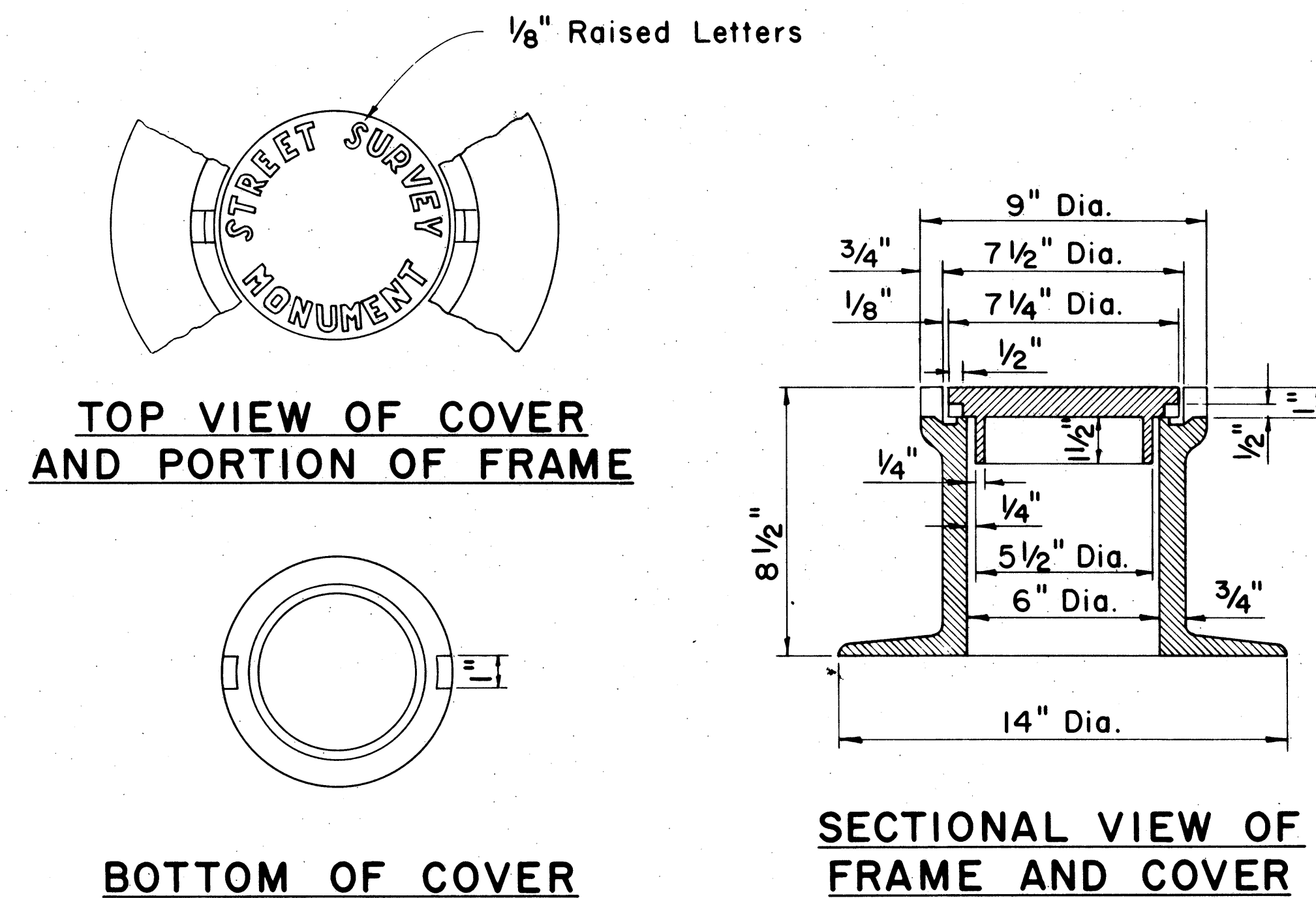
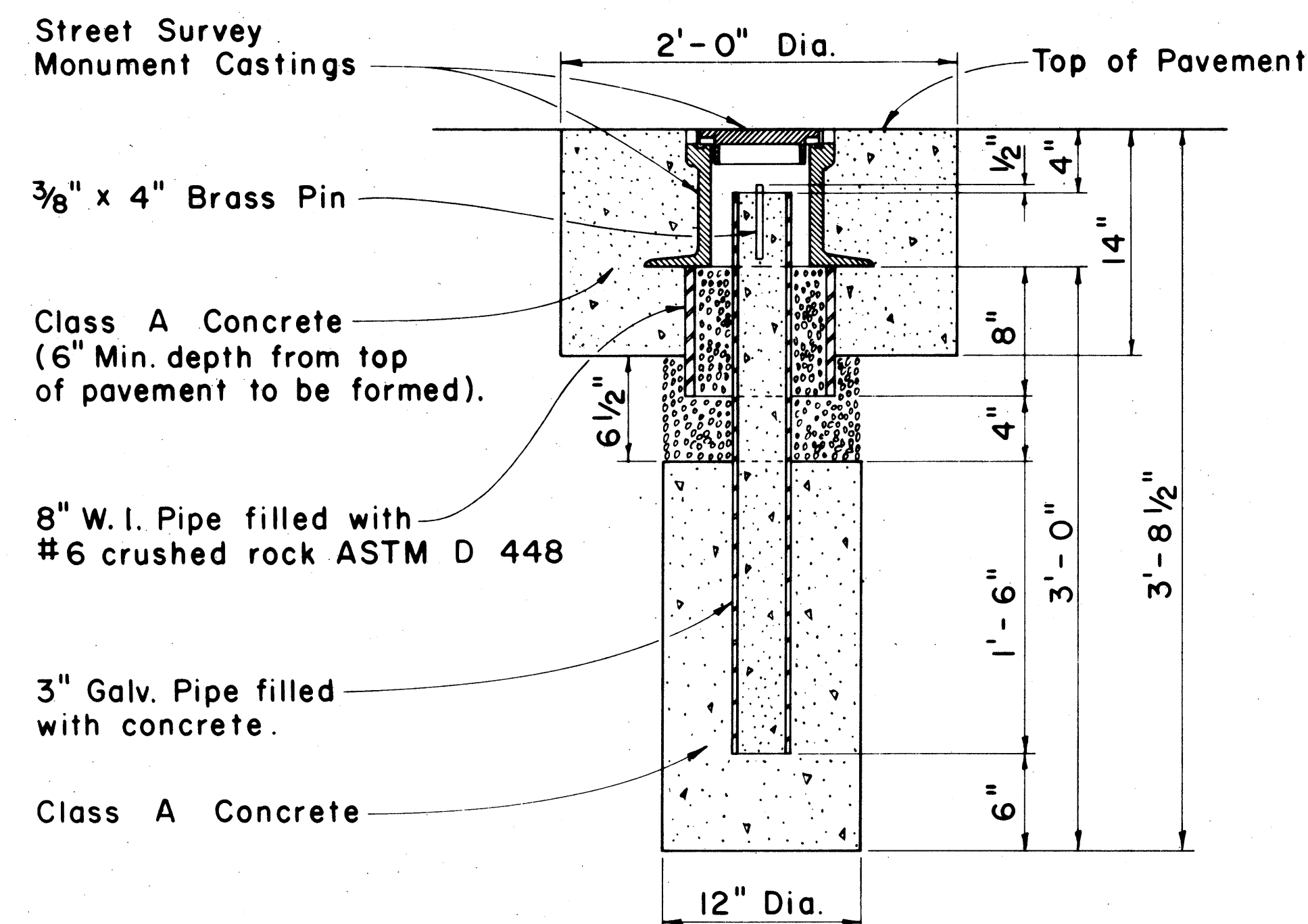


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	6600A018AM	1984	8	25



STREET SURVEY MONUMENT CASTINGS

Scale: 3" = 1'-0"

