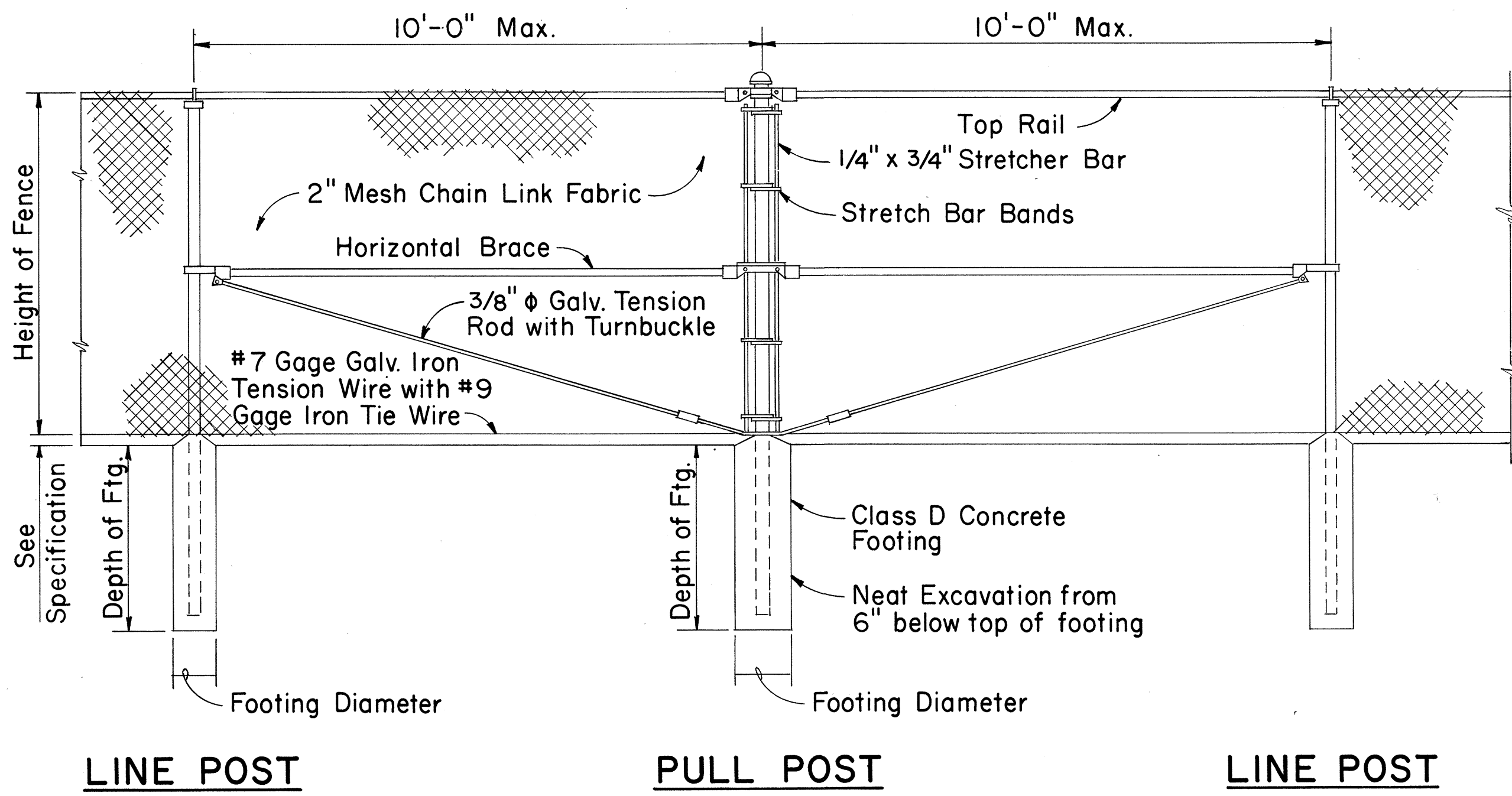
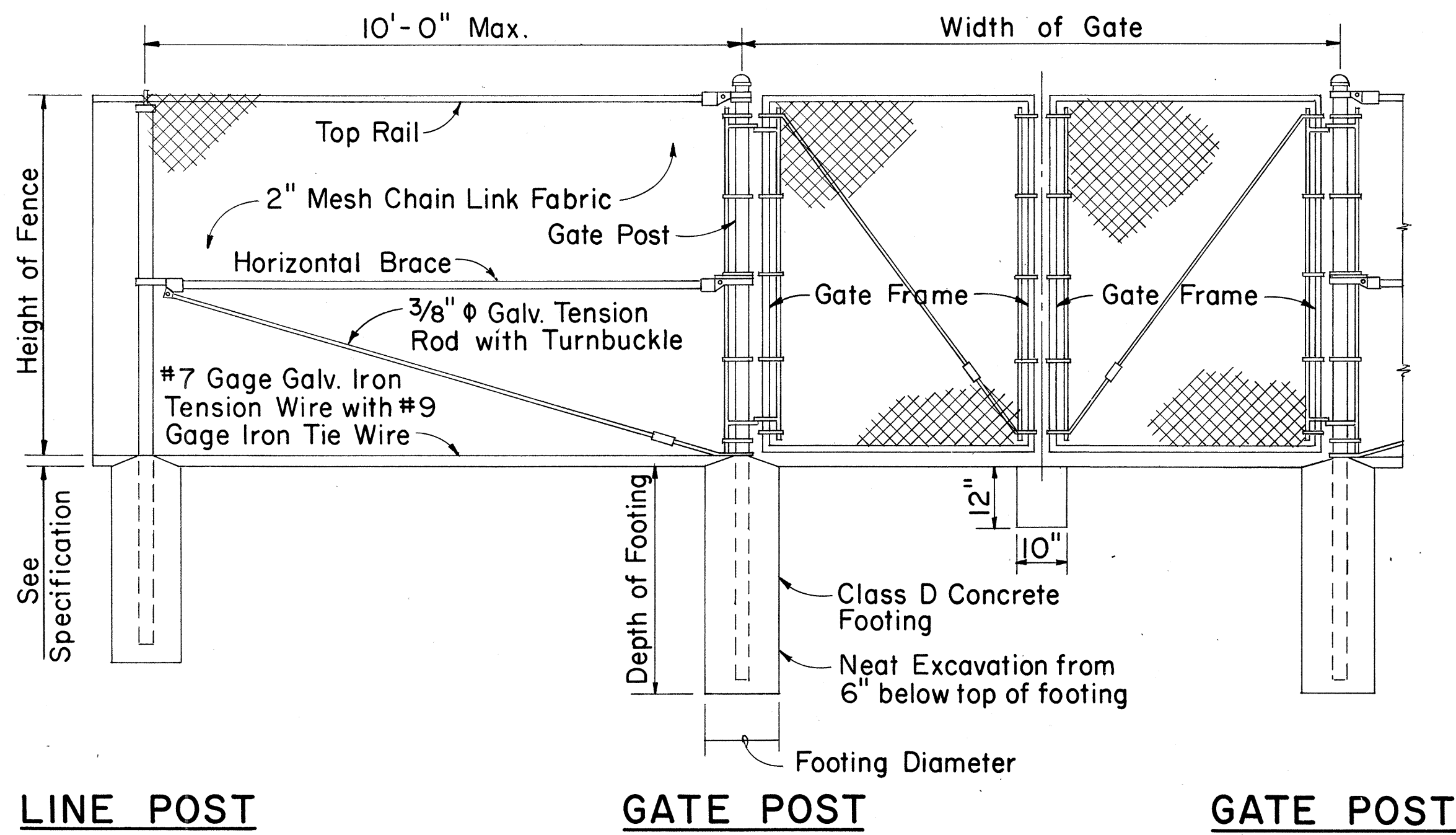
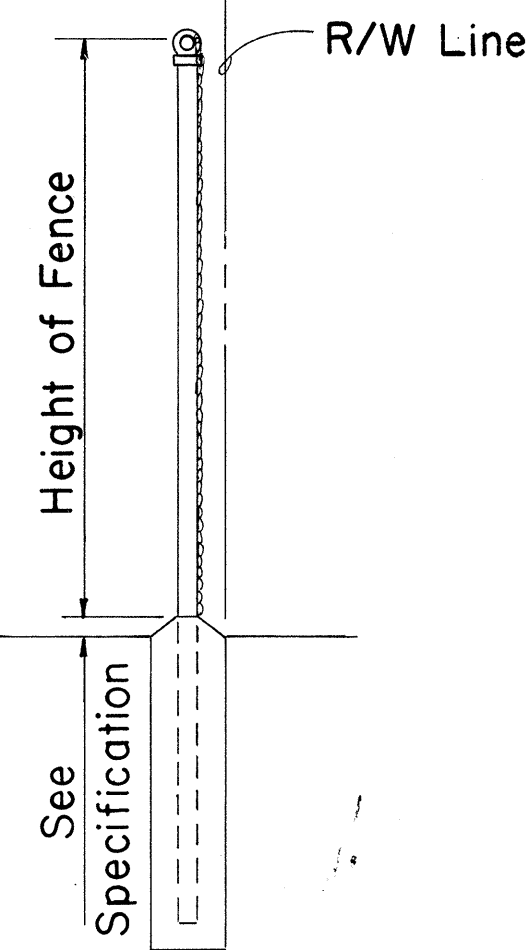


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HH(133)17	1981	20	159

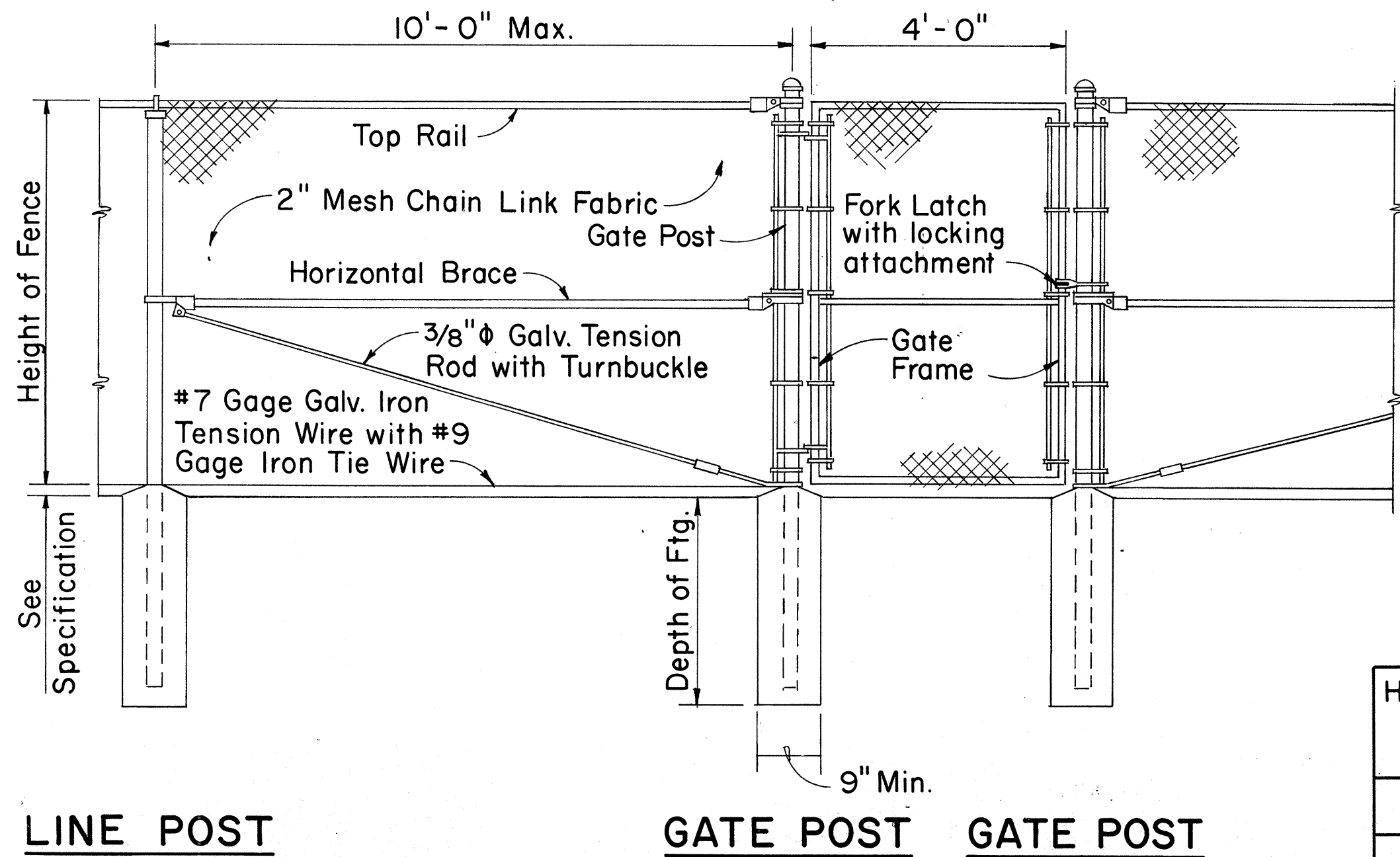


TYPICAL SECTION
(WITH CONCRETE FOOTING)

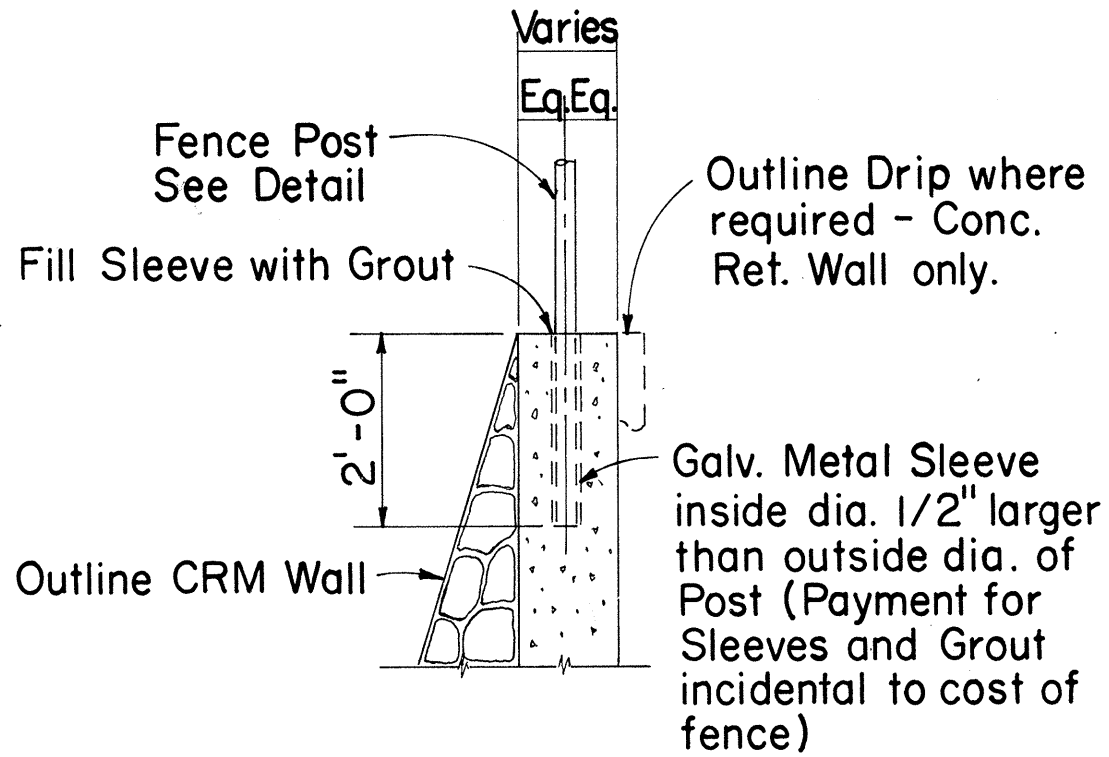
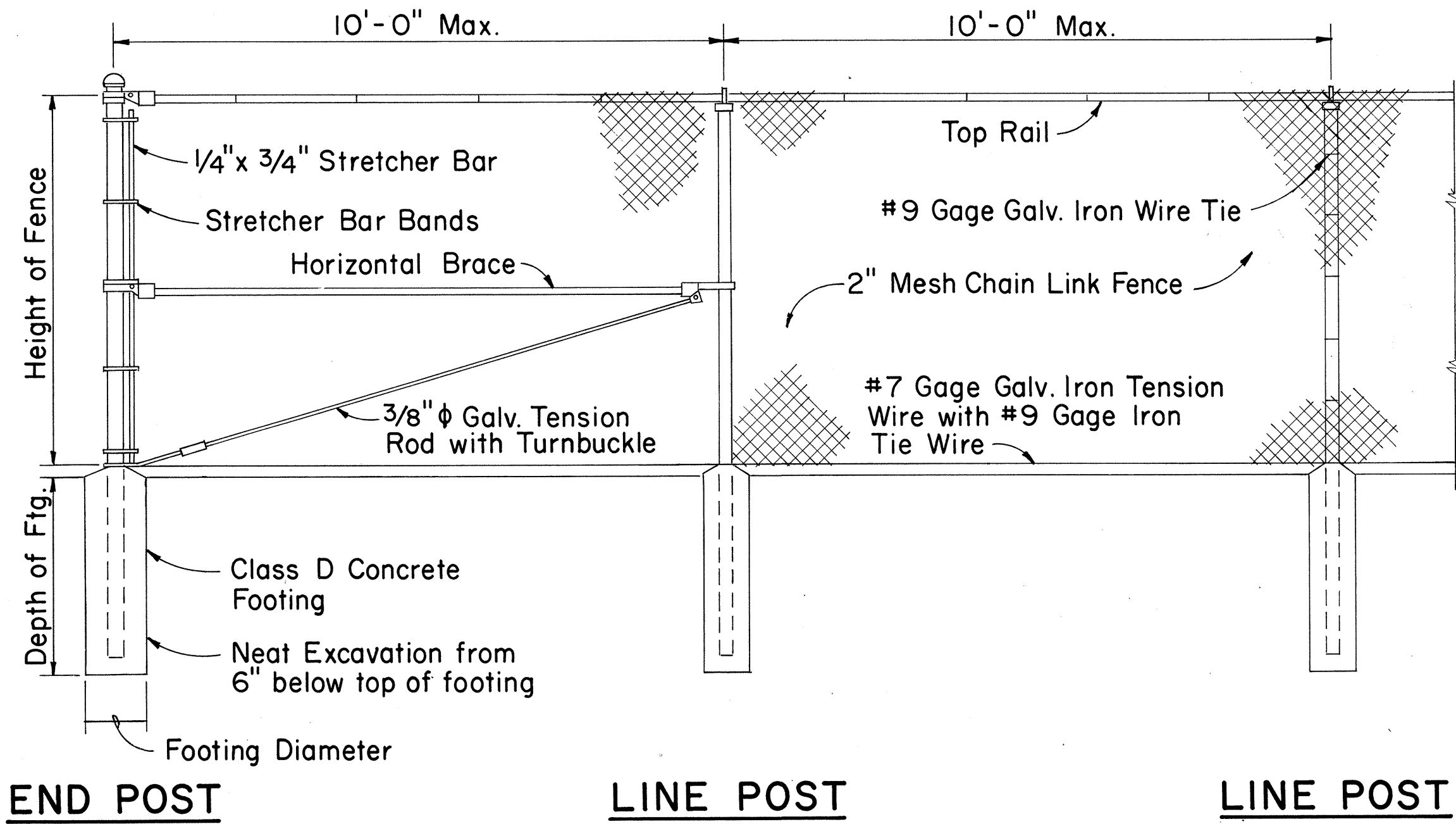


DETAIL OF CHAIN LINK GATE

- NOTE: 1. Gate fork latch and lock, flush plate and anchor, and plunger shall be installed with Gates, and shall be considered as incidental to Chain Link Fence Gate.
2. Gate frames shall be mitered and welded at corners.
3. Fence detail not shown shall be in accordance with the Standard Specifications.



DETAIL OF 4 FT. CHAIN LINK GATE



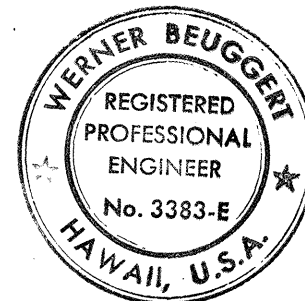
TYPICAL SECTION
(ON CRM & CONC. RET. WALL)

CHAIN LINK FENCE DETAILS

Height of Fence	Minimum Depth of Footing		Minimum Footing Diameter	
	Line Post	Corner, Pull, End and Gate Posts	Line Post	Corner, Pull and End Posts
3'	2'-0"	2'-6"	8"	8"
4'	2'-6"	2'-6"	8"	8"
5'	3'-0"	3'-0"	8"	8"
6'	3'-0"	3'-0"	8"	9"

SECURITY CHAIN LINK FENCE NOTES :

- Material and construction requirements are the same as for 6'-0" high chain link fence.
- Fence & Gates to be provided with 3 strands of 4 point barbed wire securely attached to single extension arms along top of fence.
- Single extension arms shall point outward at an angle of 45°. All extension arms to be 12 gage pressed steel.



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STANDARD DETAILS
CHAIN LINK FENCE
(WITH TOPRAIL)

Scale: 1/2" = 1'-0" Date: 4/30/81

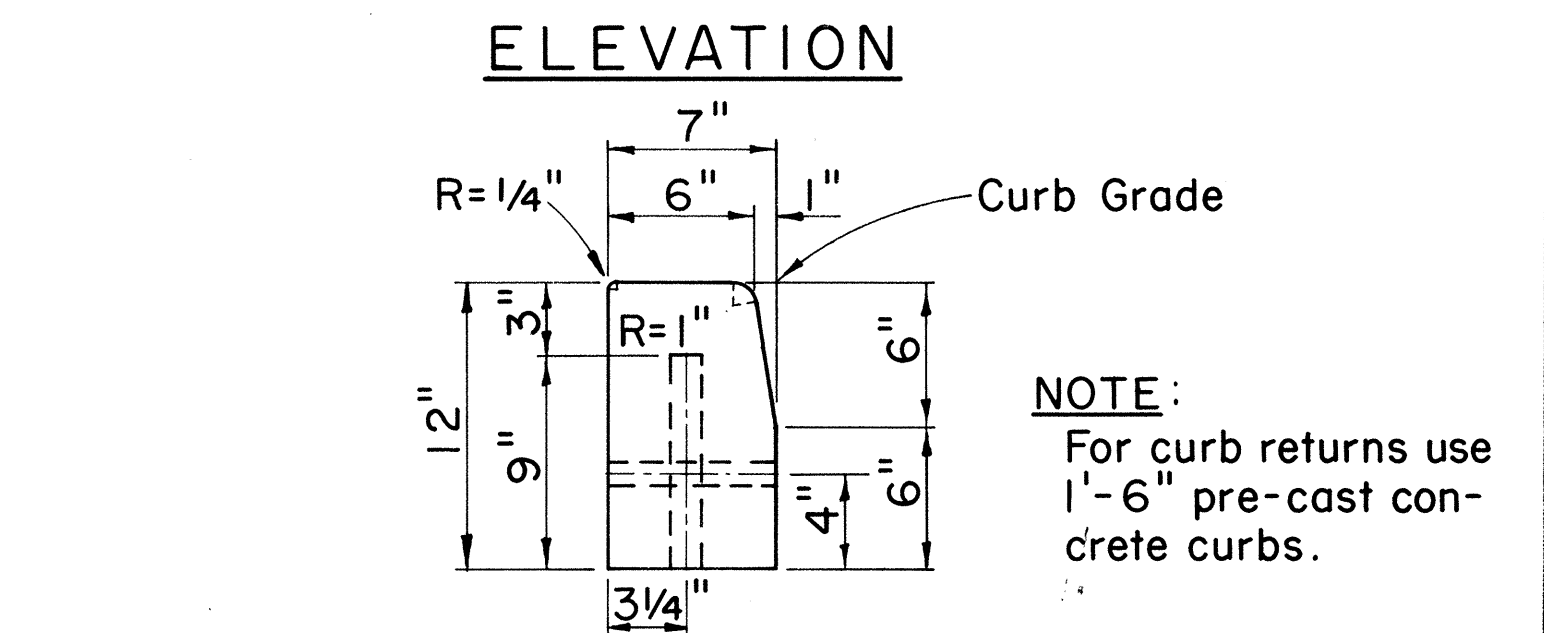
SHEET No. CD-1 OF 9 SHEETS DD 607.1

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

The image contains two architectural drawings of a window frame, labeled 'PLAN' and 'ELEVATION'.

