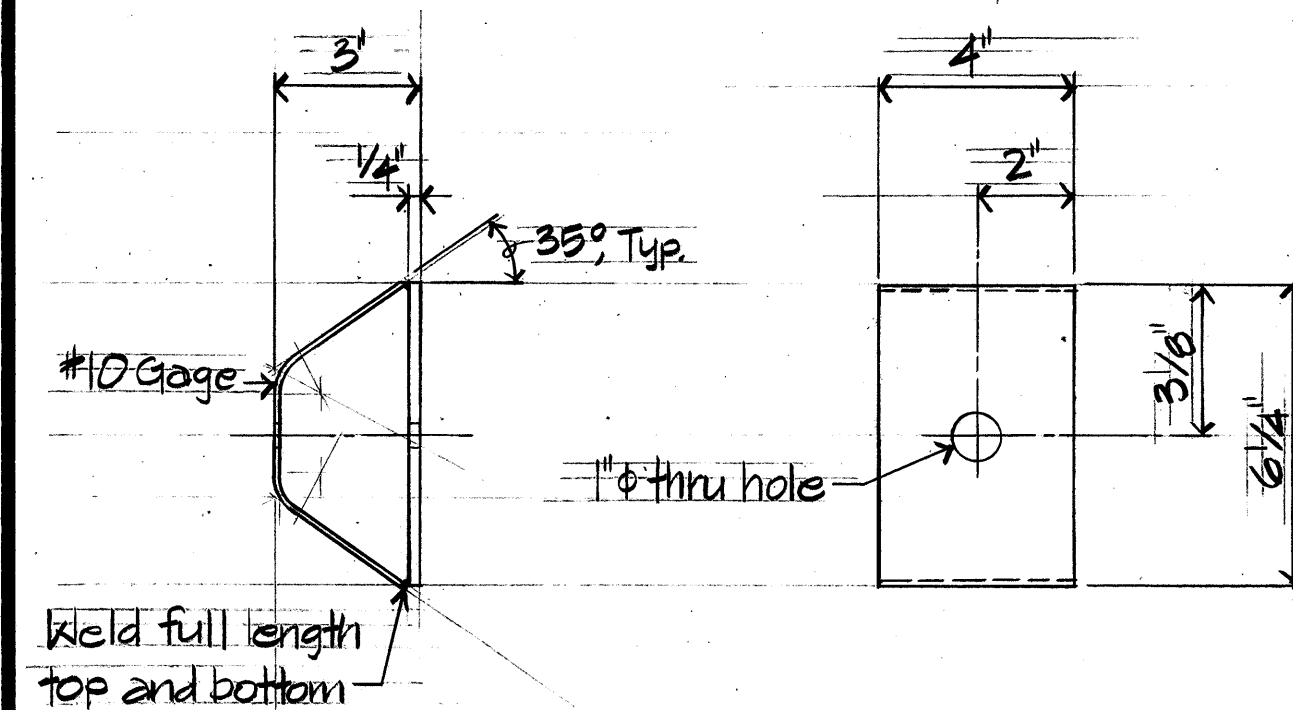
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	64A-01-87M	1987	7	15



