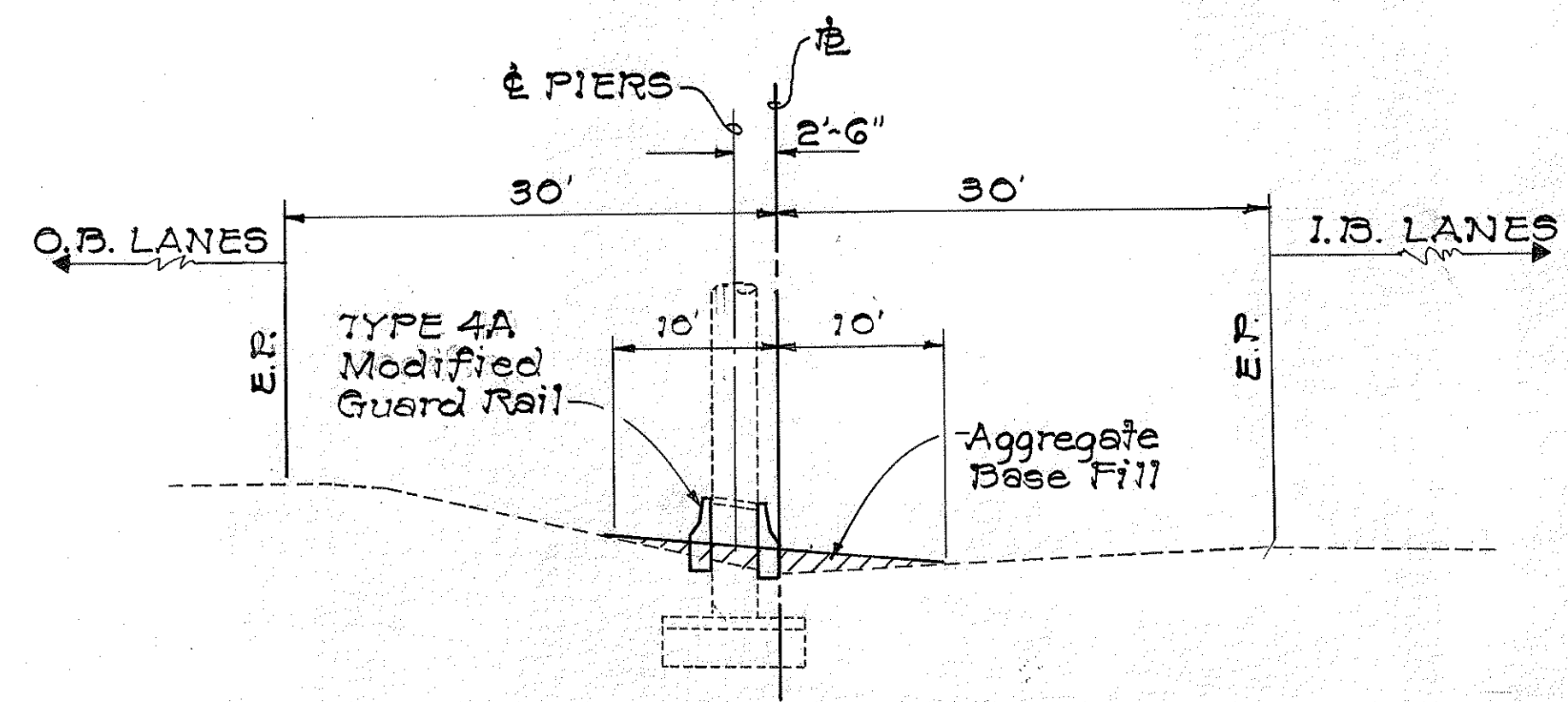
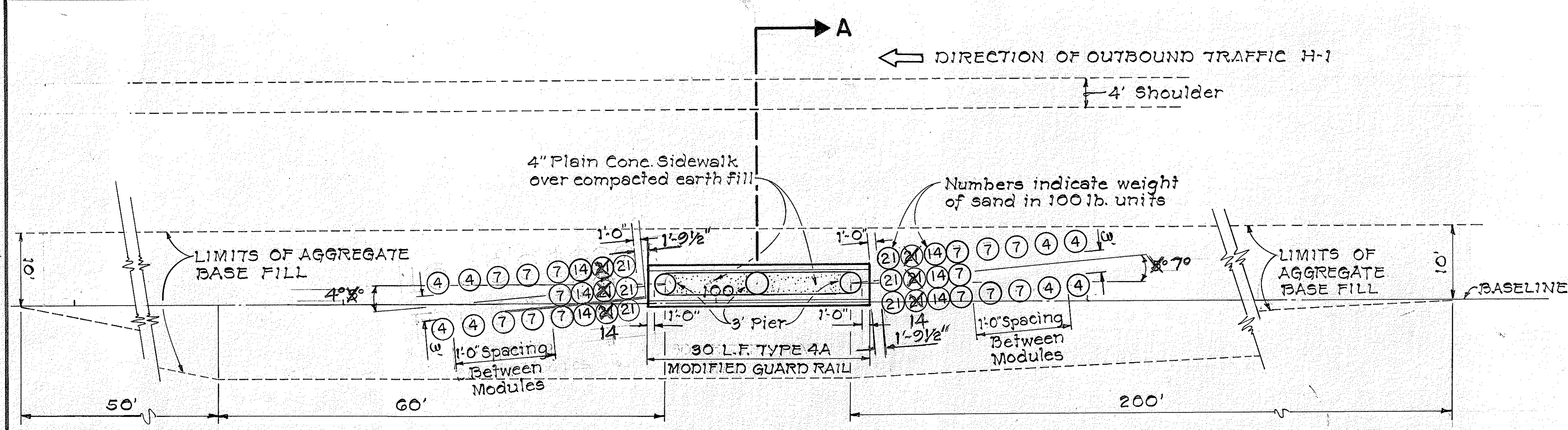