PLAN View: This drawing shows the top-down view of the window frame. The overall width is 3'-0". The opening width is 1'-6", with a note '(See Note)'. The frame has a top rail 6" wide and a bottom rail 6" wide. The side rails are 1" wide. The frame is shown in section with a 3/4" depth and a 1/4" gap. The frame is shown in section with a 5/8" depth and a 1/4" gap. The frame is shown in section with a 6" depth and a 1" gap. The frame is shown in section with a 7" depth and a 1" gap.

ELEVATION View: This drawing shows the side view of the window frame. The overall height is 9". The opening height is 6", with a note '(See Note)'. The frame has a top rail 6" high and a bottom rail 6" high. The side rails are 4" high. The frame is shown in section with a 12" depth and a 6" gap. The frame is shown in section with a 6" depth and a 6" gap. The frame is shown in section with a 4" depth and a 4" gap. The frame is shown in section with a 9" depth and a 4" gap.



Cast-In-Place Concrete Curb and Gutter

Construction Joint

2- 1/2" Ø 18" Long

9" 9"

PLAN

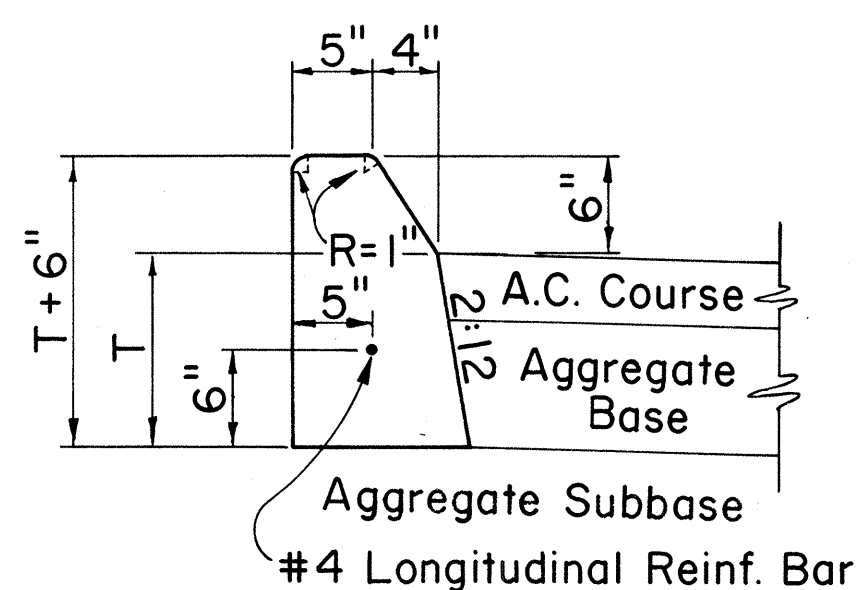
Cast-In-Place Concrete Curb or Lava Rock Curb

Mortar Joints

Cast-In-Place Gutter Type 2A

9" 9"

PLAN



The diagram illustrates the cross-section of a concrete curb. The top width is 2'-9". The curb has a top flange that is 5" wide and 4" high. The main body of the curb is 2'-0" wide and 6" high. The curb is shown on an "Aggregate Base". A "S.E." (Sewer Edge) is indicated on the right side of the curb. The curb is labeled "Cont'd." and "A.C. Course" (Asphalt Concrete Course). The vertical dimension on the left is labeled "Varies". A radius of R=1" is shown at the bottom left corner of the curb.

Precast Concrete Curb
or Lava Rock Curb

2'-0"

6"

1:12

A.C. Course

Aggregate Base

Diagram illustrating the cross-section of a concrete slab on aggregate base and subbase. The total thickness of the concrete slab is $T + 6"$. The top 6 inches is the concrete slab, and the bottom 6 inches is the aggregate base. The aggregate base is on top of the aggregate subbase. The concrete slab has a top width of 6 inches and a bottom width of 4 inches. The bottom width is defined by a 2:1 slope. The top width is defined by a $R = 1/4"$ radius. The bottom width is defined by a $R = 1"$ radius. The diagram shows the relationship between the concrete slab, aggregate base, and aggregate subbase.

Diagram illustrating the cross-section of a concrete curb and gutter. The curb has a top width of 2'-7" and a base width of 2'-0". The curb face has a radius $R = \frac{1}{4}"$. The gutter has a depth of 6" and a radius $R = 1"$. The gutter is supported by an aggregate base. The curb is labeled "A.C. Course".

The diagram shows a cross-section of a concrete slab. The total width is 4'-0". The top reinforcement consists of two bars, each 1" in diameter, spaced 2'-0" apart. The bottom reinforcement consists of two bars, each 1" in diameter, spaced 1'-0" apart. The slab is supported by an "Aggregate Base". The vertical distance from the top of the slab to the bottom reinforcement is 1'-0". The vertical distance from the bottom reinforcement to the bottom of the slab is 1'-0". The bottom reinforcement is labeled "1:12".

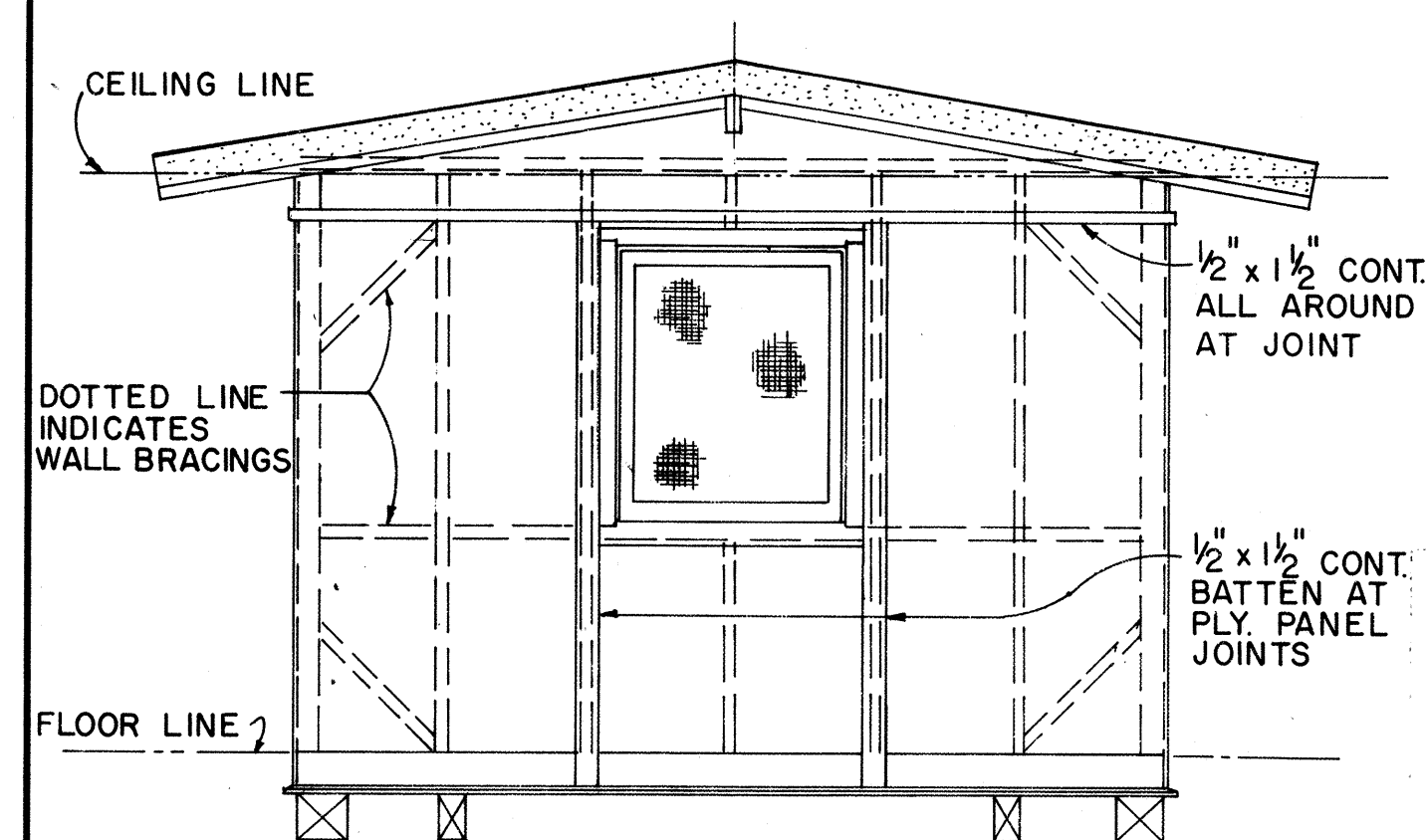
CAST-IN-PLACE CONCRETE CURBS AND/OR GUTTERS

APPROVAL RECOMMENDED:
M. J. [Signature] 12-4-69
HIGHWAY DESIGN ENGINEER DATE

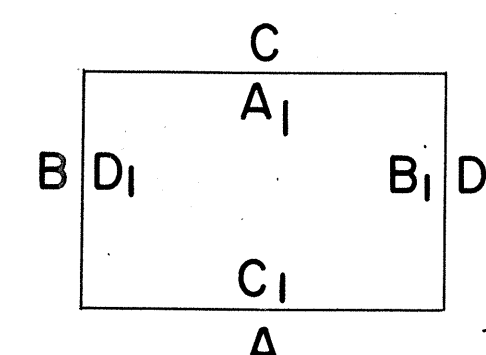
APPROVED:
Walter E. [Signature] 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

Scale: As Shown		
SHEET No. CD-2 OF 9 SHEETS		DD 609.1

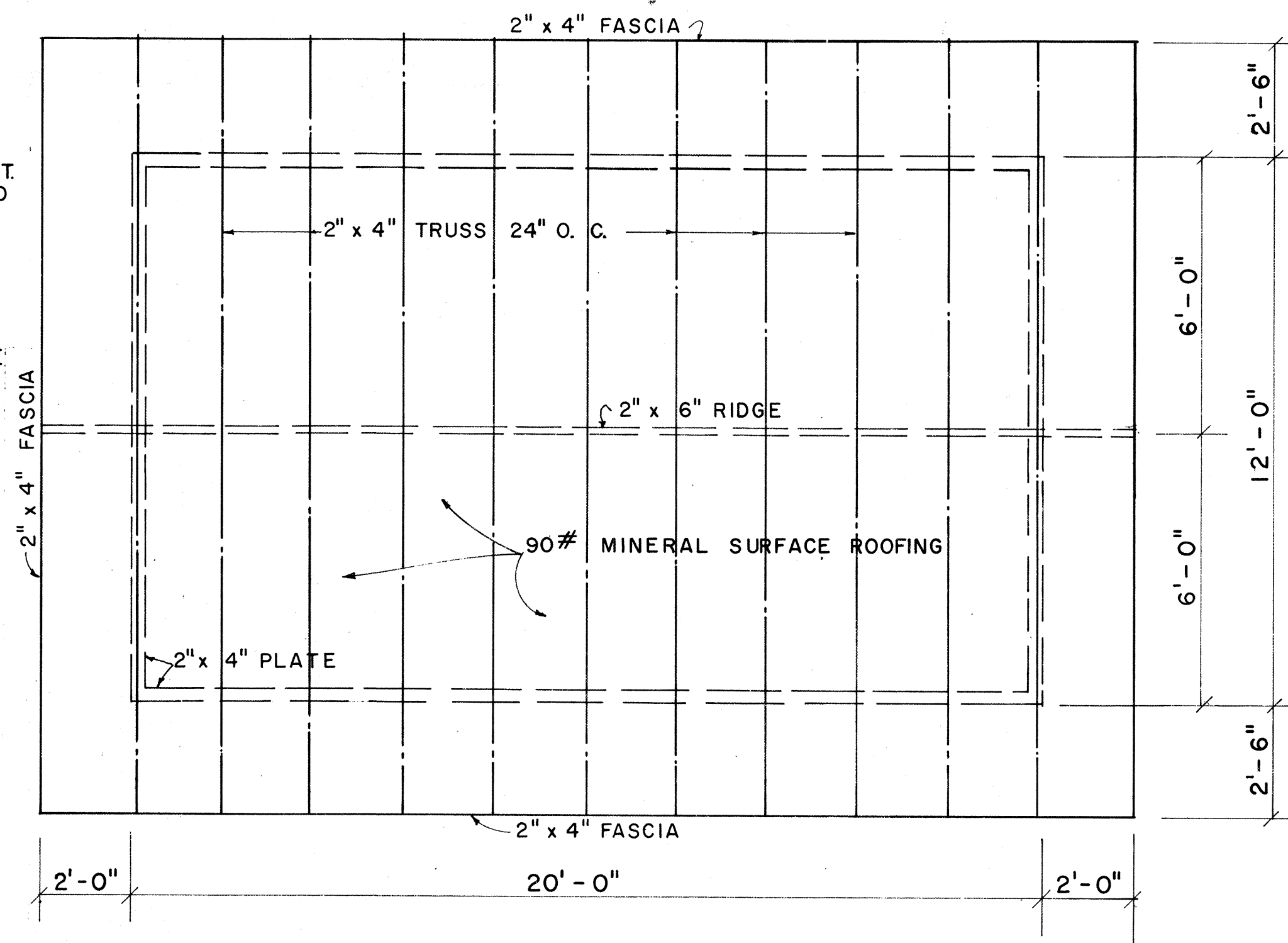
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	1-HH-(33)-17	1981	22	159



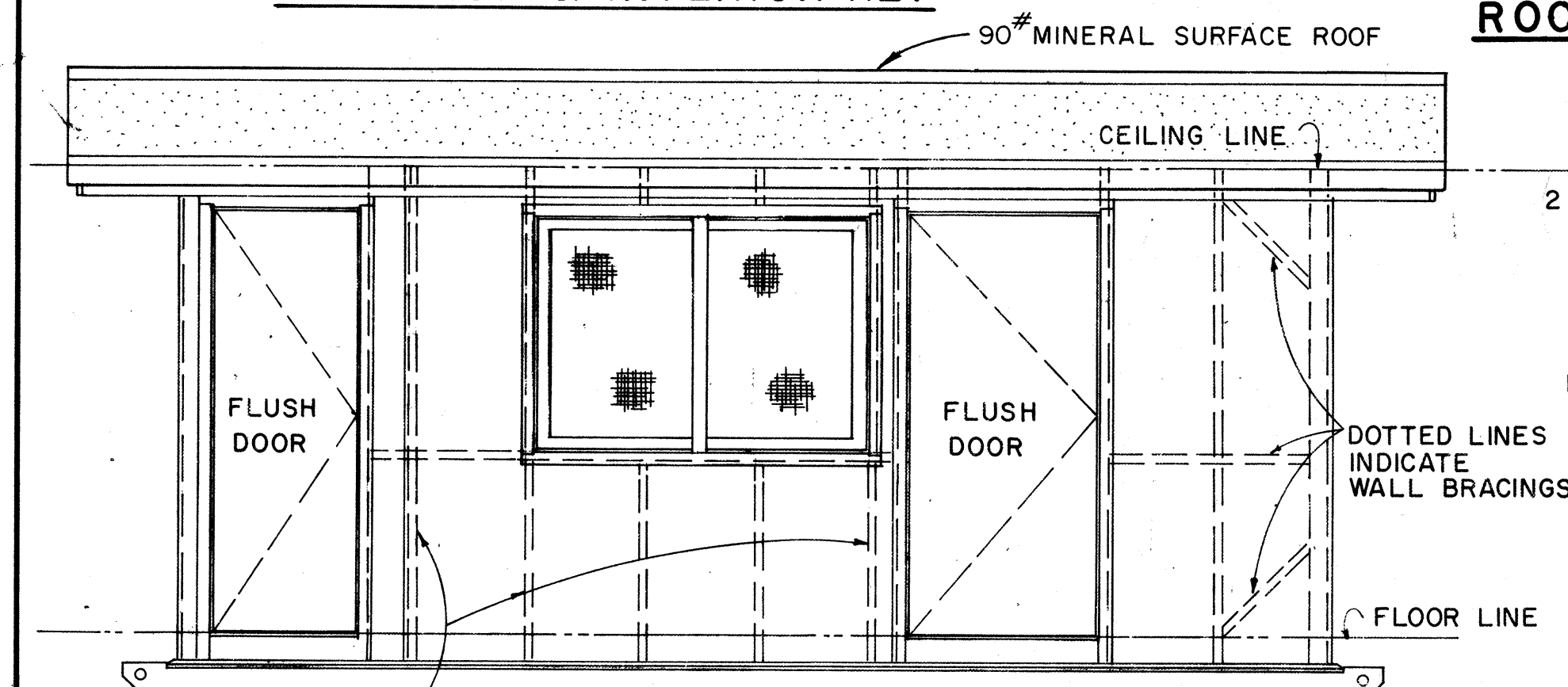
ELEVATION B
ELEVATION D SIMILAR
SCALE: 3/8" = 1'-0"



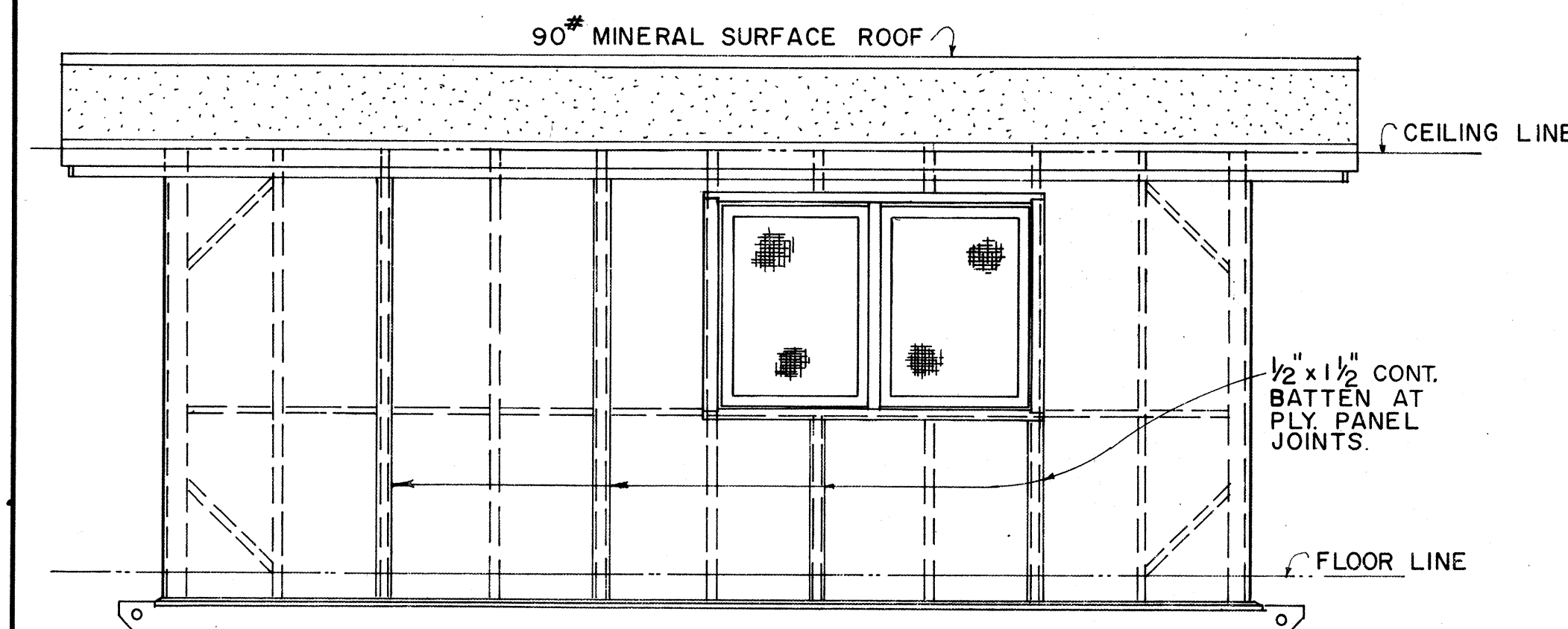
EXTERIOR & INTERIOR KEY



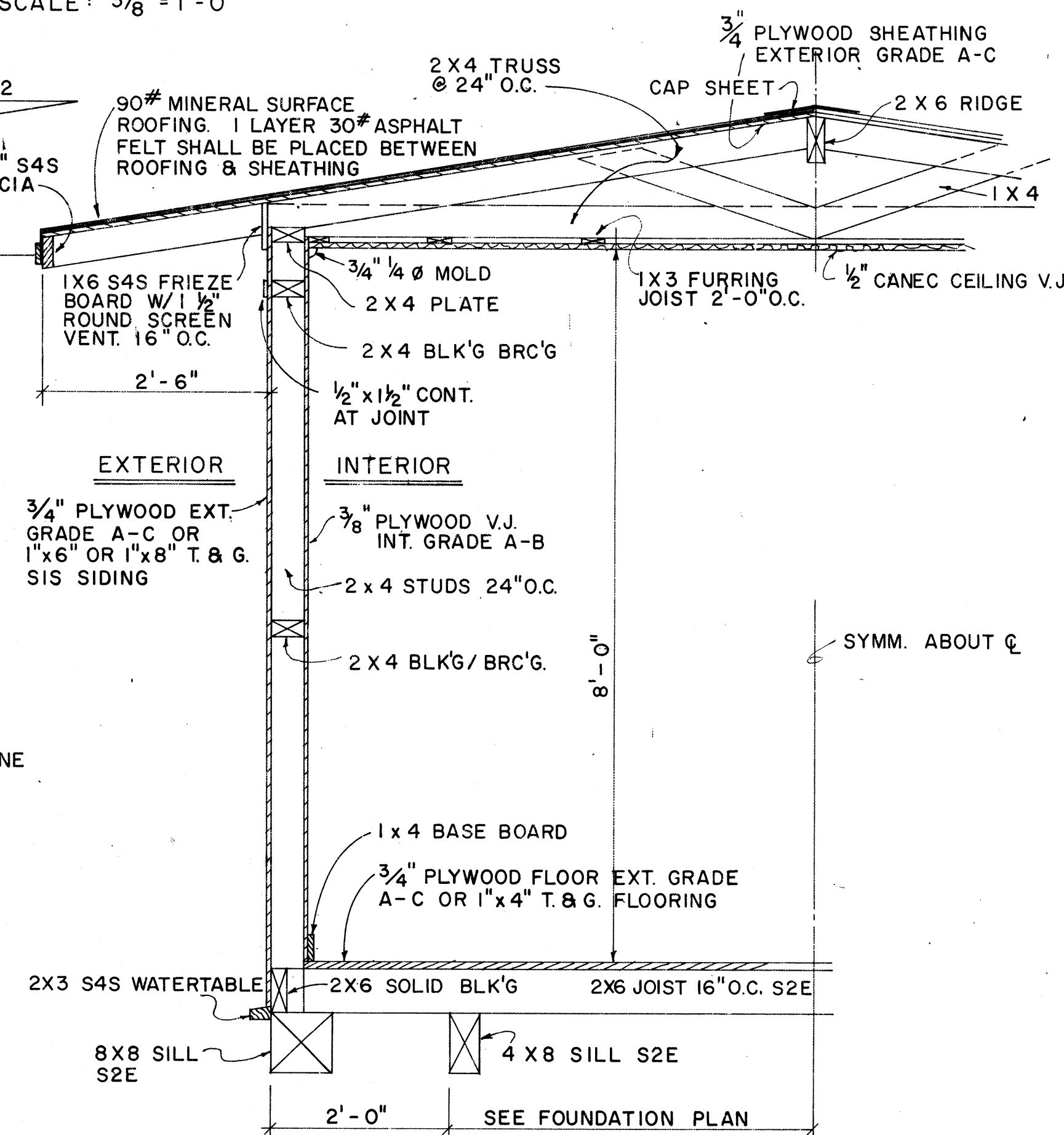
ROOF FRAMING PLAN
SCALE: 3/8" = 1'-0"



