

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-H-1(206)	1987	11	40

GUARDRAIL NOTES

- The removal and disposal of existing guardrail that will be replaced with new guardrail will not be paid for separately and shall be considered incidental to Item No. 606.3110-Guardrail, Type 3-Single with Steel Post.
- The existing guardrail connections to the approach end at concrete structures shall be upgraded to provide a stiffened guardrail section as follows:
 - Where the existing guardrail is to remain, the work shall consist of installing New Steel Posts and Spacer Blocks in accordance with the Plans and/or as directed by the Engineer. This work will be paid for under Item No. 606.3440-Furnishing and Installing Steel Post and Spacer Block for Guardrail.
 - Where the existing guardrail is to be removed and replaced with new guardrail, the Contractor shall install 25' of stiffened guardrail section consisting of 4 spacings at 1'-6 3/4" and 6 spacings at 3'-1 1/2" in accordance with the plans and/or as directed by the Engineer. The additional posts and spacer blocks required for the reduced post spacings will not be paid for separately and shall be considered incidental to Item No. 606.3110-Guardrail, Type 3-Single with Steel Post.
- The Contractor shall furnish and install wooden block-outs, as necessary, for attachment of the existing rubrail to new guardrail posts at H-1 O.B. Sta. 512+20±Rt. and H-1 O.B. Sta. 513+00±Lt. This work will not be paid for separately and shall be considered incidental to Item No. 606.3440-Furnishing and Installing Steel Post and Spacer Block for Guardrail.
- The Contractor shall construct 10" square openings in new and/or existing P.C.C. pavement and concrete gutters for installation of guardrail posts. The openings shall be filled with A.C. Pavement, Mix No. II to grade after posts are installed. This work will not be paid for separately and shall be considered incidental to the various contract items.
- The Contractor shall remove the existing earth mound, grade and grass the area prior to installing the Inertial Barrier System. The Inertial Barrier System shall be placed on a surface with a cross slope not exceeding 5 percent. All work shall be done as directed by the Engineer. Removing the existing earth mound, grading, and grassing will not be paid for separately and shall be considered incidental to Inertial Barrier System.

6. The Pay Limit for Type 50 CB Concrete Guardrail over the Type ARJ or Type ALJ Catch Basin shall be above the construction joint. The Pay Limit for the Type 50 CB Concrete Guardrail for the 5' section on both sides of the catch basin shall include the footing below the finish grade.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL & INERTIAL BARRIER
SYSTEM DETAILS & NOTES

