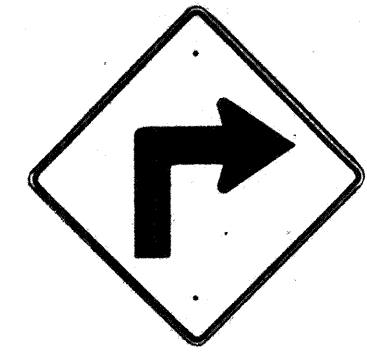


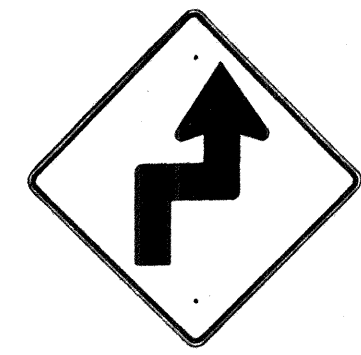
| STATE | PROJ. NO.    | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|-------|--------------|-------------|-----------|--------------|
| HAW.  | B-3267-01-63 | 1963        | 10        | 12           |



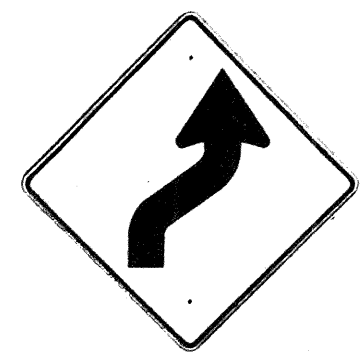
W1-1(R) 30" x 30"



W1-2(R) 30" x 30"



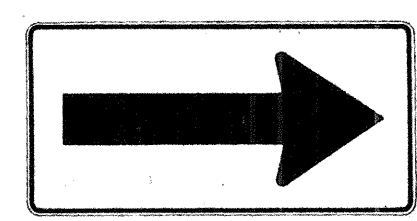
W1-3(R) 30" x 30"



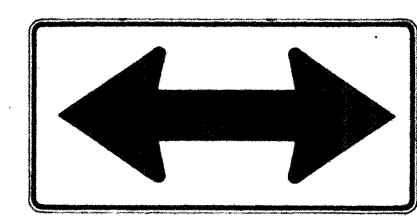
W1-4(R) 30" x 30"



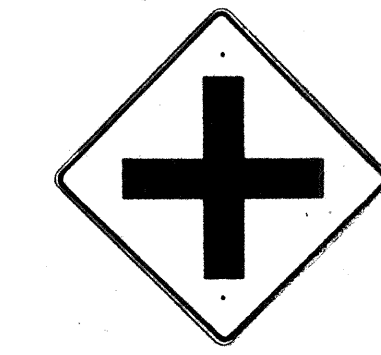
W1-5(R) 30" x 30"



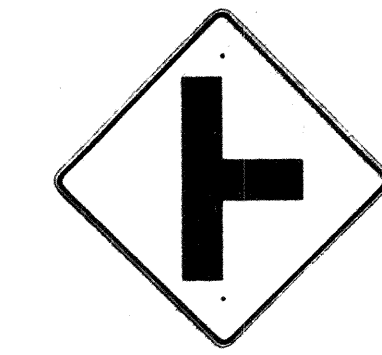
W1-6 48" x 24"



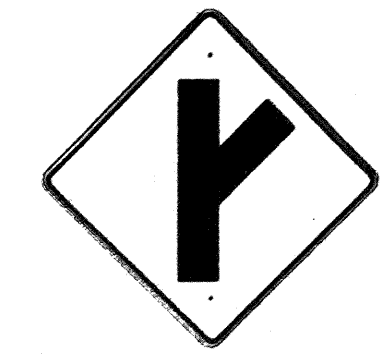
W1-7 48" x 24"



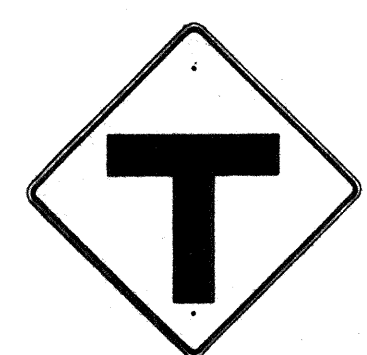
W2-1 30" x 30"



W2-2 30" x 30"



W2-3(R) 30" x 30"



W2-4 30" x 30"



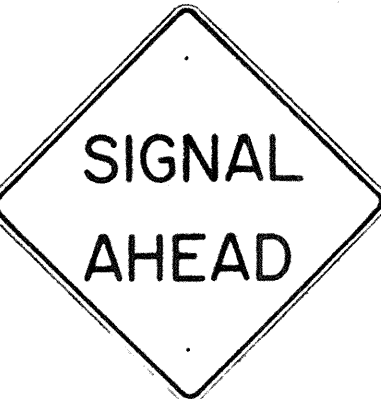
W2-5 30" x 30"



W3-1 30" x 30"



W3-2 30" x 30"



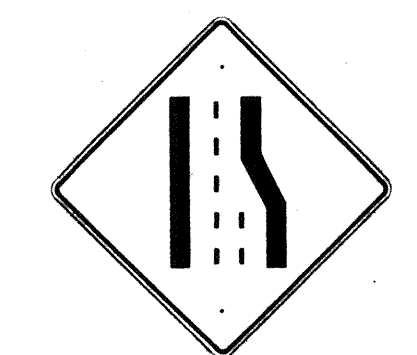
W3-3 36" x 36"



W4-1 30" x 30"

W4-1-E 36" x 36"

W4-1-I 48" x 48"



W4-2 30" x 30"

W4-2-E 36" x 36"



W5-1 30" x 30"

W5-1-E 36" x 36"



W5-2 30" x 30"



W5-3 30" x 30"



W6-1 36" x 36"



W6-2 36" x 36"



W7-1 30" x 30"



W8-1 30" x 30"



W8-2 30" x 30"



W8-3 30" x 30"



W8-4 30" x 30"



W8-5 30" x 30"



W9-1 30" x 30"



W9-2 30" x 30"



W10-1 36" DIAMETER



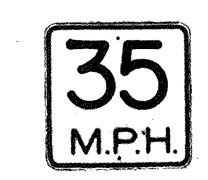
W11-1 30" x 30"



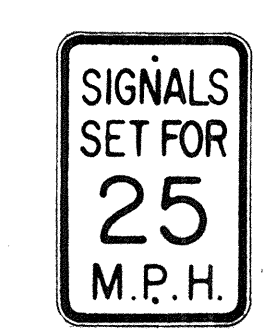
W11-5 30" x 30"



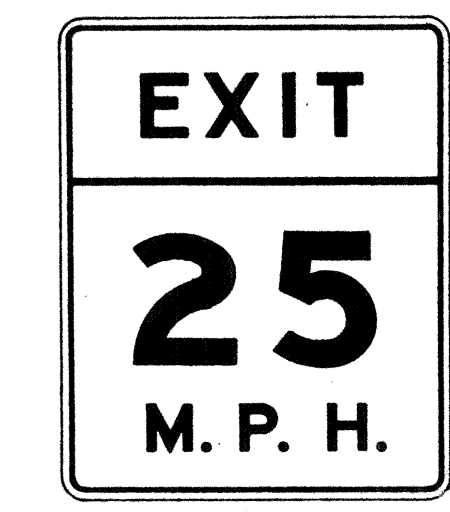
W12-2 36" x 36"



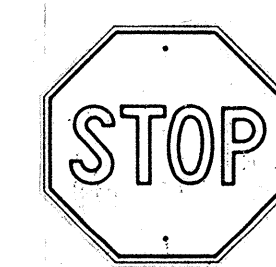
W13-1(35) 18" x 18"



W13-2(25) 12" x 18"



W13-3(25) 48" x 60"



R1-1 30" x 30"

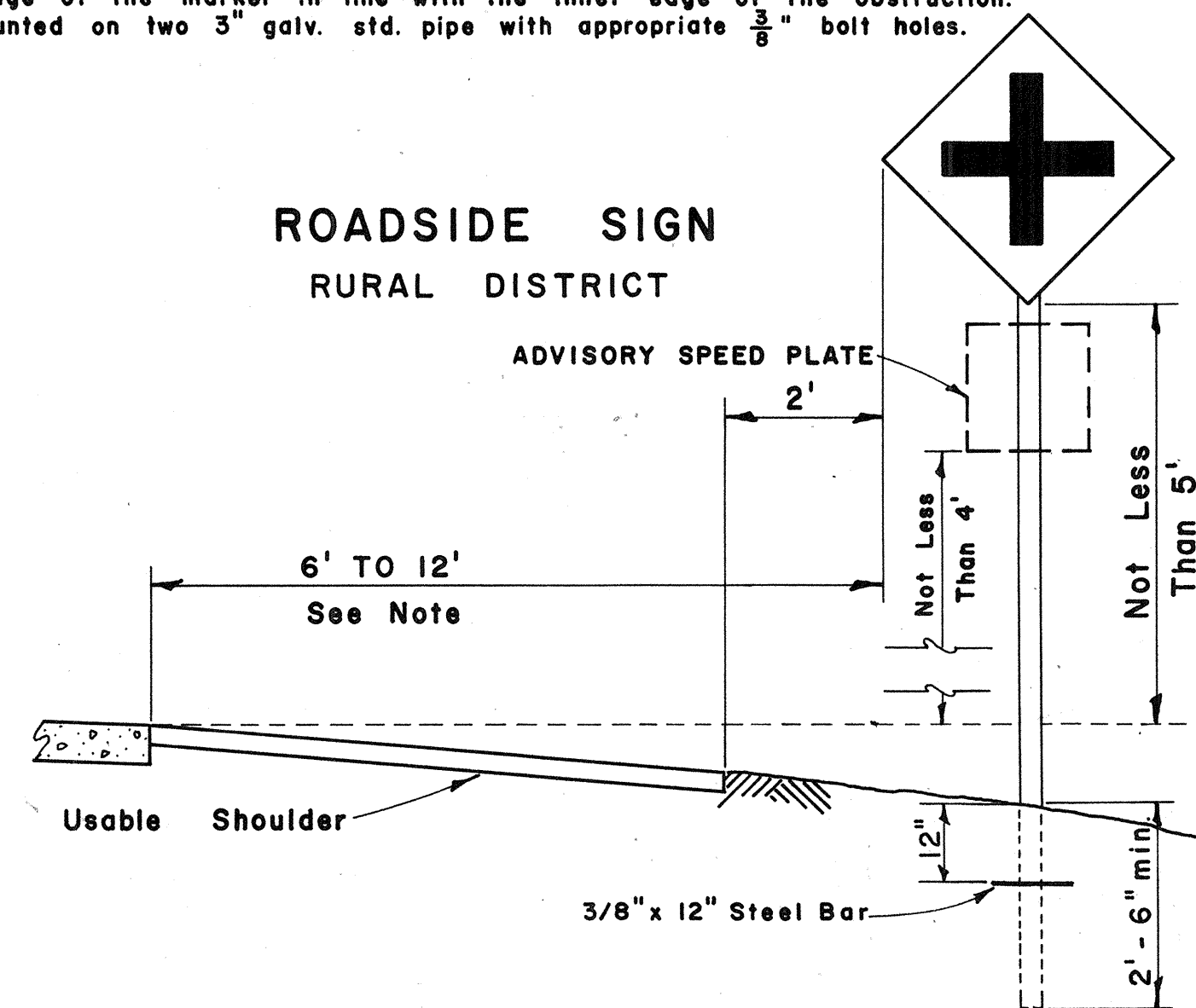
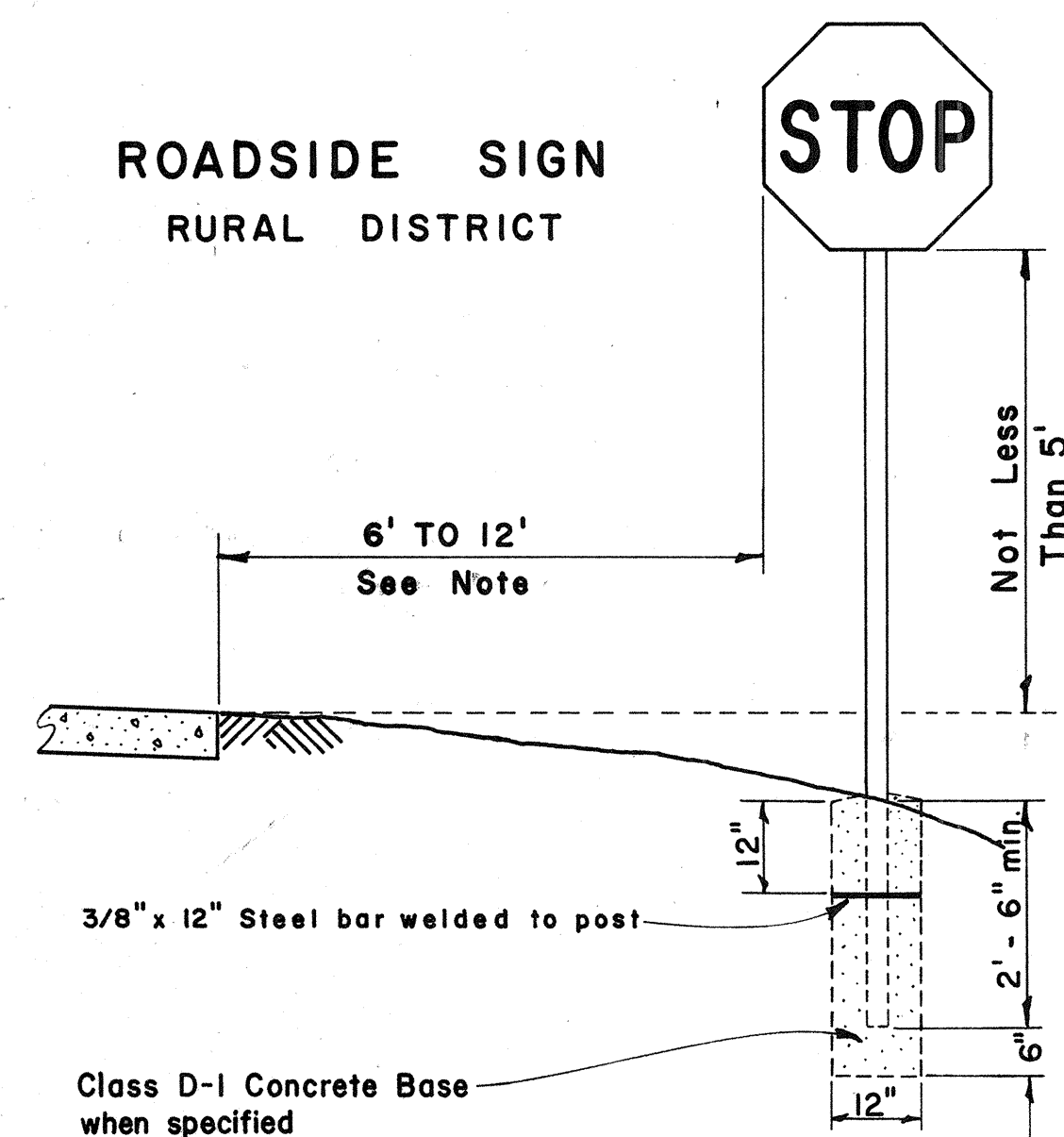
NOTE:

1. The shape, color, dimensions, symbols, wording, lettering and reflectorization of all signs shall be in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways," dated June 1961 and the BPR manual "Standard Highway Signs," dated September 1961 unless otherwise specified.
2. All signs shall be reflectorized unless otherwise specified.
3. All signs shall have 3/8" bolt holes drilled at appropriate locations unless otherwise noted.
4. (R) or (L) indicates right or left and shall be as shown on the plan.
5. The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
6. For W13 sign, number in ( ) indicates speed and shall be as shown on the plans.