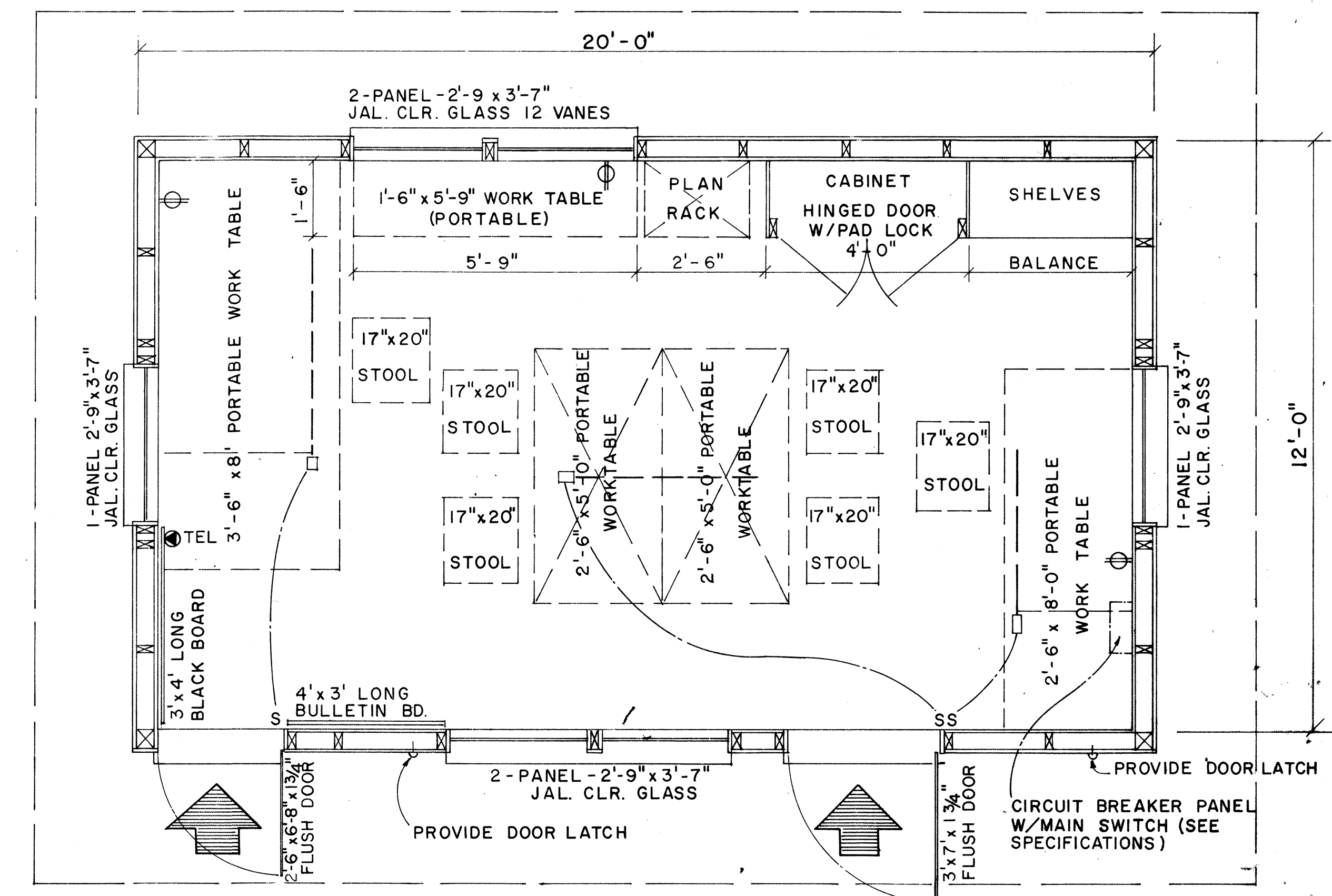
ELEVATION A
SCALE: 3/8" = 1'-0"



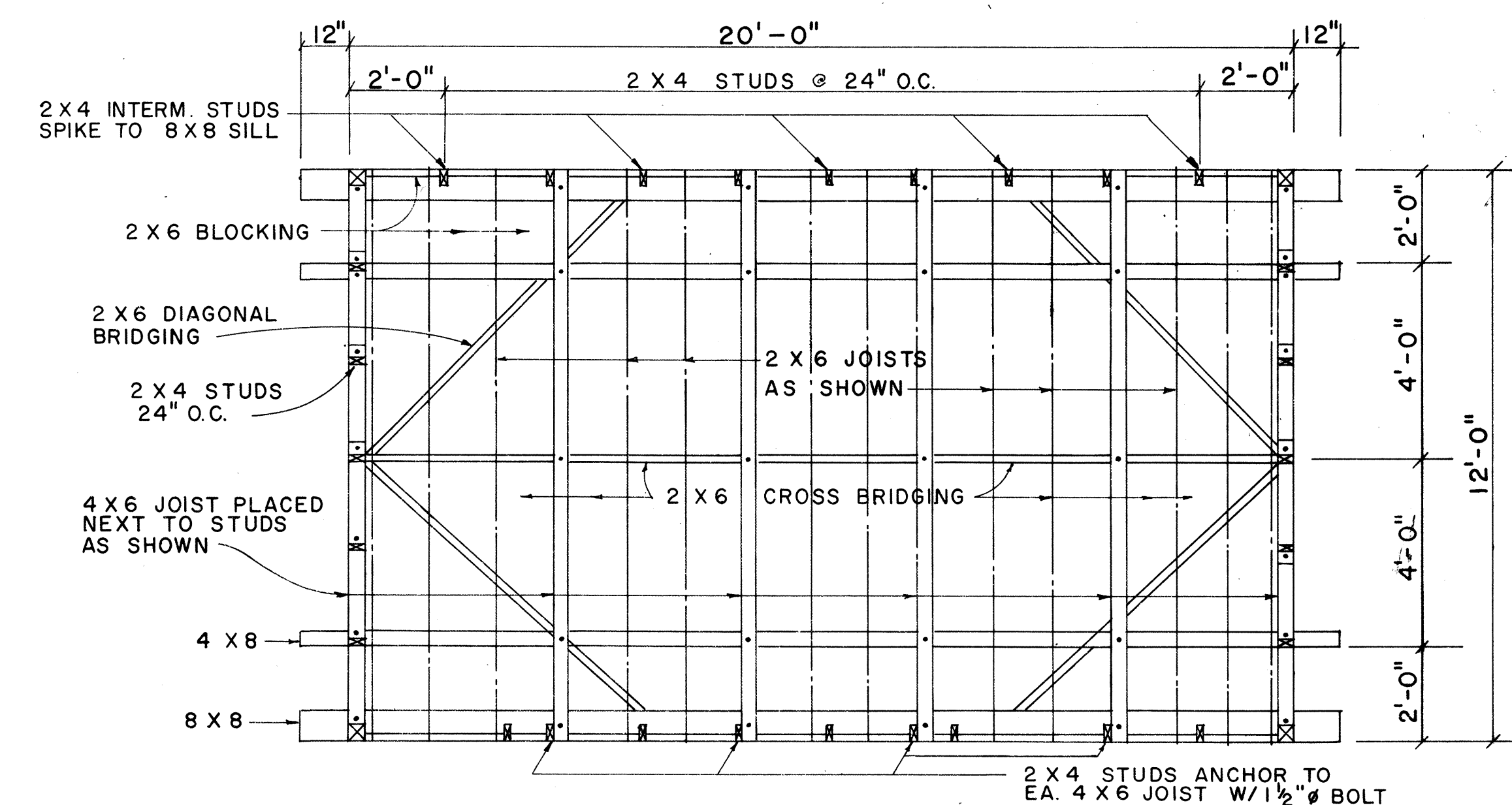
ELEVATION C
SCALE: 3/8" = 1'-0"



TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"



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



FOUNDATION FRAMING PLAN
SCALE: 3/8" = 1'-0"

APPROVAL RECOMMENDED:

HIGHWAY DESIGN ENGINEER

APPROVED:

ASSISTANT CHIEF, ENGINEERING

12-4-69
DATE

12-10-69
DATE

NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

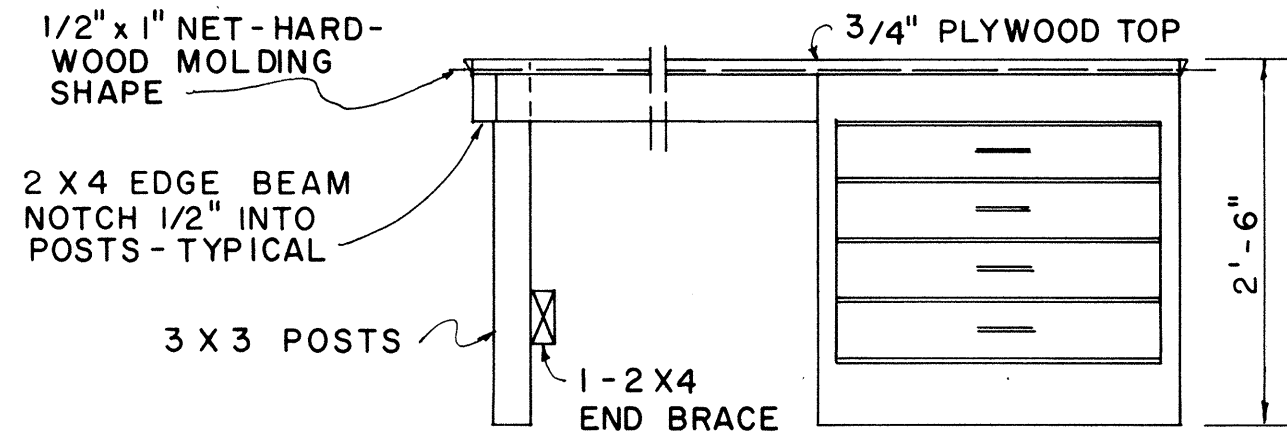
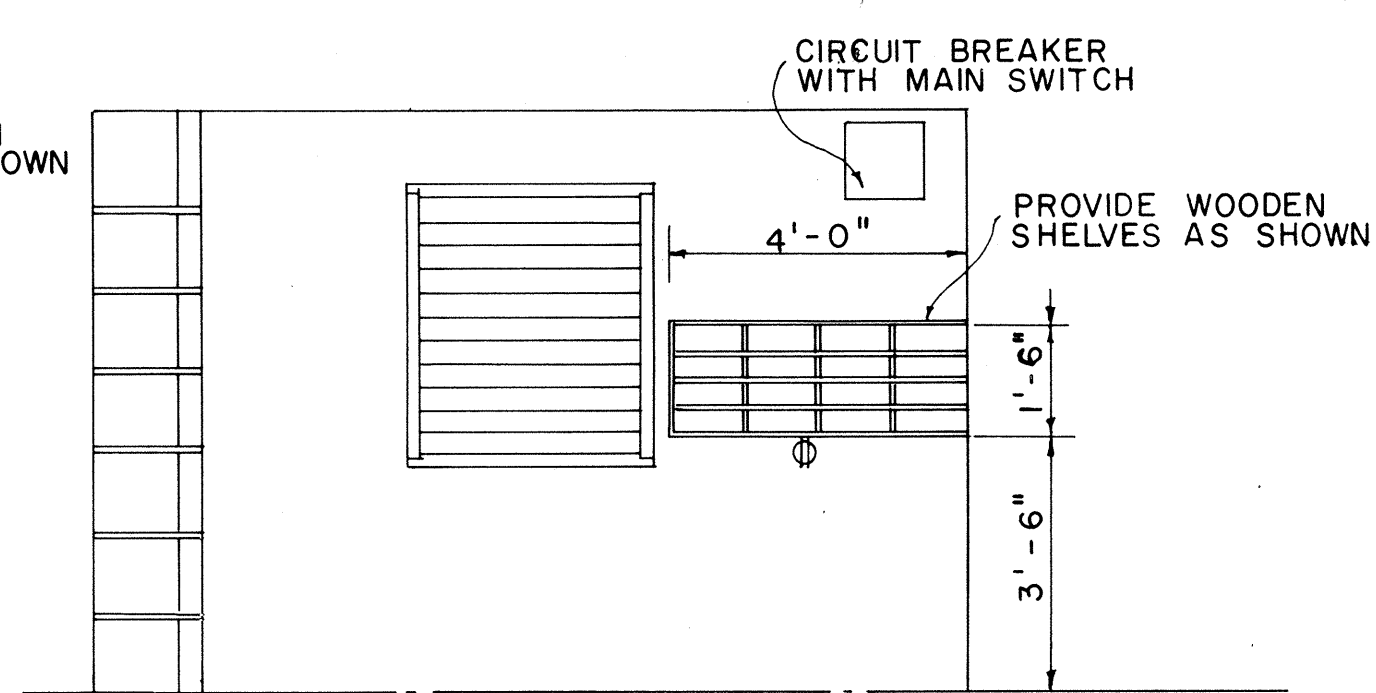
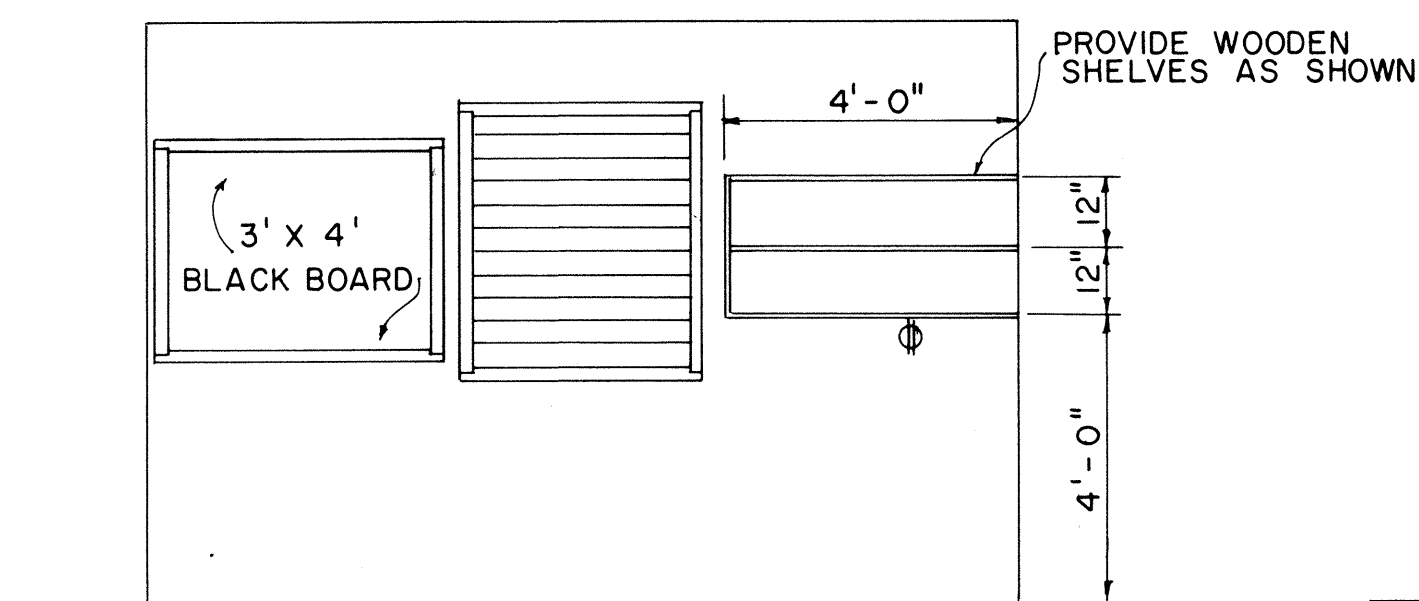
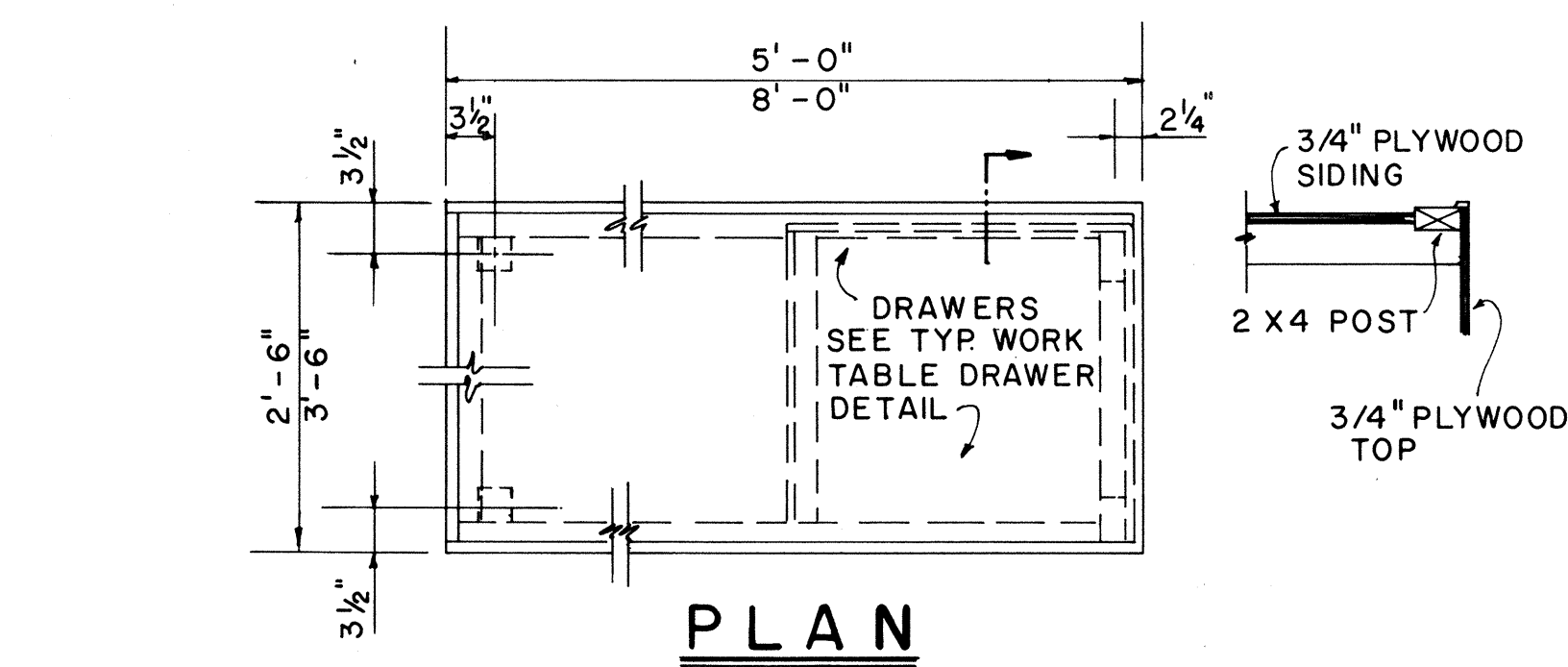
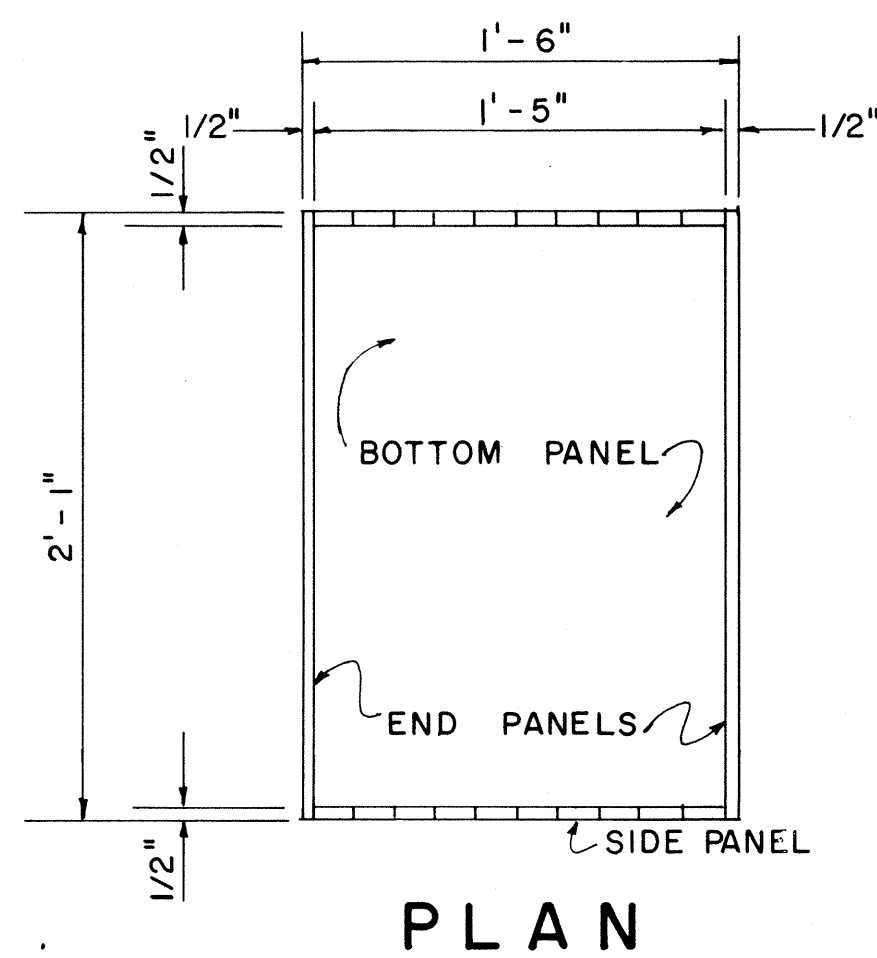
FIELD OFFICE

