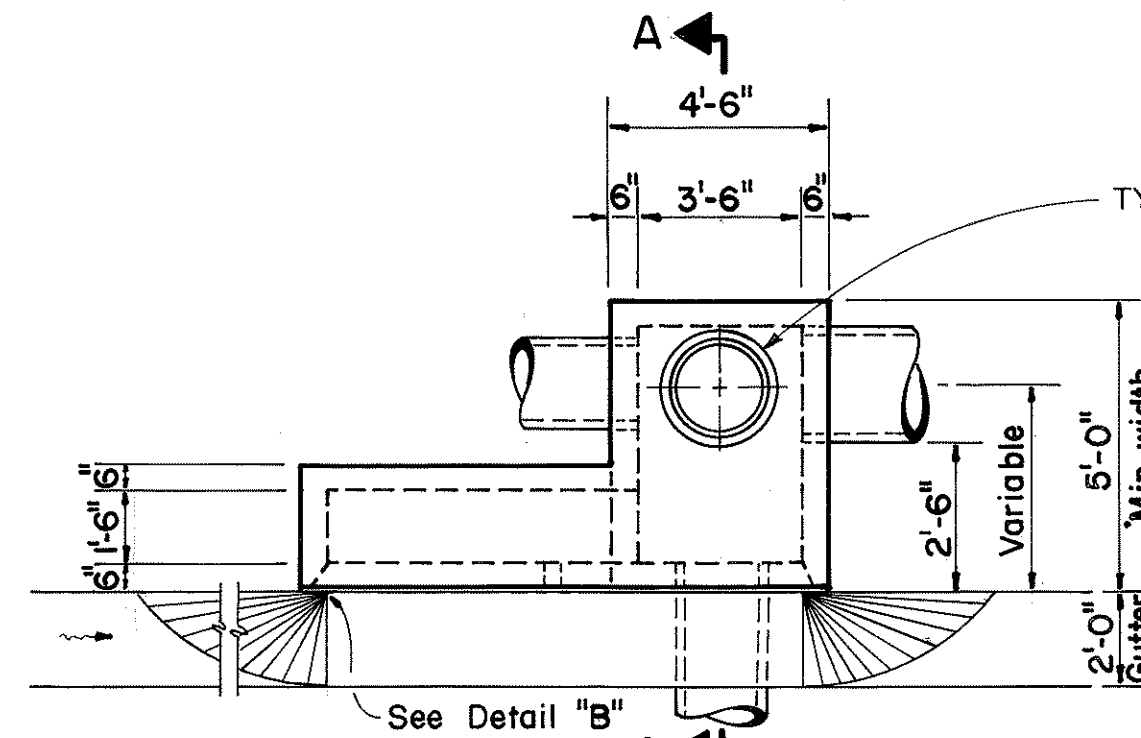
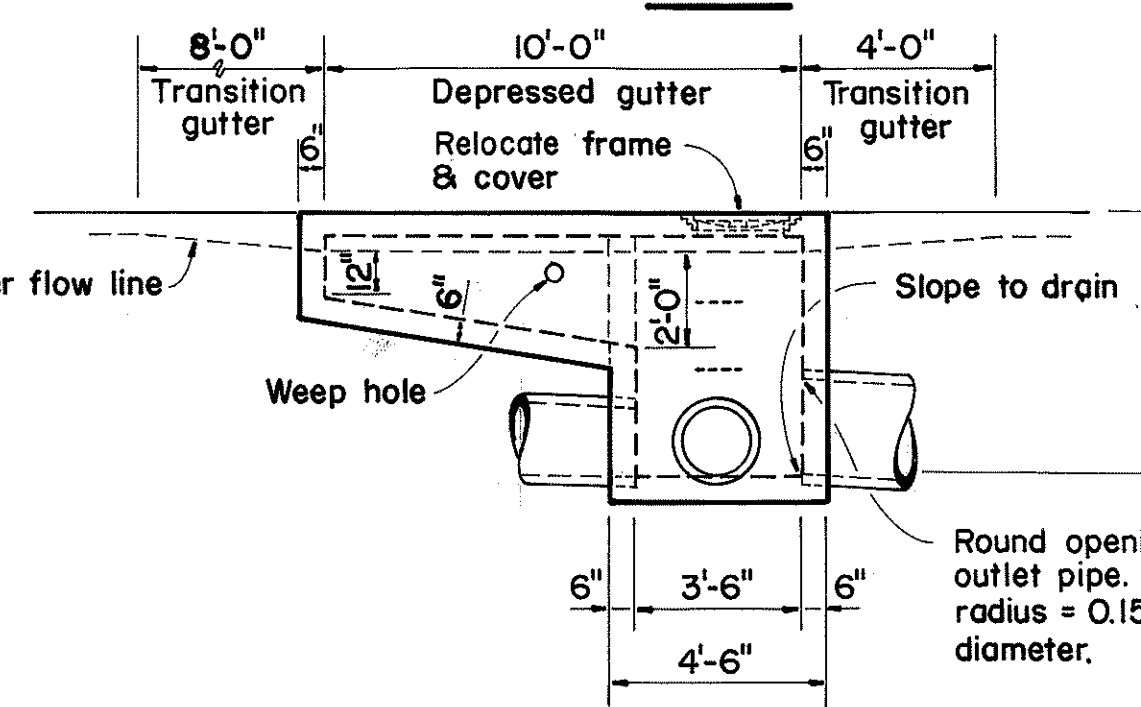


