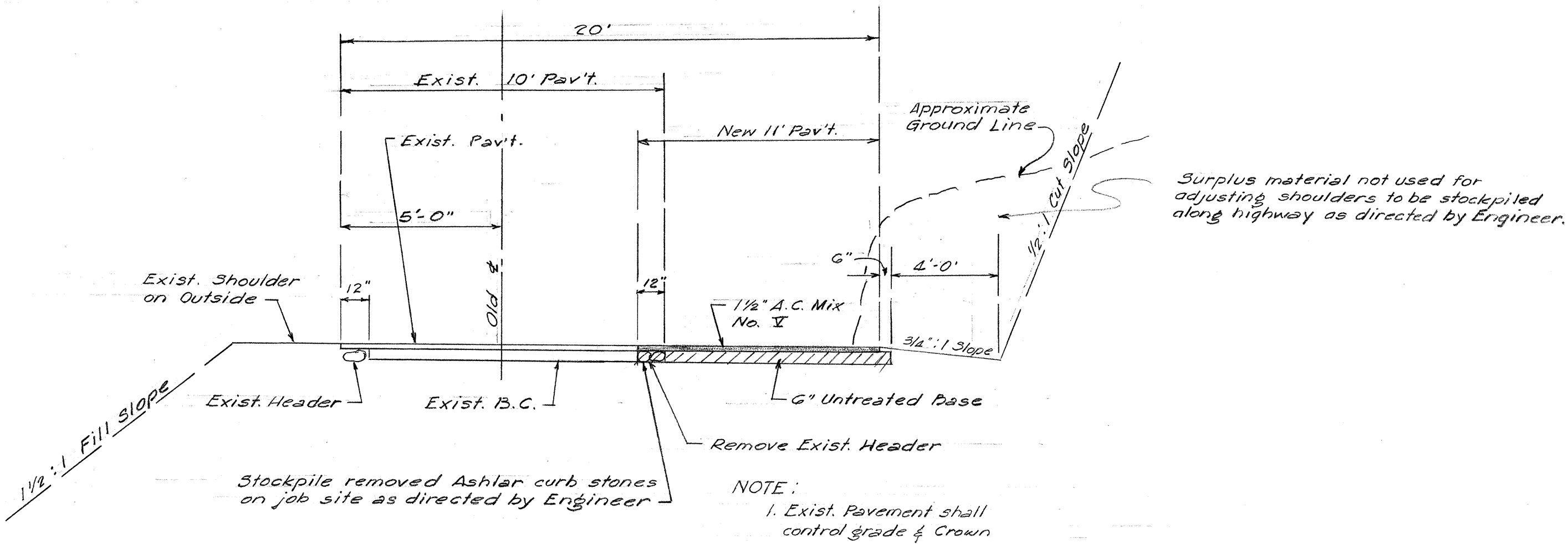
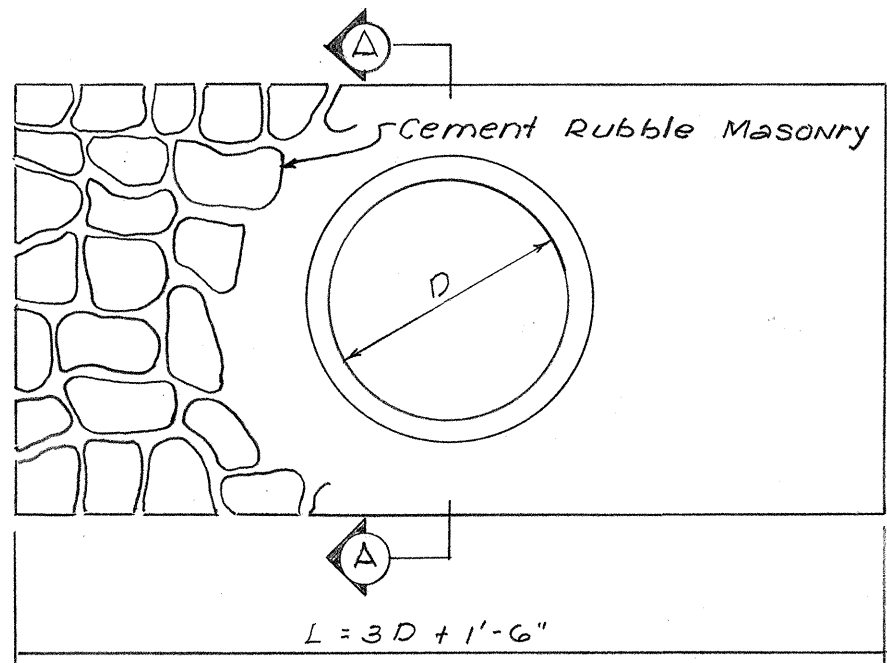


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	378A-02-67	1967	2	17

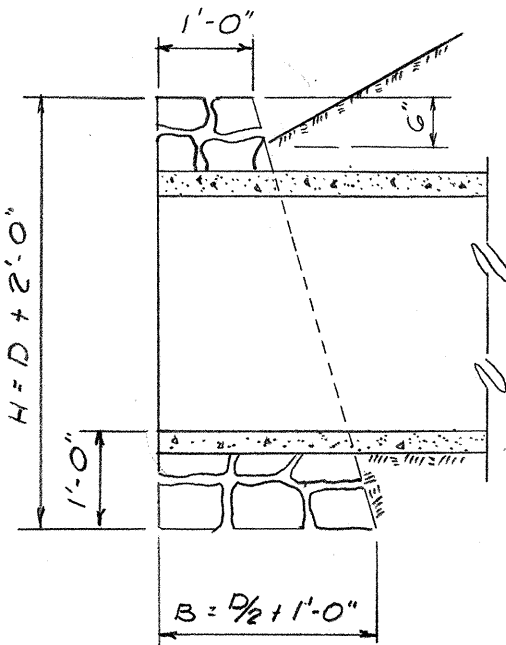
DATA - MASONRY HEADWALL				CORRUGATED PIPE CULVERT
D	H	B	L	CU. YDS
18"	3'-6"	1'-3"	6'-0"	0.93
24"	4'-0"	2'-0"	7'-6"	1.41
30"	4'-6"	2'-3"	9'-0"	2.00
36"	5'-0"	2'-6"	10'-6"	2.94
48"	6'-0"	3'-0"	13'-6"	5.46