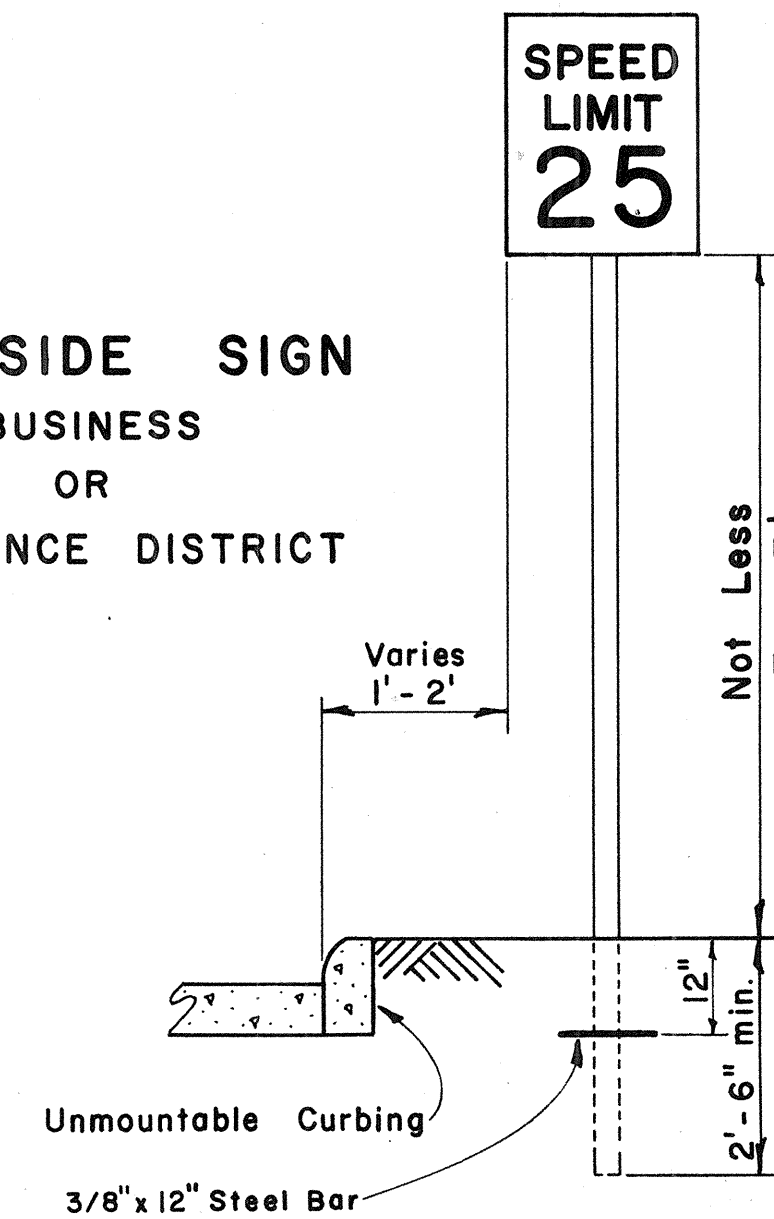
|           |                   |      |
|-----------|-------------------|------|
| ORIGINAL  | SURVEY PLOTTED BY | DATE |
| PLAN      | DESIGNED BY       |      |
| NOTE BOOK | QUANTITIES BY     |      |
|           | CHECKED BY        |      |
| No.       |                   |      |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
  
**STANDARD DETAILS**  
**WARNING SIGNS**  
**REGULATORY SIGN**  
NOT TO SCALE  
  
SHEET No.    OF    SHEETS

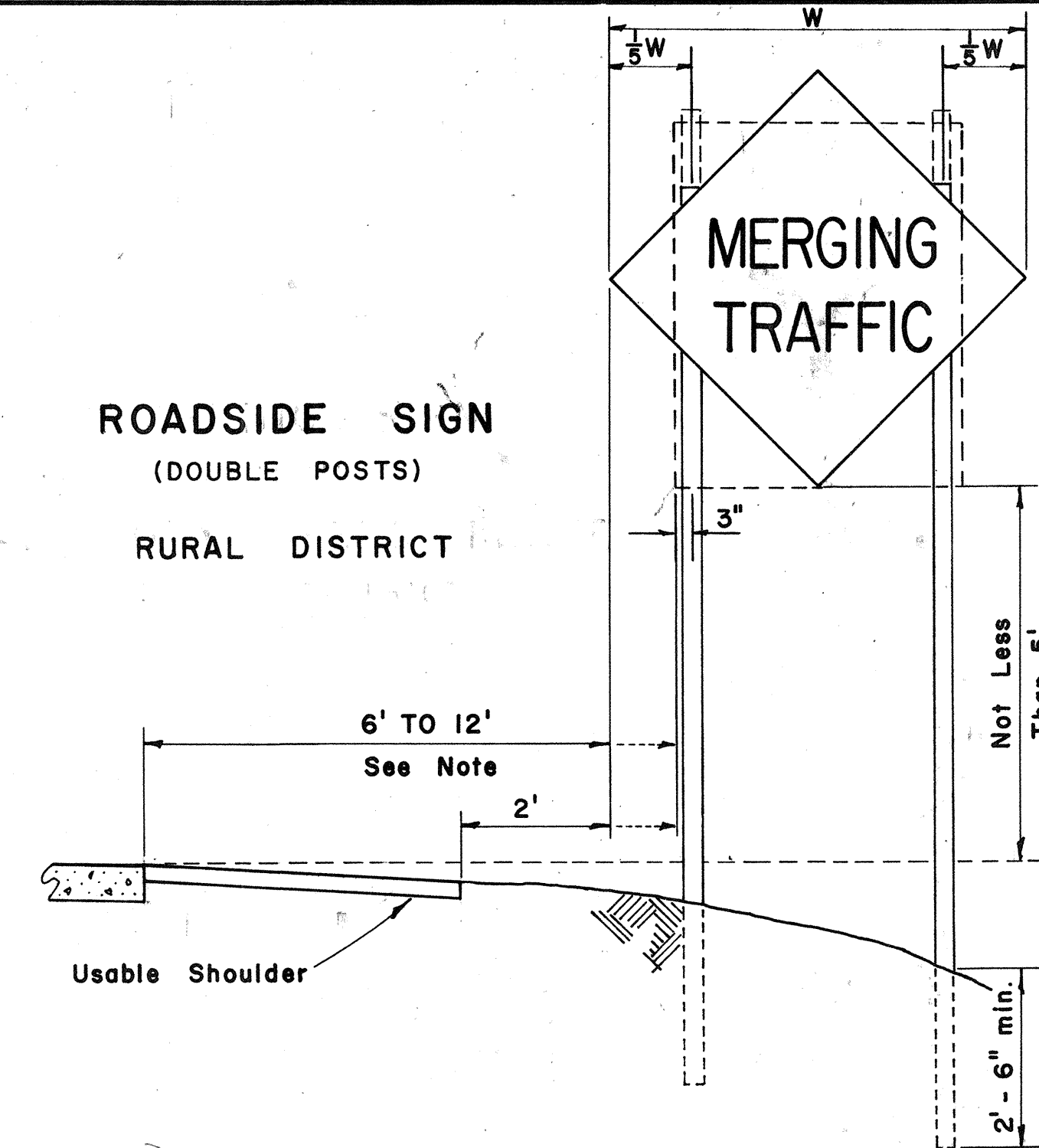
- NOTE:
1. All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
  2. Except as noted below, sign posts shall be 3" galv. std. pipe for signs larger than 24" in any dimension and 2" galv. std. pipe for signs not over 24" in any dimension, with two  $\frac{3}{8}$ "  $\phi$  bolt holes or adjustable band brackets.
  3. Sign shall be attached to post with  $\frac{5}{16}$ " galvanized carriage bolts with nuts and  $\frac{7}{8}$ " x  $\frac{7}{16}$ " x .120 stainless-steel washers with neoprene rubber gasket.
  4. Clearance Markers (RM-4, RM-3) shall be installed with the inside edge of the marker in line with the inner edge of the obstruction.
  5. Signs 48" and wider or larger than 10 sq. ft. in area shall be mounted on two 3" galv. std. pipe with appropriate  $\frac{3}{8}$ " bolt holes.



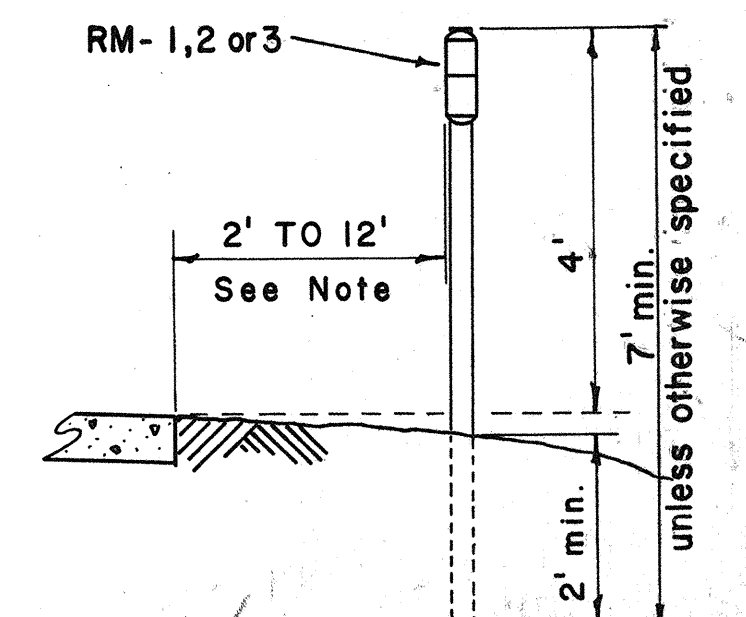
**ROADSIDE SIGN**  
BUSINESS  
OR  
RESIDENCE DISTRICT