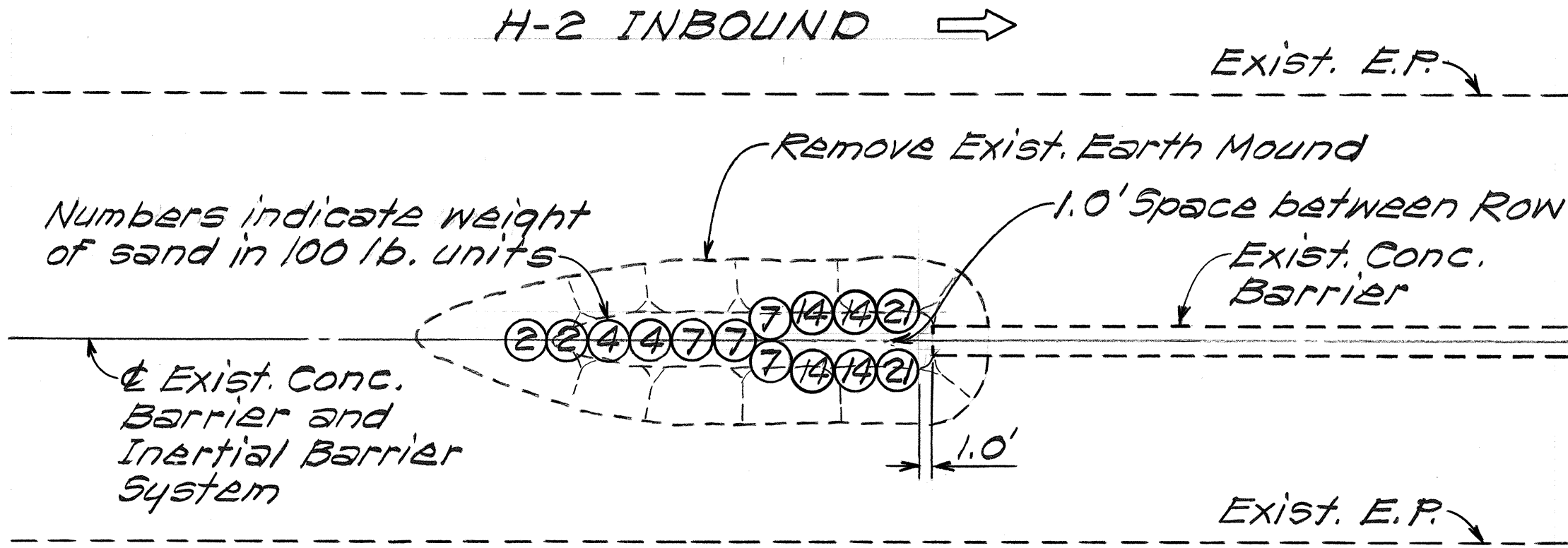
INTERSTATE ROUTE H-1
ADDITIONAL LANES, PHASE II
F.A.I. PROJ. NO. IR-H-1(206)

