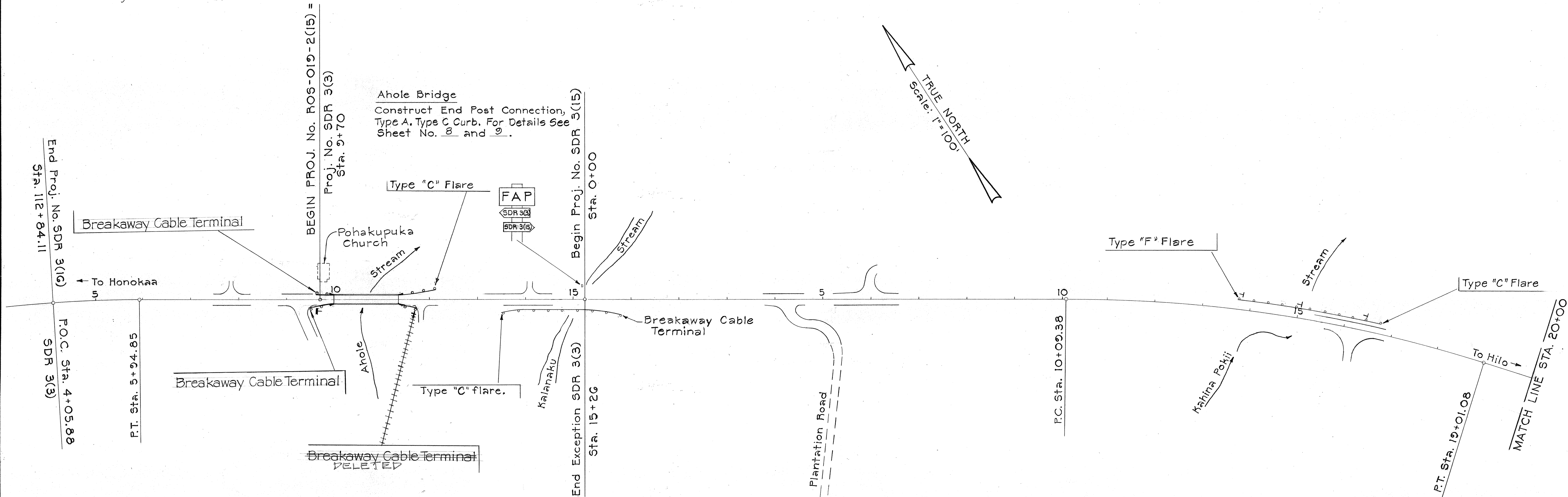


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ROS-019-2(15)	1978	3	20

Sta. 11+35 to Sta. 12+10 Lt.:
Remove 52 lin. ft. of existing metal guard rails with 9 metal posts.
Install 75.6 lin. ft. of new metal guard rails with metal posts.

Sta. 9+75 to Sta. 10+00 Lt.: (26.3 L.F.)
Install 22.5 lin. ft. of new metal guard rails with metal posts and Breakaway Cable Terminal.

Sta. 13+75 to Sta. 16+87 Lt.:
Remove 300 lin. ft. of existing metal guard rail with 28 concrete and 9 metal posts.
Install 312.5 lin. ft. of new metal guard rail with metal posts.



Sta. 9+60 to Sta. 9+96 Rt.: (26.3 L.F.)
Remove 25 lin. ft. of existing metal guard rails with 5 metal posts.
Install 25 lin. ft. of new metal guard rails with metal posts and Breakaway Cable Terminal.
Connect to end post.

Sta. 13+50 to Sta. 16+80 Rt.: (226.7 L.F.)
Remove 202 lin. ft. of existing metal guard rails with 20 metal and 2 concrete posts.
Install 225 lin. ft. of new metal guard rails with metal posts and Breakaway Cable Terminal.

Sta. 11+35 to Sta. 11+55 Rt.:
Install 22.5 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

9/13/78	Type "G" Flares replaced with Breakaway Cable Terminals at Sta. 9+60 Rt., Sta. 9+75 Lt. and Sta. 11+55 Rt.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HAWAII BELT ROAD
GUARDRAIL IMPROVEMENTS
AHOLE TO WAIKAUMALO BRIDGES
FEDERAL AID PROJECT No. ROS-019-2(15)
Scale: As Noted Date: Feb. 1978
SHEET NO. 1 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ROS-019-2(15)	1978	4	20

