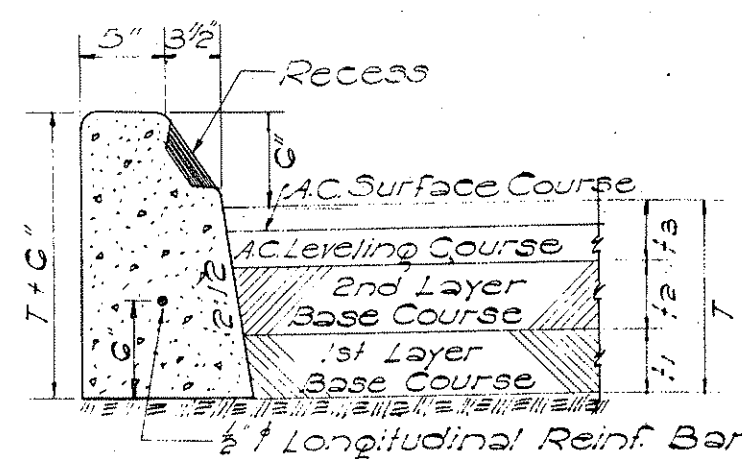


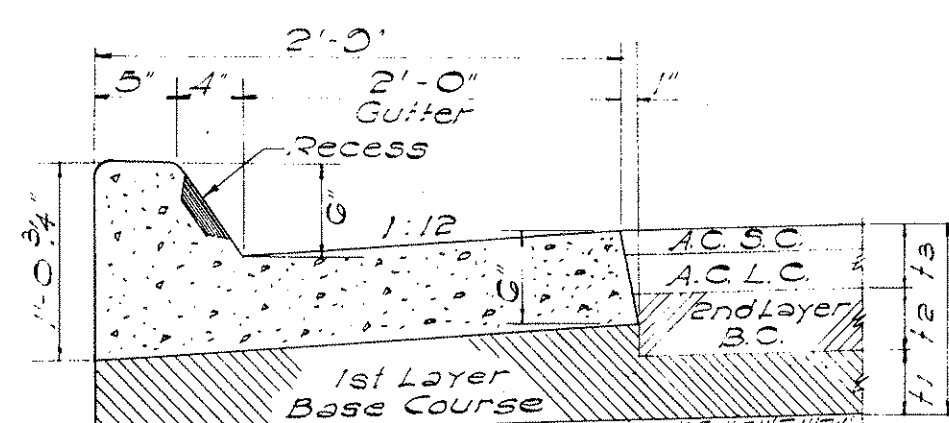
2/17/59
9/22/61

PROJ. NO. STATE DIST. NO. YEAR FISCAL YEAR SHEET NO. TOTAL SHEETS
HAWAII HAW. 80 65 339 1966 6 12

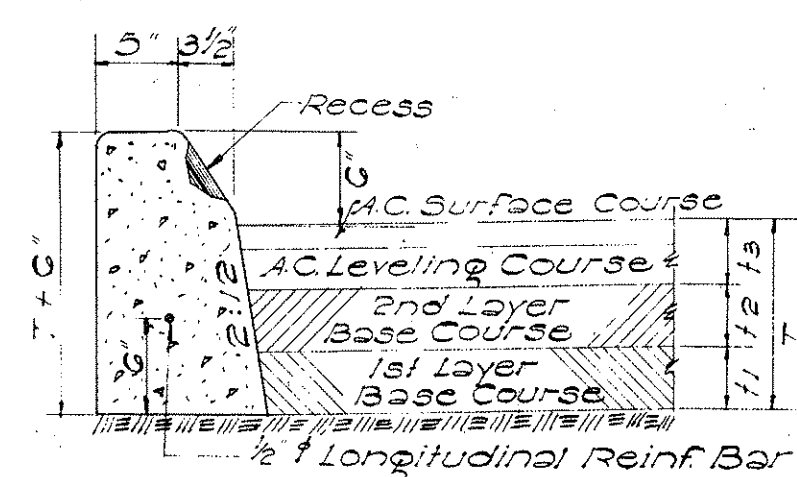
AUG. 1957



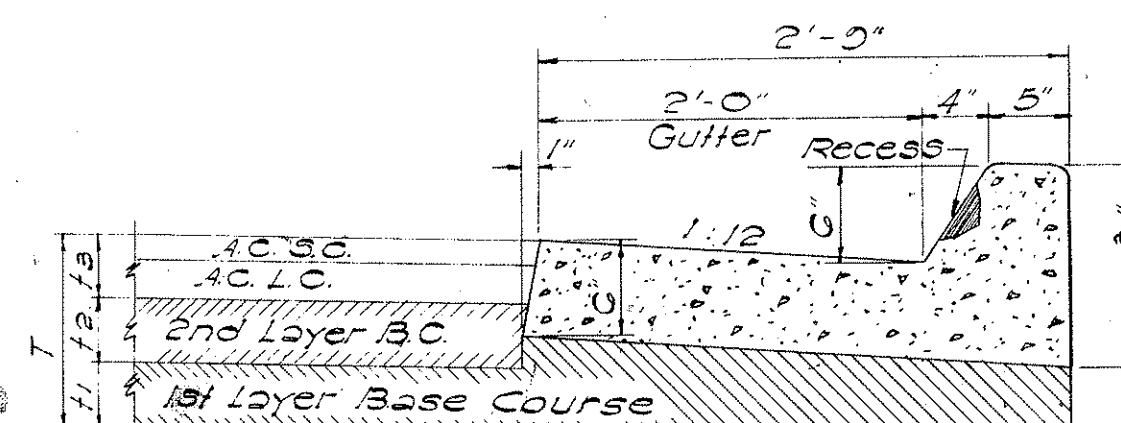
TYPE "A" & "B" CURB
SCALE: 1" = 1'-0"



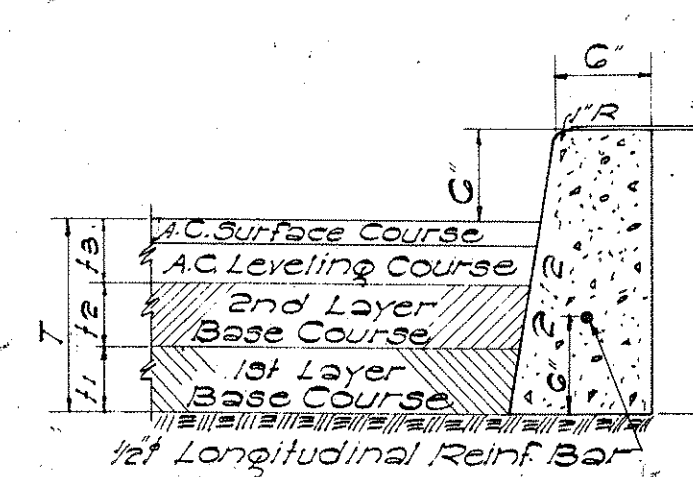
TYPE "AG" & "BG" CURB & GUTTER
SCALE: 1" = 1'-0"



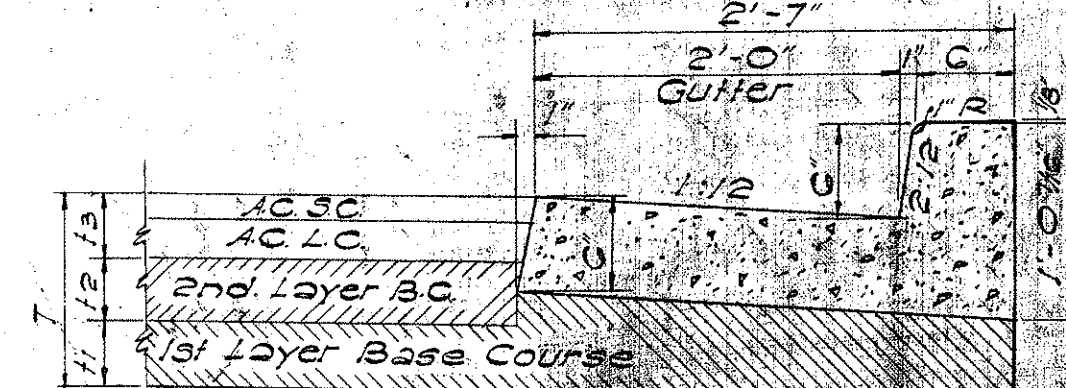
TYPE "C" CURB
SCALE: 1" = 1'-0"



TYPE "CG" CURB & GUTTER
SCALE: 1" = 1'-0"

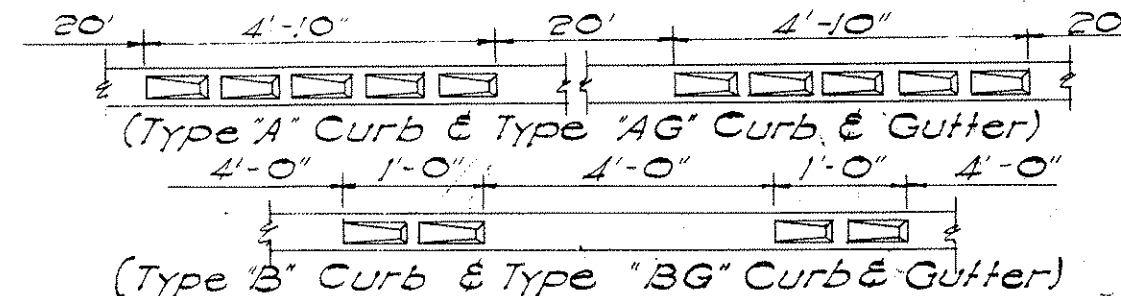


TYPE "D" CURB
SCALE: 1" = 1'-0"

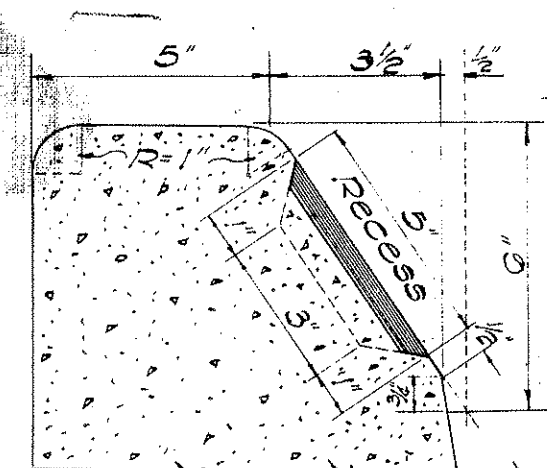


TYPE "DG" CURB & GUTTER
SCALE: 1" = 1'-0"

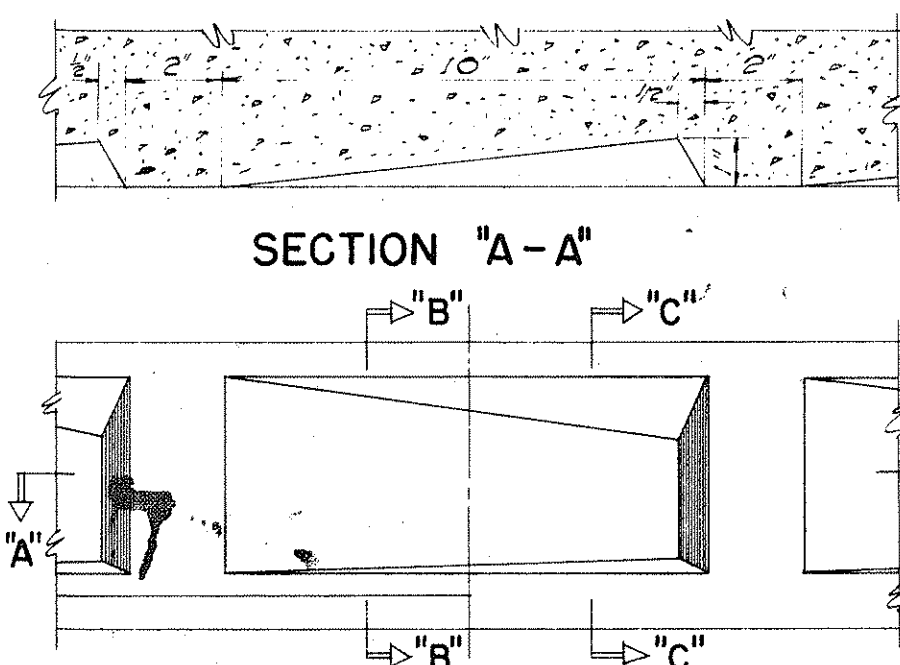
General Note Covering All Types of Curbs:
Occasionally, curb rests on first layer of base course. See typical sections.



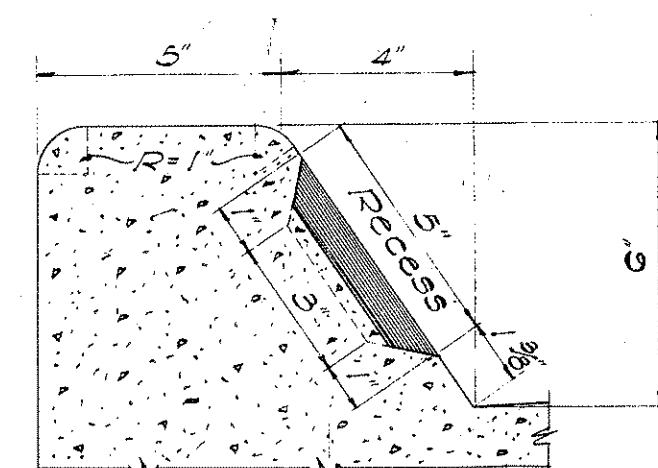
TYPE AND SPACING OF RECESSES



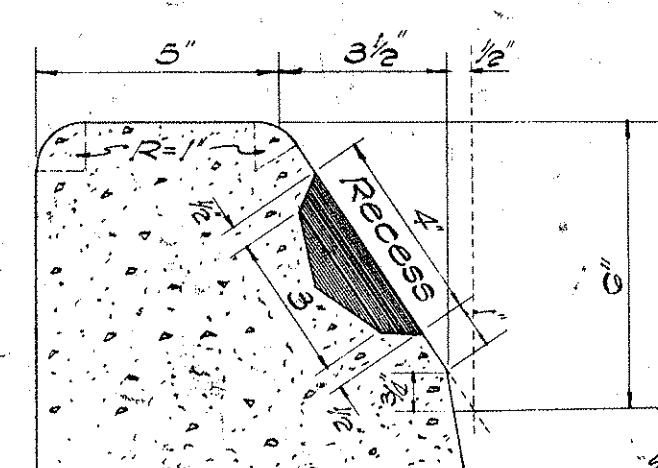
SECTION "B-B"
TYPE "A" & "B" CURB



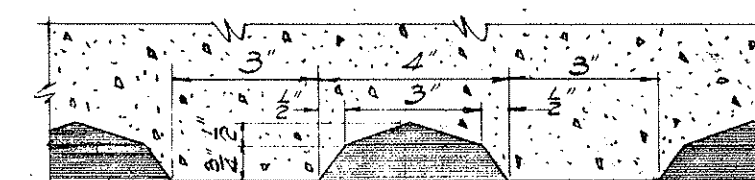
ELEVATION
SCALE: 3" = 1'-0"



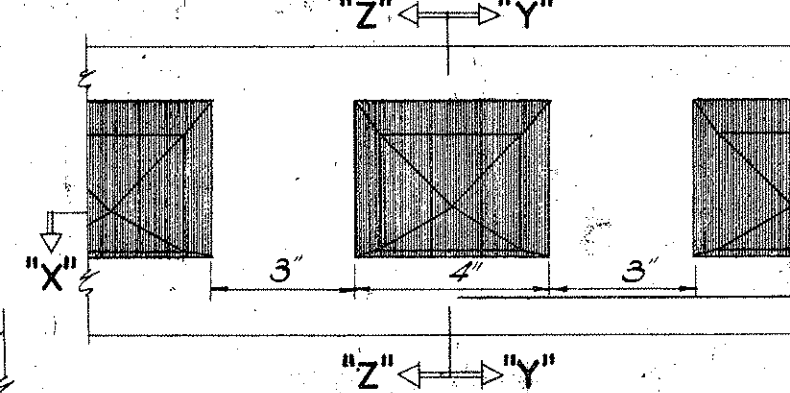
SECTION "C-C"
TYPE "AG" & "BG" CURB



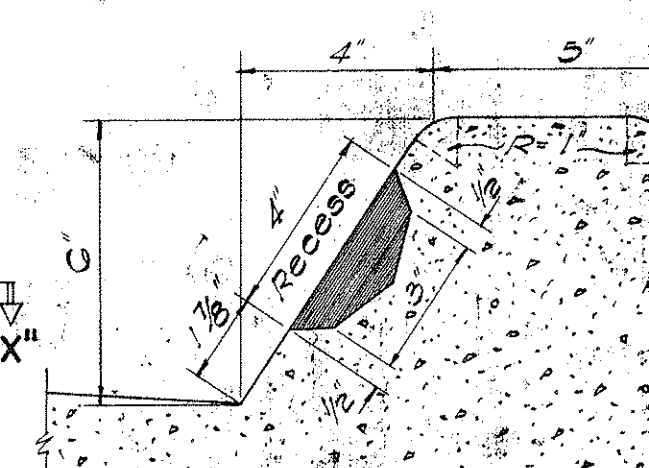
SECTION "Y-Y"
TYPE "C" CURB



SECTION "X-X"

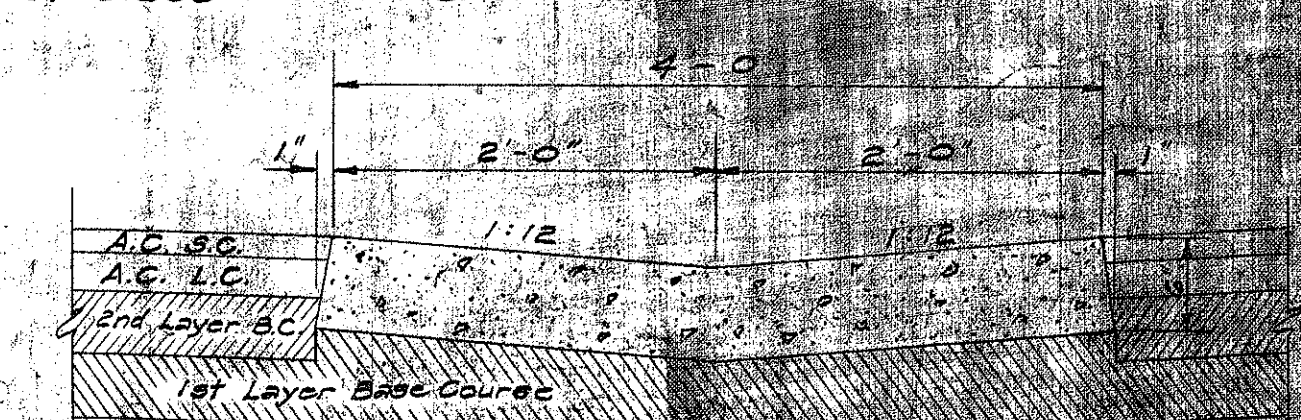


ELEVATION
SCALE: 3" = 1'-0"



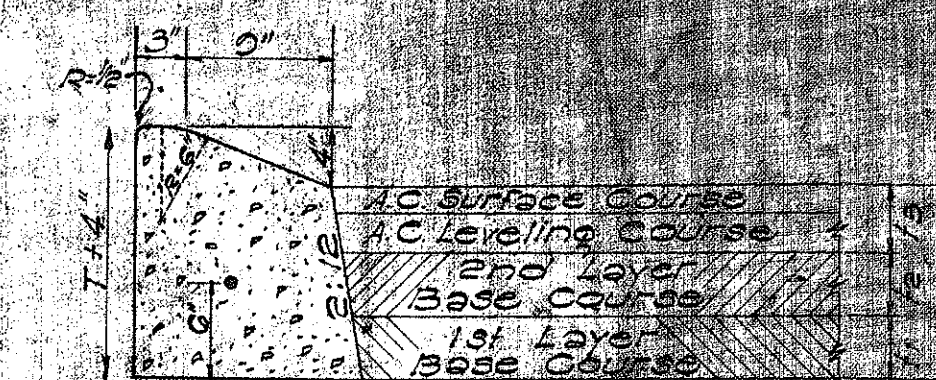
SECTION "Z-Z"
TYPE "CG" CURB

- NOTES:
- Types "AG", "BG", "CG", "DG" and "EG" Concrete Curbs and Gutters are to be poured monolithically.
 - Types "A", "B" and "C" Curbs and Types "AG", "BG" and "CG" Curbs and Gutters occur at Median Strips and Traffic Islands.
 - Shaded area in Curbs are to be painted with an approved white lacquer (One Coat).
 - All Concrete Curbs and Gutters shown herein are to be of Class "A-1" Conc. and Cast in Place.