**ROADSIDE SIGN**  
(DOUBLE POSTS)  
RURAL DISTRICT

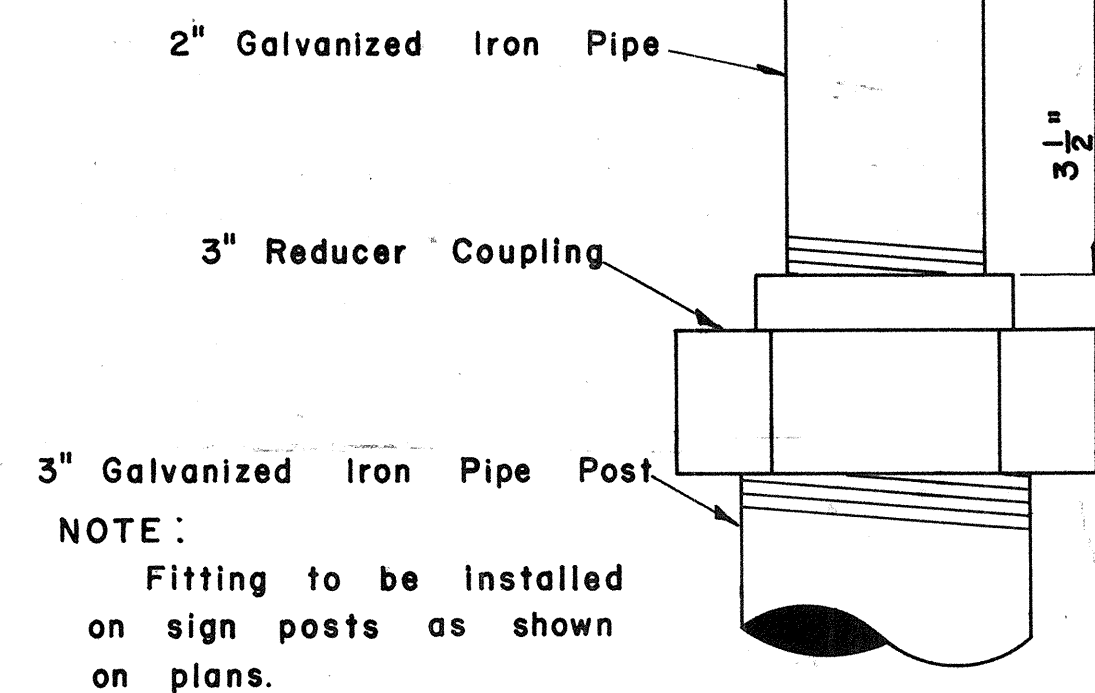
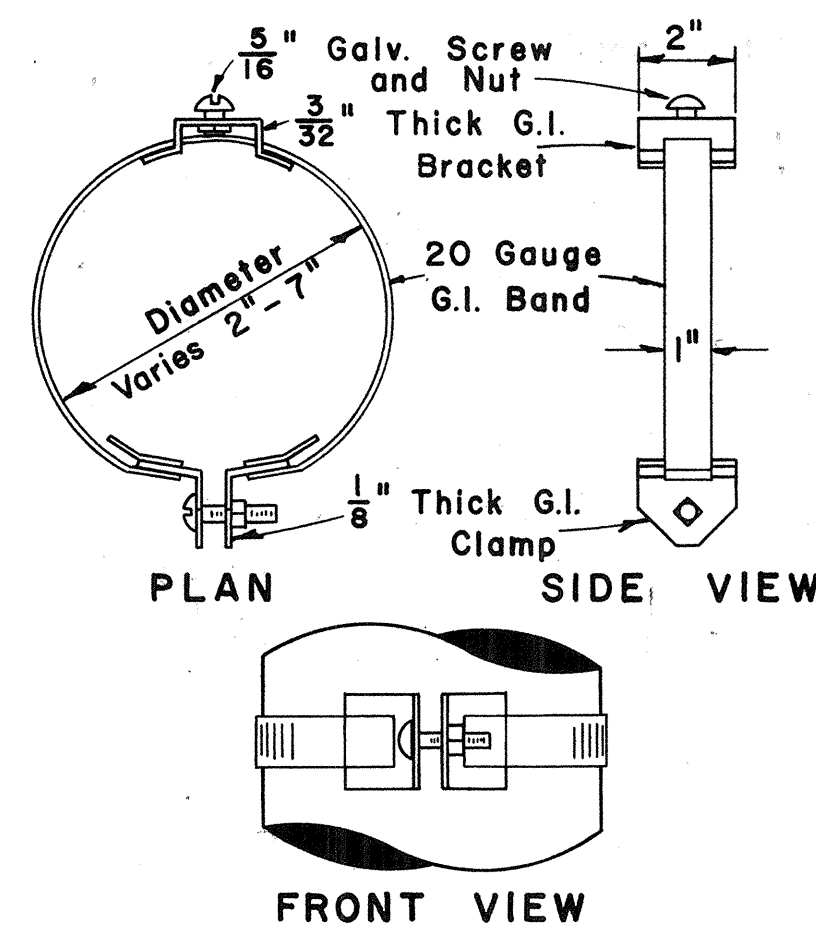
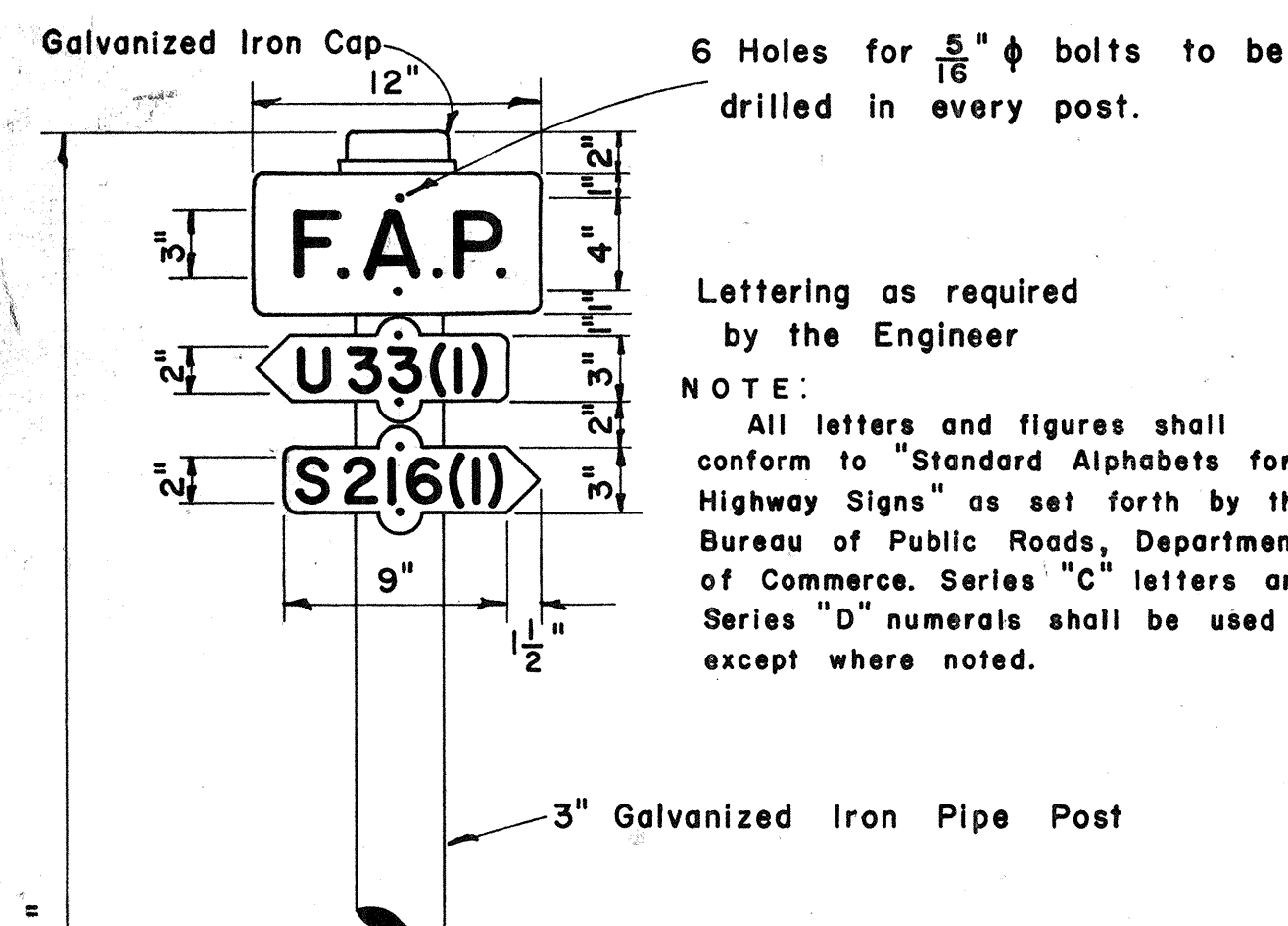


**ROAD DELINEATOR**

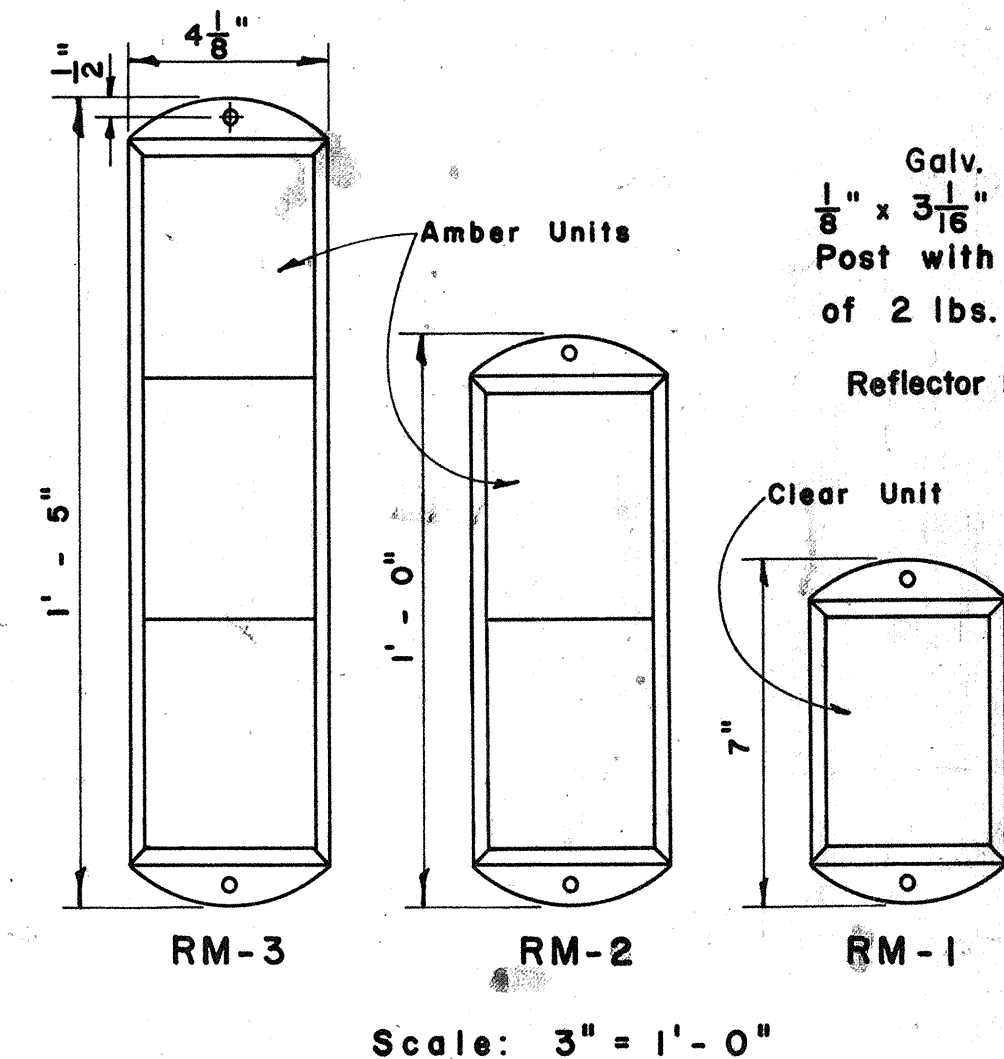
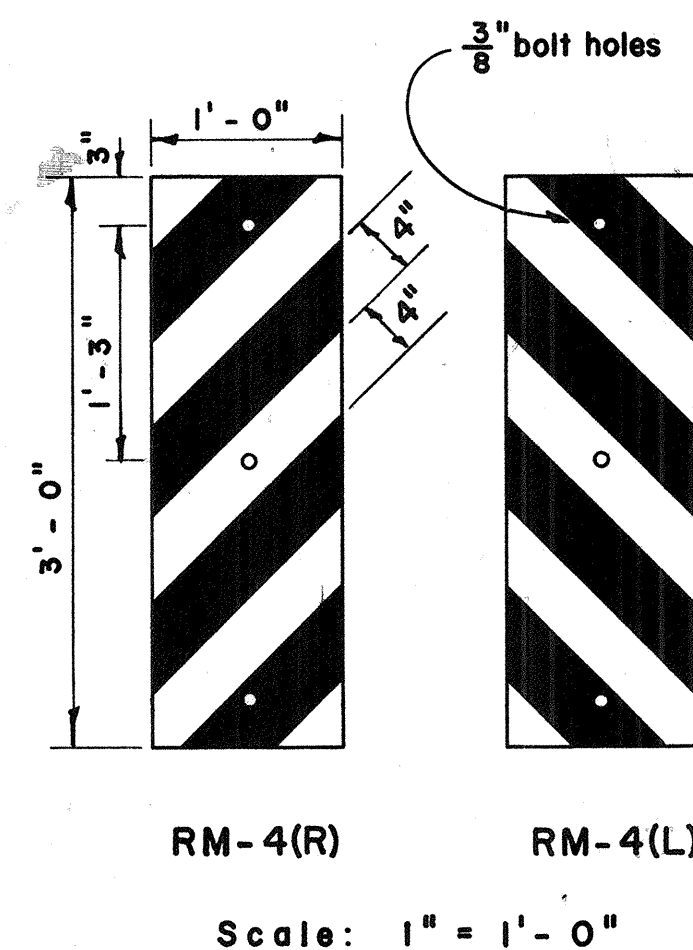


## HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

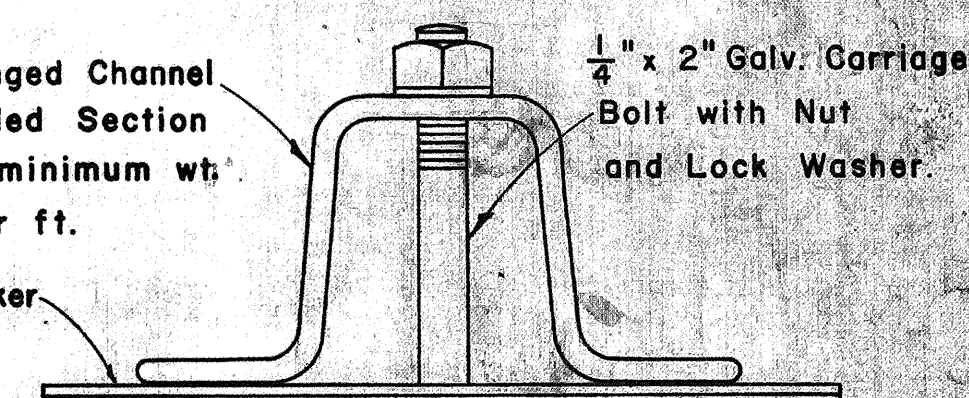
Scale:  $\frac{1}{2}$ " = 1' - 0"



