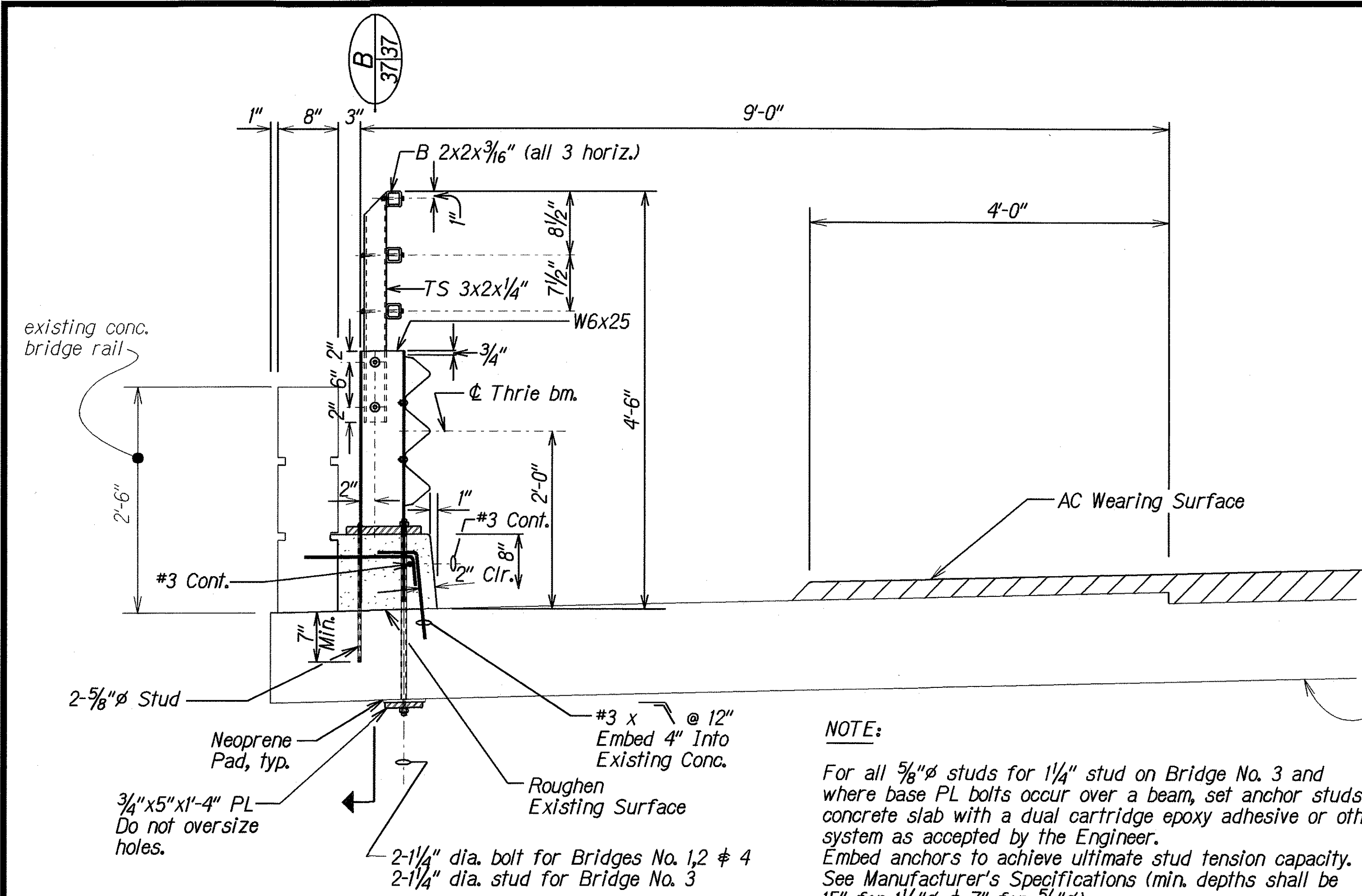
