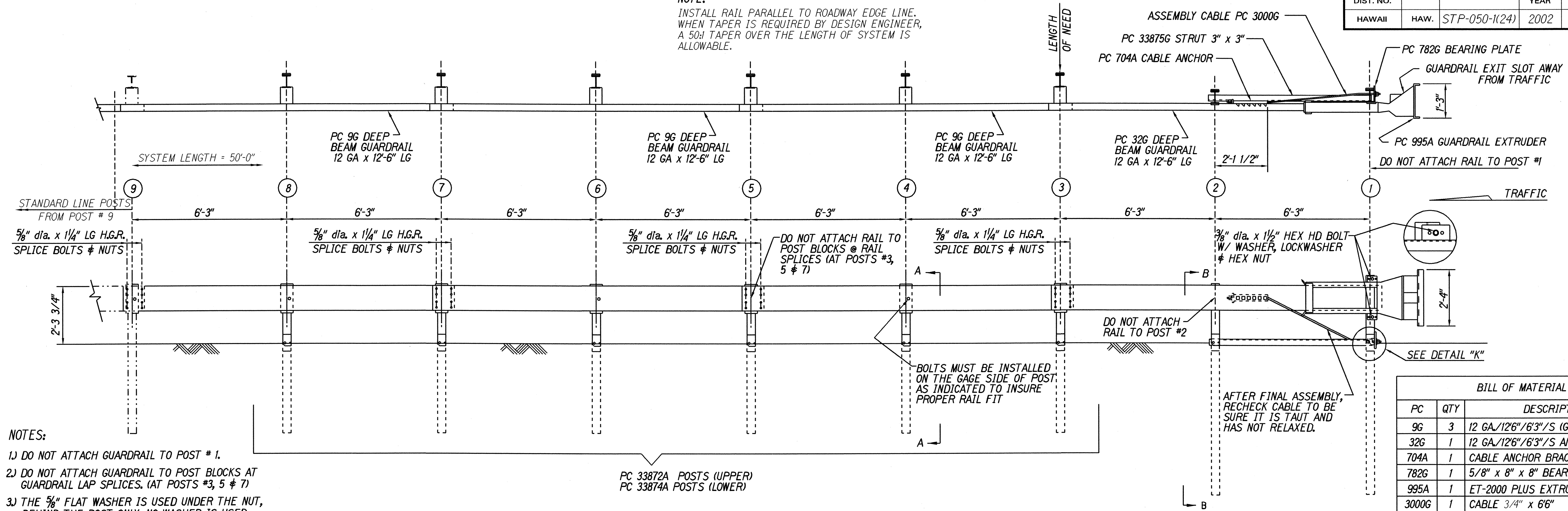


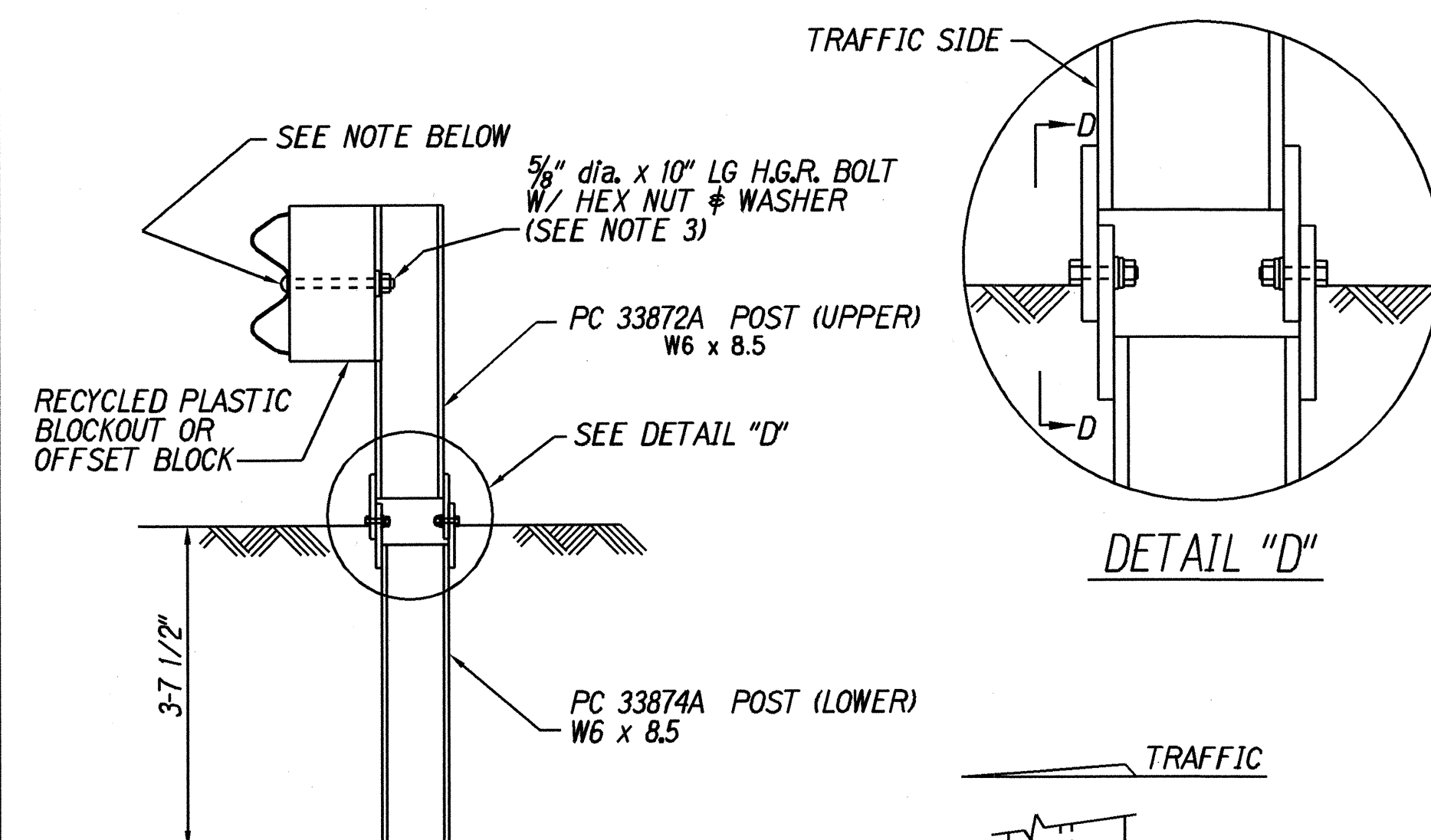
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-050-1(24)	2002	27	40

NOTE:
INSTALL RAIL PARALLEL TO ROADWAY EDGE LINE.
WHEN TAPER IS REQUIRED BY DESIGN ENGINEER,
A 50:1 TAPER OVER THE LENGTH OF SYSTEM IS
ALLOWABLE.