**DETAIL OF SIGN POST FITTING FOR CITY & COUNTY STREET NAME SIGNS**  
Scale:  $\frac{1}{2}$ " = 1"

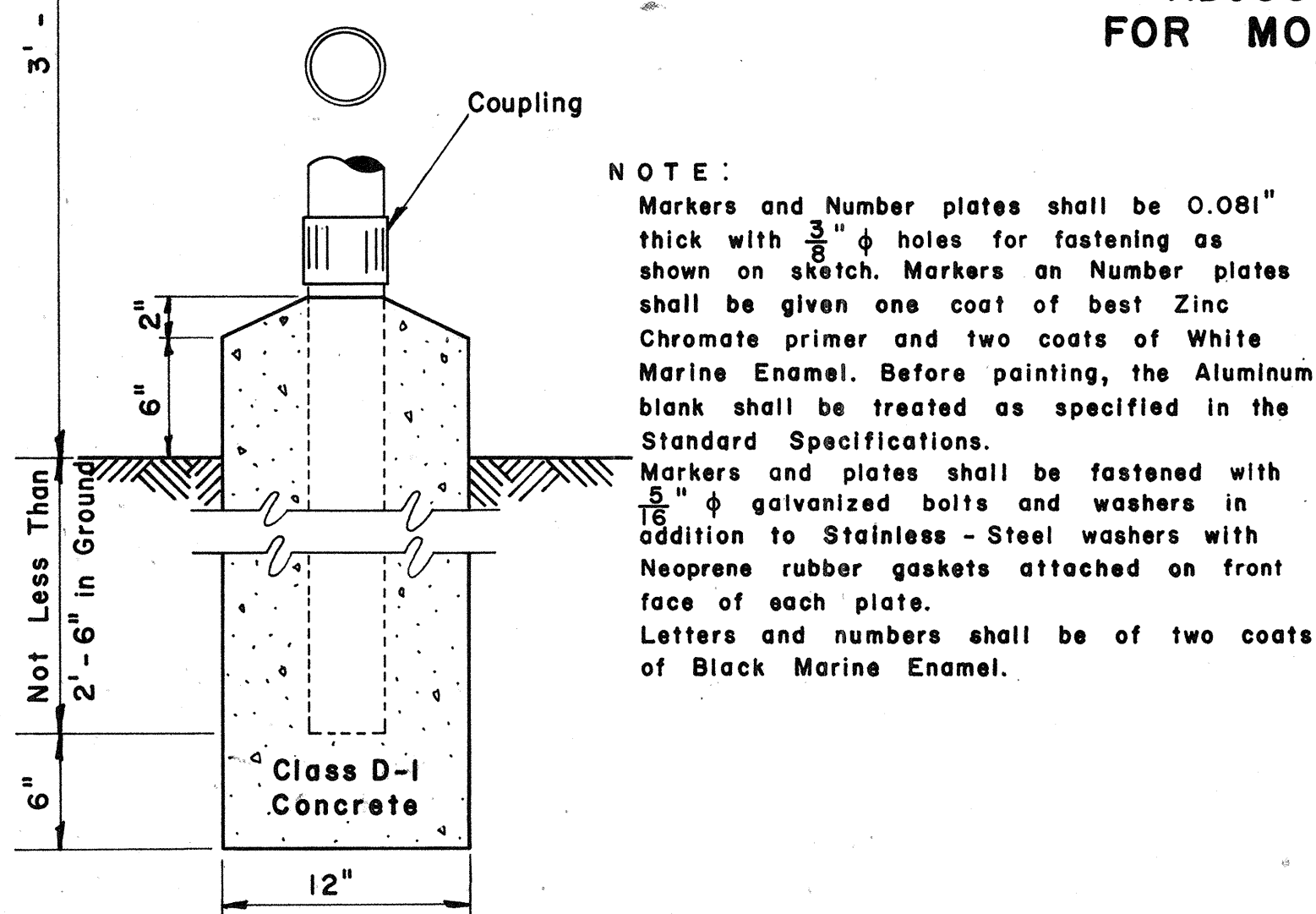


**REFLECTOR MARKERS**  
Scale: As Shown

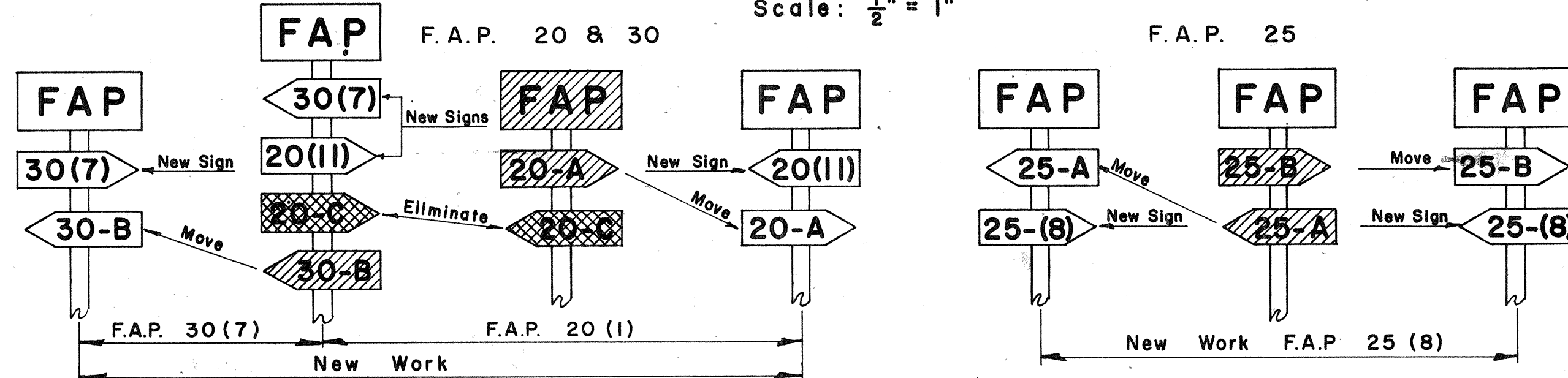


**TYPICAL SECTION OF ROAD DELINEATOR**  
Full Size

- NOTE:
1. Reflector Units for RM-1,2,3 shall be 4" x 5" in size and shall consist of reflective sheeting encapsulated in acrylic plastic.
  2. The upper 2 feet of the Galvanized Flanged Channel shall have a single row of  $\frac{3}{8}$ " holes centered in the web and spaced 1 inch on centers.



**FEDERAL AID MARKER**  
Scale:  $\frac{1}{2}$ " = 1' - 0"



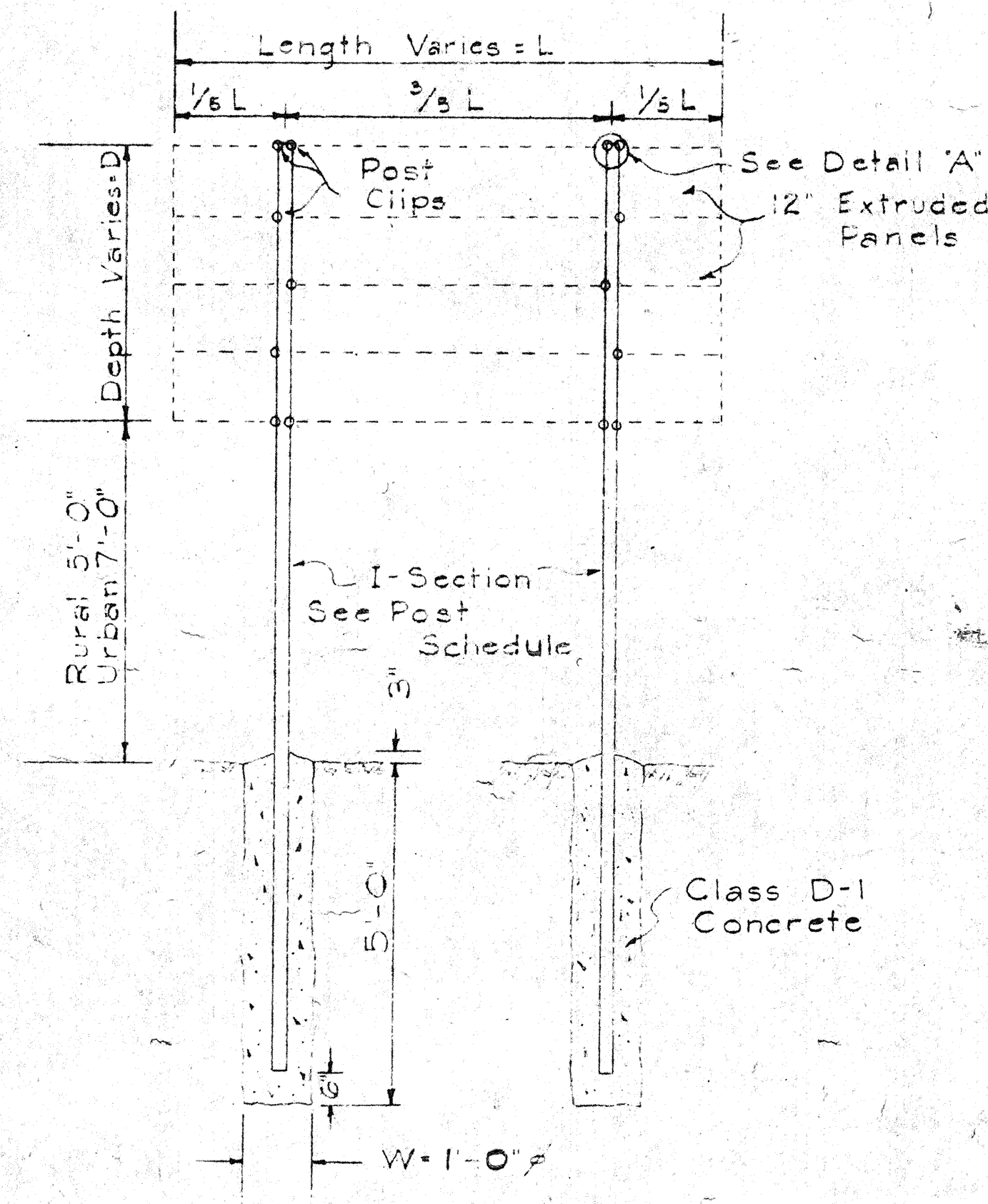
**METHOD OF MARKING F.A. PROJECTS AT OVERLAPS**  
(USING NUMBER SUFFIX ON NEW WORK)