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	MG-1950(1)	1982	4	25



PLAN



ELEVATION

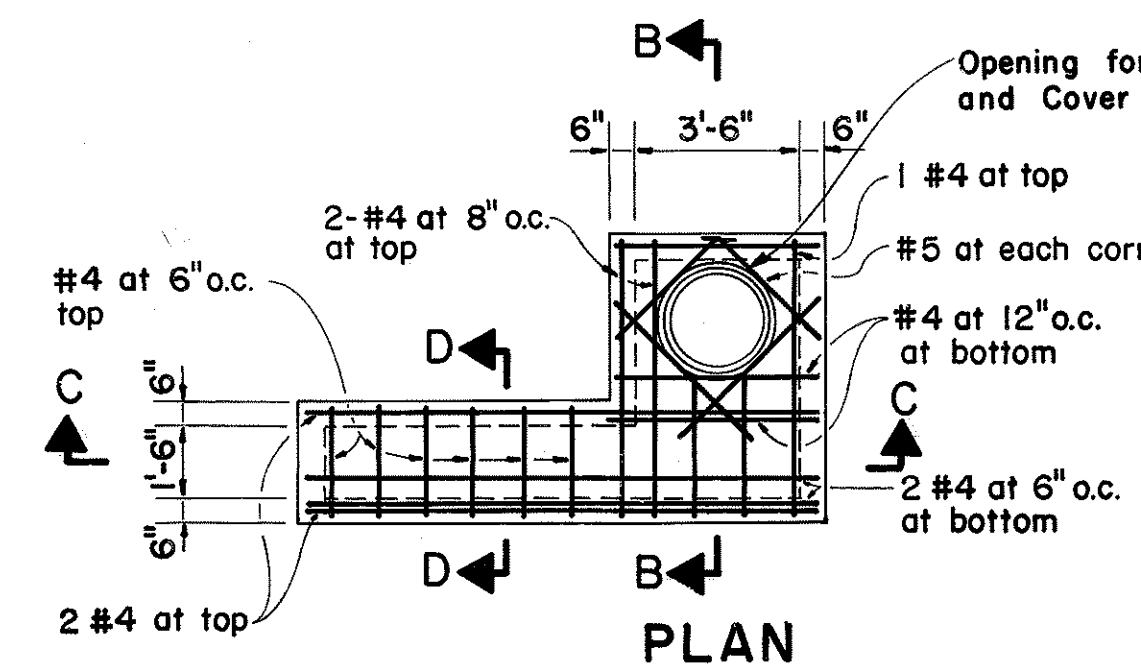
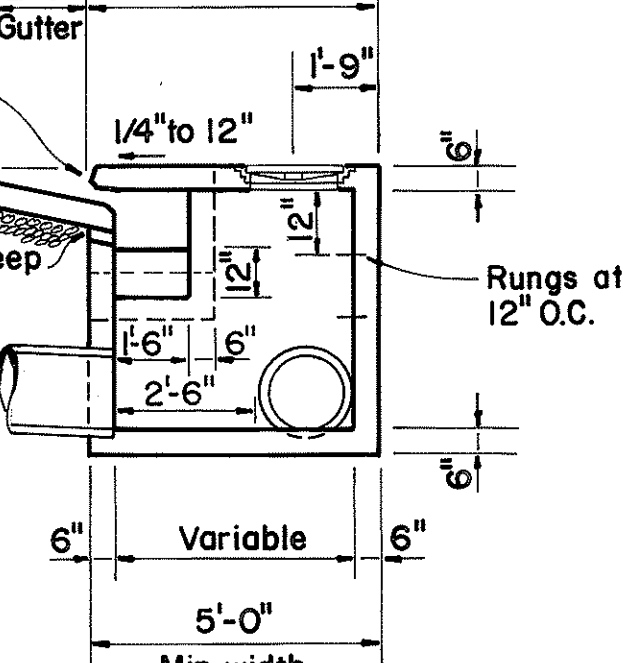
TYPE "A" CATCH BASIN

Scale: 1/4" = 1'-0"

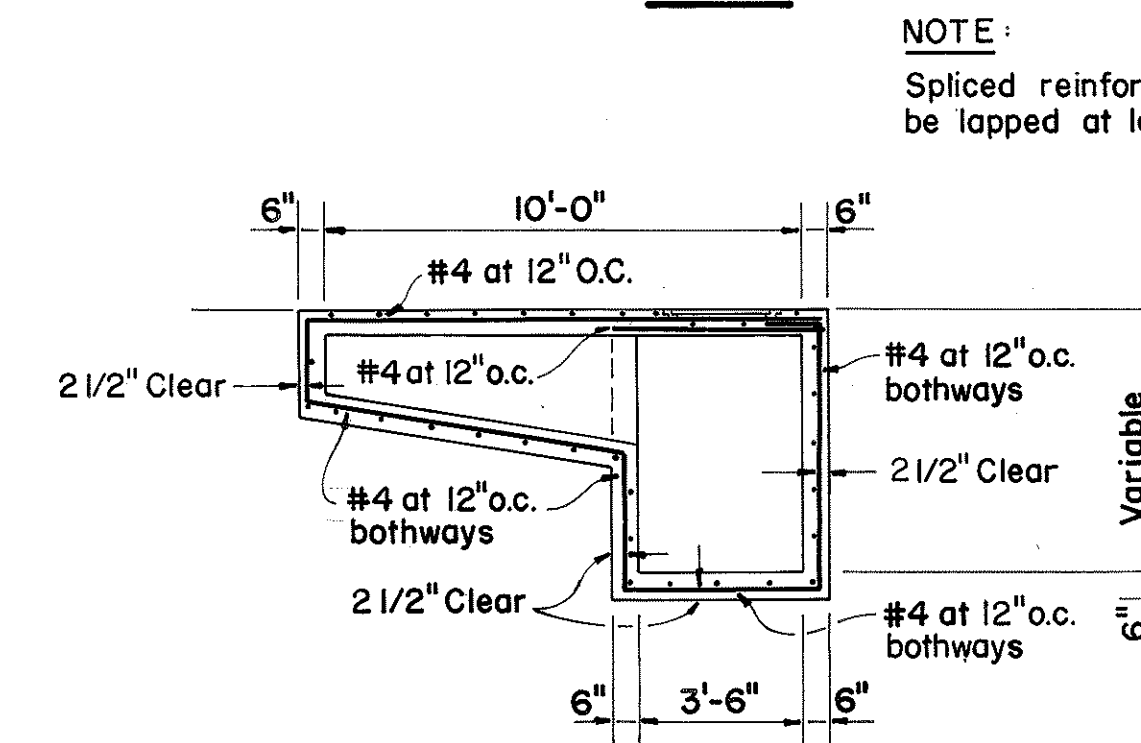
NOTES:

- Provide 2 cu. ft. of crushed rock, ASTM size #9 Rock Sand, at weep hole.
- Rungs shall not be installed over a pipe connection and the lowest rung shall be not more than 2'-0" above the invert.