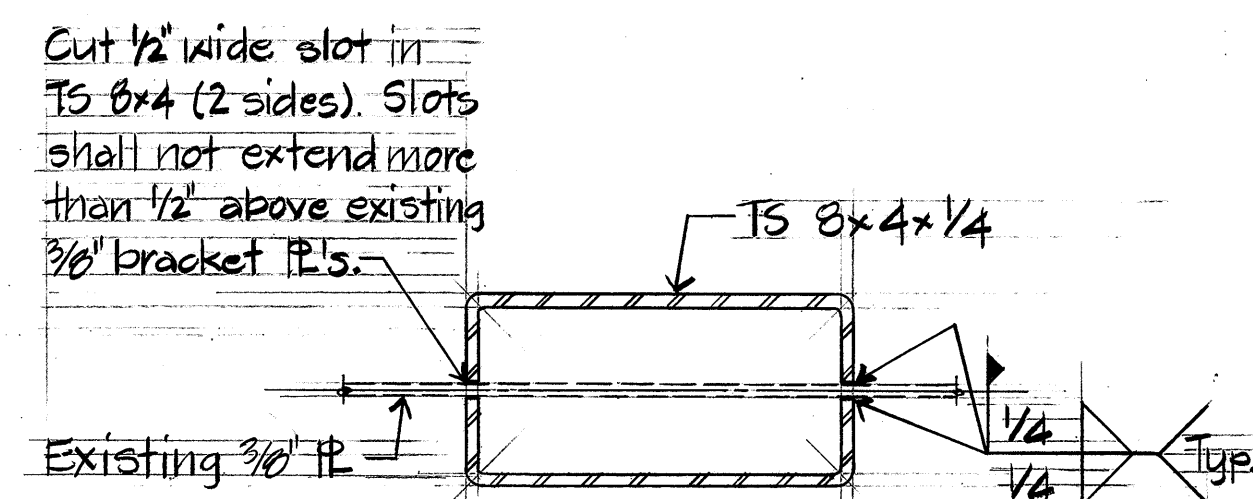
- NOTES:**
1. Tubular Thrie Beam Guardrail Details, see this sheet.
 2. The Tubular Thrie Beam Rail sections shall be fabricated by welding two (2) Thrie Beam Rail Elements as shown.
 3. Refer to Standard Plan TB-57 (03/06/87) for balance of Thrie Beam Guardrail details.

SECTION (CONDITION MIDWAY BETWEEN FLOOR BEAMS)
Scale: 3/4" = 1'-0"

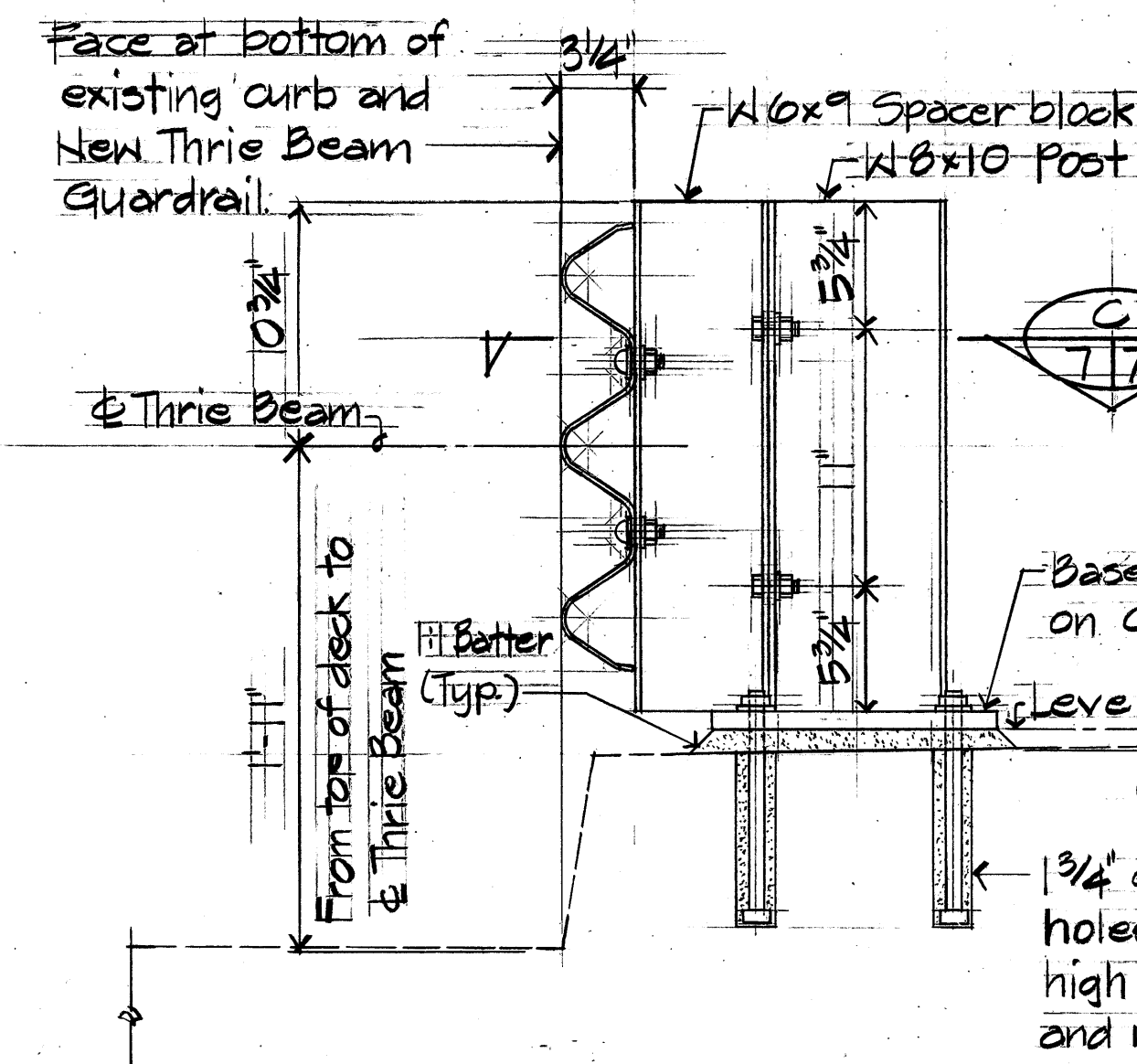
TUBULAR THRIE BEAM GUARDRAIL SECTION
Scale: 1/2" = 1'-0"