TYPICAL SECTION ON TANGENT
Not to scale

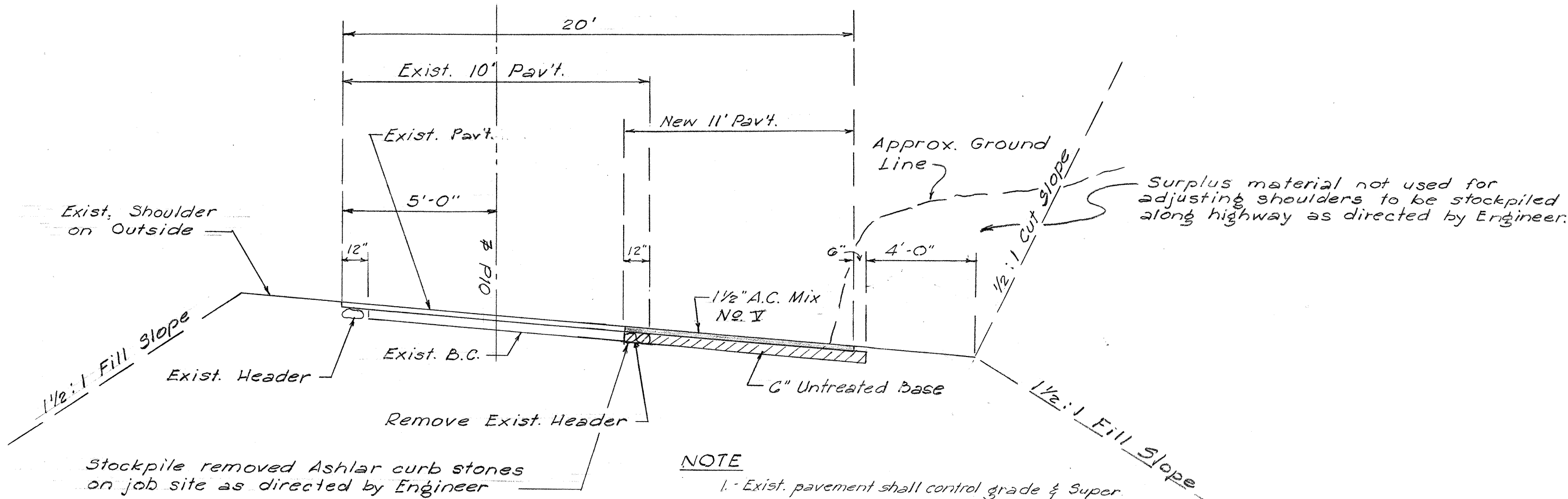


ELEVATION

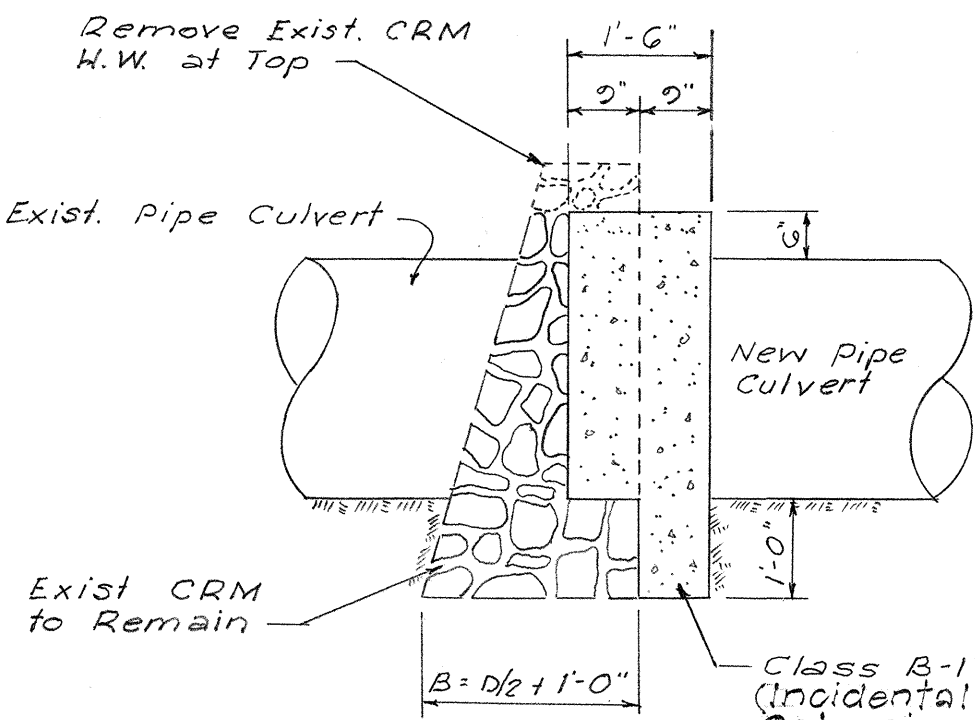


SECTION A A

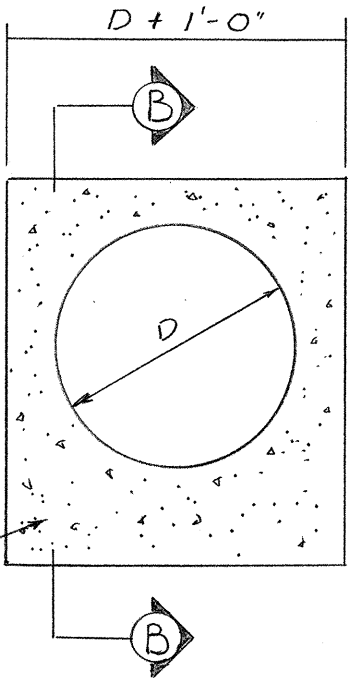
DETAIL OF MASONRY HEADWALL
SCALE 1/2" = 1'-0"



TYPICAL SECTION ON CURVE
Not to scale



SECTION B B



ELEVATION

DETAIL OF CONNECTION FOR EXTENSION OF EXISTING CULVERTS
SCALE 1/2" = 1'-0"

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

TYPICAL SECTIONS & DETAILS

HALEAKALA HIGHWAY

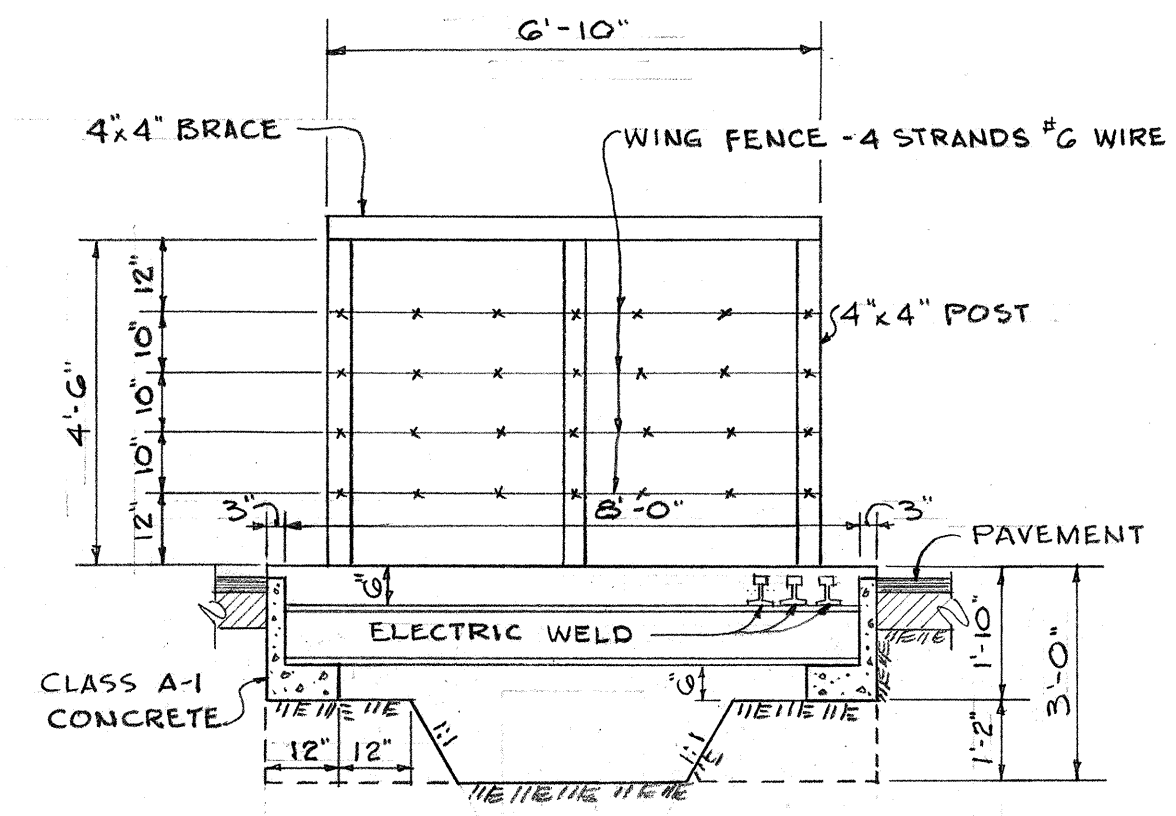
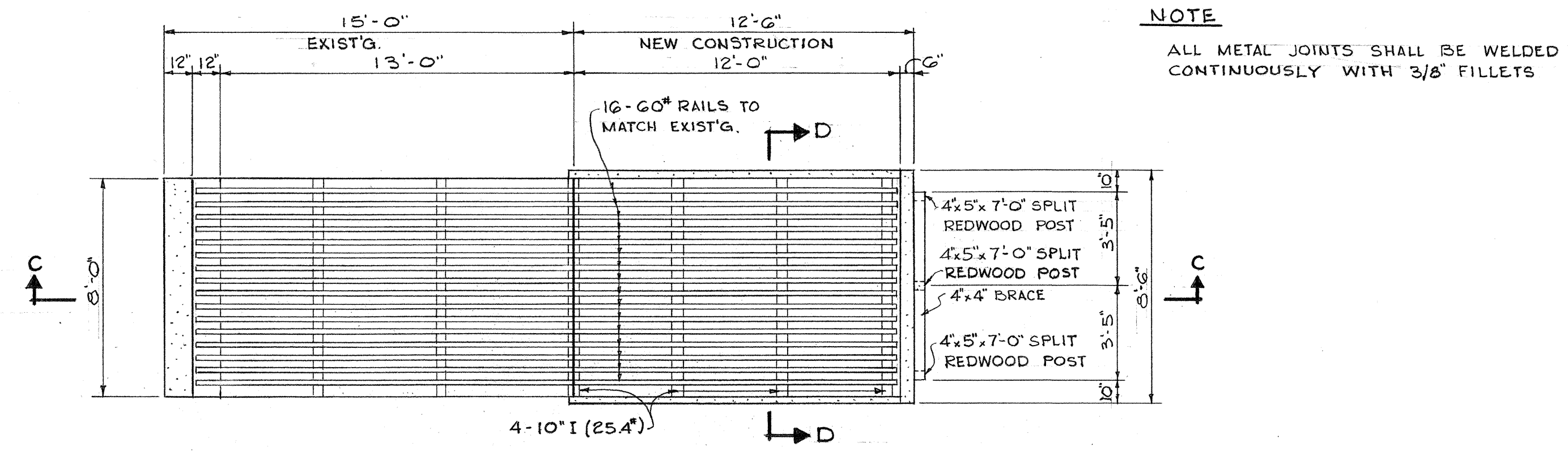
PROJ. NO. 378A-02-67