Scale: As Shown Date: Feb., 1987

SHEET NO. 1 OF 2 SHEETS

4/14/87	Added Rubrail at approaches to concrete structures.
DATE	REVISION

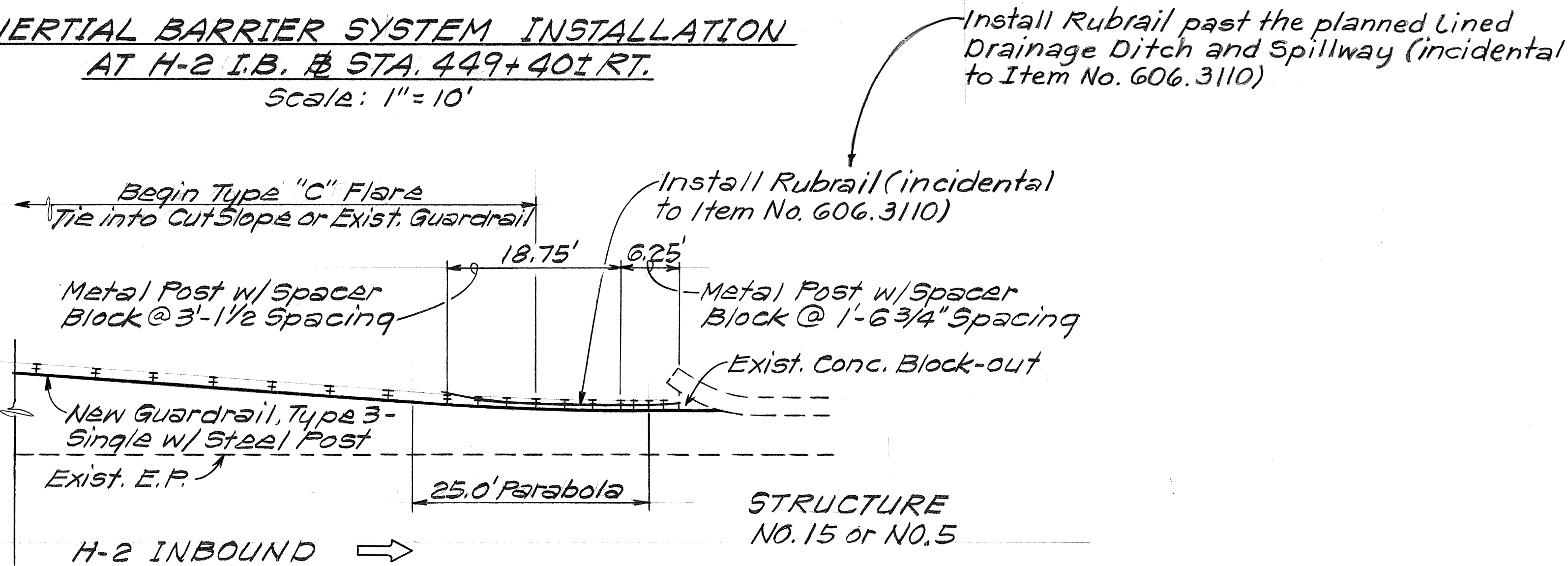
H-2 INBOUND →



RAMP H2-I →

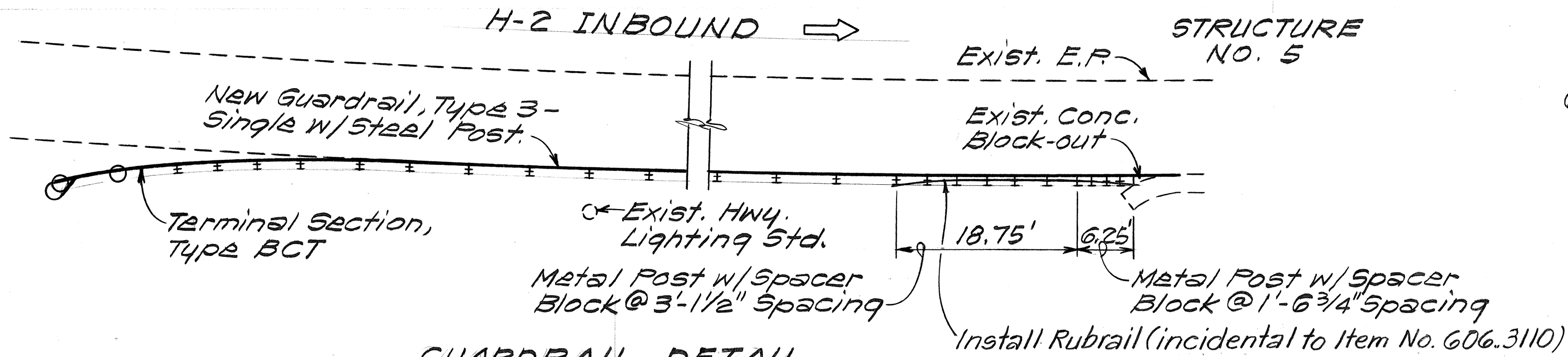
QUANTITIES OF INERTIAL BARRIER MODULES					
APPROXIMATE LOCATION	MODULE SIZE BY WEIGHT (LBS.)				
	200	400	700	1400	2100
H-2 I.B. @ Sta. 449+40±Rt.	2 Ea.	2 Ea.	4 Ea.	4 Ea.	2 Ea.
Unassembled Replacement Modules	2 Ea.	2 Ea.	4 Ea.	4 Ea.	2 Ea.

INERTIAL BARRIER SYSTEM INSTALLATION
AT H-2 I.B. @ STA. 449+40±RT.
Scale: 1"=10'