DELETED IN CCO #4

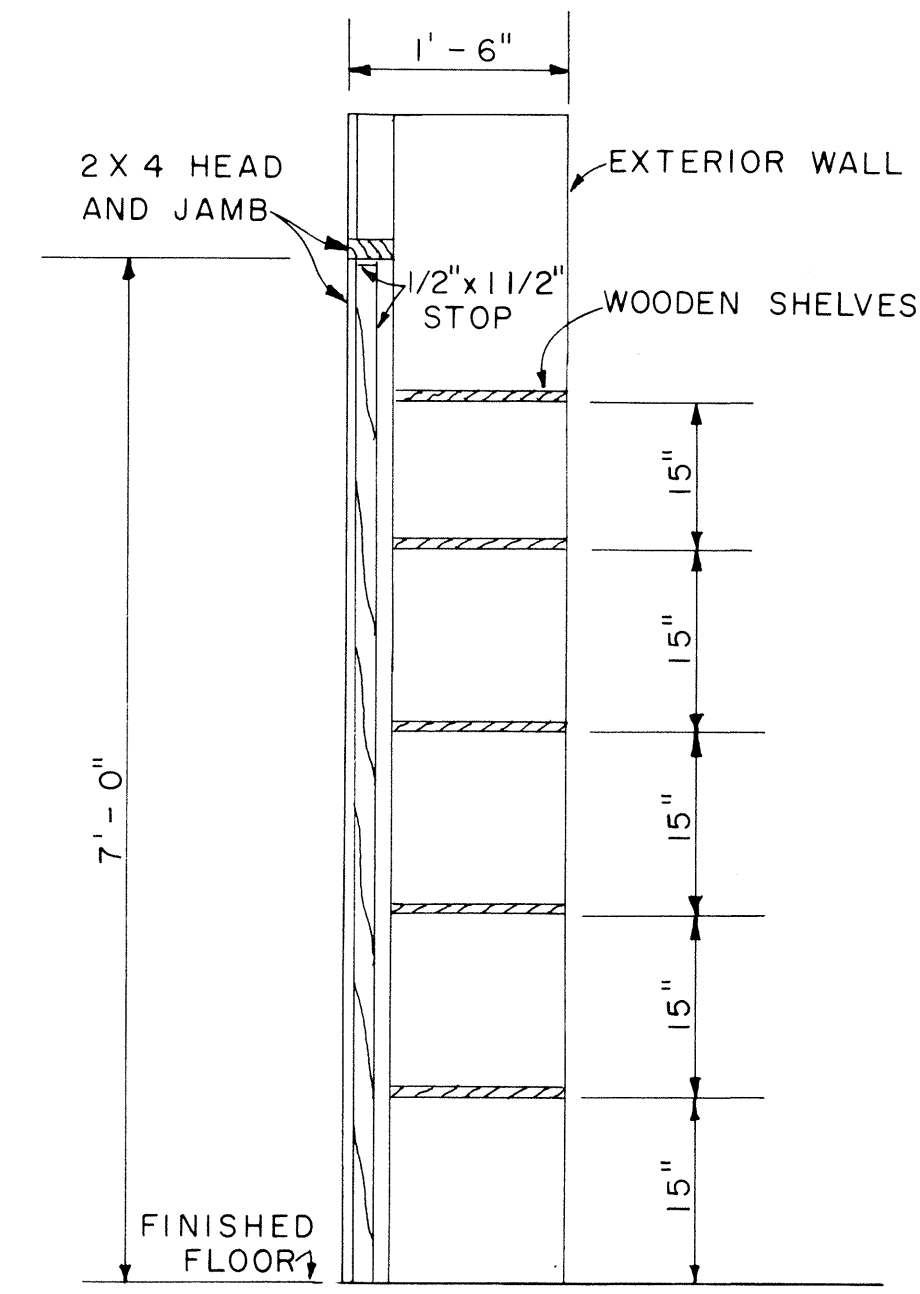
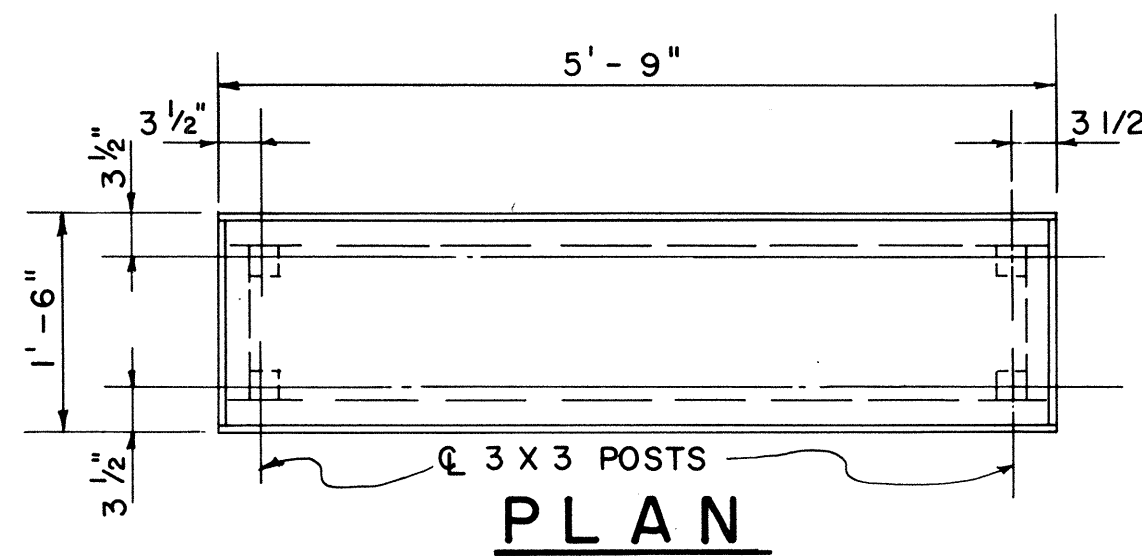
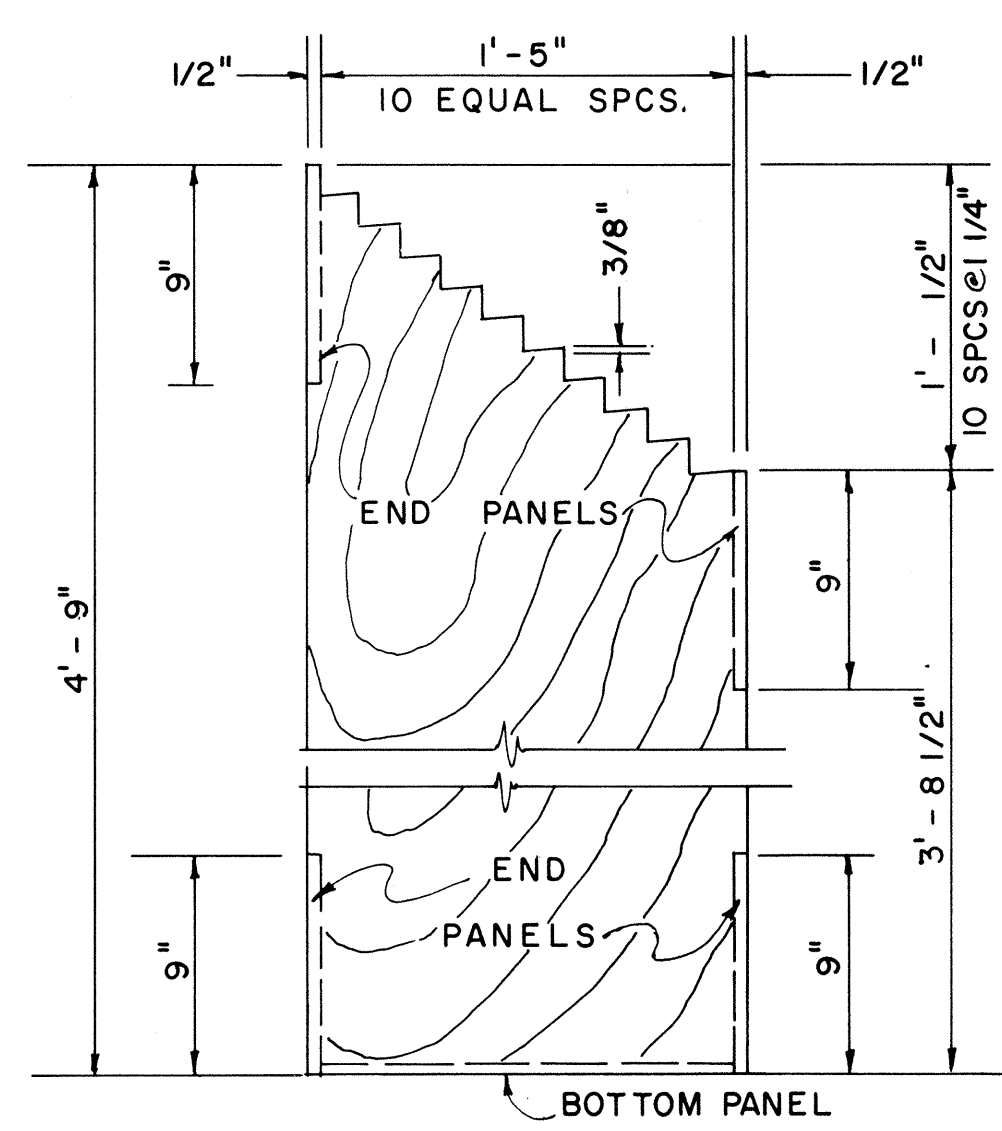
Scale: As Noted

SHEET NO. 22 OF 9 SHEETS DD 636.1

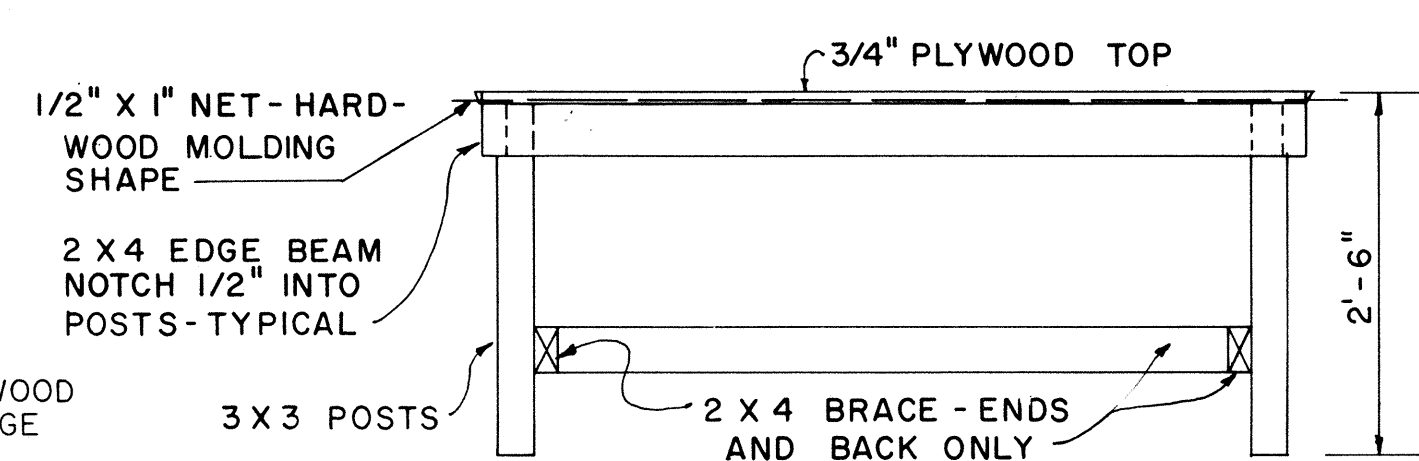
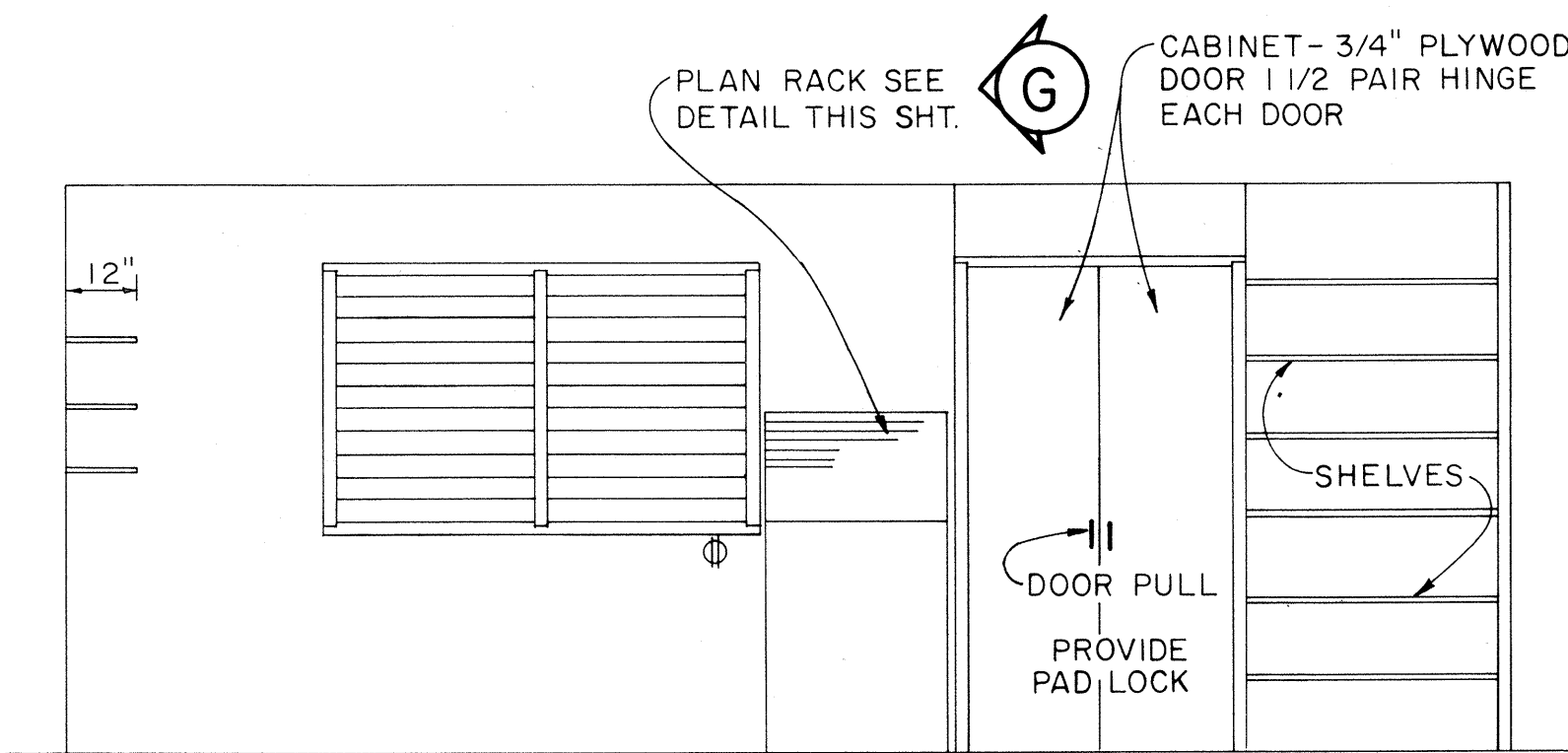
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	I-HH(133)17	1981	23	159



- PORTABLE WORK TABLE DETAIL**
SCALE: 3/4" = 1'-0"
- 2'-6" x 5'-0" 2 REQ'D
 - 3'-6" x 8'-0" 1 REQ'D
 - 2'-6" x 8'-0" 1 REQ'D



PLAN RACK DETAIL
SCALE: 1 1/2" = 1'-0"
(ONE REQUIRED)



1'-6" x 5'-9" PORTABLE WORK TABLE DETAIL
SCALE: 3/4" = 1'-0"

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

APPROVED:
Robert S. Sakai
ASSISTANT CHIEF, ENGINEERING
12-10-69
DATE

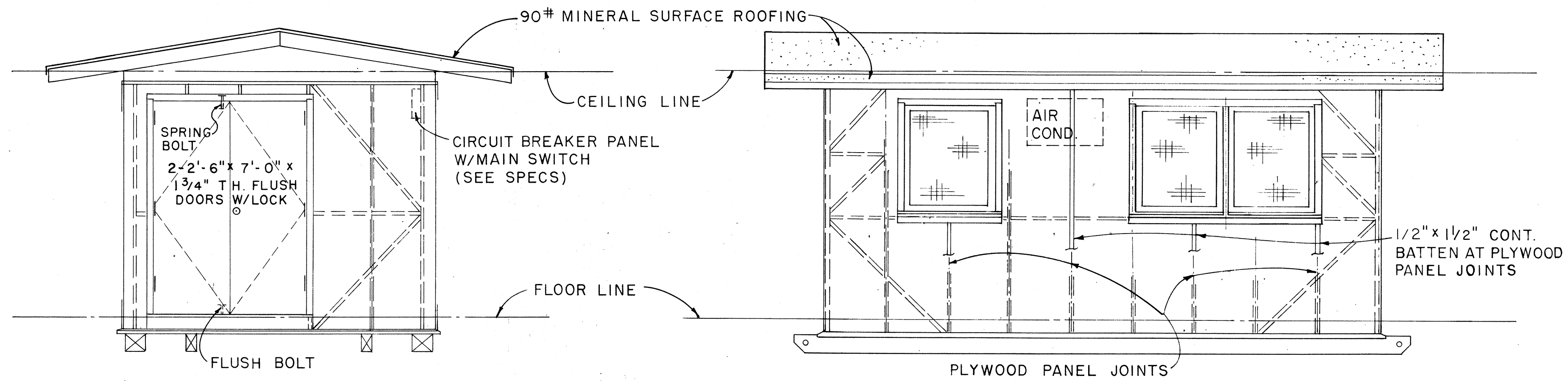
NO.	REVISION	APPROVED BY	DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FIELD OFFICE

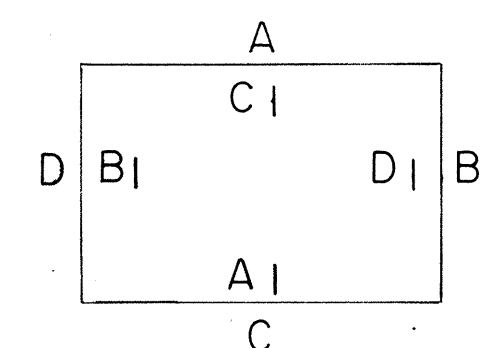
DELETED IN CCO #4

Scale: As Noted

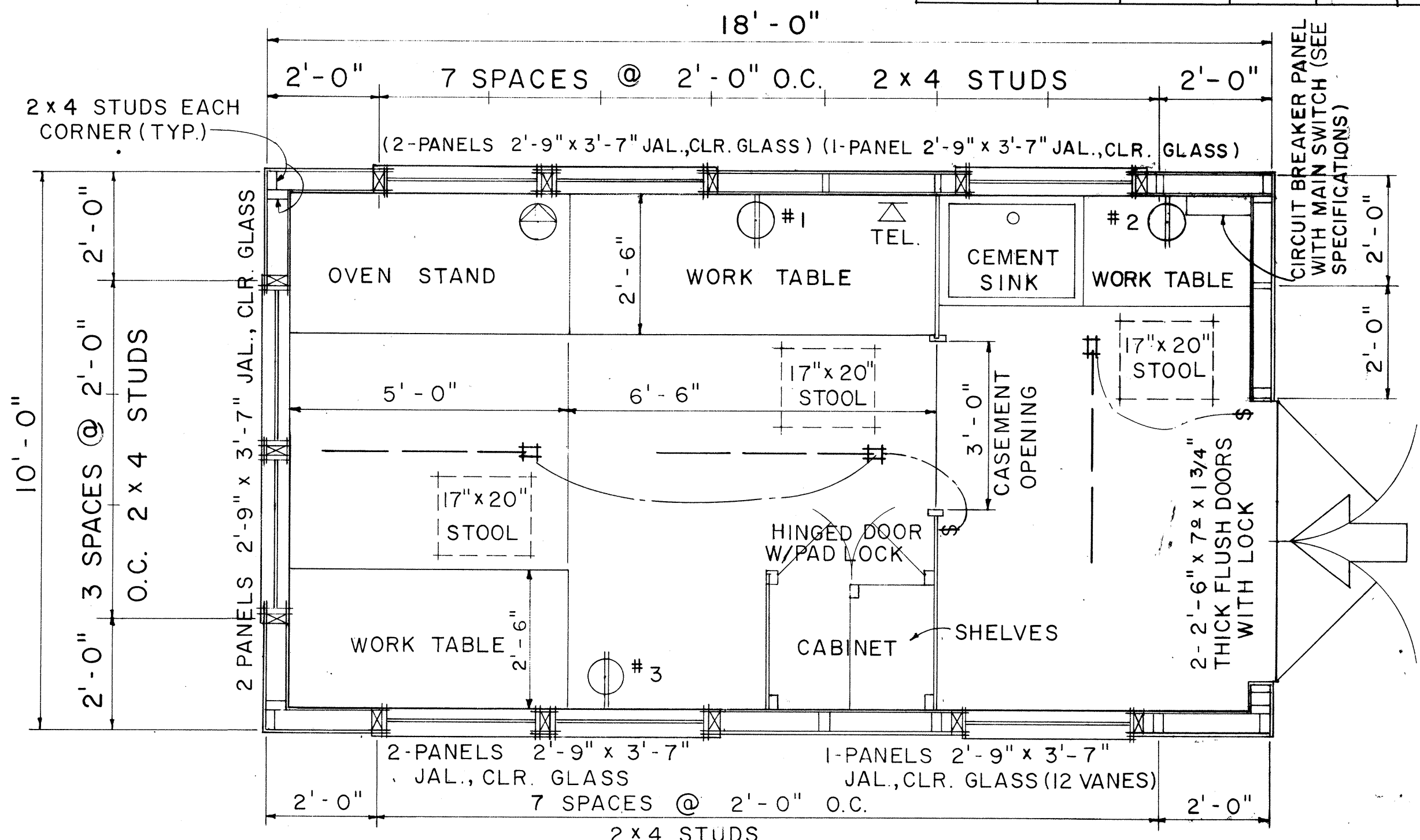


ELEVATION B
SCALE: 3/8" = 1'-0"

ELEVATION A
SCALE: 3/8" = 1'-0"

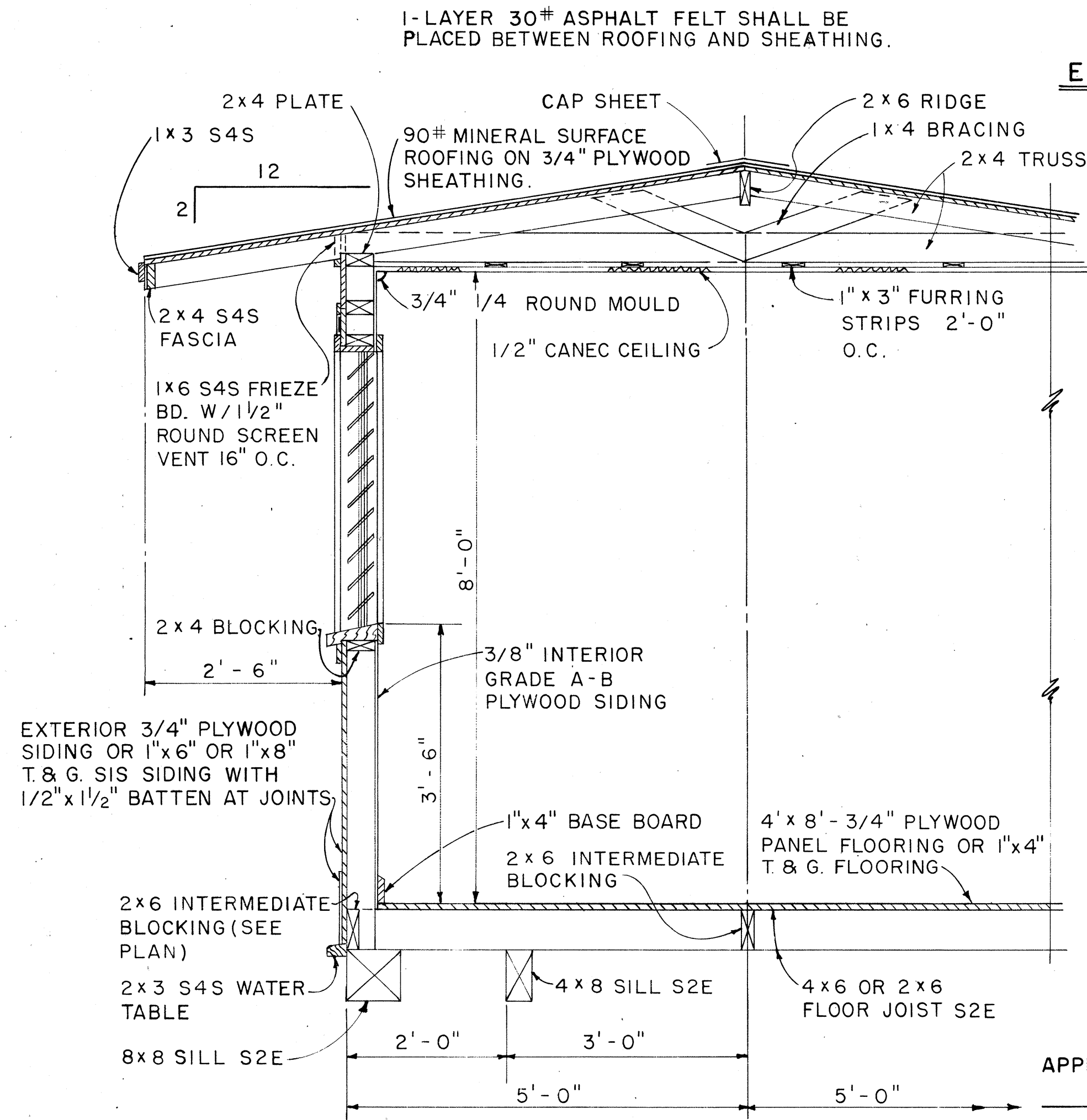


EXTERIOR & INTERIOR KEY



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

NOTE:
1. FLUORESCENT FIXTURE SHALL BE 48", 2 LAMP, 40 WATT, RAPID START.
2. TELEPHONE AND WALL OUTLET 4'-0" ABOVE FLOOR.