SCALE AS SHOWN

SHEET No. 1 OF 3 SHEETS

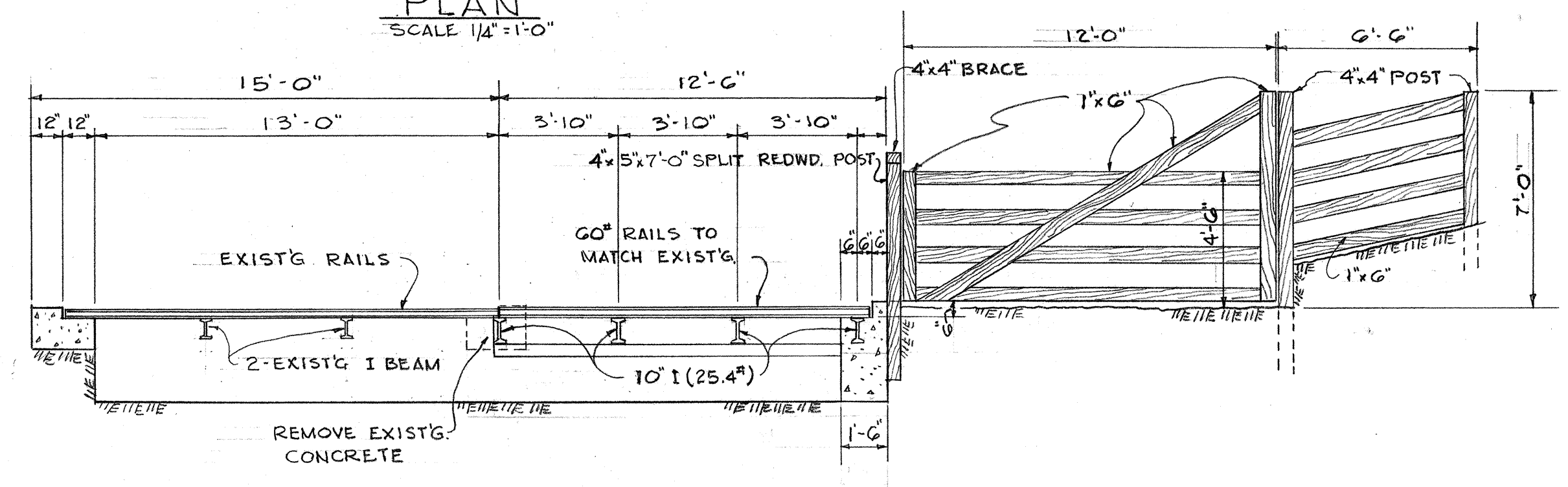
DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE
ORIGINAL PLAN	DATE
NOTE BOOK	DATE
NO.	DATE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	378A-02-67	1967	3	17



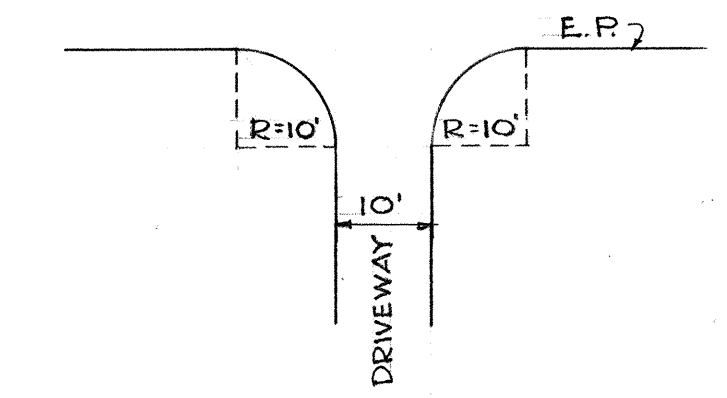
PLAN
SCALE 1/4" = 1'-0"

SECTION D-D
SCALE 3/8" = 1'-0"

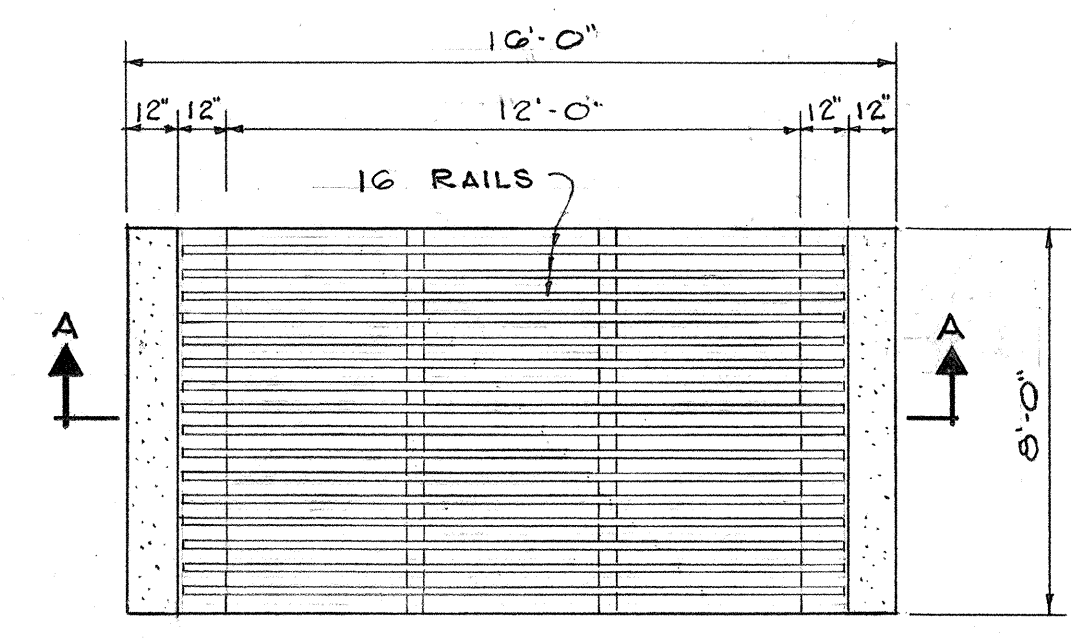


SECTION C-C
SCALE 1/4" = 1'-0"

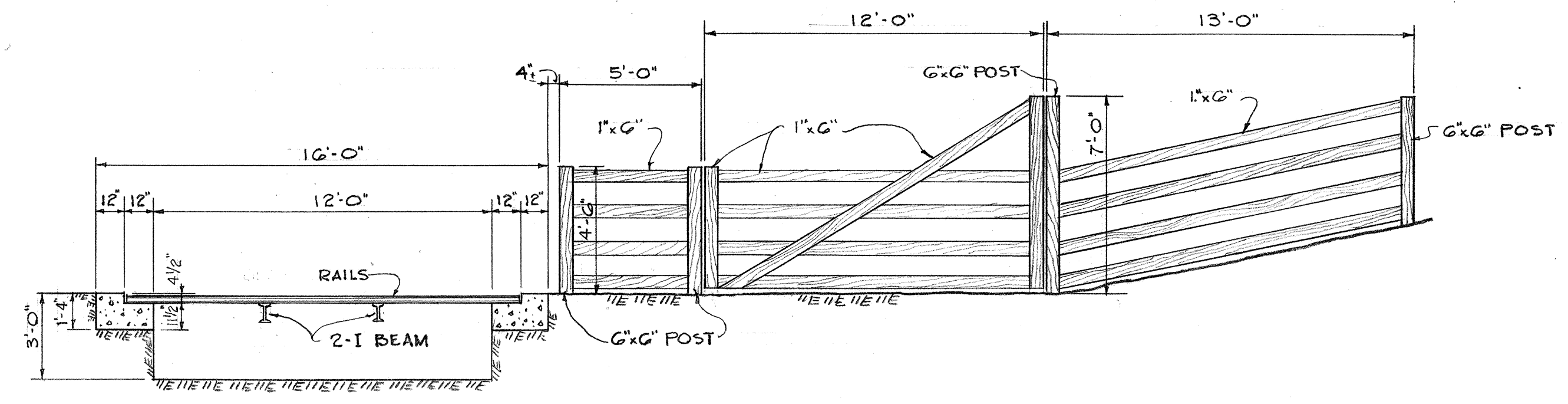
RECONSTRUCTION OF CATTLE GUARD, RAIL FENCE, & GATE