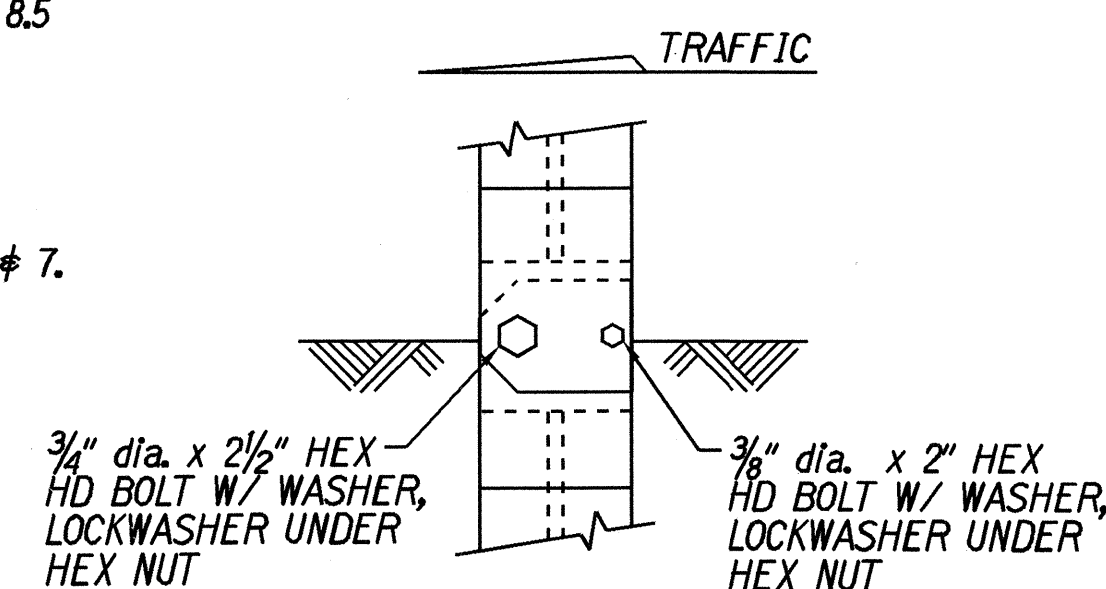
- NOTES:
- 1) DO NOT ATTACH GUARDRAIL TO POST # 1.
 - 2) DO NOT ATTACH GUARDRAIL TO POST BLOCKS AT GUARDRAIL LAP SPLICES. (AT POSTS #3, 5 & 7)
 - 3) THE 5/8" FLAT WASHER IS USED UNDER THE NUT, BEHIND THE POST ONLY. NO WASHER IS USED AT THE RAIL.
 - 4) MANUFACTURER SUGGESTS CUSTOMER TO PROVIDE REFLECTORIZATION OF TERMINAL.

BILL OF MATERIAL		
PC	QTY	DESCRIPTION
9G	3	12 GA/126"/63"/S (GUARDRAIL)
32G	1	12 GA/126"/63"/S ANC (GUARDRAIL)
704A	1	CABLE ANCHOR BRACKET
782G	1	5/8" x 8" x 8" BEARING PLATE
995A	1	ET-2000 PLUS EXTRUDER
3000G	1	CABLE 3/4" x 66"
3300G	6	5/8" WASHER
3340G	38	5/8" HEX NUT
3360G	32	5/8" dia. x 1 1/4" SPLICE BOLT
3500G	6	5/8" dia. x 10" POST BOLT
370IG	19	3/4" WASHER
3704G	16	3/4" HEX NUT
3717G	15	3/4" dia. x 2 1/2" HEX HD BOLT
3718G	1	3/4" dia. x 3" HEX HD BOLT
3900G	2	1" WASHER
3910G	2	1" HEX NUT
5326B	6	RECYCLED PLASTIC BLOCKOUT OR OFFSET BLOCK
4254G	18	3/8" WASHER
4255G	2	3/8" FENDER WASHERS
4258G	16	3/8" LOCKWASHER
426IG	2	3/8" dia. x 1 1/2" HEX HD BOLT
4699G	16	3/4" LOCKWASHER
632IG	16	3/8" dia. x 2" HEX HD BOLT
6405G	18	3/8" HEX NUT
33871A	1	ET2000 HBA POST #1 TOP
33872A	7	ET2000 HBA POST #2-#8 TOP
33873A	2	ET2000 HBA POST #1-#2 BOTTOM
33874A	6	ET2000 HBA POST #3-#8 BOTTOM
33875G	1	6'-6" ANGLE STRUT ET HBA