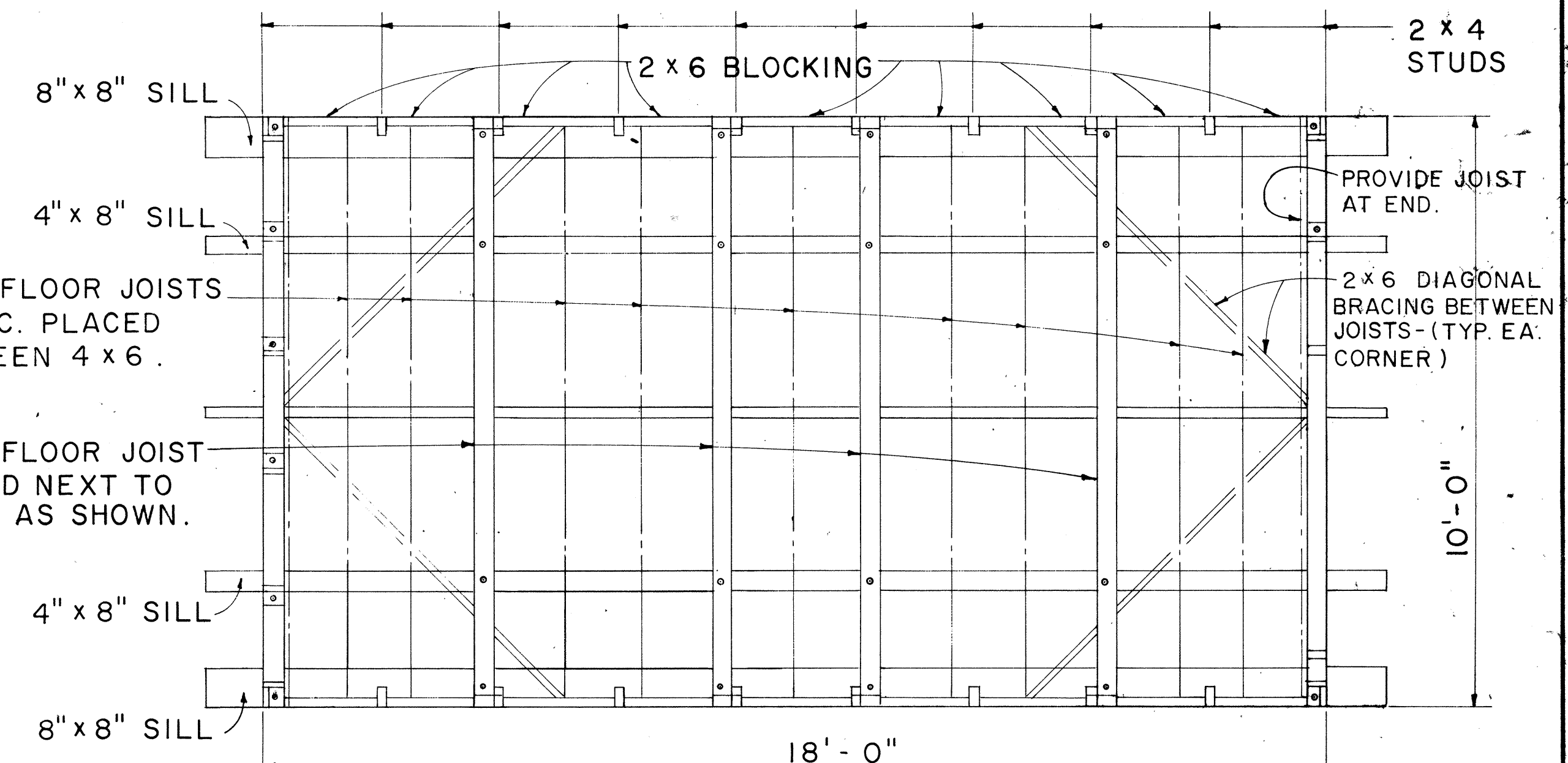


TYPICAL SECTION
SCALE: 3/4" = 1'-0"

NOTE:
ALL 3/4" PLYWOOD SHALL BE EXTERIOR GRADE A-C OR BETTER.

APPROVAL RECOMMENDED:
[Signature]
HIGHWAY DESIGN ENGINEER
DATE: 12-4-69

APPROVED:
[Signature]
ASSISTANT CHIEF, ENGINEERING
DATE: 12-10-69



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

NO.	REVISION	APPROVED BY	DATE

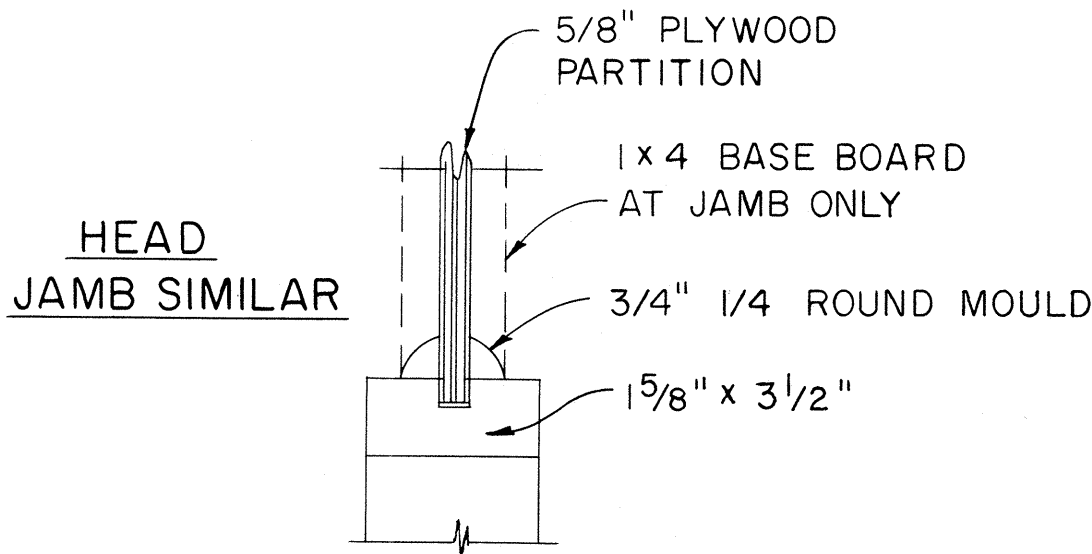
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT SITE LABORATORY

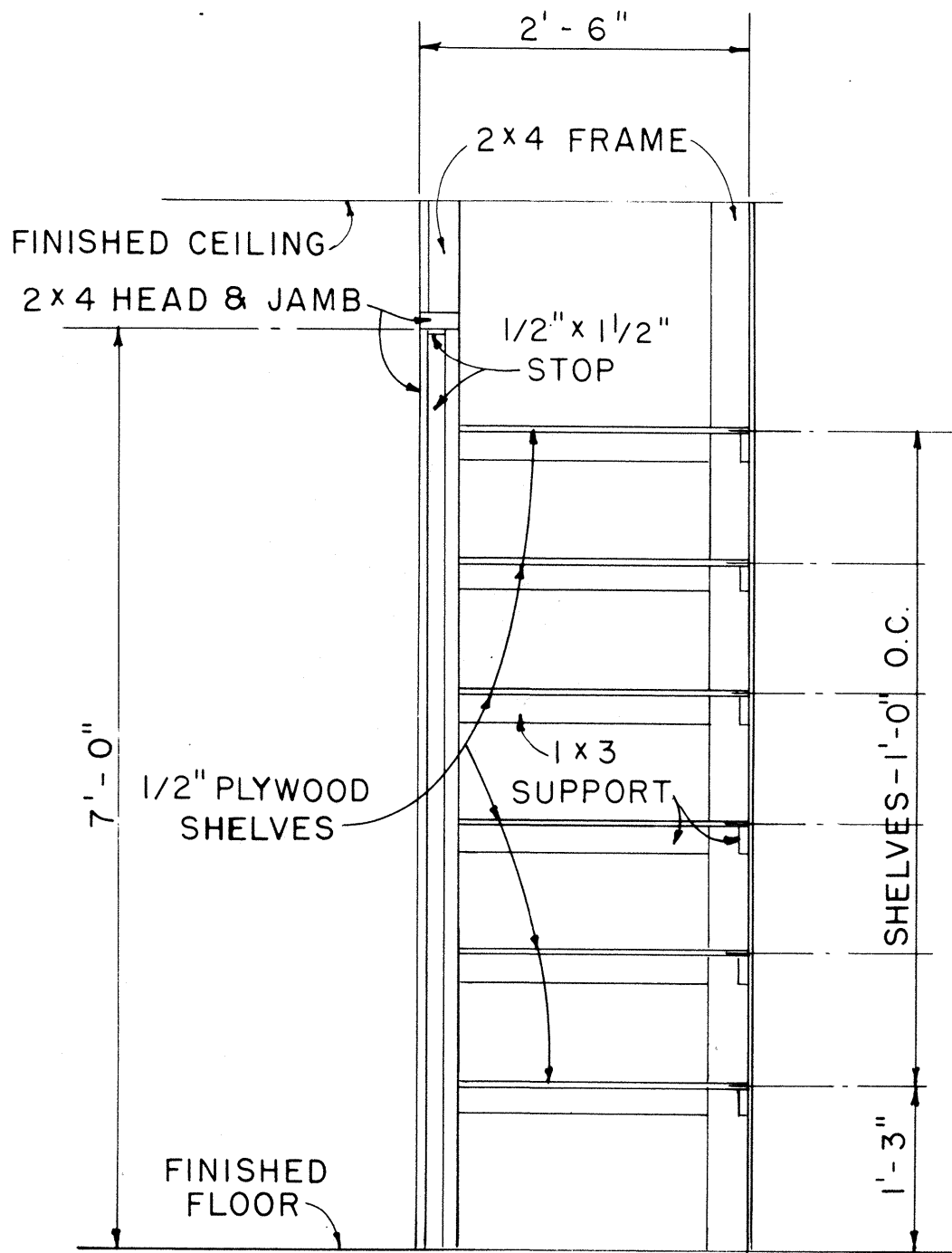
DELETED IN CCO #4

Scale: As Noted

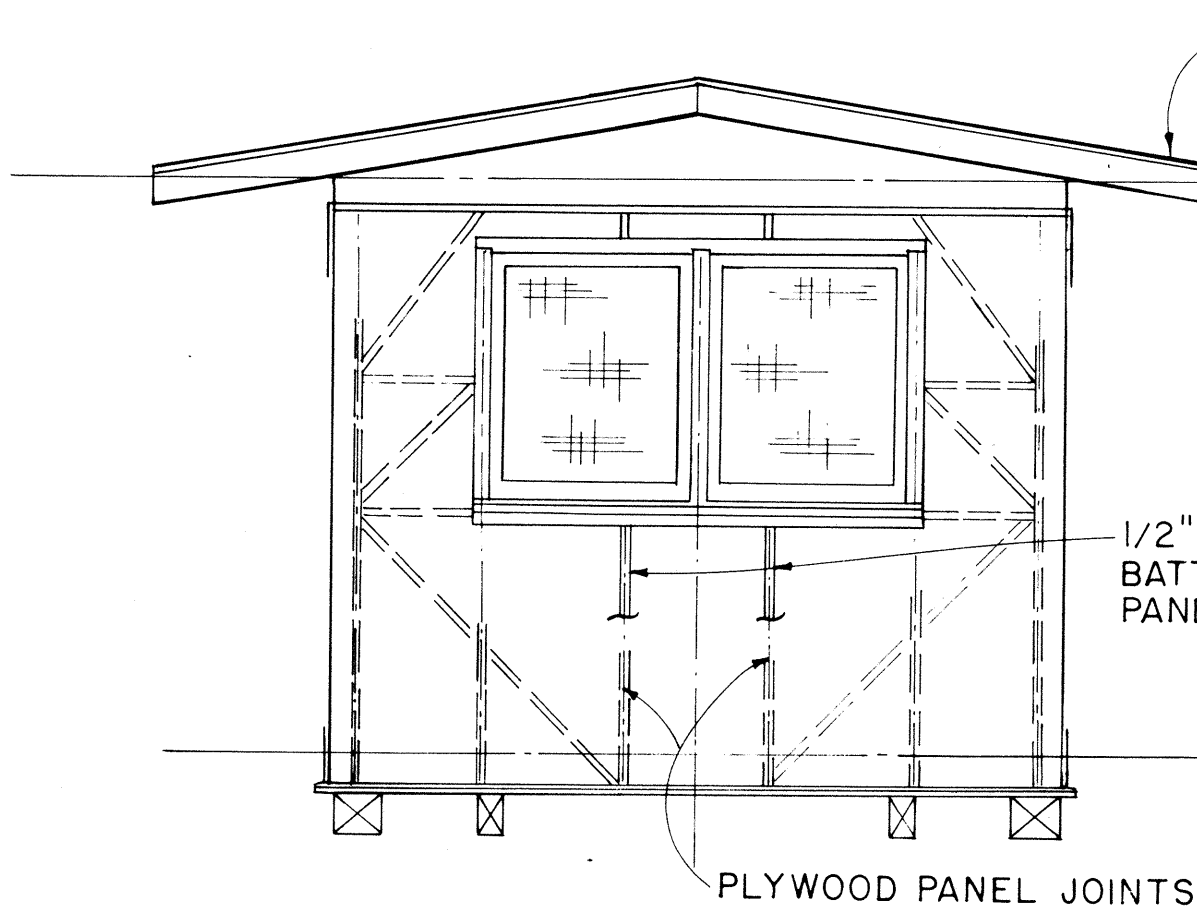
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HI-1(133)17	1981	25	159



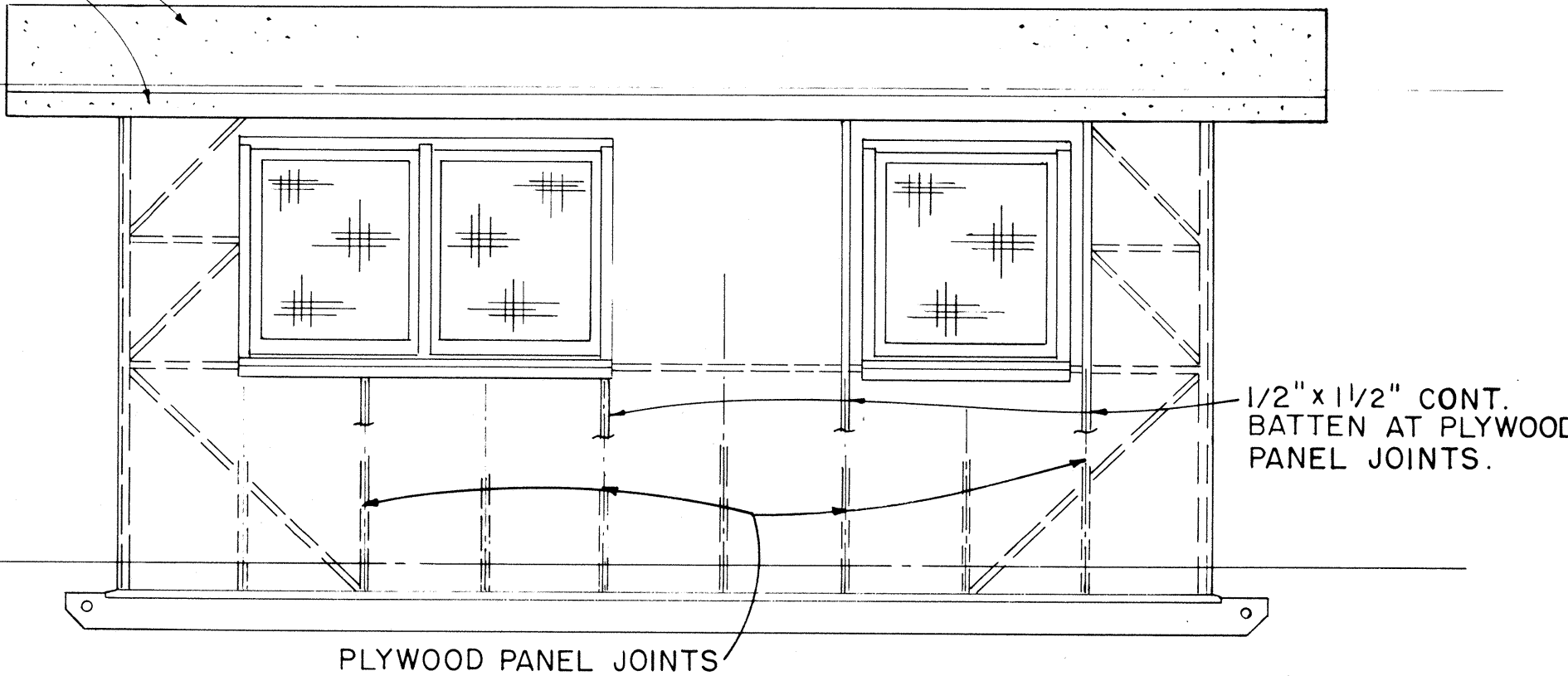
CASEMENT DETAIL
SCALE: 3" = 1'-0"



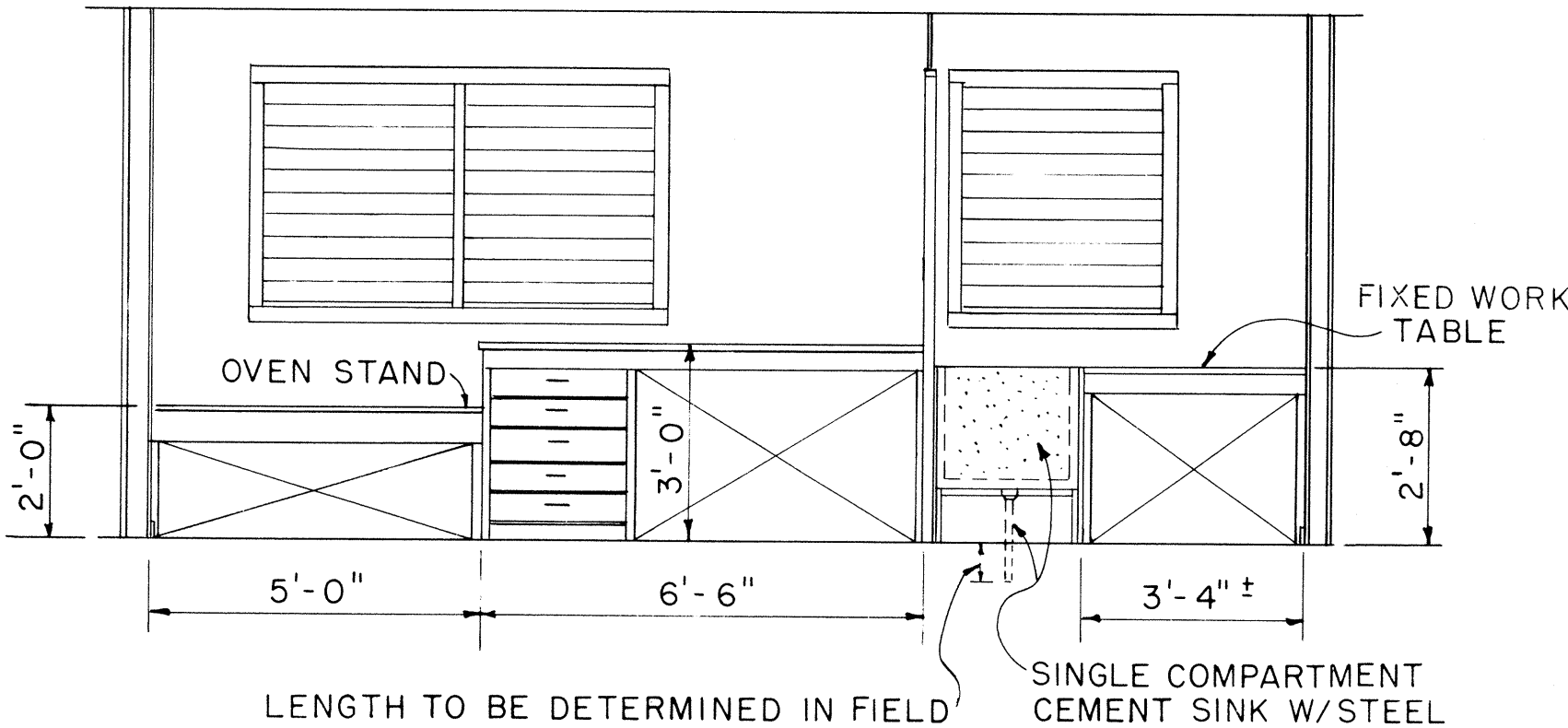
CABINET DETAIL
SCALE: 3/4" = 1'-0"



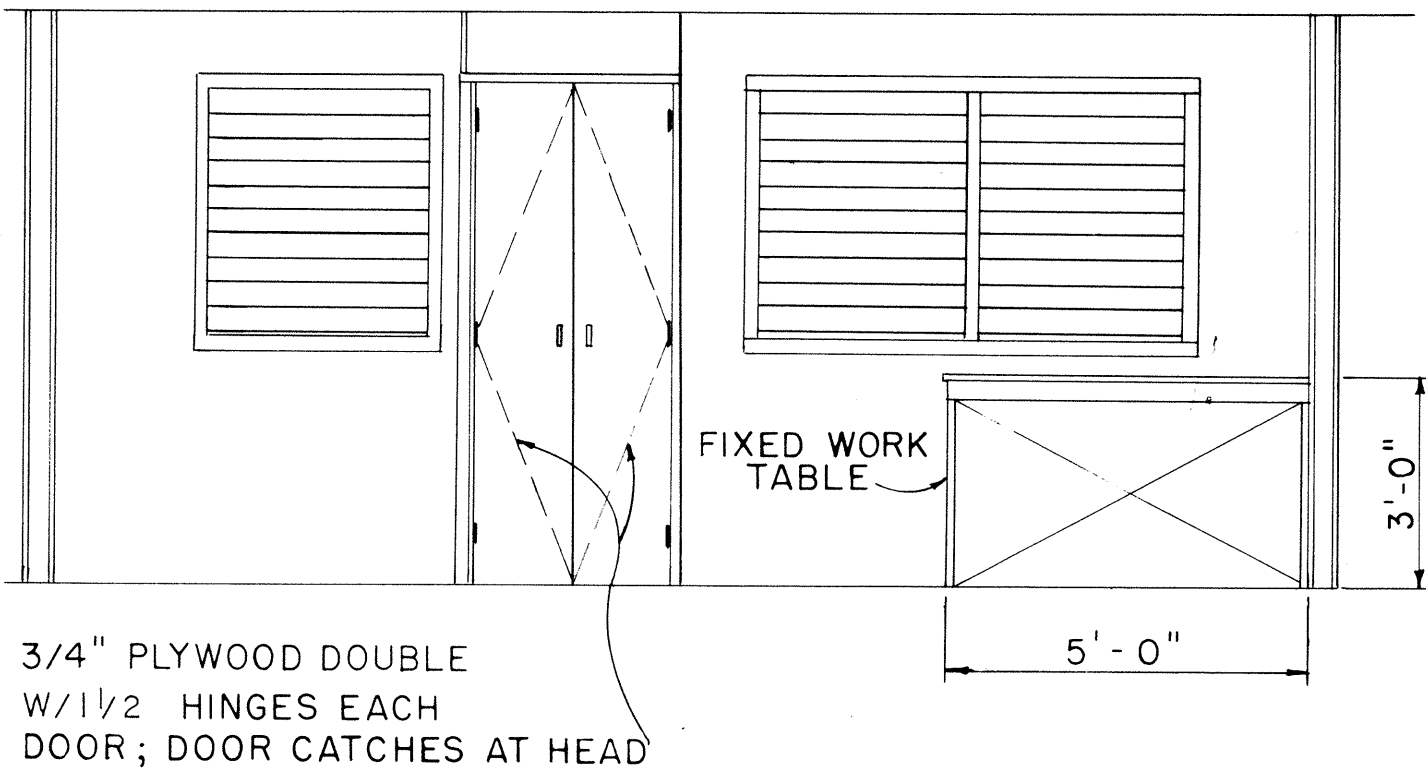
ELEVATION D
SCALE: 3/8" = 1'-0"



ELEVATION C
SCALE: 3/8" = 1'-0"

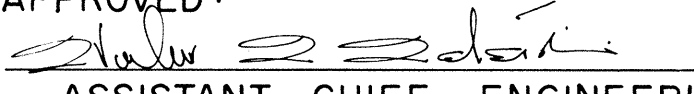


ELEVATION C1
SCALE: 3/8" = 1'-0"



ELEVATION A1
SCALE: 3/8" = 1'-0"