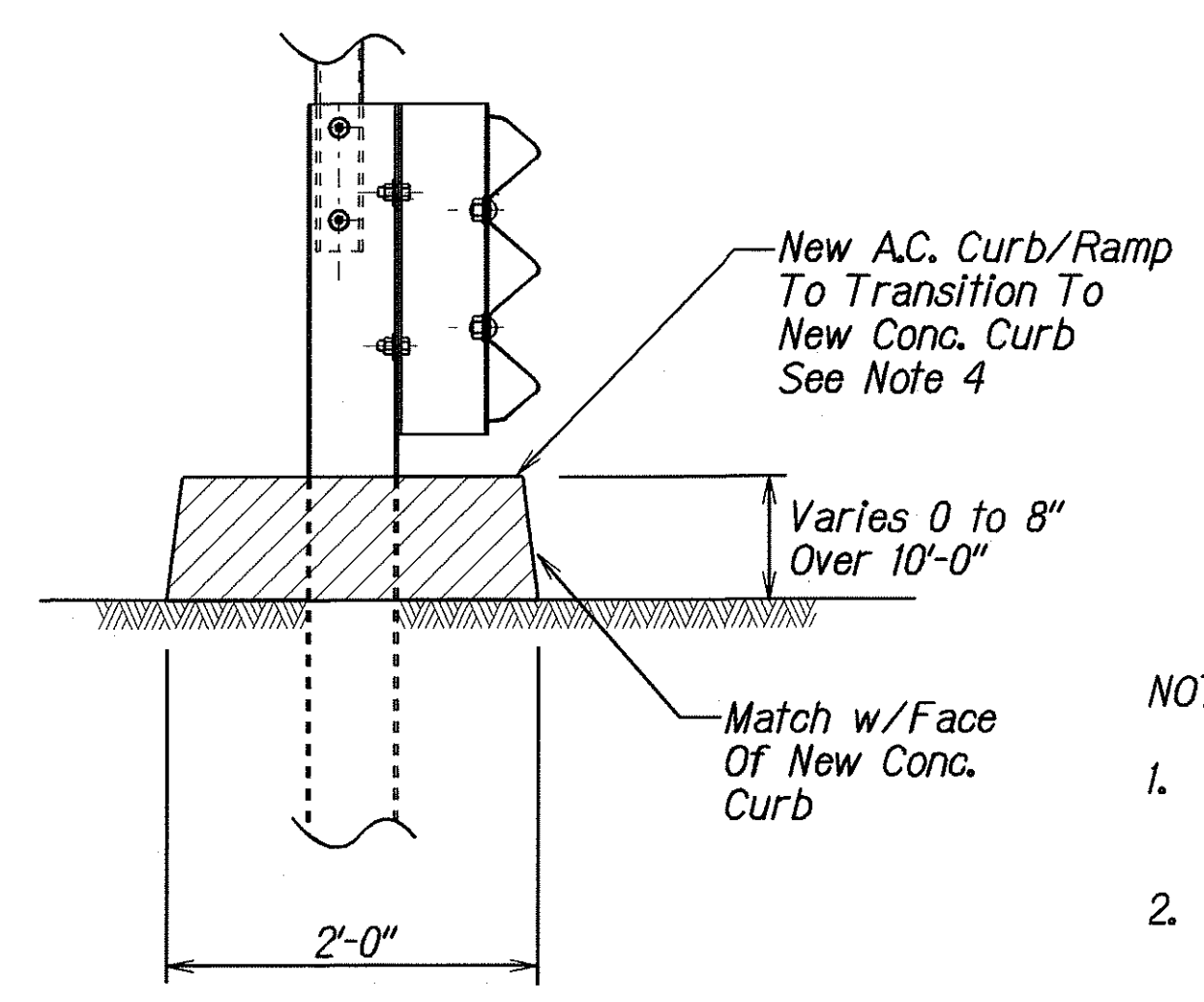