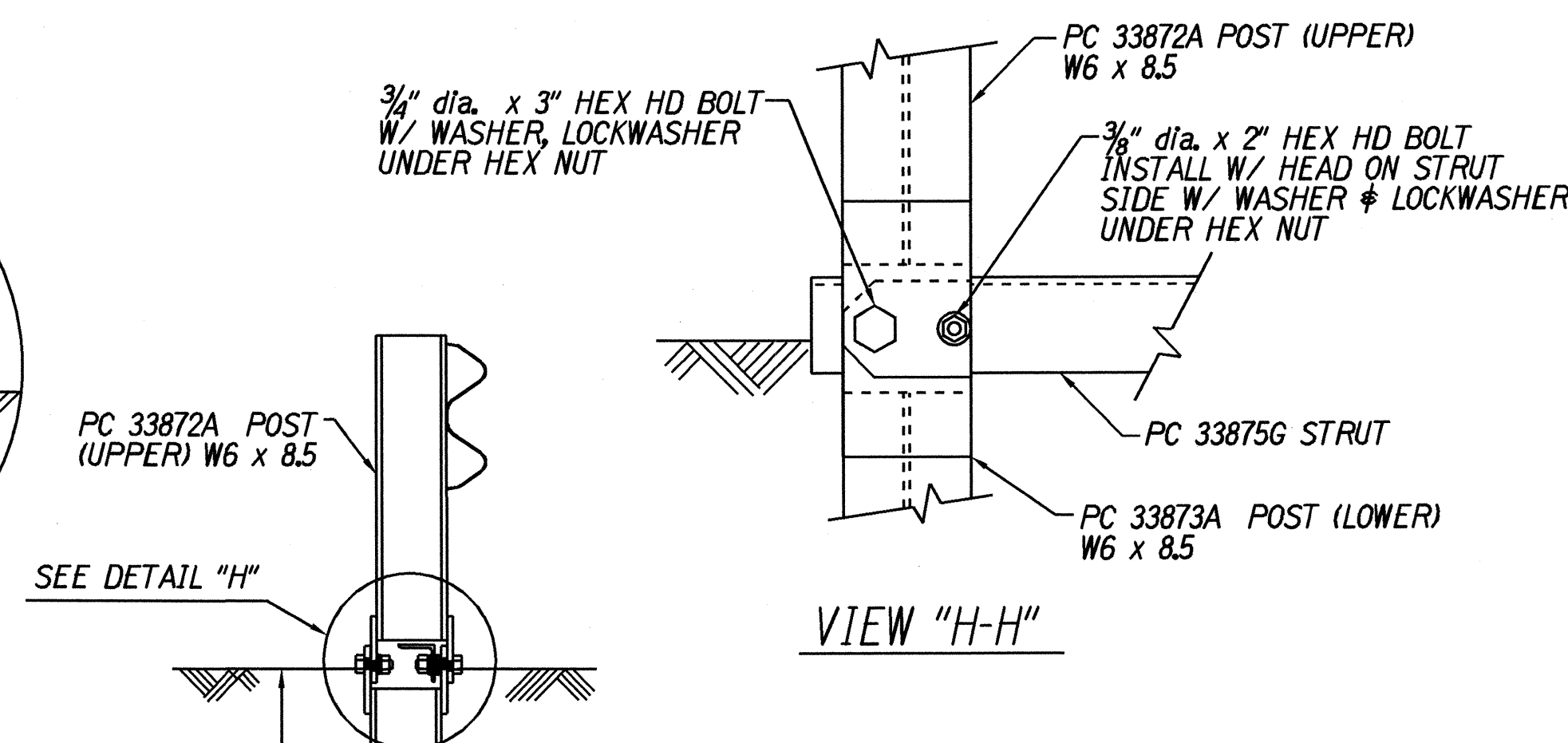


NOTE:
SECTION "A-A" IS SIMILAR @ POST #3, 5 & 7.
EXCEPT RAIL IS NOT ATTACHED.