APPROVED: \_\_\_\_\_  
DATE: 11/22/64  
DIRECTOR OF TRANSPORTATION

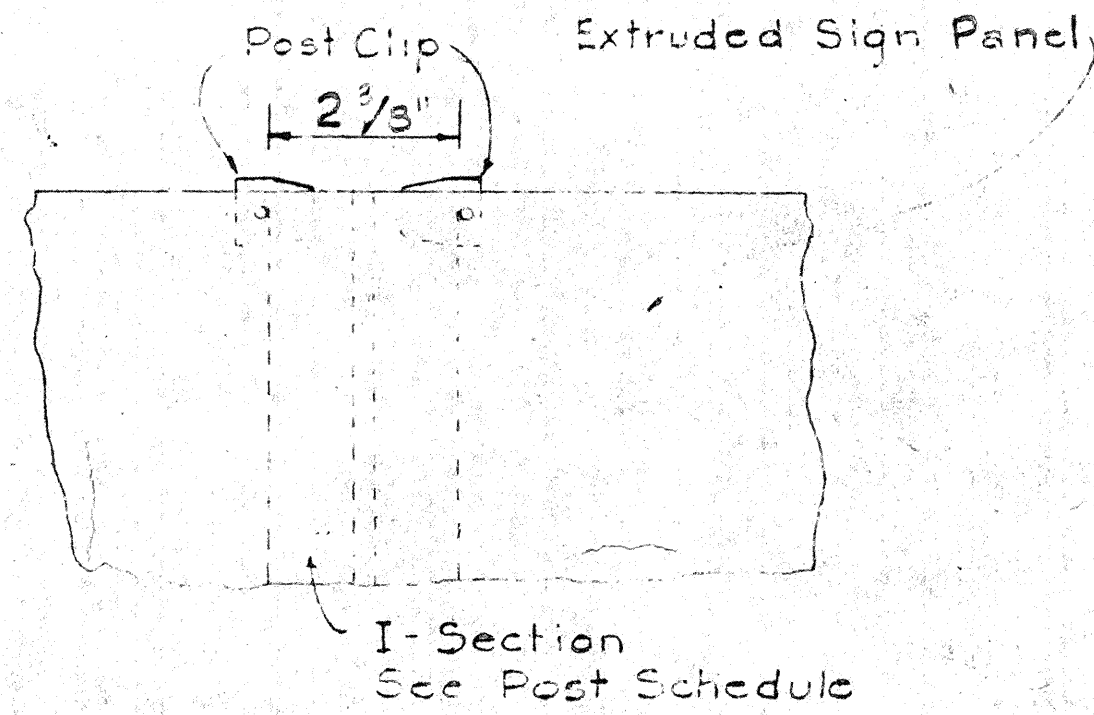
REVISED: JULY 3, 1963

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

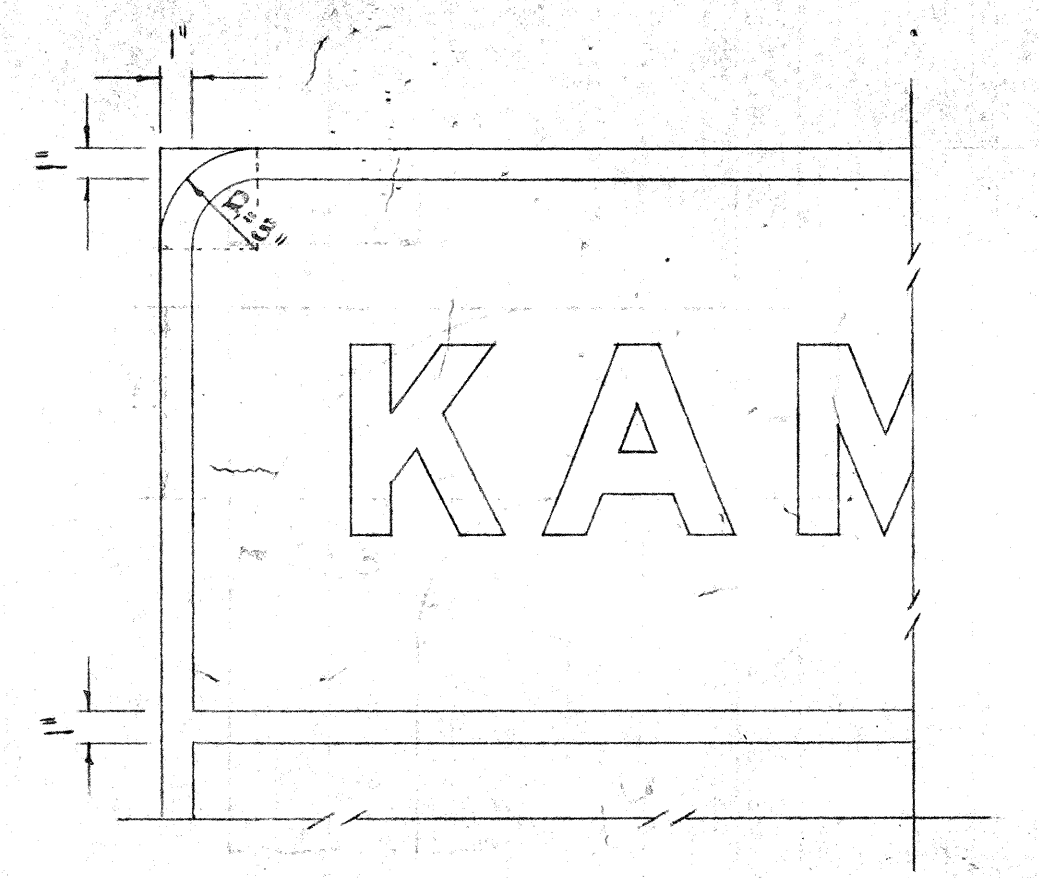
SHEET No. OF SHEETS



TYPICAL EXTRUDED SIGN PANEL AND POST



TYPICAL SIGN LOCATION



TYPICAL CORNER AND BORDER DETAIL

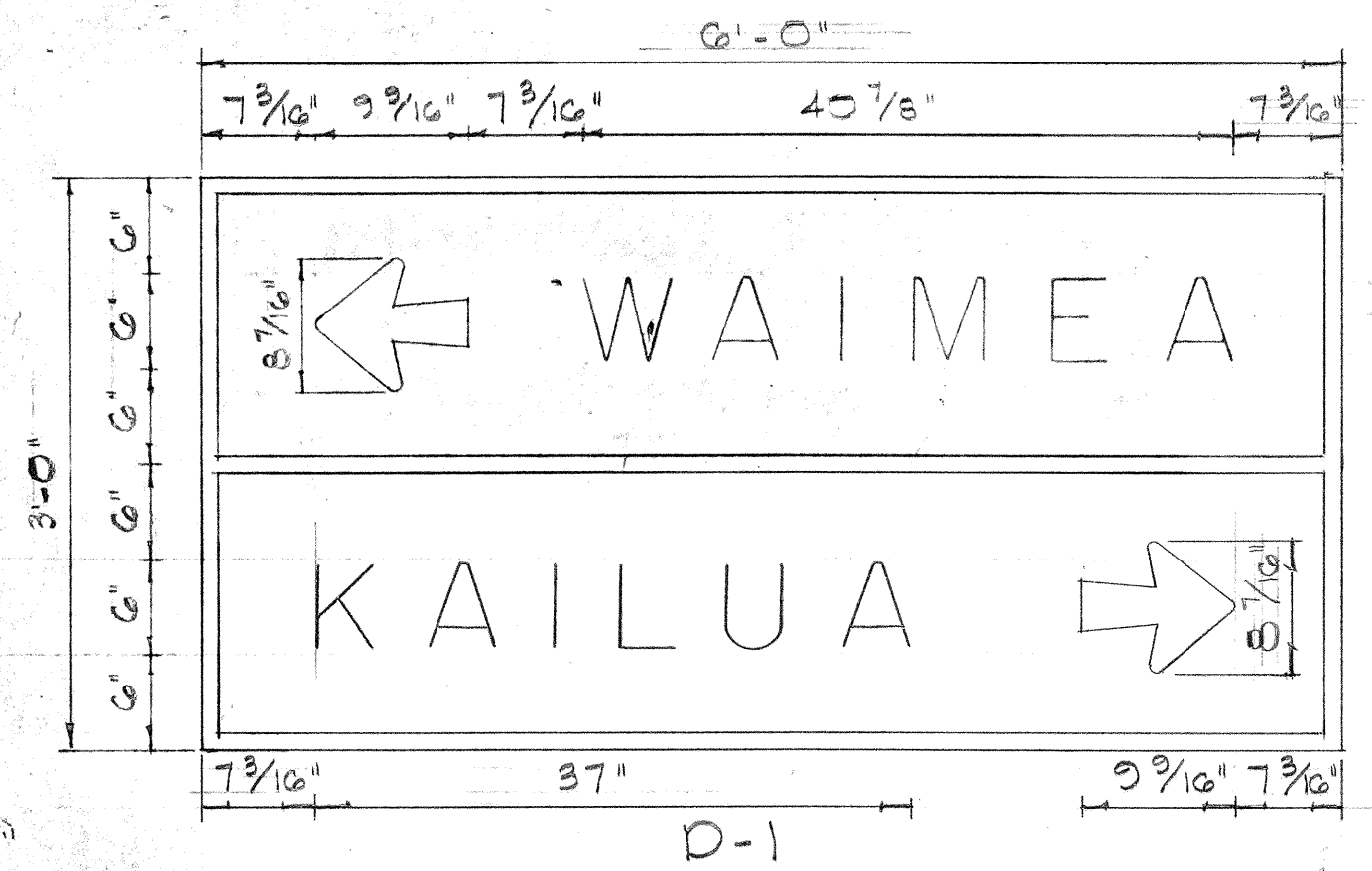
NOTE:  
Both the top and bottom of the sign panel require two post clips and the intermediate locations require one post clip (staggered).

POST SCHEDULE

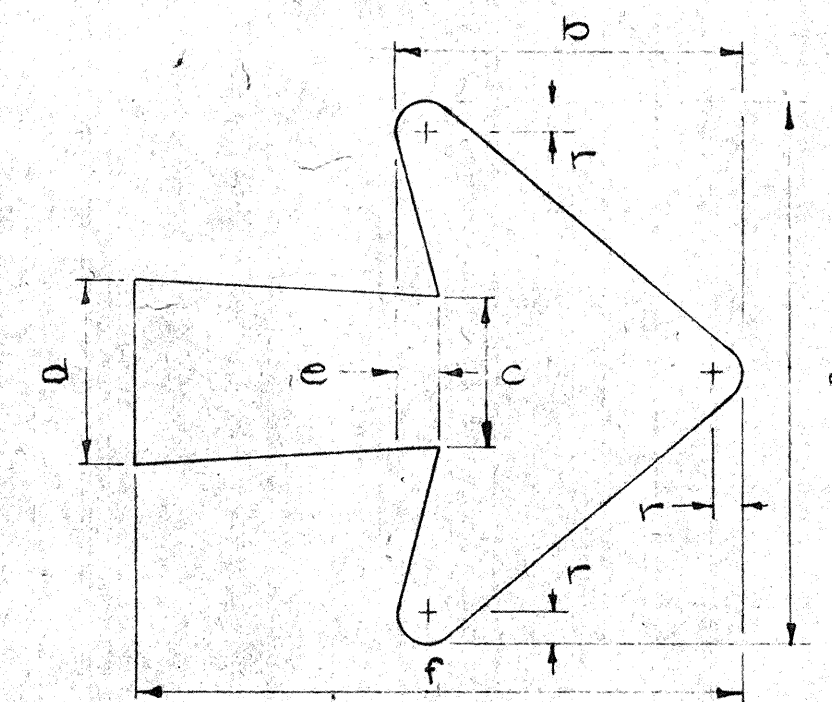
| POST SIZE | MAXIMUM SIGN AREA |
|-----------|-------------------|
| 3" x 5.7" | 30 sq. ft.        |
| 6" x 8.5" | 50 sq. ft.        |

GENERAL NOTES

- Use series 15" modified upper and lower case letters from the "Standard Alphabet for Highway Signs," Bureau of Public Roads, 1961.
- All destination signs shall be constructed of bolted type extruded aluminum panels weighing 2.090  $\frac{1}{16}$ " (min.) for 12" panel width and 1.103  $\frac{1}{16}$ " (min.) for 6" panel width.
- All letters, borders, and symbols shall be white, embossed reflectorized cut-outs. The background shall be matte black.
- Arrows shall conform to the details below.
- For typical corner and border details, see detail below.
- For details on Extruded Panels see Standard Details "Solid Aluminum Extruded Sign Panel and Accessory Details," Sheet "
- All sign posts shall be hot-dip galvanized.

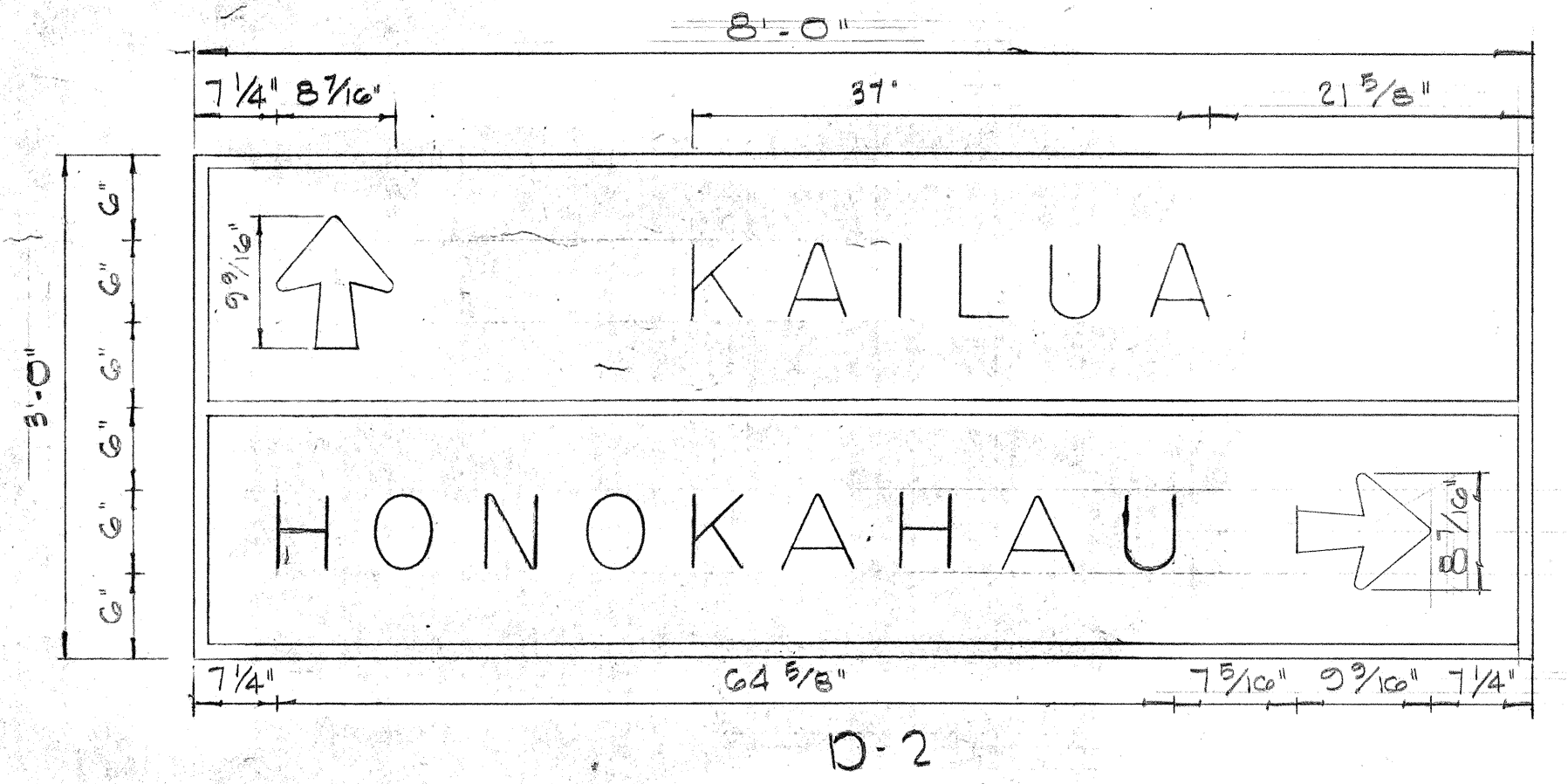


TYPICAL ARROW DETAIL

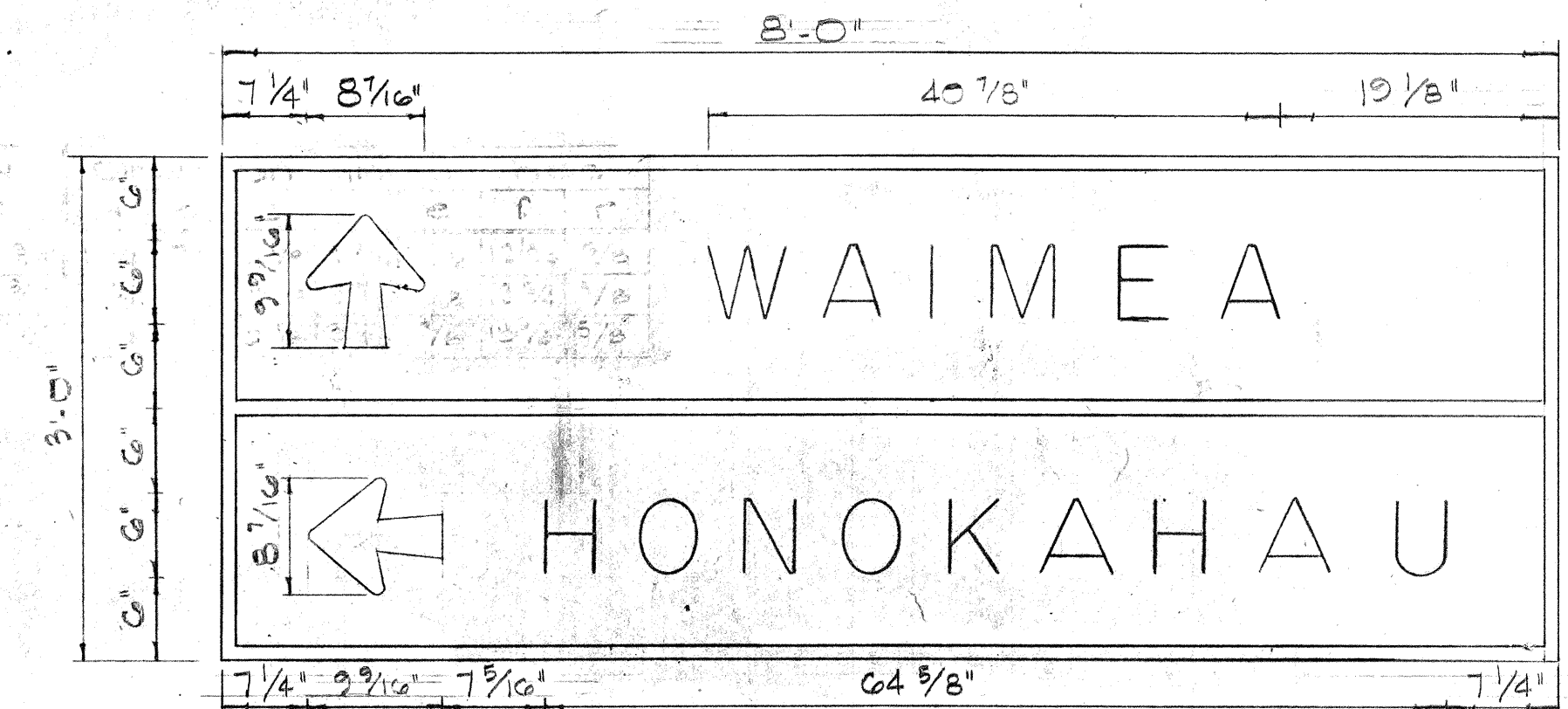


| Arrow Size      | Dimensions in inches                                         |
|-----------------|--------------------------------------------------------------|
| 9 1/4" x 8 1/4" | a 5 1/2" b 5 1/2" c 2 1/4" d 2 1/4" e 5 1/2" f 9 1/4" g 1/2" |