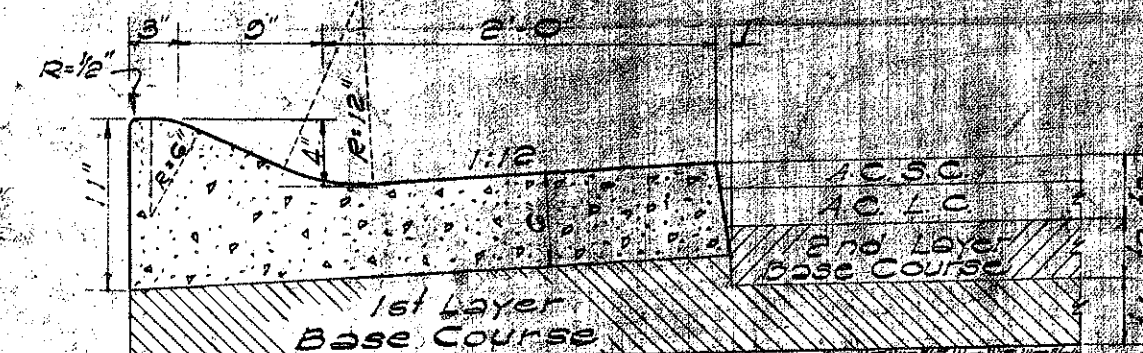


TYPE "G" GUTTER
SCALE: 1" = 1'-0"

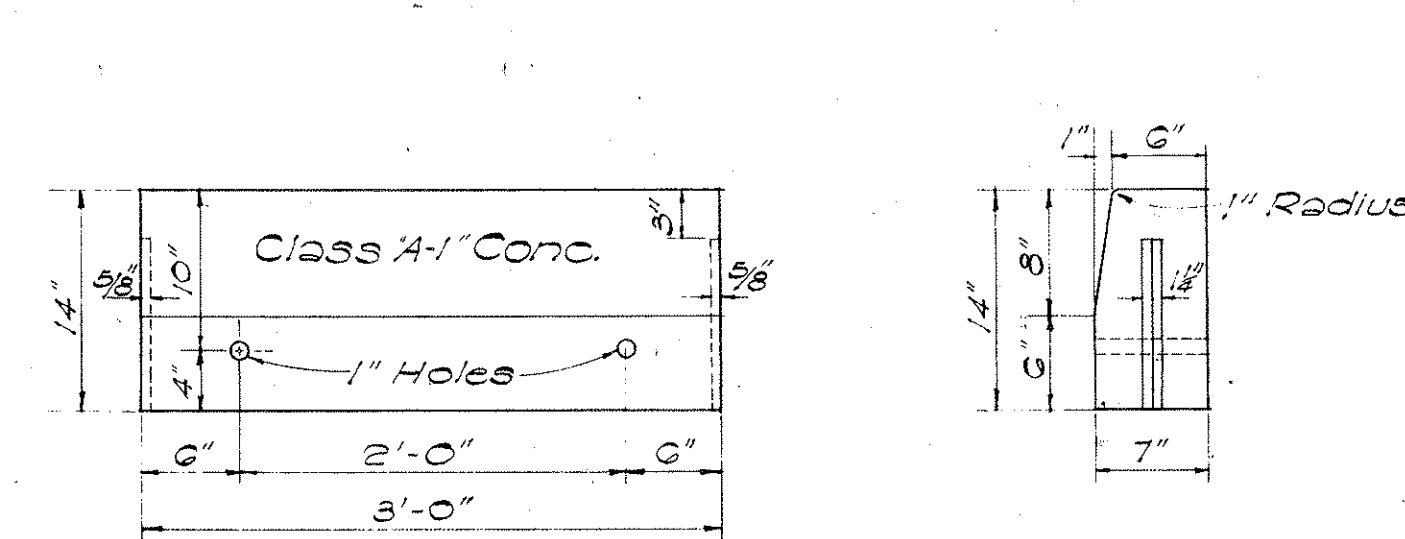
DETAILS OF CAST-IN-PLACE CONC. CURBS AND GUTTERS



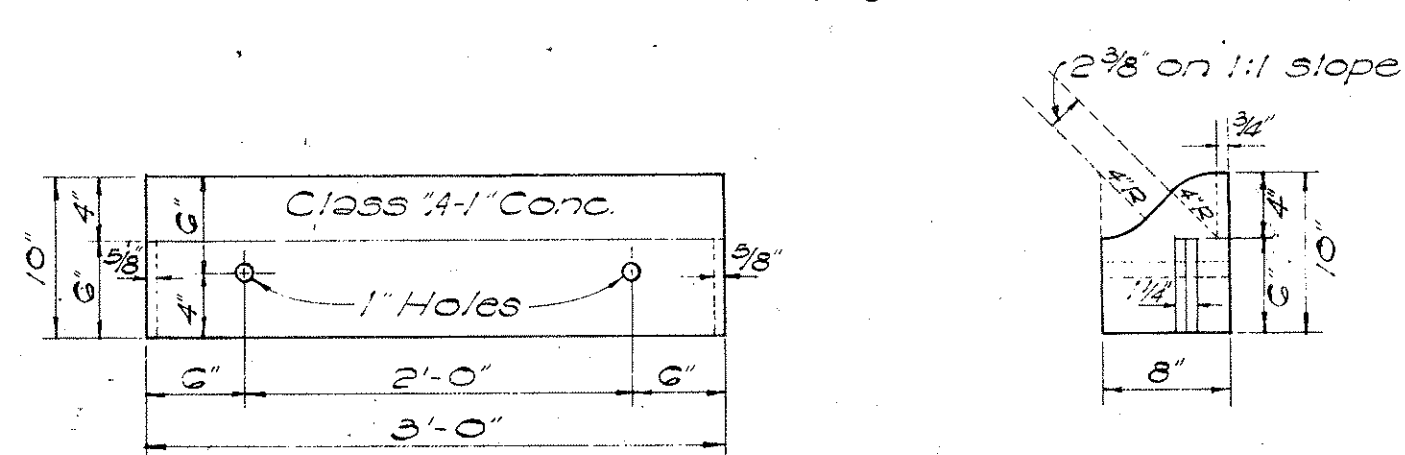
TYPE "E" CAST-IN-PLACE
CONCRETE CURB
SCALE: 1" = 1'-0"



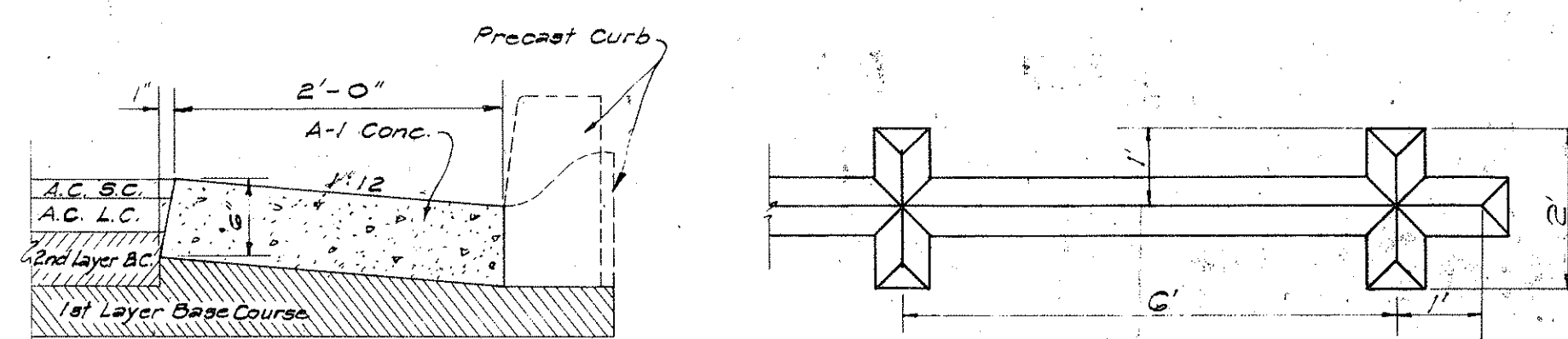
TYPE "EG" CAST-IN-PLACE
CONC. CURB & GUTTER
SCALE: 1" = 1'-0"



FRONT ELEV. END ELEV.
PRECAST CONC. CURB
SCALE: 1" = 1'-0"

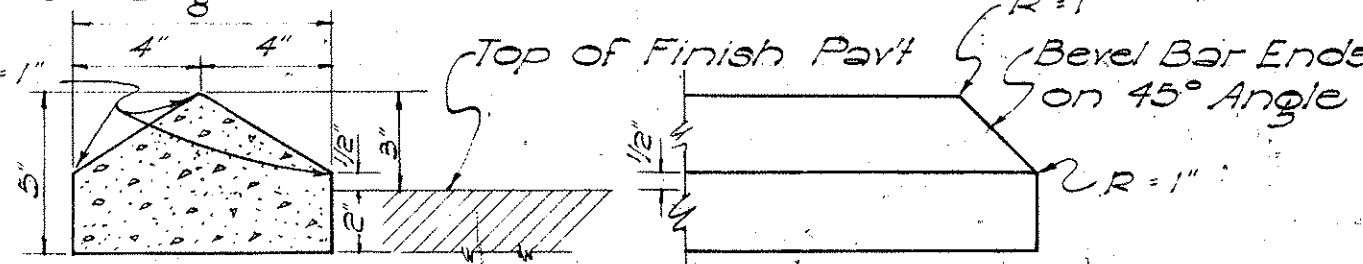


FRONT ELEV. END ELEV.
PRECAST CONC. ROLL CURB
SCALE: 1" = 1'-0"

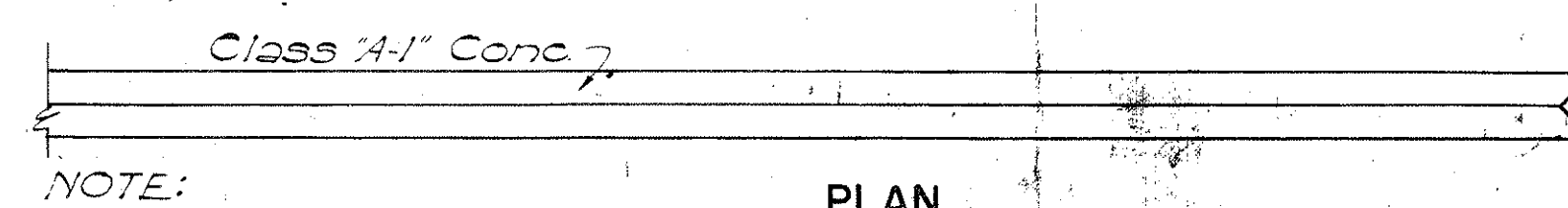


TYPE "F" GUTTER
FOR PRECAST CURB

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

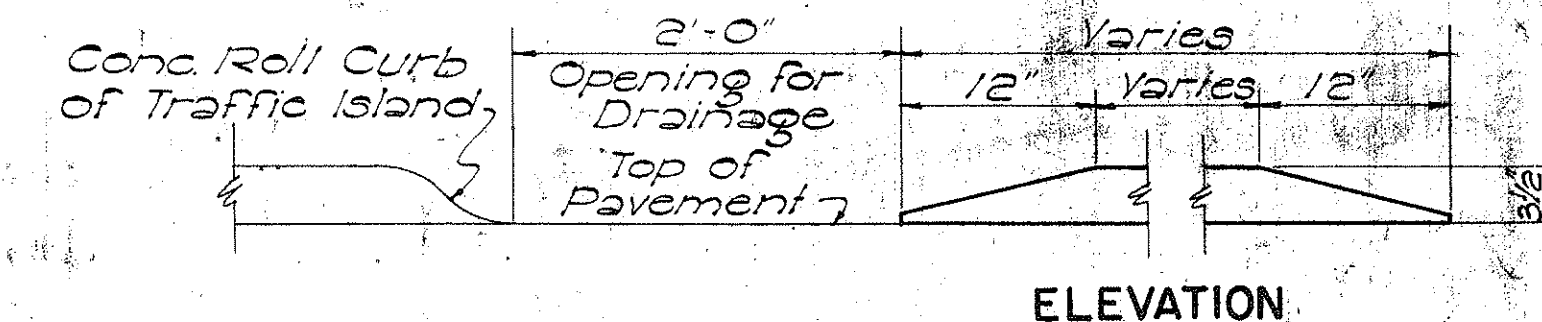


SECTION ELEVATION
RAISED TRAFFIC BARS
SCALE: 2" = 1'-0"

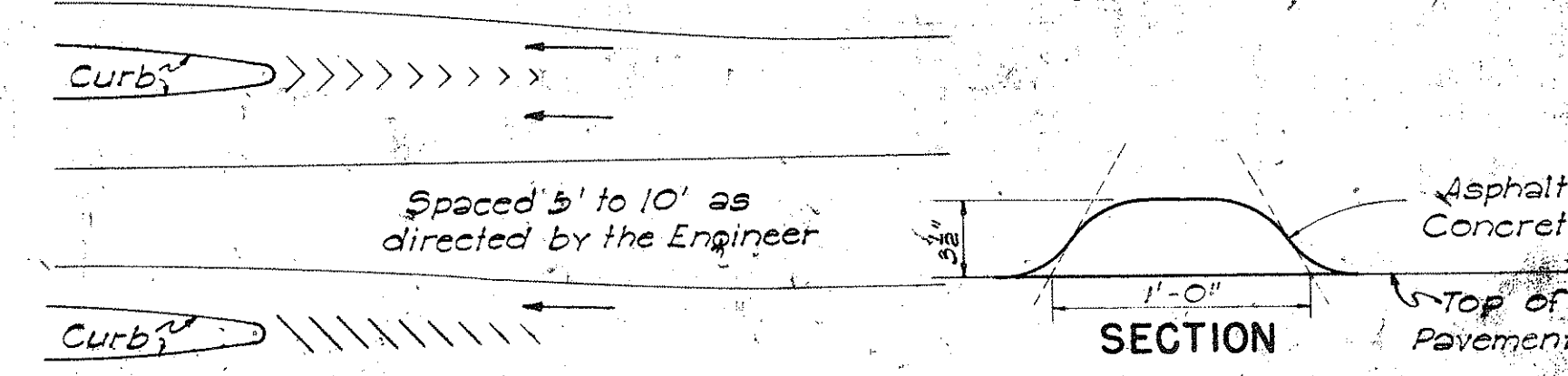


NOTE:
Section and Elevation for Jiggle Bars are same as the Traffic Bars.

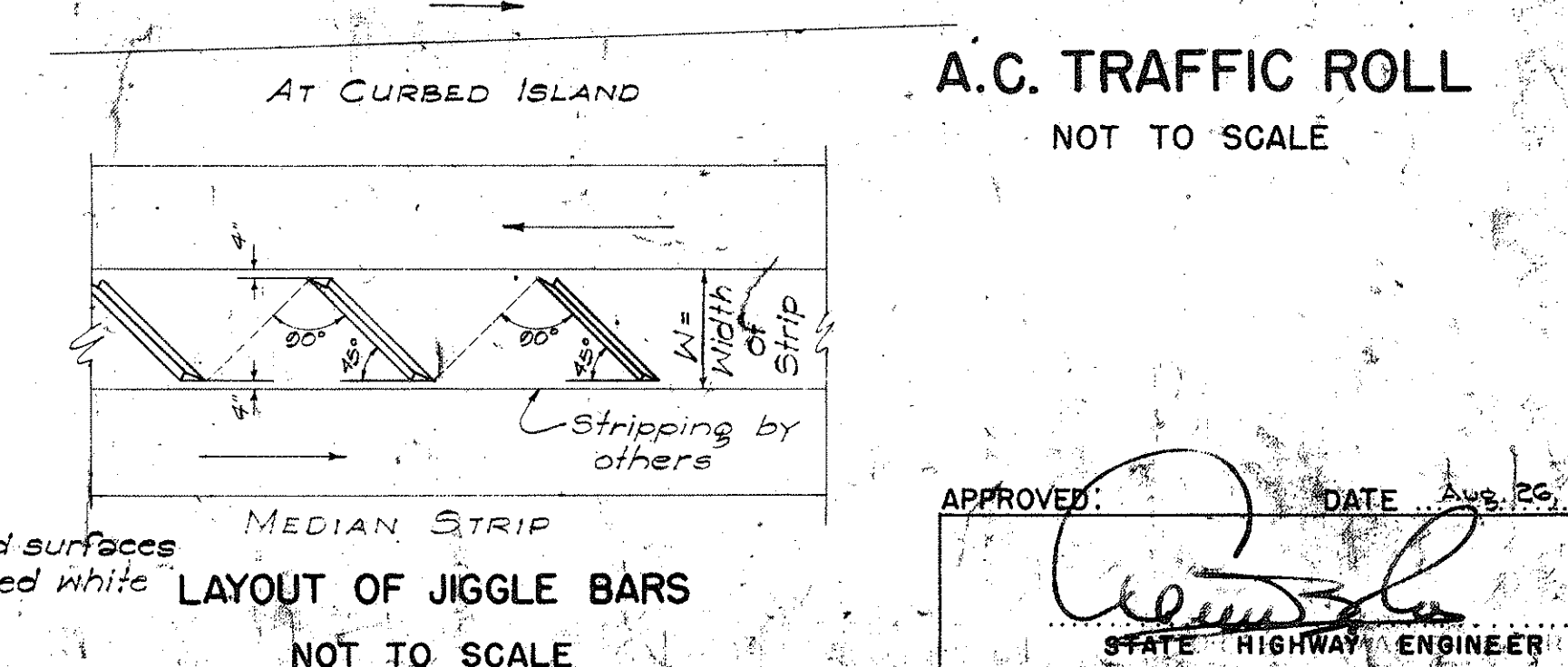
RAISED JIGGLE BARS
SCALE: 1/2" = 1'-0"



ELEVATION



SECTION
A.C. TRAFFIC ROLL
NOT TO SCALE



NOTE:
Paint all exposed surfaces of bars with beaded white traffic lacquer.

LAYOUT OF JIGGLE BARS
NOT TO SCALE

APPROVED: DATE: AUG. 25, 1959
STATE HIGHWAY ENGINEER

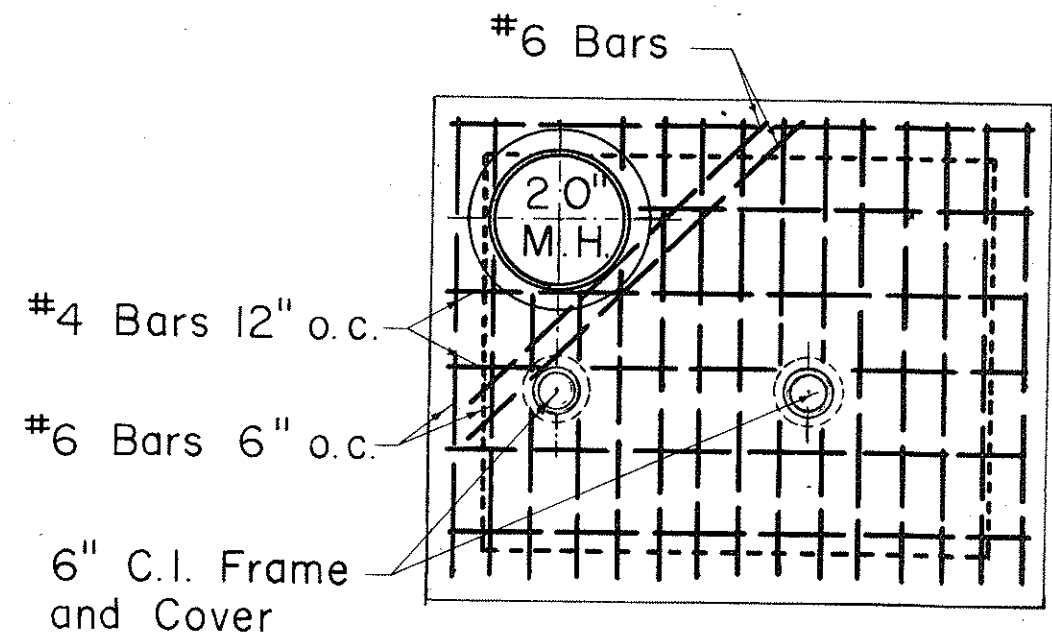
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
CONCRETE CURBS,
CONCRETE CURBS & GUTTERS
SCALES AS NOTED

SHEET NO. 1 OF 6 SHEETS

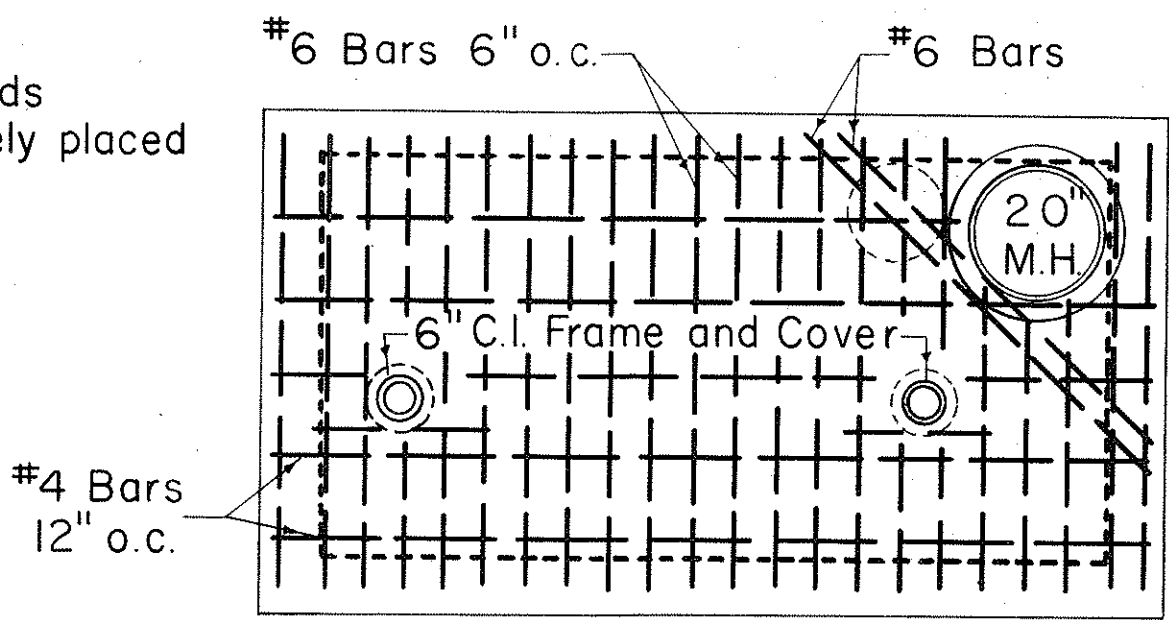
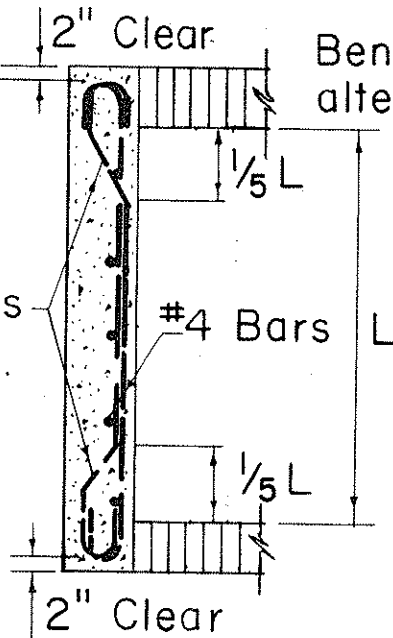
"E" and "EG" Curbs have been revised 7-26-57
"G" and "F" Gutters have been added 9-22-61