SECTION A-A



PLAN



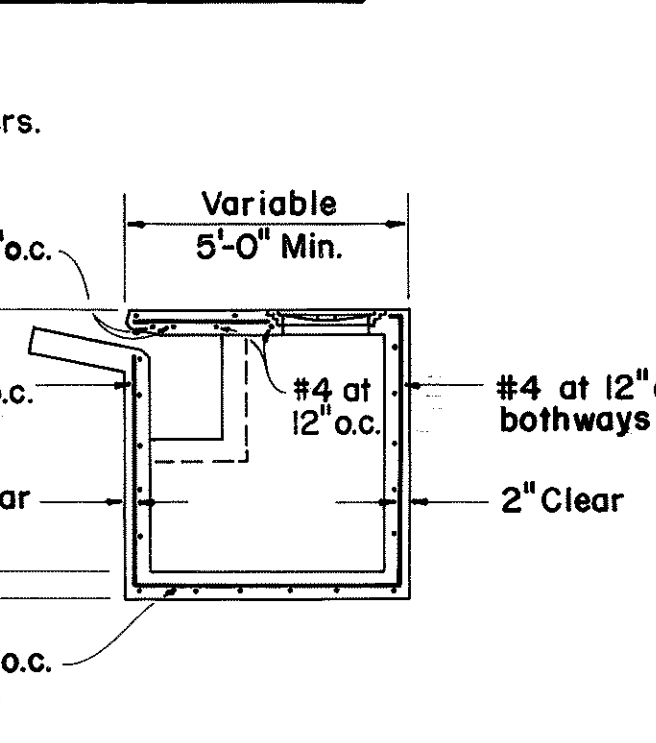
SECTION C-C

TYPE "A" CATCH BASIN

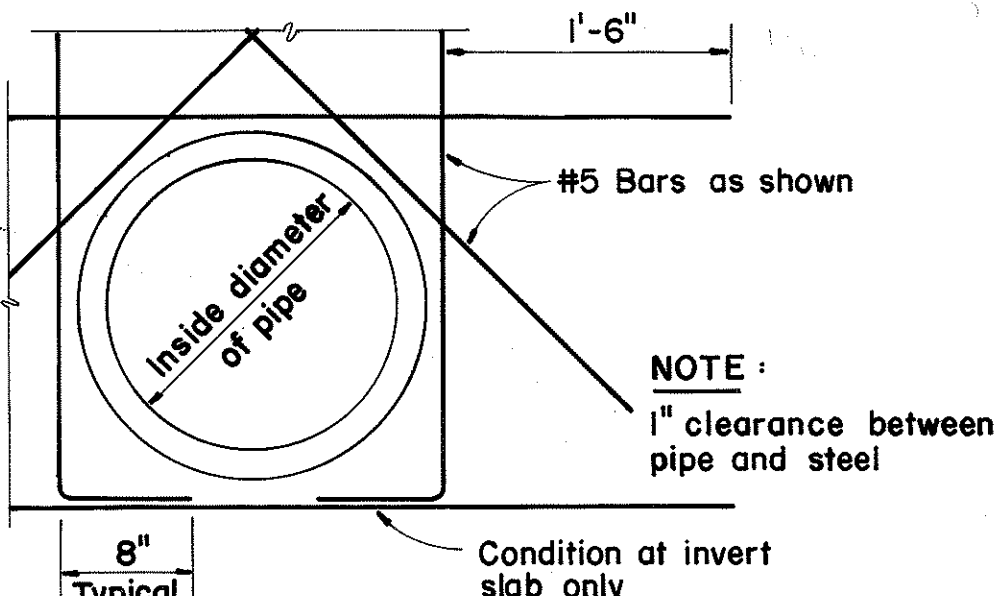
REINFORCEMENT DETAILS

Scale: 1/4" = 1'-0"

SECTION D-D



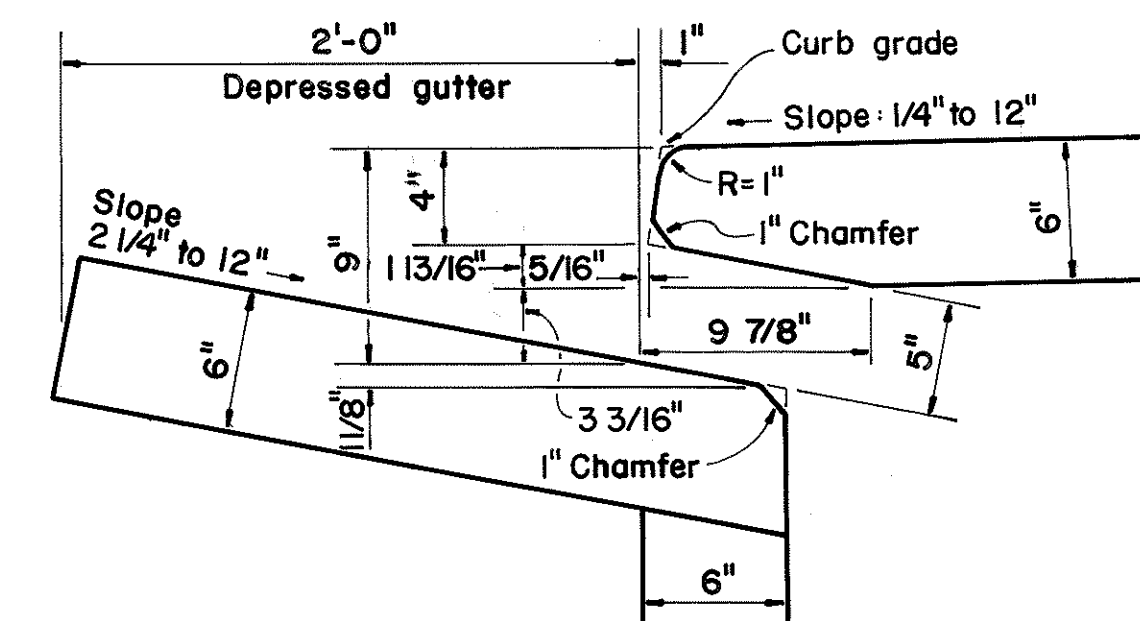
SECTION B-B



TYPICAL REINFORCEMENT

AT PIPES

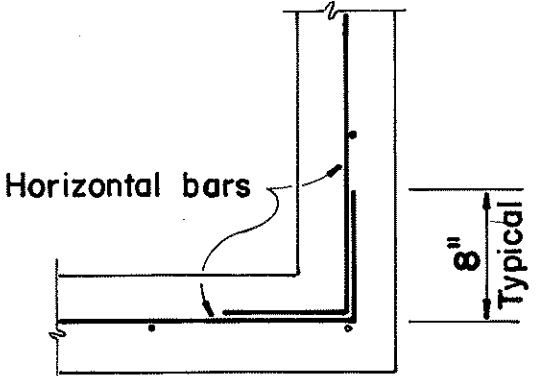
Scale: 1" = 1'-0"



DETAIL "A"