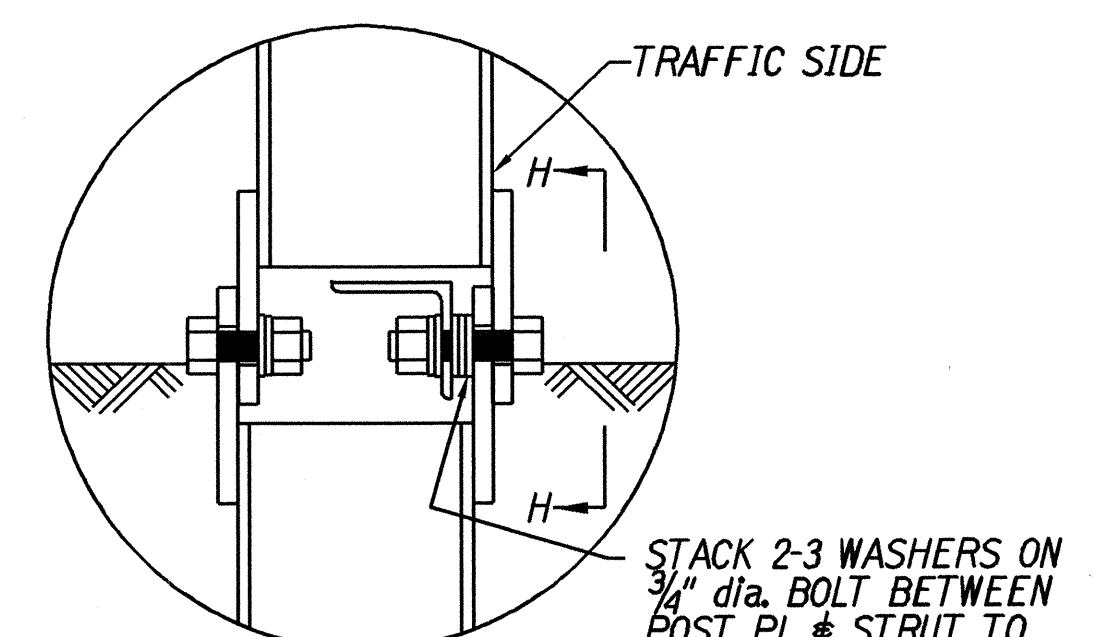
SECTION "A-A"
(TYP @ POSTS #4, 6 & 8)