SURVEY PLOTTED BY: DATE: _____
DESIGNED BY: _____
CHECKED BY: _____
NOTE BOOK: _____
QUANTITIES CHECKED BY: _____
QUANTITIES: _____

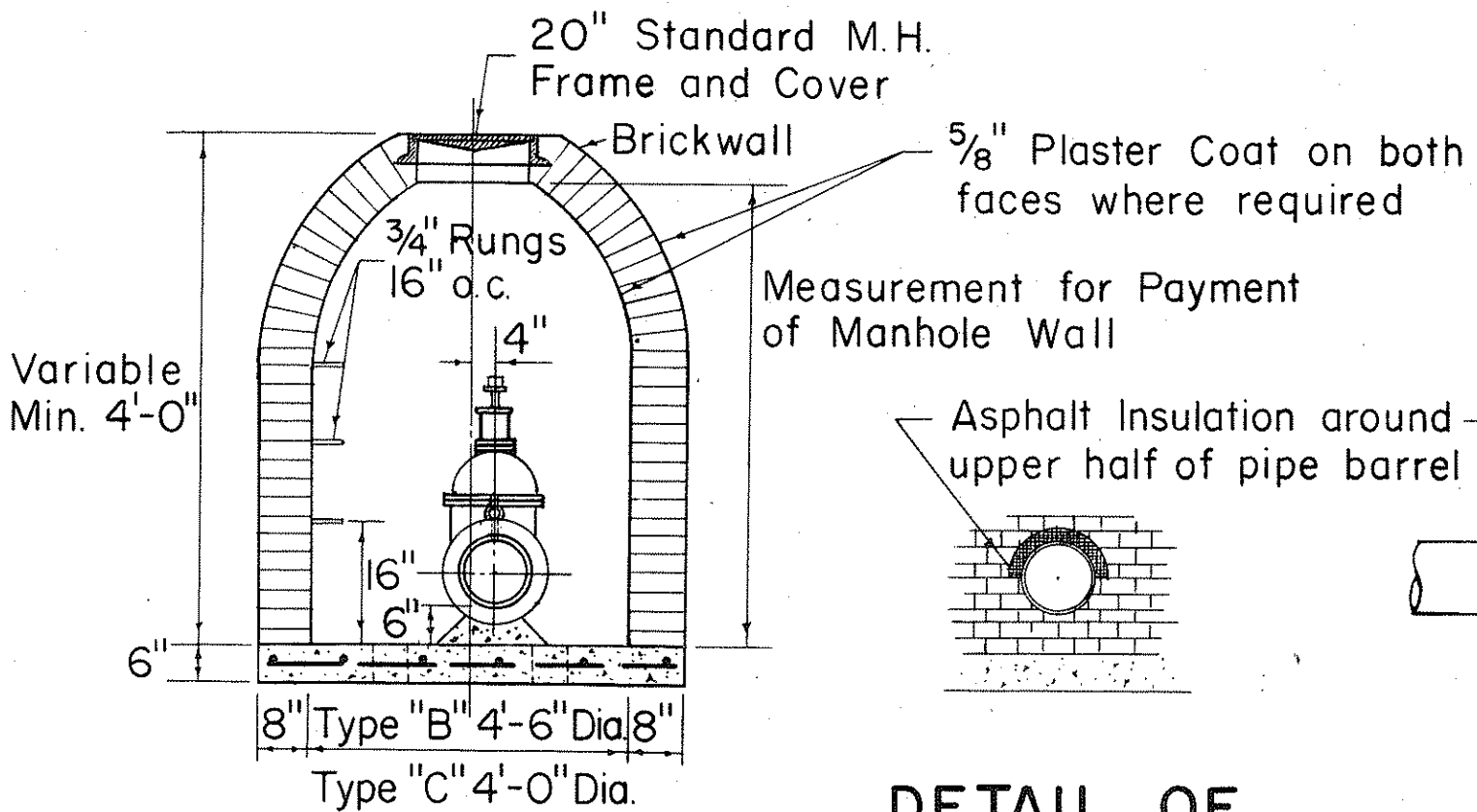
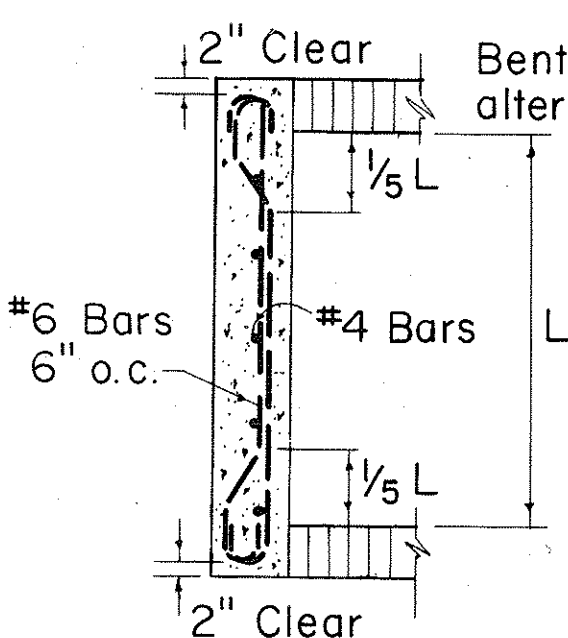
FED. AID DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	GD 65-339	1966	7	12



PLAN OF TOP SLAB

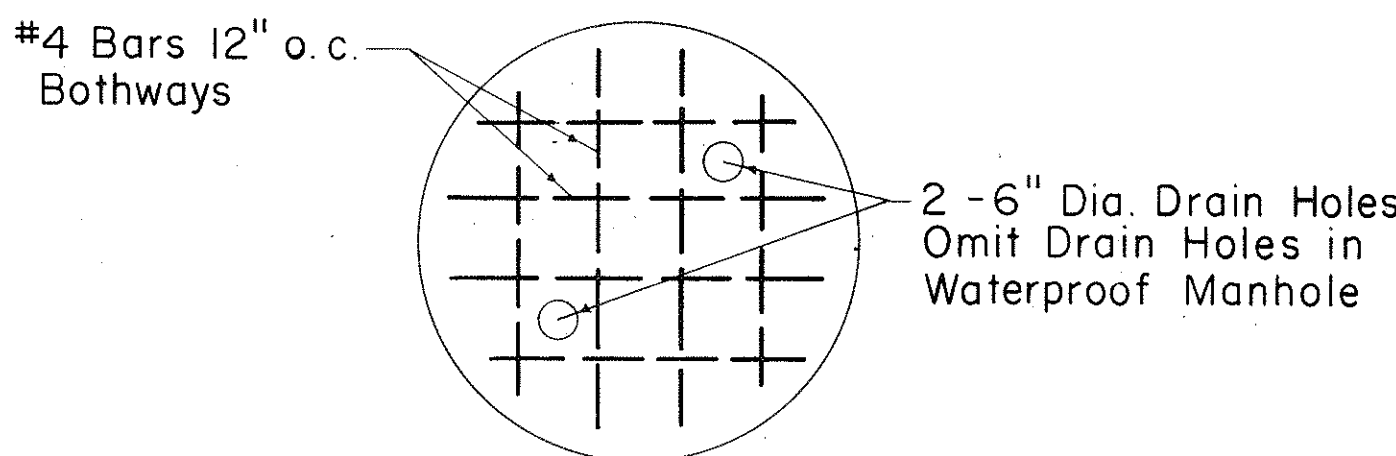
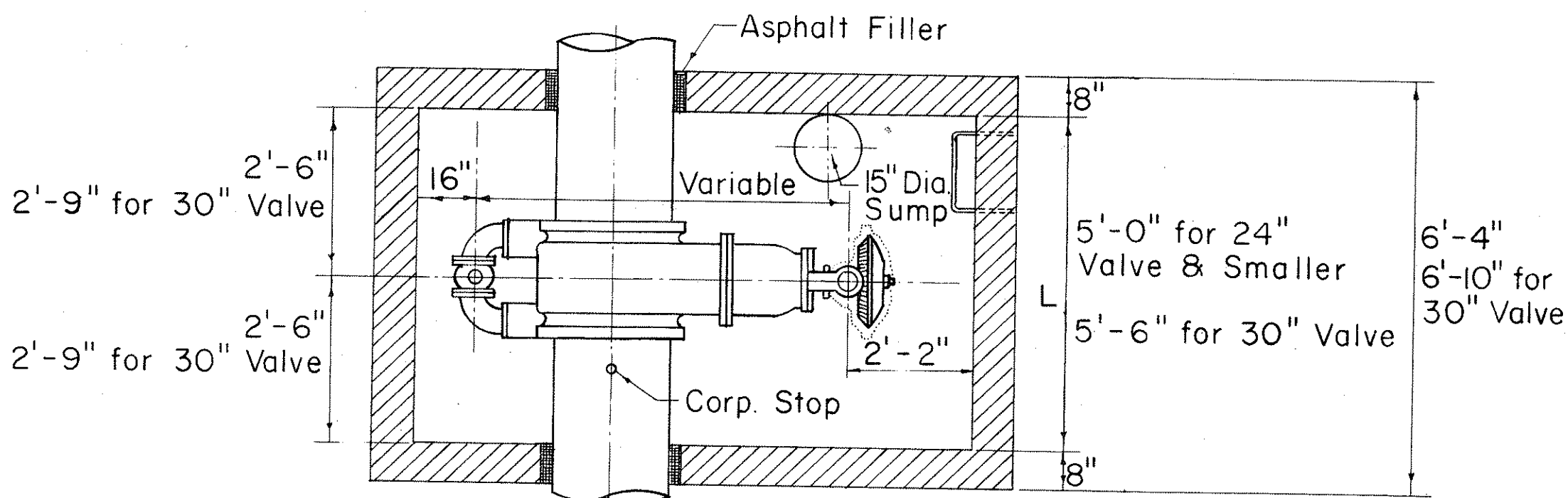
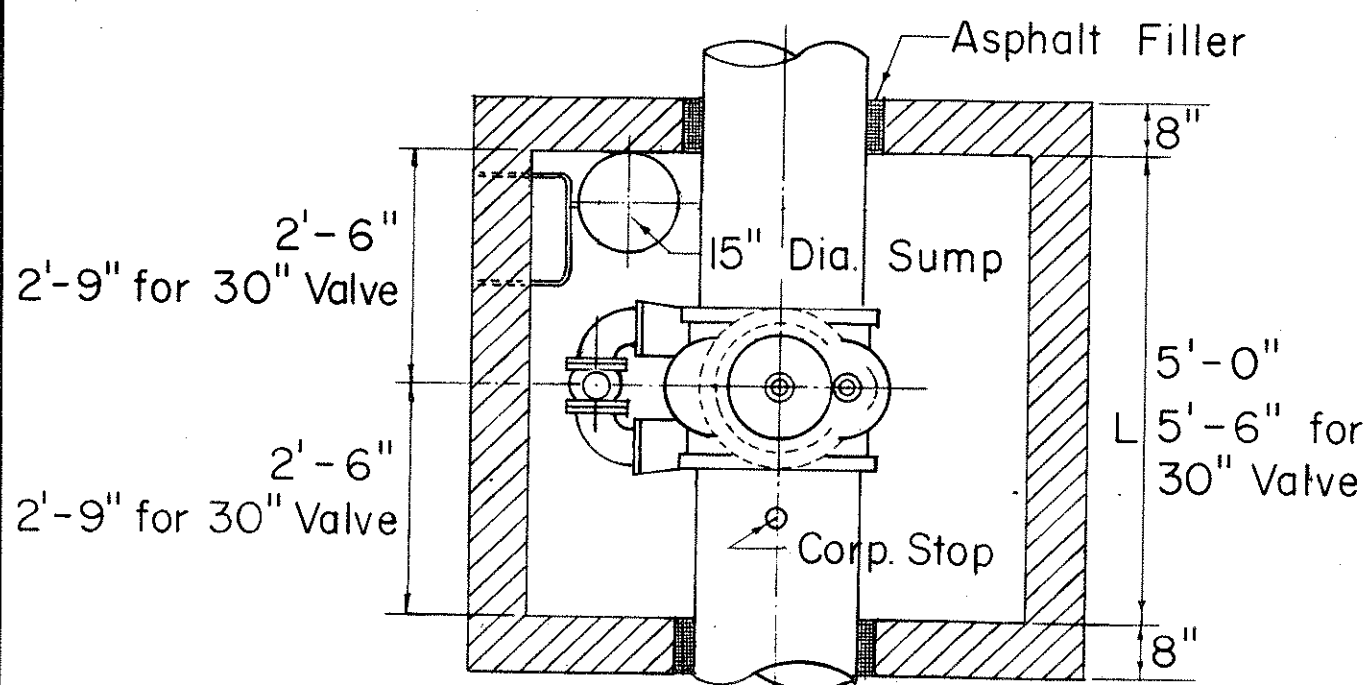