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

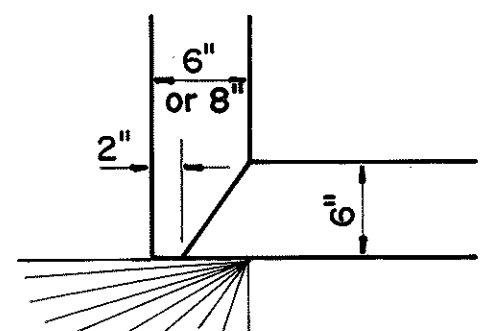
CATCH BASIN DETAILS



TYPICAL CORNER

REINFORCEMENT LAPPING

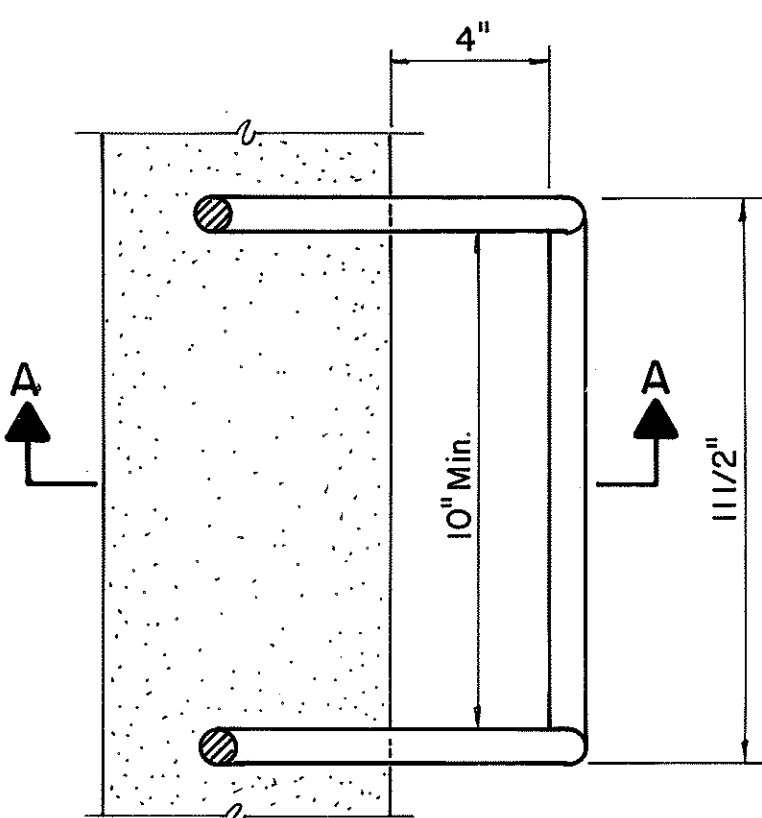
Scale: 1" = 1'-0"



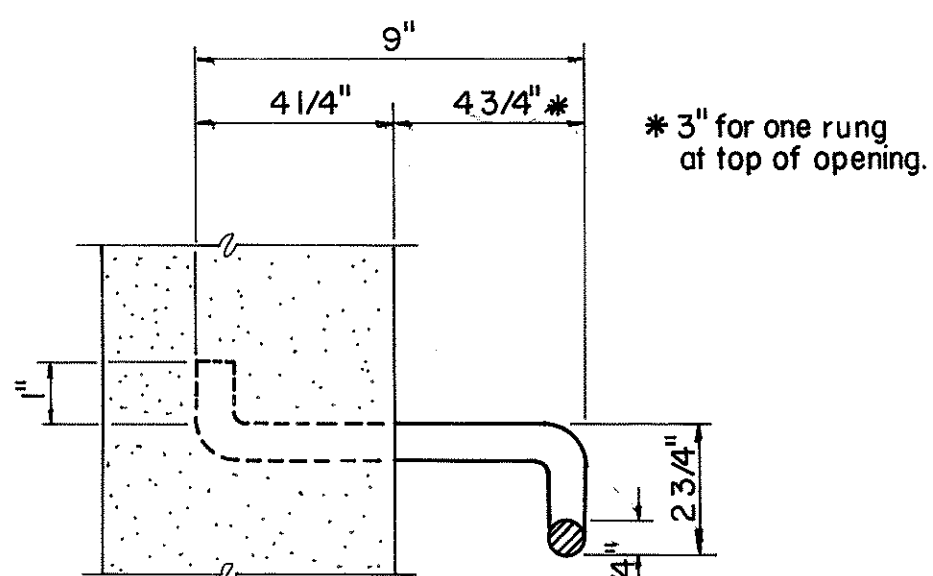
DETAIL "B"

NOTE:

1. Rungs shall be 3/4" diameter wrought iron or ASTM A36 steel rods and shall be hot-dipped galvanized or cadmium plated after bending. Rungs shall conform to requirements of OSHA 1910.27g.



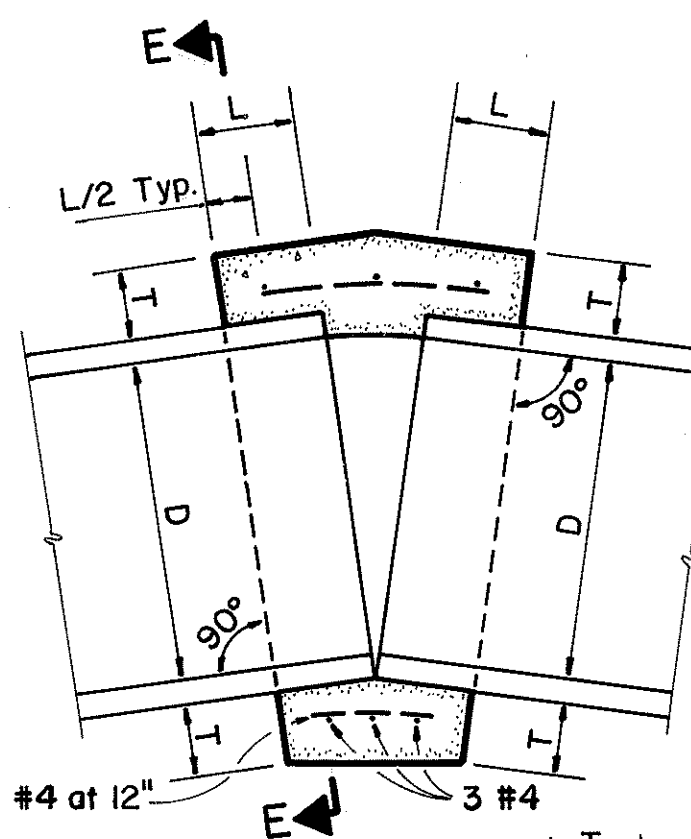
SECTION



SECTION A-A

RUNGS

No Scale



SECTION E-E

CONCRETE COLLAR DETAILS

No scale

D	L	T
12"	1.0'	4"
24"	1.0'	6"
36"	1.5'	8"