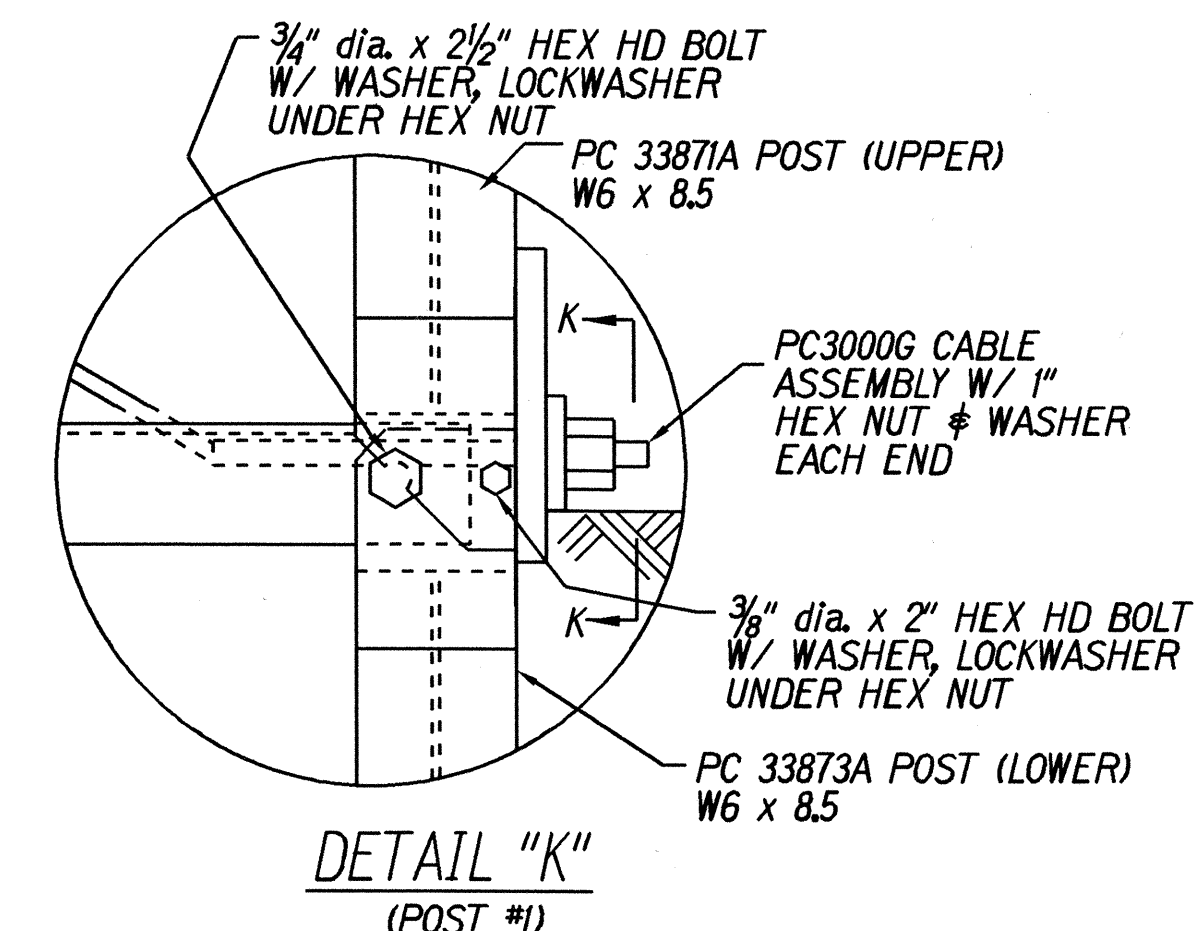
VIEW "D-D"



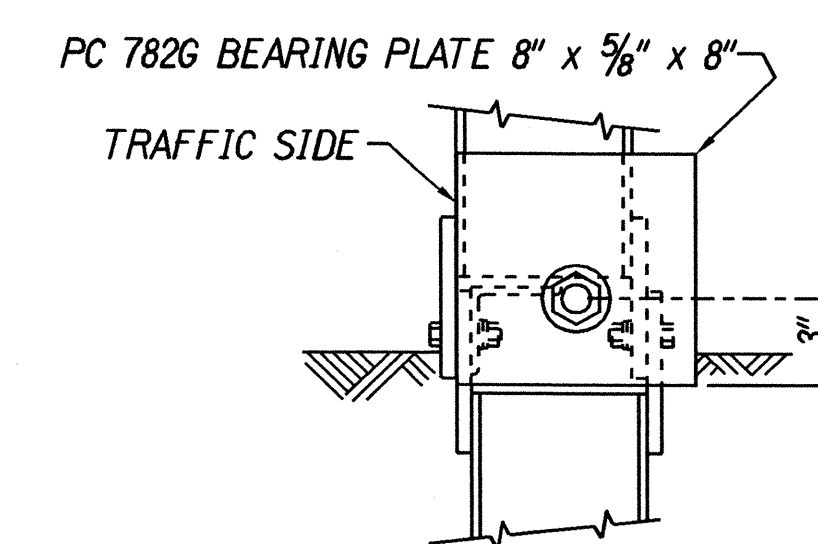
VIEW "H-H"



DETAIL "H"
(POST #2)



DETAIL "K"
(POST #1)



VIEW "K-K"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ET-2000 PLUS

KAUMUALII HIGHWAY

Guardrail and Shoulder Improvements

Omao To Hanapepe

Fed. Aid Project No. STP-050-1(24)

Scale: Not To Scale Date: July 2001

SHEET No. 1 OF 1 SHEETS