APPROVAL RECOMMENDED:
 12-4-69
HIGHWAY DESIGN ENGINEER DATE

APPROVED:
 12-10-69
ASSISTANT CHIEF, ENGINEERING DATE

NO.	REVISION	APPROVED BY	DATE

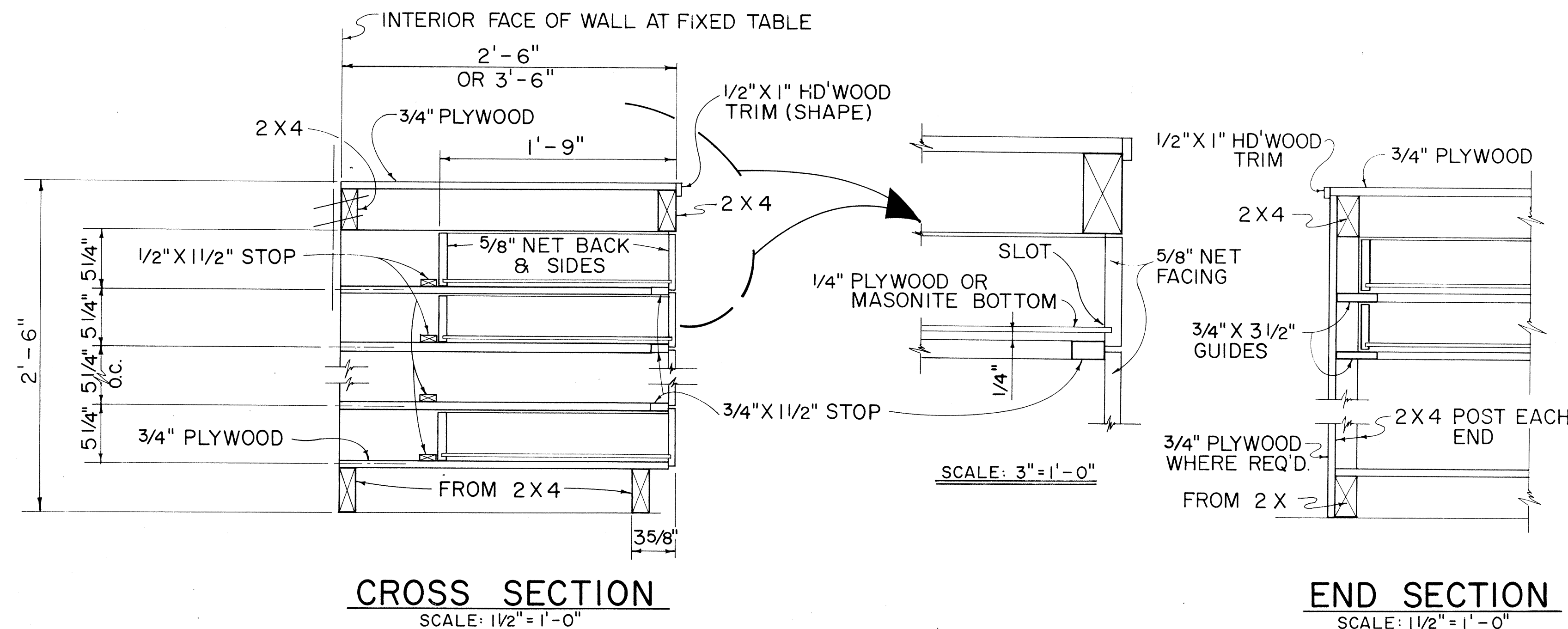
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PROJECT SITE LABORATORY

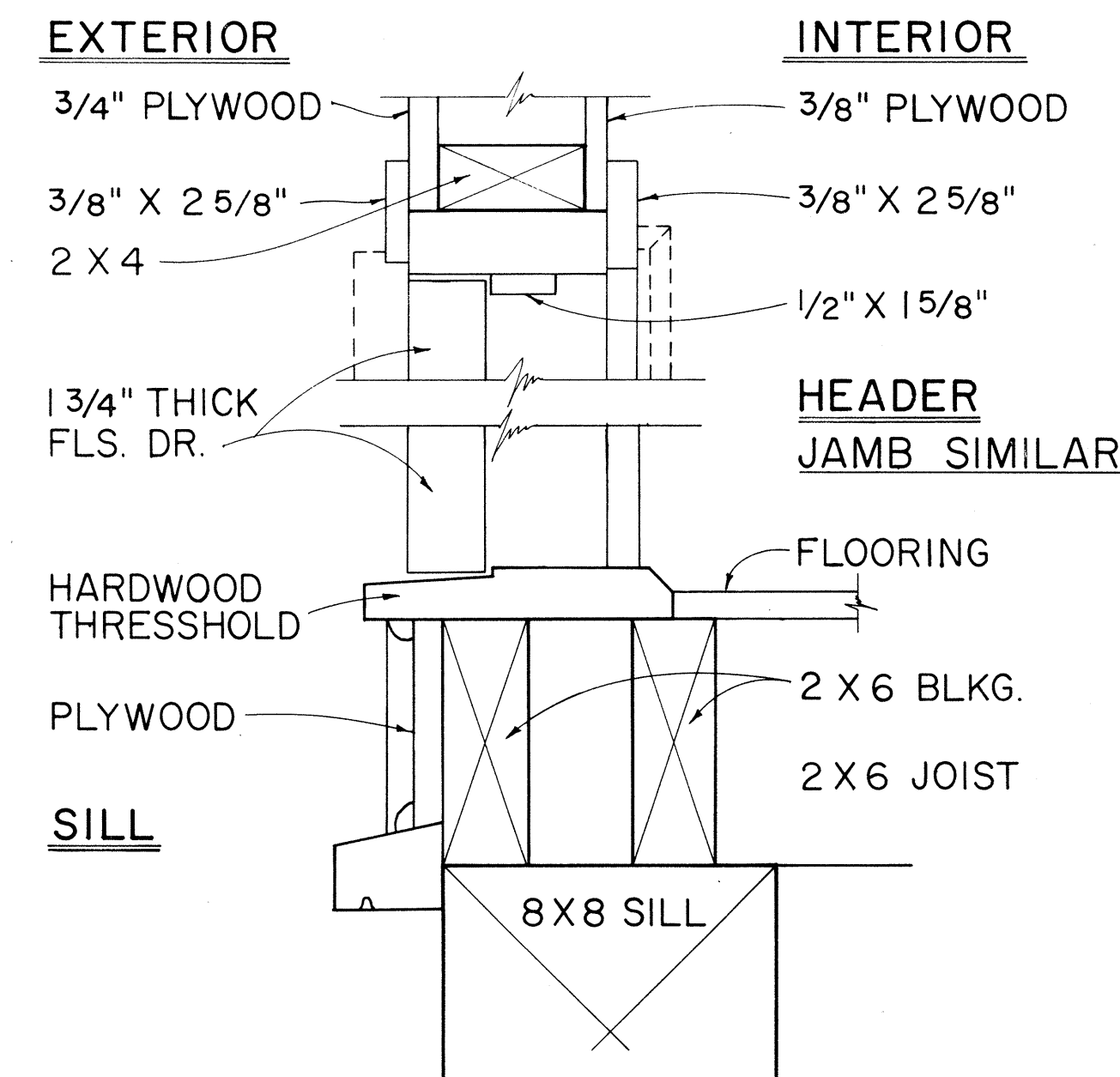
~~DELETED IN CCO #4~~
Scale: As Noted

SHEET No. 00-6 OF 9 SHEETS DD 636.4

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	I-HI-1133-17	1981	26	159

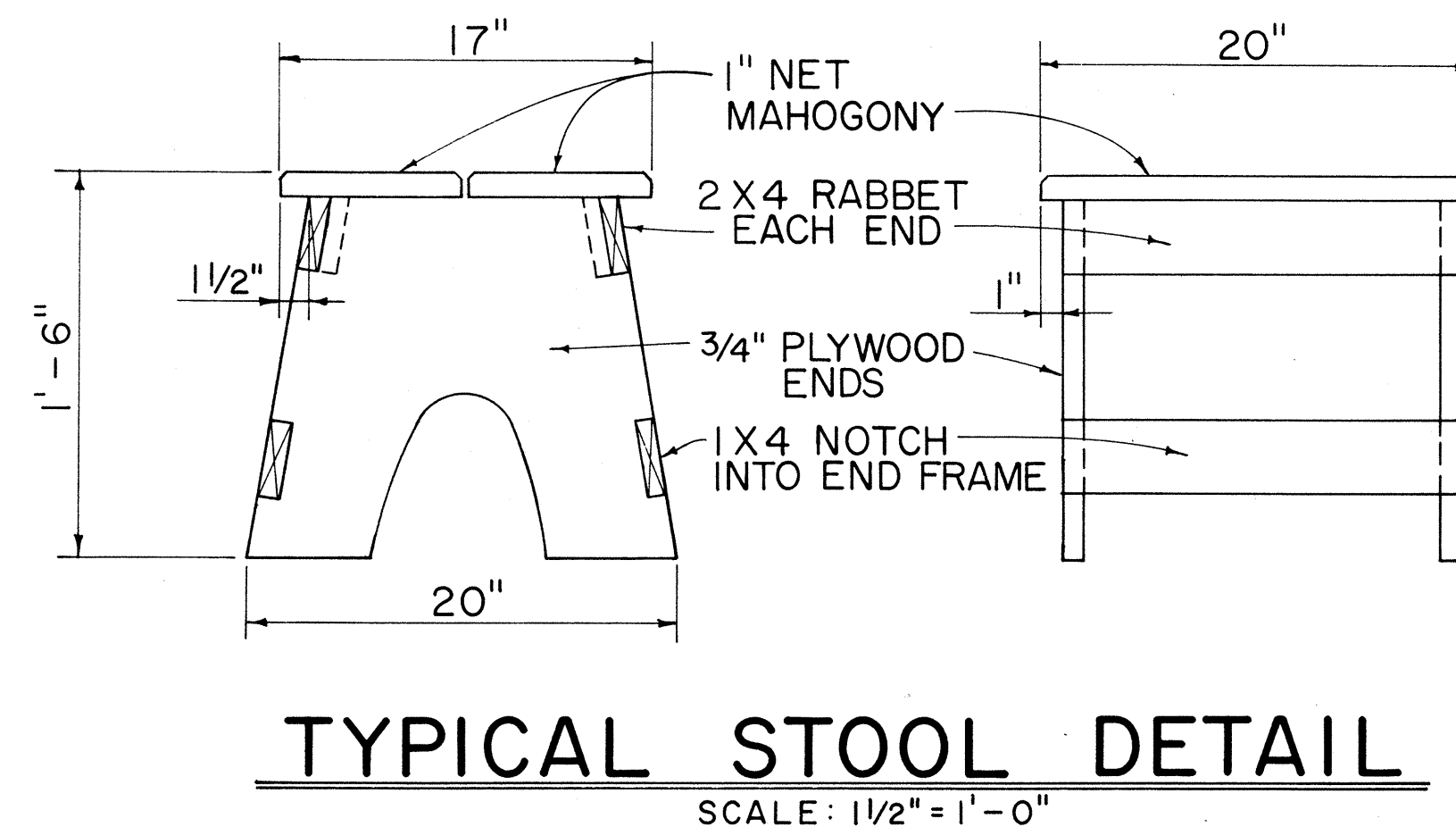


TYPICAL WORK TABLE DRAWER DETAIL



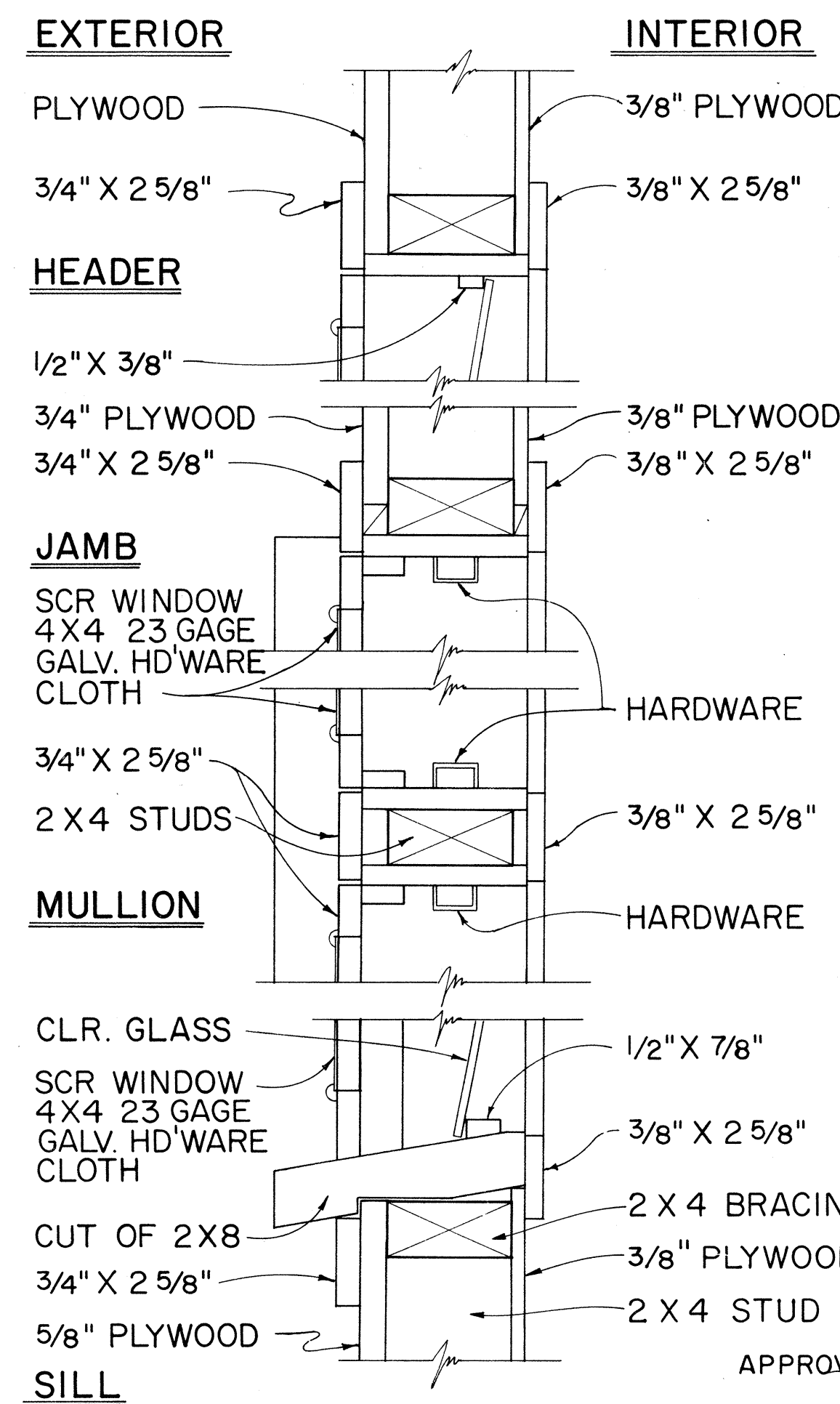
TYP. SWING OUT DOOR

TYPICAL SINGLE OR DOUBLE EXTERIOR DOOR DETAIL



TYPICAL STOOL DETAIL

NOTE: CONTRACTOR MAY WITH THE APPROVAL OF THE ENGINEER FURNISH THE FIELD OFFICE OR PROJECT SITE LABORATORY WITH STOOLS OTHER THAN THE TYPE SHOWN IN THE DETAIL.

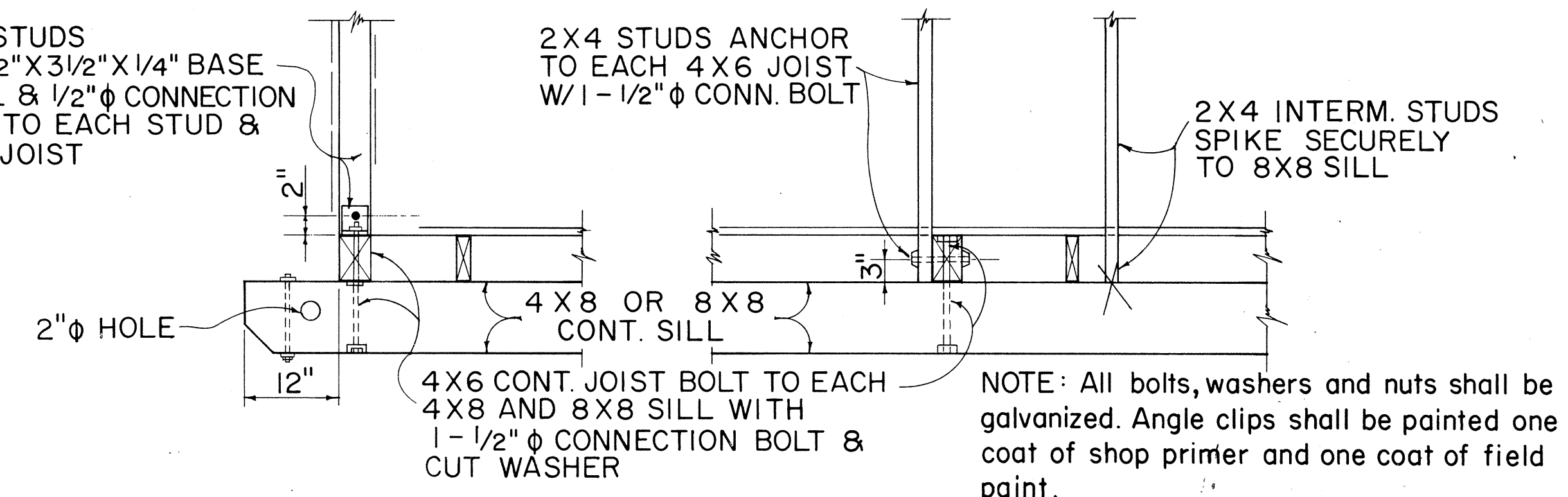


TYPICAL DETAIL JALOUSIES WINDOWS

SCALE: 3" = 1'-0"

APPROVAL RECOMMENDED:
HIGHWAY DESIGN ENGINEER
DATE: 12-4-69

APPROVED:
ASSISTANT CHIEF, ENGINEERING
DATE: 12-10-69



AT ENDS OF BLDG. ALONG SIDES OF BLDG.

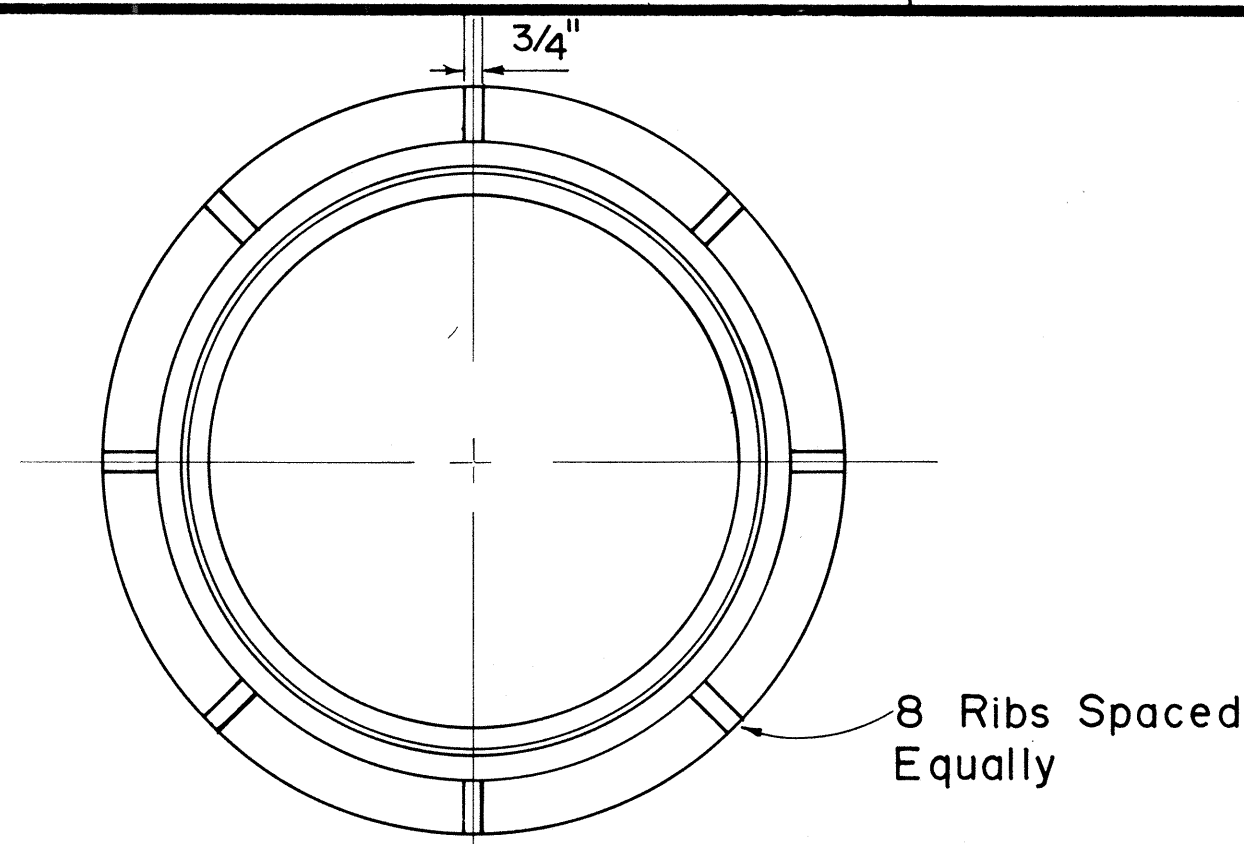
TYPICAL 2 X 4 STUD & 4 X 6 FLOOR JOIST BASE CONNECTION DETAILS

NO.	REVISION	APPROVED BY	DATE

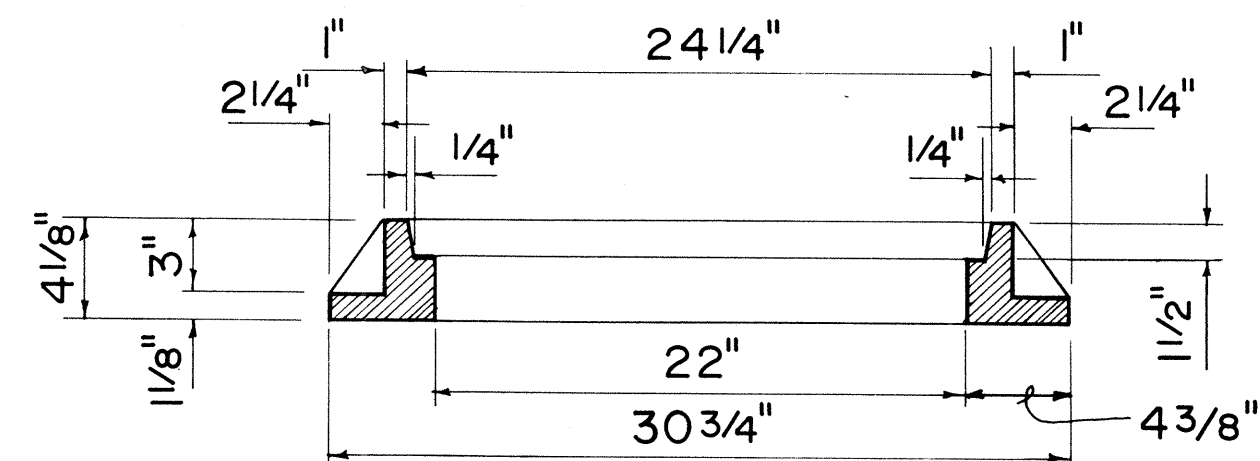
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
FIELD OFFICE & PROJECT SITE LABORATORY
DELETED IN CCO #4
Scale: As Noted

