

GUARDRAIL SCHEDULE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360AB-01-88	1988	5	35

APPROXIMATE LIMITS (STA. to STA.)	GUARDRAIL w/STEEL POST	RECONSTRUCT. GUARDRAIL	END CONDITION	APPROXIMATE LIMITS (STA. TO STA.)	GUARDRAIL w/Steel Post	RECONSTRUCT. GUARDRAIL	END CONDITION	APPROXIMATE LIMITS (STA. to Sta.)	GUARDRAIL w/STEEL POST	RECONSTRUCT. GUARDRAIL	END CONDITION
607+50 ± Lt.			Connect to exist. CRM Wall (use GR-3)	678+10 ± Lt.			GR-4	817+50 ± Lt.			GR-2
to 75				679+50	1,100'			to			
613+20 ± Lt.	375'	570'	Connect to exist. G.R.	to	7,230'			818+80 ± Lt.		730'	GR-2
617+20 ± Lt.				690+40 ± Lt.		760'	Connect to exist. G.R.	820+80 ± Lt.			GR-4
617+50 ± Lt.	7,230'			50				to	480'		
626+00 ± Lt.	375'		GR-2	692+00 ± Lt.			GR-3	65	487.5'		Connect to exist. G.R.
621+25				692+75 ± Lt.			GR-3	to		220'	
629+00 ± Lt.			GR-2	to	7,125'			825+60 ± Lt.			
to	700'			704+00 ± Lt.			GR-3	to			GR-2
636+00 ± Lt.	587.5'		GR-3	704+50 ± Lt.			GR-3	836+00 ± Lt.			GR-4
636+20 ± Lt.			GR-3	25	840'			837+95			
639+00	340'			to	850'			to	731.5'		
640+25	150'		GR-2	712+65			GR-2	845+00	700'		Connect to exist. G.R.
639+60 ± Lt.				713+00 ± Lt.			GR-2	845+00 ± Lt.		700'	
644+30 ± Lt.			GR-3	723+50 ± Lt.			GR-2	to	60'		GR-2
to	330'			to	250'			845+60			
647+30 ± Lt.	325'		GR-2	735+00 ± Lt.			GR-2	852+15 ± Lt.			
650+60 ± Lt.			GR-2	737+40 ± Lt.			GR-2	10			GR-3
651+00	50'			to	60'			871+50 ± Lt.	443.5'		
to	25'		Connect to exist. G.R.	738+00 ± Lt.			GR-2	65	710'		
651+70 ± Lt.		750'		743+00 ± Lt.			GR-2	875+65 ± Lt.			Connect to exist. Bridge
to			Connect to exist. G.R.	to	40'			to	83.5'		Connect to exist. G.R.
652+60 ± Lt.				743+40 ± Lt.			GR-2	877+25 ± Lt.			
to	270'			746+50 ± Lt.			GR-2	10			
655+30 ± Lt.	275'		GR-4	to	250'			889+50 ± Lt.			Connect to exist. G.R.
661+00 ± Lt.			GR-4	749+00 ± Lt.			GR-2	to	500'		
to	100'			755+55 ± Lt.			Type G w/10' Radius	848+00 ± Lt.			
662+00 ± Lt.			GR-3	to	40'			to	387.5'		
662+50 ± Lt.				755+05 ± Lt.			Type G w/10' Radius	851+55 ± Lt.			
to	340'			775+80 ± Lt.	200'		GR-2	845+60 ± Lt.			
665+90 ± Lt.	300'		Connect to exist. Bridge	to	220'			to	162.5'		
666+70 ± Lt.			Connect to exist. Bridge	777+70			GR-3	847+20 ± Lt.			
to	290'			778+00 ± Lt.			GR-4	to	70.5'		
668+75	225'		GR-4	788+00 ± Lt.				847+90 ± Lt.			
669+00 ± Lt.				to	750'			875+65 ± Lt.			162.5'
671+50 ± Lt.			GR-4	789+50 ± Lt.			Connect to New G.R.	to			
to	400'			677+85 ± Lt.				877+25 ± Lt.			
675+50 ± Lt.			GR-4	to	175'			TOTAL	10,570	2,080	
621+15 ± Lt.				679+50 ± Lt.				882+35 ± Lt.			
to	387.5'			773+80 ± Lt.				to	75'		
624+60 ± Lt.				to	175'			883+20 ± Lt.			
				775+55 ± Lt.				885+85 ± Lt.			
								to	50'		
								886+25 ± Lt.			
								TOTAL	8,847'	347.5'	