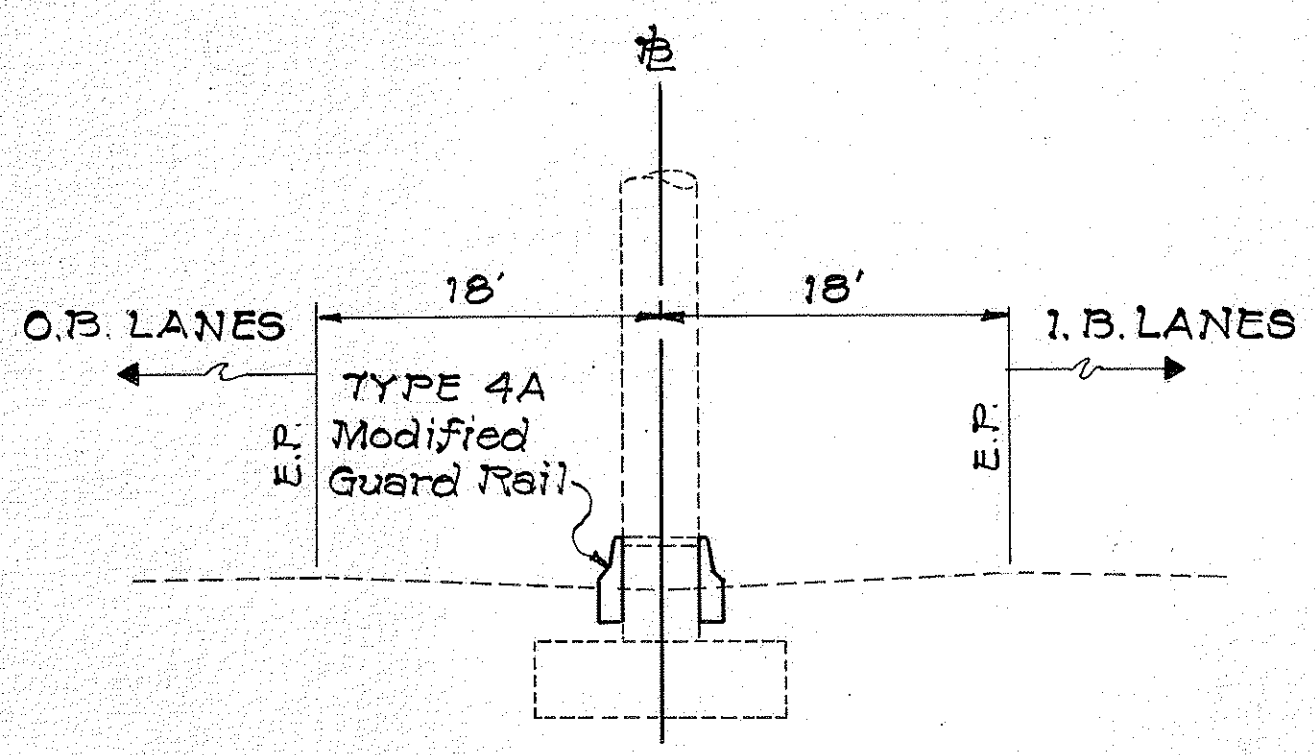
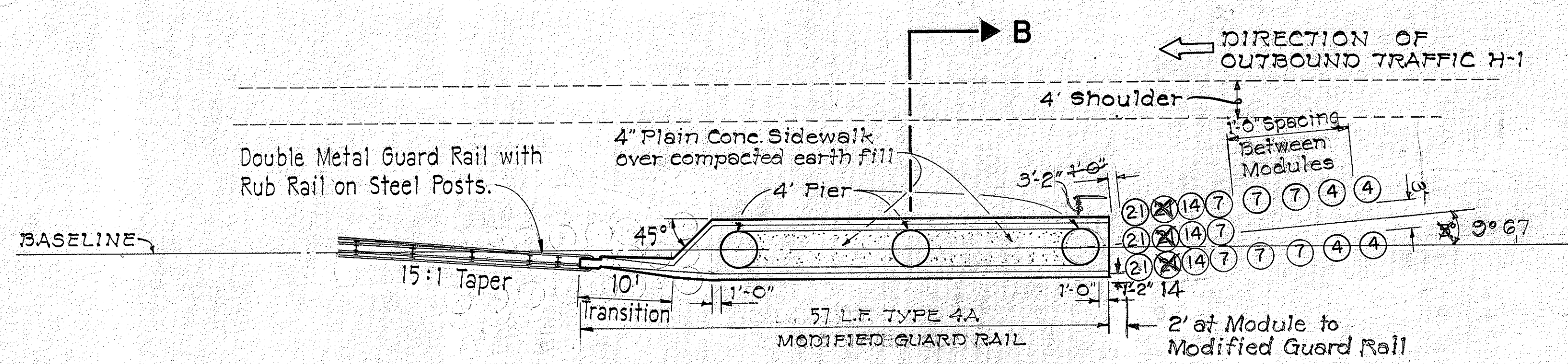
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(108)	1975	12	100



SECTION A
SCALE: 1" = 10' - 0"

PLAN - MAKAKILO SEPARATION PIERS

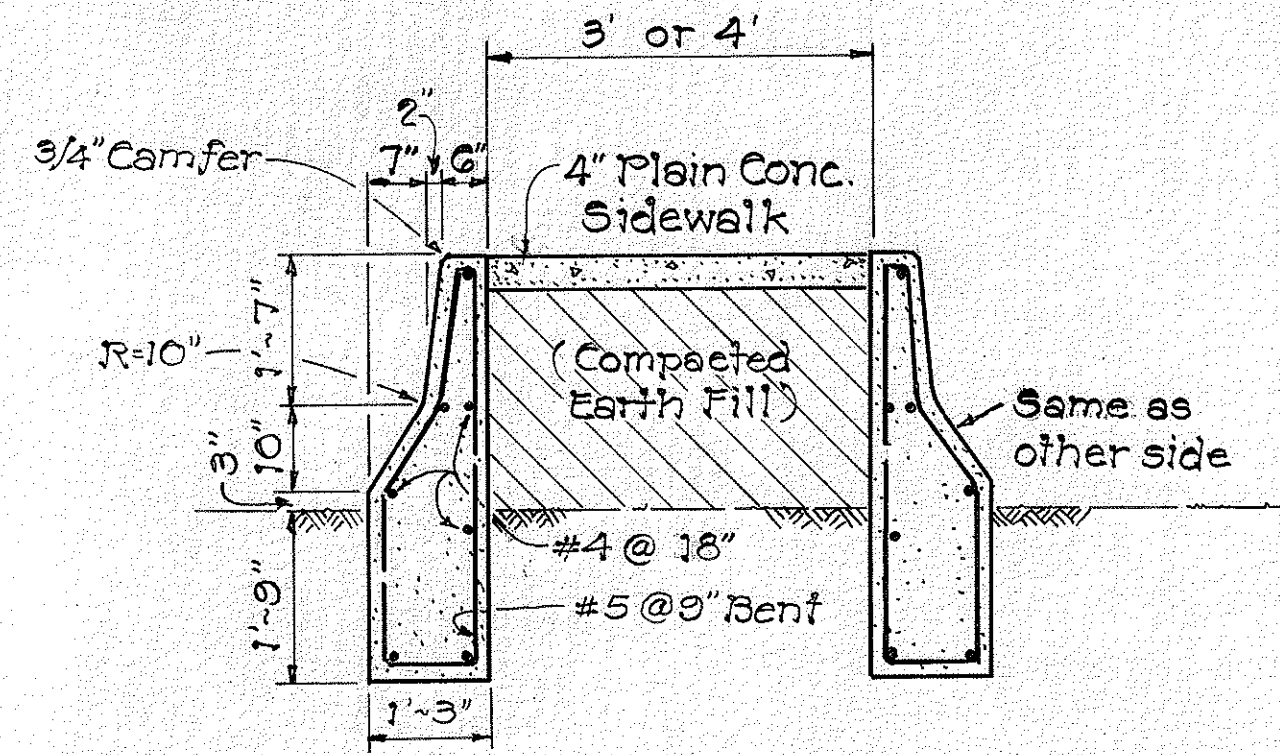
SCALE: 1" = 10' - 0"