TYPICAL ARROW DETAIL



D-2



D-3

See Sheet #12A

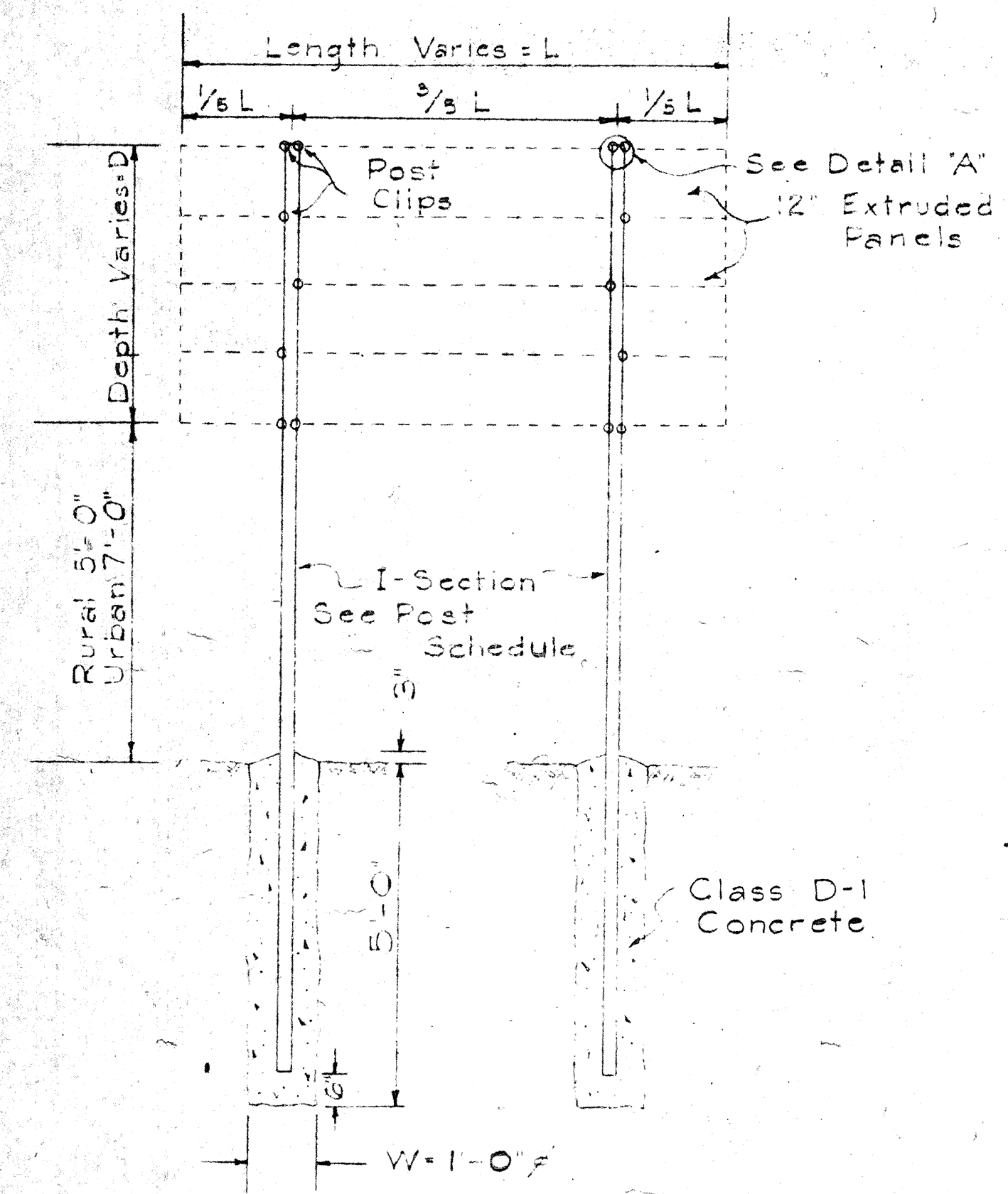
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

EXTRUDED ALUMINUM  
DESTINATION SIGNS

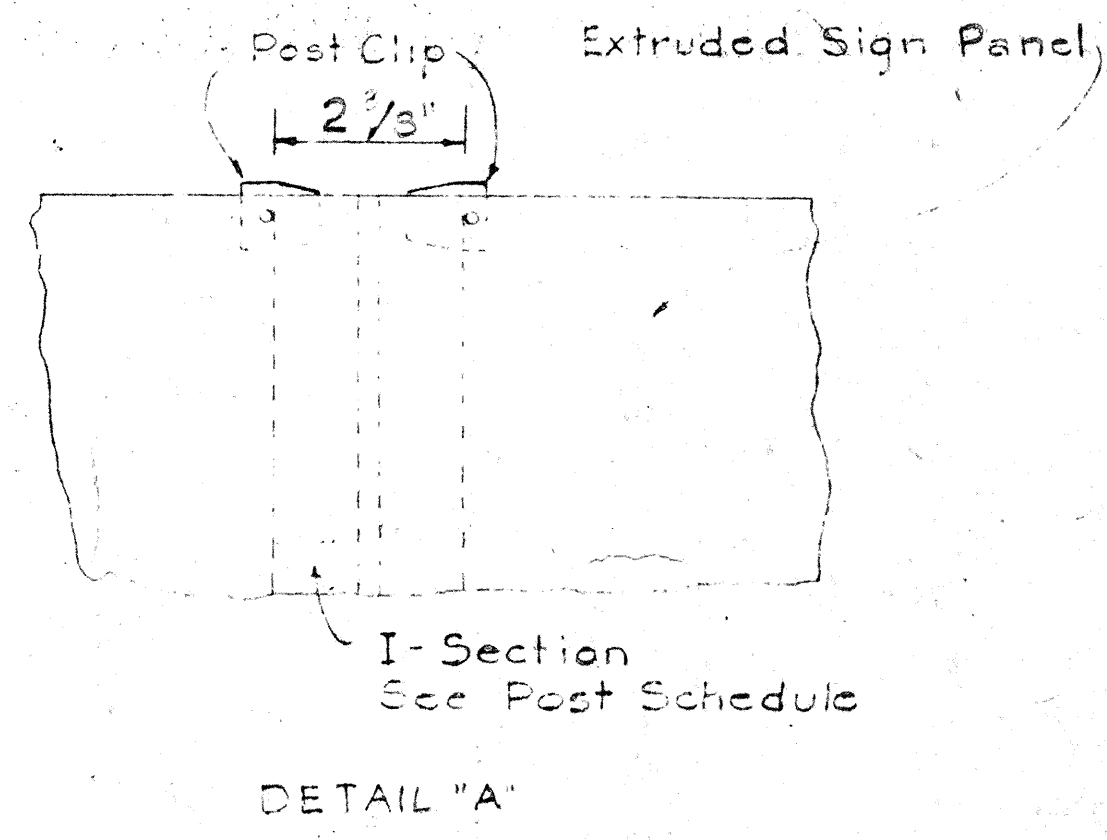
KAILUA - KAWAIHAE ROAD SECTION I  
HAWAII PROJ. NO. 8-3267-01-63  
Scale as Noted

SHEET No. 1 OF 2 SHEETS

DATE  
DRAWN BY  
CHECKED BY  
DESIGNED BY  
NOTE BOOK  
No.

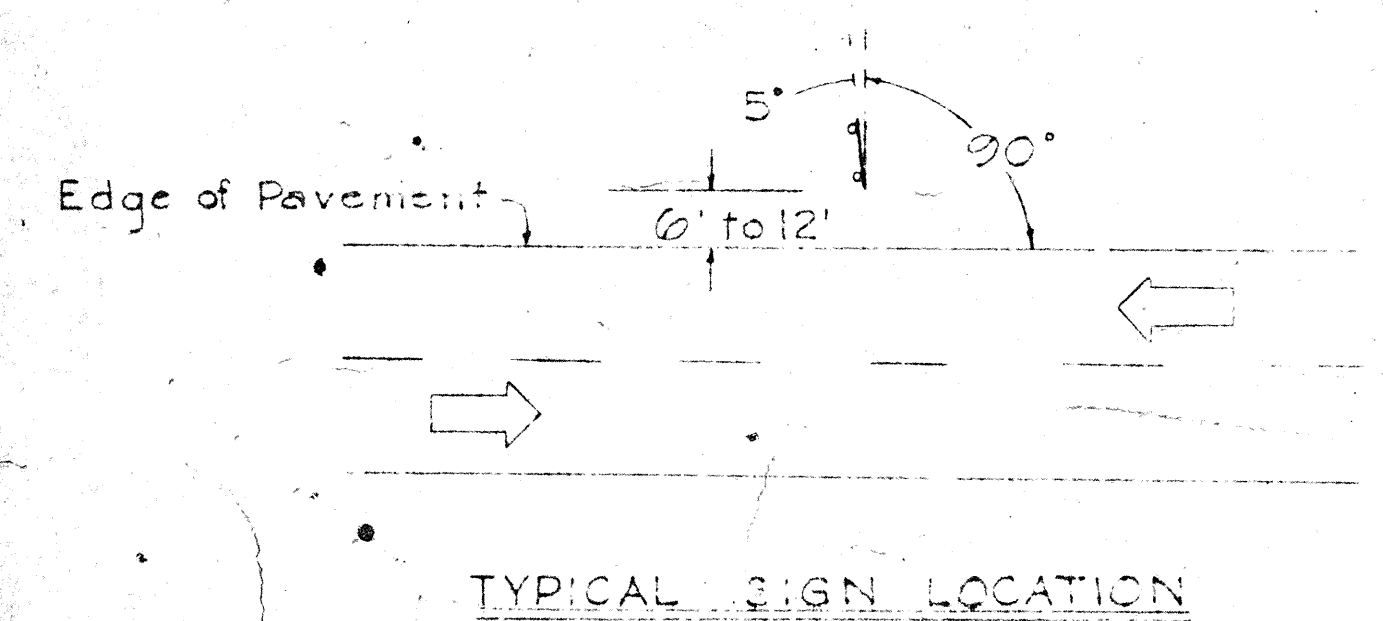


TYPICAL EXTRUDED SIGN PANEL AND POST

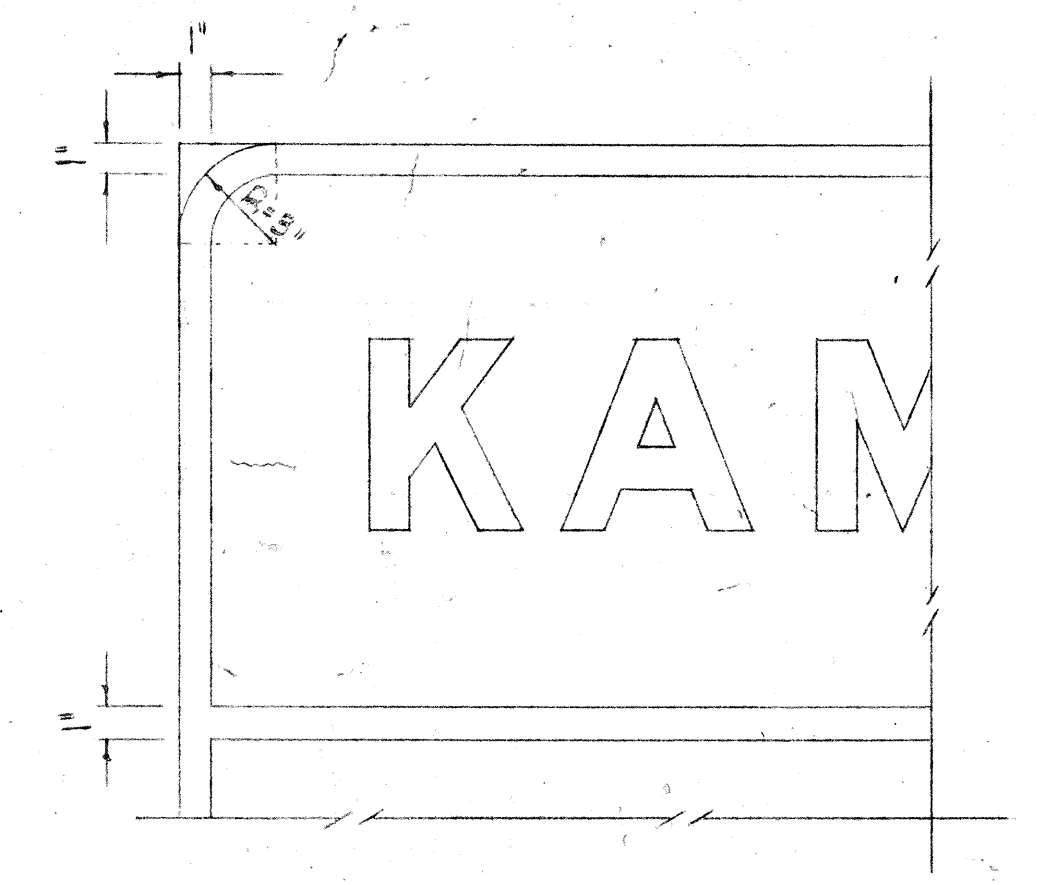


NOTE:  
Both the top and bottom of the sign panel require two post clips and the intermediate locations require one post clip (staggered).

| POST SIZE | MAXIMUM SIGN AREA |
|-----------|-------------------|
| 3" x 5.7" | 30 sq. ft.        |
| 6" x 8.5" | 50 sq. ft.        |