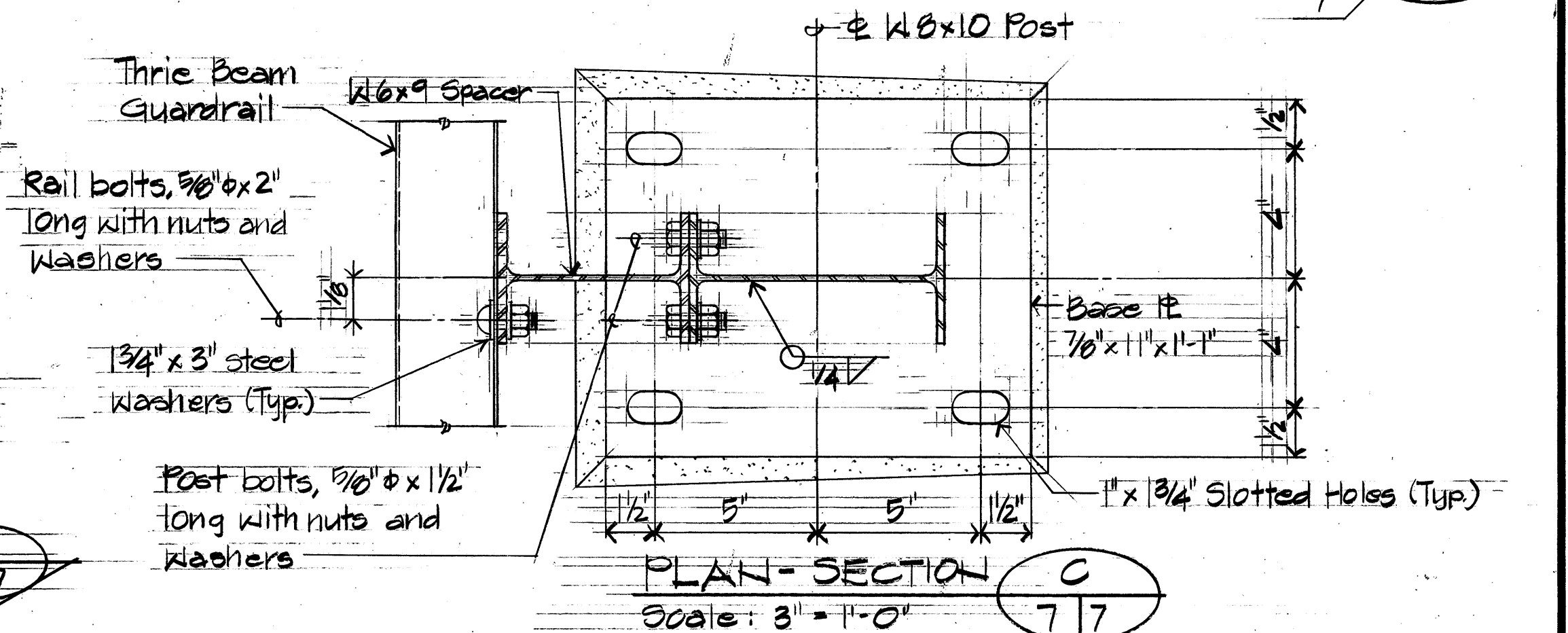
SPACER DETAIL
Scale: 3" = 1'-0"