PLAN OF TOP SLAB

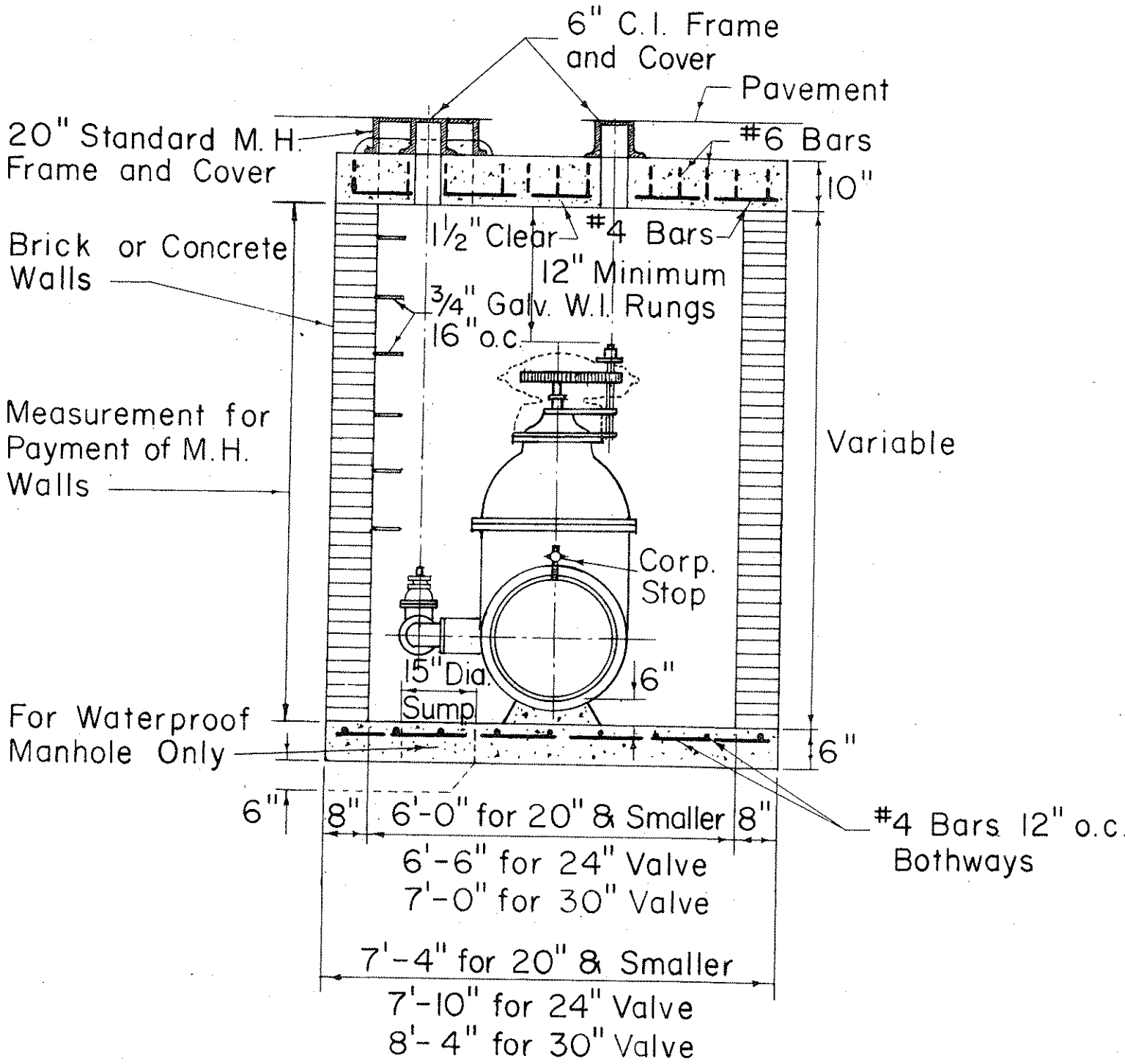


DETAIL OF ASPHALT FILLER

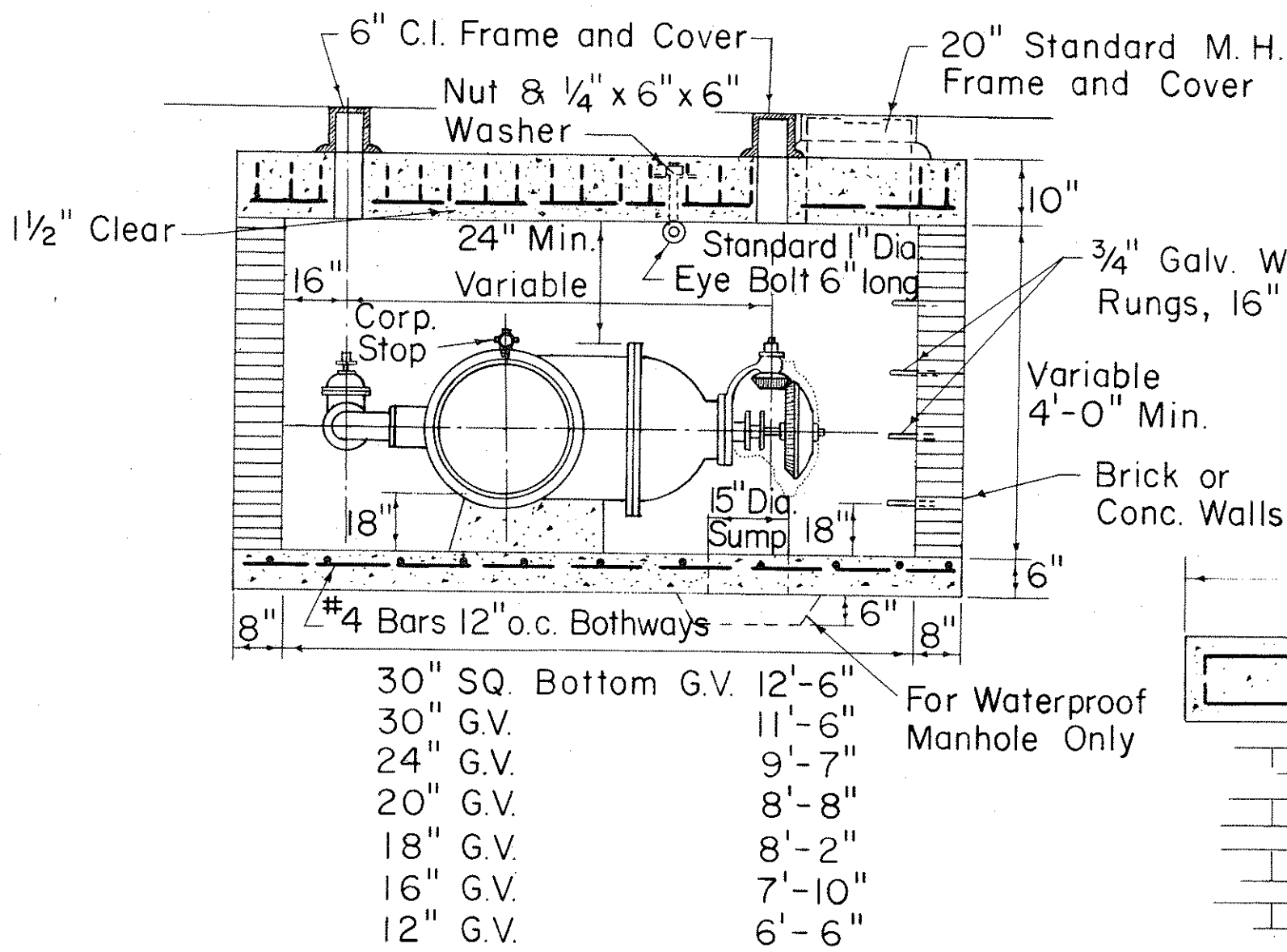
SECTION A-A



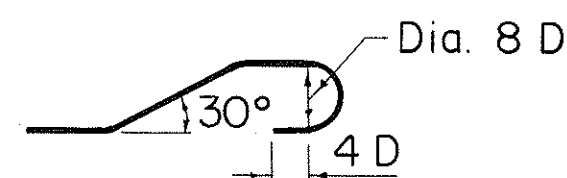
STEEL DETAIL IN BOTTOM SLAB



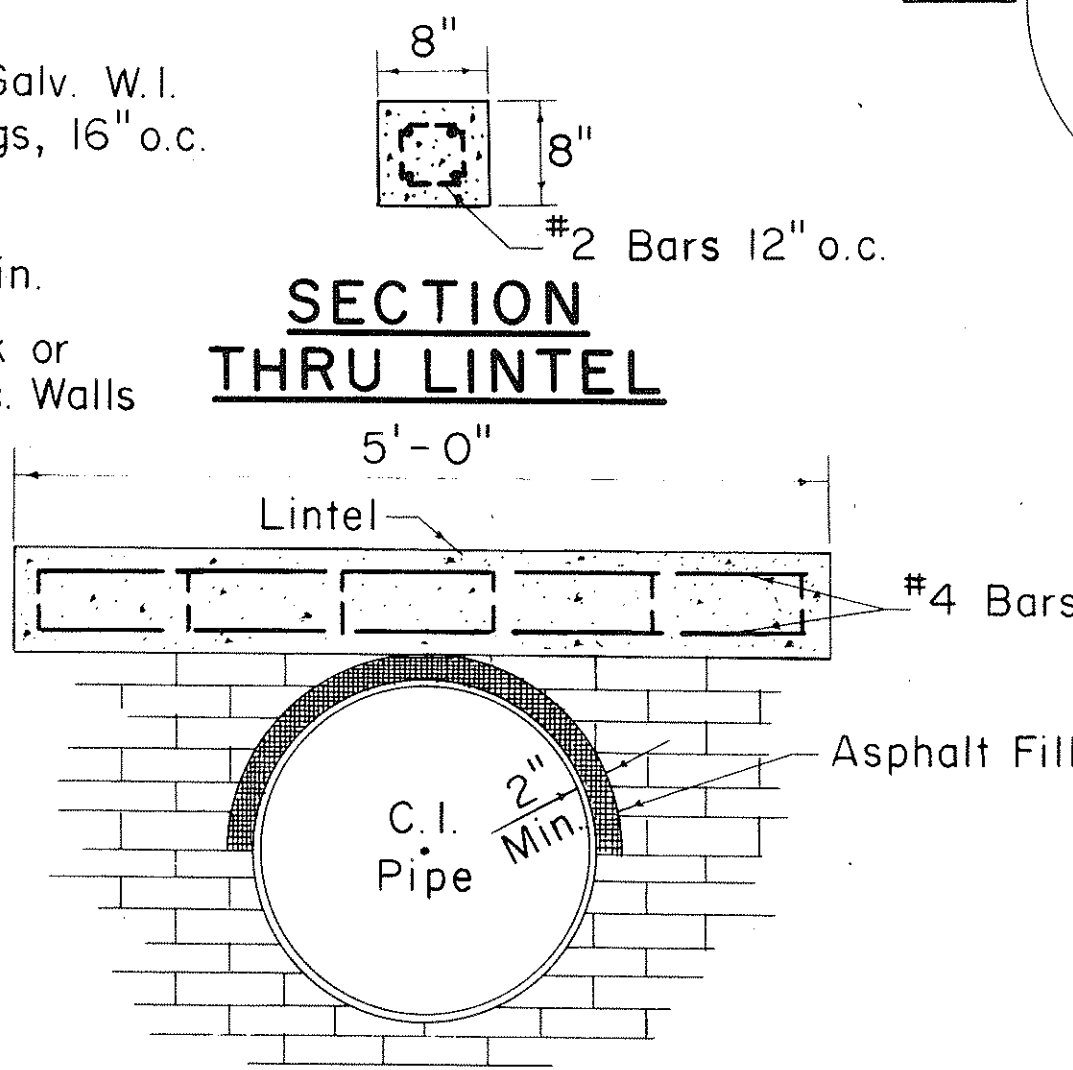
SECTION TYPE "A" MANHOLE FOR SPUR GEARED GATE VALVES



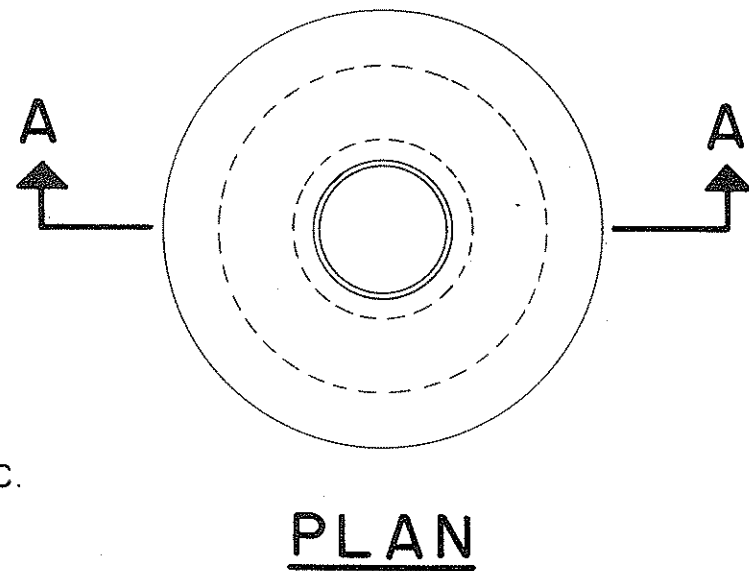
SECTION TYPE "A" MANHOLE FOR BEVEL GEARED GATE VALVES



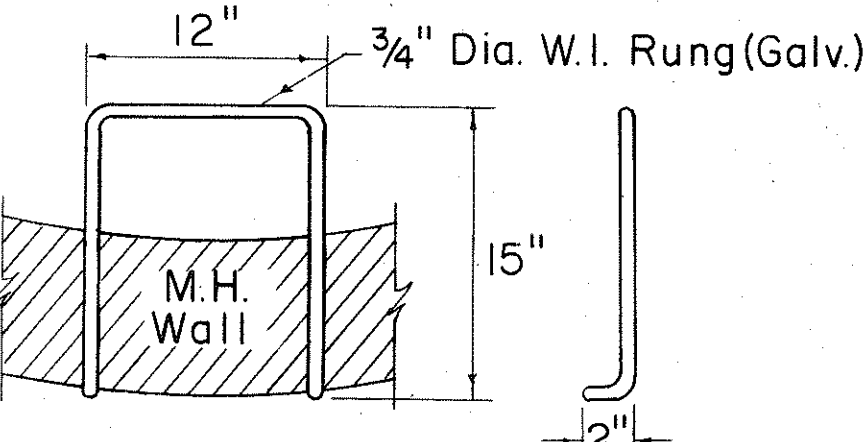
BAR BENDING DETAIL



DETAIL OF LINTEL AND ASPHALT FILLER



PLAN



DETAIL OF RUNG

TYPE "B" AND "C" MANHOLES
TYPE "B" 4'-6" DIA. (FOR 12" G.V.)
TYPE "C" 4'-0" DIA. (FOR 6" & 8" G.V.)

APPROVED:

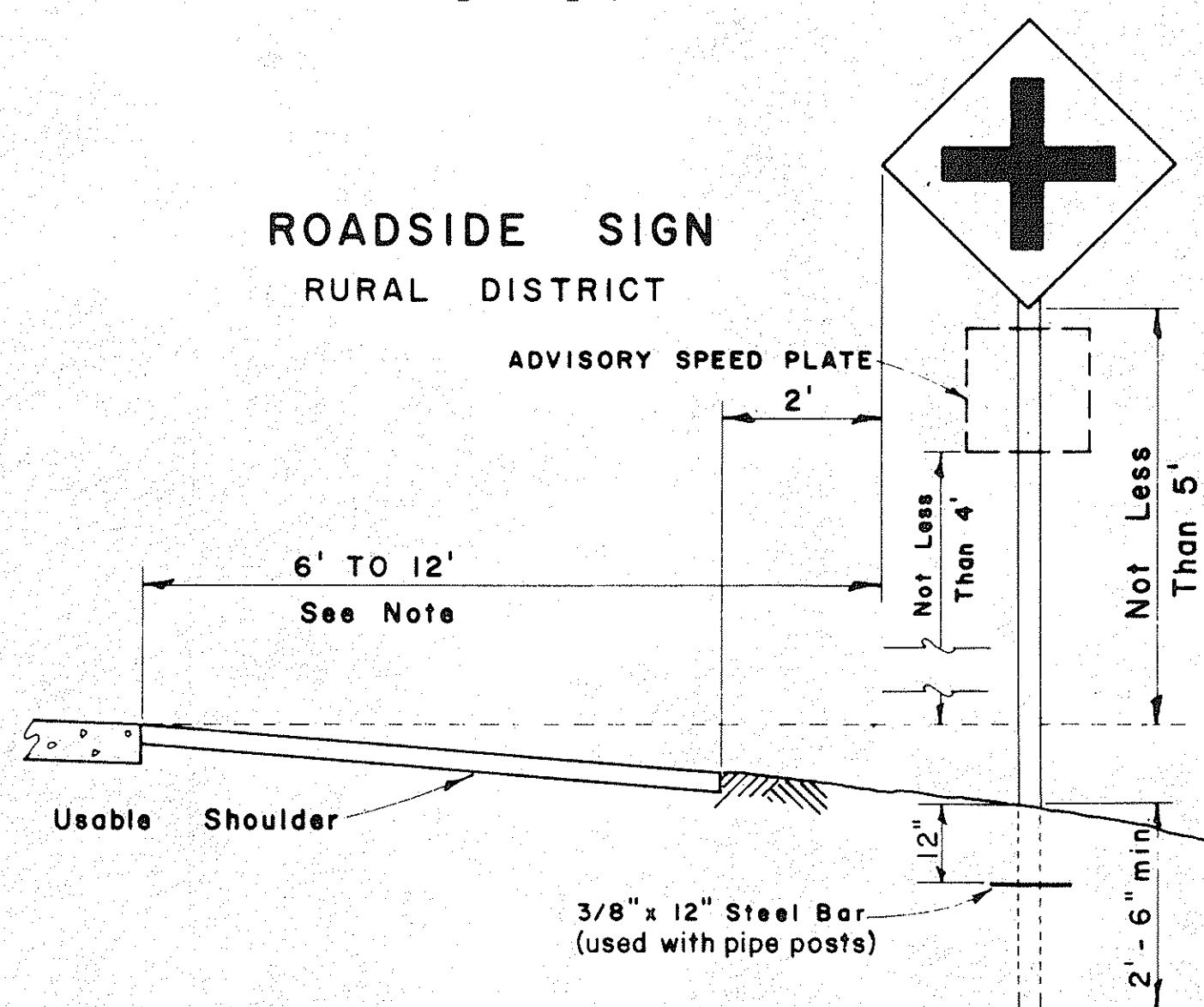
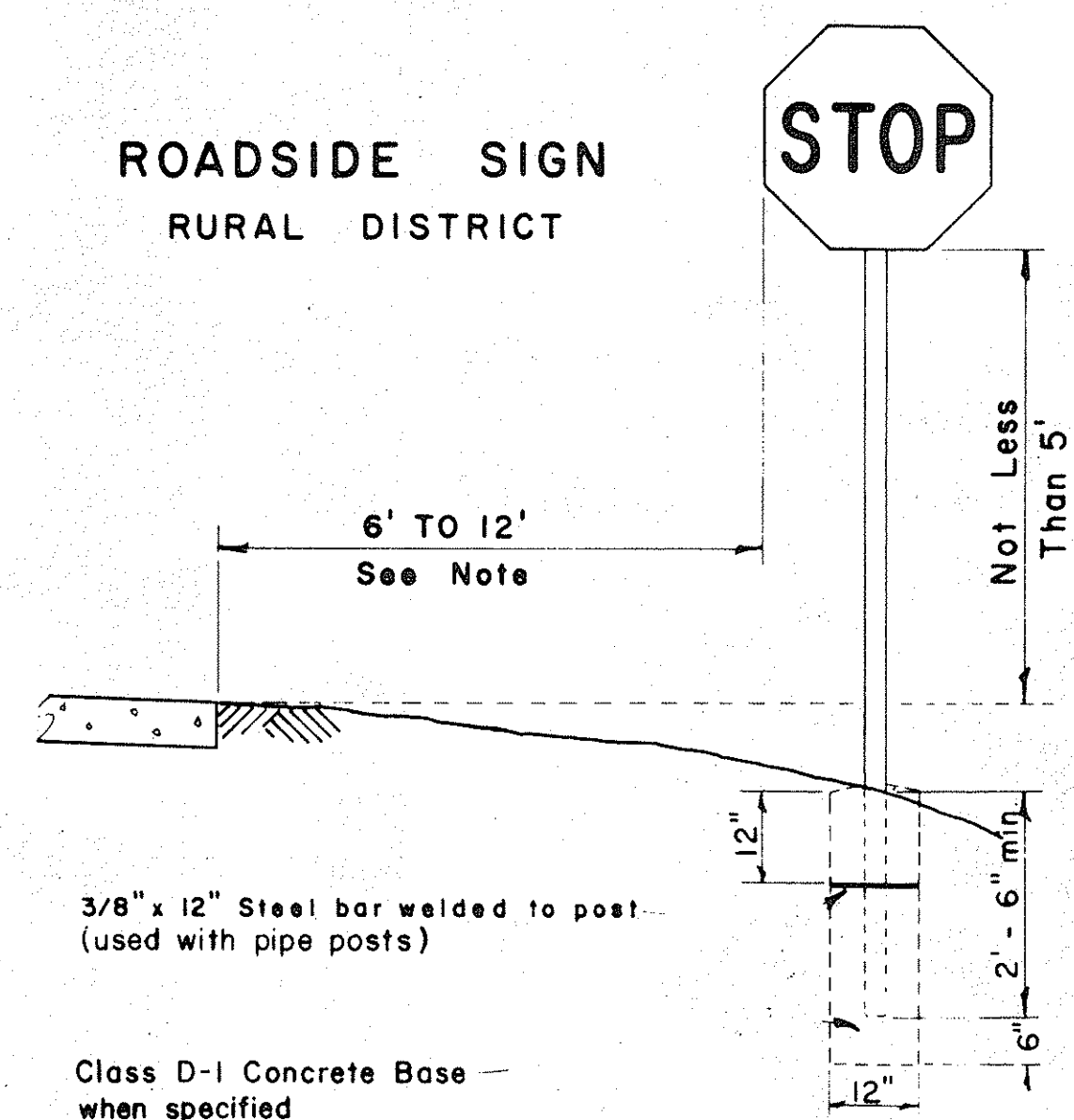
ASSISTANT CHIEF ENGINEER
BOARD OF WATER SUPPLY

DATE

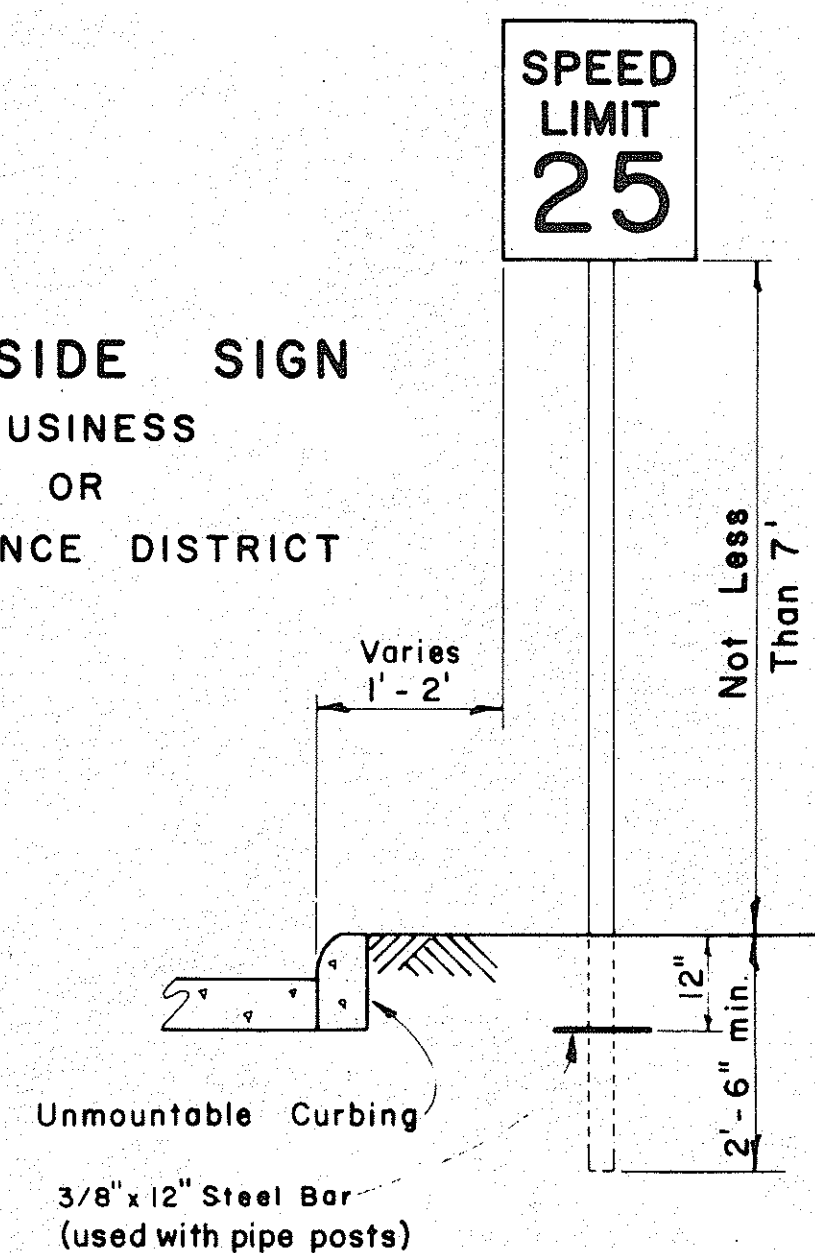
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
BOARD OF WATER SUPPLY
CITY & COUNTY OF HONOLULU

WIDENING OF WAIMANO HOME RD.
PROJ. No. GD 65-339
Not to Scale
Date: July 1966

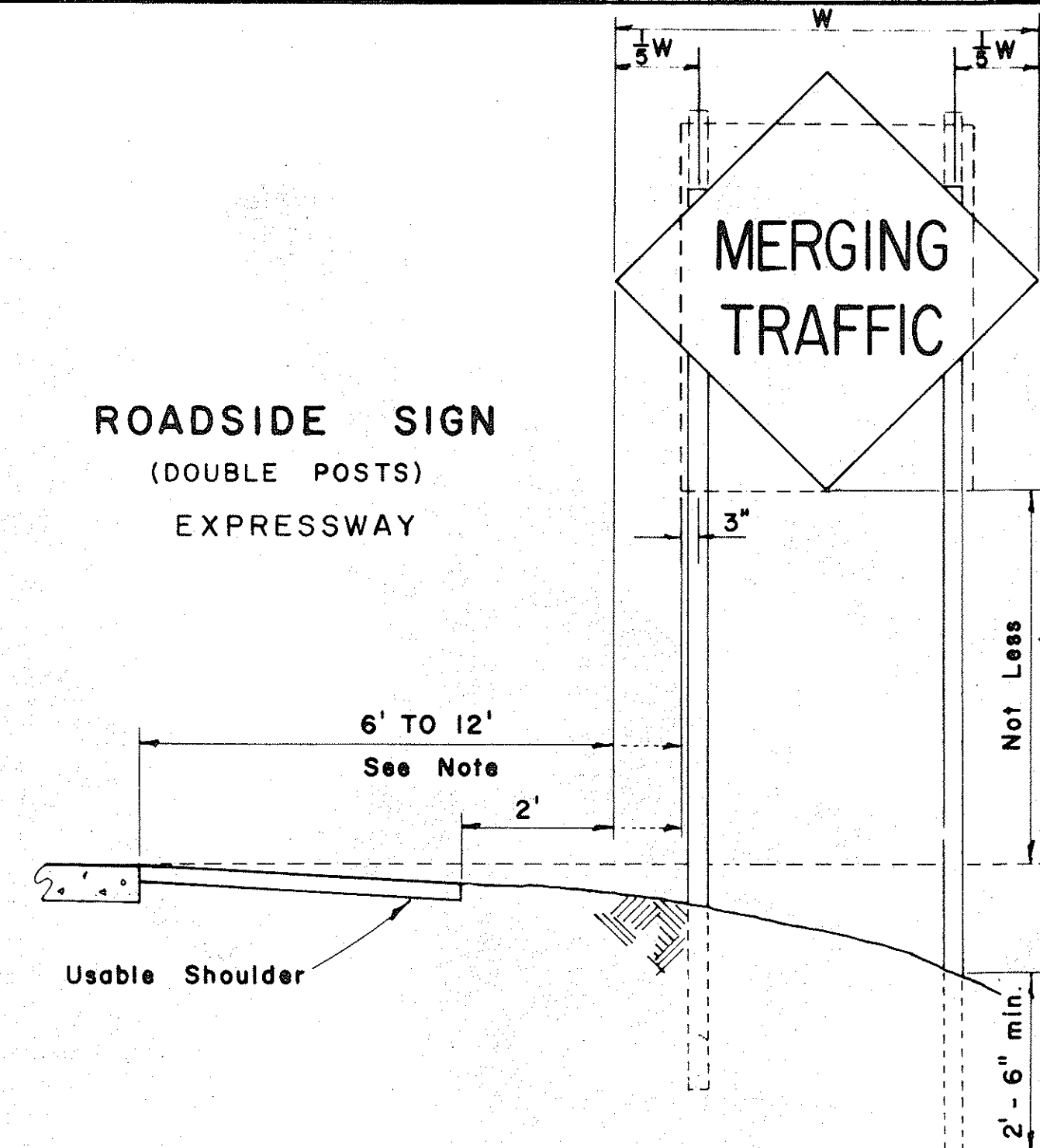
- NOTE:
- All signs and road delineators shall be placed 2' outside the usable roadway shoulder or 1' outside unmountable curbing present and within the limits shown below.
 - Except as noted below, sign posts shall be either 3" galv. std. pipe or 2 1/2" x 2 1/2" galv. square tube posts for signs larger 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.