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

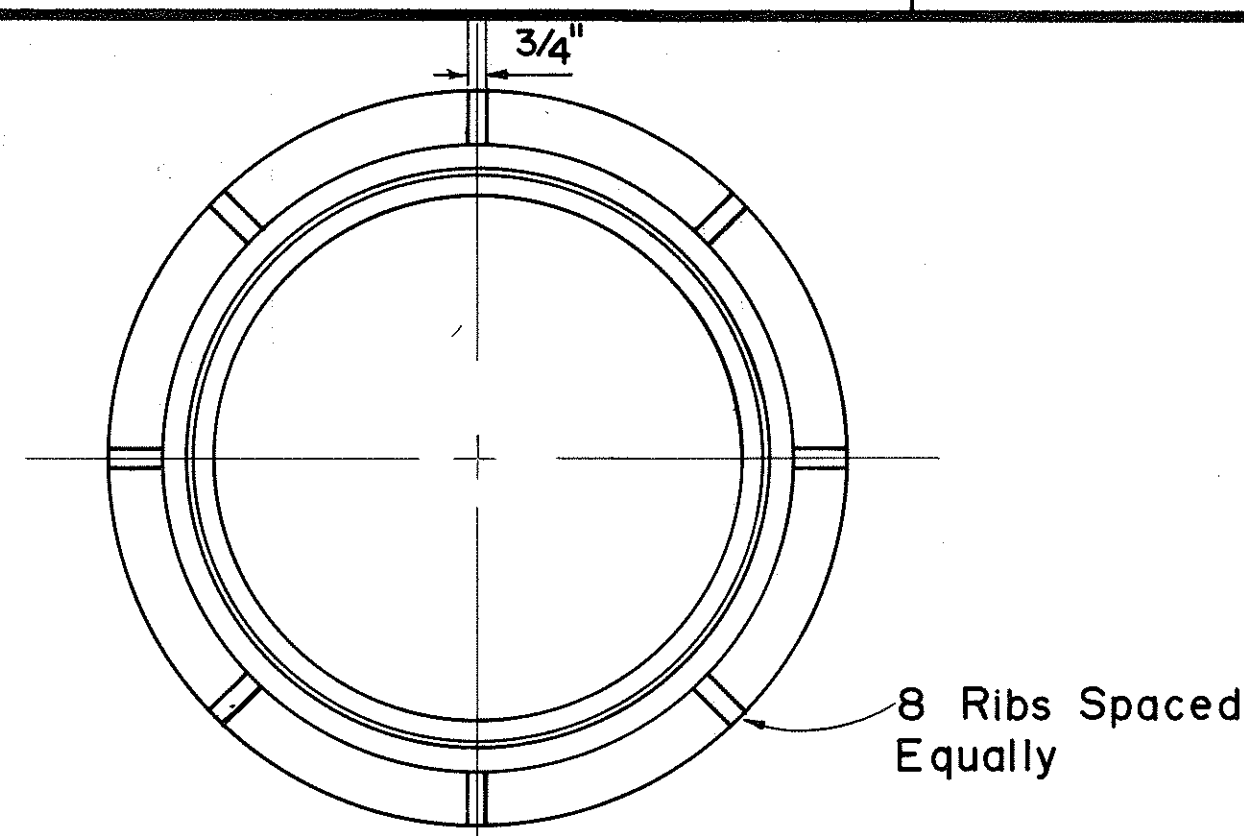
DRAINAGE DETAILS

WAIANUENUE AVENUE - BAYFRONT HIGHWAY
SIGNALIZATION PROJECT
PROJECT NO. MG-1950(1)

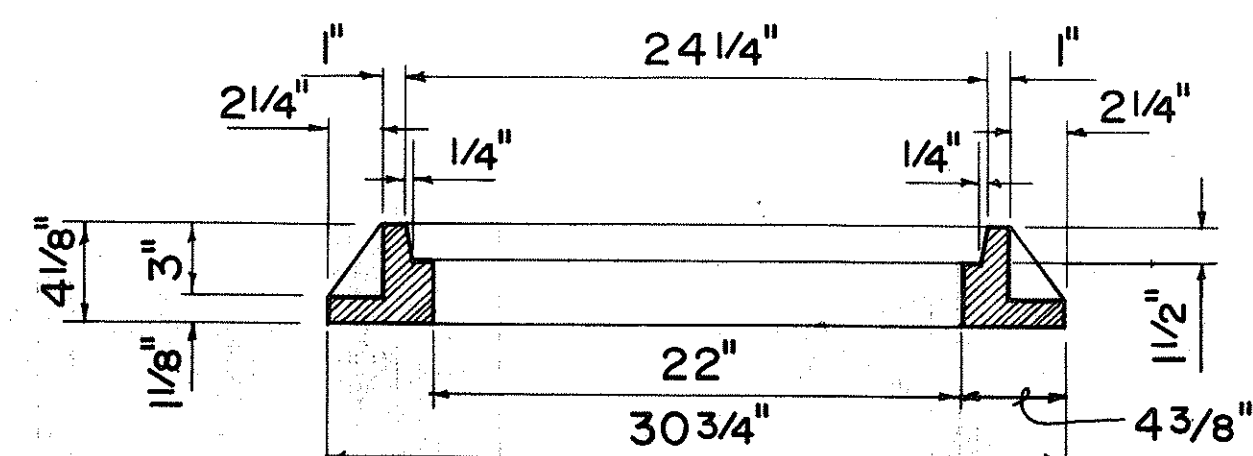
SCALE: AS SHOWN DATE: DEC., 1981

SHEET NO. / OF 2 SHEETS

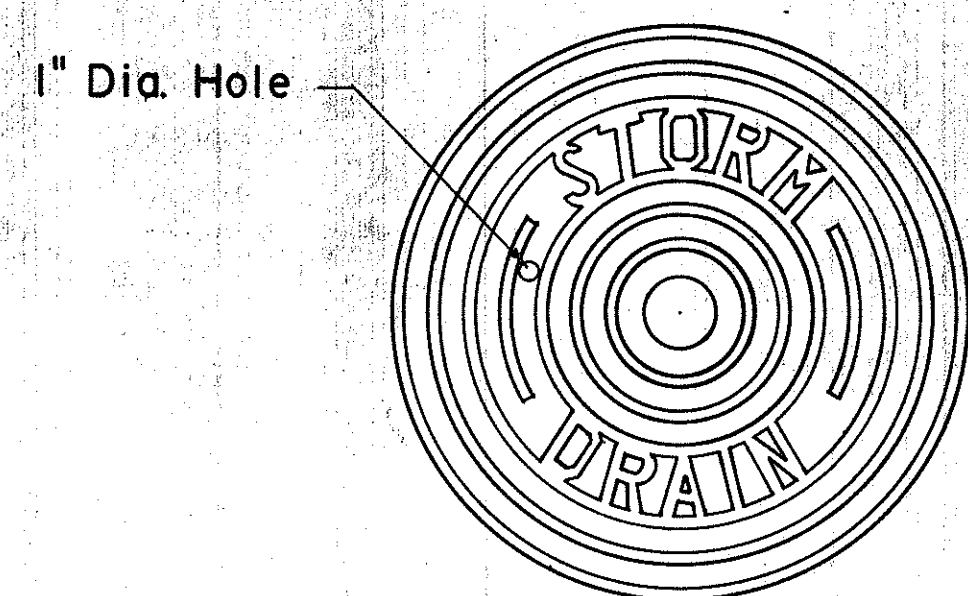
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	114-1950(1)	1982	5	25