SECTION B
SCALE: 1" = 10' - 0"

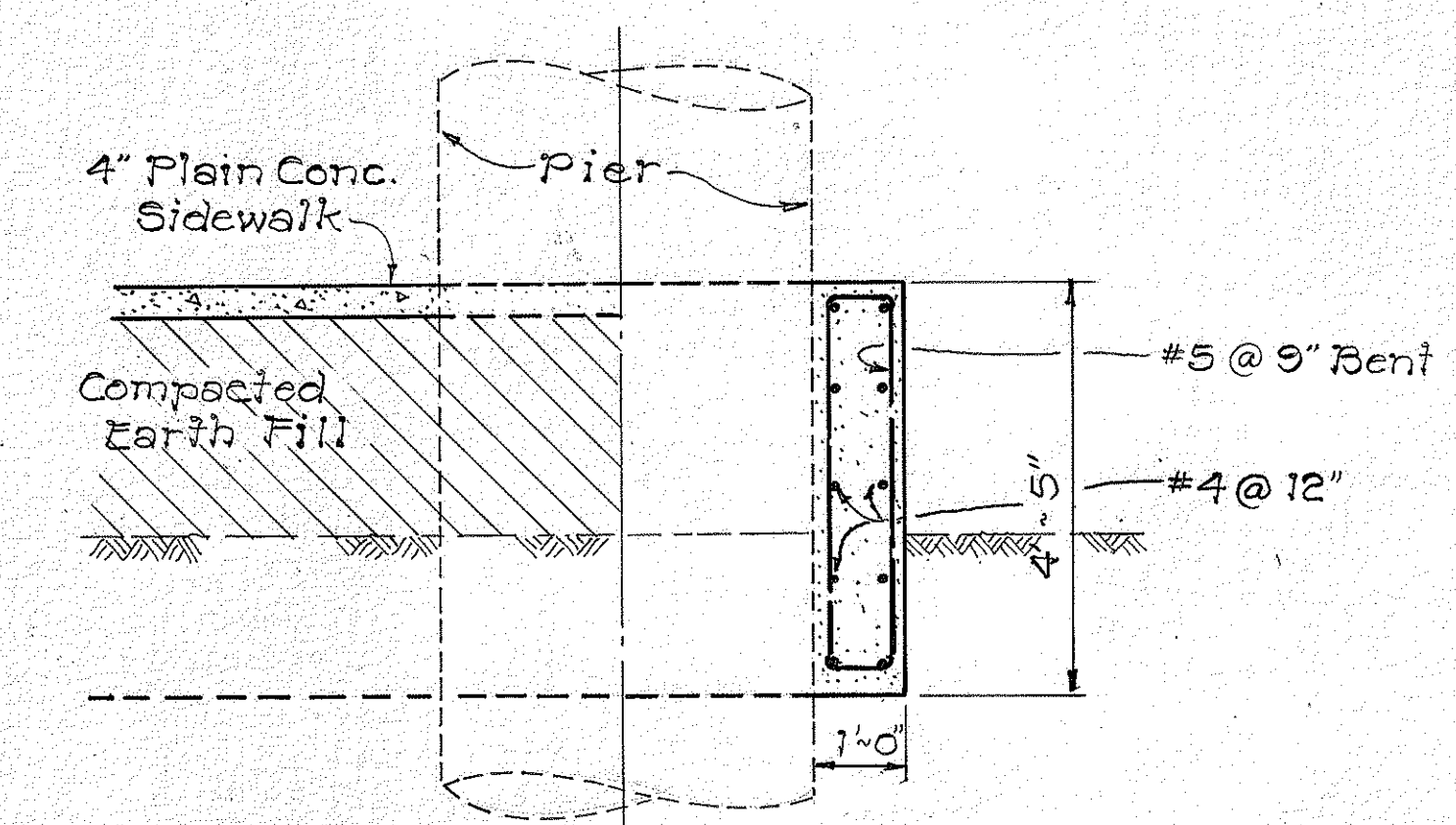
PLAN - FARRINGTON SEPARATION PIERS

SCALE: 1" = 10' - 0"



TYPE 4A MODIFIED GUARD RAIL DETAILS

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



TYPE 4A MODIFIED GUARD RAIL TERMINAL SECTION

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

APPROXIMATE LOCATION	MODULE SIZE BY WEIGHT (LBS.)			
	#400	#700	#1400	#2100
STA. 66+57	4 Ea.	7 Ea.	3 Ea.	6 Ea.
STA. 99+90	4 Ea.	7 Ea.	3 Ea.	6 Ea.
STA. 100+20	4 Ea.	7 Ea.	3 Ea.	6 Ea.
UNASSEMBLED REPLACEMENT MODULES	6 Ea.	7 Ea.	5 Ea.	2 Ea.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

INERTIAL BARRIER
BARRIER DETAILS

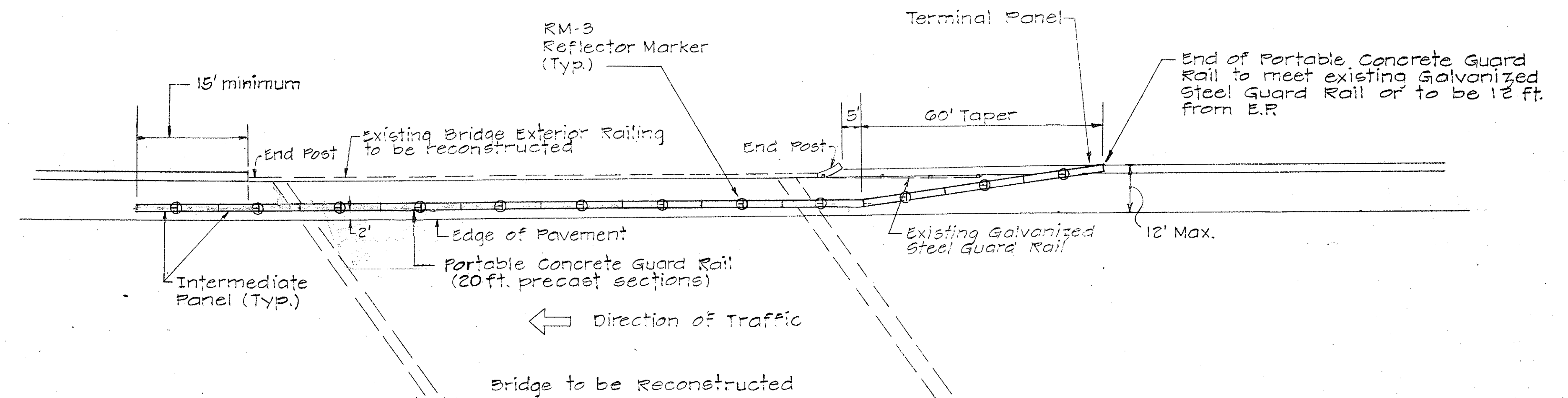
F.A.I. PROJ. NO. 1-HI-1 (108)