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(25)	2003	27	30

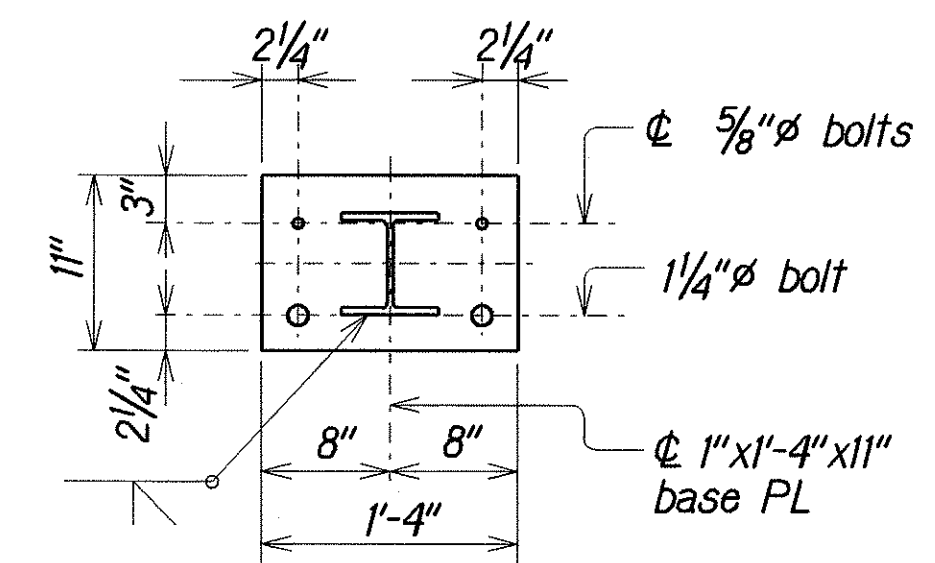


SECTION A
Scale: 1" = 1'-0"



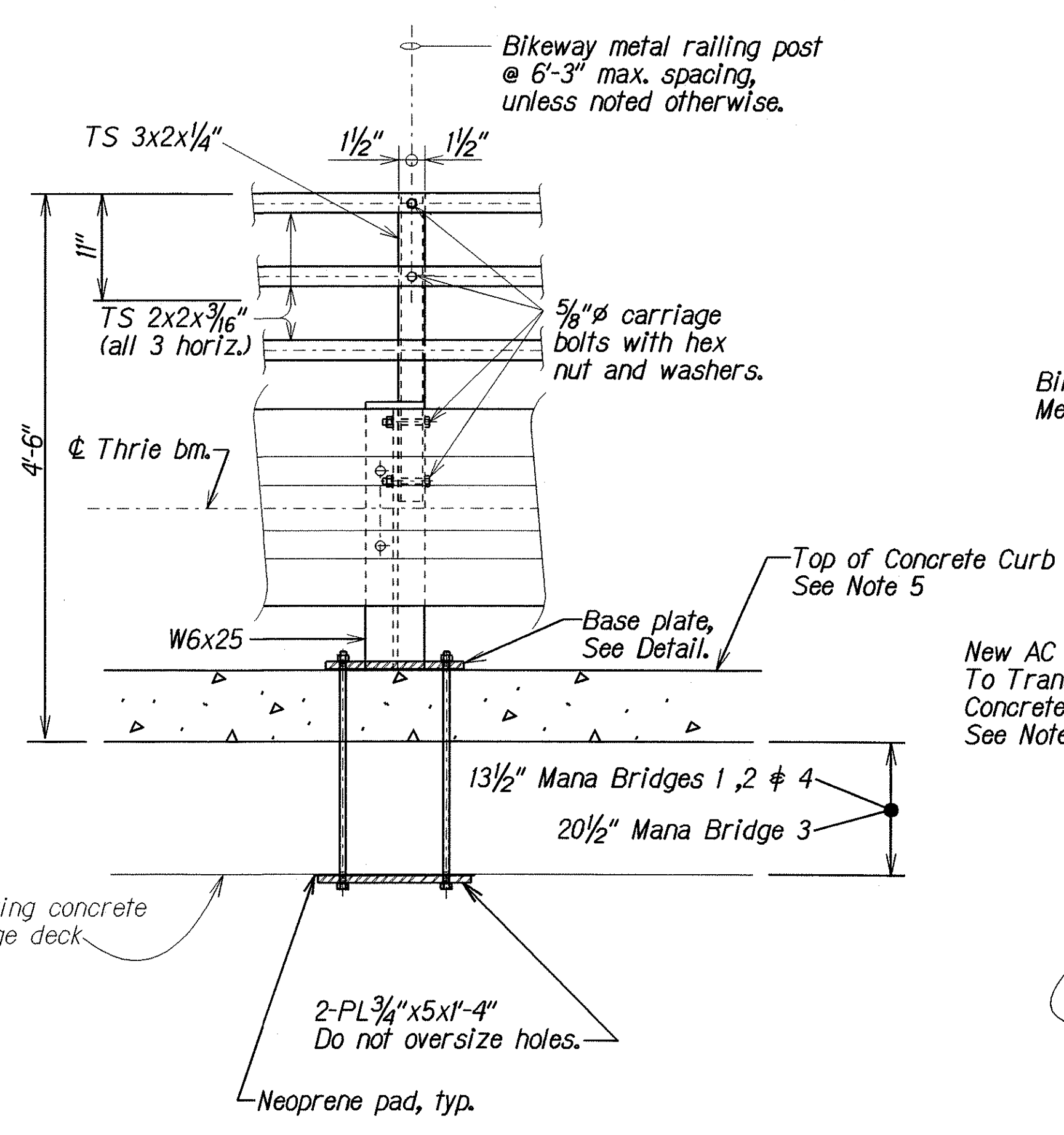
SECTION D
Scale: 1" = 1'-0"