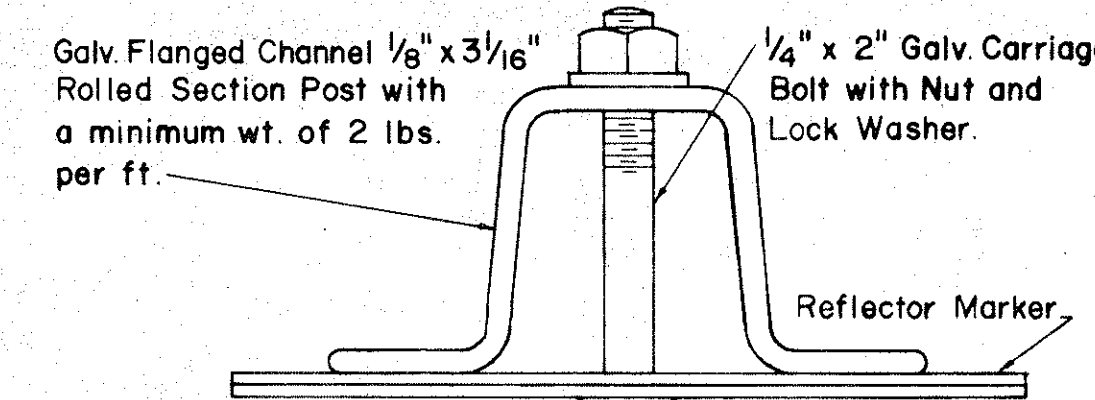
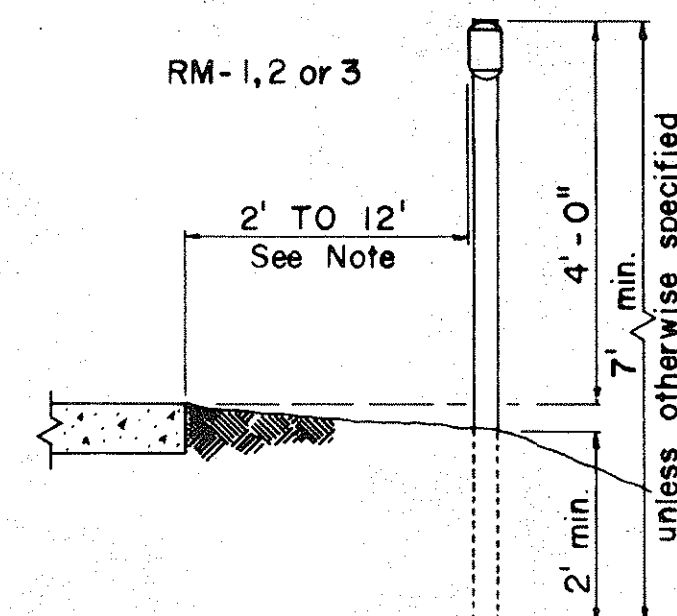
ROADSIDE SIGN
BUSINESS
OR
RESIDENCE DISTRICT



ROADSIDE SIGN
(DOUBLE POSTS)
EXPRESSWAY

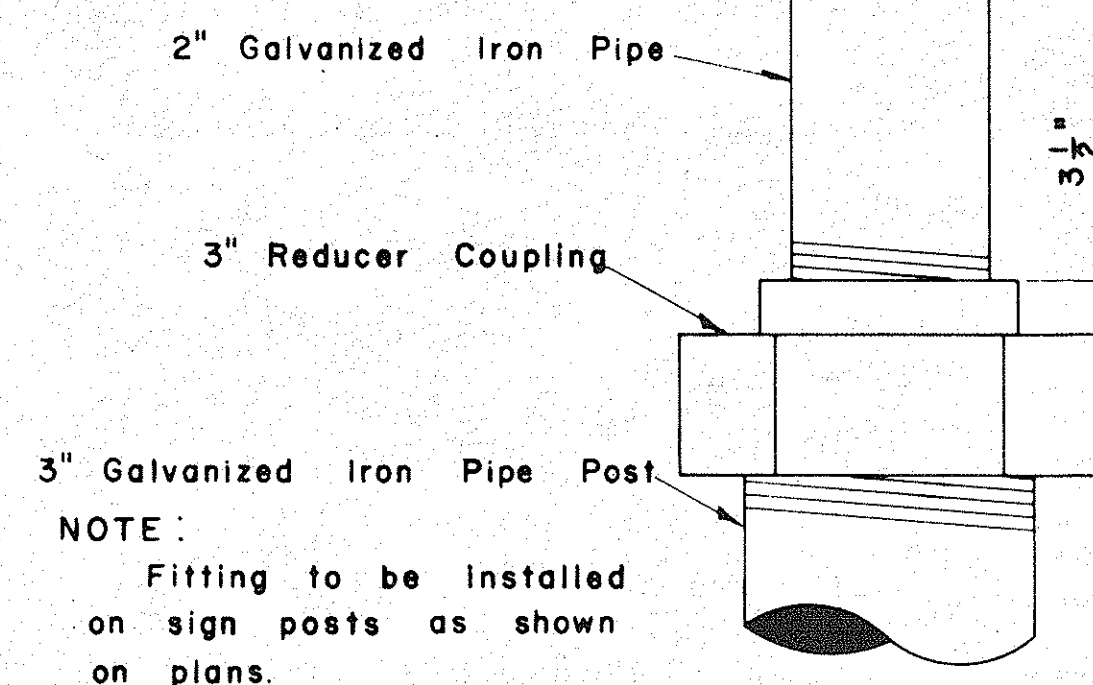
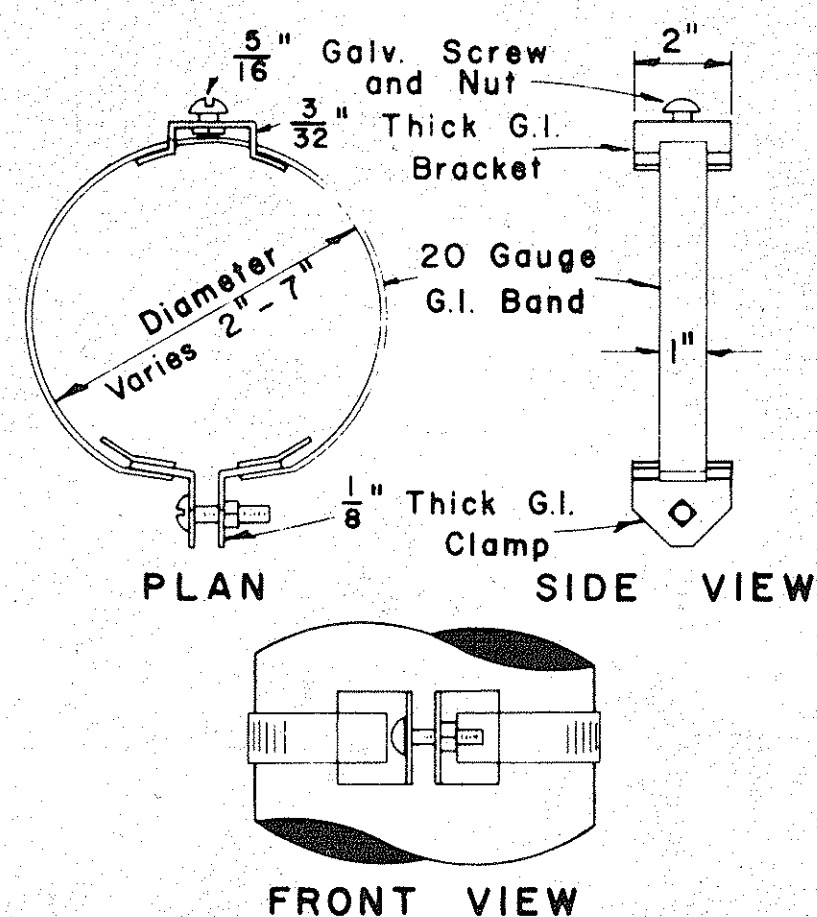
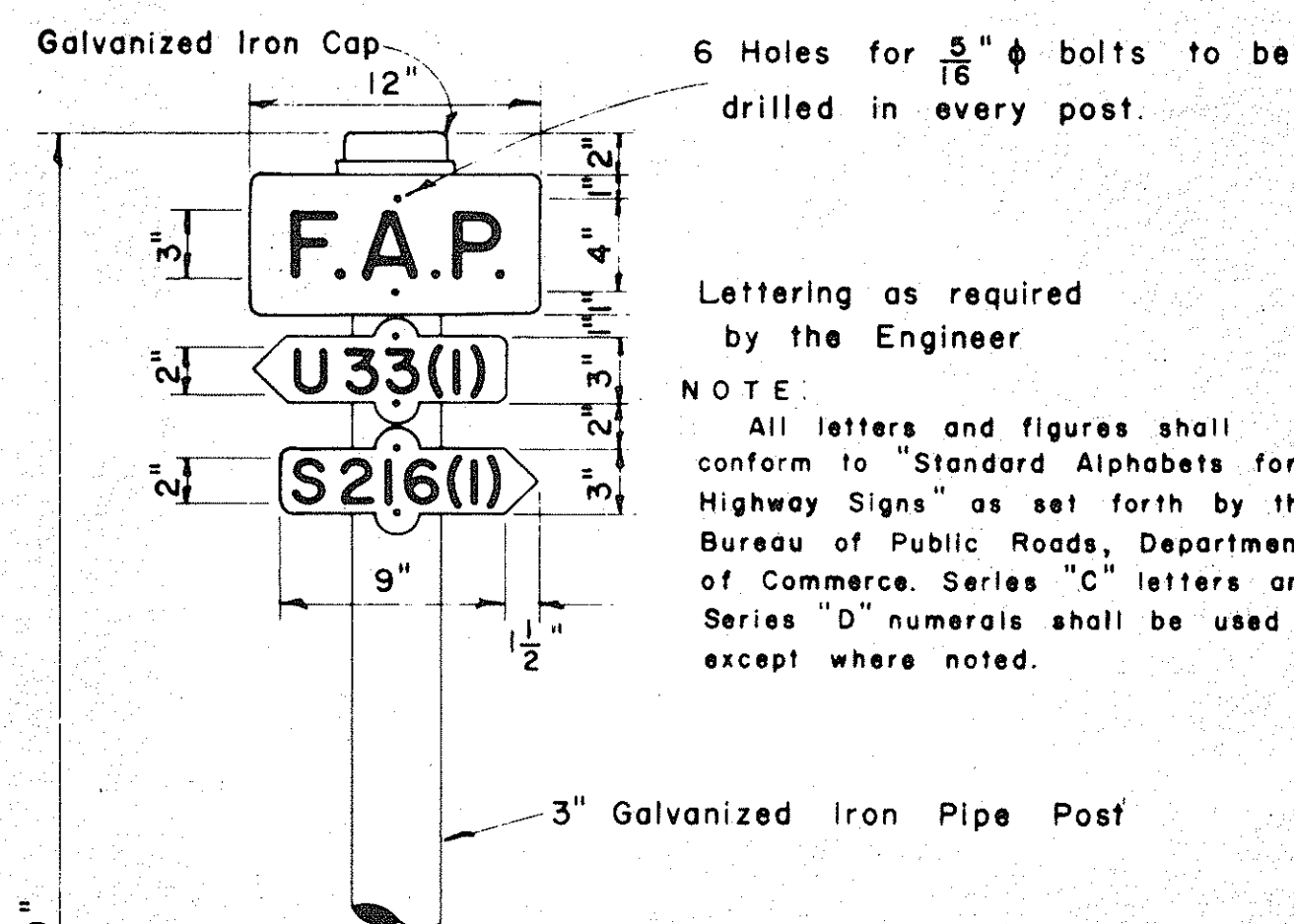


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	GD 65-339	1964	8	12



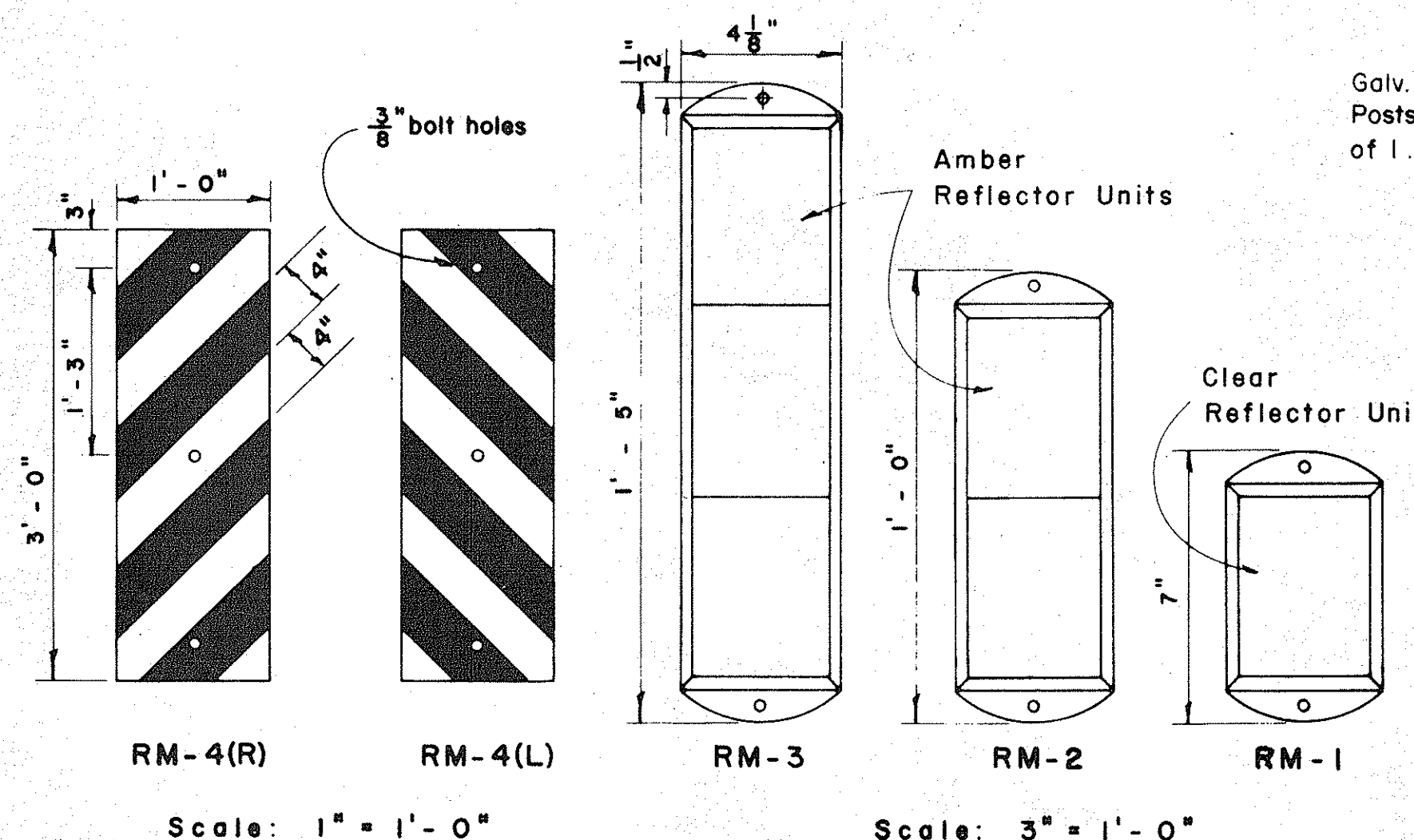
HEIGHT AND LATERAL LOCATION OF SIGNS - TYPICAL INSTALLATIONS

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



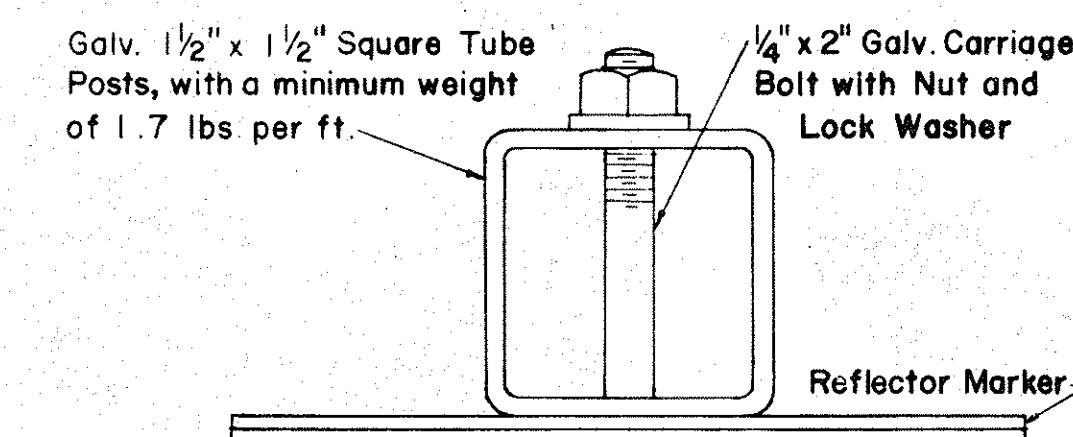
DETAIL OF SIGN POST FITTING FOR CITY & COUNTY STREET NAME SIGNS

Scale: 1/2" = 1'