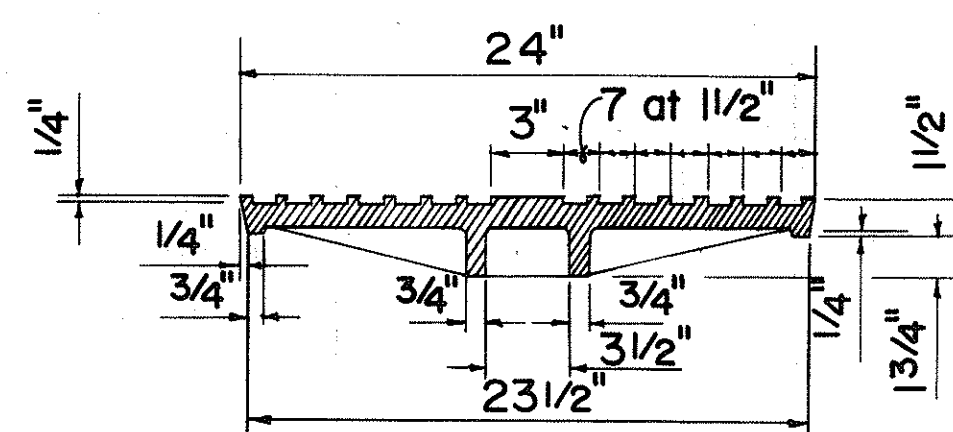
PLAN OF FRAME



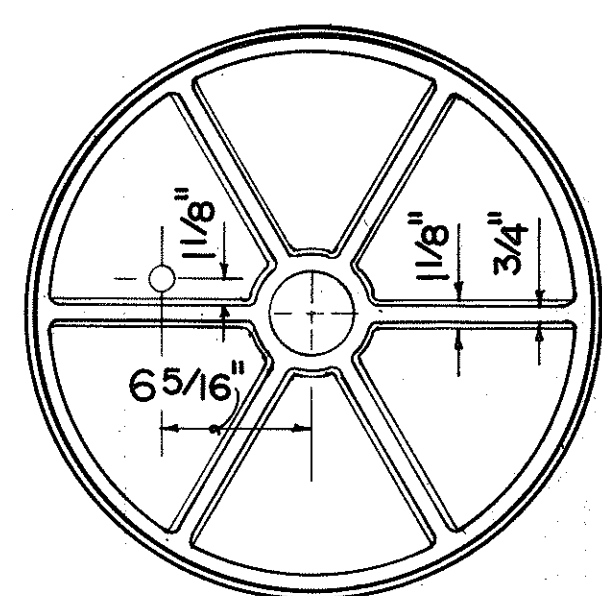
SECTION OF FRAME



TOP VIEW OF COVER

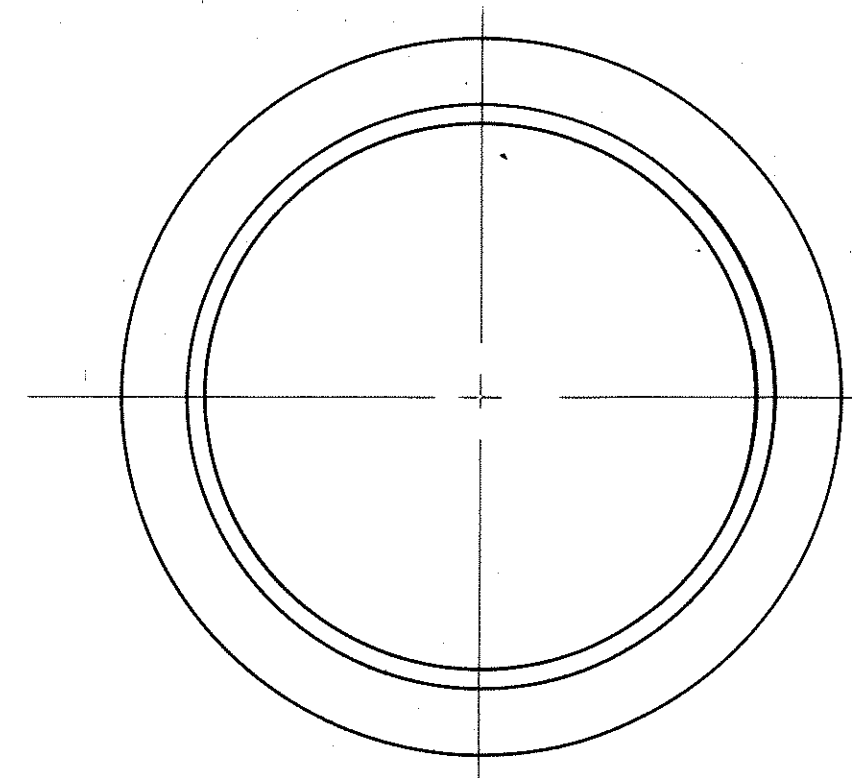


SECTION

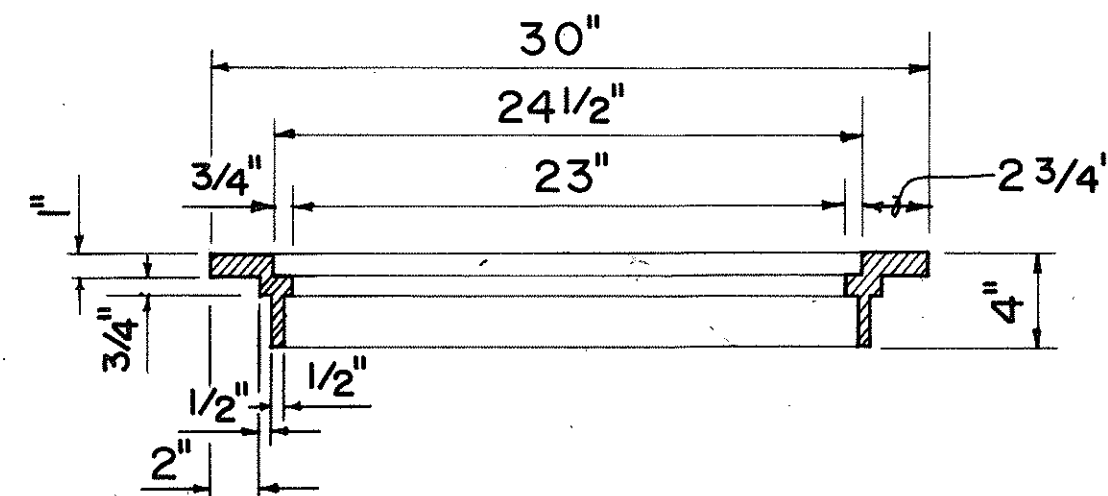


BOTTOM VIEW OF COVER

**TYPE "P" CAST IRON
FRAME AND COVER**



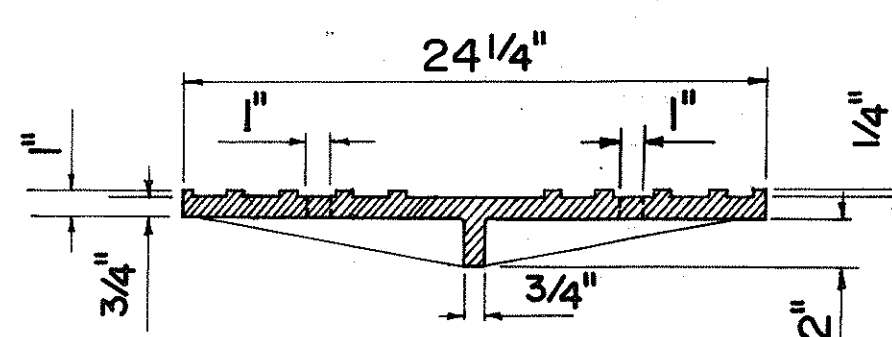
PLAN OF FRAME



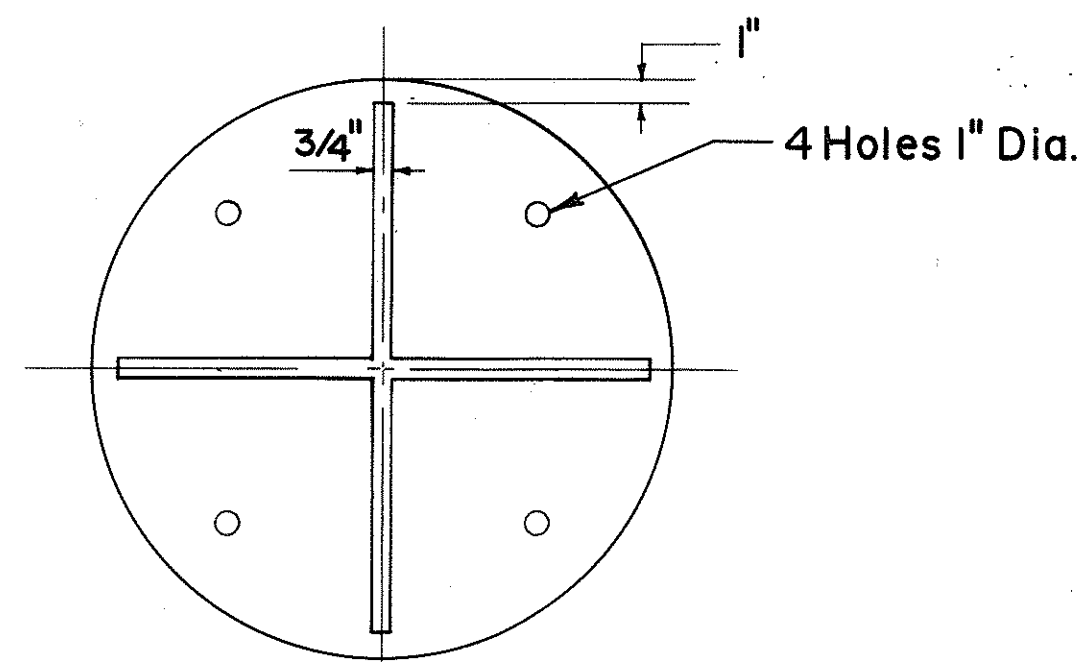
SECTION OF FRAME



TOP VIEW OF COVER

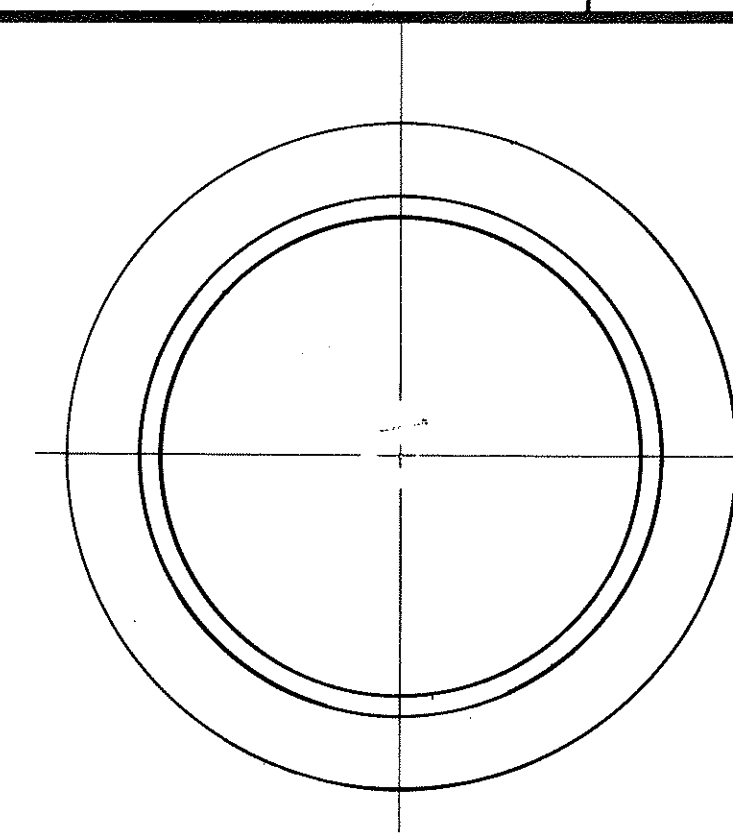