NOTE:
For all 5/8"Ø studs for 1/4" stud on Bridge No. 3 and where base PL bolts occur over a beam, set anchor studs in concrete slab with a dual cartridge epoxy adhesive or other system as accepted by the Engineer. Embed anchors to achieve ultimate stud tension capacity. See Manufacturer's Specifications (min. depths shall be 15" for 1/4"Ø & 7" for 5/8"Ø).

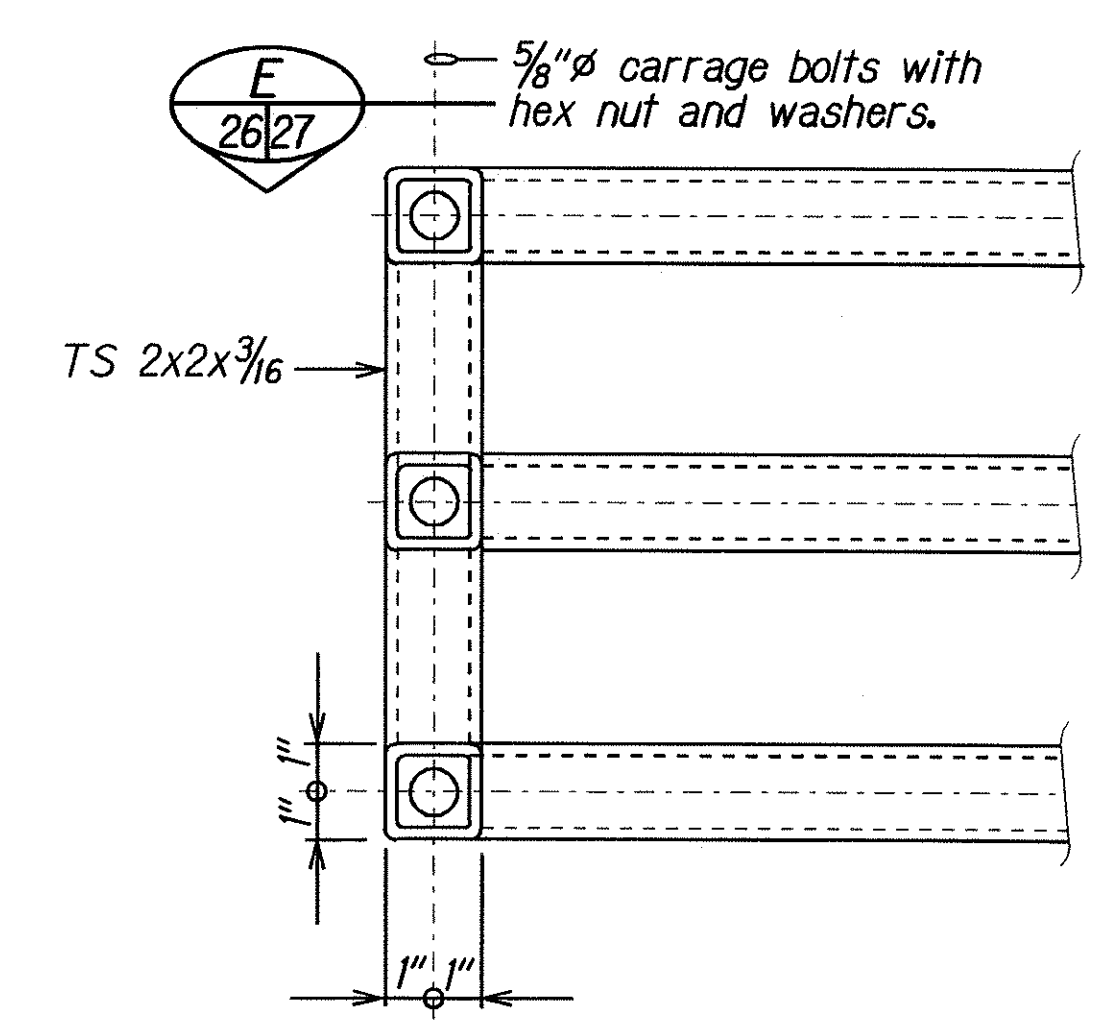


BASE PLATE DETAIL
Scale: 1" = 1'-0"