TYPICAL DRIVEWAY APPROACH
SCALE 1" = 20'



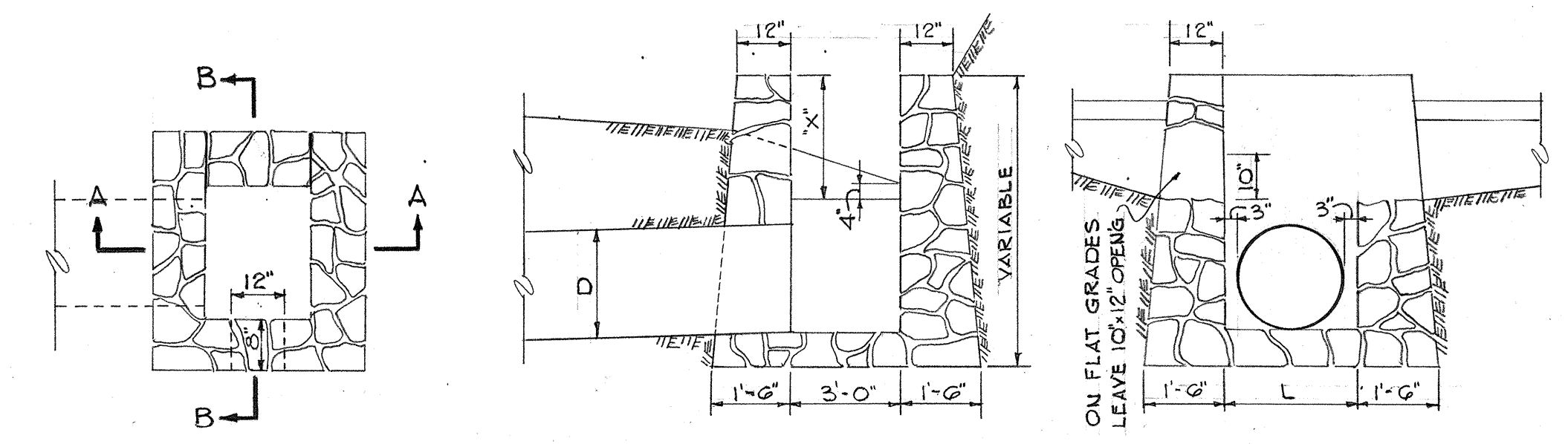
PLAN



SECTION A-A

ELEVATION

EXIST'G. CATTLE GUARD, RAIL FENCE, & GATE DETAILS
SCALE 1/4" = 1'-0"



DETAIL OF MASONRY DROP INTAKE
SCALE 3/8" = 1'-0"

NOTE
DIMENSION "X" IS ASSUMED AS 2'-4"
IN FIGURING THE ABOVE QUANTITIES

D	L = D + 6"	CU. YDS.	WHERE VARIABLES EQUAL
18"	2'-0"	2.01	4'-6"
24"	2'-6"	3.46	5'-0"
30"	3'-0"	4.02	5'-6"
36"	3'-6"	4.61	6'-0"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS

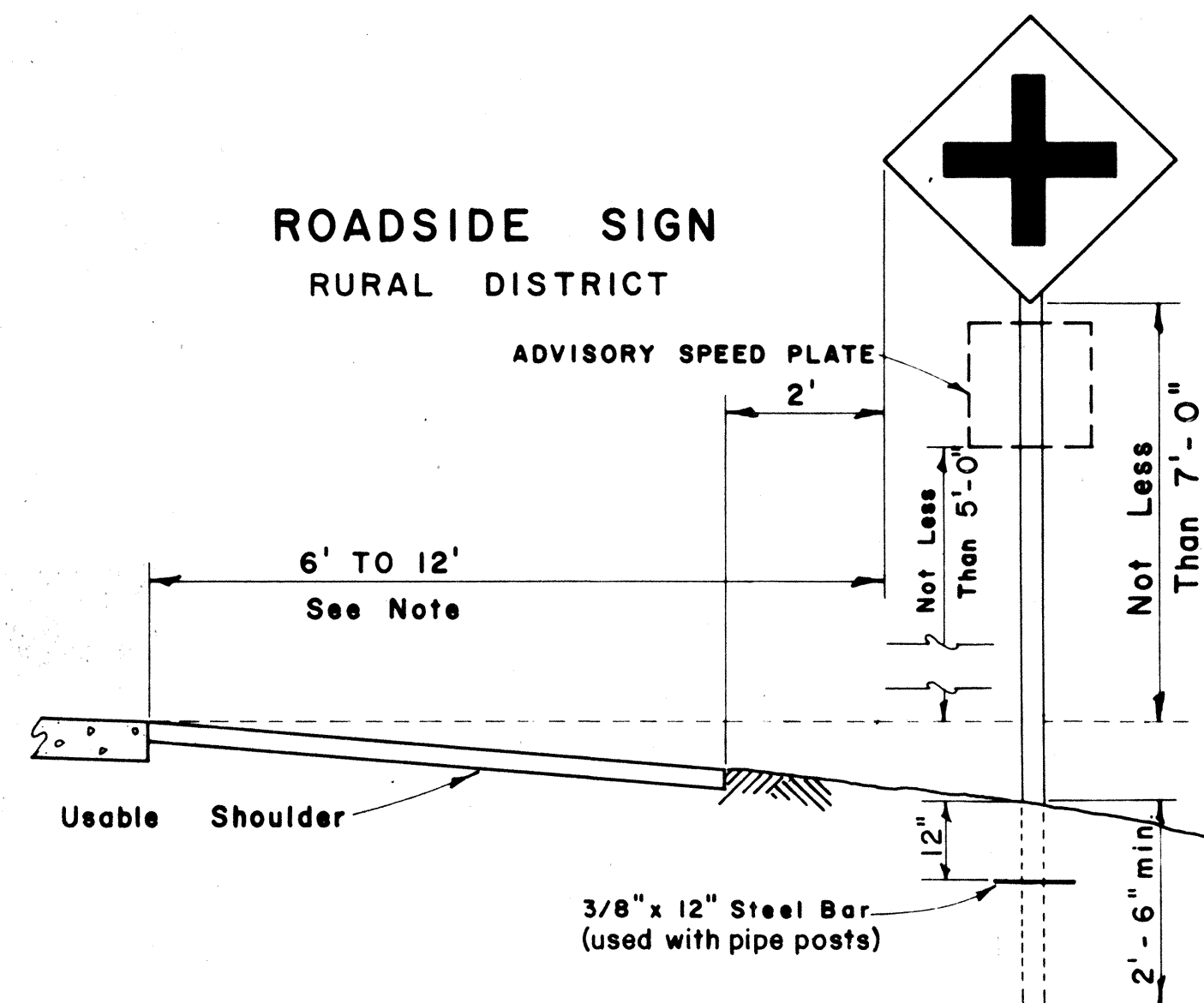
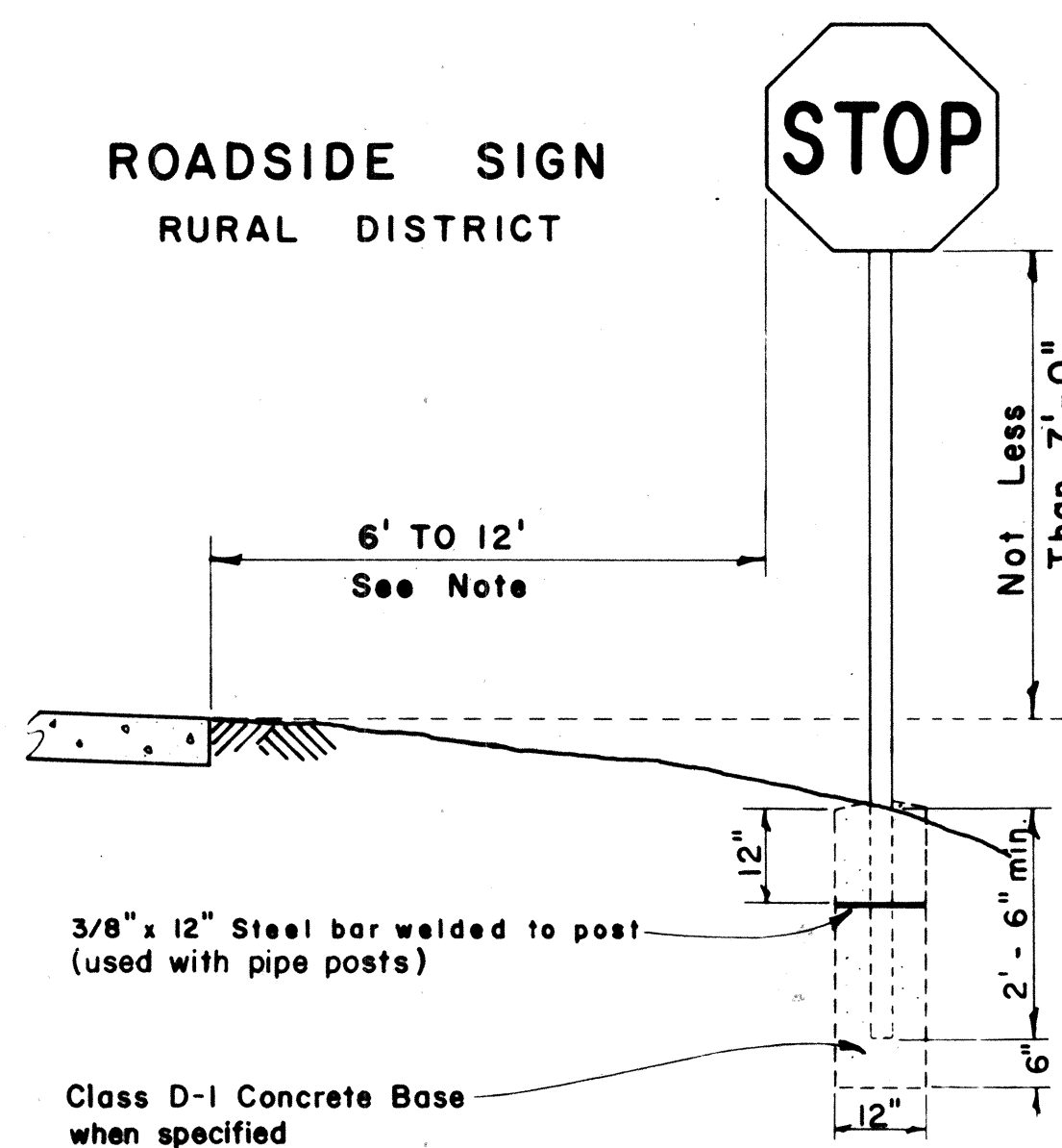
HALEAKALA HIGHWAY
PROJ. NO 378A-02-67