SCALE: As Noted DATE: April 1974

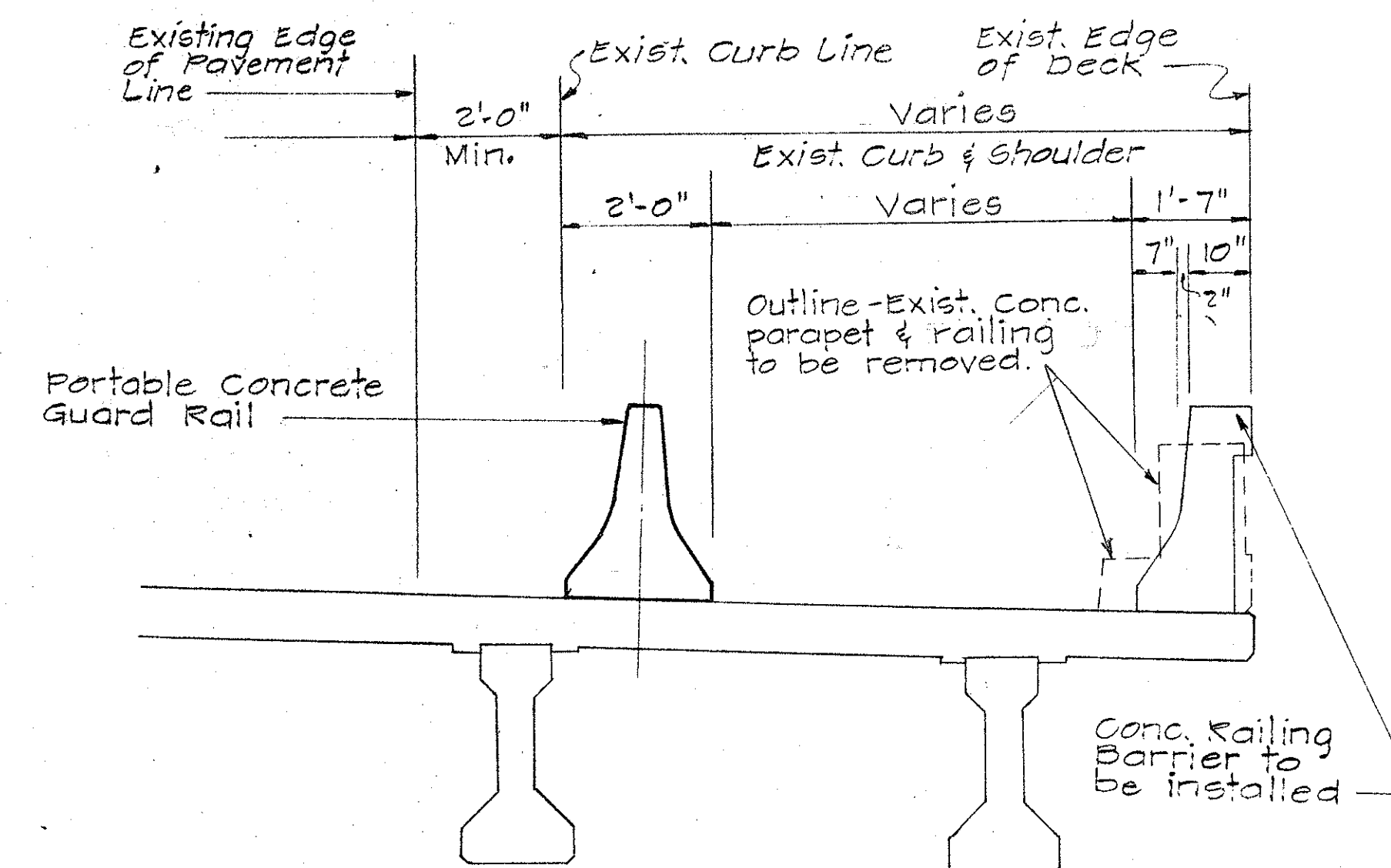
SHEET No. 1 OF 4 SHEETS

DATE	_____
DESIGNED BY	_____
CHECKED BY	_____
NOTED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	FHI-1(108)	1975	13	100



PLAN AND APPROACH END FLARE DETAILS
N.T.S.



PART DECK SECTION
N.T.S.

NOTES

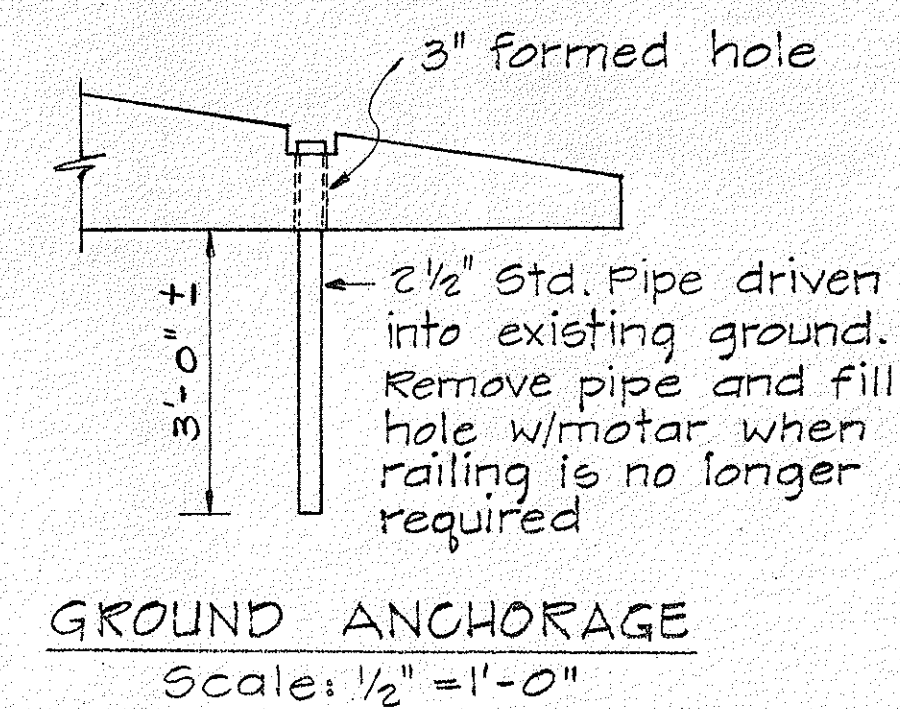
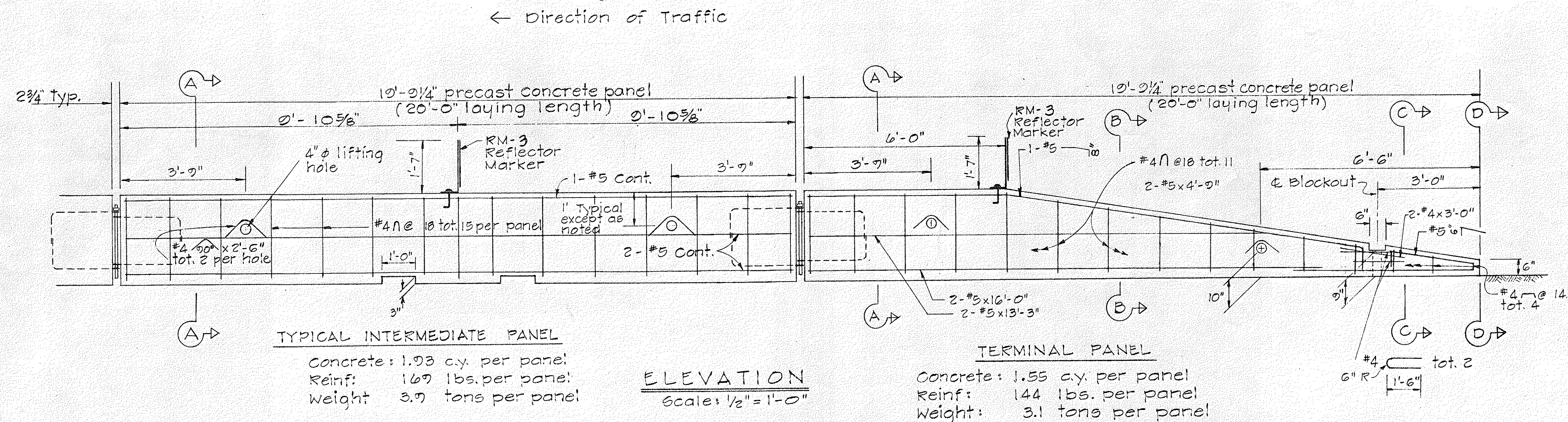
1. Installation details of Portland Concrete Guard Rail on right shoulder are shown. Installation details on left shoulder are identical with the exception that left and right are reversed.
2. The contractor shall erect necessary traffic control devices along the approach area of the temporary guard rail.