DATE _____
 CHECKED BY _____
 QUANTITIES BY _____
 DESIGNED BY _____
 TRACED BY _____
 DRAWN BY _____
 PLAN _____
 ORIGINAL _____
 NO. _____

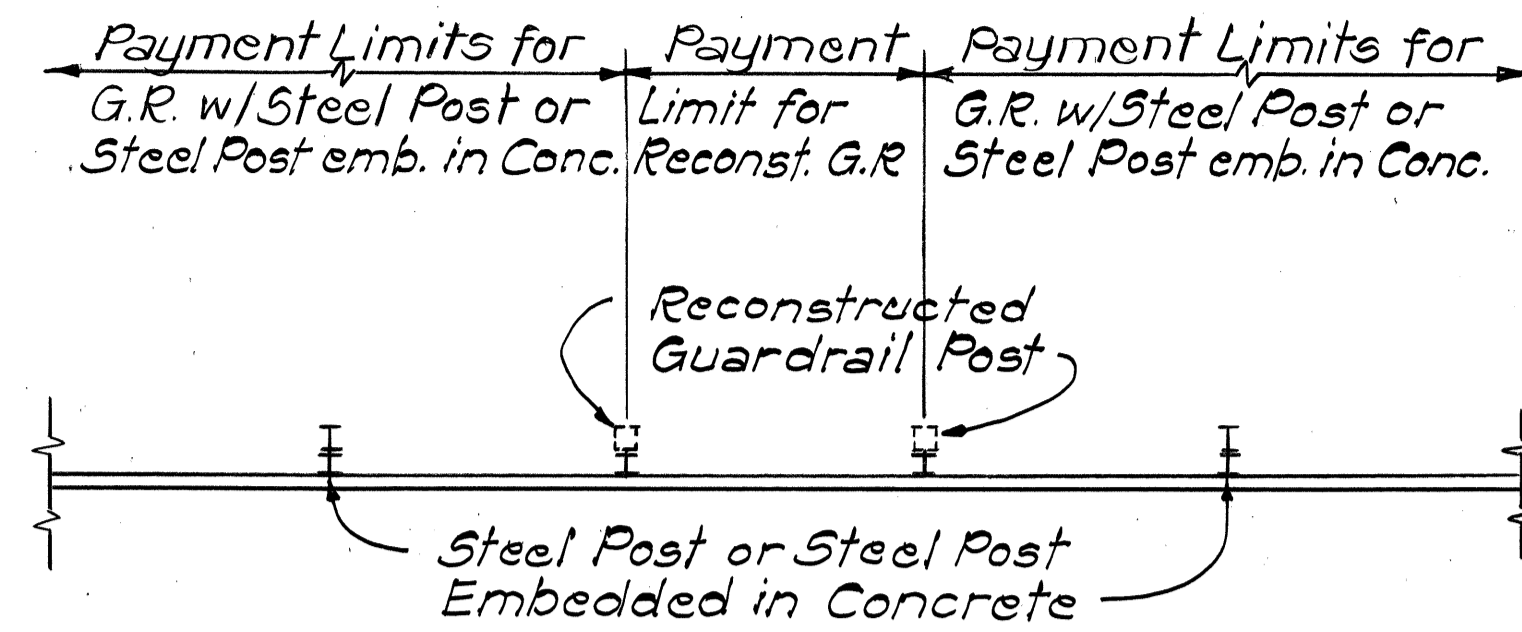
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GUARDRAIL SCHEDULE