SCALE AS SHOWN

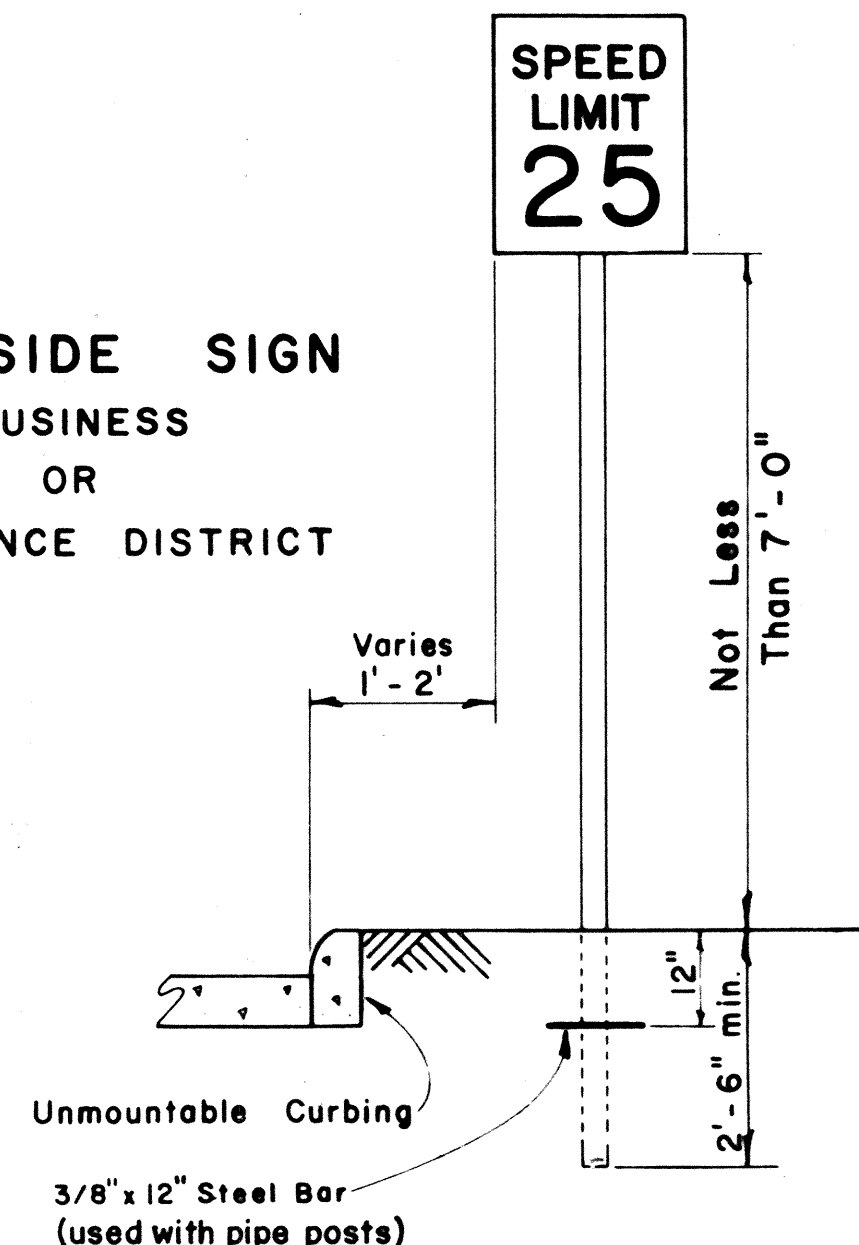
SHEET No. 2 OF 3 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	DATE
CHECKED BY	DATE
NOTED BY	DATE
QUANTITIES BY	DATE
NO.	

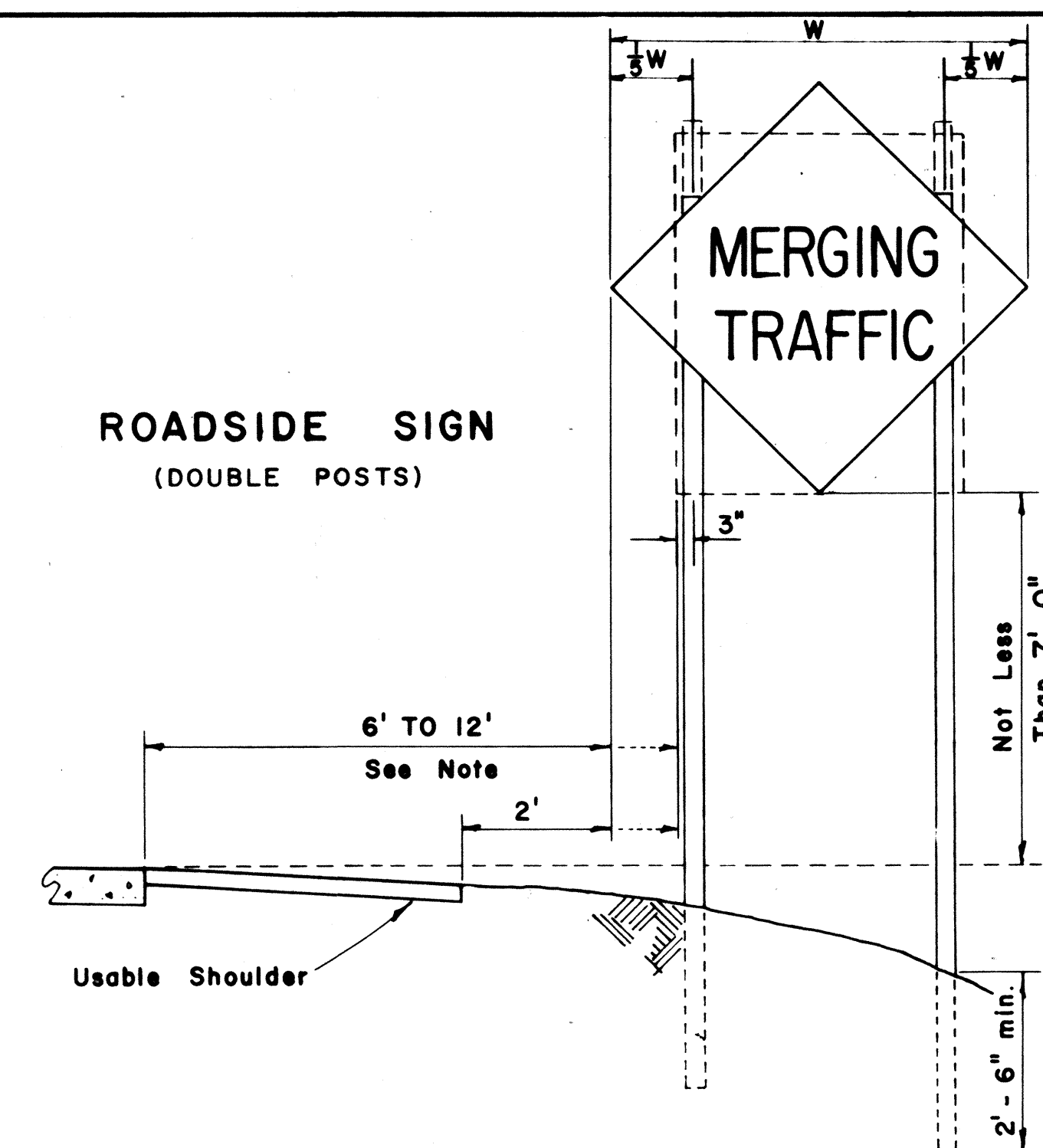
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 - Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger than 24" in any dimension; 2" galv. std. pipe or 2" x 2" galv. square tube posts for signs 24" or less in any dimension.
 - Sign shall be attached to post with 5/16" galvanized bolts with nuts and 7/8" x 7/8" x .120" stainless-steel washers with neoprene rubber gasket.
 - Clearance Markers (RM-3, RM-4) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
 - Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe or two 2 1/2" x 2 1/2" galv. square tube posts.