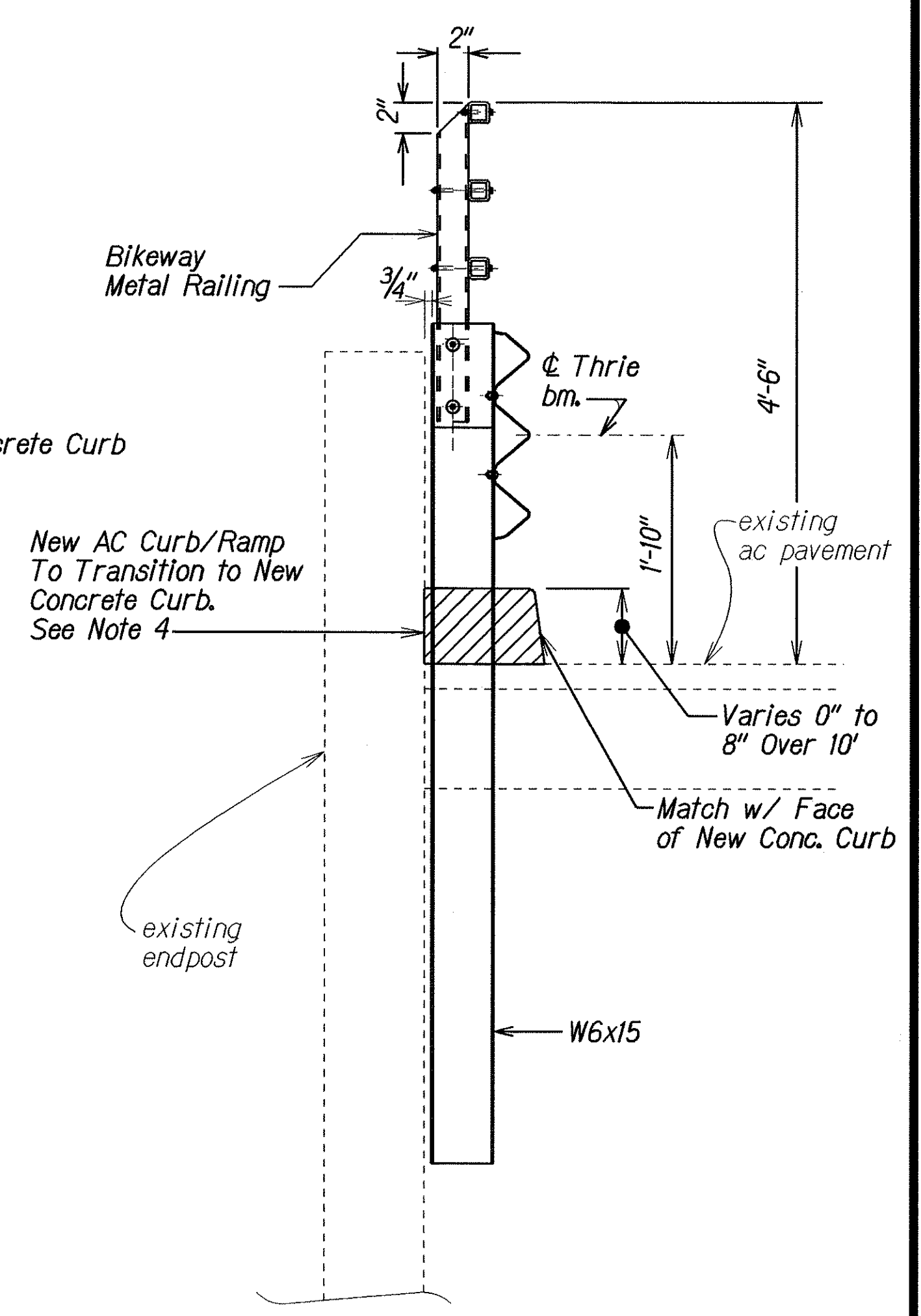
- NOTES**
- Where the plans call for reinforcement bars or bolts to be embedded or anchored into existing concrete, see Special Provisions Section 656 - Concrete Retrofit for use of adhesive anchors.
 - Where the plans call for placing fresh plastic concrete against existing concrete, see Special Provisions Section 656 - Concrete Retrofit for the use of bonding agent.
 - Concrete curb shall be considered incidental to 606.5002 - GUARDRAIL, STRONG POST MODIFIED THRIE-BEAM w/ BASE PLATE.
 - AC curb shall be considered incidental to 606.500 - GUARDRAIL, STRONG POST MODIFIED THRIE-BEAM (TRANSITION TO BRIDGE RAIL).