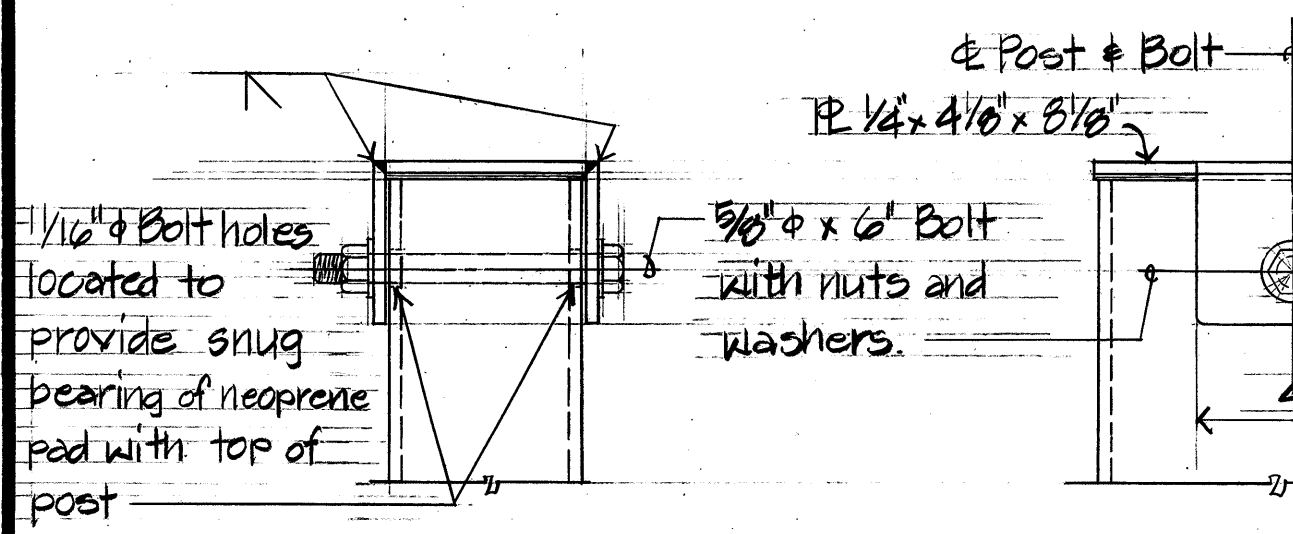
PLAN - SECTION
Scale: 3" = 1'-0"



THRIE BEAM GUARDRAIL DETAIL
Scale: 1/2" = 1'-0"



PLAN - SECTION
Scale: 3" = 1'-0"



POST CAP DETAIL
Scale: 3" = 1'-0"

Note: All edges shall be ground smooth and free of burrs. Galvanize after fabrication.

1/8" thick neoprene pad (50 Hardness) bonded to top 1/4" flange. Adhesive used shall be approved by the Engineer. Neoprene pad shall be considered incidental to the Tubular Thrie Beam Guardrail.

Face at bottom of existing curb and New Thrie Beam Guardrail.

W6x9 Spacer block

W6x10 Post

Thrie Beam Guardrail

Rail bolts, 3/8" x 2" long with nuts and washers

1 3/4" x 3" steel washers (Typ.)

Post bolts, 3/8" x 1 1/2" long with nuts and washers

Base flange 3/8" x 11" x 1" on Grout pad

Top of sidewalk or safety curb 1/4" Min. thickness

1 3/4" x 6" deep drilled holes for 3/4" x 10" long high strength bolts with nuts and washers. Fill holes with epoxy grout to secure bolts.

WYATT S. NAKASHIMA
REGISTERED PROFESSIONAL ENGINEER
No. 4542-S
HAWAII, U.S.A.