HANA HWY. IMPROVEMENTS
Keanae and Nahiko Sections
 Proj. No. 360AB-01-88
 Date: June, 1988

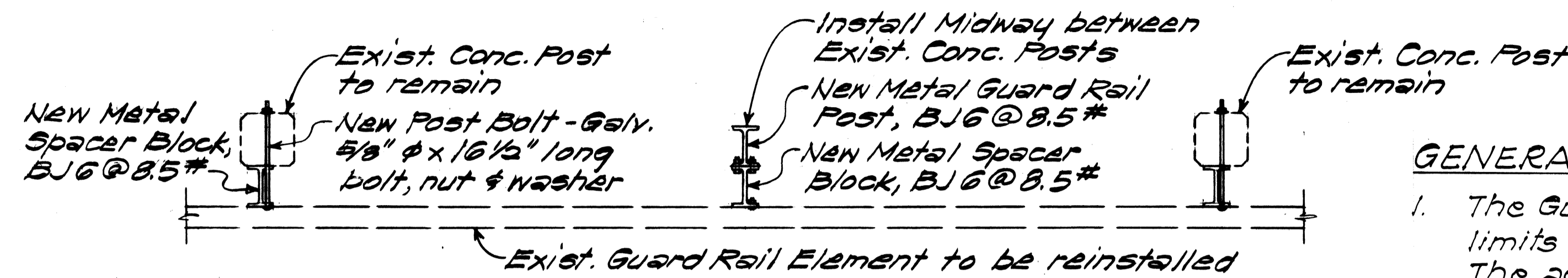
SHEET No. OF SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360AB-01-88	1988	ADD. 5 S-1	35



PAYMENT LIMITS FOR RECONSTRUCTED GUARDRAIL

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



NOTES:

1. The Contractor may install new metal guard rail posts in lieu of the existing concrete posts. If the Contractor elects to use new metal guard rail posts, he shall remove all the existing concrete posts. No additional compensation will be made for this work but shall be considered as part of the work performed for Reconstructed Guard Rail.
2. If there is an existing DRM wall behind the existing guard rail, the new metal guard rail posts shall be embedded in concrete. No additional compensation will be made for this work but shall be considered as part of the work performed for Reconstructed Guard Rail. For details of Post Embedded in Concrete, see this sheet.

RECONSTRUCTED GUARD RAIL PLAN

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

GENERAL NOTES:

1. The Guardrail Schedule shows the approximate limits and lengths of guardrail to be installed. The actual locations shall be determined in the field by the Engineer.
2. The GR-2, GR-3 and GR-4 End Conditions will be paid for as Guardrail, by the linear feet actually installed. The Engineer may change the End Condition in the field.
3. Any existing rock walls damaged by the Contractor while installing the guardrails shall be replaced or repaired at his expense, to its original condition as directed by the Engineer.
4. Removal of any existing guardrail and/or posts as directed by the Engineer in the field, shall be considered incidental to various contract items.
5. For Details of the End Conditions, see Plan Sht. No. 6.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