SHEET No. CD-7 OF 9 SHEETS DD 636.5

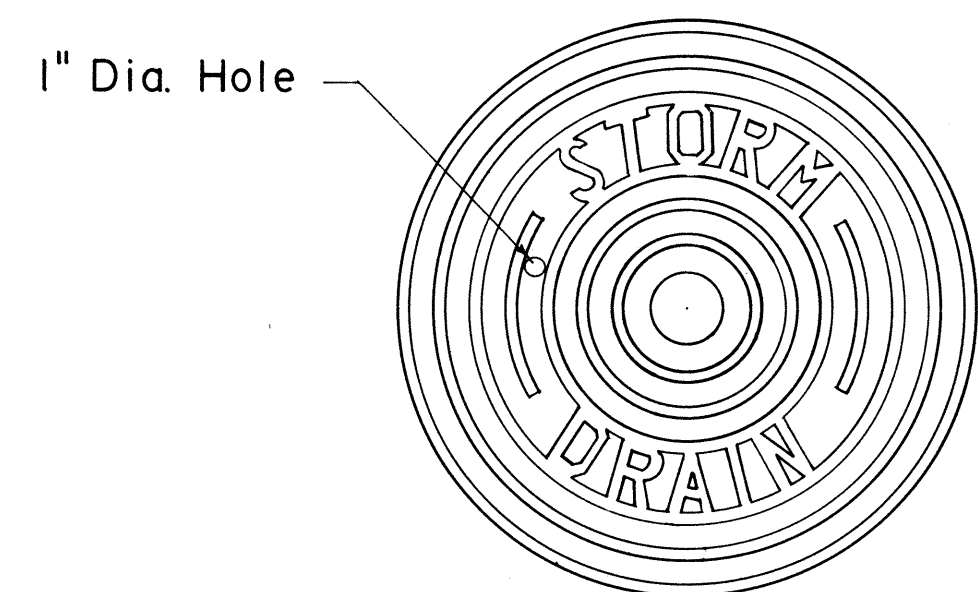
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	I-HH(133)17	1981	27	159



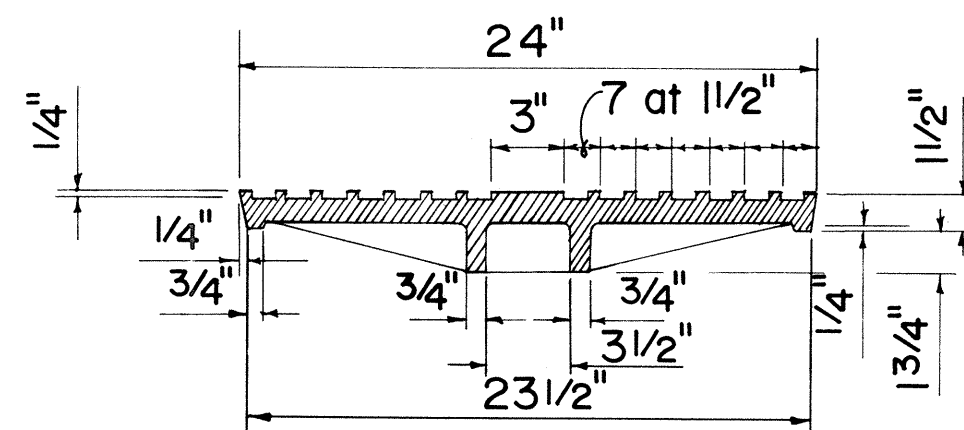
PLAN OF FRAME



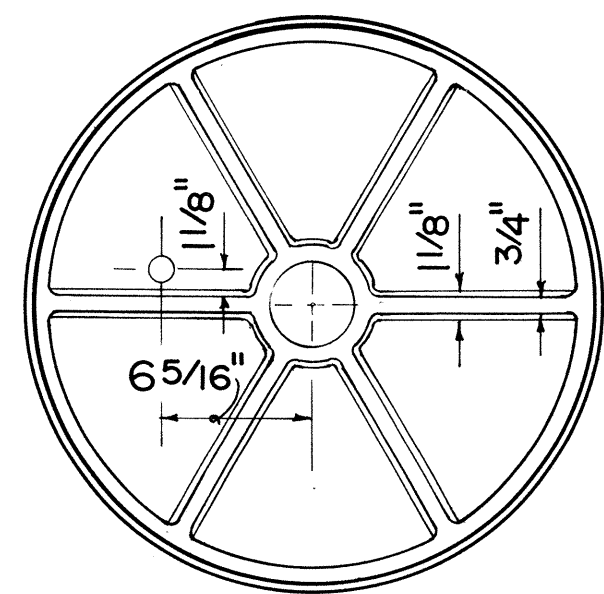
SECTION OF FRAME



TOP VIEW OF COVER

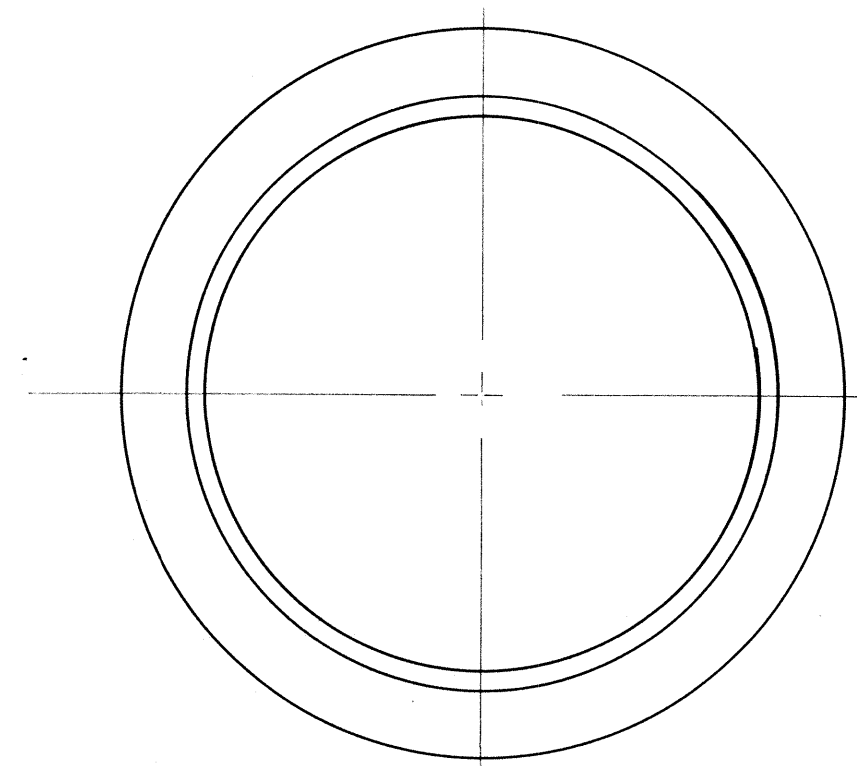


SECTION

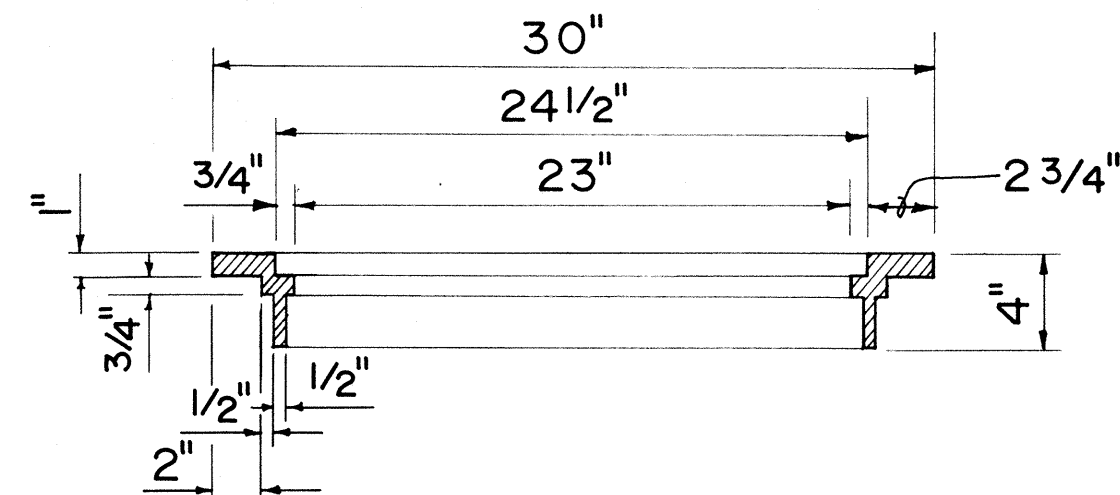


BOTTOM VIEW OF COVER

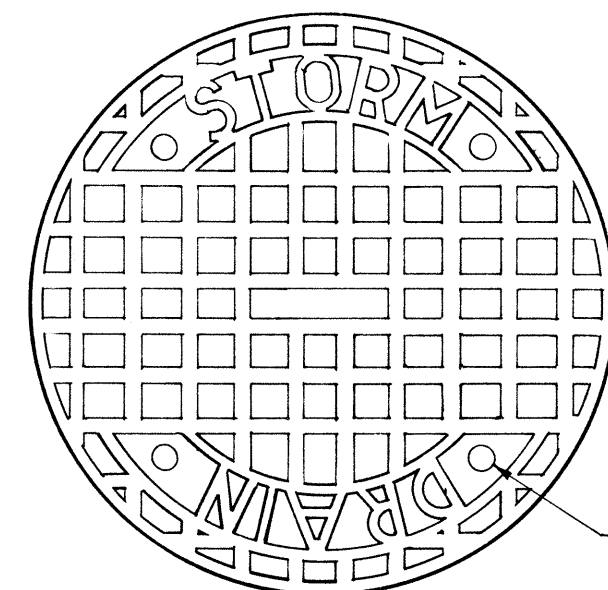
**TYPE "P" CAST IRON
FRAME AND COVER**



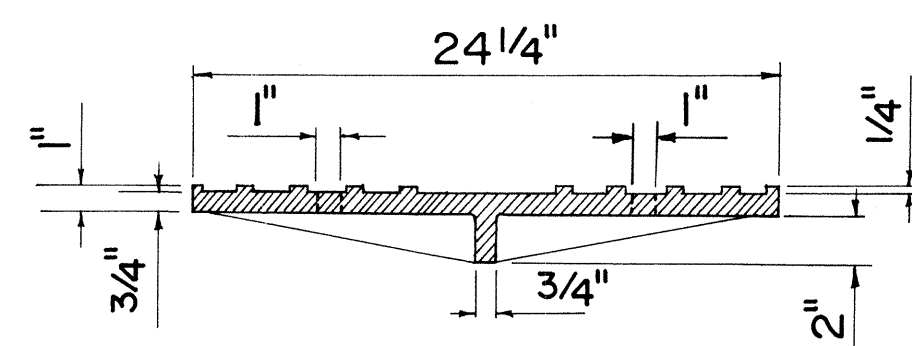
PLAN OF FRAME



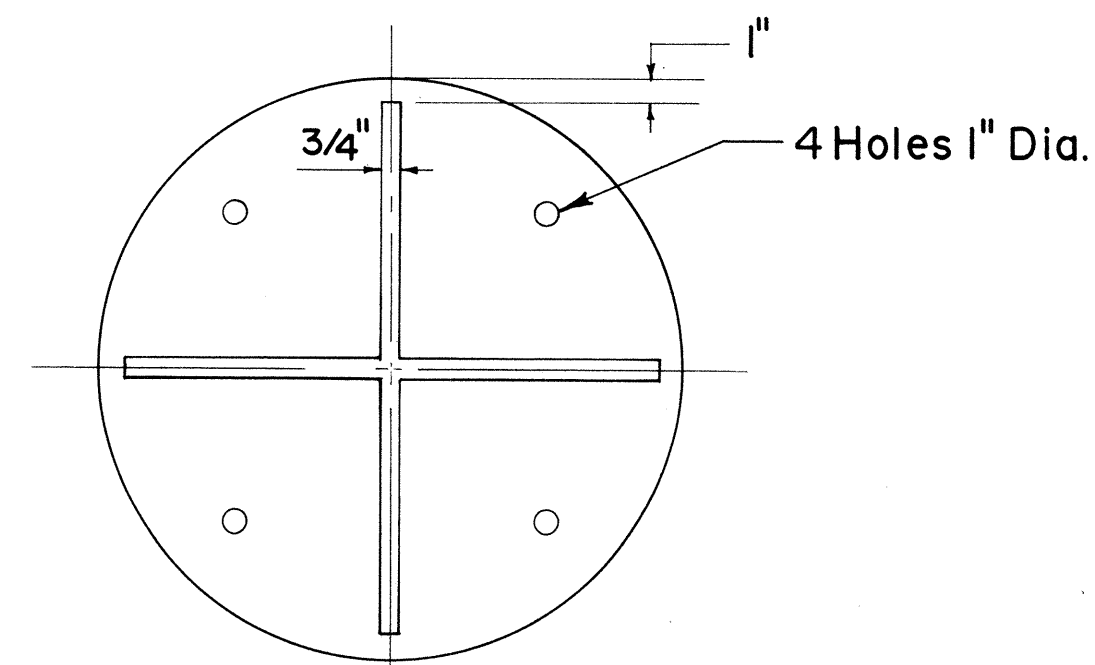
SECTION OF FRAME



TOP VIEW OF COVER

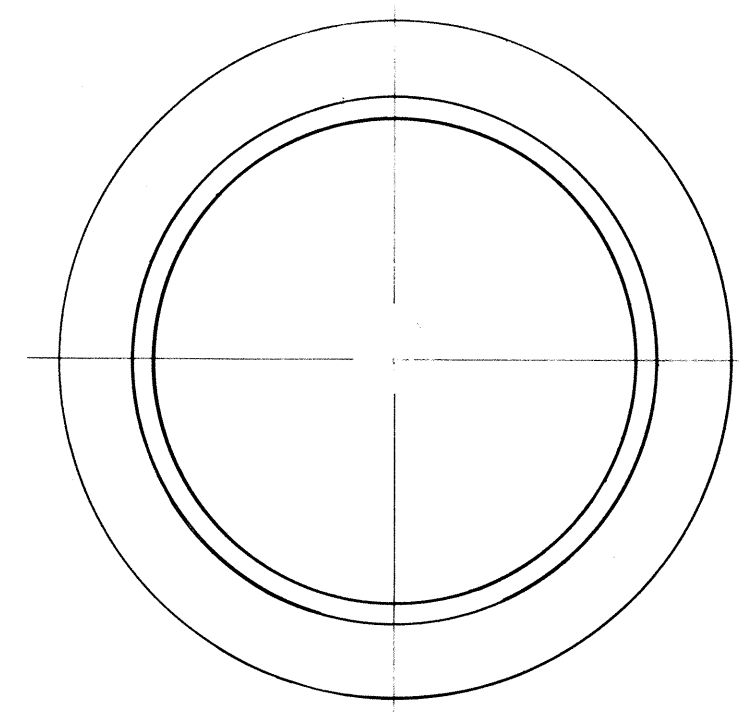


SECTION

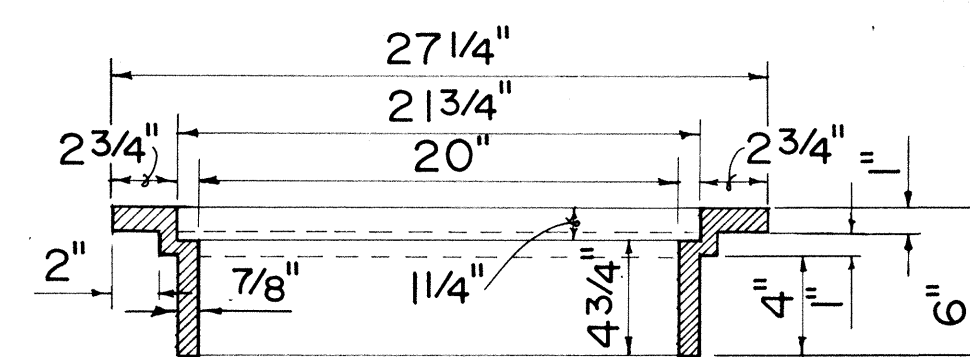


BOTTOM VIEW OF COVER

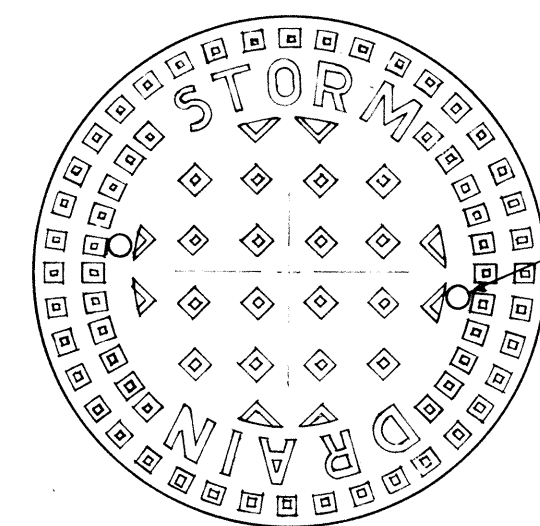
**TYPE "B" CAST IRON
FRAME AND COVER**



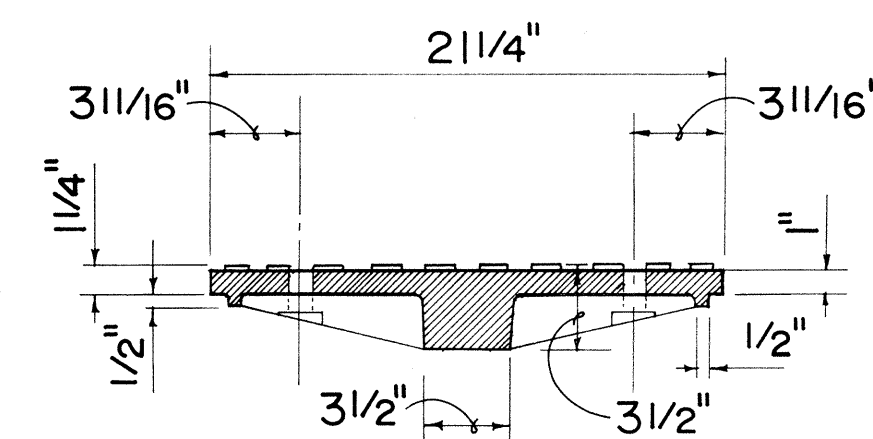
PLAN OF FRAME



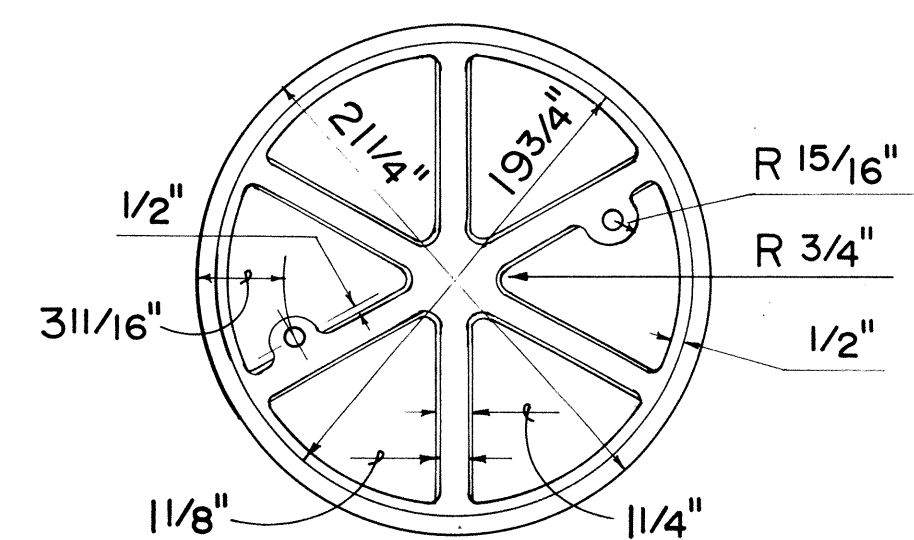
SECTION OF FRAME



TOP VIEW OF COVER

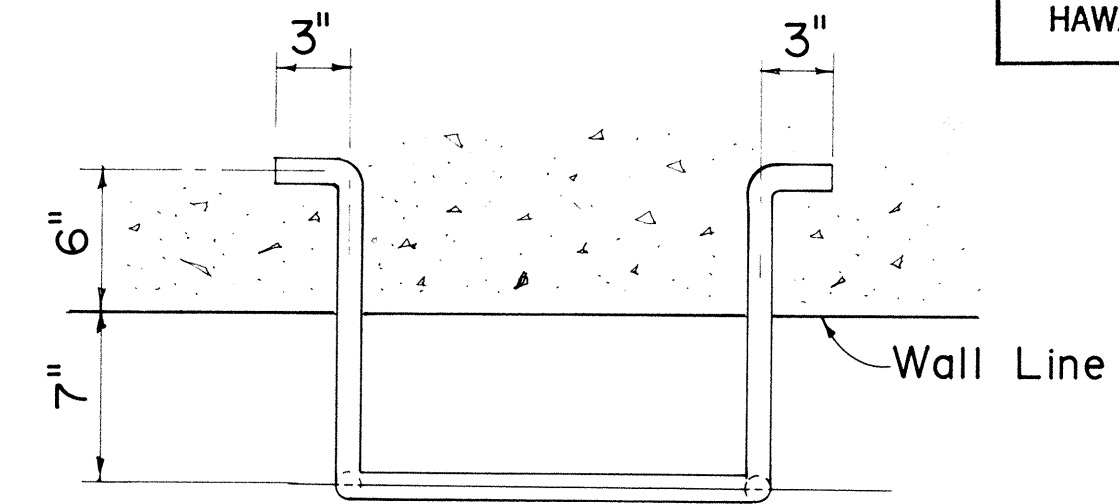


SECTION

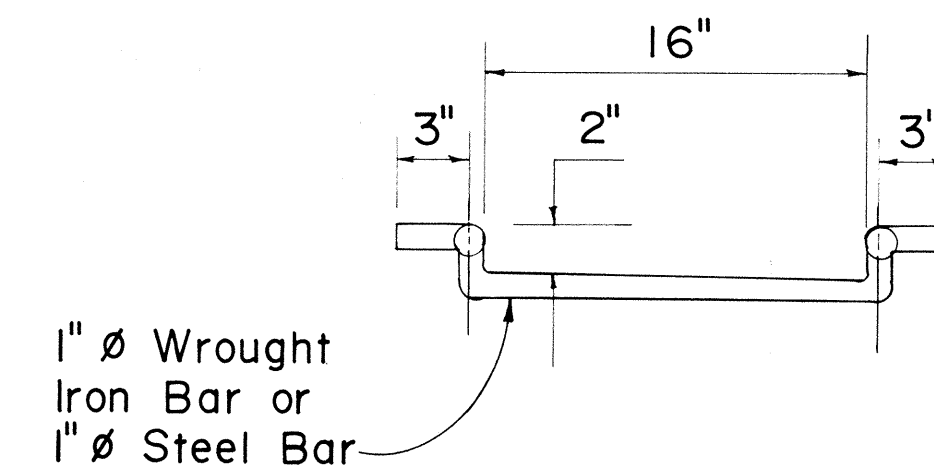


BOTTOM VIEW OF COVER

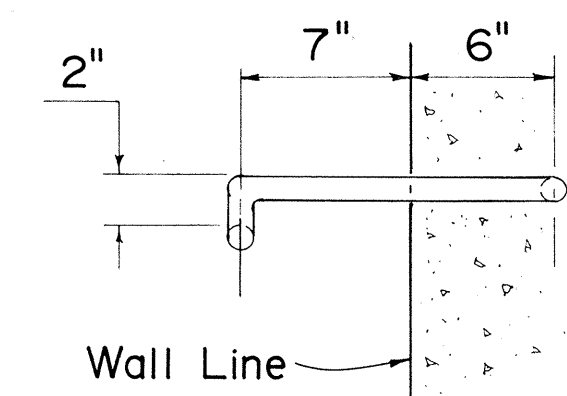
**TYPE "A" CAST IRON
FRAME AND COVER**



PLAN



FRONT VIEW



SIDE VIEW

MANHOLE RUNG

APPROVAL RECOMMENDED:
P. Takano 6-19-79
HYDRAULIC DESIGN ENGINEER DATE
APPROVED:
Herbert Zakeishi 6-22-79
ASSISTANT CHIEF, ENGINEERING DATE