TEMPORARY GUARD RAIL INSTALLATION DETAILS

ORIGINAL PLAN	DATE
NOTED BY	
CHECKED BY	
QUANTITIES BY	
REVISIONS BY	
DATE	

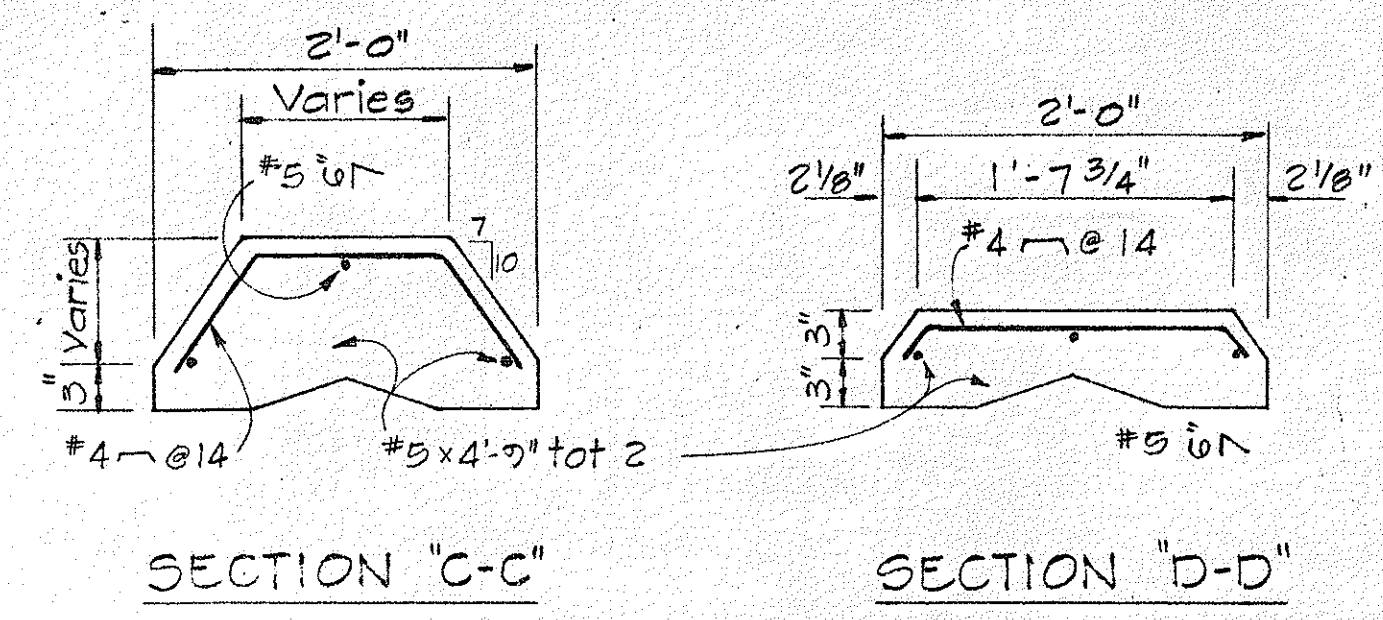
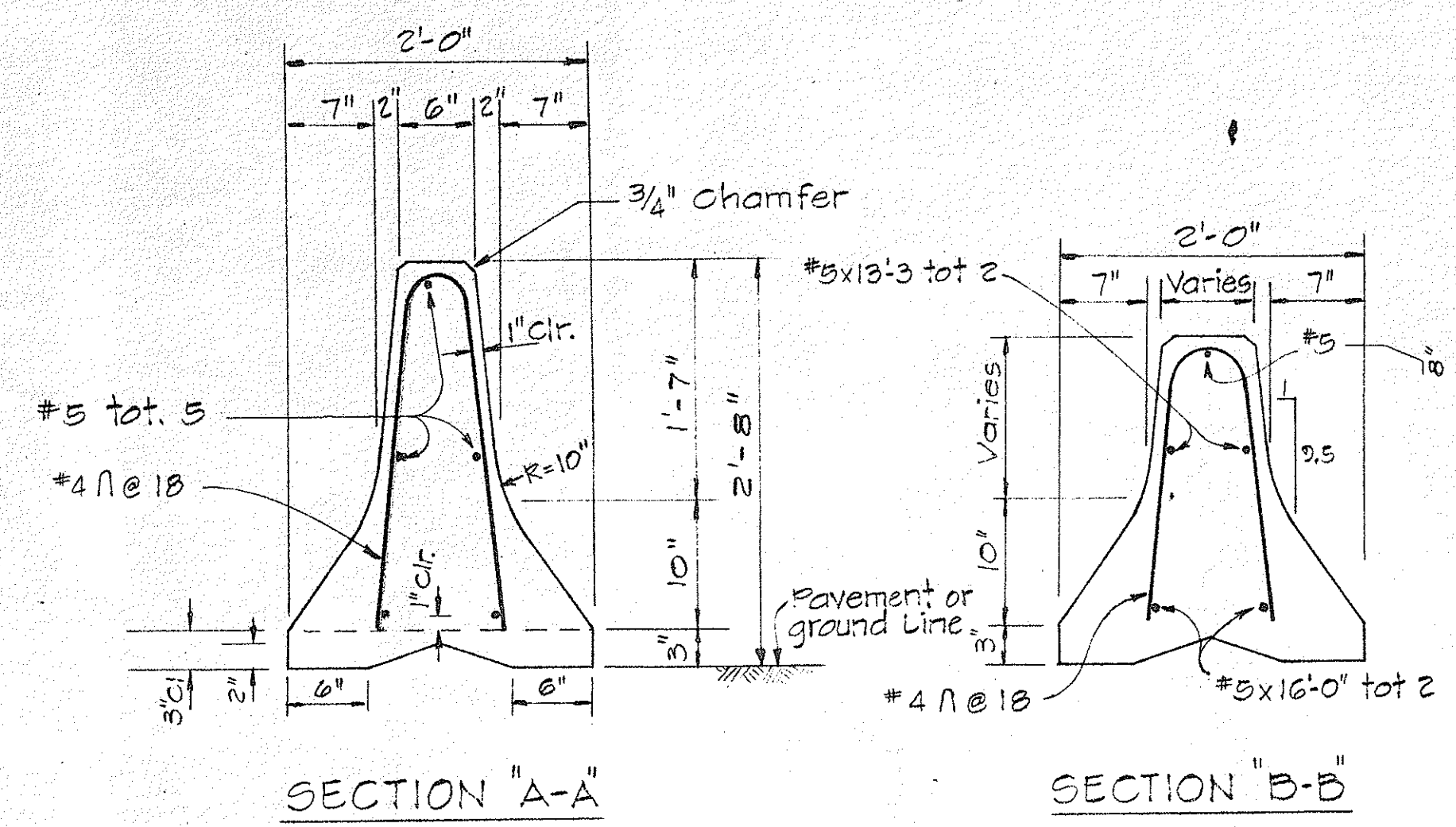
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
MAINTENANCE AND PROTECTION OF TRAFFIC
F.A.I. Proj. No. I-HI-1(108)
Scale: As Noted Date:
SHEET No. 2 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(108)	1975	14	100