GUARD RAIL DETAILS AND NOTES

HANA HIGHWAY IMPROVEMENTS
Keanae to Nahiku Sections
Proj. No. 360AB-01-88

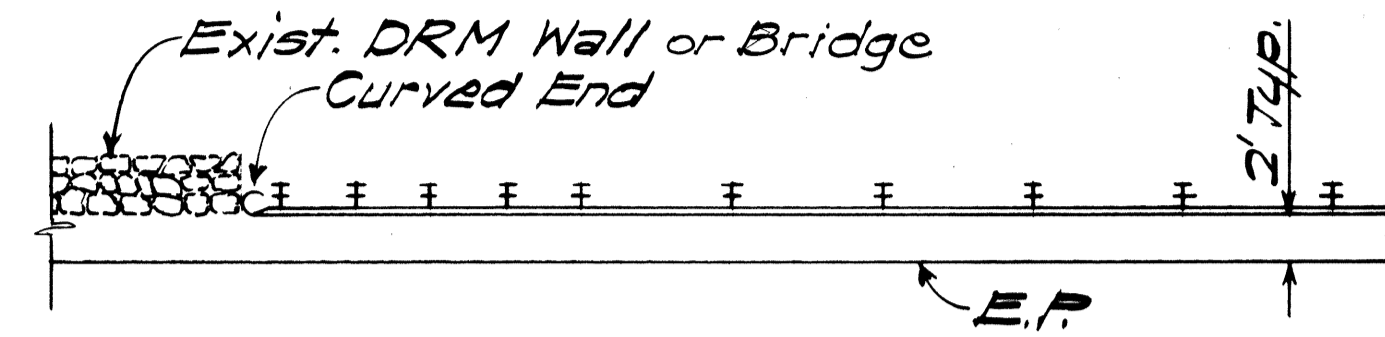
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SHEET NO. OF SHEETS

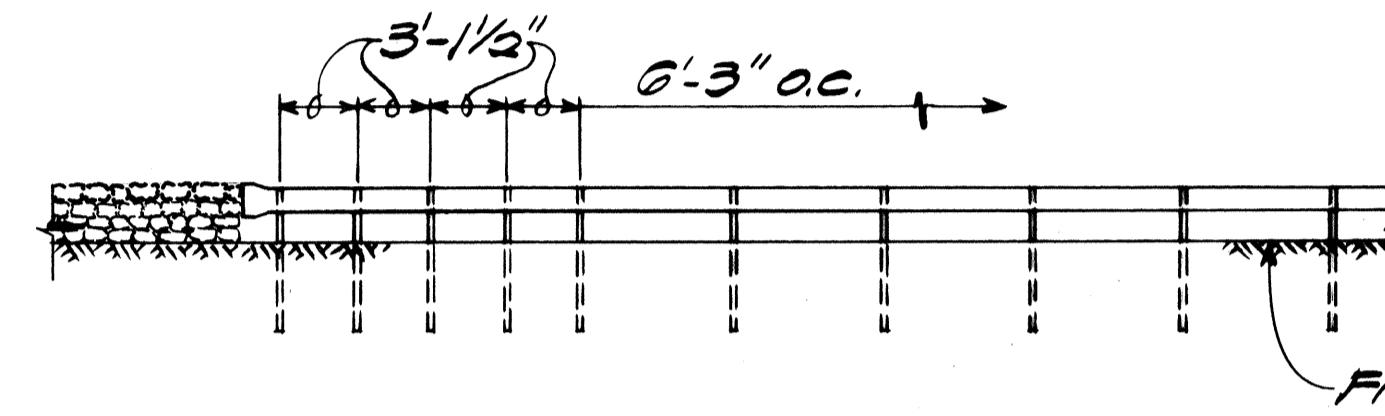
ADD. 5 S-1

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
DESIGNED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
No.	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	360AB-01-88	1988	6	35