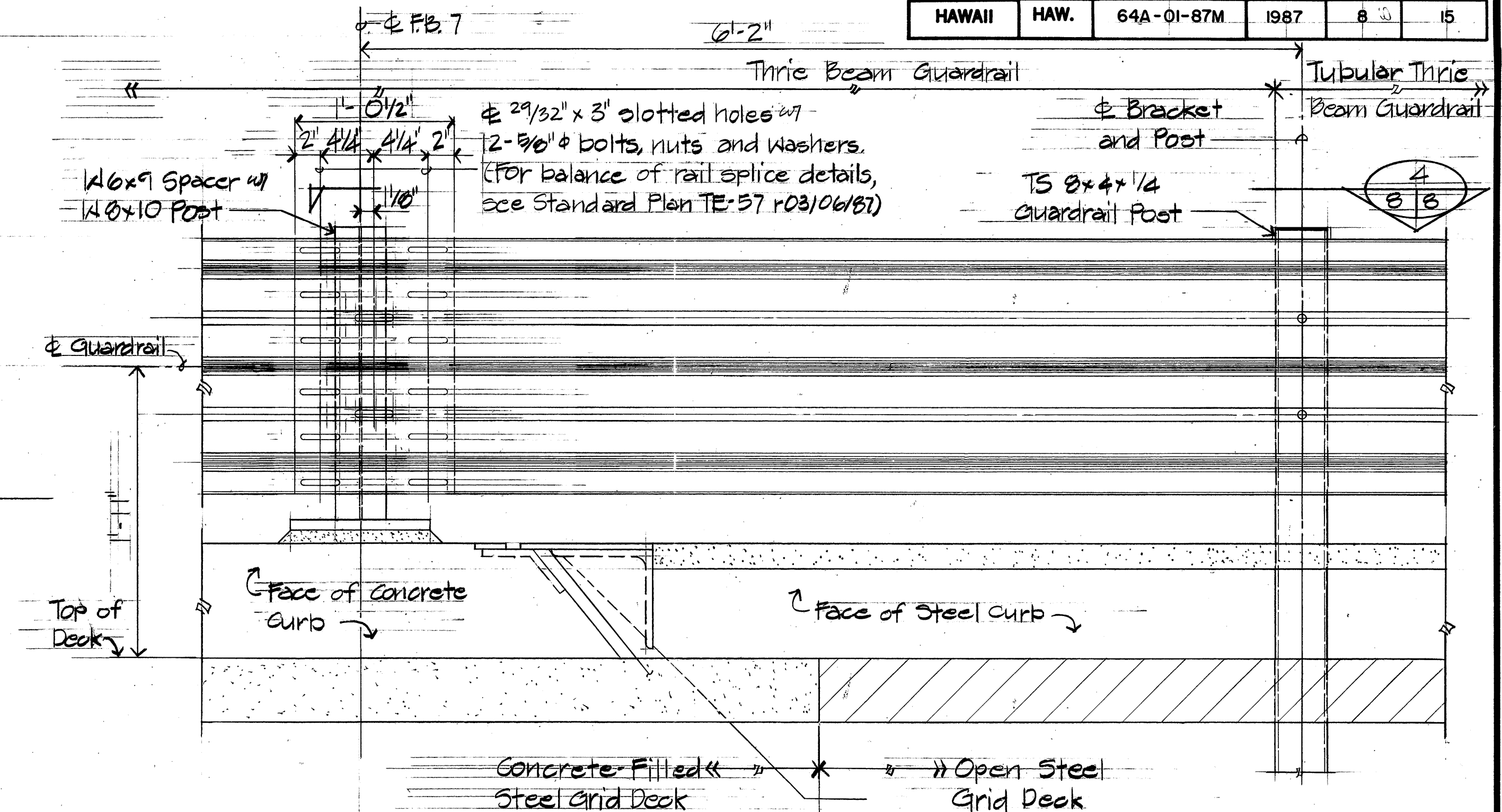
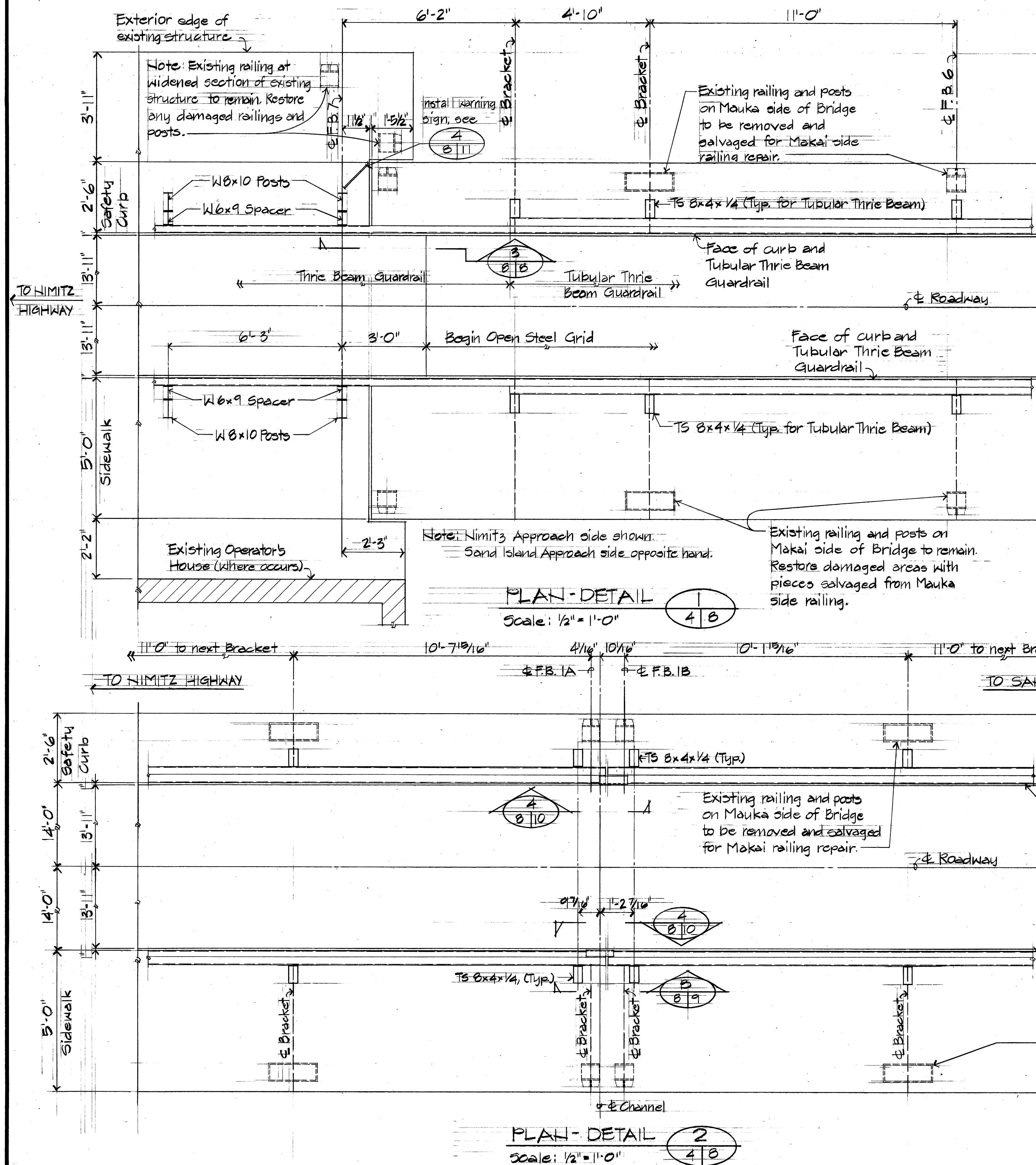
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Wyatt S. Nakashima