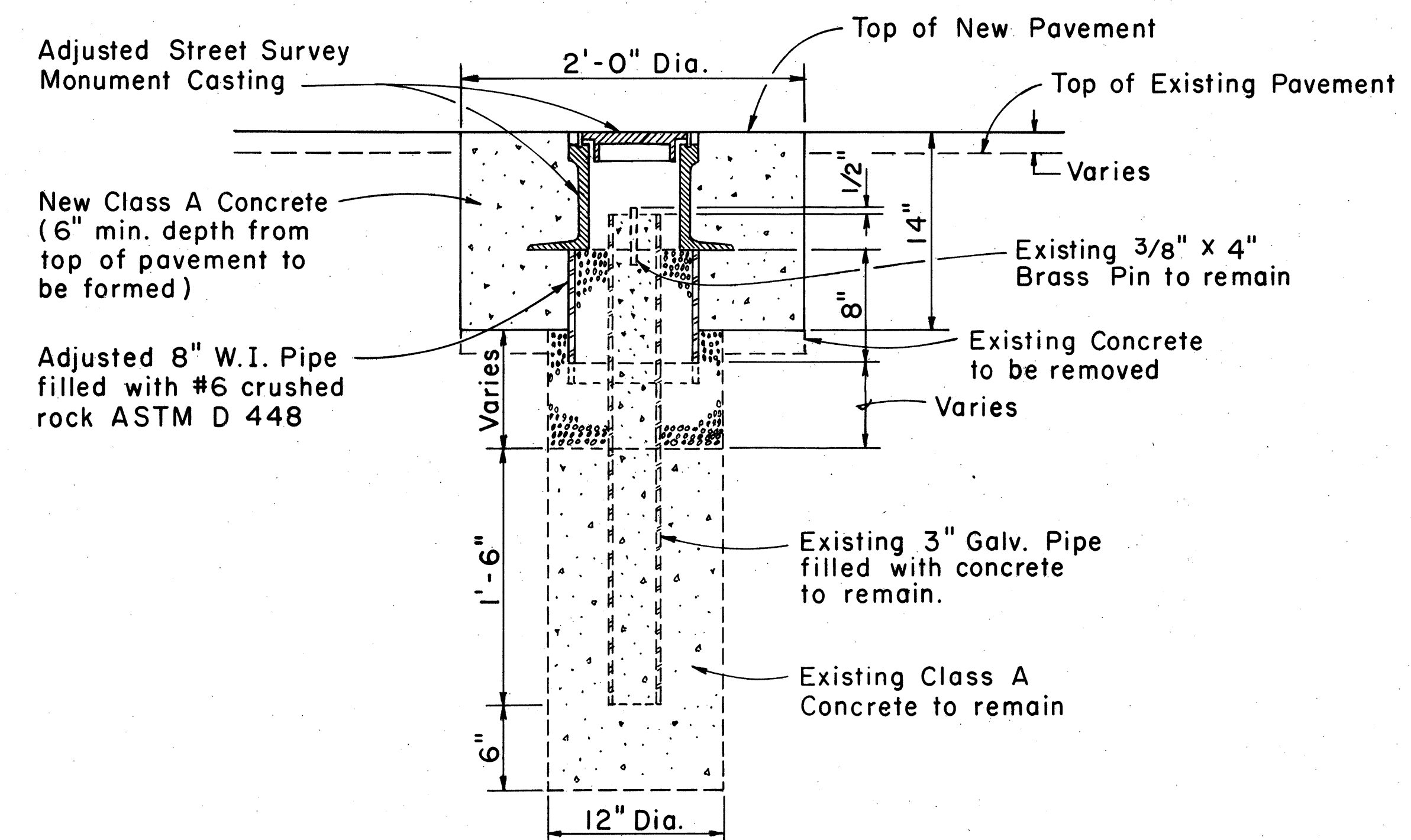


NOTE :

Where the excavation extends into solid rock the depth may be decreased if approved by the Engineer.

STREET SURVEY MONUMENT

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



DETAILS FOR ADJUSTED STREET SURVEY MONUMENT

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

NO.	REVISION	APPROVED BY	DATE
1	Deleted "Detail For Centerline & Reference Survey Monument", added "Detail For Adjusted Street Survey Monument" and deleted "C & C" Inscription on Cover.	<i>[Signature]</i>	6-22-80

APPROVAL RECOMMENDED:
M. H. H. H. H. 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED: William E. Zabel 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS

STREET SURVEY MONUMENT

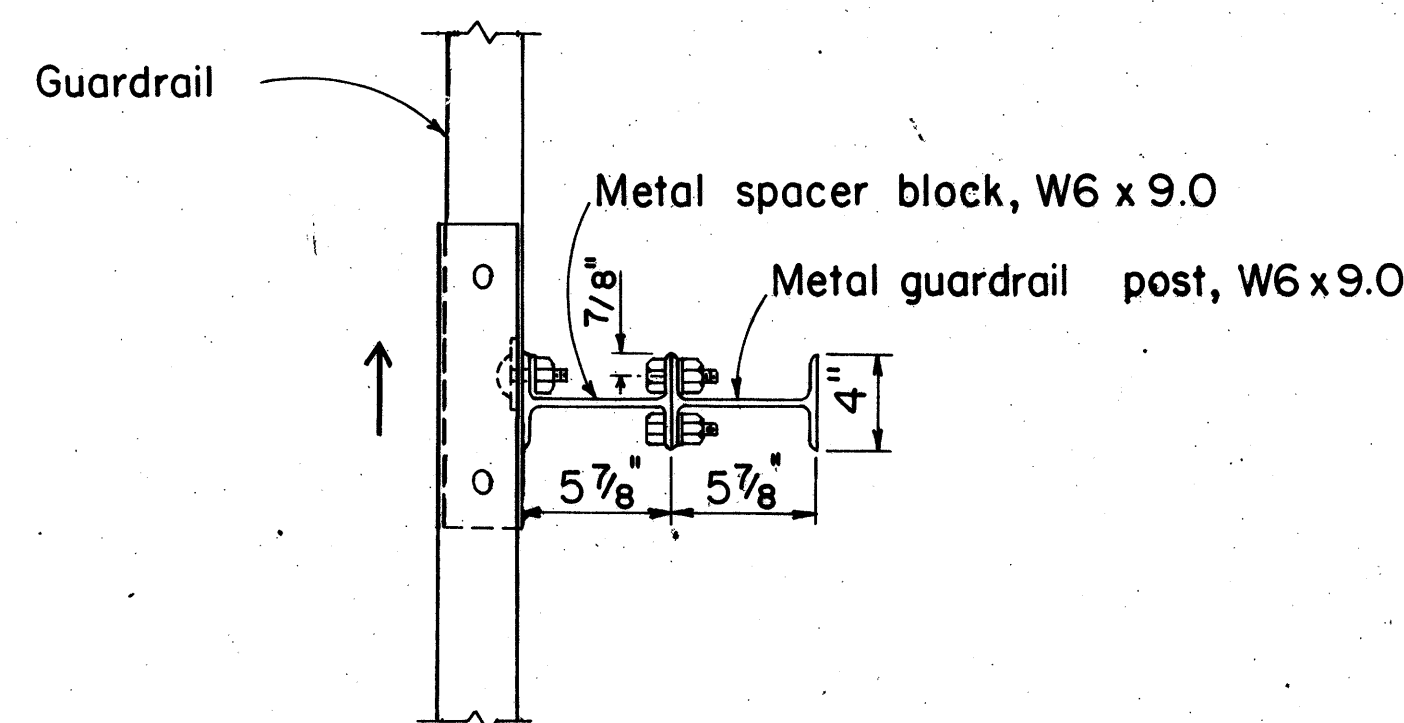
SCALE: AS SHOWN

SHEET No. 1 OF 4 SHEETS	DD 614.1
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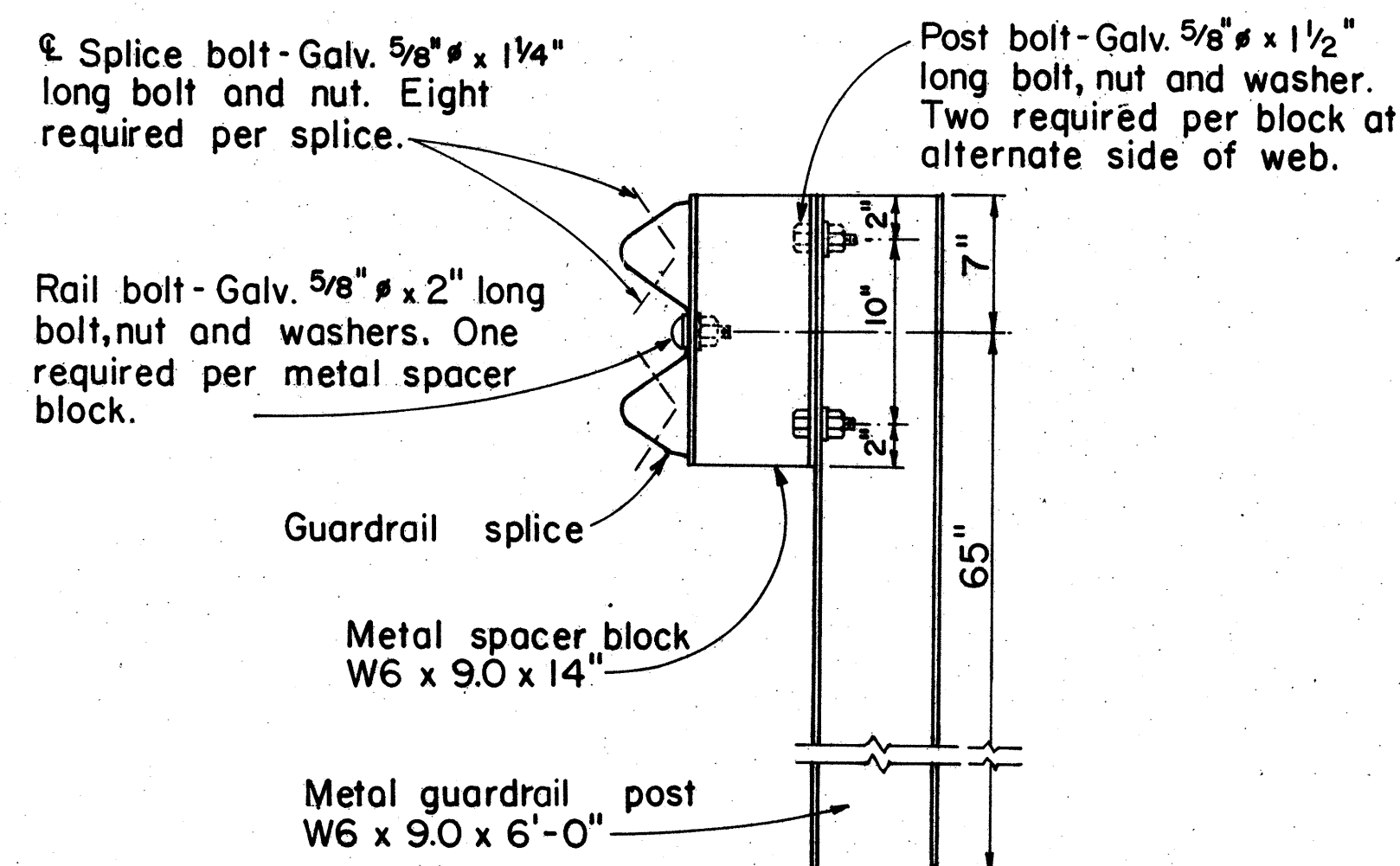
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	6600A01-B4M	1984	9	25

GENERAL NOTES

- Both of the alternate type posts may be used on any one project however, only one type of post shall be used in any single run of guardrail.
- All hardware, posts and blocks shall be galvanized. No punching, drilling or cutting will be permitted after galvanizing.
- Connection details for bent plate post and block shall be similar to the details shown for structural shape post, and block.
- Where conditions require, special post lengths in increments of 6 inches may be specified.
- For details of rail elements, bolts and nuts, see sheet DT 501.
- All fasteners, posts, blocks and rail elements shall conform to the latest edition and amendments of "A Guide to Standardized Highway Barrier Rail Hardware", a report prepared and approved by the AASHTO-AGC-ARTBA Joint Cooperative Committee.