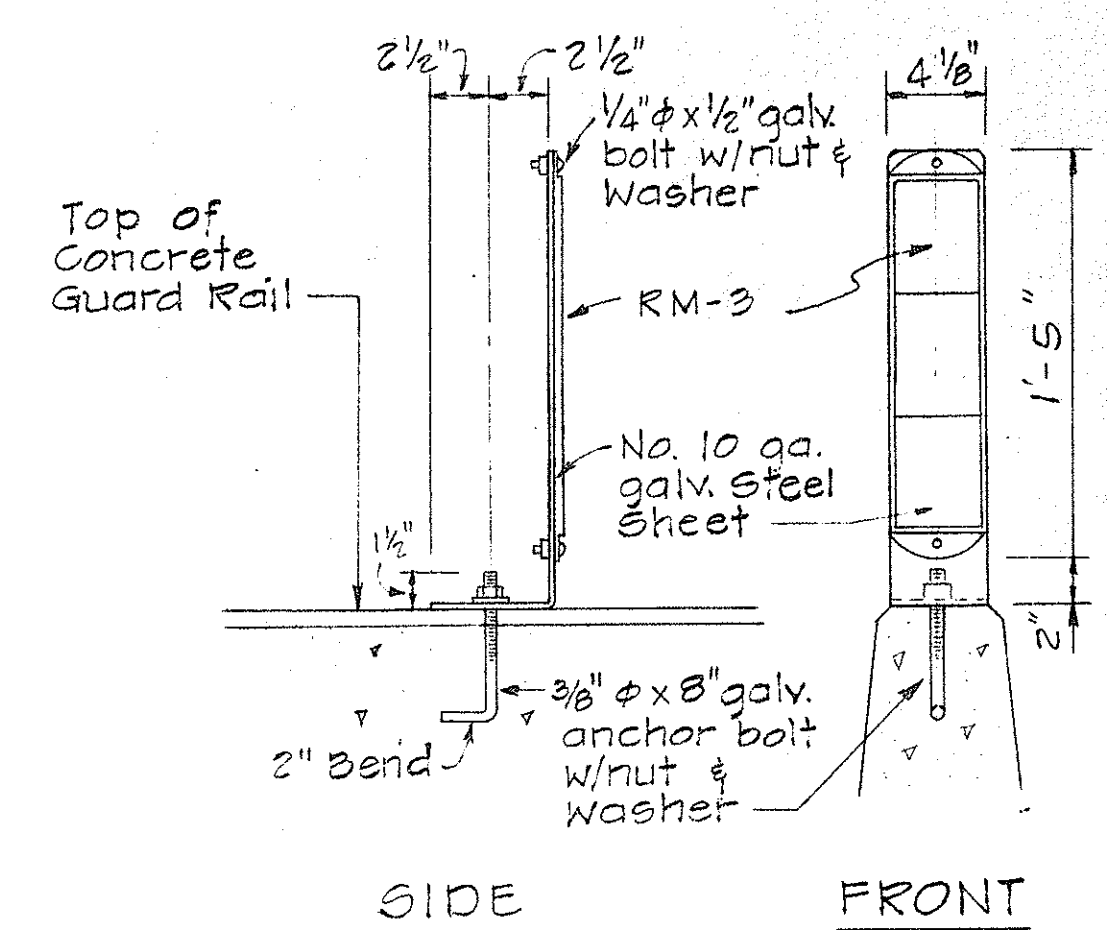
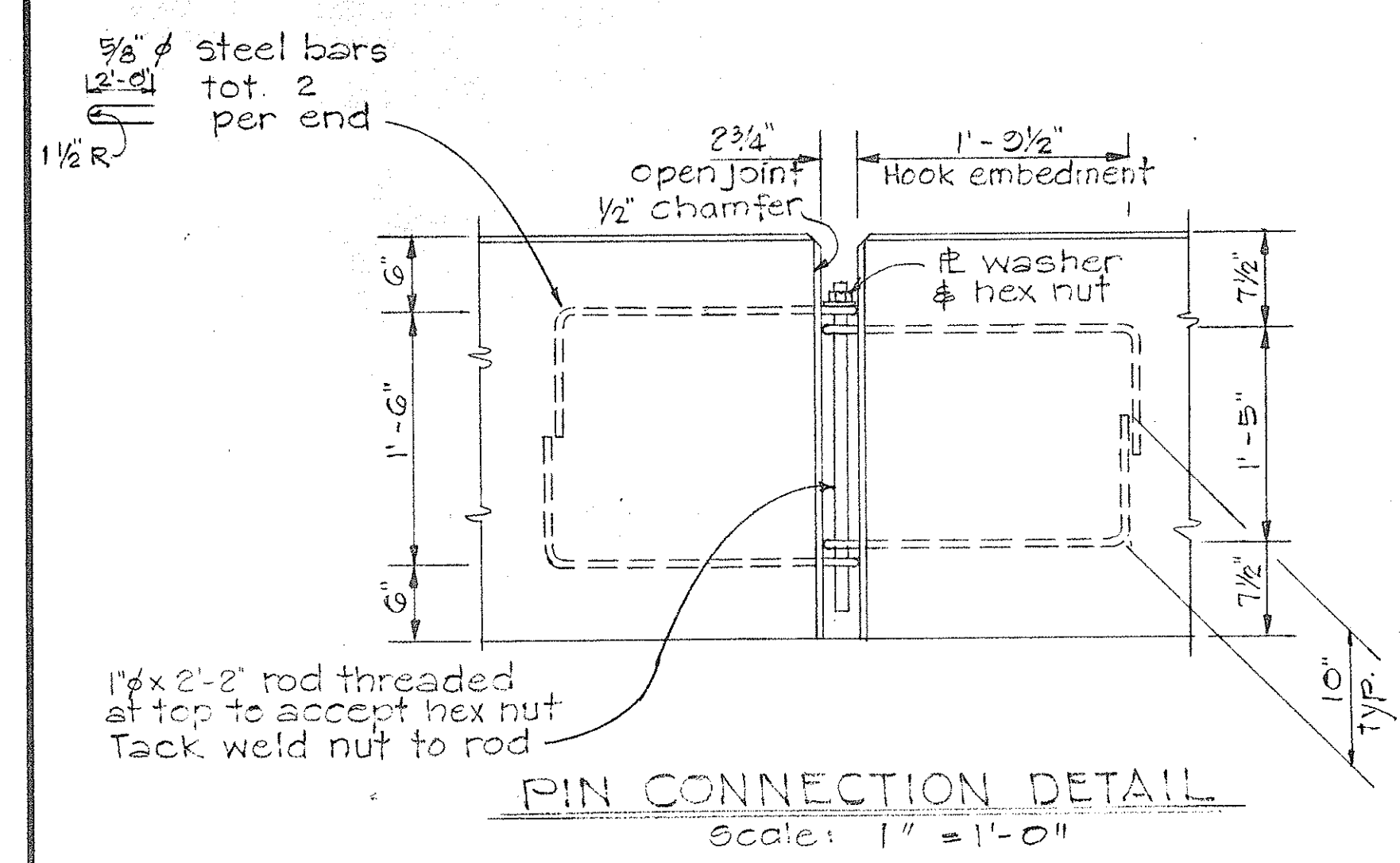
NOTES