SECTION

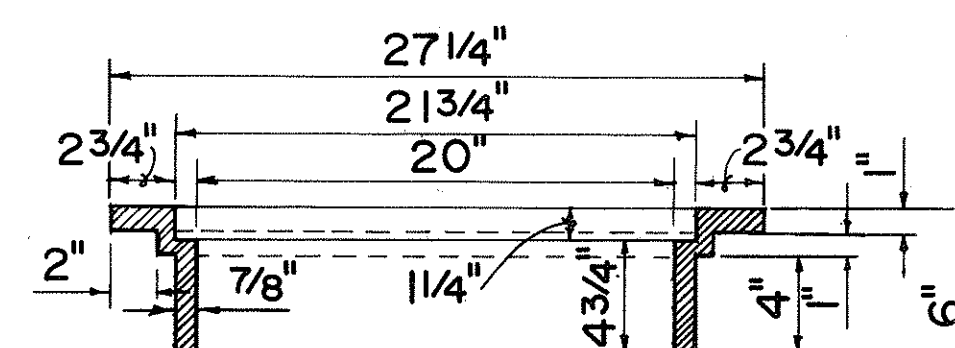


BOTTOM VIEW OF COVER

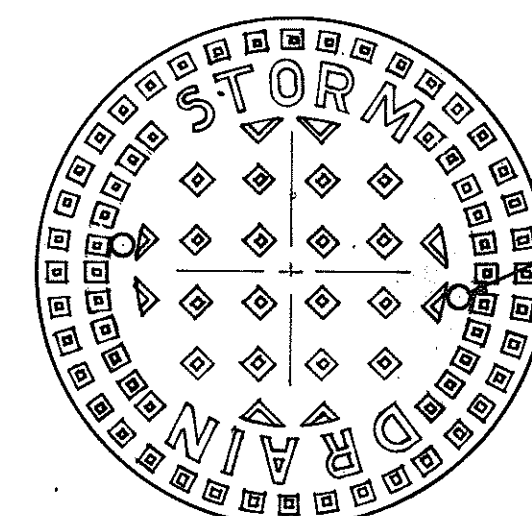
**TYPE "B" CAST IRON
FRAME AND COVER**



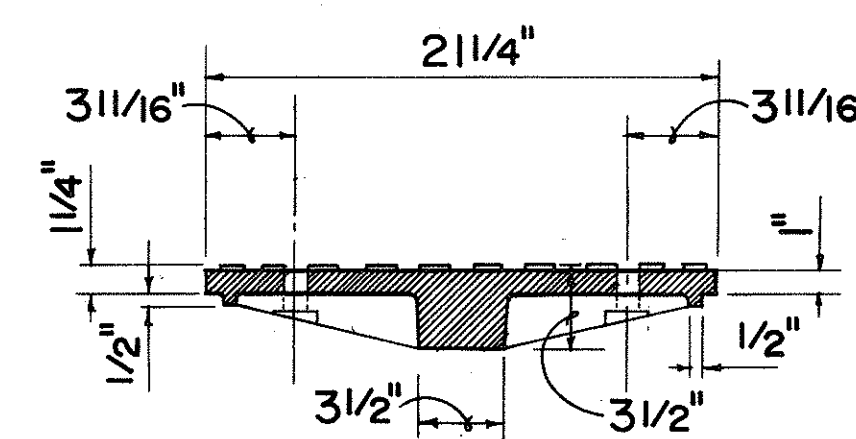
PLAN OF FRAME



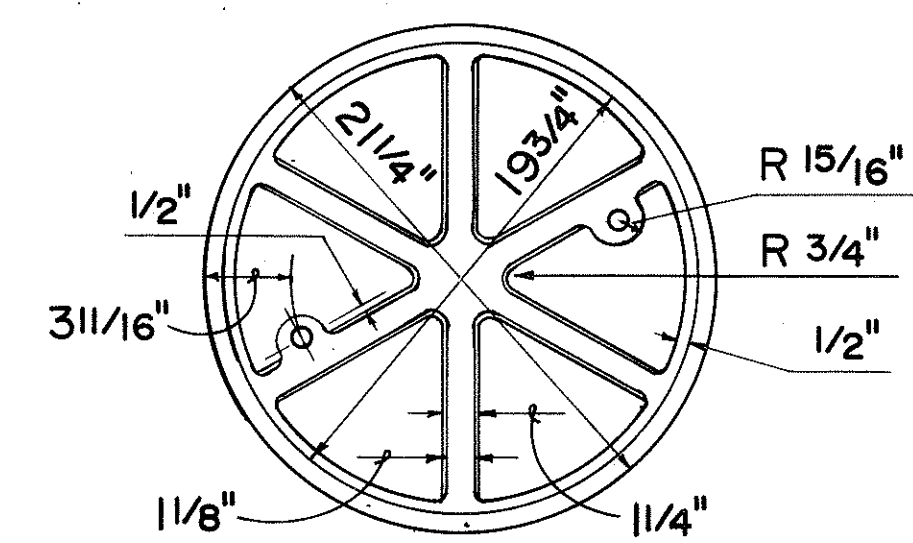
SECTION OF FRAME



TOP VIEW OF COVER

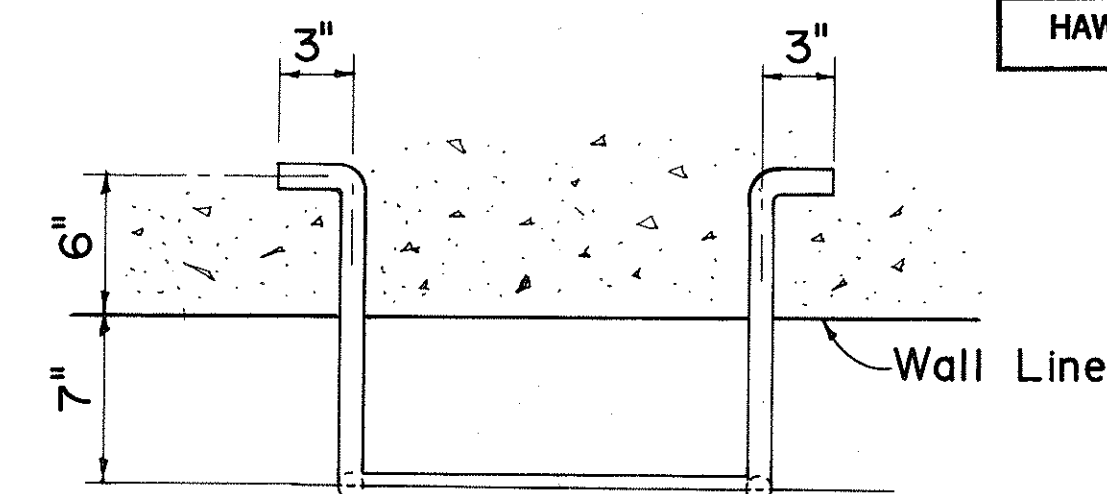


SECTION

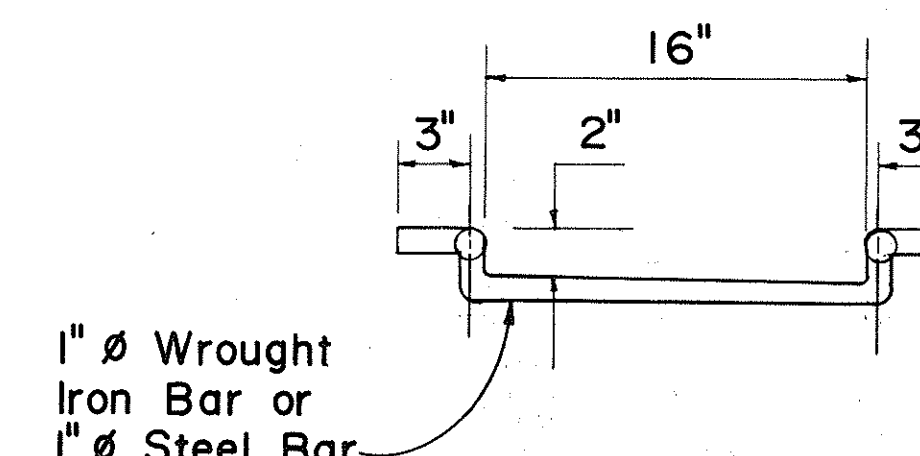


BOTTOM VIEW OF COVER

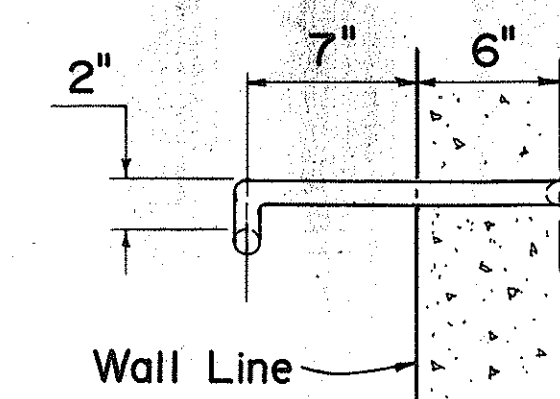
**TYPE "A" CAST IRON
FRAME AND COVER**



PLAN



FRONT VIEW



SIDE VIEW

MANHOLE RUNG

APPROVAL RECOMMENDED:
Takano
HYDRAULIC DESIGN ENGINEER 6-19-79 DATE

APPROVED:
Harold Zaleishi
ASSISTANT CHIEF, ENGINEERING 6-22-79 DATE

NO.	REVISION	APPROVED BY	DATE
1.	Supersedes Sht. DH 6 approved 12-17-69	H.F.	6/22/79

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS CATCH BASIN AND MANHOLE CASTINGS
Not To Scale Date: Dec. 1977

SHEET NO. 2 OF 2 SHEETS DH 6