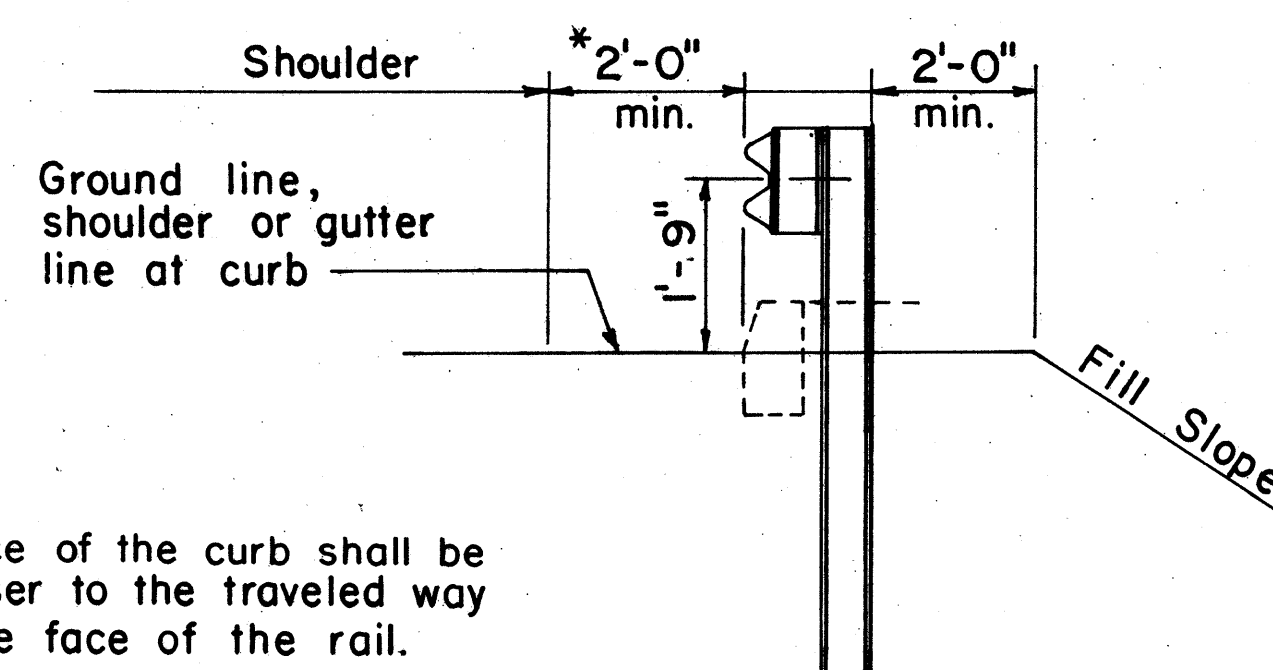
PLAN



ELEVATION

SINGLE METAL GUARDRAIL ON METAL POST WITH METAL SPACER BLOCK

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

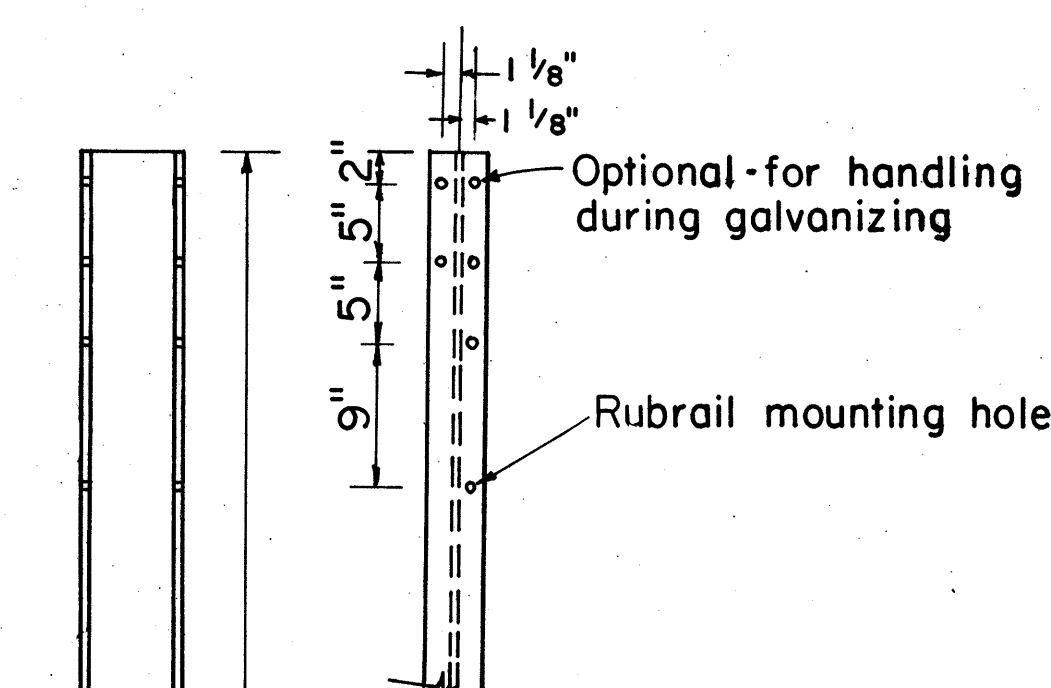


AT SHOULDER SECTION

TYPICAL METAL GUARDRAIL DETAIL

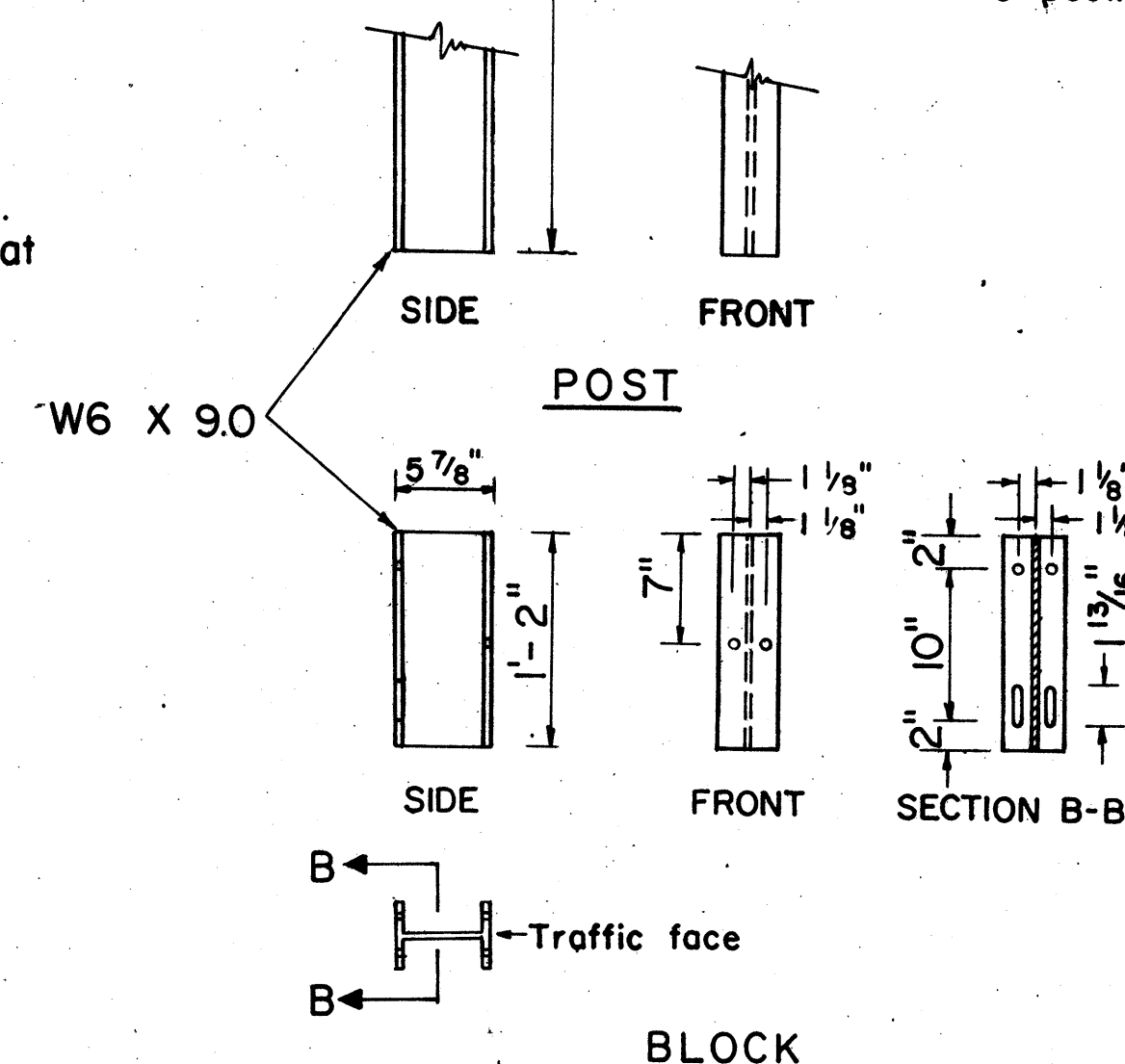
SCALE: 1/2" = 1'-0"

Note:
The face of the curb shall be no closer to the traveled way than the face of the rail.



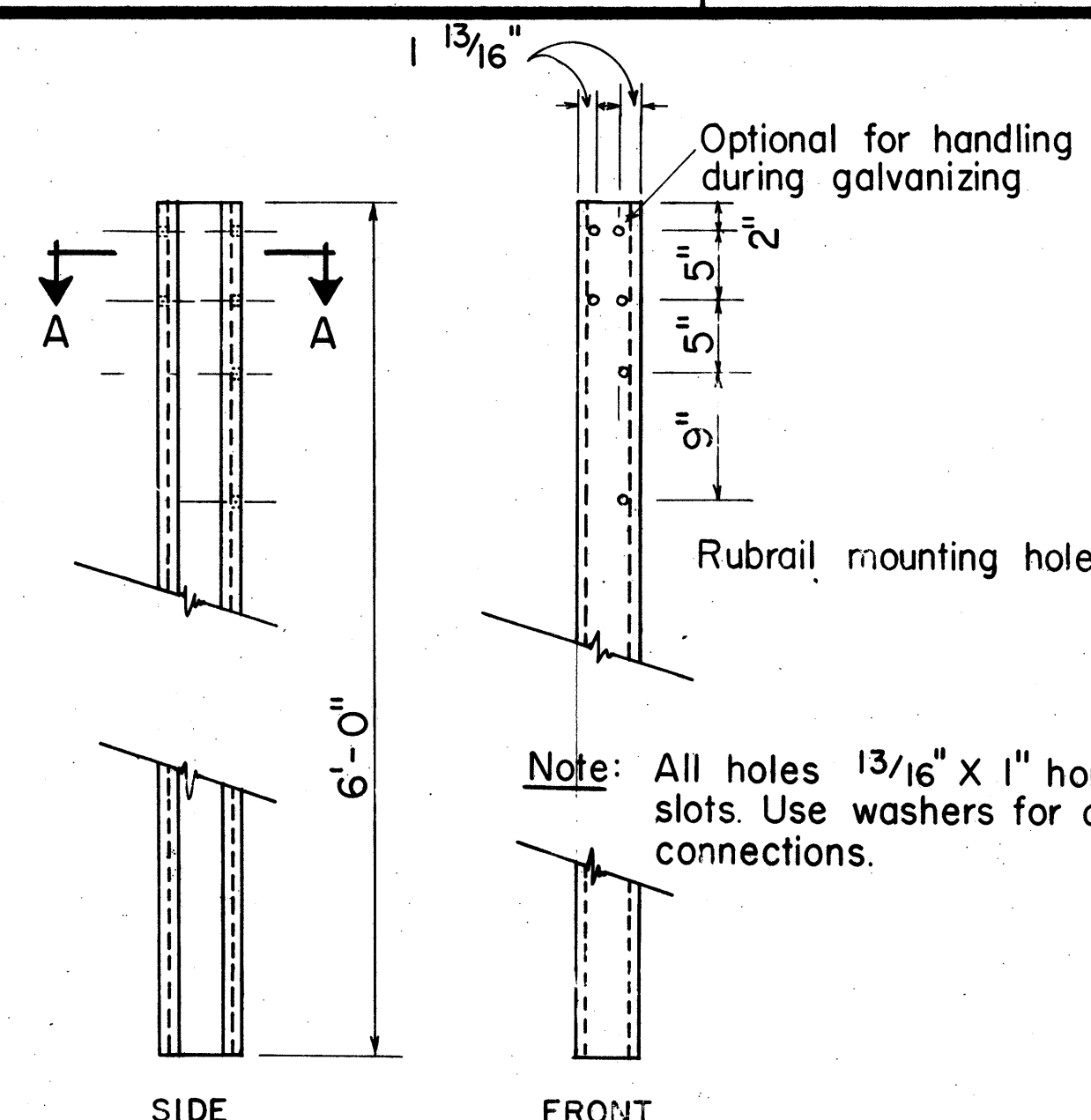
NOTE:

All holes 1 3/16" ϕ . Bolt hole pattern is symmetrical with respect to the vertical axis of the post.

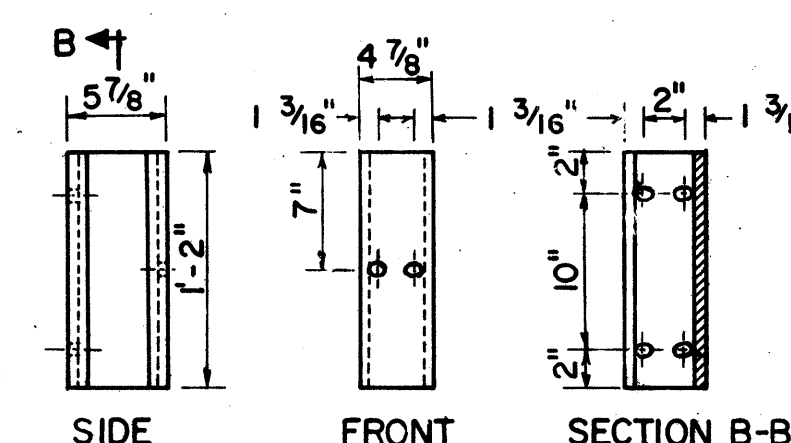


STRUCTURAL SHAPE POST AND BLOCK

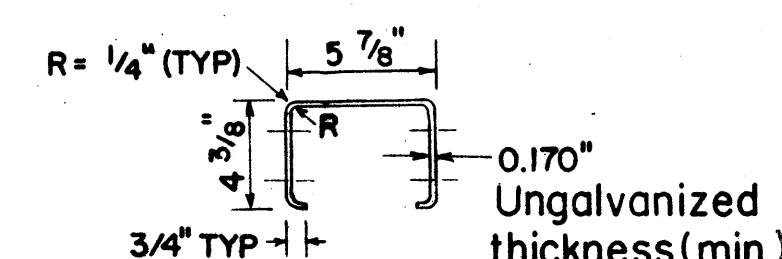
SCALE: 1" = 1'-0"