- For details not shown in Sections BB, C-C, & D-D, see Section A-A
- Reflector Marker shall not be paid for separately but shall be considered incidental to Portable Concrete Guard Rail.
- Concrete shall be Class "A".
- All bolts to have cut washers unless otherwise noted.



SECTIONS

Scale: 1" = 1'-0"



REFLECTOR MARKER MOUNTING DETAIL

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

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PORTABLE CONCRETE GUARD RAIL TYPICAL DETAILS

F.A.I. Proj. No. I-HI-1(108)

Scale: As Noted Date: _____

SHEET No. 3 OF 4 SHEETS

DATE	_____
SURVEYED BY	_____
DRAWN BY	_____
CHECKED BY	_____
ORIGINAL PLAN	_____
NOTE BOOK	_____
No.	_____

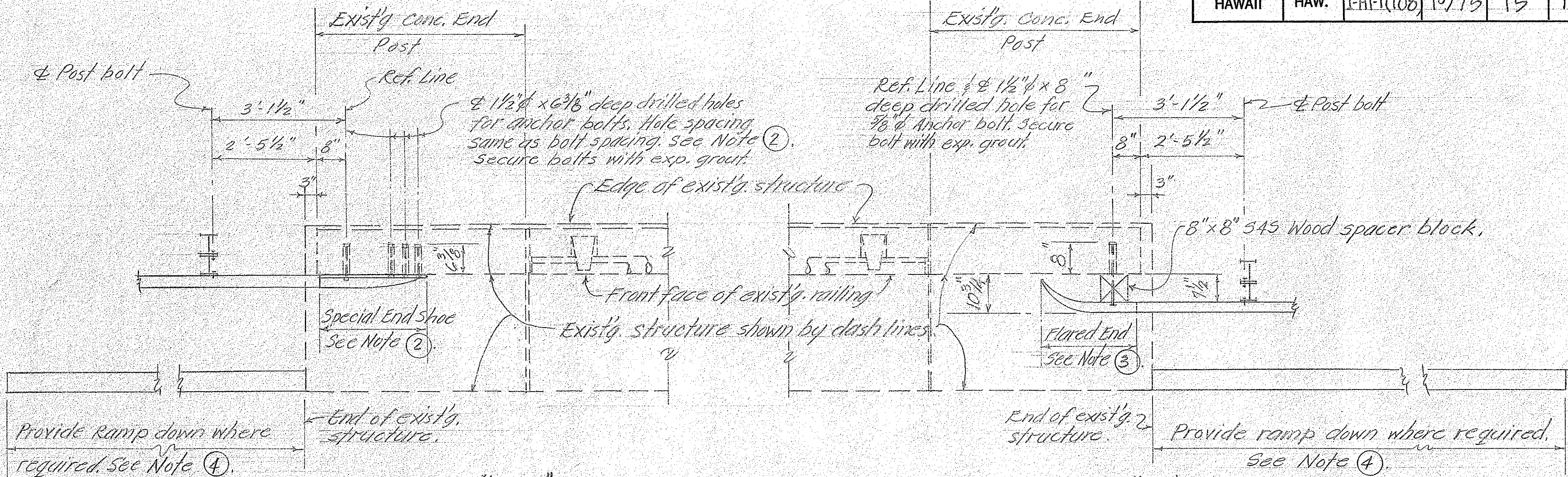
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HI-1(108)	1975	15	100

GUARD RAIL CONNECTION SCHEDULE FOR EXISTING CONC. END POSTS & HEADWALLS	
LOCATION	TYPE CONNECTION
PALAILAI STRUCTURE	
Road A 8 + 33 Rt.	Type "A"
Road A 8 + 40 Lt.	Type "T"
Road A 10 + 49 Rt.	Type "T"
Road A 10 + 54 Lt.	Type "A"
FARRINGTON STRUCTURE	
Road B 21 + 95 Rt.	Type "A"
Road B 22 + 50 Lt.	Type "T"
Road B 25 + 90 Rt.	Type "T"
Road B 26 + 75 Lt.	Type "A"
MAKAKILO STRUCTURE	
Makakilo Dr. 8 + 05 Rt.	Type "A"
Makakilo Dr. 10 + 78 Lt.	Type "A"
HEADWALLS	
H-1 @ 110 + 15 Rt.	Type "A"
H-1 @ 110 + 35 Rt.	Type "T"
H-1 @ 222 + 55 Rt.	Type "A"
H-1 @ 222 + 70 Lt.	Type "T"
H-1 @ 222 + 80 Rt.	Type "T"
H-1 @ 222 + 95 Lt.	Type "A"

NOTE:
Above Stations for Guard Rail Connections are approximate.