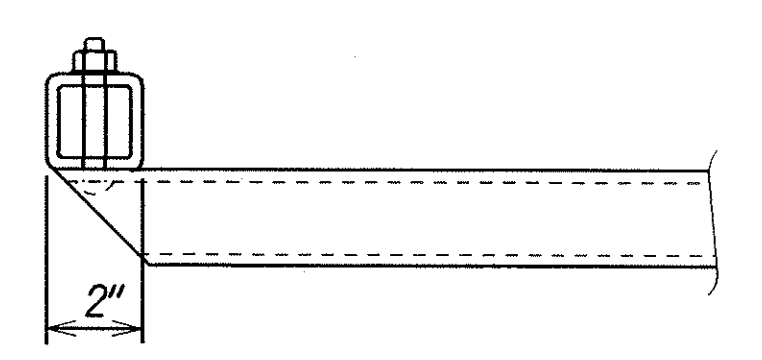
SECTION B
Scale: 1" = 1'-0"



ELEVATION
BIKEWAY RAILING, END DETAIL
Scale: 3" = 1'-0"



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



SECTION XX
Scale: 1" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
MANA BRIDGES 1 THROUGH 4
SECTIONS AND BIKEWAY METAL RAILING DETAILS
KAUMUALII HIGHWAY
Guardrail and Shoulder Improvements
Hanapepe to Mana
Fed. Aid Project No. STP-050-1(25)
Scale: As Noted Date: July 2002
SHEET No. 1 OF 1 SHEETS

DESIGNED BY	DATE
DRAWN BY	JUL 2002
CHECKED BY	
APPROVED BY	