REFLECTOR MARKERS

Scale: As Shown

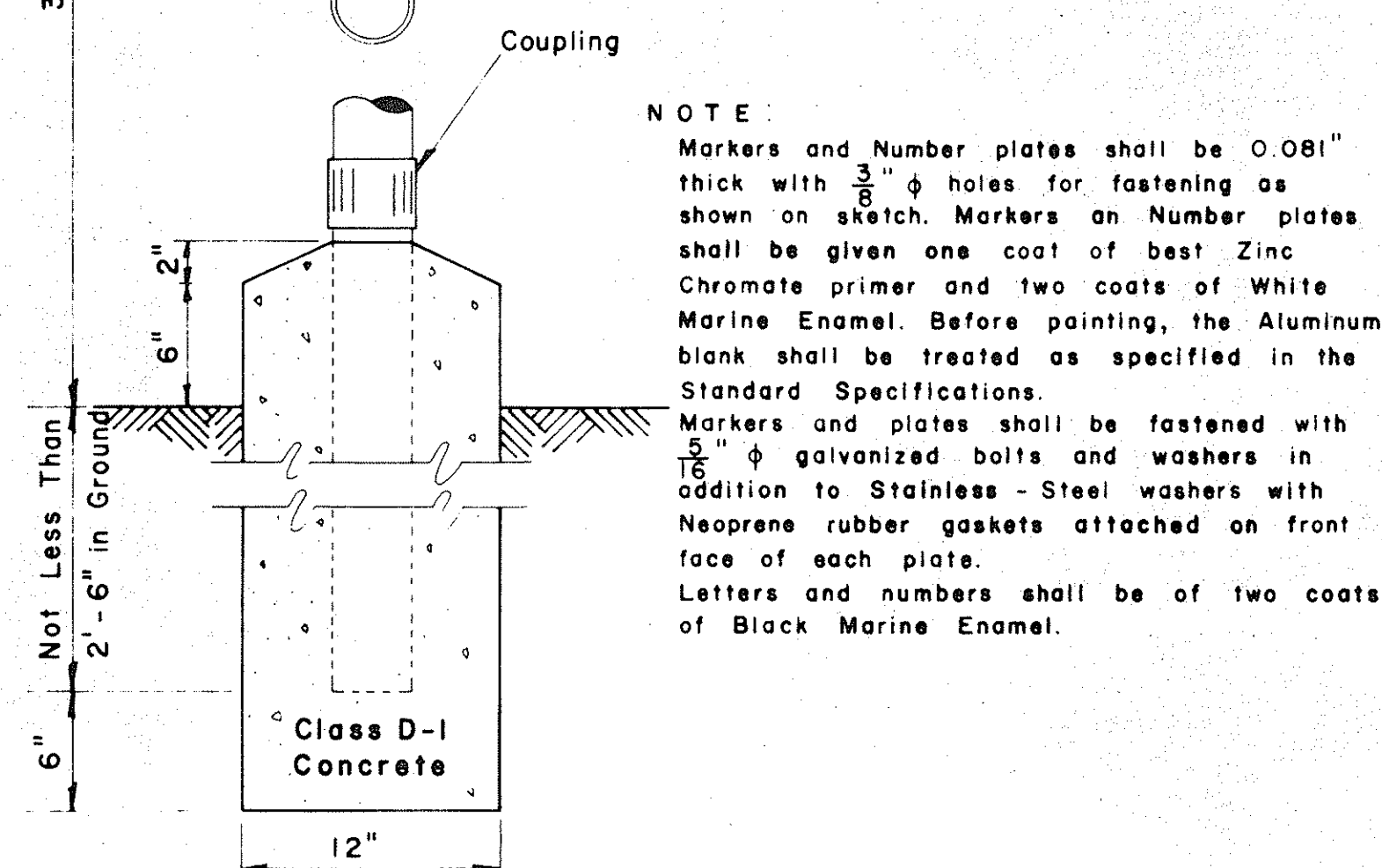


TYPICAL SECTION OF ROAD DELINEATOR

Full Size

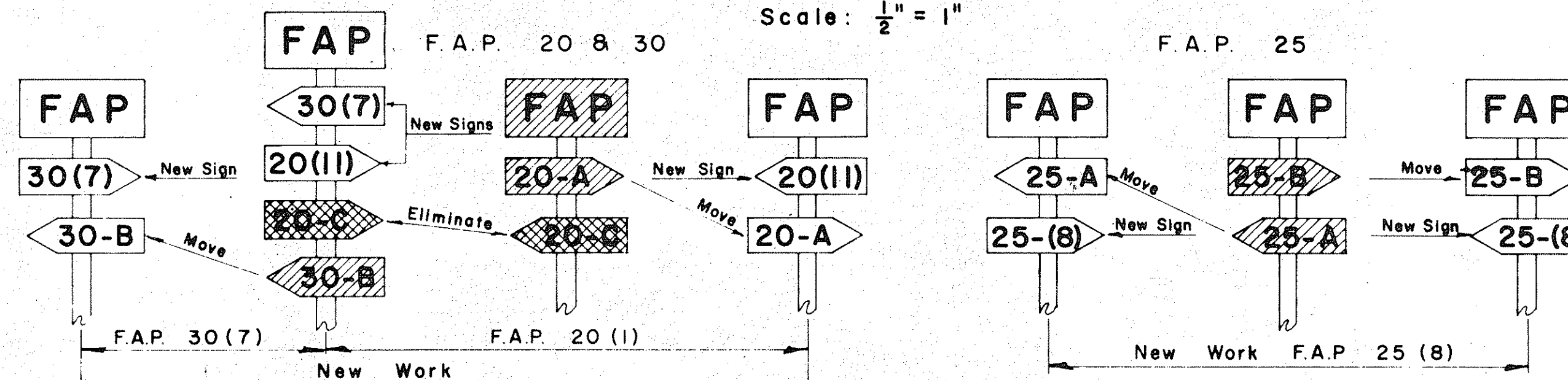
NOTE:

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.



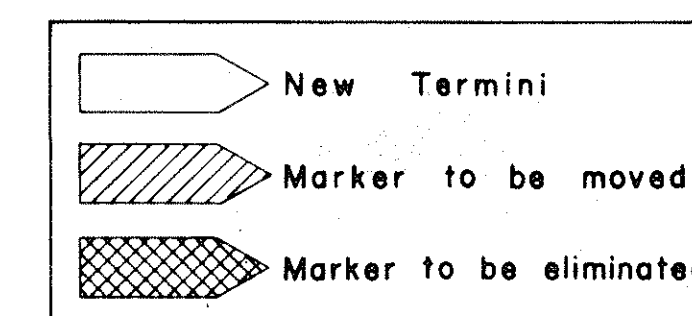
FEDERAL AID MARKER

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



METHOD OF MARKING F.A. PROJECTS AT OVERLAPS

(USING NUMBER SUFFIX ON NEW WORK)



APPROVED:

DATE:

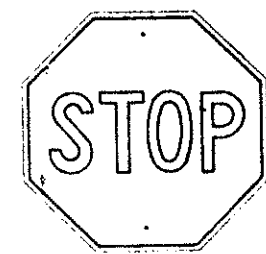
DIRECTOR OF TRANSPORTATION

DECEMBER 8, 1964
REVISED: FEBRUARY 25, 1964

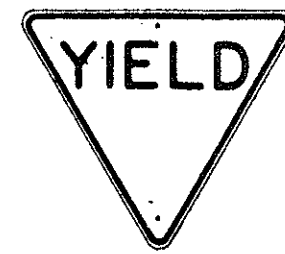
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
F.A. MARKER
AND
MISCELLANEOUS SIGN
DETAILS

Scale: As Shown

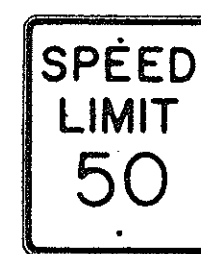
SHEET No. 8 OF 6 SHEETS



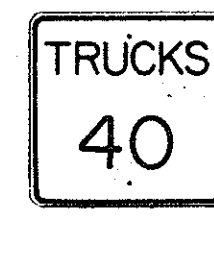
R1-1 30"x 30"



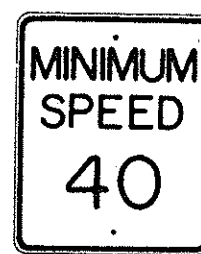
R1-2 36"x 36"x 36"
R1-2-E 48"x 48"x 48"
R1-2-I 60"x 60"x 60"



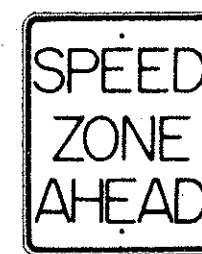
R2-1(50) 24"x 30"
R2-1(50)-E 36"x 48"
R2-1(50)-I 48"x 60"



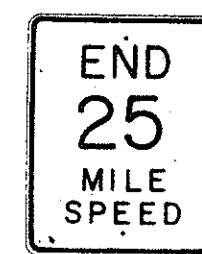
R2-2(40) 24"x 24"
R2-2(40)-E 36"x 36"
R2-2(40)-I 48"x 48"



R2-4(40) 24"x 30"
R2-4(40)-E 36"x 48"
R2-4(40)-I 48"x 60"



R2-5 24"x 30"
R2-5-E 36"x 48"
R2-5-I 48"x 60"



R2-6(25) 24"x 30"
R2-6(25)-E 36"x 48"
R2-6(25)-I 48"x 60"



R2-7 24"x 30"
R2-7-E 36"x 48"
R2-7-I 48"x 60"



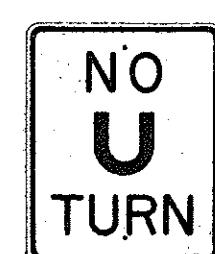
R3-1 24"x 30"
R3-1-E 36"x 48"



R3-2 24"x 30"
R3-2-E 36"x 48"



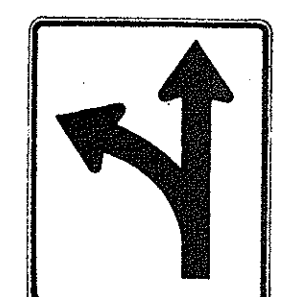
R3-3 24"x 24"



R3-4 24"x 30"
R3-4-E 36"x 48"
R3-4-I 48"x 60"



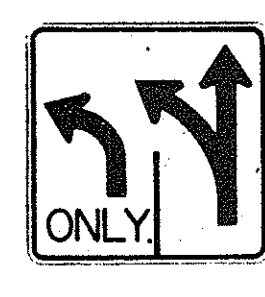
R3-5(L) 30"x 36"



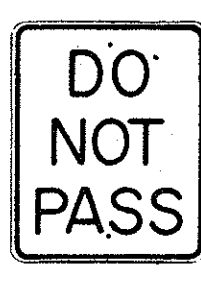
R3-6(L) 30"x 36"



R3-7(R) 30"x 30"



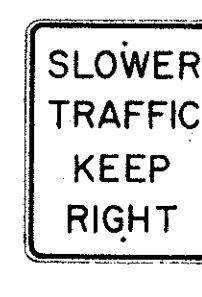
R3-8(L) 30"x 30"



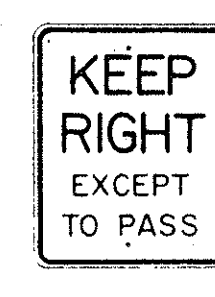
R4-1 24"x 30"



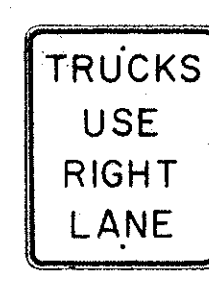
R4-2 24"x 30"



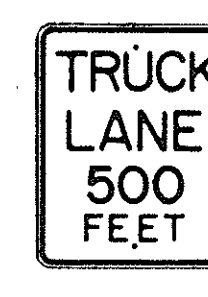
R4-3 24"x 30"
R4-3-E 36"x 48"
R4-3-I 48"x 60"



R4-4 24"x 30"
R4-4-E 36"x 48"
R4-4-I 48"x 60"



R4-5 24"x 30"
R4-5-E 36"x 48"



R4-6 24"x 30"
R4-6-E 36"x 48"



R4-7(R) 24"x 30"
R4-7(R)-E 36"x 48"



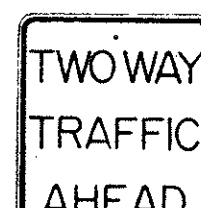
R5-1 24"x 24"



R6-1(R) 36"x 12"



R6-2(R) 18"x 24"



R6-3 24"x 30"



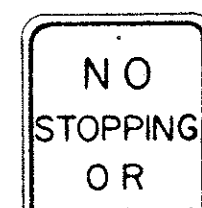
R6-4 24"x 30"



R6-5 24"x 30"



R7-1 12"x 18"



R7-4 12"x 18"
R7-4-E 24"x 30"



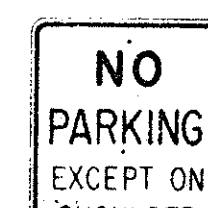
R7-107(R) 12"x 18"



R7-201 12"x 6"



R8-1 24"x 30"
R8-1-E 36"x 48"
R8-1-I 48"x 60"



R8-2 24"x 30"
R8-2-E 36"x 48"



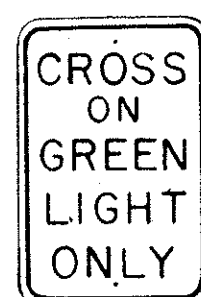
R8-3 24"x 30"
R8-3-E 36"x 48"



R8-4 24"x 30"
R8-4-E 36"x 48"
R8-4-I 48"x 36"



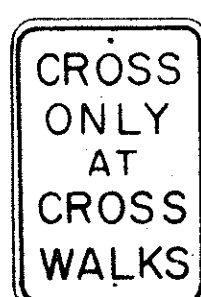
R9-1 18"x 24"



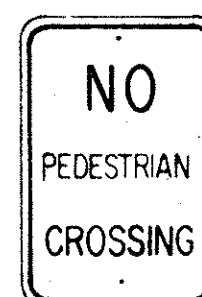
R9-2 12"x 18"



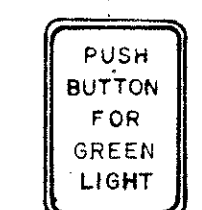
R9-3 12"x 18"



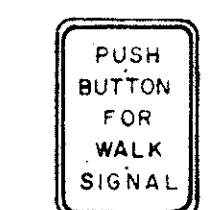
R9-4 12"x 18"



R9-5 12"x 18"



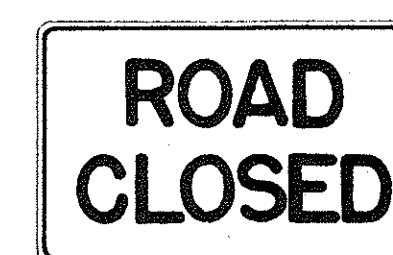
R9-6 9"x 12"



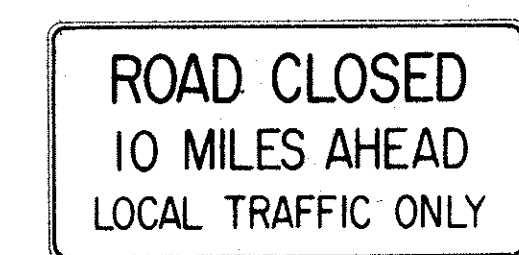
R9-7 9"x 12"



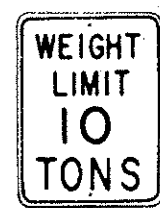
R10-1 24"x 30"
R10-1-E 36"x 48"
R10-1-I 48"x 60"



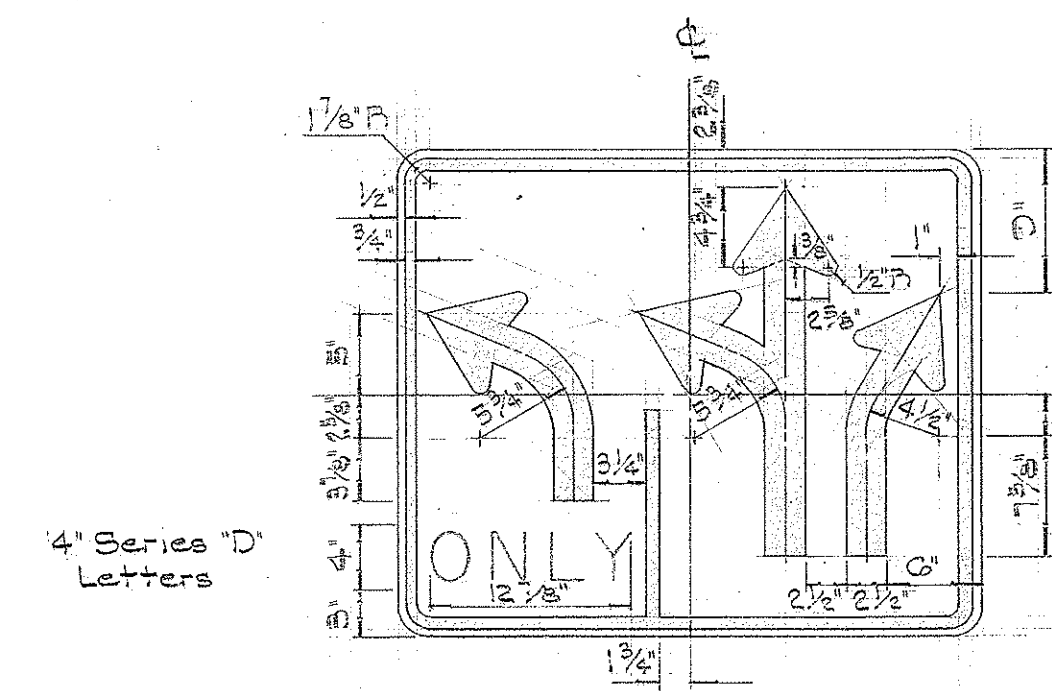
R10-2 48"x 30"



R10-3(10) 60"x 30"



R10-4(10) 18"x 24"



R3-14 36"x 30"

NOTE:

- 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.
- All regulatory signs shall be reflectorized unless otherwise specified.
- All regulatory signs shall have $\frac{3}{8}$ " bolt holes drilled at appropriate locations unless otherwise noted.
- The suffix "E" denotes Expressway signs and "I" denotes Interstate signs.
- For R2 signs, number in () indicates speed and shall be as shown on the plans.
- (R) or (L) indicates right or left and shall be as shown on the plans.
- For R10-4 sign, number in () indicates weight and shall be as shown on the plan.

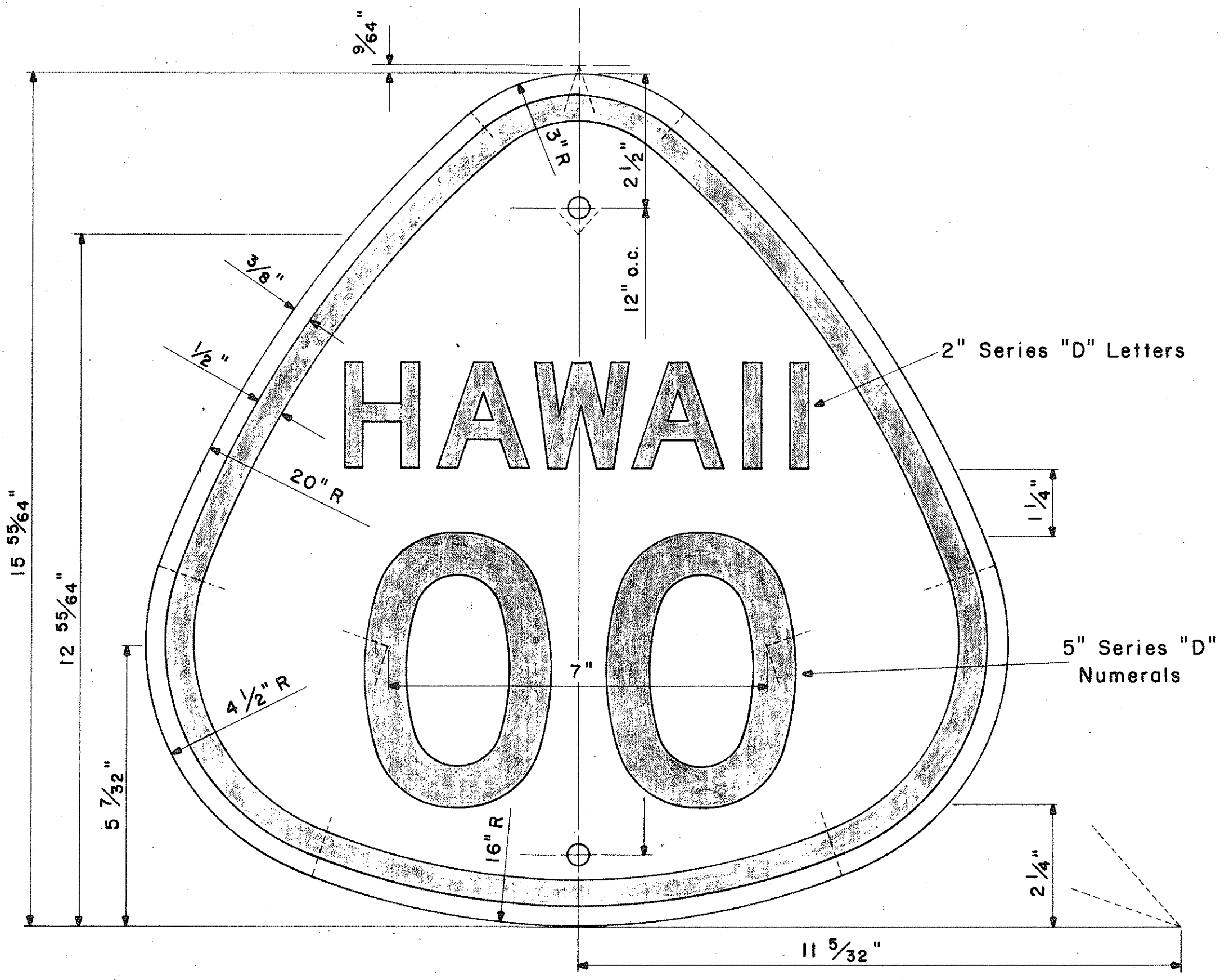
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
REGULATORY SIGNS

NOT TO SCALE

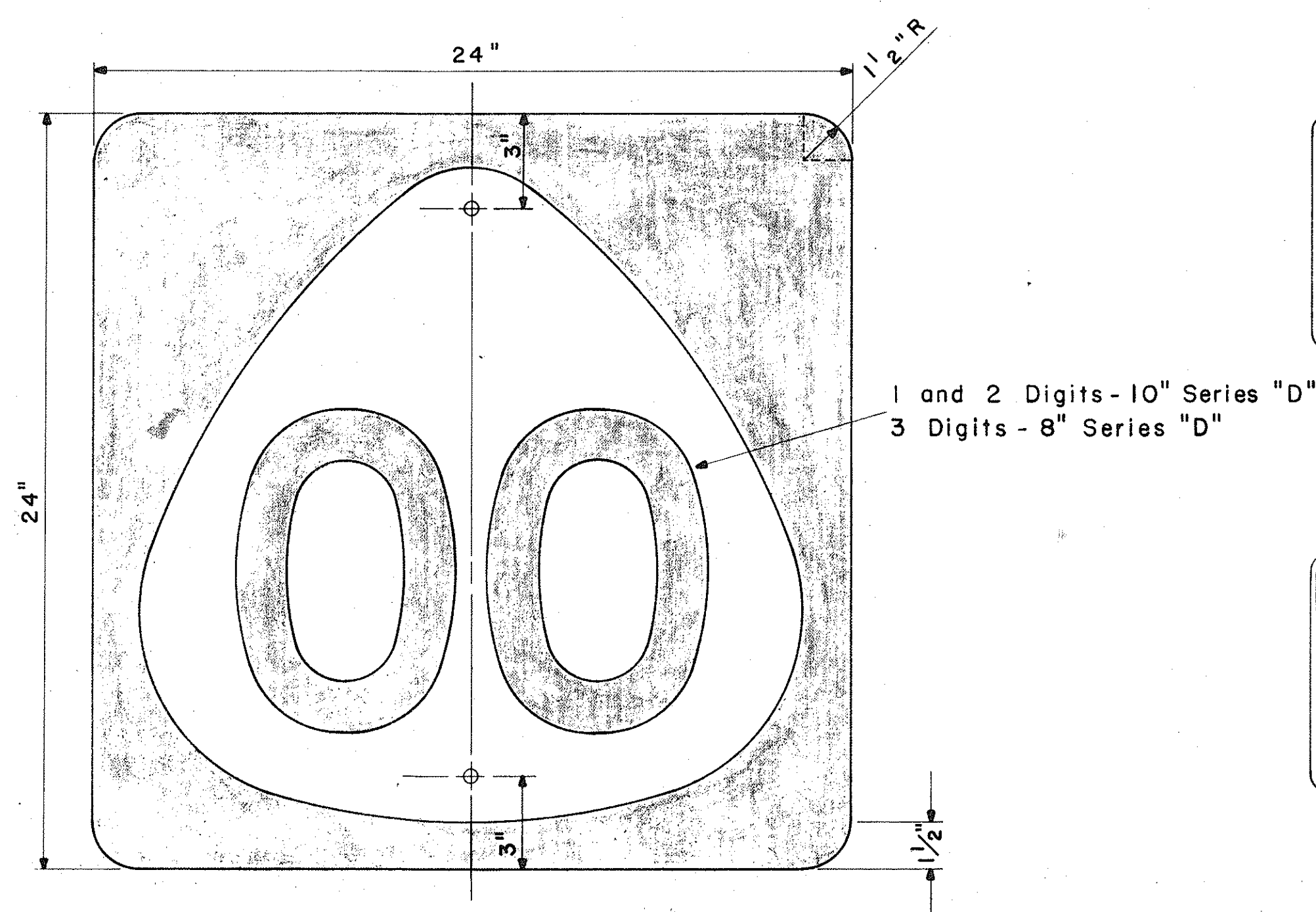
SHEET No. 4 OF 6 SHEETS

ORIGINAL PLAN	DATE
DRAWN BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	
No.	