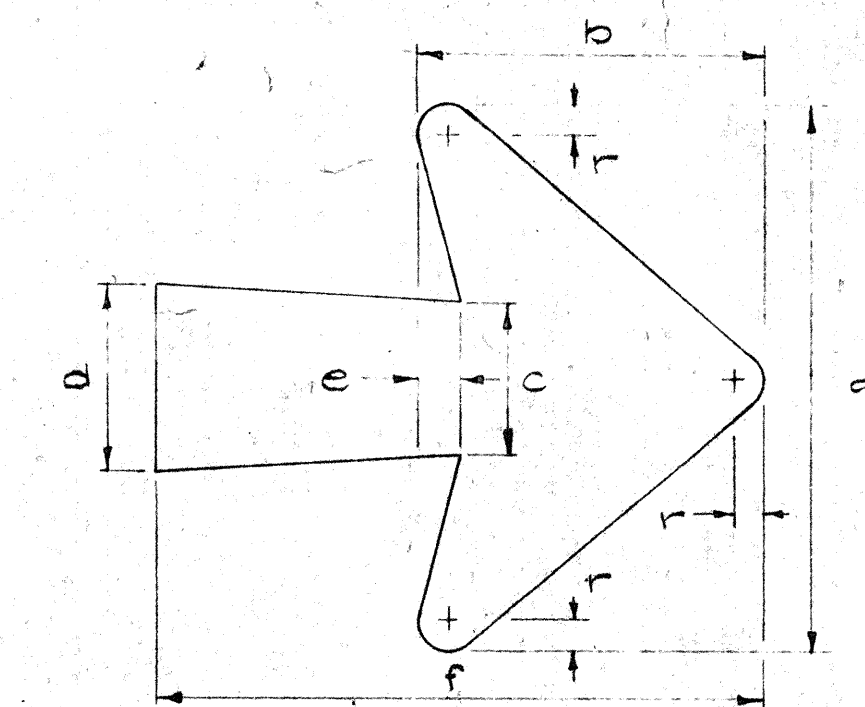
TYPICAL SIGN LOCATION



TYPICAL CORNER AND BORDER DETAIL

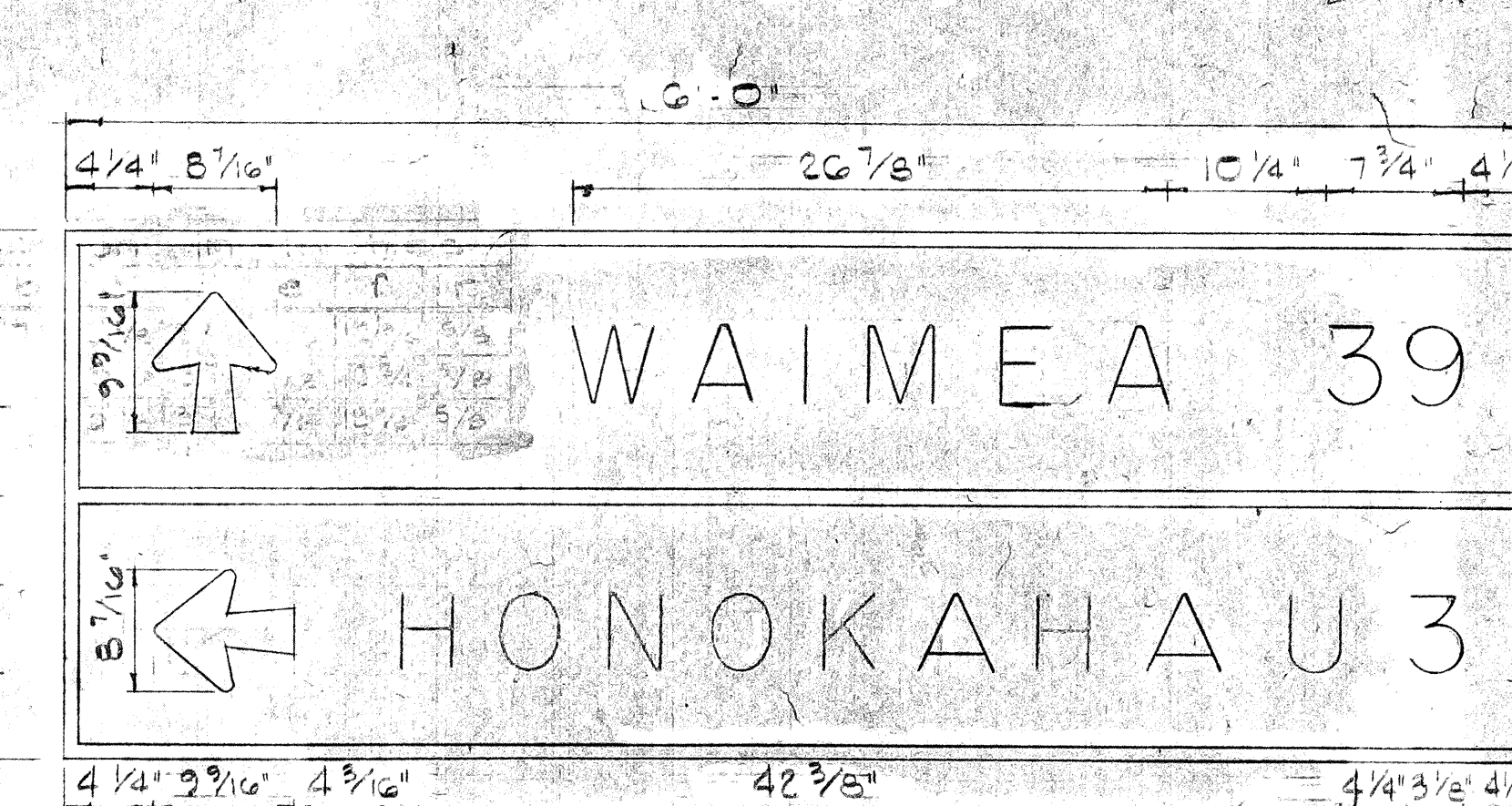
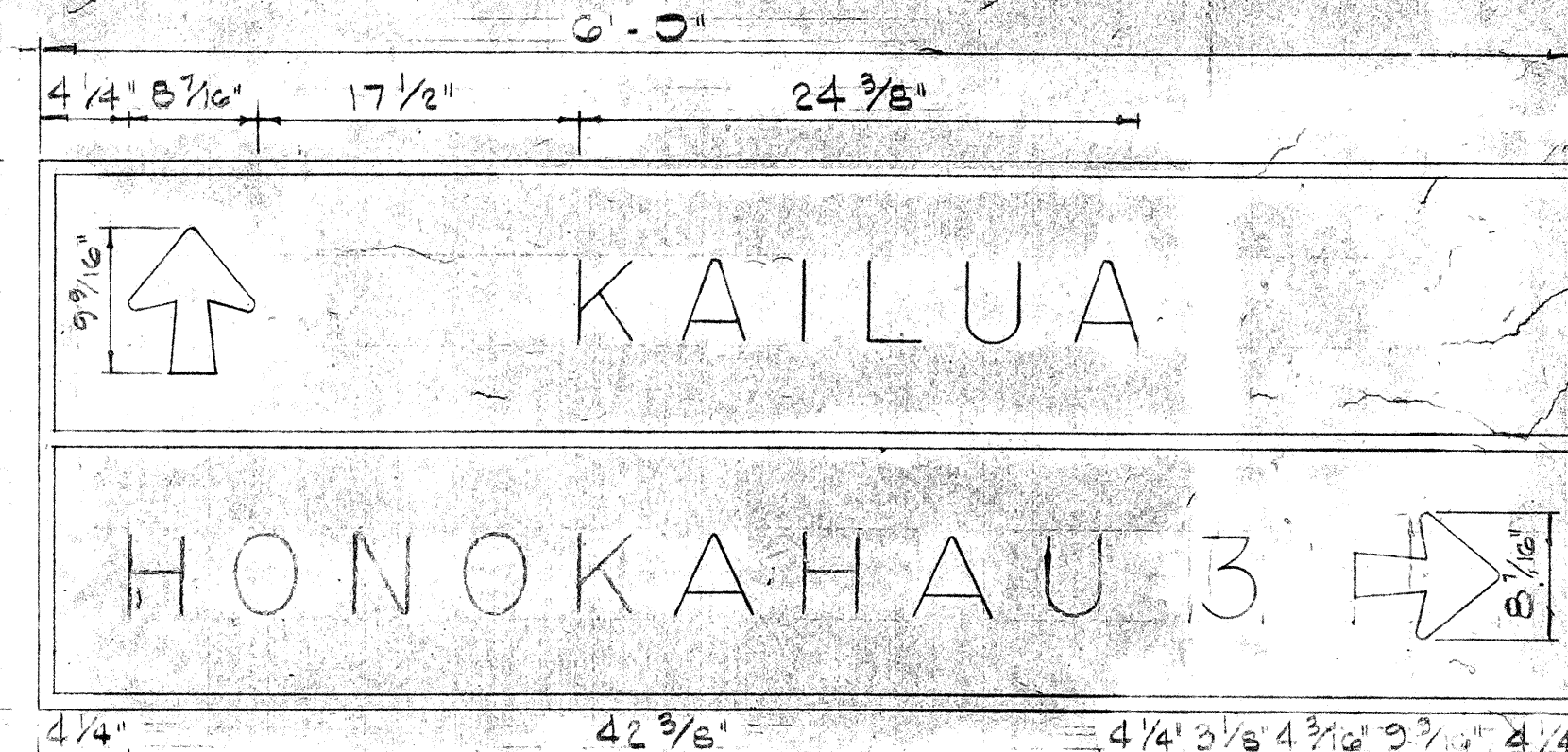
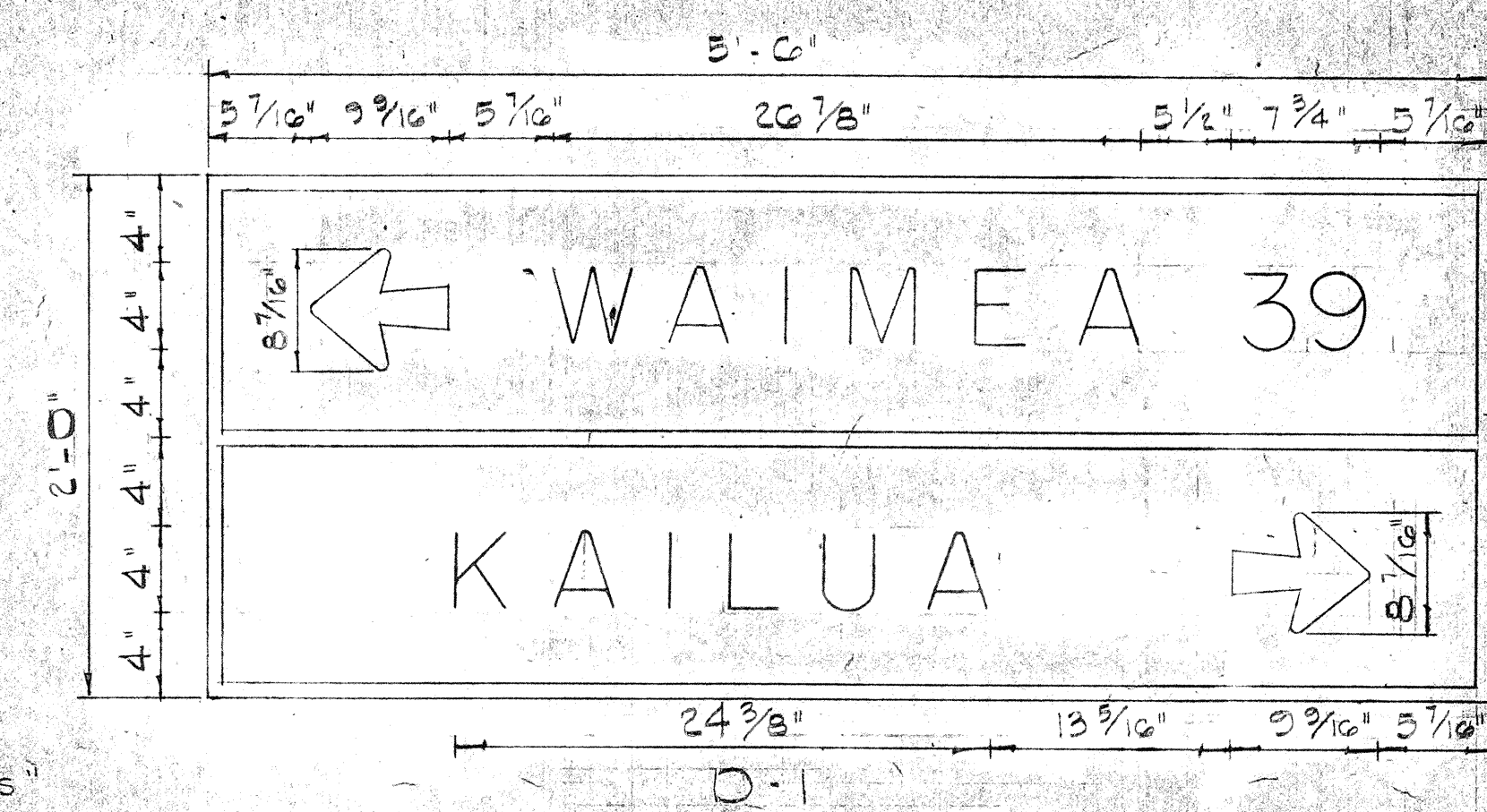
### GENERAL NOTES

- Use series "E" modified upper and lower case letters from the "Standard Alphabet for Highway Signs," Bureau of Public Roads, 1961.
- All destination signs shall be constructed of bolted type extruded aluminum panels weighing 2.000 lb./sq. ft. (min.) for 12" panel width and 1.103 lb./sq. ft. (min.) for 6" panel width.
- All letters, borders, and symbols shall be white, embossed, reflectorized cut-outs. The background shall be reflective green.
- Arrows shall conform to the details below.
- For typical corner and border details, see detail below.
- For details on Extruded Panels see Standard Details "Solid Aluminum Extruded Sign Panel and Accessory Details," Sheet "A".
- All sign posts shall be hot-dip galvanized.



| Arrow Size | Dimensions in inches                           |
|------------|------------------------------------------------|
| 12" x 12"  | a=12, b=12, c=12, d=12, e=12, f=12, g=12, h=12 |