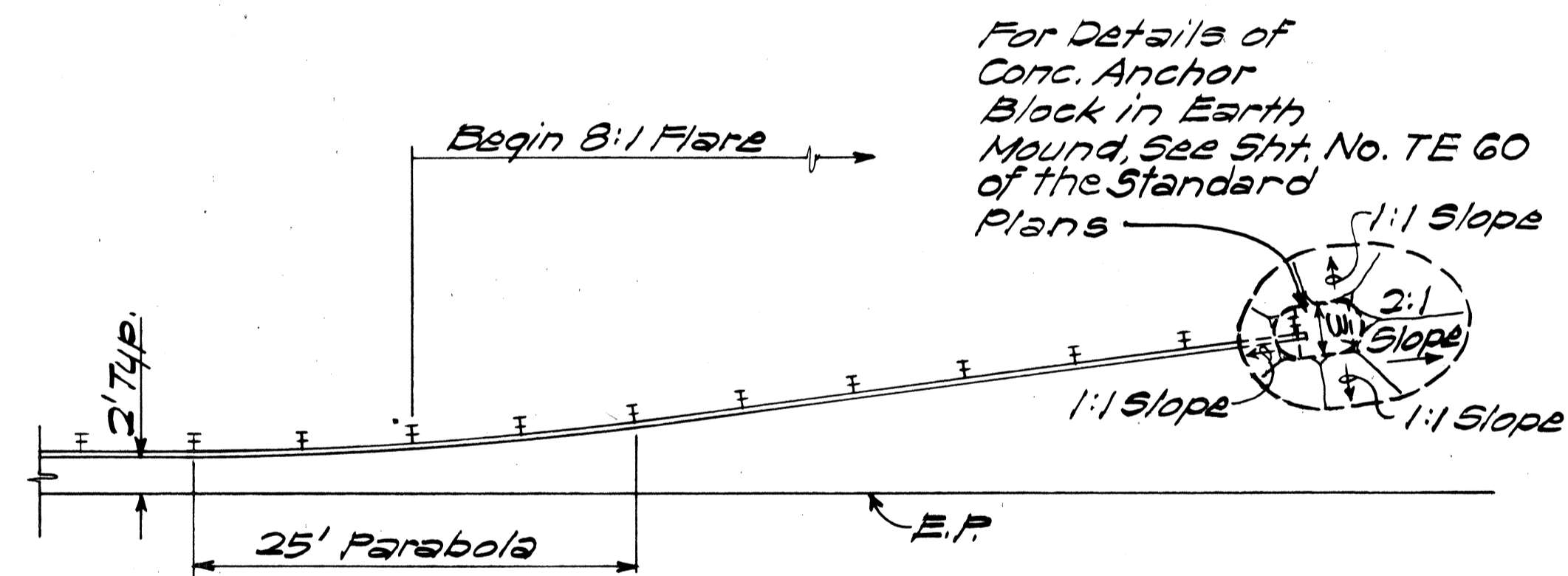


PLAN

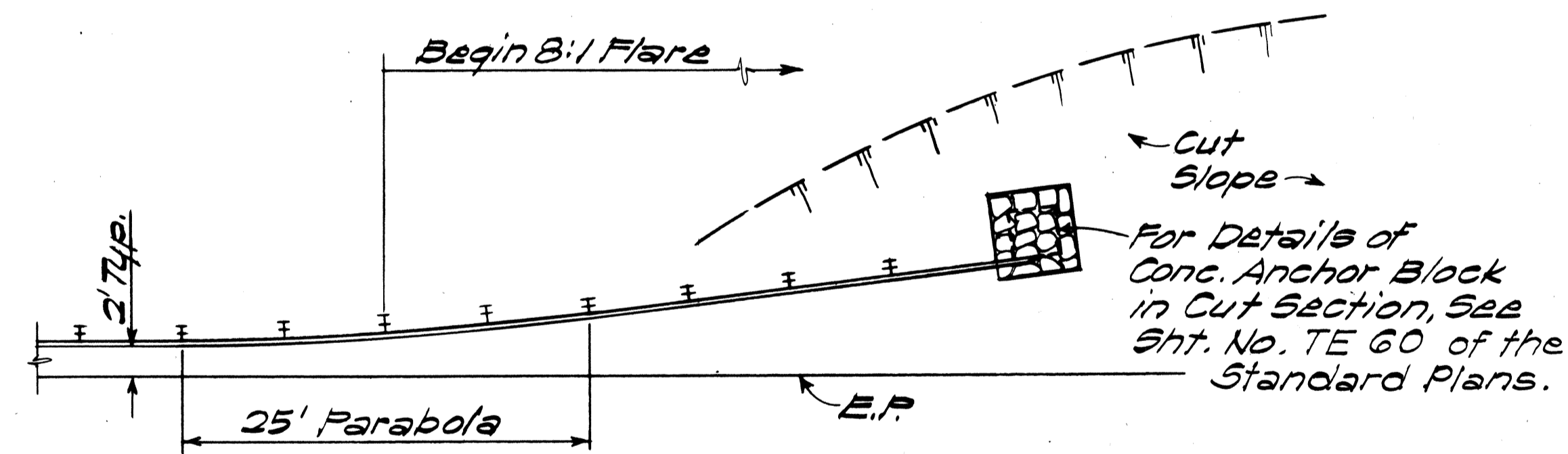


ELEVATION

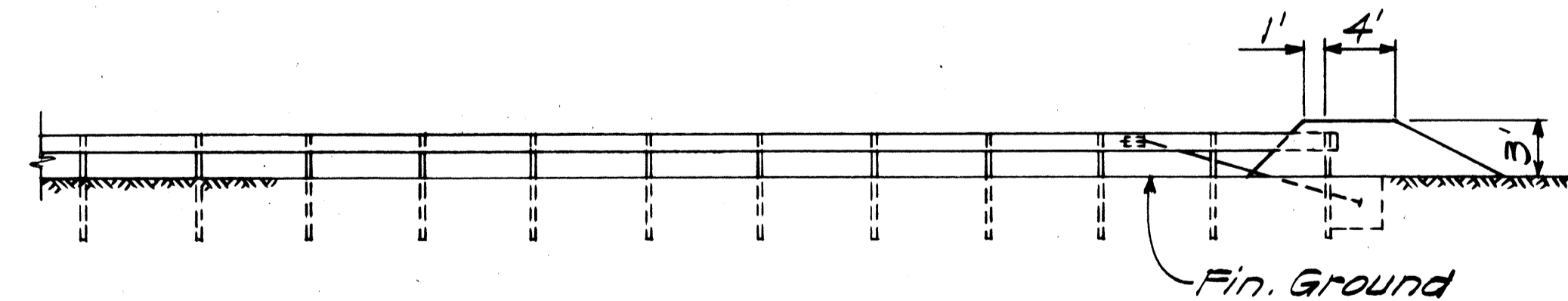
TYPE GR-3 END CONDITION
Scale: 1/8"=1'-0"



PLAN

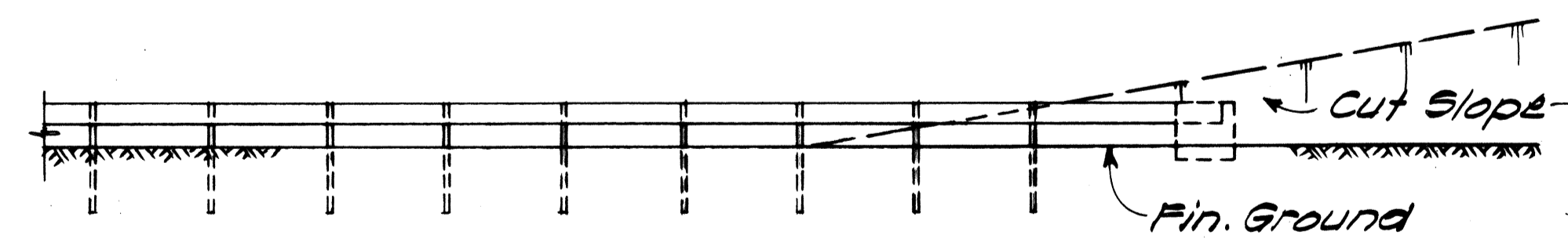


PLAN



ELEVATION

TYPE GR-2 END CONDITION
Scale: 1/8"=1'-0"



ELEVATION

TYPE GR-4 END CONDITION
Scale: 1/8"=1'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

GUARDRAIL END CONDITIONS

HANA HIGHWAY IMPROVEMENTS
KEANAE AND NAHIKU SECTIONS
Project No. 360AB-01-88

Scale: As Shown Date: May, 1988

SHEET No. 2 OF 2 SHEETS

DATE
SURVEY PLOTTED BY
DRAWN BY
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DESIGNED BY
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NO.