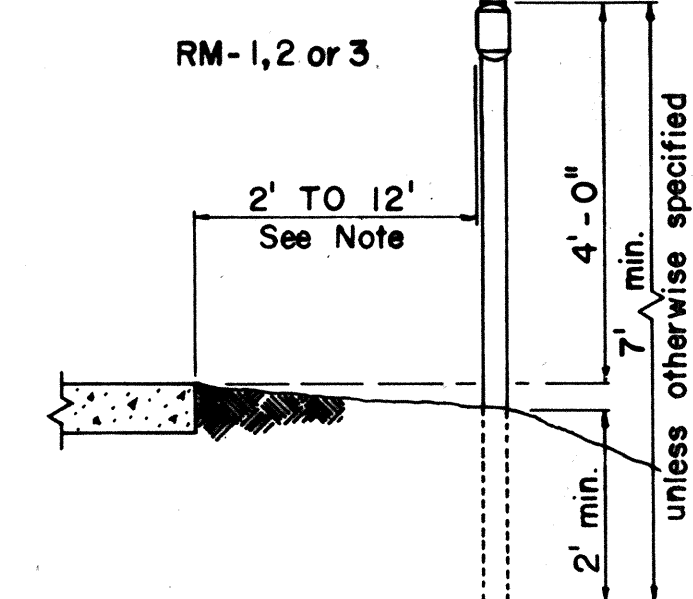
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



ROADSIDE SIGN
(DOUBLE POSTS)