STATE ROUTE MARKER
MI-3(OO)

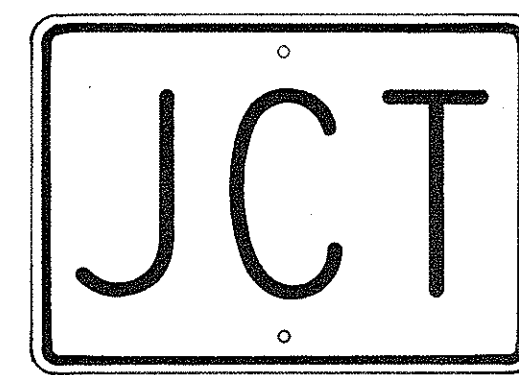
Scale: 1/2" = 1"



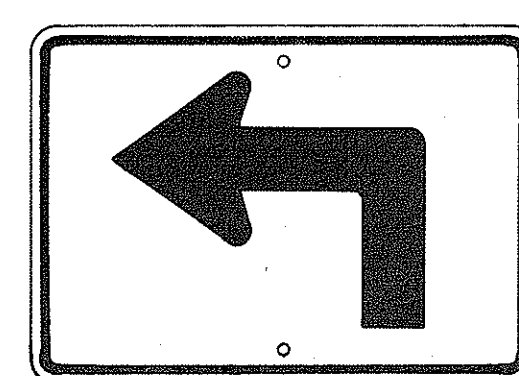
STATE ROUTE MARKER
MI-4(OO)

Scale: 1/4" = 1"

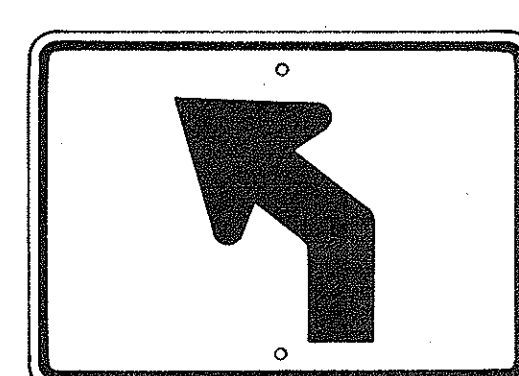
NOTE: Multiply all dimensions of State Route Marker MI-3 by 1.3 for the dimensions of the shield for MI-4.



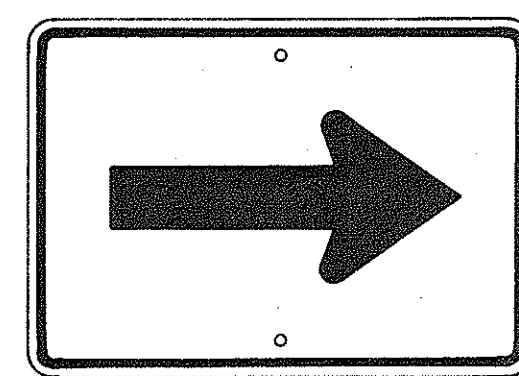
M2-1
21" x 15"



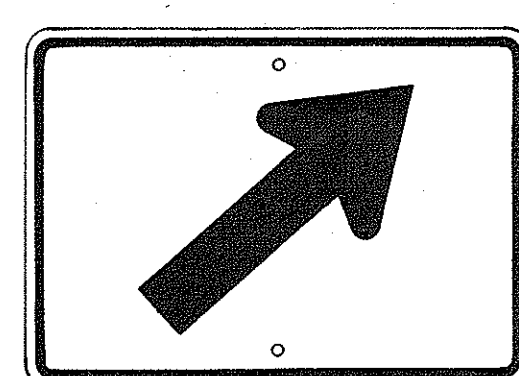
M3-1-L
* M3-1-R
21" x 15"



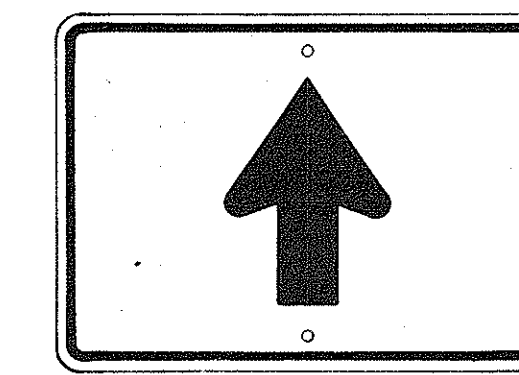
M3-2-L
* M3-2-R
21" x 15"



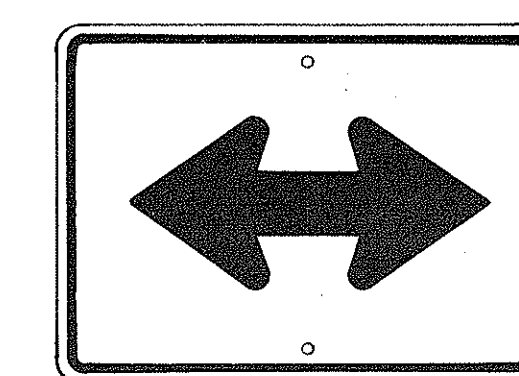
M4-1
21" x 15"



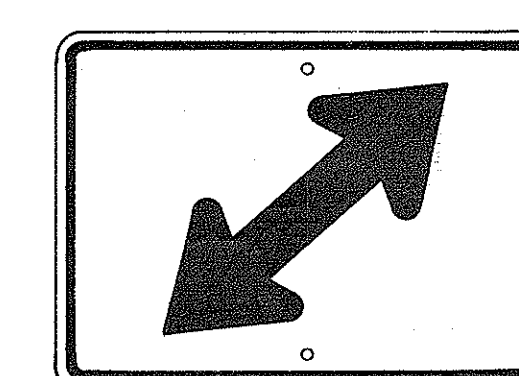
M4-2-R
* M4-2-L
21" x 15"



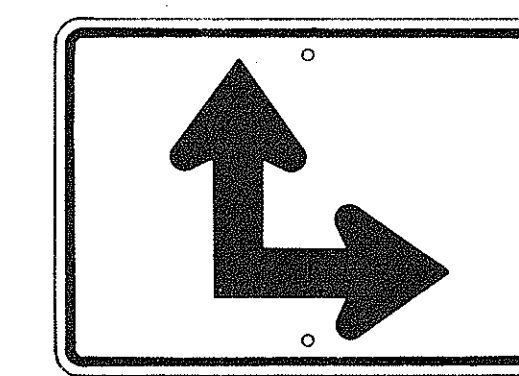
M4-3
21" x 15"



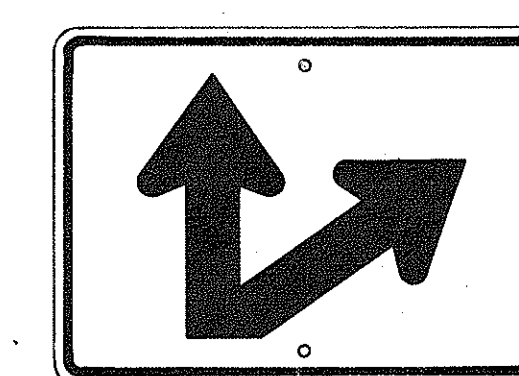
M4-4
21" x 15"



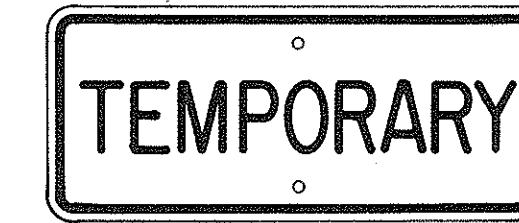
M4-5-R
* M4-5-L
21" x 15"



M4-6-R
* M4-6-L
21" x 15"



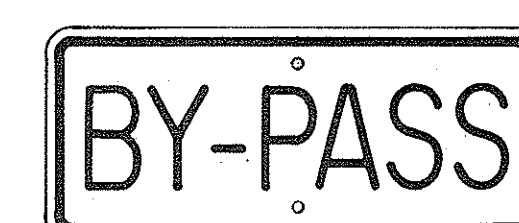
M4-7-R
* M4-7-L
21" x 15"



M5-1
21" x 9"



M5-2
21" x 9"



M5-3
21" x 9"



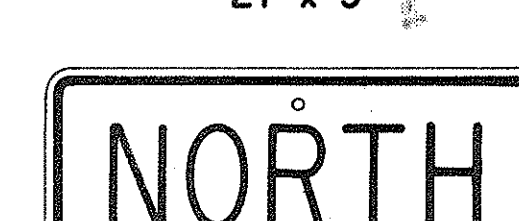
M5-4
21" x 9"



M5-5
21" x 9"

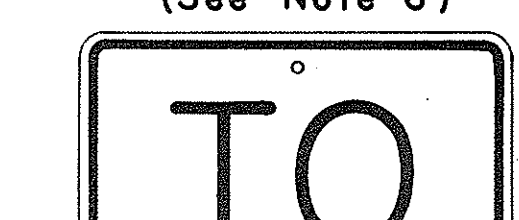


M5-6
21" x 9"



M6-1-N
21" x 9"

(See Note 6)



M7-1
18" x 12"

GENERAL NOTES

- The shape, color, dimensions, symbols, wording, lettering and reflectorizing 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.
- All letters and figures shall conform to the manual "Standard Alphabets for Highway Signs," Dept. of Commerce, Bureau of Public Roads, 1952.
- All markers shall be reflectorized unless otherwise specified.
- All markers shall have 3/8" bolt holes drilled at appropriate locations unless otherwise specified.
- All markers shall have a black legend on a white background unless otherwise specified.
- Sign message of Cardinal Direction Marker (M6-1) shall be denoted by the following suffixes:
M6-1-N : NORTH
M6-1-E : EAST
M6-1-S : SOUTH
M6-1-W : WEST
- Auxiliary markers denoted with the suffix "I": (M4-1-I) shall have a white legend on a blue background.
- Cardinal Direction Marker (M6-1) with suffix I(3) shall have a white legend on a blue background and shall be 30" x 15" in size.
- For MI-3 and MI-4 signs, number in () indicates route number and shall be as shown on the plan.

AUXILIARY MARKERS

Scale: 1/8" = 1"

* NOTE: Signs shall be similar but opposite in direction.

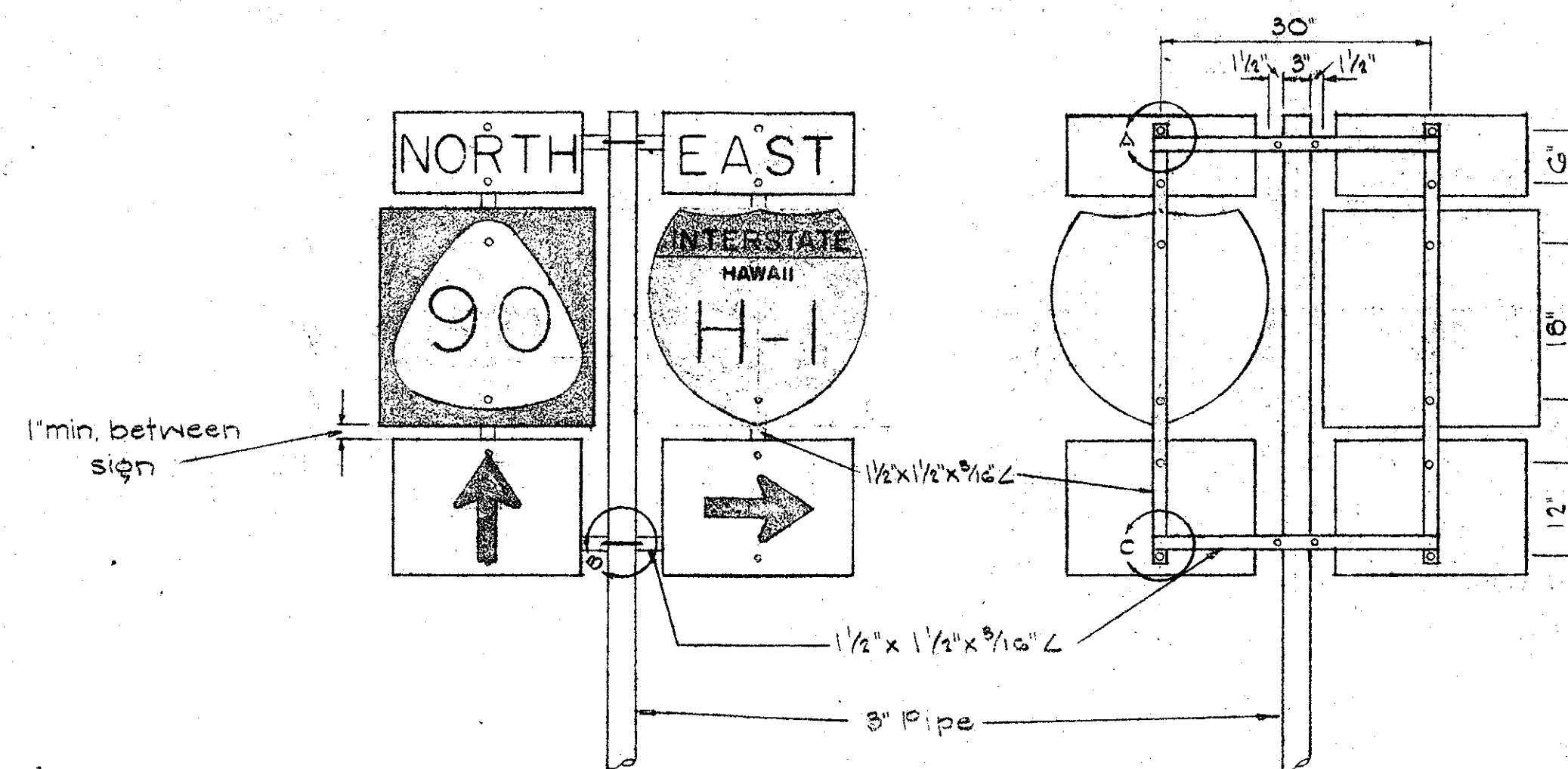
APPROVED: DATE:

DIRECTOR OF TRANSPORTATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
STANDARD DETAILS
STATE ROUTE MARKERS
AND
AUXILIARY MARKERS
Scale: As Noted
SHEET NO. 5 OF 6 SHEETS

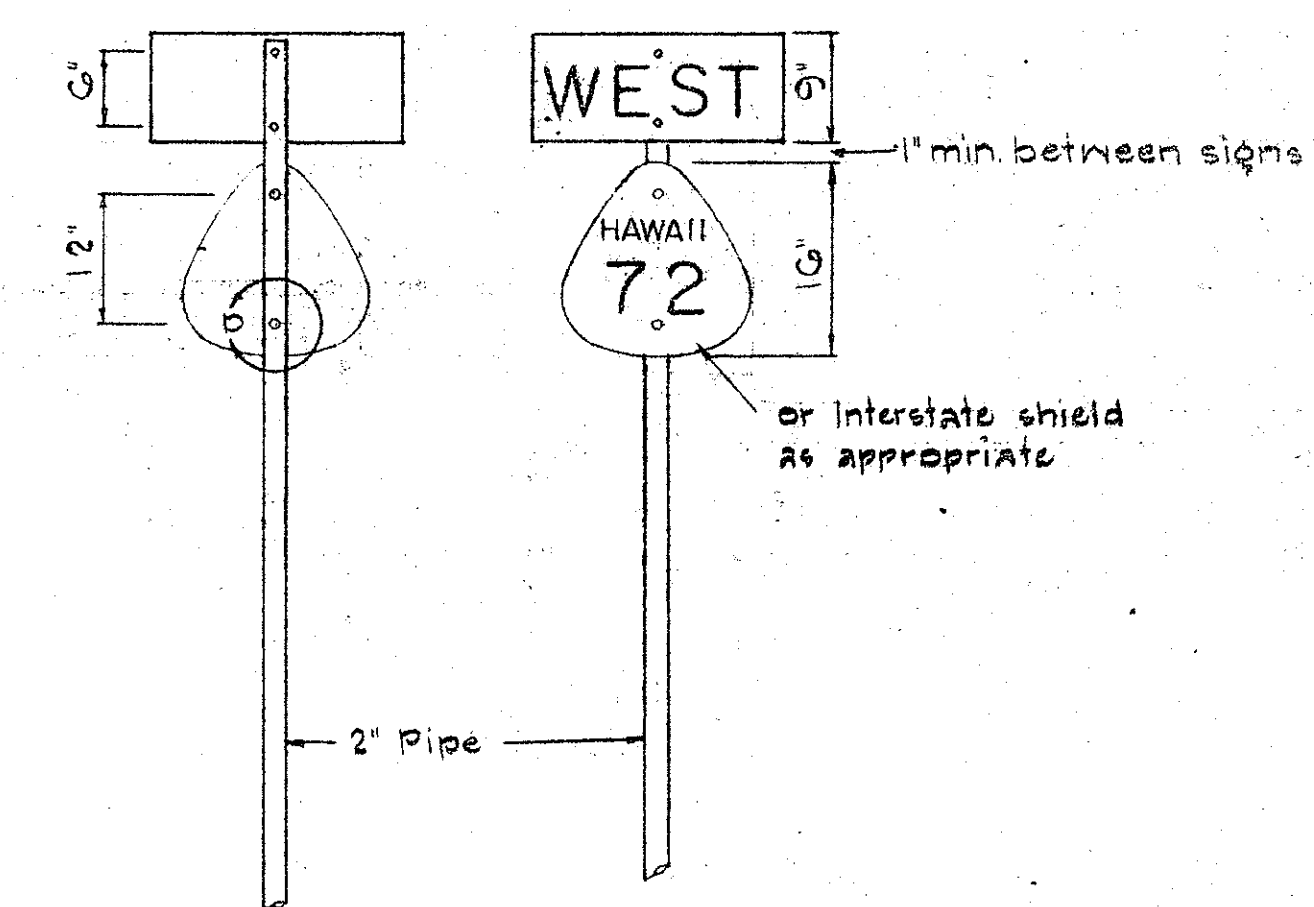
ORIGINAL PLAN
DRAWN BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	SD 65-339	1966	11	12