POST



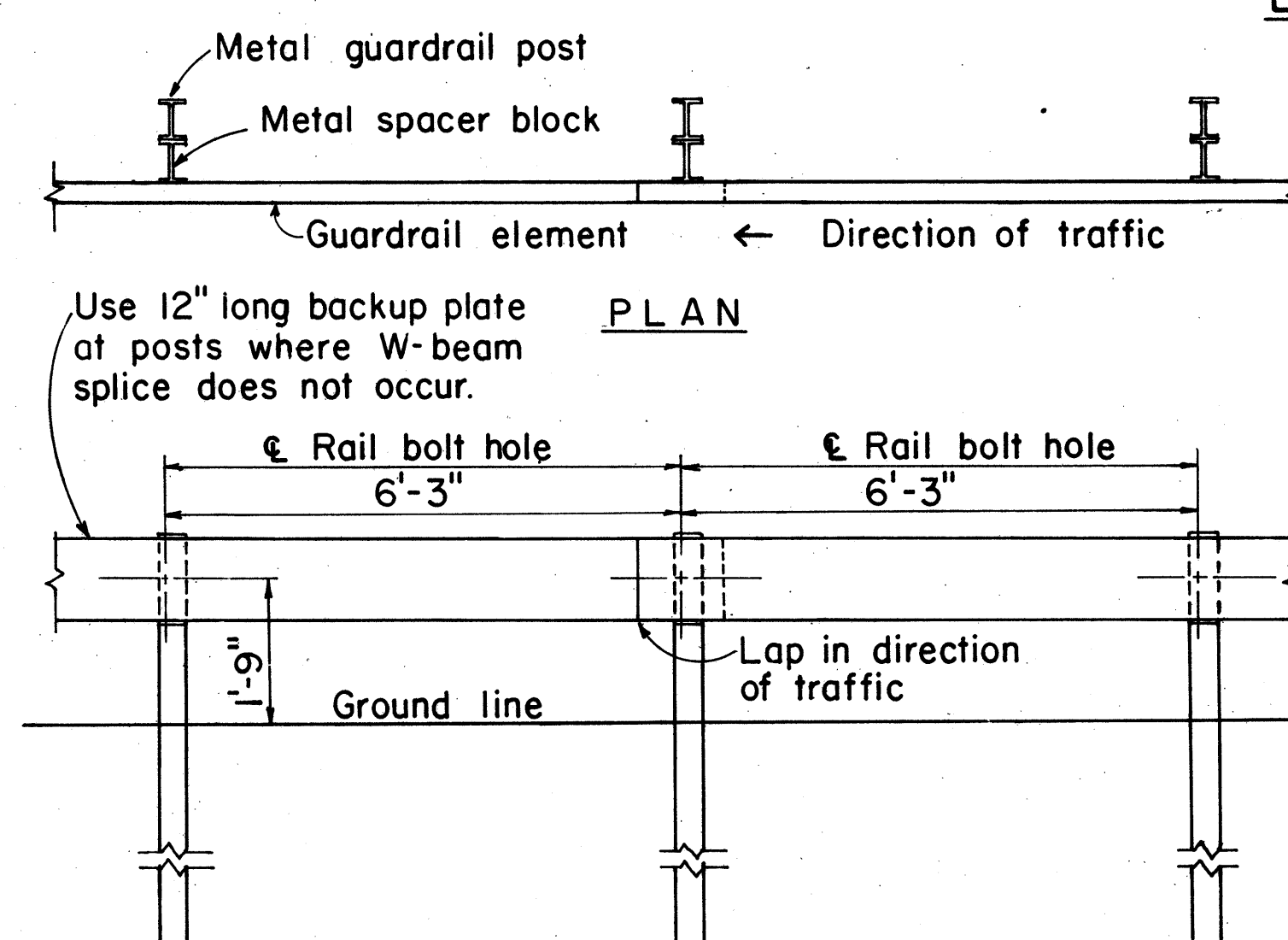
BLOCK



SECTION A-A N.T.S.

BENT PLATE POST AND BLOCK

SCALE: 1" = 1'-0"



ELEVATION

METAL GUARDRAIL ON METAL POST WITH METAL SPACER BLOCK

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

APPROVAL RECOMMENDED:

TRAFFIC ENGINEER

9/7/82
DATE

APPROVED:

ASSISTANT CHIEF, ENGINEERING

9/22/82
DATE

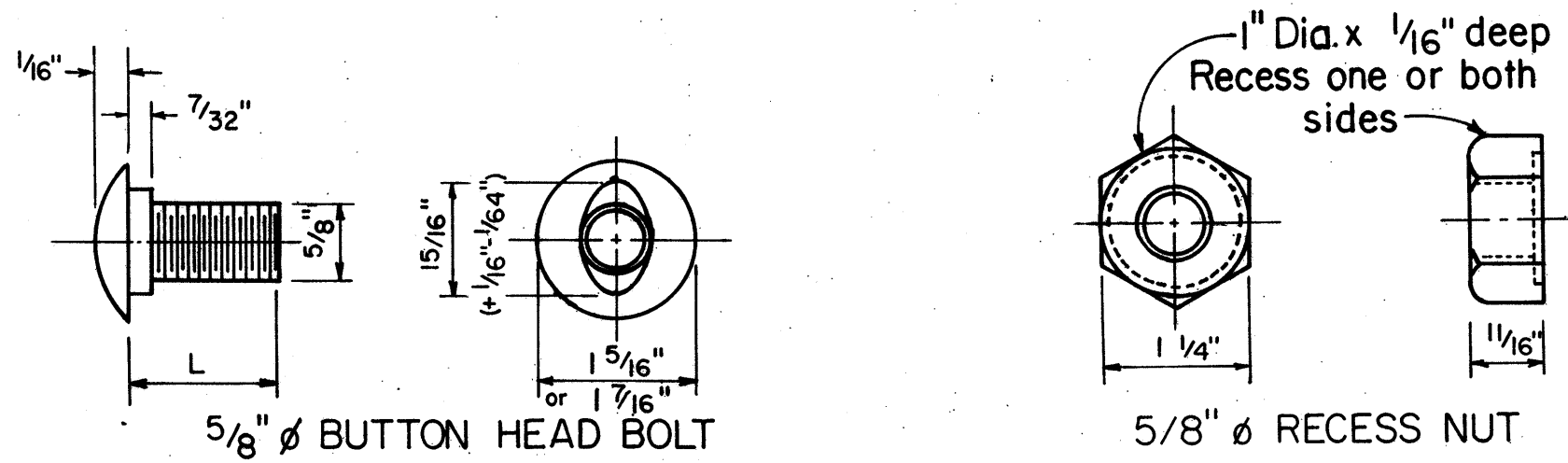
NO.	REVISION	APPROVED BY	DATE
1	Supersedes sht. DT 500 approved 12/30/69.	H.P.	9/22/82
2	Added General Notes No. 6	SD	9-28-83

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS METAL GUARDRAIL

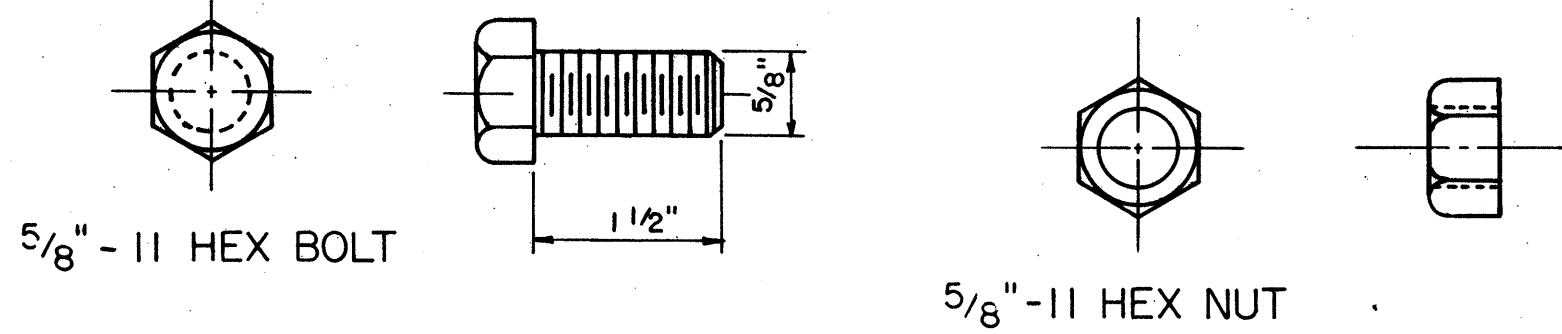
Scale: As Shown July, 1982
SHEET NO. 2 OF 4 SHEETS DT 500