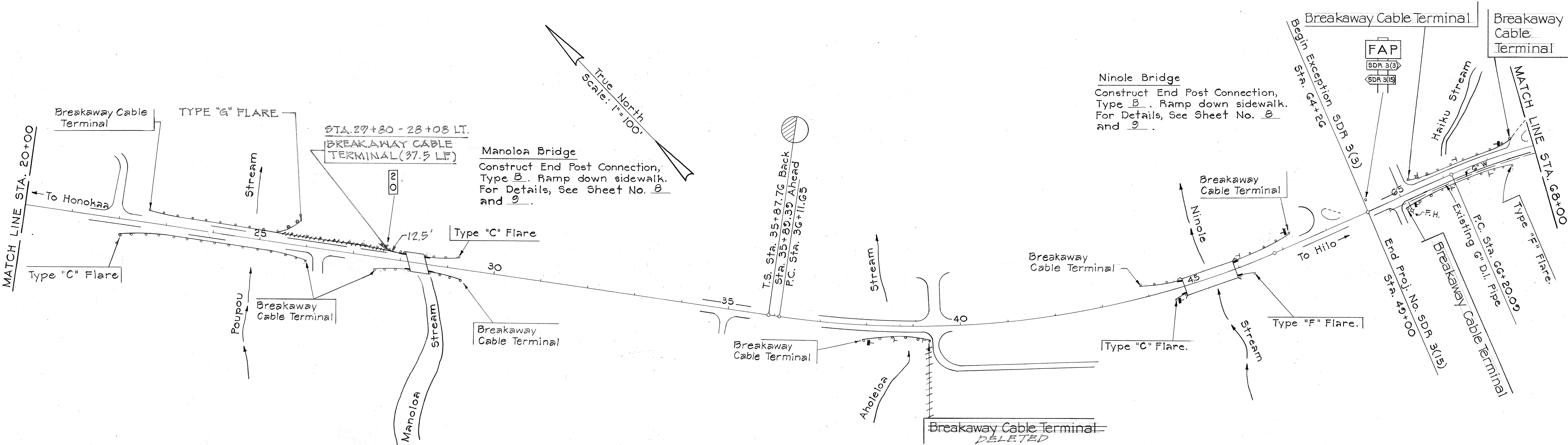
Sta. 46+00 to Sta. 47+38 Lt.: (137.4 L.F.)
 Remove 63 lin. ft. of existing metal guard rail with 11 metal posts.
 Install 125 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

Sta. 43+82 to Sta. 44+70 Lt.: (75.0 L.F.)
 Remove 63 lin. ft. of existing metal guard rail with 11 metal posts.
 Install 62.5 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

Sta. 65+25 to Sta. 67+60 Lt.: (212.5 L.F.)
 Remove 237 lin. ft. of existing metal guard rail with 16 concrete and 16 metal posts.
 Install 187.5 lin. ft. of new metal guard rail with metal posts and 2 Breakaway Cable Terminals.

Sta. 28+50 to Sta. 29+25 Lt.:
 Remove 63 lin. ft. of existing metal guard rail with 6 metal posts.
 Install 45 lin. ft. of new metal guard rail with metal posts.

Sta. 22+00 to Sta. 25+80 Lt.: (345.0 L.F.)
 Remove 339 lin. ft. of existing metal guard rail with 27 concrete and 20 metal posts.
 Install 525 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.



Sta. 65+00 to Sta. 67+38 Rt.: (201.0 L.F.)
 Remove 175 lin. ft. of existing metal guard rail with 15 concrete and 8 metal posts.
 Install 212.5 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

Sta. 45+20 to Sta. 46+28 Rt.:
 Install 54.5 lin. ft. of new metal guard rail with metal posts.

Sta. 38+00 to Sta. 39+30 Rt.: (130.3 L.F.)
 Remove 62 lin. ft. of existing metal guard rail with 8 concrete posts.
 Install 100 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminals.

Sta. 44+45 to Sta. 44+71 Rt.:
 Remove 25 lin. ft. of existing metal guard rail with 5 metal posts.
 Install 25 lin. ft. of new metal guard rail with metal posts.

Sta. 28+70 to Sta. 29+33 Rt.: (37.6 L.F.)
 Install 37.5 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

Sta. 27+50 to Sta. 28+25 Rt.: (75.0 L.F.)
 Remove 13 lin. ft. of existing metal guard rail with 2 concrete posts.
 Install 50 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

Sta. 22+00 to Sta. 26+00 Rt.: (395.6 L.F.)
 Remove 353 lin. ft. of existing metal guard rail with 27 concrete and 20 metal posts.
 Install 575 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

9/13/78	Type "G" Flares replaced with Breakaway Cable Terminals at Sta. 39+30 Rt., Sta. 65+00 Rt., Sta. 65+25 Lt. and Sta. 67+60 Lt.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HAWAII BELT ROAD
GUARDRAIL IMPROVEMENTS
AHOLE TO WAIKAUMALO BRIDGES
FEDERAL AID PROJECT No. ROS-019-2(15)