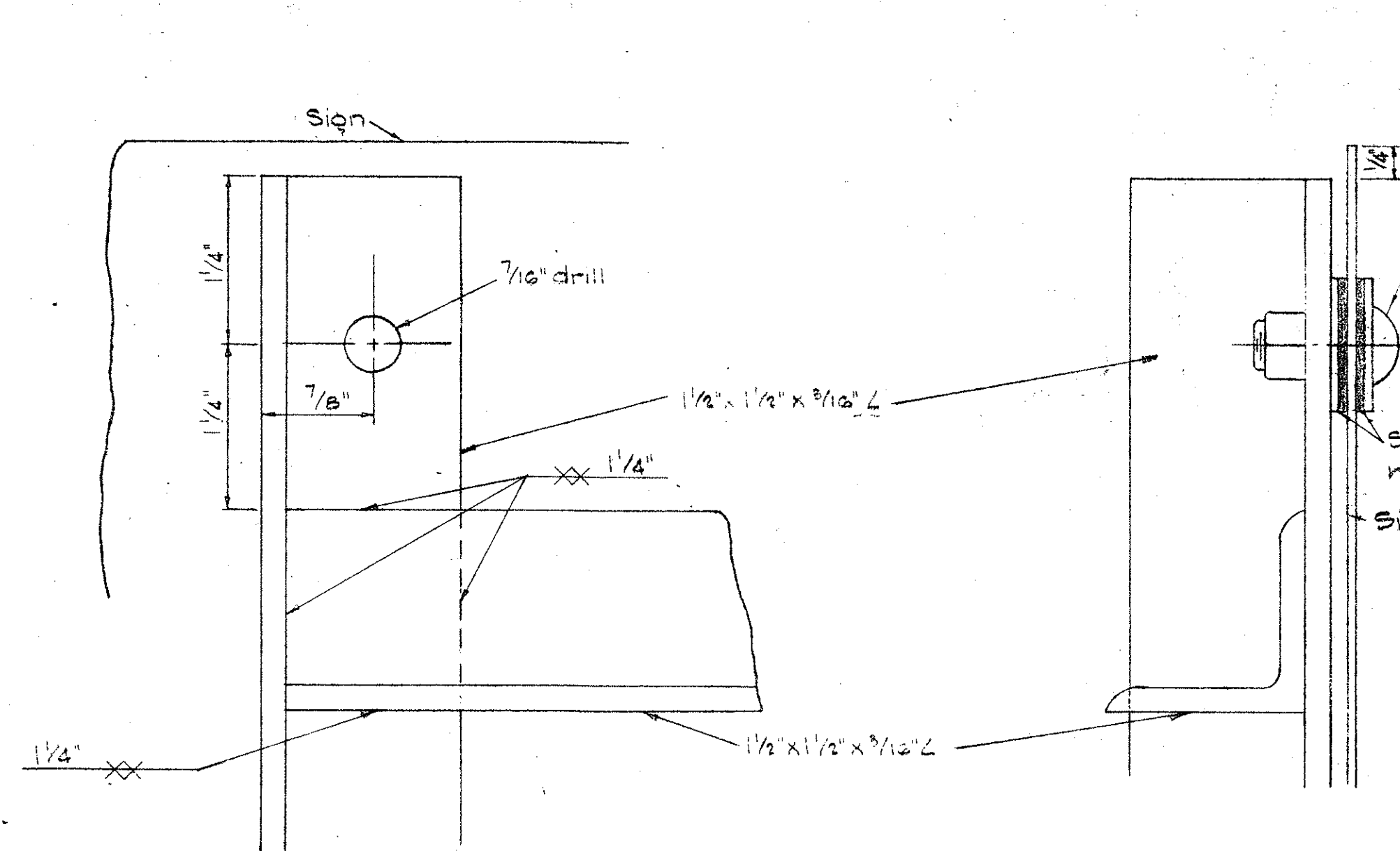
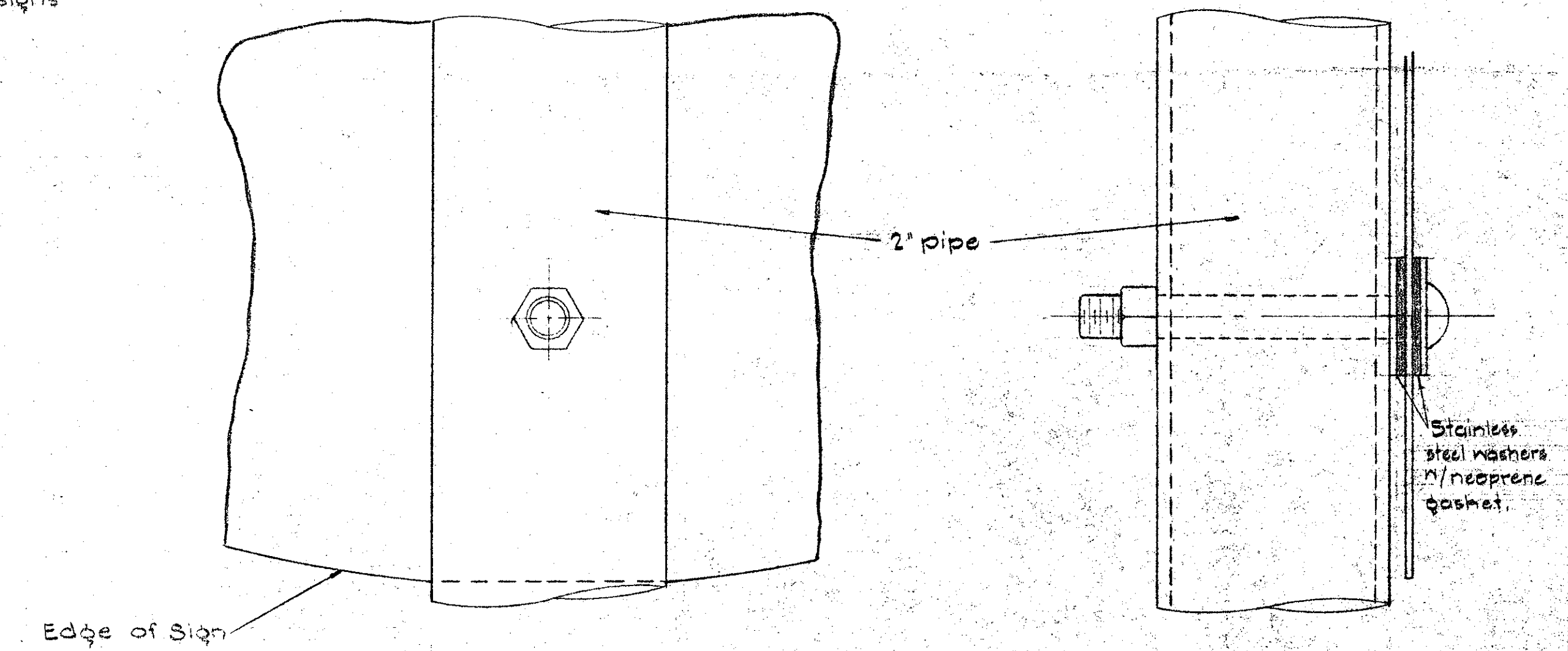
TYPE "B" ASSEMBLY
NOT TO SCALE

NOTE:
Minimum clearance between signs shall be 1 inch. (Larger clearances shall be in multiples of 1 inch.)

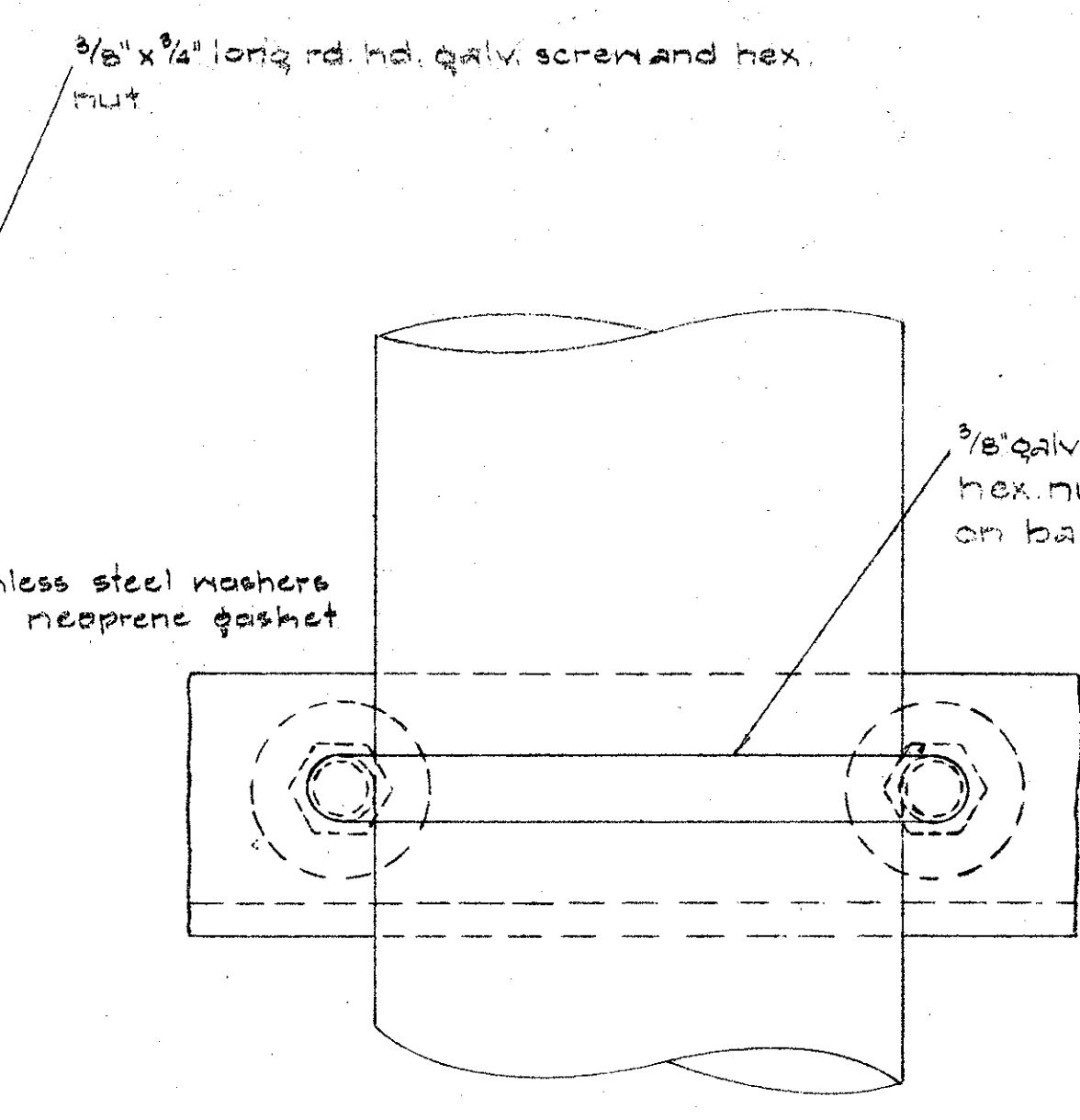


TYPE "A" ASSEMBLY
NOT TO SCALE

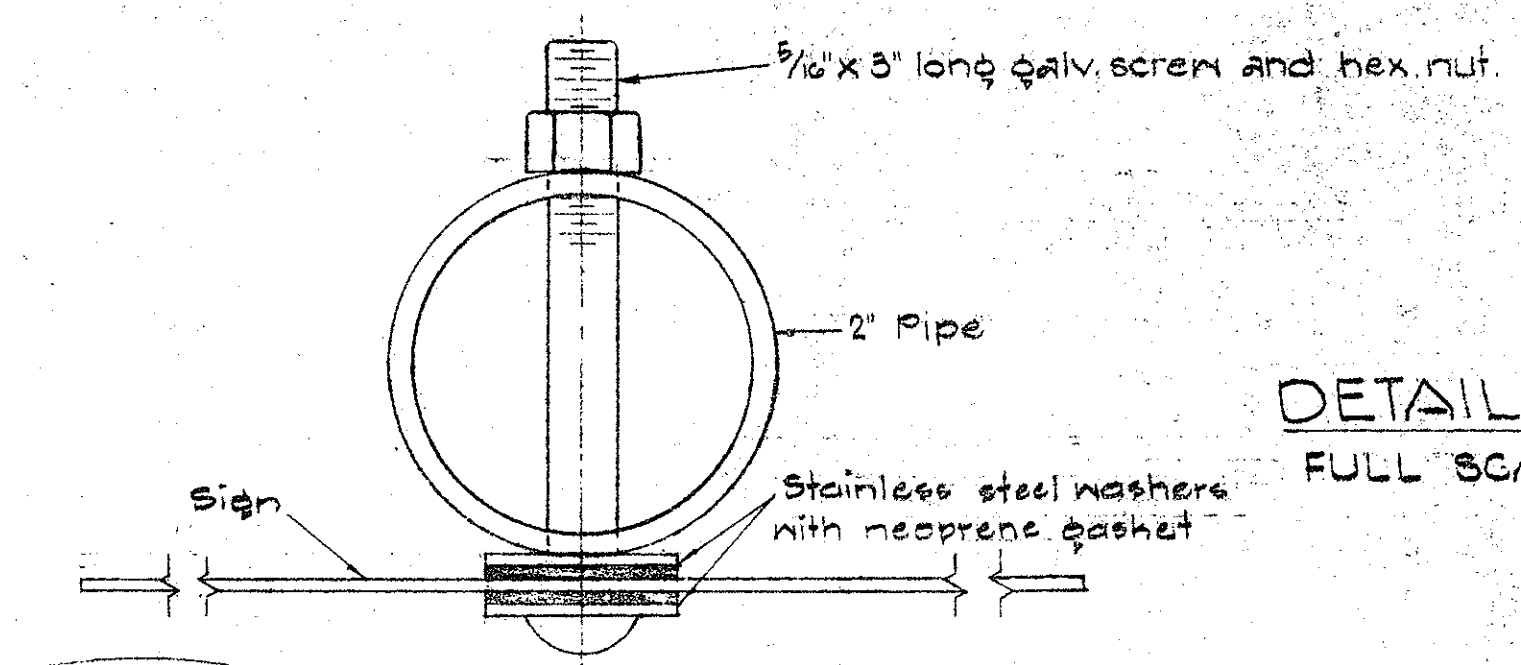
NOTE:
Use 2" pipe for Type "A" Assembly.
Use 3" pipe for Type "B" Assembly.



DETAIL "A"
FULL SCALE

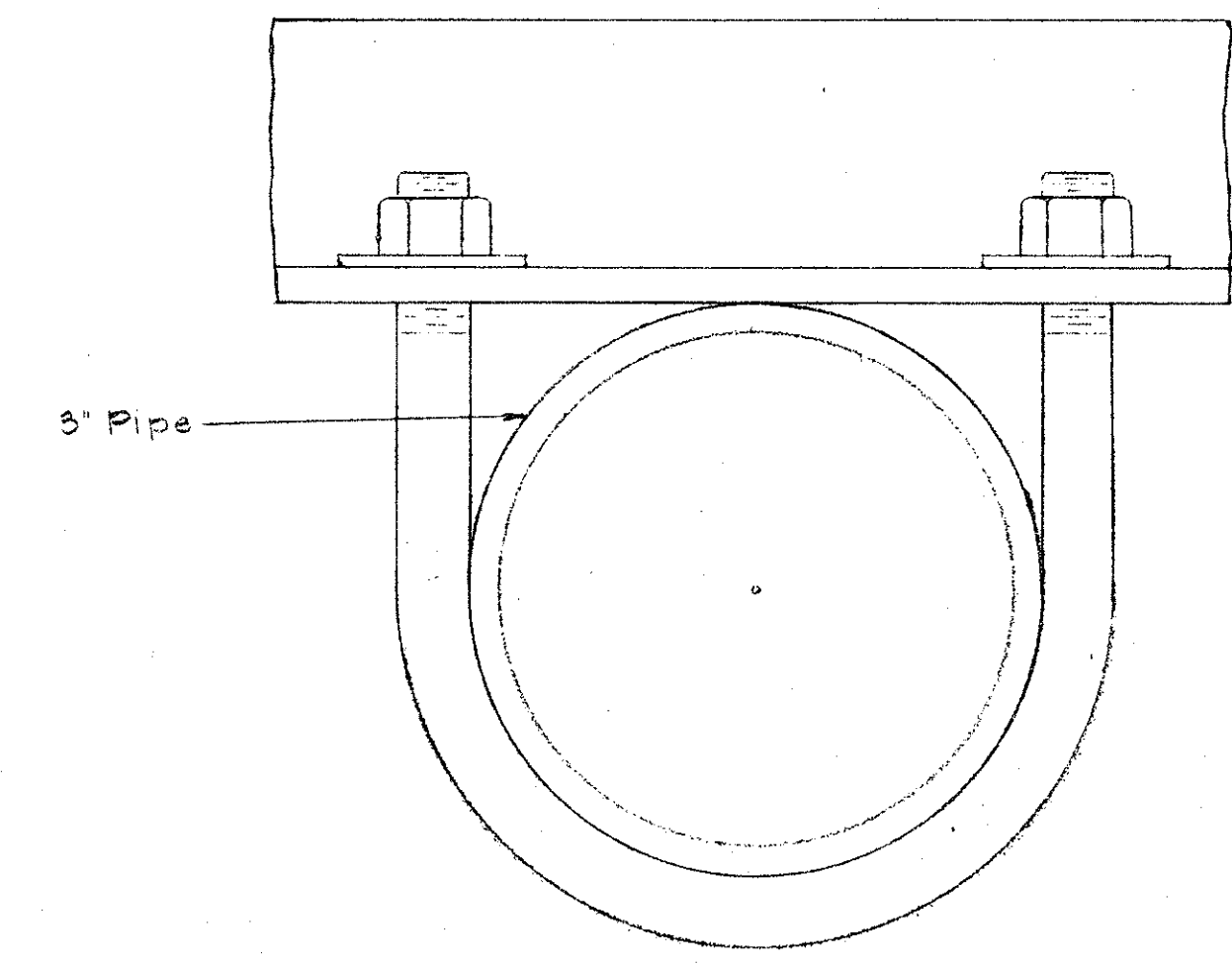
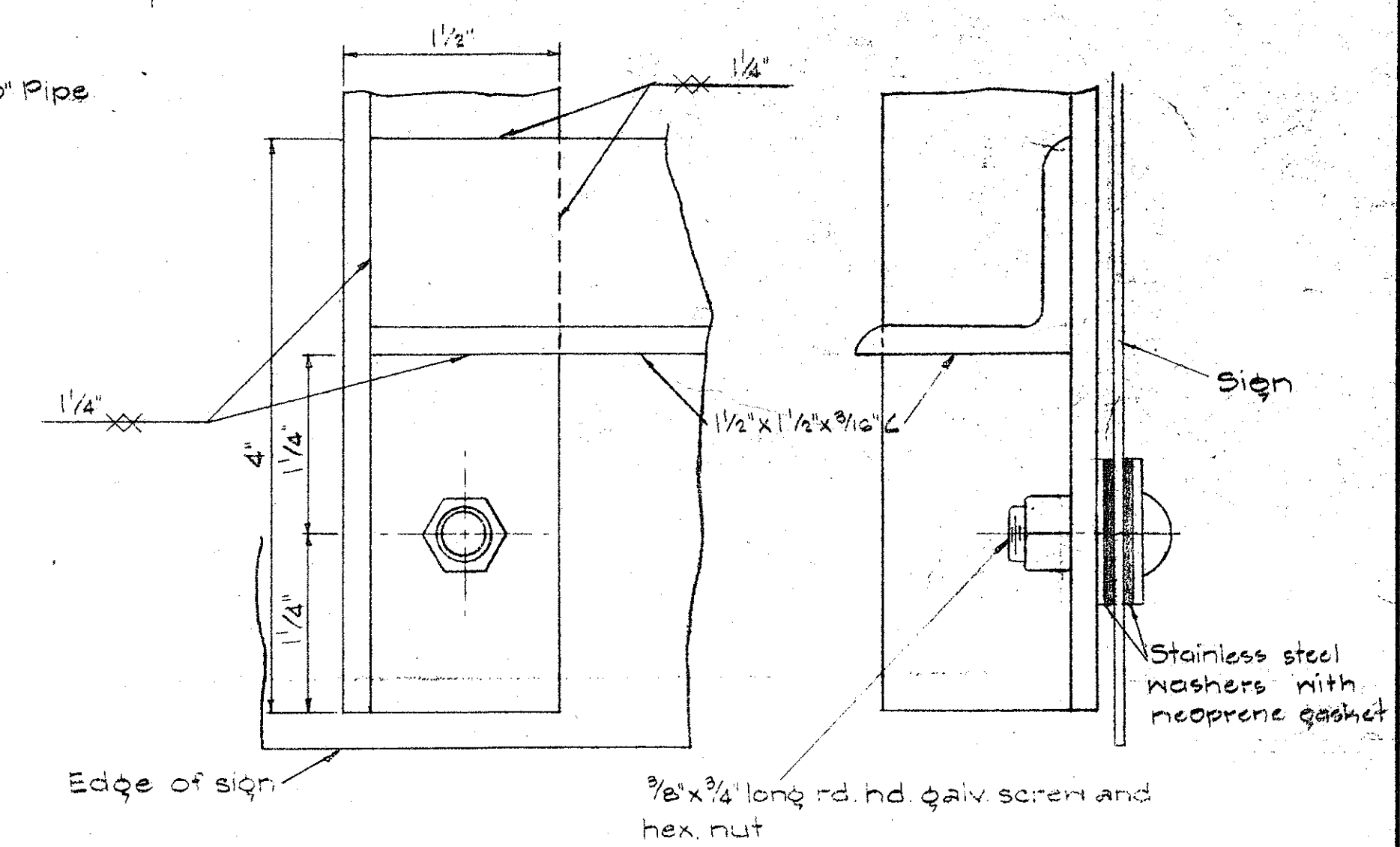


DETAIL "B"
FULL SCALE



DETAIL "C"
FULL SCALE

DETAIL "D"
FULL SCALE



NOTE:
For height and lateral location of Route Marker Assembly, see Sheet No. 10

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DETAILS OF
ROUTE MARKER ASSEMBLY

Scale: As Noted

SHEET No. 6 OF 6 SHEETS

DATE	DESIGNED BY
DRIVEN BY	CHECKED BY
NOTE BOOK	
No.	