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	6600A-01-84M	1984	10	25

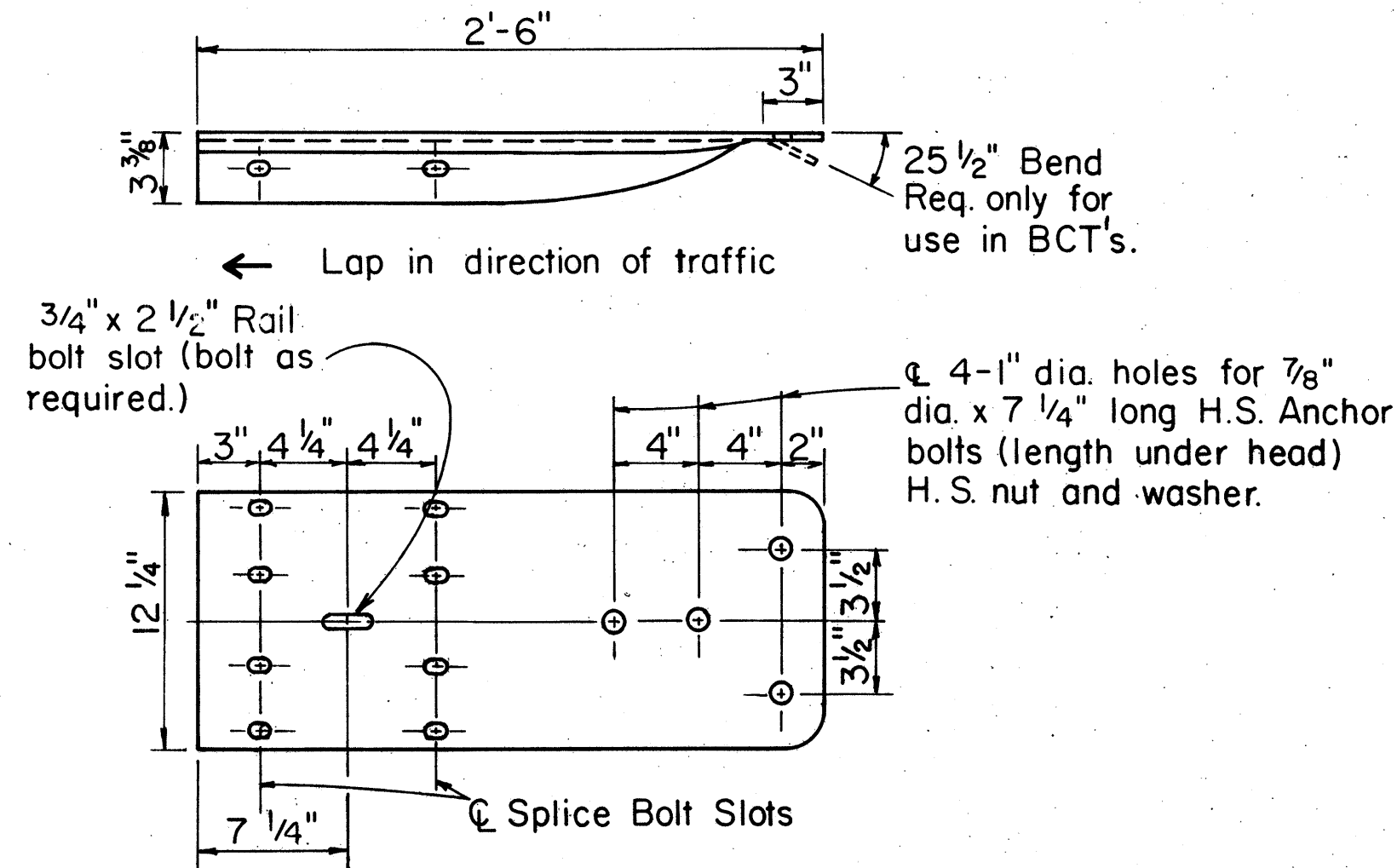


L	Thread Length	Intended Use
1 1/4"	Full length thread	Splice rail elements
2"	1 1/2" min. thread len.	Fasten rails to posts

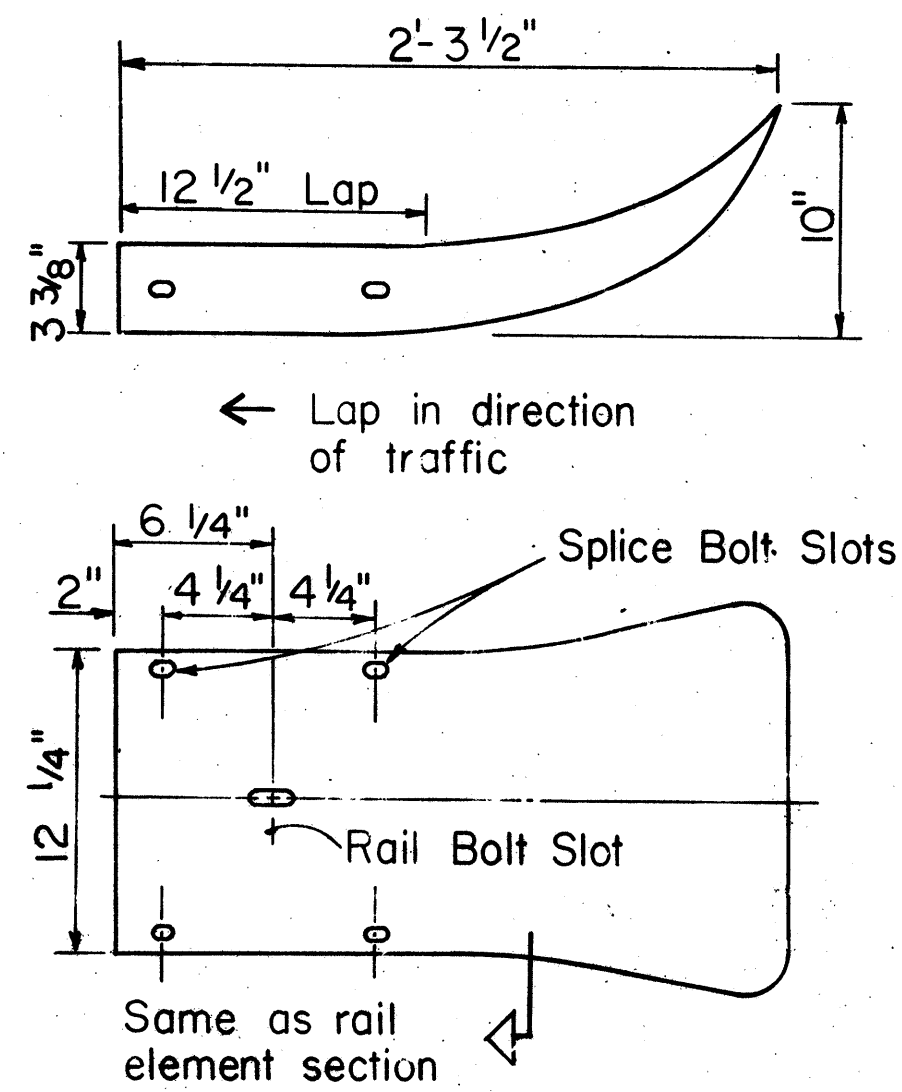
**5/8" BUTTON HEAD BOLT
AND RECESS NUT**
Scale: N.T.S.