GUARDRAIL DETAIL

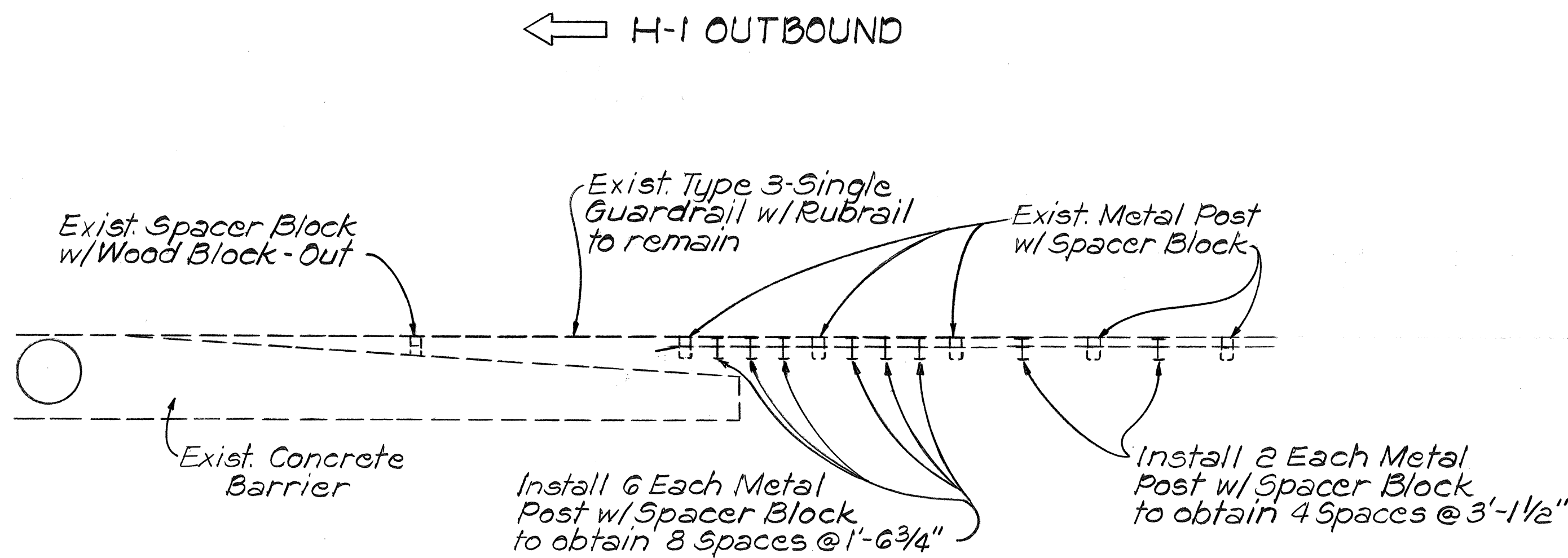
AT H-2 I.B. @ STA. 455+70±LT. TO H-2 I.B. @ STA. 457+65±LT. &
AT H-2 I.B. @ STA. 470+25±LT. TO H-2 I.B. @ STA. 471+25±LT.
Scale: 1"=10'