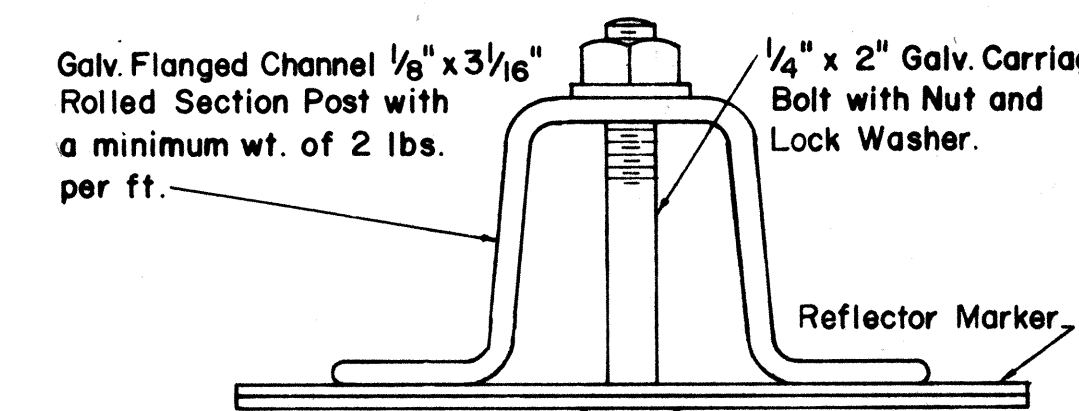


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	378A-02-67	1967	4	17

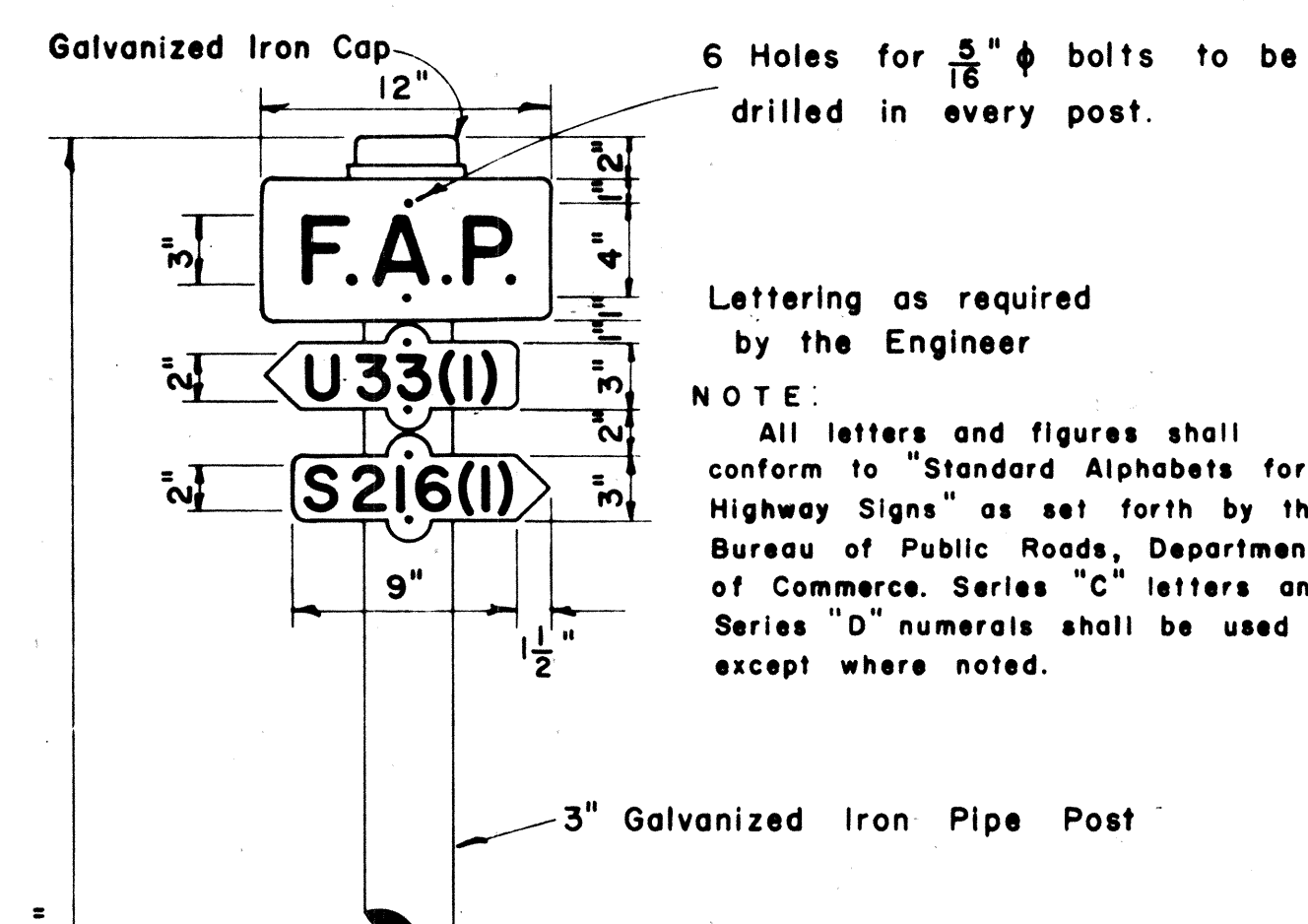


ROAD DELINEATOR

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

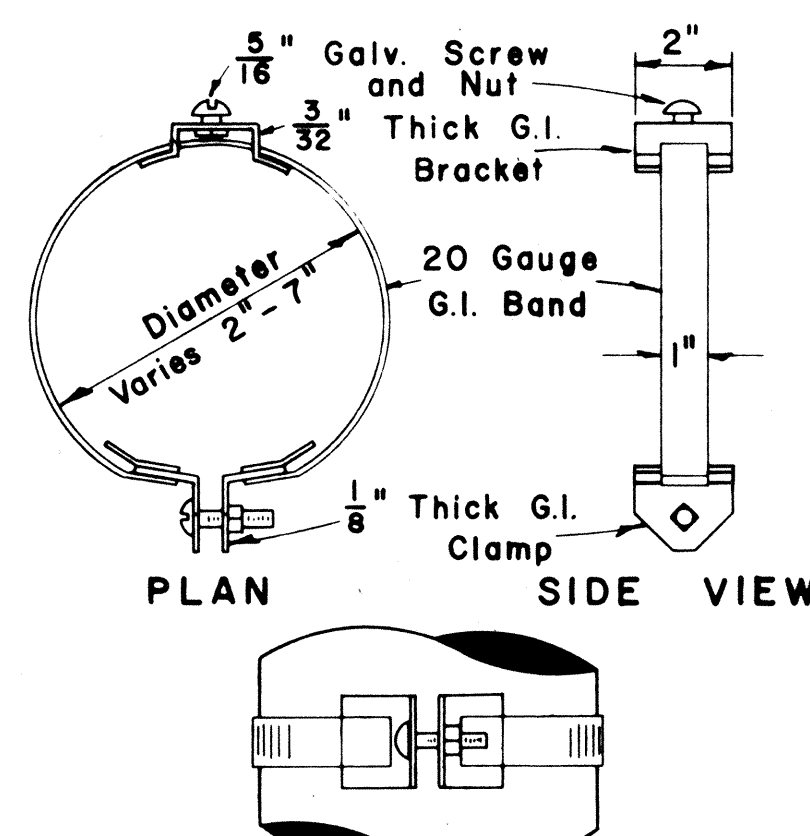


HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

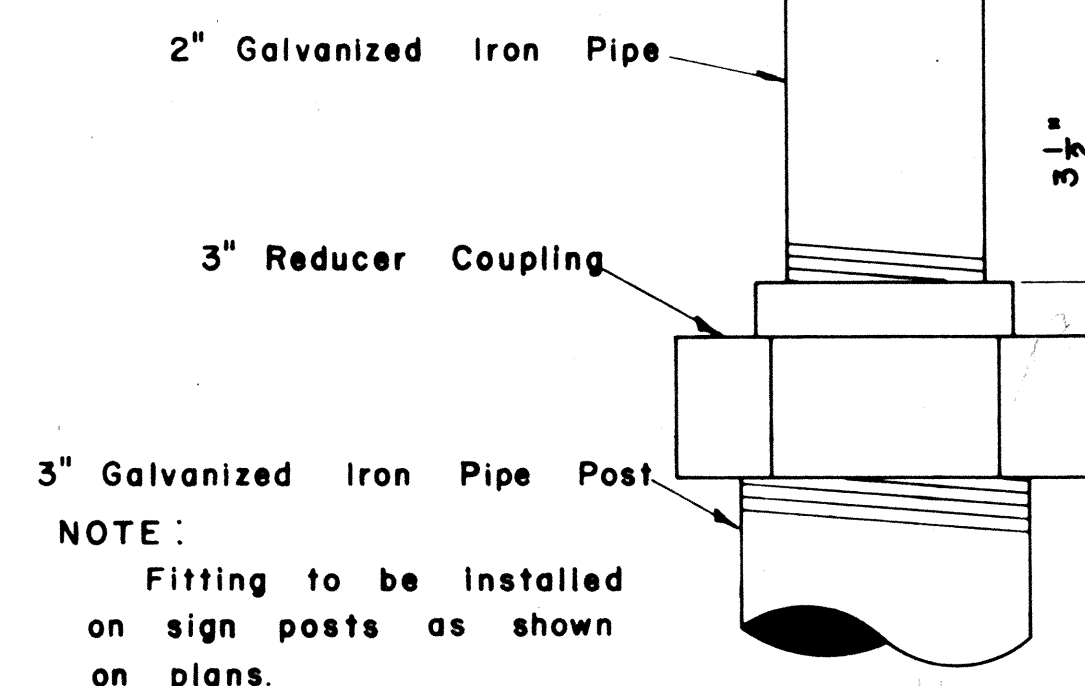


Lettering as required by the Engineer

NOTE: All letters and figures shall conform to "Standard Alphabets for Highway Signs" as set forth by the Bureau of Public Roads, Department of Commerce. Series "C" letters and Series "D" numerals shall be used except where noted.

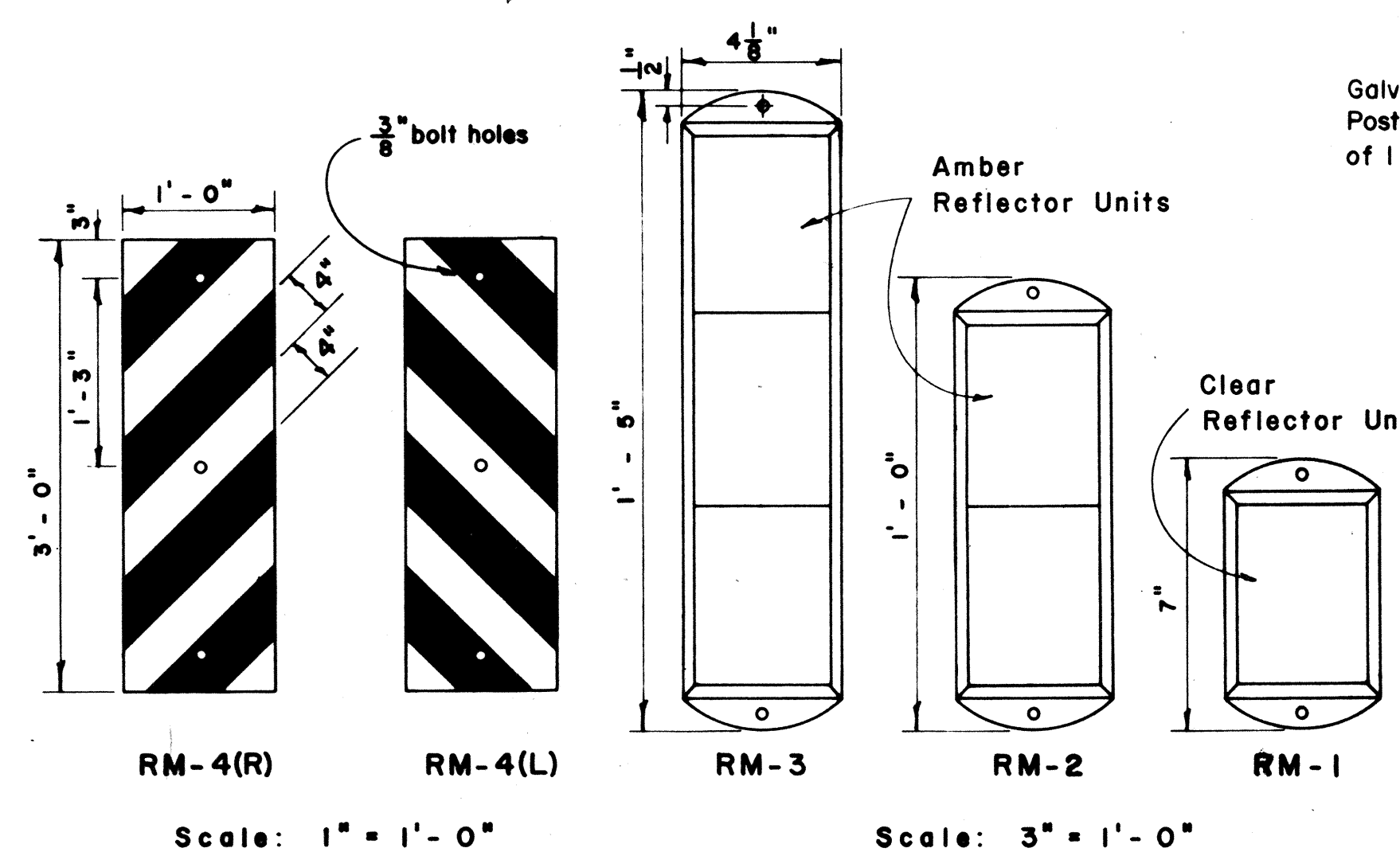


FRONT VIEW
TYPICAL BAND BRACKET
FOR MOUNTING TRAFFIC SIGNS
Scale: 3" = 1' - 0"

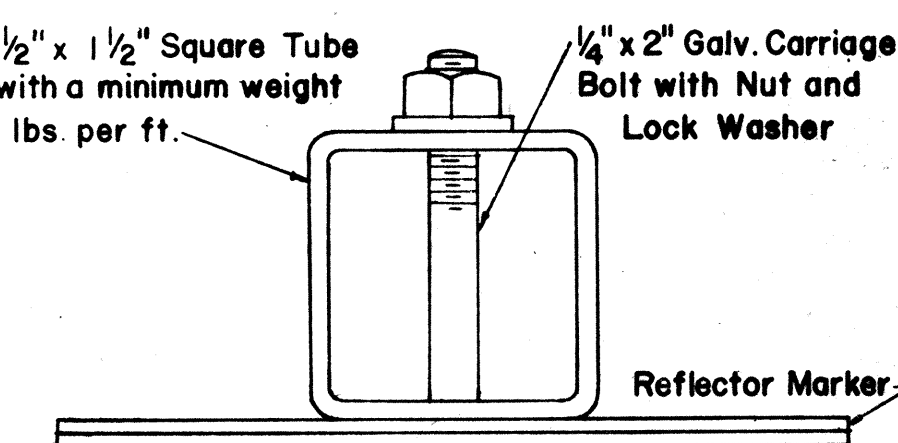


NOTE: Fitting to be installed on sign posts as shown on plans.