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DETAILS & SECTIONS	
SAND ISLAND ACCESS ROAD SAND ISLAND BASCULE BRIDGE REHABILITATION PROJECT NO. 64A-01-87M	
SCALE: AS NOTED	DATE: MAR. 31, 1987
SHEET No. 1 OF 3 SHEETS	

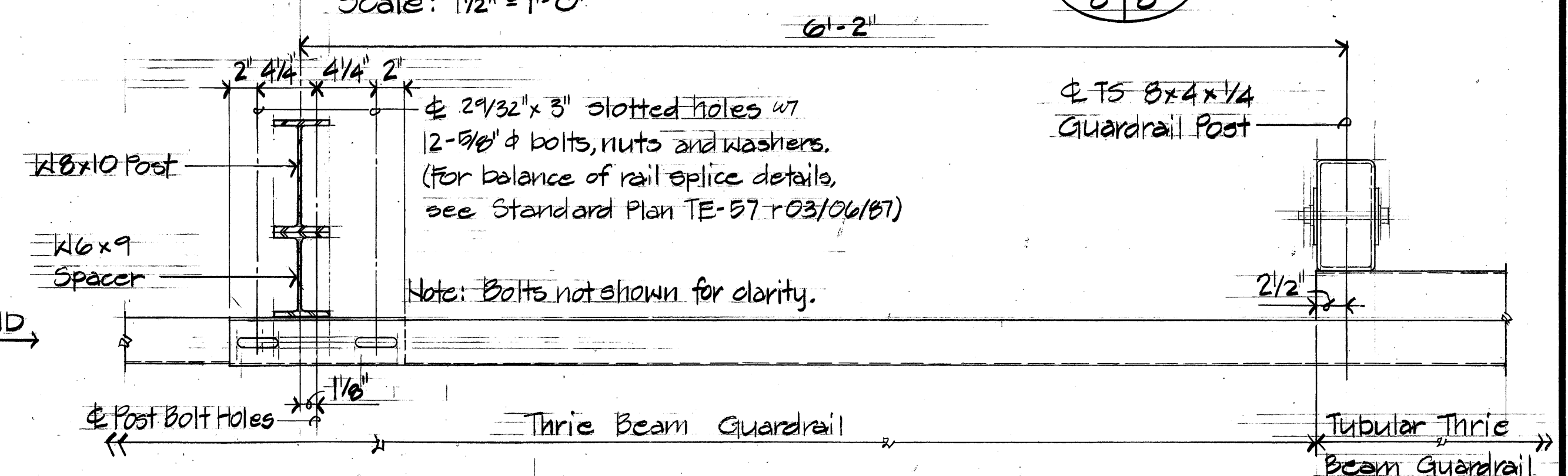
DATE: _____
DRAWN BY: _____
CHECKED BY: _____
DESIGNED BY: _____
NOTED BY: _____
QUANTITIES BY: _____

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	64A-01-87M	1987	8	15



PARTIAL GUARDRAIL ELEVATION

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

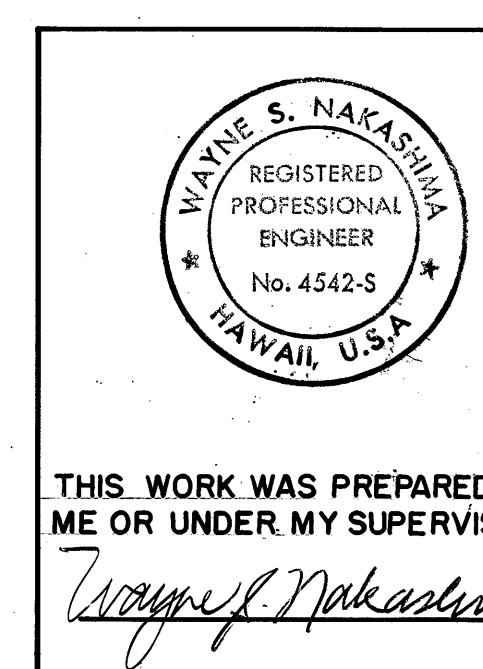


PARTIAL PLAN-DETAIL

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

NOTES:

1. Thrie Beam Guardrail details, see sheet 7.
2. Tubular Thrie Beam Guardrail details, see sheet 7.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Wayne S. Nakasima

DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DETAILS	
SAND ISLAND ACCESS ROAD SAND ISLAND BASCULE BRIDGE REHABILITATION PROJECT NO. 64A-01-87M	
SCALE: AS NOTED	DATE: MAR. 31, 1987
SHEET NO. 2 OF 3 SHEETS	