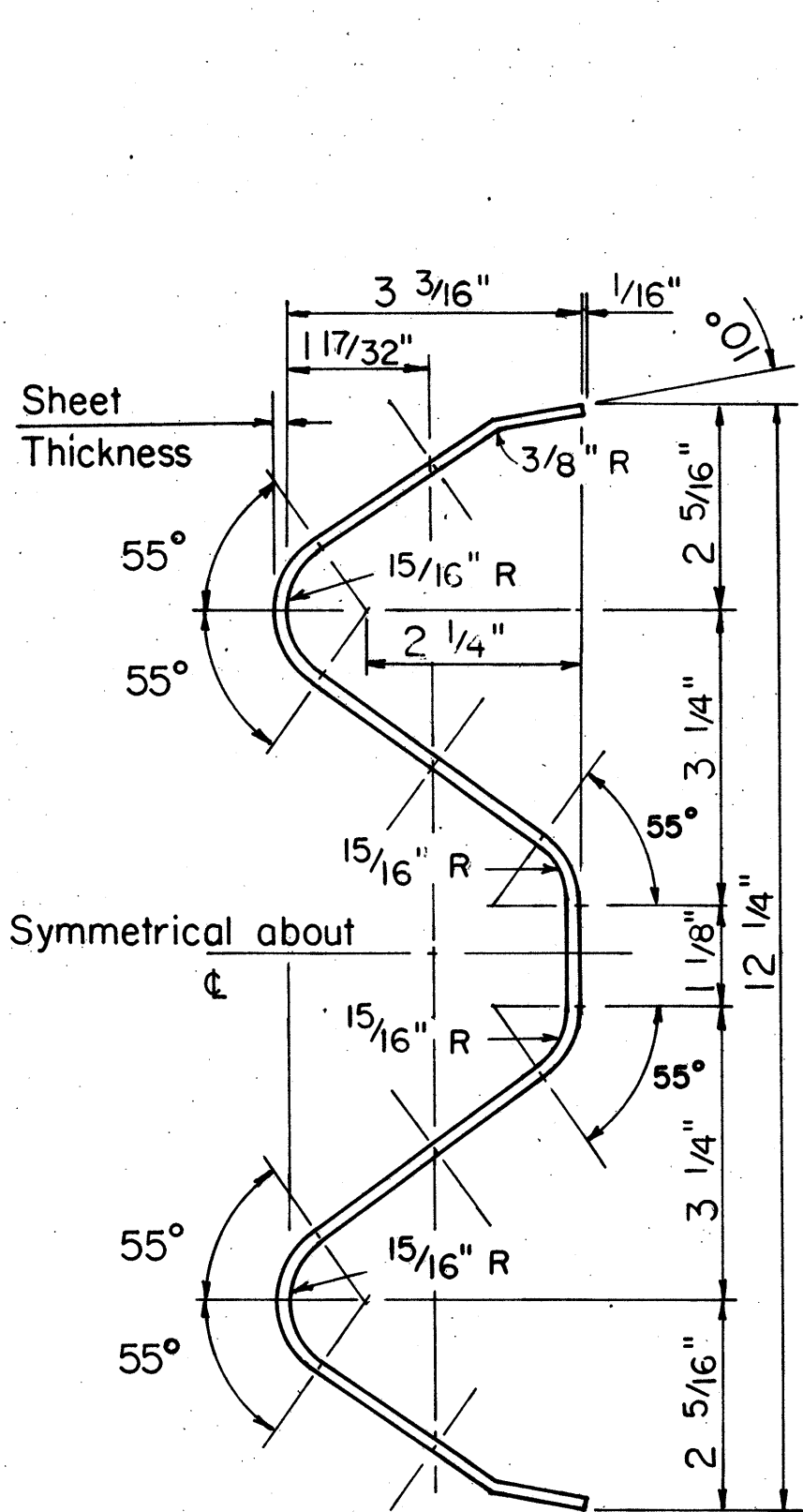
5/8" HEX POST BOLT AND NUT
Scale: N.T.S.



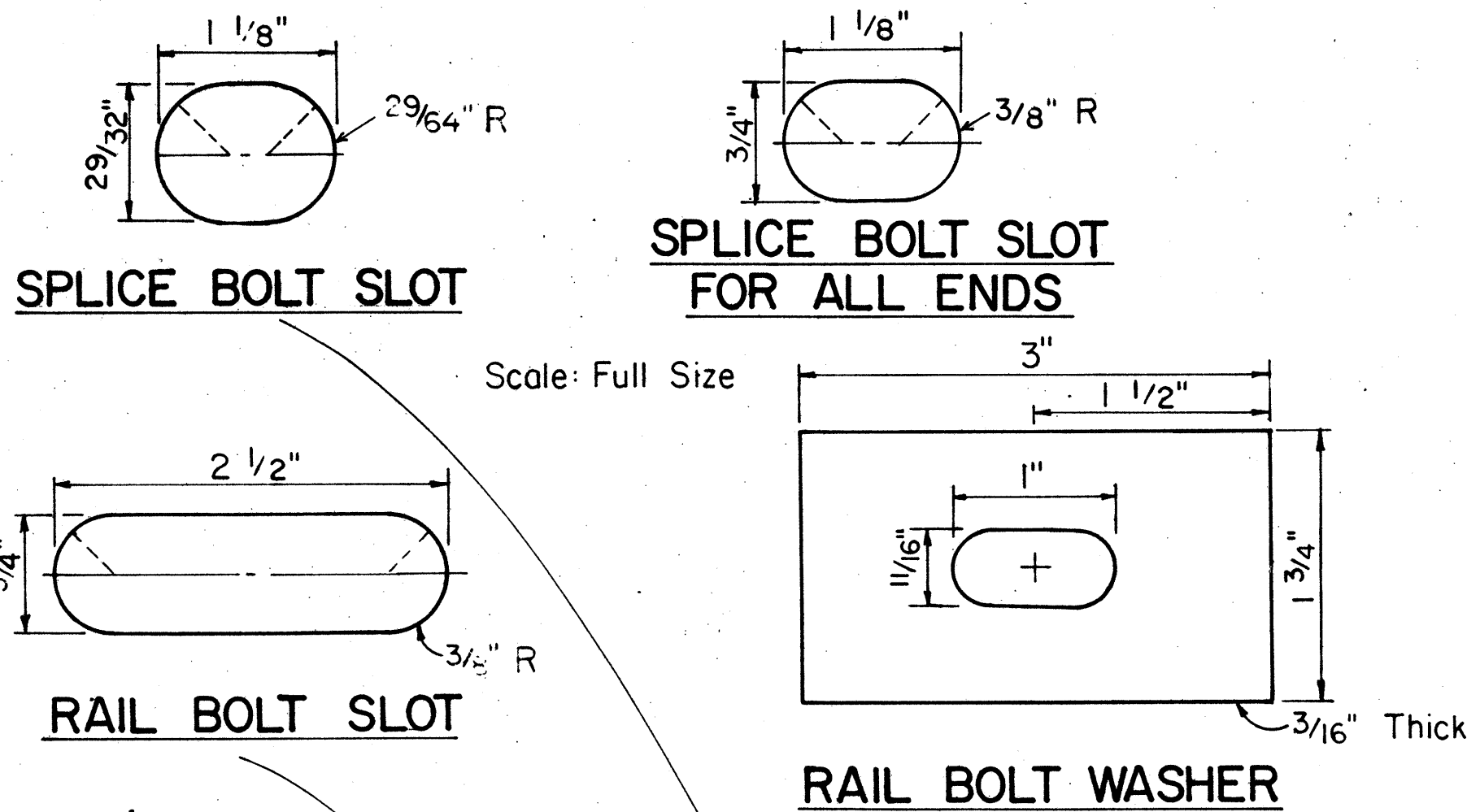
W BEAM TERMINAL CONNECTOR
Scale: 1 1/2" = 1'-0"



W BEAM END SECTION (FLARED)
Scale: 1 1/2" = 1'-0"



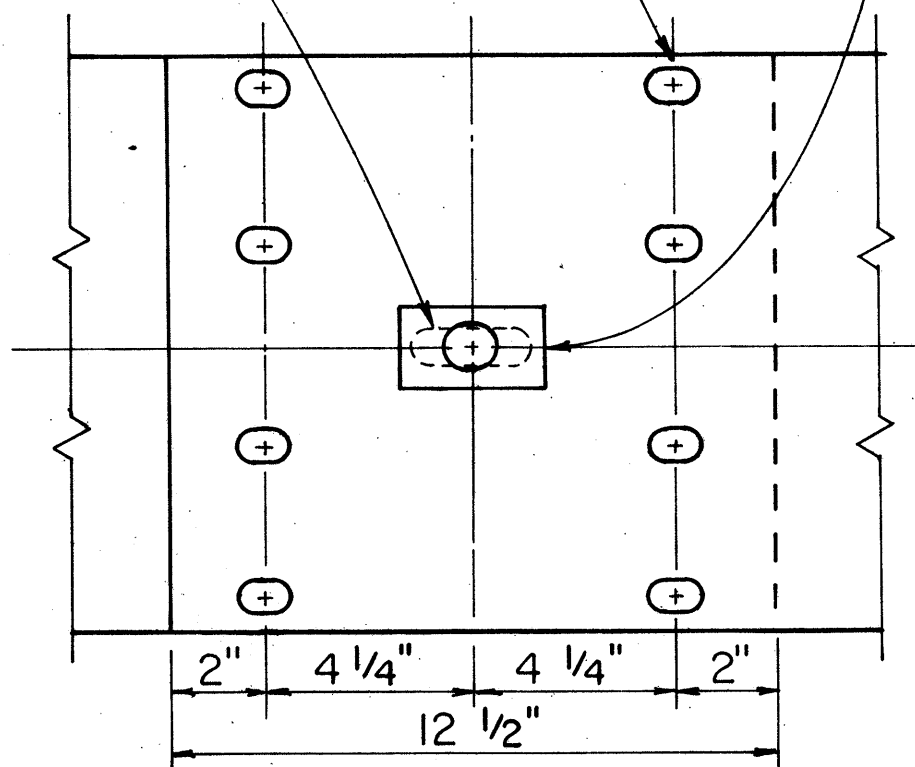
RAIL ELEMENT SECTION
Scale: 6" = 1'-0"