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

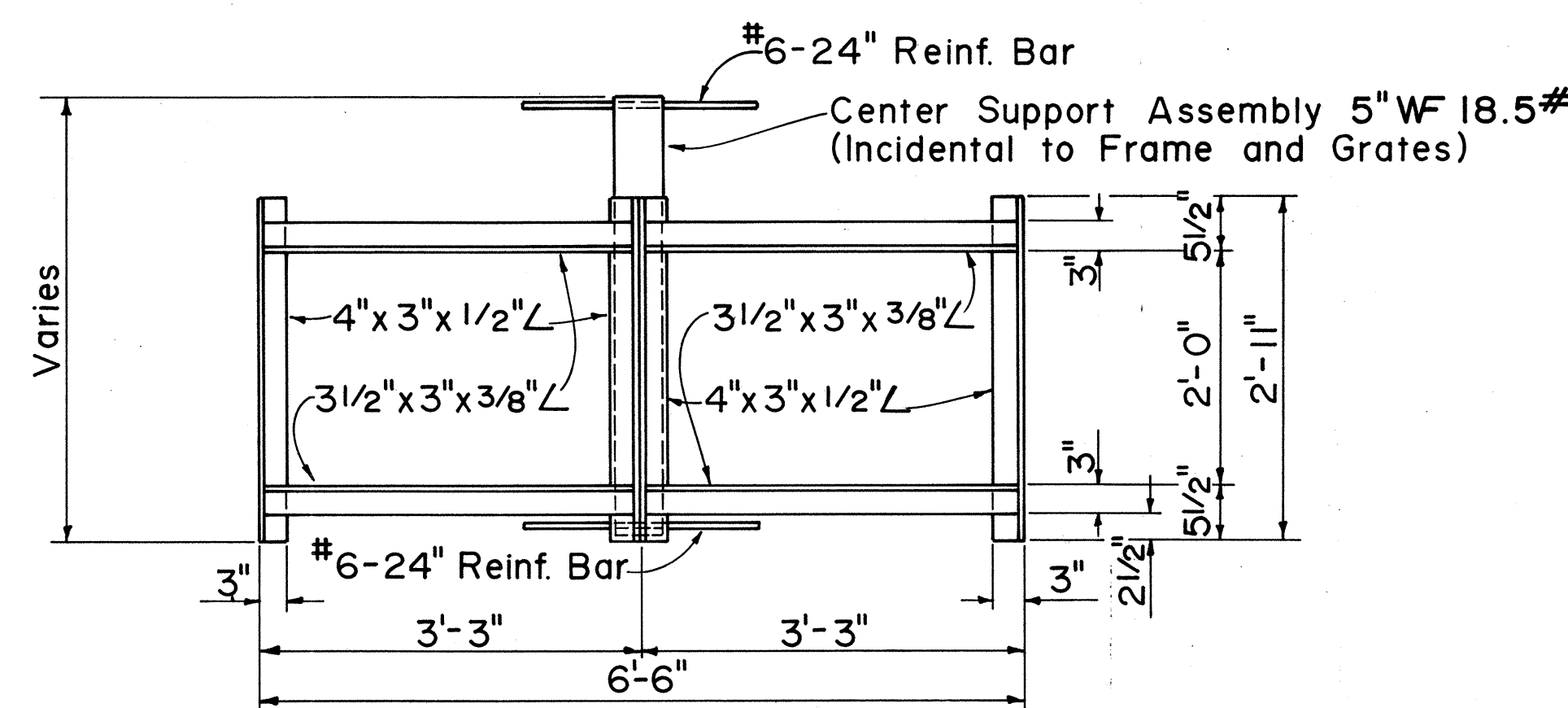
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
STANDARD DETAILS CATCH BASIN AND MANHOLE CASTINGS
Not To Scale Date: Dec. 1977

SHEET No. 00-8 OF 9 SHEETS DH 6

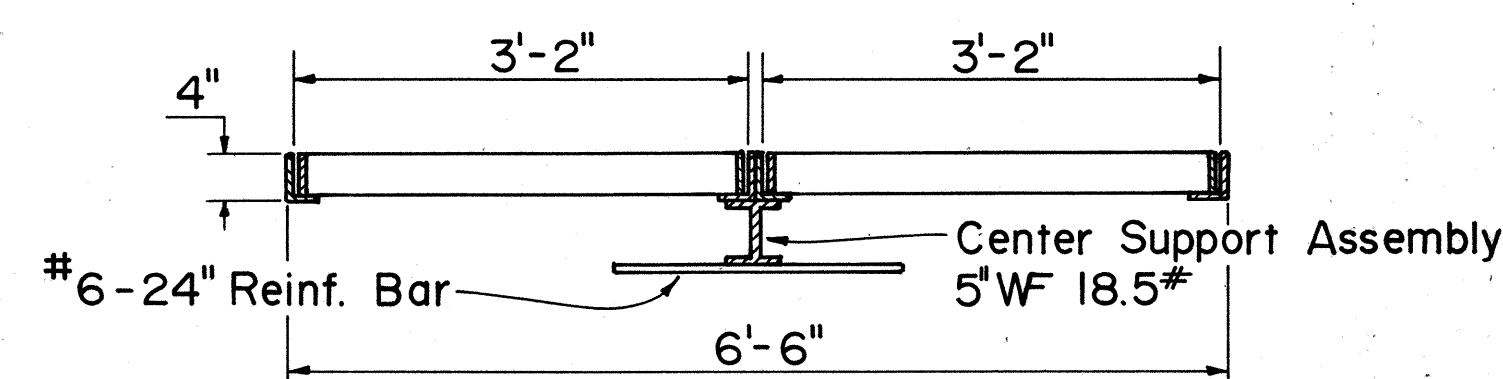
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	1-HH(133)17	1981	28	159

GENERAL NOTES

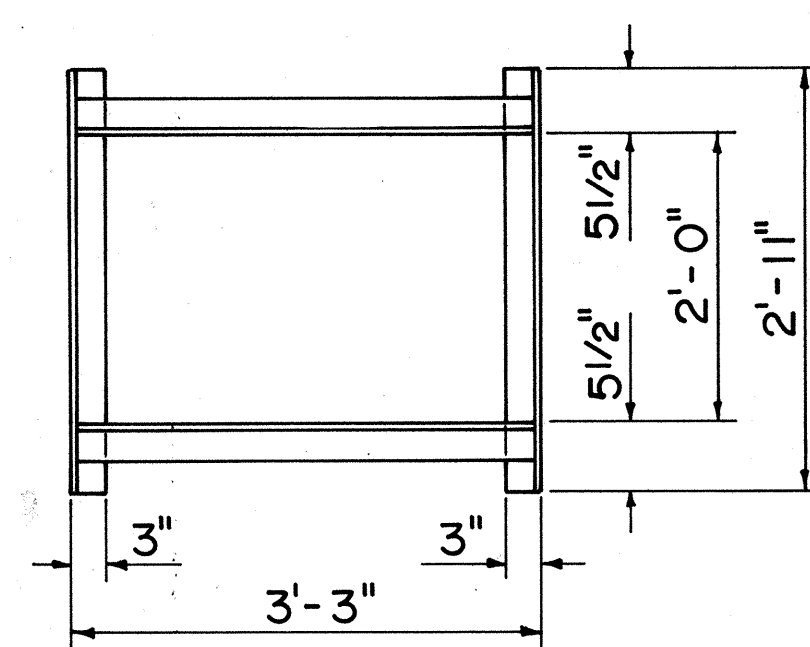
- Contractor has the option of using cast malleable iron, cast steel, welded, or bolted grate.
- All welds 3/8" unless otherwise noted.
- Type A-9 - Use in locations off the roadbed on all types of highways.
- Type A-12 - Use within the roadbed on all types of highways.



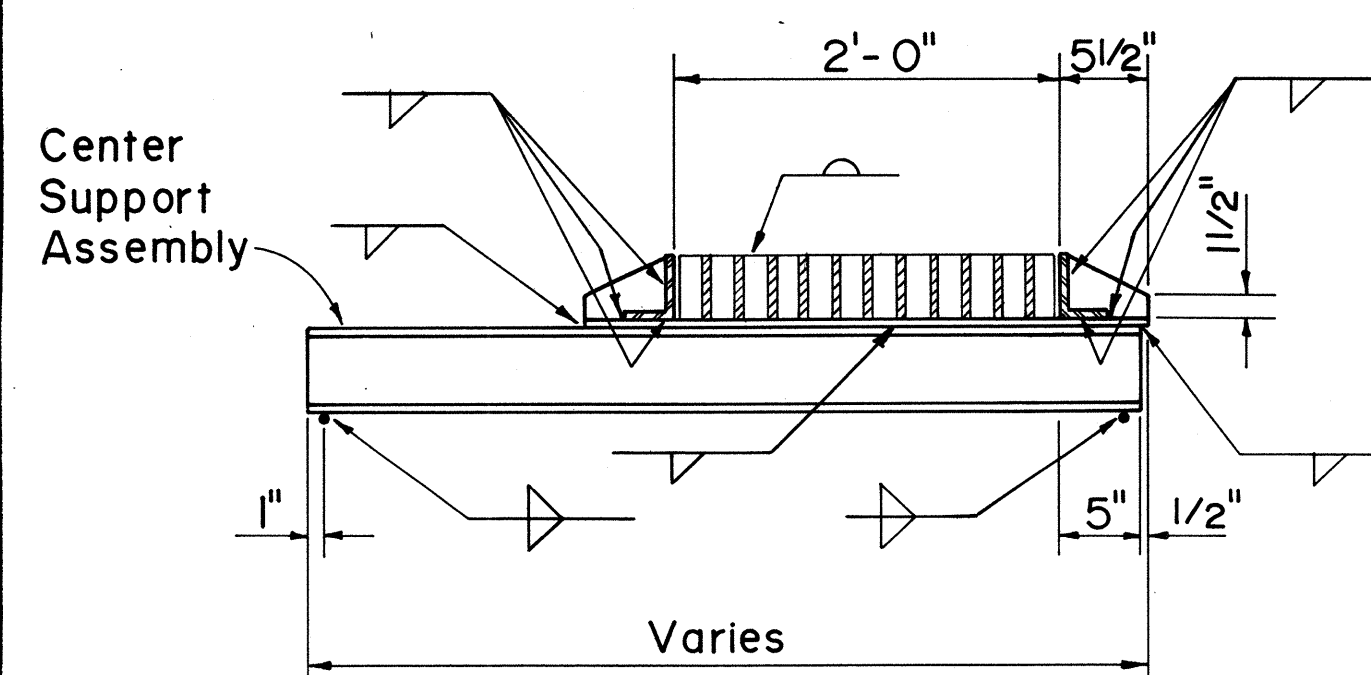
PLAN
(Two or More Grates)



LONGITUDINAL SECTION
(Thru Frame & Grate)

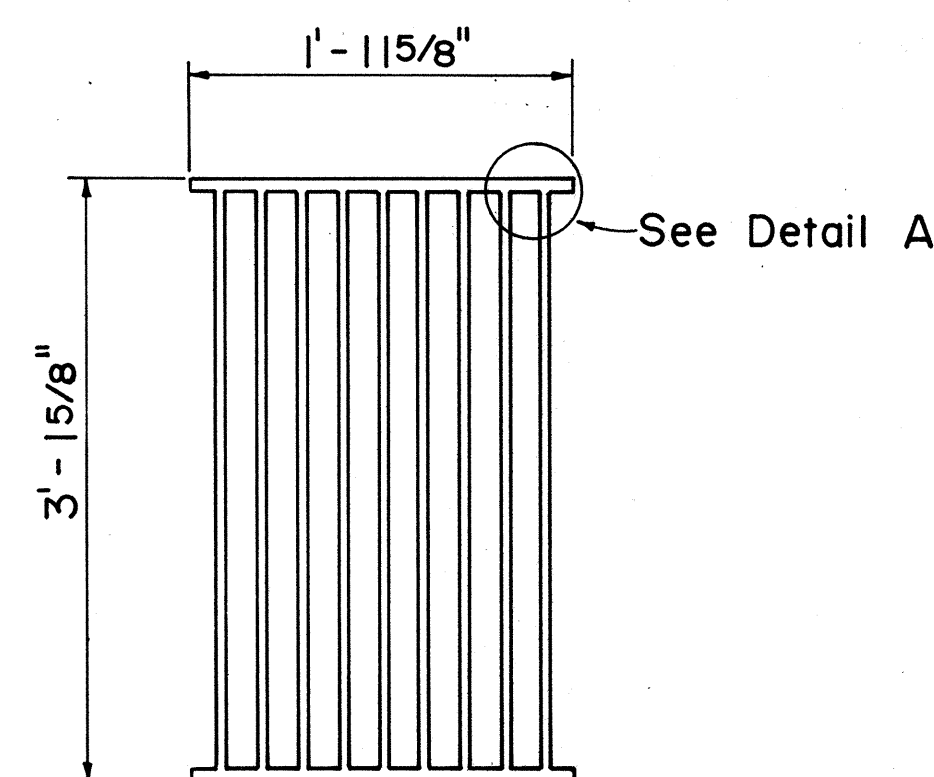


PLAN
(Single Grate)

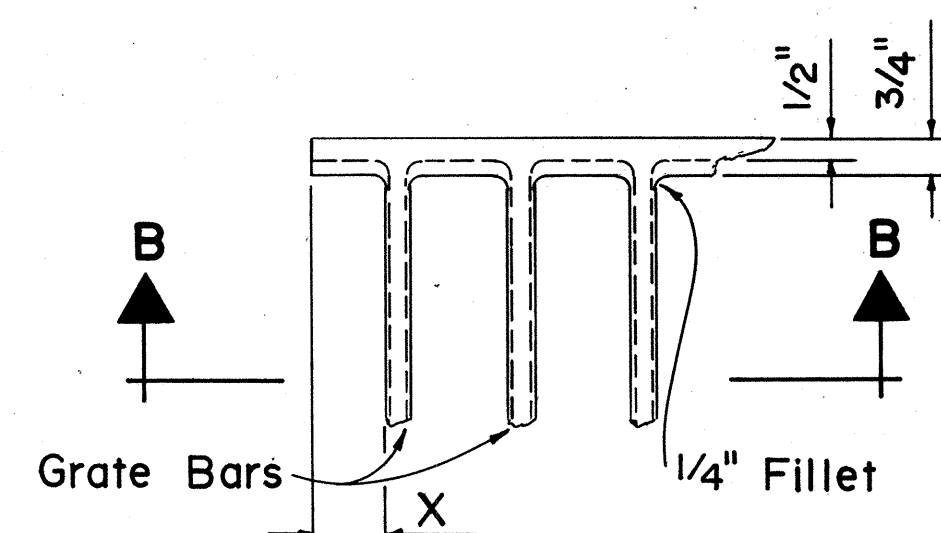


CROSS SECTION
(Thru Frame & Grate)

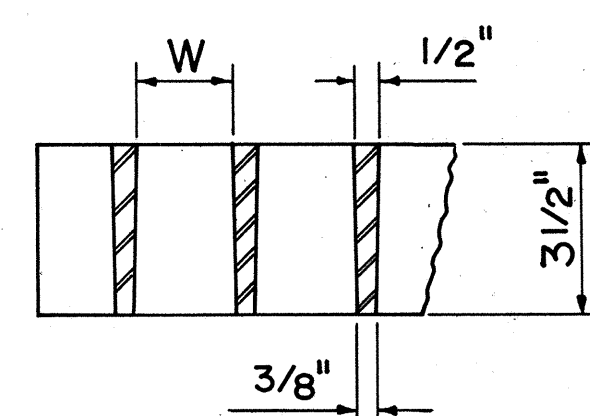
FRAME DETAILS



PLAN

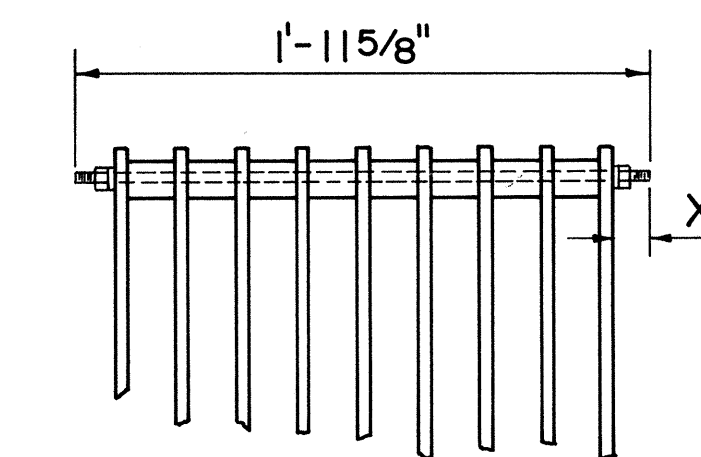


DETAIL A

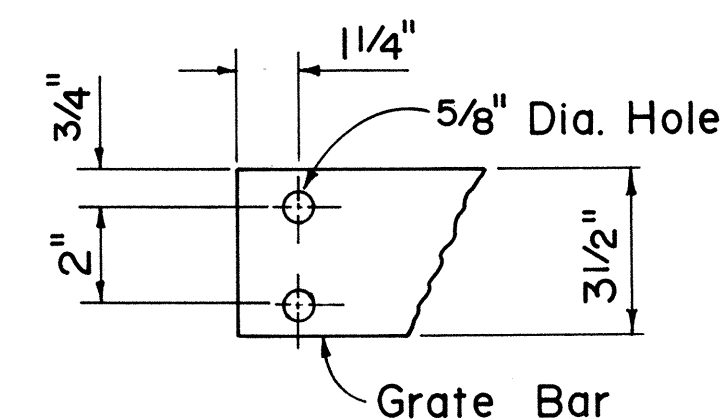


SECTION B-B

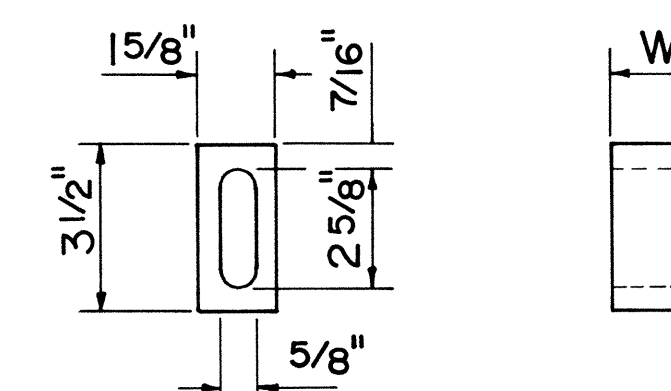
ALTERNATIVE CAST MALLEABLE IRON OR CAST STEEL GRATE



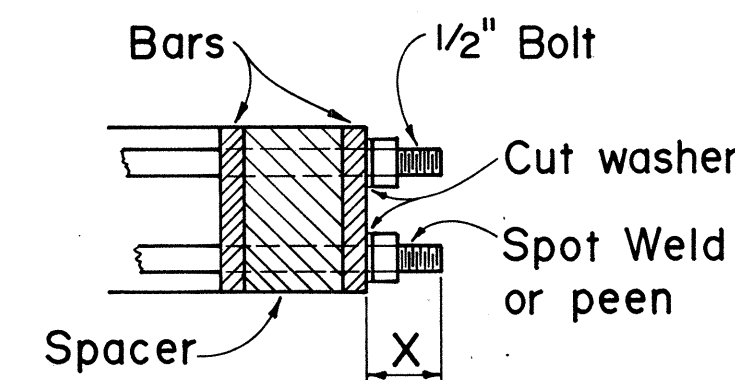
BOLTED END BLOCK



END OF BAR

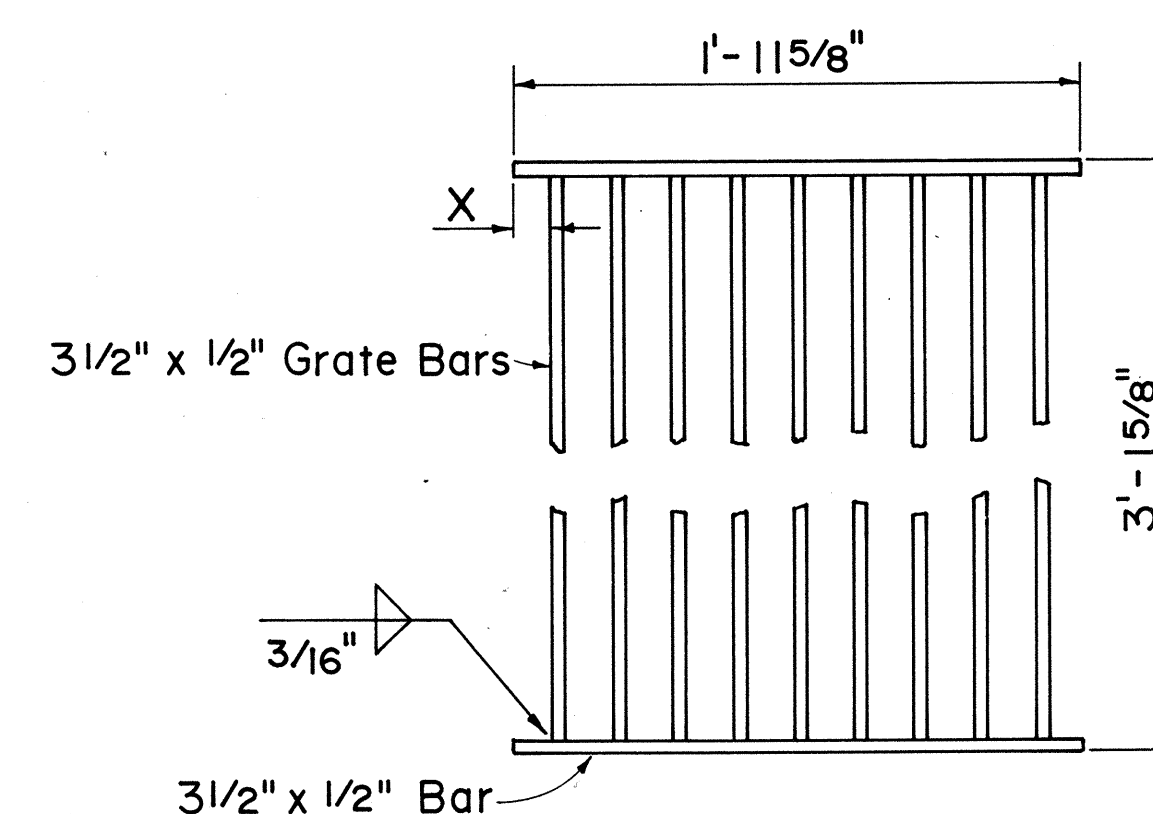


BAR SPACER

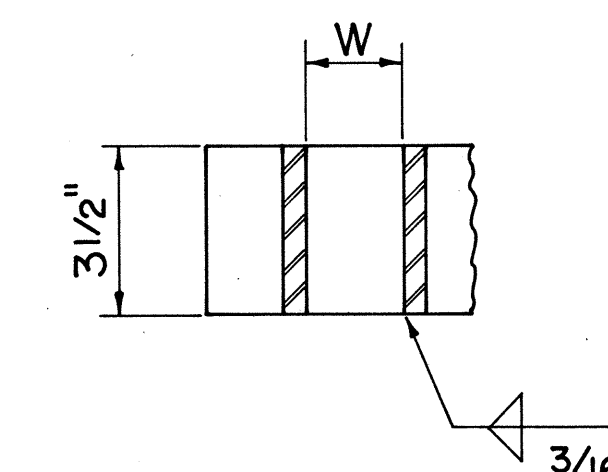


BOLTING DETAIL

ALTERNATIVE BOLTED GRATE



PLAN



SECTION

ALTERNATIVE WELDED GRATE

GRATE BAR SPACING TABLE			
TYPE	NO. BARS	CLEAR BAR SPACING-W	X
A-9	9	2"	1 9/16"
A-12	12	1 3/8"	1 1/4"

NO.	REVISION	APPROVED BY	DATE
1.	Supersedes Sht. DH 7 approved 12-17-69	H.I.	6/22/79

APPROVAL RECOMMENDED:
G. J. J. J.
 HYDRAULIC DESIGN ENGINEER 6-19-79 DATE
 APPROVED:
Herbert Zalewski
 ASSISTANT CHIEF, ENGINEERING 6-22-79 DATE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
STANDARD DETAILS TYPE A-9 AND A-12 FRAMES AND GRATES	
Not To Scale	Date: Dec. 1977

SHEET No. CD-9 OF 9 SHEETS DH 7