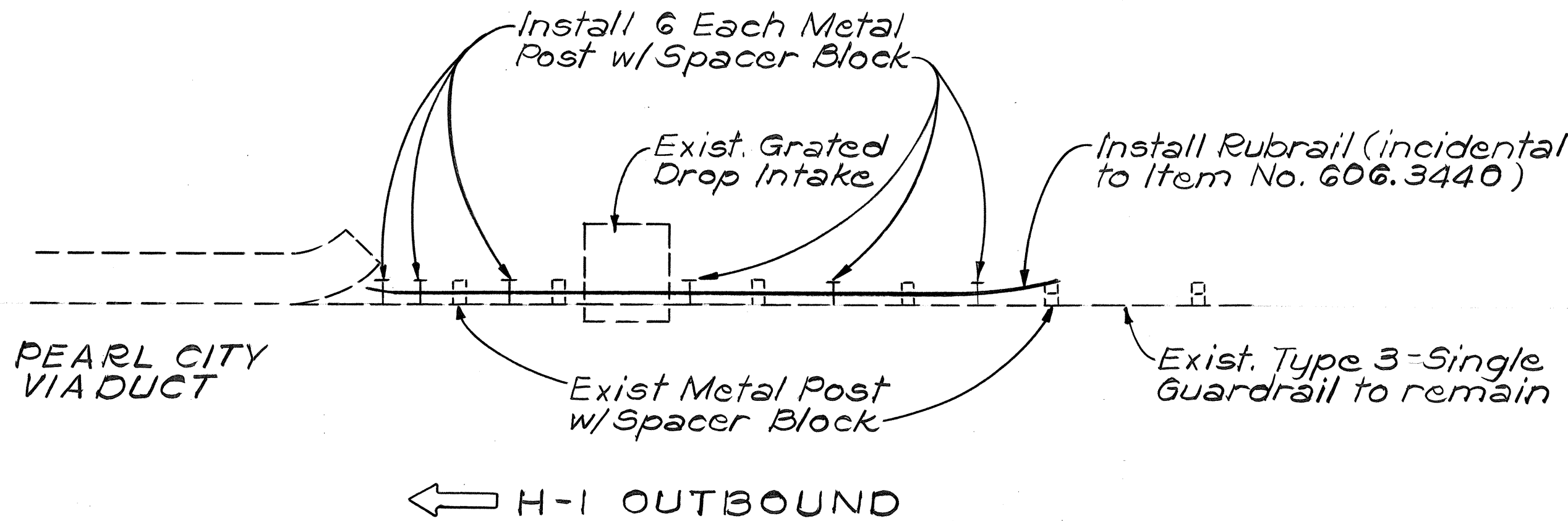
GUARDRAIL DETAIL

AT H-2 I.B. @ STA. 469+45±RT. TO H-2 I.B. @ STA. 470+65±RT.
Scale: 1"=10'

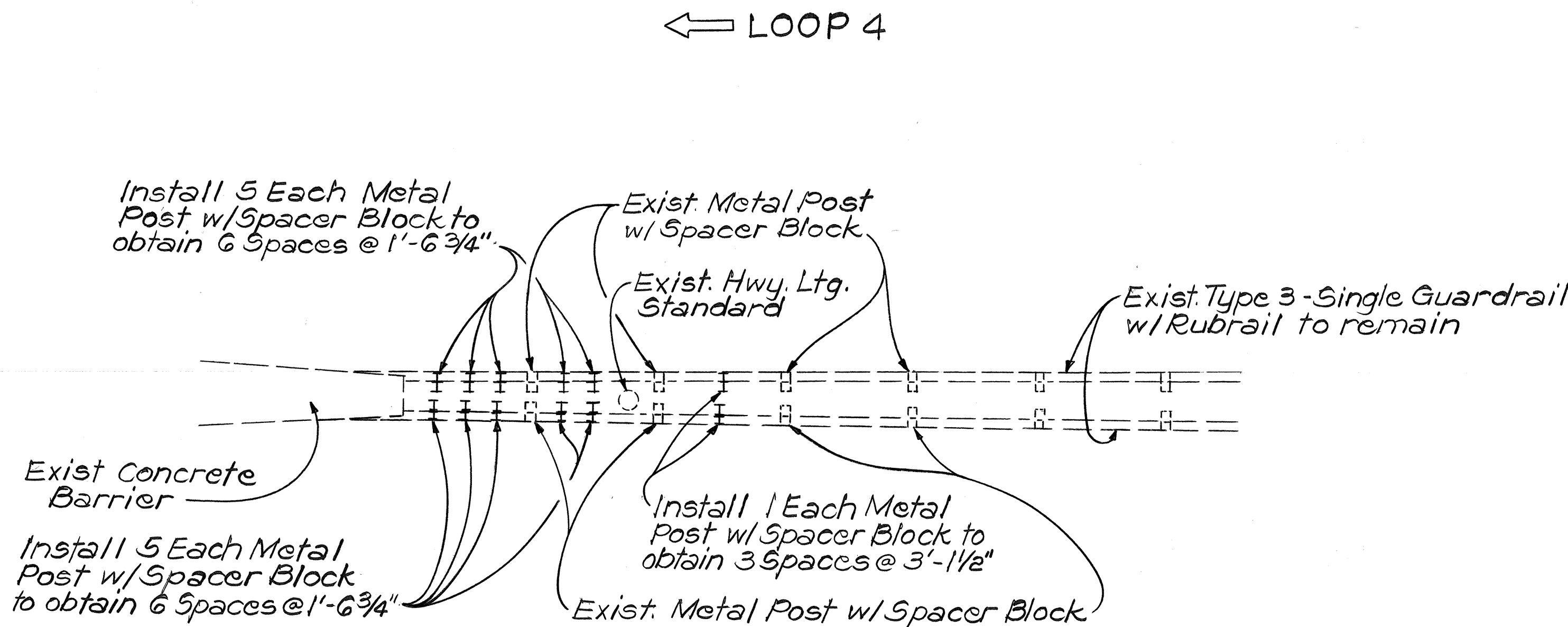
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IR-HI-1(206)	1987	12	40