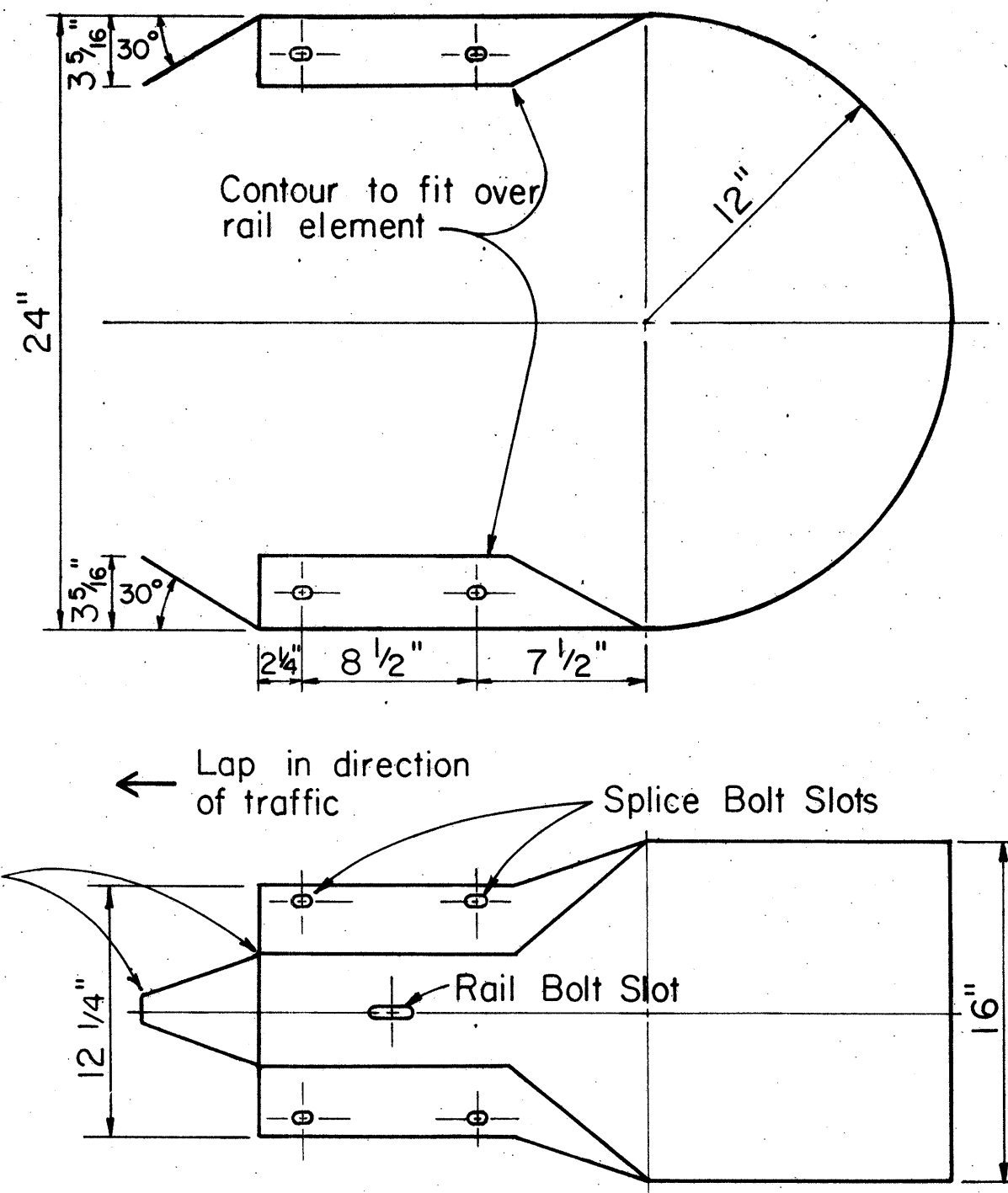
SPLICE BOLT SLOT

RAIL BOLT SLOT

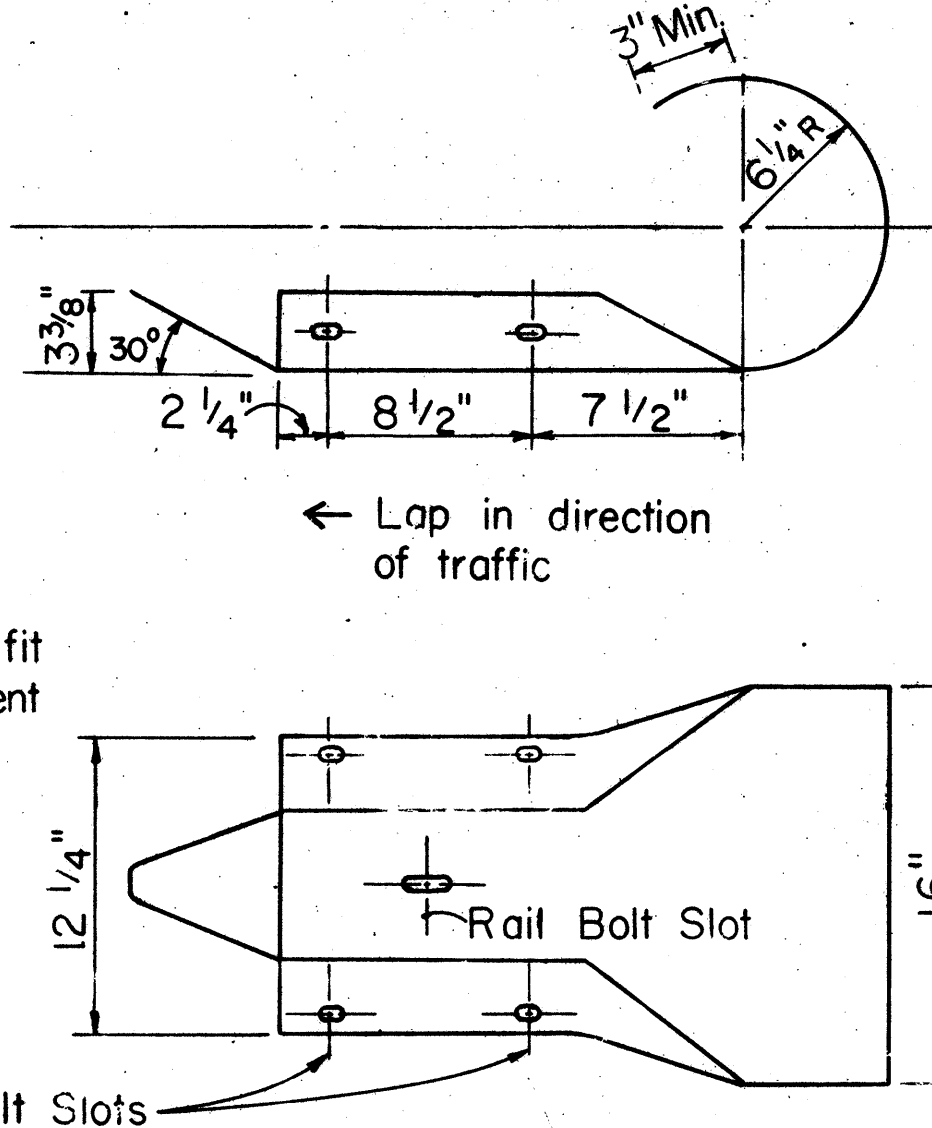
RAIL BOLT WASHER



RAIL SPLICE
Scale: 3" = 1'-0"



W BEAM END SECTION (BUFFER)
Scale: 1 1/2" = 1'-0"



W BEAM END SECTION (ROUNDED)
Scale: 1 1/2" = 1'-0"

APPROVAL RECOMMENDED:
Eishi Tanaka
TRAFFIC ENGINEER
9/20/82
DATE

APPROVED:
Shirley S. S. S.
ASSISTANT CHIEF, ENGINEERING
9/22/82
DATE

NO.	REVISION	APPROVED BY	DATE
1	Supersedes sht. DT 501 approved 12/30/69	H.f.	9/22/82

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
METAL GUARDRAIL

Scale: As Noted
July, 1982
SHEET NO. 3 OF 4 SHEETS DT 501