DETAIL OF SIGN POST FITTING
FOR CITY & COUNTY
STREET NAME SIGNS
Scale: 1/2" = 1'

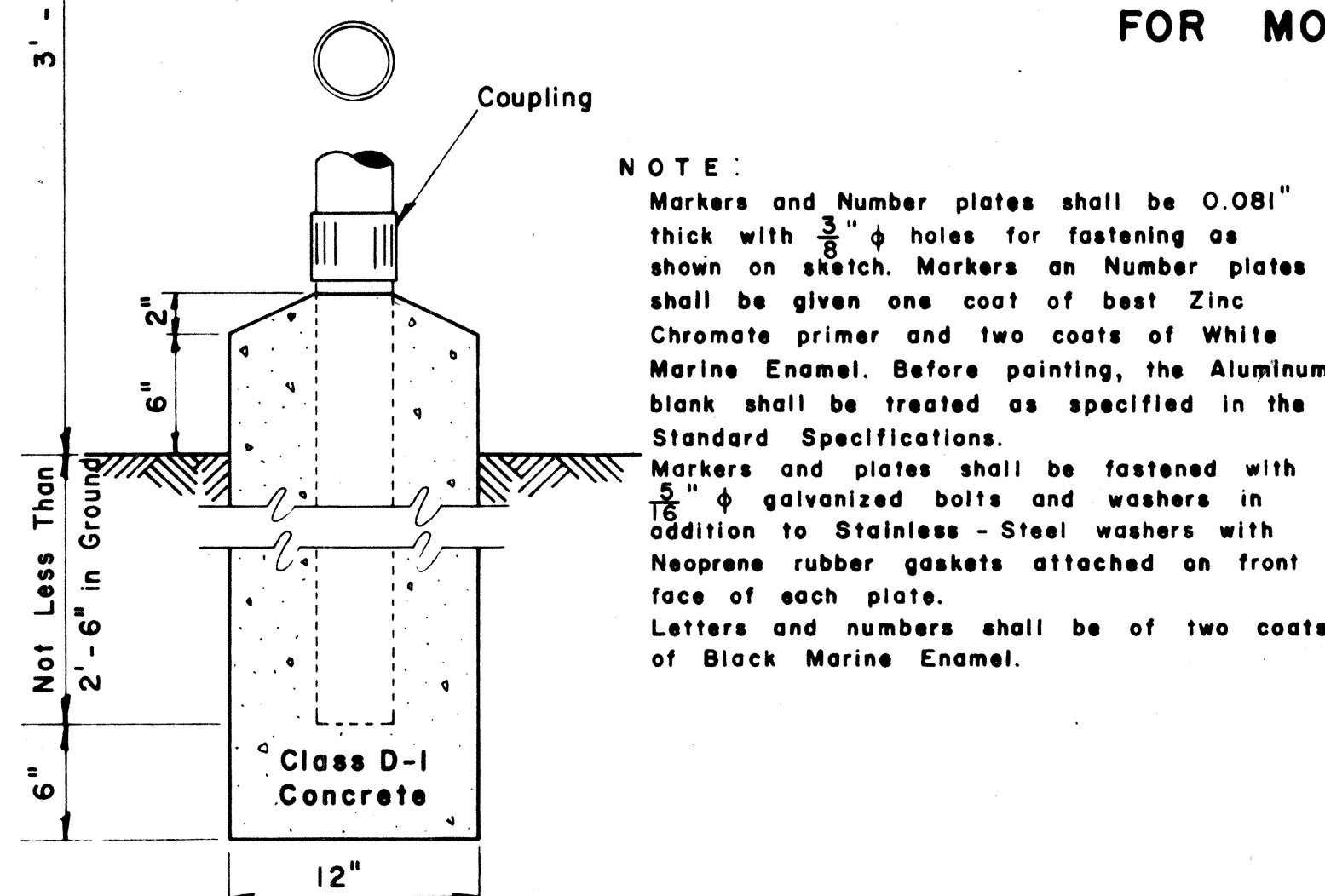


REFLECTOR MARKERS
Scale: As Shown

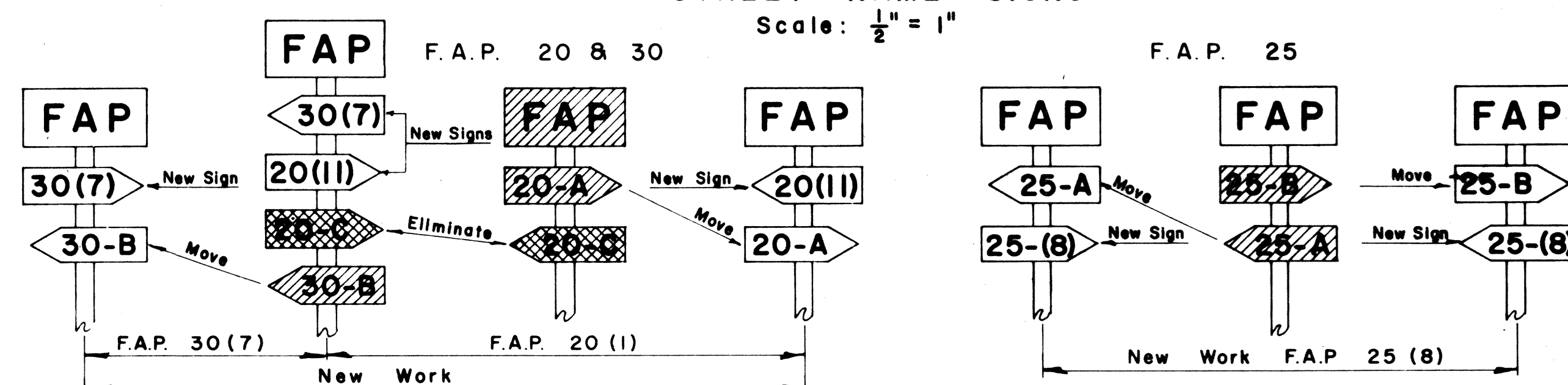


TYPICAL SECTION
OF ROAD DELINEATOR
Full Size

NOTE: Reflector Markers RM-1,2,3 shall be glass sphere reflector markers with 4" x 5" reflector units (as shown) or plastic prismatic reflector markers with 3" diameter reflector units.

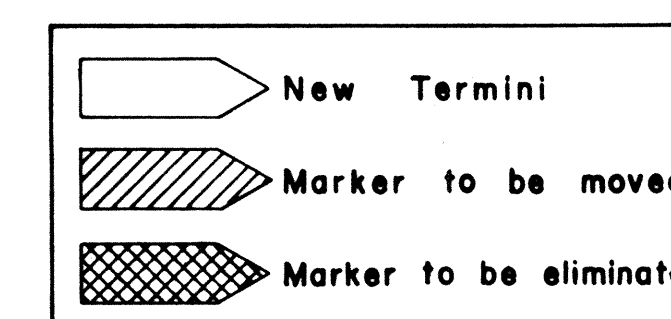


FEDERAL AID MARKER
Scale: 1/2" = 1' - 0"



NOTE: Federal Aid Markers should be placed at the terminus of suffix designated sections. Intermediate letter designated markers of adjacent sections located within the limits of new improvements should be moved to the terminus of the new work. The same procedure should be followed on each successive improvement until all markers for letter designated sections are eventually eliminated.

METHOD OF MARKING F.A. PROJECTS AT OVERLAPS
(USING NUMBER SUFFIX ON NEW WORK)



APPROVED: *[Signature]*
DIRECTOR OF TRANSPORTATION

JANUARY 27, 1967
DECEMBER 8, 1964
REVISED: FEBRUARY 25, 1964

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F.A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS
Scale: As Shown

SHEET No. 3 OF 3 SHEETS