GUARDRAIL DETAIL @
H-1 O.B. @ Sta. 512+20± Rt.
Scale: 1"=5'

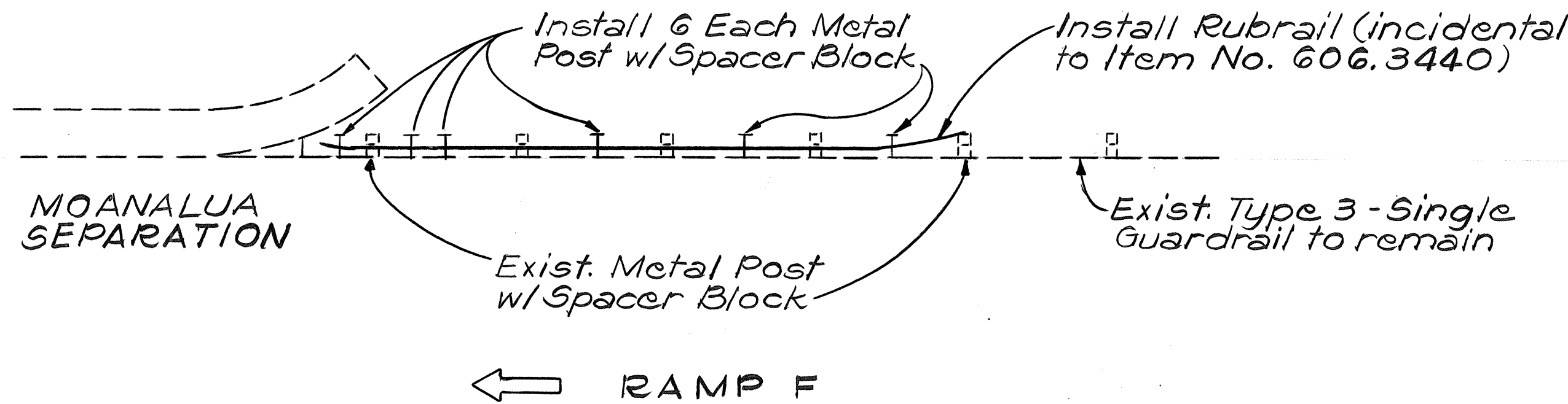


GUARDRAIL DETAIL @
H-1 @ STA 62+00± Lt.
Scale: 1"=5'



← H-1 OUTBOUND

GUARDRAIL DETAIL @
H-1 O.B. @ Sta. 513+00± Lt.
Scale: 1"=5'



GUARDRAIL DETAIL @
H-1 @ STA. 74+20± Lt.
Scale: 1"=5'

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
GUARDRAIL DETAILS	
INTERSTATE ROUTE H-1 ADDITIONAL LANES, PHASE II F.A.I. PROJ. NO. IR-HI-1(206)	
4/14/87	Added Guardrail Details. Changed Scale of Guardrail Details.
DATE	REVISION
SHEET No. 2 OF 2 SHEETS	