Scale: As Noted
Date: Feb. 1978

SHEET NO. 2 OF 4 SHEETS

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

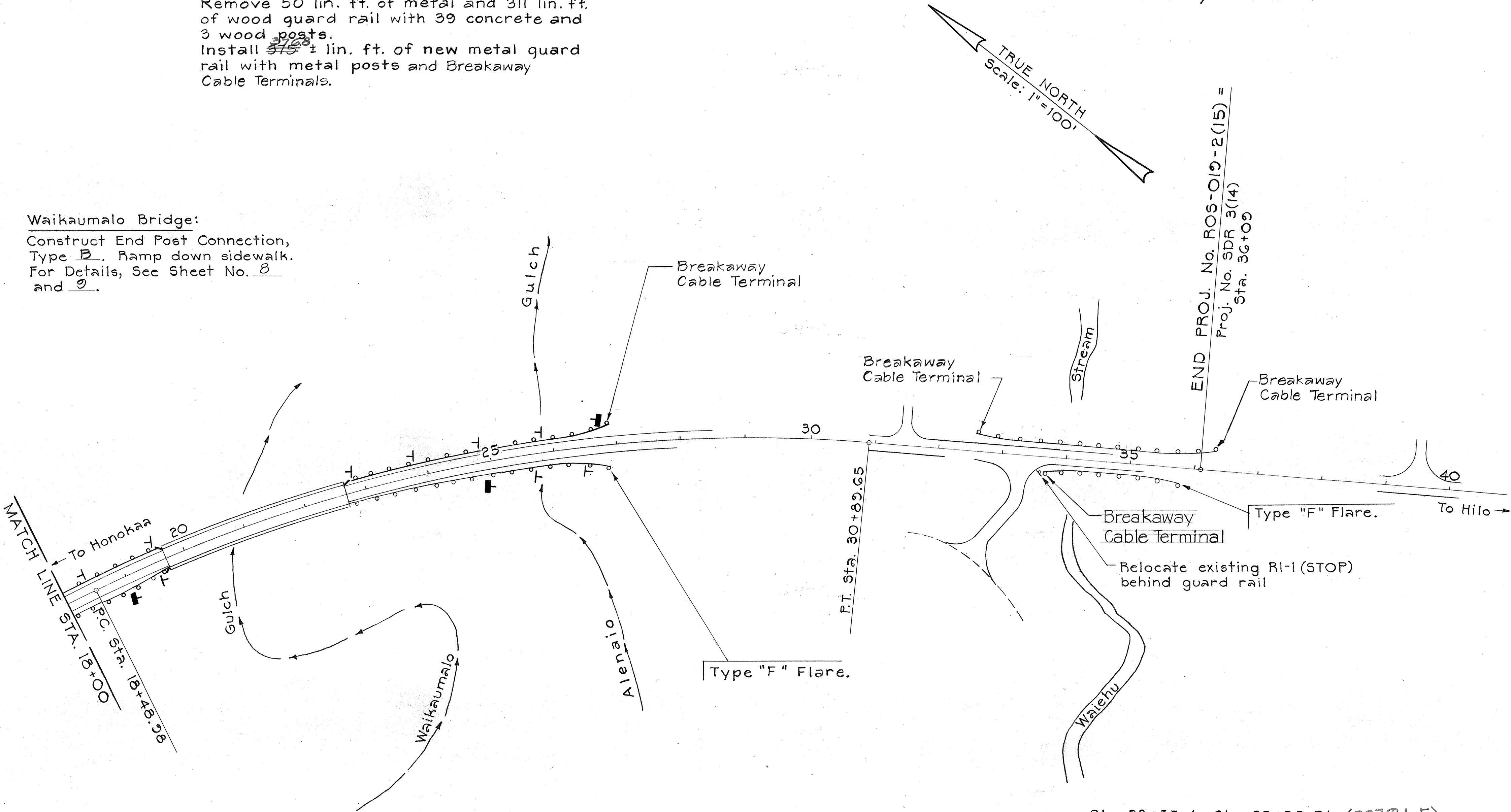
ADD. 5

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ROS-019-2(15)	1978	6	20

Sta. 22+70 to Sta. 26+80 Lt.: (401.8 L.F.)
 Remove 50 lin. ft. of metal and 311 lin. ft. of wood guard rail with 39 concrete and 3 wood posts.
 Install 375 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminals.

Sta. 32+60 to Sta. 36+35 Lt.: (251.6 L.F.)
 Remove 311 lin. ft. of existing metal guard rail with 30 concrete posts.
 Install 325 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminals.

Waikauamalo Bridge:
 Construct End Post Connection, Type B. Ramp down sidewalk.
 For Details, See Sheet No. 8 and 9.



Sta. 22+70 to Sta. 26+83 Rt.:
 Remove 213 lin. ft. of existing metal guard rail with 22 concrete posts.
 Install 337.5 lin. ft. of new metal guard rail with metal posts.

Sta. 33+55 to Sta. 35+50 Rt.: (227.9 L.F.)
 Remove 199 lin. ft. of existing metal guard rail with 24 concrete posts.
 Install 211.5 lin. ft. of new metal guard rail with metal posts and Breakaway Cable Terminal.

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

9/13/78	Type "G" Flare replaced with Breakaway Cable Terminal at Sta. 33+55 Rt.
DATE	REVISION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

HAWAII BELT ROAD
GUARDRAIL IMPROVEMENTS
AHOLE TO WAIKAUMALO BRIDGES
FEDERAL AID PROJECT No. ROS-019-2(15)
Scale: As Noted Date: Feb. 1978
SHEET NO. 4 OF 4 SHEETS