TYPICAL ARROW DETAIL



Revised June 3, 1964

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

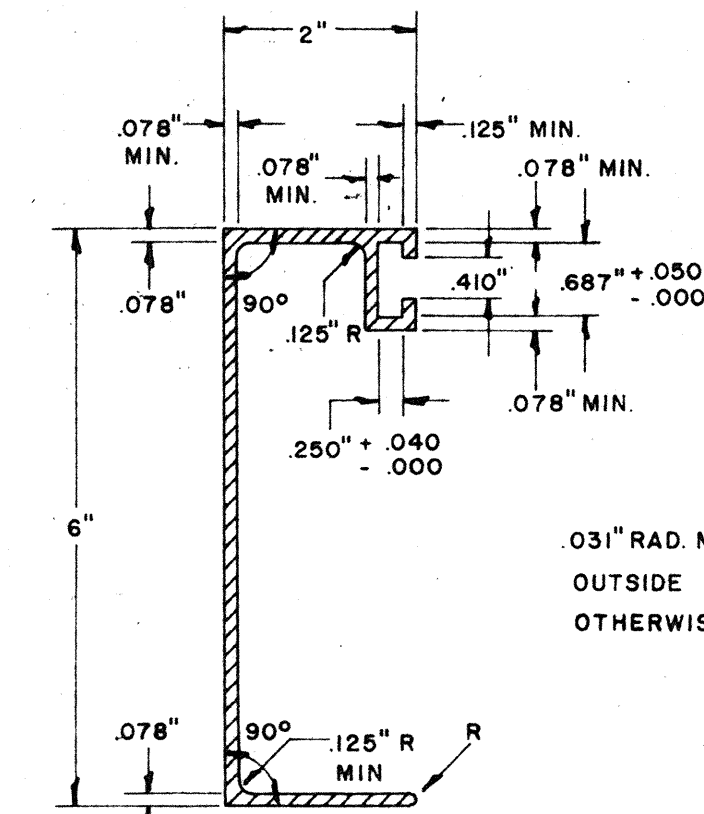
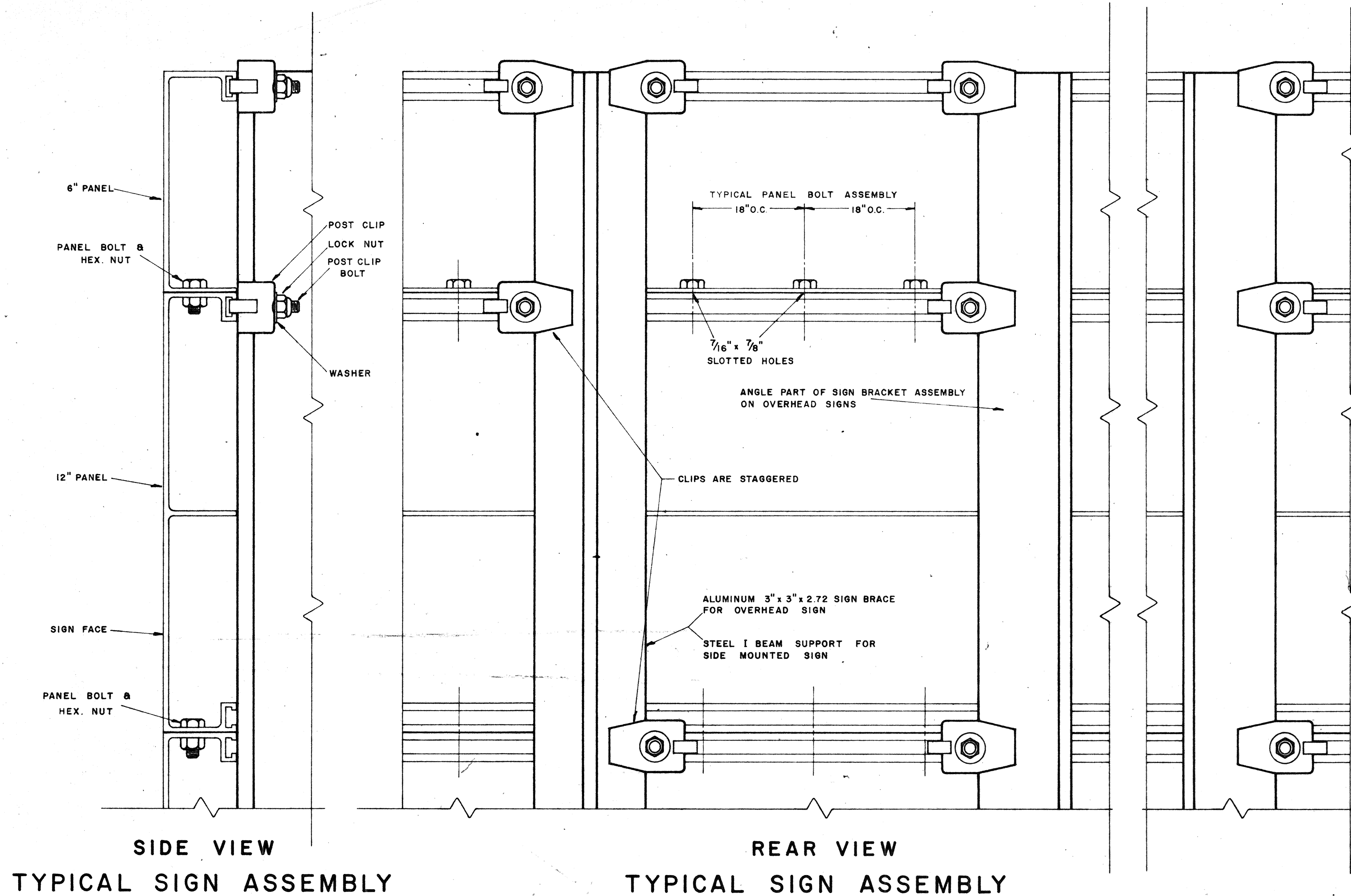
EXTRUDED ALUMINUM  
DESTINATION SIGNS

KAILUA - KAWAIHAE ROAD SECTION I  
HAWAII PROJ. NO. 0-3267-01-63  
Scale as noted

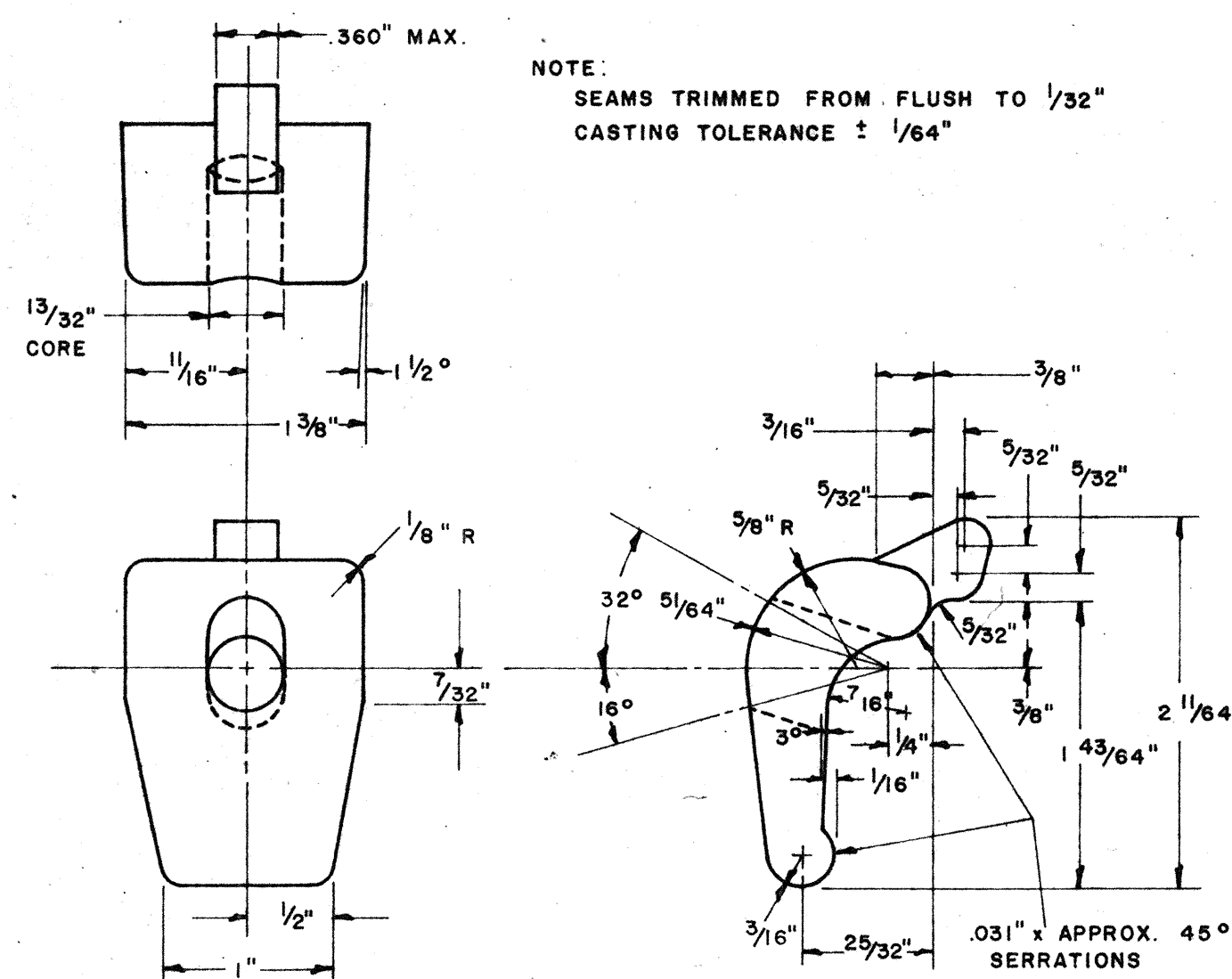
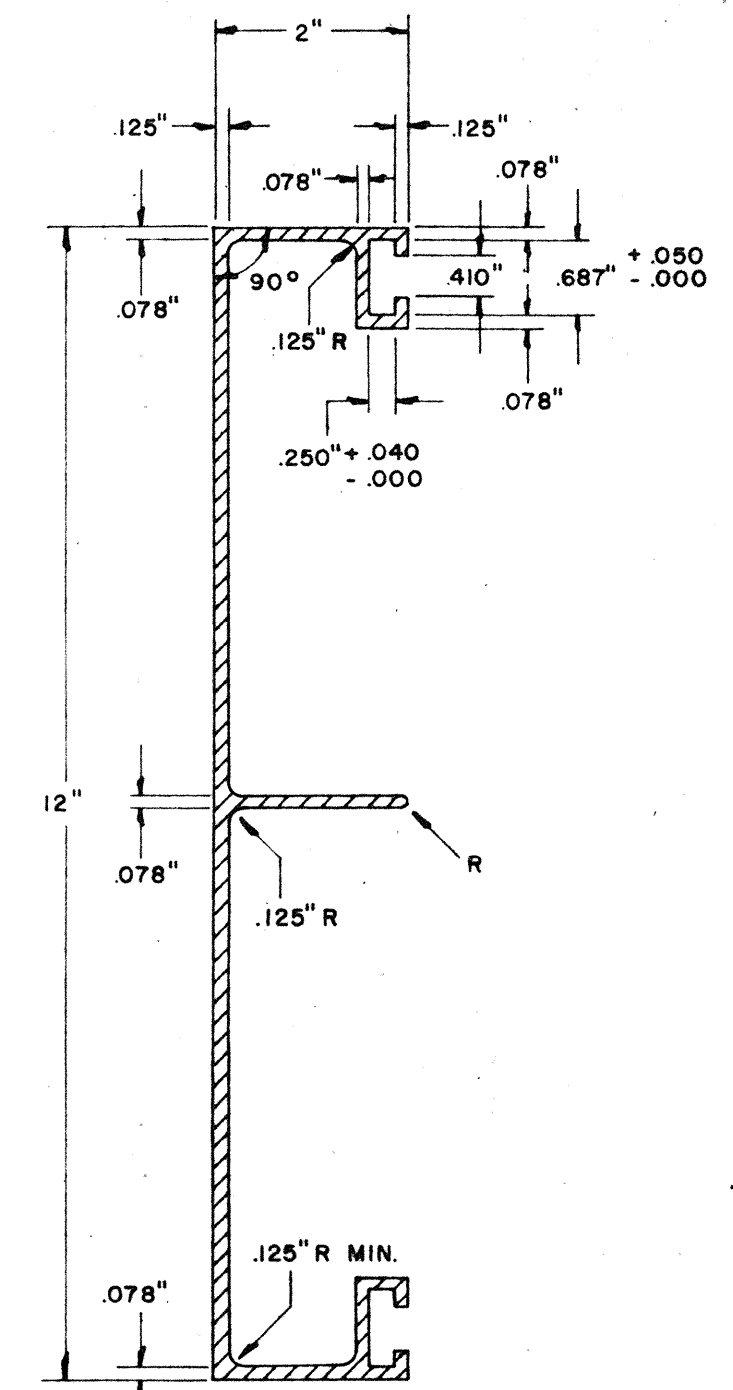
SHEET No. 1 OF 2 SHEETS

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

| STATE | PROJ. NO.    | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|-------|--------------|-------------|-----------|--------------|
| HAW.  | B-3267-01-63 | 1963        | 13        | 13           |



### SOLID EXTRUDED SIGN PANEL DETAILS



### POST CLIP DETAIL

ALLOY 356 - T6

### POST CLIP BOLT ASSEMBLY

3/8"-16 x 1 3/4" LONG SQ. HD. BOLT - ALLOY 2024 - T4  
3/8"-16 LOCK NUT - ALLOY 2017 - T4  
25/32" ID x 3/4" OD x .09" WASHER - ALLOY ALCLAD 2024 - T4

### PANEL BOLT ASSEMBLY

3/8"-16 x 3/4" LONG HEX. HD. BOLT - ALLOY 2024 - T4  
3/8"-16 HEX. NUT - ALLOY 6061 - T6  
FLAT WASHER - ALLOY ALCLAD 2024 - T4

NOTE:  
Extruded Aluminum Panels shall be used for Destination and Expressway signs.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DETAILS OF  
SOLID ALUMINUM  
EXTRUDED SIGN PANEL  
AND  
ACCESSORY DETAILS**

SCALE:

SHEET NO. 2 OF 2 SHEETS