NOTES

- For location of Type "T" & "A" connections on Palailai, Farrington, & Makakilo Separations and on culvert headwalls @ Interstate @ Sta. 110+43 & 222+75, see Highway drawings.
- For Special End Shoe details, Anchor bolt sizes & spacing and additional information, see "Standard Details" sheet N° 82.
- For Flared End detail see Highway drawing "Standard Details Metal Guard Rail."
- See Highway drawing for location & details of "Ramp down walk."

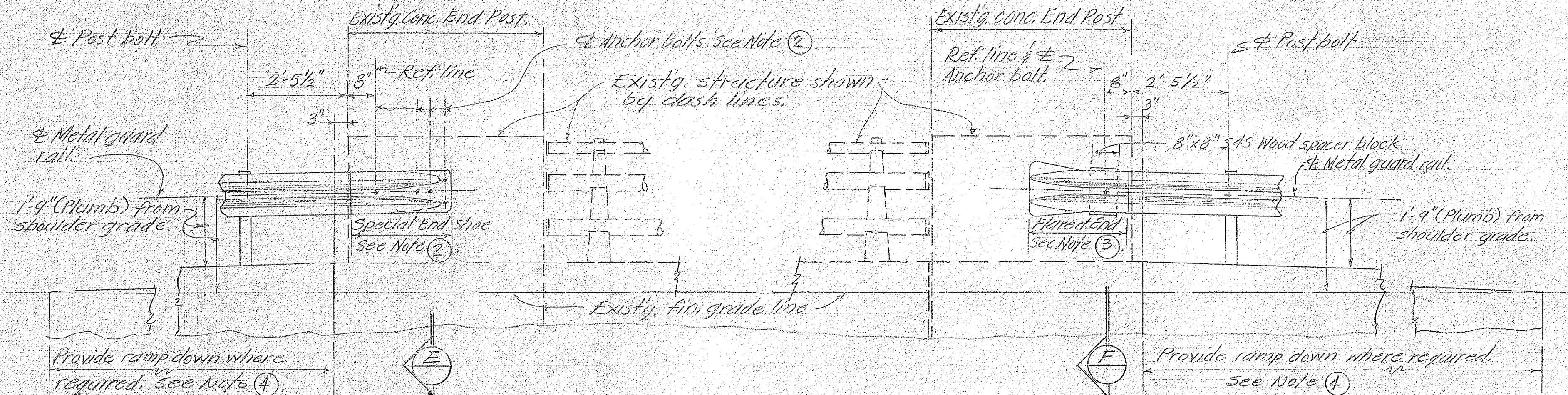


TYPE "T"
CONNECTION PLAN

SEE NOTE ①
Scale: 1/2" = 1'-0"

TYPE "A"
CONNECTION PLAN

SEE NOTE ①
Scale: 1/2" = 1'-0"

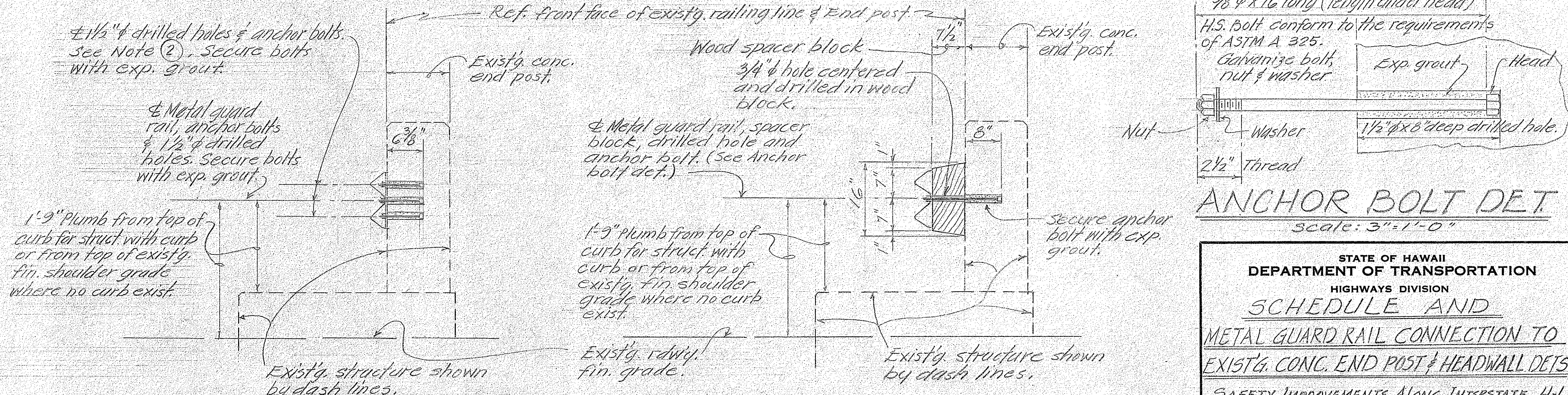


TYPE "T" CONN. ELEVATION

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

TYPE "A" CONN. ELEVATION

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

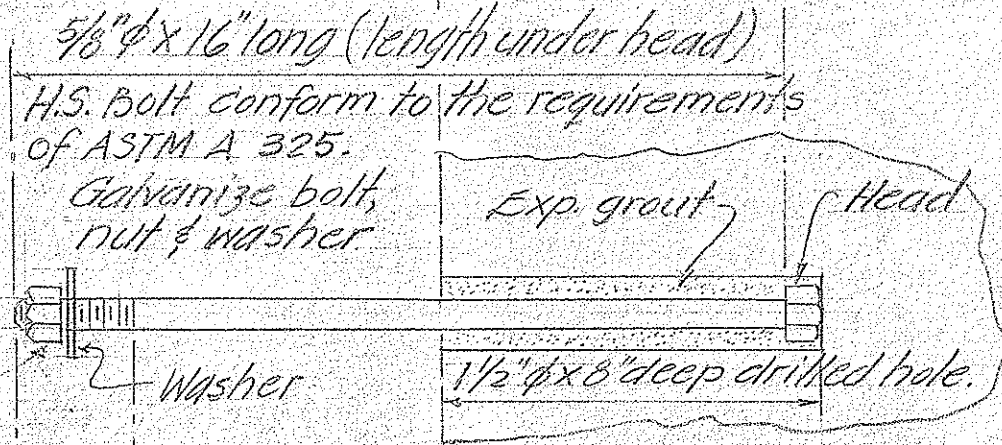


SECTION (E)

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

SECTION (F)

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



ANCHOR BOLT DET.

Scale: 3" = 1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SCHEDULE AND
METAL GUARD RAIL CONNECTION TO
EXIST'G. CONC. END POST & HEADWALL DETS.
SAFETY IMPROVEMENTS ALONG INTERSTATE H-1
PALAILAI TO KUNIA
Proj. N° I-HI-1(108) Date: Dec., '73
SHEET NO. 4 OF 4 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	
NOTED BY	
CHECKED BY	
NO.	